GUIDE TO PORT ENTRY

SHIPPING GUIDES LTD
NAUTICAL ADVISERS AND PUBLISHERS
75 BELL STREET, REIGATE, SURREY RH2 7AN, ENGLAND

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SHIPPING GUIDES LTD.

GUIDE TO
PORT ENTRY

1989 – 90

VOLUME 1

NATIONS
A – L

GUIDE TO PORT ENTRY

Produced by

COLIN PIELOW

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WARNING

Every effort has been made to ensure that the information contained in this *Guide* is correct. However, it will be clearly understood that this book is intended as a guide only, that the information cannot be *Guaranteed* correct and that final responsibility must (as always) rest with the Shipmaster.

At certain ports, items of navigational routeings and aids have been included as a means of general guidance only. Shipmasters should have in mind that full and due reference MUST ALWAYS be made to corrected charts of the area, to the appropriate Notices to Mariners, and all or any other navigational notices, warnings or amendments issued by proper Authorities and/or navigational aid services.

The sketch maps are for general assistance and must not be used for navigational purposes. In particular, the shapes of buoys should be disregarded since these are indicated by varying symbols which may be consequent upon local usage and without resemblance to internationally applied symbols.

PLANS

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FOREWORD

Shipmasters, Shipowners or Managers, Port Authorities, Administrators and Agents, are earnestly requested to assist our work in up-dating the Guide *by providing written comment, information, amendments or corrections, plus additional details of any ports or terminals, to the following address:*

SHIPPING GUIDES LIMITED,
SHIPPING GUIDES HOUSE,
75 BELL STREET,
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ENGLAND

All communications will be acknowledged and will be most useful, since it is only by this means that the *Guide* will remain of great value to the user and will be up to date and thoroughly professional in content.

For assistance and guidance in the submission of information, a reprint of the items presently covered by the *Guide* is placed hereunder. Additional items will also be most welcome.

N.B. PLANS, DIAGRAMS, DRAWINGS AND SKETCHES: As you will note, this 1989/90 edition of "Guide to Port Entry" contains over two thousand eight hundred port plans and mooring diagrams that have been reproduced from plans and drawings very kindly sent to us by numerous Port Authorities, Agents and shipboard personnel. We hope that the special plan section will prove interesting and useful.

Presently however, the special plan section is to an extent incomplete, since there are many ports and mooring facilities for which we have not yet received the necessary plans for reproduction purposes. We are anxious to secure plans, diagrams, drawings or sketches of ports and facilities not presently shown in our special plan section, and therefore request that Port Authorities and/or Agents at the places concerned be kind enough to pass us this data together with the necessary permission for reproduction. We would also be very grateful if ship's officers calling at ports not already covered in our special plan section, could find it possible to provide us with diagrams or sketches of the facilities which would be suitable for reproduction in our later editions and/or which might be re-drawn as required by our own art department prior to reproduction.

PORT INFORMATION KINDLY REQUESTED

PORT LIMITS: The seaward boundaries of the port within which a vessel is considered to be an "arrived ship" and (subject to Charter-Party Terms) laytime will commence.

DOCUMENTS: The matter of documentation is one of the most important items to be included in the *Guide,* and we would like to be sure that ALL requirements are included in order that Masters will be in a position to prepare all necessary documentation before arrival and thus ensure speedy clearance. (E.g. Number of Crew Lists, Passenger Lists, Customs Documents, Health Documents, Manifests, Bills of Lading, Ship's Papers, Ship's Certificates, etc., etc.)

PILOTAGE: Manner in which vessel approaching the port applies for a Pilot. That is, telegraphic address, telephone number or telex number of Pilot Station, amount of advance notice of ETA required, and VHF channel or frequency to be used when contacting Pilot Boat or Pilot Station. If possible, a description of Pilot Boat; particular light or sound signals to be made by vessels requiring a Pilot; the *exact* area where the Pilot Boat is located or where the Pilot has to be taken on board and also any alternative area in the event of bad weather and when Pilot Boat not on usual station; details of any specific requirements on the part of Pilots with respect to boarding and safety measures; location of anchorage for vessel awaiting a Pilot.

ANCHORAGES: Boundaries, areas and depths of safe anchorages.

RESTRICTIONS: Details of any restrictions imposed upon entry, for example at night time, or in accordance with state of tide and draft restriction.

MAX. SIZE: Maximum permissible length, breadth, and draft for any vessel entering the port or for oil-carriers proceeding to installations outside the main port area, also state of tide governing these dimensions.

HEALTH: Pratique procedure and action necessary to obtain Pratique. Also action necessary in the event of any suspected disease or fever on board. Also when Pratique is automatic, for example vessels entering after calling at another port in the same country.

RADIO: Name and call sign of radio station through which it is best for a vessel to route ETA cables to Agent, Receivers, etc. Availability of telex communication with vessels equipped with telex.

VHF: Fullest possible data concerning VHF Radio communication facilities in operation at the port including advices required from vessels approaching the port, arriving at the port, when manoeuvring within the port area, and when sailing. Details of standard communication procedures and numbers of Channels used in calling, further communication and safety, as may be applicable with respect to Pilotage, Tugs, Port Authority, Quarantine or other craft or shore-stations.

RADAR: Details of existing Port Radar Service, also if the Master may contact the Radar Service by means of ship's radio or by VHF, and the frequency or Channel number to be used. Details of Vessel Traffic Management Service (V.T.S.).

TUGS: Number and capacity of tugs available. Minimum number of tugs required for berthing and unberthing. Position where tugs normally join the vessel. Also whether usual for ship's lines or tug's lines to be used, and if optional, the usual charge for use of tug's lines.

BERTHING: Details of available berths, including length of quay, depth alongside, maximum permissible ship-draft at Low Water (indicating whether Salt or Fresh Water), whether load/discharge is by shore equipment or by ship's own gear, and other relevant data, together with advice of cargoes handled at respective berths.

CRANES: Fullest possible information concerning type, safe working loads and numbers of shore-cranes available at respective berths for cargo handling. Details of heavy-lift cranes ashore or afloat, with lifting capacities. It is also helpful to know at which ports, or berths within a port, that cranes are *not* available and a vessel is required to use her own gear.

BULK CARGO FACILITIES: Details of berths and cargoes handled, length of quay, depth alongside, maximum permissible draft (indicating Salt or Fresh) at Low Water, berth equipment, maximum height of discharging-gear above High Water Level, and maximum Loading/Discharge rates. Cargoes intended to be covered by this heading are, Grain, Ores, Coal, Fertilisers, Sulphurs, Copra, etc.

SPECIALISED CARGO-HANDLING FACILITIES: Details of berths, specially equipped for handling containers or Roll-on/Roll-off traffic; berths handling liquid chemicals or LPG carriers. Please note that it is also useful to know if the port does *not* have any of these facilities.

BRIDGES: Details of any particular arrival times required in order to pass through particular bridges, and maximum clearances, that is height of bridge to waterline.

STEVEDORES: Any particular ETA advices required in order to arrange gangs. Details of main commodities and average load or discharge rates. Normal working hours for general and bulk cargoes, also hours that overtime is possible.

MEDICAL: Whether necessary for Agents to receive advance notice of required medical attention and the amount of notice required; also if hospital and dental facilities are available; also any other relevant medical information such as particular inoculations required, vaccination/fever certificates, etc., and if inoculations and vaccinations can be carried out.

TANKERS: Diameter of load/discharge lines in order that Masters may know whether or not it is necessary to fit reducing pieces before arrival; slop (residue) discharge facilities, capacities, and maximum receiving rate; S.G., A.P.I. and temperatures of local types of oil (loading ports only). Number of tanker berths, depth alongside and maximum permitted drafts at these berths, average load/discharge rates. Prevailing wind on berth. If special moorings required. Are shore gangways available? Are facilities available to combat oil spills, if so what equipment available? Availability of shore steam. Ship to ship transfer facilities.

DENSITY: (SALINITY): Average salinity of water in the port.

FRESH WATER: Availability, method of delivery, rate of delivery and approximate cost per ton.

FUEL: Grades (viscosities) available, amount of advance notice required, and method of delivery. If bunkers supplied by vessel/barge, minimum/maximum quantity to be ordered.

FIRE PRECAUTIONS: Any specific precautions particularly respecting tankers (that is, other than usual non-smoking precautions, etc.).

CONSULS: Names of countries having Consuls at the port.

REPAIRS: Whether all types of deck and engine repairs are possible, and if not then what types of repairs are able to be carried out.

DRY DOCKS: Dimensions of largest dry dock and also the number of smaller docks.

SURVEYORS:
(1) Availability of Cargo Inspectors, such as Saybolt, Caleb Brett, Superintendents, etc.
(2) Availability of Surveyors, such as Lloyd's Register, American Bureau, Bureau Veritas, etc., also Salvage Association or U.S. Salvage.

GANGWAY/DECK WATCHMEN: Whether service of watchmen is necessary or to be recommended and if so, the cost of watchmen.

HATCHES: Whether opening/closing is normally carried out by crew or stevedores.

CUSTOMS ALLOWANCES: (Tobacco/Wine, Spirits). Quantity permitted for each crew member to be held out of Bond.

CARGO GEAR: Whether load/discharge effected by shore gear or by ship's gear, and details of any special cargo equipment, e.g. heavy lift cranes, etc.

REPATRIATION: If facilities exist for effecting crew changes and arranging any necessary repatriation.

AIRPORT: Distance from airport and whether airport is served by regular airlines; otherwise number of flights per day or week and destinations.

TIME: Local time in relation to GMT and dates/details of any alterations made to clocks during the year (Summertime).

HOLIDAYS: Dates and details of official and local holidays and advice whether or not cargo work can be arranged on those days.

POLICE/AMBULANCE/FIRE: Telephone numbers of these three services, that is, the nearest departments.

EMERGENCY CO-ORDINATION CENTRE: Nearest Emergency Co-ordination Centre and details of telephone and telex numbers (e.g. U.S. Coast Guard, U.K. Coast Guard, S.A.R. etc.). This information is necessary because local Port Agents may not be suited to emergency matters and may not be contactable.

TELEPHONES: Whether arrangements exist for placing telephones on board and if so the approximate cost for this connection.

SERVICES: Details of any special services available, e.g. tank-cleaning equipment, facilities for discharge of tank-washings, compass adjusting, radio and radar repairs, supply of charts, nautical publications, sounding paper, course recorder paper, availability of Notice to Mariners, availability of safety equipment, possibility of extension of certificates.

BANKS: Names, addresses and telex numbers of any banks in the area.

STORING:
(1) Can vessel be stored by barge or truck?
(2) Regulations concerning barge storing, such as, can vessel store from barges during loading or discharging? If not, what are the regulations concerning storing?
(3) Can trucks proceed alongside at the berth? If not, what is the approximate distance the truck is to remain from the ship?
(4) Can fork lift trucks be used on the jetty to handle stores?
(5) Customs Regulations in force regarding storing.
(6) Can local Riggers be employed to assist with storing?

SHIP SUPPLY SERVICE: Name, address, telephone no., telex no., etc., of ship supply service operators who are able to supply craft or helicopters for transfer of stores, crew and sick personnel. Also range, capacity and rendezvous points of supply craft and helicopters.

SHORE LEAVE: Whether crew members are allowed ashore or not.

IDENTIFICATION CARDS: Whether shore passes issued or whether Seaman's Book is sufficient.

REGULATIONS: Any particular or unusual regulations for the port.

DELAYS: What delays in berthing, loading, discharging or bunkering can normally be expected.

DEVELOPMENTS: Details of expected draft increases, new installations, berths, etc., expected in the foreseeable future together with expected dates of completion.

SHIPMASTER'S/SHIP'S OFFICERS REPORTS: Information is earnestly sought from Shipmasters and other serving officers giving corrections, amendments and additions to existing information, together with their professional advices or comment upon recommended or required procedures for entering or sailing port, including advice of their experience of the port either generally or specifically. Useful items of experience and suggestions of other Shipmasters are of great value, and will be printed under a special heading.

GENERAL: Any other information that you feel may be of value to the Shipmaster that is not already covered by the previous questions.

AUTHORITY: Name, address, and other details of local Port Authority.

AGENT: At the foot of many of the ports in this *Guide* we have an additional heading entitled "Agent". The purpose of including this item has been to provide Shipowners, Managers, and Operators with prompt access to the name, address, telephone, telex numbers, and cable addresses, etc., of an experienced Agent at the port concerned.

Of course, it will be understood that the Agents named in the *Guide* are not necessarily the only Agent at that port; however, demands on available space preclude the inclusion of other reputable Agency companies and we trust that other such companies will understand and appreciate the position. We have been obliged therefore to include details of one Agency company only, but by so doing we hope to have provided a further service to the user of the *Guide*.

ROBERT PEDLOW, *Editor*,
Shipping Guides Ltd.

PUBLISHER'S NOTE

"GUIDE TO PORT ENTRY" – 1989/90 EDITION

This is our tenth edition and the publication has grown in extent from the five hundred and eighty pages of the 1971 edition to the present three and a half thousand pages. Such increase in extent has provided us with difficulties concerned with the sheer volume of the content, but we hope to have overcome these problems and to have maintained the relatively easily handled size by very careful re-editing, so as to exclude any possible extraneous or outdated information, and by the use of strong but thinner paper.

Also new, is that for the first time we have been able to typeset the entire publication by means of our own in-house computers. As a result, we have managed to achieve not only a much earlier publication date than would have otherwise been possible, but have also been able to include information and plans received here very recently. However, such new data as has nevertheless been received too late to be included within the main text, may be located in the Late Report/Late Plan Section.

Our computer-based improvements are due to the unceasing efforts of our Assistant Editor, Charles Watson, to whom we owe very considerable thanks.

We again earnestly request all users of the "Guide to Port Entry" to assist our endeavours by providing us with all possible data, however insignificant it may appear to be, concerning existing ports listed within these pages and, even more importantly, to advise us concerning any ports that are not presently listed. Only by these means are we able to produce this, the world's leading publication dealing with port information, for the benefit of users in virtually every nation on earth.

At this time we wish to thank, once again, all those Shipmasters and serving mariners, Port, Pilotage and Hydrographic Authorities, Shipping Companies, Ship's Agents, Maritime Lawyers and the very many other interested parties throughout the world who have so assiduously persevered to keep us informed of changes in our published data and advised of data concerning ports not previously included. Over seventy of such ports are appearing in these volumes for the first time. Very many thanks to you all and we hope to have produced a publication worthy of your great assistance.

THE SHIP'S ATLAS. The new edition of this widely distributed atlas will become available before the end of 1989. The publication is particularly well-suited to useful promotional purposes in addition to being a valuable asset aboard every ship and in shipping offices. The cover of The Ship's Atlas may be gold-blocked as being presented with a company's compliments. Enquiries concerning The Ship's Atlas should be directed to Shipping Guides Ltd.

COLIN PIELOW
Reigate 1989

Albania

DURRES: 41.19 N. 19.28 E.

DOCUMENTS: Completed on arrival.

PILOTAGE: Compulsory. Arriving vessels should anchor and await Pilot in position Lat. 41° 15′ 08″ N., Long. 19° 26′ E. Pilot available in daylight hours only.

RESTRICTIONS: Vessels arriving from ports in Yugoslavia, Italy and Greece must give Notice of Arrival 48 hours in advance. Vessels arriving from ports in other countries must give Notice of Arrival 5 days in advance. Notice of Arrival is sent by radio to "Adetare Durres" with following information: Vessel's name and flag; name of last port; draft on arrival; cargo description and distribution; particulars of vessel's tonnage and length.

Entrance is through buoyed channel, depth 27 ft.

MAX. SIZE: Controlled by berth depth. Max. draft 28 ft. 6 in.

Also see "Shipmaster's Report".

HEALTH: Free Pratique given when Pilot boards provided vessel's Health Declaration is satisfactory.

RADIO: Vessels should maintain regular contact with Durres Radio up until time of entry into Albanian territorial waters, which extend 10 miles off shore.

TUGS: Port Authority supplies tugs for mooring and unmooring on Pilot's recommendations.

BERTHING: General cargo wharf No. 5, depth 26 ft. All other berths, depth 21 ft.

MEDICAL: Doctor and hospital facilities available.

TANKERS: One oil berth, at the East Mole, depth 23 ft. Tank cleaning facilities available.

FRESH WATER: Available ex-wharf at all berths.

FUEL: Limited quantity available for emergency only.

OPENING/CLOSING HATCHES: Carried out by stevedores.

IDENTIFICATION CARDS: Shore passes issued by local police.

REPAIRS: State shipyard can effect limited hull and engine repairs.

AIRPORT: Rinas Airport, distance 35 km.

TIME: GMT plus 1 hour.

HOLIDAYS: New Year (January 1st and 2nd); Proclamation of the Republic (January 11th); Labour Day (May 1st); October Revolution (November 7th); Independence Day (November 28th); Liberation Day (November 29th). No work performed on Sundays and holidays.

SHORE LEAVE: Crew may use Seamen's Club in port area.

SHIPMASTER'S REPORT: 1979

Navigation: Incoming vessels are to anchor in position Lat. 41° 15′ N., Long. 19° 27′ E. (2.5 miles from breakwater) and await orders. The Danger Area shown on B.A. Chart No. 2701 is reportedly non-existent.

Communications: The local radio station call sign ZAD is to be contacted on anchoring. The radio transmitter is sealed on berthing. The Agents have a telex machine which works intermittently. Telephone calls to Northern Europe possible but subject to delay.

Pilot: Equipped with VHF Channel 16, boards at anchorage.

Tugs: Two medium size tugs available for docking. One salvage tug stationed in port.

Draft: Pilots advised 27 ft. 6 in. max. draft alongside and in approaches.

Cargo Facilities: Loaded 14,000 tonnes of cement in 50 kg. bags from rail and road trucks. 3 shift system. Used both shore cranes and ship's derricks. As cargo comes from cement factory in interior by rail, presentation is very intermittent, and vessel rarely informed of working prospects more than a few hours in advance. Sundays are normally holidays. Loading rate averaged 1,000 tons approx. per working day but ranged from 200 tons to 1,700 tons, depending on labour and cargo availability.

Formalities: ETA's required 5 days and 2 days in advance, also include length, tonnage, flag, state of health, etc.

Documents required: 6 Crew Lists, 2 Lists of Foreign Currency, 2 Personal Effects Lists, 1 Health Declaration, 3 Stores Lists. Bond is sealed but Customs will open on request.

Repair Facilities: Small shipyard for minor repairs available.

Surveys: Agents advise that Government Surveyor available for radio surveys, etc. No Classification Society Surveyor available.

Cash: Lek is currency – 1 Lek = approx. 14 US cents (7 Leks = $1). Foreign currency may be exchanged (approx. 5 days notice).

Provisions: Government ship chandler. Fresh vegetables good, fish available at moderate prices, meat not recommended.

Laundry: Available. Reasonable price, average standard.

Crew: Repatriation is reportedly possible, however it takes 3 days to get an exit visa.

Shore leave is permitted to Seaman's Club only until 2300 hrs. A special pass has to be obtained to visit the town (1500 hrs. to 1900 hrs. only). Tours to Tirana can be arranged by car, if one day's notice is given. Casual dress (jeans) also long hair prohibited outside dock gates.

Gangway guards in attendance throughout stay.

Considerable difficulty experienced in arranging tour for Chinese ratings.

Port Facilities: Berthing facilities for 10 ocean-going vessels. Sufficient 5 ton shore cranes available. Railway tracks to most quays. Main imports coal/coke. Exports, low grade chrome ore. Priority for Albanian vessels. One floating crane. Lack of mechanisation reduces work rate. No fork lifts or proper palletisation observed.

Agency: Adtare (Government Agency) in port area. The Agents visit vessel twice daily and speak adequate English and are reasonably helpful.

Fresh Water: Available from barge at $1.50 per ton approx.

Fuel Oil: Heavy oil and diesel oil delivered by road tankers (limited amounts).

Local Regulations: Permission to immobilise engines must be obtained. Garbage is collected daily (compulsorily) in plastic sacks. Permission required prior to de-ballasting.

Watchmen: Not required as gangway guards provided.

AUTHORITY: Drejtorija e Portit Durres.

SARANDE: 39.52 N. 20.02 E.

DOCUMENTS, RESTRICTIONS: Refer to "Durres".

PILOTAGE: Compulsory. On arrival vessels should anchor and wait for Pilot in position Lat. 39° 51′ 50″ N., Long. 20° 10′ 10″ E. Pilot available only during daylight hours.

HEALTH: Free Pratique given when Pilot boards provided vessel's Health Declaration is satisfactory.

RADIO: Durres Radio.

BERTHING: Larger vessels work cargo at anchor only. Ship's gear used.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: See "Durres" for General Information.

AUTHORITY: See "Durres".

SHENGJIN: 41.49 N. 19.35 E.

DOCUMENTS, RESTRICTIONS: Refer to "Durres".

PILOTAGE: Compulsory. On arrival vessels should anchor and await Pilot in position Lat. 41° 48′ N., Long. 19° 35′ E. Pilot available only during daylight hours.

MAX. SIZE: Draft 18 ft.

HEALTH: Free Pratique given when Pilot boards provided vessel's Health Declaration is satisfactory.

RADIO: Durres Radio.

TUGS: One small tug available.

BERTHING: Two piers in harbour, one of which is used for larger vessels.

FRESH WATER: Limited supply by barge.

FUEL: Not available.

GENERAL: See "Durres" for general information.

AUTHORITY: See "Durres".

NOTES

Please also advise Shipping Guides Ltd.

Algeria

ALGIERS (El Djazair): 36.50 N. 03.00 E. (See Plan)

DOCUMENTS:

1 Cargo Manifest required for all cargo including that in transit for non-Algerian ports.
8 Crew Lists.
2 Crew and Passenger Personal Effects Lists.
1 Stores List, including Bonded Stores.
1 Currency Manifest.
2 Lists of arms, ammunitions or Military Stores (or "Nil" Declaration).
1 Private Bond and Beer List.
1 Declaration of Health.
1 Vaccination List.

Immigration officials may require to inspect all discharge books or passports. Customs regulations are strictly interpreted. Care should be taken to ensure that all ships' papers are perfectly in order. Vessels arriving with incomplete or inaccurate documentation have been subjected to severe delays and penalties.

PILOTAGE: Compulsory. Available day or night. Pilot boards vessel about 0.5 miles from end of Wattier Jetty. Pilot boat is black with insignia of 2 white anchors.

ANCHORAGE: Algiers Bay is crescent-shaped with Cape Caxine on the West and Cape Matifon on the East. Depth 25 m. – 30 m. Bottom is good holding ground, and vessels are sheltered from West and Northwest.

RESTRICTIONS: None if Port Authority is advised by Radio Algiers or by Agent.

MAX. SIZE: Vessels of 25,000 tons proceed normally. Length not restricted; maximum draft 38 ft.

HEALTH: Health Officer boards vessel on arrival.

RADIO: Algiers Radio, operates continuously.

VHF: Harbour Master on Channels 16 and 12.

TUGS: Three available of 600 to 800 h.p. and also one of 1,000 h.p. for towing in harbour; two larger available for open sea, 1,500-1,300 h.p.

BERTHING: 54 berths available, total length of 9,519 m. plus 2 berths of 250 m. each for tankers. All general cargo berths have cranes with lift of 3 tons - 6 tons.

Iron cargoes only handled at Berths No. 33/1, 2 and 3. Vessels handling general cargo will have to shift to one of these berths if they have iron amongst the general cargo.

STEVEDORES: Available.

MEDICAL: All assistance available.

TANKERS: Quay de Lorient: 2 berths, with depth alongside 11.50 m. Deballasting facilities available.

"LPG vessels" – See "Shipmaster's Report".

DENSITY: Salt water.

FRESH WATER: Delivered by pipe-line to quay, or by water barges.

FUEL: Deliveries by pipe-line on most quays or by barge. Large vessels are supplied by barge in the roads.

FIRE PRECAUTIONS: A special notice with instructions is delivered to tankers. Fire station established within port area.

GANGWAY/DECK WATCHMEN: Service by three experienced companies arranged by Agent.

OPENING/CLOSING HATCHES: Normally opened by crew, or by port workers.

IDENTIFICATION CARDS: Not required.

CONSULS: All principal countries are represented in Algeria.

REPAIRS: All repairs available.

DRY DOCKS: Two: one of 136 m. long, 18.50 m. width, and 8 m. depth. The second of 74.30 m. long, 15.50 m. width and 5 m. depth.

REPATRIATION: Frequent departures for Europe by ship or plane.

AIRPORT: Dar-el-Beida at a distance of 20 km. from Algiers; several flights daily.

TIME: GMT plus 1 hour.

HOLIDAYS: 1st January; 5th July; 1st November; Labour Day; Proclamation Day; plus religious holidays – Aid Seghir; Aid Kebir; New Year's Day (Egira); Achoura, and Mouloud. Friday is now considered as the weekly rest day in Algeria.

POLICE/AMBULANCE/FIRE: Police 63.01.61; Fire Service 63.71.22.

SHORE LEAVE: Allowed.

DEVELOPMENTS: The port is to be extended to the East to provide 700 m. of container berths with a depth of 19 m.

SHIPMASTER'S REPORT: January 1981.

Approaches: BA. Chart Nos. 855 and 2555.

Prominent land features clearly visible both visually and by radar. At night-time, anchored or underway, vessels are very difficult to identify due to background of shore lights.

No. 2 Buoy marking Western extremity of prohibited anchorage area (Lat. 36° 49.3′ N., Long. 03° 07.2′ E.) unlit at time of visit.

Anchorage: Anchorage prohibited East of line drawn from No. 2 Buoy to East of beacon on coastline at 03° 10′ E. Reasonable anchorage obtained two miles N.E. of Qk.Fl. light at end of Northern breakwater in approximately 40 fathoms. No separate tanker or small vessel anchorages although small vessels generally appeared to anchor either between main breakwaters immediately East of Jettee de L'Est or close offshore with little regard to Eastern harbour entrance. Anchorage completely exposed to prevailing winds from N.E. and swells that accompany wind.

Wind: Prevailing wind is from North to N.E. and is strongest during Winter months. Swell builds up quickly and causes harbour to be virtually untenable with many ships breaking loose from berths. Authorities close port and all ships leave berths generally when weather conditions have started to abate. Forecasts difficult to obtain.

VHF: Call "Algiers Harbourmaster" Channel 16, working on Channel 12. Range limited to about 6 miles. On arrival, vessel's information required and details of cargo to be loaded or discharged. French speaking is an advantage in which case call "Capitainerie du Port". Very little warning of berthing instructions given. Agents can, apparently, be contacted through Harbour Master.

Berthing: Berthing and unberthing only during the hours of daylight unless in extreme emergency.

Pilot: Upon receipt of berthing instructions, vessel proceeds to a position approximately half mile East of Southern breakwater entrance. Pilot boards by pilot ladder, side appropriate to weather conditions but generally on port side, from pilot launch. Pilot ladder about 1 m. above water.

Pilot also boards by launch when unberthing.

Tugs: Two used for berthing and 3 for unberthing (bad weather). Two good ship's ropes to each tug. For berthing, forward tug taken on port bow and aft tug on starboard quarter, similar arrangement for unberthing. These positions to enable vessel to swing short round to port immediately after entering breakwater.

Berth: Berth 37: Port side alongside "Brise lames Est" jetty in Area 9. Depth alongside 10.0 m. forward and 10.5 m. aft. Little or no tidal effect. Straight jetty with protruding dolphins of concrete construction and fendered by tyres mounted on timber and suspended from quayside by chains.

Berth affected by swell from North/N.E. and vessels can surge up and down the quayside alarmingly. It is essential to have out as many moorings as possible and in particular good stern lines and forward back-springs. On this visit, 5 moorings parted and eventually necessary to have mooring winches manned continuously to counteract vessel's surging. This vessel (31,296 cu.m.) was largest gas vessel to have entered Algiers.

Port gangway initially used but later replaced by "Board of Trade" gangway. It is advisable not to rig gangway before berthing due to quayside obstructions.

Density: Density alongside 1026.

Cargo: Butane discharge. Receiver's Sonatrach cannot accept cargo below +5°C, therefore heater required. Booster pump not required after initial problems resolved. Shore tank capacity is small and adjacent to gas-bottling/distribution plant. At first, Receivers were asking for maximum rate of discharge and then stopping cargo every two/three hours. After contacting Commercial Manager of Sonatrach, arrangement was made whereby shore plant emptied tanks before resumption of discharge and then discharge maintained at slow rate for several hours. Cargo discharged = 4,000 tonnes in 5 days.

Contacts: Sonatrach Manager LPG Operations, Marketing Division – Gas Exports, 46 Boulevard Mohamed V, Algiers. *Tel:* 61-12-24.

This person is responsible for all gas import/export contracts, works closely with Trammogas.

Sonatrach Commercial Manager, Commercial Division, 46 Boulevard Mohamed V, Algiers. *Tel:* 61-12-24.

Commercial Manager works closely with the Manager LPG Operations.

Authorities: Algerian requirements are now well established and particularly applicable to this port. All items contained within the Bond are carefully checked and counted and any single discrepancy can result in large fine. All money (all currencies) collected in, declared on Currency Declaration and locked in safe. Customs did not rummage on this visit because all paper-work exactly to their requirements.

No cargo documentation was in the vessel's possession for berthing. Customs satisfied with Master's Declaration that cargo papers were in transit between U.K. and Algeria.

Agent: Compagnie Nationale Algerienne de Navigation (C.N.A.N.). Cable Address: CNAN, Algiers. Tel: 62-64-00 and 62-88-00.

Chandler: Provided excellent quality fresh provisions at short notice and at reasonable price. Method of payment is by Cash Requisition through Agent.

Fresh Water: Good quality and available on quayside. Shore meter inoperative.

Bunkers: Available by barge.

General: Repatriation can be easily arranged through Agents. Airport about 10 km. away with 5 daily flights to Paris and one to London. Disembarking personnel hand in Discharge Book plus 2 photographs to Agent a few hours before disembarking to clear Immigration formalities.

Reasonable communication links with the U.K. and people most helpful.

Shore leave unrestricted – personnel to carry Identity Cards.

AUTHORITY: Capitainerie du Port.

ANNABA: 36.58 N. 07.47 E.

DOCUMENTS: Refer to "Algiers".

PILOTAGE: Compulsory when entering, leaving or shifting in harbour, vessels arriving during night and wishing to enter the basin must anchor at 2 nautical miles to East of Southern Lighthouse at main entrance (red occulting light) on steady sand bottom of 65 ft. to 100 ft. depth.

ANCHORAGE: Quite good anchorage well protected against West or North winds at about 3 nautical miles to North of harbour with depths of 40 ft. to 60 ft. on rocky and sandy steady bottom.

MAX. SIZE: Length 656 ft. draft 33 ft., breadth no restriction. Tankers Max. draft 39 ft.

RADIO: Cable Agents giving ETA or to Harbour Master by cable or radio telephone via Annaba Radio Station which is permanently watching on 2182 kHz.

VHF: Harbour Master's Office can be contacted on Channels 16 and 14.

TUGS: Two tugs available each of 700 h.p., both fitted with radio telephone and two fire appliances.

BERTHING: Harbour is open to merchant navigation every day from 0500 hrs. to 2200 hrs. In case of necessity vessel will be handled at any time.

21 general cargo berths with depths 6.2 m. to 10.0 m.

BRIDGES: No bridges or power cables crossing port area.

CRANES: 18 electric or diesel shore cranes with lifting capacities from 3 to 6 tons; 1 electric shore sheers of 110 tons and 1 diesel-electric sheers hulk of 80 tons.

STEVEDORES: Available. Working hours (whole days), normal hours: 0700 – 1020/1400 – 1720. Shifts: 0630 – 1230/1300 – 1900/2000 – 0200. Working night and holidays, overtime 50%.

TANKERS: Two tanker berths in outer port, entrance 43 ft. The first is at Lyon's Jetty consists of 2 dolphins 180 ft. apart, depth 33 ft. Second at South Jetty consists of 2 dolphins 180 ft. apart, depth 43 ft. Pipe-lines of 8 in. and 10 in. supply the oil installations.

FRESH WATER: Plentiful supply of water alongside wharves at a rate of 8 t.p.h. to 14 t.p.h. By barge at the tanker berths.

FUEL: Bunkers available.

GANGWAY/DECK WATCHMEN: Performed by ship's crew.

OPENING/CLOSING HATCHES: Performed by stevedores.

IDENTIFICATION CARDS: Required.

SHORE LEAVE: Allowed.

REPAIRS: One graving dock fitted with 2 rolling cradles on slipways, lifting capacity 100 tons and 200 tons. Divers and frogmen available.

GENERAL: Prevailing winds generally of N.W. and West. Storms from these directions are blocked by mountains which lie behind harbour. Harbour is only exposed to storms from East and N.E. which are very rare. There is practically no swell or surf into harbour. Tidal variation about 1 ft. and water level ranges about 31 in. dependent on season. Low waters from February to June and high waters from June to February.

SHIPMASTER'S REPORT: September 1982.

Position: 36° 54′ N., 07° 46′ E.

Name: Formally named Bone, in most of the charts is mentioned as Bone.

Radio: Annaba Radio keeps watch also on VHF Channel 16 and working Channels 24, 25, 26, 27.

Gangway/Deck Watchmen: Shore watchman is compulsory by Port Authorities.

Opening/Closing Hatches: Performed by crew.

Identification Cards: Shore passes are issued by Immigration Office and shore leave is allowed on presentation of the issued pass and Passport or Seaman's Book.

Restrictions at Port: As soon as vessel anchors in Annaba Roads, Coast Guard comes on board and collects all documents and seals all Bonded Stores. Attention is to be paid on the correct counting of Bonded Stores, such as cigarettes, spirits, etc. Beer is not sealed and crew allowed 200 cigarettes plus one bottle of spirits each.

(a) It is strictly forbidden for ships to use their whistles or sirens in the harbour, exceptions when vessel being under way for preventing collisions. Strictly forbidden to call Pilot by means of whistle between 2000 hrs. and 0600 hrs.

(b) All ships must keep on board sufficient crew in order to carry out all ship's handling, especially shiftings of vessel. Normally Master is informed by Port Authority and signs notice, but many times happened to inform vessel at any time to shift immediately.

(c) It is strictly forbidden to carry out deballasting operations in the harbour waters, except after a systematic control has been made by the Master, the Dock Master or a Surveyor appointed by them, to prove that ballast water is clean.

(d) Any repairs being made to the hull of the vessel, scraping, painting, painting of Load Line marks must be authorised by the Captaincy.

(e) Trials of the engines can only be done with an authorisation from Port Captain.

Maximum Draft Allowed: 31 ft. for the berth of minerals – "Iron and Coke".

AUTHORITY: Directeur du Port.

ARZEW (including Arzew El Djedid): 35.50 N. 00.08 W.
(See Plan)

LOCATION: The Port of Arzew extends between Lat. 35° 50′ N. and 35° 52′ N. and Long. 0° 08′ W. and 0° 17′ W., at the N.W. end of the Gulf of Arzew.

The Port of Arzew El Djedid is located in position Lat. 35° 48′ 06″ N., Long. 00° 12′ 30″ W.

DOCUMENTS:

3 copies Manifest.
4 copies Crew List.
2 copies Vaccination List.
2 copies Arms & Ammunition List.
All Log Books, Certificates and Registers will be inspected.

Sailing: The Sailing Declaration must be made 2 hours at least prior to sailing time.

APPROACHES: *Landfall:* By day recognition of Arzew is made easy by the high ground of Cape Ferrat. On entering the Gulf the lighthouse of the Island of Arzew is seen and in clear weather it is possible to distinguish to the East, the town of Mostaganem. The Arzew Mountain (225 m.) dominates the Bay of Arzew and the port.

The storage tanks for hydrocarbons are visible from a long way off-shore. At night, vessels see firstly the oil flares of the different units in the industrial zone. These flares are visible in good weather for a distance of 25 miles.

LNG Flare "4Z"	Lat. 35° 50′ 31″ N.	Long. 0° 18′ 42″ W.
Refinery Flare	Lat. 35° 49′ 40″ N.	Long. 0° 19′ 15″ W.
L.P.G. Flare	Lat. 35° 49′ 58″ N.	Long. 0° 18′ 12″ W.
LNG Flare "1Z"	Lat. 35° 49′ 07″ N.	Long. 0° 16′ 20″ W.
	Lat. 35° 49′ 04″ N.	Long. 0° 16′ 26″ W.
LNG Flare "2Z"	Lat. 35° 48′ 32″ N.	Long. 0° 15′ 23″ W.
	Lat. 35° 48′ 47″ N.	Long. 0° 15′ 21″ W.

Port Lights: Lighthouse on Arzew Island: Lat. 35° 52′ 34″ N., Long. 0° 17′ 20″ W.

Buoys: Junction Buoy (vertical red and white stripes), white light, position: Lat. 35° 50′ 29″ N., Long. 0° 16′ 03″ W.

Madrague Buoy, East cardinal mark ("A" System), white light, position: Lat. 35° 51′ 40″ N., Long. 0° 16′ 20″ W.

Sea Water Intake Buoy (CEAZ complex): North cardinal mark ("A" System), white light, position: Lat. 35° 50′ 06″ N., Long. 0° 16′ 55″ W.

Working Buoy on Offshore Jetty: Black (starboard characteristics) with fixed green light, position: Lat. 35° 50′ 51″ N., Long. 0° 17′ 16″ W.

Lights of the Port of Arzew: Breakwater: Green light, position: Lat. 35° 51′ 06″ N., Long. 0° 17′ 04″ W.

Head of Offshore Jetty: White light, position: Lat. 35° 50′ 27″ N., Long. 0° 17′ 22″ W.

Secondary Jetty: Red light, flash every 3 secs., position: Lat. 35° 50′ 59″ N., Long. 0° 17′ 45″ W.

South Jetty: Red light, position: Lat. 35° 51′ 17″ N., Long. 0° 17′ 55″ W.

Mole IV: Fixed green light (S.W.), position: Lat. 35° 51′ 28″ N., Long. 0° 17′ 44″ W.

Mole III: Fixed red light (S.E.), position: Lat. 35° 51′ 32″ N., Long. 0° 17′ 57″ W.

Lights of the Port of Arzew El Djedid:

West Jetty: Green light, position: Lat. 35° 49′ 26″ N., Long. 0° 15′ 22″ W.

East Jetty: Red light, position: Lat. 35° 49′ 05″ N., Long. 0° 14′ 32″ W.

PILOTAGE: Pilotage is compulsory. The limit of the pilotage zone out to sea is the parallel of the lighthouse on Arzew Island.

Pilots may ensure that anchoring is carried out in the roads for large vessels. The Pilot embarks in the waiting zone. The pilot ladder must be rigged on the lee side at a height of 1 m. above the water. For large vessels in ballast, the pilot ladder must give access to an accomodation ladder rigged at a height of 5 m. (approx.) above the water.

Communications from tankers will be via the international radio station at St. Lys, which is in telex communication with the Arzew Terminal. Contact with the Arzew Terminal can be made on VHF Channel 16. Vessel will then be informed by the control room of the frequency to use, either Channel 12 or 14 for mooring purposes.

ANCHORAGE: Vessels requiring to anchor on arrival normally use services of the Pilot. Anchorage fees are charged whether the Pilot is used or not. Sea bottom of rocks, sand and mud.

The operations in the roads and the safeguard of accesses have brought about the reserved zones, forbidden areas, waiting and anchoring zones.

The position of these zones is shown on the chart.

a) The forbidden zone corresponds to the S.W. sector included between the parallel of Arzew Island (Lat. 35° 52′ 28″ N.) and a straight line running at 45° from the land and passing through the following geographical point: Lat. 35° 50′ 27″ N., Long. 0° 15′ 55″ W.

b) The waiting zone corresponds to the N.E. sector included between the North of the breakwater of the New Port and a straight line running at 45° to the West from the land, passing through the above geographical point.

Vessels which have to anchor on arrival can request the services of a Pilot.

The bottom is firm, constituted by sand, pebbles, and muddy shale.

Use of Anchors for Manoeuvring: This is forbidden in the port except under conditions of force majeure. It is strictly prohibited in the passages and fairways, and in the vicinity of the pipelines.

RESTRICTIONS: Vessels may enter or sail by day or night, weather conditions permitting. Tankers berthing on the sea-line berths may be restricted by bad weather, heavy wind or swell.

Vessels sailing have priority over vessels entering.

Port Closure: In case of accident or unfavourable weather conditions the port may be closed for entry, for leaving or in both directions at the same time. Notice of closure is broadcast on VHF Channel 16.

In general, the Port of Arzew may be closed for entry if:

1. The swell is greater than 2 m.
2. Winds are Force 6 (Beaufort) or greater.

The Port of Arzew El Djedid may be closed for entry if:

1. The swell is greater than 2 m.
2. Winds are Force 5 (Beaufort) or greater.

State of Vessel: Prior to entry into port, Masters must sign a declaration in which they state that the navigability of their vessel is perfect and that they are in possession of all certificates and documents required.

Vessels which are required to operate at the sea-line must arrange their loading derricks prior to the manoeuvre. The strength of these loading derricks must be equal to or greater than 5 tonnes, their Safety Certificate is required on arrival.

MAX. SIZE: See "Berths".

HEALTH: Free Pratique is not granted by radio. For tankers berthing at the sea line, Pratique may be granted by a visiting sanitary officer or by the Pilot when he boards, providing the Health Declaration is satisfactory. For vessels berthing inside the harbour, the Health Officer will board on arrival.

Vessels calling at Arzew must advise their ETA 48 hours and 24 hours prior to arrival, naming the ports called within the last 10 days.

Crew must be vaccinated against cholera. Vaccination books must be valid and a check is made before Free Pratique is granted.

RADIO: Oran Radio and Algiers Radio both listen on international frequencies. Tankers normally use St. Lys Radio.

Notice of Arrival: Vessels destined for Arzew must send to the Port Captaincy a message at least 48 hours in advance through a coastal station stating, date and time in GMT of their arrival in the port roads.

The Notice of Arrival is to be confirmed 12 hours prior to arrival of the vessel in the port roads.

VHF: *Port Radio Service:*

Call-up Frequency:

156.8 MHz., Channel 16, listening-out frequency.

Working Frequencies:

156.7 MHz., Channel 14, Arzew Port Captaincy.
156.5 MHz., Channel 12, Arzew El Djedid Captaincy.
156.65 MHz., Channel 13, Pilotage Station.
156.6 MHz. Channel 10, Tug Station.
156.55 MHz., Channel 11, Sea-Line.
156.7 MHz., Channel 14, Tug Station.

Vessels arriving at Arzew, and waiting in the roads, must listen out continuously on Channel 16.

Vessels with their Pilot aboard must listen out on Channels 14 (Arzew), 12 (Arzew El Djedid), 11 (sea-line):

a) From the time the Pilot comes on board until arrival at the quay.
b) From the departure from the quay until the Pilot disembarks.
c) During the whole time the vessel is at the sea-line.

TUGS: Tug service is compulsory for vessels of more than 1,500 g.r.t. 8 tugs are operational with power ranging from 2,000 h.p. to 3,500 h.p.

It is compulsory for tankers of up to or larger than 50,000 metric tonnes (d.w.t.) to use at least 3 tugs on entry.

The tow lines, supplied by the ship, must be in perfect condition and appropriate for the manoeuvre.

The route programme is drawn up by the Pilot, in agreement with the ship's Master.

BERTHS: Arzew:

Mole III: 258 m. long and 100 m. wide, with 5 berths for various cargoes with depths of water varying from 5 m. to 8 m.

Berth (Name/No.)	*Depth (m.)*	*Max. d.w.t.*	*Products Handled*	*Loading Arms (Diameter)*
Methane Terminal:				
North Berth	9.80	40,000 cu.m.	methane methanol	12 in. 8 in.
South Berth	9.80	40,000 cu.m.	methane	12 in.
Jetee Secondaire:				
"S1" (Inner West)	10.0	30,000 15,000 cu.m.	ammonia refined products LPG residue and deballasting facilities	3×10 in. 3×8 in. 3×12 in.
"S2" (Outer East)	11.0	60,000 25,000 cu.m.	refined products LPG bitumen deballasting facilities	3×12 in. 3×12 in. 3×12 in.
Jetty Large:				
P1 (Middle Berth)	13.50	50,000	crude, gas oil, fuel oil, condensate	12 in.
P2 (Seaward/ Outer Berth)	15.50	100,000	crude, gas oil, fuel oil,	12 in.
P0 (Inner Berth)	10.0	30,000	LPG, fuel oil, gas oil	8 in.
Sea-line	26.0	100,000	crude, condensate	28 in. hoses

Arzew El Djedid:

Berth	*Depth (m.)*	*Max. Size*	*Products Handled*
M1	13.5	125,000 to 200,000 cu.m.	LNG
M2, M3 (2 berths)	13.5	125,000 to 200,000 cu.m.	LNG
M4, M5 (2 berths)	13.5	125,000 cu.m.	LNG
M6	13.5	125,000 to 200,000 cu.m.	LNG
B1	23.5	25,000 to 100,000 cu.m.	crude, condensate
B2	23.5	50,000 to 150,000 tons	crude, condensate
B3	26.5	100,000 to 250,000 tons	crude, condensate
D1	13.0	35,000 to 70,000 cu.m.	LPG (See "Shipmaster's Report" dated March 1984)

Berths M2/M3 and M4/M5 are operational, a hydraulic gangway with a crane (3 tonnes) is available on the service platform of these berths.

The berths are equipped with a battery of 5 loading arms for LNG of 16 in. × 66 in. of which one is for vapour return. Pumping rate is 2,500 cu.m.p.h. A bunker arm of 8 in. × 66 in. is provided.

Nitrogen: Supply of nitrogen on M2/M3 is by tanker lorry.

BERTHING:

Coming Alongside and Mooring: Except in exceptional cases, vessels must be berthed bow facing out to sea. Each vessel is moored with its own lines.

The number lines per vessel must in no event be less than 14, i.e. 7 forward and 7 aft: 3 head lines (stern lines), 2 breast lines, 2 springs.

Mooring lines of rope should be used preferably unless abnormal conditions prevail.

Lines of steel wire, if used, must not be secured on tanker working decks, except if they are on constant tension winches, and pass through roller leads.

It is recommended that mixed moorings be avoided. In particular, springs must be lines of the same material.

The moorings must be suitably tightened, be inspected constantly, and adjusted every time it is necessary.

Fire Wires: Towlines of steel wire, the so-called "fire wires" must be positioned on the seaward side on the forecastle and the poop, with the eye of the wires being maintained 1.50 m. above water level by a watchman. On each fire wire a length of wire of 10.0 m. must be arranged on deck between the bollards and the lead.

Gangways, Gangway Ladders, Pilot Ladders: The gangway or gangway ladder must be easily accessible under all circumstances and provided with a safety net, being well lit at night.

At the Port of Arzew El Djedid, at Berths M2/M3 and M4/M5, vessels are connected to shore by automatic gangways.

The positioning of the pilot ladder or the gangway ladder on the opposite side to the quay is forbidden.

Vessel's stay at Berth: Any stay at a berth outside that of commercial operations must be authorised by the Port Captain.

All vessels must only stay in port for the minimum time required.

In the event of commercial operations not commencing immediately, or are stopped for any reason, the Port Captaincy may decide to call for the vessel to go out to the roads.

Departure formalities may be required to be carried out in the roads. Masters must report any machinery damage which reduces their capability. Repair works of any kind are forbidden except where specially permitted by the Port Captain.

Sealine: Use of ship's anchors will not be permitted when manoeuvring into berth. Two tugs are available to assist in berthing. On arrival vessels should have ready 8 mooring lines, 4 forward and 4 aft and a tow rope at each end as it will be necessary to position the vessel with her own gear before securing to the heavy wires. Good rope messengers should be ready at each end of the vessel to pick up these wires.

There are 3 mooring buoys at the bow and 3 at the stern. All buoys are fitted with 5 in. wire ropes. Ships of moderate tonnage may be moored using 2 bow buoys and 2 quarter buoys only. Hoses will be lifted from both sides of the vessel using ship's gear and crew.

The port and starboard derricks must be ready for use before berthing. The safe working-load must be at least 5 tons. The Loading Master can refuse to berth a tanker whose lifting tackle is not correctly rigged or in good working condition.

Three 12 in. hoses are connected for loading, 2 on one side and 1 on the other. Loading rates up to 5,500 t.p.h.

Also see "Shipmaster's Report" dated March 1983.

TANKERS: See "Berths" and "Berthing".

BALLAST: Pilots are empowered to refuse to berth a vessel if in their opinion the vessel has insufficient ballast, or her trim is such that it would prevent safe loading.

STEVEDORES: Vessels must cable their ETA at least 24 hours before arrival and confirm before 1700 hrs. on day prior to arrival or before 1000 hrs. if vessel will arrive in the afternoon of the same day. Gangs are ordered before 0700 hrs. for mornings and at 1030 hrs. for afternoons. Shifts are from 0730 – 1050 hrs. and 1530 – 1650 hrs. Extra shifts from 0730 – 1330 hrs. and from 1330 – 1930 hrs.

DENSITY: 1030.

MEDICAL: All treatment of ship's crew is arranged by private doctors through ship's Agent. No hospital facilities at Arzew. Seriously injured crew are taken to Oran, 45 km. away, for hospitalisation. Vessels arriving with sick crew on board should notify Agents well in advance to make arrangements for hospitalisation on arrival. No patient is to be disembarked without notification to the Health Officer for his agreement.

FRESH WATER: Provided by fresh water hydrants on M2/M3 (El Djedid), Moles III and IV. Elsewhere fresh water can be supplied by a tug.

FUEL: Two barges of 2,000 tons each are available. They deliver at a rate of 350 cu.m.p.h. These barges are intended for bunkering vessels with fuel oil (1000 sec. Redwood, 0.924), Bunker "C" (3000 sec. Redwood, 0.960), gas oil and diesel oil (40 sec. Redwood, 0.810 to 0.840) and lubricants, both in the roads and at the quays.

WATCHMEN: Shore watchmen are compulsory for vessels loading fertiliser or discharging LPG or refined crude in the harbour area. For tankers loading at the sea line berth, watchmen are at Master's discretion.

CUSTOMS ALLOWANCES: 200 cigarettes and an opened bottle of spirits per man.

IDENTITY CARDS: On arrival, the Immigration Control inspect all passports or Seamen's Books. Shore passes are given at the harbour gate in exchange for passports, Seaman's Book, or in the case of French seamen, their identity cards.

AIRPORT: International Airport at Es-Senia (Oran), distance 50 km.

CONSULS:

France (Consul-General), Tel: 33.10.13.
Italy (Vice-Consul), Tel: 35.51.96.
U.S.A. (Consul), Tel: 35.26.65.
Spain (Consul-General), Tel: 33.21.65.
U.S.S.R. (Consul).
The Netherlands are also represented.

TIME: GMT plus 1 hour all year.

TELEPHONES: Available only at methane berths. At the sea line berths tankers may communicate using VHF Channel 16 to Arzew Terminal.

SERVICES: *Launch Service:* Available for ship's crew for transportation to the roads.

GENERAL: *Measures to be taken in the event of deterioration in weather conditions:* In the event of a warning of high winds and bad weather, the Master must be prepared to stop loading and to make arrangements for suitable *ballasting.*

In the event of high wind or the threat of it, particularly from the North to the East, the following measures should be considered:

Reinforcement of moorings.
Ballasting.
Taking a Pilot on board.
Requesting aid of tugs.
Stop loading – disconnection of arms.
Sailing of the vessel.

Light and Flag Signals: From their arrival in the Roads until they leave, all tankers not degassed or vessels carrying hazardous goods must exhibit the following signals:

By day: A red flag.

By night: A fixed red light visible all around the horizon, apart from regulation navigation lights.

Wind: In Winter winds predominantly from the West.

In Summer the main winds are those from the East to North sectors.

Seasonal variations define two periods: the one of a windy Winter (October to April) and the other, the Summer, more calm (May to September). The average frequency of winds in excess of 10 m./sec. from the N.E. quadrant varies from 3.5% during the Winter to 2% during Summer, whilst that of winds from the S.W. quadrant varies from 5.1% to 1.3% between the same periods.

Tide: The variation in water level arise from the superimposition of a half-daily lunar tide of low amplitude (15 cm. – 30 cm.), fluctuations in general level during the year and long period oscillations (tidal waves).

Swell: Swell from North to East direction is preponderant, whilst that from other directions is negligible.

79% of the time the amplitude is less than 1 m.

3% of the time the amplitude is greater than 3 m.

The bad weather period is from December to April, with the maximum risk in December.

Currents: General Currents: Centre of current from East to West, −0.25%.

Surface Currents: With N.E. wind between 30 km./h. and 35 km./h. currents in the same direction (0.8 km./h.) as far as the Madrague area where they turn to the South and even S.E. (0.3 km./h.). With S.W. wind at 25 km./h., the currents have the same direction as the wind and can reach speeds of the order of 1.2 km./h.

Bottom Currents: There is a bottom current coming from Mostaganem (0.35 km./h.) which follows the coast.

Accident on Board or in Port – Principal Steps to be Taken:

In the event of accident, all fire-fighting means installed permanently on the moles, quays and in the port area are immediately placed at the disposal of Masters.

If there is fire on board the vessel, the Master must, as soon as the source of the fire has been established, take every measure to extinguish it.

If the Master considers that he cannot achieve this, he draws the attention of the port services by making a series of long blasts on his vessel's whistle, and requests that all possible available means be put at his disposal. At the same time he must:

(1) Stop commercial operations.
(2) Disconnect loading arms and hoses.
(3) Close all openings leading to the tanks, pump room, bunkers, etc.
(4) Place his vessel immediately in a position to sail so as to get away from the berth should the Port Authorities so request.

Other vessels, as soon as they hear the siren of the vessel in trouble, must:

(1) Stop commercial operations.
(2) Disconnect loading arms and hoses.
(3) Close all openings leading to the tanks, pump room, bunkers, etc.
(4) Place the vessel immediately in a position to sail.
(5) Prepare all means for fire-fighting.

Fire-fighting means:

These comprise:

First strike means (foam, powder) installed at the loading points
Fire-fighting network.
A pump vessel equipped for fighting hydrocarbon fires.
Tugs fitted for fighting fires of all kinds.

SHIPMASTER'S REPORT: March 1983.

Vessel – 140,000 d.w.t. tanker.

Documents: 2 Immigration officials boarded and their launch circled the vessel first. They required 2 Shore Declarations each in quadruplicate, 2 Arms and Ammunition Lists , 2 Narcotics Lists, 2 Crew Lists, 1 Crew Declaration and 1 Stores List.

Agent required 2 Crew Lists, 1 Crew Declaration and 1 Stores List. Customs do not always board at Sea Berth but when they do are very strict.

Cargo documents usually arrive on board before vessel leaves berth, otherwise vessel drifts off berth until documents delivered.

Pilotage: There are 5 Pilots for the harbour. When a vessel is at the Sea Berth then 1 Pilot lives on board all the time. They change watches between 1400 hrs. and 1500 hrs. each day.

Anchorages: Anchored in position with Ilot d'Arzew bearing 291°(T)×4.0 nautical miles. Bottom mud, good holding ground. Had a Force 8 WxS Wind and did not drag, with 10 shackles out. According to British vessel there, ships frequently do drag.

Restrictions: Berthing daytime only, unberth anytime.

Tugs: 3 tugs; 1 forward, 1 aft with ship's lines and 1 pushing which does not make fast.

Berthing: Proceeded to Sea Berth and moored heading N'ly. Mooring buoys are referred to by Pilots as No. 1 (starboard bow) round to port bow and from port quarter to buoy on starboard quarter which is No. 6. Require two ropes at each end as ship's first lines to buoys. Wires with nylon tails not allowed as the buoy quick release hooks do not work and they say they cannot get the eyes off the buoys due to the weight. 2 mooring boats used.

Method of mooring in good weather with no wind was:

1 ship's rope to No. 3 Buoy, then 1 ship's rope to No. 1 Buoy, then 1 ship's rope to No. 4 Buoy, then 1 ship's rope to No. 6 Buoy. Vessels are then positioned transversely and shore wires are taken onboard from No. 2 and 5 Buoys to position the vessel longitudinally. Then shore wires are taken from No. 3 and 4 Buoys, then No. 1 and 6 Buoys; when these are fast, ship's ropes are let go. Final moorings are 2 wires from No. 1, 3, 4 and 6 Buoys and 1 wire from No. 2 and 5 Buoys.

According to echo sounder, depth of water was about 21.5 m. forward and about 18.5 m. aft.

5 riggers board with Carpenter's stoppers and assist in mooring, unmooring and with hoses. They also live onboard and require accommodation and feeding. Riggers change shifts at about 1000 hrs. daily.

Loading: If loading condensate then 1 hose from each side with average loading rate of about 2,600 tonnes/hour. There is another hose on starboard side which is apparently used for crude oil.

Ballast: Ballast is pumped to sea.

Time: GMT plus 1 hour all year.

SHIPMASTER'S REPORT: March 1984.

Arzew el Jadid – Bethioua: LPG Berth No. D1.

Berthing: Two tugs make fast close to East Entrance to the port – at the time of berthing the wind was from the N.N.E. at 20 knots gusting to 25 knots and the tugs were secured with great difficulty with the vessel positioned virtually in the entrance.

Whilst berthing a third tug pushes amidships to hold the ship on the berth.

Two tugs are used for unberthing.

Tugs are secured using two lines (ship's lines).

Manoeuvring area inside the breakwater is tight and I would not recommend berthing or unberthing operations in wind speeds exceeding 15 knots.

The max. length of vessel permitted on Berth D1 is 220 m. and the max. permitted draft is 12 m., – understand the first ship to use the jetty touched the bottom during berthing (35,000 tonnes shipment) no record of draft available.

Moorings: Three head/stern lines, two breast lines and two back springs.

Gangway: No shore gangway.

Chiksans: 3×12 in. liquid loading arms, 1×12 in. vapour return line, 1×8 in. bunker loading arm. Quick release clamps are fitted on chiksan arms. Disposition from West to East is; Bunker loading arm; Liquid loading arm; Liquid loading arm; Vapour return arm; Liquid loading arm.

There is a facility for purging loading arms with nitrogen prior to disconnecting which was unproven during our call due to low nitrogen pressure.

Cargo Pumps: 1×500 cu.m. circulating pump. 3×1,650 cu.m. loading pumps.

Vapour Return: Capacity unknown.

SHIPMASTER'S REPORT: November 1986.

Note: Forms below are for the Port of Arzew. There may be different requirements at other Algerian ports, but this should serve as a guide.

Agent:

Inwards Declaration. } Both filled out at the same time,
Outwards Declaration } Agent supplies forms.
1 Narcotics List.
1 Declaration of Arms and Ammunition or 'Nil'.
2 Crew Lists.

Immigration:

2 Crew Lists.
1 Narcotics List.
1 Ship's Particulars (Form supplied).

Port Health:

1 Crew List.
1 Health Declaration. (IMO Form).

Customs:

1 List of Crew Effects. (Crew Manifest).
1 Bonded Stores List.
1 Slop Chest/Shop Store List.
1 List of Ship's Currency.
1 List of Currency held by crew.
1 Declaration of Arms and Ammunition or 'Nil'.
1 Narcotics List.

N.B.: Customs are very strict, make sure everything well in order for all their forms. (I was informed by Agent that a Shipmaster had recently been fined US$9,000.00 due to the fact that he forgot to declare US$2,500 of the Chief Engineer's money, which he had been holding in the ship's safe).

AUTHORITY: Entreprise Portuaire D'Arzew, 45 Rue Aissat Idir, B.P. 46, Arzew, Algeria. *Tel:* 377527, 377491, 377970. *Telex:* 12819, 12990, 12982.

BEJAIA (Bougie): 36.45 N. 05.05 E. **(See Plan)**

DOCUMENTS: Refer to Algiers.
PILOTAGE: Compulsory within pilotage zone between Cap Carbon to the West and Ras Attia to the East. Contact pilot station by VHF Channel 16 or Telex 83940. Tel. 92.35.03 (night). International code signals used to call Pilot who boards at the limit of pilotage zone. Pilot ladder should always be placed on port side.
ANCHORAGE: Suitable anchorage in all weathers will be indicated by the Pilot.
RESTRICTIONS: No night movements for tankers with LPG or refined petroleum cargoes.
MAX. SIZE: Tankers: Length 260 m. Draft up to 13 m. Waiting zone for vessels in ballast; depth 10 m.
Commercial Port: Draft between 7 m. to 9 m.
HEALTH: Free Pratique given by Brigade Maritime on arrival, unless suspected disease on board when Port Doctor will visit the ship. Pratique is automatic after calling at another Algerian Port.
RADIO: Alger Radio.
TUGS: Available under direction of Pilot by VHF contact. Ship's lines always used. 2 tugs required for berthing and unberthing.
BERTHING: 23 berths with depths 5.5 m. to 10.0 m.
TANKERS: *Sonatrach Oil Terminal:* 3 loading piers for crude oil.
Pier No. 1 for vessels up to 11.50 m. draft. 4×10 in. hoses.
Pier No. 2 for vessels up to 12.50 m. draft. 4×12 in. hoses.
Pier No. 3 for vessels up to 13.00 m. draft. 4×12 in. hoses.
Maximum pressure allowed 3 kgs.
Loading rates up to 4,000 t.p.h.
BALLAST: All dirty ballast to be discharged ashore; 2 hoses available at each berth, can receive ballast up to 2,000 t.p.h.

Vessels berthed at Piers No. 2 and 3 cannot discharge ballast simultaneously.

Clean ballast may be discharged to sea, only if vessel is in gas-free condition.

Thick slop residues may only be accepted subject to terminal operator's approval, but only in quantities of less than 100 tons.
FRESH WATER: Available at Berths No. 2 and 3 only, subject to 24 hours' notice. Loading rate about 15 t.p.h.
FUEL: Available at all Sonatrach berths, subject prior arrangements. No barges.
REPAIRS: Very limited facilities. No dry docks. No possibility for radio/radar repairs.

No repairs may be carried out on board a tanker without first obtaining the Harbour Master's permission.
FIRE PRECAUTIONS: Anchors must be hove-up while vessel is moored in berth. A fire wire must be provided fore and aft for tug's use if necessary.

Tanker's fire-fighting equipment must be ready for use on fore and main deck.

3 tugs are equipped with fire-fighting apparatus.
DENSITY: 1025.
WATCHMEN: Not compulsory but recommended. The Port Commandant may impose a guard on vessels carrying certain cargoes.
CUSTOMS ALLOWANCES: 3 packets cigarettes and 1 bottle of wine or alcohol per man per day.
CONSULS: France.
REPATRIATIONS: Can be arranged via Algiers.
AIRPORT: Dar-el-Beida International Airport at Algiers, 240 km. from Bejaia.
POLICE/FIRE/AMBULANCE: Police, tel. 92.04.22. Ambulance/Fire, tel. 92.00.02 or 14.
TELEPHONES: None on board, but telephone exists at each tanker berth.
SHORE LEAVE: Allowed, provided seamen carry identity cards or shore passes.
DEVELOPMENTS: Port to be expanded to accept vessels of 30,000 d.w.t.

SHIPMASTER'S REPORT: January 1987.

While anchored at Bejaia waiting to berth, the vessel was boarded by the Algerian Coast Guard.
All ship's papers were correctly presented.
All trading certificates were valid.
No discrepancy between contents of bonded store and Stores List.
No discrepancy between contents of general stores and Stores List.
No discrepancy on Crew Declaration Form.

The vessel was considered to have violated the Algerian port regulations by failing to dip the ensign as a courtesy to the Algerian Coast Guard cutter. This was the vessel's first visit to the port and not having a copy of Algerian Port Regulations was not accepted as an excuse.

In order to avoid a "stiff" penalty (US$1,000.00) and delay to the vessel, a large quantity of stores were removed by the Coast Guard. They consisted of 12 bottles whisky, 12 cartons cigarettes, 4 bottles rum, 2 cases beer, tins of sardines, luncheon meat, corned beef, herrings and mandarine oranges, jars of mixed fruit jam, jars of marmalade, tins of mixed fruit, butter, biscuits, apples and 3 legs of mutton.

A signed statement "for the use of Bejaia Customs" was written on the reverse side of the Stores List stating that 9.5 litres spirits and 10,600 cigarettes and various souvenirs had been removed from the vessel.

All crew accommodation was searched and all soap in excess of one tablet per cabin was confiscated.

AUTHORITY: Office National des Ports, Mole Casbah, B.P.94, Bejaia. *Tel:* 92.18.04/05, 92.35.03. *Telex:* 83055, 83940.

DELLYS: 36.55 N. 03.55 E. **(See Plan)**

DOCUMENTS: Documents which the Master of the vessel must prepare prior to arrival for necessary port formalities.

(a) for the Agent of Societe Nationale des Transports Maritimes or Compagnie Nationale Algerienne de Navigation (The two Algerian National Shipping companies):
2 Crew Lists.
2 Stores Lists, including bonded material.
2 Foreign Currency Lists.
5 Cargo Manifests.
2 Stowage Plans.
4 Notices of Readiness.
2 Original Bills of Lading.
2 Crew and Passenger Personal Effects Lists.

(b) *For Customs:*
1 Cargo Manifest.
1 Crew List.
1 Foreign Currency List.
1 Stores List.

(c) *For the Police (Immigration):*
1 Crew List.
1 Cargo Manifest.
1 Narcotics List.
1 List of Arms and Ammunition.

PILOTAGE: Compulsory when entering and leaving and for all movements (shifting). Pilotage operations only take place during the daytime. To request the Pilot, call the Port Captaincy by VHF Channel 16, or by using signals laid down in the International Signalling Code.

The Pilot boards the vessel within the confines of the anchorage zone. The pilot ladder must be positioned on the starboard side.
ANCHORAGE: The Bay of Dellys, being open from the North to the East, offers a very good anchorage against winds from the West of N.W.

The anchorage zone is within an area defined by a line joining the points of Dellys and Garrouba.

Depths vary between 13 m. and 24 m., and the bottom is rocky.
RESTRICTIONS: Movements of vessels (entering and sailing) are not permitted at night.
MAX. SIZE: The maximum authorised draft is 18 ft.

Overall length is limited to 100 m. for conventional vessels, and to 105 m. for Ro/Ro vessels.
HEALTH: No procedure is stipulated in order to obtain Free Pratique. Nevertheless, and in the event of illness or infection being suspected on board, advise the Port Captaincy by VHF Channel 16 or by telex prior to arrival in the roads.
RADIO: Algiers Radio is operative 24 hours a day, receiving on 500 kHz and 2182 kHz and transmitting on 1792 kHz.
VHF: The Port Captaincy operates on Channel 16.
TUGS: None available.
BERTHING: The port has 2 quays (Quay No. 1 and No. 4), which are used by commercial vessels. Berthing at these berths is subject to the dimensions of the vessel.
STEVEDORES: The stevedoring service operates from 0700 hrs. – 1900 hrs. in 2 shifts, viz. 0700 hrs. – 1300 hrs. and 1300 hrs. – 1900 hrs.

The gangs are ordered through the Port Captaincy by the SNTM/CNAN Agent for general cargo, and by the receiver where bulk cargo is involved. The vessel must notify its ETA to the SNTM/CNAN Agent at least 24 hours in advance of arrival.

As the port has no cranes, operations are effected by ship's equipment (cranes, derricks, etc.).

The average rates of discharge are in the order of 23 t.p.h. per gang for bulk cargo and 40 t.p.h. per gang for general cargo.
MEDICAL: There is a hospital at Dellys for all medical treatment required.

The SNTM/CNAN Agent must be advised prior to the arrival of the vessel so that they may make the necessary arrangements.
DENSITY: 1025.
FRESH WATER: Drinking water only available at Quay No. 4.
FUEL: Not available. Vessels can bunker at Algiers port (55 miles) or at Bejaia (approx. 65 miles).
GANGWAY/DECK WATCHMEN: Not compulsory, but recommended. The SNTM/CNAN Agent is instructed to provide vessels with watchmen.
OPENING/CLOSING HATCHES: These operations are to be carried out by the ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits per crew member per week.
CONSULS: None.
REPAIRS: Not possible.
REPATRIATION: This can be carried out via Algiers with frequent departures to Europe by air and by car ferry.
AIRPORT: "Houari Boumediene" International Airport at Algiers, 80 km. from Dellys.
POLICE/AMBULANCE/FIRE: Police: Tel: 42.95.27. Fire Brigade/Ambulance: Tel: 42.90.50. These services are located within the port area.
SHORE LEAVE: Crew members must carry a passport or Seamen's Book, and report to the Port Police where a shore pass will be issued.
TIME: GMT plus 1 hour.
GENERAL: The predominant winds in the Port of Dellys are from the West and N.W.

Ro/Ro vessels destinated for the Port of Dellys must be equipped with bow thrusters.
AUTHORITY: Direction du Port de Dellys, Entreprise Portuaire d'Alger, Dellys, Algeria. *Contact:* Mr. N. Hasseni, Port Director. *Tel:* 42.98.48/42.93.77. *Telex:* 76089 Porde Dz; Mr. A. Chaouadi, Port Officer. Tel: 42.91.79.

GHAZAOUET (Nemours): 35.06 N. 01.52 W. (See Plan)

PILOTAGE: Pilotage is compulsory and is provided day and night, unless the port is closed. Whilst awaiting the Pilot the vessel must keep watch on Channel 12 or 16 VHF.

Pilotage Area: To the East: meridian passing through the Touent Coastguard Station. To the West: the meridian passing through the village of El Amadra.

ANCHORAGE: Limit of the anchorage area: To the East meridian 01° 51′ 00″ Long. West as far as its intersection with parallel 35° 07′ 22″ Lat. North.

To the North: Parallel 35° 07′ 22″ between its intersections with meridians 01° 51′ 00″ and 01° 52′ 42″.

To the West: Meridian 01° 52′ 42″ of Long. West to half a mile to the West of the head of the North Jetty as far as its intersection with parallel 35° 08′ 22″.

The Port of Ghazaouet offers roads with good holding ground, but by virtue of its position, vessels are exposed to all weather.

APPROACHES: From seaward and during daytime the best landfalls for the roads is Tadjera mountain (861 m.) or the square mountain of Trara 18 km. to the East of Ghazaouet and the summit of the mountain chain of Djebel Fillaoucene visible at over a distance of more than 20 miles offshore in clear weather.

The outer channel is 225 m. wide and 12 m. – 20 m. deep and the inner channel 166 m. wide and 11 m. – 12 m. deep. There are 5 lights; 1 at the Two Brothers' Rock (Les Deux Freres), one at the end of the West jetty, one at the head of the old West jetty, one at the West end of the North jetty and one on the pier of the North jetty.

MAX. SIZE: Max. length 180 m. Max. Draft 28 ft.

RADIO/VHF: A port radio station, call sign "Ghazaouet Radio", has been installed near the lighthouse. The VHF operating channels are 16, 24, 25, 26, 27 and 28.

TUGS: One tug of 1,700 h.p. available.

BERTHING:

Quay No.	*Basin*	*Berth* No.	*Length* (m.)	*Depth* (m.)
1	Skikda	1–2–3	300	6.0
2	Skikda	4–5	160	7.0
3	Skikda	6	123	7.0
4	Skikda	7	94	7.0
5	D'Oran	8	101	7.0
6	D'Oran	9	125	7.2
7	D'Oran	10	103	7.2
8	D'Oran	11–12–13	200	7.6
9	Machrek	14	120	9.0
10	Machrek	15–16–17	300	9.0

SPECIAL CARGO HANDLING FACILITIES: Quay No. 1 is used for discharging fish and inflammable goods are handled immediately on arrival by trucks. Quay No. 9 is used for handling acid if the length of the vessel is less than 100 m. If vessel over 100 m., loading of acid takes place at Quay No. 10 (Berth No. 15).

There is a grain silo at Mole Tlemcen (Quay No. 10; Berths No. 16 and 17). Capacity of silo 30,000 tonnes.

PORT EQUIPMENT:

Quay Cranes:
2 × 10 tonnes (Stothert)
Mobile Cranes:
1 × 40 tonnes (Kato)
1 × 27 tonnes (Petitbone)
1 × 2 tonnes (Rapier)

Forklifts:
12 × 3 tonnes (Steimbok)
5 × 3 tonnes (Komatsu)
6 × 5 tonnes (Toyota)
1 × 5 tonnes (Manitou)
5 × 8 tonnes (Toyota)
3 × 10 tonnes (Toyota)
1 × 28 tonnes (Hyster)
10 × 6 tonnes (Komatsu)

Other Equipment:
1 tractor (Sisu) for Ro–Ro traffic
2 grain suctors (DK100)
1 grain suctor (Vigan)

STEVEDORES: Carried out by Port Monopoly – EPG. Work carried out in two shifts and from time to time a night gang is available. Working hours from 0700–1900. Port Director can extend working hours beyond 1900 hrs. for vessels to complete operations and sail. 160 stevedores available.

FRESH WATER: Available from hydrants along the quays.

FUEL: This is not provided on a regular basis, however, small quantities are sometimes supplied by road tankers.

POLICE/AMBULANCE/FIRE: Police tel. 32.10.26, Fire Brigade tel. 32.10.14. Ambulance tel. 32.11.24.

WEATHER: The strongest and most frequent winds are from the N.W. and with the entrance channel aligned East-West passage is dangerous since the currents generally follow the direction of the winds.

SERVICES: No deballasting facilities available. Stores available through CNAN.

BANKS: B.E.A., Bd. Du 1er Novembre, Ghazaouet. Tel: 32.11.68, 32.13.50.

C.P.A., Rue de la Republique, Ghazaouet. Tel: 32.10.51.

B.N.A., Rue de la Republique, Ghazaouet. Tel: 32.12.80, 32.12.68.

GENERAL: *Lights:*

Ghazaouet Lighthouse: Lat. 35° 05′ 09″ N., Long. 01° 52′ 03″ W.

Passage Lights: Light on the Two Brothers (02), light on end of the West jetty, light on the West jetty head, light at the West end of the North jetty and a light on the mole of the North jetty.

Max. Tide: 40 cm.

Dominant Winds: Northeasterly and Northwesterly.

Visibility: Excellent.

DEVELOPMENTS: The following works are planned: the moles are to be re-surfaced and the fendering to be improved, a Ro/Ro ramp is to be built at Quay No. 6. Dredging work to take place.

A maritime station for passenger vessels is to be constructed.

Two cargo sheds to be built. First shed is at Mole Constantine (1,160 sq.m.) and the second at Mole Djanet (2,320 sq.m.).

SHIPMASTER'S REPORT: 1982.

Name: Ghazaouet (ex Nemours), Lat. 35° 06′ 00″ N., Long. 01° 52′ 21″ W.

Port Limits: As anchorage, a suitable one is within 1 mile of the port. The limits are observed around that area.

Documents: Same as for Algiers. Also every vessel must have copies of Manifest and Bills of Lading, minimum 3 copies of each.

Pilotage: Pilotage is compulsory for all vessels except those who comply with Article 178 of Maritime Code. Agents arrange for Pilot, who can be contacted on VHF Channels 16 and 14. On calling Channel 16 call "Ghazaouet Port Control". Pilot boards in fair weather at anchorage or 2 to 3 cables from the entrance. Pilot boat has a black hull. Pilot station is located at Quay "D".

Anchorages: No anchorage boundaries described. However anchorage in fair weather can be obtained in 15 to 20 fathoms of water which is about 3 to 5 cables North of Northern breakwater. Bottom is sand. Anchorage is not protected, it is mostly open and dangerous to winds from Northern semi-circle.

Restrictions: Vessels can berth or sail any time of day or night.

Max. Size: It was not stated clearly. This vessel's LOA is 147.5 m., and max. breadth of 21.5 m. Berthing and unberthing was quite safe. Max. permissible draft as stated by Port Control is 10 m., but alongside this ship depth in places was 32 ft. Max. length stated which is possible for berthing is 170 m.

Health: Pratique is granted after berthing. Two crew vaccination lists are to be submitted along with Maritime Declaration of Health (Algerian Form).

Radio: At present there is no coast radio station.

VHF: At Port Control VHF watch is kept during daytime and berthing/unberthing. Calling Channel 16, working Channel 14.

Radar: No radar facilities available.

Tugs: There is 1 tug at present. Ship's lines are used. Tug joins the vessel outside the breakwater during fair weather.

Berthing: There are 5 moles in Ghazaouet, details as follows:

Mole Alger (A) – Quay No. 1. Depth alongside 7.5 m. to 8 m.
Mole De Batna (B) – Quay Nos. 2 and 3. Depth alongside 7 m. to 8 m.
Mole Constantine (C) – Quay Nos. 4, 5, 6 and 7. Depth alongside 8 m. to 9 m.
Mole Djanet (D) – Quay No. 8. Depth alongside 8 m. to 9 m.
Mole Tlemcen (E) – Quay Nos. 9 and 10. Depth alongside 9 m. to 10 m.

Specialities:

Quay No. 1 – Dangerous Cargo.
Quay No. 8 – Cereals.
Quay No. 9 – Loading Acids.
Quay No. 10 – Minerals.

Cranes: As per available data. There are 2 cranes of SWL 10 tonnes, 1 of 12 tonnes and 1 of 14 tonnes. Also there are 4 mobile cranes available, capacities are 2×2.5 tonnes, 1×5 tonnes and 1×24 tonnes.

Bulk Cargo Facilities: The vessel carried corn in bulk. The cargo was discharged either into rail wagons or into trucks. Rate of discharge variable. If sufficient trucks or wagons available rate can reach up to 600 tonnes per shift (approx).

Bridges: No bridges at Ghazaouet.

Stevedores: Stevedores are arranged either by Agents or Receivers. No separate notice necessary by vessel.

Medical: Doctors and hospital available at Ghazaouet. Agents to be informed in writing prior to anybody seeing the doctor.

Density: Density was observed to be 1028.

Fuel: None available. Gas oil may be supplied in barrels if sufficient notice given.

Fresh Water: Available alongside each pier. Rate of delivery about 7 to 10 tonnes per hour.

Consuls: None.

Surveyors: None.

Gangway/Deck Watchmen: Agents arrange for same. As long as vessel is in port she must have shore watchman. Usual recommendation given in port is to lift gangway at night, if vessel not working cargo, at about 2300 hrs.

Customs Allowances: 200 cigarettes per man per week, 1 bottle of alcohol per man per week.

Time: GMT plus 1 hour.

Telephone: Telephones are not available on board.

Agents: Compagnie Nationale Algerienne de Navigation (CNAN).

Telephone Numbers: The following important telephone numbers were obtained:

Fire Brigade 32.10.14, Police 32.10.26, Pilots 32.13.45, Port Director 32.12.20.

AUTHORITY: Entreprise Portuaire de Ghazaouet, Rue de la Marine, B.P.217, 13400 Ghazaouet, Algeria. *Tel:* 32.12.20, 32.12.55. *Telex:* 18086. *Contact:* Med Maharar, Port Director/General Manager.

Harbour Office: Mole de Constantine. Tel: 32.14.05, 32.12.32 and 32.13.45. Telex: 18937. Contact: K. Mehabi, Harbour Master/Port Captain.

JIJEL: 36.50 N. 05.47 E.

SHIPMASTER'S REPORT: October 1984.

DOCUMENTS: Same as "Algiers".
PILOTAGE: Pilot boards vessel off the breakwaters. Pilot working daytime only. Call Pilot on VHF Channel 16.
ANCHORAGE: Off the breakwaters at a distance of 0.5 miles – 1 mile, depths from 12 fathoms to 20 fathoms. Anchorage not sheltered.
TUGS: One tug available.
BERTHS: There are two berths. The South Quay 200 m. long and the North Quay 400 m. long. Max. draft 10 m.
CRANES: At the North Quay two cranes under construction. All other equipment available.
STEVEDORES: Work in two shifts from 0730 hrs. to 1330 hrs. and 1400 hrs. to 2000 hrs. Fridays and holidays not worked.
CARGO GEAR: Stevedores use ship's cargo gear.
FRESH WATER: Available from quay but not good for drinking water.
REPATRIATION: Can be arranged via Agent.
TIME: GMT plus 1 hour.
CUSTOMS ALLOWANCES: 200 cigarettes and an opened bottle of spirits. Customs are very strict.
IDENTIFICATION CARDS: On arrival Immigration Control inspect all passports and Seamen's Books. Shore passes are given at the harbour gate in exchange for passports, seamen's books.
SHORE WATCHMEN: At Master's discretion.
AUTHORITY: Capitainerie du Port.

AGENT: CNALNAV (State Agent), Jijel. Office at South Quay.

MOSTAGANEM (Mestaghanem): 35.56 N. 00.04 E. (See Plan)

DOCUMENTS:

- 7 Crew Lists.
- 1 Passenger List.
- 1 Health Declaration.
- 2 Store Lists, including Bonded Stores.
- 2 Crew Personal Effects Lists.
- 2 Lists of Arms and Ammunitions.
- 1 List of Currencies.

Certificates: All certificates are required in the case of an inspection from the Maritime Authorities or in the case of arrest.
Coastguards & Customs: Visit by the Coastguards in the Roads.
Visit by the Customs Officials at the quay. Manifests must be accurate.
PILOTAGE: Compulsory. There are 3 Algerian Pilots; 24 hour service. Pilot boat is black with a white stripe. Vessels arriving after sunset, if no cargo work at night, will remain in the Roads until 0600 hrs. next morning. Vessels sail at any time during the night.
ANCHORAGE: Vessels anchor about 0.5 miles from the Sea Jetty, recognisable by a lighthouse with a white light at its top (3 flashes, 1 pause, 3 flashes, 1 pause).
MAX. SIZE: Max. LOA 180 m. Max. depth of water 27 ft.
HEALTH: Free Pratique is granted upon berthing and producing Health Declaration and Vaccination List. If any Vaccination Certificates have expired, Free Pratique will be granted and Health Authorities will arrange the vaccinations on request.
RADIO: Alger Radio, receiving on 2182 kHz., and working on 1792 kHz., on 24 hours basis. Also Oran Radio, listening on 2182 kHz., and working on 1735 kHz., on 24 hours service. Advisable to use the latter.
VHF: At the Harbour Master's Office, working on Channel 16, officially 24 hour service, English, French and Arabic spoken.
TUGS: Two tugs available, request to be made to Pilot. 24 hour service.
BERTHING: Eight berths available. Total length of quays, 1,100 m.

Berth No.	*Length* (m.)	*Depth* (ft.)
0	115	23
1	140	24
2	140	24
3	132	24
4	135	25
5	135	25
6	140	26
7	140	27
X, Y	Service Quays	

CRANES: 2×6 tons and 3×15 tons. Also 5 additional cranes.
STEVEDORES: Supplied by Port Authority. 3 shifts of 6 hours each from 0700 hrs. – 0100 hrs. Ship's gear to be used if cranes not available.
MEDICAL: All facilities available.
DENSITY: 1025.
FRESH WATER: Available at certain quays, otherwise by tug.
FUEL: No facilities. Vessels must proceed to Oran or Arzew for bunkering.
GANGWAY/DECK WATCHMEN: Not compulsory, but strongly recommended by Port Authorities and Agent.
OPENING/CLOSING HATCHES: Can be performed by ship's crew or by stevedores.
CUSTOMS ALLOWANCES: 1 bottle of spirits and 1 carton of cigarettes are allowed for every Crew member. Anything in excess of this amount will be sealed.
IDENTIFICATION CARDS: On leaving the vessel, Crew members to carry their passports, which will be kept at the harbour gate, whilst ashore.
CONSULS: None.
REPATRIATION: It is possible and easily arranged by Agent (CNAN).
REPAIRS: Only minor repairs can be carried out by workshop. Repairs on board with Port Captain's permission.
AIRPORT: At Oran, La Seine Airport, 80 km. distance, with 3 daily domestic flights to Algiers.
HOLIDAYS: See "Algiers".
TIME: GMT plus 1 hour.
PORT REGULATIONS; No repairs to main engine, no lifeboat practices, no work on hull and anchors without prior permission from Port Captain. Offenders will be heavily fined.
SHORE LEAVE: No restrictions, except for some nationals.
DEVELOPMENTS: A Ro/Ro berth and a general cargo berth under construction. Depth of water 30 ft.
AUTHORITY: Entreprise Portuaire de Mostaganem, P.O.Box 131, Mostaganem. *Tel:* 26.81.85, 26.04.07. *Telex:* 14036, 14086.
Contact: M. Tahar, Director General.

ORAN (Wahran): 35.43 N. 00.39 W.

DOCUMENTS: Refer to Algiers.
PILOTAGE: Compulsory. Arranged by Agents' basis vessels ETA. International Code signals used. Pilot boards at port entrance.
ANCHORAGE: In depths over 40 ft. available in the roads.
MAX. SIZE: Length 800 ft. Draft 38 ft.
HEALTH: Free Pratique given by Brigade Maritime on arrival, unless suspected disease on board when port doctor will visit the ship. Pratique is automatic after calling at another Algerian Port.
RADIO: Alger Radio.
TUGS: Available to assist berthing and unberthing.
BERTHING: Mole 1: Tankers, depth alongside 39 ft. Mole 2: Tankers, depth alongside 33 ft. Cargo vessels: Twenty berths at quays with depths from 20 ft. to 33 ft. alongside.
MEDICAL: Doctors and hospital facilities available.
FRESH WATER: Available by barge.
FUEL: All grades available by pipe-line at the oil berths.
REPAIRS: Only minor repairs can be effected.
WATCHMEN: Not compulsory but recommended. The Port Commandant may impose a guard on vessels carrying certain cargoes.
CUSTOMS ALLOWANCES: Three packets cigarettes and one bottle of wine or alcohol per man per day.
AIRPORT: La Senia, 7 km. away. Daily flights to Algiers for international connections.
AUTHORITY: Entreprise Portuaire d'Oran, Direction Generale, 6 Avenue Mimouni Lahcene, B.P. 106, Oran, Algeria. *Tel:* 39.56.01, 39.57.10, 39.53.52. *Telex:* 22422. *Contact:* The General Manager.

SKIKDA: 36.53 N. 6.54 E. (See Plan)

PORT LIMITS: South of a line joining Ras Filfila and Sirigina Island (096°-276°). Charter Party laytime starts at this line.
DOCUMENTS:
Harbour Master's Office:

- Ballast Declaration (for tankers).
- Certificate of Registry.
- Safety Construction Certificate.
- Safety Equipment Certificate.
- Load Line Certificate.
- Radio Telephony and Telegraphy Certificates.
- Fire Extinguisher Certificate.
- Cargo Gear Certificate.
- IOPP Certificate.

Quarantine:

- Completed Declaration of Health.
- Valid Derat Certificate.
- International Vaccination Certificates.

Customs:

- 2 Crew Declarations.
- 1 Ship's Stores Declaration.
- 1 Crew Effects Declaration.
- 1 Currency List.
- 1 Narcotics List.
- 1 Arms Declaration.

Immigration Office:

- 2 Crew Lists.
- 1 Arms Declaration.
- Complete 4 Declarations given by the Immigration Agent.

Agency:

- 2 Crew Lists.
- Clearance from last port.
- 1 Ship's Stores Declaration.
- 1 Crew Effects Declaration.
- 1 Currency Declaration.
- 1 Narcotics Declaration.

PILOTAGE: Compulsory for vessels of 500 g.r.t. and over. Pilotage arranged by calling Harbour Office on VHF Channel 16, working on Channel 14.
There are 8 Pilots available at the port.
ANCHORAGE: Safe anchorage in the authorised areas in the Roads. See chart for location.
RESTRICTIONS: No berthing at night for tankers, LNG and LPG vessels. Unberthing possible day and night.
Old Port Turning Basin: Diameter 360 m. Depth 11.0 m.
New Port Turning Basin: Diameter 550 m. Depth 14.0 m.
Wind Limits in Port: Old Port: Force 7-8 (Beaufort Scale). New Port: Force 5-6 (Beaufort Scale).

MAX. SIZE: *New Port:* Berth No. 3: Max. LOA 260 m. Depth 16.0 m. Max. draft 14.80 m.
RADIO/VHF: Skikda Radio and Annaba Radio on VHF Channel 16. Boufarik Radio on 2182 kHz. Also see "Pilotage".
ETA: 24 hours Notice of Arrival required by telex or radio through a coastal radio station. ETA to include: LOA, draft, nature of cargo and tonnage.
TUGS: 6 tugs, 1,500 h.p.–3,400 h.p. Tugs compulsory for vessels over 1,500 g.r.t.

BERTHING:
Old Port:

Quay	*Berth*	*No. of Berths*	*LOA (m.)*	*Max. Draft (m.)*	*Remarks*
1	P4	1	150	8.00	Bitumen 10,000 tons
2	12	1	155	8.53	General cargo
3	11	1	145	6.50	General cargo
4	10	1	140	6.40	Silo
	9	2	130	6.00	20,000 ton
5	8	3	140	6.00	General cargo
	7		135	6.00	General cargo
	6		125	6.00	Ro/Ro berth
6	5	1	150	6.40	Ro/Ro berth
7	4	2	160	9.00	General cargo
	3		80	6.00	General cargo
8	2	2	140	8.50	General cargo
	1		140	8.50	General cargo
Marinele	East West	2	290	10.50	General cargo
Tanker Berths	P1	3	190	11.00	Refinery products
	P2		220	12.00	
	P3		230	13.00	

New Port:

Quay/Berth	*No. of Berths*	*LOA (m.)*	*Max. Draft (m.)*	*Remarks*
General Quay	1	240	10.00	
P1	1	230	12.80	Tankers – Berth from 50,000 tons to 100,000 tons
P2	1	230	12.80	
P3	1	260	14.80	
M1	1	260	11.50	LNG Berth from 45,000 cu.m. to 90,000 cu.m.
M2	1	220	11.00	
P5	1	180	10.50	LPG – Berth 40,000 cu.m.
A1	1	140	10.50	Ethylene Aromatique 30,000 cu.m.

CRANES: 1×90 tonne floating crane. 1×120 tonne mobile crane may be available.
STEVEDORES: First shift from 0540 hrs. to 1230 hrs. Second shift from 1240 hrs. to 1900 hrs. Stevedores arranged by Agent or cargo receivers.
MEDICAL: Hospital and medical services are available.
DENSITY: 1023.
TANKERS: Loading and unloading operations by FMC Arms of 12 in., 14 in. and 16 in. Also see "Berthing".
FRESH WATER: Limited supply available at piers.
FUEL: Available by barge, arranged by Agent.
CONSULS: None.
REPAIRS: Arranged by Agent. Permission of Harbour Master's Office required before any maintenance or repairs undertaken.
DRY DOCKS: None.
SURVEYORS: None.
GANGWAY/DECK WATCHMEN: Usually ship's crew and ship's gangway.
OPENING/CLOSING HATCHES: By ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes per man per week.
REPATRIATION: Possible. A Declaration is to be made to the Immigration Office 24 hours in advance of any crew departures.
AIRPORT: Constantine (Ain el-Bey) 100 km. from Skikda, Annaba (Saline) 130 km. from Skikda.
TIME: GMT plus 1 hour.
EMERGENCY COORDINATION CENTRE: Contact Port Control, on VHF Channels 16, 14 and 12. Tel: (08) 95.51.42.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Shore passes supplied by Immigration Office.
GENERAL: *Supplies:* Agent requires 48 hours notice.
Regulations: All tankers are inspected by a Port Officer and Check List is completed before start of loading.
AGENCY: *General cargo ships:* CATM, Port of Skikda. Tel: (08) 95.57.51/52. Telex: 87.815/87.948/87.077.
Tankers: SNTM/HYPROC, Port of Skikda. Tel: (08) 95.65.68/95.92.73. Telex: 87091 and 87973.

SHIPMASTER'S REPORT: 1979.
Pilotage: Pilotage is compulsory. When entering the port, Pilot is arranged with the Harbour Control. When leaving, the ship contacts Harbour Control on VHF radio once all documentation has been completed and the vessel is ready to leave. There are 5 Pilots attached to the port.
Anchorage: The anchorage is sheltered from the South through West to N.N.W. by hills, but is open from the North through to the East.

During our stay at the anchorage the wind varied from S.W. to North, and at times a large swell built up, obviously from a disturbance away from the coast. I found secure holding ground in 30 m. to 40 m. of water 1 mile North of the main breakwater of Skikda harbour for the 3 times we had to anchor, with 4.5 shackles of cable out on the starboard anchor. Our vessel rode out several severe squalls when other ships in the vicinity were dragging their anchors.

Radio: There is a local radio station working VHF only, call sign "Skikda Radio", calling frequency Channel 16 and working frequency Channel 26. Local telephone calls to Skikda are handled very quickly, but overseas telephone calls can be subject to long delays, this is because they first have to go on the land line to Alger (Algiers) and this line can be congested, the same delay is also experienced when telephoning overseas from ashore.

There is a local Port Control radio, Call sign "Skikda Port Control", calling frequency Channel 16 VHF, and working frequencies Channels 12 or 14 VHF. When approaching the port ships should call the "Port Control" and give the following:

(a) Ships Name.
(b) Nationality.
(c) Gross tonnage.
(d) Draft.
(e) Length overall.
(f) Tonnage and type of cargo for discharge at Skikda.
(g) Last port.

After which stand-by on Channel 16 for instructions. When at the anchorage it is a good idea to contact the Port Control each day to see if they have any instructions. Control seem to give the ships as much prior notice of movement as they can, and the Pilot will call on Channel 16 when he is on his way to the vessel.

Tugs: Tugs are compulsory for vessels over 1,500 g.r.t., the number used depending on the size of the vessel. There are 5 tugs attached to the port, all of at least 3,000 h.p. in order to handle the large tankers and gas tankers that use the port in what is called the "New Port", which is a new port complex built 1 mile to the East of Skikda to handle the export of natural gas. The tugs are really too big for use with vessels of the size of our vessel (3,200 d.w.t., 1,597 g.r.t.).

Stevedoring/Port Facilities: The stevedores are part of a nationalised concern. General cargo discharge or loading is carried out by a combination of shore cranes and ships gear. Dangerous cargo is discharged directly on to trucks. The main grain discharge berth is by the silo, this berth is out of action for grain at present as the machinery is under repair. Once the machinery is in full working order they expect to be able to produce figures of up to 3,000 tonnes per day.

We lay at the other grain berth on the outer harbour wall where discharge was commenced with a mobile sucker into a hopper, however, on the second day of work the machine became inoperative. They did try to work with a mobile crane, but the condition of the quay was such that the crane was unable to find a secure platform for work so we had to wait for another berth to become vacant and discharge by shore crane with a grab into hopper then into lorries. Once on the final berth the discharge progressed quickly taking 3 working days. Working hours: 0600 – 1220 hrs., 1300 – 1900 hrs. and 2000 – 0300 hrs.

The port is well equipped with mobile machinery, i.e., forklifts large and small, mobile cranes of different types, however, maintainance appears to be a problem. There is a floating crane of unknown lifting capacity, there was no safe working load marked on any of the cranes.

There is a firefighting launch in the harbour equipped with several nozzles, the tugs are also fitted for firefighting.

Stores: A limited amount of fresh provisions can be obtained, including fresh meat, however, it is expensive. We found that items such as cooking oil, butter and flour simply could not be obtained. The ship chandler is part of the Agency so once again is part of a nationalised concern. Fresh water is laid on to most quays, but whilst we were at Skikda it was only available for 3 hours each morning each day, and at one stage the water supply system stopped functioning for 4 days. The Harbour Master seems to do his best to find ships a berth inside when they reach the desperate stage for fresh water and stores.

Authorities: Skikda is unique in the ports of Algeria in the fact that when at anchor ships come under the jurisdiction of the local Algerian Coast Guard. This means that Coast Guard officers board when the ships have anchored, examine the crew declaration, stores list, bonded stores list, currency declaration, crew cabins, and then seal the Bond. If laying at anchor for a long time they will come out and give an issue from the Bond if the Agents contact them.

Once inside the port the local Customs Authorities take over. They visit on arrival alongside and also require, crew declaration, stores list, bonded stores list, currency declaration; dangerous drugs list and crew lists. They will give an issue from the bond, but only sufficient for use whilst the ship is in port.

The Port Health and Immigration Officers also board on arrival alongside. Port Health requires the usual Maritime Declaration of Health and a list of vaccination dates, and Immigration require a crew list. If going out of the dock gate crew need passport, Seamens I.D. card or discharge book for presentation at the gate where they are issued with a shore pass and book is left in Police care until crew member returns to the dock area.

It is a Police regulation that a shore watchman is employed day and night. The Agency arrange this, deal with the paperwork and present the bill for signature.

Agency: There is only one agency in the port. The agency is Compagnie Nationale Algerienne de Navigation (CNAN), a copy of their instructions to Masters is presented below. One man being appointed to look after each vessel.

Notice:
Compagnie Nationale Algerienne de Navigation:
Agency of Skikda.

Notice:

Dear Captain,

In order to fix all necessary arrangements for your call and give the best possible turn-around, you are kindly requested to follow the instructions hereunder stated:

1. ETA to be addressed to: Traffic Department. Cable: CNALNAV SKIKDA. Telex: 92.815. Telephone: 95-57-51; 95-57-52; 95-50-29.

1st ETA: 72 hours, 2nd ETA: 48 hours and confirm via Skikda Radio definite ETA 24 hours before arrival (and to Harbour Control).

2. Specify nature and quantity of cargo on board for Skikda together with dangerous goods if any, and name and address of receivers of dangerous cargo.

3. State details of heavy cargo and clarify whether to be unloaded with ship's gear or shore cranes.

4. Bunkers: Should be ordered from the Agent 24 hours before arrival and must be received from suppliers at latest 24 hours before sailing. This is very important in order to avoid delay.

5. Shipchandler: Requirements should be ordered from the Agent or direct from the suppliers immediately on arrival and delivered latest 12 hrs. before sailing. The bills should be signed by Master before ship's departure.

6. Medical Assistance: Medical visits are fixed twice a day: 0900 hrs. and 1500 hrs. Emergencies excepted.

Master should declare Crew members for doctor, morning for afternoon visit. Afternoon for next morning.

All medicine should be ordered only by Master by letter addressed to the Agent.

7. Disembarking/Embarking: All Customs and Immigration formalities should be arranged 24 hours before sailing.

Master should declare Crew members for repatriation latest 24 hours before sailing, otherwise no disembarking will be arranged.

8. Custom's Fine: All penalties for whatever should be the reason must be paid by Master to Customs 24 hours before ship's departure.

Working hours of Customs office as follows:

Morning	0800 – 1100 hrs.
Afternoon	1430 – 1700 hrs.
Thursday	0800 – 1100 hrs.
Friday	No work

on Friday and holidays office is closed.

9. (a) Discharging and/or loading operations must be carefully checked by Master and all remarks should be mentioned on stevedoring time sheets out-turn reports.

(b) Watchmen in holds are recommended in order to avoid pilferage. Expenses involved for watching will be Owners or Charterers account.

10. The Agent will deliver to Master on arrival, "forms of call's report". These documents should be carefully filled in and returned before sailing.

SHIPMASTER'S REPORT: May 1984.

New Port, Berth No. 3.

Pilotage: 8 Pilots, 4 of whom are Algerian. Foreign Pilots have difficulty when communicating with tugs as tug skippers speak French or Arabic.

Documents:

5 Crew Lists (indicate Nationality and Seamen's Book Number).
1 Health Declaration.
4 Stores Lists.
3 Personnel Effects Declarations.
3 Arms and Ammunition Lists.
3 Narcotics Lists.
3 Foreign Currency Lists (including Crew's personal currency).

Restrictions: Vessels are able to berth between 0600 hrs. and 2100 hrs. and unberth up until midnight.

Vessels to have propeller immersed and be trimmed less than 3.0 m. by the stern.

Entrance Channel: 1 Green buoy at the entrance, with plenty water on both sides. Channel dredged to 18 m. There is a sandbank on the port side of the inner entrance with less than 8 m. depth. Care is needed when leaving berth without Pilot (which seems normal practice here in Winter time.).

Tugs: 4 tugs from 2,500 h.p. – 3,500 h.p. (2 tugs forward and 2 tugs aft). Ship's ropes used.

Berthing: Vessel berthed at No. 3 "Jetee du Large", port side to. Depth of water 16.0 m. 4×16 in. loading arms, but only one available, rate 2,200 cu.m.p.h. 1×12 in. arm for bunkers.

The use of wire ropes for mooring is very difficult, some Pilots require rope moorings.

VHF: Channels 16 and 14.

Time: UTC plus 1 hour. From June 15th until end of December, UTC plus 2 hours.

SHIPMASTER'S REPORT: June 1987.

Documents:

8 copies Crew List.
3 copies Crew Declaration.
3 copies Manifest (Ship's Stores, Currency (including Safes, etc.).
1 copy Health Declaration.
2 copies Currency List.
6 copies Cargo Manifest.

The Authorities are very strict, especially over currency (including Master's safe) and alcohol. A Ship's Fixture List is required which is to include radios, computers, photocopiers, etc.

Pilotage: Pilot boarded at entrance to breakwater. Pilot may be contacted on VHF Channel 14.

Anchorage: In depth of 20.0 m. with breakwater light bearing 108° T at a distance of 0.8 miles.

Restrictions: Berthing times are flexible. The following are approximate times only.

Summer Berthing	0600 hrs. – 2000 hrs.
Winter Berthing	0900 hrs. – 1800 hrs.
Summer Unberthing	0900 hrs. – 2000 hrs.
Winter unberthing	0900 hrs. – 1800 hrs.

VHF: Port Control operate 24 hours on Channels 16 and 12.

Berthing: Vessel berthed at Berth No. A1 in Port Methanier to load ethylene.

Vessel berthed starboard side to, inner berth on the inner breakwater. The port anchor is to be kept ready. A tug from the general cargo port pushes vessels alongside. A launch runs the moorings, 2 lines and 2 springs forward and aft. The fendering is good. Ship's gangway used.

Loading: Ethylene loaded at 200 tonnes p.h. Liquid and vapour arms are 8 in. 150 ASA.

Vapour return to flare by way of shore compressor.
The surveyors were helpful and documentation carried out quickly.
Vessel stays alongside to cool to –100° C.
Loading temperature – 99° C.

Medical: Doctor and dentist available. Only emergencies handled on Tuesdays and Fridays.

Fresh Water: Not available at berth or from barge. Limited quantities available by tug.

Fuel: All grades available in harbour by barge. Also available at anchorage in good weather.

Repatriation: There are direct flights to Paris and Marseilles from Constantine 100 km. away.

Outward flights from Algiers, it takes 3 days to arrange clearance, tickets, etc.

Holidays: Moslem holidays are Tuesday and Friday.

Stores: Choice is limited and prices are high. Agent requires prior notice of vessel's requirements.

Approximate costs (per kilo): Frozen Meat US$ 32.0, Potatoes US$ 2.0, Tomatoes US$ 3.0, Apples (eating) US$ 7.0

Developments: In the near future the deep channel between the 20 m. contour and Berth No. P2 is to be dredged to 18.0 m. C.D.

Buoy No. 6 has been moved to a new position of Lat. 36° 53.45′ N., Long. 06° 56.9′ E. No. 1 Buoy has been withdrawn.

There is a new outfall for the chemical works just East of the inner breakwater, adjacent to Berth No. A1.

AUTHORITY: Entreprise Portuaire de Skikda, B.P. 65, Avenue Reski Rahal, Skikda, Algeria. *Tel:* (08) 95.98.29. *Telex:* 87840 Epski. *Contact:* Harbour Master. Tel: (08) 95.51.42. Telex: 87907 Caski.

NOTES

Please also advise Shipping Guides Ltd.

American Samoa

PAGO PAGO: 14.17 S. 170.41 E.

DOCUMENTS:

4 Copies Manifest.
4 Copies Freight List.
4 Copies Crew List.
4 Copies Passenger List.
4 Copies Stores List.
Clearance from Last Port.

PILOTAGE: Not compulsory. Two pilots available. Vessels must make arrangements 72 hours prior to ETA and communicate by VHF Channel 16 on arrival.

Requesting Pilot: Request for pilot may only be made by the Agent or the owner's representatives at the Harbour Master's Office.

Pilot Station: Pilot will board vessels at Pilot Station (Buoy No. 2) or Whale Rock Buoy, and off Tower Rock in extreme calm weather conditions.

APPROACHES: Depth at entrance 55 m. to 73 m.; fine basin with 55 m. to 73 m. but very exposed to heavy swell, making outer part of harbour unsuitable as anchorage. Harbour is small with numerous banks in its approach. Around the harbour is a fringe of coral reef 91.43 m. to 457.18 m. offshore, and beyond this reef there is deep water where the largest vessels can lie. Good anchorage anywhere in inner harbour with depth 11 m. to 45.8 m. Best anchorage for large vessels in 36.6 m. off Fagatogo village, West of former Naval Station. Anchorage also in outer harbour in good weather.

ANCHORAGE: See "Approaches".

RESTRICTIONS: Entering and berthing up to 2200 hrs., weather permitting.

MAX. SIZE: *Largest vessel:* 43,000 tons. Max. draft 11.4 m.

TUGS: 3 Tugs. 1 × 1,750 h.p., 1 × 1,530 h.p. and 1 × 300 h.p.

BERTHING: The average depth of harbour is about 45.8 m., at Main Wharf 9.97 m. Station Main Dock, for handling general cargo is 123.42 m. long, 18.29 m. wide and 9.74 m. depth alongside. Fuel Dock, for fuelling only, is 123.91 m. long, 13.71 m. wide and 10.08 m. depth alongside. Customs Dock, for handling general cargo, is 121.91 m. long, 6.10 m. wide and 2.74 m. depth alongside. Between the Station Main Dock and the Fuel Dock is a new extension to the Main Dock of 352.23 m. long, 20.73 m. wide where vessels with drafts up to 6.3 m. are allowed to berth alongside. Plans for dredging depth alongside up to 10.15 m. are underway, also for completion of the new dock.

Private Wharves: Two cannery wharves on North side of harbour, each extending to 121.91 m. with 7.01 m. alongside at L.W. Another wharf belonging to Southwest Marine Co. at North side of harbour is 152.44 m. long, 15.24 m. wide and 7.01 m. depth alongside. This wharf is parallel with cannery docks.

SPECIALISED CARGO HANDLING FACILITIES: *Containers and Ro/Ro:* Container ships up to 249.93 m. LOA with a maximum draft of 9.97 m. berth at the Main Dock. Six mobile container forklifts available for 6.19 m. containers.

CRANES: 1 Mobile crane of 90 tons capacity and 1 mobile crane of 60 tons capacity. Two floating cranes, one with a capacity of 25 tons and another with a capacity of 65 tons. Cranes of 2.5 tons to 35 tons capacity available.

STEVEDORES: *Working Hours:* 0730 hrs. – 1600 hrs., Monday to Friday. Rate for general cargo 32 tons – 40 tons per hour.

MEDICAL: Government owned Lyndon B. Johnson Tropical Medical Center at Faga'alu, Pago Pago, American Samoa 96799.

TANKERS: Facilities for vessels up to 195.06 m. length and 10.1 m. maximum draft. Tanker discharge facilities include 1 × 12 in. pipeline for fuel oil, 1 × 6 in. pipeline for diesel oil, 1 × 6 in. pipeline for gasoline and 1 × 4 in. pipeline for kerosene. Rate of discharge unlimited.

FRESH WATER: Available in unlimited quantities except during the three months commencing June 15th.

FUEL: Diesel, gasoline and lube oil available.

REPAIRS: Available through Southwest Marine of Samoa Inc. in Pago Pago. Tel: 644-4123, 633-2883. Telex: 525 SWM SB.

AIRPORT: Tafuna International Airport is 11.2 km. from the port.

HOLIDAYS: *Local Holidays:* New Year, President's Day, Good Friday, April 17th, Memorial Day, July 4th, Labour Day, Veteran's Day, Columbus Day, Thanksgiving Day, Christmas Day.

POLICE/AMBULANCE/FIRE: Tel: 911, 633-1111, 633-1222.

GENERAL: *Traffic – 1987:* 973 vessels. Total 1,579,608 tons cargo.

Floating Equipment: 240 ton barge and several other small craft. Stevedoring handled by 2 local stevedoring companies.

Kneubuhl Maritime Services Corporation. Telex: 705.
G.H.C. Reid Shipping & Stevedoring Co. Telex: 782514.

Provisions: Fresh provisions and fruits, tinned foods in large quantities and meat available. Pork and poultry also available. Ice is available.

Offshore Facilities: Four mooring buoys in inner harbour.

Tides: Average rise and fall 1.2 m.

DEVELOPMENTS: Enlargement of existing container yard.

AUTHORITY: Department of Port Administration, Government of American Samoa, P.O.Box 1539, Pago Pago, American Samoa 96799. *Tel:* 633-4251, 633-4858, 633-4449. *Contact:* H.A.Meredith, Port Director (Tel: (684) 633-4251). T.Tafaoa, Deputy Port Director (Tel: (684) 633-4858). Captain J.A.Reid, Harbour Master (Tel: (684) 633-2101/1349).

NOTES

Please also advise Shipping Guides Ltd.

Angola

CABINDA: 05.32 S. 12.11 E. (See Plan)

DOCUMENTS:

7 Manifests for each port of origin of cargo for Cabinda, plus 1 copy of each Bill of Lading.
8 Passenger Lists (Disembarking/in transit) even if "nil".
7 Crew Lists.
8 Lists of ports previously visited.
2 Lists of Crew vaccinations.
3 Lists of Ships Stores.
3 Personal Effects Lists.
5 Firearms and Ammunition Lists (even if "nil").
5 Lists of Animals and Birds.
Other forms intended for Customs, Health, etc., can be filled in on arrival.

PILOTAGE: Government Pilots' service is obligatory. Radiograms giving ETA to be sent to Agents via Luanda Radio (or by telegram from previous port), and anchorage to be used which is the closest to Cabinda, provided locations permit. The vessel is visited by port authorities and, if necessary, the vessel may shift to another anchorage.

When the cargo is for the account of Cabinda Gulf Oil Limited, the vessel must be moved closer to Malongo where the oil companies have their own berth for discharge of various cargo into barges.

Tankers: The Mooring Master boarding area is located approximately 3 miles W.S.W. of the Malongo SPM. The Mooring Master, from CABGOC, moves arriving tankers and assists in mooring to buoy. Assistance from a tug is unnecessary. Berthing operations are normally carried out during daylight hours. Unmooring is permitted at any time. Attention must be paid to oil wells and pipe-lines in that area. All platforms have lights which emit the letter "U" in Morse Code. Approach must be made from the West.

It is requested that vessels have on their port side and at the stern a properly equipped and illuminated accommodation and/or pilot ladder.

On the forecastle there must be 4 mooring cables. 1 steel cable of 0.75 in. diameter with an eye and an appropriate shackle must be rigged on the derrick.

ANCHORAGE: For vessels bound for Malongo, the anchorage is restricted where Cabinda Gulf Oil Limited is operating. See "Single Buoy Moorings".

MAX. SIZE: Cargo vessels, in the anchorage, with 32 ft. draft, may work at will. Vessels with greater draft can be accommodated further seaward but there is always the risk of swell hampering operations.

Also see "Single Buoy Moorings".

CLEARANCE: Official authorities will board the vessel for clearance, normally after berthing/anchoring.

In the event of arrival during the night, clearance will not be made before 0600 hrs.

RADIO: A HF (SSB) radio telephone is installed in the Malongo Terminal, call sign "Malongo", listening out throughout 24 hours, on the international frequency 2182 kHz.

For communications up to approximately 50 miles, a VHF system is installed at Malongo, which uses the same call sign (Malongo Terminal) and is also manned throughout 24 hours.

Initial contact on VHF, must be made on 156.8 MHz (Channel 16) and then by mutual agreement traffic can be passed on one of the following frequencies: 156.6 MHz (Channel 12); 156.45 MHz (Channel 9); 156.7 MHz (Channel 14).

Masters of vessels are requested to advise "CABGOC Cabinda" 72, 48 and 24 hours in advance of the ETA, giving the name of the vessel, date and time of expected arrival, name of Master, and any other special information.

SINGLE BUOY MOORINGS (OIL):

Berth M:

This terminal is called Berth "M" and is located about 8 miles W.S.W. of the Cabinda Gulf Oil Limited Terminal at Malongo.

Position: Lat. 05° 26′ 11″ S., Long. 12° 04′ 44″ E.

Water Depth: 75 ft.

Identification: White light, 5 miles range, flashing every 20 secs. Morse Code Letter B (Bravo).

Berthing: Night berthing only in an emergency. Unberthing day and night.

Anchorage Area Position: Lat. 05° 27′ 21″ S., Long. 12° 02′ 26″ E. Water depth 130 ft.

Approach to the anchorage area during night is facilitated by navigational aids on the platforms.

Platform 84–22	Lat. 05° 26′ 37″ S.,	Long. 12° 00′ 07″ E.	(white)
84–31	Lat. 05° 28′ 20″ S.,	Long. 12° 00′ 06″ E.	(white)
84–8	Lat. 05° 26′ 07″ S.,	Long. 12° 03′ 13″ E.	(red)
84–16	Lat. 05° 28′ 23″ S.,	Long 12° 03′ 32″ E.	(green).

Pilot Boarding Area: As above.

Arrival Message: Masters are requested to advise CABGOC-Luanda (Angola) 7 days, 48 hours and 24 hours in advance of ETA. Export tankers with Telex facilities should contact Telex No. 3160 Malongo AN or 3498 Malongo AN.

Radio: A Racon beacon is installed on Juliet Platform transmitting code signal "G". Juliet platform's co-ordinates are Lat. 05° 24′ 50″ S., Long. 11° 59′ 29″ E. and the Anchorage and Pilot Boarding Area is approximately 4.5 miles S.E. from Juliet Platform.

Communications: HF radio telephone is installed in the Malongo Terminal, call sign "Malongo Terminal", listening out throughout 24 hours on the international frequency 2182 kHz. A VHF system is installed at Malongo Terminal, and is also manned throughout 24 hours. Initial contact must be made on Channel 16.

Berth T:

This terminal is called Berth "T" and is located about 25 miles W.N.W. from Cabinda Gulf Oil Limited Terminal. At this berth, a storage tanker named "Afran Ocean" is permanently moored and export tankers will berth alongside this vessel with the assistance of 2 tugs.

Vessels berthing at Berth "T" should provide synthetic mooring lines, or mooring wires with synthetic tails. Vessels should have 6 mooring lines forward, 4 aft; 2 backsprings forward main deck and 1 backspring aft main deck.

Position: Lat. 05° 13′ 10″ S., Long. 11° 47′ 12″ E.

Water Depth: Approx. 245 ft.

Identification: White light, 5 miles range, flashing every 20 secs. Morse Code Letter D (Delta).

Berthing: Berthing operations are carried out from 0600 hrs. to 1600 hrs. Unberthing operations during day and night time assisted by 2 tugs.

Anchorage Area: The CABGOC Mooring Master on board the storage tanker "Afran Ocean" will instruct the Master of export tanker, but usual anchorage area is 2 miles North of the storage tanker.

Pilot Boarding Area: Anchorage area.

Arrival Messages: As per Berth "M".

Radio: A Racon beacon is installed on Lima Platform transmitting code signal "L". Lima Platform co-ordinates are: Lat. 05° 14′ 30″ S., Long. 11° 49′ 44″ E.

Communications: As per Berth "M".

Incoming tankers should also contact storage tanker "Afran Ocean" via Atlantic Satellite 581-1240757 (Telex), 871-1240757 (Telephone).

Max. Size: The SMB is designed for 2×300,000 d.w.t. vessels. However the fendering system in use limits the size of the export tanker to 155,000 d.w.t.

Also see "Shipmaster's Report" dated October 1986.

BERTHING (SBM 1129 or Berth M): The berthing equipment is passed on board the vessel when the Berthing Master comes on board the tanker.

Handling of Hoses: 2×12 in. hoses at Berth "M" (1×16 in. at Berth "T") are connected to the manifold of the vessel on the port side. The handling of hoses is effected by the ship's crew, under the direction of a deck officer, in accordance with instructions of the Berthing Master.

The derrick on the port side must be prepared with a wire of 0.75 in. diameter (minimum), with a minimum of 5 tons safe working load.

The weight of hose is 5 tons.

Ballast: Simultaneous deballasting and loading of cargo is required at the Cabinda terminals. Vessels must have the ability to load and deballast simultaneously, or load cargo, stop, deballast and finish loading cargo to maintain 30% of Summer deadweight. There are no facilities for receiving dirty ballast. At both terminals vessels must arrive with clean ballast sufficient for safe manoeuvring. Deballasting operations will be constantly checked by a representative of CABGOC, and the slightest evidence of pollution will cause permission for deballasting to be withdrawn.

Cargo: The crude oil at Cabinda has densities varying from 26.3 API. to 34.6 API. Blend loaded has average of 32 API at Berth "M" (API 33.0 at Berth "T") . Some of this oil contains appreciable percentages of hydrogen sulphide, namely 8 p.p.m., which can cause a toxic atmosphere during loading.

Loading: This is done by gravity at a rate of 25,000 bbls.p.h. at Berth "M" (30,000 bbls.p.h. by pumps at Berth "T"). About 30 minutes prior to completion, the representative of CABGOC must be advised so that the "Shutdown" between the vessel and the terminal may be co-ordinated.

When the vessel has completed loading, the valves on the terminal must be closed. Only then may the vessel's manifold valves be closed.

In an emergency the vessel may suspend loading operations.

After completion of loading, the vessel will carry out a comparison between its own load measurements and those of the terminal. The verified quantity will be transmitted by radio and lists prepared and distributed – Bill of Lading and Manifest.

Cargo documentation will be delivered to the Master of the vessel by the Mooring Masters and as quickly as possible.

Tankers must be cleared very quickly so that there is no delay in departure. It is imperative that the Master declares prior to loading the tonnage required. Accurate meters ashore and on the storage tanker ensure that the ordered tonnage is supplied.

SINGLE BUOY MOORING (LPG): LPG Berth.

Pilotage: All manoeuvring of ships within the "Berge Sisar" mooring area is to be done only in accordance with the advice of the CABGOC Berthing Master, subject to the understanding that in all cases and circumstances the Master of the vessel being manoeuvred shall remain solely responsible on behalf of his vessel's Owner for the safety and proper manoeuvring of the vessel.

Anchorages: Same as Berth M.

Upon arrival at Anchorage/Pilot Boarding Area, the vessel's Master shall tender Notice in writing that the vessel is in all respects ready to load. Such readiness shall include adequate cool down of and no contamination in cargo tanks.

Upon receipt of Notice of Readiness, the vessel's agency representative, any Government Officials, together with appropriate CABGOC and "Berge Sisar" personnel will board the vessel for prompt clearance so that preparation can begin for mooring.

The vessel shall not leave the Anchorage/Pilot Boarding Area until clearance in all respects has been received from the CABGOC Representative.

Vessels are requested to have a pilot ladder safely and securely rigged in accordance with the requirements of SOLAS as instructed by the CABGOC Berthing Master. At night, adequate lighting must be rigged overside for the safe approach and boarding of Officials and CABGOC Representatives.

The (a) Conditions of Entry Into and Use of the Port and (b)Agreement for Hiring of Tugs shall be presented to the Master for signature and shall apply.

Restrictions: In the event of arrival during night, clearance will not usually be effected until 0600 hours. Berthing operations shall commence promptly after clearance is granted while unberthing may be performed at any time.

Max. Size: The SPM buoy is designed to provide a safe mooring for the 55,000 d.w.t. storage ship.Export vessels of 55,000 d.w.t., while moored to the storage ship, may safely load LPG while maintaining alignment of least resistance to wind, current, and waves. The maximum loading allowed on the buoy by a full storage ship and export vessel is 140,000 tons. The maximum allowable working pressure of the centre pipe shaft and valves is 400 p.s.i.g.

Radio: Masters are requested to advise CABGOC – Luanda (Angola) 7 days, 48 hours and 24 hours in advance of ETA, giving vessel's name, date and hour of expected arrival, Master's name, expected deballasting time, amount of cargo required, information on condition in cargo tanks, and any special requirements.

Export ships with telex facilities should contact Telex No: 3160 Malongo An or 3498 Malongo An. The "Berge Sisar" may also be contacted via satellite 805/905–1312105/LHVU.

VHF: A high frequency (H.F.) radiotelephone system is installed at the Malongo Terminal and uses the call sign, "Malongo Terminal". 24 hour watch is maintained on the International Calling frequency of 2182 kHz. After making the initial contact on 2182 kHz, agreement must be reached between the vessel and Malongo to move to any of the following frequencies: 2738, 2638, 2056, 2049 kHz. This facility is for medium range communications and should reach, under normal conditions, 600 miles by day and about double this distance at night.

For short range communications of approximately 50 – 80 miles, a VHF system is in operation at Malongo. It covers Channels 1 through 78. CABGOC monitors 24 hours a day Channels 16 (156.8 MHz) and 12 (156.6 MHz). The radio call sign is "Malongo Terminal".

Ship to ship communications will be on a separate frequency to be determined at a later date. Two hand-held R/T units will be distributed to both ships' chief officers by the CABGOC Berthing Master. Receipts for these units must be signed by the chief officers.

Tugs: 2 tugs assist with berthing.

Berthing: LPG is loaded from the storage tanker "Berge Sisar". This vessel has a capacity of 75,000 cu.m. and is moored to a single point mooring buoy located at a position with a minimum depth of water of 100 ft. MLWS.

The geographical location of the buoy is Lat. 5° 24.9′ S., Long. 12° 01.3′ E.

The "Berge Sisar" receives the LPG at ambient temperature through a bow loading line from the SPM. The LPG is refrigerated and stored aboard the "Berge Sisar". The "Berge Sisar" is equipped with fenders slung from davits on her starboard side; tankers will therefore berth portside alongside the "Berge Sisar" and receive refrigerated cargo from her.

The export tanker will be moored alongside the "Berge Sisar" according to a mooring plan to be agreed between the Master of the "Berge Sisar", the CABGOC Berthing Master and the Master of the export tanker. Fendering between the two vessels consists of 4 large fenders each 10 ft. in diameter by 20 ft. length at water line level, and 5 secondary fenders positioned close to the freeboard deck. A mooring boat will be provided by CABGOC in order to run lines between the two ships. Vessels should provide synthetic mooring lines, or failing that, mooring wires with synthetic tails. This is necessary in order to provide sufficient elasticity in the mooring arrangement to take account of differential rolling periods of the two ships. Vessels should have 4 mooring lines forward, 4 aft, 2 backsprings forward and 2 backsprings aft.

The mooring system will be subject to variations.

Storage Ship: The LPG Storage Ship is the Norwegian registered "Berge Sisar". The vessel has the following characteristics.

Length	737 ft.
Breadth	112 ft.
Draft	39 ft.
Freeboard	41 ft.
Dead Weight Tons	55,173 (Summer)
Cargo Capacity	75,684 cu.m./500,000 bbls.
No. Cargo Tanks	4

The ship is equipped with 6×100 ton refrigeration units to chill incoming liquids to −50°C and refrigerate storage tanks to remove heat. The ship is capable of storing propane, butane, and propane-butane mix. The ship has an emergency shutdown capability in the event of equipment failure. The system will shutdown pumps and provide for necessary valve closures to protect the ship.

Determination of "Berge Sisar" onboard quantities will be by the ullage method. The quantities measured will be temperature corrected to give actual amount of each cargo tank. The storage tank will be sampled and analysed by chromatograph at least once per week.

The ship is equipped with a stern thruster mounted aft to maintain relative positive to the SPM buoy.

Hose Connection: CABGOC will advise on hose connection and will remain on board throughout the vessel's stay on the berth to co-ordinate the loading operation; therefore, adequate accommodation must be provided.

The "Berge Sisar" will present 2×8 in. lines to the manifold of the exporting vessel. Normally, both of these hoses will be for loading of LPG and the third hose string will serve as a standby vapour return line, should this be required. Normally, vapours will not be allowed to be returned to the "Berge Sisar". It will be the responsibility of the export tanker to co-operate with the CABGOC personnel in making the connection of the two hose strings to the manifold.

The "Berge Sisar" is equipped on her starboard side with 2 hydraulic telescopic hose-handling cranes and 1 conventional derrick. The derrick is not considered suitable for hose-handling except under very favourable weather conditions. The telescopic cranes can lift two 8 in. liquid hoses.

With agreement between the two Ships' Masters, 2 liquid hoses may be used, in which event they will be connected to the manifold/metering unit by means of one Y-reducer, from 14 in. 150 ASA to 2×8 in. 150 ASA. Each hose is expected to have a flow of approximately 600 t.p.h. If 2 liquid hoses are used the export vessel shall be responsible for the safe handling of any vapours generated during loading.

The hoses will be brought to a landing position on the export vessel approximately 20 ft. forward or aft of the manifold section. The hoses will be connected to the export tanker manifold by means of 90°, 60° or 45° bends, and the 20 ft. of hoses resting on deck will be expected to absorb any normal movements between the 2 ships.

The hoses are equipped with flap-valves as close as possible to the manifold on the export vessel. Normal flanges are 8 in. 150 ASA, but 8 in. 300 ASA flanges can also be matched. Reference should also be made to the OCIMF publication "Standardisation of Manifolds for Refrigerated Liquefied Gas Carried for Cargoes from 0°C to −104°C.

The export vessel will always have to use the manifold on its port side (port side to "Berge Sisar's" starboard side).

Loading: Notice of Readiness will not be accepted at time of arrival, unless the vessel is, in all respects, ready to load and the final safety check is completed and the cargo hoses are hooked up and tested with nitrogen. The Master of the export vessel is required to have the blank flanges removed from his vessel's port side loading manifold before mooring in order to expedite the connection of hoses. Two 8 in. connections will be used.

While the vessel is being cleared, the CABGOC representatives will give the Master of the export vessels written specifications concerning the anticipated loading conditions, i.e. gravity, temperatures, loading rates, etc.

There are no facilities available to discharge excess cargo should the vessel overload. It is, therefore, imperative that the export vessel's Master declare the tonnage he requires prior to loading.

Cargo loading is by "Berge Sisar's" deep well pumps at a rate of approximately 14,000 bbls. (1,175 metric tons) per hour.

Spot lights should be rigged on both wings of the bridge and on the forecastle of the export tanker to supplement the "Berge Sisar's" lighting during transfer operations.

About 30 minutes before the cargo loading is expected to be completed the CABGOC representative should be advised in order to co-ordinate the loading shutdown.

When the vessel has completed loading the cargo, loading line valves on the "Berge Sisar" will be closed; *only then may the export vessel's manifold valves be closed.* (In an emergency, however, the export vessel may shut down against loading with immediate notification to "Berge Sisar").

After completion of loading operations, both vessels will be ullaged. A Bill of Lading, Cargo Manifest, Ullage Report, Certificate of Quality, Certificate of Quantity, Certificate of Origin, and Time Log will be presented to the export ship Master for his acceptance and signature. The official quantity and quality of the LPG delivered onboard the export vessel shall be determined by CABGOC equipment on the "Berge Sisar".

The number and size of LPG samples taken will be determined by CABGOC. "Cabinda LPG" will have varying gravities ranging from 0.505 to 0.595 specific gravity.

Fresh Water: Not available.

Fuel: Not available.

Repairs: Not readily available.

MEDICAL: Arrangements can be made for a doctor to visit the vessel on arrival. There are hospital facilities. Serious cases are sent to Luanda. Crew must have certificates of inoculation against yellow fever and cholera.

DENSITY: 1025. Influence of the current of the River Zaire varies according to the time of the year.

FRESH WATER: Supply cannot be guaranteed.

FUEL: ~~None~~ available. NOT

WATCHMEN: Not necessary. The authorities place a port policeman on board.

OPENING/CLOSING HATCHES: By the crew or stevedores.

CERTIFICATES: Ship's register, certificates of deratting (valid) and certificate of life saving equipment.

CUSTOMS ALLOWANCES: Customs normally place no restrictions on the consumption of alcoholic drinks on board, but under no circumstances may alcohol be taken ashore.

IDENTIFICATION CARDS: Supplied by the Agents and stamped by the Immigration police before any person comes ashore.

CONSULS: None.

REPAIRS: Very limited facilities.

REPATRIATION: This can be arranged only when absolutely necessary, but solely via Luanda.

AIRPORT: Small airport about 4 miles from the town served by the internal airline with only 1 flight per day to and from Luanda.

TIME: GMT plus 1 hour.

HOLIDAYS: 1st January, 4th February, 27th March, 1st May, 2nd November, 11th November, 10th December, 25th December.

No work is possible on any of these days.

POLICE/AMBULANCE/FIRE: Police Tel. 22456; Ambulance Tel. 22405; Fire Tel. Port Captain 22160/22159.

SERVICES: None available.

SHORE LEAVE: Shore leave for Crew members limited. Crew members who are not on board when the vessel leaves are detained and repatriated at the cost of the vessel. The vessel may also be fined.

DELAYS: Tankers are not normally delayed, but dry cargo vessels may be delayed if two or more vessels arrive simultaneously, due to a lack of sufficient barges. Also, delay in loading and unloading may be caused by rough seas.

The ship's Agent is responsible for making any arrangements and providing any information concerning the above.

SHIPMASTER'S REPORT: June, 1983 (updated 1988).

Malongo LPG Terminal: The m.v. "Berge Sisar" has a storage capacity of 75,000 cu.m., receiving product from "Foxtrot" gathering station. This LPG mix is received on board at sea temperature and after passing through R22 intercoolers especially fitted on the "Berge Sisar", is dropped into one of the vessel's 4 cargo tanks. The vessel's normal refrigeration machinery is then used to handle the LPG mix. The "Berge Sisar" has been chartered to CABGOC for initially 5 years with yearly options after that up to another 5 years. The vessel is fitted with a helicopter landing pad over the poop, has a stern thruster which can be lifted and stowed when at sea and presently accommodates up to 20 plus additional CABGOC personnel, who live on board. Export vessels must always berth on the storage vessel's starboard side, "Samson" fenders are either floating at the water line (4 of them) or smaller ones are slung from davits and hang mid-way down the ship's side and also protect the starboard quarter.

Approach: BA Charts are of little use in making a safe approach and great care must be exercised when approaching the area from the West. The Racon on "Juliet" Platform Lat. 05° 24′ 50″ S., Long. 11° 59′ 29″ E. transmits code signal "G" and the area is surrounded by numerous small platforms and flares. At night the flares are of such intensity as to make the sighting of smaller less well lit platforms very difficult.

Pilotage: Pilots are not required for anchoring. They are known at this installation as Mooring Masters. Once the vessel has been cleared by the Angolan authorities and the Tank Analysis has been accepted, the Mooring Masters (normally 2) will board at the Anchorage and take the vessel for the approach to the "Berge Sisar". One of the Mooring Masters will remain on board throughout the loading operation and he will be in communication with the Mooring Master on the "Berge Sisar". Their priority duties are to maintain the vessel's head into the swell by the use of either the "Berge Sisar's" stern thruster or the use of a tug pulling on the "Berge Sisar's" port quarter.

Anchorages: The designated anchorage area is Lat. 05° 27′ 21″ S., Long. 12° 02′ 26″ E. and is some 2 to 2.5 miles to the South of the "Berge Sisar".

The anchorage has a depth of 130 ft. and during the months of May and June the vessel rode to 6 to 7 shackles with no problems. The predominant current during the above months is Northerly with an almost continuous SW'ly swell, sometimes moderating to very little and increasing suddenly to moderate to heavy. As the vessel tends to lie to the current the rolling encountered at anchor can be quite heavy. The current varies from 0.5 to 3 knots.

Chemical Analysis and Safety Checks are carried out at the anchorage. The Analysis is very comprehensive and lengthy. All carried out by CABGOC Chemists who live on board "Berge Sisar", safety check carried out by Officers of both vessels. NOR will not be accepted until Analysis clears vessel for loading. Please note that there must be no contamination and vessel must be cooled down ready to load. Contamination will include presence of Ammonia, Inerts or Oxygen.

Also see "Agent".

VHF: Communications between the 2 vessels is maintained by the use of 2 VHF radios, 1 has a private Channel which is open to only the 2 vessels and the "Foxtrot" gas collecting station which supplies the Product to the "Berge Sisar". The other radio has communications to the Duty Mooring Master who is on either or both of the 2 vessels.

Tugs: 2 tugs are based at Malongo and assist with all Tanker and LPG operations in the area. Once they have been designated for an operation other ship movements are delayed. The tugs are manned by British personnel.

The 2 tugs are made fast on the starboard side, 1 just forward of the accommodation and the other at the break of the fo'c'sle. One wire is passed aboard by each tug. Once the berthing operation is completed one tug will standby while the other is made fast at the port quarter of the "Berge Sisar" and pulling in order to have the vessels heading into the swell.

Berthing: Once the 2 vessels have been paralleled a fair distance away, 2 headlines are sent away by the use of a launch from forward. The 2 tugs and ship's engines are then used to bring the Export ship within heaving line distance. (The "Berge Sisar" uses air driven line throwing equipment.) Once heaving line contact has been made the "Berge Sisar" will send 2 of her breast lines across, 1 forward and 1 aft. These will then be used to pull the export vessel alongside and hold her there whilst other moorings are passed across. The mooring lines used by the "Berge Sisar" have been supplied by CABGOC and are of the sheathed nylon type and extremely strong and durable (also very expensive). The final mooring consisted of 8 lines forward from the export ship and 6 from the "Berge Sisar", whilst aft there were 6 from the export ship and 4 from the "Berge Sisar". No restriction was placed on the mooring line size as was indicated by the "Transhipment Conditions" received before arrival, wherein it was stated that 16×10 in. lines were required by the export vessel.

The 2 tugs are released after mooring is completed and are on "standby" until the transhipment is completed.

At the beginning of the operation direct communication was via the "Berge Sisar's" gangway which was landed on the rails immediately forward of the 2 vessels' aft superstructure at maindeck level, movement between the 2 vessels was allowed for by allowing the gangway to slide over the lower vessel's rails. Halfway through the operation as the export ship's freeboard decreased and the "Berge Sisar's" increased, the gangway was substituted by a personnel basket operated by crane.

Loading: The LPG mix being produced at Malongo (Cabinda) will vary in SG as stated in the Loading Regulations from 0.505 to 0.595, 60/60. At the loadings undertaken in June 1983 it varied from 0.537 to 0.536. The make up was basically 65/35, Propane/Butane supplied at −34°C.

Normal procedure will be to take two 8 in. liquid line anaconda type hoses, and one 8 in. vapour line hose. The "Berge Sisar" has a number of "angled" connections which are fitted immediately after the 12 to 8 in. reducer and allow the hose to be led off at angles between 30°, 45°, or 90° from the manifold, this is to allow the hose string to be led off along the deck at the best angle to avoid sharp edges. Connecting and unconnecting of hoses is done by close co-operation between export vessel and personnel on board "Berge Sisar", CABGOC personnel are in no way involved in this operation. Before commencing cargo the hose is purged of air by purging with Nitrogen from the "Berge Sisar", this is monitored at the drain connection of the export vessel's manifold until the Oxygen content is acceptable, below 6%. A shut-off valve is fitted at the export vessel end of the hose string and is used to clear the hose back to the "Berge Sisar" after loading is completed, Nitrogen is again used for this purpose. It is understood that the future intention is to fit a drain hose to allow liquid to be drained back to the "Berge Sisar", using her own compressors to supply the pressure to clear the hose of liquid.

The "Berge Sisar" is normally continuously receiving product from the "Foxtrot" gathering station. This liquid is supplied at sea temperature and once on board the "Berge Sisar" passes through R22 intercoolers fitted on top of the Cargo Control Room/LPG housing, the cooled product is then dropped into 1 of the 4 cargo tanks. The vessel's normal reliquification machinery then takes over the cooling process. The "Berge Sisar" is fitted with 3 R22 Howden screw compressors and 3 LPG Howden screw compressors. Production from "Foxtrot" is 500 tons per day.

During the loading operation no water was detected in the condensers on board our vessel. The product is slightly warmer than that normally found at shore based Terminals, loading at an average rate of 500 t.p.h. The tank pressures finally peaked at 200 mbs; considering the vessel had 250 tonnes of cargo already in each tank at a pressure of less than 10 mbs. the incoming cargo could be regarded as on the warm side.

The "Berge Sisar" is fitted with 2 hydraulic cranes in way of the manifold purely for hose handling, these cranes are of the type more usually seen fitted on the trench digging JCBs.

After loading completed vessel will normally wait for documents at anchor for up to 2 hours.

There is obviously no draft problems due to depth of water. The major problem is obtaining an accurate draft due to the continuous swell. The ranging of the tank measuring gauges on both vessels also leads to differences which are understandable and "Protest Noted".

Medical: Doctor is available ashore at the CABGOC Base at Malongo.

Fresh Water: Not available.

Fuel: Not available.

Customs Allowances: The Bond will be sealed and if the vessel's anchorage is prolonged the Agent and Customs will board for cigarette issue. Boarding of the vessel must be carried out using the pilot ladder combined with the gangway.

General: "Berge Sisar" has helicopter pad fitted over the poop and a hydraulic crane on the port quarter lifts all personnel on and off any launch delivering stores or personnel.

The operation between the 2 ships is in line with I.C.S. Guide. Overall control of the operation whilst alongside is in the hands of the CABGOC "Gas Supervisor".

Master of "Berge Sisar" has no radio operator on board. Communications are all carried out by Master through INMARSAT fitted in Master's Cabin.

SHIPMASTER'S REPORT: October 1986.

Vessel berthed at Berth "T" (Takula), see "Plan".

Documents:

5 copies Crew List.
5 copies Passenger List or 'Nil'.
5 copies Arms and Ammunition List.
5 copies Narcotics List.
5 copies List of Birds and Animals.
5 copies List of Ports of Call.
3 copies Crew Effects List.
3 copies Vaccination List.
1 copy Health Declaration.
3 copies Stores List.
Clearance from Last Port.

Officials: The Agent, 1 Immigration Officer and 1 Customs Officer board after vessel is berthed alongside the "Afran Ocean".

Immigration examine all passports or discharge books. Customs Officer issues Free Pratique.

Loading Master and Cargo Surveyor live on board during vessel's stay.

Tugs: 2 tugs are used for berthing and unberthing and stay in the vicinity of vessel at all times. One of the tugs is made fast to the stern of the "Afran Ocean" in order to keep the bow into the swell.

There was a constant motion between the 2 vessels, much chafing of mooring lines and several ropes parted.

Ballast: Vessels are required to retain on board at all times 30% of Summer d.w.t. with ballast and/or cargo.

AUTHORITY: Inspector of Operations for Northern Ports, Cabinda.

Cabinda Gulf Oil Company, C.P. 40, Cabinda, Republica Popular de Angola. *Tel:* Cabinda 391141, 391191. Malonga 22256/7/8/9. *Cables:* CABGOC, Cabinda. *Telex:* 3160 Malonga, An. *Contact:* W. M. Lewis, Director General. Captain M. Palumbo, Supervisor/Mooring Master.

Luanda Office: C.P. 2950, Luanda, Republica Popular de Angola. *Tel:* 91141, 91191, 91241, 91291, 91341, 91391. *Cables:* CABGOC, Luanda. *Telex:* 3167 Luanda, An.

Capitania do Porto de Cabinda. *Tel:* 22160.

LOBITO: 12.20 S. 13.34 E.

DOCUMENTS: Required on arrival:
Health Certificate.
2 Vaccination Certificates (cholera and yellow fever).
8 Crew Lists.
11 Passenger Lists (each for Landing and Transit).
4 Lists showing Ports of Call.
2 Lists of Articles held by Crew: cameras, binoculars, radio, spirits, cigarettes, etc.
3 Ship's Stores Lists.
6 Dangerous Cargo Lists.
8 Unfreighted Cargo Manifests.
1 Freighted Manifest.
3 Non-negotiable copies Bills of Lading.
3 Cargo Plans (preferably before ship's arrival).
Other necessary official forms prepared by Agent.

PILOTAGE: When Pilot required outside Harbour Entrance, vessel must request via Agent at least 12 hours before arrival. Otherwise Pilot boards inside Lobito Bay. Pilot boat: grey hull, white housing.

ANCHORAGE: Lobito Bay excellent holding ground, depths over 33 ft. and easily accessible day and night the year round.

RESTRICTIONS: Vessels may only enter harbour in daytime between 0730 hrs. and 2000 hrs. Special permission from the Port Authority is required to enter during darkness.

MAX. SIZE: Length 900 ft., draft 34 ft., max. depth 35 ft. – 37 ft. (normal tidal range: 3 ft. 3 in., maximum: 6 ft.).

WEATHER: March/May rain season. Heavy wind and rain can effect cargo work.

HEALTH: Pratique never given by radio, but granted after Port Authorities (including Doctor) board vessel between 0700–1900 hrs. Pratique granted if no contagious illnesses aboard, otherwise quarantine restrictions imposed. Ships calling from other Angolan Ports – except coasters – subject same procedure.

RADIO: Because Lobito Radio (call sign CQZ) operating MW range 200/400 miles only, all ETA messages, etc., must be routed via Luanda Radio (call sign CQW). Agent uses same routeing.

TUGS: Tug (usually one only) joins vessel for berthing and sailing. Ships' lines used.

BERTHING: Unless Masters indicate preference, Port decides which side alongside. No vessels usually allowed berth after sunset. Sailing after dark allowed at Port Authorities' discretion, up to 2400 hrs. No vessel permitted berth without Pilot. Before berthing, vessel must effectively cover water outlets, prepare accommodation ladder and have anchors "at the ready". (Authority fine any vessel ejecting water or waste on to quays.) Ships carrying explosives not permitted berth before Port Captain inspects cargo.

Passenger and Fruit vessels are given priority regarding berthing.

STEVEDORES: Important that vessel gives accurate ETA at least 24 hours in advance to enable Agent order necessary gangs. (Gangs ordered 0700 and 1500 hrs.) No work usually allowed at the weekend.

MEDICAL: Radio before arrival if medical assistance necessary on entry. Good hospital facilities available, but specialised treatment and surgery is not. Yellow Fever and Cholera Vaccination Certificates inspected on arrival.

TANKERS: No oil to be pumped overboard into Territorial waters. Heavy fines imposed for oil pollution, however slight. Three 8 in. diameter pipelines discharging into local storage tanks. No slop tanks available. One Tanker Berth, No. 8, maximum draft 35 ft.

DENSITY: 1024.

FRESH WATER: Normal requirements readily available and delivered by 3 in hose. Loading rate very slow as pressure usually low.

FUEL: Fuel Oil (Ordinary) available, viscosity up to 1500 sec. Redwood. 24 hours' notice bunker requirements essential. Gas oil and Diesel available.

GANGWAY/DECK WATCHMEN: Compulsory, both day and night.

OPENING/CLOSING HATCHES: When closed or opened by Stevedores, cost per time per hatch. (Crew allowed to carry out this operation.)

SHIPS' CERTIFICATES: Registered Tonnage Certificate, Derat Certificate to be shown.

CUSTOMS ALLOWANCES: No restrictions. Customs Guard supervises opening and resealing of bond.

CARGO GEAR: Normal routine gear: wire and rope slings, nets, chain-slings, baskets, grabs, and shore-cranes (capacity 3–22 tons) available. Heavy lifts of over 10 tons must be discharged using ship's derricks. Two cranes 22 tons available, but not always accessible. 100 ton floating crane is available.

IDENTIFICATION CARDS: On arrival, all crews' and passengers' passports must be handed to Immigration Police, who retain these and issue shore-passes. Passes must be carried at all times when on shore. If lost, a fine is imposed.

CONSULS: At Lobito, Norwegian and Belgian Consulates and French Consular Agency. At Benguela – 30 km. from Lobito – Italian Vice-Consulate.

REPAIRS: Small, slipway accommodating vessels up to 800 tons available. Limited engine and hull repairs: electric, oxy-acetylene welding, riveting, cleaning, repairs to auxiliary diesel and electric equipment and boilers. Floating dock for vessels up to 2,000 tons displacement.

REPATRIATION: Air communication via Luanda.

AIRPORT: About 4 km. from Port. Airstrip unable to take heavy aircraft.

TIME: GMT plus one hour.

HOLIDAYS: 1st January; 4th February; 1st May; 17th September; 11th November; 10th and 25th December.

SHORE LEAVE: Nationals from countries having friendly diplomatic relations with Angola usually granted shore leave, see "I.D. Cards". Shore leave during certain hours only.

DELAYS: Congestion not unusual and berthing delays may vary from one to three days. Ships calling for bunkers have no priority but are sometimes berthed at sunset and fuel during night-shift. Discharging of bulk cargoes can be effected by shortage of suitable wagons.

GENERAL: Ships should not: Dispose of any wastes into harbour or on to quays. Change mooring lines or lower lifeboats or immobilise main engine or use ship's sirens or radio station without prior permission from Authorities. Vessels must use watchmen 24 hours per day on adequately illuminated gangway.

NOTICES: Supplied to Master by Agent.

For your information, the following Regulations are in force at Lobito. Failure to comply with these instructions will result in fines being imposed on the vessel under your command.

Over and above the Regulations listed hereunder, all international Regulations governing a ship's stay in port are also applicable.

1. It is essential that an Angolan Flag be flown during the time the vessel is in Port.
2. Maximum speed for vessels entering or leaving the harbour is set at 8 knots.
3. All sound signals are prohibited excepting regulation signals whilst manoeuvring or in cases of distress.
4. No boat may be lowered until permission for so doing has been received from the competent Authorities (Customs and Port Captain). Any boat thus lowered is allowed to make contact with land at one point only, i.e., the landing steps situated at the junction of the 2 quay walls.
5. No member of the crew may go ashore without a pass signed by the Master and visaed by the Immigration Police. If a member of the crew is found to be ashore without a pass, the ship will be fined £1,315.00 in every instance. All shore passes must be returned to the Immigration Police before vessel's departure.
6. Vessels are not allowed to make any communications by wireless during their stay in Port.
7. Water from ship's condenser outlets or other exhausts may not be ejected onto the quay. A Fine of £1,000 will be applied if this instruction is not complied with.
8. All lavatories on the side adjacent to the quay wall must remain locked and not used during the time the vessel remains alongside.
9. No vessel is permitted to take salt water ballast whilst alongside the wharf.
10. No vessel is permitted to test engines whilst alongside the wharf.
11. No games whatsoever are allowed in the Port area; if members of the crew disrespect this regulation, heavy fines are applied to the vessel.
12. No garbage, oily or petroleum substances, should be thrown in the Bay either at anchorage or alongside otherwise a fine will be imposed on the vessel by the Port Captain. Fine which ranges from £250.00 to £1,250.00
13. The engines may not be put out of use without the authorisation of the Port Captain.
14. No repairs whatsoever may be done on board without the Port Captain's authorisation.
15. The following procedure is to be adopted whenever cargo or vessel suffer damage by Stevedores or Port staff:
    (a) Master or Chief Officer should request the Port Officer in charge of commercial operations to examine the damage.
    (b) The Chief Tally Clerk of our Company should also be present when examination is carried out.
    (c) Written notice must be delivered to the Port Officer and a copy sent to the Agent at the same time.

Kindly take note of the foregoing Regulations and return 1 copy to us duly signed.
Thank you, Agence Maritime Internationale S.A.

SHIPMASTER'S REPORT: June, 1979.
VHF: Port Authority not equipped with VHF. Agent (AGENANG) is equipped
Currency: The currency is Kwinzas (Kz)
Shore Leave: Immigration allow shore leave between 1800 hrs. and 2200 hrs. The Master however, is allowed to visit agents or carry out official duties outside these hours.

SHIPMASTER'S REPORT: June 1979 (Updated 1988).
Documents: Papers required for clearance:

If these are prepared before arrival Agent will pass to Persons concerned. i.e. Port Health, Customs & Immigration.

1 International Declaration of Health.
(Lobito have no forms, best to use some other Port form that can be altered).
1 List of Crews Vaccinations and date they expire.
10 Crew Lists.
10 Passenger Lists or "Nil" passengers.
4 Arms & Ammunition Lists or "Nil" if none.
2 Livestock Lists.
6 Ports of Call Lists.
Stores Lists. (Provisions, Deck & Engine) 2 lists.
Crew Custom Effects List (Own form or free form) 2 sets.
Narcotic Lists 2 sets or "Nil" Lists.
Small Package Lists to be landed or "Nil" statement 2 copies.
Manifests & Bills of Lading – 3 sets.

Observations:
The Main Lighthouse Light on the end of the Spit, and the 4 Channel Buoys are still lit. But on reduced candle power. Vessel is still required to enter the Bay and anchor without Pilot. Pilot only used when berthing. Caution is required at night as the buoys are difficult to pick up. Both by day and night it is better to only proceed about 1.5 miles into the Bay, as many trawlers are always anchored at the head of the Bay. The Berths consist of a right angled quay, with space for 4/5 ocean-going ships. (Depending on length.) The loading berth for ore cannot be used for general cargo, and as the loader is at present inoperative it is not used for loading ore.

Shore leave is allowed but only from 1800 hrs. to 2200 hrs. daily.

No cargo worked on Sundays.

Pilot will unberth vessels up to 2400 hrs.

The only VHF is located in the Agent's office, it is manned during office hours. Calling Channel 16 thence Channel 11.

Two Tugs are now used for berthing for vessels over 5,000 g.r.t.

Lobito Radio Station is not manned, all traffic sent through Luanda.

Continuous soundings give at least 26 m. from the entrance to the anchorage.

Discharging is at 8 tons per gang man hour.

Vessels swing at anchor twice daily to weak tide, rise about 1 m.

Pilot comes out to anchorage in launch using accommodation ladder for boarding, tug is used for swinging vessels if necessary, as Bay is narrow.

No provisions are available.

AUTHORITY: Empresa Portuaria do Lobito, U.E.E., Caixa Postal No. 16, Lobito, Republica Popular de Angola. *Tel:* 2710–2718. *Telex:* 8233 Portlob An. *Contact:* Jose Gomes Salvador Estima, Director General.

LUANDA: 08.48 S. 13.14 E.

PORT LIMITS: A vessel to be considered an "arrived ship" should be anchored in the bay past a line drawn between the Ilha Light and across the bay to Fort S. Pedro.

DOCUMENTS:

8 Crew Lists.
8 Passenger Landing and Transit Lists.
2 Crew Lists, showing dates of Vaccinaion and Inoculation.
6 Lists of Ports of Call (with arrival and departure dates).
4 Stores Lists.
4 Personal Effects Lists.
6 Lists of Slop Chest Contents.
3 Photo-copies of Bills of Lading.
6 Cargo Manifests.
6 Arms and Ammunitions Lists.
6 Lists of Birds and Animals.
6 Lists of Drugs.
6 Mail Lists.

Copies (if possible) of following Certificates will be taken ashore by Port Authorities:

Loadline Certificate.
Safety Construction Certificate.
Radio-Telegraphy Certificate.
Tonnage Certificate.
All Passports checked and stamped.

PILOTAGE: 72 hours notice of arrival, addressed Agents via Luanda Radio, plus message of arrival at least 6 hours prior arrival received during working hours (0700 hrs. – 1700 hrs.). VHF available. Pilot launch comes out from port. Anchorage for Pilot in Luanda Bay. No draft restriction at anchorage. Pilot not required for anchoring in bay. Pilotage compulsory. No special berthing Pilot. Pilot launch white – flying Pilot Flag (H).

Pilot Boarding Station: Lat. 8° 44′ S., Long. 13° 16.5′ E.

ANCHORAGES: Luanda Bay offers safe, sheltered anchorage at all times of the year. Good holding ground – sand/mud. No draft restrictions.

RESTRICTIONS: Berthing in daylight only. Unberthing until midnight.

MAX. SIZE: Length 1,000 ft. (alongside); breadth, no restriction; draft, 34 ft. (alongside). Tankers, up to 55 ft. draft at the refinery buoys.

WEATHER: March/May rain season. Heavy wind and rain can affect cargo work.

HEALTH: Pratique may be granted by radio through Radio Luanda, addressed Port Health or via Agents. Accommodation ladder must be rigged for doctor on arrival. Pratique must be granted at each Angolan port. Pratique is *not* automatic. If infectious disease on board inform Port Health/Agents by cable.

RADIO: Addressed "Luandaradio" for ETA, draft and requirements. Call sign CQW on 500 kHz, listening on "odd" hours only, throughout 24 hours. Listening between 0600 – 1800 hrs. Call sign CQW3 on 13,023 kHz on "even" hours only. Listening between 1800 hrs. – 0600 hrs. Call sign CQW on 8,565 kHz on "even" hours only.

TUGS: Two available (1,500 h.p. and 480 h.p.) and compulsory for berthing and unberthing. Tugs join vessel off berths. Ship's lines used (if tug lines requested – extra charges).

BERTHING: Ships taken in strict rotation of arrival for berthing, except that passenger vessels have priority. There are 7 berths for import and export cargoes, all berths are available for oil bunkering.

The quays are divided into 5 zones with depths alongside of 32 ft. maximum.

Zone I.	1,380 ft. of which 900 ft. of quay length suitable for ocean-going vessels.
Zone II.	480 ft. quay length.
Zone III.	900 ft. quay length.
Zone IV.	540 ft. quay length.
Zone V.	574 ft. quay length.

Shoreside cranes of 3 tons and 5 tons, furthermore 2 cranes of 10 tons lifting capacity and also 1 mobile crane of 20 ton capacity for lifting heavy pieces only.

A self-propelled floating crane, capable of lifting 100 tons, was recently commissioned – maximum and minimum reach of 46 ft. 6 in. and 9 ft. respectively, lifting to about 78 ft. approximately.

BULK HANDLING FACILITIES: Ores in bulk are usually loaded at Zone III; no mechanical loading installation.

The ore is shovelled from railway trucks into buckets; daily loading average 4,000 tons per 24 hours.

Grain vessels will also be moored at Zone III alongside the grain shed. Discharging by means of tubes which are lowered into the holds and suck the grain out by an electrically propelled spiral fitted in the tube.

The rate of discharging is about 100 t.p.h. and the grain is loaded into railway wagons, each of 30 ton capacity, via the adjacent warehouse.

STEVEDORES: Gangs arranged by Agent/Shipmaster. Normal port working hours 0700 – 1200 hrs., 1400 – 1730 hrs. (overtime 1730 – 2330 hrs.), Saturday 0700 – 1230 hrs. Sunday/holidays – no work.

MEDICAL: For serious cases, as much advanced notice as possible should be given with all details available. Minor cases can be treated on arrival within half an hour without previous notice. Apart from Government Hospital, there are a number of private nursing homes with good facilities. Yellow Fever inoculations recommended.

TANKERS: Two tanker terminals, No. 2 Quay and off-shore terminal. Drafts – No. 2 Quay (Products Berth) 34 ft. Off-shore terminal (Refinery Berth) two sets mooring buoys, one for tankers with max. length 230 m. and max. draft 55 ft. and the other for tankers not exceeding 100 m. with draft 40 ft.

Shore Lines: Products Berth: 1×8 in. fuel oil pipe-line and 1×10 in. line for white products. 6 in. hoses for fuel oil and 10 in. hoses for White products.

Refinery Berth: 12 in. crude oil submarine lines and 8 in. for fuel; 8 in. LPG line and 6 in. hose; 8 in. G.O./Kero line and 8 in. hose; 12 in. G.O. line and 2×8 in. hoses.

Lub Oil: 1×10 in. sphere launching trap connected to ship's manifold, 100 ft. of 8 in. flexible hose between tap and floating pontoon, 0.5 miles of underwater 8 in. line from pontoon to shore tanks.

DENSITY: About 1024.

FRESH WATER: Fresh water available through quay pipe-lines, each hose delivering about 30 t.p.h.

FUEL: Limited number of grades can be obtained subject to nomination well in advance. No barges available.

FIRE PRECAUTIONS: For tankers loading/discharging alongside No. 2 Quay – no vehicles allowed within vicinity and other vessels cannot berth within 40 m. of tanker's stern or bow.

GANGWAY/DECK WATCHMEN: *Piracy:* Vessels in the Inner Anchorage have been boarded by armed pirates. Cargo, radio and T.V. equipment and stores were stolen.

OPENING/CLOSING HATCHES: Can be carried out by crew or stevedores at vessel's option.

SHIP CERTIFICATES: Tonnage and Derat Certificates.

CUSTOMS ALLOWANCES: No restrictions, but sales ashore is a serious offence.

CARGO GEAR: No additional requirements provided valid test certificates aboard.

IDENTIFICATION CARDS: Provided by Agents for crew proceeding ashore.

CONSULS:

Austria
Belgium
Brazil
Denmark
France
Germany F.R.
Great Britain
Italy
Netherlands
Norway
Spain
Sweden
Switzerland
U.S.A.

REPAIRS: Minor repairs and hull repairs above the water-line can be carried out.

DRY DOCKS: None.

REPATRIATION: Repatriation will not present any difficulties.

AIRPORT: Distance from port 4.5 miles.

TIME: GMT plus 1 hour all year.

HOLIDAYS: Saints Day (1st January), Saints Day (15th August), Saints Day (1st November), Saints Day (8th December), Christmas Day (25th December). No cargo work on these holidays.

POLICE/AMBULANCE/FIRE: Police 7408; Ambulance 25275; Fire 22222.

TELEPHONES: Can be placed on board.

SERVICES: Tank cleaning possible but advance notice required. Radio, radar repairs possible, but spares rarely available.

SHORE LEAVE: Crew members allowed shore leave subject Immigration approval provided inoculation certificates are valid.

REGULATIONS: Mailboats have berthing priority over all other vessels, foreign *passenger* vessels next in precedence.

DELAYS: Congestion rarely exceeds 36 hours.

GENERAL: Ample water in bay for anchoring, and most vessels enter port without Pilot. Pilotage is compulsory for berthing/unberthing on quays, this service being available from 0700 hrs. to midnight. If Master elects to wait for Pilot outside port and another vessel proceeds direct to anchorage, the latter will be first on turn for berth.

DEVELOPMENTS: Plans for reclamation and new berths round to the Forte da S. Pedro da Barra. Container terminal nearing completion. 3×27 ton Hyster lift on order.

AUTHORITY: Servicos de Portos, Caminhos de Ferro, e Transportes.

MOCAMEDES (Namibe) (incl. Porto Saco): 15.11 S. 12.07 E. (See Plan)

DOCUMENTS:

Health Certificate.
2 Vaccination Lists (yellow fever).
8 Crew Lists.
11 Passenger Lists (for each landing and transit).
4 Lists showing Ports of Call.
2 Lists of Articles held by crew/passengers, i.e. cameras, binoculars, radios, tobacco, etc.
3 Ships' Stores Lists.
6 Dangerous Cargo Lists, i.e. all types of explosives.
All foregoing to be signed by Master. Other essential official forms prepared by Agent.

PILOTAGE: Pilot boards in Bay – safe, natural bay with no reefs and easily accessible both day and night. Vessel *must* wait for Pilot and instructions before berthing.
ANCHORAGE: No currents in harbour area, but slight prevailing winds constant. Good holding ground with depths over 34 ft. Approaches up to 45 ft. depth. Tidal range about 5 ft.
RESTRICTIONS: Berthing not permitted during hours of darkness. Unberthing permitted up till midnight. Authorities visit between 0700 hrs. and 1900 hrs. (approx.) only.
Shipmaster's Report: March 1987: No night entrance permitted to Namibe Bay. We entered Saco Bay at 0315 hrs. for anchoring and when 1 mile off, 5 red warning shots were fired at the vessel.
MAX. SIZE: *Mocamedes:* Governed by berth depth 33 ft. alongside.
Porto Saco: Vessels up to 14 m. draft. Largest bulk carriers handled.
HEALTH: Pratique granted on arrival after "Health Guard" visit: boarding 0700 – 1900 hrs. Normal quarantine restrictions imposed if contagious diseases aboard. Ships calling from other Angolan ports (except coasters) are subject same procedure.
RADIO: Messages *must* be routed via Luanda Radio (call sign CQW). No ship/shore radio link.
TUGS: Two tugs available of 2,200 h.p., fitted with VHF Channels 16 and 29. Join vessel for berthing. Ship's lines used. Vessel under 5,000 tons use 1 tug only.
BERTHING: Unless Masters indicate preference, port decides berthing-side. No vessels berthed after sunset (except passenger ships), but sailing during nightshift permitted so long as prior warning given before 1700 hrs. No vessel is allowed to berth without a Pilot. Before berthing, important that vessel covers all water outlets, prepares accommodation ladder and has forward anchors ready. Ships carrying explosives not permitted berth before Port Captain surveys cargo.
CARGO FACILITIES: *Mocamedes:* The accommodation consists of 1 concrete quay, length 1,350 ft. providing 3 berths. For the handling of general cargo, there are 4 cranes of 5 tons and 2 cranes of 3 tons, modern cargo handling devices. Also lightening possible. One 10 ton floating crane available, subject ample notice from Lobito. Dangerous cargo is discharged alongside or into lighters, at the Port Captain's discretion.
Porto Saco (Saco Bay): Ore is loaded at the pier in Porto Saco; length is 1,066 ft., width 59 ft. Depth alongside 54 ft. 6 in. at low tide, normal sea water, clear height from water level at ISHW up to unloader 73 ft. 10 in. One mechanical loader of conveyor belt type; capacity often exceeds 3,500 metric t.p.h. Reach 65 ft. 6 in. approx. from fenders. Connections for supply of bunkers and water.
STEVEDORES: Radio accurate ETA 24 hours in advance to enable Agent order required gangs. (Gangs ordered 0700 hrs. and 1500 hrs.) No Sunday work permitted for cargo vessels.
MEDICAL: If medical assistance required on arrival radio to Agent. Adequate hospital facilities available, but no specialised treatment or surgery. Yellow fever certificate inspected on arrival.
TANKERS: No oil or waste products to be pumped overboard. Heavy fines imposed for breach of this regulation. Tankers discharge at Porto Saco – about 10 km. North of general cargo berths, situated Northern end of Mocamedes Bay. Maximum draft 54 ft., length of quay 1,066 ft. No dirty ballast facilities.
Shore Lines: All 1 mile flight to installation.
Benzine: 8 in. line and 8 in. or 6 in. hoses.
Kerosine/Gas Oil: 8 in. line and 8 in. or 6 in. hoses.
Fuel Oil: 10 in. line and 8 in. hoses.
DENSITY: 1024.
FUEL: Available from dockside pipe-line. At Porto Saco, rate 200 t.p.h. Bunkers may be taken during loading operations without delay.
FRESH WATER: Available ex-wharf, rate 15 t.p.h.
FIRE PRECAUTIONS: No special precautions except ships carrying explosives. Fire Brigade standby charge.
GANGWAY/DECK WATCHMEN: Compulsory, day and night.
OPENING/CLOSING HATCHES: When performed by stevedores, costs per hatch per time, but crew allowed to perform this task.
SHIPS' CERTIFICATES: Registered Tonnage Certificate, Derat. Certificate, examined by authorities on arrival.
CUSTOMS ALLOWANCES: No restrictions. Customs' guard supervises opening and resealing of ships' bonded lockers.
IDENTIFICATION CARDS: All crew/passenger passports handed Immigration Police who issue shore passes. Passes must be carried when on shore.
CONSULS: None.
REPAIRS: Only very minor voyage repairs.
DRY DOCKS: None.
REPATRIATION: Air communication via Lobito and Luanda.
AIRPORT: Small airstrip which is unable to take heavy aircraft.
TIME: GMT plus 1 hour.
HOLIDAYS: See "Lobito".
SERVICES: None available.
SHORE LEAVE: All nationalities from countries having friendly diplomatic relations are permitted shore leave. See "I.D. Cards".
DELAYS: Berthing delays are unusual.
GENERAL: Ships must not dispose of wastes into harbour or on to quays, change mooring lines, lower lifeboats, immobilise main engine, use ship's siren, or ship's radio station without prior permission from authorities. Vessels must use watchmen for 24 hours per day on well-illuminated gangways and hoist Angola flag from 0800 to sunset.
DEVELOPMENTS: Porto Saco (Iron-ore/Tanker berth) anticipated to augment present ore-loading equipment to enable loading ore-carriers up to 10,000 t.p.h. Dredging to projected depth of 65 ft.

SHIPMASTER'S REPORT: March 1987.
Restrictions: No night entrance into Namibe Bay, entry only permitted in daylight.
When our vessel entered Saco Bay for anchoring and when 1 mile offshore, 5 red warning shots were fired at the vessel.

PALANCA: 06.57 S. 12.24 E. (See Plan)

LOCATION: The loading terminal is located 230 km. N.W. of Luanda and approximately 20 nautical miles from the nearest coast in position Lat. 6° 57′ S., Long. 12° 24′ E.
DOCUMENTS:
Documents required by Immigration on Arrival:
Immigration (DEFA) will check passports against the Crew List. Following documents are required:
5 copies Crew List.
1 copy Ports of Call List.
5 copies Passenger List.
5 copies Animal List.
5 copies Arms List.
5 copies Narcotics List.
For further information Shipping Agent should be contacted.
PILOTAGE: Pilotage is compulsory and is carried out by a Pilot of Elf Aquitaine Angola who will remain on board during the entire stay of the vessel.
The signals for calling a Pilot are those set out in the International Code; the Pilot may be contacted by VHF Channel 16.
The Pilot will board the vessel approximately 2.5 miles N.N.W. of the loading terminal in position Lat. 6° 56′ S., Long. 12° 26′ E.
ANCHORAGE: A recommended anchor position for vessels coming to load at Palanca is located 2.2 miles × 330° from the loading station, (Lat. 6° 56′ S., Long. 12° 26′ E.), in a depth of 45 m.
It is prohibited to anchor in the prohibited area within 1 mile of the line of pipes connecting 'PAL F2' to 'PAL P1' and from 'PAL P1' to the storage vessel and at least 1 mile from the loading terminal.
The sea floor is sandy and of good consistency for anchoring. Certain outcrops of flat rocks can delay holding of the anchor.
RESTRICTIONS: There will be no mooring after 1500 hrs. local time.
If tanker arrives after 1500 hrs. local time, Pilot will board the following day at 0700 hrs. local time.
MAX. SIZE: The maximum allowable draft at the Palanca Terminal is unlimited, however, the Master of the lifting vessel must comply with international regulations concerning freeboard.
Also see "Loading".
NAVIGATION AIDS: The production facilities of Elf Aquitaine Angola are protected by an area of prohibited navigation which extends 1 mile around all fixed installations.
Access to this area is authorised only to vessels working for Elf Aquitaine Angola or authorised by it.
This prohibited area is marked at night by white lights, emitting the letter 'U' every 15 seconds, placed at angles on the platform.
Average height of the lights – 19 m.
Range – 5 miles.
Production platform 'Palanca PAL P1': Lat. 6° 58′ 23″ S., Long. 12° 22′ 33″ E. Depth 48 m.
Production platform 'PAL F2': Lat. 6° 56′ 43″ S., Long. 12° 22′ 35″ E. Depth 41 m.
Floating storage (axis of rotation of the storage vessel): Lat. 6° 57′ S., Long. 12° 23′ 48″ E. Depth 42 m.
A sealine of 3,600 m. lies from the production platform (PAL P1) to the floating storage.
In the event of reduced visibility (less than 1 mile) the floating storage vessel emits audible signals in accordance with the international collision regulations, consisting of the letter 'U' every 30 seconds.
Platforms/Rigs: March 1987.
The loading station is located at:
Lat. 06° 57′ S., Long. 12° 23′ 48″ E.
Platforms from loading station are located as follows:

Texaco Rig Braspetro 6	354° at 5.3 miles.
Pal F2 Production Platform	273° at 1.1 miles.
Pal P1 Production Platform	214° at 1.8 miles.

Other rigs as follows:

	Lat.	*Long.*
Trident VIII jack-up rig:	07° 15′ 53.77″ S.	12° 26′ 38.42″ E.
Barracuda Drilling Tender:	07° 05′ 59″ S.	12° 20′ 10.69″ E.
Alligator Drilling Tender:	07° 07′ 42″ S.	12° 20′ 55″ E.
Ile du Levant jack-up rig:	06° 55′ 58.30″ S.	12° 26′ 24.16″ E.
Nedrill 6 semi-sub rig:	07° 24′ 17.65″ S.	12° 37′ 19.5″ E.

Additional rigs may operate in the vicinity of these platforms at any time. Consequently vessels coming to load at Palanca must refer to radio messages received prior to arrival.
HEALTH: Health inspection is carried out by the chief doctor of the Border Health Police.
The Health Authority of the Port of Soyo may grant Free Pratique by radio.
In the event of a contagious illness on board, Health Authorities must be advised by radio before arrival.
RADIO: *Arrival Advice:* Vessels should advise their ETA by radio 72, 48 and 24 hours in advance to Elf Aquitaine Angola.
Thereafter, they should give notice of any material changes in their expected hour of arrival.
Vessels shall address their ETA to:

Elf Aquitaine Angola
Rua Marechal Broz Tito, No. 13, CP 2610, Luanda.
Telephone: 90293, 90343, 90393
Telex: 4130-4132 ELFANG

Palanca: Floating storage vessel call sign: FNNO.
Monitors traffic on 500 kHz on request only.
Monitors radio telephone on 6342 kHz during daytime 0700-1700 LT.
Monitors VHF Channel 16 permanently.
SATCOM Telex call number 1110253 permanently on AOR Sat NR 581.
SATCOM Phone call number 1110253 daytime on AOR Sat NR 871.
All traffic for vessels using Tor/Telex and wireless telegraphy via Portishead/GKA.

The following is part of a message sent to a vessel in March 1987. Quote

5) Notices of ETA

Please report to Palanca Offshore loading facilities 72 hours in advance of ETA, and again 48 hours and 24 hours before arrival. Please send telex to S/T Licorne Pacifique/FNNO (Palanca Terminal).

Ship using INMARSAT	Dial 005811110253+
Ship using Radiotelegraphy	Address =TLX05811110253=Palanca Terminal/Licorne Pacifique FNNO.
Ship using Marine Radiotelex	Dial 05811110253 in respect of the shore station procedure (Selcall: 16291).

Telex and A/B Licorne Pacifique is: 1110253 FNNO X.

For radio contact, please use VHF Channel 16 permanently.

Licorne Pacifique/FNNO watch daytime one way SSB frequency 6342 kHz.

Please watch St-Lys Radio/FFL and Portishead Radio/GKA.

Please copy your reports to the undersigned in Elf's Luanda office. Tlx. Nr. is: 991-4130, or 991-4132, A/B Elfang An.

Telegraphic Address is: =TLX09914130= Elfang An.

The Terminal Superintendent on board of the loading station is Mr. C. Le Cossec.

6) Please advise name of your Shipping Agent.

7) Please advise name of Master, and vessel's flag.

8) Please advise voyage number and last port of call.

9) Please advise required deballasting time.

10) Please advise if loading can be initiated during deballasting operations.

11) Please confirm that your heating coils are sound and not leaking and that all cargo tanks are sound, and do not have any bulkhead or hatch leaks.

12) Please advise quantity of slops on board, and if load-on-top procedure will be followed this voyage.

Please advise if more info needed.

Best Regards
E. Gabriel - DJ
Elf Aquitaine Angola
Palanca Terminal Operator
Unquote
Best Regards
Licorne Pacifique
Unquote

TUGS: Mooring is carried out by a work boat using personnel designated by Elf Aquitaine Angola.

This vessel is at the disposition of the tanker, under the instructions of the Pilot, during the duration of the tanker's manoeuvring and its stay at the loading terminal.

MOORING: Moorings at the loading terminal are furnished by Elf Aquitaine Angola. The vessel should be prepared to take on board 2 hawsers: one at starboard and the other at the port bow, as close as possible to the centre line of the vessel, each mooring line being composed essentially of 45 m. of 14 in. circumference nylon and 6 m. of 64 mm. chain. This chain is intended to hold fast the nip of the hawser at the fairlead; and furthermore, in order to facilitate its taking on board, each hawser is furnished with an "in haul" of 12 in. circumference polypropylene, of approximately 150 m. in length for one and 100 m. in length for the other bow.

The "in hauls" are passed to the vessel by means of a tender. The vessel must prepare 2 hawsers in advance to take these on board. These hawsers should be of the normal type used on board the vessel.

Mooring shall be carried out upon arrival, time and sea permitting; however, the Pilot reserves the right to postpone mooring at night. Unmooring shall take place as soon as loading is completed, whether day or night.

The port derrick should be rigged before arrival and have a minimum lifting capacity of 8 tons.

The port side manifold should be prepared for connecting the 16 in. hose.

BALLAST: Vessels should arrive with sufficient ballast and correct trim in order to be able to manoeuvre with safety; such ballast may not be less than 30% of the deadweight of the vessel. Deballasting may be carried out only with the agreement of the Pilot.

The storage facility at Palanca is not equipped with an oil separator. The vessel should therefore present itself with clean ballast.

Any vessel presenting itself with dirty ballast may be obliged to depart the loading terminal and any resulting delay shall be entirely for its account; the acceptance of the Notice of Readiness shall be appropriately adjusted.

The Master shall be responsible for overflow or leakage from the tanks or any other situation which can bring about accidental discharge of hydrocarbons.

The scuppers shall be plugged during the duration of loading.

LOADING: The Palanca loading station of Elf Aquitaine Angola is of a type for mooring only by the bow.

The vessel shall moor by the bow with (2) hawsers, as with a SPM.

The storage vessel is connected to a buoy by semi-rigid arms. This buoy is fixed to the sea floor by chains to 6 driven stakes. These anchoring chains extend to a radius of 450 m. around the buoy.

The sea line is 3,600 m. long and 12 in. diameter and connects the floating storage tanker to the production platform, the buoy is connected to the sea line by 1×12 in. hose.

For loading, a 20 in. floating hose ending in 1×16 in. hose connects the bow of the storage vessel to the intake manifold of the lifting vessel at a length of approximately 250 m. from the bow. The loading station is designed for mooring vessels of 40,000 d.w.t. to 280,000 d.w.t. Taking into account the usable capacity of the storage vessel and the rate of production, the quantity which can be loaded at Palanca shall be approximately 40,000 – 120,000 tons.

For vessels whose deadweight is greater than 150,000 tons, prior agreement of the terminal shall be necessary at least 10 days in advance and a partial loading would be carried out for the first voyage.

The depth of water at the buoy is 42 m. The storage tanker is "Licorne Pacifique" 338 m. in length and 53 m. at its greatest width, and has a usable capacity of 211,000 tons.

Notice of Readiness: Notice of Readiness is to be addressed to Elf Aquitaine Angola.

Connections: The loading of vessels is carried out by means of 1×20 in. flexible floating hose of 256 m. in length terminating in 27 m. of 16 in. hose. Connection to the manifold on board is carried out by means of a 16 in. flange (150 ASA.).

The operations to connect and disconnect the hoses will be executed by the ship's crew. During the entire duration of the vessel's stay at the loading terminal, the Pilot shall assure that a safety watch is kept on board, a representative of Elf Aquitaine Angola shall perform the function of chief of loading and remain in permanent contact with the storage vessel.

The work boat shall remain at the disposal of the Pilot and shall make fast at the stern of the tanker. A ladder should be permanently maintained alongside in order to permit access. A preventer brace should be placed close to the ladder.

Loading: Loading can be carried out at a maximum rate of 6,500 t.p.h. The maximum lifting for each loading is 120,000 tons.

Inspection of the tanks after deballasting and of ullage after loading shall be done in the presence of the Chief of Loading, the representative of Elf Aquitaine Angola.

Elf Aquitaine Angola shall place on board the vessel sealed samples representative of the cargo.

20 minutes before the end of loading, personnel on board should make contact by VHF with the storage vessel so as to be able to stop the pumps at the appropriate time.

The Master shall be entirely responsible for the operation of valves and for loading and safety on board.

Palanca Crude Characteristics:

API @ 60° F.	38.9 – 38.0
Density in Vacuum @ 15° C.	830 – 834 kg./cu.m.
Pour Point	–3° C.
Sulphur Content	0.05%
Reid Vapour Pressure @ 37.8° C.	30 K. Pa
Cargo (March 1987):	
Density in Vacuum	829.9 kg./cu.m.
API @ 60° F.	38.92
Loading Temperature	28.1° C.

MEDICAL: In Kwanda (Soyo), there is a doctor who can attend to needs of primary urgency. Urgent health evacuations to Luanda are carried out by Elf Aquitaine Angola at the expense of the vessel.

The Agent of the vessel shall take charge of the evacuee upon his arrival in Luanda.

FRESH WATER: Not available

FUEL: Not available.

REPAIRS: The repair shops at Luanda have limited facilities, information can be obtained from ship's Agents.

AIRPORT: The airport is located 4 km. from the city of Luanda, there is on average 1 flight per day to Europe, except weekends.

TIME: GMT plus 1 hour.

WEATHER: The rainy season predominates in February, March and April.

The dry season and cool season extends two to three months in June, July and August.

Temperature of the Air: In the rainy season, the temperature of the air varies from 23°C to 30°C with a relative humidity of approximately 91%.

In the dry season the temperature varies from 18°C to 22°C with a relative humidity of approximately 86%.

Temperature of the Sea: On the surface, the temperature of the sea varies from 30°C at the start of the year to 20°C in the month of July.

Salinity varies from 28 to 35 grams per litre.

Visibility: During the rainy season, particularly February, March, and April, the rain limits visibility to 0.5 miles.

Tides at Palanca: The tides are diurnal, maximum height at Springs is 1.9 m. The average level is 0.95 m.

Winds: The dominant winds are from the South, generally less than 15 knots on the average. Strong winds have a short duration and blow from the East or S.S.E. in association with gales (70 km./hr.).

Currents: In the Palanca region, currents can be extremely variable in force and direction but the general dominant current, flows toward the N.N.W., its speed on the surface can attain 1.8 knots.

Swell: The predominant direction of the swell is from the S.S.W., the average height varies from 1.5 m. to 2.5 m. with a period of 12 seconds, the surface waves generated by local winds rarely exceed 2 m.

The swell is strongest from May to October and at maximum 2 to 3 days before Spring tide.

GENERAL:

Publications & Charts:

French Chart No. 3357.
American Chart H.O. No. 2203.
French Pilot Book Volume C, West African Coast, Volume 2.
French Light & Fog Signals, Series C.
British Admiralty Africa Pilot Volume 2.
Portuguese Chart No. 305 – 301.

Pollution: It is forbidden to discharge cinders, flammable materials, objects and waste of any kind into the sea.

Any object falling into the sea should be reported to Elf Aquitaine Angola at any time that it may be appropriate, Elf Aquitaine Angola may attempt to remove such objects from the sea. Such removal is done at the expense of the interested parties.

Safety: The Master is solely responsible for safety on board his vessel.

During the entire stay at the loading station, the Master must: maintain on board sufficient personnel so as to be able to manoeuvre the vessel without risk and to put into action appropriate fire fighting equipment; maintain engines so as to be ready to manoeuvre; to attend to the 2 hawsers so as to assure good mooring without abnormal wear; to keep a watch over the floating hose so as not to subject it to any wear or chafing which might cause deterioration. To keep watch so that the vessel does not collide with the storage vessel, whether as a result of a reverse in current or a severe change in wind direction or for any other reason.

Territorial Waters: The sovereignty of the Popular Republic of Angola extends to a distance of 20 nautical miles from the shore line at low tide along the coast.

The Angolan authorities exercise fiscal, customs, health, and immigration control on the high seas contiguous to the territorial waters up to a distance of 200 miles.

Currency: The legal currency is the kwanza. 1 U.S. Dollar equals approximately 29 kwanza (1985).

Storing: It is not possible to provision at the terminal.

Transport: The means of transport of Elf Aquitaine Angola cannot be utilised by the crew of vessels coming to load at Palanca. There is no regular transport between Palanca and Luanda.

Notice: The attention of the tanker Masters is drawn to the existence in Popular Republic of Angola to special legislation concerning the relations with the Republic of South Africa.

Ordinance No. 106/83 dated October 11th 1983 first series of "Dario da Republica" (official Newspaper of the Popular Republic of Angola) and chiefly its article 6, which forbids the entrance into Angolan territorial waters, to vessels having a bond with the Republic of South Africa.

SHIPMASTER'S REPORT: March 1987.

Berthing will not be commenced after 1500 hrs. (local time).

Pilot ladder to be rigged to the water as Pilot boards from rubber dinghy. On boarding, Pilot will go forward to inspect mooring arrangements.

Shore gear lifted on board on the port side.

Loading vessel moors bow to bow with storage vessel.

Just before taking up mooring lines the tug makes fast aft. Vessel requires a heavy messenger to lift tug's wire. Once vessel starts heaving mooring lines, Pilot goes forward and communicates with bridge on VHF Channel 72.

AUTHORITY: Elf Aquitaine Angola, Rua Marechal Broz Tito No. 13, C.P. 2610, Luanda, Republique Populaire D'Angola. *Tel:* 90293, 90343, 90393. *Telex:* 4130, 4132 Elfang.

QUINFUQUENA: 06.20 S. 12.14 E. (See Plan)

LOCATION: The Quinfuquena Terminal is located 15 miles South of the Zaire River entrance and consists of 2 loading points. Both loading points are single mooring points.

DOCUMENTS:

5 Lists of passengers disembarking or in transit, even if nil.
5 Crew Lists.
5 Lists giving previous Ports of Call.
5 Lists of Crew Vaccinations.
5 Stores Lists.
5 Personal Effects Lists.
5 No Animal Lists, even if nil.
5 Arms and ammunition Lists, even if nil.
Clearance from last port.

PILOTAGE: Pilotage is compulsory. The pilot boarding area is 2 nautical miles North of the loading points (see "Anchorage").

The Pilot will indicate to the arriving vessel the loading point at which it will be loaded. At this times the Pilot will also confirm the anchoring position.

Masters of vessels are reminded of their obligation to comply with statutory rules and are requested to comply with the following:

The Officer responsible for the embarkation or disembarkation of the Pilot must be a Watchkeeping Officer.

The pilot ladder must be properly secured.

The pilot ladder and immediate areas must be adequately illuminated.

Means must be provided to enable the Pilot to pass safely and conveniently from the head of the ladder into the ship and on to the deck.

The ladder must be in good condition.

The length of the ladder should not exceed 30 ft.

Whenever the distance from sea level to the point of access is more than 30 ft., a combination accommodation ladder/pilot ladder should be used.

Spreaders are to be positioned at intervals of not more than 10 ft.

Two manropes in good condition should be ready but not lowered unless so instructed by the Pilot.

A lifebuoy with safety line must be available at the embarking/disembarking area. The safety line must have a self-lighting light.

The pilot ladder must be rigged on the lee side, clear from all discharges and water outlets.

The ladder must be rigged in such a manner that each step rests firmly on the ship's side.

Nylon pilot ladders must no be used.

The use of pilot hoists is not recommended.

If, in the opinion of the Mooring Master the pilot ladder is not safe, the Mooring Master may refuse to board the vessel and thus cause delay to the ship. Such delay would be for ship's account.

The Master or responsible qualified Deck Officer must be on the bridge at all times when the vessel is manoeuvring.

Vessels are requested to provide food and accommodation for the Loading Master. This accommodation should be equivalent to the minimum standard required for a Senior Officer.

Ship's crew required for mooring operations and connecting/disconnecting of the hose.

APPROACHES: It is essential to be in possession of BA. Chart 3206.

Good radar targets, visible on 24 mile range are:

Moanda Oil Terminal in position Lat. 05° 56′ S., Long. 12° 10′ E.

A boring platform in position Lat. 06° 13.5′ S., Long. 12° 10′ E.

The Quinfuquena Oil Terminal, when a ship is alongside, otherwise poor echo. During the night a flare in position Lat. 05° 58′ S., Long. 12° 25′ E. is seen at a distance of about 30 nautical miles.

The Soyo Aero Beacon is of assistance when passing the 100 fathom line.

Other Aero Beacons out of order as well as the lights of Pta. da Moita Seca and Cabeca da Cobra.

ANCHORAGE: Vessels waiting for mooring are requested to anchor along an imaginary line which is 2 nautical miles North of and parallel to a line connecting the SPM and the RMD. This will place all anchoring vessels a minimum of 2 nautical miles from loading points and a minimum of 2 nautical miles South of the Block Two Offshore Essungo Installations.

At times the Pilot may alter the anchorage location for one reason or another. The Pilot requests will always overrule anything written herein.

The sea bottom in the area is sand and mud or fine sand and mud. Strict attention must be paid to all of the offshore installations in the area. In addition to the loading points these installations include the Essungo and Cuntala Platforms, the 18 in. oil sealine from Essungo to shore, the 20 in. oil sealine from shore to the RMD., the 30 in. oil sealine from the RMD to the SPM and the 8 in. oil sealine from Cuntala to shore.

These facilities are all marked on the British Admiralty Charts and all vessels bound for Quinfuquena Terminal must have on board the British Admiralty Chart No. 3206.

Anchoring is prohibited within a distance of 1.5 nautical miles from any of the offshore installations. All traffic is prohibited within a distance of 3 nautical miles of the loading points.

RESTRICTIONS: Mooring carried out daytime only. Unmooring may be carried out at night.

MAX. SIZE: See "Berthing".

HEALTH: Upon arrival, Government Officials and Agent board the vessel. The party comes by boat from the Kwanda Base near Soyo, which is situated about 20 nautical miles from the Terminal. The Agent is a local clerk, and speaks English. He boards the vessel on arrival and a few hours before departure.

RADIO: *Arrival of Vessels:* Companies intending to lift crude oil from QQ Terminal will have notified by telex 7 days prior to the anticipated arrival date the following information:

Name of tanker.
Flag.
Gross Tonnage.
Nett Tonnage.
Dead Weight Tons.
Anticipated loaded draft.
Length – Bow to Manifold.
Nominated cargo quantity.
Shipper.
Agent.
Consignee.
Destination.
ETA QQ Terminal.
Deballasting Time Required.

Vessels bound for Soyo, Quinfuquena Terminal must give their ETA 72 hours/48 hours/24 hours before arrival to Fina Soyo. This can be done via Luanda Radio or via the station tugboat.

The message should contain ETA vessel; Master's name; Vessel's name; Draft on arrival; Last port of call.

48 hours and 24 hours before arrival, make radio contact with Fina Marine on SSB 8291.1 kHz between 0900 – 0930 hrs. GMT.

A 24 hour radiowatch is maintained on VHF Channel 11 in the Mooring Master's Office call sign "Quinfuquena Pilot". Ships are usually able to make contact by VHF at a distance of 20 to 30 miles.

VHF: See "Pilotage" and "Radio".

TUGS: One tug, 3,300 h.p. available, also see "Current".

BERTHING: The new oil terminal, built for The FST Association, has been in operation since December 1979 and is situated 7.5 nautical miles offshore.

The first loading point is of the RMD-type (Ready Made Dolphin). This is a rigid structure standing on the seabed.

The second loading point is a Single Point Mooring Buoy (SPM).

The RMD is located in about 72 ft. of water in the following position:

Lat. 6° 19′ 45″ S., Long. 12° 14′ 42″ E.

On the RMD 2 limits have to be observed:

Max. draft 47 ft.
Max. cargo intake 104,500 tonnes

The RMD is equipped with a white navigation light and fog horn.

Identification navigation light: Flash "U" 30 secs. 8.5 nautical miles.

Identification fog horn: "U" 30 secs. 1 nautical mile.

A 20 in. cement coated sea line connects the RMD with the shore in a position:

Lat. 6° 14′ 54″ S., Long. 12° 20′ 57″ E.

The SPM is located in about 120 ft. of water in the following position:

Lat. 6° 20′ 18″ S., Long. 12° 09′ 48″ E.

Under normal departing conditions the SPM is designed to accommodate 250,000 d.w.t. tankers.

A 30 in. sea line connects the SPM with the RMD.

The SPM is equipped with a navigation light and fog horn.

Identification navigation light: Flash "A" 15 secs. 5 nautical miles.

Identification fog horn: 2 secs. on, 15 secs. off. 0.5 nautical miles.

MOORING: In principle mooring operations are not carried out at night but unmooring operations are performed day or night. At times, if sea, current and weather conditions permit, night mooring can be considered. The Mooring Master will in all cases decide when mooring and unmooring operations shall be done.

All mooring and unmooring operations are done by the ship's crew as indicated by the Mooring Master.

On arrival, vessels must have the port derrick rigged and ready to be used. The SWL of the derrick should be 10 tons.

A line-boat and a crewboat assist the vessels while mooring and unmooring.

The Mooring Master will accept the Notice of Readiness, providing that the vessel is ready in all respects to receive cargo.

The line-boat will bring the terminal mooring gear alongside, which has to be picked up with the ship's derrick. It consists of: 2×14 m.×56 mm. wire snotters; 2×100 ton SWL Crosby shackles; hose slings; 2 pelican hook chain stoppers; pressure gauges.

Two messenger lines of minimum 400 ft. length must be ready on the forecastle. The wire snotters must be installed on the bitts as indicated by the Loading Master.

The line-boat brings 2×10 in. pick up lines alongside the bow when the vessel is within a reasonable distance of the loading point. The messenger lines will be connected to the pick-up lines and taken on board until the chaffing chains pass through the fairleads. The chaffing chains are connected to the wire snotters by means of the 100 ton shackles.

The fairlead should be a single Panama lead mounted on the centre line of the vessel suitable for receiving 2×3 in. chaffing chains. The approximate minimum inside dimensions of the inside of the fairlead have to be 40 cm. high and 60 cm. wide. Two sets of mooring bits should be situated at the forward end of the forecastle head.

The bitts are not to be closer to the centre Panama lead than about 3 m. and are to be capable of handling 56 mm. diameter wires.

Once the vessel is moored to the loading point the floating hose is brought alongside and connected to the manifold by the ship's crew. The floating hose is equipped with a camlock connection. The floating hose at the RMD is a 12 in. hose and at the SPM a 12 in. hose.

A pressure recorder will be installed on the ship's manifold. During the whole period that the vessel is moored to the loading point the line-boat will be made fast to the stern of the tanker. The vessel shall supply a good towline for this purpose and keep a second one on stand-by ready to be used. If available, buoyant lines are also preferred in this position.

ADD

BALLAST-REPORT.

LOADING: The loading rate is approx. 1,300 cu.m.p.h. Soyo crude oil approx. API 37.0. The temperature varies with the seasons. At the end of May, the loading temperature was 78° F.

Tank Farm has a capacity of 800,000 barrels.

During the whole loading operation, a crew member is stationed on the forecastle and one by the manifold. Forecastle must be in permanent contact with Duty Officer and Loading Master by radio if available.

Also see "Mooring".

MEDICAL: Assistance only available in an emergency.

FRESH WATER: Not available.

FUEL: Not available.

SERVICES: Following are not available: Stores and provisions, cash, laundry service, dirty ballast facilities, national flags and ship supply service.

Charts are not available. Vessels must have B.A. Chart Nos. 638 and 3206 onboard when calling at the terminal.

REPATRIATION: Repatriation is available if absolutely necessary but can only be arranged via Luanda with great difficulty.

The Oil Company and the Authorities are against any crew changes.

MAIL: Mail sent from Europe, usually takes 3 weeks.

SHORE LEAVE: Not allowed.

WEATHER:

Winds: The general direction of the trade winds is E.S.E. to S.S.E. The direction is affected by onshore/offshore breezes.

The onshore breeze appears from the S.W. between 1000 hrs. and 1100 hrs. and falls at sunset. It is then replaced by a light breeze from the S.S.E. to E.S.E. which blows until 0800 hrs. or 0900 hrs.

From December till May thunder squalls from the N.E. occur. During the month of May the trade winds often blow night and day.

From June to September (dry season) the winds are low. S.W. in the daytime and S. to S.W. with calm periods at night. At mid-September a stable S.W. breeze settles until the beginning of December. It then becomes more variable with calms at times.

Hygrometry: The relative humidity is above 80% for 11 months of the year but in June falls to 50%.

Visibility: Fog appears more often during the dry season than during the rainy season. During the rainy season visibility is reduced by heavy showers.

Tides and Current: In general the current flow at Quinfuquena is in a Northerly direction and has an average velocity of 0.8 knots. The current direction and velocity are governed by two significant sources; the Benguela Current flowing North and the outflow of the Zaire River. At most times the Benguela Current is the most influential so the most common current direction is North. However, at times, especially during the rainy season (November to May) the effluent from the Zaire River may be so voluminous that it can over-rule the Benguela Current and reverse the direction of the current at Quinfuquena. At the RMD we have witnessed a 180° change of direction in 10 minutes.

When this happens during the daylight hours it is possible to receive advance notice if the man on watch spots the muddy front from the Zaire River moving South. This notice allows the line handling tug crew and tanker crew to be in the best position to keep the tanker from contacting the protection ring of the RMD or the SPM. When it happens at night, however, the allowable reaction time is greatly reduced and any error or delay may allow contact of the tanker with the loading point. It is for such instances that the watches must be maintained and ready.

Although, as stated previously, this phenomenon is more likely to happen in the rainy season, it can, and has happened in the dry season.

Tidal currents in this area are minimal. They have an average velocity of 0.5 knots and a maximum of 2 knots. The tidal range is about 1.5 m.

Swell: As far as swell is concerned 93% of the waves come from South (S.E. to S.W.). The average height of the swell is 1.5 m. during the rainy season and increases to 3 m. or 4 m. during the dry season.

NOTICE: Notice to Masters

Subject: Forecastle Head Watchman.

Quinfuquena Terminal has certain peculiarities and your attention is drawn to the following.

1. The tower is a "Rigid Mooring Device" and is standing on the sea-bed as opposed to a "Single Mooring Buoy" which is anchored to the sea-bed and therefore has some lateral movement.

2. Normally your vessel will ride to the Benguela Current (S'ly), however the Congo River outfall will occasionally produce an adverse current, which will change heading of your vessel to a Northerly direction in a very short period of time.

Therefore a watchman must be placed on the forecastle head at all times, and at the slightest indication that the vessel is "Riding-up" to the tower, he must not hesitate to call the Mooring Master on board who will take the necessary action.

A line-boat, which has the capacity to tow your vessel astern, clear of the tower, will be tied up to your vessel's stern at all times.

Please ensure that a tow rope of a good quality is passed to the line-boat.

SHIPMASTER'S REPORT: April, 1981.

Location: Lat. 6° 19′ 45″ S., Long. 12° 14′ 42″ E.

Depth: Berth 21 m.

Current: 0.6 knots.

Bottom: Mud and sand.

Max. Size: Max. draft 14.35 m. Max. Cargo 104,000 tonnes.

Pilotage: Pilot boards 2 miles N.N.E. of Quinfuquena Tower. Vessels can enter at any stage of the tide, day or night.

Tugs: One tug, used for docking and undocking and towing when no current.

Radio: Luanda Radio D3E.

Pratique: Available day and night.

Customs/Immigration: Generally work during daylight only.

Fresh Water: Not available.

Bunkers: Not available.

Doctor: Only available in an emergency.

Charts: B.A. Chart Nos. 604 and 3206.

Documents: Last Port Clearance, 3 Crew Lists, 3 Vaccination Lists, 2 Stores Lists, 2 Crew Customs Declarations, 2 Animal Declarations, 2 Firearms and Ammunition Declarations.

Cargo: Hose connected to port side. Product loaded, crude oil.

Coastal tanker may have priority at loading berth.

Agent: 3 Agents located in Soyo. Compulsory to appoint ship agency.

Anchorage: 2 miles N.N.W. of Quinfuquena Tower. Bottom mud/sand, depth 12 to 18 fathoms.

Characteristics of Loading Point: The Loading Point of Quinfuquena is a tower structure called a "RMD" (Rigid Mooring Device) standing on the sea-bed with a base of 21 sq.m. At water level is an anti-collision ring or fender. The tower is marked by navigation light as follows: White showing Morse letter "U". Also fog-horn Morse letter "U".

Note: This light is unreliable in performance and visibility during operation is less than 1 mile.

A flexible 20 in. hose connects the tower to a 20 in. shore-line.

Moorings: Moorings are from the tower, 2 lines 12 in. (braided) and 2×3 in. chaffing chains leaching to 2×200 m.×8 in. pick-up ropes. The chaffing chains are connected on the ship to 2×12 in. braided "Snotters" made up on the bitts.

The ship must supply 2 messengers, a tug brings the 2 mooring pick-up lines to the ship and makes them fast, always on the port side of the ship even though the moorings are port and starboard. Ship's crew will make moorings fast. The ship shall also provide a mooring line to be used as a tow rope. At all times a tug will be made fast to the stern of the ship.

During loading a member of the ship's crew shall be posted forward to watch the mooring lines and to warn the Loading Master in case of the ship "reaching up to the tower".

Ship's crew will make moorings fast and connect the flexible hose.

From the tower to the ship is 1×16 in. floating hose reducing to 12 in. aboard the ship. Ship's derrick should be made ready, always on the port side. Derrick should have SWL 10 tons. Ship's crew will also rig cargo hoses under the supervision of the Mooring Master.

Loading: Inspection of tanks after de-ballasting made by the Loading Master. Samples taken onboard the ship and 2 samples to remain onboard. Loading rate is about 1,300 cu.m./hr. All cargo paper work is done onboard the ship and a cargo surveyor arrives 1 day prior to completion of loading. Ship will return to anchor during this period.

Weather: Rainy Season: October through March.

Visibility: Good all year round.

Sea: Density 1025 but sometimes 1020 when River Congo outfall arrives.

Tide: Usually not noticable until FULL moon period. Then is semi-daily. 1.20 m. at Springs.

Wind: S.S.W./S.S.E. usually less than Force 4.

Swell: S.S.W. usually less than 2.50 m. although during dry season can rise to 6.00 m.

Current: Usually N.N.W. 0.60 knots but changes at periods of FULL moon – unpredictable.

Also liable to change rapidly (in 10 minutes, 180° change) due to the arrival of the River Congo outfall.

Telecommunications: VHF Channel 11 permanent watch while vessel at Quinfuquena Terminal. Call sign "Fina Marine" and "Q.Q. Pilot".

Radio messages addressed to Fina Soyo via Luanda Radio D3E.

As this is not very reliable, it is advised to send all traffic to "Master Tug Oil Retainer" via Portishead Radio GKA. The call-sign of the tug is 2YRZ and is in contact with GKA via radiotelephone. This method is much more reliable and ensures all traffic reaches Petrangol and the Mooring/Loading Master. The tug is always standing by at the Quinfuquena Terminal.

Navigational Warnings: Sub-sea pipe-lines run in the Quinfuquena area and drilling platforms are not marked on the chart.

The most important cautionary notes concerning Quinfuquena area are as follows:

1. Quinfuquena Loading Tower (Lat. 6° 19′ 45″ S., Long. 12° 14′ 42″ E.). From this position a sub-sea pipe-line runs 052° to the beach crossing at Lat. 6° 14′ 50″ S., Long. 12° 21′ 00″ E.

From the same loading tower a second sub-sea pipe-line runs 273° to approximate position: Lat. 6° 20′ 00″ S., Long. 12° 07′ 30″ E., where a new SBM Buoy is expected to be operative in the near future.

2. A production platform exists in approximate position: Lat. 6° 14.2′ S., Long. 12° 10.0′ E. From this position a sub-sea pipe-line runs at 095° to the beach crossing at approximately Lat. 6° 14.5′ S., Long. 12° 21.0′ E.

Recommendations: Vessels calling at Quinfuquena for loading cargo MUST have provisions and fresh water onboard to allow for 45 days stay at the Terminal.

There is no possibility of fresh provisions or crew changes or mail.

OPERATOR: Fina Petroleos de Angola S.A.R.L., C.P. 1320, Avenida Rainha Ginga 128, Luanda, Angola. *Tel:* (Admin) 35802, 35815; (Refinery) 70101, 73737, 73738, 70195, 70540. *Telex:* 3033, 3246. *Cables:* Fina, Luanda. *Contact:* Captain B. Diricq, and Captain R. Moeskups, Marine Superintendents. J.G. Campbell, Manager of Operations.

Capitania do Soyo, Capitania do Porto do Soyo, Soyo, Republica Popular Angola.

NOTES

Please also advise Shipping Guides Ltd.

Antigua

St. JOHN'S: 17.07 N. 61.52 W. (See Plan)

PORT LIMITS: All the waters enclosed by an imaginary straight line running due West from Weatherill's Point forming the Northern boundary by an imaginary straight line running due North from Shipstern Point forming the Western boundary and by the coast line running from Weatherill's Point to Shipstern Point forming the Eastern and Southern boundaries.

DOCUMENTS:
4 Crew Lists.
2 Stores Lists.
4 Passenger Lists.
1 Customs Declaration.
1 Declaration of Health.
4 Copies of Manifest.
Port Clearance from previous port.
3 Copies of B/L.
1 Copy Crew Personnel and Curio List.
Fumigation and Derat Exemption Certificate to be shown.

PILOTAGE: Compulsory. Messages should be received by Agents 48 hours in advance. Pilot boat may be identified by pilot flag.

Pilot boards at entrance of channel if vessel is proceeding to Deep Water Harbour. If vessel proceeding to Oil Berth, Pilot boards 2 miles North of Sandy Island.

ANCHORAGES: Area between Fairway Buoy, South Warrington Buoy and No. 1 Channel Buoy. Approximately 7 cables N.N.W. of Pillar Rock Light. Depths 40 ft. – 45 ft. Anchorage for vessels up to 54 ft., 2 miles N.E. of Sandy Island.

RESTRICTIONS: (a) No vessel is permitted to berth alongside before permission to do so is given by the Port Authority or unless such vessel is under the command of a Pilot.
(b) Tidal variation is negligible.
(c) Channel is 8,000 ft. long and 300 ft. wide.
(d) Draft restriction is 32 ft. at berth.

MAX. SIZE: Vessels of any size, but with a maximum draft of 45 ft. can anchor at the Outer Harbour. At berth max. draft is 32 ft.; length of dock 1,200 ft.; and turning circle 1,200 ft. diameter.

HEALTH: Pratique given at berth. Suspected infectious diseases must be notified to Port Health Inspectors in advance of vessel's arrival.

RADIO: Cable and Wireless (W.I.) Ltd. via Barbados Radio 8PO.

VHF: Port Authority maintains watch on Channel 16 during normal working hours. Watch is also maintained by Pilot and tugs on Channel 16 one hour before ETA of any vessel. Tugs and Oil Terminal Pilot use Channel 6 during berthing operations.

RADAR: Nil.

TUGS: Two harbour tugs, each with 1,500 h.p. engines. Tugs join vessel in Approach Channel. Tugs lines normally used. No charge.

BERTHING: Three berths on pier of length 1,200 ft.; maximum permissible shipdraft 32 ft. in salt water; loading or discharging can be done either by shore equipment or by ship's own gear.

CRANES: Authority owns 1×150 ton P & H mobile crane and 1×10 ton Coles mobile crane.

2×75 ton cranes are available on dockside which are provided by a private contractor.

Lift Trucks: Authority owns 1 large truck with adjustable spreaders capable of lifting fully loaded 40 ft. and 20 ft. containers.
1×15 tons Container lift truck
2 Champion truck tractors
1 GMC truck tractor
6×20 ft. container chassis
2×40 ft. container chassis
1×40 ft. container lift frame
1×20 ft. container lift frame
9×2.5 tons forklift trucks

BULK CARGO FACILITIES: None.

SPECIALISED CARGO-HANDLING FACILITIES: None.

BRIDGES: None.

STEVEDORES: 48 hours notice is required to arrange gangs. Average load or discharge rate is 10 t.p.h.

Working hours: 0700 – 1600 Monday to Friday and 0700 – 1100 on Saturday. Overtime possible weekdays and Sundays.

MEDICAL: Agents should have at least 24 hours notice should medical attention be required. Hospital facilities are available and can be arranged by either Ship's Agent or Port Authority.

TANKERS: *Sea Island:* A concrete platform 180 ft. long with 4 mooring dolphins, overall length 750 ft. The jetty platform is protected by 5 foam filled Yokohama type fenders. Depth alongside 35 ft. at MLW. Max. draft 32 ft. (deeper draft subject to Marine Terminal approval). Max. load displacement 22,000 tons. Berthing by tankers on South side only. Port side alongside with the assistance of 2 tugs. Mooring arrangements: 2 head/stern lines, 2 breast lines, 2 springs.

Distance to shore is 4,500 ft.

Pipe-lines: 1×16 in. crude line with 1×12 in. hose; 1×8 in. gasoline line and 1×8 in. distillate line each with 1×6 in.; 1×4 in. LPG line; 1×3 in. fresh water line. One grade at the time with max. throughput of 1,500 bbls.p.h. and max. back pressure of 120 p.s.i.

Sea Buoy: A CBM of 5 mooring buoys (3 head buoys and 2 stern buoys) in 50 ft. of water. Max. draft 43 ft. Distance to shore 7,800 ft. 1×16 in. crude line with 1×12 in. hose (both submarine). No slop residue discharge facilities available.

Hose Connections: Port side amidships on Sea Island and Sea Buoy.

All Bunker grades are available. The blender is on the jetty with meters. Lubricants are available. The bunker line is 10 in. with a 6 in. bunker hose.

There are no slops or dirty ballast facilities. Ships to load are to arrive with clean ballast.

There are always two jetty attendants who are to be provided with meals.

It is possible to arrange a boat service between ship and shore but the ship's motor lifeboat can be used as well for this purpose and can sail in Antiguan waters without restrictions, provided the ship is cleared by the Authorities.

DENSITY: 1025.

FRESH WATER: Available at Deep Water Harbour, 24 hours' notice required. Also at Oil Refinery Pier and by barge, but only in conjunction with bunker fuel deliveries.

FUEL: All grades of marine fuel available at the Marine Pier. Also available at the Sea Buoy and by barges at Deep Water Harbour.

FIRE PRECAUTIONS: (a) No open fires nor smoking are allowed near the open hatches or in the hold in which flammable or dangerous goods are stored, or at the place of discharge of shipment.

(b) No person may set off or ignite any flare, rocket, explosive device, firework or make any bonfire or barbecue in any port area other than for emergency life saving or ship safety purposes, unless permission has been granted by management.

CONSULS: American, Norwegian, Dutch, French, Danish, Swedish and Venezuelan.

REPAIRS: All types of deck, but only minor engine repairs are possible.

DRY DOCK: None.

SURVEYORS: Department of Merchant Marine, Lloyd's and ABS.

GANGWAY/DECK WATCHMEN: Services of watchman absolutely necessary.

HATCHES: Opening and closing normally carried out by ship's crew.

CUSTOMS ALLOWANCES: 1 carton of cigarettes, 1 bottle liquor.

CARGO GEAR: Loading and discharging effected both by shore and ship's gear, but mainly by shore gear.

REPATRIATION: Facilities exist for effecting crew changes and arranging for necessary repatriation.

AIRPORT: Airport is 4 miles from the Deep Water Harbour, and is served by such international airlines as Eastern, Pan Am, American Airlines, Air Canada, B.W.I.A., B.A., L.I.A.T., Prinair, Air Guadeloupe, etc.

TIME: Local time is GMT minus 4 hours. No adjustments made to clocks during the year.

HOLIDAYS: 1st January; Good Friday; Easter Monday; Labour Day (1st Monday in May); Whit Monday; 1st Monday and Tuesday in August (Carnival); State Day (1st November); Christmas Day; Boxing Day; Queen's Official Birthday which is either the 1st or 2nd Saturday in June.

POLICE/AMBULANCE/FIRE: Police Tel: 20125-6-7-8; Ambulance Tel: 20251-2-3; Fire Tel: 20044.

TELEPHONES: Arrangements exist for placing telephones on board.

SERVICES: No special services exist e.g. tank-cleaning equipment, discharge of tank washings, compass adjusting, etc. However, arrangements can be made to carry out these services.

SHORE LEAVE: Crew members are permitted to go ashore; there are abolutely no restrictions.

IDENTIFICATION CARDS: Not necessary to show identification cards. However, may be called upon to present seaman's book should the occasion warrant it.

REGULATIONS: Users of the Port should be acquainted with Port Authority Act and Port Regulations. Copies of these can be purchased at the Government printers.

DELAYS: Delays due to unavailability of berth are very infrequent. However, during the months of December to April, 24 hours delay can be expected.

AUTHORITY: Antigua Port Authority, P.O.Box 1052, St. John's, Antigua. *Tel:* 20050, 20053, 21273, 23439. *Telex:* 2179 Anport Ak. *FAX:* 809-462-1273. *Contact:* G. W. Benjamin, Port Manager.

NOTES

Please also advise Shipping Guides Ltd.

Argentina

Information for ports of Argentina, including drawings of port areas as reproduced in our plan section, have been compiled not only with the assistance of Port Authorities but also with the very kind co-operation of Centro de Navegacion Transatlantica of Buenos Aires to whom we are very much indebted.

Shipowners and Masters wishing to be in possession of more detailed information concerning River Plate ports, Argentina South Atlantic ports and the Strait of Magellan, are advised to obtain a copy of the "C.N.T. Year Book" which is published by Centro de Navegacion Transatlantica, 25 de Mayo 489, Buenos Aires.

N.B. For practical purposes, we have sub-divided information for Argentina into three sections as follows:

I. *GENERAL.*
II. *RIVER PLATE PORTS.*
III. *SOUTH ATLANTIC PORTS.*

I. *GENERAL*

DOCUMENTS: *Required Prior to Arrival:*

(a) At least 24 hours prior to the anticipated arrival of the vessel, a request for berthing must be presented to the General Port Administration in triplicate. There is a special form for this request, indicating the specifications of the vessel and the freight to be handled, for the assignment of the berth.

Upon receipt of the allocation of the berth, the following authorities must be notified:

a. The Chief of the Office of Maritime Health, to whom a request must be made 24 hours in advance for a Health Pratique. This must be made in duplicate, on a special form, to which a copy to the radio request for a Health Pratique must be attached. This is necessary to obtain authorisation to dock in the assigned berth, without a prior boarding by the Health Officer;
b. The Naval Prefecture, to which the request for a Health Pratique must be presented indicating the date and time of arrival from the open seas at the Intersection (in Buenos Aires) and from the intersection at the assigned berth;
c. The Chief of the Office of Overseas and Coastwise Shipping of the Naval Prefecture, to whom a request for pilotage must be made in duplicate, indicating the date and time of arrival, and designation of berth for the vessel.

On Arrival:

Type of Document	Number and Distribution of Documents				
Basic Forms	Prefecture	Customs	Immigration	Health	Total
Additional Documents:					
1. General Declaration	1	–	2	1	4
2. Cargo Manifest	–	1	–	–	1
3. Crew List	2	–	2	–	4
4. Passenger List	2	–	2	–	4
5. Ship's Store List	–	2	–	–	2
6. Crew's Effects Declaration	–	2	–	–	2
7. Maritime Declaration of Health	–	–	–	1	1
8. Mail List (a)	–	–	–	–	1
9. Entrance Declaration	–	–	–	–	4
10. Standardised Manifest cover	–	2	–	–	2
11. Section request	–	2	–	–	2

(a) Delivered directly to Postal Service.

Prior to departure:

Type of Document	Number and Distribution of Documents				
Basic forms	Prefecture	Customs	Immigration	Health	Total
Additional Documents:					
1. General Declaration	2	–	2	–	4
2. Cargo Manifest	–	2	–	–	2
3. Crew List	2	–	2	–	4
4. Passenger List	2	–	2	–	4
5. Sailing Notice	–	–	3	–	3
6. Sailing Declaration	–	–	–	–	–

Request for Health Pratique:

At least 24 hours prior to sailing, a request for the Health Pratique must be presented to the Naval Prefecture (4 sets).

Other provisions:

A representative of the Naval Prefecture and a Migrations Inspector board the vessel prior to sailing.

(b) Masters should also have at hand for inspection as required all the various certificates such as Certificate of Registry, Postal Packet Permit, if pertinent, Freeboard, Measurement, Safety Equipment, Radio Installation, Bulk Cargo, Shifting Board Installations or equivalent, and Derat Certificate, or exemption.

None of these documents requires an Argentine Consular visa.

(c) Port Agents should also receive copies for their use and to facilitate any further contacts with the Authorities in case of need. In particular they require a large number of copies of Manifest, and from this they will prepare Spanish manifest, which must be presented to Customs within 48 hours of vessel's entry. A number of extra copies of Crew List are also needed, and 1 extra store list.

(d) Every person figuring on the crew list of a vessel entering an Argentine port must possess documents proving his identity, such as a discharge book, passport or other documents in use in the country of origin, authorised by the competent Authorities.

(e) Vaccination Certificate: Members of crew must be provided with an International Vaccination Certificate, not more than 3 years old, which should be presented on arrival, together with the individual Identity Card. Failing this, the crew will be vaccinated by the boarding doctors.

(f) Identity Cards: On arrival at an Argentine port, Masters of foreign vessels must deliver Identity Cards complete with photographs and finger-prints of each member of the crew, together with 2 copies of Crew List. One set is retained by the Migrations Department, and the other document remains in possession of the individual so that once identified, the crew member may return to the country without the necessity of obtaining new documents. The Master is handed in exchange 1 copy of the Crew List, sealed and signed by the Immigration Officer to enable him to prove at other Argentine ports of call, that he has complied with the corresponding Regulation.

No member of the crew, except the Master, is allowed to land until the Immigration Authorities have checked the crew with the Identity Cards.

Masters may if necessary have the Identity Cards completed with photographs in the Argentine at the first port of arrival. In such cases it is advisable that Agents are advised in advance so that preparations may be made against vessel's arrival. The Authorities will not allow any members of the crew to be disembarked until they have presented their Identity Cards or have had their photographs taken. Agents must present these Identity Cards to the Authorities for stamping within 48 hours of arrival of the vessel. Immigration control is made at whatever hour the vessel arrives, forming part of the normal reception procedure.

(g) The Stores Lists should be completed with great care as a specially trained searchers' brigade has been visiting most ships as soon as Free Pratique is granted.

Particular care must be taken to declare all sizes and measures in the metric system. A plea of a regrettable mistake is not accepted and fines, if legally applicable, can be severe.

FREE PRATIQUE: Vessels take Pratique in port, and may enter and berth if they fulfil the following conditions:

(a) Clean port of sailing and ports of call.
(b) No persons with infectious or contagious diseases or with fever on board.
(c) No cases during the voyage of disease of international concern, or of infectious diseases of an epidemic nature.

To be able to obtain this privilege of taking Pratique in port, it is essential that Masters of all vessels arriving from abroad wireless their Agents, not more than 12 hours before arrival, that vessels under their command are in the sanitary conditions as required by Art. 45 of the regulations to enter port and go alongside.

On receipt of this message, Agents will present to the Health Authorities the request for a berth, accompanied by the telegram sent by the Master, not less than 6 hours (nor more than 12) in advance, detailing sailing port and ports of call, and indicating the approximate hour of arrival. If the wireless message is in code, Agents will give the necessary translation, and be held responsible for any error in such translated version.

The message may be sent either in English or Spanish, and we give specimen texts in both languages, which should be closely followed:

"Addressed to Agency in Buenos Aires (or other port)
solicitamos pedir libre platica telegrafica buque ....(1), procedente de ....(2), con escalas en .... (3), con .....(4) ..... tripulantes, (5) .. pasajeros Buenos Aires, (6) ...pasajeros transito punto. declaro no tener abordo persones afectadas por ninguna enfermedad pestilencial punto estado sanatario bueno.
"captain (7)."

or in English:

"please request Free Pratique ms (or ss) ....(1), proceeding from ....(2), with calls at ....(3), with ....(4) .... crews, (5) .... passengers for Buenos Aires,(6) passengers in transit stop hereby declare that nobody on board affected by any pestilential disease stop sanitary condition good.
"master (7)."

In each case the gaps must be filled in as follows:

1. Port of vessel and flag.
2. Port of commencement of voyage.
3. Full details of all ports of call.
4. Number of crew.
5. Number of passengers for Buenos Aires (or whatever port first entered).
6. Number of passengers in transit.
7. Full name of Master, and also of doctor if there is one on board.

As there have been cases of insufficient information being received from vessels, and "added in" by Agents in the translation, the Authorities have established this standard form which Masters must follow in their messages, and which will accompany the request to the Health Authorities.

This facility now refers to all Argentine ports, the message requesting Free Pratique to be sent to the vessel's Agent at first port of call, after which Free Pratique is automatic in all subsequent Argentine ports. If, however, a non Argentine port is called at en route, Free Pratique must again be requested at what will then become the "first Argentine port".

Agents will confirm to the vessel, by radio, the date and hour of granting of Free Pratique, and with this information in hand, vessel can enter port and go alongside. The Port Authorities will board as soon as the gangway is placed for their routine inspection, and until they have boarded, no one else should be allowed on board.

Vessels which do not meet the sanitary requirements, or come from unclean ports, must fly the yellow flag on entering for the necessary inspection alongside.

River Ports: Vessels proceeding to river ports get Pratique at destination.

Vessels Lightening: Tankers and other ships lightening in River Plate waters, provided they comply with Art. 45, may later continue their voyage and go straight into berth at port of destination to take Free Pratique there.

Sick Crew Members: If there is a sick person aboard, the international sign "W" must be flown on entering, and for Free Pratique, the customary yellow flag.

Masters must report to the boarding Sanitary Authorities those members of the crew having venereal complaints.

Asian and African Ports: In accordance with WHO requests, all vessels proceeding from these ports will be subject to an inspection of all galleys and store rooms.

Infected Ports: Recent Cholera epidemics have caused the Health Authorities to tighten control. All persons on board vessels coming from ports in the countries named below must be in possession of the Anti-Cholera Inoculation Certificate, and from other zones as indicated as International Yellow Fever Vaccination Certificate.

Cholera: The international certificate is valid from the sixth day of inoculation, and for 6 months. The countries at present under control are:

Africa: Algeria, Burkia Faso (formerly Upper Volta), Benin, Cameroon, Chad, Ghana, Ivory Coast, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Somalia, Togo.

Asia: Burma, India, Indonesia, Malaysia (West), Muscat, Nepal, Pakistan, Philippines, Vietnam.

Epidemics are not officially admitted in the Arab Republic of Egypt and Sudan, but the certificate is advisable as a precautionary measure.

Other zones may be affected at short notice.

Yellow Fever: The vaccination certificate is valid for 10 years, as from the tenth day of inoculation. It is required for all persons coming from:

Africa: Angola, Ghana, Kinshasa, Nigeria, Sierra Leone, Sudan.

South America: Brazil (territories of Roraima and Boa Vista), Colombia (Bolivar, Simiti, Boyaco and Paz de Ariporo).

Inflammables: It should be borne in mind that vessels carrying over 25 tons and under 100 tons of inflammables, explosives, etc., must be inspected in the roads before entering whether they have asked for Free Pratique by radio or not, although this is still advisable as the one inspection is independent from the other.

CLASSIFICATION OF ARGENTINE PORTS: In accordance with Article 31 of the Pan American Sanitary Code, the National Health Department has classified the Argentine ports as follows:

Clean Ports Class A – Buenos Aires, Rosario, Santa Fe, La Plata and Bahia Blanca.

Clean Ports Class B – San Nicolas, San Lorenzo, San Martin, Villa Constitucion and Concepcion del Uruguay.

Clean Ports Under the Vigilance of the Health Department – Mar del Plata, Necochea and Diamante.

A clean port, in general, requires the absence of non-imported cases of cholera, yellow fever, pest, exanthematic typhus or any other contagious disease of a serious epidemic nature, that may be carried through international trade. The clean ports of Class A have competent staff and suitable sanitary equipment, also bacteriological laboratories, registers of disease and deaths, lazarettos, etc.

The clean ports of Class B are those that have not got all the equipment required for Class A.

FLAG: The flag of the Republic is three horizontal and equal bands of which the centre one is white, and the upper and lower, sky blue.

The official colours, flown by Naval vessels and all official entities are distinguished by a rising golden sun in the centre of the white.

All foreign merchant vessels must fly the Argentine flag from the highest mast while in territorial waters and ports, and fly their own national colours from the ensign staff.

PILOTAGE: A. *Ordering:* For Recalada Station, minimum 48 hours in advance, for all other services Agents of the vessels to be piloted must apply, in writing, to the Pilotage Section of the Prefectura at their domicile before 1700 hrs. on the day before the service is to be effected, or on Sundays/holidays, before 1100 hrs. Pilots are obliged to render service in strict turn, in accordance with the register in the zone.

Applications for Pilots presented outside the hours established will be accepted but they will be classed under the headings of "Extraordinary" or "Urgent" applications. Pilots should always be ordered by the Agency; only in exceptional cases may a Pilot be requested direct by a Master, when by reasons of force majeure, or change of destination arrival is unforeseen. Vessels which are unaware of their Agents name may also request a Pilot direct. In such cases the request should be made direct, by radio, to the Prefectura with full explanations of the circumstances.

B. *River Plate Zone:* There are 3 pilot stations in this Zone, namely; Port of Buenos Aires, Intersection and Recalada.

(i) Inwards from sea. Inward vessels for up river ports Buenos Aires or La Plata have to take a Pilot at Recalada, and must give 48 hours advance notice of arrival, both to Agents in Buenos Aires and direct to Recalada, call sign LSR 500 kHz (600 m.) Type A1, A2.

The operator is on duty from 0800 – 1000 hrs., 1200 – 1400 hrs., 1600 – 1800 hrs. and 2000 – to 2200 hrs. Communications can also be made on 462 kHz (649 m.).

The second pilot station is at Intersection Km. 37 measured out of Buenos Aires.

The Recalada Pilot takes all vessels to Intersection only, where another Pilot comes aboard, as follows:

- if bound for Buenos Aires, a Port Pilot.
- if bound for La Plata, a river Pilot to La Plata Roads where a La Plata Port Pilot takes over.
- if bound for upriver, a River Pilot.

(ii) Outwards to Montevideo. Vessels sailing from Argentine Plate ports to Montevideo must take an Argentine Pilot up to Montevideo Roads, not drop him at Recalada.

(iii) Inwards from Montevideo. Vessels arriving from Montevideo come in charge of a Uruguayan Pilot to Intersection, where the second Pilot takes over as above: Uruguayan Pilots, when in Argentine waters are subject to all Argentine laws and regulations.

(iv) Outwards to sea. Outward bound vessels (except for Montevideo) are obliged to disembark their Pilots at Recalada, except when prevented by weather, in which case the Pilot must land at first available port and his travelling expenses back to Buenos Aires are for vessel's account.

Notice: Issued by the River Plate Pilot Association.

Information for Masters

We, the River Plate Pilot Association, welcome Masters and crew members visiting our country and wish them a pleasant stay. We also feel that in order to improve the fluent traffic of all merchant ships, it is convenient to inform Masters about some regulations connected with Pilots as well as recommend them to follow such procedures as:

1) *Pilot's Category:* Argentine Regulations state that Pilots have the same rights and category as Masters of merchant vessels and thus share the same prerogatives. Accordingly, the Pilot is entitled to the use of a cabin of his own during his stay on board. When vessels have a special cabin for the Pilot, no problem exists. But if this special cabin is not available, another cabin with appropriate facilities in adequate condition of hygiene and cleanliness should be supplied.

2) *Arrangement for Embarking and Disembarking Pilots:* Strict observance of IMO Rules and Argentine Regulations should be kept regarding:

a) distance from sea level to the point of access to the ship's deck.
b) firm resting of accommodation ladder against ship's side.
c) absolute clearance of all discharges.
d) horizontal position of platforms.
e) proper security and tightness of angle slope, stanchions, rigid handrails or handgrips.
f) adequate lighting at night-time.
g) the obligation of an officer to be always present to supervise all these procedures, maintaining radio contact with the bridge of the ship.

If any of these recommendations were not strictly followed, the Pilot may refuse to board the ship.

3) *Duration of Pilotage:* Masters should be advised that according to present Argentine Regulations the duration of the pilotage for a Pilot who is working alone is 6 hours. If the latter evaluates he can finish his duty, from the moment he goes to the bridge till he reaches his destination, in a period of no more than 8 hours, he will remain on duty. Otherwise he may anchor the vessel and rest for 6 hours. If the speed of the ship is such that the total duration of the pilotage is more than 8 hours and the lost time at anchor for the Pilot's rest is desired to be avoided then *2 pilots should be engaged.*

4) *Trim by the Stern:* Masters of loading ships should take into consideration that later, when the ship is underway from "Zona Comun" to "Recalada Pilot Vessel", it should be possible to trim the vessel no less than 0.45 m. (1 ft. 6 in.) by the stern or more in accordance with the Pilot's requirement. This will permit the ship to continue her journey with the convenient tide and avoid her staying at anchor for a very long period of time, given that with even keel it is imperative to wait for an extraordinary High Tide due, mostly, to strong Southerly winds.

C. *River Parana Zone:* Comprises the River Parana from the port of Parana (Km. 600 from Buenos Aires) down to its mouth, and that part of the River Plate limited to the East by its left bank to Punta Negra (Uruguay), thence to Intersection, to the South by the North bank of the access channel to Buenos Aires Port, to the West the right bank of the River Plate from the entrance to Buenos Aires port to Kilometre 0 of the River Uruguay.

On the River Parana, on distances exceeding 200 km. two special Pilots must be ordered, and therefore there will be 4 Pilots on board (2 special and the 2 on turn), and the vessel has to pay for each of them, i.e. 4 times the tariff.

For distances of less than 200 km., the same ruling applies when continuous navigation is requested, which necessitates the employment of 2 Pilots on turn. However, when only 1 Pilot is asked for, only 1 special Pilot is nominated, if specially asked for, and consequently the tariff is double.

(i) Northbound: Pilots for navigation through this zone go on board, Northbound, at Intersection, whatever the destination. If for Uruguayan ports in the River Uruguay, the Uruguayan Port Pilot comes on board off Parana Bravo.

(ii) From River Uruguay. Vessels from River Uruguayan Ports, either Argentine or Uruguayan, change their River Uruguay Pilot for River Parana Pilot at the mouth of the Parana Bravo. However, if proceeding from a Uruguayan port, it is preferable to send the Parana Pilot to the Uruguayan port, and drop the Uruguayan Pilot off Nueva Palmyra. In certain cases the Argentine Parana Pilot can also come aboard at Nueva Palmyra.

(iii) Inside Parana River. There are 2 stations for despatching Pilots in the River Parana Zone; one at Buenos Aires and the other at Rosario. From the port of Buenos Aires Pilots will be cleared to take vessels to the Northern limits of the Zone, as also for vessels anchored at ports or places South of San Pedro, for any destination.

From the Rosario station, Pilots will be despatched to vessels anchored within the Port of San Pedro, and all places to the North of the port, whatever their destination.

At some of the smaller ports in this zone the Prefecture will, to avoid delay to the vessel, authorise the River Pilot to berth the vessel. This request must be made when ordering the Pilot, but Agents at the river port must also apply for a Pilot, and see that he is employed if available.

Draft is ruled by the depth of water at Martin Garcia Bar, which is at present 24 ft. 6 in. at zero. This varies, and from time to time the Prefecture has authorized clearance of vessels up to 27 ft. Occasionally it happens, in spring, that there is less water in the river above Martin Garcia, but the Weekly Bulletin issued by the Authorities covers this and all determining depths on the river routes.

(iv) To Montevideo. Vessels proceeding down river to Montevideo, take a Pilot at Intersection to Montevideo Roads, where a port Pilot boards.

(v) To La Plata. Vessels from up river ports for La Plata drop their River Pilot at Intersection, take another River Pilot to La Plata Roads (optional) and then a Port Pilot there.

D. *River Uruguay Zone:* Comprises the River Uruguay from Concepcion de Uruguay, Km. 188 to its mouth, and that part of the River Plate mentioned under the Parana River Zone. All Pilots for this Zone will be despatched through the Buenos Aires Station.

E. *Bahia Blanca Zone:* Comprises the Bay from a line joining the buoys at Punta Tejada and Punta Lobos, up to the ports. There is no pilot vessel on station. The ordering of Pilots for the Bahia Blanca Zone is effected by the Overseas and Coasting Office at that port. As the official tug for taking Sea Pilots to meet incoming vessels is sometimes out of commission, Masters are requested to advise their Agents of the

ETA 48 hours in advance. The cost of a special tug is heavy, and on occasions a saving can be made sharing expenses if the tug can take out Pilots for other incoming vessels, and also embark those from vessels outward bound from Bahia Blanca.

F. *Southern Ports:* South of Bahia Blanca and as far as Rio Grande pilotage is obligatory in port, when a vessel requires a Pilot, application should be made to the Pilots' Office of the Naval Prefecture through vessel's Agents in Buenos Aires with at least 5 days advance notice. They go on board either at Buenos Aires, off Mar del Plata; or at other ports as required, and are authorised to operate in all of the Southern ports: San Antonio del Oeste, Madryn, Commodoro Rivadavia and the adjacent oil berths, Deseado, San Julian, Santa Cruz, Rio Gallegos, San Sebastian, Rio Grande and Ushuaia.

Their duties are to act as Port Pilots for entering, mooring, unmooring and leaving any of these ports.

Vessels from South Atlantic Argentine ports, for Montevideo should pick up an Argentine Pilot from Recalada to Montevideo Roads, but if such vessels pass further than 5 miles away from Recalada Lightship and pass direct to Montevideo Roads, there is no such obligation.

G. *Embarking/Disembarking:* Accommodation ladder. The gangway should be lowered to about 3 m. above the surface of the water, and adjusted in such a way that the Pilot only needs to climb the rope for this distance, in order to step on to the gangway. This rope ladder must have all the steps resting firmly against the side of the ship, in accordance with the requirements of the Safety of Life at Sea Convention. Similarly, the gangway must rest against or be secured to the side of the vessel, and Pilots may refuse to board if these conditions are not complied with.

RADIO: All times are given in GMT unless otherwise specified.

Storm Warning, Met. Situation, Weather Forecasts and Notices to Mariners: Are transmitted in clear (A1) in Spanish and then English, daily, from the following stations:

General Pacheco Buenos Aires	LSV	3220.5 kHz	0.5 kW	0130 hrs.	Storm warning Met. resume Forecast
	LSV 2	5907.5	0.5 kW		
	LSV 4	12100	1 kW		
	LSV 5	17520	1 kW		

and again at 1600

while LPD 5 transmits the same information on 512 kHz (5 kW) at 0148 and 1630 hrs.

The weather forecast covers the zone from Rio de Janeiro to Drake Strait and is valid until 1200 hrs. of the next day. The word "nil" is used if there is no information to report, as for example in storm warnings.

Vessels at sea can request a forecast and state of the weather at any time from Meteoro Baires, through Pacheco – LPD on 4177, 4187, 8354, 8374, 11531, 12561, 16708, 16748, 22220 and 22270 kHz.

Radio Trelew	LPZ	20	527 kHz	3 kW	at 1730
Radio Comodoro Rivadavia	LPX	2	474 kHz		at 0400 and 1800 as above.

Vessels at sea in this area can request a forecast from Meteoro Comodoro Rivadavia through LPX 2.

Notices to Mariners and Urgent River Notices: Are transmitted in Spanish and repeated in English by Radio Pacheco and Radio Comodoro Rivadavia.

Radio Pacheco	LPD 5	512 kHz	5 kW	A2 at 0030 hrs.	Plate Area
	LPD 6	4268 kHz	0.25 kW	A1 at 1230	
Comodoro Rivadavia	LPX 2	474 kHz	3 kW	A2 at 1330 2000	
	LPX 27	4428.6 kHz	0.5 kW	A3 at 0400 0800 1200 2100	

This station only reports on Lat. 42° S. to 52° S.

In both cases messages are repeated twice at intervals of 1 minute at the times indicated. Notices are repeated daily during 6 days from publication, preceded by the signal TTT, followed by the number of the notice, the letter R and then the text in this sequence:

Zone, sea, river, province, locality, etc.
Lat. and Long. if necessary.
News in question.
Sign off with SHN to indicate the authority (Servicio Hidrografia Naval).

If there is no notice to transmit, the stations will transmit "no hay avisos para navegantes", "no notices for mariners".

Notices to Mariners, and Other Items, in Spanish Only: Notices to Mariners and other special information are given in Spanish only as follows:

Rosario – LSQ 38, 477 kHz, A1, at 1305 hrs.:
Depth of water in the Parana River from Los Pajaros to Los Ratones and also the minimum depth between Santa Fe and Rosario.

Concepcion del Uruguay – LSQ 57, 477 kHz, A1, 0.5 kW at 1300 hrs.:
Information on the Uruguay River from San Javier to Gualeguaychu.

Buenos Aires South Dock (Darsena Sur) – LSQ 9, 477 kHz, A1, 1.5 kW at 0400, 0500, 0600, 0700, 0800, 0900, 1000, 1100, 1200, 1300, 1400, 1500, and 1545 hrs. except on Sundays and holidays.
Depth of water on the gauge at Riachuelo.

Buenos Aires Central de Comunicaciones (Prefectura Naval Argentina) – LSQ 4, 524 kHz, A2, from 05 to 10 minutes each hour:
Depth of water indicated by the semaphores at Puerto La Plata and Riachuelo, and of the El Codillo Zone of the Punta Indio Channel referred to zero on the Oyarbide Tide Gauge which is between pairs of Buoys 24 and 25 in the Main Channel, and the new tide gauges referred to under "Buenos Aires", Tidal Signals.

Buenos Aires, Meteo (All A1) – LSV 3220.4; LSV 2, LSV 6, 5907.5; LSV 4, 12100; LSV 5, 17520 kHz at 1705 hrs.
Depth on the River Plate, River Parana, River Paraguay and River Uruguay zones. Buenos Aires, Radio Nacional LRA 870 kHz, A3, at 0100, 1100, 1500, 1800 and 2100 hrs.
Depths of water and met. forecast for River Plate Zone, this station also transmits tidal forecasts at 0100, 1000, 1315, 1600, 1900 and 2200 hrs.

Intersection River Plate – LOI, 524 kHz, A2:
Continuous information on local depths of water, on request.

Recalada – LSR, 524 kHz, A1:
Same as Intersection.

Buenos Aires, Central de Comunicaciones (Navy) – LOL 457.2, 2162.5, 4856, 8030, 13101, 17180, 22840 kHz, A1, at 0230, 0300, 1300, 1330, 1930 and 2030 hrs.
Urgent Notices to Mariners, and Notices to Mariners covering the Argentine Coast and river systems.

Santiago River (La Plata) – LOM, 524 kHz, A2, from 05 to 10 minutes each hour:
Depth of water on the semaphore at La Plata.
From 10 to 15 minutes each hour:
State of tides in El Codillo Zone of Punta Indio Channel, referred to zero on the Oyarbide Tidal Gauge (between pairs of Buoys 24 and 25).

All Atlantic ports also transmit local Notices to Mariners and weather forecasts in Spanish, the call signs and frequencies are indicated under each individual port, but between the powerful stations at Pacheco (Buenos Aires) and Comodoro Rivadavia, the whole coast is covered by the regular information given in both Spanish and English.

Facsimile Reports: Buenos Aires also transmits facsimile reports, of which the following correspond to surface forecasts, valid for 24 hours, and weather on Mercator projection.

			0800/0815 and 2000/2015 hrs.
From station	LRO	69	5185 kHz
and	LRB		10720 kHz

both of F4, white and black with a variation in frequency of plus 400 minus 400 – 5 kW and referred to observations made 8 hours earlier.

From the Antarctic, the Argentine Met. Station at the South Orkney Islands transmits an analysis of the Atlantic area at 0300 and 1700 hrs. from LOK on 4250 kHz and 13051.5 kHz.

Traffic Control and Safety at Sea: The Prefectura Naval Argentina, in charge of shipping activities including safety at sea, maintains a control centre at Buenos Aires, and another at Mar del Plata (where several hundred fishing vessels operate).

Objectives are to prevent collisions at sea or groundings and to keep a safe, expedite and orderly flow of traffic, as well as to alert safety and salvage systems when vessels need assistance.

A – The Controlled Area, from Buenos Aires, covers from parallel 57° W passing through pair of Buoys No. 21 in the Main Entrance Channel to a line from San Isidro (Buenos Aires) to the mouth of the Parana Guazu River.

The Centre is on permanent duty in the following VHF-FM channels

16 frequency	156.8	MHz	for calls, assistance, urgency and safety.
12	156.6		notices to mariners.
14	156.7		annex to Channel 12.
6 and 8	156.3/4		bridge to bridge use.

Information all vessels in the area, both foreign and national, must inform the Centre of the following:

1. On entering the systems.
2. On leaving the systems.
3. On crossing Km. 57 in the main channel.
4. On arriving at Intersection.
5. On crossing Km. 11 of the Access Channel to/or from Buenos Aires.
6. When anchoring, mooring or unmooring.

In each case, except 2 and 6, they will give the estimated hour of arrival at the next point en route.

Vessels will also report, on Channel 16, the following:
(a) Accident or fire on board.
(b) Sighting another vessel in apparent difficulties.
(c) Sighting any dangerous obstacle to navigation.
(d) Any serious reduction in visibility.

They will also advise, on Channel 12, as soon as possible, if any mark, light or navigational aid is damaged, missing, functioning badly or evidently out of position. Vessels must keep constant watch on Channel 16 from entering the zone to leaving it, and immediately after using any of the other channels will continue to listen on Channel 16. If, for any reason, this is not possible, they will report this to Control Office by Channel 12.

The Centre transmits as routine information urgent Notices to Mariners, ruling weather conditions every 4 hours from 0000 hrs. and depth of water at El Codillo, La Plata Port, Riachuela and Martin Garcia Bar 5 minutes after every hour.

Also tide and met. forecasts at 0900 and 1500 hrs. Storm warnings, visibility reports and obstructions in channels will be transmitted immediately on being reported, and then included in the next routine transmission.

Information can be requested from the Centre at any time.

The Administration procedure is that figuring in the International Union of Telecommunications and/or the Manual for the Use of Mobile services.

Time used in this service is local Argentine time, i.e. GMT minus 3 hours.

Language: Personnel on duty in the Control centre will use only Spanish.

If necessary recourse can be had to the Code groups in the International Signal Code in use, and the spelling and lettering tables therein, or to Code Q.

B – Mar del Plata Centre controls the area from 35° 30′ S. to 41° S. In this zone the system is voluntary for foreign flag vessels. The Centre operates on the following frequencies:

	Coastal Frequency (kHz)				*Ship Frequency (kHz)*			
One:	Type	A3	H	2182	LSO	20	2182	a
				2100	LSO	69	2100	d
				4409.4	LSO	70	4410.8	f
				8754.4	LSO	71	8220.4	g
				13189.5	LSO	72	12410.5	i
	A1	A2		500	LSO	20	500	
	A1			437	LSO	20	437	
				4325	LSO	21	4325	
				12728	LSO	57	12728	

Two: The Mar del Plata Centre maintains a continuous listening watch on:

A1	A2	500	kHz	LSO	20
A1		4325		LSO	21
A3	H	2182		LSO	20
		4110.8		LSO	70
		8220.4		LSO	71

and also listens from 00 to 05 minutes each hour on A1 12728 kHz and from 45 to 50 minutes every hour on A3 H on 2100 and 12410.5 kHz.

Vessels can use any of the frequencies listed under "one" after calling any of the frequencies in "two". In radiotelephony, except for frequencies 2100 kHz and 2182 kHz traffic will be routed in semi-duplex as per frequency pairs as indicated in "one" f, g and i.

In this are Notices to Mariners and Safety information will be transmitted as follows:

A3 H	2100	8754.4	0005 and 0505	Argentine time (GMT −3)
	4409.4	7854.4	0805	Argentine time (GMT −3)
	4409.4	13189.5	1205 and 1605	Argentine time
A1	437	4325	0100 and 0600	Argentine time
	4325	12728	1300 and 1900	Argentine time

Storm warnings or other urgent information will be transmitted in A3H and A1 on 500 kHz and 2182 kHz.

Information: Vessels on entering or leaving the zone will indicate:

1. Position, course, speed, whence proceeding, whither bound.
2. Sailing from or entering ports in the area.
3. Report geographical position every 12 hours counted from time of first advice, giving course and speed.
4. Any change in course or speed which alters the normal route and time at which it occurred.
5. Anchoring in or leaving the area.

Happenings: All vessels will immediately advise the centre of:

(a) Accident or damage to own or another vessel.

(b) Sighting any object dangerous to navigation.

(c) Any serious reduction in visibility, or unfavourable meteorological conditions.

(d) Having observed if any lighthouse, beacon, buoy, etc., is not working properly or is out of its correct position.

Language and Time: As in River Plate Centre.

Time Signals: Time signals are transmitted from LOL Buenos Aires as follows: frequency 475.5, 2162.5, 4856, 8030, 13101, 17180, 22840 kHz, A1. at 0100, 1300 and 2100 hrs. GMT, using the modified modern American system, with dots every second from 54.30 to 54.50, a dash of 8 seconds ending with 4 half-second dashes, every minute to the hour, ending with a dash.

LOL also transmits on 5, 10 and 15 MHz simultaneously in A1, A2, A3. Carrier waves are modulated in 1000 and 440 kHz alternately.

Signal consist of dots every second, omitting the 59th second, and with 1 second interval before the next period commences. Transmissions is from 0800 to 0900, 1100 to 1200, 1400 to 1500, 1700 to 1800, 2000 to 2100, and 2300 to 2400 hrs. Argentine time (GMT minus 3 hours daily), except Sundays and national holidays.

At the end of each period of transmission the call sign is given in morse, and before each period the words Observatorio Naval Argentino are followed by the hour and minute corresponding to the commencement of the next signal.

Modulation on 440 kHz corresponds to the note LA of the fifth octave in the musical scale.

D/F BEACONS: A number of radio beacons specially for shipping have been installed down the coast, in addition to the air beacons which can also be used, though with less accuracy.

There are 8 beacons, and 18 aerial beacons in use as follows:

Practicos Recalada – Lat. 35° 10′ 06″ S., Long. 56° 15′ 00″ W. range 150 miles (on the lightship) frequency 320 kHz, A2.

Signal PR once 9.7 secs., followed by silence 2.3 secs., a long dash 17 secs., silence 1 sec. dash 17 secs., silence 1 sec. PR repeat the cycle, PR again and final silence 14.3 secs., making a period of 120 secs. (2 mins.).

In good weather there are 2 transmissions every 2 minutes, from 02 to 08 and 32 to 38 minutes each hour.

In fog, one 2-minute transmission every 4 minutes from 02 minutes.

Punta Mogotes – Lat. 38° 05′ 32″ S., Long. 57° 32′ 28″ W. range 120 miles. (On the lighthouse) frequency 295 kHz, A2.

Signal PM once 9.8 secs., followed by silence 2.2 secs., dash 17 secs., silence 1 sec., dash 17 secs., silence 1 sec. PM and repeat cycle. PM again, final silence 14.2 secs., total period 2 mins. of the hour.

In good weather 2 transmissions as from 06 and 36 minutes of the hour.

In fog, continuous commencing on the hour.

Bahia Blanca – (On the Recalada Lighthouse) Lat. 38° 59′ 33″ S., Long. 61° 15′ 38″ W. range 350 miles frequency 310 kHz, A2, 0.2 kW.

Signal BB 9.8 secs., silence 2.2 secs., dash 17 secs., silence 1 sec., dash 17 secs., silence 1 sec. BB and repeat cycle, then BB and final silence 14.2 secs., total period 2 mins.

In good weather 2 transmissions 4 mins. apart from 04 and 34 minutes after the hour.

In fog, 1 transmission every 4 mins. from 04 each hour.

Bahia Blanca – (On the Light Buoy El Rincon) Lat. 39° 23′ 12″ S., Long. 62° 00′ 48″ W. range 200 miles, frequency 310 kHz, A1 and A2, 0.15 kW.

Signal RN once, 7 secs., silence 2 secs., 2 long dashes 41 secs., silence 2 secs. RN repeat cycle, but 1 sec. first silence after signal then as before repeat RN and final silence 250 secs., total 6 mins.

In good weather, 2 transmissions from 02 and another 2 from 32 minutes of each hour.

In fog continuously from 02 each hour.

Bahia Blanca – (On the Segunda Barranca Lighthouse) Lat. 40° 47′ S., Long. 62° 16′ W. approx. range 200 miles, 310 kHz, A2.

Signal SB 9.7 secs., silence 2.3 secs., dash 17 secs., silence 1 sec., dash 17 secs., silence 1 sec. SB and repeat cycle, repeat SB final silence 14.3 secs., total period 2 mins. In good weather, 2 transmissions every 30 mins., at 00/02 06/08 30/32 and 36/38 minutes on the hour, in fog, every 4 mins. 00/02, 06/08, etc.

Punta Delgada-Los – Lat. 42° 46′ 00″ S., Long. 63° 38′ 00″ W. range 200 miles, frequency 315 kHz, modulation 1000 kHz modulated A2 signal PD 9.7 secs., silence 2.3 secs., long dash 17 secs., silence 1 sec., long dash 17 secs., silence 1 sec. PD repeat cycle, PD final silence 14.3 secs. total period 2 mins., good weather 4 transmissions every hour at 04, 10, 34 and 40 minutes after the hour. In fog, 2 mins. transmission and 4 mins. silence from 04 of the hour.

San Gregorio – Lat. 45° 01′ 30″ S., Long. 65° 37′ 51″ W. range 200 miles, frequency 295 kHz, A2, 2 kW.

Signal IL 9 secs., silence 3 secs., long dash 17 secs., silence 1 sec., long dash 17 secs., silence 1 sec., IL repeat cycle. IL final silence 15 secs., 2 mins. period in good weather 4 times every hour, 2 mins. each from 00, 06, 30 and 36 after the hour.

In fog, one 2 minute transmission and 4 silence, from 00 in the hour, but fog transmission temporarily suspended.

Cabo Blanco-Loa – Lat. 47° 12′ 12″ S., Long. 65° 44′ 33″ W. range 200 miles (on the lighthouse) frequency 295 kHz, A1, A2, 0.15 kW signal CB 12 secs., 2 long dashes 37 secs., CB repeat cycle CB final silence 250 secs., total period 6 mins. Good weather, twice from 08 and twice from 38 minutes after the hour; fog, continuously from 02.

Temporarily out of service.

Medical Advice: Medical consultations can be made, without charge, from vessels at sea with urgent illness or accidents on board. Messages should be brief, but clear and concise, describing the symptoms of the illness with all possible details, including age and sex of patient and informing what first aid equipment is available on board.

For priority, messages should be preceded by the urgent signal XXX and be signed by the Master of the vessel.

The Medical section of the International Signals Code, 1931, Volume 2, can be used, as also clear language if it is necessary to amplify the message.

Messages should be radioed to "Consulta Radiomedica" followed by the name of the coastal station used.

All consultations are gratuitous, they must be composed in Spanish, and indicate in this order:

Sex; Age; clinical antecedents; symptoms leading to the consultation; probable cause of the illness or conditions in which accident occurred; any other data which could assist diagnosis and facilitate treatment, such as pulse rate, temperature (in Centigrade) character and appearance of the wound, etc., and informing what first-aid equipment is on board.

The following stations at Buenos Aires give continuous service for this purpose:

LPD	4	44.5	kHz	A1	A2
LPD	68	4268	kHz	A1	
LPD	86	8646	kHz	A1	
LPD	32	13002	kHz	A1	
LPD	46	17045.6	kHz	A1	
LPD	91	22419	kHz	A1	
LPD	44	4434.5	kHz	A3	
LPD	8	8811.5	kHz	A3	
LPD	9	13180	kHz	A3	

The Following Beacons, all on A2, may be of assistance

		Lat.	*Long.*	*Freq. (kHz)*	*Time*
Bs. Aires, Aeroparque	OP	34° 31′ 18″ S.	58° 29′ 00″ W.	260	continuous
Bs. Aires, el Palomar	PAL	34° 37′	58° 36′	400	from sunset, on req.
Bs. Aires, Moron	MOR	34° 40′	58° 38′	355	continuous
Bs. Aires, Ezeiza	EZA	34° 49′	58° 32′	365	continuous
La Plata	PTA	34° 53′	57° 56′	250 or 275	continuous
Punta Indio	PDI	35° 18′	57° 16′	325	09/2300
Dolores	DOL	36° 20′	57° 42′	235	on request, range 120 miles
Bahia Blanca	BCA	38° 43′	62° 12′	330	daylight only, not Sundays/holidays, range 250 miles
Comandante Espora	EPO	38° 45′	62° 10′	370	daylight
San Antonio Oeste	SAO	40° 44′	64° 58′	220	daylight
Trelew	TRE	43° 14′	65° 19′	205	daylight, range 300 m.
Comodoro Rivadavia	CVR	45° 47′	67° 30′	230	daylight, range 230 m.
Puerto Deseado	ADO	47° 44′	65° 55′	210	continuous
San Julian	SJU	49° 18′ 30″	67° 46′ 30″	375	occasional, range 150 miles
Santa Cruz	SCZ	50° 01′	68° 34′	245	occasional, range 250 miles
Rio Gallegos	GAL	51° 37′	69° 17′	330	09/2300 350 miles
Rio Grande	RGN	53° 47′	57° 40′	365	on request
Ushuaia	USU	54° 49′	68° 19′	235	on request 200 miles

TUGS: Use of tugs compulsory. Exceptions may be made to vessels with bow thrusters.

Working Hours at Ports of the Interior: The working hours for towage services during the week are from 0700 – 1700 hrs. Saturdays 0700 – 1100 hrs.

Ordering of Towage Services: For a service to be performed during working hours this must be ordered 3 hours beforehand, and up to 1600 hrs. on working days and 1200 hrs. on Saturdays. In Bahia Blanca and other ports this is up to 1100 hrs.

Commencement of the Service: There is 30 mins. grace without surcharge.

Overtime Rates: Working days from 1900 – 0700 hrs., 40 per cent. extra. Saturdays 0000 – 0700 hrs., 40 per cent. extra. At Buenos Aires and Bahia Blanca 1300 – 2400 hrs., 40 per cent. extra. At other ports 1100 – 2400 hrs., 40 per cent. extra. Sundays and Holidays 0000 – 2400 hrs., 80 per cent.

Surcharges for Delays: These will be applied per hour or fraction of about 15 mins.

Cancellations Without Charges: In Buenos Aires it is possible to cancel a service 3 hours beforehand, and at Bahia Blanca 2 hours beforehand during working days. At other ports 1 hours' notice is required.

Cancellations With Penalty: There is a charge of a minimum of 1 hour for services ordered during working days and cancelled. On Saturdays, Sundays and Holidays, the minimum charge is 2 hours.

LOAD LINE: Vessels are permitted to load to their Summer marks all year round at all River Plate Ports as well as Atlantic ports as far South as Cape Tres Puntas; inclusive (Lat. 47° 06′ S., Long. 65° 05′ W.) and provided they are Northbound or Eastbound. All ports in the River Parana, River Uruguay and the River Plate proper are fresh water.

With regard to Loaded Draft, the mean draft and not the maximum must be taken into account, and this should not exceed the Load Line marks.

On the mean draft an allowance will be made equal to the weight of the fuel vessel will consume until it reaches the Sea from up-river ports. No allowance is given to vessels leaving Buenos Aires or La Plata.

LIGHTENING ANCHORAGE: Vessels wishing to lighten cargo and perform topping-off operations may do so in the following positions:

Position No. 1	Lat. 34° 42.0′ S.	Long. 57° 57.2′ W.
Position No. 2	Lat. 34° 44.1′ S.	Long. 56° 48.0′ W.
Position No. 3	Lat. 34° 46.0′ S.	Long. 56° 48.0′ W.
Position No. 4	Lat. 34° 43.9′ S.	Long. 57° 57.2′ W.

For ships performing such operations in the River Parana, after passing Martin Garcia, the respective zone is between Km. 172 and Km. 173 in the River Parana Guazu, outside the channel. It is forbidden for ships not lightening or topping off to anchor at these points.

SPEED: Maximum Speed in Ports, Channel and Rivers: Vessels operating in the proximity of an open port, close to quays or loading places where other vessels or barges are operating, will reduce speed to a maximum 6 knots.

In particular this refers to

Rosario	between Saladillo and Punta Barrancos (La Florida)
San Nicolas	between Km. 347 and 351
Ramallo	between Km. 322 and 326
Zarate	between Km. 104 and 111
Campana	between Km. 96 and 98

FUMIGATION: *(a) Exemption:* Vessels of foreign registry will be fumigated when proof is not shewn that fumigation has been effected by competent authority, and in a port duly authorised by the International Office of Public Hygiene, or that they have been exempted from such operation by the Health Ministry at authorised ports, within the last 6 months. Vessels arriving with an expired Fumigation or Exemption Certificate, will be fumigated except where a request of 1 month's grace is made to allow vessel to return to home Country or a request is made for an inspection. Should the vessel be in either case in a sanitary condition and have *no trace of rats,* an Exemption Certificate will be granted.

(b) Certificates are of no value if vessel is not in good sanitary condition. The Authorities will not recognize the validity of any Certificate or issue any Exemption Certificate to those vessels which in the opinion of the National Health Ministry, after inspecting the vessel, are not in a good sanitary condition. Both cyanide and sulphur (Clayton process) Fumigation Certificates are accepted by the Health Ministry.

(c) Permit to Commence Loading of Vessels Ordered to Fumigate: No vessels which have had an annotation on their Free Pratique Certificate to the effect that they must be fumigated or inspected, are permitted to commence loading before these requisites are complied with. To this effect the necessary advice will be passed by the Customs or Port Authorities to the Health Ministry for intervention.

(d) Ports Where Vessels can Fumigate: The sulphur fumigation is exclusively effected by the Health Ministry at the ports of Buenos Aires, La Plata and Rosario. The cyanide process is effected by private companies at practically every port of the Republic, provided sufficient notice is given, as at some ports it is necessary to bring the equipment from other ports.

Masters are recommended to ensure that their vessels are in good sanitary condition and free from traces of rats on arrival. Even although vessels may be given a Free Pratique Certificate, this does not always free vessel from fumigation if on arrival at port of loading, the Authorities discover traces of rats on board. The granting of Free Pratique has, in fact, no relationship to the granting of fumigation exemption, and permission to load.

(e) Weevil: The National Grain Board is very strict on inspecting for weevil on board vessels destined to load grain.

TIDES: Following data indicates the tidal range at Spring and Neaps in feet and tenths of a foot indicating the Argentine chart number on which the respective datum is given, and the height to be added to or deducted from that datum at the various ports, which are given in North/South rotation.

	Springs	*Neaps*	*Chart number*
Martin Garcia	2	0.4	70
Buenos Aires	3.2	0.8	176
Mar del Plata	3.8	1.2	18
Quequen/Necochea	5.2	2	18
Puerto Belgrano (Bahia Blanca)	12.6	6.4	74
S. Antonio Oeste	30.4	11.8	6
Puerto Madryn	18.8	6	92
Comodoro Rivadavia	19.6	7.4	30 (plus 0.6 feet)
Puerto Deseado	17.2	6.2	21
San Julian	28	9.2	H 350
Santa Cruz	39.8	9.4	2
Rio Gallegos	39.4	9.6	H 451/2
Cabo Virgenes	37.8	7.4	203 (minus 2.5)
San Sebastian	33.8	9.4	84 (minus 0.7)
Rio Grande	22.6	7.6	67 (minus 2.1)
Ushuaia	5.2	2.2	45
and for comparative purposes.			
Montevideo	0.8	0.4	242 (plus 0.8)
Punta Arenas	5.6	1	British chart 545

DRY DOCKS AND FLOATING DOCKS: There are 2 dry docks at Buenos Aires and 2 at Bahia Blanca, and 5 floating docks at Buenos Aires, with smaller ones available at Rosario and Corrientes.

The 4 dry docks are under the control of the Ministry of Marine as are some of the floating docks, but all are available for merchant vessels, and private repair companies are permitted to carry out work in these Government docks.

(a) Applications for entering either Dry or Floating Docks are the same: Name and class of vessel; flag, characteristics; NRT as per Register; nature of repairs; estimated stay in dock, date when ready to enter dock; vessels' Register number and plans of the hull for docking.

Tank vessels must also supply a "Gas Free" certificate.

(b) Buenos Aires: The 2 dry docks are at right angles in the North Basin, on the Northeast side and have the following dimensions:

No. 1 493 ft. (150 m.), breadth at top of entrance 66 ft. (19.75 m.) gradient 1: 300.

No. 2 590 ft. (180 m.), breadth at top of entrance 92 ft. (22.10 m.).

Vessels with large beam can only enter if their draft does not exceed 20 ft.

(c) Bahia Blanca.—The two dry docks are in the Naval Dockyard base.

No. 1 is 705 ft. (215 m.) in length, width on sill 72 ft. 6 in. (22.12 m.).

No. 2 is 672 ft. 6 in. in length (closed) (205 m.).

(d) Floating Docks: There are 7 in Buenos Aires, as follows:

	Lifting Capacity	*Length*		*Internal Breadth*	
No. 1	3,500 tons	413′	126.10 m.	56.0′	17.10 m.
No. 2	1,500 tons	300′	91.50 m.	41.0′	12.50 m.
No. 3	750 tons	216′	65.79 m.	44.0′	13.32 m.
No. B	2,800 tons	397′	110.00 m.	60.7′	18.05 m.
No. C	1,000 tons	246′	75.00 m.	51.4′	15.68 m.

All supply cranes, fire fighting equipment, compressed air, water pumps, electric supply – 380 V. and 110 V. AC or 220 V. DC. Telephone, sanitary discharge for ship's bilges and sanitary services on the dock.

FUEL: Bunker stocks of diesel oil are available in bond at Buenos Aires, Bahia Blanca and Montevideo, thus these ports are the most convenient for taking Diesel bunkers. It is available at other ports, but has to be transported by lorry from Buenos Aires. Lorries are unable to go alongside at some of the elevator berths, and there are no oil barges at Rosario, San Nicolas, or Necochea.

At Buenos Aires there are barges of 150 to 550 tons with tanks to carry all classes of oil. If smaller quantities are required transportation can be effected by lorries from the tanks, the cost being cheaper than barging.

Oil can be transported by lorry to any berth in the Port of Buenos Aires.

STEVEDORES: Working hours are officially 0700 – 1300 hrs.; 1300 – 1900 hrs.; 1900 – 0100 hrs. and 0100 – 0700 hrs. From 1900 – 0100 hrs. and 0100 – 0700 hrs. there is a 100% surcharge on Mondays to Fridays, or 200% on Saturdays, Sundays or holidays. On Saturdays the second shift (1300 – 1900 hrs.) and on Sundays/holidays the 2 day shifts (0700 – 1300 hrs. and 1300 – 1900 hrs.) are paid with 100% surcharge.

In Parana River ports, shifts start and finish 1 hour earlier, except at Santa Fe.

It is forbidden for a man to work more than 1 shift daily, unless no other labour is available at the halls, and the Port Captain agrees.

Use of mechanical appliances is encouraged, and when the Port has not sufficient available, the Stevedoring companies hire this to the vessel to speed up operations.

Stevedoring Damage: It is essential that Master and/or Agent leaves on immediate record any damage done to vessel or cargo by the stevedores, in order to assist in recovering the cost of repairs.

Holidays and Non-Working Days: National Holidays: January 1st (New Year's Day), Good Friday, May 1st (National Workers' Day), May 25th (National Independence Day), June 20th (Argentine Flag Day), July 9th (Independence Day), August 17th (Death of Gral. San Martin), December 25th (Christmas Day).

Non-Working Days: Maundy Thursday, December 8th (Catholic Holiday).

Drinking Water. A good supply of drinking water should be available on board, and in hot weather this must be iced.

WATCHMAN: The use of watchmen is obligatory in all ports, and they are the auxiliary delegates of the Maritime Authority. One man per gangway must be placed. Masters may also place a crew member on watch, but in ports where there is an official service the official watchmen must be used. His duties are to control access to the vessel, control the shipment or discharge of prohibited articles, to revise all packages brought on board or landed, see that the moorings are in order, that the gangway is duly illuminated and that rat guards are in place.

WHARF CLEANING: It is the Master's duty to see that the wharf is properly cleaned up before his vessel vacates a wharf. Port Authorities can do this, and charge the Agents of the vessel last berthed with the cost.

HATCHES: Opening and closing normally carried out by the stevedores in each port. All hatches must be kept closed when vessels are not operating, and when leaving port, must be well battened down and covered with two tarpaulins.

RAT GUARDS: All moorings must be provided with regulation pattern rat guards, 80 cm. diameter.

As part of the rat control gangways must be painted white and fully illuminated at night. Fines are imposed for non-compliance.

FENDERS: At all ports, vessel must be boomed off the quay at least 1 m. 50 cm. Any type of fender meeting this requirement will do, but at San Nicolas, special fenders are supplied.

NIGHT LIGHTS: All vessels when made fast must illuminate that side towards the water with at least one screened light. When vessels are double berthed, the one lying second off must comply with this rule. Similarly, vessels moored with either stern or bows to shore must show a light over the anchor chain to seaward. Vessels laid up or being dismantled are exempt from this, but owners are responsible for any resulting damages.

DESTINATION CHANGE: When at sea if there is any change in destination, within the Argentine, Masters must report this by radio to the Marine Prefecture, indicating the reasons for such change.

DESPATCHES: Once despatch is granted, this is valid for 12 hours only, after which period new despatches must be requested, and reasons given for not sailing. In ports where local conditions impose a longer limit, the maximum allowable is 30 hours.

SEAMEN'S INSTITUTES, HOME AND CHURCHES: There is one hostel for seamen, and five institutes operating in Buenos Aires and one in Rosario, as follows:

Stella Maris (Apostleship of the Sea)
Independencia 20 (corner Ing. Huergo). Tel: 33-0832
Open every day. Vessels visited daily. Hotel – Rooms, Meals, Bar. Information – Port Office, Books, Money Exchange, Souvenirs. Amusements – Dancing, table tennis, billiards, television, excursions. Salon Dance – Wednesdays, Saturdays and Sundays.

Religion – Mass every Sunday at 1930 hrs., and in the morning on board ship by request. Confession at all times. Night prayer for all seamen.

Football games arranged. Books freely exchanged.

The Missions to Seamen
Cochabamba 223. Tel: 33-0326
Open daily from 1900 hrs., with dances on Tuesdays, Thursdays and Saturdays from 2100 hrs. Shop, post office, billiards (three tables), snooker, table tennis, television, bar (beer, no spirits), etc.

There is a service of Holy Communion at 1900 hrs. every Sunday. Football games and excursions arranged. Vessels are visited.

Sjomandskirke
Ing. Huergo 1263. Tel: 33-3861
Open daily from 0800 hrs. Library, billiards, table tennis, sightseeing visits arranged, as also football matches. Vessels visited every day.

Church services every first Sunday at 1030 hrs.

Axel Johnson Minne till Svenska Sjoman
Juan de Garay 80. Tel: 33-7304
Open daily from 1800 hrs. Library, sightseeing arranged.

Details of religious services on board of Swedish Church in Azopardo 1428 (round the corner from the Johnson Foundation).

Dansky Kirke
Carlos Calvo 257. Tel: 33-9154
Danish seamen are welcome at the Norwegian Centre, while at the Church the office is open every Tuesday from 2000 hrs. to 2200 hrs. for assistance, and the Young People meet on Tuesdays and Fridays from 2000 hrs. to 2200 hrs., all being welcome.

Church services are at 1000 hrs. every Sunday, and on third Sunday in every month at 1600 hrs.

Finnska Sjomens-Kyrken. Suommerimien Kirkko
San Juan 234. Tel: 33-6797. Open daily 1800 hrs. to 2200 hrs.

Rosario: The Missions to Seamen at Sarmiento 209.

II. *RIVER PLATE PORTS*

Acevedo
Acindar
Atucha
Borghi
Buenos Aires
Buitrago
Campana
Concepcion del Uruguay
Diamante
Ibicuy
Ing. Rocca
La Plata
Ramallo
Rocca
Rosario
San Lorenzo
San Martin
San Nicolas
San Pedro
Santa Fe
Villa Constitucion
Zarate

Distance Table
Montevideo and Buenos Aires to Parana and intermediate ports
Nautical miles

	Montevideo	Recalada Practicos	La Plata	Interseccion Practicos	Buenos Aires	Martin Garcia	Ibicuy	Campana	Zarate	San Pedro	Obligado	Ramallo	San Nicolas	Villa Constitucion	Rosario	San Lorenzo	Grondona	Gaboto	Diamante	Alvear	Santa Fe	Bajada Grande
Recalada Practicos	16																					
La Plata	118	102																				
Interseccion Practicos	108	92	10																			
Buenos Aires	128	112	30	20																		
Martin Garcia	145	129	47	37	57																	
Ibicuy	205	189	107	97	117	60																
Campana	243	227	145	135	155	98	41															
Zarate	238	222	140	130	150	93	36	5														
San Pedro	239	223	141	131	151	94	37	72	67													
Obligado	249	233	151	141	161	104	47	82	77	10												
Ramallo	261	245	163	153	173	116	59	94	89	22	12											
San Nicolas	276	260	178	168	188	131	74	109	104	37	27	15										
Villa Constitucion	285	269	187	177	197	140	83	118	113	46	36	24	9									
Rosario	310	294	212	202	222	165	108	143	138	71	61	49	34	25								
San Lorenzo	326	310	228	218	238	181	124	159	154	87	77	65	50	41	16							
Grondona	343	327	245	235	255	198	141	176	171	104	94	82	67	58	33	17						
Gaboto	348	332	250	240	260	203	146	181	176	109	99	87	72	63	38	22	5					
Diamante	374	358	276	266	286	229	172	207	202	135	125	113	98	89	64	48	33	37				
Alvear	385	369	287	277	297	240	183	218	213	146	136	124	109	100	75	59	44	48	11			
Santa Fe	400	384	302	292	312	255	198	233	228	161	151	139	124	115	90	74	59	63	26	15		
Bajada Grande	406	390	308	298	318	261	204	239	234	167	157	145	130	121	96	80	65	69	32	21	6	
Parana	410	394	312	302	322	265	208	243	238	171	161	149	134	125	100	84	69	73	36	25	10	4

THE RIVER PLATE

The River Plate, or Rio de la Plata, is formed by the rivers Parana and Uruguay, and is one of the greatest river systems in the world, the Basin covering nearly four million square kms. It is some 150 miles long, and the mud and sand in the waters give a thick brownish colour. Tides are small, but the water level is subject to frequent and sudden fluctuations on account of the weather.

The official depth at zero of the long entrance channel from Recalada to the Port of Buenos Aires is presently (this varies slightly from time to time):

	Width of Channel (m.)	Depth (m.)	Alternative Width (m.)	Alternative Depth (m.)
Punta Indio	100	9.20	200	8.00
Intermedio	100	9.75	200	9.15
Paso Banco Chico	100	9.91	200	9.15
Buenos Aires Roads, Km. 37	100	9.75	200	9.30
Access Channel, Km. 37-7.3	100	9.00	—	—
North Channel, Km. 7.3-0.9	100	9.60	—	—
South Channel, Km. 6.2-0.1	140	8.20	—	—

From Recalada Lightship West the Bay is all fresh water.

Vessels drawing 31 ft. or even 32 ft. (fresh water marks) frequently navigate safely. The tidal rise and fall is from 3 ft. to 5 ft., but the state of the river is influenced to a far greater extent by the force and direction of the wind. There is no guarantee that a vessel drawing 31 ft. may not be caught by low water caused by a North wind, which carries the water seawards. Just as a North wind will reduce the depth of water, so a Southerly or Southeasterly wind raises it considerably, often several feet.

Winds from S.W. to E.N.E. through North make the level drop, North being the strongest in this sense.

E.N.E. to S.S.W. winds make the water rise, S.S.E. having the greatest influence.

Between S.W. and S.S.W. or N.E. and E.N.E. the influence of the winds is much less.

Vessels often touch bottom, or even bump slightly, but as the bed of the river is soft mud and silt, one never learns of these ships reporting damage. The Plate Pilots, of course, warn Masters of this not infrequent occurrence. The docks and basins in the port also have soft mud bottoms, except for the entrance between North Basin and Dock 4, and it is quite customary to see vessels lying safely aground when loading or discharging.

RECALADA LIGHTSHIP: Vessels enter the Plate system passing the Recalada Lightship, 16.8 miles South of Montevideo at Lat. 35° 10′ 06″ S., Long. 56° 15′ W. At this point it is obligatory to take an Estuary Pilot, if proceeding West, and a minimum 24 hours' notice must be given both to Agents in Buenos Aires and to Recalada Lightship.

The Recalada Lightship and pilot station is a small vessel, whose hull is painted in vertical black and white stripes, 2 m. wide, and with an orange/red housing.

Apart from the usual pilot lights (white above red) there is a lantern on the foremast, with a white flash every 8 seconds (1 second light, 7 seconds eclipse) placed at 19 m. above river level, range 12 miles.

The lightship also has a fog signal, period 30 secs. sounding for 3 secs. and silent for 27 secs.

Radio call sign is LSR on 500 kHz type A1, transmitting in clear every hour from 05 to 08 and 35 to 38 minutes. Operator on watch 08–10, 12–14, 16–18 and 20–2200 hrs., also listens on 462 kHz using 437 kHz as working frequency. For ship to ship 468 kHz or 156.3/156.4 MHz. 2182 kHz and 2065 kHz are used in A3 H/J as well as 4125/4239.5 in A1 or 3860.5 in A3, for P 3 156.8 or 156.7 MHz.

Punta Indio Channel

The term "Adjacent Zone" comprises the zones of the main channel of the River Plate which extends 500 m. to either side of the buoy at Km. 57 and Buoy No. 30 at Punta Indio Channel, likewise 300 m. on each side, outwards, of the pairs of buoys marking the Punta Indio Channel between Buoy Nos. 30 and 1.

Vessels navigating in these zones have equal privileges to those navigating the Punta Indio Channel, which comprises the zone of the general channel of the River Plate between Buoy No. 30 and the Recalada Lightship following the route buoyed for ocean going vessels by the Ministry of Public Works.

Vessels drawing over 24 ft. entering or leaving the River Plate are obliged to traverse the Punta Indio Channel from Buoy Nos. 1 to 30, and the Adjacent Zones existing between Buoy No. 30 and Km. 57.

Westbound traffic, after passing Buoy No. 30 will leave Buoy No. 31 on the port side, and continue along the North adjacent zone to Km. 57.

Eastbound, when water level permits, after passing Km. 57 will keep to the South adjacent zone as far as Buoy No. 32, then to the North leaving Buoy No. 31 to starboard and then heading for pair of Buoys No. 30. Should the water level not allow this at Km. 57, vessels will follow the North adjacent zone to Km. 66, then take the South zone to Buoy No. 32 and then as above, leaving Buoy No. 31 to starboard.

Vessels drawing 21 ft. and up to 24 ft. inclusive must follow the route of the general channel and the corresponding Adjacent Zones and may make use of the Punta Indio Channel or not, depending on the depths of the river.

Vessels drawing 19 ft. but under 21 ft. must use the general channel of the River Plate and the corresponding Adjacent Zones, but can only use the Punta Indio Channel between Buoy Nos. 19 and 23 when depth of the river makes this advisable.

Vessels drawing less than 19 ft., wishing to follow the route of the main channel, may do so through the corresponding Adjacent Zones but are forbidden to navigate along the Punta Indio Channel unless there are no other ships in that channel, which by reason of their draft, must navigate there. They must use the adjacent North Zone when Westbound, or South Zone if Eastbound.

Between pairs of Buoys No. 20 and 30 no crossing is permitted in the channel, neither is overtaking allowed. The Eastbound vessel should adjust speed to avoid such crossing with an entering (Westbound) vessel.

INTERSECTION: This pilot station, near Km. 37 and 166 km. West from Recalada is on the South side of the principal channel, at Lat. 34° 41′ 04″ S., Long. 57° 57′ 05″ W.

Call sign is now LSP on 500 kHz or other frequencies as for Recalada. Operator on duty from 0800 – 1000, 1200 – 1400, 1600 – 1800 and 2000 – 2200 hrs.

At this point the estuary Pilot concludes his stint, inwards, or takes over outwards, and Port Pilots for Buenos Aires take over or finish. Similarly up river Pilots for vessels bound for Uruguay or Parana Rivers take over or deliver vessels here.

If, owing to the bad weather or force majeure, the launch cannot transfer Pilots, by day the blue flag with the letter "P" normally flown at the fore will be struck, or by night the red and white pilot lights will be extinguished, and a red light exhibited at the stern.

At Intersection vessels anchor while waiting for draft to proceed to the Parana or Uruguay Rivers, as well as those awaiting berth in Buenos Aires.

The holding ground here is not good, being soft mud. All ships drawing more than 15 ft. must, before leaving Martin Garcia or Interseccion outward bound, ascertain the state of the channel from LSP (Radio Interseccion) who will give the departure time, draft, and speed of vessels navigating in the channel. Only after receiving this dual information can Masters and Pilots decide to proceed, and then must communicate time, draft and speed to Radio Interseccion. Vessels drawing less than 15 ft. can navigate freely between Martin Garcia and Interseccion, but must give way to vessels of deeper draft.

INTERSECTION TO MARTIN GARCIA: No vessel may cross the bar drawing more than 7.92 m. (26 ft.) (often less) and with a minimum speed of 10 knots. For those with less than 10 knots but not below 8 knots, vessels of 5,600 tons or over cannot exceed a draft of 6.70 m. (22 ft.) or those of lesser tonnage, 6.85 m. (22 ft. 6 in.).

If speed is below 8 knots but above 5 knots, the maximum draft admissible is 6.1 m. (20 ft.) but such vessels must request a clear channel. Ships of less than 5 knots, and tug convoys will request special permission from the Naval Prefecture.

From Intersection (Km. 38) to Martin Garcia (Km. 106) vessels will anchor near Km. 37 until there is sufficient water, with 1 ft. under the keel and a rising tide or river. If it is calculated that the vessel will have 3 ft. clear through the whole passage, she may leave, but on a falling or stationary river, she must adjust speed to avoid the difficulties between Km. 37 and Km. 79.

From Martin Garcia to Intersection, vessels drawing 22 ft. 6 in. or more will leave when conditions assure 1 ft. 6 in. of water under the keel. It is essential to radio LSP as above to check on tides, etc. Such vessels coming down river must also communicate to LSP the passing of Km. 101 and 38, while those going up river must advise passing Km. 38, 72 and 101.

In the sector Intersection/Martin Garcia vessels may anchor in any suitable place until depth of water permits them to go upstream on a rising river.

No vessel drawing over 4.6 m. (15 ft.) may cross or overtake another between Km. 47/52; 57/72; 83.5/95 and 100/106; Should a crossing appear necessary in any of the prohibited zones between Km. 38 and 79, the ship which commenced to navigate with 6.8 m. (22 ft. 6 in.) and with 0.45 m. (1 ft. 5 in.) under keel will hold back or manoeuvre to avoid crossing, except when the vessels which sailed from Intersection did so on a falling tide. If the crossing were to occur between Km. 83.5 and Km. 96 or Km. 100 to Km. 106 the vessel proceeding upriver will manoeuvre or regulate speed. Nevertheless, if crossing appears inevitable, any vessel affected by such a manoeuvre has the right to lodge a protest on arriving in port or at Intersection.

Vessels drawing 6.7 m. (22 ft.) or more are recommended to cross between Km. 72/74, 80/82 and 96/98. Those drawing less than 6.7 m. (22 ft.) may cross between Km. 52/56 and 98/100 provided that they keep 0.9 m. (3 ft.) beneath their keel.

In any case of grounding which may obstruct navigation, totally or partially, owners must take immediate action to remove the obstruction, including immediate lightening of the ship without waiting for any summary report.

MARTIN GARCIA BAR: The Island itself, in Lat. 34° 11′ S., Long. 58° 17′ W. is an almost circular mass of granite, about 26 m. high and some 3 miles in circumference. Shores are muddy but also rocky.

It commands the entrance to the Rivers Parana and Uruguay, and all vessels using these rivers must pass within 0.5 miles of the shore on the South side, or within less than 1 mile by the Northern Channel. There is an Argentine Naval detachment there.

Important: It is always said that Martin Garcia Bar rules the rivers; this is not strictly correct as, usually in the second half of the year, there may be less water in the stretches above Rosario, and at times even below San Nicolas to San Pedro, where new shallows keep forming which have constantly to be watched. Caution should be used, therefore, from July to January in this connection.

Lighthouse: At an elevation of 38 m. a light is shown from a circular stone tower standing 13 m. high in the centre of the island.

Tidal Signals: These are made from a signal mast placed alongside the lighthouse. See "Plan".

Day Signals: See "Plan".

Night Signals:	(White flash)	Cycle: 30 seconds
	(Red flash)	Long flash: 2.5 sec. each.
	(Green flash)	Short flash: 6/10 sec. each.
White flashes		Rising tide: One long.
		Falling tide: Two short.
Red flashes		Above zero:
		For each m.: One long.
		For each 10 cm.: One short.
Green flashes		Below zero:
		For each m.: One long.
		For each 10 cm.: One short.
Green and red flashes		Zero:
		One green and one red, both short.

Depth of water here varies from hour to hour, with no pattern, and is not dependant on the depth of water in the Parana. The only relation between the River Parana and Martin Garcia and San Pedro Bars, seems to be that with a full and strong river, the water which is blown into the Plate Estuary by Southerly winds against the strong head of the river, makes deeper water than a similar Southerly wind opposed to a smaller stream from the river. Likewise, the water blown out to sea by Northerly winds causes lower depths when the river is running strongly than when it is low. The effect is almost that of a new or full moon on the lunar tides.

It must always be remembered, therefore, that the dominant factors from Martin Garcia seawards are the direction and force of the wind. A Southerly wind will bank up the water, while a Northerly wind will blow it out. There may be, say, 30 ft. in the Parana, with a strong North wind, and less than 20 ft. on Martin Garcia. With the wind in the S.E., the depth at Martin Garcia can rise in a few hours up to 30 ft.

A prudent course is never to attempt to cross Martin Garcia drawing more than 25 ft. even with the river at its highest.

Martin Garcia lies at Km. 99.4 from Buenos Aires, via Intersection, i.e. at Km. 62.4 from Intersection.

Vessels continue North to Km. 140, at which point the Uruguay and Parana Rivers meet to form the River Plate. This is opposite Nueva Palmira in Uruguay, and at this point the River Uruguay buoy numbers start from Km. 0, while the Parana numbering continues from 140 on through the Parana Bravo, which is the Northerly arm of the extensive Parana Delta.

WEATHER: *The yearly average direction of winds* of Force 7 or more, as observed at Recalada Lightship shows:

N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
0.8	1.3	2.7	3.4	5.2	3.7	1.9	1.3

expressed in per cent of winds observed, the least frequent being the North. Division is relatively even over the year, with perhaps August showing a higher incidence of storms.

The average velocity of winds from the various directions, over the year, is 6.8 knots on the coast or 12.5 knots at Recalada Lightship, the highest figures being from S.E., S. and S.W. at 8.3, 9.3 and 9.2 knots respectively.

Percentagewise the direction of the winds through the year is remarkably even:

N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	calm
12.7	15.8	14.4	14.2	11.3	9.7	6.8	9.2	5.8

Visibility in the Plate area is normally good; rain storms may temporarily affect it, but these are usually of short duration. Fog (visibility less than 1,000 m.) or mist (visibility 1/2,000 m.) occurs from April to October, with June showing the highest percentage of fogs (13%). North winds seem to favour the forming of fog, as these figures show.

Direction	Calm	N	NE	E	SE	S	SW	W	NW
fog (%)	11	24	17	5	12	6	0	3	13

Fog on the river forms by a cooling from below of warm air which drifts from E. or N.E., and is formed only when the temperature of the air is greater than that of the water. If the current augments its velocity, the fog lifts and visibility improves at sea level. Shore fogs usually affect only the coast and are of short duration.

Rain falls, on average, 92 days a year, with a total of 1,089 mm. yearly in Buenos Aires, spread evenly through the year with a high in January of 113 mm.

Humidity is high, on average 77% with 82% Winter, and 71% Summer months.

Electric storms are not frequent, and usually limited in extent.

Average yearly temperature is 16.6°C, in Summer 22.2°, Autumn 17.2°, Winter 11.2° and Spring 16°. Extremes correspond to January 43.3° (all-time high) and minus 5.6° in July.

ACTION OF THE WIND ON TIDES: In this large body of enclosed and shallow water winds up and down its axis raise or lower the water level very appreciably.

Cross winds in general have much less effect, and the inner and centre sections of the Plate show greater variations than the outer part. We show below a table as estimated by the Hydrographic Office, based on many years observations showing the variations, in cm., due to speed and direction of the winds. The values quoted must be applied to the astronomic tidal figures to arrive at a net level over datum.

Four new tide-gauges have been installed – 2 in Punta Indio Canal, at Km. 99 and Km. 180, and 2 up-river. Eventually four more will operate at Palermo, Banco Ortiz, Martin Garcia and Atalaya. Connected to the Hydrographic Office, the date will be incorporated into the regular tidal bulletins.

Table showing variations in river level according to force and direction of wind in the River Plate
expressed in centimetres.

	Kilometres/hour								
	10	20	30	40	50	60	70	80	sign
N.	18	30	39	48	60	72	84	96	minus
N.N.E.	9	21	30	36	45	57	69	81	minus
N.E.	3	6	9	24	39	57	69	81	minus
E.N.E.	3	6	9	12	18	33	42	51	plus
E.	6	12	24	36	48	60	72	84	plus
E.S.E.	9	24	39	57	69	81	93	105	plus
S.E.	21	39	57	72	87	102	114	126	plus
S.S.E.	30	45	66	81	96	114	132	150	plus
S.	18	36	57	66	78	99	108	120	plus
S.S.W.	12	24	39	48	57	69	78	87	plus
S.W.	9	12	18	24	33	52	51	60	minus
W.S.W.	6	12	18	30	39	51	60	69	minus
W.	9	15	27	36	45	54	63	72	minus
W.N.W.	12	21	30	36	45	54	66	78	minus
N.W.	12	21	33	39	48	60	69	78	minus
N.N.W.	15	24	36	45	54	63	75	87	minus

(Source: Naval Hydrographic Service)

The tidal forecasts transmitted regularly over LRA (870 kHz), in telephony, in Spanish are, therefore, a combination of astronomical tide figures and meteorological influences on this basis.

Wind direction also affects the hours of the tide. In general, time of high water is not affected, but low water can be delayed or advanced by the wind force.

MITRE CHANNEL: The new channel, 5 miles off shore and 28 miles long was opened in 1976. It is between Km. 12 of the access channel to Buenos Aires and Km. 56 of the Parana de las Palmas branch of the River Parana, opposite San Fernando.

It was dredged to depth of 32 ft. with a width of 130 m. but silting up and lack of dredging have reduced the depth to 29 ft.

At present, ships going up river are allowed to use the channel but to proceed only as far as Zarate, with a draft of not more than 27 ft. (a maximum draft of 28 ft. is permissible but 2 ft. safety margin must be kept below the keel) and, because of the sharp bends in the river, the length must not exceed 220 m.

All the ships navigating down river can use the channel en route to ports in the Plate or to the sea, and the draft is limited to 27 ft. and the length to 220 m., as above.

The Mitre Channel shortens the distance between Buenos Aires and the grain loading ports up river by 36 miles compared to the Martin Garcia route. Both routes are almost the same distance from Intersection. Campana is brought 95 miles closer to Buenos Aires, and Intersection about 90 miles.

The big advantage of the Mitre Channel is that ships can navigate with a draft of 27 ft. compared to an average 24 ft. via Martin Garcia, and without the risk of having to wait for more water at the bar, especially if drawing over 24 ft. This applies to ships loading grain at up-river ports and to those proceeding to and from Campana.

Vessels proceeding up river to ports beyond Zarate must still use the old Martin Garcia route. It is expected that such vessels drawing up to 27 ft., will soon be allowed to use the Mitre Channel, but some of the bends in the river above Zarate will probably have to be straightened out first.

Ships coming down river from Km. 456, just above San Lorenzo, or further South, if intending to proceed via the Mitre Channel must not draw more than 27 ft. As a point of interest, the depth of the river from Rosario to San Pedro is, on average, more than enough for ships to load to the 27 ft. maximum fixed, at present, from Km. 177 to Zarate. The Hydrographic Office records the river level, and can estimate ahead prospects of the depth of the water, and Owners should consult Agents before committing a vessel.

The regulations state that vessels over 120 m. in length or 18 ft. in draft may navigate only in day-time. The maximum speed is 12 knots, unless expressly agreed with the coastal radio station.

In the stretch between Zarate and Km. 177 (the junction with Parana Guazu) navigation down river is without restrictions but up river it is limited to pushed convoys not more than 225 m. long or 28 m. wide or 9 ft. draft, to ferry boats or to vessels not over 35 m. long or drawing not more than 11 ft. At night time, navigation is permitted to ships with a length or draft not more than 12 m. or 18 ft., respectively, to pushed convoys as above, and towed convoys not over 180 m. long or 28 m. wide

Vessels over 35 m. long which cannot communicate with another by VHF or with the Coastal stations must not cross or overtake in the bends and stretches given below, and in any case, no vessel over 60 m. in length may do so; between Km. 175/177; 156/158; 148/149; 138/142; 134/137; 130/132; 124/128; 118/120; 105/108; 99/101; 89/91; 46/52.4. Any vessel navigating up stream in the Parana de las Palmas and meeting another coming down in the stretch 175/177 (i.e. the fork of the Parana de las Palmas – Parana Guazu), must regulate its speed until the other has cleared the sector. Similarly, if coming down river towards the Parana de las Palmas a vessel sighting another between Km. 230/235 of the Parana Guazu must regulate her speed until the other has left the stretch. Also, any vessel in the River Parana or Parana Guazu about to enter the Parana de las Palmas and sighting another coming up that branch of the river, is obliged to regulate her speed until the other has cleared Km. 177.

Ships over 35 m. long or 11 ft. draft must not anchor outside the waiting zones which are between Km. 62/75; 108/111; 120/123; 149.5/153, and those under 35 m. in length or 11 ft. draft must not anchor in the dredged channel between km 46.5 and 56 or in the bends and stretches between Km. 177 and 46, indicated above, or off Campana between Km. 95/99.

It is prohibited to extract sand or to practice nautical sports and water-skiing along the route.

Ship navigating between the Mitre Channel and the port of Buenos Aires may turn either at Km. 12 (the junction of the Mitre Channel and the Access Channel) or at Intersection depending on the weather, cargo and manoeuvrability of the ship, and with the prior consent of the Traffic Control of Buenos Aires. At Km. 12 at least 1 tug must be used for ships between 120 and 200 m. in length, and 2 tugs, if over 200 m.

Ships over 120 m. long when turning at Campana to come down river, must use one tug. Permission from the Zarate Coastal station is required for berthing and unberthing.

When passing under the Zarate-Brazo Largo Bridges, ships must have an anchor at the ready and an emergency electric generator on stand-by.

Ferries crossing the rivers must coordinate their movements with other vessels navigating, through the Zarate Coastal Station.

In the stretches where crossing is not allowed in the Parana de las Palmas, vessels longer than 60 m., going down river, must blow 3 blasts on the whistle – 1 long, 1 short, 1 long – to indicate that their length is more than 60 m.

All ships must reduce speed, consistent with their steerage-way, in the following stretches: off the ports of Zarate and Campana; when passing under Zarate-Brazo Largo Bridges; between Km. 69/70 (local quay).

Pilotage regulations are that of Buenos Aires port. Pilots take vessels between Intersection and Km. 12 of the Access Channel. However, revised regulations make an exception for Parana Pilots who are now authorised to operate on this stretch when vessels are proceeding to and from the Mitre Channel/Parana de las Palmas. This avoids the inconvenience and expense of having to send out the port Pilot by tug to Km. 12 or to bring him back, and the alternative of having to embark and disembark him at Campana.

When ships are coming to Buenos Aires from up-river ports, the port Pilot is sent out on the tug needed to turn the vessel at Km. 12, and vice versa.

PARANA RIVER: Maximum drafts permitted up to Km. 585 (Santa Fe) are governed by the Martin Garcia Bar, and must also, logically, take into account river conditions.

The River Parana rises in Brazil, and is formed by a junction of a number of rivers, the principal tributary being the Paraguay River.

It is a great river at all times, conveying an immense volume of water to the Atlantic. The Northern bank is comparatively high and rocky, the Southern bank low.

The stretch above Rosario is entirely riverlike in behaviour with an annual flood, rising and falling yearly. From Rosario to Martin Garcia Bar, where the river joins the Uruguay River to form the River Plate, there is also an annual flood, but this part is also influenced by the Plate tides. This section can be divided into two, from San Pedro to Villa Constitucion where the tidal fluctuations are always felt, and from Villa Constitucion to Rosario where the tide makes its influence felt only in periods of low water in the river.

Maximum depth in the river is normally reached in March and the low in September, but it is irregular in behaviour. There is a possibility that the series of dams being built in Brazil for hydro-electric purposes may eventually regularize the river by permitting some control over the seasonal increases.

When the river commences to fall, care must be taken in calculating loaded draft a few days ahead, as the official figures may be reduced one or more feet without warning.

HIGH AND LOW WATER: Maximum and minimum figures registered between Rosario and San Pedro in the last ten years.

		Jan.	*Feb.*	*March*	*April*	*May*	*June*
High	Max.	32′	32′ 8″	33′ 7″	36′ 3″	37′ 9″	30′ 5″
	Min.	27′ 2″	29′ 2″	29′ 2″	28′ 7″	29′ 5″	25′ 3″
		July	*Aug.*	*Sep.*	*Oct.*	*Nov.*	*Dec.*
High.	Max.	32′ 7″	28′ 2″	29′ 9″	31′ 5″	30′ 7″	31′ 4″
	Min.	25′ 5″	23′ 6″	22′ 8″	25′ 8″	26′ 6″	26′ 3″
		Jan.	*Feb.*	*March*	*April*	*May*	*June*
Low	Max.	31′ 3″	31′ 4″	31′ 7″	33′ 7″	36′ 6″	29′ 9″
	Min.	24′ 2″	25′	27′ 2″	27′ 6″	26′ 3″	24′ 9″
		July	*Aug.*	*Sep.*	*Oct.*	*Nov.*	*Dec.*
Low	Max.	29′ 9″	27′ 2″	25′ 6″	25′ 8″	30′	29′ 6″
	Min.	23′ 9″	21′ 8″	21′ 7″	23′ 3″	24′ 3″	24′ 3″

MAXIMUM DRAFT UP RIVER: When vessels by reason of their loaded draft have to complete loading at Buenos Aires or La Plata, they should never load deeper than 2 ft. less than the offical draft on the River Parana.

In the sector San Lorenzo/River Plate, when the height of the river is 4 ft. or more, 1 ft. must be calculated below keel depth; when the river is under 4 ft., 2 ft. clearance must be calculated.

In the sector Parana (Santa Fe)/San Lorenzo, when the height of the river on the hydrometer at Santa Fe is 5 ft. 7 in. or more over zero, 2 ft. must be calculated under the keel with vessels of under 50 fiscal units, or 2 ft. 6 in. over that size. When the depth on the hydrometer is less than 5 ft. 7 in. (1.70 m.) then 2 ft. 6 in. and 3 ft. 6 in. respectively must be allowed.

These safety margins for the Parana/San Lorenzo/Santa Fe zone refer to river navigation; in access channels and ports a margin of 1 ft. is sufficient.

The references to river height refer respectively to Rosario and Santa Fe.

A falling or rising river will also be taken into account.

BRIDGES: A road and rail bridge has been built from Zarate (Km. 107 on Parana de las Palmas) across the various islands and arms of the Parana to Brazo Largo (Km. 180 on the Parana Guazu). The span on this arm of the river is over 200 m. and clearance at high water 45 m.

A bridge from Resistencia (Capital of the Chaco Province) connects with Corrientes (Capital of Corrientes Province). This does not affect ocean shipping, beyond that going to Asuncion, and the clearance of the main span is 40 m. above high river level.

Two bridges have also been built over the River Uruguay, one at Paysandu, which will not affect ocean shipping, and another at Puerto Unzue to Fray Bentos, in Uruguay. This latter has a 220 m. span with 36 m. clearance above river level.

SHIPMASTER'S REPORT: 1979.

General: This river and its approaches serve the major ports of Montevideo, Buenos Aires and Rosario and numerous smaller ports.

The hinterland and Pampas of this area is of major importance as a grain exporting market and frozen meat exporter.

For the most part the river is shallow giving a maximum draft depending on suitable tide of 33 ft.

Although Argentina is self sufficient in oil, from her wells in the South, with prices around 70p per gallon (20.7.79) cheap by world standards, she imports about 300,000 tonnes of LPG per annum mainly from the Gulf and Venezuela.

The majority of the LPG is shipped during the Southern Winter with approximately eight 30,000 tonne shipments annually.

Shipments from Venezuela are in smaller vessels of the 15 – 30,000 cu.m. size.

All LPG is for the Account of Gas Del Estado, the state Gas Corporation, who tender for contracts from the major Gas traders generally bi-monthly.

The storage capacity at Doc Sud Buenos Aires is about 20,000 tonnes.

Currency is the Pesos which is very much orientated towards the US dollar. The dollar is used for most commercial transactions.

Approaches to The River Plate:

Chui D/F (ALRS 5046) on Brasilian border is good.

A good longitude is obtained by 200 m. line. On chart BA. 3064 the bank in the region of Lat. 35° 08′ S., Long. 53° 34′ W. is pronounced.

Cape St. Maria comes in at 35 miles on radar.

Punta Jose Ignacio is distinct on radar at 22 miles, light observed at 19 miles.

Isla Lobos observed at 26 miles on radar.

A strong N.E. current set is apparent from the 200 m. line to Isla Lobos, particularly so about 40 miles East of Lobos. Pta Del Este Light is difficult to pick out from the shore lights. This area is an important holiday resort area. A new light has been established: Fl. R. ev. sec. position Lat. 34° 51.8′ S., Long. 54° 44.0′ W. Vis. 25 miles.

Anchorages: On 2 occasions the vessel has anchored well East of Zone Alpha before proceeding to lighten. Once each in position Lat. 35° 10′ S., Long. 55° 32′ W. in 15 m. and Lat. 34° 57.5′ S., Long. 55° 37.5′ W. in 13 m.

It is wise to pay out plenty of cable as the wind can increase quickly.

There are 3 lightening or Topping Off anchorages – Alpha the most commonly used one being 10.5 miles South of Montevideo Pta Brava, Delta 39 miles to East and Bravo 36 miles to S.W. are little used.

Areas as marked on Argentina Charts H. 113 and H. 116 are not rigidly binding and it is as well to take advantage of the deeper water 3 miles to East of Zone Alpha.

There are 3 D/F stations in the area.

Carrasco (CAR) as Admiralty light and Radio signals (ALRS) 5036 good – Montevideo Airport. Continuous Aero 24 hours.

South Airport (CRO) 305.7 m. – Lat. 34° 50.5′ S., Long. 56° 01.5′ W. Aero Cont. 24 hours

Pta Gorda (BC) 340 m. – Lat. 34° 54′ S., Long. 56° 05′ W. Aero Cont. 24 hours.

Banco Ingles North Buoy moved position about 1.2 miles East to Lat. 35° 05.4′ S., Long. 55° 52′ W. light very weak.

The foul areas marked on Argentina Chart H. 113 and BA. 1749 (C) do not exist according to the Masters of local lightening ships and Pilots.

A – Lat. 35° 03.0′ S., Long. 55° 59.0′ W.
B – Lat. 35° 03.0′ S., Long. 56° 04.0′ W.
C – Lat. 35° 08.8′ S., Long. 56° 12.7′ W. BA 1749
D – Lat. 35° 09.0′ S., Long. 56° 15.9′ W.
E – Lat. 35° 11.0′ S., Long. 56° 14.0′ W.

The D/F on Isla Flores (ALRS 5038) is not operating and the light is very weak.

The 2 buoys to S.W. of Zone Alpha to Recalada are in position but no lights observed on passing them (20.7.79)

Communications: VHF: Montevideo Movement Control (ALRS 6-H1010) speaks little English. We tried to contact them on arrival but got no response. The Agents advise vessel to cable anchoring positions to its call sign 'CWC 104'.

Recalada pilot station works on Channel 12, English reasonable.

Interseccion pilot station works on Channel 12, English reasonable.

Lightening vessel "Permian Gas" – Channel 68.

Lightening vessel "Lavoisier" – Channel 8.

Bulk Topping off vessel on station Zone Alpha 'Arylanza' of Argentina flag with cranes works Channel 6.

Generally all Spanish communications – ALRS G 2655, 2670, 2680.

Montevideo R/T: Punta Carretas (CWF) 6020 transmits 2182 or 2768. Spanish and good English. Telephone only Montevideo area. Good.

Argentina: 'Pacheco' LPD, LPL, LPQ 5905 (no English).

Weather: Generally the weather in this region has been well documented. Reading publications one gets the impression at times that it can be severe all the time in mid winter. But this is not the case, although one should be on the guard all the time, we had very good weather during a stay of 16 days in July, generally light winds, clear skies, and little rain. Although quite quickly the opposite can happen.

Visibility can be excellent, up to 20 miles.

Forecasts for the area are predominately in Spanish.

The Fascimile that is published for Buenos Aires LRB, LRO 5910 was not received on any frequency.

Tides: Again very well documented. Generally out at Zone Alpha the tide is not strong and has little effect. Getting into Recalada and farther West to Interseccion the tide has a big effect and can alter very quickly with the wind.

The tides strength is very marked in the shipping channels from Recalada Westwards to Buenos Aires.

Density: At Zone Alpha : 1019
At Recalada : 1012
At Km. 45 : 1005

Lightening: As previously mentioned there are three Zones for transhipping cargo and topping off. The most commonly used area is Zone Alpha the limits of which are not obligatory.

Before lightening can commence the ship has to be cleared by Customs/Immigration who come from Montevideo after travelling up from Buenos Aires. They either board by tug or by the first lightening tanker.

9 persons board with 4 persons leaving when formalities are complete leaving 5 persons onboard – 6 when Pilot boards at Recalada. They consist of Agency Representative, Immigration, Customs, Prefectura of Police, Gas Del Estado rep. etc. Those that stay being Agent, Police (1), Customs (1), Surveyor (1), Gas Del Estado (1). As long as vessels paper work and passes have been well prepared the formalities are quickly dealt with. Generally vessels proceed to Zone Alpha when the Officials/Lightening Tanker is due otherwise needless standby is required because of the close proximity of other lightening operations and draft.

We anchored with Pta Brava 320°×10.4 miles, depth at HW 12.5 m. Plenty of cable on port anchor is required, say up to 8 shackles to guard against any sudden gusts of wind. On occasions up to 10 shackles have been out.

Ships passing through this area are required by Argentina Law to proceed at slow speed, but rarely do with some narrow scrapes. Zone Alpha is joint Uruguay/Argentina territory.

Pratique: Cable to be sent (in Spanish) to Agent 12 hours before initial arrival. Granted when officials board.

Notice of Readiness: Send cable when vessel has anchored, N.O.R. received when Agent boards at Zone Alpha.

Mail: Agent will bring out mail at Zone Alpha and also give to Interseccion Pilot who boards after lightening at Km. 45 if requested in advance.

Money: If requested well in advance Agent will bring money out at Zone Alpha. This helps when berthing at Doc Sud as people can get ashore quickly without waiting for money.

Time: The Time Zone used at Alpha is Argentina time GMT – 3 hours. Uruguay time is on GMT – 2 hours.

Lightening Tankers: At present there are 2 vessels in this operation, however a 3rd vessel may soon be allocated. In the past numerous LPG ships of different owners have been used.

"LAVOISIER": A small semi-pressurized tanker of Argentina registry owned by Navigas.

Vessel has 3 Yokohama fenders floating and 2 small fenders hanging aft. Very good co-operation maintained – vessel was very efficient. The chief officer speaks little English but Master and one Second Mate spoke very good English. All very helpful.

Lines: 3+1 each end in moderate weather. No STBL lines.

Hose: 6 in. Braided wire (wear gloves) – 18 m. total length – 150 ASA couplings.

Tanks: 6 tanks max. temperature: −6°C 4 bar.

Capacity: Approximately 2,800 tonnes.

Rate: 300 t.p.h. Butane, 90 t.p.h. Propane which has to pass through heater for pressurization.

B.P.: Max. 8 bar.

Gangway: Use STBL gangway aft.

Radio: Use STBL UHF sets.

Vessel will take motors, etc., ashore if she is returning to Doc Sud for repair by Cromwell Engineering.

"PERMIAN GAS": Owned by Maritime Overseas. Liberian Flag – call sign A8UR. Chartered by Gas Del Estado.

Has 2 Yokohama fenders and tyres forward and aft. Not very satisfactory as operations have to be broken off in any type of wind.

Lines: 3+1 plus two from STBL F & A.

Hoses: 6 in. 300 ASA with 300/150 spool piece. Compoflex type with rope lagging. Total length approximately 18 m.

Tanks: 6 semi pressurized – 6 bars 2 grades handled – not together.

Capacity: 5,200 tonnes max.

Rate: 350 t.p.h.

Gangway: From STBL, a short BOT type.

Radio: Motorola UHF sets from 'Permian Gas'.

Navigas are purchasing another LPG vessel about the same size as 'Permian Gas' and should be on station in October 1979. Generally the transferred cargo is taken to the smaller outports up the River Plate and down the coast, the vessel can be away for up to four days.

With a mixed cargo of Butane/Propane of 30,000 tonnes two to three weeks is the normal length of stay in the River Plate.

Pilot: Pilot does not board at Zone Alpha.

Pilot boards at Recalada pilot station at the end of the buoyed channel Canal Indio. Pilot vessel is an old coastal troop transport and has been on station for 10 years. It is painted with red upperworks and black and yellow stripped hull.

Pilots board from small white launches which lie alongside the pilot vessels lee side.

Only 1 ship handled at one time, the launch returns to the pilot vessel. Long delays can occur if ships have got bunched up inwards and outwards.

Will use hoist, but have gangway and fixed pilot ladder arrangement ready. Make good lee otherwise Pilot will not board. Inwards pass to North of pilot vessel. Outwards to the South. Pilots generally speak good English.

Pilot vessel new position: Lat. 35° 10.8′ S., Long. 56° 06′ W.

Racon shows up well at 20 miles. No D/F. No boarding with wind speed above 30 m./sec. No anchoring within 1 mile of pilot vessel. Make arrangements for Pilot through Agent via Recalada or Pacheco Radio Station at least 48 hours in advance.

One Pilot to Interseccion Pilot Station, about 7 hours depending on tide. If stopping at Km. 45 for lightening, Pilot stays on board and changes at Interseccion.

In the vicinity of Recalada numerous vessels are anchored so its a case of having to proceed with caution.

Canal Indio: From Recalada to Interseccion, 95 miles.

This channel is marked by light buoys leads to the deeper water off Banco Chico near La Plata and is 50 miles in length to Canal Intermedio with a bend at Codillo.

Generally the depth is 28 ft. CD but patches of 27 ft. have been found between Recalada Pilot Station and No. 1 buoys.

We attempted to manoeuvre with a draft of 28 ft. 9 in. but constantly grounded near the wreck buoys East of No. 1 buoys.

The channel from Recalada to No. 1 buoys passes South of the wreck buoys, these wreck buoys should not be confused for channel buoys as has happened in the past.

Generally the max. draft is 31 ft. with a tide of 1.20 m.

Pilots always seem to think of drafts in terms of feet and tide heights given out in metres.

Vessels of up to 33 ft. have safely transitted.

Once inside the channel at No. 1 buoys the channel is very marked and steeply shelving.

The wreck at No. 17 buoys is to be lifted by a Japanese crane barge early in 1980. There is no passing at this point.

No dredging has been undertaken for five years in Canal Indio but it is hoped to resume in 1980 after Canal Nord and Sur have been dealt with.

On the day we left (20.7.79) three Spanish built suction dredgers arrived ("Buenos Aires", "Terra Del Fuego" and "La Plata") with three more to follow. It is reported that a total of 20 dredgers have been contracted for, partly Government owned as are the Spanish built dredgers and partly German contract work.

It is hoped dredging will start in Canal Nord and Sur late 1979 moving to Canal Indio in 1980 and Canal Mitre 1981.

The buoys are often missing or the lights out.

24 hours transit of all vessels is undertaken. Vessels of less than 22 ft. navigate outside the channel when deep draft ships approach in channel.

Vessels of less than 18 ft. navigate outside channel at all times.

No overtaking from Codillo Bend to Recalada.

Tides can be strong.

Km. 99-Racon not working (as BA.1749)

Tides given on VHF every hour plus 5 minutes in cms.

As long as no hinderances with ships ahead or draft a speed between manoeuvring full and full sea speed is requested.

La Plata Km. 45 Lightening: Further lightening is undertaken off La Plata in the deep water position: Lat. 34° 44.5′ S., Long. 57° 49.5′ W.

Pilots report that the foul area just South does not exist.

Interseccion: Pilots changed here after lightening at Km. 45.

Canal Accesio Buenos Aires: This channel is 15 miles in length and leads from Interseccion pilot vessel to the junction of Mitre Canal, Canal Nord and Canal Sur.

It has a depth of 31 ft. CD min. and is probably the deepest of all the channels in the area.

It presents no problems after final lightening.

The Beacon at Km. 14 on the North side of the channel has been destroyed.

At Km. 14 a forward tug can be engaged at extra charge. This is well worth the additional expense to get the vessel around the bend into Canal Sur and over the shallows.

Canal Sur: This relatively short length of channel leading to the Doc Sud area is 4 miles in length. It presents the worst problems with regard to draft in all the channels but the bottom is of soft mud and no grounding damage has been reported.

Ships invariably always bottom and the channel is kept open by the dredging action of vessels.

The worst area is the Eastern end between Km. 8.2 and Km. 7 with a poor area continuing to Km. 5.

The after tug is taken at Km. 8.2.

The least depth is 22 ft. CD which means vessels up to 24 ft. 6 in. can normally transit and up to 26 ft. with very high tides.

We had 60 cm. tide with a draft of 24 ft. and had to use full power with the vessel listing 5° to starboard when we got to the edge of the channel – Southern edge. The tugs were invaluable at this point.

Pilots report Southern edge of channel worst area. (One large LPG ship recently aground for 2 days at draft of 25 ft. 6 in. – 60 cm. tide and falling. Vessel aground between Km. 8.2 to 7.6.)

As soon as Canal Accesio is left at Km. 10.1 steep shelving occurs which is very marked on Echo Sounder and vessel is bottoming.

No night movements of LPG carriers.

At Km. 1 another shallow area of 21 ft. 6 in. CD is reported but we experienced no difficulty in this region.

Tugs: As previously stated forward tug can be taken at Km. 14 and after at Km. 8.2. When outward bound forward tug leaves at Km. 11 (extra charge) and after tug at Km. 5.

Tugs power varies from 2,000 h.p. to 3,500 h.p.

2 good lines are given to each tug through centre leads fore and aft, they will need them with large LPG carriers when turning in the narrow confines of Doc Sud.

Ante Puerto Sud: Vessel is swung in this area so as to enter Doc Sud stern first.

Clearance is very tight.

Pilot requires both anchors ready and engines prepared for maximum astern power.

Tide depth gauge on North inner entrance.

In Darsena 2 there are 2 floating dry docks capable of handling ships up to 15,000 d.w.t.

In Darsena 1 a Navy Synchrolift of 10,000 d.w.t. capacity has recently been constructed (vertical hoist type, not ramp type).

The new dock outside at Km. 1 in position: Lat. 34° 38′ S., Long. 58° 20′ W., has been completed but not dredged. This is to be undertaken 1980/81 and is intended for large LPG carriers for Gas Del Estado. The breakwater is completed and extends to Lat. 34° 37.9′ S. – 550 m. in N.E. direction.

Doc Sud: Least depth 33 ft. CD. In section 2 on the East side is the oil complex with Gas Del Estado berth North end section 2, South side of bend, East wall second berth. On West side are grain and frozen meat berths. Ships always berth head out. Starboard side to East wall, port side to West wall.

Narrow entrance which large vessels frequently hit, particularly the knuckle on East side which should be guarded against with fenders. From Interseccion to completion of tie up about 4.5 hours. In all of Doc Sud no engine movements are permitted. This is a new regulation.

If using midship gangway this has to be turned forward before arrival so as to land on small pipe jetty. If gangway is aft vessel has to use fixed section or hire boat on the offshore side.

Mooring: 2 headlines, 2 breastlines and 2 springs each end, the leads are not very good. Springs onto dolphins. Dolphins have poor fenders so advise use ships fenders.

Manifold: 12 in. – 150 ASA liquid, 8 in. – 150 ASA Vapour return, VRL has to be left open.

Tanks: Max. tank pressure on arrival to be 50 mbs.

Pumping: 500 to 700 t.p.h.

Berthing: Daylight hours only.

Labour: Shore labour for connection.

Surveyor: Surveyor from independent firm joins at Zone Alpha and makes survey together with Chief Officer before and after each transhipment and at Doc Sud. Generally paper work after each transfer takes about 1 hour. Ensure that signed statement of complete cargo discharged obtained.

Samples: An attempt is made to take samples at Zone Alpha.

Fresh Water: By Barge.

Stores: Arrange by Barge, very difficult otherwise.

Repairs: Cromwell Engineering: – 'Cromeng' generally good. By boat. As previously stated vessel can land motors etc. by lightening tanker if returning to Doc Sud for Cromwell to pick up.

Taxis: Difficult to obtain. Best obtained via Gas Del Estado office. Doc Sud is outside Buenos Aires municipal boundary so off meter. Meter starts at Boca bridge. Generally about £6 into town in daytime and £10 back at night. No difficulty in getting taxi back at night, try and agree fare. Do not go ashore alone.

Do not take much money with you. Have shore pass. About 20 minutes to town if no delays.

Customs/Immigration: Board at Zone Alpha and again at Doc Sud and on Departure.

Formalities:

2 Store lists per department (Deck and Engine combined) (Argentine Official Papers).

1 copy taken off at Zone Alpha, 1 copy for customs at Doc Sud.

2 Copies International Maritime Declaration Health (Standard Form)

1 copy Zone Alpha, 1 copy Doc Sud.

2 Crew Personnel Declarations – (Argentina Forms)

Both Zone Alpha.

30 Crew lists (Ships form)

One is stamped by Immigration at Zone Alpha for Doc Sud. No officials onboard at Doc Sud.

Crew Passes – Fichas – Argentine Official Forms.

One for each crew member must contain photo. We used ships Polaroid camera. (Two heads to a shot.)

Stamped at Zone Alpha and *must* be handed back before departure Doc Sud for stamping and then given to Master.

2 Vaccination Lists (Ships form)

Each time the vessel shifts/heaves up anchor the Agent onboard has to make out a departure declaration for Master to sign and give to Police onboard.

As long as vessel has Argentina papers and photocopier onboard no difficulties should exist.

Bond: Not sealed, quite in order and usual as long as ships staff only consume liquor.

Publications: These notes are in addition to information contained in: BA Charts 1749, 1751, 3561, 3064. Argentine Charts H 113, 116, 118, – 1979

Publications: NP 5 supp-2/78, NP 275 2 & 6 79/78, "Guide to Port Entry". C.N.T. Year Book 78/79.

SHIPMASTER'S REPORT: July/October 1983.

Navigation on the River Plate and River Parana: INWARD: The Uruguay Traffic Control System and Radar Monitoring now extend from the border with Brazil to the Recalada Pilot. Vessels are required to report course, speed, and ETA on passing each designated control point.

Recalada Pontoon was not heard on M/F radio and all messages were passed through General Pacheco. Recalada was slow to answer on VHF, and probably the watchkeeper has to call a Pilot to speak English (The ability to speak Spanish is a very marked asset trading to Argentina).

It is preferable to keep North of "Zone Alpha" and then to head for the small passenger ship that is the Recalada pilot vessel, Racon only about 8 miles.

The dredged channel is quite narrow with strict limitations about overtaking in certain areas. Averagely ballasted ships can pass outside the line of buoys. Subject to the Pilots advice it may be possible to use heavy oil for the 90 miles (7 hours) to La Plata Anchorage.

The Intersection Pontoon has been withdrawn and the operation is now based ashore in La Plata.

The 2 River Pilots are ordered for a suitable tide time to approach the Martin Garcia Channel. Each Pilot requires a cabin with bathroom en-suite, the Masters sea cabin may be refused. One Pilot had a very few words of English, the other none. Their use of English numbers was uncertain, so the Officer of the Watch must be very vigilant. The Pilots listen to 2 VHF Channels and their own radio, which makes the bridge very noisy.

The vessel proceeds always at Best Full Speed but it was difficult to get any programme from the Pilots because of the language problem.

The vessel anchored at 10 minutes notice at Km. 80 for oncoming ships in narrow channel. Then had to heave up as quickly as possible to get over the bar before tide fell.

Speed was reduced turning into the Rio Parana Guazu at Km. 121. The vessel had to stop and drift for sometime waiting for oncoming ships to clear the bridge at Km. 180. This bridge can only be passed in daylight and had a clearance of 45 m. in the prevailing floods which were estimated to be 4 m. over normal tide. If unable to pass before sunset, it is necessary to anchor and wait till the next day.

The vessel anchored for the night at Km. 243 to avoid a dangerous bend in the dark at about Km. 273. However, had to anchor again at 5 minutes' notice for fog at Km. 270. This later cleared and vessel proceeded to anchorage off San Nicolas.

Two anchors were employed, but the order to let go was given much earlier than the indicated place which caused some surprise (due to language difficulties).

The inspection party of Agent, Customs, Coastguard, Port Health, Grain Surveyor and Photographer boarded shortly after the River Pilots left. The forms had been put onboard on leaving La Plata Anchorage and were only completed in time by exceptional effort. The entry formalities were complete in about 1 hour, while the Grain Surveyor took about 1.5 hours.

A Harbour Pilot put the ship alongside, and took her off on sailing. An anchor was dropped for use on sailing.

The river is quite narrow and sparsely marked. The Pilots navigated by the tops of the trees sticking out of the flood water. Some salient points were marked by a single lighted beacon. Buoys marked critical sections. However, these could be capsized by the accumulated weight of vegetation floating down the river. Progress was erratic and diesel was used throughout the River Pilots guidance.

OUTWARD: The normal route down river is the Mitre Canal with a draft of 27 ft., however, this had silted up to 21 ft. The vessel loaded to 23 ft. (fresh water) to pass via the Martin Garcia. There is a similar bridge and restrictions on this route.

The vessel anchored at Km. 210 to wait for daylight for the bridge. Then used the River Parana Bravo to pass into the main river. This was very narrow and twisting in places, the Pilot was observed to be using reverse helm on the canal effect from the banks.

The vessel next anchored at Km. 117 to await a suitable height of tide before passing over the Martin Garcia Bars. However, the hourly VHF broadcasts showed that the tide did rise as predicted, and the vessel had to wait for the next tide.

The Regulations are that a minimum clearance of 1 ft. is required with a rising tide. The dredged channel is 100 ft. wide with minimum depths of 20 ft. – 21 ft.

The vessel sailed on the next tide and past the tide gauge at Martin Garcia when it was 1.3 m.

The Pilot watched the forward echo sounder reading and reduced speed whenever it came down to 1.0 m. However near Km. 70 the vessel first took a sheer to port, which hurriedly corrected by starboard helm. Then she took a list to port and the engine was increased to full speed to push through the shallow. Near Km. 69 the vessel again felt the ground and seawead, again the engine was put to full speed to push through.

At Km. 49 the vessel took a list but continued her progress. The crew working on deck at these times reported hearing rubbing noises.

The vessel anchored at La Plata Anchorage and the River Pilots left. The Recalada Pilot boarded almost 4 hours later as the tide was rising and the vessel sailed for Sea Channel.

At 22 ft. 6 in. salt water the vessel was not as unrestricted as when coming in. It was necessary to slow down in order to allow a deep laden vessel to clear the channel before we entered it. I understand that the normal maximum at the top of the tide is 31 ft.

Again subject to the Pilots advice it may be possible to use heavy oil for this passage.

The Pilot spoke good English and readily gave advice on the river and approaches.

We were bound for Bahia Blanca to complete loading. The Pilot advised that the banks had extended Eastward from the land, and Westward from the sea shoals, so that local knowledge was necessary for the most direct route. Tankers from the South lighten at Zone Brava and then come up to No. 1 Buoys on a North-Easterly heading (at 31 ft.) to avoid the encroaching shoals.

It was apparent that the buoys had been moved to new positions to allow for the movement of the shoals.

BAHIA BLANCA ANCHORAGE: The vessel had been warned that there was a delay of 30 days at Bahia Blanca. The Buenos Aires newspaper listed 37 ships at that port. On arrival it was found that there were 15 ships in the Buoy No. 17 Anchorage, 11 ships in the Buoy No. 11 Anchorage and 10 ships between Buoy Nos. 1 and 4. The local Port Control Radio Station speaks no English, however a Spanish speaking Officer keeping anchor watch kindly translated for us and advised that we could anchor off Buoy No. 4. The arrival telegram was sent from that position.

Contacting other company ships already anchored, it appeared that the actual time to wait was nearly 60 days. The ability to speak Spanish is an untold blessing on the Argentine coast. The Sea Pilots appear to be fluent in English, but the River Pilots and Radio Watch Keepers have no English nor French. The ability to consult ships in the nearer anchorages was most helpful.

The chart shows 3 radio beacons off the port, which are supposed to be in continuous synchronised operation. However we could only find one operating from 4 to 10 minutes past the hour and the half hour in clear weather. El Rincon and Recalada Bahia Blanca seemed to alternate day about.

A water boat of 350 tons capacity will come as far as Buoy No. 11 at a flat charge of US$3,500.

BAHIA BLANCA: 28th July, 1983.

The vessel part loaded at San Nicolas where she was advised of 30 days' waiting at Bahia Blanca, the completion port.

The vessel was assisted by a Spanish speaking Officer keeping anchor watch to contact the Port Radio Station and permission was given to anchor near Buoy No. 4 due to the congestion. Arrival was reported by cable to the Agents from that position. The initial berthing prospect was quoted as being 8th September, then as time past this was amended to 22nd September and 4th October. The ship did actually berth on the 5th October.

Informatively Lloyds List was found to have shown 57 days delay with 38 ships waiting soon after the ship's arrival. It would seem that the formula should be 2.0 – 2.5 days per ship waiting.

The delays were extended by 'go-slow' strikes, and at least two instances of contaminated cargo ex-silo.

Communications to and from Agents normally only by telegram. The Port Radio Station call sign "L4Z" – "Lima Quatro Zulu", another Control Station is "L2N" – "Lima Dos Novembre", VHF Channel 12 is watched with Channel 14 for working.

The pilot boats are modern fast launches using the call sign "Sierra Papa" 21, 30 etc. If there is a Pilot on board for your ship he may call up in English. The boats work to order and do not stay on station.

For a ship of 25,000 g.r.t. the shift from the Pilot Anchorage (Buoy No. 11) to the Commercial Ships Anchorage (Buoy No. 17) was quoted as US$1,700 in July 1983. However, unless bunkers are needed there is only limited benefit from moving into this anchorage.

The Monacci Agency uses a ferry operator who has large very old white cabin cruisers, the costs were quoted in August 1983 as US$500 per ship visited. In September the cost was quoted as US$700 per ship visited. They operate from Port Rosales which dries out at LW. The Agency appeared to use the boats once a week only.

A water boat also operates from Port Rosales, with a nominal capacity of 350 tons. The cost per trip in July 1983 was quoted at US$3,500 plus the amount of water supplied. In September this was quoted at US$5,200 plus. It normally pumps in with 2 hoses in 3.5 hours. However in this vessel the available ullage was not even and the water boat stopped pumping and disconnected as soon as the first tank was full. Thus it delivered only 250 tons for the same fee! Thus it would seem necessary to ensure that there is at least 175 tons of ullage available for each of the 2 hoses. As the berth dries out where the boat secures, it may be that they will not delay by pumping only 1 hose so that they can get back alongside in the one tide.

The Monacci Agency uses one Shipchandler only, who has to deliver via the same launch described above. There is another Chandler who uses a different boat but the details are not known. All provisions sent to ships have to be cleared by the Customs with quite substantial service fees, quoted as US$100 – $150 per delivery. The Customs also restrict the amount of rice that can be supplied. Of the fresh vegetables and fruit delivered the quality was not good, and condemnations had to be made when they were unpacked. The provisions came only with delivery notes, and the bills for August, September and October were prepared on board after the completion of loading! Those ships who have been to Bahia Blanca before take as much provisions as they can in the river ports, where quality and value are better, and delivery easier.

The Monacci Agency have VHF Channel 9 in their Port Rosales Office for use with their own fleet, and the Bahia Blanca Boarding Agency carries a walkie-talkie, with 60 VHF Channels, but normally on Channel 22A (the U.S. Coastguard Channel). They do not make this information known to the ships under their Agency.

In general they seem very reluctant to talk to ships, probably only a few of their staff speak English. Messages sent only to Monacci were never acknowledged and often not acted upon. Messages sent to Sudocean in Buenos Aires always acknowledged and acted upon. The use of telex numbers is preferred at least for routine messages.

Medical: Three men went to the doctor from the Inner Anchorage and stayed ashore for 6 days until the next weekly ferry trip, the hotel bills being apparently cheaper than the hire of the launch. When the vessel finally berthed after almost 70 days at anchor 12 men were medically treated and prescribed for on board plus additional tests, etc., for 4 ashore. The total fees came to about US$1,000.

Grain Berths: There are 3 berths in use at Engeniro White No. 9 with a sailing draft of 38 ft. 6 in. (port side to, stern in), take bunkers by road tanker. Currently about 800 t.p.h. for 16 hours including overtime from one belt. The plant has been damaged (possibly by a dust explosion), and one belt is out of use at this time. Berth Nos. 5 and 6 are rated at 36 ft. 6 in. sailing draft, port or starboard side to, according to tide when off the berth, bunkers by barge. (Berth Nos. 7 and 8 are shallower, but was in use). This berth loaded 21,750 tonnes in 48 hours into the vessel. However, the subsequent vessel required 5 days for the similar amount due to shortage of cargo in the silos. No. 9 silo seems to be fed by road vehicles, while 5/6, 7/8 are fed by rail.

At both berths the vessels take the ground and dry out up to 10 ft. – 12 ft. at LW. The bottom is said to be soft mud, and every ship loading to the authorised drafts goes aground. The vessel has to wait for the rising tide in order to finish and be certain of the drafts.

On sailing the drafts are read by the Prefectura Naval (Coastguard) and both the Harbour and River Pilots. Thus it is necessary to be very precise when finishing. No surveyor examined the vessel after the initial hold cleanliness inspection by the National Grain Board.

On sailing (head out), with 2 tugs, the ship would not swing to port into the line of the flood tide and the ship came very close to the opposite bank before the port anchor was dropped. The beacons which are charted as being in deeper water are in fact well up on the mud bank and the channels appear much narrower. Two tugs were used inward and outward with twin ships ropes from offshore fairlead forward and centre aft. Swinging in the pilot hoist when berthing was a race against time. There are some floating fenders alongside Berth Nos. 5 and 6 but the upper works of the elevator system are very close to the edge. Bridge wings apparently often touch.

The passage outward depends on the conditions of the day. A ship at 37 ft. 2 in. sailed directly out to sea because of fresh onshore winds. Another of 38 ft. 4 in. took 4 days to reach the sea. She had to anchor at Buoy No. 18 from one daylight tide to the next, then the port was closed for naval movements, then anchor again at Buoy No. 11, before finally clearing the port. The tide predictions can be increased or decreased by as much as 5 ft. due to the weather prevailing.

Anchorages: One ship in the Commercial Ships Anchorage found that she had 4 lengths of her own chain fouled around the anchor when she hove up. She had to hire a barge to lay the chain on so that it could be cleared. The quotation was said to be US$5,000 but the bill presented was for US$18,000. The vessel was arrested when the bill was challenged. It would seem a wise policy to change anchors from time to time. Also when anchored off Buoy No. 18 to wait for the next HW over the bar, another ship's anchor and chain was picked up. It was necessary to put a wire onto the other cable and lower the ship's anchor out from under to clear it. The delay was about 45 minutes but the ship was still able to make the tide.

There is a dredged channel between Buoy Nos. 7 and 8 but in fact the shallow area extends from Buoy No. 9 to Buoy Nos. 3 and 4 and speed needs to be restricted to reduce the squat.

At this time British subjects were not allowed ashore.

Outline of Official Argentine Forms:

Personal effects of the crew.

In vertical columns the following items:

Radio sets
Typewriters
Sextant
Gramaphones
Gramaphone discs
Binoculars
Photographic cameras
Spirits
Tobacco
Plug Tobacco
Cigarettes
Packets of cigarette papers
Boxes of matches
Number of caged birds
Soap

Sundry other effects such as musical instruments new or used, new clothes, etc.

All electronic items, such as radios, cassettes, calculators, televisions, declared by type, makers name, model name, serial number on separate sheets which then attached to the original declaration. The original columns for such equipment must be marked "nil" so that no duplicate declaration is made. The ship's electronic items, as above, plus VHF, radars, walkie-talkie sets, the main radio equipment, etc. must all be declared on separate sheets in the above detail.

The authorities require two copies of every declaration, one of which is kept at the Port of Entry and the other travels on the ship with the clearance for landing at each subsequent port. i.e. "travelling manifest".

The ship should have its own copy for reference, as neither of the above may be on board while in port.

The Health Declaration is in the standard form and can be filled in quickly, but the Customs forms and the identity cards take a lot of time and it is better to have a rough copy ready for copying out on arrival. The official forms are not available outside Argentina, and are too big for photocopying. Photographs are required for the identity card, but if advised a photographer will board with polaroid 'mini Portrait' outfit and charge accordingly.

Crew lists should be in the IMO format with full details of date and place of birth, plus the type of identity document (passport or seaman's book).

6 copies arrival, and 6 copies each departure! Company crew lists said to be acceptable provided ALL the information required has been inserted.

The identity cards can be photocopied and this would allow them to be prepared at sea before arrival.

The inspection party was 6 strong with Coastguard, Agent, Customs, Grain Surveyor, etc. Formalities including holds took about 1.5 hours with all documents prepared since sailing from La Plata. This was a rush to be avoided. (The vessel was cleared at the loading port up-river.)

British subjects not allowed ashore, all British passports and S.N.I.C.'s taken ashore and not returned until the vessel was cleared outward and Pilots on board.

Store List Deck Engine Refrigerating

Aluminium Paint
Paint driers
Paints assorted in pastes
Paints assorted in liquid
Enamels assorted
Varnishes assorted
Red lead
White lead
Paint Powder
Coils Manilla rope (new)
Steel cable (new)
Hemp rope (new)
Tarpaulins (new)
Tarpaulins (used)
Burlap (new)
Separation clothes
Oil engine
Oil cylinder
Oil solidified
Packing assorted
Methylated spirit
Binoculars
Nanometers
Typewriters (new or used)
Micrometers
Monographs
Ammunition, firearms, explosives, etc.
such as:
Deck flares
Rockets
Rockets sticks
Rockets signals
Friction tubes
Blue lights
Lifebuoy lights
Company's signals
Cartridges
Carbines
Guns
Revolvers
Rifles
Rocket Projectors
Gunpowder
Other portable firearms and explosives
(Red Hand flares)
Orange Smoke floats
Deck and Engine Stores considered to be in excess of normal requirements
(Fuel Oil)
(Diesel Oil)

Signed Chief Officer/Chief Engineer/Master.

Cabin Stores:

Bitters
Brandy
Champagne
Gin
Fruit Juices
Liquors Assorted
Rum
Cider
Table Wines
Strong Wines (Sherry, Port)
Sparkling Wines
Vermouth
Whisky
Other beverages (Vodka, Chinese Wine, Beer)
Tobacco (cut)(Chinese)
Tobacco plug
Cigars
Cigarettes
Alcohol (spirits of wine)
Jams (assorted Marmalade,)
Jellies
Caviar
Pickles
Pickles for crew
(Cooking wine)
Tobacco (50 mg./can)
Playing Cards (new)
Typewriters (new and used)
Calculating machines
(new and used)

Cameras
Wireless sets Portable
Micrometers
Monographs
Binoculars
Perfumes
Thermometers clinic
Alkaloids such as:
Morphine
Cocaine
(Phenobarbital)
(Butobarbitine)
Preserved fruits (in syrup)
Electric vacuum cleaners
Electric irons
Electric toasters
Electric kettles
Electric Rice cooker
Articles said to be in excess of normal requirements:
Fruition declared as follows:
White sugar
Cooking oil
Tea
Coffee
Evaporated Milk
Rice
Flour
Cheese
Butter
Fresh eggs
Frozen Meats

Everything must be in units of the metric scale. Items in full time use normally not necessary to declare but extra items in quantities more than for normal use must be declared.

All electronic items were declared on a separate sheet giving type, makers name. Model type, serial number. No item can be declared twice.

Instructions for the Compiling of Argentine Official Port Arrival Forms:

1. Immigration Department – Crew Identity Card: This form is required by all crew members without exception in order to enter and depart from Argentine Ports. As well it is the only document valid for authorities. Therefore, special care must be taken by the bearer in order not to damage or lose said document as, eventually, inconvenience will arise. Furthermore, details in order to complete this form are printed in both Spanish and English. Particulars required of person, family names,

status, when/how engaged. Fingerprints. One original card is required for each crew member.

Important: Each form must carry the photograph of the bearer. In this respect, Masters are kindly to inform Agent with anticipation if photographer will be required on arrival.

2. Customs Department – Deck and Engine Stores, Cabin Stores, personal effects of crew: Each form is required in original and 1 copy, the latter will travel with the ship from port to port. The ship will require one for her own records.

Store List (Green form): Instructions and details for filling this form are printed on it in Spanish and English.

Important: Even though items Fuel Oil and Diesel Oil are not listed on the form they must be declared in the blank spaces.

Cabin Store List (Yellow form): Instructions and details for filling this form are on it in Spanish and English.

Important: Even though the item coffee is not included in this form it must be declared in the blank spaces.

Personal Effects of Crew (Pink form): Instructions and details for filling this form are printed on it in Spanish and English.

N.B. Very important. Recently as per terms of local Customs Regulation Number 325/80, every vessel calling Argentine ports is compelled to declare every electronic item to Customs with their respective make, model, and serial number.

Consequently, and in order to avoid confusion, we suggest to declare on both the Pink and Yellow forms all items except electronic equipment (such as TV sets, VHF's, Radars, etc. which must be declared on an additional page (any kind) stating clearly their type, make, model and serial number particulars. The Yellow and Pink forms should be endorsed 'plus sheets declaring electronic items.' These additional sheets will also have to be signed by the owners of the equipment.

We believe that the above proceedure will prevent and avoid a possible "double declaration" which is also very important. Therefore everything declared on the additional page is not, must not, be declared on the above Pink/Yellow forms.

3. Coast Guard (Prefectura Naval)

Crew List. 12 copies for first port.

The preferred form is in the IMO format with headings in Spanish. The crew list must be completed according to the following points:

1. Name of ship
2. Port of Arrival/Departure
3. Date of Arrival/Departure
4. Nationality of ship
5. Arrival port (last port)
6. Kind and number of identity document (seaman's book or passport)
7. Given name, family name (not initials)
8. Number as per crew list
9. Rank
10. Nationality
11. Date and place of berth
12. Date, signature and stamp of Master

This form is used for clearance on arrival and again on departure.

4. Sanitary Authorities:

Maritime Health Declaration. One original form, printed in Spanish and English, international format. One Vaccination list to be attached to the above, showing cholera and yellow fever if from Africa.

SHIPMASTER'S REPORT: September 1986.

Report pertaining to recent call at the Rio de la Plata region for discharge of a cargo of approximately 53,000 tonnes of Sahara Blend crude oil.

The discharge operation encompassed two lighterages and subsequent completion at the Navipar Oil Terminal off Zarate. The cargo in question was consigned for Paraguay, and is moved onwards from the storage terminal by flat river barges (barge trains) up-river for distances of over 1,200 miles.

56,000 d.w.tonnes. Product/Crude oil carrier, on voyage charter to European Charterers, and laden with a consignment of crude oil from a North African port, consigned for discharage at Zarate to Navipar Oil Co.

Due to various draft restrictions applicable at the different areas in the Rio de la Plata estuary and the Rio Parana, 2 lighterage operations had to be conducted prior to achieving suitable drafts for passage to the Navipar Oil Terminal, off the port of Zarate.

The vessel arrived at Lighterage Zone designated as "Charlie" on the morning of the 27th, drawing 12.35 m. (40.5 ft.) aft in salt water, (12.63 m. (41 ft. 05 in.) aft in fresh water). This lighterage area lies off Cabo San Antonio and is bound by the following co-ordinates: Latitudes 35° 59′ S. and 36° 05′ S.; Longitudes 56° 30′ W. and 56° 38′ W.

The chartered lighter vessel was found awaiting our arrival and the Master of the lighter undertook the STS berthing operation himself once our vessel was anchored and brought up. The port anchor was used and the lighter was secured on the starboard side. Similarly un-mooring was also undertaken by the Master of the lighter and our vessel weighed anchor only after the lighter was cast off and clear. ICS/OCIMF STS Guidelines were followed in the main. The lighter provided 2 "Yokohama" type pneumatic fenders adequately suited for the purpose.

A quantity of approx. 17,000 tonnes was off-loaded to this lighter to achieve an even keel draft of 9.56 m. (31 ft. 04 in.) and the discharge was carried out using only 1 hose of 8 in. diameter, provided by the lighter. This quantity of 17,000 tonnes was based on the permissible transit drafts for Canal Indio and Intermedio, to reach La Plata Roads. The permissible drafts for these canals at the time was declared as 31 ft. initially but amended by the Pilotage Authorities to an acceptable 31 ft. 06 in. due to higher water available at that time.

The passage from Lightering Zone "Charlie" to Recalada Pilot Station was laid well East of Banco Rouen and Banco Ingles, this being advertised as the only safe route despite the lengthier distance involved. The lighter vessel, even despite drawing a draft of only 26 ft. also utilised these courses.

However, waters in these areas in general are quite shallow, and underkeel clearances of only 1 ft. were experienced (as expected), especially near the approaches to Recalada Light Vessel. Speeds had to be reduced to reduce squat.

The Recalada Pilot boarded the vessel from a small motor cutter when the vessel was about 2 cables from the Light Vessel. It may be noted here that Recalada Pilots insist on boarding vessels only with a combination accommodation ladder and pilot ladder system, irrespective of vessel's freeboard.

The Recalada Pilot demands full sea speeds, even with deep laden drafts and almost no underkeel clearance. On debate however it was agreed to proceed at full manoeuvring speed only.

The Pilot was received at Recalada on the early morning of the 29th and the vessel was anchored at the La Plata Lighterage Roads shortly after noon the same day.

The 2nd lighter vessel however failed to arrive till the evening of the 31st and the vessel had to therefore remain at La Plata Roads till that time.

STS operations with the 2nd lighter were also effected as with the first, only this time the starboard anchor was in use and the lighter berthed alongside on the port side. 2 "Yokohama" type rubber pneumatic fenders were again provided by the lighter.

A quantity of approx. 6,000 tonnes was discharged to this lighter at La Plata Roads to achieve a draft of 28 ft. (FW), this being the permissible draft for transiting the Emilio Mitre Access Channel to Rio Parana Las Palmas.

Transfer operations were completed on the night of the 31st but the vessel could leave the anchorage only in the morning of the 1st as transit of the Mitre Canal during hours of darkness is prohibited.

The Parana River Pilot boarded vessel on the morning of the 1st and the vessel duly transited the canal to arrive at a selected anchorage in the river at approx. Kilometre Mark No. 80. The vessel had to anchor in the river mainly due to the berth being occupied by the previous lighter vessel engaged in discharging her cargo at the Terminal.

Communications on the VHF with the Terminal were established and were good (Spanish), and the vessel weighed anchor on the following day to berth almost immediately after the departure of the lighter from the Terminal, the precise timing being attributed to the good communications.

Navipar Oil Terminal: The Terminal belonging to the Navipar Oil Co. lies at Km. No. 111, only a short distance up-river from the Port of Zarate. It has 2 berths; one being used for off-loading import cargoes from deep sea vessels and lighters, and the other being used for loading flat river barges for transhipment of the same cargo onwards to Paraguay up-river at a distance of over 1,200 miles.

The berth jetty was a bit fragile and the fendering inadequate for berthing vessels of this size and tonnage.

Use of tugs (expensive) can be dispensed with as steady river currents provide good control of the vessel. Both the berthing and unberthing operations were effected quite satisfactorily by the Pilots.

The berth is located immediately down-river of a bend and this seems to provide a "lee" from the major flow of the river current, the axis of which would be probably hitting off the opposite side of the berth before continuing downstream.

Sufficient water for 28 ft. draft was available at the berth and the vessel never rested upon the bottom. The river tides were also at Neap and this too contributed to prevent sitting on the bottom. Due attention to vessel's trim is also required.

The Navipar Terminal, which is basically a storage facility for import of crude oil for onward shipment by river craft to Paraguay, is provided with only 1 main shore line for crude oil of 14 in. diameter. The storage tanks are located atop a hill at a distance of some 2.5 km. and in the absence of any booster facilities, substantial back-pressure was experienced throughout the discharge operation, causing problems especially towards the end strippings. This is apparently the bane of all vessels calling here for discharge.

Two hoses of 8 in. diameter only were provided for the discharge.

The vessel finally completed all discharge on the night of the 4th, once again being prevented from unberthing due local regulations prohibiting movement during hours of darkness. The vessel could therefore only unberth on the morning of the 5th. Mention must be made here that local coastguards permit a maximum of 2 m. trim on the vessel.

The return passage in ballast was made via the Martin Garcia Channel to Recalada, this route resulting in substantial savings in costs at the sacrifice of some 60 miles additional steaming time.

A point of interest is the rail/road Bridge Spans across the Rio Parana Las Palmas at Km. 105 (slightly down-river from Zarate) and the Rio Parana Guazu at Km. 177. Both these spans can only be crossed during daylight as per local regulations. However, the Martin Garcia Channel can be transited at any time as with Canal Indio and Canal Intermedio.

Drafts available at the Martin Garcia Bar however are less and usually only 20 ft. – 21 ft. at Zero datum. Therefore in order to avoid anchoring to await tide, the draft, if possible could be minimised for the available depth for the transit only.

The vessel cleared the Martin Garcia Channel and arrived La Plata during the night of the 5th, and the Recalada Pilot was finally dropped in the morning on the 6th.

Manoeuvring in the Mitre Channel and in the Rio Parana had its own peculiarities but the Pilots attending the vessel were found to be very professional. A typical pecularity was the failure of the vessel to respond to hard-over helm albeit continue to swing in the opposite direction – the swing itself not having been induced but more of a shearing-off of the vessel's head, caused by the particular flow pattern of the heavily silt laden waters across and over the bulbous bow at high speeds, as reported by the Pilot. To counteract this shear the speed was immediately reduced and the vessel responded to the corrective helm rapidly.

Port Customs, Regulations and Formalities: Whilst requirements to meet the formalities and regulations governing the area in question were very much as described elsewhere in the "Guide", it may be worth mentioning here that for this operation a contingent of 3 Shore Officials boarded the vessel soon after the 1st lighter was fast at Zone "Charlie" on the morning of the 27th (they having travelled aboard that vessel to the lighterage area) and set up residency on board from that time till the vessel was finally fast alongside the Terminal at Zarate on the evening of the 2nd.

These officials comprised of representatives from the Customs, Prefectura, and Immigration. The Customs Official is appointed to oversee cargo quantities on arrival and transferred, and also clear the vessel inwards. The Prefectura Official is appointed to check vessel's movements within the port, anti-pollution watch, etc. The Immigration Official for inward clearance only.

Two Independent Cargo Inspectors appointed for the operation also stayed on board throughout the vessel's stay in the port and were responsible for all gauging, sampling and calculation of cargo quantities on board and that transferred, including effecting gauging of the lighter vessels and finally to determine shore outturn.

Further, two representatives from the Agents were also assigned to the vessel; whilst one remained permanently on board throughout the vessel's stay, the other functioned as a courier between ship and shore, using whatever means of transportation were available to him, even using the returning pilot boats to La Plata.

These representatives from the Agents proved beneficial to the vessel as all liaising, courtesies, translations, co-ordination with the shore including Pilots, and a lot of sundry chores of the like were handled by them. The paperwork here was voluminous besides being all in Spanish and each lighterage area and the berth were to be treated as independent calls as far as clearing papers were concerned, and in this respect the Agent's representatives were valuable.

Pilot offices here require some lengthy notifications; at least 24 hours notice for Recalada Pilots and minimum 12 hours notice for Rio Parana. If the vessel is delayed more than 12 hours from the ETA given to the pilot office in writing by the Agents, the booking stands cancelled and a fresh requisition for Pilot services has to be raised. Since again the minimum notices are incurred, it becomes apparent that if ETAs are not kept updated frequently, unnecessary delays to the vessel can be incurred in awaiting Pilots.

Ship's Radio facilities were abundantly utilised by the shore personnel in liaising with their offices, especially from the lighterage areas, and a substantial Radio bill amounted.

Communications from the Navipar Terminal at Zarate, to the city of Buenos Aires some 60 km. away, were good and the Agents representatives could maintain a good rapport with their offices there.

Permission to effect Crude Oil Washing operations was granted and the vessel effected same through the discharge.

ATUCHA: 33.58 S. 59.16 W.

"C" category port. Km. 132 – River Parana de las Palmas Province of Buenos Aires.

Situated on the left bank (from seaward) of the Parana de Las Palmas at Km. 132, 15 miles upstream from Zarate, and 80 miles by river from Buenos Aires, via Mitre Channel.

Also see "River Plate" – Shipmaster's Report dated July/October 1983.

BERTH: A small berth 33 m. long with two dolphins in 44 ft. built especially for the discharge of heavy material for the new Atomic Energy Plant. There is a 300 ton heavy lift crane on the concrete platform. The plant is now in full operation.

AUTHORITY: There is no port authority here, the port comes under the jurisdiction of Zarate.

BUENOS AIRES: 34.36 S. 58.22 W. (See Plan)

"A" category port

Refer to beginning of Argentina and River Plate Ports.

Also see "River Plate" – Shipmaster's Report dated July/October 1983.

APPROACHES: Access is by the "Punta Indio" channel which requires constant dredging and commences just West of the Recalada Lightship, which is situated 30 km. due South of Montevideo. The channel with 28 ft. 6 in. on a width of 100 m. or 23 ft. over 200 m. winds up to the Outer Roads, which are some 37 km. from the Port. Direct entrance is by a channel, dredged to 29 ft. 6 in. with a 50 m. width, and 28 ft. 6 in. on an 80 m. width, to within 10 km., where the channel divides into North Channel, serving the New Port and Madero Port berths, and South Channel, for the rest of the port. North Channel at present has a depth of 25 ft. with a width of 50 m. or 19 ft. with 80 m. width. South Channel has 23 ft. 6 in. with a width of 35 m., or 21 ft. 6 in. over 50 m. All depths given here and elsewhere refer to the zero of the Riachuelo tidal indicator and semaphore in Buenos Aires port, which practically corresponds to the level of the ordinary lowest water, and is marked 0.72 m. under the average medium level of tides. Tides average 3 ft., but the principal factor is that of wind, which can raise or lower the water by 5 ft. or more.

The Mitre Channel (depth 29 ft. 06 in.) enters the access channel at Km. 12, and under existing regulations the Mitre Pilot ceases his job there, and a Buenos Aires Port Pilot will either take the vessel into Buenos Aires or out to Intersection, or vice versa. This involves use of tugs for the changeover, unless the vessel goes only to Campana or comes from there, when the Buenos Aires Pilot can travel by land.

When large passenger liners or LASH vessels are entering or leaving, it is possible to have the access channel closed to all other traffic for a period of four hours on account of the narrowness of the dredged channel.

ROADS: The Outer Roads are between Buoys 25 and 37, according to draft. The Inner Roads are between Buoys 12 and 15. Intersection Pontoon, or Pilot station, is at Buoy 37, North side.

PORT: The port, which is artificial, comprises:

Puero Madero	North Basin, Docks 4, 3, 2, 1 and South Basin.
New Port	Basin A, B, C, D, E and F.
South Dock	First and Second sections.
Liquid Gas Basin	On the South side of the South Channel before reaching S. Dock
Inflammables Basin	On the South side of the South Channel between Liquid Gas Basin and South Dock.
East Basin	On the North side of the South Channel.
Riachuelo	The Districts known as Boca and Barracas.

TUGS: From vessels drawing up to 22 ft., service is rendered by a bow tug from Km. 5, and a stern tug from Km. 1, or vice versa, and to or from Kms. 8 and 4 respectively when draft exceeds 22 ft.

Stand-by time will be charged if a vessel is delayed in entering or leaving by bad weather, fog, low water, no berth, etc., plus usual Sunday/holiday surcharge.

Tug hours now coincide with ordinary port working hours and time is counted from the hour they leave their moorings and until they return.

When a vessel is leaving port, and tugs are ordered to accompany her beyond normal limits, an overcharge will be made on an hourly basis.

Once a vessel is moored, all further service in the same section will be charged by hour. If the vessel shifts section, this movement is charged plus the sections traversed.

A special compensation charge is made when tugs are ordered but not used.

For the services of tugs supplying electricity or steam, charges are made per day and per hour, varying with the size of the tug.

If vessels do not use their engines while under tow, a surcharge of 50% is made.

Tow ropes must be supplied by the vessel, but can also be hired. The towage company is not responsible for breakages, fouling of propeller, expenses of diver or any other consequence.

Also see "General" before first port.

BERTHING:

Puerto Madero (Central Zone): This is the oldest part of the Port. Ocean going vessels mainly operate in North Basin, and Docks 4 and 3.

North Basin: Built in the form of an irregular pentagon, with the entrance, 100 m. wide in one angle. The two piers at the entrance are 200 m. and 225 m. long, respectively. The West side is 390 m. long and the South 377 m., North 326 m., and with a depth presently 22 ft.

As the basin was built for a depth of 21 ft., and later dredged, when vessels load deeper than 20 ft. they should be careful to keep well off the quay wall to prevent grounding. Up to three vessels can discharge at anchor.

There are 2 dry docks in the basin, and a repair shop.

Usually only 1 berth, Section 6, is used for loading/discharging operations and can be used for containers. Sections 1 and 2 are used by vessels repairing or laid up, while Sections 3 and 5 are for Navy use. The warehouse of Section 7 is used by the Custom House.

Dock 4: Connected to North Basin by a lock 197 m. long, and 25 m. wide. The dock itself is 630 m. long and 160 m. wide, with 19 ft. of water.

On the West side there are 4 warehouses, each 4 storeys high and 12×3 ton cranes. Berths, or sections, numbered 1 to 4.

On the East side, section No. 5-8 (No. 6 reserved for State vessels) open area for handling containers and heavy lifts. Electric gantry cranes on rails of 6.3 tons capacity.

Between Berths 6 and 7 on the East side there is a large open space where vessels or lighters can discharge direct to trucks or to railcars. Trucks may also go alongside at the other berths, at all of which there are railway lines, but space is limited.

The dock heads are used for discharging sand and gravel from barges.

Dock 3: South of Dock 4, connected by a cutting 70 m. long by 20 m. wide, with a swing-bridge. This dock is 690 m. long and 160 m. wide, depth 18 ft.

On the West side, Berths 1 to 5, there are 4 four-storey warehouses, and there are 13×3 ton cranes. Section No. 3, forms part of the open space for general discharge and storage.

On the East side, there are 2 elevators used for storage.

Between the elevators, on the East side, there are open spaces where vessels may berth and discharge lumber or drummed cargo, but this section is limited to medium and small vessels only.

Dock 2: This is connected with Dock 3 by a cutting 80 m. long, and 20 m. wide, with a swing-bridge. The Dock is 570 m. long by 160 m. wide and 15 ft. deep at zero.

On the West side there are 4 berths, and 13×3 ton cranes. The area has been cleared, but at Berth No. 3 there is a warehouse for cargoes for Paraguay.

LASH barges are discharged at Berth No. 1.

The East side is used for laid-up vessels.

Dock 1: Connects with Dock 2 by a cutting 80 m. long, 20 m. wide, with 14.5 ft. This dock is chiefly used by Government-owned river craft.

The West side has 4 sections (No. 1-4), each with a Customs warehouse. Section 4 is used for cargoes for Bolivia.

On the East Side there is an elevator for shipments of grain to nearby countries.

South Basin: This basin is connected with Dock 1 by a lock 184 m. long by 20 m. wide, with a swing-bridge.

The basin is 1,029 m. long and has a width of 100 m.–200 m. and a depth of 4.00 m.–5.80 m. The dock is used by ferries to Montevideo and Asuncion and Ro/Ro service to Santos and Colonia.

New Port: The New Port, lies to the North of Puerto Madero, and entrance is via the Northern Channel. A breakwater extending from the North anteport protects the basin of the New Port from rough seas, and extends as far as Basin D, from which point another breakwater protects Basin E. Between the two, a channel is kept dredged for the movement of coasters to and from upriver. Basin F is used entirely for small coasters and river craft.

The 5 basins of this part (excluding F, coastal) offer good accommodation for the larger vessels entering Buenos Aires, and in all the berths there is sufficient water (depths 8.0 m.–10.0 m.) to float any vessel which can navigate the entrance channels. Max. draft should not exceed 9.90 m. Basins are numbered from South/North.

Basin A: Used by passenger vessels as well as general cargo. A landing station for passengers has recently been opened here and all vessels carrying over 50 passengers must land them here, shifting later to another berth if necessary.

The basin is 365 m. long by 140 m. wide, with 870 m. of wharfage. Northern side can accommodate 2 medium/large ships. Western side is frequently reserved for the Argentine Navy. On the S.W., passenger section, there is room for 1 vessel. On the S.E. another berth is available if the vessel operating at the Maritime Station is medium size only.

Pier Head No. 1 is 100 m. long, but is mostly used as waiting berth for river going vessels. There are two railway lines on each side of the basin, and also at the back of the deposits. There are five warehouses and a total of 14×3 ton cranes.

Basin B: Used for general cargo vessels, is 565 m. long on the North side, 464 m. on the South and 140 m. wide at the Western end, with 1,165 m. of wharfage.

The South side has 3 sections. Berth No. 1 at the dock head is an open area with 2×35 ton gantry cranes for containers. Berths No. 2 & 3 have a customs shed and are equipped with 5×3 ton cranes.

The North side, Berths No. 5, 6 and 7, are reserved for the state fleet. Berths No. 5 and 6 equipped with 7×3 ton cranes and No. 7 equipped with 2×6 ton and 1×35 ton gantry cranes.

The West wharf, length 151 m., is equipped with 1×6 ton and 1×12 ton electric gantry crane on rails.

Basin C: This is 495 m. long on the North, 585 m. on the South and 140 m. wide at its Western end, with 1,284 m.

On the South side there are 3 warehouses, built 15 m. back from the quay to facilitate operations. There are 8×6 ton cranes.

On the North and West sides there are no sheds, and this is used for operating directly to or from trucks or rail cars.

There are 7×3 ton cranes on the North and 3 on the West side.

On Pier Head No. 3 which is 236 m. long there are 2×6 ton cranes and 1×12 ton crane. Berth reserved for state fleet.

Railway tracks are fitted with a third rail for narrow gauge traffic.

The South side of this basin is reserved for ELMA (State Fleet).

The North side 1/2/3 is used for grain.

Basin D: This is 495 m. long on the North, 585 m. on the South and 150 m. wide at its Western end, with 1,300 m. of wharfage.

Along the Southern side is the Grain Elevator, which occupies all the water front and extends also along Pier Head No. 4 — 295 m. Capacity is 170,000 tons. It can deliver 13,500 t.p.d. to a total of 3 vessels.

On the North side a Container yard has been operating with 25,000 sq.m. of pavement and 1 shed, 100 m. long, 10 m. high and 30 m. wide. There are also 2 side loaders for 20/22 tons and 1 for 35 tons. Eventually the flooring will be extended to twice the area. 20 ft or 40 ft. Containers can be handled by 4×35 ton gantry cranes and 1 Liebherr "T 100".

For vessels with a reduced number of Containers, Basin E, North side, can also be employed, using the same concentration area at the Ericson yard.

Also see "Developments".

Basin E: The basin is 495 m. long on the North side, 585 m. on the South and 150 m. at the West end. Coal is discharged on the North side and there is also a warehouse there for other cargoes, although basically this basin is used for coal.

On Pier Head No. 5, which is 523 m. long, the Power plant discharges its coal or oil. There is 1 oil intake and 2 travelling grabs, capacity 4 tons each, and also a 30 ton crane.

On the South side of this Basin vessels operate loading or unloading fruit and generals.

On the West, or shore side of the basin there are 20 tanks (more building) for caustic soda, present capacity 7,400 cu.m. These are all steel tanks, and there are 11 lines to the pier. There are truck loading installations in the plant, and a weighbridge, but no fire-fighting installations. Wine tanks are also being built.

Basin F: This faces North, and is used for river craft only, pusher barges and tugs, while on the land or West side there are discharging facilities for sand hoppers.

Pier Head No. 6, between Basins E and F is 310 m. long, with room for 1 vessel only, and with 2 intakes for fuel oil and a 7.5 ton travelling grab for discharging Coal, capacity 150 t.p.h.

South Dock:

First Section: The first section has continuous quays on both sides, and a width of 90 m., widening to a turning basin before reaching the connecting channel to the second section.

Before the turning basin are 8 steel tanks for chemical or vegetable oil products, total capacity 5,260 cu.m., with 2×6 in. stainless steel lines and 2×4 in. steel lines, maximum discharge rate is 175 t.p.h.

Nearer the basin itself are 28 tanks, capacity 14,494 cu.m. plus 8 more tanks in the installation for use both with caustic soda and other chemicals or alcohol. Only one tank (No. 3) of 320 cu.m. is of stainless steel, the others are all steel.

The West quay is 911 m. long, and the East side 1,109 m., both in use for liquids and general.

The old Freezing plant is inactive and on the East side of the turning basin there is an elevator capacity 6,500 tons, 4 tubes and 3 chutes, plus another storage shed for 19,100 tons grain. Only 1 tube at a time may be used at 400 t.p.h.

At warehouse 10 there are 3 steel tanks capacity 10,600 cu.m. with a 10 in. line used for caustic soda, and by the grain board elevator 11 tanks capacity 23,640 cu.m. for vegetable oils.

On Pier A there are 41 tanks, capacity 18,580 cu.m. with 2 load lines for use with inflammables, handling usually caustic soda, fatty acids, tallow dodecilbencene and vegetable oils.

At Piers E and G there are 19 tanks total capacity 21,058 cu.m. for alcohol and chemical products, with 4 lines to the pier.

At F and G there are also 15 tanks, capacity 8,199 cu.m. for caustic soda, alcohol and chemical products.

Pier G has a further 6 tanks, total 3,259 cu.m. for any kind of chemical products, with 5 lines to the pier.

Second Section: The connecting channel is 90 m. wide, with earth banks. Jetties for discharging petroleum are placed along the East side, while on the West there is a continuous quay 1,000 m. long, on which there are 4×3 ton cranes and 8×1.5 ton cranes for discharging sand.

There are 7 berths, 5 of which are for general use, 1 for the Power plant for discharge of coal, with a 5 ton grab, and 1 elevator berth, Unit 10, capacity 23,500 tons. The loading bridge has 5 turrets, each with 2 tubes and 1 chute. Only 1 can load at a time, rate 400 t.p.h.

There are also 6 tanks, total 4,698 cu.m. for use with Tung oil with 1 line to the pier.

There are 8 petroleum jetties on the East side for the discharge of tankers and loading oil barges ex-shore tanks. The jetties are marked A to H. On reaching a draft of 23 ft. 6 in. vessels must shift to New Port.

The gangways to the mooring dolphins for tankers are in a very precarious state, which may lead to the closing of this sector.

It will be seen that there has been a considerable increase in number and capacity of tanks, all for private companies. In South Dock there are 134 tanks, capacity 87,147 cu.m.

Liquid Gas Basin: The Liquid Gas Basin lies on the South side of the channel, immediately East from the Inflammables Basin, and consists of a central mooring platform 520 m. long, with 4 pairs of dolphins and 2 mooring dolphins at each end, all joined by a foot gangway. The basin is protected by a breakwater 850 m. long. The Gas lines are insulated to carry liquid gas at minus 45°C.

The berth can accept vessels up to 45,000 d.w.t. Depth at zero tide is 33 ft.

As with the Inflammables Basin, all transit to land is by launch.

Inflammables Basin: This is situated outside the South Channel in front of Km. 0.500 and about 300 m. distant from the axis of the Channel and at a right angle. The dimensions are as follows: length: 616 m. on the East side, 425 m. on the West side, 180 m. on the S.W. side and 72 m. on the South side. The dock walls at the entrance are 44 m. long on each side. The entrance is 50 m. wide. All the dock walls of this basin are of cement, as well as the intakes and landing dolphins. It has 7 jetties for mooring vessels. The present tank storage in South Dock lies to the S.E. of this basin at a distance of about 1,000 m. Depth alongside 26 ft.

Ocean going tankers discharge at the piers on the West side. There are no facilities for reaching the city by land and therefore all the transport of officials, crew, stores, etc., must be done by launch.

The oil for the Y.P.F. tanks on the East side of the Basin and the M.O.P. workshops is sent from South Dock by piping under the South Channel.

East Basin: At the entrance to the South Anteport, a breakwater and 2 new basins have been constructed.

Basin No. 1 is used exclusively by the Port Works Department for laying up and repairing dredgers and other maintenance craft. It also contains a dry dock and a shipyard. Depth of water is 24 ft. in the basin but only 16 ft. at the entrance.

Basin No. 2, in form an irregular quadrilateral, is separated from No. 1 by a mole, and is 146 m. wide at the entrance, 170 at the base and with walls 372 m. long to the S.E. and 294 m. long to the West, allowing a number of vessels to berth. Alongside this mole is the SEGBA Power Plant. Depth in the basin varies from 24 ft. to 14 ft. at the entrance.

From No. 2 there is a mole parallel to the South Access Channel, 260 m. long, with a central salient 120 m. long, and 2 side salients 15 m. long each, and at 55 m. from the central mole. This is used by tankers discharging fuel for the Power Plant. There is 1 crane, 16 tons, and a narrow gauge railway line.

The breakwater has been built on the South side of the access channel as a protection for the basins, and commences 100 m. South of the light buoy on Km. 1 of this canal.

South Anteport: The construction of the Inflammables Basin, and of the East Basins, before arriving at the entrance to South Dock, Riachuelo or South Basin has created an Anteport. The North part has a mole 384 m. long from East Basin No. 1 to South Basin. This is used by the Port Works Department for workshops, deposits and offices.

The Prefecture has an office here, on top of which is a mast 2 m. high, used as a signal station. A white-edged red flag by day or a flashing red light by night indicates that a vessel is entering by the Southern Channel from Km. 8 to the Anteport. This signal will remain until the vessel reaches the Anteport, and signifies that the Channel is closed to all except tugs, sand hoppers and river passenger craft, provided draft does not exceed 14 ft.

Riachuelo: This is a narrow, winding stream which flows to the Plate by way of the South Channel. It has a depth in its axis of 21 ft. and from 17 ft. to 19 ft. at the berths, while the banks being sloping can cause trouble with moorings on a falling tide. Ocean-going vessels rarely use this now, except for occasional discharge of timber, and it is used mainly by lighters and coastal craft, as well as by laid up vessels and what are now virtually wrecks.

This is the old-time Boca and Barracas area.

DENSITY: Fresh water.

FRESH WATER: There are hydrants at all berths, with very few exceptions, at which vessels can take water at a charge per cu.m.

There are no hydrants in the Inflammable Basin, and only at Berth No. 1 on either side of Basin E in the New Port.

Delivery rate varies from 5 to 10 t.p.h., depending on the number of vessels taking water, time of day, etc. An extra charge is made in overtime.

FUEL: Available by barge.

CARGO: *Classification of Import Cargo:* Argentina being a tariff protected country, all cargo landed is subject to Customs control.

To facilitate control, there are Custom House warehouses on the city side of the dock zone, on the quays, in the South Dock, and others away from the quays. The Dock Zone is enclosed.

The transport of all goods from vessels is currently effected by State owned vehicles. There are no longer any private warehouses.

All fine cargo, cargo in cases, and most baled cargo must be discharged to Custom House Warehouses, direct from the ship, by means of dock cranes.

Other cargo in cases, barrels, etc., which might be damaged if stowed in the open air, also cargo which from its nature might damage other cargo stowed with it must go to the Custom House warehouses away from the quays, and is conveyed there by port railway wagons that take the cargo from alongside the ship. This same class of cargo can also be sent to private fiscal warehouses and is similarly conveyed there from the ship's side by railway wagons.

Cargo that can be stowed in the open air without risk of damage, such as cases of glass, motor cars, sanitary ware, etc., is also conveyed from the ship's side by railway wagons to open spaces (plazoletas) within the dock zone, reserved for the stowage of such cargo.

Certain classes of cargo, such as bales of gunnies, jute, rice, agricultural implements, and all articles the nature of which can be seen at a glance, can be discharged direct to consignees' carts, motor lorries, etc., from the ship's tackle. Also certain classes of rough cargo, such as coal, lumber, iron, cement, etc., must be discharged direct in this way.

The Custom House, in order to expedite despatch, has enlarged the list of goods that can be discharged in this manner, and also authorises the carrying out of these operations outside ordinary working hours, which has hitherto been prohibited.

Storage of goods in Custom House Deposits is limited to six months, counting from the date of the vessel's entrance to port.

All classes of cargo can be discharged into lighters (by permit from the Custom House).

Discharge to lighters can take place in all sections of the port.

Use of Special Deposit Called "Transit" for Reception of General Cargo:

In order to facilitate the discharge of vessels with general cargo for delivery to Fiscal Warehouse, the Custom House Authorities have authorised the direct discharge from vessels to a special warehouse which receives all the cargo as it comes out of the hold, labour being supplied by Agents.

This facility is only available at certain sections of the port and whenever a vessel discharges at a berth where there is a "Transit" deposit, this must be used unless the vessel carried homogeneous cargo or of such a nature that it does not require the use of the "Transit" deposit.

The cargo discharged in these special warehouses must be delivered by the Agents at ship's expense, into the Customs warehouses.

Cargo in transit to or from Paraguay is now stored in sections of Warehouse No. 5 of Dock 4. The goods may remain in the warehouse, once onwards transportation has been arranged, for 3 days, where the ocean carrier is operating, or in a special shed in Section 1 of Dock 2, where the river vessels load for that country.

Cargo in transit for other countries can be deposited in any approved space. In all cases, special permit must be obtained in order not to lose the status of "transit cargo".

Time Limit for the Permanency of "In Transit" Cargo in Lighters: Maximum time limit is set at 90 days, but it is possible to renew this, while on the expiry of such authorisation, the cargo must be discharged to fiscal warehouses, and be subject to all the rules and conditions governing this operation.

The Custom House is authorised to grant an extension of time when the interested party requests this before expiration date, and providing the causes are, in the opinion of the Custom House Authorities, justified.

Cargo in transit that is discharged by mistake to fiscal deposit, has to be removed from there within 48 hours; otherwise it must be added to the cargo manifest as a surplus discharge.

A tariff in the style of railway tariffs is in force with a variety of charges, all depending on the class and nature of the cargo that is being transshipped. Therefore, Shipowners, their Agents and Forwarding Agents should, in every case, communicate with their Agents in Buenos Aires to ascertain the exact cost of these charges. Subsequently to the new tariff being enforced, various increases were declared, so that the extra freight on cargo trans-shipped is now an important item to be considered when accepting through bookings.

Delivery of Cargo: The receiver of the merchandise or holder of the Bill of Lading must deliver this document to the Custom House to clear the goods. The merchandise, whether for deposit of direct despatch is delivered to the Consignees without the intervention of the Master of the vessel or the Agents. The Bill of Lading remains with the Custom House, under whose control the cargo is delivered. The Custom House verifies the legitimacy of ownership, and whether all the import dues or services have been paid on the merchandise before leaving warehouse.

Collection of Freights on Imported Goods: In the Argentine, the Custom House releases the cargo, and not the Agent, therefore the only means of ensuring collection of freight when payable at destination, is for the Agent to place a judicial embargo on the entire cargo. This action necessitates the Consignee first obtaining the Agent's conformity to the documents before the Custom House will accept them and deliver the goods.

Without an embargo the Agent, once he has presented the Cargo Manifest, cannot intervene between the Custom House and Consignee. Not even the retention by Shipper of all the signed original Bills of Lading is a safeguard, because the Custom House, which is only concerned with the delivery of the cargo to the lawful Owner and is in no way concerned with the freight payment, will deliver the cargo against production by consignee of a bank guarantee that the Bills of Lading will be forthcoming in due course.

From the foregoing it may be gathered that freight should always be prepaid when possible.

The Custom House usually does not release the cargo, if the Bills of Lading are claused "Payable at destination", until the importer produces an account for freight, duly receipted by the Agent, but this is not a sufficient cover, as the Customs are not under any legal obligation to effect this control, and therefore cannot be held responsible for the freight of goods delivered without it being paid.

Cargo Discharged to or Loaded from Vehicles: The Custom House Administrator has authorised the access of vehicles of all classes to the quays of this port for the reception or delivery of cargo of any class, size or weight.

It is necessary for the importers, exporters or Custom House brokers to obtain a permit for this, and the applicant is held responsible for any damage to port installations caused by said vehicles. Sufficient space must be left between truck and sheds to allow passage of Port Authority vehicles and fire engines.

The authorities will not be responsible for any accidents to the vehicles, their crew or their cargo. The vehicles must be so handled as not to interfere with the railway traffic.

Discharge of Inflammables: This is now permitted in the Port of Buenos Aires under strict security control.

Discharge of Sulphur: It is compulsory to have a motor launch fire extinguisher alongside vessels during the discharge of sulphur. An extra man is also required at each hold for carrying water to the stevedores.

Delivery of Fresh Fruit: The Custom House allows the consignees of fresh fruit to take away their cargo immediately on vessel's arrival, upon presentation of a special permit endorsed by a bank and Agents, and whereby the receivers guarantee presentation of the Bill of Lading in due course.

Placing of Lighters between Vessel and Wharf: When lighters are placed between the vessel and the wharf for the convenience of discharging a vessel's hold, full Port Service Dues are charged.

Lighters may be placed between the vessel and the wharf when the vessel's work to shore is not interfered with thereby. In such cases the vessel will continue to pay full dues. Lighters are, in fact, not considered as occupying any berth unless they are allotted a special berth by the Custom House to load or discharge. It is only when lighters are so commissioned by the Custom House, that a vessel going alongside these lighters would be charged in the category of a vessel lying second off.

Discharge of Heavy Lifts: There are 3 floating cranes, one for lifts of up to 60 tons, another of 100 tons and a new one of 250 tons. The first two may have lost part of their capacity. The 250 ton crane can navigate carrying its cargo, so making special movement of the vessel unnecessary, but the two smaller cranes must operate between ship and shore in swivelling movement.

There is also a floating crane capacity 30 tons belonging to the Navy, and two others, each 75 tons capacity, belonging to the State Fleet.

Hire counts from getting the crane alongside, and in condition to work, until work is completed, plus an extra hour to compensate crews from getting the crane back to its mooring place. Slings must be supplied by the lessee, and no responsibility is accepted for damage or breakage, the charge being on a tonnage/hour basis.

The 250 ton crane is not self propelled, and has a length of 45 m., 23 m. beam and a draft of 5 m., displacing 1,400 tons. If required it can be used in salvage operations, towage being for account of lessee.

Normally these cranes, except for the 250 ton crane, navigate under their own power, but the Craneman has the right to employ a tug or tugs for lessee's account when he considers it necessary and two tugs are also generally employed.

Wharf Cranes: The hire of shore cranes is charged by the Port Administration to the Agents of the vessel requesting their use. Special permission must be obtained for overtime work, and also to have shore cranes handle ship's machinery, ballast, or any other non-commercial commodity.

Movable Cranes: Charged per hour from arrival until work finishes. These are used for shifting cargo from one wagon to another, or for shifting cargo for convenience of consignees.

Advertisements: Advices of arrival of vessels with cargo, inspections of general cargo and notices of general average are published in the local press.

Notarial Protest and Extensions: When vessels arrive with cargo it is customary to note protest before a Public Notary, for which there are fixed fees per page to be filled in, plus further fees should an extension be necessary later.

TIDAL SIGNALS: See "Plan".

Signals by Day: See "Plan".

Signals by Night:

(White flash) Cycle:	30 seconds.
(Red flash) Long flash:	2.5 secs. each.
(Green flash) Short flash:	6/10 secs. each.

White flashes — Rising tide: One long.
Falling tide: Two short.
Above zero:
Red flashes — For each metre: One long.
for each 10 centimetres: One short.
Below zero:
Green flashes — For each metre: One long.
For each 10 centimetres: One short.
Zero:
Green and red flashes — One green and one red, both short.

A weekly bulletin is issued by the public works ministry and widely distributed among Pilots and Agents reports depths referred to the zero of the Riachuelo Indicator in channels, passages, basins and berths and it is possible to know the real depths at that moment in each part of the port area.

GENERAL: *Port Zone:* No one is permitted to enter the port zone on Sundays or holidays, or any working day after 1800 hrs., unless supplied with a pass. Visitors to ships must have cards issued by the Agents and approved by the authorities.

There are several access gates open during day time, but after working hours and on Saturdays/Sundays and holidays only those at Cangallo Street (by Dock 4) and Maipu (New Port) are open on a 24-hour basis.

Allotment of Berths: Vessels to discharge are allotted berths by the Port Authorities in strict turn, as from arrival in the roads, and according to the nature of the cargo to discharge or load and its quantity. A certain time is granted for completing operations, though an extension can usually be obtained, the Port Authority reserving the right to order a vessel out if operations are not completed on time.

Berths are allotted in South Dock when the greater part of a vessel's cargo is for the factories in that zone.

Berths at the Elevators: These are allotted in accordance with the certificate given by the National Grain Board, and in strict order of arrival in the roads.

Time Limit for Occupying Berths and Commencing Operations: Vessels which do not commence operations within 4 hours of the first ordinary period, are liable to have the berth given to others. Similarly those which suspend operations without due cause may lose the berth.

ELMA Berths in New Port: Any vessels may solicit one of the reserved berths, if vacant, but must shift as soon as a State vessel requires the berth.

Discharge of Inflammables: Consignees must take delivery from alongside. Should Customs clearance for such cargo not be ready, it must be discharged into lighters and the authorities will indicate where it must be placed.

Entrance: Vessels can enter or leave at any time of day or night, with advance notice to the authorities.

Movements: Vessels are not allowed to shift if their draft is not at least 10 in. less than the depth of water on the semaphore, with a rising river. No vessel can interrupt the operations of another to shift within the port, but if ready to sail, the other vessel must facilitate its departure whatever the hour may be.

All vessels moored alongside one another, at the quay, must reciprocally facilitate their operations, and open out when the vessel on the inside finishes her operations, and must leave or change berth. They must also make room for lighters with cargo for the vessel next to the quay, outside working hours.

When a vessel has to shift along the quay up to one ship's length to discharge or load from another hatch, neither towage nor pilotage is necessary when the shift is between the forward hatches, or the after hatches. Prior permission must be obtained.

Shifting from North to South or Vice Versa: There is no set rule, but usually vessels going from say, South Dock to New Port, will let tugs go and sail out to Intersection Roads to turn round and take up tugs again in the North Channel. It is also possible to have tugs follow out to Km. 9, where the North and South Channels meet, turn there and come into the new berth with the same tugs, if length of vessel permits.

It is for the Master and Pilot to decide where the vessel will turn, depending on weather, draft, current, etc.

Opening of Dock Bridges: The established time table, twice an hour is not observed, and Agents arrange for this when a vessel is ready to move through. Vessels should not attempt to pass the lock gates if clearance is less than ten cm. and the river is not rising. It must be remembered that the sole of the locks in each case is of concrete.

It is frequent in Madero docks to see vessels resting on the soft muddy bottom.

Prefecture Control: On both entering and leaving the Prefecture Officers may check with the crew list that all members of the crew are on board, particularly on sailing.

Draft on Sailing: Must be checked by the Pilot and Master, and duly recorded in the Pilot's book. Load lines are strictly checked; in case of hogging, drafts fore and aft are taken while in sagging marks will prevail.

Shiftings and Manoeuvres: In port are carried out under the responsibility of the Master, but Pilots are also responsible, at least to the Prefecture, since they are under direct authority and at the same time considered assessors to the Prefecture.

Trim: Also controlled, no list is allowed, and maximum tolerance for difference of draft fore and aft is 6 ft. to 7 ft. according to vessel's length overall. Vessels should not be down by the head.

Hatchways: All hatches must be kept closed when a vessel is not working. If hatches are found open when a vessel is idle, the vessel is fined.

Garbage: A garbage barge goes round the port every morning to take away the garbage, which must be left in drums slung over the stern ready for lowering into the barge. It is also possible to arrange for a barge to take off refuse from holds, old dunnage, bedding, etc. Collection is often a rushed affair, and good watch must be kept for the barge. Fines are imposed if garbage is not removed.

Working Hours: Ordinary working hours are now fixed as from 0700 to 1300 and 1300 to 1900 hrs. Tugs are now also on this same time table.

Overtime can be worked from 1900 to 0100 hrs. and from 0100 to 0700 hrs., but Stevedores are not allowed to take two consecutive shifts.

Custom House guards and other official workers follow the same schedule from Monday to Friday, but earn overtime on Saturdays, Sundays and holidays.

TELEPHONE: There is no special installation for vessels in port. Many Agents have one or more lines of their own, which can be placed on board, if there are connections available in that sector. The telephone company makes a connecting charge each time, at a high cost to the vessel, plus the usual charges for the service.

CONSULS:

Algeria	Montevideo 1889	Tel: 41-0271
Australia	Sta. Fe 846	32-6841
Austria	French 3671	72-7095
Belgium	Defensa 113, 8th floor	33-0066
Bolivia	25 de Mayo 611 2nd floor	31-7365
Brazil	Paraquay 580 2nd Floor	31-7743
Bulgaria	Manuel Obarrio 2967	83-7458
Canada	Suipacha 1111 25th floor	32-9081
Chile	San Martin 439 9th floor	49-8271
China, Peoples Rep. of	Sucre 3001	73-1950
Colombia	Sta. Fe 782 8th floor	31-4381
Costa Rica	Libertador 1146	42-6181
Cuba	Virrey del Pino 1810	73-4349
Czechoslovakia	F. Alcorta 3240	80-3917
Denmark	L.N. Alem 1064 9th floor	32-6901
Dominican Rep.	Maipu 844 5th floor	392-2381
Ecuador	Quintana 585 10 Piso	42-6408
El Salvador	Talcahuano 1038	42-6192
Finland	Sta. Fe 846	32-0600
France	Sta. Fe 846	32-2425
Germany F.R.	Maipu 938	32-9424
Great Britain	Luis Agote 2412	80-7070
Greece	R. S. Pena 547	34-2838
Guatemala	Lavalle 1759	46-4662
Haiti	Viamonte 1167	45-8796
Holland	Maipu 66 1st floor	34-8778
Honduras	Rodriguez Pena 336 2nd floor	40-0484
Hungary	Cnel. Diaz 1874	83-0767
Iceland	J. A. Roca 610 7th floor	34-3454
India	Paraguay 580 3rd floor	31-3020
Indonesia	Mariscal Castilla 2901	80-6622
Iran	Ocampo 2901	83-9314
Ireland	Sta. Fe 782 7th floor	32-4360
Israel	Arroyo 916	392-4481
Italy	M. T. Alvear 1149	42-9841
Jamaica	Corrientes 127 4th floor	31-4872
Japan	Azcuenaga 1035	83-1031
Korea, Rep. of	F. Alcorta 3221	83-4633
Lebanon	Lib. Gral. Sn Martin 2354	821-0466
Liberia	Florida 142	49-5543
Mexico	Cordoba 1367	42-0723
Nicaragua	Venezuela 146 2nd floor	37-8375
Norway	Esmeralda 909 3rd floor	32-1904
Pakistan	Alvear 1402	44-0355
Panama	Talcahuano 1038 5th floor	42-9651
Paraguay	Maipu 464 3rd floor	392-6536
Peru	Corrientes 330 3rd floor	31-3374
Philippines	Castex 3123	80-5068
Poland	Av. M. Aguado 2870	821-9681
Portugal	Cordoba 315 3rd floor	32-3524
Rumania	Arroyo 962	392-2630
Sierra Leone	Cordoba 1233	40-9573
South Africa	M. T. Alvear 590	31-8991
Spain	Guido 1760	41-0078
Sweden	Tacuari 147	38-3001
Switzerland	Sta. Fe 846	31-6941
Syria	Callao 956	42-2113
Thailand	Av. Belgrano 265 9th floor	33-3690
Turkey	R. S. Pena 852 8th floor	46-8779
United Arab Republic	Guido 1530	42-8542
U.S.S.R.	R. Pena 1741	42-1552
U.S.A.	Sarmiento 669 3rd floor	46-3211
Uruguay	Corrientes 545 6th floor	49-4129
Venezuela	Esmeralda 909 4th floor	32-2786
Vietnam	Cordoba 1184	46-6533
Yugoslavia	R. Pena 1012	411309
Zaire	Cerrito 1070	44-0902

REPAIRS/DRY DOCKS: Syncrolift with capacity 40,000 d.w.t.

DEVELOPMENTS: Port access to be dredged to 32 ft. for a width of 460 ft. At a later stage dredging of the port to 35 ft. will be undertaken.

A new container terminal is expected to be operational late 1988 at Basin D. Length of berth 500 m. Back-up area of 15 acres for 2,000 containers.

SHIPMASTERS' REPORT: September 1980.

Documents: In addition to the papers mentioned in the "Guide" the following papers were requested.

2 Vaccination lists.
3 Arms lists.
2 Crew lists with the numbers of the passports.
1 List of loading ports of the last voyage with dates of arrival and departure.

The I.D. cards were checked before departure and stamped again.

AUTHORITY: Administrador del Puerto Buenos Aires.

CAMPANA: 34.15 S. 58.58 W. (See Plan)

(Province of Buenos Aires) "B" category port.

N.B. Refer to beginning of Argentina and River Plate Ports.

Also see "River Plate" – Shipmaster's Report dated July/October 1983.

On the left bank (from seaward) of the Parana de las Palmas arm of the Delta from seaward, 155 miles by river from Buenos Aires, Martin Garcia, or 60 miles via Mitre Channel.

The port is mainly used for receiving and despatching petroleum and its products. There are also facilities for handling timber and general cargo, as well as steel tubes for the petroleum industry, both for internal requirements and for export, which are made here.

PILOTAGE: Compulsory.

RESTRICTIONS: Draft is controlled by depth of water at Martin Garcia Bar. Daily draft forecasts made by local authorities. See "Mitre Channel" (in River Plate section).

MAX. SIZE: Max. LOA 225 m. Up to 27 ft. draft, dependent on local river conditions.

HEALTH: Free Pratique can be obtained in the usual way, by notifying Buenos Aires Agents. Tankers lightening part of their cargo in Buenos Aires Roads, can take Pratique here, provided that the convoy formed by the tanker and barges follows up to Campana, and no one on board has any contact with shore until after the medical visit. If the vessel is "unclean" however, Pratique is taken before lightening.

RADIO: Use Buenos Aires stations for overseas, but for traffic control this comes under Zarate VHF (Channel 14) LSO 23.

TUGS: See "General" before first port.

BERTHS: *Siderca Wharf:* Km. 98.5. Owned by Dalmine Siderca S.A. Length 185 m. Depth 35 ft. Discharge of iron ore by travelling crane with grab, outreach 22 m. from fender line. Airdraft 23 m. Discharge rate 350-400 tonnes p.h.

Steel tubes are loaded by ship's gear at a rate of 150-180 tonnes p.h. per gang per shift (6 hours).

National Mole: Length 116 m. Depth alongside 20 ft. (5 m. off the wharf the depth is 25 ft. (upstream) and 27 ft. (downstream). 3×3 ton electric cranes.

Carboclor: Located 1,500 m. downstream from Esso Jetty "E". Privately owned by Carboclor Industrial Quimicas S.A. Berth consists of a small jetty with dolphins. Depth alongside 32 ft. Liquid chemicals loaded and discharged at rates up to 1,000 cu.m.p.h.

Tolueno: Located 500 m. downstream from Carboclor Jetty. Privately owned berth with depth of water 20 ft. Berth consists of a concrete platform (20 m.×8 m.) with connections for loading and discharging liquid chemical products to coasters.

Esso – Jetty H: See "Tankers".

There are 2 towers, one on each dolphin, 27 m. from each end of the tanker platform. Chutes are able to swivel 180° and delivery rate for petroleum coke is 4,000–5,000 tonnes per day. Airdraft 17 m.

MEDICAL: Doctors and hospital available.

TANKERS: *Esso Refinery Berths:*

Jetty A: For discharge of dirty ballast and tank washings. Max. LOA 100 m. Depth alongside 20 ft.

Jetty C: Max. size 36,000 d.w.t. Max. LOA 250 m. Depth alongside 40 ft. Berth consists of a platform on piles with 9 pipelines for crude, fuel oil, gas oil, petroleum and slops.

Jetty H: Max. size 38,700 d.w.t. Max LOA 230 m. Depth alongside 45 ft. Berth consists of a concrete platform (16 m. long) on piles with 15 connections for loading/discharging of crude oil, refined products and slops.

Jetty G: Max. size 5,000 d.w.t. Max. LOA 100 m. Depth alongside 18 ft. Berth consists of a concrete platform (14 m. long) on piles with 13 connections for crude oil, refined products and slops. Vessel lies against 2 dolphins. Fresh water available.

Jetty E: Max. size 5,000 d.w.t. Max. draft 27 ft. Berth consists of concrete platform on wooden piles and 2 concrete dolphins. Tugs compulsory for berthing and unberthing. There are 20 connections for crude oil, refined products, additives, lubricants and slops.

DENSITY: Fresh water.

FRESH WATER: Available at Esso Moles and National Mole.

FUEL: Available at Esso berths and by trucks or barges.

CONSULS: Italy.

REPAIRS: Can be effected.

AUTHORITY: Administracion de los Puertos Parana.

CONCEPCION DEL URUGUAY: 32.29 S. 58.12 W. (See Plan)

Km. 181 – River Uruguay (Province of Entre Rios) "B" category port.

N.B. Refer to beginning of Argentina and River Plate Ports.

Also see "River Plate" – Shipmaster's Report dated July/October 1983.

On the left bank of the River Uruguay from seaward, 182 miles from Buenos Aires.

APPROACHES: Access to the port is by a channel 1,000 m. long, 80 m. wide, which is 21 ft. at zero.

The roads of the port extend from the buoy marking the entrance to the channel, and about 2 km. up river, where vessels may anchor if awaiting berth.

Access is governed by the water on the Montana and Altos y Bajos passes, where there is normally no more than 21 ft. and this draft should be taken as a determining factor.

PILOTAGE: Compulsory Pilots for Uruguay River board off Buenos Aires Entry Channel.

ANCHORAGE: In Uruguay River, about 900 m. North of Entry Channel Buoy.

RESTRICTIONS: Day and night navigation allowed. Channel dredged to 20 ft. LW. Depth on bars, 17 ft. LW.

MAX. SIZE: Maximum permitted draft in Uruguay River is 21 ft. Fresh water, subject to local conditions.

HEALTH: 8 hours before arrival, radio Agent advising last port of call, number passengers and crew on board and health condition of vessel requesting Free Pratique. If this procedure is followed there should be no delay in obtaining Pratique when officials board on arrival, provided vessel's health conditions are satisfactory.

Masters may either advise their Agents in Buenos Aires, or direct to Agents in Concepcion del Uruguay, using station LSQ 57, on 477 kHz A1, and may proceed direct from sea to this port.

RADIO: The port station LSQ 57 transmits daily information at 1300 hrs. GMT on the state of the River Uruguay from San Javier to Gualeguaychu. It operates on 477 kHz, A1 power 0.5 kW.

TUGS: Compulsory both for entering or sailing and for movements in port.

BERTHS: There is a quay frontage of 1,500 m. of which 1,100 m. are for ocean-going vessels, with presently 18 ft. alongside at zero. The other 400 m. is for river traffic.

1×45 tonne and 1×15 tonne mobile crane.

Grain Elevator Berth: Depth alongside 18 ft. at zero tide. Vessels berth at 3 jetties, 45 m. apart, and secure to bollards on the shore. Loading rate 1,000 tonnes per hour with 2 chutes.

Due to silting alongside quay, vessel should be prepared to be fendered about 1.5 m. off the quay.

MEDICAL: All medical facilities available.

TANKERS: Two berths for tankers up to 18 ft. draft.

YPF Berth: Eight hose connections, 12 in. and 6 in. diameter.

Esso Berth: Hose connections, 8 in. for naphtha, 6 in. for other products.

DENSITY: Fresh water.

FRESH WATER: Available, there are several hydrants of 1.5 in. diameter on the mole.

FUEL: Available from the State Oil Company at the pier, or by drums from other suppliers.

REPAIRS: National and privately owned workshops for all types of minor repairs.

DRY DOCKS: One, owned by Ministerio de Obras Publicas, length 70 m.

REPATRIATION: Can be arranged subject to Immigration formalities.

AIRPORT: Situated 3 km. away, with daily services to Buenos Aires.

CONSULS: There are Italian and Spanish representatives.

POLICE/AMBULANCE/FIRE: Police Tel: 2222; Fire Service Tel: 2860; Ambulance Tel: 1792; Hospital Tel: 2464.

TELEPHONES: Arrangements can be made for placing telephone on board.

SHORE LEAVE: Permitted subject to Immigration control.

AUTHORITY: Capitania del Puerto Concepcion del Uruguay.

DIAMANTE: 32.05 S. 60.33 W. (See Plan)

Km. 533 – River Parana (Province of Entre Rios) "B" category port.

N.B. Refer to beginning of Argentina and River Plate Ports.

Also see "River Plate" – Shipmaster's Report dated July/October 1983.

On the right bank of the River Parana from seaward, above Rosario and 240 miles and 276 miles from Buenos Aires via the Mitre Channel and Martin Garcia respectively.

APPROACHES: There is ample depth of water in the port for vessels with 24 ft. draft, but draft is governed by the water on the various bars on the river, the shallowest above Rosario being Isla de los Pajaros, at Km. 468 to Km. 473 where 2 ft. keel clearance is required.

PILOTAGE: There is no resident port Pilot, and Pilot has to be ordered from Rosario. Minimum 10 hours notice required. The river Pilot ends his duties in the Outer Roads. Vessel must sail to make Los Pajaros Pass in daylight.

HEALTH: Vessels arriving directly from abroad must take Free Pratique at San Nicolas or Rosario, with the usual pre-advice to Agents there, which is essential for preparation of Notice of Readiness.

RADIO: Nearest station is Rosario LSQ 38, on 477 kHz. A1 LSQ broadcasts daily, at 1305 hrs., the depth of water in the Parana River from Los Ratones to Los Pajaros, and also the minimum depth between Santa Fe and Rosario.

TUGS: Tugs available from Santa Fe. No tugs required for berthing. One tug required for unberthing vessels under 160 m. LOA and 2 tugs if over 160 m. LOA.

BERTHS: Grain is loaded from the elevator at the North end of the port, Section 4, where there is 30 ft. Only one vessel may load at a time. Loading rate is up to 600 tons per tube per hour, work being possible with 2 tubes simultaneously. Max. LOA 250 m.

It is possible to load a second vessel, lying second off, if the beam of the vessel alongside permits.

Storage capacity in port is about 50,000 tons, of which 20,000 tons are in elevator at section 4.

There are tanks for vegetable oil with a capacity of 4,000 tons. Pumping rate is about 120 t.p.h. to vessels' tanks.

STEVEDORES: Working hours: 0600 hrs. – 1800 hrs. Monday to Friday and 0800 hrs. – 1200 hrs. on Saturday. Overtime if required 1800 hrs. – 2400 hrs. and 0000 hrs. – 0600 hrs.

FRESH WATER: Available at the elevator berth.

FUEL: Not available.

REPAIRS: Only minor repairs possible.

DENSITY: Fresh water.

MEDICAL: Hospital available.

CONSULS: None. Outward bound consulate despatches should be requested from Rosario or Buenos Aires.

IBICUY: 33.39 S. 59.15 W.

Km. 218 – River Parana (Province of Entre Rios) "B" category port.
N.B. Refer to beginning of Argentina and River Plate Ports.

Situated 3.5 miles up the River Ibicuy, on the right bank of the River Parana Pavon from seaward, 117 miles from Buenos Aires by river.

With the closing of the rail ferry from Zarate this port has now been closed down, and is unlikely to reopen.

LA PLATA: 34.54 S. 57.55 W. (See Plan)

(Province of Buenos Aires) "B" category port.
N.B. Refer to beginning of Argentina and River Plate ports.

Also see "River Plate" – Shipmaster's Report dated July/October 1983.

This port is situated on the left bank of the estuary of the River Plate from seaward, 30 miles South of Buenos Aires. It is the capital of the Province of Buenos Aires and is rapidly becoming industrialised.

APPROACHES: Access to the port is by a channel, which leaves the main entrance channel to Buenos Aires at Km. 57. It can be dredged to 28 ft. maximum. La Plata Roads extend for 3.5 miles from the moles.

PILOTAGE: Compulsory. Coming from the sea, or Montevideo, the Recalada or Uruguayan Pilot will take the vessel to La Plata Roads 27 ft. where a La Plata Port Pilot comes aboard.

From up river to La Plata, the River Pilot is dropped at Intersection, where a new Pilot takes the vessel to La Plata Roads for the Port Pilot to come aboard.

ANCHORAGE: Four miles S.E. of Recalada.

RESTRICTIONS: Vessels navigating in the Entrance Channel have preference over those in the River Santiago, and those which by reason of size must turn at Four Mouths have priority over others in their vicinity.

There must be no crossing or overtaking of vessels over 60 m. long or 9 m. beam, or 20 ft. draft and for this reason vessels ready to sail from Gran Dock will not let go while any vessel is entering by the Entrance Channel.

Vessels over 190 m. in length can only manoeuvre in daytime, with a minimum visibility of 1,500 m. and with a wind not exceeding 10 knots.

Regulations for the Santiago River Channel prohibit movement between sunset and sunrise for vessels over 140 m. long, or drawing over 24 ft. Vessels over 11 m. beam cannot cross or overtake, and vessels in this channel must not interfere with those moving in Four Mouths (Cuatro Bocas).

Depths: Access Channel: Length 12 km. Depth at zero tide is 23 ft. 08 in.
Turning basin: Depth 26 ft. at zero tide.
Channel to Puerto Ing. Rocca (Propulsora) dredged to 28 ft.

MAX. SIZE: Max. LOA 215 m., max. beam 30 m. Keel clearance of 1 ft. required.

HEALTH: Free Pratique — radio messages should be sent direct to Agents in La Plata if vessel is entering direct.

RADIO: Station LOM 524 kHz, A2. State oilfields have a VHF service, range 50 km. for communication with their vessels on 156.5 MHz during the first 15 minutes of each hour.

TUGS: Two tugs must be used, each of a minimum 820 h.p. Normally join vessel in entrance channel. Also see "General" before first port.

BERTHS: The port comprises Rio Santiago, Gran Dock and the Propulsora berth, 5 km. up the river Santiago, also known as Port Ingeniero Rocca.

Rio Santiago: The grain elevators on the West side of the Entrance Channel are no longer in use. The berth is 450 m. long, due West of the Four Mouths Turning Basin. Four tanks for reception of liquid chemicals have been installed here, capacity 2,300 tons. Depth alongside 23 ft.

Gran Dock: (Also see "Tankers").

Berths No. 10 and 11 are used by Copetro for the export of coke.

Berth No. 11 is equipped with a conveyor belt and can deliver 5,000 tonnes in 12 hours (2 shifts). A similar system is being installed at Berth No. 10.

The depth alongside Berth No. 11 is 26 ft. and at Berth No. 10 the depth is 23 ft.

There is a turning basin at the head of Gran Dock with a width of 200 m. where vessels up to 175 m. LOA can turn.

Prior to berthing, vessels must swing and berth head out.

Propulsora: A cold rolling steel mill has been built inland and a 5 km. channel dredged to 28 ft. from "Cuatro Bocas". There is one berth here, 154 m. long, though vessels of up to 220 m. length with beam of 31.5 m. with special permission can berth. Depth alongside 28 ft. The material used in the mill is imported in coils, and exports of cold rolled sheets and wire are also handled. There are two cranes, 30 ton and 32 ton capacity and combined rate of discharge is 500 t.p.h. Work is continuous.

Some 600 m. from the wharf itself, there is a turning basin 300 m. diameter. Vessels go in bow first, as there is less water to the South end of the wharf, and turn in this basin before returning down channel to La Plata proper. Only one vessel can operate at a time here. Vessels are secured to bollards on shore at the bow, and a mooring buoy astern. 2 tugs required for berthing and unberthing.

TANKERS: *Gran Dock:* The dock has a total length of 2,500 m. but the Northern half of the dock is in a state of disrepair and unused. The State Oil Field (YPF) Refinery is located on the East side where crude oil is received by pipeline from Bahia Blanca. The Refinery has 5 berths (Nos. 1-5) for the loading and discharging of clean petroleum products. Tankers load to maximum draft and then proceed to the roads to complete loading from barges, to the maximum draft permitted for the River Plate.

On the West side, Berths No. 6 and 7 are operated by Petroquima and Berths No. 8 and 9 are connected by pipeline to the YPF Refinery on the East side.

MOORING: Vessels of up to 150 m. length will employ 4 men for mooring, and those over 150 m., 6 men. Mooring hours in ordinary time are from 0600 – 1800 hrs. on week days, 0600 – 1200 hrs. on Saturdays. There is a 50% extra from 1800 – 2400 hrs. on week days or from 1200 – 1800 hrs. Saturdays, and 100% at all other times.

SEMAPHORE: For night signalling of the depth of water in the access channel, the system is similar to that at Martin Garcia and Riachuelo, Buenos Aires. By day signals are hoisted on a tower at Km. 4,460 on the access channel arm if tide is rising. If the river is stationary or falling, no flag is hoisted.

MEDICAL: Doctors and hospital facilities available.

FRESH WATER: Delivery by barge, capacity 300 tons and pumping with barge's own pump, 100 t.p.h. There are also connections at the berths in Gran Dock.

FUEL: Available alongside in Gran Dock and by barge or truck.

REPAIRS: All repairs can be effected except those requiring a dry dock.

CONSULS: Following countries are represented in La Plata: Italy, Norway, Peru and Spain. All other consuls at Buenos Aires.

SHORE LEAVE: Allowed, provided crew members in possession of Identification Cards.

AUTHORITY: Capitan de Puerto de La Plata.

RAMALLO: 33.32 S. 59.59 W. (See Plan)

Km. 326 – River Parana (Province of Buenos Aires) "B" category port.
N.B. Refer to beginning of Argentina and River Plate Ports.

Also see "River Plate" – Shipmaster's Report dated July/October 1983.

APPROACHES: The port is on the left bank of the Parana from seaward, where the river is divided into two by the Isla de las Hermanas.

Access Channel: The entrance is from the main river channel about 5 miles from the port. The channel is buoyed but not lighted. The depth is 23 ft.–25 ft., depending on the river. Agent should be consulted.

PILOTAGE: Pilotage is compulsory and the Port Pilot boards at the entrance to the access channel. Agent requires 6 hours notice of arrival to order the Pilot from Rosario.

RADIO: Agents at San Nicolas must be contacted either through Buenos Aires Radio, or via Rosario, LSQ 38, on 477 kHz, A1.

TUGS: Tugs are not necessary but if required must come from Villa Constitucion.

BERTHS: *Grain Board Mole:* There is an elevator, capacity 20,000 tons and two loading belts, load rate 250 tonnes p.h. each. The berth, for one vessel 180 m.–200 m. length, consists of a small jetty (length 150 m., depth 30 ft.) and several dolphins and two mooring buoys.

Fiplasto Mole: Used for discharge of fuel to the hardboard factory, from tankers. There are two dolphins with 23 ft. depth alongside. As the current runs fast here, vessels may roll with any wind, and it is recommended to put out more ropes than usual, both fore and aft.

FUEL: Not available.

FRESH WATER: Not available, except by drums from a tank on the National Mole.

MEDICAL: Attention available, but no hospital.

CONSULS: None, consular clearances can be effected at San Nicolas.

REPAIRS: No repair facilities.

ROSARIO: 32.57 S. 60.33 W. (See Plan)

Km. 420 – River Parana (Province of Santa Fe) "B" category port.
N.B. Refer to beginning of Argentina and River Plate Ports.

Also see "River Plate" – Shipmaster's Report dated July/October 1983.

APPROACHES: Outer Roads, between Buoys 410 and 413.

PILOTAGE: The port Pilot will come on board between Km. 410/415, by launch. Vessel should whistle for him if not here to meet the ship (2 long, 1 short).

ANCHORAGES: 7 vessels can anchor at Km. 425 (Rosario Roads) and 3 vessels can anchor at Km. 407 (Punta Alvear Roads). Both anchors should be used.

RESTRICTIONS: *Fog:* In thick fog, special permit must be obtained to enter or leave. There is an average of 6 days fog per month in the period April/August but only 1 day per month in the rest of the year. Electric storms are frequent.

Maximum Speed in Zone: From Saladillo stream North, there is a limit of 6 knots, up to Punta Barrancas.

There are no restrictions as to length and breadth of vessels, but draft and size of vessels are subject to river depth, which is very variable and no standard information can be given. Vessels up to 27 ft. draft are permitted to navigate the River Parana up to Rosario and San Lorenzo, provided vessels speed exceeds 10 knots and that there is at least 1 ft. keel clearance. Above Rosario controlling depth 22 ft. Vessels loading in Parana Ports must keep close contact with Agents for daily forecasts of admissible draft crossing Martin Garcia Bar to avoid risk of overloading and consequent delays.

HEALTH: Free Pratique, use Radio LSQ 38, on 477 kHz, or via Buenos Aires Radio.

TUGS: Two tugs are available, controlled by Port Authority. See "General" before first port.

RADIO: All messages through Pacheco Radio, call sign LPD, operating on 425 kHz. Pilots equipped with VHF radio Channel 16.

BERTHING:

Berth	*Length* (m.)	*Depth* (ft.)	*Remarks*
FACA	130	30	Floating jetty. Air draft 14 m. Max. LOA 240 m. Grain loading, rate 1,000-1,200 tonnes p.h. Storage 19,000 tons.
Genaro Garcia	140	35	Private elevator. Max. air draft 21 m. Grain loading, rate 1,000 tonnes p.h. Storage 7,000 tonnes.
Unit III	80	30	Air draft 13.0 m. Max. LOA 220 m. Grain loading, rate 400 tonnes p.h. Storage 80,000 tonnes.
Unit IV	145	29	Air draft 12.0 m. Grain loading, rate 400-500 tonnes p.h. Storage 35,000 tons.
Sheds 3-17	2,000	28	Bulk cargoes (grain by-products and sugar) by belt, rate 150-200 tonnes p.h.
Bolivian Free Zone	820	28	8 cranes. Bolivian imports and exports.
Sheds A, B, C.	300	28	Storage and export of sugar.
Paraguay Free Zone	350	29	Leased to Paraguay.
Sheds F to J	550	29	5 sheds×10,000 tonnes capacity for grain by-products. Loading by portable conveyor belts. Sheds H and I are waiting berths.
New Wharf	609	30	5 electric cranes travel length of wharf. (2×6.3 tons, 2×12.5 tons and 1×20/35 tons). Sulphur and manganese ore discharged to trucks. Privately owned sheds for storage of grain by-products. 2 fixed conveyor belts, rate 190 tonnes p.h. At the South end there are 3 lines for loading vegetable oil, rate 500 tonnes p.h. Storage capacity 50,000 tonnes.
Unit VI	250	31	Grain elevator berth. 9 chutes, 5 belts, rate 1,500 tonnes p.h. (300 tonnes p.h. per belt). Storage capacity 125,000 tonnes. Max. LOA 250 m. Max. air draft 13.5 m.
Unit VII	215	30	Grain elevator berth. Storage 80,000 tonnes. Rate 1,000 tonnes p.h. Berth not in use. Control room destroyed by fire.
Carnes Argentinas	175	–	Meat and products loaded by ship's gear.
Punta Alvear	144	35	Private grain elevator 14 km. below Rosario. 3 towers. 2 towers deliver 1,800 tonnes grain or 1,200 tonnes by-products per hour. Storage 55,000 tonnes in silos and 15,000 tonnes in sheds. Max. air draft 21 m.

Cranes: There are a large number of electric cranes, and the port is built in such a way that with few exceptions all cargo discharged must be handled by shore cranes. If the river is high, and shore cranes cannot operate to the vessel, the ship may discharge to shore, for the shore crane to place on railway cars, etc.

Bills of Lading covering lifts of 2.5 tons or more should be claused in such a manner that any extra expense in landing them is for account of the cargo.

Allotment of Berths: May depend on the availability of grain to the particular shipper, but normally berths are allotted in order of arrival.

Fenders: Vessels must use fenders for keeping them off, and can use their own or hire from the port.

STEVEDORES: Working hours: 0600-1200 and 1200-1800 weekdays and Saturday morning. Other times are on overtime rates. Gangs supplied according to vessels requirements by private companies under Government supervision.

Normal capacity per gang, per shift:
20 to 25 t.p.h. frozen meat.
120 to 140 tons per shift general cargo.

MEDICAL: Private and state-owned hospitals. All facilities available.

TANKERS: Discharge at Moles 3 and 4.

FRESH WATER: Only available at the berths on the Southern part of the port, except at the new wharf.

FUEL: All grades available by barge, but cost is high.

REPAIRS: All repairs excluding dry docking, can be effected.

AIRPORT: 16 km. from port. Daily flights to Buenos Aires.

CUSTOMS ALLOWANCES: 60 cigarettes per day, and 2 bottles spirits each man.

CONSULS: The following countries are represented at Rosario:

Bolivia
Chile
Finland
Germany F.R.
Greece
Italy
Lebanon
Netherlands
Nicaragua
Norway
Paraguay
Peru
Spain
Sweden
Switzerland
Syria
Uruguay

POLICE/AMBULANCE/FIRE: Police 29071; Ambulance 45600; Fire 20147.

TELEPHONES: Can be placed aboard.

SHORE LEAVE: No restrictions.

SHIPMASTER'S REPORT: February 1988.
River Plate Passage and Loading at Rosario.

The vessel had ordered a pilot for 0200 hrs. but due to favourable winds arrived at 0100 hrs. The pilot vessel advised in English that the Pilot would only be available at 0200 hrs and the vessel reversed course for a time.

Draft had been reduced to 21 ft. to facilitate passage in the adjacent zones and near Martin Garcia. Pilot boarded at 0215 hrs. and vessel proceeded at near to sea speed on fuel oil for the 6.75 hours to the Common Zone off La Plata. The two River Pilots were standing by and the pilots were exchanged without anchoring, and the ship resumed its upriver passage. The River Pilot ascertained that shipping was light, and that it was not considered necessary to anchor for any oncoming traffic. The ship changed to fuel oil and proceeded at near to sea speed. Passage was North of Martin Garcia Island to Nueva Palmyra, where the ship turned into the Rio Parana Bravo.

A dredger was working at km. 299 and the Pilot requested reducing the maximum draft to 20 ft. to allow the use of the secondary channel, which was duly done. The vessel anchored off Rosario with two anchors at 0400 hrs., 26 hours after taking the first pilot.

An inspection party of 6 persons boarded at 0715 hrs. and the vessel was cleared at 0800 hrs. The holds were concurrently inspected and the ship passed fit for grain at 0830 hrs. This was passed by walkie-talkie to the local agency, who in turn telephoned Buenos Aires Agency who in turn gave Notice of Readiness to the National Grain Board in Buenos Aires.

The vessel had a set of port entry papers from a previous call, and there was no delay. The Customs required the completion of a 'Draft Survey' statement with draft and details of the weights on board. No copy was given to the ship, but as the Chief Officer was inspecting hatches at the time it needs to be prepared for.

The Harbour Pilot boarded at 1000 hrs. and the vessel was all fast alongside a dolphin berth called Unit 4 by 1230 hrs. in a heavy downpour. The hatches were inspected by a second surveyor, and 'fogged' by a section of the Grain Board for the prevention of insects (though none had been found).

The stevedores' working hours were from 0600–2100, or 15 hours per weekday, with 6 hours on Saturday. No work on Sunday. Access was by a small gangway lowered from one of the two elevator towers on to the ship. This berth had only 2 towers, each with 2 booms. The ship's loading plan was amended to avoid having to shift the ship. Moving ahead against the current is said to require pilot, and main engine.

One of the towers was experiencing difficulties and the loading rate was less than that forecast. The vessel had nominated 24,946 tonnes to load to not exceed 27 ft. 03 in. F.W. draft. The River Authorities published daily readings of the available depth of water on each section of the river. It is necessary to keep the ship close to even keel towards finishing in case of a sudden drop in the permitted river draft.

Provisions could not be delivered from the shore due to the pedestrian only form of access. In fact the mooring boat was hired to bring the stores to the ship's offside. However, it was of limited capacity and charged extra to the bill. This applies to the majority of the terminals, which are mounted on top of the high river bank, while ships berth offshore on dolphins that may be fixed or floating. Cash payment in United States Dollars is preferred and in general, the provisions were considered to be of good quality.

Difficulties were experienced with the shore cargo figure being about 2.7% in excess of the ship's draft calculation. The vessel's sailing was delayed for an hour, but no correction appeared to be possible. Letter of Protest submitted and the Statement of Facts endorsed. Receipts are submitted daily, and each needs to be endorsed individually. Shortages appear to be not uncommon but with no means of obtaining rapid positive corrections to documents.

The departure inspection party consisted of one person and the vessel proceeded upriver to turn off No. 1 Unit. The Harbour Pilot left near the South or No. 6 Elevators, and then proceeded with the River Pilots. The vessel passed the dredger by arrangement, at km. 299 and then anchored at km. 244 to await daylight. Vessel hove up about one hour before sunrise and was turning into the Rio Parana de las Palmas at sunrise. This is a very narrow and sinuous river that leads into the Mitre Canal. Some mornings fog was experienced in the early sections. There are very, very few aids to navigation, a string of buoys indicates one side of a dredged channel.

Once the fog had lifted, a clear run through until the Common Zone off La Plata where the Sea Pilot boarded. Fuel oil was used for the majority of the time, excepting during the twilight time and fog periods.

The Sea Pilot arrived and the pilots were exchanged without anchoring and the vessel continued to Recalada. However, at 26 ft. draft, vessel bumped over a mudlump in the channel. Pilot disembarked at 2230 hrs. Due to shallow water, slow speed maintained until 2400 hrs.

AUTHORITY: Rosario Port Administration.

SAN LORENZO: 32.45 S. 60.38 W. (See Plan)

Km. 442 – River Parana (Province of Santa Fe) "B" category port.

N.B. Refer to beginning of Argentina and River Plate Ports.

Also see "River Plate" – Shipmaster's Report dated July/October 1983.

On the right bank of the River Parana from seaward, 16 miles above Rosario and 238 miles by river from Buenos Aires via Martin Garcia or 202 miles via the Mitre Channel.

The port includes the separate sections of Puerto Borghi, Puerto San Lorenzo and Puerto San Martin.

PILOTAGE: Available, 6 hours' notice required.

APPROACHES: Access is controlled by the passes Destileria and Borghi above Rosario.

ANCHORAGE: Vessels may anchor in the roads between buoys 447 and 449.

MAX. SIZE: Up to 27 ft. draft depending on river depths.
HEALTH: Vessels coming in from abroad, should take pratique in Rosario Roads, advising Agents there in good time.
RADIO: Use Radio Rosario LSQ 38, on 477 kHz A1. This broadcasts, in Spanish at 1305 hrs. daily, depth of water in the river between Santa Fe and Rosario.
TUGS: See "General" before first port.
BERTHS: Puerto San Martin:
Terminal VI: Km. 458. New privately owned jetty for handling of grain and by-products. Length 180 m. with 4 dolphins. Four loading chutes of which two can work at one time. Rate for grain 2,200 t.p.h. and 1,600 t.p.h. for by-products. Depth alongside 40 ft., but sailing draft restricted by Paso Bellavista. Fresh water available alongside and fuel by truck.
El Quebracho Elevator Wharf: Km. 456. Owned by Cargill SA. The facility is for loading grain and by-products and vegetable oil. Vessels berth on 3 dolphins and send mooring lines to dolphins fore and aft. The overhead loading gallery has 3 loading tubes but only one can be used at any one time. The loading rate for grain is 1,000 tonnes p.h. and for by-products 750 tonnes p.h. Storage capacity of silos 36,500 tonnes. There are 2×10 in. lines for vegetable oil, rate 900 tonnes p.h. Storage capacity 12,000 tonnes.

The depth alongside is 35 ft. Sailing draft is restricted by Paso Bellavista. Air draft 17 m.
PASA Wharf: Km. 452. Private berth. Vessels berth against 2 dolphins which are 80 m. apart and send lines to mooring buoys fore and aft. Maximum sailing draft on average river level is 21 ft. if proceeding bow first down river. However, if vessels proceeds stern first with the assistance of 2 tugs (or one tug for vessels with bow-thruster) and turning down stream the vessel can load to 25 ft. 5 in.
IMSA Elevator Wharf: Km. 451. Berth owned by Nidera Argentina S.A. Grain, by-products and vegetable oil handled. Vessels berth at 4 concrete dolphins with rubber fenders. Depth alongside 30 ft. Air draft 18.5 m. Distance between berthing dolphins 150 m. Head and stern lines are sent to mooring dolphins ahead and astern. The loading gallery has 4 chutes and 2 loading belts. Delivery rate for grain 15,000 tonnes p.h. and by-products 900 tonnes p.h. Vegetable oil is delivered by gravity by 2×10 in. lines at a rate of 300 tonnes p.h.

Storage capacity of the silos and cells is 85,000 tonnes and the tank capacity for vegetable oil is 30,000 tonnes.
El Transito Wharf: Km. 449. Privately owned berth operated by Bunge and Born. Grain, by-products and vegetable oil handled. Vessels berth at 3 concrete dolphins, overall distance 140 m. Head and stern lines are sent to buoys fore and aft. Depth alongside 32 ft. Air draft 15 m.

There are 2 fixed loading towers. Loading rate 400 – 500 tonnes p.h. Vessels must shift in order to load all hatches.

Vegetable oil is delivered by 2 pipelines at a rate of 700 tonnes p.h. Storage capacity for grain is 26,000 tonnes and for oil 10,000 tonnes.
Dempa Wharf: Km. 447. Owned by Indo S.A. Grain, by-products and vegetable oil loaded. Berth has 5 dolphins with rubber fenders and the overall length between dolphins is 100 m. Headlines are sent to a buoy. Berth equipped with one fixed loading tower. Delivery rate 300 – 500 tonnes p.h. Vegetable oil is loaded by 2 pipelines at 600 tonnes p.h. Depth alongside 35 ft. Air draft 15 m.

Storage capacity for grain and by-products is 110,000 tonnes and for oil 25,000 tonnes.

Vessels may experience difficulty loading end hatches. The berth is at an angle to the current which is strong and with shifting, the assistance of a Pilot and linesmen is often required.

The berth is being reconstructed and additional chutes are to be provided in order to avoid shifting.
San Lorenzo:
State Gas Wharf: Berthing for small vessels loading liquid gas. The berth receives propane at 200 cu.m.p.h. and butane at 150 cu.m.p.h. Ammonia is also handled.
Esso Wharf: 2 mooring dolphins for loading and discharging petroleum products. Discharge lines 6 in. and 10 in. Depth of water 23 ft.
Y.P.F. Wharf: Refinery berth with 5 concrete mooring dolphins. Tankers discharge crude oil and load clean petroleum products. Products are loaded through 6 in. and 10 in. lines. Rate 700 t.p.h. – 800 t.p.h.
A.C.A. Elevator Wharf: Km. 444. Owned by Asociacion de Cooperativas Argentinas. Depth alongside 30 ft., air draft 23.5 m. Loading rate for grain 1,800 tonnes p.h. with 2 belts serving 4 chutes. Storage capacity for grain 55,000 tonnes. Vegetable oil loaded at a rate of 300 tonnes p.h. Storage capacity 5,000 tonnes.
Vicentin/Duperial Pier: Km. 442.5 Jointly owned by Vicentin to load grain and by-products and by Duperial to discharge sulphur. There are 4 berthing dolphins and 2 mooring dolphins at each end. There is no restriction on length of vessel.

Grain and by-products loaded by 3 chutes. Loading rate with 2 chutes is 1,200 tonnes p.h. for grain and 900 tonnes p.h. for by-products. Storage capacity 35,000 tonnes.

Sulphur is discharged by ship's gear using grabs and conveyor belts to stockpile. Rate of discharge 300–500 tonnes p.h. Depth alongside 34 ft.
Port Borghi:
Sulfacid Wharf: Privately owned wharf for loading zinc, ores, sinters and sulphuric acid. Berth consists of 3 dolphins (6 m.×9 m.), giving an overall length of 60 m. Lines are run to mooring bollards on the shore and both anchors are used. There is a conveyor belt, rate 60–80 tonnes p.h. There is a fixed crane, so vessels have to shift to load into all hatches.
STEVEDORES: Working hours – 0600/1200, 1200/1800, in ordinary time, and in overtime, if required, from 1800/2400, 0000/0600.
FUEL: Available.
FRESH WATER: Small quantities available; Masters are recommended to take elsewhere if possible.
MEDICAL: Attention available.
REPAIRS: Small repairs attended to. It is also possible to bring specialists from Rosario if bigger jobs have to be handled.
CONSULS: Consular clearances must be made at Rosario.
AUTHORITY: Administracion de los Puertos Parana Medio.

SAN NICOLAS: 33.20 S. 60.13 W. (See Plan)

Km. 343 – River Parana (Province of Santa Fe) "B" category port.
N.B. Refer to beginning of Argentina and River Plate Ports.

Also see "River Plate" – Shipmaster's Report dated July/October 1983.

On the left bank of the Parana River, from seaward, below Rosario, and 188 miles (via Martin Garcia) by river from Buenos Aires.
PILOTAGE: Compulsory. 6 hours' notice required to bring Pilot from Rosario.
APPROACHES: Between San Nicolas and Rosario are the "Paso Paraguayo" and "Abajo Yaguaron" passes, and below San Nicolas, apart from Martin Garcia, the "Tonelero" and "Las Hermanas" passes.

The old-time characteristic of a grain port has been submerged in the industrial complex which has grown up around the steel mill, but grain is still shipped here.

The entrance channel to the port from the river is kept dredged to 24 ft. 6 in. at zero.
MAX. SIZE: Draft up to 24 ft. depending on river conditions.
August 1988: Max. sailing draft San Nicolas to San Pedro 28 ft.
RADIO: Use LSQ 38, Rosario, on 477 kHz A1.
TUGS: None needed at the New Port or Buitagro berths, as vessels enter bow upstream, and the current is strong enough to turn them on leaving. Only in the event of high winds should tugs be ordered from Villa Constitucion. Also see "General" before first port.
BERTHS: *Customs Wharf:* Consists of a 537 m. long berth, with depth 29 ft. There are no sheds on the dockside, but one railway line exists, and there are 7 portal cranes (4×20 tons and 3×27 tons).

General cargo and bulk cargoes loaded and unloaded. Grain by-products loaded by portable conveyor at 3,000 – 4,000 tonnes per day. Grabs are used for discharging scrap iron and loading petroleum coke.

There is a pipeline for loading alcohol at 250 tonnes per hour from storage tanks with capacity 21,000 tons.

2×30 tons and 1×70 tons mobile cranes available.

New Port Administration and Naval Prefecture offices have been installed on the cliff above the berth. Agency offices are in the old town.
Grain Berth: The Grain Board Elevator Berth is 220 m. in length and will accept vessels of 250 m. LOA. Depth alongside 30 ft. Rate of loading 600 – 800 tonnes p.h.
Power Plant: Length of wharf 200 m. Coal and oil discharged to power plant. 2×16 ton cranes discharge coal at 250 tonnes per hour each to the belt and stockpile.

1×200 ton fixed crane, which can lift 140 tons out of a hatch, or 180 tonnes from the deck. Max. outreach 25 m.
Puerto Buitagro lies South of the Ramallo brook, and comes under the district of Ramallo, although administered by the San Nicolas port authorities. It handles all the movement of the State Steel Mill, Somisa, the capacity of which is presently being increased to produce 2,500,000 tons of steel per year.
Ing. Buitagro Commercial Wharf: 320 m. long, for movement of general cargo. It is 16 m. wide and has 1×30 ton crane and 2×15 ton cranes.
Coal Wharf: This berth consists of 4 dolphins, 35 m. apart, with bollards on the 1st and 4th used mainly to discharge coal lightened to self-discharging barges from colliers in the roads in the River Plate.
Ing. Buitagro Bulk Wharf: Total length of wharf 680 m.

350 m. is for discharging bulk coal and mineral ores by grab from overhead cranes on rails. There are three overhead cranes (2×10 tons and 1×16 tons) and the rate of discharge for coal is 7,500 tons per day and for ore 10,000 tons per day.

330 m. of the wharf is for self discharging vessels.

Depth alongside the North end is approximately 30 ft. At the South end, the depth is less and requires regular dredging.

Work is carried out in 3×8 hour shifts and Somisa employs all its own labour.
MEDICAL: Doctor, hospital facilities available.
DENSITY: Fresh water.
FRESH WATER: Available at berths.
FUEL: Available, but must be delivered from Buenos Aires, Campana or San Lorenzo by truck.
REPAIRS: Possible.
CONSULS: None.

SAN PEDRO: 33.42 S. 59.39 W. (See Plan)

Km. 277 – River Parana (Province of Buenos Aires) "B" category port.
N.B. Refer to beginning of Argentina and River Plate Ports.

Also see "River Plate" – Shipmaster's Report dated July/October 1983.

On the left bank of the Parana River from seaward, below Rosario and 151 miles from Buenos Aires, by river.
APPROACHES: There are no bars below this port, except Martin Garcia, and vessels can therefore load to the limits of either Martin Garcia or Mitre Channel at its maximum of 30 ft.

The roads are 1,500 m. down-stream from the entrance channel. Also see "Berthing".
PILOTAGE: Compulsory. Pilot to be requested 6 hours in advance through Agent. Pilot comes from Rosario and boards in the roads.
ANCHORAGE: Vessels can anchor if necessary about 500 m. from wharf.
HEALTH: Free Pratique should be requested 24 hours in advance via Agents at Buenos Aires as there is no radio here and the Doctor must come from San Nicolas.
RADIO: None; use Rosario LSQ 38, 477 kHz A1, or Buenos Aires.
TUGS: See "General" before first port.

BERTHING: Access channel from the roads is kept at over 32 ft. Draft in all the Overseas Basin is well beyond 30 ft., soundings taken in April 1977 showing 45 ft. in the centre and a minimum of 28 ft. at plumb of the wharf (taken on a river height of 2.48 m.) the loading gallery, at 35 m. high, has 7 tubes, and an overall length of 110 m. Tube radius is 16 m., and extension to the telescopic arms is available. Vessels moor bows to the N.E., swinging in the basin East of the wharf, with a maximum turning length of 225 m., and turn on their engines, use of tugs not being necessary, since wind problems are minimal with the high cliff close in.

Vessels moor port side to with three lines from the bow, two astern and two springs from midships aft. Max. LOA 225 m. Maximum beam is 32 m. Air draft 18 m. Depth alongside 30 ft.

Elevator capacity is 7,000 tons in one, plus 24,000 tons in a second elevator which came into use in early 1978, and another 90,000 tons in underground chambers connected by belts to the main elevator. At the moment only one belt is working, capacity 500/600 t.p.h. A second belt is to be installed with a similar capacity shortly. Hand trimmers are available if needed and there are also centrifugal trimmers for use on the tube. Any bagging needed must be done on board.

By-products are also loaded over a second berth at the head of the wharf, 88 m. wide at this point, taking vessels of up to 150 m., shifting as needed. Loading is over portable conveyor belts, of which there are three in use, loading 40/50 t.p.h. each. The by-products are loaded ex-truck onto the conveyors, and can be stored in a shed on the main mole.

There are no cranes or railway lines, in the port, the station being some 4 km. away, and the grain enters by truck from the large hinterland nearby.

The coastal basin, N.W. from the main basin, can only take river barges, maximum depth being 11 ft., and some by-products enter there.

Authorisation has been granted for a second grain berth to be installed on the South side of the overseas basin, which is 100 m. wide. This will be a privately owned berth, with elevators for 150,000 tons, and an estimated yearly tonnage of 500,000 tons.

DENSITY: Fresh water.

FRESH WATER: Available at the berths.

FUEL: Not available.

MEDICAL: All medical assistance can be obtained. Hospital.

REPAIRS: Minor repairs can be effected.

CONSULS: None; consular clearances effected at San Nicolas.

SANTA FE: 31.40 S. 60.37 W. (See Plan)

Km. 585 – River Parana (Province of Santa Fe) "B" category port.

N.B. Refer to beginning of Argentina and River Plate Ports.

Also see "River Plate" – Shipmaster's Report dated July/October 1983.

Situated on the Santa Fe river, a tributary of the Parana, 90 miles by river from Rosario and 312 miles from Buenos Aires (Via Martin Garcia) or 276 miles via Mitre Channel.

APPROACHES: Entrance to the port is through an access channel, 6,085 m. long, and with 23 ft. at zero.

On this section of the river, from Rosario to Santa Fe, vessels must keep 2 ft. under the keel if measuring less than 50 fiscal units, or 2 ft. 6 in. if over. This applies when the hydrometer at Santa Fe indicates over 1.70 m. of water over zero. If the hydrometer measures less than 1.70 m. (5 ft. 7 in.) then vessels must have 2 ft. 6 in. and 3 ft. 6 in. respectively under the keel.

PILOTAGE: Port Pilot comes aboard in the Parana, at the mouth of the entrance channel. 6 hours advance notice is required for the Pilot to be in position.

ANCHORAGE: Although partially dredged in 1975, restrictions have not been lifted and vessels can only enter or sail between 0900 hrs. and 1700 hrs., and if unable to enter within this period must wait in Diamante Roads (km. 533) and follow radio instructions from the Prefecture. If the Diamante Roads have already been passed, a vessel may lie below Punta Alvear, or eventually at km. 568 (Animas de Paracao) but must immediately notify the Santa Fe Prefecture.

Vessels sailing must leave with sufficient margin to be able to pass "Los Pajaros" (km. 468/473) in daylight, and avoid anchoring in the sectors indicated above as reserved for Northbound vessels.

Exceptionally vessels under 160 m. LOA may anchor in Diamante Roads, if they leave in daylight and arrive in the roads before sunset, and provided there is no other ship anchored there. These instructions apply under normal hydrological conditions, and with unusual changes in water depth may be changed by the Prefecture.

SIGNALS: There is a signal station on the top of the tower of the new elevator (unit 1) in visual and radio contact with the control station tower at the river end of the access channel, where the signals are hoisted. It is also possible to observe movement in the roads from here.

The signals in the entrance channel are:

By day (shown at both ends of the access channel)

White globe, 60 cm. diameter	Channel free for overseas vessels.
Red biconic mark	Exit only for overseas vessels.
Green cone	Free movement of coastal vessels.
Yellow cone	Movement of coastal vessels allowed, but with precaution.

By night (interior signal staff only)

White flashes	Entrance free for overseas vessels.
Red flashes	Exit free for overseas vessels.
Green flashes	Free movement for coastal vessels.
Green and red flashes	Coastal movement only with restrictions.

Absence of signal – signifies port and channel closed.

All vessels will await the corresponding signals, which can be asked for by whistling, repeating 1 long, 3 short, for overseas vessels, or 2 short, 1 long, for coasters.

Should the absence of signals be due to a failure of the system, instructions will be sent by the Authorities.

NAVIGATION: *In the Channel:* Maximum speed in the entrance channel is 5 knots, however, the Pilot can advise on other speeds.

Movement by night is possible, but usually Pilots will not take a vessel out after 1500 hrs., since navigating the passes down river might oblige a vessel to lie in the roads, and turning there would require the use of 2 tugs, it being easier to wait until through transit down stream is possible.

During fog. Usual international precautions must be observed, but if the fog is very thick, entrance or departure of vessels is prohibited without special permission. There are no official statistics as to frequency of fog, but in the period May/August there may be 5 to 6 foggy days a month, and in the rest of the year one or two a month.

HEALTH: As there is no radio station here, Master should radio Agents with the usual request for Free Pratique.

RADIO: Regulations in this port state that Agents or Consignees must give written notice to the Port Authorities 24 hours before ETA, with details of vessel, cargo carried etc., or if in ballast, indicating for account of whom the vessel will load.

ETA should be confirmed if there is any change, since the port Pilot and tugboat must be sent out to the main river to meet the vessel. This will also allow the preparation and presentation of the Notice of Readiness without delay.

Radio LSQ 38, on 477 kHz A1, at Rosario, transmits river depth at 1305 hrs. GMT.

TUGS: 2×1,800 h.p. and 1×600 h.p. One tug is required by all vessels over 20 Fiscal units and up to 165 m. LOA, with a second tug standing by at Km. 592 unless the Pilot calls for its services (high winds, etc.).

Vessels over 165 m. will have a second tug standing by in the roads. Outbound vessels over 20 fiscal units will take two tugs, and let go the stern tug at Km. 592, the bow tug continuing until the roads are reached. However, if sailing from Basins 1 or 2 or the Terminal berth and with no other vessels in the way, one tug only may be taken, provided the wind is below 22 knots.

Also see "General" before first port.

BERTHS: The port is composed of four parts:

Dock No. 1, with stone wharves, 564 m. frontage on the East and 672 m. on the Western side, 120 m. wide and well equipped with cranes, and sheds; 24 ft. at zero.

Between Dock 1 and Dock 2, on the pierhead are tanks for vegetable oil, capacity 4,000 tons and pumping capacity 2/300 t.p.h.

Dock No. 2 lies parallel to Dock 1, and has a piling frontage 900 m. long on the East, 720 m. on the West and 120 m. wide. 22 ft. at zero.

Both docks are served by broad and narrow gauge railway lines.

Derivation Channel. 2,178 m. long, lies to the West of Dock 2. It has open banks, with no stone or wooden frontage. There are a number of dolphins and mooring facilities. It is reserved for Inflammables and there are also two deposits for Quebracho logs and for bones. Although there are railway lines, there are no cranes or facilities for handling cargo. Vessels awaiting orders or effecting repairs can lie up in the Eastern side of the Channel, North of the Esso plant. Shell and YPF plants on the Western side, where vessels may take on bunkers.

Coastal Wharf. Concrete wharf, 810 m. long, lying between the West side of Dock 1 and the Elevator at Unit 1. It has 4 dolphins and can berth and work 2 vessels simultaneously in 24 ft.

Allotment of berths. Allotted by the port by order of arrival. If berthing in the Derivation Channel, spars must be placed to fend the vessel off the bank, and an anchor may also be cast, but this must be done under the direction of the port Pilot.

Loading Grain. There are 2 units, comprising 3 elevators in use. Unit 1 on the South end of the West quay of Dock 1, next to the coastal section, can berth 2 vessels in 24 ft. The elevator has a capacity of 50,000 tons, and the loading gallery has 8 spouts with 3 belts, so that both vessels can operate simultaneously, although no more than 3 spouts can be in use together, with a load rate of 300 tons each, rising to 400 tons in favourable conditions, or when only 1 vessel is loading.

Unit 2 is now composed of the ex-Bunge Elevator on the Northwest of Dock 2, capacity 12,000 tons, and with 6 tubes, loading simultaneously by 2 at a rate of 200 t.p.h. each, and also of the De Ridder Elevator, on the S.W. side of the dock, capacity 6,000 tons, and with 2 tubes, capacity 200 t.p.h. each.

STEVEDORES: Working hours: 0600 hrs. – 1800 hrs. on weekdays and 0600 hrs. – 1200 hrs. on Saturdays.

FUEL: Available by truck.

FRESH WATER: From hydrants in Docks 1 and 2, or by tug in the Derivation Channel.

REPAIRS: Can be arranged. There are several tugs and lighters equipped to render assistance to vessels.

MEDICAL: Doctors and hospital facilities available.

TANKERS: Berths owned by Esso, Shell, and YPF in Derivation Channel.

CONSULS: At Santa Fe the following countries are represented: Italy, Paraguay, Spain. Other consuls at Rosario and Buenos Aires.

AIRPORT: 17 km. from Santa Fe, regular flights to Buenos Aires and other Argentine cities.

CUSTOMS ALLOWANCES: For consumption on board each man allowed 40 to 60 cigarettes a day and 1 litre of spirits a week.

POLICE/FIRE/AMBULANCE: Police: Tel. 21141; Ambulance: 36220 and 24687; Fire: 21212.

TELEPHONES: On board connection is only made for naval vessels.

SHORE LEAVE: Allowed, provided Crew members in possession of identification cards.

AUTHORITY: Administracion de los Puertos Parana Medio.

VILLA CONSTITUCION: 33.15 S. 60.17 W. (See Plan)

Km. 365 – River Parana (Province of Santa Fe) "B" category port.
N.B. Refer to beginning of Argentina and River Plate Ports.
Also see "River Plate" – Shipmaster's Report dated July/October 1983.

On the left bank of the River Parana from seaward, 25 miles below Rosario and 197 miles (via Martin Garcia) by river from Buenos Aires.
PILOTAGE: Port Pilot compulsory. Order through Agent 6 hours prior to arrival.
ANCHORAGE: Anchorage for 6 vessels between Km. 361.5 and Km. 363.5.
MAX. SIZE: Up to 25 ft. draft depending on river depths.
TUGS: Vessels over 110 m. LOA must use 1 tug when entering, sailing or moving. If wind speed over 22 km.p.h. 2 tugs must be used. Tugs not required at Puerto Acevedo. Also see "General" before first port.
RADIO: Rosario LSQ 38, on 477 kHz, A1.
BERTHS: *Elevator Berth:* Owned by the Grain Board. Length of pier 175 m. Depth alongside 27 ft. The Northside Berth can accommodate vessels of 230 m. LOA but due to reach of spouts the South Berth accepts vessels of 180 m. LOA. Delivery is by a maximum 2 spouts at any time (1 spout to each berth or 2 spouts to one berth) at rate of 350/450 tonnes p.h. per spout. Storage in vertical silos 55,000 tonnes and underground silos 155,000 tonnes.
Coastal/Overseas Wharf: Depth alongside 25 ft. Max. LOA 220 m. Grain and by-products loaded by portable conveyor belts at 150 tonnes per hour. Storage capacity 8,000 tonnes.
Puerto Acevedo. Two km. South of Villa Constitucion is Acindar Mole, otherwise known as Puerto Acevedo, where a large steel mill is installed. The port is under the jurisdiction of Villa Constitucion and pending a definite resolution as to Villa Constitucion Roads, vessels awaiting berth anchor off the Acindar mole.

The mole is 110 m. long by 34 m. wide, in 29 ft. and is used for the loading of steel products. It is fitted with 2×12 ton electric cranes on rails. Vessels of any length can moor, but must shift to present distant hatches.

The new wharf with length of 170 m. and depth alongside 32 ft. is used for discharge of iron ore. 1×10 ton overhead crane with grab, rate 80 tonnes p.h.

Port Pilot from Villa Constitucion attends here. Fresh water available by long hose, rate 15 t.p.h. Consult Agent before ordering tugs.
FRESH WATER: Obtainable. (See above).
FUEL: Not available.
MEDICAL: Doctor and hospital facilities available.
REPAIRS: Can be effected, if necessary bringing men and equipment from Rosario, or San Nicolas.
CONSULS: Consular despatches must be taken at Rosario.

ZARATE: 34.09 S. 59.05 W. (See Plan)

"B" Category port. Province of Buenos Aires.

Km. 108. Situated on the West bank of Parana River, 150 or 65 miles by river from Buenos Aires, and 5 miles upstream from Campana.
N.B. Refer to beginning of Argentina and River Plate Ports.
Also see "River Plate" – Shipmaster's Report dated July/October 1983.
TUGS: See "General" before first port.
MAX. SIZE: Up to 26 ft. depending on river depths.
BERTHING: The river here is wide and deep, but the old moles are no longer in use, having been silted up, with a maximum of 10 ft. at the National Mole. With the opening in 1978 of the rail road bridge over both branches of the Parana (de las Palmas and Guazu) to the Entre Rios Province the rail ferry has been closed down, and there is no sign of any new port works being undertaken here.

The Naval Prefecture at Zarate remains in charge of transit under the bridges and Pilots must maintain VHF contact with Zarate while in this zone (Channel 14). (LSO 23) Vessels not carrying VHF must use medium wave.
Shipmaster's Report: July 1983.
The river at Zarate is wide and deep but the 8 old wharves are no longer used by oceangoing vessels and have silted up to depths of 10 ft. or less.
TANKERS: *Navipar Oil Terminal:* See "River Plate" – "Shipmaster's Report" dated September 1986.
FRESH WATER: Available.
FUEL: Not available.
MEDICAL: Doctor and hospital facilities available.
CONSULS: Italy is represented locally. All other consuls at Buenos Aires.
REPAIRS: Small repairs can be effected.

III. *SOUTH ATLANTIC PORTS*

Bahia Blanca
Caleta Cordova
Caleta Olivares
Caleta Olivia
Comodoro Rivadavia
Galvan
Ing. White
Mar del Plata
Necochea
Puerto Belgrano
Puerto Deseado
Puerto Madryn
Puerto Rosales
Punta Ancla
Punta Ciguena
Punta Colorado
Punta Medanos
Punta Quilla
Quequen
Rio Gallegos
Rio Grande
San Antonio del Este
San Julian
San Sebastian
Ushuaia

Distance Table
Montevideo and Buenos Aires to Ushuaia and intermediate ports
Nautical miles

	Recalada Practicos	La Plata	Interseccion Practicos	Buenos Aires	Mar del Plata	Necochea y Quequen	Arroyo Pareja	Ingeniero White	San Antonio	Madryn	Comodoro Rivadavia	Deseado	San Julian	Santa Cruz	Gallegos	Virgenes (Lighthouse)	Magellan Straits	Ushuaia
Montevideo	16																	
Recalada Practicos	118	102																
La Plata	108	92	10															
Interseccion Practicos	128	112	30	20														
Buenos Aires	206	190	292	302	302													
Mar del Plata	279	263	365	355	375	73												
Necochea y Quequen	452	436	538	528	548	246	173											
Arroyo Pareja	466	450	552	542	562	260	187	14										
Ingeniero White	626	610	712	702	722	434	361	280	294									
San Antonio	671	655	757	747	767	479	405	316	330	227								
Madryn	850	834	937	927	947	658	584	500	514	411	274							
Comodoro Rivadavia	891	875	978	968	988	700	642	568	582	473	345	156						
Deseado	1015	999	1101	1091	1111	823	762	682	696	603	473	293	153					
San Julian	1076	1060	1162	1152	1172	884	823	743	757	664	534	354	214	96				
Santa Cruz	1151	1135	1237	1227	1247	959	898	818	832	729	609	429	289	171	114			
Gallegos	1167	1151	1253	1243	1263	975	918	838	852	759	629	449	309	200	146	67		
Virgenes (Lighthouse)	1182	1166	1268	1258	1278	990	933	853	867	774	644	454	324	215	161	82	15	
Magellan Straits	1376	1360	1462	1452	1472	1184	1135	1808	1094	1009	875	703	564	487	450	390	333	315

BAHIA BLANCA: 38.47 S. 62.16 W. (See Plan)

(Incl. Galvan, Ingeniero White, Puerto Belgrano, Puerto Rosales, Punta Ancla and Punta Ciguena.)
(Province of Buenos Aires) "B" category port.
Also see "River Plate" – Shipmaster's report dated July/October 1983.
N.B. Refer to Argentina, Section I.
PORT LIMITS: Berthing priority is fixed when vessel arrives at No. 11 Buoy in the channel entrance.

Final berthing marks the commencement of time authorised for loading and/or discharging.
DOCUMENTS: Required by foreign vessels.

Registration Certificate.
International Tonnage Certificate.
International Freeboard Certificate.
International Safety Certificates.
General Declaration, Crew List and List of Passengers (signed by the Master).

Sailing Clearance Certificate from port of origin or from last port of call, whichever the case may be.
APPROACHES/PILOTAGE: *Entrance Channel.* Commences at Rincon Light Buoy, which is a whistling Buoy, fitted with radar reflectors and is stationed some 17 miles S.S.W. from the Recalada Lighthouse. It is a large Buoy, painted with black and white vertical stripes, it can shift or be extinguished, being rather exposed. In case of doubt vessels are recommended to sound and stay outside the 10 fathom line until daylight or fog has cleared. Pilots must be requested 24 hours in advance. See "VHF".

From this Buoy vessels must proceed past Buoys 1 to 10, and the Bay Pilot comes aboard near Buoy 11 (39° 05′ S. and 61° 48′ W.). There is no pilot ship on station, and vessels arriving at this point after sunset must stand off until daybreak, unless a Pilot has been ordered and is approaching, when vessels can anchor and wait near Buoy 11. To avoid delay and waiting time, Masters should keep Agents well advised by radio to station LPW 2, which listens from 0700 to 2400 hrs. on 500 kHz. from 19 to 25 minutes past each hour, every hour. As the coast is shallow here, with South or East winds it is advisable to stand well off at night as there is also a tidal current favoured by these winds.

Locations where the Pilot can be taken on board are: Buoy 11, Buoy 22 and exceptionally Buoy 1 (at Master's request).

area, on adjacent vessels, or in the event of electric storms of great intensity, or if leakage of the product is observed, pumping must be stopped.

In the event of operations at loading points with long pipe-lines connected to the land, approved communication systems must be used between vessel and the shore to permit the need to stop operations immediately in the event of damage to the pipe-line or any other untoward occurrence.

Whenever it may be necessary to keep open any observation cover of a tank the flame prevention fabric must be positioned.

Constant vigilance must be maintained at the access to the vessel and on deck to prevent the entry of unauthorised persons.

With the exception of very high frequency equipment, which are safe for use, the vessel's radio/electrical equipment must not be used, the wireless room being sealed.

Loading and discharge of tanks must be effected solely by the corresponding pipe-line, the usage of the integral outlets of the tanks being prohibited.

Double berthing of vessels is not permitted, unless they are carrying out operations of lightening, repairs or in the event of emergency.

A foam extinguisher must be placed next to the connecting flange of a hose, and the fire pump must be maintained operational, except where the latter incorporates a remote control system which is approved.

The hose at the loading point and on the main deck must have a proper sealing joint in its unions.

The sealed doors on the main deck must remain closed.

Tankers effecting operations between one another, in the roads or at suitable anchorages, must have main engines ready to manoeuvre at all times; likewise, the necessary personnel for operations of anchors, chains and mooring equipment.

Masters or Owners are obliged to order cessation of any operation, and to request, if necessary, the collaboration of the Maritime Authorities, whenever at the operations quay or in its safety area, in the vessel operating under their control, the requisite safety stipulations are not being met.

During degassing operations, those involved with cleaning, repairs and maintenance, tankers must comply as follows: during degassing operations, no passengers or other unauthorised persons must be on board the vessel.

Whilst gasses are being liberated during the degassing process, the use of galleys must be reduced to a minimum, and open flame burners must be sealed, except boilers and heaters. Under the same circumstances, openings to quarters on deck must be kept closed, so as to obviate any contamination, and smoking must not be permitted anywhere in the vessel.

Boilers must not be lit up, and the combustion pattern must not be altered.

On decks no rags, or absorbent material impregnated with fuel may be deposited. Such material must be placed in adequate receptacles, with covers, for transporting away from the vessel.

When opening covers, and parts of them have to be struck, only anti-spark tools must be used.

Tankers effecting minor repairs, which do not involve cutting or welding of metals but cause sparks or other risky operations of a similar nature, must carry out such work only at the quays in the oil area appropriately equipped, or outside the oil area. When work of a greater magnitude is carried out, this cannot be effected at the special quays, except where reasons of emergency dictate, and in any case only after prior permission has been obtained from the Prefecture.

All degassing operations or opening of tanks not certified as being gas-free are prohibited in the ports, docks, breakwaters, piers or quays intended for operation with combustible or inflammable products or hydrocarbon derivates.

The tasks of washing or cleaning of tanks in port, docks, breakwaters, piers or quays intended for operation with combustible or inflammable products or hydrocarbon derivates may only be effected when a Certificate for Safety of Work has been issued.

Cleaning or degassing of tanks is prohibited in vessels carrying out movement operations of combustible or inflammable products which are hydrocarbon derivates in ports, docks, breakwaters, piers or quays.

CUSTOMS ALLOWANCES: 60 cigarettes and 1 litre of liquid per day. No cigarettes or alcohol may be taken ashore.

REPATRIATION: Possible.

REPAIRS: All classes of repairs possible including dry-docking.

CONSULS: Belgium, Chile, Denmark, Greece, Italy, Netherlands, Norway, Peru, Portugal, Spain, Sweden.

AIRPORT: Regular air service with Argentine cities.

TIME: GMT minus 3 hours.

HOLIDAYS: (a) National holidays – January 1st, Good Friday, May 1st, May 25th, June 20th, July 9th, August 17th and December 25th.

(b) Not worked – Holy Thursday – December 8th. Nevertheless, the port can work; The stevedores receive an extra of 75% on their pay.

POLICE/AMBULANCE/FIRE: Argentine Naval Prefecture is responsible for port safety, Tel: 71720/71727/71833. Ingeniero White Volunteer Fire Brigade, Tel: 70115. Ambulance of the Port and Maritime Chamber can be requested from the hospital at Ingeniero White, Tel: 70267.

TELEPHONES: There are no facilities for installation of telephones on vessels at the quay. The offices of Maritime Agents, stevedoring contractors and official bodies have telephones and telex. There are public telephones at the dock gates at Puerto Ingeniero White and Puerto Galvan.

SERVICES: These can be obtained via private firms.

SHORE LEAVE: No restrictions.

IDENTITY CARDS: Seaman's Book is sufficient.

REGULATIONS:

a. Owners and Maritime Agents must communicate to the Port Captaincy and Port Administration the intention to position the vessel for loading and/or discharge five days in advance (exception to this is made for tankers and grain ships).

b. ETA at buoy 11 must be confirmed 48 hours in advance (including tankers and grain vessels), indicating overall length, estimated draft on arrival and departure, and type of operation to be effected, with specification of tons, packages or volumes to be loaded or discharged.

c. At anchorage at buoy 11 or on passing it, in the event of direct entry, ETA must be confirmed. This time gives the priority for entry, provided the previous communications have been made.

d. Minimum quantities authorised for loading and discharge are:

Cereals	10,000 tons per day
Fruit	21,000 boxes per day
Loading frozen fish	600 tons per day
Discharge of frozen fish	200 tons per day

Other cargoes: The Port Administration determines this in each individual case.

e. These and other regulations with regard to the operations of loading and discharge, obligation to free quays, etc., are recorded in a Circular issued jointly by the Port Captaincy and the Port Administration.

DELAYS: Normally, there are no delays in berthing of vessels, although occasionally during the peak period for cereal exports grain ships may be delayed. It can be considered that vessels load as quickly as they can receive if the cargo is in port.

DEVELOPMENTS: With the dredging work already carried out in the entry channel, and that which is to be effected in the access to the elevators, it is expected that vessels of up to 40 ft. draft can operate. A study carried out under the auspices of the P.N.U.D. is on the point of being implemented, under which a notable improvement will be made in the loading conditions of cereals by means of the construction of a new elevator, remodelling those already in existence, construction of three quays in place of those already there, construction of waiting berths, etc.

Construction of 3×160,000 tonnes silos is to be undertaken. Construction of the first silo will start in August 1988 and the silo will be ready in September 1989. The second silo will be ready in December 1989 and the third ready in March 1990.

The facility is expected to handle vessels of 150,000 d.w.t.

SHIPMASTER'S REPORT: July 1980

Documents: See 'Guide to Port Entry'.

Pilotage: Pilot boards at Buoy No. 11 and requires 48 hours' notice. Pilotage compulsory. Vessels are not able to dock or undock at berths 19 or 20 without the aid of a Pilot.

Restrictions: Vessels are able to enter and leave during hours of darkness.

Max. Size: LOA 200 m. Max. draft: 36 ft. The mean tidal range is 12 ft. Keel clearance of 1 ft. required.

Tugs: Vessel is required to use tugs. 3×1,250 h.p. and 1×1,200 h.p. available.

Radio: Bahia Blanca Radio (LPW). Telephone Nos. of the radio station are 29347,22418 and 22413.

VHF: Pilot and Port Authority on Channel 16.

Berthing: Vessel berthed at general cargo berth No. 19 which is 21 miles from the entrance. Max. size of vessel that can safely berth is 200 m. LOA and 32 ft. draft. The least depth of water in the channel from sea to berth is 36 ft. and the mean tidal range at the berth is 12 ft. Nature of bottom of the berth is mud/silt.

Consuls: Greece, Germany, Spain, Italy, Sweden, Chile, Norway and Denmark.

Services: The following services are available: Fresh water, fresh provisions, minor repairs, dry dock, machine shop, airport, surveyors, laundry services, bunker fuel oil, gas oil, lubricating oil, doctor and hospital, groceries and meats. There are no slop facilities.

General: Vessel arrived at pilot station at buoy No. 11 at 0800 hrs. as arranged, but had to wait until 0900 hrs. for Pilot to come alongside. Whilst waiting it was very difficult to keep vessel in position between sandbanks with floodtide running.

Approach to port not the best as only one buoy lit and the first two buoys missing completely of the first five approach buoys.

Vessel docked about one hour before high water, starboard side-to at berth No. 19. Draft of vessel, forward 13 ft. 11 in., Aft 20 ft. 07 in.

As expected vessel was aground at low water. Vessel was sounded round and it was estimated that water at berth on low water 17 ft. forward and 20 ft. aft (difficult to be accurate as all soundings showed very soft silt).

As loading progressed vessel was aground as much as 2 hours before low water.

Intakes for this vessel are all on the port-side, but even so the intakes are only just above mud level, which naturally meant that the fire main could not be used at low water (being choked with mud), and the toilets were being flushed with solid mud.

I asked the docking Pilot when he next expected the berth to be dredged (in the past dredging had taken place during the month of January) he stated that "the dredger they have is old and new dredgers are expected", however, the Government is concentrating on developing Puerto Madryn.

Many local trawlers have already moved their home base to the South. Berth No. 20 has I believe slightly more water. River berth now unusable as the mooring bollards are missing.

SHIPMASTER'S REPORT: February 1988.

The vessel arrived from the River Plate and anchored independently in anchorage "A". Contact was made with Bahia Blanca Port Control (L2N) on VHF Channel 12 when passing El Rincon light buoy (Buoy No. 4) and again on anchoring. The Agent also checked the vessel's progress by their own VHF, and requested a telegram confirming time of anchoring.

Anchorage "A" was occupied by 6 ships increasing to 8 ships soon after we arrived. Of these, 5 vessels were delayed by lack of cargo papers to load for the Middle East. Anchorage "B" held some 11 ships, but all were Argentine tankers and not part of the queue for the grain berths.

After a 5 day wait, the vessel was ordered in for loading. Arriving off Ingeniero White about 2.5 hours before high water, swinging round to starboard without tugs, close above the first red beacon. The vessel waited with 2 lengths of cable in the water, making fast tugs during the interval.

3 ship's lines required for the two-funnelled tug aft, and 2 lines required for the Japanese "duckpeller" type tug forward. This was reversed on departure, with the two-funnel tug forward. The vessel berthed stern first starboard side to Nos. 5/6 Berths at 0100 hrs. Inspection party of one man (Coast Guard) boarded.

Loading commenced at 0700 hrs. and continued until 2200 hrs. As No.7/8 was empty the ship had the use of 4 pipes for a while. Otherwise 2 of the 12 pipes may be used. Loading rates varied but might average 600 t.p.h. for two pipes.

The depth in berth was found to be 25 ft. 03 in. on the fenders, and 28 ft. when vessel slid some 8 ft. off the fenders during low tide. Work continues while the ship is aground. Half day worked on Saturday and no work on Sunday.

It is the preferred practice that the vessel finished the cargo on the rising tide, after coming afloat so that draft and list can be checked.

The departure draft is read by the Coast Guard, Harbour Pilot and River Pilot. It is illegal for a grain ship to sail with a list. The sailing draft had been 38 ft. 00 in. but reduced to 37 ft. 06 in. while negotiations were going on for 37 ft. 02 in. and later 36 ft. 06 in. The controlling bar being between Buoys No. 12 and 15, the dredger is out of use due to a broken cylinder block requiring a replacement from Europe.

A new wharf has been built slightly downstream to service a power station, but has been equipped to load grain from road transport. The depth is said to be 39 ft. below chart datum.

The No. 9 Berth silo has been damaged by a series of explosions and is out of use. Alternative arrangements have been made for a mixture of temporary towers and mobile conveyors to load grain from road transport. It is reported that this system has many problems and delays. Other than for ships over 220 m. it is possibly the last choice for loading from the 4 berths.

Provisions were delivered alongside, but still with a Customs, stevedores and transport surcharge. A number of cases of vegetables were sent back as not being of adequate quality. The village of Ingeniero White is conveniently close by for personal shopping, shop hours being 0800-1200 and 1600-2000 and banks, etc. from 0800-1300.

The Argentine Press had reported that a contract was to be signed between the Argentine Government and a Russian consortium to dredge out and recondition the Port of Bahia Blanca. The figure of 45 ft. at high water was being discussed, but how far in the future and how long it would be sustainable, is unknown.

On sailing at the beginning of neap tides, the vessel was anchored at Buoy 17, to await the next high water. Vessel then anchored again near Buoy 11 to await the next tide, after which the ship was able to proceed independently after reporting to VHF Channel 12 (L2N) to confirm that the tide had actually risen.

A shortage of displacement compared with the stated loading figures was also experienced of about 2.5%. Though reported on the Saturday before sailing on the Monday, apparently there was no way of obtaining correction of blatant errors. All concerned were aware of the problems in the previous port of Rosario.

The Approach buoys were in a mixed state, Buoys El Rincon to No. 4 could be seen to be in a staggered line. Speed was restricted from Buoy No. 2 due to limited depth under keel. The direction from No. 4 to No. 5 to No. 6 bent to the Southwest. The No. 7 port hand (black) buoy was missing. The No. 8 port hand (black) and No. 10 port hand appeared to be displaced Southward. No. 11 was missing, while an unknown rogue buoy was floating about to the Southwest of that position.

No. 9 and No. 10 were believed to be extinguished.

AUTHORITY: Capitan de Puerto Bahia Blanca.

COMODORO RIVADAVIA: 45.51 S. 67.27 W.

(Province of Chubut) "B" category port.

N.B. Refer to Argentina, Section 1.

On the San Jorge Gulf, 947 miles South of Buenos Aires.

PILOTAGE: Compulsory. Pilot ordered by Agent 48 hours in advance of arrival.

ANCHORAGE: Anchorage within the five or six fathom line offers little difficulty for regular work to lighters, but the reserved zone off the YPF Pier must be respected.

RESTRICTIONS: Port should be entered at high water in daylight only. Tidal range from 19 ft. 6 in. to 7 ft. 4 in.

MAX. SIZE: Dry Cargo, Length 150 m., draft 15 ft. Tankers up to 30 ft. draft.

RADIO: For radio regarding free pratique, or reporting ETA call LPX 2, on 474 kHz. This station transmits weather forecasts in English at 0400 hrs. and 1800 hrs. GMT.

TUGS: See "General" before first port.

BERTHS: The main part of the port consists of:

National Wharf: At the end of the breakwater built over the Punta Borja reef, and still unfinished. It is L shaped, presently 1,160 m. long with a depth of 17 ft. (Max. draft 15 ft.). On the inner side the depth is 15 ft. The breakwater gives some protection from the S.W. and S.E. winds, but vessels with large superstructure should not go alongside, and it is recommended to leave the pier after work is finished each day in case North or West winds blow strongly.

Cranes: 1×60 ton (often under repair), 3×7 tons and 2 mobile cranes of 5 tons and 25 tons capacity. YPF have 2 floating cranes for heavy lifts.

General Mosconi Pier: Built over the Coronel Reef a short distance North of the town. It has a length of 956 m. and 21 ft. at low water. It is used exclusively for discharging cargo consigned to YPF and for loading their oil and other products, so that special permission from YPF is required to operate here. There are 2×15 ton cranes and 1×4 ton crane on the mole.

The privileged zone extends 150 m. either side of an imaginary line projected from the mole, and 2,500 m. seawards, reserved for tankers loading YPF products, and other vessels cannot moor in this area. There are 5 mooring buoys, two each side of the mole near to its head, the fifth is 200 m. from the beacon at the sea end of the mole bearing 020°.

CARGO: It is advisable to stow inwards cargo aft for this port, as lighters lying at hatches one or two receive little protection from sea and swell, and in any case, owing to the limited number of lighters, vessels usually work with two or three gangs at most.

To avoid loss of time, it is the custom in this port to leave the sling loads "as is" in the lighters and therefore a larger quantity than usual of slings have to be hired from the Agents.

It is advisable to establish in Bills of Lading that lighterage is at the risk of the cargo.

TANKERS: The oil berths within the Comodoro Rivadavia port area are, from North to South:

Caleta Olivares, at 45° 46′ S. and 67° 22′ W.

A loading berth for crude, with berthing in daytime only. A minimum of 6 hours advance notice of arrival must be given to Agents in Comodoro Rivadavia. There is a launch which assists in mooring to the 4 buoys, which are cylindrical painted black and clearly numbered. There is another cylindrical buoy, also black, but unnumbered marking the end of the line.

Loading is through 1×14 in. line at 550 cu.m.p.h. VHF communications maintained with the shore.

Caleta Cordova, at 45° 43′ S. and 67° 21′ W., some 12 miles North of Comodoro Rivadavia.

SBM: Located 3 miles offshore and 1.5 miles South of Astra Beacon. Max. size 100,000 d.w.t. Depth 95 ft. 1×30 in. pipeline for loading crude and 1×14 in. line for deballasting. Loading rate for crude is 3,500 cu.m.p.h.

When SBM under repair, vessels moor to 6 buoys in a depth of 34 ft. and load at a rate of 1,200 cu.m.p.h. through a 14 in. line. Ship's anchors also used.

Caleta Olivia, the third oil-loading berth, is South of Comodoro Rivadavia at 46° 26′ S. and 67° 31′ W.

A small wharf, 70 m. long, is used for discharge of lighters or landing boats at high tide only. Stores are available here, and the small town is connected by phone with Comodoro.

SBM: 3,000 m. offshore. Depth 115 ft. Max. size 100,000 d.w.t. Crude oil is loaded through a 30 in. pipeline at 3,800 cu.m.p.h.

Buoy Mooring: Located 2 miles South of the SBM and 2,000 m. offshore. Loading rate 1,000 cu.m p.h.

WEATHER: Average wind velocity 17 knots, with 79% from S.W., W. or N.W.

The port is open to N.E. and E. winds.

Rainfall is scarce, 189 mm. yearly, evenly distributed.

Temperature: Summer maximum is 25.5° and minimum 13.4°C, while in Winter maximum averages about 11° and minimum 3°.

FRESH WATER: Obtainable at National Wharf and General Mosconi Pier. Ships supply own hoses.

FUEL: Fuel oil and diesel available at the General Mosconi Pier in Comodoro Rivadavia.

WATCHMEN: Recommended. Normally arranged by Agent.

HATCHES: According to port regulations, stevedores open and close hatches at commencement and end of cargo operations.

MEDICAL: Hospital available.

CUSTOMS ALLOWANCES: Only sufficient for normal daily consumption on board. *Custom House.* Fully authorised for import/export cargo, including reception of explosives for commercial use.

REPAIRS: Urgent repairs can be carried out by the oil companies, and there is a permanent service of divers, equipped to operate to 150 ft.

CONSULS: Belgium, Chile, Greece, Italy, Netherlands and Spain.

AIRPORT: Situated 11 km. from port. Daily services to Argentine cities.

POLICE/FIRE/AMBULANCE: Regional Hospital 2451; Clinica Central 2282; Police 2778; Fire Brigade 2505.

TELEPHONES: No connection aboard vessels.

DEVELOPMENTS: Dredging to increase depth to 26 ft. alongside wharves.

AUTHORITY: Capitania de Puerto de la Patagonia.

MAR DEL PLATA: 38.00 S. 57.32 W. (See Plan)

(Province of Buenos Aires) "B" category port.

N.B. Refer to Argentina, Section 1.

On the Atlantic Coast, 302 miles from Buenos Aires.

APPROACHES: The port is some 3 miles South of the main town, sheltered by 2 breakwaters (Northern arm 1,099 m. long, Southern arm 2,750 m., entrance, facing North 300 m. wide). Both breakwaters carry roads and access is open to all traffic, so that car headlights and street lighting can cause confusion at night on taking the Southern bearing.

DEPTHS: The dredged channel is officially 100 m. wide, but dredging is now only occasional, and the official depth is 24 ft. and tidal ranges 3 ft. 8 in. Spring to 1 ft. 2 in. Neaps, with constantly forming sandbanks off the South breakwater.

There is often a heavy swell in this port, causing vessels to range in all berths, fenders being essential. It is safer to lie outside in 36 ft. to 42 ft. if awaiting berth than in the anteport within the breakwaters.

PILOTAGE: Pilotage compulsory. Pilots requested through Agent, at least 12 hours in advance.

Pilot boat about 8 m. long, grey-white in colour. Pilot boards approximately 1 mile from port entrance.

ANCHORAGE: The best anchorage bears 191° on the Southern breakwater light beacon and 313° on the Cape Corrientes Buoy, or even farther out. Holding ground is good and strong winds may safely be ridden out here, even with a big swell.
MAX. SIZE: Draft dependent on state of tide. Keel clearance of 2 ft. required. Normal maximum draft 27 ft. 06 in. at HW, but greater in best possible conditions.
RADIO: For radio regarding free pratique or reporting ETA call LPM 2 on 512 kHz. A2. English weather forecasts from Radio Pacheco, Buenos Aires, LPD 5, on 512 at 0148 and 1630 hrs. GMT.
TUGS: Use of tugs is obligatory; vessels over 1,000 N.R.T. must use 2 tugs.

Also see "General" before first port.
BERTHING: Big swell causes vessels to range, therefore Masters recommended have ready fenders for use at berth. Vessels can enter or sail any time day or night.

There are three basins (A, B, C) in the commercial port, of which the smaller fishing vessels or inshore craft use the most Southerly basin (A), and the trawlers the Coastal basin (B). Here an extension of the marine railway and dry docking facilities is now ready.

Basin C: The basin has an Elevator (Berths No. 12 and 13) on its Northern side, capacity 25,000 tons, with 8 tubes and 2 belts, load rate 350 t.p.h. per belt. Air draft at LW is 12.5 m.

In addition to the elevator berth there are Berths No. 7 to 11.

Lengths: No. 7 – 178 m.; No. 8, 9 and 10 – Total length 500 m.; No. 11 – 134 m.; No. 12 and 13 – 276 m.

Depths: No. 7, 8, 9, 12 and 13 – 26 ft.; No. 10 – 24 ft. and No. 11 – 21 ft.

Pier 6: Cruise Ship Pier: Max. LOA 220 m. Depth alongside 30 ft.
CRANES: Mobile cranes with capacity up to 20 tons available for hire.
MEDICAL: Masters should telegraph Agent in good time expected date and hour of arrival. Hospitals and sanatoriums.
TANKERS: Tankers berth at Pier 7 (length 260 m.) or at the "Inflammables Berth". Depths alongside 22 ft. – 22 ft. 06 in. Products handled are petroleum products and liquid gas.
DENSITY: Sea water.
FRESH WATER: Available at all berths, delivery from 1 t.p.h. to 2 t.p.h. (rates better during night); at the Northern tourist berth through 3 hydrants, total 60 t.p.h. Being slightly salty it is not recommended for boiler use.
FUEL: Fuel oil and diesel available at Pier No. 7 and by truck.
WATCHMEN: Compulsory. Arranged by Agent.
STEVEDORES: Gangs engaged by Port Authority according to vessels requirements.

Normal capacity per gang, per shift:
150 to 175 tons fish (direct transhipment).
70 to 100 tons general cargo.

Working hours: 0700 – 1300 and 1300 – 1900 weekdays and 0700 – 1300 on Saturday.
OPENING/CLOSING HATCHES: Can be performed by crew, but in any case subject to charter party terms.
CARGO: *Loading marks.* Vessels can load to their Summer marks all year round if sailing Northbound.

Import cargo. This is a fully authorised Custom house. Berth 9 in the central basin is the most appropriate berth for handling import cargo, there being little space on shore at the other berths. Berth 7, the pierhead here, has 30 ft. and is also reasonably suitable for discharging, but in the Northern basin there is little or no room for depositing cargo alongside.

Import of Potatoes. Is permitted here, this being near the main potato growing region but permission must be obtained for the discharge of certified seed potatoes.
WEATHER: *Wind.* There is no really predominating wind, 42% being from W., N.E. and N.W., average velocity being 11 knots.

Rain. Rainfull averages 941 mm. evenly distributed.

Temperature. Summer maximum about 25° and 13° minimum, while in Winter the maximum averages 14° and minimum 3.5°. Absolute maximum and minimum are 41.6° and minus 6.7° C.
REPATRIATION: Can be arranged.
IDENTIFICATION CARDS: Compulsory. Arranged on board immediately after arrival.
CONSULS: French, Italian, Portuguese, Spanish, Uruguayan.
REPAIRS: All types of repair possible, except dry-dock repairs. Divers available.
AIRPORT: Six miles distant. Two regular lines: Austral and Aerolineas Argentinas, 2 services/day between Mar del Plata and Buenos Aires.
HOLIDAYS: None. Work every day during year.
TELEPHONES: No telephones are available on board or on the berth.
DELAYS: In accordance grain elevator capacity. Normally none.
DEVELOPMENTS: Dredging to obtain depth of 30 ft. in channel and port.
AUTHORITY: Captain of the port: Port Administrator.

PUERTO DESEADO: 47.46 S. 65.54 W. (See Plan)

(Province of Santa Cruz) "B" category port.
N.B. Refer to Argentina, Section 1.

988 miles South of Buenos Aires. The port is situated on the right bank of the river, and at its mouth. There is a meat packing plant.
APPROACHES: The approaches and entrance to the harbour are determined by two pairs of beacons as range or leading lights. Care must be taken not to confuse the installed portal cranes, each 18 m. high, with the beacons, which are painted the same colour.

There is 27 ft. on the bar, at low water: tidal range is 17 ft. 6 in. to 6 ft. 2 in.

PILOTAGE: Compulsory. Agent requires 48 hours' notice of arrival for Pilot to come from Puerto Madryn. If vessel Southbound, arrangements can be made for boarding at Puerto Madryn or Comodoro Rivadavia.
RADIO: For radio regarding free pratique, or reporting ETA call LPO 5 on 461 kHz. A1. For weather reports in English, listen to Comodoro Rivadavia LPX 2, on 474 kHz., at 0400 and 1800 hrs. GMT.
TUGS: See "General" before first port.
BERTHING: With a narrow entrance channel flow of tides often exceeds 5 knots. There is a mud and gravel bank almost opposite and slightly West of the wharf, some 200 yards out from it, with only 16 ft. at zero.

Commercial Wharf: Length 266 m. Depth alongside 27 ft. The Eastern part (119 m.) is served by 2×6 ton cranes. Mobile crane of 6 tons capacity also available.
FUEL: Available by truck from Comodoro Rivadavia.
FRESH WATER: Available at the wharf, but in limited supply in Summer.
MEDICAL: Attention available.
REPAIRS: Minor repairs only.
CONSULS: Italy and Spain.
WEATHER: Conditions are generally good, and winds seldom exceed 40 knots. If anchored awaiting Pilot or berth, care should be taken to watch for strong winds against the current. When a strong W. wind blows there can be heavy dust storms, which impede proper visibility; in such cases it is advisable to keep position by radar and stand off or anchor until the visibility improves.

Yearly average for winds is 14 knots, 63% of the time from W., S.W. or N.W.

Rainfall is low, 202 mm. yearly with an average 74 days a year evenly distributed. Maximum temperature in Summer months is 35.6°C., while in Winter maximum ranges to 15.6° and minimum to minus 8.6°.
DEVELOPMENTS: A new dock with length 250 m. to be constructed.

PUERTO MADRYN: 42.46 S. 65.02 W. (See Plan)

(Province of Chubut) "B" category port.
N.B. Refer to Argentina, Section 1.

On the Atlantic coast, 767 miles South of Buenos Aires. One of the most sheltered and deepest harbours in Argentina.
PILOTAGE: Compulsory. Agent required 12 hours notice for ordering Pilot. Pilot boards 0.5 miles East of pier.
ANCHORAGE: At least 1.5 miles East of pier. Depth 60 ft.
RADIO: For free pratique, or reporting ETA call LPZ 20, at Trelew, on 427 kHz. A1, and for weather forecasts to LPX 2, at Comodoro Rivadavia in English, at 0400 and 1800 GMT, on 474 kHz.

Vessel to advise Agent, 5 days in advance of arrival, ETA, vessel particulars and cargo particulars. Further advices required 48 hours and 12 hours prior to arrival.

Vessels with containers are to give 10 days and 48 hours notice.
TUGS: Not necessary but if required they are ordered from Bahia Blanca.
BERTHING:

Berth No.	*Length* (m.)	*Depth* (ft.)	*Remarks*
1	217	44-55	Aluar S.A. vessels have priority. Max. LOA 220 m. Bulk discharge by grab at 300 t.p.h.
2	217	45-55	Max. LOA 175 m. General and containers.
3	139	33-42	2×6 ton cranes. General, ingots, fruit, fish, containers.
Waiting	250	20-24	Waiting Berth. Can be used for cargo using ship's gear.

CRANES: 2 mobile cranes, capacity 40 tons and 10 tons. 2 electric gantry cranes on rails at Berth No. 3. 1×10 ton grab crane at Berth No. 1.
MEDICAL: Attention available.
FUEL: By truck from Comodoro Rivadavia, Neuquen or Bahia Blanca.
FRESH WATER: Available at 20 t.p.h.
WEATHER: *Winds* mainly West, with a yearly average of 8.3 knots but reaching 15 knots in Summer months.

Rainfall scarce, average 173 mm. evenly distributed throughout the year.

Temperature. Summer maximum is 27°C and minimum 13°, and in the rest of the year maximum 21° minimum 8°.

Tidal range is 18 ft. 8 ins. and 6 ft.
HATCHES: According to Port Regulations, stevedores open and close hatches at commencement and end of cargo operations.
CUSTOMS ALLOWANCES: Sufficient for daily requirements only.
IDENTIFICATION CARDS: Required.
CONSULS: Italy and Spain.
REPAIRS: Minor emergency repairs only, also divers available.
AIRPORT: Trelew distant 64 km. Scheduled flights to Buenos Aires and other cities.
POLICE/AMBULANCE/FIRE: Police and fire tel. 249. Hospital 240.
TELEPHONES: No arrangements for placing telephones on board.
SHORE LEAVE: Crew members allowed ashore but must be provided with identification cards.
DELAYS: Possible delays due congestion owing berth shortage and tide.

SHIPMASTER'S REPORT: July 1980

Pilotage: Compulsory. Pilot requires 24 hours notice. At present the pilot boat is small with only about 1 ft. freeboard therefore vessels do not berth or unberth in any sort of wind, sea or swell.

Restrictions: Vessels can berth and unberth at any state of the tide, day or night.

Tugs: None available. Vessel able to dock and undock without aid of tugs.

Health: Authorities require 72 hrs. notice.
Radio: Bahia Blanca (LWP) and General Pacheco (LPD).
Documents: See "General" before first port.
Services: Fresh water available. Limited amount of fresh provisions available. Minor repairs possible. Airport, Doctor and hospital available. Groceries, meats and laundry services also available. Dry docking facilities, surveyors, fuel and slop facilities not available.
Consuls: No Consular representative. Nearest at Buenos Aires.
Anchorage: In position Lat. 42° 44′ S., Long. 65° 00′ W.
Berthing: Vessel berthed at a general cargo berth in position Lat. 42° 44′ S., Long. 65° 01′ W. Berth being about one mile from the pilot station. Any medium sized vessel able to dock at the southern berth (general cargo berth). Vessel able to dock and undock at any stage of the tide day or night.
Density: 1025.
Cargo Handling Facilities: There is a Bulk Aluminium berth opposite the general cargo berth. Two small cranes of approximately 2.5 tonnes capacity available. No floating cranes or Ro-Ro facilities. No facilities for handling containers or palletised cargoes.

PUNTA COLORADA: 41.41 S. 65.00 W. (See Plan)

PILOTAGE: Pilotage is obligatory, and 72 hours advance notice must be given in Buenos Aires for the Pilot to travel down.
MAX. SIZE: No. 1 Berth: 60,000 dwt (approx.) LOA 220 m. Draft 11.58 m.
No. 2 Berth: 25,000 d.w.t. (approx.) LOA 175 m. Draft 10.05 m.
BERTHING: The mechanical loading arm for iron ore movement from Sierra Grande iron ore mines has been placed at Punta Colorada, a small peninsula, mid-way between Point Pozos and Point Porfido, the neck of land often being under water at high tide. After grinding and concentrating at the mines, which are some 25 km. due West from the coast, the slurry is pumped to the pelletizing plant at Punta Colorada, stockpiled there and taken by conveyor some 1,600 m. to a retractable loading arm. This has a loading rate of 2,000 t.p.h., and turns on an arc permitting it to load over a length of 112 m., without shifting position of the vessel. There is 42 ft. at Berth No. 1 at LWST, vessels lying due North/South as shown on the plan and 35 ft. in Berth No. 2 lying East/West.
The port is privately owned and run by the Mining Company.
OPERATOR: Hierros Patagonicos S.A.

PUNTA MEDANOS: About 280 km. South of Buenos Aires.

New deep-water port under construction. On completion, expected to accept vessels up to 50 ft. draft.

PUNTA QUILLA (Santa Cruz): 50.07 S. 68.25 W. (See Plan)

(Province of Santa Cruz) "C" category port.
N.B. Refer to Argentina, Section 1.
On the estuary formed by the Rivers Santa Cruz and Chico, 1,172 miles South of Buenos Aires.
APPROACHES: The entrance to the port is by a channel 10 miles long. The Santa Cruz Lighthouse and 9 other beacons determine 4 pairs of leading lights for the approaches and entrance to the harbour, which can be entered only at HW, as both in the bar, either North or South passage, there are shoals on the leading lines, and also just before taking the anchorage in front of the town.
PILOTAGE: Compulsory. Agent requires 48 hours notice to order Pilot from Puerto Madryn.
ANCHORAGE: Good anchorage 2 miles from the entrance with 40 ft. at LW.
RADIO: For radio regarding free pratique or reporting ETA call LPT 2 on 441 kHz. A2. For weather forecasts in English tune to Comodoro Rivadavia LPX 2, on 474 kHz, at 0400 and 1800 hrs. GMT.
TUGS: None.
BERTHING: Wharf with length 160 m. with dolphins 60 m. off at each end with berths on both sides. Depth alongside 40 ft. at LW. Range of tide 30 ft.
CRANES: 1×6 ton, 1×25 ton (private) and 1×45 ton (private) mobile cranes.
STEVEDORES: Working hours: 0700 – 1300, and 1300 – 1900.
FUEL: Available to supply vessels only.
FRESH WATER: Available, rate 15 t.p.h.
WEATHER: A dry zone, with an average of 186 mm. rain, spread over 72 days throughout the year. Wind averages 11 knots.
Tidal range is 39 ft. 8 in. to 9 ft. 4 in.
MEDICAL: Attention available.
CONSULS: None.
REPAIRS: Minor repairs only.

QUEQUEN/NECOCHEA: 38.35 S. 58.42 W. (See Plan)

(Province of Buenos Aires) "B" category port.
N.B. Refer to Argentina, Section 1.
On the Atlantic Coast, 375 miles South of Buenos Aires, Necochea, is on the right bank, and Quequen, on the left bank of the Quequen River. The ports, whose administration is centered in Quequen, are the outlet for a very rich agricultural zone.
APPROACHES: The port is at the mouth of the river, protected by two breakwaters, the Western arm being 1,192 m. long, lying from N.W. to S.E., and the Easterly arm 572 m. long and lying North/South. The passage between the arms is 210 m. wide, and the entrance channel proper 90 m. wide.
PILOTAGE: Compulsory. Pilots must be applied for as usual through Agents at least 24 hours ahead, using Radio Pacheco LPD 5 on 512 kHz, A2, since there is no radio station at Quequen. This can be done by phone from Buenos Aires or other ports if vessels are not coming from abroad.
No Pilots will come out in bad weather. The small pilot boat is painted grey, with a yellow deckhead, and the Pilot comes aboard about 1.5 miles off the South end of the breakwater.
ANCHORAGES: Not advisable to anchor in bad weather due extremely dangerous winds from West through South to East. Anchorage in open sea 800 m. – 1,500 m. from cliffs.
RESTRICTIONS: Day and night entry possible. Vessels with length in excess of 175 m. require channel navigation permit obtainable from Maritime Prefecture.
MAX. SIZE: *Max. Draft.:*
Up to 175 m. LOA = 31 ft. 01 in.
Up to 185 m. LOA = 30 ft. 01 in.
Up to 195 m. LOA = 29 ft. 01 in.
Up to 205 m. LOA = 28 ft. 01 in.
Up to 215 m. LOA = 27 ft. 01 in.
Vessels with LOA 215 m.–220 m. must not enter without permission.
Vessels must have an under keel clearance of 1 ft. in calm weather on a rising tide and 2 ft. clearance on a falling tide.
Tidal range: 2 ft. (Neaps) and 5 ft. 2 ins. (Springs).
Also see "Shipmaster's Report" – February 1982.
HEALTH: Free Pratique is now given only when alongside, or in the pool. Master should advise agent in advance of health situation aboard. If proceeding from another Argentine port, health inspection not required. Derat Certificate to be shown.
RADIO: For radio regarding free pratique, or reporting ETA call Radio Pacheco LPD 5, on 512 kHz. There is no station here and advice to Agents can be given by phone or telegraph from Buenos Aires or other ports, also Costera del Mar de Plata (LPM).
TUGS: Two tugs must be used both on entering and leaving and these come alongside at the entrance, and are also needed for movements in the port. Both are old, however, and with insufficient power for anything other than work inside the port. Ship's lines used.
Two vessels cannot be in the entrance channel at the same time. Should the weather make it imprudent for the safety of the ship and/or tugs to make fast ropes in any position, the tugs will continue at the side of the vessel to be engaged when necessity arises. In every case tugs must be paid for, used or not, and any damage done by the non use or late engagement of the tugs will be attributable to the vessel.
Also see "General" before first port.
BERTHING:

Berth No.	*Length* (m.)	*Depth* (ft.)	*Remarks*
Quequen			
1	200	31	6 in. lines for loading vegetable oil. Pellets loaded by conveyor at 200 t.p.h.
2	100	26	6 in. lines for loading vegetable oil. Rate 350/400 t.p.h. Storage capacity 39,000 tonnes (Berths No. 1 & 2).
3	220	32	Private elevator berth. 2 loading belts (600 t.p.h. each) and 1 pipe fitted with trimming gear. Air draft 14.0 m. Storage capacity 70,000 tonnes. Vegetable oil by pipeline, rate 1,200 t.p.h. Storage capacity 5,000 tonnes.
4 5	230	30	National Grain Board. Silo capacity 80,000 tonnes. 4 belts serving 8 tubes. Delivery rate 300/350 t.p.h. to 2-3 tubes each. Air draft 14 m.
6	120	32	Max. LOA 220 m. Elevator berth. 2 belts serving 7 tubes. Rate 600 t.p.h. (2 tubes). Grain and by-products also loaded by conveyor at 200 t.p.h.
Necochea			
7 8 9 10	450	30	General cargo, cement and logs by ship's gear. Grain by-products by portable conveyor at 200 t.p.h. Cold stores. Loading and discharging fresh and frozen fish.
11	200	19	Fishing vessels.
12		22	Power station berth. Discharge of fuel oil.

WEATHER: *Winds,* average velocity is 7 knots, with 46% from N., N.E. and E., and only 29% from S.W., W. and N.W.
Rainfall. Averages 909 mm., evenly distributed.
Temperature: Summer maximum averages 26°C and minimum 14° with an absolute maximum of 39.9°, while in Winter the maximum is around 13° and the minimum 4°, with an absolute recorded minimum of – 4°.
Tidal range is 5 ft. 2 in. spring to 2 ft. neaps.
TANKERS: Fuel oil discharged. (See "Berthing").
DENSITY: Salt water.
FRESH WATER: Obtainable from hydrants on the wharves, vessel must supply hoses. Rate 6 t.p.h. – 10 t.p.h.

MEDICAL: Attention available.
FUEL: Advance notice essential as deliveries by truck from Buenos Aires, Mar del Plata, or Bahia Blanca.
WATCHMEN: Compulsory.
HATCHES: Opened/closed by stevedores additional charge made.
REPAIRS: Minor repairs only.
REPATRIATION: Through Buenos Aires.
AIRPORT: 5 miles distant. Daily flights to Buenos Aires.
TIME: GMT minus 3 hours.
CONSULS: Danish, Greek, Italian and Spanish.
HOLIDAYS: Vessels worked every day of year.
POLICE/AMBULANCE/FIRE: Police, Necochea 2148 and Quequen 6008; Ambulance, Necochea 2350 and Quequen 6052; Fire, Necochea 4900.
TELEPHONES: No arrangements for placing aboard.
SERVICES: Any special services required, technicians sent from Buenos Aires.
SHORE LEAVE: Not permitted.
DELAYS: Daily cargo work 18 hours/day. One waiting berth available. Delays up to four days can occur in January and February.

SHIPMASTER'S REPORT: February 1982.
Approaches: The channel is being maintained by a new dredger at 28 ft. 02 in. this allows a sailing draft of 30 ft. 02 in. *providing* the swell on the bar is less than 1.3 m. as decoded by the Pilots from observations.

The pool inside the breakwaters and the swell mole are used for swinging before berthing if the weather is good, and after loading if wind prevents this, hence NO anchoring is permitted in this area.

The tugs meet the vessel just outside the breakwaters and two lines each are the normal requirement (ship's lines), but these have to be sent away quickly when directed or else the vessel cannot swing in favourable weather. A deep sea tug has joined the tug fleet.

Berthing: All vessels wait at anchor in the roads where the holding ground is of mixed type. The strong Southerly winds must be watched and rise of the barometer.

A vessel of some 42,000 tonnes deadweight was accommodated head out at the main elevator berth, while two vessels waiting to sail were accommodated at the Ultramar II berth, each 183 m. overall, and without hindering the berthing and loading operations of a 31,700 ton bulk carrier. It should be noted that the inner vessel took the ground at 29 ft. draft when the tide was low; dredging is planned here when the newly restored berths on the Necochea side are completed and dredged to 10 m. as a lay-by and general cargo wharf. However, the nature of the piling is preventing much increase in depth at this old wharf. The limited number of shoots will prevent much use of this berth when it is again in use.

All linseed oil and similar cargoes are being handled at the berth to the East of the Overseas Wharf on the Quequen side but the lack of water makes taking the ground normal for tankers at low water while the swell effect is marked.

Density: This varies with the season and the flow of water down the River Quequen. A flash flood destroyed the footbridge above the elevator and this is now mainly cleared away but no extension has been planned as yet for the adjacent elevator berth. Thus the density can range from salt to near fresh in season.

Fresh Water: Very slow rate of delivery and very salty (500 parts).

Shore Leave: Permitted as soon as Argentine Identity Cards have been processed.

Developments: The Ultramar I Berth has 8 tubes and can pour four at 350 tonnes/h. each. Work now proceeds according to who pays the overtime, but an 18 hour day is available on most weekdays, from 0700 hrs. to 0100 hrs.

AUTHORITY: Capitania de Puertos de Quequen y Mar del Plata.
Contact: Francisco Cesar Gallo, Chief of Operations Division.

RIO GALLEGOS (including Punta Loyola): 51.33 S. 68.59 W.

(Province of Santa Cruz) "B" category port.
N.B. Refer to Argentina, Section 1.

About 8 miles up the river, 1,247 sea miles South of Buenos Aires.
PILOTAGE: Compulsory. Agent requires 48 hours' notice to order Pilot from Puerto Madryn.
ANCHORAGE: Good anchorage when awaiting tide is off Punta Loyola in 30 ft. or on the Northern coast in front of Punta El Gancho or between Punta Bustamante and Isla Deseado, this latter in the case of N.W. storms only.
RESTRICTIONS: Entrance to the anchorage is buoyed. The Northern Channel has a shingle bank bar 13 ft. at low water. The Southern Channel is more sheltered and the current not so strong. Rio Gallegos is a tidal port, the height of tide being as much as 40 ft. at times.

The port is characterised by the intensity of the currents, up to 6 knots, and should be entered on a rising tide there being only 22 ft. in the pool of the port at low water.
RADIO: For radio regarding free pratique, or reporting ETA call LPG 2 on 486 kHz. A2. For weather reports in English tune to Comodoro Rivadavia LPX 2 on 474 kHz. at 0400 and 1800 hrs. GMT.
TUGS: The Coal Board operate a small tug.
BERTHS: *Commercial Wharf:* Length 45 m. Vessels moor to chains on the shore and berth at high water. At low water, vessels are aground on shingle which is levelled by the Port Authority from time to time. Vessels work cargo with ship's gear and 2 mobile cranes (45 tons and 10 tons) when ship's gear cannot reach the quay at LW.
Coal Wharf: "T" shaped jetty with loading platform 60 m. in length. Loading of coal is by 2 chutes at 1,000 t.p.h. from half tide (flood) to half tide (ebb), which is approximately 5-6 hours. Vessels which do not wish to go aground can only work for 2-3 hours, as they have to go out to anchor and return to complete loading.

There are pipelines for receiving clean petrolem products. The storage tanks are 1,500 m. upstream.
Punta Loyola: Length of berth 185 m. Vessels berth against dolphins with mooring dolphins at each end giving an overall mooring length of 375 m. Depth alongside 45 ft. at LW. Range of tide 12 ft. Tankers of 60,000 d.w.t. load crude oil, eventually coal will also be loaded.
FRESH WATER: Available at the Coal Wharf and the Commercial Wharf.
FUEL: Available at the Coal Wharf and by truck.
MEDICAL: Doctor available.
REPAIRS: Workshop facilities for small repairs.
AIRPORT: Daily air service to Buenos Aires.
WEATHER: *Winds.* Characterised by constant winds from W. and S.W. averaging 16 knots during the day. In Spring and Summer 25 knots rising to 75 knots at times. Easterly winds are rare, usually with rain.
Rain. There are usually about 100 days with rain, in total 222 mm. distributed from April to October.
Temperature. Average maximum temperature in Summer is 18°C, maximum recorded being 29°, Summer minimum is 5.8° while in Winter the average maximum is 6.5° and minimum minus 11°.
Tidal range is 39 ft. 4 in. spring and 9 ft. 6 in. neaps, tides of over 40 ft. have been registered.
CONSULS: Chilean, Spanish and Italian.
AUTHORITY: General Ports Administration.

SAN ANTONIO ESTE: 40.49 S. 64.54 W. (See Plan)

PILOTAGE: Pilotage is compulsory and ordered via vessel's Agent 48 hours prior to arrival. Pilot supplied by Puerto Madryn Pilot station.
ANCHORAGE: In San Matias Gulf, 5 miles South of entrance to bay.
BERTHS: A new pier with a length of 200 m. at the head has been built. The outer berth accepts vessels of 170 m. LOA, occasionally 178 m. and the Inner Berth accepts vessels of 147 m. LOA. Depth alongside 30 ft.

Vessels over 111 m. require a tug.

Max. draft in the initial stages will be 26 ft.
MEDICAL: Hospital at San Antonio Oeste.
STEVEDORES: Working hours: 0700-1300 and 1300-1900 Monday to Friday and 0700-1300 on Saturday.
FRESH WATER: Available.
FUEL: Available by truck from Bahia Blanca.

SAN JULIAN: 49.18 S. 67.43 W. (See Plan)

(Province of Santa Cruz) "C" category port.
N.B. Refer to Argentina, Section 1.

In the Bay of San Julian, 1,111 sea miles South of Buenos Aires.
APPROACHES: Access is well buoyed, but vessels must wait for high tide to enter.
PILOTAGE: Compulsory. Agent requires 48 hours' notice of arrival in order to arrange Pilot from Puerto Madryn.
ANCHORAGE: Best anchorage situated in front of the town, in 22 ft. at LWS. When heaving anchor care must be taken as the 3 knot current drives vessels towards the shore. Puerto Scholl is the best of several anchorages.
RADIO: For radio regarding free pratique, or reporting ETA call LPY on 428.5 kHz, A2. For weather forecasts in English, tune LPX 2, Comodoro Rivadavia on 474 kHz, at 0400 and 1800 hrs. GMT.
TUGS: See "General" before first port.
BERTH: Length 60 m., with dolphins 60 m. off each end. Depth alongside 30 ft.

Loading of frozen fish, sea products and other cargoes is by ship's gear.
FUEL/FRESH WATER: Not available. In emergencies, water could be supplied in drums.
MEDICAL: Doctor, and hospital available.
CONSULS: Chile and Spain.

USHUAIA: 54.49 S. 68.18 W. (See Plan)

PILOTAGE: Compulsory. Vessels to give Agent 48 hours' notice in order to arrange Pilot.
RADIO: For Free Pratique or reporting ETA, vessels call "LPC 2" on 512 kHz or "LPC 27" on 4428.6 kHz.
TUGS: In an emergency, naval tugs can be provided.
BERTHING: Length of berth 180 m. In addition, there are 3 dolphins off the S.E. end of the berth, giving an overall berthing length of 250 m. The depth at the head of the berth is 30 ft., decreasing to 18 ft. at the shore end. Vessels can berth either side of the wharf.
CRANES: 2×45 tons mobile cranes.
STEVEDORES: Work is carried out in 2 shifts of 6 hours each. Weekdays 0700 hrs. – 1900 hrs. and Saturdays 0700 hrs. – 1300 hrs.
TANKERS: *YPF Pier:* The pier is 1 km. N.E. of the Commercial Pier. Length 85 m. Vessels berth starboard side to and moor to 4 dolphins. Depth alongside 35 ft. Tankers discharge clean products to storage tanks.
MEDICAL: Hospital available.
FRESH WATER: Available at both piers.
FUEL: Available at the YPF Pier, advance notice required.
CONSULS: Chile and Italy.
REPAIRS: Possible.
AIRPORT: There is a regular air service to Buenos Aires.

Ascension Island

GEORGETOWN: 07.55 S. 14.20 W. (See Plan)

DOCUMENTS: Crew and Passenger Lists, Health Documents, Manifests and Bills of Lading if discharging cargo.

PILOTAGE: No pilots are available and not required as it is an open anchorage. 48 hours notice of ETA is required. Call Ascension Island Radio on 2182 kHz. or VHF Channel 16.

RESTRICTIONS: Advisable for ships or yachts arriving at night to wait until daylight unless contact is made with "Turtle" on Channel 16 or 6 and specific instructions are given for berthing. Occasionally a floating pipe-line connects tankers at anchor in Clarence Bay with the Pierhead.

ANCHORAGE: Anchorage positions are available and will be given as bearing and distance in feet from Bates Rock Beacon, available from Harbourmaster by telex or "Turtle" Channel 6 or 16 (See Ascension Island Chart No. 1691 dated April 1985). Depths at anchorage from 11 to 31 fathoms. Abandoned cables are in the area and if picked up should be released without cutting, if possible. Regular mailship always takes precedence for anchorage and cargo facilities.

HEALTH: Pratique should be requested when giving ETA.

RADIO: VHF Channel 6 or 16 "Turtle" or Ascension Radio 2182 kHz. Shipping Agents Ascension Island Services, Telex 219. Harbour Authority, the Administrator, Telex 214.

RADAR: None.

TUGS: No tugs available.

BERTHING: No alongside berthing. "See Anchorages."

Cargo Facilities: Cargo has to be discharged by ships' cranes onto lighters. Lighters pull alongside Pierhead where cargo is off loaded. Pierhead cranes can handle weights up to 20 tons.

MEDICAL: Facilities available. 48 hours notice required if possible. Georgetown has a 12 bed hospital. Dental facilities usually available. Vaccination and inoculation certificates not normally required.

TANKERS: Anchorages available. Tankers for English Bay should anchor off Clarence Bay until boarded, it is not normally possible to put tankers into English Bay after 0900 hrs.

FRESH WATER: Not normally available.

FUEL: Not normally available.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Preferable that this done by crew to avoid delays in starting discharge.

CONSULS: No Consulates. British Administrator attends to all requirements.

REPAIRS: Only minor repairs can be effected.

REPATRIATION: No facilities for crew changes. Repatriation can usually be arranged but only in the case where a person has been hospitalised or in extreme compassionate cases. No civil airlines call at Ascension but RAF (to UK) or USAF (to Antigua twice weekly) can usually assist. Master of vessel required to give guarantee in writing that all hospital fees and air fares will be honoured by his shipping line Agent.

TIME: Always GMT.

HOLIDAYS: Cargo vessels can be discharged during public holidays – no night work.

SERVICES: *Offshore Services:* Ascension Island Services. Contact the Senior Manager.

GENERAL: There are no facilities for visitors on the island. With certain exceptions no-one is allowed to land at Ascension without an entry permit.

SHORE LEAVE: Limited facilities ashore make shore leave impracticable for most crews but Immigration Officer ready to consider special limited arrangements at the request of the Master. Yachts are normally granted 48 hour stay with daytime shore leave.

AUTHORITY: Office of the Administrator, Ascension Island, South Atlantic. *Tel:* Georgetown 6311/6313. *Telex:* 214 Govt. Av. *Contact:* The Administrator.

NOTES

Please also advise Shipping Guides Ltd.

Australia

GENERAL

AUSREP:

The Australian Ship Reporting System (AUSREP) – General Instructions

INTRODUCTION: Legislation has been passed by the Australian Parliament which makes participation in the Australian Ship Reporting System compulsory, this is now included in the Australian Navigation Act as Division 14, Part IV. AUSREP is a ship reporting system established in accordance with the International Convention for Safety of Life at Sea. Its objectives are:

i) To limit the time between the loss of a vessel and the initiation of search and rescue action, in cases where no distress signal is sent out.
ii) To limit the search area for a rescue action.
iii) To provide up-to-date information on shipping resources available in the area in the event of a search and rescue incident.

The coverage of AUSREP and the Australian Search and Rescue (AUSSAR) area, as advised to the International Maritime Organisation (IMO) is identical to the International Civil Aviation Organisation Search and Rescue regions around Australia.

APPLICABILITY: Division 14, Part IV of the Act and the Regulations apply to:

(a) All Australian-registered ships engaged in trade or commerce interstate or overseas while in the AUSREP area.
(b) Ships not registered in Australia but engaged in the coasting trade or in trade between Australia and an external Territory or between external Territories while in the AUSREP area.
(c) Ships not registered in Australia but demised under charter parties to charterers whose residences or principal places of business are in Australia while in the AUSREP area.
(d) Foreign ships, other than the above-mentioned vessels, from their arrival at their first Australian port until their departure from their final Australian port; they are encouraged, however, to participate from their entry into the AUSREP area until their final departure from it.
(e) Australian fishing vessels proceeding on overseas voyages while in the AUSREP area, but *not* including those vessels operating from Queensland ports, which may call at ports in Papua New Guinea as an incidental part of their fishing operations; a definition of "overseas voyage" is given in Section 6(1) of the Navigation Act, 1912.

OPERATING AUTHORITY: Department of Transport through the Federal Sea Safety and Surveillance Centre (FSS&SC), Canberra. Signal address: Sea Safety Canberra. Tel: Canberra (062) 68 7920. Telex: 62349. Cables: Sea Safety Canberra.

MAIN FEATURES OF AUSREP: On departure from an Australian port or on entering the AUSREP area, a Sailing Plan (SP) is sent to FSS&SC where a computerised plot is maintained of vessel's position. Position Reports (PR) are sent to FSS&SC each day at the time that has been nominated by the Master so that a report is received at least every 24 hours. Should a vessel at any time, be in a position more than 2 hours steaming from the position that would have been predicted from the last SP or PR, then a Deviation Report (DR) must be sent. On arrival at his destination or on final departure from AUSREP area the Master sends Final Report (FR). AUSREP is a positive reporting system in that, should an expected report become overdue, actions which may include the launching of search aircraft are initiated and will be continued until the vessel's safety is confirmed.

Dates and times contained in AUSREP reports are to be in Universal Co-ordinated Time (UCT) which is indicated by the suffix 'Z'.

Basic AUSREP Format Components: The following list shows all the AUSREP format components. The full list of components do not have to be included when sending AUSREP reports. Masters should include those components shown in the examples given for each report, others may be included at the Master's discretion or when relevant to the type of report being sent.

A. Vessel name and call sign.
B. Date/time of event (UTC).
C. Position (Lat. and Long.).
D. Geographical position (not to be used for AUSREP messages).
E. Course.
F. Speed.
G. Name of last port of call (when entering AUSREP area only).
H. Date/time and point of entry into AUSREP system.
I. Destination and ETA.
J. Whether Pilot is carried on vessel (not required).
K. Date/time and point of exit from AUSREP system.
L. Route (vessels intended track).
M. Coast radio stations monitored.
N. Nominated Daily Reporting Time (as nominated by the Master).
O. Draft (optional on SP only).
P. Cargo (optional on SP only).
Q. Defects or other limitations.
R. Pollution (reports or any pollution seen).
S. Weather conditions (optional).
T. Ship's Agents (optional on SP only).
U. Ship type and size (optional on SP only).
V. Medical personnel carried (SP only).
W. Number of persons onboard (optional on SP only).
X. Remarks.

Format based on IMO Resolution A.531(13) of 17th November, 1983.

SAILING PLAN REPORT (SP): Either up to 24 hours before, or up to 2 hours after departure from a port within the AUSREP area, or when a vessel is entering the area, an SP report is sent to the FSS&SC. The SP contains information necessary to initiate a plot and give an outline of the intended passage. The SP states daily report time, when the Master will send a daily position report to the FSS&SC. Should a vessel not sail within 2 hours of the time stated in the SP the plan is cancelled and a new SP sent.

In the case of a foreign vessel whose next port of call is outside Australia, if the Master does not intend to send position reports, this fact is indicated in the SP by the inclusion of the group NOREP in place of the nominated daily reporting time.

A SP submitted before a vessel enters the AUSREP area will be acknowledged by FSS&SC who will advise "SAR watch will commence on receipt of a Position Report confirming vessel has entered the AUSREP area".

Note: This is the only message that FSS&SC will confirm after receipt.

The Format for SPs is:

AUSREP SP
A. Vessel name and call sign.
F. Speed.
G. Name of last port of call (when entering AUSREP area only).
H. Date/time and point of entry into AUSREP system.
I. Destination and ETA.
K. Date/time and point of exit from AUSREP system (when leaving AUSREP area).
L. Route.
M. Coast radio stations monitored.
N. Nominated Daily Reporting Time (UTC) (as nominated by the Master).
V. Medical personnel.
X. Remarks (if any).

Note: Other sections of the basic format may be included at the Master's discretion.

POSITION REPORT (PR): Each day at the nominated daily reporting time given in the SP, a PR is sent to the FSS&SC. The first PR is required within 24 hours of departure and subsequently daily thereafter, reporting at the nominated daily reporting time, until and including the day of arrival. The information contained in the PR will be used by the FSS&SC to update the plot. If it is found necessary to alter the nominated daily reporting time, this alteration is shown in the PR sent before the change.

The ETA at port of destination or AUSREP area boundary is always confirmed in the last PR of a passage. It may also be amended in any PR whenever the Master is aware of a revised ETA.

The Format for PRs is as Follows:

AUSREP PR
A. Vessel name and call sign.
B. Date/time of position given.
C. Position (Lat./Long.).
E. Course.
F. Speed.
M. Coastal radio stations monitored.
X. Remarks (if any).

DEVIATION REPORT (DR): Should a vessel, at any time, be in a position more than 2 hours steaming from the position that would be predicted from the last SP or PR, then a Deviation Report must be sent.

The Format for DR's is as Follows:

AUSREP DR
A. Name and call sign of vessel.
B. Date and time (Z).
C. Position (Lat./Long.).

Then include whichever format components are affected by the deviation.

X. Remarks (may include reason for deviation. e.g. reduction in speed due weather, change of port of destination, etc.).

FINAL REPORT (FR): When the vessel approaches the port of destination and arrives at a position where VHF contact is made with the local Harbour Authority or pilot station, which, under normal conditions, is within 2 hours steaming of the pilotage grounds, a FR is sent to the FSS&SC. Under no circumstances should a FR be sent more than 2 hours before arrival. Alternatively if the arrival is outside radio watchkeeping hours, the FR should be sent ideally, immediately after berthing, but no later than 2 hours after arrival. If it is known that the vessel is to anchor or berth where telephone facilities are not available, then the FR is sent through the appropriate coastal radio station before anchoring or berthing.

For a vessel departing from the AUSREP Area the FR is to be sent after crossing the area boundary and not later than the next nominated daily reporting time.

The Format for FRs is as Follows:

AUSREP FR
A. Vessel name and call sign.
K. Date/time and point of exit from AUSREP system.
X. Remarks (must include the words Final Report).

METHOD OF PASSING REPORTS: When in an Australian Port: A reverse charge telephone call, a collect charge *urgent* telegram or telex may be used when making an AUSREP or SAR message.

It is advisable to communicate all reports direct from the ship to the FSS&SC to avoid delays associated with intermediate agencies. Tel: Canberra (062) 68 7920. Telex: 62349. Cables: Sea Safety Canberra.

When at Sea: All reports are addressed Sea Safety Canberra, and may be sent free of charge through any Australian Coast Radio Station controlled by the Overseas Telecommunication Commission (OTC). Schedules and frequencies are given in Admiralty List of Radio Signals, Vol. 1, and in the Marine Information Manual – Australia.

NOMINATED DAILY REPORTING TIMES: When nominating their Daily Reporting Time, Masters of single radio operator ships will appreciate that reports nominted during the last single operator period of the day, if not received, cannot be followed up until the next radio watch period, causing a considerable delay in activating any SAR action that may be required. It is, therefore, desirable that times of reporting be restricted to within the period 2200 to 0900 (Z).

ACTION TAKEN WHEN A REPORT BECOMES OVERDUE: It is a requirement, if any report is not received at the Federal Sea Safety and Surveillance Centre within 2 hours of the nominated reporting time, that necessary steps are taken to ascertain the safety of the vessel. The following is an outline of the action that will be taken should a report become overdue. Circumstances may indicate more rapid action.

1. During the first 2 hours: Internal checks will be carried out.
2. Vessel will be listed on traffic lists requesting Master to furnish overdue report and a CQ enquiry may be initiated.
3. At 6 hours overdue: Broadcast of ships call sign with JJJ/Report Immediate Indicator will be inserted in the traffic lists indicating concern due to non-receipt of PR/FR.
4. Extensive communication checks with Australian and overseas CRS, Owners, Agents and other vessels are carried out to trace the last sighting or a contract with the vessel with the aim of confirming her safety.
5. At 21 hours overdue: The JJJ/Report Immediate broadcast will be upgraded to the urgency signal XXX/Pan indicator. Search planning will be in progress.
6. By the time the report is 24 hours overdue, search action will have been initiated. This action can include the launching of search aircraft.

IT IS MOST IMPORTANT that ships report at their nominated reporting time each day and send their FINAL REPORT when leaving the area, thus avoiding unnecessary search action. If a ship is unable to pass a position report due to unserviceable radio equipment or illness of the Radio Officer all attempts must be made to pass a signal to this effect through another vessel, harbour or other shore authority either by VHF, signalling lamp or use of lifeboat transmitter.

When ships are out of MF range of an Australian coast radio station, they should listen to Sydney (VIS) long range NAVAREA X broadcasts, also Sydney (VIS) and Perth (VIP) HF traffic lists, for signals concerning vessels whose reports are overdue. This applies particularly to ships near the boundary of the AUSREP area.

Should radio conditions prevent direct contact with any Australian coast radio station, every effort should be made to pass Position Reports/Final Reports through any other ship or any other coast radio station.

REPORTS TO AMVER: Whilst participating in AUSREP, Masters may also wish their reports to be forwarded to New York for inclusion on the AMVER plot. This should be indicated in report remarks, and will particularly relate when sending the Final Report when vessel leaves the AUSREP area.

OFFENCES: The Navigation Act provides penalties involving fines of up to $10,000 for infringements of reporting provisions.

AUSREP PROCEDURE PAPER: This brochure has been designed so that the general information section may be read and the procedure section (see "AUSREP Procedure") permanently displayed for ready reference.

For further information or advice on AUSREP procedures can be obtained from: Controller, Federal Sea Safety and Surveillance Centre, Department of Transport, Australia, P.O.Box 594, Canberra ACT 2601.

AUSREP Procedure

AUSREP SP – SUBMITTED ON ENTERING AUSREP AREA:

Format	*Example*
AUSREP SP	AUSREP SP
A. Vessel name and call sign	A. Lollipop/V2LZ
F. Speed	F. 12 knots
G. Port of departure (name of last port of call)	G. Port Said
H. Date/time and point of entry into AUSREP system	H. 020400Z 0448S 07555E
I. Destination and ETA	I. Adelaide 180600Z
L. Route	L. 129 to Leeuwin then various
M. Coast radio station monitored	M. GKA, 9VG, VIP, VIS
N. Nominated Daily Reporting Time	N. 0600Z
V. Medical personnel	V. No medic
X. Remarks	X. Pass to AMVER

Message transmitted: AUSREP SP. A Lollipop/V2LZ, F. 12Kts, G Pt Said, H 020400Z 0448S 07555E, I Adelaide 180600Z, L 129 to Leeuwin then various, M GKA VIP VIS, N 0600Z, V No medic, X pass to AMVER.

AUSREP SP – SUBMITTED ON DEPARTURE FROM A PORT WITHIN AUSREP AREA TO A PORT OUTSIDE AUSREP AREA: (May be submitted up to 24 hours prior to sailing and up to 2 hours after departure).

Format	*Example*
AUSREP SP	AUSREP SP
A. Vessel name and call sign	A. Lollipop/V2LZ
F. Speed	F. 12 knots
H. Date/time and point of exit from AUSREP system	H. 020500 Fremantle
I. Destination and ETA	I. Djakarta 090600Z
K. Date/time and point of exit from AUSREP system	K. 080600Z 1200S 10700E
L. Route	L. 327 to 2900S 11327E then 340 to 1200S 10700E
M. Coast radio stations monitored	M. GKA, VIP, VIO, PRI, 9VG
N. Nominated Daily Reporting Time	N. 0400Z
V. Medical personnel	V. No medic
X. Remarks	X. Report to AMVER

Message transmitted: AUSREP SP, A Lollipop/V2LZ, F 12 kts., H 020500Z Fremantle, I 090600Z Djakarta, K 080600Z 1200S 10700E, L 327 to 2900S 11327E 340 to 1200S 10700E, M GKA VIP VIO PRI 9VG, N 0400Z, V No medic, X Report to AMVER.

Note: In the case of a foreign vessel whose next port of call is outside Australia, if the Master does not intend to send Position Reports, this should be indicated in the AUSREP SP by the inclusion of the group NOREP in paragraph N.

AUSREP SP – SUBMITTED ON DEPARTURE FROM AND TO A PORT BOTH WITHIN THE AUSREP AREA: (May be submitted up to 24 hours prior to sailing and up to 2 hours after departure).

Format	*Example*
AUSREP SP	AUSREP SP
A. Vessel name and call sign	A. Lollipop/V2LZ
F. Speed	F. 12 knots
H. Date/time and point of entry into AUSREP system	H. 212200Z Adelaide
I. Destination and ETA	I. Melbourne 231400Z
L. Route	L. Coastal various
M. Coast radio stations monitored	M. VIA VIM
N. Nominated Daily Reporting Time	N. 0100Z
V. Medical personnel	V. No medic
X. Remarks	X. Nil

Message transmitted: AUSREP SP, A Lollipop/V2LZ, F 12 kts., H 212200Z Adelaide, I Melbourne 231400Z, L Coastal Var, M VIA, VIM, N 0100Z, V No medic.

POSITION REPORT (AUSREP PR): AUSREP PR – Submitted at the nominated Daily Reporting Time given in SP or previous day's PR. The first PR is required within 24 hours of entry to AUSREP area or departure from a port within AUSREP area.

If it is found necessary to alter the nominated daily reporting time then this alteration is shown in the PR sent before the change.

ETA at port of destination or AUSREP area boundary is always confirmed in the last PR of a passage. It may also be amended in any PR whenever the Master is aware of a revised ETA.

Format	*Example*
AUSREP PR	AUSREP PR
A. Vessel name and call sign	A. Lollipop/V2LZ
B. Date/time of position	B. 030400Z
C. Position	C. 0748S 07940E
E. Course	E. 129
F. Speed	F. 8.5 knots
X. Remarks (e.g. change of reporting time or revised ETA)	X. ETA now 060200Z

Message transmitted: AUSREP PR, A Lollipop/V2LZ, B 030400Z, C 0748S 07940E, E 129, F 8.5 knots, X ETA now 060200Z.

DEVIATION REPORT (AUSREP DR): Should a vessel, at any time, be in a position more than 2 hours steaming from the position that would be predicted from the last PR or SP, then a Deviation Report must be sent.

Format	*Example*
AUSREP DR	AUSREP DR
A. Vessel name and call sign	A. Lollipop/V2LZ
B. Date/time	B. 050200Z
C. Position	C. 3900S 14500E
Then include whichever format components are affected by the deviation	F. 9 knots I. Adelaide 080200Z
X. Remarks (include reason for deviation e.g. reduction in speed due weather, change of route or port of destination etc.).	X. Reduced speed due to main engine problems

Message transmitted: AUSREP DR, A Lollipop/V2LZ, B 050200Z, C 3900S 14500E, F 9 knots, I Adelaide 080200Z, X Reduced speed due to main engine problems.

FINAL REPORT (AUSREP FR) – SUBMITTED ON ARRIVAL AT A PORT WITHIN AUSREP AREA: When the vessel approaches the port of destination and arrives at a position where VHF contact is made with the local Harbour Authority or pilot station, which under normal conditions, is within 2 hours steaming of the pilotage grounds, a FR is sent to FSS&SC. Under no circumstances should a FR be sent more than 2 hours before arrival. Alternatively if the arrival is outside radio watch keeping hours, the FR should be sent, ideally, immediately after berthing, but not later than 2 hours after arrival. If it is known that the vessel is to anchor or berth where telephone facilities are not available, then the FR is sent through the appropriate coast radio station before anchoring or berthing.

Format	*Example*
AUSREP FR	AUSREP FR
A. Vessel name and call sign	A. Lollipop/V2LZ
K. Date/time and point of exit from AUSREP system	K. 080200Z Adelaide
X. Remarks (must include the words Final Report.).	X. Final Report.

Message transmitted: AUSREP FR, A Lollipop/V2LZ, K 080200Z Adelaide, X Final Report.

AUSREP FR – VESSEL DEPARTING AUSREP AREA: The Final Report is to be sent after crossing the AUSREP area boundary, and never later than the next nominated daily reporting time given in previous SP/PR.

Format	*Example*
AUSREP FR	AUSREP FR
A. Vessel name and call sign	A. Lollipop/V2LZ
K. Date/time and point of exit from AUSREP system	K. 070030Z 1100S 10631E
X. Remarks (must include the words Final Report).	X. Final Report, now bound Semarang

Message transmitted: AUSREP FR, A Lollipop/V2LZ, K 070030Z 1100S 10631E, X Final Report now bound Semarang.

NOTES ON PROCEDURES:

(1) *Date-Time Group:*
Dates and times contained in AUSREP reports are to be in Universal Co-ordinated Time (UTC) indicated by the suffix "Z". Example: 5 November 1982, 0600LMT (UTC+9hrs.). Transmitted as 042100Z.

(2) *Latitude:*
Four figure group indicated by suffix "S" (South) or "N" (North). Example: Latitude 06° 15′ 46″ South. Transmitted as 0616S.

(3) *Longitude:*
Five figure group indicated by suffix "E" (East). Example: Longitude 82° 06′ 24″ East. Transmitted as 08206E.

(4) *Intended Route:*
Indicate Great Circle (GC) or Rhumb Line (RL) with way points being followed, expressed in Latitude and Longitude or geographical place-names.

(5) *Speed:*
Anticipated average speed vessel will make till next reporting time.

(6) *Course:*
True course anticipated till next reporting time. When more than one course will be sailed enter "various". If course shown as "various" FSS&SC will interpret this as being the normal courses a vessel will follow on that particular passage. However, if the above assumption does not apply, clarification should be made.

(7) *Radio Stations Monitored:*
List stations which the vessel normally works to contact Managers, Owners, Charterers and Agents, etc., in addition to Australian Coast Radio Stations monitored.

(8) *Nominated Daily Reporting Times:*
When nominating their Daily Reporting Time, Masters of single radio operator ships will appreciate that reports, nominated during the last single operator period of the day, if not received, cannot be followed up until the next radio watch period, causing a considerable delay in activating any SAR action, that may be required. It is therefore, desirable that reports are transmitted during the first single operator period of the day.

(9) *2 Hour Rule:*
Should a vessel, at any time, be in a position more than 2 hours steaming from the position that would be predicted from the last PR or SP, then a Deviation Report (DR) is sent.

(10) *JJJ Procedure:*
When an AUSREP report is 6 hours overdue, Coast Radio Stations (CRS) will, on request from FSS&SC broadcast a Priority Signal with the traffic lists. This signal consists of the vessel's call sign followed by JJJ (RTG) or REPORT IMMEDIATE (RTF). Any sighting of/or communication with this vessel by any other vessel should be reported immediately to the CRS stating time of contact, position and estimated course and speed of the vessel overdue for report.

(11) *Severe Weather:*
Vessels which anticipate passing through areas of severe weather conditions, or are experiencing severe weather, are urged to report their position at more frequent intervals to the FSS&SC. The time of their next anticipated position report should be included under "REMARKS".

(12) *Method of Passing Reports:*
When in an AUSTRALIAN port–

A reverse charge telephone call, a collect charge URGENT telegram or telex may be used when making an AUSREP or SAR message:

It is advisable to communicate all reports direct from the ship to the FSS&SC to avoid delays associated with intermediate agencies.

Telephone: Canberra (062) 68 7920
Telex: 62349
Telegram: Sea Safety Canberra

When at sea–

All reports are addressed to SEA SAFETY CANBERRA, and may be sent free of charge through any Australian Coast Radio Station controlled by the OVERSEAS TELECOMMUNICATIONS COMMISSION (OTC). Schedules and frequencies are given in Admiralty List of Radio Signals, Vol. 1, and in the Marine Information Manual – Australia.

(13) *Co-ordinates of Australian SAR and AUSREP area* (also see "Plan")

A. The coast of the Antarctic Continent in Longitude 75° E.

B.	6° 00′ S.	75° 00′ E.
C.	2° 00′ S.	78° 00′ E.
D.	2° 00′ S.	92° 00′ E.
E.	12° 00′ S.	107° 00′ E.
F.	12° 00′ S.	123° 20′ E.
G.	9° 20′ S.	126° 50′ E.
H.	7° 00′ S.	135° 00′ E.
I.	9° 50′ S.	139° 40′ E.
J.	9° 50′ S.	141° 00′ E.
K.	9° 37′ S.	141° 02′ E.

then following the territorial boundary (see "Note") to:

L.	12° 00′ S.	144° 00′ E.
M.	12° 00′ S.	155° 00′ E.
N.	14° 00′ S.	155° 00′ E.
O.	14° 00′ S.	161° 00′ E.
P.	17° 40′ S.	163° 00′ E.

Q. The coast of the Antarctic Continent in Long. 163° 00′ E.

Note: As the territorial boundary in this area cannot be readily defined by co-ordinates, the following may be used for AUSREP purposes only.

K. (1)	9° 37′ S.	141° 02′ E.
(2)	9° 08′ S.	143° 53′ E.
(3)	9° 24′ S.	144° 13′ E.
L.	12° 00′ S.	144° 00′ E.

(14) *Monitoring Australian Coast Radio Stations (CRS):*
When ships are out of MF range of an Australian Coast Radio Station, they should listen to Sydney (VIS) Long Range NAVAREA X broadcasts, also Sydney (VIS) and Perth (VIP) HF Traffic Lists, for signals concerning vessels whose reports are overdue. This applies particularly to ships near the boundary of the AUSREP area.
Should radio conditions prevent direct contact with an Australian Coast Radio Station, every effort should be made to pass Position Reports/Final Reports through any other ship or any other Coast Radio Station.

(15) *Communications:*
IT IS MOST IMPORTANT that ships report at their nominated reporting time each day and send their FINAL REPORT when leaving the area, thus avoiding unnecessary search action. If a ship is unable to pass a position report due to unserviceable radio equipment or illness of the Radio Officer all attempts must be made to pass a signal to this effect through another vessel, harbour or other shore authority.

(16) *Reports to AMVER:*
Whilst participating in AUSREP, Masters may also wish their reports to be forwarded to New York for inclusion on the AMVER Plot. This should be indicated in report remarks, and will particularly relate when sending the FINAL REPORT when the vessel leaves the AUSREP area.

AUSTRALIAN SHIP REPORTING SYSTEM (AUSREP)

Ship's particulars:

Information contained in this form will only be used for the purpose of safety of life at sea.

If details of the vessel change in the future, please forward the spare form containing only *changed* particulars to:

Controller,
Federal Sea Safety and Surveillance Centre,
Federal Department of Transport,
GPO Box 594
Canberra ACT 2601
AUSTRALIA

BASIC VESSEL DETAILS

Vessel's Name	Call Sign	
Previous Name	Call Sign	
Vessel Type and Size (Length and Tonnage)		Hull Colour
Superstructure Colour and Position	Service Speed	Maximum Speed
Normal Complement of Vessel	Passengers Carried (please tick) ☐ Yes ☐ No	Doctor or Medical Personnel Carried (please tick) ☐ Yes ☐ No

OWNER OPERATOR DETAILS

Registered Owner's Name	Telephone	Telex
Address		

Please complete the following if Registered Owners are NOT the actual Vessel Operators

Management Company's Name	Telephone	Telex
Address		

Please provide details of TWO contacts ashore (e.g. Marine Superintendents) who could supply current information on the vessel.

1.

Name	Telephone (business)	Telephone (Home)
Address		

2.

Name	Telephone (business)	Telephone (Home)
Address		

Main Australian Agent

Agent's Name	Telephone	Telex
Address		

SAFETY EQUIPMENT FEATURES
LIFEBOATS

Number	Type – (i.e. Totally enclosed Boats, Half Cabin, Motorised)

LIFERAFTS

Number	Capacity	Make

EMERGENCY RADIOS (For Use in Lifeboats and Liferafts)

Number	Frequencies	Make

EMERGENCY POSITION INDICATING RADIO BEACONS (EPIRBS)

Name	Frequencies	Make and Type	Battery Duration

SEARCH AND RESCUE RADAR TRANSPONDER

Number	Frequency	Make and Type	Where Carried

POSITION FIXING AIDS FITTED (e.g. SATNAV) – Please List below

	INMARSAT Number (if fitted)

Location	Size

HELICOPTER TRANSFER POSITION

Location	Size

Please list any other details if you consider relevant or which may assist search and rescue co-ordinators

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Please attach two coloured photographs of your vessel; one beam on, the other aerial (if possible).

If you are unable to supply photographs, please sketch the vessel - illustrating main features and colours.

FEDERAL SEA SAFETY AND SURVEILLANCE CENTRE:
Information Notice

The International Convention for the Safety of Life at Sea, requires governments "to ensure that any necessary arrangements are made for the rescue of persons in distress at sea, around its coasts". The Australian Government being a signatory to the International Convention for the Safety of Life at Sea, established the Marine Operations Centre in April 1972 to comply more fully with the Convention's requirements.

The Centre was subsequently renamed as the Australian Coastal Surveillance Centre (ACSC) in 1978 with the introduction of an enhanced coastal surveillance function and renamed again in 1984, as the Federal Sea Safety and Surveillance Centre (FSS&SC). This recent change reflects the Centre's primary role of Search and Rescue, as the coastal surveillance function has been largely transferred to the Coastal Protection Unit of the Australian Federal Police, which is co-located within the Centre.

The Federal Sea Safety and Surveillance Centre is a part of the Department of Transport's Maritime Safety Division, situated in Canberra in the Australian Capital Territory. The FSS&SC is in fact Australia's Maritime Rescue Co-ordination Centre.

The principal function of the FSS&SC is therefore the co-ordination of marine search and rescue activity, (other than incidents involving the defence forces), within the area of Australian responsibility, which is shown in the general instructions of the Australian Ship Reporting System.

The FSS&SC works in close liaison with the State Authorities who are responsible for SAR activity within port limits, and where their facilities permit, for small craft such as pleasure boats and fishing vessels in near coastal waters. The State police are the local SAR Authority around the Australian coastline, and are often assisted by the various volunteer coastal associations.

For incidents which occur further out to sea and those beyond the resources of the State Authorities, Defence Forces and Civil marine/aviation facilities are used to perform the air or sea search and the resulting rescue.

The facilities of the FSS&SC are available to all seafarers whether they are private boating enthusiasts, commercial fishermen or professional seamen of the merchant fleets of the world. When a vessel is in distress and lives are at stake, no effort is spared to search for and rescue survivors.

The FSS&SC is manned continuously 24 hours a day by co-ordinators with considerable marine and in some cases aviation qualifications and experience. These men have specialised knowledge in search and rescue procedures to analyse the various situations that may arise and devise methods to resolve them.

Communications are the very heart of all search and rescue co-ordination and the FSS&SC is well equipped with a network of telephone and telex systems giving a complete coverage throughout Australia, and overseas to other international marine authorities, such as the U.S. Coast Guard at Honolulu, San Francisco, and New York, Lloyd's Intelligence, London and the Japanese Maritime Safety Agency in Tokyo, to name only a few.

Apart from telephone and telex links, radio communications play a major role when co-ordinating a SAR incident. The Overseas Telecommunications Commission (OTC) maintains the coast radio stations (CRS) around the Australian coastline, and it is these radio stations which provide the vital link between the ship and shore. The CRS also have direct telex lines to the FSS&SC.

When advice is received at the FSS&SC of a distress, or any information likely to be related to distress, the duty co-ordinator will initiate whatever action he considers necessary depending on the type of incident reported, whether it be a single flare sighting, a report of a vessel or yacht overdue, a vessel grounding, or a radio received distress message.

Also operated at the Federal Sea Safety and Surveillance Centre as a functional part of the SAR framework is the Australian Ship Reporting System (AUSREP), the area of operations being the same as for the Australian SAR Organisations. AUSREP was introduced in December 1973 on a voluntary basis to enable mariners to familiarise themselves with the reporting system. Since then legislation has been passed which makes AUSREP compulsory for all Australian flag vessels and foreign vessels under certain circumstances which are explained in the AUSREP Instructions and the relevant Marine Notice. However, all ships are encouraged to participate whenever they are in the AUSREP area.

In addition to the Centre's functions in the SAR role, the FSS&SC is also the section of the Department of Transport responsible for:

i) Co-ordination and promulgation of Navigational Warnings (NAVAREA X), Australian Coastal Navigation Warnings (AUSCOAST) and weapons practice warnings.

ii) Operation of the Licensed Foreign Fishing Vessel Reporting System in the 200 nautical miles Australian Fishing Zone.

In all aspects of the Federal Sea Safety and Surveillance Centre's activities, over 2,000 incidents a year are handled, ranging from co-ordination of full scale search and rescue operations, planning evacuation of medical cases at sea, plotting the movements of oil slicks and spillage to receiving reports of illegal fishing by foreign fishing vessels and various flare sightings, around Australia's 12,000 mile coastline.

PILOTAGE: *Coastal and Reef Pilotage:* Licensed pilots are available for the whole of the Queensland coast, including Torres Strait, the Inner Route of the Great Barrier Reef, the Great North East Channel, and the reef entrances at Hydrographers Passage, Palm Passage and Grafton Passage. See "Torres Strait" for details.

Recommendations on Pilotage: The attention of Masters is drawn to the IMO and Australian government recommendations on Pilotage in Great Barrier Reef waters. See "Torres Strait".

Authority: The Queensland Coast and Torres Strait Pilot Service, 11th Floor, 66 King Street, Sydney, N.S.W., 2000 or G.P.O. Box 1573, Sydney, N.S.W., 2001. *Tel:* (02) 292125. *Cables:* Torres Sydney. *Telex:* Torres AA120269. *FAX:* (02) 2903513. *Contact:* Norman R. Rogers, Perry Sutton or Stephen Radford (secretaries).

PILOT LADDERS: The Merchant Services Guild of Australia has advised that as from 1st December, 1975, Pilots will not board any ships on which the height from sea level to point of access exceeds 9 m., unless prior written assurance is given by the owner or Agent that arrangements have been, or will be, made to satisfactorily alter the ship's construction or equipment at the earliest opportunity. The only acceptable means for boarding ships with freeboard in excess of 9 m. is by a pilot ladder secured at an opening in the ship's side, or by an approved combined system of pilot ladder and accommodation ladder. The notice has been issued by the M.S.G.A. as, although the "9 m. rule" has been part of Australian and SOLAS regulations for some years, their members have found that a high number of vessels are not fully complying.

HOLD LADDERS: The Department of Transport in Canberra has handed down a ruling on this matter.

In future, all vessels loading or unloading at Australian ports require to be fitted with hold ladders which comply with specifications detailed in Marine Order No. 12 of 1986, part 32. Contrary opinions of local surveyors are academic. A vessel arriving without approved ladders would require to be made the subject of an application for exemption by the agents.

Obtaining exemption requires application to the Department of Transport Regional Director, at state level. Such exemption will normally be granted within 24 hours of receiving a written request. This exemption only applies to operations which do not require W.W.F. labour.

For the guidance of owners, we precis below details of the required ladder types:–

Bulk Carriers: Bulk carriers, and other vessels exclusively used in bulk trade, must be fitted with a vertical entrance section with a maximum length of 25 m. and a bottom vertical section with a maximum length of 6 m. The section joining these two must be of stairway design with hand-rails and access platforms.

General Cargo Vessels: Vessels with tweendecks may be fitted with vertical ladders provided the distance between each deck does not exceed 6 m., and provided that a person may step on to the tweendeck and rest in safety. Intermediate decks used as resting stages are to be fenced off. Where the distance between decks exceeds 6 m., stairway must be fitted for the full length.

Full details of the requirements, including maximum angles of ladders, dimensions of steps, platforms, etc., may be obtained from the vessel's agent.

HEALTH: The Procedure for Clearance of ships at *ALL* ports in Australia is as follows:

An overseas vessel approaching a port should by radio supply the Agent not more than 24 hours and not less than 12 hours prior to arrival, answers to the following questions:

A. Name, type and nationality of vessel.
B. Itinerary for last 21 days. If over 21 days from the last port, name of port and date of departure.
C. Name of first Australian port and ETA.
D. Number of crew.
E. Number of passengers.
F. Have you had any deaths on the voyage? If so please give details.
G. Have you had any cases of illness during the last 21 days with a fever of 38°C or above, and
  a) accompanied by rash, jaundice or glandular swelling or;
  b) accompanied by diarrhoea lasting longer than 24 hours.
H. Have you had persons suffering from venereal disease during the voyage?
I. What live fish, birds, reptiles or other animals are you carrying? Ships' pets should be mentioned.
J. Have you carried livestock on previous voyages in the last 6 months? If yes, please advise type of livestock, date of voyage and ports entered. Have all stock carrying compartments been thoroughly cleaned and disinfected?
K. Do you request Radio Pratique?

3. Radio Pratique may be given to all vessels except stock vessels, provided satisfactory answers are given to the quarantine questionnaire. Stock vessels will require a satisfactory report from Agricultural Quarantine. Vessels which do not send answers to the questionnaire must be prepared to stop at the Quarantine Line.

4. When Radio Pratique has been issued a Quarantine Officer will board to deliver the Certificate of Pratique after the vessel has berthed.

5. Vessels must fly the "Q" flag until after Pratique has been granted by radio or otherwise. The Agent must deliver the answers to the questionnaire to Quarantine as directed by the Regional Director of the Commonwealth Department of Primary Industries and Energy.

Authority: Department of Primary Industries and Energy, G.P.O.Box 858, Canberra, A.C.T. 2601. *Tel:* (062) 72-3933. *Telex:* 62188. *FAX:* (062) 72-5161.

Medical:

(a) There are now no requirements for Vaccination/Fever Certificates in Australia, except for a Yellow Fever Certificate if a person has visited an area infected in the previous 10 years.
(b) Inoculations and vaccinations can be carried out at most ports in Australia by arrangement with a general practitioner through Shipping Agents. Yellow Fever can only be done at Commonwealth Medical Offices.

Services:

(a) Most ports in Australia can provide renewal or extension of the International Derat Certificate.
(b) Refuse disposal services are available at all Declared Ports in Australia (see "Notice to Masters" below). The charges for these services are under Quarantine Regulation 33(c) (see "Appendix" below).

Notice to Masters of Vessels: Quarantine Regulation 33(c) – Refuse Disposal Charges.

A vessel shall, while the vessel remains in or near a declared port make available for collection by an authorised collector, all animal waste, organic refuse, galley scraps or quarantineable waste from the vessel. Removal and destruction of disposal of waste from a sea vessel at a port being:

(a)	Adelaide, Port Pirie, Wallaroo, Thevenard, Darwin	$30 plus $2 per person on board the vessel on each day or part of a day on which a service is provided, subject to a maximum daily charge of $1,000.
(b)	Melbourne, Western Port, Portland	$90 plus $6 per person on board the vessel on each day or part of a day on which a service is provided, subject to a maximum daily charge of $3,000.
(c)	Any other seaport	$45 plus $3 per person on board the vessel on each day or part of a day on which a service is provided, subject to a maximum daily charge of $1,500.

Appendix: Ports declared under Quarantine Regulation 33(c):

Victoria	Geelong Melbourne Portland Westernport
South Australia	Adelaide Port Pirie Wallaroo Thevenard Port Lincoln Whyalla
Western Australia	Fremantle Bunbury Albany Esperance
Northern Territory	Darwin
Queensland	Brisbane Maryborough Bundaberg Gladstone Port Alma Mackay Bowen Townsville Lucinda Mourilyan Cairns Thursday Island Weipa
Tasmania	Burnie Devonport Hobart Launceston Stanley

LOAD LINE ZONE: *Extended Tropical Load Line Zone:* At the request of the Australian Government, IMO has issued to Member Governments, a circular advising that commencing 1st May, 1986, Australia intends to permit Australian flag vessels and, where approved by other Governments, vessels flying their flag, to load to Tropical Load Line marks at the ports of Dampier, Port Hedland and Port Walcott between 1st May and 30th November each year.

In effect, a ship loading at any of these ports and bound for a port in the Summer Zone, e.g. Japan or North Europe, will be permitted to submerge its Summer Load Line by an amount commensurate with the fuel etc., that will be consumed during passage through the Seasonal Tropical Area and the Tropical Zone to the North of these ports.

SHIP SUPPLY SERVICE: The National Safety Council of Australia has some capability in this regard as follows:

NORTH QUEENSLAND COAST: Approximate area from Cape York (Lat. 10° 42′ S., Long. 142° 35′ E.) to abeam Rockhampton (Lat. 23° 25′ S., Long. 150° 50′ E.), up to 100 nautical miles offshore. Helicopter is based at Townsville (Lat. 19° 15′ S., Long. 146° 46′ E.) and approximate transit time can be calculated by 100 knot cruise speed.

Contact: National Safety Council of Australia, Queensland Division, Townsville S.A.R., 16 Belinda Street, Aitkenvale, Queensland, 4814. Tel: (077) 79 6511, (077) 75 3647. Facsimile: (077) 79 6356.

VICTORIA COAST: Approximate area from Merimbula in New South Wales (Lat. 36° 54′ S., Long. 149° 54′ E.) round S.E. point of Australia and along Southern coast of Victoria to Portland (Lat. 38° 19′ S., Long. 141° 28′ E.). Helicopter cruise speed 100 knots, aircraft based at Morwell in Victoria (Lat. 38° 13′ S., Long. 146° 28′ E.), operating up to 100 nautical miles offshore.

Contact: National Safety Council of Australia (Head Office), P.O. Box 700, Traralgon, Victoria 3844. Facsimile: (03) 267 7770. Telex: 35369.

The helicopter types would be Bell 212 twin turbine medium lift machines which are equipped for Search & Rescue & Emergency work, including winch, infra-red scanner, VLF/OMEGA navigation system, Radar, ADF 320 for location of marine beacons, medical equipment, oxygen, etc. They carry crewmen with a ship to aircraft winch capability including stretcher recoveries.

The NSCA operates an Emergency service only (i.e. not commercial work) and is available 24 hours a day throughout the year. Request for this service should be passed directly to the Australian Coastal Surveillance Centre. Aircraft carry Marine VHF and will normally make initial contact on Channel 16 using ships name as call sign.

There is some possibility that the area covered by the NSCA will be increased later in 1984.

GRAIN CARGOES: *Guidelines for Grain Cleanliness Surveys:* On arrival a vessel fixed to load grain must have holds clean, dry and free from loose rust scale, residues of previous cargoes or insect infestation. Ships' crews cannot clean after the vessel has arrived at an Australian port and so every opportunity must be taken to prepare the holds enroute, as using shore labour is extremely costly and results in delay.

Special attention must be paid to the cleaning of the high areas in the holds, including angles and ledges formed by hatch beams, cable casings, etc. The surveyors will also investigate access openings and spaces and also McGregor type hatch covers. Rust scale and residues trapped between the leaves may, on closing the covers, fall and contaminate the cargo.

Loose rust scale must be removed by high pressure hose or chipping and scraping. Areas where insect infestation may occur, in addition to those mentioned above, include wooden bulkhead sheathing, inside burlap seals, and also in the dry store. Grain surveys include a check on the dry store and cases have occurred where a vessel's holds are acceptable but a grain certificate has not been issued because of infestation in the store.

The discovery of traces of live insects can result in an order for spraying or fumigation being issued. Whilst spraying can be carried out quickly and with minimal delay, a full fumigation requires the vessel to be placed under gas for 48 hours. Whilst this is carried out the crew will be required to be accommodated ashore.

If holds are painted, either during drydocking or at sea immediately prior a grain loading, hatch covers should, if possible, be opened to allow paint fumes to escape. The temptation to paint over loose rust scale or cargo residues must be resisted as such measures will be spotted very quickly by the surveyor.

These notes, whilst covering all aspects of hold preparation, are not exhaustive and a check should be made before fixing.

Fire Precautions on Grain Ships: A fire in the hold of a bulk grain vessel whilst on passage which forced the ship to return to the load port has prompted the Australian Federal Government to issue Marine Notice No. 26 (1988) on the subject. The apparent cause of the fire was grains of Barley coming into contact with the Permanent Hold Lighting. It is believed that grain lodged at the extremities of the light tube holder thus providing the contact necessary for combustion.

In this case, the Lighting was located on the sides of the Hold rather than the usual deckhead location, but owners are reminded it is important to have the Hold Lighting SWITCHED OFF and Fuses removed when loading grain.

TIME: Daylight saving is adopted in some States in accordance with table below:

		25th October (1987) to 20th March (1988)
Western Australia	GMT + 8 hours	No change
Northern Territory	GMT + 9.5 hours	No change
Queensland	GMT + 10 hours	No change
South Australia	GMT + 9.5 hours	GMT + 10.5 hours
Victoria	GMT + 10 hours	GMT + 11 hours
Tasmania	GMT + 10 hours	GMT + 11 hours
New South Wales	GMT + 10 hours	GMT + 11 hours

SHIPMASTER'S REPORT: July 1983.

Radio/Health: I sent a request for Free Pratique to the Commonwealth Director of Health, Sydney, that being my first port, but the radio operator instructed our Radio Officer to address the message to Quarantine Sydney.

There was no advice as to the vessel having been granted Free Pratique when the Port Health Authorities boarded the vessel in Sydney. I was told that the Radio Pratique must be requested 18 – 24 hours prior to arrival from the Agents (see "Health" above).

The questionnaire to be answered was Form 106 No. 3.13.

ABBOT POINT, Queensland: 19.52 S. 148.05 E.

(See Plan)

PORT LIMITS: Southwards of Lat. 19° 48′ S., between Long. 147° 59′ E. and Long. 148° 08′ E. East to coast.

DOCUMENTS: See "Townsville".

PILOTAGE: Compulsory. Prior notice confirming ETA 24 hours before arrival to be given through local Agent. Boarding ground is Lat. 19° 48.5′ S. Long. 148° 05′ E. or as directed by Pilot vessel.

Maintain listening watch on VHF Channel 16/67. Standard IMO pilot ladder rigged as per IMO recommendations. Usually starboard side 1 m. above water.

Coastal and Reef Pilotage: Pilotage through Hydrographers Passage, Palm Passage, Grafton Passage and the Inner Route of the Great Barrier Reef to Torres Strait is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details. For information about Hydrographers Passage see "Hay Point".

Pilotage recommendations: The attention of Masters is drawn to the IMO and Australian government recommendations on pilotage in Great Barrier Reef waters. See "Torres Strait".

ANCHORAGE: Lat. 19° 49′ S., Long. 148° 06.5′ E. in 25 m.

RESTRICTIONS: Ballast condition, propeller fully immersed with forward draft not less than 2% of LOA.

No restrictions on time, however berthing at discretion of Harbour Master with regards to weather conditions.

Engines must not be immobilised whilst alongside without prior permission of Harbour Master.

Unberthing in accordance with state of tide and draft. Under keel clearance required is 10% of deepest draft plus 0.61 m.

MAX. SIZE: Optimum max. size vessel is 297 m. LOA and 47.5 m. beam, however, consideration given to larger vessels provided that mooring arrangements on board vessel are satisfactory.

With a rise of tide of 3.5 m. vessels may sail with a draft of 18.26 m.

HEALTH: Standard Australian Regulations and procedures apply, radio pratique is available.

VHF: Abbot Point Security maintains listening watch on VHF Channel 16. Pilot vessel and tugs, call on VHF Channel 16 and work on VHF Channel 6.

TUGS: 2 twin screw Zed-Pellor tugs of 56 tonnes bollard pull are available. One line launch is also available for berthing. Tugs' lines always used.

BERTHING: One berth only which is a bulk coal loading facility, serviced by conveyor and shiploader. Length of berth fendering 268 m. Plus 4 mooring dolphins. Depth of water in approaches is 17.2 m. below datum. Depth of water at berth is 18.9 m. below datum.

Shiploader has a rated capacity of 4,600 tonnes/p.h.

DENSITY: 1026.5.

FRESH WATER: Not available.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Ship's crew as watchman, ship's gangway used.

AIRPORT: Townsville Airport, 210 km. by road.

TIME: See "General" before first port.

EMERGENCY CO-ORDINATION: Through Abbot Point Security using VHF Channel 16, internal telephone 212 or external (077 862244).

TELEPHONE: Provided on berthing.

GENERAL: Provisions available on request.

Nearest town is Bowen, 32 km. by road, Bowen has full facilities.

SHIPMASTER'S REPORT: March 1986 (Updated 1988).

Port Limits: The area comprised within a line commencing at the intersection of the HW mark and the meridian of Long. 147° 59′ E. and bearing 000° (T) along that meridian to its intersection with parallel of Lat. 19° 48′ S.; thence bearing 090° (T) along that parallel to its intersection with meridian of Long. 148° 08′ E.; thence by that meridian bearing 180° (T) to the intersection of that meridian and the High Water mark, thence by that High Water mark generally in a Northwesterly direction to the point of commencement and including all navigable rivers communicating with that area and the banks and shores and foreshores thereof.

Abbot Point is within a Permanent Tropical Zone, within the Great Barrier Reef.

Tropical Zone: 1st April/30th November.

Summer Zone: 1st December/31st March.

Anchoring Position: Indicated on Chart AUS. No. 255 – Abbot Point and Approaches. In position: Lat. 19° 49′ S., Long. 148° 06.5′ E.

Pilot Boarding Position: Indicated on Chart AUS No. 255 – Abbot Point and Approaches. Lat. 19° 48.5′ S., Long. 148° 05′ E.

Pilot boards by pilot boat, tugs and Pilot stationed at Bowen. This chart is well recommended.

Abbot Point: Australia's most Northerly deep-water coal shipping port, situated about 20 km. North of Bowen. The port is established under the auspices of the Harbours Corporation of Queensland. Developed by the MIM Holdings Ltd. and operated by the Abbot Point Bulkcoal Pty. Ltd. Development began in 1981, and operations commenced in 1984. Coking coal from Collinsville and steaming coal from Newlands are the only two MIM products handled.

Heavy duty railway, using modern rolling stock, and multiple diesel electric locomotives convey the coal from the fields to the 450 hectare site.

Loading Procedure: Coal travels on conveyors via a 1,350 tonne surge bin. There are 2 weightometers and an automatic continuous sampling plant. The conveyor system extends along a 100 m. rock causeway and a 2.8 km. approach trestle, which also supports a roadway to the deep-water wharf and shiploader.

Size of Vessels: From 15,000 d.w.t. to 165,000 d.w.t. Larger vessels have been considered on individual merits.

Depths: Approach depth, (stated) 17.2 m. Alongside berth (stated) 18.9 m.

Tugs: 2×50 tonne bollard pull. Tugs' lines used.

Line Boats: One for vessel berthing.

Berthing: In normal circumstances vessels may berth port side to on flood tides and starboard side to on ebb tide. However, be prepared to berth either side to in accordance with the Harbour Master's requirements.

In normal conditions draft is to be adjusted so that the propellor is fully immersed and vessel trimmed approximately 1.8 m. by the stern. The arrival draft must be cabled to the Harbour Master and Agent who will advise any adjustment required.

To ensure maximum safety all vessels using heavy mooring wire ropes are requested to have the ends terminating in a 9 m. *rope spring finished with a standard eye for placing over the bollards and hooks.* All mooring ropes and wires should have a 6 m. tail of light rope spliced into the eye.

Hooks on mooring bollards are electrically operated and self release.

Pilot Ladder: Constructed and rigged in accordance with SOLAS requirements.

Berth: Length of trestle from shore to berth – 2.75 km.

Length of Berth: (Extent of fender system 264 m. approximately).

Length between extreme mooring dolphins – 466 m.

Length of Berthing Basin: 512 m.

Width of Berthing Basin: 70 m.

Depth at Berthing Basin: 18.9 m.

There are 7 breasting dolphins, equipped with Bridgestone energy absorbing cell-type rubber fenders.

Height of top of fenders above datum 7.5 m. approximately.

Height of underside of fenders above datum 0.9 m. approximately.

Ship Loader: Type: Travelling gantry with luffing boom.

Design rate maximum capacity: 4,600 tonnes/p.h.

Length of travel: 212 m.

Boom operating range: +12° to – 10°.

Maximum outreach from fender line: 34 m.

Height above datum (plus 12°): 27.5 m.

Height below datum (minus 10°): 19.5 m.

Travel speed variable from 3 m./min. to 30 m./min.

Stowage Factor: *Steaming coal: approx. 1.11 cu.m./tonne. Angle of repose from 35° – 50°.

Coking coal: approx. 1.05 cu.m/tonne. Angle of repose 33°.

*Vessel achieved a better stowage factor loading steaming coal.

Final Quantity: It has to be remembered when requesting to stop loading that there is about 3,000 tonne on the belt, which must be run off.

Loaded Tonnage: Calculated on draft survey. (Vessel experienced S.W'ly winds Force 4 and swell of about 1 m.). Intermediate draft surveys are conducted if loading by grades, hatches, or more than one port discharge.

Cargo Completion: Vessels must vacate berth without delay, subject to tidal conditions.

Arrival Notice: At least 7 days prior to arrival cable to "Abbotcoal Bowen" Telex: AA47689 (MIMABB).

(a) Name of vessel.
(b) Type of vessel. (If O.B.O. confirm that vessel is "Gas Free").
(c) ETA.
(d) Total cargo quantity required. (Subject to C/P requirements and allowances).
(e) Hatch loading sequence, Pour by Pour.

Reference to (b) above – Master to advise Agent and Harbour Master.

1. Date vessel discharged last oil cargo.
2. Time and place of last Gas Free Certificate.
3. Location and amount of slops on board (and assurance that slop tanks inerted or pressed-up).

48 hours prior to arrival – advise ETA.

24 hours prior to arrival – confirm ETA and Hatch Number ("1st Pour"). Also advise Harbour Master of ETA/Berthing Draft/and ballast water is not contaminated.

6 hours prior to arrival call Abbot Point on VHF Channel 16 and confirm ETA. Radio Pratique granted and Hatch Number 1st Pour.

Note: To avoid delays to berthing and to avoid tug cancellations it is important that all adjustments to ETA's are advised to all parties.

All hatches to be clean/dry and opened before berthing.

Hatch lids are to be clearly numbered, for easy identification, no responsibility attached to shore loading personnel if any infringement to this requirement.

All loading is expressed in metric tonnes of 1,000 kg.

Pratique: Radio Pratique is available. Send message to the "Quarantine Officer" through the ship's Agent, not more than 24 hours prior to arrival. (This stipulation is not enforced). The Agent will keep vessel advised. Text of the message is in accordance with the advised procedure in the Sailing Directions for Entry to First Australian Port.

If Radio Pratique has not been granted prior to berthing ensure that there is no contact with the wharf or employees by crew until Pratique is granted.

Shore Leave: Crew are permitted to go ashore after Immigration and Customs Clearance. The Agent can arrange a minibus service to Bowen and return. Cost about Australian $85.00 for the round trip. The trip to Bowen is 30 minutes.

Telephone: A telephone is placed onboard. No STD calls, only overseas operator service on a reverse charge basis.

Restrictions: Access to wharf and loading plant is restricted.

Persons requiring access (crew members/visitors) must wear safety helmets, safety shoes and adequate eye protection, and comply with all safety regulations.

Abbotcoal are not responsible for accidents incurred by personnel who use their wharf gangway.

Pedestrian access along the wharf approach is not permitted.

Special authorisation is required for private vehicles and visitors, within the port area and wharf access.

Access to the remainder of the port site is strictly forbidden.

Derat Examination Certificate: Quarantine doctor will arrange for renewal. Cost Australian $45.00.

Consuls: None available.

Repatriation: Can be arranged. Coach leaves Bowen for Townsville, with direct flights to New Zealand and Brisbane for other international connections.

Fresh Water/Fuel/Diesel: Not available from wharf, there are no facilities.

Ship Chandler: Will attend vessel if necesary. Bonded stores are also available. Prices may be high due to transportation costs.

AUTHORITY: Department of Harbours and Marine, P.O.Box 889, Bowen, Queensland 4805. *Tel:* (077) 861268, 861933. *Telex:* 47435. *FAX:* (077) 862719. *Contact:* Captain P. J. Zealley, Harbour Master Bowen/Abbot Point, Tel: (077) 861775.

AGENT: Sub-Agent of Patrick Agencies, Brisbane.

ADELAIDE, S.A.: 34.51 S. 138.30 E. (See Plan)

PORT LIMITS: Northern Limit: a line drawn due East from Lat. 34° 40.42′ S., Long. 138° 22.55′ E. to shore.

Southern Limit: a line drawn due East from Lat. 34° 51.30′ S., 138° 24.80′ E. to shore.

Western Limit: a line drawn between Lat. 34° 40.42′ S., Long. 138° 22.55′ E. to Lat. 34° 51.30′ S., Long. 138° 24.80′ E.

DOCUMENTS: See "Melbourne".

If first port of call, Customs and Quarantine Officers board at pilot station. If intermediate port and vessel has pratique, boarding is done at the wharf. The loadline and freeboard of all tankers arriving with full cargo are inspected by the Department of Navigation.

PILOTAGE: Advance notice 24 hours, telegraphic requests through ship's Agent. VHF Channel 16. Call sign "Adel. OH" Pilot launch orange hull, yellow deck house, "Pilot" on each side in black letters. Give pilot launch good lee and safe pilot ladder. Pilot boards 1.5 miles seaward of Entrance Beacon.

ANCHORAGE: 0.5 mile West of Entrance Beacon.

HEALTH: Including Document A in short form. Also see "Melbourne".

RADIO: Adelaide Radio VIA.

RADAR: Decca Type RR 1219 installed in signal tower.

TUGS: 4 tugs available.

BERTHING: Tug power as required by Pilot. Depth at berths: Inner Harbour: 27 ft. (8.2 m.) – 36 ft. (11 m.). Outer Harbour: 36 ft. (11.0 m.) – 40 ft. (12 m.).

Berth	*Length (m)*	*Depth at L.W. (m)*	*Type*	*Cargo*	*Cranes*
9	133	8.2	Ro/Ro ship ramp	Containers	
13 & 14	303	9.1	Conventional	Steel & scrap	4/6.5t travelling
25	240	10.0	Ro/Ro shore ramp	Containers, Ro/Ro	25t fixed
27	204	10.7	Bulk loading	Cereals	2 loaders, 800t/hr
29	245	9.8		Lay-up and Repair	—
H	304	11.0	Bulk loading	Cement clinker	Loader
Osborne					
1	208	9.8	Bulk	Sugar, dry & liquid bulk	6/9t travelling cranes
2	159	9.4			
O.H. 2	183	11.0	Passenger terminal	Passengers	—
O.H. 4	214	11.0	Ro/Ro quarter ramp	Containers	—
O.H. 6	298	12.0	Container berth	Containers	1×35t and 1×45t container crane 60t on hook
O.H. 1	185	11.0	General	Sheep	

RESTRICTIONS: Controlling depth in channel to container berth 39 ft. 4 in. (12.0 m.) and to Inner Harbour 30 ft. (9.1 m.) ISLW. All vessels to maintain 1 ft. (0.3 m.) keel clearance in berth at all times.

Night berthing/unberthing subject to Harbour Master's approval.

Keel Clearance: 10% of draft with a minimum of 3 ft. (0.9 m.) under keel at all times.

MAX. SIZE: Inner Harbour – length 200 m. OA; draft 31 ft. (9.4 m.) Neaps, subject to tide; 34 ft. 06 in. (10.5 m.) Springs. Outer Harbour (Container Berth) – length 945 ft. (288 m.) OA; draft 37 ft. (11.3 m.) Neaps, subject to tide; 39 ft. (11.9 m.) Springs.

STEVEDORES: No advance ETA required.

MEDICAL: Contact Quarantine Department in ample time.

TANKERS: Vessel carrying inflammable cargoes or not gas-free restricted navigation during darkness. "Leak free" advice to Harbour Master to be given through Agent. 500 tons slop discharge facilities. 6 Berths. Unauthorised persons not allowed on board.

Berths:

"J"	Shell Co.	Depth alongside 8.2 m.
"L"	Mobil Oil Co.	Depth alongside 8.5 m.
"M"	B.P. Ltd.	Depth alongside 8.5 m.
"N"	Caltex Co.	Depth alongside 8.5 m.
O.H.4	B.P. Ltd.	Depth alongside 11.0 m.
OSB. 1	Terminal Properties.	Depth alongside 9.8 m.

DENSITY: Slightly denser than sea water; not affected by tide.

FRESH WATER: Inner Harbour: Through Hydrants at 12–15 t.p.h. Outer Harbour: 120 t.p.h.

FUEL: Fuel oil, thin fuel oil, diesel, gas oil. 48 hours notice required. A bunkering barge capable of transporting 1,000 metric tons of bunkering oils operates in the port. The use of this bunkering barge will enable vessels to bunker without leaving their loading berths or using road tankers.

GANGWAY/DECK WATCHMEN: Optional except for white spirit tankers. Cost varies according to time of shift.

OPENING/CLOSING HATCHES: Carried out by crew.

CERTIFICATES:

Last Port Customs Clearance.
Ship's Register.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment.
Light Dues Receipt.
Ship's Articles (British Vessel).

CUSTOMS ALLOWANCES: Each Crew member 200 cigarettes or 40 cigars or 8 oz. tobacco. Limited amounts of spirits per man.

CARGO GEAR: Accordance Australian Regulations. See "Melbourne".

IDENTIFICATION CARDS: See "Melbourne".

CONSULS: The following countries are represented:

Austria
Belgium
Denmark
Finland
France
Germany F.R.
Greece
Guatemala
Italy
Japan
Lebanon
Liberia
Netherlands
Norway
Peru
Philippines
Portugal
Sweden
USA

REPAIRS: All repairs possible.

DRY DOCKS: None.

REPATRIATION: Available.

AIRPORT: Adelaide Airport 8 miles, regular airlines.

TIME: See "General" before first port.

HOLIDAYS: Xmas Day, Waterside Workers' Picnic Day (late January), Good Friday, Anzac Day (25th April), Adelaide Cup Day (3rd Monday in May), Eight Hours Day (2nd Mon. October). Restricted holidays, Boxing Day, New Year's Day.

TELEPHONES: Port Adelaide Police 49-6111, Ambulance (Wharf) 461616, Fire Brigade 471515.

Note: $30 connection fee plus cost of calls.

SERVICES: Garbage disposal, cleaning out and fitting out and compass adjusting.

AUTHORITY: Dept. of Marine and Harbors, P.O. Box 19, 293 St. Vincent Street, Port Adelaide, S.A. 5015, Australia. *Tel:* (08) 470611. *Telex:* AA 82525. *FAX:* 470605. *Cables:* Depmah. *Contact:* Captain D. Malcolm, Senior Maritime Officer – Marine Safety.

AGENT: Patrick Agencies, POB 30, 3 Todd Street, Port Adelaide, S.A. 5015. Tel: (08) 47-4655. Telex: AA 82624. FAX: (08) 47-6139. Cables: "Rikpat Adelaide".

ALBANY, W.A.: 35.02 S. 117.53 E. (See Plan)

PORT LIMITS: All the waters of King George Sound and Princess Royal Harbour Westward of a line drawn from Herald Point to Bald Head.

DOCUMENTS: See "Melbourne".

PILOTAGE: Compulsory service provided by State Marine and Harbours Department. Pilot boards vessel with King Light – bearing 292°, distance 3 miles.

ANCHORAGE: King Point Light, bearing 292°, distance 3 miles, or as directed by Agent's radio message. There is a Prohibited Anchorage of 0.5 miles radius from a position on the line of main leads midway between Buoy Nos. 1 and 2.

RESTRICTIONS: The Entrance Channel from King George Sound to Princess Royal Harbour has a width of 550 m. land to land. The Navigation Channel therein being 145 m. wide, with a depth of 12.8 m. – 12.2 m. LWOST. Depth of Swinging Basin in the harbour is 12.20 m. and vessels with a draft of 11.20 m. can work No. 3 Berth and 9.6 m. No's. 1 and 2 Berths. Although some margin is allowed at the Harbour Master's discretion, dependent upon weather and tidal conditions, (HHW 0.9 m.). Vessels can be berthed day or night.

MAX. SIZE: LOA 200 m., beam 29 m., draft 11.5 m. at Berth No. 3 and 9.8 m. at Berth Nos. 1 and 2, deadweight 38,000 tonnes.
HEALTH: Master should supply answers to a prescribed questionnaire 24 hours before arrival. Details of the questionnaire can be obtained from vessel's Agent and answers should be radioed to Agent, who will arrange pratique.
RADIO: Perth Radio or Esperance Radio.
VHF: Call sign is "Albany Port" and is normally open 0830 – 1630 hrs. Monday to Friday except holidays. Otherwise by special arrangement Channels 6, 12 and 16.
TUGS: Motor tug available, bollard pull 27.4 tons. Normally ships lines are used.
BERTHING:
King George Sound: Safe anchorages are available.
Princess Royal Harbour: The following berths are available:

Land Backed Wharf: A continuous wharf face of 608 m. allocated into 3 berths. Berth No. 1: 209 m., depth 10.4 m. Berth No. 2: 172 m., depth 10.4 m. Berth No. 3: 227 m., depth 12.2 m. There is no swell at any of these berths.

Max. permissible ship draft at LW is 11.5 m. at Berth No. 3 and 9.8 m. at Berth Nos. 1 and 2.

Load/discharge is by ship's gear other than loading of grain on Berth No. 3 which is by shore equipment.

The wharf berths are served by road.

Berth Uses: No. 1 Wharf has a transit shed with a floor space of 4,300 sq.m. and is used mainly for general cargoes. Whilst the berth has not been constructed to receive Ro/Ro vessels, it has been possible to work them at this berth.

No. 2 Wharf is used for loading of livestock and the discharge of rock phosphate, sulphur and for general cargoes. This wharf has also been designed as a secure wharf for petroleum products discharge.

No. 3 Wharf is a general purpose berth and has been designed for receiving Ro/Ro vessels and container traffic, although it is used mainly for the loading of bulk grain.
CRANES: No cranes are available and ships use their own gear.
BULK CARGO FACILITIES: All berths are capable of receiving bulk cargo via ships gear and grabs into hoppers and road trucks.

No. 3 Wharf has a grain loading facility consisting of conveyors, 3 loading booms and spouts of which any 2 can operate together. The design loading rate (wheat) is 1,600 t.p.h. The facility is also designed to load 50,000 d.w.t vessels.
STEVEDORES: No ETA required. Private companies. ETA by 1330 hrs. in order to commence on any shift of the following day. (Labour can be confirmed the next day).
Normal Working Day: Day Shift (Ordinary Time) 0730 to 1430 hrs. Evening Shift (Time and a Half) 1430 to 2130 hrs. Night Shift (Double Time) 2300 to 0600 hrs. Saturday (Double Time) 0730 to 1430 hrs., Sunday (Double Time and a Half) 0730 to 1430 hrs. and 1430 to 2130 hrs.
MEDICAL: No advance notice except in case of serious illness to be included in arrival cable, ample hospital facilities available.
TANKERS: Discharging facilities are provided only at No. 2 Wharf where the hose is 200 mm., connecting to a 300 mm. main. Loading facilities are provided on all 3 berths from 100 mm. hoses.

Max. drafts at these berths are Berth Nos. 1 and 2, 9.8 m. and Berth No. 3, 11.5 m.
DENSITY: Average salinity of water in the port is 1026 – 1027.
FRESH WATER: Available at all berths at a rate of approximately 60 – 80 t.p.h. Unlimited quantities available. Supply by 62 mm. hoses metered individually or if more hose required from 200 mm. main meter.
FUEL: Light marine diesel oil is available at all berths from pipe-line or road tanker. Pipe-line approximately 100 t.p.h.
FIRE PRECAUTIONS: During receival of fuel Berth No. 2 is isolated and all Australian Association of Port and Marine Authorities' guidelines complied with.
CONSULS: Norway – Vice-Consul – Tel: 41 1755.
REPAIRS: A slipway of 340 tonne capacity is available. Small repairs only are dealt with by Board of Trade Engineers. Shore based facilities for minor engine repairs. Local shipwrights are available.
SURVEYORS: Cargo Inspectors: S.G.S., C.A.S.C.O. and Associated Marine Surveyors, W.A., Lloyd's Register, American Bureau, Bureau Veritas available at 4 hours notice.
GANGWAY/DECK WATCHMEN: Gangway watchmen required on all Australian crewed vessels and foreign fuel tankers.
HATCHES: Normally carried out by ships crew.
CUSTOMS ALLOWANCES: Each crew member 200 cigarettes or 40 cigars or 250 gm. tobacco; spirits 1 litre per person.
REPATRIATION: Crew changes and repatriation can be carried out with little difficulty.
AIRPORT: Airport located 11 km. from port with domestic flights to Perth.
TIME: See "General" before first port.
HOLIDAYS: As for Fremantle except W.W.F. Picnic Day being late January.
POLICE/AMBULANCE/FIRE: Police Tel: 41 1411; Ambulance Tel: 41 1666; Fire Tel: 41 2122.
EMERGENCY CO-ORDINATION CENTRE: State Emergency Service contacted through Police Tel: 41 1411.
TELEPHONES: Telephones are available at all berths. Arrangements made through Agents.
SERVICES: Some radio and radar repair facilities available. Minor electrical and mechanical repairs.
BANKS: Commonwealth Trading, 261 York Street. Tel: 41 2022.
Australia & New Zealand, 23 Albany Highway. Tel: 41 1300.
National Commercial, 250 York Street. Tel: 41 2655.
Rural & Industries, 232 York Street. Tel: 41 1288.
Westpac Banking Corp., 281 York Street. Tel: 41 1722.
STORING: Vessels can be stored by launch in King George Sound or alongside the berth by road. Stores can be loaded during cargo operations. Forklifts can use all wharves. For stores Customs Form 43 to be submitted giving details of stores. For any storing in excess of 3 hours W.W.F. labour must be engaged.
SHORE LEAVE: No restriction.
IDENTIFICATION CARDS: Not required.
DELAYS: Not normally experienced unless waiting for another vessel on grain loading or deep draft Berth No. 3.
SHIP SUPPLY SERVICES: Fremantle Tug Operators, c/o Hall's Shipping & General Agencies, Port Road, Albany, W.A. 6330.
Bairstow AG & ME, 13 Alicia Street, Albany, W.A. 6330.
Ocean Services Albany, P.O.Box 42, Albany, W.A. 6330.

Servicing of ships in this area is done by launch, as helicopters are not readily available to take off sick personnel. Ocean Services Albany operate launches and a 50 ft. tug which are used for servicing ships in the area.

The transfer of personnel, sick seamen and transport of stores is carried out by launch or tug. Communication is done by VHF.
AUTHORITY: Albany Port Authority, 85 Brunswick Road, Albany, W.A. Postal Address: P.O.Box 175, Albany, W.A. 6330. *Tel:* (Office) (098) 41 2844, (Transit Shed) 41 2759. *FAX:* (098) 41-7566. *Contact:* B. J. E. Hudson, Managing Secretary.
AGENT: Patrick Agencies, P.O.Box 42, Port Road, Albany, W.A. 6330. Cables: "Rikpat". Tel: (098) 41 3538. Telex: via Fremantle 92434 Rikpat. FAX: (09) 3358672.

ARDROSSAN, S.A.: 34.26 S. 137.55 E. **(See Plan)**

DOCUMENTS: See "Melbourne".
PILOTAGE: Compulsory (except for B.H.P. vessels). 24 hours notice required. Pilot boards one mile East of berth.
APPROACHES: *Navigation Beacon:* The light beacon, flashing white every second, marks the Northern side of the seaward limit of the dredged exit channel.
Lead Lights: Lead light towers line up on a grid bearing 249°. Towers are located approximately 10 m. from the clifftop edge and approximately 610 m. from clifftop edge.
MAX. SIZE: Max. size 46,000 d.w.t. for berthing and loading.
HEALTH: Officials board at berth. 24 hours notice required.
VHF: Manned weekdays 0730 hrs. – 1200 hrs. and 1245 hrs. – 1615 hrs.
TUGS: Available from Port Adelaide.
BERTHING:
B.H.P. Jetty:

Length 931 m. "T" head – 6 Dolphins and 2 mooring platforms. Total berth length 409 m. Continuous fendering installed from Dolphin No. 2 to Dolphin No. 5 for 160 m. length. Depth of water – 9.2 m. MLWS.

Loading is via a belt conveyor system. A fixed loading boom necessitates vessel warping along "T" head during loading.

Loading rates: Dolomite 2,400 t.p.h.
Wheat 800 t.p.h.
Barley 800 t.p.h.

Boom:

Height of chute above MLWS – 16.18 m. Loading chute extends across vessel from wharf face – 16.1 m.
TIDE: Average rise and fall 1.8 – 2.4 m. max. 3.1 m. at Spring tides.
FRESH WATER: Small quantities can be made available by special arrangement. (Flow rate is approximately 3 tonnes/hour).
FUEL: Not available.
STEVEDORING: Arranged with private companies.
Operations: Working hours are flexible to suit vessel's requirements.
Working Hours – Night Shift 0001 – 0800 hrs.
Day Shift 0800 – 1600 hrs.
Afternoon Shift 1600 – 2359 hrs.
AUTHORITY: BHP Steel International Group, Long Products Division, Ardrossan, South Australia 5571. *Tel:* (088) 373106. *Telex:* AA 89520. *Cables:* Hematite Ardrossan. *Contact:* R. Bennett.
AGENT: Sub-agent of Patrick Agencies, Adelaide.

BALLAST HEAD, Kangaroo Is.: 35.45 S. 137.48 E. **(See Plan)**

In Eastern Cove, Kangaroo Island. Private bulk loading installation from which charter vessels load gypsum for shipment to factories in Eastern Australian states. No facilities for discharging cargo and no Customs, health or other government departments' facilities available.
DOCUMENTS: For vessels chartered to carry gypsum to Eastern Australian ports, Bills of Lading prepared on completion of loading.
PILOTAGE: No Pilots resident at Ballast Head but pilotage can be arranged through Harbour Master, Port Adelaide if required.
ANCHORAGE: Sea approach is unobstructed, with deep water anchorage and turning basin of Eastern Cove, 4.5 km. wide and extending 0.8 km. South of berth. Minimum depth about 10.5 m. Sand bars exist immediately South of berth but well inside line of dolphins.
RESTRICTIONS: Vessels may proceed to anchorage at any time, but can berth only during daylight hours. Loaded vessels can leave berth or anchorage at any time without concern for tide conditions.

Port can experience dodge tides. Port classified as unsafe by Department of Marine and Harbours. Vessel must be ready to depart berth at any time.
MAX. SIZE: Vessels of 27,000 d.w.t. are regularly loaded. However, before confirmation of vessels suitability can be given, dimensions of vessel must be advised to ensure conformance with berth and loading requirements. Ships must exercise extreme care in berthing to avoid damage to dolphins or head frame. Max. approach velocity 0.15 m./sec.

HEALTH: Pratique must be obtained at Port Adelaide.
RADIO: Ship-shore VHF radio. Call sign "Ballast Harbour". Frequencies, 156.80 MHz for distress and calling; 156.60 MHz for working.
Arrival Advice: At least 8 hours notice of ETA is required to S.A. Gypsum Adelaide Office, Tel: (08) 2687855 or after hours, Adelaide (08) 390 1357 or Kingscote (0848) 22457.
TUGS: No tugs are available, but can be arranged from Port Adelaide, if required. However, a launch is available for running ships' lines, and must be used.
BERTH: The berth consist of a line of 10 dolphins running North/South, 293 m. overall length forming a T-head jetty with loading conveyor gantry. Depth of water alongside 26 ft. (7.9 m.) LWOST. Berthing signals by radio instruction or mast head.
Loading Facility: Loading equipment consists of conveyor system to fixed loading gantry supporting luffing boom conveyor. Discharge from boom conveyor feeds into an adjustable Banana Spout that can be rotated through 360°. Boom conveyor operates only in horizontal position and loading chute does not telescope. Fixed loading gantry situated at centre of line of berthing dolphins. Distance from face of fenders to centre line of loading spout is 12.0 m. Distance from low water level to outlet end of loading chute in loading position – 8.2 m. Maximum handling rate of rock gypsum on conveyor system, 850 t.p.h.
MEDICAL: Doctor available at Kingscote, 40 km. distant. Hospital also at Kingscote.
FRESH WATER: Not available.
FUEL: No facilities available.
GANGWAY/DECK WATCHMEN: None required.
OPENING/CLOSING HATCHES: Carried out by crew.
CONSULS/REPAIRS/DRYDOCKS/REPATRIATION: No facilities available.
AIRPORT: Kingscote Airport approximately 30 km. distant. Regular air service to Adelaide – at least one flight daily.
TIME: See "General" before first port.
HOLIDAYS: Loading carried out on any day except Christmas Day, at least 24 hours Notice of ETA required for loading on public holidays.
POLICE/AMBULANCE/FIRE: Police station, Kingscote 2.2018; Ambulance, Kingscote 2.2037 or 2.2028; Fire, Kingscote 2.2200.
TELEPHONES: No arrangements exist for placing telephones on board.
SERVICES: None available.
DELAYS: Berth accommodates only one vessel at a time, but once berthed the loading continues without break until completion except for the time taken to shift ship from hatch to hatch and to check draft.
AUTHORITY: Department of Marine and Harbours, P.O.Box 19, G.P.O., Port Adelaide, South Australia. *Tel:* (08) 470648. *Telex:* 82525.
Gypsum Products Group, CSR Building Materials, P.O.Box 58, Rosewater East, South Australia 5013, Australia. *Tel:* (08) 268 7855. *Telex:* AA 82112. *Contact:* State Manager, Gypsum Products Group. *Tel:* (08) 268 7855. Mine Manager, New Lake Gypsum Quarry, Kangaroo Island. *Tel:* (0848) 33-077.

BARROW ISLAND, W.A.: 20.49 S. 115.33 E.

(See Plan)

LOCATION: The port is situated on the Eastern side of Barrow Island, Western Australia. The moorings are located approximately 9.875 km. offshore at Lat. 20° 48′ 57″ S., Long. 115° 33′ 09″ E. Refer to the current hydrographic Chart No. AUS 742 for further information.
PORT LIMITS: 7 nautical miles radius from intersection point at Lat. 20° 46′ 50″ S., Long. 115° 27′ 54″ E.
DOCUMENTS: Refer to "Melbourne" - also see "Health".
PILOTAGE: *Pilot Boarding:* The pilot ladder shall be available to the Pilot/Mooring Master and be kept at a proper height for his safe use for boarding and disembarkation. When the distance from the water to the deck exceeds 9.0 m., the pilot ladder shall be rigged with the accommodation ladder or an approved mechanical pilot boarding appliance used. Tanker shall provide adequate lee for embarking and disembarking Pilot/Mooring Master.
Restrictions: Unless otherwise approved by the Pilot/Mooring Master, berthing shall take place:
(a) during ebb tide;
(b) provided there is no strong wind or strong wind warning in force for the port area; and
(c) in daylight (unless the tanker is equipped with adequate searchlights to enable night berthing provided that a tanker making its first visit to the port will be berthed in daylight only).
Accommodation: The tanker shall provide victualling and accommodation for the Pilot/Mooring Master and 2 WAPET operators and victualling for the 3 man Mooring Boat crew.
Also see "Anchorage".
NOTICE OF READINESS: The Notice of Readiness is accepted:
(a) where the berth is available, at such a time as the tanker is all fast in the berth, i.e. when all mooring lines and the preventer lines are made fast;
(b) where the berth is not available, 6 hours after the tanker drops anchor at the Arrival Position (see "Anchorage");
(c) in the case of a tanker:
  i) making its first call at the port; or
  ii) with inadequate searchlights (see "Restrictions"). 6 hours after sunrise following arrival or when the tanker is all fast in the berth, as defined in (a) above, whichever occurs first.

Laytime ceases for the period of time taken for the tanker to move from the anchorage and is resumed when the tanker is all fast at the berth as defined in (a) above.

ANCHORAGE: *Arrival position:* On arrival at the port, the tanker should proceed to a position ("Arrival Position"), approximately 2 nautical miles off the moorings at a bearing of 300° from the onshore tanks (conspicuous) and anchor there if waiting to berth. The Pilot/Mooring Master will board the tanker at this position.
Crane/Derrick: The tanker shall arrive with a crane/derrick rigged on the starboard side and in all respects ready to lift the deck hose, and other equipment from the mooring boat at the Arrival Position.
RESTRICTIONS: *Tanker Size Limits:* Slab Side: A tanker will be accepted for loading at the port provided that the "slab side", being the product obtained by multiplying the overall length by the moulded depth, shall not exceed 4,418 sq.m. and will be permitted to load to a total displacement tonnage of 105,000 tonnes.
Minimum Water Depth/Underkeel Clearance: The minimum water depth in the vicinity of the berth is 13.2 m. A copy of the latest hydrographic certificate of the depth of the water is available from the Pilot/Mooring Master on request.

To provide a safety margin, should sailing be delayed for any reason, underkeel clearance shall be maintained at all times up to and including the low water following the tanker's projected sailing time as follows:
3/ (a) for tankers up to 33 m. beam - not less than 1.56 m.; or
(b) for tankers over 33 m. beam - as determined by WAPET.

Searchlights: To permit berthing during darkness, the tanker shall be equipped with a searchlight with a minimum diameter of 300 mm., fitted to each port and starboard bridge wing to provide a wide scanning range.
Arrival Condition: Tanker shall arrive ballasted to at least one quarter of its Summer deadweight tonnage, with propeller (and bow thruster if fitted) submerged, unless directed to carry more ballast by the Pilot/Mooring Master during adverse weather.
HEALTH: Tankers arriving from foreign ports must make prior arrangements for Quarantine and Customs Clearance through their agents. Port Walcott, Western Australia, is the nearest port where Customs and Quarantine Clearances can be obtained.
RADIO: *ETA:* Any tanker proceeding to the port shall notify WAPET at Barrow Island:

Telephone	091 84 6007
Telex	AA99125
Facsimile	091 84 6134

AND at Perth (all hours)

Telephone	09 325 0181
Telex	AA 92008
Facsimile	09 325 7441

of its ETA not less than 96 hours before arrival, amending or confirming the ETA at intervals of 48 hours, 24 hours and 12 hours before arrival at the port. Failure to provide these notifications may result in a Pilot/Mooring Master not being available on the tanker's arrival. The tanker shall also include in its original ETA message:
(a) details of the quantity and condition of ballast;
(b) inert gas system tested and working;
(c) capability to carry out closed system loading;
(d) arrival draft

VHF: *Communications with Pilot/Mooring Master:*
Approaching the port:
Tankers shall listen to Marine VHF Channel 16 when within 100 nautical miles of the port.
The Pilot/Mooring Master can be contacted during daylight working hours or at other times by prior arrangement on International Maritime VHF frequencies, call sign "Barrow Island":

Channel 16	156.8 MHz	Safety and Calling;
Channel 14	156.6 MHz	Barrow Island working channel; or

Channels 8 and 12 can also be used.
During Berthing and Loading:
WAPET will provide portable UHF radios for communications between the tanker and the terminal during berthing, loading and unberthing. Channels used are:

Channel 1	469.775 MHz
Channel 2	469.800 MHz

TUGS: No tugs available.
Mooring Boat: WAPET will provide a suitable mooring boat and crew to handle the tanker's mooring lines to the buoys and bring the preventer lines and swamped mooring lines to the tanker. The mooring boat will stand by during loading and unmoor the tanker on completion.
PORT FACILITIES: *Pilot/Mooring Master:* WAPET shall provide a Pilot/Mooring Master to:
(a) assist in piloting the tanker in and out of the moorings;
(b) advise on connecting and disconnecting the loading hose;
(c) advise on matters concerning the safety of the tanker and port facilities.

Moorings: An 8 point mooring system consisting of 6 mooring buoys and 2 swamped moorings are installed.
Preventer Lines: Preventer lines are permanently connected to each mooring buoy. The preventer lines and swamped mooring lines are constructed as follows:
(a) 76 m. of 44 mm. wire rope (except No. 4 mooring buoy which has 153 m. of 40 mm. FSWR);
(b) 77 m. of 80 mm. polyester superline;
(c) 47 m. of 25 mm. FSWR; and
(d) 30 m. tail of 32 mm. polyester.

WAPET will provide stoppers for making fast the preventer lines and swamped mooring lines to the tanker's mooring bitts.
Crude Oil Handling Facilities – Onshore: The onshore storage and pumping facilities include:
(a) 5 × 200,000 bbl. (31,782 kilolitre) floating roof tanks;
(b) 2 (gas engine driven) centrifugal loading pumps rated to deliver up to 15,400 bbls. (2,000 tonnes) per hour of Barrow Island Crude Oil with up to a maximum pressure of 100 p.s.i. at the tanker rail;
(c) one diesel driven stand-by loading pump;
(d) associated computer control and monitoring equipment;
(e) limited facilities for receiving dirty ballast. See "Deballasting".

Crude Oil Handling Facilities – Marine: The submarine pipeline is comprised of 2 sections:

(a) 9,875 m. of 510 mm. × 9 mm. steel pipe with a 50 mm. concrete external weight coating. The seaward end of the section of the pipeline is marked with a spar buoy; and

(b) a flexible rubber hose at the seaward end of the pipeline described in (a) measuring 45 m. of 400 mm. and 16 m. of 300 mm. hose (which flexible rubber hose is referred to as the "Loading Hose"). The seaward end of the loading hose is marked with a white conical buoy and is fitted with a 300 mm. ball valve.

Fittings and Connections available at the Port: WAPET will make available the following fittings to connect the loading hose to the tanker's manifold:

(a) 90° elbow – 300 mm. × 300 mm. (USAS Flanges)
(b) 45° elbow – 300 mm. × 300 mm. (" ")
(c) flexible deck hose – 5,486 mm. × 300 mm. (" ")
(d) reducer spool – 300 mm. × 254 mm. (" ")
(e) adaptor spool – 254 mm. USAS (flange pitch circle diameter 14.75 in.) to 10 in. British Standard (flange pitch 15 in.)
(f) flange gaskets and grease.

BERTHING/UNBERTHING: *Tidal Berthing:* Berthing and unberthing at the port shall take place during ebb tide unless otherwise approved by the Pilot/Mooring Master.

Slack water at the mooring occurs approximately one hour after high and low water. The direction of the tidal stream is approximately 245° on flood and 065° on ebb and attains a rate of about 1 knot at Springs. Refer to the Australian National Tide Tables for the times and heights of the tides.

Unberthing: Unless otherwise directed by the Pilot/Mooring Master, the tanker shall unberth:

(a) during ebb tide after completion of loading; or
(b) after consultation with the Master when there are strong winds at the port area or a strong wind warning has been issued for the area.

Mooring Lines: The Master shall ensure that the mooring lines are run off the winch sufficiently to enable it to be passed to the mooring boat for running to the mooring buoys. To speed up the running of the first line, the mooring winch should be in single gear. On completion of mooring, the brake on each mooring winch should be securely screwed up.

Preventer Lines: The preventer lines and swamped mooring lines are to be hove onboard with a messenger of at least 24 mm. diameter, supplied by the tanker, to the warping drum of mooring winch and then made fast to the bitts, being stoppered off, using "Chinese" of "West Country" method, with stoppers supplied by WAPET.

Propeller: The propeller shall not be turned over with the main engine while the loading hose is connected or after it has been disconnected without first notifying the Pilot/Mooring Master.

MOORING EQUIPMENT (TANKER): The tanker shall be equipped with mooring equipment which complies with the minimum specifications described in this Regulation.

Mooring Winches: The mooring winches shall:

(a) be power operated and capable of warping the tanker;
(b) have mooring line permanently attached;
(c) be capable of making fast mooring lines or preventer lines by securing brake on winch;
(d) have warping drum capable of handling preventer lines and swamped mooring lines;
(e) number at least 8 and be located:
  (i) foc'sle head – one each, port and starboard;
  (ii) aft main deck – one each, port and starboard; and
  (iii) poop deck – 4.

Mooring Bitts: The tanker shall have at least 8 sets, each set to be of a size and be located near a mooring winch to enable making fast the preventer lines or the swamped mooring lines as the case may be.

Mooring Lines: The mooring line on each mooring winch shall have:

(a) a minimum breaking strain of 80 tonnes;
(b) minimum length of 200 m.;
(c) if wire lines, a fibre tail of at least 10 m. with strength equivalent to the wire line.

Bow Anchors: The anchors shall:

(a) be located one each port and starboard bow;
(b) have a minimum of 10 shackles of chain;
(c) comply with a Classification Society recognised by the Australian Department of Transport.

LOADING EQUIPMENT: The tanker shall provide the following items to handle the loading hose:

Crane/Derrick: A crane or derrick capable of lifting the 5 tonne flexible loading hose and work platform shall be provided on the starboard side.

Work Platform: A work platform to facilitate safe connection of the loading hose shall be provided and constructed in accordance with Australian Standard No. 1657. (See "Plan").

Personnel: The tanker shall provide competent personnel to perform, supervise and approve all work to connect and disconnect the loading hose.

Manifold Specification: The tanker's manifold shall be capable of being bolted to the 12 in. USAS flanges of the deck hose and be in compliance with the "Oil Companies International Maritime Forum (OCIMF) Guidelines". (See "Port Facilities – Fittings and Connections available at the Port".)

Connection: When the loading hose and work platform are secured to the tanker's rail, the blank flange on the end of the hose is removed and the deck hose connected to the tanker's manifold using elbows and adaptors as required.

SPECIFIC GRAVITY OF CARGO: Barrow Island Crude Oil has a density range between 0.832 and 0.84 at 15° C. and a temperature range between 23° C. and 32° C.

LOADING: *Commencement Checks:* The submarine pipeline is left full of crude oil between tanker loadings. When all hose connections have been made and approved, and safety checks outlined in the International Safety Guide for Oil tankers and Terminals have been completed the ball valve on the loading hose is opened.

Gravity Loading: The tanker's manifold is opened and crude is loaded by gravity until the checks are completed on the tanker and clearance is given by the Pilot/Mooring Master to start the onshore loading pumps.

Inert Tanks: The tanker's cargo tanks should be inerted by a system designed, constructed and tested in accordance with the International Convention for the Safety of Life at Sea, 1974, as amended by the 1978 Solas Protocol.

WARNING Against Back Pressure: The submarine pipeline and loading hose may be damaged if subjected to sudden increases in pressure. Back pressure on the loading hose at the tanker's rails must not exceed 100 p.s.i. To avoid damage to the loading equipment the tanker shall ensure that:

(a) The flow of crude oil shall not be shut off by closing the tanker's valve or the ball valve on the loading hose without the prior approval of the Pilot/Mooring Master;
(b) As many tanks as possible are open during loading. At least 2 tanks must be open while onshore pumps are operating at full speed. If the tanker considers it necessary to load into one tank, or to otherwise reduce the loading rate for safety or its operations, the tanker shall notify the Pilot/Mooring Master in sufficient time to reduce the loading rate;
(c) The tanker shall advise the Pilot/Mooring Master when 200 tonnes of crude oil are required to complete loading so that the onshore pumps can be eased down slowly;
(d) The tanker shall advise the Pilot/Mooring Master when 50 tonnes of crude oil are required to complete loading so that the onshore pumps can be stopped and loading completed by gravity; and
(e) On completion of loading, the tanker's manifold valve is to be closed slowly to minimise the surge pressure of oil in the pipeline.

Availability of Deck Machinery: The tanker shall ensure that the deck machinery is available for immediate use at any time throughout the loading operation.

Test Calls During Loading: The tanker shall advise the terminal on the hour of the back pressure of the loading hose at the tanker's rail. WAPET personnel onboard the tanker shall so advise the terminal on the half hour. Should a test call be missed and the terminal be unable to establish contact with the tanker, the terminal will stop the pumps and further loading until communications are restored.

Disconnection of Loading Hose: On completion of loading and when the tanker's manifold valve is closed, the tanker shall make every effort to drain the deck hose and the tanker's manifold outboard of the manifold valve.

DEBALLASTING: The tanker shall wherever possible arrive at the port with clean segregated ballast which can be discharged overboard during loading. However, if required, dirty ballast may be pumped ashore through the submarine pipeline by means of the tanker's pumps, using the following procedure unless otherwise directed by the Pilot/Mooring Master:

(a) The Master shall obtain a receipt from the Pilot/Mooring Master for the dirty ballast pursuant to Marine Order 12/85 after the discharge of any dirty ballast at the port;
(b) At least one third of the tanker's Summer deadweight tonnage of crude oil must be loaded before deballasting, to minimise the effect of sudden change in sea and weather conditions and to use the crude oil to displace ballast from the submarine pipeline. The displacement of the submarine pipeline is approximately 1,947 kilolitres (1,680 tonnes);
(c) After the operation in (b) is complete, the tanker will pump all ballast ashore at a rate to ensure that the pressure at the tanker's rail shall not exceed 100 p.s.i. At this pressure the discharge rate is approximately 1,270 kilolitres (1,120 tonnes) per hour;
(d) When all ballast is discharged, the tanker will displace the ballast in the submarine pipeline by pumping ashore Barrow Island Crude Oil. The tanker shall effect the change over from ballast to crude oil as quickly as possible to keep the oil/water interface intact;
(e) The tanker will advise the Pilot/Mooring Master when 1,750 kilolitres (1,500 tonnes) of crude oil have been pumped. WAPET will notify the tanker when the water/oil interface is detected ashore at which time the tanker shall stop pumping to enable loading to recommence.

SAFETY/POLLUTION:

Safety:

(a) Tankers will not be accepted which could possibly contravene the International Convention for the Safety of Life at Sea 1974 as amended by the 1978 Solas Protocol.
(b) The tanker shall be in a state of readiness at all times to leave the moorings.

Pollution:

(a) Tankers shall comply with the relevant provisions of: the International Convention for the Prevention of Pollution from Ships as defined as the "Convention" in the Pollution of Waters by Oil and Noxious Substances Act 1978 of the State of Western Australia and the Protection of the Sea (Prevention of Pollution from Ships) 1983 of the Commonwealth; those Acts; and other legislation of the State or Commonwealth pertaining to pollution.
(b) The dumping of rubbish overboard at the port is prohibited.

GENERAL: *Port Facilities:* Mail forwarded to Barrow Island for the tanker or its crew will be delivered by the Pilot/Mooring Master. Mailing address is "Name of tanker, Barrow Island, Western Australia 6712".

None of the following services are available at the port:

(a) Customs or Quarantine;
(b) ship's agency, repairs, surveying, bunkers or potable water;
(c) medical, consular, telephone, accommodation or laundry;
(d) tugs.

If a tanker requires any of the above services, most can be obtained at the port of Dampier. WAPET's prior approval should be obtained if the attendance of any person to the tanker requires the services of the mooring boat.

Discretionary Acceptance: A tanker will be accepted for loading at the Port provided it conforms to the minimum requirements described in these Regulations. WAPET may at its discretion refuse to moor or load any tanker which does not conform to the requirements or is deficient in any manner whatsoever.

Responsibility of Owner: The onus is exclusively on the Master or Owner to ensure that the tanker is seaworthy and that all equipment is and remains in good working order. Failure by WAPET to reject any tanker not meeting the requirements will not relieve the Owner of liability.

Cathodic Protection: Tankers equipped with impressed current cathodic protection systems shall ensure the system is switched off prior to approaching the moorings until the tanker is unberthed.

AUTHORITY: West Australian Petroleum Pty. Limited, 233 Adelaide Terrace, Perth. Postal Address: Box C 1580 P.O., Perth, W.A. 6001. *Tel:* (09) 325 0181. *Telex:* Wapet AA 92008. *Cables:* Wapet. *FAX:* (09) 325 7441.

Barrow Island Tanker Terminal: *Tel:* 091-846007 (hours 0700 – 1630) *Telex:* 99125. *FAX:* (091) 84 6134.

BOTANY BAY, N.S.W.: 34.00 S. 151.14 E. (See Plan)

DOCUMENTS:

2 Crew Lists (Form M. & S. II).
Stores List (Form 42 A).
Personal Effects List (Form 5).
2 copies Health Report (Form A Q360).
3 copies Ports of Call List (Form C & E 886).

PILOTAGE: Compulsory. Ordered by Agent basis Master's ETA. Pilot boards outside Botany Bay Heads in position Lat. 34° 01.1′ S., Long. 151° 17.5′ E. Vessels waiting for Pilot not to proceed West of Long. 151° 15′ E. Pilot vessels fitted with VHF for communication with other ships. Watch maintained on Channel 13 while at sea and messages conducted on Channel 6.

APPROACHES: Channel to Kurnell berths and swinging basin 12.2 m. minimum depth. Channel to port (Port Botany) 213 m. wide and dredged to a minimum depth of 19.2 m. Swinging basin in port area has been dredged to 14.6 m.

RESTRICTIONS: Tankers not berthed at Kurnell after sunset. Mooring normally effected 2 hours before HW at Kurnell No. 3.

MAX. SIZE:

Kurnell	No.1	Max. Length	183 m.	Max. Draft	8.8 m.
"	2	"	200 m.	"	10.7 m.
"	3	"	253 m.	"	11.6 m.
Bulk Liquids Berth		"	245 m.	"	14.0 m.

HEALTH: See "Health" before first port.

RADIO: Sydney Radio.

VHF: A continuous watch is kept by the Port Operations and Communications Centre on Channels 16 and 12 (call sign 'Sydney Maritime') and all traffic movements and approval for entry or departure are controlled from the Centre on Channel 13 (call sign 'Sydney Harbour Control').

All vessels proceeding to the Port of Botany Bay are required to advise 'Sydney Maritime' by VHF or 'Marboard' at least 4 hours and again 2 hours prior to their estimated time of arrival at the Port.

All vessels preparing to proceed to sea are required to call "Harbour Control" on Channel 13 at least one hour prior to departure for permission to proceed.

Also see "Sydney".

TUGS: Three tugs permanently stationed at Botany Bay.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
Brotherson Dock			
ANL Container Terminal			
No.1	320	15.30	Max.LOA 310 m.
No.2	275	15.30	
No.3	275	15.30	
CTAL Container Terminal			
No.4	312	15.30	
No.5	312	15.30	
No.6	312	15.30	
Bulk Liquids	185	19.00	
Tanker Berths			
Kurnell No.1	183	9.80	
No.2	200	11.00	
No.3	—	12.30	Multi-Buoy Berth

Brotherson Dock: Six berth container terminal dredged to 15.0 m., swinging basin at entrance dredged to 13.1 m. Northern terminal leased to the Australian National Line – 42 hectares, wharfage 1,000 m. comprising 3 berths each with ro/ro ramp and 35 tonne gantry cranes. Southern terminal leased by Container Terminals Australia Limited – 38 hectares, wharfage 936 m., comprising 3 berths.

SPECIALISED CARGO HANDLING FACILITIES:

Ro-Ro Facilities: There are 3 Ro-Ro ramps at the A.N.L. Terminal.

All 3 ramps are 8.32 m. wide between the kerbs. They can be worked by fork lifts with a 30 ton lifting capacity and an axle load of 800 kilonewtons.

Each main ramp is	21.4 m. long
Each link spain is	5.5 m. long
Total length	26.9 m.

Container Cranes:

ANL: 3 x 35 tonne rail mounted gantry cranes, and 1 x 25.4 tonne luffing crane at Berth No. 3.

CTAL: 3 x 36 tonne twin lift container gantry cranes and 1 x 84 tonne heavy lift crane.

TANKERS: See "Berthing" and "Developments".

Kurnell Nos. 1 & 2: Operators: Australian Oil Refining Pty. Ltd. Finger pier with 2 berths; No. 1 – Eastside. No. 2 – Westside. Crude 1×26 in. 1×18 in. lines – 8 in. hoses. Fuel 1×24 in. 1×12 in. lines – 8 in. hoses. White 6 in. – 16 in. Bunkers and FW ex-wharf. Slop facilities up to 8,200 tons. Berthing and unberthing at all tides, berthing during daylight hours only, can unberth after dark.

All vessels turn prior to berthing and are always heading out. At Berth No. 1 port side alongside, Berth No. 2 starboard side alongside.

Kurnell No. 3 Berth: Operators: Australian Oil Refining Pty. Ltd. Vessel moors using both anchors forward and ropes to 5 buoys and 2 swamp moorings, semi-circle (astern). Hoses connected midships – 2×12 in. to submarine line (crude). Bunkers, fuel and diesel. Fresh water 70 t.p.h. ex-pipe-line.

After embarking the Pilot, vessel proceeds on the main entrance leads, (312°), until abeam of Bumbora, or entering the arc of visibility of Bare Island Light, then turn to port on the leading beacons line 271° 22′. In the meanwhile, the Maritime Services Board Superintendent has joined the vessel and taken up station on the forecastle. The vessel continues on the leading beacons line until the drop marks ashore are in line and then drops starboard anchor and turns to starboard to drop port anchor. After dropping the second anchor, the vessel goes astern (with the aid of tugs) until the hose pick-up buoys are abeam of the vessel's starboard manifold. When finishing up 8 shackles of chain will be in the water, so the vessel has to be equipped with minimum 12 shackles of chain on both anchors. The anchoring procedures vary with the individual Pilot. Some Pilots (now that a larger area has been dredged) prefer to drop first the port anchor and then starboard, depending on wind speed and direction.

Ships initially connect their own ropes to the mooring buoys and later pick up the preventer wires. Weather conditions may warrant the connection of a second ship's rope to the buoys.

Vessels moor with their anchors at 45° angle.

Usually 2 tugs are being used for vessels up to 185 m. in length and 3 tugs for longer vessels. Ship's ropes are being used for towing ropes.

An accommodation ladder should be rigged on the port side and pilot ladders on both sides.

The sequence of letting go the mooring ropes and heaving up the anchors depends on the wind direction.

Bulk Liquids Berth: Bulk liquid chemical and petrochemical cargoes piped to adjacent tank farms. Berthing and unberthing undertaken at all hours and at all stages of the tide. Vessels over 215 m. LOA berthed and unberthed in daylight hours only.

Vessels usually turn prior to berthing and go port side alongside heading out.

BALLAST: *Tank Cleaning and Dirty Ballast Facilities:* A.O.R. Berth Nos. 1 and 2: Maximum quantity acceptable 8,255 tons. Rate 1,000 t.p.h.

Only clean, oil free ballast water may be discharged overboard, after written permission received from Port Authority which is difficult to obtain.

Severe penalties will be imposed by the Authorities for any infringement of Harbour Regulations, and when doubt exists with regard to whether the ballast is clean and oil free, then the shore reception facilities may be used.

DENSITY: 1025.

FRESH WATER: Available at all berths, rate 30 t.p.h.

FUEL: Marine fuel and diesel oil available at Kurnell Berth Nos. 1, 2 and 3, and at Brotherson Dock by barge (450 tons).

FIRE PRECAUTIONS: Normal restrictions.

GANGWAY/DECK WATCHMEN: Available.

IDENTIFICATION CARDS: See "Melbourne".

REPAIRS: Most repairs. Ships not allowed to be immobilised.

DRY DOCKS: Nil.

AIRPORT: 6 km. – regular airlines.

TIME: See "General" before first port.

HOLIDAYS: Container Terminals work 360 days per year.

POLICE/AMBULANCE/FIRE: Tel: 000.

TELEPHONES: At Wharf and Kurnell Berth No. 3. AOR Ltd.

SERVICES: Compass adjusting only.

DELAYS: Normal only.

DEVELOPMENTS: A crude oil berth is planned to the South of the existing Bulk Liquids Berth. The berth will accommodate vessels up to 120,000 tonnes deadweight and appropriate dredging in the Entrance Channel and the Swinging Area will be carried out.

A second Bulk Liquids Berth is planned to the South of the existing Bulk Liquids Berth. Construction is to commence in 1988.

AUTHORITY: Maritime Services Board of New South Wales, G.P.O. Box 32, Sydney, NSW 2001, Australia. *Tel:* (02) 240 2111. *Telex:* MSB SY AA 24944. *Cables:* "Marboard".

Maritime Services Board of New South Wales, Botany Bay Division, Private Bag No. 5, Post Office Maroubra, NSW 2035. Australia. *Tel:* (02) 3494555. *Telex:* 72570. *FAX:* (02) 3497955. *Cables:* Mar. *Contact:* Captain M. D. O'Keeffe, Harbour Master. Captain S.J. Costelloe, Port Manager. Captain B. Pacheco, Superintendent.

AGENT: Patrick Agencies, Sydney Branch, Level 11, C.B.A. Centre, 60 Margaret Street, (G.P.O. Box 3918), Sydney, N.S.W. 2000. Tel: (02) 233-6722. Telex: 20618. FAX: (02) 251-1158. Cables: Rikpat, Sydney.

BOWEN, Queensland: 20.01 S. 148.15 E. (See Plan)

The channels have not been sounded since 1980, the wharves are in a state of disrepair and the coal loading facility on No. 3 Jetty is about to be dismantled

AUTHORITY: Department of Harbours and Marine, P.O.Box 889, Bowen, Queensland 4805. *Tel:* (077) 861933. *Telex:* 47435. *FAX:* (077) 862719. *Contact:* Captain P. J. Zealley, Harbour Master.

BRISBANE, Queensland (including Fisherman Islands, Hamilton, Pinkenba): 27.27 S. 153.04 E. **(See Plan)**

PORT LIMITS: A vessel is considered an "arrived vessel" when it is at the Pilot boarding grounds off Caloundra.

DOCUMENTS: See "Melbourne".

PILOTAGE: Notify Agent approximately 1 week in advance. Confirm ETA to Duty Harbour Master 24 hours before arrival at pilotage ground, plus max. draft. Master of vessel to radio ETA Pilot boarding ground 8 hours before arrival. Messages should be addressed: Shipserv Caloundra Signal Station.

Contact Caloundra Signal Station by VHF Channel 16 when within range. Pilot boards S.E. of Cartwright Point in position, Lat. 26° 43′ S., Long. 153° 10.6′ E. Pilot vessel white hull with words "Pilots" in black letters. Orange superstructure. Place ladder about 6 ft. from water.

Pilot ground is 44 miles from entrance to river. River then navigable to ocean going vessels for 14 miles from the mouth.

Same Pilot remains to berth vessel. Pilotage time about 5 hours.

Coastal and Reef Pilotage: Pilotage through the Inner Route of the Great Barrier Reef to Torres Strait is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

Pilotage recommendations: The attention of Masters is drawn to the IMO and Australian government recommendations on pilotage in Great Barrier Reef waters. See "Torres Strait".

APPROACHES: Good navigation conditions in Moreton Bay except in exceptionally heavy weather in N.W. channel. Minimum depth in N.W. channel 13 m., in Bar Cutting 11.6 m., in Swinging Basin at Luggage Point 11.7 m., to Hamilton 9.1 m., and to Bulimba Point 8.8 m. (all LWOST). Dredged channels in Moreton Bay minimum 300 m. width. River Cuttings 120 m. width, Bar Cutting 180 m. width.

In Moreton Bay and Brisbane River the mean spring rise is 2.13 m. above LWST and mean neap rise is 1.74 m. above LWST. The lowest neap tide 1.22 m. above LWST and maximum spring tide 2.7 m. above LWST. The visibility is generally good except in cyclonic weather when heavy rain.

RESTRICTIONS: Berthing times dependent on vessel's draft in relation to state of tide.

MAX. SIZE: Waterline length in river 250 m. at 9.7 m. draft. Draft at HWOST for tankers 12.2 m.; for cargo vessels 9.7 m.

HEALTH: See "Melbourne". Doctor boards at river entrance or at berth. Available 24 hours per day.

RADIO: Most traffic channelled through VIB, coastal radio station Brisbane. VHF Channel 16, 156.8 MHz.

RADAR: Continual watch kept at Caloundra Head, and Lytton Hill Signal Station.

TUGS: Five tugs available, 2×63 tonnes, 1×33 tonnes and 2×42 tonnes bollard pull. Tugs are privately owned. Tugs join vessel approaching the berth, or as may be required elsewhere in the river. Line boats available.

BERTHING:

Berth		Length (m.)	Depth *LWOST* (m.)
Bulimba Reach			
Capricorn Wharves Mercantile Wharves Newstead Wharf	No longer in service for commercial cargo purposes		
ANL Ro-Ro Wharf	—	220	9.1
Hamilton Reach			
Brett's Wharf (3 berths)		470	9.1
Hamilton Wharves	No. 1	140	9.1
	No. 2	240	10.4
	No. 3	170	10.4
	No. 4	210	9.5
Cairncross Dock		340	9.1
Maritime Wharves	No. 1	170	9.1
	No. 2	257	10.2
	No. 3	271	10.4
Quarries Reach			
Sugar Wharf		270	10.1
Borthwick's Wharf		190	8.0 (tallow tankers only)
Pinkenba Wheat Wharf	No. 1	210	10.1
	No. 2	190	10.1
Shirley's Wharf		210	10.1
Consolidated Fertilisers Wharf		220	10.4
Queensland Cement & Lime		220	9.8 (import bulk clinker)
Fisherman Islands:			
Containers	No. 3	300	12.0
	No. 4	280	12.0
	No. 5	270	12.0
Coal Wharf		240	13.0
Grain Wharf		240	13.0

BULK LOADING FACILITIES: *Hamilton Wharf Berth No. 4:* Gross handling rate for loader is 700 t.p.h. Movable conveyor system services 110 m. of wharf. Rutile Sand – Daily rate 7,000/8,000 tonnes.

Pinkenba No. 1: 2 belt conveyors serving 7 loading spouts of which 4 can be used simultaneously. Nominal handling rate is 1,200 t.p.h.

Pinkenba No. 2: Single shiploader. Loading rate for grain 1,000 t.p.h.

Coal Wharf: Single shiploader, loading rate for coal 2,000 t.p.h.

Grain Wharf: Single shiploader, loading rate 2,200 t.p.h. Storage capacity 57,000 tons.

TANKERS: Port and Harbour Regulations stipulate that tankers use large coir/nylon springs for attaching vessel's fore and aft springs to the mooring bollards on the wharves except where tension winches are fitted. The springs are supplied by wharf owners.

Moorings should consist of at least 4 parts out each end in addition to 2 back springs both fore and aft. If these lines are not tended and taut at all times the vessel cannot be considered to be securely moored. In addition to the above 2 lines have to be made fast: 1 fore-line from the main deck and 1 aft-line from the main deck.

A rat guard is to be properly fixed to each mooring line and where it is not possible to place a guard on the forward or after spring lines, a piece of tarred rag or hessian should be attached.

A Radar Station at Lytton at the mouth of the Brisbane River conducts a 24 hours, all weather watching brief over all ships entering or leaving the port of Brisbane.

The load-line and freeboard of tankers arriving with full cargo may be inspected by the Department of Navigation.

All officials or crew wishing to go to or leave the Ampol Terminal at Fisherman Island or B.P. Terminal at Luggage Point must do so by launch. Masters should contact the local Agents to arrange.

Ampol Refinery, Fisherman Island: Dolphin berth. Berth length 330 m., depth 12.8 m. Grades handled:

Crude Oil discharge, 4×8 in., 3,353 m., 150 p.s.i./3,500 cu.m.p.h. max.

Fuel Oil, Diesel Oil, Gas Oil, loading 4×8 in., 3,353 m., 290 cu.m.p.h. max.

No dirty ballast facility.

Port side alongside.

B.P. Refinery, Luggage Point: Dolphin berth. Berth length 280 m., depth 12.8 m. LWOST. Grades handled:

Crude Oil discharge 2×12 in., 1,402 m., 150 p.s.i./3,500 cu.m.p.h. max.

Fuel Oil, Diesel Oil, loading 2×12 in., 1,402 m., 300 cu.m.p.h. max.

No dirty ballast facility.

Port side alongside.

Ampol Products Wharf, Lytton: T-head and Dolphins. Berth length 280 m., depth 9.8 m. LWOST. Grades loaded:

Fuel Oil, 1×8 in., 1,676 m., 200 cu.m.p.h. max.

Gas Oil, 3×8 in., 762 m., 1,500 cu.m.p.h. max.

Ballast, 2×8 in., 1,676 m., 1,000 cu.m.p.h. max.

Kerosene, 2×8 in., 1,676 m., 1,000 cu.m.p.h. max.

Diesel Oil, 1×8 in., 1,676 m., 350 cu.m.p.h. max.

Dirty Ballast: 2×8 in., 762 m., max. 6,000 tons, max. rate 1,000 cu.m.p.h.

Starboard side alongside.

B.P. Products, Bulwer Island: T-head and Dolphins. Berth length 240 m., depth 11.0 m. LWOST. Grades loaded:

All products: Loading 1×8 in., 2,764 m., 550 cu.m.p.h. max. Discharge 1×8 in., 183 m., 150 p.s.i., 1,000 cu.m.p.h. max.

LPG: Loading 1×6 in., 671 m., 45 cu.m.p.h. max.

Dirty Ballast: 1×8 in., 90 m., max. 4,460 tons, max. rate 1,000 cu.m.p.h. max. No ballast with chemicals acceptable.

Either side alongside.

Shell, Pinkenba: T-head and Dolphins. Berth length 220 m., depth 11.0 m. LWOST. Grades discharged:

Fuel Oil, Diesel Oil, Bitumen, 1×8 in., 427 m., 150 p.s.i., 1,000 cu.m.p.h. max.

Gas Oil, Ballast, Kerosene, Chemicals, 1×8 in., 427 m., 150 p.s.i., 850 cu.m.p.h. max.

Lub Oils, 1×8 in., 732 m., 150 p.s.i., 320 cu.m.p.h. max.

No dirty ballast facilities.

Starboard side alongside.

Mobil, Colmslie: T-head and Dolphins. Berth length 190 m., depth 6.5 m. LWOST. Grades discharged:

Ballast, Kerosene, Gas Oil, Chemicals, 1×8 in., 577 m., 150 p.s.i., 750 cu.m.p.h. max.

Fuel Oil, Diesel Oil, 1×8 in., 577 m., 150 p.s.i., 800 cu.m.p.h. max.

Lub Oils, 1×8 in., 577 m., 150 p.s.i., 300 cu.m.p.h. max.

LPG, 1×2 in., 91 m., 15 cu.m.p.h. max.

No dirty ballast.

Either side alongside.

Maritime Wharves Pty. Ltd., Hamilton: T-head and Dolphins. Grades discharged:

Ballast, Kerosene, Gas Oil, Fuel Oil, Diesel Oil, 1×8 in., 1,676 m., 150 p.s.i., 750 cu.m.p.h. max.

No dirty ballast facilities.

Starboard side alongside.

All berth depths must be confirmed prior to arrival.

Gas freeing facilities not available, but chemist available to issue Gas-free Certificate. There are slop discharge facilities at both refineries.

Operator's Reports: *Caution:* Buoys may sometimes be found in positions other than charted due to the effect of bad weather conditions or being deliberately moved as required by natural channel and bank movements. The channels and banks are constantly changing due to the effect of tidal streams accentuated by bad weather conditions. Tidal streams set obliquely across channels and great caution is required.

Approaches: Caution on draft: The tidal situation in the entrance channels, Moreton Bay, Brisbane River Bar and swinging basin of Luggage Point is rather complex. Masters of crude vessels, bound for the Ampol or B.P. refineries and not regularly trading to these terminals should, prior to loading, contact the refineries through their agents and ask for the maximum allowable draft. This is in order to avoid dead–freight claims if not loaded to maximum draft or the necessity for lightering prior to entering the river if too deeply loaded. There is only one small (bunker) barge available and long delays may be experienced if lightering is required.

Traffic Control and Regulations: The Port Authority of Brisbane operate in the Port of Brisbane an advisory type of traffic control under the control of a certified officer in charge of the Harbour Control Signal and Radar Station Lytton Hill.

All shipping movements on Brisbane River shall be advised to the officer in charge and no vessel, with a length of 61 m. or more, shall enter any of the dredged cuttings or leave her berth except at a time approved by the Harbour Master's office. A ship about to enter the Brisbane River shall advise the Signal Station at least 30 minutes prior to that time.

No tanker movements in the Brisbane River during the hours of darkness unless approved by the Harbour Master. Normally no permission will be granted to enter the port and to berth between sunset and sunrise, but as a rule unberthing and departure will be approved if on flood tide and heading out.

Shell Terminal:

a) Description:

The terminal is located at Pinkenba and connected with the berths Pinkenba No. 1 and No. 2 with an 8 in. pipeline of about 5,700 ft. length. Normally Pinkenba No. 1 is used for tankers.

The facilities consist of two continuous wharves, meeting under a small angle of respectively 153 m. and 168 m. length. There are mooring posts along the wharf and on the river bank up and downstream of the berths. Ship's gangway is used.

The berths are also used by bulk grain carriers and berthing priority is in order of arrival.

b) Berthing and Unberthing:

Harbour Regulations restrict berthing to daylight hours only. Since it is normally required that tankers berth heading downstream, berthing is in fact restricted to daylight flood only. Normally permission will be given for night time unberthing on flood tide and departure. All berths in the Brisbane River are subject to siltation and maximum allowable draft should be checked prior to loading for this port.

Pilots usually use 2 tugs for berthing and unberthing.

Vessels turn in the Pinkenba Cutting prior to berthing with assistance of tugs. If necessary, anchor is used.

Standard mooring configuration is 3 head lines, 3 stern lines, 1 breast line forward and aft, and 1 backspring forward and aft.

Since ranging may be expected due to passing ships, it is recommended to double the back springs and to use the shore side nylon springs provided. A breasting dolphin about 75 ft. downstream of the wharf has been installed in order to decrease the overhang of longer vessels.

c) Cargo Operations:

The berths are used for the discharge of white products, base lube oils and solvents. If flammable products are being discharged barricades will be erected, with guards.

Ship's boom is used for hose connecting and disconnecting.

Port Authority inspectors are attending.

B.P. Crude Berth:

a) Description:

The B.P. Crude Berth is an island berth, consisting of a central platform with 2 breasting dolphins and 2 mooring dolphins at either side, located at Luggage Point on the Northern side of the Brisbane River entrance. There is no fendering on the face of the central platform. There is 1 × 20 in. crude oil pipeline from the berth to the B.P. Refinery on Bulwer Island of about 6,000 ft. length. In addition there is an 8 in. bunker line and a 3 in. fresh water line.

2 × 12 in. Wheaton Loading Arms and 1 × 8 in. Wheaton Loading Arm, all with Camlock couplings.

Shore gangway. No ballast or slop facilities.

b) Berthing and Unberthing:

Since the direction of the face of the berth is under an angle with the direction of the ebb tidal stream and no berthing is permitted during the hours of darkness, the berthing is limited to the daylight flood tide. If vessel is loaded to maximum draft this will be on the end of the flood.

Vessels turn in the swinging area off the berth, with the assistance of tugs and starboard anchor if necessary. Pilots use 2 tugs for vessels up to 700 ft. LOA and 3 tugs for longer vessels. Normally there are no restrictions on unberthing and vessels can unmoor and depart at all times and at all stages of the tide.

Standard mooring configuration is minimum 3 head lines, 3 stern lines, 1 breast line forward and aft, and 1 backspring forward and aft.

c) Cargo Operations:

Two loading arms are used for the discharge of crude oil.

Larger quantities of fuel oil are back loaded through the 20 in. crude oil line, smaller quantities through the 8 in. bunker line.

An inspector of the Port Authority is attending.

B.P. Products Berth:

a) Description:

The B.P. Products Berth is located on Bulwer Island, nearly 3 miles upstream of the B.P. Crude Berth. The berth is a T–head jetty with 2 breasting dolphins, 2 mooring dolphins and mooring posts on the river bank. There is no fendering on the face of the T–head.

b) Berthing and Unberthing:

Since the Port Authority objects to turning loaded tankers off the berth, berthing is normally restricted to the daylight flood tide and vessels turn in the swinging area off the berth prior to going alongside. Starboard anchor is used for turning if necessary.

Pilots use 2 tugs for berthing and 1–2 tugs for unberthing.

Standard mooring configuration is 3 head lines, 3 stern lines, 1 breast line forward and aft, and 1 back spring forward and aft. In connection with ranging due to passing ships, it is recommended to double the back springs. Mooring lines should be tended at all times while alongside.

Ship's gangway is used.

c) Cargo Operations:

Ship's boom is used for hose connecting and disconnecting. Ballast and slop facilities are available. Shore connects and disconnects hoses.

An inspector of the Port Authority is attending.

Ampol Crude Berth:

a) Description:

The Ampol Crude Oil Berth is at Fisherman's Island on the south side of the Brisbane estuary. It consists of a central platform with 1 breasting dolphin and 2 mooring dolphins at either side of the platform. The face of the platform is fitted with fendering. There is a 28 in. crude oil pipeline of about 10,866 ft. length from the berth to the Ampol refinery situated on the site of Fort Lytton. Shore gangway. Slop and facilities are usually not available but in an emergency the 8 in. bunker line can be used for this purpose.

b) Berthing and Unberthing:

As pilots object to turning loaded vessels in the Brisbane River if this can be avoided and berthing being restricted to daylight hours, vessels usually berth stemming the first of the ebb tide at approximately 1.5 hours after the HW at the Pile Light.

Pilots use 2 tugs for vessels up to 700 ft. LOA and 3 tugs for longer vessels. Normally vessels can unberth and depart at all times and at all stages of the tide.

The controlling depth alongside the berth is 12.8 m. below chart datum. Maximum allowable draft 41 ft. (depending on height of tide). Maximum LOA 850 ft.

Standard mooring configuration is minimum: 3 head lines, 3 stern lines, 1 breast line forward and aft, and 1 back spring forward and aft.

c) Cargo Operations:

3 loading arms are used for the discharge of crude oil.

An inspector of the Port Authority is attending.

AMPOL Products Berth:

a) Description:

The Ampol Products Berth is located 2 miles further up the south bank of the river from the Crude Berth at Lytton Rocks Cutting. There is a road from the refinery main gate direct to this berth (1 mile). The berth is a T–head jetty with 2 breasting dolphins and 4 mooring dolphins.

b) Berthing and Unberthing:

Vessels usually berth head down river and consequently berthing is restricted to the daylight flood tide and vessels turn in the swinging area at Pinkenba prior to going (starboard side) alongside. Port anchor is used if necessary.

Two tugs are being used for berthing and one tug for unberthing.

Unberthing normally at daylight floodtide.

Standard mooring configuration: 3 head lines, 3 stern lines, 1 breast line forward and aft, and 1 back spring forward and aft. It is recommended to double the back springs. Mooring lines to be tended at all times while alongside.

Ship's gangway is used.

c) Cargo Operations:

Ship's boom is used for hose connecting and disconnecting. A number of products are loaded through common pipeline. Ballast and slop facilities are available. Shore connects and disconnects hoses.

An inspector of the Port Authority is attending.

BRIDGES: Gateway Bridge in Quarries Reach. Clearance 57.4 m. at highest tide. Vessels with structures exceeding 45 m. above waterline must obtain approval of Harbour Master to pass under bridge.

STEVEDORES: Ample labour available for all cargo working except rush periods.

Normal capacity per gang per shift: 60 tons break bulk; 75 tons palletised cargo.

CRANES:

Location	*No.*	*Capacity* (Tonnes)
ANL Wharf	2	25
Hamilton No. 4	4	6
Fisherman's Island No. 4 & 5	3	2 at 60 and 1 at 45 (Portainers)

DENSITY: 1025 (possibly less during cyclone conditions).

FRESH WATER: From mains at 180 t.p.h. at all berths.

FUEL: Oil bunkering available at all oil wharves. Also by road tanker at cargo berths. Distillate diesel fuel or fuel oil. Largest bunkering barge is 1,400 tons for fuel oil.

GANGWAY/DECK WATCHMEN: Normally by crew, but can be hired.

OPENING/CLOSING HATCHES: Performed by stevedores/crew.

CUSTOMS ALLOWANCES: See "Melbourne".

CARGO GEAR: Heavy lift facilities up to 45 tons available at certain wharves.

IDENTIFICATION CARDS: See "Melbourne".

CONSULS:

Austria	127 Creek St.	229-3222
Bolivia	210 Queen St.	221-1606
Cyprus	280 Sir Fred Schonell Drive	371-5105
Denmark	633 Wickham St., Fortitude Valley	854-1855
Finland	324 Queen St.	221-9111
France	10 Eagle St.	221-1972
Germany, F.R.	307 Queen St.	221-7819
Greece	127 Creek St.	229-3222
Italy	158 Moray St., New Farm	358-4344
Japan	68 Queen St.,	31-1438
Mexico	35 Sherwood Rd., Toowong	371-1066
Nepal	66 High St., Toowong	371-4228
Netherlands	260 Queen St.	31-1779
New Zealand	228 Edward St.	221-9933
Norway	633 Wickham St., Fortitude Valley	854-1855
Panama	54 Upper Brookfield Rd., Brookfield	378-2783
Papua New Guinea	127 Creek St.	221-7915
Peru	69 Ann St.	229-2988
Philippines	131 Elizabeth St.	229-6755
Portugal	378 Queen St.	221-4833
Spain	131 Elizabeth St.	221-8571
Sweden	30 Herschel St.	221-9977
Switzerland	15 Corowa St., Wavell Heights	266-9782
U.K.	193 North Quay	221-4933
U.S.A.	383 Wickham Terrace	839-8955

REPAIRS: All major repairs undertaken, including main propulsion diesel engines, steam turbines, boilers, reduction gearing servicing, propellers, tailshafts, stern bearings, all engine-room repairs, deck gear, radar, radio and sonar equipment, fitting-out berths.

DRY DOCKS: None.

AIRPORT: International flights to Canada, Fiji, Hawaii, Hong Kong, Japan, New Caledonia, New Zealand, Papua New Guinea, Philippines, Singapore, United Kingdom and Vanuatu.

TIME: See "General" before first port.
HOLIDAYS: New Year's Day; W.W.F. Picnic Day; Australia Day; Good Friday; Easter Monday; Anzac Day; Queen's Birthday; Christmas Day; Boxing Day.

Close Holidays – Christmas Day, Good Friday, Anzac Day, Labour Day, W.W.F. Picnic Day (No labour available these days). Some public holiday dates vary from year to year. Consult Agent for current information.
POLICE/AMBULANCE/FIRE: Tel: 000 and ask for service required.
TELEPHONES: At most wharves. Can be connected on board.
GENERAL: *De–Bunkering:* In order to load more cargo, a vessel de–bunkered whilst alongside and re–bunkered in Moreton Bay in deep water and was thereby able to load an additional 600 tons of cargo (October 1987).
DEVELOPMENTS: It is anticipated that construction of a new general cargo wharf will commence mid–1988.
AUTHORITY: Port of Brisbane Authority., Port Centre, Cnr. Wharf and Ann Streets, G.P.O. Box 1818, Brisbane, Australia 4001. *Tel:* (07) 8330833. *Telex:* AA42780. *FAX:* (07) 8393591. *Cables:* Portbris. *Contact:* Hon. A. M. Hodges, Executive Chairman.

AGENT: Patrick Agencies, 4th Level, Elders House, 10 Felix Street, Box 1460, G.P.O., Brisbane, Queensland 4000. Cables "Rikpat". Tel: (07) 221–2275. Telex: AA40260. FAX: (07) 221–0124.

BROOME, W.A.: 17.59 S. 122.14 E. (See Plan)

PORT LIMITS: East limit: From Fall Point (17° 59.1′ S., 122° 20.3′ E. approx.) in a direction 180° – 4.5 miles to position 18° 03.6′ S., 122° 20.3′ E., thence.

South limit: In a direction 270° – 10.5 miles to position 18° 03.60′ S., 122° 09.35′ E., thence.

West limit: In a direction 000° – 8.25 miles to position 17° 55.40′ S., 122° 09.35′ E., thence.

North limit: In a direction 090° about 3.1 miles to the shore (17° 55.40′ S., 122° 12.60′ E. approx.)
CERTIFICATES/DOCUMENTS/HEALTH: See "Melbourne".
PILOTAGE: No resident Pilot. Inform Marine and Harbour Department, Fremantle ETA 2 weeks in advance. Pilot boards approximately 292° (T) distant 4.5 miles from Gantheaume Point.
RESTRICTIONS: Channel between Channel Rock and Middle Bank dredged to 17 ft. LWOST. Vessels of more than 15 ft. draft restricted to height of tide for arrival/departure. HWOST 27.5 ft. HWONT 17.2 ft.
MAX. SIZE: Draft 30 ft.
VHF: Channels 6, 12 and 16.
TUGS: None.
BERTHING: 2 berths. Outer berth max. length 612 ft., 32 ft. LWOST. Inner berth length 479 ft., depth 28 ft. LWOST.
STEVEDORES: 2 gangs working 0800 hrs. – 2000 hrs. and 0000 hrs. – 0700 hrs.
CARGO GEAR: See "Melbourne".
FRESH WATER: Up to 100 tons available. Rate up to 20 t.p.h. at a cost of 85 cents per 1,000 litres.
FUEL: Diesel oil available, provided prior notice given to BP Agents.
REPAIRS: Minor repairs possible through Port Engineering Services.
TIME: See "General" before first port.
GENERAL: Tides: Both ebb and flood in direction of line of jetty. Tide has apparent ebb period of 8 hours, flood 4 hours. Slack water 2.5 hours prior HW and LW. Information given by radio.
DEVELOPMENTS: The Government of Western Australia has approved in principal a plan to provide grain handling and storage equipment at the Port of Broome. An A$18.4 million project has been put forward to ship sorghum from the port and the Western Australia Harbour and Light Department has designed the equipment necessary for storage and ship loading. Tenders call for the construction of a 20,000 tonne mechanised storage shed and 2 shiploaders. (Storage shed completed but currently not in use due to Sorgham project being abandoned).
AUTHORITY: Marine and Harbours Department, P.O. Box 402, 1 Cliff Street, Fremantle, Western Australia 6160. *Tel:* (09) 335-0888. *Telex:* AA 92136. *FAX:* (9) 335-0850. *Contact:* Superintendent of Navigation and Pilotage.

Marine and Harbours Department, P.O.Box 46, Broome, Western Australia 6725. *Tel:* (091) 921304. *Telex:* AA99450. *Cables:* Harbour Master Broome. *Contact:* M. Gower, Port Manager.

AGENT: Sub-agent of Patrick Agencies, Fremantle.

BUNBURY, W.A.: 33.19 S. 115.38 E. (See Plan)

DOCUMENTS:

Number of Crew Lists, 2 official (Forms M & S 11 and 2 flimsy copies).
Passenger Lists, 5.
Customs Documents:
  Last Port Clearance.
  Form 42A Ship's Stores consumed in Australia.
  Form 5 Manifest of Crew's Possessions.
  Loading Ports List.
  Ship Master's Bond.
  Approved Identification Documents of all crew.
  Commonwealth Light Dues Receipt.
  State Tonnage Dues Receipt.
Health Documents, Certificates and other forms handed to Master by
  Quarantine Doctor.
Manifests, 3.
Bills of Lading, 2.

PILOTAGE: Compulsory with exception of British ships whose Master holds an exemption certificate for the port. Radio Harbour Master, Bunbury 24 hours and 4 hours notice. VHF Channel 16 – pilot boat and tug. Base set not manned continuously but pilot boat may be contacted 1 hour before arrival. Pilot boat painted white with black rubbing strip, black gunwhale, centre house with orange top. Word "Pilot" painted on sides. Pilot boards 1.5 – 2 miles from breakwater. Boarding area is with North Shore leads in line bearing 157° – 337° and 1 mile from Breakwater Light seawards – no alternative area. Anchorage – main lighthouse bearing 195° distance 1.5 – 2 miles.
ANCHORAGE: Depth 7 – 9 fathoms. Anchoring not advised in stormy weather; safer to steam offshore.
RESTRICTIONS: 24 hour port but entry not generally carried out at night.
MAX. SIZE: *Outer Harbour:* Max. length 585 ft. Deepest permissible loaded draft 9.0 m. at No. 1 berth and 8.7 m. at No. 2 berth.
Inner Harbour: Max. draft 11.6 m.
HEALTH: Quarantine inspection required if Bunbury is first Australian port. Quarantine inspection for Health Clearance – hours of inspection 0600 – 2200. Also see "Melbourne".
RADIO: Perth Radio.
VHF: Watch maintained on Channel 16 prior to arrival of vessels.
TUGS: 2 tugs available. "Capel" (42 tonne bollard pull) and "Geographe" (22 tonne bollard pull). Join vessel off berth. Ship's lines used if necessary. The tugs are normally manned from 0700 hrs. to 1600 hrs. weekdays. At other times overtime is charged.
BERTHING: Heavy shore mooring springs used.
BULK CARGO FACILITIES: *Outer Harbour:* One ore-loading berth 184 m. in length. Conveyor system loading at 900 t.p.h.

General purpose berth 184 m. in length. Equipped with grain handling facilities (rated at 250 tonnes per hour).

Weighbridge: 50 tonne capacity, 15 m. × 3 m. platform.
New Inner Harbour: No. 1 Woodchip Berth consists of 6 breasting dolphins fitted with flexible fender units, 2 mooring dolphins, 35 ton bollards and a central shiploader platform and access jetty. The dolphins and platform are connected by steel walkways. Length of berth 381 m. Depth 12.2 m. Wood Chip bulk loader rated at 1,000 t.p.h. The facilities can accommodate vessels up to 11.6 m. draft. During loading the vessel is warped back and forth alongside the shiploader. Berth also used for tanker discharge.

No. 2 General Purpose Berth, length 240 m.
Alcoa's Alumina Berth. Bulk loader rated at 2,000 t.p.h.
The approach channel depth to both berths is 12.20 m.
Weighbridge: 60 tonne capacity, 18 m. × 3 m. platform.

STEVEDORES: Weekdays – ETA to be advised by 0600 hrs. for labour requirements on that day. Week-ends – ETA required by 0600 hrs. Friday.
MEDICAL: Medical attention available. Hospital facilities available. Vaccinations and valid certificates required.
TANKERS: One tanker discharge berth – (See "Bulk Handling Facilities" – Woodchip Berth).
DENSITY: 1023 to 1027 – no relation to tide.
FRESH WATER: Readily available – 60 cents per kilolitre.
FUEL: Furnace oil by road ex-Fremantle. Marine and light diesel by road.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: Preferably by crew.
CUSTOMS ALLOWANCES: Each crew member 200 cigarettes initially and thereafter as required in reasonable quantities. Wine and/or Spirits, open bottles of spirit on arrival not to exceed 1 quart and thereafter as required in reasonable quantities.
CARGO GEAR: Must comply with Australian Loading and Unloading Safety Regulations. See "Melbourne".
IDENTIFICATION CARDS: See "Melbourne".
CONSULS: Vice-Consul for Norway.
REPAIRS: Facilities available.
DRY DOCKS: Nil.
REPATRIATION: Facilities available.
AIRPORT: Light aircraft landing strip only.
TIME: See "General" before first port.
HOLIDAYS: Days on which work cannot be performed: Good Friday, Christmas Day, Labour Day, Waterside Workers' Picnic Day, Anzac Day.
POLICE/AMBULANCE/FIRE: Emergency Number Bunbury 000.
TELEPHONES: Available on application.
DELAYS: Generally no delays.
SHIP SUPPLY SERVICE: *Contact:* Wills Shipping, P.O. Box 52, Bunbury W.A. 6230. Tel: (097) 214866. Telex: AA93045.
AUTHORITY: Bunbury Port Authority, P.O.Box 4, Bunbury 6230, Western Australia. *Tel:* (097) 21-2800. *Telex:* 92211. *FAX:* (097) 218253. *Contact:* Mr. B. P. Cunningham, General Manager.
AGENT: Patrick Agencies, Unit 2, 58 Stirling Street, Bunbury, W.A. 6230. Tel: (097) 219922. Telex: 94934 A/B Rikpat. Cables: Rikpat.

BUNDABERG, Queensland: 24.45 S. 152.24 E. (See Plan)

PORT LIMITS: Along the major arc of a circle radius 4 miles, centred on South Head light (24° 45.6′ S., 152° 24.7′ E. approx.), commencing at a point (24° 44.3′ S., 152° 20.6′ E. approx.), extending in a Northerly, Easterly and Southerly direction to a point near Bargara (24° 48.6′ S., 152° 27.6′ E. approx.).
CERTIFICATES/DOCUMENTS/HEALTH: See "Melbourne".
DEPTHS: (Datum) Channel 7.6 m.; Swinging Basin 7.6 m., Sugar Berth 10.0 m.; Oil Berth 10.0 m. Keel clearance normally 0.9 m.

PILOTAGE: Compulsory. Radio not less than 24 hours ETA; VHF Channel 16.

Pilot boards 2.5 miles East of South Head Lighthouse.

Coastal and Reef Pilotage: Pilotage through the Inner Route of the Great Barrier Reef to Torres Strait is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

Pilotage recommendations: The attention of Masters is drawn to the IMO and Australian government recommendations on pilotage in Great Barrier Reef waters. See "Torres Strait".

RESTRICTIONS: Length 182.87 m. maximum. Vessels not to pass out through sea reach on ebb. Channel width 76 m. Also see "Delays".

RADAR/VHF: No radar service. Bundaberg Port Authority office, craft, tug and pilot launch can be contacted on VHF Channel 16 during office hours.

TUGS: One tug, 22 tonnes bollard pull, owned by Howard Smith Industries, and one work boat of 4 tons bollard pull, owned by the Port Authority, which may be used for pushing, are available, both fitted with VHF. Ship's lines or tug's lines are used, and no charge for tug's lines.

BERTHING: No. 1 Bulk Sugar Berth 190 m. long. No. 2 Oil, Molasses, Aqua Ammonia, 80 m. long.

SPECIALISED CARGO HANDLING FACILITIES: *Bulk Sugar Berth:* Loading by movable gantry at 1,400 t.p.h.

Bulk Molasses: Loading rate 240 t.p.h. No facilities for containers or Roll-on/Roll-off traffic.

Oil Berth: Facilities for discharge all petroleum products and aqua ammonia and loading molasses.

MEDICAL: Hospital facilities available.

TANKERS: 10 in. lines. No slop discharge facilities. Oil tankers, discharge only. Molasses tankers, load only. Depth alongside tanker berth 10.0 m. Datum.

DENSITY: Average density about 1025.

FRESH WATER: Available, delivered by hose, variable loading rate and quality (bore water) 12 t.p.h. Cost 50 cents per 1,000 litres.

FUEL: All grades available, 24 hours notice required.

GANGWAY/DECK WATCHMEN: Not necessary, but available.

OPENING/CLOSING HATCHES: By crew.

CARGO GEAR: No additional local regulations. See "Melbourne".

IDENTIFICATION CARDS: See "Melbourne".

CONSULS: None.

REPAIRS: Almost all types of deck and engine repairs possible.

DRY DOCKS: No dry dock. Slipway for small vessels only. Mobile and floating cranes may be hired.

SURVEYORS:

(1) Cargo surveyors available (Lloyd's Agent).
(2) Classification surveyors available from Brisbane.

REPATRIATION: Facilities exist.

AIRPORT: Airport 2 miles from city serviced by regular internal airlines.

TIME: See "General" before first port.

HOLIDAYS: Normal Queensland holidays observed but cargo worked regardless of holidays.

POLICE/AMBULANCE/FIRE: Dial 000 from the port.

EMERGENCY CO-ORDINATION CENTRE: Bundaberg Harbour Master (Captain D. Wilson). Tel: (Office) 738208. Telex: 49751.

TELEPHONES: Telephone connection placed at tanker berth and sugar berths.

BANKS: Major Australian Banks have branches in Bundaberg.

STORING: See "Prelims".

(1) Yes.
(2) Yes at sugar berth. No at oil berth.
(3) Yes.
(4) Yes.
(5) Same as other Australian ports.
(6) No. None available.

DELAYS: Vessels can berth at any state of the tide provided there is 0.9 m. under keel clearance. Vessels sail on flood tide only.

AUTHORITY: Bundaberg Port Authority, P.O.Box 75, Bundaberg, Queensland 4670. *Tel:* (071) 712247, 712248. Port Office *Tel:* 794233. *Cables:* Bundaberg Port Authority. *Contact:* Mr. D. Antrobus, Port Authority Secretary. Captain D. Wilson, Harbour Master.

AGENT: Sub-agent of Patrick Agencies, Brisbane.

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BURNIE, Tasmania: 41.03 S. 145.55 E. (See Plan)

PORT LIMITS: Within all waters that are bounded by an imaginary circle having a radius of 5 nautical miles and centred at the Eastern end of the Island Breakwater situated in Emu Bay.

APPROACHES: Port situated on Western shore of Emu Bay and easy of access. Bay is 2 miles wide and 1 mile deep facing in a Northerly direction. The bottom is sand and clay interspersed with patches of reef and rock, particularly in the South Eastern sector of Bay. Vessels may anchor on main leads in vicinity of Pilot Boarding Ground, but it is not advisable remain at anchor during strong on-shore winds. Port protected by 2 breakwaters: the inner, founded at inner end of Blackmans Reef, lies in a 110° direction and is 380 m. long. The other, an island structure 488 m. long and protecting the port from Easterly weather, lies in a 130°/310° direction, with its N.W. end bearing 045°, 213 m. from the S.E. end of the Inner Breakwater.

DOCUMENTS: Also see "Melbourne". (Marine Board only): Inward Manifests to be lodged on arrival. Agents supply Manifests and non-negotiable copy Bills of Lading to Customs for checking prior to vessels arrival.

PILOTAGE: Prior advice through local Agents, ETA by radio telegraphy through Melbourne Radio (VIM) or Hobart Radio (VIH) to Burnie Port Authority. Immediate advice VHF Channels 16 and 12.

Pilot launch – 14 m. white launch with buff cabin, name "Miowera". International Signals apply. Boarding area on main harbour leads 210° (T) with Round Hill Point Lighthouse bearing 155° (T). Ladder 1.5 m. from water, manropes, no boat rope.

ANCHORAGES: See "Approaches".

RESTRICTIONS: Maximum length 250 m. 24 hour service.

MAX. SIZE: (See "Restrictions"). Tankers at Island Breakwater to 10.9 m. draft at all states of tide.

HEALTH: Pratique automatic when from other Australian ports. When from overseas Radio Pratique should be applied for 12-24 hours before arrival to "Quarantine Hobart",

RADIO: Melbourne Radio (VIM).

RADAR/VHF: No radar service. Port equipped with VHF, R/T operating International Maritime Bands. Pilot vessel, tug, and other floating plant similarly equipped. "Burnie Harbour" on VHF Channels 16, 12 and 67 continuously. Pilot vessels and tugs on Channels 16, 12, 6 and 67.

TUGS: Tug(s) join East of Island Breakwater. Usually lashed alongside with tug's lines (no extra charge). When on towing duty, usually ship's line. 1×40 tonne bollard pull tug stationed in the port. Additional tugs available from nearby ports.

BERTHING: *Ocean Wharf:* Lies on the South side of the inner breakwater. With 270 m. of effective berthage it is 28 m. wide with an apron width of 8.5 m. The berth is dredged to 10 m. at the outer end to 8.0 m. at the inner end. There are 3 transit sheds on this wharf with a total area of 3,809 sq. m. Axle loading is 6 tonnes.

McGaw Pier: This pier is 44 m. wide with berths on both sides. On the North side there is 213 m. of effective berthing with dredged depths ranging from 9.1 m. at the outer end to 6.5 m. at the inner end. Apron width is 7.6 m. A stern loading ramp is situated at the inshore end suitable for vessels with their own ramp. Axle loading on this berth is 10 tonnes.

On the South side there is 183 m. of effective berthage with a dredged depth of 10.0 m. The axle loading on this berth is unlimited. There are two transit sheds serving both berths with an area of 3,000 sq. m. and an axle load of 10 tonnes.

Bulk Berth: This modern pre-stressed concrete berth is 213 m. in length with a large mooring dolpin off the seaward end. Vessels of 250 m. in length are accommodated. The width of the apron is 13.4 m. and axle loading is 50 tonnes. The berth incorporates a bulk loader with a capacity in excess of 1,000 tonnes per hour. The berth is also suitable for general cargo and container operations. The dredged depth at the berth proper is 11.0 m. At the inner end provision is made for the quarter ramps of the largest Ro/Ro vessels. There is a bulk tallow loading point at this berth.

Jones Pier: A modern pre-stressed concrete berth 198 m. length dredged to 11.5 m. Axle loading is 50 tonnes.

A twin lift 65 tonne portainer is available at this berth which can accommodate vessels (including Ro/Ro quarter ramp) of 250 m. in length. The berth is dredged to 10.0 m.

There is a cold room of 1,058 cu.m. and a cool room of 1,490 cu.m. There is also another storage shed of 1,500 sq. m. A bulk tallow loading point is on this berth.

Southern Ro/Ro: This berth is 83 m. long and 35 m. in width and has 3 large mooring dolphins on the seaward end which enables vessels of 200 m. in length to berth. The berth is dredged to 9.4 m.

A modern slewing container handling crane of 50 tonnes capacity is on this berth. This crane may be hired when not required for terminal operations. Stern loading facilities are provided by 8.5 m. wide ramp. Axle load is 50 tonnes.

Mobile cranes available if required.

BULK CARGO FACILITIES:

Conveyor Loader: At bulk berth for export of zinc, lead and copper concentrates to 1,270 t.p.h.

Inward Bulk: Berth and crane at South McGaw Pier.

Sulphuric Acid: Loading and discharging facility at Island Tanker Berth and bulk berth, with rate of 1,000 t.p.h.

STEVEDORES: Labour to be ordered (1) by 1500 hrs. for following day (weekdays), (2) by 1300 hrs. Friday for Saturday and Sunday, (3) by 1900 hrs. Sunday for Monday.

MEDICAL: Notify Agent prior arrival of extra requirements other than pratique. General Hospital 1 km. from port. Cholera revaccinations arranged by prior notice.

TANKERS: Tanker Berth is 85 m. long and 30 m. wide, sited on South side of Island Breakwater. 11.3 m. of water in this berth, which will accommodate vessels of up to 200 m. in length. Diameter of lines are 250 mm. No residue discharge facilities. 1 berth, maximum draft 10.9 m.

DENSITY: 1025 to 1028.

FRESH WATER: All wharves – hose from wharf hydrants. Rate adequate.

FUEL: Diesel and heavy fuel available from road tankers.

FIRE PRECAUTIONS: Normal. 24 hour ferry service to be maintained to tanker berth.

GANGWAY/DECK WATCHMEN: Watchmen commonly used. Penalty rates apply on weekends and holidays.

OPENING/CLOSING HATCHES: Stevedores will close hatches.

SHIP CERTIFICATES:

Safety Construction.
Safety Equipment.
Safety Radio Telegraphy.
Load Line.

CUSTOMS ALLOWANCES: 200 cigs. or 500 grams tobacco. Beer is carried outside the bond. One bottle spirits per man every 10 days.

CARGO GEAR: Australian Navigation (Loading & Unloading) Regulations apply.

CONSULS: None.

REPAIRS: Limited repairs carried out. Founderies and machine shops nearby.

REPATRIATION: On crew member signing off Agent requires passport or identification card. Agent handles repatriation details and notifies Immigration Department, Hobart, re movements of crew member.

AIRPORT: Daily services: 17 km. distant.
TIME: See "General" before first port.
HOLIDAYS: Cargo work performed on all holidays except Christmas Day, Good Friday, WWF Picnic, Anzac Day, Labour Day.
POLICE/AMBULANCE/FIRE: Police Tel: 30-1201; Ambulance Tel: 31-2111; Fire Tel: 31-1155.
TELEPHONES: Telephones are available at all wharves, through Port Authority.
AUTHORITY: Burnie Port Authority, P.O.Box 216, Burnie, Tasmania 7320, Australia. *Tel:* 004-313444. *FAX:* 004-314690. *Telex:* AA59003. *Cables:* Burmar. *Contact:* Captain M. C. Strachan, Harbour Master.

AGENT: Sub-agent of Patrick Agencies, Melbourne.

BUSSELTON, W.A.: 33.38 S. 115.20 E.
(PORT CLOSED)

This port is closed to commercial shipping and it is unlikely that the jetty will be re-opened.
Jetty partly demolished by cyclone in 1978.
AUTHORITY: Busselton Shire Council, P.O.Box 84, Southern Drive, Busselton, Western Australia 6280. *Tel:* Busselton 521011. *Contact:* The Shire Clerk.

CAIRNS, Queensland: 16.56 S. 145.47 E. (See Plan)

CERTIFICATES/DOCUMENTS/CARGO GEAR: See "Melbourne".
PORT LIMITS: Commencing at the HW mark on the Northernmost tip of Taylor Point and bounded thence by a line bearing approximately 83° 52′ T. (83° 30′ A.M.G.) for a distance of about 15.66 nautical miles (29,000 m.) to a point on the LW mark on the Northernmost tip of the coral reef surrounding Green Island, thence by that aforesaid LW mark generally in an Easterly and South-Easterly clockwise direction around the aforesaid coral reef to its Easternmost tip, thence by a line bearing 180° T. (179° 38′ A.M.G.) for a distance of about 9.34 nautical miles (17,300 m.) to a point on the HW mark on the Northern shore of Fitzroy Island, thence by that HW mark generally in a South-Westerly, South-Easterly and North-Easterly direction anti-clockwise around the aforesaid Fitzroy Island to a point on the Southern shore of that Island where the HW mark intersects with the Southerly projection of the aforesaid line from the Easternmost tip of the coral reef surrounding Green Island to the Northern shore of Fitzroy Island, thence by a line bearing 180° T. (179° 38′ A.M.G.) for a distance of about 4.10 nautical miles (7,600 m.) where it intersects with a line bearing 90° T. (89° 38′ A.M.G.) and distant about 5.78 nautical miles (10,700 m.) from a point on the HW mark on the Northern bank of Bubbabadoo Creek at its confluence with the Pacific Ocean, thence by the aforesaid line bearing 270° T. (269° 38′ A.M.G.) for about 5.78 nautical miles (10,700 m.) to the aforesaid point on the HW mark on the Northern bank of Bubbabadoo Creek at its confluence with the Pacific Ocean, thence by that HW mark generally Northerly and Westerly back to the point of commencement including all navigable rivers, creeks and waters communicating with the area described above.
PILOTAGE: Arrangements are made by ship's Agent with the Harbour Master. Location of boarding is outside the Fairway Beacon, 10 km. from port.
Coastal and Reef Pilotage: Pilotage through the Inner Route of the Great Barrier Reef to Torres Strait and also Grafton Passage is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.
Pilotage recommendations: The attention of Masters is drawn to the IMO and Australian government recommendations on pilotage in Great Barrier Reef waters. See "Torres Strait".
APPROACHES: Through Grafton Passage, which is 34 km. long and 8 km. wide, and free of any encumbrances, and is lighted by a group flashing light on Fitzroy Island which is visible in clear weather for a range of 47 km.

Channel: 10 km. long, 76.2 m. wide, 8.2 m. LWOST – defined by beacons 183 m. apart spaced at intervals of approximately 915 m. and 1220 m.

After passing through the channel, the inlet widens to 458 m. opposite the main wharves. The inlet runs for 8 km. with various depths.
MAX. SIZE: *Largest Vessel:* "Royal Viking Star" – gross tonnage 28,221 and overall length 206 m.

Largest Cargoes: Raw Sugar: "Eiru Maru" 30,961.5 tonnes, 9.3 m. draft.

Bulk Molasses: "Team Augini" 18,793.5 tonnes, 7.925 m. draft.

Petroleum Products: "W. M. Leonard" 25,533 tonnes, 8.687 m. draft.
PRATIQUE: Available 24 hours per day, 7 days a week. Also see "Melbourne".
VHF: VHF radio-telephone service is situated at the Piermaster's Office, and operates a service from 0800 hrs. to 1700 hrs. with "out of hours" transmission being every hour, on the hour.

The Launch "Floreat" has HF and VHF.
TUGS: 2 tugs are based in the port and are operated by North Queensland Towage Service Pty. Ltd. The tug "Babinda" has a bollard pull of 14 tons. Other tugs are available from Mourilyan Harbour on request.

Launches for running lines etc. are also available, together with punts and catamarans. The launch "Floreat" is used for channel soundings and is also available for other purposes.
BERTHING:

	Depth alongside:
Nos. 1 to 5	8.6 m. LWOST – 3.048 m. from wharf face
No. 6	8.8 m. LWOST – 3.048 m. from wharf face
No. 8	9.1 m. LWOST – 3.048 m. from wharf face
No. 10	9.5 m. LWOST – 3.048 m. from wharf face
No. 12	10.7 m. LWOST – 3.048 m. from wharf face

BULK HANDLING FACILITIES:
Bulk Sugar Terminal Loading: No. 12 Wharf.

(a) 1 travelling gantry loader, consisting of a luffing boom supported from a shore based structure (mobile).

(b) Maximum distance from wharf edge to loading unit 14.2 m.

(c) Maximum length of traverse of loading unit 143.2 m.

(d) Maximum length permissible for ship using bulk berth – wharf length 183 m. plus dolphin in line with wharf and 39.6 m. distant each end. No limit anticipated.

(e) Maximum beam permissible for ship using bulk berth 24.4 m.

(f) Maximum clearance of loading unit at highest high water (for non retracting loader), not applicable, boom of loader at horizontal working position 13.5 m. above high water level but boom is capable of being lifted to a vertical position.

(g) Gross handling rate for loader – 864 t.p.h.
Bulk Molasses Terminal:

Total capacity of 19,000 tons with pipe-line connection to wharf. Loading rate 305 t.p.h.
Bulk Tallow Tanks:

Rear of No. 6 Wharf. 2 tanks; one with a capacity of 304.8 tons and one with a capacity of 813 tons. Loading rate of 56 t.p.h. to 61 t.p.h.
Container Handling Facilities – Ro/Ro:

There are facilities at No. 6 Wharf for handling containerised and unitised cargoes, including a 25 ton stiff-legged derrick crane and a Roll-on/Roll-off stern ramp. There is adequate assembly area adjacent to the wharf.
STEVEDORES: Port quota 20 men. Portsmith Stevedoring Pty. Ltd.
TANKERS: Tankers berth at Berth No. 10. Max. LOA 183 m. Berth is served by various oil pipe-lines and L.P. gas pipe-lines to company depots.
FRESH WATER: Fresh water is available on all wharves. Rate of supply is 70 t.p.h.
FUEL: Oil bunkering facilities are available at Berth No. 10 which is connected by pipe-line to adjacent oil tank farm installations.
DRY DOCK: A dry dock, 61 m. long and 12.2 m. wide accommodates vessels up to 58 m. in length. De-watering rate is 303–379 litres per minute. Draft of vessels which can be accommodated is equivalent to the height of tide at the particular time.
Slipways: Tropical Reef Enterprises has slipway facilities at Senrab Point to handle vessels up to 3,000 tons. North Queensland Engineers and Agents Pty. Ltd. slipway in Smith Creek is able to handle vessels to 61 m. in length. Travel lift up to 100 tons available.
AIRPORT: International Airport.
TELEPHONES: There are plug-in points available to shipping from Nos. 1 to 6 Wharves, and No. 8 Wharf.
DEVELOPMENTS: Planning is currently underway for construction of a cruise liner terminal facility.
AUTHORITY: Cairns Port Authority, P.O.Box 594, Cairns, North Queensland 4870. *Tel:* (070) 513555. *Telex:* 48256. *FAX:* (070) 521493. *Contact:* Mr. R. C. Manning, Secretary.

AGENT: Patrick Agencies, Cairns Port Authority Building, Dutton Street Entrance, Cairns, North Queensland 4870. Tel: (070) 51-5211/5445. Telex: 48412. Cables: "Rikpat". FAX: (070) 515082.

CAPE FLATTERY, Queensland: 14.59 S. 145.21 E. (See Plan)

SHIPMASTER'S REPORT: April 1987.
LOCATION: Cape Flattery is situated approximately 130 miles north of Cairns on the East coast of Queensland. The Port exports bulk silica sand and is within the boundaries of the Great Barrier Reef.

Entrance through the reef for larger vessels can be made through Grafton Passage (East of Cairns), or through One and a Half Mile Passage about 30 miles E.N.E. of the Port, this latter entrance should only be transversed with local knowledge as the area of the passage is unlit and there are no navigational marks on the reefs.
PORT LIMITS: The area comprised within a line commencing at a point on the H.W. mark at Latitude 14° 50′ S. on the mainland at the northern extremity of Lookout Point, thence by a line due east for 2.0 nautical miles at its intersection with Longitude 145° 15.8′ E., thence in a S.E'ly direction for about 7.2 nautical miles to the intersection of Longitude 145° 22.1′ E. and Latitude 14° 55.2′S. Thence in a S.S.E'ly direction for a distance of about 4.5 nautical miles to the intersection of Longitude 145° 23′ E. and Latitude 15° 00′ S., thence in a W'ly direction for a distance of about 2.7 nautical miles to a point on the H.W. mark to the point of commencement together with all navigable waters, rivers, creeks communicating with that area, and the banks, shores and foreshores thereof.

DOCUMENTS:
2 copies Crew List (Form 11), Pages 1 and 2.
1 copy Crew Declaration (Customs Form 5).
1 copy Ship's Stores Consumed in Australia (Form 42A).
1 copy Loading Ports List (Form B 921).
2 copies Ship's Report Inwards (Customs Form 1).
1 copy Department of Primary Industry (Animal Declaration)(Form E).
1 copy Health Declaration (Form F).

The Agent brought a full set of papers with him and acts for Customs in the event that they do not attend.

PILOTAGE: When approaching Australia from the N.W. the Maritime Safety Committee of the International Maritime Organisation recommend using a Great Barrier Reef Pilot for ships of length 100 m. or over, also loaded tankers, chemical carriers and liquefied gas carriers. Cable Address: "Torres" Sydney, Telex: AA20269 or "Torind" Thursday Island, Telex AA48822.

Local Pilotage: Pilotage is compulsory and the Pilots are stationed in Cairns.

It is necessary to give 48 hours notice of E.T.A. at the Pilot Boarding Ground with an update at 24 hours, via Agent at Cairns. The Pilot will board 3 miles north of the wharf or at either anchorage. At present berthing will be carried out in daylight hours only. The Pilot boat has a black hull with brown upperworks and has VHF Channel 16 and other working channels, it also doubles as one of the mooring boats.

Also see "Cairns" – "Pilotage".

ANCHORAGES: On approaching the port, and if not berthing on arrival, vessels should anchor on the North side of the Cape, at No. 1 Anchorage, with the fixed red leading lights in line (Bearing 177° 020′ T) and the northernmost lead at a distance of 1.5 miles, depending on draft. If berthing at daybreak, in good weather, use No. 2 Anchorage (Lat. 14° 56.8′ S., Long.145° 22.2′ E.) That is with the end of jetty light (Gp. Fl. "U" ev. 6 sec.) bearing 195° T at 1.7 miles.

RESTRICTIONS: Berthing may be suspended in winds exceeding 20 knots. Loading is usually stopped if wind exceeds 25 knots. Distance from the waterline to the top of the hatch coaming not to exceed 35 ft.

Arrival Condition: Vessels should arrive in a condition where the vessel is trimmed by the stern with the propeller completely immersed and the forward draft not less than 2% of the vessel's overall length.

MAX. SIZE: Max. d.w.t. 60,000 tons. Max. draft 14.0 m.

HEALTH: Customs and Health Clearance can be obtained off Cairns if using Grafton Passage. If approaching from the North, arrangements for clearing the ship must be arranged through Agent at Cairns.

Note: Application for Radio Pratique was refused although all in order.

Port Health Inspection: Dry stores and fridges are inspected by Government Inspector from Cairns, garbage bins must be properly covered. No garbage collection available. Because of the restrictions on the environment in this area, no waste or garbage should be disposed of into the sea. It should be noted that a Scientific Research Station is situated on nearby Lizard Island, any waste materials may well be monitored, resulting in heavy fines if Masters of vessels are found guilty of disposing of garbage in this area.

RADIO/VHF: See "Pilotage".

TUGS: No tugs available. The two 40 ft. mooring launches are not allowed to tow.

BERTHING: Because of the exposed position of the wharf, vessels should ensure that all mooring ropes are in good condition and to facilitate the handling of lines, each should have a 30 mm. rope tail attached to the eye, about 6 m. in length. This is required for handling of the fore and aft ropes by the launches. Anchors and windlass must be in good working order as the normal routine is to berth starboard side to using the port anchor, which can be hove home after vessel is all fast. Vessel lies on the east side of the wharf head outward. This ship (29,000 d.w.t.) used 2 breast ropes and 2 backsprings at each end plus 2 long drifts on the head and stern ropes. On this visit there was no safe landing for the accommodation ladder, B.O.T. Gangway or an aluminium ladder, so pilot ladder was used down on to the shore fender. After complaining as to the safety of access, I was told a shore gangway from the loader should be in operation within a month.

Ballast: On arrival all vessels must have clean ballast water as, being in close proximity to the Great Barrier Reef,any polluted ballast will not be tolerated. There are no facilities at Cape Flattery to transfer dirty ballast ashore.

Hold Inspection: Cleanliness required is of a higher standard than that required for grain cargoes. Should the ship fail inspection, stevedores have the privilege of cleaning.

Loading Arm: The loading arm is a single stacker type with telescopic chute and trimmer. Slewing angle 45° to 115°. Luffing +17° to −15°. Travelling distance 139 m. Outreach 21.5 m. from face of the fenders. Loading rate about 1,200 t.p.h. Loading was interrupted during the day to allow building to continue on the wharf, this should be completed by early May (1987).

Cargo: High quality Silica Sand in bulk. Crew covers with vinyl sheeting on completion of each hold.

Prior to sailing the Loading Master requires:-
4 copies Notice of Readiness
4 copies Stowage Plan
4 copies Statement of Facts.

MEDICAL: As there is no hospital or doctor, emergency cases only are flown to Cairns.

FRESH WATER: Not available.

FUEL: Not available.

HATCHES: Hatches are opened and closed by crew. Once open the stevedores prefer not to close them again for fear of cargo contamination by loose scale or dirt falling from the underside of the hatch covers.

AIRPORT: There is a landing strip for light aircraft on the north side of the Cape. As there are no roads or rail service, this is the only means of transport for pilots, Agents and Port Officials who are all based in Cairns.

CERTIFICATES: The following Certificates were examined: Ship's Register, Load-line, Safety Equipment, Safety Construction, Safety Radio, I.O.P.P. Certificate and De-Rat. Cargo Equipment and hold accesses must conform to Australian Regulations.

SHORE LEAVE: No shore leave as Cape Flattery is in an Aboriginal Reserve.

WEATHER: The wharf is exposed to the weather which for most of the year (9 months) is the S.E. Trades. The wharf lies in a direction of about 150° T. The berthing of vessels will be determined by the strength of the winds and currents at the time of berthing. The current usually runs under the wharf in a N.E'ly direction, ranging up to 1 knot and may be stronger during the wet season (December to March). After N'ly winds it does occasionally set S'ly or S.W.

Because of the exposed area and the wharf facilities, vessels alongside must remain with their engines ready as the weather can deteriorate rapidly and the vessel may have to vacate the berth at short notice, therefore any work on the vessel's engines is prohibited.

GENERAL:

Surveys: Draft surveys are carried out although somewhat hampered by the fresh S.E'ly winds. Shore scale seems unreliable.

Shippers: Cape Flattery Silica Mines Pty. Cables: "Flattrysand". Telex: AA48381.

Stores: There are no supplies of stores available. Anything required by the local population that cannot be shipped by plane must come by lighter from Cairns.

AGENT: See "Cairns".

CARNARVON (Including Useless Loop & Cape Cuvier) W.A.: **(See Plan)**

(A) CARNARVON: 24.53 S. 113.40 E.

BERTHING: Jetty closed.

SHIP SUPPLY SERVICE: Carnarvon-Sharks Bay Shipping Services, P.O.Box 571, Carnarvon, W.A. 6701. Tel: (099) 41 1178. After hours: (099) 41 1898.

One launch readily available at this port which is capable of performing emergency or general duties to vessels at sea if required. Details of the launch "King Bay" are as follows:

L.O.A.	13.70 m.
Beam	3.65 m.
Draft	1.22 m.
Twin screw speed	13.50 knots
Capacity	2,200 Lt. Distillate
2 – 3 Bunks	
Cooking/Refrigeration facilities.	

The vessel has an adequate open/working deck area aft of the wheelhouse to carry light provisions/stores – approximate area 15.2 sq.m.

The cabin with access via the wheelhouse provides adequate shelter, resting and cooking facilities for 3 – 4 persons.

Being an ex-Pilot launch she is particularly stable and seaworthy.

The service is readily available 24 hours a day and in particular is very useful for vessels using the Northern approaches to or from Useless Loop at Sharks Bay which is some 90 mile distant and at which there are no faciltities for storing. Contact is as above per O.T.C. Radio Station Carnarvon or alternatively to Perth, details of which are as follows:

Office hours	09 322 6543
After hours	09 364 5738

In addition to the above Carnarvon-Sharks Bay Shipping Services also have operating at Carnavon 2 small tugs which are available 24 hours a day for servicing vessels at Useless Loop, Shark Bay or for any other emergency services which they may be required.

(B) CAPE CUVIER: 24.13 S. 113.23 E. **(See Plan)**

LOCATION: Cape Cuvier is situated on the N.W. coast of Australia approximately 75 km. N.N.W. of Carnarvon.

PORT LIMITS: This port is now incorporated in the Port of Carnarvon the limits of which have been extended as follows:—

"A line due West for 4 nautical miles from a point on the mainland in Lat. 24° 10′ S. and Long. 113° 26′ 4.5″ E., and thence in a S.S.W. direction to Cape Ronsard at the North End of Bernier Island" and then as for Carnarvon to the starting point.

DOCUMENTS: The following documents are currently required and must be completed prior to arrival and sailing.

Form 42A:	Ship's Stores Consumed in Australia.
Form M&S–11 (2 copies):	Crew List.
Form W080:	Boarding Report.
Form W283:	Loading Ports List.
Form 5:	List of all Articles Owned or in Possession of Master, officers and crew.
Form QA4:	Quarantine Notice.
Form QA5 (if required):	Ship Master's Bond.
Form F Q360:	Primary Health Report.
Ship's Stationery:	Crew List.

APPROACHES: Red Bluff about 12 miles North of Cape Cuvier can be picked up by radar at a distance of about 20 miles. Cape Cuvier is easily identified by large white salt hill.

The berth is floodlit at night when a vessel is being loaded.

PILOTAGE: Facilities provided by vessels for Pilot boarding at Cape Cuvier must comply strictly with SOLAS regulations in all aspects.

Pilot, supplied by Department of Marine and Harbours, will board approximately 1 mile North of jetty-head.

Any delays to vessels berthing due to non-compliance with Solas regulations (IMO current resolutions) will be for owners account.

Guidelines for all ships calling at Cape Cuvier: From past experience we have found it necessary to insist that all vessels intending calling at Cape Cuvier must supply plans showing winch layouts and deck machinery. In the case of older type vessels it is in the owners interest that a Department Pilot checks the vessel before arrival. The best way to organise this is to send the vessel to Dampier on the first voyage of the charter or fly the Pilot to wherever the vessel is.

The winches are the controlling factor and must be in first class working condition. There must be no rust on the brake drums and all brake linings must be renewed. If the vessel is old it may be necessary to machine the brake liner so that the brakes will grip. The worm drive brake lever must be free and greased and be able to apply considerable pressure on the brake linings without running out of thread.

The winch reels must be capable of taking 250 m.×80 mm. rope on vessels over 35,000 d.w.t. and 250 m.×70 mm. for vessels under 35,000 d.w.t. A minimum of 4 winches each end and we would prefer 6 winches if possible as it makes the operation safer and easier with big savings on renewing ropes. The winch drums must be at least 800 mm. wide by 600 mm. in depth or similar total volume.

The winches must be capable of supplying full power for long periods so steam or hydraulic lines and associated machinery must be in first class working order.

The leads must be good with all rollers working. The 2 centre winches are used for 310 m.×36 mm. wires so they must have provision for securing the wire to the side of the drum. Roller leads (aft only) must have a 75 mm. top bar to prevent the wires from jumping off the rollers when the vessel is trimmed by the stern.

The Pilot will remain on board for the entire loading and will be responsible for moving the vessel in the berth. Good accommodation with toilet and shower facilities and meals must be provided.

Finally, vessels with cranes and/or timber posts must pay extra special attention to the winches, because a brake failure could result in serious damage to the ship loading boom and the ship.

Remember – the condition of the winches control the safety of the vessel while in the berth.

Failure to adhere to the above even if a roller is not working could result in long and costly delays to the ship.

ANCHORAGE: Recommended anchorage is in position with the jetty bearing approximately 200° (T) at a distance of 1.5 miles. Depth at anchorage is about 15 fathoms. 3 cables off the shore, the depth is about 9 fathoms. Holding ground is good.

RESTRICTIONS: No berthing at night. Also see "Pilotage".

MAX. SIZE: Vessels of 65,000 d.w.t. call on a regular basis. Depth alongside is 52 ft. (15.85 m.).

RADIO: Carnarvon Radio.

Weather Broadcasts: Vessels are advised to listen to daily weather broadcasts by:

1. Perth Radio (VIP) at 0100 hrs. GMT and 1200 hrs. GMT, on 484 kHz, 8597 kHz, 12294 kHz or at 0200 GMT and 1000 GMT on 16947 kHz or 22315 kHz.
2. Broome Radio (VIO) at 0118 and 1230 hrs. GMT on 440, 4323.6 and 6407.5 kHz (local forecast).
3. Carnarvon Radio (VIC) at 0148 and 1130 hrs. GMT on 476, 4323 and 6407.5 kHz (local forecast).

Vessels Arrival Requirements: Cape Cuvier is a First Port of Entry and all vessels bound for the berth are required to radio to Dampier Salt (Operations) Pty. Limited, Telex No. 99283, through the normal recognised coastal radio stations, i.e. Broome Radio VIO, Carnarvon Radio VIC or Perth Radio VIP the following information additional to Port Health messages (see "Health"):

1. 10 days before intended arrival at the port, the estimated time of arrival and whether or not the port is the first port of call in Australia.
2. 7 days before intended arrival at the port, confirmation or any variation of the advice previously given.
3. 4 days before intended arrival at the port, confirmation or any variation of the advice previously given.
4. 48 hours before intended arrival at the port – estimate time of arrival at the Pilot boarding ground and also advise the vessel's estimated draft fore and aft.
5. 24 hours before intended arrival confirmation or any variation of the advice previously given.
6. 12 hours before intended arrival, final confirmation of time of arrival.

In addition to the requirements above, all vessels are required to radio the Superintendent of Pilotage, Department of Marine and Harbours, Fremantle, Telex No. 94784 the messages referred to in 1, 2 and 3 so that arrangements can be made to fly a Pilot to Carnarvon. 48 hours and 24 hours ETA's to be sent direct to Harbour Master, Department of Marine and Harbours, Carnarvon.

Note: Because of the isolated location of Cape Cuvier and the need to organise transport for the various berth services it is imperative that ample notice is given on arrival times. This is particularly so for weekend arrivals. Failure to adhere to these requirements may jeopardise vessels berthing to the detriment of owner's account, and could result in substantial costs and delays.

VHF: Call sign: Cape Cuvier. Available frequencies: Channels 6, 8, 12, 16, 67. Loading Operation Frequency: 155.97 MHz. Emergency Working Frequency: Channel 67.

A continuous watch must be maintained by the vessel on VHF Channel 16. All vessels approaching the Port or at anchor must maintain a continuous watch on this frequency. *Disregard of this requirement is a contravention of Berth By-Laws and may adversely affect expeditious berthing.*

HEALTH: In the case of each vessel arriving from overseas the following information must be sent to the Port Health Authorities between 12 and 24 hours before arrival, addressing the message to Quarantine Carnarvon prefixing the message SHIPSERVE (a copy of which message is required to be sent also to Dampier Salt (Operations) Pty. Limited (Telex No. 99283)):

1. The expected hour and date of arrival of the vessel.
2. Confirmation that the Master has individually inspected all persons on board within 24 hours before arrival.
3. Particulars of any cases of serious illness on board.
4. Confirmation that all persons on board are satisfactorily vaccinated against cholera and in possession of valid Vaccination Certificate.
5. Request for permission to enter Port.

On receipt of quarantine message, Dampier Salt (Operations) Pty., Limited, will advise anchorage position if vessel is not berthing on arrival.

Vessels must also ensure International Quarantine signals are displayed at all times until cleared by the Quarantine Officer.

Quarantine inspections are normally carried out at the berth where the Quarantine Doctor/Officer may grant Free Pratique.

Rat guards are to be maintained on all mooring lines while vessels are berthed at Cape Cuvier.

Whilst berthed at Cape Cuvier all food and organic waste must be kept in efficiently sealed containers and frequently doused with a soluble disinfectant. No garbage may be thrown overboard.

TUGS: A contractor operates the tugs and line launches which are available at all hours.

The following craft are available to assist in berthing and unberthing.

"Cooralya" – Line launch. Length 9.6 m., breadth 3.8 m., draft 1.2 m. Engine Cat. 3208T. 260 h.p. at 2,800 r.p.m. Single screw.

"Quobba" – Tug. Length 19.5 m., breadth 6.1 m., draft 3.3 m. Main engines 2×V12 Detroit Diesel V71. Series 1,800 r.p.m. 470 b.h.p. each. Bollard pull 11.4 tonnes. Twin screw kort nozzles.

"Boolathana" – Tug. Bollard pull 25.0 tonnes. Length 24 m., breadth 8 m., draft 3.4 m. Main engines 2×V12 Caterpillar 398 1,400 r.p.m., 850 b.h.p. each. Twin screw kort nozzles.

BERTHING:

Salt Loading Berth: Situated at Lat. 24° 13′ S., Long. 113° 24′ E. The berth is used only for salt loading.

A central timber decked wharfhead carrying a fixed position, stiff arm, slewing and luffing conveyor boom shiploader with deflector.

Six mooring buoys anchored to the seabed.

Vessels moor to buoys and warp themselves into position for loading each hold. The shiploader generally has the capacity to load 2 adjacent holds for each warped position of the vessel.

The principal berth dimensions are as follows:

Natural seabed level: R.L. – 17.8 m.

Minimum distance between vessel and jettyhead structure: 14.5 m.

Berth length 670 m. between fore and aft mooring buoys Nos. 2 and 5.

Berth width 180 m., between breasting mooring buoys Nos. 3 and 4, and minimum vessel stand-off from jettyhead (14.5 m.).

R.L 0.0 m. is Indian Spring Low Water at Cape Cuvier. The maximum tidal range at Cape Cuvier is 1.7 m.

The principal shiploader dimensions are as follows:

Jettyhead area:	18 m.×18 m.
Jettyhead deck level:	R.L. 13.2 m.
Shiploader boom underside:	R.L. 16.2 m.
Shiploader boom outreach:	Approx. 30 m.
Shiploader boom luff:	incline 45° decline 15°
Shiploader boom loading arc:	incline 18° decline 15°
Shiploader boom slew:	± 90°
Shiploader boom conveyor width:	1,600 mm.
Shiploader boom conveyor speed:	3.1 m./sec.
Shiploader boom conveyor capacity:	3,500 t.p.h.

Also see "Loading".

MOORING:

Ships Mooring Lines:

1. Vessels shall provide the following lines:

6×250 m.×80 mm. diameter polylines on forecastle deck.

6×250 m.×80 mm. diameter polylines on afterdeck.

All lines to have a reinforced soft eye, 1 m. long in the outer end.

2. All vessels shall provide satisfactory ships lines on both fore and after decks such to pick up the 36 mm. diameter steel wires, 2 from each mooring buoys Nos. 2 and 5.

3. All working and spare lines supplied by the vessel are to be in first class working condition.

Mooring Equipment – Supplied by Dampier Salt:

1. Dampier Salt shall supply 2×310 m.×36 mm. diameter steel wires from each of mooring buoys Nos. 2 and 5. These lines are to be run back to the vessel and secured on drum winches to act as the fore and aft longitudinal mooring lines.

2. Dampier Salt (Operations) Pty. Limited shall supply all ropes necessary for stopping off polylines.

Berth Operating Conditions: Unless the Pilot otherwise directs, berthing operations will generally be restricted to the following conditions:

Winds: Zero winds from Northern quadrants and below 25 knots within the Southern sector between East and West.

Swells: Up to a mean amplitude of 2 m. as recorded on the berth wave rider.

Ballast: The vessel to maintain ballasted state with the propeller 75% immersed and a stern trim.

Berth Occupancy: Unless the Pilot otherwise directs, berth occupancy will generally be restricted to the following conditions:

Winds: Below 35 knots from the Southern quadrants. Below 10 knots from the Northern quadrants.

Swell: Up to a mean amplitude of 2.5 m. as recorded on the berth wave rider.

Mooring Procedure:

1. Preparation before Berthing – Two central drums, both fore and aft, are to be left bare ready to receive the 36 mm. diameter wires when these wires are landed on board from mooring buoys Nos. 2 and 5.

Suitable polylines are to be readied to be run out from the vessel to pick up the steel wires. The length of these polylines is to be a minimum

250 m. All other drum winches fore and aft are to be equipped with polylines 250 m. long and 80 mm. diameter. A minimum of 4 working polylines 250 m.×80 mm. must be available on each of the fore deck and after deck. If insufficient winch drums are available for these lines then they are to be coiled down on the deck. Two spare 250 m.×80 mm. polylines must be held coiled in readiness on each fore deck and after deck.

2. On berthing – Immediately prior to berthing, a number of shore based personnel will board the vessel to assist in handling lines during berthing. As instructed by the Pilot, polylines will be run out as both breasting lines and to pick up the steel wires from the fore and aft mooring buoys. Polylines unable to be held on drum winches will be taken up on warping winches, stoppered off and placed on bitts.

The Pilot will give instructions as to how much tension is to be applied to each line.

3. On Warping – During the shiploading operation, it will be necessary to shift the vessel such that the shiploader can load the vessel in accordance with the loading schedule. Normally, the shiploader will load only two hatches from the one positioning of the vessel.

The shore-based personnel will board the vessel to assist in line handling for the warping operation The tugs will also assist as required.

Under the direction of the Pilot, lines shall be played out or taken in such to warp the vessel to the next loading position.

4. On unberthing – All lines shall be dropped or taken in as instructed by the Pilot. The shore personnel will assist in line handling.

LOADING:

Condition to Load Salt:

1. Ensure that vessel's holds are thoroughly washed and all traces of the previous cargo are removed.

2. Ensure that vessel's holds are thoroughly lime washed with slaked lime (calcium hydroxide – $Ca(OH)_2$ and that no other substances are mixed with it.

Note: Limewashing is a pre-requisite of vessel's loading. If vessel's holds are not considered by an independent Marine Surveyor to be in a condition of cleanliness normally acceptable to Dampier Salt (Operations) Pty. Limited the vessel may not be loaded until such time as the Surveyor is satisfied that the holds meet the standards set by Dampier Salt (Operations) Pty. Limited.

In the event that holds are not acceptable, the Master may be required to sign a "Letter of Indemnity" accepting the cargo on behalf of the Operating Line, acknowledging that holds are in the condition described in the report by the independent Marine Surveyor.

Provided the vessel's holds are acceptable to the Surveyor as being "clean" the Surveyor will issue a Hold "Cleanliness Certificate".

The above stipulations are necessary to avoid any contamination or other effects on the quality of the product loaded and are required by both Shippers and Receivers. Limewashing also assists in protecting the vessel's holds against adverse action caused by the salt.

3. Ensure that mooring lines are laid out in readiness for berthing in accordance with "Mooring Procedure".

Loading Procedure: The vessel is to ensure that the first 2 holds to be loaded have the hatch covers removed on berthing. On berthing the vessel will be positioned by the Pilot such that the loading can commence immediately upon acceptance of the notice of readiness and verification that vessel's holds are clean to standards set by Dampier Salt (Operations) Pty. Limited.

An independent Marine Surveyor appointed by Dampier Salt will agree all draft readings and ballast soundings with the Chief Officer prior to commencement of loading.

The Marine Superintendent from Dampier Salt (Operations) Pty. Limited will board the vessel immediately following mooring to check that the vessel is ready to load, and then commence the loading operation. This Officer will agree with the Chief Officer a loading sequence, loading schedule, warping procedures, draft problems (if any) and any other matters relating to the loading of the vessel. Warping procedures shall be confirmed with the Pilot.

The Marine Superintendent will draw up a loading schedule, after consultation with the Master, nominating the approximate hold loading duration, times of warping and the estimated time of completion of loading, and sailing time.

An Operations Foreman will normally remain on board the vessel for the duration of loading in order to liaise with the Chief Officer on matters concerning the loading procedures.

A belt weightometer is used by Dampier Salt (Operations) Pty. Limited to indicate loading rates and tonnages loaded in each hold. This instrument has an accuracy of ±1.5%. It is the practice of Dampier Salt (Operations) Pty. Limited for the Surveyor and Chief Officer to agree a preliminary draft survey when the second last hold is approximately 80% loaded. This survey then allows the correct loading of the remainder of the cargo so as to ensure correct trim and prevent inadvertent overloading. The final loaded cargo tonnage is determined by draft survey, calculated by and agreed between the Surveyor and Chief Officer.

No labour is available at Cape Cuvier to board the vessel for any shipboard duties other than handling of mooring lines. Trimming is by conveyor discharge at the end of the loading spout only.

Salt – General Specifications: Stowage factor of Salt. Normal stowage density 32 cu.ft. per long ton or 0.89 cu.m. per metric tonne. Angle of repose 33°.

STEVEDORES: Dampier Salt Pty. Ltd.

MEDICAL: Master to advise by telex via coastal radio if any crew members require medical or dental services. Prior advice will generally ensure adequate arrangements can be made to accommodate such requests. Insufficient notice, or advice only on berthing may jeopardise the chances of obtaining normal medical/dental treatment. Emergency medical treatment is normally available through Carnarvon Regional Hospital.

DENSITY: 1025.

FRESH WATER: Not available. Due to possible loading delays caused by adverse weather it is recommended that vessels arrive with all fresh water tanks full.

FUEL: Not available.

WATCHMEN: No shore watchmen available.

HATCHES: To be opened/closed by ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes in opened carton, or 0.25 lb. cigars, or 0.5 lb. tobacco, and one opened bottle spirits per crew member.

An Australian Customs Boarding Officer is resident in Carnarvon. Regulations of Australian Department of Customs and Excise apply to the Port.

CARGO GEAR: Not required. Salt loading is by conveyor belt.

REPAIRS: There are no ship repair facilities. However, vessels may carry out repairs of a limited nature but only with the prior approval of Dampier Salt (Operations) Pty. Limited and the Harbour Master.

DRY DOCK: None.

REPATRIATION: Road connection to Carnarvon, which is 65 miles distance from Cape Cuvier, thence air connection with Perth where international flights available.

AIRPORT: Private airfield only, about 10 miles from port of Cape Cuvier. Carnarvon has a daily air service to Perth. Connecting flights for other Australian cities and also for overseas destinations are available from Perth.

TIME: See "General" before first port.

GENERAL: Port is gazetted under Western Australian legislation and controlled under Ports and Harbours Regulations.

Charts and Publications:

Australian Pilot Volume V
Australian Chart AUS 329 (N.W. Cape to Pt. Cloates)
Australian Chart AUS 330 (Pt. Cloates to Quobba Pt.)
Australian Chart AUS 331 (Quobba Pt. to Geraldton)
British Chart BA 1055 (Bedout Island to Cape Cuvier)

Winds: The local wind pattern usually shows a marked diurnal variation in both wind speed and direction, typical of the local sea breeze cycle. Wind intensity under the diurnal system regularly attains an intensity of more than 20 knots and blows from the Southern quadrants of the compass.

The mooring area is protected to some extent from Southerly winds by the cliffs at the Cape which are approximately 120 m. high.

Swell: A predominant high energy, long period swell system emanates from the deep sea to the S.W. This system is both diffracted and refracted locally by the topography of Cape Cuvier Point and travels Eastward across the bay. Analysis shows that open sea swell patterns to amplitude of 3.5 m. are generally dispersed by diffraction and refraction at the Cape to an amplitude in the berth of generally less than 2 m. The period of these waves is generally in excess of 8 seconds and can be up to 30 seconds. Wave lengths are in the order of 250 m.

Superimposed on the long period swell system are the effects of the diurnal wind system which generate local wind waves of a shorter period of about 5 seconds. In this instance wave lengths are in the order of 20 m. Depending on wind direction, this short period swell is also diffracted and refracted by the Cape.

When local or storm winds blow consistently from the Northern quadrants for a duration of the order of 12 hours, the inshore berth location is subjected to the same type of wind wave climate as the offshore open sea location.

Current: The mean velocity profile in the berth of currents is some 5.3 cm. per second (0.1 knots) setting exclusively to the N.W. The maximum current speed recorded is 31 cm. per second (0.6 knots), this being a storm generated current.

Tides: For operational purposes, the tidal predictions for Carnarvon are usually considered accurate for Cape Cuvier.

A maximum tidal range of 1.7 m. can be expected at Cape Cuvier.

Cyclones: The local cyclone season extends from mid November to end of April with an average of one cyclone per year which will influence the area near Cape Cuvier. Cyclones in the area generally travel in a Southerly direction parallel to the coast prior to crossing the coast and moving inland. Whilst offshore the cyclone can generate dangerously high waves in the port which is unprotected from the North. Wave heights resultant from cyclonic conditions may reach 10.5 m. in the berth area. Wind velocities in excess of 60 m./sec. (120 knots) may also be experienced.

Weather Effects on Berth Occupancy: Berthing may be delayed due to strong winds or heavy swell and vessels may on occasion be required to return to anchor before completion of loading if the berth is affected by inclement weather conditions.

In these cases, the decision to vacate the berth will be made by the Pilot or the Harbour Master.

Ordering Stores: Telex advice of any and all stores and provisions requirements should be given to Agent at least 4 days prior to arrival. Stores orders received later than this may not be able to be filled.

Access to Vessel:

At Anchorage: Whilst at anchorage, access will be by authorised personnel only from the line launch or one of the tugs.

In Berth: Whilst in berth, access will normally be from a rope ladder and catwalk on the shiploader boom. On these occasions the shiploader supervisor will direct the timing and positioning of the shiploader boom such to minimise inconvenience to the shiploader operation.

Vessels Engines: Vessel's engines are not to be demobilised whilst the vessel is in berth. Adverse weather conditions affecting the area may require the vessel to be moved. Vessels in the berth will be on notice to shift at all times.

OPERATOR: Dampier Salt (Operations) Pty. Ltd., Lake Macleod Division, P.O.Box 501, Carnarvon, W.A. 6701. *Tel:* (099) 41 1200. *Telex:* AA 99283.

AUTHORITY: Department of Marine & Harbours, 1 Cliff Street, Fremantle, Western Australia 6160. *Tel:* 335-0888. *FAX:* (9) 335-0850. *Contact:* J. M. Jenkins, General Manager.

AGENT: See "Fremantle".

(C) USELESS LOOP (Shark Bay): 26.05 S. 113.24 E.

DOCUMENTS: See "Melbourne".
PILOTAGE: Compulsory. Notice for Pilots is by 'Shipserv' message to Superintendent of Pilotage, Department of Marine and Harbours, Fremantle, 7 days, 48 hours and 24 hours prior to arrival.
APPROACHES: Vessels from the North proceed direct to Denham Channel, vessels from the South can navigate through Naturaliste Channel with caution using Chart AUS 331. All vessels must anchor at pilot boarding ground situated 1 mile North of Denham Channel Lat. 25° 52′ S., Long. 113° 15′ E. and wait for further instructions on VHF Channel 16. Vessels must provide a good lee for pilot boat with ladder always on starboard side unless otherwise ordered. It is important that final ETA is correct and must be amended if necessary to Harbour Master via Carnarvon or Perth Radio. It is important that vessels arrive in full or good ballast condition otherwise they may be unable to berth.

Pilots remain on board during transit to Useless Loop, when berthed alongside jetty and until disembarkation in above position.
RESTRICTIONS: Continuous strong "Southerlies" may result in abnormal tides which could result in large vessels having to leave berth prior to completion of loading on rare occasions.
TUGS: None.
BERTHING: One berth. Owned and operated by Shark Bay Salt Pty. Ltd. Conveyor belt system from Salt Stock Pile to ship gross rate 800 t.p.h. for salt, 600 t.p.h. for gypsum. Dolphin type jetty length 620 ft. runs approximately North and South directions and 2.1 cables from Topper Island. Min. depth at berth 33 ft. LWOST. Rise of tide approximately 3 ft. Winds predominantly S.E./S.W.
FUEL: Not available.
FRESH WATER: None available.
REPAIRS: Not available.
AUTHORITY: Department of Marine & Harbours, 1 Cliff Street, Fremantle, Western Australia 6160. *Tel:* 335-0888. *FAX:* (9) 335-0850. *Contact:* J. M. Jenkins, General Manager.
AGENT: See "Fremantle".

COFFS HARBOUR, N.S.W.: 30.18 S. 153.09 E.

PILOTAGE: Compulsory. Pilots boards in position Lat. 30° 18′ 36″ S. Long. 153° 09′ 42″ E.
APPROACHES: Depth at entrance 9.4 m. No bar.
ANCHORAGE: Vessels awaiting berth may anchor, in reasonable weather, on the line of the leads with the outer end of the jetty bearing approximately N.N.W.
HEALTH: Coffs Harbour is a first port of entry for quarantine purposes for the coast of New South Wales. Vessels requiring Pratique should not enter the boat harbour area inside the inner breakwaters. A quarantine mooring ground has been established between the boat harbour area and a line 3 miles off the Northern face of the main jetty.
VHF: Pilot and Port Authority on VHF.
BERTHING: Southern berth 189 m. long. Depth of 7 m. at outer end shoaling to 5.3 m. at inner end. Suitable for ships 91 m. to 121 m. long, any breadth, and 6 m. mean loaded draft.

Northern berth 168 m. long (approx.) depth 5.8 m. – 6.4 m. Occasional heavy swell in harbour and vessels use anchors at berth. Unmarked anchorage off the jetty has a sand bottom. Boat harbour on Northern side and launching ramp on Southern side. Berths connected to the N.S.W. railway system.
CRANES: Two diesel electric travelling cranes, capacity 5 tonnes.
STEVEDORES: *Working Hours:* 0800 to 1900 hrs.; weekdays, except Thursday, 0800 to 1700 hrs. Saturdays, 0800 to 1700 hrs. Sunday by arrangement.
FRESH WATER: Available at berths, 13.6 cu.m.p.h.
FUEL: Oil available in drums, or 45.5 cu.m. rail tankers available at berth if ordered 24 to 48 hours in advance.
REPAIRS: Light repairs effected.
AIRPORT: Nearest at Newcastle.
HOLIDAYS: See "Sydney".
AUTHORITY: Maritime Services Board of N.S.W., P.O.Box 23, Coffs Harbour N.S.W. Tel: (066) 523311.

Captain R. Pook, The Pilot Station, Gregory Street, South West Rocks, N.S.W. 2431. *Tel:* (065) 66-6140.
AGENT: See "Sydney".

DAMPIER: W.A.: 20.38 S. 116.45 E. (See Plan)

LOCATION: Port Dampier is located on the N.W. coast of Australia in the Dampier Archipelago. Legendre Island in position Lat. 20° 21′ S., Long. 116° 51′ E. forms the N.E. extremity of the Archipelago and Rosemary Island in position Lat. 20° 28′ S., Long. 116° 37′ E. forms the N.W. extremity of the Archipelago.

The port facilities are constructed: adjacent to Parker Point in Lat. 20° 39′ S., Long. 116° 43′ E.

East Intercourse Island in Lat. 20° 39.03′ S., Long. 116° 40.4′ E.

Mistaken Island in Lat. 20° 39.2′ S., Long. 116° 39.6′ E.
PORT LIMITS: A vessel is considered to be an arrived vessel from the time of crossing the quarantine line, which runs due East from Courtenay Head Lighthouse.
APPROACHES: From the 100 fathom line in Lat. 19° 20′ S., Long. 116° 20′ E., a channel 15 miles wide, leading 157° was surveyed by the Royal Australian Navy in 1963 and found to be clear of dangers. This approach is recommended for ships arriving from the North and N.E. Ships arriving from the West pass North of Tyrell Rocks situated to the N.W. of the Monte Bello Islands and then should pass not less than 5 miles to the North of Rosemary Island on the Latitude of Legendre Island Light.
Marine Notice: No. 1/84. Dated 1st June, 1984.

Mariners and small boat owners are advised that the following navigation buoys have been deployed to delineate the Woodside Channel in Mermaid Sound.

Spar Buoy No. 8W in position Lat. 20° 32′ 50″ S., Long. 116° 43′ 21″ E. This buoy is painted red and has a red (5 secs.) occulting light. The buoy has the characters '8W' painted on the spar and is fitted with a radar reflector and day mark.

Spar Buoy No. 4W in position Lat. 20° 28′ 40″ S., Long. 116° 43′ 53″ E. This buoy is painted red and has a red (5 secs.) occulting light. The buoy has the characters '4W' painted on the spar and is fitted with a radar reflector and day mark.

Woodside Channel Buoy in position Lat. 20° 26′ 12″ S., Long. 116° 43′ 42″ E. This buoy is painted red and has a red group flash 3 every 5 secs. light. The buoy has the word 'Woodside' painted on the spar and is fitted with a radar reflector and daymark.

Further construction work will continue in the area adjacent to the Spar Buoy, 8W, and all persons are cautioned to keep well clear of construction equipment in this area until further notice.
ARRIVAL ADVICE: Dampier is a First Port of Entry and all ships bound for this port are to radio through the normal recognised coast stations, addressing their messages "Pilharb Perth" and prefixing the message "Shipserv".

(a) In the case of vessels arriving from overseas.
  (i) 10 days before intended arrival at the port ETA and whether the port is the first port of call in Australia.
  (ii) 7 days before intended arrival at the Port, confirmation of any variation of the advice given pursuant to paragraph (i) above including in the message the forward and after arrival draft.

(b) In the case of all vessels, cable "Shipserv Pilharb Perth".
  (i) 72 hours before intended arrival at the Port advising ETA at the Pilot boarding ground East of Malus Island, including in the message if not previously given the forward and after arrival draft and deepest departure draft.
  (ii) 48 hours before intended arrival, confirmation or any variation of ETA.
  (iii) 24 hours before intended arrival, confirmation or any variation of ETA.

(c) In addition to this information, Masters of OBO vessels are to furnish the information required under "General" – "Gas-freeing".

Arrival Information: Every vessel intending to *load* a cargo of iron ore at Dampier shall on departure from the last port of call cable the following information, addressing the message SHIPSERV HAMIRON DAMPIER.

(a) ETA, quantity of cargo required, deepest departure draft, and distance between keel and hatch coaming.
Example: Name of Ship, ETA PM20/4, 108000 k/t, 16.46 m., 24.15 m.

(b) 7 days before intended arrival at the Port confirmation or any variation to the above and indicate loading order by hatches of the products to be lifted.
Example: Name of Ship, ETA 1000/4, 108000 k/t, 16.46 m., 24.15 m., 1/10000 Fines, 7/10000 Fines, 9/10000 Fines, 2/10000 Lump, 4/10000 Lump, 6/10000 Lump, 3/8000 Fines, 5/10000 Fines, 2/8000 Lump, 6/6000 Lump, 7/5000 Fines, 3/8000 Fines, Trim 3000 Fines.Total 108000 k/t.

Arrival Advices: Every vessel intending to *discharge cargo* at Dampier shall on departure from the loading Port or 7 days before arrival, whichever occurs first, cable the following information addressing the message SHIPSERV HAMIRON DAMPIER: ETA, quantity and nature of cargo to be discharged, stowage and the deepest arrival draft.

Example: Name of Ship, ETA AM/4, 4700LT. General 1/1200, 2/200, 3/1500.

Note: Berthing and sailing times must be fixed with Pilbara Harbour Services prior to 1500 hrs. each weekday and 0700 hrs. on Saturday for service between the hours of 2359 Saturday to 0830 Monday. It is therefore imperative that ample notice is given on arrival times particularly for weekend arrivals.
HEALTH: Radio Pratique is now in force for the Port of Dampier. Please send Radio Pratique message to Agency Telex Number not more than 24 hours before arrival or less than 12 hours before arrival. See "General – Health" before first port.

On receipt of quarantine messages Harbour Master will advise anchorage position if vessel not berthing on arrival.

Inspections may be carried out at the jetty or at anchorage at the discretion of the Quarantine Officer.

Rat guards are to be maintained on all mooring lines while vessels are berthed in Dampier Harbour.
PILOTAGE: Pilotage is compulsory for all vessels entering, leaving and manoeuvring within the Port except those of a tonnage of 150 tons or less and those whose Masters hold a valid pilotage exemption. Pilotage services operate from the pilot cutter "Pilbara Mercury" and Bell 206B Jetranger helicopter.

Pilot boarding and disembarking arrangements must comply with the SOLAS regulations and be properly rigged and attended.
Pilot Boarding Ground: The area bounded by lines of Lat. 20° 24′ 00″ S. and 20° 24′ 30″ S. and meridians of Long. 116° 44′ 30″ E. and 116° 43′ 00″ E.
Helicopter – Landing Requirements: Pilots will board suitable vessels by means of a helicopter which will land on a hatch cover. Normally this applies to bulk carriers and not general cargo vessels. The helicopter will not be used for oil tankers, which will, with other vessels unsuitable for helicopter operations, be boarded by launch. The helicopter used is

a float equipped Bell 206B Jetranger weighing 769 kilos and is fitted with VHF Channels 16 and 11.

Where a vessel is to be boarded by helicopter, the vessel must meet the following criteria:

1. Mark on the hatch top, a termination are consisting of a square having sides of 11.7 m. in length. For day and night operations this mark must be in WHITE paint – all markings to be at least 13 cm. in width.
2. Surrounding the termination area there shall be an area not less than 10.67 m. in width in which there shall be no obstructions likely to hazard the rotor systems.
3. The combined termination area and obstruction free area shall constitute the helipad areas.
4. Within the termination area there shall be no obstructions likely to hazard the flotation systems.
5. The touchdown area shall be so situated within the termination area that when the floats are positioned within the touchdown area, the main rotor shall be contained within the termination area.
6. Paint the letter "H" in WHITE paint in the centre of the square, having sides of 2.0 m. and 13 cm. wide.
7. Paint ALL handrails, lugs, ventilators and other obstructions on the hatch top in WHITE.
8. Ensure that ALL derricks, cranes, aerials, etc., are clear of the approach paths to the termination area.
9. The helipad shall be illuminated with floodlights positioned at both wings of the ship's bridge with the beams crossing over the helipad.
10. A flag or pennant must be illuminated so the helicopter pilot can assess the wind direction and strength.
11. Ships departing the port must wash down the helipad before the helicopter lands (day and night).
12. All loose objects must be removed from the helipad area.
13. All crew members should be kept clear of the landing area, any hats worn by crew approaching the helicopter must be secured by a chin strap, crew must not attempt to approach the helicopter unless requested to do so by the helicopter pilot. When the ship's Pilot has disembarked, an officer should be available to guide him to the bridge.
14. Before making the initial landing the helicopter pilot will visit your ship and,
    i) Decide whether your vessel is suitable for helicopter operations.
    ii) Discuss with you any alterations which may be necessary to make landings possible.

The following is the radio procedure to be complied with: Before landing the helicopter Pilot must receive clearance from the Master by VHF Channel 11.

i) Call sign of the helicopter will be "Dampier Pilot Helicopter".

ii) Phrases to use for landing.

Helicopter;

(Name of Ship) this is Dampier Pilot Helicopter, I request clearance to land.

Ship;

Dampier Pilot Helicopter this is (Name of Ship). You are cleared to land.

Example:

Helicopter;

"Senwa Maru" this is "Dampier Pilot Helicopter", I request clearance to land.

Ship;

"Dampier Pilot Helicopter" this is "Senwa Maru" you are cleared to land.

RADIO: Perth Radio – VIP. Broome Radio – VIO. Also see "Arrival Advice" and "Tankers".

VHF:

Call Sign	Dampier Port Control
Frequency	Channels 16, 67, 11, 12, 13, 14, 72, 74 and 68.
Channels	11, 13 and 68 are port working frequencies.
Channel 72	Can be used vessel to vessel.
Channel 67	Emergency working frequency.

A continuous watch is maintained on VHF Channel 16. All vessels approaching the Port or at anchor must maintain a continuous watch on this frequency.

Continuous watch is also maintained on VHF Channel 11, the working channel for general port traffic information.

TUGS: Pilbara Harbour Services Pty. Limited own and operate the tugs, workboats and lines launches which are available to shipping on a 24 hour service.

The following craft are available to assist in berthing and unberthing and for hire:

"Pilbara Star"	4,800 h.p.	Bollard Pull	55 tons
"Pilbara Saturn"	4,800 h.p.	Bollard Pull	55 tons
"Pilbara Neptune"	1,900 h.p.	Bollard Pull	28 tons
*"Pilbara Jupiter"	2,600 h.p.	Bollard Pull	47 tons

Three (3) Lines Launches

One (1) Workboat – 400 h.p.

MOORING: Mooring lines are taken ashore by lineboat. Vessels using heavy wire ropes are required to have the ends terminated with a 9 m. rope spring finished with a standard eye for placing over the bollards and slip hooks.

All mooring ropes and wires to have a 6 m. tail of light rope spliced into the eye to facilitate the transfer from the boat to the dolphin.

Vessels shall be ready in all respects to commence loading on completion of mooring, hatches cleaned and opened.

LOADING IRON ORE: Vessels loading iron ore are recommended to exhibit either on top of the hatch lids or on the deck or coaming adjacent to the hatch, numerals identifying the hatch. These are to be of such a colour and size as to be clearly visible to the shiploader operator stationed at the end of the shiploader boom.

Reference to loading is to be made by hatch, not hold and all weights are to be expressed in metric tonnes.

Confirmation in writing of the cargo booking is delivered on board prior to berthing by the Pilot.

This document contains four copies of the loading sequence. The first copy is retained on board, the remainder completed and passed to the shiploader operator immediately on berthing. Attention is drawn to the run off quantity required to be loaded to clear the conveyors at the completion of loading.

Red, green and white list lights, clearly visible to the shiploader operator are recommended fittings on all vessels loading iron ore. A fixed white light shall indicate the vessel is upright.

Masters are cautioned the loading of iron ore is carried out by draft. Frequent "on the run" draft checks between hatch changes should be carried out. Whilst shiploading sequences are equipped with weight scales, these figures are to be used only as a guide and reference to them will not relieve the Master of the responsibility of adequately maintaining draft checks and supervising the loading accordingly.

Final confirmation of tonnages on board will be the result of a draft survey carried out by the Master and the Company's surveyor.

Ballast shall be adjusted to ensure at high water a minimum clearance of 1.0 m. is maintained between the vessel's structures and the shiploader. Ballast to be discharged at a rate which prevents disruption to loading, final trimming and completion.

Subject to tide, ships shall be ready to vacate the iron ore berths on completion of loading and have all gear tested and available for use on departure.

Ships departing during the hours of darkness will require to have fitted on the fore mast a small steering light visible from the bridge.

STOWAGE FACTORS: The following stowage factors are provided for guidance:

Lump Ore	2.50 tonnes/cu.m.	Fine Ore	2.55 tonnes/cu.m.
Pellets	2.90 tonnes/cu.m.		

PARKER POINT ORE JETTY: The ore jetty consists of a tubular steel pile structure carrying a deck and rail traverse of a slewing boom shiploader.

8 multi-spring pile dolphins fitted with Yokohama air block fenders are situated clear of the ore jetty structure and vessels berth port side alongside and moor to these dolphins. See "Plan" for standard mooring pattern.

Iron ore is the only product handled and following are principal dimensions:

Length of jetty:	268.9 m.
Depth of water alongside:	17.20 m. (LAT)
Travel of shiploader:	180 m.
Radius of ore delivery from fender facing:	23.8 m.
Height under side boom at LAT:	22.14 m.
Total length of fendering, No. 1 to No. 8 dolphins:	354.8 m.
Rated capacity of shiploader:	6,000 long t.p.h.

The ore jetty is connected to the East Intercourse Island departure channel by a 170 m. wide departure channel dredged to 15.35 m. (LAT) in 1982.

Parker Point ore loading facility accommodates vessels up to 140,000 d.w.t.

The maximum departure draft from this berth is dependent upon tidal conditions and adequate under keel clearance.

EAST INTERCOURSE ISLAND ORE JETTY: The ore jetty consists of a tubular steel pile structure carrying a deck and rail traverse of a slewing boom shiploader.

Nine multi-spring dolphins fitted with Yokohama air block fenders are situated clear of the ore jetty structure and vessels berth starboard side alongside, mooring to these dolphins. See "Plan" for standard mooring pattern.

Iron ore is the only product handled over this facility and the following are principal dimensions:

Length of jetty:	341.4 m.
Depth of water alongside:	21.50 m. (LAT)
Travel of shiploader:	237.8 m.
Radius of ore delivery from fender facing:	25 m.
Height under side boom at LAT:	24.05 m.
Total length of fendering, No. 1 to No. 9 dolphins:	429.8 m.
Rated capacity of shiploader:	7,500 long t.p.h.

The ore jetty is connected to the open sea by a 167.7 m. wide departure channel dredged to 15.35 m. (LAT).

East Intercourse Island ore loading facility accommodates vessels up to 230,000 d.w.t. The maximum departure draft from this berth is dependent upon tidal conditions and adequate under keel clearance.

Also see "Shipmaster's Report" - February 1987.

SERVICE WHARF: All general cargo is received over this facility and vessels are acceptable up to a max. draft of 7.19 m. (LAT).

The wharf consists of steel sheet pile cells constructed in water of surrounding depths of 6.51 m. (LAT).

A berthing basin 243.8 m. long and 38.10 m. wide has been dredged to a depth of 7.73 m. (LAT) on the Western side.

The wharf is 69.5 m. in length and faced with piles on which are secured rubber fenders. Mooring buoys are positioned off the N.E. and S.W. extremity of the wharf and head and stern lines are secured to these buoys.

Generally ships berth port side to this facility and normal discharge is carried out by 3 gangs using ship's own gear.

Vessels are required to berth ready in all respects to work cargo with hatches open and cargo gear rigged.

On completion, vessels may be required to vacate the berth and cover hatches, stow gear, etc., at anchor.

Tankers delivering oil products are accommodated at this wharf.

See "Plan" for standard mooring pattern.

MISTAKEN ISLAND SALT BERTH: The Salt Berth owned and operated by Dampier Salt Limited consists of a tubular steel pile approach structure carrying conveyor belt to a fixed position, cantilever shiploader.

7 multi-spring pile mooring dolphins are situated clear of the shiploader platform, ships generally berth starboard side alongside.

Due to the fixed nature of the loader, ships have to be warped along the line of dolphins, to bring each hatch in sequence under the loading boom.

This wharf was built by Dampier Salt Limited, for the handling of salt from their salt pans, situated 6.4 km. from the wharf. The following are the principal dimensions:

Total length of fendering No. 1 to No. 7 dolphins:	358.2 m.
Depth of water alongside:	12.00 m. (LAT)
Outreach of loader boom from line of fendering:	18.29 m.
Height under side boom at LAT:	20.01 m.
Rated capacity of shiploader:	2,800 long tons per hour.

See "Plan" for standard mooring pattern.

Underkeel Clearance: Underkeel clearance of 1.0 m. required whilst alongside. On departure vessels up to 35,000 d.w.t. to maintain 1.0 m. keel clearance and vessels over 35,000 d.w.t. to maintain 1.5 m. keel clearance.

Condition to Load Salt:

1. Ensure that vessel's holds are thoroughly washed – to remove all traces of the previous cargo.
2. Ensure that vessel's holds are thoroughly lime washed with slaked lime (Calcium Hydroxide – $Ca(OH)_2$) and that no other substances are mixed with it.
3. Vessels should ensure that mooring lines are laid out in readiness for berthing. See "Plan".

Note: Limewashing: This requirement is a pre-requisite of vessels loading. If vessel's holds are not deemed, by an independent Marine Surveyor, to be in a condition of cleanliness normally acceptable to Dampier Salt (Operations) Pty. Limited, the vessel may not be loaded until such time as the Surveyor is satisfied that the holds meet the standards set by Dampier Salt (Operations) Pty. Limited. This may mean that unacceptable vessels will be laid at anchor until the holds are deemed to be acceptable for loading salt. The Master may be required to sign a "Letter of Indemnity" accepting the cargo on behalf of the Operating Line – with holds in a condition described in a report by the independent Surveyor, if the holds are not acceptable. In these cases, no cleanliness certificate will be issued by the Surveyor.

Provided the vessel's holds are acceptable to the Surveyor as being "clean" the Surveyor will issue a Hold "Cleanliness Certificate".

The above stipulation is for the contamination effects on quality control and is a requirement of both Shippers and Receivers of the Salt. Limewashing also protects the vessel against adverse action on the vessel's holds caused by the salt.

Loading Procedure: The vessel is to ensure that the first two holds to be loaded have the hatch covers removed on berthing. On berthing the vessel will be positioned by the Pilot such that the loading can commence immediately upon acceptance of the Notice of Readiness and verification that vessel's holds are sufficiently clean to standards determined by Dampier Salt (Operations) Pty. Limited as acceptable to load.

An independent Ships' Surveyor, retained by Dampier Salt (Operations) Pty. Limited will take all draft readings during the berthing operation in order that the commencement of loading will not be delayed. Ship's arrival condition and ballast readings prior to commencement of loading will be agreed between the Chief Officer and Surveyor.

An Operations Supervisor from Dampier Salt (Operations) Pty. Limited will board the vessel immediately following mooring to check that the vessel is in readiness to load, and then commence the loading operation. This Officer will then agree with the Chief Officer loading sequence, loading schedule, warping procedures, draft problems (if any) and any other matters pertaining to the loading of the vessel.

He will draw up a loading schedule confirming with the Chief Officer the approximate hold loading duration, times of warping and the estimated time of completion of loading, and sailing time.

An Operations Foreman will remain on board the vessel for the duration of loading in order to liaise with the Chief Officer concerning the procedures and times to move the vessel so as to load each hold in warp sequence and maintain critical draft, where applicable.

A belt weightometer is used by Dampier Salt (Operations) Pty. Limited, to indicate loading rates and tonnages loaded in each hold. This instrument has a proven accuracy of ±1.5%. It is the practise of Dampier Salt (Operations) Pty. Limited, for the surveyor and Chief Officer to agree a preliminary draft survey when the second last hold is approximately 80% loaded. This survey then allows the correct loading of the remainder of the cargo so as to ensure correct trim and prevent inadvertent overloading. The final loaded cargo tonnage is determined by draft survey, calculated by and agreed between the Surveyor and Chief Officer.

No labour is available at Dampier to board the vessel for any shipboard duties. Trimming is by conveyor discharge at the end of the loading spout only. Any subsequent trimming required must be undertaken by the ship's crew.

Stowage Factor: Stowage density 32 cu.ft. per long ton or 0.89 cu.m. per metric tonne. Angle of repose 33°. It has been found that the cargo does not shift during the vessel's voyage to discharge port.

Typical Specification – Australian Salt NaCl (Sodium Chloride):

Appearance: Generally clear, white and free from organic matter.

Additives: Nil additives in final washed product.

Component:

(percentage by weight)	*Average*
Moisture content:	2.25
Calcium content:	0.03
Magnesium content:	0.02
Potassium content:	0.01
Sulphate content:	0.11
Chloride content:	58.97
Water insolubles content:	0.02
Heavy metals:	less than 15 ppm.
NaCl content:	97.50

Chemical analysis expressed in combined form:

NaCl	97.50%
$CaSO_4$	0.12%
$MgSO_4$	0.05%
$MgCl_2$	0.04%
KCl	0.02%
Moisture	2.25%
Insolubles	0.02%

Location of Berth in Relation to Dampier Township:

The berth although geographically in close proximity to the township of Dampier is in fact a journey of some 40 km. by road. The only land access to the berth being through Company property. During shiploading and/or replenishing of the salt stockpile on Mistaken Island, there is a continuous 24 hour per day movement of large heavy haulage trucks along a narrow causeway which makes the movement of private vehicles, taxis or individuals extremely hazardous. Therefore access to the township through Dampier Salt property is strictly controlled and limited.

Vessel Arrival Requirements:

Dampier Salt (Operations) Pty. Ltd. operates its own shipping agency department. All vessels calling at the salt berth are attended by a nominated Dampier Salt (Operations) Pty. Ltd. Shipping Officer who acts in the capacity of both owners and charterers agents.

Services Required:

1. Master to advise by telex via coastal radio if any crew members are required to attend doctors or dentists. Prior advice will generally ensure adequate arrangements can be made to accommodate the requests. Insufficient notice, or advice on berthing may jeopardise the chances of obtaining normal medical/dental treatment. Emergency medical treatment is available at all times.
2. Telex advice of any and all stores requirements should be given to Dampier Salt (Operations) Pty. Ltd., at least 4 days prior to arrival. Stores orders received later than this may not be able to be filled, although the majority of items normally requested are carried locally by the ships' providores.

Prior telex advice will ensure the maximum supplied – whilst advice to the Agent on arrival may not be sufficient time to fulfil the full requirements of the vessel.

MEDICAL: Doctors are permanently resident at Dampier and Karratha and a modern General Hospital is situated in Karratha.

TANKERS: Woodside Offshore Petroleum – Withnell Bay Berth:
Telegrams Required from Vessels Intending to Load Woodside Condensate:

1. On departure from last port of call:
   A. To: (Agent's telegraphic address) Dampier Tlx. No. . . . advise:
   - (a) ETA and Arrival Draft Dampier.
   - (b) Type and complement of moorings available.
   - (c) Quantity and condition of ballast (segregated, dedicated clean ballast, dirty ballast) and rate – no tank washing slops, ballast containing lead, heavy metals, chemicals accepted ashore.
   - (d) Acceptable loading rate and if concurrent, ballast discharge.
   - (e) Confirmation readiness to load nominated cargo . . . tonnes NWS Condensate approx. density 15°C . . . Temp . . . °C.
   - (f) Prepare port side manifold with derrick/crane min. SWL 5 tons.
   - (g) Confirm accept quick connection/disconnection couplings to following requirements.
     - (i) Distance centre of flange to drip tray top more than 685 mm.
     - (ii) Distance between adjacent flanges centre to centre more than 1200 mm.
     - (iii) Clear distance behind flange face 230 mm.
     - (iv) Vessel flange thickness – 8 in. ANS1 150 28.4 mm. – 31.6 mm.; 10 in. ANS1 150 30.2 mm. – 33.4 mm.; 12 in. ANS1 150 31.8 mm. – 35.0 mm.
     - (v) Vessel flange diameter – 8 in. ANS1 150 341.3 mm. – 344.5 mm.; 10 in. ANS1 150 404.8 mm. – 407.0 mm.; 12 in. ANS1 150 481.0 mm. – 484.4 mm.
   - (h)
     - (i) All navigation, equipment/engines operational.
     - (ii) No tank leakage.
     - (iii) Inert gas system (if fitted) Operational.
     - (iv) All cargo systems/transfer equipment inspected, tested, leak free and operating correctly.
     - (v) Stress calculations for cargo transfers, ballasting and bunkering made and within recommended safety limits.

   B. To: "Shipserv Pilharb Perth" (Telex: 99610 Phspl) – Harbour Master advise ETA and whether first Australian port.
2. 7 days prior to arrival: Advise ETA and arrival drafts.
3. 3 days prior to arrival: Advise ETA.
4. 2 days prior to arrival: Advise ETA.
5. 24 hours prior to arrival: To "Shipserv (Agent's telegraphic address) Dampier Telex: (Agent's Telex No.).
   Advise ETA and confirmation answers question (h).
   Answer to Radio Pratique Questionnaire.
6. Coastal Vessels: Should advise the above requests as soon as possible.

Note: All requests for tugs, etc, must be made during office hours. Therefore it is essential that vessels advise Agents an accurate ETA prior to 1200 hrs. on Friday when the vessel expects to arrive between 1600 hrs. Friday and 0900 hrs. Monday.

Also see "Service Wharf".

STEVEDORES: Subject to application. Apply: Hammersley Iron Pty. Ltd.

CARGO GEAR: See "Melbourne".

FUEL/WATER/REPAIRS: Fuel for ships' bunkers is not available.

A limited supply of fresh water is available in an emergency.

Stores and provisions can be arranged. For large orders Masters are recommended to cable their Agent giving 7 days notice of their requirements.

Minor ship repair work can be arranged through ship's Agents. However, Masters requiring major work are recommended to cable their Agents advising their requirements in advance. (Note: Port of Dampier By-Law No. 23).

GANGWAY/DECK WATCHMEN: Crew.

OPENING/CLOSING HATCHES: By crew.
SHIP CERTIFICATES: See "Melbourne".
REPATRIATION: Limited facilities available.
AIRPORT: Daily service to Perth. Karratha Airport is 15 km. from the port.
TIME: See "General" before first port.
TELEPHONES: Ship-to-shore telephones are available at all berths for ship-to-shore communications. Ships and jetty telephones are barred access to STD and trunk line facilities.
WEATHER: The Archipelago is situated in the cyclone belt with an incidence of about three cyclones per year in an area extending from Port Hedland to North West Cape.

The cyclone season lasts from December to April.

Prevailing winds are Easterly in Winter and Westerly in Summer but surrounding hills give considerable protection. Forces in excess of 20 knots are seldom experienced.

The port facilities are situated in sheltered waters and experience only slight seas and occasional low Northerly swell in the Summer months.
TIDES: Tidal streams are weak within the Archipelago, the flood flowing to the South with a maximum strength of less than one (1) knot at Spring tides in the berthing area.

Spring tidal range is 5.3 m.
Neap tidal range is 3.2 m.
Mean sea level is 2.7 m.
(Lowest Astronomical Tide).

Dampier is a standard port in the Australian National Tide Tables, published by the Hydrographer Royal Australian Navy.
SERVICES: A Walport film exchange is available – contact ship's Agent.

A sealed road connects Dampier with Perth extending North to Port Hedland. This highway provides all weather access from the State capital.

A bus service operates between Dampier and Perth and Dampier and Port Hedland.

Postal and telegraphic facilities are available at Dampier Post Office. Business Hours: 0900–1230 hrs., 1330–1700 hrs. weekdays.

Customs: A sub-collector of Customs and staff are resident in Dampier and regulations of the Department of Business and Consumer Affairs–Bureau of Customs will apply.

Police: A police sergeant and police officers are stationed at Dampier.

Township: Dampier is a modern township built overlooking Hampton Harbour at the S.W. extremity of the Archipelago. It has a population of approximately 3,000 and an enclosed air-conditioned shopping centre and hotel-motel cater for everyday requirements.
SEAFARERS' CENTRE: A seafarers' centre operated by the Mission to Seamen Flying Angel Club is located on the Esplanade, Dampier, overlooking the Hampton Harbour. The centre is equipped with a shop, recreational facilities, bar, and serves meals. Telephone: 83 1424 (area code 091).
GENERAL: *Gas-freeing of Vessels:* The port requirements regarding gas-freeing of OBO or other vessels presenting at the port are as follows:

The Master of an OBO vessel shall cable the Harbour Master Port of Dampier addressing its message "Shipserv Pilharb Perth" 72 hours before intended arrival at the port, advising:

(a) Nature of the preceding three cargoes the vessel has carried.
(b) Date and place last oil cargo was discharged.
(c) Statement on the condition of the slop tanks and whether these are pressed up or fully inerted and sealed.
(d) The date and place of issue of the Gas-Free Certificate carried on board.

1. Where vessels have been issued with a Gas-Free Certificate prior to their call at Dampier, such vessels can berth on arrival or whenever the berth is free.
2. Where vessels arrive at the Port of Dampier without a Gas-Free Certificate on board, such vessels must be issued with a Gas-Free Certificate before berthing.
3. No Gas-Free Certificates signed by the Ships' Masters will be accepted.
4. Gas-Free Certificates will be acceptable only from an industrial chemist or any other competent person approved by the Port Authority, Pilbara Harbour Services Pty. Limited.

Charts and Publications:

1. Australian Pilot Volume V
2. Australian Chart No. 741 Decca
3. Australian Chart No. 58 Decca

Hamersley Iron Pty. Limited: The jetties, wharves and facilities over which iron ore, general cargo and oil products are handled are owned and operated by:

Hamersley Iron Pty. Limited, Tel: 83 1000 (Area Code 091). Telex: AA99151. Cables: "Hamiron Dampier".

Vessels Arriving to Discharge General Cargo:

(a) Owners are required prior to accepting cargo for Dampier, to submit a copy of the vessel's General Arrangement Plan for the purpose of ascertaining the vessel's acceptability in sufficient time to permit recommendations to be made on the positioning and stowage of the cargo.
(b) Prior to departure from the loading port, Masters shall forward by first class air mail a copy of the vessel's cargo plan showing the nature, description and weight of the cargo to be discharged at Dampier.

The documents referred to in (a) and (b) above shall be forwarded to Hamersley Iron Pty. Limited, P.O.Box 21, Dampier, marked *Urgent Ship's Papers.*

Also see "Arrival Advices".
REGULATIONS: Following are some of the important regulations in respect of handling of dangerous goods (effective 1st November, 1984).

46. (1) The Master of a vessel having on board flammable liquid or onto which flammable liquid is being loaded shall ensure that, in handling the flammable liquid, the requirements of the International Safety Guide for Oil Tankers and Terminal (1984 Edition) published by the International Chamber of Shipping are complied with in addition to the other requirements of these regulations.

(2) The Master of a vessel having on board liquefied flammable gas or onto which liquefied flammable gas is being loaded shall ensure that, in handling the liquefied flammable gas, the requirements of the International Chamber of Shipping Tanker Safety Guide (Liquefied Gas) (1979 Edition) published by the International Chamber of Shipping are complied with in addition to the other requirements of these regulations.

47. (1) In this regulation the Rules for the Safe Transport, Handling and Storage of Dangerous Substances and Oils in Port Areas (1984 Edition) made by the Association of Australian Port and Marine Authorities are referred to as the rules.

(3) The Harbour Master may exempt the Master of a vessel from the requirements of sub-regulation (2) if he is satisfied that:

(a) flammable liquid has not been carried in the tanks or spaces into which the ore is to be loaded during the last 3 voyages on which cargo has been carried in those tanks or spaces; and
(b) since flammable liquid was last carried in the tanks or spaces they have been properly cleaned and ventilated and a certificate as described and to the effect described in sub-regulation (2) (a) has been obtained from an approved person, and any such exemption may be given subject to the taking of such other precautions as are specified by the Harbour Master.

(4) An exemption under sub-regulation (3) shall have effect according to its tenor.

(5) Application to the Harbour Master for an exemption under sub-regulation (3) may be made in writing setting out a description of the cargo carried on each of the last 3 voyages and the dates on which they were loaded and the application shall be accompanied by a copy of the certificate referred to in sub-regulation (3) (b) that the Harbour Master is satisfied is authentic.

64. The Master of a dangerous goods vessel berthed at a wharf shall ensure that the outboard side accommodation ladder or lifeboat is turned out as an alternative means of escape.

67. (b) at all times while the vessel is berthed at a wharf, in addition to the requirements of paragraph (a):

(i) the vessel's International Ship-Shore Fire Connection is connected to the fire hydrant of the vessel that is nearest to a gangway; and
(ii) a hose is connected between the vessel's International Ship-Shore Fire Connection and a shore hydrant.

78. (4) Where a vessel is to be loaded with, or unloaded of, flammable liquid, the Master of the vessel shall ensure that, before loading or unloading is commenced, a box or satchel on which the words "Emergency Documents", in black letters, are clearly displayed, is placed on the wharf in a prominent and readily accessible position at least 30 m. from the vessel and that the box or satchel contains:

(a) details of the plan referred to in sub-regulation (1) (a), including particulars of relevant times, sequences, and rates;
(b) a list of the characteristics of:
  (i) the cargo, if any, on board the vessel; and
  (ii) the flammable liquid to be handled;
and details of the position where it is or, as the case may be, is to be stowed;
(c) a Crew List, including reference to persons joining or leaving the vessel while it is in the port; and
(d) a plan of the general arrangement of the vessel.

82. (1) The Master of a vessel engaged in cargo operations involving dangerous goods shall ensure that:

(a) 2 suitable independent telephone or VHF systems for communicating between the vessel and the shore are available; and
(b) throughout the cargo operations, all reasonable endeavours are used to maintain communication between the vessel and a responsible person on the shore by means of each of the 2 systems referred to in paragraph (a).

(2) For the purposes of sub-regulation (1) (a), a VHF system is not suitable unless each unit is portable and is carried by a person nominated for the purpose of maintaining communication in accordance with sub-regulation (1) (b).

83. The Master of a vessel shall ensure that:

(a) if any leakage or spillage occurs during the loading onto, or unloading from, the vessel of flammable liquid, the loading or unloading shall be forthwith stopped, all valves shall be closed, and the Harbour Master shall be forthwith notified; and
(b) if any leakage or spillage of oil or oily ballast water onto the deck occurs, scupper plugs are not removed and steps are taken forthwith to prevent oil or oily ballast water from going overboard.

SHIPMASTER'S REPORT: February 1987.
Vessel (LOA 335 m., breadth 52 m., d.w.t. 274,726 tonnes) berthed at Port Dampier, East Intercourse Island Ore Jetty in February 1987 for loading iron ore. The vessel was the largest to visit the port and the Harbour Master advised us that movements would only take place during daylight hours.

Sailing draft calculation as follows:

Depth in Channel	15.35 m.
plus	Tide
minus	1.70 m. under keel clearance

The pilot was transferred on arrival and departure by helicopter.

AUTHORITY: Pilbara Harbour Services Pty. Ltd., East Intercourse Island, P.O.Box 178, Dampier, Western Australia, 6713.
Tel: (091) 435777. *Telex:* AA99610. *Cables:* Pilharb Perth. *Contact:* Captain G. F. Hammonds, Harbour Master. T. E. Dyer, Manager - Operations.

AGENT: Pilbara Harbour Services Pty. Ltd.

DARWIN, N.T.: 12.28 S. 130.50 E. (See Plan)

PORT LIMITS: A line between Charles Point and Lee Point defines the seaward limits of the port.

DOCUMENTS: Vessels arriving at Darwin as their first Australian port will require the following documentation:

2 Crew Lists, Form M & S 11.
2 Passenger Lists, Forms M308, 309, 310.
2 Port of Call Lists.
1 Crew Personal Effects List, Form 5.
2 Barber's and Ship's Stock, Form 5AA.
1 Stores List, Form 42A.
1 Animal Pets Aboard, Form QA4.
Ship's Log.
Last Port Clearance.
Safety Certificates: Construction
Equipment
Loadline
Radio
International Oil Pollution Prevention
Equipment (Tankers Only).

Where possible, cargo manifests and stowage plans should be forwarded by airmail, ahead of the vessel to the local Agents.

Enquiries regarding Customs Allowances should be directed to either the vessel's agent or to the Customs Officer at time of boarding.

PILOTAGE: Darwin buoyage is IALA "System A". Pilotage is compulsory for all craft exceeding 25 m. LOA unless a current Pilotage Exemption is held by the Master.

Pilot Boats: Pilot boats are dark blue with the word "Pilot" in white on either side. Decks and upperworks are yellow and white with red visibility patches. Both boats are fully seagoing and equipped with radio, radar, fire and salvage pumps, as well as equipment for treating oil pollution.

Boarding: The usual pilot boarding point is 1 nautical mile N.W. of Channel Rock Buoy (No. 6). Pilot boarding arrangements must be according to the International Maritime Organisation Regulations.

Vessels awaiting pilotage may anchor between 1 and 2 nautical miles N.W. of Channel Rock Buoy, in 25 m. of water, sand bottom and good holding ground.

Special arrangements can be made for deep draft vessels, whereby the Pilot will board one mile Eastward of Charles Point Patches Buoy (No. 5) situated at Lat. 12° 20.4′ S., Long. 130° 40.5′ E. Vessels awaiting pilotage from Charles Point Patches Buoy may anchor 2 nautical miles North of the buoy, where there is not less than 20 m. of water and good holding ground.

In the case of bad weather, the pilot boat will lead ahead to sheltered waters, using VHF-FM radio for communication.

Also see "Radio".

Coastal Pilotage: Pilotage through Clarence Strait, to or from Torres Strait or Gulf of Carpentaria ports, is conducted by pilots of the Queensland Coast and Torrest Strait Pilot Service. See "Torres Strait" for details.

ANCHORAGE: Masters familiar with the Port may be invited to proceed to the Quarantine Anchorage area, 0.3 to 0.5 of a nautical mile West of Quarantine Buoy (No. 10), situated at Lat. 12° 28.6′ S., Long. 130° 49.9′ E. The Quarantine Anchorage area offers good sand holding ground in not less than 15 m. of water.

Also see "Health".

RESTRICTIONS: Tankers are only allowed to berth during daylight hours but may depart at night, subject to weather.

MAX. SIZE: Ships up to 246 m. LOA and 12.83 m. draft have been accepted at Berth No. 1 by special arrangement, depending on tide conditions.

HEALTH: *Quarantine Reporting:* A vessel approaching the Port and requiring pratique, should send a message to the Quarantine Office not more than 24 hours and not less than 12 hours before arrival, containing the following information: name of vessel, ETA, number of passengers, number of crew, number of passengers disembarking, and last port of departure and date. The message should also state whether or not there is any disease on board, whether or not livestock have been carried within the last 6 months, and whether or not there are any animals or birds on board at present.

On arrival the health report should be given to the Quarantine Officer, 2 copies being furnished on the prescribed form (Q360 Form A), one of which will be signed by the Quarantine Officer and returned to the Master. A Passenger List and Crew List together with a List of Passengers Disembarking including their permanent address within the country is also required. (Commonwealth Health Department – Quarantine Regulations – Part III: 18, 19, 20 and 21.)

The telegraphic address of the Quarantine Department is "Quarantine Darwin Telex AA85658".

Health Clearance: The Commonwealth Department of Health Quarantine Officer will clear vessels at all times, subject to the provision of suitable lighting during the hours of darkness. A gangway should be made available for the use of the Quarantine Officer. The appropriate day or night signal should be displayed until clearance is obtained. (By night – red over white lights.) Subject to receipt of a satisfactory message, wharfside clearance or radio pratique may be available on request.

Quarantine Anchorage: The Quarantine Anchorage is 0.3 to 0.5 nautical miles West of Quarantine Buoy (No. 10). Vessels requiring to use the anchorage may be subject to pilotage.

RADIO: Ships at sea should work Perth (VIP) or Sydney (VIS), these being the major West and East area stations. Darwin Radio (VID) should be worked as early as possible and full use made of Satcom and Telex.

ETA: Notice of ETA and request for a Pilot must be made to the Harbour Master not less than 24 hours before anticipated arrival at Channel Rock Buoy (No. 6), situated at Lat. 12° 25.1′ S., Long. 130° 46.9′ E.

Communications: Telex messages should be addressed to Telex AA85605, answer-back code "Harbour". Telegraphic address is "Shipserv Norport".

Confirmation of ETA is required at least 2 hours before arrival at Channel Rock Buoy. Such confirmation, or any amendment to ETA, should be made on VHF-FM Channel 16 (156.8 MHz) or the Port Working Frequency of VHF-FM Channel 10 (156.5 MHz). Both Channels are continuously monitored.

VHF-FM Channel 16 is for calling and distress only; Channel 10 should be used for routine working.

The standard Colregs signals may be used by vessels requiring a Pilot.

VHF: Communication within the port is by VHF-FM radio using the following frequencies:

Channel 16 – 156.800 MHz Distress and calling
67 – 156.375 MHz Distress
10 – 156.500 MHz General Port working and routine business
12 – 156.600 MHz Tug working
6 – 156.300 MHz Intership

Call sign is "Darwin Harbour".

Ships arriving off the port should make contact on Channel 16 and shift to Channel 10 for routine working. This can be done as part of "Notice of Arrival" which is required 2 hours before ETA Channel Rock Buoy.

RADAR: A low power radar installation covers the commercial port area but is not part of the Traffic Management System. Both the pilot boats are radar equipped.

TUGS: Coastal Tug and Barge Pty. Ltd. operate a tug of 1,000 kw and 20 tonne bollard pull. The tug has fire fighting facilities onboard.

Line Boats: Frances Bay Marine offer 2 small metal work boats for line handling and limited picket boat service.

Launches: Launches up to 50 passenger capacity are available for services to vessels at anchor.

Those and other vessels, including landing barges up to 20 tonne d.w.t., can be contacted through the Port Office.

BERTHING:

No. 1 Berth (Iron Ore Wharf): No. 1 Berth is a dolphin type berth with a face length of 142 m. Two mooring dolphins are positioned 69 m. East and West of the berth, which can routinely accommodate vessels up to 240 m. LOA and 12 m. draft.

The berth is used mainly for the import of bulk petroleum products and acids, as well as the export of livestock, bulk ores and ore concentrates. In addition, No. 1 Berth can be utilised as a Ro/Ro berth for vessels with large starboard quarter ramps, such as first and second generation PAD and SCAN carriers. Bunker fuel up to 45 cSt is available by 15 cm. pipe-line.

The wharf is equipped with a travelling belt loader, designed for ores and similar dry bulk cargoes. The loader has a transit distance of 140 m. along the wharf and an outreach of 14 m. beyond the fenders. The high water air-draft of the loading boom is 11 m. The loader is connected by travelling belt to the shore stockpile area, a distance of approximately 450 m. Bulk cargoes can be loaded at a maximum gross rate of 1,000 tonnes p.h.

A variety of product lines are installed to handle petroleum and acid cargoes:

Black oil	30 cm.
White Oils	25 cm.
Distillates	20 cm.
Marine Diesel	15 cm.
LPG	10 cm.
Sulphuric Acid	10 cm.

Discharge rates up to 300 tonnes/p.h. (1,000 kPa) can be accepted on each of the main pipe-lines.

Berths	*Main Cargoes*	*Depth Alongside* (m.)	*Length* (m.)	*Height above datum* (m.)	*Max. Deck Loading* (Tonnes/sq.m.)	*Width of Apron* (m.)	*Special Facilities*
No. 1	Petroleum Livestock Mineral Ores	12.0 – 12.6	142	10.4	3.0	12.0	Travelling Belt Loader, Cattle Race, Ro-Ro
No. 2 West	Containers Dry Bulk Piped Cement/Lime	11.8	150	9.5	2.5	35.0	Container Crane, Ro-Ro Container Crane
No. 2 East	Containers Dry Bulk	11.8	150	9.5	4.0	35.0	—
No. 3 West	General	9.0 – 10.0	146	10.6	2.8	12.2	—
No. 3 East	Dry Bulk General	9.0 – 12.6	146	10.6	2.8	34.0	—
No. 4 West	Fishing	4.5 – 7.0	140	9.2	4.2	11.9	—
No. 4 East	Fishing	4.5 – 6.0	140	9.2	4.2	9.0	—
Fishermen's Wharf	Fishing	4.0	200	8.5	1.0	21.0	—

No. 1 Berth is also equipped with a cattle race, 200 m. in length, for the live export of cattle and buffalo. The ship loading ramp is workable at any stage of the tide. Livestock are delivered into the cattle race directly from road trains.

No. 2 Berth West (New Fort Hill Wharf): No. 2 Berth West, 150 m. in length, was opened in 1981 to form the first stage of the Port of Darwin's present development programme.

Maximum deck loading is 2.5 tonnes/sq.m. and height of deck is 9.5 m. above datum. Minimum depth alongside is 11.8 m. Bunker fuel up to 45 cSt is available by 20 cm. pipe-lines. The berth is fitted with pipelines for the discharge of bulk cement.

Power: 3 outlets, 65 amp, 415 volt, 3 phase.

Ro/Ro Facility: In 1982 the "Linkspan" Ro/Ro facility was installed at the Western end of No. 2 Berth, establishing the berth as the centre for Ro/Ro operations.

The Ro/Ro facility consists of an extendable version of the "Linkspan" ship-to-shore semi-buoyant bridge 77 m. in length, connecting with a 35 m.×42 m. pontoon and is workable at all tidal levels.

The pontoon can be extended, retracted and ballasted, thus enabling Ro/Ro vessels of any size or type – side-loading, end-loading, quarter-loading (port or starboard) – to use the Port of Darwin.

For example, when extended:

The pontoon forms a corner berth for use by ships with their own ramps. Non-ramp ships can be loaded or discharged over extendable finger flaps.

Ships with port or starboard quarter ramps or stern ramps, lying port side to the wharf, can be handled with equal ease. Vehicles discharged over a starboard quarter ramp make a 125° turn on the pontoon to reach the end of the "Linkspan",

Large international Ro/Ro vessels, such as first and second generation PAD and SCAN carriers, can lie at the No. 1 Berth, working cargo over their starboard quarter ramps.

When the pontoon is retracted, its outer end forms an extension of No. 2 Berth West. The facility can then be used for vessels like car carriers, with side doors or starboard shoulder ramps.

No. 2 Berth East: No. 2 Berth East is a 150 m. extension to No. 2 Berth, giving a total wharf length of 300 m.

Maximum deck loading is 4 tonnes/sq.m., enabling containers to be stacked 4 high and catering for forklift axle loads of 80 tonnes. Deck height above datum is 9.5 m., with minimum depth alongside 11.8 m.

Both No. 2 Berths, West and East, are served by an I.H.I./ Sumitomo rail-mounted, single lift gantry container crane. The crane has a container handling capacity of 30 TEU per hour and a heavy lift capacity of 70 tonnes. A 10 cu.m. grab is available for the handling of bulk cargoes.

Power: 3 outlets, 65 amp, 415 volt, 3 phase.

No. 3 Berths, West and East (Outer Stokes Hill Wharf): No. 3 Berths, West and East, comprise the outer side of a concrete decked, steel piled wharf with a 300 m. trestle approach. Total length of the two berths is 292 m., with a least depth of 9 m. Height above datum is 10.6 m. Permissible wheel loading for standard type vehicles is 6 tonnes, while maximum deck loadings are 2.8 tonnes/sq.m. with some local restrictions.

Power: 6 outlets, 65 amp, 415 volt, 3 phase.

Both berths are used mainly for general break bulk cargo, as well as by rig tenders, timber carriers, passenger ships, survey vessels and visiting naval craft. No. 3 Berth East, is also used for dry bulk imports, such as sulphur and clinker, which are landed by ship's grab. Bunker fuel up to 45 cSt is available by 12 cm. pipe-lines.

No. 4 Berths, West and East (Inner Stokes Hill Wharf): These berths, on the inner side of Stokes Hill Wharf, are reserved for smaller vessels such as prawn trawlers, tugs and the like. Maximum length of vessel is restricted to 40 m.

Total length of the berths is 280 m., with a least depth alongside of 4.5 m. Height above datum is 9.5 m., with maximum deck loading of 2.2 tonnes/sq.m. Bunker fuel up to 45 cSt is available by 12 cm. pipe-lines.

Power: 4 outlets, 65 amp, 415 volts, 3 phase.

Fishermen's Wharf: The facility has a concrete deck on steel piles with an overall length of 200 m. The least depth is 4 m., deck height is 9.5 m. above datum and deck loading is 1.0 ton/sq.m.

Facilities include shore power at 415V., 3 phase, 65 amp and 415 volts, 15 amp, single phase at 7 outlets, bunkers and fresh water. The wharf is designed as an assistance to the fishing industry and is situated adjacent to Darwin Ship Maintenance Services repair works, with its 400 ton synchrolift dock. Full cold and dry storage facilities are under construction.

Darwin Fishing Harbour Mooring Basin: A fishing boat mooring haven with lock acess is now operational adjacent to Frances Bay Small Ships Facility. Max. LOA 35 m. Draft 4.0 m. Beam 15 m. 85 berths are available with shore power, fresh water and sanitary facilities.

Storage Facilities: One cargo shed suitable for the under-cover and secure storage of break bulk cargoes is located at No. 3 Berth West (Stokes Hill Wharf). Total floor area is approximately 1,750 sq.m.

The port's two main cargo sheds are situated in the Container Depot, adjacent to Kitchener Drive. The sheds have a total floor space of approximately 7,000 sq.m. Used predominantly for container storage, the sheds are equipped with 60 power points for refrigerated containers.

The Container Depot has an additional 18,000 sq.m. of open storage space, able to accommodate 600 TEU when double stacked.

The first stage of the Darwin Container Terminal, immediately adjacent to No. 2 Berth West, was completed in May, 1983. Fitted with 64 power points for refrigerated containers, the Terminal is currently able to accommodate approximately 450 TEU when double stacked.

The Terminal's capacity is being gradually increased as land-backing of No. 2 Berth West progresses.

STEVEDORES: Working hours from 0800 – 2200 hrs. (2 shifts) Sundays to Fridays, extension to 2400 hrs. if vessel sails. Saturdays to 1200 hrs. with extension to 1500 hrs. if vessel is sailing. Night shifts by arrangement. Weekend and Monday labour (including mooring gangs) must be ordered by 1300 hrs. Friday. Average rate on breakbulk general is 9 tonnes/p.h per gang.

CARGO HANDLING EQUIPMENT: An extensive range of cargo handling equipment is maintained by the Port Authority and the Stevedores.

Fork lifts vary in lifting capacity from 2.5 tonnes to 27 tonnes.

Mobile cranes of up to 16 tonnes lifting capacity are owned by the Port Authority. Larger mobile cranes of 70 tonnes can be hired locally.

A variety of tractors and trailers (6.1 m. and 12.2 m.) are available as internal transfer vehicles and for ro/ro container operations.

Container Crane: No. 2 Berths, West and East (New Fort Hill Wharf) are equipped with an I.H.I./Sumitomo rail-mounted, single lift gantry container crane.

The crane has a handling capacity of thirty 6.1 m. (or fifteen 12.2 m.) containers per hour and a heavy lift capacity of 70 tonnes at 50% outreach. It is equipped with a 10 cu.m. grab for bulk cargoes.

Selected Data – Container Crane:

Containers per hour	30 TEU
Bulk capacity	10 cu.m. grab
Capacity at 100% outreach	35 tonnes
Capacity at 50% outreach	70 tonnes
Outreach from fenders	32 m.
Total outreach	35 m.
Height to bottom of boom	30 m.
Total height	50 m.
Total height (boom raised)	70 m.
Total weight	850 tonnes
Speed of travel on rails	27 m./min.

BRIDGES: There are no bridges or other restrictions to prevent access to the Port by vessels of not more than 12 m. draft. Ships of greater draft may need await tide at Charles Point Patches.

OPENING/CLOSING HATCHES: Ship's hatches are usually handled by W.W.F. labour while the vessel is alongside.

GANGWAY/DECK WATCHMEN: Gangway watchmen are compulsory for all foreign going vessels over 3,000 g.r.t., can be supplied by the Stevedores at union award rates. Hold watchmen are not necessary. Shed or gate watchmen may be required during the handling of hazardous cargoes.

Gangways: Various shore gangways are available for hire from the Stevedores.

MEDICAL: Full hospital facilities available without prior notice.

DENSITY: The usual water density of 1025 may reduce to 1022 during the wet season owing to river run-off.

FRESH WATER: Good quality potable water is available in unlimited quantities at all berths. Delivery rate is approximately 30 tonnes/p.h. per connection.

FUEL: All grades of fuel up to 45 cST and lubricants are available.

TANKERS: See "Restrictions" and "Berthing".

Precautions: Governed by Australian Ports Association standards. Copies of Port tanker rules are supplied on arrival and will be amplified by Pilots if necessary.

CONSULS: The following Consuls are located in Darwin:

Honorary Consul for Finland
Mr. J. C. Hickman, G.P.O.Box 392391, Winnellie.
Honorary Consul of France.
Mr. T. Maryon, G.P.O.Box 3665, Darwin.
Honorary Consul for Germany (F.R.)
Mr R. W. Barth, G.P.O.Box 3329, Darwin
Honorary Consul for Greece
Mr. P. H. Paroulakis, G.P.O.Box 3070, Darwin.
Consulate of Indonesia
Mr. Salim, G.P.O.Box 1953, Darwin.
Honorary Consul for Italy
Mrs. Anna Sacilotto, G.P.O.Box 2364, Darwin.
Honorary Consul-General for Japan
Mr. R. Morris, G.P.O.Box 1616, Darwin.
Honorary Consul for Philippines
Mr. R. Matthewson, P.O.Box 10, Berrimah.
Honorary Consul for Portugal
Mr. J. L. da Costa Alves, G.P.O.Box 455, Darwin.
Honorary Consul for Switzerland
Mr. P. H. Fuchs, 46 Wells Street, Darwin.

REPAIRS: Routine maintenance and boilermaking assistance to light engineering standards. There is no foundry in the Port.

DRY DOCKS: A "Syncrolift" facility with S.W.L. 400 tons operates at Frances Bay (length 40 m., breadth 9 m., depth 4.0 m.).

SURVEYORS: Representatives of most Cargo Surveyors and Classification Societies can be brought from interstate or overseas at short notice. Lloyd's Agent at the port represents most of the Classification Societies and both Commonwealth and N.T. Surveyors are appointed at the Port.

CUSTOMS ALLOWANCES: Australian Commonwealth Regulations apply.

Customs Officers board all vessels upon arrival, with the exception of Intermediate Port vessels. For such vessels, Officers board Mondays to Fridays between 0800 hrs. and 1600 hrs.

Prior notice of arrival is required, including details of passengers and crew leaving the vessel at Darwin.

Requests for the services of Customs Officers should be made through the vessel's Agents.

REPATRIATION: Scheduled aircraft connect with all Australian states several times daily. Direct overseas connections include New Zealand, Singapore, Bali and Brunei. All facilities exist for changes of crew and repatriation of seamen.

AIRPORT: International connections possible.

TIME: See "General" before first port.

HOLIDAYS: Cargo is not worked on Christmas Day, Good Friday, Anzac Day or Picnic Day (first Monday in August).

Gangs for mooring and unmooring vessels can be made available at all times.

POLICE/AMBULANCE/FIRE: All emergency services are available through the Harbour Office. Automatic fire alarms are installed throughout the Port and alarms can be raised or emergencies reported on Channel 16 at any time.

Police	27.8888
Fire	81.2222
Ambulance	27.9000
Hospital	20.7211

EMERGENCY CO-ORDINATION CENTRE: Any maritime emergency will initially be handled through the Harbour Office. The responsibility may eventually be transferred to another authority depending on the magnitude or complexity of the emergency.

TELEPHONES: This service is available aboard ships at all berths by prior arrangement through the Agents. Standard rates apply.

SHORE LEAVE: When Immigration and Customs requirements have been satisfied, there are no restrictions on crew members' shore leave. Identity cards or shore passes are not necessary.

A Telephone Interpreter service is available by telephoning 82 2111 at any time. Most major European and Asian languages are included.

DELAYS: Berthing delays are very infrequent. Occasional labour shortages develop when several general cargo vessels are working.

SERVICES: A Compass Adjuster resides at the Port.

BANKS: No foreign bank branches exist in the Northern Territory but local banks represent most overseas finance houses.

STORING: Vessels can be stored by truck or by launch if at anchor. Vehicles and boats may not approach tankers while working cargo. Forklifts and shore cranes can be used to assist stores loading. Local labour is available to assist storing. The usual Customs Regulations apply regarding drawback of duty or tax.

GENERAL:

Charts and Documents: Refer to:

AUS 27, 28, 309
Admiralty Pilot Vol V
Admiralty List of Lights (Vol K)
Admiralty Tide Tables (Pacific)
Admiralty National Tide Tables (AHP11)
Marine Information Manual Australia

A copy of the Port Handbook and (in season) the Port Cyclone Procedures will be issued to Masters of arriving vessels.

Restrictions and Regulations: Vessels must not immobilise main engines without permission from the Harbour Master.

Tankers: Tankers will not be allowed to immobilise at any time of year while working cargo. Petroleum tankers and other carriers of hazardous liquid bulk cargoes will be issued on arrival with a copy of port "Procedures for Tankers", which sets out in full the procedures to be carried out in case of fire, oil spill or other accident. Tankers are not berthed before sunrise or after sunset but can depart any time.

Anchorage: Anchorage is prohibited in area between Emery Point, Mandorah and Bullocky Point, where high voltage power lines cross the harbour bottom. Anchorage is not advised in the foul area South of Channel Rock Buoy, which is obstructed with wartime wreckage.

Cyclone Procedures: Darwin is within the Southern Zone of tropical revolving storms. The season extends from November to April and the Port and environs may be more or less affected at any time during that period. All vessels entering the port during the "Cyclone Season" are supplied with copies of the Port procedures which set out in detail the various stages of alert and warning, together with actions to be taken in the case of an approaching cyclone. Ships may be placed on short notice for sea and required to maintain themselves in seagoing condition at all times.

Allocation of Berths: The allocation of berths is determined by the Harbour Master.

Signals: The Port of Darwin adheres to the International Code of Signals and the International Rules for Prevention of Collision.

Two special emergency sound signals are used in the Port. In the case of fire, the morse letter F (· · — ·) should be continuously sounded on the ship's whistle or siren. In the case of oil spill or other pollution of the harbour waters, the morse letter P (· — — ·) should be continuously sounded.

Tides: Darwin is a standard port (No. 6323) and full predictions are given in the Australian National and Admiralty Tide Tables. Maximum range is 7.92 m., with a mean range of 3.72 m. Tidal streams at Springs may exceed 3 knots in channels and reach 3 knots at berths.

Visibility: Visibility in the district is usually good but may be affected by dust during the "Dry Season" and humidity during the "Wet Season". Fog is virtually unknown. During the "Wet Season" severe thundersqualls with heavy rain frequently occur. These are usually brief but gusts may reach 60 knots and the wind generally shifts through 360°. Vessels at anchor should veer a good scope of cable and have a second anchor ready for immediate use.

Electricity: Shore power connections are installed at all berths 415 va, 3 phase, 65 amp or 15 amp (see "Berthing").

Garbage Disposal: The dumping of garbage into port waters is strictly prohibited.

The Port Authority provides a free garbage collection and disposal service, for which purpose a modern oil-fired incinerator is operated in the Port Area.

Delivery and collection of bins can be arranged by contacting the Wharf Office on Number 2 Berth (Tel: 81 6701) or through the Shipping Agent.

Port Security: The Port Authority operates its own security service, staffed by Port Authority personnel. Patrols throughout the Port area take place around-the-clock.

The Container Depot (adjacent to Kitchener Drive) and the Container Terminal (adjacent to No. 2 Berth, West) are enclosed by high security fences which are locked when the areas are not being worked.

The storage sheds in the Container Depot are kept locked when not being worked as are the Transit sheds on Berth Nos. 3 and 4, when being used to store cargo.

Requests for additional security for special cargoes should initially be addressed to the Port Authority.

AUTHORITY: Darwin Port Authority, P.O.Box 390, Darwin N.T. 5794. *Tel:* (089) 81 6701 (all hours). *Telex:* AA85605 Harbor. *Contacts:* Mr. M. N. Bartlett, Director Marine and Port. Capt. J. A. Mayor, Manager Operations. Mr. B. K. Newell, Manager Administration. Mrs. F. Chan, Manager Marketing. Captain R. J. Wilson, Harbour Master. Mr. B. E. McFadyen, Operations Engineer. Captain J. Preston, Assistant Harbour Master.

AGENT: Sub-agent of Patrick Agencies, Sydney, NSW.

DERBY: W.A.: 17.17 S. 123.35 E. (See Plan)

Port not operational. Berth on care and maintenance only.
No labour available.
All shipments via Broome.

AUTHORITY: Department of Marine and Harbours, 1 Cliff Street, P.O.Box 402, Fremantle, W.A. 6160. *Tel:* (09) 3350888. *Telex:* Omhfre AA 94784. *FAX:* (9) 335-0850. *Contact:* Superintendent, Navigation & Pilotage.

DEVONPORT, Tasmania: 41.11 S. 146.22 E. (See Plan)

PORT LIMITS: Within all waters that extend 3 miles seawards bounded on the Eastward by an imaginary line drawn 000° – 3 miles from the coastline and intersecting the most Easterly point of Wright Island and to the Westward by an imaginary line drawn 000° – 3 miles from the Western side of the entrance to the River Don.

DOCUMENTS: See "Melbourne".

APPROACHES: Port situated 1 mile inside Mersey River, the entrance to which is sheltered by the Mersey Bluff on the West and by a breakwater on the East bank. There is good anchorage in vicinity of boarding ground, but it is inadvisable to remain at anchor during periods of strong on-shore winds. The Inner Harbour provides good all-weather shelter. There is a swinging basin which can accommodate vessels of length 200 m. or more, especially where tugs are used.

PILOTAGE: Compulsory. 24 hour service for all vessels where Masters are not in possession of a valid Exemption Certificate. Pilots will board when required at a position within 400 m. of a point Mersey Bluff Lighthouse bearing 242° by 1.93 km.

Masters of vessels requiring the services of a Pilot are advised to radio the Harbour Master, Devonport, their ETA and vessel's arrival draft 12 hours prior to arrival.

ANCHORAGE: The quarantine anchorage is defined as to the North of a line running East and West through the Mersey Bluff Lighthouse. Vessels must lie clear of the fairway into the River.

RESTRICTIONS: Approach channel 26 ft. (7.9 m.) LWOST. Tidal range is 2.44 m. average, 2.56 m. Spring. Enquiries should be made for vessels exceeding 30 ft. (9.6 m.) draft and 600 ft. (180 m.) length.

MAX. SIZE: LOA 200 m., max. draft 9.6 m. Also see "Restrictions".

TIDES:		
	Lowest Recorded Tide	Minus (—)0.48 m.
	Mean High Water Spring Tides	2.89 m.
	Mean High Water Neap Tides	2.62 m.
	Mean Low Water Neap Tides	0.59 m.
	Mean Low Water Spring Tides	0.33 m.

HEALTH: Pratique is mandatory for all vessels arriving from overseas ports. Agents normally make necessary arrangements.

VHF: 24 hour listening watch – Channel 16, switching to Channels 12 and 67 as required. Call sign is "Devonport Harbour Control".

TUGS: Conventional 1,130 b.h.p. (bollard pull 23 tonnes) plus smaller tug 250 b.h.p. immediately available. Additional tugs, as required, available at reasonable notice.

BERTHING:

Berths on West Side:

No. 1 Berth: Length 167 m., depth alongside 7.0 m.
No. 2 Berth: Length 189 m., depth alongside 7.3 m.
No. 3 Berth: Length 168 m., depth alongside 7.5 m.
Cargo Shed: On wharf 2,676 sq.m.
No. 4 Berth: Length 198 m., depth alongside 10.5 m.

Cold Store: For meat, vegetables and dairy produce 7,200 cu.m. Additional cold storage facilities of 38,000 cu.m., capacity available within 3 km. of the port.

No. 5 Berth: LPG/Stock Berth: Max. length vessel 110 m., max. draft 6.8 m., depth alongside 7.0 m.

Berths on East Side:

No. 1 Berth: Length 115 m., depth alongside 7.0 m.

Ferry Berth: Passenger Terminal. Roll-on/Roll-off. 9.14 m. wide stern loading ramp. Wharf decking 4.57 m. above LWOST. Travelling gantry crane – 32 tonne capacity. Assembly area of 2.1 hectares of heavy duty open space. Cargo shed – 855 sq.m.

No. 2 Berth: Length 182 m., depth alongside 9.5 m. Roll-on/Roll-off facility. Travelling slewing crane of 25 tonnes capacity. 3.2 hectares of heavy duty open space and 60 power points for refrigerated units.

All wharves are floodlit for night work and are under T.V. surveillance. Ample fresh water at a rate of 32 – 40 tonnes per hour available at a nominal charge. Three phase power, telephones and victualling available to all berths. Bunkering by road tankers only. Garbage disposal by arrangement. Other cranage available – floating crane 35 tonne capacity, 2 mobile cranes of 6.5 tonne and 4 tonne capacity, 2 large forklifts – capacities 20,321 kilos and 23,133 kilos and numerous small forklifts.

TANKERS: 1 berth with 250 mm. discharge lines for black and white products.

BULK HANDLING FACILITIES:

Wheat: One berth with discharge connections to 12,000 tonne silo.

Tallow: One berth with loading connections to 1,500 tonne silo.

Ores: One berth with facilities for loading and discharging using crane, hoppers and conveyors.

Livestock: One berth suitable for ships up to 90 m. in length with adjacent holding facilities.

STEVEDORES: Agents for ships arrange stevedores.

MEDICAL: An out-patients department of the local general hospital is available 2 km. from the port. Lie-in facilities are available at the hospital proper 8 km. from port.

REPAIRS: The Port Authority can carry out limited repairs. Fuller repairs can easily be arranged to be carried out by the numerous engineering firms in the vicinity of the port. Underwater diving service is available with facilities for photography, welding, survey and repairs.

SURVEYORS: *Cargo Inspectors:* For Devonport, the appropriate Cargo Inspector would be R. M. Davies and Associates, Wynyard. Tel: (004) 42 2435.

Surveyors: There are no surveyors in the Devonport area but, Lloyd's Agents are readily available in Launceston, just over 1 hours' drive way.

GANGWAY/DECK WATCHMEN: Arranged by Agent.

CARGO GEAR: Australian Navigation (Loading and Unloading) Regulations apply.

FRESH WATER: Available all wharves. 40 t.p.h.

FUEL: Road tanker delivery only.

TELEPHONES: Available each berth.

HOLIDAYS: Work all days except Christmas Day, Good Friday, Anzac Day, Labour Day, Picnic Day W.W.F.

POLICE/AMBULANCE/FIRE: Fire 24-1886 (Other than alarm, 24-1887); Police 24-5499; Ambulance 24-5077.

EMERGENCY CO-ORDINATION CENTRE(S):

1. *At Sea in Australian Waters:* Under the AUSREP system which became effective from 1st April, 1982, all Australian and foreign vessels from arrival at first port until departure from the last port, must report at least once every 24 hours, a position report and destination, to the Australian Coastal Surveillance Centre, Canberra (A.C.S.C.), who are responsible for the Australian SAR area, the largest in the world covering one nineth of the earth's surface. In the event of a report not being made, SAR operations will begin within 24 hours of a missed report. Although not mandatory until first port of arrival, foreign vessels would find it in their best interests to inform Canberra of their arrival in Australian waters and their departures therefrom.

2. *Alongside:* In addition to the emergency numbers listed (Police/Ambulance/Fire), there is a State Emergency Service responsible for major emergencies. In Devonport the Harbour Master is the local co-ordinator, but the service can be contacted direct on Burnie 31-3160 or 31-4144. The service is manned 24 hours a day.

TIME: See "General" before first port.

AIRPORT: Devonport (Pardoe) Airport is situated approximately 8 km. from the port with approximately 6 flights per day each way to/from Melbourne (the services are reduced on Sundays). There are also intra-island services. Facilities at the airport are being increased and an increase in the intake of flights should follow.

SERVICES: Shipwrights and carpenters available at 24 hours notice. Underwater diving services available.

SHORE LEAVE: Once Customs and Immigration requirements have been met, there are no restrictions upon crews except those imposed by the Master and that they must have rejoined their ship by sailing time. For non-English speaking crews, there is a telephone interpreter service in the following languages: Chinese, Greek, Croatian, Serbian, Italian, Spanish, Polish and Vietnamese.

STORING: Vessels are normally stored by truck and not barge. On all berths, except No. 2 West, trucks are able to proceed alongside a vessel. At No. 2 West, trucks can approach within about 30 metres. The same applies to fork lift trucks. The ship's Agents are normally responsible for arranging labour for storing.

BANKS: There are no American or European banks in the area, although all the Australian banks are usually affiliated to one or other of the major banking houses. There has been a Commission Report (the Campbell Report), submitted to Federal Parliament recommending that foreign banks be allowed to trade in Australia, but as yet, the report has not been acted upon.

The normal method of credit card usage is by Bankcard, issued by the Australian banks. These can be obtained outside Australia through the overseas branches of Australian banks, particularly those situated in London. Visa, American Express and Diners Club cards are also accepted by certain banks and establishments. Access usage is no longer permitted.

DEVELOPMENTS: Channel widening and deepening continue.

AUTHORITY: Port of Devonport Authority, 48 Formby Road, Devonport, 7310 Tasmania. Postal Address: P.O.Box 478, Devonport, 7310 Tasmania. *Tel:* (004) 24-0911. *Telex:* Pordev AA59222. *FAX:* (004) 246418. *Contact:* Mr. D. J. Cowan, General Manager. Captain R. J. Thompson, Harbour Master.

AGENT: Sub-agent of Patrick Agencies, Melbourne.

EDEN (Twofold Bay), N.S.W.: 37.04 S. 149.55 E.

(See Plan)

PILOTAGE: Compulsory, boarding ground is 1.5 miles East of Lookout Point Lighthouse (position Lat. 37° 04.5′ S., Long. 149° 56.5′ E.).

APPROACHES: Entrance depth into Twofold Bay is 36 m. Bottom sand. Tidal data: Higher HW 1.3 m., Lower HW 1.1 m.

MAX. SIZE: Woodchip Berth can accommodate vessels up to 50,000 g.r.t. Also see "Tankers".

VHF: Channels 16, 12, 72 and 8 available.

TUGS: 1 tug of approximately 25 tonne bollard pull. 3×12 m. work boats.

BERTHING: Also see "Tankers".

Woodchip Loading Berth: "T" Head jetty with centre loading point located at Mungaroo Point. Berth consists of a pier, extending from the shore with a 6 point system. Berth can accommodate vessels up to 50,000 g.r.t. Loading rate 700 t.p.h. Depth alongside 12.5 m.

Breakwater Wharf: Situated on Eastern side of Snug Cove inside breakwater. Fendered concrete wharf 105 m. long. Depth at inner end 3.0 m. mid-point 6.0 m. and outer end 8.3 m.

Multipurpose Jetty: Situated in the centre of Snug Cove, concrete decked wooden pile jetty 200 m. long. Depth at outer end 7.0 m., which extends for 100 m. inshore.

Mooring Jetty: Situated at the Western end of Snug Cove, concrete decked wooden pile jetty 150 m. long, used only for fishing vessels.

Private Jetty (H. J. Heinz): Situated at the cannery at Cattle Bay. Length 145 m. Depth at outer end 5.2 m.

STEVEDORES: By arrangement.

TANKERS: Tankers moor to buoys South of the breakwater and discharge through a submarine pipeline to the shore. Max. length of vessel 180 m. Max. draft 9.75 m.

FRESH WATER: Available at Breakwater Wharf and Multipurpose Jetty.

FUEL: Distillate and diesel fuel available.

REPAIRS: Slipways, and repair facilities for fishing craft only available. Minor repairs can be effected.

DRY DOCKS: None.

AIRPORT: Merimbula, 17.7 km., with daily flights to Sydney and Melbourne.

HOLIDAYS: See "Sydney".

GENERAL: *Access:* By road only to berths.

Navigation Information: Australian Pilot Vol. II, Sailing Directions N.S.W. Coast (10th Edition). Charts: AUS 806, AUS 191.

Customs: Proclaimed First Port of Entry, Customs Tel. (064) 961667. Documents as for Port Kembla.

AUTHORITY: Maritime Services Board of N.S.W., Port Kembla Division, P.O.Box 89, Port Kembla, New South Wales. *Tel:* (042) 740201. *Telex:* AA 29271. *FAX:* (042) 740643.

Local Official: The Pilot, Pilot Station, Eden, 2551. Tel: (064) 961719. Fax: (064) 963024.

AGENT: See "Sydney".

ESPERANCE, W.A.: 33.52 S. 121.53 E. (See Plan)

DOCUMENTS: The following documents should be available for inspection:

Ship's Papers, including the following Certificates:

(*a*) Register.
(*b*) Load Line.
(*c*) Safety Equipment.
(*d*) Safety Radio.
(*e*) Safety Construction.
(*f*) Australian Light Dues Receipt.
(*g*) Articles of Agreement and Account of the Crew (or equivalent).
(*h*) Western Australian "Port Bill" – Tonnage Dues Receipt.

Valid Derat or Exemption Certificate.

Crew's Identity Documents.

International Vaccination Certificates of all persons aboard.

PILOTAGE: Pilotage is compulsory except where Exemption Certificates are held. Radio "Harbour Master – Esperance" 48 hours and 24 hours before arrival. VHF Channel 16 – pilot boat and base set. Base set not manned continuously but pilot boat may be contacted 1 hour before arrival. Pilot boat painted white with black rubbing band and white centre house. Word "Pilot" painted on both sides of house. Pilot boards 1.5 miles N.E. of Gull Island. Pilot ladder and ancillary equipment must comply with international regulations. Lee to be provided against swell.

It is more usual for vessels to approach from the Westward. In this case use may be made of either West or Causeway Channels. Approaching from the Eastward is not recommended during the hours of darkness or in weather which is in any way restricting visibility.

ANCHORAGE: Vessels proceeding to anchorage should anchor in an E.N.E. direction from the Eastern extreme of the breakwater. Good holding is found in depths ranging from 14.5 m. – 27.5 m. However, plenty of cable should be veered and at least 6 shackles is recommended. In the most boisterous conditions vessels have held well with from 6 to 8 shackles out. However, the vessel should always be watched. A pilot ladder and not accommodation ladder is recommended for vessels at anchor due to the swell conditions which normally prevail at the anchorage.

MAX. SIZE: Max. departure displacement 45,000 tons.

PRATIQUE: Vessels requiring "Free Pratique" are cleared between 0600 hrs. and 2000 hrs. daily.

Vessels may be cleared outside these hours upon request and at the discretion of the local Medical Officer.

Vessels are cleared alongside and rarely at anchor.

Please also note that a Health Message is required at the First Port of Entry from overseas. This is to be despatched within the period 12 hours and 24 hours prior arrival at the First Port of Entry, and to advise the following information:

Name of vessel, and ETA.
Last port of call.
Date of departure.
Number of crew on board.
Number of passengers on board (if any).
Confirmation that all on board have valid vaccinations and details of any sickness.

RADIO: Esperance Radio, call sign VIE (operative from 0700 hrs. to 2000 hrs.). Perth Radio, call sign VIP (continuous).

Port VHF limited to Channels 6 and 16. Call sign "Esperance Harbour", range 70 miles.

TUGS: One tug with 30 tonne bollard pull will be used.

BERTHING: The Inner Harbour consists of one land-backed berth of 244 m. (No. 1). A second berth of 213 m. in length adjoining the first is to the S.E. (No. 2). The depth in the approach Channel, manoeuvring area and alongside is 12.8 m. Maximum draft permitted is 11.5 m., pending maintenance dredging. On occasions it may be possible to exceed this draft but reference must be made to the Harbour Master before so doing, who may at his discretion permit an increase dependent on tide and prevailing weather conditions.

At all berths shore coir and/or nylon springs may be used to supplement ships moorings.

24 hour port but entry not generally carried out at night.

TANKERS: Tankers berth at No. 2 Berth, Inner Harbour. Tankers berth during daylight hours only but may be permitted to sail at night at the discretion of the Harbour Master.

Tanker discharge line 14 in. reduced to 8 in. at discharge manifold. Average discharge rate 465 tonnes per hour.

STEVEDORES: 19 men. Working hours: 0800 – 1700 hrs., 1800 – 2400 hrs., 0000 – 0700 hrs. No work from 1700 hrs. Saturday to 0800 hrs. Sunday. ETA to Agent by 1600 hrs. previous day for labour requirements Tuesday to Friday. For weekend requirements ETA to Agent by 1600 hrs. on Thursday. For Monday labour ETA to Agent by 1600 hrs. Friday. Notice for labour pick-up has to be posted by 1700 hrs.

OPENING/CLOSING HATCHES: Preferably handled by crew or as per charter party.

MEDICAL: Advance notice not required. Normal facilities and hospitalisation available.

DENSITY: 1026-1028.

FRESH WATER: Available at all berths; one hose 40 t.p.h., two hoses 70 t.p.h. charge, $1.30 per kilolitre.

FUEL: Available by road tanker only. Advise Agent of grade and quantity at least one week before arrival.

GANGWAY/DECK WATCHMEN: Shore watchman is supplied at entrance to Tanker Berth in the case of tankers only. Shore watchmen are available if requested by vessel. It is more normal for ship to provide gangway watchmen from crew. Irrespective a gangway watchman must be on duty at all times at any berth.

CARGO GEAR: Inner Harbour berths, one link belt bulk loader used for grain and gypsum at No. 1 Berth. Rates achieved for commodities – gypsum 850 t.p.h., grain 500 t.p.h., phosphate and sulphur 100 t.p.h. per ship's grab.

Mobile Cranes: P. & H. Omega 20, 18 tonnes capacity and Cranvel 8 tonnes capacity.

Permanent sheep yards are erected at No. 1 Berth with holding capacity of 11,500 head. Races and loading ramps available for both sheep and cattle.

IDENTIFICATION CARDS: See "Melbourne".

CONSULS: Nearest at Fremantle.

REPAIRS: Welding, rewinds, under-water inspections. Large structural repairs not possible.

DRY DOCKS: None.

BANKS: Commonwealth Banking Corporation transacts business with all American and European banks. Postal address – P.O.Box 486, Esperance, 6450.

EMERGENCY CO-ORDINATION CENTRE: Contact Port Authority.

STORING: See "Prelims".

(1) By truck.
(2) Storing can be completed during loading or discharging.
(3) Trucks can unload at ship's side.
(4) Fork lifts can be operated.
(5) Normal Customs procedures apply.
(6) Storing usually completed by ship's crew although other labour may be used.

SURVEYORS:

(1) Harbour Master acts as Cargo Inspector.
(2) Harbour Master represents Lloyd's Register on request.

REPATRIATION: Facilities exist for repatriation of crews.

AIRPORT: Feeder airline services connect with Perth and international flights. 13 flights per week in either direction. Airport is 25 km. from harbour area.

TIME: See "General" before first port.

POLICE/AMBULANCE/FIRE: Police 711900; Ambulance 711711; Fire 712328.

TELEPHONES: Available all berths.

SHORE LEAVE: Crew allowed ashore provided Immigration Act complied with in relation to Identification Cards.

DELAYS: Not normally encountered.

SHIP SUPPLY SERVICE: There are no ship supply services operational in the Esperance area.

In the case of emergencies, arrangements have been made to fly in a helicopter on charter or on less urgent cases make use of the locally based tug.

AUTHORITY: Esperance Port Authority, P.O.Box 35, Esperance, W.A. 6450. *Tel:* (090) 71 2111. *Telex:* Esport AA91057. *FAX:* (090) 713065. *Contact:* C. A. Stewart, Managing Secretary. After hours (090) 711884. Captain N. S. W. Dyson, Harbour Master. *Tel:* (090) 711463. After hours 711563.

AGENT: Sub-agent of Patrick Agencies, Fremantle.

EXMOUTH, W.A.: 22.20 S. 114.10 E. (See Plan)

SHIPMASTER'S REPORT: October 1984 (Updated 1988).

DOCUMENTS:

2 copies Crew List, 2 on Form M.S. 11.
1 copy Form 42A, Stores List (Ship's Bond).
1 copy Form 5. Personal Effects Declaration.
2 copies Form C & E 886. Dates and time of Departure from Overseas Ports of Loading.
*2 copies Form 0360. Health Report. 1 retained by Master.
Form 40. Application for Clearance.
Form QA3. Quarantine Notice and Declaration. If animals on board as cargo.
Form QA4. Quarantine Notice.
Form QA5. Shipmaster's Bond (Pink, Yellow). If ship's pets on board.
Forms in respect of Colonial Light Dues (if applicable).
*Forms obtained from Customs Boarding Officer on arrival.
Customs Officials, etc. board at berth.

PILOTAGE: Pilotage compulsory. Pilot boards 1 mile N.E. of jetty, from the line launch.

ANCHORAGES: 1.5 miles N.E. of jetty.

RESTRICTIONS: Berthing/sailing during daylight only. Berthing carried out at slack water. Berthing at Point Murat Pier is under the command of the Australian Deputy Commander, Royal Australian Navy at Exmouth and all enquiries should be directed to him.

HEALTH: See "General" before first port.

VHF: Port VHF system as such is non existent – consists of handheld portable set of very limited range, and generally during office hours only.

TUGS: None.

BERTHING: Straightforward approach from sea on recommended track to Learmonth. Reasonably deep water and no navigational hazards in vicinity of track.

Berth is a 'T' head jetty with a face 48.75 m. in length with mooring and breasting dolphins. Distance between outer dolphins is 320 m. Wharf decking is 6.1 m. above datum with depth alongside 12.0 m.

Berthing Operations: Berthing is usually starboard side to. Jetty is approached with bow slightly canted into berth and when approx. 100 m. off jetty, port anchor is let go to 1 shackle on deck and anchor dredged into berth. Forward slipline is sent away as soon as possible by mooring boat and when close enough, other lines sent by heaving line. It is essential to get either breastlines or springs ashore as soon as possible in order to hold vessel in position.

It may be necessary, once vessel is held alongside berth to change some of the moorings, as it was on this occasion. Final moorings as follows:

Forward:

1 Slipline (effectively 2 headlines).
1 Headline.
2 Breastlines (from starboard shoulder to bollard on inshore side of jetty).
2 Springs.
In addition port anchor on bottom, 1 shackle on deck.

Aft:

1 Sternline-slipline (effectively 2 stern lines).
1 Sternline.
2 Springs (from poop to North end of dolphin).
2 Breastlines (from aft maindeck to bollard on inshore side of dolphin).

A number of points arose from the mooring/unmooring operations:

Firstly, I am of the opinion that the anchor should be dropped further from the jetty, in order to assist the unmooring due to absence of tugs. This would be no problem if an offshore wind could be guaranteed, but the wind is invariably onshore. Secondly, mooring gangs are slow in getting ropes to their destination which proved to be the biggest hazard.

Care *must* be taken when mooring to ensure that the final ropes aft (in this case the springs) are on separate winches in order to clear the propeller as soon as possible – any delay when unmooring on an ebb tide could result in vessel drifting onto the aft isolated dolphin. The ideal time to unmoor would be on a flood tide and using the anchor to warp clear of the jetty. Unfortunately, things at sea are rarely done under ideal conditions, hence my comment regarding letting go the anchor sooner.

The mooring points on the jetty are themselves far from ideal considering the strength of the ebb stream which can be compounded by a strong offshore breeze. Breast lines end up as very short, almost vertical leads, especially when light. In this case the vessel was partially ballasted prior to arrival, which somewhat alleviated this problem.

However, having made all the bad points about the berth, I must add that the shore staff were very co-operative and a fast discharge is normal.

Also see "Restrictions" and "Plan".

DISCHARGING: 1 line only. Permanent line on jetty connected to ship's manifold amidships with hoses. Shore line 300 mm.×1 km. Max. back pressure 150 p.s.i. High rate of discharge (up to 1,200 cu.m./hr. due empty shore tanks).

No water clearance required after discharge as line rests in Gas Oil.

Grades: As far as can be ascertained only Gas Oil delivered to Exmouth.

BALLAST: No tank cleaning or dirty ballast facilities.

DENSITY: 1025.

FRESH WATER: Very limited quantities available. Not available in dry season.

FUEL: Very limited quantities of Gas Oil.

REPAIRS: No facilities.

GENERAL: No contact with receivers (U.S. Navy). Liaison is with a Royal Australian Navy Officer on secondment to U.S. Navy.

Immobilisation of Engines: Not recommended due to strength of current and poor mooring facilities.

Stores, etc.: No laundry facilities. Very limited quantities of bread, milk, etc., available from local shops. Any large amounts of stores require to be ordered approx. 3 weeks in advance.

AUTHORITY: Department of Defence, Naval Communications Station – Harold E. Holt, P.O.Box 125, Exmouth, W.A. 6707. *Contact:* Naval Controller of Shipping.

AGENT: Sub-Agent of Patrick Agencies, Fremantle.

FREMANTLE, W.A.: 32.03 S. 115.44 E. (See Plan)

(A) FREMANTLE
(B) KWINANA

(A) FREMANTLE

DOCUMENTS: See "Melbourne". Also Inward and Outward Manifests accordance Regulation Nos. 142 and 143 and schedule. These documents supplied by ship's Agents.

APPROACHES: Channel leading from Gage Roads into Cockburn Sound presently 45 ft. (13.7 m.) deep, planned to be deepened to 55 ft. (17 m.) to take ships of 120,000 tonnes.

PILOTAGE: Pilotage is compulsory in the Port of Fremantle, except for ships not exceeding 150 g.r.t., and for coastal and inter-state ships, the Masters of which hold operative Pilot Exemption Certificates. There are 2 pilot boarding grounds: the outer boarding ground which is situated 3.5 nautical miles N.E. of Bathurst Point, Rottnest Is., and the compulsory pilot boarding ground in Gage Roads to the Westward of Hall Bank Buoy, which is approximately 2 miles from the entrance to the Inner Harbour.

Note: Pilotage is compulsory from the Outer Boarding Ground for ships drawing 11.0 m. or more.

It is necessary for all vessels to give 24 hours notice by radio telegraphy of the expected time of arrival at Fairway Buoy, followed by a second notice, confirming or amending the previous notice, 2 hours ahead of the expected arrival time in that locality.

Ships requiring a Pilot at the non-compulsory ground must include this requirement in their 24 hours notice of arrival.

Two pilot vessels available, one has royal blue hull, white superstructure and the other, a fast pilot launch, is painted international orange. Pilots may be contacted by VHF Channel 12.

Usually pilot ladder is required on the port side for vessels inward and starboard side for vessels outward, even when the wind is in the East, unless Easterly wind is very strong as there is nearly always a West to N.W. swell. If in doubt call Port Signal Station on VHF Channel 12.

Pilot does not board vessel at anchor.

Pilot ladder to be 4 ft. – 5 ft. above sea level with manropes slightly shorter. Boat-rope not required. The ladder should be clean and conform with Regulation 17 of SOLAS. The vessel should be making 3 – 4 knots.

SOLAS Regulations are strictly adhered to i.e. Single length of ladder, non-slip surface (Aluminium NOT acceptable), 12 in. spacing between steps, no more than 2 replacement steps, all ropes on ladder and manropes to be manila and not covered (nylon and polypropelene not acceptable), Regulation 17(a) part (VII) and (VIII) very important, a responsible officer to standby and not a sailor.

Pilots preference is a ladder.

ANCHORAGES: Gage Roads, Owen Anchorage and Cockburn Sound.

RESTRICTIONS: *Inner Harbour:* Basin and entrance channel dredged to minimum of 36 ft. (11 m.) below datum.

Outer Harbour: Main approach channels dredged to minimum of 45 ft. (13.7 m.) below datum – secondary channels leading to Alumina Refinery Jetty and Steelworks Jetties dredged to minimum of 38 ft. (11.6 m.) below datum.

MAX. SIZE: Limited by draft. Minimum under-keel clearance of 0.9 m. required.

Outer Harbour, up to 41 ft. 6 in. (12.6 m.) draft.

Inner Harbour, up to 34 ft. 6 in. (10.5 m.) draft but with suitable tide and by special permission of Harbour Master up to 35 ft. (10.6 m.) draft.

Tankers: The maximum ship draft acceptable at the Oil Refinery Jetty at Kwinana is 41 ft. 6 in., this being the maximum draft permitted in the approach channels.

HEALTH: No restrictions except quarantine. Doctor not normally available between 2200 hrs. and 0600 hrs. See "Melbourne".

Port Quarantine Regulations:

(a) The accommodation, galley and other areas must be free from cockroaches and rodents.

(b) Garbage cans, either belonging to the ship or to Fremantle Port Authority, when used must be at all times covered with satisfactory tops.

(c) Rat guards must be fitted to all lines and regularly checked including weekends where the Department of Health have increased their inspections. Where however, the vessel has been inspected by a Quarantine Officer and found to be free of rats, the Master is not required to fit rat guards. As per Quarantine (General) Regulations.

It is also to be noted that regardless of the existence of current Derat or Derat Exemption Certificates, all vessels are inspected for rodents.

RADIO: VIP Perth.

VHF: Port Authority signal station manned 24 hours. Keeps watch principally on Channel 16, 14, 12, 8 and 6. Channels 14 and 6 are exclusively assigned to tug use. Channel 12 for ship/shore contact.

TUGS: *Inner Harbour:* 4 available up to 2,600 h.p. (1,940 kW), join vessel in Gage Roads – extra charge if tug's line is used.

Outer Harbour: 2 special tugs equipped as fire tenders are also available. Tugs join ships approx. 2.5 miles from berths – extra charge if tug's line is used.

BERTHING: *Inner Harbour:* Victoria Quay – continuous quayage 5,359 ft. (1,643 m.); 8 berths.

North Quay – continuous quayage 1,787 m.; 10 berths. Container berth (No. 11 & 12) 1,407 ft. (429 m.); 2 berths.

All berths in the Inner Harbour, including Victoria Quay, North Quay and the container berth are dredged to a minimum of 36 ft. (11 m.) below datum.

Outer Harbour: Alumina Refinery Jetty, length of berth 344 m., depth 38 ft. (11.6 m.). Steelworks Jetty No. 1, length of berth 195 m., depth 36 ft. (11.0 m.). Steelworks Jetty No. 2, length of berth 268 m., depth 40 ft. (12.2 m.). Oil Refinery Jetty, see "Tankers" below. Bulk Cargo Jetty, length of berth 480 m., depth 44 ft. (13.4 m.).

A bulk grain jetty of 955 ft. (291 m.) depth 55 ft. (16.8 m.) has been constructed at Kwinana to serve Co-operative Bulk Handling Ltd's grain terminal.

The jetty is equipped with conveyors and ship loaders capable of handling bulk grain at the rate of 5,000 t.p.h. It will eventually be able to handle vessels up to 100,000 d.w.t. Max. sailing draft 41 ft. 06 in.

CRANES: 2 'twin lift' portainer cranes, 2 single lift container cranes, 35 tonne capacity luffing crane, quay cranes of 20 tonne, 7.5 tonne and 3 tonne capacity, mobile cranes of up to 10 tonne capacity, also 80 tonne floating crane is available.

STEVEDORES: Shipboard stevedoring by private contractor, shore side by FPA and others – usually arranged by ship's Agent. ETA should include particulars of cargo, showing heavy lifts, dangerous or hazardous cargoes, hatch stowage, gangs required, etc.

MEDICAL: Notice not necessary but advisable if treatment required. Full hospital facilities available. Cholera vaccinations essential if ship comes from affected areas. International certificates must be current.

TANKERS: *Kwinana Oil Refinery Jetty:* 2 berths for tankers up to 752 ft. (229 m.) – depths 12.5 m. and 13.0 m. 1 berth for tankers up to 860 ft. (262 m.) – depth 13.6 m. Oil separation tanks ashore serve each berth.

DENSITY: Salt 1025, generally at all tides.

FRESH WATER: Available 24 hours a day, delivered by up to 8 hoses each of 50 tonnes/p.h. $1.90 per kilolitre (July 1987).

Note: Seasonally a water shortage in the Fremantle area may limit the amount of water which can be supplied to ships.

FUEL: Marine fuel (2 grades); Marine diesel. Notice 14 days then 48 hours.

FIRE PRECAUTIONS: Watchman to be on duty. Ship heading out. Fenced off on land. Buoys 50 ft. (15 m.) out from ship marking prohibited area.

GANGWAY/DECK WATCHMAN: Watchman required – member of crew, or shore-based watchman available.

OPENING/CLOSING HATCHES: By arrangement between ship's Agent and Stevedore.

CERTIFICATES: Health; Derat; Load Line; Ship's Register; Articles. Also see "Melbourne".

CUSTOMS ALLOWANCES: According to local Customs Dept.

CARGO GEAR: Strict surveillance of cargo handling gear by Commonwealth Government Dept. of Transport Australia. Also see "Melbourne".

IDENTIFICATION CARDS: See "Melbourne".

CONSULS:
Austria
Belgium
Denmark
Finland
France
Germany F.R.
Guatemala
Italy
Japan
Netherlands
Norway
Philippines
Portugal
Sweden
U.S.A.

REPAIRS: All types of deck and engine repairs possible.

DRY DOCKS: No dry docks – slipway up to 2,700 tons.

REPATRIATION: Facilities exist for repatriation of crews.

AIRPORT: 17 miles (23 km.) to Perth International Airport.

TIME: See "General" before first port.

HOLIDAYS: *Extraordinary Holidays – Port Closed:* Labour Day (1st Monday in March); Good Friday; Anzac Day (25th April); Union Picnic Day (celebrated on the first Tuesday in November); Christmas Day (25th December).

Ordinary Holidays: New Year's Day (1st January); Australia Day (celebrated on a Monday late in January); Easter Monday; State Foundation Day (1st Monday in June); Boxing Day (26th December).

On ordinary holidays waterside labour available to work ships in following categories:

(a) Scheduled passenger ships.
(b) Marine casualties.
(c) Ships that can complete cargo handling operations prior to the next engagement of labour.

AMBULANCE/FIRE: Ambulance 335.1601; Fire Brigade 335.6262. Port Security – internal extension, not manned all hours.

TELEPHONES: Telephones can be supplied to any vessel – installation time plus proportion of annual rental plus cost of calls.

SERVICES: All special services available.

REGULATIONS: Normal port regulations. Special Regulations for tankers berthing at Oil Refinery Jetties.

SHIP SUPPLY SERVICES: Elder Prince Marine Services Pty. Ltd., P.O.Box 892, Fremantle, W.A. 6160. Tel: (09) 3358444. Telex: AA92821 Towboat.

Services: Passenger launches for crew ferries, agents, providores to vessels at anchor in Gage Roads and Cockburn Sound. Stores lighters and fresh water up to 150 tonnes per trip. Draft survey, paint punts, lines running.

Other Operators – Seaborne:
Australian Offshore Services, 111 St. George's Terrace, Perth, W.A. 6000.
Brambles Manford, 191 St. George's Terrace, Perth, W.A.
Lombardo Marine Group Pty. Ltd., Offshore Division, 106 Marine Terrace, Fremantle, W.A. 6160.
Tidewater Port Jackson Marine Pty. Ltd., 94a Murray Road, Bicton, W.A. 6157.
Atlas Offshore, c/o TNT Australia Resource Development or Union-Bulkships Pty. Ltd., 17 Henry Street, Fremantle, W.A. 6160.
Western Marine Service Co., 17 Mews Road, Fremantle, W.A. 6160.

Other Operators – Airborne:
Merifield Helicopters Pty. Ltd., 28 Broadway, Nedlands, W.A. 6009.
Mayne Bristow Helicopters Pty. Ltd., Jandakot Airport, Jandakot.
Jayrow Helicopters W.A. Pty. Ltd, 320 Great Eastern Highway, Redcliffe, W.A. 6104.
Vowell Air Services (Helicopters) Pty. Ltd., Hope Road, Jandakot Airport, 6164.
Lloyd Helicopters Pty. Ltd., 64 Canning Highway, Victoria Park, W.A. 6100.
Westcoast Helicopters Pty. Ltd, P.O.Box 108, Belmont, W.A. 6104.

DEVELOPMENTS: No. 12 Berth, North Quay is fitted with a Ro/Ro ramp and 2 Portainer cranes. 2 other container cranes are provided at North Quay.

Feasibility studies being undertaken with regard to re-dredging Inner Harbour to 13.0 m. depth and establishment of a further container terminal on the North Quay.

AUTHORITY: Fremantle Port Authority, 1 Cliff Street, Fremantle, Western Australia 6160, P.O.Box 95, Fremantle, 6160. *Tel:* (09) 430 4911. *Telex:* AA 92951 Frepa and AA 95919 Frehm (shipping advices only). *FAX:* (09) 336 1391. *Cables:* "Fremport", Fremantle, W.A. *Contact:* Captain J. R. Barron, Harbour Master. Mr. A. T. Poustie, General Manager.

AGENT: Patrick Agencies, P.O.Box 656, 10, Phillimore Street, Fremantle, W. Australia 6160. Tel. (09) 335–6311. Telex: AA 92434. Cables: "Rikpat Perth WA". Fax: (09) 335-8672.

(B) KWINANA

The following information was produced by Alcoa of Australia Ltd. Also see Section (A).

LOADING: Alumina Loading Procedure – Kwinana

The following information is for your guidance and should assist in understanding our operating capabilities, limitations and procedures, in order to achieve a safe and satisfactory cargo loading.

Berthing: Berthing and loading will be facilitated if the vessel arrives with sufficient ballast for navigation requirements and retains as much ballast as possible for as long as possible without delaying the loading.

Mooring Arrangements and Shifting Ship:

1. It is the vessel's responsibility to provide adequate mooring lines and to tend them properly whilst at the berth. A vessel with under strength or insufficient moorings will be considered unseaworthy. The quality of equipment and supervision shall be such that the ship is able to remain in the berth, in all normal weather conditions, without undue surging backwards and forwards or drifting off the wharf face.
   If, due to drift, it becomes apparent that the loading chute is endangered, loading will cease immediately. Time lost in such an event could be treated as a vessel delay.
2. Normal moorings at Kwinana, would consist of 3 headlines, 3 stern lines, a breastline at each end, a forward and an after spring.
3. As the shiploader is of the fixed type, vessels are loaded by warping them backwards and forwards along the jetty so as to position the various hatches underneath the loading chute. If the ship is to be moved ahead, normally the sternlines and forward spring are slackened, whilst heaving on the headlines and the after spring. To move astern, the process is reversed.
4. The loader spout must be completely withdrawn and retracted to its "parked" position, and the gangway removed from the vessel's side prior to commencement of warping.
   It is imperative not to commence warping the vessel without visual contact and agreement with shore personnel to proceed.
5. To minimise the possibility of springs fouling the underside of the dock fenders it is strongly recommended that:
   - A messenger line attached to a 'D' shackle is used on the slackening spring to keep the spring alongside the ship and above the fender line.
   - The spring should not be slackened excessively.
6. You will be advised 30 minutes before completion of each hold and we request your co-operation in providing your crew for vessel movements as promptly as possible.
7. The arrangement of mooring cells and bollards is such that even when shifting between adjacent hatches the breastlines typically change their angle by up to 60° relative to the fore and aft line of the ship, thus losing most of their effectiveness. It is usually necessary therefore to relocate the breastlines at each shift by carrying the ends along the wharf from cell to cell. In the case of long shift ship (e.g. from No. 2 to No. 7 hatch) it may also be necessary to move head or sternlines and springs, since they may become unsafe or ineffective through being too short or too long.

Line Priorities: Many ships are not fitted with sufficient self-tensioning or self-stowing mooring winches to be able to work all mooring ropes direct from the winch drums. Where only 2 or 3 such winches are fitted, it is important that they be used to the best advantage. We recommend that the following priorities be observed:

1. Forward
   (a) Two headlines, for warping ship ahead. (May be turned up on windlass warping drums).
   (b) For'd spring – for warping astern.
   (c) Breastline – for holding alongside.
   (d) Third headline, extra breastlines, etc.
2. Aft
   (a) Two sternlines, for warping astern.
   (b) After spring – for warping ahead.
   (c) After breastline – for holding alongside.
   (d) Third sternline, extra breastline, etc.
3. Where a breastline cannot be secured directly to a winch or warping drum, a second breastline should be provided.

Cleanliness/Draft Survey: Prior to loading, the vessel's holds and hatch covers will be inspected by an Independent Surveyor engaged by Alcoa or the Consignor.

This Surveyor will also conduct a Draft Survey in conjunction with the Chief Officer.

Shipping Foreman: Alcoa's Shipping Foreman supervises the loading of the vessel and will liaise with the Chief Officer. Hatch stowages and order of loading should be advised to the Foreman prior to commencement of loading.

Pollution: We are obliged by Fremantle Port Authority Regulations to report any pollution caused by vessels at our berth.

ALCOA BERTH – GENERAL:

Jetty Approach: The Company's jetty is located on the East side of Cockburn Sound, approached in daylight hours by the Northern Channels and loading vessels berth on the North side of the jetty, facing due West. At night, the approach is from Cockburn Sound and the Southern Channels. Departure fully loaded is by the Southern Channels to Cockburn Sound, thence Parmelia and Success Channels and Gage Roads to sea.

Fully loaded vessels for discharge at our dock approach through the Parmelia and Success Channels into Cockburn Sound thence by Southern Channels to berth on the South side of the jetty, facing due West. Departure in ballasted condition is by Northern Channels to sea during daylight hours and Southern Channels at night.

Woodman, Jervoise and Medina Channels are unlit and are used for daylight navigation only.

	Max. Draft
Fremantle Approach – Gage Roads	13.10 m.
Cockburn Approach – Parmelia and Success Channels	12.65 m.
Alcoa Kwinana – Jetty Approach	
Northern – Woodman, Jervoise and Medina Channels	8.53 m.
Southern – Sterling & Calista Channels	10.98 m.
Anchorage – Gage Roads on sand	
Cockburn Sound on clay	16.45 m.

Refer Chart AUS.117 for detail.

Facilities, Supervision and Manning: The berth consists of 8 cells, each 18.9 m. in diameter spanning 335.3 m. No. 1 Cell is 152.4 m. from the shore. No. 8 Cell is 487.7 m. from shore.

There is a maximum of 12.2 m. depth of water alongside the jetty and vessels are restricted to a maximum of 10.98 m.

The jetty runs due West from the Plant site. Loading vessels will berth port side to, heading West and discharging vessels berth starboard side to.

The loading berth is fitted with line haul winches, guides, bollards, quick release hooks and cleats to assist in line-handling operations. There is also a heavy line astern to "swamped mooring", to which the ship's line can be attached to assist between hold moves. This heavy line should be let go upon completion of loading to enable Alcoa staff to recover it before Pilot arrives.

All line handling on the jetty is carried out by Alcoa staff and ship's crew are prohibited from handling lines on the jetty.

A gangway is provided on Cell No. 4, for loading vessel access and this is operated by Alcoa staff during loading operations. However, discharging vessels on the South side must provide their own access. A safety net is required under the gangway which must be provided and fitted by the vessel. (Refer Navigation 'Miscellaneous Equipment' Regulations).

Dock Access Restrictions: Due to the construction of the jetty which provides limited access for vehicles, it is necessary to restrict traffic to ensure maximum access for emergency vehicles.

The overall control of movements at the jetty is strictly under the direction and control of the Alcoa Foreman who liaises with Security Staff on personnel and vehicle access.

Directions given by Alcoa shipping and security staff *must* be complied with immediately.

Access to the jetty by personnel and vehicles will be restricted where the access of emergency vehicles or safety is jeopardised.

Access to the jetty will be allowed at the discretion of Alcoa supervisory staff whose decision is final.

(a) When the safety of personnel and vehicles is not endangered.
(b) A vehicle is on lawful business providing services to Alcoa or to the vessel, i.e. provisions, laundry, lubricating oils, servicemen and emergency services, etc.
(c) Company vehicles servicing equipment or transferring personnel.
(d) Vehicles delivering baggage, large parcels, carrying persons requiring medical attention or Pilots and Masters to and from the vessel.
(e) No hindrance to emergency vehicles will occur.
(f) When a vehicle does not exceed 15 tonnes all up weight.
(g) At the Master's request.

Vehicles are not to remain on the dock unattended for any reason, and must complete their business and be removed from the jetty promptly. Alcoa reserves the right to remove vehicles from the jetty without consulting the owner or driver, should the need arise and will accept no responsibility for accidental damage to the vehicle should this occur. Persons proceeding in an unsafe manner on the jetty will be fully responsible for any claims made due to their actions.

No bunkering facilities are available on the jetty, however a barge from Fremantle is available for the transfer of fuel oils subject to weather conditions.

Road tanker delivery of fuel oil is prohibited on the jetty.

Water is normally available at 50 tonnes per hour from connections on the jetty.

Provisions, laundry and engineering services have access to the vessel from the jetty.

The movement of flammable material over Alcoa property is strictly controlled and permission must be sought from the Transportation Officer before any transfer to or from vessels at the berth.

General Information: The jetty is 17 km. from Fremantle by road with no public transport services readily available.

Alcoa Security Personnel will provide first aid for minor injuries and an ambulance is available at the plant for urgent transferring of patients to hospital, however, normal medical needs will be arranged by the Agent.

There is a phone in the jetty office. All local calls are free. This phone also provides the facility for interstate or overseas calls but on a "reversed charges" basis only.

Access to and from the jetty is normally by means of a remote controlled gate and it will be necessary to follow the instructions on the notice boards at the gates to gain entry or exit.

Besides voice communications with the main Security Office there is remote control television surveillance of the whole dock area.

ALCOA BERTH – LOADING:

Description of Product: A fine white powder Al_2O_3 density 0.99 cu.m. (36 cu.ft.) per tonne.

Stowage factor: 1.02 cu.m. (36 cu.ft.) per tonne in a bulk carrier; 1.133 cu.m. (40 cu.ft.) per tonne in a general cargo vessel.

Angle of repose 32° – 36°, no shifting boards required.

Absorbs moisture, not to be loaded in heavy rain. Is chemically inert and will not contaminate or damage other cargo except through dust effect alone. No inherent vice.

Ship Loader – Dimensions, Loading Rate and Limitations: The non-traversable, lifting and slewing loader is located on the fourth cell (318.2 m.) from the shore.

The loader is an open spout feed type with a dust control box fitted on the load chute and is fed by conveyor systems from storage bins ashore.

Note: Vessel is required to move under its own power, to enable loader spout positioning over hold. Fullest co-operation of vessel's crew and officers is required to minimise non-loading time.

The loader is capable of a maximum of 1,300 t.p.h. whilst loading and allowing for vessel movements, achieves an average overall loading rate of 750 t.p.h. from start to finish of loading, depending on vessel's configuration and hold capacities.

All cargo is weighed continuously by a Weightometer, accurate to within 2.0%, which permits a record of hatch tonnages. However the Weightometer is a guide only and must not be relied on as total cargo loaded is determined by draft survey.

The loader spout is capable of being raised and lowered and the supporting boom swings horizontally through approximately 20° West to 15° East of North at maximum extension of boom.

HW to underside of loader boom in operating position is 17 m.
Fender face to vertical centre line of spout extended is 17.45 m.
Fender face to vertical centre line of spout retracted is 7.85 m.
Loader chute fully lowered is 7.32 m. below HW mark.
Loader chute fully raised is 8.61 m. above HW mark.
HW is 3.66 m. below top of cell.
Variation between HW and LW rarely exceeds 1.22 m.

Loader boom must be fully retracted to raise and lower for vessel berthing and departure.

Alumina Vessel Limitations:

Length Overall	200.00 m.
Breadth	29.87 m.
Draft	10.97 m.

Height of hatch coaming (or any equipment in way of loader access) not to exceed 15.85 m. above waterline.

Ship's beam, the distance from shell to inside of fore and aft coaming at centre hatches, not to exceed 7.92 m.

Vessels with division in holds or centre line bulkheads unacceptable for loading at this facility.

Projections outside main hull line must not exceed 0.5 m.

All drains, hatch wells, bridges, etc., to be dry and sealed, vents to be closed before loading.

Cargo to be protected against sweat, however not necessary to cover steel bulkheads.

Recommended that winches and engine room skylights be covered to avoid dust nuisance.

Vessels not fitted with easily closed hatch covers, should have hatch tents or tarpaulins prepared to quickly cover open holds during adverse weather.

Hatch/Hold Cleaning: Holds must not be cleaned whilst vessels are secured at Alcoa Berths.

Vessels whose holds have not been passed as suitable for loading alumina, must make arrangements to have those holds brought up to the required standard. As cleaning cannot take place at Alcoa berths, the vessel must move to a suitable berth within the port, for this purpose.

Working Times: 7 days per week, 24 hours per day, however, we request that berthing and sailing movements avoid shift change times of 0630 – 0730 hrs., 1430 – 1530 hrs. and 2230 – 2330 hrs. daily.

Berthing and Sailing: Any time, subject to weather, quarantine, Pilot and tug availability. 2 tugs usually used for berthing and 1 only for departure if draft exceeds 10.21 m. or LOA exceeds 183 m.

Proposed stowage plan required by Alcoa, prior to berthing if possible or immediately vessel is secure to our dock. Advice of distance from centre of first loading hold to front of bridge is required prior to berthing, to enable pilot marker to be placed on dock to assist positioning of vessel.

Survey: Holds will be inspected for cleanliness by a qualified surveyor appointed by Alcoa or the Consignee prior to loading commencing. Holds must be free of all rust scale, residues of previous cargo, dry and swept as required for wheat cargo. Alcoa has no responsibility for vessel cleanliness.

A qualified surveyor will also carry out a full draft survey in conjunction with the Chief Officer.

Documentation: On completion of loading, the Company's Transportation Officer will attend on board to complete all documentation.

The vessel's Agent compiles the Notice of Readiness, Time Sheet/Statement of Fact, Manifest and any supplementary documents required by Charterers and Owners.

The Company's Transportation Officer compiles the Bills of Lading, Weight Certificates and provides details of times, hold quantities etc., for completion of required documents.

OPERATOR: Alcoa of Australia Limited, P.O.Box 252, Applecross, W.A. 6153. *Tel:* (09) 3640111. *Telex:* AA 93910. *FAX:* (09) 364 8920. *Cables:* Kwinalumin – Perth. *Contact:* G. G. Trimble, Marine Administrator.

GEELONG, Victoria: 38.09 S. 144.22 E. (See Plan)

PORT LIMITS: A line in a 150.5° direction from a beacon 1.5 chains West of the Little River entrance intersecting with a line in a 009° direction from the N.W. extremity of Sproat St., Portarlington. N.B. – This seaward limit passes 2 cables Eastward of No. 1 beacon Pt. Richards channel.

DOCUMENTS:
3 Crew Lists Form M & S 11.
Store List Form 42A.
Articles owned or in possession of Master, officers or crew, Form 5.
3 Ports of Call Form C & E 886.
1 Form QA 3 – Ship's Cargo.
1 Form QA 4 – Ship's Pets.
2 Form QA 5 – Shipmaster's Bond.
2 Form AQ 360 – Health Reports.

PILOTAGE: See "Melbourne". Radio ETA to "Seapilots Melbourne" 24 hours prior arrival advising deepest draft. Pilot station equipped with radio-telephone continuous watch on 2182 kHz., and VHF Channel 16. Pilots carry portable sets.

ANCHORAGES:
1. Quarantine. As directed.
2. Explosives.
   (a) Outer: 088° from Pt. Wilson Beacon 3.52 miles. Circle 0.25 miles (463 m.) radius. Depth 32 ft. (9.7m.).
   (b) Inner: 077° from Pt. Wilson Beacon 1.77 miles. Circle 0.15 miles (278 m.) radius. Depth 21 ft. (6.4 m.).
3. Vessels over 30 ft. (9.1 m.) draft: outside No. 2 Beacon Pt. Richards and South of the line of prolongation of the Pt. Richards Channel. Least depth 12.5 m.
4. Vessels over 27 ft. 6 in. (8.4 m.) draft: East of and within 1 mile of No. 17 Beacon Pt. Richards Channel. Least depth 9.1 m.
5. Inner Harbour: As directed:

Note: Vessels desiring launch communication with the shore will normally anchor South of the Hopetoun Channel.

Masters of vessels are cautioned *(a)* that the bottom of the Inner Harbour is soft mud and is not good holding ground and *(b)* that vessels should not be immobilised unless with the express permission of the Harbour Master. Vessels at anchor should retain the maximum quantity of ballast on board.

RESTRICTIONS: Vessel must have at least 2 ft. (0.6 m.) of water under the keel with a maximum of 6 in. (0.15 m.) for tide.

Night navigation is permissible for vessels with draft up to 10.5 m. and LOA 200 m.

MAX. SIZE: Tankers: 853 ft. (260 m.) length with 34 ft. 6 in. (10.5 m.) draft. Other vessels: Enquiries should be made with regard to vessels over 658 ft. (200 m.) length. Max. beam 45m.

HEALTH: An overseas vessel approaching the port requiring Pratique shall send a message to the Quarantine Officer not more than 24 hours and not less than 12 hours before arrival containing the following information: name of vessel, ETA, number of passengers, number of crew, number of passengers disembarking, port of departure and date, disease on board.

By supplying by radio to Agent the answers to 12 questions on the form Q.2 (see "General – Health" before first port), the vessel may be permitted to berth prior to the granting of Pratique.

On arrival the health report shall be given to the Quarantine Officer, 2 copies being furnished on the prescribed form, 1 of which will be signed by the Quarantine Officer and returned to the Master.

RADIO: Coastal radio station for local messages "Radio Melbourne" VIM. The Port of Geelong Authority maintains a Signal Station at Point Henry at which a 24-hour watch is kept. (Lat. 38° 7′ 51″ S., Long. 144° 25′ 28″ E.). The building is a cream brick tower 11.3 m. in height to the roof, situated at the Northern end of the high land of Point Henry, and is surmounted by a white signal mast. Movement of traffic within the port is controlled through the Signal Station. Communication is affected as follows:

1. Telephone. Geelong 48 – 2700.
2. Radio Telephone VHF F/M (International Channel).
   (i) Channel 16. 156.8 MHz. Calling (continuous watch).
   (ii) Channel 12. 156.6 MHz. Working.
   (iii) Channel 8. 156.4 MHz. Pilots and Tugs (continuous watch).
   (iv) Channel 6. 156.3 MHz. Tugs.
   (v) Channel 67. 156.375 MHz. Safety.

These frequencies are the same as those operated by the pilot launches, Point Lonsdale Signal Station, Melbourne Harbour Control and all Port Phillip tugboats on commercial towage.

BERTHING:

	No.	*Length* (m.)	*Depth* (m.)	*Use and facilities*
Cunningham Pier	4	328	9.7	Gen. cargo – cargo shed 137m. × 15 m.
Bulk Grain Pier	2	201	11.0	Bulk grain export. Gantry extends 154 m. of berth.
Corio Quay South 1	1	183	9.7	Stern loading ramp for Roll-on/Roll-off. Rail access.
Corio Quay North 1	1	183	11.0	Dry bulk load/discharge. Rate of loader 600 t.p.h.
2	1	183	11.0	Rail access Four 6 t. Portal cranes. Gen. cargo shed 91 m. × 30.5 m.
Corio Quay North 3	1	161	9.7	Gen. cargo shed 97.5 m. × 27 m.
Lascelles Wharf 1	1	173	11.0	Dry bulk cargo.
2	1	173	11.0	Siwertell bulk unloader. Rate 600 t.p.h. Cargo shed 30 m. × 27 m.
3	1	275	11.0	Single lift Portainer crane – Container Berth.
Refinery Pier 1 & 2	2	213	11.0	Petroleum products.
3 & 4	2	275	11.0	Crude oil, chemicals and LPG export.
Pt. Wilson Explosives Pier	2	168	9.1	Dangerous cargo. Commonwealth Government controlled.
Pt. Henry	1	152	11.0	Bulk alumina and allied products. Unloading gantry.

TUGS: Vessels normally towed from Hopetoun Channel to berth, extended towage if required. 3 large tugs available. Use of tug's line optional. Tugs equipped with VHF Channels 6, 8, 12 and 16.

STEVEDORES: Labour ordering: Day labour must be ordered by 1000 hrs. the preceding day. Twilight shift and midnight shift must be ordered by 1400 hrs. Saturday labour must be ordered by 0900 hrs. Friday, Sunday labour by 1100 hrs. Friday (day and twilight shift), Sunday midnight before 1100 hrs., Friday. Monday labour is ordered at 1000 hrs. Sunday. Special requirements exist for labour requirements on public holidays.

TANKERS: Refinery Pier. 4 berths, depth alongside 36 ft. (11 m.) Pumping platform 16 ft. (4.9 m.) above low water, wharf 12 ft. (3.7 m.) above low water. One-ton crane at each berth and accommodation ladder.

No. 1 and 2 Berths: Pier 2,909 ft (887 m.) long, direction 315° berth 700 ft. (213 m.) approx., suitable for ships up to 180 m. LOA. Ships moor to 2 spring dolphins 61 m. apart; pumping platform set back 1.7 m. from line of these dolphins.

No. 3 and 4 Berths: a branch from the main pier, direction 330°, berth 275 m. approx., suitable for ships up to 260 m. LOA. Ships lie alongside a concrete sprung berthing beam 73 m. in length. No. 4 Berth equipped with capstans and 90 tonnes S.W.L. mooring hooks for berthing large vessels. Distance between backspring bollards 35 m. Hoses 8 in. – reduction from 10 in. available.

Ballast: Tank Cleaning and Dirty Ballast Facilities: Line 12 in. Maximum quantity restricted by ullage in shore tank. Rate 900 t.p.h. Berths 1, 2, 3 and 4. All ballast must be discharged via the shore reception facilities even though oil free. Severe penalties will be imposed by the Authorities for any infringement of harbour regulations.

Geelong Port Authorities take a serious view of any form of oil pollution within the harbour, and Courts impose heavy penalties on offenders. Essential Master advises ship personnel before berthing of necessity for extreme care to ensure no oil spillage occurs.

Port Authority Circular: Mooring Ropes: In the light of new Tanker Terminal Safety requirements based on recent I.M.O. recommendations, some modification of the former stipulation regarding wire rope moorings may now be considered. Where backsprings are crossed on Refinery Berths 1 and 2, rope remains the preferred mooring. Otherwise where sliphooks are provided, wire moorings will be accepted, whereas they are not acceptable on bollards.

Please ensure that tank vessels entering the port have either rope moorings, wires with rope tails, or that vessels with wire moorings are berthed in locations where the wire eyes are placed on sliphooks.

MEDICAL: Comprehensive medical facilities available, including 459-bed Geelong Hospital. If vessel to be in port less than 24 hours it is advisable to radio Agent informing him of medical requirements prior to vessel's arrival.

DENSITY: Normally 1025, may decrease to 1023 after much rain, or increase to 1027 in Summer after prolonged dry spell.

FRESH WATER: Available at all berths from shore hose at 40–50 t.p.h. Charge 73c per kilolitre plus service charge.

FUEL: Marine fuel to 650 sec. and diesel fuel available Corio Quay North and Lascelles Wharf; all grades to 3,500 sec. available at Refinery Pier berth.

FIRE PRECAUTIONS: Stringent restrictions against burning or welding on vessels carrying dangerous cargoes. Standard fire precautions.

GANGWAY/WATCHMEN: Shore gangway man compulsory. Penalty rates after hours.

OPENING/CLOSING HATCHES: Crew or stevedores, to Master's requirements. It is normal to request bulk carriers to arrive at berth with all hatches open.

CERTIFICATES:
Derat Certificate (Health Requirement).
Ship's Articles (British) (Customs requirement).
Ship's Register (Customs requirement).
Load Line Certificate (Customs requirement).
Safety Equipment Certificate (Customs requirement).
Safety Radio Certificate (Customs requirement).
Last Port Clearance (Customs requirement).

CUSTOMS ALLOWANCES: 200 cigarettes or 250 gm. tobacco or 40 cigars. Spirits: Any bottle opened not to exceed 1 litre.

CARGO GEAR: Australian Navigation Act requirements. See "Melbourne".

IDENTIFICATION CARDS: See "Melbourne".

CONSULS: See "Melbourne".

REPAIRS: All services available. Most Melbourne repair and service firms will also undertake work in Geelong.

DRY DOCKS: *Rippleside Slipway:* 1,000 tons on 47.85 m. B.P. and repair workshop.

REPATRIATION: Possible without difficulty.

AIRPORT: Nearest major commercial airport is Tullamarine, 50 miles distant, from which there are frequent interstate and international flights. Airport accessible by road in about 1 hour 15 minutes (direct bus).

TIME: See "General" before first port.

HOLIDAYS: Closed holidays: Christmas Day; Waterside Workers' Picnic Day; Labour Day; Good Friday; Anzac Day (Tanker operations excepted). Other holidays: Australia Day; Easter Monday; Queen's Birthday; Geelong Cup Day.

TELEPHONE: Placed aboard on arrival; ship charged for calls and service.

SERVICES: Cleaning, painting, fitting out, etc., fumigation. Good fresh stores available.

POLICE/AMBULANCE/FIRE: Police 26 2800; Ambulance 22 2555; Fire 21 2755.

SHORE LEAVE: No restrictions.

AUTHORITY: Port of Geelong Authority, 65 Brougham Street, (P.O.Box 344), Geelong, Victoria 3220. *Tel:* (052) 22 1644. *Telex:* AA38648. *Contact:* N. Samuels, Chairman.

AGENT: Patrick Agencies, 2 Moorabool Street, P.O.Box 37, Geelong, Victoria 3220. Tel: (052) 22 1155. Telex: AA 32658. Fax: (052) 218119. Cables: "Rikpat".

GERALDTON, W.A.: 28.46 S. 114.36 E. (See Plan)

PORT LIMITS: Inner Harbour includes all that area of water in Champion Bay bounded by a line drawn from Gregory Street, Geraldton, along the foreshore to a point due South of the Western extremity of the breakwater; thence along the breakwater to the Western extremity of the Eastern breakwater; thence S.E. to the foot of the said Gregory Street, and also including the Entrance Channel thereto.

Outer Harbour includes all that area of water in Champion Bay and Geelvink Channel bounded by an imaginary line drawn from Point Moore lighthouse true West as far as Longitude 114° 30′ E. thence true North to the shore of the mainland about 2.75 nautical miles (North and West from Woolawar Gully), but excluding the waters of Geraldton Inner Harbour and the Entrance Channel thereto.

ETA: "Shipserve Harbour Master Geraldton" requires 48 hours and 24 hours notice prior arrival. The 24 hours message should be timed to be delivered before 1630 hrs. local time on the day before arrival so that arrangements can be finalised, when possible, in working hours. Please also indicate fore and aft draft in the 48 hours notice.

Masters are advised for medical and or other emergencies; the Harbour Master should be contacted through Principal or Local Agents.

Vessels arriving in ballast are requested to retain all clean ballast until after berthing. Discharging ballast before arriving may preclude berthing if strong wind conditions prevail.

DOCUMENTS: Quarantine Notice and Declaration QA3 Form A, Quarantine Notice QA 4 Form E2, Shipmaster's Bond QA 5, Departure Notice, 2 Crew Lists. Also see "Melbourne".

PILOTAGE: Compulsory. Pilot boards North and West of the Fairway Buoy (Lat. 28° 45.97′ S., Long. 114° 32.61′ E.)

All vessels are advised not to approach Eastward of the Fairway Buoy.

Pilot ladder and accessories, including access to vessel, must comply in all respects with current IMO/SOLAS requirements. Failure to comply *will* incur delays.

At NO time will mechanical pilot hoists be utilised due to swell conditions.

ANCHORAGE: The anchorage for vessels off the Port of Geraldton is in the vicinity of the Fairway Buoy.

Vessels must not anchor Eastward of the Fairway Buoy or within 0.5 nautical miles of the buoy.

MAX. SIZE: Length 213 m.; Beam 30.4 m. Permissible drafts: 8.7 m. at LW – 9.1 m. at 0.8 m. of tide, 9.3 m. at 1.1 m. tide, provided swell at Waverider Buoy does not exceed 3 m. Vessels wishing to load to maximums dependent on tide prevailing should contact Harbour Master before so doing.

Vessels in excess of the above will be accepted at the discretion of the Harbour Master. Vessels up to 228 m. LOA and 32.3 m. beam have been handled.

RESTRICTIONS: Swells up to 5.0 m. in outer approaches.

Movement of loaded vessels may be restricted by Harbour Master.

Bluff Point Leads or Outer Channel: Depth of water 10 m., minimum LWIS width of channel 180 m.

Curved Section of Channel: Depth of water 9.7 m. to 9.4 m. LWIS.

Inner Harbour Channel and Manoeuvring Area: 9.1 m. LWIS. Depth alongside Berths No. 2-5 is 9.4 m. LWIS.

HEALTH: First Port of Entry, radio Port Authority not less than 12 hours prior to arrival advising state of health. Also see "Melbourne".

TUGS: 2 × 30 tons bollard pull. Tugs used at discretion of Harbour Master.

RADIO: VHF available for communications with Pilot. Channels 6, 9, 12 and 16. Continuous watch not maintained.

BERTHING: The wharf is divided into 4 berths numbered 1, 2, 3 and 4 from East end, 3 berths 167 m. in length and the fourth 281 m.

No. 1. Berth has a transit shed with a 1,000 ton capacity, and an old shed which has been used for bulk storage of wheat and salt. The berth is used as a general purpose berth.

No. 2. Used as the tanker berth, and also for the discharge of bulk phosphate, sulphur and allied cargoes. Also for loading bulk cargo other than wheat. General cargo can also be handled and facilities are available for the holding and loading of sheep. Has an unobstructed apron of 27.5 m. for almost the full length of berth.

No. 3. Berth mainly for loading of bulk grain. There are 2 loading gantries on the wharf each capable of loading wheat at the rate of 400 t.p.h.

No. 4. It is possible to use No. 4 for general purposes, but a loading gantry and conveyor system at the berth is used for loading mineral sands. Max. rate 1,000 t.p.h. Air draft for loader not to exceed 11 m. (To be increased by 2.0 m. by November 1988).

No. 5 berth is situated to the West of the main wharf and runs in a N.N.E. direction. The berth is 213 m. in length with mooring dolphins either end. Currently the berth is used for general purposes.

CARGO GEAR: See "Melbourne".

STEVEDORES: 35 men. Working hours 0800 – 1700, Monday – Friday. Extended shifts Monday – Thursday. Evening shifts all days except Saturday.

CRANES: Gottwald 260-69 container crane available.

The Portainer crane has the following capabilities:
80.0 tons at 13 m. – 15 m. radius
40.0 tons at 28 m. radius
26.4 tons at 37 m. radius

FRESH WATER: At each berth at 25 t.p.h.

FUEL: Light diesel oil at 80 t.p.h.

FIRE PRECAUTIONS: Fire fighting unit available.

REPAIRS: Engine and engineering repairs can be carried out. Arrange through Agents.

GANGWAY/DECK WATCHMEN: Normally done by ships' crew.

OPENING/CLOSING HATCHES: Done by ships' crew.

CUSTOMS ALLOWANCES: Each crew member 200 cigarettes or 40 cigars or 8 oz. tobacco and limited amounts spirits per man.

REPATRIATION: Crew changes can be carried out with little difficulty.

AIRPORT: Local airport 11 km. East of town. International – Perth, 430 km. to the South.
HOLIDAYS: Christmas Day, Boxing Day, Easter, Labour Day, Anzac Day, Queen's Birthday, Foundation Day.
POLICE/AMBULANCE/FIRE: Police 64 1511; Ambulance 21 3255; Fire 21 2222.
TIME: See "General" before first port.
TELEPHONES: Available at each berth (ordered through Agent).
SERVICES: Compass adjustment, radio and radar repairs available. Contact Agents.
BANKS: Commonwealth, Westpac, Rural & Industries, A.N.Z. Banking Group, National Australia Bank.
STORING: See "Prelims".

1. Stored by truck.
2. Not applicable.
3. Trucks allowed alongside.
4. Fork lifts allowed.
5. Storing of ships must abide by Customs Regulations.
6. Waterside workers would be employed to assist with storing if required.

SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
DELAYS: All subject to weather conditions.
GENERAL: *Mineral Sands Loading:* We would like to remind Owners of the very stringent hold cleanliness requirements for vessels loading mineral sands, particularly rutile and zircon.

Owners will be aware that these sands are refined very high quality products and Surveyors require vessels to be completely free of all chemical residues, especially loose rust scale, before presenting for loading. Any work required must be done by shore labour, which is costly and time consuming.

DEVELOPMENTS: The Inner Harbour may be dredged to 13.2 m.
AUTHORITY: Geraldton Port Authority, P.O.Box 1064, Geraldton, Western Australia 6530. *Tel:* (099) 212699. *FAX:* (099) 21-7886. *Contact:* Harbour Master, Department of Marine & Harbours, P.O.Box 296, Geraldton, Western Australia 6530. *Tel:* 213340 or 215255. *Telex:* 91285.

AGENT: Patrick Agencies, 10 Francis Street, P.O.Box 67, Geraldton, W.A. 6530. Tel: (099) 21-6744, 21-6976. Telex: 91696 A/B Rikpat. Cables: Rikpat.

GLADSTONE, Queensland: 23.51 S. 151.15 E.

(See Plan)

PORT LIMITS: Inside a line commencing at a point 1.5 miles North of East Point, Facing Island; thence to the outer extremity of Jenny Lind Bank, and thence by a line to Tiber Point.
DOCUMENTS: See "Melbourne".
PILOTAGE: ETA's may be sent through Brisbane or Rockhampton Radio Stations, not less than 24 hours before arrival, followed by amended advices where necessary as takes pilot launch 2 hours to reach Pilot Boarding Ground from town. Pilotage compulsory for all merchant ships. Pilot boards at the Fairway Buoy which is approx. 28 km. West of Bustard Head. VHF Channel 16 may be used to contact pilot station, call sign "Gladstone Harbour Control"; 24 hour watch maintained. Pilot boat also has VHF. Pilot boat orange launch and displays usual signals.

Boarding of Pilots may be possible by helicopter if vessel meets certain requirements. The decision will be made after radio communication with the vessel.

Coastal and Reef Pilotage: Pilotage through the Inner Route of the Great Barrier Reef to Torres Strait is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

Pilotage recommendations: The attention of Masters is drawn to the IMO and Australian government recommendations on pilotage in Great Barrier Reef waters. See "Torres Strait".

ANCHORAGE: Good anchorage inside Gatcombe Head about 7 cables South of Bushy Islet in 8 to 10 fathoms, sand and mud, North of Facing Island Leads.
RESTRICTIONS: The port is served by an entrance channel, some 10 km. long, with a bottom width of 183 m., dredged to 15.7 m. at LWOST.

The max. allowable draft of a vessel passing through the channel is determined by the following formula:

Allowable draft in metres = 15.7 m. + tide height −1.5 m./2.0 m.*

*−1.5 m. (for vessels less than 85,000 d.w.t.) and −2.0 m. (for vessels of 85,000 d.w.t. or greater).

The max. daily tide height is 4.9 m.

The min. daily tide height is 2.7 m.

Tankers carrying petroleum products may enter during hours of darkness only at Harbour Master's discretion.

MAX. SIZE: The Port can accommodate vessels of up to 16.5 m. draft on any day of the year. The maximum draft for entrance channels is dependent on tidal conditions. Length and breadth dependent upon wharf to which vessel is to proceed.

Principal wharves are:

Auckland Wharf	No. 1	Depth 11:30 m. at LW
" "	No. 2	" 11.30 m.
" "	No. 3	" 11.30 m.
Barney Point		" 15.00 m.
South Trees	East	" 12.80 m.
" "	West	" 12.80 m.
Clinton Coal Facility		" 18.80 m.
Smelter Wharf		" 15.00 m.
Clinker Wharf		" 10.40 m.

HEALTH: A system of Radio Pratique has been adopted for vessels calling at Gladstone as a first port in Australia provided they are regular callers from disease free areas.

All vessels requiring Pratique must radio answers to a series of questions regarding crew health, etc. to ship's Agents 24 hours prior to arrival.

See "General-Health" before first port.

RADIO: Radio messages passed to Agents via any coastal radio station. All shipping cables to Agents, etc., should be prefixed "Shipserv" to enable delivery destination outside ordinary postal hours if necessary.
VHF: Shipping movements are controlled by VHF Radio, the base station being operated by the Harbour Master and his Staff.
TUGS: 4 tugs in service with bollard pulls of 46, 42, 42 and 34 tonnes. Tugs normally join vessel in vicinity of South Trees Point. Tug's lines always used when vessels are piloted. There is no extra charge for use of tug's lines.
BERTHING: Large vessels loading coal at either Auckland Point Wharf or Barney Point Wharf normally swing and berth starboard side to, head to sea, on flood tide. Smaller vessels using these berths either port or starboard side to, depending upon tide. Vessels discharging bauxite at South Trees Island Wharf, berth at periods of slack water (high or low) only. Vessels loading alumina at this wharf berth either on flood tide or slack water – *never* on ebb tide.

Auckland Point Wharves: With total length of 640 m., there are 3 berths at Auckland Point, owned and operated by the Gladstone Port Authority.

No. 1 Berth: Coal is exported through this berth over 2 bulk shiploaders each with a capacity of 800 tonnes/p.h. These loaders travel a distance of 142 m. along the wharf and are joined by 2 conveyors to the coal stockpile area. Capacity of the stockpile is 300,000 tonnes. Depth of water at berth is 11.3 m. LWOST

No. 2 Berth: This berth handles the export of grain (wheat, grain sorghum, oil seeds) from the rich grain growing areas of the Dawson/Callide Valleys and the Central Highlands. Grain is stored in the adjoining complex of silos and storage sheds.

Total Port capacity for storage of grain is over 82,000 tonnes. Taken from the storage areas by conveyors, the grain is loaded onboard vessels by 2 mobile gantry shiploaders at a combined rate of 1,600 tonnes/p.h. The berth depth is 11.3 m. LWOST.

No. 3 Berth: Petroleum products imported through this berth are stored in the tank farms constructed by the major oil companies on reclaimed land adjacent to the berth. This vital fuel is then distributed throughout Central Queensland. General cargo and special heavy lift vessels also use this berth. The berth depth is 11.3 m. LWOST.

Barney Point Wharf: This wharf with a total length of 205 m. is owned and operated by Thiess Dampier Mitsui Coal Pty. Ltd. Coal from the T.D.M. Mine at Moura and Thiess Brothers Mine at Blackwater is exported through this facility. Coal from the Moura Mine is carried 180 km. to the port over the direct Gladstone to Moura railway line. The stockpile area has a capacity of 400,000 tonnes. Shiploading is done by a single 2,000 tonnes/p.h. mobile shiploader. The berth depth is 15.0 m. LWOST.

South Trees Wharf: Owned and operated by Queensland Alumina Limited, this facility handles all cargoes for the giant alumina refinery. Bauxite is imported from Weipa (in North Queensland) and alumina is exported to all parts of the world. The other components necessary for the alumina process – caustic soda and fuel oil are also imported over the wharf.

Depth at the berth is 12.8 m. LWOST.

Boyne Wharf: Constructed to serve the needs of the Gladstone aluminium smelter, the wharf is 250 m. long and will cater for vessels up to 60,000 tonne capacity.

A causeway 710 m. long provides access to the wharf and to a sealed area (400 m. × 50 m.) for storage of aluminium billets. On the wharf is a 400 tonnes/p.h. mobile unloader to handle petroleum coke used in the smelting process.

Depth at the berth is 15.0 m. LWOST.

Fisherman's Landing Wharf: Most Northerly of the wharf centres, the wharf at Fisherman's Landing will export clinker from the Queensland Cement Limited's Clinker Plant. The limestone is mined in the Mount Larcom area, crushed and pumped down to the plant in slurry form. After processing, the clinker is exported to Brisbane to be used in the manufacture of cement.

The clinker will be loaded by a 2,000 tonnes/p.h. pivoting bulk shiploader. The shiploader will load vessels of 25,000 tonne capacity.

Depth at the berth is 10.4 m. LWOST.

Clinton Coal Facility: Owned and operated by Gladstone Port Authority. The Facility is presently being extended to incorporate 2 berths at 18.8 m. depth. Construction of second wharf is expected to be finalised late 1989. Shiploader and unloading operations at rate of 4,000 tonnes/p.h. Berths presently cater for vessels from 25,000 d.w.t. to in excess of 220,000 d.w.t. and of 16.5 m. draft and 55 m. beam.

BULK HANDLING FACILITIES: *See Table.*
STEVEDORES: Special ETA advice necessary if week-end labour required and must be ordered by 1400 hrs. on previous Friday. Monday labour for vessels arriving after Friday must be ordered by 1500 hrs. on Friday. The only commodities requiring shore labour are bulk grain and general cargo.
MEDICAL: Dependent duration stay in port, prior notice for medical attention not required (other than notice of infectious diseases). Hospital facilities available. Current vaccination certificate for each member of crew required.
TANKERS: Diameters of discharge lines 12 in., (0.305 m.) and 8 in. (0.203 m.) for white oils and 6 in. (0.152 m.) black oils, no slop discharge facilities. Main tanker berth at Auckland Point Wharf (Berth No. 3), minimum depth alongside 11.30 m. LWOST. Black oil also discharged at South Trees Island Wharf for use in alumina plant only.
DENSITY: Average density 1024–1028.
FRESH WATER: Available all wharves. Fresh water hydrants placed at intervals along wharves.

BULK HANDLING FACILITIES:

Location Number of Units	Auckland Point No. 1 2	Auckland Point No. 2 2	Barney Point 1	South Trees East 1	South Trees West 2	Clinton Facility 1
Type of Unit	Mobile Gantry Loader	Mobile Gantry Loader	Mobile Gantry Loader	Mobile Gantry Loader	Mobile Gantry Grab Unloader	Mobile Gantry Loader
Length of Travel (metres)	142 (Combined)	139.5 (Combined)	149	168	198	233
Max. Outreach from Wharf (metres)	15.2	19.3+ Trimmer/Jetslinger available	16.2	25.6	26.7	34.2
Throw of Trimmer (metres)	15.2	N/A	11.0	N/A	N/A	N/A
Max. Beam of Vessel (metres)	32.0	32.0	35.4	35.4	35.4	55.0
Capacity (t.p.h.)	1,600	1,600 (Combined)	2,000	1,200	2,000	4,000
Commodity Handled	Coal	Grains	Coal	Alumina	Bauxite	Coal
Storage (Tons)	300,000	82,000	400,000	238,000	1,000,000	2,500,000

FUEL: Fuel oil is available by bunker lines at Auckland Point No. 1 and No. 3 Berths and South Trees Island Berths. (Fuel oil at South Trees Island is available to Queensland Alumina's vessels only). Lubricating oils and diesel are available by road tanker. Coal (high carbon content) also available.

FIRE PRECAUTIONS: Where petroleum and goods of dangerous inflammable character are being unloaded, watchman shall be employed to collect matches from all persons in vicinity and to patrol wharf within the limits in which petroleum cargo is being handled. Every vessel carrying inflammable liquids when in any Queensland port shall display red flag, not less than 1 m. (3 ft.) square with white circular centre 15 cm. (6 in.) in diameter.

OPENING/CLOSING HATCHES: Either by ship's crew or shore labour.

GANGWAY/DECK WATCHMEN: Services of watchmen is not recommended except in the case of petroleum tankers previously mentioned.

SHIP CERTIFICATES: List of certificates usual for Australian ports. See "Melbourne".

CARGO GEAR: To be in accordance with Commonwealth Navigation (Loading and Unloading Safety Measures) Regulations. See "Melbourne".

CUSTOMS ALLOWANCES: 0.5 lb. of tobacco or 200 cigarettes, to be opened. 1 only 26 ounce bottle, to be opened.

IDENTIFICATION CARDS: See "Melbourne".

CONSULS: None.

REPAIRS: Minor engine and deck repairs are undertaken.

DRY DOCKS: None available. Slipway capable of lifting vessels up to 125 tons displacement with max. beam 23 m. and max. draft forward of 6 ft.

REPATRIATION: Facilities for effecting crew changes and necessary repatriations can be arranged. Prior notice required.

AIRPORT: Airport approximately 3 km. from port and is regularly served by 2 internal airlines. Daily flights to Brisbane with connections with overseas airlines.

TIME: See "General" before first port.

HOLIDAYS: Only 5 official holidays in year when it is *not* possible to arrange cargo work: Christmas Day; Anzac Day (25th April); Labour Day (1st Monday in May); Good Friday.

POLICE/AMBULANCE/FIRE: Telephone number of these services in cases of emergency only is "000" and ask to be connected to the required service. Emergency call to Hospital is 72.1033.

TELEPHONES: Public phones available on wharf.

SERVICES: No tank cleaning facilities. No slop facilities.

SHORE LEAVE: Crew members allowed ashore provided vaccination certificates in order.

DELAYS: No unusual delays other than berth availability or unusual tidal conditions.

GENERAL: No cranes on wharves. Mobile cranes available for hire. No lighterage facilities. Electricity available to ships. Passengers not normally embarked or disembarked this port, as no facilities for them.

DEVELOPMENTS: Investigations into the deepening of harbour channels are being carried out to enable vessels of 200,000 d.w.t., to be fully loaded.

Tide/Draft Table: The Harbour Master at Gladstone has issued a tide/draft table following the completion of the dredging programme. A copy of the full table is available from Agent's office, but we quote below examples of drafts extracted from the full table:

Tabulated tide height (m.)	*Vessels up to 85,000 d.w.t.* (m.)	*Vessels over 85,000 d.w.t.* (m.)
2.2	15.6	15.1
2.5	15.9	15.4
2.8	16.2	15.7
3.1	16.5	16.0
3.4	16.8	16.3
3.7	17.1	16.6
4.0	17.2	16.7
4.3	17.3	16.8
4.6	17.4	16.9
4.9	17.6	17.1

Following completion of stage one of development dredging, in the approach channels, the Harbour Master Gladstone, has approved an increase by a factor of 0.4 m. to the maximum draft tables for the Port of Gladstone, except for departure from Fisherman's Landing Wharf.

AUTHORITY: Gladstone Port Authority, P.O.Box 259, Yarroon Street, Gladstone, Queensland 4680. *Tel:* (079) 76 1333. *Telex:* Gl Port AA 49480. *FAX:* (079) 72 3045. *Contact:* Mr. B. J. Jordan, Secretary.

AGENT: Patrick Agencies, P.O.Box 296, 136 Gondoon Street, Gladstone, Queensland 4680. Tel. (079) 72 2088. Cables: "Rikpat" Gladstone. Telex: AA 49431. Fax: (079) 72 4823.

GOVE, N.T.: 12.12 S. 136.40 E. (See Plan)

DOCUMENTS:

2 Crew Lists Form M. & S. 11 (3 at outports).
5 Passenger Lists, Forms M. 308 and 309.
1 Loading Ports List, Form B921.
3 Barber's stocks and stock in ship's shops and canteens, (Form 5) continuation of the back, Form 5 AA.
1 List of Customable Articles, Form 5 (crew).
3 Return of Goods of Barber's stock, etc., Form 5 AA.
1 Stores List, Form 42 A.
1 Annual Declaration, Form QA76.
2 Primary Health Report, Form Q360.
1 Clearance from Last Port.
Ship's Log.
1 Derat Certificate.
1 Light Dues if paid previously.

PILOTAGE: Compulsory for vessels proceeding to Nabalco Facilities. The Pilot will board at the anchorage position.

Coastal Pilotage: Pilotage services between Gove and Darwin via Clarence Strait, or to Torres Strait, are conducted by pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

ANCHORAGE: Melville Bay affords good holding ground, the bottom being either sand or mud and the depths ranging up to 48 ft. (14.64 m.) West of Dundas Point. Vessels awaiting a berth should anchor approximately 1.5 miles (2.41 km.) Westward of West Woody Island close by the Fairway Buoy. The Quarantine Officer and Customs Officer normally clear vessels alongside the berth, but may on occasions board at the anchorage.

A vessel is considered to be an "arrived ship" for purposes of laytime when she enters the Quarantine Anchorage.

We quote below Australian Notice to Mariners No. 510/1978.

Gove Harbour – Quarantine Anchorage Altered:

(a) A pecked line is to be inserted joining the following positions:
From Lat. 12° 11.12′ S., Long. 136° 37.5′ E. on the Harbour Limit to
Lat. 12° 09.58′ S., Long. 136° 37.5′ E. thence to
Lat. 12° 09.58′ S., Long. 136° 39.6′ E. and thence to
Lat. 12° 11.12′ S., Long. 136° 39.6′ E. on the Harbour Limit
On Plan, from Long. 136° 39.6′ E. in the N. border to
Lat. 12° 11.12′ S., Long. 136° 39.6′ E. on the Harbour Limit.
(b) The Legend *Quarantine Anchorage* is to be inserted within the area of 1(a).

RESTRICTIONS: Approach Channel to bulk cargo and tanker jetties has minimum depth 13.8 m.

Approach Channel to general cargo jetty has minimum depth 11.59 m.

PRATIQUE: The Port of Gove has been declared Port of First Entry for health clearance of vessels arriving from overseas.

Vessels will usually be cleared alongside the berth.

If Pratique is required, vessel must provide a Primary Health Report.

Radio Pratique may be granted if answers to the "Australian Quarantine Questionnaire" are received 12-24 hours prior to vessel's arrival. See "General – Health" before first port.

RADIO: *Notice of Arrival:* Prior to arrival, vessels are requested to radio the following information:

(i) For all vessels:
  (a) ETA Gove – 72 hours out
  – 48 hours out
  – 24 hours out
  (b) Anticipated draft forward and aft.
(ii) For bulk carriers, anticipated hatch loading plan, loading sequence and quantity required in each pour.
  (c) For petroleum tankers, approximate quantities to be discharged and grade of product desired for first discharge, and order of unloading various grades if more than one grade is carried.

Radio messages should be addressed to "Gobaux", Darwin. The call sign of the radio station at Darwin is VID. Radio messages will be passed by teleprinter to Gove.

Cable messages for Nabalco should be addressed to "Shipserv", Gove.

VHF: The Nabalco Harbour Master's Office maintains a listening watch on Channel 16 during office hours. VHF frequencies used are 16, 12 and 6. Call sign "Gove Harbour".

TUGS: There are 3 work boats available for hire in the port, max. h.p. 2000. Tug's lines are used in most instances, but no extra charge is made.

BERTHING: *Bulk Cargo Wharf:* The bulk cargo wharf runs in a N.W./S.E. direction and bears 189° true 2,440 m. (8,000 ft.) from West Woody Island triangulation point. The wharf has a 'T' head which is connected to the shore by an access bridge 946 m. (3,120 ft.) long and 3.05 m. (10 ft.) wide.

The Northern branch of the wharf head constitutes the bauxite/alumina berth and the Southern branch the bulk liquids berth.

The bauxite/alumina berth is mounted with a travelling, luffing shiploader with telescopic trimming spout having an outreach of 31 m. (101 ft. 6 in.) from the fender line. The distance of travel along the berth is 164.2 m. (540 ft.). The clearance beneath the spout at maximum elevation for loading is 16.7 m. (55 ft.) above chart datum (LWOST) at berth side.

The shiploader has a designed capacity of 2,000 tonnes/p.h. for bauxite and for alumina.

The shiploader is connected by a belt conveyor system to the bauxite stockpiles and to the alumina silos, 3,202 m. (10,500 ft.) and 2,592 m. (8,500 ft.) distant respectively from the wharf head.

The bulk liquids berth consists basically of mooring dolphins and fenders associated with a pipe bridge support. Three pipe-lines are provided namely:

(1) 46 cm. (18 in.) diameter for bunker fuel oil.
(2) 30 cm. (12 in.) diameter for caustic soda.
(3) 25.4 cm. (10 in.) diameter for diesoleum, petroleum and aviation kerosene.

During the tanker discharging operations, connection between ship and shore is provided by 20.3 cm. (8 in.) diameter flexible hoses with BS Table "F" 8-hole fittings at each end.

If other types of fittings are required to effect discharge, arrangements should be made by the tanker vessel to provide such items.

The length of each pipe-line is approximately 1,982 m. (6,500 ft.) covering the distance from bulk liquids berth to shore tank farm.

A depth of water of 13.9 m. (45 ft. 08 in.) below chart datum (at low water ordinary Spring tide) is available at both the alumina/bauxite and bulk liquid berths.

This will allow simultaneous occupancy by a tanker and bulk carrier, each of up to approximately 60,000 d.w.t., under ordinary conditions. A minimum clearance under the keel of 10% of the draft is required for berthing and unberthing.

General Cargo Wharf: This wharf extends in a S.E. direction from the Eastern side of the land strip leading to Dundas Point. The wharf bears 315° (T) × 1,342 m. (4,400 ft.) from Half Tide Rock and is a substantial structure 94 m. (310 ft.) long by 27.89 m. (91 ft. 6 in.) wide connected to the shore by an access jetty 287.2 m. (950 ft.) long and 5.49 m. (18 ft.) wide.

The wharf has been designed for vessels of max. length of 182.8 m. (600 ft.) and of up to 20,000 d.w.t. to berth at each side under normal conditions. Vessels of up to 30,000 tons can be accommodated under suitable tidal conditions.

The depth of water alongside is 11.59 m. (38 ft.) below chart datum (LWOST) on both sides of the wharf head.

Fisherman's and Light Cargo Wharf: This wharf is located near Harbour Island in Melville Bay. It is administered by V. B. Perkins Pty. Ltd. Total wharf length is 48.0 m. and width 18 m. Max. wharf loading by vehicles 4.5 tonnes/sq.m. The minimum available depth alongside is 5.0 m.

Ramps: 2 Landing barge ramps accommodating landing barges up to 1,500 g.r.t. A 28 tonne SWL fork lift is available for cargo operations.

CRANES: 8 mobile cranes, capacities between 5 tonnes and 90 tonnes.

STEVEDORES: No local stevedoring companies.

TANKERS: See "Berthing".

FRESH WATER: Available at all berths.

FUEL: Available at Fisherman's and Light Cargo Wharf only.

MEDICAL: Medical services and a large modern hospital with comprehensive theatre, medical and surgical facilities, at Nhulunbuy, 9 miles from the port.

AIRPORT: Gove is served by commercial flights to and from Darwin on 5 days a week and by commercial flights several times a week from Brisbane and Sydney via Cairns. Services to other parts of Australia and the rest of the world are frequent from Darwin.

TIME: See "General" before first port.

REPAIRS: Limited facilities, minor repairs only.

DENSITY: 1025.

SURVEYORS: Local Pilots conduct draft, on-hire and bunker surveys, however, Lloyd's Surveyor available from Darwin or Cairns.

HATCHES: Opening and closing carried out by ship's crew.

REPATRIATION: Facilities exist for effecting crew changes and repatriation.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 litre of spirits per crew member.

IDENTIFICATION CARDS: May be required.

SHORE LEAVE: After clearing inwards crew members may proceed ashore with special permission.

REGULATIONS: It is forbidden to take firearms, alcoholic beverages and foodstuffs ashore.

AUTHORITY: Nabalco Pty. Limited, P.O.Box 21, Nhulunbuy, N.T.5797. *Tel:* (089) 87 5211. *Telex:* 85045 (Port Telex). *FAX:* (089) 872-596. *Cables:* Gobaux. *Contact:* Captain W. J. Gibson, Port Superintendent. Gove Port Office *Tel:* (089) 875347.

AGENT: Agency undertaken by Nabalco Pty. Limited.

GROOTE EYLANDT (Milner Bay), N.T.: 13.52 S. 136.25 E. (See Plan)

LOCATION: Milner Bay is situated on the Northwestern corner of Groote Eylandt which is itself situated in the Southwestern area of the Gulf of Carpentaria.

It is a "Port of First Entry" to Australia. Customs, Quarantine Doctor, Police, are in residence on the Eylandt.

PORT LIMITS: The waters in Milner Bay bounded by a line commencing at the HW mark on the N.W. coast of Groote Eylandt in position Lat. 13° 50′ 05″ S., Long. 136° 24′ 29″ E. and proceeding in a 260° 44′ 10″ direction to a point in Lat. 13° 50′ 28″ S., Long. 136° 22′ 03″ E. at the high-water mark on the East coast of Connexion Islet; thence by a line following the contour of the coast of Connexion Islet at the HW mark to "Boulder" in position Lat. 13° 50′ 46″ S., Long. 136° 20′ 14″ E.; thence by a line bearing 151° 30′ to a position Lat. 13° 53′ 34″ S., Long. 136° 21′ 47″ E.; thence by a line bearing 80° 44′ 10″ to a point being Lat. 13° 52′ 54″ S., Long. 136° 25′ 58″ E. thence by a line following the contour of the coast at high-water mark to the point of commencement.

DOCUMENTS:

3 Crew Lists.
5 Passenger Lists.
1 Port of Call List.
3 Stores Lists.
1 Crew's Personal Effects List.
Derat. Certificate.
Clearance from Last Port.

PILOTAGE: Compulsory to Ore Jetty.

There is a Port Superintendent and a Port Officer at Milner Bay who will assist Masters in berthing and departing from the jetty. Approaching Groote Eylandt from the Northwards, vessels should steer to a position 10 miles North of the Northeast Islet, which is rocky on the Northern coast and rises to grassy hills. From the above position, steer to pass about 3 miles North of Chasm Islet until the recommended track on chart AUS. 14 is reached. This track, 221° passes about 1 mile East of Brady Rock (light Gp. Fl. (3) ev. 12 secs.) and continues on this course until Bickerton Island Light (Fl. 5 secs.) bears 250° when the course should be altered to steer for Hand Islet on the recommended track (250°) until reaching the position to alter course to 195° to pass down the middle of Warwick Channel. It is recommended to remain on this course until reaching the patch South of Connexion Island.

If vessels enter via the Connexion Passage, care must be taken to avoid the 5.4 m. fathom patch off N.W. Bluff and keep clear of the 8.2 m. patch about 3.5 miles N.E. of Connexion Islet.

Coastal Pilotage: Pilotage services between Gove and Darwin via Clarence Strait, or to Torres Strait, are conducted by pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

ANCHORAGES: Good holding ground is found 1.6 miles West of the jetty where there is a good sand bottom free of obstructions with about 20 m. of water. Due to currents up to 3 knots in the area, it is advisable to use at least 6 shackles. Quarantine is granted at this anchorage.

MAX. SIZE: The max. LOA is 223 m. and max. breadth 32.2 m. The max. draft is 12.5 m.

PRATIQUE: Vessels are granted Pratique at the Anchorage 1 mile West of the wharf or at the Jetty.

RADIO: The Port is able to communicate with vessels which are fitted with VHF radio through normal international Maritime Channels and the call sign is "Milner Bay". However, the shore station is only open during office hours unless prior telegraphic arrangement is made. Office hours are 0800 to 1645, Monday to Friday.

It is requested that vessels arriving at any hour of the day should monitor VHF Channel 16 as sometimes attempts are made to contact vessels outside of office hours. Channels available are 16, 67 and 06 (private).

ETA's are requested at least 72, 48 and 24 hours prior to arrival. Telegraphic address is: Hematite, Alyangula, Telex AA85886 (Answerback 'Milbay'). Telephone No. (089) 876011.

VHF: Port – Channels 16, 06 and 67.
Tugs – Channels 16, 12, 06 and 67.

TUGS: 2 tugs available. 1×16 tonne bollard pull and 1×6 tonne bollard pull.

Normally join the vessel 0.75 miles from berth.

Ship's lines taken for berthing.

BERTHING: The ore-loading jetty is situated in approximately Lat. 13° 51.5′ S., Long. 136° 25′ E., with a depth of water alongside of 12.5 m. MLWOST with a tide range of 1.8 m. Two small tugs are available to assist in berthing vessels. The jetty consists of a central landing 98.75 m. long and 10.97 m. wide, with two breasting dolphins on the North and South ends of the central landing. A roadway extends from the shore to the central landing, virtually parallel to and on the North side of the loading conveyor belt. Local Tidal Information may be obtained from the Port Superintendent on arrival.

The line of dolphins is offset 8° from the jetty stem which runs out 411.5 m. from the shore in a 249° 45′ direction so that care must be exercised in placing the vessel for loading. All breasting dolphins are fendered with vertical timbering. When berthing, vessels should keep well clear of the loading head in the centre of the jetty, as it is possible that a vessel on a too fine approach could cause damage to the loading boom with the flare of the bow.

Vessel must have rat guards in position at all times (except while shifting ship), otherwise they will be liable to a fine. As Groote Eylandt is a reserve this requirement is rigidly enforced.

Loading rate is 900 t.p.h. –1,100 t.p.h. and the vessel is required to shift ship to load each hatch as the loading boom is fixed. Shore labour is available to shift lines, etc., as required. Shore labour will not trim manganese ore, which is dump loaded from the conveyor.

This is a seasonal tropical loading zone from 1st April to 30th November.

FRESH WATER: Available. Rate 9 tonnes/hour.
STORES: Not available.
FUEL: Not available.
CUSTOMS ALLOWANCES: 200 cigarettes, 1 bottle spirits, 3 bottles of beer per man.
MEDICAL: There is a Medical Centre and medical staff available if necessary. Valid vaccination certificates are required, covering the requirements of the Australian Government Department of Health.
FIRE PRECAUTIONS: A permanent fire-fighting facility is installed on the ore-loading jetty. It is an automatic system which starts as soon as a fire hydrant is turned on, and delivers a 140 p.s.i. through a 2.5 in. hydrant with a 5 TPI V thread connection.

All shore hoses are 2.5 in. and are equipped with fog nozzles. Foam equipment is also available on the jetty with an output of approximately 1,000 gallons per minute. Fire-fighting lines on the jetty deliver salt water only. International shore connection available.

TIME: See "General" before first port.
WEATHER/WIND/TIDE: Tides cause some eddying in both the Connexion and Warwick Channels, but these cause no concern provided normal care is exercised.

Prevailing winds from May to October are S.E. and blow strongly at times during the day but ease off considerably after sunset.

There are occasional heavy fogs in the area in June and July in the early morning and these sometimes persist until 1000 hrs. or 1100 hrs.

From November to May the wet season prevails with winds blowing mainly from the N.W. with heavy rains and occasionally, more than moderate seas.

IDENTIFICATION CARDS: Seamen calling at this port have to be in possession of Seamen's Identification Cards, Form M315, issued by the Commonwealth of Australia, however, certain nationalities are exempt.

Facilities at Groote Eylandt are severely restricted and the Port Authorities recommend seamen should be provided with the required card before arriving at Groote Eylandt. For information, we would advise that Greek nationals are not exempt from this requirement, but nationals of Great Britain, Norway, Japan, Hong Kong, India and the People's Republic of China are.

REPATRIATION: Can be effected to most countries from Groote Eylandt via Darwin which is serviced by Qantas and British Airways. Due to the remoteness of Groote Eylandt, repatriation of crew members should only be considered in a 'Force Majeure' circumstance. All necessary bookings and reservations are made through the local airline office and Seamens' Discount Fares, where applicable, are utilised.
AIRPORT: Ansett N.T. operate a 3 times a week jet service to and from Darwin. Air Queensland operate a twice weekly service to and from Cairns.
ACCOMMODATION: Visitors accommodation in the GEMCO township of Alyangula, is severely limited and shipowners who are arranging for a change of personnel at Groote Eylandt are requested to ensure that the arrival of crew members at Groote coincides as closely as possible with the arrival of the vessel.
NOTARY PUBLIC: A Notary Public is not available.
HOLIDAYS: Cargo worked on most holidays by arrangement.
SHORE LEAVE: The area is an Aboriginal reserve and *shore leave is allowed in the town area only* provided the vessel has a permit which is supplied by the Agent on berthing.
AUTHORITY/AGENT: The Groote Eylandt Mining Company Pty. Ltd. act as ships' Agents in all cases.

Groote Eylandt Mining Company Pty. Ltd., Post Office, Alyangula, Groote Eylandt, N.T. 5798. *Tel:* Alyangula (089) 87 6011. *Telex:* AA 85886 Milbay. *FAX:* (089) 876501. *Cables:* Hematite Alyangula. *Contact:* Captain P.C. Hopton, Port Superintendent. Captain R.B. Dunn, Port Officer.

Mail for vessels to be addressed to: "Vessel's Name", Groote Eylandt Mining Co. Pty. Ltd., Groote Eylandt, N.T. 5798.

HAY POINT (including Dalrymple Bay), Queensland: 21.16 S. 149.18 E. (See Plan)

PORT LIMITS: The seaward Port Limits extend from the North shoreline at the entrance to Bakers Creek by a line in an East North Easterly direction to Lat. 21° 10′ S., Long. 149° 20′ E. thence East to Lat. 21° 10′ S., Long. 149° 30′ E., thence South to Lat. 21° 18′ S., Long. 149° 30′ E. thence West to the shore South of Hay Point.

A vessel is considered to have arrived when it anchors within Port Limits or if proceeding directly alongside at the time when the Pilot boards.

DOCUMENTS: The documents required by the Customs Department are:
- 2 Crew Lists.
- 1 Declaration of Dutiable Goods (Australian Customs Form 5)
- 1 Ports of Call List showing previous 6 ports
- 1 List of Dutiable Stores and Drugs held on board (Australian Customs Form 42A)
- Last Port Clearance.

The Customs Officer will also wish to sight the following documents:
- Ship's Register
- Safety Radio Certificate
- Safety Construction Certificate
- Safety Equipment Certificate
- Loadline Certificate.

The documents required by the Department of Health are:
- 2 Declarations of Health (Australian Government Department of Health Form Q.360)
- 1 Crew List
- 1 Vaccination List
- 1 Ports of Call List.

The Quarantine Officer will also wish to sight a current Derat Exemption Certificate.

PILOTAGE: Pilotage, which is compulsory is provided by the Queensland Department of Harbours and Marine, whose Pilots are stationed at the port. Vessels should notify the Harbour Master, through their Agents of their ETA 24 hours before arrival and they will be advised of the Pilot boarding area. The boarding areas are generally 2.3 miles S.E. or N.E. of Hay Point Wharf, depending on whether the vessel is berthing port side or starboard side alongside.

Vessels must make a good lee for the pilot boat and have a pilot ladder rigged in accordance with the provisions of the Navigation (S.O.L.A.S.) Regulations.

Boarding of Pilots may be possible by helicopter if vessel meets certain requirements. The decision will be made after radio communication with the vessel.

Coastal and Reef Pilotage: Pilotage through Hydrographers Passage, Palm Passage, Grafton Passage and the Inner Route of the Great Barrier Reef to Torres Strait is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

Pilotage recommendations: The attention of Masters is drawn to the IMO and Australian government recommendations on pilotage in Great Barrier Reef waters. See "Torres Strait".

Hydrographers Passage: Masters' attention is drawn to Sailing Directions for Hydrographers Passage compiled by the Australian Department of Transport. Relevant extracts are:

"Hydrographers Passage shortens the route between Hay Point and Japan via Rossel Island by approximately 220 miles."

"Vessels too deep to pass through Torres Strait in safety and bound for ports in the Singapore to Europe (via Suez) range may find it shorter, and with a greater likelihood of favourable weather and currents, via Hydrographers Passage, East and North of Papua New Guinea, and through Sagewin Strait, than the alternative route via Bass Strait and the Great Australian Bight."

"The Commonwealth Department of Transport strongly recommends that all vessels engage the services of a pilot for transit of Hydrographers Passage."

NOTES: In 1987 the R.A.N. surveyed Diamond Passage in the Coral Sea. Use of this channel and Jomard Entrance now results in a voyage reduction of about 245 miles.

The route via Hydrographers Passage, Diamond Passage and North of Papua New Guinea to Suez is approximately 125 miles shorter than the Great Australian Bight route.

During the Southern Winter months, vessels bound for Europe via the Cape of Good Hope have found better sailing conditions and obtained a faster voyage by taking the route North of Papua New Guinea rather than the Great Australian Bight.

Vessels loading in central Queensland during the period from 1st April to 30th November and bound North via Hydrographers Passage or the Inner Route to Torres Strait are able to load to the *Tropical Load Line*.

For details of the IMO recommendation on pilotage, ordering a pilot, and communications arrangements see "Torres Strait".

ANCHORAGE: No. 1 Anchorage generally used by vessels which will be berthing port side to, is situated 2.3 miles S.E. of Hay Point Wharf. No. 2 Anchorage for vessels berthing starboard side to, is situated 2.3 miles N.E. of Hay Point Wharf. Ships will be advised of their anchorage position before arrival but the attention of Masters is drawn to the restricted area between Nos. 1 and 2 Anchorages where anchoring is prohibited. Also see "Plan".

RESTRICTIONS: A vessel arriving at the port must have its propeller totally immersed and be trimmed not more than 2.5 m. by the stern.

Maximum departure draft is dictated by the height of tide and is calculated on the basis of maintaining an underkeel clearance in the departure channel equal to 10% of draft + 0.6 m. Channel depth is 13.4 m. and vessels on maximum draft will sail 1 hour before HW.

While alongside vessels must maintain a minimum underkeel clearance of 1.5 m.

Vessels over 100,000 D.W.T.: We have been advised that restrictions in excess of the published draft calculations exist for vessels in excess of 100,000 tonnes deadweight calling at the port.

The restrictions depend on to which side the vessel berths to at Hay Point No. 1 or the Dalrymple Bay berth. Hay Point No. 2 is not affected. The following apply:

Hay Point No. 1	
Vessels berthing port side to:	Normal draft calculations apply.
Vessels berthing starboard side to:	Normal draft calculations less additional 1.2 m.
Dalrymple Bay	
Vessels berthing starboard side to:	Normal draft calculations apply.
Vessels berthing port side to:	Normal draft calculations less additional 0.9 m.

The state of the tide determines which side to each vessel will berth. However, by arrangement with the shippers the vessel can wait for a more suitable state of tide to enable the vessel to berth on the side where draft restrictions do not apply. This can result in delays of up to 4 hours.

MAX. SIZE: The designed maximum size vessel for the berths is 200,000 d.w.t.

HEALTH: Radio Pratique may be requested through a vessel's Agents, between 12 and 24 hours prior to arrival. This is generally granted if there are no unusual circumstances. See "General" before first port.

On receipt of quarantine message the Agent will obtain from the Harbour Master an anchorage position and advise vessel not berthing on arrival.

Inspections may be carried out at the jetty or at anchorage at the discretion of the Quarantine Office.

Pratique is available in the berth on a 24 hour basis, 7 days per week.

Rat guards are to be maintained on all mooring lines whilst the vessel is alongside.

Whilst in the vicinity of the port, vessels are required to store garbage aboard in containers approved by the Quarantine Inspector.

RADIO: Radio messages can be sent through Sydney Radio (VIS) but within 24 hours of arrival Townsville Radio (VIT) provides a faster service.

Advice of Arrival: Dalrymple Bay: The Port of Hay Point is a First Port of Entry and all vessels bound for this port to load at the Dalrymple Bay Coal Terminal facilities are to radio through the normal recognised coastal radio stations or by telex the following arrival notifications, addressing their messages to:

Cables: Shipserv Dalbay Mackay.
Telex: AA 46374.

The following ETA notices are required:

(i) 7 days before the intended arrival at the port, or on departure from the last discharge or loading port, whichever is the sooner, advising:
ETA at the port.
Whether the port is the first port of call in Australia.
Arrival condition (ballast or part loaded).
Cargo requirement.
Full or part cargo.

(ii) (a) 48 hours before intended arrival at the port advising:
ETA at the Anchorage Area/Pilot Boarding Ground within port limits.
Confirmation of tonnage intended to load.
Forward and after arrival draft.
Planned forward and after sailing draft.
Stowage plan.
Hatch loading sequence plan.
Distance between keel and hatch coaming.
(b) Masters of vessels calling to load part cargo only shall advise the following additional information:
If arriving part loaded:
Berthing displacement.
Previous loading port.
Stowage of loaded cargo.
If completing loading at subsequent port(s):
Next loading port.
(c) Masters of O.B.O. vessels are to furnish the following additional information:
Nature of the preceeding 3 cargoes the vessel has carried.
Date and place last petroleum product was discharged.
Statement on the condition of the slop tanks and whether these are pressed up or fully inerted and sealed.
The date and place of issue of the Gas Free Certificate carried on board.
Confirmation or variation of previously advised ETA at the port.

(iii) 24 hours before intended arrival at the port advising:
Confirmation or variation of previously advised ETA at the Anchorage/Pilot Boarding Ground.

(iv) Immediately upon arrival at the Anchorage/Pilot Boarding Ground, as designated, within port limits, advising:
Arrival/anchorage time.
Chart position.
Declaration that vessel is in all respects ready to load, with clean hatches, and hatch covers opened on berthing.
First pour.
Actual arrival draft forward and aft.

VHF: Call sign "Hay Point Harbour". A continuous watch is maintained on Channel 16. Working Channels are 14 and 12. Vessels arriving at the anchorage should confirm ETA 2 hours before arrival and then notify anchoring time. A continuous watch should be maintained on Channel 16 while at anchor.

TUGS: 2 tugs each of 75 tonnes bollard pull are available to service vessels using the Central Queensland Coal Associates wharves and 2 Z-peller tugs each of 55 tonnes bollard pull are available for the Dalrymple Bay Terminal. Tugs normally join vessel at pilot boarding area. Tugs lines are used.

BERTHS: The Port of Hay Point currently consists of 3 coal loading berths as follows:

Central Queensland Coal Associated Berth No. 1:

Berth Alignment	350° True
Dredged Depth	16.76 m. Below Datum
Dredged Width	60.96 m.
Dredged Length	342.90 m.
Nominal Loading Rate	4,000 t.p.h.
Shiploader Travel Distance	188.98 m.
Air Draft (From Chart Datum)	24.0 m.
Max. Height of Fenders Above Chart Datum	9.2 m.

Central Queensland Coal Associates Berth No. 2:

Berth Alignment	330° True
Dredged Depth	17.06 m. Below Datum
Dredged Width	60.96 m.
Dredged Length	365.76 m.
Nominal Loading Rate	6,000 t.p.h.
Max. Shiploader Travel Distance	191.41 m.
Normal Shiploader Travel Distance (Between Limit Switches)	184.40 m.
Air Draft (From Chart Datum)	24.0 m.
Max. Height of Fenders Above Chart Datum	10.0 m.

Dalrymple Bay Coal Terminal Berth No. 1:

Approach Trestle:	
Approach Trestle Length	3,850 m.
Trestle Conveyor Capacity	7,200 t.p.h.
Wharf:	
Design Vessel – Maximum	200,000 d.w.t.
Design Vessel – Minimum	20,000 d.w.t.
RL Top of Front (seaward) Rail	+17.6 l.w.d.
Number of Berthing Dolphins	7
Number of Mooring Dolphins	4
Distance between extreme Berthing Dolphins	254 m.
Distance between extreme Mooring Dolphins	490 m.
Berthing Dolphin Fender Type	Bridgestone – C2250H – R1 Cell Type
Berth Depth	–20.0 m. l.w.d.
Channel Depth	–13.4 m. l.w.d.
Maximum Predicted Spring Tide	6.7 m.
MHWS	5.49 m.
MHWN	4.23 m.
Available Draft in Channel at MHWS with Underkeel Clearance* of 2.27 m.	16.6 m.
Available Draft in Channel at MHWN with Underkeel Clearance* of 2.15 m.	15.5 m.
Wharf Conveyor Belt Width	2,000 mm.
Wharf Conveyor Belt Speed	4.94 m./sec.

*Underkeel Clearance = 10% of draft + 0.61 m.

Moorings: Due to the open sea nature of the berths vessels with wire rope moorings should have a synthetic tail at least 10 m. long fitted to assist in mooring and to reduce breakages.

LOADING: Dalrymple Bay: Vessels shall be ready in all respects to commence loading on completion of mooring with holds clean and hatches open and present detailed loading plan, agreed to by the Terminal, which clearly shows hatch quantities with loading sequence and quantity of coal to be reserved for trimming, by hatches, including anticipated sailing draft.

Ballast shall be adjusted to ensure at HW a minimum clearance of 1 m. is maintained between the vessel's structure and the shiploader. Ballast to be discharged at a rate which prevents disruption to loading, final trimming and completion.

Loading Procedures: A portable radio and telephone will be placed on board for communications during shiploading operations.

The loader operator is in direct radio and telephone contact with the Control Room and the Production Foreman at all times.

The responsible ship's officer may direct the shiploader operator at any time.

The manner in which the coal is stowed is the sole responsibility of the Master or his nominee and his instructions and directions will be complied with within the limits of the Terminal facilities. Any changes in loading sequences must be immediately relayed to the Production Foreman.

The coal is reclaimed from the Terminal stockpiles by bucketwheel reclaimer or received direct from the rail receival pit and, after passing through a 1,000 tonne capacity surge bin and the automatic sampling station, is conveyed at a nominal rate of 6,600 t.p.h. to the shiploader, a distance of 3,880 m.

In the case of problems during loading, the Production Foreman may be contacted via the shiploader operator or the Control Room, the telephone numbers of which are listed on the Terminal Loading Plan, a copy of which is retained by the Master.

On directing the shiploader operator to stop loading during normal operations, there will be between 150 to 200 tonnes still to be received, being coal that has to be cleared from the wharf belt to permit the loader to move from South to North.

At the completion of loading the operation is first stopped at the reclaimers and the whole system emptied of coal. The surge bin and all reclaim, jetty, wharf and shiploader belts have at the moment of stopping a variable amount of coal, depending on the position of the reclaimers, shiploader and the feed rate in use. The amount of coal may be up to 3,355 tonnes.

All coal contained on the outloading conveying system must be run off into the vessel on completion of loading. The Production Foreman will be able to give an estimate of the quantity to be expected. An allowance for these tonnages must be made during the final stages of loading.

It is essential for the efficient operation of the loading system that a minimum quantity of 250 tonnes be requested for the final pour. Smaller quantities cannot be handled effectively.

Red, green and white list lights, clearly visible to the shiploader operator, are recommended fittings on all vessels loading coal. A fixed white light shall indicate the vessel is upright.

The Shiploader Operator has been instructed to observe the trim lights and to keep the vessel upright during loading and to stop loading in the event of a hatch becoming too full.

The sole responsibility for the correct and safe loading of the vessel, as is customary, rests with the Master and it is stongly recommended that a responsible officer is on deck at all times directing and supervising the loading by mechanical shiploader to a spout trimmed condition. No mechanical or manual trimming will be undertaken by the Terminal Company. The vessel is to provide sufficient lights on board for night loading and shall open and close hatch covers.

Vessels nominated to load consignments for more than one parcel shall complete each parcel before starting the next.

Masters are cautioned that loading of coal is carried out by draft. Frequent "on the run" draft checks between hatch changes should be carried out. Whilst shiploading sequences are equipped with weight scales, these figures are to be used only as a guide. Reference to these will not relieve the Master of the responsibility of adequately maintaining draft checks and supervising the loading accordingly. No guarantee of accuracy can be given of these belt weight scales.

On directing the Shiploader Operator to stop loading in an emergency there will be about 150 tonnes to receive as the belts do not stop instantaneously. The loader may then be moved from North to South only, or loading resumed in the same hatch.

Subject to tide, ships shall be ready to vacate the loading berth on completion of loading and have all gear tested and available for use on departure.

Draft Survey: Weight determination of coal loaded onto vessels is carried out by Draft Survey, utilising the ship's scales to the nearest tonne, conducted by a Surveyor acceptable to the Terminal Company.

Immediately the vessel is berthed, the Surveyor will carry out an initial Draft Survey to determine all weights on board. The Surveyor will review the proposed loading plan and be available to advise the Master on the loading sequence and quantities most appropriate to the Terminal facilities and equipment and early despatch of the vessel.

During the final stages of loading, the Surveyor will attend the vessel and be available to advise the Master as required on the final trimming and cargo distribution.

Immediately on completion of loading the Surveyor will carry out the final survey and issue a Certificate of Weight in respect of the entire cargo loaded.

The Master or his nominee is required to assist the Surveyor in determining the quantity loaded and its hatchwise stowage.

Properly certified accurate and legible ships scales shall be made available to the Surveyor.

Gas-Freeing of Vessels: The Master of every O.B.O. vessel shall include the following information with the 48 hour arrival notice (ETA), addressed to:

By Radio: "Shipserv Dalbay Mackay".
By Telex: AA 46374.

(a) Nature of preceding 3 cargoes the vessel has carried.
(b) Date and place last petroleum product was discharged.
(c) Statement on the condition of the slop tanks.
(d) Date and place of issue of the Gas-Free Certificate carried on board.

See "Radio – Advice of Arrival".

No Gas-Free Certificate signed by the Ship's Master will be accepted.

The Master of an O.B.O. vessel shall not allow his ship to berth at the Terminal facilities unless the vessel is certified to be gas-free and a Certificate of Test has been issued by an authority acceptable to Dalrymple Bay Coal Terminal Pty. Ltd., certifying that the tanks, holds and/or spaces are free from explosive, flammable and injurious gases, fumes and vapours and slop tanks are pressed up or fully inerted and sealed, and such certificate is still valid.

Slop tanks pressed up or fully inerted and sealed shall not be opened whilst the vessel is alongside the berth.

All costs in connection with the inspection, testing and issue of a Certificate of Test in relation to a tank or hold or space for the purposes of these requirements shall be borne by the Owner of the ship.

A Notice of Readiness will not be accepted from an O.B.O. vessel unless it is certified gas-free in accordance with the above requirements.

Shiploader:

Maximum Loading Rate	7,000 t.p.h.
Shiploader Conveyor Belt Width	2,500 mm.
Shiploader Conveyor Belt Speed	3.2 m./sec.
Maximum Operating Wind Speed	72 k.p.h.
Maximum Reach of Chute from Front Rail	41.5 m.
Fender Face from Front Rail	7.5 m.
Maximum Reach of Chute from Fender Face	34.0 m.
Shuttle Travel	21.7 m.
Shiploader Longitudinal Travel	214 m.
Highest Boom Working Position	+12°
Lowest Boom Working Position	−6°
Distance from 0.0 l.w.d. to Underside of Boom in +12° Position at Fender Face (Air Draft)**	30.3 m.
Cyclone Security	Tie down to strongpoint

**Dimension shown provides for a clearance of 0.6 m. but location of Control Cabin and hatch covers should be checked for each berthing.

MEDICAL: Hospital and dental facilities available in Mackay 37 km. by road. Agent should if possible be notified at least 24 hours before arrival of medical attention required, or on Friday if arriving over weekend.

FRESH WATER: Not available.

FUEL: Not available.

DENSITY: Average 1024.

CONSULS: See "Brisbane".

REPAIRS: Minor repairs only. Vessels not permitted to immobilise at berths.

DRY DOCKS: See "Brisbane".

SURVEYORS: Cargo and Draft Surveyors in attendance at berths. On hire and gas-free surveys can be carried out. Arrange through Agents. Department of Transport Surveyor – see "Gladstone".

GANGWAY/DECK WATCHMEN: None available.

OPENING/CLOSING HATCHES: To be opened and closed by ships crew.

CUSTOMS ALLOWANCES: 200 cigarettes, 26 oz. bottle spirits every 10 days.

REPATRIATION: Readily available through Mackay Airport which has daily connections to Brisbane and worldwide.

AIRPORT: At Mackay 37 km. by road. Serviced by Australian Airlines and Ansett. Regular daily flights to Brisbane and Sydney.

TIME: See "General" before first port.

HOLIDAYS: Public holidays as for Brisbane. Loading operations are unaffected except for Christmas Day.

POLICE/FIRE/AMBULANCE: Police Tel: 512 000. Ambulance Tel: 572 222. Fire – contact relevant terminal operating company.

EMERGENCY CO-ORDINATION CENTRE: Australian Coastal Surveillance Centre, Canberra. Search and Rescue Tel: (062) 475 244.

TELEPHONES: Available on each berth.

SERVICES: Compass adjusting and radio, radar or gyro repairs can be arranged if prior notice is given.

BANKS: Major Australian banks are represented in Mackay. Contact through ships' Agent.

SHORE LEAVE: Permitted. Nearest city is Mackay 37 km. away.

IDENTIFICATION CARDS: Citizens of certain non-Commonwealth countries require identification cards.

GENERAL: *Charts and Publications:* Australian Pilot Volume III. Australian Chart No. Aust. 249. Sailing directions and other information for the Ports and Harbours of Queensland. Ports of Queensland and their services.

Weather Conditions: The Port of Hay Point is situated in the cyclone belt. An incidence of about 2 cyclones per year can be expected on the Queensland coast, usually during the cyclone season between November and April.

Prevailing winds are South-Easterly and velocities in excess of 25 knots are infrequent.

The port facilities are sheltered from major swell by the Great Barrier Reef. However, prolonged South-Easterly winds of more than 20 knots can occasionally make conditions unsafe alongside and Masters are advised to order Pilot and tugs in sufficient time should these conditions occur.

Tides: Tidal streams are generally weak, reaching a maximum strength of 2 knots at Spring tides. The flood tide sets 150° and the ebb sets 330° parallel to the berth with the direction of the stream changing about 1.5 hours before the predicted tide times.

Maximum Predicted Spring Tide	6.70 m.
Minimum Predicted Spring Tide	−0.10 m.
Mean Spring Tidal Range	4.75 m.
Mean Neap Tidal Range	2.24 m.
Mean Sea Level above Chart Datum	3.11 m.

The Port of Hay Point is a standard port in the Australian National Tide Tables published by the Hydrographer, Royal Australian Navy and in the Official Tide Tables for Queensland published by the Department of Harbours & Marine.

The minimum underkeel clearance of 10% of the vessel's loaded draft plus 0.61 m. allows a maximum drafted vessel to sail 1 hour before HW. The least depth in the channel is −13.41 m. l.w.d.

The Harbour Master has advised maximum permissible drafts relative to predicted height of tides, for general guidance, which may be amended from time to time at the Harbour Master's discretion to suit prevailing conditions.

AUTHORITY: Harbours Corporation of Queensland, P.O.Box 2595, Brisbane. *Contact:* Assistant Director, Harbours Management. *Tel:* (07) 224 2111. *FAX:* (07) 229 5914.

Harbour Master, Hay Point – Captain J. Watkinson. *Tel:* (079) 563 254. *FAX:* (079) 563 367.

AGENT: Sub-Agent of Patrick Agencies, Brisbane.

HOBART (including Risdon), Tasmania: 42.53 S. 147.20 E. (See Plan)

PORT LIMITS: 'Harbour' means so much of the waters of the River Derwent and its Estuary as lie to the Northward of a line drawn from the Derwent Light (on the Iron Pot Islet) to Kelly Point, on North Bruny; together with so much of the D'Entrecasteaux Channel as lies to the Northward of a line drawn from the Southern end of Partridge Island to Southport Island; and together with all bays and estuaries opening either into the said River Derwent or the said D'Entrecasteaux Channel.

DOCUMENTS: As for all Australian Ports.

PILOTAGE: Pilotage is compulsory for all vessels exceeding 35 m. in length. For vessels bound for Hobart (including Risdon) the pilot boarding ground is on a line drawn from White Rock Lighthouse (Chart AUS 171 – Lat. 42° 58.7′ S., Long. 147° 23.9′ E., Fl. W. 3 secs., 13 m., 8 nautical miles); to Crayfish Point on the Western bank of the River Derwent. Notice of ETA and request for a Pilot must be advised at least 24 hours in advance and confirmation or amendment of this ETA must be made not less than 2 hours prior to the vessel's arrival at the pilot station. Channel 16 VHF is continuously monitored and ETA may be confirmed or adjusted on this frequency using the call sign "Hobart Harbour". Vessels can generally establish contact on Channel 16 at ranges in excess of 50 nautical miles from Hobart and are requested to do so. Telex facilities are available using MARHOB AA58319. Fax: (002) 310693. Port Tower – Fax: (002) 346116.

The pilot boat is 13.1 m. LOA, white upper works, blue hull with the word 'Pilots' on each side.

ANCHORAGE: Vessels awaiting Pilot may anchor 1 mile S.E. of Crayfish Point or 1 mile S.W. of White Rock Light, depending on weather conditions. Depth of water is 20 m. with good holding ground. Vessels wishing to proceed to the Quarantine Anchorage will require a Pilot.

RESTRICTIONS: Navigation within the Port of Hobart is on a 24 hour basis with the following exceptions:

(i) Vessels of 25 m. or more in length will not be permitted to pass under the Tasman Bridge from Monday to Friday inclusive between the hours of 0700 to 0915 and 1600 to 1830.
(ii) At Risdon vessels exceeding 175 m. in length and of a draft more than 10 m. may be restricted from departing berth during the hours of darkness if such vessel has to swing to proceed to sea.

The following overhead clearance restrictions exist within the Port of Hobart:

(i) The centre line of the Main Navigation Span of the Tasman Bridge is 45 m. above MHWS.

(ii) The overhead clearance of the power cable just South of the Electrolytic Zinc Company Wharf at Risdon is 45.7 m. above MHWS.

MAX. SIZE: The maximum depth of water at the entrance to the River Derwent is 15.2 m. Ships of up to 12.6 m. draft can be accommodated at Macquarie No. 4 Berth. There is no restriction as to length and beam. Max. draft available at Risdon is 10.7 m.

HEALTH: Australian Commonwealth Rules apply.

Requests for Radio Pratique should be forwarded to the Quarantine Office, Hobart through the vessel's Agent. They should be in writing and include answers to the Radio Pratique questionnaire.

Where delivery of the request for Radio Pratique by the Agent is difficult or impossible, such as night time or at weekends, the request and answers to the questionnaire may be given by telephone on the strict understanding that the Agent delivers the written documents as soon as practicable on the next working day.

On receipt of a request for Radio Pratique, the vessel's Agent will be informed whether Radio Pratique will or will not be granted and it will be the responsibility of the vessel's Agent to inform the vessel.

RADIO: Hobart Radio – call sign VIH. Hours of duty EST (add 1 hour for Summer Time) Monday to Saturday inclusive 0730 hrs. – 1730 hrs., Sunday 0800 hrs. – 1600 hrs.

RADAR: There is no Port Control Radar but the pilot boats are radar equipped. Minimal fog may occur during April to July but shipping is seldom delayed because of it.

VHF: The Marine Board of Hobart maintain a listening watch on Channel 16 and Channel 67 on a 24 hour basis from the Port Control Building Hobart. When contact has been established all traffic must be passed through Channel 12. Tugs are worked on Channels 6 or 8. Vessels can usually establish contact on Channel 16 at ranges in excess of 50 nautical miles and are requested to do so. (See also "Pilotage").

TUGS: Five tugs as available for assisting vessels. Their bollard pulls vary from 10 tonnes to 25 tonnes. Vessels bound for Risdon will pick the tug up just North of the Tasman Bridge. A nominal additional charge is made for the use of tugs' lines.

BERTHING:

Hobart:

Macquarie No.4: Common user container/general cargo berth. Quay length 244 m., water depth 12.6 m. 3 ha. of sealed cargo area, adequate reefer holding points, rail siding connecting into main rail system, wharf apron, axle loading 70 tonnes. It is equipped with a 35 tonne container gantry crane.

Macquarie No. 2/3: Common user deep sea berth suitable for quarter ramp vessels. Quay length 328.3 m., depth 10 m. to 14.7 m.

Macquarie No. 1: General cargo berth, quay length 168.9 m., water depth 6.2 m. to 9.8 m.

Elizabeth St. Pier: Used for discharge and storage of vehicles. Quay length 153 m., water depth 7 m. to 11.3 m.

Princes No. 1: Common user Ro-Ro berth for vessels equipped with their own ramps. Quay length 138 m., water depth 7.2 m. Used by William Holyman & Sons, ramp is fixed with an axle load SWL of 40 tonnes.

Princes No. 2: General cargo and bulk wheat discharge berth. Quay length 167.7 m., water depth 8.0 m.

Macquarie No. 5/6: Terminal leased to Union Steamship Co., comprises 2 Ro/Ro berths with adjustable ramps each having an axle loading SWL of 59 tonnes. Quay lengths 135 m. and 189 m., water depth 10.1 m. to 11.2 m. A marshalling area provides 4.4 ha. of fenced hardstanding.

Selfs Point Oil Wharf: Dolphin type berth with a wharf face length of 98 m., length over dolphins of 258 m., and a water depth of 14.0 m. Facilities are available for discharge of all black and white products including LPG. In addition vessels may obtain supplies of marine fuel oil and marine diesel oil for bunkers.

Risdon:

Owned by the Electrolytic Zinc Company of Australasia, situated 2 miles above the Tasman Bridge on the Western side of the river. Quay length 400 m., water depth 10.4 m. to 10.7 m. Imports of raw and semi-processed materials such as zinc concentrates, phosphate rock, muriate of potash etc., are discharged by a conveyor system. Exports of manufactured zinc, cadmium, sulphate of ammonia are loaded via 2 modern gantry type cranes of 24 tonnes SWL, also equipped with 12 tonne grabs.

Facilities are available for sulphuric acid to be loaded into tankers at a 151 m. acid wharf with a minimum depth of 7.9 m.

CRANES: One 35 tonne container handling gantry crane with 34 tonne capacity, 31 m. from face of fendering. Maximum spreader height above wharf 27 m. Also rail length 225 m.

One Coles "Colossus" 254 tonne fully mobile crane – capacity to handle 30 tonnes at 33 m. outreach and 170 tonnes at 9.1 m. outreach through 360° of slew and a working rate of 15 to 20 lifts per hour. 2×31 tonne cranes; 2×15 tonne cranes; forklifts ranging from 170 kg. to 24,000 kg., 6 tow-motors; and 1×12 m. tri-axle trailer container handling crane.

BRIDGES: See "Restrictions".

STEVEDORES: 3 shifts, 7 days a week, 0800 hrs. – 1500 hrs., 1500 hrs. – 2200 hrs., 2200 hrs. – 0500 hrs. "Midnight" shift available only in special circumstances during the months of July, August, September.

MEDICAL: Full hospital facilities available without prior notice.

TANKERS: See "Berthing".

DENSITY: Varies from 1016 at Risdon to 1025 at Hobart.

FRESH WATER: Fresh water is available at all wharves. Delivery is effected via hydrants at convenient points along the wharves. Hose connections are 64 mm. diameter standard thread and delivery rates from 40 tonnes to 60 tonnes per hour per connection.

FUEL: All grades of fuels and lubricants available. Vessels may be supplied at Selfs Pt. Wharf (see "Berthing") or by road tankers.

CONSULS: Consulates exist for the following countries:

Denmark
Finland
France
Germany F.R.
Greece
Italy
Japan
Netherlands
Norway
Sweden
Switzerland
United Kingdom

REPAIRS: Facilities available for minor engine and hull repairs. Several repair firms are situated in Hobart.

DRY DOCKS: No dry docks, however a modern slipway owned and operated by the Marine Board is available for vessels up to 1,200 tonnes displacement.

SURVEYORS: A Commonwealth Surveyor is available and Lloyd's Agents also represent other Classification Societies.

GANGWAY/DECK WATCHMEN: Can be supplied at Union award rates. Watchmen will be required during discharge/loading of dangerous cargoes.

OPENING/CLOSING HATCHES: Normally handled by stevedores while alongside or by ship's crew before arrival.

CUSTOMS ALLOWANCES: Australian Commonwealth Regulations apply.

CARGO GEAR: Discharge/loading is usually by ship's gear except at Risdon and Macquarie No. 4. However a number of cranes are available for hire from the Marine Board (see "Berthing" and "Cranes").

REPATRIATION: All facilities exist for crew changes and repatriation of seaman. Scheduled aircraft connect with all states several times daily where services operate world-wide and there is also one overseas flight per week via New Zealand.

TIME: See "General" before first port.

HOLIDAYS: No work will be performed on Waterside Workers' Picnic Day (January); Labour Day (March); Good Friday; Anzac Day (25th April); and Christmas Day (25th December). Work is restricted to certain types of vessels and conditions on New Year's Day (1st January); and Boxing Day (26th December).

POLICE/AMBULANCE/FIRE: Automatic fire alarms are installed throughout the port and emergencies can be reported to Port Control on Channel 16, 24 hours a day. Otherwise fire, police and ambulance calls may be reported by dialling 000.

TELEPHONES: Available at all wharves and may be placed on board vessels. Standard rates apply and coin operated telephones are available for use by ship's crews.

SHORE LEAVE: No restriction on crew shore leave or need for shore passes as long as Immigration and Customs requirements have been satisfied.

SERVICES: A number of Compass Adjusters are available.

DEVELOPMENTS: Macquarie No. 4 Berth container crane rail to be extended to Macquarie No. 5 by December 1988.

AUTHORITY: Marine Board of Hobart, P.O.Box 202 B, 1 Franklin Wharf, Hobart, Tasmania, 7001. *Tel:* (02) 346722. *Telex:* Marhob AA 58319. *FAX:* (002) 310693. *Contact:* Captain J. M. E. Lucas, Harbour Master.

AGENT: Sub-agent of Patrick Agencies, Melbourne.

JABIRU: 11.55 S. 125.00 E. (See Plan)

LOCATION: The Jabiru Oilfield is in the Timor Sea, about 680 km. West of Darwin and some 300 km. off the Kimberley coast of North Western Australia.

DOCUMENTS: Masters should endeavour to complete the following forms ready for collection on arrival by Customs Officers if Jabiru is their vessel's first Australian port.

3 Crew List (Form M&S 11 and attachment).
1 Ship's Stores Consumed (Form 42A).
1 List of Crew's Possessions (Form 5).
3 Ship's Log – Ports of Call (Form B.921 (Formerly Form C&E 886)).
2 Health Report of all Persons Aboard (Form Q360).
1 Animal Cargo (Form QA3).
1 Ship's Pets (Form QA4).
1 Ship Master's Bond regarding Animals Carried (only if pets on board) (Form QA5).

The Customs Officer in attendance will advise any other documentary requirements, and provide forms if necessary.

Because the "Jabiru Venture" is not a designated port, offtaking vessels should have their Agents apply for certificates of permission for entry to Australia at other than a designated port as required under Section 58 of the Customs Act.

Customs Authorities have advised that permission will generally be granted. However, Customs Officials retain the right to board offtake vessels for inspection at their discretion and Masters of offtake tankers are required to provide accommodation and mess facilities for visiting Customs Officers.

PILOTAGE: Pilotage is compulsory. The "Jabiru Venture's" Master will transfer to the offtaking vessel when it reaches a distance of 3 nautical miles from Jabiru and will act as Pilot for approach and mooring. Two officers from the "Jabiru Venture" will remain on board the offtaking tanker. Suitable accommodation is to be provided for these personnel.

APPROACHES: The "Jabiru Venture" is equipped with a radio direction finding (RDF) beacon with a frequency of 436 kHz. Call sign is 'JVX' and range is 100 nautical miles. The beacon transmits continuously.

The "Jabiru Venture's" Master will advise by radio the bearing on which offtaking vessels should approach.

Hazard to Navigation: A wave rider buoy is located at Lat. 11° 58.58′ S., Long. 125° 04.05′ E. and is 137° T × 5.7 miles from the "Jabiru Venture".

ANCHORAGE/RESTRICTIONS: There are no depth restrictions, prohibition zones or other traffic rules in the vicinity of the "Jabiru Venture". However, if the vessel cannot moor on arrival and wishes to anchor it should do so well beyond a 3 nautical mile radius of the "Jabiru Venture" to avoid damage to subsea oil production facilities.

Vessels should arrive with propeller and rudder fully submerged and trim should not exceed 10% of the after draft.

READINESS: *Restricted Berthing Hours:* Notice of Readiness shall only be effective during the hours 0700 to 1600. Vessels which complete loading at night may be required to remain moored until first light, at the discretion of the "Jabiru Venture's" Master.

Notice of Readiness: Arriving vessels should tender Notice of Readiness when 3 nautical miles from the "Jabiru Venture".

MAX. SIZE: 150,000 d.w.t.

HEALTH: *Australian Government Requirements:* A Radio Pratique message should reach the vessel's Agent no more than 24 hours, and no less then 12 hours before arrival, as per the following instructions.

Please answer the following questions, indicating NIL where necessary, and answer them in order. If answers are not correct, or not in the correct order, it could cause unnecessary delay to vessel berthing.

A. Name, type and nationality of vessel.
B. Itinerary for last 21 days. If over 21 days give name of port and date of departure.
C. Name of first Australian port and ETA.
D. Number of crew.
E. Number of passengers.
F. Have you had any deaths on the voyage? If so please give details.
G. Have you had any cases of illness during the last 21 days with a fever of 38°Celsius or above, and
   (a) Accompanied by rash, jaundice or glandular swelling; or
   (b) Accompanied by diarrhoea lasting longer than 24 hours.
H. Have you had persons suffering from venereal disease during the voyage?
I. What live fish, birds, reptiles or other animals are you carrying (ship's pets should be mentioned)?
J. Have you carried livestock on previous voyages in the last 6 months? If 'Yes' please advise type of livestock, date of voyage and ports visited. Have all stock carrying compartments been thoroughly cleaned and disinfected?
K. Request Radio Pratique.

RADIO:

Prior to Arrival: Type and number of shipping documents required, and vessel details – name, d.w.t., length, beam, propulsion gear, details of forward mooring gear, and if possible, arrival draft and trim – should be advised to:

Operations Manager, BHP Petroleum Ltd., Lot 1876, Pruen Road, Berrimah, Northern Territory, 5788, Australia. Tel: (089) 221122. Fax: (089) 844-139. Telex: AA85146, Cable: Hempet Darwin, at least 5 days before the scheduled arrival date of the vessel but not later than 2 days before the laycan begins.

Advice of Arrival: Incoming vessels should advise Operations Manager, BHP Petroleum (preferably by Telex: 85146) of ETA 72 hours before intended arrival, and give the following information:

(a) Name of vessel and radio call sign.
(b) INMARSAT identification number and which satellite in use.
(c) HF radio telephone frequencies, if so equipped.

ETA should be confirmed or varied, as appropriate, 48 hours and 24 hours before arrival.

Communications with the "Jabiru Venture":

The "Jabiru Venture's" radio communication hours are 0600 – 1800 local time (2030 – 0830 GMT).

"Jabiru Venture" call sign VJJJ.
"Jabiru Venture" radiotelex identification - 01141 Jabv X.
"Jabiru Venture" INMARSAT number for telex - 583-1543604 Jabv X.
"Jabiru Venture" INMARSAT number for telephone - 873 1543604.

The "Jabiru Venture" is on the Indian Ocean INMARSAT.

Incoming vessels may use the following frequencies for radiotelephone communications with the "Jabiru Venture":

4125.0 kHz 4143.6 kHz

The "Jabiru Venture" will listen for incoming vessels between 2030 hrs. and 0830 hrs. GMT on 500 kHz, 4125 kHz, Channel 16 VHF and Channel 6 VHF.

TUGS: A workboat is available for line handling.

BERTHING: A floating production system – the converted 140,000 d.w.t. tanker "Jabiru Venture" is fitted with process facilities and a metering system to enable stabilisation of crude oil, and offtake to visiting tankers.

Offtaking tankers are moored in tandem with the "Jabiru Venture" by a 60 m. long hawser. Crude oil is delivered through 1×16 in. floating hose system.

The "Jabiru Venture" is able to deliver parcel sizes up to 130,000 kl. at a rate of approximately 3,400 kl./hr.

Standard of Offtaking Vessels: Generally, vessels between 25,000 d.w.t. and 150,000 d.w.t. can be accommodated. Larger vessels may be accepted at Operator's discretion.

Offtaking vessels require a manifold derrick or crane rated at 10 tonnes SWL. The vessels should be fitted with bow chain stoppers and Panama type fairleads capable of handling 78 mm. chafing chain. The bow windlass or winch must be capable of pulling 15 tonnes and should have one drum empty and available to take the 72 mm. diameter × 150 m. messenger line which is used to retrieve the chafing chain and hawser. Should the vessels not be fitted with suitable bow chain stoppers, the mooring hawser will be secured using a 115 mm. diameter × 26 m. snotter rope supplied by the "Jabiru Venture".

Offtaking vessels should have manifolds and associated equipment conforming to Oil Companies' International Marine Forum (OCIMF) standards.

On arrival, both the "Jabiru Venture" and the offtaking tanker will be subject to a safety check to ensure that safety standards are met before delivery of crude oil begins. This safety check will be carried out with the aid of the checklist which covers communication, watch requirements, fire prevention, ventilation, pollution control, and emergency procedures.

Given the particular requirements of the "Jabiru" floating production and storage system, Operator may require that offtake vessels be checked for safety and suitability before finalisation of charter.

Offtake vessels may also be required to provide accommodation for any of the following people for the duration of offtake:

2 Deck Officers from the "Jabiru Venture".
Independent Surveyor.
Customs Officers.
Shipping Agent.

Mooring: Neither tug nor supply boat services are required. The Pilot, the 26 m. snotter rope and hose coupling tools will be transferred to the offtaking vessel by the "Jabiru" workboat. When the offtake vessel is "onsite" the 60 m. hawser will be made fast to the bow of the offtake vessel.

In case emergency disconnection is required the offtake vessel should provide a long handled axe on the forecastle.

Requirements for Vessels on Station: Offtake vessels are required to keep their engines on continual 'stand-by' and be ready to respond to requests for engine movement immediately. Vessels may be required to move astern to prevent creeping up or jack-knifing.

The hawser system has a working load of 200 tonnes and offtake vessels may use astern power to keep station. All engine movements should be made with due care, however. A log of engine movements is to be kept and a copy given to the "Jabiru Venture's" Master on departure.

Watches: A qualified officer with authority to manoeuvre is to keep a bridge watch whilst the offtake vessel is on station. A qualified seaman is to keep a mooring watch at the bow at all times. Reliable communications are to be established between the bow and the bridge.

Connection of Hose: After the mooring hawser has been made fast, the workboat will pull the floating hose to the starboard side of the offtaking vessel. The hose-end must then be lifted on board using the offtaking tanker's manifold derrick or crane.

The connection of the hose is the responsibility of the offtake vessel's crew, who should endeavour to complete this task as quickly as possible under the guidance of the Deck Officer from the "Jabiru Venture".

The hose-end connection is a 16 in. 'Camlock' quick release coupling and will fit standard 16 in. ANSI 150 lb. flanges.

Manifold adaptors/extenders to suit the above should be supplied by the offtaking vessel.

Crude oil will be delivered at a rate of around 3,400 kl./hr. (approximately 21,400 bbls.p.h.).

Delivery will be suspended for safety reasons during visits by helicopters to the "Jabiru Venture", (for approximately 2 hours), and/or if weather conditions exceed safety limits.

The floating hose is fitted with a self-sealing breakaway coupling for emergency disconnection.

Typical Cargo Properties:

Density	@ 15°C	0.8180
Viscosity	@ 20°C	3.45 cst
	@ 40°C	2.41 cst
Pour Point		15°C
Reid Vapour Pressure		31.0 kPa (4.5 p.s.i.)

Tankers going into cold seas require heating coils.

MEDICAL: Medical and dental services are not available at Jabiru. In emergencies, medical evacuation to Darwin (3.5 hours flying time by helicopter and plane) can be arranged.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: Repairs are not permitted whilst moored to the "Jabiru Venture".

TIME: See "General" before first port.

SHORE LEAVE: Not possible.

GENERAL:

Services: The remote, deep-sea location of Jabiru severely limits the provision of services. Offtaking tankers should ensure that they carry supplies adequate for a return journey.

Visitors: Access to the "Jabiru Venture" is by a 2 hour light aircraft flight from Darwin to Troughton Island, and then a 1 hour helicopter flight to the "Jabiru Venture".

Because of the limited capacity of scheduled flights each week, the difficulties in arranging extra flights and the severe accommodation constraints on board the "Jabiru Venture", Operator requests the co-operation of all parties in ensuring that the number of visitors is kept to a minimum.

For safety reasons Operator prefers to make no flights to or from the "Jabiru Venture" whilst offtake is underway so any visitors should travel the day before offtake begins.

Customs and Department of Transport Officers, independent surveyors, ship's Agents, buyers representatives and any others intending to visit should seek the permission of: Operations Manager, BHP Petroleum, Darwin. Tel: (089) 221122. Fax: (089) 844-139. Telex: 85146. Cables: Hempet, Darwin, at least 2 days before scheduled offtake. (Earlier advice would be appreciated).

Laytime: At a delivery rate of 3,400 kl./hr. and allowing for start-up and slow-down periods, a 110,000 kl. cargo will require up to 36 hours pumping time.

Early Departure: By arrangement, offtaking vessels may depart before *nett* quantities have been determined. Documents will then be finalised using telex communications.

Fire Fighting: The "Jabiru Venture" has only the fire fighting equipment required for a vessel of its type. It can give no aid to offtake vessels in case of fire and, in the event of an emergency on board an offtake vessel or the "Jabiru Venture", the offtake vessel will be released.

Pollution Control: For control of small oil spills, the "Jabiru Venture" holds dispersant which can be dispensed from the "Jabiru Venture's" workboat, or from a helicopter should this be considered necessary.

The costs of countering any pollution caused by oil which has passed the last flange of the delivery hose will be recovered from the offtake vessel.

No refuse is to be dumped overboard. The IMO convention on the dumping of wastes at sea applies.

Any waste water discharged should have an oil content of no more than 15 p.p.m.

Stores: Not available.

Dirty Ballast: Dirty ballast, slops or refuse cannot be accepted by the "Jabiru Venture".

Weather: Prevailing winds are Southerly from May to October.

The wet season is during the Summer months – November to April – and at that time prevailing winds are Northwesterly.

During the Summer months, the Timor Sea is subject to occasional cyclones. In January and February, in particular, weather and sea states may prevent mooring and/or loading for periods of a few days.

The limiting significant wave height for mooring is 2.2 m. On this basis mooring will be feasible 85% of the time. For tankers already moored, the design limits for the hawser will be approached when significant wave height reaches 2.8 m. and winds reach 36 knots. On this basis, loading will be feasible 93% of the time. Should safety limits be exceeded during loading, the "Jabiru Venture's" Master will require the offtake tanker to uncouple.

Charts:

Australian: AUS. 314.

British: B.A. 1047, B.A. 942A.

The charts listed above cover the general area and the Jabiru site.

OPERATOR: BHP Petroleum Ltd., Lot 1876, Pruen Road, Berrimah, Northern Territory 5788, Australia. *Tel:* (089) 221122. *Telex:* AA 85146. *FAX:* (089) 844-139. *Cables:* Hempet, Darwin. *Contact:* Operations Manager.

LAUNCESTON, Tasmania (including Inspection Head, Beauty Point, Bell Bay): 41.27 S. 147.07 E. (See Plan)

PORT LIMITS: A line drawn from Low Head to Hebe Reef thence to West Head defines the seaward limit of the Port of Launceston (including Port Dalrymple which comprises Bell Bay, Beauty Point Harbour and Long Reach).

Seaward Position of Port: Lat. 41° 03′ S., Long. 146° 45′ E.

A vessel is considered to have arrived when at the Pilot Boarding Ground.

DOCUMENTS: Agents prepare Bills of Lading and Shipping Documents. Only documents required Crew List and Passenger List. Light Dues receipt is necessary if payment is made before arrival.

PILOTAGE: The Pilot service is provided by the Port Authority and is compulsory for all vessels over 50 g.r.t. unless a valid Pilot Exemption Certificate is held for the Port of Launceston.

Contact Harbour Master by radio giving ETA 24 hours before arrival, and give updated ETA to "Bell Bay Control" on VHF radio 3 hours before arrival. "G" flag to be flown on daylight arrival. Harbour Master also on Telephone and Telex (see "Authority").

Pilot boards from launch (fitted with VHF Channels 12, 16, call sign "Tamar Pilot"), 1.4 nautical miles N.W. of Low Head Lighthouse.

ANCHORAGE:

Position *(a)* Low Head Lat. 41° 03′ 32″ S., Long. 146° 47′ 18″ E.
(b) 1.15 miles 280° from *(a)*
(c) 0.90 miles 308° from *(b)*
(d) 0.85 miles 038° from *(c)*
(e) 0.90 miles 128° from *(d)*
thence 0.85 miles 218° to *(b)*

RESTRICTIONS: *Navigation of Lower Reaches:*

(a) Draft Limitations: Determined by a 1.4 m. clearance under the keel giving maximum permissible draft at LW 9.0 m. (at zero tide), and maximum permissible draft at HW 11.1 m., increasing to 11.5 m. at Pilot's discretion.

(b) Size Limitations: Vessels over 170 m. LOA enter and depart according to the time limitations below. For vessels exceeding 250 m. LOA and/or 45 m. beam contact Harbour Master.

(c) Time Limitations:

Entry: Vessels over 170 m. LOA enter on flood tide only. Earliest entry is 30 minutes after LW at George Town. Vessels then enter according to draft through to 30 minutes after HW at George Town. Pilots board approximately 15 minutes before these times.

Departure: Vessels over 170 m. LOA single up for departure within the following limits: Large vessels berthed at Woodchip Berths – from 1 hour before, up to HW or LW (George Town) depending on draft and tide. Vessels berthed at all other down river berths – from 1 hour before to 1 hour after HW or LW (George Town) depending on draft of vessel and tide.

Shifting of Vessels: The shifting of vessels of any size from berth to berth within the Port will be undertaken 24 hours a day, subject to any special requirements at the berth.

(d) Night Navigation (Entrance Channel):

Entry: Vessels over 200 m. length at Pilot's discretion.

Departure: Vessels over 180 m. length at Pilot's discretion.

Navigation of Upper Reaches: The Upper Reaches are navigable to the City of Launceston.

Limitations: Length 100 m., draft 5.4 m.

Special Navigation Conditions: Contact Harbour Master for vessels and conditions outside these limits.

Datum: Lower Reaches: LAT (Lowest Astronomical Tide) = AHD* minus 1.977 m. Upper Reaches: LWOST (Low Water Ordinary Spring Tide) = AHD minus 2.260 m.

*AHD = Australian Height Datum.

Tidal Range: George Town – average 2.3 m. Launceston – average 3.8 m.

Depths Alongside:

Eastern	
(At Lowest Astronomical Tide)	
No. 1 Bell Bay, Comalco (Private)	10.8 m.
No. 2, Bell Bay, (A.N.L. Ro/Ro and Container)	8.4 m.
No. 3, Bell Bay, (Temco, Bulk and General)	11.2 m.
No. 4, Bell Bay, (Tankers)	11.2 m.
No. 5, Bell Bay, Multi–Purpose (Ro/Ro and Container) (see "Plan")	9.0 m. to 12.4 m.
Long Reach, Thermal Power Station	12.3 m.
Long Reach, No. 1, Woodchip N. (Forest Resources)	11.5 m.
Long Reach, No. 2, Woodchip S. (A.P.P.M.)	11.2 m.
Western	
(At Lowest Astronomical tide)	
Inspection Head (Bulk Wheat and Tallow)	9.9 m.
A.M.C. Jetty, Beauty Point (Private)	9.7 m.
Launceston	
Kings Wharf	Contact Harbour Master
R.A. Ferrall Shiplift – Kings Wharf	
Cattle Jetty	
Wheat Berth	
Ship Repair Facilities: Launceston	
Fitting Out Berth: Town Pier	3.0 m. to 4.0 m.*
Wm. Hart Graving Dock: Dock Ramp	3.0 m. to 4.0 m.*

*Subject to siltation, depths maintained by dredging.

MAX. SIZE: Max. permissible draft 9.0 m. at zero water. 11.10 m. at HW. Length restricted to approx. 250 m., and beam 45 m. Vessels over 168 m. length cannot work Channel during ebb tide. Under keel clearance to be 1.4 m.

HEALTH: Organised by ship's Agent. Notify Agent prior to arrival. Pratique automatic if vessel visits other ports in Australia prior calling Launceston, otherwise contact: Health Department, Commonwealth Dept. of Health, Quarantine Dept., Ship Inspection Service, ANL Terminal, Bell Bay, Tas. 7252. (P.O.Box 132, George Town, Tas. 7253). Tel: (003) 82 2224.

Radio Pratique: The Master of any vessel arriving from overseas should, not more than 24 hours and not less than 12 hours before arrival, transmit to the Quarantine Officer, if necessary through the Agent, a statement giving the following details:

A. Name, type and nationality of vessel.
B. Itinerary for last 21 days. If over 21 days from last port, name of port and date of departure.
C. Name of first Australian port and ETA.
D. Number of crew.
E. Number of passengers.
F. Any deaths on board during the voyage? Give details.
G. Any cases of illness during the last 21 days with a fever of 38°C or above, and:
  (a) accompanied by rash, jaundice or glandular swelling, or
  (b) accompanied by diarrhoea lasting longer than 24 hours.
H. Persons suffering from venereal disease during the voyage?
I. Live fish, birds, reptiles or other animals being carried (including ship's pets).
J. Livestock carried on previous voyages in the last 6 months? Please advise type of livestock, date of voyage and ports visited. Have all stock-carrying compartments been thoroughly cleaned and disinfected?
K. Do you request Radio Pratique?

RADIO: Melbourne VIM or Hobart VIH.

VHF: *Port Control:* (manned 24 hours). Tel: Launceston (003) 32 9711, A/H 32 9711. Bell Bay (003) 82 1222, A/H 82 1222. Telex: Bell Bay AA58640 PBBAY. Telefax: Bell Bay (003) 82 1222, (0830 to 1700 hrs.) Telegraphic Address: Harbmaster Launceston. Radio Call Sign: "Bell Bay Control". Pilot Call Sign: "Tamar Pilot".

Radio Service: The P.L.A. Port Control Room at Bell Bay is manned 24 hours and operates a radio service on the following frequencies.

VHF Channel 16 (156.8 MHz) International distress and calling.

VHF Channel 12 (156.6 MHz) Working frequency.

VHF Channel 67 (156.375 MHz) Alternate calling and distress.

HF 2182 kHz International distress and calling (for emergency use only).

Call Sign: "Bell Bay Control".

Assistance Afloat: Contact Port Control. Assistance Ashore: Contact Port Control. Emergency Assistance: Contact Port Control.

Port Office: The "Port Office" at Bell Bay includes the Harbour Master's Office and the "Port Control" room. The Harbour Master, with the Deputy Harbour Master and Assistant Harbour Master/Pilots control shipping movements, berth and shed allocations, cargo storage areas and equipment requirements.

Tugs, linesboats and linesmen are ordered by the "Port Office" staff on behalf of vessels' Agents.

It is therefore essential that any change in a vessel's ETA or ETD be communicated to the "Port Office" as soon as possible.

TUGS: Towage services are operated by North Western Shipping and Towage Co. Pty. Ltd. with 2 ship handling tugs based at Inspection Head Wharf. Both are fitted with radar; both have fire monitors, and one has foam.

"Yorktown" built 1972, 249 g.r.t. LOA 29.49 m. Speed 10.5 knots with bollard pull of 33 tons, type 1.4mW, twin screw.

"Farm Cove" built 1971, 209 g.r.t. LOA 29.42 m. Speed 12 knots. Bollard pull 32 tons. Twin screw.

Other tugs are available at several hours notice from other ports. Launches are available for small ship and barge handling.

All tugs are equipped with VHF radio with Channels 6, 8, 12, 16 and 67.

BERTHING:

Bell Bay: On the Eastern shore within 8 nautical miles of the entrance.

No. 1, Comalco Berth (Private):

A concrete decked and piled wharf, providing facilities for handling of aluminium and bulk cargoes. Length of wharf: 152.4 m.; width 18.95 m. Width of apron: 9.1 m. Mooring dolphins: 5 with outermost 2 at 330.4 m. apart. Width of approaches: 6.1 m. Depth alongside: 10.8 m. at LAT. Height of deck above datum: 5.40 m.

Cranes: 2×12.5 ton portal, electric, luffing, slewing, grabbing, travelling cranes. (Manufacturer: Stothert & Pitt).

Lifting capacity/speed: 12.5 ton grab full; 6.25 ton (cargo) at 91.44 m./min. Max. radius: 20.57 m. Min. radius: 7.01 m. Tail radius: 5.33 m. Max. outreach from wharf fenders: 13.96 m. Max. backreach from wharf fenders: 27.19 m. Centre of crane to outer edge of wharf fenders: 6.61 m. Max. height of hook above wharf deck/max. radius: 19.81 m. Max. height of bottom of grab above wharf deck/max. radius: 8.23 m. Max. depth of bottom of grab below wharf deck/max. radius: 15.24 m. Length of travel: Full length of wharf. Rated capacity: 300 tonnes/p.h. each. Average "alumina" complete discharge: 225 tonnes/p.h. each. Average "pitch" complete discharge: 300 tonnes/p.h. each.

Wharf deck loading: 2.7 tonnes/sq.m. (5 cwt/sq.ft.).

Axle loading: 20 tonnes.

Cargo bin: Uncovered concrete cargo bin 133.27 m. long × 8.53 m. wide × 3.66 m. deep runs along back of wharf. Alumina is now being discharged by self-unloading vessels to hoppers then by conveyor to the smelter.

Other bulk cargoes: Discharged to hoppers then road-hauled to the works.

Oil fuel: Via 200 mm. pipe; base of tanks is 30.48 m. above wharf level. Manifold is in centre of wharf.

Wharf power: Nil.

Telephone: Ship Tel: (003) 82 1482, when connected. Agents Tel: (003) 82 1471. Comalco switchboard (003) 82 5111.

Fresh Water: Available at maximum rate of 50 tonnes/p.h. per connection.

Bunkering: Road tanker.

No. 2, A.N.L., Ro/Ro, and Container Berth: A specially designed terminal for the Bass Strait and Sydney vehicular deck ships equipped with stern loading facilities capable of carrying wheeled and mobile cargo to maximum of 120 tonnes gross weight.

Length of wharf: 86.6 m.; width 38 m. Mooring dolphin: 227.9 m. East of ramp end. Fender dolphin: 116 m. East of ramp end. Depth alongside: 8.4 m. at LAT. Height of deck above datum: 5.03 m.

Cranes: (a) 25 ton portal, electric, horizontal luffing, slewing, travelling wharf crane for handling containers and unit loads. (Manufacturer: Stothert & Pitt).

Max. radius: 32 m. Min. radius: 10.67 m. Tail radius: 5.79 m. Max. outreach from wharf fenders: 24.39 m. Max. backreach from wharf fenders: 39.62 m. Centre of crane to outer edge of wharf fenders: 7.62 m. Max. height of hook above wharf deck/max. radius: 18.29 m. Max. depth of hook below wharf deck/max. radius 12.19 m. Length of travel: 28 m. Max. hoisting speed: 24.38 m. per min. (25 ton). 48.77 m. per min. (no load). Max. lowering speed: 36.58 m. per min. (25 ton).

(b) 40 tonne mobile harbour crane is available for use at this berth in case of breakdown. For details refer "Cranes" section.

Ro/Ro ramp: 8.23 m. wide with max. vehicle width of 8.14 m. and capacity in excess of 120 tonnes. Axle loading on ramp: 63 tonnes (forklift). Gross loads in excess of 120 tonnes can be accommodated with reference to Chief Engineer.

Wharf deck loading: 2.7 tonnes/sq.m. (5 cwt./sq.ft.). Wharf axle loading: 14.5 tonnes; forklift – 43.6 tonnes.

Marshalling area: 4.72 ha.

Rail: Shipside. Rail loop services marshalling area.

Reefer outlets: 102 for 120 refrigerated containers, each 415v, 30 amp. Wharf power: 1×240v, 10 amp.

Telephones: Ship (Master) Tel: ((003) 82 1366. Ship (Crew) Tel: (003) 82 1593. Agents Tel: (003) 82 1084.

Fresh Water: Available at maximum rate of 50 tonnes/p.h. per connection.

Bunkering: Road tanker.

No. 3, Bell Bay Wharf (Temco, Bulk and General): A concrete decked, steel piled wharf providing for handling of general and bulk cargoes.

Length of wharf: 152.5 m.; width 20.4 m. Mooring dolphins: 236.9 m. apart. Depth alongside: 11.2 m. at LAT. Height of deck above datum: 5.18 m.

Cranes: (a) 12.5 ton kangaroo pouch type, grabbing, travelling crane. (Manufacturer: Stothert & Pitt). This crane will be withdrawn from service and replaced by crane (b).

Lifting capacity/radius: 12.5 tons at 26.89 m. max. radius. Max. radius: 26.89 m. Min radius: 5.79 m. Tail radius: 8.08 m. Max. outreach from wharf fenders: 16.76 m. Max. backreach from wharf fenders: 37.03 m. Centre of crane to outer edge of wharf fenders: 10.13 m. Max. height of hook above wharf deck/max. radius: 21.34 m. Max. depth of hook below wharf deck/max. radius: 13.72 m. Length of travel: Full length of wharf. Average grabbing rate: 225 tonnes/p.h.

(b) 19 tonne slewing, luffing, grabbing, travelling crane with trailing hatch hopper on rails. (Manufacturer: Caillard Levage).

Lifting capacity: 19 tonne with grab; 25 tonne with hook. Lifting capacity/radius: 19 tonne at 30 m. max. radius; 25 tonne at 24 m. max. radius. Max. radius 30 m. Min. radius: 10 m. Tail radius: 6 m. Max. outreach from wharf fenders: 22.49 m. Max. backreach from wharf fenders: 37.51 m. Centre of crane to outer edge of wharf fenders: 7.51 m. Max. height of bottom of grab above wharf deck/max. radius: 18 m. Max. height of hook above wharf deck/max. radius 22 m. Max. depth of bottom of grab below wharf deck/max. radius: 14 m. Length of travel: Length of wharf for 108 m. Associated equipment: Trailing hatch hopper with operator's cabin. Estimated unloading rate (grab): 500 tonnes/p.h. Average loading rate (grab): 660 tonnes/p.h.

Wharf deck loading: Deck and approaches: 4.3 tonnes/sq.m. (8 cwt./sq.ft.) except. Deck between crane rails: 2.7 tonnes/sq.m. (5 cwt./sq.ft.). Up to 140 tonne loads on suitable transporters can be accommodated with reference to Chief Engineer. Axle loading on deck/pavement: 20 tonnes; 17.8 tonnes (forklift).

Transit shed space: 744 sq.m.

Wharf power: 2×415v, 30 amp.; 2×240v, 10 amp.

Telephones: Ship Tel: (003) 82 1768. Agents – Stevedores Tel: (003) 82 1437. Temco – Wharf Office Tel: (003) 82 1411. Customs Tel: (003) 82 1526.

Fresh Water: Available at maximum rate of 50 tonnes/p.h. per connection. Bunkering: Road tanker.

No. 4, Tanker Berth: A "T" head concrete decked, timber berth. Vessels up to 212 m. length have been accommodated. Length of wharf: 25.5 m.; width 12 m. Mooring dolphins: 262 m. apart. Fender dolphins: 61 m. apart. Depth alongside: 11.2 m. at LAT. Height of deck above datum: 5.33 m. Axle loading: No vehicles allowed on deck without reference to Chief Engineer.

Pipe-lines: (a) 2×250 mm.; one for black and one for clean oil.

(b) 1×100 mm.; for discharge of LP Gas, 440 kPa (64 lb/sq.in.).

(c) 1×75 mm. vapour return line.

Manifold is 19 m. from downstream fender.

Tanks: Bottom of tanks in tank farms 33 m. above manifolds on wharf.

Wharf power: Nil.

Telephones: Ship: (flame proof connection) Tel: (003) 82 1755. Watchman Tel: (003) 82 1179.

Fresh Water: Available at max. rate of 50 tonnes/p.h. per connection.

Bunkering: Fuel oil 100 mm. and 150 mm. connections, rate of 50/60 tonnes/p.h. Diesel oil by road tanker, 75 mm. connection at 18 tonnes per 1 hour 15 minutes.

No. 5, Multi–Purpose Berth (General, Container and Ro/Ro): A concrete decked, steel piled, heavy duty berth designed for Ro/Ro, container, conventional and bulk cargoes.

A steel decked bridge 24.4 m. long×7.2 m. wide connects West marshalling area to the wharf. Length of wharf: 313.6 m. Mooring dolphin: Behind wharf 37.3 m. East of wharf end. Depth alongside: 9.0 m. to 12.4 m. at LAT (see "Plan"). Height of deck above datum: 5.05 m.

Cranes: (a) 50 ton portal, electric, horizontal luffing, slewing, travelling wharf crane equipped with spreaders and other equipment for the handling of 6.1 m. and 12.2 m. ISO containers and grabbing by special arrangement. (Manufacturer: Deer Park Engineering). Lifting capacity/radius: 40 ton at 32 m.; 50 ton at 22.86 m. Max. outreach from wharf fenders: 23.67 m. (40 ton); 14.53 m. (50 ton). Max. backreach from wharf fenders: 40.33 m. (40 ton); 31.19 m. (50 ton). Centre of crane to outer edge of wharf fenders: 8.33 m. Max. height of hook above wharf deck/max. radius: 24.38 m. Max. depth of hook below wharf deck/max. radius: 9.14 m. Length of travel: Length of wharf.

(b) 40 tonne mobile harbour crane, with standard capacity of 40 tonnes (under hook) and heavy lift capacity of 100 tonnes (under hook). (Manufacturer: Favco-Gottwald).

Standard load/radius limits: 40 tonnes at 11 m. to 31 m., then reducing to 26.0 tonnes at 42 m. Heavy lift/load radius limits: 100 tonnes at 11 m. to 17 m. then reducing to 26.0 tonnes at 42 m. Max. radius: 42 m. Min. radius: 11 m. Max. outreach from wharf fenders: 33.67 m. Max. backreach from wharf fenders: 50.33 m. Centre of crane to outer edge of wharf fenders: 8.33 m. Max. height of hook above wharf deck/max. radius: 32 m. Max. depth of hook below wharf deck/max. radius: 15 m. Associated equipment/spreaders, etc.: Equipped with remote controlled swivel gear, load leveller and fully automatic spreader for handling containers, general cargo and bulk materials.

For further details see "Cranes".

Ro/Ro Ramp: 8.23 m. wide stern loading ramp with max. vehicle width of 8.14 m. and capacity in excess of 100 tonnes.

Axle loading on ramp: 52.4 tonnes (forklift). Gross loads in excess of 100 tonnes can be accommodated with reference to the Chief Engineer.

Wharf Deck Loading: 3.23 tonnes/sq.m. (672 lb./sq.ft.); 1985 extensions: 5 tonnes/sq.m. (9.3 cwt./sq.ft.).

Wharf Axle Loading:

(a) Deck and pavement: 50 tonnes.

(b) 1985 deck extension: 80 tonnes.

Marshalling Area: East: 1.8 ha.; West: 1.5 ha.

Total of 3.3 ha. or 3.8 ha. including wharf decks.

Transit Shed Space: 2,675 sq.m. Sheds are fitted with exhaust fans for pre-shipment storage of primary produce.

Rail: At ship side, full length of berth.

Reefer Outlets: 72 for 144 refrigerated containers.

Wharf Power: 5×415v., 30 amp.; 6×240v, 10 amp.; 1×415v., 60 amp.

Telephones: Ship (East end) Tel: (003) 82 1840, (West end) Tel: (003) 82 1129. Agents: Tel: (003) 82 1880. First Aid: Tel: (003) 82 3174. Customs: Tel: (003) 82 1526.

Fresh Water: Available at max. rate of 50 tonnes/p.h. per connection.

Bunkering: Road tanker.

Bell Bay Industrial Area:

(a) P.L.A. Cold Stores: Cold storage capacity of 22,864 cu.m., consisting of 6 chambers each with temperature of −23°C., plus self-levelling ramp and forklift service garage.

(b) Stockyards: Area 590 sq.m.

(c) Incinerator: Quarantineable waste disposal, with average destruction rate of 325 kg.hr. over a 6 hour period, equipped with hydraulically operated loader and ram.

(d) Weighbridge: 16 m. long, weighing up to 50 tonnes.

(e) Butane Gas Storage Sphere: (Gas Corporation of Tasmania) – capacity of 600 tonnes.

Long Reach: On the Eastern shore within 12 nautical miles of the entrance.

Thermal Power Station Berth (H.E.C.):

A "T" head concrete decked, steel piled wharf, 26.2 m.×13.4 m. with a concrete approach from land 3.66 m. wide.

Mooring Dolphins: 2 at 262 m. apart.

Fender Dolphins: 2 at 61 m. apart.

Depth Alongside: 12.3 m. at LAT.

Height Above Datum: 5.66 m.

Wharf Deck Loading: 488 kg./sq.m. (100 lb./sq.ft.).

Axle Loading: 14.3 tonnes.

Pipes for Discharge: 3×250 mm. lines, feeding into 2×300 mm. lines to 3×15,000 tonne tanks: head 0.00 m. when tank is empty to 18.29 m. when tank is full. Pipe connections are "Chicksan" booms.

Wharf Power: Nil.

Telephone: Ship Tel: (003) 82 1377.

Fresh Water: Available at max. rate of 30 tonnes/hr. per connection.

Bunkering: Road tanker to 20 tonne all-up weight.

No. 1 Woodchip Berth – Northern (Forest Resources):

A berthing face 217 m. long. Approach from land is a bridge 78.7 m. long×3.81 m. wide.

Fender Dolphins: 5.

Mooring Dolphins: 2 at 482 m. apart.

Shore Trip-Hooks: 2 at 213.4 m. apart. Steel walkway between dolphins is 1.22 m. wide.

Depth Alongside: 11.5 m. at LAT.

Height of Deck above Datum: 5.64 m.

Woodchip Loader (fixed): Situated on central dolphin with loading rate of 700 tonnes/p.h. Clearance with boom horizontal 22.10 m. above datum.

Wharf Power: Nil.

Telephones: Ship Tel: (003) 94 7193. Agents Tel: (003) 94 7303. Customs Tel: (003) 82 1526. Forest Resources Switchboard Tel: (003) 94 7303.

Fresh Water: Available at max. rate of 30 tonnes/p.h. per connection.

Bunkering: Not available.

No. 2 Woodchip Berth – Southern (Associated Pulp and Paper Mills Ltd.):

A berthing face 229 m. long. Approach from land is by a causeway and a bridge 18.7 m. long×4.7 m. wide.

Fender Dolphins: 5.

Mooring Dolphins: 2 at 482 m. apart.

Shore Trip-Hooks: 2 at 210.3 m. apart. Steel walkway between dolphins is 1.07 m. wide.

Depth Alongside: 11.2 m. at LAT.

Height of Deck (Loading Dolphin) above Datum: 6.86 m.

Woodchip Loader (Fixed): Situated on central fender dolphin with loading rate of 700 tonnes/p.h. Clearance with boom horizontal 20.57 m. above datum.

Axle Loading on Deck and Approach: 14.3 tonnes; 50 tonnes (forklift).

Wharf Power: Nil.

Telephones: Ship Tel: (003) 94 7377. Customs Tel: (003) 82 1526. A.P.P.M. Switchboard: Tel: (003) 94 7201.

Fresh Water: Available at max. rate of 30 tonnes/hr. per connection.

Bunkering: Not available.

Beauty Point Harbour: On the Western shore within 6.5 nautical miles of the entrance.

Australian Maritime College Jetty (Private):

A "T" head concrete jetty, constructed for A.M.C. Seamanship Centre training vessels. A side pontoon plus lifeboat deck exist on Northern side of jetty approach.

Length: 60 m., width 9 m.

Mooring Dolphins: 2 at 115 m. apart.

Depth Alongside: 9.7 m. at LAT.

Height of Deck above Datum: 4.5 m.

Wharf Deck Loading: 1.5 tonnes/sq.m. (2.8 cwt./sq.ft.).

Axle Loading: 14.3 tonnes.

Telephones: A.M.C. Seamanship Centre Tel: (003) 83 4455.

P.L.A. Small Boats Marina:

Suitable for ocean-going craft. Constructed as a pontoon and catwalk type with amenities block, car park and picnic area adjacent.

Total Berths: 52.

Fresh Water: Available.

All enquiries should be directed to: The Secretary, Port of Launceston Authority, P.O.Box 257C, Launceston, Tasmania 7250, Australia. Tel: (003) 32 9711. Telex: AA58730, AA58640. Telefax: (003) 32 9726, 82 1222.

Inspection Head Wharf (Bulk Wheat, Tallow and General; Fish Processing):

No. 1, Northern end: 180.6 m. long, width 28.1 m., concrete decked and steel piled.

No. 2, Southern end: 153.6 m. long, width 34.3 m., concrete decked and piled.

Total Length: 334.3 m., providing 2 overseas berths.

Mooring Dolphins: 2 at 452.2 m. apart: Northern dolphin: 45.5 m. from end of wharf. Southern dolphin: 72.4 m. from end of wharf. Depth Alongside: 9.9 m. LAT. Height of Deck above Datum: 5.33 m. Swinging Room: 270 m. off North end of wharf. 210 m. off No. 2 berth.

Cranes: 5 ton stiff leg derrick crane on S.W. corner of No. 2 wharf. Max. radius: 13.72 m. Min. radius: 4.57 m. Max. outreach from wharf fenders: 8.06 m. (West); 11.66 m. (South). Max. backreach from wharf fenders: 19.38 m. (East); 15.78 m. (North). Centre of crane to outer edge of wharf fenders: 5.66 m. (West); 2.06 m. (South). Wharf Deck Loading: 2.7 tonnes/sq.m. (5 cwt./sq.ft.). Axle Loading: 12.1 tonnes. Heavy lifts can be accommodated on Southern approach with reference to Chief Engineer.

Transit Shed Space: Shed No. 1A: 972 sq.m. (Bulk wheat capacity: 2,463 cu.m.). Shed No. 1B: 976 sq.m. (Bulk wheat capacity: 1,841 cu.m.).

Cold Storage: Cold Store No. 5: 629 cu.m. Cold Store No. 6: 102 cu.m.

Fish Processing: Shed No. 2A: Export. Shed No. 2B: Local.

Wheat Loaders: 2 "Neuro" unloaders (Tasmanian Grain Elevators Board) rated at 250 tonnes/p.h.

Tallow Storage:

Tanks	1×600 tonnes; 6×100 tonnes; 1×50 tonnes (settling);
Storage Barge	1×200 tonnes.
Total Capacity	1,450 tonnes
Loading Capacity	200 tonnes/p.h.
Pipe-lines	1×100 mm., 1×152 mm.

Wharf Power: 8×240v, 10 amp.; 8×415v, 30 amp.

Telephones: No. 1 Wharf: Ship Tel: (003) 82 1665. Agents Tel: (003) 82 1647, 83 4111. Stevedores Tel: (003) 83 4141. Customs Tel: (003) 83 4131. Bulk Tallow Plant Tel: (003) 83 4455.

No. 2 Wharf: Ship Tel: (003) 82 1664. Asst. Harbour Master Tel: (003) 83 4266. Wharf Office Tel: (003) 83 4211.

Fresh Water: Available at max. rate of 30 tonnes/p.h. per connection.

Bunkering: Road tanker.

Launceston: On Eastern shore 35.4 nautical miles from the entrance.

King's Wharf: (P.L.A. Plant Berth and Flinders Island Services):

A concrete decked and piled wharf providing a total berthing length of 295.4 m. Equipped with 50 ton bollards every 18.3 m.

Depth Alongside: Subject to siltation.

Height of Deck above Datum: 5.64 m.

Wharf Deck Loading: 1.3 tonnes/sq.m. (2.5 cwt./sq.ft.); ship building area; 2.7 tonnes/sq.m. (5 cwt./sq.ft.) main deck. Axle Loading: 12.7 tonnes. Transit Shed Space: 2,463 sq.m. Rail: Siding services the adjacent P.L.A. Pileyard).

Wharf Power: 5×415v., 30 amp.

Telephone: Connection by Telecom.

Fresh Water: Available at max. rate of 30 tonnes/p.h. per connection.

Bunkering: Road tanker.

Next section of wharf has been demolished and replaced with a timber piled and decked walkway 277.3 m. long used as P.L.A. Plant Berth.

Castle Jetty:

A "T" shaped timber deck 27.3 m. long connected to holding and receiving yards by an adjustable gangway near the centre of a berth 57.5 m. long.

Depth Alongside: 3.0 m. at LWOST, subject to siltation. Depth maintained by dredging. Height of Deck above Datum: 5.64 m. Rail: Siding adjacent.

Fresh Water: Available.

Wheat Berth:

A concrete decked and timber piled wharf with facilities for bulk unloading; used as lay-up and P.L.A. Plant Berth, but no longer used for bulk wheat discharge. Wharf Length: 13.81 m. Depth Alongside: Subject to siltation. Height of Deck above Datum: 5.61 m. Wharf Deck Loading: 2.7 tonnes/sq.m. (5 cwt./sq.ft.). Axle Loading: 13 tonnes. Rail: Siding adjacent.

Wharf Power: Nil.

Telephone: Connection by Telecom.

Fresh Water: Available at max. rate of 30 tonnes/p.h. per connection.

North of this is a walkway 34 m. long with mooring hooks. 21 m. South is a catwalk connected to a walkway 33 m. long ending in a mooring dolphin, giving a total berthing face of 101.5 m.

CRANES: The Port Authority operates a range of mobile cargo handling and wharf equipment and floating plant which is available for hire.

Mobile Cargo Handling and Wharf Equipment:

Mobile Harbour Crane: Favco-Gottwald (HMK 280-89) mobile harbour crane, with standard capacity of 40 tonnes (under hook) and heavy lift capacity of 100 tonnes (under hook).

Standard Load/Radius Limits:

40 tonnes at 11 m. to 31 m., then reducing to 39.3 tonnes at 32 m., 28.2 tonnes at 40 m., 26.0 tonnes at 42 m.

Heavy Lift Load/Radius Limits:

100 tonnes at 11 m. to 17 m., then reducing to 92 tonnes at 18 m., 85 tonnes at 19 m., 78 tonnes at 20 m., 59.7 tonnes at 24 m., 43.2 tonnes at 30 m., 28.2 tonnes at 40 m., 26.0 tonnes at 42 m.

These limits may vary depending on berth and crane position. Any further details are available on enquiry from the Chief Engineer.

Max. radius: 42 m. Min. radius: 11 m. Max. height of hook above wharf deck/max. radius: 32 m. Max. depth of hook below wharf deck/max. radius: 15 m. Hook speed: With no load: 84 m./min.; with 27 tonnes: 63 m./min.; with 40 tonnes: 44 m./min.

Set up time on this crane is fast with outrigger pads positioned by the operator. Change of position can be effected by the operator from cabin.

The cabin adjusts in height from the standard 17 m. up to 24 m. above wharf deck at the operator control.

Closed circuit TV installation permits the operator a clear view of the hook activities.

Operations by the crane can be carried out throughout the port area and consideration will be given to use within the industrial area.

The crane usually travels in an upright position but can be lowered automatically to a height of 6 m.

Associated equipment/spreaders, etc: Equipped with remote controlled swivel gear, load leveller and fully automatic spreader for handling containers, general cargo and bulk material.

Also see "Berthing".

BULK CARGO FACILITIES: See "Berthing".

SPECIALISED CARGO-HANDLING FACILITIES: See "Berthing".

BRIDGES: No bridges for large overseas shipping. Some inter-state vessels proceeding to Launceston will pass under Batman Bridge – 27 m. mast height allows 0.9 m. clearance at HW.

STEVEDORES: Agent for ship arranges stevedores.

MEDICAL: Agents should be notified to prepare for medical attention or hospitalisation. Hospitals at Launceston, Beaconsfield and George Town.

TANKERS: See "Berthing". No. 4 Bell Bay Tanker Berth, Long Reach Thermal Station Berth and No. 1 Bell Bay Comalco Berth.

DENSITY: 1012 to 1028, depending on rainfall.

FRESH WATER: Fresh water available at all berths. Delivery 30 t.p.h. by hose.

FUEL: See "Berthing".

FIRE PRECAUTIONS: Tankers governed by the Association of Australian Port and Marine Authorities "Rules for the Handling of Dangerous Goods and Oils in Ports".

CONSULS: None.

REPAIRS/DRY DOCK: William Hart Graving Dock: Situated on South bank of North Esk River adjacent to Charles Street Bridge. A steel and concrete graving dock with a clear width at the entrance of 12.8 m., capable of accommodating vessels up to 62.5 m. in length.

Maximum permitted draft: 3.66 m.

Depth Alongside Dock Ramp: 3.0 m. to 4.0 m. at LWOST, subject to siltation. Depth maintained by dredging. Design keel loading: 33.9 tonnes/m.

Telephones: Dockmaster (P.L.A. switchboard) Tel: (003) 32 9711 (all hours). Shipowners Tel: (003) 31 2035

Fitting Out Berth: Town Pier: (Forms part of William Hart Dockyard).

A concrete decked berth. Length: 135.8 m. Depth Alongside: 3.0 to 4.0 m. at LWOST, subject to siltation. Depth maintained by dredging. Height of Deck above Datum: 4.98 m. Deck Loading: 2.7 tonnes/sq.m. (5 cwt./sq.ft.). Axle Loading: 14.3 tonnes.

Wharf Power: 1×240v, 10 amp.

Fresh Water: Available to max. rate of 30 tonnes/p.h. per connection.

Shore reception facilities are available for dirty bilge and fuel:

1×54,552 litres (12,000 gal.).
1×22,730 litres (5,000 gal.).
1×16,800 litres (3,698 gal.).

R.A. Ferrall Shiplift: Adjacent to Northern end of King's Wharf. A shiplift docking complex 105.3 m.×26 m. with a lifting platform 60 m.×18 m. operated by 16 synchronised lifting winches.

A transfer system is provided for up to 3×700 tonne displacement vessels leaving the platform free for larger vessels.

Maximum Vessel Size: Length 65 m., beam 18 m., draft 5.5 m. (over 4 m. subject to tide and blocking, etc.). Displacement 2,160 tonnes (ship); 3,120 tonnes (barge).

Depth Alongside: 4.5 m. to 5.6 m. at LWOST, subject to siltation. Depth maintained by dredging. Design Keel Loading: 55 tonnes/m. Height of Deck above Datum: 5.64 m. Crane: 17.5 ton stiff leg derrick crane covers Northern section of docking platform.

Lifting capacity/max. radius: 15 ton at 25.87 m.; 17.5 ton at 19.81 m. Min. radius: 6.40 m. Max. height of hook above deck/max. radius: 9.75 m. Max. depth of hook below deck/max. radius: 9.14 m.

Deck Loading: Rear wharf: 4.2 tonnes/sq.m. (7.87 cwt./sq.ft.); Inner/outer decks: 5.3 tonnes/sq.m. (9.69 cwt./sq.ft.). Axle Loading: Platform: 4.8 tonnes (forklift). Rear wharf: 58.8 tonnes. Inner/outer decks: 26.7 tonnes (with max. weight vessel); 45 tonnes (if less than 1,500 tonne weight vessel). Transfer System Capacity: 704 tonnes.

Telephones: Ship Tel: (003) 34 0022. Dockmaster (P.L.A. switchboard) Tel: (003) 32 9711 (all hours). Shipowner Tel: (003) 31 7471.

SURVEYORS: Lloyd's, AB and N.V. are represented. Contact: John Waugh, Mechanical Engineer, Port of Launceston Authority, Tel: (003) 32 9711. Telex: AA58730. FAX: (003) 32 9726.

GANGWAY/DECK WATCHMEN: Most vessels supply their own. May be supplied if required. Tidal port makes this requirement necessary.

HATCHES: Opening/Closing usually by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes or 250 grams of tobacco per man; 1 opened litre spirits per man; stores sealed on arrival.

CARGO GEAR: See "Berthing". Certificates of loading gear and derrick tests to be produced. Also see "Melbourne".

REPATRIATION: Arranged through ship's Agents.

AIRPORT: Approx. 64 km. from Bell Bay and 15 km. from Launceston. Served by Ansett and Australian Airlines.

TIME: See "General" before first port.

HOLIDAYS: Good Friday, Anzac Day, Christmas Day and New Year's Day close holidays, work on other holidays may be arranged through Agents.

POLICE/AMBULANCE/FIRE: Port Radio Control must be advised in the event of fire. Inspection Head 831141; 831204; 831109 (fire calls only), Bell Bay 821566; 821680; 821717 (fire calls only).

TELEPHONES: Ship-to-shore phones available.

EMERGENCY CO-ORDINATION CENTRE: The Port of Launceston Authority is a founder and active member of the Bell Bay Industrial Mutual Aid Group.

Trained assistance in emergency operations is rapidly available from the adjacent industrial complexes to offset the delay in obtaining full Emergency Services from Launceston.

Port Control is equipped with a direct line to the State Emergency Service offices in Launceston and Hobart, and can be quickly converted into an Emergency Operation Centre.

All Emergencies: Contact: Port Control. Radio: Channel 16. Tel: (003) 82 1222.

STORING: Vessels stored by truck; Customs require stores be "entered for export".

SHORE LEAVE: When Immigration and Customs requirements have been satisfied there is no restriction on crew shore leave so long as they rejoin the vessel on departure. There is no need for identity cards or shore passes except in so far that non-English speaking persons may wish to identify themselves.

SHIP SUPPLY SERVICES: No service available.

In cases of emergency upon request, the pilot boat has been used for removing sick crew members, taking small quantities of stores and repair people to vessels outside the port. Water has been supplied in small quantities from the tugs to vessels anchored off the port.

There is no all weather anchorage outside the port and in many instances it would be more appropriate to bring a vessel to anchor within the port at Bell Bay for any required services.

In the case of serious emergency and a vessel was unable to enter the port, depending upon circumstances, Coastal Surveillance, Canberra would if needs be, organise a helicopter to be sent from Melbourne.

GENERAL: *Surveys:* Surveys, including Damage, Draft, On and Off Hire, Protest, Classification Society, Commonwealth D.O.T. and Gas Free Certification can be arranged through Harbour Master's office or ship's Agent.

Services: Ship Chandlers, P&I Club, radio repairs and divers.

References: Australian Pilot Volume 2. AUS Charts No. 167 and 168.

Distances: From Hebe Reef Light to Launceston

	Nautical Miles
Hebe Reef Light	0
Yellow Rock Beacon	1.7
Shear Rock Beacon	2.3
Bombay Rock Beacon	4.7
Point Effingham	7.4
Inspection Head Wharf	8.2
Bell Bay No. 3 Wharf	9.5
Point Rapid	14.0
Drumstick Island Light	15.9
Barrett's Point	17.0
Swan Point Beacon	20.0
Rosevear's Tide Gauge	25.9
Dilston Light	29.5
Tamar Island	32.9
No. 7 Beacon	35.6
King's Wharf No. 1 Light	37.1

Floating Plant: Launches: Two 10 m., fibreglass, twin-hulled, diesel powered, high speed launches: "McClarron" and "Dalrymple". "McClarron" is fitted with SSB HF, VHF and 27 MHz radio; "Dalrymple" is fitted with VHF and 27 MHz radio. Both launches are used for workboat/rescue/patrol/VIP and river sounding.

Launch "Captain Gibson": a 16.2 m. steel launch equipped with radar, VHF radio and used as a pilot launch.

Launch "Wm. Robinson": a 11.1 m. steel launch equipped with VHF radio and used as a relief pilot launch and a harbour workboat.

Launch: "Carrington": a 15.3 m. steel launch equipped with VHF and 27 MHz radio. Vessel has a bollard pull of 6 tonnes and is used as a harbour workboat.

Other Floating Plant: Two flat top barges 24 m.×7.77 m. One flat top barge 34 m.×7.31 m. Four hopper barges 47 m.×8 m. (one in use as a tallow storage barge). One pile driving frame on a barge 24 m.×7.77 m. One suction-cutter dredge "Currong". One grab dredge "Priestman".

Other Plant: A variety of construction and maintenance plant such as pumps, welders and sand-blasting equipment, etc., may be made available for special requirements. Details will be supplied upon application. A variety of other and specialised units are also available at 24 hours' notice from contract hirers to the Authority.

AUTHORITY: Port of Launceston Authority, P.O.Box 257C, Launceston, 7250. *Tel:* (003) 329711. *Telex:* Plaun AA 58730. *FAX:* (003) 329726, 821222. *Cables:* Portlaun. *Contact:* The Secretary.

Harbour Master: Captain R. E. N. Barber (Bell Bay). *Tel:* George Town (003) 821222. *Telex:* Pbbay AA58640.

AGENT: Sub-Agent of Patrick Agencies, Melbourne.

LUCINDA, Queensland: 18.32 S. 146.20 E. (See Plan)

LOCATION: Lucinda is a first port of call and is situated in position Lat. 18° 32′ S., Long. 146° 20′ E. This port is approximately 680 miles North of Brisbane.

PORT LIMITS: See "Plan".

PILOTAGE: Location of pilotage boarding ground for the bulk sugar loading berth is Lat. 18° 30′ S., Long. 146° 24′ E.

The pilot vessel is equipped with VHF Channels 16, 12 and 6. No regular watch is kept.

For the inshore berth the pilot boarding ground is in position Lat. 18° 15′ S., Long. 146° 03.5′ E.

Coastal and Reef Pilotage: Pilotage through the Inner Route of the Great Barrier Reef to Torres Strait, and also Palm Passage is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

HEALTH: Pratique available 24 hours a day, 7 days a week. This is carried out alongside.

TUGS: Required for all movements.

BERTHING: *Sugar Wharf:* The sugar wharf has an approach jetty from the shore 5.76 km. in length. The berth is 224 m. long.

The wharf is used for the export of bulk sugar which is loaded via a travelling gantry.

The depth of water at LWOST is 13.6 m.

The mean Spring rise is from 0.5 m. to 2.9 m. whilst the mean water neap rise is from 1.2 m. to 2.1 m.

The sugar berth was constructed to accommodate vessels of 40/45,000 d.w.t. with loading rate of up to 1,420 tonnes/p.h. at the offshore deepwater wharf. Berth starboard side to. The maximum all up weight of vehicles allowed on wharf is 5 tonnes gross. There is a height clearance of 2.1 m. on apron.

There are 3 sheds and are confined to bulk sugar storage only. Total capacity 231,000 tonnes. (400,000 tonnes shipped out in 1980).

Inshore Berth: Length 133.35 m. Depth 9.0 m. Imports bulk aqua-ammonia and exports bulk molasses.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: *Stores:* Available from Townsville but should be ordered prior to arrival.

AUTHORITY: Department of Harbours and Marine, P.O.Box 1921, Townsville, Queensland 4810. *Tel:* 71-5135. *Telex:* 47124. *Cables:* Harbour Master - Townsville. *Contact:* Harbour Master, Townsville.

AGENT: See "Townsville".

MACKAY, Queensland: 21.06 S. 149.14 E. (See Plan)

PORT LIMITS: Along Lat. 21° 03.9′ S. from Long. 149° 13.5′ E. to Long. 149° 22.08′ E., thence 180°(T) to Lat. 21° 10.0′ S. in Long. 149° 22.08′ E. thence 270°(T) to Long. 149° 20.1′ E., thence 250°(T) to Lat. 21° 12.96′ S., Long. 149° 11.5′ E.

CERTIFICATES/DOCUMENTS/CUSTOMS ALLOWANCES: See "Melbourne".

PORT LIMITS: As for anchorage.

PILOTAGE: Compulsory, service obtained by radio to Agents at least 24 hours before ETA. Pilots will board in position Lat. 21° 06.94′ S., Long. 149° 15.22′ E. To allow time for manoeuvring, vessels should be under weigh at the Pilot boarding time. Masters are advised not to manoeuvre West of a line between Slade Island and Flat Top Island.

ANCHORAGES: *Prohibited Anchorages:*

(a) Lat. 21° 07.63′ S., Long. 149° 13.20′ E.
(b) Lat. 21° 07.63′ S., Long. 149° 15.70′ E.
(c) Lat. 21° 06.78′ S., Long. 149° 16.55′ E.
(d) Lat. 21° 05.82′ S., Long. 149° 13.45′ E.

RESTRICTIONS: None. Day or night access.

MAX. SIZE: Vessels up to 650 ft. berthed at Breast Wharf subject to Harbour Master's approval, state and height of tide, daylight, and draft, etc.

HEALTH: See "Melbourne". Inspection at anchorage or at berth.

RADIO: See "Brisbane". A VHF Port Radio Station has been established at Mackay Harbour. Frequency: Channels 67, 16, 13, 11 and 6, call sign "Mackay Harbour". Hours: Continuous.

TUGS: Two tugs available, 1×13.5 ton bollard pull and 1×30 ton bollard pull.

BERTHING:

	Berth No.	*Length (m.)*	*Depth (m.)*
Breast Wharf	1	123.00	10.6
	2	198.12	10.6
	3	198.12	10.6
	4	182.88	10.4
	5	130.00	12.5

Dredged length of No. 1 – 250 m.
Dredged length of No. 5 – 250 m.
Slack water entry. Swinging basin 28 ft. (8.3 m.) LWOST. Mean high neap tide rise 13 ft. 4 in. (4.1 m.). Mean high spring tide rise 18 ft. 1 in. (5.5 m.).

SPECIALISED CARGO HANDLING FACILITIES:

Sugar Loading Gantry

(a) Loader Height: Clear height of loader in horizontal position from top of the pier, 26 ft. (7.9 m.). Height of pier above LW, 34 ft. (10.4 m.). Can be used in lifting slope "V" position up to 14° above horizontal. Max. vessel's hatch height above sea surface with which vessel may start loading even at HW, 35 ft. (10.7 m.).

(b) Outreach: Max. outreach of loader from side of pier, 40 ft. (12.2 m.). Breadth of permanent fender from side of pier, 2 ft. 6 in. (0.8 m.). The chute can be traversed along the boom for a max. distance of 20 ft. (6.1 m.).

(c) Movable Range. Length of movable range along pier, 445 ft. 8 in. (135.8 m.).

(d) Capacity: Average loading rate 1,400 tonnes/p.h.

(e) Total storage capacity 727,000 tonnes.

Container/Unit Load Facilities

Berth: Length 600 ft. (183 m.); depth 34 ft. (10.4 m.); width 100 ft. (30.5 m.). Wharf deck: 126 ft.×60 ft. plus 2 ft. 6 in. breadth of permanent fender (38 m.×18 m. plus 0.8 m.); height above low water 28 ft. (8.5 m.) Crane: 25 tons (25.4 tonnes) capacity at 110 ft. (33.5 m.) radius.

Grain: 8 grain silos, capacity 30,000 tons. Rate (Nominal) 1,000 t.p.h.

STEVEDORES: As much notice as possible.

TANKERS: Berth at Breast Wharf. Load rate for bulk molasses 300 t.p.h. through 18 in. (46 cm.) dockline. 8 in. (20.3 cm.) (Caltex) dockline for white petroleum. 10 in. (25.4 cm) dockline (Mobil) for black petroleum products 8 in. (20.3 cm.) dockline (CSR) for export of industrial alcohol. 4 in. (10.2 cm.) dockline (gas supply) for import LPG. 6 in. (15 cm.) dockline for export of tallow. Facilities at No. 2 Berth for discharge of aqua ammonia.

DENSITY: Sea water.

FRESH WATER: Available all berths, rate of load 45 tons (45.7 tonnes) per hour.

FUEL: Available at Breast Wharf and North Pier Berth by pipeline and all berths by road tanker.

FIRE PRECAUTIONS: Normal requirements.

WATCHMEN: Not obligatory.

OPENING/CLOSING HATCHES: Normally by crew, but can be done by stevedores if required.

CARGO GEAR: See "Melbourne".

IDENTIFICATION CARDS: See "Melbourne".

REPAIRS: Small repairs can be carried out. Oxy-welding and electric welding plants, compressors and air tools available. Salvage divers available.

REPATRIATION: Facilities available.

AIRPORT: Daily service to Brisbane and thence to world-wide destinations.

TIME: See "General" before first port.

HOLIDAYS: Bank holidays as for Brisbane, plus Waterside Workers' Picnic Day.

POLICE/AMBULANCE/FIRE: Police Tel: 51-2000, Fire Tel: 572244, Ambulance Tel: 572222.

TELEPHONES: Ships' extension telephones may be connected at all berths.

SHIP SUPPLY SERVICES: Broken Bay Light Salvage and Diving Services, P.O.Box 233, Mackay, 4740. 39 Main Street, Dundula, Q. 4740. Tel: (079) 521592.

Services: Underwater video inspections and recording of ships hulls, propellers, rudders, state of marine fouling and zinc blocks including damage inspection and report.

Transport of lubricating oils and essential items.

Transport of personnel.

Rendezvous Points: Offshore Mackay and Hay Point. (Other rendezvous points can be arranged through ships Agents.)

Communications: Vessel carries both SSB and VHF.

Initial contact possibly through Mackay Port Authority.

Vessel: 12 m. steel salvage and general purpose vessel.

Roylen Cruises Pty. Ltd., Tel: (079) 57 2595; 57 2596. Telex: 48515. P.O.Box 169 Mackay, River St., Mackay, North Queensland 4740.

The barge "Tambai II" is available for charter, for the transportation of stores, oil, bulk distilate and water.

AUTHORITY: Mackay Port Authority, P.O.Box 96, Mackay, Queensland 4740, Australia. *Tel:* (079) 551155. *Telex:* Mkport 46373. *Contact:* E. N. Lever, Secretary. Captain J. Bloom, Pier Master. Captain S. Roscoe, Harbour Master.

AGENT: Sub-agent of Patrick Agencies, Brisbane.

MARYBOROUGH (Urangan), Queensland: 25.18 S. 152.54 E. (See Plan)

PORT LIMITS: The area between the mainland and Great Sandy Island from a line joining Hook Point and the Eastern extremity of Inskip Point to the parallel of 25° 7′ S. latitude, including all rivers, creeks and navigable waters in the above named area.

TIDES: The mean Spring rise is 10 ft. (3.048 m.), while the mean Neap rise is 8 ft. (2.438 m.) at Urangan.

BERTHING: Berth demolished April 1986. Port not presently used for commercial shipping.

REPAIRS: Limited small repairs can be carried out.

FRESH WATER: Not available.

CONSULS: None.

MEDICAL: The Hospital, situated at 185 Walker Street, Maryborough may be contacted on telephone number 212222.

POLICE/AMBULANCE/FIRE:

Fire Services: For emergency calls, dial "000" and ask the operator for the Fire Brigade. General enquiries should be directed to telephone number 212535. The Brigade Station is situated at 98 Lennox Street, Maryborough.

Police Services: For emergency calls, dial "000" and ask the operator for the Police. General enquiries should be directed to telephone number 212211. The Police Station is situated in Lennox Street, Maryborough. Vessels at Urangan should ring Hervey Bay Police on 281122.

Ambulance Services: For emergency services, dial "000" and ask the operator for the Ambulance. General enquiries should be directed to telephone number 212244. The Brigade is situated at 155 Neptune Street, Maryborough and at 118 Torquay Road, Hervey Bay (Tel: 281211).

AUTHORITY: Harbours Corporation of Queensland, Box 2195 GPO, Brisbane 4001. *Tel:* 2277111. *Telex:* Harbrs 40760. *Cables:* Harbours.

Local Authority: Captain D. Wilson, Harbour Master, P.O.Box 476, Bundaberg, Queensland 4670 or P.O.Box 155, Maryborough, Queensland 4650. *Tel:* (071) 738208. *Telex:* 49751. *Cables:* Harbours.

AGENT: See "Brisbane".

MELBOURNE, Victoria (including Maribyrnong River, Holden Oil Dock, Port Melbourne, Williamstown and Yarraville): 37.50 S. 144.58 E. **(See Plan)**

PORT LIMITS: Vessels at anchor off Gellibrand Light are considered "arrived" for the purposes of priority of berthing.

DOCUMENTS:

	No. of copies required
Form M & S 11 (List of crew)	3
Form 42A (Store List)	1
Form 5 (Articles owned or in possession of Master, Officers or crew)	1
Form B921 – Green – Loading Ports List	3
Form QA3 (Declaration of animals carried as cargo), only if on board	1
Form QA4 (Declaration of ship's pets)	1
Form QA5 (Shipmaster's Bond to cover ship's pets)	1
Form A Q360 (Health Report)	2

Of the above, Forms 42A and 5 need only be compiled at first port of call in Australia. Passenger — individual Passenger Cards are utilised therefore no List of Passengers required. Agents require 7 copies of Manifest of cargo on board and at least 1 set copies Bills of Lading. These normally received by airfreight or airmail direct from Agents at loading port outside Australia therefore not necessary for Masters to be in possession of either Manifest of cargo on board or appropriate copies of Bills of Lading.

PILOTAGE: The Pilot Boarding Ground for Port Phillip lies 3 miles to 5 miles S.W. from the Point Lonsdale Lighthouse. The preferred boarding position, because of the dangerous tidal conditions at Port Phillip Heads, is with the Point Lonsdale Lighthouse bearing 043° at a distance of not less than 3 miles off.

At Western Port the preferred boarding ground is 3 miles due South of West Head.

Both pilot stations are manned by a Pilot in Charge at all times. A continuous watch is kept on VHF Channels 16, 13 and 12 at Queenscliff. A listening watch, for emergencies only, is also maintained on 2182 kHz radio telephone at Queenscliff. At Western Port, the pilot station can be contacted by calling on VHF Channels 16 and 14.

VHF Procedure:

Two hours prior to arrival at the boarding ground, VHF contact should be made on Channel 16 by calling "Port Phillip Sea Pilots". Please give position, course and speed; and ETA at Pilot Boarding Ground.

Following the initial contact a listening watch should then be kept on VHF Channel 12 for vessels bound for Port Phillip or Channel 14 for vessels bound for Western Port.

The pilot launch will make contact when abeam of Point Lonsdale or West Head outward bound to give final boarding directions.

Tides at Port Phillip Heads: (See cautionary notice on Charts AUS. 143 & 158.)

In the entrance the tidal stream runs at its strongest at times of High and Low Water, and the ebb stream may at times exceed 9 knots. You will be required to be in a position WESTWARD of the tidal stream in the fairway when embarking a Pilot.

Low powered vessels and vessels of over 10.5 m. draft should indicate such condition in their first telegram/telex, as the time of their passage through the Port Phillip entrance may be governed by the tidal stream.

Requirements for Embarkation of Pilots:

1. Make a *good lee* for the pilot launch with the wind and sea well abaft the beam on the weather side, and a speed of about 7 knots.
2. The pilot ladder constructed and rigged in accordance with I.M.O. requirements (see Chapter V of SOLAS 1960 for pilot ladders, and Aust. D.O.T. Notice No. 12/1976), also Commonwealth of Australia Navigation (Orders) No.15 of 1983. The ladder should be clean, properly fitted with spreaders, well clear of all discharges and outlets, and all outboard fittings which might foul the pilot launch. The bottom of the ladder should be 1.5 m. or 5 ft. above the water. The distance from the waterline to the point of access must not exceed 9 m.
3. Two clean *manila* manropes of not less than 24 mm. dia. and not more than 32 mm. dia. are to be securely made fast to the ship, and *must not* be made fast to the ladder at any point. The manropes must not be longer than the ladder.
4. Where the ladder is rigged over a bulwark, *two* stanchions are to be securely fitted in the top of the bulwark, one on each side of the ladder, and steps are to be provided from the top of the ladder to the deck.
5. A heaving line is to be provided for mail and the Pilot's bag.
6. By night a bright light is to be provided, shaded to show *downwards and forward* to clearly illuminate the ladder and the ship's side.
7. Tripping lines and boat ropes are *not* to be used.
8. An officer should be in attendance at the ladder, with life-saving appliances ready for immediate use.
9. An approved pilot hoist may be used if permission is obtained from the Port Phillip Sea Pilots.

Masters are urged to have all gear kept in first class condition, to have it inspected regularly, and to ensure always that the ladder and manropes are securely made fast. Serious accidents have occurred through inattention to these matters.

Should the gear and the manner in which it is rigged not be satisfactory, pilotage services may be withheld.

Vessels ETA: MOST IMPORTANT – For effective use of Pilots, it is essential that the Master of a vessel requiring a Pilot for either Port Phillip or Western Port, advises the Pilot Office on Telex: AA36920 Pilots, not less than 24 hours before arrival, his ETA and deepest draft. Changes in the ETA of more than 1 hour should be amended immediately, and the final ETA confirmed 4 hours before arrival.

RESTRICTIONS: See "Max. Size".

MAX. SIZE: In the Port of Melbourne, draft and length limitations for navigation of vessels are determined by the Port Phillip Sea Pilots, and these divisions are outside the jurisdiction of the Port Authority, the Port of Melbourne Authority.

Maximum lengths and drafts in metres of vessels navigating by day and night to and from berths in the Port of Melbourne:

1	2	3	4	5	6	7	8	9	10
	Maintained Depth		*Day*			*Night*			
Berth	*Channel*	*Berth*	*Max. Length*	*Max. Draft LW*	*Max. Draft Any Tide*	*Max. Length*	*Max. Draft LW*	*Max. Draft Any Tide*	*Remarks*
Swanson Dock	13.1	13.1	289	11.9	—	228	11.9	—	Vessels over 228 m. by day and over 213 m. by night will only be swung when berths to seaward of 31 1/2 South Wharf are clear. Some additional limitations may be applied to swinging by night if an outer Swanson Dock berth is occupied. Specially identified vessels will be piloted at the discretion of the Pilot Service. *N.B.* Port Phillip Bay South Channel depth restricts draft to 11.3 m. at all times, or up to 11.9 m. with tide.
Appleton Dock	12.0	10.7*	250	—	10.7	213	—	10.7	Specially identified vessels over 213 m. will be piloted to B and C Berths by night.
Victoria Dock 2, 3, 4, 19, 20, 21	11.0	9.4*	213	—	9.4	168	—	9.4	Within Victoria Dock by night vessels up to 192 m. may berth head in, or depart head out. Specially identified vessels up to 204 m. will be piloted by night. 2 Victoria Dock head out only.
5	9.4	9.4	204	8.5	—	204	8.5	—	
6	9.4	9.4	136	8.8	—	136	8.8	—	
8	9.4	8.5*	150	—	8.5	150	—	8.5	Max. length 137 m. if 6VD or 9VD occupied
9, 10	9.4	9.4	213	8.5	—	168	8.8	—	Head in only to 9VD
14	9.4	9.4	165	8.8	—	165	8.8	—	Head in only
16, 17	11.0	11.0	213	10.0	—	168	10.4	—	
22, 23, 24	11.0	9.4	213	8.5	—	213	8.5	—	Head in only at 22VD
North Wharf 9	8.5	8.5	100	7.9	—	100	7.9	—	Vessels over 120 m. must not be swung upstream of Victoria Dock Entrance

*This depth extends out from the berth for 9 m. then increases to channel depth.

Maximum lengths and drafts in metres of vessels navigating by day and night to and from berths in the Port of Melbourne:

1	2	3	4	5	6	7	8	9	10
	Maintained Depth		*Day*			*Night*			
Berth	*Channel*	*Berth*	*Max. Length*	*Max. Draft LW*	*Max. Draft Any Tide*	*Max. Length*	*Max. Draft LW*	*Max. Draft Any Tide*	*Remarks*
South Wharf									
15, 16, 17, 18	8.5	8.5	183	7.9		165	7.9	—	Vessels over 120 m. must not be swung upstream of Victoria Dock Entrance. By night vessels up to 183 m. can berth head-in provided that: (1) All berths (including 21 South Wharf) to seaward of the allocated berth are clear on the South side, or (2) All berths on the North side are clear up to the opposite berth to that allocated and the berth immediately downstream of the allocated berth is clear. By day specially identified vessels up to 198 m. can berth head-in at 17 – 18 South Wharf provided that all berths on the North side up to the opposite berth to the allocated berth is clear. Departure will be by day only when all berths on the North side and seaward on the South side are clear.
19	8.5	7.7	213	7.7	—	213	7.7	—	When berthing at night, 21 South to be clear, head in only
21	9.4	9.4	213	8.5	—	213	8.5	—	
25, 26	11.0	8.5	213	7.7	—	213	7.7	—	
27 – 32	13.1/12.0	9.4	213	8.5	—	213	8.5	—	
Maribyrnong									
1	10.0	9.8	178	9.2	—	175	9.2	—	Head in if over 91 m. If beam over 25 m. 5 Yarraville must be clear
Yarraville									
1	10.0	7.1	178	6.5	—	178	6.5	—	Head in over 91 m. Identified vessels required 1 Maribyrnong and 5 Yarraville clear
5	10.0	9.4	178	8.8	—	178	8.8	—	Upstream 190 m. of Berth No. 6 is 10.3 m., remainder 9.8 m.
6	10.3/9.8	10.3/9.8	190	9.3	—	190	9.3	—	
Holden Dock	13.1	10.0	183	9.4	—	175	9.4	—	Max. beam 26.83 m.
Gellibrand Pier	11.2	11.8	289	10.6	—	207	10.6	—	Australian flag tankers up to 250 m. in length will be handled at Gellibrand Pier at night.
Breakwater Pier	11.2	11.8	213	10.6	—	178	10.6	—	
			228	7.6					
Webb Dock									
1	7.0	7.0	137	6.4	—	137	6.4	—	
2	7.0	7.0	140	6.4	—	140	6.4	—	
3	10.0	10.0	183	9.4	—	183	9.4	—	
4, 5	11.2	11.2	222	10.2	—	222	10.2	—	
Station Pier									
OW, OE, IE	10.6/10.9	10.9	305	10.0	—	305	10.0	—	
IW	10.6/10.3	10.3	305	9.7		305	9.7		
Princes Pier									
OW, IW	10.6/ 9.3	9.3	259	8.7	—	259	8.7	—	
OE	10.6/10.9	10.9	259	10.0	—	259	10.0	—	
IE	10.6/10.3	10.3	259	9.7	—	259	9.7	—	

Conversion metres to feet

305 m. = 1,000 ft.	13.1 m. = 43 ft. 0 in.
289 m. = 950 ft.	12.0 m. = 39 ft. 4 in.
259 m. = 850 ft.	11.9 m. = 39 ft. 0 in.
250 m. = 820 ft.	11.8 m. = 38 ft. 8 in.
228 m. = 750 ft.	11.3 m. = 37 ft. 1 in.
222 m. = 730 ft.	11.2 m. = 36 ft. 9 in.
213 m. = 700 ft.	11.0 m. = 36 ft. 1 in.
207 m. = 680 ft.	10.9 m. = 35 ft. 9 in.
204 m. = 669 ft.	10.7 m. = 35 ft. 1 in.
198 m. = 650 ft.	10.6 m. = 34 ft. 9 in.
192 m. = 630 ft.	10.4 m. = 34 ft. 1 in.
190 m. = 623 ft.	10.3 m. = 33 ft. 9 in.
183 m. = 600 ft.	10.2 m. = 33 ft. 6 in.
178 m. = 585 ft.	10.0 m. = 32 ft. 10 in.
175 m. = 574 ft.	9.8 m. = 32 ft. 2 in.
168 m. = 550 ft.	9.7 m. = 31 ft. 10 in.
165 m. = 541 ft.	9.4 m. = 30 ft. 10 in.
152 m. = 500 ft.	9.3 m. = 30 ft. 6 in.
150 m. = 492 ft.	9.2 m. = 30 ft. 2 in.
144 m. = 472 ft.	9.1 m. = 29 ft. 10 in.
137 m. = 450 ft.	8.9 m. = 29 ft. 2 in.
136 m. = 446 ft.	8.8 m. = 28 ft. 10 in.
120 m. = 394 ft.	8.7 m. = 28 ft. 6 in.
91 m. = 298 ft.	8.5 m. = 27 ft. 11 in.
51.6 m. = 169 ft.	7.9 m. = 25 ft. 11 in.
26.5 m. = 87 ft.	7.7 m. = 25 ft. 3 in.
25 m. = 82 ft.	7.6 m. = 24 ft. 11 in.
	7.1 m. = 23 ft. 4 in.
	7.0 m. = 23 ft. 0 in.
	6.5 m. = 21 ft. 4 in.
	6.4 m. = 21 ft. 0 in.
	0.6 m. = 2 ft. 0 in.

An under keel clearance of 0.6 m. is required when navigating in the Port, but vessels over 183 m. require 10% of draft when navigating the River or Webb Dock.
The clearance under Westgate Bridge is 51.6 m. (clearance under painting gantry 49.7 m.) from Australian Chart Datum (zero on tide gauge).
Max. draft LW refers to Australian Chart Datum. All movements are subject to weather conditions.

Shipping Channels

Channel	*Depth (m.)*
Fawkner Beacon to No. 11 Beacon	13.1
No. 70 Beacon to Port Melbourne	10.6
No. 11 Beacon to No. 23 Beacon	13.1
No. 21 Beacon to Webb Dock	11.2
No. 23 Beacon to Swanson Dock	13.1
Appleton Dock	12.0 – 10.7
No. 24 Victoria Dock to Victoria Dock Entrance	11.0
Victoria Dock Entrance	11.0
Victoria Dock Entrance to and including No. 21 South Wharf	9.4
No. 21 South Wharf to Floating Dock	8.5
Holden Basin to No. 1 Maribyrnong	10.3 – 10.0

Swinging Basins	*Diameter (m.)*	*Depth (m.)*
Victoria Dock (Outside)	274	11.0 – 9.7
Victoria Dock (Inside)	350	11.0
Appleton Dock	366	12.0
Swanson Dock	329	13.1
Holden	305	13.1 – 10.3
Port Melbourne	490	10.9
Gellibrand Pier	396	13.1 – 11.2
Webb Dock	390	13.1 – 11.2
Channel Junction (Port Melbourne and Williamstown Channel)	420	

ANCHORAGE: *Quarantine Anchorage:* If, from Quarantine Regulations, Southerly gales, or other causes, it is necessary to anchor off the old Quarantine Station, a vessel drawing more than 6 m. should anchor to the Northward of the light, Fl. WG. 3 secs. adjacent to the red brick chimney 24 m. high, with the light bearing 195°; 3 to 6 cables off-shore, in depths of from 11 m. to 15 m. and at night in the white sector of the light visible from 126° through South to 199°, preferably with the light bearing 195° and Port Lonsdale Light bearing 280°.

Queenscliff Anchorage: In anchoring off Queenscliff, care should be taken to keep clear of West Channel Fairway by bringing up as near as possible to N.W. side of channel. A good berth in a depth of 12 m. and in red sector of low light, may be obtained with High Lighthouse bearing 284° distant 0.5 miles, and fixed green light at Queenscliff Pier Head bearing 326°.

Vessels awaiting berths in the Port of Melbourne are normally directed to anchor at Pilot's discretion South of Gellibrand Buoy and clear of the Melbourne Ship Channel.

Tank Cleaning: The Director Melbourne Ports, the responsible authority for the waters of Port Phillip Bay, has issued a circular which requires all Masters to notify The Director Melbourne Ports if they intend to anchor in the waters of Port Phillip for the purpose of cleaning tanks, gas freeing, cooling down or repairs.

BRIDGE: Clearance under Westgate Bridge is 51.5 m. at LW. (See "Max. Size").

PRATIQUE: All overseas vessels at first port of entry to Australia or at any subsequent ports, subject to quarantine until pratique granted or until vessel released from quarantine. If examinations and inspections satisfactory vessel granted pratique for all Australian ports. A list of names and addresses of passengers also required at first port of entry. 24 hours quarantine clearance of overseas vessels available. Treatment of Crew members for illnesses other than quarantineable diseases arranged by private practitioners through ship's Agent.

Radio Pratique: Concession of Radio Pratique is available to all vessels except those which carry stock animals. Following requirements to be met in the case of a vessel requiring Radio Pratique or permission to berth.

(a) (1) The Master of the vessel or his Agent must make a request (using Form Q2) to the Department of Health within the period of 24 hours prior to the arrival of vessel giving answers to all questions on the form.

(2) If the answers given are satisfactory Radio Pratique will be given for Melbourne from a specified time and date enabling the vessel to proceed to the berth without displaying the quarantine signal.

(3) A Quarantine Officer will board the vessel at the berth, if the answers given on the Declaration of the Health (Q360) are found to be satisfactory pratique may then be granted for all Australian ports.

(b) Notwithstanding that pratique for all ports may have been granted, Master will still be responsible for reporting any case of infectious disease which may subsequently occur whilst vessel is in Australian waters.

Should a case of infectious disease (not being a quarantineable disease) occur on board whilst vessel is at sea in Australian waters, Master will be required to advise by radio Commonwealth Regional Director of Health for State in which next port situated, who will arrange for a Quarantine Officer to see case on arrival, Master will not be required to fill in a Supplementary Health Form and vessel will be permitted to proceed direct to berth without flying "Q" flag.

Should a case of suspected quarantineable disease occur on board whilst at sea in Australian waters, Master is required to radio details to the Commonwealth Regional Director of Health for State in which next port situated and await instructions. Commonwealth Regional Director of Health will decide according to circumstances whether to inspect vessels outside Quarantine Line or permit it to proceed to berth and will advise Master.

(c) Should it come to notice in any particular case that Radio Pratique has been granted as a result of a wireless message sent in accordance with sub-paragraph (a) whereas in fact wireless message contains false information, matter will be investigated thoroughly and reported to the Director-General of Health who will decide whether radio pratique will be denied in future to vessel on which Master and the ship's surgeon hold responsibility.

RADIO: Melbourne Radio VIM.

A Shipping Control Centre referred to as "Harbour Control" is established on the southern side of Victoria Dock entrance. It is a two storied structure supported on a rectangular tower with an overall height of 39.6 m.

Movement of traffic within the Port of Melbourne is controlled by the Director Melbourne Ports through Control Officers operating from this Centre who direct all shipping movements in and out of the port, and co-ordinate all ancillary services connected with shipping movements on a 24 hour basis.

The radio call sign is "Harbour Control", and the following frequencies and Channels are available.

Continuous watch kept on:

156.3 MHz	Channel 6	Intership operations.
156.4 MHz	Channel 8	Port operations.
156.6 MHz	Channel 12	Port operations.
156.650 MHz	Channel 13	Port operations.
156.8 MHz	Channel 16	Calling and safety.
156.375 MHz	Channel 67	Safety of persons and vessels.

All vessels fitted with VHF radio shall, when navigating or at anchor within the Port of Melbourne, keep a continuous listening watch on Channel 12.

When approaching the Port of Melbourne, radio communication is made with Harbour Control initially on Channel 12 and then on a Channel as directed for berthing instructions and information regarding the movement of other vessels. Vessels entering the port shall not pass Fawkner Beacon, Charles Grimes Bridge or Shepherd Bridge without permission from Harbour Control. This shall not apply to vessels less than 20 m. in length except when such vessel is towing or licensed to carry passengers.

A vessel anchored or berthed in the Port shall not leave its anchorage or berth without permission from Harbour Control and acts during the currency of the permission which shall be 15 minutes. This shall not apply to vessels less than 20 m. in length except when such vessel is towing or licensed to carry passengers.

Vessels proceeding inwards are to report their positions to Harbour Control where applicable when passing Fawkner Beacon, Breakwater Pier and Westgate Bridge.

Vessels proceeding outwards are to report their positions to Harbour Control where applicable when passing Westgate Bridge, Breakwater Pier and Fawkner Beacon. If vessels are departing from Webb Dock or Port Melbourne they are also to report when leaving berth.

The following procedure is followed in respect to the navigation of vessels in the vicinity of Webb Dock and is given for guidance.

1. If inward-bound river traffic has not reached No. 12 Beacon by the time a vessel is ready to depart from Webb Dock, the inward-bound vessel will generally be directed to wait until the departing vessel has cleared Webb Dock and is able to cross to the correct side of the channel. (In practice this takes about 5 minutes).

2. It is incumbent on a vessel not to depart from Webb Dock unless there is sufficient time for the vessel to cross to the correct side of the Channel without hindering any vessel which may be navigating between the Williamstown Breakwater and the River Entrance.

3. Permission to depart from Webb Dock will usually be given if:
(a) Inward bound traffic has not passed No. 12 Beacon.
(b) Outward bound river traffic has not passed Westgate Bridge.

Permission to depart does not relieve the vessel departing from Webb Dock of its responsibility under paragraph 2.

A Precautionary Area off Point Gellibrand, comprises an area within defined limits where ships must navigate with particular caution and within which the direction of traffic flow is recommended as follows:

Caution:

(a) When entering, transiting and leaving the Precautionary Area, vessels at all times should keep to Eastward when inward bound and to Westward when outward bound.

(b) Any inward bound vessel shall not hinder:
(i) Any vessel using the Port Melbourne or Williamstown Channels.
(ii) Any vessel which is outward bound which is within or which is about to enter the Precautionary Area.

(c) It is essential for vessels navigating within the Port to maintain radio contact with Harbour Control and directly with one another.

Vessels when inward bound may use the area to the East of the Port Melbourne Channel. Yachts and other pleasure craft should keep to the East of the Port Melbourne Channel as far as possible and avoid at all times hindering the movement of larger vessels, particularly those constrained by size and draft to the shipping channels.

TUGS: Tugs attend for inward-bound vessels at or in vicinity of Gellibrand Light for vessels proceeding either up river or to Port Melbourne berths. On departure and should vessels require attendance down river, service terminated in vicinity of river entrance. Tugs present for service at any point required by Owner or Agent. Ships lines, or tug lines at a charge. Crews of tugs will not accept wire tow line. Wire tow line with rope end of 5 or 6 fathoms acceptable, rope section being available for tugs towing hook.

BERTHING:

North Wharf

Berth No.	*Depth of Water* m.	*Length of Berth* m.	*Miscellaneous Information*
8	4.0	130	
9		128	Bulk Cement
10	8.5	121	
11		137	
12		182	
13	8.0	137	Small craft only
14		133	
15		201	

Appleton Dock

Berth No.	*Depth* *Berth* m.	*Channel* m.	*Length of Berth* m.	*Miscellanous information*
B	10.7	12	192	Overseas Container, unit load, conventional cargo.
C			192	Patrick Stevedores Crane at B and C.
D	10.7	12	252	F.G. Strang Crane "D" also 1×6 tonne electric crane B and C. Berths B, C, D enclosed in security compound.
E	10.7	12	144	Dry Bulk Cargoes, Scrap Metal, 4×7.5 tonne and 1×6 tonne electric grabbing cranes.
F			200	Rail facilities to above berths.

South Wharf

Berth No.	*Depth of Water* m.	*Length of Berth* m.	*Miscellaneous information*
12	6.0	117	Small craft only.
13		152	Small craft only.
14	4.6	105	Livestock, Ro/Ro Container, Unit Load and Conventional Cargo Handling, 25 tonne Derrick Crane. Security compound.
15	8.5	171	
16		159	4.05 hectares stacking area behind Berths No. 15-19 for timber imports and motor vehicles.
17	8.5	159	
18		154	
19		164	
21	9.4	243	Stacking area 1.3 hectares.
25	8.5	111	2×7.5 tonne wharf cranes.
26	8.5	154	
27		146	Berths No. 15-32 enclosed in security compound.
28		146	
29		146	
30	9.4	183	
31		183	
32		253	

Victoria Dock

Berth No.	*Depth of Water* m.	*Length of Berth* m.	*Miscellaneous information*
2		171	Entire dock system enclosed by security compound.
3	9.4	158	Nos. 2-4 Berths – rail facilities available.
4		188	
5		255	
6	9.4	165	Ro/Ro Container Unit Load Terminal, Tasmania and New Zealand Service.
8	8.5	186	Out of commission
9		164	
10		161	
11	9.4	55	
13		200	
14		180	
15	8.5	120	PMA use only.
16	11.0	197	Ro/Ro and Lo/Lo
17	11.0	197	Lo/Lo, 1× 36 tonne single-lift container crane.
19	9.4	145	
20	9.4	146	Lay-up only
21		165	
22	9.4	174	
23		174	
24	9.4	174	

SPECIALISED CARGO HANDLING FACILITIES:

Port Melbourne

Berth No.	*Locality*	*Depth of Water* m.	*Length of Berth* m.	*Miscellaneous Information*
O.E.	Station Pier	10.9	223	Principal Overseas
O.W.	Station Pier	10.9	257	Passenger Terminal
I.E.	Station Pier	10.9	220	Ro/Ro Terminal for
I.W.	Station Pier	10.3	220	Tasmanian passenger/ vehicle ferry.

Webb Dock

Berth No.	*Depth of Water* m.	*Length of Berth* m.	*Miscellaneous information*
1	7.0	137	Lay-up only.
2	7.0	140	Ro/Ro loading, Container and Unit cargo facilities for interstate and overseas trade.
3	10.0	183	1×25 tonne travelling electric crane.
4	11.2	225	1 single lift container crane 35 tonne. A single lift container crane 25 tonne. Ro/Ro ramp.
5	11.2	315	Movable Ro/Ro ramp, 1 single lift container crane 35 tonne.

Swanson Dock

1 W.	13.1	765	Overseas container cargo. 4 container cranes twin lift, 45 tons each.
2 W.	13.1		
3 W.	13.1		
1 E.	13.1	884	Overseas Container Cargo. Common User Berths. 3 container cranes twin lift, 45 tonnes each. 2 container cranes single lift, 36 tonnes each.
2 E.	13.1		
3 E.	13.1		
4 E.	13.1		

Yarraville Area

Berth No.	*Depth of Water* m.	*Length of Berth* m.	*Miscellaneous information*
1	7.1	178	Anhydrous Ammonia and Sulphuric Acid.
5	9.4	178	Bulk Raw Sugar.
6	9.8-10.4	66-190	Bulk Chemicals.
Holden Oil Dock	10.0	183	Bulk Oil.
Maribyrnong 1	9.8	178	Bulk Petrochemicals, Molasses, Lub. Oil and Tallow.

Williamstown Area

West Side Breakwater Pier	11.8	213	L.P. Gas.
East Side Gellibrand Pier	11.8	289	Bulk Crude Oil

See also "Tankers".

STEVEDORES: ETA Advices: Firm ETA, if possible, before noon on previous day to arrival. If not possible no later than 1500 hrs. on day previous to arrival.

MEDICAL: No advance notice necessary for medical attention required on vessel's arrival. All hospital facilities available. No inoculations required for vessels coming to Australia but Master should possess International Health Cards for each member of crew.

TANKERS: (Also see "Anchorage"). Holden Oil Dock at Yarraville suitable for tankers up to 183 m. length. Depth alongside 10.0 m. Max. beam 26.83 m.

Williamstown: Gellibrand Pier, depth alongside 11.8 m. can accommodate tankers up to 290 m. length. Discharge via Chiksan arms.

Breakwater Pier, depth alongside 11.8 m. accepting tankers up to 228 m. length.

Maribyrnong: No. 1 Berth, depth 9.8 m. can accommodate tankers up to 178 m. length. Petrochemical and molasses berth, depth alongside 9.8 m.

Ballast: Slop facilities only at Holden Oil Dock.

Safety Requirements: The Port of Melbourne Authority is introducing the following safety requirements for all tankers berthing at Melbourne and Masters of such vessels likely to call at Melbourne should be notified accordingly.

(a) A declaration required from the Tanker Master prior to arrival at Melbourne listing the following information which must be in the hands of the PMA at least 24 hours prior to the tanker's arrival:
- (i) Is the hull leak free?
- (ii) Is inert gas system fitted and fully operational?
- (iii) Is crude oil washing system fitted and fully operational?
- (iv) Are there any defects to the tanker, machinery or equipment which would affect safe pilotage, berthing, cargo or ballast operations?
- (v) Have stress calculations for the envisaged programme of cargo transfer, ballasting and bunkering been made?
- (vi) Is the hull stress calculated within recommended safety limits?

The following special information is required for liquefied gas tankers:
- (vii) Are all cargo tanks and lines oxygen free?
- (viii) Is reliquefication or boil-off control equipment in good working order?

(b) The following items will be required from the tanker Master immediately upon berthing for stowage in the 'Emergency Document' box:
- (i) A list of the characteristics of the cargo on board and to be handled, and position of stowage.
- (ii) Cargo Transfer Plan, schematic type, 2 copies required. Plan to include times, sequence and rate.
- (iii) Crew List.
- (iv) Tanker's general arrangement plan.

It is recommended that the declaration required from the Tanker Master regarding Section (a), Questions 1-8, be despatched by telex in an abbreviated form to Melbourne Harbour Control, Telex: HBRCON 33437, prior to the vessel berthing in Melbourne. Below is set out a sample telex message:

HBRCON 33437
ATTENTION – PORT EMERGENCY SERVICE
QUESTIONS I, III, V, VI Yes
QUESTIONS II, IV No
QUESTIONS VII, VIII Not applicable
F BLOGGS
MASTER, M.V. "SEASPRAY"

New Safety Requirements at Tanker Berths: Dated 31st January, 1984. 3.2.3.3. *Emergency Towing Wires:* The Master of a ship having on board dangerous substances shall ensure that immediately after the ship has berthed, wire hawsers of adequate strength to allow the ship to be towed from the Berth are placed over the outboard side at the fore and aft ends of the ship:

1. such wires shall have an eye in the outboard end and be made securely fast to the ship at the inboard end, and shall be tended and adjusted to remain within 1 m., of the water level to meet changes in the draft of the ship;
2. in order that sufficient wire can pay out to enable the tugs to tow effectively, 55 m. of slack wire or such other lengths as required by the Port of Melbourne Authority shall be retained between bollard and fairlead; and
3. to prevent the slack wire from running out, it shall be stopped by rope yarn or other easily broken means.

Access Between Tanker Terminal and Ship:

The Master shall provide safe access to the ship by means of a properly rigged Gangway. Where practicable the gangway shall:

1. be adjacent to the ship's accommodation; and
2. be clear of cargo hoses and the ship and shore cargo manifolds.

Where a fire or explosion in the shore cargo manifold area could block the escape route of persons from the ship, the Master shall ensure that:

1. the outboard accommodation ladder is turned out and rigged ready for immediate lowering; and
2. the outboard lifeboat is lowered to the embarkation deck and kept ready for immediate launching.

Moorings:

The Master shall ensure that any mooring wire used to secure the ship is fitted with a rope pennant unless:

1. the mooring wire is secured on the Berth with a quick release device, or
2. permission to use mooring wires without pennants has been given by the PMA.

Anchors Ready for Letting Go:

The Master shall ensure that immediately after the ship is secured at the berth an anchor is walked back clear of the hawse and is kept ready for letting go.

Operation of Sea and Overboard Discharge Valves:

Except where the PMA otherwise permits, the Master of ship handling liquid bulk dangerous substances or oils shall ensure that all sea and overboard discharge valves connected to cargo or ballast pumps are kept closed.

Any valve required to be closed by the above shall be secured by lashing or, in the case of remotely operated valve, by a suitable means or marking to prevent the accidental operation of the valve.

Radio Procedures:

The Master of a ship having on board liquid flammable bulk dangerous substances shall ensure that, whilst the ship is at a berth, the main radio transmitting aerials are earthed.

The Master of ship having on board liquid flammable bulk dangerous substances shall ensure that, prior to the ship's radar or radio equipment being serviced:

1. permission is obtained from the PMA, and
2. any conditions imposed by the PMA are observed.

DENSITY: 1000 – 1019.

FRESH WATER: Water available at wharf face at 30 m. intervals. Rate 50–100 t.p.h.

FUEL: 24 hours notice required. All grades 1–1500 secs. Marine Diesel. Light Marine Diesel. Gas Oil 34 sec. Red No. 100F. Bunker Fuel 600 sec. Red No. 100F. Light Diesel 37 sec. Red No. 100F.

At Gellibrand and Breakwater Piers. Minimum notice 48 hours; prefer notice 4 to 5 days.

Tanker fuel oil 450 SSF at 122°F. Volume – unlimited if 4 to 5 days' notice given.

FIRE PRECAUTIONS: Copy of "Anti-Pollution Notice" is handed to Master of tankers on arrival.

Anti-Pollution Notice: Your attention is drawn to the comprehensive legislation in force to prevent pollution of any sort in the Port of Melbourne. Visual checks are made on all ships and on an offence being detected immediate prosecution may follow.

You are warned that the polluting by oil is an indictable offence entailing a fine of up to $50,000 *plus* costs of cleaning and damage to the environment.

Due to the poor natural flushing of Port Philip and Hobson's Bays any pollutants discharged into these Bays tend to have a long lasting effect and can cause serious environmental damage.

All Scuppers and overside deck openings shall be securely plugged or blocked during the handling of any dangerous goods or oil or ballast water.

Discharge of oily ballast water or bilges is not permitted within the Port of Melbourne. Permission of the Director Melbourne Ports must be obtained prior to taking in or discharging any ballast including water ballast.

Tank washings must not be discharged overside in the Port of Melbourne.

Sewage holding tanks must not be pumped out in the Port of Melbourne. While a vessel is lying alongside any wharf, all discharge outlets shall be properly screened or protected to ensure that discharges shall not fall upon the wharf.

Garbage and refuse must not be dumped overside but must be kept for disposal ashore as directed by the Port Authority or kept on board.

Immediate notification shall be given to Harbour Control in the event of any spillage of oil into Port waters.

GANGWAY WATCHMEN: Shore/Gangway Watchman compulsory.

OPENING/CLOSING HATCHES: Normally carried out by Stevedores. Ship's crew may if required by vessel to do so. Crew may close hatches prior to sailing; but if Stevedores instructed to do so, they then claim right to finish, unless ship sails before completion of work.

SHIP CERTIFICATES: Register – showing vessel's name, port of registry, gross and nett tonnages and Owner. Loadline Certificate which must be current. Safety Radio Certificate. Safety Equipment Certificate. Light dues receipt, ship's Articles (British), Clearance from previous port.

CUSTOMS ALLOWANCES: 200 cigarettes in an opened carton *or* 0.5 lb. cigars *or* 0.5 lb. tobacco. 1 bottle spirits (opened).

CARGO GEAR: This must comply with Australian Regulations, as issued by the Ministry of Shipping and Transport.

When working cargo with ship's gear, certificates should be available to attest to identification and good condition of all such gear. If vessel on first visit to Australia and certificates not available, a declaration by Master will be accepted provided gear in order. On subsequent visits certificates and identification of each item of gear must be readily produced.

IDENTITY CARDS: Not required to be carried by crew going ashore in Australia. However, Section 23 of the Migration Act 1958/1964 provides that Masters of vessels entering Australia from overseas shall have in their possession an identity card in an approved form for each member of crew. These provisions included in the Act to ensure positive identification available to departmental officers should any Seaman, not being an Australian citizen, desert vessel. Should vessel arrive in Australia without required Seamen's identification cards, seamen are unable to go ashore until photographer called to vessel in order to photograph each crew member, and identification cards completed.

Following nationalities need not complete identification card required under Migration Act provided Crew members in possession of relevant Seamen's Identity certificates/discharge book; Canada, Denmark, Fiji, Ghana, Hong Kong, India, Israel, Italy, Japan, Malaysia, Norway, South Africa, South Korea, Pakistan, United Kingdom.

Masters of vessels, Australians and New Zealanders are not required to have such an Identification Card.

Masters are reminded that Crew members' travel documents and Commonwealth of Australian Forms M.315, where applicable, are to be retained in the custody of the Master at all times, and are to be produced to Customs Boarding Officers upon demand.

CONSULS: The following countries are represented by consuls in Melbourne:

Austria
Barbados
Belgium
Brazil
Canada
Chile
China
Denmark
Dominican Rep.
Ecuador
Finland
France
Germany F.R.
Greece
Honduras
Iceland
Indonesia
Italy
Japan
Malaysia
Mauritius
Mexico
Monaco
Nauru
Netherlands
New Zealand
Nicaragua
Norway
Panama
Peru
Philippines
Portugal
Senegal
Seychelles
Spain
Sweden
Switzerland
Thailand
Turkey
United Kingdom
U.S.A.
Venezuela
Yugoslavia

REPAIRS: All major repairs possible.

DRY DOCKS: Floating dock 156 m. × 24 m., lifting capacity 8,000 tonnes. 2×5 tonne cranes.

REPATRIATION: All facilities available for effecting crew changes and repatriation – namely sea, air and rail.

HOLIDAYS: Sunday, Christmas Day, Good Friday, Labour Day, Picnic Day, Anzac Day: with exception of Sunday are regarded as "close holidays" and waterside workers cannot be required to work on these days. Only work of special nature performed on these days by agreement.

Following ordinary holidays observed: Boxing Day, New Year's Day, Australia Day, Easter Monday, Queen's Birthday, Melbourne Cup Day.

On Boxing Day and New Year's Day, waterside workers will work on following classes of vessels only, namely:

(a) Passenger ships to sail on schedule.
(b) Ships to finish and sail before next pick-up of labour.
(c) Ships which in opinion of local Board of Reference, should be declared "Urgent Vessels".
(d) Marine casualties.

On remaining ordinary holidays work performed if required by an employer. Work performed on holidays subject premium rates of pay.

POLICE/AMBULANCE/FIRE: Fire, Ambulance, Security – Port Emergency Service. Tel. 611-1603 or, by VHF Radio Channel 16 "Melbourne Port Emergency".

TELEPHONES: Telephone can be placed aboard at all berths. Trunk calls cannot be made from shipboard phones.

SERVICES: Tank cleaning. Compass adjusters available.

SHORE LEAVE: Crew allowed ashore. Visitors to ship after dark require permit issued by Master. No passport required while ashore.

AUTHORITY: Port of Melbourne Authority, Building A, World Trade Centre, Melbourne. Postal Address: P.O.Box 4721, Melbourne, 3001, Victoria. *Tel:* (03) 611-1777. *Telex:* 34211. *FAX:* (03)611-1905. *Cables:* "Harbor, Melbourne". *Contact:* Navigation or Port Services.

AGENT: Patrick Agencies, Box 4329 GPO, 3rd Floor, 45 William Street, Melbourne, Victoria, 3001. FAX: (03) 614-6890. Cables: "Rikpat". Tel: (03) 614-6333. Telex: AA. 30456.

MOURILYAN, Queensland: 17.36 S. 146.08 E.

(See Plan)

PORT LIMITS: Mourilyan Harbour, the area to the West of a line joining Hall Point and the outer extremity of the North Head.

ARRIVAL: Requirement for vessels in ballast; minimum forward draft to be 2% of overall length, minimum after draft – propeller immersed. Draft to be notified to Agent in arrival telegram.

CERTIFICATES/DOCUMENTS/CUSTOMS ALLOWANCES:

See "Melbourne".

PILOTAGE: Order Pilot through Agent, as early as possible. Confirm through Agent or direct to Harbour Master, Innisfail. Pilot vessel, located in Mourilyan Harbour, watches on VHF Channel 16 when vessel expected to berth (Channels 12, 8, 14 and 6 available). Pilot vessel white with orange cabin and blue trim. Pilot boards 2 miles East of harbour entrance. Approved pilot ladder and good lee required, *not* accommodation ladder. Vessels awaiting Pilot anchor in boarding position above, good holding. Leading beacons – in line 270° T, showing fixed red neon. Entrance beacons flashing – red port, green starboard.

Coastal and Reef Pilotage: Pilotage through the Inner Route of the Great Barrier Reef to Torres Strait and also Grafton Passage is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

Pilotage recommendations: The attention of Masters is drawn to the IMO and Australian government recommendations on pilotage in Great Barrier Reef waters. See "Torres Strait".

RESTRICTIONS: Berthing takes place for most vessels at or near slack water, day or night. Large vessels berthed during daylight only. On Spring tides, entry restricted to at or near slack water. No turbine-powered vessels accepted. Night-time sailings permitted. Vessels entering or leaving – Forward draft not to be less than 2% of overall length and propeller to be immersed.

MAX. SIZE: Length 183 m. Beam 28.0 m.

Draft Arrival: Limited by swing basin, maximum depth 7.1 m. less 0.6 m. keel clearance, all vessels swing and berth port side to main wharf.

Draft Departure: Limited by entrance depth of 8.53 m. less 0.91 m. keel clearance.

HEALTH: See "Pilotage". Also see "Melbourne".

RADIO: VIT Townsville (MF).

TUGS: 2 tugs stationed at Mourilyan. Tug usually required for unberthing. Tug normally pushing or using tug's lines, no extra charge.

BERTHING: Ships always berth port side to at Mourilyan. One sugar and molasses berth, length 193 m. depth 10.0 m. LWOST.

BULK HANDLING FACILITIES: Mobile bulk sugar loading gantry, rate 1,400 t.p.h. Bulk molasses loading rate 300 t.p.h.

STEVEDORES: No waterside workers employed. Normal ETA advices to Agents for arrangement of bulk-loading staff.

MEDICAL: Hospital facilities available, Port Health Doctor also general practitioner.

DENSITY: Usually 1024 – 1027 irrespective of tide. After heavy rains, particularly January-April, considerable freshening occurs to 1008.

FRESH WATER: Good water readily available, shore hoses from wharf face. Approx. 25 t.p.h. capacity. $1.00 per 1,000 litres.

FUEL: Limited quantities of fuel oil and diesel oil available by road-tanker.

GANGWAY WATCHMEN: Not normally required.

HATCHES: Worked by crew.

CARGO GEAR: See "Melbourne".

CREW I.D. CARDS: See "Melbourne".

CONSULS: None.

REPAIRS: No major facilities available. Most types of welding, light machinery, and pipe-fitting can be arranged. Technicians can usually be obtained for radar, etc., with advance notice by radio to Agents.

REPATRIATION: Possible.

AIRPORT: Nearest airport at Cairns, 110 km. Regular flights available.

TIME: See "General" before first port.

HOLIDAYS: Various national, state and local holidays. Cargo usually worked on all holidays except Christmas Day.

POLICE/FIRE/AMBULANCE: Ring 000 on shore public telephone.

TELEPHONE: No telephone aboard.

SHORE LEAVE: Not normally restricted. Distance to nearest township (Mourilyan) 10 km., to Innisfail 17 km. No public transport services from harbour.

DELAYS: Awaiting daylight or tide or, exceptionally, awaiting vacancy of berth or moderation of weather. No delays usually in loading.

GENERAL: Port normally used only for export of sugar and molasses. Deadweight (cargo on board on arrival) restrictions may apply to certain classes of vessel. Agents will advise details if applicable.

AUTHORITY: Department of Harbours and Marine, P.O.Box 34, Innisfail, Queensland 4860. *Tel:* 070-611599. *Telex:* Via Cairns AA 48069. *Cables:* Harbour Master Innisfail. *Contact:* Captain D. J. Plume, Harbour Master.

AGENT: Sub-agent of Patrick Agencies, Cairns.

NEWCASTLE, N.S.W.: 32.55 S. 151.48 E. (See Plan)

PORT LIMITS: To seaward, all waters enclosed by a radius of 3 miles from Nobbys Lighthouse. Vessels are prohibited from anchoring in the following area:

Within the area enclosed by an imaginary line 057° from the green light on the outer extremity of the Northern Breakwater and a line 127° from the red light on the Southern Breakwater to the positions where both these imaginary lines meet the arc of a circle of 3 nautical miles distant with the navigation light of Nobbys Head as its centre.

DOCUMENTS: See "Melbourne".

PILOTAGE: Compulsory. As much notice as possible through Maritime Radio, Sydney (VIS), amending 2 hours prior arrival. Amendment through Channel 9 VHF, to Harbour Control. Telegraphic address "Marboard". Pilot vessel painted high-visibility orange, "Pilots" on deck-house in black paint.

Pilot Boarding Ground: Vessels will be advised on VHF Channel 9 by the signal station, but will normally be 3 miles – 5 miles off the breakwater. A good lee, speed 3 – 5 knots, no boatrope, ladder to be approximately 3.0 m. above water with manropes.

Slack Water Inward Movements: The Harbour Master has advised that when two inward vessels of over 240 m. LOA are programmed on the one tide, the first vessel must present itself 3 miles due East of Nobby's Signal Station within 10 minutes of the due Pilot Boarding time. Failure to meet this requirement, which may result in the second vessel facing lengthy delays, by missing the tide, may prompt the Harbour Master to provide services to the second vessel. Owners should ensure that Masters are aware of this requirement.

Coastal and Reef Pilotage: Pilotage through the Inner Route of the Great Barrier Reef to Torres Strait is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

ANCHORAGE: *Anchorages in the Approaches:* While no anchorages are recommended off the Port for all weathers, good anchorage can be found in Stockton Bight from 1 to 2 miles North of the end of the Northern Breakwater or 2 to 3 miles East of the end of the Southern Breakwater, in fair weather. Due to the heavy confused sea in South to S.E. weather, vessels anchored should weigh and proceed out to sea till the weather moderates.

RESTRICTIONS: Entrance Channel dredged to 15.2 m. ISLW – A minimum keel clearance of 10% draft required. Certain berths within port may only be worked during slack water or early ebb tide. Vessels over 700 ft. navigate in daylight only (inward).

MAX. SIZE: Max. d.w.t. for bulk cargo vessels dependent on 10% under keel clearance on entry or departure.

Steelworks Channel Facility: Max. length of 290 m., max. beam 43 m., max. draft 15.2 m. plus tide less 1/11th to provide 10% under keel clearance. Depth in loading basin 16.5 m.

E.g. With a tide of 1.2 m. max. draft is 14.92 m. (tidal range this port 0 m. – 2.1 m.).

New K.C.L. Loader – Kooragang Island: LOA 290 m., max. beam 47 m. Depth in loading basin 16.5 m.

HEALTH: Refer to "Melbourne".

Newcastle is a first port of entry for quarantine purposes for the coast of New South Wales (see page 266 of Sailing Directions). There are no quarantine anchorages in the Port and vessels proceed directly alongside a berth for quarantine examination. Masters of vessels are to ensure that no persons board or land from their vessel until Free Pratique is granted.

BERTHING: See "Restrictions".

Berth	*Length* (m.)	*Depth at I.S.L.W.* (m.)	*Remarks*
Merewether Street Wharf	200	6.9	Lay-up Berth
Lee Wharf No. 1, 2 and 3	519	9.1	Lay-up Berth
Lee Wharf No. 4	140	9.1	Bulk cargoes, lead, zinc, general.
Lee Wharf No. 5	171	9.7	
No. 1 Throsby	183	11.0	Containers, 1×26 ton luffing crane.
No. 2 Throsby	201	10.0	Bulk motor spirit, bunkering.
Western Basin No. 1	155	9.1	Lay-up Berth.
No. 2	—	—	No longer in use.
No. 3	244	11.6	Grain, 4×1,000 t.p.h. Movable loading heads. Silo 6,000,000 bushels.
No. 4	293	11.6	Continuation of No. 3. General cargo. 30 ton portainer crane also available. Stern ramp at Northern end of berth.
Eastern Basin No. 1–2 Basin Loaders	367 (wharf)	11.6*	Coal – Berth length with dolphins 500 m. 2 loading heads × 1,000 t.p.h. each. Travel 345 m. *Depth 11.6 m. for 46 m. width. Depth in approaches 13.1 m. Clearance from bottom of chute to I.S.L.W. is 15.2 m.
State Dockyard			
No. 3 Berth	213	7.0	Waiting berth – repairs.
No. 4 Berth	117	8.5	Waiting berth – water, light and power available at both berths.
Dyke Berths			
No. 1 & 2	533	12.8	Bulk zinc and lead concentrate at No. 2. Loading head – 1,500 tonnes per hour.
No. 3	183	7.0	Lay-up berth.
No. 4 & 5	565	16.5	Coal loading berths in Steelworks Channel. 3 loading heads, loading rate 2,500 tonnes per hour each.
No. 6	—	—	Coal Transhipment Berth.
Kooragang Island			
No. 2	183	11.6	Cement, clinker, phosphate sulphur. Located 2 miles up river – part of "Kooragang Reclamation Scheme". Bulk discharge and loading. 2 ship "loaders/unloaders", rate 650 t.p.h. each.
No. 3	190	13.5	2×500 t.p.h. vacuum unloaders for alumina and petroleum coke. Dolphin North and South giving total distance of 316 m. 1×10,500 t.p.h. coal loader (8,000 t.p.h. into vessels 180,000 d.w.t.). (Stage I of III).
No. 4	290	16.5	Kooragang Coal Loader. Coal loading head. Rate 8,000 t.p.h.

Steelworks Wharves: These wharves consist of a long shore berth situated at the Broken Hill Pty. Co. Ltd., Iron and Steelworks on West side of North harbour Port Waratah and is owned by the Company. Length of wharf is 810 m. Diameter of Swinging Basin is 580 m. with a depth of 12.8 m. at I.S.L.W.

Depths of Water at Berths at I.S.L.W.:

No. 1 Berth	7.3 m.
No. 2 Berth	9.6 m.
No. 3 Berth	9.6 m.
No. 4 Berth	7.9 m.
No. 5 Berth	12.8 m.
No. 6 Berth	7.9 m.

At Nos. 2 and 3 Berths there are 6×10 ton luffing cranes. Height of decking of wharf I.S.L.W. is 4.5 m.

At the Northern or top end of the wharf, No. 5 Berth, the Company discharges their ironstone and limestone direct from ships by means of three powerful travelling grabs. The length of wharf allocated for this discharge of ore is approximately 275 m.

The Company's private railway lines, which are connected with the Government Railways, run direct to the wharf and their steel products are loaded direct from truck, to ship's hold.

Beyond the wharfage accommodation before mentioned, there is a coke berth, No. 6 Berth, comprised of dolphins. This berth is 162 m. long × 7.0 m. wide, including the dolphins on which is erected a mechanical coke loading plant for loading direct into vessels' holds. Depth of water available at this berth I.S.L.W. is 7.9 m.

The channel leading to the Steelworks Wharves is 12.8 m. I.S.L.W.

Facilities at Wharves: Water, telephones and shore power are available at most wharves in the Port. A Maritime Services Board Patrol Officer meets all vessels berthing at all except the Steelworks Wharves to arrange supply of services required.

TUGS: Tugs usually come alongside shortly after entering breakwater. Tug's lines available for use.

RADIO: All radio messages through Sydney (VIS).

RADAR/VHF: Nobbys Head Signal Station equipped with radar. Max. range 64.0 miles. Contact signal station on VHF. Normal VHF watch held on Channel 9. Also see "Sydney-VHF".

BULK HANDLING FACILITIES: See "Berthing".

Notice: Issued by Maritime Services Board of N.S.W.

Air Draft at Nos. 4 and 5 Dyke Berths: The max. permissible air draft of vessels loading at Nos. 4 and 5 Dyke Wharves is 18.5 m. This is the distance of the hatch covers above chart datum, and not the distance between the hatch covers and the water level. This fact should be brought to the Master's attention. The air draft at No. 4 Kooragang (Kooragang Coal Loader) is 21.0 m.

To assist the Master or Cargo Officer, a mark has been placed on the shiploaders indicating when the limit is being approached so that action can be taken by the ship to ensure that the limit is not passed.

Trimming Procedures: As laid down in "Coal Vessels – Working Code – N.S.W. Ports", a copy of which is in the hands of all Agents and Shippers, attention is drawn to Clause 4:

"On arrival at the loading berth, the vessel's Master or Cargo Officer shall nominate the hatches required for trimming purposes to attain the vessel's final draft and no more than 2 hatches shall be designated for this purpose. No more than 5% of the vessel's total required tonnage may be reserved for trimming purposes, and trimming will not be permitted in discreet quantities of less than 0.5% of the vessel's total required tonnage".

In the past this Clause has been ignored but it will be policed more stringently in the future.

Coal Loading: We draw the attention of both Owners and Masters to the Port Manager's advice which is reported below:

1. Subsequent to the harbour deepening and completion of development projects on Kooragang Island, the larger vessels have caused the surge problems to manifest itself again. The surge problems are considered serious and are caused by hydraulic interaction of passing vessels.
2. Therefore, for reasons of safety to vessels and personnel employed on ship loading, extreme care will be taken with the loading of geared vessels. Loading will cease and shiploader be removed from the vessel when shipping movements occur in the Steelworks Channel.

The M.S.B. requests that, as detailed in the coal operation guidelines, all vessels due to load coal supply a hatch tonnage list together with a proposed loading sequence to the Senior Supervisor 7 days prior to arrival.

Coal shippers have been requested to ensure that Masters are advised in good time of the stowage factors of the coal to be loaded, to allow accurate calculation of hatch tonnages.

The Maritime Services Board of N.S.W. have issued a notice regarding the practice of trimming vessels by the head and their handling characteristics.

The notice states that a marginally greater forward draft than aft has little effect on a vessel's manoeuvrability and handling and is acceptable. It has been noted, however, that vessels have been prepared for sailing with the head down by anything up to 0.75 m. which can make steering control and handling extremely difficult.

In the light of this problem the M.S.B. has announced that where vessels are found to be excessively trimmed by the head the services of an additional tug may be required during manoeuvring.

Apart from the extra costs involved in hiring another tug it may be that, if the vessel's condition is not noticed until sailing time, a delay may occur whilst another tug is made available. Stand-by charges will also be incurred whilst awaiting the extra tug.

MEDICAL: All hospital facilities available.

DENSITY: Density varies considerably throughout port, with particular reference to upstream rains.

TANKERS: No. 2 Throsby Wharf. Berth length 201 m., depth alongside 10.0 m. Largest vessel 200 m. length.

Bulk Berth Kooragang. Berth length 183.0 m., depth alongside 11.6 m.

Both Berths – flexible discharge hoses. 200 mm. dia. 8 hole ASA flanges.

FRESH WATER: Available all berths, 4 – 15 t.p.h. delivery, dependent on other demands.

FUEL: Normal bunkering available by either road or barge, or pipe-line at Inflammable Liquids Wharf.

FIRE PRECAUTIONS: Written notice to Fire Brigade for tankers.

GANGWAY/DECK WATCHMEN: Safe and efficient gangway to be provided at all times.

OPENING/CLOSING HATCHES: Dependent on type of cargo and hatch (coal, wheat, ship's crews closing hatches).

CERTIFICATES AND CUSTOMS ALLOWANCES: See "Melbourne".

CARGO GEAR: No additional other than wire preventers to derrick heads if rope guys used. Also see "Melbourne".

CREW I.D. CARDS: See "Melbourne".

CONSULS: The following countries are represented at Newcastle: Belgium, France, Netherlands, Norway and Sweden.

REPAIRS: *State Dockyard:* The main State Dockyard is situated at the Southern end of the Dyke with shipbuilding and repair facilities. There are 3 shipbuilding berths that launch into the Basin on a bearing of 253°, and 3 fitting out or repair berths. (State Dockyard closed).

Dockyard No. 3 Berth: On the Eastern side is 238 m. long with a depth of 7.0 m. at the Northern end and 5.0 m. at the Southern end; 2×6 ton cranes are fitted on this wharf and 3×40 ton cranes also serve this berth as required, travelling across from the building berths.

Dockyard No. 2 Berth: 143 m. long is on the Northern side of the Basin Cut with depth of 5.5 m. alongside.

Dockyard No. 1 Berth: Faces the Basin and is 103 m. long with a dolphin a further 46 m. from the end. 3×6 ton cranes serve both these berths.

Other small yards in the port provide slipways and building and repair facilities for small vessels.

DRY DOCK: *Floating Dock:* A floating dock, operated by Ullman Engineering is moored in Throsby Basin, opposite the Inflammable Liquids Berth. This dock has a lifting capacity of 15,000 tonnes; length overall 195 m.; clear width of entrance 33.5 m.; maximum draft of vessels is 8.5 m. Adjacent to the floating dock are repair workshops and two patent slipways, one of 1,250 tons capacity and one of 300 ton capacity.

SURVEYORS: (1) Cargo Superintendents Co. (A'Asia) Pty. Ltd., A. Fowler and Associates, Griffith Australia Services Pty. Ltd, S.G.S. Australia Pty. Ltd., S.G. Webb & Co. Ltd.

(2) American Bureau of Shipping, Bureau Veritas, Lloyd's Register, Norske Veritas.

REPATRIATION: Normal facilities available.

AIRPORTS: Two, approximately 7 miles from city. Several flights daily to Sydney.

TIME: See "General" before first port.

HOLIDAYS: Christmas Day; Good Friday; Labour Day; Picnic Day; Anzac Day are regarded as close holidays and waterside workers cannot be required to be worked on these days. On Boxing Day, New Year's Day, waterside workers will work on following classes of vessel only: *(a)* Passenger ships to sail on schedule; *(b)* ships to finish and sail before next pick-up of labour; *(c)* marine casualties; *(d)* other vessels which are agreed between employer and WWF branch officials in the port concerned; if there is no agreement on a port basis, agreement as to any such ships, to be reached at Federal level.

On remaining ordinary holidays, work performed as required by an employer. Work performed on holidays subject to premium rates of pay. No Saturday afternoon work unless vessel is proceeding to sea.

POLICE/AMBULANCE/FIRE: Dial "000" for Emergency.

TELEPHONES: Cost 50c per day + cost of calls + A$1.0 booking fee.

SERVICES: Compass adjusters available.

DELAYS: Some delays waiting for coal berths.

EMERGENCY CO-ORDINATION CENTRE: All emergency situations – refer to Australian Coastal Surveillance Centre. (Free call S.T.D. or reverse charge). Canberra (062) 476666.

STORING: See "Prelims".

(1) Yes.

(2) No restriction, except on tankships, where stores are generally hand-trucked to vessel. Dispensation may be given to use vehicle or barge under certain circumstances.

(3) Yes. Exception is No. 2 Throsby which is a dolphin berth.

(5) Normal to Australian ports.

(6) Yes. Most unusual practice, extremely costly.

DEVELOPMENTS: Berth improvements to take place at the Inflammable Liquids Berth.

SHIPMASTER'S REPORT:

Harbour control: VHF Channel 13.

Anchorage: liable to the weather – attention to be paid to the Easterly, South Easterly and Southerly winds which can suddenly blow strongly within 1 hour's time. Best anchorage: 108°, two miles from South Breakwater. Not recommended to anchor North of Latitude 32° 55′ S.

AUTHORITY: Maritime Services Board of New South Wales, P.O.Box 663, Cnr. Scott & Newcomen Street, Newcastle N.S.W. 2300, Australia. *Tel:* (049) 272400. *Telex:* MSBNEW AA28761. *FAX:* (049) 264596. *Cables:* Marboard. *Contact:* Captain B. Ramadge, Port Manager. Captain N. Morrison, Harbour Master.

AGENT: Patrick Agencies, 78 Hannell Street, (P.O.Box 63), Wickham, Newcastle, N.S.W. 2293. Telephone: (049) 69.2955. Telex: 28192. FAX: (049) 69-5014. Cables: "Rikpat Newcastle NSW".

PORT AUGUSTA, S.A.: 32.29 S. 137.46 E.

CERTIFICATES/DOCUMENTS/HEALTH: See "Melbourne".
PILOTAGE: One mile N.W. of Eastern Shoal North Beacon. The regulation pilot ladder secured four steps up from water and manropes are required. Boat ropes not required.
RESTRICTIONS: 16 ft. low water. Minimum 2 ft. under keel. No navigation at night. Max. length 450 ft. overall. Tug required for vessels 410 ft. and over.
TUGS: From Port Pirie or Whyalla.
BERTHING:

No. 1	South	370 ft.	Depth 20 ft.
No. 2	Centre	400 ft.	" 20 ft.
No. 3	North	420 ft.	" 18 ft.
	Total length of wharf 1,190 ft.		

FRESH WATER: 10 t.p.h.
REPAIRS: Minor repairs only.
TIME: See "General" before first port.
TELEPHONE: Police 42-3000; Fire Brigade 42-2000; Hospital 42-2011.
AUTHORITY: Department of Marine and Harbours, Ellen Street, Port Pirie, South Australia 5540. *Tel:* (086) 321455. *Contact:* Harbour Master.
AGENT: See "Adelaide".

PORT BONYTHON, S.A.: 33.01 S. 137.46 E. (See Plan)

OPERATOR: Santos Ltd., South Australia.
PORT LIMITS: A straight line drawn between Lowly Point and Ward Spit Beacon joining the Port Pirie port limits. A straight line drawn between Eastern Shoal North Beacon in a direction 277° to the Eastern extremity of Whyalla port limits.
DOCUMENTS:

3 Crew Lists. Form M&S 11 Parts 1 and S.
1 Crew Personal Effects. Form 5.
1 Stores List. Form 42a.
3 Loading Port List (and Ports of Call).
1 Animal and Pets aboard. Form QA4.

To be sighted:

Official Log Book.
Last Port Clearance.
Seamen's Identification Card or Passport.
Safety Certificates:– Construction, Equipment, Safety Equipment, Loadline, Radio, International Oil Pollution Prevention, Light Dues.

PILOTAGE: *Pilot Boarding Ground:* Lat. 33° 07′ S., Long. 137° 39′ E. which is 165°×5 miles from Port Whyalla Entrance Beacon (F.Fl. 4 s.). Pilot disembarks in position 165°×6.75 miles from Port Whyalla Entrance Beacon.

Pilot is compulsory for all vessels exceeding 200 tons gross. There will be no pilotage exemptions.
APPROACHES: Refer Chart AUS 136. Australian Pilot Vol. 1. Admiralty List of Lights Vol. "K". S.A. Tide Tables. Marine Information Manual Port Bonython. System of Buoys marking channel is IALA System.
ANCHORAGE: In a safe position to the Southward of the Pilot Boarding Ground.
RESTRICTIONS: Tankers will not be berthed during the hours of darkness, without the prior approval of the Harbour Master.
MAX. SIZE: 110,000 deadweight tonnes.
HEALTH: Australian Commonwealth Rules apply.
RADIO: Adelaide Radio should be worked.

Not less than 24 hours prior to the arrival of the vessel at the port, the Master or Agent of the vessel shall convey details to the Harbour Master, of the vessel's expected time of arrival at the port, draft fore and aft, the vessel's last port of call and whether the water-ballast is clean.

Not more than 24 hours prior to the arrival of the vessel at the port the Master shall advise the Harbour Master whether the vessel's hull is, to the best of his knowledge, in sound condition and free of leaks.

If the vessel is scheduled to proceed direct to the berth on arrival the Master shall confirm to the Harbour Master the ETA at least 4 hours prior to arrival.
VHF: Contact should be made with Whyalla Port Control which has Channels 6, 8, 12, 16 and 67. Santos have listening watch VHF base station with Channels 9, 12, 13, 14, 16, 67 and 72.

When a vessel is within a distance of 20 miles from the pilot boarding position, the Master of the vessel shall ensure that an efficient VHF radio-telephone listening watch is maintained on Channel 16.

The Master of a vessel arriving at the port shall establish contact with the Port Control Station by means of VHF radio-telephone when not less than 15 miles from the Pilot boarding position.

BHP Co. Ltd. will relay messages to the Harbour Master after hours. Call "Whyalla Harbour Control" on VHF Channel 16.
RADAR: The pilot vessel is equipped with radar. There is a jetty head approach speed radar.
TUGS: There are 2 large and 2 small tugs based at Whyalla. Additionally there is a large tug based at Port Pirie.
BERTHING: The Port Bonython jetty is 2.4 km. in length and has a jetty head at right angles to the jetty. The jetty head is 140 m. in length and has 4 mooring dolphins, the depth alongside is 20 m. The berth length is 340 m. Height of deck of jetty head is 13.24 above MLWS.
Keel Clearance: For berth and channel is 20% of vessel's maximum draft.
LOADING: The first vessel achieved a loading rate of 5,000 tonnes/p.h.
BALLAST: There are facilities to accept ballast water pumped ashore via the ballast water pipe-line.
MEDICAL: There is a fully equipped base hospital at Whyalla.
DENSITY: Usually 1030.
FRESH WATER: Proposed fresh water supply rate of 25 t.p.h. Fresh water is of poor quality and it is not recommended for loading.
FUEL: Not available.
FIRE PRECAUTIONS: There are 7 fire monitors at the jetty head.

1 each side of loading (manifold) platform, 50 m. apart and 12 m. above platform.

1 each end on jetty head in line with outer breasting dolphins 45 m. East and West of loading platform and 12 m. above.

2 at inboard end of loading platform and 2.5 m. above platform for fighting platform fires.

1 adjacent to Administrative Block 100 m. inboard of loading platform.
REPAIRS: Some routine maintenance is available at Whyalla.
SURVEYORS: A Lloyds' Surveyor is available in Adelaide. There is an ABS Agent in Whyalla.
GANGWAY/DECK WATCHMEN: No gangway watchmen are employed. There are Security personnel employed by Santos within the complex and at the entrance gates.
AIRPORT: There is a regular air service from Whyalla to Adelaide.
TIME: See "General" before first port.
POLICE/AMBULANCE/FIRE: All emergency facilities are available. There is an ambulance and fire truck within the Santos complex. Police are available from Whyalla. Tel: 45 7088.
TELEPHONES: There is a telephone in the Administration block on the main jetty adjacent to the head of the jetty. A telephone is placed onboard for the vessel's stay at the berth.
REGULATIONS: Port Bonython Port Rules apply.

SHIPMASTER'S REPORT: November 1984. (Updated 1986).
Approaches: Recommended charts: BA 2389, 407; Aus. 136, 778, 777, 776. Passage up the Gulf is straightforward with fairly good radar echoes returned from the rather low lying coast. The lights of Whyalla and the flare at Bonython serve as useful guides.

The area is intensely fished and considerable interference may arise from concentrations of fishing vessels from Port Lincoln and Whyalla. All fishing vessels have been cautioned to keep clear of the Bonython Departure Channel but this instruction is largely ignored.
Documents: Normal port entry procedure and papers.
Pilotage: The Pilot boards from a yellow hulled launch in a position 165°, distance 5 miles from Whyalla Entrance Beacon and the usual strict observance of IMO/SOLAS pilot ladder regulations is required. Ladder about 1.5 m. from water.

Pilots work Channels 16, 12 and 6 on VHF and the launch will approach from Whyalla itself. Once the Pilot is boarded, the vessel proceeds to the berth up the Western Channel or Eastern Channel, depending on tidal flow, while loaded vessels depart from the newly marked departure channel with the Pilot disembarking at the Entrance Buoy.

Time of pilotage to first line ashore, about 1.5 hours.
Max. Size: See "Berthing".
VHF: See "Pilotage".

The name rhymes with "python" and the correct pronunciation will avoid embarrassment over the VHF.
Tugs: Two tugs are available (from Whyalla): "Taminga" 3,600 h.p. and "Turmoil" of 2,250 h.p. Despite my reservations, the Pilot assured me that they are perfectly adequate for pulling loaded vessels off the berth against the fresh onshore winds that predominate. Mooring boats are available for running lines to the dolphins.
Berthing: Consists of a new liquids handling terminal situated at the Northern end of the Spencer Gulf, about 9 miles from the Port of Whyalla, in position Lat. 33° 01′ S., Long. 137° 47′ E., by the promontory noted on the charts as Stony Point.

The berth is designed to handle crude carriers up to 110,000 tonnes and LPG vessels up to 75,000 cu.m.

The oil handling facility has been in use for 2 years while the LPG facility has only come into operation within the last few months, this vessel being the second LPG ship to load there.

The berth consists of a "T" head jetty at the end of a 2.5 km. trestle.

Mooring arrangements are good and the berth is well fendered.

Within the next few months a 24 hour berthing operation will be put into effect although it is as well to obtain prior advice from the Agent since it occasionally suits their operation to berth vessels during daylight.

The Japanese company Idemitsu apparently invested a huge proportion of the cost of the project and it was at their insistence that the cargo lines are dedicated to their own product and with no cross-connection available.
Loading: Notice of Readiness is tendered and accepted at time of vessel being secured.

The maximum outreach of the loading arms is no more than 4.0 m. beyond the ship's side which necessitates the use of low extensions to the manifold. The arms also require a minimum distance of 2.0 m. between them and this precludes the simultaneous loading of 2 grades since they require a VRL to maintain an overpressure in their shore tanks.

At the moment LPG production is about 1,000 tonnes per day and they only envisage shipments every 6 weeks or so.

Quoted rates for the 2 products at the moment are 2,400 cu.m./hr. Our overall average was 890 tonnes/p.h. on each grade with occasional hourly rates up to 1,000 t.p.h.

It will be necessary to shift ship on changing grades to line up the chicksans/manifolds for the second grade.

Despite the length of pipe-line both products were cold. Butane at minus 4°C and Propane at minus 42°C.

Surveys are carried out on board but the final B/L figures are based on measurement of the shore tanks; on this occasion both sets of figures compared quite well.

Port Regulations do not allow the venting of tank vapours to atmosphere and in the event of a vessel arriving under inerts excess pressure will be vented to the shore flare. A charge for loss of product being made accordingly. Similarly, if they have doubts about contamination (ammonia) in the ship's tanks, this would also be led to the flare. Continuous sampling is done ashore.

It was not made clear whether a vessel would be asked to leave the berth to 'cool down' (Harbour Master's comment: March 1986 – two chill downs have been conducted alongside the jetty to date) and it is thought that this would be a matter for discussion/decision on an individual basis. Tug hire, at 40,000 Aus. dollars per berthing operation is expensive.

The ship will be subjected to the normal D.O.T. inspection during her visit. They will not necessarily be carried out prior to loading. Very thorough, especially on safety gear, lifting gear and documentation.

We received excellent co-operation throughout at all levels and stages of the operation. Since this was only their second cargo they were, perhaps, taking particular care, but there is no reason to expect this co-operation to deteriorate in the future.

Also see "Fire Precautions".

Fresh Water: Available from the jetty; the local personnel do not advise taking any since it is most unpleasant (reportedly) to drink.

Fuel: Not available.

Fire Precautions: The terminal's safety regulations require the vessel to prepare a comprehensive loading plan which must include hull stresses for each stage of the operation.

Repairs: With the Whyalla Shipyard closed, these may be difficult to arrange.

Surveyors: Nearest Lloyd's Surveyor resides at Adelaide.

Loading Arms: (Port Bonython)

Gangway/Deck Watchmen: A substantial shore gangway is provided.

Strict security control is exercised throughout the complex and authorisation for visitors must be obtained. They are especially wary about intoxicated personnel boarding or leaving the vessel and may ask for a ship's Officer as escort.

Airport: There is a local airport which facilitates the delivery of spare gear, etc.

Storing: The local chandlers have a very good working relationship with the terminal personnel and there is little problem in loading foodstuffs and small stores/spares. The usual restrictions apply to the movement of metal objects.

There is a 1 tonne crane on the jetty (Eastern end) which may be used for storing.

Meat and fish prices are very good, together with most local produce. Beers other than the local South Australian brands may be difficult to obtain (coming from Adelaide) and are more expensive.

Shore Leave: Security will arrange for transport to and from the ship to the gate.

It is some 20 km. into town and the cost (one way) of a taxi is 30 Australian dollars. The Agent will be able to arrange a mini-bus service.

AUTHORITY: Department of Marine and Harbors of South Australia, P.O.Box 102, Whyalla, South Australia 5600. *Tel:* 086-455666. *Contact:* Captain A.G. Wilson, Harbour Master.

AGENT: Sub-Agent of Patrick Agencies, Adelaide.

LOADING ARMS						SHIP'S MANIFOLD REQUIREMENTS				
		Size		*Height above waterline*		*Height above deck or other obstruction*		*Set back to face of ship's manifold or reducer if requ'd*		
No.	*Service*	*Arm (All 150 ANSI)*	*Coupling*	*Max.*	*Min.*	*Max.*	*Min. below lower edge of manifold flange*	*From ship's side Max.*	*From ship's side Min.*	*Min. dist. between ship's manifolds*
1 2 3	Crude Condensate Ballast	12 in. 300 mm.	12 in. 300 mm.	20.24 m.	4.14 m.	†	0.56 m.	4 m.	1.65 m.	2 m.
4	Propane Liquid	6 in. 150 mm.	6 in. or 8 in. 150 mm. or 200 mm.	12.74 m.	3.14 m.	†	0.44 m.	3.2 m.	1.35 m.	2 m.
	Vapour hose connection	3 in. 75 mm.	3 in. 75 mm.							
5 6 7	Propane Liquid or Vapour	10 in. 250 mm.	10 in. or 12 in. 250 mm. or 300 mm.	18.24 m.	4.14 m.	†	0.53 m.	4 m.	1.5 m.	2 m.
8 9 10	Butane Liquid or Vapour	10 in. 250 mm.	10 in. or 12 in. 250 mm. or 300 mm.	18.24 m.	4.14 m.	†	0.53 m.	4 m.	1.5 m.	2 m.

† Unrestricted, except for safe access.

PORT GILES, S.A.: 35.02 S. 137.46 E.

PORT LIMITS: As marked on Chart AUS. 125 (plans in the Gulf of St. Vincent). From a position the HW line in Lat. 35° 00.5′ S. in a direction 090°×7 miles, thence 180°×1.75 miles, thence 270°×6.7 miles (approx.) to the shore.

DOCUMENTS: All documents necessary for first entry vessels are as for other Australian ports (i.e. Customs, Health, etc.)

PILOTAGE: Compulsory. Pilot boarding ground is 2.5 miles East of the seaward end of the Port Giles Jetty. Pilot vessel "Carina", approx. 9 m. LOA, orange hull, yellow superstructure, "Pilot" in black on topside. Vessels proceeding to Port Giles, 24 hours' notice required to Department of Marine and Harbors, Port Adelaide.

ANCHORAGE: MacDonnel Sound, 7 miles from berth.

RESTRICTIONS: Daylight berthing only. Sailing at any time.

MAX. SIZE: Vessels to 40,000 d.w.tonnes able to load fully and depart at lowest tide. Normal limit 206 m. LOA and 40 m. beam.

HEALTH: Radio Pratique available within 24 hours of arrival provided sufficient information supplied. Quarantine/Health Officer will still board vessel in order to grant formal Pratique. Vessels arriving from other Australian ports have automatic Pratique, but Health Officer may still attend the vessel on arrival.

RADIO: ETA messages for Agent, Harbour Master, etc., may be routed through any Australian coastal station, the closest being Adelaide Radio (VIA) not less than 24 hours prior to arrival.

VHF: Channels available at Port Giles 16, 12, 6. Channel 16 used for general calls to Port Adelaide Outer Harbour, Signal Station. Call sign: Port Adelaide Outer Harbour. Messages on Channel 12. Hours of operation: 24 hours per day. Messages will be relayed to Port Giles.

RADAR: No radar service.

TUGS: By arrangement from Port Adelaide.

BERTHING: Berth dimensions: Length 256 m. (840 ft.), width 39.6 m. (130 ft.), depth 11.6 m. (38 ft.), draft subject to keel clearance 0.6 m. (2 ft.). Vessels berth on North side of jetty, either head in or head out depending upon weather conditions.

CRANES: None.

BULK LOADING FACILITY: 5 booms with luffing and swinging ability. Loading rate; 2 or more booms 800 tonnes per hour, 1 boom 400 t.p.h. Chute clearance low water: 15.54 m. Cargo handled: barley, wheat, peas.

SPECIALISED CARGO HANDLING FACILITIES: None available.

BRIDGES: None.

STEVEDORES: Ordering of labour organised through Agent and Grain Handling Authority.

MEDICAL: Ambulance – Yorketown (088) 521200. Doctor available in Yorketown.

TANKERS: No facilities available.

DENSITY: 1027.

FRESH WATER: Available at 15 tonnes per hour ship/shore hose.

FUEL: By road tanker, by arrangement.

CONSULS: None at Port Giles. Services available from Adelaide.

REPAIRS: None available at Port Giles. Available from Adelaide.

DRY DOCKS: None.

SURVEYORS: (1) Cargo Surveyors available through Agents, from Port Adelaide.

(2) Lloyd's Surveyor should be organised through principal Agents. Lloyd's Agents is at Port Adelaide.

Other Classification Society Surveyors also available in Australia with sufficient notice to Agents. None are resident in Port Giles.

GANGWAY/DECK WATCHMEN: Gangway watchmen not available.

HATCHES: Ship's crew.

CUSTOMS ALLOWANCES: Normal Australian allowances.

CARGO GEAR: Bulk grain loading only.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: Nearest regular airport, Adelaide.

TIME: See "General" before first port.

HOLIDAYS: New Year's Day; Australia Day (January); Good Friday; Easter Monday; Anzac Day (April); Adelaide Cup Day (May); Queen's Birthday (June); Labour Day (October); Christmas Day and Proclamation Day (December 26th).

The bulk loading plant operates on all public holidays except Good Friday and Christmas Day.

POLICE/AMBULANCE/FIRE: Police Tel: 52 1100 (Stansbury Tel: 52 4205, Edithburgh Tel: 52 6024).

Ambulance Tel: 52 1200 (Edithburgh Tel: 52 6000, Stansbury Tel: 52 4100).

Fire Tel: 52 1000.

EMERGENCY CO-ORDINATION CENTRE: Tel: (062) 475 244.

TELEPHONES: Ordinary hours 0830 to 1630 to connect $60.00 and disconnect $60.00. Overtime hours to connect $84.00 and to disconnect $84.00. Rental $1.14 per day.

SERVICES: Tank and hold cleaning services available with prior arrangement.

BANKS: Not available at Port Giles. Nearest banks at Yorketown.

State Bank of South Australia, 25 Warooka Road, Yorketown. Tel: 52 1570, Telex: 82082.

A.N.Z. Banking Group Ltd., 40 Warooka Road, Tel: 52 1211.

STORING: See "Prelims".

1. Truck.
2. –
3. Normal road access.
4. Forklift trucks can use jetty.
5. Normal Customs bond regulations apply.
6. Ship's crew.

SHIP SUPPLY SERVICE: Not available.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Normal Australian I.D. cards necessary, but not required to be carried ashore.

REGULATIONS: No unusual regulations.

DELAYS: Not normal only if another vessel is at berth loading.

DEVELOPMENTS: None in foreseeable future.

AUTHORITY: Harbour Master, Department of Marine and Harbors, Box 125, Yorketown 5576. *Tel:* (088) 526 130.

Head Office: Department of Marine and Harbors, P.O.Box 19, Port Adelaide, South Australia 5015. *Tel:* (08) 470611. *Telex:* AA 82525. *FAX:* (08) 470605, 470606. *Contact:* Captain D.E. Kemp, Harbour Master/ Port Manager.

AGENT: Sub-agent of Patrick Agencies, Adelaide.

PORT HEDLAND, W.A.: 20.18 S. 118.35 E. (See Plan)

PORT LIMITS: An arc of a circle of 10 nautical miles radius with centre at Hunt Point Beacon No. 47.

APPROACHES:

General Description: To seaward of the Port Limit is the "Pilotage Area" which extends out to a distance of 20 nautical miles from Hunt Point. Although this area and the navigation beacons therein come under the jurisdiction of the Commonwealth Government, a pilotage service can be provided by the Port Hedland Port Authority as directed by the Harbour Master.

The Inner Harbour commences from a line drawn between Hunt Point Beacon (No. 47) and Airey Point Beacon (No. 46).

The Channel extends from the Inner Harbour through the Port Limit and out to Beacon"C.1", some 22 nautical miles offshore in the Pilotage Area.

The Channel has varying depths in order to make maximum use of the tidal range. These depths are:-

Inner Harbour	14.6.m.	Beacon 16	14.6 m.
Hunt Point	14.1 m.	Beacon 12	14.9 m.
Beacon 30	14.2 m.	Beacon 4	15.8 m.
Beacon 24	14.4 m.	Beacon 2	16.2 m.

The turning basin in the Inner Harbour is dredged to 9.1 m. The perimeter of the turning basin is marked by buoys which exhibit a flashing yellow light at night. The Channel is marked by beacons which are set back 23 m. from the toeline of the dredged channel. Leading lights are established to assist with navigation in a number of channel sections.

From the departure basin to Hunt Point Beacon (No. 47), the channel has a large bend for most of its length, involving vessels turning through an angle of some 70°. The channel width is generally greater than 300 m., narrowing to some 244 m. at Hunt Point. Depths up to Hunt Point are 14.6 m. The current pattern is complex but on the flood tide a pronounced set to the Western Bank is experienced.

From Hunt Point to Beacons 36/37 is a bend involving a single curve with a radius of 2,540 m. Depths of 14.1 m. are available in this area. Channel widths are up to 240 m. and currents generally follow the line of the channel.

From Beacons 36/37 to Beacons 30/31 the channel section is known as Goldsworthy Straight. The depths in this section are 14.2 m. and the channel batter width is 193 m. In the section closest to Beacons 36/37 the current is parallel to the channel; in the Northern half of the section, the current on the flood tends to set South Easterly and North Westerly on the ebb.

The section between Beacons 30/31 is known as the Newman Straight and depths are 14.4 m. to 14.6 m. with widths varying from 183 m. to 200 m. The current again sets South Easterly and North Westerly. From Beacons 19/20 to the end of the channel at Beacons 15/16 the depth is 14.6 m. with a width of 200 m.

The Outer Channel is outside Port Limits but within the Pilotage Area. The width of the channel varies from 250 m. at Beacons C13/C14 to 470 m. at Beacons C1/C2 and is well marked by 13 beacons.

Drying coral ledges covered with a thin layer of sand extend from the shoreline near the harbour entrance, for a distance of up to 0.75 nautical miles. To seaward of these ledges there are some detached sand banks extending out to 1.5 nautical miles. A Spoil Bank extends seaward from the foreshore and is situated to the East of the dredged channel. It dries for most of its length, acting as a breakwater during Easterly winds.

The most conspicuous object is the Mt. Newman Mining Company's Crushing Plant situated in position 20° 19. 05′ S., 118° 35. 26′ E. The Port Control Tower in position 20° 19. 0′ S., 118° 34. 5′ E. and Finucane Island Water Tower in position 20° 18. 13′ S., 118° 33. 90′ E., are also conspicuous.

Seaward Approaches: Separate inwards and outwards routes extend to and from Port Hedland. Vessels approaching the port should, unless constrained by draft, follow the recommended inwards track to the East of the main channel. Before entering the Pilotage Area, vessels must call "Port Hedland Harbour" on VHF Channel 16 and receive approval to enter. Vessels must not enter without receiving approval. In addition vessels should then confirm their ETA and draft and seek advice as to the movement of other vessels, berthing instructions and other appropriate information. Where it is necessary for deep draft vessels to use the main channel, approval to do so must be obtained from "Port Hedland Harbour" on VHF Channel 16 prior to entry at "C1" and "C2".

Vessels should call Broome Coastal Radio Station for details of any Emergency Notice to Mariners which may affect the Port Hedland Approaches.

On occasions, and especially when required by draft to use the main channel, vessels inwards may encounter vessels outward bound displaying signals as prescribed by Rule 28 of the International Rules for the Prevention of Collision at Sea. As outward bound vessels are generally deeper, and therefore more constrained, they will as a general rule have preference.

Mariners are advised to pay due regard to the strong currents which exist off the coast, especially during Spring Tides. The height of Mean High Water Springs is 6.8 m., Mean High Water Neaps 4.7 m. and maximum range is approximately 7.3 m. The flood tide sets in an Easterly direction, whilst the ebb sets North Westerly (maximum rate approximately 1.5 knots). Vessels may request the exact height of the tide by calling "Port Hedland Harbour" on V.H.F.

DOCUMENTS:

2 Copies Health Report Q360 for Quarantine Office to be accompanied by Crew List showing Vaccination dates.

1 Copy Store List Form 42A. All narcotics and restricted drugs to be identified by type, size and quantity. Report is to include lifeboat kits.

1 List Crew Possessions. Form 5, including Declaration Sheet. In declaring goods, quantity, description and value to be stated. In the case of all watches, radios, cameras, binoculars and the like, maker's name or brand and serial numbers must be shown.

1 Crew List and Form M & S 11. Comprised White Cover Sheet, 2 copies plus Green Listing Sheet, 2 copies.

1 List Ship's Pets. QA4. If any pets, including any animal, bird or fish on board to be accompanied by 1 pink QA5.

Identification Card. Form M315. One per crew member, except as detailed below.

With reference to Seamen's Identification Cards, a Passport size photograph of the seamen is sufficient. A side-face photograph is not required. Seamen in possession of the following National travel documents are no longer required to have an Identification Card in Commonwealth of Australia Form M315.

Canada	Passport or Seaman's Identity Certificate
Denmark	Seaman's Book
Fiji	Passport or Seaman's Certificate of Nationality and Identity
Ghana	Passport or Seaman's Certificate of Nationality and Identity
Hong Kong	Seaman's Identity Book
India	Seaman's Identity Book or Seaman's Continuous Certificate of Discharge
Israel	Seaman's Book
Italy	Libretto de Navigaziona
Japan	Mariners Pocket Ledger
Malaysia	Passport or Seaman's Identity Card
New Zealand	Identity Book
Norway	Seaman's Document of Identity
Pakistan	Seaman's Identity Card or Continuous Discharge Certificate
South Africa	Seaman's Record Book and Certificate of Discharge or Seaman's Identity Certificate or Certificate of Naturalisation or Identity
South Korea	Seaman's Certificate Book
United Kingdom*	Passport or Seaman's Record Book and Certificate of Discharge

*United Kingdom Passports may be held for surrender only if grantee is agreeable, otherwise an Australian Identification Card must be available.

Masters are reminded that crew members' travel documents and Commonwealth of Australia Forms M315, where applicable, are to be retained in the custody of the Master at all times and are to be produced to Customs Boarding Officers upon demand.

PILOTAGE: Pilotage is provided within Port Limits and within a "Pilotage Area" that extends some 10 nautical miles outside Port Limits.

Port Limits embrace the area up to the High Water Mark within an arc of radius 10 nautical miles, from Hunt Point Beacon (No. 47).

The Pilotage Area embraces the area up to the High Water Mark between Port Limits and an arc of radius 20 nautical miles, from Hunt Point Beacon (No. 47).

The Master of any vessel other than a vessel exempted under the Ports Regulation 74, shall not cause or permit the vessel to enter of depart from or move within the Port or the Pilotage Area without having first taken on a Pilot, unless authorised to do so by the Harbour Master.

Regulation 74 exempts from Pilotage the following vessels:

(a) all vessels which do not exceed 35 m. in length overall;

(b) all coasting and interstate vessels exceeding 35 m. but not exceeding 65 m. in length overall the Masters of which hold a current Pilotage Exemption Certificate valid with respect to the Port;

(c) all vessels owned and operated by the Western Australian Coastal Shipping Commission exceeding 65 m. but not exceeding 135 m. in length overall the Masters of which hold a current Pilotage Exemption Certificate valid with regard to the Port;

(d) subject to the consent in writing of the Harbour Master first being obtained, vessels which are not registered in the Commonwealth of Australia exceeding 35 m. but not exceeding 65 m. in length overall, the Masters of which hold a current Pilotage Exemption Certificate valid with respect to the Port; and

(e) vessels of war.

It is intended that only outbound vessels of 150,000 d.w.t. or more will be required to take a Pilot beyond Port Limits into the Pilotage Area.

However, if a Master requests the services of a Pilot then the Port will meet that request where in the opinion of the Harbour Master it is reasonable to do so. Generally speaking vessels under 150,000 d.w.t. will be authorised by the Harbour Master to proceed without a Pilot in the Pilotage Area. Within Port Limits vessels will require a Pilot unless exempted by Regulation 74.

Pilots employed by the Port Authority receive extensive training, both locally and overseas. It takes an average 2 years before a Pilot is classed as an "unrestricted" Pilot, that is to say he is allowed to handle any size of vessels and is not restricted to a certain tonnage. All unrestricted Pilots have attended Shiphandling Courses at the Port Revel Marine Research and Training Centre at Grenoble, France, where the principles of shiphandling are studied. The Port and Channel has been modelled on the simulator at the Australia Maritime College at Launceston, Tasmania, where training is given on a number of different ship models including "Port Hedland Maru" of 251,191 tonnes d.w.t. This ensures that Pilots receive experience handling large vessels in a variety of wind and tides.

Helicopter Boarding: Pilots will board suitable vessels by means of a helicopter which will land on a hatch cover. Normally this applies to bulk carriers and not general cargo vessels, oil or gas tankers - vessels such as these are not suitable for helicopter and will be boarded by launch. The helicopter is a float-equipped Bell 206B Jetranger weighing, when filled to capacity, 1,360 kilos. It is fitted with VHF in the Marine band.

Where a vessel is to be boarded by helicopter, the vessel must meet the following criteria:-

(a) A hatch cover capable of supporting 2,722 kilos, that is, possessing a load density of not less than 380 Kg./sq.m. and with minimum dimensions of 10.16 m. If cambered, then the angle should not exceed 7.5°.

(b) Mark a *Termination Area* on the hatch cover with a circle of not less than 15 cm. width and 10.16 m. diameter.

(c) Mark a *Touch Down Area* within the termination area with a letter "H" having sides of 2.0 m. and width 13 cm. or a spot not less than 30 cm. in diameter. The *Touch Down Area* is to comprise a square space having sides measuring no less than 7.0 m., the centre of which will be concentric with that of the termination area, and shall be free of lifting lugs, wedges, ventilators and any other obstructions which are likely to hazard the flotation system. When the floats are positioned within the touchdown area as described above, the main rotor shall be contained within the termination area.

(d) The markings in (b) and (c) above shall be white or yellow on a dark background.

(e) Paint on handrails, lugs, ventilators and other obstructions on the hatch cover, should be a distinctive colour which shall be highly visible by day or night.

(f) Surrounding the termination area, there shall be an area not less than 7 m. in width in which there shall be no obstructions likely to hazard the rotor system (i.e. higher than 0.5 m. above the hatch cover level). Two approach paths, at least 150° apart in azimuth, each approach path having a minimum of 20.32 m., and being free of all obstacles, for an approach gradient of 40°, up to a height of 200 ft.

(g) The combined termination area and obstruction-free area in (f) shall comprise the *Helipad Area*. No ship's personnel shall be within this area during helicopter operations unless they are below hatch cover level.

(h) *Ensure that all hatch wires, derricks, cranes, aerials, etc., are clear of the approach paths to the Helipad Area. All loose objects must be removed from this area.*

(i) The approach paths to the helipad across both sides of the ship shall be free of obstructions higher than 0.5 m. above hatch cover level.

(j) An officer shall be available to escort the Pilot to and from the helipad area.

(k) Ships departing the Port must wash down the helipad before the helicopter lands (day and night).

In Addition for Night Operations:

(a) The termination area shall be illuminated with floodlights situated outside the helipad area, with the light beams directed downwards on to the hatch cover, in such a manner as not to blind the helicopter pilot.

(b) An illuminated wind indicator shall be displayed in a conspicuous position clear of the helipad area and easily visible from the air (e.g. a wind sock or answering pennant).

(c) On request, when other ships are in the area, provide a means of identification by flashing a light towards the helicopter on approach.

Mimimum Fire Fighting Requirements:

(a) Officer-in-Charge, with two others, each of the latter manning a fire hose, and all three wearing highly visible coloured vests. They should be stationed clear of, but close to the termination area.

(b) Fire hose nozzles of the dual purpose type.

(c) Inductors and dipsticks connected to hoses for use with foam.

(d) Drums of foam-making compound FC3034 (FFE Number) or equivalent, one at each fire hose position and sufficient to make 14,000 litres of foam.

(e) Dry powder extinguishers — 45 kg.

(f) Carbon dioxide extinguishers — 16 kg.

(g) One fire proximity suit.

(h) Fire resistant blankets and gloves.

Radio Procedure Ship/Helicopter: Before landing, the helicopter pilot must receive clearance to land on VHF Channel 16, as follows:-

"(Name of Ship) this is Port Hedland Pilot Helicopter, request clearance to land".

"Port Hedland Pilot Helicopter this is (Name of Ship), you are clear to land".

Vessels should be ready to advise the helicopter of the relative wind across the deck.

Boarding by Pilot Boat: When boarding by pilot vessel, it is most important that a lee be given to allow the Pilot to board. Generally ships will be requested to be underway prior to pilot boarding. Failure by ships to afford a lee may result in the pilot being unable to board, with consequent delay.

All vessels, where the Pilot is boarding by boat, must rig a ladder in accordance with "International Maritime Organisation SOLAS Regulations". Under SOLAS Chapter V, Regulation 17 amended in 1973 by I.M.O.'s Resolution A263 (VIII) and in 1979 by Resolution A426 (XI), the following points are stressed:

(a) The rigging of the pilot ladders and the embarkation and disembarkation of Pilots thereby, shall be supervised by a responsible officer of the ship.

(b) Every pilot ladder shall be secured in a position clear of any possible discharges from the ship, and so that each step rests firmly against the ship's side.

(c) Every pilot ladder shall be secured in a position where the pilot can gain safe and convenient access to the ship after climbing not less than 1.5 m. and not more than 9.0 m.

(d) Whenever the distance from the water to the point of access to the ship exceeds 9.0 m., access must be by means of a combination of a pilot ladder and an accommodation ladder.

(e) Adequate lighting must be provided at night.

(f) Manila manropes of between 28 mm. and 32 mm. in diameter should be rigged on each side of the ladder for its full length.

(g) The ladder should be clean.

Failure by Masters to comply with the requirements outlined above has, in the past in Australian ports, resulted in delays to shipping and in some instances heavy costs against the vessel concerned.

Pilot Ladder Specifications:

Length of spreaders not less than	1,800 mm.	(5 ft. 10 in.)
Length of steps not less than	480 mm.	(1 ft. 7 in.)
Width of steps not less than	115 mm.	(4.5 in.)
Thickness of steps not less than	25 mm.	(1 in.)
Side ropes'		
circumference not less than	60 mm.	(2.25 in.)
diameter not less than	20 mm.	(0.75 in.)
Spacing of steps	300 mm.-380 mm.	(1 ft.-1 ft. 3 in.)
Recommended space between top of one step and underside of the one above	310 mm.	(12.25 in.)
Recommended clear space between pairs of side ropes (not specified by SOLAS).	400 mm.	(1 ft. 4 in.)

The size and spacing of components can vary considerably from one pilot ladder to another within the requirements of the SOLAS Regulations.

ANCHORAGE: When vessels are required to anchor they should do so clear of the main channel but inside the Port Limits. The holding ground is reported as being good on both Eastern and Western sides of the channel. Vessels should not anchor in the designated Spoil Ground Dumping Areas or in the Prohibited Anchorage as indicated on Charts AUS. 53 and AUS. 52.

Departure: If the Master wishes to anchor outside prior to proceeding to sea, he must advise the Pilot when leaving the berth, and the Pilot will advise suitable anchorage. The Master will advise the Pilot of estimated time of departure in order that this may be reported to the Port Control.

RESTRICTIONS/MAX. SIZE: Vessels of up to 315 m. LOA are now able to use the port by day and by night, whereas prior to improvements these vessels were restricted to daylight movements only.

It has been decided to approve the use of the port by vessels of up to 325 m. LOA subject to the following conditions: All movements in the channel confined to daylight hours; wind speed not to exceed a steady 25 knots; inward movements to be confined to times when the currents are the minimum possible for the tide. Owners of such vessels should provide the Port Authority with a general arrangement plan at least 2 weeks prior to vessel's arrival.

To determine the maximum allowable departure draft a computer programme has been established which takes into account a number of factors which make the calculation of departure draft rather more complex than before. These factors include the varying channel depths, and the varying heights of tide throughout the passage of a vessel from the Inner Harbour out to "C1" Beacon, a distance of some 45 km. and involving a transit time of about 3 hours from departing the berth. Also included are the sea state, the required Under Keel Clearance, an allowance for the varying speeds of ships and an allowance for the variation in tide heights between those predicted for the Inner Harbour and those experienced offshore.

The following scales of Under Keel Clearances cover 3 different sea states and have been established after investigation of all pertinent factors by the Authority's engineering consultants on this matter and the Port Hedland Port Authority. The sea state is measured by a wave rider buoy in a position to the West of Beacon No. 15 at the seaward end of the dredged channel. Data from this buoy is relayed by radio signal to the Port Control Tower.

Under Keel Clearance:

Location	*Swell Type A*	*Swell Type B*	*Swell Type C*
Harbour	1.20	1.20	1.20
Hunt Point	1.30	1.40	1.60
Beacon 30	1.40	1.80	2.30
Beacon 24	1.60	2.00	2.60
Beacon 16	1.60	2.00	2.60
25 km. (Beacon "C14")	1.80	2.20	2.90
39 km. (Beacon "C4")	2.10	2.70	3.50
44 km. (Beacon "C1")	2.20	2.90	3.70

The swell types are:

Type A - Swells less than 0.25 m. in amplitude. These occur for approximately 19% of the time.

Type B - Swells of 0.25 m to 0.50 m. in amplitude. These occur for approximately 69% of the time.

Type C - Swells greater than 0.50 m. in amplitude. These occur for approximately 12% of the time.

The UKC scales take account of any likely increase in swell conditions in the 12 hours prior to sailing. The maximum loading drafts will be determined by the Port Authority at 12 hours prior to sailing and will not be varied in this period.

A comprehensive analysis of actual recorded transit times for departing vessels over the last 3 years has been undertaken from which an 'average' transit time has been divided up to match the critical points along the Channel such as Hunt Point, Beacon 30, Beacon 24, Beacon 16, 25 km., 39 km. and 44 km. (Beacon "C1"). The 'average' times are:

Last Lines to Harbour	5 minutes
'A' Berth to Hunt Point	31 minutes
'B' Berth to Hunt Point	31 minutes
Hunt Point to Beacon 30	29 minutes
Beacon 30 to Beacon 24	17 minutes
Beacon 24 to Beacon 16	15 minutes
Beacon 16 to 25 km.	12 minutes
25 km. to 39 km.	36 minutes
39 km. to 44 km.	12 minutes

The 'average' times are then increased to allow for longer transit times as the tidal range and deadweight increase. The formula is as follows:

To Hunt Point	plus 1.25 × tide range + 0.0000375 deadweight
To Beacon 30	plus 2.25 × tide range + 0.0000625 deadweight
To Beacon 24	plus 2.25 × tide range + 0.0000687 deadweight
To Beacon 16	plus 2.25 × tide range + 0.0000810 deadweight
To 25 km.	plus 2.35 × tide range + 0.0000975 deadweight
To 39 km.	plus 2.65 × tide range + 0.0001462 deadweight
To 44 km.	plus 2.75 × tide range + 0.0001625 deadweight

Three vessel classes have been decided upon in relation to deadweight viz:

150,000 d.w.t. Class	i.e. vessels with deadweight greater than 125,000 tons but less than 175,000 tons
200,000 d.w.t. Class	i.e. vessels with deadweight greater than 175,000 tons but less than 225,000 tons.
250,000 d.w.t. Class	i.e. vessels with deadweight greater than 225,000 tons but less than 275,000 tons.

Some typical examples of transit times from last lines to 44 km. are:

Vessel Size (d.w.t.)	*Tide Range* (m.)	*Transit Time* (minutes)
150,000	2.0	182
150,000	4.0	187
150,000	6.0	193
200,000	2.0	190
200,000	4.0	196
200,000	6.0	201
250,000	2.0	198
250,000	4.0	204
250,000	6.0	209

The Port Authority computer programme which is used to determine maximum drafts and departure times also maintains the minimum UKC at each of the channel control points if the vessel is 15% faster or 20% slower than the above transit times.

This is required because it is not necessarily known at departure whether a vessel will be a 'fast' or 'slow' vessel. The above lower and upper bounds on transit times were derived from the analysis of actual transit times for large vessels departing Port Hedland over a 3 year period and is an ongoing analysis.

Arrival drafts:

The port experiences strong winds on occasions and in order to minimise windage during transit of the channel and berthing, vessels should be ballasted to the following minimum arrival drafts:

D.w.t.	*Forward Draft* (m.)	*Aft Draft* (m.)
Up to 10,000	2.0	No more than 0.6 m. of the propeller to be exposed
10,000 to 20,000	2.0 to 2.5	
20,000 to 30,000	2.5 to 3.0	
30,000 to 50,000	3.0 to 5.0	6.5
50,000 to 100,000	5.0 to 7.0	6.5 to 7.5
100,000 to 150,000	7.0 to 8.0	7.5 to 8.5
150,000 to 200,000	8.0 to 8.5	8.5 to 9.5
200,000 to 250,000	9.0	9.5 to 10.0

All vessels should advise their intended arrival draft to the Harbour Master 24 hours prior to their arrival. Vessels which do not meet these minimum draft requirements may have their berthing delayed. Vessels which may have difficulty in meeting the above drafts should notify the Harbour Master accordingly.

Vessels over 100,000 d.w.t. may be ordered to vary their drafts prior to berthing, because of tidal conditions which may affect air draft under the ship loader.

PRATIQUE: Masters of all vessels arriving from overseas and wishing to proceed direct to a berth must apply for clearance by radio.

At least 24 hours before arrival the answers to the following questions should be radioed to the Ship's Agent who will submit the information to the Quarantine Officer:

A. Name, type and nationality of vessel.
B. Itinerary for last 21 days. If over 21 days from last port, please give name of port and date of departure.
C. Name of first Australian Port and ETA.
D. Number of crew.
E. Number of passengers.
F. Have you had any deaths on the voyage? If so, please give details.
G. Have you had any cases of illness during the last 21 days with a fever of 38°C or above, and
(a) accompanied by rash, jaundice or glandular swelling, or
(b) accompanied by diarrhoea lasting longer than 24 hours.
H. Have you had persons suffering from venereal disease during the voyage?
I. What live fish, birds, reptiles or other animals are you carrying? Ships' pets should be mentioned.
J. Have you carried livestock on previous voyages in the last six months? If yes, please advise type of livestock, date of voyage and ports visited. Have all stock-carrying compartments been thoroughly cleaned and disinfected?
K. Do you request radio pratique or radio approval to berth?

If the answers to the above are acceptable, "Approval to Berth" or "Radio Pratique" will be granted.

Vessels from overseas which do not submit health reports must anchor at the Quarantine Line and await quarantine clearance. Until clearance is received, no persons other than the Pilot, Port Health Officials and Customs and Excise Officers will be allowed to embark or disembark. Until cleared, vessels must show the appropriate day or night quarantine signals.

Whilst alongside in Port Hedland rat guards must be placed on all lines.

RADIO/VHF: Vessels trading to Port Hedland use Sydney, Darwin and Broome Radio Stations. There is no Radio Station in Port Hedland. Broome Radio transmits navigation warnings including alterations to navigation aids to Port Hedland.

Vessels bound for Port Hedland should advise the Harbour Master 48 hours and 24 hours before their arrival, indicating their draft, fore and aft, and last port (Address: Harbour Master, Telex No. AA 99213, Port Hedland. If telex number not included messages may be delayed).

VHF: *Port Control Tower:* This communication centre is normally manned 24 hours a day and is equipped with 5 VHF radios covering the entire marine band. The International Call sign is "Port Hedland Harbour". All VHF communication is recorded on an 8 track tape recorder.

Orders concerning shipping movements, allocation of berths and related matters are passed to ships, Pilots and berthing gangs through the Control Tower. In addition, relevant shipping information, in particular changes to orders out of office hours, are also passed to agents, customs and quarantine as required.

Vessels are required to obtain permission from the Control Tower before entering, leaving or moving from place to place within the Port and are required to verify equipment serviceability. This verification on completion, must in the case of non-piloted vessels, be passed to the Tower by radio or other suitable means. Where a vessel is piloted then a completed card must be handed to the Pilot.

During the cyclone season in North West Australia, ships alongside will be instructed to set and maintain watch on VHF Channel 16 during the early stages of the "alert" phase.

Use of VHF: Vessels equipped with VHF must maintain listening watch on Channel 16 at all times when anchored inside the Port Limits. Should a vessel at anchor wish to communicate by VHF with another vessel then it must first advise "Port Hedland Harbour" who will allocate a working channel.

The Control Tower is equipped with a Krupp Atlas 8600 ARPA radar with a stated range of up to 72 nautical miles.

Other equipment includes a telex (receiving telexes only), wind, tide and wave recording instruments and an Aldis signalling lamp. The Port Control Tower will advise current tide (height above chart datum) and wind strengths on request.

A Marine Citizens Band radio and an H.F. scanner are also installed and a listening watch is maintained on 27.88 MHz. for distress calls from private pleasure craft. This service is provided on an honorary basis for the Port Hedland Sea Search and Rescue Group and any other user.

TUGS/LAUNCHES: Six tugs, operated and managed by Adelaide Steamship Industries, are stationed in Port Hedland. The fleet consists of:

	Gross Tonnes	*Brake (h.p.)*	*Bollard Pull (tonnes)*	*Type*
M.V. Warang	425	3600	50	Z-pellor
M.V. Warilla	425	3600	50	Z-pellor
M.V. Corunna	427	3600	50	Z-pellor
M.V. Coongan	427	3600	50	Z-pellor
M.V. Talga	309	2640	35	Single Screw
M.V. Degrey	312	3156	52	Twin Screw

Tugs can also be utilised for the shipment of fresh water to vessels at the outer anchorage at the rate of approximately 80 tonnes per tug.

Elder Prince Marine Services Pty., Ltd., also operate launches and workboats, ranging from 10 m. to 13 m., which are available for use as ferries, line boats, etc.

BERTHING: There are 5 berths situated within the Inner Harbour, two of which are owned and operated by the Port Authority, two by the Mt. Newman Mining Company and one by Goldsworthy Mining Ltd.

Goldsworthy Pier: This is situated on the Western side of the Harbour on Finucane Island, and lies S.W. of Hunt Point Beacon (No. 29). The face of the jetty extends over a distance of 177 m. and lies in the 017°– 197° direction. It consists of seven breasting dolphins with Bridgestone cell fenders on Nos. 1,2,4,6 and 7 Firestone Burleigh floating fender units on Nos. 3 and 5.

There are two dolphins ahead and three astern of the jetty to facilitate the mooring of vessels. These dolphins are set back from the line of the berth face and have no fenders.

The distance from the Northern Mooring Dolphin to the Southern Mooring Dolphin is 430 m. and the dredged mooring basin 426 m. long, 61 m. wide, has a depth of 17.0 m. below datum. The shiploader has an overall length of travel of 225 m. and a max. capacity of 4,500 t.p.h.

Vessels will normally berth port side to, heading out to sea. Ship's gangways should be rigged prior to berthing on the off-side as gangways are not acceptable on the jetty. A launch service is available to ferry personnel to the town. Ship's personnel are not allowed on the loading facility. Provision for a future second loading berth ahead of the existing jetty has been made.

The height of the shiploader underside in the raised portion above chart datum is 24.1 m. The loader is not completely retractable behind the berth face but retracts to a position 0.84 m. behind the fender line.

Fresh water and fuel are not available at this berth.

No. 1 Berth: This landbacked berth lies in a 350° – 170° direction and has a length of 213 m., with a mooring dolphin 58 m. from the Northern end. Depth alongside is 11.2 m. It is protected by a "Raykin" fender system. The height of the wharf deck is 9.5 m. above datum with an apron width of 22 m. Three access ramps connect to a dry cargo storage shed. adjacent to the berth. The storage shed has a floor area of 487 sq.m. and a further 12,100 sq.m. of open hard standing space is available alongside the shed for the holding or movement of cargo. The berth, shed and open area are all floodlit for security and working of cargo. General cargo is normally handled by forklift vehicles to and from the vessels or loaded direct on to road trucks. Vessels up to 230 m. LOA can be accommodated at this berth which is equipped with 1 × 102 mm. and 2 × 203 mm. bunker points (diesel only), fresh water hydrants, power and telephone connections. Vessels wishing to have telephones placed on board should advise their agents at least 48 hours prior to arrival.

No. 3 Berth: No. 3 Berth is constructed of steel piles with a steel and concrete decking. The wharf runs in a 117°–297° direction for a distance of 183 m. with dolphins 46 m. ahead and astern to facilitate the mooring of vessels. The height of the wharf deck is 9.5 m. above datum with an apron width of 13 m. The full length of the wharf is protected by a "Raykin" fender system. On this wharf is a cargo shed with an area of 1,600 sq.m. supported by a further open hard standing area of 4,200 sq.m. immediately behind the shed. As with No. 1 Berth, all areas are floodlit, and cargo is handled by forklifts to or from the storage areas. Depth alongside in the mooring basin, which is 275 m. long, is 13.2 m. and vessels up to 230 m. L.O.A. may berth.

A mechanical bulk loading facility with a capacity of 1,500 t.p.h. is owned and operated by the Leslie Salt Company on this wharf.

Fresh water is available at 50 t.p.h. and bunkers can also be obtained through 203 mm. outlets.

A public telephone offering STD facilities is located on the Eastern corner of this berth.

Mount Newman Wharf: This wharf consists of 2 adjacent berths known as "A" and "B" Berths, which form a continuous line in a 117°–297° direction from a position East of the No. 3 Berth towards Nelson Point.

The westward berth is known as "A" Berth and is equipped with No. 2 shiploader whilst the eastward berth is known as "B" Berth and is equipped with No. 1 shiploader.

The overall length is 658 m. and the shiploaders can travel from one berth to another with an overall travel between stops of 564 m.

The wharf has a berth pocket 65 m. wide, 679 m. long, dredged to 19.0 m. below chart datum and has, in addition, a mooring dolphin located between this berth and the No. 3 Berth approximately 44 m. from the Western end, with access being gained via a walkway from the MNM "A" Berth.

The wharf is equipped with 47 Bridgestone rubber fender assemblies, each comprising 2 cell-type rubber energy absorbing units fronted by a steel panel which, in turn, is faced with low-friction polyurethane wear material. The wharf itself is of steel pile construction with concrete capping, equipped with bollards and quick-release hooks along each berth.

The 2 shiploaders are fully retractable and have an average loading capacity of 6,000 tonnes per hour each. Shiploader No. 1 has a boom reach of 25.8 m. from the fender face and the height of the underside of the shiploader is 24.5 m. above datum. Shiploader No. 2 has a boom reach of 28.9 m. and a height above datum of 27.5 m.

Vessels will normally swing on entry and berth starboard side to the berths. Starboard gangways should be rigged prior to arrival so that no delay is incurred in the boarding of Quarantine and Customs Officers upon berthing. Bunkers are not available on these berths, although emergency supplies of fresh water may be requested. Fresh water outlets are available, situated at the wharf face, close to the bridge position of vessels mooring.

STEVEDORES: Two supervisors and two foremen, employed by Con Aust (W.A.) Pty. Ltd., are permanently based in Port Hedland. Other stevedoring agencies will arrange for their supervisors to attend vessels at the Port according to the ship's requirements.

Waterside Labour: All employment of shipside and shoreside labour for the working of cargo vessels is drawn through the local Waterside Workers' Federation pool. The maximum port allocation for Port Hedland is 55 men but the current strength is 16 men. Casual labour is requisitioned, as and when required, to supplement the permanent workforce. Under the present manning arrangement, two gangs can be requisitioned. Each gang can work a 12 hour shift, thus enabling a vessel, if necessary, to be worked 24 hours daily. Shipside labour is worked under the supervision of contract Stevedores but all shoreside labour is under the supervision of the Port Authority.

There are 5 "closed holiday" days on which labour cannot be supplied for the working of cargo, these being – Labour Day, Good Friday, Anzac Day, W.W.F. Picnic Day and Christmas Day.

Normal working days are Monday to Friday with Saturday, Sunday and Public Holidays attracting penalty rates.

Payments to Waterside Workers for their labour is based on the following schedule.

1000 hrs. to 1600 hrs. Monday–Friday: Ordinary Time
1600 hrs. to 2200 hrs. Monday–Friday: Time and One Half
2200 hrs. to 1000 hrs. Monday–Friday: Double Time
0001 hrs. to 2400 hrs. Saturday: Double Time
0001 hrs. to 2400 hrs. Sunday and Public Holidays: Double Time and One Half

A normal engagement from Monday to Friday is for a minimum of 6 hours and 7 hours on weekends and Public Holidays. Day gangs start time is 1000 hrs. with the evening gangs commencing at 2200 hrs. No stevedoring operations are carried out on any of the private wharves within the Port.

MEDICAL: Medical attention may be arranged through the Agent. No person will be attended unless he is provided with a letter from the Master authorising such treatment. All charges incurred will be charged to the vessel.

The Government operated Regional Hospital of approximately 110 beds, caters for most medical and dental requirements. Where necessary, seriously ill patients are flown to Perth in aircraft of the Royal Flying Doctor Service. The local ambulance service is well organised both in equipment and manpower, and additionally, the pilot helicopter may be chartered for the emergency uplift of sick or injured seamen from vessels standing offshore.

TANKERS: *Connections:* 10 in. lines with 8 in. flexible hoses. Discharge rates depend on grade and consignee.

Local Installations: Shell, B.P. and Ampol.

DENSITY: Average 1026.

REPAIRS: Comprehensive repairs can be effected. Radar, radio and Decca servicing and repairs are available. Welding, engineering, fitting and turning, electrical, plumbing, refrigeration and air conditioning, diving and building services are located in close proximity to the Port. Limited fumigation facilities are available. Sand-blasting equipment, cranes, compressors, etc., may be hired.

AIRPORT: An average of 4 return jet flights operate daily between Perth and Port Hedland. A weekly international flight operates between Port Hedland and Bali in Indonesia. In addition, several charter companies operate from the Port Hedland Airport, which offers a high standard of service comparable to that of city terminals.

CONSULS: At present, there is no Consular representation at Port Hedland.

TIME: See "General" before first port.

HOLIDAYS: See "Stevedores".

SURVEYORS: *Commonwealth Marine Surveyor:* A Marine Surveyor of the Federal Department of Transport, Surface Transport Group, is based in Wilson Street, Port Hedland. Tel: 73 2598. Mercantile Marine Office facilities are also available through that address.

Marine Surveyors: A firm of Marine Surveyors is based in the Port. Comprehensive survey inspections and reports can be prepared by TECMAR (Technical Marine Service), telephone 73 2310 (after hours 73 1108).

POLICE/AMBULANCE/FIRE: Police 731444; Ambulance 731800; Fire 732555; Hospital 732144.

CARGO GEAR: Ship's gear used. Mobile cranes up to 70 tons capacity may be hired. Crane of 120 tons capacity owned by Mount Newman Co.

The following mobile equipment is owned and operated by the Port Authority:

2 × 7.0 tonne Forklifts
2 × 6.0 tonne Forklifts
1 × 5.0 tonne Forklift
1 × 3.0 tonne Forklift
1 × 6.0 tonne Mobile Crane

When not engaged on cargo operations this equipment is available for hire.

CERTIFICATES: The following documents should be available for inspection:

Ship's papers, including the following certificates:
(a) Register.
(b) Load Line.
(c) Safety Equipment.
(d) Safety Radio.
(e) Safety Construction.
(f) Australian Light Dues Receipt.
(g) State Light Dues Receipt
(h) Articles of Agreement and Account of the Crew (or equivalent).
(i) Oil Record Book.
(j) Register of Cargo Gear.
(k) Gas Free Certificates for OBO's.
Valid Derat or Exemption Certificate.
Crew's Identity Documents.
International Vaccination Certificates of all persons aboard.

STOWAGE FACTORS: Basis of most recent stowage factors of iron ore cargoes loaded at Port Hedland have been approximately as follows:

Fine Ore	2,723 kg. per cu.m., or 0.3672 cu.m. per tonne.
Lumpy Ore	2,355 kg. per cu.m., or 0.4247 cu.m. per tonne.
Run of Mine Ore	2,643 kg. per cu.m., or 0.3784 cu.m. per tonne.

However, as these factors sometimes vary from cargo to cargo, it is recommended that Masters check with loading Agents for each shipment before finalising stowage plans.

DELAYS: Delays of port operations, including delays of other vessels waiting for berth, caused by a vessel which for any reason is not prepared and able to move from the berth when so ordered, are chargeable to the vessel which causes such delays.

PROVISIONS: Supplies of food, liquor, cigarettes, etc., are readily available in Port Hedland.

Providores will generally meet vessels on arrival but early advise to the ship's Agent of a vessel's requirements is desirable.

SHIP SUPPLY SERVICE: Elder Prince Marine Services Pty. Ltd., P.O.Box 81, Port Hedland, W.A. Tel: (091) 731651. Telex: AA 92821.

Services: Pilot boat services to vessels that cannot be serviced by helicopter. Passenger launches for Agents, crew ferries, providores to vessels at anchor in Outer Anchorage or berth at Goldsworthy Berth. Stores run, garbage collection and line running.

GENERAL: *Tonnage Dues:* All vessels entering the Port, excluding Commonwealth or fishing vessels, are subject to payment of a tonnage fee based on the GRT of the vessel. No additional fee by way of berth usage or berth occupance levy is charged against ships lying alongside the Authority's two berths.

Mooring Gangs: Gangs for the mooring or unmooring of vessels using the Authority's berths are supplied from the W.W.F pool under Port Authority supervision. For vessels under 1,000 GRT 4 men are required for the tie-up with 3 men for the let-go. On vessels over 1,000 GRT, 6 men are engaged for the mooring and 4 men for the unmooring. For larger vessels involving the handling of wire hawsers 10 men may be required for both movements. Engagements for mooring/unmooring are for a minimum of 4 hours per man. However, where the service is supplied to more than one vessel in the minimum time period, then the cost incurred is proportioned between the vessels involved.

Payment of labour rates for mooring gangs is based on the waterside workers rate (see "Stevedores").

Seafarers Centre: This centre, which is jointly administered by the Mission to Seamen, British Sailors Society and the Apostolatus Maris, is located in Wedge Street, adjacent to the Port Authority workshop.

Church Services can be arranged to suit individual denominational needs.

A licensed bar is operated. There is a gift and souvenir shop together with facilities for international telephone calls, foreign money exchange and library exchange. Recreational facilities include pool tables, darts, table tennis, and T.V. Bus tours may be arranged.

The Centre opens as follows:

Monday to Friday	1100 — 1400; 1800 — 2230
Saturday	1800 — 2230
Sunday	1600 — 1900

All facilities are offered during those hours, and a warm welcome is always extended to all seamen visiting the Centre.

Oil Pollution: The main stocks of oil dispersant and spray equipment, as required by the Department of Transport under the National Plan for use on the North West coastline, are stored in Port Hedland.

Further information on this service can be obtained from the Commonwealth Marine Surveyor.

Explosives Regulations: Port Hedland Port Authority Regulations concerning the Regulation of Ships, Handling of Cargo, Inflammable Liquids and Oils, Noxious, Dangerous and Inflammable Goods and Explosives are obtainable from the Port Authority.

It is a requirement of the Port Authority that a copy of these Regulations be displayed on each vessel carrying Inflammable, Noxious, Dangerous and Explosive Goods.

Whistle Signals: It is an offence to sound a ship's whistle whilst alongside a harbour berth unless permission is obtained from the Port Control Tower - Call sign "Port Hedland harbour".

Weather Conditions: For full details refer to "Australia Pilot Vol. V". The season for cyclones on the North West coast of Australia is during the Summer months - November to April - with an average of one cyclone per year.

A weather observation station at the Port Hedland Airport is equipped with long distance weather radar and this unit, together with similar stations at Broome, Learmonth and Dampier - aided by meteorological satellite date - has proven invaluable in cyclone tracking. To further aid this service, six hourly weather reports are invited from Masters by the Commonwealth Department of Meteorology.

Climate: Port Hedland's climate ranges from extremely hot and, at times humid during the Summer to pleasantly warm days and cool nights during Winter (May to September).

Using averages taken over 80 years, Port Hedland's coldest month is July, with an average maximum temperature of 27°C and a minimum of 12°C. The hottest month is December, with an average daily maximum of 37°C and a minimum of 24°C although during Summer maximum temperatures of 46°C are not uncommon.

The average yearly rainfall is 307 mm. and rain falls on an average of 31 days per year. However, this amount of rain can fall in a very short period during the cyclone season and long very dry spells without rain can be experienced.

Crew Members Left Ashore at Time of Departure: Masters are requested to have all vouchers and lists of personal effects in triplicate covering crew members remaining ashore, whether hospitalised or deserters, prepared for delivery to the Agent as early as possible.

A letter of authorisation is required when the Agent is expected to provide hotel accommodation, meals, medical attention, transportation or travel expenses and/or cash advances for account of vessel.

No crew member may be signed-off any vessel trading between Australian ports and overseas ports without prior permission of the Sub-Collector of Customs.

Agents will be required to sign maintenance guarantees covering seamen landed for hospital treatment or repatriation.

Personal Effects landed by crew members are subject to examination by Customs Officers.

Stowaways: No unauthorised person should be allowed aboard the vessel. Cases of attempted stowaway have occurred, and Masters should take all necessary care and precautions to prevent same.

Any stowaways aboard on arrival should be reported to the Customs Boarding Officer in order that he may take the necessary steps to prevent their unauthorised landing. It should be noted that all responsibility for the repatriation of stowaways is for account of the vessel concerned.

Services: Watchmen, security patrols, garbage disposal, laundry and dry cleaning services are available and can be arranged through ships' agents.

AUTHORITY: Port Hedland Port Authority, P.O.Box 2, Port Hedland, Western Australia 6721. *Tel:* (091) 73 1400 (office hours: 0800 – 1215 hrs., 1300 – 1630 hrs.). Port Control Tower; (091) 73 1019 (24 hours). *Telex:* 99213. *FAX:* (091) 73 1760. *Contact:* J.R.D. Sandison, General Manager. Captain I. Baird, Harbour Master.

AGENT: Sub-agents of Patrick Agencies, Fremantle.

PORT HUON, Tasmania: 43.10 S. 146.59 E. (See Plan)

For Additional Information see "Hobart".

PORT LIMITS: 'Harbour' means so much of the waters of the River Derwent and its estuary as lie to the Northward of a line drawn from the Derwent Light (on the Iron Pot Islet) to Kelly Point, on North Bruny; together with so much of the D'Entrecasteaux Channel as lies to the Northward of a line drawn from the Southern end of Partridge Island to Southport Island; and together with all bays and estuaries opening either into the said River Derwent or the said D'Entrecasteaux Channel.

DOCUMENTS: As for all Australian Ports.

PILOTAGE: Pilotage is compulsory for all vessels exceeding 35 m. in length. For vessels bound to Port Huon from the North, via the D'Entrecasteaux Channel, the Pilot boarding ground is on a line drawn from the Iron Pot Lighthouse (Chart AUS. 171 – Lat. 43° 03.7′ S., Long. 147° 25.5′ E. Gp.Fl. (3) W 9 secs. 20 m. 11 nautical miles); to Kelly's Point on the Northern tip of Bruny Island. For vessels bound to Port Huon from the South, the Pilot boarding ground is on a line drawn from the Southern end of Partridge Island (Chart AUS. 173 – Lat. 43° 24.6′ S., Long. 147° 06.0′ E.) to Southport Island. Notice of ETA and request for a Pilot must be advised at least 24 hours in advance. Confirmation or amendment of this ETA must be made not less than 6 hours prior to the vessel's arrival at the pilot station. For additional information on this section see "Hobart".

ANCHORAGE: There are no safe anchorage positions South of the pilot line. However, vessels wishing to anchor may be guided by the Pilot on VHF to positions in the D'Entrecasteaux Channel where there is good holding ground.

RESTRICTIONS: Navigation is on a 24 hour basis, however the draft of vessels navigating within Hospital Bay, Port Huon, is restricted to 9.0 m.

MAX. SIZE: Vessels of up to 190 m. long and 9.0 m. draft can be accepted at Port Huon Wharf, while vessels of up to 160 m. in length and 8.0 m. draft are about the maximum for the Australian Paper Manufacturers' Wharf.

HEALTH: The local medical practitioner boards vessels after berthing and acts for the Commonwealth Dept. of Health. Immigration/Customs Officers travel by road from Hobart and board after Pratique has been granted. Quarantine Authorities must be informed of suspected disease or fever at least 18 hours before arrival.

RADIO/VHF: See "Hobart".

TUGS: Tugs from Hobart are available for assisting vessels. However, because of the distance involved additional notice is required, and tug charges are at higher rates.

BERTHING:

Port Huon Pier: The East side has a quay length of 172.6 m., with a water depth of 7.6 m. and the West side a quay length of 203.4 m., with a water depth of 9.8 m. This wharf is primarily used for the export of fruit (apples and pears) and it has a cool store capacity of 4,700 cu.m.

Australian Paper Manufacturers Wharf: The berthing head has a length of 82 m., with mooring buoys ahead and astern of the vessel and a water depth of 8.2 m. This wharf is used exclusively for the loading of wood pulp.

MEDICAL: A local doctor is available and a hospital is situated at Franklin (4 miles).

STEVEDORES: Labour allocated and supplied from Hobart.

FRESH WATER: Available only at Port Huon Pier.

FUEL: Limited supplies provided by road tanker from Hobart (40 miles). Fruit ships usually call at Hobart for bunkers.

GANGWAY/DECK WATCHMEN: See "Hobart".

OPENING/CLOSING HATCHES: See "Hobart".

CARGO GEAR: At Port Huon Pier, discharge/loading is by ship's gear and at A.P.M. Wharf a fixed conveyor belt system from the shore is used.

TELEPHONES: A telephone is connected to all vessels on arrival.

AUTHORITY: Marine Board of Hobart, 1 Franklin Wharf, G.P.O.Box 202 B, Hobart, Tasmania 7001. *Tel:* 34 6722. *Telex:* Marhob AA 58319. *FAX:* (002) 310693. *Contact:* Captain J. M. E. Lucas, Harbour Master.

AGENT: See "Hobart".

PORT KEMBLA, N.S.W.: 34.28 S. 150.54 E. (See Plan)

PORT LIMITS: In the absence of any specific clause in the Charter Party, the local custom is that a vessel, having obtained Pratique, is considered to be an "arrived ship" when it is anchored off the port and reported as such to "Port Kembla Harbour".

CERTIFICATES/DOCUMENTS/HEALTH/CUSTOMS ALLOWANCES/CARGO GEAR: See "Melbourne".

PILOTAGE: Pilotage is compulsory for all foreign vessels and Australian Masters without an exemption; this service operates 24 hours per day. Pilots equipped with VHF.

The pilot boarding station is in position 1.6 miles North of Entrance Buoy.

Coastal and Reef Pilotage: Pilotage through the Inner Route of the Great Barrier Reef to Torres Strait is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

RESTRICTIONS: An artificial harbour, formed by two breakwaters with an entrance of 305 m. and a depth of 16.75 m. ISLW at the entrance. Leading from the Outer Harbour there is an Inner Harbour Basin, which is entered through a 165 m. wide channel, having a depth of 15.25 m. ISLW. The port consists of the Outer Harbour and the Inner Harbour. In the Outer Harbour the swinging basin is approximately 457.2 m. with a minimum depth of 10.70 m., and in the Inner Harbour the swinging basin is approximately 365 m. with a depth of 15.25 m.

Under Keel Clearance: Inward vessels not less than 1.37 m. Outward vessels not less than 8% of vessel's draft (draft = 15.25 m. × height of tide ÷ 1.08).

MAX. SIZE: The deepening project at Port Kembla has been completed and the port can now handle vessels in the 150,000 d.w.t. range for ore discharge and coal loading. Vessels arriving part loaded or in ballast are required to be as near as practicable to an even keel and at no less than half loaded draft to facilitate ship handling in the strong winds common to this port.

The depths are now as follows:

Entrance Channel 15.25 m. ISLW.

Iron Ore Discharge Berths:

No. 1 Depth alongside 13 m. ISLW.

No. 2 Depth alongside 15.75 m. ISLW.

New Coal Berth: Max. LOA 290 m. Max. beam 45 m. Max. airdraft 23 m.

New Grain Terminal: Max. LOA 290 m. Max. beam 45 m. Max. sailing draft 15.20 m.–15.88 m., depending on tide. UKC of not less than 8% required for loaded vessels.

Arrival Draft: The Maritime Services Board of New South Wales has issued a notice regarding the arrival condition of vessels at Port Kembla. This notice covers ballasting and trim on arrival. According to the Board, some vessels have arrived trimmed too deeply by the stern, which makes it unsafe to enter port.

Agents and Masters are advised that to ensure a safe entry at all times, the arrival draft should never be less than 2% of the vessel's LOA at the head and 3% of LOA at the stern. Failure to ensure that these conditions are met may result in delays to entry.

PRATIQUE: Quarantine service is available 24 hours a day with Radio Pratique available.

RADIO: A continuously manned signal station (Port Kembla Harbour) maintains constant contact with the Pilot, pilot tender, tugs and launches. In addition, a VHF radio-telephone system (Sydney Radio on Channel 16) provides communication for vessels at sea or at anchor.

Whilst anchored off the Port of Port Kembla, it is necessary to maintain radio watches, as officially a vessel is at sea until entering the breakwaters into the port.

TUGS: At the present time 4 tugs are available, 24 hours per day, provided previous notification is given.

The tugs have bollard pulls ranging from 40 tonnes to 45 tonnes.

Vessels over 224 m. LOA proceeding to the New Coal Berth require 4 tugs and vessels 183 m. – 244 m. require 3 tugs.

BERTHING: Outer Harbour:

No. 3 Jetty: Length 289.6 m. Width 20.7 m. Depth 11.8 m. to 4 m. 2×20.3 ton and 2×7.1 ton cranes for general cargo by both rail and road.

No. 4 Jetty: Length 228.6 m. Width 15.5 m. Depth 10.8 m. to 4.6 m. Facilities for discharging sulphuric acid and anhydrous ammonia.

Inflammable Liquids Berth: T-head with 2 EMCO loading/discharging heads and dolphins, can accommodate vessels up to 182.9 m. long. Depth 10.7 m. This berth is also used for bunkering, however, no priority is given for bunkering ships over tankers.

No. 6 Jetty: Length 298.7 m. Width 30.5 m. Depth 9.8 m. to 7.3 m. 4×7.1 ton and 2×17 ton cranes for general cargo by both rail and road. Bunker facilities available.

Inner Harbour:

Broken Hill Pty. No. 1 Products Berth (private): Length 192 m., depth 11 m. 4×10.2 ton cranes. Bunker facilities available.

Broken Hill Pty. No. 1 Bulk Berth (private): Length 278 m., depth 13 m. Discharging by 2×17 ton grab unloaders, each nominally 600 t.p.h. Outreach 32 m. Loading by conveyor-fed loading head – coke 700 t.p.h. and coal 1,000 t.p.h. Bunker facilities available.

Broken Hill Pty. No. 2 Bulk Berth (private): Length 310 m., depth 15.75 m. Discharging by 1×35 ton grab unloader, nominally 2,000 t.p.h. Outreach 32 m. Bunker facilities available.

Broken Hill Pty. Ro-Ro Terminal (private): Depth 11 m. Accommodates starboard quarter ramp vessels up to 180 m.

Broken Hill Pty. No. 2 Products Berth (private): Length 221 m., depth 12.2 m. 2×30.5 ton cranes.

Terminal: Depth 9.2 m. Accommodates stern ramp vessels up to 170 m. in length.

New Coal Berth: Shiploading: The berth is dredged to 16.25 m. below LW and the access channel to 15.25 m. to permit 110,000 tonne cargoes to be loaded in Stage I. The geometry of the berth and shiploaders will permit the loading of 10,000 d.w.t. to 150,000 d.w.t. vessels.

The berth is equipped with 2 shiploaders with a peak capacity of approximately 2,500 tons. The loaders function in the same manner as the reclaimers with one machine loading coal at full capacity whilst the other positions itself at the next hatch.

In Stage I the new berth will handle all of the coal. Simultaneous loading from two berths will become necessary in Stage II when the most appropriate second berth arrangement would be developed.

Old Coal Berth: Length 214.9 m. Depth 13.0 m. 2 shiploaders load 300 tonnes/hr. Direct loading through either the rail tippler or road hopper to 1 loading head. Also see "Shipmaster's Report".

Multi-Purpose Berth: Maximum length 290 m. Depth alongside 16.25 m. This berth handles vessels of similar size to the New Coal Berth.

New Grain Terminal: Maximum length of ship 290 m. Depth alongside 16.3 m. The berth and loading facilities are capable of loading ships of 120,000 d.w.t. Grain will be loaded by 2 shiploaders with a loading rate of 2,500 t.p.h. each, 1,600 tonnes per hour whilst trimming. Storage capacity 260,000 tonnes. This terminal is scheduled to come on line early 1989.

TANKERS: Max. length of vessel 183 m., depth alongside 10.67 m.

DENSITY: Average 1025.

REPAIRS: There are no drydocking facilities, but several marine engineering companies operate here, who can handle most types of repairs.

HOLIDAYS: See "Sydney".

GANGWAY/DECK WATCHMEN: Carried out by Shore Watchmen.

OPENING/CLOSING HATCHES: Crew or stevedores.

STEVEDORES: The Association of Employers of Waterside Labour (AEWL). controls labour in the port, the present total strength being 230 men (not including B.H.P. and coal loader labour).

Working times:

1st shift: 0730 to 1430 hrs. – Monday to Friday, Sunday
2nd shift: 1500 to 2200 hrs. – Monday to Friday, Sunday
3rd shift: 2300 to 0600 hrs. – Monday to Friday, Sunday
1st shift: 0730 to 1130 hrs. – Saturday only
or:
0730 to 1430 hrs. – Saturday only.

There are sufficient forklifts, tractors, bulldozers, etc., available to handle all general and bulk cargoes as necessary.

FRESH WATER: Fresh water is available at all berths.

FUEL: Furnace and diesel oil is obtainable by pipe-line at the inflammable liquid berth and No. 6 Jetty and also at the B.H.P. discharge berth and B.H.P. No. 1 loading berth. Limited quantities are available by road tanker at No. 3 Jetty, the coal loading berth and the multi purpose berth. No bunkering barges are available.

Delivery capacity by pipe-line is approx. 120 t.p.h. Delivery capacity by road tanker is approximately 20 t.p.h.

MEDICAL: There are sufficient doctors, dentists, etc., to handle all eventualities; also two well equipped modern hospitals.

CREW IDENTIFICATION: See "Melbourne".

TIME: See "General" before first port.

AIRPORT: Kingsford Smith International Airport, Sydney.

TELEPHONES: Pilot station 740761; Signal station 744571. Telephones available.

SHIP SUPPLY SERVICE: Off-shore service may by provided by:

Stannard Bros. Launch Services Pty. Ltd., No. 4 Jetty, Port Kembla, N.S.W. 2505.

C.B. Air, Albion Park Aerodrome, Albion Park Rail, N.S.W. 2527.

T.N.T. Air Charter, 2 Hayes Road, Rosebery, N.S.W. 2018.

SHIPMASTER'S REPORT: December 1982 (Updated 1988).

Inner Harbour Coal Berth

Restrictions: The following information is required prior to arrival berthing:

1. Stem of each type of coal.
2. Stowage, tonnage and type of coal each hold.
3. Commencing holds – basis two loading heads.
4. Trimming holds.
5. Expected departure draft.
6. LOA, gross and nett tonnages.

The vessel must conform with the following criteria:

Vessels must not present for loading with hatch coaming more than 17.4 m. above ISLW.

Minimum size of hatch openings (without prior arrangement with harbour authority) when using trimming head 4.9 m. × 4.9 m.

Whilst Under Keel Clearance during loading operations is usually left to the discretion of individual Masters, the Harbour Master recommends 0.3 m.

Vessels of 245 m. and over are required to berth and sail in daylight hours only.

Due to the short travel range of the loading gantries it is recommended that with the larger size vessels, i.e. LOA 228.6 m. and upwards, to avoid moving along the berth during the final phases of loading that loading be programmed to complete in the centre hatches.

Max. Size: Max. LOA 290 m., max. beam 45 m. Max. loaded craft 11.40 m. plus available high tide less 0.3 m. Under Keel Clearance on sailing (i.e. 11.10 m. plus tide).

Berthing: The berth is constructed with a concrete decking on steel piles and has a length of 215 m. Bollards are placed at 18.29 m. intervals with provision for mooring lines beyond the actual berth. Maximum pull load of each bollard is 85.63 k/t. Depth of water at the berth is 11.40 m. ISLW with a bottom of natural sand and clay. This depth extends for a distance outward from berth of 12.19 m. and for a distance alongside of 267 m.

Depth after 12.19 m. distance outward from berth is 13 m. ISLW increasing to 15.25 m. ISLW in the main channel.

Vessels usually berth port side alongside.

Bulk Cargo Facilities: There are two loading gantries at ship's side which have a travelling range along the berth of 150 m.

Each fitted with a telescopic loading chute with a trimming head attached which has the effect of throwing the coal in any given direction.

Each boom has an outreach from the wharf fender of 19.8 m. Maximum angle of raise is 80°, working range of boom is horizontal to 11° below the horizontal.

For the purpose of estimating expected loading time it is recommended that with both loading heads in use a figure of 1,400 t.p.h. be used.

SHIPMASTER'S REPORT: January 1983 (Updated 1988).

Documents: The following forms, are to be completed and presented to the Customs Boarding Officer upon your arrival at the first Australian port.

Form	*No. of Copies Required*	*Note*
Form M&S 11 (Crew List)	2	—
Ship's Crew List	3	—
Form 5 (Crew's Possessions)	1	Refer Form G29 (Instructions to Master)
Form C & E886 (Ports of Call)	3	Show all ports from first overseas loading port.
Form QA3 (Animal Cargo)	1	Refers to cargo only. One for each relevant port. Nil return not required.
Form QA4 (Ship's Pets)	1	Nil return required.
Form QA5 (Shipmaster's Bond)	1 (in duplicate)	Required only if ship has pets
Form 42A	1	Part 1 only

Forms Required if Passengers On Board

Form M308 (List of Passengers Disembarking in Australia)	5	To be divided into ports of disembarkation
Form M309 (List of Passengers not Disembarking in Australia)	5	—

Pilotage: Embarkation of Pilots: Masters of vessels are requested to carry out the following procedure when embarking a Pilot:

1.1 Make a good lee for the pilot launch and proceed at a speed of about five knots.

1.2 The pilot ladder, clean and fitted with spreaders at intervals, is to be rigged well clear of all discharges and outlets, and of all outboard fittings which might foul the pilot launch. The bottom of the ladder is to be maintained at a position approximately 1.5 m. above the water. The distance from waterline to point of access must not exceed 9 m.

1.3 Two clean 24 mm. in diameter manilla manropes are to be rigged with knots in the end only. The manropes are to be securely made fast to the ship. On no account must they be made fast to the ladder at any point.

1.4 Where the ladder is rigged over a bulwark, *two* stanchions not less than one metre in length are to be securely fitted in the top of the bulwark, one on each side of the ladder. Steps are to be provided from the top of the bulwark to the deck.

1.5 A heaving line is to be provided for mail and the Pilot's bag.

1.6 By night a bright light shaded to show downwards and clearly illuminate the ladder and ship's side is to be in position before the pilot launch approaches.

1.7 Tripping lines and boatropes are not to be used.

Note: Masters are urged to have all the abovementioned gear kept in first class condition and to have it inspected frequently and to ensure always that the ladder and manropes are securely made fast.

Serious accidents have occurred through inattention to these matters. Should the abovementioned gear and the manner in which it is rigged be not satisfactory, pilotage services may be withheld.

VHF: It is necessary to maintain a VHF watch on Channel 9, whilst anchored off the port.

Berthing: Outer Harbour:

The under mentioned rules are provided for the guidance of Masters of vessels berthed in the Outer Harbour, Port Kembla.

(a) Main engines should not be taken adrift or major repairs commenced unless arranged by prior consultation with the Harbour Master.

(b) Power for main engines should be available at *four hours' notice* during normal weather conditions.

(c) Upon the International Code Signal XT being hoisted at the Signal Station, or by night the exhibition of two all round red lights therefrom, power for main engines should be available at *one hour's notice*.

(d) Sufficient crew should be maintained on board to enable removal of vessels from jetties to be effected if such removal is considered necessary for the safety of the vessel and/or other vessels.

Inner Harbour: New Coal Berth is located between Berth 12 and Berth 14. See "Plans".

Port Kembla Coal Loader – Stage 1

1 – Navigation restrictions

Vessels – LOA	290 m.
– Beam	45 m.
Approach channel depth	15.25 m. below ISLW
Berthing basin depth (sand bottom)	16.25 m. below ISLW
Underkeel clearance while moving	9% draft
Tide variation – mean high of high tides	1.4 m.

Sailing restrictions:
Weather conditions – Pilot's discretion
Inward movements – No restrictions
Outward movements – Up to 12.8 m. draft – No restrictions
– Above 12.8 m. draft – Daylight only

(New navigational aids are being installed and tested. If these are satisfactory the daylight restriction will be lifted)

Vessels normally berth port side to berth.

Tug requirements:	over 244 m.	– 4 tugs
	183 m. – 244 m.	– 3 tugs
	under 183 m.	– 2 tugs

2 – Berth

Length of berth face	287.12 m.
Length between extreme mooring bollards	400 m.
Length between centres of end fenders	250 m.

Fendering – 8 Seibu Type W 2000H×1500L buffer fenders at 35.64 m. centres.

Bollards – 10×100 tonne quick release hooks
– 6×120 tonne quick release hooks
– 2×100 tonne storm bollards

3 – Shiploaders – 2 travelling shuttling bridge type (only one in operation at a time).

Nominal loading rate	5,000 t.p.h.
Outreach (+ reach of chute when tilted)	32 m. (+8 m.)
Throw – pivoting spoon type (dependent on flow characteristics and moisture content)	5 m. maximum
Air Draft	22.40 m. above ISLW
Shiploader travel: park to park	235 m.
common range	185 m.

4 – Operating Authority
Maritime Services Board of N.S.W.

Box 32 G.P.O.	Circular Quay West
Sydney 2001	Sydney 2000
Telex: Sydney Head Office	Msbsy AA24944
Pt. Kembla Cl. Ldr.	Msbptk AA29270

Repairs: There is an efficient diving service – Commercial Diving Service Pty. Ltd., (Shipping repair and maintenance division underwater), 3 South Avondale Road, Dapto P.O.Box 126, Dapto 2530, N.S.W., Australia. Neil Johnson Tel: (042) 61 4179. Keith Johnson Tel: (042) 61 4980.

Telephones: Placed on board on arrival at New Coal Berth.

Telephone Numbers:

The Maritime Services Board of N.S.W.

Office	74.0203/74.0204
Pilot Station	74.0761
Signal Station	74.4571
Stannard Bros. (for moorings)	74.1045

General:

Pollution: The Board views very seriously any kind of pollution. The regulations provide for heavy penalties on conviction. Attention is invited to the following:

1. *Oil of any description* – Discharge or escape from a ship – *Penalty up to $50,000.*
   Failure to inform of discharge or escape: *Penalty up to $10,000*
   Cost of dispersing or dealing with oil: *May be recovered from Master or Owner.*
2. *Other Pollutants* – (Including dangerous goods)
   Discharge or escape into port : *Penalty up to $400.*
3. *Dangerous Goods*
   Failure to keep pipe-line or hose gastight and free from leakage: *Penalty up to $200.*
   Failure to keep dangerous goods which have escaped in as small an area as possible: *Penalty up to $200.*
   Failure to report escape of dangerous goods from a pipe-line or hose within 24 hours: *Penalty up to $200.*

AUTHORITY: Maritime Services Board of N.S.W., Cnr. Military and Darcy Roads, Port Kembla. *Postal Address:* P.O.Box 89., Port Kembla, N.S.W. 2505. *Tel:* 74 0201. *Contact:* H. Lewis, Port Manager.

AGENT: Patrick Agencies, National Bank Building 1st Floor, 147 Crown Street, Wollongong, NSW 2500. Postal address: P.O.Box 465, Wollongong East. Tel: (042) 285666. Telex: AA 29025. FAX: (042) 28 3852. Cables: "RIKPAT".

PORTLAND, Victoria: 38.20 S. 141.36 E. **(See Plan)**

PORT LIMITS: As much of the waters of Portland Bay as lie Westward of a line bearing due North from Point Danger to the opposite shore of Portland Bay.

DOCUMENTS: Refer to "Melbourne".

PILOTAGE: Compulsory except for exempt Masters. Pilot boards about 0.75 miles N.E. of main breakwater. Pilot is available 24 hours. 24 hours notice required.

Approach from the West: A safe course into Portland Bay can be maintained by rounding Lawrence Rocks at a distance of 1.5 miles and altering until a course of 330° can be steered, which will clear the Southern side of the Bay between Point Danger and Portland by 1.5 miles. Steer this course until Whaler Point Lighthouse bears 270° about 2.5 miles distant where course can be altered for the harbour entrance.

Approach from the East: Is a straight course after rounding Lady Julia Percy Island, 18 miles from the breakwater.

ANCHORAGE: Portland Bay is clear of all hazards and safe anchorage may be found 0.25 to 0.5 miles North and N.E. of the Main Breakwater and for smaller vessels between the Lee Breakwater and Whaler Reef. Holding ground is good, and excellent shelter is obtained from Westerly weather. Anchoring is not recommended in strong Easterly or South-easterly weather, as there may be a confused sea and swell.

Quarantine Anchorage: Eastward of the Meridian drawn through a position 000° from Main Breakwater light.

RESTRICTIONS: The Harbour is bounded by 2 breakwaters, enclosing 101 hectares. The entrance is 244 m. wide.

Swinging Basin: Between the two breakwaters, bounded by No. 6 Berth and the Lee Breakwater and the turning circle is 440 m. in diameter.

Depth of water in the harbour is based on a datum of 0.082 m. above LWOST, which ensures a depth of not less than 11 m. under all tidal conditions. Mean rise and fall is approximately 0.75 m. but the prevailing wind and atmospheric pressure have a certain influence on the tide.

MAX. SIZE: The largest vessel to use the port to date was with a departure draft of 11.89 m.

Also see "Tankers".

HEALTH: Portland is a First Port of Entry. When requiring Pratique inform the Port Health Officer of the ETA, number of crew and passengers and the state of health of the complement. Use the prefix "Shipserv" for all cabled messages. All requirements as for Melbourne.

RADIO: Maritime VHF operating on Channels 12 and 16 is installed in the Harbour Master's Office and on the tugs.

Listening on Channel 16 between 0800 hrs. and 1700 hrs. and when shipping is expected.

Radio Advice of Arrival: Address ETA telegrams to the Harbour Master using the prefix "Shipserv".

TUGS: 1×1,600 h.p. and 1×1,700 h.p. available.

BERTHING: The Main Breakwater extends 1,280 m. in a North-South direction from Battery Point with its Northern extremity in 14 m. of water. There are 2 berths at the inshore end known as No. 1 and No. 2, K. S. Anderson Wharf.

Depth alongside No. 2 Berth, is 11 m. SW, whilst the Max. draft is 10.5 m. (this draft may be increased if written application made to Harbour Master).

No. 1 K.S. Anderson Berth: Dredged to 12.2 m. for a length of 212 m., with a max. draft of 11.6 m. with similar variance conditions as apply to No. 2 Berth. K.S. Anderson Wharf is 396 m. in length and is primarily utilised as a bulk grain loading wharf. Two mobile shiploaders operate over the length of the wharf. Shiploaders are 27 m. high and are capable of delivering 1,200 t.p.h. of grain.

In addition to bulk grain, K.S. Anderson Wharf is suitable for loading and discharging general and Ro/Ro cargo.

No. 5 Berth: A multi-purpose, heavy duty wharf is located on the East side of No. 2 Quay. No. 5 Berth has an alongside depth of 11 m. with a maximum draft of 10.5 m. and is 240 m. in length. Facilities adjacent to No. 5 Berth include a bulk tallow installation, a 7,230 cu.m. capacity cool/cold store and a 2.6 hectare container park.

No. 6 Berth: At right angles to K.S. Anderson Wharf, length 228.6 m., depth 11.0 m. with a maximum draft of 10.5 m. It is designed and built for handling bulk cargoes, but is also utilised for loading livestock, woodchips and general cargo. As the case with No. 5 Berth., a tallow line runs to No. 6 Berth.

Special Purpose Bulk Berth: Constructed to service the shipping requirements of an aluminium smelter at South Portland. Berth is located on the Main Breakwater 198 m. North of K.S. Anderson Wharf. Depth alongside – 12.2 m. Max. draft 11.7 m.

Cold Stores: 7,230 cu.m. capacity situated on No. 2 Quay.

Container Storage Park: A container park of 2.6 hectares is situated on No. 2 Quay. Capacity is 80 refrigerated and 500 conventional containers.

TANKERS: S.L. Patterson Berth and Lee Breakwater protrudes in an Easterly direction from point 3.7 cables South of Whaler Point Lighthouse for a distance of 1,180 m., with its extremity in 12.2 m. of water.

The S. L. Patterson Berth is situated on this breakwater about 457 m. from the seaward end.

The wharf is 76 m. in length and designed for vessels up to 38,000 d.w.t. Depth alongside is 10.4 m. LW. Maximum draft permitted is 10.5 m.

Berthing and unberthing of tankers is on a 24 hour basis, at the discretion of the Harbour Master.

The Shell Company of Australia Limited, and Ampol Petroleum (Victoria) Pty. Limited have pipe-lines to the berth. Average discharge rate is approximately 300 t.p.h. This wharf can also be utilised as a grain survey berth and as a fitting out repair berth

STEVEDORES: There are 68 registered members and in excess of 100 casual waterside workers available.

Hours of work are from 0800 – 1700 hrs., from 1700 – 2300 hrs. and midnight – 0700 hrs.

Extended shifts are allowed to be worked to 1900 hrs. each day (except Thursday and Sunday) when no twilight labour is available.

Pallets can be manufactured locally by prior arrangement.

Vessels can be serviced expeditiously under skilled supervision including fitting out for grain, battening out for freezer or general cargo and securing cargoes to departmental requirements. Ample supplies of dunnage are available.

MEDICAL: Medical, dental and optical services are available.

FRESH WATER: Obtainable in unlimited quantity at all berths at a loading rate of up to 100 t.p.h. at K.S.A. Berth and 160 t.p.h. at Berths No. 5 and 6.

FUEL: Available ex-road tanker.

REPAIRS: There are a number of repair and light engineering firms capable of repairs to shipping.

GANGWAY/DECK WATCHMEN: Shore gangway watchman are compulsory.

AIRPORT: An air service is maintained between Portland and Melbourne. 3 flights daily connecting with all interstate and international services.

TELEPHONES: At all berths. Tanker Berth No. (055) 231852. K.S.A. No. 1 – (055) 231122, K.S.A. No. 2 – (055) 231633, No. 6 Berth – (055) 231286, No. 5 Berth – (055) 231111, S.P.Berth – (055) 234804.

POLICE/AMBULANCE/FIRE: Fire Brigade 232998; Police 231999; Ambulance 231666; Hospital 231033, after hours, general patients 231400.

GENERAL: *Provisions:* Plentiful and available at short notice. Bonded stores are at present only available from Melbourne at approximately 24 hours notice.

DEVELOPMENTS:

1. New berth extending to No. 5 is completed and in operation. Berth designed to take ingot trade from new smelter nearing second stage completion 1988.
2. New special purpose bulk berth, constructed for sole use of Alcoa smelter works for offloading alumina is completed and in operation.
3. Plans to increase present depth of 12.2 m. to 13.7 m. in 1988/89 in areas of grain wharves and turning circle to 12.2 m. in 1990.

SHIPMASTER'S REPORT: November 1984.

Bulk Loading Facilities: Bulk grain at No. 1 and No. 2 Berths K.S. Anderson Wharf. As the shiploaders are fed by 1 conveyor belt, only 1 ship can be loaded at a time.

AUTHORITY: Port of Portland Authority. P.O.Box 292, Portland, Victoria 3305, Australia. *Tel:* (055) 250900. *Telex:* AA 55853. *FAX:* (055) 235905. *Cables:* Shipserv. *Contact:* Captain D. O'Donnell, Operations Manager/ Harbour Master, A/H Tel: (055) 231077. Captain V. Vijayapalan, Asst. Harbour Master/Pilot, A/H Tel: (055) 235255.

AGENT: Patrick Agencies, 77 Bentinck Street, P.O.Box 133, Portland, Victoria 3305. Tel: (055) 23-4011 (office), (055) 23-4422 (after hours). Telex: Rikpat AA 55865. FAX: (055) 235174. Cables: Rikpat.

PORT LATTA, Tasmania: 40.51 S. 145.23 E.

(See Plan)

DOCUMENTS:

Cargo Plan.
4 Crew Lists, Commonwealth No. MS11.
1 Customs Store List, Commonwealth No. 42A.
1 Personnel Effects, Commonwealth No. 5.
1 Quarantine/Animals, Commonwealth No. QA4 and QA5.
Last Port Clearance.
3 Lists of Ports of Call.
Also see "Certificates".

PILOTAGE: Compulsory pilotage from anchorage to berth. Pilot remains on board throughout loading. Pilot station equipped VHF radio Channels 16, 12, 14, 67 and 74. Pilots and line boats stationed at small boat harbour, Port Latta. Pilot boards at anchorage (2 miles N.E. of seaward end of jetty). Vessels communicate with Port Latta Marine Department on normal ship-shore frequencies, through Australian coastal stations, addressing message to "Pickands Wynward" prefixed "Shipserv". ETA required 10 days, 2 days, 1 day prior. Accommodation ladder to be rigged and ready on port side.

ANCHORAGE: 1 mile radius from point with Rocky Cape Light. Bearing 130° (T) × 5 miles (16 fathoms).

RESTRICTIONS: Tankers and vessels over 100,000 tonnes d.w.t. berth in daylight only. Other vessels berth on arrival, day or night, weather permitting. Minimum depth of water in berth and approaches 15.25 m. (50 ft.) at I.S.L.W. A static 1.5 m. (5 ft.) under keel clearance required at all times, or 10% of draft whichever is the greater, plus 0.5 m. allowance for movement of vessel.

MAX. SIZE: LOA 245 m. (804 ft.), beam 38.5 m. (126 ft.), draft 16.0 m. (52.5 ft.). Vessels in excess by prior consultation.

HEALTH: Commonwealth appointed Quarantine Officers will board vessel at anchorage or berth when Port Latta is first port of call. Minimum 12-24 hours advance notice of pratique to Agent. Quarantine Officer requires 1 copy Crew List. Derat certificate can be issued at this port.

RADIO: Radio messages addressed to "Shipserv. Pickands, Wynward" and Agent.

TUGS: One tug is available "Spring Cove", 1,825 h.p. 27 tons bollard pull. Tug is on 30 minutes standby notice when in berth.

Large second tug required for berthing of ships of 80,000 d.w.tonnes and over. Large tug, 2,500 h.p. (40 ton bollard pull) to stand by in lieu of "Spring Cove" when at berth.

N.B. Second tug comes from Burnie (3 hours' steaming).

2 line boats are available. On call 24 hours when a vessel is in berth. Licensed to carry 5 passengers. Used to transport all persons and goods ship to shore.

Tug will join vessel at anchorage. Tug stationed at Port of Stanley and will stay with vessel throughout loading. The use of tug or ship line is at discretion of Pilot.

BERTHING: Special towage may be required. Confirm with Harbour Authority. Propeller submerged with vessel at or near even keel. Vessels usually berth port side alongside using starboard anchor. Accommodation ladder to be rigged and ready on port side.

Mooring lines required.

(a) *Under 100,000 tonnes deadweight.* Seven (7) 220 m. (722 ft.) lines forward includes backspring. Similar aft.

(b) *100,000 tonnes deadweight plus.* As for (a) and in addition one (1) 220 m. wire forward and one (1) 220 m. wire aft. All mooring lines must comply with Classification Society requirements. Ore berth where vessel secures 3.9 m. (12.8 ft.) clear of loading facility to three (3) mooring buoys forward and three (3) aft. Backsprings to protection dolphins. *Polypropylene or similar material instead of nylon required.* Confirm with Harbour Authority.

Main engines required to be on thirty (30) minutes standby notice.

Mooring winches to be fully operational and maximum power available at all times.

LOADING/DISCHARGING: A 1,830 m. (6,000 ft.) long steel structure from the shore carries the ore conveyor and oil pipe-lines.

Shiploader: Two (2) radial arm type (one loading at any given time).

Rate: 3,000 long tons per hour maximum (2,750 nominal).

Working Hours: 24 hours/day, every day weather permitting.

Outreach: (a) Central: 24.82 m. (81.4 ft.). (b) Max. slew: 17.82 m. (58.5 ft.).

Throw: Max. 3.9 m. (12.7 ft.). Working Trajectory 1.8 m. (5.9 ft.).

Height: (Air Draft) above H.W. 16.46 m. (54 ft.) minus 1.5 m. (5 ft.) for safety clearance.

Travel: 79.25 m. (260 ft.) for one loader. Total coverage both loaders 164.6 m. (540 ft.) including 6.1 m. (20 ft.) dead area between loaders. Stowage factor iron ore pellets 0.4767 cu.m./tonne. Angle repose 27°.

MEDICAL: Minimum of 24 hours notice required by Agent to arrange doctor. Hospitals situated at Smithton, 19 miles; Wynyard, 25 miles.

TANKERS: Berth in daylight, weather permitting. Hose 10 in. diameter, discharge line only, no facilities for receiving ballast or slops. Maximum permitted draft 45 ft. (13.7 m.).

Oil/Ore vessels require gas free certificate prior to landing.

A floating pipe-line connecting facility to vessel is handled by line boats.

DENSITY: 1025-1027.

FRESH WATER: Limited quantity from tug – 70 tons.

FUEL: Not available.

FIRE REGULATIONS: Standard Mines Department fire regulations.

OPENING/CLOSING HATCHES: Ship's responsibility.

CERTIFICATES: Required: Derat., Safety Equipment, Load Line, Registered Tonnage, Safety Construction, Safety Radio.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes or 8 ozs. tobacco per man. Wine/Spirit, 1 quart per man, bottle/bottles must be unsealed.

CARGO GEAR: None required.

IDENTIFICATION CARDS: See "Melbourne".

CONSULS: No consulates.

REPAIRS: Carried out by local contractors through Agent.
REPATRIATION: Agents can arrange repatriation and crew changes.
AIRPORT: Nearest airport 25 miles at Wynyard with daily domestic flights to mainland for international flight connections.
TIME: See "General" before first port.
HOLIDAYS: Cargo loading continuous throughout public holidays.
POLICE/AMBULANCE/FIRE: Police, Stanley 581104; Ambulance, Smithton 521221; Fire, Stanley 581202.
TELEPHONES: Arrange through Pilots.
SHORE LEAVE: Arrange through Pilots. Sufficient crew remain on board to handle vessel for clearing berth – to include ten (10) competent deck crew, five (5) forward and five (5) aft.
GENERAL: *Chart:* Port Dalrymple to Circular Head, AUS 798.
Tide Predictions: See "Port of Stanley" – Australian National Tide Tables. Mean Spring range of tide 2.5 m. (8.42 ft.). Correction for Port Latta – 0.6 m.
Officials: Marine Supervisor, Quarantine Officer, Customs Clearance Officer and Agent will board on arrival, weather permitting.
AUTHORITY: Savage River Mines, Marine Department – Port Latta, P.O.Box 353, Wynyard, Tasmania 7325., Australia. *Tel:* Wynyard (004) 423451. *Telex:* Pickand AA 59019. *Cables:* Pickand Wynyard. *Contact:* D. C. Schmidt, General Manager.
AGENT: Sub-agent of Patrick Agencies, Melbourne.

PORT LINCOLN, S.A.: 34.42 S. 135.50 E. (See Plan)

PORT LIMITS:
Northern Limit: From Pt. Boston Light in a direction 059°×3 miles.
Southern Limit: From Cape Donington Light in a direction 059°×3 miles.
Eastern Limit: A line joining outermost ends of North and South limits.
DOCUMENTS: See "Melbourne".
PILOTAGE: Compulsory. Pilot boards 1.0 miles S.E. of Boston Point.
APPROACHES: Depth in approach Channel 30 ft. (Proper Bay) – 14.2 m. (Main Pier).
TUGS: 1 tug available.
VHF: Radio telephone in operation. Channels 6, 12, 16 and 67. Office hours 0845 – 1700.
BERTHING: Kirton Point Jetty oil tanker berth at "T" head, berthing space 900 ft. (275 m.), depth 32 ft. (9.75 m.). Shipping Pier depth 27 ft. (8.2 m.) and 28 ft. (8.5 m.).

Two bulk grain loading berths 350 m. long, depth 14.93 m., with 2 travelling loaders with combined capacity of 4,000 tonnes an hour and an outreach of up to 35.5 m. on each side of jetty. Vessels up to 60,000 d.w.t. can be accommodated.

A berth, 247 m. long, depth 12 m. to accommodate general cargo including bagged grain, phosphate rock and sulphur vessels.

B.H.P. Jetty (Proper Bay) jetty and berth with mooring dolphins. Distance between outer dolphins 882 ft. (270 m.). Depth 34 ft. (10.4 m.) MLWS. Channel depth 9.1 m. Loading rate 1,900/2,000 t.p.h. Max. beam permissible 80 ft. (24 m.). Max. LOA 183 m.
FUEL: Diesel and limited fuel oil by road tanker only.
FRESH WATER: Available at jetty and shipping pier. Not available at B.H.P. (Proper Bay) Berth,
AIRPORT: There is a scheduled 1 hour air service to Adelaide with up to 6 flights a day.
EMERGENCY CO-ORDINATION CENTRE: Australian Coastal Surveillance Centre-Canberra. Tel: (062) 475344. Telex: AA 62349.
STORING: See "Prelims".
(1) Yes.
(2) Operations at Harbour Master's discretion.
(3) Yes, right alongside.
(4) Yes.
(5) Normal Australian Regulations.
(6) Yes.
AUTHORITY: Department of Marine and Harbours, P.O.Box 354, Port Lincoln, South Australia, 5606. *Tel:* (086) 82 3633, 82 3723. *Telex:* AA 82525. *Contact:* Captain R. J. Cobban, Harbour Master.

For Proper Bay: Broken Hill Proprietary Co. Ltd., P.O.Box 21, Whyalla, South Australia 5600.

AGENT: Patrick Agencies, 79, Liverpool Street, Harwill Court No. 11, P.O.Box 1592, Port Lincoln, South Australia 5606. Cables: Rikpat. Tel: (086) 82 1011/1167. Telex: AA 80932.

PORT PIRIE, S.A.: 33.10 S. 138.08 E. (See Plan)

PORT LIMITS: As per broken magenta lines passing through Ward Spit Beacon, to the North, and Eastern shoal North Beacon, to the South, of entrance to Germain Bay on Chart AUS 136.
CERTIFICATES/DOCUMENTS/HEALTH: See "Melbourne".
PILOTAGE: Compulsory. The Pilot Boarding Station is South-West to West and within 3 miles of Eastern Shoal North Beacon.

The regulation pilot ladder should be secured so that the lowest step is 1.22 m. clear of the water. Manropes must be provided but a boat rope is *not* required.

Pilotage distance is 17 miles and time occupied is approximately 2 hours.
ANCHORAGE: Vessels awaiting a Pilot should anchor near the Pilot Boarding Station which is good holding ground.

Exempt vessels only may anchor within Germain Bay. However, anchorage near Cockle Spit is not recommended for vessels of light draft under adverse weather conditions.

RESTRICTIONS/MAX. SIZE: Channel width 92 m.
Daylight: Max. length 185.0 m. OA } i.e. Port Limits
Max. beam 27.5 m. OA
At Night: Max. length 178.0 m. OA (outward). Max. length 160 m. OA (inward).

Vessels over these lengths and beams at Harbour Master's discretion.

The entrance, river channel and harbour area are dredged to 6.4 m. LWOST. The keel clearance of any vessel proceeding in the harbour or channel should be 0.76 m. and vessels over 22.25 m. the minimum keel clearance should be 0.91 m.

Max. draft at HWOST is 8.1 m., keel clearance of 0.9 m. required.

Vessels have sailed from the port under suitable tidal conditions with drafts in excess of 8.23 m.

Note 1: It is recommended that the maximum draft should be *decreased* by 0.20 m. when "fixing" vessels in advance, to allow for possibility of the tide being less than that predicted due to weather conditions.

Note 2: The LW heights should be considered when fixing deep vessels to ensure that the vessel always remains afloat in the berth.
HEALTH: For first port vessels, Radio Pratique is available 24 hours prior to arrival, after satisfactory response to information sought by Agent, formal Pratique will be granted after berthing.

In the event of suspected disease or fever on board, authorities must be informed *prior* to Pilot boarding.
RADIO/VHF: Port Pirie is serviced by VHF Channels 16, 12, 8, 67 and 6. Vessels arriving at the port should advise "Port Pirie Harbour", as soon as contact can be established, of their ETA and draft, also the position anchored, if applicable. Exempt vessels should advise same and seek clearance to enter the port. Listening watch is kept from 0845 hrs. to 1700 hrs., Monday to Friday, (except public holidays) or by arrangement.

There is no visual signal station.

There is no radio telegraph station at Port Pirie. All such messages are handled through "VIA" Adelaide and are forwarded to or from Port Pirie by land-line.
TUGS: Two tugs, bollard pull 11 tonnes and 22 tonnes.
BERTHING: Vessels are normally berthed in the order of first arrival at the Pilot Boarding Station and are usually swung prior to berthing.

Main engines must not be immobilised and static engine tests must not be made without prior approval of the Harbour Master.

Berths: Vessels berthed at No. 1 should not exceed 152.40 m. (500 ft.) OA length.

At Berth Nos. 2, 3, 5, 6, 7, 8, 9 and 10 the OA length limit of 183.0 m. applies, provided adequate berthing space is available.

			Dredged to:				
Berth	*Depth*		*Width*		*Length*		*Normal usage*
No.	m.	ft.	m.	ft.	m.	ft.	
1	7.32	24	24.38	80	152.40	500	General
2	8.23	27	30.48	100	182.89	600	Silo-Bulk Grain
3	7.32	24	30.48	100	198.13	650	Tankers
4	5.79	19	—	—	106.68	350	Tugs & Launches
5	8.23	27	30.48	100	198.13	650	Concentrates – Overseas
6	8.23	27	30.48	100	182.89	600	Concentrates – Overseas
7	8.23	27	30.48	100	144.79	475	Concentrates – Interstate
8	8.23	27	30.48	100	179.84	590	Lead & Zinc Pigs
9*	8.23	27	30.48	100	179.84	590	Lead & Zinc Pigs
10*	8.23	27	30.48	100	158.51	520	Coke, Coal and Limesand
11	3.6	12	24.38	80	47.71	150	Acid

*Fuel oil can be discharged at these berths, for B.H.A.S.
CRANES: 8×7.5 ton electric cranes are available as under:
No. 7 Berth – 2 for concentrate loading (Interstate only).
Berths Nos. 8 and 9 and 10 – 6 cranes plus the 2 cranes from No. 7 if not required at that berth.

Two 7.5 ton cranes situated at Berth No. 7 are the property of E.Z. Company and the balance of the 7.5 ton cranes are the property of B.H. Associated Smelters and can only be procured when they are not required by the Company or when it is stipulated in contract, agreement or Charter, that cranes to be supplied.
BULK HANDLING FACILITIES: The boom of the shiploader is 70 ft. (21.3 m.) in length and when lowered to the horizontal position for pouring should plumb the midship line of most ships loading from this machine. The "jet-trimming slinger" at the lower end of the loading chute is capable of throwing a stream of ore some 60 ft. (18.3 m.) through 360° and can be directed to any position within the vessel's hold.

Bulk wheat and barley can be delivered ex-silo on a conveyor belt which is capable of delivery at the rate of 800 t.p.h. Five outlets are available but the maximum is 800 t.p.h.
MEDICAL: All medical and dental facilities available.
TANKERS: One oil berth (No. 3). Cargoes of flashpoint above 60° may be handled.
DENSITY: Between 1033 and 1035.
FRESH WATER: Fresh water available all berths at rate of approx. 15 t.p.h.
FUEL: There are no bunkering facilities at any berth. Limited quantities of diesel oil may be obtained by road tanker.
REPAIRS: Subject to special arrangements.
SURVEYORS: Classification Society Surveyors available by prior arrangement. D.O.T. Surveyor resident in the port. Private surveyors available.
GANGWAY/DECK WATCHMEN: Compulsory for all vessels. Costs vary according to times, etc.
HATCHES: Opening/closing carried out by ship's crew.
CUSTOMS ALLOWANCES: As per Australian Regulations.
REPATRIATION: Facilities available.
AIRPORT: There are no regular flights to or from the port. Charter aircraft can be arranged.

Transport to Adelaide is by bus or train. Bus transport is most frequent – duration of journey 3 hours.

TIME: See "General" before first port.
POLICE/AMBULANCE/FIRE: Emergency Numbers:

Police	32 1200
Fire	32 3000
Ambulance	32 1111

EMERGENCY CO-ORDINATION CENTRE: In an emergency whilst at anchor or in the vicinity of the port (i.e. not berthed), contact can be made with "Port Pirie Harbour", if during working hours. Outside those hours, radio contact with Adelaide Radio (VIA). Both contact points will immediately contact appropriate local or regional emergency organisation.
TELEPHONES: All vessels in port will have telephones placed aboard by Agent. Local calls only available.
STORING: By truck alongside vessel. Forklifts can be used if required.
SHORE LEAVE: Unrestricted.
IDENTIFICATION CARDS: As per Immigration Authority Regulations.
GENERAL: *Tides:* MHW Springs 2.65 m., Neaps 1.65 m. Generally tidal heights of 2.74 m. or over occur at Springs about 50% of the days of the year. However, tides are affected by weather and may be up to 0.61 m. above or below predictions.
AUTHORITY: Department of Marine and Harbours, Ellen Street, Port Pirie, South Australia. *Tel:* (086) 321455. *Telex:* AA82525. *FAX:* (086) 32 5918. *Contact:* Harbour Master.

AGENT: Patrick Agencies, POB 38, 15 David Street, Port Pirie, S.A. 5540. Tel: (086) 32 3222. Cables: "Rikpat". Telex: AA80721.

PORT STANVAC, S.A.: 35.06 S. 138.28 E. (See Plan)

The Marine Terminal is situated on the Eastern shore of the Gulf of St. Vincent, 18 miles South of Port Adelaide in Lat. 35° 06′ S., Long. 138° 28′ E., bearing 219°, 4.0 miles from Marino Light. Mariners are referred to current hydrographic chart AUS 780.

The Terminal berths are open and unprotected. Consequently at all times a vessel must be in a suitable condition, with sufficient deadweight and personnel on board to vacate the berth immediately on short notice.

The Terminal comprises a buoyed sea-berth served by a 34 in. submarine pipe-line, for the discharge of crude oil tankers of up to 175,000 tonnes displacement and a product berth for vessels up to 32,000 tonnes displacement. The product berth is attached to the seaward end of a pier which extends in a direction of 300°(T) from the shore.

The Terminal operates 24 hours per day, seven days per week. Vessels are berthed in daylight, subject to tides and/or suitable weather conditions and may depart at any time. Cargo handling operations are continuous whilst a vessel is in the berth.
DOCUMENTS: Inward clearance is effected on board the vessel by the Customs Boarding Officer after the vessel has berthed. This official is also the Superintendent of the Mercantile Marine Office.

The following documents are required:
Clearance from last port.
Crew List in duplicate on Form M & S 11, and in addition 3 copies on plain paper.
Store List on Form 42A (1 copy).
Dutiable articles owned by Master and Crew on Form 5 (1 copy).
Form C & E 886, Loading Port List (1 copy for each Australian port of discharge).
Cargo Manifest (B/L).
Livestock Notice (Form QA4) if any livestock on board, plus Shipmaster's Bond (Form QA5) in duplicate.

Necessary forms will be supplied by the ship's Agent on a vessel's first visit to the terminal.

Clearance outward is granted on board before sailing. No documents are required by the Master when clearing outwards – the ship's Agent handles all clearance documents at the Customs House.
PILOTAGE: Prior to berthing at Port Stanvac vessels will be boarded by a Company Mooring Master in the anchorage area. The Mooring Master will advise the Master on the pilotage of the vessel to the berth and in respect of mooring and unmooring of the vessel. At the offshore moorings he will also advise on the hoisting and lowering of the submarine hoses and on loading/unloading. He will remain on board while the vessel is moored at the off-shore berth. The Mooring Master will carry out his duties subject to the authority of the Master of the vessel.

Vessels are requested to have a pilot ladder and manropes, rigged on the leeward side for the safe embarkation and disembarkation of the Mooring Master. At night the ladder area should be efficiently illuminated. Pilot ladder and manropes should remain rigged during vessel's stay in port, whilst in the offshore berth.

If the vessel's freeboard is more than 9 m. then the accommodation ladder should be rigged in conjunction with the pilot ladder.
ANCHORAGE: Vessels awaiting to berth at Port Stanvac are advised to anchor in the following positions unless instructed otherwise:

Crude Oil Vessels: Using starboard anchor, with Marino Rocks Lighthouse bearing 065°(T) distance 3.5 miles in 11 fathoms of water.

Product Vessels: With Marino Rocks Lighthouse bearing 065°(T) distance 3.0 miles in 11 fathoms of water.

Holding ground in these anchorages is good with a hard sand bottom.
RESTRICTIONS: Approaches from the West through Investigator Strait; from the East, through Backstairs Passage.

Minimum depth in channel to jetty berth is 40 ft. (12.2 m.). Minimum depth in channel to Sea Line Berth is 60 ft. (18.3 m.).

Height of tide, 9.0 ft. (2.7 m.) HHW, and 4.6 ft. (1.4 m.) LHW.

MAX. SIZE: *Crude Oil Discharge Berth:* Max. size limitations for vessels using the off-shore berth are:
(a) LOA 300 m.
(b) Beam, no limitation.
(c) Draft 15.55 m.
(d) Displacement 175,000 tonnes.

Note: Vessels LESS THAN 65,000 d.w.tonnes need to be referred to Adelaide Refinery for suitability to berth.
Products Berth: Max. size limitations for vessels using the product berth are:
(a) LOA 183 m.
(b) Beam, no limitation.
(c) Draft 9.75 m.
(d) Displacement 32,000 tonnes.

Note: Ships at the Product Berth must have a parallel flat side at the lightship waterline of a minimum of 61 m. and maintain a minimum freeboard whilst loading of 1.7 m. Vessels with dimensions less than these may be allowed to load lubricating oils only through a floating hose whilst moored by a "Baltic Moor".
HEALTH: Vessels will be boarded by the Department of Health Officer either at the anchorage or in the berth.

If Radio Pratique (see "Radio") has not been obtained prior to arrival international quarantine signals must be exhibited until the vessel is cleared by the Department of Health Officer.
RADIO: *Arrival Message:* Masters are requested to radio their Agents 7 days before their estimated arrival at the port, giving the following information:
ETA
Number and nationality of crew aboard.
Crew's state of health.
Advise if the hull is free of leaks.
Whether bunkers are required and, if so, the quantity.
The number of crew members, if any, who require the services of a Doctor or a Dentist.
Advise if inert gas system is in good working order and conforms to SOLAS.
Advise if ship has C.O.W. on board and if crude oil washing is required at Port Stanvac and conforms to SOLAS.

Further ETAs should be sent 72 hours, 48 hours and 24 hours prior to arrival. The 24 hours message must also confirm that the hull is free of leaks. If there is any change to the 24 hours ETA then advice should be promptly transmitted.
VHF: Port Stanvac Refinery is equipped with VHF radio operating on the following frequencies: Channel 16 (156.8 MHz) calling and standby only; Channel 14 (156.7 MHz); Channel 9 (156.45 MHz).

Masters of vessels proceeding to Port Stanvac are required to establish VHF radio contact with Port Stanvac (call sign "Port Stanvac") as soon as possible prior to arrival to confirm the vessel's ETA. Masters will be advised on which Channel they should maintain a listening watch while in the Port Stanvac area and to receive instructions related to berthing, cargo operations and other matters.
TUGS: Depending upon conditions and ship size, 1, 2 or 3 tugs may be used to assist in berthing crude oil vessels. These tugs are stationed at Port Adelaide and take about 3 hours to reach Port Stanvac. The tugs' hawsers are always used for berthing.

Tugs are not normally used for berthing at the Product Berth.
BERTHING: Crude Oil Discharge Berth:

Vessels are moored heading approx. 270° using ship's port and starboard bow anchors and 6 mooring buoys in a crescent around the stern. Three Swamp moorings.

Vessels should be equipped with at least 6 mooring lines of at least 220 m. of good quality, to secure in the berth. If a vessel is only equipped with mooring wires these should be fitted with fibre tails of at least 15 m. in length. The mooring buoys are fitted with 40 mm. diameter preventer wires of sufficient length to reach a vessel moored in the berth. These preventer wires will be taken from the buoys to the ship by launch and must be secured on board under the supervision of the mooring Master's Assistant.

After the vessel is securely moored, the ship's crew under the direction of a officer, and supervised by the Mooring Master, will by means of the ship's derrick or crane lift separately 2×12 in. submarine hoses for direct connection to the ship's manifold. The weight of each 12 in. hose is approximately 4.5 tonnes with the ship in loaded trim and about 5 tonnes when in the light condition.

When bunkers are required the 10 in. submarine hose will be lifted and connected at the same time as the discharge hoses. The weight of this hose is approximately 3.5 tonnes.

Vessels should have in place, on the manifold, reducers or spools to suit 12 in. A.S.A. flanges, and a reducer or spool to suit the 10 in. A.S.A. bunker hose.

Vessel's derrick should be rigged with a SINGLE WIRE RUNNER, with a shackle on its working end. All gear to have a safe working load of 5 tonnes.

Two good messenger ropes of at least 25 mm. diameter and 50 m. in length for heaving-in preventer wires should be available.

It is recommended that the patent "Carpenter's Stopper" provided by shore be used in handling the heavy 40 mm. preventer wires.

Maximum discharge pressure allowed is 1,000 Kpa (150 p.s.i.) at the ship's manifold.
Product Berth: The Product Berth has a fixed all round green light mounted on top of the hose boom.

All vessels are berthed port side alongside heading in a direction 240°(T).

Mooring line requirements are that vessels may be required to use 8 mooring lines, in good condition. The headline can be a wire rope but, if so, must have a 15 m. synthetic tail. The stern line must be a floating synthetic line so as not to foul the propeller on berthing.

The bow and stern mooring buoys are each fitted with 1×40 mm. diameter preventer wire. These wires will be taken to the ship by launch and secured on board under the supervision of the Mooring Master.

The berth is equipped with a Woodfield Flow Boom which handles all loading hoses, except the 2 solvent hoses. There are 2×14 in. lines which are for transferring white oils and taking off clean ballast. There are 2 × 16 in. lines for transferring black oils and taking off dirty ballast. Each of these 4 lines uses a 10 in. hose. In addition there are 2×6 in. solvent lines utilising 6 in. hoses and 1×12 in. line using an 8 in. hose for loading lube oils.

Typical loading rates are:

Black oils	1,600 tonnes/p.h. both lines.
White oils	1,400 tonnes/p.h. both lines.
Solvents	100 tonnes/p.h. each line.
Lub oils	500 tonnes/p.h. one line.

Multiple grades can be loaded simultaneously if segregation and safety are assured.

Ballast at 700 tonnes/p.h. is discharged through a 16 in. line to shore tanks with a receiving capacity of some 11,000 cu.m. On completion of deballasting clean salt water is to be discharged for approximately 15 minutes.

Notice of Readiness: Notice of Readiness will be accepted when vessel is securely berthed or, if berth is occupied, from the time the vessel is 'brought up' at anchor off the port in, or adjacent to, the recommended anchorage.

Draining of Hoses: Crude oil discharge hoses are cleared by creating a vacuum on the submarine crude oil line. All product hoses are drained by gravity and ship's personnel are requested to co-operate with the Terminal Operators to ensure complete draining of hoses. Drip trays must be placed in position to catch any oil which may remain in the hoses and oil absorbent material must be in readiness to absorb and clean up any small leaks.

Emergency Signal: Should normal ship to shore communication fail, the emergency signal to stop the flow of oil will be one or more blasts of the ship's whistle each blast of NOT LESS THAN 10 SECONDS DURATION. In the case of a fire this should be supplemented by a continuous sounding of the ship's general alarm system. Steam or air should never be shut off the whistle whilst the ship is in port.

Signals: Vessels discharging or loading shall, by day, display the international code inflammable flag and by night, a red light, where it can be clearly seen and visible all around the horizon.

MEDICAL: Medical and Dental treatment is available if required. The Agent should be informed of the treatment required.

FRESH WATER: Fresh water at approximately 25 cu.m.p.h. is available at the product berth.

There is no fresh water connection at the Crude Berth. Crude oil vessels requiring water must arrange, via their Agents, for water to be brought by tug from Port Adelaide. Tug hire is expensive and is for the account of the ship. Transfer of water from a tug to a ship must be carried out at the anchorage.

FUEL: Fuel oil is available at the Crude Oil Berth, fuel oil and diesel oil are available at the Product Berth.

CONSULS: Most nations, with the exception of the Arabian countries and the Panama Republic, have Consulates in Adelaide.

REPAIRS: Port Stanvac is an open roadstead and while vessels are moored at either berth, the main engines must be maintained in readiness to enable the vessel to leave the berth under full power at all times. No engine repairs which may interfere with this requirement will be permitted.

No welding, hotwork or scaling is permitted on vessels whilst at either berth. All repairs must be carried out in the anchorage. There are 2 repair firms in Adelaide capable of handling emergency voyage repairs. Details of any emergency repairs should be included in the ETA message.

CUSTOMS ALLOWANCES: All dutiable goods declared on Form 5 (see "Documents"), should be ready for possible collection and sealing by Customs. Non Australian crew members are allowed to retain: 200 cigarettes (opened carton) or 0.5 lb. tobacco or 40 cigars or 300 Biddies and 1 opened bottle (quart) of liquor.

BALLAST: No dirty ballast may be discharged into the sea.

Ballast disposal facilities are available at the Product Berth, maximum capacity is 11,000 cu.m.

There are no shore ballast facilities for the off-shore berth.

POLLUTION: Extreme care must be taken to avoid pollution of water by oil. A $50,000 fine, plus the cost of any clean-up can be imposed on, among others, a Master of any vessel which causes pollution of the sea by oil

The contents of engine-room and pumproom bilges must not be discharged into the sea. All pumproom and sea suction and overboard discharge valves must be securely lashed before loading or discharging operations commence.

If vessels need to unlash sea suction valves, the Mooring Master must first be informed. The ship's pumps must be started and a vacuum obtained before opening any sea valve.

The area around the ship's manifold and overside in the vicinity of the submarine hoses, when in the off-shore berth, shall be efficiently illuminated at night during loading and discharge operations.

All deck scuppers must be plugged and sealed before commencement of loading or unloading.

A stand-by warning must be given to the Terminal Operator not less than fifteen (15) minutes before any cargo transfer is completed. When topping off, the loading rate will be reduced by the Terminal Operator as required.

SHORE LEAVE: Port Stanvac is an open, unsheltered roadstead and it is emphasised that vessels must be in readiness to vacate the berth immediately on receiving instruction to so do.

There will be a launch available for transporting crew members ashore for shore leave. The launch is restricted to carry a maximum of 10 persons. The launch will only be available on completion of mooring and hose connecting service and will be limited to a maximum number of trips at set times.

At Anchorage: 0800, 1200, 1800 and 2300 hrs. from Launch Dock.
At Berth: Daytime by arrangement with Mooring Master.
Night – 1800, 1930, 2100, 2230, 2400, 0130, 0300, 0430, 0600 and 0730 hrs. from Launch Dock.

Crew members failing to be present for the last return trip of the launch from shore to ship will be required to make their own arrangements for transport to the ship.

Vessel's crew members and visitors are not allowed to walk through the Refinery. Access from the wharf to the Main Gate, and vice versa, must be by car or taxi only. Taxis may be ordered through the Main Gate personnel. Taxis are free as far as the Main Gate.

TIME: See "General" before first port.

GENERAL: *Gangway:* A shore gangway is provided at the Product Berth.

Ship's accommodation ladder should be rigged on the leeward side in the off-shore berth.

Garbage: The dumping of garbage into the sea at Port Stanvac is STRICTLY PROHIBITED by law. PENALTY $2,000 FINE.

Laundry: Laundry facilities are available in Port Adelaide. Master should advise requirements to his Agent prior to arrival.

Stores and Provisions: A limited amount of stores such as bread, milk, fresh vegetables and fruit, not exceeding a gross weight of 5 cwt., will be permitted to be delivered by the company launch. In such instances, it will be the responsibility of the vessel ordering such stores to make available a sufficient number of ship's crew to be taken to the launch harbour by the company launch in order to handle the stores into the launch for eventual transportation to the vessel. On no account is the launch crew to handle ship's stores. Arrangements for the handling of stores should be made through the Mooring Master on board the vessel, or the ship's Agent.

Stores ordered in excess of the above quantities must be arranged via the ship's Agent, and must be transported to the vessel direct from Port Adelaide by barge. The cost of this facility is expensive.

Masters are advised that whenever possible they should arrange to receive stores at other ports where facilities for storing may be more convenient.

The company will not accept responsibility for any stores handled at the Terminal.

Tides, Current and Depths of Water: The predicted tide times at Port Stanvac are approximately 10 minutes earlier than the tidal predictions for Outer Harbour, Port Adelaide. However, the times and heights may be affected quite markedly by the prevailing weather conditions. The tidal current flows in a N.S. direction and on occasions may reach 1 knot.

The lowest recorded depth of water at the Product Berth is 40 ft. MLWS and at the Crude Oil Berth is 61 ft. MLWS.

Weather: From September to May, the prevailing winds are from the South, S.E. to East. During the remainder of the year, winds are generally from North, West to S.W. At times winds may reach gale force.

AUTHORITY: Petroleum Refineries (Australia) Pty. Ltd., Adelaide Refinery, G.P.O.Box 1905, Adelaide, South Australia 5001. *Tel:* 382-1133. *Telex:* AA 82003. *FAX:* (08) 382-0962. *Cables:* Petrefine. *Contact:* R. M. K. Sweeney, Marine Co-ordinator.

AGENT: See "Adelaide".

PORT WALCOTT, W.A.: 20.37 S. 117.11 E. (including Cossack and Point Samson (defunct), Cape Lambert (operational) and Dixon Island (possible future)

(See Plan)

PORT LIMITS: All that portion of water bounded by a line starting from the North end of Dolphin Island running to the North end of Delambre Island then in a 081° direction to a position in Lat. 20° 21.5′ S., Long. 117° 31.5′ E. and then due South to meet the high water mark of the shore line generally in a Westerly and Northerly direction to Sloping Point; thence generally Westerly to the Northernmost Northwestern extremity of Burrup Peninsular; thence Northeasterly crossing the Western entrance of Boat Passage to the high water mark at the Westernmost Southwestern extremity of Dolphin Island and thence generally Easterly and generally Northeasterly along the shore line of that Island to the starting point.

DOCUMENTS: See "Melbourne".

PILOTAGE: Pilots resident at Wickham. 24 hours service. Pilotage is compulsory anywhere in the port, except that, with permission, ships may enter port and proceed via the Eastern route to anchorage. Ships should not enter via Bass Pass except with Pilot.

Pilots will, generally, board and leave ships by means of a small helicopter. Ships which cannot accept a helicopter must advise the Harbour Master at least 48 hours prior to arrival. All crew members should keep well clear of the hatch on which the helicopter will land. Helicopter is fitted with marine VHF radio. Call sign "Port Walcott Pilot Helicopter".

Pilotage will be provided, on request, from No. 1 Buoy. However this will only be just prior to a ship berthing. Ships may anchor, inside port limits, to the East of No.1 Buoy.

Pilot Ladders, Hoists, etc: On arrival, Pilots will accept a pilot hoist, a pilot ladder not exceeding 9 m. in length, an accommodation ladder if the weather is suitable or a combination of pilot ladder and accommodation ladder.

Owing to swell conditions, a clean pilot ladder is required for departure. This should be rigged so that it is 1 m. above sea level and provided with 2 clean manropes.

This ladder is required to comply with Australian Standard Specification No. 1267 of 1975 which is based on the requirements of the SOLAS Convention and the Navigation Act.

A pilot hoist or accommodation ladder is *not* considered suitable for disembarking.

Whilst in the berth, the appropriate accommodation ladder is used for access to the ship.

APPROACHES: Approaches are marked by 5 light buoys. The first is in position Lat. 20° 23.45′ S., Long. 117° 25.34′ E. and is fitted with a 3 cm. Racon – morse code "K". From a position about 1 mile East of this buoy, ships should proceed on a course 183° for 7 miles, then 252° for 10 miles to the anchorage area. Ships should not attempt to enter via Bass Pass.

Exit Channel: Marked by some 28 buoys and beacons. Pilotage is compulsory for all ships in this area.

ANCHORAGE: *Recommended Anchorages:*

Bearing of Jarman Island Lighthouse.

No. 1	191°×6 miles	No. 7	208°×8 miles
No. 2	201°×6 "	No. 8	215°×8 "
No. 3	196°×7 "	No. 9	222°×8 "
No. 4	205°×7 "	No. 10	204°×9 "
No. 5	213°×7 "	No. 11	210°×9 "
No. 6	200°×8 "	No. 12	217°×9 "

For smaller ships:

'F' 175°×6.7 miles and 'A1' 184°×5.2 miles.

RESTRICTIONS: *Max. draft for different tidal heights in order to obtain 10% U.K.C.*

Based on the availability of 16.0 m. at low water.

Tide (m.)	*Draft* (m.)	*Tide* (m.)	*Draft* (m.)	*Tide* (m.)	*Draft* (m.)	*Tide* (m.)	*Draft* (m.)
2.9	17.18	3.7	17.90	4.5	18.63	5.3	19.36
3.0	17.27	3.8	18.00	4.6	18.72	5.4	19.45
3.1	17.36	3.9	18.09	4.7	18.81	5.5	19.54
3.2	17.45	4.0	18.18	4.8	18.90	5.6	19.63
3.3	17.54	4.1	18.27	4.9	19.00	5.7	19.72
3.4	17.63	4.2	18.36	5.0	19.09	5.8	19.81
3.5	17.72	4.3	18.45	5.1	19.18	5.9	19.90
3.6	17.81	4.4	18.54	5.2	19.27	6.0	20.00

Controlling Depths for ships to the Service Jetty is 8.2 m. and Ore Jetty 12 m. For sailing from the Ore Jetty – 16.0 m.

For vessels bound for Lambert Service Jetty – 8.2 m.

Berthing of ore carriers is usually carried out at about 1 hour – 2 hours before HW.

Part loaded ore ships are restricted to berthing at HW. The turning area has a least depth of 12 m. and a U.K.C. of 1.5 m. is required. Drafts of up to 13 m. may be accommodated, but ships are strongly advised to contact the Harbour Master for advice prior to arrival.

Ships of 190,000 d.w.t. and above to berth in daylight only.

Sailing from the Ore Jetty is at 1 hour before HW. No variation can normally be permitted. The 18 mile exit route is 'graded' from 16 m. to 17.4 m. to accommodate tidal variations.

Drafts for sailing are calculated by adding the height of tide to the controlling depth and then deducting one eleventh of that total to give an U.K.C. of 10% of draft.

Owing to tidal peculiarities, berthing at the Lambert Service Jetty is either at about 2.5 hours before HW or 3.5 hours after HW.

MAX. SIZE:

	Berth No. 1	*Berth No. 2*
DWT	225,000	290,000
LOA	355 m.	355 m.
Beam	50 m.	55 m.

Largest ship to date (July 1984), the 'Weser Ore' 274,326 d.w.t. LOA 335 m. and beam 52 m.

TIDES: Spring range is 5.8 m. (19 ft.).

RADIO: Send ETA advices to "Shipserve-Harbourmaster-Portwalcott" 7 days and 24 hours prior to arrival.

VHF: VHF communications are available on a limited basis – a watch being kept on both Channels 16 and 14. Hours are approx. 0830 – 1200 and 1300 – 1630 Monday to Friday. The station is also manned if it is thought that urgent communication is necessary.

HEALTH: Pratique may be given by radio. Pratique is automatic if having called at another Australian port.

TUGS: Two tugs, "Roebourne" and "Wickham", are available for use at Cliffs Jetties only. Each is 3,200 h.p. with a bollard pull of 50 tons. They are twin screw with Kort nozzles. One line launch is available. Tugs supply towing equipment.

BERTHING:

Cape Lambert Service Jetty is owned by Robe River Iron Associates (R.R.I.A.). The neck is 1,500 ft. long and the berthing head is 510 ft. long. Off each end of the head is a mooring dolphin some 90 ft. away. This permits a vessel of about 625 ft. long to berth. There is a min. depth of 10 m. at LW. The height of the jetty, above LW, is 35 ft. Cargo is handled by ship's gear. The jetty is designed for road transport only. It was built to normal Australian standards and 110 ton locomotives have been landed. This is not a common-user berth and permission must be obtained from the Port Authority before any cargo, other than R.R.I.A. cargo, is handled.

Lambert Ore Jetty is owned and operated by R.R.I.A. It extends 8,760 ft. to sea in a 046.75° direction. It is double sided and capable of handling ships up to 290,000 d.w.t. Max. beam at No. 1 is 50 m. and No. 2 is 55 m. The depth of water in No. 1 (South) Berth is 18.5 m. and in No. 2 (North) Berth is 19.5 m. Ships should arrange their trim so that there is always a clearance of 1 m. when in the berth. There is a single shiploader designed to operate at 6,000 t.p.h. Ships berth 'head out' and are secured to dolphins, parallel to the jetty. These dolphins are 25 ft. (7.6 m.) above LW. The height of the jetty is 61 ft. above LW and the boom of the shiploader is about 100 ft. above LW. Max. distance between hatches is: No. 1 Berth, 234 m. and No. 2 Berth, 236 m.

CRANES: 2×5 ton mobile cranes.

STEVEDORES: Labour for stevedoring purposes is controlled by the Association of Employers of Waterside Labour. Requests for labour should be made through an Agent or Stevedore. Hours of work are usually 0800 – 2130 and 2130 – 0630. This labour operates at Lambert Jetty.

TANKERS: Usually berthed 'head-in' at the Lambert Service Jetty as the deeper water (35 ft.) is at the seaward end. Discharge is through an 8 in. pipe-line which is situated about the centre of the berth. Tankers at the Lambert Ore Jetty are moored with 2 anchors and stern moorings to the berth.

A basin has been dredged to accommodate tankers. Discharge is through either a 24 in. or 12 in. pipe-line via a pair of "Wheaton Arms".

CARGO GEAR: See "Melbourne".

FRESH WATER: Fresh water available at both wharves – ships supply own hoses with 2.5 in. quick release fittings.

FUEL: Not available.

TIME: See "General" before first port.

STORES: Dry, chiller, freezer and Bond stores are available. It is suggested that ample notice be given.

AIRPORT: At least 1 jet flight per day to Perth from Karratha, flight time 2 hours.

CERTIFICATES: Ore/Oil carriers require inspection by surveyor if previous cargo was oil. Gas-free Certificates over 24 hours old are not accepted.

CHARTS: AUS 55, 740, 741, 326 and 327, plain or Decca are available at Harbour Master's Office, also AUS 56 and Aust. Nat. Tide Table. Notices to Mariners, U.K. & Aust. are available for inspection.

REPATRIATION: Carried out regularly.

TELEPHONES: Not available at the berths.

HOLIDAYS: Iron ore is loaded 24 hours per day, except for one 24 hour period over Christmas (usually 2300/24th to 2300/25th December).

SHORE LEAVE: Crew members are allowed ashore by pre-arranged bus or taxi – nearest town is 10 miles away.

SHIP SUPPLY SERVICE: Port Walcott has limited ship-to-shore transport with the only non-fishing commercial craft being R.R.I.A. owned tugs (2) and workboat. All these craft are available for emergency use.

Charter craft are available from either Lombardo Marine Group at Port Dampier or Elder Prince Marine at Port Hedland or Mitchell Marine Services at Point Samson.

The local ship's Agents are conversant with the availability of charter craft and ship Masters and Owners would be well advised to operate through their Agent.

A helicopter Pilot Service commenced at Port Walcott in July, 1984. This service may be available for emergency use. Contact should be made through the Harbour Master's Office.

Harbour Master Port Walcott, Department of Marine and Harbours, P.O.Box 61, Wickham, W.A. Tel: (091) 871106.

Elder Prince Marine Services Pty. Ltd., Port Hedland. Tel: (091) 731651.

Lombardo Marine Group Pty. Ltd., Karratha. Tel: (091) 853344.

GENERAL: Port Walcott is connected by sealed roads to the towns of Wickham, Roebourne, Karratha, Dampier and Port Hedland, each of which has a hospital and other facilities. The sealed road also extends to Perth, some 1,100 miles away.

Charts: AUS 740, AUS 741, AUS 742, AUS 326, AUS 327, AUS 58, AUS 56 and AUS 55 are stocked, either plain or in Decca (LD8) configuration. These charts are available at the Harbour Master's office. British and Australian Notices to Mariners may be inspected at this office.

Tides: Spring range is 5.70 m. (18 ft. 9 in.).

Stores: Providores operate here. Freezer, chiller, dry and Bond stores are available but advance notice is preferred.

Seamen's Club: A Mission to Seamen is situated in Wickham about 16 km. from ore berths. This club is attached to the Wickham Club Inc. and visiting seafarers are welcome as guests. A small bus (15 seater) will be made available on request. This bus is driven by volunteers and is operated at mutually convenient times.

Access: Access from the ship to the shore is by means of ship's accommodation ladder to a dolphin at the ore jetty and by means of a brow at the Service jetty.

Moorings: 1. Any wire ropes should terminate in a fibre rope tail of at least 20 m. length, including eye.

2. Spring lines should be laid out on deck, prior to coming alongside, for a distance of approx. 80 m. from the ship's lead. In the case of wires, the rope tail would be included in this 80 m. This arrangement should permit easy lowering vertically to the appropriate dolphin.

AUTHORITY: Department of Marine and Harbours, P.O.Box 61, Wickham, W.A. 6720. *Tel:* (091) 871106. *Contact:* Captain J. Tunmore, Harbour Master. Office located at Point Samson.

AGENT: Sub-agent of Patrick Agencies, Fremantle.

RAPID BAY, S.A.: 35.32 S. 138.12 E.

LOCATION: On Eastern shore of St. Vincent's Gulf about 55 sea miles South of Port Adelaide.

PORT LIMITS: 1 mile radius of jetty head.

DOCUMENTS: As for Port Adelaide if overseas entry.

PILOTAGE: Pilotage not compulsory. Pilot available from Adelaide if required. Call "Rapid Bay" on VHF Channel 16 for clearance to berth. No launch for lines. Ample supply of heaving lines to be available on approaching berth – grappling hooks used from ashore.

ANCHORAGES: In fair weather, anchor 1 mile due North of jetty head.

In bad weather, best to anchor in Nepean Bay (Kangaroo Island).

RESTRICTIONS: Daylight berthing only recommended.

MAX. SIZE: LOA 165 m. Jetty 188 m. long, in 113° – 293° direction.

HEALTH: Customs informed of ETA which is first port of call from overseas or if on overseas documents.

RADIO: ETA cables should be by telegram to "Adelcem Adelaide. S.A." Tel: 08-490400.

VHF: Channel 16 for calling.

Channel 12 for relaying berthing and loading instructions etc.

Station not manned at all times.

RADAR: Not available.

TUGS: None available.

BERTHING: Generally starboard side to as tide nearly always sets S.W.

Prevailing wind S.W. – S.E.

Max. draft 28 ft. MLWS.

Fixed head loading boom.

Vessel warps along wharf.

Loading rate approx. 1,500 t.p.h.

CRANES: None.

BULK CARGO FACILITIES: "T" shaped jetty 1,600 ft. long.

"T" shaped jetty 737 ft. long.

Depth 28 ft. MLWS.

Height of chute above water MLWS 10.2 m.

Fixed chute extends 10.8 m. beyond jetty fender line.

Maximum loading rate 1,500 t.p.h.

Cargo – limestone.

SPECIALISED CARGO HANDLING FACILITIES: None.

STEVEDORES: None available.

MEDICAL: Require notice on arrival or by telegram. No hospital available. Nearest at Victor Harbour. Nearest doctor at Yankalilla (16 miles from Rapid Bay).

TANKERS: No facilities.

DENSITY: 1030.

FRESH WATER: Not available.

FUEL: Not available.

FIRE PRECAUTIONS: Normal precautions.

CONSULS: None.

REPAIRS: No facilities.

DRY DOCKS: None.

SURVEYORS: Lloyd's Surveyors and Agents available from Adelaide.

GANGWAY/DECK WATCHMEN: None available.

HATCHES: Controlled by crew.

CUSTOMS ALLOWANCES: If first port of call, Customs will attend from Adelaide.

CARGO GEAR: Loading by fixed boom on jetty head.

REPATRIATION: No facilities.

AIRPORT: Nearest airport at Adelaide approx. 60 miles from Rapid Bay.

TIME: See "General" before first port.

HOLIDAYS: All public holidays, however, loading crew can be arranged.

POLICE/AMBULANCE/FIRE: Police Tel: (085) 58.2014 (Yankalilla). Ambulance Tel: (085) 52.2111 (Yankalilla and Victor Harbour). Adelaide Brighton Cement Ltd. owned ambulance on site. Fire Tel: (085) 58.2000 (Yankalilla).

TELEPHONES: On shore only.

SERVICES: None.

SHORE LEAVE: At Master's discretion.

IDENTIFICATION CARDS: Not required.

REGULATIONS: Normal.

DELAYS: None.

DEVELOPMENTS: None.

AUTHORITY: Department of Marine and Harbours, P.O.Box 19, 293 St. Vincent Street, Port Adelaide, South Australia 5015. *Tel:* (08) 470611. *Telex:* AA 82525. *FAX:* 470605. *Contact:* Captain R. Buchanan, Director – Port and Marine Operations. Captain D. Malcolm, Senior Maritime Officer – Marine Safety.

AGENT: Sub-Agent of Patrick Agencies, Adelaide.

ROCKHAMPTON, (Port Alma) Queensland: 23.24 S. 150.33 E. (See Plan)

CERTIFICATES/DOCUMENTS: All documentation carried out by ship's Agents either in Rockhampton or at main Agent's office. Also see "Melbourne".

PILOTAGE: Agent notifies Pilot of ETA, and boarding time then determined by Pilot, taking into consideration circumstances prevailing.

Pilot boards from 50 ft. white launch. Pilots can be contacted by VHF Channels 8, 12 and 16, or radio-telephone 2182 and 2760 kHz.

Coastal and Reef Pilotage: Pilotage through the Inner Route of the Great Barrier Reef to Torres Strait is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

Pilotage recommendations: The attention of Masters is drawn to the IMO and Australian government recommendations on pilotage in Great Barrier Reef waters. See "Torres Strait".

RESTRICTIONS: Channel depth 24 ft. LWOST. Berth depth 32 ft. LWOST. Keel clearance of 2 ft. required. Max. draft dependent on height of tide.

ANCHORAGES: Anchorage for Port Alma is Timandra Buoy, approximately 13 miles from Port. Vessels *Cleared* to enter may anchor at Sea Hill.

HEALTH: Port Alma is a First Port of Entry for overseas vessels and full quarantine and customs facilities are available when required. A doctor is in attendance for Quarantine purposes, and there is a quarantine anchorage at Sea Hill Point on the approach channel.

The Port is also a designated timber port, and facilities are available for the issue of Derat Certificates. Fumigation services for both ships and cargo are provided by private firms based at Rockhampton, and under the control of the Commonwealth Department of Health.

RADIO: VIR Rockhampton.

VHF: Port Authority call sign: "Port Alma Wharves" Channel 16, 67, 6 and 12. Listening watch on Channel 16 when vessel due at Fairway Buoy.

TUGS: Tug assistance obtainable if required, from Port of Gladstone.

BERTHING: Berth at Pilot's discretion after receiving advice from Agent as to ETA. Berths allocated by Port Manager.

Berth No. 1: Berth has a concrete deck 18.5 m. wide and 169 m. long (554 ft.) constructed to take a superimposed weight of 5 cwt. per sq.ft. This berth is suitable for all general cargo, including frozen meats and other meatworks products. There is a mooring dolphin situated 43 m. (140 ft.) North of this berth, which can safely accommodate mooring lines from vessels required to moor over the North end of the berth.

Berth No. 2: Berth has a concrete deck 18.5 m. wide and is 122 m. long (400 ft.), constructed to take a superimposed weight of 7 cwt per sq.ft. This berth is suitable for all types of cargo including containers, explosives and ammonium nitrate and is equipped with a fixed leg crane with a S.W.L. of 25 tonnes. The pivot point of the crane is situated 22 m. (72 ft.) from the junction of Berths No. 1 and No. 2 and 7.3 m. (24 ft.) from the outside line of the berth fenders. The S.W.L. of 25 tonne is at radius of 33.5 m. (110 ft.) with the hook 24.3 m. (80 ft.) above the deck. There is a mooring dolphin situated 49 m. (160 ft.) South of this berth, which can safely accommodate mooring lines from vessels required to moor over the South end of the berth.

This berth is in a continuous line with Berth No. 1, to provide 291 m. (954 ft.) of mooring space plus the above mentioned dolphins at either end.

Berth No. 3: Berth consists of 4 berthing dolphins in line with No. 1 and 2 Berths with mooring dolphins at both ends to give an overall length of 238 m. (780 ft.). It is normal practice to place head lines on South end of No. 2 Berth from larger vessels using the dolphin berth. There is a distance of 49 m. (160 ft.) between the South end of Berth No. 2 and the mooring dolphin. All dolphins are of concrete construction.

This berth is currently used for loading bulk salt and discharge of petroleum products.

Dry Shed Storage: A store shed is provided adjacent to Berth No. 1 and is available to shippers by prior arrangement. It is of steel frame construction with non-flammable metal walls. The western wall has continuous sliding doors and at each end (i.e. North and South) there are double metal roller doors. A sliding metal door is situated at the centre of East wall giving an opening of 6 m. (20 ft.).

Container Terminal: The Port Authority has a container terminal available for use subject to prior arrangements. This terminal is suitable for both dry cargo and refrigerated cargo containers. Concrete pads have been designed to take containers stacked 2 high and electrical hook up points are adjacent to each pad.

The terminal is serviced by road and rail, has full security fencing, flood lights for night operation, with office space and telephone.

Equipment: The Port Authority has available 1 fork-lift truck of 6,000 pound lift capacity. Stevedores also have one fork-lift truck.

BULK HANDLING FACILITIES: The loading section of this facility is situated on Berthing Dolphin No. 2 and is in a fixed position, hence it is necessary to shift ship during loading operations. The unit is designed for a loading rate of 1,000 t.p.h. A weigh hopper is not provided and final tonnage loaded is responsibility of vessel's Loading Officer calculated by draft survey.

A. Height from wharf deck to underside of loading boom in working position is 23 m. (75 ft.).

B. Height from wharf deck to trimmer in retracted position is 16 m. (52 ft.).

C. Maximum extension of telescopic chute and trimmer in working position is 21 m. (68 ft.).

D. Maximum outreach of loading head is 16.5 m. (55 ft.).

E. Trimmer can be rotated and trimmer belt can be raised or lowered at the direction of the Deck Officer in charge of loading.

F. Dolphin berth deck is 6.4 m. (21 ft.) above water line at MLWOST.

CRANES: A 25 ton crane (fixed leg) is available on Berth No. 2 to handle containers and other cargo.

STEVEDORES: Agent advises Stevedoring Company of ETA. Requisitions to be lodged for labour before 1300 hrs. on previous day. No requisition can be lodged from 1300 hrs. Friday to 1300 hrs. Monday.

MEDICAL: All medical requirements carried out by Agent. Hospital available 40 miles from Port Alma.

TANKERS: Two petroleum companies have terminals at the Port (Esso Australia and Ampol Petroleum) and bunkers can be arranged through ship's Agents. Petroleum products are discharged at Berth No. 3. 10 in. discharge lines. No slop facilities. 1 berth 32 ft. LWOST.

Hazardous Cargo: The Port is authorised to handle exposives and other hazardous cargo. Fire protection service.

FRESH WATER: Fresh water available by road transport only, necessitating road haul of 40 miles, average cost $40.00/1,000 gallons.

FUEL: Fuel oil and other bunkers can be arranged by road tankers from fuel terminals situated in Port Alma. Contact ship's Agent in advance.

FIRE PRECAUTIONS: Rockhampton Port Authority has trained fire fighters on regular staff. Fire pumps and hoses available.

GANGWAY/DECK WATCHMEN: Crew.

OPENING/CLOSING HATCHES: Crew.

CUSTOMS ALLOWANCES: Under supervision by Custom's Department, 200 cigarettes or 1 lb. of tobacco each 10 days. Wine/Spirits, no definite information available.

CARGO GEAR: As per the Navigation Act. See "Melbourne".

IDENTIFICATION CARDS: See "Melbourne".

CONSULS: See "Brisbane".

REPAIRS: Minor repairs only.

REPATRIATION: Facilities available.

AIRPORT: Regular services 43 miles from Port Area.

TIME: See "General" before first port.

HOLIDAYS: Christmas Day, Good Friday, April 25th and Waterside Workers' Picnic Day.

POLICE/FIRE/AMBULANCE: Tel. No. 000. 40 miles distance.

TELEPHONES: No provisions for placing telephone on board ship. Public telephone on Wharf.

GENERAL: The Port is serviced by both road and rail and land is available if required by Shippers subject to negotiation.

The Port Authority has fire fighting equipment to meet requirements for handling hazardous type cargo and provides linesmen and line Launch for mooring of vessels.

AUTHORITY: Rockhampton Port Authority. P.O.Box 9, Rockhampton, Queensland 4700. *Tel:* (079) 311281. *FAX:* (079) 221700. *Contact:* J. P. Stanley, Port Manager. *Tel:* (079) 346931 (Port Office), (079) 331728 (after hours). C. R. Monro, Port Supervisor, (after hours: (079) 346103).

AGENT: Sub-Agents of Patrick Agencies, Gladstone.

SPRING BAY, Tasmania: 42.33 S. 147.56 E. (See Plan)

DOCUMENTS: As for all Australian ports.

PILOTAGE: Compulsory. Pilot boards from a tug (black hull, red funnel with black top), on a line joining Pt. Home Lookout and Stapleton Pt. (see Chart AUS 170). ETA is usually sent to vessel's Agent 72 hours prior to vessel's arrival and confirmed 24 hours and 6 hours before arrival at the Pilot station. ETA should also be sent to Harbour Master, Hobart, VHF Channel 16, call sign "Hobart Harbour". The tug from which the Pilot boards leaves Spring Bay Wharf 30 minutes before a vessel is due at the pilot station, and also keeps a listening watch on VHF Channel 16.

ANCHORAGE: A good anchorage can be found in depths of 22 m. approximately 1.25 miles South of Windlass Bay.

RESTRICTIONS: The wharf is used exclusively by vessels loading wood chips from Tasmanian Pulp and Forest Holdings. The main wharf, on which the wood chip loader is situated, is 243.8 m. long with additional dolphins (3) and a mooring block for head, stern and breast lines. Ships are normally berthed starboard side to. The shiploader is a fixed structure and vessels loading are required to move up and down the wharf using their own lines. At present vessels are only berthed during daylight hours, but may leave during the hours of darkness at the discretion of the Pilot. Should a vessel require to immobilise her engines, application must be made to the Harbour Master; if permission is granted a tug will be required to stand by alongside.

MAX. SIZE: The minimum depth alongside the wharf is 10.7 m. and the mooring dolphins and ship loading facilities were designed to accommodate specialised ships with an overall length of 210 m. No difficulty envisaged in working ships having an overall length up to 243.8 m.

HEALTH: The local medical practitioner boards vessels after berthing and acts for the Commonwealth Department of Health. Immigration/Customs Officers travel by road from Hobart and board after Pratique has been granted. Quarantine Authorities must be informed of suspected disease or fever at least 18 hours before arrival. Also see "Melbourne".

RADIO: Hobart Radio, call sign VIH. Hours of duty EST (add 1 hour for Summer Time). Monday-Saturday inclusive 0730 – 1730 hrs. Sunday, 0800 – 1600 hrs.

TUGS: 1 tug is stationed at Spring Bay. When a ship is due a second tug is despatched from Hobart and remains in the port area throughout the vessel's stay. One of the tugs is used to embark and disembark the Pilot as well as assisting in berthing and unberthing. Should tugs be required to stand-by during loading operations an additional charge will be made in respect of crews' wages etc. It is customary to use the tug's lines, for which an additional charge is made.

MEDICAL: A local doctor is available and well equipped health clinics are situated at Triabunna (3 miles) and Orford (7 miles).

DENSITY: 1025.

FRESH WATER: Limited supplies are available from wood chip factory.

FUEL: None laid on to the wharf. In an emergency limited supplies could be provided by road tankers from Hobart.

FIRE PRECAUTIONS: No special fire precautions other than non-smoking or lighting of fires or use of naked lights.

GANGWAY/DECK WATCHMAN: None available.

OPENING/CLOSING HATCHES: Hatches opened by the ship's crew.

CERTIFICATES: Register, Load Line Certificate, Derat Certificate, Light Dues, Articles of Agreement, Clearance from previous Port.

CUSTOMS ALLOWANCES: See "Melbourne".

IDENTIFICATION CARDS: See "Melbourne".

CONSULS: None, nearest at Hobart.

REPAIRS: No facilities available for major repairs, but the wood chip factory may be able to assist in minor repairs. Local Hobart firms available.

REPATRIATION: Facilities available through Hobart.

AIRPORT: Hobart Airport is situated 49 miles from Spring Bay Wharf. Frequent services operate to the mainland and New Zealand from where services operate world wide.

TIME: See "General" before first port.

HOLIDAYS: See "Hobart". Ships may be loaded on days which are regarded as holidays in Hobart.

POLICE/AMBULANCE/FIRE: Police, 573116; Ambulance, 573129; Fire, 573187.

TELEPHONES: A telephone is connected to all vessels on arrival.

AUTHORITY: Marine Board of Hobart, G.P.O.Box 202B, Hobart 7001. *Tel:* 346722. *Telex:* 58319. *FAX:* (002) 310693. *Contact:* Captain J. M. E. Lucas, Harbour Master.

AGENT: See "Hobart".

STANLEY, Tasmania: 40.46 S. 145.18 E. (See Plan)

LOCATION: The Port of Stanley on the Northern coast of Tasmania is situated on the Southern side of Circular Head. (Lat. 40° 46′ S., Long. 146° 18′ E). It is protected by the Breakwater Pier. The ore loading facility owned by Savage River Mining Co. (Port Latta) lies about 5 nautical miles to the S.E.

PILOTAGE: Pilotage is compulsory. The Pilot boards one nautical mile S.E. of the Breakwater.

RESTRICTIONS: Depth in approaches 8.8 m. at LWOST. The nature of the bottom is sand.

VHF: "Stanley Harbour" on Channels 6, 12 and 16.

TUGS: 1×30 ton bollard pull.

BERTHING: *Breakwater Pier:* Length 161 m. Depth 8 m. Cargo shed 55 m.×15 m.

Roll-on/Roll-off Berth: Length 61 m. Ramp 6.4 m. wide. Depth 8.8 m. to 5.8 m. at the inner end. One stiff leg jib crane with capacity 17 tonnes.

FRESH WATER: Available. Rate 18 t.p.h.

FUEL: Fuel oil and diesel oil available.

REPAIRS: Minor repairs possible.

GENERAL: *Road and Rail Access:* Road access to both berths. Rail on Breakwater Pier.

Tidal Data: Mean High Water Springs 2.8 m.
Mean High Water Neaps 2.5 m.

References: Australia Pilot Vol. II. Charts: AUS.353, AUS.798. List of Lights NP Vol. "K". Australian National Tide Tables AHP 11.

Imports: Wheat, explosives, bentonite, ammonium nitrate.

Exports: Timber, agricultural products.

AUTHORITY: Marine Board of Circular Head, P.O.Box 61, Stanley, Tasmania 7351 (and Marine Board of Burnie). *Tel:* (004) 31-3444. *Telex:* AA59003 Burmar. *Contact:* H.G. Wilkens, Manager.

STRAHAN, Tasmania: 42.10 S. 145.20 E. (See Plan)

PORT LIMITS: "Port of Strahan" means all waters of Macquarie Harbour and all bays and estuaries opening into that harbour, but not beyond an imaginary line bearing 000° (True) for a distance of 1.20 km. from Watts Hill and thence bearing 090° (True) to the shore line.

DOCUMENTS: As for all Australian Ports.

PILOTAGE: Pilotage is compulsory for all vessels exceeding 35 m. in length. All Pilots are stationed at Hobart and special arrangements must be made in advance if a Pilot is to be provided. Usual minimum notice is 24 hours by contacting Marine Board of Hobart by telephone 002.34 6722 or telex Marhob 58319. The Wharf Officer at Strahan may be contacted on telephone No. 004.71 7291.

The Pilot Boarding Ground is outside the bar (Chart B.A. 3531 – Lat. 42° 12.0′ S., Long. 145° 13.0 E.). The pilot launch is fitted with VHF radio (Channels 16, 12, 8 and 6) and the Pilot will advise the ship by radio of the time he intends to board.

ANCHORAGE: There are no safe anchorage positions outside the Port of Strahan. The fairway is unprotected from the weather and during North-Westerly gales the outside bar breaks heavily making entry impossible.

RESTRICTIONS:

(i) Navigation within the port for vessels requiring a Pilot is only during daylight hours.

(ii) The entrance to Macquarie Harbour is 70 m. wide and very strong tidal streams can be experienced – up to 6 knots.

(iii) The tides are unpredictable. In Westerly gales the flood tide can run for 20 hours and when the wind backs to the South the ebb can run out for 20 hours.

(iv) A bar having a least depth of 5.5 m. exists outside the entrance, however the lead depth in the inner channel is 4.0 m.

MAX. SIZE: Largest vessel recently – "Pacific Bold", LOA 66.45 m., draft 4 m.

HEALTH: Australian Commonwealth Rules apply. The local medical practitioner boards vessels after berthing and acts for the Commonwealth Department of Health.

RADIO: See "Hobart".

TUGS: None available and not required.

BERTHING: One wharf – depths varying from 3.7 m. to 5.5 m. alongside. The port is now mainly used by fishing vessels.

MEDICAL: The nearest hospital and doctor at Queenstown (30 miles).

FRESH WATER: Limited fresh water available from town water supply.

FUEL: Bunkers may be obtained by road tanker.

GANGWAY/DECK WATCHMEN: None available.

OPENING CLOSING HATCHES: Hatches are opened by ship's crew.

AIRPORT: A small airport is located 3 miles from Strahan.

AUTHORITY: Marine Board of Hobart.

AGENT: See "Hobart".

SYDNEY, N.S.W.: 33.55 S. 151.12 E. (See Plan)

PORT LIMITS: *Seaward Port Limits:* An arc of a circle of 3 nautical miles radius, centred on Hornby Light (which is at Lat. 33° 50.1′ S., Long. 151° 16.8′ E.).

DOCUMENTS: 2 copies Form M&S11 (List of Crew); 1 copy Form 42A (Store list); 1 copy Form 5 (Articles Owned or in Possession of Master, Officers or Crew); 3 copies Form C&E886 (Ports of Call); 1 copy Form QA3 (Declaration of Animals Carried as Cargo); 1 copy Form QA4 (Declaration of Ship's Pets); 1 copy Form QA5 (Shipmaster's Bond to Cover Ship's Pets); 2 copies Form AQ360 (Health Report). Of the above, Form 42A and Form 5 need only be compiled at the first port of call in Australia.

Ship's Agents are required to submit 2 copies of Cargo Manifest, and at least 2 sets of Bills of Lading. These are usually received direct from the loading port, and so need not be on board.

Ships carrying dangerous goods must obtain special approval to enter port (see "Entry and Departure Restrictions").

PILOTAGE: Compulsory for seagoing commercial ships (unless specifically exempted). Preliminary arrangements for a Pilot must be made through a local Agent accredited by the Port Authority.

All seagoing commercial ships (including those exempted from pilotage) are to report to "Sydney Maritime" on VHF Channel 12 when 4 hours, and again when 2 hours, from the port. When 5 miles from the port such ships are to report to "Harbour Control" on VHF Channel 13. Also see "VTS and VHF".

"Harbour Control" will instruct the ship what time to be at the Pilot Boarding Ground or, if no Pilot booking has been received, will advise the ship to contact the Agent. The Pilot Boarding Ground is at Lat. 33° 50.1′ S., Long. 151° 19.8′ E., which is 2.5 miles due East of Hornby Light. Ships are not to proceed Westward of the Pilot Boarding Ground without specific instruction by "Harbour Control" or the pilot vessel.

The pilot vessel is a 15 m., aluminium, semi-planing vessel, with metallic grey hull and yellow-orange topsides; the word "Pilot" is prominently displayed on each side of the deckhouse. The pilot vessel operates from a shore base within the harbour. When proceeding to a ship the pilot vessel will call on VHF Channel 13 and, after changing to a working frequency, will give Pilot boarding instructions.

In general, a ship which is about to take Pilot should steer a course which puts the sea on the quarter opposite to that on which the pilot ladder is rigged. The ship should have about 7 knots headway as the pilot vessel comes alongside.

The bottom of the pilot ladder is to be 2.5 m. to 3 m. above the waterline. The ladder is to be rigged (if possible) through an opening in the bulwarks or guard rails (or through a door in the ship's side). If there is no available opening in the bulwarks or guard rails, steps (with handrails) shall be securely fastened inside the bulwarks or guard rails, leading from the top of the bulwarks or guard rails to the ship's deck.

On each side of the ladder there is to be a clean handrope of 32 mm. (diameter) manila rope. The handropes are to be led through stanchions, one metre high, fixed to the ship's bulwarks or guard rails. There are to be no knots in the handropes. A tripping line may be used, but is to be attached not lower than the bottom spreader (which is to be the fifth step from the bottom).

If the highest point of a pilot ladder would be more than 9 m. above the waterline the pilot ladder is to be rigged in combination with an accommodation ladder. The accommodation ladder is to be secured so as to prevent it swinging away from the ship's side. The pilot ladder, and the handropes, are to be secured to the ship's side above the lower platform of the accommodation ladder. The Pilot must be able to transfer safely and easily from the pilot ladder to the accommodation ladder. The accommodation ladder is to be rigged so that a person ascending the ladder is moving towards the ship's bow. The lower platform of the accommodation ladder is to be horizontal. The lowest point of the accommodation ladder is to be 6 m. to 7 m. above the waterline.

Pilot hoists are not favoured. If a hoist is used in a ship with freeboard not exceeding 9 m., a conventional ladder (with handropes) must be rigged immediately alongside the hoist, so that the Pilot can transfer safely and quickly to the ladder if the hoist fails. If a hoist is used in a ship with freeboard exceeding 9 m., a combination ladder must be rigged immediately alongside the hoist. *Note particularly* that a Pilot hoist is *not* accepted as an alternative to a combination ladder.

Master's should note that the Port Authority places great emphasis on the safety of its pilots. Delays may occur if boarding arrangements are found to be substandard.

Coastal and Reef Pilotage: Pilotage through the Inner Route of the Great Barrier Reef to Torres Strait is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

ANCHORAGES: There is no recommended anchorage off the port, but ships frequently anchor close Northward, off the suburb of Manly (see Chart Aus. 200). The Port Authority cautions any ship anchoring off the port to keep a close anchor watch, because the area is susceptible to sudden, unpredicted changes of weather. Within the port there are several short-term anchorages (see "Berthing"). Mooring buoys are available for ships awaiting orders (see under "Berthing").

Restricted Area: There is a Restricted Area off the port bounded by a line drawn from North Head in a direction 090° (T) and a line drawn from Hornby Light in a direction 130° (T) and the arc of a circle of 3 nautical miles radius centred on Hornby Light. The mid-entrance markers, in line 294° (T), divide the Restricted Area into 2 sectors. The Northern sector is "Area A"; only ships which are entering the port may pass through "Area A". The Southern sector is "Area B"; only ships which are leaving the port may pass through "Area B". Anchorage is prohibited within the whole of the Restricted Area. The ship is not to be navigated along the line of the mid-entrance markers.

RESTRICTIONS: *Entry and Departure Restrictions:* Tankers which are not gas-free are not permitted to manoeuvre West of Bradley's Head during the hours of darkness.

Arrival at the following berths is restricted to daylight hours: All tanker berths, Point Piper Anchorage, Rose Bay Buoy, and Snails Bay Dolphins. Departure from the following berths is restricted to daylight hours: all tanker berths, and Nos. 1 & 2 Snails Bay Dolphins.

Arrival at, and departure from, Sydney Cove Passenger Terminal is not permitted during peak operating periods for commuter ferries (0730 – 0930 and 1600 – 1830 Mondays to Saturdays; 1200 – 1300 Sundays).

Except as indicated above, manoeuvring is generally permitted at any time of day. (For *tidal restrictions*, see "Restrictions-Underkeel Clearance").

Ships carrying dangerous goods must not enter port unless the ship's Agent has obtained from the Port Authority a certificate of "Approval for Vessel Carrying Dangerous Goods to Enter Port").

Underkeel Clearance, Tidal Restrictions and Minimum Draft: Ships underway outward-bound are to maintain a minimum underkeel clearance equivalent to 10% of ship's draft; for inward-bound ships this requirement is increased by 0.2 m. The controlling depth for calculating underkeel clearance is the berth depth (see "Berthing" or "Tankers") except at No. 1 Gore Bay (controlling depth 13.7 m.) and No. 2 Gore Bay (controlling depth 10.2 m.).

While alongside, ships are to maintain a minimum underkeel clearance of 0.6 m., except at No. 7 Glebe Island and No. 1 Balmain where the required clearance is 0.3 m.

Tankers proceeding to No. 1 Gore Bay with a draft exceeding 10.0 m., or length overall exceeding 250 m., or beam exceeding 36.5 m., or deadweight exceeding 80,000 tonnes, are to take Pilot 1.5 hours before slack water. The absolute maximum permitted draft is 13.7 m., but the actual draft is to be such that, in the approach channel of 13.7 m. depth, the required underkeel clearance is achieved at 1 hour before slack water. Ships using the berth for the first or second time are further restricted by 0.7 m. and 0.4 m., respectively.

At other berths in Gore Bay, and at Snails Bay Dolphin berths, ships with a draft exceeding 10.0 m. are to arrive and depart berth at or near slack water.

At the AGL Wharf, Mortlake, ships are to berth at slack water.

Ships departing Balls Head berths with a draft exceeding 10.0 m. are to depart on the flood tide.

The departure of ships from No. 1 Balmain and No. 7 Glebe Island is timed to give the required underkeel clearance at 1.5 hours after time of departure.

In all other cases berthing and unberthing is at any state of tide, provided the required underkeel clearance is maintained.

The *minimum* permissable draft for a ship manoeuvring within the port is equivalent to the following percentages of the ship's length overall:

Ships not exceeding 100,000 tonnes deadweight: Forward 2%, Aft 3%.

Ships exceeding 100,000 tonnes deadweight: Forward 3%, Aft 4%.

MAX. SIZE: In general, the maximum permitted size of ships is governed directly by berth length and depth (see "Berthing" and "Tankers") and by depth in approaches. Also see "Bulk Loading Facilities" and "Restrictions – Underkeel Clearance".

HEALTH: All overseas ships (at First Port of Entry into Australia *and* at any subsequent ports in Australia) are subject to quarantine until Pratique is granted, or until the ship is released from quarantine. (Treatment of crew members for illnesses other than quarantineable diseases is carried out by private practitioners arranged through the ship's Agent). Vaccinations are not normally required (see "Medical").

Radio Pratique may be requested by any ship, 12 to 24 hours before arrival in port (or upon shorter notice in exceptional cases). The request is normally made through the ship's Agent, but a ship's Master can send the request direct to the Duty Shipping Quarantine Officer (telex AA25310) via Sydney Radio. The request must include answers to the following questions:

A. Name, type and nationality of ship?

B. Itinerary for last 21 days? (If over 21 days from last port, give name of port and date of departure).

C. Name of first Australian port, and ETA?

D. Number of crew?

E. Number of passengers?

F. Have you had any deaths on the voyage? If so, give details

G. Have you had any cases of illness during the last 21 days with a fever of 38 degrees Celsius or above, and accompanied by: (a) rash, jaundice, or glandular swelling; or (b) diarrhoea lasting longer than 24 hours?

H. Have you had persons suffering from venereal disease during the voyage?

I. What live fish, birds, reptiles or other animals are you carrying? (Ship's pets should be mentioned).

J. Have you carried livestock on previous voyages in the last six months? If so, advise type of livestock, date of voyage, and ports visited. Have all stock-carrying compartments been thoroughly cleaned and disinfected?

K. Do you request Radio Pratique, or radio approval to berth?

Note that if the Radio Pratique request is telexed or telegrammed (whether by Master or Agent) it may be in an abbreviated form, such as:

"A: Southern Express, container ship, Italian. B: London, Lisbon, Cape Town. C: Sydney 151600H. D: 20. E to H: nil. T: one dog. J: nil, K: Radio Pratique."

It is normally the ship's Agent who is informed whether or not Radio Pratique has been granted. This information is only radioed direct to the ship if the Master made application direct. A "Q" flag need not be displayed if Radio Pratique has been granted. Such Radio Pratique is valid only for the ship's first port of entry. (If the ship's berthing is delayed the Radio Pratique will remain valid for the port, provided conditions on the ship do not change). After the ship has berthed, a Quarantine Officer will board to confirm that there has been no change in circumstances since the Radio Pratique message was sent. When satisfied, the Quarantine Officer will issue a Pratique Certificate valid for all Australian ports.

If Radio Pratique is not confirmed (or not requested) the "Q" flag (or quarantine lights at night) must be displayed. The Quarantine Officer (and Customs Officers) will board ship inside Sydney Heads (unless radio permission to berth has been granted). The Quarantine Officer will examine all persons having illness or infectious disease, as notified by the ship's Master. The Quarantine Officer will also receive the "Primary Health Report". When satisfied, the Quarantine Officer will issue a Pratique Certificate for all Australian ports. The "Q" flag may then be lowered, and the ship may proceed to her berth.

Notwithstanding that Pratique for all ports may have been granted, the Master will still be responsible for reporting any cases of infectious diseases which may subsequently occur while the ship is in Australian waters. Such report is to be made by radio if the ship is at sea when the case is discovered.

RADIO: Sydney Radio (call sign "VIS") provides a full range of Radiotelegram (RTG), Radiotelephone (RTF), Very High Frequency (VHF), and Telex Over Radio (TOR) services.

VTS/VHF: There is a "Port Operations Centre", which controls the Vessel Traffic Management System of the port. The Centre operates continuously. It may be contacted by VHF (see below) or by telephone (02) 240 2000, telex AA 27568 MSBOPS, or facsimile (02) 27 7804. The Centre operates the following VHF stations:

Call sign "Sydney Maritime" – calling and working Channel 12. Area of coverage from 50 miles North of Newcastle to 50 miles South of Port Kembla and 50 miles to seaward (through an interconnected system of remote stations). Initial contact with the port should be made through this station (see "Pilotage"). "Sydney Maritime" also receives arrival messages from ships bound for Newcastle, Botany Bay and Port Kembla, and relays these messages to the port concerned.

Call sign "Harbour Control" – calling and working Channel 13. Area of coverage – within 5 miles of the port. This station controls the Vessel Traffic Management System (VTS) for the port; broadcasts navigational, meteorological, and tidal information at 5 minutes past each hour; and allocates channels for ship/tug communication (such channels comprise 6, 8, 77 and 72, in that order of preference).

Ships within 5 miles of the port must maintain continuous listening watch on Channels 16 and 13 (or Channel 16 alone, if a dual watch is not possible). Ships underway within the port *must* maintain continuous listening watch on Channel 13.

When the ship arrives at 5 miles from the port, "Harbour Control" is to be notified (see "Pilotage"); and the ship is to obtain permission from "Harbour Control" prior to entering the port. One hour prior to ship's departure "Harbour Control" is to be notified; and the ship is to obtain permission from "Harbour Control" prior to departing the berth.

Both inwards and outwards ships are required to report (to "Harbour Control") passing each of the following locations (if applicable): Sea Buoy, Bradley's Head, Fort Denison, and Longnose Point. During daylight hours the ship is to display a numeral pendant indicating to which area of the port she is bound; this signal is very important, because it gives the ship right-of-way over pleasure vessels).

Safety, urgency and distress calls should be made on VHF Channel 16, which is continuously monitored by both "Sydney Radio VIS" and "Sydney Maritime".

RADAR: There is a limited port radar service covering the approaches to the port and the outer harbour area. Ships seeking radar information should contact "Harbour Control" (see "VTS/VHF").

TUGS: There are 8 modern, twin-screw tugs with bollard pulls of 30 tonnes to 45 tonnes. These tugs are operated by:

J. Fenwick and Co. Pty. Ltd., P.O.Box 82, Balmain, NSW 2041. Tel: (02) 810 0178. Telex: AA25067.

Waratah Towage Pty. Ltd., 37 Pitt St, Sydney, NSW 2000. Tel: (02) 27 7931. Telex: AA25195. FAX: (02) 272 3509.

A fleet of small tugs is operated by:

Stannard Bros. Launch Services Pty. Ltd., P.O. Box 92, Balmain, NSW 2041. Tel: (02) 810 0537. Telex: AA20149. FAX: (02) 810 6114. This company also provides the port's lines persons.

Orders for tugs for Saturday and Sunday should be placed by 1530 hrs. on Friday. Orders for tugs for weekdays should be placed by 1530 hrs. the previous day. Orders must be placed by the ship's local Agent.

Tugs normally join a ship in the vicinity of Fort Denison. Tugs always take a ship's line when they are to tow from their hook, but may use their own line when making fast alongside. There is no extra charge for using tugs' lines.

The general requirement for tugs is:

LOA under 45 m.	None
LOA 45 m. to under 75 m.	1 small tug
LOA 75 m. to under 100 m.	2 small tugs or 1 large tug
LOA 100 m. to under 125 m.	1 large tug and 1 small tug
LOA 125 m. to under 185 m.	2 large tugs
LOA 185 m. to under 250 m.	3 large tugs
LOA 250 m. and over (by consultation with Harbour Master)	

For tankers and bulk carriers exceeding 125 m. LOA the general requirement is varied as follows:

carrying less than 25,000 tonnes cargo	2 large tugs
carrying 25,000 to under 45,000 tonnes cargo	3 large tugs
carrying 45,000 to under 80,000 tonnes cargo	4 large tugs
carrying 80,000 tonnes cargo, and over	5 large tugs

The general requirement is reduced in the following circumstances:

One less tug (inwards and outwards) if ship has a bow thruster which:
(a) was found to be effective when the ship previously called; and
(b) is currently operational.

One less tug (outwards) if:
(a) the ship is berthed "head out"; and
(b) any berth ahead of the ship is clear; and
(c) weather is fine.

If both of the above circumstances apply, the total reduction is one only.

The general requirement is increased in the following circumstances:

One extra tug if the ship is a car-carrier exceeding 20,000 gross (as calculated by the Port Authority).

For a ship without main propulsion:
one extra tug if ship does not exceed 20,000 gross;
two extra tugs if ship does exceed 20,000 gross.

The requirement at mooring buoys is:

	Inwards	*Outwards*
LOA under 75 m.	None	None
LOA 75 m. to under 185 m.	1 large tug	1 large tug
LOA 185 m. to under 230 m.	2 large tugs	1 large tug
LOA 230 m. and over	2 large tugs	2 large tugs

Tug assistance is not required at anchorages unless the ship exceeds 215 m., in which case 2 tugs are required for a deep-draft ship, and one for a partly-laden ship. Such tugs stand-by the ship throughout the period of anchorage.

Except at No. 7 Glebe Island, no tugs are necessary for a shift-ship not exceeding 30 m. along the berth. One tug is required for a shift-ship of more than 30 m. along the berth. A harbour removal to another berth necessitates the full number of tugs as determined by the preceeding paragraphs.

Special variations are made to the above requirements for ships which have especially good, or poor, handling characteristics, and for large ships which are frequent users of the port. All of the above requirements may by increased in the event of adverse weather.

BERTHING: Except as indicated in "Bulk Cargo Facilities" and "Specialised Cargo-Handling Facilities" loading and discharging is by ship's gear (also see "Cranes"). Except where otherwise indicated the quoted depth is the least depth over the entire berth length; in many cases a greater depth is available if the ship does not require the full berth length.

Berth	*Nominal Length* (m.)	*Depth* (m.)	*Function*
No. 11 Woolloomooloo	199	9.3	Bulk/General
(Note: All Woolloomooloo berths are scheduled for decommissioning in early 1989, and redevelopment as a yacht marina).			
Sydney Cove			
Passenger Terminal	300	10.3	Passengers
(Note: No. 7 Sydney Cove has been demolished).			
No. 3 Darling Harbour	229	11.5	General/Ro-Ro/Lo-Lo
No. 4 Darling Harbour	313	11.0	General/Ro-Ro/Lo-Lo
No. 5 Darling Harbour	295	10.8	PAD/ScanCarriers Facility
No. 8 Darling Harbour	244	9.8	General/Ro-Ro/Lo-Lo
(Note: No. 6 and No. 7 Darling Harbour have been permanently decommissioned.)			
No. 9 Darling Harbour	174	10.3	General/Ro-Ro/Lo-Lo
No. 10 Darling Harbour	178	9.6	General/Ro-Ro/Lo-Lo
No. 7 Pyrmont	156	9.2	General
No. 8 Pyrmont	157	10.0	General
No. 9 Pyrmont	164	10.4	General
No. 10 Pyrmont	150	9.7	General
No. 12 Pyrmont	165	9.4	General
No. 13 Pyrmont	234	9.6	General/Passengers
No. 16 Pyrmont	58	8.5	General
No. 19 Pyrmont	144	8.7	(See note after No. 20)
No. 20 Pyrmont	163	9.0	Lay-up only
(Note: A greater length than 163 m. can be accommodated at No. 20 Pyrmont by extension into No. 19 – which is not otherwise in use).			
No. 21 Pyrmont	225	9.7	Lay-up berth
No. 22 Pyrmont	163	8.6	Lay-up berth
No. 23 Pyrmont	183	9.5	Car-carrier berth
No. 24 Pyrmont	161	9.2	General
(Note: No. 25 Pyrmont has been permanently decommissioned).			
C.S.R. Coal Wharf	71	5.2	Lay-up berth
C.S.R. North Wharf	113	7.0	C.S.R. Coal Terminal
C.S.R. South Wharf	166	9.0	C.S.R. Coal Terminal
Blackwattle Bay:			
Cement Wharf	95	5.3	Readymix Cement Terminal
Coal Wharf North	120	3.8	C & A Coal Terminal
Coal Wharf South	120	3.4	C & A Coal Terminal

Berth	*Nominal Length* (m.)	*Depth* (m.)	*Function*
No. 1 Glebe Island	234	11.7	Patricks Terrminal (Lo-Lo)
No. 2 Glebe Island	234	11.7	Patricks Terminal (Lo-Lo)
No. 7 Glebe Island	229	11.7	Bulk Wheat Terminal
No. 8 Glebe Island	120	8.4	ICI Soda Ash Terminal
No. 1 Balmain	336	11.6	MSB Coal Terminal
No. 3 White Bay	279	10.5	Cars/General
No. 4 White Bay	265	11.0	Cars/General
No. 5 White Bay	203	11.0	Union Co. Terminal (Ro-Ro)
No. 6 White Bay	203	11.3	Union Co. Terminal (Ro-Ro)
Balls Head North	130	4.8	C & A lay-up berth
Balls Head South	150	10.7*	C & A Coal Terminal

*(The quoted depth is available only over outer 130 m. of berth length).

Balls Head Coastal	165	5.5	C & A Coal Terminal
Snails Bay Dolphins:			
No. 1	215	10.6	Lay-up
No. 2	215	10.1	Lay-up
No. 3	215	10.2	Lay-up
No. 4	215	11.0	Lay-up
Buoy Moorings:			
No. 4 Athol Bight	275 radius	11.9	Lay-up
No. 5 Athol Bight	183 radius	14.2	Lay-up
No. 6 Athol Bight	220 radius	11.8	Lay-up
Rose Bay	293 radius	10.0	Lay-up
No. 1 Point Piper	260 radius	13.5	Lay-up

For tanker berths (see "Tankers"). Road access is available to all fixed berths. Rail access is available to the following berths: No. 1 Balmain; Nos. 3 and 4 White Bay; Nos. 1, 2 and 7 Balmain; Nos. 9, 10, 12, and 13 Pyrmont. The Royal Australian Navy has extensive fixed berthage, buoy berths, and dolphin berths in the port.

CRANES: *No. 11 Woolloomooloo:* 2 portal cranes 26.4 tonnes SWL. (Berth to be decommissioned – see note under "Berthing").

Nos. 9 and 10 Darling Harbour: 1 portal crane 26.4 tonnes SWL.

Nos. 1 and 2 Glebe Island: (comprising "Patrick's Terminal"). 2 single lift portainer cranes 35.5 tonnes SWL under spreader, 62 tonnes under hook. A third portainer crane (single lift, 35.5 tonnes SWL under spreader, 80 tonnes under hook).

No. 4 White Bay: One twin lift portainer crane 45.7 tonnes SWL. (The second portainer at White Bay has been permanently removed).

Nos. 3, 4, 5 Darling Harbour: 3 mobile container-handling cranes ("Coles Colossus"), owned by Patrick's Stevedoring Co. Pty. Ltd. Two of these cranes are "4200 Series" and have a tower height of 18 m.; a jib length of 27 m.; SWL 26 tonnes at 28 m. radius, 34 tonnes at 9 m. radius. The third crane, a "6000 Series" model, has a tower height of 18.7 m.; a jib length of 34.5 m.; SWL 29.5 tonnes at 33 m. radius, 45 tonnes at 12 m. radius.

Navy Dockyard, Garden Island: One fixed crane, SWL 254 tonnes.

Based at Cockatoo Island Dockyard: One floating crane, SWL 152 tonnes.

BULK CARGO FACILITIES: (For berth lengths and depths – see "Berthing"). (Ships may berth without hold ballast, because loading units are fully retractable).

No. 11 Woolloomooloo: Miscellaneous bulk handling berth. The berth has a hydraulic unloader and shore cranes with grabs (also see "Cranes"). (Berth to be decommissioned – see note under "Berthing").

CSR North and South Wharves: Bulk raw sugar unloading facility. The berth has 2 gantry grab cranes.

No. 7 Glebe Island: Wheat loading berth. The berth has a gantry with 4 loading units, which have luffing booms and telescopic spouts. Gross loading rate 1,600 tonnes/hour. Maximum beam 33 m. Maximum LOA: no designated figure, but governed by 183 m. maximum traverse of loader along wharf. Maximum draft: during loading, maximum draft depends on height of low water (minimum underkeel clearance 0.3 m.; berth depth 11.6 m. at datum); topping-off is permitted on last flood tide before sailing; final draft is governed by requirement to maintain 10% underkeel clearance in the approach channel of 12.2 m. depth. (Also see "Restrictions" – "Underkeel Clearance" and "note" at end of this section).

No. 8 Glebe Island: ICI bulk soda ash unloading berth. The berth has a mobile gantry with 2 pneumatic suction nozzles. Handling rate 125 tonnes/p.h. (maximum); 80 tonnes/p.h. (average). Maximum beam 13.7 m. Maximum length overall 100 m. Maximum draft: unrestricted for the size of ship using the berth. (Also see "note" at end of this section).

No. 1 Balmain: MSB coal loading berth. The berth has 2 electric gantries with average total loading rate of 800 tonnes/p.h. (maximum rate 1,250 tonnes/p.h.) Maximum beam 32.3 m. (but larger will be considered). Maximum length overall 245 m. Maximum draft – as for No. 7 Glebe Island. Maximum hatch coaming height 14.9 m. (Also see "note" at end of this section).

Balls Head: C & A coal transhipment terminal. Maximum loading rate 2,000 tonnes/p.h. Maximum beam 33 m. Maximum length overall 190 m. Maximum draft: during loading, the maximum draft depends on height of low water (minimum underkeel clearance 0.6 m.; berth depth 10.7 m. at datum, over outer 130 m. of berth length); topping-off is permitted on the last flood tide before sailing; maximum final draft 12.1 m. (Also see "Restrictions" – "Underkeel Clearance").

Note: Nos. 7 and 8 Glebe Island and No. 1 Balmain are in close proximity. To allow a ship to berth or unberth at No. 1 Balmain it is frequently necessary to shift astern a ship at No. 7 Glebe; in the astern position it is usually only possible to load the ship's forward hatches. A similar shift is sometimes necessary to allow a ship to berth or unberth at No. 8 Glebe Island. A concession in tonnage rates is allowed when a ship at No. 7 Glebe Island is shifted, but full rates are charged for Pilot, tugs and linesmen.

SPECIALISED CARGO HANDLING FACILITIES: *Containers:* Nos. 1 and 2 Glebe Island comprise a container terminal (Patrick's Terminal). Containers are also handled at Nos. 3, 4 and 5 Darling Harbour, using mobile cranes (see "Cranes").

Roll-on/Roll-off: Ships equipped with angled stern ramps are handled at Nos. 3, 4, 5, 8, 9 and 10 Darling Harbour. Nos. 5 and 6 White Bay comprise a Ro-Ro terminal for the trans-Tasman trade (Union Company Terminal); No. 5 berth is equipped with a shore ramp. (The shore ramp at No. 6 Darling Harbour has been decommissioned, and the ramp at No. 7 Darling Harbour has been removed).

Car-carrying: Car-carrying ships with side ramps and/or angled stern ramps are handled at Nos. 6 to 9 Woolloomooloo, No. 23 Pyrmont, and Nos. 3 and 4 White Bay.

Liquid Chemicals: Small quantities of liquid chemicals are handled at the tanker terminals (see "Tankers").

Bulk Oils: Handled at the tanker terminals (see "Tankers"). Vegetable and lube oils are occasionally handled at dry cargo berths.

Liquefied Gas: The ACL Wharf, Mortlake, occasionally handles small LPG carriers (see "Tankers").

*Note: The sister port of Botany Bay has a major facility for the handling of liquid chemicals, bulk oils and liquefied gas.

BRIDGES: The majority of the port's berths lie beyond the Sydney Harbour Bridge, which is a single span, steel arch bridge. Maximum headway is 53.6 m. above chart datum at the centre (prominently marked). For 45 m. on either side of the centre there is not less than 53.0 m. headway. For a further 64 m. on either side there is not less than 51.5 m. headway. For a further 73 m. on either side there is not less than 49.9 m. headway. When in use, a painting gantry reduces these headways by 2.8 m.

Blackwattle Bay Cement and Coal Wharves lie beyond Glebe Island Bridge, which has a swing span opening of 18.7 m. width. The AGL Wharf, Mortlake, lies beyond Gladesville Bridge, but its headway is ample for the size of ship able to berth at Mortlake.

STEVEDORES: Patrick's Stevedoring Co. Pty. Ltd., G.P.O.Box 3918, Sydney, NSW 2001. Tel: (02) 660 5855. Telex: AA75754. Fax: (02) 660 2769.

Conaust (NSW) Pty. Ltd., G.P.O.Box 4084, Sydney, NSW 2001. Tel: (02) 290 2500. Telex: AA25564. Fax: (02) 290 1950.

Patricks Stevedoring operates:

Patrick's Terminal – a container terminal at Nos. 1 and 2 Glebe Island. Equipment includes 2 rail mounted transtainers; 6 rubber-tyred transtainers; 2 portainer cranes; and heavy fork-lifts.

The PAD/ScanCarriers Ro-Ro Facility at No. 5 Darling Harbour.

General, Ro-Ro, Lo-Lo, and Bulk stevedoring operations at any common-user berth in the port, using a fleet of 75 fork-lifts; 3 Coles cranes; and ancillary equipment.

Conaust Stevedoring provides General, Ro-Ro, Lo-Lo, and Bulk stevedoring services at any common-user berth in the port, using a fleet of 79 fork-lifts, and ancillary equipment. Conaust has a depot at Rozelle Bay for packing and unpacking containers, and for bonding and storing of containerised cargo and break-bulk cargo.

Normal hours of work at common-user berths are:

Mondays to Fridays: 0730-1430 (day shift) (basic rate); 1500-2200 (twilight shift) (1.5 times basic rate); 2300-0600 (midnight shift) (double rate).

Saturdays: 0730-1130 (double rate), or 0730-1430 (double rate). (Saturday worked only if the ship can complete cargo). (Continuous working of passenger ships and bulk oil ships is possible, by special arrangement).

Sundays: 0730-1430 (day shift) (2.5 times basic rate); 1500-2200 (twilight shift) (2.5 times basic rate); 2300-0600 (midnight shift) (double rate).

Labour for Monday to Friday shifts must be ordered not later than the morning of the day previous to requirement. Labour for Saturday and Sunday shifts must be ordered not later than Friday morning. Firm ETA's are consequently very important; the ship's agent should be advised immediately if the ETA changes, so that labour orders can be amended.

Main commodities handled are:

Imports – containers; motor vehicles; CKD's; lumber; paper products; heavy-lifts; steel; bulk oil and general cargo.

Exports – containers; steel; coal; grain and other bulk cargoes and general cargo.

The private terminals employ their own labour force of stevedores.

MEDICAL: Ship's agents can arrange medical attention without prior notice, but notice should be given if possible. Full hospital, medical, dental and ophthalmic services are available. If the ship has passed through a yellow fever zone crew must be inoculated against yellow fever. Otherwise, no inoculations or vaccinations are necessary, but they can be carried out if required.

TANKERS:

Berth	*Nominal Length* (m.)	*Depth* (m.)	*Company*
No. 1 Gore Bay	265	14.0	Shell Co. of Aust. Ltd.
No. 2 Gore Bay	190	11.1	Shell Co. of Aust. Ltd.
No. 3 Gore Bay	172	9.4	Shell Co. of Aust. Ltd.
No. 1 Berrys Bay	162	8.2	BP Aust. Ltd.
No. 2 Berrys Bay	183	9.4	BP Aust. Ltd.
Ballast Point	172	9.4	Caltex Oil (Aust.) Pty. Ltd.
Chowder Bay	172	12.0	Royal Australian Navy
AGL Mortlake	100	3.8*	Australian Gas Light Co.

*(The quoted depth is available only over the outer 85 m. of berth length).

All berths are located in sheltered areas and are seldom affected by wind; no special moorings are required. Shore gangways available No. 1 Gore Bay only. Each terminal has first-response equipment for oil spills, and can readily call upon other terminals' equipment. The Port Authority has an oil spill combat team on continuous duty with an extensive range of oil spill combat equipment. Industry and Government have local, regional and national contingency plans for oil spill combat. Ship-to-ship transfers are seldom undertaken at this port, but floating fenders are available.

Cargo handling: No. 1 Gore Bay: Line diameters 1×102 mm. and 4×254 mm.; maximum discharging rate 4,000 tonnes/p.h. (with crude oil, using 2 hoses); 350 tonnes dirty slops, 6,000 tonnes dirty ballast (total for terminal); S.G. 0.645 to 0.98;. maximum temperature 50°Celsius; shore steam is available.

No. 2 Gore Bay: Line diameters 5×152 mm. and 1×203 mm.; maximum discharging rate 2,000 tonnes/p.h.; S.G. 0.645 to 0.98; maximum temperature 50°Celsius.

No. 3 Gore Bay: Line diameters 2×102 mm. and 10×152 mm.; maximum discharging rate 400 tonnes/p.h.; S.G. 0.845 to 0.98; maximum temperature 50°Celsius.

No. 1 Berrys Bay: Not currently in use.

No. 2 Berrys Bay: Line diameter 203 mm.; maximum discharging back pressure 1,050 kiloPascals; no slop facilities; S.G. 0.98 to 0.99; max. temperature 45°Celsius; shore steam available only for fuel oil.

Ballast Point: Line diameters 102 mm., 203 mm. and 254 mm.; maximum discharging rate 1,000 tonnes/p.h.; no slop facilities; S.G. 0.84 to 0.95; maximum temperature 60°Celsius; no shore steam available.

AGL Mortlake: Line diameter 152 mm.; maximum discharging rate 500 tonnes/day; no slop facilities; S.G. 0.855; average temperature 20°Celsius; no shore steam available.

DENSITY: The relative density throughout the port is 1025.

FRESH WATER: Fresh water is readily available at all berths. There is no restriction on quantity. The water is clean and sweet, and contains fluoride.

At fixed berths, delivery is from the town mains. The delivery rate is approximately 30 kilolitres p.h. The charge at common-user berths was (at April 1986) $Aus 0.8 per kilolitre, plus $Aus 0.05 if the shore hoses were hired. Charges at private berths were generally similar.

At buoy and dolphin berths delivery is by tug. The quantity delivered by each tug varies from 40 to 100 kilolitres. The delivery rate is 35 to 60 kilolitres p.h. The charge was (at April 1986) $Aus 7.00 per kilolitre.

FUEL: Fuel (and a wide range of lubricants) is available from:

Ampol Ltd, Locked Bag 1, P.O. Box Ermington, NSW 2115. Tel: (02) 858 8011, (02) 858 1088. Tlx: AA121325. Fax: (02) 858 2914. Grades: Marine Bunker Fuel Oil, 10-300 centistokes at 50°C. Light Marine Diesel Oil, 2.1-7.4 centistokes at 40°C. Gas Oil or Distillate, 2-5.8 centistokes at 40°C. Orders accepted 0700 to 1540 (Mon-Fri). 48 hours' notice.

BP Australia Ltd, P.O.Box 14, Milsons Point, NSW 2061. Tel: (02) 922 9451. Tlx: AA20311. Fax: (02) 959 4291. Grades: Interfuel – viscosity 38.2 centistokes at 40°C. Light Diesel Oil – viscosity 2.721 at 40°C. Orders accepted 0700 to 1400 (Mon-Fri). One week's notice.

Caltex Oil (Australia) Ltd, P.O.Box 3916, Sydney, NSW 2001. Tel: (02) 250 5000. Tlx: AA120244. Fax: (02) 27 6380. Grades: Marine Fuel Oil, 180 centistokes (max.) at 50°C. Marine Diesel Oil, 3.5 centistokes at 40°C. Distillate, 3 centistokes at 40°C. Orders accepted 0700 to 1630 (Mon-Fri). 36 hours' notice.

Mobil Oil Australia Ltd., P.O.Box 1592, Sydney, NSW 2001. Tel: (02) 817 0411. Tlx: AA20408. Fax: (02) 816 4563. Grades: Bunker Fuel, 32-130 centistokes at 40°C. Diesel Gas Oil, 3 centistokes. Orders accepted 0730-1600 (Mon-Fri). 48 hours' notice.

Shell Co. of Australia Ltd., P.O.Box 63, Parramatta, NSW 2150. Tel: (02) 682 8666. Tlx: AA177553. Fax: (02) 682 8667, (02) 78 8667. Grades: Marine Fuel Oil, 100 to 380 centistokes at 50°C. Light Marine Diesel Fuel, 1.8 to 5.8 centistokes at 40°C. Gas Oil (Distillate), 1.8 to 4.8 centistokes at 40°C. Orders accepted 0800 to 1630 (Mon-Fri). 48 hours' notice.

Delivery by pipeline at tanker berths. Delivery at other berths – heavy fuel by bunker barge only ("Amorena": minimum 150 tonnes, maximum per load 1,100 tonnes; "Esar Sydney": minimum 100 tonnes, maximum per load 1,500 tonnes); light fuel and lubricants (bulk or drummed) by barge or truck.

FIRE PRECAUTIONS: There are no additional requirements beyond those internationally practised.

CONSULS: The following countries maintain consulates in Sydney:

Argentina
Austria
Belgium
Brazil
Bulgaria
Canada
Chile
China
Colombia
Costa Rica
Cuba
Czechoslovakia
Denmark
Dominica
Ecuador
Egypt
Fiji
Finland
France
Germany F.R.
Great Britain
Greece
Honduras
Hungary
Iceland
India
Indonesia
Israel
Italy
Japan
Korea
Lebanon
Malaysia
Malta
Mexico
Morocco
Nepal
Netherlands
New Zealand
Norway
Pakistan
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Poland
Portugal
Romania
Seychelles
South Africa
Spain
Sri Lanka
Sweden
Switzerland
Thailand
Tonga
Trinidad and Tobago
Turkey
Uruguay
U.S.S.R.
U.S.A.
Yugoslavia

REPAIRS: Cockatoo Dockyard Pty. Ltd., Cockatoo Island, Sydney 2000. Tel: (02) 818 9201. Tlx: AA21883.

Jubilee Engineering Co. Pty. Ltd., P.O.Box 144, Balmain 2041. Tel: (02) 810 0115. Tlx: AA27418.

Storey and Keers Pty. Ltd., P.O.Box 93, Balmain 2041. Tel: (02) 810 0461. Tlx: AA20149.

Groom Bros. Pty. Ltd., 18 Munro St., North Sydney 2060. Tel: (02) 957 3855.

Cockatoo Dockyard is experienced in all types of repairs of steam, gas turbine and diesel machinery. Cockatoo provides extensive hull repair facilities; a machine shop for light, medium and heavy machinery; a "NATA" – registered metrology section; an electrical and electronic repair division; a hydraulics shop; a clean room (to 5 microns); water/grit blasting of hulls; metal bonding; shafting; general docking repairs and painting; slipping facilities for ships up to 400 tonnes. These services are available continuously.

Jubilee Engineering is experienced in the full range of ship repairs and general machinery requirements. Jubilee is a spare parts and service agent for most makes of engine. Jubilee's speciality is reconditioning of high cost diesel engine spare parts.

Storey and Keers is experienced in engine, structural and plumbing repairs, pipework, painting and cleaning.

Groom Bros. is experienced in hull and engine repairs, overhauls, pipe renewals and steel febrication.

DRY DOCKS: Sutherland Dock, Cockatoo Island – length 210 m.

Fitzroy Dock, Cockatoo Island – length 145 m.

Captain Cook Dock, Garden Island – length 347 m.

(Captain Cook Dock is a Naval facility, but is available to merchant ships).

SURVEYORS: Private cargo inspectors are available from many companies, including:

Name	*Telephone*	*Address*
Avdall and Bozier	(02) 29 6443	44 Margaret St., Sydney 2000
Capt. Downes and Assoc's	(02) 969 1444	8 Lavoni St., Mosman 2088
Gibson, Minto and Aiton	(02) 810 0501	c/o Patrick's Terminal Sommerville Rd., Glebe 2037
Marine Surveyors to Aust.	(02) 929 5967	30 Glen St., Milsons Point 2061.
Mathias and Assoc's	(02) 871 1026	1 Vickery Ave., Carlingford 2118
Oil Superintendence Aust.	(02) 389 8050	10 Denison St., Bondi Junction 2022
Pacific Marine Surveyors	(02) 94 3437	51 Jackson St., Balgowlah 2093
J. F. Rahilly and Assoc's	(02) 371 5505	20 Vaucluse Rd., Vaucluse 2030
Stuart Lye and Assoc's	(02) 94 7243	52 Cutler Rd., Clontarf 2093
Toplis and Harding	(02) 428 1477	46 Burns Bay Rd., Lane Cove 2066

The following classification societies maintain surveyors at the port:

Name	*Telephone*	*Telex*	*Address*
American Bureau of Shipping	(02) 231 6422	AA27122	168 Kent St., Sydney 2000
Bureau Veritas	(02) 27 5264	AA26352	69 Macquarie St., Sydney 2000
Germanischer Lloyd	(02) 957 6150	AA72081	56 Berry St., N. Sydney 2060
Lloyd's Register	(02) 29 6033	AA26164	44 Market St., Sydney 2000
Nippon Kaiji Kyokai	(02) 233 7751	AA71391	MLC Centre, Sydney 2000
Det Norske Veritas	(02) 922 1966	AA26447	77 Pacific Hwy., N. Sydney 2060

GANGWAY/DECK WATCHMAN: The owner of a ship secured at a shipping wharf is required to provide one watchman to maintain a continuous watch on the ship and the contained area in which the wharf is situated. The stevedoring companies are able to supply such watchmen. The approximate cost per day for a watchman was (in April 1986); normal days $Aus. 780; Sundays $Aus. 1140; Public holidays $Aus. 1310.

HATCHES: Hatches are normally opened and closed by ships' crew. However, if it is necessary to close hatches during loading in order to load containers on deck, the hatches are usually closed by wharf labour.

CUSTOMS ALLOWANCES: 200 cigarettes (or equivalent in tobacco products), and 1 litre of alcohol (opened) per crew member.

CARGO GEAR: Except as indicated under "Bulk Cargo Facilities" and "Specialised Cargo Handling Facilities" loading and discharging is by ship's gear. (also see "Cranes").

Lighters, of 100 to 400 tonnes capacity, are available from:

Harbour Lighterage Pty. Ltd., Oxley St., Glebe, NSW 2037. Tel: (02) 660 1922.

Stannard Bros. Launch Services Pty. Ltd., P.O Box 92, Balmain, NSW 2041. Tel: (02) 810 0537. Telex: AA20149. *Fax:* (02) 810 6114.

REPATRIATION: Full facilities are available for effecting crew changes and arranging any necessary repatriation.

AIRPORT: Sydney (Kingsford-Smith) Airport is 9 km. from the city centre. There are frequent flights to and from many national and international destinations, served by: Air India, Air New Zealand, Air Niugini, Alitalia, Ansett Airlines of Australia, Australian Airlines, British Airways, Cathay Pacific Airways Ltd., Continental Airlines, Garuda Indonesian Airlines, Japan Air Lines, KLM Royal Dutch Airlines, Lufthansa, Malaysia Airline System (MAS), Philippines Air Lines, Qantas Airways, Singapore Airlines, South African Airways, TWA Trans World Airlines, Thai International, UTA French Airlines and Yugoslav Airlines (JAT).

TIME: See "General" before first port.

HOLIDAYS: (Throughout New South Wales): January 1st*, (New Year's Day) January 26th*, (Australia Day); Good Friday and Easter Monday**; April 25th* (ANZAC Day); second Monday in June (Queen of Australia's Official Birthday); first Monday in August (Bank Holiday); first Monday in October (Labour Day); 25th December* (Christmas Day); 26th December* (Boxing Day).

*When any of these dates is a Sunday the next day (Monday) is a holiday. When 26th December is on a Monday the next day (Tuesday) is a holiday.

**Easter Day (the Sunday between Good Friday and Easter Monday) is generally the first Sunday after the first full moon after 21st March.

POLICE/AMBULANCE/FIRE: There are numerous stations around and adjacent to the port. The telephone number for all emergency services is 000 (tell the operator which service is required).

Both "Sydney Maritime" and "Harbour Control" (See "VTS/VHF") have direct lines to the emergency services. The Port Authority has an emergency service tug, with fire-fighting capability, on continuous standby. The Water Police service has patrol launches on continuous duty, and can summon helicopter assistance at short notice.

EMERGENCY CO-ORDINATION CENTRE: In the event of an emergency within the port appropriate contingency plans will be implemented by the port's Duty Harbour Master (for Marine emergencies) or the Police (for shore emergencies).

For marine emergencies beyond the port area the central authority (for the whole of Australia) is: Federal Sea Safety and Surveillance Centre, Canberra:

Tel: Reports and Enquiries (062) 47 6666 (toll-free).
"Ausrep" Enquiries (062) 68 7920.
Search and Rescue (062) 47 5244.
Telex: AA62349.
Fax: (062) 57 2036.

TELEPHONES: Telephones can be placed on board (by prior arrangement through ship's Agent) at all fixed berths owned by the Port Authority; at Snails Bay Dolphin Berths; and at most private berths. Telephones are not available at buoy berths, but VHF link calls can be freely made (even at fixed berths) by calling Sydney Radio on Channel 26 or Channel 23 (but check channel free before calling).

SERVICES: Sullage, garbage, and bilge slops disposal services are available. Shore Power (240V/15A/50Hz and 415V/30A/50Hz or 415V/60A/50Hz) is available at many fixed berths. Extension of certificates is possible. Many other services are available, including: compass adjusting; radio and radar repairs; charts and nautical publications; sounding and course recorder paper; Notices to Mariners (Australian, New Zealand, British, USA and Indian); and safety equipment.

BANKS: Almost 100 banks have branches or representative offices in the port, including the following (all addresses suffixed "Sydney NSW 2000")

Australia & New Zealand Banking Group Ltd., 20 Martin Place, Tel: (02) 227 1911. Telex: AA29800.

Australian Bank Ltd., 17 O'Connell St., Tel: (02) 264 8000. Telex: AA72253.

BNP Banking Group (Banque Nationale de Paris), 12 Castlereagh St., Tel: (02) 232 8733. Telex: AA20132.

Bank of America, 167 Macquarie St., Tel: (02) 221 1588. Telex: AA25041.

Bank of New Zealand, 333 George St., Tel: (02) 290 6666. Telex: AA23240.

Barclays International Australia Ltd., 25 Bligh St., Tel: (02) 233 6622. Telex: AA71237.

Commonwealth Bank, Cnr. Pitt St. and Martin Pl., Tel: (02) 238 3155. Telex: AA120345.

First National Bank of Boston, Qantas International Centre. Tel: (02) 241 1466. Telex: AA27087.

First National Bank of Chicago, 50 Bridge St., Tel: (02) 233 2875. Telex: AA23189.

Hong Kong Bank Group, 14 Martin Place, Tel: (02) 225 1888. Telex: AA24856.

Lloyd's Bank International Ltd., 35 Pitt St., Tel: (02) 239 5555. Telex: AA26115.

Midland International (Australia) Ltd., Cnr King and Clarence Streets, Tel: (02) 290 8800. Telex: AA24197.

National Australia Bank Ltd., 313 George St., Tel: (02) 239 0399. Telex: AA20300.

National Westminster Bank Ltd., MLC Centre, Tel: (02) 232 8744. Telex: AA24491.

Nordic Bank plc, AMP Centre, Tel: (02) 232 6866. Telex: AA26425.

Overseas Chinese Banking Corp. Ltd., 17 Bridge St., Tel: (02) 235 2022. Telex: AA74295.

Overseas Union Bank Ltd., 23 Hunter St., Tel: (02) 233 4211. Telex: AA75872

State Bank of New South Wales, 55 Elizabeth St., Tel: (02) 226 8000. Telex: AA74239.

Svenska Handelsbanken, 50 Bridge St., Tel: (02) 223 1866. Telex: AA72841.

Swiss Bank Corp, Australia Sq., Tel: (02) 251 1833. Telex: AA122270.

Westpac Banking Corp., 60 Martin Pl., Tel: (02) 226 3311. Telex: AA22891.

STORING: See "Prelims".

Ships can be stored by truck at all fixed berths, and by barge at all berths.

Dry cargo ships can take stores while the ship is working cargo; trucks and barges are permitted alongside. Tankers can also take stores while the ship is working cargo; barges are permitted alongside, but trucks are stopped at least 30 m. from the ship.

Fork-lift trucks are available only at dry cargo berths. Stores are normally loaded by ship's crew, but shore labour is available if required.

An "Application to Take on Board Ship's Stores" (Form 43) must be lodged with Customs by the ship's Agent. Once approval has been given by Customs, the Agent lodges an "Entry for Exportation of Customable and Excisable Goods" (Form B958) to allow goods to be delivered from bond.

SHIP SUPPLY SERVICE: Supply boats are provided by:

Stannard Bros. Launch Services Pty. Ltd., P.O.Box 92, Balmain, NSW 2041. Tel: (02) 810 0537. Telex: AA20149; Fax: (02) 810 6114.

A rendezvous point is arranged close outside the port entrance.

There is no advertised helicopter supply service available, but there are many helicopter operating companies who could provide such a service if requested. Arrangements can be readily made through "Sydney Radio" or "Sydney Maritime" (See "VTS/VHF") for a helicopter to evacuate sick personnel, or to place a doctor on board.

SHORE LEAVE: There are normally no restrictions on crew members' shore leave. Crew members are not required to carry identification documents while ashore (see "Identification Cards").

IDENTIFICATION CARDS: Under Section 23 of the Migration Act 1958/64, Masters of ships entering Australia from overseas are required to have in their possession an identity card (in an approved form) for each member of the crew (other than for crew members exempted as below). This provision is included in the Act to ensure that positive identification is available to Customs officers if a crew member deserts the ship. Cards can be prepared after arrival of the ship, but shore leave will be delayed until this has been completed (a photograph is required).

The following persons are not required to possess identification cards: citizens of Australia; citizens of New Zealand; Masters of all ships.

Citizens of the following countries need not complete identification cards, provided they possess a relevant Seaman's Identity Book or Discharge Book: Canada, Denmark, Fiji, Ghana, Hong Kong, India Israel, Italy, Japan, Malaysia, Norway, South Africa, South Korea, Pakistan, and United Kingdom.

All of the above documents must remain in the Master's custody at all times, and must be produced upon demand by Customs Officers.

REGULATIONS: There are regulations concerning oil, noise and smoke pollution; carriage and handling of dangerous goods; and safety. In the event of an alleged breach of such regulations the ship's Master may authorise the Agent (if agreeable) to accept any subsequent summons to appear in court on behalf of the Master; this avoids delaying the sailing of the ship.

DEVELOPMENTS: *Woolloomooloo:* All berths are scheduled for decommissioning in early 1987, and redevelopment as a yacht marina.

Sydney Cove: No. 7 has been demolished.

Walsh Bay: All berths have been permanently decommissioned and are to be redeveloped for non-port purposes.

Darling Harbour: No. 7 Darling Harbour has been decommissioned; No. 8 has been temporarily decommissioned for modernisation; No. 26 has been permanently decommissioned; all berths Southward of No. 26 have been demolished, and the area is being redeveloped for non-port purposes.'

Pyrmont: No. 8 has been temporarily decommissioned for refurbishment of amenities. No. 25 has been permanently decommissioned, and is being redeveloped for non-port purposes.

SHIPMASTER'S REPORT: December 1982.

Bulk Loading Facilities: The coal Berth at Sydney is No. 1 Balmain at the head of White Bay above Sydney Bridge. The berth was upgraded a year ago but is not ideal for Panamax vessels, mainly due to location and draft problems.

The coal comes to the dock by train and is transferred onto the loading belt. There are 2 loading heads and together can load at 20,000 tons a day. Air draft not known but is in excess of 15 m., which allows this vessel to berth with hold ballast out. Vessels berth head in, starboard side to so loaders can reach all hatches.

The amount a vessel can load is governed by the tide. Once a vessel is declared for a tide and loading is resumed she is committed to sail on that tide.

Tugs: 4 tugs required for sailing, these are certainly necessary as vessel has to come stern first down the dock before being able to swing off Peacock Point.

Draft Restrictions: The shallowest channel patch is off Miller's Point, approximately 45 minutes after unberthing.

Depth of Water at Load Berth: – 11.6 m.

Vessels must keep 0.3 m. below the keel at all times. This means that vessels can load at the berth to 11.3 m. plus prevailing low tide.

Depth of water in Channel – 12.2 m.

Vessels must have 10% of draft below the keel on sailing. For vessels loading in excess of 11.3 m. draft the prevailing tide will have to be taken into consideration for both loading at the berth and sailing. Vessels completing on a tide must ensure that once past LW they sail on that tide.

For *guidance only* I have set out below a list showing berth and channel drafts against the prevailing tide. Please ensure that the Berthing Master gives his approval of the draft prior to vessel advising other Parties.

Tide (m.)	*Max. Berth Draft* (m.)	*Channel Depth* (m.)	*Max. Depart. Draft* (m.)	*10% under Keel* (m.)
1.0	12.3	13.2	12.00	1.20
1.1	12.4	13.3	12.09	1.21
1.2	12.5	13.4	12.18	1.22
1.3	12.6	13.5	12.27	1.23
1.4	12.7	13.6	12.36	1.24
1.5	12.8	13.7	12.45	1.25
1.6	12.9	13.8	12.54	1.26
1.7	13.0	13.9	12.64	1.26
1.8	13.1	14.0	12.73	1.27
1.9	13.2	14.1	12.82	1.28
2.0	13.3	14.2	12.91	1.29

AUTHORITY: The Maritime Services Board of New South Wales, Port of Sydney Division. Postal address: P.O.Box 32, Sydney, N.S.W. 2001. Office address: 12th Floor, Gold Fields House, 1 Alfred Street, Sydney. *Tel:* (02) 240 2111. *Telex:* 72046 Msbspt. *FAX:* (02) 27 7892. *Contact:* Harbour Master, Port of Sydney. (See also under "VTS/VHF" for details of Port Operations Centre numbers).

AGENT: *Head Office:* Patrick Agencies, P.O.Box 3918, Level 11, C.B.A. Centre, 60 Margaret Street, Sydney, N.S.W. 2000. Tel: (02) 233-6722. Telex: AA. 20618. FAX: (02) 251-1158. Cables: Rikpat.

THEVENARD, S.A.: 32.09 S. 133.39 E. (See Plan)

PORT LIMITS: As marked on Chart AUS. 1200 (Approaches to Thevenard).

DOCUMENTS: All documents necessary for first entry vessels are as for other Australian ports (i.e. Customs, Health, etc.).

PILOTAGE: Compulsory. Pilots board approximately 2 miles seaward of Entrance Beacon (3 miles seaward of No. 1 Light Beacon). Pilot vessel "Eyre" 15 m. LOA orange hull and yellow superstructure. "Pilot" in black on superstructure. Vessels awaiting Pilot for extended periods should anchor approx. 235° – 4 miles from Entrance Beacon. Vessels approaching pilot station should take care not to approach the Entrance Beacon before Pilot has boarded owing to restricted sea room.

ANCHORAGES: Outer Anchorage as above. Inner Anchorage for vessels awaiting berth available in Murat Bay. This is a safe anchorage for several vessels at one time, with good holding ground. Pilotage is necessary to Inner Anchorage.

RESTRICTIONS: Daylight berthing only. Sailing at any time. Sailing times depending on tide. Tides may be greatly effected by prevailing weather conditions – adverse weather can cause a large depression below the predicted height. Channel depth 8.2 m. (27 ft.) LW. There is a minimum depth of 5.5 m. (18 ft.) in the swinging area off the berths.

MAX. SIZE: LOA 180 m., beam dependent on LOA as determined by Suez Canal formula.

Arrival drafts: As vessels are permitted to discharge clean ballast whilst alongside, drafts should be as follows: Fore: 2 m. (min.). Aft: 6 m. (max.).

HEALTH: Radio Pratique available within 24 hours of arrival providing sufficient information is supplied. Quarantine/Health Officer will still board vessel in order to grant formal Pratique. Vessels arriving direct from other Australian Ports have Automatic Pratique, but Health Officer will still attend the vessel on arrival.

RADIO: ETA messages for Agents, Harbour Master, etc. may be routed through any Australian coastal radio station, the closest being Adelaide Radio (VIA), not less than 24 hours prior to arrival.

VHF: Channels available: 16, 12, 8, 6 and 67.

Channel 16 used for general call up, and Channel 6 usually used for Port operations. Call Sign: Thevenard Port Control. Hours of operation: Monday to Friday 0845 – 1700 hrs. except Public holidays, or by arrangement.

TUGS: One tug of 11.4 tonnes bollard pull (650 h.p.), "Wandana".

BERTHING: Berth dimensions: Length 198 m. (650 ft.). Width 30 m. (100 ft.). Draft subject to keel clearance of 0.76 m. (2 ft. 6 in.) for vessels up to 8.2 m. (27 ft.) draft, and 0.91 m. (3 ft.) for vessels over 8.2 m. (27 ft.) draft. One wharf, 2 berths, depth alongside 9.8 m. (32 ft.). Head in or head out berthing dependent on prevailing weather conditions at time of berthing.

CRANES: Nil.

BULK CARGO FACILITIES: Movable gantry and conveyor bulk loading plant. Single loading spout for each berth, however loading of only one vessel at a time is possible. The plant will be manned on a two shift basis for 24 hours, with overtime as necessary for vessels loading gypsum or salt, and from 0800 hrs. to 2300 hrs. (two shifts), overtime as required. Grain loading possible from 0800 hrs. – 2300 hrs. every day of the week.

Bulk Handling Plant Rates: Wheat 400/450* tonnes per hour. Oats 200 tonnes per hour. Barley 480 tonnes per hour. Gypsum 900 tones per hour. Salt 800 tonnes per hour.

*Dependent on which silo grain is taken from.

SPECIALISED CARGO HANDLING FACILITIES: None.

BRIDGES: None.

STEVEDORES: Ordering of labour organised through Agents and Grain Handling Authority. Loading rates as above.

MEDICAL: Two private medical practices available (2 Doctors). Also two dental practices. District hospital located at Ceduna (distance 4 km.). Ambulance service also available, with connecting air ambulance service for transport to Adelaide, if necessary. Vaccination certificates as for all Australian ports.

TANKERS: No tanker facilities.

DENSITY: Average density 1027 – 1028.

FRESH WATER: Available at 20 tonnes per hour.

FUEL: Diesel oil available from permanent bunkering facility. Fuel oil available by road tanker providing sufficient notice is given of requirements (approximately 10 days).

FIRE PRECAUTIONS: Usual precautions necessary, having in mind danger of grain dust. Local Fire Brigade available. International shore connection should be connected.

CONSULS: None.

REPAIRS: Minor repairs possible.

DRY DOCKS: None.

SURVEYORS: (1) Cargo Surveyors available – will be arranged by Agents as required.

(2) Lloyd's Surveyor should be organised through principal Agents. Lloyd's Agent is at Port Adelaide.

Other Classification Society Surveyors also available in Australia with sufficient notice to Agents. None resident at Thevenard.

GANGWAY WATCHMEN: All vessels, regardless of nationality, must employ shore based Watchman, on shift basis, during any periods the vessel is not, or is unlikely to be, loading. Approx. cost $9.75 per hour plus overtime penalties.

HATCHES: Opening and closing by ship's crew.

CUSTOMS ALLOWANCES: Normal Australian allowances.

CARGO GEAR: Bulk loading only.

REPATRIATION: Can be achieved. Arrangements should be made through ship's Agent.

AIRPORT: 7 km. to airport. Kendell Airlines, 6 flights per week. 16 seater aircraft. Charter flights can be arranged.

TIME: See "General" before first port.

HOLIDAYS: New Year's Day; Australia Day (January); Good Friday; Easter Monday; Anzac Day (April); Adelaide Cup Day (May); Queen's Birthday (June); Labour Day (October); Christmas Day and Proclamation Day (December 26th)

The bulk loading plant operates on all public holidays except Good Friday and Christmas Day.

POLICE/AMBULANCE/FIRE: Police Tel: 252001. Ambulance Tel: 252404. Fire Tel: 252000.

EMERGENCY CO-ORDINATION CENTRE: "Coastwatch" (Australian Coastal Surveillance Organisation) free telephone call from all Australian ports by STD or reverse charge (062) 475244.

TELEPHONES: Telephones placed aboard ship on arrival. Cost approx. $40.00 plus $1.50 per day rental.

SERVICES: Tank and hold cleaning facilities available.

BANKS:

Australia and New Zealand Banking Group Ltd., Poynton Street, Ceduna, S.A. 5690. Tel: 252202.

State Bank of South Australia, Poynton Street, Ceduna, S.A. 5690. Tel: 252060.

Westpac Banking Group, Ponyton Street, Ceduna, S.A. 5690. Tel: 253000.

STORING: See "Prelims".

1. By truck.
2. —
3. Wharf access available for trucks.
4. Wharf access available for fork lifts.
5. Normal Customs Bond Regulations apply.
6. Labour available for storing.

SHORE LEAVE: No restriction.

IDENTIFICATION CARDS: Normal Australian ID cards necessary, but not required to be carried ashore.

REGULATIONS: No unusual regulations.

DELAYS: May be experienced due to awaiting tide or awaiting loading of other vessels during periods of heavy shipping.

AUTHORITY: Department of Marine & Harbours, Thevenard, S.A. 5690. *Tel:* (086) 252077. *FAX:* (086) 253100. *Contact:* Captain J.G. Ball, Harbour Master.

Department of Marine & Harbours, P.O.Box 19, Port Adelaide, S.A. 5015. *Tel:* 47-0725. *Telex:* 82525. *Cables:* Harbors. *Contact:* Captain D. Malcolm.

AGENT: Sub-Agents of Patrick Agencies, Adelaide.

THURSDAY ISLAND, Queensland: 10.35 S. 142.13 E.

(See Plan)

DOCUMENTS/HEALTH: See "Melbourne".

PILOTAGE: Pilotage compulsory. ETA 24 hrs. before arrival stating max. draft and direction from which vessel arriving to: Harbour Master, Thursday Island. Further amended ETA if necessary prior to arrival. Pilot boards 1 mile South of Goods Island or Scott Rock Buoy as required. Harbour Master will advise boarding ground after receipt of max. draft and direction from which vessel arriving. Pilot vessel white hull, orange top, flying pilot flag. Vessel awaiting Pilot to anchor West of Black Rock in Normanby Sound or off Scott Rock.

Also see "Torres Strait".

ANCHORAGE: West of Black Rock in 5.5 fathoms. Nurses' Home over shoulder of Black Rock 098° (T) with two white beacons S.E. side Goods Island in line 005° (T).

RESTRICTIONS: Daylight movements only. Draft restricted to 23 ft. (7.01 m.) LWOST.

RADIO: Thursday Island "VII" via telex to Harbour Master's office, for ETA's etc. Thursday Island Radio maintains continuous VHF watch on Channels 16 and 67.

VHF: Call sign "Thursday Island Harbour". Listening watch during working hours. Channels 67, 16, 12 and 6.

Torres Straits Pilots on VHF Channels 16 & 12. Pilot vessel on VHF Channels 16 and 6. Call sign "Reef Pilots". Watch maintained when vessels are expected.

RADAR: None.

TUGS: No tugs.

BERTHING:

Wharf	Length (m.)	Depth (m.)
Main	30.0	4.00
Engineers	27.5	4.20
Caltex	22.9	5.50
Horn	12.5	4.00

There are barge ramps at Main Wharf and Horn Island Wharf.

CRANES: None.

STEVEDORES: 0800 hrs., pick up for day work. 1000 hrs., notice for night work. 1600 hrs., Friday notice for week-end work. Mainly general cargo handled. Approximately 8 t.p.h.

MEDICAL: Notice of required medical attention with ETA message to Harbour Master. Hospital, four doctors available. Vaccinations etc., as per Commonwealth of Australia requirements.

DENSITY: Salt at all states of tide.

FRESH WATER: Available in limited quantities most of the year.

FUEL: Bulk distillate available at Caltex Jetty, approx. 20 t.p.h.

GANGWAY/DECK WATCHMEN: Crew member on gangway sufficient.

OPENING/CLOSING HATCHES: By Stevedores.

CERTIFICATES: Normal Commonwealth of Australia requirements. See "Melbourne".

CONSULS: Nil.

REPAIRS: Deck and engine repairs, excluding large castings.

REPATRIATION: Available.

AIRPORT: Airport on Horn Island, 2 miles by launch, 4 miles by bus. Seven flights per week. Air Queensland regular airline. Private charter plane available.

TIME: See "General" before first port.

HOLIDAYS: Normal Queensland Public Holidays. No cargo can be worked on Christmas Day, Good Friday, Anzac Day.

POLICE/AMBULANCE: Police 69 1520. Ambulance 69 1501.

TELEPHONES: STD facilities available with several public boxes available on the island.

SERVICES: Garbage disposal. Apply to Harbour Master.
DELAYS: As wharf space limited and berthing is on a "first come, first served" basis, delays vary with amount of shipping.
AUTHORITY: Harbours Corporation of Queensland, Department of Harbours and Marine, P.O.Box 109, Thursday Island, Queensland 4875. *Tel:* (070) 691405. *Telex:* Harti 48869. *Cables:* Harbourmaster T.I. *Contact:* Captain D. L. Jones, Harbour Master.

AGENT: Sub-agent of Patrick Agencies, Brisbane.

TORRES STRAIT:

PILOTAGE SERVICES: Licensed pilots of the Queensland Coast and Torres Strait Pilot Service are available for Torres Strait, the Inner Route of the Great Barrier Reef, the Great North East Channel and the reef entrances at Hydrographers Passage, Palm Passage and Grafton Passage.

In addition, pilots are available for pilotage through China Strait and Raven Channel in Papua New Guinea and also Clarence Strait near Darwin, by arrangement with the Sydney office.

I.M.O. RECOMMENDATION ON PILOTAGE: The attention of Masters is drawn to the IMO recommendation on pilotage in Great Barrier Reef waters, which recommends that:

> *...ships of 100 metres in length and over, and all loaded oil tankers, chemical carriers or liquefied gas carriers, irrespective of size, use the services of the Queensland Coast and Torres Strait Pilot Service when navigating in the Torres Strait and Inner Route of the Great Barrier Reef between Booby Island and Latitude 16° 40′ S., or through the Great North East Channel or Hydrographers Passage.*

AUSTRALIAN GOVERNMENT RECOMMENDATION ON PILOTAGE: The attention of Masters is also drawn to an additional recommendation by the Australian Government that Masters unfamiliar with the other areas of the Great Barrier Reef not included in the I.M.O. recommendation, which includes Palm Passage and Grafton Passage and extends to all vessels using Hydrographers Passage irrespective of size, take a Pilot.

BOARDING STATIONS:

TORRES STRAIT:
Booby Island – Lat. 10° 36′ S., Long. 141° 51′ E.
Goods Island – Lat. 10° 34′ S., Long. 142° 06′ E.

QUEENSLAND COAST:
In any port or at the following offshore stations:

Brisbane	Pt. Cartwright – Lat. 26° 43′ S., Long. 153° 11′ E.
Gladstone	North Point – Lat. 23° 44′ S., Long. 151° 22′ E.
Whitsunday Region	Edward Island – Lat. 20° 52′ S., Long. 149° 10′ E.
Cairns	Cairns Fairway – Lat. 16° 50′ S., Long. 145° 50′ E.

Note: Masters of ships transiting the Inner Route to or from New Zealand or Southern Australian ports are advised that a facility now exists to board and land pilots by helicopter off Edward Island in the Whitsunday Region (see above). The boarding ground lies on the direct track outside the Whitsunday Passage and involves no deviation.

BARRIER REEF ENTRANCES:

Hydrographers Passage	Blossom Bank – Lat. 19° 47′ S., Long. 150° 24′ E.
Palm Passage	Pith Reef – Lat. 18° 13′ S., Long. 147° 07′ E.
Grafton Passage	Euston Reef – Lat. 16° 39′ S., Long. 146° 14′ E.

GREAT NORTH EAST CHANNEL:
Port Moresby Basilisk Beacon – Lat. 9° 34′ S., Long. 147° 06′ E.

NORTHERN TERRITORY:
At or outside the ports of Darwin, Gove and Groote.

NEW SOUTH WALES:
At or outside Port Kembla, Botany Bay, Sydney or Newcastle.

ANY OTHER PLACE:
By arrangement with the Sydney office.

PILOT TRANSFER METHOD: Pilot transfers are conducted by launch in all areas except Hydrographers Passage (Blossom Bank) and Whitsunday (Edward Island) where a land-on helicopter only is used, and at Palm Passage (Pith Reef) where a land-on helicopter or launch is used, depending on the vessel's suitability.

In other boarding areas, and subject to aircraft availability and the suitability of the ship, transfers by land-on helicopters may be possible and Masters should request this service when ordering a pilot through the Sydney office.

MAXIMUM DRAFT AND UNDER-KEEL CLEARANCE: The Queensland Coast and Torres Strait Pilot Service will accept for pilotage through Torres Strait, the Inner Route and Great North East Channel ships with a maximum draft of 12.2 m.

GANNET PASSAGE (BOOBY ISLAND) & PRINCE OF WALES CHANNEL: Gannet Passage and the Prince of Wales Channel, as the main tidally restricted areas, control the passage of deep draft vessels. Throughout this area, which extends for some 30 miles from Gannet Passage, through the Prince of Wales Channel and to the Herald Patches Buoy, the following minimum Under Keel Clearances (UKCs) apply:

Drafts	*Gannet Passage*	*P.O.W. Channel*
up to 11.89 m.	1.0 m.	1.0 m.
11.89 m. up to 12.2 m.	1.0 m.	10% of draft

Masters of deep draft vessels are advised that speed reductions may be necessary while transiting Torres Strait.

Tide Gauges: Radio-transmitted tide gauges operate from Booby Island, Goods Island, Turtle Head and Ince Point. These gauges can be monitored throught a vessel's transit to ensure an adequate UKC is maintained.

The tidal information in Torres Strait is continuously recorded and periodically updated. Check Hydrographic Surveys are also periodically carried out by the Royal Australian Navy Hydrographic Service.

Investigations are being undertaken (1988) to ascertain if in the future it will be possible to accept for pilotage vessels of a deeper draft than 12.2 m. Advice about any increase in maximum draft will be promulgated in Notices to Mariners and other nautical publications.

TO ORDER A PILOT:

TORRES STRAIT:
South and East Bound via Inner Route or Great North East Channel: Five days prior to arrival – Advise *Torres Sydney* the ETA and boarding ground required (Booby or Goods Island), the maximum draft, and destination.

24 hours and 6 hours prior to arrival – Advise *Torind – Telex AA148822 Thursday Island,* confirming ETA.

Masters should keep in mind when advising of any changes in ETA that pilot launches are based at Thursday Island and take 2 hours for the trip to Booby Island and one hour to Goods Island.

Masters of deep draft vessels will receive advice from *Torind* advising them when predicted tidal conditions will permit a transit of Gannet Passage and the Prince of Wales Channel on the day of arrival.

Northbound via the Inner Route: If in an Australian port – instruct the Agent to arrange a Pilot with the Sydney office, giving as much notice as possible, advising the departure port, ETD, the ship's maximum draft and destination.

If from an overseas port and requiring a pilot at any offshore pilot boarding ground – 5 days prior to arrival advise the Sydney office of ETA at the nominated boarding ground, maximum draft and destination.

This message will be acknowledged by Sydney office and Masters will be advised of future ETA update requirements.

Westbound via Great North East Channel: Five days prior to arrival at Basilisk Beacon (off Port Moresby) – Advise the Sydney office of ETA, maximum draft and destination.

This message will be acknowledged by Sydney office and Masters will be advised of future ETA update requirements.

HYDROGRAPHERS PASSAGE (See also "Hay Point"): Four days prior to arrival at Blossom Bank – advise the Sydney office of ETA, maximum draft, destination and confirm suitability for land-on helicopter transfer.

24 hours and 6 hours prior to arrival – Advise *Torres Mackay* or *Hamres Telex AA148516 Hamilton Island* confirming or amending the ETA.

PALM PASSAGE: Five days prior to arrival at Pith Reef – Advise the Sydney office of ETA, maximum draft and destination.

This message will be acknowledged by Sydney office and Masters will be advised of future ETA update requirements.

GRAFTON PASSAGE: As for Palm Passage.

COMMUNICATIONS:

RADIO MESSAGES: ETAs should be given in local time (UTC + 10 hours for Queensland and Papua New Guinea, UTC + 9.5 hours for the Northern Territory).

All messages addressed to *Torres Sydney* will be acknowledged.

VHF: Pilot launches and helicopters used by the Service keep a listening watch on Channel 16 when on station. In the Cairns area the Service maintains a long-range VHF/UHF watch on Channel 20. At Hydrographers Passage ships will be asked to change to Channel 9 after initial contact is made on Channel 16.

The call sign for Service launches and helicopters is "Reef Pilots".

Vessels approaching Torres Strait from the West should make contact on Channel 16 with the Thursday Island base pilot station when 10 miles West of Booby Island. After initial contact the working channel is Channel 12.

INTERNATIONAL RADIO WATCH HOURS: All vessels are requested to maintain International Radio Watch hours when between Carpentaria Light Vessel and Gubbins Reef in the Inner Route or Bramble Cay in the Great North East Channel, (see Australian Notice to Mariners No. 415/1975). A continuous VHF watch on Channel 16 should be maintained over the same area in accordance with the SOLAS 74 requirements (Chapter IV Reg. 8, as amended 1981).

REFERENCES: Australian Pilot, Vol. 3, 1973; pp 81 & 234-237.

Australian Notices to Mariners Nos. 138/1970, 415/1975, 37/1978.

AUTHORITY: The Queensland Coast & Torres Strait Pilot Service, 11th Floor, 66 King Street, Sydney, N.S.W. 2000, or, G.P.O. Box 1573, Sydney, N.S.W. 2001. *Tel:* (02) 292125. *Cables:* "Torres Sydney". *Telex:* Torres AA 120269. *FAX:* (02) 2903513. *Contact:* Norman R. Rogers, or Stephen Radford or Perry Sutton (Secretaries).

TOWNSVILLE, Queensland: 19.15 S. 146.50 E.

(See Plan)

PORT LIMITS: *Jurisdiction:* The Townsville Port Authority exercises jurisdiction over the Port of Townsville.

Commencing at the HW mark at the most Northern extremity of Cape Cleveland, thence by a line to a point Lat. 19° 05′ 30″ S., Long. 146° 52′ E., thence by a line due Westward to 146° 45′ E., thence by a line due South to HW mark at a point on the mainland, thence by HW mark to the point of commencement and including all navigable rivers communicating with that area and the banks and shores and foreshores thereof.

The Harbour Master, representing the Department of Harbours and Marine, controls the movement of vessels within the port area whilst the allocation of berths and moorings is controlled by the Port Authority.

APPROACHES: The approach to Cleveland Bay from the Southward is clear of dangers, with the exception of Salamander Reef, the Four-foot Rock, and the Twenty-foot Rock, all these lying within a radius of 3 miles of Cape Cleveland Lighthouse.

To clear these dangers, passing North of them bring Mount Marlow in transit with the extremity of Hawkings Point, bearing 265° (258° Mag.) before approaching within 5 miles of Cape Cleveland, which will then bear 252° (245° Mag.). Proceeding into Cleveland Bay a depth of not less than 8.2 m. will be obtained by keeping North of the line Mount Marlow in line with Hawkings Point.

Approaching Cleveland Bay from the Northward, passing East of Magnetic Island a vessel should keep at least half a mile off Magnetic Island shore to obtain not less than 11 m. of water at LWOST. The shore is steep to except for Orchard Rocks off the N.E. extremity of the island.

There is good holding ground everywhere in Cleveland Bay and vessels awaiting Pilot should anchor according to draft and as close to the Fairway Beacons as possible.

ENTRANCE CHANNELS: Depth in the 92 m. wide entrance channels, which are marked by ten pair of lighted beacons, is 10.3 m. LWD.

The Sea Channel is 1.75 miles in length and Platypus Channel 3.5 miles; the channels alter in direction at No. 4 Beacon.

DOCUMENTS: *Customs:*

3 Crew Lists – Form M & S–11.
3 Passenger Lists, if applicable.
3 Lists of Ports of Call.
1 Form 42A – Ship's Stores.
1 Form 5 – Articles Owned by or in the possession of Master, Officers and Crew.
1 Form QA4 – Quarantine Notice.
2 Forms QA5 – Quarantine Shipmaster's Bond.
2 Inward Manifests.
1 Bill of Lading.
1 Form 40 – Application for Clearance and Guarantee to Pay Duty.

PILOTAGE: Unless a Master is the holder of a Current Certificate of Exemption, pilotage is compulsory and vessels requiring the service should cable draft and probable time of arrival to their Agent, or to Harbour Master, Townsville, from their last port of departure, or advise by radio at least 24 hours before arrival (Telex: Hartow 47124).

The pilot vessel is equipped with VHF Radio, having international frequencies 16 and 67 and all working frequencies.

Vessels are boarded within one half-mile of Fairway Beacons, but for vessels within draft of less than 7.5 m., pilots prefer to board about a half mile East of No. 6 Beacon, off the Platypus Channel entrance.

Coastal and Reef Pilotage: Pilotage through the Inner Route of the Great Barrier Reef to Torres Strait, and also Palm Passage, is conducted by licensed pilots of the Queensland Coast and Torres Strait Pilot Service. See "Torres Strait" for details.

ANCHORAGES: Boundaries: Orchard Rocks/Cape Cleveland. Cleveland Bay Depths 8.2 m. to 12.2 m.

RESTRICTIONS: There are no restrictions on the movement of vessels, provided under keel clearance of 0.9 m. is maintained. Under keel clearance of 0.6 m. is required at all times when the vessel is made fast to a berth.

Harbour Depths:

Sea Channel	10.9 m.
Platypus Channel	10.3 m.
Deep Draft Swing Basin, to Berths 1, 2 and 3	10.5 m.
Swing Basin, to Pier Berths and No. 4	9.5 m.
*No. 1 (Tanker) Berth	11.4 m.
*No. 2 Berth	10.8 m.
*No. 3 (Portainer Crane only) Berth	11.0 m.
No. 3 (including Ro-Ro) Berth	11.0 m.
*No. 4 (General Cargo and Ro-Ro) Berth	10.1 m.
*No. 6 (East Side, General Cargo) Berth	7.2 m.
*No. 7 (West Side, Minerals) Berth	10.7 m.
*No. 8 (East Side, Freezer) Berth	9.8 m.
*No. 9 (West Side, Bulk Sugar Gantry) Shed	10.2 m.
No. 10 (Container/Ro-Ro Berth)	7.2 m.
Between Nos. 4 and 6 (77 m.)	5.8 m.
Between Nos. 7 and 8 (84 m.)	7.7 m.
Between Nos. 9 and 10 (142 m.)	8.0 m.

* Depths at 4.5 m. off fender piles.

MAX. SIZE:

Berth No.	*Length*	*Max. Length of Vessel*	*Wharf Deck Above Datum*
1	274 m.	238 m.	5.18 m.
2	256 m.	238 m.	5.79 m.
3	256 m.	238 m.	5.79 m.
3	Ro/Ro pad	—	4.81 m.
4	247 m.	238 m.	5.18 m.
4	Ro/Ro pad	—	4.81 m.
6	122 m.	160 m.	5.09 m.
7	183 m.	195 m.	5.09 m.
8	213 m.	220 m.	5.49 m.
9	230 m.	228 m.	5.49 m.
10	160 m.	152 m.	4.99 m.

Generally, the limit in size of vessels entering the harbour will be 238 m. in length and 34 m. beam. Large vessels will only be taken into No. 4 Berth on condition that no vessels are berthed at No. 3 Berth closer inshore than mark No. 18 on arrival and mark No. 16 on departure and that a vessel berthed at No. 6 Berth is shoreward of No. 4 mark on both arrival and departure of a vessel at No. 4 Berth.

When tankers of over 213 m. in length are being berthed at No. 1 Berth, no vessel at No. 2 Berth is to be seaward of mark No. 33.

Decking of all wharves is between 4.81 m. and 5.79 m. above datum.

Largest Single Cargo: Inward 56,506 tonnes of bulk oil. Outward, 43,772 tonnes of raw sugar.

Deepest draft vessel, 12.04 m. Longest vessel, 261.15 m. Largest vessel (Tanker) 85,180 d.w.t.

HEALTH: *Pratique:* Townsville is a First Port of Entry and notification of quarantine inspection requirements should be made not more than 24 hours nor less than 12 hours in advance. Inspections may be carried out at all hours at the wharf or at the quarantine anchorage, at the discretion of the Quarantine Officer. Rat guards are to be maintained on all mooring lines while vessels are berthed in the Townsville Harbour.

RADIO: Townsville Radio. The Port Radio Station "Townsville Harbour" keeps continuous watch on VHF Channel 16. Working Channels 6 and 12.

VHF: Continuous watch maintained on Channel 16. Call sign "Townsville Harbour". Channels 6 and 12 also available.

TUGS: Under licence from the Authority, North Queensland Marine Towage Pty. Ltd., operates 2 tugs, one with 26.5 tonnes and one with 28 tonnes bollard pull, which are available to shipping at all hours. Additional tugs, if required, may be brought from neighbouring ports. Tugs are equipped with VHF and SSB radios.

The necessity to use tugs is at the sole discretion of the Harbour Master, and depends upon the vessel size, draft and the berth being occupied.

BERTHING: Cargo Handling:

No. 1 Berth (isolated) is used exclusively by tankers for bulk oil discharge and by all types of vessels for bunkering.

No. 2 Berth (Eastern Breakwater) is a general purpose wharf and is designated "Special Berth" for certain cargoes. The berth is equipped with 25.4 tonne, 32 m. radius travelling jib crane for container and unit load handling.

No. 3 Berth (Eastern Breakwater) is equipped with a container crane which is leased to Townsville Transport & Services Pty. Ltd. and is operated and controlled by Northern Shipping & Stevedoring Pty. Ltd. Both of these companies are part of the M.I.M. Holdings Group. The crane has lifting capacity of 55.9 tonnes and its equipment includes an extendable spreader to suit all sizes of containers, a grab of 7.6 cu.m. capacity and a heavy lift hook. Maximum height of lift above wharf deck is 27 m. whilst the outreach over rail and road services is 23.77 m. Distance between bogies is 32.61 m. The crane traverses the full length of Berth No. 3. A recently constructed landing pad at the berth allows simultaneous use of the container crane and stern angle ramp for Ro/Ro traffic.

No. 4 Berth (Eastern Breakwater) has a landing pad, supported by steel piling, to service stern angle ramp Ro/Ro vessels. The molasses pipeline to this berth is capable of loading up to 400 tonnes p.h.

No. 6 Berth (No. 1 Pier E.) is a general purpose berth with oil bunker pipe-line facilities.

No. 7 Berth (No. 1 Pier W.) supports a bulk shiploader through which passes mineral concentrates, phosphate rock and ores up to 102 mm. aggregate at the rate of 1,000 t.p.h. The berth is also equipped with bulk molasses loading pipe-line facilities.

No. 8 Berth (No. 2 Pier E.) services the export frozen beef trade with cargoes drawn from freezer stores erected on the pier. It also serves as a general purpose berth.

No. 9 Berth (No. 2 Pier W.) is the raw sugar loading berth. A bulk shiploader delivers sugar to carriers at the rate of 1,500 t.p.h.

No. 10 Berth (A.N.L. Ro/Ro Berth) is equipped with a stern ramp for Ro/Ro traffic.

Wharf Sheds: No sheds are available for general cargo storage at the Port. Both free and bonded warehousing is available within 4 km. of the wharves.

Storage Facilities: Oils – All major Oil Companies operate ocean terminals close to the Port.

Raw Sugar – 2 storage sheds of 285,000 tonnes total capacity.

Molasses – 3 bulk storage tanks of 35,000 tonnes total capacity.

Concentrates – 115,000 tonnes covered storage area.

Frozen Meat – 2 cold stores on Berths No. 8 and 9, total capacity 2,500 tonnes.

Open space storage for Rock Phosphate, Sulphur, Crude Lead and Refined Copper.

Container Terminals: No. 3 Berth, with an area of 1.2 hectares, has storage accommodation for 184 dry containers.

No. 10 Berth, with an area of 2.6 hectares, can accommodate 400 containers, 18 of which may be connected to refrigeration power outlets.

Northern Shipping and Stevedoring Terminal with an area of 1.6 hectares has a holding capacity of 160 refrigerated containers and 400 dry containers.

Container Terminals work 24 hours per day, seven days per week to effect speedy turn around of shipping.

STEVEDORES: *Port Labour:* The Waterside Worker labour strength is currently 89 men plus a supplementary force of aproximately 47 men.

Working Hours: Shifts are worked as follows:

Monday, Friday and Sunday:	Midnight to 0700 hrs.
	0800 hrs. to 1500 hrs.
	1600 hrs. to 2300 hrs.
Saturday:	0800 hrs. to 1200 hrs.

(Only use twilight shift (1600 hrs. to 2300 hrs.) for container ships if in Port).

All above shifts can be extended 2 hours to finish. On Saturdays 3 full shifts can be worked in accordance with local agreement.

MEDICAL: Advance notice not particularly required unless urgent assistance required. Hospital facilities available. Health book inspected by boarding doctor.

TANKERS: Diameter of load/discharge lines: white fuel 10 in., black fuel 12 in. No residue discharge facility available. One tanker at berth at any time. Max. permitted draft at berth 31 ft.

DENSITY: Average density 1025 at all times.

FRESH WATER: Fresh water is available at all berths.

FUEL: Bunker fuel oil and distillate is available through pipe-lines at Berth Nos. 1, 6 and 7. Road tankers are used to bunker small ships at other berths.

FIRE PRECAUTIONS: *Fire Fighting Equipment:* Throughout the Port there are 19 hydrants in conspicuous red boxes which are connected to flaked hoses with spray nozzles. The opening of a hydrant automatically brings an electric pump into operation.

The various oil terminals at Townsville have a stock of over 14,900 litres of foam additive.

Tankers required to have safety fire wires lead off fo'c's'le head and run as far aft as possible. Vessels are at all times to be capable of manoeuvring with main engines.

DRY DOCK: *Ship Repair:* A slipway situated on the Eastern side of Ross Creek is capable of accommodating vessels up to 67 m. in length and 1,525 tonnes deadweight. A modern ship repair workshop is attached which has a lathe for shafts up to 7.2 m. in length.

GANGWAY/DECK WATCHMEN: This service is arranged through the ship's Agent.

OPENING/CLOSING HATCHES: Optional for either crew or stevedores.

SHIP'S CERTIFICATES:

Passenger Ship Safety.
International Load Line.
Ship Safety Construction.
Ship Safety Equipment.
Ship Safety Radiotelegraphy.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes or 250 grams tobacco on arrival and then can be purchased by the packet from bar on board. Wine and/or spirits: 1 opened bottle (26 oz.) spirits or wine on arrival and then spirits by the glass and wine by the bottle, from the bar on board.

CARGO GEAR: Australian Navigation Department requirements.

REPATRIATION: Full facilities exist for effecting crew changes and arranging repatriation.

AIRPORT: Townsville Airport is located 6.5 km. from the city, and two major airlines each operate four services daily to Brisbane with connecting flights to other State capitals.

TIME: See "General" before first port.

HOLIDAYS: Cargo can be worked on all holidays except Christmas Day, Good Friday, Anzac Day, Labour Day and the Waterside Workers' Picnic Day.

EMERGENCY TELEPHONE NUMBERS: Police, Ambulance or Fire "000", and ask to be connected to service required. Non-emergency numbers. Police 72 3000, Ambulance 79 3722, Fire Station 71 2111, Hospital 81 9211.

TELEPHONE: Ship to shore telephones are available at all berths. Oil tankers berthed in the port are required to have on board a flash proof telephone of a type approved by Telecom Australia.

Ship's telephone lines are barred access to STD and trunk facilities.

SERVICES: Services available for compass adjusting, radio and radar service. A floating boom and an oil skimming device is available to deal with oil spills. Chemical dispersants are used for minor spills.

A garbage collection vehicle will call at each ship which has ordered the service before 0800 hrs. each day or at other times as directed by the Quarantine Officer. All garbage must be kept in drums with tight fitting lids on board the vessel until the arrival of the collection vehicle.

Ship's crew is required to deliver garbage to the collection vehicle.

SHORE LEAVE: Crew members allowed shore leave.

AUTHORITY: Townsville Harbour Board, P.O.B. 1031, Townsville, Queensland, Australia, 4810. *Tel:* (077) 72 1011. *Telex:* Naport AA47334. *FAX:* (077) 211254. *Cables:* Nausport. *Contact:* Mr. R. E. Kenny, Secretary.

AGENT: Sub-agent of Patrick Agencies, Brisbane.

TRIAL BAY, N.S.W.: 30.51 S. 153.03 E.

LOCATION: Approximately 220 nautical miles North of Sydney and 40 miles South of Coffs Harbour. The area behind the breakwater affords good anchorage and shelter and has a tanker terminal only.

See Chart AUS. 220 (Plan of Trial Bay).

PILOTAGE: Pilotage is compulsory. A Pilot boarding position has been established at Lat. 30° 51′ 42″ S., Long. 153° 03′ 12″ E.

VHF: A listening watch is maintained at the pilot station, South West Rocks during office hours or when shipping is expected at the port.

TANKERS: A mooring system comprising 5 marker and mooring buoys and accommodating 18,000 tonne tankers, has been established approximately 053°×6.75 cables from Monument Point Light. A submarine pipe-line for discharge of petroleum products extends from the buoys in a 169° direction to the shore terminal.

The tanker terminal receives only refined products.

AUTHORITY: The Pilot, The Pilot Station, Gregory Street, South West Rocks, N.S.W. 2431. *Tel:* (065) 66-6140. *Contact:* Captain R. Pook.

AGENT: Sub-agents of Patrick Agencies, Sydney Branch.

VARANUS ISLAND TERMINAL: 20.38 S. 115.36 E.

(See Plan)

LOCATION: The onshore terminal is situated on Varanus Island which is the largest of the Lowendal group of islands. The offshore Tanker Terminal is situated 2.0 miles offshore in Lat. 20° 38′ S., Long. 115° 36′ E. (see "Plan"). Masters are referred to the current hydrographic chart Aus. 742 for further information.

PILOTAGE: The Pilot and 2 Operators will board via a launch in position Lat. 20° 38′ S., Long. 115° 42′ E. All vessels should ensure that a good lee is provided and the derrick or deck crane is ready to pick up the terminal equipment container from the launch. Accommodation and meals are to be provided for Pilot and 2 operators.

Pilot ladders should be rigged in accordance with all relevant S.O.L.A.S. Regulations.

ANCHORAGE: The recommended anchoring position is Lat. 20° 38′ S., Long. 115° 40′ E., but due to the variable holding qualities of the whole area it is recommended that Masters exercise the utmost caution when anchoring and whilst laying at anchor.

APPROACHES: *Water Depth:* Within the 0.5 nautical mile mooring circle there is a least depth of 20.4 m. within the conical approach area (060°/240° and 120°/300° boundaries) depths in excess of 20.4 m. are found. Although attention is brought to the 20.1 m. patch and the 20.2 m. patch as indicated on the hydrographic survey certificate, at this stage it is envisaged that the maximum draft of vessels using the port would be 17.0 m.

Departure: After completion of loading, a vessel's departure should be as prompt as practicable. Once clear of the berth and the Pilot has disembarked it is recommended that the Master follows the recommended course laid down on the appropriate hydrographic chart.

RESTRICTIONS: See "Mooring" - Paragraph (d).

MAX. SIZE: The terminal is designed to accommodate vessels from 20,000 d.w. tonnes to 140,000 d.w. tonnes. The largest dimensions being:

(a) Deadweight 140,000 tonnes (approximate).
(b) Length overall (LOA) 300 m.
(c) Beam 46 m.
(d) Draft 17 m.

Vessels exceeding the following dimensions cannot be accommodated at the Loading Terminal unless express permission is granted by Bond Corporation.

RADIO: *ETA and Arrival Messages:* Vessels proceeding to the Varanus Island loading terminal shall notify Bond Corporation Pty. Ltd., Petroleum Division, at their Perth office, on telex: AA95781 BONPET or cable address: Bond Corporation Pty. Ltd., Petroleum Division, GPO Box X2275, Perth, W.A. 6001, their estimated time of arrival, not less than 96 hours before arrival, amending or confirming the ETA at intervals of 48 hours and 24 hours before arrival at the Terminal. Failure to comply with the above procedure may result in the Pilot not being available on the vessel's arrival.

Ballast Water: Quantity and condition of ballast water on board to be advised in the 96 hour message, including information regarding any contamination of ballast water or slops that are to be pumped ashore. If the voyage from the final departure port to the loading terminal is less than 96 hours then this information should be transmitted as soon as practicable.

Declarations Prior to Arrival: The following declarations are to be included and verified in the 24 hour message:

(a) Is the hull leak free?
(b) Is an inert gas system fitted?
(c) If fitted, is the inert gas system fully operational?
(d) Are there any defects to the vessel, machinery and equipment, which may effect safe pilotage, berthing, cargo or ballast operations?
(e) Have stress calculations for the envisaged programme of cargo handling and ballasting been made?
(f) Is the hull stress calculated within recommended safety limits?

VHF: A 24 hour listening watch is maintained on international marine VHF Channel 16. Vessels should tune their VHF sets to Channel 16 when within 100 nautical miles of the Lowendal Islands and as soon as practicable thereafter contact the Island Radio Room and confirm the vessel's ETA at the Pilot Boarding Station.

VHF Marine Channels available:

Marine Channel 16 calling and distress.
Marine Channel 67.
Marine Channel 9 working Channel.
Marine Channel 74 working Channel.

TERMINAL FACILITIES:

ONSHORE:

Storage: 3 tanks with storage capacity of 750,000 bbls. (119,250 cu.m.).

Pumps: The 3 cargo pumps are rated at 1,654 cu.m.p.h. each. (In February 1987, 2 pumps only available. Average rate 2,700 cu.m.p.h.).

Also see "Ballast".

OFFSHORE:

Pipe-line: A 4,200 m. long×762 mm. (30 in.) pipe-line leads from the shore to the Tanker Terminal. At the pipe-line end manifold (PLEM) there is a valve at the 406 mm. (16 in.) take off prior to connection to the submarine hose.

Hose: The submarine hose is 73.15 m. (240 ft.) long, consisting of 8×9.144 m. (30 ft.) sections, including (from the PLEM) 4×406 mm. (16 in.) hoses, 2×406 mm. (16 in.) buoyancy chamber hoses, 1×406 mm. (16 in.) to 305 mm. (12 in.) reducer and 1×305 mm. (12 in.) rail hose. At the end of the 305 mm. (12. in) hose there is a butterfly valve spool piece and a 12 in. flange fitted with camlocks for connection to the ship's manifold. The weight of hose to be handled by the ship is 4.0 tonnes when full of crude oil.

Moorings: The mooring consists of an 8-leg Multi-Point Mooring (MPM), with 4 buoyed legs and 4 swamped legs.

Although the ship's anchors will be laid out during the berthing, due to the variable seabed holding qualities, swamped moorings (legs 4 and 5) will be picked up and tensioned to back up the ship's anchors.

It should be noted that an additional 30 m. of polypropylene rope has been added to all pennant buoy lines.

LOADING:

1. Prior to arrival vessels must have the starboard derrick or crane rigged and ready for pick up of the submarine hose.

The PLEM is marked by a spar buoy and the end of the submarine hose is marked by a pick-up buoy.

When the vessel is in position and secured to the satisfaction of the Master and Pilot/Loading Master the submarine hose pick-up shall commence. Once pick-up has commenced the propeller must not be turned until the hose is disconnected and laid back onto the seabed unless it is turned by use of the turning gear only.

2. Once the hose is connected and all ship/shore safety check lists have been satisfactorily completed, the butterfly valve and ship's manifold valve will be opened and gravity loading will commence. Once the ship's checks are completed and clearance given, the loading pumps will be started.*

3. During loading at least one ship's tank is to be open to the inflow of oil and the inflow of oil is not to be shut off by closing ship's valves or the hose valve without prior approval of the Pilot/Loading Master. In order to reduce back pressure at the ship's rail, as many tanks as possible should be open during loading. In any event the ship's rail back pressure should not exceed 150 p.s.i.

4. The Pilot/Loading Master is to be informed when 200 tonnes is required to complete loading so that the loading rate can be eased down, and again at 50 tonnes so that the loading pumps may be stopped and the loading completed by gravity. When loading is completed the ship's manifold valve is to be closed slowly. When the manifold valve is closed the butterfly valve will be closed.

5. During loading the tank tops should be kept closed at all times, ullage plugs should be kept closed at all times except when sampling, gauging, thieving or inspecting.

6. Portable UHF radios will be supplied for communication between the tanker and terminal. Hourly checks between tanker and terminal will be required so that undetected radio failure can be minimised.

*During loading operations, a responsible deck officer must be present to supervise the ship's crew and approve the hose connections.

BALLAST:

1. Ballast Reception: The dirty ballast water pond has a capacity of 250,000 bbls. (39,750 cu.m.).

2. Deballasting: Vessels should arrive at a ballasted draft acceptable to the Pilot. If the ballast is dirty then during fine weather a lesser amount of ballast may be acceptable subject to approval of the Bond Petroleum Operations Manager.

3. Clean Segregated Ballast: This ballast water will be discharged consecutively within the loading. The Pilot/Loading Master must be notified prior to any deballasting and at least one quarter of the Summer deadweight must be loaded before deballasting commences.

4. Dirty Ballast: Masters should notify Bond Corporation regarding contaminants in ballast. The ballast water may be tested by Bond Corporation and may not be accepted ashore into the island facilities should it contain excessive contaminents unacceptable to the DCLAM for underground disposal.

5. Dirty Deballasting: When one quarter to one third of the Summer deadweight has been loaded, loading will cease and the vessel may commence deballasting subject to No. 4 above.

Pumping will continue until all the ballast water is discharged, crude oil previously loaded will be pumped ashore to clear the submarine pipeline. The Pilot/Loading Master is to be informed when 1,600 cu.m. of crude oil has been pumped. When the water-oil interface is detected onshore, the ship's pumps are requested to be stopped. Loading will then recommence as per "Loading" – Item No. 2. which see.

MOORING: *Mooring Equipment:* All tankers must have sufficient equipment for mooring at the Terminal:

(a) A minimum of 4 sets of bitts are required on the after deck and a set of bitts on the port and starboard side at the after end of the main deck forward of the bridge front. A set of bitts on the port and starboard side of the main deck forward and a minimum of 4 sets of bitts on the forecastle. All the above mentioned sets of bitts must be able to accept preventer lines or swamp moorings which must be hove tight and made fast.

(b) A minimum of 4 tension winches on the after deck and 2 tension winches on the after end of the main deck with at least 220 m. of good quality mooring line on each winch are required. Sufficient winches forward to heave tight the swamp moorings for making fast.

(c) Prior to berthing vessels should have on the after deck and the after end of the main deck, 2 mooring lines securely joined together giving an effective length of approximately 440 m.

(d) Only vessels fitted with adequate bridge wing searchlights will berth at night.

TIDES: *Tide Times & Height:* The times of high and low water occurring at the moorings approximate to the Barrow Island times as published in the Australian National Tide Times. The heights of tide may be taken as the same as Barrow Island. The above tidal information can only be taken as a guide as times, direction, height, and rate of flow may vary dependent upon weather conditions.

Tidal Flow: The tidal flow at the Tanker Terminal is approximately 173°/353° and may attain a speed of 2 knots at Spring tides.

MEDICAL: No services available.

FRESH WATER: Not available.

FUEL: Not available.

SURVEYORS: None locally.

REPAIRS: No facilities available.

CONSULS: None.

GENERAL: *Agency:* No ship's agency services are provided by Bond Corporation. Tankers arriving from foreign ports must make prior arrangements for quarantine and Customs clearance through their Agents. Dampier Agents and Customs attend on arrival, Customs only on departure.

Services: Laundry and Stores not available locally.

Ship's crews cannot be accommodated ashore on Varanus Island.

OPERATOR: Bond Corporation Pty. Ltd., Petroleum Division, G.P.O.Box X 2275, Perth, W.A. 6001. *Telex:* AA 95781 Bonpet.

WALLAROO, S.A.: 33.56 S. 137.37 E. (See Plan)

PORT LIMITS: Chart Aus.777. A line following the coast line at the HW mark between Point Riley and Point Hughes; thence a line drawn 270° from Point Hughes for 1.5 miles and thence a line drawn 360° to meet a line 270° from Point Riley for 1.5 miles.

DOCUMENTS: All documents necessary for first entry vessels are as for other Australian ports (i.e. Customs, Health, etc.).

PILOTAGE: Pilots board approximately 1 mile seaward of Entrance Beacon. Pilotage is compulsory. Vessels awaiting Pilot for extended periods should anchor 1 mile – 2 miles to seaward of Entrance Beacon. Vessels approaching pilot station should take care not to approach the Entrance Beacon before Pilot has boarded due to restricted sea room.

ANCHORAGES: Outer Anchorage as above. Inner Anchorage for vessels awaiting berth available in Wallaroo Bay. This is a safe anchorage with good holding ground. Pilotage is necessary to Inner Anchorage.

RESTRICTIONS: Daylight berthing only. Sailing at any time. Sailing times dependent upon tides. Tides may be greatly effected by prevailing weather conditions. A high pressure system in Bight may cause tides to be depressed below predicted levels and conversely a low pressure system may cause tides to be above predicted heights. Channel depth 8.45 m. (27 ft. 9 in.) LW. There is a minimum depth of 8.40 m. (27 ft. 6 in.) in the swinging basin off the berths.

Underkeel Clearance in Channel:

1. Less than 21.3 m. beam, clearance 0.6 m.
2. 21.3 m. – 27.4 m. beam, clearance 0.75 m.
3. Over 27.4 m. beam, clearance 0.90 m. or 10% of draft.

MAX. SIZE: LOA 190 m., beam 28 m. Consideration may be given to accommodating larger vessels on a restricted draft.

Arrival Drafts: As vessels are permitted to discharge clean ballast whilst alongside, drafts should be as follows: 2 m. minimum forward and 8.5 m. maximum aft.

HEALTH: Radio Pratique available within 24 hours of arrival providing sufficient information is supplied. Quarantine/Health Officer will board vessel after arrival in order to grant formal Pratique. Vessels arriving directly from other Australian ports have automatic Pratique, but Health Officer will attend the vessel on arrival.

RADIO: ETA messages for Agents, Harbour Master, etc. may be routed through any Australian coastal radio station, the nearest being Adelaide Radio (VIA), not less than 24 hours prior to arrival.

VHF: Channels available, 16, 12, 8, 6, 67. Channel 16 used for general call up, and Channel 6 is usually used for port operations. Call sign; Wallaroo Port Control. Hours of operation; Monday to Friday 0845 hrs. to 1700 hrs. except Public Holidays, otherwise by arrangement.

TUGS: One tug "Kalanbi", 11.4 tonnes bollard pull (650 h.p.).

BERTHING: Jetty extends 870 m., W.N.W. from the foreshore abreast the town. There are 3 berths on either side of the jetty, extending over a length of 400 m. from the outer end.

Coir springs are provided at all berths and vessels may lie alongside in all weathers. Vessels may be required to berth either head to sea or head in, dependent upon weather conditions prevailing at the time of berthing.

Berths	*Length* (m.)	*Depth* (m.)	*Width Dredged Area* (m.)
No. 1 North	83.5	9.45	24.4
No. 2 North	290.0	9.45	36.4
No. 3 North	68.6	7.32	24.4
No. 1 South	207.7	9.30	24.4
No. 2 South	152.0	8.22	30.0

CRANES: None.

BULK GRAIN FACILITIES: No. 2 North Berth – 5 fixed manoeuvrable spouts. Served by a conveyor bulk loading plant. Rated at 800 t.p.h. Maximum working clearance of spout above LW 17.4 m. Maximum coverage spout tip from W.F.A. 20.12 m. The plant is manned on a 2 shift basis from 0800 hrs. to 2300 hrs. daily, Sunday to Friday and from 0800 hrs. to 1200 hrs. Saturdays.

SPECIALISED CARGO HANDLING FACILITIES: None.

BRIDGES: None.

STEVEDORES: Ordering of labour organised through Agents and Grain Handling Authority.

MEDICAL: 2 private medical practices available, also 1 dental surgery located in adjacent town (12 km.). District hospital is located at Wallaroo. Ambulance service also available and may be used to transport seriously injured patients to Adelaide if required. Vaccination certificates as for all Australian ports.

TANKERS: No facilities available.

DENSITY: Average density between 1028 – 1030.

FRESH WATER: Available at 17 tonnes/p.h. By prior arrangement may be boosted to 60 tonnes/p.h.

FUEL: Available by arrangement in small quantities from Adelaide.

FIRE PRECAUTIONS: Usual precautions necessary, bearing in mind danger of grain dust. Local fire brigade available. International shore connection should be in position.

CONSULS: None.

REPAIRS: Minor repairs available locally, marine engineers available from Adelaide.

DRY DOCKS: None.

SURVEYORS: (1) Cargo Surveyors available – may be arranged by Agents as required.

(2) Lloyd's Surveyor should be obtained through principal Agent. Lloyd's Agent is situated at Port Adelaide.

(3) Other Classification Society Surveyors also available in Australia.

GANGWAY/DECK WATCHMEN: All vessels regardless of nationality must employ a shore based watchman on a shift basis once the vessel is in the loading berth ready to load. Approximate cost $14.25 per hour plus shift penalties.

HATCHES: Opening and closing by ship's crew.
CUSTOMS ALLOWANCES: Normal Australian allowances.
CARGO GEAR: No shore based cargo gear apart from bulk grain plant. Other berths - ship's gear.
REPATRIATION: May be arranged through ship's Agent.
AIRPORT: None. Bus connection twice daily to Adelaide.
TIME: See "General" before first port.
HOLIDAYS: New Years Day; Australia Day (January); Good Friday; Easter Monday; Anzac Day (April); Adelaide Cup Day (May); Queen's Birthday (June); Labour Day (October); Christmas Day and Proclamation Day (December 26th). The bulk loading plant operates on most public holidays.
POLICE/AMBULANCE/FIRE: Police: Tel. 211200. Ambulance: Tel. 232069. Fire: Tel. 232000.
EMERGENCY CO-ORDINATION CENTRE: "Coastwatch" (Australian Coastal Surveillance Organisation) free telephone call from all Australian ports by STD or reverse charge 062-476666.
TELEPHONES: Telephones placed aboard on arrival. Cost approx. $60.00 plus $1.08 per day rental plus calls.
SERVICES: Tank and hold cleaning services available.
BANKS: State Bank of South Australia, Owen Terrace, Wallaroo.
STORING: See "Prelims".

1. By truck.
2. –
3. Wharf access available for trucks.
4. Wharf access available for forklifts.
5. Normal Customs Bond Regulations apply.
6. Labour available for storing.

SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Normal Australian ID cards necessary, but not required to be carried ashore.
REGULATIONS: No unusual regulations.
DELAYS: May be experienced due to awaiting tide or awaiting bulk loading berth during grain season.
AUTHORITY: Department of Marine and Harbours, Wallaroo, South Australia 5556. *Tel:* 088-232307. *Contact:* Captain I. Thompson, Harbour Master.

Head Office: Department of Marine and Harbours, P.O.Box 19, Port Adelaide, South Australia 5015. *Telex:* AA82525.

AGENT: Patrick Agencies, P.O.Box 111, 2 Owen Terrace, Wallaroo 5556, South Australia. Tel: (088) 23-2412 or 23-2340. Telex: Via Adelaide.

WEIPA, (including Albatross Bay), Queensland: 12.42 S. 141.41 E. **(See Plan)**

PORT LIMITS: Seaward boundary commencing at a point at HW mark on the Western Extremity of Duyfken Point, thence by a line in a 173° (T) direction to the HW mark at Boyd Point.
DOCUMENTS/HEALTH: See "Melbourne".
PILOTAGE: Vessels requiring Pilot may apply to Harbour Master, Weipa 48 hours before arrival, confirming ETA 24 hours before. Vessels to give Harbour Master their draft. Generally speaking minimum berthing draft should be, forward 2% of vessel's length and aft, the propeller completely immersed.

Pilot boat is 15 m. (length), named "Richard Hildebrand" and painted white and orange. It may be contacted on VHF Channel 16. Pilot boards 1 mile S.W. of Fairway Beacon.

ANCHORAGE: Anywhere in Albatross Bay except between 2 lines situated 1 mile North and South respectively of the line of leads and extended to the port limits.
RESTRICTIONS: Weipa Approach Channel is 7.8 miles long with a minimum depth of water 11 m. (36 ft. 1 in.) LWOST. Usually vessels up to 30,000 d.w.t. enter channel at any stage of the tide. Vessels of over 30,000 d.w.t. enter at any stage of the flood up to 2.5 hours before HW.

Usually vessels up to 30,000 d.w.t. can berth at any state of the tide. Vessels of over 30,000 d.w.t. due to their departure draft and existing tug power must berth starboard side alongside and can do so at any stage of the flood tide. Vessels normally depart 1 hour 15 minutes before HW. Some vessels up to 30,000 d.w.t. can depart on LW.

MAX. SIZE: Maximum LOA 254 m. (835 ft.) Beam 35.3 m. (116 ft.) Draft depends on height of tide and 90 cm. (3 ft.) keel clearance is required.
HEALTH: See "Melbourne".
RADIO: Forcomal, Sydney Radio and within 48 hours Thursday Island Radio.
VHF: Call "Weipa Harbour" on Channel 16 on arrival 1 mile S.W. of Fairway Beacon. Tugs operate on Channels 6, 8 and 12. Vessels to advise "Weipa Harbour" passing Fairway Beacon inward and outward and on arrival at and prior to departure from the wharf.
RADAR: No Port Radar.
TUGS: Vessels entering North of Cora Bank, tugs join at No. 25 Beacon. Vessels entering South of Cora Bank, tugs join at No. 19 Beacon. Tugs are usually used in the lashed up position using tug's lines.

3 tugs are available of 23, 24 and 43 Tonnes bollard pull, of which only 2 are in use at any one time.

BERTHING: Loading and discharge at Humbug Point generally by ship's gear but mobile cranes may be hired if required.

Evans Landing Wharf is generally only used for petrol and distillate discharge.

BULK HANDLING FACILITIES: 2 Bauxite Berths, Lorim Pt. West old berth and Lorim Pt. East which is an extension of the previous old berth. Depth alongside Lorim East 12.5 m. (41 ft.) Lorim West 12.5 m. (41 ft.).

Loading rates are Lorim West 3,500 t.p.h. Lorim East 6,000 t.p.h. If there are vessels at both berths loading simultaneously the rates are West 3,500 t.p.h., East 4,500 t.p.h. However, only one berth at a time is usually loaded.

Bulk kaolin loader in operation at Lorim Point West. Loading rate 800 t.p.h.

CRANES: 2×70 tonne P.&H. 1×31 tonne P.&H. 1×26 tonne P.&H. 2×12 tonne Austin and Weston. 1×12 tonne B.H.B. 1×8 tonne Cranville.
SPECIALISED CARGO HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: No special advice required. None available for working on ships.
MEDICAL: Inoculations per Australian Regulations. No notice required for medical attention. Urgent cases flown out and treated at Cairns or Thursday Island. Hospital facilities available for minor cases.
TANKERS: 8 in. discharge lines. Tankers berth at Evans Landing and Lorim Point.
DENSITY: Dry Season 1024. Wet Season 1012. These figures can vary considerably.
FRESH WATER: Available at all berths. 5 t.p.h.
FUEL: Not available.
FIRE PRECAUTIONS: No specific precautions.
STORES: Very limited stores are available. In emergency large orders could be supplied only if several days notice given by radio, as they have to be flown from Cairns.
GANGWAY/DECK WATCHMEN: Available.
OPENING/CLOSING HATCHES: Work carried out by crew.
SHIP CERTIFICATES: Ship's Register, Load Line, Safety Radio and Safety Equipment Certificates. See also "Melbourne".
CONSULS: None.
REPAIRS: Not available.
DRY DOCKS: None.
SURVEYORS: Lloyd's Surveyor available at Cairns.
CUSTOMS ALLOWANCES: See "Melbourne".
CARGO GEAR: See "Berthing".
HOLIDAYS: Vessels are loaded and berthed or sailed at any time.
POLICE/AMBULANCE/FIRE: Police 697119, Ambulance 697444, Fire 697444. As no telephone supplied contact "Weipa Harbour" on Channel 16 for these services.
SERVICES: Not available.
SHORE LEAVE: See "Melbourne".
IDENTIFICATION CARDS: See "Melbourne".
REGULATIONS: Vessels may not immobilise without written permission from the Harbour Master.
DELAYS: The only delays to be normally expected are as under restrictions, i.e. awaiting tides.
REPATRIATION: Can be arranged.
AIRPORT: 7 miles from airport. Served by Air Queensland.
TIME: See "General" before first port.
BANKS: Commonwealth Trading Bank, Rocky Point, Weipa, Queensland, 4874. Tel: 733238.
DEVELOPMENTS: The Alumina Plant at Weipa has been deferred indefinitely.
AUTHORITY: Department of Harbours and Marine, P.O.Box 489, Weipa, Queensland 4874. *Tel:* 070-697170. *Telex:* 48871. *FAX:* 070-697339. *Cables:* Harbour Master Weipa. *Contact:* Captain C.I. Wood, Harbour Master.

AGENT: Sub-agent of Patrick Agencies (through Patrick's Melbourne).

WESTERN PORT, Victoria: 38.21 S. 145.14 E. **(See Plan)**

GENERAL DESCRIPTION: Western Port is an extensive bay. Within its limits are 2 large islands, namely French Island occupying the middle of the bay and Phillip Island fronting the bay to seaward and forming 2 entrances to the Port. The Western and main entrance which is easy of access has a minimum low water depth of 14.9 m. and is available for vessels of deep draft. The Eastern entrance is narrow and tortuous and is available only for small vessels. The rise of tide within the bay is some 2.20 m. at Neaps and 3.00 m. at Springs.
DECLARATION: *Declaration Prior to Arrival:* The Master of a ship which carries liquid bulk dangerous substances or oil in bulk, other than oil fuel used for the propulsion or operation of the ship, shall ensure that the Port Authority is advised, in writing, with answers to the following questions at least 48 hours prior to arrival in the port:

1. Is the hull leak free?
2. Is an inert gas system fitted?
3. Is the inert gas system, if fitted, fully operational?
4. Is a crude oil washing system fitted?
5. Is the crude oil washing system, if fitted, fully operational?
6. Are there any defects to the ship, machinery and equipment, which may affect safe pilotage, berthing, cargo or ballast operations?
7. Have stress calculations for the envisaged programme of cargo handling, ballasting and bunkering been made?
8. Is the hull stress calculated within recommended safety limits?

Additional information required for liquefied gas carriers:

9. Are all cargo tanks and lines free of air?
10. Is the re-liquefaction or boil-off control equipment in good working order?

PORT LIMITS: The Port Authority considers a vessel to be arrived when she crosses an imaginary line between West Head and Point Grant.
ANCHORAGES: Anchorage within port between Southern edge Tortoise Head Bank, and Northern shore of Phillip Island. Anchorage 4 miles in length, East to West, and 1.25 miles wide, depths 16 m. – 27 m. at Western end, decreasing 11 m. – 20 m. at Eastern end.

An anchorage area having a least depth of water of 8.5 m., has been established adjacent to Long Island Jetty.

DOCUMENTS: Application for berth, tugs, mooring launches, telephones, and notification to load or unload, to be delivered by ship's Agent to the Port Authority not less than 24 hours before arrival.

Customs Documents required:

Form M & S 11	Crew List and attachments, 3 copies.
Form M 42 A	Stores List, 1 copy.
Form 5	Articles owned by or in possession of crew, 1 copy.
Form C & E 886	Ports of Call since commencement of voyage, 3 copies.
Form QA 3	Quarantine Form. (Animals carried as cargo), 1 copy.
Form QA 4	Quarantine Form. (Animals carried as pets), 1 copy.
Form QA 5	Ship Master's Bond re animals carried, 1 copy.
Form Q 360	Health report of all persons on board, 2 copies.
	Inwards Manifest, 1 copy.
	Outwards Manifest, 1 copy.
Form 40	Application for clearance.

PILOTAGE: Pilotage compulsory for merchant vessels except those specially exempted. Pilots for Western Port are available at any time provided notification of ETA is given 24 hours in advance and confirmed 6 hours prior to arrival. Pilot for Western Port will board from a launch, painted orange and showing the signals and lights prescribed for such vessels, by day approximately 3 miles Southward from West Head. By night in the white sector of McHaffie's Point Light, with Cape Schank Light bearing 295° (White), at the entrance to Western Port. Pilot launch is equipped with VHF Channel 16 (156.8 MHz). Port working channel is VHF Channel 14 (156.70 MHz). A speed of 7 knots must be maintained.

In adverse weather, vessels to 9.75 m. draft may board Pilot adjacent to yellow buoy 2 miles – 084° from Flinders Jetty Light. At night buoy shows Fl. Y. 4 secs.

Port Authority's Office requires notification of vessel's ETA at Fairway Buoy 24 hours prior to arrival. Confirmation of ETA is required 6 hours prior to arrival. To minimise delays in co-ordinating Port services vessels expecting to arrive between the hours 0900 to 1700 hrs. should ensure Port Authority receives confirmation by 0830 hrs. that morning.

Vessels expecting to arrive between the hours 1700 to 0900 hrs. should confirm ETA by 1530 hrs. that afternoon.

Vessels expecting to arrive during a weekend period should indicate ETA by 1530 hrs. on Friday, then follow above procedure.

Telex Number of this Office is AA 34051.

RESTRICTIONS/MAX. SIZE: *Depth Below Keel Required:* 10% of draft up to 30 ft. (9.14 m.), 4 ft. (1.2 m.) between 30 ft. (9.14 m.) and 40 ft. (12.19 m.), 5 ft. (1.5 m.) over 40 ft. (12.19 m.).

Oil jetties can accommodate vessels of up to 165,000 tonnes. (See information relating to acceptance of large tankers into Western Port.) See "Tankers".

RADIO: *Advice to Ships Masters on Western Port Harbour Control:*

GENERAL INFORMATION

1. *Radio Watch*	A continuous radio watch will be kept by Harbour Control on VHF Channel 16. Main working channel is 14.
2. *Pilot Boarding Ground*	Position 3 mile × 180° from West Head will be identified as position "A".
3. *Fairway Buoy*	Position of Fairway Buoy (ISO. 2 sec.) will be identified as position "B".

INWARD BOUND VESSELS

1. Vessels shall report to Harbour Control at least 1 hour before arrival at position "A" or "B", giving ETA position "A" or "B", deepest draft and information re-hull leaks and health of crew, etc.
2. Vessels must request permission to enter port. It is an expressed condition of entry that any malfunction or impairment of machinery, steering and propeller indicators which could cause restrictions in the manoeuvring ability of the vessel, is reported to Harbour Control and to the Pilot when engaged.
3. Vessels shall advise Harbour Control when passing Fairway Buoy (position "B"). Sea lashings to be removed from anchor cables and anchors made ready for immediate use.
4. Vessels shall advise Harbour Control when rounding Sandy Point and request VHF Channel for berthing operations and tugs.
5. Vessels shall report to Harbour Control (Channel 14) when all fast, finished with engines and tugs dismissed.

OUTWARD BOUND VESSELS

1. Vessels shall contact Harbour Control 1 hour before fixed time of departure advising if they will/will not be ready to sail in 1 hour's time.
2. Vessels will be advised at sailing time by duty Harbour Master re permission to sail, port movements, etc.
3. When vessels clear their berth and tugs dismissed and proceeding they shall report this to Harbour Control (Channel 14).
4. Vessels to advise Harbour Control when (a) Rounding Sandy Point. (b) Clear of Port.

VESSELS PROCEEDING TO ANCHORAGE

1. Vessels inward and outward to an anchorage are to use the same procedure as in above for inward and outward vessels respectively. Vessels will be advised if required to anchor and what anchorage to use. Whilst at anchor vessels shall keep a continuous listening watch on Channel 14.
2. Vessels shall advise Harbour Control when they have anchored and also when vessels are underway again from an anchorage.

ENGINE TRIALS AND LIFEBOAT DRILLS, ETC.

1. Vessels wanting to carry out engine trials shall first obtain permission from the duty Harbour Master.
2. When lifeboat drills are to be held and boats swung out and put into the water the duty Harbour Master shall be given prior notice.
3. All vessels in the port shall notify Harbour Control (Channel 14) of any distress signals sighted or any untoward occurrence.

TUGS: Two tugs are available both of 3,800 kW. and 50 tonnes bollard pull. Tugs join vessel at Sandy Point. Tug's line used. Tugs are fitted with VHF and radar and fire-fighting equipment. Additional tugs available from Melbourne given 24 hours notice.

RADIO PRATIQUE: Radio Pratique is available. The following procedure shall apply. In a period of 12-24 hours before the expected arrival of the ship, the ship's Agent shall present to the Port Quarantine Officer, via the Port Authority Office, a completed questionnaire giving details of ship's itinerary, health and quarantine status, etc., and request permission to berth, or Radio Pratique, as required. The answers to the questions should have been obtained by radio from the ship immediately prior to presenting the form to the Quarantine Officer and should include vessel's ETA at the Pilot Station. The ship's Agent shall advise the Quarantine Officer when the ship has berthed and the Quarantine Officer will then board the ship and will require the completed Declaration of Health forms in duplicate. If all the standard conditions are satisfactory, a Certificate of Pratique will be issued.

BERTHING: Berthing subject to Port Authority's direction. 2 oil berths, 2 steel works berths (one is Ro/Ro), 2 tug berths and 1 repair berth are available.

Steel Industry Wharf (2 Berths) (16.5 n.m. from Entrance): Berths are owned and utilised by BHP Coated Products Division. Approach channel has a depth of 9.1 m. Depth alongside both berths is 12.1 m. Swing basin diameter 457 m. Steel works is 2.5 Km. from berth.

Steel Industry Wharf No. 1: Ro/Ro Berth – Vessels with stern door or starboard quarter ramp up to 15,000 tonnes.

Ramp details: Length 28 m. (curved), width 8.5 m. Ramp made up of 7 sections which are hydraulically operated to allow accommodation of various types of stern loading/discharging vessels.

Ramp section is approximately 3 m. proud of stern berthing fenders.

Starboard Quarter Ramp details: Concrete landing pad ashore appropriate for a quarter ramp of 10.17 m. width, 50.3 m. length overall, and angled at 31.5° to ship's centre line. Stern of vessel approximately 17 m. off ramp for stern door vessels.

Steel Industry Wharf No. 2: Conventional General Cargo Wharf. 152 m. long, 24 m. to 15.6 m. wide. Reinforced concrete wharf with wooden fendering. A mooring dolphin is provided 30 m. N.E. No. 2 Berth is adjacent and extends in a N.E. direction from No. 1 Berth.

Max. size of vessel:	200 m. length overall.
Tidal range at berth:	Between 2 m. and 3 m.
Nature of Bottom:	Mud, clay and some rock.

Vessel can dock/undock during hours of darkness, subject to tidal conditions.

Vessels moor using ship's lines to Port Authority's requirements.

Pilots used, unless Master holds special exemption. Water available.

Bunkers by Road Tanker only, subject to Port Authority's approval.

Engines may be immobilised whilst ship is alongside, subject to duty Harbour Master's approval.

Stores and supplies can be delivered from dock or by launch.

STEVEDORES: Western Port is a class "B" port for stevedoring facilities. Port Waratah stevedores available. Require ETAs of vessels from Agent. Ordering time for labour: Tuesday-Friday, by 1430 hrs. previous day. Saturday-Sunday, by 1430 hrs. previous Friday. Monday, by 1430 hrs. previous Sunday. All close holidays observed.

CARGO GEAR: No shore cranes. All vessels must comply with Commonwealth of Australia Regulations prescribed under the Navigation Act.

MEDICAL: Four qualified medical practitioners available and 20-bed Nursing Hospital. Agent should receive prior notice of particulars of vaccinations required.

TANKERS:

Information Relating to Acceptance of Large Crude Tankers into the Port of Western Port:

The following parameters should be used by ship charterers and agents as a guide to determine the acceptability of large tankers into Western Port.

1. Displacement tonnage in arrival ballast condition to 110,000 tonnes.
2. LOA to 300 m.
3. Draft in ballast condition to 9.5 m.
4. Distance from manifold centreline to water line: 16.5 m. at Crib Point jetty, 17.5 m. at Long Island Point jetty.

Distance from manifold flange to ship's side: minimum 1.0 m., maximum 4.5 m. to 5.0 m.

5. Only clean ballast from segregated ballast tanks is permitted to be discharged into Western Port Bay (i.e. no ballast water from any tank capable of carrying oil is permitted to be discharged into Western Port Bay notwithstanding the cleanliness of the tank or the previous cargoes carried in the tank).

There are no ballast reception facilities at Crib Point. Esso can accept up to 16,000 tonnes of ballast without difficulty and up to 20,000 tonnes with 1 week's notice. Quantities in excess of 20,000 tonnes may, in exceptional circumstances, be accepted by Esso but only after consultation with the terminal management.

6. Consultation with Port Authority is required prior to fixing any vessel over 100,000 d.w.t. or having loaded draft over 13.0 m. into or out of Western Port.

Crib Point Jetty: *(2 Berths, 13 n.m. from Entrance):* Berths are State owned and utilised by Esso (Australia). The approach channel has 14.3 m. below chart datum, swing basin has a diameter of 610 m., and depth of 14.3 m.

No. 1 Crib Point: Capable of accommodating 165,000 tonne tankers with a depth alongside of 15.8 m. Shore gangway used at this berth. Grades Handled – Crude oil direct from LIP via 42 in. line.

Hose and pipeline diameters:

Crude: 4×12 in. diameter hoses. 2×24 in. diameter pipelines. Pumping rate up to 5,000 t.p.h. Max. back pressure 150 p.s.i. Hoses connected by Esso. Airdraft to manifold 16.5 m. above MHW. Ballast capacity – Nil.

No. 2 Crib Point: State owned and now used as a repair berth only. Capable of accommodating vessels to 95,000 tonnes deadweight (in ballast) with a depth alongside of 12.8 m. Shore gangway available. Two dolphins provided 61 m. apart.

Long Island Jetty *(1 Berth 15.5 n.m. from Entrance):* Berth is State owned and utilised by Esso (Australia). The approach channel has a depth of 14.3 m., swing basin has a diameter of 548 m. and a depth of 14.3 m. There is a depth of 15.8 m. alongside the berth. Berth used for export of Gippsland Crude and LPG. Can accommodate vessels up to 165,000 tonnes. Shore gangway used.

Long Island Terminal – General:

Tank Height above sea level –	Crude Base 13.7 m. Tank Full 28 m. LPG Base 7.6 m. Tank Full 36.6 m.
Distance of tank farm to Jetty –	Crude 3 km. LPG 1 km.

Hose and Pipe-line diameters:

c/ No Hoses. "Chiksan" arms used. Airdraft to manifold 17.5 m. above MHW.

Crude: 2×16 in. and 1×12 in. diameter loading/ballast arms. 2×30 in. diameter pipelines.

Max. pumping rate 7,250 t.p.h. Max. back pressure 125 p.s.i.

LPG: 3×12 in. diameter loading/vapour arms. 1×20 in. diameter refrigerated pipeline. 1×12 in. diameter vapour pipeline. 1×4 in. diameter pressure pipeline.

1×8 in. diameter loading arm for refrigerated and pressure LPG is also fitted with a 4 in. vapour return line.

Max. pumping rate – refrigerated products 1,400 t.p.h.
– pressure product 45 t.p.h.

Following are requirements for LPG carriers loading at Long Island Point Jetty:

1. Vessels to present at loading port with cargo tanks precooled and ready to load fully refrigerated butane and must contain a liquid butane heel. Similar procedure for propane.
2. Vapours in the ship's tanks must not contaminate the product in any way that may cause the quality specification to be exceeded in any particular case.
3. Vapours in the ship's tanks should not react with the product in any way to cause a hazard or prevent the vapours from being returned to the shore compressor system.
4. The ship's tanks must be free of sulphur compounds/L.G. odourants.

Manifold connection requirements:

Distance manifold flange to ship's side	Min. 0.91 m. (3 ft.) Max. 3.66 m. (12 ft.)
Height C/L manifold flange above water level/ vessel Lightest Condition:	17.04 m. (55.9 ft.)
Manifold spacing	Min. 1.83 m. (6 ft.) Max. 3.66 m. (12 ft.)
Height of C/L manifold flange above deck	Min. 7.6 m. (2 ft. 6 in.) Max. 1.60 m. (5 ft. 6 in.)

Flange connection 305 mm. (12 in.) 150 ASA to match Chiksan Arms. Connection to be approximately mid way between stern and stem to enable satisfactory mooring of vessel..

Hoses will not be permitted for the loading of refrigerated LPG. Compliance with standard safety check list is required.

Reducers: Terminal has 6 in., 8 in., 10 in. and 12 in. ASA Reducers. Arms connected by Esso.

Ballast Facilities: Normal capacity 16,000 tonnes and up to 20,000 tonnes with one week's notice. Quantities in excess of 20,000 tonnes may, in exceptional circumstances, be accepted by Esso, but only after consultation with the terminal management.

Pollution: Cases of discharging dirty ballast or oil spillage will be investigated and vessels are liable to fines and/or detention. Vessels shall not discharge into the waters of the port any part of the contents of their cargo, slop or ballast tanks (this includes clean ballast) or tank washings or bilges which are liable to pollute these waters. Masters shall ensure that pipe-lines and equipment are clean before using them for discharging anything into the waters of the port. Scuppers shall be plugged effectively and no leakage or spillage from any vessel shall be allowed to leak or be swept overboard.

Masters of vessels must seek permission from the Port Authority before pumping anything into the waters of the bay.

The State of Victoria has stringent laws in force concerning the pollution of the sea by oil.

Smoke emissions controlled under the Clean Air Act which will operate under the jurisdiction of the Environment Protection Authority.

Ballast (Tankers): All ballast contained in tanks connected in any way to the vessel's cargo carrying system, is to be discharged to shore tankage.

Fire Precautions: Tankers shall not immobilise main engines whilst alongside jetties. Vessels must observe Port Rule 113 (Dangerous Goods and Oil in Ports) 1974. No oil cargo handling or physical preparation for same permitted unless firewatch tug is on duty.

Tank Washing/Gas Freeing: Permitted alongside subject to approval from the Port Authority. All tank washings to be discharged ashore.

Garbage: No garbage or rubbish shall at any time be jettisoned into the waters of the port. The Master, Owner or Agent of a ship shall, through the Port Authority, make all arrangements for garbage and rubbish to be collected from ships within the port and to be delivered to the port incinerator for destruction.

Bunkers: Small quantities of marine fuel are available from road tankers.

Fresh Water: Available, approximate rate 100 t.p.h. Approximate price $1.00 per 4.5 cu.m. Delivered from hydrants at Jetty Heads at all Berths.

Density: Average density between 1025 and 1030 oz. per cu.ft.

Mooring: Vessels secure to oil jetties using ship's lines and shore preventer wires, at all times. See "Plan".

GANGWAY/DECK WATCHMAN: A shore watchman may be hired. Cost borne by the vessel.

CERTIFICATES:
Clearance from last port.
Ship's Register.
Articles of Agreement.
Official Log Book.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Derat Certificate.
IMO Certificate of Fitness for LPG Carriers.
Light Dues Certificate (receipt).
Pratique Certificate from last port (if to be used in this port).

CUSTOMS ALLOWANCES: *(a)* Tobacco: each crew member permitted either 200 cigarettes or 250 gm. of pipe tobacco, or 250 gm. of Fine Cut Tobacco out of Bond. *(b)* Wine and/or Spirit: each crew member is allowed 1 litre of wines or spirits (opened).

IDENTIFICATION CARDS: Required for all nationalities except the United Kingdom, Canada, South Africa, Japan, Israel, Norway, Denmark, Fiji, Hong Kong, Malaysia, and South Korea. Also see "Melbourne".

CONSULS: None.

REPAIRS: Facilities for medium size deck and engine repairs. All repairs subject to Port Authority's approval.

SURVEYORS: Cargo Inspectors: Caleb Brett, Cargo Superintendents available from Melbourne. All major classification societies, surveyors and insurers represented as for Melbourne.

REPATRIATION: Facilities available.

AIRPORT: Nearest major commercial airport is Tullamarine, 55 miles distance, from which there are frequent interstate and international flights. Airport accessible by road in about 2 hours by taxi-car.

HOLIDAYS: Oil terminals work on all holidays. Steel Works observe close holidays.

POLICE/AMBULANCE/FIRE: Police Hastings 790222; Ambulance Frankston 7832222; Fire. Hastings 791345, and Crib Point 839221.

TELEPHONES: A telephone service will be installed onboard every ship berthed at the tanker terminals. STD (Subscriber Trunk Dialling) is not available from these telephones. Trunk calls may be obtained by dialling 0176 and reversing the charges.

SERVICES: Licensed compass adjuster available. Underwriters' Representatives available. Radio and radar repairs available.

BANKS: American and European bank offices are represented from Melbourne.

EMERGENCY CO-ORDINATION CENTRE: Port Emergency Plan is activated by Duty Harbour Master with Co-ordination Centre initially established in the Port Authority Office, Stony Point.

STORING: Vessels may be stored by barge or truck. At tanker terminals storing is not allowed during loading or discharging operations. Trucks and forklifts are restricted to a point 60 m. from jetty head. Bonded stores are handled under Customs supervision. Local labour is available to assist with storing.

SHORE LEAVE: Crew members permitted shore leave, and launches can be supplied to vessels at anchor, provided vessels have pratique, and have been cleared by Customs.

DELAYS: No delays anticipated. Port operates 24 hours per day.

AUTHORITY: Port of Melbourne Authority, P.O.Box 4721, Melbourne 3001. *Tel:* 03-611-1777. *Telex:* AA 34211.

Local Authority: Manager Western Port, Port Authority Office, Stony Point Road, Crib Point, Victoria 3919. *Tel:* 059–839406. *Telex:* AA 34051. *FAX:* 059-838684.

AGENT: See "Melbourne".

WHYALLA, S.A.: 33.02 S. 137.36 E. (See Plan)

LOCATION: Situated on Western shore of Spencer Gulf opposite to and 27 miles by sea from Port Pirie. Open to all Southerly winds, which seldom interfere seriously with operations.

BUOYAGE: "IALA" Buoyage system "A" has been adopted.

The system is that the port hand beacons are red in colour, lights red, topmarks can shape and even numbered. The starboard beacons are green in colour and lighting, topmarks cone shape and odd numbers.

FACILITIES: Jetty for iron ore loading, and dredged harbour with one main wharf for steel and general cargo, and for bulk cargoes of coal, coke, limestone, pig iron, salt, etc. Harbour berths are safe berths.

DOCUMENTS: See "Melbourne".

PILOTAGE: Compulsory except for those vessels whose Masters hold Exemption Certificates. Pilots board 1.6 miles - 143° from Fairway Buoy. Vessels requiring Pilot should request service in sufficient time enable Pilot be ordered before 1600 hrs. Monday to Friday and should show prescribed signal within at least 10 miles of Whyalla. If delayed berthing, Master informed by radio and recommended anchor at Pilot boarding station (see above).

ANCHORAGES: Quarantine line extends in direction 241° from Black Point to Coast Southwestward of port. Quarantine anchorage shown on Australian Chart AUS.135, lies Southeastward of quarantine line and Eastward of jetty. Anchor in close proximity to Pilot boarding area. Vessels should not anchor on harbour or jetty leads, but should anchor, draft permitting, approximately 1 mile North of Outer Fairway Beacon. Holding ground good with hard clay and sand bottom.

RESTRICTIONS: Vessels will not be moved within port by Pilot unless at least 10% of max. draft in water beneath keel. Min. clearance 2 ft. Also see "Berthing".

PRATIQUE: Whyalla is a Port of First Entry. 48 hours' notice of request for Pratique required. Pratique granted at anchorage or in berth. Also see "Melbourne".

Also see "Australia-General" before first port – Answers required to questions in Quarantine form by radio.

RADIO: Cable "Hematite Whyalla" also local Agent *(a)* on departure from previous port advising ETA and total cargo for discharge Whyalla (if any); *(b)* 48 hours prior arrival giving ETA; *(c)* 24 hours prior arrival giving ETA; *(d)* advise any alteration in ETA exceeding 2 hours; *(e)* advise estimated draft on arrival fore and aft. These cables necessary in order ensure loading and labour. Cables to be signed with Master's name. Cables sent outside working hours should be prefixed "Shipserv". In event vessel arriving direct from overseas port requiring Pratique, following additional advice to be cabled: No. of crew, nationality, and whether health vaccination certificates required.

VHF: Port equipped with VHF. Service maintained 24 hours a day. Call sign "Whyalla Harbour".

TUGS: All tugs fitted VHF radio. 4 tugs available between 2.5 and 45 tons bollard pull. Wire towropes not to be used unless risk of damage to tug undertaken by ship. Charge for use of tug's lines. Orders for tugs to be made at least 2 hours before required and not later than 1530 hrs. Monday to Friday. Ferry services undertaken to ships at anchorage outside harbour when requested.

BERTHING: Iron ore loading jetty no longer in service, lies near Eastern side of town is 2,273 ft. long with T head formed by 6 dolphins. At night, the dolphin shows fixed white light,

No. 2 Jetty max. length of vessel 250 m. Depth of water alongside 11.6 m. LW. Approach Channel depth 10.7 m. LWOST. Swinging basin, depth 10.7 m.. LWOST.

Stowage factor iron ore, 13 ft. – 15 cu. ft. per ton. No stevedoring incurred and generally cargo loaded lower holds and no trimming necessary.

Whyalla Harbour: About 1.25 miles to North or Iron Ore Jetty. Entrance Channel 120 m. wide and approx. 3,050 m. length. Water depth in Channel and basin 10.0 m. LWOST. Depth of water at Harbour Wharf 10.7 m. LWOST. 4 berths, full wharf 2,300 ft.

DENSITY: Density of water approximately 1028 to 1035 therefore vessels must load light.

STEVEDORES: Shift work 21 hours per day on continuous 7 day roster. At least 24 hours notice for labour requirements.

MEDICAL: Resident doctors and hospital available.

FRESH WATER: Available at No. 2 Jetty and all wharves.

FUEL: Bunkering not normally undertaken. Fuel oil, coal and diesel oil available at Whyalla Harbour Wharf in emergencies only.

REPAIRS: Consult ship's Agents before maintenance or repairs undertaken.

SURVEYORS: The following Surveyors available anytime if advance notice given: (1 hour flight from Adelaide).

Lloyd's Register: 149 Brebner Drive, Westlakes, Adelaide, South Australia 5021. Tel: Adelaide 353 5166. After hours: Adelaide 267 2554 and 294 7478. Telex: 89973 (LRADL).

Bureau Veritas: 20 Divett Street, Port Adelaide, South Australia 5015. Tel: 47 5924. Telex: AA88593.

STORES: Marine and bonded stores can be procured by arrangement with Adelaide. 5 days notice required.

Lloyd's agents are Adelaide Steamship Co. Ltd.

STORING: See "Prelims".

Storing at the Blast Furnace Wharf:

1. Vessels can be stored by trucks.
2. Vessels can store during loading or discharging if the vessel can provide cranes and labour for this purpose. Barges not used at this wharf. Storing must not cause any delay to stevedoring operations.

Stevedoring operations cease between the hours of 0700 to 0800; 1500 to 1600; 2300 to 2400.

3. Trucks can proceed alongside at all berths.
4. Forklifts are available for hire and can be used at all berths.
5. Application to load stores should be made to Customs by submitting a requisition showing details of items required, prior to loading.

At least 24 hours notice is required by Customs during business hours, Monday to Friday.

Form 957 (Entry for Exportation) is then completed showing all details and value of the goods, and signed by the Ship Owner or his Agent, and lodged with Customs within 7 days.

6. Shore labour is not available for storing.

Storing at the Ore Loading Jetty:

Modest amounts can be loaded by launch on the port side using ship's cranes. Launch charge $176.00 per hour.

Small orders can be manhandled to ship's starboard side at the jetty. Vessels always berth head out, starboard side to the ore jetty.

GANGWAY/DECK WATCHMAN: Available at ship's option.

REPATRIATION: Air, road and rail facilities available.

AMBULANCE: In event of accident contact Agent or BHP 419 or BHP 2205. After hours BHP 699. St. John's Ambulance Services (Tel: 45-7777) available 24 hours daily.

Aerial Ambulance available for transfer of patients to a metropolitan hospital.

BANKS: A.N.Z. Banking Group, Forsyth Street, Whyalla. 5600. Tel: 45 7122

Commonwealth Banking Corporation, Forsyth Street, Whyalla. 5600. Tel: 45 8666.

National Bank of Australia, Forsyth Street, Whyalla. 5600. Tel: 45 8033.

Westpac Banking Corporation, Forsyth Street, Whyalla. 5600 Tel: 457155.

EMERGENCY CO-ORDINATION: Whyalla Police Tel: 45 7088.

State Emergency Service Tel: 45 0272.

Local Emergencies within B.H.P. Area, including Ships Alongside: e.g. Accidents, fire, flooding, deaths, electrical faults causing hazards, oil spills and other pollution.

Dial 'OO' on B.H.P. Interworks black telephones.

SHORE LEAVE: Crew members permitted shore leave, and launches, at ship's option, provide regular schedule to anchorage – weather permitting.

AUTHORITY: *Port Authority:* B.H.P. Steel International, Long Products Division, P.O.Box 21, Whyalla, South Australia 5600 *Tel:* (086) 45 7000. *Telex:* AA 80270 and AA 80259. *Cables:* "Hematite" Whyalla. *Contact:* Superintendent Shipping and Stevedoring.

Harbour Master: Department of Marine & Harbours, P.O.Box 102, Whyalla, South Australia, 5600 *Tel:* Business: 45 5666. After hours: 45 7682 or 45 5744.

Department of Marine & Harbours available as Cargo Inspectors and Independent Surveyors.

AGENT: Sub-agent of Patrick Agencies, Adelaide.

WYNDHAM, W.A.: 15.27 S. 128.06 E. (See Plan)

PORT LIMITS: All waters in the Cambridge Gulf South of a line extending from Cape Dussejour to the summit of Hill 437 on Lacrosse Island, thence to Cape Donett.

CERTIFICATES/DOCUMENTS/HEALTH: See "Melbourne".

PILOTAGE: Compulsory for all vessels entering the port except those whose Masters have pilotage exemptions. Pilot Boarding Ground, Nicholl's Point bearing 214° distance 5.2 miles (Lat. 14° 58.2′ S., Long. 128° 10.3′ E.). By special arrangement, and if the vessel has no charts and subject to weather, the Pilot will board at the Outer Pilot Boarding Ground, Lacrosse Island Light bearing 351° distance 4.7 miles.

Harbour Master/Pilot is no longer stationed permanently at Wyndham. So early advice (10 days) is essential and should be sent to Supt. Pilotage, Department of Marine and Harbours, Fremantle, Telex: 94784, so that arrangements can be made to fly a Pilot to Wyndham. 48 hours and 24 hours prior to arrival give ETA to Harbour Master, Department of Marine and Harbours, Wyndham.

The approaches Channel has a minimum depth of 6.4 m. LWOST.

ETA: Shipserve "Harbour Master Wyndham" required 48 hours and 24 hours notice prior arrival. The 24 hours message should be timed to be delivered before 1630 hrs. local time on the day before arrival so that arrangements can be finalised, when possible, in working hours.

Indicate max. draft in the 48 hours notice.

APPROACHES: Generally speaking, it is preferable to arrive at the pilot station at daybreak. Approach Medusa Bank Buoy and pass Westward (buoy bearing 090° distance 1 mile). Steer 180° until Lacrosse Island Lighthouse bears 040°, distance 2 miles. Alter course to 145° to a position with Shakespeare Hill and Cone Hill in transit (086°), Cone Hill distance 4 miles. The course should then be altered to 225°. Course clears Guthrie and East Banks and puts Black Cliff right ahead.

It will be noted that a conspicuous hill (un-named) is sighted immediately behind Black Cliff Point and these together form an excellent lead down this part of the Gulf to a position off Islet Point. From this point onwards pilotage is fairly complicated. There is a submerged wreck off the jetty, which must be considered when berthing and unberthing. Large vessels may only navigate the Hare Channel at half tide or better, as there is a 6.4 m. patch in the fairway.

RESTRICTIONS: The max. length of vessel permitted to navigate the Gulf is 189 m. overall. Longer vessels fitted with bow thrusters have used the port by special permission.

The Gulf is not navigable during hours of darkness at present.

MAX. SIZE: Length 190 m. draft 8.8 m.

HEALTH: Wyndham is a First Port of Entry. Masters are required to radio Port Health Authority, Wyndham, not less than 12 hours prior to arrival at pilotage station and giving state of health of the vessel. Examination for pratique is usually conducted after arrival alongside and nobody is permitted ashore until doctor's examination is completed.

TUGS: None.

BERTHING: There is a jetty of 283 m. in length. The Southern 210 m. having a least depth of 9.14 m., there is slightly less water at the Northern end.

Ordinary moorings are used. A launch is on station to run lines. There is no tug available.

FRESH WATER: Available at both berths. Supply is 10 t.p.h. approx.

FUEL: Not available.

STEVEDORES: Working hours: 0730 – 1130 hrs., 1230 – 1630 hrs., 1630 – 1830 hrs. When no extension of work, labour finishes at 1630 hrs.

Labour is organised by the A.E.W.L. WWF conditions prevail, 2 gangs are available. Prior advice as to labour requirements, hatches to be worked, etc., is of great assistance to stevedores.

CARGO HANDLING: By ship's gear only direct to motor transport. 1×12 ton Coles slewing crane available, provided sufficient notice is given. Fork-lift trucks and pallets are used for handling general cargo where suitable.

A container park and facilities for handling and storage of reefer and dry containers ashore has been installed.

Bulk Loader on South Berth, grain loading rate 120 t.p.h.

REPAIRS: No facilities.

TIME: See "General" before first port.

AUTHORITY: Marine and Harbours Department, P.O.Box 220, Wyndham, Western Australia 6740. *Tel:* (091) 611006, 611203. *FAX:* (091) 611244. *Contact:* Milton J. Reynolds, Port Manager. Tel: (091) 611227 (after hours).

AGENT: Sub-agent of Patrick Agencies, Fremantle.

YAMBA, N.S.W.: 29.26 S. 153.21 E.

PORT LIMITS: One nautical mile Eastwards of the ends of the North and South Breakwaters defines the seaward limits of the port.

DOCUMENTS:

2 Crew Lists M&S 11.
2 Port of Call Lists.
2 Passenger Lists Forms M308, 309, 310 (2 each).
1 Crew Personal Effects List Form 5.
1 Store List Form 42A.
1 Animal Pets aboard Form QA4.
Ship's Log.
Last Port Clearance.
Safety Certificates: Construction, Equipment, Safety Equipment, Loadline, Radio.

Where possible, cargo manifests and stowage plans should be forwarded by airmail ahead of the vessel to the local Agent.

PILOTAGE: The Clarence buoyage is IALA "System A". Pilotage is compulsory for all craft exceeding 30.48 m. LOA, unless a current Pilotage Exemption is held by the Master.

Notice of ETA and request for a Pilot must be made to the Harbour Master not less than 24 hours before ETA at breakwater. Cable address is "Pilot Yamba". Confirmation of ETA is required 2 hours before arrival breakwater. Channel 16 VHF is continuously watched 1 hour before last given ETA and ETA may be confirmed or adjusted on this frequency. Pilot boat is 15 m. LOA and is a black hulled tug with black funnel and white superstructure, called "Francis Freeburn". The usual international signals may be employed by vessels requiring a Pilot. The Pilot boarding point may vary according to weather and sea conditions, if possible it will be 1 nautical mile seaward of the breakwater, otherwise Pilot will either issue instructions or lead vessel into the river and board just inside breakwater entrance. Pilot boarding arrangements must be according to IMO rules. Vessels awaiting Pilot or suitable tide may anchor between 1 and 2 miles East of the breakwater entrance – sand bottom and good holding ground.

ANCHORAGE: Masters familiar with the port and pilotage vessels may proceed to an anchorage downstream of the Harwood Bridge for berthing at Harwood Sugar Mill in 5.0 m. of water or to a position midway between Freeburn Island and Illuka Wall in 6.0 m. of water for vessels berthing at Goodwood Island wharf. Also see "Pilotage".

RESTRICTIONS: Vessels can enter the port day or night. The only restrictions would be on bar conditions and the height of tide in relation to vessel's draft.

MAX. SIZE: Generally,there is no restriction on length, max. beam would be approximately 70 m. to get through a 91 m. passage in a rock reef inside the breakwater entrance. The main restriction is draft of vessel which is 3.7 m. plus height of tide, such tides being almost identical to Sydney in both height and time.

HEALTH: Australian Commonwealth Rules apply.

RADIO: Sydney Radio (VIS) or Brisbane Radio (VIB) are the long range area stations.

VHF: The base station with call sign "Yamba Harbour Control" is situated behind the Wooli Head Lighthouse. A continuous watch is not maintained, only on prior notice that a vessel is due. Initial calls are made on Channel 16, another Channel will be used after contact has been made. The pilot vessel, which also acts as tug, if required, has Channels 16, 12, 6, and 8.

RADAR: There is no Port Control Radar.

TUGS: There are no commercial tugs, the pilot vessel may act as a tug if required either by the Master of the vessel or on advice from the Pilot. The "Francis Freeburn" is 460 b.h.p. and five tonnes bollard pull.

BERTHING: Main general cargo berth is Goodwood Island Wharf. This is a concrete decked, concrete piled wharf with timber and rubber fender piles. Permissible wheel loading 4.2 tonnes, wharf 70 m., deck floor 2,600 kg./sq.m. Vessels of greater than 70 m. length can secure at the berth as bollards are available 24 m. and 30 m. up and downstream respectively from the wharf. The least depth alongside the wharf is 7.0 m. There are no sheds on the wharf, however a large stacking area is available, the wharf being designed mainly for timber export/imports. Ship's cargo gear is usually employed, but mobile cranes up to 50 tonnes are available at reasonable notice for extended hire.

For vessels loading bulk sugar or molasses a "T" jetty is situated at the Harwood Sugar Mill just downstream of the Harwood Bridge, 30 m. long with dolphins for mooring lines about 30 m. up and downstream from the ends of the "T" jetty which has the overhead conveyor belts for loading bulk sugar and molasses. The least depth alongside this berth is 5.0 m. The overhead belt loader is a fixed head and takes 24 hours with shifts in vessel's position to load 2,500 tonnes, bulk molasses is very slow, taking 24 hours to load just over 1,500 tonnes.

There are no Roll-on/Roll-off traffic berths or berths for handling liquid chemicals or LPG carriers. The berth at Goodwood Island is suitable for loading or discharging explosives.

STEVEDORES: Working hours are from 0800 – 1900 hrs. 5 days per week, weekends by arrangement, also second and third shifts by arrangement.

MEDICAL: Full hospital facilities at Level 2 available without prior notice, Level 3 on transfer to Grafton or Lismore with specialist services.

FRESH WATER: Good quality potable water available in unlimited quantities at 30 tonnes/p.h. per connection, ship's hoses used at the present time.

FUEL: Nearly all grades of fuels and lubricants are available by road transport with arrangements being made through Agent.

CONSULS: Nearest at Sydney or Brisbane.

REPAIRS: Routine maintenance and boilermaking assistance to light engineering standards. The nearest foundry is in Ballina, 1 hour's drive from the port, operated by the same firm that does the maintenance and boilermaking.

DRY DOCK: A slipway of 1,200 tonnes displacement is available.

SURVEYORS: Lloyd's Agents who also represent other Classification Societies and Surveyors can be brought from Sydney or Brisbane at short notice.

GANGWAY/DECK WATCHMEN: Gangway and deck watchmen are not normally used in this port but can be obtained at Union award rates, with prior notice to the Agent.

HATCHES: Opening/closing normally handled by stevedores whilst alongside or by ship's crew before arrival.

CUSTOMS ALLOWANCES: Australian Commonwealth Regulations apply.

CARGO GEAR: Discharge or loading of cargo at Goodwood Island Wharf is by ship's gear, however mobile cranes up to 50 tonnes capacity are available for extended hire at short notice.

REPATRIATION: Scheduled aircraft to Sydney are available twice daily at Grafton Airport, 1 hour's drive away. Rail connections to and from Sydney are also available at Grafton. All facilities exist for changes of crew and repatriation of seamen with prior notice to Australian Customs at Coffs Harbour.

AIRPORT: See "Repatriation".

TIME: See "General" before first port.

HOLIDAYS: Christmas Day, New Year's Day, Anzac Day and Good Friday.

POLICE/AMBULANCE/FIRE: All emergency services are available through the local wharf office.

Police: Iluka 46 6019: Maclean 45 2444.
If unanswered Tel: 42 0222.
Fire: Maclean 54 2420
Ambulance: Maclean 45 2020.

TELEPHONES: This service is available aboard ships at Goodwood Island Wharf by prior arrangement through the Agent, local calls only, account rendered through the Port Authority.

SHORE LEAVE: When Immigration and Customs requirements have been satisfied, there is no restriction on crew shore leave, so long as they rejoin the vessel before departure.

IDENTIFICATION CARDS: There is no need for identity cards or shore passes except in so far as non-English speaking persons may wish to be able to identify themselves.

DELAYS: Berthing delays are very infrequent, only possible delay would be due to adverse bar conditions.

SERVICES: A compass adjuster resides at the port.

EMERGENCY CO-ORDINATION CENTRE: All emergencies are co-ordinated through Canberra.

STORING: Vessels can be stored by trucks, all "under Bond" goods are subject to Australian Bureau of Customs control. Trucks can proceed alongside vessel at berth during storing. Fork lift trucks can be used on wharf to handle stores. Local riggers can be employed to assist storing.

AUTHORITY: Maritime Services Board of New South Wales, G.P.O.Box 32, Sydney, N.S.W., 2001. *Tel:* 240 2111. *Telex:* MSB SYAA 24944. *Cables:* Marboard.

Local Office: Captain G. W. Gray, Pilot Station, Yamba. *Tel:* 462002.

AGENT: See "Sydney".

YAMPI SOUND, W.A. (Cockatoo Island and Koolan Island): 16.08 S. 123.38 E.

COCKATOO ISLAND CLOSED MAY 31ST, 1986. WHARF FACILITIES TO REMAIN SERVICEABLE UNTIL CLOSURE OF KOOLAN ISLAND IN 1993.

PORT LIMITS: The port limits, which are not marked on the charts of the area extend from a position in Lat. 16° 13′ 13″ S., Long. 123° 32′ 32″ E. in a Northerly direction for 10 miles to about midway between Bathurst and Irvine Islands, thence Eastward for 15 miles, thence Southwards to the mainland passing nearly 0.75 miles Eastwards of Koolan Island. The Southern limits of the port includes all the intermediate coastline between the Eastern and Western limits as defined above.

DOCUMENTS: The following documents should be prepared prior to arrival if Yampi is the first port of entry to Australia:

Health:
2 copies – Form Q360
Customs:
2 copies – Form M&S 11 (List of Crew)
1 copy – Form 42A (Store List)
1 copy – Form 5 (Articles owned or in possession of Master, Officers or crew)
3 copies – Form C&E (Ports of Call)
1 copy – Form QA4 (Declaration of Ship's Pets)
1 copy – Form QA5 (Shipmaster's Bond) – completed only if pets on board
3 copies – Crew List – unofficial
3 copies – Ship's Bonded Stores – unofficial

The following Certificates are required to be produced if Yampi Sound is the first port of entry to Australia:

Loadline Certificate
Safety Radio Certificate
Safety Equipment Certificate
Safety Construction Certificate
State Conservancy Dues (receipt)
Custom's Clearance from last port

PILOTAGE: Yampi Sound is not a compulsory pilotage area. However, the Company's Port Officer holds a foreign-going Master's Certificate, is well versed in local conditions and will act as Pilot for Masters requiring his service. Koolan Island Pilot Boarding Place 270° × 2 miles from Nares Pt. Light. The Port Officer will board at the Quarantine Anchorage.

An approved pilot ladder as per SOLAS Regulations is required.

As a Westerly wind is quite common, Masters are advised that their vessel should be adequately ballasted prior to berthing operations.

ANCHORAGE: Yampi Sound is a well sheltered deep water port with good all weather anchorages.

The Quarantine Anchorage is located on the Eastern side of Yampi Sound, with Nares Point bearing 090° True, distance 2 miles.

MAX. SIZE: *Koolan Island:* LOA, 280 m. Breadth, 43.0 m. Draft (ordinary) 16.25 m., however loading permitted to deeper drafts on rising tide.

HEALTH: Yampi Sound is a First Port of Entry to Australia, and valid Vaccination Certificates are required. Radio Pratique is available through Health Department, Port Hedland, Telex No. 99515 Qtne. The doctor is normally available during daylight hours only, excepting emergencies.

Customs normally board upon vessel berthing.

RADIO: The port is able to communicate with vessels which are fitted with VHF radio through the normal international maritime channels. The call sign is "Koolan Island". A continuous listening watch is maintained on Channel 16 when vessels are due.

The telegraphic address for Yampi Sound is "Ironsteel", Derby, W.A., Telex: 99855 BHPKNI and Masters of vessels destined for Yampi Sound are required to advise their ETA by radio on departure from the previous port, and at 72 hours, 48 hours, and 24 hours prior to arrival, depending on the vessel's departure from that port.

TUGS: The following vessels are available for shipping movements within Yampi Sound.

Latrobe	– 2 × 1,000 h.p. Tug – 30 tonne bollard pull.
Fullerton Cove	– 2 × 1,250 h.p. Tug – 35 tonne bollard pull.
Wirana	– Line launch.

Also available for general cargo work is

Dampier Barge	– Dumb barge 200 tonne capacity.

TIDES: Tidal streams within Yampi Sound generally set Easterly with the flood, and Westerly with the ebb tide. At Koolan Island Wharf, the tidal stream sets Eastward except for a period from 0.5 hours before to 2.5 hours after HW when the tidal stream sets Westward.

At Spring tides these streams are most pronounced, however may become confused at Neap tides.

Further advice on tides and tidal movement can be obtained from the Company's Port Officer. An automatic tide gauge is in operation – with tide board clearly visible.

LOADING ZONES: A Summer Loading zone exists at Yampi Sound with the exception of a Seasonal Tropical Allowance from 1st May to 30th November.

BERTHING:

Koolan Island: The loading berth at Koolan Island consists of a substantial, well fendered wharf 170.7 m. long with the centre located approximately Lat. 16° 08.3′ S., Long. 123° 44.3′ E. Additional mooring dolphins are located each end of the wharf to accommodate vessels of up to 160,000 d.w.t. with a maximum beam of 44 m.

The depth of water alongside the wharf is 17.0 m. at LWOST with a tidal range of up to 10.67 m.

The shiploader consists of a travelling, retractable, luffing, conveyor boom capable of loading iron ore at a rate of 3,000 t.p.h., and can move a distance of 118.9 m. along the wharf. Larger vessels may be required to shift along the berth during loading operations, the vessel's Master being fully responsible for shifting operations at all times.

Loading is normally continuous with the exception of closed holidays such as Christmas Day, Anzac Day, Good Friday, etc.

General cargo handling facilities at this wharf include a 33 tonne travelling and luffing crane on the Eastern end. Shore labour is available only for use as mooring gangs, and loading and handling of cargo on the wharf only. There are no ship foremen.

MEDICAL: There is a resident doctor on Koolan Island and a small medical centre. However, the nearest hospital facilities are at Derby, 140 km. from Yampi Sound, and all patients are transferred by aircraft.

SERVICES: Stores, laundry service, fresh water, repair facilities, divers and trading bank facilities are not readily available.

Fresh water can be supplied in an emergency while moderate amounts of stores are obtainable if sufficient notice has been given beforehand. Cash can be obtained.

Bunkers are not available, distillate is available to small craft in moderate quantities only after prior arrangement.

The facilities in the townsite of Koolan Island are very limited and include a Post Office, Supermarket, Shop, Savings Bank, A.N.Z. Bank, Open Air Cinema, and a Private Club. There is a swimming pool, tennis courts, squash courts and golf club.

AIRPORT: There is an airstrip located on Koolan Island and flights by the Company's Charter Aircraft connect with the Australian airline system at Derby, 140 km. from Yampi Sound.

FIRE PRECAUTIONS: There are no fire services available, except the Company Fire Brigade and the safety of the vessel, due to the isolated nature of the berths, remains the responsibility of the Master at all times.

International shore connections are readily accessible at Koolan Island Wharf adjacent to the fire hydrants.

POLICE/AMBULANCE/FIRE: In an emergency the Port Officer should immediately be informed.

Emergency telephone numbers:	*Koolan*
Medical	333
Fire Brigade	222
Port Officer – Home	487
Office	584
Agency Officer – Home	553
Office	285
Policeman – Home	910400
Office	400

TIME: See "General" before first port.

PORT REGULATIONS: Whilst in the Port of Yampi Sound, Masters are respectfully requested to observe the appropriate Quarantine Regulations, particularly in regard to the following matters:

Garbage, waste oils and tank cleaning compounds should not be discharged into the sea whilst in Yampi Sound.

Rat guards should be used at all times.

SHORE LEAVE: Identity cards are not necessary for shore leave. The townsite on Koolan Island is 10 km. from the wharf. Transport to the townsite is limited, however transport may be arranged through the Agency Officer. Seamen and visitors are not permitted to walk near the quarry areas, and are cautioned to keep clear of all machinery.

Permission must be obtained before seamen and visitors proceed ashore. Blasting in the main pit takes place at irregular intervals, indicated on the board at the end of the wharf.

GENERAL INFORMATION: The sole export from Yampi Sound is iron ore which is quarried on Koolan Island by B.H.P. Minerals Ltd.

The first shipment of iron from Koolan Island was made in 1965.

The largest shipment loaded to date is 143,144 tonnes from Koolan Island by Australian vessel "Iron Kembla".

From November to March Yampi Sound is near the Southern extremities of the N.W. monsoonal influence and cyclones can be expected during this period. The effects of cyclones are more prevalent in this area early in this period, however cyclonic conditions have been experienced at Yampi Sound during November/April.

During the season November to March (known locally as the "Wet"), the prevailing winds are Westerly, strong at times, particularly during the afternoon. Rain and thunder squalls are also frequent during the "wet", and Master's are warned to be watchful for storms, as the accompanying winds can be gale force.

The season April to October (known locally as the "Dry") brings a period of very little rain and frequent periods of strong South-Easterly winds during the mornings, giving way to light Westerly sea breezes in the afternoons. No cyclones are likely during this period.

	Koolan Island
Depth of Water	
Berth	17.00 m. (55.75 ft.)
Turning Basin	20.10 m. (66 ft.)
Channel	20.10 m. (66 ft.)
Tide, Rise and Swell	
Spring Rise	10.70 m. (35 ft.)
Neap Rise	2.10 m. (7 ft.)
Mean Rise	4.63 m. (15 ft.)
Swell	Usually Nil
Keel Clearance	0.91 m. (3 ft.)
Draft of Ballast Condition	6.40 m. (21 ft.)
Loader Facilities	
Outreach	15.85 m. (52 ft.)
Throwing Distance	4.57 m. (15 ft.)
Clear Height from HWOST	45 ft.
Berthing Side	Normally Starboard side
Stowage factor	13
Angle of Repose	about 25°
Nature of bottom	Mud
Radio Pratique	Available
Time, berthing and unberthing	Usually daylight berthing only. Unberthing upon completion.

AUTHORITY: B.H.P. Minerals Ltd, Koolan Island, W.A. 6733. *Tel:* (091) 910575. *Telex:* 99883. *Contact:* Port Officer.

AGENT: B.H.P. Minerals Ltd., Koolan Island. Telex: 99855 BHPKNI. Fax: 910500.

Ship's mail and any correspondence should be addressed: c/o B.H.P. Minerals Ltd., Koolan Island, Western Australia, 6733

Azores

HORTA, Faial: 38.32 N. 28.38 W. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
For Customs
Arrival Declaration.
Manifest of Cargo for Discharge or in Transit.
Provisions List.
Request to Commence Load/Discharge.
For Port Health
Derat Certificate or exemption.
Health Clearance from Last Port.
For Port Captain
Seaworthiness Certificate.
Certificate of Registry.
Tonnage Certificate.

PILOTAGE: Can be called by 2 long and 1 short blast on the whistle, or by International Code flag "G". Radio contact with pilot station can be made by VHF Channel 16; Tel: 2182; via radio station CUG, or in cases of urgency, through the Horta Naval Radio Station CTH.

Pilot launch painted black with "Pilotos" painted on each bulwark. If requested by Master, Pilot will board at entrance of Faial-Pico Channel or Faial-St. George Channel. Otherwise Pilot will board at port entrance. Vessels waiting for Pilot must remain 1.5 miles from the breakwater with Ponta de Doca Lighthouse in line with Avia Larga Lighthouse on Pico Island.

ANCHORAGE: The best holding ground is with the breakwater light in line with the tower of San Francisco church bearing 272°, and with Ilheu Negro in line with Casa Joao Catita bearing 203°. Another line of good soundings is in the open Channel dos Ingleses.

MAX. SIZE: For berthing, max. draft 22 ft. Depth in the artificial port is 36 ft. at HW. Depth at buoy moorings: 33 ft. Vessels of any draft can anchor outside the port.

HEALTH: If vessel has not touched any contaminated port, Pilot will haul up signal "TO" and Health Inspector will give Free Pratique. Master is obliged to send the Maritime Declaration of Health given by the Pilot to shore within one hour together with a Crew List and Cargo Manifest. If vessel has suspected case of fever on board or is coming from a port in a contaminated zone, Pratique will only be given after Health Inspector has boarded.

RADIO: Commercial station CUG and Naval station CTH.

TUGS: None available.

STEVEDORES: Gangs are provided by local stevedores syndicate when requested by Master or Agent.

MEDICAL: Doctors and hospital facilities always available.

FRESH WATER: Can be provided by one water barge, capacity 57 tons. Also available from 3 hydrants on quay, rate 50 t.p.h.

FUEL: Gas oil and gasoline available by pipe-line on quay.

GANGWAY/DECK WATCHMEN: Police Guard or Coast Guard (Policia Maritima).

OPENING/CLOSING HATCHES: Performed by stevedores.

CUSTOMS ALLOWANCES: Up to 150 grammes tobacco and small allowance wine or spirits for each man.

IDENTIFICATION CARDS: Not required.

CONSULS:
France
Greece
Germany F.R.
Italy
Netherlands
Norway

REPAIRS: Machinery and small electronic repairs can be effected.

REPATRIATION: Can be arranged.

TIME: GMT minus 1 hour in Winter. GMT in Summer (See "Ponta Delgada").

HOLIDAYS: 1st January; 25th April; 1st May; 10th June; 24th June; 15th August; Corpus Christi; 5th October; 1st November; 8th December; 25th December.

POLICE/AMBULANCE/FIRE: Police 22022; Ambulance 115; Fire 22333 and 115.

TELEPHONES: Can be connected on board vessels berthed alongside.

SHORE LEAVE: Allowed.

AIRPORT: Several flights during the day from Faial Airport, 10 km. from the port, to Lajes Airport and International Airport at Santa Maria. There is a daily boat service to Pico and several weekly to other islands.

AUTHORITY: Capitania do Porto da Horta, 9900 Horta, Azores. *Tel:* 22813.

PONTA DELGADA, San Miguel: 37.44 N. 25.40 W. (See Plan)

DOCUMENTS:
1 Store List.
4 Crew Lists.
4 Landing Passenger Lists.
4 In-Transit Passenger Lists.
2 Manifests of Cargo being landed.
1 In-Transit Cargo Manifest.
Ship's Register.
Load-line Certificate.
Safety Equipment Certificates (London Convention).
Derat Certificate.

PILOTAGE: Good deep approach. Harbour Pilot boards 0.5 miles S.E. of breakwater. Radio Harbour Master direct or through Agent ETA 48 hours notice. ETA message to include draft, reason for calling, type of bunker required, fresh water required, oil products needed, nature of repairs and what cargo, if any, aboard.

Pilot station with visual signal tower and radiotelephony, at entrance of port installations. Telephone number 2.35.50. Pilot's motorboat – Pilotos in capital white letters printed both sides hull, as well as flag "P" hoisted during day or 1 red and 1 white light at night.

When necessary, Pilot motorboat will complete identification by flashing word "Pilotos".

Besides usual signals of ICS, Pilots' station, when necessary, will hoist on main signal tower the following:

By Day – Flag "X" of ICS – Wait outside Harbour (for Portuguese or foreign ships regularly visiting Ponta Delgada); Flags "OG" of the ICS – Wait outside Harbour (for all other ships);

By Night – Two green lights (one above the other) – Wait outside the Harbour (for Portuguese and foreign ships).

ANCHORAGE: Outside artificial harbour, in roadstead and off breakwater, anchorage suitable for all ships whose drafts are too deep for admission into artificial port – over 40 ft. depth. Good holding ground.

RESTRICTIONS: Vessel considered adversely trimmed when more than 10 ft. "by the stern" or 2 ft. "by the head".

MAX. SIZE: Up to 38 ft. draft.

HEALTH: The Pilot requests Master to hoist quarantine flag when vessel comes from an infected port, or when sick people carried on board. Port doctor then boards for inspection and nobody allowed to board or leave vessel before completion of inspection.

Animals: Importation and transit of all birds and small animals allowed but valid Health Certificate and valid Rabic Vaccination Certificate required.

RADIO: San Miguel Radio, call sign CUG. Transmitting on 1663.5 kHz. Receiving on 2182 kHz. Radio telephone frequencies 4415.8, 8792.8, and 13175.5 kHz.

RADAR/VHF: Harbour radar covers range of 20 sea miles; controls inside harbour waters. VHF location – main signal tower. Call sign – "Pilotos". Operating 24 hours on Channel 16. Range 20 to 25 miles.

Calls must be made on Channel 16 and then shift to Channels 20 or 22 as indicated by Port Operations Station. Channel 14 used for communications between tug, Pilot station, Pilot aboard, during manoeuvres of mooring and unmooring. It should be understood that the Port Operations Station is not to be used for ship's business with Agents or Shippers of cargo.

TUGS: Two tugs, 1,100 h.p. and 3,400 h.p. operated by Junta Autonoma available for assistance during berthing and unberthing.

BERTHING:
No. 1 – Quay for small craft.
No. 2 – West Quay, 1,069 ft. long, min. depth alongside, LW, 20 ft.
No. 3 – Central Quay, 678 ft. long, min. depth alongside LW, 27 ft.
No. 4 – East Quay, 2,023 ft. long, min. depth alongside, LW, 40 ft.
Mooring buoys in depths ranging from 20 ft. to 30 ft.

MEDICAL: Large well-equipped hospital. Santa Casa da Misericordia de Ponta Delgada, telephone number 2.23.22 and Clinica de Bom Jesus, telephone number 2.53.52.

TANKERS: Vessels carrying explosives, inflammable liquid or any other dangerous cargoes, before entering port, must hoist International Code Signal "B" at foremast during day and a red light at night. Upon boarding vessel the harbour Pilot enquires from the Master whether there are explosives and any other dangerous cargoes on board. Masters requested to supply accurate information as to quantity and nature in order to enable Port Authorities to select a suitable berth or anchorage for vessel.

Constant Readiness: Vessels carrying dangerous cargoes, while moored, must maintain engines and propulsion machinery in readiness to leave the port under full power, if necessary.

STEVEDORES: Available. Early advice to Agent recommended.

FRESH WATER: Available at all quays ex-hydrants.

FUEL: Bunkers are readily available but, for their own convenience Masters should telegraph Agents quantity and type of bunkers required. In order to avoid possible delays to their own and other vessels, Masters are requested to replenish bunkers at the time suggested by their Agents.

GANGWAY/DECK WATCHMEN: Customs Guards are on duty upon the quay and at the entrance of the wharf. Customs guards are also placed on board and those assigned for this duty should be provided with meals (at regular meal times) and sleeping quarters on board.

CUSTOMS ALLOWANCES: Storerooms will be sealed but a reasonable quantity of stores, estimated as indispensable for consumption, may be removed before sealing. This amount should be ready for removal from the storeroom prior to arrival at berth.

CARGO GEAR: *Electric Cranes:* 1×25 tons. 1×12 tons. 2×6 tons. 1×3 tons.
Mobile Cranes: 1×15 tons.
Fork Lift Trucks: 2.5 tons – 42 tons.

IDENTIFICATION CARDS: No Crew members allowed ashore without landing cards, which are supplied by Agents.

CONSULS:

Belgium	Tel: 2 30 11	Italy	Tel: 2 42 46
Brazil	Tel: 2 26 38	Mexico	Tel: 2 27 04
Chile	Tel: 2 32 26	Netherlands	Tel: 2 22 04
Denmark	Tel: 2 42 91	Norway	Tel: 2 27 83
Dominican Rep.	Tel: 2 53 90	Panama	Tel: 2 20 45
Finland	Tel: 2 35 59	Spain	Tel: 3 26 40
France	Tel: 2 71 27	Sweden	Tel: 2 26 38
Germany F.R.	Tel: 2 39 35	Turkey	Tel: 2 26 67
Greece	Tel: 2 41 29	U.S.A.	Tel: 2 22 16

REPAIRS: Engine or other repairs can be undertaken. Repairs to electric installations, motors and refrigerating systems can also be undertaken as well as repairs to wireless stations (including VHF, radio-telephone equipment, radar, echo-sounders, direction-finders, gyro-compasses, steering-gear, Sal logs and cinema projectors).

Workshops duly equipped to undertake hull and engine repairs. Divers and equipment also available for some underwater work. Small tugs, motor-launches and lighters. Small slipway for vessels up to 200 ft. long. No dry-docking available. A sea-going salvage tug, owned by Junta Autonoma is stationed in the port.

REPATRIATION: Can be arranged.

AIRPORT: 3 km. from Ponta Delgada. Daily flights to Lisbon by TAP-Air Portugal and to all other islands of the Azores, by SATA Airlines.

Daily connections with flights of TWA and TAP-Air Portugal, to and from Europe and United States or Canada.

TIME: GMT minus 1 hour in Winter. GMT in Summer from 0000 hrs. last Sunday in March to 0100 hrs. (local time) last Sunday in September.

HOLIDAYS: 1st January – New Year's Day, 25th April (Liberty Day), 1st May (Workers Day), June 10th (Portugal Day), Corpus Christi, August 15th, October 5th, November 1st, December 1st, Monday before Ascension Day. Government offices close on afternoon of Maundy Thursday and on afternoon of Christmas Eve. Most firms close on Shrove Tuesday and Good Friday.

POLICE/FIRE/AMBULANCE: Police Tel: 22022; Fire Tel: 22333; Ambulance Tel: 22022 or 115.

TELEPHONES: Any ship moored alongside can be connected to the city's telephone network, upon request through the ship's Agent.

GENERAL: Visual storm signals are shown on Main Signal Tower.

SERVICES: Fresh and dry provisions available all the year round.

SHORE LEAVE: Allowed.

REGULATIONS: Ballast: Vessels must arrive with sufficient ballast to permit safe handling.

Ratguards: It is advisable to use ratguards while moored alongside.

Scupper Covers: Boards or other suitable devices must be used to cover outlets from lavatory discharges, etc., to prevent fouling of pier or craft alongside.

Garbage: It is absolutely forbidden to dispose of cinders, garbage, or any other refuse inside the harbour or within the territorial waters limit. Non-compliance is subject to heavy fines.

AUTHORITY: Junta Autonoma do Porto de Ponta Delgada, Rua Teofilo Braga 1, 9500 Ponta Delgada, San Miguel, Azores. *Tel:* 25221. *Telex:* 82287 Portos P. *Contact:* Carlos Tavares, Port Director.

NOTES

Please also advise Shipping Guides Ltd.

Bahamas

FREEPORT: 26.31 N. 78.46 W. (See Plan)

DOCUMENTS:

(a) Inwards:

Description	*Customs*	*Immigration*	*Agents*	*Total*
1. Crew Lists	2	1	1	4
2. In Transit Passenger List	2	2	2	6
3. Disembarking Passenger List	2	2	2	6
4. Stores List	2	—	—	2
5. Gift Shop Inventory	2	—	—	2
6. Crew's Declaration	2	—	—	2
7. Ship's Report Inwards (supplied by Agents)	2	1	—	3
8. Maritime Declaration of Health (supplied by Agents)	1	—	—	1
9. Cargo Manifest for Freeport	4	—	2	6

10. Landing cards supplied by Agents to be completed by each disembarking passenger.
11. Baggage Declaration forms supplied by Agents to be completed by each disembarking passenger.
12. Clearance from Last Port will be collected by Customs.
13. Derat Certificate should be available for inspection.

If vessel's previous port of call was in Bahamas items (7), (8) and (13) need not be complied with.

When vessel requires Consular Despatch to country such as Venezuela, 2 extra copies items (1), (4) and (6) should be supplied.

(b) Outwards:

Description	*Customs*	*Immigration*	*Agents*	*Total*
1. Ship's Report Outwards (supplied by Agents)	2	—	—	2
2. List of Embarking Passengers (if any)	2	2	2	6
3. Outward Manifest Freeport Cargo	2	—	2	4

If vessel clearing for another Bahamian port item (1) does not have to be complied with, but copy of next port's manifest required.

PILOTAGE: Compulsory for passenger vessels exceeding 199 gross tons and freighters exceeding 399 gross tons. Pilotage is compulsory for tankers berthing at Borco Dock, but vessels calling for bunkers only may anchor and bunker by barge without using Pilot services. However, pilotage recommended. Pilot station located in position in which Freeport Light bears 050° True, distance 2 miles. Approaching Freeport, particularly from North West, keep at least 3 miles from shore, and, when off port, remain at pilot station until boarded by Pilot. Pilotage area extends from pilot station to offshore refuelling moorings, anchorage to West of harbour entrance and harbour. Pilots available any time of day or night. Harbour Control Tower maintains a 24 hour watch for radio signals. Borco on VHF Channel 13 only.

Vessels can communicate by RT on 2182 kHz, and once they have established contact will normally be asked to switch to one of the following frequencies: 2638 or 2738 kHz. Vessels can also communicate by VHF Channels 16 and 14. Freeport call sign on all frequencies is ZFP 81 or Freeport Harbour Control. Give ETA 48 hours in advance, with subsequent corrections as necessary.

The Restricted Area has been extended to 1 nautical mile radius from the Eastern end of No. 2 Jetty (Inner Jetty). Vessels are prohibited from anchoring in this area. No other vessels (with the exception of Borco or Harbour Company vessels) should enter the Restricted Area owing to the fire hazard created by the handling of inflammable liquids emitting explosive vapours.

Additionally, a 2 nautical mile area centered on the Eastern end of No. 2 Jetty (Inner Jetty) has been established. Any vessel closing the port from seaward in order to take on stores, land crew members, take on bunkers, fresh water, etc., other than a vessel going alongside the jetties or entering the harbour, should remain outside this 2 mile limit.

Unauthorised entry into these areas does not carry a penalty, however, the prudent mariner is advised that in any investigative proceedings into accidents within these areas, due account will be taken of any failure by a vessel to observe the 2 nautical mile and 1 nautical mile limits as indicated.

ANCHORAGES: There is a good offshore anchorage approximately 2,500 ft. to the N.W. from the entrance channel for a distance of 1.5 miles (submarine cable in existence) which is sheltered from Northerly winds. The bottom of the sea is lime and coral rock covered by sand and loose lime.

Anchorage area is exposed during periods when strong Southerly winds prevail. During these periods, vessels may drag their anchors. Mariners are therefore advised to use anchorage areas with caution.

A vessel can anchor in depths of 14.6 m. to 18.3 m. (48 ft. to 60 ft.) to the West of the harbour entrance with No. 1 Jetty (Outer Jetty) in transit. Anchorage is not recommended for vessels greater than 60,000 d.w.t. and vessel should be prepared to vacate the anchorage at short notice, particularly if the wind sets in from between S.E. and West. Pilotage is not compulsory but recommended and is available upon request.

APPROACHES: The following landmarks are prominent when approaching the port: Borco Refinery 3 chimneys. 369 ft. above MLW. White with red bands showing 3 sets of 4 red lights at night. Visible approx. 20 miles. Flames occasionally visible from Borco stacks. Bahamas Cement Company storage silos just to West of harbour entrance. Visible approx. 15 miles.

Currents in the area are not predictable and are largely wind induced. Harbour is approached through straight channel 1,800 ft. in length, 300 ft. width and with controlling depth of 30 ft. below MLW. Turning basin, 2,000 ft. by 1,800 ft. Vessels may enter and leave harbour on 24 hour basis, weather permitting.

Vessels using Freeport Harbour are advised that an Aero Beacon situated in the Dock 1 area transmits continuously on 209 kHz. the group "ZEP" at a rate of 7 words per minute. The output is rated at 100 Watts. Reception by surface craft has been registered at 60 – 70 nautical miles distance.

MAX. SIZE: *Tanker Berths.*

Berth		*d.w.t.*	*Depth Alongside (MLW)*	*Max. Draft*
No. 3	up to	38,000	50 ft.	40 ft.*
4	" "	80,000	54 ft.	47 ft.*
5	" "	90,000	80 ft.	50 ft.*†
6	" "	312,000	87 ft.	82 ft.
7	" "	65,000	53 ft.	40 ft.*
				Heading East 42 ft.
				Heading West
8	" "	100,000	56 ft.	50 ft.*†
9	" "	130,000	68 ft.	*‡
10	" "	500,000	92 ft.	91 ft.

*Drafts on Berth Nos. 3, 4, 5, 7, 8 and 9 are limited by depths over submarine pipe-lines in berth approaches.

†47 ft. if headed S.E.

‡46 ft. arriving/47 ft. departing.

HEALTH: Pratique granted by Customs Boarding Officer after Maritime Declaration of Health Form completed by Master and Derat Certificate examined. Important that vessel should not commence refuelling nor work cargo until cleared. A vessel arriving from another Bahamian port, e.g. Nassau, does not require Pratique. If any suspected disease or fever on board, Pratique may be withheld, pending examination by Government Medical Officer.

RADIO: Recommended that radio messages giving ETA, etc., be transmitted via Miami Radio.

Tankers proceeding to Borco Installation should transmit the following information within 6 hours of clearing at last port:

(a) name of tanker;
(b) name of port at which the tanker last called;
(c) date and hour of estimated time of arrival at Freeport.

It is imperative that the Master of each tanker shall establish communications with the refinery at least 72 hours prior to the estimated time of arrival, and that the refinery be notified of any change in ETA. Four hours before arrival at Freeport the Master should establish contact by VHF radio and advise on vessels precise ETA. Any berthing instructions will be passed to the Master at this time.

Radio Telephone: A continuous watch is maintained by the Control Tower of Freeport (Bahamas) Harbour on 2182 kHz and on VHF Channels 16 and 14.

Working frequencies are:

Medium Frequencies:

2638 kHz – Ship-to-Shore
2738 kHz – Ship-to-Shore
2782 kHz – Freeport Harbour (Private frequency).

VHF: Channel 14

In addition, Freeport Harbour can communicate on:

2031.5 kHz – Miami Marine.
2118 kHz – Miami Marine.
2198 kHz – Nassau Marine.
2670 kHz – Coast Guard

As far in advance of the time of arrival as possible, but not less than 1 hour, vessels should establish radio communication with "Freeport Harbour Control" to amend or confirm the ETA.

TUGS: Borco Towing (Bortow) provide 3 tugs for assisting in berthing and unberthing. These are of 4,500 h.p. In addition there are 2 chartered tugs of 4,000 h.p.

BERTHING: 17 berths, depth alongside up to 30 ft.

STEVEDORES: Freeport Harbour Company, Ltd., are the sole stevedoring company. Some limitation on labour availability and difficult to obtain more than 2 gangs at any one time. Normal discharging rate 10 d.w.t. per hook per hour. Port Authority operate forklift trucks ranging from 2 to 30 tons capacity. First ETA at least 48 hours prior arrival, to ensure labour booked in time.

CRANES: Forklift trucks ranging from 5,000 lbs. to 18,000 lbs. capacity, as well as a mobile crane with a lifting capacity of 12 tons, are owned by Freeport Harbour Company. Mobile cranes up to 35 tons capacity may be hired from local companies.

MEDICAL: No port Medical Officers. Persons requiring attention must proceed approximately 7 miles to Freeport's hospital and dental clinic, or to Antoni Clinic or Lucayan Medical Group Clinic which approximately same distance from port area. Holistic Health World also approximately 7 miles from Freeport Harbour. Advance notice to Agent desirable but not essential.

SPECIALISED CARGO HANDLING FACILITIES: *Cement:* Bahamas Cement Company own and operate the whole of Basin No. 3 (1,365 ft. by 350 ft. by 636 ft. – depth 30 ft. at MLW), with bulk handling facilities.

Roll-on/Roll-off: Basin No. 1: 2 ramps for 2 vessels (passenger/car ferry type) at S.E. end. Depth 28 ft. MLW. Both ramps approx. 4 ft. above MHW.

Basin No. 2: 2 ramps for 5 landing ship type vessels at S.E. end. Depth 15 ft. MLW. 1 ramp 4 ft. above MLW (4 vls.), the other 0 ft. (1 vl.).

LPG: There is an LPG and Chemical Berth in Basin No. 4 (Berth No. 14) which accommodates coastal tankers.

Basin No. 4: Berths No. 12-15 used for bunkering vessels up to 600 ft. LOA.

Berths No. 14 (West) and No. 12 (West) accommodate ships and barges for loading of rock for export.

TANKER BERTHING FACILITIES: There are 4 off-shore loading platforms (sea islands) situated between 2,500 ft. and 3,600 ft. from the shore line at Pinder's Point. There are 2 berths on each platform making a total of 8 berths which can accommodate tankers ranging in size from 16,000 to 500,000 d.w.t.

Inside the harbour at Dock 1 are facilities for handling smaller vessels, mainly barge loading and import/export of refined products on a small scale. This is the only Mogas import berth for the island.

Borco Dock 1: The No. 1 Dock area is the centre of Bortow's Operations. Bortow is responsible for the maintenance and provision of all marine transport associated with the off-shore operation. Bortow provides tug-boats, mooring boats, personnel carriers, pilotage service and bunker barge facilities, the barges being used to bunker and water vessels in the harbour and in the anchorage.

The working length of the dock is 600 ft., it will accommodate vessels up to approximately 18,000 d.w.t. with a maximum draft of 27 ft.

Bortow provide a bunkering service. This service is given to vessels visiting the Port of Freeport, (cruise ships, cargo ships), and to vessels anchoring outside the port solely to purchase, bunker fuel. The barge service is also used occasionally at Borco's marine facilities when it is more convenient to bunker a vessel by barge. Bunker fuel supplied to the above mentioned vessels ranges from diesel oil to heavy fuel oil, blends being made in between to suit individual customer requirements.

Products imported or exported via the No. 1 Dock loading facilities are:

Imports:
1. Premium Gasoline.
2. Regular Gasoline.
3. Heavy Fuel Oils for Bunkering.
4. Heavy Fuel Oil, to be supplied as bunker fuel to visiting tankships.

Exports:
1. Diesel oil to small craft for inter-island distribution.
2. All grades of fuel oil into barges or tankships when scheduled for delivery to the Out-Islands or the East Coast of U.S.A.
3. Kerosene.
4. LPG.

Note: Tankships, except for gasoline imports and local sales of kerosene and LPG, normally only use the No. 1 Dock facilities during occasions of extreme bad weather.

Loading Platforms: The 3 loading platforms which accommodate Berths Nos. 3 & 4, 5 & 6, 7 & 8 are of fully enclosed, box like type of construction the interior of which contain equipment for the operation of each respective platform.

The platform serving Berth Nos. 9 & 10 is of a slightly different design in-so-much that it is of an open type construction with no between decks storage space.

All of the platforms are situated in an elevated position approximately 40 ft. above sea-level and are supported by piling structures sunk into the sea-bed.

The platforms serving Berth Nos. 3 & 4, 7 & 8 and 5 & 6, 9 & 10 are interconnected by cat-walks which extend in a N.W./S.E. direction, in line with prevalent weather conditions. The overall lengths of these structures are approximately 2,040 ft. and 3,000 ft. respectively.

Each loading platform is entirely self-sufficient in that they each have their own power supply, fresh water, office and store-rooms, fire fighting and anti-pollution equipment, slop systems, storm water systems and a host of contributory operating equipment. Communication systems amount to P.B.X. Telephones, Magneto Telephones (inter-Jetty communication) and 2 VHF Radio systems.

Two fresh water lines extend from the shore, one to Berth Nos. 9 & 10 and the other to Berth Nos. 3 & 4. Fresh water is then supplied to Berth Nos. 5 & 6 via Berth Nos. 9 & 10, and Berth Nos. 7 & 8 via Berth Nos. 3 & 4. This water supply can also be used to water tankships alongside the platforms.

To enable tankships to be safely secured alongside the loading facilities, each platform and associated cat-walk unit has mooring dolphins with quick-release mooring hooks and integral capstans.

Berth Nos. 3 & 4: Situated approximately 2,500 ft. from the Pinder's Point shore-line with a platform size of 94 ft.×100 ft.× 12 ft. in depth. Submarine sea lines available are:

1×30 in.	Diameter	Crude Oil Line.	Mothballed
2×24 in.	"	Fuel Oil Lines.	
1×20 in.	"	Diesel Oil Line.	
1×20 in.	"	Kero/Jet Line.	
1×20 in.	"	Naphtha Line.	
2×20 in.	"	Dirty Ballast Lines.	
1×18 in.	"	Bunker Fuel Line.	

These pipe-lines terminate at 12 in. Chiksan marine loading arms – counter balanced and hydraulically powered.

Berth Nos. 5 & 6: Situated approximately 3,600 ft, from the Pinder's Point shore-line with a platform size of 100 ft.×144 ft.×12 ft. in depth. Submarine sea lines available are:

Berth No. 5.

2×30 in.	Diameter	Crude Oil Lines.	Mothballed
1×24 in.	"	Fuel Oil Line.	
1×20 in.	"	Diesel Oil Line.	
1×20 in.	"	Kero/Jet Line.	
1×20 in.	"	Dirty Ballast Line.	
1×18 in.	"	Bunker Fuel Line.	

Berth No. 6.

2×30 in.	"	Crude Oil Lines.
1×24 in.	"	Fuel Oil Line.
1×20 in.	"	Dirty Ballast Line.
1×18 in.	"	Bunker Fuel Line.

These pipe-lines terminate at 16 in. Chiksan marine loading arms of the same design as on Berth Nos. 3 & 4.

Berth Nos. 7 & 8: This platform was completed and handed over in 1973. Situated approximately 2,500 ft. from the Pinder's Point shore-line with a platform size of 110 ft.×90 ft.×12 ft. in depth.

Submarine sea lines available are:

2×24 in.	Diameter	Fuel Oil Lines.
1×20 in.	"	Diesel Oil Line.
1×20 in.	"	Kero/Jet Line.
1×20 in.	"	Naphtha Line.
1×20 in.	"	Dirty Ballast Line.
1×18 in.	"	Bunker Fuel Line.

There is no crude oil facility available at this berth. Crude oils will be handled by Berth Nos. 6, 9 & 10 under normal conditions.

The above listed pipe-lines terminate at 12 in. Chiksan marine loading arms, again similar in construction to the berths mentioned previously. 6 arms service each berth of which 2 are bunker lines and the remaining 4 for product loading.

Berth Nos. 9 & 10: This platform, the most recent addition to the marine loading facilities at Borco was completed and handed over in 1974.

Situated approximately 3,600 ft. from the Pinder's Point shore-line with a platform size of 190 ft.×125 ft. (No below deck space) this facility is of a rather different design to the other loading platforms namely:

The platform is of a completely open design with major operating equipment sited on the top surface. Ancillary equipment such as slop and storm water systems are situated below the platform. Because of its design, equipment is more readily available and build up of hydrocarbon vapours is eliminated.

Other features incorporated within the platform design are:
1. Weather recording station.
2. Meter (bunker) proving systems – electronically controlled.
3. Berthing approach system for Berth No. 10 which is used by the Pilots as an aid in safety moving vessels on or off the berth.

Submarine sea lines available are:

1×20 in.	Diameter	Bunker Fuel Line.
1×24 in.	"	Fuel Oil Line.
1×20 in.	"	Ballast Water Line.
1×42 in.	"	Crude Oil Line.
1×30 in.	"	Crude Oil Line.

As can be readily seen this platform is a crude oil/fuel oil loading/discharging facility only, white oil products are not available. The above stated lines terminate at 10 Chiksan marine loading arms, again similar in construction to those on other platforms. The service per berth as below:

Berth No. 9.	1×12 in.	Diameter	Bunker Fuel.
	1×12 in.	"	Ballast.
	1×12 in.	"	Fuel Oil.
	2×12 in.	"	Crude Oil.
Berth No. 10.	1×16 in.	Diameter	Bunker Fuel.
	1×16 in.	"	Ballast.
	1×16 in.	"	Fuel Oil.
	2×16 in.	"	Crude Oil.

Also see "Shipmaster's Report".

BALLAST: Facilities are provided for discharge of dirty ballast at the tanker jetties. Each jetty is connected by a 20 in. ballast pipe-line. These lines have been tested to 350 lb. pressure and are designed for 150 lb. working pressure.

DENSITY: Salt water. Rise and fall of tide between 3 ft. and 3 ft. 6 in.

FRESH WATER: Fresh water available by pipe-line in the harbour. Average pumping rate 18 t.p.h. per connection with maximum 2 connections in the harbour. Fresh water also supplied by barge to the tanker berths at the rate of about 30 t.p.h. and to vessels at anchorage.

FUEL: All grades available. 24 hours notice desirable. Bunkering facilities are provided at each tanker jetty. 1×16 in. pipe-line provides "C" fuel and intermediate fuel, and 1×16 in. pipe-line provides marine diesel and gas oils. Fuel also available to vessels at anchor by barge.

GANGWAY/DECK WATCHMEN: Not necessary as security guards patrol port area 24 hours a day.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

SHIP CERTIFICATES: Derat Certificate required.

CUSTOMS ALLOWANCES: 50 cigars or 200 cigarettes or 1 lb. tobacco and 1 quart of spirits per man.

CARGO GEAR: Currently no cranes based permanently in harbour area. However, mobile cranes can usually be made available, although essential shipowners consult Agents before accepting heavy lifts requiring shore facilities for discharge

IDENTIFICATION CARDS: Port personnel and agents wear I.D. cards issued by Freeport Harbour Co.

CONSULS: No Consuls in Freeport.

REPAIRS: Only minor repairs.

SURVEYORS: 1. Caleb Brett (Bahamas) Ltd., 1st Floor Administration Building, Freeport Harbour, P.O.Box F-2428, Freeport, Bahamas. Tel: (809) 352-7608. Telex: (297) 30029. Cables: Brettcalcabhm.

2. E. W. Saybolt & Co., S.A., 24C Kipling Building, P.O.Box 2049, Freeport, Bahamas. Tel: (809) 352-7616. Telex: (297) 30042. Cables: Saycosa. Additional offices South Riding Point, Grand Bahama, Harbour Area, Freeport.

3. Epic Petroleum Inspection Co. Ltd., P.O.Box F-2525, 25 Churchill Building, Freeport, Bahamas. Tel: (809) 352-2525, 352-4139, 373-4840. Telex: 30051.

REPATRIATION: Facilities for crew changes and repatriation by air.

AIRPORT: Approximately 5.5 miles from harbour, served by following airlines: Bahamas Air, T.W.A., Eastern Airlines, Air Canada and Pan American Airways.

TIME: GMT minus 5 hours. Summertime, from April to October, GMT minus 4 hours.

HOLIDAYS: No cargo work in the port on following days: New Year's Day; Good Friday; Easter Sunday; Christmas Day; Labour Day (1st Friday in June); Whit Monday; Independence Day (July 10th); Boxing

Day (December 26th); Emancipation Day (1st Monday in August); Discovery Day (October 12th). Work ceases 1700 hrs. on day preceding above holidays and commences 0800 hrs. on day after.

POLICE/AMBULANCE/FIRE: Police Tel: 352-8333. Police Station at Passenger Terminal (Deck No. 1) and another approximately 2 miles from harbour, and operates several radio-controlled vehicles. Ambulance Tel: 352-6735. Ambulance based at Rand Memorial Hospital which approximately 7 miles from harbour. Fire Tel: 352-8888. Fire Station approximately 7 miles from harbour and at present consists of 2 fire-trucks with auxiliary vehicles.

TELEPHONES: Can be placed on board at certain berths. There is a connecting charge.

SHIP SUPPLY SERVICE: Lucaya Shipping and Trading Co. Ltd., P.O.Box F-3240, Freeport, Grand Bahama, Bahamas. Tel: (809) 352-3581. Cables: Caytrade. Telex: 30 711.

Services may be performed by launch or tug boat 2.5 to 3 miles off the port; at a berth in the harbour or at anchorage.

SHIPMASTER'S REPORT: December 1984.

Pilotage: Pilot boards from tug and requires pilot ladder about 10 ft. above water. There are no pilot boats.

Radio: With 5 day message Receivers require the following:

- Name of vessel and call sign.
- Deepest arrival draft.
- Gross bbls. at observed temperature on arrival (estimated).
- Average temperature in °F on arrival (estimated).
- Expected discharge rate in bbls/hr. assuming unrestricted by shore facilities.
- Maximum freeboard 55 ft.
- No. and size of cargo manifolds.
- No. of hours required to ballast.
- Ship's loaded gross bbls. at 60°F less retained slops.
- Ship's slop quantity on arrival load port indicating oil and water in bbls.
- Indicate if Loading On Top (L.O.T.).
- Which slop tank.
- Indicate ship experience factor for last 5 cargoes excluding initial voyage after dry dock.

Was Letter of Protest noted, if so give brief details.

VHF: Channel 13 for working Pilots.

Tugs: Usually 2 tugs, 1 of which will put up 2 headlines and 2 quarter lines, the other just 2 headlines. Depends on weather conditions as to which tug is forward and which aft.

AUTHORITY: Freeport Harbour Company, Ltd., P.O.Box F-2465, Freeport, Grand Bahama. *Tel:* (809) 352-9651/4 or (809) 352-9088. *Telex:* (297) 30079. *Cables:* Freharco. *Contact:* Jackson L. Ritchie, Assistant Port Director (Operations).

NASSAU: 25.05 N. 77.20 W. (See Plan)

DOCUMENTS:

(a) Inwards:

	Description	*Customs*	*Immigra-tion*	*Agents*	*Total*
1.	Ship's Report Inwards (supplied by Agents)	2	—	—	2
2.	Maritime Declaration of Health (supplied by Agents)	1	—	—	1
3.	In transit passenger manifest	2	1	2	5
4.	Disembarking passenger manifest	2	1	2	5
5.	Crew Lists	2	—	1	3
6.	Crew Curio List	1	—	—	1
7.	Stores List	2	—	1	3
8.	Gift Shop Inventory	1	—	—	1
9.	Cargo Manifest	3	—	3	6

10. Derat. Certificate – should be available for inspection.
11. Clearance from last port to be given to Customs.
12. Immigration landing cards must be completed by all passengers. (These are supplied by Agents.)
13. Customs Declaration forms must be completed by all disembarking passengers. (These are supplied by Agents.)
14. Cargo Tally books – two per hatch where Nassau cargo is to be discharged.

If vessel's previous port of call was in Bahamas items 1, 2 and 10 need not be complied with. Item 9 – two cargo manifests supplied to Agents should show freight charges in detail.

Note: All non-Bahamian passengers finally disembarking at Nassau must be in possession of return ticket or have proper Bahamas Immigration Entry Permit.

(b) Outwards:

	Description	*Customs*	*Immigra-tion*	*Agents*	*Total*
1.	Ship's Report Outwards (supplied by Agents)	2	—	—	2
2.	List of embarking passengers	2	1	2	5
3.	Manifest covering cargo loaded	3	—	3	6

Note: If vessel clearing for another Bahamian port, item 1 does not have to be complied with, but copy of next port's manifest required.

PILOTAGE: Presently no signal station and Masters requested telegraph ETA at least 48 hours in advance with subsequent amendments as necessary to Agents, who will inform Pilots. Pilot normally boards in approximate position one mile North of Western end of Hog Island (Paradise Island). When port closed due to bad weather a red flag will be displayed at Western end of Hog Island by day and red light in same location at night. Vessels may anchor in vicinity of pilot station where depth of water allows. There are three Pilots and boats are clearly marked "Pilot" and display international pilotage signals. Pilots are accustomed to boarding by pilot ladder. Pilots on VHF Channels 16 and 14.

ANCHORAGES: Anchorage just off Nassau Harbour extends over area North and East of Western point of Hog Island to approximately half a mile off shore, where it becomes too deep.

RESTRICTIONS: No restrictions apart from adverse weather conditions or excessive draft which may make it advisable to enter on certain state of tide.

MAX. SIZE: No restriction on length or breadth but safe draft is considered 35 ft. Largest vessel to enter harbour to date is QE II. Safe draft cargo pier 25 ft.

HEALTH: Provided vessel healthy Customs grant Free Pratique on receipt International Declaration of Health form completed and signed. If any suspected disease or fever on board Master should advise Agent by cable, who will inform appropriate authorities and advise Master clearance procedure. Once vessel obtained Free Pratique in one Bahamas Port and proceeds another there are no further procedures at next port.

RADIO: Communications can be directed through Nassau Harbour Control, which came into existence in 1974, in an effort to control shipping and movements in and out of the harbour of Nassau.

VHF frequencies used are Channels 6, 9, 14, 16, 12, 68, 73, 74, 79, 20, 65 and 66.

Single Side Band frequencies used are 2082.5 – 2182 kHz. Also transmits 2522 kHz, receive 2126 kHz upper sideband.

AM Radio Ship-to-Shore frequencies are 2182 kHz.

TUGS: Tugs normally join vessel at entrance to turning basin. Usual for vessels to provide tow line.

BERTHING: No specific requirements but due to congestion essential that Agent is kept well informed of ETA.

CRANES: There are 2 lift cranes for Container Handling at the Union and John Alfred Wharves. Both wharves are geared exclusively for container traffic, but a limited amount of break bulk cargo is handled at the Union Wharf.

At the Union Wharf is an "American" Truck Crane of 120 ton capacity geared to handle 20 ft. and 40 ft. containers with a 100 ft. boom used in Lo/Lo method.

The John Alfred Wharf is served by a Manitowac Track/Crawler crane of 130 ton capacity with a 150 ft. boom. Here 20 ft. and 40 ft. containers are landed by Lo/Lo method. Also available 135 ton mobile crane.

The Union Wharf encompasses a total berth length of 546 ft., while at the John Alfred Wharf berth length is limited to 500 ft.

BULK CARGO FACILITIES: There are no facilities for this type of cargo.

BRIDGES: No bridges affecting entrance to main berths.

STEVEDORES: Master should include in ETA number gangs required and tons per hatch for discharge, as shipping documents do not always arrive in advance. Discharge rate approximately 10 t.p.h.

MEDICAL: Full medical services available. In serious cases requiring immediate attention Agent should be advised so that doctor may board on arrival.

TANKERS: Limited facilities provided for tankers at Clifton Point on S.W. side of Island. Vessels moor to dolphins offshore and discharge through submarine pipe-line. Vessels proceeding Clifton Point (unless otherwise advised) should pick up Pilot off Nassau and clear Customs. Only oil imports are for domestic purposes and there is no oil refinery. Max. draft Clifton Point 36 ft.

Tugs: 2 tugs of about 2,000 h.p. each are used to assist in berthing. A third tug is due by July 1988. Usually 1 tug assists when leaving.

Cautionary Advice: In the past few years several Caribbean berths/fendering systems were damaged during berthing operations, the absence of towing line, between tanker and tug(s) being a contributory cause. It is recommended that the Master discuss berthing practices with the Pilot before the approach and insist that a towing line be passed.

Berthing: The vessel is moored port side to the pier. The starboard anchor is used at times. This procedure is sometimes reversed. Mooring is usually carried out during daylight hours, but vessels unmoor and sail at all hours. A boat takes the headlines to the buoy first, then the forward and aft breastlines, the springlines to the platform last. Six ropes forward, the same number aft. The boat remains in attendance at the pier to transport personnel and crewmen, during the discharge.

Hoses and Boom: One or more 8 in. diameter hoses are used for clean products. Two or more grades can be pumped simultaneously.

The platform is fitted with oil cargo pipe-lines as follows:

1 LPG line, owned by Tropigas/Taylor, 6 in.
1 distilled products line, Texaco, 8 in.
1 diesel oil line, Bahamas Electric Co., 12 in.
1 jet fuel/diesel oil line, Esso, also Shell, 12 in.
1 Avgas/Mogas line, Shell, also Esso, 8 in.
1 fuel oil line, Bahamas Electric Co., 10 in.

Tankers carrying more than one grade to Clifton Point should lay out the cargoes in such a way that two or more grades can be discharged simultaneously.

1 × 10 in. diameter hose is used for dirty products. Maximum pressure allowed on the hoses is 125 p.s.i.

Vessel's cargo boom is required for lifting cargo hoses.

On completion of discharge, vessel's Butterworth or fire hose is connected to special hydrants on the cargo pipe-lines, to flush back the cargo hoses to the vessel's slop tanks.

DENSITY: 1025.

FIRE PRECAUTIONS: No special requirements. Vessels carrying explosives should notify Agent in advance so that Authorities may be advised.

FRESH WATER: Available Prince George Wharf on old section but not yet provided on new deep water pier. Rate 10 – 15 t.p.h. from hose connections on dock. Public Water Department supplies hose end connections. Price approximately $9.55 per 1,000 gals. depending on amount required. No water barges available.

FUEL: No fuelling facilities available with exception of small quantities diesel which may be delivered by Tanker Truck (4,000 gals.) by prior arrangement.

Small tankers can deliver fuel (80,000 – 100,000 gals.).

GANGWAY/DECK WATCHMEN: Vessel to supply own watchman if required.

OPENING/CLOSING HATCHES: Roller hatches usually opened and closed by vessel's crew but older wooden hatches and tarpaulins handled by stevedores.

SHIP CERTIFICATES: Only certificate normally required for inspection is Derat Certificate.

CUSTOMS ALLOWANCES: Quantity should be reasonably based on individual requirement and length of stay in port. Actual amount is at discretion of Customs Officer clearing vessel.

IDENTIFICATION CARDS: Not required.

CONSULS:

			Telephones	
Country	*Status*	*Location*	*Office*	*Home*
Austria	Honorary Consul	Nassau	74258	74258
Belgium	Honorary Consul	Nassau	32371	74233
Canada	Honorary Commercial Agent	Nassau	55591	31305
Cyprus	Honorary Consul	Nassau	24292	36189
Denmark	Honorary Consul	Nassau	42265	42265
France	Honorary Consular Agent	Nassau	32371	74233
	Honorary Consular Agent	Freeport	352-7831/2	373-4611
Germany F.R.	Honorary Consul	Nassau	32156-8	51230
Greece	Honorary Vice-Consul	Nassau	24097	52025
Guyana	Honorary Consul	Nassau	35491	34880
Iceland	Honorary Consul General	Nassau	28956	57709
Israel	Honorary Consul	Nassau	28956	34095
Italy	Honorary Consular Agent	Nassau	24416	42013
Japan	Honorary Consul	Nassau	35654	Unlisted
Mexico	Honorary Consul	Nassau	52863	
Monaco	Honorary Consul	Nassau	51166	74050
Netherlands	Honorary Consul	Nassau	28210 22275	22334
Norway	Honorary Consul	Nassau	24614	41112
Peru	Honorary Consul	Nassau	57511	52177
Sweden	Honorary Consul	Nassau	77944 77785	77944
Switzerland	Honorary Consul	Nassau	28349	

REPAIRS: Only limited repairs and requirements should be passed to Agent in advance of vessels arrival.

REPATRIATION: Crew changes can be arranged but accommodation expensive and not always available at short notice.

AIRPORT: Extremely good air services. At certain periods airlines become fully booked and suggested that reservations be made in advance.

TIME: Local time (Eastern Standard Time) 5 hours behind GMT. Daylight Saving Time 4 hours behind GMT applicable 27th April to 26th October.

HOLIDAYS: New Year's Day (1st January); Good Friday; Easter Monday; Whit Monday; Independence Day; Labour Day; Emancipation Day; Discovery Day (12th October); Christmas Day (25th December); Boxing Day (26th December); Cargo can be worked on all holidays except Labour Day and Christmas Day.

POLICE/AMBULANCE/FIRE: Police 24444; Ambulance 22221; Fire 919.

TELEPHONES: No facilities for placing telephones on board.

GENERAL: (a) Bonded Stores only available to passenger vessels regularly calling Nassau. *(b)* Passenger Vessels: Is of assistance to Agent to know how many passengers disembarking and how many in transit.

SERVICES: Most specialised services unavailable, e.g. radar, radio, gyro, tank cleaning, compass adjusting. If Agent given sufficient notice arrangements can be made for technicians to be flown from Miami.

SHORE LEAVE: No limitations.

DEVELOPMENTS: Cruise ship facilities to be increased from 7 berths to 11 berths.

Facilities will include an additional pier 1,200 ft. long and 100 ft. wide with berthing on both sides.

Entrance widening from existing 400 ft. to 700 ft.

Increase in size of turning basin from 1,500 ft. to 1,700 ft. diameter.

Dredging of dock area to 37 ft.

Completion expected early 1990.

AUTHORITY: Port Authority of Nassau, P.O.Box N-1417, Nassau, Bahamas. *Tel:* 809-32-22049, 28832 and 67354. *Telex:* 20590 Bahport. *Cables:* Port Department, Nassau, Bahamas. *Contact:* Leon H. Flowers, Port Controller.

SOUTH RIDING POINT: 26.37 N. 78.14 W. (See Plan)

LOCATION: The terminal is situated at South Riding Point on the South coast of Grand Bahama Island, about 35 miles East of Freeport.

At a distance of 4,000 ft. offshore, the Sea Island Mooring Dolphin extremities are positioned thus:

No. 1 Mooring Dolphin: Lat. 26° 36′ 43.7″ N., Long. 78° 13′ 49.5″ W.

No. 6 Mooring Dolphin: Lat. 26° 36′ 46.7″ N., Long. 78° 13′ 33.6″ W.

BAHAMIAN FLAG: Bahamian national flag shall be flown during daylight hours by all vessels within Bahamian territorial waters.

DOCUMENTS: Incoming:

Prepared by Ship:

3 Copies of Declaration Form Y14.
3 Crew Lists.
2 Stores Lists.
2 Crew Declaration forms.
4 Copies of Bills of Lading.

In addition the ship will have to supply a clearance from last port of call, Derat Certificate, vaccination lists and the usual ships papers viz: Register, Safety Construction, Radio, Safety Equipment, Loadline Certificate. Oil Record Book must be up to date and available for inspection.

All vessels must have a valid certificate of insurance or other financial security in respect of civil liability for pollution damage.

Prepared by Agent:

1 Copy of Maritime Declaration of Health.
2 Copies of Inwards Report.

Customs and Immigration: After pratique has been granted, an immigration and customs inspection is carried out. The Master will be required to furnish particulars including:

(a) Name and nationality of vessel.
(b) Last port or ports of call.
(c) Nature of cargo.
(d) Number of crew.
(e) Number of passengers.
(f) Port of destination and name of Agent.
(g) Number of days since departure from last loading/unloading port.

Copies of the crew list and stores remaining on board will be required before clearance is granted.

Masters of vessels must take every precaution to ensure that no drugs, wine or alcoholic liquors are supplied, sold or conveyed to any person at the terminal.

Outgoing:

Prepared by Agent:

4 Copies of Outward Cargo Manifest.
2 Copies of Outwards Report.
Port Clearance Certificate.

In order to comply with Immigration regulations, crews should be checked before sailing and any missing seaman reported to the Agent. In the case of seamen left ashore for any reason, Masters are requested to furnish a letter accepting responsibility for all expenses incurred, advances if any, and instructions for repatriation.

Documentation and Clearance:

Documentation on completion of cargo operations is normally attended to prior to the vessel vacating the berth. In cases where excessive documentation is anticipated a vessel may be asked to leave the berth to complete this standing off. In such cases launches would be made available to transport documents and personnel in order to expedite the vessel's departure.

Early Departure Procedure (EDP) is available on request.

PILOTAGE: Berthing and operational instructions will be given by South Riding Point Control on vessel's arrival at South Riding Point.

A vessel will be deemed to have arrived when in a position, 3 miles South of the sea island and in this position the Berthing Master will board from a tug.

Before a vessel is allowed to proceed the Master will be required to sign the following forms:

(a) Conditions of use of sea berths and inner harbour at South Riding Point (See "Appendix I").
(b) Tug Requisition (See "Appendix II"). The Master will also be provided with copies of the Fire and Safety Regulations (See "Appendix IIIA and IIIB") and a Ship/Shore Safety Check List Form (See "Appendix IVA and IVB").

APPROACHES: Vessels approaching South Riding Point from the Eastern entrance of Northwest Providence Channel are recommended to make departure from Great Stirrup Cay Lighthouse Gp. Fl. (4) 15 sec. 14m. and head directly for South Riding Point Terminal.

Preliminary extensive soundings by U.S. Hydrographic Department indicate no underwater obstructions up to 100 fathom line within Northwest Providence Channel.

Landmarks: Conspicuous towers are sited adjacent to South Riding Point Terminal in the following positions:

1. Position: Lat. 26° 36′ 40″ N., Long. 78° 20′ 51″ W. Steel framework tower painted red and white, 175 ft. above sea level.
   Light: Air Occ. R. 4 sec. 1 F.W. 2 F.R. vert.
2. Position: Lat. 26° 36′ 51″ N., Long. 78° 19′ 25″ W. Steel framework tower painted red and white, 407 ft. above sea level.
   Light: Air Qk. Fl. R. 2 F.R. vert.
3. Position: Lat. 26° 37′ 06″ N., Long. 78° 18′ 47″ W. Steel framework tower painted red and white, 211 ft. above sea level.
   Light: Air Occ. R. 8 sec. 1 F.R. vert.
4. Position: Lat. 26° 37′ 44″ N., Long. 78° 14′ 20″ W. Steel framework tower painted red and white, 241 ft. above sea level.
   Light: Air 2 F.R. vert.
5. Position: Lat. 26° 42′ 44″ N., Long. 78° 09′ 27″ W. Steel framework tower painted red and white, 270 ft. above sea level.
   Light: Air Occ. R. 3 sec. 1 F.R. vert.

The F.6M. light exhibited from a white painted wooden mast close East of High Rock Settlement in position: Lat. 26° 37.3′ N., Long. 78° 16.1′ W. is kerosene lit and is therefore unreliable.

An observation airship/balloon is sited just North of the Terminal in position: Lat. 26° 38′ 00″ N., Long. 78° 14′ 22″ W.

It is clearly visible from seaward, painted silver and at night a bright Qk. Fl. strobe light marks position. When in use it rises to a distance of 10,000 ft. above the ground.

A conspicuous parabolic dish antenna is situated in position: Lat. 26° 37′ 30″ N., Long. 78° 17′ 58″ W. The antenna has a face diameter of 85 ft. and maximum height above sea level is 134 ft.

The large buff-painted oil storage tanks are visible behind the sea island. The terminal frontage is backed with pine trees and scrub.

Lights: A light, Fl.R. 3 seconds, is exhibited from a height of 140 ft. above sea level on top of the sea island control building on the central platform, whilst Nos. 1 and 6 mooring dolphins are marked by quick flashing red lights.

Two leading line (range) towers mark the 300 ft. wide approach channel centre line. Lights with clear lenses, each 2.5 seconds flash, 0.5 seconds eclipse, are exhibited from the top of the towers at elevations of 39.4 ft. and 53 ft. The towers are located at Lat. 26° 37′ 21.7″ N., Long. 78° 13′ 10.2″ W., and Lat. 26° 37′ 22.8″ N., Long. 78° 13′ 11.5″ W. respectively. Daymarks are attached as follows:

Leading mark: A 9 ft. triangle at the base of the tower.
Rear mark: A 9 ft. × 6 ft. diamond immediately below the light.

Both marks are painted with 'dayglo' orange.

Two leading line beacons are located, one on each of the two inner harbour breakwaters. These are to guide deep laden vessels into the inshore sea island berth (No.2) when approaching from the West.

Leading mark – a 9 ft. triangle. Rear mark – a 9 ft. × 6 ft. diamond.

Both marks are painted with 'dayglo' orange. Above each mark is situated a white fixed light visibility approximately 4 miles.

Buoys: Red and Black Buoys mark the outer channel entrance to the inner harbour whose light characteristics of red and green respectively are each 2.0 seconds flash, 2.0 seconds eclipse.

Four international orange buoys with quick flashing white lights mark the contour of 50 ft. sea bed between the Sea Island and the shore.

ANCHORAGES: Three white buoys mark the seaward boundary of a designated anchorage area in the following positions:

**West Anchorage Buoy:* Quick Flash (Green)	Lat. 26° 35′ 51″ N., Long. 78° 17′ 27″ W.
**Mid Anchorage Buoy:* Quick Flash (White)	Lat. 26° 35′ 57″ N., Long. 78° 16′ 19″ W.
East Anchorage Buoy: Quick Flash (Red)	Lat. 26° 36′ 00″ N., Long. 78° 15′ 33″ W.

*These two buoys are presently not there, but will possibly be replaced in the future.

These anchorage buoys are laid in 15 fathoms and vessels wishing to anchor should drop their anchors in the transit line of the buoys which will provide ample swinging room for typical shuttle vessels of up to 100,000 tons d.w.t., in ballast conditions. No attempt should be made to anchor Eastward of the East Anchorage Buoy.

Whilst holding ground is considered good and is of sand, limestone and soft coral, vessels should maintain their engines at short notice readiness, especially during periods of strong onshore winds.

In all cases, vessels wishing to anchor should contact the duty Berthing Master, who will advise on anchorage procedures and whose services are available for pilotage on request and at operational convenience.

Anchorage or the lowering of anchors is prohibited at the Sea Island berths.

Vessels wishing to stand off until berth readiness are recommended to use Westerly aerial tower (Lat. 26° 36′ 40″ N., Long. 78° 20′ 51″ W.) as Westerly boundary of standing off ground in order to avoid congestion with Freeport traffic.

HEALTH: On completion of mooring, Customs officials acting on behalf of Health and Immigration authorities will board the vessel to grant Pratique.

RADIO: Vessels loading for South Riding Point should communicate ETA date to the terminal immediately after clearing loading port. They should also indicate cargo figures, draft and cargo disposition if multigrade, together with preferred discharge sequence. Intention to crude oil wash should be advised at this stage and supported with details of vessel and crew's experience.

Variations of this original ETA date should be communicated throughout the voyage.

Vessels proceeding to South Riding Point Terminal to load should communicate their ETA immediately upon clearing departure port, indicating draft, condition of ballast, amount of slops, previous cargo and intended lifting.

All vessels should upgrade ETA's 72, 48 & 24 hours prior to arrival.

VHF: Station "South Riding Point Shore Control" located at the terminal is equipped with VHF radio maintaining continuous watch on Channel 16. After making successful contact, vessels will be required to change to a working frequency, where information will be exchanged regarding berthing, manifold connections, quantity of ballast and deballasting time required.

The terminal is also equipped with approved intrinsically safe VHF walkie-talkie radio sets and vessels will have this additional communication with the terminal after boarding by the Berthing Master.

TUGS: 3 × 4,200 h.p. diesel tugs are stationed at the terminal. Each tug has a bollard pull of 50 tons.

All tugs are equipped for fire fighting and can deliver water at the rate of 2,000 gallons per minute through direct or fan spray nozzles. The tugs have foam making and oil dispersant equipment.

The tugs are owned and operated by South Riding Point Holding Ltd. Conditions of hire are given in Appendix II.

Small Craft: The terminal has one diesel engined personnel/general purpose carrier for up to 25 persons and 2 line handling boats. Both of the latter are equipped for anti-pollution duties. Launches are available for hire when operationally convenient.

Small Craft Landing: A landing is situated on the West side of the platform of the oil berths and there are additional landing stages at mooring dolphins Nos. 1 and 6.

BERTHING/UNBERTHING: *Responsibilities:* In all circumstances, the Master of any vessel shall remain solely responsible on behalf of his owners, for the safety and navigation of his vessel.

Tugs: Tank lids and openings should be securely closed before tugs are made fast. Tug utilisation in berthing operations will be as required by the Berthing Master who will meet the vessel in position as directed off the sea island. Masters of calling vessels are reminded of their obligation to comply with statutory pilot ladder rules and associated safe access regulations

Mooring System: The Berthing Master will advise the Ship's Master of minimum mooring requirements. Usual moorings consist of 2 springs, 3 breast and 4 head/stern lines at each end.

The berths have double and triple quick release hooks of 150 and 100 tons capacity. Mooring and berthing dolphins have electrically operated capstans with 2 ton line pull at 100 ft. per minute in association with mooring assemblies.

Ship Connection: The positioning of the vessel's deck manifold in relation to the loading arms on the berth must be carried out to a close tolerance to the requirements of terminal personnel and as directed by the Berthing Master.

Loading arm connection will be made to ship's manifold by the sea island crew.

Independent oil measurement representatives will attend for ullaging and sampling and/or inspection of cargo tanks in vessels discharging or loading.

Unberthing: Tug attendance and numbers will be dependent on weather conditions and on the advice of the Berthing Master.

BERTHING FACILITIES: The Sea Island has two berths interconnected for tanker to tanker transfer and to the shore tanks and inshore berths by 2×36 in. diameter submarine lines. One line for ballast/slops and another for crude.

The island is 1,470 ft. long with a central platform 48 ft. above datum and 3 mooring dolphins 25 ft. above datum on each side.

The berths are equipped with a Sonar Doppler system for docking assistance with clock meter display indicators and associated lights showing distance off berth and speeds of approach. Current meters are sited on the sea island together with meteorological instruments and public address system.

There are 4 fixed and 4 oscillating foam/oil dispersant monitor units on the platform.

The berths have a sacrificial anode cathodic protection system and ships that have an impressed voltage cathodic protection system should turn it off in the vicinity of the sea island.

Berth No. 1: Tankers of 50,000 to 440,000 d.w.t. can dock at this outer berth which is equipped with a self levelling and articulated gangway and 4×16 in. diameter Chicksan loading arms with quick release couplings in sizes 16 in., 14 in. and 12 in. diameter.

Water depth at the berth is 100 ft.

Berth No. 2: Tankers of 35,000 to 100,000 d.w.t. with a max. LOA of 900 ft. can dock at this inner berth which is equipped with a self levelling and articulated gangway and 4×12 in. diameter loading arms with quick release couplings in sizes 12 in., 10 in. and 8 in. diameter.

Water depth at the berth is 85 ft.

Inshore Berths: Two berths are available within the inner harbour, each of which is equipped with a ship/shore gangway and 4×12 in. loading arms with quick release couplings in sizes 12 in., 10 in. and 8 in. diameter.

Though further development is proposed, use of the inner harbour is currently restricted to vessels not exceeding 675 ft. LOA and 36 ft. loaded draft.

Product Transhipment: May be undertaken with product storage planned for the future.

An ethanol plant is presently being constructed on North side of inner harbour (see "Plan"). Should be in operation Summer 1988.

Small Boat Harbour: This harbour is at the S.W. corner of the inner harbour and has a water depth of 25 ft. The harbour is used by the Company's tugs and small craft.

LOADING/UNLOADING:

Procedure: Once the vessel is secure, the Berthing Master, who also acts as Loading Master, will advise the Master and Chief Officer of their cargo programme and discuss the vessel's ability to comply. Any adjustments will be mutually agreed at this stage and be reflected on the Loading/Discharging instructions which the Master will sign. (See "Appendix VII").

Ballast Water: Ballast water can be received in the terminal oil and water separation tanks through one of the submarine or onshore lines at rates of up to 5,000 t.p.h. On no account may ballast water be otherwise discharged in territorial waters, unless vessel has segregated ballast system.

Dirty ballast and slops from ships' cargo tanks which, on the previous voyage, carried product including fuel oils or any crude requiring heat, cannot be accepted ashore. In such cases, vessels must arrive with clean ballast for shore reception.

During ballast operations at the berths, strict observance of rules and regulations governing the opening of sea valves is necessary and in correct sequence with ballast pump commencement to eliminate the risk of oil spills. Vessels may be required to ballast concurrent with discharge and throughout all cargo operations, maintain draft and trim conditions consistent with prevailing weather conditions, on the advice of Berthing Master.

Control: A responsible Ship's Officer is required to be on duty continuously.

The Terminal Operators in the control buildings offshore and onshore continuously monitor the cargo transfer rates and status of the onshore tanks or shuttle tankers receiving cargoes direct from VLCC's. The Ship's Officer will be advised immediately of changes necessary in the pumping programme.

The Terminal Operator in the offshore control room will activate all cargo movements from the tanker's manifold to or from shore tanks/receiving shuttle tankers.

Mooring Lines: It is the responsibilty of the Ship's Master to ensure that all mooring lines are kept tight. Berthing Master will constantly check a vessel's moorings and may at any time direct lines to be adjusted as circumstances warrant.

Tension Winches: When a vessel is fitted with tension winches, the latter must be set to manual operation and the brakes securely applied.

FRESH WATER: Not available.

FUEL: Not available.

MEDICAL: The Rand Memorial Hospital in Freeport is open on a 24-hour emergency service and two medical clinics, Lucayan and Antoni are open during regular office hours.

TIME: Bahamian Standard Time is 5 hours behind GMT. Daylight Saving Time is observed from the end of April through the end of October when clocks are advanced one hour.

SURVEYORS: Saybolt, Caleb Brett, Charles Martin, Redwood and Epic represented on Grand Bahama.

Lloyd's have agency in Freeport. Classification and Salvage Association Surveyors available from Florida.

REPAIRS: Facilities for minor repairs to electrical, radio and mechanical equipment are available in Freeport but should these be required Masters should give as much advance notice by radio as possible.

TELEPHONES: The Sea Berths have a telephone connection to the shore and to the Freeport exchange. Calls are restricted to emergency use only. All other calls should be made from agency offices ashore.

STORES: Stores are not available at the terminal but may be obtained through the auspices of ships' agencies and chandlers. All deliveries to vessels are restricted to daylight hours and operational convenience. Transportation and handling must be arranged and attended by the vessel's Agent and it is imperative that advance terminal approval is obtained since responsibility cannot be accepted for custody should operational considerations cause delivery delays.

STORING: See "Prelims".

(i) Storing at Terminal discretion. Terminal launches normally employed. Small barges may be used by prior arrangement.

(ii) Storing permitted during cargo transfer using stern lifting devices only.

(iii) At the Inner Harbour berths, trucks would be permitted by way of the stern only.

(v) Usual Customs regulations.

(vi) Labour usually supplied by chandler.

LAUNDRY: Limited services are available in Freeport but in view of the distance from the terminal (35 miles) and the relatively short time at berths, Masters are advised not to depend on such services.

WEATHER: From November to May, average temperatures in the 70's Fahrenheit prevail, with low humidity and little rain. From June to October, average temperatures rise into the 80's with relatively high humidity and rainfall of between 5 in. and 9 in. per month.

SEA CONDITIONS: Prevailing winds are from the S.E. During the Winter season numerous cold fronts transit the area producing a normally predictable wind veer to S.W. then Northerly with the passage of the front. A strong frontal system may cause seas and swell of up to 10 ft. but these quickly subside following frontal passage.

Current in the vicinity of the Sea Island seldom exceeds 1 knot and runs predominantly East and West. Tidal ranges above datum are Low Water 0 – 0.5 m. and High Water 0.8 – 1.5 m.

GENERAL: *Charts:* The best available charts of the area at present are U.S. Defense Mapping Agency Hydrographic Centre N.O. 26326 and British Admiralty No. 390.

Currency: Currency is the Bahamian dollar which is on a par with the U.S. dollar. U.S. dollars are generally acceptable anywhere without changing to local currency.

Garbage: Garbage or refuse disposal overside at berths or in terminal approaches is strictly forbidden.

BANKS: Chase Manhattan, Mall and Pioneer Way, P.O.Box F-2432, Freeport, Grand Bahama.

Citibank N.A., on the Mall, P.O.Box F-2681, Freeport, Grand Bahama.

Barclays International, Mall & Pioneers Way, P.O.Box F-2404, Freeport, Grand Bahama.

Royal Bank of Canada, Bank of Nova Scotia, Canadian Imperial Bank of Commerce, Bank of Montreal.

EMERGENCY CO-ORDINATION CENTRE: Bahamas Air Sea Rescue Association, Freeport. Telephone Nos.: Base Station 809 373-2264, Mobile Radio Telephone 809 352-9889, Daytime 0800 – 1700 hrs. 809 352-8826.

SAFETY: *TERMINAL SAFETY REGULATIONS:* With the object of protecting all concerned against the possibility of fire hazards, oil and smoke pollution, vessels calling at South Riding Point Terminal must comply with the following safety regulations or other regulations which may be issued by the proper authorities from time to time.

Dangerous Area: The whole of the sea island and the onshore terminal are declared Dangerous Areas and the use of naked lights and smoking therein is strictly prohibited except in those places expressly designated by the Master of a vessel and the Terminal Manager.

A copy of the "Fire and Safety Regulations" (See "Appendix IIIA and IIIB") is given to the Master of every vessel by the Berthing Master on boarding and it is the responsibility of the Master to see that these regulations are strictly observed.

Inspection: The Berthing Master will conduct a safety inspection prior to the commencement of loading/unloading and at regular intervals thereafter to ensure that all safety regulations are being enforced.

A comprehensive list of safety requirements are detailed on a Ship/Shore Safety Check List (See "Appendix IVB") and must be signed by the Master of the vessel or his delegate and the Berthing Master.

Galley Fires: Only approved steam or electric galleys in selected locations in the after part of the vessel, as agreed to by the Master and the Berthing Master, are permitted.

Boiler Tubes: Boiler tubes must not be blown whilst vessel is alongside and emitting smoke is strictly prohibited while vessels are in the vicinity of the terminal. Every precaution must be taken to prevent sparks and soot particles escaping from the funnel.

Firewires: Firewires of steel must be made fast and hang over the outboard bow and quarter whilst alongside to enable tugs to connect readily in an emergency situation. Firewires must be tended on board throughout cargo operations in order to maintain towing eyes at water level.

Deck Scuppers: Deck Scuppers must be securely plugged and cemented before loading/discharging operations commence. Approved mechanical means of closing scuppers may be acceptable.

Spillage Trays: See "Oil Pollution – Minor Leakages Onboard".

Main Engine(s): Immobilization is prohibited whilst alongside a terminal berth. Minor engine repairs may be effected after receipt of written permission from the Berthing Master and providing the repair will not affect the prompt sailing of the vessel in an emergency or upon cargo completion.

Maintenance Work: No chipping, scaling, hot work or work of any kind that would cause a spark is allowed while alongside a berth.

Ventilation: When loading or discharging cargo or ballast, all open ullage pipes and sighting ports shall have installed approved flame arresters.

Cargo tank lids shall be closed and secured throughout all loading or discharging operations.

Lights: Lights, electric fittings and hand torches must be of types approved by a recognised classification society or government authority for use in a vapour laden atmosphere.

Radio Equipment: Radio, radar or other electronic equipment must not be energized while a vessel is at berth except approved explosion proof equipment.

This does not mean that essential servicing of ship's radio equipment cannot be performed alongside berths. Suitable arrangements for ensuring safety during this work should be made between the Ship's Master and the Berthing Master and will require a work permit.

Stores: Inflammable or explosive ship's stores shall be kept in a safe place securely fastened.

Bilge and Dirty Ballast Water: Disposal of bilge and dirty ballast water over the side is strictly prohibited by the authorities and any pollution of the sea through these mediums will result in heavy claims and fines. The terminal will, in case of an oily discharge, take such steps as may be deemed necessary to fight the pollution before it spreads.

If the discharge is due to faulty equipment or material on the vessel or to negligence on the part of ship's personnel, the terminal shall be indemnified for any expenses incurred in connection with the preventative action taken. (See Oil Pollution – "Oil Spills").

International Code Flag 'B': International Code Flag 'B' shall be flown during the day and a red light exhibited by night by all vessels during cargo or ballast operations.

Transfer Cargo Operations: Transfer cargo operations shall not be started, or if started, shall be discontinued by the Berthing Master or Terminal Control if any of the following conditions prevail:

(a) During severe electrical storms.

(b) If fire breaks out at berth or on vessel.

(c) Should any condition develop which represents a hazard to the vessel or terminal facilities.

Fire-Fighting Equipment: Fire-fighting equipment of vessels alongside must be kept ready for use at all times.

Gas-Freeing: Gas-Freeing of vessels alongside sea island berths will not be permitted.

Earthing and Bonding: All metal on the shore side of an insulating flange should be electrically continuous to the sea island or inshore berths earthing systems and all metal to the seaward side should be electrically continuous to the vessel.

Insulating flanges are fitted on each loading arm.

Small Boats or Craft: Small boats or craft will not be permitted to moor alongside a vessel during cargo or ballast operations, unless special permission has been granted by the Berthing Master.

Permitted Entry: Only persons holding authorized passes will be permitted entry to the terminal or sea island. The terminal reserves the right to refuse admission.

Safety Responsibilities: Nothing in these regulations will relieve Masters of their responsibilities in observing the normal safety, fire prevention and security regulations. The Berthing Master is authorized to advise and request Masters to take additional measures to ensure a higher degree of safety if they find that circumstances warrant such action.

FIRE FIGHTING:

Responsibilities: The Fire and Safety Officer is responsible for all fire fighting operations at the sea island and the onshore terminal.

Fire Alarm: Do not hesitate to raise the alarm in the event of fire however small it may be.

The ship's fire alarm at the terminal will be one or more blasts of the ship's whistle or siren, each blast of not less than 10 secs. duration supplemented by a continuous ringing of the ship's bell and continuous sounding of the general alarm system.

The fire alarm at berths or elsewhere within the terminal or harbour area will be a continuous blast on the sirens sited on the onshore and offshore control buildings.

Action Ship – Fire On Your Ship:

1. Raise alarm.
2. Fight fire and prevent it spreading.
3. Inform terminal of details.
4. Cease all cargo operations and then close all valves.
5. Standby to disconnect loading arms.
6. Bring engines to standby.

Action Ship – Fire On Other Ship: You will be advised of necessary instructions to:

1. Cease all cargo operations and then close all valves.
2. Standby to disconnect loading arms.
3. Bring engines and crew to standby ready to unberth.

Action Shore: The operator in the control room will immediately contact the Fire and Safety Officer by phone or VHF radio. The Fire and Safety Officer will then direct operations.

1. Raise alarm.
2. Cease all cargo operations and then close all valves.

3. Fight fire and prevent fire spreading.
4. Standby to disconnect loading arms.
5. Inform all ships of details.
6. Terminal emergency procedure is immediately effective.

Emergency Situation: During an emergency situation on board a vessel alongside, the Berthing Master will be in charge of organising the preliminary fire-fighting/anti-pollution procedures assisted by the operators in the Control Room and at the berths until the Fire and Safety Officer at the terminal takes over the direction of all fire fighting operations.

The Berthing Master is to make use of all available means at his disposal, such as tugs, launches, terminal equipment and other facilities to assist the vessel and protect lives and terminal facilities.

OIL POLLUTION/ACCIDENTS:

Oil Spills: Oil spills from whatever source must be reported immediately to the Berthing Master or Terminal Control. Cargo movements will be ordered suspended upon such a report or upon observation of pollution by terminal personnel and they shall not resume until the source of leakage is determined and controlled and the pollution dispersed or contained. The terminal maintains adequate anti-pollution equipment to attend to minor spills and this will be mobilised promptly. Clean-up costs in regard to pollution known to be the responsibility of a vessel using the facility will be billed to that vessel. The terminal shall also be indemnified against any fines and claims for damages resulting from such pollution (See "Appendix V"). Vessels discharging oil into Bahamian waters are liable to fines not exceeding $120,000.

Minor Leakage Onboard: Spillage trays or other receptacles should be placed under the flange connection at the vessel's manifold. Oil absorbing material in suitable quantity should be available for immediate use in the event of oil leakage on deck.

Damage to Facilities: If a Master has reason to believe that damage has been caused to berth, other vessels, craft or terminal property by his vessel, he should immediately notify the Berthing Master in writing. (A Typical Accident Form See "Appendix VI").

APPENDICES:

Appendix I:

South Riding Point Holding Ltd.
South Riding Point Oil Terminal, Grand Bahama
Contractual Berthing Conditions

This Agreement is made between SOUTH RIDING POINT HOLDING LTD., its servants and Agents and its Sub-Contractors (hereinafter called "the Terminal") and the Owners and Charterers of the vessel ....(hereinafter called "the vessel").

In consideration of the Terminal permitting the vessel to berth at and to use the terminal and its facilities or providing to the vessel tug line handling services, ferry services or other ancillary services connected with the use of the terminal by the vessel, the undersigned Master of the .... for and on behalf of the Vessel agrees to the following conditions.

1. The Terminal shall not be liable for any loss or damage suffered by the vessel howsoever arising including negligence on the part of the Terminal in connection with or by reason of the use or intended use of the Terminal by the vessel.

2. The Vessel will indemnify the Terminal in respect of all liability to third parties including costs and any other expenses and interest arising out of claim in connection with or by reason of the use or intended use of the Terminal by the vessel howsoever arising including negligence on the part of the Terminal. The vessel will indemnify the Terminal in respect of any penalties and fines incurred by it in connection with or by reason of the use or intended use of the Terminal by the vessel. The vessel will indemnify each party referred to in this Agreement collectively as "the Terminal" in respect of any liability to any other party referred to as "the Terminal" by reason of the use or intended use of the Terminal by the vessel howsoever arising including negligence on the part of the Terminal.

3. The vessel will indemnify the Terminal in respect of any damage or loss including financial loss suffered by the Terminal in connection with or by reason of the use or intended use of the Terminal by the vessel, howsoever caused including negligence by the Terminal.

4. It is agreed that if the vessel sinks or grounds or otherwise becomes, in the opinion of the Terminal, an obstruction or danger in any part of the port or its approaches the Terminal may in its sole discretion take any steps it deems necessary to remove the obstruction or danger and any expenses of such removal shall be payable by the vessel's Owner or Charterer.

5. The obligations of the vessel hereunder shall be joint and several.

6. The obligations of the vessel hereunder shall be without right of limitation of liability.

7. If any one or more of the provisions or part of this Agreement should at any time for any reason be declared invalid or void or otherwise inoperative by a court of competent jurisdiction, such declaration or decision shall not affect the validity of this Agreement as a whole.

8. This Agreement cannot be varied other than in writing signed by all parties.

9. This Agreement shall be governed by and construed in accordance with English Law and all disputes arising hereunder shall be and hereby are referred to the High Court of Justice in England.

Time & date:..............

Signed on behalf of the
Owners and Charterers of the ....
Master

Signed on behalf of
South Riding Point Holding Ltd.,
its servants and Agents,
and Sub-Contractors. ....

Appendix II:

SOUTH RIDING POINT HOLDING LTD.
Requisition

VESSEL PARTICULARS:

Ship:..
Nationality:..
DWT Tonnage:..
Drafts Forward: .... Mid: .... Aft: ....
Berth No.: .... Berthing Master: ....
Date: .... Time on: .... Time off: ....
Berthing/unberthing: ....
Tugs: ....
Time Connected .... Time Released ....
Time Connected .... Time Released ....
Time Connected .... Time Released ....
Time Connected .... Time Released ....

We hereby request and authorise SOUTH RIDING POINT HOLDING LTD. to provide tug or tugs, line handling boat or boats, crew boat or boats and line handling, ferry and other services and a Berthing Master or Masters in order to assist in the navigation, berthing and unberthing of the vessel, and all matters related thereto, and the performance of the vessel's business at or near South Riding Point and at the facilities of South Riding Point Holding Ltd. We hereby agree that all such assistance and services rendered by you are requested and accepted by us on your usual terms and conditions printed overleaf and which we have read, understand, approve and accept:

Date
Time Signed
Master
for and on behalf of and with
the authority of the Owners
and Charterers of the ....

Appendix IIIA:

Safety and Fire Regulations

To be posted in prominent positions on board ship.

The following Fire Regulations and Smoking Restrictions should be brought to the notice of all personnel on board and must be strictly enforced.

SMOKING IS PROHIBITED while alongside berths EXCEPT in the following rooms in the after part of the vessel specified by Master.

Masters and Officers must ensure that these SMOKING RESTRICTIONS are strictly adhered to.

Only approved electric and steam galleys, in selected locations in afterpart of the vessel, agreed to by the Master and the Shore Authorities, are permitted.

CIGARETTE ENDS AND HOT MATERIALS MUST NOT BE THROWN INTO THE WATER AT ANY TIME.

No chipping or scaling is allowed whilst alongside. Overside hull painting is not allowed on jetty side of vessel.

All ship's scuppers on main deck must be plugged and cemented oil tight.

Approved mechanical means of closing scuppers may be accepted.

All vessels moored at these berths must have the eye of a steel hawser paid out to the water's edge and securely made fast on board on the offshore bow and quarter, to be of sufficient strength to enable tugs to take the vessel to a place of safety. Main engines must be available for use at all times whilst alongside the jetty.

Fire hoses on forward and after decks to be rigged and ready for instant use.

It is the responsibility of the Master to ensure that the mooring lines of his vessel are tight at all times.

Alarm in case of fire

1. The ship's fire alarm at the terminal will be one or more blasts of the ship's whistle or siren, each blast of not less than 10 seconds duration supplemented by a continuous ringing of the ship's bell and continuous sounding of the general alarm system.

2. The fire alarm at berths or elsewhere within the terminal or harbour area will be a continuous blast on the sirens sited on the onshore and offshore control buildings.

Overflow or escape of oil into the water

In the event of an overflow and/or escape of oil into the water, loading will be suspended immediately on the vessel concerned. Loading will not be resumed until the area has been cleared of oil and conditions declared safe.

Terminal safety and fire inspections

It is the duty of the Berthing Master to make periodical inspections on board vessels at berth in respect of any breach of the Terminal Safety and Fire Regulations.

Inspectors must be allowed free access on board all vessels at all times for this purpose.

IN ALL CASES OF EMERGENCY CONTACT SOUTH RIDING POINT CONTROL.

Appendix IIIB:

Instructions in case of fire

Ship's fire alarm at terminal

One or more blasts of the ship's whistle or siren each blast of not less than 10 seconds duration supplemented by a continuous ringing of ship's bell and continuous sounding of the general alarm system.

Terminal fire alarm

Continuous long blast on all fire sirens.

Action Ship

Fire on your ship

Raise alarm
Fight fire and prevent fire spreading
Inform terminal of details
Cease all cargo operations and then close all valves
Stand by to disconnect hoses or arms
Bring engines to standby

Fire on other ship at terminal

Cease all cargo operations and then close all valves
Stand by to disconnect hoses or arms
Bring engines to standby and crew to stand by ready to unberth

Action Shore

Fire on terminal

Raise alarm
Cease all cargo operations and then close all valves
Fight fire and prevent fire spreading
If required stand by to disconnect hoses or arms
Inform all ships of details
Terminal Emergency Procedure is immediately effective
In case of fire, terminal will direct movement of vessels.
Do not hesitate to raise the alarm.

Appendix IVA:

South Riding Point Holding Ltd.
P.O.Box F-2530 Freeport, Grand, Bahama.
The Master, s.s./m.v. ....
Dear Sir,

South Riding Point Transhipment Terminal Safety Requirements

Responsibility for the safe conduct of operations on board your ship while alongside our terminal rest with you as Master. Nevertheless, since our personnel, property and other shipping may suffer serious damage in the event of accident aboard your ship, we wish, before operations start, to seek your full co-operation and understanding on the safety requirements set out in the Ship/Shore Safety Check List.

These safety requirements have been drawn up by a number of international terminal operators in conjunction with a representative section of the international tanker industry. They are based upon the provisions of the codes of safe practice currently accepted by the oil and tanker industries. We therefore expect you and all under your command to adhere strictly to them throughout your stay alongside this terminal. We, for our part, will ensure that our personnel do likewise and co-operate fully with you in the mutual interest of safe and efficient operation.

In order to assure ourselves of your compliance with these safety requirements, we shall, from time to time, instruct a member of our staff to visit your ship and, after reporting to you or your deputy, join one of our officers in a routine inspection of cargo decks and accommodation spaces.

If we observe infringements on board your ship of any of these safety requirements we shall bring this immediately to the attention of yourself or your deputy for corrective action. If such action is not taken in a reasonable time we shall adopt such measures as appear to us most appropriate to deal with the situation and shall notify you accordingly.

If you observe any infringement of these requirements by terminal staff, whether on the jetty or on board your ship, please bring this immediately to the notice of our representative who is nominated as your contact during your stay in port. Should you consider any immediate threat to the safety of your ship arises from any action on our part, or equipment under our control, you are fully entitled to demand an immediate cessation of operations.

WE RESERVE THE RIGHT IN THE EVENT OF CONTINUED OR FLAGRANT DISREGARD OF THESE SAFETY REQUIREMENTS BY ANY SHIP, TO STOP ALL OPERATIONS AND ORDER THAT SHIP OFF THE BERTH FOR APPROPRIATE ACTION TO BE TAKEN BY THE CHARTERERS AND OWNERS CONCERNED.

Terminal Manager

Appendix IVB:

Ship/Shore Safety Check List

Vessel: .... Berth: ....

The safety of operations requires that all questions be answered affirmatively after checking by both Ship and Terminal representatives. If an affirmative answer is not possible, the reason should be given and agreement reached upon appropriate precautions between the Ship and the Terminal.

	Terminal Representative	Ship Representative
1. Is the Ship securely moored?	.....	.....
2. Are emergency towing wires correctly positioned?	.....	.....
3. Is there safe access between Ship and Shore?	.....	.....
4. Is the Ship ready to move under its own power?	.....	.....
5. Is there an effective deck watch in attendance on board and adequate supervision on the Terminal?	.....	.....
6. Is the agreed ship/shore communications system operative?	.....	.....
7. Have the procedures for cargo/ballast handling been agreed?	.....	.....
8. Has the emergency shut-down procedure been agreed?	.....	.....
9. Is fire fighting equipment on board and ashore ready for immediate use?	.....	.....
10. Are cargo hoses/arms in good condition and properly rigged?	.....	.....
11. Are unused cargo and bunker connections blanked?	.....	.....
12. Are scuppers effectively plugged?	.....	.....
13. Are sea and overboard discharge valves, when notin use, closed and lashed?	.....	.....
14. Are all cargo and bunker tank lids closed?	.....	.....
15. Is the agreed tank venting system being used?	.....	.....
16. Are flame screens within the tank venting system in position and in good condition? (Give date of last inspection)	.....	.....
17. Are hand torches of an approved type?	.....	.....
18. Are portable R/T sets of approved design?	.....	.....
19. Are the ship's main radio transmitting aerials earthed?	.....	.....
20. Are electric cables to portable electrical equipment disconnected from power?	.....	.....
21. Are all external doors and ports in the amidships accommodation closed.	.....	.....
22. Are all doors and ports in the aft accommodation that are required to be in fact closed?	.....	.....
23. Are unsafe air conditioning intakes closed?	.....	.....
24. Are window-type air conditioning units disconnected?	.....	.....
25. Are SMOKING requirements being observed?	.....	.....
26. Are GALLEY requirements being observed?	.....	.....
27. Are NAKED LIGHT requirements being observed?	.....	.....
28. Is the quality of the Inert Gas satisfactory? (Give O_2 Content)	.....	.....
29. Is ballast water in permanent segregated ballast tanks clean and suitable for overboard discharge?	.....	.....
30. Are C.O.W. requirements being observed?		

We have checked with each other the items listed on this check list in the course of a joint inspection and have satisfied ourselves that the entries we have made are correct to the best of our knowledge.

For Ship Name .... Rank: .... Signature.........
For Terminal Name:............ Position: ...... Signature.........
Time........................Date........................
Repetitive Checks Time & date B.M. initials
Remarks:
Orig: Ship
c.c. Berthing Master
c.c. Sea Island

Appendix V:

South Riding Point Transhipment Terminal

The Master,
s.s./m.v. "...................................."
Dear Sir,

At .... hours on........... an oil spill occurred on board your vessel and a quantity of oil escaped into the sea, necessitating cleaning up operations by our personnel and equipment.

In accordance with Terminal Regulations, we hereby hold you responsible for any expenses incurred as a result of the oil spill and subsequent clean-up operation, in addition to fines which may be imposed by the Authorities.

You are requested to furnish the Terminal management with an extract of your "Oil Transfer Log" and a written reason for this incident.

Yours faithfully,

For: South Riding Point Holding Ltd.

Signed:...........................Master
Date:...................................
cc: Ship's Agents.

Appendix VI:

South Riding Point Transhipment Terminal

. . . . 19. . . . .

The Master,
s.s./m.v." . . . .
Dear Sir,

At . . . . hours on . . . . the vessel under your command was involved in an incident, as a result of which, the following damage was caused:

The foregoing report is based on preliminary examination and must be considered an interim statement of damage pending survey examination of the areas concerned.

In consideration therefore of "Conditions of Use of Sea Berths and Inner Harbour" and "Condition of Hire of Tugs", we hereby hold you responsible for this damage.

Please acknowledge receipt of this letter by signing the attached copies.

Yours faithfully,

For: South Riding Point Holding Ltd.

Signed: . . . .
Date: . . . .
cc: Ship's Agents.

Appendix VII:

South Riding Point Holding Ltd.
South Riding Point Transhipment Terminal

To: Master,
s.s./m.v." . . . .
Date: . . . .

This serves to introduce Captain . . . . who is duty Berthing/Loading Master.

As Loading Master, he will be responsible and available at all times throughout your stay for all liaison aspects of your cargo operations and safety alongside.

Please bring all cargo, safety or documentation queries to his personal attention.

Your co-operation in this regard will serve to assist in our rendering to your vessel, an efficient dispatch from South Riding Point.

. . . .
Terminal Manager

Appendix VIII:

South Riding Point Holding Ltd. South Riding Point Terminal Crude Oil Washing Check List

Vessel: . . . . Date: . . . .

On Arrival

	Yes	No
1. Has terminal been notified?	. . . .	. . . .
2. Is oxygen analysing equipment tested and working satisfactorily?	. . . .	. . . .
3. Are tanks pressurised with good quality Inert Gas (max. 5% O_2)?	. . . .	. . . .
4. Is tank washing pipe-line system isolated from water heater and engine room?	. . . .	. . . .
5. Are all hydrant valves on tank washing line securely shut?	. . . .	. . . .
6. Are all valves to fixed tank washing machines shut?	. . . .	. . . .
7. Have tank cleaning lines been pressurised and leakages made good?	. . . .	. . . .

Signed: . . . . Master/Chief Officer. Time and Date . . . .

Alongside

1. Is quality of Inert Gas in tank(s) satisfactory (max. 5% O_2)?	. . . .	. . . .
2. Is Inert Gas pressure satisfactory?	. . . .	. . . .

Signed: . . . . Master/Chief Officer. Time and Date . . . .

Before Washing

1. Are valves open to machines on selected tanks?	. . . .	. . . .
2. Are responsible persons positioned around the deck to watch for leaks?	. . . .	. . . .
3. Are tank ullage gauge floats lifted on tanks to be washed?		
4. Is Inert Gas System operating?	. . . .	. . . .
5. Are all tanks closed to outside atmosphere?	. . . .	. . . .
6. Have tanks positive Inert Gas pressure?	. . . .	. . . .

Signed: . . . . Master/Chief Officer. Time and Date . . . .

During Washing

1. Are all lines oil tight?	. . . .	. . . .
2. Are tank washing machines functioning correctly?	. . . .	. . . .
3. Is quality of Inert Gas in tanks satisfactory (max. 5% O_2)?	. . . .	. . . .
4. Is positive pressure available on Inert Gas System?	. . . .	. . . .

Signed: . . . . Master/Chief Officer. Time and Date . . . .

After Washing

1. Are all valves between discharge line and tank washing line shut down?	. . . .	. . . .
2. Has the tank washing main pressure been equalised and line drained?	. . . .	. . . .
3. Are all tank washing machine valves shut?	. . . .	. . . .

Signed: . . . . Master/Chief Officer. Time and Date . . . .

NOTICE:

South Riding Point Holding Ltd.
P.O.Box F-2530 Freeport, Grand Bahama
South Riding Point Terminal.
To: Master
s.s./m.v. . . . .

Dear Sir,

During your stay at South Riding Point Terminal, your co-operation is requested with regard to shipboard visitations by Terminal staff.

With the exception of official visits necessary to the satisfactory performance of cargo and safety operations, none of our terminal staff should board your vessel.

We are particularly concerned in cases where food and drink have been unofficially provided by visiting ships and we would respectfully request that you bring to the attention of your crew, the need to disregard any requests of this nature.

We trust that your compliance and understanding will avoid any embarrassment for your vessel whilst alongside and that as a result our operating attentions will be rendered more efficient.

Thank you.

. . . .
Terminal Manager

AUTHORITY: *Operator:* South Riding Point Holding Ltd., P.O.Box F-2530, Freeport, Grand Bahama. *Tel:* South Riding Point Terminal (809) 348-3471/4. *Telex:* 30-047, 30-067. *Contact:* Captain J. B. Moncrieff, Marine Operations Manager/Harbour Master. Captain D. M. Cummins, Marine Superintendent.

AGENT: Lucaya Shipping and Trading Company Limited, P.O.Box F-3240, Freeport, Grand Bahama Island, Bahamas. Tel: (809) 352-3581/2. Telex: 30711. Cables: Caytrade.

NOTES

Please also advise Shipping Guides Ltd.

Bahrain

GENERAL

ANCHORING: It is compulsory for all ships entering Bahrain waters for reasons other than berthing at Mina Sulman, ASRY, Bapco, Alba, or other private jetties to obtain a prior written permission from the Port Director before anchoring in Bahrain waters. All ship's Agents are required to submit to the Harbour Master at the end of each month, a list of all vessels managed by their Agency which entered Bahrain waters.

PORT OPERATIONS SERVICE: The following has been received from the Customs & Ports Directorate, State of Bahrain. (Harbour Notice 4/84).

The above service is to be established based initially in the radio room of Mina Sulman. All information concerning the movement of vessels within the area under the jurisdiction of the 'Bahrain Ports Authority' will be conducted through the Bahrain Ports Operations and Information Service, hereinafter referred to by its call sign 'Bahrain Port Control'. This service will be manned continuously throughout 24 hours, with a duty Pilot available for advice on request. Close liaison will be maintained between Owners/Agents, Marine Terminals of Bapco, Alba, ASRY and AIS Co. and other private wharves within the Mina Sulman area.

Communications: (a) All vessels having gross tonnage of more than 50 g.r.t. and any vessel engaged in towing shall carry fixed or portable VHF radio equipment capable of operating on port operation channel in addition to Channel 16.

(b) A Port Operations VHF radio channel has been introduced, Channel 74 (156.725 MHz). All vessels must monitor this Channel when transiting the port limits or approach channels, or at anchor and communicate with 'Bahrain Port Control' as required.

Reporting Procedures: The Master of the inward bound vessels shall on coming within VHF radio range of 'Bahrain Port Control' give the vessel's ETA at Sitra Beacon, and shall at the same time advise of his vessel's draft and any other information requested, and of any circumstances which may affect the seaworthiness or handling capacity of the vessel. To facilitate keeping track of a vessel's whereabouts, vessels should inform 'Bahrain Port Control' when passing the following seamarks as appropriate:

Deep Draft Channel	*N.E. Approach Channel via Sitra Inwards Buoy*
Bahrain Light Vessel	Sitra Inwards Buoy
No. 3 Beacon	Vidal Buoy
Bahrain Approach Buoy	No. 27 Buoy
No. 14 Buoy	Sitra Beacon
No. 27 Buoy	Middle Ground Buoy
Sitra Beacon	when berthed or at anchor
Middle Ground Buoy	
when berthed or anchored	

The Master of an outward bound vessel shall inform 'Bahrain Port Control' within 15 minutes prior to commencing navigation in the area, and again immediately prior to such navigation commencing. During the outward passage he shall report to 'Bahrain Port Control' when passing the above seamarks as appropriate.

The Master of a vessel berthed, moored or anchored within the area of jurisdiction and who wishes to move his vessel to another berth, mooring or anchorage within that area shall request permission from 'Bahrain Port Control' prior to moving and report when finally secured, anchored or moored.

Special Directions: (a) The deep draft channel is primarily for vessels confined by their draft to use it. No vessel inward bound shall proceed beyond No. 3 Beacon without seeking prior approval from 'Bahrain Port Control'. No vessel outward bound shall proceed beyond Bahrain Approach Buoy without seeking prior approval.

(b) The Master of any vessel proposing to anchor should inform 'Bahrain Port Control' of the position it is intended to anchor the vessel. This notice shall be given in sufficient time to enable 'Bahrain Port Control' to give a special direction to the Master to place the vessel in an alternative anchorage if required.

(c) Any vessel engaging in towing, except tugs engaged in berthing/unberthing operations shall inform 'Bahrain Port Control' of the length of tow, speed of tow and anticipated passage. Such vessels must seek approval before commencing such operation within the area of jurisdiction.

Interpretation: In these directions: 'Port Limits' means the area of water enclosed by straight lines drawn from the following positions:

	Latitude	Longitude
A.	Latitude: 26° 13′ N.	Longitude: 50° 32′ E.
B.	Latitude: 26° 22′ N.	Longitude: 50° 32′ E.
C.	Latitude: 26° 22′ N.	Longitude: 50° 47′ E.
D.	Latitude: 26° 06.7′ N.	Longitude: 50° 47′ E.
E.	Latitude: 26° 06.7′ N.	Longitude: 50° 38′ E.

'Area of jurisdiction' includes the marine terminals of Mina Sulman, Bapco, Alba, ASRY and AIS Co. and all other private wharves within the Mina Sulman area, also the deep draft and N.E. approach channels.

Commencement: A full V.T.M.S. "Vessel Traffic Management System" is in force and based in the control tower at Mina Sulman.

MINA SULMAN: 26.12 N. 50.37 E. (See Plan)

DOCUMENTS:
International Declaration of Health.
5 Crew Lists.
Ship's Report (given by Customs on arrival).
Cargo Gear Register (Blue Book).
Agents to submit cargo manifest 3 days before vessel's arrival.

Exports to Bahrain: Shipping documents for exports to Bahrain should include a Certificate of Origin bearing the stamp of a Bahrain embassy or consulate, where such representation does exist. Alternatively the stamp of any other Arab embassy or consulate will be acceptable.

Compliance with the above regulation will help process the clearance of goods without delay.

PILOTAGE: Mina Sulman Pilots board at Sitra Beacon. Pilotage compulsory except for naval vessels and small locally-owned craft whose Masters are familiar with the port and control.

Port equipped with 3 pilot cutters and a number of mooring launches and work boats.

Pilot cutters mostly blue with white-painted wheel-house and cabin accommodation.

ANCHORAGE: Normal anchorage in vicinity of No. 27 Buoy. Approximate position Lat. 26° 10′ N., Long. 50° 47′ E. Sitra Anchorage now restricted anchorage and may only be used by special permission of Port Authorities.

MAX. SIZE: Vessels up to 300 m. may enter port subject to tide. Depth of channel 9.75 m. New berths dredged to 10.9 m. Finger pier, depth 30 ft. (9.1 m.).

HEALTH: Port Health Authorities board vessel on arrival at berth alongside Deep Water Jetty and grant Pratique.

RADIO: Vessels intending call Mina Sulman should advise Agents via Bahrain Radio, call sign A9M, their ETA, draft, hatch distribution and any other requirements, giving as much notice as possible. Agent to give Coastguard 72 hours notice of ETA.

VHF: Vessels equipped with VHF should, when within range, contact Bahrain Port Control on Channels 16 or 74. VTM System in operation. Also see "General" before first port.

TUGS: 4 tugs available, 2 × 800 h.p. and 2 × 1,600 h.p. Tugs usually join vessel between Channel Buoy Nos. 7 and 8 or 9 and 12 during final approach to Deep Water Jetty. Tugs fitted with VHF. Bollard pull up to 28 tons.

BERTHING: Finger pier 800 m. long, berthing on both sides with 10 berths each of 150 m. in length for vessels up to 9 m. draft and 3 general cargo berths each 200 m. in length with depth of 10.9 m.

Two container berths (Berth Nos. 15 and 16) each 300 m. in length and 10.9 m. depth equipped with 4 container handling gantry cranes up to 35 tons capacity with 38 m. outreach.

Berths for coastal vessels, length of quay 285 m. with depth of 7 m.

Small Ro/Ro ramp for vessels up to 5.5 m. draft. Width of ramp 15.5 m.

Each general cargo berth is provided with modern fork lift trucks, trailers and units to facilitate the movement of cargo.

Pallets are available to assist cargo handling. Shore mobile cranes of various capacities ranging up to 200 tons available from private companies. Cargo handling equipment of various types also available.

Storage Facilities: Storage facilities consist of 14 sheds (one of which is located in the container terminal area) having an area under roof of 1,000,000 sq.ft. in addition hard surfaced yards and the container terminal stacking/parking area provide extensive storage capacity.

Hyundai Jetty: Lat. 26° 11′ N., Long. 50° 39′ E. Length of jetty 175 m., depth alongside 9 m. Berthing permitted between 0600 and 1800 hrs.

GRAIN HANDLING: Two portable pneumatic suction/blowing units are used. Capacity 75 t.p.h. each. Wheat is discharged into 20 ton trailers, which takes about 8 to 12 minutes for each trailer.

STEVEDORES: Stevedoring gangs shall be ordered and paid for by ship's Agents.

Working Hours: The port will operate on a 2 shift basis 6 days per week. Additional work on Fridays and Public Holidays are subject to extra charges.

Saturday to Thursday – 0700 hrs. to 2300 hrs.

Working hours are subject to change at the discretion of the Port Authority. Requirements for Port Labour must be submitted by Ship's Agents to the Port Authority by 1400 hrs. for work during the first shift on the following day and by 1000 hrs. on the same day for work on the second shift.

Special overtime to finish and sail a ship may be granted after 2300 hrs.

MEDICAL: As per present local regulations all crew for medical treatment have first to be reported to the Public Health Department from where patient, if required, will be referred to Government hospital or specialists.

FRESH WATER: Well water available and can be delivered on berths at Deep Water Jetty at rate of approximately 20 t.p.h. per hose. Fresh water also available by barge with capacity of 300 tons.

FUEL: Bunkers available alongside in Mina Sulman and also provided by barge of 8,700 barrels capacity, which is owned by the Bahrain Petroleum Company. All usual grades of commercial oil available. 48 hours' notice required. This can also be arranged by local Agents.

GANGWAY/DECK WATCHMEN: Not customary to employ deck watchman.

IDENTIFICATION CARDS: These cards necessary for any crew member wishing to proceed ashore. Identification card is surrendered to Immigration Authorities at main entrance to port in return for a pass. On return to port, the pass is surrendered and seaman's identity card returned to him.

REPAIRS: Good facilities for both hull and engine repairs which can be effected by the principal slipway company. Facilities exist to receive single vessels of 1,000 d.w.t., and a tower crane capable of a 15 tons lift at 40 ft. Also see "Dry Dock".

SURVEYORS: Available on request through Agent.

DRY DOCK: *Asry Dry Dock:* The dry dock measures 375 m.×75 m., the bottom structure being strong enough for double dockings.

This is the first repair dock in the world specially designed for shallow draft VLCCs. With the sill beam at 9 m., it can accept vessels of 34 ft. draft.

Four dockside arms, two per side, give access to almost the entire surface of a VLCC hull for cutting, welding, shotblasting and cleaning/painting purposes, without the need for scaffolding.

Manoeuvring Basin: The manoeuvring basin dredged to 10 m. allows ships of up to 32 ft. draft to dock at any time. If necessary, ships may lie directly on the basin's sandy, levelled bottom.

Jetties: The 2 finger jetties are 170 m. long × 21 m. wide and can accommodate at least 4 large vessels for in-water repairs.

Mechanical Shop: The mechanical shop is equipped with 36 major machine tools, plus additional supporting services.

Plate Shop: The plate shop is equipped with 45 machine tools and portable equipment, plus additional supporting services.

Pipe Shop: The pipe shop is equipped with 26 machine tools and portable equipment, plus additional supporting services.

Electrical Shop: The repair capability in the electrical shop is summarised as follows:

Motor rewinding
Transformer and operating coil rewinds
Generators (main and auxiliary), large motors; strip, inspect, clean, replace bearings and rebuild
Rewiring (limited facility)
Switchboards: clean and repair
Motor controllers: find fault and repair
Air conditioning equipment: servicing and repair
Engine and bridge control panels (limited repair facility).

Navigational equipment (radar, DF, UHF, gyro compass, auto pilot, echo sounder) repairs are carried out by manufacturers' agents, who are fully represented in Bahrain.

Cranes: Four rail cranes of 15 tons lifting capacity and 75 m. outreach are located on the 2 finger jetties and adjacent to the dry dock. In addition, 1 rail crane of 100 tons lifting capacity and 61 m. outreach is located adjacent to the dry dock.

These five rail cranes cover about 90% of Asry's outdoor production area. For the remaining production areas, 4 mobile cranes each of 20 tons capacity and 2 hydraulic lifting platforms of 80 tons each are available.

Inside the workshops, overhead cranes of 6, 15, 25 and 160 tons lifting capacity are available.

Floating Crane: A floating crane of 200 tons lifting capacity, specially designed to reach any point on the deck or superstructure of a VLCC in ballast condition, is available. This lifting equipment is installed on a pontoon which has an overall length of 35.5 m. and a beam of 23 m. The crane is of the luffing type, which permits the height of the hook to be maintained while the outreach can be adjusted in travel.

Tugboats: The yard has a fleet of 6 tugboats, each of 32 tons bollard pull, which have been specially designed to manoeuvre large ships both in the yard and at sea.

Each tugboat has an overall length of 33 m. and a moulded beam of 8.5 m., with a draft fore and aft of 2.55 m. and 3.05 m. respectively.

The main engine is rated at 2,400 b.h.p. at 500 revs. per minute in accordance with DIN 6270A, and provides each tug with a normal free navigation speed of 12.5 knots.

Tank Cleaning Station: Asry's tank cleaning station is the 35,000 d.w.t. tanker "White Beach", which has been fully converted for the purpose. It is able to receive, by a continuous segregation system, slops, dirty ballast and tankwashing water at a rate of up to 1,500 t.p.h.

The cleaning station is fully equipped to supply steam, electrical power, distilled water and compressed air. Temporary storage of bunkers is also available.

Asry repaired vessels totalling 22 million d.w.t. in 1979.
120 vessels repaired in 1979, of which 72 were VLCCs.
Largest vessel so far to enter dry dock was 411,000 d.w.t.
Largest vessel to be repaired was 508,000 d.w.t.
Total workforce is 1,400 persons.

REPATRIATION: It is possible for whole crews or just individual crew members to join or leave vessels at Bahrain. As much notice as possible should be given to Agents to enable arrangements to be made for their reception, hotel accommodation and transportation.

AIRPORT: Bahrain International Airport regularly served by main international airlines, with frequent services to Europe, U.S.A., Far East, and Australia. Also frequent inter-Gulf flights.

TIME: GMT plus 3 hours.

HOLIDAYS: Public holidays in accordance with Muslim calendar as follows: 3 days during Eid Al Fitr; 3 days during Eid Al Adha; 3 days during Muharram; 12th R'Awal Prophet's Birthday; Accession of H.H. The Amir, 16th December; 25th December; 1st January. Apart from 6 days, two during each of the religious anniversaries, all holidays will be worked in the port as on Fridays, the Sabbath day.

TELEPHONES: Can be provided at each berth on Deep Water Jetty. In case of emergency, dial 286 for ambulance; 301 for Duty Police Officer; 200 for Fire Brigade.

SERVICES: Bahrain well provided for services including repairs, stores and supplies, fumigation surveys, adjustments, radar and gyro compass repairs, professional diving, and underwater brushing.

SHORE LEAVE: Permitted.

AUTHORITY: Ministry of Finance, Customs and Ports Directorate, P.O.Box 453, Bahrain. *Tel:* 243555. *Telex:* 8642 Mina Bn. 8643 Harbour Bn. *Cables:* Stateport. *Contact:* Captain Saleh Al Musallam, Harbour Master. Eid Abdullah Yusuf, Director of Ports.

AGENT: Gulf Agency Co. (Bahrain) W.L.L., P.O.B. 412, Manama, Bahrain. Tel: 530022, 254228. Telex: 8211 (A/B "GAC BN"). FAX: (973) 259354. Cables: "Confidence".

SITRA: 26.09 N. 50.40 E. (See Plan)

Bahrain Port incorporates all the harbours on the N.E. Coast of the Bahrain Islands. The Port Limits extending approximately Westwards and Southwards from Bahrain Approach Buoy.

The Bahrain Government Harbour Master at Mina Sulman has jurisdiction over Bahrain Port including the marine terminals of Mina Sulman, BAPCO, ALBA, ASRY, AISCO and all other private wharves within the area.

Sitra Marine Area is situated at the entrance to the Port of Mina Sulman and the Khor Khaliya which is protected by the islands of Bahrain, Sitra and Muharraq, and the ASRY-AISCO Causeways.

Sitra Inner Anchorage lies on the Northern side of the Fairway between Sitra Beacon and Mina Sulman and is afforded some protection during the prevailing N.W. winds by Muharraq Island and the ASRY-AISCO Causeways.

OPERATORS:

1. *The Arab Iron & Steel Company (E.C.) – AISCO:* AISCO operates a plant producing iron pellets from imported ores.

Enquiries regarding its facilities should be sent to The Arab Iron & Steel Company (E.C.), P.O.Box 50177, Hidd, Bahrain. Tel: 673311. Telex: 9993 Aisco Bn.

2. *Aluminium Bahrain – ALBA:* ALBA operates a plant producing aluminium ingots from imported alumina and coke.

Enquiries regarding its facilities should be sent to Aluminium Bahrain, P.O.Box 570, Manama, Bahrain. Telex: 8253 Alba Bn. Cable address: Metalba, Bahrain.

3. *Bahrain National Gas Company B.S.C. – BANAGAS:* BANAGAS operates a plant producing refrigerated butane and propane which are exported over BAPCO's Wharf.

Enquiries regarding its facilities should be sent to Bahrain National Gas Company B.S.C., P.O.Box 29099, Rifa'a, Bahrain. Tel: 756222. Telex: 9317 Bangas Bn.

4. *The Bahrain Petroleum Company B.S.C. (Closed) – BAPCO:* The company operates the Bahrain Refinery and related facilities on behalf of the Government of the State of Bahrain and Caltex Bahrain. Petroleum products for Banoco, Caltex, Banagas and GPIC are handled at the BAPCO Terminal.

Enquiries regarding port information should be sent to The Bahrain Petroleum Company B.S.C. (Closed), Awali, Bahrain. Telex: 8218 Bapshp Bn. Cable address: Bapco, Bahrain.

5. *Gulf Petrochemical Industries Company (B.S.C.) – GPIC:* GPIC operates a plant producing refrigerated liquified ammonia and methanol which are exported over BAPCO's Wharf.

Enquiries regarding its facilities should be sent to Gulf Petrochemical Industries Company (B.S.C.), P.O.Box 26730, Manama, Bahrain. Tel: 731777. Telex: 9897 Kemia Bn.

See individual berths for limitations and procedures.

SPECIAL FEATURES:

1. The Sitra Marine Area encompasses the marine facilities provided by the following companies: BAPCO, ALBA, ASRY, AISCO.

BAPCO has 6 berths for ocean-going vessels and 1 berth where small vessels of up to 240 ft. in length and 16 ft. draft may be berthed.

ALBA has a jetty with 2 berths; the outside berth being used for bulk carriers unloading coke and alumina ore and the inside berth being for vessels loading metal products.

ASRY has 2 jetties 400 ft. apart, with a solid quay wall providing 6 berths as well as the drydock 375 m. in length by 75 m. wide.

AISCO has 1 jetty with offlying dolphin providing 2 berths, the Eastern Berth being utilised for offloading iron ore, whilst the Western side is used for loading.

2. BAPCO Marine Officers advise and assist Masters in berthing, unberthing, mooring and navigating their vessels in the Sitra Marine Area.

3. All vessels entering Bahrain Port must have accredited Agents. They should also establish radio contact with BAPCO via "Bahrain Radio" (A9M), at least 48 hours prior to arrival, giving a firm ETA, arrival draft, and their requirement for bunker fuels.

4. The laws of Bahrain are in force in the Port and crew members are advised, for their own protection, to abide by them.

5. All vessels must display international quarantine signals when approaching the Port and keep them displayed until Pratique is granted. The national flag of Bahrain is to be flown at the foremast head during the vessel's stay in the port.

6. Safety is a prime concern and Masters must comply with all Safety Regulations.

DOCUMENTS: Crew List 3 copies. Passenger List 3 copies. Customs Declaration 2 copies. Health Declaration 2 copies. Log Book for Inspection by Customs Officers.

Cargo and bunker documents are delivered to the vessel as soon as possible after the vessel has been cleared on quantity and quality. Delays are sometimes incurred. As a result, BAPCO reserves the right to unberth a vessel and deliver documents by launch so as to minimise berthing delays to subsequent vessels.

Early Departure Procedure (E.D.P.) is available on Master's request.

The Tanker Owners Voluntary Agreement concerning Liability for Oil Pollution: All tankers carrying or loading/discharging at BAPCO any persistent hydrocarbon mineral oil, such as crude oil, fuel oil, heavy diesel oil and lubricating oil, whether or not carried as cargo, shall be in possession of a TOVALOP (Tanker Owners Voluntary Agreement concerning Liability for Oil Pollution) Certificate. NO other certificates will be accepted.

PILOTAGE: Pilotage is not provided between Bahrain Light Vessel and Sitra Anchorage. Pilotage is compulsory from Sitra Beacon inwards.

There are 2 Pilotage Authorities for Bahrain Port both of which co-ordinate through Bahrain Port Control.

1. The *Bahrain Pilots,* under the Bahrain Government's Harbour Master, handle all vessels bound for the Khor Khaliya. This includes the main Mina Sulman Wharfage, the wharves of Hyundai on the West side

of the ASRY/AISCO Causeway and the private company wharves on the North Sitra Industrial Estate.

2. The *Sitra Pilots,* under BAPCO's Port Officer, the Port Captain Sitra, handle all vessels having business with the marine terminals of AISCO, ALBA, ASRY and BAPCO.

The Sitra Pilot will normally board the vessel in a position 0.5 miles South of Sitra Beacon from either an orange hulled pilot cutter, tug or a tow-boat displaying the normal pilot vessel signals.

The Sitra Pilots will only embark or disembark from vessels providing the regulation pilot ladder.

The Sitra Pilots will normally hand over control of the tugs to the ASRY Dock Master at a mutually agreed position close by ASRYs dock and jetties for completion of berthing. The ASRY Dock Master in consultation with Sitra Pilot will arrange for the number of tugs to be used in these operations.

For vessels bound for AISCO, ALBA or BAPCO's jetties the Sitra Pilot will decide on the number of tugs to be used in the berthing and unberthing operations. Normally, 2 tugs are used.

Harbour Pilotage: Under no circumstances will any vessel, irrespective of size, berth alongside Company wharves unless a Sitra Pilot is on board and the correct documentation signed. A Sitra Pilot will also be on board a vessel for the unberthing operation. However, under special circumstances certain small vessels may be allowed to unberth without a Pilot on board, providing the Pilot has given permission immediately prior to unberthing and B.P.C. have been informed.

The services of the Sitra Pilot are provided without charge.

Boarding: The Company Mooring Master may board the vessel from either a pilot cutter, tug or a tow-boat displaying the normal pilot vessel signals.

If no berth is available, vessels should anchor in the prescribed anchorage until such time as a berth is available. Every endeavour will be made to give the Master berthing instructions prior to the boarding of the Mooring Master, and to this end, Masters are requested to maintain a continuous watch on the VHF. In cases where it is impossible to give prior berthing instructions, the Master and Chief Engineer are requested to co-operate with the Company by getting the vessel's engines ready for use with the least possible delay.

APPROACHES: *General:*

1. Without accepting any responsibility, the following suggestions are made for the benefit of Masters who are not familiar with Bahrain waters.

2. The buoyed channel from Sitra Anchorage to the Bahrain Light Vessel is primarily for vessels confined by their draft to use it. Vessels intending to transit this channel must obtain clearance from Bahrain Port Control prior to entering.

3. The buoyed channel has a min. depth of 13.25 m. (43 ft. 6 in.) at Chart Datum. This permits unrestricted use at all states of the tide for vessels drawing up to 12.2 m. (40 ft.).

4. Vessels in excess of 12.2 m. (40 ft.) and up to a maximum of 13.4 m. (44 ft.) are restricted to tidal ranges.

5. Vessels with drafts of less than 9.2 m. (30 ft.) are requested to make use of Sitra Inward and Vidal Buoys.

6. The colour of beacon structures and buoys are often obliterated by Guano.

7. For details of the buoys, lights and beacons see the section marked "Sitra Channel Marks". The entrance and near approaches to Mina Sulman are marked by aids not described herein.

8. The "Alteration of Course" positions in the following directions are based upon a radius of turn of 5 cables. This may necessitate an increase in engine revolutions, together with full helm in some vessels.

(a) Inward Under 9.2 m. (30 ft.)

(i) From a position (Lat. 26° 27.8′ N., Long. 51° 00′ E.) 2.5 miles S.E. of No. 3 Beacon (Lat. 26° 28.5′ N., Long. 50° 57.4′ E.) a course should be set to position 0.75 miles North of "Sitra Inward" Buoy (Lat. 26° 21.2′ N., Long. 50° 49.7′ E.) (Qk. Fl. (9) 15 sec.) leaving the "Caisson Wreck" Buoy (Lat. 26° 24.2′ N., Long. 50° 52.7′ E.) (Qk. (6) + L. Fl. 10 sec.) at least 0.5 miles to starboard.

(ii) From the position above a course should then be set towards No. 16 Buoy (Lat. 26° 12.9′ N., Long. 50° 46.3′ E.) (Fl. Y. 6 sec.).

(iii) When the vessel has reached a position with No. 16 Buoy, 1.5 miles ahead, course can be adjusted to due South, passing Westwards of "Vidal" Buoy (Lat. 26° 14.1′ N., Long 50° 47.2′ E.) (Fl. (2) R. 10 sec.) until "Sitra Beacon" (Fl. 3.3 sec.) bears due West.

(iv) If instructed by B.P.C. or the Pilots to proceed in to meet the Pilot, course should be altered to pass South of No. 18 Buoy (Lat. 26° 10.3′ N., Long. 50° 43.9′ E.) (Qk. R.) to the pilot station 0.5 miles due South of Sitra Beacon; thus keeping clear of the Deep Water Channel.

(v) All vessels, unless otherwise instructed should proceed to an anchorage South of No. 27 Buoy (V. Q. (6) + L. Fl. 10 sec.).

Inward Over 9.2 m. (30 ft.):

(i) Vessels wishing to utilise the Deep Water Channel should follow the reciprocal of the courses described for the "Recommended Deep Water Departure Channel".

(ii) Vessels with drafts of between 9.2 m. (30 ft.) and 12.2 m. (40 ft.) may be required by B.P.C. to depart from the marked channel at certain points to allow freedom of movement for vessels with drafts in excess of 12.2 m. (40 ft.).

(b) Deep Water Departure Channel

(i) The Pilot will normally leave vessel after having crossed the Sitra Middle Ground Bar; 2 cables South of "Sitra Beacon" (Fl. 3.3 sec.) with the vessel proceeding to close North of No. 18 Buoy (Qk. R.).

(ii) When No. 18 Buoy comes abeam, course should then be altered to 090°(T) which will bring Sitra Beacon dead astern, bearing 270°(T) to pass South of No. 27 Buoy.

(iii) As No. 27 Buoy (South Cardinal Yellow above Black Pillar Buoy) (V. Q. (6) + L. Fl. 10 sec.) comes abeam to port, course should be altered to 022°(T).

(iv) When Buoy Nos. 21, 23 and 25 are sighted in line bearing 344°(T) course should be altered to 344°(T).

(v) On course 344°(T) Buoy No. 25 (Green Cone) (Fl. G. 5 sec.) and Buoy No. 23 (Green Conical) (Qk. Fl. G.) will be passed close on the port side and Buoy No. 16 (Yellow Can) (Fl. Y. 6 sec.) on the starboard side.

(vi) As No. 21 Buoy (East Cardinal) (V. Q. (3) 5 sec.) comes abeam to port, course should be altered to 015°(T), which should bring Buoy No. 12 (Yellow Can) (Fl. Y. 2 sec.) dead ahead and Buoy No. 21 dead astern. The bearings of these buoys should be watched closely to estimate and correct for cross set which is sometimes quite strong on this course and the next. On this course No. 14 Buoy (Yellow Can) (Fl. Y. 10 sec.) will be left to starboard.

(vii) On No. 19 Buoy (Green Conical) (Fl. G. 3 sec.) coming abeam, course should be altered to 002°(T) bringing Buoy No. 15 (Green Conical) (Occ. G. 5 sec.) dead ahead. Buoy No. 12 (Fl. Y. 2 sec.) will then be left close to starboard and No. 17 Buoy (Green Conical) (Qk. Fl. G.) will be left to port.

(viii) In order to pass over a cable Eastwards of Buoy No. 15, course should be altered to 016°(T) as Buoy No. 10 (Yellow Can) (Fl. (3) Y. 10 sec.) comes abeam to starboard and then altered to 356°(T) as Buoy No. 15 comes abeam to port. This course would pass 3.5 cables West of Bahrain Approach Buoy. It may be advisable to reduce engine revolutions shortly after steadying on course 356°(T), in order to be able to increase revolutions, if required to provide better steerage on the next course over the Bar.

(ix) When the Bahrain Approach Buoy bears 051°(T) course should then be altered to 051°(T). As this heading is approached, it should be found that Buoys No. 8 (Red Can) (Fl. R. 2 sec.) and No. 6 (Red Can) (Fl. (3) R. 6 sec.) are in line to starboard, as Bahrain Approach Buoy comes abeam at 2.5 cables, and then should commence to open. Buoys No. 13 (Green Conical) (Fl. G. 5 sec.) and No. 11 (Green Conical) (Q. G.) are parallel to the course on the port side of the vessel, give clearance on the 13.1 m. (43 ft.) patches and given the extent of the bar which should be traversed at Slow Speed.

(x) On No. 11 Buoy coming abeam to port, course should be altered to 054°(T) passing between No. 9 Buoy (Green Conical) (Fl. G. 10 sec.) and Buoy No. 4 (Red Can) (Q. R.), followed by Buoy No. 7 (Green Conical) (Fl. G. 5 sec.) to port.

(xi) When Buoy No. 2 (Red Can) (Fl. (2) R. 10 sec.) bears East, course should be altered to 071°(T) to pass close South of Buoy No. 5 (Green Conical) (Fl. G. 3 sec.).

(xii) Buoy No. 5 should be close abeam to port, when the course is altered to 057°(T) and speed reduced in readiness to cross the spit which extends in a Southerly direction from No. 3 Beacon (Fl. 6 sec.) and which has a minimum depth of 13.25 m. (43 ft. 6 in.) at Chart Datum.

(xiii) When Buoy No. 1 (Green Conical) (Q. G.) bears 040°(T), course should be altered to 040°(T) bringing the Bahrain Light Vessel (Gp. Fl. (3) 20 sec.) on the starboard bow. 1.5 miles after Buoy No. 1 has been left to port, the minimum depth of water is greater than 50 ft., and it is safe to go full ahead.

(xiv) Masters can expect to have to make adjustments from time to time, to the recommended courses, due to set. Effects of tide and current should be watched for at all times.

Sitra Channel Marks:

Bahrain Light Vessel	26° 33′ 00″ N. 51° 03′ 30″ E.	A light vessel painted Red with the word 'Bahrain' in white on both sides of the vessel.	Gp. Fl. (3) every 20 secs. Range 15 miles. Racon.
No. 1 Buoy	26° 28′ 39″ N. 50° 58′ 30″ E.	Starboard hand buoy, Green conical.	Quick Green.
No. 2 Buoy	26° 25′ 58″ N. 50° 52′ 56″ E.	Port hand buoy, Red can.	Gp. Fl. (2) Red every 10 secs.
No. 3 Beacon	26° 28′ 30″ N. 50° 57′ 21″ E.	Black framework tower 47 ft. high with Radar Reflector.	Fl. every 6 secs. Geographical Range: 12 miles.
No. 4 Buoy	26° 23′ 41″ N. 50° 49′ 14″ E.	Port hand buoy, Red can.	Quick Red.
No. 5 Buoy	26° 27′ 06″ N. 50° 56′ 11″ E.	Starboard hand buoy, Green conical.	Fl. Green 3 secs.
No. 6 Buoy	26° 22′ 26″ N. 50° 47′ 21″ E.	Port hand buoy, Red can.	Fl. (3) Red every 6 secs.
No. 7 Buoy	26° 24′ 56″ N. 50° 50′ 57″ E.	Starboard hand buoy, Green conical.	Fl. Green 5 secs.
No. 8 Buoy	26° 22′ 12″ N. 50° 47′ 00″ E.	Port hand buoy, Red can.	Fl. Red every 2 secs.
No. 9 Buoy	26° 23′ 47″ N. 50° 48′ 53″ E.	Starboard hand buoy, Green conical.	Fl. Green 10 secs.
No. 10 Buoy	26° 17′ 50″ N. 50° 46′ 32″ E.	Port hand buoy, special Yellow can.	Fl. (3) Yellow every 10 secs.
No. 11 Buoy	26° 22′ 43″ N. 50° 47′ 30″ E.	Starboard hand buoy, Green conical.	Quick Green.
No. 12 Buoy	26° 16′ 44″ N. 50° 46′ 28″ E.	Port hand buoy, special Yellow can.	Fl. Yellow every 2 secs.
No. 13 Buoy	26° 22′ 13″ N. 50° 46′ 48″ E.	Starboard hand buoy, Green conical.	Fl. Green 5 secs.
No. 14 Buoy	26° 14′ 42″ N. 50° 46′ 00″ E.	Port hand buoy, special Yellow can.	Fl. Yellow every 10 secs.
No. 15 Buoy	26° 18′ 16″ N. 50° 46′ 22″ E.	Starboard hand buoy, Green conical.	Occulting Green every 5 secs.
No. 16 Buoy	26° 12′ 52″ N. 50° 46′ 17″ E.	Port hand buoy, special Yellow can.	Fl. Yellow every 6 secs.
No. 17 Buoy	26° 16′ 59″ N. 50° 46′ 05″ E.	Starboard hand buoy, Green conical.	Quick Green.
No. 18 Buoy	26° 10′ 15″ N. 50° 43′ 53″ E.	Port hand buoy, Red can.	Quick Red.
No. 19 Buoy	26° 15′ 54″ N. 50° 46′ 00″ E.	Starboard hand buoy, Green conical.	Fl. Green 3 secs.
No. 21 Buoy	26° 13′ 52″ N. 50° 45′ 41″ E.	East Cardinal Black Yellow Black Pillar.	Very Quick (3) 5 secs.
No. 23 Buoy	26° 12′ 37″ N. 50° 46′ 05″ E.	Starboard hand buoy, Green conical.	Quick Green.
No. 25 Buoy	26° 11′ 47″ N. 50° 46′ 21″ E.	Starboard hand buoy, Green conical.	Fl. Green 5 secs.

Sitra Channel Marks:

No. 27 Buoy	26° 10′ 28″ N. 50° 45′ 32″ E.	South Cardinal Yellow Black Pillar.	Very Quick (6) + L Fl. 10 secs.
Caisson Wreck Buoy	26° 24′ 14″ N. 50° 52′ 40″ E.	South Cardinal Yellow Black Pillar.	Quick (6) + L Fl. 15 secs.
Sitra Inward Buoy	26° 21′ 03″ N. 50° 49′ 41″ E.	West Cardinal Yellow Black Yellow Pillar	Quick (9) 15 secs.
Vidal Buoy	26° 14′ 04″ N. 50° 47′ 10″ E.	Port hand buoy, Red can.	Fl. (2) Red every 10 secs.
Bahrain Approach Buoy	26° 21′ 38″ N. 50° 46′ 40″ E.	West Cardinal Yellow Black Yellow Pillar.	Very Quick (9) 10 secs.
Sitra Beacon	26° 10′ 20″ N. 50° 42′ 51″ E.	Black framework tower 50 ft. high, with Radar Reflector & Racon.	Fl. every 3.3 secs. Range: 11 miles.
Sitra Beacon Guard Buoy	26° 10′ 16″ N. 50° 42′ 51″ E.	Starboard hand buoy, Green conical.	Fl. Green 3 secs.
South Shoals Beacon	26° 09′ 25″ N. 50° 41′ 47″ E.	Pile structure, 20 ft. high.	Gp. Fl. (2) Red 4 secs.
North Range Beacon	26° 10′ 02″ N. 50° 39′ 55″ E.	Pile structure, 20 ft. high.	Fl. Red Green 2½ secs.
South Range Beacon	26° 09′ 18″ N. 50° 41′ 01″ E.	Pile structure, 20 ft. high.	Fl. Red every 4 secs.
Sitra Middle Ground Buoy	26° 10′ 01″ N. 50° 40′ 33″ E.	South Cardinal Yellow Black Pillar.	Very quick (6) + L. Fl. 10 secs.
Seistan Wreck Buoy	26° 09′ 22″ N. 50° 43′ 12″ E.	North Cardinal Black Yellow Pillar.	Very Quick Fl.
Alba Beacon	26° 09′ 14″ N. 50° 40′ 23″ E.	Pile structure, 20 ft. high.	Scintilating Fl. Green.
AISCO North	26° 11′ 17″ N. 50° 41′ 22″ E.	Green Conical.	Quick Fl. Green.
AISCO South	26° 11′ 07″ N. 50° 41′ 33″ E.	Green Conical.	Fl. Green 3 secs.

ANCHORAGE: The normal anchorage for arriving vessels waiting orders or tide is 1 mile South of No. 27 Buoy.

The whole of the navigable waters to the West of Sitra Beacon are restricted for anchorage unless specific permission has been granted by Bahrain Port Control. Pilotage is compulsory West of Sitra Beacon.

The area South of a line joining Sitra Beacon and Sitra Middle Ground Buoy is the fairway to Mina Sulman, and the approaches to ALBA, AISCO, ASRY and BAPCO terminals and as such *anchorage is prohibited.*

The area North of this line joining Sitra Beacon and Sitra Middle Ground Buoy and bounded on the North by ASRY Drydock and AISCO, is Sitra Inner Anchorage.

Vessel may ONLY anchor in Sitra Inner Anchorage after specific permission has been granted by Bahrain Port Control, as this area is also the approaches to the ASRY Drydock and AISCO jetty. Permission will be granted for vessels working with ASRY, working barges, or taking bunkers by barge.

Vessels should not immobilise their engines without having received on board written permission from the Port Authority.

A CONTINUOUS WATCH ON VHF CHANNEL 74 MUST BE MAINTAINED.

RESTRICTIONS: Berthing carried out night and day.

Explosives: Merchant vessels carrying explosives are not permitted to enter the Sitra Inner Anchorage, unless permission has been granted and anchorage allocated. Masters of such vessels will be advised by Bahrain Port Control to anchor in the Explosives Anchorage in a position 1.5 miles S.E. of Sitra Beacon.

Merchant vessels carrying explosive material are not permitted to enter the limits of BAPCO's Oil Wharves including the ALBA facilities.

Tidal Information:

The Standard Port for the area is Mina Sulman.

		High Water		Low Water	
No.	Place	Mean Springs	Mean Neaps	Mean Springs	Mean Neaps
		Standard Port		Standard Port	
4252	Mina Sulman	2.4 m. (7.9 ft.)	1.9 m. (6.2 ft.)	0.6 m. (2.0 ft.)	1.0 m. (3.3 ft.)
		−0030 hours		−0030 hours	
4251	Sitra	2.2 m. (7.2 ft.)	1.7 m. (5.6 ft.)	0.4 m. (1.3 ft.)	0.8 m. (2.6 ft.)
		−0037 hours		−0037 hours	
4250a	Bahrain Approach Buoy	2.1 m. (6.9 ft.)	1.7 m. (5.6 ft.)	0.4 m. (1.3 ft.)	0.8 m. (2.6 ft.)

For vessels with drafts in excess of 12.2 m. (40 ft.) the following notes are recommended:

1. During Neap Tides vessels with drafts up to 12.8 m. (42 ft.) can navigate the channel at all stages of the tide.

2. *Tidal Sailings:* The rise of tide must be utilised to pass through the shoal areas between Bahrain Approach Buoy and No. 3 Beacon over the HW period at reduced speed. Departing vessels should be underway from No. 27 Buoy not later than 3.5 hours before the next predicted HW at Mina Sulman, or at a time not later than that which would allow vessels to make the passage between Bahrain Approach Buoy and No. 3 Beacon at a reduced speed of 8 knots, having the full benefit of the tide, and passing Bahrain Approach Buoy 1.5 hours before the predicted HW at Mina Sulman.

MAX. SIZE: See individual berths for limitations.

HEALTH: Bahrain Port Health Regulations are based on International Sanitary Regulations adopted by World Health Organisation, May 1951.

In accordance with International practice, quarantine signals must be prominently displayed by all vessels approaching Bahrain Port.

Pratique is normally granted by the Bahrain Government Port Health Officer or the Agent's Representatives, or for healthy vessels scheduled for immediate berthings in the Sitra Marine Area by the BAPCO Pilot.

No persons, excepting the Bahrain Coast Guard, Agents' Representatives and Pilots are permitted to leave or board a vessel until Pratique has been granted.

A radio message should be sent to the Government Port Health Officer, Bahrain, advising last Bill of Health and present health conditions aboard.

Rat guards should be properly placed on all mooring ropes as soon after berthing as practicable.

Bahrain Port is not classed as a "Plague Port" but all crew members must have in their possession valid certificates of vaccinations and inoculations against cholera in accordance with current Health Regulations.

The Bahrain Government Port Health Officer is available by arrangement through vessel's Agent. The Port Health Officer, in addition to official duties, will provide consultation and treatment for other than quarantine purposes.

Derat and Derat Exemption Certificates are obtainable in Bahrain. Requests should be made through the vessel's Agent.

RADIO: The company does not operate a coast radio station, long distance radio communication being routed through Bahrain Radio.

All vessels are requested to keep the company, on cable address "Bapcoship Bahrain", fully advised regarding ETA. Vessels fitted with telex may contact BAPCO by telex through A9M on Telex: 8218 Bn (answerback being BAPSHP) but messages to the vessel from BAPSHP will all be relayed through Bahrain Radio for onward transmission.

It is requested that vessels provide an ETA, arrival and departure drafts, not later than 48 hours steaming time from Sitra.

Long distance radio communication should all be routed through Bahrain Telecommunication Company's Coast Station "Bahrain Radio" (A9M) of P.O.Box 14, Manama, Bahrain, to which a regular watch should be maintained.

All communications to the Company should be quoted in GMT, and the appropriate letters, GMT, inserted after the time.

Bahrain Radio (A9M) (SELCAL 4650)

		Frequencies in kHz		
Type	*Time (GMT)*	*Calling*	*Working*	*Listening*
W/T, M/F	Continuous	500	487, 442, 516	500, 480, 454, 468
W/T, H/F	Continuous	4302	4284	4181.2 - 4282.4
	0300 - 2000	8448	8454	8362.4 - 8364.8
	0400 - 2000	12709	12698	12543.6 - 12547.2
	0400 - 2000	17175.2	17169	16724.8 - 16729.6
	0700 - 0800	17169	17169	16724.8 - 16729.6
	1245 - 1315	17169	17169	16724.8 - 16729.6
R/T, M/F	Continuous	2182	2607, 2656	2182 and as requested
R/T,H/F	Continuous	4125		4125
			4394.6	4100.2
	Continuous	6215.5		6215.5
	By W/T arrangement		8718.9	8195
			8734.6	8210.5
			13125.6	12354.8
			17285.6	16512.7
			22612.9	22016.9
R/T, VHF	Continuous	Ch. 16	Ch. 26, 27, 82, 84	Ch. 16, 26, 27, 82, 84
Telex	Continuous		4350	4170.5
	Continuous		8716	8355
	Continuous		13086.5	12506.5
	Continuous		17202	16665
	Continuous		22584	22215

Bahrain Radio is equipped with Marconi Spector "ARQ" and "FEC" equipment type U2221. The equipment conforms to CCIR Recommendation 476. There are 4 operating positions with answerbacks 8474A A9M BN, 8474B A9M BN, 8474C A9M BN, and 8474D A9M BN. For direct contact ships should call in the Master (ARQ) mode as A9M monitors in the Slave mode. During a link call A9M will work as Master once contact has been established. Bahrain Radio accepts telex tapes from local clients to be passed on to ships fitted with radio telex on Telex: 8221 Bahrad Bn. The address should include the ship's name, call sign, and SELCAL number.

Sitra Port Control

Call sign "Bapco Terminal".

R/T, VHF Continuous Ch. 16, 74 Ch. 6, 8, 9, 12, 14
R/T, H/F On demand 2182 2182, 2621, 2806

When within 50 miles of Bahrain, communication should be established on VHF with BAPCO Terminal.

Vessels must maintain a continuous watch on VHF Channels 16 and 74.

A separate radio message should be sent to the Government Port Health Officer, Bahrain, advising last Bill of Health and present health conditions on board.

The Radio and Radar equipment of any vessel must *not* be operated whilst alongside Company wharves.

VHF: See "Radio".

BAHRAIN PORT CONTROL: A Vessel Traffic Management System has been established and is responsible for co-ordinating and regulating the flow of marine traffic in all waters within the port limits and the Deep Draft and N.E. Approach Channels.

It is required that all vessels in excess of 50 g.r.t. will inform Bahrain Port Control, on VHF Channel 74, prior to leaving a berth or anchorage, or immediately after berthing or anchoring, and when passing the following sea marks inwards and outwards:

Deep Draft Channel	*N.E. Approach*
Bahrain Light Vessel	—
No. 3 Beacon	—
Bahrain Approach Buoy	Sitra Inwards Buoy
No. 14 Buoy	Vidal Buoy
No. 27 Buoy	No. 27 Buoy
Sitra Beacon	Sitra Beacon
Middle Ground Buoy	Middle Ground Buoy

TUGS: The assistance of Company tugs is normally available on a 24 hour basis.

When assisting in berthing and unberthing operations, the tugs are under the direct orders of the Sitra Pilot.

The Company normally has 2 tugs on station. Each tug is fitted with fire pumps and monitors and can provide limited assistance fighting fires.

The Sitra Pilot will decide upon the number of tugs to be used in berthing and unberthing operations. Normally, 2 tugs are used in each instance.

If the assistance of a tug is required for purposes other than berthing or unberthing, the request should be directed to the Superintendent – Marine Operations, Sitra, via the vessel's Agents.

Towboats: Normally there are 3 tow-boats of 365 h.p. on station. Primarily intended for other harbour duties, these tow-boats are available for assisting in the berthing/unberthing of the smaller class of vessel.

BERTHING: Berthing and unberthing operations are conducted on a 24 hour basis at the discretion of the Sitra Pilot; wind, weather, tide and other circumstances permitting.

Full power must be available on the main engines and the vessel must be sufficiently ballasted for the operation envisaged. The Sitra Pilot will decline to berth vessels if they are not properly equipped with satisfactory mooring lines, or if deck appliances are inoperable, or if steering gear, telegraphs and whistles are not in an efficient condition. The Master should notify the Pilot of any defects or peculiarities pertaining to his vessel.

Minimum Manoeuvring Drafts for Tankers: Due to the exposed location of the wharves, vessels are required to be sufficiently ballasted with clean ballast water ballast before coming alongside.

Acceptable ballast drafts are those calculated by the following IMO formulae:

Draft amidships (2.0 + 0.02L) m.

Trim not to exceed 0.015L.

Where L = Length overall.

Minimum tanker drafts normally acceptable are:

LOA	*Forward*	*Aft*
150 m. (490 ft.)	3.9 m. (12.8 ft.)	6.1 m. (20.0 ft.)
175 m. (570 ft.)	4.2 m. (13.8 ft.)	6.8 m. (22.3 ft.)
200 m. (650 ft.)	4.5 m. (14.8 ft.)	7.5 m. (24.6 ft.)
225 m. (730 ft.)	4.9 m. (16.0 ft.)	8.1 m. (26.6 ft.)
250 m. (820 ft.)	5.2 m. (17.0 ft.)	8.8 m. (28.9 ft.)

Ballast draft should be sufficient to completely immerse the propeller. Pilots may decline to berth vessels if they are not sufficiently ballasted.

Trim: Whilst alongside the berth the period of undesirable trim shall be minimised.

Anchors: The "Offshore" anchor should be cleared and lowered to the waterline, ready for letting go, before approaching the berth. Anchor buoys are NOT to be used.

Handling Mooring Lines: BAPCO provides a shore gang for handling mooring lines on the wharves. This service is directed by the BAPCO personnel on the wharf.

Vessels berthing at BAPCO wharves must be equipped with *at least* 5 lines forward and 5 lines aft, in addition to backsprings fore and aft. These lines must be of sufficient length to enable moorings to be "doubled up" in bad weather. Method of mooring will be at the discretion of the duty Pilot.

Constant tension winches to be set on manual brake.

BAPCO TERMINAL: Two main wharves were constructed, lying 146° – 326° to handle ocean-going vessels, with a special services coastal tanker wharf lying 023° – 203°.

Whilst bunkers (fuel oil, marine diesel and gas oil) are available on all berths, the main wharves handle all normal petroleum products with specialities handled on particular berths for dependent clients:

	Berth Nos.
BANOCO/CALTEX	
Asphalt	2,4,7
Pressurised LPG	4, 7
Blended Fuel Oil	2, 4
Caustic/T.E.L. Imports	4
BANAGAS	
Butane/Propane (Vapour Return/Main)	1
(Main/Vapour Return)	2
GPIC	
Ammonia/Methanol	1
Methanol/Ammonia	2

No. 1 Island Wharf: No. 1 (Island) Wharf consists of 1 main central platform supported on steel piles with 4 inter-connected mooring dolphins, 2 positioned to the North-West and 2 to the South-East; giving the wharf an overall length of 281 m. (923 ft.). This wharf, which is supplied by submarine pipe-lines, provides 2 berths protected by 4 breasting dolphins each side. The latter precludes berthing freighters.

Limitations:

Berth	*LOA*	*Charted Depth*	*Sailing Draft*	*Max. Berthing Draft*	*Berthing Displacement*
5	Min: 165 m. (540 ft.)	14.00 m. (46 ft. 0 in.)	13.40 m. (44 ft. 0 in.)	10.67 m. (35 ft. 0 in.)[4]	71,500 L. Tons
6	Max: 274 m. [1](900 ft.)	13.25 m. (43 ft. 6 in.)	13.25 m. (43 ft. 6 in.)[3]	12.19 m. (40 ft. 0 in.)	[2]

Notes:

1. Maximum distance manifold to ends of 145 m. (475 ft.).
2. Approximates to 110,000 d.w.t. in ballast.
3. 13.40 m. (44 ft.) permitted only under suitable tidal conditions.
4. Can be exceeded with suitable rise of tide to max. 12.19 m.

No. 2 Wharf: No. 2 wharf is a pile driven 'T' head structure with 3 interconnected dolphins, 2 positioned to the N.W. and 1 to the S.E., giving the wharf an overall length of 508 m. (1,666.5 ft.), and providing four berths. Both outside berths (Nos. 1 and 2) and the N.W. Inner Berth, No. 3 are protected by berthing beams. This wharf is connected by a road trestle 518 m. (1,680 ft.) to a causeway 3 miles from the main island of Sitra.

Limitations:

Berth	*LOA*	*Charted Depth*	*Sailing Draft*	*Berthing Displacement*
1	250 m.[1] (820 ft.)	12.80 m. (42 ft. 0 in.)	12.19 m. (40 ft. 0 in.)	58,000
2	250 m.[1] (820 ft.)	12.95 m. (42 ft. 6 in.)	12.34 m. (40 ft. 6 in.)	58,000
3	170 m. (560 ft.)	11.89 m. (39 ft. 0 in.)	10.36 m.[2] (34 ft. 0 in.)	33,000[3]
4	160 m. (525 ft.)	11.89 m. (39 ft. 0 in.)	10.36 m. (34 ft. 0 in.)	15,000

Notes:

1. May be exceeded dependent upon configuration of vessel and vessel utilising other berth.
2. 10.97 m. may be permitted under suitable tidal conditions.
3. Approximates to 25,000 d.w.t. cargo import.

Coastal Tanker Wharf: This wharf is a pile driven structure, fendered on its Eastern side only and connected by a catwalk to the Causeway. At its outer end is a warping dolphin.

Limitations:

Berth	*Vessel LOA*	*Charted Depth*	*Draft Never To Exceed*
7	73.1 m. (240 ft.)	5.48 m. (18 ft. 0 in.)	4.88 m. (16 ft. 0 in.)
		or with special permission	
	73.1 – 79.2 m. (240 – 260 ft.)	4.88 m. (16 ft. 0 in.)	4.26 m. (14 ft. 0 in.)

BAHRAIN NATIONAL GAS CO.:

General: Butane and propane are stored at Sitra storage tanks at 0.5 p.s.i.g., and −5°C and −42°C, respectively. Maximum storage capacity is 188,000 bbls. (29,890 cu.m.) per product.

Product is pumped to the loading arms via a 16 in. insulated loading line by 2 pumps, each with a capacity of 5,000 b.p.h. There is a 10 in. vapour return line. The vapour return line can be routed to a tank or to flare as required. Note that if during the loading, pressure on the vapour return line exceeds 1.25 p.s.i.g. at the flare, then a control valve may shut against the vessel. This may happen without prior warning.

The loading line and the vapour return line are in the configuration as per plan (see "Plan" – Sitra Wharf No. 2). Loading and vapour return operations are accomplished via chiksan type arms, the arms having 12 in., 150 A.S.A. rating, and 8 in., 150 A.S.A. rating flanges respectively.

As propane and butane cargoes are loaded through a single shore system it may be necessary for the shore tank to be switched in order that the loading system content is displaced to the vessel with the other product. Masters are requested to maintain an accurate assessment of the cargo loaded at all times and inform the wharf staff as required.

Vessels MUST advise Terminal personnel of any need to shut down loading, even on an emergency basis, so that the Terminal emergency shut down system can be activated BEFORE on-board valves are shut to the loading hoses/arms.

Atmospheric venting is not permitted alongside the wharves. Vessels which are "hot" will be required to load a quantity of coolant, unberth and purge and cool down in the holding anchorage.

Communications: Vessels intending to load LPG at Sitra will be contacted approximately 72 hours prior to arrival, and will be required to furnish the following information to BAPSHP BN:

1. Names of last 3 ports of call and ETA at 72, 48 and 24 hour intervals to No. 27 Buoy.
2. Arrival draft, departure draft, and berthing displacement.
3. State of readiness to berth/load and composition of vapours in ships tanks. If "hot", quantity required for cooling down procedure.
4. Order of loading, disposition of cargo to load and maximum loading rate.
5. Disposition of cargo already on board, and if intend co-mingling.
6. Ships particulars:
   (a) Length overall.
   (b) Distance bow to liquid connection.
   (c) Distance bow to vapour return connection.
   (d) Maximum freeboard of manifold during cargo operations.
   (e) Minimum freeboard of manifold.
7. Bunker requirements.
8. Radio "Porthealth Bn" with present health conditions.

This information should be updated every 24 hours or sooner should any major alterations to the original be made.

Arrival Procedure: VHF communications should be established with:

(a) BAPCO Terminal to obtain the latest berthing schedule.
(b) Bahrain Port Control to whom vessels should pass their intended passage route and timings from Bahrain Light Vessel to No. 27 Buoy, and obtain clearance.

Should the berth be unavailable, vessels will be directed to the Sitra Holding Anchorage, which is 1 mile South of No. 27 Buoy. Vessels carrying out cooling down procedures will also use this designated anchorage.

LPG vessels will not under normal conditions use the Sitra Inner Anchorage but if special circumstances warrant then permission must be first obtained from Bahrain Port Control.

Berthing and unberthing operations are at all times governed by prevailing weather conditions and the larger freeboard of LPG vessels will be taken into account when considering berthing prospects.

Mooring arrangements will be generally similar to those outlined for BAPCO Berths, but particular attention should be given to extra moorings when warning of imminent weather change is received.

GULF PETROCHEMICAL INDUSTRIES CO.: BAPCO Berths No. 1 and 2.

General: Ammonia and methanol are manufactured and stored at the GPIC plant situated 2 miles from the berths on the Southern side of the causeway. Ammonia is stored in 2 tanks at atmospheric pressure and at a temperature of −33°C with a total capacity of 40,000 tonnes. Methanol is stored in 2 nitrogen blanketed tanks at atmospheric pressure and ambient temperature with a total capacity of 40,000 tonnes also.

The product pipe-lines, together with the ammonia vapour return, and the control and instrumentation pipes, are routed along a maintenance causeway on the North side of the main causeway to close Westwards of the Coastal Tanker Berth after which they are carried on top of piles close South of the wharf road trestle to the North corner of No. 4 Berth.

The 16 in. ammonia loading line and the 10 in. vapour return line terminate at a combined 10 in. and 6 in. chicksan type arm. Methanol is similarly routed through a 16 in. loading line to a separate 10 in. chicksan type arm.

Both products can be loaded each utilising 2 pumps at a maximum capacity of 1,200 tonnes per hour.

Methanol is a typical hydrocarbon product and is handled similarly to other products on the wharf.

Ammonia is a toxic product and should be handled with additional caution. The GPIC office on the wharf contains breathing apparatus sets and other equipment for emergencies.

Arrival Communication: Vessels intending to load ammonia or methanol will be required to provide the following information to GPIC (Telex: 9897, Answerback Kemia Bn) via Bahrain Radio:

1. Names of last 3 ports of call.
2. ETA at 72, 48 and 24 hour intervals to No. 27 Buoy.
3. Arrival draft, departure draft and berthing displacement.
4. State of readiness to berth/load and composition of vapours and temperatures of ship's tanks. Noting for ammonia loadings that the vapour return line can only be utilised if the tanks are filled with gaseous ammonia.
5. Order of loading, disposition of cargo to load and maximum loading rate requested.
6. Disposition of any cargo already on board.
7. Ship particulars:
   (a) Length overall.
   (b) Distance bow to liquid connection.
   (c) For ammonia loadings: Distance bow to vapour return.
   (d) Maximum freeboard of manifold during cargo operations.
   (e) Minimum freeboard of manifold.
8. Loading arms terminate with flanges of:
   (a) Ammonia liquid – 10 in. × 300 ASA.
   (b) Vapour return – 4 in. ×150 ASA.
   (c) Methanol – 10 in. × 150 ASA.
   (d) Methanol rise – 10 in.

Vessel requested to inform if suitable sized and constructed adaptors not on board, giving manifold size flange required.

9. Any deficiencies in vessels equipment, safety appliances.
10. Bunker requirements.

Vessels are required to radio "Porthealth Bn" with present health conditions.

Arrival Procedure: VHF communications should be established with:

(a) Bahrain Port Control to whom vessels should pass their intended passage route and timings from Bahrain Light Vessel to No. 27 Buoy, and obtain passage clearance.
(b) BAPCO Terminal to obtain the latest berthing schedule.

Both on VHF Channel 74.

Should the berth be unavailable, vessels will be directed to Sitra Holding anchorage, which is 1 mile South of No. 27 Buoy.

All the normal BAPCO Terminal procedures and regulations will apply in conjunction with additional safeguards.

Access to the "T" head will be restricted.

Loading Masters: GPIC provide Loading Masters, independent of BAPCO, who will make all necessary arrangements, inspections and checks for the loadings.

The BAPCO Wharf Superintendent and his delegates have the responsibility for the overall safety and security of the wharf and access to the wharf will be restricted during ammonia loading operations.

Loading Information: As the loading pumps for ammonia have to be cooled down prior to operations the ship's maximum acceptable loading rate, up to 1,200 tonnes/p.h. cannot be changed after receipt of arrival telex.

The max. loading rate utilising 2 shore pumps is 1,200 tonnes/p.h.

Before commencement of any cargo operations the GPIC Loading Master and the vessels Loading Officer must mutually agree on the procedures for Normal and Emergency Stoppage.

Vessels must advise the GPIC Loading Master of any need to shut down loading, even on an emergency basis, so that the Terminal shut down systems can be activated before on-board valves are shut against the loading arms.

In the event of an emergency disconnection the loading arms will automatically rise about 2 m. above its current operating position with an arm full of product, leaving 1 quick closing valve connected to the vessel.

Prior to commencing operations the GPIC Loading Master and the ship's Loading Officer will mutually agree on the correct sampling procedure for the vessel.

Gas masks, breathing apparatus and first aid equipment must be checked for full serviceability and be ready to hand prior to commencing any operations.

Prior to and on completion of loading, the loading arms will be purged with nitrogen to displace the product on to the vessel.

During ammonia loadings the vapour return line should be used to assist in the displacement of the shore tanks. However, this will only be carried out if the ship's tanks are filled with gaseous ammonia. It is not permitted for the ship to vent inert gas or other vapours into the vapour return line.

ALUMINIUM BAHRAIN:

General: Berthing and unberthing operations are conducted on a 24-hour basis at the discretion of the Sitra Pilot; wind, weather, tide and other circumstances permitting.

Owing to the confined area of operations and the strong cross currents experienced on the Inner Berth some arriving vessels may have to anchor South of No. 27 Buoy for slack water.

Full power must be available on the main engines and the vessel must be sufficiently ballasted for the operation envisaged. The Sitra Pilot will decline to berth vessels if they are not properly equipped with satisfactory mooring lines, or if deck appliances are not operable, or if steering gear, telegraph and whistles are not in an efficient condition. The Master should notify the Pilot of any defects or peculiarities pertaining to his vessel.

Due to exposed location, vessels alongside the Inner Berth may experience considerable surging in rough weather and careful watch should be kept on mooring ropes. Slack lines present a hazard to the safety of vessels moored alongside. It is recommended that at least half hourly routine checks on moorings are carried out. The use of shore storm moorings are mandatory for vessels moored at ALBA Inner Berth. Vessels requesting additional lines to be run out, etc., will be given every assistance by shore staff.

Anchors: The "offshore" anchor should be cleared and lowered to the waterline, ready for letting go, before approaching the berth. Anchor buoys are not to be used.

Gangways: Vessels shall provide an efficient gangway, which shall be adequately lighted during the hours of darkness and be of sufficient length to provide safe access when the vessel is discharged.

Mooring Charges: BAPCO will make a charge for the use of tugs/tow-boats and services rendered during berthing and unberthing operations, and for tugs utilised holding/repositioning vessel if required during periods of inclement weather.

Smoking: Smoking is strictly prohibited on the ALBA jetty except at approved "Smoking Points". The Port Captain, Sitra has approved vessels berthed alongside the ALBA jetty as "safe places" for smoking except during bunker operations. This approval may be withdrawn by ALBA's Marine Superintendent or his delegate if any condition arises which in his opinion is likely to prove hazardous.

The Master shall be responsible for ensuring that the crew of the vessel are informed of the safe places so approved and that they comply with the regulations.

Swimming: Swimming is not permitted in the vicinity of the ALBA jetty.

Vessels' Engines: The main engines and all gear must be in an operable condition and in a state of immediate readiness whilst alongside the jetty.

Fire Wires: Vessels berthed at the ALBA Jetty must have the eye of a wire hanging over the offshore bow and quarter to enable tugs to connect up readily in an emergency. The wire shall be suitable for the intended purpose and shall have sufficient scope on deck for free running. These wires must be tended to keep the eyes at sea level.

Shore Leave: Shore leave may be taken by *bona fide* crew members in accordance with the Regulations prescribed by the Government of Bahrain, and in accordance with the Agents' Notice to Masters.

All persons landing from vessels at ALBA's berths must use transport provided by the Agent between the ALBA Storage Island and ALBA Security Gate where they must show their shore leave pass, BAPCO 2564. It is not permitted to walk along the causeway between the Storage Island and ALBA Security Gate. All persons going ashore must hand in either their valid passport or Seaman's Continuous Discharge Certificate to the Immigration Officer and be cleared by the Customs Officer, both of whom are located in BAPCO's Sitra Shipping Office.

Communications: Vessels should provide their Agent through Bahrain Radio with:

1. ETA at least 72 hours in advance.
2. Names of last 3 ports of call.
3. Arrival drafts fore and aft.
4. State of readiness to berth/load/discharge.
5. Bunker requirements.

This information should be updated should any major alterations to the original be made.

They should also radio "Porthealth Bn" with present health conditions. When within VHF range communications should be established with:

(a) Bahrain Port Control

and

(b) BAPCO Terminal to obtain the latest berthing schedule from Sitra Pilots.

During cargo operations while a vessel is alongside ALBA jetty, VHF Channel 8 is used for contact with the wharf staff. Masters are requested to maintain a watch on this channel. There are no facilities for providing vessels alongside with telephones.

ALBA Wharf: Description: The ALBA wharf is a pile driven, "L" shaped structure, 171 m. (562 ft.) long with a reinforced concrete decking. A mooring dolphin is situated 47.5 m. (165 ft.) to the N.W. and a warping/mooring dolphin 60 m. (197 ft.) to the S.E. These dolphins give the wharf an overall length of 281 m. (924 ft.).

Depths at this wharf are as follows:

Outer Berth: 10.35 m. (34 ft.) at Chart Datum.

Inner Berth: Forward: 9.15 m. (32 ft.) at Chart Datum. Aft: 10.35 m. (34 ft.) at Chart Datum.

Limitations: The Outer Berth is provided with fendering to accept vessels of up to 35,000 d.w.t., with normal max. LOA of 200 m. (650 ft.). Large vessels must have a minimum of 76 m. (250 ft.) of parallel sides in order that the vessel can rest against the fenders without touching the decking. Small vessels with LOA of between 40 m. (130 ft.) and 97 m. (320 ft.) may be berthed on the Northern or the Southern set of 3 fenders.

The Inner Berth is designed to accept vessels of up to 12,000 d.w.t., with a max. LOA of 165 m. (540 ft.) and with a max. beam of 21 m. (68 ft.).

Facilities: Bulk carriers will be unloaded on the Outer Berth by 2×10 ton capacity grab equipped cranes, with max. outreach of 28.6 m. (94 ft.).

Metal exports will be loaded at the Inner Berth using ship's gear or, possibly, on the Outer Berth where the jetty cranes will be used.

ARAB IRON & STEEL COMPANY:

Berthing/General: Under normal circumstances, berthing and unberthing operations are conducted on a 24 hour basis at the discretion of the Sitra Pilot; wind, weather, tide and other circumstances permitting.

Owing to the confined area of operations for ore carriers arriving at the maximum permitted drafts for the berth, and the strong cross currents experienced on the berth, arriving vessels may have to anchor South of No. 27 Buoy for slack water.

Full power must be available on the main engines and the vessel must be sufficiently ballasted for the operation envisaged. The Sitra Pilots will decline to berth vessels if they are not properly equipped with satisfactory mooring lines, or if deck appliances are inoperable, or if steering gear, telegraphs and whistles are not in an efficient condition. The Master should notify the Pilot of any defects or peculiarities pertaining to his vessel.

Approaches: The area surrounding the wharf and its approaches have been dredged for deep drafted vessels.

To assist in the pilotage, leading beacons and marker buoys have been installed. The beacons, rear (Gp. Fl. (2) 2 sec.) 12 m. and front (Qk. Fl.) 9 m. are situated parallel and 300 m. to the West of the wharf centreline, and provide clearance for maximum drafted vessel turning from the Main Fairway into the dredged area. The buoys, AISCO South (Fl. Y. 3 sec.) and AISCO North (Fl. 3 sec.) mark the Eastern edge of the dredged area for unloading berth approaches.

Anchors: The "offshore" anchor should be cleared and lowered to the waterline, ready for letting go, before approaching the berth. Anchor buoys are not to be used.

Gangways: Vessels shall provide an efficient gangway, which shall be adequately lighted during the hours of darkness and be of sufficient length to provide safe access when the vessel is light.

Gangways shall not obstruct the ship unloader or ship loader railways, or obstruct the movement of these appliances.

Main Deck Access: The area between the ship's hatches and the dockside rail shall be prohibited for personnel access during the ship loading/unloading operations. All personnel shall be informed accordingly and suitable barriers installed and "No Entry" notices clearly posted.

Under no circumstances shall ship's crew ascend the shore loader/unloader or pass under the conveyor belts.

Illumination: Proper illumination shall be provided on the vessel's working decks, hatches, holds, and other working areas during the hours of darkness.

Swimming and Fishing: Swimming and Fishing or any other recreational activities from or on the jetty are strictly prohibited.

Fire Wires: Vessels berthed at the AISCO jetty must have the eye of the wire hanging over the offshore bow and quarter to enable tugs to connect up readily in an emergency. The wire shall be suitable for the intended purpose and shall have sufficient scope on deck for free running. These wires must be tended to keep the eyes at sea level.

Shore Leave: Shore Leave may be taken by bona fide crew members in accordance with the Regulations prescribed by the Government of Bahrain, and in accordance with the Agents' Notice to Masters.

All persons landing from vessels at AISCO's berths must hand in either their valid passport or Seaman's Continuous Discharge Certificate to the Immigration Officer and be cleared by the Customs Officer who are located at AISCO main entrance.

All persons landing from and rejoining vessels lying at AISCO jetty must use transport provided by the Agent between the Jetty and the Security Gate.

Access to the plant area shall be strictly prohibited.

Fire Points: The jetty is provided with fire fighting water and six hydrant points located along the berth.

Mooring Charges: BAPCO will make a charge for the use of Pilot, tugs/towboats and services rendered during berthing and unberthing operations.

Communications: Vessels should provide their Agent through Bahrain Radio with:

1. ETA at least 72 hours in advance.
2. Last 3 ports of call.
3. Arrival drafts fore and aft and berthing displacement.
4. State of readiness to berth/load/unload.

This information should be updated should any major alterations to the original be made.

They should also radio "Porthealth Bn" with present health conditions.

When within VHF range communication should be established with:

(a) Bahrain Port Control, to whom vessels should pass their intended passage route and timings from Bahrain Light Vessel to No. 27 Buoy and obtain passage clearance.

(b) BAPCO Terminal to obtain the latest berthing schedule from Sitra Pilots.

Whilst alongside vessels will be provided with a telephone to communicate with the plant operators. In an emergency, vessels may utilise VHF Channel 68 to communicate with AISCO Terminal.

AISCO Wharf: Description: Situated to the North of Sitra Anchorage, and on the South side of the pelletising plant, is a 300 m. finger jetty constructed on concrete piles with a 35 m. wide concrete deck connected to the island by a 135 m. trestle. There are 2 mooring dolphins, one situated 75 m. to the South of the jetty, on the jetty centreline, and the other 79 m. to the North of the discharge berth. The jetty consisting of 2 berths, the discharge berth for iron ore on the Eastern side, and a loading berth for pellets on the Western side. 2 shore grab cranes, each with capacity 1,500 t.p.h. are available.

Parameters:	*Unloading*	*Loading*
Length	300 m.	300 m.
Depth of water alongside at CD	13.4 m.	13.4 m.
Max. deadweight in tonnes	100,000	60,000
Max. displacement in tonnes	130,000	85,000
Max. freeboard to top of hatch	18.4 m.	16.5 m.
Max. outreach of appliances	29.5 m.	19.6 m.
Max. length of ship	290 m.	240 m.
Max. permissible draft of vessel for manoeuvring at all states of the tide	12.8 m.	12.8 m.

BALLAST: The discharge of dirty ballast within the territorial waters of Bahrain is strictly prohibited. As a further measure to avoid pollution by oil of the Marine environment, Masters of tankers are requested not to pump any oil overboard within the Gulf area.

Vessels should arrive with all ballast clean.

In special circumstances limited quantities up to 200 tons slops may be accepted at a certain charge per barrel. The use of these facilities is entirely at vessel's risk.

In the event of a vessel spilling oil in Sitra Harbour the Company will, at its discretion, clean up the oil and recover costs by charging the vessel.

MEDICAL: Advance notice to Agents preferable. Good hospital and medical facilities.

Emergency hospital cases will be treated as such, and will be handled by the vessel's Agent or by Company facilities, whichever is first available. Under normal conditions, the vessel's Agent should handle all personnel from vessels other than "Company" vessels.

Heat Exhaustion: Experience over many years has shown incidence of heat stroke and heat exhaustion cases among the crews of vessels visiting Bahrain during the hot season, with some fatalities. The Company Medical Authorities have prepared notes on this subject which may be of assistance to Masters, but skilled medical assistance should be called for immediately a case of heat exhaustion or heat stroke is observed.

To enable heat exhaustion cases to be treated expeditiously a Heat Exhaustion Unit is located in the Port of Sitra Shipping Offices at the Wharf Gate.

RESIDUES: Limited slop tank facilities for oily residues at all berths.

LOADING/DISCHARGING: Readiness: The following will apply in regard to Notice of Readiness.

Notice of Readiness to load is a warranty on the part of the Master that the vessel is in all respects ready to load and that the tanks, pipes, pumps and accessories of the vessel are fit to receive the cargo to be loaded.

The Master or his representative is required to hand to the Company, a written Notice of Readiness to load. Receipt of such Notice of Readiness by the Company does not necessarily imply acceptance.

The Company will make every effort to accept Notice of Readiness when tendered on arrival, provided vessel is in all respects ready to load. The Company will endeavour to load vessels upon arrival and/or as promptly as a berth is available.

Arrival, where used above, means when the vessel passes Sitra Beacon when proceeding straight to the berth or passing North Range Beacon on departure from Mina Sulman, or the time of anchoring in the area South of No. 27 Buoy providing that the presence of the vessel is made known to BAPCO Terminal on VHF or BAPCOSHIP (Tel: 755662) via Bahrain Radio, at the time of anchoring.

Responsibility: Loading will not start until the vessel's Loading Officer reports the vessel is ready to receive cargo and the Company's Loading Master is satisfied with the preparations for loading. Any inspection made by the Company's Loading Master in this regard is performed without the Company assuming any liability.

All operations on board the vessel in connection with loading and discharging are the responsibility of the vessel.

A Company Loading Master will be available throughout the loading to offer advice to the Master on loading procedures and loading hazards.

Warning is given of the danger of closing a valve against an incoming oil stream. This procedure will create excessive pressures which may result in damage to the loading hoses, vessel's pipe-lines or Terminal facilities. Vessels will be held liable for damages resulting from failure to observe this precaution.

Hose Handling: Without assuming any liability on behalf of BAPCO, BAPCO employees will assist in connecting and disconnecting hoses to vessels. A ship's officer must be present, and the ship's deck officer on duty must approve the hose connection on board.

All unused cargo, bunker and ballast lines must be effectively and positively isolated during loading.

BAPCO has air operated hose handling rigs on Berth Nos. 1, 2, 3, 5 and 6.

BANAGAS has separate liquid and vapour return chicksan arms for RLPG on Berth Nos. 1 and 2.

GPIC has combined chicksan arms for ammonia liquid and vapour return, and separate chicksan arms for methanol, on Berth Nos. 1 and 2.

The vessel's hose rigging derricks should be in a constant state of readiness to give additional assistance as necessary. BAPCO employees will not operate ship's derricks or winches.

For convenience, vessels should have fittings conforming to the templates or provide adaptors. This is not mandatory, but expedites hose rigging and guarantees a good connection.

Cargo Inspection Service: The service of the Bahrain Government, Ministry of Development and Industry, Oil Inspection and Gauging Inspectors are available for the inspection and certification of the condition of a vessel's tanks, pipes, pumps and appurtenances. the Agent will, upon request, arrange for the services.

This Cargo Inspection Unit also carries out quantity and quality checks as required.

BAPCO will not issue any certificate purporting to state that vessel's tanks, pipes, pumps and appurtenances are clean or acceptable for receiving cargo. In the event a BAPCO Representative either alone or accompanied by the Bahrain Government Petroleum Inspector, inspects the vessel, BAPCO will make no representation nor assume any responsibility in connection with the condition of vessel's tanks, pipes, pumps and appurtenances, nor will BAPCO assume any liability for contamination of cargo aboard ship caused by same.

Loading Rates: This table prescribes the approximate maximum loading rates of products available at the wharves:

Product	*Up to bbls.p.h.*	*Sea Lines*	*Hoses No. × Size (in.)*
Motor gasoline	12,000	3	2×8
Naphtha	12,000	2	2×8
Jet fuel (JP4)	12,000	2	2×8, 1×12
Kerosene	8,000	2	2×8, 1×12
White diesel	15,000	3	2×8, 1×12
Black diesel	4,000	1	1×8
Fuel	30,000	3	2×12, 1×8
Press. LPG	340	1	1×3
RLPG	10,000		12 in. chicksan
Ammonia	1,200 t.p.h.		10 in. chicksan
Methanol	1,200 t.p.h.		10 in. chicksan

Loading rates of kerosenes and jet fuels are restricted due to static electricity hazards. These rates, dependent upon individual tank pipeline diameter and ship's current loading pattern, will be made available by the BAPCO Loading Master.

A maximum pressure of 150 p.s.i. is allowed on the loading hoses.

Discharging Rates: The discharge rates will be governed by the vessel's pumps, which must be limited to 150 p.s.i. at the manifold.

DENSITY: Average 1030.

FRESH WATER: Limited quantities of well-water available at BAPCO's Wharves. It is saline and is mainly used for washing purposes. The use of this water in boilers and evaporators unless pretreated, will cause scale formation.

There is a nominal delivery charge.

Only in cases of extreme emergency will vessels be berthed at BAPCO Oil Wharves for water alone, and this at an additional docking charge.

There is no water available on the ALBA or AISCO Wharves except by barge.

Water is made available from lighters in the Sitra Anchorage. Requirements should be requested well in advance through the vessels' Agents.

FUEL: *Facilities:* Bunkers can be supplied at all oil berths and can be loaded simultaneously with bulk cargo.

Bunker quantities are measured by "Brodie" positive displacement meters.

Chief Engineers are requested to avail themselves of the opportunity of checking the opening and closing counter readings on the meters supplying bunkers to the vessel.

Product	*Bunkering Rates are approximately Bbls./hr.*	*Tons/hr.*
Fuel oil	up to 2,500	up to 360
Marine diesel	up to 1,500	up to 200

Bunker Barge Service: BAPCO operates a bunker barge service principally to supply diesel and gas oil to vessels at Mina Sulman. This service is also available to vessels in the Sitra Marine Areas, but delays may occur due to adverse weather conditions. This service only operates to the West of Sitra Beacon except under special circumstances when vessels may be bunkered in the Explosives Anchorage.

This service is maintained by the barges "BAPCO 1", "BAPCO 2" and "BAPCO 3", and applications for use should be via the vessel's Agent and it is desirable to give as much notice as possible. The minimum notice for diesel and gas oil deliveries is 48 hours, weekends excluded.

"BAPCO 1": This self-propelled barge has the following capabilities of loading/discharging:

Maximum Capacity		*Marine Diesel*	*Fuel Oil*
Diesel/gas oil	bbls.	5,200	2,800
	tonnes	730	430
Discharge	bbls.p.h	50 – 750	100 – 1,500
Rates	t.p.h.	10 – 100	30 – 200

"BAPCO 2" and "BAPCO 3": These dumb barges have the following capabilities each:

		Diesel Gas Oil
Capacity	bbls.p.h.	1,300
	tonnes	170
Discharge	bbls.p.h.	50 – 760
Rates	t.p.h.	5 – 100

Lubricating Oils and Greases: A full range of Caltex lubricants and greases are available at Bahrain.

In order that lubricating oils may be promptly delivered, Masters of vessels or their Agent's are requested to telex their requirements at least 48 hours prior to their arrival to "Caltex Bn", Telex: 7039.

Empty lubricant containers are not accepted at Bahrain.

Drummed Products: Limited quantities of gasoline, kerosene and diesel gas oil in drums are available at short notice.

To facilitate prompt delivery Masters are requested to radio "Bapco Bahrain" at least 48 hours prior to their arrival for orders exceeding ten drums.

All supplies are in non-returnable steel drums.

GANGWAY/DECK WATCHMEN: An officer must be on deck during all loading or discharging operations. A deck watch must be maintained for moorings and hose connections.

TOBACCO ALLOWANCE: No restriction.

IDENTIFICATION CARDS: Discharge Book or Passport to be deposited with Immigration when going ashore.

WINE AND/OR SPIRIT ALLOWANCE: Ship's requirements. Bond sealed but can be re-opened upon application. Liquor trafficking between vessels alongside wharves or between vessels and shore strictly prohibited.

CONSULS: Embassies are established in Manama, Bahrain.

SURVEYORS: The American Bureau of Shipping, Norske Veritas, Hellenic Register and Lloyd's Register of Shipping have surveyors stationed in Manama, Bahrain.

REPAIRS: Local marine repair companies can undertake limited repairs of general nature.

Also see "Mina Sulman".

REPATRIATION: Facilities for crew change (except Eastern Block) and repatriation by sea or air.

AIRPORT: An international airport served by regular airlines located on Muharraq Island, about 15 miles from Sitra.

TIME: GMT plus 3 hours. No changes during year.

HOLIDAYS: Holidays do not affect operation of Port, which operates 24 hours a day, 7 days a week. Friday is the official day of rest.

TELEPHONES: No facilities for placing telephones on ships.

NAVIGATION: The Superintendent – Marine Operations will be available for advice concerning navigation of channel.

Navigation Warnings: Attention is drawn to the service provided by the Middle East Navigational Aids Service (MENAS) in promulgating navigation warnings covering the whole of the Gulf area.

Mariners are requested to report any hazard/obstructions encountered, observed failure of or alterations to navigational aids, etc., to:

Middle East Navigational Aids Service,
Post Box 66, Bahrain,

or if the information is urgent, radio/cable to

Megulite, Bahrain or to Telex: 8246 Menas Bn.

Printed Navigation Notices:

(a) The notices promulgate all navigational information of a permanent or semi-permanent nature.

(b) Each notice, which is serially numbered, remains in force until specifically cancelled by a later notice, when the information in the notice is:
  (i) Known to have been promulgated in British Admiralty Notice to Mariners.
  (ii) No longer valid.
  (iii) Considered sufficiently promulgated.

(c) These printed notices are distributed to various Agents, Port and Harbour Authorities, where they can be viewed.

Radio Navigation Warnings:

(a) The warnings relate to navigational information which may immediately effect the safe navigation of ships at sea.

(b) These warnings are serially numbered, with the prefix "NAV" and authenticated by the signature "Megulite".

(c) The warnings are broadcast by Bahrain Radio (A9M) on 487 kHz on receipt and at 0518, 0918, 1318 and 1718 GMT. For further details consult the latest edition of "Admiralty List of Radio Signals" Volume V.

(d) Each radio warning is rebroadcast for a period of from 24 hours to one month, depending upon the nature of the information it contains. At the end of which period it is either self-cancelling or superseded by a new warning.

WEATHER: *Winds:* The direction and strength of winds in this area vary and change at very short notice without any prior indication. However, the prevailing wind is from the N.W.

For a more complete description of winds in the Gulf, refer to the "Sailing Directions".

Weather and Temperature: The local weather during the period May through September is hot and very humid with temperatures up to 45°C in the shade. Masters should be aware of the possibilities of crews experiencing heat exhaustion or heat stroke.

Weather during the remaining months is pleasant with temperatures ranging between 10°C to 25°C.

Visibility: The visibility is generally good but at times sand and fine dust is held in suspension in the atmosphere and visibility is greatly reduced. This haze can provide deceptive visibility. Fog, with or without dust, can occur in the mornings.

SHORE LEAVE: Shore leave may be taken by *bona fide* crew members in accordance with the Regulations prescribed by the Government of Bahrain, and in accordance with the Agents' Notice to Masters.

All persons landing from vessels at BAPCO's berths must use transport provided by the Agent between the "T" berths and BAPCO's Security Gate where they must show their shore leave pass, BAPCO 2564. It is not permitted to walk along the trestle and causeway. All persons going ashore must hand in either their valid passport or Seaman's Continuous Discharge Certificate to the Immigration Officer and be cleared by the Customs Officer, both of whom are located in BAPCO's Sitra Shipping Office.

All persons landing from and rejoining vessels berthed at the Island Wharf must use the Agent's launch, landing on the steps on the South side of the Sitra Shipping Office.

GENERAL:

Anchors: The offshore anchor should be cleared and lowered to the waterline, ready for letting go, before approaching the berths. Anchor buoys are not to be used whilst moored alongside in Sitra.

Rat Guards: Every vessel berthed at Company wharves must fit adequate rat guards to all mooring ropes and wires.

Gangway: Every vessel berthed at the wharves shall provide an efficient gangway, which shall be adequately lighted during the hours of darkness and be of sufficient length to provide safe access when the vessel has discharged ballast.

Where a safe and efficient gangway to the wharf cannot be installed due to wharf/ship configuration, an accommodation ladder shall be provided on the offshore side. Hose connections, in this instance, must be made by the ship's crew and the loading operations may be commenced providing suitable methods of communication are established. Delays due to the inability of wharf staff to board the vessel shall be for vessel's account.

Alternative Access/Egress: All vessels shall provide an alternative means of access/egress from the vessel for emergency use. This will normally take the form of a pilot ladder on the offshore side of the vessel, and as such should be constantly tended to 2 ft. above the waterline.

Fire Wires: All vessels berthed alongside BAPCO Berths must have the eye of a wire hanging over the outside bow and quarter, to enable tugs to connect up readily in an emergency. The wire shall be suitable for the intended purpose and shall have sufficient scope on deck for free running. These wires must be tended to keep the eyes at sea level.

Engines: The main engines and all gear must be in an operable condition and in a state of immediate readiness whilst the vessel is alongside the wharves.

Port Police and Company Security: The Bahrain State Police maintains launch patrol in the vicinity of the wharves, and ex-officio have access to wharf installations in the course of their duty.

The Company maintains security guards and officers on its wharves to enforce the regulations of the Bahrain Government and to safeguard its own interests.

The Company security officers are fully recognised by the Bahrain Government and have the full powers of a police officer.

Masters are required to co-operate with any request made to them by a security officer.

Swimming: Not permitted in the vicinity of the wharves.

Publications and Charts: The following British Admiralty or U.S. Hydrographic publications are recommended for use in Bahrain waters:

British Admiralty
No. 3790 – Ras Laffan to Ras Tannura.
No. 3792 – Approaches to Mina Sulman and Al Manama.
No. 3796 – Mina Sulman and Approaches.
No. 3798 – Bahrain Outer Approaches to Mina Sulman.
The current edition of "The Pilot".
U.S. Hydrographic Office
No. 62411 – Ras Tannura to Ras Laffan.
No. 62412 – Approaches to Jazirat Al Muharraq.
No. 62413 – Sitra Anchorage.
The current edition of "Sailing Directions for the Gulf".
Bahrain Survey Directorate
No. 1501 – Approaches to Mina Sulman.

Launch Services: The Company does not provide launches for general use. Transportation of ship's personnel between vessel, the mainland of Bahrain and the wharves is provided by the vessel's Agents.

Tank Cleaning and/or Gas Freeing: Tank cleaning and/or gas freeing are not permitted alongside the wharves.

Fishing: Fishing is not permitted from the wharves or from vessels alongside as nylon lines constitute a safety hazard to personnel travelling on the launches and foul launch propellers.

Spares: Deck and Engine Room spares are not normally available in Bahrain.

Provisions: Supplies of provisions are available in Bahrain. All requests should be routed through the vessel's Agent prior to the vessel's arrival.

Laundry: Local laundry services are available.

SAFETY: The Company is primarily concerned with Safety, and Masters of vessels are requested to provide the maximum co-operation. Detailed regulations concerning safety are contained in the Sixth Schedule of the Bahrain Port Ordinance 1965 and certain of these regulations are summarised below for convenience:

Smoking: Smoking is strictly prohibited within 280 m. (900 ft.) of the wharves, and on board vessels alongside except in those enclosed spaces aboard ship specifically designated by the Master as "Smoking Areas". Failure to comply with this regulation can involve cessation of loading operations and unberthing pending complete investigation, and receipt of written assurance from the Master that effective controls have been established.

The Master shall be responsible for ensuring that the crew of the vessel is informed of the safe places so approved and that they comply with the Regulations.

The Company reserves the right in unusual circumstances to prohibit smoking at any time in any place on or adjacent to the Company's wharves during loading operations.

Fire Wires: Whilst alongside, vessels must have the eye of a wire hanging over the offside bow and quarter to enable tugs to connect up readily in an emergency.

Funnel Sparks: Whilst alongside, vessels must not blow boiler tubes, and every precaution must be taken to prevent sparks escaping from the funnel.

Vessels' Engines Alongside Wharves: The main engines and all gear must be in an operable condition and in a state of immediate readiness while vessels are alongside the wharves.

Trim of Vessels Alongside Wharves: During loading or discharging operations the loading officer must ensure that at no time does the vessel assume a trim which will, in case of emergency, preclude the unberthing of the vessel under her own power.

Scupper Plugs: All scuppers must be plugged and cemented prior to mooring alongside wharves.

Ullage Screens: During loading or discharge of highly volatile cargoes, all ullage pipes and sighting ports, when necessary to be left open, are to be protected by a fine mesh copper screen or gauze plug.

Fire Hoses: Whilst a vessel is within BAPCO's Terminal Area, her fire hoses shall be connected and kept ready for instant use.

Craft Alongside Vessels at Wharves: Once a vessel is berthed, no craft are allowed alongside. This applies to any local craft, agents' launches, etc.

Suspension of Loading: In the event that Safety Regulations are violated Sitra Pilots and Loading Masters are authorised to shut down loading operations.

Vessels Carrying Bulk Sulphur: Owing to the hazardous nature of this cargo, vessels having bulk sulphur on board are not allowed alongside the oil wharves and will be bunkered by barge as available.

Gas Venting: During loading, tanks must only be vented through the vessel's permanent venting system.

Tank lids must be closed prior to berthing and must be kept tightly closed throughout the period of loading. This includes permanent ballast tanks. During loading/discharge all openings must be protected by a fine mesh copper screen or gauze plug.

Radio Silence at Wharves: Vessels' radio and radar equipment, including the main VHF installation, must not be operated whilst alongside Company wharves.

Permission may be granted for the use of certificated intrinsically safe hand-held radios for the use of cargo operations only.

PORT REGULATIONS: The Superintendent – Marine Operations should be contacted for any queries not covered by lists of regulations provided on arrival.

SHIPMASTER'S REPORT: December 1979.

Anchorage: East of No. 27 Buoy, good holding ground with thick mud. Inner Anchorage thick mud and VLCC's not dragging with 6 shackles out, in force 7 winds.

Fuel: HVF and Diesel available from barge which holds about 900 L/t (BAPCOSHIP). Barge will not come alongside after 1800 hrs. or in rough weather but will stay alongside pumping after 1800 hrs. if already there. Will only bunker in inner anchorage.

AUTHORITY: The Bahrain Petroleum Company B.S.C. (closed), Awali, Bahrain. *Tel:* 755661. *Telex:* 8218 Bapship Bn. *Cables:* Bapco Bahrain.
Contact: Superintendent – Marine Operations.
The Harbour Master, Bahrain.

AGENT: See "Mina Sulman".

NOTES

Please also advise Shipping Guides Ltd.

ADD
BALTIC
PILOTAGE

People's Republic of Bangladesh

CHITTAGONG: 22.19 N. 91.48 E.

DOCUMENTS: *Before Vessel's Arrival:*

2 copies Freight Manifest.
2 sets Bill of Lading.
3 copies Stowage Plan.
15 copies Passenger List.
4 copies Cargo Manifest.
3 copies Hatch Lists.
1 copy Exception Lists.
2 copies Passenger Money Manifest.
2 copies Special Cargo List.
2 copies Hazardous Cargo List.
2 copies Heavy Lift Cargo List.

With vessel:

1 set Arrival Papers as per booklet available from Agent.
2 copies Cargo Manifest.
Last Port Clearance.
Passenger Lists, disembarking and transit — 6 copies each.
Crew List, 8 copies plus 2 for Immigration Police.
List of Favour Parcels 2 copies.
Currency declaration of ship's money, officers and crew, together with the personal property list.
Ship's Stores Lists on local Customs forms – 3 copies.
Cargo Clearance Certificates.
Derat Exemption Certificate.
International Load Line Certificate.
Radio Safety Equipment Certificate.
Safety Equipment Certificate.
Record of Safety Equipment Certificate.
Load Line Certificate.
Ship's Articles.
Ship's Register.
Light Dues Receipt.
Radio Telegraphy Certificate.
Safety Construction Certificate.
Voyage Licence.
Exemption Certificate of Crew Members.
I.P.B. Permission of Foreign Nationals.
Gear Register Book with Annealing Certificate
Authority Letter of Supernumerary.
Stores List.

PILOTAGE: Pilotage is compulsory. Pilots board and leave vessels 1.5 miles W.S.W. of No. 1 Sea Buoy.

Inward ships must present themselves at Fairway Buoy at least 3 hours before high water to enter on a particular tide, both day and night.

Night navigation possible for outward and inward movements of vessels upto 164.60 m. and 137.15 m. LOA respectively.

APPROACHES: Since South Patches lightvessel is missing, it is advisable to make for Elephant Point/Cox's Bazaar, and then shape course to pass West of South Patches. Due allowance must be made for the state and rate of tide. In this area, the tide runs in a North–South direction.

Once it is ascertained that the vessel is West of South Patches, course can be shaped to pass 8–9 miles off Kutubdia Lighthouse. The buoys indicating the channel to Chittagong Outer Anchorage are mostly out of place or missing and cannot be relied upon. The buoys are unlit and without radar reflectors and navigating in their vicinity during hours of darkness can be hazardous.

Vessels must reach pilot grounds at mouth of River Karnaphuli 3 hours before high water of a particular tide. Both tides used for handling vessels.

ANCHORAGE: The Anchorage is considered safe and the holding ground is good. The bed of the river is soft mud and is harmless in case of grounding.

Holding ground off Kutubdia fairly good but strong tides render it necessary to pay-out extra length of cable.

Spring tides at outer anchorage are very strong (6 to 8 knots) and at times of freshets the rate may be more. It is advisable to keep engines ready at all times during Spring tides, and maintain continuous and efficient anchor watches.

Ship Masters approaching Chittagong Roads are advised not to attempt to cross bow of vessels at anchor/underway to avoid drifting on them resulting in probable collision in view of the prevailing strong current at Outer Anchorage. However, if it is inevitable to cross, Ship Masters may do so with caution by giving a wide berth to the vessel at anchor/underway considering the minimum velocity of the current being 6 knots and other marine factors.

RESTRICTIONS: Night sailings both inward and outward are permitted, however with restriction on the vessels of up to 164.6 m. length for outward and 173.2 m. for inward. Night sailing not permitted for vessels with the bridge on the bow, vessels with the bridge aft are allowed but only up to 152.4 m. in length.

Draft: Normally between 7.32 m. and 9.14 m., depending on state of Karnaphuli draft restrictions. Published monthly.

Power Lines: The minimum clearance of Power Transmission Lines crossing over the River Karnaphuli from CPA Dock Office Tower – 21 (approx. Lat. 22° 18.04′ N., Long. 91° 48.47′ E.) on the opposite bank of the River Karnaphuli is 52 m. from jetty level and the transmission lines are charged at 132 kV. Mariners are advised to navigate with caution.

MAX. SIZE: Anticipated safe drafts are predicted three months in advance. The depth of water over the Outer, Inner and Gupta Bars is maintained at 4.42 m. at low water throughout the year. The bars are situated at distances of half, one and 4.75 miles from the entrance. In order to calculate the draft for entering and leaving port, the depth of 4.42 m. over the bars is added to the height of water in the tide tables for day tides. Also see "Tankers".

Shipmaster's Report: 1985.

Vessel with deep draft must go in on full tide and advice on this should be sought from a local source (Agent), and not rely on tables only, as local factors may affect the tidal situation considerably.

HEALTH: All vessels must send the standard quarantine messages by radio. Vessels which have touched ports between Port Sudan and Durban, on the East Coast of Africa including these two ports, or any other yellow fever port or other port on the continent of Africa, or ports which are declared from time to time as quarantine areas, are suspected vessels on account of yellow fever or jigger, or other infectious disease as the case may be and may not have communication with the shore till declared by the Port Health Officer, who attends only between sunrise and sunset, except in special circumstances. The incubation period for yellow fever is 9 days, but vessels arriving later than 9 days are still not free from quarantine because there is no incubation period for jigger.

RADIO: Chittagong Radio Control. MF/RT distress frequency 2182 kHz. SSB equipment with 200 mile range also available.

Arrival Advice: ETA advice should reach Agents 72 hours and confirmation cable at least 24 hours before arrival at the Pilot Station. While advising ETA Masters should bear in mind that W/T messages generally take minimum 12 hours to reach Agents.

The radio message should contain the following information:

1. Name of vessel.
2. ETA Pilot Station.
3. g.r.t.
4. n.r.t.
5. d.w.t.
6. Length.
7. Date and Hour sailed last Port of Call.
8. Quantity and description of cargo to discharge.
9. Next Port of Call.
10. Classification of Vessel and Nature of cargo carried.
11. Name of Master.
12. Max. arrival fresh water draft.

VHF: *Port VHF Service:* The Harbour Master can be contacted by R/T during office hours on any working day on frequency 156.8 MHz. (International Channel 16). Calls may be connected to the public telephone system via Channel 27.

Private VHF Service:

(i)	Location:	Port Office.
	Call Sign:	"Port Radio Control".
	Position:	Lat. 22° 19′ 30″ N., Long. 91° 50′ 00″ E.
	Watchkeeping:	From 0830 – 1700 hrs. continuous.
	Frequency:	156.80 MHz.
(ii)	Location:	Port Signal Station.
	Call Sign:	ARH 24.
	Position:	Lat. 22° 14′ 03″ N., Long. 91° 50′ 34″ E.
	Watchkeeping:	(i) Duration of daylight Flood tide: beginning every hour. (ii) Duration of night Flood tide only when ship-movements are being performed: every half hour.
	Frequency:	156.80 MHz (Channel 16) (short range about 7 miles from Pilot Station to Anchorage).
(iii)	Location:	Pilot Vessel: Capt. Fuhrmann P.V. Rahnuma
	Call Sign:	AQEG.
	Watchkeeping:	(i) Duration of daylight Flood tide: every half an hour. (ii) As above.
	Frequency:	156.80 MHz (Channel 16).
(iv)	Location:	Patrol Tugs Kandari 7 and Kandari 8. (S. T. Khalid – under repair).
	Call Sign:	AQEF.
	Watchkeeping:	(i) Duration of daylight Flood tide: every half an hour. (ii) As above.
	Frequency:	156.80 MHz (Channel 16).
(v)	Location:	Sea-Tug "Suljuq".
	Call Sign:	AQEP.
	Watchkeeping:	Duration of daylight Flood tide and in emergencies.
	Frequency:	2182 kHz.

Remarks: Vessel should shift to some other Channel after contact has been made on Channel 16 (International Frequency 156.80 MHz).

A cable to be sent to Port Health Officer before arrival requesting free pratique, stating issuance date of Derat (Exemption) Certificate.

RADAR: No service available.

TUGS: Available, under direction of Pilot.

BERTHING: Chittagong port has 17 jetties (including 2 pontoon jetties) provided with shore cranes and railway tracks and with transit sheds. Vessels up to 186 m. LOA with day's draft may be berthed at a concrete main jetty. Depth of jetty berths range from 7.01 m. to 9.14 m. and depth at moorings ranges from 6.24 m. to 9.19 m. and above. Besides above jetties, there are jetties for the following:

Grain Silo Jetty: Grain silo has storage capacity of 170,000 tonnes, equipped with necessary equipment for unloading, storing from ship's tackle direct. Vessels up to 186 m. LOA can take berth at the jetty.

T.S.P. Jetty: Triple Super Phosphate Complex having storage capacity of 127,500 tonnes has been constructed adjacent to TSP Jetty and is equipped with necessary equipment for unloading/storing rock phosphate from ship's tackle direct. Vessels up to 175.25 m. are able to berth at TSP Jetty.

Cement Clinker Jetty: Cement clinker plant having storage capacity of 40,800 tonnes is adjacent to Chittagong Cement Clinker Jetty. The jetty is equipped with necessary equipment for unloading/storing cement clinker direct from ship's tackle. Vessels up to 175.25 m. are able to berth at the Cement Clinker Jetty.

Further there are 9 river moorings, out of which River Moorings Nos. 4, 5 and 6 are equipped with pontoons and shore connections for oil in bulk and River Mooring No. 7 for crude oil discharge in bulk. River Moorings Nos. 2, 3 and 8 are for dry cargo for overside work. River Mooring No. 9 is for repair of vessel/lay-by berth. River Mooring No. 10 for LASH vessels.

Container yard of 14,108.55 sq.m. and back-up yard facilities are available for handling container/container cargo vessels. Further there is one lighter jetty for vessels up to 70 m. with dry cargo and 5 lighter jetties for coastal and inland vessels/tankers.

CRANES: Variety of cargo handling equipment, maximum lifting capacity 125 tons.

TANKERS: Crude oil tankers up to a draft of 10.36 m. can be handled at the Outer Anchorage.

Clean tankers enter the river and berth at petroleum jetties inside the port, restricted to length of 170.73 m. overall, and subject to published river draft.

Tankers up to 60,000 d.w.t. discharge into lighters at Kutubdia anchorage where depth is 7 fathoms.

Also see "Shipmaster's Report" – May 1986.

MEDICAL: Doctors and Hospital facilities available.

DENSITY: From 1000 to 1004.

FRESH WATER: Available from quays. Also available at outer anchorage. Require 3 – 4 days notice. Capacity of water barge about 500 tons. Supply daylight hours only.

FUEL: All grades available at oil berths. Otherwise supplied by barge. The Government have occasionally suspended sale of bunkers to foreign vessels.

DRY DOCK: Construction of a dry dock is in progress.

REPAIRS: Facilities for repairs available. Ships' engines may not be dismantled or immobilised whilst at berths or moorings without the prior sanction of the Port Authority.

HATCHES: Opened by ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes or 0.5 lb. of tobacco and 1 bottle of wine/spirit per week per man or 2 pints of beer per day.

REPATRIATION: Possible.

STEVEDORES: Available through Agent. Working hours: Monday to Thursday and Saturday day shift, 0730 – 1200 and 1330 – 1700 hrs. Night shift, including Friday 2000 – 2400 and 0000 – 0400 hrs. Friday, day shift, 0700 – 1200 and 1400 – 1700 hrs.

HOLIDAYS: Eid-e-Milad, Shaheed Day, Independence Day, Bengali New Year, May Day, Buddhu Purnima, Shabe Barat, Jamatul Wida, Eid-ul-Fitr, Durga Puja, Revolution Day, Eid-ul-Azha, Muharram, Victory Day, Christmas.

POLICE/AMBULANCE/FIRE: Call "Port Control", Channels 12 and 16, call sign "S2YA" or Tel: 505021/505041.

CARGO GEAR CERTIFICATES: International Cargo Gear Test Certificates not more than 12 months old must be presented to the Dock Labour Inspector before a vessel is allowed to use derricks/winches. Annealing and testing of gear at Chittagong is an expensive process. In certain cases dispensation can be obtained at the discretion of the Dock Labour Inspector.

AIRPORT: Patenga Airport about 5 miles from city.

SHORE LEAVE: Allowed, prior permission from Immigration arranged by Agent.

GENERAL: *Berthing Priority:* All concerned are reminded that vessels loading/carrying cargo/mixed-up cargo or loading/carrying cargo in less than 3 holds, or unequally stowed in more than 3 holds, or with inoperative ships derrick, will be classed as Grade-II ships and shall be given berth conveniently, and if required, shall be shifted to another berth/mooring or outer anchorge convenient to the Port Authority.

Frequent breakdown in the machinery and engine of a ship, will also entail her being classed as Grade-II ship and the consideration for priorities will rest on the Administration.

This will be strictly followed with effect from January 1st, 1984, and no further consideration will be entertained from that date.

Hydrological and Hydrographical Data: The width of the navigation channel (5.49 contour) varies from place to place. Effective width is between 243.90 m. to 304.88 m. A minimum channel width of 250 m. is maintained.

Tidal Works:	At Patenga	3.35 m.
	At Khal (Channel) No. 10	2.74 m.
	At Sadarghat	2.29 m.

Max. velocity of current opposite Khal (Channel) No. 10:

Spring Tides (S.W. Monsoon):	4.5 to 5.5 knots
Neap Tides (S.W. Monsoon):	2.5 to 3.5 knots
Spring Tides (Winter Months):	up to 3 knots
Neap Tides (Winter Months):	up to 2 knots
Freshet Ebbs (Winter Months):	up to 8 knots

Meteorological Data:

Temperature: 32.10°C Max., 13.40°C Min.

Rainfall: 24.25 Max., 0.10 Min.

Normal Pressure:

1018.80	Max.	0000 GMT.
1000.90	Min.	at 0600 hrs.
1016.20	Max.	0300 GMT.
1002.30	Min.	0900 hrs.
1013.00	Max.	1200 GMT.
1000.00	Min.	1800 hrs.

The following cautionary notice has been issued by the Chittagong Harbour Master:

"Shipmasters trading to Chittagong are informed that a hot sultry day/afternoon, followed by "Still" air conditions in the early evening, usually result in thunderstorms. The peculiarity of these thunderstorms is that they approach from the North and West in the form of a line squall, and are accompanied by intense lightning activity, thunder, rain and cyclonic rotation winds which may reach a velocity upwards of 50 knots.

When percursory signs of such a "North-Wester" storm exist shipmaster's must exercise great caution, have a responsible Officer on watch and attend carefully to moorings. Vessels at fixed moorings and pontoon jetties must exercise extreme caution when a North-Wester storm is blowing."

Mooring: Vessels moored alongside the pontoon jetty and vessels moored alongside each other must ensure that adequate numbers of rat guards are used to prevent movement of rats between ship/shore and ship/ship.

TIME: GMT plus 6 hours.

DEVELOPMENTS: Two multi-purpose berths of length 450 m. and 10.0 m. depth with back-up facilities are located downstream of No. 13 Berth to cater for the increased flow of containers. More cargo handling equipment will be procured in phases (16 forklift trucks, 8 tractor-trailer units, 27 cranes – including 19 × 6 tons and 1 × 30 ton mobile).

For maintenance or dredging of the navigational channel CPA is going to acquire a hopper dredger. Outer and inner bars to be dredged to 9.1 m. and 7.1 m. respectively.

SHIPMASTER'S REPORT: September, 1979

Pilotage: Pilot boards 2 miles W.S.W. of No. 1 Sea Buoy.

Radio: Chittagong Radio Co.

Radar: No Radar service.

Restriction: Normally up to 7.5 m. depending on state of Karnaphuli draft restrictions, published every 4 months.

General: At the anchorage vessels should strictly guard against river thieves who board the vessel to steal hawsers, drums and dunnage.

SHIPMASTER'S REPORT: May 1986.

The route from Singapore to Chittagong was passing Pu. Perak, South Preparis Channel thence West of South Patches thence passing Kutubdia Island keeping to the deepest water. When Kutubdia Island Light bearing 109.5°×7 miles course altered 014° to make for position: Lat. 22° 05.6′ N., Long. 91° 46.2′ E. and from there into the Outer Anchorage. In this last area the minimum chartered depth is 8.5 m. therefore with the vessel on even keel draft of 10.95 m. (FW) required to stage across the shallows on the tide.

The S.W. monsoon had set in giving Westerly Force 4 winds in the Anamdan Sea and S.W. Force 4 – 5 in the Bay of Bengal with a confused S.W./N.W. swell. There was a strong Southerly – going current in the Bay of Bengal. The swell decreased considerably after passing South Patches.

The vessel anchored to await HW to cross the shallows in position Kutubdia Light bearing 046°×15.04 miles. There was another vessel anchored nearby on the position previously chosen. Unable to raise Chittagong on VHF from this position. After anchoring the wind veered N.W. and several squalls passed in the next few hours with gusts up to Force 9 – 10. These having passed through Chittagong Anchorage earlier.

The next morning proved fine with light winds and little swell and with HW at Chittagong 0840 hrs. (3.4 m.); Kutubdia Is. 0642 hrs. (3.25 m.); Normans Point 0717 hrs. (3.60 m.) aimed to cross the shallows with one metre under keel clearance and pass position: Lat. 22° 03′ N., Long. 91° 45′ E. at 0700 hrs. at the top of HW, allowing 0.25 m. for swell and 0.2 m. for squat at 6 knots. The density off Kutubdia Island was 1015.

The under keel clearance was not identified as the Sal Accord ceased to function under 2.0 m. (its minimum) and the chart recorder trace disappeared into the base line noise even at minimum settings. The seascape hovered around the one metre but when crossing the bar later did not give the same 1 ft. under keel clearance that was known from the tide guage.

Lightening Operations: The vessel anchored in Chittagong outer anchorage 'A' at 0840 hrs. in position Patenga Beacon 091°×3.1′. There were quite a few ships anchored in and outside this anchorage, mostly lightening, but there was room to have sufficient water under the vessel at LW and have 5 cables clear of other ships. Estimate the maximum current was 4 knots but no problems experienced with 6 shackles in the water.

The first coaster arrived at 1050 hrs. with the Agent and Shore Officials onboard. After ullaging and sampling the cargo, gas/oil parcel, was started at 1310 hrs. Several coasters were used working both sides of the vessel and 11 trips were made. The vessels varied in size from 850–1,000 tons with one coaster of 1,500 tons.

Hoses were brought out with the first coasters and appeared in good condition but one set had obviously been used recently for black oils and although this was pointed out to the Shore Supervisor they were not changed. During the lightening to one of the coasters at the start, there was a blockage, which was found to be that one length of the hose had the inside stripped causing the blockage, this was changed and no further problems. The decks were well manned throughout the operations and there was no evidence of any smoking on the coasters. The discharge rates varied as the the requirements of the different vessels, but each side was given a separate line and tank so that quantities could be accurately measured onboard.

These coasters usually only use car tyre fenders when lightening vessels. Their shoulder is well padded with tyres and then more spread at intervals along the sides. The first coasters arrived with additional fenders made up from floating hoses. Originally one for each side. One being sufficient for the smaller vessels as their parallel body is short when in the light condition and subject to the most movement. I would have preferred two of these fenders for the larger vessel M.T. 'Doel' but the wire pennant parted while being brought off. As it happened the M.T. 'Doel' was well handled throughout and with their ropes being well tended there were no problems in just using one fender. The coasters, because they normally use the tyre fenders, were not well protected on the quarters but this was soon rectified by moving some of the tyres and having additional ones supplied. The hose fenders were fitted with polypropylene rope pennants shackled to a wire strop attached to each end of the hose. These did give problems caused by snatching with the movement and was solved by having them made fast to the coaster and ends passed over to us when they left to pass to the next vessel.

The weather was variable during the lightening but mostly the wind Southerly Force 4/5, this being near fore and aft caused the coasters to lay well alongside and to pitch rather than corkscrew, thus there was no danger from their superstructures. Once the wind veered to the N.W. and freshened to Force 7 gusting to Force 9 giving a rough sea. Luckily there were no vessels alongside at the time. This occurred at the change of tide and caused the vessel to sheer about as the squalls came through the anchorage. The rain squalls can be easily seen on the radar at 30 miles and seem to occur in the early evening, so the radar can give adequate warning.

The River Passage and Berth: Once the lightening has been completed the vessel has to wait for a daylight high tide to cross the bar into the river. The berthing programme can be obtained from Port Control by VHF after 1600 hrs. on the previous evening. On this occasion the notified Pilot boarding time was given as 0730 hrs. We had planned on being ready to weigh anchor at 0645 but at 0600 hrs. Port Control ordered us to heave up and come in for the Pilot. We were ready so we weighed and the Pilot boarded at 0704 hrs. (pilot ladder needs to be 3 m. above the water as the Pilot boards from a large tug). We then had to wait along with the other vessels at the pilot station all stemming the current until 0825 hrs. when there was sufficient water on the bar for us to cross. The Pilot had been keeping in contact with the Signal Station on VHF as the Signal Station monitors the tide guage.

Once the bar is crossed the river passage is quick. When off the berth the vessel is turned short round to starboard and may require the use of the starboard anchor. The turn is helped by a tug but this pushes and does not make fast. Once the vessel is round and stemming the tide the port anchor is made ready and when in position for the berth it is let go. The starboard head line is then run to the port head buoy. Then the port head line to the starboard buoy and the vessel is heaved across the berth into position while the after lines are run in the same fashion. Engines are required to prevent the vessel falling back on to the aft buoys. The final moorings are 3 lines each side to the opposite buoy thus 6 lines crossed each end.

The hoses come from a floating pontoon that is moored with another that is brought round to be between the pontoon and the ship. Access is by boat from shore. 4 extra men are supplied at the berth to help with the moorings and there are 2 mooring boats and a launch. 6 watchmen were supplied at the anchorage from the start and stayed with the ship in the anchorage and on the berth. The watchmen did a fair job and the vessel had no problems with thieves.

The Agents' telex was only working intermittently but found we could pass messsages via their branch office in Dhakra. Also found that the 3 VHF stations for the port had calling frequency VHF Channel 16 they then went to the working channel, mostly Channel 12, but often they had to be contacted on the working channel. Chittagong Radio calling is Channel 16 and working 24/26; was weak but workable.

While lightening there was difficulty for the Supervisors as there is no direct contact with the installation other than making a link call. However, one of the coasters has VHF and if it can be persuaded to keep it on then some sort of contact can be maintained.

AUTHORITY: Chittagong Port Authority, Bandar Bhaban, P.O.Box 2013, Chittagong, Bangladesh. *Telex:* 66264 Port BJ. *Cables:* Potasraya.

MONGLA (Bagerhat), formerly Chalna Port:

22.29 N. 89.36 E. **(See Plan)**

PORT LIMITS: *To the North:* A line drawn due East-West from a point in position Lat. 22° 38′ 00″ N., Long. 89° 20′ 00″ E. to a point in position Lat. 22° 38′ 00″ N., Long. 89° 40′ 00″ E.

To the South: A line drawn due East-West from a point in position Lat. 21° 27′ 00″ N., Long. 89° 20′ 00″ E. to a point in position Lat. 21° 27′ 00″ N., Long. 89° 40′ 00″ E.

To the East: A line joining the point in position Lat. 22° 38′ 00″ N., Long. 89° 40′ 00″ E. to a point in position Lat. 21° 27′ 00″ N., Long. 89° 40′ 00″ E.

To the West: A line joining the point in position Lat. 22° 38′ 00″ N., Long. 89° 20′ 00″ E. with the point in position Lat. 21° 27′ 00″ N., Long. 89° 20′ 00″ E.

The centre of the permanent port jetty is in position Lat. 22° 29.32′ N., Long. 89° 35.57′ E.

DOCUMENTS: See "Chittagong".

ARRIVAL ADVICE: Inward ships must present themselves at Mongla Fairway Buoy at least 3 hours before HW at Hiron Point to enter on a particular day.

The Master should send the following information to port via Khulna Radio call sign S3E and pilot station call sign S3K 24 hours prior to arrival at Mongla Fairway Buoy.

1. ETA Mongla Fairway Buoy.
2. Fresh water draft.
3. Speed available.
4. Vessel's length.
5. Vessel's gross tonnage.
6. Fresh water requirements.
7. Flag of vessel.
8. Local Agent.

APPROACHES: Approaching from the East vessels should carefully monitor soundings and try to stay between the 10 and 20 fathom lines and alter course to North when at swatch of no ground. Vessels should sight Mongla Fairway Buoy (Fl. 1 long 10 sec. with Racon (M)) on this course and should then contact pilot station for further instructions. Due care should be taken to appreciate the tide condition because vessels have been known to drift North/Northwest during strong floods and run aground in the shallows. Approaching from the West, vessels should manoeuvre to keep to the South of the 20 fathom line and steer a course of about 045°(T) when Western end of swatch of no ground is reached. This course will take the vessel to Mongla Fairway Buoy. Due care should be taken to guard against Northerly set during flood times. When approaching from S.E. or S.W. similar action as before should be taken on reaching the edges of swatch of no ground. Due care should be given to avoid the wreck of m.v. "Cherry Laju" in position Lat. 21° 26.7′ N., Long. 89° 30.2′ E.

PILOTAGE: Compulsory. Master should in addition to usual ETA to Agents keep in touch with pilot vessel stationed at Hiron Point about 45 miles from the base calling S3K. Pilot vessels are equipped with radio and maintain regular watches on 500 kHz from 0600 to 0800, 1000 to 1200, 1400 to 1600 and 1800 to 2000 hrs. local time. If a message is not being picked up, by Khulna Radio call sign S3E, it should be relayed through Chittagong Radio or the pilot vessel.

Ships over 17 ft. draft are usually piloted on the flood to cross the bar and the pilot vessel, which has been in contact with the incoming ship, leaves from Hiron Point in time to coincide with the arrival of the vessel at the pilotage ground, situated about 5 cables S.W. of B-18 Buoy where ships can anchor. The channel from Fairway up to the B-18 Buoy has been marked with lighted buoys and pilotage is carried out by the Master.

In rough weather and especially during the monsoon, ships are led into calm waters by the pilot vessel, which maintains close radio contact, and Pilots board inside the river.

Night navigation is allowed for vessels up to 450 ft. in length subject to the following conditions:–

(a) Ship's radar, gyro-compass, steering system should be in perfect working order.

(b) Weather conditions should be good.

(c) Booking for sailing should be done at least 24 hours in advance.

(d) Minimum manoeuvring speed should be 10 knots.

(e) Maximum draft allowed 21 ft.

(f) A boat will be employed with a searchlight to remove all country boats, barges and any other obstacles in the channel within the harbour limit.

ANCHORAGE: Mongla port consists of a sheltered deep-water anchorage at Mongla on Pussur River.

Depth of water 19 ft. to 45 ft. at LLWD. Distance from sea 65 miles.

RESTRICTIONS: Entrance to the Pussur River is about 6 miles wide at the mouth and has a bar over about 5 miles where the depth is 3 fathoms.

MAX. SIZE: Ships drawing up to 7 m. can cross the bar in all seasons. In S.W. monsoons vessels up to 8.0 m. can be accommodated on spring tide. Also see "General".

HEALTH: On arrival at the mouth of the Pussur River, vessels are required to radio "Quarantine" Khulna, giving health report, to avoid difficulties with Port Health Authorities.

RADIO: At present coast station Khulna Radio of Telegraph and Telephone Dept. maintain 24 hours W/T watch on 500 kHz call sign (S3E). In addition to the T & T system, the port has harbour control station (call sign S3K) at Mongla and pilot station (call sign S3K) at Hiron Point to maintain 24 hours W/T watch on 500 kHz. The station at Hiron Point guides incoming and outgoing vessels from fairway to pilot grounds and vice versa and remains in touch with Khulna Radio, Mongla S3H and ships anchored at Hiron Point for movement of Pilots, mooring of vessels, etc.

VHF: The pilot station and harbour control of Khulna and Mongla are equipped with VHF Channel 16.

TUGS: 3 powerful tugs available to assist in emergency. Not required for berthing.

BERTHING: 8 swinging moorings and 18 anchor berths. 5 jetties also available.

CRANES: Cranes of 3, 5, 40 and 100 tons are available at the new jetties.

STEVEDORES: Plenty of labourers available.

TANKERS: Oil is not handled at the port at the present time.

DENSITY: The density of water at the Outer Bar varies from 1005 to 1025 and at Mongla from 1002 to 1015.

FRESH WATER: Available by barges.

FUEL: Fuel oil can be arranged in limited quantities if sufficient advanced notice given.

FIRE PRECAUTIONS: Fire fighting tugs are available.

CONSULS: None.

REPAIRS: Minor repairs can be arranged through Khulna shipyard.

DRY DOCKS: A dry dock for sea-going vessels is under construction at Chittagong.

SURVEYORS: Lloyds/NKK. P&I Club and private surveyors are available at Khulna.

TIME: Six hours difference exists between GMT and local time.

HOLIDAYS: Eid-ul Azha, Moharram, Eid-I-Miladun Nabi, Independence Day, Jamat-ul-Bida, Eid-ul-Fitr, depending on the sighting of moons calculated in the basis of moon months.

POLICE/AMBULANCE/FIRE: Police telephone number 222 and for other purposes Assistant Harbour Master's telephone No. 61460 is available.

TELEPHONES: No arrangement is available at the anchorage for placing telephones on board the vessels.

SHORE LEAVE: Crew members of foreign vessels are allowed to disembark ashore subject to Immigration permission.

GANGWAY/DECK WATCHMAN: On receipt of orders from the Master the Stevedores will arrange to supply watchmen by day and night.

Piracy: Acts of piracy have taken place at the port.

HATCHES: Opening and closing of hatches is normally carried out by the stevedores.
CARGO GEAR: Goods loaded and unloaded by the ship's gear, handling equipment and crane available at the port jetty.
REPATRIATION: Local shipping Agents are responsible for arranging repatriation of the crew.
AIRPORT: Jessore, which is 70 miles from the port.
IDENTIFICATION CARDS: Seaman's book is sufficient for identification.
REGULATIONS: Crew members are not allowed to undertake chipping/painting of vessels whilst in the port. This is to be done by licenced contractors.

DELAYS: No unusual delay in the port.
GENERAL: Port of Mongla Authority
INSTRUCTIONS FOR MASTERS OF VESSELS:

1. As these are fresh water drafts, the incoming ships should give necessary allowance. The outgoing ships may have to leave anchorage a day earlier to take advantage of next A.M. tide at Outer bar.
2. Inward ships must present themselves at Fairway Buoy at least 3 hours before high water at Hiron Point to enter on a particular day.
3. Masters should send the following information to Port Khulna, via Khulna Radio (call sign S3E) and pilot station S3K, 24 hours prior to arrival at Mongla Fairway Buoy: (a) ETA Mongla Fairway Buoy; (b) fresh water drafts on arrival; (c) anticipated fresh water drafts at the time of sailing; (d) speed available; (e) length; (f) gross tonnage; (g) fresh water requirements; (h) nationality; (i) local Agents.

   In addition to Khulna Radio (call sign S3E) Harbour Control Station (call sign S3H) and pilot station (call sign S3K), maintain 24 hours W/T watch on 500 kHz. The ships are strictly to follow the instructions given by the Pilot while crossing the Outer Bar and anchor 5 cables S.W. of B-18 Buoy at Hiron Point and wait for the Pilot. The time of crossing the Outer Bar is given by the pilot station under instructions from the Pilot. QTG service available. VHF on Channels 16 and 11 available at pilot station Hiron Point, Harbour Control Mongla and Port Control Khulna.
4. *Important:* Ships due to enter must keep W/T and VHF Channel 16 watch while crossing Outer Bar and International Radio watch while waiting for Pilot at Hiron Point and in the vicinity of Fairway Buoy. Whilst navigating in Port Limits, W/T and VHF Channel 16 watch would be maintained as advised by Pilot.
5. All vessels entering port shall display their signal letters and the mooring/anchor berth in addition to pilot flags. They are also to display their signal letters while waiting for Pilot at Hiron Point and/or in the vicinity of Fairway Buoy.
6. The Port can reduce these declared drafts without notice.
7. Ship Owners and their Agents are advised to consult the Harbour Master's Office regarding incoming and outgoing deep draft vessels well in advance.
8. *Outward Ships* of deep drafts will leave the anchorage with the first of flood at Mongla.
9. Vessels entering or leaving Port must have full power on main engine and deck machinery and both anchors must be available for use at all times.
10. Masters are advised to manoeuvre with great care and make good lee while receiving and disembarking Pilots. A neat and clean pilot ladder as specified in Merchant Shipping (Pilot Ladders) Rules 1967. Manropes and boat ropes should be ready on lee side. A responsible Officer must be present on the deck near the pilot ladder while Pilot boards/disembarks and a lifebuoy must be kept handy near the pilot embarkation/disembarkation point for emergency use and also bulwark ladder for climbing down on deck.
11. In spring tides, ships of less than 10 knots shall not be permitted to transit the river. However, if permission is given under special circumstances, a suitable tug will have to be hired from the Port to escort the vessel within the Port limits. Requests for the tug must be made at least 24 hours in advance.
12. In adverse weather if boarding is not possible at Hiron Point, the pilot vessel will lead incoming ships up to Sibsa (Akrampoint), where the Pilot will board in sheltered water.
13. Vessels of 600 ft. length or more are required to have a tug standing-by during in and outward river passage and if the length is more than 650 ft. a tug may be required to standby throughout her stay in the Port at the discretion of Port Authority.
14. The length of vessels entering the Port is restricted to 750 ft. and may be increased depending on the season and circumstance of the case and normally only 2 vessels of more than 600 ft. can be accommodated at a time.
15. Masters of the visiting vessels are advised to ensure that while their ships are in the anchorage, no Officer or crew travels to and from ships in native boat, sampan or any other boat, not authorised by the Port Authorities to ply in the anchorage for carrying passengers.
16. Masters of the visiting vessels are also advised to post 3 watchmen on duty, one on the forecastle, one aft and one on gangway all the time the ships are at the anchorage. The watchmen shall be provided with lifebuoys for use in emergency.
17. While the vessels are in Port, the Masters are to ensure that no ship's crew is employed for chipping, painting and working overside.
18. In port limits, wireless communication with any station except those operated by Port or Khulna Radio (S3E) is strictly prohibited.
19. In case of *emergency* whilst at anchor/mooring in harbour limits, the Assistant Harbour Master should be immediately contacted: (a) by use of lamp signal to signal tower; (b) by W/T on 500 kHz, call sign S3H; (c) VHF Channel 16.
20. Masters of vessels are advised that more than 8 barges or 4 flats (one flat being equivalent to 2 barges) should not be allowed to lie alongside. Under adverse conditions, this permissible number may further be reduced.
21. Whilst in anchorage limits, adequate anchor watch should be maintained and power on main engines and deck machinery should be available on immediate notice, specially during spring tides and inclement weather.
22. Fire hoses should be rigged and water kept running when working cargo of jute, jute goods and any other inflammable cargo.

Harbour Master, Mongla Port Authority, Bagerhat.

Requirements and Instructions for Securing to Single Swinging Buoy.

1. Wire snotter. Length – 1 m. wire size – 10 mm.
2. Slip wire with eyes. Length – 100 m. Wire size – 20 mm.
3. Nylon mooring rope. Length – 100 m.
4. 1 mooring shackle.
5. 1 small shackle, 5 tons.

Procedure for Preparing Chain for the Buoy (See "Plan")

(a) Secure port anchor and break the chain.
(b) Pass the mooring shackle through the last open link.
(c) Pass the wire snotter through the 5th transverse link, counting from the chain end and then connect the eyes of the snotter with the small shackle.
(d) Lower the chain through the fair lead or panama lead from the port side, 2 transverse links into the water.
(e) Lower the slip wire from the port side down to the water level.
(f) Keep the nylon rope ready on the starboard side for lowering to the mooring party.
(g) When the vessel is close to the Buoy pass the nylon line to the mooring boat and make fast the vessel to the buoy with the nylon mooring rope.
(h) Connect the chain.
(i) Pass the slip wire and make it fast, keep it slack so that the weight is taken by the anchor chain.
(j) Let go the mooring rope and take it onboard.

AUTHORITY: Mongla Port Authority, P.O. Burirdanga, Mongla, Bagerhat, Bangladesh. *Tel:* 62331, 61997. *Telex:* 27241 Monport BJ. *Cables:* Port Mongla. *Contact:* Commodore K. M. J. Akber, Chairman. Captain Azizul Hasan, Harbour Master. *Tel:* 60810, 61460.

NOTES

Please also advise Shipping Guides Ltd.

Barbados

BRIDGETOWN: 13.06 N. 59.38 W. (See Plan)

DOCUMENTS:
8 copies Crew Lists.
5 copies Passenger Lists.
1 copy Health Certificate.
4 copies Ship Particulars.
1 copy Vaccination Report on Crew.
1 copy Vaccination Report on Passengers.
Derat Certificate.
2 copies Manifest.
1 copy Bill of Lading.
1 copy Clearance from Last Port.
2 copies Ship Stores List.
2 copies Crew's Declaration List.
1 copy Animal Declaration List.

Vessel should be entered within 24 hours and articles deposited in Shipping Office if staying longer than 48 hours.

Immigration:

1. List of passengers: a) in-transit; b) landing.
2. All disembarking passengers must fill out an E/D Card.
3. List of Crew, and if necessary, list of crew who will be landing.

PILOTAGE: Pilotage is compulsory for all vessels entering Bridgetown Harbour, except in cases of warships where pilotage is optional. Agents of vessels intending to visit the port are required give ETA as early as possible and to submit details on Form A in accordance with the Barbados Harbour's Regulations, 1961, and in advance of the vessel's arrival. Notification of arrival and request for services on Saturday should be known to the Harbour Master by 1100 hrs. local time on the previous Thursday if there is to be no delay. Notification of arrival and requests for services on Sundays should be made known to the Harbour Master by 1400 hrs. on the previous Friday if there is to be no delay.

Pilot Station: Located 0.8 km. West of Fairway Buoy (Admiralty Chart No. 502). There is no alternative station in bad weather. Usual Jacob's ladder in good condition should be rigged on port side of vessel when approaching the harbour.

Signal for pilot boat – International Code Letter "G" by day. Blue light by night. Call and watch on VHF Channel 12 – 156.60 MHz and HF – SSB 2182 kHz. Pilotage vessels, (power driven launches) are approximately 10 m. in length and painted grey.

ANCHORAGES: Quarantine Anchorage as indicated Admiralty Chart 502. Explosive anchorage as indicated on chart. Carlisle Bay Anchorage see Chart 502.

RESTRICTIONS: Bridgetown Deep Water Harbour offers 24 hours service to ships with draft up to 9.6 m. A harbour for small craft (careenage) caters to ships up to draft 4.11 m. high water.

Tankers: May enter and leave any stage of tide, day or night, except Needham's Point where daylight berthing only.

MAX. SIZE: Max. length permitted in Deep Water Harbour 244 m. Vessels of greater length allowed to berth if fitted with bow thruster (up to 293 m.). Draft 9.6 m. Oil Carriers Pier outside Deep Water Harbour max. draft 11.6 m.

Also see "Tankers".

HEALTH: Pratique may be obtained by radio or from Pilot or Health Officer on arrival. In case of suspected disease Port Doctor should be notified by radio through Agents.

Procedure for Granting of Pratique:

1. The radio request should be sent not more than 18 hours and not less than 4 hours before the expected time of arrival.
2. The message should be addressed to the Shipping Agent, who will inform the Medical Officer of Health (Port) of the contents of the Message.
3. The Medical Officer of Health will inform the Shipping Agent whether or not Pratique is granted, and the Shipping Agent will inform the Master, by radio, of the decision.
4. The Medical Officer of Health will inform the Officer on duty at the Signal Station whether or not Radio Pratique has been granted, and the Officer on duty at the Signal Station will inform the Berthing Master and the Public Health Inspector of the decision of the Medical Officer of Health.
5. The Berthing Master on boarding a ship which has been granted Radio Pratique will authorise lowering of "Q" flag, if still flying.
6. The Berthing Master on boarding a ship which has not requested Radio Pratique will inquire as to the presence of any illness in the ship; if there is no illness, he will grant Pratique in his capacity of Visiting Officer, *and will ensure that the "Q" flag is lowered.*
7. If Radio Pratique has been refused or if the Berthing Master is informed that there is illness in the ship, the "Q" flag *must* be kept flying and the Public Health Inspector will board the ship, and if satisfied will grant Pratique; if he is not satisfied he will refer the matter to the Medical Officer of Health (Port).
8. Disembarking passengers (not passengers in transit) and any Crew members being signed off will be kept segregated on the ship until their Vaccination Certificates have been inspected by the Public Health Inspector.
9. No person except the Berthing Master, the Public Health Inspector, the Medical Officer of Health or the Immigration Officer will be permitted to board a ship before Pratique has been granted. The granting of Pratique is indicated by the lowering of the "Q" flag.

   Notes: From the foregoing it will be seen:
   (i) that healthy ships will be granted Pratique either by radio or by the Berthing Master;
   (ii) that ships with any illness on board will be granted Pratique by the Public Health Inspector or the Medical Officer of Health;
   (iii) that the Public Health Inspector will board a ship for the following reasons only:
      a. when Radio Pratique has not been granted and the Berthing Master cannot grant Pratique;
      b. to inspect Vaccination Certificates of disembarking (not in-transit) passengers and signed off crew members.
   (iv) that to avoid misunderstanding and delay the "Q" flag must be lowered as soon as Pratique is granted.
10. A ship with disembarking passengers may be granted Pratique and permitted to work e.g. load or unload cargo, *provided* that disembarking passengers are kept segregated *on the ship* until Vaccination Certificates have been inspected and immigration formalities completed.

RADIO: Cable and Wireless, Barbados Radio: Call sign 8 PO. 24 hours watch is maintained on 500 kHz. ETA to include name and nationality of Master, number and nationality of crew. Name of last and following ports of call and quantity and grades of cargo to be discharged, if any.

VHF: Barbados Radio VHF Channels 16 and 26. Barbados Port Department VHF Channels 12 and 16.

TUGS: Two tugs available namely "Barbados" and "Culpepper" 1,700 and 1,500 h.p. respectively. 2 tugs for vessels of 20,000 n.r.t. or over, and 1 tug for vessels of 10,000 n.r.t. or over or 167.64 m. in length. The tug will meet the ship at the entrance to the harbour. For vessels under 550 ft. in length having bow thrusters the tug will be optional.

BERTHING: Harbour is situated on the North-Western side of Carlisle Bay, approximately 0.75 miles (1.21 km.) N.W. of the Molehead of the careenage. The harbour is dredged to 9.75 m. LWOST and was constructed by joining Pelican Island to the Mainland by reclamation, providing 702 m. of quay space and 829 m. of protective breakwater, and offering berths for eight ocean-going vessels. All berths are equipped to supply fresh water, bunker fuel and telephone service.

Berth	*Length* (m.)	*Width* (m.)	*Depth* (m.)	*Remarks*
No. 1	152	23	9.7	
Nos. 2 and 3	366	15	9.7	
No. 4	184*	24	9.7	Container berth. *215 m. with dolphins.
Breakwater	522 outer arm	9.3	9.7	Passenger vessels.
	307 inner arm	—	9.7	Bulk sugar and molasses.
Shallow Draft	156	15.2	6.7	Inter-island vessels, max. draft 6.8 m.
Bulk Handling Facility	dolphins	—	11.5	Max. LOA 183m.
Black Rock	—	—	—	Max. LOA 122 m., max. draft 7.5 m.
Spring Garden	—	—	—	Max. LOA 103 m., max. draft 4.9 m.

Cold Storage Facilities: Cold Storage facilities of the Port of Bridgetown are supplied by BICO Ltd., who are sub-contracted by the Barbados Port Authority to handle all locally consigned and Trans-shipment reefer cargoes .

The facility abounds the Harbour perimeter and has four receiving doors.

4×20 ft. reefer Containers may be stripped simultaneously or 2×20 ft. and 2×40 ft. Containers. The receiving rate is in excess of 350 tonnes per day.

Storage capacity is 2,100 tonnes frozen (−18°C), 300 tonnes chilled cargo (+2°C).

Cargo movements are effected by seven Clark 1.5 tonne capacity Forklift Trucks.

Power supply is guaranteed by 'Ring' circuit feed supplemented by standby generator.

CONTAINER HANDLING FACILITIES: The extensions to the Harbour were completed in 1978 and included the provision of a Container Berth, a Container Shed and an open land area for the development of a Container Stacking Park and other ancillary requirements for the making of a Container Terminal.

Phase I of the development of this area was completed in 1980 and included the paving and lighting of the area adjacent to the Container Quay for the provision of a Container Park, a Container Control Office and an area for the stuffing and unstuffing of Containers.

Phase II of the development of the Terminal was completed in 1981. In January, 1981, a new Container handling unit, the Ferranti 830 L Straddle Carrier, was introduced to the Terminal which was followed by another unit in 1982 and 2 Valmet Straddle Carriers in 1985. These units are capable of handling fully laden 40 ft. Containers.

These units supplement 2 Lancer Boss 2500 CH sideloaders for the handling of fully laden 20 ft. Containers and one Lancer Boss Front end loader with adjustable spreader for handling empty Containers.

In addition, there are ample Tractor Trailer units to cope with the present movement of Containers.

During 1982, the 'old Container Park' was re-opened to provide further space for the stacking of trans-shipment Containers and also the North Gate was opened to facilitate the free movement of Containers to and from the Port.

The Terminal is geared to handle 75,000 Container movements annually.

The Container Terminal consists of the following:
a. Container Berth
b. Container Shed (C.F.S)
c. Container Park

The Container Berth is 188 m. long, with one breasting dolphin providing an additional 36 m. of berthing space.

This berth can accommodate a vessel up to 205 m. in length and a maximum draft of 9.60 m.

The Container Shed (C.F.S.) has a floor area of 5,314 sq.m. and is used for the storing of Cargo to be stuffed into Containers or for Cargo unstuffed from Containers.

The Container Park can accommodate a total of 1,384 Containers in lane stacked positions (2 high).

The full Container Park can stack 320 Containers, the empty Container Park can stack 744 Containers and the Trans-shipment Park can stack 840 Containers (2 high).

Space for 320 additional boxes (full) has been provided.

The Container Control Office directs the movement of the Seven Container Handling Units in the delivery, receiving and spotting of containers by means of UHF communication equipment.

A 40 ton gantry crane was purchased in 1987.

A new Engineering Workshop completed in early 1984 ensures that equipment at the Terminal is readily available and that 'downtime' is kept to a minimum.

BULK HANDLING FACILITIES: *Grain:* The bulk unloading facility of Barbados Mills Limited is primarily used for wheat, corn and soyabean meal. It consists of a 6 storey workhouse, 14-"Lippe" type metal silos each with a capacity of 1,000 tonnes and a 669 sq.m. flat storage warehouse of re-inforced concrete capable of receiving and storing 2,400 tonnes.

The dock consists of a 557 sq.m. apron on steel piling with 4 breasting dolphins of similar construction in line with the end of the dock and parallel to the shoreline. There is a lightweight steel catwalk between the dolphins and the dock apron.

Grain enters the Terminal by means of a 762 mm. wide covered conveyor belt running 68.5 m. to the workhouse where it is cleaned of tramp metal, sticks, dust, etc. and weighted before being directed to one of the silos or the flat storage.

The conveyor belt has a capacity of 200 tonnes per hour and is equipped with one tonne hopper mounted dockside over the belt to accommodate self-discharging vessels. In addition the facility has a drag conveying system for conventional bulk vessels and an electrically driven portable suction system that can be used separately or in conjunction with the drag system

Diesel powered skid steer tractors with buckets are used for clean-up of the holds.

Sugar and by-products: All sugar from Barbados' six sugar factories is transported to the Bulk Sugar Terminal at the Bridgetown Port in special trucks with bins, which are the property of Sugar Transport Limited.

The Bulk Sugar Installation at the Bridgetown Port has a capacity of 81,284 tonnes and is 171 m. long with a width at floor level of 43 m.

The Bulk Sugar Installation has been in operation since 1961, and is serviced by a fleet of 27 sugar trucks with bins.

Barbados Molasses Terminals were resited at the Bridgetown Port from Needham Point in 1963, commencing operations in 1964. There is a capacity of 11,356 cu.m., and this is stored for local consumption and export. There is a storage charge from July 1st to the start of the following crop.

In 1981, a new tank was constructed to facilitate T/S Molasses. This tank has a capacity of 20,000 tonnes, and is presently leased to the United Molasses Company of England which is a subsidiary of the Tate & Lyle Group of Companies for handling T/S Molasses within the Caribbean region.

Barbados Fancy Molasses is owned and operated by Jason Jones Ltd., DaCosta & Musson Ltd., Plantations Trading Company Ltd., and Evelyn Roach, Ltd.

There is a capacity of 14,006 cu.m. of which 99.5% is for export and the balance for local consumption.

Description of the Bulk Sugar Installations: The storage shed has a capacity of 81,284 tonnes of sugar and is 171 m. long with a width at floor level of 43 m. The side retaining walls are 4.6 m. high and the roof slopes from the top of these walls to a height of 31 m. at the apex.

Sugar is delivered from the factories in 7 tonne containers fitted to road lorries and is received at the reception area at the East end of the store. After weighing, the container is discharged through a side top-hung door on the container into a reception hopper. This hopper feeds a 1.65 m. conveyor belt which runs the full length of the store underground through a reinforced concrete tunnel. At the Western end of the store the conveyor, used for both reception and reclamation of sugar, rises above ground level through an enclosed steel gantry which slopes upwards to the top of a distribution and weigher tower. Here the sugar falls on a second conveyor belt which slopes back up to the top of the store and extends some 122 m. through the store at a high level. This conveyor is fitted with a mobile take-off and high speed thrower capable of throwing the sugar some 15.25 m. in any direction.

In the floor of the store and over the tunnel carrying the reception/reclamation conveyor belt, 57 louvred hoppers with 0.46 sq.m. openings are spaced along the entire length of the store. During shipment, sugar is run at a controlled rate on to the underground belt which carries it to the top of the weigh tower where it is diverted into the feed hopper of an automatic 10 tonne Servo-Balans scale. After weighing, the sugar falls on to a third which carries the sugar 165 m. through an underground tunnel to a transfer house near the breakwater. At this point the conveyor system turns through an angle of 45° and the sugar is transferred to a fourth conveyor which rises out of the ground from the transfer house and continues 152.5 m. in a covered steel gantry to the first of the three towers which house the power and control units for the ship outloaders. These towers, which are 38 m. apart, each carry 18.25 m. cylindrical boom, with 1.65 m. conveyor belt, which can be raised and lowered like a crane jib and can be slewed through an arc of 80°. A high speed thrower is suspended in the hold of the ship from a telescopic chute at the end of each boom.

During shipment a loading rate of 500 tonnes per hour can be maintained through one outloader or this loading rate can be distributed between two or three outloaders if necessary.

The conveyor system enables sugar to be recirculated within the store if desired. When a ship is loading at the same time as sugar is received, however, the freshly delivered sugar must go direct to the ship mixed with additional sugar from store.

The store is open along the eaves of the roof and forced ventilation is possible by running extractor fans installed on both sides of roof near apex.

STEVEDORES: Gangs must be ordered before 1500 hrs. on day preceding date of arrival and 1000 hrs. on Saturday for Sunday or following Monday. Average rate of cargo discharged:

Bag Stuff, 22 tonnes (weight) per hour.
General Cargo, 12 tonnes (weight) per hour.
Ships specially equipped for handling palletised cargo, 30 tonnes/p.h.
Average rate of loading of cargo: General cargo 12 tonnes; Bag Stuff 18 tonnes.

CRANES: 1 × 91,000 lbs. "Manitowoc-4100". Radius 60 ft.

MEDICAL: Agents should receive advance notice of required medical attention as soon as possible. Modern 800 bed hospital. Private clinics and usual medical facilities available.

TANKERS: Vessels arriving during darkness for Needham's Point Terminal should anchor in Carlisle Bay. Services of a Pilot are not compulsory but a Pilot must be taken to berth and unberth. Daylight berthing only.

Oistin: Submarine discharge. Max. LOA 172 m. Max. draft 10 m.

Needham's Point: Mobil Oil Barbados Ltd. Multi-buoy mooring Max. LOA, 198 m. Max. draft, 11.6 m. Depth at MLW, 12.19 m. Nature of bottom, sand on coral. Daylight berthing only. Vessels may berth and unberth any stage of tide. No fuel or dirty ballast facilities. Fresh water available by tug. Product handled, crude oil. Sealine taken aboard on starboard side. One 12 in. (30 cm.) pipe-line, length 498.35 m. connected to 1×10 in. hose. Pumping rate 300 t.p.h. max. pressure, 50 p.s.i.

Esso Standard Oil S.A. Ltd.: 2 berths. Esso Jetty outside breakwater. "T"-Head finger jetty. Max. LOA, 244 m. Max. draft, 11.6 m. Depth at MLW 55 ft. Vessel berths port-side alongside.

Deep-water Harbour Oil Pier: Max. LOA 244 m. Max. draft 9.14 m. Depth at MLW, 9.75 m. Vessels berth either side alongside.

Fuel and fresh water available. No facilites for receiving dirty ballast.

Berth	*Grade Handled*	*Pipe-line (in.)*	*Length (ft.)*	*Load/ Discharge Rate (t.p.h.)*	*Hoses (in.)*
Esso Jetty	Bunker C	1×16	2000	400	1×8
	Marine Diesel	1×12	2000	270	1×8
	Light Marine Diesel/gasoil	1×8	2000	150	1×8

Max. Pressure 100 p.s.i.

DENSITY: 1025.

FRESH WATER: Easily available. Delivery 20 t.p.h. per hose. Delivery by hose-pipe through hydrants installed in each berth.

FUEL: Modern bunkering facilities are supplied by Esso Standard Oil on a 24 hour basis, however, a minimum of 24 hours advance notice is required. This may be done through an Esso branch in the previous port of call. Bunkering is done alongside at the bunker pits, which are supplied with Bunker "C" fuel, marine gas oil and marine diesel oil. A blend of Bunker "C" and diesel intermediate fuel can also be supplied, as well as marine lubricants. Small yachts and schooners can also be bunkered, and at the Esso Bay Street Jetty, fishing boats and pleasure craft can be supplied with diesel fuel. Loading and discharge facilities consist mainly of an 8 in. pipe-line for gas oil, a 12 in. pipe-line for marine diesel and a 16 in. pipe-line for fuel oil. These pipe-lines run underground for approximately 1 km. from the Bridgetown Port to a bulk terminal at Holborn, Fontabelle. Pumps located at the terminal are used for deliveries to the Port.

The speed of delivery to the Bridgetown Port varies widely depending on the size of the vessel being bunkered. Pumps are rated to deliver from a minimum of 25 tonnes/p.h. to a maximum of 300 tonnes per hour.

There are 16 refuelling points along the berth of the Bridgetown Port. These permit any vessel with a maximum draft of 9.6 m. to be refuelled at any point within the port.

GANGWAY/DECK WATCHMEN: Watchmen's services necessary.

OPENING/CLOSING HATCHES: By stevedores.

SHIP CERTIFICATES: Load Line Certificate, Certificate of Registry, Safety Certificates.

CUSTOMS ALLOWANCES: Two packages or 100 cigarettes per person. Wines and spirit allowance at discretion of Customs Officer.

CONSULS: Consulates, Embassies and High Commissions:

Austria
Belgium
Brazil
Canada
China
Colombia
Cyprus
Denmark
Dominican Republic
Ecuador
Finland
France
Germany F.R.
Iceland
Israel
Italy
Japan
Netherlands
Norway
Sweden
United Kingdom
United States
Venezuela

REPAIRS: Minor repairs can be carried out by Central Foundry Ltd.

SURVEYORS: Lloyd's Register, Bureau Veritas, A.B.S., N.K.K., G.L. and Det Norske Veritas.

REPATRIATION: Facilities for crew changes available.

AIRPORT: Served by regular lines. Distance from harbour about 13 miles (20.92 km.). Island is served by flights from Europe and from North America.

TIME: GMT Minus 4 hours. DST (Daylight Saving Time) 1 hour advanced is now being used from 16th April to 22nd October every year.

HOLIDAYS: New Year's Day, Good Friday, Easter Monday, May Day (1st Monday in May), Whit Monday, Kadooment Day – Crop Over Festival (1st Monday in July), Caricom Day (1st Monday in August), United Nations Day (1st Monday in October), Independence Day (November 30th), Christmas Day (December 25th), Boxing Day (December 26th).

TANKERS:

Installation	*No. of Berths*	*Quay No.*	*Max. Draft FW ft.*	*in.*	*Bunkers ex-Installation*	*Rate tonnes per hour load/disch.*	*Shore facilities for dirty ballast*	*Spares Stores*
S.I.B.P.	7	Pier 2 Pier 3/4 Jetties 429/435	34 32 40	0 4 0	Yes	Loading: 1500 Discharging: 6000	Yes	Light by truck Heavy by barge
Esso	5	Pier 1/4	18	6	Yes	Loading: 5000 Discharging: 6000	Yes	By barge
~~R.B.P.~~ B.R.C.	3	279-285 281/283	39 40	0 0	Yes	Loading: 1500 Discharging: 4000	~~Max.~~ No-	By barge
Gamatex	1	623	38	0	No	Loading: 1500 Discharging: 2000	No	By barge
Nafta B	2	641 North 641 South	50 32	0 0	No	Loading: 2000 Discharging: 3000	No	By barge
Belgian Refining Company	2	661-665	46	0	Yes	Loading: 650 Discharging: 6000	Yes	Light by truck Heavy by barge
South Pier River Scheldt	2	River Quay (tidal)	29 32	0 LLW 0 HW	Yes	Loading: 2200 Discharging: 1400	Max. 500 tons	By barge

MEDICAL: Ample medical attendance in the port. Hospital facilities available.

DENSITY: Fresh water in the docks, slightly brackish in the river.

FRESH WATER: All berths supplied by shore connections. Fresh water also available by barge.

FUEL: All grades available. Minimum 24 hours advance notice preferred. All grades can also be supplied by barge. Tankers may not refuel by barge whilst working cargo or ballast.

FIRE PRECAUTIONS: No floating objects allowed alongside during loading/discharge/ballasting.

GANGWAY/DECK WATCHMEN: Not compulsory but recommended in general and specially for ships berthed at river quays because of rise and fall of tide.

OPENING/CLOSING HATCHES: Normally opened/closed by crew. Stevedores usually helping lift beams. Tramp vessels according to charter party.

SHIP CERTIFICATES:

Registered Tonnage Certificate.
Derat Certificate.

CUSTOMS ALLOWANCES: 200 cigarettes or 20 cigars or 250 gm. tobacco per man. Spirits 0.25 litres per head.

IDENTIFICATION CARDS: Required.

CONSULS: The following countries are represented:

Argentina
Austria
Bangladesh
Bolivia
Brazil
Chile
Colombia
Costa Rica
Denmark
Dominican Republic
Ecuador
El Salvador
Finland
France
Germany F.R.
Greece
Greek Maritime Office
Guatemala
Haiti
Honduras
Iceland
India
indonesia
Ireland
Israel
Italy
Ivory Coast
Japan
Korea, Republic of
Liberia
Luxembourg
Madagascar
Malta
Mexico
Monaco
Morocco
Nepal
Netherlands
Norway
Pakistan
Panama
Paraguay
Peru
Philippines
Poland
Portugal
Senegal
Sierra Leone
South Africa
Spain
Sweden
Switzerland
Thailand
U.K.
Turkey
U.S.S.R.
U.S.A.
Venezuela
Zaire

REPAIRS/DRY DOCKS: The Mercantile-Beliard N.V. owns within its premises 8 private drydocks for vessels up to about 150,000 d.w.t., and 19 private repair berths.

Besides carrying out general repairs, conversion and dry-docking of ships, the yard can carry out licensed repairs and are spare parts suppliers for the following diesel engines:

Burmeister & Wain; Doxford; Fiat; Gotaverken; Mann; Pillstick and Sulzer. They also are an approved repair centre for Lips and Kamewa propellers.

Dimensions of Private Dry Docks:

No.	Length (m.)	Width (m.)	Depth (m.)
1	146.30	18.50	5.85
2	166.40	21.15	6.50
3	192.60	26.00	7.25
4	206.60	27.00	7.75
7	225.00	29.78	8.25
5	255.00	39.40	8.70
8	270.00	37.29	8.25
6	312.35	50.00	9.20

Facilities:

Gritblasting machines for ship's sides and ship's bottom.
Tank cleaning (2 barges available).
Tank storage barges.
Testing plant for anchor chains and cargo gear (up to 300 tonne test capacity).
Dynamic balancing plant for motors, turbines, up to 11 tonne.
Lifting capacity in drydocks and workshops.
Floating crane and heavy mobile cranes.
Specialised fuel valve repair shop.

Apart from above yard, various smaller repair firms are available to carry out deck and engine repairs. They have qualified labour, specialised workshops but no drydock facilities. For example Messrs. Longueville Bros., Messrs. Locomar Inc. and Messrs. S.K.B.

SURVEYORS: American Bureau of Shipping. Tel: 232.28.66; Bureau Veritas. Tel: 233.79.30/31; Det Norske Veritas. Tel: 232.69.16; Germanischer Lloyd. Tel: 233.74.16; Lloyd's Register of Shipping. Tel: 232.09.40; Registro Italiano. Tel: 233.78.60.

REPATRIATION: All arrangements for crew changes and repatriation can be made.

AIRPORT: Zaventem Airport (distance 50 km.) served by regular airlines. Antwerp Airport Deurne (distance 15 km.) only regular service with Amsterdam and London (3 flights per day). Plans to extend.

TIME: Summertime: April to September (April to October) GMT plus 2 hours. Remainder of year, GMT plus 1 hour.

HOLIDAYS: New Year's Day; Easter Monday; 1st May; Labour Day; Ascension Day; Whit Monday; 21st July; Assumption (15th August); 1st November; 11th November; Christmas Day. Plus the replacement days when New Year's Day; 1st May; 21st July; Assumption; 1st November, 11th November or Christmas Day fall on a Saturday or a Sunday. Cargo work can be arranged when labour available and at surcharge 100%.

POLICE/AMBULANCE/FIRE: Harbour Police Tel: 232.18.40; Alarm and Accidents Tel: 906; Ambulance Tel: 900; Fire Tel: 900.

TELEPHONES: At shipyards and oil terminals telephone is placed on board or in the vicinity without extra cost for local calls. Long-distance calls at special request.

SHIP SUPPLY SERVICE:

Ship-to-Shore Supply Operators:

Alpina Transports & Affretements n.v., Ankerrui 2, B-2000 Antwerp. Tel: 03/231.66.90. Telex: 33759.

Clayton of Belgium n.v., Rijksweg 30, 2680 Bornem. Tel: 03/889.11.31. Telex: 31715.

Continental Lines n.v., Klipperstraat 15, 2030 Antwerp. Tel: 03/541.68.40. Telex: 72368.

Eastcott Freight Services (div. of Westcott Shipping n.v.), Brouwersvliet 21, 2000 Antwerp, Tel: 03/231.29.20. Telex: 32982.

I.B.S. Technical Marine Supply (Antwerp) n.v., Ijzerlaan 12/14, 2008 Antwerp. Tel: 03/231.11.28 – 03/231.11.56. Telex: 35153.

Kopcke Belgium n.v., Sint Michielskaai 21, 2000 Antwerp. Tel: 03/238.58.46. Telex: 31916.

Mercantile-Berliard n.v. Hansadok 403, 2030 Antwerp. Tel: 03/541.04.20. Telex: 31219.

Offshore Europe n.v., Begijnenvest 113, 2000 Antwerp. Tel: 03/231.87.70. Telex: 34129.

Titan Supply Company n.v., Sint Pietersvliet 3, bus 2, 2000 Antwerp. Tel: 03/234.00.66. Telex: 32655.

Unie van Redding-en Sleepdienst n.v., Jordaenskaai 15, 2000 Antwerp. Tel: 03/232.38.80. Telex: 31864.

p.v.b.a. World Wide Offshore, Westdijk 72, 2100 Deurne. Tel: 03/886.99.11. Telex: 34472.

DEVELOPMENTS: Berendrechtlock expected to be operational in October 1988.

When completed, this lock will be able to accommodate fully laden vessels of up to 125,000 d.w.t. and partly laden vessels of up to 250,000 d.w.t. With a length of 500 m. between outer gates, a width of 68 m. between walls and 17.75 m. water depth.

New container terminal under construction in the river South of Berendrechtlock. Quay length: First 800 m. available in the Autumn of 1989; completion in April 1990 with 1,406 m. quay length and depth 14.0 m. Surface area 55.4 hectares. Four container gantries to be installed.

Left bank of River Scheldt: First dock for cargo handling with total quay length of 4,500 m. now in operation. (Already in operation are 3 terminals for forest products, dry bulk commodities and scrap). Other terminals to follow.

At the left bank the lock (Kallo Lock) is finished. The construction of docks is continuing.

Other works/investments recently finished, under-way or planned for the near future include: new bridges over the locks; a high bridge over the docks at Quay Nos. 100 – 101; new dredging equipment.

REPORT: December 1984.
Bulk Handling Facilities:

1. ABT.
Canaldock B.1 Berths:
LOA: No restriction (see "Remarks").
Draft: 54 ft. fresh water at berth (see "Remarks").
Beam: Discharge coal: No restriction.
Discharge ores: Crane Nos. 1 – 3 outreach 41.6 m. (see "Remarks").
Crane Nos. 4 – 5 outreach 49.0 m. (see "Remarks").
Clear height from waterline to top of hatch coaming:
Crane Nos. 1 – 3: 17 m.
Crane Nos. 4 – 5: 21 m.

2. ABT.
Delwaidedock Berths
LOA: No restriction (see "Remarks").
Draft: 55 ft. fresh water (see "Remarks").
Beam: No restriction (see "Remarks").
Clear height from waterline to top of hatch coaming: 24 m.

Remarks:

Drafts are based on fresh water.

For vessels over 270 m. (884 ft. 10 in.) LOA, drafts have to be reduced as follows:

LOA 270 m. (884 ft. 10 in.) up to 280 m. (917 ft. 8 in.): 6 in. per 10 ft. (3.05 m.) exceeding 270 m.

LOA over 280 m.: 6 in. per 10 ft. exceeding 270 m. and 3 in. per 10 ft. exceeding 280 m.

The maximum LOA allowed is 300 m.

The maximum beam in the Zandvlietlock is 45 m.

Sailing: Maximum draft allowed is 12.19 m. from Zandvlietlock.

Tankers: (Oil-gas-chemicals) – empty or loaded – not gas free.

As from 1.11.1984 the regulations below and the tanker checklist are applicable.

Regulations:

14th August, 1984 – Royal Decree for the Assessment of the Minimum Requirements with which some Tankers, which intend to call at a Belgian port, have to comply. (Free translation) (*).

Article 1 § 1. The Owners and Operators, their employees, mandatories or representatives, of oil, gas and chemical tankers with a Belgian port as destination (loaded or in ballast but not yet free of vapours or dangerous residues) must notify the following information:

(a) Name and call sign of the vessel.
(b) Nationality of the vessel.
(c) The overall length and draft of the vessel.
(d) Port of destination.
(e) ETA in the port of destination or at the pilot station.
(f) General nature and quantity of the cargo.
(g) In case of carriage of chemicals in bulk, whether or not the vessel is in possession of a fitness certificate in accordance with the IMO Code for the construction and equipment of vessels carrying dangerous chemicals in bulk or in case the vessel carries liquefied gas in bulk, whether the vessel is in possession of a fitness certificate in accordance with the IMO Code for the construction and equipment of vessels carrying liquefied gases in bulk.
(h) Any defects or incidents which may affect the normal and safe manoeuvrability of the vessel, are detrimental to a safe and fluent navigation, or constitute a hazard to marine environment and surroundings.

§2. The Masters of such vessels can be put in charge of these notifications.

§3. When the destination of the vessels is a Belgian coastal port the data mentioned in §1 must be notified to the Maritime Control of Traffic of the Ostend Pilotage before Belgian territorial waters are entered. When the destination of these vessels is another Belgian port, this data must be notified to Flushing Radio before Belgian or Dutch territorial waters are entered.

Article 2 § 1. Before entering Belgian or Dutch territorial waters the Masters of the vessels referred to in Article 1 have to truthfully and accurately fill in the check-list to this decree and to hand a copy of it to the Pilot for his information.

§2. If additional copies of this list are requested by the competent Authorities they have to be transmitted to them without delay.

Article 3. During the navigation in territorial waters the Masters of the vessels referred to in Article 1 and which intend to call at a Belgian port or which have left this port have to:

(a) Notify the competent Authorities of all defects and incidents which are liable to reduce the manoeuvrability of the vessel under normal safe conditions, to detrimentally influence the safe and fluent navigation or constitute a hazard to the marine environment and surroundings.
(b) Establish as soon as possible a radio-telephonic communication with the appropriate coastal stations, preferably in VHF, more particularly with the nearest radar station – if it exists – and maintain this communication.
(c) Call upon the services of radar stations particularly in conditions of restricted visibility.

This decree will be effective on 1st November, 1984.

(*) This decree results from the directive 79/116/EEC of the Council of European Communities of 21st December, 1978, modified by the directive 79/1034/EEC of same council of 6th December, 1979.

SHIPMASTER'S REPORT: April 1988.
Pilotage: Pilot boards at Wandelaar or Steenbank. Pilots boarding at Steenbank can only use Oostgate Channel with prior permission of Flushing Control and then only with a maximum draft of 5.5 m. (dependent on tide) and for IMO Class 2 vessels if individual tanks are under 1,500 cu.m.

For the outward passage the Antwerp Agent telexed Flushing Control on behalf of the vessel, as using Oostgate and Steenbank saves over 60 minutes over Wandelaar if proceeding North or East.

Anchorage: The Netherlands Authorities are very particular about IMO Class 2 vessels anchoring in Netherlands waters if bound for Antwerp.

Wielingen North near Flushing cannot be used by IMO Class 2 vessels. Therefore vessel is to wait at Wandelaar (A1 Buoy) or at Antwerp.

Entering: Full speed permitted in the Scheldt. Passage from Wandelaar to Antwerp takes about 6 hours. If docking at Industriedock, vessel uses the old lock (Van Cauwelaert). There are often considerable delays on entering and leaving. We waited for 3 hours outwards before entering the lock.

There are no fenders in the locks so ship's fenders have to be made ready. Tyres are not officially allowed.

Tugs: When entering the locks from the river it is advisable to use a small tug at the stern.

For Esso Berth in Industriedock we took 2 tugs, one each at the bow and stern using the ship's lines. This is advisable as manoeuvring room is very limited when barges are present. For the outward passage it is advisable to have one stern tug.

Berthing: Esso 383-Industriedock: Vessel berthed starboard side to. Depth alongside 12 m., max. draft allowed is 9.0 m.

Esso 379-Industriedock: This berth is just ahead of No. 383. Max. draft allowed 11.0 m. The berth has a modern dolphin type jetty with good fenders and mooring facilities. A mooring boat runs ropes.

Cargo: Berth 383: Ethylene is handled through a 6 in. liquid line and a 3 in. vapour line, both on the same Chicksan.

Storage tanks of 10,000 cu.m. are situated close to the berth. Maximum pressure 200 kg. Storage temperature −102° C. Gas returned to ship. Maximum allowed pumping rate 600 cu.m.p.h. We achieved a full rate of 300 cu.m.p.h. (172 t.p.h. average). The terminal personnel not in attendance at jetty while pumping.

Berth 379: Propane and Butane handled at this berth.

General: A very good hydraulic gangway is provided. Stores are allowed up to 50 m. from the ship's side. No jetty cranes available. Fresh water available through meter. We used Antwerp Radio for telephone calls as telephone on jetty out of order. This method was efficient but subject to interference from Ostend and PCH.

AUTHORITY: Port of Antwerp General Management, Town Hall, B-2000 Antwerp. *Tel:* 03-231.16.90. *Telex:* 31.807. *FAX:* 233.55.90.
Contact: F. Suykens, General Manager.

Branch Office: Kolveniersstraat 19, 2000 Antwerp. *Tel:* 03-231.17.72.
Contact: Dr. C. Verschueren, Principal Adviser.

AGENT: Cobelfret N.V., Sneeuwbeslaan 14, 2610 Antwerp, Belgium. Tel: (03) 829.90.11. Telex: 32650 Cobeag B. Fax: (03) 830.36.11.

BRUSSELS: 50.51 N. 04.22 E. (See Plan)

DOCUMENTS: Same as Antwerp and to be handed to Agent at Antwerp Roads, where clearance obtained.

PILOTAGE: Notice of ETA Antwerp Roads should be given 24 hours beforehand to Antwerp Agent, who will apply for upper Scheldt Pilot. This Pilot takes over at Antwerp Roads and brings ship up Rivers Scheldt and Rupel to Wintam Lock. Canal Pilot boards Wintam Lock. Boatmen service on canal optional, but advisable for ships over 164 ft. length and according weather conditions. Boatmen for possible mooring Wintam Lock Entrance always available. All locks equipped with VHF. Call and answer on Channel 13.

ANCHORAGES: Use of anchors strictly regulated on canal and only permitted certain areas in emergency.

RESTRICTIONS: Ships proceed upstream from Antwerp to Wintam day and night accordance state of tide, direction of current, length and draft.

MAX. SIZE: Overall length: 344 ft. 06 in.; Extreme breadth: 48 ft. 02 in.; Max. draft: 19 ft.

HEALTH: See "Antwerp".

RADIO: See "Antwerp".

VHF: All locks and tug boats equipped with VHF.

TUGS: Normally tug joins vessel Wintam Lock. Ship's lines always used. Although not compulsory, towage advisable in accordance length and draft or weather conditions.

BERTHING: No specific requirements for berthing in canal. Owing to dense traffic, ships should moor strongly.

The Brussels' Harbour extends over a length of 12.5 km. between Brussels (Saintclettesquare) and Grimbergen (Pont-Brule).

The Inner Port offers: 14 km. of quays and mooring berths 220,000 sq.m. of wharf areas. 390,000 sq.m. of storage areas. 169,000 sq.m. of warehouses.

Materials Quay: Length: 710 m. Number of berths: 15. Depth: 3.5 m.

Barges Quay: Length: 710 m. Number of berths: 15. Depth: 3.5 m. Equipment: 1 private installation for cargo handling.

Shipowners Quay: Length: 920 m. Number of berths: 15. Depth: 4.2 m. Equipment: 6 private installations for cargo handling.

Steamers Quay: Length: 920 m. Number of berths: 15. Depth: 4.2 m. Equipment: 7 private installations for cargo handling.

Factories Quay: Length: 2,000 m. Depth: 4.2 m. (along the quay wall: 3.20 m.)

Leon Monnoyer Quay: Length: 1,800 m. Number of berths: 20. Depth: 6.5 m. Equipment: 11 private cranes from 3 to 10 tons lifting power. 9 private installations for cargo handling.

Heembeek Quay: Length: 360 m. Number of berths: 4. Depth: 6.5 m. Equipment: 9 private installations for cargo handling.

Industrial Harbour Section: Length: 6,000 m. Number of berths: 60. Draft. 6.5 m. Equipment: 59 private installations for cargo handling, (electric cranes from 1 to 10 tons lifting power, grain elevators, belt conveyors, suction devices.)

Maritime Canal: Length: 20 km. Depth: 6.5 m. Equipment: 26 private installations for cargo handling.

SPECIALISED CARGO HANDLING FACILITIES: Private cargo handling facilities exist in the whole of the Industrial Maritime Canal for grain, coal, fertilisers, liquid chemicals and L.P.G.

BRIDGES: Ships can reach outer harbour with clearance of 100 ft. and pass under fixed bridges to inner harbour with clearance of 20 ft. Road bridges open on demand. Railway bridges open according timetables, which subject to change.

STEVEDORES: Arrangements made by Agents.

MEDICAL: No notice required for medical attendance. Hospital facilities available. In case of accident or emergency call phone number 900. No particular inoculations or certificates required.

TANKERS: Oil usually imported by tank barges. No slop facilities. Max. draft permitted for wine tankers, gas tankers and acid carriers: 19 ft.

DENSITY: Canal is fresh.

FRESH WATER: Fresh potable water delivered from shore in Wintam Lock at average rate of 3 t.p.h. during passage through lock, and in outer harbour at maximum rate of 20 t.p.h. according diameter of hose.

FUEL: All grades available. At least half a day notice should be given.

FIRE PRECAUTIONS: The usual precautions to be taken by tankers and ships handling inflammable or dangerous goods.

GANGWAY/DECK WATCHMEN: Services of shore watchmen optional.

OPENING/CLOSING HATCHES: Carried out by ship's crew.

IDENTIFICATION CARDS: Required.

CONSULS:

Algeria	02	537.81.33	537.82.41
Denmark	"	217.11.31	
Finland	"	512.98.93	
France	"	217.31.79	217.24.63
Germany F.R.	"	770.58.30	
Greece	"	217.76.14	
Iceland	"	512.59.65	
Italy	"	537.19.34	537.90.56
Liberia	"	344.49.40	
Luxemburg	"	733.99.77	
The Netherlands	"	511.39.60	
Norway	"	736.20.45	
Panama	"	512.66.30	
Portugal	"	538.47.90	
Spain	"	511.73.90	
Switzerland	"	512.78.43	
Tunisia	"	734.91.78	
United Kingdom	"	219.11.65	

REPAIRS: No shipyards in Brussels, but in Boom and Temse, not far from Brussels, and Antwerp. Minor deck and engine repairs by small shipyard on canal.

REPATRIATION: Arrangements for repatriation can be made with Maritime Authorities on Antwerp Roads or at Brussels with the Harbour Authorities. Consuls in Brussels arrange for crew changes or repatriations (Consulates closed Saturdays, Sundays and Holidays).

AIRPORT: Brussels Airport served by regular airlines. Air terminal situated in town centre, directly connected with Airport by special railway.

HOLIDAYS: Official Holidays: January 1st (New Year), Easter Monday, May 1st (Labour Day), Ascension Day, Whit Monday, July 21st (National Holiday), August 15th (Assumption Day), November 11th (Armistice Day), December 25th (Christmas). Most offices closed on Saturdays.

POLICE/AMBULANCE/FIRE: General call, Ambulance/Fire: 100; Police: 101; Fire: 02/219.46.90. – 512.22.22. Police 02/517.96.11.

TELEPHONES: Only placed for warships at one particular berth.

GENERAL: Bus 47 near left bank and street-car 58 near right bank of outer harbour, lead to town centre (10 minutes). General Information Office situated on de Broukeresquare (town centre). Ship stores can be obtained, but no bonded stores.

SHORE LEAVE: Crew members allowed ashore without restriction.

REGULATIONS: At night only main gate of outer harbour on right bank is open.

DEVELOPMENTS: Complete schedule for modernising canal, including building a larger lock, widening and deepening canal.

AUTHORITY: "S.A. du Canal et des Installations Maritimes de Bruxelles" (Port of Brussels Authority), Place des Armateurs, 6, 1020 Bruxelles. *Tel:* 02/425.10.00. *Telex:* 62207. *FAX:* (02)425.10.00. *Cables:* Bruportus. *Contact:* General Manager.

Harbour Master: Rue de L'Avant-Port 2, Boite 1, 1210 Brussels. *Telex:* 64361.

GHENT: 51.02 N. 03.44 E. (See Plan)

PORT LIMITS: As a rule, the Notice of Readiness must be given in writing and will generally not be accepted by the receivers before the ship has berthed. Exceptionally, when the berth is occupied, the notice can be tendered as soon as the vessel has dropped anchor at Flushing or Terneuzen Roads, or has moored at a waiting berth. Strictly speaking, ports limits are at the border between the City of Ghent and the town of Zelzate, i.e. at about 3 km. from the Dutch border.

DOCUMENTS:

Documents Needed for Customs:

1 Cargo Manifest No. 125.
1 Store List.
1 Crew List, with the list of personal effects of the crew, such as cameras, guns, cigars, cigarettes, tobacco, alcohol.

Documents Needed for the Water Bailiff:

1 Crew List.
1 Passenger List.
Tonnage Certificate.
Oil Register.
Certificate for Civil Liability when the ship carries more than 2,000 tons of oil in bulk.

PILOTAGE: For seaward approach, position of pilot-cutters and ETA-messages: see "Flushing". Pilotage is compulsory for all ships, except those in ballast having a draft of less than 22 decimetres (7.2 ft.). All vessels proceeding to Ghent have to pass the locks at Terneuzen. The Canal-Pilot normally boards a ship bound for Ghent when she passes Flushing. Ships coming from the North always have a Dutch Sea-Pilot on board who brings the ship to the Terneuzen Locks where a Dutch Canal-Pilot takes over.

Pilotage Regulations: Reporting of the ETA at one of the pilot stations at sea in the estuary of Scheldt must take place in the following manner:

1. The ETA must be reported not less than 6 hours before that time.
2. For the pilot station "Wandelaar", via Ostend-Radio (OST) or via other appropriate communication channels. The message is to be addressed to "Pilotage Ostend".

The text of the message is to consist of:

(a) The words "ETA Pilot Wandelaar".
(b) The ETA as a group of 4 digits in GMT.
(c) The draft of the ship, stating the units used.
(d) The Port of Destination.

3. For the pilot station "Steenbank" via Scheveningen-Radio (PCH) or via other appropriate communication channels. The message is to be addressed to "Pilotage Flushing".

The text of the message is to consist of:

(a) The words "ETA Pilot Steenbank".
(b) The ETA as a group of 4 digits in GMT.
(c) The draft of the ship, stating the units used.
(d) The Port of Destination.

ANCHORAGE: The roads of Terneuzen offer a safe and spacious anchorage outside the fairway, at the so-called Pit of Terneuzen. Depth is at least 49 ft.

RESTRICTIONS: Navigation day and night. There are no restrictions for entering the locks at LW for vessels with a draft not exceeding 32 ft.

MAX. SIZE: In normal practice, length 256 m., breadth 34 m., draft 12.25 m. Fresh water. Also see "Shipmaster's Report".

RADIO: All cables to Agents, receivers, etc. to be sent via Ostend Radio (call sign OST), eventually via Scheveningen Radio (PCH) for vessels coming from the North. Also see "Pilotage".

VHF: Contact pilot-cutters via Channel 6, Flushing Radio via Channel 14 and Terneuzen Harbour via Channel 11. All communications with the Harbourmaster's Office in Ghent should go via Channel 5 and 11.

RADAR: See "Antwerp".

TUGS: Tugs needed for entering the locks usually meet the vessels near Buoy 23. The Master decides whether to use own lines or not.

BERTHING: The Alderman Siffer Dock, Port Arthur Quay, Petroleum Dock (Texaco), Rodenhuize Dock and the Sidmar Quay can all accommodate ships with a deadweight up to 80,000 tons. The older docks (Noord-, Midden- and Zuiddok, and the Fore Harbour) have depths ranging from 7 m. to 8.75 m.

CRANES: All the docks mentioned above are equipped with handy, powerful cranes, the majority of which are owned by the Port Authority.

At the Sifferdok there are 4 multi-purpose cranes of 40 tons and 2 tobogans owned by N.V. Stukwerkers Havenbedrijf. The Sifferdok, Middendok and Zuiddok each have two bulk-handling gantry cranes of 10 tons. Two floating cranes of 25 tons are also available.

At the Port Arthur Quay there are 10 cranes of 5 tons, 7 cranes of 15 tons, 1 crane of 10 tons and 2 tobogans owned by Manuport.

BULK CARGO FACILITIES:

Sifferdok: The installations of Euro-Silo at the end of the dock offer facilities for all kinds of grain and derivatives. Quay length: 475 m. Storage capacity: 130,000 tons heavy grain. A warehouse for flat storage of 40,000 tons of heavy grain. Equipment: 2 pneumatic discharge towers of 500 t.p.h. each; 2 screw unloaders of 700 t.p.h. each; 2 mobile cranes for grab discharge of barges; 2 train unloading stations of 500 t.p.h. each. 2 mobile and 1 fixed loading tower of 600 t.p.h. each; 2 loading stations for trains of 600 t.p.h. each. The Compagnie Belge de Manutention (CBM) situated on the left bank of the Sifferdok specialises in the handling of bulk cargoes such as pyrites, ores, phosphates, coal, cokes etc. Equipment: 2×15 ton and 3×10 ton cranes for grab discharge and 2 mobile cranes of 40 tons. Also mechanical shovels for the discharge of bulk goods into rail-wagons. Storage capacity: 2,500,000 tons.

The same commodities are also handled by CBM in the Zuid- and Middendok; grab discharge with 10 ton cranes.

Rodenhuizedok: The new grain silo "Ghent Grain Terminal" can accommodate vessels up to 80,000 tons. For unloading there are 2 mobile pneumatics and 1 fixed tower with a total capacity of 1,800 t.p.h. For loading there is 1 mobile post and 1 fixed post with a total capacity of 1,600 t.p.h. Vertical storage capacity of the silo is 60,000 tons. Horizontal storage capacity 250,000 tons. Quay length: 670 m.

Sidmar: Steel plant situated on the right bank of the ship-canal to Ghent, with 1,050 m. quay length of which it is the exclusive user. Maximum depth at terminal: 13.50 m. Equipment: for the loading of steel sheet and coils, 1×25 ton and 1×35 ton crane. For grab discharge: 2 portal cranes of 25 tons each and 1×15 ton crane.

SPECIALISED CARGO HANDLING FACILITIES: Specialised berths where equipment for handling fertilisers is available are No. 27 (Grootdok) and No. 83 (Sifferdok); cranes for grab discharge, funnels and conveyor belts.

Liquid chemicals are currently handled at the U. Kuhlmann factory in Rieme on the left bank of the ship-canal, most commonly liquid sulphur and propylene. No berths for LPG-carriers exist in Ghent.

Containers can be handled on the right bank of the Sifferdok (see "Cranes").

One double Ro/Ro berth with a fixed concrete ramp is situated at Quay No. 101/102 and has a ramp on each side of 20 m. width.

Fruit Terminal at Sifferdok Dock, Quay 100 with discharge capacity of 4,000 cartons per hour.

TANKERS: There are 3 tanker berths for seagoing vessels, 2 owned by Texaco in the Petroleum Dock and 1 owned by Ghent Tanking Co. in the Rodenhuizedock. Each berth can accommodate ships of 70,000 tons with a draft of 12.25 m. maximum.

Texaco have load/discharge lines of 10 in., but all kinds of fittings are available. They also have 2 tanks for the reception of dirty ballast (120,000 bbls.) and 2 tanks for the reception of oil residue (10,000 bbls.).

The diameter of load/discharge lines at the jetty operated by Ghent Tanking Co. is 8 in. No tanks for ballast or slop discharge available. Vessels to discharge with own pumps.

BRIDGES: There are 3 bridges across the Ghent/Terneuzen Canal, namely at Sluiskil, Sas-van-Ghent and Zelzate. They open day and night, on signals by Pilots.

High tension cables cross the canal at the Rodenhuize and Langerbrugge power-stations. Maximum air draft permitted: 48.90 m.

STEVEDORES: Will be advised by Agents of ETA. Gangs must be ordered by noon in order to commence at 0600 hrs. next working day (morning shift); by 1700 hrs. to commence at 0750 hrs. next morning (normal working day); by 0700 hrs. to commence at 1400 hrs. same day (afternoon shift); by 1300 hrs. to commence at 1325 hrs. (half working day).

MEDICAL: Agents to be advised by radio or cable if urgent medical assistance required. Ample hospital facilities available.

DENSITY: Water in the docks and the Ghent-Terneuzen Canal is practically fresh.

FRESH WATER: (For seagoing vessels). Supply by barge. Within normal working hours at 248 Fr. per cu.m.; outside normal working hours at 326 Fr. per cu.m., with a supplement ranging from 2.785 Fr. to 5.570 Fr. Minimum of 10 cu.m. always charged. Rate of delivery: 440 t.p.h.

FUEL: All grades are delivered either by barge or truck. At least 24 hours notice required. Supplement on Sunday 8.355 Fr.

CONSULS:

Austria	Tel.	25.75.41	Korea	"	22.68.03
Central African Republic		28.10.81	Mauritania	Tel.	88.86.48/ 25.41.07
			Netherlands	"	25.18.16
Chile	"	74.15.40	Norway	"	51.25.21/ 55.75.34
Denmark	"	25.65.62			
El Salvador	"	25.44.29	Pakistan	"	25.63.43
Finland	"	23.50.11	Peru	"	24.37.17
France	"	25.97.30/ 25.97.43	Senegal	"	25.75.51
			Spain	"	25.75.91
Germany (F.R.)	"	25.91.68	Sweden	"	24.19.91
Greece	"	25.58.91	Tunisia	"	26.41.42
India	"	26.34.23	U.K.	"	25.68.75
Italy	"	25.73.85	Zaire	"	25.98.34

REPAIRS: Practically all kinds of deck and engine repairs are possible. Radio and electronic apparatus can also be repaired.

DRY DOCKS: There are 2 dry docks for ships with following dimensions.

(1)	length: 120 m.	breadth: 13 m.	draft: 5 m.
(2)	length: 70 m.	breadth: 11 m.	draft: 3.90 m.

SURVEYORS: All major Classification Societies have branch offices in Antwerp.

GANGWAY/DECK WATCHMEN: Not compulsory, but recommended. Cost per watchman: Fr. 5995 per shift; Fr. 7165 per night shift and Fr. 8645 per shift on Sundays and holidays.

HATCHES: Opening and closing is normally done by crew, if not otherwise specified by Charter-Party.

CUSTOMS ALLOWANCES: 200 cigarettes or 50 cigars or 250 gm. tobacco or 100 cigarillos. Wine is practically free. Spirits, one opened bottle per crew member.

CARGO GEAR: Either shore or ship's gear may be used. Public property: 85 cranes with lifting capacity from 2.5 to 15 tons. Two floating cranes of 25 tons. Two multipurpose cranes of 40 tons. Two container gantry cranes of 55 tons. Private property: 39 cranes and 27 bridge-cranes of 15 tons.

REPATRIATION: All arrangements for crew changes and repatriation can be made.

AIRPORT: Brussels or Antwerp.

TIME: Summertime, GMT plus 2 hours, from beginning of April to end of September. Otherwise, GMT plus 1 hour.

HOLIDAYS: New Year; Easter Monday; Labour Day (1st May); Ascension; Whit Monday; National Day (21st July); Assumption (15th August); All Saints (1st November); Armistice (11th November); Christmas Day. Work on these days possible at special overtime rates.

POLICE/AMBULANCE/FIRE: Dial 100 for any emergency. Dial 101 for Police assistance. Harbour Master's Office: 51.04.57 or by VHF, Channels 5 and 11.

TELEPHONES: Only placed on board visiting warships.

SERVICES: All kinds of special services are available, e.g. tank-cleaning, reception of waste oil, discharge of tank-washings or slops, compass adjusting, etc.

SHORE LEAVE: No restriction of any kind. Seaman's book is sufficient.

BANKS: *Banks near to the Port:*

Bank Brussel Lambert Muidepoort 8 9000, Ghent Tel: 51.02.39	open from 0900 hrs. until 1230 hrs. 1400 hrs. until 1600 hrs. Friday until 1700 hrs.
Kredietbank Doorzelestraat 7 9000, Ghent Tel: 25.61.41	open from 0900 hrs. until 1230 hrs. 1400 hrs. until 1630 hrs.
Generale Bankmaatschappij Stapelplein 31 9000, Ghent Tel: 23.13.86	open from 0900 hrs. until 1230 hrs. 1400 hrs. until 1600 hrs. Friday until 1700 hrs.
A.S.L.K. Voormuide 39 9000, Ghent Tel: 25.62.06	open from 0900 hrs. until 1230 hrs. 1330 hrs. until 1600 hrs. Friday until 1830 hrs. Saturday 0900 hrs. until 1200 hrs.

STORING: See "Prelims".

(1) Truck.
(2) —
(3) Yes.
(4) Yes.
(5) —
(6) Yes.

SHIPMASTER'S REPORT: July 1983.

Sifferdok: The berth we were allocated in 'Schepen Sifferdok' (the top corner as shown on the Chart, Berth Nos. 95, 94, 93) has insufficient water alongside to take a ship with a recommended draft of 12.25 m. We arrived at this berth on the night of 11th July, with a draft of 12.25 m. and could not approach nearer than 5 m. forward and 10 m. aft and the ship lay at an angle until sufficient cargo had been discharged by long reaching shore cranes to enable the vessel to come alongside properly.

The Port Booklet states that the maximum water in the dock is 13.5 m. and the maximum permitted draft of vessel is 12.25 m. It is not possible to berth at that draft. Soundings taken by hand lead indicated depths of 36 ft. – 39 ft. at 5 m. off the quay and future callers at this port should be aware of this problem should they be allocated this berth in Sifferdok. Pilots maintained that the situation had been like this for many years.

(Editor's Note: March 1986. Depth now restored to 12.5 m. at Quays 93-94-95).

Terneuzen: Terneuzen locks are used to come into the canal system to Ghent. The authorities are extremely strict on the draft being 12.25 m. or less so Masters should be warned when loading max. cargo for Ghent not to go over 12.25 m.

AUTHORITY: Havenbedrijf Der Stad Gent, J.F. Kennedylaan 32, 9020 Gent. *Tel:* (091) 51 05 50. *Telex:* 11460. *Contact:* Captain A. De Wilde, Director General.

AGENT: Cobelfret N.V., Einde Were 248, 9000 Ghent, Belgium. Tel: (091) 25.21.86. Telex: 11732 Cobgnt B. Fax: (091) 25.60.01.

LIEGE: 50.38 N. 05.35 E.

APPROACHES: Depth on Albert Canal from Antwerp to Kanne, 3.2 m., and from Kanne to Liege, 3 m. Depths on River Meuse range from 2.4 m. at Namur to 3 m. in Liege. Merksem Bridge on Albert Canal, 6.7 m. air draft and Arches Bridge on River Meuse has 6.8 m. air draft at normal times. At times when water is high make enquiries at the "Office de la Navigation" (Tel: 041-67.70.48).

MAX. SIZE: *Largest Vessel:* LOA 97.2 m. Max. beam 11.7 m. Max. draft 1.8 m. – 2.8 m.

BERTHING: 22.1 km. of public quays; 8 km. of private quays; port facilities at Monsin are now operational. One sheltered dock, 110 m. long, 26 m. breadth equipped with 4 warehouses, 10,000 sq.m. total storage area, good road and rail connections. 170 berth marina.

Ro/Ro Facilities: Ramp at the Port de Seraing for loads up to 1,200 tonnes.

BULK HANDLING FACILITIES: All quays have facilities to load and discharge bulk cargoes. Silos for storage of sand and gravel also available.

TANKERS: Facilities at Wandre. Storage capacity of 240,000 cu.m.

Liquefied Gas Terminals: Facilities for storage (6,650 cu.m.) and distribution of butane and propane.

CRANES: 110 gantry and mobile cranes.

FRESH WATER: Available.

AIRPORT: At Bierset, distance 20 km.

DEVELOPMENTS: Albert Canal is being improved.

AUTHORITY: Port Autonome de Liege, Quai de Maestricht 14, B-4000 Liege, Belgium. *Tel:* (041) 235909. *Telex:* 42656 Port Lg B. *Contact:* R. Planchar, General Manager. R. Janssens, Business Manager. A. Lejeune, Harbour Master.

NIEUWPOORT: 51.09 N. 02.43 E. (See Plan)

DOCUMENTS: Immigration requires:

Ship's Papers
2 Crew Lists
2 Passenger Lists
Passport or Seaman's Books

PILOTAGE: Compulsory. Pilot station at inner end of West Pier.

ANCHORAGES: Good anchorage available in roads.

MAX. SIZE: Largest vessel 82 m. LOA, 5 m. draft.

VHF: Pilots operate on Channel 9.

TUGS: No tugs available.

BERTHING: Harbour entrance formed by two parallel piers running N.W. – S.E. giving access to inner harbour through straight channel. Wharf of 1,200 m. length. Depth in channel and harbour 3 m. at MLWS. Tidal range 4 m. – 5 m.

Yachting harbours with a capacity of 2,000 yachts.

CRANES: 3 ton and 5 ton cranes available.

MEDICAL: Hospital facilities at Veurne (10 km.).

FRESH WATER: Available.

FUEL: Light and heavy gas oil available. No coal.

REPAIRS: Small repairs only.

AIRPORT: Middlekerke, 10 km., distant.

AUTHORITY: Maritime Commissioner (Harbour Master), Langestraat 89, 8450 Nieuwpoort, Belgium. *Tel:* 058-233045. *Contact:* The Harbour Master.

OSTEND: 51.14 N. 02.55 E. (See Plan)

DOCUMENTS:

2 Crew Lists or Passenger Lists.
4 Cargo Manifests.
2 Copies Bills of Lading.
3 Freight Lists prepared by Agents.
2 Customs Provision Lists prepared by Agents.
General Declaration prepared by Agents.
Customs Declaration outward bound prepared by Agents.

PILOTAGE: *(a)* From Pilot boat between "S.W. Akkaert" and "A.1" lightbuoys. Black hull, white number forward on both sides of hull, yellow funnel black top. Displays by day at top of mast, red square flag with letter "P" in white; by night lights prescribed by International Regulations. Contact pilot boat: Channel 6 VHF. Morse or flag signal: G.8. In low visibility: sound signal G.8 to be made at least 3 seconds after usual fog signal. Pilot boat answers with sound signal "H" at least 3 seconds after sounding prescribed fog-signal.

Anchorage awaiting Pilot: Anchor to the N.W. of S.W. Akkaert Lightbuoy. Depths at least 18 m. MLLWS. Advice from pilot boat VHF Channel 6. If Pilot boat not on station, shipping informed by Ostend Radio in radiotelephonic frequency 2761 kHz (108 m.) announced on 2182 kHz (137 m.) on following hours: 0103 – 0803 – 1303 – 1603 and 2103 GMT.

(b) From Pilot Station Ostend. ETA to "Pilot Station Ostend" via "Radio Ostend" at least 3 hours before arrival. Harbour Pilot boat will meet as far as Lat. 51° 15′ 30″ N., Long. 2° 52′ E. Pilot boat shows by day: red square flag white "P"; by night: international prescribed lights. Anchorage: Lat. 51° 15′ 30″ N., Long. 2° 52′ 48″ E. Depths: at least 7 m. MLLWS. Pilot Station Ostend operates VHF Channel 9 (only for Pilotage matters).

RESTRICTIONS: Traffic signals in accordance with IALA are shown at end of Eastern harbour entrance pierhead.

MAX. SIZE: Entrance of lock to Commercial Docks restricted to max. length 124 m., max. beam 57 ft. 6 in. and draft max. 24 ft. Entrance to lock of Fishing Port restricted to ships with max. length 90 m., max. beam 50 ft. and max. draft 23 ft. Harbour channel restricted to 30 ft. draft.

HEALTH: Pratique obtained from Belgian Pilot. Any advice on health matters also obtainable from Pilot services.

RADIO: Ostend Radio – OST.

TUGS: Government tug 1250 h.p. available, meets outside harbour. Tug lines optional; (if demanded from Government tug) charge according to tariff (59/701100).

BERTHING: According draft. Any specific instructions given by Harbour Pilots or Agents.

BULK HANDLING FACILITIES: Ro/Ro berths in timber dock and on deep water quay with facilities for loading and unloading containers.

STEVEDORES: ETA advices week-days before 0600 hrs. For Saturday or Sunday work advise before 1500 hrs. Fridays. All stevedoring arrangements made by Agents.

MEDICAL: Advance notice to Agents for medical attention 6 hours before arrival. Hospital services available. Medical information can be obtained on R/T via Ostend Radio.

TANKERS: Only small coastal tankers. Only discharge in Fishing Port. Max. length 285 ft., max. beam 50 ft., max. draft 23 ft., or Ostend-Bruges canal, max. length 312 ft., beam 57 ft., max. draft 21 ft. (16th May – 16th October); max. 18 ft. (16th October – 16th May).

FRESH WATER: Available quayside in docks. Rate delivery approx. 15 t.p.h.

FUEL: All grades.

GANGWAY/DECK WATCHMEN: Not necessary. If required, cost approx. 45,500 frs. per shift of 8 hrs.

OPENING/CLOSING HATCHES: Normally carried out by crew. Can be done by stevedores but will then be charged.

CERTIFICATES: Load Line, Tonnage, Radar and Radio Certificates.

TOBACCO ALLOWANCE: 200 cigarettes or 100 cigarillos or 50 cigars or 250 gm. tobacco. Fresh supply weekly.

WINE AND SPIRIT ALLOWANCE: 1 litre per man in opened bottles.

CARGO GEAR: No additional requirements.

CONSULS:

Austria
Chile
Denmark
Finland
France
Germany F.R.
Guatemala
Monaco
Norway
Portugal
Sweden
United Kingdom
Uruguay

REPAIRS: All types deck and engine repairs.

DRY DOCKS: In Fishing Port 2 slipways available, one 1,000 tons deadweight, the other 500 tons; one of approx. 3,000 tons is planned. One floating dry dock of 5,700 tons in Government berths.

REPATRIATION: Through Immigration Officers and Maritime Police, Tel: 500925 and 500926.

AIRPORT: 3 miles from port, served by regular airlines.

TIME: Local time GMT plus 1 hour. GMT plus 2 hours in Summertime.

HOLIDAYS: New Year (1st Jan.); Easter Monday (changeable); Labour Day (1st May); Ascension Day (changeable, in May); Whit Monday (changeable); Independence Day (21st July); Our Mary Ascension Day (15th Aug.); All Saints' Day (1st Nov.); Armistice Day (11th Nov.); Christmas Day (25th Dec.). Cargo work can be arranged on those days at sufficient notice.

POLICE/AMBULANCE/FIRE: Police Tel: 701111 and 701057; Ambulance Tel: 900; Fire Tel: 701010 and 701086.

TELEPHONES: No arrangements for placing on board.

SERVICES: Compass adjusting, radio and radar repairs.

DEVELOPMENTS: New deep water quay with max. depth 8.0 m. LLW, to be increased to 10 m. in the near future.

AUTHORITY: Stad Oostende, Havendirectie, Slijkensesteenweg 1, 8400 Ostend. *Tel:* 059-321669, 059-321687. *Telex:* 81281 (Osthav B). *Contact:* Ghys Raphael, Harbour Master – Director.

ZEEBRUGGE: 51.20 N. 03.12 E. (See Plan)

BRUGES: 51.13 N. 03.13 E.

PORT LIMITS: A line drawn between the seaward end of the East and West jetties.

DOCUMENTS:

1 List of Dangerous Goods.
2 Crew Lists or Passenger Lists.
4 Cargo Manifests.
2 copies Bills of Lading.
3 Freight Lists (prepared by Agents).
2 Customs Provision Lists (prepared by Agents).
1 General Declaration (prepared by Agents).
1 Customs Declaration, outward bound (prepared by Agents).
Certificate of Registry.
Tonnage Certificate.
Bill of Health.
Derat Certificate.
Oil Record Book.
Certificate of Insurance in respect of Civil Liability for Oil Pollution Damage.
Safety Certificates.

PILOTAGE: Compulsory. Notice of ETA and request for a Pilot must be made at least 6 hours in advance to "Pilotage Oostende", through Oostende Radio, Channel 16. Message to contain ETA Pilot, draft and destination. Direct calls to pilot vessel should be made on Channel 6.

The Pilot boards the vessel near the A1 Buoy (14 miles N.W. of the port, co-ordinates Lat. 51° 22.5′ N., Long. 02° 53.5′ E.) or for small vessels near the Zand-1 Buoy (Pas van het Zand).

From Zand-1 Buoy (entrance "Pas van het Zand"). Applications to pilot station "Wandelaar", via Ostend Radio, VHF Channel 16.

Pilotage Service Addresses: Ostend: Sir Winston Churchillkaai 2, B-8400 Oostende. Tel: 059-70.77.01/02/03.

Zeebrugge: Loodswezenstraat 30, B-8380 Zeebrugge-Brugge 5. Tel: 050-54.50.72.

ANCHORAGE: Safe anchorage in Zeebrugge Roads for vessels drawing up to 9.70 m. Vessels drawing more than 9.70 m. will be anchored if needed around "A1" Buoy.

RESTRICTIONS: Vessels with a draft of over 11.0 m. are dependent on tide for entry.

Access Channel: "Pas van het Zand", beaconed; 4,600 m. long, 300 m. wide; depth Z (−12.5 m.) LLWS over a width of 300 m.; direction N.W./S.E.

TIDES: *Tidal Currents:* Rising tide: direction S.W./N.E., average velocity: 2 knots. Outgoing tide: direction N.E./S.W., average velocity: 2 knots. *Tidal Differences:* Mean tide: +4.35 m. at HW; +0.70 m. at LW; +4 m. from 50 minutes before HW to 1.20 hours after HW; +3 m. from 1.40 hours before HW to 2.50 hours after HW.

Spring tide: +4.70 m. at HW; +0.40 m. at LW.

Neap tide: +3.82 m. at HW; +1.05 m. at LW.

MAX. SIZE: Vessels up to 350 m. and 55 m. beam can be accepted. Max. draft is 14 m. (keel clearance 1.80 m.).

For Bruges: Max. beam 19 m., max. draft 5.90 m.

HEALTH: Pratique is normally given at pilot station provided health situation satisfactory. Any advice on health matters also obtainable from pilot service.

RADIO: Ostend Radio (VHF Channel 16) used for all messages.

VHF: Pilotage: A1 Buoy on Channel 6, port entrance on Channel 9 (continuous watch). Port Control: (V.T.S.): Channel 71 (continuous watch). Lockmaster and inner port: Channel 13 (continuous watch). Tugs: Channel 71 (continuous watch) working on Channel 71, 13 and 8.

TUGS: Tugs join the vessel near "Zand-Buoy".

Tugs available on 1 hour's notice; extra tugs available on 4 hours notice.

From "Zand-Buoy" 3 tugs are permanently available ranging from 1,500 h.p. to 4,000 h.p. (17 to 38 tons bollard pull). Applications to Zeebrugge Port Control VHF Channel 71.

Towage service address: Unie van Reddings-en Sleepdiensten (U.R.S.) c/o Ruys & Co., Leopold II dam, 8380 Zeebrugge-Brugge 5. Tel: 050-54.42.60. Telex: 81332.

Salvage: Via Ostend Radio, Via Port Control VHF Channel 71; or via URS.

BERTHING FACILITIES: Outer Harbour:

Harbour Mole:

Quay No.	*Length* (m.)	*Depth at LLWS* (m.)
101, 102, 103	450	10.5
104, 105, 106 (part)	375	9.0
106 (part), 107, 108, 109	746	7.2

Cranes: 6×8 ton, 2×8 – 16 tons and 2×3 ton.

Quays No. 106 and 107 used by North Sea Ferries. Two pontoons each with a ramp connected to a central platform. Two Ro-Ro ships can be loaded/discharged at the same time.

Car Ferry Terminal: Quays No. 111, 112 – 2 public Ro/Ro berths. Quay No. 201 – 1 private berth.

Ramps: 2×53 m. Width of the bridge, including 2 separate protected footpaths for passengers: 7.10 m. Max. load capacity: 400 kg./sq.m. (heavy articulated loads to a maximum of 60 tons with an axle load of 20 tons over 4 wheels).

Berths: 2, on both sides of a line of 6 dolphins with a diameter of 10 m., linked with a gangway length: 145 m. Water depth: 7 m. at LLWS.

Ships: Max. length allowed, no limitation. Max. beam allowed: 21.20 m. with the ship's axis in line with the ramp axis (ships of 33 m. beam, however, can berth obliquely, or out of axis).

Western Peninsula: Area: 18 ha. Total quay length: 1,615 m., of which 1,525 m. with a water depth of −13 m. (LLWS), quay height 8 m. above LLWS.

West Quay: Quay No. 201: 90 m. of connecting quays. Quay No. 202, 203: 725 m. for Ocean Container Terminal Zeebrugge (15 ha). Gantry cranes: 2×45 ton, 1×30 ton. Storage area 10,000 TEU. Straddle carriers: 10×35 ton. Forklifts 15×2 ton - 30 ton, 1 trailer tractors, 2 tractors, slots for reefer container.

North Quay: Quay No. 204: 205 m. for OCZ and waiting quay.

East Quay: Quay No. 205, 206: 595 m. Quay No. 206 for discharge and loading of refined petroleum products.

Quay No. 207: Jetty for lighters with refined petroleum products.

The Train Ferry Terminal (T.F.T.): Area: 4 ha. Quay No. 208: Berth for train ferry ships. Length: 195 m. Width: 25 m. Water depth: −6.70 m. LLWS. 1 ramp, length: 50 m. Width: 9.6 m. Max. size: 193 m. LOA, 18.5 m. width. Draft 4.0 m.

The Short-Sea Container Terminal (S.C.T.): Area: 9.5 ha. Quay Nos. 210, 211, length 270 m. Terminal for loading/discharging container vessels. Water depth: −7 m. LLWS. Quay height: 7.30 m. above LLWS.

2 berths for container vessels. 2 gantry cranes (Peiner) of 30 ton SWL. 2 Peiner straddle carriers (30 tons). Fork lift trucks and tractors. Capacity 2,200 TEU's.

The Swedish Quay: Area: 12.4 ha. Quays: No. 702, 703, 704 and 705. Length 825 m. Water depth: −14 m. to −18 m. LLWS. Quay height: 8 m. LLWS. Includes Sea-Ro terminal.

Sea-Ro Terminal: Area: 12.4 ha.; 2 Ro/Ro berths (702,703) equipped with MacGregor pontoon (50 m. × 33 m.); 1 Ro/Ro berth (705) equipped with ramp; mobile crane.

The Britannia Harbour: (former working harbour). Quays No. 612 and 613 equipped with a pontoon for Ro-Ro vessels. Water depth −8 m. to −5 m. LLWS.

L.N.G. Terminal: Ships up to 280 m.; draft 11.80 m.; water depth −13.0 m.; 3 L.N.G. tanks, each 81,000 cu.m.; length of jetty 320 m.

Other Installations: Bunkering station: 5 tanks, total capacity: 20,450 cu.m. (bunkering from lighter, however, is possible on all quays).

Gas freeing station (near Bunkering station), capacity : 4,000 cu.m. in gaseous nitrogen.

Maritime station: Equipped for the embarkation and disembarkation of cruise-ship passengers (hall, banking services, refreshment rooms, etc.).

Tank storage for molasses, 10 tanks with a total capacity of 87,350 tons.

Inner Port at Zeebrugge: The water level in the inner port is at Z (+3.50 m.) LLWS.

Pierre Vandammelock: Length: 500 m., width 57 m., sill depth: Z (−15 m.) LLWS. The water depth in the lock is (15 m. +3.50 .) = 18.50 m.

The Old Sealock: Length: 210 m., width: 19.70 m., sill depth: −5.50 m. LLWS. The usable water depth in the lock varies between 5.50 and 9 m.

The Connection Dock: Length: 3,200 m. from P. Vandaamelock to Baudouin Canal. Width: 210 m. at sealock exit, widening to 400 m. in first section, 600 m. in front of East quay of North inlet basin, and again 400 m. in front of West quay of same basin to Baudouin Canal Depth: from sealock to North inlet basin Z (−15 m.) from North inlet basin to Baudouin Canal Z (−5 m.)

The North Inlet Basin: Length: 1,130 m. with a width which varies between 275 m. (South end) and 225 m. (North end). Depth Z (−11 m.)

Quays: East Quay Nos. 402, 403, 404, 405: Length 830 m. Belgian New Fruit Wharf 400 m. quay (402, 403) has 2 fully insulated sheds. Sea-Ro Terminal for new cars (Quay No. 404) equipped with a Ro-Ro pontoon.

Zeebrugge Shipping & Bunkering Terminal, Quay (405) has one insulated shed and one open timbershed.

Cranes: 2 electric travelling cranes 8 – 16 ton, 2 mobile Gottwald cranes 8 ton, mobile Gottwald crane 20 ton and 2 cargoveyors.

West Quay Nos. 408, 409, 410, 411, 412: Length 1,130 m. Combined Terminal Operators (CTO) Quay Nos. 408, 409, 410 (part) has 600 m. quay. Equipped with a Ro-Ro pontoon and a general cargo warehouse (6,000 sq.m.), forklifts 3 – 42 tons, tugmasters, flatbeds, bagging installation. Zeebrugse Behandelings Maatschappij (ZBM) has 530 m. quay (No. 410 part, 411, 412).

Cranes: 1 electric crane 40 ton, 3 electric cranes 8 – 16 ton, 2 mobile Gottwald cranes 40 ton.

The Prince Philip Dock: Length: 560 m., width: 200 m., depth: 8.40 m.

North Sea Ferries (disused): Ro-Ro platform length 24 m., width 7.8 m. max. load 60 ton, 20 ton per axle.

The Former Ferrydock: Length: 500 m. Width: 130 m. Depth: 8 m.

The Baudouin Canal: Length between the old sealock and the bridge at Dudzele: 5.5 km. Width at water surface: 70 m. Width at bottom: 22 m. Depth: 6.40 m. Quays, with a length of 450 m., in front of the coke and glassworks.

The Turning Area behind the Old Sealock: Length: 500 m. Width: 175 m. Depth: 8 m.

Inner Port at Bruges:

The Baudouin Canal: Length between the bridge at Dudzele to the entrance of the West dock: 4,950 km. Width at water surface: 125 m. Width at bottom: 77 m. Depth: 8 m.

The East Dock: Length: 370 m. Width: 90 m. Depth: 8 m.

The West Dock: Length: 550 m. Width: 90 m. Depth: 8 m.

The Industrial Dock: Length: 1,080 m. Width: 125 m. Depth: 8 m.

The Junction Lock: Length: 115 m. Width: 12 m. Sill depth: 4 m.

Quays: Cranes: 2×5 ton, 2×8 ton.

Berth No.	*Dock*	*Length*
1 – 2 – 3 (Quenastkaai)	East Dock	389 m.
4 – 5 (Kaap Hoornkaai)	East Dock	228 m.
6 (Albertakaai)	East Dock	148 m.
7 – 8 – 9 (Graaf Visartkaai)	West Dock	315 m.
10 – 11 –12 – 13 – 14 (Julius Sabbekaai)	West Dock	520 m.

BULK HANDLING FACILITIES: *Cereals:*

Borlim nv: Head Office: Lanceloot Blondeellaan, B-8380 Zeebrugge-Brugge 5. Tel: 050-54.48.61.

Storage capacity: 9 silos, total capacity: 35,000 tons. Discharge capacity: 150 t.p.h. Loading capacity: 300 t.p.h.

Shore and quay length: total shore length: 160 m., actual quay length: 99 m.

Dumingra, Pathoekeweg 32, B-8000 Brugge 1. Tel: 050-31.51.61.
Storage capacity: 2 silos, 11,300 tons.

H.E.L.B., Krakeleweg 34, B-8000 Brugge 1. Tel: 050-31.50.24.
Storage capacity: 95 cells, 10,000 tons.

Voeders Huys, Krakeleweg 28, B-8000 Brugge 1. Tel: 050-31.80.38.
Storage capacity: 84 cells, 8,000 tons.

WACO, Pathoekeweg 68a, B-8000 Brugge 1. Tel: 050-31.80.08 – 016-24.26.43.
Storage capacity: 34 cells, 15,000 tons.

C.T.O., Noordelijk Insteekdok: V.S.A., kaai B-8380 Zeebrugge -Brugge 5. Tel: 050/545464. Telex: 61608 – flatsilo of 32,000 cu.m. – bagging installation.

Furnace Coke: Exported from Zeebrugge Mole.

Coal and Ore: Zeebrugse Behandelings Maatschappij (ZBM). Noordelijk Insteekdok V.S.A. kaai, B-8380 Zeebrugge-Brugge 5. Tel: 050/544266. Head Office: Compagnie Belge de Manutention (CBM), Doornzelestraat 71, B9000 Gent. Tel: 091/257501. Telex: 12872. Area 13.8 ha., 530 m. quay. Total width 250 m. in North inlet basin.

DENSITY: 1025.

FRESH WATER: Available from the berths, rate 30 t.p.h.

FUEL: All grades of fuel and lubricants available. Can be supplied ex-wharf or by barge provided advance notice given. There are 5 tanks (total capacity 20,450 cu.m.).

Bunker Station: Belgische Bunkeroliemaatschappij, Administrative Office: Wetstraat 33, B-1040 Brussels.

Head Office: Zeebrugge Shipping and Bunkering Co., Minister Beernaertstraat 9, B-8380 Zeebrugge-Brugge 5. Tel: 050-54.42.60. Telex: 81.138.

The bunkering station situated at the end of the mole delivers all grades of marine fuel. Supplies can be effected directly ex-wharf (Quays No. 1 and 2) or by barges and tank lorries throughout the port. The depot is offering 24 hour service.

Operators are Messrs. Belgische, Bunkeroliemaatschappij.

STEVEDORES: 24 hours notice required to arrange gangs.

MEDICAL: Hospital at Bruges, Blankenberge and Knokke. Facilities available without prior notice.

TANKERS: Length of quay: 595 m. with depth 13.1 m. at LLWS. Discharging facilities for Zeetank.

Zeetank: Discharging rate: gasoil 500 t.p.h., fuel 800 t.p.h. Manifold 136 m. from South end of quay.

Additional Storage:

Company	*No. of Tanks*	*Total Capacity* (cu.m.)
Refined products:		
Zeetank	11	146,000
Petrover	4	12,500
Detavernier	3	5,500
L. Francois	2	4,000
Groep Rosseel	2	4,000
Lambert & Dauw	3	3,500
Traen Gebr	9	10,000
Glue		
Merckx	–	4,200
Molasses		
Tameco	–	29,700

Cleaning Station: Euroservices nv, Minister Beernaertstraat 9, B-8380 Zeebrugge-Brugge 5. Tel: 050-54.42.61. Telex: 81.138.

The nitrogen plant operated by Euroservices nv offers gasfreeing and cleaning facilities for liquid gas carriers. The station is equipped with a ground flare and provides the necessary equipment to change grade with the shortest delay. 24 hour service is guaranteed (Quay No. 1).

Fire Fighting Equipment: The ship's fire fighting equipment must be kept ready for use at all times whilst the ship is at the jetty. Fire hoses must be stretched forward and aft, and connected to the fire main, complete with nozzles and ready for immediate use. The vessel's fire fighting water supply must always be available with, if practicable, 1 pump maintaining pressure on the main.

It is also recommended that during unloading operations, 2 charged fire extinguishers should be placed in the immediate vicinity of the manifold, one on each side.

Fire Fighting Outline: In all cases of fire, either on the ship or on the jetty, first aid fire fighting will be undertaken by the personnel on the scene with whatever equipment is available. The direction of all fire fighting aids including tugs fire fighting equipment etc. will be exercised by the Master and/or Senior Texaco personnel present until the arrival of the fire brigade, when overall direction of the fire fighting will be assumed by the senior officer of the fire fighting brigade present. Senior Texaco personnel present will then provide advice and assistance where possible to the fire brigade.

GANGWAY/DECK WATCHMAN: Available. Only required when handling explosives.

OPENING/CLOSING HATCHES: Normally by crew.

CERTIFICATES: Registry, tonnage and usual certificates.

CUSTOMS ALLOWANCES: Each crew member 200 cigarettes or 200 gm. tobacco. Officers: 1 open bottle of spirits.

CONSULS: Norway, Sweden, Netherlands.

REPAIRS: *Ships' maintenance and repairs:* Slipway on the transverse quay of the Prince Philip Dock in the inner port at Zeebrugge.

Management: MBZ. Operated by: nv Valcke Freres, Tijdokstraat 26, B-8380 Zeebrugge-Brugge 5. Tel: 050-54.41.79. Telex: 81.426.

Actual maintenance of ships is done by the company commissioned by the shipowner.

Slope: Length: 248 m., width of the cradle: 17.50 m., capacity: ships up to 1,000 tons.

Transfer area: Length: 85 m., width: 25 m.

Equipment: Tower crane: Lifting height: 30 m., max. reach: 30 m., lifting capacity: 1.8 tons with jibs at 29 m., 6 tons with jibs at 11 m.

Several ships can use the slope and the transfer area simultaneously.

Area of the adjacent grounds: 3.8 ha., which can be used by various ship repairers.

SURVEYORS: Available from Antwerp.

AIRPORTS: *Ostend Airport:* Situated at 30 km. from Bruges and Zeebrugge. Especially suited for regular daily flights to the U.K. (Gatwick and Southend). Also charters and private business flights.

Brussels Airport: 120 km. from Bruges and 135 km. from Zeebrugge (to be reached via E5-motorway and Circular road R1 around Brussels) or by rail (1.5 hour ride).

More than 50 airline operators have landing rights at Brussels Airport. An average of 200 take-offs and landings take place every day, of which 80% to and from European airports and 20% to and from outside Europe. These flights are either direct or indirect via the closest transit airports of Amsterdam, Paris, London, Frankfurt.

CARGO GEAR: Discharge of general and containers is usually by shore gear. Heavy lifts by mobile crane or ship's gear.

REPATRIATION: Brussels Airport. All facilities exist for changes of crews and repatriation of seamen.

TIME: GMT plus 1 hour. Summertime GMT plus 2 hours.

HOLIDAYS: None.

POLICE/AMBULANCE/FIRE: All emergency services are available through the Port Control, VHF Channel 71. Ambulance and Fire: Tel: 900. Police: Tel: 901.

TELEPHONES: This service is available aboard ships at all berths by prior arrangement through the Agents.

SHORE LEAVE: When Immigration and Customs requirement have been satisfied there is no restriction.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

REGULATIONS: Port regulations and regulations concerning the handling of dangerous goods and explosives must be observed.

DELAYS: None.

SHIP SUPPLY SERVICE: *Off-Shore Facilities:* Facilities for supply of fresh water or stores and for transport of personnel by sea-going tugs available from Zeebrugge.

Contact: Ruys & Co. Zeebrugge. Tel: 050-54.42.60. Telex: 81930.

DEVELOPMENTS: A deep draft bulk handling quay with a water depth of 18.5 m. will be built in the inner port of Zeebrugge.

AUTHORITY: Maatschappij van de Brugse Zeevaartinrichtingen NV (MBZ), Louis Coiseaukaai 2, B-8000 Brugge, Belgium. *Tel:* 050-44.42.11. *Telex:* 81201 Porbrg B. *FAX:* 050-44.42.24. *Cables:* Ports Brugge.*Contact:* B. M. Michiels, General Manager. R. van Havere, Harbour Master.

Harbour Master's Office: Carferry Building 301, Doverlaan 7, B-8380 Zeebrugge-Brugge 5. *Tel:* 050-54.42.63, 050-54.41.70 (Port Control), 050-54.69.29 (Port Administration) *Telex:* 81.205 Porzrg B.

Sealock Operations: Kapitein Fryattstraat 1, B-8380 Zeebrugge-Brugge 5. *Tel:* 050-54.40.12.

AGENT: Cobelfret N.V., Ferry Operations and Agency, Loodswezenstraat 21, 8380 Zeebrugge, Belgium. Tel: (050) 54.53.12. Telex: 82381 and 81924 Cobzee. Fax: (050) 54.53.48.

NOTES

Please also advise Shipping Guides Ltd.

Belize

BELIZE: 17.29 N. 88.11 W. (See Plan)

PORT LIMITS: Usually upon arrival at English Caye Pilot Station for vessels arriving from North and East and at anchorage in Belize Harbour for vessels arriving from South inside the reef.

DOCUMENTS:

Crew Lists – 5 copies for local use plus 10 Spanish copies for Consular Clearance.

Passenger Lists – 5 copies for local use plus 10 Spanish copies for Consular Clearance.

Stores List – 3 copies for local use plus 10 Spanish copies for Consular Clearance.

Manifests – 8 copies.

Customs Documents – Clearance for last port and crew declaration.

Health Documents – International Declaration of Health plus one copy crew vaccination list.

Ship's Papers and Certificates should be available on request.

PILOTAGE: A Pilot is always on station at English Caye. Contact can be made with the pilot station on VHF Channel 16. Vessels consigned to Eurocaribe can make contact on Channel 16 VHF.

ANCHORAGES: Depths in harbour anchorage area vary due to a natural slope; for example, a vessel drawing 14 ft. can anchor within 0.25 miles; 16 ft. 0.5 miles; 20 ft. 1 mile and so on Southward. Masters should refer to Pilot for this information.

MAX. SIZE: Size and length, within reason is not a problem. Tankers bringing oil to the Esso storage depot secure to buoys fore and aft. Max. draft 19 ft. 6 in.

PRATIQUE: Granted by Customs after boarding in harbour or at berth.

RADIO: Most ships' Agents man their own radio stations and usually stand-by on Channel 16 VHF with alternative Channels 6, 11, 12, 13 and 14. Eurocaribe on VHF Channel 16 working 6, 11, 12, 13 and 14.

TUGS: Tugs are not normally necessary but small tugs are available.

BERTHING: Main berth – length 220 ft., depth 17 ft. (approx.). Ro-Ro berth is 70 ft. wide, vessel lies alongside dolphins.

STEVEDORES: Gangs usually require 2 hours notice during normal working hours. Work rates average between 3 tons and 10 tons per gang hour.

MEDICAL: Hospital facilities are available.

TANKERS: Undersea pipe-line 8 in. in diameter.

Hand-pump discharging rate 250 to 300 g.p.m., also gravity flow. Normal discharge rate 2,000 barrels per hour.

DENSITY: Density varies with outflow from rivers during wet season (July-December).

FRESH WATER: Very scarce and expensive if vessel cannot berth at dock.

FUEL: Light diesel oil 45/48 available subject to Government Approval. Can be supplied at buoys with 8 in. dia. pipe (reductions to 4 in. available or by barge). Also available by truck if vessel able to dock.

FIRE PRECAUTIONS: None.

CONSULS:

	Belgium	Lebanon
	Denmark	Nicaragua
	El Salvador	Norway
	Holland	Sweden
	Honduras	Germany F.R.
Embassies:	France	Panama
	Mexico	United States
High Commission:	British	

REPAIRS: Only small minor repairs possible.

SURVEYORS: Lloyd's and A.B.S.

GANGWAY/DECK WATCHMEN: Not required.

HATCHES: Stevedores open and close hatches except McGregor type.

CUSTOMS ALLOWANCES: 200 cigarettes plus 1 bottle spirits (0.20).

CARGO GEAR: Ship's gear; heavy lift cranes are available up to 115 tons for vessels which can reach the dock.

REPATRIATION: Possible, regular air services to and from Miami, New Orleans, and neighbouring Republics.

AIRPORT: Belize International Airport 10 miles from Belize City.

TIME: Normally GMT minus 6 hours.

HOLIDAYS: Public Holidays: New Year's Day*; Baron Bliss Day (9th March); Good Friday; Holy Saturday; Easter Monday*; Columbus Day (12th October); Labour Day* (1st May); Commonwealth Day (24th May); St. George's Caye Day* (10th September); Independence Day* (21st September); Carib Settlement Day (20th November); Christmas Day* (25th December); Boxing Day* (26th December).

*No work whatsoever, all other days subject to overtime rates.

POLICE/AMBULANCE/FIRE: All emergencies dial 90.

EMERGENCY CO-ORDINATION CENTRE: None. Eurocaribe Ltd. have successfully handled salvage operations.

SHORE LEAVE: Possible.

IDENTIFICATION CARDS: Seaman's Book sufficient.

REGULATIONS: None.

DELAYS: Discharge and loading operations occasionally delayed by weather (rain) and sometimes by shortage of equipment (trailers, etc.).

BANKS: Barclays Bank International Ltd., P.O.Box 363, Albert Street, Belize City. Tel: 7211/2. Telex: 217.

Atlantic Bank Ltd., 6 Albert Street, Belize City. Telex: 216.

Royal Bank of Canada, 60 Market Square, Belize City. Tel: 3232. Telex: 229.

Bank of Nova Scotia, P.O.Box 708, Belize City. Tel: 2601. Telex: 218.

STORING: See "Prelims".

1. Yes.
2. Vessels may store by barge during loading and discharging.
3. Yes.
4. Yes.
5. Prior arrangements must be made.
6. Possible to use riggers, however, it is best to use crew.

GENERAL: Starboard anchor usually used to make lee for operations on portside if vessel is at anchor. It is necessary for vessels to provide toilet facilities for stevedores. Feeding of Supervisors and Customs Officials is normal.

SHIP SUPPLY SERVICE: There are numerous small craft each individually owned, which ply between the wharves and ships anchored in the harbour. These craft provide ship to shore transport of personnel, and/or essential stores and/or sick crew members.

SHIPMASTER'S REPORT: February 1987.

Port Limits: 3 miles from English Caye light and on leading lights.

Documents:

6 Crew Lists.
2 Passenger Lists.
2 Crew Declarations.
1 Health Declaration.
8 Cargo Manifests.
2 copies of Bills of Lading.

Pilotage: Pilot ordered through Agents. Pilot boards outside reefs and asks vessel to go on to English Caye leading lights 2 – 3 miles from the leading lights. Pilotage to berth is straight forward in deep natural channel. Once vessel leaves this channel the waters shoal rapidly and 20 ft. is the maximum draft, although the Pilot says he has berthed ships at 21 ft. Approach berth on 045° T and when starboard buoy almost abeam let go starboard anchor and manoeuvre into berth. First line to port aft buoy needs to be the best and to be doubled up. The stern is heaved around with this and as the wind was Northerly 10 – 15 knots it was taken steadily. Forward port buoy lines were run and vessel then heaved over to pipe-line buoy. Stern buoy line then run and vessel backed into position. Cable was out to 5 shackles on deck. Other buoy lines were run and on completion vessel was heading 108°T. Throughout our stay the weight remained on the port buoy lines as the wind stayed in the North. Very little tidal influence.

Anchorages: None specified, numerous safe areas to anchor if required.

Restrictions: Daytime berthing and unberthing.

Max. Size: Limiting factor is 20 ft. draft.

Health: Port Health Officer gives Free Pratique and 'Q' flag to be flown until given. Renewed Derat Exemption here.

Radio: All communication done via Sat Com.

VHF: Pilot on Channel 16 and 6. Port working Channel is Channel 6 which Agents and all use. Port not very busy so no problems. They have 1 tanker per month.

Radar: None.

Tugs: None.

Berthing: See "Pilotage".

Bridges: None.

Medical: Doctors in the town but anything serious has to be flown out.

Tankers: 1×8 in. submerged pipe-line through which all grades are pumped with water plug between each. Line to be left in gas oil. Max. B.P. is 140 p.s.i. and a general rate of 375 cu.m.p.h. was obtained on all grades.

Density: 1021.

Fresh Water: No means to supply at tanker berth.

Fuel: Diesel with 48 hours' notice. No fuel oil.

Fire Precautions: Normal ship precautions; no help from shore.

Repairs: Very minor repairs only.

Dry Docks: None.

Surveyors: Lloyd's, A.B.S. and B.V.

Gangway/Watchman: None.

Customs Allowances: 200 cigarettes and 1 bottle of spirits. Bond sealed.

Repatriation: No problems with staff or crew changes.

Airport: 12 miles from town.

Time: GMT minus 6 hours.

Police/Ambulance/Fire: None.

Emergency Co-Ordination Centre: None.

Telephones: None.

Services: None.

Banks: Royal Bank of Canada, Barclay's Bank, Bank of Novia Scotia, and Atlantic Bank.

Storing: Fresh vegetables only. Lobster in season January to March.

Shore Leave: No restrictions and boat stays with ship all the time.

Identification Cards: Not required.

Regulations: None.

Delays: Weather, daylight berthing and unberthing.

Developments: None anticipated.

General: Shore capacity: Avgas 2,400 bbls., REG Mogas 24,800 bbls., Premium Mogas 7,900 bbls., Avtur 22,800 bbls., gas oil 29,600 bbls.

AUTHORITY: Belize Port Authority, P.O.Box 633, Belize City, Belize, Central America. *Tel:* 2439, 2449. Contact: Mr. A. Coye, Port Commissioner and Chief Executive. Mr. E. Crawford, Operations Manager.

People's Republic of Benin

COTONOU (Including Seme): 06.20 N. 02.32 E. (See Plan)

PORT LIMITS: The area contained within an arc of a circle of 1 mile radius centred on the red light at the West Jetty.

DOCUMENTS: (Also see "Shipmaster's Report".) Once berthed the ship must be able to produce to the Port Authorities:

6 copies Crew List.
4 copies List of Ports of Call.
6 copies Passenger List, and passengers in transit.
6 Customs Declarations (personal effects list).
2 Maritime Declarations of Health.
3 Lists Provisions and Stores, including foodstuffs.
10 copies Manifest.
1 Bill of Lading.
1 Declaration of Arms and Ammunition.
3 Lists of Dangerous Cargo (unloading or in transit).
6 Stowaway Lists.
3 Vaccination Lists.

Also international documents of ownership and safety.

PILOTAGE/APPROACHES: Vessels must advise ETA to Port Authority "Dirport Cotonou" 24 hours prior arrival weekdays, and before midday Saturday for Sundays and before midday on day preceding holidays. Cable address pilot station "Commandant du Port, Cotonou". Telex: 5004 "Dirport Ctnou". On approach to port vessels may also call pilot station on 2182 kHz or VHF Channel 16. Permanent radio watch kept by Port Coast-Guard Station. Pilot services permanent and operate night and day, Sundays and holidays, except for nights of 24th and 31st December from 1800 – 0600 hrs. Ships drawing more than 30 ft. must enter on high tide. On arrival in approaches, ships coming from West or South must steer a Northerly course in direction of lighthouse, and take Pilot about half a mile from fairway. If arriving from East, vessels should take Westerly course in direction of fairway and take Pilot about half a mile from fairway. Pilot boat is small cutter with black hull and white superstructure, by day carries flag "H" and by night carries statutory lights for pilot boats. Piloting obligatory for ships over 100 net tons.

Fairway Buoy: Position Lat. 06° 20.4′ N., Long. 02° 26.8′ E. Light-flash "A" (· –) 10 secs.

ANCHORAGES: In cases of bad weather or of waiting for Pilot, ship must anchor approx. 1 mile to South of lighthouse. Sound anchorage with sand bottom and depth 14 m. Forbidden to anchor within radius of 700 m. from red light of West Jetty.

Prohibited Anchorage: All the area to the West of the meridian of the West breakwater red light.

RESTRICTIONS: No restrictions on hours of entry or departure.

MAX. SIZE: See "Berthing" and "Tankers".

HEALTH: Free Pratique generally given by Agent.

RADIO: Advisable give Agent 72 hours notice of ETA. Thereafter reconfirm 36 hours prior arrival.

RADAR/VHF: No port radar service. VHF Channel 16, 14 and 12. R/T 2182 kHz.

TUGS: Tug assistance performed by Port Authority of Cotonou and compulsory for every vessel over 500 g.r.t., mooring, unmooring, at berth or shifting. Extra charge for using tug's lines. Vessels with length over 100 m. require 2 tugs.

BERTHING: Berthing quay 620 m. long, 10.0 m. depth, which will accept alongside a minimum of 4 ships working together. Harbour dredged up to 11 m. below chart datum and will permit almost all sizes of ships to work safely. Railway line runs 4 m. side of quay, under ship tackles, and used only for heavy lifts. Berthing priority only given cargo ships and tankers which have specially reserved berths. Other ships berth dependent on berths available and in order of arrival. As well as 2 tanker berths there is loading berth for bulk palm-oil, one waiting berth at harbour entrance, and 4 quays with warehouses for import/export traffic.

New Quay: Length 660 m. Depth alongside 11.0 m. Two conventional berths (360 m.), one container berth (200 m.) and one Ro/Ro berth.

Facilities include a container storage area of 65,000 sq.m., 2 warehouses of 6,000 sq.m. each, 1 transit warehouse of 4,000 sq.m. and an open storage area of 60,000 sq.m.

STEVEDORES: Ship must advise Agent in advance of number stevedore teams required, and specify number of hours work required. This must be done 24 hours in advance on weekdays, and before midday Saturday for Sundays, and before midday on day preceding holidays. Loading and unloading rate: Working days – 600 tons for bagged cargo. 400 tons for other cargo. Sundays and holidays, half above rates. Days counted as 24 hours starting from first break following berthing. For ships having to handle smaller quantities, assessment of time calculated in multiples of 300 tons for bagged cargo and 200 tons for other cargo, per 12 hours. Loading and unloading operations can be carried out on Sundays and public holidays if ship's Master wishes, with exception of Labour Day (May 1st), 26th October, 30th November, 31st December and Independence Day.

MEDICAL: Well-equipped modern hospital in Cotonou.

TANKERS: 2 tanker quays for ships of 215 m. length and 31 ft. draft. (Depth at seaward berth 11.0 m.). Unloading carried out by 100 mm. pipe-line. Loading of petroleum products carried out by pumping (80 cu.m.p.h.) or by gravity (50 cu.m.p.h.). Products are aviation spirit 100/130, "Super" petrol, low-grade petrol, Kero Avtur, and gas oil.

~~*Seme Terminal:* The offshore terminal consists of 4 mooring buoys. Vessel moors on an approximate heading of 253°(T). Max. LOA 270 m. Max. draft 14.7 m. Max. size 80,000 – 120,000 d.w.t. Also see "Report" dated March 1988.~~

FRESH WATER: Supplies available at all berths on quay by pipe-line of 100 mm. with reduction of 70 mm. (rate 25 t.p.h.).

FUEL: Fuel oil of 1,500 seconds viscosity available at Berth No. 1 and at the Fishing Quay. Rate 50 to 80 cu.m.p.h.

ALSO SEE SEME.

FIRE PRECAUTIONS: Port has following safety equipment: 2 tugs equipped with fire hose of 50 cu.m.p.h. 2 motor pumps of 30 cu.m.p.h., 1 draining pump of 150 cu.m.p.h. In addition special security watches are kept on dangerous merchandise in classes 1a, 1b, 1c, 1d and 111c. Normal watch up to 5 tons, double watch from 5 tons to 16 tons. Motor pump standing by from 16 – 50 tons. Tug standing by for quantities above 40 tons for inflammable liquids (flashpoint less than 55°C) and above 50 tons for other dangerous cargo.

WATCHMEN: (See "Fire Precautions".) Recommended that a watchman be on board. Can be arranged by Agents.

OPENING/CLOSING HATCHES: Carried out by stevedores

CUSTOMS ALLOWANCES: 200 cigarettes and 3 opened bottles of spirits for each crew member.

REPAIRS: Workshops for small repairs. No tank-cleaning facilities.

DRY DOCKS: Only hauling gear of 250 tons for careening small ships and trawlers.

CONSULS:

West German Embassy	31-2967
Chinese Popular Embassy	~~31-4424~~ 30-1691
U.S.A. Embassy	~~31-2650~~
French Embassy	31-2224
French Consulate	31-2638
Ghanaian Embassy	31-2746
Nigerian Embassy	31-3142
U.S.S.R. Embassy	31-2834
Niger Consulate	31-3334
Belgian Consulate	31-2486
Netherlands Consulate	31-3037
Consulate of Sweden and Norway	31-2433
Zaire Embassy	31-4983

AIRPORT: 5 km. from port, ~~served~~ regularly ~~by DC8 for~~ FLIGHTS TO European destinations (5 departures a week for Paris).

TIME: GMT plus 1 hour.

HOLIDAYS: January 1st; January 16th; Easter Sunday 1st April; Labour Day (May 1st) – no cargo work; 26th October; 30th November; 31st December – no cargo work; Assumption; November 1st (All Saints' Day); 25th December (Christmas); Tabaski and Ramadan at the beginning of Lunar Year (Moslem holidays).

POLICE/AMBULANCE/FIRE: Harbour Police 31-3942; First Aid 17; Hospital 31-2713 and 31-2717; Fire Brigade 18.

TELEPHONES: A telephone can be placed on board at request of ship's Master.

SHORE LEAVE: Crew must carry shore pass.

SHIPMASTER'S REPORT: 1978.

Documents: Before a vessel can be registered certain items are needed by Agents, who can send pilot boat to collect from anchorage.

	Registration	*Port Health*	*Police*	*Agent*	*Customs*
Crew Lists	4	1	2	2	1
Passenger List	4	1	1	2	1
Ports of Call	4	1	1	1	1
Store List	2	–	–	–	1
Crew Declaration	2	–	–	–	1
Animal List	2	–	–	–	1
Arms & Ammunition	2	–	2	1	1
Vaccinations List	2	1	–	–	–
Cargo Plans	3	–	–	–	–
Hatch List	2	–	–	–	–
Cargo Manifests	15	(or as many as available for photo copy)			
Dangerous Cargo	3	–	–	–	–
Health Declaration	2	1	–	–	–

Registration: There does not appear to be a firm set of priorities but some cargo can be worked at most berths while others are restricted to a single berth. Two tankers can discharge or load at the South end of the East Mole which may also be used for containers.

Radio: Cotonou Radio was erratic and, on 2182, very poor via land line to the Agency Office. VHF is available on 16, 14 and 12 with Port Control and some Agents having their own sets or use that of a vessel alongside.

Consuls: There is no British representation in Benin. All requirements can be obtained by driving to Lagos to the High Commissioner.

Developments: A 40 tonne fork lift for containers etc. has been added to the cargo gear available but there are no cranes.

Shore Leave: A Shore Pass (Visa de Passage) is required but single items are given to Senior Officers only, all others must share between 2 or 3 persons. It takes 24 hours to obtain a valid pass via Agent from Police.

REPORT: March 1988.

The Port of Cotonou is a well sheltered harbour enclosed by a 1,200 m. long West Breakwater and a 4 cables long East jetty projecting S.S.W. from shore (East cross breakwater). It was opened to traffic in August 1965 and is managed by Port Autonome de Cotonou.

The harbour is accessible to vessels of up to 210 m. in length and a max. draft of 10 m. The entrance is from the Ocean through a 0.6 mile long channel, 180 m. wide and 12 m. deep. The harbour pool was dredged to 11 m. in 1975. Silting is reported along the North side of the West breakwater and the new Dock. However, dredging work should be soon carried out (mid-1988).

Vessels drawing more than 30 ft. transit the channel on high water.

Petroleum Berths: The inner side (Westerly side) of the East breakwater provides berthing facilities for tankers of up to 200 m. in length and a max. draft of 32 ft. There is no deadweight or displacement limitation. However, tankers of up to 40,000 d.w.t. can safely enter the harbour and moor starboard side to berth called "P II". Berth "P II" does not have fuel oil receiving facilities. Clean products are handled through 1 × 8 in. flexible hose, rate 1,000 bbls./p.h. No facilities for dirty ballast. The fendering system consists of large cylindrical rubber fenders in excellent condition.

Fuel oil is discharged at Berth "Q I" located at the very end of the main quay (East side). Vessels of up to 150 m. in length with a max. draft of 8.0 m. can be accommodated. Vessels berth port side alongside. The quay is fenderless. There is no deadweight limitation. However, it would be unsafe to berth vessels larger than 15,000 d.w.t. Fuel oil is handled through 6 in. flexible hoses, rate 700 bbls.p.h. Max. back pressure 100 p.s.i.

Fire coverage is marginal – 2 × 60 lb. wheeled dry chemical fire extinguishers.

Charts: British: 595 and 1861. U.S.: 57006, 57041 and 57100.

Tides and Currents: The spring tide values are 1.50 m. and 0.20 m.

Currents set across the entrance and may attain a rate of 4 knots. The predominant direction of the swell is from the third quadrant, reaching 12 ft. in length between June and September.

The rainy season is mid-April to mid-July (tornado season).

Anchorage: Vessels can anchor 1 mile South East of the lighthouse. Good holding ground in a depth of 48 ft.

Pilotage/Towage: The Pilot boards 0.5 miles from the head of the West breakwater. Pilotage is around the clock, but between 2200 hrs. and 0600 hrs. 2 hours' notice is required.

Towage is performed by the Port Autonome de Cotonou. 2 × 1,400 h.p. tugs and 1 × 2,000 h.p. tug are available.

Telecommunication: The service to other Francophone West African countries is good. There is usually no problem with calls to the U.S.A. placed through the operator. There is no coastal radio station. The Port Authority monitors VHF Channel 16 and SSB 2182 kHz.

Repairs: There are no repair facilities.

Supplies: Fuel and gas oil are available from SONACOP. Fresh water is available at all berths by pipe-line. Rate 25 cu.m.p.h. There are no barges available. Repatriation is possible. There are frequent air connections to Europe.

Oil Surveyor: There is no representation of independent Surveyor Companies.

Caleb Brett Ltd. is present in the surrounding countries (Togo and Nigeria.)

SONACOP: Societe Nationale de Commercialisation des Produits Petroliers is a state owned company and is the sole distributor of petroleum products in the country.

SONACOP operates a tankfarm which has a storage capacity of 70,000 cu.m. (19 tanks).

The national annual consumption of products is as follows:

Clean (Mogas, Gas Oil, Kerosene, Avgas)	150,000 tons.
Fuel oil	12,000 tons.

REPORT : MARCH 1988.

INSERT IN SEME

~~**Seme Offshore Terminal:** Seme Terminal is located about 4 miles offshore. The original operator was Saga Petroleum but in 1986 the Benin Government cancelled its three year service agreement with Saga in favour of a joint venture deal with Pan Ocean Oil Company, who pulled out in September 1986 and the Oil field is now run by local technicians assisted by contractors.~~

~~Seme's output is around 6,000 barrels per day.~~

~~*Location:* 06° 18′ 23″ N., 02° 39′ 32″ E.~~

~~*Anchorage:* 06° 16′ N., 02° 34′ E. Depth 66 ft. Range of tide 6.0 ft. Current 2–3 knots. Bottom is sand, mud and shells.~~

~~*Charts:* See "Report" above.~~

~~*Radio:* ETA Instructions: Advise Seme Offshore Terminal (Telex No. 5134) and Agent 7 days, 72 hours, 48 hours, 24 hours and 12 hours prior to arrival of the following: ETA, quantity of cargo required, arrival draft and size of manifold fittings.~~

~~*VHF:* Channels 16 and 6.~~

~~*Restrictions:* Mooring and unmooring during daylight hours only (0700 hrs.–1500 hrs.)~~

~~*Pilot:* The Pilot boarding position is agreed prior to arrival.~~

~~*Readiness:* Notice of Readiness only received between 0600 hrs. and 1400 hrs.~~

~~*Tugs:* 2 × 2,650 h.p.~~

~~*Documents/Clearance:* See "Cotonou".~~

~~*Production Platforms:*~~

~~No. 1~~	~~06° 14′ 23″ N.,~~	~~02° 41′ 16″ E.~~
~~No. 2~~	~~06° 12′ 19″ N.,~~	~~02° 41′ 35″ E.~~
~~No. 3~~	~~06° 15′ 29″ N.,~~	~~02° 42′ 05″ E.~~

~~*Berth:* Depth in approaches and at berth 60 ft.~~

~~The berth is a conventional mooring buoy (CMB). Max. draft permissible 46 ft. Max. d.w.t. 60,000–80,000 tons. Larger tankers up to 120,000 d.w.t. can be berthed to load part cargo if Seme is first port of call (Max. displacement 75,000 tons).~~

~~The vessel berths on a heading of 260° to 4 mooring buoys. The use of wire ropes is not allowed. Synthetic hawsers are provided by the terminal. Vessel's hose boom to be rigged for 4 tons SWL minimum.~~

~~*Loading:* Seme Crude (API 22.6) is loaded through a single 12 in. hose which is connected to an undersea pipeline of 16 in. diameter and 5 miles long. Loading rate 11,500 barrels per hour.~~

~~*Ballast:* No facilities for dirty ballast.~~

~~*Services:* None available.~~

AUTHORITY: Port Autonome de Cotonou, B.P. 927, Cotonou, Benin. *Tel:* 312890, 315280. *Telex:* 5004 Dirport. *Cables:* Dirport. *Contact:* Odon Brice Houncanrin, Port Director. Wetohossou Firmin, Harbour Master (Tel: 312782).

AGENT: Scac Benin S.A., B.P. 433, Cotonou, Benin. Tel: 31.26.52 and 31.26.54. Telex: 5121. Cables: Ctnou Scac Benin.

Bermuda ✓

HAMILTON, (incl. Freeport): 32.15 N. 64.50 W. ✓

(See Plan)

NAVIGATIONAL WARNINGS: (Circulated by the Department of Marine & Ports Services)

Government Notice No. 196 (27.4.79)

The attention of all mariners is drawn to the dangers and hazards of close approach to the reefs which surround Bermuda, especially to the North and West of the Islands. They extend in places to a distance of 12 miles from the visible land and are virtually unmarked by navigational aids at their extremities.

Ships on passage with no intention of calling at Bermuda are advised to give the Islands a berth of at least 30 miles, observing that little distance is lost on the passage by so doing and nothing is gained by a closer approach. On the contrary, stranding or shipwreck has occurred all too often through the years with pollution of the surrounding reefs and beaches and destruction of the ecological life as well as possible ruin of the economy of the Islands.

Ships making for Bermuda are advised to do so from the East and South as the only entrance to the sheltered waters is at the S.E. of the Islands off St. George's. Here Pilots are available and can be embarked in daylight hours. Entry at night is dangerous and prohibited and close approach in dark hours should not be attempted without local knowledge.

Government Notice No. 197 (27.4.79)

Ships approaching Bermuda should contact the Bermuda Harbour Radio which is manned day and night on Channel 16 (VHF) or 2182 kHz or 500 kHz W/T giving vessel's name, call sign and position. Only after clearance has been given and instructions issued should ships – in daylight only – approach within 3 miles of St. David's Head on a heading between 240° and 300°. On no account should any other approach be made without local knowledge and large scale charts.

Pilots are available in this area for those who require them and are compulsory for all commercial vessels making entry to these Islands.

Notice to Boatmen. Admiralty Notices to Mariners:

1114. North Atlantic – Bermuda Islands – Caution (15.6.79).

5. Mariners are advised to navigate with extreme care in the approaches to Bermuda Islands, owing to the existence of extensive reefs which encircle the Islands and which are a constant hazard to navigation. North Rock Lt. (32° 28.5′ N., 64° 46′ W. approx.) and then outer seabuoys may not be reliable through lack of maintenance due to inaccessibility, except in very calm weather.

NOTICES: Implementation of IMO-adopted Area to be Avoided.

(1) Mariners are advised that at 0001 hrs. GMT on 1st December, 1985 an Area to be Avoided (ATBA) will be established covering the offshore reefs on the Northern coasts of Bermuda.

(2) The limit of a Restricted Area is to be:

(a) Gibbs Hill Light (Lat. 32° 15.1′ N., Long. 64° 50.0′ W. approx.).
(b) Lat. 32° 11.97′ N., Long. 64° 51.35′ W.
(c) Lat. 32° 08.00′ N., Long. 64° 53.00′ W.
(d) Lat. 32° 12.00′ N., Long. 65° 10.00′ W.
(e) Lat. 32° 24.00′ N., Long. 65° 10.00′ W.
(f) Lat. 32° 39.00′ N., Long. 64° 53.00′ W.
(g) Lat. 32° 39.00′ N., Long. 64° 38.00′ W.
(h) Lat. 32° 32.57′ N., Long. 64° 29.75′ W.
(i) Lat. 32° 32.00′ N., Long. 64° 29.00′ W.
(j) St. Davids Light (Lat. 32° 21.8′ N., Long. 64° 39.0′ W. approx.).

Bermuda Department of Marine and Port Services.

DOCUMENTS:

Ship's Register.
Derat Certificate.
Clearance from Previous Port.
5 Crew Lists.
5 Passenger Lists.
2 Provision Lists.
2 Crew Personal Effects Lists, i.e. cameras, binoculars, cigarettes, etc.
5 copies Cargo Manifest if discharging.

Cruise Ships: Customs require:

(Note: Forms may be secured in advance for prospective vessels.)

*2 Crew Lists
1 Crew Declaration
*2 Lists of All Disembarking Passengers
*2 Lists of All Transit Passengers
*2 Lists of All Non-United States Citizens in Transit (on ships from and returning to the United States)
1 Stores List
1 Declaration of Health
Clearance from Vessel's Last Port of Call
1 Bermuda Vessel Report (Customs No. 49).

(*Note: Plus 1 of each of these forms for Agents)

N.B.

1. A facility for examining disembarking passengers and luggage must be provided. No passenger or luggage is to be allowed to board the tender without Custom's approval.

2. All passengers on vessels from, and returning to, the United States who are not U.S. Citizens must be seen by the Customs Official.

3. All disembarking passengers and luggage must be seen by the Customs Official.

4. Persons purchasing a ticket in Bermuda must complete an Immigration Embarkation Card which should be lodged with the Purser on embarkation. Similarly persons arriving by air and leaving by sea must lodge their duplicate immigration cards with the Purser on embarkation. It is required that the Purser pass all such cards to the Duty Customs Official prior to the vessel's departure.

PILOTAGE: Pilot ordered by Agent on receipt of vessel's ETA (72, 48 and 24 hrs.). Pilot boards vessel approximately 2 miles East of Island with St. David's Lighthouse bearing 240° True. Boats black hull varnished superstructure.

If vessel's ETA alters, Bermuda Harbour Radio which in direct contact with Pilot station can be contacted by VHF Channels 10, 12, 16, 26. Pilotage is confined to daylight hours only with exception of vessels calling for medical aid – some of which handled off-shore.

ANCHORAGES: Grassy Bay and Great Sound. These anchorages are used mainly by passenger liners as they are close to Hamilton Harbour and are protected from heavy weather. Also used by large vessels carrying out extensive repairs.

RESTRICTIONS: Restricted by draft of 26 ft. Daylight piloting only.

MAX. SIZE: Largest ship to enter to date, length 690 ft., draft 26 ft.

HEALTH: Pratique granted on 24-hour basis and can be obtained by wireless by sending message via VRT to "Health Bermuda" requesting Free Pratique be granted. If any suspected disease or fever on board advise "Health" as well as Agent.

RADIO: Bermuda Harbour Radio, controls channel traffic, call sign ZBM Bermuda.

VHF: Operated by Bermuda Harbour Radio. Contact on Channels 10, 12, 16, and 26.

Bermuda (VRT) on Channels 16, 26 and 28.

VTM system in operation.

TUGS: 3 tugs available, 2×1,200 i.h.p. and 1×1,800 i.h.p. Tugs normally join vessel in harbour if requested. Tugs not compulsory and ordered depending on the size of the vessel and weather conditions. Tug's lines used during normal tug operations.

BERTHING: Docks and tugs are agreed upon between Agent and Pilot prior ship's arrival.

Hamilton

Berth	*Length of Berth*	*Max. Draft*	*Remarks*
No. 1	510 ft.	26 ft.	Port layout allows ships in excess of 510 ft. in length to be accommodated.
Nos. 5 and 6	620 ft.	26 ft.	Primarily a passenger berth.
No. 7	650 ft.	26 ft.	A small Ro/Ro ramp is provided at Berth No. 7 West.
No. 8	450 ft.	23 ft.	Berth Nos. 7 and 8 provide facilities for container operations, with approx. 5.5 acres of open area.
No. 8 East	250 ft.	16 ft.	

Drafts are governed by depth of water in channel approaches to the Harbour, i.e. 26 ft. MLW.

Freeport (Bermuda Government)

Commercial	800 ft.	32 ft.	Bulk cement and Shell Company of Bermuda bunkering facilities. Max. length of vessel 600 ft.
Esso Oil Terminal	—	32 ft.	Two dolphins, centre platform and walkways. Vessels up to 700 ft. in length can be accommodated. Berth owned and operated by Esso Bermuda. Also see "Tankers".
Murray's Anchorage		36 ft.	
The Great Sound	—	34 ft.	
Five Fathom Hole	—	Unlimited	

STEVEDORES: Ordered by Agent after receipt of ETA. Average discharge general cargo 10 t.p.h.

Gangs and Priorities: Basically Bermuda operates with a maximum of 3 gangs although this can reduce when breakbulk or refrigerated cargo are being handled, or for the tying-up and letting-go of cruise ships. Gang Allocation Rules (BSA No. 97 15-3-79) are:

1. The first vessel to arrive to have all available gangs.
2. The second vessel to arrive to have 1 gang on arrival.
3. The third vessel to arrive will get labour from 1 or 2 when it becomes available.
4. When it is necessary for full utilisation of labour, all vessels must work maximum overtime in order to retain gangs.

Hours of Work (Longshoremen):

Straight time	Monday/Friday	0800 – 1200 hrs. 1300 – 1700 hrs.
Overtime	Monday/Friday	1800 – 2200 hrs.
Double time	Monday/Friday	2200 – 0800 hrs.
	Saturday	0800 hrs. to Monday 0800 hrs.
	Public Holidays	

Meal hours (double time)

0700 – 0800; 1200 – 1300; 1700 – 1800 hrs.

When working a unit or units between 2400 hrs. to 0800 hrs., when required by the Union, 1 half hour from 0400 hrs. to 0430 hrs. may be taken for a meal time.

Note: Normally the Port stops Sunday/Friday inc. at 2200 hrs.

Work stops at 1600 hrs. on Saturday until 0800 hrs. on Sunday unless the vessel is being worked through to a finish for sailing that night or the next day.

Good Friday and Christmas Days are 'No work' days on the Bermuda waterfront.

CRANES: 1×250 ton "Coles" Colussus, 1×225 tons, 1×100 ton (P&H), 1×60 ton U.S. Navy floating crane (by special arrangement).

ALSO SEE SEME

MEDICAL: No advance notice required for medical attention if other than critical cases. First-class hospital facilities available. Vaccination Certificates required for all seamen.

TANKERS: Shell bunkering Berth, Freeport, Ireland Island. Discharge lines 8 in. and 10 in. No slop discharge facilities.

Esso: *Berthing:* The berth was rebuilt in 1980 about 40 ft. further out (the old pier debris was left in place). Ships are moored to 4 buoys, forward and aft centreline and offshore on the beam also to bollards on the shoreline and on the 2 breasting dolphins. Ships normally approach from the North with 2 tugs alongside forward and aft. The anchor may be dropped and 3 – 4 lengths of chain run out. A launch will take the mooring ropes, usually to the forward buoy first, to the aft buoy and then to the breasting dolphins. When the ship is in position, all other moorings are sent out; those to the shoreline last. The minimum number of ropes is: 2 to each of the offshore buoys, 1 to the fore and aft buoys and to 4 bollards ashore, 2 or 4 spring lines to the dolphins.

Caution: The ropes to the buoys must be kept taut at all times; particular care must be paid to these moorings during the hurricane and Winter seasons. Occasionally ships may be berthed heading N.E.

Cargo: Two or more 8 in. hoses are used for the discharge of cargo. The ship's cargo boom may be used to connect or support the hose. Maximum pressure on the hose 100/120 p.s.i.g. There are several cargo lines. Tankers carrying more than one grade to St. George should arrange the cargo to permit discharging two or more grades simultaneously. Hand radios are used during the cargo operations.

Requirements for Vessels Using the Esso Oil Terminal:

1. Tankers and Large Vessels for Bunkers:
   - (a) It is an Oil Terminal requirement that a Pilot remains on board at all times while alongside the Terminal.
   - (b) It is a Terminal requirement that all vessels on completion of either discharging or bunkering/ballasting leave the berth and proceed either to sea, or wait daylight.
   - (c) One tug is mandatory for berthing and unberthing and a second tug depending upon weather and other conditions decided by the Master and Pilot, and the Agent will be informed accordingly.
   - (d) Tug requirements for unberthing outside normal working hours must be discussed well in advance between Master and Pilot (and Agent informed) as it may take up to 6 hours before the second tug is available at the Terminal. Weather conditions, especially at weekends during the winter months, must be assessed and if any likelihood of strong Northerly winds, precaution should be taken of ordering a tug(s) or if necessary have a tug standing-by in readiness.
   - (e) Max. draft alongside not to exceed 32 ft. (9.75 m.) and/or length 700 ft., 38,000 d.w.t. unless under exceptional circumstances and permission authorised by Esso Management.
2. Liquid Gas Carriers and Smaller Vessels for Bunkers:
   - (a) It is mandatory to have a tug for berthing liquid gas carriers but depending upon conditions prevailing at the time, the Master and Pilot will decide whether or not a tug is advisable for unberthing.
3. General:

   The over-riding factor must be for the safety of the ship at all times and the Pilot with his local knowledge and skill will advise the Master (who probably is unfamiliar with Bermuda waters) as to the advisability of the necessary assistance required.

   Pilot detention will be paid at an hourly rate from the time the vessel is secured alongside as this is not in his normal line of duty. He is retained at the request of the Terminal as a precautionary measure should the ship have to be moved at short notice.

Also see "Berthing".

DENSITY: 1025.

FRESH WATER: Available alongside at Berths Nos. 6-7, by truck (capacity 4 tons), or by barge. Order prior arrival to avoid delay.

FUEL: Grades available from Shell or Esso: Bunker "C" fuel oil, viscosity 100 SSF at 122°F. Diesel oil. Viscosity 3616 at 100°F.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Usually carried out by stevedores.

TOBACCO/WINE ALLOWANCE: Customs allows about 1 carton cigarettes and limited amount of spirits per man.

IDENTIFICATION CARDS: None required.

CONSULS:

Belgium
Bolivia
Chile
Denmark
Finland
France
Germany F.R.
Greece
Italy
Netherlands
Norway
Portugal
Sweden
United States

REPAIRS: All types minor deck and engine repairs can be carried out. Also major temporary repairs. Electronic repairs possible.

DRY DOCKS: Only yacht slipways available.

REPATRIATION: First-class facilities available for repatriation and crew changes.

AIRPORT: Distance from airport 10 miles. Connections to all parts of world. Average 15/20 flights per day.

TIME: Local time GMT minus 4 hours (October-April). GMT minus 3 hours (0200 hrs., last Sunday in April – 0200 hrs. last Sunday in October).

HOLIDAYS: New Year's Day; Good Friday; Bermuda Day (May 24th); Queen's Birthday (celebrated annually in June) June 11th; Cup Match (Thursday and Friday before first Monday in August); Labour Day (1st Monday in September); Remembrance Day (November 11th); Public Holiday (November 12th); Christmas Day, Boxing Day (December 26th).

POLICE/AMBULANCE/FIRE: Police 2-2222; Ambulance 2-2000; Fire 00; Air Sea Rescue 7-1010.

TELEPHONES: Can be placed on board vessel when alongside.

GENERAL: Port of Freeport, Ireland Island, situated in the Port of Hamilton at the old British Dockyard is used mainly by the Royal Navy and Shell Bunkering.

SHIPMASTER'S REPORT:

Approaches: Approach was made at night from Southward. Gibbs Hill Light sighted at 29 miles. First radar echo was made at 34 miles. St. David's Lt. Ho. Occ. 5 sec. can be easily confused with St. David's House Lt., Gp. Fl. 2 and they are hard to pick out against background lights. Mills Breaker and Kitchen Shoal Buoy are both good lights and are conspicuous on the radar. Lobster pots marked by unlit buoys can be troublesome.

Pilotage: There are 10 Pilots who operate on a rotation basis. Least depth is in the Dundonald Channel and Two Rocks Passage approaching Hamilton. Passenger Vessels over 26 ft. anchor in Grassy Bay just North of the Dundonald Channel. Official max. draft is 26 ft. although I was told by the Harbour Master that they will take ships up to 26 ft. 06 in.

Berthing: Vessel berths starboard side to, swinging on anchor with tug assistance. During a long stay vessels often have to shift up and down the wharf to make room for other ships making short calls. At one time the bow was overhanging the end of the quay by 100 ft. but even in this position ship can be well secured.

Cargo Operations: Labour force consists of around 40 men which can just make up two freezer gangs. When a container ship arrives she takes priority and one gang is lost. At weekends a few additional men are available from other jobs within the stevedoring firm and a third general gang can be made up. Stevedore stressed that cargo be restricted to two hatches when possible especially in ships with beams and hatches. Locker stow should be avoided when possible. Average on freezer was approximately 9 t.p.h.

Hours of work are: 0800 – 1200, 1300 – 1700 and 1800 – 2100 hrs. This applies every day except Saturday when work finishes at 1700 hrs. General cargo gangs can be worked until 2200 hrs. but all freezer gangs finish at 2100 hrs. to allow time for Receivers to clear the wharf of cargo by 2200 hrs.

Fresh Water: Not readily available in large quantities due to a water shortage. Price when available is 6 dollars a ton. We managed without buying any in spite of a prolonged stay.

Currency: Stated in Pilots Book to be pounds. It is in fact Bermuda Dollars which are equivalent to American dollars and readily interchangeable.

Stores: Very expensive and would suggest only plan on buying essentials from supermarket in small quantities.

Discharge Averages:

No. 1 Palletised Milk Powder	20.0 t.p.h.
No. 2 Cartons of Apples (Locker)	6.2 "
No. 3 UTD Centre Meat & Butter	10.8 "
No. 3 MTD Centre Meat	8.8 "
No. 4 UTD Centre Meat & Butter	8.0 "
No. 4 UTD (P) Meat	11.0 "
No. 4 UTD (S) Cartons Cheese	7.6 "
No. 5 UTD Carton Meat (Full Deck)	8.5 "

AUTHORITY: Harbour Master, Marine and Port Services Department.

AGENT: Meyer Agencies Ltd., 35 Church Street,P.O.Box HM 510, Hamilton HMCX, Bermuda. Tel: 809-295-4176. Telex: 3361 Meyer BA. Fax: 809-292-4823. Cables: Meyerco Bermuda.

Shipping, Freight, Insurance, Travel Agents. Marine repairs, Tug/Barge Operators, stevedoring Operators, Pandi Reps.

ST. GEORGE'S: 32.22 N. 64.41 W. (See Plan)

DOCUMENTS: Also see "Hamilton".

Ship's Register.
Derat Certificate.
Clearance previous Port.
5 Crew Lists.
5 Passenger Lists.
2 Provision Lists.
2 Crew Personal Effects Lists, i.e. cameras, binoculars, cigarettes, etc.
5 copies Cargo Manifest if discharging.

PILOTAGE: Pilot ordered by Agent on receipt of vessel's ETA. Pilot boards vessel approximately 2 miles East of Island with St. David's Lighthouse bearing 240° True. Boats black hull, varnished superstructure. If vessel's ETA alters, Bermuda Harbour Radio is in direct contact with Pilot station can be contacted by VHF Channels 10, 12, 16, 26. Pilotage day only. Except medical cases which are handled offshore.

ANCHORAGES: *(a)* Five Fathom Hole, located at Eastern end of Island and is point where Pilots embark/disembark. Used by vessels not required to enter or those awaiting daylight. *(b)* Murray's Anchorage, used instead of Five Fathom Hole during times of heavy weather (daylight hours only). Also, by vessels unable enter St. George's Harbour and wishing to take on water, carry out repairs, etc. A stand-by anchorage for vessels waiting berth at Esso Oil bunkering pier and for vessels leaving this pier and awaiting daylight. *(c)* St. George's Harbour, when weather conditions such that Five Fathom Hole and Murray's Anchorage unsuitable to land ill/injured persons vessel proceeds directly to St. George's Harbour and anchors.

RESTRICTIONS: Entry to St. George's Harbour restricted by draft of 30 ft. Murray's Anchorage restricted by draft of 38 ft.

MAX. SIZE: Largest ship to enter to date – length 628 ft. However, size controlled by max. draft of 30 ft., displacement and weather conditions.

HEALTH: Pratique granted on 24 hour basis and can be obtained by wireless by sending message via VRT to "Health Bermuda" requesting Free Pratique be granted. If any suspected disease or fever on board advise Health as well as Agent.

RADIO: Commercial radio station operated by Cable & Wireless Limited, call letters VRT Bermuda, on VHF 16, 26 and 28. Bermuda Harbour Radio controls Channel traffic, call sign ZBM Bermuda.

VHF: Operated by Bermuda Harbour Radio. Contact on Channels 10, 12, 16, and 26.

VTS: System to be installed at the signal station at Fort St. George.

TUGS: Tugs normally join vessel in harbour if requested. Tugs not compulsory and ordered depending on the size of the vessel and weather conditions. Tug's lines used during normal tug operations. Also see "Hamilton".

BERTHING: Dock and tugs agreed upon between Agent and Pilot prior ship's arrival.

St. George's as a Port of Discharge: Stevedores advised the 51st meeting (1974) of The Bermuda Shipping Association that as St. George's is no longer being used for cargo all gear and equipment have been removed from the port. In the event of discharge taking place at St. George's there will be an 'item of cost' for transport of gear and equipment from Hamilton to St. George's. Similarly an 'item of cost' is applicable to discharge at Freeport (Dockyard).

Berth	*Length*	*Max. draft*	*Remarks*
Penno's Wharf	750 ft.	28 ft.	Cargo-handling berth. Possibly to be extended Eastwards 330 ft. into the Hunter's Wharf area.
Hunter's Wharf	335 ft.	28 ft.	Wooden jetties. Two dolphins to Eastwards of berth allow accommodation of vessels up to 600 ft. in length with draft limitations ". . . to the Eastward (400 ft. at 28 ft. then gradual shelving Eastwards to 24 ft. at the 600 ft. point)"
Ordnance Island	160 ft.	26 ft.	No cargo-handling facilities. Capable of berthing 620 ft. cruise ships.

STEVEDORES: Ordered by Agent after receipt of ETA. Average discharge general cargo 10 t.p.h.

Also see "Hamilton".

MEDICAL: No advance notice required for medical attention if other than critical cases. First-class hospital facilities available. Vaccination certificates required for all seamen.

TANKERS: Esso Oil Pier: Discharge lines 8 in. and 10 in. No slop discharge facilities.

DENSITY: 1025.

FRESH WATER: Delivered by barge. Order prior arrival to avoid delay.

FUEL: Grades available: Bunker "C" fuel oil, viscosity 122 SSF at 122°F. Diesel oil, viscosity 3616 at 100°F.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Usually carried out by the stevedores.

TOBACCO/WINE ALLOWANCE: Customs allow about one carton cigarettes and limited amount spirits per man.

IDENTIFICATION CARDS: None required.

CONSULS: See "Hamilton".

REPAIRS: All types minor deck and engine repairs can be carried out. Also major temporary repairs.

DRY DOCKS: Only yacht slipways available.

REPATRIATION: First-class facilities available for repatriation and crew changes.

AIRPORT: Distance from airport 2 miles. Connections to all parts of world. Average of 15/20 flights per day.

TIME: See "Hamilton".

HOLIDAYS: See "Hamilton".

POLICE/AMBULANCE/FIRE: Police 7–1122; Ambulance 2–2000; Fire "00"; Air Sea Rescue 7-1010.

TELEPHONES: Can be placed on board vessels when alongside.

GENERAL: Esso Oil Berth, within Port of St. George, is purely a bunkering and petroleum discharge pier situated on the Southern side of Murray's Anchorage.

AUTHORITY: Harbour Master.

AGENT: Meyer Agencies Ltd., Water Street, P.O.Box GE 48, St. George's, Bermuda. Tel: 809-297-1616. Telex 3361 Meyer BA. Fax: (809) 292-4823

Shipping, Freight, Insurance, Travel Agents. Marine repairs, Tug/Barge Operators, Stevedoring Operators, Pandi Reps.

NOTES

Please also advise Shipping Guides Ltd.

Bolivia

GENERAL: Bolivia is completely land locked with no ocean ports.

The country has special port facilities or 'in transit zones' in Brazil at Santos; in Argentina at Buenos Aires and Rosario, and to the Pacific at Matarani in Peru, also Arica and Antofagusta in Chile.

Santos (Brazil): The railway is from Santos to Santa Cruz (Bolivia) via the Bolivian border town of Corumba, a total distance of 1,300 miles. The port has a shed for Bolivian and Paraguayan imports and exports.

Buenos Aires and Rosario (Argentina): At the port of Rosario, a quay of 820 m., with land and sheds, has been made available for the discharge, loading, reception, dispatch and storage of Bolivian imports and exports. A railway runs from Rosario to La Paz via the Bolivian frontier town of Villazon, and another line past Salta to Santa Cruz via Yacuiba on the boundary, distances of 1,300 miles and 1,500 miles respectively. Buenos Aires has no 'free zone' for Bolivian cargoes.

Matarani (Peru): The port has facilities for handling Bolivian imports and exports. There are storage sheds for general cargo, a mobile loading tower for ores and concentrates, and a mobile pneumatic tower for discharging bulk grain. Containers can be landed and sent through to Bolivia or stripped and the goods stuffed into local containers (railway owned, if possible) for transport to Bolivia. A railway unites the port with Puno on Lake Titicaca, where a steamer transports cargo to Guaqui and then by rail or road to La Paz (525 miles) or other Bolivian towns.

There is also an unpaved road direct to La Paz and to other Bolivian cities, that is a useful alternative to the railway, but, as with the road from Arica, it is often in bad condition during the rainy period, December to April. A road from Ilo to the Bolivian frontier town of Desaguadero has been completed.

Arica (Chile): The railway is the shortest route (283 miles) from a seaport through to La Paz. There is also a road, on which trucks take about 48 hours to transit between Arica and La Paz, but during the rainy season, December to April, the condition of this unpaved road so deteriorates that road transport can be delayed for up to 12 days.

The port has a warehouse for Bolivian cargo and facilities for handling containers and dispatching them in bond by rail or road to Bolivia.

Antofagasta (Chile): The railways transports the greatest tonnage of Bolivian imports (mostly bulk grain) and exports (minerals – ingots, ores and concentrates).

It links Antofagasta with La Paz via Oruro and is 729 miles long. There are branches to Cochabamba, and Potosi and Sucre.

DOCUMENTS: In each port there are Bolivian Customs Authorities under the control of the Bolivian Consul. At none of the 'in-transit ports' are any special Consular despatches or documents needed by vessels, other than those required by the particular country. It is only necessary to present separate manifests for cargo in transit to Bolivia.

However commercial invoices, and goods documentation does require consular intervention.

Shippers must provide Bills of Lading and Consular Invoices and also attach suppliers invoices, certificates of origin and insurance policy. Most imports are handled under letters of credit. Documents must be made out in Spanish. At Ocean Port, forwarding Agents replace the Bill of Lading with a railway bill or trucking bill. There is no exchange control or shortage of foreign exchange in Bolivia.

Claims are finally set up (shortages, condition, etc.) in Bolivia, and hook tallies, local port receipt to Bolivian Customs, railway or truck receipts, etc., all form part of the settlement.

CONTAINERS: It is possible to despatch sealed containers right through to Customs in Bolivia for opening there.

WEIGHTS AND MEASURES: All weights and measures are to be expressed in the metric system, except for lumber, in board feet.

NOTES

Please also advise Shipping Guides Ltd.

Brazil

GENERAL

SHIP REPORTING SYSTEM:

Information System of Maritime Traffic Control (SISCONTRAM)

Description:

A voluntary reporting system operated by the Naval Command for the Control of Maritime Traffic (COMCONTRAM). The limits of the search and rescue (SAR) area covered by the system are:

(a) 04° 31′ N., 50° 59′ W. Brazil – Guyane border.
(b) 05° 00′ N., 48° 00′ W.
(c) 05° 00′ N., 40° 00′ W.
(d) 07° 40′ N., 35° 00′ W.
(e) 06° 22′ S., 16° 00′ W.
(f) 06° 22′ S., 10° 00′ W.
(g) 34° 00′ S., 10° 00′ W.
(h) 34° 00′ S., 53° 00′ W. Brazil – Uruguay border.

In addition vessels are requested to participate in the scheme within the larger area of the Atlantic Ocean, South of 23° 30′ N.

Requirement for messages.

DEPARTURE MESSAGE (Type 1). This contains the vessel's Sailing Plan and should be sent:

(a) On sailing from a port within the area.
(b) Prior to entering the reporting area.

ALTERATION OF ROUTE MESSAGE (Type 2). This should be sent whenever the ship has to modify the route or change the destination given in the Departure Message.

POSITION MESSAGE (Type 3). This should be sent:

(a) When the vessel is more than 25 miles off the planned route.
(b) On a change in the navigational status of the vessel, e.g. stopped or damaged.
(c) When the vessel observes a danger to navigation.

ARRIVAL MESSAGE (Type 4). This should be sent:

(a) When the last point on the pre-established route close to the port of arrival is reached.
(b) When leaving the reporting area.

Form of messages.

Each message consists of a selection of items from the format list shown below. Message items should be separated by a stroke (/), omitted items by a dash between two strokes (/–/) and the end of the message by a double stroke (//).

A. Vessel's call sign (4-8 characters).
B. Vessel's nationality (2 character abbreviation of name).
C. Vessel's name (up to 18 characters).
D. Type of vessel. (CGO – general cargo, container, Ro/Ro; BLK – bulk carrier; PAS – passenger; TKR – tankers in general; TUG – tug; FSH – fishing.
E. Message type (e.g. "3" indicates Position Message).
F. Port of origin/departure (up to 18 characters).
G. ETD in GMT (6 digits with suffix Z – represents time of departure from a port, time of entry into the area or time of position).
H. ARRIVAL PORT (up to 18 characters).
I. ETA in GMT (format as for G – represents time at last route point close to destination or time on leaving the area).
J. SPEED (4 digits, knots and tenths of knots, e.g. 15.5 – this is estimated speed over pre-established route or new estimated speed if route has changed).
L. POSITION[1] (for message types 1 and 2 a minimum of 2 and maximum of 16 latitude and longitude groups, representing course change points, can be sent; each group should be separated by "/". Type 3 messages require a single latitude and longitude group).
M. COURSE CHANGE POINT NUMBER (2 digits representing the last pre-established course change point passed).
N. DATE/TIME (format as in G – time of transmission).
O. DOCTOR ONBOARD (Y for yes, N for no).
P. OTHER INFORMATION (Use codes from the International Code of Signals to provide additional information about the incident which caused the Position Message to be sent – maximum of 18 characters).

[1] Latitude (4 digits) in degrees and minutes N or S, e.g. 2125S; longitude (5 digits) in degrees and minutes E or W, e.g. 05125W.

DEPARTURE MESSAGE (Type 1) consists of items A/B/C/D/E/F/G/H/I/J/O/L/N//

ALTERATION OF ROUTE MESSAGE (Type 2) consists of items A/B/C/D/E/G/H/I/J/L/N//

POSITION MESSAGE (Type 3) consists of items A/B/C/D/E/L/G/M/I/J/P/N//

ARRIVAL MESSAGE (Type 4) consists of items A/B/C/D/E/H/I/N//

Transmission of messages.

Reports addressed to COMCONTRAMAR are free of charge and can be sent through one of the following Brazilian coast radio stations: Belem (PPL), Olinda (PPO), Rio (PPR), Juncao (PPJ).

DOCUMENTS:

Required prior to arrival:

Notice of arrival:

At least 24 hours prior to the anticipated arrival of the vessel, the following must be notified: the Captain of the Port, the Federal Maritime and Air Police, and Maritime Health. Likewise, the Cooperative of Health Inspector of Bahia (VHF radiotelegraph station, Channels 12 and 18) must be notified either directly or through the agency. (The Bahia Cooperative is a private institution, controlled by the Office of the Captain of the Port.)

Information on cargo for the port:

The agency should receive by airmail, at least 24 hours in advance of the anticipated arrival of the vessel, the following documents for distribution as indicated.

Documents	*Port Authority*	*Customs*	*Agency*	*Total*
Cargo manifest	1	1	2	4
Manifest of dangerous cargo	1	1	2	4
Freighted bills of lading	–	1	2	3
Stowage plan	1	–	1	2

All manifests not in the Portuguese language must be translated into Portuguese and put on a special form, (copia de traducao de manifesto de carga) copy of translated cargo manifest.

Request for port services:

At least 24 hours prior to arrival, the Brazilian Port Authority, Empresa de Portos do Brasil, S.A. (PORTOBRAS), must receive their berthing request, to obtain port services.

Additional requirements:

All communications with the above mentioned Authority must be made through a shipping broker. The Port Agent handles all cargo operations. The shipping broker may also be the Port Agent.

On arrival:

Type of Document	*Number and distribution of documents*					
Basic forms	*Port Captain(a)*	*Customs*	*Maritime Police*	*National Health*	*Agency*	*Total*
1. General Declaration(b)	1	1	1	–	1	4
2. Cargo Manifest(c)	–	1	–	–	1	2
3. Crew List	1	3	3	1	2(d)	10
4. Passenger List	1	3	3	2	2(d)	11
5. Ship's Store List	–	3(a)	1(f)	–	1	5
6. Crew Effects Declaration	–	3	–	–	–	3
7. Maritime Declaration of Health	–	–	–	1(g)	–	1
8. Mail List	–	–	–	–	1(h)	1
9. Health Pratique Book from preceding Brazilian Port	–	–	–	1	–	1
10. Entrance Declaration	1	–	–	–	–	1
11. Certificate of Customs Inspection	–	1	–	–	–	1
12. No-cargo Manifest	–	1	–	–	1	2
13. No Passenger Declaration	1	1	2	1	2(d)	8
14. List of Passengers in transit	1	–	1	1	–	3
15. Bills of Lading	–	1	–	–	1	2
16. Declaration of On-deck Cargo	1	–	–	–	–	1
17. In-ballast Declaration	1	–	–	–	–	1

(a) These documents are delivered to the Office of the Captain of the Port, where their contents are recorded. They are then sealed and returned for the vessel's departure operation.

(b) In addition to the special Entrance Declaration for the Office of the Captain of the Port, and the Certification of Customs inspection.

(c) The manifest should include the number and contents of the containers, as well as an indication of unfreighted containers.

(d) One copy for the exit gate of the harbour.

(e) In the event that the next port of call should be Brazilian, an additional copy must be submitted, which is stamped by Customs.

(f) If the drugs are not included on the ship's store list, a list of medicinal drugs (narcotics) must be presented to the Maritime Police.

(g) Only for the first Brazilian port of call. There is a special form in the Portuguese language, but the LAFTA/OAS form will be accepted.

(h) For delivery to the Postal Authority.

Other requirements:

The landing card requirement provision is still current, but it is not always requested. The agency delivers blank forms. The cards are filled out on board, and a photograph of the passenger or crew member must be affixed. The cards must be presented to the Maritime Police within 48 hours after the arrival of the vessel, but in the meantime all interested persons may land. The cards must be returned to the Police before the vessel's departure.

Prior to Departure:

At least 24 hours prior to sailing, to avoid possible delays, the following documents must be processed:

Customs:

The original of the payment voucher covering the lighthouse and beacon fees, to obtain the clearance permit;

Captain of the Port:

A copy of the above mentioned voucher; Crew List, should there have been any crew changes; List of Passengers Embarked; upon presentation of these, the sailing permit is granted.

Maritime Police:

Passenger List or no-passenger declaration; Crew List, should there have been any crew changes.

Postal Service:

A certificate of mail delivery or a no-mail certificate must be obtained.

In the event that the next port of call is Brazilian, the local authorities check the sailing permit issued by the four agencies mentioned above; if the next port of call is foreign, the sailing permit issued by the Captain of the Port suffices.

Other Provisions:

The agency must, within seven days following the departure of the vessel, deliver a copy of the cargo manifest of freight embarked in the port, and a copy of each bill of lading issued to Customs, PORTOBRAS, and SUNAMAN.

FLAG: The Brazilian flag is a green ground with a yellow lozenge enclosing a blue sphere, with 21 white stars of which 5 form the Southern Cross and the motto 'Ordern & Progresso'.

This must be flown from the foremast when in Brazilian Ports, from 0800 hrs. to sunset daily.

The customs flag – blue with a white star – to be flown 24 hours a day after clearance is granted.

FREE PRATIQUE: Vessels must report ETA via Agent 24 hours in advance, confirming 12 hours prior to arrival. The message must report that sanitary conditions are satisfactory or otherwise and an indication of the number of passengers intending to disembark and/or in transit.

On arrival the Port Health Authority will board, and further to the documents previously mentioned will require to sight vaccination certificates.

The reception committee will only board by accommodation ladder, or gangway if the vessel is alongside, and must be met at the head of the ladder by a Ship's Officer.

PILOTAGE: This is compulsory for all vessels over 200 g.r.t. There are specific boarding points shown on the charts for each port and vessels must wait there, flying flag G, either at anchor or under way. A safe rope ladder must be provided and must be properly illuminated. Pilots should be ordered at least 2 hours prior to arrival by ship's Agent, or in the event of outlying ports 24 or 48 hours ahead (See each port).

VHF: Vessels in coastal regions to maintain watch on Channel 16.

STEVEDORES: Longshoremen are provided by the dock companies and paid for from the Port Charges. Stevedoring can be carried out either by ship's Agents or by contract. In all cases the number of men per gang and their salaries are fixed by Sunamen (Merchant Shipping Superintendency in the Ministry of Transport).

The vessel is legally the employer of the labour, and as a result the vessel is responsible for any damage to the cargo, ship or any third party, by the stevedores.

GENERAL BERTHING INFORMATION:

A berthing priority in Brazilian Ports is given as follows:–

(1) Warships, Brazilian or Foreign.
(2) Regular Passenger Liners for whom immediate berthing facilities are available. if requested at least 24 hours in advance.
(3) Cargo vessels, for whom there are special installations, are given preferential berthing rights.
(4) Vessels with perishable cargoes are given priority berthing.
(5) Vessels that can load and discharge simultaneously can obtain preference over others.

As soon as cargo operations finish, all vessels must leave their berth, or be removed by the Port Authority.

FUEL: A monopoly on supply is held by PETROBRAS, and owners requirements must be made well in advance to the Petrobras offices in New York, London or Rio de Janeiro. Supplies are not plentiful, and in certain ports only certain grades are available.

WATCHMEN: Services of Watchmen compulsory.

POLLUTION: Very strict penalties are enforced, and fines are the same, however little pollution is caused. No dumping of any oil is permitted within 50 miles of the coast.

Garbage: It is forbidden to dump any garbage in any harbour or river. In some ports garbage collection can be arranged.

CREW: Crew members wishing to join a vessel, must carry a Letter of Instruction for the ship's Agent. They must be signed on within 48 hours of arrival.

For Crew members joining from abroad it is advisable to be in possession of a two year multiple entry visa, as only U.S. Consulates in Rio de Janeiro, Recife and Brasilia are authorised to issue visas.

Seamen's Missions:

Scandinavian Seaman's Mission
Flying Angel Club
German Seaman's Home

The above Missions are in Santos, and can arrange football matches, tours, etc. There are no Missions in other ports.

GENERAL: Operators and Masters of Liberian flag vessels should consult Agents well in advance respecting requirements for endorsement of seamen's books or passports.

SHIPMASTER'S REPORT: July 1987.

VHF: Arrival Reports: The Port Captain's Department of each port requires the vessel to make reports in a specified form:

1. On entering, in English via Pilots or Port Control.
2. On entering, (normally by Pilot in Portuguese).
3. On leaving (normally by Pilot in Portuguese).

Information to include: Name, Call Sign, Flag, Last Port, where to berth, ETA and the anchorage position (probably in Latitude and Longitude).

Customs: A regulation of 1950 is applied in some ports which requires the declaration of all ship's stores and spare gear. Items such as propeller, tail shaft, anchor, tools, paints, etc., are confiscated and sold at auction after the vessel's departure if they are not declared. It is recommended to contact Agent for the requirements at the port of call.

Pollution: No oil to be discharged within 50 miles of the coast and no garbage within 12 miles of coast. Patrols are made by aircraft. Fines are calculated on a flat rate, multiplied by the g.r.t. of the vessel, whether for 1 litre or of 1,000 litres. Imprisonment up to 3 years.

ALUMAR: 02.40 S. 44.21 W. ✓ (See Plan)

LOCATION: Alumar Port is located at Sao Marcos Bay, on the West bank of Sao Luis Island, 5.5 miles South of the Port of Itaqui in position 02° 40.5′ S., 44° 21.5′ W.

The port was built in the confluence of the Rio dos Cachorros with the Estreito dos Coqueiros which was dredged to permit access to the Baia de Sao Marcos.

The dredged access channel in the Estreito dos Coqueiros is located between the Islands of Sao Luis and Taua-mirim.

DOCUMENTS:

Documents Required on Arrival:

6 copies Crew List.
3 copies Stores List.
3 copies Crew Personal Effects List.
6 copies Passenger List (or Negative Passenger List).
1 Ballast Declaration.
2 copies of Manifest and 1 copy of each Bill of Lading, if with cargo for Alumar Port.

The following will be inspected:

Crew and Passenger Vaccination Certificates.
Ship's Documents.
Fuel, Diesel, Water quantities on arrival.
Derating or Exemption Certificate.

Cargo Papers:

Master will receive copies of each document listed below:

Notice of Readiness.
Bill of Lading (non-negotiable copy).
Cargo Receipt.
Statement of Facts.
Draft Survey Result.
Cargo Manifest.

Masters shall approve and sign the Notice of Readiness, Bill of Lading, Draft Survey Result, Statement of Facts and Cargo Receipt, as required by the shippers and Agents.

Clearance:

Ship's Agent will furnish clearance papers for sailing as well as the Cargo Manifest.

PILOTAGE: Compulsory for all ships sailing to and from Alumar Port.

They will board and disembark in the Pilots waiting area, abeam of Ilha do Medo, which is also used by the Port of Itaqui.

ANCHORAGE: Masters shall contact the Pilot Station on VHF Channel 16, prior to proceeding to the Anchorage Area.

The waiting area is also used by the Port of Itaqui and is located at Lat. 02° 35.2′ S., Long. 44° 22.3′ W.

The area is a circle around the above coordinates with a minimum depth of 21.5 m.

Brazilian Government Officials may board ships in the anchorage area for clearance formalities.

A suitable and adequate ladder for this purpose must be provided soon after anchoring.

It is extremely important that Masters comply with Brazilian Anti-pollution Laws while in Brazilian waters.

RESTRICTIONS: The Access Channel is located between the Islands of Sao Luis and Taua-mirim. It is 3.0 miles long, with minimum width of 140 m., and dredged to 9.0 m.

The Turning Basin has been dredged to 9.0 m. depth and has a diameter of 400 m.

The Berthing Basin, located in front of the wharf, is 320 m. long, 50 m. wide and dredged to 13.0 m. depth.

Maintenance dredging is periodically carried out to maintain these conditions.

HEALTH: Free Pratique should be requested by radio 72 hours prior to arrival, by forwarding quarantine message to Port Health Authorities through the ship's Agent.

RADIO/VHF: Long distance radio communications shall be made through Embratel Coastal Stations.

Alumar Port Operations may be called through VHF Channel 16 from the vicinity of the waiting area or from other areas when within range.

Arrival Notice: The Master of an arriving vessel is required to cable to the Agent his ETA 15 days in advance or when sailing from previous port if distance is less than 15 days.

Additional ETAs to be sent 5 days, 48 hours and 24 hours prior to arrival at Alumar Port. Any significant change in ETA should be advised immediately.

48 hours message shall provide the following information: ETA, cargo tonnage by hatch number, arrival draft, ballast tonnage on board and deballasting time.

TUGS: Tug service is compulsory for all vessels in Alumar Port. There are 2 tugs of 1,830 h.p. (27 ton bollard pull) permanently based at the port.

BERTHING: The wharf consists of a 252 m. long × 19.6 m. wide concrete platform.

There is a mooring dolphin at a distance of 50 m. from the West end of the wharf, and a mooring buoy with a 30 ton sinker, located 110 m. from the same West end of the wharf.

The docking wharf is fitted with 9 sets of fenders, spaced 29 m. apart.

Bulk Cargo Unloader: Clamshell type ship unloader, with 1,200 t.p.h. unloading rate.

Ship's air draft shall not exceed 20.3 m. at any stage of the tide.

Alumina Loader: The linear type shiploader to load alumina, is rated at 1,500 t.p.h. and has a 60 in. wide belt conveyor. Ship's air draft shall not exceed 14.0 m. at any stage of the tide.

Caustic Unloading Facilities: The caustic unloading facilities are located at the West end of the main wharf.

It consists of 1 × 6 in. fixed coupling system, which is to be fitted to flexible hoses supplied by the ship. The caustic soda shall be pumped by the ship.

BALLAST: There are no shore facilities available at Alumar Port for receiving slops, dirty or contaminated ballast.

Masters are cautioned that discharging of anything other than uncontaminated ballast will be subject to penalties as prescribed by Brazilian law.

FRESH WATER: Potable water is available to ships at Alumar Port. Ships which require potable water shall notify Port Authorities before berthing.

FUEL: Available by barge. Agent requires advance notice.

TIME: GMT minus 3 hours.

GENERAL: *Weather:* Sao Luis is located within the Intertropical Convergence Zone (I.T.C.Z.) and it is not on the route of Tropical hurricanes and cyclones.

Local temperature ranges between 24°C. and 30°C., and mean humidity from 75% to 85%.

Annual average rainfall is 2,250 mm., distributed in 2 well defined seasons: the rainy season from January to June and the dry season from July to December.

Predominant winds, characterised as trade-winds, come from N.E. and E.N.E.

Annual average wind speed is about 10 knots.

Tides: Special care is required with the tides, which range from −0.3 m. to +7.10 m. during Spring tides.

Tide level variation generates reversible currents all over the area. During Spring tides, approximately 3 hours after the beginning of the ebb or the flood tide, current reaches 5 knots to 6 knots.

Charts: The following Nautical Charts should be consulted for navigation in the Baia de Sao Marcos area:

Diretoria de Hidrografia e Navegacao – DHN – Brazilian Navy:

Chart No.	Title
010	From Cabo Orange to Recife
400	From Cabo Gurupi to Ilha de Santana
411	Baia de Sao Marcos
412	Vicinity of the Ports of Sao Luis and Itaqui
413	Port of Itaqui
414	Vicinity of the Island of Taua-mirim

U.S.A. Defense Mapping Agency Hydrographic and Topographic Centre:

Chart No.	Title
24020	Baia do Oiapoque to Rio Parnaiba
24260	Ilha de Santana to Camocim
24270	Cabo Gurupi to Ilha de Santana
24271	Baia de Sao Marcos

Fire Protection: The wharf is equipped with 4 hydrants with double outlet of 2.5 in. diameter and 60 m. flexible hoses.

AUTHORITY: Porto da Alumar, P.O.Box 661, Sao Luis, Maranhao, C.E.P. 65000, Brazil. *Tel:* (098) 216-1392, 216-1878. *Telex:* (098) 2437, 2438, 1058 (Port Operations).

ANGRA DOS REIS: 23.01 S. 44.19 W. (See Plan)

(A) GENERAL CARGO SECTION.
(B) TANKER SECTION.

(A) GENERAL CARGO SECTION

DOCUMENTS: See "General" before first port.

PILOTAGE: When requested by the Agents, a pilot launch meets incoming ships off the automatic lighthouses of Itacuatiba and the Lage Branca, depending on whether the ships approach from the East or West, respectively. Pilotage compulsory, 2 hours notice required. State ETA and position Pilot will be embarked.

ANCHORAGES: In the Bay of Ilha Grande; approximately midway between the ports of Rio de Janeiro and Santos; offering excellent anchorages, amongst which may be mentioned: Enseada das Estrelas, Enseada do Abraao, Enseada das Palmas, Enseada Sitio Forte and Enseada de Aracatiba.

The inspection area of the Port Health, Federal Receipt and Maritime Police authorities is covered by a radius of 300 m. around the point of co-ordinates 23° 00′ 42″ S., 44° 18′ 41″ W.

Anchorage for vessels of more than 31 ft. draft and 10,000 g.r.t. 23° 01′ 54″ S., 44° 19′ 18″ W.

Anchorages for vessels of less than 31 ft. or 10,000 g.r.t. 23° 00′ 48″ S., 44° 18′ 30″ W.

Anchoring prohibited in the approach channel and manoeuvring basin.

RESTRICTIONS: The Bay of Ilha Grande possesses two entrances, from the East and the West, permitting immediate access to the Port of Angra dos Reis from the direction of Rio de Janeiro or the Port of Santos, without any change of course. Both access Channels are adequately marked, enabling ships of up to 14 m. draft to navigate in complete safety as far as the port basin about 1 mile from the wharf, where they may lie at anchor and take on cargo from tenders tied up alongside There is another basin with a mud bottom even nearer the wharf, permitting anchorage and docking manoeuvres for ships of up to 10 m. draft.

HEALTH: Port doctor visits all ships on arrival and requires Maritime Declaration of Health, Derat Certificate, 2 Crew Lists. Vessels from another Brazilian port automatically receive Free Pratique and should not fly Quarantine Flag. If suspected disease or fever on board it is advisable to cable Agent before arrival.

1TM **QUARANTINE ANCHORAGE:** 23° 06.47′ S., 44° 27.1′ W.

TUGS: Available: 4 tugs of up to 600 h.p.

BERTHING: A wharf 1,300 ft. in length, with 1,050 ft. available for tying-up. The wharf is being extended 600 ft. and will be dredged the entire length of the quay so as to receive ships of up to 10 m. draft.

CARGO FACILITIES: Two grain suckers each with capacity of 60 t.p.h. 2 electric cranes of 6 – 6.2 tons capacity, 1 crane of 3.2 tons capacity and 3 electric cranes of 1.5 tons capacity. Mobile cranes, 1 for 8 tons, 1 for 9 tons, 1 for 45 tons and 1 for 61 tons. Verolme have an 80 ton floating crane available for hire.

Also available for hire are 2 mechanical conveyors, each with 80 t.p.h. capacity.

MEDICAL: All facilities available. If doctor needed on arrival or making emergency call to land sick persons, cable ETA 12 hours before arrival.

FRESH WATER: Available. Vessels can be provided with up to 50 tons. Connection is 4 in. Pressure greater at night.

FUEL: No facilities for supplying large vessels. Small vessels can be supplied with diesel oil.

REPAIRS/DRY DOCKS: Various mechanical workshops for the execution of shipboard repairs, equipped with lathes, presses, planes, electric and acetylene welding, drills, power-saws and grindstones, etc. The large shipyards of Verolme with facilities to dry dock vessels up to 600,000 d.w.t. are situated in the Bay of Jacuecanga, near the port of Angra.

CUSTOMS ALLOWANCES: For each crew member, 2 cartons of cigarettes and 1 bottle wine or spirits.

WATCHMEN: Gangway watchmen strongly recommended for any vessels working cargo with shore labour on board. Watchmen from shore not necessary for coal, iron ore and oil cargoes.

CONSULS: There are no Consuls in this port. They are situated in Rio de Janeiro.

TIME: The local time is GMT minus 3 hours.

HOLIDAYS: 1st January; 1st May; 29th June; 7th September; 8th December; 25th December; 31st December, also local holidays January 6th, April 3rd and December 8th.

TELEPHONES: Not available.

AUTHORITY: Porto de Angra dos Reis, Pca. Lopez Trovao, Angra dos Reis, Rio de Janeiro, Brazil. *Contact:* Fernando Mauricio de Lima Cavalcanti, Manager.

(B) TANKER SECTION – TERMINAL MARITIMO DA BAIA DA ILHA GRANDE – TEBIG.

POSITION: 23° 03′ 38″ S., 44° 13′ 10″ W.

IMPORTANT FEATURES:

1. Anchorage – (see Brazilian Nautical Charts No. 1600, 1602 and 1609).

Anchorage for tankers: The anchorage for tankers waiting for berth is a circle with one mile radius, its centre near Ponta Acaia. Bearing 075° – 2.8 miles from Lage Branca light – (Lat. 23° 09′ 00″ S., Long. 44° 23′ 48″ W., shown on Brazilian Nautical Charts Nos. 1600, 1602 and 1609.

2. Anchorage for lighterage: The same as for waiting for berth.

3. Vessels are prohibited from anchoring in the areas near the Terminal piers, since these areas lie on the access channel for ships making for the Port of Angra dos Reis or leaving it through the Eastern bar.

4. There is no assigned anchorage for Port Authorities clearance (for the time being).

According to the Captain of the Port of Angra dos Reis, Free Pratique will be granted upon docking at the Terminal pier.

5. Display of quarantine signals on approach to Angra dos Reis must be continuously maintained until Free Pratique is granted. These signals are: sunrise to sunset: Quarantine Flag. Sunset to sunrise: Signal lights red over white.

6. In addition to quarantine signals the Brazilian Flag must be flown from vessel's foremast throughout the vessel's stay in port.

7. The access channel from anchorage to the manoeuvring area (near the pier) is about 8.75 miles long, 350 m. wide and 25 m. deep in a S.W. – N.E.'ly direction, beaconed with 18 resilient beacons (eight exhibit Fl. W. 5 sec. 3M. and ten exhibit Fl. R. 5 sec. 3M.).

8. The manoeuvring area near the pier is 0.6 miles Northward and nearly 1.3 miles East-Westward and more than 30 m. (90 ft.) depth.

9. Signals for emergency: Series of 7 short blasts followed by 1 long blast of the ship's whistle or siren.

10. The Terminal operates around the clock.

11. There are two "open L" shaped piers for accommodating oil tankers, projecting from Ponta do Leme into the sea, about 1,318 m. long in an East-Westerly direction.

12. Pilotage is compulsory when making for the pier and commences near Ponta Acaia.

DOCUMENTS: The Captain of the Port of Angra dos Reis authorises ship's clearance upon berthing alongside the Terminal piers.

The following documents are required for immediate inspection by the boarding officials:

Any and every document issued or related to ship's clearance at the Last Port of Call.

5 copies Crew List.
2 copies Stores List.
2 copies Personnel Effects.
3 copies Passenger List.
3 copies Cargo Manifest.
3 copies Bill of Lading.

APPROACHES: A vessel making for TEBIG approaching by the channel Westward of Ilha Grande should steer for Lage do Coronel light column (a truncated pyramidal concrete column painted in red and black horizontal bands 4 m. in height situated in the middle of the rock (Gp. Fl. (2) R. 10 sec. 10M.) (Lat. 23° 06′ S., Long. 44° 24′ W.), bearing more than 000° which will lead Westward of Lage do Pendao de Fora. When Lage Branca light-column bears 090°, course should be altered so as to make for the swept channel, beaconed with 18 resilient beacons (Fl. W. 5 sec. 3M. and Fl. R. 5 sec. 3M.) in a S.W. – N.E.'ly direction about 9 miles long, 350 m. wide and 25 m. deep, which leads to the manoeuvring area near the "L" shaped piers.

The "Terminal Maritimo da Baia da Ilha Grande – TEBIG" facilities are situated on the mainland, in front of the central part of Baia da Ilha Grande.

Its "L" shaped piers extend about 1,318 m. from Ponta do Leme in an East-Westerly direction and have berthing space for tankers up to 500,000 d.w.t.

PILOTAGE: Pilotage is compulsory when making for the piers.

Pilots moor, unmoor and supervise the movement of all vessels in the vicinity of the piers. Compulsory pilotage starts near Ponta Acaia in position Lat. 23° 09′ 00″ S., Long. 44° 23′ 48″ W.

Pilot will board the ship at this point from a launch or tugboat. Vessels must be equipped with satisfactory mooring equipment, lines, gear, etc., and ballasted to the satisfaction of the Pilot.

It is the responsibility of the Master to notify the Pilot of any special conditions, difficulties or peculiarities such as engine or boiler deficiencies, defective navigational equipment, mooring lines, tackle, gear, or lack of necessary equipment which might impose hazards in connection with the handling, mooring, unmooring, discharging and loading of vessel.

At the piers, vessels must be moored to the entire satisfaction of both the Pilot and Terminal Operators.

If the Master or the Officer of the Watch is in any doubts as to the Pilot's actions or intentions, or if he does not agree with Pilot's actions considering the safe navigation or manoeuvre of his ship it is the responsibility of the Master to take the necessary steps according to his best judgement and to notify the Captain of the Port, in writing, through the General Manager of the Terminal.

ANCHORAGE: *Anchorage for tankers waiting for berth:* Anchorage for tankers waiting for berth is within a circle with 1 mile radius, its centre near Ponta Acaia, with Laje Branca lighthouse bearing 075° (true), and 2.8 miles away (Lat. 23° 09′ 00″ S., Long. 44° 23′ 48″ W.), shown on Brazilian Nautical Charts 1600, 1602 and 1608.

Anchorage for Lighterage: Anchorage for lighterage is the same as for tankers waiting for berth (see above).

Prohibited Anchorage: Vessels are prohibited from anchoring in the vicinity of the Terminal piers since the place lies on the access channel for ships making for Angra dos Reis or leaving it by the Eastern bar.

Anchorage for Clearance: There is no assigned anchorage for Port Authorities clearance (for the time being).

According to the Captain of the Port of Angra dos Reis, Free Pratique will be granted upon berthing at the Terminal pier.

RESTRICTIONS: *Access Channel:* The swept access channel from anchorage to the manoeuvring area (near the pier) is about 9 miles long, 350 m. wide and 25 m. depth, running in a Southwest-Northeasterly direction and beaconed with 18 light beacons (Fl.W. 5 sec. 3M. and Fl.R. 5 sec. 3M).

Manoeuvring Area: The manoeuvring area near the pier is approximately 0.6 miles Northward and 1.3 miles East-Westward and more than 30 m. depth.

Tidal Amplitude and Streams: Local and diurnal tidal rise is approximately 1.20 m. (4 ft.) above MLWS at neaps and 1.70 m. (5.5 ft.) in HWS.

Tidal streams are West going during the in-going, tide, running nearly parallel to the pier, and East going during the out-going tide.

If the wind is fresh from N.E., South or S.W., the tidal stream follows the direction of the wind.

Tidal stream normally attains a rate from 1.0 to 2.2 knots.

There are no remarkable tidal streams in this whole area.

MAX. SIZE: See "Berthing".

HEALTH: Vessels entering are inspected by the Health and Customs Offices between 0730 hrs. and 1900 hrs.; but by previous application, a special visit may be granted outside this period on payment of an extra tax.

RADIO: Radio Messages prior to arrival: ETA must be radioed by all Petrobras chartered vessels bound for TEBIG, 72 and 48 hours prior to arrival, to Petrobras as well as to Agent through PPR Radio Station (Official Angra Coastal Radio Station).

Confirmation as well as any changes in the time of arrival must be radioed 24 hours prior to arrival.

When within VHF range, ships must contact TEBIG for instructions.

ETA radio messages must specify "local" or "GMT" time.

SSB listening around the clock.

VHF: TEBIG Central Radio Station is in the Control Room. Transceivers are monitored by Terminal Operators tuned to Channel 16 (Delta), 24 hours a day.

TUGS: *General:* TEBIG operates 3×3,720 h.p. tugs.

Mooring and unmooring assistance is provided by these tugs which are fitted with fire pumps, water cannons and foam monitors to assist in fighting fires.

At least one tug is on duty at all times in order to provide assistance should necessity of emergency or additional services arise.

Tug/Ship Communications: The tugs are equipped with VHF radiotelephones so that continuous communications between ship and tugs may be maintained during docking and undocking manoeuvres.

A 24-hour-a-day listening watch is maintained in order to comply with ship's or operational personal requests even if the vessel is already berthed.

Should a radio failure occur when docking/undocking and manoeuvres are in progress, the following whistle signals must be used:

Calling: 4 long blasts followed by 1 or 2 short blasts. Short blasts are intended to number the tugs needed, that is, one blast one tug, two blasts two tugs, and so on.

Before towing line is made fast: 2 short blasts – stand by for pushing on the bow or picking up ship bow line. 3 short blasts – stand by for pushing on the stern or picking up ship stern line.

After towing line is made fast: 1 long blast – pull to starboard. 2 short blasts – pull to port side. 3 short blasts – stop pulling.

Manoeuvring alongside ship: 1 short blast – pull. 2 short blasts – push.

Other ship's whistle signals for the tender craft:

Calling: 2 long blasts followed by 1 short blast – calling pilot launch. 1 long blast followed by 2 short blasts – calling motor launch.

Tugs will acknowledge orders received by sounding a short blast; since tugboats are equipped with radio-telephone, orders may be given by radio.

Unless otherwise ascertained, the Pilot gives orders to the fore tug sounding a mouth whistle and to the aft tug sounding the ship's whistle.

Launches:

Launches for Crew Members: The Terminal does not operate launches for crew transportation. Ships must contact Agent in order to have launches rented for such a purpose if needed.

Pilot's Launch: Pilots use either one of the manoeuvring tugs or pilot's station launch since TEBIG operates no launches for pilotage service.

Small craft for assistance in manoeuvres: Assistance in handling mooring lines is rendered to TEBIG by contract with specialised firm including operation of two small diesel powered launches.

CONSULS: There are no Consular representatives available in Angra dos Reis. The nearest city where such representatives can be found is Rio de Janeiro, where most of the maritime nations maintain Consulates. Agents may be able to contact Consulates if duly notified in good time.

BERTHING: TEBIG operates around the clock. Vessels may moor and unmoor at any hour except in severe adverse weather conditions.

Pier Facilities: There are two "L" shaped piers for accommodating oil tankers up to 500,000 d.w.t., projecting from Ponta do Leme into the sea, about 1,318 m. (3,954 ft.) long in an East-Westerly direction.

	Outer Berth	Inner Berth
Name:	P-1	P-2
Location:	South Side	North Side
Length:	570 m. (1,869 ft.)	570 m. (1,869 ft.)
Depth:	36 m. (118 ft.)	36 m. (118 ft.)
Loading Arms:	4×20 in.for oil and ballast 1×12 in. for diesel oil and fuel oil	4×16 in. for oil and ballast 1×12 in. for diesel oil 1×12 in. for fuel oil

Ship's manifold maximum heights above loading arms platform level:

Outer berth (P-1)	23.60 m. (77.5 ft.)
Inner berth (P-2)	20.60 m. (67.5 ft.)

Height of loading arm platform above MLWS: The height of the loading arm platform level referred to the MLWS is 7.20 m. (21.6 ft.).

Max. allowed d.w.t. for operating ships:

Outer berth (P-1)	Up to 500,000 d.w.t.
Inner berth (P-2)	Up to 350,000 d.w.t.

LOADING/UNLOADING: *Equipment:* The pier is equipped with the following lines for loading/unloading and/or bunkers (both berths):

3×42 in. oil lines about 9,500 m. long; 10.5 kg./sq.cm. (150 lb./sq.in.) maximum working pressure; 12,000 cu.m./h. maximum flow rate (each).

1×26 in. line for ballast, about 1,800 m. long; 10.5 kg./sq.cm. (150 lb./sq.in.) maximum working pressure and 4,000 cu.m./h. maximum flow rate.

2×20 in. lines for fuel oil, about 2,000 m. long; 10.5 kg./sq.cm. (150 lb./sq.in.) maximum pressure and 1,800 cu.m./h. maximum flow rate (each). Maximum working temperature for both lines: 75°C (167°F).

1×12 in. line for diesel oil, about 1,500 m. long; 10.5 kg./sq.cm. (150 lb./sq.in.) maximum working pressure and 1,070 cu.m./h. maximum flow rate.

1×8 in. line for drinking water, 3.2 kg./sq.cm. (45 lb./sq.in.) working pressure and 133 cu.m./h. maximum flow rate.

Auxiliary Facilities: Both berths are equipped with recording devices to measure continuously the ship's speed and her distance to the pier, referred to the pier longitudinal axis.

Both berths are also equipped with hydraulic powered accommodation ladders for easy access aboard ship.

Cargo/Ballast Operation:

General: The terminal is equipped with 2 slop tanks with a combined capacity of 42,000 cu.m. or 264,172 bbls. (21,000 cu.m. or 132,086 bbls. each).

Discharge into the sea of any amount of oil or oil based products, either alone or in combination with ballast water, is strictly forbidden and heavily fined.

TEBIG is particularly interested in having vessels complete the deballasting operation promptly after berthing in order to minimise time at berth.

Simultaneous loading/deballasting or unloading/ballasting is allowed on properly equipped vessels.

Hose Handling: Hoses are in use for fresh water supply only. For loading/unloading operations the Terminal is equipped with 11 quick release flange connection loading arms of 150 lb./sq. in. capacity.

Nominal Flow Rates: The terminal lines allow oil discharging at a rate of 25,000 cu.m.p.h. and loading up to 13,000 cu.m.p.h.

Cleaning Tanks:

Discharging of oily water resulting from conventional tank cleaning is not allowed as a rule. Provided previously scheduled and accepted by Terminal, crude washing may be authorised.

MEDICAL: In emergencies or cases of serious injury, TEBIG may assist with first aid. Medical treatment in case of serious illness must be requested by Masters to Agents.

Dental treatment is available in Angra dos Reis.

If the patient(s) cannot speak Portuguese or Spanish, an interpreter will be desirable for better understanding.

FRESH WATER: *Drinking Water:* TEBIG is equipped for supplying drinking water through universal quick release 2.5 in. universal manifold from a 8 in. line with a 133 cu.m.p.h. flowing rate. There are also threaded ended hoses with 2.5 in. thread and 7.5 pitch series, male and female.

Boiler Water: TEBIG auxiliary area is equipped with 2×1,550 cu.m.p.h. tanks (each) for own use as well as for supplying ships with boiler water through a 8 in. line.

FUEL: TEBIG is equipped with blending machines for mixing fuel oil and diesel oil in order to supply berthed tankers with any type of bunkers e.g. bunker C, marine gas oil, marine diesel oil and marine fuel with any grade of viscosity, and charging international prices.

Orders for bunkers must be placed 48 hours in advance and addressed to:

Divisao de Abastecimento de Navios, Departamento Comercial, Av. Republica do Chile, 65 – ZC – 06, Rio de Janeiro 20.000 – RJ – Brasil. Cable Address: Petrobrasecope. Telex: 031422 or 031423.

Departamento Comercial may also be contacted through Owner's Agent.

Lubricants: Orders for lubricants must be placed 15 days in advance and addressed to:

Petrobras Distribuidora, Praca 22 de Abril, 36 – 4°. andar, ZC, 06 Rio de Janeiro 20.000, RJ, Brasil. Telex: 031422, 031423 and 031424. Tel: 242-9381 and 242-4901.

Petrobras Distribuidora may also be contacted through owner's Agent.

REPAIRS/DRY DOCKS: *Ship Repairs:* There is a shipbuilding yard, Verolme Estaleiros do Brasil, in Baia de Jacuacanga (km. 83 Estrada Rio-Santos) which may be used by vessels to effect limited repairs only, since it main activity is shipbuilding.

There is no specialised personnel or well equipped workshops intended for ship repairs.

In case of emergency repair or those which cannot possibly be postponed and which Verolme yards cannot effect, the following workshops may be contacted for limited repairs.

Industria e Comercio Angrense Ltda. Rua do Comercio 495 – Loja 6.

Oficina Mecanica Tres Irmaos, Rua Arcebispo Santos 209 – Fundos.

Electronic Repairs: There are no workshops or specialised personnel for repairs in electronics available in Angra dos Reis.

Agents may be able to take the necessary steps in order to comply with orders placed for repairs in electronics if contacted in good time.

Compass and Radio Adjustments: Orders for compass and radio direction finder adjustments must be placed through Agents well in advance, considering that such services are not available in Angra dos Reis.

SURVEYORS: There are no classification societies representatives in Angra dos Reis. However they may be called from Rio de Janeiro and/or Santos upon Agent's request. ABS, LR and BV maintain offices and representatives in Rio de Janeiro.

Petroleum Inspection: No Petroleum Inspection Services are available in Angra dos Reis. They may be contacted in Rio de Janeiro or Santos at the following addresses:

Chas. Martin & Co., Rua da Lapa 200 – Conjunto 906, 20.000, Rio de Janeiro – RJ – ZC – 00. Tel: 242-4219, 245-5636.

E. W. Saybolt & Co., Rua Bras Cubas, 3, 11100 – Santos – SP. Tel: 4-6638.

Sociedade Brasileira de Superintendencia S/A (Redwood), Av. Presidente Vargas 466, 13° andar, Rio de Janeiro, RJ, 20.000. Tel: (021) 233-3522.

WEATHER:

Winds: Easterly winds predominate but due to the Ilha Grande high mountains they may blow from several directions. S.S.W. winds due to cold fronts may cause heavy seas and swells in exposed areas. S.S.W. winds often blow in the afternoon period. N.N.E. winds are not infrequent. Wind speed ranges from 3 knots to 30 knots in the Terminal area.

In the Autumn and Winter, cold fresh winds are common on the coast from Rio de Janeiro to Santos. In daytime the breeze tends to increase the East component, and at nightime the West component predominates.

In protected areas (harbours, bays and channels in this area) S.S.W. winds starts about noon, when fresh to moderate winds cause the temperature to decrease; wind force decreases at night and an interval of calm follows, before the arrival of the sea breeze from N.N.E., about 2000 hrs. (local time) until 1000 hrs. (local time).

Rain: The average annual rainfall is about 2,000 mm. in the area.

Visibility: The visibility in this area is generally fair to good.

During Autumn and Winter fog is moderately frequent in the early morning. In Summer time, dry haze is comparatively frequent, causing the visibility to be reduced.

Temperature: Local average temperature ranges from 18°C (64.4°F), in June and July, to 35°C (95°F), in December and January.

Pressure: The pressure over the area is about 1,015 mb. in good weather.

Humidity: Humidities are comparatively high, ranging from 76% to 81%.

SHORE LEAVE: Ship's personnel are not permitted ashore for any purpose whatsoever until Free Pratique has been granted. Luggage and packages are subject to Customs Officers and/or Terminal Watcher inspection. As a rule shore leave is permitted with the above stated restrictions. Vessels are not permitted to sail unless all crew members are onboard. In case of seamen left ashore for any reason whatsoever all expenses are for ship's account.

Passengers: Passengers will be permitted ashore if in possession of the required visas and documents.

GENERAL: *Charts:* No charts or Pilot Publications are available either at the Terminal or Angra dos Reis. If necessary, Agents must be contacted for placing orders in Rio de Janeiro.

The "Diretoria de Hidrografia e Navegacao" (Brazilian Navy Hydrographic Service) issues the following navigational publications:

Chart Numbers: 1600, 1601, 1602, 1603, 1604, 1605, 1606 and 1609 (soundings in metres) covering the area.

A Brazil Pilot of the Brazilian Coast (Roteiro).

List of Lights (Lista de Farois).

Flags: Display of Quarantine signals on approach to Angra dos Reis and TEBIG facilities must be maintained until Free Pratique is granted. These signals are: sunrise to sunset: quarantine flag ("Q"). Sunset to sunrise: Signal lights – red over white.

In addition to quarantine signals, the Brazilian Flag must be flown from vessel's foremast throughout the vessel's stay in port.

Vessels entering or leaving Brazilian ports must display their ensign when within 3 miles of the entrance to a port or anchorage and, by day, also display their call letters in flags of the International Code of Signals.

Cranes: Neither TEBIG and Angra dos Reis Port operate floating cranes. Verome Yards may rent a floating crane with 80 tons capacity. TEBIG does not operate barges or lighters.

Provisions and Stores: Orders for provisions and/or stores may be placed through Agents. Since some items are only obtainable in Rio de Janeiro, orders must be placed as soon as possible.

Laundry: No laundry facilities are available at TEBIG. There are however laundry facilities in Angra dos Reis which may be used through Agent, which must be contacted as soon as possible for such purposes.

Mail Services: No Post Office Agency is available at TEBIG. Mail must be sent care of Agent and posted in Angra dos Reis.

Cash Advances: TEBIG is not authorised to effect cash advances. Master must contact either Owner's Agent or FRONAPE for such purpose (FRONAPE must be contacted in the case of ships chartered by PETROBRAS).

Customs Watches: Brazilian Customs Officials may be assigned on board according to Customs Regulations in order to enforce the said regulations. Meals must be supplied to these Officials at regular meal times.

Contraband: Brazilian law is very strict in every aspect concerning smuggling. Masters are requested to instruct their crews about restrictions concerning trafficking goods of any kind including cigarettes, cigars, tobacco, alcoholic beverages, souvenirs, firearms, playing cards, narcotics. Trafficking in these articles or any others, between ships or between ships and Terminal employees or representatives, or anybody else is strictly prohibited and failure to comply with the law may result in several penalties.

Items as above stated must be kept sealed under lock and key.

Visitors: No visitors are allowed aboard ships berthed alongside unless duly authorised by Master and Terminal Superintendent and local Maritime Police. Unauthorised visitors will have to be reported to the Maritime Police.

National Holidays: All ships in port must be fully dressed on the following National Holidays: September 7th and November 15th.

Machinery in Readiness: When berthed alongside PETROBRAS' Terminal vessels must keep engines and propulsion machinery in readiness to leave the berth under full power on short notice.

No repairs are allowed which would interfere with this requirement.

Violation of this rule will entail towage from the berth at the vessel's expense and PETROBRAS will not accept any kind of responsibility for the resulting delay to the vessel.

Refuse and Garbage: All deck scuppers must be kept plugged and, as far as possible, discharging of waste water from lavatories on terminal side must be prevented.

TEBIG has no way to deal with ship's garbage or refuse. If absolutely necessary, Agent must be contacted for such a purpose.

Fishing and Painting: Use of pier for painting ship's hull is not allowed. It is also forbidden to fish on the terminal side of the ship.

General: Shore access to TEBIG is by car or by bus along BR-101 Highway km. 81 Jacuacanga.

TEBIG is 150 km. (about 93 statute miles) from Rio de Janeiro.

There is a regular bus service between these cities. There is international telephone service available (Long Distance Direct Dialling) DDD (0243 for Angra dos Reis). The piers are equipped with two hydraulic powered accommodation ladders which allow personnel to board the vessel safely.

At the ladder's end, a lifebuoy is fastened to a 27 m. (29 yd.) long safety line.

Telephone Numbers: Important telephone numbers of the Terminal:

Executive Assistant of the Terminal	202*
Operations Manager	203*
Operations Supervisor (around the clock)	215, 280 and 283
Operating Room (main) (around the clock)	215 and 280
Operating Room (auxiliary) (around the clock)	244
Pier (around the clock)	246
Traffic and Facilities Section	241*
Program and Control Section	240 and 204*
Safety Section	260**
Marine Section	250**
Medical Section	221**

*to be called in working hours only

**when needed out of working hours call 215, 280 or 283

SHIPMASTER'S REPORT: November 1981.

Port Name: Although called "Terminal Maritimo de Baia de Ilha Grande" orders for this terminal are given for "Angra dos Reis". Terminal called TEBIG.

Anchorage: Outside the port about 3 miles West of Laje Branca. Except in special cases officials will not board vessel in this anchorage as a result of difficulties experienced in the past with sudden changes of weather. In the approaches to the port, to South and North of the buoyed channel, anchorage is possible with a max. draft of 21 m. and port officials will board vessels here, shore leave being possible by shore launch for crew.

Pilotage: Pilots board off the seabuoy at the entrance to the buoyed channel to take vessel to terminal or inside anchorages. Outward bound the Pilot remains until the last pair of channel buoys. Pilots work ships for terminal only.

Channel Lights: These are neither very bright nor very reliable.

Pratique: There is no radio pratique and quarantine officials board with Customs and Immigration but ships should cable to Agents two days prior to arrival "Codicoes Sanitarias Abordo Satisfactorias".

Formalities: 2 each Crew Lists, showing vaccination dates; 2 each Store Lists and Personal Effects; 8 Crew Lists. Ship's Certificates taken ashore by Agent to effect Clearance.

Agents: Direct VHF communication from office to ships in anchorage or at terminal. Until recently weekend cables were erratic but telex is now installed.

Shore Leave: By minibus from berth to Angra dos Reis (30 minutes) – taxis not allowed inside terminal gate (30 minutes walk from berth). No passes required.

Crew Changes: Easily possible (via Rio de Janeiro, 3 hours by car) – sometimes difficulties with Customs for crew joining and leaving bringing/taking radio/cassette players, Customs escort sometimes being required or ambiguous fines imposed.

Fresh Water/Bunkers: Available at terminal. Lighter fuel oils are sometimes a mixture of heavier fuel and diesel oils.

Tugs: Three terminal tugs of 4,000 h.p. each always available, fourth tug for larger ships (also 4,000 h.p.) berthing is sent from Rio de Janeiro. Two ship's lines are used to bow and stern tug (and care should be taken sending these as tugs inclined to steam off with them) and tug's lines from shoulder tugs.

Berth: Single long finger pier, South side taking ships up to 500,000 d.w.t and North side up to 350,000 d.w.t. Ships on North side feel current flow tending to push them off the berth and short "semi-breast" stern lines are preferable to ones with long drifts. Main deck springs are sometimes impractical to the shore as centre dolphin section of the pier is about 260 ft. in length and in many ship's springs would be too short. Otherwise plenty of mooring hooks and general pattern is 2 springs, three breast and four head/stern lines.

Terminal: Communication by VHF; crude oil washing permission should be sought prior to arrival; usual check lists; terminal schedules of berthing and discharge are very variable.

AUTHORITY: Terminal Maritimo da Ilha Grande-TEBIG, BR-101 km. 81 – Jacuacanga, C.P. 73091, Angra dos Reis – RJ, CEP 23900, Brazil. *Tel:* 65-0358 PABX, Direct long distance dialling number DDD 0243 (for Angra dos Reis) followed by the telephone number (65-0358). *FAX:* 021.225.73 or 021.233.35. *Contact:* The Superintendent.

Head Office: Petroleo Brasileiro S/A – Petrobras, Avenida Republica do Chile, 65-ZC-06-Centro – Rio de Janeiro – 20.000 Brazil.

Divisao de Operacoes: Same address, as above, 12th Floor, (Operations Division).

Captain of The Port: Almte. Julio Cesar de Noronha, Avenue No. 39, Angra Dos Reis. *Tel:* (0243) 65-0365. *Contact:* Captain S. Silva, Captain of The Port.

rrcd.

ANTONINA (Barao de Tefe): 25.26 S. 48.41 W. (See Plan)

Also see "General" before first port and "Paranagua".

PORT LIMITS: The limits of the Port of Barao de Tefe extend from the Teixeira Point to the port quay.

DOCUMENTS: See "Paranagua".

Inspection carried out at Paranagua.

PILOTAGE: Compulsory in the port of Barao de Tefe and in the access channel. Also see "Paranagua".

ANCHORAGE: Only anchorage is in the vicinity of Teixeira Point (See DHN chart No. 1823). See "Paranagua" for quarantine and explosives anchorages.

Anchoring in front of the quay is prohibited.

RESTRICTIONS: *Access Channel:* This is marked on chart No. 1823 of the DHN (National Hydrographical Directorate), the channel is 120 m. wide, running in a S.E. – N.W. direction, starting at the Island of Teixeira and proceeding as far as the manoeuvring basin.

Critical Points: Itaucu de Baixo Rocks, Shallows of Fundao Grande and Joao Fernandes; average depth 5 m. Anchoring in the channel is forbidden, and to navigate it, it is necessary to have good visibility and daylight.

Tide: The average speed reaches 3 knots on the ebb tides, average height during Spring tides – 2.2 m., Neap tides – 1.7 m.

Berthing: Manoeuvring may only be effected in daylight and good visibility. Berthing always takes place on a rising tide.

TUGS: To be requested from Paranagua.

BERTHING: The area for manoeuvring is 280 m. wide in front of the quay, with a length of 700 m. Variable depth between 6.5 m. and 7.5 m.

Length of berth, Matarazzo Quay, length 200 m. (additional quay, length 150 m. planned, being 45 m. from Matarazzo Quay); depth alongside, 6.0 m. – 6.5 m.; Bollards 50 m. apart.

Facilities: 5 warehouses, 12,200 sq.m. without cold storage; 1 vertical silo at Matarazzo of 8,500 tons capacity (not in operation); open air areas, 7,500 sq.m.

Cranes: 1 of 6.5 tons on rails, 4 on tyred wheels of 9 and 3.5 tons, stacker trucks – 4 of 5 tons capacity, 4 of 2.5 tons and 5 of 2 tons. No rolling bridge, loaders or suction units available.

Railway lines extending 3,100 m. but no locomotives available; 6 wagons which are of the open type (28 ton capacity); 22 trucks on tyred wheels (3.5–7.0 tons capacity).

No Ro/Ro or container facilities. No barges, pontoons or lighters available.

STEVEDORES: See "Paranagua".

MEDICAL: Hospital available. Tel: 432-1244.

FRESH WATER: One hydrant at end of port quay, rate 30 cu.m.p.h. and 3 hydrants at Matarazzo Quay (100 m. apart), rate 30 cu.m.p.h.

No water boat available.

FUEL: Available to vessels alongside by road tanker.

REPAIRS: See "Paranagua".

AIRPORT: At Curitiba (Afonso Pena Airport) 65 km. away, or Paranagua for light aircraft 50 km. away.

HOLIDAYS: Local: 6th November (City Anniversary), 15th August (City's Patron Saint Day).

CUSTOMS: Tel: 432-1221.

POLICE/AMBULANCE/FIRE: Police, Tel: 355 or 432-1234; Fire Brigade from Paranagua is used.

TELEPHONES: Not available.

SERVICES: Foodstuffs available. Rubbish collection is the responsibility of the Agent.

GENERAL: Following received from a ship's Agent in 1980.

The Port of Antonina is situated in the inner recesses of Paranagua Bay, about 15 miles from this port. Vessels demanding that port receive Free Pratique at Paranagua and proceed on voyage 1 hour before HW. As the channel has no light-buoys, navigation is only possible during day time. There are only 2 berths available at Antonina, and should both of them be occupied, vessels await in Paranagua, because there is no safe anchorage there.

Vessels have to turn around before docking, and for this reason only small vessels should go there.

Official Maximum Drafts: Spring tide – HW: 21 ft.
Neap tide – HW: 18 ft.
LW: 15 ft.

Stevedoring – Labour:

a) Number of gangs available: Not restricted.

Stevedores affiliated to their Union.

b) Working hours:

Normal hours:	0700–1100	1300–1700
Night hours:	1900–2300	0000–0400
Overtime:	1100–1300	1700–1900
	2300–2400	0400–0700

c) Number of men in regular gang:

Unitised cargo:	9 men.
Break-bulk cargo	11 men
Reefer cargo:	20 men

d) Labour available all year round.

e) Rigging and cleaning gangs available.

f) Capable supervision is available. In addition to normal stevedore supervisors, agency employees give ample assistance to ships' operations.

g) Average tons worked per hour per gang, loading: Bagged cargo: average of 40 t.p.h. General cargo: average of 10/20 t.p.h.

h) Average tons worked per hour per gang, discharging:

Bagged cargo: average 20 t.p.h.
General cargo: average of 10/15 t.p.h.

Equipment/Gear:

Shore gear, hooks, slings, etc., available.

Heavy lift slings available to handle maximum 120 tons.

Shore cranes:

1 electric crane	– capacity 25 tons	– Outreach 25 m.
4 electric cranes	– capacity 6.3 tons	– Outreach 25 m.
4 electric cranes	– capacity 3 tons	– Outreach 15 m.
6 electric cranes	– capacity 3.2 tons	– Outreach 25 m.
4 electric cranes	– capacity 2 tons	– Outreach 25 m.
1 automotive crane on tyres	– capacity 30 tons	– Outreach 20 m.

1 floating crane available, capacity 110 tons.

Cargo is discharged onto railroad trucks and trailers. Export cargo is brought alongside by trucks, railway cars or trailers.

Sideloaders also available.

No container spreaders available.

No lighters available.

Warehouse/Transit Cargo Sheds:

a) Within the port area there are 31 warehouses of concrete construction, with tile roofs, with a total of 87,310 sq.m. of storage.

b) A small refrigerated storage shed is available, used mostly for meat, fish, shrimps and fruit; its capacity is for 2,900 cu.m., and there are 9 chambers.

Temperature: Range of 14°/15°F. One chamber can be brought down to −13°F.

c) Free time period allowed on cargo discharged from vessels is 6 days.

d) Storage always paid by importer/exporter.

AUTHORITY: Administracao dos Portos de Paranagua e Antonina, Av. Conde Francisco Matarazzo, Antonina, Brazil. *Tel:* 432-1027.

Port Captain, Rua Marques de Herval 216. *Tel:* 432-1384.

ARACAJU: 10.55 S. 37.03 W. (See Plan)

LOCATION: On the right hand bank of the Rio Sergipe, 3.24 nautical miles from the entrance. D.H.N. Charts 1000 to 1003 cover this area.

PILOTAGE: Compulsory.

APPROACHES: The access channel is 100 m. long and 2.9 m. deep. Tidal variation 2.3 m.

BERTHING: Manoeuvring basin is 600 m. long with a depth of 12 m.

The quay consists of 96 m. (concrete) and 80 m. (wood) berthing space, with depths of 6 m. and 7 m. available. Warehouse of 1,200 sq.m. and 50,000 sq.m. open storage available.

CRANES: One 9 ton mobile crane available.

BULK HANDLING FACILITIES: There are 3 silos, with a capacity of 5,800 tons and one mechanical wheat loader, capacity 20 ton. A 40 ton weighbridge is also available.

FRESH WATER: Available, delivery rate 25 t.p.h.

CONSULS: Portugal (vice-consul).

REPAIRS: Can be undertaken.

AIRPORT: Nearest at Santa Maria, 13 km. distant.

TIME: GMT minus 3 hours.

HOLIDAYS: National: January 1st, April 21st, May 1st, September 7th, November 15th and December 25th.

Regional: December 8th.

Movable: Monday and Tuesday of Carnival, Ash Wednesday, Good Friday and Corpus Christi.

Commemorative: August 28th, October 28th, October 30th and November 2nd.

AUTHORITY: Administracao do Porto de Aracaju, Av. Joao Rodrigues, s/no., 49000, Aracaju, SE. *Tel:* (0792) 22-3314. *Contact:* Engineer Militino Rodrigues Ferreira, Administrator. *Tel:* (0792) 22-3217.

ARATU: 12.47 S. 38.30 W. (See Plan)

LOCATION: The port facilities of Aratu are located on the Eastern side of All Saints Bay in the Enseada do Caboto, between Marinho and Pereira Points, to the North of the Bar of Cotegipe and the Naval Base of Aratu, facing the Mare Island.

Its areas of administration and jurisdiction correspond to the Bay of All Saints, limited to the South by parallel 12° 50′.

DOCUMENTS: See "General" before first port and "Salvador".

PILOTAGE: Compulsory. Requests for Pilots are to be made to the Bay of Todos os Santos Pilots' Association at Serra da Raiz Building, 5th Floor, Room 510 – Rua da Grecia 8, Tel: 242-2221 or by Channel 16 VHF-FM of the coastal radiotelephone network.

Requests must be made 2 hours in advance, specifying the time of the vessel's entry.

APPROACHES: *Access Channel:* The access channel starts at Lat. 12° 58′ S., Long. 38° 31′ 55″ W. with a minimum depth of 18 m. (see Chart 1108 of the NHD). The channel is marked by 8 light buoys, 4 to starboard with red lights and 4 to port with white lights and by the lighthouse at Areia Point. To the North of the Port of Aratu is the lighthouse of Cabrito Point which provides a good landmark day and night for vessels bound for the port of Aratu. The length of the channel is about 2 miles as far as the manoeuvring area, with a minimum width of 180 m.

The improvement of the nautical signalling arrangement in the access channel to the port is planned, based on a study carried out by a Dutch firm and under an agreement which will be signed with the SSN. The following points are fairly clear and serve for direction finding purposes:

(a) Furnaces of the Salvador Cement Company, at Sacopa Point, during the day;

(b) USIBA terminal which has a red light at its top, serving as a reference point both day and night.

(c) Construction at the top of the hill at Toque-Toque Point, during the day.

(d) Church of Nossa Senhora das Neves on the Southern part of the Island of Mare during the day;

(e) The lighthouses of Areia Point and Cabeto Point, both day and night.

Existing Dangers: The shoal to the West of Sacopa Point and the banks of the Island of Mare are being permanently dredged.

Manoeuvring Area: The area intended for berthing and unberthing of vessels is defined to the East and West by the 10 m. line, with variable width from 400 m. to 1,000 m., limited to the South by the 12° 46′ 09″ S. parallel. Minimum depth 12 m. Depth at Bar 20 m. Max. height of tide 2.8 m.

ANCHORAGE: The anchorage of Monte Serrat, must be used for visiting vessels and for manoeuvring. Anchorage is prohibited in the manoeuvring area and in the access channel (See chart).

The visiting areas of the Port Health Authorities, Federal Receipt and Maritime Police are those defined by a radius of one mile around the points of co-ordinates Lat. 12° 58′ 07″ S. and Long. 38° 32′ 18″ W. and Lat. 12° 55′ 56″ S. and Long. 38° 31′ 37″ W., as shown in chart 1.102 of the National Directorate of Hydrography.

Vessels may only come alongside the berth after having been visited by the authorities. The anchorage for free pratique coincides with the waiting area for Pilots and the permitted anchorage area (i.e. the anchorage area of Monte Serrat).

MAX. SIZE: Access to Bulk Terminal: Length 220 m. Draft 11.6 m. Beam – No restriction. Also see "Berthing".

HEALTH: See "Anchorage".

TUGS: Salvador tugs used.

BERTHING: To carry out operations of vessels going to the Port of Aratu and movement of their cargo and storage, the Port has specific Terminals, with an infrastructure capable of giving highly efficient operations as follows:

Cargo:

1. Solid Bulk Terminal – T.G.S.
2. Liquid Bulk Terminal – T.G.L.
3. Gas Products Terminal– T.P.G.

Solid Bulk Cargo Terminal – T.G.S.:

Finished in 1976, commenced operations in 1977 and has a basic formation of:

A berthing pier; berthing dolphins (2) – South side; access bridge; a storage area; silos and warehouses (private); various equipments.

This terminal will also be equipped with a berth for solid bulk. Beginning of operations is expected in 1988. This dock will be equipped with a pier of approximately 175.05 m. in length; draft of 12 m. for vessels of up to 40,000 g.r.t. over which electric portico cranes and special private facilities will be installed.

The mooring dolphins will also be built with access by means of passageways from the pier. For storage and handling of bulk solids, which will be performed at this site, a complete infrastructure will be prepared on the re-fill, including highway/railway access.

Handling of aggressive and/or corrosive solid bulk products currently operated at TGS, such as sulphur and fertilizer as well as alumina, will be transferred to this pier. In addition to these products, all bulk currently handled at the Port of Salvador which, due to physical/chemical difficulties could not yet be handled at Aratu, will also be transferred to this dock.

Mooring Pier:

Constructed in reinforced concrete on pipes and with the following characteristics:

Level +4.50 m.; width 37.50 m.;, length on the North side 153.20 m., on the South side 202.60 m.; distance between dolphins 286.60 m. (on the South berth).

North Berth: Depth 10.00 m.; largest permissible vessel 100,000 g.r.t.; distance between mooring points 24 m.; max. load on mooring point 50 tons (9); cylindrical fenders, external diameter 0.80 m.×1.50 m. (12).

South Berth: Depth 11.00 m.; largest permissible vessel 100,000 g.r.t.; distance between mooring points 24 m.; max. load on mooring point 50 tons (9); cylindrical fenders, external diameter 1.20 m. × 1.50 m. (24). Note: In a later phase, after extension, the depths will be increased as will be permitted loads.

Mooring Dolphins:

There are 2 berthing dolphins in reinforced concrete on pipes situated on the South side of the pier with the following characteristics:

Distance from axis to axis, 286.60 m.; mooring capacity 100 tons; dimensions 10 m. × 10 m.

Access Bridge:

Constructed in protected reinforced concrete with the following characteristics:

Level +4.5 m.; width 9 m., length 200 m.; load projected – Class 36.

This acts as support for the conveyor belts, pipes, electrical supply, passage of vehicles and service equipment, ambulances and fire fighting equipment.

Storage Open Area:

For storage of various solid bulk cargoes in the open air, destined for import and export, with the following characteristics:

Covered by asphalt concrete; total width 114 m.; total length 600 m.; total area 68,400 sq.m.; usable area 35,840 sq.m.; Permitted load 30 tons/sq.m.; max. static load 475,000 tons.

Note: By virtue of the diversification of solid bulk cargo moved and stored in the open air, the loads stated are subject to the action of wind and rain and special care is recommended with regard to positioning; protection and cleanliness at the storage area.

Silos and Warehouses (Private):

1. Alcan – Aluminio do Brasil Nordeste S.A.

Installations for receipt and storage of calcinated aluminium, connected to the T.G.S. transport system, and constituted basically by: 1 vertical metal Silo on a structure of reinforced concrete with top feed and discharge at the bottom through 9 outlets, capacity 10,000 cu.m.

1 conveyor belt "B10" width 48 in. and 141 m. long.

Note: Extension of these installations is planned by construction of more vertical silos.

2. Nitrofertil – Fertilizantes Nitrogenados do Nordeste S.A. Installations for receipt of urea by road vehicles and rail trucks, storage under cover and shipment connected to the transport systems of T.G.S. and constituted basically: By a discharge station for road vehicles and railway trucks under cover and containing 4 silos and two 401–V–48 in. and 402–V–48 in. transporters, both with a capacity of 300 t.p.h.

One warehouse constructed from reinforced concrete, with 50 m. width and 200 m. long and 40,000 tons capacity, equipped with 10 dehumidifiers, 1 transporter (403–V–48 in. – 300 t.p.h.) with receipt from a moving handling unit with two outlets for stacking area, 1 Kratzer of 750 tons per hour for recovery and loading to the transporter 404–V–54 in. – 730 tons, for shipment.

One external transport complex for shipment, of 730 t.p.h., including 4 transfer points and 3 conveyor belts 405–V–54 in., 406–Va–48 in., 406–Vb–48 in.

1 weighbridge for flow purposes installed in the transporter 404–V; 1 administrative office; 1 sub-station.

3. Caraiba Metais S.A.

Installations for the receipt of copper concentrate, phosphate rock and coke, covered storage and delivery for metallurgy, through a direct duct silo and road and rail system, in the future railway silo with feed in the shed by loader and constituted basically by:

1 covered shed with 15,000 sq.m. area and storage area of 79,600 tons (concentrated copper 42,000 tons, phosphate rock 35,000 tons and coke 2,100 tons).

T.G.S. Equipment:

The installations and equipment of T.G.S. are constituted by a semi-automatic system for movement of solid bulk cargoes by three lines of operation, that is to say:

Import Line: 1. Situated on the pier there are the following installations:

1 vessel discharger unit which is mobile with a nominal capacity of 970 t.p.h. lifting capacity on the hook of 25 tons, its own weight 900 tons, maximum load in the self-carrying silo of 600 tons, which uses grabs of the 'clam shell' or 'trimmer' large capacity type, with cycles of less than 60 seconds under normal conditions and two vibratory feeders for the Bla transporter with 700 t.p.h. each. Currently there are 7 grabs ranging between 4 cu.m. and 13.5 cu.m.

2. Connecting the pier and the storage area:

1 reversible conveyor belt Blb–48 in. – 1,200 t.p.h. – 1.6 m/sec. – 442 m.

3. Situated in the storage area:

1 belt transporter B2–48 in. – 1,200 t.p.h. – 1.6 m/sec. – 247 m.

1 mobile stacker, for piling bulk solid up to a height of 10.0 m., with a capacity of 1,200 t.p.h.

The recuperation of stored merchandise for delivery to the user is performed by means of mechanical shovels with direct feeding to trucks.

Railway wagon feeding is planned for the near future.

Quantity control of bulk products is performed by means of vessel draft and/or highway scale, 60 tons capacity, installed at the Port entrance.

Average unloading capacity (production) under normal conditions is 500 t.p.h.

Factors which reduce average production:

Specific weight granulometrical and aggregation of bulk products.

Improper stowage.

Necessary clean-up of terminal between operations with different bulk products.

Improper vessels (non-bulk carrying vessels).

Export Line:

1. Situated in the storage area:

1 mobile loader fed by shovel with a capacity of 12 cu.m. with 2 vibratory feeders of 700 t.p.h. each; 1 belt transporter B3–48 in. – 1,200 t.p.h. – 1.6 m/sec. – 238 m.; 1 transfer tower B2/Blb.

2. Connecting the storage area and the pier: 1 reversible belt transporter Blb (See "Import").

3. Situated on the pier: 1 transfer tower Blb/B7; 1 belt loader B7–54 in. – 1,200 t.p.h. – 1.6 m/sec. – 19 m.; 1 transfer tower B7/BB; 1 belt transporter B8–48 in. – 1,200 t.p.h. – 1.6 m/sec. – 331 m.; 1 belt transporter B9–48 in. – 1,200 t.p.h. – 1.6 m/sec. – 81.0 m.

One mobile shiploader, with a nominal capacity of 1,200 t.p.h. and equipped with a telescopic arm which includes a lifting movement and a 54 in. belt. There is a second shiploader on the opposite side.

The recovery of cargo stored for feeding the hopper is performed by means of mechanical shovel, storage being performed either directly from dump trucks onto storage area, arranging the material by mechanical shovel for area reduction, or by means of wagon/truck unloading line which is described below.

Wagon/truck unloading line: Located in the storage area, consisting of:

1 underground wagon/truck unloading station, with 220 cu.m. silo and 2 vibratory feeders, capacity 700 t.p.h.

1 B6-48 in. conveyor belt – 1,200 t.p.h. – 1.6 m/sec. 54.0 m.

1 B2 conveyoy belt (See "Imports").

1 Stacker (See "Imports").

General comments on the T.G.S.:

Maximum specific load permitted 3.88 tons per. cu.m.

Maximum granulometry – 400 mm. diameter.

Total length of the 8 conveyors – 1,848.0 m.

Currently, the conveyor system is regulated to the primary phase, that is:

Belt velocity – 1.6 m./sec.

Maximum belt volume capacity – 1,000 cu.m. per ton.

Maximum load capacity – 1,200 t.p.h.

In addition to the equipment already mentioned, the T.G.S. has at its disposal 3 sub-stations, 1 system control house with synoptic panel and 1 control building in the storage area.

In order to perform operations, pre-established teams are assigned in advance, depending on the nature of the operation to be performed, which act within Codeba facilities.

It should be noted that in operations for private facilities (Alcan, Nitrofertil, Urea and Caraiba Metais) both the equipment and the staff from the corresponding companies should work in a synchronised manner with the Codeba equipment and staff. For this purpose, the Terminal has an interlock system for basic functions and its own telephone communications system, which reaches specific areas, using VHF radio for remaining areas.

Liquid Bulk Cargo Terminal – T.G.L.:

Completed in 1978, commenced operations in 1979, and is composed basically of: A berthing pier; 10 berthing dolphins; access bridge; platform; storage area (tanks); installations and equipment.

Berthing Pier: In this terminal, the berthing is defined by the dolphins which are located at the side of the operations platform.

North Berth: Depth 10.6 m.; largest cargo vessel permitted, 35,000 g.r.t./220 m. length; distance between fenders (2) 66 m.; maximum load – mooring heads – 50 tons (6); cylindrical fenders (2) – external diameter 1.20 m. × 1.50 m.

South Berth: Depth 11 m.; biggest cargo vessel permitted 25,000 g.r.t.; distance between fenders (2) 66 m.; maximum load – mooring heads – 50 tons (6); cylindrical fenders (2) – external diameter 1.20 m. × 1.50 m.

Note: Near the berth there is a slope which limits the operations here to the following:

(a) Maximum vessel length – 120 m. (394 ft.)

(b) Ships over 105 m. length must be equipped with bow thruster.

(c) Ships of more than 80 m. (262 ft.) length must be assisted by a minimum of 3 tug boats and operations must be performed under favourable sea and weather conditions.

(d) Time of manoeuvring is at the Pilot's discretion.

Mooring Dolphins:

There are 10 mooring dolphins made of concrete on pipes with the following characteristics

Dimensions 10 m. × 10 m.; maximum level +4.60 m.; mooring capacity 50 tons.

By virtue of the characteristics of the T.G.L. the dolphins are fitted with quick-release hooks to enable them, in case of necessity, to carry out prompt deberthing of the vessel.

Access Bridge:

Constructed of reinforced concrete on pipes with the following characteristics.

Level – variable +10 m.; width – 9 m.; length – 324.60 m.

Purpose – Access to the dolphins and platforms, passage for service vehicles, ambulance and fire fighting equipment.

Support – There are two series of concrete supports on the bridge, level +4.65 and +6.55 m. for support and passage of pipe-lines.

Platforms:

Platforms made of concrete on pipes.

Junction – On 3 levels with approximately 1,600 sq.m.

Pumping – On only one level with access by metal ladder with approx. 200 sq.m.

Operation – On two levels: upper level with 566 sq.m. and lower level with 2,068 sq.m.

For reasons of safety, vessels must not transmit forces to the operations platform of the T.G.L.

Storage Area (Tanks):

Due to contracts with pre-established duration, signed with companies specializing in movement and storage of liquid chemical products, tanks and miscellaneous facilities were built in addition to equipment and installations on the pier and TGL feedback, capable of guaranteeing full operation of transport and storage systems for chemical and petrochemical products from the area of their entrance, with a high degree of efficiency and operational flexibility.

Tank storage area operated by Tequimar – Terminal Quimico De Aratu S.A.

A complex of 40 tanks in carbon steel, carbon steel lined with stainless steel, some for multiple purposes and others for a specific product only which will be handled and stored within rigid guidelines of security, distributed in concrete construction ducts.

Installed capacity – with 40 tanks with 99,600 cu.m., thus:

2 tanks of 300 cu.m.; 12 tanks of 750 cu.m.; 12 tanks of 1,500 cu.m.; 8 tanks of 3,000 cu.m.; 2 tanks of 8,000 cu.m. and 4 tanks of 500 cu.m.

Dichloroethane: Pipeduct for Dichloroethane (EDC) with 35 km. length connecting the terminal to the Camacari Chemical Complex.

It is planned to increase the capacity by installation of more tanks in accordance with demand.

Tank accessories: Blanketing with N_2; heat installation with cooling serpentines; inlet and outlet valves motor-operated by remote tele-control; automatic level measuring with remote indicator; Automatic temperature measuring with remote indicator. central analogical computation system for control of stocks.

System of Loading and Unloading of Vessels:

Sleeves, 2 supports and 2 cranes for the movement of sleeves.

Pier lines with flanged connection valves.

10 pre-pumping tanks of 8 cu.m. on the pier – for sampling.

10 pre-pumping tanks of 8 cu.m. in the storage area – for sampling.

A complex of centrifugal ship-loading pumps with a nominal capacity of 250 t.p.h.

Simultaneous transfer operation in all the pier lines.

"Pig" device for internal cleansing and scraping of lines which handle various different products.

A complex of pumps, of the screw type of 60 cu.m/h. used for draining the lines, pumping of samples and other emergency operations. There are also two more pumps with a capacity of 120 cu.m./h. intended for services which require greater outlet, for example transfer of liquids from one storage tank to another.

Loading/unloading System for Truck Tankers:

The operations of loading and unloading trucks are performed on bases located on parallel lines on jetties, at the points near the tanks or group of tanks. These bases (12) compose the "islands" under which are installed the pumps which permit loading or unloading trucks on one side or the other of the bases, by means of loading arms.

All storage tanks are connected to the respective pumps.

Auxiliary Units:

There is in the port area a system of steam distribution, service air, drinking water, and nitrogen for all necessary operations and cleaning of pipe-lines in the terminal.

Drinking Water System:

A raised concrete storage tank with 15 cu.m. and one made of carbonic steel, with 500 cu.m. Feed is made by the distribution mains operated by Codeba with meters.

Steam System:

A tubular frame boiler, fed by diesel oil with a capacity of 2 t.p.h. of steam at a pressure of 6 kg./sq.cm.

The steam is intended for service stations and for cooling the Dutrex tanks and the lines with "steam-tracing".

One of the uses of steam is for the production of hot water for washing hoses. For this there are various water heating points distributed at the various points of consumption.

Compressed Air System:

The compressed air system consists of 2 (two) compressors of the two stage type with a capacity of 160 cu.m./h. at a pressure of 7 kg./sq.cm.

It is intended for feeding service stations and its main function is the drying of hoses after washing.

Mask Air System:

The air system for breathing consists of various stations distributed within the loading areas for lorries and vessels.

Nitrogen System:

Nitrogen is stored in a pressurized tank of 17.6 kg./sq.cm. with a liquid capacity of 34 cu.m. The system with vaporiser was planned for a demand of 200 N cu.m/h., operating at a pressure of 5 kg./sq.cm.

Nitrogen is used to inert tanks which require "Blanketing". It is also used for cleaning lines and for moving the "Pigs".

Firefighting System:

The firefighting system is constituted by equipments and installations.

The water mains to combat fire using sea water through a ring of firefighting water which covers the tank area, the anchorage and those where work and administration is carried out. The capacity of the mains is 1,500 cu.m./h. being fed by 3 pumps of 500 cu.m./h. capacity each and a maximum pressure of 12 kg./sq.cm. Apart from the firefighting pumps, there is a "jockey" type pressurised pump of 50 cu.m./h. which maintains the mains continually pressurised at a pressure of 7 kg./sq.cm.

With a complex of extinguishers of CO_2 and chemical powder; a system for storage tank cooling; A system for foam firefighting; a system for fire alarm by means of local manually operated units; a system of communication of emergency by telephonic lines.

Port Services: In view of foreman type contracts signed for pre-determined durations with Codeba, Tequimar may perform foreman services on its connections and those of others. However, it is up to Codeba to inspect such services as well as to control access to berths and vessel mooring.

Installations and Equipment of Nordeste Terminais S.A.:

Nordeste Tank Storage Area:

A complex of 30 tanks in carbon steel, some for multi-purposes and others for specific products which will be operated and stored within rigid security guidelines and distributed in docks of containment made of concrete.

Installed Capacity: 16 tanks with 28,200 cu.m. and there are under construction another 14 similar tanks with a planned capacity of 6,600 cu.m.

Tanks under construction: 8 × 300 cu.m. and 6 × 700 cu.m.

The capacity planned should bring up, after all phases of construction the total storage capacity to 63,000 cu.m.

System of Loading and Unloading of Vessels:

Sleeves, 2 supports and auxiliary arms for movement of sleeves.

5 pre-pumping 1 cu.m. tanks – for sampling on the pier.

5 pre-pumping 1 cu.m. tanks in the storage area, – for sampling.

A complex of chemical centrifugal pumps for loading vessels with a nominal capacity of 204 cu.m./h.

Simultaneous transfer operation in all the pier lines.

"Pig" – device for cleaning the interior of lines which use different products.

System of Loading and Unloading Lorries:

The unloading operations of tanker vehicles are carried out in localized bases on the bridges which are nearest the tank or group of tanks in question. The bases are constituted by "islands", equipped with 80 cu.m./h. and 204 cu.m./h. pumps which enable simultaneous discharge.

The loading operations of tanker trucks is centralised in a platform for loading tanker road vehicle's point in which it will be possible to load 6 tanker lorries at a time by independent lines at each storage point.

Drinking Water System:

A raised tank made of concrete of 5 cu.m. and another one in carbon steel of 500 cu.m. Feed is made by the distribution network operated by Codeba with meters.

Steam System:

A flame-tubular boiler with a capacity of 1,000 kg./hr.

The boiler is fed by BPF, the steam is destined for heating tanks with serpentines and service stations.

Compressed Air System:

Constituted by an Atlas Copco air compressor, continuously operated and which is used for feeding the service stations, cleaning and drying sleeves and tubes.

Breathing Air System:

Consists of various stations distributed in the loading areas for lorries and vessels.

The stations are formed by batteries of fixed cylinders with hoses and individual masks.

Nitrogen System:

Nitrogen is stored in a pressurised tank 17.6 kg./sq.cm. with a liquid capacity of 27,800 litres. The nitrogen converts the inert atmosphere in the tanks which require "blanketting".

Firefighting System:

Water; foam; chemical powder,

System of Industrial Safety:

Cooling of tanks; system of alarms; systems of communication of incidents.

General Information and Recommendations:

Both the piers of T.G.L. and T.G.S. were planned so as to enable future dredging to adapt to 20 m. for berthing of large bulk carriers up to 100,000 g.r.t.

Safety in operation of vessels:

It is important that safety rules be observed during operations with ships at the terminal.

a. Special attention must be given during berthing to ensure that the vessel is properly moored avoiding any collision with dolphins and platforms or the breaking of hoses.

b. One bow cable and one stern cable must always be available in the event of any vessel needing to be removed in the event of fire on board or on shore.

c. Any repairs which require cutting, welding or other services involving the usage of heat on board or on the pier must be avoided wherever possible.

Where such services are absolutely vital on board, a responsible person at the Terminal must be warned in advance so that the necessary precautions may be taken ashore.

d. It is fairly common for bunkering to take place from barges on the offside of vessels moored at the Terminal. This practice requires certain security measures and must be avoided at all costs during the loading and discharge of the vessels.

e. It is recommended that no movement of vessels takes place at T.G.S. whilst a tanker is mooring or unmooring at T.G.L.

f. Both at T.G.L. and T.G.S., mooring and unmooring of vessels must only be effected with the aid of tugs in accordance with the instructions of the Port Captain.

g. It is recommended that all vessels berth with the bow turned towards the Access Channel provided that this does not cause difficulties in ensuring a proper berthing and thus permitting a rapid departure in the case of emergencies.

h. Deballasting operations are only possible by using the adequate installation as owned by the Terminal and which is in perfect condition for usage, together with the collection of residue and at all costs contamination and pollution of the area must be avoided.

Before commencing discharge or loading operations and after having drawn up a movement plan for the liquid product, it is obligatory to carry out a general safety inspection and of the conditions of installation including the system of communication between vessel and land and as proof of this a "Declaration of Inspection" must be drawn up on the appropriate form signed by a representative of the vessel and by the responsible person for the operation within the Terminal. One copy of this declaration must be sent to Codeba.

Gas Products Terminal – T.P.G.:

The works began in July 1980 and operations began in 1983. The terminal consists of a pier for handling of liquefied gases, including only one mooring berth. The terminal is basically composed of:

Operations platform
Landing and mooring dolphins (6)
Access bridge
Access jetty
Storage area/facilities and equipment

Operations Platform:

Platform is reinforced concrete supported by tubes of reinforced concrete supported by tubes of reinforced concrete of 100 cm. diameter connected to the coast on the one hand by a land connection and by a bridge. It is protected by impact from the vessels by mooring dolphins – one at each end.

The platform will support the structures for the loading arms, tubes, pumps, auxiliary crane, the foam storage tank, the emergency gangway and operation and control buildings.

Main characteristics: area – 33 m. × 20 m. = 660 sq.m.; level – +4.50 m.; depth of the project – 10.9 m.; permitted vessel size – 20,000 g.r.t. length 180 m.

Mooring Dolphins:

The two mooring dolphins consist of a block of reinforced concrete of 18 m. × 10 m. × 1.80 m. supported by 6 concrete tubes 120 cm. diameter.

Each one of the 4 dolphins consists of a block of concrete 10 m.×10 m.×1.5 m. supported by 4 tubes of 120 cm. diameter.

All the dolphins are equipped with 10 mooring hooks of 50 tons each of the quick release type.

Each of the mooring dolphins will be equipped with 3 fenders made of rubber and in a cylindrical shape with a diameter of 60 cm. × 150 cm.

The mooring dolphins will be accessible by 4 concrete gangways and 4 metal ladders on the sea side.

Access Bridge:

The access bridge consists of a superstructure made of reinforced concrete supported by reinforced tubes of 100 cm. diameter.

Access Dock:

The access dock is built of hard stone which is resistant to sea water. The land connection and the access bridge will carry the necessary ducts and piping and the access path arranged for 2 lines of traffic, thus admitting free access for vehicles. The control of access to the pier to persons and vehicles will be the responsibility of Codeba.

Tank Park and Facilities of Terminal de Gases Ltda. – TEGAL

Tanking Park:

1 cryogen tank destined to storing ethene at 106°Centigrade and 15,000 cu.m. capacity.

Refrigerated sphere tank for butadiene at – 45°Centigrade and 3,200 cu.m. capacity.

1 sphere tank for MVC at ambient temperature. Capacity for 3,200 cu.m.

System of pumps. Flow: 250 cu.m./hr.

4 "islands" for trucks loading/unloading.

Flanged nets to connect land pipeducts.

Crane to move nets.

Tank Accessories:

Automatic level measuring.

Automatic temperature measuring.

Thermal insulation of lines.

Tegal complementary facilities:

Nitrogen System

N_2 is stored in pressurized tanks at 17.6 kg/sq.cm., with net capacity of 34 cu.m. Compressed air, potable water and steam are supplied by Tequimar through interconnecting lines.

Fire Defense System:

Water supply is made by Tequimar.

Other Facilities:

Control Room. Room for JPG pier operators.

Fertilizantes Nitrogenados do Nordeste, SA – Nitrofertil

This company has at TPG, complete facilities for the operation with Ammonia, which includes a sphere/reservoir with 30,000 cu.m. capacity.

Conventional Quay:

It will have a conventional quay section of approximately 175 m. in length with a depth of water of 12 m. for vessels up to 40,000 g.r.t., on which will be installed electric jib cranes and special private installations. There will also be 2 mooring dolphins with access by gangways from the quay. For storage and movement of solid bulk cargo which will be carried out here, there will be prepared a rear land area infrastructure including a road and rail access. For this quay, movement of solid bulk cargoes will be transferred and/or those of a corrosive nature, which are currently operated by T.G.S., for example sulphur and fertilizers, together with aluminium which will bring about a drop in the operations of T.G.S. Apart from this there will be a transfer of all bulk cargoes currently handled in the Port of Salvador which, due to physical and chemical difficulties cannot be operated in T.G.S. at the Port of Aratu.

PORT EQUIPMENT: The port has 3 loading shovels of 3 cu.m., 1 mobile crane up to 20 tons, 1 front stacker of 3.2 tons, 1 agricultural tractor, 1 bob cat tractor, 2 fast action fire fighting trucks, 1 pump and tank truck for fire fighting.

REPAIRS: There is a workshop under construction.

DRY DOCK: There is a naval dry dock in Aratu capable of handling vessels up to 45,000 d.w.t. It has dimensions 230 m. by 30 m. wide. Depth 11.5 m. However, the access channel will only allow vessels of up to 10 m. draft, though this is expected to be increased shortly.

FUEL: This is done by lighter and only at the solid bulk cargo terminal (T.G.S.).

FRESH WATER: Small quantities available.

AIRPORT: 2nd of July Airport at Salvador, 43 km. from the port.

CONSULS: See "Salvador".

TIME: GMT minus 3 hours.

HOLIDAYS: *National:* 1st January, 21st April, 1st May, 7th September, 15th November, 25th December.

Municipal: Fixed: 2nd February, 14th August. Movable: Good Friday.

Traditional: Movable: Carnival – Tuesday (Mardi Gras) and Ash Wednesday – Corpus Christi.

Fixed: St. John (June 24th), July 2nd, November 2nd.

GENERAL: *Useful Addresses:*

1. Terminal of Madre de Deus – Temadre. Baia de Todos os Santos. Products handled: oil and derivatives. Tel: 801-1821.
2. Dow Chemical Terminal – Baia de Todos os Santos. Products handled: chemical products. Tel: 801-1011 and 801-2211.
3. Terminal of Usina Siderurgica da Bahia – Usiba. Baia de Todos os Santos. Products handled: bulk ore. Tel: 594-8311.
4. Terminal of Fabica de Cimento Aratu. Baia de Todos os Santos. Products handled: cement and limestone. Tel: 594-9488.
5. Terminal of Equipetrol. Baia de Todos os Santos. Products handled: preinspection of rig structures. Tel: 594-8811.
6. Sao Roque Terminal (Petrobras). Estuary of the Paraguassu River. Products handled: rig parts and structures for oil drilling. Tel: 242-7997 and 242-7797.
7. Terminal of IMBASA – Industria de Mamona da Bahia, S.A. Baia de Todos os Santos. Products handled: vegetable oil (castor oil). Tel: 594-9133 and 594-9386.

DEVELOPMENTS: New dry bulk pier to be built. Length 190 m. width 15.0 m. Depth alongside 12.00 m. Max. size 40,000 d.w.t. Construction commenced in 1985. Cargo to be handled will be sulphur, fertilisers and alumina.

AUTHORITY: Porto de Aratu, Baia de Todos os Santos, Enseada do Caboto, Municipio de Candeias, Estado da Bahia – Cep 43700 Brazil. *Tel:* (071) 801 – 1212/3/4/5. 801 – 1217 (operations). 801 – 1216 (management). *Telex:* 071-1637.

AREIA BRANCA (Salineiro Terminal): 04.50 S. 37.03 W. (See Plan)

LOCATION: In open sea 14 km. out from the continent, near to the town of Areia Branca.

CLEARANCE: The Health Authorities of the Port and the Federal Police do not have representatives in the town of Areia Branca. Therefore, in the event of there being a necessity, the ship's Agent must communicate, sufficiently in advance, with the Port Authorities of Natal, when representatives will be sent to Areia Branca, to carry out vessel inspections.

Addresses and telephones of Port Authorities:

Port Captaincy Agency – Rua Joao Felix, 12 – Areia Branca. Telephone: 332-2211.

Maritime Work Post – At the top of the CP-RN Agency Building at Areia Branca. An Advocate is employed with duties and representation at Areia Branca, in the Maritime Work Delegation – Telephone 332-2022.

Federal Customs in Areia Branca: Telephones: 332-2425 and 332-2426.

PILOTAGE: Pilotage is obligatory, from the pilotage anchorage to any point in the Port area for vessels of more than 2,000 g.r.t. Pilots must be requested by radio, through the Agencia Maritima Ltd, Rua Cel. Aureliano, 37, P.O.Box 138, Tel: 222-1449 – or, at Rua Cel. Fausto No. 481, Tel: 332-2001 and 332-2011 at Areia Branca. Contacts must be maintained with the Marine Agency with regard to the taking on of Pilots and this must be done a minimum of 10 hours in advance of the arrival of the Pilot at the point of embarkation by virtue of the distance between the town and the point of embarkation and the dependency upon the tide.

ANCHORAGES:

(a) For vessels of any g.r.t., awaiting berthing orders or awaiting repairs – between parallels 04° 49′ 18″ S. – 04° 49′ 48″ S. and meridians 37° 02′ 54″ W. – 37° 03′ 48″ W.

(b) For vessels in quarantine – As above.

(c) For pleasure craft – between parallels 04°54′00″ S. – 04°54′18″ S. and meridians 37° 07′ 24″ W. – 37° 08′ 12″ W. (Inner Area).

(d) In the event that the Island Port is not working, due to damage to its equipment, the anchorages mentioned above will be used where the vessels will receive salt directly from barges.
(1) Inner Area – Limits mentioned in (c) can be used with safety by vessels drawing up to 12 ft. of water.
(2) Outside Area – between parallels 04° 51′ 12″ S. – 04° 52′ 00″ S. and meridians 37° 04′ 00″ W. – 37° 05′ 12″ W. can be used with safety by vessels drawing up to 22 ft. of water.

(e) Restrictions: Anchoring is not permitted in the access channel nor in the manoeuvring area.

Also see "Berthing".

RESTRICTIONS: No night navigation.

Vessels not directly concerned with port operations, must travel at a minimum distance of 1,000 yards off the Island Port berthing dolphins.

APPROACHES: Access to the Terminal: The access to the terminal for vessels of medium tonnage is made by a channel 13 m. depth (length 15 km., width 1.2 km.) at minimum level. This channel goes to the mooring point from Joao da Cunha Reef.

Manoeuvring Basin: Length 2 km., depth of water 11 m., at minimum water level.

Lighting and Buoys: The lighting and buoys are as follows: One light buoy at the beginning of the access channel; along this channel and in the manoeuvring basin are distributed a further 10 unlit buoys.

Tidal Variation: From 0.10 m. to 3.90 m.

TUGS: 2×1,680 h.p., 20 tons bollard pull.

Normally there is no need for tugs for berthing or for unberthing except in the case of damage to machinery or when the action of the wind is sufficiently strong to throw the vessel against the dolphins (winds from the sector S.E. – S.W.), in which case the following regulations must be observed: vessels up to 10,000 g.r.t. must use 1 tug, in the event of the wind intensity being less than 25 knots, and 2 tugs if the wind intensity is greater than that level. Vessels over 10,000 g.r.t. must use 2 tugs, but it is not advisable to try to berth or unberth with winds greater than 25 knots.

BERTHING: *Manoeuvring Area:* This is a strip 400 m. long in front of the dolphins, between the meridians 37° 02′ 24″ W. – 37° 02′ 54″ W. Depth: from 12 m. to 23 m. It is expressly prohibited to anchor anywhere in this area which is reserved for berthing and unberthing operations.

Island Port Resources:

Berthing Quay

(1) For vessels:

Constituted by 3 dolphins, each with a mooring head and a hook. Distance between the end dolphins, 78.6 m. The system of berthing is completed by 3 buoys. Depth: 12 m.

Vessels berth port side to on 3 dolphins, using starboard anchor and moored to 3 buoys.

(2) For Barges:

Situated on the S.W. side of the artificial island there is a 195 m. long quay, for berthing barges. Depth: 6 m.

River Mossoro:

For vessels with less than 3.5 m. draft, dependent on the tide, entering or leaving the town of Areia Branca, there is a deviation due to the previously used channel being silted up, which makes it obligatory to have help from the local Pilots.

BULK CARGO FACILITIES: Cranes/Stackers/Rolling Bridges/Loaders/Suction Units:

The salt is transported from the storage area on the Island Port to the vessel's hold by means of a conveyor working at a speed of 1,500 t.p.h. At the end of the conveyor there is a rotary loader, supported on one side on a pivot on a metal transfer tower platform and on the other by a curved track structure. The loader permits only rotary movement (sector of 17°–22°) with also axial displacement and rise (with a range of 39 m.) which makes it possible to load two different vessel holds when necessary.

Transport Along the Quay:

The salt is unloaded from barges moored on the quay on the S.W. face of the island by 2 jib cranes, rolling bridge type, moving on a railway line and equipped with clam shell grabs, with nominal capacity each, of 350 t.p.h., connected with weighbridges, hoppers and mats for formation of piles. It is possible to discharge the salt directly in the piles (storage area) or into the equipment which forms them, or even directly into the loading mat which makes it possible in this case to effect direct transfer of the salt into the vessels.

The salt in the storage area is also moved by 2 loading shovels with a nominal capacity of 680 t.p.h. and 3 tractors.

Pontoons/Barges/Launches/Lighters:

The Rio Grande do Norte Docks Company (CODERN) has 5 self-propelled 452 h.p. barges with a capacity for transporting 520 tons of salt each, as well as 5 dumb barges with a capacity for transporting salt from Areia Branca and Macau to the Island Port.

The SOPORMAR (Maritime & Port Services Company) has 6 barges in operation between Macau, Areia Branca and the Island Port.

SPECIALISED CARGO HANDLING FACILITIES: No facilities for container or Ro/Ro traffic.

STEVEDORES: On working days, Sundays and holidays, the working timetable is as follows:

Day Period

0700 to 1100 – Normal Day
1100 to 1200 – Meal Break
1200 to 1600 – Normal Day
1600 to 1800 – Possible Overtime
1800 to 1900 – Meal Break

Night Period

1900 to 2300 – Normal Night
2300 to 0000 – Meal Break
0000 to 0400 – Possible Overtime
0400 to 0600 – Only to finish vessel
0600 to 0700 – Meal Break

Stevedores are carried out to the Island Port aboard launches which are hired by the ship's Agent. The journey from Areia Branca to the Island Port is made normally in a maximum of 2 hours. The time launches leave depends on the tide, by virtue of the limitations of the bar of the River Mossoro.

MEDICAL: In the Island Port, there is an infirmary for first aid treatment, where there is always a nurse on duty. There is no doctor on duty. Nearest hospital is at Mossmoro, 50 km. away.

FRESH WATER: In the Island Port there is an artesian well which permits a supply of water to berthed vessels via a pipe-line in the metallic structure at the berth. Capacity: 50,000 litres/hour. From the end of the pipe, supply is effected by means of 2.5 in. hoses.

FUEL: Supply of diesel oil to vessels is possible through the self-propelled barges of the Rio Grande do Norte Docks Company (CODERN). Supply will be made preferably with the vessel anchored. Each barge has a capacity to supply up to 20,000 litres of diesel oil. Orders must be made 48 hours minimum in advance in order that the Rio Grande do Norte Docks Company (CODERN) can take the necessary steps for topping up the tanks at the Island Port.

REPAIRS: Active shipyard authorised by SUNAMAM to construct vessels up to 1,000 tons gross carrying weight. They also carry out naval repairs and have workshops and underwater repair facilities.

The Salineiro Terminal has a workshop capable of carrying out small repairs.

EMERGENCY SERVICES: The Salineiro Terminal has 2 tugs used in port operations and which can be used in a situation of emergency in life saving and salvage operations. There is no organised service.

GANGWAY/DECK WATCHMEN: The Rio Grande do Norte Docks Company (CODERN) has a group of watchmen, 25 strong, which works between the Island Port and the office in Areia Branca, there always being a minimum of 6 at the Island Port.

AIRPORT: Nearest at Natal and Fortaleza, 300 km. distant, served by commercial flights.

TIME: GMT minus 3 hours.

HOLIDAYS: National: 19th January, 21st April, 1st May, 7th September, 12th October, 15th November and 25th December.

Movable Holidays: Monday and Tuesday of Carnival, Ash Wednesday, Good Friday and Corpus Christi.

Commemorative Days: 28th August (Banks), 28th October (Public Officials), 30th October (Business), 2nd November (All Saints), 28th January (Port Workers).

Municipal Holidays: 6th January (Foundation of the City), 21st November (City of Natal Celebration), 15th August (City of Areia Branca Celebration).

Local Holidays: 15th August – Our Lady of the Mariners; 8th December – Immaculate Conception.

POLICE: Tel: 332-2057.

TELEPHONES: No facilities exist for placing telephones on board vessels.

GENERAL: *Charts:* DHN Nos. 703 and 720 cover the port area.

AUTHORITY: Companhia Docas do Rio Grande do Norte, Rua Princesa Isabel 342, 59000, Natal, RN. *Tel:* (084) 222 3774 PABX. *Telex:* (084) 2114.

Local Office at Salineiro Terminal: Cais Tertuliano Fernandes 81, 59620, Areia Branca, RN. *Tel:* (084) 332 2121 PABX. *Contact:* Heinz Zech, Director.

BARRA DO RIACHO: 19.51 S. 40.03 W. (See Plan)

PILOTAGE: Compulsory. Agent reports direct to Pilot Association at Vitoria, through VHF Channel 16. Pilots maintain 24 hour watch.

APPROACHES: Access Channel: Depth 11.5 m., width 150 m.

RESTRICTIONS: Vessels up to 110 m. length can enter and sail day or night. Vessels from 110 m. to 190 m. can enter during daylight hours. Max. breadth 35 m.

The Manoeuvring Basin has diameter of 250 m.

TUGS: Two tugs are required for berthing and unberthing. Tugs have no lines on board. The tugs are requested from Vitoria.

BERTHING: Barra do Riacho Quay: Length 230 m., depth 10.7 m. Warehouse for export of cellulose 12,000 sq.m.

CRANES: Not available.

FRESH WATER: Available.

REPAIRS: No facilities.

MEDICAL: Hospitals at Vitoria and Aracruz.

AIRPORT: At Vitoria.

AUTHORITY: Companhia Docas do Espirito Santo, Empresa do Sistema Portobras, Av. Getulio Vargas No. 556, Vitoria, Espirito Santo, CEP 29000. *Tel:* (027) 222-1311. *Telex:* (027) 2118. *Contact:* Gerardus Maria Franciscus Zaeyen, Director-Presidente.

BELEM: 01.28 S. 48.29 W. (See Plan)

PORT LIMITS: Subject to Charter Party Terms, vessel normally considered an "arrived ship" when at Val-de-Caes Anchorage, Icoaraci Anchorage, or alongside the quay.

DOCUMENTS: See "General" before first port.

PILOTAGE: Pilot usually ordered through vessel's Belem Agent, ETA at least 72 hours in advance and confirming not less than 24 hours prior to arrival. Vessels can apply direct to pilot station (on condition that local radio station is operating). Telegraphic address "Praticagem – Salinopolis", and call sign of Salinopolis (or Salinas) Radio Station is PPL. Pilot boards at a point 7 miles North of Salinas Lighthouse; a red motor-launch is used. Launch carries a red flag with a black P; it also has a black P painted on each side and on cabin roof. If pilot boat not in position on arrival of vessel, position 7 miles North of the light is a safe anchorage. Masters who do not know area should approach Salinas with caution.

APPROACHES: The port is located on the right-hand side of the Bay of Guajara, running North/South, limited to the left by the island of Oncas 19 km. long and other similar islands which are in front of the River Para, with 3 wide entry channels being provided i.e.

1. Between the bar and the island of Fortim used by deep sea vessels and large coasters.
2. Between the islands of Arapiranga and Cotijuba which is used by small coasters and the typical local river craft known as "gaiolas".
3. The Carnapijo Channel behind the island of Oncas which provides communication at high tide with the Bay of Marajo which measures from between 3,200 m. and 4,000 m. long in front of the island of Oncas with a shallow which divides it in the middle into two channels, one to the West with 12 m. to 20 m. depth at the foot of the above island and the other to the East next to the city and where the current port is located with 9 m. to 10 m. depth minimum water level when dredged. Comprehensive considerations make it that this latter channel to the East deserves special studies which allow the following details to be presented:

Length	6,000 m.
Width	90 m. to 180 m.
Depth	6 m.
Average annual siltation	600,000 cu.m.

The Turning Basin: The port has a wide turning basin 1,000 m. long, 500 m. wide with a depth of water between 5 m. – 6 m., an annual siltation of 400,000 cu.m., fully equipped with buoys and lights under the control of the Technical Council of the Directorate of Hydrography and Navigation of the Brazilian Navy.

ANCHORAGE: Vessels with a draft greater than 26 ft. anchor off Icoaraci, 7 miles from the port where they work cargo.

Vessels that are impounded anchor off Val-de-Caes.

Vessels undergoing repairs anchor off the Naval base dock at Val-de-Caes.

Vessels with a draft of less than 26 ft. anchor at Val-de-Caes. Co-ordinates: Lat. 01° 24′ 01″ S., Long. 48° 30′ W.; Lat. 01° 21′ 03″ S., Long. 48° 29′ 03″ W. and Lat. 01° 08′ 09″ S., Long. 48° 28′ 03″ W.

Between Icoaraci and Val-de-Caes, there is a shallow spot at Tapana, which ships should approach with caution, although bottom is soft mud and sand.

HEALTH: Maritime Police, Customs and Port Health board vessel on arrival at whichever anchorage is used, or alongside. Pratique granted on the presentation of documents. If port *not* first Brazilian port of call. Port Health Authorities not required, although Police and Customs will still board. After first Brazilian port, Port Health only required in cases of illness or death. The use of quarantine "Q" flag not necessary. Also see "General" before first port.

RADIO: No VHF facilities in the area. Suggested that ship contacts Belem Agent through Barbados Radio, and this is also usual way that vessels are contacted by Belem. An alternative to Barbados Radio is the United States radio station at Chatham, Virginia.

TUGS: One tug, "Rio Acara", 700 h.p.

BERTHING: The quays are of cement and sand construction on a base of stones, which is, in turn, on a bed of hard clay. The quay height is a max. of +4.50 m. to accommodate the max. tidal rise of up to +3.20 m.

Soundjngs taken in 1979, for vessels alongside in relation to the hydrographic zero of the port are as follows:

Length of quay (m.)	~~*Draft*~~ DEPTH (m.)	*Location*
75	2.5	S. face and N. face of Marechal Hermes Dock
300	5.0 to 6.2	Quay wall – Mosqueiro & Soure Shed and Warehouses 1 and 2.
342	6.3 to 7.0	Quay wall – Warehouse 3, Maua Square and Warehouse 4.
385	6.7 to 7.5	Quay wall – Warehouses 5, 6 and 7.
100	8	Quay wall – Warehouse 8
261	7.5 to 8.5	Quay wall – Warehouses 11 and 12.
110	8.0 to 9.2	Quay wall – Ocrim Silo to the end of the Wall.

Quay Equipment: 25 electric cranes (2.8 – 12.5 tons), 6 mobile cranes on pneumatic tyres (5 – 25 tons), 2 steam cranes, ranging from 2.5 to 25 tons capacity. 1 self propelled floating crane of 200 tons capacity and 1 steam operated floating crane with capacity of 20 tons at 37 ft. There are facilities for handling containers.

74 Stackers (capacity 2,500 kg. – 25,000 kg.), 4 loaders (12,000 lbs. – 4 tons), 55 lorries, 8 trucks, 6 conveyor belts, 14 weighbridges (1.5 tons – 60 tons) and 8,000 pallets.

CARGO FACILITIES: 3 regular silos for grain, with a capacity of some 10,800 cu.m. 2 irregular silos with a capacity of 1,537 cu.m. Average hourly discharge rate 200 tons.

For grain suction there are 2 fixed towers, capacity 100 t.p.h. and 40 t.p.h. and 1 mobile tower with capacity 60 t.p.h.

The suction unit for 100 t.p.h. has the following characteristics: 1 mobile pneumatic suction tower for 100 t.p.h., 65 m. belt transporter of the elevated type with 200 t.p.h. capacity, including 2 end stations for drive of 40 h.p. each; 1 bucket-type elevator with 200 t.p.h. capacity, a height of 64 m., including an end drive station of 75 h.p.; 1 weighing tower with 200 t.p.h. capacity.

TANKERS: At oil terminal of Miramar (Val-de-Caes) 8 km. from Belem, vessels of 18,000 d.w.t. old "T" berth, length 76 m. may berth or unberth at any state of the tide, subject to draft. Max. depth alongside berth at LW 26 ft., the same as that of approach channel. Mooring at this berth is to buoys inside the line of the "T" jetty. 77 tanks for liquid fuel leased to Petrobras, Shell, Texaco, Esso, Atlantic, Salgema and Paragas.

New Berth: Close South of "T" shaped berth. Length of platform 40 m. Vessels moor to 4 dolphins. Berth equipped with 5 ton s.w.l. hand operated winches.

STEVEDORES: Stevedoring gangs for day shifts 0630 and 1230 hrs. and 1630 hrs. for night shift. Loading and discharging rates exceptionally good, particularly if vessel working at anchorages into lighters. Any delays to vessels alongside can usually be put down to the lack of official clearances in case of loading export cargo.

MEDICAL: Notice of required medical assistance should always be given in advance. There are a number of first-aid posts for minor complaints. Vaccination Certificates for smallpox are essential, and, although not required officially, yellow fever vaccinations recommended.

DENSITY: Strong outflow of Amazon and its tributaries is such that water at Salinas is only semi-salt. In the river itself, the water becomes slightly brackish, and half way to Belem, is absolutely fresh.

FRESH WATER: Fresh water only obtainable alongside main quay, and not at oil berth. Delivery rate 25 t.p.h. (2.5 in. line) Boiler water may be taken direct from the river at a point named Capim, near the entrance to Marajo Bay.

FUEL: See "General" before first port. Available, but due to Brazilian Custom's Laws, as much advance notice as possible should be given in order to obtain correct documentation. A minimum of 1 weeks' notice recommended.

GANGWAY/DECK WATCHMEN: The employment of gangway watchmen recommended.

HATCHES: Hatches normally opened and closed by stevedores, but if it is raining they are inclined to shelter before closing.

CUSTOMS ALLOWANCES: Custom's Authorities do not normally search ship's crews, and reasonable quantity can remain in the possession of crew members. However, no attempt should be made to take more than a reasonable amount ashore.

IDENTITY CARDS: Foreign crew members not permitted to go ashore without presentation of identity card on which is a photograph of holder and personal details. These cards are provided by the Agent upon arrival. The identity card must be delivered on disembarkation to the Federal Police who will return it to the crew member on re-embarkation.

CONSULS:

Belgium
Bolivia
Colombia
Costa Rica
Denmark
Dominican Republic
France
Great Britain
Italy
Japan
Mexico
Netherlands
Norway
Peru
Portugal
Spain
Sweden
United States
Uruguay
Venezuela

REPAIRS: Deck and engine repairs of all types can be carried out by the Brazilian Naval Dockyard, or by repair shops of the Companhia Docas do Para.

DRY DOCKS: At Naval Base, there is a dry dock measuring 730 ft. by 74 ft. with a depth over the sill of 25 ft. There are also several small floating docks, but they are not adequate for sea-going vessels.

REPATRIATION: There are 3 international flights each week from Belem. Miami 1 flight per week, Wednesday. New York 2 flights per week, Monday, Friday. In addition, daily flights to Rio de Janeiro. Airport of Val-de-Caes is about 4 miles from the city centre.

TIME: Local time GMT minus 3 hours. Summertime (1st December – 28th February) GMT minus 2 hours.

HOLIDAYS: New Year's Day (1st January); Carnival (variable); Labour Day (1st May); Corpus Christi (25th May); Independence Day (7th September); All Souls' Day (2nd November); Proclamation of the Republic (15th November); Christmas Day (25th December). Work could be carried out on these days, but costs would be prohibitive.

POLICE/AMBULANCE/FIRE: Maritime Police Tel: 234996; Ambulance Tel: 222523; Fire Brigade Tel: 23-3119.

TELEPHONES: Telephones can be put on board vessels alongside main quay.

GENERAL: Tidal action in the Guajara Bay is extensive, with the "Pororoca" phenomenon which comprises the meeting of tidal water with masses of fresh water coming from the Brazilian Equatorial rivers. The tidal wave takes 3 hours 40 minutes to come from the Salinas Lighthouse to the South end of the port of Belem. Systematic measurements at times of spring tides show that the average height of water reaches 3.22 m. at high tide and in the quadratures 2.42 m. Maximum high and low water levels recorded are +4.21 m. and −0.37 m. respectively.

During the ebb, the waters coming up the Bay of Guajara are predominantly picked up by the Western channel current, with great speed, thus explaining the great depths at that point, and also in the Western channel the average ebb and flow speeds are 1.30 and 1.74 m. per second, respectively, and in the East channel they are respectively 1.19 and 2.10 m. per second. At the extreme Southern point of the berthing quays the average flow speed record was 2.77 m. per second.

AUTHORITY: Companhia Docas do Para, Avenida Presidente Vargas, 41-20 Andar, CEP 66.000, Belem, Para, Brazil. *Tel:* 223-0056, 223-2066. *Contact:* Raul da Silva Moreira, Director-President.

CABEDELO: 06.58 S. 34.50 W. (See Plan)

DOCUMENTS: See "General" before first port.

PILOTAGE: Contact Pilot's Headquarters by radio via vessel's Agent located at Joao-Pessoa (18 km. from Cabedelo). The messages are relayed by Natal Radio PPN or Cabedelo Radio. All messages are delivered by National Telegraph – Telegrafo Nacional. Pilots' launches painted red with capital "P".

Pilots may be requested through VHF (Channels 06, 12, 14, and 16 – 156.30 MHz, 156.6 MHz, 156.70 MHz and 156.8 MHz).

ANCHORAGE: While waiting for the Pilot, vessels should anchor 0.8 miles E.N.E. of the light beacon. At the anchorage in the vicinity of the breakwater the depth of water is from 9.0 m. (29 ft. 06 in.) to 15 m. (49 ft.) at low tide, and at the anchorage located South of the docks the depth of water is 5.50 m. (18 ft. 09 in.) at low tide.

RESTRICTIONS: For Masters calling at Cabedelo for first time it is preferable not to enter during darkness.

MAX. SIZE: Max. length 210 m., draft spring tide 30 ft., neap tide 28 ft.

HEALTH: Also see "General" before first port. If Master suspects contagious disease aboard he must report to Agent who will contact Brazilian Health Authorities at Joao-Pessoa.

VHF: See "Pilotage".

TUGS: None available.

BERTHING: Berthing takes place in accordance with vessel's draft. Master must always give Agent vessel's draft arriving off Cabedelo. Length of quay, 602 m.

Berth Length (m.)	*Depth* (m.)	*Remarks*
125	9	Tankers, veg. oil, minerals, containers, general cargo
135	9	General cargo, minerals, containers, wheat
142	9	General cargo, minerals, containers, refrig.
110	7.5	General cargo, bulk cargo and containers
90	7.5	General cargo and bulk cargo.

STEVEDORES: Advise Agent ETA at Cabedelo 48 hours prior to arrival to make arrangements with dock and stevedores for discharging or loading.

CRANES: 5 Portal cranes. 1×1.5 tons, 2×3.2 tons, 1×5 tons Land 1×6.3 tons.

MEDICAL: For urgent cases recommended that vessel call at Joao Pessoa instead of Cabedelo as Joao Pessoa has better facilities.

TANKERS: Cabedelo not a loading port for petroleum products. Messrs. Esso-Brasileira de Petroleo and Petrobras Distribuidora S.A., have tanks for reception of gasoline, diesel and other petroleum products which are carried by Brazilian fleet of tankers "Fronape" – Frota Nacional de Petroleiros. At Cabedelo only Berth No. 1 is suitable for discharging petroleum products or to bunker vessels since pipe-line is only connected to Berth No. 1. Tankers enter and sail during dark hours from Cabedelo. Length of berth 200 m. Depth alongside 9 m.

DENSITY: Varies from 1020 to 1025 at HW.

FRESH WATER: Supplied by pipe-line alongside quays at rate of 50 cu.m.p.h.

FUEL: Available. Suppliers Messrs. Esso-Brasileira de Petroleo. Pipe-line at Berth No. 1 where vessels can bunker alongside. Pipe-line fuel oil, 8 in.; pipe-line diesel, 8 in.

GANGWAY/DECK WATCHMAN: Watchmen available. Masters have option to choose suitable times when their services are required.

OPENING/CLOSING HATCHES: By stevedores. Crew assist when stevedores not familiar with modern hatches.

CUSTOMS ALLOWANCES: 1 carton cigarettes per crew member at Customs discretion and 1 bottle of whisky or any other kind of spirit, subject to Customs discretion.

IDENTITY CARDS: Foreign crew members not permitted to go ashore without presentation of identity card on which is a photograph of holder and personal details. These cards are provided by the Agent upon arrival. The identity card must be delivered on disembarkation to the Federal Police who will return it to the crew member on re-embarkation.

CONSULS:

France – (083) 221.2010
U.K. (083) 224.7005

Other consulates at Recife 110 km. from Joao-Pessoa about 1.5 hours by road.

REPAIRS: Minor repairs only.

DRY DOCKS: None.

REPATRIATION: Repatriation can be arranged via Recife or direct from Joao-Pessoa to Rio de Janeiro, Sao Paulo and Brasilia.

AIRPORT: 9 km. from Joao-Pessoa. Utilised by National Lines whose planes make regular calls.

TIME: GMT minus 3 hours throughout the year.

HOLIDAYS: *National Holidays:* Fraternidade Universal (January 1st); Tiradentes (April 21st); Labour Day (May 1st); Brazil's Independence Day (September 7th); Nossa Senhora Aparecida (October 12th); Commemoration of the Republic (November 15th); Christmas Day (December 25th).

State Holidays: Nossa Senhora da Conceicao (December 8th); Sexta Feira da Paixao (Movable); Sagrado Coracao de Jesus (Movable); Emancipacao Politica de Cabedelo (December 12th).

Work is possible during holidays and Sundays, except on Good Friday, Labour Day and Independence Day.

POLICE/AMBULANCE/FIRE: Police (located at Joao-Pessoa) 190. Cabedelo has a small Police Station but no telephone available. Ambulance is available. Fire Brigade (locate at Joao-Pessoa).

TELEPHONES: Facilities for placing telephones on board.

AUTHORITY: Administracao do Porto de Cabedelo, Av. Presidente Joao Pessoa, Cabedelo, Paraiba, Brazil. *Contact:* Afonso Augusto de Toledo Navarro, Administrator.

CARMOPOLIS: 11.03 S. 37.01 W. (See Plan)

LOCATION: Terminal Maritimo de Carmopolis, (Tecarmo), operated by Petroleo Brasileiro SA, PETROBRAS, is located on the N.E coast of Brazil at the Atalaia Velha Beach, Lat. 11° 00′ 30″ S., Long. 37° 04′ 00″ W. about 9 km. South of Aracaju City, capital of the State of Sergipe.

The mooring site is an open roadstead seaberth. It is located about 3.8 miles from the beach and at the end of a submarine pipe-line marked by 1 lighted buoy, 4 miles Southwards from the bar entrance to the port of Aracaju. The geographical position of the berth is: Lat. 11° 02′ 35″ S., Long. 37° 00′ 57″ W.

DOCUMENTS: See "General" before first port.

ESSENTIAL REQUIREMENTS: *Most essential requirements to be met by vessels loading:*

1. The ocean terminal consists of a conventional berth, i.e., tankers are moored with the ship's two anchors ahead and the terminal's six mooring buoys round the stern (See plans).
2. The terminal is intended to load ships with crude produced in the nearby shore and sea oil fields.
3. Loading is effected by a 26 in. diameter submarine pipe-line with a length of 7,500 m. from the mainland. It divides into two strings of hoses (North and South) through a "T" reducing piece.
4. Ship's manifold should be preferably equipped with one 10 in. flange (ANSI).
5. Amidships, derrick or crane with a minimum capacity of 5 tons must be provided to hoist and connect the nominated string of hoses, normally on starboard side. Only one string is connected.
6. Ship's windlass (chain cables, brakes, windlasses, etc.) must be in perfect operational condition so that anchor and chains can be dropped, heaved in, adjusted, etc.
7. A forward winch must also be prepared for heaving in the pick-up wire of the hose.
8. Maximum permitted draft for the terminal is 15 m. so that a 3 m. bottom clearance is assured to face extreme operating sea conditions.
9. The mooring was designed to accommodate vessels up to 65,000 d.w.t. however, in special favourable circumstances a 115,000 d.w.t., tanker has been moored. Ship's LOA (300 m.) and longitudinal position of ship's manifold are also limiting factors.

10. By daylight a Mooring Master will board the vessel about 1 mile S.E. of the terminal sea buoys. He will advise on all manoeuvres relative to berthing, connecting and disconnecting hoses, etc. When arriving at night or for awaiting berth, Masters are requested to use the recommended anchorage. However, if weather conditions permit, ships may unmoor at night.

11. One terminal loading supervisor and 9 working men will stay aboard.

12. Vessels are requested to have a pilot ladder long enough to reach the terminal's launch, rigged alongside the accommodation ladder, in order that the shore personnel may transfer to it after 2 m. or 3 m.

13. Being an open roadstead, vessels must keep engines on standby during their stay in the mooring. Steam must be kept on deck in case adjustments to anchor cables or mooring lines are found necessary.

14. No ballast discharging facilities exist at the terminal. Vessels must arrive with necessary clean ballast. Brazilian laws are very strict with regard to the pollution of coastal waters and fines are heavy.

15. Any emergency should also be immediately transmitted by radio telephone on Channel 16. When operating the vessel's and the Terminal's radiotelephones will remain to Channel 12, set apart for such use.

16. Under no circumstances should vessels drop their anchors in the area between the sea buoys and the shore and the nearby submarine pipe-lines (North and South) from the oil production platforms.

REMARKS:

Non-compliance of just one of the above stated conditions (items 5, 6, 8 and 14) could result in rejection of the ship as being unsuitable for this terminal.

ARRIVAL:

Mooring Turn: Arrival time is considered to be the time the vessel reaches the anchorage or the time the Mooring Master boards the vessel, whichever occurs first. However, Notice of Readiness will not be considered as the time of arrival unless the vessel is in all respects ready to load. Tankers are loaded in turn except when the Terminal Superintendent grants priority to a particular vessel out of turn, in special circumstances only.

PILOTAGE: No Pilots exist in Carmopolis. All manoeuvres will be undertaken by the vessel's Master, with the help of a Carmopolis Mooring Master, who will board the vessel in the anchorage area and advise the Master on all operations such as mooring, connecting hoses, unmooring, loading, etc. It is important to emphasise that the services of the Mooring Master are afforded without charge and upon the express undertaking and condition that PETROBRAS shall not be liable for any damage or injury resulting from any advice, assistance or actions given or made by such Mooring Master. In the event it becomes necessary to disregard the Mooring Master's advice, in order to ensure safety of the vessel, the Master must forward a full written report of the circumstances for delivery to the Captain of the Port through the Terminal. It is the responsibility of the Master to notify the Mooring Master of any special conditions or peculiarities such as defective navigation equipment, tackle, gear or lack of necessary equipment which might impose hazards related to handling, mooring and loading the vessel.

Vessel must be moored to entire satisfaction of the Mooring Master. The Mooring Master may require the vessel to unmoor at anytime he deems necessary for the safety of the vessel or mooring or both or for an infringement of terminal or port regulations.

Unsatisfactory conditions will be reported to the Terminal Superintendent who is empowered to reject the ship unless the reported deficiencies have been remedied.

APPROACHES: As it is an open roadstead the access to the terminal can be easily and safely approached either from the N.N.E. or from the S.S.W.

The shore line runs of 035°/215°. Between the Sergipe and Vaza-Barris Rivers the coast is almost a straight dune-covered sand beach which offers a very few notable natural landmarks.

Tankers must be aware of the existence of 4 oil fields with fixed production platforms which constitute in themselves good marks. Marking the bar of the port of Aracaju, located about 5 miles N.W. of the terminal berth, is a light exhibited from a conical white frame- work tower enclosing a central cylinder, 41 m. high, with a range of 14 miles (international No. G0230). There is a radio-beacon at the local airport with signal letters AR (· — · — ·) transmitting continuously on 355 kHz. Its geographical co-ordinates are: Lat. 10° 59′ 27″ S., Long. 37° 04′ 22″ W. Near to the terminal offices are 4 steel towers and a chimney of a natural gas plant.

RESTRICTIONS: Mooring at the buoys will be effected in daytime only. Nevertheless loading and connecting hoses may sometimes be effected in night-time under certain conditions.

MAX. SIZE: The berth is designed to accommodate tankers up to 65,000 d.w.t., however, under favourable circumstances and vessel Master's discretion a 115,000 d.w.t. tanker has been moored. The ship's final draft is usually 15 m. (49 ft.). This draft will usually afford a safe bottom clearance 3 m. (10 ft.) even under the most severe sea conditions in which the loading operation is feasible. Depth is 18 m. (MLWS).

ANCHORAGE: The advisable anchorage site either for awaiting berth or daylight is determined by the following geographical co-ordinates: Lat. 11° 04.1′ S., Long. 36° 59.0′ W. Depth is 25 m. (82 ft.) MLWS.

Occasionally Mooring Master will board arriving tankers whilst still underway nearby the anchorage area. This anchorage provides vessels with ready access to the berth. Holding ground in this area is very good, as the bottom is varied in character (mud and fine sand). It is recommended that vessels should stay at anchor for periods of not longer than 24 hours with the anchor in the same place, otherwise it will be difficult to heave up anchor.

IMPORTANT:

Under no circumstances should vessels drop their anchors in the area between the berth and the shore due to submarine pipe-lines.

ETA: Vessels bound for Aracaju or TECARMO should advise their ETA 48 hours prior to arrival to radio station "PPS" (Official Coastal Radio Station) as well as to their Agent in Aracaju-SE (Cruz Irmaos & Cia.) whose cable address is Cruzirmaos, via the following coastal radio stations: Amaralina Radio (PPA) in Salvador – BA; Olinda Radio (PPO) in Recife – PE; or Rio Radio (PPR) in Rio de Janeiro-RJ.

When vessel is within 50 miles of the terminal contact may also be made by VHF radiotelephone on Channel Delta/16 (156.8 MHz). The terminal keeps a 24 hour listening watch on this Channel.

VHF: The radio and communication centre is located in the Oil Control Building. There is a VHF set operating 24 hours a day on Channel 16. Portable sets are taken aboard for the sake of safety and controlling the loading. No signal lamp (Aldis lamp) exists.

TUGS: There are no tugs available to assist berthing and unberthing.

BERTHING: The berth is of a conventional type, i.e., vessels are moored with two anchors ahead and synthetic mooring lines to the 6 sea buoys round the ship.

Ships are loaded by means of a 26 in. diameter submarine pipe-line dividing into two strings of hoses (by a "T" piece) either of which will normally be picked up on the starboard side. The end of the submarine line is 3.8 miles off-shore in 18 m. of water. Both north and south strings are 10 in. and support a maximum pressure of 225 p.s.c. Only one string is connected to the ship The 10 in. hoses are connected to the ship's manifold, through a quick release connecting device, the flanges being of normal 10 in. ANSI pattern.

MOORING: Vessels moor using both anchors forward with 2 lines to each buoy.

Turnround: To promote the economical operation of the vessel, Masters are requested to co-operate with installation representative in minimizing their in-port time. Any delays which are considered unnecessary or extensive should be reported to the loading Operating Supervisor so that corrective measures can be taken in due time.

HOSES: There is a submarine pipe-line from shore installations direct to the terminal, which are divided into 2 flexible hoses long enough to reach the ship's manifold. Usually, only 1 hose is connected, of 10 in. diameter. The nominal loading rate is about 3,000 cu.m.p.h. (18,870 bbls.p.h.). Shore labour used to connect hoses. Hoses are lifted on the starboard side.

The Mooring Master will guide the terminal's workmen in lifting, connecting and lowering the hose. As soon as the vessel is securely moored, one of the strings of hoses must be lifted to the rail by ship's gear (crane or boom). Sundry hose securing and connecting equipment (strops, gaskets, quick-release device, etc.) will be supplied by the terminal and put aboard the ship soon after arrival. Hose will normally be lifted and connected on the starboard side.

LOADING: At the beginning and during the loading operation tankers are requested to observe the following:

(a) Pumping will not start without the ship's and Mooring Master's permission.

(b) The max. allowed pressure established by the ship will be maintained.

(c) During operations a constant lookout by responsible men is required on the moorings and in the manifold area to keep watch on the connections.

Also see "Hoses".

MEDICAL: Medical treatment and/or hospitalisation, if required are provided at Aracaju private hospitals. Dentists are also available in Aracaju. Agent will make such arrangements.

For emergency cases (injury etc.), Petrobras first aid may be requested by the Master.

BALLAST: Vessels should arrive at Carmopolis with minimum clean ballast to enable manoeuvring under prevailing weather conditions. Masters are encouraged to take advantage of the favourable weather which prevails most of the time to minimise ballast. Early radio contact with the terminal must be established in order to obtain the latest weather information so that he can decide on appropriate ballast. The terminal is particularly interested in having vessels complete the deballasting operation promptly after berthing in order to minimise time at berth. Simultaneous loading and deballasting is encouraged on properly equipped vessels. Vessels requiring excessive time to complete the deballasting operation will be given Letters of Deficiency.

To avoid any possible pollution of the local waters, all tankers calling at the terminal to load must do necessary tank cleaning prior to arrival. Before arriving at the loading berth Masters must assure themselves that all tanks, pipe-lines, and pumps are free of oil. All tank cleaning should be preferably done 50 miles off the Brazilian coast. The terminal does not have facilities to receive any significant amount of oily ballast. If, after mooring a vessel is found to have oily ballast water aboard, it will be sent to sea to accomplish the necessary tank cleaning. A new Notice of Readiness to load must then be given.

WEATHER: *Weather conditions:* Local weather and sea conditions may be considered as fair for tanker operations.

Rain: The annual precipitation averages 1,103 mm. April, May and June are the rainy season.

Visibility: Usually the visibility condition in this area is fair, except during squalls.

Temperature: Actual temperatures ranging one year from a Low of 18.2°C in June to a high of 30.8°C in February.

Pressure: The annual average atmospheric pressure is 1013.2 mb.

Relative humidity: During most of the year the relative humidity of air is about 82%.

Remarks: Weather forecasts as well as Notice to Mariners are transmitted by PWZ and PPR coastal radio stations. For details refer to Brazilian Navy H.O. publication (Radio Aids) DH.8.

Winds and Waves: Winds blowing from shore to sea are practically non-existent. Those blowing from 040° to 160° counter-clockwise are not worth mentioning. From October to March Eastern winds will prevail (070° to 110°), and between May and August SE winds will prevail, i.e. (120° to 160°). In April and September, winds will blow either from the East or the S.E. 78% of wind force will be about 2 and 4 on the Beaufort

Scale. i.e. slight to moderate breeze. Seldom fresh gales (Force 8) have been observed. 19.7% of periods of calm and the rest 2.3% is of light air occurences (Force 1 to 3).

Essentially all waves near the Aracaju area are caused by the prevailing local winds. However, the changeable periods in which they occur, when the waves will give the false impression to the swell. 60% of the recorded waves were between 0.5 m. to 0.9 m. high. During one full year period of observations the studies have demonstrated that only 1.4% of the operational time, the terminal will be closed for tanker loading, periods in which the waves are equal or higher than 2 m.

Currents: Currents recorded in the terminal area are made up of diversified and simultaneous causes acting in different grades of strength and combination. The causes were identified as being winds, tides, salinity and also temperatures, none of them was outstanding enough to be regarded as the final prevailing cause. The currents chiefly run parallel to the coast, but they do not vary greatly in set and drift. This lack of constancy affords evidence that it cannot be attributed to the Brazil current. Maximum recorded speed of current was one knot. It has been reported that upon N.E. winds and at ebb tides the current sets to S.S.W. with speeds higher than usual.

Tides: The mean HW interval is 4 hours 46 minutes. Tidal velocity rarely exceeds 2 knots and the tidal range varies from 1.99 m. at Spring to 1.05 m. At Neaps.

CARGO: The cargoes are called Sergipano Crude Oil of an average API 33, temp. 90°F., Plataforma Crude Oil of an average API 40.3, temp. 90°F. or Carmopolis Crude Oil of an average API 23.4, temp. 90°F. No heating required.

SURVEYORS: *Petroleum Inspection:* Petroleum inspectors are not available in Aracaju, but may be requested.

Chas. Martin & Co., Rua da Lapa 200, conj. 906, 20.000 – Rio de Janeiro. Tel: 242-4219, 245-5636 and 225-3507.

E. W. Saybolt & Co., Rua XV de Novembro 70, P.O.Box 826, Santos. Tel: 341984. Telex: (013) 1004.

FUEL: No bunkers available at Aracaju Terminal.

FRESH WATER: No water available.

TIME: GMT minus 3 hours.

AIRPORT: There is an airport at Aracaju.

CUSTOMS ALLOWANCES: Brazilian Laws are strict with regard to smuggling, and Masters are requested to instruct their crew not to retain cigarettes in carton lots, cigars, tobacco, alcoholic drinks, drugs, souvenirs, etc.

By no means will any commercial transactions be tolerated be it either among terminal employees, crew members or anyone else.

GENERAL:

Charts and Publications: (a) Brazilian Charts: 1003 and 1000 and 60 (Brazilian Navy Hydrographic Office).

(b) Foreign Charts: No. 24210 and 24211 of the US NOO and No. 1396, 3286 and 3977 of the H.D. (U.K.).

(c) Brazilian HO publications: Sailing Directions DH 1-9, List of Lights DH 2, Radio Aids DH 8.

No supply of charts, sailing directions or other publications are available in Aracaju, however if ordered in advance by Agent they may be obtained.

Bonded Stores: Cigarettes, beverages or other goods are not available in Aracaju.

Cash Advances: No cash advances are effected by the terminal. As a rule, the ship's agent will be able to handle this service when previously requested by radio.

Classification Societies: In Aracaju, there are no A.B.S. or L.R. surveyors, however, they may come from Rio de Janeiro upon Agent's request.

Consulates: No consular representatives exist in Aracaju.

Lubricating Oil: Supplies of lubricating oil are expensive and available only in emergencies and in very small quantities. Purchase and delivery are difficult.

Mail: There is regular Post Service in Aracaju. Letters should be sent care of the ship's Agent. In turn, the letters will be delivered to the ship upon arrival.

Provision and Stores: Limited. Provisions and stores are ordered through the ship's Agent or through shipchandlers in Aracaju.

Radio and Radar Repairs: Small radar and radio repairs may be effected in Aracaju provided that prior notice has been given to ship's Agents.

Agency: Ships Agent: Cruz Irmaos & Cia., Av. Barao do Rio Branco, 186/1208, P.O.Box 1, 49.000 – Aracaju-S.E., Brazil. *Tel:* (079) 222 6722.

Cable Address: Cruzirmaos.

AUTHORITY: Petroleo Brasileiro S.A. – PETROBRAS, Avenida Republica do Chile, 65 – Centro – Rio de Janeiro – 20.035 – Brazil.

Divisao de Operacoes: Same address, as above, 12th Floor (Operations Division).

Terminal: Terminal Maritimo de Carmopolis – TECARMO. Av. Melicio Machado Km. 2, Aracaju, Sergipe, Brazil CEP 49000. *Tel:* 079-2231901. *Telex:* (0792) 127.

FORNO: 22.54 S. 43.10 W. (See Plan)

PORT LIMITS: The port is situated in Arraial do Cabo, on the North coast of the State of Rio de Janeiro, and its limits are comprised by: on the sea side, waters of the Anjos; the creek, and by the intersection of the mountain range with the foot of Fortaleza Hill. Its entrance is located in the alignment of the last point of Santa Cruz Street (Rua Santa Cruz), and on the opposite side, terminates at the shelter breakwater quay commencement point.

APPROACHES: The access channel is 700 m. wide, with a bar (minimum depth 12 m.) between Cabo Frio and Ilha dos Porcos.

PILOTAGE: Optional.

ANCHORAGE: The anchorage area is situated beyond Anjos Creek.

BERTHING: Manoeuvring Basin: Depths of 12 m. – 13 m. available.

Quay: Length 220 m., depths from 6 m. up to 10 m. by the Dukes of Alba. Also see "Tankers".

CRANES: 2 jib cranes with a capacity of 5 – 6.3 tons. Other equipment includes 1×7 ton stacker truck and 1 tanker truck with 10,000 litres capacity.

TANKERS: *Caustic Soda:* One tank with a capacity for storage of 14,500 tons, used previously for molasses with a pipe system which extends up to the Dukes of Alba and which permits loading of vessels at the rate of 300 t.p.h.; there is a receiving bridge for the product when transported by lorries, and pumping houses.

Liquid Bulk Cargo: Pipes located at the Dukes of Alba, used for receiving fuel oil for the Companhia Nacional de Alcalis, Esso Brasileira de Petroleo and Petrobras Distribuidora. The same berthing area is frequently used also for vessels carrying chemical products such as caustic soda intended for Dow Quimica S/A., whose bulk cargo is moved by pipe-line connected to the storage tank.

FRESH WATER: The port has available a tank with a capacity for 40,000 litres.

AUTHORITY: Porto do Forno, Rua Santa Cruz, 28910 – Arraial do Cabo – RJ. *Tel:* (0246) 43-0063 and 43-0070. *Contact:* Gustavo Gurgulino de Souza, Director.

FORTALEZA: (including Mucuripe), Ceara: 03.41 S. 38.33 W. (See Plan)

PORT LIMITS: From the end of the mole on a true bearing of 235° to the meridian of 38° 29.8′ W., thence to the coast.

DOCUMENTS: See "General" before first port.

PILOTAGE: By Associacao de Praticagem do Porto de Fortaleza. Address: Rua Dragao do Mar, 372. Tel: 212088. The Pilots board ships about 0.5 miles N.W. from the breakwater, call by International Code Signals.

Pilot may be ordered through the vessel's Agent or Fortaleza Radio (PPC). One hour before arrival specifying time of arrival and from which point the Pilot is required.

ANCHORAGE: Vessels awaiting Pilot may anchor W.N.W. of the breakwater head, distance 0.5 miles. Water depth 32 ft.

RESTRICTIONS: Access channel Length 1,000 m., width 100 m., depth 10 m.

MAX. SIZE: Up to 27 ft. draft depending on the tide.

HEALTH: The inspection area for Port Health and the other authorities is within 1,430 m. of position Lat. 03° 42′ 24″ S., Long. 38° 29′ 18″ W.

All ships must be visited by Port Health Inspector. If vessel has passengers in transit for another Brazilian port, another visit will be required at port where passengers disembark. If ship's health condition satisfactory, Inspector will give Free Pratique immediately. Radio pratique available if Master able to declare satisfactory health condition before arrival. Free Pratique is valid for subsequent ports in Brazil.

If there is a crew member to be hospitalised, the Health Inspector will issue pass to hospital on request of Master or Agent who will be made responsible for all expenses incurred.

Inoculations for International Certificates can only be given by an employee of the Port Health Authority.

Ships are inspected by Custom House and Health personnel at the anchorage.

VHF: Port Radio on Channels 9, 10, 13 and 16.

TUGS: One tug 1,680 h.p. available.

BERTHING: 1,054 m. of berthing length, depth 3.6 m. – 10.0 m. Berths for five vessels. One grain elevator, capacity 150 t.p.h. Four lighters available capacity up to 70 tons each.

Berth No. 1. 106 m. long, 18 ft. deep.
Berth No. 2. 150 m. long, 20 ft. deep.
Berth No. 3. 170 m. long, 22 ft. deep.
Berth No. 4. 530 m. long, 33 ft. deep.
Berth No. 5. 160 m. long, 33 ft. deep.

Vessels are advised to take a Pilot and use a tug if available due to the peculiar port variations.

Vegetable oils can be loaded in drums, 18/20 t.p.h. or ex-barge at 100/125 t.p.h.

CRANES: A 100 ton floating crane is on order. 7 diesel cranes 9 ton – 50 ton capacity. 5 electric cranes 3.5 tons – 12.5 tons capacity. No. 3 Berth has a travelling suction tower with 2 tubes, operating at 120 t.p.h.

TANKERS: *Petrobras:* Berthing platform length 90 m., width 28 m., depth 11.0 m. (1st phase), 12.0 m. (2nd phase). Capacity 34,000 g.r.t. (1st phase), 50,000 g.r.t. (2nd phase). Length of access bridge 853 m., width 3.7 m.

Loading Lines (planned): 1×18 in. (crude); 1×16 in. (fuel oil); 1×12 in. (asphalt); 1×10 in. (diesel oil and Naphtha); 1×12 in. (petrol/alcohol); 1×12 in. (aviation kerosene); 1×12 in. (kerosene/diesel oil); 1×8 in. (LPG); 1×6 in. (LPG vapour); 1×6 in. (drinking water); 1×10 in. (ballast); 3×12 in. (not designated) and 1×4 in. (steam).

Lines available (1st phase): 1×6 in. (drinking water); 1×8 in. (fire water line); 1×12 in. (diesel/kerosene); 1×12 in. (petrol/alcohol) and 1×16 in. (fuel oil/asphalt).

FRESH WATER: 20 hydrants on the quay spaced 50 m. to 80 m. apart. Connections 2 in. Rate 20/30 t.p.h.

FUEL: Boiler fuel available from 7 connections (6 in. and 8 in.), rate 45 t.p.h., spaced along the quay. Diesel oil is available by road tanker. Also see "General" before first port.

REPAIRS: Two workshops available for machinery repairs. No electronic repairs possible.

TELEPHONES: Available on board through the Ceara Dock Co.

CONSULS: None at Fortaleza.

IDENTITY CARDS: Foreign crew members not permitted to go ashore without presentation of identity card, on which is a photograph of holder and personal details. These cards are provided by the Agent upon arrival. The identity card must be delivered on disembarkation to the Federal Police who will return it to the crew member on re-embarkation.
REPATRIATION: Can be arranged.
AIRPORT: Only internal services from local airport.
POLICE/AMBULANCE/FIRE: Maritime Police Tel: 24.14.94; Ambulance 21.34.34 and 21.22.22; Fire 23.13.81.
SHORE LEAVE: Allowed under control of Maritime Police.

SHIPMASTER'S REPORT: January 1981.
Tugs: One available of 1,600 h.p., used for all berthing/unberthing operations.
Berthing: Berth No. 5 has been dredged to take ships with a draft of 10 m. Deep laden grain ships lighten at this berth by using shore cranes to discharge into lorries before shifting under the sucker towers.
A dredger is based at Fortaleza and works continuously.
Cranes: There are now 2 travelling suction towers for handling grain, each with 2 tubes, at Berth No. 3 where max. draft is 8 m.

AUTHORITY: Companhia Docas do Ceara, Praca Amigos da Marinha Esplanada do Mucuripe, C.P. 1099, 60.000 Forteleza-CE. *Tel:* 224.20.33. *Contact:* Livio Silva de France, Director/President.

ILHEUS (Malhado): 14.47 S. 39.02 W. (See Plan)

PORT LIMITS: The Port is limited by the line which goes from the estuary of the river Almada to the Ilheus Grande, and then as far as the Southern end of the Pororocas Parcel.
From there towards the Pernambuco Morro, and then going along the Pontal Coast towards the Airfield, and from this point to the Southern extremity of the Island of Frades, and then turning towards Pedra Point, and going from there following the left bank of the River Cachoeira, then continuing along the coast to the estuary of the River Almada.
DOCUMENTS: See "General" before first port.
PILOTAGE: Pilotage is controlled by the Captaincy of the Port. It is compulsory for foreign vessels of any large tonnage; for oil tankers; for propane carriers; for vessels of any size carrying explosives and for chartered, oceangoing tug boats, whether Brazilian or foreign, that are not captained by a Brazilian officer or that do not include in their crew a Brazilian officer of the category of Nautical Officer or Master of Short-haul Cabotage. The Pilotage zone goes from the Ilheus Grande anchorage ground, marked on Chart No. 1201 of the DHN, to final berthing place.
Request for Pilot: The request for a Pilot must be made with at least 4 hours' advance notice. Pilot service in Ilheus is provided by the Pilots Association of Ilheus, with offices in the Banco Economico Building – Room 406 – Tel: (073) 231-2206.
ANCHORAGE: Marked on charts (DHN Chart No. 1201).
Normal Anchorage: At the beginning of the access channel, with a depth of 12 m. Anchoring in the 100 m. stretch along the Wharf and in the Access Channel is forbidden.
Quarantine Anchorage: An area of 500 yards radius with its central point located at Lat. 14° 45′ 30″ S., Long. 39° 01′ 00″ W.
RESTRICTIONS: *Access Channel:* Length 1,000 m., width 200 m., depth 10 m.
Manoeuvring Basin: Length 560 m., width 200 m., depth 10 m.
Navigation Dangers: The passage between the Itaipins reefs and the Ilhote de Itapitanga should be avoided. When sailing South of the Parcel dos Pororocas, the Ilheus Lighthouse should no be sighted at less than 270° until the Ilhote de Ipitanga/Ilheus Grande line has been crossed.
HEALTH: Port doctor visits all ships on arrival and requires Maritime Declaration of Health, Derat Certificate, 2 Crew Lists. Vessels from another Brazilian port automatically receive Free Pratique and should not fly Quarantine Flag. If suspected disease or fever on board it is advisable to cable Agent before arrival. Vessels can receive Pratique at any time.
TUGS: Three private companies own tugs.
BERTHING: There is a total of 432.5 m. of quay available (3 berths), depth alongside 10 m. The wharf extends 110 m. West from the breakwater. Loading rates for bagged cargo of cocoa and coffee approximately 30/45 t.p.h. per gang. Discharge of bulk wheat by grab. Tankers moor partially off the quay to a stern buoy.
PORT EQUIPMENT: 1×24 ton mobile crane; 1 bucket loader of 1.6 cu.m., 1 bucket loader of 1.25 cu.m., 2 portal cranes of 6.3 tons and 3 portal cranes of 3.2 tons; 25 fork-lift trucks of 2 tons – 30 tons capacity.
STEVEDORES: Arranged by Agent.
MEDICAL: All facilities available. If doctor needed on arrival or making emergency call to land sick persons, cable ETA 12 hours before arrival.
TANKERS: Almirante Jeronimo Goncalves Terminal owned by Frota National de Petroleiros. Buoy mooring. (Pipe-line 2,600 m. length – 12 in. diameter).
There is a wooden pier used solely for the movement of liquified gas, length 49.5 m., depth 7.0 m.
FRESH WATER: Available. Rate 50 t.p.h.
FUEL: Supplied by Petrobras road tankers.
WATCHMEN: Compulsory.
HATCHES: By stevedores.
CUSTOMS ALLOWANCES: Only sufficient tobacco for daily use. No alcohol to be taken ashore.
IDENTIFICATION CARDS: Necessary to go ashore.
CONSULS: Only in city of Salvador.
REPAIRS: Workshop belonging to Port Administration. Minor repairs only.
REPATRIATION: Can be arranged via Rio de Janeiro.
AIRPORT: Situated at Pontal, 3 km. from the port.
HOLIDAYS: *National:* 1st January, 21st April, 1st May, 7th September, 12th October, 15th November, 25th December.
Municipal: Fixed: 23rd April, 28th June, 2nd July, 15th August.
Movable: Good Friday and Corpus Christi.
Traditional: Movable: Carnival – Tuesday (Mardi Gras) and Ash Wednesday.
Fixed: 2nd November, 24th June.
POLICE/FIRE/AMBULANCE: Police tel. 2530; Ambulance 2417.
TELEPHONES: No connection to vessels can be made.
TIME: GMT minus 3 hours.
SERVICES: Diving service available.
SHORE LEAVE: Allowed with identity card.

SHIPMASTER'S REPORT: December 1982
Pilotage: Pilot is ordered by vessel's Agent and can be confirmed by VHF on Channel 16. Locality of pilot station marked on chart. Pilot boat is wooden motor boat with white superstructure.
Tugs: Two tugs available (one of 125 h.p. and the other 130 h.p.) assist when going alongside.
Berthing: The pilot boat also assists in bringing the lines ashore. There is a total of 432.5 m. of quay available. Tankers and also general cargo vessels sometimes moor partially off the quay to a stern buoy.

AUTHORITY: Port of Ilheus (Pormal), Avenida Almirante Aurelio Linhares No. 432, Ilheus, Bahia, Brazil. *Tel:* (code 073) 231-3318, 231-3212. 231-1962 (Management). *Telex:* 073-2118.

IMBITUBA: 28.14 S. 48.39 W. (See Plan)

DOCUMENTS: See "General" before first port.
PILOTAGE: Compulsory. Pilot ordered by ship's Agent. The Pilots have a launch with VHF equipment which is normally moored within the port and can be contacted on VHF Channel 16. The point for awaiting the Pilot is in the anchorage, in the outer part of the port, (Chart 1.908 of the Directorate of Hydrography and Navigation). The launch is painted red and marked with the letter 'P' in black.
ANCHORAGE: The anchorage, near the port, is on the alignment Silo-Ponta da Ribanceira, with a depth between 8 m. and 12 m., and a sandy bottom. It is sheltered from South, North and West winds, but not so from Easterly winds.
RESTRICTIONS: The port is situated in an open inlet, with a width of approximately 3,000 m., but presenting in its external area the shallow water characteristic of the Rocks of Imbituba, with the lowest depth of 8.7 m., and the Rocks of Aracaju, with the lowest depth of 6.9 m. The sea above the rocks is normally shallow, and it is dangerous to navigate over the rocks, even for vessels of small draft.
MAX. SIZE: There is no major restriction with regard to the length of vessels. The manoeuvring basin, inside the port, is 315 m. long and more than 10 m. deep. Vessels of a length of 175 m. operate normally in the port. Max. draft 31 ft.
HEALTH: See "Itajai".
RADIO: Messages from vessels at sea for Agents or from the latter to vessels must be sent via the Empresa Brasileira de Correio e Telegrafos, which has a Coastal Station at Florianopolis (PPF).
TUGS: One tug, "Mar de Espanha", length 28 m., beam 8.3 m., draft 3.7 m., displacement 276 tons and power 1,680 h.p. It has VHF equipment, and its use is advisable when berthing and unberthing.
BERTHING: ETA to be advised not less than 24 hours prior to arrival. Priority of berthing is based, in principle, on the time of arrival of the vessel. The port has, at the moment, 4 berths.
Berth No. 1 for shipment of coal, 160 m. long with 9.5 m. depth of water.
Berth No. 2, 148 m. and 9.5 m., for general cargo, and which is an extension of Berth No. 1.
Berth No. 3, 245 m. and 10 m., for bulk cargo and generals.
Berth No. 4 with approximately 24 m. and 7 m., exclusively for Ro-Ro vessels which berth bow on or stern on.
There is also provision for construction of Berth No. 5 with approximately 250 m. and 10 m., for bulk and general cargoes, and as an extension of Berth No. 3.
CARGO HANDLING FACILITIES: Berth No. 1: A system of storage (silo – 3,000 tons capacity), belt with a loading capacity of 350 t.p.h. of coal and a shoot system (8,000 tons) and three cranes with grabs, with a capacity of loading of 650 t.p.h. of coal, totalling a nominal capacity of 1,000 t.p.h.
Berth No. 2: Uses derricks or cranes of the ship, with the possibility of assistance from port cranes.
Berth No. 3: Conveyor belts and loaders/unloaders, with a discharge capacity of phosphate rock of 200 t.p.h. (special equipment for this type of solid bulk cargo) or coal at 1,500 t.p.h., in the future there will be a similar system for loading coal, with capacity of 3,000 t.p.h. Sulphuric acid loaded at rate of 400 t.p.h.
Ships derricks or cranes used for moving general cargo, with the possibility of assistance from port cranes.
Berth No. 4: Special Ro-Ro system, for a single vessel, berthing bow or stern on.
Coal: Movement capacity – 15,000 tons per day.
Storage Capacity: 125,000 tons of fuel coal (the port already has an area for future storage of fuel coal with an approximate capacity of 500,000 tons) and 240,000 tons of metallurgical coal.
Stackers: 3 with a capacity of 1.8 tons, and 2 with capacity of 4 tons.

Loading Shovels: 1 with rigid scoop, 250-B, of 2.5 cu. yd.; 1 articulated 1.900 of 2.5 cu. yd.; 7 articulated Caterpillar 966-C of 5 cu. yd. and 1 articulated Caterpillar 966-C of 6 yd.
Tractors: 4 on crawler tracks.
Lorries: 1 Euclyd and 1 Mercedes Benz, both tipper type.
Locomotives: 4 diesel-electric of 300 h.p. and 1 steam. The locomotives of the Dona Tereza Cristina Railway line also operate within the port, when necessary.
Mills: 2 for coal, with a capacity of 350 tons per hour.
Tanks: There are 2 metal tanks with 2,607 cu.m. and 1,590 cu.m. capacity, intended for storage of bulk liquid caustic soda.

STEVEDORES: Stevedoring service is carried out by port employees, with the addition per shift of personnel of the Imbituba Union of Stevedores, Imbituba and Laguna loading and discharge tallymen, Imbituba trimmers and workers in the Port Services of Imbituba. Working is 24 hours a day every day in the port, with the following shift arrangement:
By Day: Common day work from 0730 hrs. to 1100 hrs., lunch from 1100 hrs. to 1230 hrs., common day work 1230 hrs. to 1630 hrs.; first extension from 1630 hrs. to 1830 hrs., 2nd extension from 1830 hrs. to 1900 hrs.
By Night: Common night work from 1900 hrs. to 2300 hrs., meal break from 2300 hrs. to 2400 hrs., common night work from 0000 hrs. to 0400 hrs., 1st extension from 0400 hrs. to 0600 hrs., 2nd extension from 0600 hrs. to 0700 hrs.

It is necessary to make a prior agreement between the Master of the vessel and the Agent to ensure the necessary number of shifts, and the availability of other resources for loading or discharge.

CRANES: Port: 2×8 ton and 2×8.2 ton.

Coal: 6×10 ton, 1×5.7 ton, 2×1.2 ton and 2×3.4 ton.

MEDICAL: The Agent must be advised in advance as to the need for medical assistance. The town of Imbituba has a hospital (Caridade Sao Camilo) with 100 beds.

DENSITY: The density of water is constant as the port is open to the sea.

FRESH WATER: Berth Nos. 1 and 2: 3 in. pipes, 10 take-off points, with a feed rate of 6 t.p.h. per point.

Berth No. 3: 1.5 in. pipe (provisional), 1 take-off point, delivery rate of 5 t.p.h.

Berth No. 4: 1.5 in. pipe (provisional), 1 take-off point, delivery rate of 5 t.p.h.

FUEL: Contact Texaco, Tel: (0473) 46-1688 in Itajai.

WATCHMEN: Not compulsory, but advisable.

OPENING/CLOSING HATCHES: This is done by port personnel or by the stevedores.

REFUSE COLLECTION: Drums on Berths No. 1 and 2. There is no refuse collection on Berths No. 3 and 4.

CONSULS: At Rio Grande or Florianopolis.

AIRPORT: *Local Airport:* To the South of the city, 6.5 km. from the port, is a runway which is privately owned, and running N.E. – S.W. Length of runway 1,230 m., width of runway 30 m., and width of the safety strips 35 m. The runway is tarmacadamed and DC-3 type aircraft can operate on it. It has lights and white-painted triangles. It also has a wind sock.
Florianopolis Airport: About 100 km. from the port, on national highway BR-101.

TIME: GMT minus 3 hours.

HOLIDAYS: *National:* 1st January, 21st April, 1st May, 7th September, 12th October, 15th November, 25th December.
Municipal: 2nd November, 8th December.
Movable: Good Friday and Corpus Christi.

GENERAL: *Rail Connections:* This is by the Dona Tereza Cristina Railway Line which connects the port of Imbituba with: Visconde de Barbacena (25 km.); Capivari (46 km.); Tubarao (50 km.); Guarita (53 km.); Posto (55 km.); Jaguaruna (67 km.); Morro Grande (77 km.); Esplanada (85 km. with a branch line to Urussanga); Icara (97 km.); Pinheirinho (107 km. with a branch line to Posto Mina-Uniao – 1.7 km., with sub-branches to Minao do Msto and Mina Uniao; Rio Maina – 6 km.; Rio Fiorita – 17 km.); and Posto Sangao (110 km.).
Road Connections: Avenida Renato Ramos da Silva starts next to the main entrance to the port, and connects to the national highway BR-101, which is at a distance of approximately 6 km. from the port entrance.
Tidal Amplitude: 1.8 m. (maximum).

DEVELOPMENTS: Berth No. 5 is under construction as is a stockage system (500,000 tons), conveyor belts and loaders/unloaders for handling coal, which, when ready, should have a capacity of 3,000 t.p.h. The whole of the manoeuvring basin has been dredged, providing a depth of 9.5 m. along Berth Nos. 1 and 2, 10 m. along Berth No. 3 and 7.0 m. along Berth No. 4.

The breakwater was reinforced and increased by 250 m. and is now about 1,000 m. in length.

A new crane, with capacity of 16 tons is being installed at No. 3 Berth.

AUTHORITY: Companhia Docas de Imbituba, Av. Graca Aranha, 226-8° Andar, Castelo, Rio de Janeiro, CEP 20030, Brazil.
Tel: (021) 2404445. *Telex:* (021) 23568 EACB BR. *Cables:* Imbitubadocas.

At Imbituba: Av. Getulio Vargas S/N, Imbituba, Sta. Catarina, Brazil, CEP 88780. *Tel:* (0482) 550080. *Telex:* (0482) 421 DOIM BR. *Contact:* General Manager.

ITAJAI: 26.54 S. 48.39 W. (See Plan)

DOCUMENTS: See "General" before first port.

PILOTAGE: Compulsory. To await or to receive Pilot, anchor from 0.5 to 2 miles East of South Breakwater.

Pilot Service has VHF Radio; telegrams can also be addressed to Pilots Service in Itajai (Servico de Praticagem-Itajai), but customary to send all advices to Pilot Service via Agents. Call Pilot on VHF Channel 16 on arrival.

Pilot Service has 2 launches painted red with a "P" on side and on funnel. Launches always anchored inside port. In case of bad weather, vessel must wait for instructions in Porto Belo Bay, South of this port, and in case of bad weather on sailing, if impossible to disembark Pilot in entrance of bar, must be done in Porto Belo Bay.

ANCHORAGE: Waiting anchorage situated in Enseada de Cabecudas, up to 2 miles distant from South Light, depth of 9 m. in position Lat. 26° 55′ S., Long. 48° 37′ W.

RESTRICTIONS: Vessels can enter or sail at any tide with a max. draft of 26 ft. Vessels with a max. draft of 28 ft. may enter or sail at HW. Tanker movements in daylight only. Max. speed allowed in the access channel is 5 knots.
Depths: Depth at Bar – 8.5 m. Access Channel – width 100 m., depth 8.0 m. Manoeuvring Basin – width 250 m., depth 8.0 m.

MAX. SIZE: Max. length 185 m. for dry cargo vessels. For tankers, max. length 160 m.

HEALTH: When coming from abroad, vessel will be visited by Health Authorities, who issue Free Pratique after inspection. When coming from another Brazilian port, Free Pratique issued in previous port is sufficient. This document must stay on board, to be presented in subsequent ports. In case of sickness on board, after receiving Free Pratique, must contact Agent who notifies Health Service.

RADIO: For telegrams (radio) direct from vessel to Agent, or vice-versa, Departamento de Correios e Telegrafos radio station in Santos or Florianopolis, with prefixes: Santos PPS, Florianopolis PPF.

TUGS: One tug "Anapolis", 1,680 h.p.

BERTHING: Previous communication required, time of priority based on time of arriving at bar. Length at quay, 740 m., depth alongside 8 m.
Storage:

Warehouse AZ-1	Capacity 33,500 cu.m.
Warehouse AZ-2	Capacity 53,500 cu.m.
Warehouse AZ-3	Capacity 33,500 cu.m.

Refrigerated Warehouse: Capacity 4,700 cu.m.

Open Storage: 36,000 sq.m. (paved area).

Oil Storage: 23 Tanks. 14,060 cu.m. (petrol); 6,988 cu.m. (diesel oil); 941 cu.m. (Paraffin); 6,686 cu.m. (fuel oil). 28 Gas Tanks – 3,112 cu.m.

Chemical Products: Sodium Sulphate – 6,000 tons, Caustic Soda (Dow Chemicals) – 12,000 tons.

Equipment: Stacker Trucks: 13×1.8 tons, 4×3 tons, 5×3.5 tons, 3×5 tons, 3×7 tons and 1×37 tons for containers.

Trucks: 1×30 tons, 3×25 tons, 14× tons, 1×10 tons, 1×2 ton, 2×2.5 tons, 2×90 h.p. tractors, 1×70 h.p. tractor and 1×52 h.p. tractor.

CRANES: 1×20 tons mobile crane for containers and 2×1.5 tons, 1×4 tons, 1×5 tons and 2×3.2 tons Portal cranes.

STEVEDORES: When vessel arrives in morning, advisable that Master advises in advance number of gangs he will need so that Agency can make arrangements.

When discharging dry bulk cargo (grain or salt) trucks with special equipment used.

Average for loading: *(a)* Timber 240 tons/gang day. *(b)* General Cargo 100 tons/gang day. *(c)* Bags and Tobacco 200 tons/gang day.

For discharging: *(a)* General Cargo 220 tons/gang day. *(b)* Bulk 240 tons/gang day.

Hours as follows: 0700 to 1100 hrs.; 1230 to 1630 hrs.; 1900 to 2300 hrs.; 2400 to 0430 hrs.

MEDICAL: In urgent cases, advise Agent requirements in advance. Hospital available (573 beds). Normally no special vaccination required, nor presentation of certificates.

TANKERS: 5 oil terminals where vessels 155 m. length and 22 ft. draft discharge.
Shell Terminal:
Fuel oil 10 in. for discharging 8 in. for loading.
Diesel 6 in. for discharging 4 in. for loading.
Gasoline 6 in. for discharging.
Kerosene 6 in. for discharging.
Esso Terminal:
Fuel oil 8 in. for discharging 4 in. for loading.
Diesel oil 6 in. for discharging 4 in. for loading.
Gasoline 6 in. for discharging.
Kerosene 4 in. for discharging.
Atlantic Terminal:
Diesel 6 in. for discharging.
Gasoline 6 in. for discharging.
Kerosene 6 in. for discharging.
Ipiranga Terminal:
Diesel 6 in. for discharging.
Gasoline 6 in. for discharging.
Kerosene 6 in. for discharging.
Heliogas Terminal:
Gas 6 in. for discharging liquid 4 in. for discharging vapour.

DENSITY: During low tide whole port is influenced by fresh water of River Itajai – Acu, situation changing completely at high tides.

FRESH WATER: Available, supplied direct by hydrants (13×3 in.) along quay. Average supply 10 cu.m.p.h.

FUEL: No bunkering facilities in the port. Small quantities can be supplied by truck. See "General" before first port.

WATCHMEN ON GANGWAY: Not compulsory, but recommended.

OPENING/CLOSING HATCHES: By stevedores.

CUSTOMS ALLOWANCES: Customs can liberate one or two cartons of cigarettes and one or two bottles of spirits, dependant on time vessel remains in port.

IDENTITY CARDS: Foreign crew members not permitted to go ashore without presentation of identity card, on which is a photograph of holder and personal details. These cards are provided by the Agent upon arrival. The identity card must be delivered on disembarkation to the Federal Police who will return it to the crew member on re-embarkation.
CONSULS: Argentina, Sweden and Chile.
REPAIRS: Almost all repairs on engines or deck possible.
SURVEYORS: Det Norske Veritas, Lloyd's Register, Bureau Veritas and Germanischer Lloyd have local representatives. Independent marine surveyors are also available.
REPATRIATION: Repatriation, normally made by Agents via Rio de Janeiro and/or Sao Paulo.
AIRPORT: Situated about 10 km. from port. Daily regular flights to Sao Paulo, Porto Alegre, and Rio de Janeiro by Varig.
TIME: 2nd Mar. – 30th Nov. GMT minus 3 hours. 1st Dec. – 1st Mar. GMT minus 2 hours.
HOLIDAYS: New Year's Day (January 1st); Good Friday; Tiradentes (April 21st); Labour Day (May 1st); Corpus Christi; Proclamation of the Republic (November 15th); Independence Day (September 7th); Christmas Day (December 25th).

Regional Holidays: June 6th and December 8th.
POLICE/AMBULANCE/FIRE: Police 440123; Ambulance 443811; Fire Brigade 193.
TELEPHONES: There are no facilities for placing telephones on board.
DEVELOPMENTS: Container area to be paved.
AUTHORITY: Empresa de Portos do Brasil S.A., Administracao do Porto de Itajai – API. Av. Cel. Eugenio Muller, 622, P.O.Box 244, 88.300 Itajai – SC. *Tel:* (0473) 44-0722 (23 lines). *Telex:* (0473) 121. *Contact:* Luiz Antonio de Matos.

Port Captain: Av. Cel. Eugenio Muller, 106. *Tel:* 44-2435.

LAGUNA: 28.30 S. 48.46 W. (See Plan)

LOCATION: The port is situated in the State of Santa Catarina on the left bank of the connecting channel of the Lake of Santo Antonio with the Atlantic Ocean.
PILOTAGE: Compulsory. Tel: (0486) 440075.
ANCHORAGE: Recommended anchorage is at the entrance off the bar.
APPROACHES: The area is covered by D.H.N. Chart No. 1901. The access channel is 1,300 m. long, 80 m. wide and 6.2 m. depth. Tidal range 0.84 m.
BERTHING: The manoeuvring basin measures 300 m. × 120 m., with a depth of 5.0 m. The quay is 300 m. long, depth alongside 5.0 m. Port used by fishing vessels only.
Freezer Installations: Ice Factory. Capacity 50 tons/day. Ice Garner capacity 100 tons. Freezing Tunnel (2) with capacity of 48 tons/day at −35°C. Freezer Capacity 800 tons at −30°C. Waiting Freezer. Capacity 160 tons at −2°C.
EQUIPMENT: 1 Electric Crane with capacity of 1.0 ton. 1 fish and ice separator machine.
FRESH WATER: 715,000 litres capacity reservoirs.
FUEL: Diesel oil available. 3 storage tanks.
REPAIRS: Workshop for repairs in the port area.
HOLIDAYS: In addition to National holidays, local holidays are 2nd February, 13th June and 18th June.
AIRPORT: Nearest commercial airport is at Florianopolis, 130 km. away.
AUTHORITY: Administracao do Porto de Laguna, Avenida Getulio Vargas 728, P.O.Box 39, 88790, Laguna, SC. *Tel:* (0486) 440183. *Contact:* Eng. Darcy Eduardo Coninck de Almeida Pedrosa, Port Administrator.

Port Captain: Avenida Brito Peixoto 72, Laguna. *Tel:* 440196.

MACEIO: 09.40 S. 35.44 W. (See Plan)

PORT LIMITS: Limited to the North by the shore, to the South by the mole, to the West by the Atlantic Ocean and to the East by the access mole (Lat. 09° 41′ S., Long. 35° 44′ W.). The Marine terminal of Salgema (Lat. 09° 41′ S., Long. 35° 46′ W.). is located between the beaches of Trapiche and Ouricuri where can be seen the distinctive cylindrical tanks for storage of the products of Salgema Industrias Quimicas S/A. There is a mole emerging from Trapiche beach extending seawards 145°, for about 1,000 m., and at the end of which is a quay. From the mole and extending Southwards is a submarine pipe-line for disposal of residues from the terminal.

The Sugar Institute (IAA) accepts Notice of Readiness only after having been signed by Surveyor to the effect that holds are in all respects ready to receive cargo.
DOCUMENTS: See "General" before first port.

Port Health, Customs and Maritime Police board vessels alongside. However vessels from Eastern bloc countries are boarded at the anchorage.
PILOTAGE: Compulsory. A request for a Pilot can be made via the ship's Agent, 12 hours in advance, specifying the time of entry of the vessel, and from which point pilotage is required, via radio station Amaralina (PPA) or Olinda (PPO). The Pilot boards and leaves vessels 0.25 miles to the West of the Peixe-Pau Buoy and 1 mile from the mole light.
Pilots' Association: Rua Sa e Albuquerque No.467-Room 17, Jaragua-Maceio-AL. Tel: 223-2203 and VHF radio on Channels 9, 13 and 16. Listening Channel is 16. Vessels may anchor off Peixe-Pau Buoy in bad weather.
ANCHORAGES: Vessels anchor outside the area marked as "Anchoring forbidden" on the Chart 901 of the DHN.
Quarantine Anchorage: To the seaward of the Peixe-Pau Buoy.

Vessels are not permitted to anchor in the port basin.
RESTRICTIONS: Max. permitted speed between the Peixe-Pau Buoy and the port is 6 knots.

No restrictions on length. On approaching the port attention must be paid to the shallows existing to the N.W. of the Peixe-Pau. The average depth is from 10 m. to 15 m. Vessels may enter day and night. Pilot refuses to berth tankers after nightfall.
MAX. SIZE: Vessels have loaded up to 33 ft. draft.
HEALTH: No Health Authorities board vessel. In event of suspected disease or fever on board, advise Agent by cable so that Port Authority may take appropriate action.
RADIO: Radio Olinda (Recife), call sign PPO. Radio Amaralinha, call sign PPA.
TUGS: One tug available, bollard pull 20 tons.
BERTHING: 6 Berths (4 for general cargo and 2 for sugar) available day and night, weather permitting.

Sugar Terminal: Facilities for loading bulk molasses. Projected loading capacity 1,000 t.p.h. of bulk sugar, 300 t.p.h. molasses.

Sugar Wharf: 250 m. length. General cargo wharf 500 m. length. Depth alongside 33 ft.

One quay for loading the products of Salgema Industrias Quimicas S/A (Maritime Terminal of Salgema). This quay is located at the end of a mole some 1,000 m. long starting at Trapiche beach and extending seawards 140° (Lat. 09° 41′ S., Long. 35° 46′ W.).

The average depth of water in the port is 10 m., and at the Salgema Terminal, 8.8 m.

In order to be admitted with safety into the port and terminal, vessel's length must not exceed 250 m. and 157 m., respectively.

The sugar quay has 10 bollards and the general cargo quay 16. At the Salgema Terminal Quay, only 1 vessel is berthed at a time.
Cargo Handling Facilities: There are 6 warehouses, 5 being 80 m. × 80 m. for general cargo and 1 of 200 m. × 50 m. for Demerara sugar (200,000 tons).

There is a tank with a capacity of 4,000 cu.m. for alcohol and another for molasses with the same capacity. There is a refrigerated store with a capacity of 200 tonnes.

There is an open storage area covering the whole extension of the general cargo quay measuring 20,400 sq.m.

There are 5 stacker trucks, 4 with a capacity of 2 tons and 1 of 7 tons.

There are 2 mechanical sugar loaders with total capacity for shipment of 4,000 bags per hour, and 1 bulk sugar mechanical loader of 1,000 t.p.h. capacity.

There is 1 mechanical grain suction unit with capacity for unloading 100 t.p.h.. There is 1 bulk grain distributor with scales for loading lorries.
STEVEDORES: ETA required 24 hours before arrival to arrange gangs. When work required Saturdays and Sundays, ETA must be sent on Friday. Loading/discharge – General: 8 t.p.h. per gang. Sugar 20 t.p.h. per gang. Grain 60 t.p.h.
CRANES: 4×3.2 ton and 2×6.3 ton capacity electric cranes.
MEDICAL: No advance notice needed except if vessel due to arrive on Saturday/Sunday in order to arrange doctor and/or hospital. Hospital facilities available.
TANKERS: 1 tanker berth. Max. draft 33 ft. 1 pipe-line 8 in. for gasoline and one 6 in. for diesel/kerosene.

Tanks: Petrobras, 9 tanks with total capacity of 38,929 cu.m.

Atlantic, 9 tanks with total capacity of 14,482 cu.m.

I.A.A., 1 tank for molasses with capacity of 7,000 tonnes.
FRESH WATER: Fresh water available. Pipe-line from water tower by gravity. Rate about 5 t.p.h. 11 points at the general cargo wharf and 5 at the sugar wharf.
FUEL: Diesel fuel oil and fuel oil 'A' (PPF) is supplied by Esso, Texaco, Shell, Atlantic and Petrobras, by gravity from tanker trucks. The availabilities are minimal, as the storage capacity is small, at times there being no products available. Orders must be placed 24 hours in advance. Also see "General" before first port.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Normally carried out by stevedores.
CUSTOMS ALLOWANCES: One carton cigarettes to be declared. One bottle alcohol, open, to be declared.
IDENTITY CARDS: Foreign Crew members not permitted to go ashore without presentation of Identity Card, on which is a photograph of holder and personal details. These cards are provided by the Agent upon arrival. The Identity Card must be delivered on disembarkation to the Federal Police who will return it to the Crew member on re-embarkation.

CONSULS:

Norway	2276	Portugal	2449
Italy	3302	France	2126
Spain	2640		

REPAIRS: Small repairs only can be effected.
REPATRIATION: Carried out by Recife Consulates.
AIRPORT: Airport at Palmares, distance 30 km. Served by Varig, Vasp and Transbrazil.
TIME: GMT minus 3 hours.
HOLIDAYS: Work prohibited on Labour Day only. Other days on which work is considered overtime and charged as such are: 1st January, Good Friday, 7th September, 15th November and 25th December.
Local Holidays: 16th September and 27th August.
POLICE/AMBULANCE/FIRE: Police 221-5348; Ambulance 241-2288 and 241-1488; Fire Brigade 223-2447 and 193.
TELEPHONES: Telephone on quayside. If telephone required onboard 48 hours notice required.
GENERAL: Prevailing winds: Summer months – N.E. Rainy season – S.E. with strong South winds during July/August/September and strong undertow during August/September.
DEVELOPMENTS: The Salgema marine terminal has been built across the bay. It consists of a jetty 1,300 m. long. The loading platform will allow 18,000 d.w.t. vessels to load in 7.6 m. depth.

Loading Caustic Soda	12 in. line	330/350 cu.m./hr.
Ethylene Chloride	10 in. line	330 cu.m./hr.
Ethylene Cryogenic	8 in. line	330 cu.m./hr.

AUTHORITY: Administracao do Porto de Maceio, Rua Sa de Albuquerque, Jaragua, 57000 Maceio, Alagoa, Brazil. *Contact:* Lafayete Pacheco Neto, Administrator.

MANAUS: 03.08 S. 60.00 W. (See Plan)

DOCUMENTS: See "General" before first port.
PILOTAGE: Pilots join vessel at Belem and make the round voyage back to Belem. Vessels entering via North Channel take a Pilot at Santana. No Pilots from Barra Norte to Santana.
ANCHORAGES: Suitable places can be indicated by the Pilot.

Anchorage for vessels over 3,000 g.r.t. Lat. 03° 09′ 00″ S., Long. 60° 01′ 48″ W.

Anchorage for vessels of less than 3,000 g.r.t. Lat. 03° 09′ 00″ S., Long. 60° 02′ 12″ W.

Vessels impounded or requiring considerable repairs Lat. 03° 08′ 30″ S., Long. 60° 02′ 30″ W.

Vessels in quarantine Lat. 03° 08′ 48″ S. Long. 59° 55′ 48″ W.
RESTRICTIONS: Passage across Barra Norte to be made at HW only. Berthing and unberthing preferably takes place at Manaus in daylight.
MAX. SIZE: Entry to the Amazon via the North Channel; max. draft 30 ft. Via Belem; draft 29 ft. with a length up to 175 m. and draft 24 ft. with a length up to 210 m.
HEALTH: See "General" before first port. All ships must be visited by Port Health Inspector. If vessel has passengers in transit for another Brazilian port, another visit will be required at port where passengers disembark. If ship's health condition satisfactory, Inspector will give Free Pratique immediately. Radio Pratique available if Master able declare satisfactory health condition before arrival. Free Pratique is valid for subsequent ports in Brazil.

If there is a crew member to be hospitalised, the Health Inspector will issue pass to hospital on request of Master or Agent who will be made responsible for all expenses incurred.

Inoculations for International Certificates can only be given by an employee of the Port Health Authority.
RADIO: Salinopolis Radio or Rio Radio. There is also Barbados Radio Station at Belem.
TUGS: 1×210 h.p. and 1×1,680 h.p.
BERTHING: Arranged by Agent who asks permission from local Port Authorities to provide a berth. All berths suitable for vessels able to navigate the river.

Two floating stages in "T" jetty form.

Easterly stage 272 m. long. Floating roadway 252 m.

There are 3 cranes on this stage.

Westerly stage 275 m. long. Floating roadway. No cranes.

Water depth 35 m. – 45 m. at both stages.

Warping buoys must be used when leaving stages as there are no tugs.

A third stage is planned.

A stone jetty 500 m. long will shortly be available for year round operations, when it has been fitted with Portal cranes.

Moageria Berth: Used for the discharge of bulk grain, one tube, rate 30 t.p.h.
EQUIPMENT: *Electric Cranes:* 3×3.2 tons capacity (on rails).
Mobile Cranes: 3×10 tons capacity, 1×9 tons capacity, 1×15 tons capacity, 1×50 tons capacity.
Floating Cranes: 1×100 tons capacity (name – "Joao Pessoa"), 1×15 tons capacity.
Fork Lifts: 14×3 tons capacity, 6×5 tons capacity, 8×2.5 tons capacity, 3×25 tons capacity.

Additional fork lifts with 10 tons capacity available.
Trucks: 27 trucks for moving cargo. 2 heavy lift trucks with 45 tons payload. 2 trucks with 10 tons payload.
STEVEDORES: Available.
MEDICAL: Doctors and hospital facilities available.
TANKERS: *Copam Refinery Berth:* A floating pontoon with buoy moorings ahead and astern. Vessel berths starboard side to, using port anchor.

Facilities for crude discharge. Products only loaded. No dirty ballast facilities.
No. 1 Terminal: Vessel lies to 4 buoys, and picks up a floating line, normally attached to the bank. Available for products only.
DENSITY: Fresh water.
FRESH WATER: Not suitable for drinking purposes.
FUEL: Bunker C and Diesel. Available ex-barge or at the terminals.

Petrobras Distribuidora S.A., Av. 7 de setembro, 1251 s/511. Tel: 232-5482.

Shell do Brasil S.A., Rua Ferreira Pena 222. Tel: 232-5881.

Texaco do Brasil S.A., Av. Presidente Castelo Branco 720. Tel: (092) 234-2980.

Esso Brasileira de Petroleo S.A., Rue Recife, Adrianopolis. Tel: (092) 232-1886.

Also see "General" before first port.
IDENTIFICATION CARDS: Required.
GANGWAY/DECK WATCHMEN: Compulsory.
OPENING/CLOSING HATCHES: Performed by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes per man. Only normal daily consumption wine/spirits allowed.
CONSULS: Following countries are represented at Manaus:

Belgium
Bolivia
Colombia
Denmark
Ecuador
France
Germany F.R.
Great Britain
Italy
Japan
Panama
Peru
Portugal
U.S.A.

REPAIRS: Very limited facilities available.
REPATRIATION: Can be arranged.
AIRPORT: Regular daily international flights from Manaus Airport.
TIME: GMT minus 5 hours.
HOLIDAYS: *National Holidays:* 1st January, 21st April, 1st May, 7th September, 12th October, 15th November, 25th December.
Municipal Holidays: Good Friday, Corpus Christi, All Soul's Day, 8th December (Devotion to Our Lady the Patroness Saint of Manaus).
POLICE/FIRE/AMBULANCE: Civil Police Tel: 22113; Maritime Police 22315; Fire 21155; Ambulance 21112.
TELEPHONES: Arrangements can be made for telephone connections on board.
SHORE LEAVE: Allowed.
SHIP SUPPLY SERVICE: Contact: Helijet Aero Taxi Ltd., Km. 4, Estr. T. Tapajos. Tel: (092) 236-2150 and (092) 236-7611 for helicopter air-lift service.
AUTHORITY: Administracao do Porto de Manaus, Rua Taqueirinha 25, Centro, Manaus, Amazonas, CEP 69.000 Brazil. *Tel:* 232-4250. *Telex:* (0922) 109. *Contact:* Nelson Pedro de Aguiar Falcao, Port Administrator.

NATAL: 05.47 S. 35.12 W. (See Plan)

LOCATION: Port situated on East bank of Potengi River, 2 miles from sea.
PORT LIMITS: The port area is considered to be the estuary of the River Potengi between the parallels 05° 45′ 36″ S. and 05° 46′ 42″ S.
DOCUMENTS: See "General" before first.
Clearance: The visiting area for the Health Inspector of the Ports, Federal Customs & Maritime Police is close to the point of receipt of the Pilot (05° 45′ 06″ S. – 35° 11′ 18″ W.). In special cases, these Authorities may permit visits to be made with vessels already berthed. Also see "Health".
APPROACHES: *Access Channel:* This is shown on Nautical Chart 802 (DHN). Width 90 m. to 400 m. Minimum depth: 7 m. in relation to the Reduction Level of the Nautical Charts. Critical Points: The area between the entrance to the bar and the Manimbu Light.
Tides: Average speed on ebb: 3.5 knots at high tide and 1.3 knots at periods of low tides. Average speed of the rising tide: 1.5 knots coming up river.
PILOTAGE: Pilotage is obligatory from the point of receipt of the Pilot (05° 45′ 06″ S. – 35° 11′ 18″ W.) up to any point in the port area.

Request for the Pilot must be made to the Pilots' Association of the Rio Grande do Norte (Rua Silva Jardim, No. 1 – Ribeira Tel: 222-1613), with a minimum of 3 hours in advance of requirement. The Pilots' Association has VHF, working on Channels 6, 8, 10, 11, 12, 13 and Channel 16 (for calling up), throughout 24 hours. Normally the Pilot will be on board within 2 hours, when the request has been made on working days, during the period between 0800 hrs. and 1800 hrs. Normally Pilots go out to vessels in a red launch with the letter "P" painted in black. When very strong winds are blowing, it is recommended that Masters manoeuvre vessels in order to allow the Pilot's cutter to come alongside on the lee side.
ANCHORAGES:

(a) For vessels of more than 3,000 g.r.t. – between the access channel and the right bank of the River Potengi, with effect from the parallel of 05° 45′ 30″ S. to parallel 05° 46′ 00″ S.

(b) For vessels of up to 3,000 g.r.t. – between the access channel and the left bank of the River Potengi, with effect from parallel 05° 46′ 30″ S. to parallel 05° 46′ 48″ S. On anchoring, this must be done leaving a free area of a minimum of 80 m. in the access channel to the Almirante Ary Parreiras Base.

(c) For quarantine vessels – the area between parallels 05° 45′ 24″ S. – 05° 45′ 36″ S. and meridians 35° 11′ 06″ W. and 35° 11′ 24″ W.

(d) For pleasure craft – between the access channel and the right bank of the River Potengi, going from parallel 05° 45′ 48″ S. to the parallel of 05° 46′ 00″ S., near to the yacht club.

RESTRICTIONS:

(a) The maximum speed permitted for navigation in the River Potengi for vessels of over 20 g.r.t. is 8 knots.

(b) The access channel to the port in the area included between the bar and the Manimbu Light does not permit simultaneous traffic of vessels going in opposite directions.

Manoeuvring Area: Between the parallels of 05° 46′ 30″ S. – 05° 46′ 06″ S., in an area of 300 m. starting from the port quay and from the line which joins the North end of the quay to the North dolphin of the Terminal for PETROBRAS fuel. Depth: from 6 m. to 11 m. It is expressively prohibited to anchor any vessel in this area, which is reserved for the manoeuvres of berthing and unberthing.
MAX. SIZE: Length 520 ft., draft up to 23 ft. 6 in. at spring tides.
HEALTH: Official visit made on vessel's arrival if between 0700 hrs. and 1900 hrs. Visits can be arranged at other times.

The inspection area of the Port Health, Federal Receipt and Maritime Police authorities is 04° 45′ 06″ S. and 35° 11′ 15″ W.
TUGS: Not available.
BERTHING:

(1) *Port Quay:* 400 m. long with 13 berthing bollards. Presents a depth of 8 m. in front of warehouse A-2 and 7 m. in front of the rest of the quay, in relation to the reduction level of the Nautical Charts.

(2) *The PETROBRAS Fuel Terminal:* Situated 200 m. downstream from the port quay, has a distance between dolphins of 100 m. and a depth of 8 m. in front of them (starting from a distance of 20 m. in the direction of the port quay, the depth decreases to 7 m.).

There are no special rules; however, the process will be most rapid and safe if berthing is made port side to on an ebb tide and unberthing being effected on a rising tide.

STORAGE FACILITIES:
(1) *Within the Port:*
Warehouses: 3 for general cargo. Usable total area: 3,945 sq.m. Total capacity: 18,200 cu.m.
Cold Store: 1 with a usable area of 925 sq.m. and a capacity of 140 tons. It is rented for operation to the Companhia de Produtos do Mar (PRODUMAR).
Open Storage Areas: 2 with a usable area of approx. 10,000 sq.m.
Covered Storage Areas: 2 with an area of 800 sq.m.
(2) *In the Vicinity of the Port:*
Warehouses: 3 belonging to the Firma Comercio e Industria de Fibras, situated in the Avenida Hildebrando de Gois, 117 to 137. Usable total area: 2,400 sq.m. Total capacity 12,000 cu.m.
Silos: 2 belonging to Natal Industrial S.A. and operated by the firm Moinho Natal. Total capacity: 4,800 tons.
PORT EQUIPMENT:
Cranes: 2 electric, jib type with a capacity for 2 tons.
2 on wheeled tyres, with a capacity for 8 to 9 tons (but these are out of operation).
Stackers: 16 Yale type, 8 of them in operation and 8 out of action.
Rolling bridges: None.
Loaders: None.
Suction Units: 2 mobile on tyred wheels, with a real capacity of 10 t.p.h. From the suction units, the wheat is carried out along a subterranean gallery and from this, by a cargo transfer unit, and a transport platform to the silos of Moinho Natal.

The Port Administration has 5 trucks, 3 tractors and 2 lorries.

STEVEDORES: On working days, Sundays and Public Holidays the following is the work timetable:

Day period	*Night Period*
0700 to 1100 – Common Day	1900 to 2300 – Common Night
1100 to 1300 – Meal Break	2300 to 2400 – Meal Break
1300 to 1700 – Common Day	0000 to 0400 – Common Night
1700 to 1900 – Possible Overtime	0400 to 0600 – Possible Overtime
	0600 to 0700 – Meal Break

LOADING: When loading sugar bags, only canvas-bottomed slings to be used. Shippers will not permit loading with ordinary rope slings. Suitable slings can be hired from shore. Six slings required for each working gang.
TANKERS: Oil berth suitable for vessels up to 520 ft. length.
CUSTOMS ALLOWANCES: One opened bottle spirits and 200 cigarettes per crew member per week.
FRESH WATER:
(1) *On the Port Quay*

The supply of water is made by the Companhia de Aguas e Esgotos do Estado do Rio Grande do Norte (CAERN).

There are 12 hydrants spaced 22 m. apart with a discharge capacity of 6 t.p.h.
(2) *At the PETROBRAS Oil Terminal:*

The system of water supply is via one hydrant.
FUEL: There are no oil barges. Supply of diesel oil for vessels moored at the Port Quay is made by means of tanker lorries. Vessels can also be bunkered at the Fuel Terminal of PETROBRAS, which has a 4 in. pipe and capacity for supply of 30 to 40 t.p.h.

Orders can be made via the local ship's Agency, with a minimum of 48 hours' notice in advance.
MEDICAL: Hospitals and doctors available.
CONSULS: France, Italy, Lebanon, Portugal and Spain.
REPAIRS: There is a Naval Base at Natal, which apart from providing service to naval vessels, also deals with merchant vessels requiring repairs. The Base has seven departments, Mechanical, Naval Carpentry, Electricity, Electronics, Sails, and Painting, and a Docking System comprising two floating docks and one office ship. The Goias Dock has a capacity for vessels up to 1,000 tons and 4.80 m. draft. There is a ballasting service.

The City of Natal Dock has a capacity for vessels up to 2,800 tons and 5.80 m. draft.

Apart from other facilities, the Base has maintenance, refrigeration and kitchen services, which can be placed at the disposal of vessels during repairs to their own installations.
POLICE/AMBULANCE/FIRE: Police: Tel. 222-3656, Fire: Tel. 231-3581 or 193.
TELEPHONES: No facilities exist.
HOLIDAYS: *Local Holidays:* 6th January – Holy Kings; 21st November – Our Lady of Presentation (Padroeira).
AIRPORT: There is the Airport of "Augusto Severo" (20 km. distance from the port) situated in the Municipality of Eduardo Gomes. There are direct flights to Fortaleza, Recife and the rest of the country.
EMERGENCY CO-CORDINATION:
- (a) 2 corvettes and 1 tug of the Grupamento Naval do Nordeste – These will be put into action by the command of the Third Naval District in cases of emergency on the request of the ship's Agent or his legal representative.
- (b) Tugs of the concerns which operate in support to the PETROBRAS platforms, actioned by the Captaincy in accordance with the RTM, and on request of the interested party.

GENERAL: *Garbage:* There is no collection of rubbish by the Port Administration. It is the responsibility of every vessel to deposit their rubbish in a container on the quay which is collected daily by a lorry of the Department of Urban Cleansing of the Prefecture of Natal.
AUTHORITY: Companhia Docas do Rio Grande do Norte (CODERN), Av. Hildebrando de Gois, Ribeira, Natal, Rio Grande do Norte, Brazil CEP – 59.000. *Contact:* Ivan Reis de Lima, Administrator.

NITEROI: 22.53 S. 43.07 W.

LOCATION: The Port of Niteroi is situated in the inlet of Sao Lourenco, on the East coast of the Bay of Guanabara. The area is covered by D.H.N. Chart Nos. 1510, 1511 and 1512.
APPROACHES: The access channel is 1,400 m. long, 70 m. wide and 6 m. deep.
PILOTAGE: Compulsory.
ANCHORAGE: See D.H.N. Chart Nos. 1510, 1511 and 1512.
MAX. SIZE: 20,000 g.r.t.
BERTHING: The manoeuvring basin is 430 m. long, 250 m. wide and 6 m. deep. The quay is 450 m. long, 7 m. depth with 20,000 sq.m. of open storage. There are 2 warehouses with a capacity of 3,300 sq.m.
CRANES: 1×1.5 tons electric jib crane, 1×46 tons mobile crane and 1×36 tons mobile crane.
BULK HANDLING FACILITIES: At the S.W. extremity of the port, in the external quay area, there is a wheat silo which is the property of Moinho Atlantico and comprises of 13 cylindrical cells with a static capacity for storage of 15,000 tons. Its construction is of reinforced concrete. This silo is connected by a Radler type elevated transporter to a pneumatic suction unit of the "Buller", type with a nominal capacity of 120 t.p.h.
PORT EQUIPMENT: Stacker trucks: 6 with a capacity of 2 to 7 tons; winch: 1 of 60 tons; tractor on wheels: 1; rolling bridges: 4 of 1,500 kg.
FRESH/WATER: Available ex-quay, 14 hydrants with 2.5 in. dia., rate 20 cu.m./h. Also there are 2 barges, each with 100,000 litres capacity.
FUEL: Available from Petrobras.
REPAIRS: Can be undertaken.
DRY DOCKS: "Almirante Guilhem" Floating Dock: Length 200 m. Inner width: 34 m. Clear width between fenders: 32.80 m. Moulded depth 15.60 m. Height of keel blocks: 1.75 m. Max. draft over keel blocks: 7.75 m. Lifting capacity: 15,000 tons. Cranes: 10 ton capacity.
Slipways: 1. 100 m. (length)×12.5 m. (width)×5,200 tons capacity. 2. 60 m.×9.5 m.×1,000 tons capacity. 3. 50 m.×8.3 m.×500 tons capacity.

Above facilities operated by ENAVI. Tel: 719-9292. Telex: (021) 32049 ENAV.
HOLIDAYS: National Holidays: 1st January; 21st April; 1st May; 7th September; 12th October; 15th November and 25th December.

Regional Holidays: 24th June and 22nd November.

Movable Holidays: Monday and Tuesday of Carnival, Ash Wednesday, Good Friday and Corpus Christi.

Commemorative Holidays: 28th January (port workers); 28th August, 28th October; 30th October; 2nd November (All Saints).
TIME: GMT minus 3 hours.
AIRPORT: Santos Dumont and the International Airport of Rio de Janeiro.
GENERAL: Niteroi Port Authority serves traditionally the specific areas of the Municipality of Niteroi, apart from acting as a support base for the oil rigs which operate in the Campos Basin. It is able to receive Roll-on/Roll-off type vessels and this port acts as an important alternative for vessels of this sort which are intended for the Rio de Janeiro region.
AUTHORITY: Porto de Niteroi, Av. Feliciano Sodre, 215, 24.030 – Niteroi – RJ. *Tel:* (021) 722-4535 and 718-3182. *Contact:* Engineer Antonio Manne, Manager.

OBIDOS: 01.51 S. 55.35 W.

LOCATION: Located on the left bank of the River Amazon in the town of Obidos, State of Para.
MAX SIZE: 7,000 d.w.t.
BERTHING: Length of berth 35 m. Depth alongside 10.0 m. One warehouse of 420 sq.m. Open storage area of 600 sq.m. Floating pontoon of 39 m.×6.5 m. 1 mobile crane and 2 stacker trucks available.

Marginal quay available for small vessels.
AUTHORITY: Companhia Docas do Para, Avenida Presidente Vargas 41 – 20 Andar, Belem, Para, Brazil. *Tel:* 223-0056, 223-2066.

PARANAGUA: 25.30 S. 48.30 W. (See Plan)

(★) Indicates information received from a ship's Agent'.

PORT LIMITS: The port is limited by co-ordinates Lat. 25° 29′ 45″ S. and 25° 30′ 12″ S. Long. 48° 32′ 06″ W. and 48° 30′ 00″ W. which also include commercial and inflammable berths.

DOCUMENTS: Also see "General" before first port.

The visiting areas for the Port Health, Federal Receipt and Maritime Police are those mentioned as areas 1, 2, and 3. See "Anchorages". Normally visits are made at the quay, after berthing.

Documents for clearance inwards of foreign vessels:

a) Certificate of Registration.
b) Classification document for the vessel in the port of registration.
c) International Load Line Certificate.
d) Safety Certificate for Passenger Vessels or Safety Construction Certificate for Cargo Vessels.
e) Safety Equipment Certificate for Cargo Vessels.
f) Safety Certificate for Radio-telegraphy or Radio-telephony on Cargo Vessels.
g) Exemption Certificate, in respect of the foregoing certificates, where applicable.
h) Safety Certificate for Nuclear Vessels.
i) Certificate or other Financial Guarantee in respect of the International Convention governing Civil Responsibility in Damage caused by Oil Pollution, 1969.
Federal Receipt and Port Health Clearance.
Bill of Lading for postal purposes, where the vessel carries mail.
Copy of the payment docket in respect of the tariff for using lighthouses.
Crew List.
Written declaration from Master or Owner stating name and address of legal representative in the port.
Cargo Manifest.

National Vessels:

(1) Up to date equipment roll, accompanied by extra-roll licences and those for extra tonnage.
(2) List of Crew members in duplicate.
(3) Inscription and Registration Pass Book (CIR) or pass books of personal inscription (CIP), for verification as deemed necessary;
(4) List of passengers;
(5) Load Capacity Sheet, for checking the categories of Crew members taken on board and checking the functions effected corresponding to the upper category;
(6) Cargo manifest;
(7) Terms of Inspection in dry dock and afloat or Certificate of Regularisation of the vessel;
(8) Provision of Register of the Maritime Tribunal, with statement of the name of the Master and his category or Document of Registration (CP-1);
(9) Ship's Log.
(10) Certificate of authorisation of the vessel's line or of extraordinary voyage, issued by the Superintendency of the National Mercantile Marine (SUNAMAM), except for "tramp" vessels.
(11) Certificate of Safety of Passenger vessels, for deep sea vessels and long distance coasting;
(12) Certificate of Safety of Construction of cargo vessels, for deep sea vessels and long distance coasting;
(13) Certificate of Safety Equipment on cargo vessels for deep sea vessels and coasters;
(14) Certificate of Safety of radio telegraphy and radio-telephony on cargo vessels, deep sea and coasting vessels;
(15) Certificate of Exemption, corresponding to the certificates mentioned above;
(16) Freeboard Certificate.
(17) Certificate or other financial guarantee corresponding to the International Convention covering Civil Responsibility for Damages caused by Oil Pollution, 1969;
(18) Passes issued by the Delegation of Federal Receipt (Customs), Port Health, Federal Police and Postal Authorities when the vessel carries mail bags (only for vessels destined for foreign countries);
(19) List of relatives of the Master and the Crew;
(20) Authentic Xerox copy of the last payment form of pension contributions to the INPS or FUNRURAL, paid by the Charterer or Owner;
(21) Certificate of Tonnage or tonnage calculation notes.

(★) *Documents required on arrival and amount of each:*

	Doctor	*Police*	*Customs*	*Agency*	*Total*
Provision List	–	–	3	1	4
Crew List	1	2	3	3	9
Voyage Memorandum	–	1	1	1	3
Personal Effects of Crew	–	–	3	–	3
Baggage Declaration (when disembarking Crew members)	–	–	2	–	2
Health Declaration	1	–	–	–	1
Free Pratique	1	–	–	–	1
Vaccination List	1	–	–	–	1
Clearance from last Brazilian port of call	–	1	1	–	2
Cargo Manifest from each port where cargo loaded for Paranagua	–	–	1	–	1
Bill of Lading from each port where cargo loaded for Paranagua	–	–	1	–	1
Negative Cargo Manifest from each port of call where no cargo loaded for Paranagua	–	–	1	–	1

PILOTAGE: Pilotage is compulsory for foreign vessels and tankers, propane carriers and those carrying explosive cargo under the Brazilian flag, of any GRT, from the point at which the pilot boards, shown on DHN Chart No. 1821, approaching the port by the South East or Galheta channels as far as the berth.

Pilotage is optional for vessels of Brazilian flag of less than 500 GRT and for national or foreign support craft whilst they are operating in the Port of Paranagua with Brazilian crews or which have in their crew a Brazilian mariner of the category of Nautical Official or Master of Coasting.

Pilotage can be requested via the Ship's Agent, 4 hours in advance, stating time of entry or departure of vessel. Vessels approaching Paranagua should contact Paranagua Radio, Channel 16 VHF, two hours prior to arrival in the Pilot waiting area.

The Pilots' Association maintains permanent watch on Channel 16 VHF, passing traffic on VHF Channels 10 and 13. (Tel. 422-0530, 422-1560 and 422-1570). The greatest restriction for Pilots is the condition of the sea, which in Galheta Channel, with the sea above Force 4 – makes the passage of the pilot cutter difficult.

ANCHORAGE: Vessels must anchor in the areas circumscribed by the coordinate points mentioned below:

(a) Area "1" intended for vessels of less than 180 m. in length and a draft of less than 9.45 m. = 31 ft. Priority of anchorage is accorded in this area to vessels within these limits which have to be bunkered by TEFRAN-SEPAR, with fuel and lubricant oils for their own consumption.

Point	*Latitude South*	*Longitude West*
A	25° 29′ 32″	48° 31′ 28″
B	25° 29′ 51″	48° 31′ 28″
C	25° 30′ 01″	48° 33′ 31″
D	25° 29′ 40″	48° 33′ 31″

(b) Area "2" to the South of the Galheta Channel: Intended for vessels in one of the following situations, or of the types and sizes mentioned below, with the order of priority being observed for anchorage.:

1. Vessels of any size in quarantine;
2. Vessels of any size operating with explosives;
3. LASH type vessels;
4. Vessels which require to bunker with fuel oil and/or lubricants, for their own use; and
5. Vessels over more than 180 m. overall length.

Point	*Latitude South*	*Longitude West*
A	25° 29′ 45″	48° 26′ 14″
B	25° 30′ 10″	48° 26′ 14″
C	25° 29′ 46″	48° 27′ 10″
D	25° 30′ 07″	48° 27′ 10″

Area "2" to the North of the Galheta channel: intended for vessels in one of the following situations, or of types and sizes mentioned below, observing the order of priority for anchoring in which they are located:

1. LASH type vessels.
2. Vessels requiring to bunker with fuel oil and/or lubricants for their own consumption; and
3. Vessels of more than 180 m. overall length.

Point	*Latitude South*	*Longitude West*
A	25° 29′ 08″	48° 26′ 17″
B	25° 29′ 30″	48° 26′ 17″
C	25° 29′ 34″	48° 29′ 43″
D	25° 29′ 10″	48° 29′ 43″

OBSERVATION: 1. Vessels which anchor in these areas must be positioned as closely as possible to the port of Paranagua, i.e. as close as possible to the Western limit of the area; and

2. Whilst a vessel with specific priority is in these areas, and another arrives with greater priority, it will go to another area, allowing the arriving vessel to take up position.

(c) Area "3" intended for vessels to be subjected to Health inspection by the Port health Inspectorate or authorised body. The Ship's Agents, consigners of vessels involved in such cases, must, after obtaining from the pilot the estimated time of anchorage in this area, inform the corresponding authorities, sufficiently in advance, so that appropriate action may be taken.

Point	*Latitude South*	*Longitude West*
A	25° 29′ 46″	48° 27′ 10″
B	25° 30′ 07″	48° 27′ 10″
C	25° 29′ 48″	48° 28′ 00″
D	25° 30′ 03″	48° 28′ 00″

(d) Area "4" intended for vessels with an overall length less than 140 m., and a draft less than 6.1 m. (20 ft.).

Point	*Latitude South*	*Longitude West*
A	25° 29′ 16″	48° 30′ 19″
B	25° 29′ 30″	48° 30′ 19″
C	25° 29′ 16″	48° 31′ 28″
D	25° 29′ 32″	48° 31′ 28″

(e) Area "5" intended for vessels of overall length more than 180 m. and draft less than 9.14 m. (30 ft.).

Point	*Latitude South*	*Longitude West*
A	25° 29′ 45″	48° 26′ 14″
B	25° 30′ 12″	48° 26′ 14″
C	25° 30′ 05″	48° 24′ 45″
D	25° 30′ 26″	48° 24′ 45″
E	25° 30′ 20″	48° 24′ 20″
F	25° 30′ 30″	48° 24′ 46″

(f) Area "6" anchorage for the port of Antonina.

Point	*Latitude South*	*Longitude West*
A	25° 28′ 34″	48° 37′ 41″
B	25° 28′ 51″	48° 37′ 41″
C	25° 28′ 30″	48° 38′ 37″
D	25° 28′ 47″	48° 38′ 37″

(g) Area "7" intended, exclusively, for the anchorage and berthing of barges used in transport of "off-shore" platform structures.

Point	*Latitude South*	*Longitude West*
A	25° 32′ 28″	48° 22′ 09″
B	25° 32′ 42″	48° 22′ 14″
C	25° 32′ 28″	48° 22′ 35″
D	25° 32′ 43″	48° 22′ 16″
E	25° 32′ 54″	48° 22′ 10″

(h) Area "8" intended for vessels of overall length more than 180 m. and draft less than 8.20 m. (27 ft.)

A	25° 29′ 26″	48° 24′ 34″
B	25° 29′ 44″	48° 24′ 48″
C	25° 30′ 00″	48° 23′ 42″
D	25° 30′ 17″	48° 23′ 54″

(i) The anchorage for sport and recreation vessels must be effected, preferably, in area 1 or in the River Itibere, and Cotinga Point, in accordance with the buoy restrictions. More details are available from the Captaincy of Ports Regulations.

RESTRICTIONS: The access channels – Galheta and South East are marked on charts 1821 and 1822 of the National Brazilian Hydrographical Dept; the Galheta Channel, normally used, is dredged to a depth of 12.00 m. (39.37 ft.) with a width of 200 m., and a length of 12 miles. The official depth of the channel is 11.28 m. (37 ft.) at high Spring tides and 9.45 m. (31 ft.) at low tides. The critical points of the channel are between the pairs of buoys 3–4 and 7–8, where there are currents running across the channel, and with a heavy sea, waves break making the departure of pilot cutters difficult. In the S.E. Channel, the depth varies from 7.62 m. (25 ft.) to 6.4 m. (21 ft.)

Tides: There is a difference of approximately one hour between the tide in the port and at the bar. At the Galheta Bar, the current may reach a speed of 4 knots during Spring tides. Also see "Berthing".

MAX. SIZE: See "Berthing".

HEALTH: Authorities visit vessels at the anchorage. Port Health Service Tel: 422-0594.

(★) *Note:* Compulsory Sanitary Inspection, prior to docking, is carried out at special anchorage, for vessels proceeding direct from the following countries: U.S.A., Mexico, all Central America, Trinidad, Colombia, Venezuela, Guyana, Suriname, French Guyana, all African countries, all Asiatic Countries, Australia, Polynesia.

Special areas are provided for vessels according to their lengths and drafts. Also for Sanitary Inspection special areas are provided in the vicinities of Ilha das Cobras (Cobras Island).

RADIO: Paranagua Radio, call sign PPG. VHF Channels 24, 25, 26 and 27 for vessels navigating close to the port.

TUGS: Private tugs owned by Wilson Sons S.A.: 3 × 2,170 h.p. (bollard pull 33.4 tons), 1 × 1,200 h.p. (bollard pull 18.5 tons), 1 × 1,680 h.p. (bollard pull 18.4 tons).

2 private tugs owned by CIA. de Navegacao das Lagoas.

BERTHING: Manoeuvring Area: **(A)** The areas for vessel manoeuvres have a width of 700 m. along the whole length of the quay with varying depths:

1) Section "A"
   10.06 m. = 33 ft., at low tide.
   11.28 m. = 37 ft. at high tide

2) Section "B"
In section "B", between the mooring heads, from Numbers 01 to 18:
   11.28 m. = 37 ft., at full Spring tide
   10.67 m. = 35 ft., at full Neap tide
   7.62 m. = 31 ft., at low tide

3) Sections "B" and "C"
In Section "B", from mooring head number 18 as far as Section "C", and all along that section
   9.45 m. = 31 ft., at high tide
   7.62 m. = 25 ft., at low tide

4) Inflammables Quay
   a) Pier No. 2 – Internal berth
   Max. drafts:
   9.14 m. = 30 ft., at Spring high tides
   8.23 m. = 27 ft., at Neap high tides
   7.01 m. = 23 ft., at low tide
   Max. vessel overall length = 176 m.
   b) Pier No. 2 – External berth
   Max. drafts:
   11.28 m. = 37 ft., at Spring high tides
   10.67 m. = 35 ft., at Neap high tides
   9.45 m. = 31 ft., at low tide
   c) Pier No. 1 – Propane berth
   Max. drafts:
   5.79 m. = 19 ft., at Spring high tides
   5.18 m. = 17 ft., at Neap high tides
   3.96 m. = 13 ft. at low tides
   Max. overall length of vessels = 145 m.

At Section "B" berths, use of pontoons is obligatory for vessels of drafts greater than 27 ft. At the section "C" berths, it is convenient to use pontoons for vessels with drafts greater than 25 ft.

(B) *Restrictions:*

(i) Max. passage 50 m. = 164 ft.
(ii) Max. speed over the bottom = 9 knots
(iii) Vessels cannot move with trim or list when at the max. draft.

(iv) The max. depths at Spring and Neap tides shown above can only be used from 3 days before to 3 days after two days of full or new moon and two days of fourth crescent or waning moon, respectively. Nevertheless, the Tide Table must be consulted for the day in question in order to ensure a sheet of water over the keel of the ship greater than or equal to 8% of the depth at Spring tides or equal to 15% at Neap tides.

(v) Vessels with drafts between 35 ft. and 37 ft., inclusive, at Neap and Spring high tides, can only be moved with tugs, without using their propellers, along Section "B" of the channel (area facing Warehouses 01 and 02).

(vi) At the internal berth of Pier No. 2, night manoeuvres can only be effected with adequate illumination so that the whole berth and the area next to the deck and bridge are clearly visible, and at the discretion of the Master of the vessel.

(vii) At the internal berth of Pier No. 2, vessels can only manoeuvre during ebb tides and when the current is equal to or less than four tenths of a knot, i.e. the manoeuvres will be effected from commencement of ebb to a maximum of 2 hours afterwards; when the draft of the vessel is equal to or less than 22 ft., manoeuvres can be effected during 2 hours prior to ebb maximum until the completion of ebb.

(viii) In berthing manoeurvres at the internal berth of Pier No. 2, the minimum distance at which the end of the vessel (bow or stern) must be to the bridge is 10 m.

Traffic in port:

(a) No crossing or overtaking is permitted by vessels in the access channel if visibility is less than 2 miles.
(b) Crossing or overtaking is not permitted when one of the vessels has a draft exceeding 7.92 m. (26 ft.), between pairs of buoys 1-2 and 13-14. The vessel which has the current running at its stern, in this event, has preference in the manoeuvre, the other vessel being required to wait for it to pass.

Stay in Port:

After completion of operations, vessels must unberth within 1 hour, except where request has been made previously to the Port Administration and approval has been given.

BERTHING FACILITIES:

(a) Quays:

(1) Commercial Quay: Total length 2,106 m. with the following depths:
   420 m. with a depth of 10 m.;
   1,170 m. with a depth of 8 m.;
   516 m. with a depth of 12.0 m.;
   Mooring bollards every 25 m.

(2) Inflammables Quay – Secondary Pier (for Propane Carriers) berthable only on the outside, for vessels with max. length of 145 m. and draft up to 19 ft.
   Principal Pier (Pier No. 2) – berthable on both sides, external and intenal. Length of 184 m. and 174 m., bollards spaced 46 m., apart.

(b) Warehouses/Cold Stores/Silos/Open storage areas:

(1) Warehouses: 21 warehouses for general cargo, with total area of 56,400 sq.m. and total volume of 282,000 cu.m.
(2) Cold Stores: One cold store for 7,000 tons, operated by a private company on rental.
(3) Silos: Two vertical silos with total capacty of 110,000 tons.
   Four horizontal silos with capacity of 68,000 tons.
   Privately-operated silos:
   One vertical of 10,000 tons.
   Nine horizontal silos, total of 285,000 tons.
(4) Open areas: General cargo – 27,000 sq.m.
   Heavy lifts 14,000 sq.m.
   Containers 22,000 sq.m.
   Fertilisers 3,000 sq.m.
   Next to the port area are many warehouses, providing a rear-area with a capacity of 1,000,000 tons.
   Also see "Bulk Handling Facilities".

CARGO HANDLING EQUIPMENT:

Cranes: 1×40 tons, 1×30 tons, 4×12.5 tons, 10×6.3 tons and 5×3 tons. 1×130 ton (Lorain) mobile crane. 1 bridge crane for 20 ft. – 40 ft. containers.

Port Authority heavy lift floating crane: 100 tons capacity.

Stacker Trucks: 8×7 tons, 8×5 tons, 15×3.5 tons, 18×2.5 tons and 1×2 tons.

Rolling Bridges: 3×1.5 t.p.h. (2 at Warehouse No. 8 and one at the cold store).

Grabs: 31×2 cu.m. – 3.8 cu.m.

Tractors: 42×45 h.p. – 105 h.p.

Ro/Ro: Ro/Ro ramp but dredging is required.

Side Loaders: 2×36 tons (for containers).

Suction Units: 2 fixed in the vertical silo (Warehouse No. 1). Rate 75 t.p.h. each.

There are no barges, lighters, workboats or pontoons.

BULK HANDLING FACILITIES:

Cargill (Berth 12): One loading tower of 500 t.p.h., movable over a distance of 172 m., capacity 20,000 tons (horizontal silo). Also capacity for 3,000 tons of bulk oil with capacity of 150 t.p.h.

Sanbra (Berth 6): At warehouses 6, 6a and 6b. 2 fixed loading towers, each 100 t.p.h., capacity 12,000 tons. Also two slightly movable elevators, with a total loading capacity of about 100 tons.

At the same berth there is a loading tower, movable over 180 m., with a loading capacity of 500 t.p.h. which is connected to a silo of 80,000 tons. Depth 9.45 m. Air draft 16.0 m.

Gransol (Berth 4): At warehouses 4 and 5. One loading tower, 400 t.p.h., movable over a distance of 150 m. and one fixed, loading rate 100 t.p.h. Storage capacity 10,000 tons. 2×12.5 ton portal cranes for containers at Shed 5.

Socopar (Berth 2): One loading tower, 300 t.p.h., movable over 110 m. Storage capacity 64,000 tons.

Port Silo (Berth 1): (Operated by the Port Administration) one loading tower, 300 t.p.h., movable over 150 m. Storage capacity 10,000 tons.

Cargill and Sanbra can handle vessels loading to 42 ft. by using pontoons. Other installations, even with the use of pontoons, can only handle vessels loading to 30 ft.

The new grain terminal at warehouse No. 13 with capacity of 164,000 tons and 2 loading towers, movable over 162 m., loading capacity 1,500 t.p.h. each. There are two additional vertical silos each with capacity of 110,000 tons.

Cold Store: Capacity 7,000 tons.

(★) *Liquid Bulk:* Liquid bulk cargoes consist mostly of soya bean, castor, peanut and cotton seed oil. Messrs. Cargill have their own storage tanks and a loading installation capable of delivering 200 t.p.h. All other shippers effect their shipments through portable pumps connected to tank-trucks. Loading capabilities of portable pumps: 30/50/80 and 100 t.p.h. Shippers provide the pumps and hoses and particulars are:

Hoses: Lengths 32 ft., 50 ft. and 100 ft. Diameters 2 in. and 4 in.

Also see "Developments".

STEVEDORES: *Working Hours:* Daywork: 0700–1100 and 1300–1700, overtime 1100–1300 and 1700–1900.

Nightwork: 1900–2300, 0000–0400. Overtime possible 2300–2400 and 0400–0600.

Same working hours are valid for Sundays and holidays with 20%–100% surcharge.

MEDICAL: All facilities available. Crew members should hold valid International inoculation certificates.

TANKERS: 2 berths, length 185 m. (outside) and 174 m. (inside). Depth alongside 9.0 m.–11.0 m. Bollards 46 m. apart. (★) Max. drafts 31 ft. and 26 ft. respectively).

Propane Quay: Length 142 m., depth 5.79 m. Bollards 46 m. apart.

Dirty Ballast: Petrobras Terminal has tanks (capacity 4,500 cu.m.) for dirty ballast and contaminated oil. At Commercial Quay collected free of charge by road tankers.

DENSITY: Salt water at entrance of the bar. Brackish water inside the Bay, which varies with the tides: At HW: between 1013 and 1024.

At LW: between 1012 and 1013.

FRESH WATER: 47 hydrants at 45 m. intervals available along the quays, rate up to 27 t.p.h. There is a water barge with capacity of 400 tons., pumping rate of 150 t.p.h. It is recommended that vessels advise Agent of their requirements prior to arrival, as the delivery rate is very low at some berths.

FUEL: Bunker C, fuel oil, diesel oil, Navy Special and all types of marine fuel available. Rate of supply for vessels at the Inflammables Quay: Diesel oil: 50 t.p.h. and fuel oil and mixtures: 200 t.p.h.

Bunkering of vessels in the roads or berthed at the Commercial Quay is by private barge – Empresa Transportadora "Estrela" Ltda., 1 self-propelled barge for diesel oil, capacity 185 tons, rate of supply 70 t.p.h., 1 dumb barge for fuel oil and mixtures, capacity 590 tons, delivery rate 140 t.p.h. Requests for bunkers must be made 96 hours minimum in advance through the Agencies.

FIRE PRECAUTIONS: *Fire fighting facilities:* 4 conventional fire-fighting tenders. 1 chemical spraying vehicle.

REPAIRS: Small structural and machinery repairs possible in the port. 3 firms available.

DRY DOCKS: None.

SURVEYORS: Principal classification societies are represented in the town:

Lloyd's Register of Shipping;
American Bureau of Shipping;
Bureau Veritas;
Nippon Kaiji Kiokai;
Registro Italiano Navale;
Germanischer Lloyd;
Det Norske Veritas;
Brazil Salvage S.A.

Marine Surveyors: P & B – Consultoria Navel e Industrial Ltda.
Inspect Consultoria e Peritagens Ltda.

GANGWAY/DECK WATCHMEN: At least 1 watchman is compulsory on board every vessel alongside 24 hours per day.

OPENING/CLOSING HATCHES: By stevedores.

AIRPORT: Curitiba, 80 km. from the port for national connections. Paranagua, for medium distance carriers. Air taxi service also available.

TIME: Local time 3 hours behind G.M.T.

HOLIDAYS: National: 1st January; 21st April; 1st May; 7th September; 2nd November; 15th November and 25th December. Local: 29th July and Corpus Christi (movable).

CONSULS: *In Paranagua:*

Denmark – Avenida Gabriel de Lara, 1471. Tel: 422-0605
Italy – Avenida Manoel Ribas, 317. Tel: 422-0045 and 422-0046
Norway – Avenida Gabriel de Lara, 1471. Tel: 422-0605
Paraguay – Rua Roque Vernalha, 428
Portugal – Avenida Arthur de Abreu, 29–5° andar – Sala 5
Uruguay – Rua Doutor Leocadio, 112 – Sala 102

In Curitiba:

Germany F.R. – Avenida Joao Gualberto, 1237. Tel: 52-4244
Argentina – Rua Marechal Floriano Peixoto, 228–8° andar – Conj. 803 Tel: 23-5141
Austria – Rua Marechal Floriano Peixoto, 228–17° andar – Cjto. 1707 Tel: 24-6795
Belgium – Rua 15 de Novembro, 297 – Sala 303. Tel: 23-3346 and 23-3490
Bolivia – Rua Presidente Faria, 334–4° andar – apt° 401. Tel: 22-4885
El Salvador – Travessa Oliveira Bello, 67–1° andar. Tel: 22-0820
Spain – Rua Visconde de Cerro Frio, 229 – Novo Mundo. Tel: 46-1714
France – Rua Lourenco Pinto, 68. Tel: 22-4906 and 22-8866
Honduras – Praca Rui Barbosa, 537. Tel: 24-9911
Italy – Rua Barao do Cerro Azul, 198 2° andar. Tel: 22-3877
Japan – Rua Marechal Deodoro, 51 6° andar – Conj. 601. Tel: 24-3861
Mexico – Rua Comendador Araujo, 795. Tel: 22-0367
Paraguay – Praca Osorio, Edificio ASA – 1° andar Sala 1002. Tel: 23-9010 – Ramal 45
Peru – Rua do Rosario, 63. Tel: 24-2827
Poland – Rua Agostinho Leao Junior, 234. Tel: 22-2472
Portugal – Rua Marechal Deodoro, 126 – 8° andar. Tel: 22-4022
Syria – Rua Ebano Pereira, 28 – 2° andar. Tel: 23-3875 and 24-6691
Switzerland – Rua Marechal Floriano Peixoto, 228 – 8° andar Sala 807 Tel: 23-7553
Consulate General for the U.S.A. – Main office in Sao Paulo, Rua Padre Joao Manoel, 20. Tel: 37-5574.

POLICE/AMBULANCE/FIRE: Civil Police 422-0101 and 422-0172. First aid 422-0111. Fire 193. Maritime Police 422-0382.

REPATRIATION: Possible.

TELEPHONES: Request for installation should be made to the Traffic Section of the Port Administration.

SERVICES: Cleaning services available. Electronic repairs possible. Rubbish collected daily from drums on quay. Deratting service available. Divers available.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: I.D. Card, Seamans Book or passport sufficient.

DELAYS: Normally no delays.

GENERAL:

(★) *Preferential Docking:* Port Administration regulations for Preferential Docking are as follows:

1. Preferential docking is granted to vessels operating with cereals and meats in bulk at the following berths equipped with special mechanical installations:

Berth 1 – Vertical Silo, belonging to Port Administration
Berth 2 – Vertical Silo, belonging to Soceppar
Berth 4/5 – Horizontal Silo, belonging to Gransol
Berth 6 – Horizontal Silo, belonging to Sanbra
Berth 12 – Horizontal Silo, belonging to Cargill
Berth 13 – Horizontal Silo, belonging to Port Administration

2. Preferential docking is granted to vessels discharging solid bulk cargoes (fertilisers, salt, minerals) using shore cranes and grabs at Berth 11. Upon arrival of such vessels, should this berth be occupied, they may dock at any other berth, shifting to Berth 11 when it becomes available and only if Port Administration feel this necessary.

3. Preferential docking is granted to vessels operating exclusively with containers at Berth 14.

4. Preferential docking is granted to vessels operating exclusively with liquid gas and liquid bulk cargoes at the special inflammable berths.

5. For vessels operating general cargo, docking will be granted at any berth according to time of arrival and in compliance with above mentioned preferential dockings.

6. When a general cargo vessel docks at any preferential berth, this will be done on a conditional basis, having to vacate this berth upon arrival of any other vessel with preferential docking for that particular berth, provided there is another berth available. All expenses due to shifting will have to be paid by the interested party.

7. Any vessels operating bulk and general cargo and docked at preferential berth will have to vacate this berth upon completion of loading/discharging the cargo, giving right to a preferential docking, if and whenever another vessel with the same rights should be awaiting this berth but only according to clause 6.

a) Vessels docked at a preferential berth for a specific cargo may load/discharge simultaneously any other cargo provided this does not interfere or prejudice the loading of that specific cargo.

b) All vessels have a right to a maximum of three loading berths being allowed to shift from one berth to another without losing their priority and will do so according to clause 6.

8. All vessels are entitled to up to three dockings.

a) Only under special circumstances duly justified and only with the Port Administration consent may a vessel dock more than the times established in item 8.

9. A vessel may only dock when its cargo is ready for shipment and port dues (export/import) are duly paid for up to the following percentages:

a) General and bulk cargo:
1. Up to 50% of declared general cargo.
2. Up to 50% of cargo declared at each loading berth.
3. For the specific case of coffee the following percentages will be observed, duly verified by I.B.C. (Brazilian Coffee Institute):

Up to 5,000 bags coffee declared 100%
Up to 10,000 bags coffee declared 50%
Up to 20,000 bags coffee declared 35%
Up to 30,000 bags coffee declared 30%
Up to 50,000 bags coffee declared 25%
Up to 100,000 bags coffee declared 20%
Over 100,000 bags coffee declared 15%

For vessels arriving and initiating operations on a Monday morning or the day following a holiday, docking will be granted on a conditional basis, providing she has a minimum of 2,000 bags of coffee ready for immediate operation and if by 1100 hours she did not fulfil above mentioned percentages she will have to undock having to cope with all expenses and placed at the end of the line of vessels awaiting a berth.

b) Above mentioned percentages may be altered by the Port Administration at any moment and at their discretion.

c) So as to be able to comply with mentioned rules, all agencies must declare, without forfeit, to the Port Administration when requesting normal docking or with priority, vessel's complete bookings.

d) Any vessels not maintaining normal loading/discharging rates will be forced to undock taking last place in line of vessels awaiting berth.

10. After load/discharge operations are completed, any auxiliary operations will have to be carried out at anchor unless duly authorised by Port Administration.

11. In order to provide proper service for vessel's discharge, all agencies are obliged to hand over to Port Administration vessel's cargo manifest and a non-negotiable copy of all bills of lading, as well as furnishing time of arrival and any alteration of same.

12. Any vessels undocking voluntarily due to lack of cargo will maintain first place in line of vessels awaiting berth.

DEVELOPMENTS: New quay with length 350 m. and depth 13.0 m. to be constructed. These new berths will provide one additional berth for bulk carriers and one berth for container vessels. Berths expected to be completed late 1988.

Terminal Maritima Cattalini: Under construction and expected to be ready late 1988. Facilities consist of a private pier with berthing length of 280 m. and 15 tanks (36,000 cu.m.) for vegetable oil and chemicals. Loading/discharge rate of 400 t.p.h. – 700 t.p.h., depending on product and vessel. Depth 37 ft.

AUTHORITY: Capitania dos Portos do Estado do Parana, Rua Benjamin Constant 535, Paranagua-PR. CEP. 83.220 Brazil. *Tel:* 422–3033. *Contact:* Captain Ronald Cardoso Guimaraes, Port Captain.

Paranagua Port Authority Benjamin Constant 707, Paranagua-Re, CEP 83.200 *Tel:* (041) 422-3223.

Administracao dos Portos de Paranagua e Antonina, Av. Governador Manoel Ribas, S/No. Paranagua, Brazil. *Tel: 422-3311, 422-0282.*

PELOTAS: 31.47 S. 52.20 W. (See Plan)

LOCATION: The port is located on the Northern edge of the Sao Goncalo channel.

PILOTAGE: Available through Associacao dos Praticos da Lagoa dos Patos – Rua General Bacelar, 444 Rio Grande – RS. Tel: 21349.

APPROACHES: The access channel is 80 m. wide with a depth of 5.1 m.

TUGS: Delegates Services Administration tugs are used.

BERTHING: Manoeuvring basin: 120 m. wide, depth 5.1 m.

Quay: 500 m. long, depth 2.5 m.

CRANES: 2 mobile cranes, with capacities of 50 tons each. Twelve stacker trucks with 1.8 tons capacity each.

BULK HANDLING FACILITIES: One Samrig type silo with a capacity of 6,880 tons.

STORAGE: 3 warehouses with an area of 7,160 sq.m., 6,000 sq.m. of covered storage and 1,160 sq.m. of open storage available.

FRESH WATER: 7 hydrants spaced 65 m. apart with a discharge rate of 18 t.p.h.

FUEL: Available.

AIRPORT: 10 km. distant.

TIME: GMT minus 3 hours.

HOLIDAYS: National: 1st January, 21st April, 1st May, 7th September, 12th October, 15th November and 25th December.

Regional: 2nd February.

Movable: Monday and Tuesday of Carnival, Ash Wednesday, Good Friday and Corpus Christi.

Commemorative Days: 28th August (Banks), 28th October (Public Officials), 30th October (Commercial) and 2nd November (All Saints).

CONSULS: Italy (Consular Agency) and Portugal (Vice-consul).

AUTHORITY: Porto do Pelotas, Rua Conde de Porto Alegre, 1. 96.100 – Pelotas – RS. *Tel:* (0532) 22.1125 and 22.1134. *Contact:* Engineer Jose Fernando Marques Ripoll, Harbour Manager.

PONTA DA MADEIRA: 02.34 S. 44.23 W. (See Plan)

LOCATION: The Ponta da Madeira Terminal is located on the East side of the Sao Marcos Bay, on Sao Luis Island, in the following position: Lat. 02° 34′ S., Long. 44° 23′ W.

The Terminal is located approximately 8 km. South of Sao Luis City, which is the capital of the State of Maranhao. The Terminal is connected by highway to the city.

The Ponta da Madeira Terminal belongs to and is administered by Companhia Vale do Rio Doce.

The Terminal loads ore from Serra dos Carajas, which reaches the Terminal by means of the Carajas Railway.

The Terminal's main installations are as follows:

Car Unloading Station,
Stockpile Area,
Screening and Crushing Station,
Sampling and Weighing Stations,
Shiploader Dock,
Tug Berth,
Industrial and Administrative Buildings.

DOCUMENTS: Crew members and passengers can only disembark after the ship has been visited and cleared by Customs and Federal Police Officers.

Required documents for such inspection are as follows:

Customs:

Crew List, including each crew member's job title, place and date of birth and identification document's number.

Ship's Supplies and Spare Parts List.

Personal Effects List (personal items and baggage).

List of Passengers in transit or disembarking, including ship's name, passenger's name, place and date of birth.

Stores List.

Maritime Police:

General information concerning the ship.

Complete Crew List, including each crew member's name, passport number or identification document's number, citizenship and date of birth.

List of Guns on Board.

List of Narcotics on Board.

Complete list of passengers, including passenger's name, passport number, citizenship and date of birth.

List of Stowaways, if any.

Passengers and crew members must have valid passports to receive authorisation to land.

Ship Masters shall warn all crew members that Brazilian Laws are very strict in every aspect concerning smuggling and that such laws are strictly enforced by Customs Officers.

Masters shall make sure that all items, except cigarettes, tobacco, alcoholic beverages and personal souvenirs are stored in a room, which will be sealed by Customs Officers, during ship's stay at the Ponta da Madeira Terminal.

Also see "Health".

After Port Authorities clearance, the ship's holds will be inspected by the Terminal's and Master's Representatives. Therefore, the ship's holds must be completely dry, clean and ready to be loaded, so that loading may be authorised.

Should the ship's hold be in a satisfactory condition, the corresponding "Inspection Certificate" shall be signed by the Terminal's and the Master's Representatives. Otherwise the Notice of Readiness will be invalid until the ship is presented in compliance with all conditions.

Ore/oil and OBO ships shall present the Gas Free Certificate to the Loading Inspector immediately after docking. Such certificate will be issued by the Ship Master or by an Inspector accredited by the Ship Owner.

PILOTAGE: Pilotage is obligatory in the Sao Marcos Bay area, between the Pilot's waiting point and any docking and mooring point.

The Pilot shall be requested, via Embratel's Coastal Radio Stations, through the ship's Agent 48 hours in advance, specifying: Ship's arrival time, boarding point and the type of pilotage required. The request shall be confirmed 4 hours in advance.

There is a Pilotage Office at the Terminal, equipped with VHF radio and telephone. The office of the Sao Marcos Bay Pilots Association is located at Avenida Marechal Castelo Branco No. 605, Room 321, Bairro de Sao Francisco. Tel: (098) 227-1828.

The Pilot boarding Point (as shown on Nautical Chart No. 413) is in the following position: Lat. 02° 31′ 18″ S., Long. 44° 23′ 06″ W.

At night, the pilot boat will display lights in accordance with international regulations.

ANCHORAGE: *Outer Anchorage Area:* If all Inner Anchorage Area's anchorage points are occupied, ships shall anchor in the Outer Area located North and N.E. of the channel's Entrance Buoy No. 2. The bottom is formed by fine and coarse sands.

Inner Anchorage Area: The Inner Anchorage Area, shown on Nautical Chart No. 413, is located approximately 1 mile West of Medo Island, forming a rectangle between the following co-ordinates: Lat. 02° 30′ 00″ S. and Lat. 02° 31′ 24″ S., Long. 44° 23′ 25″ W. and Long. 44° 25′ 28″ W.

Depths vary between 14 m. and 56 m. The bottom is fine to coarse sand.

Tidal stream measurements in this area have velocities between 1.9 and 2.9 knots during Spring tides.

NAVIGATION AIDS: *Radio Beacons:* The following Radio Beacons are in operation in the area:

Location	*Characteristics*
Sao Marcos Lighthouse	RC 300 kHz – continuous. Modulation A2A and A3E Signal – SM Location – Lat. 02° 29′ S., Long. 44° 18′ W.
Sao Joao Lighthouse	RC 320 kHz – continuous. Signal – AI. Location – Lat. 01° 17′ S., Long. 44° 54′ W.
Sao Luis Airport	RC 280 kHz – continuous. Signal – SLI. Location – Lat. 02° 35′ S., Long. 44° 14′ W.

For ships approaching, the Radio Beacon installed in the Sao Marcos Lighthouse shall be used.

Racon: A Racon is installed in the Sao Marcos de Fora Lighthouse, operating in the "X" and "S" bands, symbol "C" – "Charlie", active 18 secs. and inactive 12 secs.

Lighthouses: The following lighthouses are presently in operation in the Sao Marcos Bay area: Sao Joao, Mangunca, Pirajuba, Pirarema, Alcantara, Ilha do Medo, Ponta de Areia, Sao Marcos, Aracagi and Santana.

In addition to these, the Sao Marcos de Fora Lighthouse is installed close to the channel's entrance (Lat. 01° 48′ 00.19″ S., Long. 43° 52′ 40.90″ W.). It consists of a 30 m. high cylindrical tower, with a heliport at its top. In the heliport's Northern corner, on a steel structure, the main and the spare lights and the Racon are installed.

The location and characteristics of these lighthouses are shown on Nautical Charts and also in the light lists.

NOTE: An anchored floating platform is provisionally installed in the vicinity of the Sao Marcos de Fora Lighthouse, with a 16 m. high metallic tower, painted with horizontal white and red stripes. Atop the tower there is a lighting device which will display, at night, 2 white flashes in a period of 15 secs., with a range of 10 miles. From July 1986 onward, the Sao Marcos de Fora Lighthouse will be in operation.

Lighted Buoys: The access Channel, the Turning Basin and the Inner Anchorage Area are marked by 28 lighted buoys with radar reflectors.

APPROACHES: *Access Channel:* The Ponta de Madeira Terminal's Access Channel is 55 miles long in the S.S.W. general direction, divided into the following sectors:

From Buoy Nos. 1 and 2 up to No. 6 – 7.8 miles long in the direction 208° – 028°.

From Buoy No. 6 up to after No. 14 – 11.6 miles long in the direction 238° – 058°.

From Buoy No. 16 up to Nos. 19 and 24 – 33.6 miles long in the direction 213° – 033°.

The channel's width is 1,000 m. along almost its entire extension, except for the sectors below, which have a minimum width of 500 m.:

From Buoy Nos. 1 and 2 up to Nos. 3 and 4.

From Buoy Nos. 5 and 10 up to Nos. 7 and 14.

Between Buoy Nos. 15 and 22.

The channel's minimum depth is 23 m. (75.5 ft.).

NOTE: The Access Channel is being dredged to the minimum depth of 23 m.

From April, 1986 onward, the minimum depth of the whole Access Channel will be 23 m.

Previously, the minimum depth was 17.8 m. between Buoy Nos. 1, 2, 3 and 4.

Turning Basin: The Turning Basin is limited by the berth to the East, by the parallel 02° 34.5′ S. to the South, and by Buoy Nos. 23 and 25 to the West. The Turning Basin is 0.8 miles wide and approximately 2 miles long.

The Turning Basin's depth varies from 23 m. in the docking area to 35 m. close to Buoy No. 25. The bottom is generally sandy.

Depths: In the area corresponding to the channel's first sector, between Buoy Nos. 1 and 6, the lowest depths shown outside the channel are 16.9 m. at 350 m. N.W. of the channel's West bank and 17.9 m. at 600 m. E.S.E. of its East bank. Ships entering the channel, if they expect to pass by loaded ships leaving, may navigate out of and close to the channel, being aware of the depths indicated on the Nautical Chart No. 410.

Breakwaters: 2 breakwaters have been built, in order to lessen the tidal streams in the ships manoeuvring and docking area. The South Breakwater is 312 m. long, from Ponta da Madeira, and the North Breakwater is 980 m. long from Boqueirao Beach.

RESTRICTIONS: The ships shall arrive at the Terminal with a draft compatible with docking, in accordance with the shiploader's normal position, with a max. air draft of 22.4 m. The draft marks shall be clearly visible.

MAX. SIZE: The min. depth along the dock's berthing face is 23 m. (75.5 ft.).

HEALTH: *Free Pratique and Quarantine:* Should a ship be in a satisfactory sanitary condition, the Master may request Free Pratique from the Maritime Authority at least 48 hours prior to the ETA.

After receiving Free Pratique, the ship may be visited in the Inner Anchorage Area if the ship has to wait before docking or, otherwise, after docking. In the latter case, the ship may be loaded after the Authorities visit.

The following documents must be submitted to the Port Health Officers:

Health Certificate, filled out in accordance with Sanitary Regulation No. 2 issued by the World Health Organisation.

Ship's medical records.

Crew and passengers vaccination certificates against yellow fever as well as their passports or identification papers.

Complete crew list.

Free Pratique request.

List of passengers in transit or disembarking.

The Ship's Master shall be ready to present, upon request, derat or exemption certificates and the Health Certificate issued by the authorities at the last port of call.

Should the ship's sanitary conditions be considered unsatisfactory, the ship must wait in the Quarantine Anchorage area indicated by the Port Captain. In this case, the quarantine ("Q") flag must be continuously displayed, in accordance with International Signal Code. In this case, the ship's personnel cannot land.

Quarantine Anchorage Area: Lat: 02° 36′ 24″ S. Long: 44° 23′ 18″ W.

RADIO: Long distance radio communication shall be done via Embratel, by contacting one of the RENEC – National Coastal Station Networks, with priority and in the frequencies indicated below:

No. 1 PPL (Belem), on 8, 12 and 16 MHz.

No. 2 PPO (Olinda), on 8, 12 and 16 MHz.

No. 3 PPR (Rio de Janeiro), on 8, 12, 16 and 22 MHz.

The ETA shall be based on the Sao Luis legal time (GMT minus 3 hours).

Arrival Advice: The following arrival information shall be transmitted, through the Coastal Stations to the Ponta da Madeira Terminal and to the Ship's Agent.

15 days before the estimated date of arrival, or when leaving the last port of call, for trips shorter than 15 days, inform the ETA.

5 days before the date of arrival, inform:
ETA.
Cargo Plan and Loading Sequence.
Arrival Draft and Departure Draft.
Air Draft.
Deballasting Time.
Required Quantity of Fresh Water (150 ton maximum).

48 hours before arrival, inform the Port Captain:
ETA.
Free Pratique request or Quarantine Message.
Request instructions Concerning Anchorage Area.

24 hours before arrival, inform.
ETA.
Any modification concerning prior messages.
Gas Free Condition.

At least 4 hours before arrival, vessel shall contact Station PPB Sao Luis Radio (4,143.6 kHz), and the Ponta da Madeira Terminal (calling Channel 16-156.80 MHz, working – Channel 12-156.60 MHz. and Channel 13-156.65 MHz.) and the Ship's Agent.

VHF: See "Radio" and "Tugs".

TUGS: 2×38 ton bollard pull, 1×25 ton bollard pull and 2×18 ton bollard pull. 4×40 ton bollard pull tugs under construction.

Tugs must be used for turning, docking and undocking manoeuvres by ships operating at Ponta da Madeira Terminal.

The ship's lines will be passed to the tug's release hooks during the manoeuvres.

Communications between the tugs and the Pilot shall be done via VHF Channel 13 (156.65 MHz.).

The tugs and the mooring boats are operated by the Servedoce Consortium.

BERTHING FACILITIES: The berthing dock has been designed to operate with 20,000 d.w.t. to 280,000 d.w.t. ships.

The Terminal's Administration must be previously consulted about operation with ship's above 280,000 d.w.t. and below 20,000 d.w.t.

The dock lies in the North-South direction, and it is approximately 200 m. from Ponta da Madeira's West end.

The dock's structures are made of reinforced concrete, supported by concrete piles with metallic sleeves, distributed as follows:

4 breasting dolphins.
6 mooring dolphins.
Shiploader's runway.
Support of the shiploader's pivot.
Access bridge, service road and walkways.

The 4 breasting dolphins are located in front of the shiploader's runway (170 m.). The mooring dolphins, 3 to the North and 3 to the South, are away from the berthing alignment. The total distance between the outer mooring dolphins, in the North-South direction, is 490 m. The elevation of the breasting dolphins floor is +11.60 m. and that of the mooring dolphins is +11.0 m. in relation to the Tidal Datum shown on Nautical Chart No. 413.

Shiploader: The Terminal is equipped with a linear type shiploader with the following characteristics:

Nominal loading capacity 16,000 t.p.h.
Width of the belt conveyor 2,200 mm.
Maximum range from the docking alignment 46.30 m.
Boom elevation in the horizontal position 35.50 m.
Transverse travel 244.00 m.
Slewing angle (for each direction) 46° 56′ 42.5″
Vertical inclination angles +20.43° and −21.74°
Maximum air-draft 22.40 m.

Fenders: The 4 breasting dolphins are equipped with floating cylindrical rubber fenders, 7.5 m. long and with a diameter of 3.50 m.

Mooring Equipment: The 4 breasting dolphins are equipped with 2 sets of 3 quick release hooks for 80 tons each and a capstan to hoist mooring lines.

The 6 mooring dolphins are equipped with 1 set of 4 quick release hooks for 100 tons each and a capstan to hoist mooring lines.

MOORING/UNMOORING: *Manoeuvres:* In the Turning Basin, it is recommended that ships over 100,000 d.w.t. manoeuvre only when the tidal streams are below 3 knots. Ships under 100,000 d.w.t. may manoeuvre with streams up to 4 knots.

Docking and undocking manoeuvres shall be done at low speed, preferably in countercurrent direction.

The mooring lines must be sufficiently long to reach the most distant dolphins.

Care must be taken with mooring lines passing from ship's stern to the mooring boats, in order to avoid accidents with the propellers of the ship and the boats.

Ponta da Madeira Terminal's personnel are available and qualified to handle the ship's mooring lines during docking and undocking manoeuvres.

The anchor on the ship's dock side shall be kept in the hawsepipe, in order to protect the dock's structure.

All work required during ship's docking, loading and undocking operations, as well as those of opening and closing hatches and cleaning the ship's decks shall be done by the ship's crew members. It is strictly forbidden to throw garbage or wastes overboard.

The ship shall dock with enough ballast to permit the start of loading operations immediately thereafter, within the maximum air-draft condition of 22.4 m. Deballasting shall be done during the loading operation, at compatible flow rates, observing the air-draft limit.

The ship shall dock with the hatches open for the loading operation. Should it be raining, the Ship's Master shall wait for the Terminal Administration's instructions to open the hatches.

The gangway ladder shall be ready to be placed on the dolphin, during the docking operation.

Soon after mooring, gangway must be lowered from the ship to the dock and ratguards must be placed on the mooring lines.

While docked, the ship's engines shall remain on stand-by and ready for use. Any maintenance operation which may interfere with this condition can only be performed after Terminal Administration's authorisation.

Immediately after docking, the Loading Plan and Loading Sequence must be formally presented to the Terminal's Loading Inspector.

Ships are recommended to dock starboard side to in order to keep the bow to the North, thus avoiding a turn after undocking.

During the docking operation, deballasting can only be done after the Loading Inspector's authorisation.

Repair work in the deck area which may affect the loading operation is not allowed.

Moored ships shall be in conditions considered as satisfactory by the Master, Pilots and by the Terminal.

Mooring lines must be permanently tended so as to keep the ship in position. Mooring lines must be conveniently taut at all times.

All cables with similar functions, breast lines, spring lines and head lines shall always be of the same type, size and material.

If fibre tails are used on the wires, the same size and type of tail shall be used on all lines run in the same direction.

Undocking: In order to make the ship's docked period of time as short as possible, long before the loading operation is completed, the following shall be planned:

The Pilot's boarding.
The tugs shall be ready.
The mooring boats shall be ready.
The mooring personnel shall be ready at the dock.
The water hoses shall be disconnected.
All supplies needed shall be taken on board.
The gangway ladder shall be removed.
The mooring lines shall be loosened.

In respect to the departure draft, the Port Captain's requirements must be strictly observed.

LOADING: On rainy days, only the hold being loaded shall be open. Should the Terminal Administration consider the rain too heavy, the loading operation may be interrupted. In this case, the hold shall be covered.

Ore distribution in the ship's hold is entirely the Master's responsibility. The Master shall send a representative to observe the loading operation.

The Master shall control the ship's draft, mainly during the final loading stages.

The total cargo loaded will be determined by the ship's displacement.

Shiploading operations are performed around the clock, Saturdays, Sundays and Holidays included.

When the loading operation is completed, the ship shall undock soon after the checking. Ships cannot remain docked under any circumstances, unless otherwise authorised by the Terminal Administration.

MEDICAL: Sao Luis has hospitals prepared for emergency treatment.

DENSITY: 1017.6 at LW. 1019.3 at HW.

FRESH WATER: At the Agent's request, the Terminal may supply fresh water up to a limit of 150 metric tons per ship, at a rate of 20 t.p.h. – 40 t.p.h. Hose connectors with a diameter of 2.5 in. are available on the breasting dolphins.

FUEL: The Terminal do not plan to provide bunkers to ships. PETROBRAS may fuel undocked ships by means of two barges with a capacity of 800 cu.m. each. The Ship's Agent shall request bunker services.

FIRE PRECAUTIONS: The Terminal has a Fire Brigade, duly equipped and trained for fire fighting. There are hydrants and fire fighting guns at the docks.

The tugs operating at the Terminal are equipped to fight ship's fires.

Should a fire occur on board, the ship must undock, for safety. Therefore, while moored, the ships must always have 2 towing cables lowered, one fore and one aft, on the offshore side, with the eyes about 3 m. above the water. Thus, during an emergency, tugs may undock the ship.

The fire brigade personnel are not trained to fight fires on board. The Terminal shall not be deemed responsible for any kind of loss and/or damage to the ship's equipment or injury to personel.

REPAIRS: Minor repairs possible at Sao Luis.

SURVEYORS: There are no classification society surveyors in Sao Luis.

REPATRIATION: Possible.

AIRPORT: Tirical Airport is 26 km. from the Terminal and provides regular jet connections to several Brazilian cities.

TIME: GMT minus 3 hours. Note: From November 2nd to March 1st, daylight saving time (GMT minus 2 hours) may be adopted throughout Brazil.

EMERGENCY CO-ORDINATION CENTRE: The Brazilian government, complying with the 1979 Rescue and Salvage International Convention, and its corresponding duties, requests all foreign ships entering South Atlantic to send information concerning their navigation to COMCONTRAM (Command of the Merchant Ships Traffic Naval Control, through EMBRATEL's Coastal Station Network in accordance with PORTOMARINST N. 337801-A, dated January 3rd 1983, by Ports and Coasts Directorship.

Foreign ships in operation in Brazilian waters, as well as Brazilian ships, must report their course.

SHORE LEAVE: Possible.

WEATHER/TIDES: *Meteorological Conditions:* Local climate, in accordance with the Koppen classification, is the Aw type, i.e., tropical with only one rainy season (from December to May).

Temperature varies throughout the year between 23°C. and 31°C. and is usually around 27°C.

The relative humidity is evenly high throughout the year. The monthly average varies from 75% to 85%.

The mean annual rainfall is 2,250 mm. During the rainy season, the monthly average is 325 mm., with 15 rainy days per month. In the dry season (April to November), the monthly average is 50 mm., with 5 rainy days per month.

Winds blow predominantly from the N.E., with a frequency of 25%. The velocity and freqency of the winds are as follows:

Beaufort Scale 2 (4 to 6 knots)	39%
3 (7 to 10 knots)	31%
4 (11 to 16 knots)	15%
5 (17 to 21 knots)	1%

Visibility is usually good in the Sao Marcos Bay area. The occurrence of fog is very rare. However, some mist may occur, which brings a slight reduction in visibility.

The Sao Marcos Bay area is not subject to hurricanes or tornadoes. Heavy but short rain storms, however, are common in the rainy season.

Weather forecasts are broadcasts by Belem Radio – PPL – Coastal Station at the following times: GMT 0130, 0800 and 1930; The station's frequencies are 4,265.0 kHz, 8,502.0 kHz and 12,979.5 kHz, in A1.

The PPL station operates on 4,125 kHz in A3J (telephone communication).

Tides: The Sao Marcos Bay has semi-diurnal tides.

The tide tables issued by the Diretoria de Hidrografia e Navegacao for the Itaqui Port shall be used. The Itaqui Port is approximately 1,200 m. South of Ponta da Madeira.

Based on measurements taken at Itaqui Port, the following data was collected:

HAT (Highest Astronomical Tide) 7.00 m.
MHWS (Mean High Water Springs) 6.27 m.
MHWN (Mean High Water Neaps) 5.02 m.
MSL (Mean Sea Level) 3.43 m.
MLWN (Mean Low Water Neaps) 1.84 m.
MLWS (Mean Low Water Springs) 0.59 m.
LAT (Lowest Astronomical Tide) 0.20 m.
HWF&C (High Water Full and Change) 7 h 21 m.

The tides phase and height vary along the Access Channel. In the channel's initial sector, around buoys Nos. 1 and 2, tides occur 75 minutes before Itaqui and the height is 60% of the tide height in the Itaqui Port.

Nautical Chart No. 410 presents instructions for tide forecasting along the Access Channel, in relation to the Tide Forecast for the Itaqui Port.

Tidal Streams: The water flows in the Sao Marcos Bay are governed by the tides. Predominant winds, due to their medium force, only cause small deviation in the tides induced streams.

The minimum stream velocities occur at slack water, and the maximum occurs 3 to 4 hours after high tide and 2 to 3 hours after low tide.

The stream flows N. and N.E. during ebb tide and, after slack water, their direction is reversed flowing S. and S.E. during flood tide.

In the Turning Basin, the flood tide streams vary from 4.3 knots at spring tide to 3.7 knots at neap tides. Ebb tide streams vary from 5.1 knots at spring tides to 4.2 knots at neap tides.

Nautical Chart No. 413 presents tables which enables the navigator to forecast streams, direction and velocity in the Turning Basin, as a function of the Tide Forecast Table for the Itaqui Port.

In the Access Channel, the stream flows in the direction 040°-220° to 060°-240°, at velocities as high as 2.5 knots. Currents flow faster inside the Sao Marcos Bay, reaching 5.1 knots in the Turning Basin.

Waves: Waves, in that area, are caused by local winds. In the Turning Basin Area, waves of 1.10 m. in periods of 6.0 seconds may occur.

GENERAL: *Power Supply:* Power will not be supplied to ships by the Terminal.

Supplies: The Agent must provide supplies for the ship. Supplies must be embarked before the end of shiploading or while the ship is undocked.

Garbage: The Terminal is not equipped to receive garbage from the ships.

Dirty Ballast or Oily Residues: Terminal is not equipped to receive dirty ballast or oily residues.

Cleaning Tanks: The Terminal's personnel are not available to clean holds. This service is controlled by the Maritime Labour Office by means of qualified companies.

Crew, Passengers and Visitors on Board: Authorisation for shore leave shall be given by the Ship's Master, after clearance by Port Authorities.

Crew members must carry their personal identification documents whilst ashore.

Only those persons duly authorised by the Terminal Administration may have access to the docks.

Crew members leaving the Terminal may use taxis requested by means of the Terminal's Guard Service. Private cars may not circulate in the Terminal's area.

Pollution: Brazilian laws are very strict in respect to action which may cause pollution. Restrictions, penalties and fines are stated in the laws. While ships are docked, neither blowing of tubes nor tank washing is allowed.

Authorities: All ships bound for Ponta da Madeira Terminal will be boarded as soon as possible in the Inner Anchorage Area or soon after docking, by the following Authorities representatives:

Port Health Officers.
Customs Officers.
Federal Police (Immigration) Officers.

Such Officers will visit the ship before loading operations are authorised, at any time of day or night, Saturdays, Sundays and Holidays included.

These Authorities keep offices for their representatives within Ponta da Madeira Terminal's area.

Docking Time: Docking time is considered as the time when, after passing the cables, the gangway ladder is lowered to the dock.

Notice of Readiness: As ships arrive, if they have to wait in the Outer Anchorage Area, they shall, soon after anchoring, send the Notice of Readiness to the Agent, who will send the communication to the Terminal. When ships go to the Inner Anchorage Area or directly to the Terminal, the Notice of Readiness communication shall be sent as the ships pass by parallel Lat. 02° 31′ 18″ S.

Nautical Charts: The Access Channel, the Turning Basin, the anchorage area and the berthing dock are included on the following Nautical Charts:

Diretoria de Hidrografia e Navegacao (DHN) – Brasil, Charts Nos. 400, 410 411, 412 and 413;

United States Hydrographic Office – HO, Charts Nos. 24.270 and 24.271.

British Admiralty, Charts Nos. 3958 and 535.

On Nautical Charts issued by the Brazilian Navy, depths are indicated in metres and are referred to the Tide Datum level adopted for the chart of largest scale.

AUTHORITY: Companhia Vale do Rio Doce, Ponta da Madeira Terminal, P.O.Box 511, ZIP – 65.000 – Sao Luis. Maranhao – Brazil. *Tel:* (098) 221-5189, (098) 222-8847, (098) 222-8567. *Telex:* (098) 2193. *Contact:* Candido Cotta Pacheco, Superintendent. Head Office: Companhia Vale do Rio Doce, Av. Graca Aranha 26, P.O.Box 2414, 20005 Rio de Janeiro RJ Brazil. *Tel:* 272-4477. *Telex:* (021) 23162 and 22071. *Cable:* Valeriodoce Rio.

PORTO ABC NORTE: 02.48 S. 50.30 W.

SHIPMASTER'S REPORT: October 1985 (Updated 1988).

LOCATION: On the Rio Pacaja about 263 nautical miles from Belem.

VESSEL: 7,405 d.w.tonnes, LOA 116.44 m., beam 17.23 m., draft 7.52 m. 10×5 – 10 ton derricks and 1×60 ton derrick. Flush tweendecks. Vessel loaded logs and lumber.

PILOTAGE/CLEARANCE: Sea Pilot boards at Salinopolis Pilot Station. Clearance is made at Belem Anchorage with the usual formalities for Brazil.

Two River Pilots accompany the vessel to Porto ABC Norte and back to Belem. These Pilots are excellent. As no charts of the rivers exist, they draw their own charts.

Two checkers, 1 Custom's Officer and 1 representative of Banco do Brasil accompany the vessel. During the trip up and down and including the time at the loading berth the bonded store will be opened by the Custom's Officer when requested by the Master.

TUGS: No tugs available.

BERTH: Wooden berth about 80 m. length, depth alongside depends on season. In October we sounded 7 m. The vessel sailed with 5.80 m. draft and even keel.

CARGO: Logs with weight up to 8 tonnes and length 12 m.

Lumber sawn in packets.

Average weight of logs and lumber about 1.4 tonnes/cu.m. All loading is done by ships own gear.

MEDICAL: First aid station at Sawmill, no doctor available.

GENERAL: *Stores:* Supplies not available.

Transport: There is 1 small private plane owned by ABC Norte.

AUTHORITY: ABC – Agropecuaria Brasil Norte S/A, Prod. E Exportacao, P.O.Box 1337, Belem, Para, Brazil, CEP 66.000. *Tel:* (091) 227–1655. *Telex:* (091) 1301 ABCA. *Contact:* Ronaldo Julio Kress, Director.

PORTO ALEGRE (Including Santa Clara): 30.05 S. 51.15 W. (See Plan)

This information does not apply to Tramandai Oil Terminal which is listed separately.

DOCUMENTS: See "General" before first port.

PILOTAGE: Porto Alegre is situated 164 miles up the Lagoa dos Patos, a large fresh water lake, and vessels must take on a Pilot after receiving Pratique at Rio Grande, which lies at sea entrance of lake. Pilot and authorities board after arrival at Rio Grande Inner Anchorage. Pilots arranged by Agent upon receipt of vessel's radioed ETA via Rio Grande Radio (PPJ). Since 40-mile channel between Rio Grande and Lagoa dos Patos is unlit, vessels should proceed from Rio Grande only by daylight, allowing 3 hours to negotiate channel. Vessels over 12 knots may leave Rio Grande for Porto Alegre not later than 1700 hrs. in Summer, or 1500 hrs. in Winter. Vessels under 12 knots not later than 1600 hrs. in Summer or 1400 hrs. in Winter. Entry must be made to Rio Grande at least 3 hours before these times to allow for clearance.

RESTRICTIONS: Vessels approaching Porto Alegre from the Lagoa should do so only by daylight since 30 miles access channel leading from the Lagoa to Porto Alegre poorly lit. If necessary, vessels should anchor off Itapoan Lighthouse at head of the Lagoa, to await daylight before proceeding. On arrival at Porto Alegre, Free Pratique must again be obtained, and Crew Lists, Store Lists, etc., again presented to authorities, who usually visit vessel in berth alongside.

MAX. SIZE: Not recommended that vessel of more than 215 m. LOA attempt to reach Porto Alegre. Max. safe draft is 17 ft. at any time.

Also see "Tankers".

ANCHORAGES: Inner harbour. Not normally used unless port congested. If vessels are too late for transit they must anchor at either end of the lagoon overnight.

HEALTH: Vessels receive clearance on passing Rio Grande. No yellow flag required. Also see "General" before first port.

RADIO: All messages should be routed via Rio Grande Radio (PPJ).

VHF: On arrival at Porto Alegre, vessel can use the VHF station Porto Alegre Radio (PPP). Tel: (0512) 210322 or (0512) 141. Also VHF Channels 16, 23, 24, 25, 26, 27 and 28.

Also, at short distances, when arriving at the port or manoeuvring within the port area, vessels are able to use the radio station (as yet without call sign) of the Porto Alegre Port Administration, Tel: (0512) 245733. Also transmitting on VHF with 1 Watt, on Channels 16, 9, 10, 11, 71, 12, 13 and 14.

TUGS: 1×1,680 h.p. and 4 small low-powered tugs 220, 250, 280 and 320 h.p.

BRIDGES: Vessels proceeding up-river from Porto Alegre to oil berth must pass under bridge with lifting-span. Span is lifted when approaching vessel sounds prolonged blast on siren.

BERTHING: The berths are on the East bank of the river, and the jetties stretch over a distance of 8 km.

Maua Quays: Berths "A", "A1" to "A7" and "B", "B1" to "B3". Length, 1,482 m. Depth 17 ft.

Navegante Docks: 2,433 m. long.

Between Maua and Navegante there are several small jetties but none capable of handling ocean-going vessels.

BULK HANDLING FACILITIES:

Samrig (Bunge) Terminal: Max. LOA 235 m. Max. beam 35 m. Max. draft 17 ft. Air draft 15.0 m.

Storage capacity: 12,000 tons (meal) and 4,400 tons (vegetable oil).

Loading rates: Meal 200 t.p.h.; Beans 300 t.p.h.; Vegetable oil 200 t.p.h.

Span of conveyor: 120 m.

Bunge have main storage of 110,000 tons at a distance of 25 km. from the port.

C.E.S.A. Terminal: Max. LOA 235 m. Max. beam 35 m. Max. draft 17 ft. Air draft 13.0 m.

Storage capacity: 18,750 tons.

Loading rates: Meal 100 t.p.h.; Beans 200 t.p.h.

Span of conveyor: 90 m.

Ciagran (Fecotrigo) Terminal: Max. LOA 235 m. Max. beam 35 m. Max. draft 17 ft. Air draft 18.0 m.

Storage capacity: 35,000 tons (meal) or 50,000 tons (beans).

Loading rates: Meal 150 t.p.h. or Beans 250 t.p.h.

Span of conveyor: 80 m.

Fertiliser Discharge: Discharged by automatic grabs at a rate of 2,000 tons per day with 3 gangs. If buckets are used the rate is 250 t.p.h.-350 t.p.h. per gang per day. Max. recommended air draft is 14.0 m.

CRANES: *Maua Quays:* 7×3.2 ton portals (narrow gauge), 2×6.3 ton cranes (wide gauge), 1×12.5 ton (wide gauge), 4×3.2 ton portals (narrow gauge).

There are no cranes available at Navegante Docks.

STEVEDORES: *Working Hours:* 0730 – 1130, 1300 – 1700. Overtime 1700 – 1900, 1900 – 2300 and 0000 – 0400 hrs.

MEDICAL: Full facilities available. Crew members should hold valid international inoculation certificates.

TANKERS: Proceed to oil and LPG berths on Gravatai River for discharge. These berths accessible only to small tankers of up to 1,600 d.w.t. Also see "Tramandai".

Santa Clara Terminal:

Location: 29° 53′ 52″ S., 51° 22′ 23″ W.

The port is on the Jacui River, 17 miles from Porto Alegre at Triunfo.

Documentation: All formalities completed at Porto Alegre inner roads anchorage.

Restrictions: Navigation during daylight only. Vessel has to pass under drawbridge with max. air draft of 35.0 m.

Access Channel: Length 7,500 m. Breadth at water level 90 m. Breadth at bottom level 50 m. Turning Basin 320 m.×520 m.

Max. Size: Max. LOA 140 m. Max. draft 17 ft.

VHF: Copesul Terminal can be contacted on Channels 16 and 12. Call sign "Santa Clara".

Berthing: Pier No. 1: Length of pier 42 m. Berth for loading petrochemicals.

Pier No. 2: For loading Butadiene, Toluene, Benzene, Xilene, Propylene and MTBE.

Pier No. 3: For discharging coal, and when possible, purging and loading of Propane and Butadiene.

Loading Rates/Storage:

	Approximate Rates (t.p.h.)	*Storage Capacity* (tons)
Benzene	300	7,000
Toluene	300	4,000
Xilene	300	2,200
Ethylene	130	22,000
Butadiene	200	4,000
Propane	180	8,100
MTBE		2,500

4,000 tonnes of Methanol discharged monthly.

Nitrogen supply rate: 4,000 cu.m.p.h.

Fresh Water: Available. Rate 14 cu.m.p.h.

Ballast: Up to 450 cu.m. of dirty ballast can be received.

Medical: Doctor and dentist in Porto Alegre.

Repatriation: Possible.

DENSITY: Fresh water at all times, unaffected by tides.

FRESH WATER: Available from hydrants at all berths. Delivery rate up to 25 t.p.h.

FUEL: Available, delivered by road tanker. Also see "General" before first port.

GANGWAY/DECK WATCHMEN: Vessels at anchor and alongside must have a watchman.

OPENING/CLOSING HATCHES: Usually done by stevedores.

CUSTOMS ALLOWANCES: Each crew member allowed to keep out of bond 1 carton of cigarettes and 1 bottle of wine or spirits.

IDENTIFICATION CARDS: Necessary.

CONSULS:

Argentina
Austria
Belgium
Bolivia
Chile
Germany F.R.
Italy
Japan
Norway
Poland
Portugal
Spain
U.K.
U.S.A.
Uruguay

REPAIRS: All light deck and engine-room repairs possible. No dry-docking facilities available except for small vessels of up to 300 ft. LOA.

SURVEYORS: ABS at Porto Alegre and Lloyd's at Rio Grande.

TELEPHONES: Connections available from warehouses A, A2, A4, A6, B, B2, O, O2 and D4.

DEVELOPMENTS: 2 new dredgers are being used to deepen the channels leading to Porto Alegre, permitting a working draft Rio Grande/Porto Alegre of 20 ft.

A new grain elevator with a capacity of 60,000 tons is expected to be ready shortly.

AUTHORITY: Administracao do Porto de Porto Alegre, Av. Maua 1050, Porto Alegre, Rio Grande do Sul, Brazil CEP 90010. *Tel:* (0512) 24-5733. *Telex:* (051) 2540 *Contact:* Paulo Elizeu Ody, Port Administrator.

PORTO TROMBETAS: 01.28 S. 56.23 W. (See Plan)

LOCATION: The Porto Trombetas Bauxite Terminal is situated on the right bank of the Trombetas River, State of Para. The Trombetas River is a left hand affluent of the Amazon River.

Geographical location:

Lat. 01° 27′ 31″ S., Long. 56° 22′ 48″ W.

The shortest route through the fairway from the North Bar of the Amazon River (North Entrance) to Porto Trombetas is approximately 575 nautical miles.

The distance between the Port of Belem, capital of the State of Para, and Porto Trombetas is approximately 880 km. by air and 611 nautical miles down river.

The distance between the Terminal and Oriximina, the nearest town to Porto Trombetas, is 42 nautical miles.

DOCUMENTS:

At Anchorage on Fazendinha Roads: At anchorage on Fazendinha Roads (see "Anchorage") Port Authorities will board vessel for clearance and the following documents should be delivered to the Agent, assisting Port Authorities and Master:

1 copy Health Maritime Declaration.
2 copies Vaccination List.
5 copies Crew List.
3 copies Store List.
3 copies Crew Personal Effects.
3 copies Bonded Stores List.
Last Port Clearance.

Documents to be Presented:

Derat or Exemption Certificate.

General Declaration Form, which the Agent will present to the Master (to be filled in during clearance).

After Customs and Sanitary Guards Inspections (which takes about 1.5 hours) the Agency will deliver to the Master the Fazendinha Clearance to be presented to Port Trombetas Authorities.

A new set of the above mentioned documents less Health Maritime Declaration and Vaccination List must be ready to present at Porto Trombetas during the clearance there.

At Porto Trombetas:

(a) Documents required:
6 copies Crew List.
2 copies Store List.
2 copies Crew Personal Effects List.
6 copies Passenger List.
1 copy Ballast Declaration.
At hand to show:
Ship's Data,
Fuel, Diesel, Water Quantities on Arrival,
Derat or Exemption Certificate,
Gas Free Certificate (if ore or oil vessel),

(b) Cargo papers: Master will receive copies of each of the documents listed below:
Notice of Readiness.
Bill of Lading (non-negotiable copy).
Cargo Receipt.
Stowage Plan.
Statement of Facts.
Draft Survey Result.
Manifest of Cargo.

Master shall approve and sign the Notice of Readiness, Bill of Lading, Draft Survey Result, Statement of Facts and Cargo Receipt, as required by the Shippers and Agents.

(c) Clearance: Ship's Agents will furnish clearance papers for sailing as well as the cargo manifest.

(d) From Trombetas the envelope of cargo documents destined to Ansanav Santana will be delivered to such Agents together with a Sailing Information Form (given to the vessel's Master by Santana Agent on the up river call at Fazendinha).

PILOTAGE: Pilot service is available between Porto de Santana and Porto Trombetas. They will board and disembark in the vicinity of Porto de Santana. The Pilots will stay on board at Porto Trombetas.

ANCHORAGE: *Anchorage at Fazendinha for Visit of Authorities and Embarkation/Disembarkation of Pilots:* In order to avoid any delay due to entrance to Porto de Santana, the Port Captaincy of the State of Para and Federal Territory of Amapa has officially determined the Fazendinha area for visit of Authorities and embarkation/disembarkation of Pilots.

Such area is located around Lat. 00° 04′ 06″ S., Long. 51° 06′ 45″ W.

Whenever passing by the Port of Macapa, vessels bound for Porto Trombetas are supposed to contact Messrs. "AMSANAV SANTANA", through VHF Channel 16.

Messrs. AMSANAV SANTANA will arrange the visit of Authorities and embarkation of Pilots.

NAVIGATION: *Nautical Charts:*

(a) The Nautical Charts issued by the Hydrographic Navigation Offices (Brazilian Navy) and listed below are used to navigate from the Amazon River North Bar to Porto Trombetas:
200 Maraca to Machadinho Island.
210 Vicinities (approach) of the North Bar to the Amazon River.
220 From the North Bar to Porto de Santana.
201 North Bar of the Amazon River.
202 Bailique Island to Ponta do Capinal.
203 Ponta do Capinal to Pedreira Islands.
204 Pedreira Islands to Santana Island.
205 Macapa to Santana Island.
4101A Macapa to Mangabal Island (Santana Island included).
4101B Mangabal Island to Comandai Island.
4102A Gurupa to Almeirim.
4102B Almeirim to Prainha.
4103A Prainha to Costa do Ituqui.
4103B Costa do Ituqui to Meio Island (Santarem included).
4104A Meio Island to Santa Rita Island (Obidos included).
4401A Obidos to Paru Lake (entrance Trombetas River included).
4401B Paru Lake to Caipuru Lake (Oriximina included).
4402A Caipuru Lake to Bacabal.
4402B Bacabal to Erepecu Lake (Narrow Channel of Bacabal and Porto Trombetas).

All charts and publications can be altered by Notice to Mariners (Brazilian Navy information service).

(b) All nautical charts are available through the vessel's sub-Agents if required in advance.

Navigation Inwards:

(a) Undoubtedly the greatest difficulty for navigators coming from the sea is to cross the Amazon River North Bar sand banks. Bulk carriers navigating to Porto Trombetas will be in ballast, for this reason there should be no need for them to await the high tide, in so far as at low tide, it is possible for them to cross the bar with 9.75 m. (32 ft.) draft.

(b) With adequate nautical charts, good radar and calibrated direction finder, an experienced navigator should be able to enter the North Bar of the Amazon River to Macapa without major difficulties.

Navigation Outwards:

(a) Navigation from Macapa to Ponta do Ceu offers no problem and it will not be necessary even to reduce speed.

(b) The critical section for navigation is from Ponta do Ceu to the open sea as, in addition to the 32 ft. draft, ships have to take advantage of the tide to cross banks of the North bar, where they are affected by the adverse action of a strong current. Under such conditions ships have to be equipped with such facilities which will permit accurate positioning.

If it is necessary to wait for a suitable stage of the tide, the river provides good bottom to anchor at several places along the navigable routes.

Navigation Aids:

(a) Radio Beacon:

A radio beacon is installed at Ponta do Ceu.
The main details are:
Frequency: 290 kHz.
Signal Letters: EH
Working Hours: Continuous
Geographical Position: Lat. 00° 45′ 40″ N.
Long. 50° 06′ 58″ W.
Range: 300 miles.
Signal: Ao and A^2 (1,020 H2)
Character of Signal: (EH . . .), Twice in Ao during 10 seconds and A^2 (1,020 H2) during 5 seconds.

(b) Racon:

Racon (letter M – Morse Code) is located at Bailique Lights position (Lat. 00° 59′ 24″ N., Long. 49° 56′ 53″ W.) with a range of about 25 miles.

Mineracao Rio do Norte S.A. MRN is not responsible for the location and operation of the navigation aids.

Tidal Information: The Hydrographic Navigation Office of the Brazilian Navy based on data furnished by the National Astronomical Observatory publishes an Annual Tide Table for the majority of Brazilian ports, including the North Bar of the Amazon River – the Brigue Island, Lat. 00° 55′ N., Long. 50° 05′ W. and Porto de Santana.

(See DG 16 – 14 Tabuas de Mare (Tide Tables DG 16 – 14)).

Outer Bar Tide: With reference to data published in the tide tables, Ilha do Brigue – Lat. 00° 55′ N., Long. 50° 05′ W., Charts 210, 202 and 201, the tidal time is local time (GMT minus 3 hours) and the tidal amplitude figures are shown in metres.

In position "E", Lat. 01° 34′ N., Long. 49° 09′ W., tidal time at and about this position is 4 hours earlier than shown in the tide tables for Ilha do Brigue. Tidal amplitude is 48% of the figures shown in the tide tables. In position Lat. 01° 09′ N., Long. 49° 36′ W., tidal time at and about this position is about 2 hours earlier than indicated in the tide tables for Ilha do Brigue. Tidal amplitude is 63% of the figures shown on the tide tables.

On Banco do Meio, tidal time at and about this position is 1 hour earlier than shown in the tide tables for Ilha do Brigue. Tidal amplitude is equal to the figures shown in the tide tables. Tidal currents in the area indicated as "Canal Grande do Curua", are reported to coincide with the direction of the axis of channel in that area.

Outer Bar Tide Current: On the Nautical Chart No. 210 information about tide current is furnished (see upper left side of the chart).

RESTRICTIONS:

Draft Restrictions:

Amazon River North Bar:
37 ft. fresh water at high tide.
32 ft. fresh water at low tide.
Trombetas River:
36 ft. fresh water from August to December (ebb tide season).
37 ft. fresh water from January to July.

Remarks: These figures are subject to further confirmation with Shippers and vessel's Agent.

RADIO: *Arrival Advice:* For Agency purposes vessel proceeding to Porto Trombetas shall send ETA North Bar of the Amazon River to Messrs. "AMSANAV BELEM". For your guidance, one notice is required 72 hours prior to such arrival which means vessel's passage along Entrance Buoy located at Lat. 01° 14′ 30″ N., Long. 49° 37′ 16″ W. This procedure will allow sub-Agents at Belem to convey Pilots to Fazendinha Anchorage Area accordingly. After passing along the mentioned entrance buoy, vessel shall proceed via North Channel of the Amazon River up to Fazendinha Anchorage Area located at Lat. 00° 04′ 06″ S., Long. 51° 06′ 45″ W. During such sailing to Fazendinha Anchorage Area vessel will receive from Messrs. "AMSANAV BELEM" all information regarding eventual changes in position of buoys, operations of lights and other aids.

When passing along Macapa (about 8 miles before Fazendinha Anchorage Area) Master is expected to be in contact with Messrs. "AMSANAV SANTANA" through VHF Channel 16. At that time all instructions for vessel's anchorage at Fazendinha in order to receive visitation of Authorities will be forwarded by Messrs. "AMSANAV SANTANA".

When leaving Fazendinha Anchorage Area, Master will be requested to inform local sub-Agents of ETA at mouth of the Trombetas River to be re-transmitted to "DOCENAVE" Porto Trombetas.

Before entering the Trombetas River, Master must obtain "Confirmation for Entrance" from Shipper's Dock Master through VHF Channel 16.

TUGS: One tug of approximately 30 ton bollard pull and one line handling boat are available for berthing and unberthing.

BERTHING:

Bauxite Loading Terminal: The bauxite loading terminal is equipped to load ore carriers up to approximately the Panamax Size.

The maximum loading rate is 6,000 tonnes p.h. but the average loading rate is estimated at 4,200 tonnes p.h. (also see Shipmaster's Report – May 1986). The pier is 100 m. long and the maximum permissible air draft (the distance from the waterline to the top of the hatch coaming) is 13.50 m. at the high water period. The mooring system consists of four concrete dolphins upon metal piling and four mooring buoys.

Accommodation for Vessels:

(a) One vessel can be berthed at the loading dock. Two waiting vessels can be secured to mooring buoys about 1.8 miles downstream from the berth. A secondary waiting area is located West of the mouth of the Trombetas River in the vicinity of Lat. 01° 54′ S. and Long. 55° 40′ W. There is good holding ground in this area and some protection from canaranas and other floating debris.

(b) The movement of all vessels within the Trombetas River system is under the control of MRN. Up-bound vessels are not permitted to enter the Trombetas River without prior clearance from MRN. Such approval can be obtained by contacting MRN or DOCENAVE on VHF. In case such permission has not been received, the vessel shall anchor at the secondary waiting area in the Amazon River until it is granted. This is necessary because there are two areas within the Trombetas River where vessels are not permitted to pass. Vessels will normally be loaded at Porto Trombetas in order of arrival, provided that they are within their lay-day period as previously agreed with MRN.

Berthing and Unberthing: For berthing and unberthing the width of the channel in front of the terminal is currently 300 m.

Manoeuvring of vessels should be performed at Master's and Pilot's discretion.

Fendering: No fenders are needed for docking. The terminal is equipped with permanent fenders.

Anchor: The use of vessel's anchor during manoeuvring is permitted at Master's and Pilot's discretion.

Loading Hours: 24 hours a day, Sundays and holidays included.

Hold Condition: No cleaning crews are available.

Holds should be cleaned prior to arrival and they will be inspected before acceptance of vessel.

Loading Operation: The bauxite is transferred from the stockpile to the ship's holds through a conveyor belt system and automatic shiploader.

The shiploader boom moves horizontally around its hinge with an angle of 53° 24′ 44″ to each side.

The loading operation usually starts soon after the vessel is alongside and cleared by the Authorities.

The air draft (that is, the distance from the waterline to the top of the hatch coaming) is 13.5 m. (minimum) in July and 19.0 m. (maximum) in December.

The stowage factor for dried bauxite is 25 cu.ft. per ton up to 28 cu.ft. per ton depending on moisture content of the bauxite.

Careful check of vessel's draft and trim should be made by the ship's officers at all times during loading operations. Cargo is belt trimmed only.

The cargo weight should be determined by the "ship's displacement" method (light versus loaded draft survey).

Tonnage on the conveyor belt system between stockpile and ship is approximately 275 tons. This tonnage must be discharged into the holds to complete the loading.

MRN reserves the right to require any vessel to undock after loading and completing the necessary formalities in order to permit another vessel to berth or for any other reason.

GENERAL CARGO WHARF: MRN handles general cargo at a general cargo wharf 350 m. downstream from the shiploader.

MEDICAL: Medical service may be arranged at the MRN Hospital, in emergency. Health conditions in the region are good. No epidemics or tropical diseases are recorded in the region.

BALLAST: Vessels are not allowed to discharge salt ballast into the Trombetas River. Salt ballast can be discharged into the Amazon River up till Almeirim Island.

POLLUTION: No facilities are available at the terminal to receive slops, salt water or contaminated ballast.

Discharge of any material other than clean ballast will be subject to heavy penalties as prescribed by the Brazilian law. It is not permitted to discharge salt water ballast into the Trombetas River.

TANKERS: Tankers discharge bulk fuels at a floating pier situated about 400 m. upstream from the Terminal.

FRESH WATER: Available subject to prior consultation with MRN.

FUEL: Not available.

CONSULS: None.

REPAIRS: Small repairs can be undertaken by MRN workshop in extreme emergency only.

SURVEYORS: There is no Classification Society surveyor at Porto Trombetas. Whenever needed a surveyor can be appointed, who will come from any other Brazilian port by plane.

P & I Club: Not available at Porto Trombetas. Administrative assistance and legal advice on matters concerning ship's civil liability to third parties can be obtained from a representative in another Brazilian port who will come by plane.

AIRPORT: The nearest international airport is Manaus (capital of the State of Amazon). There is a domestic airline service between Manaus and Santarem, Belem and Santarem, and Santarem-Porto Trombetas.

TIME: Local time is GMT minus 4 hours.

IDENTIFICATION CARDS: Crew and Passengers: There are no restrictions by the local authorities, but crew members and passengers should carry their identification papers when on shore. Visits to the industrial area require prior approval of MRN.

GENERAL:

Weather:

(a) Rain: during the rainy season precipitation is usually heavy but of short duration.

(b) Wind: from July to December, East and E.S.E. winds predominate and they are usually moderate with occasional strong gusts. From January to June calmness predominates followed by N.E. winds backing to S.W. with persistent showers. The predominant wind speed is 10 knots.

(c) Haze is rare in the Amazon River, but it is more frequent in the Trombetas River, particularly early in the morning.

Tide and Current: In the Porto Trombetas region, the current may reach 2 knots during high water season (January to July).

Temperature: An average of 30°C.

Mail: Ship's and crews' mail should be addressed to: Vale do Rio Doce Navegacao S/A – "DOCENAVE", Porto Trombetas, State of Para, CEP 68.275, Brazil.

Telephone: Telephone communication between Porto Trombetas and the rest of Brazil and also international calls are available.

Telegraph: There is no public station in Porto Trombetas. Telegrams from Porto Trombetas must be sent through the vessel's Agent.

Services:

Ship chandlers and laundry not available.
Derat and Fumigation not available.
Electricity not available for supplying vessels.

Porto Trombetas Port Captaincy: The Brazilian Navy has installed an Agency at Porto Trombetas with the purpose of controlling all vessels destined to the port.

MRN recommends that the Brazilian Pollution Regulations be carefully observed.

The Port Captaincy is located in the vicinity of the shiploader and for any communications, this Port Authority can be reached at the following Telex and Telephone numbers:

Telex: (091) 5458
Telephone: (091) 549-1283
(091) 549-2177

Agency:

All ships will be attended by Vale do Rio Doce Navegacao S.A. – DOCENAVE through its regional office in Porto Trombetas, and DOCENAVE's sub-Agents in Belem and Porto de Santana (Agencias Mundiais Ltda.):

DOCENAVE's head office:
Rua Voluntarios da Patria, 143
Rio de Janeiro, State of Rio de Janerio
22.270, Brasil
Telephone: (021) 286-8002
Telex: (021) 22142, 22249, 22730
Cable Address: "DOCENAVE RIO DE JANEIRO"

DOCENAVE's regional office:
Trombetas, State of Para
68.275 Brasil
Telephone: (091) 549-1114, 549-2238
Telex: (091) 5622
Fax: (091) 549-1397
Cable Address: "DOCENAVE PORTO TROMBETAS"
Manager: Mr. Edison Camargo
*Home Phone: (091) 549-1201

DOCENAVE's sub-Agents:
Agencias Mundiais Ltda.
Rua Gaspar Viana 490
P.O. Box 190
Belem, State of Para
66.020 Brasil
Telephone: (091) 224-4822
Telex: (091) 1148 and (091) 1799
Fax: (091) 225-3607
Cable Address: "AMSANAV BELEM"
General Manager: Mr. R. J. Burnett
*Home Phone: (091) 235-0359
Operations Manager: Captain E. A. St'Roas
*Home Phone: (091) 222-4078
Assistant Manager: Mr. P. Niblett
*Home Phone: (091) 235-1492

Agencias Mundiais Ltda.
Av. Senador Filinto Muller, 1445
Porto de Santana, Federal Territory of Amapa
68.935 Brasil
Telephone: (096) 632-6669, 632-6629, 632-6663
Cable Address: "AMSANAV SANTANA"
Manager: Mr. Carlos Alberto Bandeira
*Home Phone: (096) 632-6639

SHIPMASTER'S REPORT: November 1980.

Vessel visited Porto Trombetas on November 23rd until 25th, for loading a full cargo of bauxite ore. This port is situated on the righthand side of the Trombetas River, State of Para, a lefthand affluent of the Amazon River, approximately 575 nautical miles from the open sea.

All vessels destined for Porto Trombetas are cleared inwards at Santana, Federal Territory of Amapa, as being the first Brazilian port of call.

On arrival at Porto Trombetas, State of Para, the vessel was visited again by Customs and Federal Police in order to clear the vessel for this "Port of Call". Again several documents were needed. On departure from Porto Trombetas a "Harbour Master's Clearance" is received which has to be handed over to the Santana Authorities, usually via the River Amazon Pilots leaving the vessel in Santana, in exchange for a clearance from that port, delivered by pilot launch.

SHIPMASTER'S REPORT: May 1986 (updated 1988).

Please see a comparison report over tidal predictions for Barra Norte (Rio Amazonas) for the 23rd May 1986. First method: Admiralty Tide Table Vol. 2/1986 NP 202/86.

Second method: Tabuas dos Mares De-16-21/1986.

There is an error of 3 hours 41 minutes between the two predictions, note also the difference in predicted heights.

Upon arrival at Barra Norte, we only had in our possession the Admiralty Tide Tables. Referring to the time of HW given by these tables and using the rose of currents printed on Brazil chart 210, we were expecting a current setting in direction 310° at about 1.2 knots (HW+5) then later 270° at about 1.8 knots and 238° at about 2.2 knots. The correct currents were for these times: 050° – 4.1 knots, 040° – 2.2 knots, 030° – 5.5 knots, using the HW times of Tabuas dos Mares.

The difference between the two predictions is, of course prejudical in order to perform a safe and good navigation, keeping in mind that the navigator has no landmark for several hours.

Tidal predictions for May 23rd 1986 at Barra Norte – Rio Amazonas: Admiralty tide tables:

	Time		*Height*		
Standard Port	HW	LW	HW	LW	
Georgetown	0433	1051	3.2	0.2	
Guyana	1709	2302	2.9	0.7	
Seasonal change	Standard port		–	–	negligible
Differences	+0245	+0251	–0.3	–0.1	
			–0.3	–0.2	
Seasonal change	Secondary port		–	–	
Secondary port	0718	1342	2.9	0.1	
	1954	0153	2.6	0.5	
	(24 May)				

Tabuas dos Mares: 23rd May 0546 – 0.8, 1059 – 5.8, 1812 – 0.5, 2344 – 5.6.

Loading: The loading rate of bauxite during my call was about 1,100-1,200 tonnes/hr. We loaded about 55,000 tonnes.

Agents Questionnaire to Master:

Fazendinha Anchorage, May 24th 1986.

To the Master

M.V. . . . .

Fazendinha

Re.: North Channel – Amazon River

Dear Captain:

Please kindly report your observations during your transit in North Channel – Amazon River, (Nautical Chart No. 201 – 6th ed.). Any other information will be of good advice.

North Bar Racon/Buoy Positions on February 29th 1988:

Sea Racon-white light about 15 miles		Lat. 01° 34.16′ N., Long. 49° 00.86′ W.
Sea Buoy-red/white/red	white light	Lat. 01° 24.37′ N., Long. 49° 02.65′ W.
Buoy No. 2 Green	Green light	Lat. 01° 13.90′ N., Long. 49° 35.15′ W.
Buoy No. 4 Green	Green light	Lat. 01° 08.00′ N., Long. 49° 40.00′ W.
Buoy No. 6 Green	Green light	Lat. 01° 05.37′ N., Long. 49° 44.18′ W.
Buoy No. 8 Green	Green light	Lat. 01° 01.97′ N., Long. 49° 46.10′ W.
Buoy No. 10 Green	Green light	Lat. 01° 00.18′ N., Long. 49° 46.23′ W.
Buoy No. 12 Green	Green light	Lat. 00° 57.23′ N., Long. 49° 48.89′ W.
Buoy No. 1 Red	Red Light	Lat. 01° 06.38′ N., Long. 49° 44.32′ W.
Buoy No. 3 Red	Red light	Lat. 01° 03.38′ N., Long. 49° 46.70′ W.
Buoy No. 5 Red	Red light	Lat. 01° 00.63′ N., Long. 49° 47.02′ W.
Buoy No. 7 Red	Red light	Lat. 00° 58.70′ N., Long. 49° 48.87′ W.

Radio Beacon Ponta do Ceu: Good, but have given bearings totally erroneous during one hour (from 1400 to 1500 LT).

Racons: Guarah Light (range). First echo (weak) 31 nautical miles.

Bailique Light (range). First echo 24 nautical miles.

Lighthouses: Guarah Light; Bailique Light; Marinheiro Light; Ponta do Ceu; Santarem Light. Generally all good but probably too weak in case of restricted visibility due to rainfall.

Remarks: Regret absence of fairway buoys or pillars on each side of the North Bar. Buoy No. 2 and following are too small and difficult to find on the radar. Navigator on duty 5 hours between Barra Norte and Buoy No. 2 without a good fix.

It would be helpful if Agent sent by radio at least 2 days before arrival the following information concerning tides.

1) Time of HW and LW at North Bar (we received it but at the time we were in North Bar (23rd May). The times given in the cable were for the 24th May).

2) The direction and force of current following the current rose printed on chart 210 (Brazilian chart).

Cable should be in the following form: 23rd May HW . . . . LT LW . . . LT. Current HW 070/3.6 HW+1 050/4.1, HW+2 040/5.5, etc.

It should be noted that the predicted times and heights in the Admiralty Tide Tables are erroneous.

It should also be noted that for deep draft vessel, the most difficult and narrow navigation is from Buoy No. 2 to Santana Anchorage, and without Pilot (especially between Buoy No. 2 Buoy No. 10).

SHIPMASTER'S REPORT: September 1988.

Vessel called at Porto Trombetas to load bauxite in bulk. This port is situated on the Amazon, approximately 60 miles from the mouth of Rio Trombetas and 590 miles from Amazonas No. 1 Light vessel.

Pilots embark and disembark at the anchorage off Santana, and remain on board during the vessel's stay at Porto Trombetas. Customs and other state officials visited vessel at Santana anchorage. The Pilot's English language is sufficient for navigational commands only. The two Pilots on board were very experienced.

Admiralty charts of the Amazon are not sufficient. All Brazilian nautical charts are available through the vessel's sub-agent in Santana if advance notice given. These charts were perfect for tidal height calculations.

Vessel should cable request buoy positions on Canal Norte prior to arrival as the positions of the buoys and sandbanks change.

High water at Barra Norte is 2 hours after Ilha do Curua or Canal Norte (buoyed channel, IALA Region B, seaward green buoy starboard hand). There are two Racons on the shore for fixing position, we could not find Amazonas No. 1 Light vessel, it may have drifted out of position.

Navigation from Canal Norte to Santana in ballast or with shallow draft is not difficult. Laden Bulk Carriers on Canal Norte and Barra Norte must carry out good tidal height calculations.

OPERATORS: Mineracao Rio do Norte S.A. – MRN

Legal Domicile:

Rodovia Br. 316, Km 3
Ananindeua – Para.
CEP: 67.000
Telex: (91) 0977
Telephone: (091) 235-3844
Fax: (091) 235-3848

Works:

Mineracao Rio do Norte S.A. – MRN
Porto Trombetas, Para
CEP 68.275
Telex: (91) 4036
Telephone: (091) 549-1335
Fax: (091) 549-1397
Cables: "RIONORTE".
Contact: Mr. Oscar Sampaio (Dock Master).

Main Office:

Praia do Flamengo, 200 – 6° andar
Rio de Janeiro
CEP 22.210
Telex: (021) 23352
Telephone: (021) 205-9112
Fax: (021) 245-5717
Cable: "RIONORTE".
Contact: Dr. Julio Bueno (Commercial Manager)

RECIFE (Pernambuco): 08.04 S. 34.52 W. **(See Plan)**

PORT LIMITS: West of Longitude 34° 50′ W. and between Latitudes 08° 00′ S. and 08° 07′ S.

DOCUMENTS: Most of the documents required by the local authorities are presented by the vessel's Agents after arrival.

Master must have on hand, on arrival, the following documents:

7 Crew lists.
International Health Declaration completed and signed.
Clearance from last port of call.
Manifests of the cargo to be discharged.
Copies of bills of lading of the cargo to be discharged.

PILOTAGE: Compulsory. Pilots board the vessel at Southern end of Banco Ingles, at approximate position Lat. 08° 05′ S., Long. 34° 50′ W. Vessels must give accurate ETA to their Agents, not to the Pilot Association, however when within VHF range, vessel should communicate with the Pilot Association, if no instructions have been received from the Agents or the Pilot does not board upon arrival.

ANCHORAGES: Most favourable position for ships to await pilot boat is 1.5 miles in direction 303° from "Picao", also just outside the 6 fathom line. In fine weather ships can sail to a position 8 cables from "Picao" in same direction just South of buoy. Anchorage in fine weather between above-mentioned places; in bad weather more than 1.5 miles in direction 303° from "Picao" and North and South of line, in water of 7 fathoms and 8 fathoms depth.

RESTRICTIONS: Vessels only enter port at night in cases of necessity. 3 ft. under keel clearance required when heavy swell running.

The port is situated between 2 channels, 1 to the North, the other to the South, which are the main fairways of the port. The Southern Channel is 850 ft. wide by 32 ft. 6 in. deep and the Northern Channel is 32 ft. deep but with variable width.

Tankers: May enter and leave during daylight only (0500 – 1800 hrs.). Also see "Tankers".

MAX. SIZE: Vessels 220 m. in length can enter, max. draft 31 ft. Also see "Tankers".

HEALTH: Free Pratique is granted by radio at any time, day or night. Masters must radio to "Saporto Recife", informing sanitary conditions of the vessel, reporting any case of sickness and requesting Free Pratique.

RADIO: A very powerful radio station "PPO"-Olinda Radio now available, operating on radiotelephony and radiotelegraphy, with VHF and HF in all maritime frequencies.

RADAR: No facilities available.

TUGS: Pilot brings vessels to inner harbour where tugs available to help to go alongside; not practice for tugs to meet vessels on Outer Roads. 3 tugs available, largest 1,680 h.p. Vessels up to 5,000 g.r.t. require 1 tug. Vessels over 5,000 g.r.t. require 2 tugs.

BERTHING: Vessels arriving at Recife Roads with 26 ft. can enter port on low tide and can go alongside from Sugar Terminal to Warehouse No. 9, over 26 ft. it is better to wait for high tides to enter, 31 ft. being the max. draft for entering Recife.

Depth alongside wharves:

Berth Nos. 1 – 2	31 ft.
Berth Nos. 3 – 6	30 ft.
Berth Nos. 7 – 14	28 ft. – 30 ft.
Berth No. 15	27 ft.

At anchorage (pool) in port, max. draft is 31 ft. Depth between 32 ft. and 26 ft., the max. rise of tide being 5 ft. Distance from the quay side, 200 m. Manoeuvring space is 1,640 ft. or 500 m. with a depth of 28 – 30 ft. max.; 590 ft. or 180 m. with a depth of 26 ft.

SPECIAL CARGO FACILITIES: *Cereals:* Silos with unloaders. Silos capacity: 25,000 tons (CAGEP), 23,500 tons (Moinho Recife).

Capacity of unloaders: 400 t.p.h. (Berth No. 1), 150 t.p.h. (Berth No. 9), 150 t.p.h. (Berth Nos. 9 – 10).

Sugar: Sugar Terminal: Warehouse capacity 200,000 tons, capacity of loader 1,000 t.p.h.

Molasses: Tanks: Capacity to store 14,000 tons, capacity of loader 120 cu.m.p.h.

Cranes:

1 Crane with capacity of 25 tons (Berth No. 2).
4 Cranes with capacity of 3.2 tons
3 Cranes with capacity of 5 tons
15 Cranes with capacity of 1.5 tons
3 Automobile cranes with elevated cab capacity of 8 tons, with 2 clamshell and 2 graiffers.

Fork Lifts:

1 special fork-lift for containers with capacity of 40 tons.
63 fork-lifts with capacity of 2.5, 3, 4 and 7 tons.

Floating Crane: 1 floating crane, capacity 100 tons.

STEVEDORES: Advise Agents of ETA at least 48 hours prior to arrival to make necessary berthing arrangements and hire dock labourers and stevedores in time.

MEDICAL: In *urgent cases* communicate with Agents immediately by means of Radio at least 48 hours prior to vessel's arrival if possible. It is necessary for vessel to enter port to enable sick person to land because on outer roads there is too much swell. Not necessary to Dock. Port Doctor must be advised by Agents and will board to see sick person and grant permission to land in Recife temporarily. Hospitals available also First Aid Stations equipped with ambulances. Port Authority also equipped with ambulance. Crews should always have yellow fever inoculation certificates.

TANKERS: Oil companies who keep petroleum products here are: Petrobras, Esso, Texaco, Shell and Atlantic. To discharge petroleum products tankers utilise 1×10 in. at Berth No. 1; 4×8 in. and 4×6 in. at No. 2; 2×8 in. and 2×6 in. at No. 3 and 1×8 in. and 1×10 in. at No. 4. Max. safe draft for a tanker to enter Recife is 30 ft. and entry must take place on high tide.

DENSITY: Low water density in Summer time 1028. High water density in Summer time 1027.

FRESH WATER: Supplied by Port Administration by means of pipelines in the docks. Vessels can be supplied alongside any quay; water fit for human consumption.

The local Port Administration has 1 water barge, capacity 210 tons, for supply to vessels inside the breakwater.

There are 71 hydrants, diameter 2.5 in., rate 15 – 20 t.p.h.

FUEL: Fuel oil and diesel can be loaded from network along the quay.

Berth No. 4: 3×8 in. and 3×6 in.
Berth No. 5: 4×8 in. and 4×6 in.
Berth No. 6: 3×8 in. and 3×6 in.

All with capacity 150 t.p.h. (fuel – 8 in.) and 45 t.p.h. – 50 t.p.h. (diesel – 6 in.)

Fuel oil and diesel also available by road trucks with capacity 30 tons at Berth Nos. 7 – 15.

Also see "General" before first port.

GANGWAY/DECK WATCHMEN: Compulsory.

OPENING/CLOSING HATCHES: Normally by stevedores but crew helps when stevedores not familiar with hatches of modern vessels.

CUSTOMS ALLOWANCES: One carton cigarettes and one bottle of spirits allowed each man at Customs discretion.

IDENTITY CARDS: Foreign crew members not permitted to go ashore without presentation of identity card, on which is a photograph of holder and personal details. These cards are provided by the Agent upon arrival. The identity card must be delivered on disembarkation to the Federal Police who will return it to the crew member on re-embarkation.

CONSULS: The following countries are represented in Recife/Pernambuco:

Argentina
Belgium
Costa Rica
Denmark
El Salvador
Ecuador
France
Germany F.R.
Great Britain
Guatemala
Honduras
Italy
Japan
Lebanon
Mexico
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
United States

REPAIRS: Available but limited to small mechanical equipment.

SURVEYORS: 1. Supervise and Superinspect are companies available to do cargo surveys.

2. Lloyd's Register, A.B., B.V., Salvage Association and U.S. Salvage are available at the port.

REPATRIATION: Facilities by air available.

AIRPORT: Situated 9 miles from docks. 228 flights per week.

TIME: GMT minus 3 hours.

HOLIDAYS: *National Holidays:* Fraternidade Universal (January 1st); Tiradentes (April 21st); Labour Day (May 1st); Brazil's Independence Day (September 7th); Nossa Senhora Aparecida (October 12th); Commemoration of the Republic (November 15th); Christmas Day (December 25th).

State Holidays: Nossa Senhora da Conceicao (December 8th); Nossa Senhora do Carmo (July 16th); Good Friday, Sao Joao (June 24th).

POLICE/AMBULANCE/FIRE: Harbour Police Tel: 2241024. Port State Fire Brigade Tel: 193. Ambulance (First Aid) Tel: 192. State Police Tel: 190.

BANKS: City Bank – Av. Marques de Olinda, 126. Tel: 224.7922. Telex: (081) 1093.

Bank of London – Rua Estreita do Rosario, s/no. Tel: 224.3729. Telex: (081) 1173.

STORING: See "Prelims".

1. Vessel can be stored only by trucks.
2. Vessel cannot store from barges. Storing must be done directly onto/from wagons and warehouses.
3. Trucks can proceed alongside at the berth.
4. Fork-lift trucks can be used on the jetty to handle stores.
5. As a rule, when cargoes go to the warehouses they must pay in advance a fee corresponding to one month's rent, which costs 1% of the value of the cargo. If the cargo remains another month then 2% of its value must be paid as a fee. If the owner of the cargo doesn't clear it through Customs in 3 months it will be confiscated. Certain kinds of cargoes, such as, fertilizers, wheat, corn, oil derivated goods and rollers have an anticipated dispatch and there will be 6 days free-of-charge for them to take them out of the port.
6. Local Riggers can be employed to assist with storing.

TELEPHONES: Can be connected on board if requested.

DEVELOPMENTS: Plans are underway to dredge the access channel to 11.5 m. It is also intended to construct new berths for general cargo and molasses tankers, and to modernise the existing berths.

AUTHORITY: Administracao do Porto do Recife – Portobras, P.O.Box 720, Praca Artur Oscar – s/no, Recife, PE, Brazil 50.000. *Tel:* 231.4044, 231.4144. *Telex:* 1018. *Contact:* Milton Pires de Souza, Administrator.

REGENCIA: 19.41 S. 39.41 W.

This terminal is located on the East coast of Brazil in the State of Espirito Santo, approximately 80 km. to the North of Vitoria. It consists of an oil storage area, a pipe-line both on land and underwater with a diameter of 16 in., 4 km. long and a set of buoys for mooring vessels. Its purpose is storage and passing to production of oil products from the fields of the State of Espirito Santo, principally the field of Lagoa Parda which is next to the terminal.

The set of buoys is designed to handle vessels up to 50,000 g.r.t., permitting a maximum draft of 13 m.

PILOTAGE: The area has Pilots to attend to the manoeuvring of vessels at the buoys.

TIME: GMT minus 3 hours.

RIO DE JANEIRO: 22.54 S. 43.12 W. (See Plan)

(A) GENERAL CARGO SECTION. (B) TANKER SECTION.

(A) GENERAL CARGO SECTION

LOCATION: The port of Rio de Janeiro is located geographically in the inlet on the coast (Western) of the Bay of Guanabara, in the city of Rio de Janeiro, capital of the state of Rio de Janeiro.

DOCUMENTS: See "General" before first port.

CLEARANCE: All clearance is taken care of at the Quarantine Anchorage (Pratique, Custom's, Immigration). Accommodation ladder must be rigged for this purpose.

Shipmaster's Report: Clearance also carried out alongside.

After clearance by the Customs a dark blue flag with a white five-pointed star in the middle must be shown day and night during vessels stay in port. Derat service is available. Inspection of the vessel will be made by inspectors to whom the valid derat or derat-exemption certificate must be shown.

PILOTAGE: The pilotage service is compulsory for national vessels of more than 42 ft. length and for foreign craft of more than 37 ft. length, in the following situation: From the Waiting Zone, in the anchorage (about 2 nautical miles to the North of Rasa Island), for any anchorage within the Bay of Guanabara.

Pilots board vessels at the following geographical point:

Lat. 22° 02′ S., Long. 43° 08′ W.

Requests for pilotage service may be made via the ship's Agent by telephone 24 hours ahead of the ship's arrival, or to Av. Rio Branco No. 4 – Room 1501, there being available a total of 33 Pilots.

Pilots may also be requested by cable, via Station PPR – Radio Rio, operating on frequencies 17,194; 13,105; and 8,364 kHz or via Channel 16 VHF for general call-up. For pilotage and other purposes, using Channels 14 and 12.

ANCHORAGE: In the Rio de Janeiro port area, the following areas are designated for anchorage of vessels coming into port.

Anchorage for vessels up to 22 ft. (6.7 m.) draft Anchorage No. 3. Within 300 m. radius of position Lat. 22° 51′ 1″ S., Long. 43° 10′ 8″ W.

Anchorage for vessels with 22 ft. (6.7 m.) draft or more within 800 m. radius of position Lat. 22° 51′ 5″ S., Long. 43° 08′ 6″ W.

Vessels impounded or requiring extensive repairs: Position determined by the Port Captaincy for each specific case.

Vessels in quarantine: position Lat. 22° 50′ 7″ S., Long. 43° 08′ 6″ W.

Vessels carrying explosives and inflammable material: Position Lat. 22° 51′ S., Long. 43° 11′ W.

RESTRICTIONS: Port is accessible to all vessels at all times and states of the tide. Attention must be paid to messages sent by Rio Radio about forbidden areas due to Marine exercises with live ammunition along the coast near entrance to the port.

Access Channel: Access to the port for large vessels is via a channel well dredged to a depth of 17 m., passing close to Copacabana Beach, and to the West of the island of Cotunduba. This channel goes as far as the port basin area, reaching also the oil terminals located inside the Bay of Guanabara. The safety depth located directly to the South of Leme Bridge is 20 m.

The Access Channels to Gamboa, Sao Cristovao, Caju and the Mineral and Coal Area are dredged, respectively, to depths of 10 m., 8.5 m., 6.0 m. and 12 m.

The total length of the main access channel is 18.5 km. There being a distance of 11.1 km. between the outer part of the Bay to the anchorages, and the other 7.4 km. in a Northerly direction, from the anchorages to the Almirante Tamandre Oil Terminal. Depths vary from 20 m. to 35 m.

Access Channel to the Quays:	*Length* (m.)	*Width* (m.)
1. Maua Pier Quay	—	—
2. Gamboa Quay	3,000	250
3. Sao Cristovao Quay	4,000	150
4. Caju Quay	5,000	80
5. PMC Quay (Oil Mineral & Coal)	3,000	150

Manoeuvring Basin: Such basins are located in the actual access channels to the quays. Normally, vessels manoeuvre off the quay and in front of their intended berth. The areas available at the various quays are as follows:

	Length (m.)	*Width* (m.)
1. Maua Pier Quay	400	200
2. Gamboa Quay	3,000	250
3. Sao Cristovao Quay	1,000	150
4. Caju Quay	1,000	80
5. PMC Quay	760	200

MAX. SIZE: No limits for entering port. Draft limited by berth depth.

HEALTH: Vessels from another Brazilian port automatically receive Free Pratique and should not fly quarantine flag. If suspected disease or fever on board it is advisable to cable Agent before arrival. Also see "General" before first port.

RADIO/VHF: Rio Radio, call sign PPR. Working frequencies 17,194; 13,105; and 8,364 kHz. VHF marine radiotelephone is available. Channel 16 for general call, Channels 14 and 12 for Pilot and harbour purposes.

TUGS: There is adequate tow-boat service at Rio de Janeiro varying from 220 h.p. to 1,200 h.p., tariff being divided into sections – 200 h.p. to 600 h.p. and 601 h.p. to 1,200 h.p. The number of tugs to be employed in a service depends on the tonnage of the vessel and/or nature of the berth and respective approaches, as determined by the naval authorities. Ship's lines usually employed.

Requirements: The assistance of tugs for mooring and departure operations is governed by the following rules:

(a) Manoeuvring at the Gamboa and Sao Cristovao Quays:
  vessels up to 2,000 g.r.t. no tug.
  2,001 to 5,000 g.r.t. 1 small tug.
  5001 to 15,000 g.r.t. 1 large and 1 small tug.
  15,001 to 30,000 g.r.t. 2 large and 1 small tug.
  over 30,000 g.r.t. 2 large and 2 small tugs.

(b) Manoeuvring at the Caju Quay (warehouses 31 to 33):
  vessels up to 2,000 g.r.t. without tug.
  2,001 to 5,000 g.r.t. 1 small tug.
  5,001 to 15,000 g.r.t. 1 large tug and 1 small tug.
  over 15,000 g.r.t. 1 large tug and 2 small tugs.

(c) Manoeuvring at the Mineral and Coal Quay:
  vessels up to 2,000 g.r.t. without tug.
  2,001 to 5,000 g.r.t. 2 small tugs.
  5,001 to 15,000 g.r.t. 2 large and 1 small tug.
  over 30,000 g.r.t. 3 large and 1 small tug.

(d) Manoeuvring at the Petroleum Terminals, Maua Pier and Docks:
  vessels up to 4,000 g.r.t. 1 small tug.
  4,001 to 15,000 g.r.t. 1 large and 1 small tug.
  15,001 to 30,000 g.r.t. (loaded) 2 large and 1 small tug.
  15,001 to 30,000 g.r.t. (in ballast) 2 large tugs.
  over 30,000 g.r.t. (ballast) 3 large tugs.
  over 30,000 g.r.t. (loaded) 3 large and 1 small tug.

The following must also be observed:

1. All vessels (tankers) manoeuvring at quays which are not terminals will be assisted by tugs as shown in section *(d)*.
2. The requirements in sections *(a)*, *(b)*, *(c)* and *(d)* will apply when the manoeuvre is effected under normal conditions.
3. In abnormal conditions, and according to the Pilot's judgement, other necessary measures will be adopted to ensure safety of the manoeuvre.
4. When a vessel is manoeuvring with the aid of a tug, the Pilot may call for a further tug with power compatible with the requirements of the manoeuvre.
5. A tug will be considered as large where its power is in excess of 600 h.p.

BERTHING: Berth usually accessible day and night. Ratguards obligatory.

For vessels loading iron ore, it is important that hatch coamings are not higher than 31 ft. above the water-line in order to pass under the loading belt.

Berth	*Length* (m.)	*Depth* (m.)	*Use*
1	150	9.1	General cargo, containers, steel
2	150	9.1	General, steel, chemical products, containers
3	150	8.3	General, steel, chemical products, containers
4	150	8.2	General, steel, containers
Maua 1	165	7.3	General cargo, containers
Maua 2	160	9.8	General cargo, steel, coal, minerals, containers, vehicles
Maua 3	160	9.2	General cargo, coal, chemical products, containers and new vehicles
Maua 4	160	8.3	General cargo, containers, steel, new vehicles
5	280	8.8	General cargo, steel, wheat, containers
7	150	9.1	General cargo, steel products, chemicals, containers
8	150	10.3	General cargo, steel, coal, containers
Frigorifico	150	8.5	General cargo, steel, containers
10	150	8.8	General cargo, steel, containers
11	150	9.1	General cargo, steel, containers
12	150	8.3	General cargo, steel, containers
Patio 8/9	150	9.2	General cargo, steel, fertiliser, coal, minerals, containers
13	150	7.4	General cargo, steel, containers
14	150	7.9	General cargo, steel, containers
15	140	9.0	General cargo, steel, lubricating oil, containers
16	140	8.8	General cargo, containers
17	140	8.2	General cargo, containers
18	140	7.2	General cargo, containers
22	240	7.1	General cargo, wheat, coal, minerals, salt, containers, Ro-Ro
Terminal de Sal	120	8.5	Coal, salt, containers
Parque de Carvao	790	8.0	General cargo, steel, fertiliser, chemical products, containers, Ro-Ro, new vehicles, coal, minerals, lube oil
30	100	7.0	General cargo, steel, containers, Ro-Ro
31	200	5.6	General cargo, containers
Parque de Inflamaveis	550	6.4	General cargo, steel, petroleum, vegetable oil, chemical products, containers
Parque de Minerio	480	12.0	General cargo, minerals, containers
Parque de Minerio	280	13.0	Steel products and minerals

Report: Companhia Docas do Rio de Janeiro advised the following in December 1982.

Quay	*Length* (m.)	*Depth* (m.)
Pier Maua	808	11.0
Cais da Gamboa	3,325	7.2–10.3
Cais de Sao Cristovao	1,325	6.0–8.5
Cais do Caju	1,300	5.2–6.4
Cais do PMC	483	11.7
Extension of PMC	282	12.0

CARGO FACILITIES:

Passenger Station: 1 with an area of 2,035.5 sq.m.

Storage Areas: Covered (14) with an area of 14,215.95 sq.m.

Open – (20) with an area of 1,149,298.40 sq.m.

Warehouses: Internal – 22 with a total area of 93,600 sq.m.

External – 9 with a total area of 66,724 sq.m.

Refrigerated: area of 27,864 sq.m., volumetric capacity of 66,240 cu.m. or 15,200 tonnes.

Passenger Station – 1 with an area of 2,033 sq.m.

English Mill Area – 1 with an area of 2,033 sq.m.

Containers: 1 warehouse with an area of 7,000 sq.m.

Silos:

Rio de Janeiro Mill:
  1 with 24 cells with 6,000 tons capacity
  1 with 40 cells with 12,000 tons capacity
  1 with 17 cells with 20,000 tons capacity.

Da Luz Mill:
  1 with 42 cells with an individual capacity of 320 tons and a total of 15,000 tons.

Guanabara Mill:
  10 with 1,500 tons capacity each.
  2 with 380 tons capacity each.

Observation: There are 5 suction units for wheat discharge, with a nominal capacity of between 70 t.p.h. and 160 t.p.h.

Terminals:

Minerals:
  Movement capacity: 60,000 tons per day.
  Storage capacity: 250,000 tons
  Normal removal rate: 6,000 t.p.h.
  Length of transport conveyors: 2,129 m.

Salt:
  An area of 2,157 sq.m.

Containers:

Container handling occurs as far as Caju Quay, and the areas adjacent to internal warehouse Nos. 30, 31, 32. Warehouse No. 32 (internal) is used for containerised cargo and has a total area of 7,000 sq.m. on its two floors.

Container discharge can be effected on all quays intended for deep sea and coastal vesels, i.e. from the Maua Pier as far as internal warehouse No. 18.

When a container is discharged on to the quay, this occurs onto trucks which go to the Terminal Area which can accommodate up to 1,030 units. The equipment used for container discharge and handling comprises 3 Karricons with a 35 ton capacity, 1 travelift with 30 tons capacity and 2 van carriers with 30 tons capacity each.

Also, the Caju Quay has facilities for loading and discharge operations of "LASH" type vessels. At the end of this quay, there was recently constructed a terminal for Ro/Ro vessels for intermodal purposes. Also, on the Caju Quay, there is an area for storage of heavy lifts, covering 29,272 sq.m.

EQUIPMENT:

Cranes: Jib – 101 with capacities from 3 tons to 40 tons.
On tyred wheels: 10, with capacities from 30 tons to 150 tons.
Railborne: 1 of 12 tons.

Stacker Trucks: 160 with capacities from 3.5 tons to 37 tons.

Winches and Floating Cranes: Winch "Piaui" with 250 tons capacity;
Winch "Presidente Castelo Branco" with capacity of 200 tons.

Tractors: On tyred wheels: 10 with capacity of 50 tons to 100 tons traction
Track Mobile (Road/Rail): 6 with capacity of 700 tons to 1,500 tons traction.

Lorries: 40

Trucks: 19, from 20 tons to 40 tons.

Mechanical Shovels: 8, from 2.5 cu. yards to 4 cu. yards.

Rolling Bridges: 196, from 1.5 tons to 2 tons.

Launches: 4 with power from 35 h.p. to 150 h.p.

Locomotives: 17, with capacity from 550 tons to 1,500 tons traction

Underground Crushers: (for minerals): 1 for 2,000 t.p.h. (discharging 2 wagons at once); 1 for 4,000 t.p.h. (discharging up to 6 wagons at once).

STEVEDORES: Cable Agent ETA 36 hours before arrival in order to arrange gangs required. When arriving during week-ends or on Monday, Agent needs ETA on Friday afternoon. Loading/discharge rates:
General cargo cases 7 to 8 tons per gang/hour.
Bags 15 tons per gang/hour.
Grain in bulk 1,000 tons per eight hours.
Coal in bulk 7,000 tons per day.
Loading iron ore 25,000 tons per day.

MEDICAL: All facilities available. If doctor needed on arrival or making emergency call to land sick persons, cable ETA 12 hours before arrival.

TANKERS: See "Section – B".

DENSITY: Salt water at entrance to bay. Further inland water often brackish, and density varies with tide.

FRESH WATER: Available alongside from 87 points, loading rate 50 t.p.h. Also available by barge, capacity 450 tons, loading rate 100 – 200 t.p.h.

FUEL: Available by barge at anchorage. Rate for fuel oil 350 t.p.h. and gas oil 200 t.p.h. Also see "General" before first port.

WATCHMEN: Gangway watchmen strongly recommended for any vessels working cargo with shore labour on board. Watchmen from shore not necessary for coal, iron ore, and oil cargoes.

CUSTOMS ALLOWANCES: Each crew member allowed 2 cartons of cigarettes and one bottle wine or spirits.

IDENTITY CARDS: Foreign crew members not permitted to go ashore without presentation of identity card, on which is a photograph of holder and personal details. These cards are provided by the Agent upon arrival. The identity card must be delivered on disembarkation to the Federal Police who will return it to the crew member on re-embarkation.

CONSULS: Most countries have consuls in Rio.

REPAIRS: All types deck and engine repairs can be effected. Five dry docks. Largest dry dock, length 259 m., breadth 34 m., max. draft 14 m.

AIRPORT: Santos Dumont, in the centre of the city, and Rio de Janeiro International, located on Governor's Island (Ilha do Governador).

POLICE/FIRE/AMBULANCE: Police 190; Maritime Police 263-3747; Ambulance 222-2121; Fire 232-1234.

HOLIDAYS: Requests for operational services for these days must be made in advance (minimum of 24 hours).

Fixed:

National: 1st January
21st April
1st May
7th September
12th October
25th December

Regional: 20th January

Movable:

Monday and Tuesday of Carnival
Ash Wednesday
Good Friday
Corpus Christi

Commemorative Days:

28th January (Port Day)
2nd November (All Saints')

Federal and State Government Departments, as well as banks, do not work on Saturday.

TIME: GMT minus 3 hours.

TELEPHONES: Available at warehouses 1–8 on request to the Brazilian Telephone Company.

SHORE LEAVE: Shore leave is permitted.

GENERAL: Vessels to fly signal letters when manoeuvring in port and special Brazilian Customs flag after reception.

DEVELOPMENTS: Caju Quay is being widened and dredged to 12 m. to provide 2 Roll-on/Roll-off berths, 1 sulphur and salt berth, and 1 heavy lift general cargo berth.

SHIPMASTER'S REPORT: 1980.

Clearance: Clearance of vessels undertaken at quarantine anchorage and alongside.

Identification Cards: Identification Cards required for foreign crews but no picture necessary. Cards must be shown when leaving and entering the dock.

Visitors: No unauthorised persons are allowed on board. If unauthorised persons found on board, heavy fines are imposed.

Entering and Leaving: When entering and leaving at night, the full name of the vessel has to be flashed on the Aldis Lamp to the naval signal station. No VHF communications available.

Ratguards: Should be in place when alongside.

Flags: At all ports in Brazil the Authorities are very strict about flying of flags (no tangles). The "G" flag and "H" flag should be flown when Pilot required or on board.

AUTHORITY: Companhia Docas do Rio de Janeiro, Rua Acre No. 21, 4° Andar, CEP – 20.081 Centro Rio de Janeiro, R.J. Brazil. *Tel:* (021) 233–4522. *Telex:* (021) 22.163–CDGB. *Contact:* Pedro Batouli, President.

Porto do Rio de Janeiro (Riopor), Av. Rodrigues Alves No. 20, 4° Andar, Rio de Janeiro, CEP – 20.081 R.J. Brazil. *Tel:* (021) 2912122. *Contact:* Arnaldo Soares da Silva, Manager.

(B) TANKER SECTION. All information refers to the "Petrobras Terminal" – TORGUA *unless otherwise stated.*

LOCATION:

TORGUA is an oil terminal consisting of four (4) different mooring sites all of them located inside Guanabara Bay.

These four (4) mooring sites are linked to Ilha d'Agua and then to the mainland (Duque de Caxias Refinery-Reduc) by submarine pipe-lines.

South Dock-Island (main)	
Lat. 22° 49.2′ S.	East Berth (PP1) or
Long. 43° 09.2′ W.	West Berth (PP2)
North Dock-Island (secondary)	
Lat. 22° 48.3′ S.	East Berth (PS1) or
Long. 43° 09′ W.	West Berth (PS2)
Butadiene Dock-Island	
Lat. 22° 48.2′ S.	East Berth (PAB)
Long. 43° 09′ W.	
Ilha Redonda Pier	
Lat. 22° 48.1′ S.	West Berth (IR)
Long. 43° 07.2′ W.	

IMPORTANT FEATURES:

1. Four mooring sites, in the vicinities of Ilha do Govenador (the largest of Guanabara Bay), are available for loading and discharging of crude oil, derivatives and LPG.
2. Pilotage is compulsory for any shifting inside the bay.
3. Safety Rules are strictly enforced.
4. Display of quarantine signal – "Quebec" flag – must be maintained until Free Pratique is granted.
5. Neither in port nor in Brazilian coastal waters may dirty ballast be pumped overboard.
6. Emergency signal consists of a series of short blasts followed by a long one on the ship's whistle or siren.
7. Tankers up to 135,000 d.w.t. operate at the terminal. Draft is 15.8 m. (52 ft.) or below at LW.

Remarks: Non-compliance of item 7 above stated will result in rejection of the ship as being unsuitable for this terminal.

DOCUMENTS:

Immigration and Maritime Police: The following documents have to be submitted to the boarding Maritime Police Officials:
1 Copy Crew List.
1 Copy General List.
3 Copies Passengers List.
3 Copies Passengers-In-Transit List.

Health: The following documents have to be submitted to the boarding Health Officials:
1 Copy Vaccination List.
1 Copy Certificate of Derat Exemption.
1 Copy Maritime Health Declaration.
1 Copy List of Drugs and Narcotics.
1 Copy Passengers-in-Transit List.
1 Copy Passenger List.

Customs: The following documents have to be submitted to the boarding Custom Officials:
3 Copies Crew List.
3 Copies Spare Parts List.
3 Copies Stores List.
3 Copies Provisions List.
3 Copies Drugs and Narcotics List.
(if not included in the Stores List).
1 Copy Cargo Manifest.
1 Copy Bills of Lading.
2 Copies Passengers List.
2 Copies Passengers-In-Transit List.
3 Copies Crew Personal Effects List.
3 Passengers Personal Effects List.

Note: Supplies, stores, cigarettes, cigars, tobacco, alcoholic beverages, arms, ammunitions, souvenirs, playing cards, drugs and narcotics, medicines (not in use) etc., must be kept under lock and key; the doors of the storage rooms will be sealed by the Customs Officials and the seal must be kept unbroken throughout the vessel's stay in port.

Any goods or personal effects omitted from the lists may be confiscated.

Extracts of Sea Protest drawn out from the Log Book must be submitted to the boarding Customs Officials in case of accident which has caused damage or loss of cargo or part of it.

Ship's Agent: The ship's Agent will need the following documents:
3 Copies Passengers List.
3 Copies Passengers-In-Transit List.
3 Copies Crew List.

The Agent will take care of necessary steps in order to grant the Disembarkation Cards.

Leaving Clearance: Masters must appoint their ship's Agent at Rio de Janeiro and have their International Safety Certificates in force. It is also necessary for vessels Leaving Clearance:
Leaving Permit from Customs.

Leaving Permit from the Captain of the Port.
Leaving Permit from the Maritime Police.
Leaving Permit from Brazil Mail (Passe de E.C.T.).

General: The Customs flag (blue with a white star) must be flown from the vessel's mast or yard throughout the vessel's stay in port.

Special licence from the Captain of the Port must be granted for passengers bound for foreign countries and so their names must be given and their passports must be delivered to Agents at least 48 hours before they apply for the vessel's leaving permit.

The number of disembarking passengers must be radioed to Agents at least 24 hours before the vessel's expected time of arrival.

APPROACHES: The safe access to the Terminal is made through a main (deep but narrow) channel swept to 17 m. (56 ft.) that begins between the Island of Cotunduba and the Point of Leme. It extends as far as the East neighbourhood of the South Dock-Island East Berth. As long as the ship does not exceed 11.3 m. (37 ft.) the access can also be undertaken through the North – South axis passing by Ilha Rasa and the bar's entrance (secondary entry, larger but shallower).

A long bridge (Rio-Niteroi), has been built, linking Ponta do Caju (West) to Ilha do Mocangue Grande (East) it crosses the swept channel. Three navigable spaces: – the central one 300 m. (980 ft.) wide; 50 m. (165 ft.) high at MLWS, the side ones with 200 m. (650 ft.) in width – will maintain the safe access for ships.

A shoal (reef) in 11.5 m. (38 ft.) deep lies about 0.3 m. E.N.E. of Lage Is. just after the bar's narrow entrance (between Sao Joao and Santa Cruz Points).

A wreck marked by a green buoy (CS) lies sunk nearly 1.3 miles Eastward of Cotunduba Is.

When approaching the coast of Guanabara Bay entrance, vessels should keep a particularly sharp lookout for fishing boats and small craft.

ANCHORAGE: Vessels should anchor N.E. of Ilha Fiscal for port authorities clearance (Lat. 22° 53′ S., Long. 43° 09′ W.). After Pratique has been granted they should change anchorage site while awaiting for a berth alongside.

Vessels should anchor clear of the 17 m. (56 ft.) swept channel. They must take care to avoid dropping their anchors on the route of submarine cable near to a line joining the islands of Villegagnon and Boa Viagem.

For further information refer to Brazilian Charts No. 1501, 1511 and 1512 (DHN-Navy Hydrographic Office).

Prohibited Anchorage: Under no circumstances should ships drop anchor Westwards and between South and North platforms due to the existence of submarine pipe-lines connecting Ilha D'agua to the platforms and to Ilha Redonda.

Ships are also prohibited from anchoring in the fairway of the ferry boats plying between Rio and Niteroi.

Also see "Pilotage".

READINESS: Arrival is usually considered the time the vessel reaches the anchorage area or the time the Pilot boards the vessel, whichever occurs first. Notice of Readiness will be accepted at the time the tanker is in all respects ready to operate.

PILOTAGE: Pilotage is compulsory after the ship's Free Pratique has been granted.

Request for pilotage service may be made either to the Harbour Pilot's Working Co-operative (pilot station VHF Radiotelephone – Channels 16 and 12. Listening period from 0600 to 1800 hrs. local time) or, through ship's Agent, 24 hours beforehand.

For tankers larger than 100,000 d.w.t. Pilots usually board the vessel outside the main channel's entrance. This will occur if weather conditions permit and in daylight only. Ships could also use, in most circumstances, a secondary entry channel with North-South axis passing through Ilha Rasa (larger but shallower) as long as their draft does not exceed 11.3 m. (37 ft.). In certain cases and at the discretion of the Pilot, according to the prevailing conditions, ships will use this channel with a draft up to 12.5 m. (41 ft.).

Ships may anchor 1.8 miles off the North of Ilha Rasa for awaiting the Pilot, who will board the ship and proceed by day or night according to ship's draft, visibility conditions, etc.

A pilot ladder must be safely rigged for immediate use and be long enough to reach the Pilot's launch. At night adequate lighting must be rigged so as to enable the Pilot to approach and board the vessel. In addition, a boat rope should be led along the side, from well forward.

A lifebuoy with 27 m. (15 fathoms) of rope must be conveniently placed in the vicinity of gangway for use in emergency. Vessels should always make a lee.

Tankers of 40,000 d.w.t. or over are requested to have a pilot ladder (preferably with a centre gripping line) rigged alongside the accommodation ladder in order that the Pilot may transfer to it after about 2 m. to 3 m. (6 ft. to 10 ft.).

RESTRICTIONS: Ships usually moor and unmoor at any hour except when an unexpected event arises, such as breakdowns, gales, heavy squalls, etc.

See "Pilotage".

TIDES: *Tide and Tidal Currents:* The mean tide level at Rio de Janeiro is 0.69 m. (2.2 ft.), Spring range 1.38 m. (4.5 ft.). The usual rate of the tide is about 0.7 knots; Springs run at 1.5 knots. The ebb runs much longer than the flood, especially after heavy rains.

HEALTH: *Free Pratique:* Vessels must anchor N.E. from Ilha Fiscal for Port Authorities clearance. After Free Pratique is granted vessels must change anchorage for waiting.

Vessels must remain at anchorage clear of the 17 m. (56 ft.) swept channel, and take good care not to drop anchor in the vicinity of the submarine cables along a line joining Villeganon and Boa Viagem Islands.

RADIO: Vessels under charter to Petrobras bound for Rio de Janeiro should advise their ETA 48 hours prior to arrival to PPR as well as to their Agents when it will be the case, through PPR (Rio Radio – Government Coast Station). Confirmation or change of ETA should be cabled 24 hours before arrival. When within range, tankers may also call Torgua or Fronape VHF radio-telephone stations for instructions. All ETA's should indicate whether it is local time or GMT.

MAX. SIZE: Tankers up to 135,000 d.w.t. will operate in the terminal. Draft is 15.8 m. (52 ft.) at low water.

Berthing capacity is limited by structural resistance of installation, actual depth of the swept channel and weather conditions.

South Dock Island (Main)

East Berth (PP1) – Tankers drawing up to 15.8 m. (52 ft.) draft can moor and unmoor at any time.

Structural resistance of pier was designed to handle tankers up to 105,000 d.w.t. but under special conditions this limit can be extended to 135,000 d.w.t.

West Berth (PP2) – By day tankers drawing up to 12.8 m. (42 ft.) draft can moor according to the range of tide.

11.9 m. (39 ft.) draft to a range of 0.0 m. (0.0 ft.)
12.2 m. (40 ft.) draft to a range of 0.3 m. (0.98 ft.
12.5 m. (41 ft.) draft to a range of 0.6 m. (1.98 ft.)
12.8 m. (42 ft.) draft to a range of 0.9 m. (2.94 ft.)
13.1 m. (43 ft.) draft to a range of 1.2 m. (3.94 ft.)

By night only ships up to 22,000 d.w.t. will moor.

Leaving at night only enough ballast and with own power, up to 32,000 d.w.t.

Shifting ship from East to West Berth only by daylight, draft 12.8 m. (42 ft.), fair weather and wind speed up to 2 Beaufort;

North Dock-Island (Secondary)

East Berth (PS1) – Tankers up to 35,000 d.w.t. can moor either by day or night.

At low tide, the maximum draft permitted is 10.3 m. (34 ft.).

West Berth (PS2) – At night tankers up to 10,500 d.w.t. can manoeuvre. Whenever another tanker is already berthed to the Butadiene Dock-Island, night mooring to the North Dock-Island is not advisable. West-berthing will be undertaken with ebb tide, i.e. the set of the current is South, preferably.

At low water max. permitted draft is 8.2 m. (27 ft.).

Butadiene Dock-Island (PAB)

Manoeuvres will be undertaken at daylight only. Max. permissible draft at low water is 8.5 m. (28 ft.).

Ilha Redonda Pier (IR)

LPG tankers can moor by day only, limitations concerning draft is 9.14 m. (30 ft.) at most. Max. ship's LOA is 200 m. (656 ft.).

Advisable Draft for Safe Manoeuvring: Although the amount of ballast carried on vessels is at the Master's discretion, the table below is recommended as a guide:

Vessels of 30-40,000 tons, draft for'd 16 ft. aft 20 ft.
Vessels of 40-50,000 tons, draft for'd 18 ft. aft 24 ft.
Vessels of 40-70,000 tons, draft for'd 20 ft. aft 28 ft.
Vessels of 70-100,000 tons, draft for'd 24 ft. aft 32 ft.

Vessels over 100,000 tons, should have approximately one-third of the vessel's deadweight in ballast.

VHF: The terminal radio and communication centre is located in the Oil Handling Control Room situated at Ilha D'agua. There is a R/T set operating 24 hours a day, on Channel 16 (Delta) and manned by terminal operators.

It is strictly prohibited to use vessel's wireless transmitters in the port of Rio de Janeiro.

Non-compliance with this regulation may result in a fine being imposed on vessel by the authorities.

Transmitters: Radar and radio transmitting aerials must be switched off and grounded when ships are at berth. VHF communications with terminal and stand-by tug are permitted.

TUGS: Tugboat assistance is rendered by one Petrobras 1,430 h.p. tug boat. Private tugboats are also available. While rendering such assistance tugs act under the orders of the Harbour Pilot. All manoeuvring orders will normally be given by VHF telephone on Channel 13 (Alpha). However they usually keep watch on Channel 16 (Delta).

The tugs are usually stationed either at the terminal dolphin or "L" pier on Ilha D'agua and also in the Port of Rio de Janeiro. The Pilot in consultation with the Master, will decide the number of tugs required for each berthing or unberthing operation. Safety of the Terminal installations demands, at least, two tugboats, even for bow thruster equipped ships. In any case, all recommendations of Port Authorities must be followed.

BERTHING:

Petrobras: Torgua is an oil terminal consisting of four distinguished mooring sites located on different places inside the Guanabara Bay.

All these mooring sites are linked to Ilha D'agua and then to the mainland (Duque de Caxias Refinery – REDUC) by submarine pipelines. Three of them are dock-islands, i.e. island-type offshore platforms lying near to the Eastern edge (about half mile away) of Ilha D'agua (where storage tanks, operation controlling room and part of the administrative staff are placed). Two of these dock-islands are squared platforms (South and North) with two berths each (East and West). The South one is designed for larger tankers consisting of two mooring and two breasting dolphins on each side of the platform. It is normally used for the discharge of crude oil.

The North Dock-Island (smaller) has only two mooring dolphins on each side. Two berths (East and West) are also available. It is generally used for handling derivatives.

The third Dock-Island (the smallest and round shaped one) is actually the dolphin of the North Dock-Island square platform. It is known as the "Butadiene Pier" and only one vessel at a time can be berthed there (East) either for discharge of LPG or butadiene. Besides these three mooring sites there is a fourth located on Ilha Redonda (approx. 2 miles E.N.E. of Ilha D'agua). This installation comprises one single berth (West), head of a small pier. It handles LPG only. Four spherical storage tanks (7,000 tons) and 3 cylindrical (refrigerated) storage tanks (20,000 tons) can easily be seen from incoming vessels.

Other Terminals: *Manguinhos Terminal* – Operators: Refineria de Petroleo de Manguinhos. At Manguinhos terminal a draft of 36 ft. is permissible. Conventional buoy berth in which two ship's anchors and four buoys are used, one on starboard forward of the bow and three buoys aft. Two ship's lines run to each buoy. The terminal is situated in the inner harbour of Rio de Janeiro and close to the quays. Three 8 in. hoses from an underwater pipe-line are connected to the ship's manifold. Maximum back pressure is 100 p.s.i., at the ship's rail. Discharge rate is about 1,000 t.p.h. Care is to be taken that the vessel shall not exceed a draft of 40 ft. during discharge. Bunkering is permitted when discharging cargo.

Riberia Terminal – depth alongside 30 ft.
Shell Terminal – " " 31 ft.
Texaco Terminal – " " 29 ft.

CARGO INFORMATION:

	Pipe-lines				Hoses/Arms		
Grades	No.	Dia. in.	Volume cu.m.	cu.m. per hour	No.	Dia. in.	P.S.I.
South Dock-Island (main)							
		For Loading and Discharging					
Diesel oil	1	12	90	1,200	1	8	250
Gasoline	1	12	90	900	1	8	250
Fuel oil (HPP, LPP)	1	12	90	800	2	8 & 12	250
Water	1	6	22	50	1	2.5	150
LPP crude oil	1	32	8,300	3,800	3	8/12/12	250
	1	26	5,994	2,300	3	8/12/12	250
HPP crude oil	1	26	5,994	2,300	3	8/12/12	250
Ballast/slop	1	12	90		1	8	250
North Dock-Island (secondary)							
		For Loading and Discharging					
Gasoline	1	10	465	1,200	2	8	250
	1	12	98	900	2	8	250
Diesel oil (Kerosene)	2	12	98	1,200	2	8	250
Water	1	4	12	50	1	2.5	—
Fuel oil (HPP, LPP)	1	14	135	900	2 (PS-1) 2 (PS-2)	12 8/12	250
		For Discharge					
Ballast crude oil	1	12	98	800	2 (PS-1) 2 (PS-2)	12 8/12	250
Butadiene Dock-Island							
		For Loading/Discharge					
LPG/Butadiene	1	8	623	200	2	4	250
Ilha Redonda Pier (West Head Berth) IR							
		For Loading					
LPG liquid	1	12	5.6	800	1 2	10(L)	430
LPG vapour	1	8	3.2	—	1 6	6(V)	250
		For Discharge					
LPG liquid	1	12	5.6	800	1 3	10(L)	600
LPG vapour	1	8	3.2	—	1 2	6(V)	—

LOADING: Before any loading commences, the Officer on watch may be invited to be present at the sample taking from the shore pipe-line that will be used for the oil handling. Likewise, after the first 150 cu.m. have been loaded (about 20 minutes) a new sample will be taken. From such a sample the ship will receive 2 sealed and tagged bottles containing the cargo.

At the beginning of diesel and kerosene loadings the vessel should concentrate the product in a single tank. As soon as the innage reaches 0.70 m. high, then other tank valves may be switched. From that part of the cargo a sample is obtained and tested in the laboratory, if the results stand between acceptable stated specification limits, loading will go on without any drawbacks. During the loading of this first tank, the ship is requested to flush her pipes with the same grade being handled.

Discharge of high pour point (HPP) oils will be regarded separately (as far as minimum pumping temperatures are concerned) in conformity with oil and ship characteristics.

A time sheet form will be given to the ship's Master upon arrival. The form is regarded as a receipt for information on operational procedures, oil to be loaded, etc.

Hose Connection: Pier crews are on duty continuously to handle oil hoses/arms and mooring lines. Mooring lines on board vessel will not be handled by Petrobras personnel.

MEDICAL: Medical treatment and/or hospitalisation, if required, is provided in local clinics. Dentists are also available. For emergency cases (serious illness or injury) Torgua first aid may be requested by the Master, Internal Tel. No. 39.

A nominal amount is charged for any supplies or medicines furnished by the terminal.

FRESH WATER: Facilities may be arranged to supply water in North and South platforms only. Water supplying barges are also available.

FUEL: The Terminal is equipped with blending valves and can deliver any type of fuel – as Bunker C fuel oil, marine gas oil, marine diesel oil and intermediates of any grade – concurrently with tankers working cargo, at international prices.

The supply rates are about 300 tonnes/h. for Bunker C, 180 tonnes/h. for MGO and 450 tonnes/h. for intermediates.

Orders for bunkers should be placed, a minimum of 48 hrs. in advance, to: Marine Fuel Division, Commercial Department. Telegraphic Address: Petrobrasecope. Telex number: 031422 or 031423. Rio de Janeiro – Brazil.

Lubricating Oil: Marine lubricant orders should be placed a minimum of 15 days in advance and subject to confirmation, to: Petrobras S.A., Lubricants Management, Praca 22 de Abril, No. 36-40 Andar. Tel: 242-9381, 242-4901. Cables: Petroedipe. Telex: 031422, 031423 and 031424 Rio de Janeiro, Brazil.

BALLAST: All ballast should be pumped out to the terminal slop tanks. Under no circumstances should it be pumped into the sea even if the ballast is said to be clean. As soon as the ship is moored, the Terminal Representative must be told of the quantity of ballast on board and the estimated time to pump it out. Right after discharging a sludge ballast of high pour point (HPP) oil, tankers are asked to flush the line with water from the main suction inlets. The Terminal Representative must be notified 30 minutes before the ship will be out of ballast.

There are two sludge tanks with a total capacity of about 17,000 cu.m. The terminal is particularly interested in having vessels complete the deballasting operation promptly after berthing in order to minimise time at berth. Simultaneous loading and deballasting is encouraged on properly equipped vessels.

REPAIRS: Repairs of all kinds can be effected in Rio de Janeiro. There are floating cranes with a capacity of 100 tons. Divers service may be obtained.

DRY DOCKS: Dry Docks to hold ships up to 33,000 d.w.t. are available.

GANGWAY/DECK WATCHMEN: Port watchmen are compulsory on all vessels coming from overseas throughout the vessel's stay in port.

SURVEYORS: Lloyd's Register of Shipping, American Bureau of Shipping and Bureau Veritas have representatives in Rio de Janeiro. Advance notice should be given in order to arrange for an appointment through Fronape or ship's Agent.

Cargo Inspectors: Chas. Martin & Co., Rua da Lapa, 200 – conj. 906, 20.000 – Rio de Janeiro – GB – ZC-00. Tel: 242-4219, 245-5636 and 225-3597.

E. W. Saybolt & Co., Rua Bras Cubas, 3 11.100 – Santos – SP. Tel: 4-6638.

SGS do Brasil S.A., Av. Pres. Vargas 446, 13° Andar, 20.071 – Rio de Janeiro – RJ. Tel: 223-1252. Telex: (021) 23.588.

TIME: The 30°W. (GMT minus 2 hours) is adopted for the oceanic islands including Fernando de Noronha. The 45°W. (GMT minus 3 hours) is adopted for all coastal states (for Estado do Para only the Eastward part of a line starting from the mouth of the Rio Jari through Rio Amazonas until the mouth of Rio Xiangu and through this river until the borderline of Estado de Mato Grosso).

SERVICES: Compass adjustment or radio direction finder calibration can be effected by competent hydrographers and Extra-Masters. Contact Agents or Pilot's station.

SHORE LEAVE: Ship's Crew is not permitted ashore for any purpose whatsoever until Pratique has been granted. Luggage and packages are subject to Customs Official and/or Terminal Watcher's inspection. As a rule shore leave is permitted with the above stated restrictions. Vessels are not permitted to sail unless all crew members are aboard. In case of Seaman left ashore for any reason whatsoever all expenses are for ship's account.

GENERAL:

Turnround: To promote the economical operation of their vessel, Masters are requested to co-operate with Terminal Representatives in minimising their in-port time. Vessels requiring excessive time to complete operations will be given Letters of Defficiency (Protest).

Gangway: All vessels using the port of Rio de Janeiro must provide a safe gangway. The use of rung ladders (sea ladders) is contrary to Port Regulations and Port Authorities will not board except by means of a safe gangway or accommodation ladder. A lifebuoy with 27 m. (15 fathoms) of rope must be conveniently placed in the vicinity gangway for use in emergency. It will be the responsibility of ship to provide and maintain this equipment.

At night, the gangway must be adequately lighted. In addition, a boat rope should be led along the side, from well forward. In the near future a special safe gangway will be provided in the South and North Dock-Islands.

Repairs: Repair and maintenance services for radar, radio, gyro compass, echo-sounder, etc., are available. The repair man should be contacted through ship's Agent.

Stores: Provisions and stores are available. Requisitions should be conducted through the Agents. Ship chandlers are normally permitted to visit ships when specifically instructed by Agent. Bonded stores not available.

Launches: Launch service for the transportation of personnel ashore must be arranged through ship's Agents.

Laundry: Laundry service is available throughout each working day. Such service should be requested in the vessel's ETA message to Agents.

Photographing: The taking of photographs within the boundary of the terminal premises is prohibited.

Ratguards: Ratguards must be fitted to all mooring lines.

Sea Pollution: Brazilian law is very strict in regard to the pollution of harbour and coastal waters. Vessels should not discharge dirty ballast, ashes, refuse, etc., into the water. Heavy fines are imposed for violations. All overboard discharge valves from cargo tanks and bilges are to be conducted with the greatest care and vigilance in order that errors or delays in handling cargo valves may not result in overflows. All deck scuppers should be plugged to avoid harbour contamination should an oil spill occur.

Similarly, any hull leakages will be subject to equal restrictions. To offenders, fines will be charged (besides resulting delay) according to ship's tonnage, i.e. 2% of the largest country's minimum wage per each ship's (gross) ton.

Emergency Towing Wires: Two towing wire ropes (fore and aft) should be hung overboard to the water's edge in such way that tugs can easily make fast if an emergency situation arises.

Shore Leave: Shore leave is normally permitted. Baggage and packages are subject to examination upon entering and leaving the Terminal property and vessels, either by Petrobras watchers or by Custom's Officers.

Cleaning: Several contractors in the area provide labour for tank cleaning and mopping. Masters having need of this service should submit their requirements to ship's Agent who will contact and request a contractor to go on board to discuss details and estimate cost of work to be effected.

It must be pointed out that the Master of the vessel is solely responsible for the fitness of the ship's tanks for loading his next cargo, and will therefore be held liable for any contaminations of the cargo after loading, due to inadequate tank cleaning. Therefore it is up to him to decide the degree of tank cleaning necessary. He may, of course, seek advice from petroleum inspectors in this respect, whenever there is any doubt.

Compass Adjustment & RDF Calibration: Compass adjustment or radio direction finder calibration can be effected by competent hydrographers and extra-masters. Contacts with Agents or through the Pilot Station.

Charts: Brazilian No. 1501, 1511 and 1512. U.S. No. 24161 and 24162; British Admiralty No. 541.

Customs Watches: Sometimes while vessel is in port, Brazilian Customs Officials are assigned on board to ensure compliance with Customs Regulations. Meals must be supplied to these Officials during regular meal hours.

Important Telephone Numbers (PABX):

Terminal's Executive Assistant	10*
Operation Manager	60*
Operation Supervisor	68
Marine Section	50*
Safety Section	40*
Medical Section	39

*to be used in working hours only.

DEVELOPMENTS: A new berth is being built on Pombeya Island and dredged to 12 m. This is intended to relieve Ilha de Braes Port.

AUTHORITY: Petroleo Brasileiro S.A. – Petrobras, Avenida Republica do Chile, 65 – 12 Andar, Rio de Janeiro, CEP 20.035, Brazil. *Contact:* Divisao de Operacoes (Operations Division), same address as above, 12th floor.

RIO GRANDE: 32.03 S. 52.05 W. (See Plan)

DOCUMENTS: See "General" before first port.

Shipmaster's Report: 1980.

Also required: 2 Arms and Ammunition Lists, 1 Narcotics List, 1 List of Loading Ports of the Last Voyage with dates of arrival and departure.

PILOTAGE: Compulsory for all vessels entering the Bar or requiring any shifting in the port area. Also compulsory for foreign fishing boats. The Pilot's boarding area outside the Bar is the circular area with one mile radius which centre is the Buoy No. 1 of the Approach Channel.

Requests for a Pilot to be made by Agent, normally 4 hours in advance. Vessels can contact Pilots by VHF Channel 16.

The Pilot's boat is easily identified as it is painted red and is well distinguished from the various boats used in the port.

Priority to enter the Bar: Priority to enter the Bar is established by the anchoring time or arrival time at the outer anchorage or the Pilot's boarding area and vessels should, when anchoring, inform the Port Captaincy, by the 500 kHz. frequency of the coastal station EMBRATEL "PPJ", the name of the vessel, port of registry, port of origin and date-hour of arrival.

When berth is not available and all the inner anchorage areas are occupied, vessels arriving at the Port of Rio Grande should stay outside the Bar.

Pilots: Associacao de Praticagem de Barra Estado R.S., Rua Carlos Gomes No. 742. Tel: (0536) 2-5615.

ANCHORAGE: The official anchorage for vessels arriving at Rio Grande or that have to wait outside the Bar is the circular area within one mile radius, of centre Lat. 32° 12′ S., Long. 52° 02′ W.

In order to increase the safety to navigation on the inner part of the channel, the Port of Rio Grande is divided into six areas as follows:

PERMITTED ANCHORAGE AREAS:

Area Alfa: Available for anchoring of up to maximum four vessels of 200 m. LOA, outside the channel. Vessels over 200 m. LOA have to wait outside the Bar to await berth. In special conditions the Harbour Master may grant permission for those vessels to anchor at that area, to load or discharge, using one floating elevator and one barge.

The area *ALFA* is limited by the following points:

A1 – Lat.: 32° 10′ 00″ S.
– Long.: 52° 05′ 27″ W.
A2 – Lat.: 32° 10′ 00″ S.
– Long.: 52° 05′ 03″ W.
A3 – Lat.: 32° 08′ 00″ S.
– Long.: 52° 05′ 48″ W.
A4 – Lat.: 32° 08′ 00″ S.
– Long.: 52° 06′ 06″ W.
A5 – Lat.: 32° 08′ 24″ S.
– Long.: 52° 06′ 06″ W.

Area Charlie: Available for the anchoring of a maximum of two vessels of up to 180 m. LOA, to load or discharge, using one non-self-propelled floating elevator, or two floating elevators of which one has to be necessarily self-propelled.

The area *CHARLIE* is limited by the following points:

C1 – Lat.: 32° 05′ 10″ S.
– Long.: 52° 05′ 30″ W.
C2 – Lat.: 32° 05′ 00″ S.
– Long.: 52° 05′ 48″ W.
C3 – Lat.: 32° 05′ 18″ S.
– Long.: 52° 05′ 33″ W.
C4 – Lat.: 32° 05′ 18″ S.
– Long.: 52° 05′ 50″ W.
C5 – Lat.: 32° 06′ 00″ S.
– Long.: 52° 06′ 06″ W.
C6 – Lat.: 32° 06′ 00″ S.
– Long.: 52° 05′ 45″ W.

Area Echo: Available for the anchoring of a maximum of 5 (five) liner vessels of up to 170 m. LOA.

The area *ECHO* is limited by the following points:

E1 – Lat.: 32° 04′ 37″ S.
– Long.: 52° 05′ 25″ W.
E2 – Lat.: 32° 04′ 51″ S.
– Long.: 52° 05′ 03″ W.
E3 – Lat.: 32° 04′ 15″ S.
– Long.: 52° 04′ 07″ W.
E4 – Lat.: 32° 04′ 00″ S.
– Long.: 52° 04′ 37″ W.

Area Golf: Available for the anchoring of vessels proceeding or coming from the Ports of Porto Alegre and Pelotas, inland vessels and vessels loading or discharging, using one non-self-propelled floating elevator, or two floating elevators of which one has to be necessarily self-propelled.

The area *GOLF* is limited by the following points:

G1 – Lat.: 32° 03′ 27″ S.
– Long.: 52° 02′ 30″ W.
G2 – Lat.: 32° 03′ 36″ S.
– Long.: 52° 03′ 13″ W.
G3 – Lat.: 32° 02′ 21″ S.
– Long.: 52° 02′ 24″ W.
G4 – Lat.: 32° 01′ 51″ S.
– Long.: 52° 02′ 24″ W.
G5 – Lat.: 32° 00′ 48″ S.
– Long.: 52° 02′ 40″ W.
G6 – Lat.: 32° 00′ 48″ S.
– Long.: 52° 03′ 06″ W.
G7 – Lat.: 32° 02′ 32″ S.
– Long.: 52° 02′ 52″ W.
G8 – Lat.: 32° 02′ 45″ S.
– Long.: 52° 02′ 57″ W.

PROHIBITED ANCHORAGE AREAS:

There are three areas where vessels cannot anchor, two located in front of the Terminals of the Super Port and used for manoeuvring of the vessels berthing or unberthing on those Terminals, and the third located on the fork of the main channel of approach to the New Port and channel of approach to Pelotas and Porto Alegre.

Area Bravo: Limited by the following points:

B1 – Lat.: 32° 08′ 00″ S.
– Long.: 52° 06′ 06″ W.
B2 – Lat.: 32° 08′ 00″ S.
– Long.: 52° 05′ 45″ W.
B3 – Lat.: 32° 06′ 00″ S.
– Long.: 52° 06′ 06″ W.
B4 – Lat.: 32° 06′ 00″ S.
– Long.: 52° 05′ 45″ W.

Area Delta: Limited by the following points:

D1 – Lat.: 32° 05′ 00″ S.
– Long.: 52° 05′ 46″ W.
D2 – Lat.: 32° 05′ 10″ S.
– Long.: 52° 05′ 30″ W.
D3 – Lat.: 32° 04′ 51″ S.
– Long.: 52° 05′ 03″ W.
D4 – Lat.: 32° 04′ 37″ S.
– Long.: 52° 05′ 25″ W.

Area Foxtrot: Limited by the following points:

F1 – Lat.: 32° 04′ 00″ S.
– Long.: 52° 04′ 30″ W.
F2 – Lat.: 32° 04′ 15″ S.
– Long.: 52° 04′ 00″ W.
F3 – Lat.: 32° 03′ 34″ S.
– Long.: 52° 03′ 27″ W.
F4 – Lat.: 32° 03′ 32″ S.
– Long.: 52° 03′ 35″ W.
F5 – Lat.: 32° 03′ 32″ S.
– Long.: 52° 04′ 30″ W.

RESTRICTIONS: According to the Brazilian legislation it is prohibited to spill oil or throw overboard any refuse on to the Port waters. The vessels that wish to de-ballast of throw overboard residues resulting from the washing or sweeping of holds should do so outside the Bar, in the circular area of 10 miles radius, with centre at the point 32° 00′ S. and 49° 00′ W., maintaining a course of 090° and speed of 10 knots. The Port Captaincy will grant permission to vessels that need to leave the Port and cross the Bar to do these operations.

Vessels with draft up to 29 ft. handled day and night. Vessels over 29 ft. in daylight only.

No mooring/unmooring after 1900 hrs. on Sunday.

MAX. SIZE: The deepest allowable draft in the approach channel to the Port is 40 ft. up to Portobras Wheat and Soyabean Terminal (TTS); from there inwards there is a variable and progressive reduction to the depth along the remaining part of the channel, ending with a depth of 10 m. alongside the New Port.

Bar Entrance: Max. draft 40 ft. (36 ft. 06 in. in 1984 due to heavy silting).

HEALTH:

(a) Vessels arriving from a foreign port of call must receive a visit from Port Health Authority. Each passenger (whether to land or in-transit) and crew members must be in possession of valid international vaccination certificates. Also see "General" before the first port.

(b) Maritime Health Declaration has to be made out and handed to the doctor at the time of visit. When all papers have been examined and found in order, the doctor will authorise lowering of the yellow flag and hand over Free Pratique.

(c) In case of death, suspected disease, serious accident, etc., on board, before vessel arrives in port, Master should radio Agent giving full particulars so that necessary steps may be taken with Health/Police Authorities.

RADIO: The Port of Rio Grande has a coastal station of the EMBRATEL network, "Juncao Radio", operating on the international call sign "PPJ", on a wavelength of 600 m. (500 kHz). There is telephone communication between radio station and shipping offices, so that, normally, messages are relayed without any appreciable delay. According to government regulations, EMBRATEL is to monitor/control all maritime traffic through its coastal stations, therefore only the tugs and launches used in the Port traffic are allowed to have VHF sets for manoeuvring, therefore all VHF traffic between Agent/ships is channelled through "PPJ" as Agents are not allowed to have their own VHF sets.

TUGS: The Port of Rio Grande has 9 tugs (500 h.p. – 2,100 h.p.) used in the normal port operations and in refloating vessels. In order to discipline the requisition and employment, the tugs are grouped in accordance with their power: Small, Medium and Large.

The tugs are normally requested by the Agents and placed at the disposal of the Pilot, who should use the tugs in accordance with the size and draft of the vessel, as follows:

1. For berthing/unberthing manoeuvres (vessels in d.w.t.):

up to 2,500	– optional
from 2,501 to 5,000	– 1 small tugboat
from 5,001 to 10,000	– 1 small and 1 medium
from 10,001 to 20,000	– 1 medium and 1 large
more than 20,000	– 2 large tugboats

2. To turn vessels or to come in/go out stern first (vessels in d.w.t.):

up to 2,500	– 2 small tugboats
from 2,501 to 5,000	– 3 tugboats (1 medium and 2 small)
from 5,001 to 10,000	– 3 tugboats (1 large and 2 small)

BERTHING: *Old Port:* Used by fishing boats and tugs.

New Port: Has 1,890 m. of continuous quay with 10 m. depth. Has three rows of sheds for general cargo, plus a series of terminals along its length, mechanically equipped to facilitate loading and unloading operations.

Container Terminal: Max. draft 37 ft. – 40 ft. (depth 46 ft.). Length of berth 250 m. and 50 m. Terminal equipped with 2×30 tons cranes, 3×37 tons top loaders, 3×15 tons frontal top loaders, 6 tractors and 15 lorries. Open storage area of 28,000 sq.m. which can accommodate 1,800 TEUs.

General cargo vessels with draft over 29 ft. may use the terminal if container vessel not operating, but will have to vacate berth and return later if container vessel arrives.

BULK HANDLING FACILITIES: *Cesa Silo:* Terminal used for storage, loading and unloading of grain in bulk. Storage capacity of 50,000 tons. Equipped with two loading/unloading towers of the pneumatic suction type with loading rate of 300 t.p.h. (beans) and 150 t.p.h. (pellets) and a discharging rate of 150 t.p.h. (maize or wheat). Travel of conveyor 150 m. Air draft 20.0 m. Max. draft 29 ft.

Companhia Riograndense de Adubos: This terminal handles raw material used in the manufacturing of fertiliser. The discharging operation is processed through grids with rate of 2,500 to 3,000 tons per day. The discharged cargo is transported by tip-up trucks to the plant, that has a storage capacity of 30,000 tons. Max. draft 29 ft.

Samrig Terminal: Located on the fourth line of port warehouses. It is used for storage and loading of soyabean meal. It has a storage capacity of 35,000 tons and the loading is performed through a conveyor belt with a rate of 300 t.p.h. Travel of conveyor 170 m. Air draft 11.4 m. Max. draft 29 ft.

DNPVN Terminal: It has a receiving grid used both for trucks and railroad wagons. Storage capacity of 56,000 tons (beans) or 39,000 tons (meal). It is mainly used for storage and loading of soyabeans, however, it can also be used for storage and loading of soyabean meal. Loading is done through a conveyor belt, 800 t.p.h. (beans) or 400 t.p.h. (meal). Travel of belt 215 m. Air draft 19.0 m. Max. draft 29 ft.

Acos Finos Piratini: Terminal used for storage, loading and discharging of iron ore via conveyor belts. The discharging of vessels is performed at a rate of 600 – 800 t.p.h. and the loading of barges at a rate of 250 t.p.h. Storage capacity of 20,000 tons.

Fertilizantes do Sul S/A-Fertisul: Receives raw material (liquid and solid) used for manufacture of fertilisers. To receive solid fertiliser the conveyor belt of Acos Finos Piratini's installation is used, and, for liquid, there is a pipe-line running from Fertisul's tanks to the New Port's Southernmost part. This pipe-line is used for phosphoric and sulphuric acid, while ammonia is received through a pipe-line running from the Bunker Pier to Fertisul's special ammonia tank, located in the Super Port area.

Discharging rate (approx.) as follows:

Ammonia	400 t.p.h.
Phosphoric acid	1,000 t.p.h.
Sulphuric acid	600 t.p.h.
Solids	400 t.p.h.

Vegoil Terminal: Used for the receiving of, storage and loading of crude soyabean oil. Three tanks with storage capacity of 14,000 tons total. The oil is normally received from trucks or barges. Barges have a discharging rate of about 150/250 t.p.h. The loading is performed via a pipe-line running from the tanks to the New Port (Bomba Geral area) with a loading rate of 300 t.p.h. Max. draft 29 ft.

Bianchini Terminal: 1 warehouse with storage capacity of 40,000 tons. Loading rate of 400 t.p.h. Uses conveyor belt system. Travel of conveyor 140 m. Air draft 13.4 m. Max. draft 29 ft.

AGEF Grain Terminal: Storage of soyabean and soyabean meal. Belongs to the Federal Railroad Administration and is linked to the DNPVN Terminal loading installations. Storage capacity of 24,000 tons (2 sheds). Max. draft 29 ft.

Meat Reefer Warehouse: Has a total storage capacity of 8,200 tons.

Barge Terminal: Basically it is an installation linked to Bianchini, SAMRIG, DNPVN and AGEF Terminals, used for discharging of soyabean meal/soyabeans from barges. It uses cranes with grabs to discharge the barges. The cargo is transported by a conveyor belt to the Terminals.

The New Port has along its extension several cranes varying from 3 tons to 12 tons, used for operations with general cargo and containers.

Super Port: Port complex located at the 4th "Secao da Barra" on the West margin of the approach channel, with various terminals equipped with loading/discharging equipment conveniently suitable for the handling of bulk cargoes.

Luchsinger Madorin Fertiliser Terminal: Located South of the bunker pier, has a T-shaped pier, 180 m. in length and max. draft of 36 ft. It has facilities for discharging sulphuric acid, phosphoric acid, liquid anhydrous ammonia and two conveyor belts for discharging of raw material used in the manufacturing of fertiliser. The storage capacity of solid fertiliser is of 100,000 tons. On the inside part of the pier there are loading facilities for barges with a loading rate of 300 t.p.h.

Discharging rates are as follows:

Liquid ammonia	544 t.p.h.
Sulphuric acid	500 t.p.h.
Phosphoric acid	1,200 t.p.h.
Solid fertiliser	500 t.p.h.

Portobras Wheat & Soyabean Terminal: It is located South of Luchsinger Terminal with a solid pier 413 m. in length and draft of 37 ft., allowing for the berthing of vessels up to 80,000 d.w.t. Loading rate of about 1,200 t.p.h. (beans) and 800 t.p.h. (meal) and storage capacity of 400,000 tons. Can receive cargo simultaneously from trucks and railroad wagons, at a rate of 250 – 500 t.p.h. It is the biggest Grain Terminal in Latin America.

Cotrijui Grain Terminal: Located South of the new Portobras' Wheat & Soyabean Terminal, it has a "T"-shaped pier of 265 m. length and max. draft of 37 ft. It can receive vessels up to 60,000 d.w.t. It has 8 sheds of 25,000 tons capacity each and two tanks for storage of soyabean oil with capacity of 5,000 tons each. 8 tubes with air draft 11.5 m. and 2 conveyor belts with air draft 15.0 m. Loading rate as follows:

Soyabean	1,000 t.p.h.
Wheat	1,000 t.p.h.
Soyabean meal	400 t.p.h.
Soyabean oil	400 t.p.h.

Transhipment Dolphins: Located South of the Cotrijui Grain Terminal is used for transhipment of vessels over 200 m. LOA. Max. draft 37 ft.

Meat Terminal: Located South of the Transhipment Dolphins, has a solid quay of 300 m. in length and draft of 37 ft. It has a reefer warehouse with 4 cold chambers with a total storage capacity of 10,000 tons. The pier has 2 gantry cranes for the loading/unloading of containers.

EQUIPMENT:

32 Portal cranes on rails, capacity 3.2 tons – 40 tons.
2 Jib cranes, capacity 10 tons each.
2 Portainers, capacity 30 tons each.
1 Floating crane, capacity 100 tons.
70 Forklifts, capacity 2.5 tons – 15 tons.
4 Forklifts for containers, 3×20 tons and 1×37 tons capacity.
2 Floating elevators for transhipping, capacity 300 t.p.h. each.
1 Mobile crane, capacity 100 tons.
6 Tractors.
10 Trucks.
20 Trailers, capacity 10 tons – 50 tons.
8 Floating elevators with rates of 70 t.p.h. – 200 t.p.h.
Self-propelled barges with capacity 1,500 tons – 2,000 tons.

TANKERS: *Bunker Pier:* Located approximately one mile North from the place called "Ponta da Mangueira"; it is a pier 228 m. in length and draft alongside of 33 ft. Primarily used for the receiving of crude oil and for the loading of bunker barges. There also are located the connections of the Fertisul Ammonia Terminal, Manah and CRA Phosphoric Acid Terminals.

Copesul Terminal: Located North of the Petroleum Pier. Max. LOA 170 m. Max. draft 29 ft. Max. d.w.t. 32,000 tons. Storage capacity 32,000 tonnes. Loading rate for propylene 95 cu.m.p.h. – 190 cu.m.p.h. Length of berth 44 m. Distance between dolphins 203 m.

STEVEDORES: *Working Hours:* Straight time, 0730-1130/1300-1700 (weekdays). During weekdays, labour for morning shift which commences at 0730 hrs., may be ordered up to 0715 hrs.; at 1245 hrs. extra gangs may, if necessary, be engaged for afternoon shift commencing at 1300 hrs. For night work, longshoremen (i.e. dock labourers distinct from stevedores) must be ordered before 1600 hrs.; stevedores, tally-clerks, etc., for night work may be engaged up to 1845 hrs. for shift that starts at 1900 hrs.

Sunday/holiday work must be ordered previous day, up to 1600 hrs.

MEDICAL: Two hospitals available which have adequate facilities to deal with a majority of cases.

DENSITY: New Port 1000; Anchorage and Super Port 1016.

FRESH WATER: Along the New Port quay there are 28 connections for fresh water that is delivered at a rate of about 30 t.p.h. – 60 t.p.h., or less, depending on the number of vessels being supplied. Also available at the Wheat and Soyabean Terminals and the Liquid Bulk Terminal. The terminals in the Super Port area lack those facilities apart from the Bunker Pier which has 6 connections with a rate of 20 t.p.h. For ships anchored at the Inner Roads fresh water can be supplied by barges owned by the Port Administration, with capacities of 250 tonnes and 400 tonnes at a rate of 80 tonnes per hour. The barges require the assistance of tugs to tow them.

FUEL: Can be supplied by truck (diesel), at the Bunker Pier (diesel and fuel) and ex-barges (diesel and fuel). Most commonly bunkers are supplied ex-barge. Suppliers are Petrobras, Shell, B.P., Exxon and Texaco. Stem has to be made previously abroad and price charged is the one in force on the day of delivery, 96 hours' notice recommended.

GANGWAY/DECK WATCHMEN: Compulsory for all sea-going vessels to have a port gangway watchman, normally requested by the ship's Agents, to the Watchman Syndicate. Apart from the gangway watchman, it is advisable to employ a crew member as deck watchman to look after the ship's safety.

OPENING/CLOSING HATCHES: Opening and closing of conventional hatches normally done by stevedores, without any extra cost, advisable, however, for steel hatches to be handled by crew.

CUSTOMS ALLOWANCES: Each crew member allowed one carton of cigarettes (or the equivalent in pipe tobacco) and one bottle of spirits, per week. Ships that remain in port over a week may request customs, through their Agent, to open bond for another weekly issue.

IDENTITY CARDS: Foreign crew members are not allowed to go ashore without presentation of identity card, on which there is a photograph of holder and personal details. These cards are provided by the Agent upon arrival. The identity card must be delivered on disembarkation to the Federal Police, who will return it to the crew member on re-embarkation.

CONSULS/VICE-CONSULS: Great Britain, Denmark, Germany F.R., Italy, Netherlands, Norway, Paraguay, Portugal, Spain and Uruguay.

REPAIRS: Two small repair shops equipped to carry out minor repairs. No dry docks. Radio, radar and gyro technicians available, but expensive.

SURVEYORS: G.L. and N.V.; Lloyd's and A.B.S. in Porto Alegre.

REPATRIATION: Seamen being repatriated have to proceed to Porto Alegre, by bus, where arrangements can be made for embarkation by air.

TIME: GMT minus 3 hours.

HOLIDAYS: *National:* 1st January*, 21st April, 1st May*, 7th September, 12th October, 25th December*.

Municipal: 2nd February, 29th June.

Movable Feasts: Carnival (Monday and Tuesday), Ash Wednesday and Passion Friday.

Commemorative: 28th August (Bank Holiday), 28th October (Civil Servants' Day); 30th October (Commercial Employer's Day) and 1st November (All Souls' Day).

*No labour available.

POLICE/AMBULANCE/FIRE: Police 2.1695; Hospitals 2.3802; Ambulance 2.3801; Fire 2.1778.

TELEPHONES: There are no facilities for placing telephones on board.

GENERAL: *Light and Power:* The supply to the New Port is done by the State Company of Electric Energy (CEEE) with 13. 8 kV, 60 Hz. voltage that is lowered by 6 sub-stations along the quay, from 600 to 1,000 kVA to 380 to 220 V. Along the quay, every 25 m. there is a power plug to connect the power to the port cranes with 300 A. Those plugs can also connect the power to the vessels along the quay.

Flags to be flown.

(a) Brazilian flag at the top of the foremast.

(b) Yellow flag (to be hoisted until the doctor's clearance is given). Vessels arriving from a Brazilian port, with no disembarking passengers, must *not* hoist yellow flag unless there is sickness on board requiring presence of the Health Authorities.

(c) Pilot flag.

(d) Customs flag (to be hoisted after the vessel is cleared by Customs and flown during the vessel's stay in port).

SHIPMASTER'S REPORT: 1980.

Flags: The Brazilian flag when flown as a courtesy ensign should at no time be allowed to get tangled.

Identification Cards: Necessary but no photograph required.

Repatriation: Transport to Porto Alegre is possible by air taxi.

Garbage: Authorities are very strict with regard to throwing garbage overboard.

SHIPMASTER'S REPORT: February, 1982.

Pilotage: There are anchorages for three vessels between a position some 3 cables South of No. 12 Light Buoy to the vicinity of No. 14 Light Buoy. Here vessels can be in ample depth but, owing to the narrow channel, a Pilot must be retained aboard for, despite the current being outward the effect of the wind is critical. Despite the channel depth, there is a restriction to 38 ft. max. draft due to the inability of the dredging to guarantee more over the bar.

Documentation: At least 10 Crew Lists are required but otherwise few formalities.

Radio: This is one of the most efficient along the coast and both H/F and VHF are handled with commendable speed while W/T is equally available.

Tugs: Depending upon weather and current conditions, at least one tug is required to turn a vessel at the anchorage to sail outwards.

Fresh Water: The barge that delivered up to 400 tonnes is now condemned hence the only facility is a maximum of 45 tonnes from a tug, an expensive facility.

Fuel: There are at least two bunkering barges, one a minor coaster, but the speed of delivery is low e.g. 100 t.p.h. The depth of water at the tanker berth is 33 ft., hence loaded vessels ex-Argentine ports must remain in the stream.

Remarks: The Agencies and Pilots appear to be well geared to the prospect of a steady use of the port for bunkering, water and stores, while the radio station helps in expediting all communications. Suggestions have been made for three dolphin type berths in place of the anchorages, use being made of the Eastern side of the channel.

SHIPMASTER'S REPORT: November 1982.

My vessel is 39,026 tonnes SDWT and was ordered to load a full cargo of Soya Bean Oil for discharge in Iran:

Contained in my voyage orders was the instruction to inform Agents and suppliers of ETA at daily intervals 20/15/10/5/3/2/1 (My departure port was Bandar Abbas and routing was via Cape Agulhas).

Documentation as per "Guide to Port Entry". A "Nil" statement of drugs (excepting medical), firearms and ammunition in three copies is required.

Courtesy flag from foremast at all times.

My vessel loaded part cargo in Porto Novo (General Pumping Berth). The draft alongside was quoted to me as 29 ft. by my Agent but he stipulated actual draft was about 27 ft. with soft mud. The soft mud I do not dispute but my own sounding with the hand leadline indicated 26 ft. 4 in. and I did not load beyond 26 ft.

Loading rate never exceeded 250–300 tonnes per hour. After loading to 26 ft. draft I shifted ship to a pontoon berth (un-named) in position Lat. 32° 07.22′ S., Long. 52° 06.15′ W. (Farol da Barra Lt.H. 084.8°×1.34 miles). At this berth I again checked depth of water by hand leadline and got around 14 m. which presented no difficulties; my Summer draft being 11 m.

Loading at this pontoon berth was carried out by barge which varied in size from 3,000 tonnes to 1,500 tonnes; apparently they load in Porto Alegre and average turnaround time is about 5 days thus I anticipate a further week here before completing cargo as barges are not plentiful. Loading rate approx. 200–300 tonnes max.

Passes complete with photographs are required by all ship's staff.

At this pontoon berth launches are available to take crew members ashore but they are expensive and I would advise Masters to abstain from being too generous.

SHIPMASTER'S REPORT: October 1983.

Anchorages: The anchor was dropped in the Outer Roads off Rio Grande do Sul. The holding ground proved to be poor and the ship dragged anchor in a force 4 wind with less than a 2 knot tide, though anchored in 12 m. with 4 shackles in the water, i.e.: 9 times the depth. The nature of the bottom was mud with some shell, though marked gravel on the chart. While entering port the Pilot advised that ships frequently drag there, even with 8 shackles out.

Berthing: From the anchorage to the No. 1 (sea) buoy was 2 miles thence 3 miles more to the berth. There was about 17.6 m. depth at Cotrijui, reducing to 14 m. in the dredged approach channel.

The ship berthed at dolphins, in the first instance, port side to, just below the silo at Cotrijui. The village of Macaceo is just to the West of the dolphins. One floating elevator was then employed to start loading from a series of barges, pending the ship's turn at the faster, silo berth.

The gross rate of loading from the floating elevator (there are several on the river; this one was owned by Corymar) was 77 t.p.h. At 0415 hrs. 13th October, having completed loading 5,000 tonnes from 3 barges, the ship awaited the availability of the silo berth. At 1720 hrs. 18th October we left the dolphins to allow the next ship to berth there before dark and, after anchoring just upstream from the silo while the previous ship completed paperwork, berthed at Cotrijui silo, port side to, at 2124 hrs. 18th October.

The berth and equipment are very worn and in a poor state of repair. It is hard to keep the ship alongside in the strong tides due to the configuration of the river bottom. A dilapidated shore gangway is used; there is nowhere to land a ship's gangway. There ought to be another bollard and fender amidships to square the ship on to the wharf, and place an after fore spring properly. However, the shore personnel were very helpful and co-operative. As the hatches finished they were actually trimmed, without having to be requested, by men equipped with shovels. The loading spouts, working 2 holds at a time, are heavy and less manoeuvrable than most silos. Therefore the cargo cannot be thrown sideways into the wings and ends of the hatches with any force, leading to a poorer stow. The loading rate was 372 t.p.h. Ships longer than 250 m. have to have a tug pushing onto the wharf while loading, rather like some of the Mississippi berths. Cargo was completed at 0845 hrs. 21st October, after which there was a relatively large amount of documentation to be done. The ship sailed at 1249 hrs.

There is a more modern complex called Portobras Wheat and Soyabean Terminal. Unfortunately, after only about 6 months in operation, there was a fire there and the Terminal no longer works.

Fresh Water: Fresh water can be obtained from some berths but not Cotrijui silo or at the dolphins. It comes by dumb barge, capacity 250 tonnes.

REPORT: August 1985.

Copesul Terminal: Copesul's Terminal at Rio Grande is partially ready to operate with a total of 6 chemical products planned.

Shore installations and jetty were inaugurated 11th August, 1985, by vessel 173 m. LOA, 25,000 d.w.t.

Vessel loaded 2,000 tonnes Toluene and 2,000 tonnes Benzene.

Jetty: 140 m. long, equipped with 2 mooring dolphins. Distance between dolphins 200 m.

Capacity – 1 vessel max. 31,000 d.w.t.

No air draft restrictions.

Draft 29 ft. brackish water (intention is to bring draft up to 30 ft. brackish water).

Vessels LOA – Harbour Master authorised berthing up to maximum 200 m. LOA, although this in reality is impracticable as distance between dolphins is 200 m. and there would be no lead on head/stern lines.

Shore installations have a storage capacity of 32,000 cu.m.

At present operating with following liquid products:

1. Xylene.
2. Toluene.
3. Propylene.
4. Methanol.
5. Benzene.
6. Ethyl-Benzene.

The jetty is connected with shore installations by 6×8 in. lines which are connected to 6 manifolds of 6 in. each.

There are 7 pumps one connected to each line which have a loading capacity of 350 cu.m.p.h. each.

Depending on vessels conditions, Copesul is able to load up to 5 products simultaneously.

The storage tanker 'Aristoteles' for Ethylene storage, is still docked at a shipyard in Porto Alegre, carrying out final surveys/repairs. It is expected ready at Rio Grande for the end of September, for the meantime Ethylene loading continues by transhipment at Inner Roads by m.t. 'Tacosul' (capacity for 450 tonnes) or from another ship.

According to Harbour Master, intention is to stop transhipment vessel to vessel at Inner Roads (Area Echo) (presently being used to carry out transhipments, two vessels at a time), however, it will be de-activated only after the 'Aristoteles' arrives Rio Grande for the loading of Ethylene. According to Copesul, they intend to ask Harbour Master to also keep 'Area Echo' option to carry out any eventual transhipment which may be necessary in the future in case of congestion at their shore terminal.

AUTHORITY: Administracao do Porto de Rio Grande, Av. Honorio Bicalho S/No., P.O.Box 198, 96.200 Rio Grande – RS – Brazil. *Tel:* (0532) 32-3366, 32-3396. *Telex:* (0532) 423 Aprg. *Contact:* Eng. Newton Garcia.

SALVADOR (Bahia): 13.01 S. 38.35 W. (See Plan)

LOCATION: Lat. 13° 00′ 37″ S., Long. 38° 35′ W.
PORT LIMITS: The Port is limited by the line East/West which passes through the Santo Antonio Lighthouse, bridging the frontier coast of the Island of Itaparica, and from there turning to enter the bay through the same line East/West which connects the Continent and that towards the coast Northwards as far as parallel 12° 50′ and then from there going Eastwards towards the Continent.
DOCUMENTS: (See "General" before first port.)

Agent also fills out the "Entrada & Saida Capitania do porto" to be signed by Master. The particulars for this document are:

Name of Master – name of ship – flag – code signal letters – tonnage: gross and net – horsepower – engines: twin or single – type of ship, etc. – port of registry – tons of cargo to discharge – owners – Agents in port – last port of call – previous ports of call – next port of call – number of crew – number of disembarking passengers – number of transit passengers – speed of vessel – also specifications of nature and quantity of cargo in transit.

Documents to be Supplied to the Ship Before Departure:

1 "Clearing pass" from the Port Captain
1 " " " " Federal Police
1 " " " " Post Office
1 " " " " Custom House
1 Custom House negative cargo declaration for each following Brazilian port of call.

The Port Doctor will require the following information: Class, name and flag of ship – net register tonnage – name of Master and ship's Doctor – number of officers and crew – name of Agent – all ports called at during voyage – number of days from first to previous ports of call – number of passengers disembarking and in transit – tons of cargo to be discharged – whether any sick persons or deaths occurring on board.

The Customs will require the following information: Name of vessel – nationality – gross and net tonnage – H.P. of engines – name of Master – number of officers and crew – owner's name – name of Agent – all ports called at during voyage – ports of destination – days of voyage from first to previous ports of call – tons of cargo to be discharged – particulars of passengers.

The Federal Police require the following information: Vessel's name – nationality – gross and net tonnage – name of Master – number of officers and crew – name of Agent – port of departure and all ports of call – number of days from first and last ports of call – number of passengers disembarking and in transit – specification of embarking and disembarking ports of each transit passenger.

Ships calling at Salvador are normally boarded by the authorities at any time, day or night, when required. If there is no special urgency, however, the visit is effected the following morning at 0630 hrs.

The Inspection Area of the Port Health Authorities, Federal Receipt and Maritime Police is defined by a radius of 1 mile around the point of co-ordinates Lat. 12° 58′ 07″ S., Long. 38° 32′ 18″ W., the area around the point of co-ordinates Lat. 12° 55′ 56″ S., Long. 38° 31′ 37″ W., indicated in chart 1102 of the NHD.

Vessels may only come alongside after clearance by the Federal Receipt, Port Health Authorities and Federal Police. The free anchorage coincides with the pilotage waiting area and permitted anchorage (anchorage of Monte Serrat).

PILOTAGE: Compulsory for all vessels entering Salvador and berthing/unberthing at general docks or proceeding to other marine terminals. The following areas are considered as pilotage zones for vessels bound for the port: Monte Serrat Anchorage, the S.W. Anchorage to the Panela Bank and waiting and disembarking point for Pilots, shown on NHD chart 1102.

Also considered as pilotage area is all the internal area of the Bay of Todos os Santos (All Saints) to the North of the parallel passing through Monte Serrat. The area of the port of Salvador, inside the breakwater, is considered to be a compulsory pilotage area for vessels over 4,500 d.w.t.

Also considered to be an area of compulsory pilotage is all the zone North of parallel 12° 55′ 05″ S., which passes through Monte Serrat, for vessels over 3,000 d.w.t., bound for the terminal ports and their access channels inside the Bay of Todos os Santos. Request for Pilot can be made through the ship's Agent, 2 hours in advance, specifying the time of entry of the vessel and from which point pilotage will be required.

The Salvador Pilots' Association has VHF-FM radio, at their office and on board the pilot launch, operating on Channels 16 and 11, listening out on Channel 16.

The address of the Pilots' Association is: Rua da Grecia No. 8, Tel: 242-2221, Edificio Serra da Raiz, 5th Floor, Room 510.

Vessels should use the signal "Hotel" to call up the Pilot at the pilot station (Chart 1102) and may use an audible signal for this purpose.

The Amaralina (ERA) Radio Station maintains coastal communication, and can also be used to call the Pilot by vessels bound for Salvador. Amaralina Radio Station communicates with the Pilots by telephone.

APPROACHES: The port has 2 access channels. The first, called the Inner Channel is on the city side with a minimum depth of 8 m.

The second, called the Outer Channel is on the side of Itaparica Island and its depth varies from 13 m. to 55 m.

Action of Tides: Tidal amplitude in the port of Salvador is 2.5 m. on average, during the tides at the full moon. The flood tide in the port of Salvador runs for 5 hours to the N.N.E. and the ebb for 7 hours to the S.S.W., with a speed of 1.5 knots. During Spring tides, these tides can reach 2 to 3 knots.

During ebb tides, it is suggested that the approach to the quay be made by the South Entrance, between the two breakwaters, so that there will be no need for a yaw action in the manoeuvring bay formed by the breakwaters. The ebb tide may cause the vessel to swing to the South, in the entrance between the breakwaters.

Manoeuvring Area: The area intended for the manoeuvring of vessels for mooring or unmooring has a length of 100 m. along the whole extension of the quay, with a draft of 27 ft. at any state of tide. In this area, and also in the access channel the anchorage of any vessel is expressly prohibited, except with the prior permission of the Port Captaincy.

ANCHORAGES: There are 3 anchorages for waiting and inspection, see Chart 1102 of the NHD.

South: To the South of Panela Bank, in position Lat. 12° 58′ 00″ S., Long. 38° 32′ 33″ W. for waiting for the Pilot.

North: In the vicinity of position Lat. 12° 56′ 01″ S., Long. 38° 31′ 06″ W. In the vicinity of position Lat. 12° 57′ 01″ S., Long. 38° 41′ 01″ W.

There is a special anchorage for LASH vessels and for the operation of loading and unloading barges. It is located on the alignment of the North Light of the North Breakwater and the Monte Serrat Lighthouse, at a distance of 0.8 miles from this lighthouse, as shown on Chart 1102 of the NHD, in note (1).

Inside the breakwater and to the South of Fort Sao Marcelo there is an exclusive anchorage for the mooring of LASH vessel barges.

PROHIBITED ANCHORAGE: Locations prohibited for anchorage and movement of foreign and national pleasure craft. Mooring and anchorage locations:

a) Bahia Yacht Club (Chart 1102)
   Lat. 12° 59′ 49″ S., Long. 38° 32′ 00″ W.
b) Aratu Yacht Club (Chart 1103)
   Lat. 12° 48′ 36″ S., Long. 38° 28′ 49″ W.
c) Area of the Bay of Itapagipe (Chart 1110).
d) Section included between the prohibited anchorage area and the LASH barge anchorage (Chart 1102), unless duly authorised by the CPBA.

Areas where anchorage and navigation are prohibited.

a) All the area in front of Inema beach (Chart 1104).
b) Almirante Alves Camara Terminal (Chart 1105).
c) Manoeuvring bay for the quay at the port of Salvador (Chart 1102), port of Aratu (Chart 1103), Terminal of USIBA (Chart 1103), Dow Chemicals (Chart 1103), (only navigation prohibited.)
d) D. Joao Oilfield – location designation in Caution B of Chart 1110.

RESTRICTIONS: There is sufficient depth of water in the Outer Anchorage to accommodate the largest vessels afloat with safety, and the anchorage can, in addition, take a considerable number of vessels at any one time. The average depth of water in the channel leading to the dock warehouses is 33 ft. (10 m.) except opposite Shed No. 2 where 28 ft. (8.50 m.) is the max. depth. The dock quays are sheltered by two breakwaters, one running parallel with the shore for just over 0.5 miles. Because of the shallow draft opposite No. 2 Shed, all vessels entering or leaving the port with more than 28 ft. normally enter the Northern Channel.

MAX. SIZE: *Limit of Size of Vessels Navigating in the Channels:*

Access to Temadre: Length 250 m., draft 12.8 m., beam 40 m.; Access to Dow Chemicals: Length 170 m., beam 25 m., draft 10.3 m.; Access to USIBA: Length 170 m., beam 25 m., draft 10 m.; Access to the port of Salvador: Length 180 m., beam 30 m., draft 10 m.

Also see "Berthing" and "Tankers" and Port of Aratu.

ARRIVAL INFORMATION: Required before vessel's arrival:

(a) Vessel – ETA; deepest draft.
(b) Cargo – Quantity of cargo to be discharged and specification of hatch list.
(c) Passengers – Number of passengers disembarking.
(d) Bunkers – Quantity required.
(e) Water – Quantity required.
(f) Labour – Quantity required.
(g) Any other information – Number of mailbags to be landed, etc.

Specimen of telegram to be sent from previous port:

1. Vessel's name.
2. ETA Salvador.
3. Draft.
4. Number of passengers disembarking.
5. Number of mail bags to be landed.
6. Quantity of bunkers required.
7. Quantity of water required.
8. Number of gangs required.
9. Any other information.

FLAGS: On entering the port the vessel should fly the following flags:

1. Brazilian flag on fore mast top.
2. Quarantine flag when Salvador is first Brazilian port of call, or when there is a passenger for Salvador from a foreign port.
3. Customs flag (white star on blue background) after the vessel has been visited.
4. Flag "B" if dangerous cargo on board.
5. Pilot flag.

PRIORITY: Passenger vessels and wheat vessels have priority over cargo ships and the so-called "navios mixtos", i.e. cargo ships with a limited passenger accommodation. Passengers vessels are those that carry 60 or more passengers; except when loading 1,000 tons or over in which case they loose their priority.

HEALTH: The Doctor only boards the vessel when Salvador is first Brazilian port of call or when there are passengers from abroad to disembark, in which case Master should advise Agent who will then take the necessary steps required by Port Health. A yellow flag should be flown if Port Health Doctor is required on board.

RADIO: Master should always endeavour to contact Agent through Radio Amaralina Coastal Station, call sign ERA, and Agent will contact Master the same way. Since this station has a limited range, the Agent at Salvador may be contacted via Rio Radio when North-bound, or Olinda Radio/Fortaleza Radio when South-bound.

TUGS: Always used for berthing and unberthing. At other marine terminals tugs are supplied from Salvador. For container and cargo vessels berthing at 10 m. quay, a tug is usually supplied to help vessel moor and unmoor. When coming alongside tug joins vessel inside port. 8 tugs available 120 h.p. – 1,688 h.p.

Rules for Using Tugs:

I) At Temadre and Usiba.

All berthing and unberthing of vessels with tonnage between 2,000 g.r.t. and 10,000 g.r.t. must be with the aid of 2 tugs. Vessels with gross tonnage between 10,000 and 50,000 g.r.t. must be assisted by 2 tugs of power above 1,000 h.p. Vessels over 50,000 g.r.t. must be assisted by 3 tugs of power greater than 1,000 h.p.

II) In the Port of Salvador and other marine terminals.

All manoeuvres of berthing and unberthing of vessels with gross tonnage between 2,000 and 10,000 g.r.t. must be assisted by 2 port tugs. All manoeuvres of vessels of gross tonnage above 10,000 g.r.t. must be aided by 3 port tugs. Vessels of tonnage less than 2,000 g.r.t., according to the Pilot's judgment, may use a port tug, in special situations.

In special situations, with winds from the East, according to the judgement of the Pilot, the use of tugs can be dispensed with for unberthing.

BERTHING: No restrictions, but if draft over 28 ft. berthing and unberthing take place from 1 hour before HW until 1 hour after HW. Anchor used for berthing. Container and cargo vessels at 10 m. quay may unberth at any time.

The Port of Salvador is protected by 1 breakwater (Northern Breakwater) and 1 mole (South Mole). There are two channels for vessels entering and leaving. On the wharf there are 9 warehouses and between some of the sheds sheltered storage spaces.

Heavy lifts are left on the wharf until taken delivery, or discharged directly to trucks.

There are 4 quays in the port:

	Length (m.)	Depth (m.)		Max. draft (ft.)
Coastal Vessel Quay	683	7 – 8	warehouse 5 & 6	23.5
Long Distance Quay	782	7 – 9	warehouse 7 & marine station	32.0
Connecting Quay	238	8 – 9		
10 Metre Quay	370	9 – 10		

All warehouses (excl. No. 9) are fitted with overhead internal cranes.

Explosives would be discharged into lighters at the proper anchorage for discharge of such cargo and taken to special deposits. Forewarning must be given for this cargo in order that arrangements may be made in advance.

One grain discharger × 150 t.p.h., and 2 wheeled suction plants × 60 t.p.h. each.

Grain silos – 20,500 tons (Salvador Mill), and 13,357 tons (Bahia Mill).

Industrial cold store of 2,300 cu.m. belonging to FRIUSA.

All other goods are loaded/discharged at the wharf.

Bulk Cargo Vessels: See "Aratu".

Containers: 1×30 ton crane for containers. 2×30 ton transtainers. 2×30 ton fork lifts. Roll-on/Roll-off facilities available. 22,000 sq.m. storage for containers and 10,000 sq.m. for containers ex-Roll-on/Roll-off.

Also see "Report" dated November 1982.

CRANES:

Jib Cranes:	1×30 tons (for containers)
	4×3 tons
	2×5 tons
	15×3.2 tons
	3×6.3 tons
	2×12.5 tons
Mobile Cranes:	1×13.5 tons
	1×75 tons
Floating Cranes:	1×100 tons

STEVEDORES: The Agents at Salvador act as stevedores.

The work at Salvador, especially loading, is considered amongst the best in Brazil, as a rule, sufficient gangs are available.

Masks, gloves are supplied by the stevedores. All other material such as slings, nets, etc., shall be supplied by the vessel.

The ordinary working hours are 0700 – 1100, 1300 – 1700 hrs., Monday to Friday inclusive. Saturday 0700 – 1100 hrs.

For overtime work notice must be given the previous day. As it would be difficult to obtain permission before each overtime period, a general permission covering ship's stay in port shall be obtained prior to arrival.

1100 – 1300 hrs. Special permission must be obtained from the Dock Company which is only given to passenger vessels, or for cargo vessels to finish the cargo, or under special circumstances.

1700 – 1900 hrs. Continuation period. Advice must be given to workmen at 1645 hrs.

1900 – 2300, 0000 – 0400 hrs. Considered as night work. Advice must be given to the Dock Company at 1645 hrs. and to the stevedores at 1700 hrs.

2300 – 2400 hrs. same as 1100 – 1300 period.

0400 – 0600 hrs. Continuation period. Advice must be given to workmen at 0345 hrs.

0600 – 0700 hrs. Second night continuation period. Can be worked under special circumstances to finish the cargo. Vessels discharging/loading bulk cargoes, or loading/discharging reefer cargo, are allowed to work round the clock.

To work on holidays, advice must be given to the Dock Co. before 1700 hrs. the previous working day. For Sunday work advice must be given before 1100 hrs. on Saturday. The same applies for stevedores/tally/coopers.

CARGO INFORMATION: *Inward Cargo:* When cargo is discharged from the vessel it is checked, weighed and weight noted by the shore tally-clerk (for account of the ship), by the Dock Company tally-clerk and by the Custom House. If there is a difference in weight, the ship is held responsible and has to pay double duty on same. Once the goods have been checked and weighed ship's responsibility ceases.

Goods are delivered to the consignees on presentation of the bill of lading to the Dock Warehouse.

Transhipment Cargo: Foreign cargo for transhipment at Salvador must be so declared on the manifest, and after it has been discharged the Agents have to obtain special Customs permission to tranship it to the port destination and also sign a guarantee that the goods are going to that port and that duty will be paid there. They will be held responsible for that duty until a declaration issued by the Custom House at the port of destination is received by them and handed over to the local Customs.

Transhipment charges vary considerably with the type of cargo and are very high compared with foreign freights.

Outward Cargo: Generally, cargo to be loaded is deposited in the dock shed prior to vessel's arrival.

Refrigerated Cargo: All reefer cargo is discharged directly to trucks, and vice versa.

Dangerous Cargo: Vessels with explosives and inflammables on board are not permitted to come alongside. All vessels carrying this kind of cargo must fly the "B" signal and remain at the proper anchorage. Advance notice must always be given of any vessel carrying explosives and inflammables. Under special circumstances it may be arranged for vessels to come alongside if they only have a minimum quantity of dangerous cargo on board, and the hatch in which it is stowed is not to be opened at Salvador.

When vessels are boarded by the Harbour Officials, the Master must hand to the Customs Officer and the Federal Police the Dangerous Cargo List.

Corpses as Cargo: Notice should be given to the Port Authorities of such cargo carried, if possible, before vessel's arrival.

Vegetable Oil in Bulk: Vegetable oil in bulk is loaded directly from lighters where the oil is deposited prior to vessel's arrival. Vessels are usually required to supply steam for pumping when they can.

Loading and Discharging Rate:

Average Daily Rates:

Breakbulk	500 tons
Iron Bars	1,400 tons
Dry bulk (with grabs)	1,000 tons
Containers	1,200 tons

Heavy Lifts: For heavy lifts a request shall be made to the Dock Co. to use the 100 ton capacity floating crane. Heavy lifts may also be discharged directly to the quay with the vessel's own gear when, due to a light draft (under 24 ft.), they can come directly alongside without the use of a pontoon. It is recommended that the Agent be consulted before booking any heavy lifts for Salvador as the heavy lift crane is sometimes out of working order.

Inflammables, Fuel and Diesel Oil, Etc., as Cargo: Bulk crude oil, diesel, fuel, inflammables, lubricants, etc., are discharged at the Madre de Deus Terminal, which belongs to the Government owned Petrobras.

Damaged Cargo: When cargo is discharged, damaged or pilfered, it is immediately checked and weighed by the Dock Co. and the Customs and separately stored.

The Insurance Co. makes a survey in the presence of the Dock Co. upon request of consignees.

Bulk wheat is discharged to two mills at Salvador, namely the "Moinho Salvador" and "Moinho da Bahia". Average discharging rates (23 hours work per day) are respectively 1,500 and 800 tons.

Handling of Mail: Timely notice should be given to the Agents in case there is mail to be landed, stating the number of bags.

As regards outgoing mail the Agents will be advised by the Post Office if there is any and issue the Post Office Pass. The bags shall be placed at the quayside, loading being for the account of the ship.

MEDICAL: When vessels arrive over week-ends or during holidays advisable that Master cable Agent giving advance notice of medical attention required if case is serious. For routine medical attention no previous advice required as ample medical and hospital facilities available.

TANKERS: All tankers loading/discharging inflammables, lubricants, etc., must do so at the Madre de Deus Terminal, which is privately owned by Petrobras, the Brazilian Government-run oil company.

The Madre de Deus Terminal is a T-fashioned quay situated within All Saint's Bay, 18 miles from Salvador. All vessels calling at Madre de Deus must be cleared at Salvador where Agent and authorities board the vessel before proceeding to Madre de Deus. This terminal is equipped only to handle tankers. Water, bunkers and deballasting facilities are available.

Max. drafts are 41 ft. for vessels loading and 37 ft. for discharging, and length 240 m.

Five berths are available, pipe-line is 12 in.

PP1. Max. size 65,000 d.w.t. Depth 13 m.
PP2. Max. size 53,000 d.w.t. Depth 13 m.
PP3. Max. size 16,000 d.w.t. Depth 13 m.

These 3 berths can load or discharge both Crudes, White oils and Products. They are all fitted with deballasting facilities.

PS1. Max. size 4,000 d.w.t. Depth 7.5 m.
PS2. Max. size 2,000 d.w.t. Depth 5 m.

Also see "Shipmaster's Report".

DENSITY: Salt water.

FRESH WATER: Advance information recommended. Rate 20 cu.m./h. If several vessels are in need of supply, pressure may not be enough to supply all at once. No water barges available in the port, and all vessels are replenished alongside.

FUEL: Diesel oil can be supplied alongside and at anchorage at Salvador, but fuel oil can only be supplied by Petrobras at the Madre de Deus Terminal, 18 miles up the bay.

Lubricants are supplied in drums. Also see "General" before first port.

GANGWAY/DECK WATCHMEN: All foreign vessels must employ a gangway watchman by law. Hold watchmen are optional, depending on request by Masters/Agents.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CUSTOMS ALLOWANCES: Customs officials will place cigarettes and "souvenirs" belonging to crew members under lock and seal. Excepting the Master, each crew member may keep in his possession only 1 carton of cigarettes and 1 bottle of spirits with seal broken. The Customs will periodically renew the seals for vessels staying in the port for a lengthy period thus enabling new issues to crew.

LIGHTERS: Soc. Alvarengagem de Ilheus are operating 4 lighters in the port with a combined capacity for about 670 tons.

CONSULS:

Austria
Belgium
Denmark
France
Germany F.R.
Great Britain
Italy
Netherlands
Nicaragua
Norway
Portugal
Spain
Sweden
Switzerland
Uruguay

REPAIRS: The Navy operates a dry dock at Aratu with the following capacity: 35,000 tons; length 230 m.; width 30 m.; depth 8.5 m. Various small vessels can be attended at the same time. There are a number of workshops in Bahia fitted for repairing vessels, but it is recommended that large repairs be effected at the Aratu dry dock. When time allows, repairs may be made whilst the vessel is alongside the wharf. There is no time-limit but, as a rule, a vessel is not supposed to remain idle at the wharf if the berth is needed for another vessel which has to load/discharge.

SURVEYORS: *Lloyd's Agent:* Expresso Mercantile Agencia Maritima Ltd., 340 Avenida Estados Unidos, Salvador. Tel: 242-7011.

Bureau Veritas: 3 Rua Visconde Rosario, Salvador. Tel: 243-8222.

American Bureau of Shipping: H. Taxman, 18 Avenida Estados Unidos. Tel. 242-0447.

REPATRIATION: Most crew changes are made via Rio de Janeiro but some are made via Recife and on direct flights Salvador/Lisbon.

AIRPORT: Dois de Julio Airport is 31 km. from centre of town (40 km. from the port). No direct flights to foreign countries but various daily connections available with Rio, S. Paulo, etc.

TIME: GMT minus 3 hours.

HOLIDAYS: *National:* 1st January; 21st April; 1st May; 7th September; 12th October; 15th November; 25th December.

Municipal: Movable: Good Friday; Corpus Christi. Fixed: 24th June (Saint John); 8th December (Our Lady of Conception).

Traditional: Movable: Carnival – Tuesday (Mardi Gras) and Ash Wednesday. Fixed: 2nd November (All Souls); 2nd July (Independence of Bahia).

POLICE/AMBULANCE/FIRE: Fire Tel: 193; Police Tel: 190.

TELEPHONES: Facilities available for placing telephones on board.

REGULATIONS: Rat-guards must be used at all times, as the Port Health make periodic inspections on the quay.

STORES: Ship chandler can supply meat, vegetables, tropical fruits, canned goods, etc., but no bonded stores for foreign goods available.

DEVELOPMENTS: A new gas terminal is in operation near the Tequimar Liquid Terminal at Aratu.

Bulk terminal under construction at Aratu.

SHIPMASTER'S REPORT: September 1981.

General: Salvador, capital of Bahia State is a large city combining the old with the modern. It is an important tourist resort for both Brazilian and overseas visitors.

The tanker terminal, owned and operated by 'Petrobras' at Madre De Deus Island, is some 14 miles N.N.W. of Salvador in Dos Santos Bay,.

The most unsettled weather occurs in March to May with heavy rain.

Approach: Salvador is easily picked up on radar at maximum range with its high rise buildings situated on an elevated point called Pt. De Sto Antonio.

Vivid flashing white lights from TV towers situated about 2 miles E.N.E. of Pta. De Sto Antonio can be seen long distances at night. BA. 540 and 546 refer to Salvador. For Madre De Deus the Brazilian chart 1105 is useful.

Although the entrance to Salvador Bay (Todos os Santos) has good depths strong currents are found on rising and falling tide setting N.N.E. and S.S.W. respectively.

Pilots: Pilots are embarked in the shelter of the Bay, 1 mile West of the Southern Breakwater. They use a small dark red launch. Pilots disembark in same position.

Pilotage time to Madre De Deus is about 1.25 hours.

VHF: Pilots: Call "Salvador Pilots" Channel 16, working 11, 13, 14. Range limited to about 6 miles South of Pt. Antonio.

Tugs: Channel 13.

Public Correspondence: 'Salvador Radio' Channel 16, working 24, 25, 26, 27 local and international (IDD) calls.

Arrival: Vessels proceeding to Madre De Deus Tanker Terminal will be required to anchor about 1.5 miles South of Pta. De Monte Serrat after embarking Pilot, for customs inspection, even if coming from another Brazilian port, generally takes about 1 hour.

If waiting for berth at Madre De Deus vessels anchor off Salvador.

Anchorage: South of Monte Serrat off Salvador in least depth of 13 m., plenty of sea room.

Madre De Deus Terminal: The large tanker terminal, operated by Petrobras, was completed 15 years ago to serve the refinery at Mateipe 4 miles to N.E. Maximum draft is 42 ft. (12.8 m.) and maximum size up to 85,000 d.w.t.

Least depth on approach to berth was found near Beacon No. 7. 2.5 miles S.E. of "P1" Berth of 11 m. Chart Datum. The terminal is set amongst wooded islands, the principal being Ilha dos Frades which has an inviting sandy beach. By sea to Salvador takes about 1.5 hours by launch. The road which branches inland to join the main Rio De Janeiro Highway is about 50 miles in length and journey time of 1.25 hours. Tidal streams off the berth are very strong with a 3 m. range at times. Rates of 4 knots are common. Vessels calling regularly at Madre De Deus will find the Brazilian charts useful, plus Brazilian Tide Tables which list the Terminal and adjacent areas.

Berthing: Vessels are swung about 3 cables S.W. of the berths and use offshore anchor when berthing (about 3 shackles in water). At "P1" Berth Starboard anchor is used which is to assist in both berthing and unberthing. Also at "P1" Berth forward moorings go to a dolphin ahead of the Berth. At "P2" and "P3" Berths there is an off-lying dolphin astern of the berths (to West). Two powerful mooring launches are used, one each end. We used on "P1" Berth 4 head/stern lines, 2 breast and 2 springs each end. The forward breast lines to have any use should be brought down the deck to a lead about third of ship's length from forward.

There are 2 large flat sprung fenders proud of Jetty face.

Tugs: 2×1,200 h.p. permanently stationed at Terminal, 2×1,000 h.p. tugs come from Salvador as required.

For large vessels 3 tugs are used, generally pushing or tied up alongside with ship's lines.

Berths: Total of 5 berths on 2 jetties for sizes up to 85,000 d.w.t. and 42 ft. draft with following characteristics.

Berth No.	*Draft* ft.	*Size* d.w.t.	*Side to*	*Berthing*	*Product*
P1	42	85,000	Port	6 hrs. either side HW	Crude, Products, Refrig LPG
P2	42	33,000	Either depends on tide	Any time	Crude, Products
P3	36	33,000	Starboard	On flood tide	Crude, Products
S1/S2	24	15,000	Below 120 m. length any side to over 120 m. "S1" starboard side to and "S2" port side to.	Any time	Products, Heated LPG

Density: Density at "P1" Berth 1025 at all states of tide.

Discharge: Refrigerated LPG only at "P1" Berth.

2 chicksans – 10 in. vapour, 12 in. liquid, 150 ASA, both of Brazilian manufacture, similar to Santos. These are not now used due to leaks and discharge is by flexible hose to manifold on jetty. Shore will supply hose although we used our own for part of distance as they were already rigged with lower discharge pipe from Santos. Plenty of reducers available. As the vessel is off the quay face for about 5 m. due to fenders, approx. 20 m. of hose are used.

No vapour return line at present.

Discharge to tanks situated about 1.5 miles inland, varies from 200 t.p.h to 400 t.p.h. with back pressure around 6 Bar. Communication with shore is poor with operator on quay speaking no English.

3 refrigerated holding tanks of 1×10,000, 2×5,000 tonnes nominal capacity plus 4×3,000 pressure spheres. The product is either heated into spheres and then transhipped into small coastwise tankers on berths "S1"/"S2" or pumped another 2 miles to a road tanker terminal near the refinery. Surveyor, SGS, has little knowledge of LPG calculations. 5 chicksans to West of LPG arms are for products plus numerous flange connections with rubber pipes on jetty.

Facilities: Fresh Water: On each berth, couplings American type. About 15 t.p.h. dependent on how many vessels taking water.

Fuel: On each berth both H.O. and D.O. available.

Access: A roadway to each berth with weight restriction of 16 tonnes and permission to discharge stores etc., within 20 m. of ship's side.

Repatriation: Salvador Airport 1 hour from terminal. Local flight to Rio International Airport.

Taxi: Costs £26 for round trip to Salvador.

Repairs: Basic repairs possible from Salvador.

Doctor: From Salvador will come very promptly, organised through Agent.

Chandler: Principal chandler – Barbosa Costa, reasonable for basics.

Communications: Telex – International. Phone – Good Internal and International Direct Dialing (IDD). About £2 per minute to UK. There is a public call box in Jetty Operators Office which you can use to reverse charges overseas – very good and easy.

Consul: Salvador has an Honorary British Vice-Consul which comes under Rio de Janeiro and was very helpful.

Salvador: 241-3222.
Brasilia: 0612-25298, 252710, 252625.

Safety Equipment Certificate extended by 5 months through Brasilia and Salvador.

Lloyds: Non exclusive surveyor in Salvador – ABS, nearest exclusive is Rio de Janeiro.

Lifeboat: Can be lowered into water. A sandy beach on wooded island opposite terminal is popular with ships but watch tide – current rise and fall.

REPORT: Received November 1982.

Butane/Propane at Petrobras Terminal (Temadre): Capacity 20,000 tonnes at minus 45°C. Discharge rate up to 500 tonnes per hour but dependant on vessel pumping rate. For daylight berthing vessels up to 50,000 d.w.t., max. draft 40 ft., vessels up to 118,000 d.w.t. max. draft 38 ft. Max. LOA 240 m.

Butane/propane vessels with over 20,000 tons to discharge may transfer excess across the Terminal to smaller gas tankers, sometimes unrefrigerated.

Larger vessels than limits shown have gone in. We had vessel (55,173 d.w.t./39 ft. 6 in. draft) earlier this month, which berthed by special dispensation of Port Captain, under considerable pressure from Petrobras. Vessel had less than 50,000 tons on board but limitation is on registered d.w.t., not cargo. Port Captain's Office now studying possible increase d.w.t. limit for 40 ft. draft vessels but not confirmed yet, so if you are working vessel over present limits please advise soonest and details.

Remember vessels proceeding to Santos to complete discharge must arrive there with 28 ft. draft or less. Usually there is no difficulty here with transferring propane to butane tanks on board to correct trim.

REPORT: May 1983.

Refrigerated LPG Discharge: Pipe-line length 3,000 m., liquid line diameter 18 in., vapour line diameter 8 in. Discharge using 3 liquid hose lines with 8 in. diameter and 1×8 in. diameter vapour hose line.

AUTHORITY: Companhia Das Docas Do Estado Da Bahia (CODEBA), Estacao Maritima De Passageiros, Avenida Da Franca, S/N, CEP 40000, Salvador, Bahia, Brazil. *Tel:* (071) 243-5066, 243-5165, 243-5965, 243-5765. *Telex:* 071-1110.

Porto De Salvador – Porsal, Avenida Da Franca S/N, CEP 40000, Salvador, Bahia, Brazil. *Tel:* (071) 243-5066, 243-5165, 243-5965, 243-5765. Port Control: 242-1341. Port Administration: 242-4570. Traffic: 242-5998. Port Guard: 242-3497. Telex: 071-3359.

SANTANA (Macapa): 00.03 S. 51.11 W. (See Plan)

DOCUMENTS: Also see "General" before first port.

6 Crew Lists.
3 Crew Personal Effects Lists.
7 Transit Passengers List or Negative Passengers List.
3 (each) Stores Lists (engine, deck and bonded).
5 Cargo Manifest or Ballast Declaration.
7 Disembarking Passengers List (if any).
3 Maritime Health Certificate.
3 Vaccination Lists.
Derat Certificate.
Maritime Police Pass (when proceeding from Brazilian Ports).
Clearance Certificate.

PILOTAGE: No Pilots available either for the North Channel entrance and/or for docking and casting off operations.

ANCHORAGE: In front of the port, protected anchorage between mainland and Santana Island, where vessels can safely anchor at any location. Bottom is mud.

RIVER NAVIGATION: Outer bar transit restricted to 32 ft. at LW and 37 ft. at HW. When loaded and outward bound, the Master should study carefully the tides and direction of currents.

RESTRICTIONS: Vessels can depart at any stage of tide. Night transit in North channel is at Master's discretion.

Channel transit restricted to 32 ft. in low water. Due to shifting of mud banks it is recommended that a set of up-to-date Brazilian nautical charts, covering from outer bar to Santana Port, should be used.

The Hydrographic Office of The Brazilian Navy, based on date furnished by the Brazilian National Astronomical Observatory, publishes an annual tide table for the majority of Brazilian ports, including Barra Norte do Rio Amazonas-Ilha do Brigue – Lat. 00° 55′ N., Long. 50° 05′ W. and Porto de Santana.

Nautical charts and tide tables are available through the vessel's Belem (Para) Agent.

Shipmaster's Report: The above is correct but we would advise you to add: "The charts and books are delivered by pilot launch off Salinopolis (the pilot station for the port of Belem), if ordered well in advance via Belem's Agent. The meeting point, anchorage, can easily be reached on B.A. Chart No. 520 and is described in South America Pilot Volume 1 (eleventh edition 1975), page 53, line R 41 – 45".

In certain periods, but mainly from April to August, there are large logs, trees, etc., drifting down river.

MAX. SIZE: On East side of floating ore pier, general cargo pier has a depth alongside of 29 ft. Along floating ore pier depth ranges from 35 ft. to 90 ft. (at LW). 35 ft. on East end of pier. Tidal range about 9 ft. to 11 ft. Tidal current at middle of river ranges from 2 to 3 knots, while close inshore along ore dock it runs approximately 1 – 1.5 knots. Amazon river water at Santana is fresh in spite of tides.

Port of Santana: Alongside the floating ore pier, the tidal current continues to run for 60 minutes beyond the time computed from the table. In mid-stream, the delay in the change of current is 90 minutes, depending on the river flow.

Report: September 1986.
Max. LOA 707 ft. 08 in.
Max. beam 95 ft. 02 in.
Max. air draft 40 ft.
Max. sailing draft 32 ft. LWOST. 37 ft. HWOST.

HEALTH: Health authorities visit vessel arriving from abroad. Authorities require regular ship's gangway to be lowered. Jacob's ladders not accepted. Also see "General" before first port.

RADIO: Vessels scheduled to load ore at Santana must radio Belem (Para) Agents (preferably via Chatham, Amagansett or Belem Radio) at least 48 hours prior to ETA North Channel. Other means of communication not satisfactory and result in delay.

TUGS: No tugs available.

BERTHING: *Private Floating Pier:* Length 247 m. Depth of water 10.6 m. A retractable loading arm loads Manganese at an effective average loading rate of 1,000 long tons per hour for each hatch loaded.

Also see "Shipmaster's Report".

Macapa Pierhead: Length 18 m. Depth of water 8.8 m. Fitted with a 65 ton crane, and used for general cargo handling.

Recommended that amidship hatches be used for Santana cargo. Vessels berth according to direction of tidal current. Berthing operations assisted by a motor craft to place lines on shore, East of pier. On West side, lines moored to the bitts on floating fender. Linesmen available to assist berthing and shifting. Ore carriers have preference when docking.

When berthing, use of the anchor must be avoided except in an emergency.

STEVEDORES: Stevedores are available at Macapa about 25 km. by road from the port. Rates and other pertinent details must be arranged through the ship's Agents. Conveyor belt for ore loading fixed, consequently vessels must be shifted by own winches to load various hatches. Effective average loading rate 1,000 t.p.h. Special caution must be taken not to pump all ship's ballast before loading starts, since the height of boom is 40 ft. above water level. Cargo belt trimmed only.

MEDICAL: Medical attention may be arranged at Macapa through ship's Agent.

TANKERS: Discharge at the Dolphins Pier, about 150 m. West of floating pier. Depth 8.0 m. Pipe-lines lead to tanks ashore (distance from pier 1,000 m.). Storage tanks have capacities for 35,000 barrels of diesel oil, 9,500 barrels of gasoline and 60,000 barrels of fuel oil. There are no shore facilities available at the terminal for receiving slops, dirty or contaminated ballast. Masters are cautioned that discharging of anything other than uncontaminated ballast will be subject to penalties as prescribed by Brazilian law.

(See Pollution Regulations in "General" before first port).

DENSITY: The Amazon river water at Santana Port is fresh water at any stage of tide. Checking density during load operations is recommended.

FRESH WATER: No drinking water available.

FUEL: There is no suitable installation for fuel supply. See "General" before first port.

GANGWAY/DECK WATCHMEN: Gangway watchman compulsory.

OPENING/CLOSING HATCHES: Ore carriers: service carried out by crew. General cargo vessels: service executed by stevedores.

CUSTOMS ALLOWANCES: Limited quantity for use during ship's stay.

CARGO GEAR: No additional requirements as to gear. A heavy-lift stiff leg derrick mounted on the pier. Boom: 60 ft., Mast: 37 ft. 6 in., Capacity: 65 tonnes. Mobile crane (maximum lift 40 tonnes) available for discharge of general cargo from small vessels.

IDENTITY CARDS: Foreign Crew members not permitted to go ashore without presentation of identity card, on which is a photograph of holder and personal details. These cards are provided by the Agent upon arrival. The identity card must be delivered on dis-embarkation to the Federal Police who will return it to the crew member on re-embarkation.

CONSULS: None. Documents which are to be visaed by a Consul must be sent to Belem.

REPAIRS: Only in cases of extreme emergency and then only minor repairs.

REPATRIATION: Effected by ship's Agent. No Immigration Authorities at Macapa.

AIRPORT: Macapa airport 25 km. from Santana near city of Macapa. Scheduled domestic flights from Belem to Macapa, a trip of 25 minutes.

TIME: GMT minus 3 hours.

HOLIDAYS: New Year's Day (January 1st); Tiradentes (April 21st); Martyr of Independence; Labour Day (May 1st); Independence Day (September 7th); All Saints' Day (November 2nd); Proclamation of the Republic (November 15th); Christmas Day (December 25th).

TELEPHONES: No facilities for placing telephones on board.

GENERAL:

Aids to Navigation – Radio Beacon – A radio beacon is installed at Ponta do Ceu, marking the entrance from the open sea to the river proper. It is operated by the Brazilian Hydrographic Office and the main details are:

Frequency – 290 kHz
Signal letter – EH
Working hours – Continuous
Geographical position – Lat. 00° 45′ 40″ N.
Long. 50° 06′ 58″ W.
Range – 300 miles.
Signal – A0 and A2 (1020 H2)
Character of signal – (EH.....) Twice in A0 during 10 secs. and A2 (1020 H2) during 5 secs.

Vessels have reported that certain times the beam may stray as much as 15°/20°. This straying is most noticeable during early evening and at dawn, less so during the night, and least during the daytime hours.

Industria e Comercio de Minerios S.A. – ICOMI is not responsible for the location and operation of the various aids to navigation (lights, radio beacon, buoys, etc.).

COMMUNICATION: *Notices* – Vessels scheduled to load ore at Porto de Santana, must send radio to Belem (Para) Agents (preferably via Chatham, Amagansett or Belem Radio) at least 48 hours prior to their ETA North channel. Agents forward this information via telephone to their representative in Macapa who notify the shippers.

Telephone: Telephone communications between Porto de Santana and all Brazilian cities and also international calls, via Embratel (Brazilian Telecommunication Company) are possible every day, Sundays and holidays included.

Telegraph: There is a public telegraph service in Macapa, operated by the Brazilian Post Office and Telegraph Department.

Cable: International Cables are speeded by phoning them to the Agents in Belem (Para) who file them in the local cable offices there.

Mail: Ship's or crew's mail should be addressed in care of the ship Agents in Belem (Para). Mail should not be addressed to Macapa or to Santana.

POLLUTION REGULATIONS: Brazilian Legislation contains several sanctions and penalties applicable to those who cause pollution of any kind. The prohibition against the execution of acts which cause pollution and the respective penalties, both administrative and pecuniary, are principally contained in The Federal Law No. 5318, dated 26/9/67, and in the National Policy for Sanitation, in the Decree No. 221, dated 20/2/67 – Fishing Code, in the Federal Decree 5798, dated 11/6/40, on Rulings for Maritime Traffic, and in the State Law (State of Rio de Janeiro) No. 6753, dated 10/12/71.

The sanctions and penalties can be applied cumulatively against infractors, and among those, special attention is called to the penalties foreseen in Federal Law No. 5357, 17/11/67, of which the first article reads:

> "Article 1 – Vessels or maritime or river terminals of any kind, foreign or national, which discharge debris or oil in waters which are within a strip of 6 (six) nautical miles from the Brazilian coast, or in rivers, lakes or other stretches of water, will be subject to the following penalties:
>
> (a) Vessels, to the fine of 2% (two per cent) of the greatest minimum salary in force in the national territory, per gross register ton or fraction thereof:

(b) maritime or river terminals, to a fine of 200 (two hundred) times the greatest minimum salary in force in the national territory.

Sole paragraph – in the case of repetition the fine will be applicable in double".

In addition to the administrative and pecuniary penalties, under the new Brazilian Criminal Code, (Decree-Law No. 1004 of October 21, 1969, which was put in effect as of January 1, 1974, according to Law 5857/72, acts causing pollution constitute a violation punishable with imprisonment as follows:

"Article 303 – Pollute lakes and rivers or, in inhabited places, the shores and the atmosphere, thus breaching provisions of federal laws or regulations:

Penalty – Imprisonment up to 3 (three) years and payment of a 5 to 25 day fine.

Sole paragraph – If the crime is not wilful the penalty shall be imprisonment from 2 months to 1 (one) year".

SHIPMASTER'S REPORT: July 1982.

The following concerns our recent visit to Santana to load bulk manganese ore, destined for Canada. The following should be read together with "The Pilot Book" and "Guide to Port Entry".

Communications: We were provided, by Charterers, with Agent's address, including cable address, in Santana. However cables sent here could not be delivered. All communications then sent to Agent in Belem. They responded with berthing instructions. Agent assured me that mail to Europe takes 5 to 6 days only. Incoming mail must be addressed to the Belem Agent and not direct to Santana. Agent has a VHF set but it is currently out of order. Contacted Macapa Radio on VHF Channel 16 when passing but they did not pass the message on to Santana.

D/F: When some 200 miles from the beacon at Pta. do Ceu, a clear sharp signal was obtained. However, when crossing the Barra Norte, the signal was poor with a spread of 10 to 12 degrees. Generally showing the correct bearing though and it is the only aid to navigation.

Pilots: There are no Pilots available for the passage from sea to Santana. A competent Pilot boarded at the anchorage and aided the berthing operation. This same Pilot should have aided the sailing but he arrived late and vessel was already leaving the pier. I understand that vessels proceeding further up the River Amazon embark Pilot at Santana. A mooring boat and line handlers are provided.

Charts: I found Admiralty charts adequate for the in-bound, light ship, passage. Purchased seven Brazilian charts from the Agent and these were invaluable for the outbound passage. Large important sections have been surveyed 1980. Similar detail to Admiralty charts but much better scale.

Navigational Marks: Found all buoys and beacons as charted inbound. They are well laid out and are about adequate. Outbound found Barra Norte No. 2 Buoy missing. This fact was reported to Belem Agent. Inbound and outbound passages were mostly in daylight so I cannot vouch for the lights.

Landfall: No. 2 Buoy was sighted at 14 miles on radar and visually at 10 miles. All buoys showed well on radar. Pta. do Guara Lighthouse well defined on radar at 24 miles. The coast line Northward of Rio Araguari was clearly visible on radar at 24 miles.

Tide Tables: Used Admiralty tables inbound. Predictions are based on Georgetown, Guyana. Crossing Barra Norte, inbound, could not make tidal streams conform with predictions. After berthing purchased Brazilian Tide Tables from Agent. The predictions for Santana were found to be similar in both sets of tables. However for Barra Norte found High Water some 4.5 hours and 2.2 m. difference between the tables. Sailed on basis of Brazilian predictions and found that tidal streams conformed much better. Inbound, light ship, the height of tide is not so important. Santana direction of tidal stream, which dictates berthing, is correct. Outbound use Brazilian tables and charts. The chart has a good tidal rose.

Santana Anchorage: As another vessel was already alongside I passed the berth and anchored about 1 mile above the berth in a deep pool at the confluence of three creeks. Stayed here for some 36 hours and noted that the flow of tide continues for some 60 to 90 minutes after the Admiralty predicted High and Low Waters.

Customs: Conscientious and efficient. A search of store rooms, cabins, lockers and cargo spaces was carried out. This took 1.5 hours and Agent assured me that this is normal. Two Customs Officers lived onboard throughout our stay. They come complete with spare seal should you wish to visit bonded stores.

Immigration: All matters taken care of by the Agent.

Port Health: Most thorough and meticulous. All medical books checked. The Brazilian Government is sponsoring a massive drive against Yellow Fever. Next morning Port Health Doctor returned to the vessel and vaccinated all who did not have proper documentation. International 10 year certificates issued.

Extended derat exemption for 6 months on proper form.

Watchman: A shore watchman was provided. Very useful for keeping the canoe people off the vessel. Also useful as a runner to the Agent.

Pier: The pier is 247 m. long, lies along 100°/280° and has a freeboard of about 4 ft. It floats on pontoons and is connected to the shore by 2 arms. It has a wood faced rubbing strip. Adequate rams horn bollards are provided. There are 2 mooring buoys at the Western end of the pier. See "Plan" for moorings and soundings.

Cargo: Vessel alongside for 48 hours and loaded 25,408.6 tonnes. Cargo pours out at a rate of some 800 tonnes per hour. Some time is lost shifting vessel up and down the quay to locate hatches under the chute. Our seven shifts accounted for 4.5 hours. When the tide is "kind" these shifts are easy enough, other times not so easy. Before the final pour into the last hatch operations were halted for 3 hours while samples were analysed. The belt weight was found to be accurate when compared to draft. There is no trimming. It lies where it falls.

Chute: The loading chute floats on a separate pontoon. The air draft is 40 ft. and of course is not affected by tide. The chute can be adjusted to pour across the ship thus taking care of vessels with varying beams.

Language: Few shore people had any knowledge of English. No personnel aboard could speak their particular brand of Portuguese. Final documentation all completed in perfect English.

Provisions: Fresh provisions were puchased and prices were reasonable. Used American dollars from Master's safe.

Fresh Water: Fresh water is not available. The loading rig has a system of pouring water to keep the belt wet, but this is just river water.

SHIPMASTER'S REPORT: April 1988.

The passage to Santana is through the Amazon River and North entrance is declared safe for navigation without pilot. The distance from North Bar to Fazendinha Anchorage (boarding place for Immigration and Pilot) is about 172 nautical miles. The Buoy "BF-2" in position 01° 34.2′ N., 49° 00.9′ W. is equipped with Racon (G) and marks the entrance of the river and North Bar. Vessels in ballast should not have any problem except for tidal stream, missing or out of position channel buoys, etc. The depth at the river mouth is subject to change to some extent and it is advisable to obtain latest position of buoys from Belem or Santana Agent. River transit in the night is risky due to unlit buoys. Otherwise the river is quite deep and wide. The shore Racons at Pta. do Guara and Ilha do Bailique were found functioning. The D/F bearings of Pointa do Ceu and Salinopolis Stations can be relied upon to some extent.

There is no berthing at night and the vessel is taken alongside from Santana Anchorage during floodtide. There is a fixed loader and frequent warping of the vessel can be avoided by keeping loading changes to a minimum.

On the outward passage in the river, the vessel anchored off Pointa do Ceu and the current was found to be quite strong. The North Bar (charted depth less than 10.0 m.) is about 15 miles long and it is advisable to enter one hour before High Water. The vessel procured Brazilian charts and tide tables which were of great assistance. The tides at the North Bar are about 4 hours 4 minutes ahead of tide timings for Ilha do Brigue.

AUTHORITY: Companhia Docas do Para, Porto de Macapa, Av. Felinto Muller, Santana, PA, Brazil. *Contact:* Agostinho Raiol da Cunha, Manager.

SANTAREM: 02.25 S. 54.43 W. (See Plan)

LOCATION: Also see "General" before first port.

Santarem is located on the right bank of the Tapajos River which joins the Amazon River.

APPROACHES: *Bar:* Width 1,100 m. depth 17.0 m. – 25.0 m.

Access Channel: Length 2,590 m. width 1,500 m. minimum depth 15.0 m.

Manoeuvring Basin: Minimum width 1,500 m. minimum depth 15.0 m.

MAX. SIZE: Max. draft 10.0 m.

BERTHING: 520 m. of quay of which 380 m. is a pier, 2 warehouses with an area of 3,000 cu.m., open air area of 10,000 sq.m.; mechanical workshop, 60 ton weighbridge, administrative building, water tower and residence for the Port Administrator.

2 deep sea vessels or larger coasters can come alongside, with a minimum of 10 m. depth of water, and at the same time, 2 vessels of lesser draft can be berthed in the inner area where the depth is 6 m.

To handle river vessels, there is a marginal quay, with a minimum depth of 3 m.

There are at present 2×6.3 ton cranes, with plans to install a further 4. 1 mobile crane, capacity 9.1 tons

The principal export is meat which is delivered by road. A cold store is to be built.

FUEL: Fuel oil available at Petroleo Sabba private wharf. Also see "General" before first port.

AUTHORITY: Companhia Docas do Para, Avenida Presidente Vargas 41 – 20 Andar, Belem, Para, Brazil. *Tel:* 223-0056, 223-2066.

SANTOS: 23.56 S. 46.19 W. (See Plan)

PORT LIMITS: The Port of Santos is situated in the centre of the State of Sao Paulo, and the port installations spread over an estuary bounded by the islands of Sao Vicente and Santo Amaro.

The port limits are:
(a) Parallel alignment of 24° 02.7′ S., in the limits Morro do Munduba (Munduba Hill) and Ponta do Itaipu (Itaipu Point).
(b) Mar Pequeno.
(c) Channel of the Port of Santos.
(d) Piacaguera Channel.

DOCUMENTS: The following documents, etc., are required to be presented to the Authorities upon ship's arrival.

Port Health Authorities: (Saude dos Portos – SAPORTOS):
1 Crew List
1 Free Pratique Certificate from the first Brazilian port of call, if any.
1 Maritime Declaration of Health (only at the first Brazilian port).
Derat Certificate.
1 Vaccination List.

To Custom House: (Delegalia da Receita Federal - D.R.F.):
3 Crew Lists.
3 Store Lists (Deck, Engines, Cabin, etc.)
3 Lists of Crew's Personal Effects.
1 Copy of each of the above Lists duly visaed by the Customs House of the previous Brazilian port of call, if any.
1 Copy each Cargo Manifest plus 1 copy of each Bill of Lading covering cargo loaded at foreign ports for Santos, duly signed/stamped by the Master.
1 Customs House Sailing Pass from the last Brazilian port of call (if any).
3 List (Master's Declaration) covering empty containers to be discharged at Santos (if any).

Maritime Police/Immigration Authorities: (Delegacia da Policia Federal – D.P.F.):
5 Crew Lists
3 Stowaway Lists, if any.
All valid Passports/Seamen's Books to be verified on vessel's arrival.
Immigration Sailing Pass from the last Brazilian port of call, if any.

Port Captaincy – (Capitania dos Portos do Estado de Sao Paulo):
Master must fill out an Arrival Declaration giving all data concerning his vessel as well as the number of crew, passengers on board, ports of call, cargo loaded at this port, Agents, etc., which will be supplied by the Agents on vessel's berthing.

The following Ship's Certificates must also be presented on vessel's berthing:
Certificate of Registry of the Vessel
Cargo Safety Equipment Certificate
Cargo Radio Safety Certificate
Cargo Ship Safety Construction Certificate
International Load Line Certificate
Derat Certificate
Port Captaincy Sailing Pass from the last Brazilian port of call, if any, must be presented on arrival.

PASSENGERS: Whenever there are passengers on board, the following additional documents are required:
(a) *Passengers in Transit:*
1 Passenger List (Port Health Authorities)
5 Passenger Lists together with the respective valid passport (Immigration)
3 Passenger Lists (Customs House)
1 Passenger List duly visaed by the Customs House of the previous Brazilian port of call, if any (Customs House).
(b) *Passengers Disembarking:*
5 Passenger Disembarking Lists to the Immigration Authorities
2 Copies of Luggage Declaration duly signed/stamped by Master for the Customs.
The valid passport to be verified on vessel's arrival by Immigration.
3 Copies of Passenger Disembarking Lists for the Customs House.

NOTE: All items missing from Stores Lists (deck, engine, radio, tools, etc.) and found during Customs inspection willl be confiscated.

PILOTAGE: Pilot Station for Santos District is at Avenida Saldanha da Gama 64, Santos. Tel: 36-8036. Cables: Praticagem – Santos. VHF Stand-by on Channel 16 (24 hours).

Pilotage is compulsory for all vessels carrying dangerous cargoes, all foreign vessels and Brazilian vessels of more than 500 g.r.t., when entering the Santos Fairway Area and Santos Port Inner Anchorage. Vessels shifting berth, changing anchorage and other special manoeuvres must have a Pilot on board. Local pilotage services include pilot boats for transporting the Pilots and mooring boats. Pilot boats are red and shall fly, exhibit, display, hoist and sound:

(a) By day the pilot flag, being a red flag with a black letter "P", displayed from the main top mast;

(b) By night the lights as prescribed by Rule 29 of the Regulations for Preventing Collisions at Sea in respect of mechanically propelled pilot vessels;

(c) During fog, mist, heavy rainstorms or any other weather conditions which in like manner causes visibility to deteriorate, the fog signal as prescribed by Rule 35 of the Regulations for Preventing Collisions at Sea in respect of mechanically propelled vessels.

Incoming Vessels: In order to avoid possible delay ships bound for Santos Port should act as follows: at least 2 hours in advance the inward vessel is to report by radio-telephony on VHF Channel 16, stating her ETA, draft and further information. Berthing instructions available at pilot station will be sent immediately after first contact.

Vessels on Arrival: Arriving vessels awaiting berth may enter within Outer Anchorage without pilot assistance, taking care not to cross the buoyed channel and keeping clear of leading line "A" (021.5° True bearing) and maintaining continuous listening watch on VHF Channel 16.

Port Pilotage: In general, Pilots shall be picked up and dropped abreast of Palmas Island (near Parallel 24° 00′ 33″ S.) about 0.6 miles off. Deep draft incoming vessels shall embark Pilot abreast of Ponta Grossa about 0.9 miles off or as advised by pilot station. When unfavourable weather conditions prevail in the Santos Fairway area preventing Pilot boarding, vessels shall remain at anchor. In case of emergency, however, vessels shall follow the pilot boat as far as conditions allow Pilot to be safely picked up. If the Pilot is unable to disembark from an outward bound vessel, he shall be landed at the nearest port.

Requesting a Pilot: According to the Brazilian Pilotage Agreement vessels requiring a Pilot shall make an application for a Pilot not less than 4 hours in advance by telephone, VHF or any other suitable means of communication (provided later confirmation in writing is furnished), also indicating the exact time the Pilot is wanted on board. Nevertheless, a prompt service can be provided under special arrangement.

Pilot Ladders: Vessels engaging pilot services shall comply with the requirements respecting pilot ladders pursuant to SOLAS Rule 17.

"H" Flag: Vessels carrying a Pilot on board shall hoist the international code signal "H" otherwise they will be subject to a fine by the Harbour Master.

Note to Masters: Pilot shall be supplied with meals when rendering services at their respective regular times. The Master shall give the Pilot all requested information concerning vessel's condition and characteristics and shall, on the completetion of the pilotage service, sign the Pilotage Certificate on the form submitted by the Pilot. Masters are advised to have the vessel's engines ready to work at their maximum output if necessary.

Dangerous Goods: Ships carrying explosives and other dangerous cargoes shall give notice at least 2 hours before arrival and 1 hour before departure via cable, telex or VHF to pilot station stating:
1. Name and call-sign.
2. Nationality.
3. Draft and gross tonnage.
4. Nature and quantity of dangerous cargo.
5. Berth.
6. ETA/ETD.
7. Agent.

APPROACHES: *Santos Approach:* Santos Approach Fairway is marked on Chart No. 1701 of the DHN (Hydrographic Office), displaying all necessary information concerning beacons, buoys (buoyage system IALA "B"), depths, leading lines.

As projected depths appearing in Chart No. 1701 are still not available in certain sections, vessels shall observe "Notice to Mariners" or call the pilot station for actual depth. Mean depth is 12 m. for Section A, 11.5 m. for Sections B and C and 12 m. for Piacaguera Channel (Section D). Along the general cargo quay depth does not exceed 36 ft. at HW and may get as low as 32 ft. at LW. (Also see "Developments").

ANCHORAGE: The following anchorages shall be observed in the Port of Santos area as indicated on Chart No. 1701 of DHN (Hydrographic Office) and permission to lie at anchor outside these areas shall be obtained in case of force majeure through the Harbour Master. Vessels are requested to note submarine cables near Anchorage Nos. 3 and 4 and ocean outfall near Anchorage No. 4.
(a) Anchorage No. 1 (Inner): Accessible for 3 vessels up to 180 m. LOA and with a maximum draft of 8.23 m. (27 ft.).
(b) Anchorage No. 2 (Inner): 50 m. off beach, accessible for small and pleasure crafts.
(c) Anchorage No. 3: For warships only.
(d) Anchorage No. 4: For vessels up to 100 m. LOA and maximum draft of 5.79 m. (19 ft.).
(e) Anchorage No. 5: For vessels up to 180 m. LOA and maximum draft of 9.75 m. (32 ft.).
(f) Anchorage No. 6: For vessels up to 180 m. LOA and maximum draft of 9.75 m. (32 ft.).
(g) Anchorage No. 7: For deep draft vessels.

Restrictions: Anchoring in Anchorage No. 1 is allowed only for 24 hours, but an extension of stay may be obtained from Harbour Master's Office in special cases. Due to strong Northwesterly winds, common in this area, Masters are advised to have vessel's engines and crew on standby.

Navigating and anchoring near military fortresses of Itaipu ("Itaipu") and Guaruja ("Andradas") is prohibited. All craft are requested to keep clear of the areas of Morro do Itaipu (Itaipu Hill) and Morro do Munduba (Munduba Hill) within a range of 100 m.

RESTRICTIONS/MAX. SIZE: Vessels drawing 36 ft. or more shall manoeuvre during HW by day light. Night manoeuvring in such cases are under study; meanwhile maximum draft at night is 34 ft. at HW for Sections B and C. (Note: Max. draft at Alemoa No. 2 is 35 ft. 6 in. and at Alemoa No. 1 it is 31 ft. 6 in.)

In the Piacaguera Channel (Section D) vessels shall observe following limitations due to same reduced width and basin dimensions according to the latest dredging (1984):

Maximum breadth	33 m.
Length overall	228 m. (day), 215 m. (night)
Maximum draft	35 ft. 6 in. (salt water)
	36 ft. (fresh water)

(a) Berthing at outer side of Cosipa's Pier:

Length	228 m.
Breadth	33 m.
Draft	36 ft.

(b) Berthing at inner side of Cosipa's Pier:

Length	228 m.
Breadth	33 m.
Draft	36 ft.

(c) Berthing at Ultrafertil's Pier:

Length	200 m.
Breadth	33 m.
Draft	31 ft.

Note: Vessels negotiating the Piacaguera Channel shall employ 2 tugs, 1 at least to be made fast. But vessels drawing more than 36 ft. shall navigate only by daylight assisted by 4 tugs within Saboo/Alemoa area and 3 tugs within Alemoa/Cosipa area (only 1 vessel at a time can pass through this channel).

Tidal Information: Mean rise and fall is about 1.5 m.; spring tide stream may reach up to 1 knot at the flood and about 1.4 knots at the ebb. Exact figures are shown on the tide tables and tidal stream tables for the Port of Santos published by the DNH (Hydrographic Office).

Speed Regulations: The allowed maximum speed in the channel is 8 knots in order to secure safe navigation. Moored vessels must be passed in such a way that no hindrance or inconvenience from suction and backwash may be caused.

RADIO: Santos Coastal Station, VHF Channel 16. Working 24, 25, 26 and 27. S.S.B. facilities will be available at a later date.

VHF: *Ship Reporting System:* Compulsory system in effect for vessels over 20 g.r.t. Call sign: PWS 88. Channels: 16, 11, 12, 13, 14, 68, 69, 71 and 74.

Procedure:

1. Vessels should report:
   (a) On anchoring.
   (b) On leaving an anchorage.
   (c) Abreast of Ilha das Palmas (inward-bound).
   (d) Immediately before leaving berth (outward-bound).
2. Reports should include:
   (i) Vessel's name.
   (ii) Call sign.
   (iii) Flag.
   (iv) Port of departure (inward-bound).
   Destination (outward-bound).
   (v) Type of vessel.
   (vi) Anchorage or berth (inward-bound).
   Estimated date of arrival at destination (outward-bound).
   (vii) Estimated date of departure (inward-bound).
   Cruising speed (outward-bound).

Vessels shifting anchorage or berth report vessel's name, call sign, and previous and present position.

3. Reports are to be Portuguese (request assistance in transmission from Pilot, pilot station or Santos (PPS) Channel 16, as necessary).
4. Vessels unable to contact the Control Post inform the Captaincy of the Ports of the State of Sao Paulo stating vessel's name, date, time (GMT) and reason for not reporting.

HEALTH: Port Health Authorities consisting of 1 doctor and 2 assistants will check all vaccination certificates (cholera and yellow fever) and issue a Free Pratique Pass, which shall remain on board for presentation at subsequent Brazilian ports of call. Masters can obtain Free Pratique by radio, which does not mean that the doctor will not come on board, but only that other Authorities can board the ship before his arrival.

Free Pratique by Radio: Master should radio to Agent (in Portuguese) as follows:

Quote:
Para Saportos Santos
c/o Agents (Cable Address)
Navio Bandeira (vessel's flag) (vessel's name)
Procedente (Last Port of Call) com (number of crew) tripulantes abordo stop Condicoes sanitarias abordo satisfatorias na conduzindo nenhuma pessoa com doenca infecto contagiosa stop
Solicito livre pratica
Comandante (Master's name)
Unquote.

TUGS: 14 tugs available, equipped with radios (VHF Channels 10, 13 and 16) horse-power range from 1,010 h.p. – 2,360 h.p. 2 small tugs available, 505 h.p. – 545 h.p.

The use of 2 tugs or more is compulsory in the Piacaguera Channel – see "Approaches".

Vessels should dock, preferably against the tide.

The assistance of at least 2 tugs will be obligatory in the following places:

Saboo Quay – Points 1, 2 and 3.

Warehouses 13, 26 and 9, where the pneumatic wheat unloaders are located;

Piacaguera Channel: Cosipa, Alamoa, Ultrafertil and Dow Quimica Terminals and Barnabe Island.

Alemoa Terminal – For vessels of 7,000 to 15,000 d.w.t. a third tug boat should be used as pusher.

Outside the above mentioned areas, when employing tugs, the following minimum requisites should be observed:

Vessels up to 4,000 d.w.t. ....optional
Vessels from 4,001 to 7,000 d.w.t. .... 1 tug up to 1,000 h.p.
Vessels from 7,001 to 10,000 d.w.t. .2 tugs of up to 1,000 h.p. each.
Vessels from 10,001 to 20,000 d.w.t. .... 2 tugs more than 1,000 h.p. each.
Vessels from 20,001 to 40,000 d.w.t. .... 2 tugs more than 1,500 h.p. each.
Vessels over 40,000 d.w.t. ...... .3 tugs more than 1,500 h.p. each.

Note: Should no tug of the indicated power be available, tugs of immediately superior power should be requisitioned.

Vessels with bow-thrusters may employ 1 tug instead of 2 in certain operating areas. (Not those mentioned above).

Piacaguera Channel:

	Number of Tug Boats	
Ship's Gross Tonnage	*Minimum*	*Maximum*
Up to 4,000	Optional	
From 4,001 to 10,000	2 large	2 large
From 10,001 to 15,000	2 large	3 large
From 15,001 to 30,000	3 large	3 large
From 30,001 upwards	3 large	4 large

Until such time as a fresh dredging is carried out at the turning basin at Alemoa, in the passage or ships drawing over 34 ft., destined to or proceeding from Cosipa, 1 tug should be standing by in order to push, if necessary, vessels operating at Pier Nos. 1 and 2.

BERTHING: Berthing quays have 435 bollards with an average distance of 25 m. between them.

Port Administration: Linear quays 9,562 m. Dolphin berths and jetties: 1,918 m.

Private Berths: 1,386 m.

	Length (m.)	*Depth* (m.)
Continuous Quay:		
Single Use:		
General Cargo – ocean-going vessels	4,193	7 – 13
General Cargo – Coastal vessels	246	7
Bulk Solids	990	8 – 11
Bulk Liquids	631	10
Double Use:		
Bulk Solids and Liquids	200	10
Bulk Solids and General Cargo	2,267	7 – 13
General Cargo and Passengers	373	11
Diversified Use:		
Maritime Department	363	5 – 8
Lighters and small craft	159	
Terminals:		
Port Administration:		
Bulk Solids – Conceicaozinha	567	13.5
Bulk Liquids –Alemoa	841	7 – 12
Containers	510	13.5
Private:		
Bulk Solids – Cosipa	300	12
Bulk Solids – Ultrafertil	294	10
Bulk Liquids – Dow Quimica	253	10
Bulk Orange Juice – Cutrale	286	9
Bulk Solids – Cargil	250	13

Wharves: Total length 6,013 m. Inner Harbour (Saboo New Quay) 800 m. (depth 11 m.). Barnabe Island Pier 300 m. (depth 10 m.).

Special Cargo Handling Facilities – Refrigerated Cargo: Refrigerated cargo after discharge is deposited in the cold storage with capacity of 4,000 tons. The Receiver is usually responsible for cartage and storage arrangements as well as for the required temperature to be maintained in cold chambers.

Bulk Cargo – Grain Elevators: There are 3 elevators in Santos from which wheat can be discharged direct into freight cars, owned by: Cia. Docas (with external silos) between Sheds 25 and 26; Moinho Paulista between Sheds 12A and 13; Moinho Santista between Sheds 8 and 9.

Cosipa Terminal, depth 12 m.; Ultrafertil Terminal, depth 10 m.

Fertiliser, Sulphur, etc, in Bulk: Can be discharged at any point along the quay where 6 ton cranes equipped with automatic motor-driven grabs or shovels are in operation. Alternatively, cranes with ordinary hand-filled buckets are used. The usual place for handling this type of cargo is by the Saboo Bend.

Silos:	*Cargo*	*No.*	*Capacity (tons)*
	Cereals	1	30,000
	Soya/Maize	2	80,000
	Salt	3	103,000
	Fertiliser	6	180,000
	Pelletised Veg. Products	7	125,000

Special/Valuable Cargo: Special or valuable cargo, objects of art, precious metals, etc., are discharged without special formalities and may be kept in Shed 12A, where there is a special safe.

CONTAINER HANDLING FACILITIES:

Container Terminal: On left bank of Santos Estuary, opened September 1981, with the following characteristics; 510 m. long wharf, depth 13 m., equipped with 5 portainers with the following main characteristics:

Hoist capacity below spreader: 35 ft
Rate (40 ft. containers): 20 containers per hour.
Size of containers to be handled (ISO): 20 ft., 30 ft. and 40 ft.
Handling capacity 140,000 per year.

2 transtainers on tyres for 30.5 tons, 2 transtainers on rails for 35 tons, and 9×37.5 ton forklifts.

BULK HANDLING FACILITIES: The Ultrafertil Terminal is situated East of the Cosipa Terminal and both make use of the same manoeuvring basin with depth of 10 m., connected with the Port of Santos by a dredged channel 8 km. long, 10 m. in depth and 60 m. in width.

Cosipa Terminal: Consists of a pier 150 m. in length and 22 m. in width, built on concrete tubing, with a depth of 10 m., allowing for the berthing of vessels of up to 22,000 d.w.t. Future plans foresee the lengthening of the pier to 250 m. and a depth of 13 m., enabling it to receive vessels of 45,000 d.w.t.

Equipment for the discharge of coal and ore is installed at the pier, capable of handling 600 t.p.h., as well as equipment for the loading of steel plates produced at the plant.

Ultrafertil Terminal: An open dock in the form of an "L" built on concrete tubing, 240 m. in length and 15 m. in width. At its main point, vessels of 23,000 d.w.t. and drawing 10 m. may berth. The secondary point permits the berthing of vessels of up to 3,000 d.w.t. (liquid gas carriers).

The terminal is especially equipped for the discharge of bulk solids at a rate of 500 t.p.h. and is likewise equipped with pumps and adequate pipes for the discharge of liquified gas.

Macuco Novo Quay: Export terminal for cereals. Length 280 m. Max. draft for vessels is 13 m. Storage capacity 60,000 tons. Loading rate 3,000 t.p.h.

Conveyor Belts:

(a) 2 conveyor belts for salt, in front Warehouse No. 23, receiving product from the ship by means of grabs and transporting it to the mill of SALMAC S/A with capacity for 500 t.p.h.

(b) 8 conveyor belts for fertilisers at Conceicaozinha Island with variable capacity from 500 to 2,000 t.p.h., depending on the product.

Pellets: Length of quay 280 m., depth 13 m. with 3 warehouses, capacity 80,000 tonnes. Connected by belts and loaders, capacity 2 × 1,500 t.p.h. each, with automatic weighing machines. 2 hoppers with capacity of 500 t.p.h. and 800 t.p.h. each, permit simultaneous receival from wagons and trucks.

Pellets and Fertilisers: Stretch of quay from Warehouse 17 to Warehouse 20. 5 loaders (4 × 600 t.p.h. and 1 × 150 t.p.h.). Stocks held in Warehouses 19 and 20, and Warehouses V, VI, X, XV and XXIII.

Salt: Stretch of quay in front of Warehouses 22 and 23. Electric cranes and belts provide capacity of 600 t.p.h. Stocks discharged to Warehouses XII and XVII, and a special wooden warehouse.

Grain: 3 terminals with unloaders and conveyor belts.

(i) 3 unloaders (2×150 t.p.h. and 1 × 60 t.p.h.) between Warehouses 12-A and 13. Discharge to Paulista Mill.

(ii) 3 unloaders (2×150 t.p.h. and 1×120 t.p.h.) in front of Warehouse 26. Discharge to Codesp's silo.

Silo capacities: Codesp – 30,000 tonnes, Santista – 34,800 tonnes, Paulista – 20,000 tonnes.

Fertilisers: A quay, at Conceicaozinha, length 567 m. with 2 piers. Each pier is 283.5 m. long with a depth 13.5 m. minimum tide. Warehouse capacity 180,000 tonnes. 12 electric portico cranes, with grabs, and conveyor belts (7,000 m. and 300 t.p.h.).

Coal: At Saboo, capacity 50,000 tonnes, serviced by electric cranes, grabs and conveyor belts. Rate 1,000 t.p.h.

Roll-on/Roll-off: 6 Ro/Ro berths in operation. For vessels with straight ramps – at Saboo Quay (Warehouse 29) and Conceicaozinha.

For vessels with angled or side ramps – at Saboo Quay (Warehouse 35).

Frozen Fruit Juice/Pellets: Terminal da Sucocitrico Cutrale S.A., used for the shipment of frozen fruit juice and "pellets" in general, which entered into operation in 1985:

Depth of water: 13.3 m.
Length of quay: 195 m.
Length of quay including two dolphins: 257 m.
Length of quay, from axis to each dolphin: 250 m.
2 warehouses with capacity of 50,000 tons each, for storage of "pellets"
1 shiploader with a capacity of 1,000 t.p.h.
16 tanks for storage of concentrated juce with capacity of 11,000 tons each
Installation for loading juice on to vessels at rate of 500 t.p.h.

CRANES: *Heavy Lifts:* Cia Docas operates 2 floating cranes – 1×100 ton, and 1×150 ton. The 150 ton crane reaches 22 m. in height and can handle lifts within a radius of 10 m.

Type	*No.*	*Capacity*
Cranes		
Electric portico	179	1.5 to 30.0 tonnes
On tyres	30	4.5 to 250.0 tonnes
On belts	2	6.5 to 11.0 tonnes
Conveyors/Piling up of containers	2	30.0 tonnes
Portainers	5	20 units/hr. – 35 tonnes
Transtainer	2	20 units/hr – 35 tonnes.
Transtainers on tyres	2	30.5 tonnes

EQUIPMENT:

Forklifts		
Common	167	3.0 to 23.6 tonnes
For rolls of paper	20	1.8 to 2.0 tonnes
For containers	15	30 – 37.0 tonnes
For inside containers	34	2.0 – 3.0 tonnes
Floating cranes	2	150 and 250 tonnes
Water barges	2	30 and 450 tonnes

STEVEDORES: All longshoremen are in employ of Cia. Docas, which holds charter for general operations at Santos Docks. Their services can be requisitioned up to 1500 hrs. for vessels at berth/expected to berth next day. Stevedores ordered but not used shall be paid full day or night. Therefore, if the men should be kept standing by (inactive) at 0700 hrs., their period runs up to 1700 hrs., and at 1900 hrs., their period runs up to 0400 hrs.

Working Hours: 0700 – 1300, 1300 – 1900 and 1900 – 0400.

Overtime: Sundays, holidays and meal hours.

Port Workers: In Brazilian ports there are 2 categories of workers engaged in handling cargoes in loading and/or unloading ships, namely:

Longshoreman: In the employ of Dock Company, to work ashore operating the cargo from the ship's tackles to the warehouse or to wagons, lorries, etc. as well as in the reverse operation.

Stevedores: They are called "autonomous" because they have no ties of fixed employment and they are engaged by Shipowners or their Agents to work on board the ships in loading and/or unloading operations. They are professional and qualified workers grouped in their respective syndicates or trade union.

MEDICAL: Hospitals and Nursing Homes available.

TANKERS: Discharge terminals at Saboo Quay, Alemoa and Ilha Barnabe.

Alemoa Terminal: Allows simultaneous mooring of 2 tankers with capacity of up to 60,000 d.w.t. (80,000 tons displacement). Length of wharf 630 m. Depth of 12 m. at LW. Sixteen "Chiksan" arms available. Unloading rate 500 – 2,000 t.p.h. Distance between manifolds 180 – 260 in. Connections 6 in. and 8 in.

Report: May 1983 – Refrigerated LPG discharge is carried out through hydraulic arms, 1×16 in. diameter for liquid and 1×10 in. diameter for vapour. Pipeline length 1,000 m.

Also see "Shipmaster's Report" – dated September 1981.

Ilha do Barnabe: Length of dock 301 m., depth 10 m. The dock is used for loading, unloading and storage of liquid fuel.

Saboo Quay: Connections – 6 in., 8 in. and 12 in.

FRESH WATER: Adequate supply of fresh water is always available from hydrants (rate 40 t.p.h. – connections 7 threads per inch in 2 in. and 1.5 in.) along the quay (day and night) or from water-barges (440 tons). Water barges (3) cannot supply more than 2 ships per day, their capacity being only 250 tons, which can be pumped into the ship's tanks at the rate of 80 t.p.h. Cia. Docas should be advised 24 hours in advance, priority being given to passenger vessels.

FUEL: MFO, MDF, and gas oil can be supplied at Vallongo by Shed No. 1 or at the Saboo New Quay Extension, or by barge, if up to 300 tons. Applications for supplies should be made a few days in advance to avoid delay in delivery.

REPAIRS/DRY DOCKS:

Shipyards: Santos Dock Company, Wilson Sons S/A, and various others for small size craft.

Repair Shops: Santos Dock Company, Wilson Sons S/A and various others for maintenance services and marine repairs such as: mechanical, boiler, electrical, electronic and refrigeration.

Drydocks: Wilson Sons S/A. With capacity for vessels of 65 m. in length, 12 m. breadth and maximum drafts of 4.20 m. aft and 3.90 m. forward.

Slipways: Santos Dock Company, with two cradles and capacity up to 300 tons with a maximum of 45 m. in length and 11 m. breadth; there also exist innumerous slipways for small size craft.

Many other repair shops and slipways of lesser capacity are available.

All the main engine manufacturers (B & W, MAN, Sulzer, MaK, amongst others) have service representatives in Santos and many major repairs, including re-engining of ships, have been effected in this port.

Metalock do Brasil, S.A.: General voyage repairs, including all usual mechanical services, machining, foundry, engine repairs and electrical services.

Also specialised Metalock repairs, crank shaft *in situ* machining and chocking of engines and machinery.

SURVEYORS: Practically all the Classification Societies are represented in Santos. Hold and derrick inspections as well as cargo surveys, are executed expertly, among others, by Perimar Ltd. a surveying firm which also performs testing, sampling and technical research. Its address is: Rua Amador Bueno, No. 38, conj. 91, 9th Floor, P.O.B. 624, 11.100 Santos. Tel: 35.2677. Telex 013-1213. Cables: Perima Santos.

P & I Clubs: Most associations, British, Scandinavian, Polish, Japanese and Greek are represented by Pandibra Ltda. at the following address: Rua XV de Novembro 65, 8th Floor, P.O.B. 550, 11013 Santos. Telephone Exchange No: 34.7228. Telex: 013-1248. Cables: Pandibra Santos. Also Proinde Ltd., Rua Visconde Do Rio Branco 2, 11013 Santos. Tel: 33.1230.

WATCHMEN: It is compulsory to have 1 shore watchman at the gangway. 3 additional deck watchmen are recommended.

Cases of piracy (Master held at knife point) are becoming common, especially at Alemoa Terminal. Also cases of armed pirates boarding have occurred.

OPENING/CLOSING HATCHES: May be performed by ship's crew or by stevedores.

CONSULS: The following countries are represented in Santos:

Argentina
Belgium
Bolivia
Chile
Denmark
El Salvador
Finland
France
Germany F.R.
Greece
Italy
Netherlands
Norway
Panama
Paraguay
Portugal
Sweden
U.K.
Uruguay

AIRPORT: Situated at Sao Paulo, about 60 km. from Santos. Full international services.

TIME: GMT minus 3 hours.

HOLIDAYS: No work is accepted on the following days: Christmas Day; New Year's Day; Independence Day; Proclamation of the Republic Day; Easter; Good Friday; May 1st.

On Christmas Day, no work available except on passengers' luggage. Working overtime on holidays is possible provided application is made not later than 1500 hrs. on the preceding day. On Sundays work stops at 1900 hrs. for freighters, and is allowed to continue for passenger vessels when only handling luggage.

Local Holidays: January 26th (City Anniversary) and September 8th (City's Patron Saint) and Corpus Christi.

POLICE/AMBULANCE/FIRE: Emergency Tel: 2170. Police (Warehouses 1-7), Tel: 31.5544. Police (Warehouses 8-28), Tel: 32.5497. Police (Warehouses 29-43), Tel: 36.9979.

IDENTITY CARDS: I.D. cards not required.

TELEPHONES: Every vessel berthing between Sheds 1 to 39 will have a telephone on board, available only for local calls.

GENERAL: Flags to be shown by incoming/outgoing vessels: *(a)* National flag. *(b)* Brazilian flag. *(c)* Yellow flag – "Q" (whenever doctor's clearance is required and up to obtainment). *(d)* Customs flag (blue with a white star – to be flown 24 hours a day, after clearance is granted.)

The following circular letter was handed to a Master by his Agent (May 1980).

Re.: PORT REGULATIONS

We kindly request your attention to the following regulations in force at this port, to which you should strictly adhere, otherwise, it will result to heavy fines being imposed by the local Port Captaincy:

1. a) *Gala Flag:* The gala flag is obligatory on the following dates, considered as official national holidays:

September 7th (Independence Day)
November 15th (Proclamation of the Republic)

b) *Half Gala Flag:* The half gala flag must be used on the following dates:

January 1st (New Year's Day)
April 21st (Tiradentes' Day)
May 1st (Labour Day)
December 25th (Christmas Day)

c) *Mourning Flag:* On November 2nd (All Saints Day), the vessel should dress the flag in mourning.

The regulations mentioned above should be followed whenever the dates are coincident.

2. *Brazilian Flag:* The Brazilian flag is to be hoisted by the vessels in port, daily at sunrise and accordingly lowered at sunset. It must be hoisted in the correct position and must be double-faced, i.e., not printed and not painted on one side only. The two sides of the flag must be absolutely identical.

3. *Pilot Flag:* The moment that a Pilot boards the vessel, his indicative flag must be hoisted immediately and should only be lowered at the time he leaves the vessel. The local Port Captaincy is imposing heavy fines on infringers.
4. *Pilot Rope:* Whenever the use of this equipment becomes necessary, same should be immediately removed as soon as the Pilot leaves the vessel, otherwise, the Port Captaincy will impose heavy fines.
5. *Gangway:* All vessels should arrange a net to be placed under the gangway in order to prevent accidents. Violators may be fined according to the Brazilian law, in the event a worker or a crew member falls from the gangway, for not having placed the said net as required.
6. *Bulbous Bow:* In accordance with the port regulations, during night time, from 1800 hrs. to 0600 hrs., a light should be placed at the bulbous bow, otherwise, the Port Captaincy will heavily fine the vessel.
7. *Refuse/Garbage:*

   a) Vessels when berthed alongside the quay or at anchor in the areas foreseen in the "Norms for Traffic and Permanency at Ports" *must not leave* hanging from the sides of the vessel containers or any other type of recipient for collecting refuse or garbage.

   b) Refuse/garbage originating from aboard the vessel during the ship's stay in port must be placed in containers or in drums or in any other type of collecting recipient, which must be kept with a lid or cover, on deck, until the time they are withdrawn from the ship.

   c) The vessel not being in operation (loading or discharge), the deck must be clean and all dunnage wood should be properly stowed or lashed.

   d) Refuse/garbage of any nature, specially in the case of solids which float, resulting from loading or unloading operations, must be discharged before the ship sails.

   e) In order that the regulation in item (d) may be controlled, Masters of vessels should enter or record in their logbooks, item 26, the following:

   (i) Dumping of oil or refuse/garbage into the sea, date, hour, position, distance from the coast or island/s where same occured, kind of polluting substance dumped, approximate quantity dumped and reason why the material was not transferred to shore; and

   (ii) Register the transfer to terminals, barges alongside or lorries, with details of tugs, destination and approximate quantity which was transferred.

   f) Refuse/garbage which are not polluting, as well as the results of the cleaning of reservoirs used for by-products of petroleum and holds where chemical products were used, *must not be dumped into the sea.*

The above-mentioned regulations should be observed and seriously noted, since the Port Captaincy keeps day and night watch on the sea and shore, photographs are taken as evidence, and heavy fines are imposed, reasons why we are asking for your kind co-operation.

Observation: In addition to regulations cited above, the Brazilian flag, as well as the flags signifying the "Call Sign" of the vessel – *properly and correctly hoisted* – must be flown on the arrival/entrance of the ship.

PORT CIRCULAR: (See "Shipmaster's Report" dated July 1983.)

1 – *Watch the Ship and the Cargo*

It is the duty of every ship's Master to look after the cargo and take the precautionary steps to ensure the full safety of the ship. The controlling of access to the vessel, as well as the activities performed on board should be exercised also by members of the crew under risk of infraction of article 141 of the RTM (Maritime Traffic Regulations), sections vii and ix.

2 – *Illuminate the Ship and its Sides*

Bad visibility makes difficult the controlling actions thus giving favourable chance to illicit activities. Keep your ship illuminated, particularly the side on the sea side all along the ship's length.

3 – *Establish Communications for External Support*

The Port Authorities maintain a permanent service for fighting criminality. Install, whenever possible, a telephone line within easy reach to the ship's watchman or ship's officer on duty. Ask for assistance over telephones 33-3238 and 33-3239 of the Federal Police Guard on duty.

Remember that the Santos Radio Station is permanently listening on Channel 16 (VHF) and it can also pass on your request for assistance.

4 – *Control the Access Leading to the Accommodation*

The cabins and other habitable compartments should be kept locked whenever their occupants are absent. Endeavour to also maintain locked the passage ways to the inner areas thus guaranteeing the entry and exit control of persons by the gangway watchman.

5 – *Maintain the Portholes Closed*

Open portholes may give easy access to undesirables.

Close the portholes with the clamps properly secured whenever leaving the cabin or any other habitable compartment.

6 – *Do not Leave Valuable Objects Exposed*

Valuable objects exposed invite robbery or "opportunity". Keep your valuable objects, money and jewellery, in a locked and safe place.

7 – *Maintain the Ladders Raised*

At the Inner Anchorage or at the Bar, make difficult the access to strangers by maintaining the accommodation and jacob's ladders raised.

In port leave only the accommodation ladder lowered.

8 – *In case of Assault Set in Motion the Alarms*

In cases of threat of assault, do not hesitate in setting in motion the ship's alarm signals. This measure, in addition to warning the ship's crew members will discourage the infractor in the felonious practice.

9 – *Maintain the Contracted Watchman Under Control of the Ship's Officer on Duty*

Demand a good service from the watchman. Make him identify every person entering or leaving the ship. Facilitate his task by recommending the ship's crew to cooperate in the controlling.

Do not permit the watchman to abandon the gangway, unless he is substituted by another watchman or crew member.

10 – *Advise the Ship's Agent Regarding any Occurrence Relative to Pilferage, Robbery or Assault*

Besides the measures taken for immediate support, the occurrences relative to robbery or assault both in respect to the cargo as well as to valuables and objects belonging to the ship or members of the crew should be reported to the ship's agents for divulgement to the competent authorities. The authorities will use such information in order to guide themselves in regard to the adoption of other steps which may contribute to guarantee the safety of the ship and crew.

SERVICES: Pollution control and tank cleaning services available.

REGULATIONS: Should vessel use any type of small craft for embarking or disembarking, the landing on shore should take place within a Customs area.

Vessels at anchor may not lower their accommodation ladder and vessels alongside may not lower the offshore gangway.

Whilst in port, at anchor or berthed alongside the quay, vessels should collect garbage in adequate containers fitted with covers whilst those lying in open spaces should be kept with their covers on.

Drainage of holds or tanks containing chemical products, oils or polluting substances which may affect the flora and fauna, is prohibited.

Painting and treatment of ship's sides and decks is authorised, the lowering of planks and craft for this purpose being permitted independently of licence from the Port Captaincy.

DEVELOPMENTS: Dredging operations being carried out in order that vessels up to 45,000 tons with a draft of 12.3 m. can come into the port and go alongside Conceicaozinha. As a second phase, this dredging will be extended to the estuary to attain a depth of about 14 m. From this locality up to the Cosipa Channel, the dredging should reach a depth of 12 m.

For the prolongation of the Macuco Quay, a depth of about 13 m. is contemplated. A section of another 375 m. with a depth of 11 m. and another of 230 m. with a depth of 13 m. will be made in an extension of 605 m.

The following development goals are for the medium and long term:

Enlargement from the Valongo Quay to Paqueta 1 and dredging to 11.0 m.

Enlargement of the Container Terminal (510 m). by 310 m. Container forklift of 37 tons on order.

Construction of a Terminal destined for Roll-on/Roll-off operations. (Construction to commence August 1986).

Pneumatic Discharger of 300 t.p.h. to be acquired for Warehouse 26. Crane of 32 tons – 40 tons capacity to be acquired for handling containers and heavy goods at Warehouse 37.

SHIPMASTER'S REPORT: July 1980.

Officers and crew should be very alert with regard to stealing. It is not uncommon for armed robbery to take place at the anchorage. Cargo has at times been stolen from containers. Also crew's effects have been stolen and on occasions the Master's safe has been robbed.

Prior to departure, an inspection is made by the officer from the Harbour Master's Office. He will check the lashings of the deck cargo, the cleanliness of the deck and will ensure that the decks are clean with no garbage in bags, containers or cartons as it is feared that once the vessel is at sea the garbage will be dumped. There is a good garbage collection service in the port.

SHIPMASTER'S REPORT: September 1981

General: The Port Limits are a line from Ponta Itaipu in the West to Ponta Munduba in the East.

In terms of trade the largest port in South America and the principal port of Brazil handling most of the Coffee exports. Situated on the confluence of several small rivers which have been canalised. The total length, including the extension of Canal de Piacaguera to the industrial complex at its Northern end, is 10 miles.

General cargo wharves are continuous on the S.W. side for 5.5 miles. New container and dry bulk berths on N.E. side with recently completed rail link from Barnabe Island.

Petroleum berths at Barnabe Island 5.5 miles from the port entrance on N.E. side and at Alemoa on South bank 7 miles from entrance.

Brazilian Charts of Santos seem to be very difficult to obtain, after trying in Santos itself and Rio. B.A. 19 refers.

Arrival: Vessels up to 32 ft. can leave/arrive 24 hours a day any time. Over 32 ft. depends on tide. Generally arrive and berth 2 hours before HW.

Standard Quarantine message to be cabled through Agent 24 hours beforehand.

Anchorage: Outer: The general area is to East and West of Channel. The various designated areas on B.A. 19 seem to have little relevance and vessel's position depends on draft. The closer in, the more the ground swell is apparent. Large vessels seem to favour 1.5 miles South of Ponta Grossa, with plenty of cable.

Inner: Various river anchorages are used, all fairly to very full and require engines to keep clear of other vessels when swinging to tide. One anchor. Tugs used to swing vessel on heaving up.

Approach: The coast being hilly with cliffs provides good positions. Bottom is gently shelving to 50 ft. at Outer Buoy, 4.5 miles from port entrance.

Large ground swells are often encountered.

Pilot: Pilot joins and leaves from dull red cutter between Buoy Nos. 7 and 8, about 1.75 miles from Pt. Fortaleza the port entrance. He will not come outside as indicated on B.A. 19. Reasonable English spoken. About 1.5 hours from No. 7 Buoy (Pilot) to Alemoa Berths. Drafts quoted in feet and inches.

For night-time sailing/arrival Pilot must be ordered before 1730 hrs. to move up to 0700 hrs. next morning.

Channel: From No. 1 Buoy to No. 7 Buoy dredged to 48 ft. No. 1 to No. 6 Buoy sufficient water outside channel for all vessels liable to use port.

No. 6 Buoy inwards max. draft 36 ft. 6 in. to Industrial Complex at North end of Canal de Piacaguera. Not all berths of this depth.

Buoyage South of No. 7 to No. 1 very liable to shift position and have lights extinguished. Not to be relied on at all.

In Southerly winds the ground swell is very large and in deep draft vessels can make steering very difficult.

We entered at 34 ft., 2 hours before HW and to negotiate the channel to No. 8 Buoy was a bit difficult.

VHF: Pilot: Call "Santos Pilot", Channel 16. Works 10 and 11.

Bunkers: Call "Estrela", Channel 12.

Repairs: Work Channel 6.

Public Correspondence: "Santos Radio", call Channel 16, works Channels 25, 26 and 27. Local and international calls. Good and efficient. English good.

Tugs: 15 ship-handling tugs in port, with power from 505 – 2,236 h.p. Large vessels generally have 4. Two ships lines used. Most vessels proceeding above Itapema Point, at new container berth take tugs 1 ahead and astern 2 alongside. Down river tugs depart at Itapema Point.

Berth – Alemoa: Alemoa Berths about 7.5 miles from sea on South bank comprise 2 concrete pile jetties at end of pier. The berths are owned by the Port Authority and leased to 'Petrobras' the state oil company for product and LPG transfers.

Length of vessel depends on Turning Basin just off berths. Max. length is 300 m.

Max. draft is 34 ft. Although at LW there is only about 32 ft. alongside berth face. Very soft mud.

Large vessels berth portside to. Small coastwise vessels berth either way. Both berths capable of same product range.

Density 1011 to 1015.

Moorings – Alemoa: 3,3,2 each end. There is a small mooring launch which takes one line at a time.

Fenders: 3 large timber faced flat fenders on rubber shock absorbers.

Gangway: Difficult to land accommodation ladder. We used B.O.T. type which was very steep at completion, to after dolphin.

Lines – Alemoa: Each berth has 2 refrigerated chiksans, at the Western end, one vapour 10 in. and one liquid 12 in. (Western most), both 150 ASA couplings. Unfortunately both sets have severe leaks on all joints.

After trying liquid arms at both Berth Nos. 1 and 2 we ended up by using our low discharge pipe with both our flexible hoses plus 2 shore hoses giving approximately 24 m. length from ship side rail. The connection on shore main line (16 in.) to chiksan was uncoupled and flexible hoses with reducer coupled up to main line.

The Terminal say they are now going to construct a 'Tee' piece in line below chiksan to by-pass same and take flexible hoses.

At the Eastern end of both berths are liquid and vapour Butadiene chiksans (8 in. and 6 in. respectively). These will be converted for 'VCM' use next year (1982).

There are 2 sets of pressure/semi-refrigerated LPG chiksans (liquid 12 in. and 10 in., vapour 10 in. and 8 in.) situated between Butadiene and refrigerated chiksans.

Plus 4 'AVGAS' chiksans on each berth.

Max. air draft of LPG chiksans is 20 m. HW.

Discharge: Varies greatly from 100 t.p.h. to 600 t.p.h. depending on shore tank pressures. VRL always coupled to ship.

Terminal say fastest discharge has been 1,200 cm. per hour on butane. We were only second refrigerated ship with import cargo to berth at jetty.

Shore tank pressure problems seem to occur frequently and the VRL is often required for return to ship.

Two points to watch are incompatible product being returned and liquid in vapour line arm which occurs when liquid/vapour cross-over valve on quay does not seat properly. This is a small auto valve about 5 m. inboard of chiksan arms and should be checked before shore require VRL used.

Reasonable co-operation, if the Manager or Assistant Manager can be contacted they are very helpful.

On completion the terminal will blow hot vapour back.

General: Fresh Water: From meter on jetty – both piers. Port Authority connect/disconnect and arrange in advance. About 10 tonnes per hour at £1.50 per tonne (9/81).

Bunkers: By barge both heavy and diesel. Barges maximum capacity about 500 tonnes, pump at 150 t.p.h. Prices very competitive (9/81).

Repairs: Several repair firms in area covering most types of work. We used 'Metalock' for motors and pipework. Collected and returned by launch. Very quick and competitive service.

Lub. Oils: All obtainable but only by drums from barges at Alemoa. On dry cargo/non inflammable berths large quantities can be pumped from tank truck.

All international oil companies have to use 'Petrobras'.

Transport: Agent advises from Alemoa use mini-bus at night due to 'muggings' etc. We used a bus to town and everyone used their own taxi back.

Mini-bus 8 seater, £5.50 per trip.

Agent: All tankers have to use Petrobras Agent – 'L. Figeiredo' S.A. (cable 'Doralice'). Seemed very efficient and was extremely attentive and helpful.

Communications: Telex: International.

Phone: S.T.D. (and works) very clear to U.K.

Cables: Rio de Janeiro Radio, "PPR" – efficient.

Brazilian Flag: Very particular. Must be lowered at sunset and hoisted again at sunrise and be in good condition.

Pollution/Garbage: Very strict. Garbage drums to be inboard with lids on them. Nothing to go overboard. Collection service available.

Holidays: Difficult to get services on weekends and public holidays, so arrange well in advance.

Formalities: Shore Passes: Some form of identification is required when going ashore. For this purpose an Official Brazilian Shore Pass is obtainable which should have crew members photograph and particulars on it. Personnel stopped by police and showing this pass seem to be in better position than those having no pass or foreign I.D. Card.

Forms: Have large quantity of following ready: Crew Lists, Personal Declaration, Store List, Ship Information, Bond List, Vaccination, Personnel for Repatriation and Effects. Sight Ships Certificates.

Generally no difficulties as long as everything ready. Bond will be visited.

Repatriation: Through Sao Paulo Airport – a 2 hour drive from Santos.

Customs have to check baggage on ship or baggage has to be landed before departure with full list of electronic equipment (Radios, etc. and cameras).

Agent requires details of flight and passport numbers 3 days prior to departure.

ALEMOA LPG STORAGE PLANT – SANTOS, BRAZIL

General: The plant was opened in 1979.

Basic design is by Technigaz of France and construction by a Brazilian company. Most of the equipment is of U.S. design made in Brazil under licence. This causes problems over maintenance and spares.

The plant is a shipping terminal drawing LPG from refineries in the South of the country and from around Sao Paulo and re-shipping it to localities up and down the coast.

Every so often there is a requirement for import feedstock, about 10,000 tonnes every 2 months to boost local supplies.

LPG can be pumped under pressure to Sao Paulo.

Tanks: 4×10,000 tonnes nominal capacity refrigerated LPG tanks with polystyrene insulation built by Chicago Bridge and Iron Co. in 1978.

2 for Butane and 2 for Propane.

2 pressure spheres of 2,500 tonnes nominal capacity.

4 semi-refrigerated spheres of 3,000 tonnes nominal capacity. These will be converted for use to V.C.M. in 1982 a fact which considerably worries the maintenance staff.

Plant: Each refrigerated tank has own Boil Off unit – total 4.

2 Flash Gas Units can be connected to any tank to back up Boil Off units.

3 units convert pressure LPG from spheres to fully refrigerated LPG each with an output of 80 t.p.h. of condensate.

The refrigerant used on all units is Propylene which is quite successful. Freon R22 used to be used but considerable losses were being experienced plus it was more expensive.

All units work on the cascade principle. The sea water cooling being derived from a pump house on the pier. 2 electric pumps backed up by 2 diesel driven pumps all designed by Worthington.

All compressors are of the piston type designed by Ingersoll Rand U.S.A. and constructed in Brazil under licence.

Heaters, etc.: For transfer of refrigerated LPG to pressure spheres, 3 sea water heaters are employed.

Two dessicant drying towers are employed from spheres to refrigerated storage.

For refrigerated LPG transfer 8 Worthington deepwell pumps of 300 cu.m.p.h. are available.

All anti-freeze used in the plant is alcohol derived from sugar cane which Brazil has pioneered for use in car engines.

SHIPMASTER'S REPORT: July 1983 (Updated 1988).

Documents: As per "Guide to Port Entry".

Pilotage: Compulsory, Pilot usually boards at No. 3 Buoy, but boarded this vessel at No. 9. One hour's notice required, given through Agent.

Anchorages: As given on Chart, depths 10 m. – 13 m. To avoid pirates, anchor about 1 mile S.E. of Sea Buoy.

Restrictions: Berthing possible 24 hours a day, at any stage of tide.

Max. Size: Deepest draft with which vessels can safely enter port is 36 ft.

Health: Notice required by Quarantine is arranged by Agent.

Radio: Santos Pilots, telephone numbers 104 and 312988.

VHF: Pilots on Channels 16 and 11, Port Control on Channel 16.

Tugs: Available.

Berthing: Vessels berthed at Warehouse No. 37, Berth No. 2, 6 miles from entrance to port. Berthing possible 24 hours a day, at any stage of tide.

Depth of water in channel to berth 42 ft.

Nature of bottom at berth – mud.

Cranes: Ample on quay, varying from 1 ton to 40 tons SWL. Vessel used Salens equipment to handle palletised cargo.

2 floating cranes available – 1×150 tons, 1×250 tons.

Specialised Cargo Handling Facilities: 3 berths available for Ro/Ro vessels.

Facilities for handling and storage of 20 ft./40 ft. containers.

Stevedores: Ample union controlled labour. No private stevedores.

Fresh Water: Available.

Consuls: U.K. and others.

Repairs: Can be undertaken.

Dry Docks: None.

Surveyors: Lloyd's and salvage surveyors are available.

Gangway/Deck Watchmen: Pilfering was a very serious problem – suggest vessels take all precautions to prevent this.

Airport: At Sao Paulo.

General: Fresh provisions and ships' laundry service available.

AUTHORITY: Companhia Docas do Estado de Sao Paulo – CODESP – (Portobras), Conselheiro Rodrigues Alves Avenue, C.P. 27, Santos, (SP) – CEP 11015. *Tel:* 35-1611. *Contact:* Helio Nascimento, Director.

Capitania dos Portos do Estado de Sao Paulo, Avenida Conselheiro Nebias No. 448, Santos, CEP 11.100. *Contact:* Captain Sergio Henrique Werneck Machado, Captain of the Port.

SAO FRANCISCO DO SUL: 26.10 S. 48.34 W.

(See Plan)

(A) GENERAL CARGO PORT.
(B) OIL TERMINAL (TEFRAN).

(A) GENERAL CARGO PORT.

DOCUMENTS: See "General" before first port.
PILOTAGE: Not compulsory. Pilots join vessel at the Island Ilha da Paz about 5 km. East of bar, Pilot comes from inside with boat. Cables informing ETA to Agent. Pilot Station may be contacted on VHF Channel 16.
ANCHORAGES: Channel low tide 30 ft., high tide 35 ft. Port: low tide 20 ft., high tide 30 ft.
RESTRICTIONS: Bar draft: Max. 30 ft. Bottom: bar, channel and port: sand and mud. Speed of current: channel LW 4 knots, HW 5 knots.

Reports received in August 1976 indicate that the bar has now been dredged to a depth of 8.50 m.
HEALTH: Vessel must present Free Pratique issued at first call-port. Port's doctor will visit vessel.
RADIO: Call Agent. Sao Francisco do Sul, via Florianopolis Radio.
TUGS: Three tugboats for shifting ships and barges, 1×1,680 h.p., 1×1,010 h.p. and 1×250 h.p.
BERTHING:

Quay	*Length* (m.)	*Depth* (m.)	*Remarks*
1	225	9.75	Grain
2	150	8.50	General Cargo
3	150	7.00	General Cargo
4	150	4.25	General Cargo

BULK HANDLING FACILITIES: Located at Berth No. 1.
Cocar Terminal:
Meals/Pellets.
Air draft: 15 m.
Storage capacity: 110,000 tonnes.
Loading rate: 800 t.p.h.
Conveyor belt: Span: 200 m.
Reach: 18 m.
Spouts: 2

Loading is performed by means of 2 movable spouts; fed by conveyor belts from the silos.

Loading operations usually performed around the clock.
Vegoil:
Storage capacity: 23,500 tonnes.
Loading rate: 500 t.p.h.

Loading is performed with a pipeline direct to the quay.

Loading operations usually performed around the clock.
CRANES: 2 cranes × 7 tons.

Neither the Terminal Maritimo de Sao Francisco do Sul-Tefran – Nor Sao Francisco do Sul Port services operate either floating cranes, barges or lighters.
STEVEDORES: Sufficient working force available, working hours 0700 – 1100 hrs., 1300 – 1700 hrs. normal period; 1700 – 1900 hrs. days-overtime; 1900 – 2300 hrs., 2400 – 0400 hrs. overtime.
MEDICAL: Medical attendance available, 2 hospitals, all medical care available.
FRESH WATER: 13 hydrants on Quays 1 and 2, American type thread 2 in., capable of supplying 14 t.p.h. to 30 t.p.h. Also a private water barge of 100 tons capacity.
FUEL: Oil for boilers, diesel engines, and gasoline are distributed by a private firm, Distribuidora Maritime Porto de Sao Francisco Ltda. by tanker trucks, coming from Itajai, where orders must be placed 12 hours in advance.
WATCHMEN: Recommended.
OPENING/CLOSING HATCHES: By stevedores.
CUSTOMS ALLOWANCES: 1 package of 200 cigarettes, and 1 bottle of spirits each man.
CONSULS: Chile.
REPAIRS: Minor deck and engine repairs possible, workshop in town.
REPATRIATION: No facilities for changing crews.
AIRPORT: None, nearest in Joinville, with regular traffic, about 40 miles distant.
TIME: GMT minus 3 hours.
HOLIDAYS: 1st January; 15th April; 21st April; 1st May; 7th September; 15th September; 15th November; 25th December; Holy Friday; Corpus Christi; 8th September; 8th December.
TELEPHONES: Available at dock entrance.
DEVELOPMENTS: The bar is expected to be dredged to a depth of 9 m.

SHIPMASTER'S REPORT: January 1988.
Location: The Port is situated on the Northernmost extreme part of the State of Santa Catarina, near the border of the State of Parana.
Documents:
3 copies Voyage Memorandum.
1 copy Health Declaration.
1 copy Vaccination List.
8 copies Crew List.
8 copies Passenger List.
4 copies Personal Effects List.
2 copies Narcotics List.
2 copies Firearms and Ammunition List.
2 copies Manifest.
2 copies Clearance from Brazilian Port, including Free Pratique.
Pilotage: Pilot Station is situated in position Lat. 26° 11′ 30″ S., Long. 48° 29′ 20″ W. Pilots can be contacted on VHF Channel 16 or 11. There are presently 4 pilots who board at any time, weather permitting. Distance from the Pilot Station to the Port is 12 miles.
Anchorage: Good anchorage inside the Bay.
Communications: The city is linked to the rest of the Country/World with direct dialling telephone system and telex service.
Tugs: Presently there are 2 tugs available to assist in docking/undocking/shifting. "Rio Preto" 1,680 h.p. belonging to Petrobras and "Lupus" 1,100 h.p. belonging to Saveiros.
Boat Services: Available for vessels anchored in the Bay.
Berthing: The Port installations are situated on the section of the Sao Francisco River which provides a natural Bay which is considered a safe anchorage as it is surrounded by hills and no strong currents exist.

There are 675 m. of quays, but 225 m. are for bulk carriers and tankers (Pier No. 1).

Pier No. 1: Length 200 m. Depth alongside 32 ft. Vessels handling soya meal/oil receive priority. Pier No. 2: Length 175 m. Depth 26 ft. Pier No. 3: Length 150 m. Depth 23 ft. Pier No. 4: Length 150 m. Depth 13 ft.

There are no restrictions on length or beam.

Mean tidal range 1.6 m.

General cargoes handled at Piers 1, 2 and 3.
Cranes: 2×7 tons, 2×40 tons (container handling). Most cargoes handled by ship's gear.
Stevedores: Working hours: 0700–1100 and 1300–1700. Overtime: 1700–1900, 1900–2300 and 0000–0400. Work can be extended to 0600 hrs. in order to finish vessel.
Bulk Handling Facilities:
COCAR Terminal: (Meal, pellets, beans).
Location: Berth No. 1.
Draft: 32 ft. (Brackish).
Airdraft: 15 m.
Storage capacity: 110,000 tonnes.
Loading rate: 600 t.p.h.
Conveyor belt: Span 200 m. Reach 25 m.
Spouts: 2.
Loading: With two spouts (movable) direct from silos/conveyor belt, loading around the clock.
COCAR Terminal: (Vegoil).
Location: Berth No. 1.
Draft: 32 ft. (Brackish).
Storage capacity: 23,500 tonnes.
Loading rate: 400 t.p.h. loading by pipeline direct from quay, loading around the clock.
MAFOR: (Grain discharge).

Normally use "Redlers" which are hung from ship's derricks. Two types of Redlers used, one weighing 4,800 kilos and the other 7,500 kilos. Also operating inside holds, one tractor weighing 10,600 kilos and a bobcat weighing 2,300 kilos.
Density: Salt water at the entrance of the Bar, brackish water inside the Bay varying during tides, 1016–1018 at H.W. and 1018–1020 at L.W.
Medical: Medical assistance available at local hospital.
Fresh Water: Supplied ex–hydrants, about 8–10 t.p.h.
Fuel: Not available locally, however it can be arranged by trucks.
Consuls: None.
Repairs: Minor repairs can be performed by two local workshops. Divers available.
Repatriation: Embarking and disembarking will be cleared by the Federal Police Authorities. Ship's Agents should be notified in advance of full flight details of arriving crew members. Crew will be met at Joinville Airport (2 flights daily from Sao Paolo). It is important to note that arriving crew must always carry Owner's letter stating Port, name of vessel and Agent's full style.
Holidays: Public holidays: September 8th, Patron Saint of the City.
General:
Provisions: Several Ship chandlers can provide fresh vegetables. Bonded stores, etc. can also be supplied (all of Brazilian origin).
Marine Note of Sea Protest: There is no Notary Public in Sao Francisco do Sul.
Fines: Heavy fines are imposed by the Port Authorities (based on the tonnage of the vessel) for the following: Spillage of oil, slops, dumping garbage or any waste into the water; water spilled on to the quay; gangway net missing; ratguards missing; unauthorised persons on board; painting ship's sides/ship's draft without Port Authority's permission; bad condition of Brazilian flag; improper hoisting/lowering of Brazilian flag.
Roads: Sao Francisco do Sul is linked with Joinville by good road, distance 45 km.

AUTHORITY: Administracao do Porto de Sao Francisco do Sul, Avenida Engenheiro Leite Rebeiro 782, CEP-89230 San Francisco do Sul, Santa Catarina, Brazil. *Contact:* Clemintino Nascimento Moura, Superintendent.

(B) SAO FRANCISCO DO SUL OIL TERMINAL (TEFRAN)

LOCATION: Terminal Maritimo de Sao Francisco do Sul – TEFRAN, operated by Petroleo Brasileiro S/A – PETROBRAS, consists of an SBM whose body is 11 m. in diameter, weighing 143 tons and exhibits a light beacon Iso. Fl. Y. 3 sec. 6 m. 5 M. It is situated about 4 miles Eastward of Sao Francisco do Sul Island, its co-ordinates are: Lat. 26° 13′ 53″ S., Long. 48° 25′ 03″ W. Onshore base is located 18 km. from the town of Sao Francisco do Sul, which is 48 km. from Joinville City, both in Santa Catarina State. The main scope of TEFRAN is to receive, store and transfer oil to Refinaria Presidente Getulio Vargas – REPAR, a refinery in Araucaria, a town in the state of Parana.

DOCUMENTS: See "General" before first port.

Any and every document issued or otherwise related to ship's clearance at the last port of call is required for immediate inspection by the boarding officials.

Immigration and Maritime Police:
1 copy Crew List.
1 copy General List.
3 copies Passenger List.
3 copies Passengers in Transit List.

Health:
1 copy Vaccination List.
1 copy Certificate of Derat Exemption.
1 copy Maritime Health Declaration.
1 copy List of Drugs and Narcotics.
1 copy Passengers in Transit List.
1 copy Passengers List.

Customs:
3 copies Crew List.
3 copies Spare Parts List.
3 copies Stores List.
3 copies Provisions List.
3 copies Drugs and Narcotics List (if not included in the Stores List).
1 copy Cargo Manifest.
1 copy Bills of Lading.
2 copies Passengers List.
2 copies Passengers in Transit List.
3 copies Crew Personal Effects List.
3 copies Passengers Personal Effects List.

NOTE: Supplies, stores, cigarettes, cigars, tobacco, alcoholic beverages, arms, ammunition, souvenirs, playing cards, drugs and narcotics, medicines (not in use) etc., must be kept under lock and key; the doors of the storage rooms will be sealed by the Customs Officials and the seal must be kept unbroken throughout the vessel's stay in port.

Any goods or personal effects omitted from the list may be confiscated.

Extracts of Sea Protest drawn out from the Log Book must be submitted to the boarding Customs Officials in case of accident which has caused damage or loss of the cargo or part of it.

Leaving Clearance:

Masters must appoint their ship's Agent at Sao Francisco do Sul and have their International Safety Certificates in force. It is also necessary for vessels Leaving Clearance:
Leaving Permit from Customs.
Leaving Permit from the Captain of the Port.
Leaving Permit from the Maritime Police.
Leaving Permit from Brazil Mail (Passe da E.C.T.).

Anchorage for Clearance: The anchorage for Port Authorities clearance is the same as for vessels waiting for mooring. Port Authorities clearance is effected during office hours only.

Display of quarantine signals must be continuously maintained until Free Pratique is granted. These signals are: sunrise to sunset – quarantine flag "Quebec". Sunset to sunrise – signal light red over white light.

In addition to quarantine signals, the Brazilian Flag must be flown from foreign vessel's foremast throughout the vessel's stay in port.

Vessels arriving at anchorage sites 2 hours prior to sunset in clear weather can moor. If vessel arrives later berthing takes place the next morning.

PILOTAGE: Pilotage is not compulsory in the area of the SBM, either when making for it, mooring at it or clearing the SBM. TEFRAN provides a duly trained Mooring Master for assistance to Masters of vessels operating at SBM. His services are presently rendered without charge.

Mooring Master will advise vessel where to anchor.

For approaching manoeuvres, and after mooring to the SBM, the Master of the vessel will be assisted by the Mooring Master who boarded the vessel in the proper site and will help the Master of the vessel as far as the operational activities in the area are concerned, such as: mooring, hose connections, discharge, hose disconnection and unmooring, as well as control of small crafts which render assistance to the vessel.

It is the responsibility of the Master of the vessel to notify the Mooring Master of any special conditions, difficulties or peculiarities of the vessel such as defective navigational equipment, mooring lines, tackle, gear, helm, engine or boiler deficiencies or lack of necessary equipment which might impose hazards in connection with handling, mooring, unmooring and actually operating the vessel.

The Mooring Master must be immediately advised about any acts or facts which may jeopardise the safety of the vessel or the system, as well as operational events which may possibly alter the existing conditions.

The vessel must be moored to the entire satisfaction of both the Master and the Mooring Master.

The Mooring Master will remain on board the vessel throughout the vessel's stay at the SBM and will notify the Terminal Superintendent about any operational failures; and the vessel may be ordered off the SBM and refused to be accepted in future, unless corrective action by the ship is immediately taken.

The Mooring Master will notify the Master of the vessel, in writing, about disregard of the operational requirements established upon arrival of the ship.

For boarding the Berthing Master prefers a pilot ladder and on disembarkation a combination of pilot ladder and accommodation ladder.

APPROACHES: Refer to Brazilian Hydrographic Office Nautical Chart Nos. 1800, 1804 and 1830.

Vessels approaching the SBM from the North, will first sight Ilha da Paz Lighthouse (Fl. W. 20 sec. 84 m. 23 M.), Morro Joao Dias, Morro Pao de Acucar, Morro de Ubatuba which are hills inland. A conspicuous cross stands on Morro Pao de Acucar. Vessels approaching in night-time, when at less than 15 miles from shore, after loosing sight of Ponta Caioba Light (Fl. W. 5 secs. 15 M.) will sight Ilha da Paz Light which is the most prominent landmark for vessels bound for Sao Francisco do Sul Port and the TEFRAN SBM.

Vessels approaching the SBM from the East, will sight the same above mentioned landmarks when near Sao Francisco do Sul. In the night-time Ilha da Paz Light will be first seen since its range is 23 miles. Ilha da Paz Light is the only landmark at night-time, except for the glare of the town of Sao Francisco do Sul lights which can be seen from a distance of 30 miles.

Vessels approaching the SBM from the South, in the daytime, when less than 10 miles away from shore, may use Remedios and Tamboretes Islets as an indication of the nearness of the SBM; when nearer, will sight Morro Pao de Acucar, Morro Montao de Trigo, Morro Ubatuba and Morro Joao Dias, which are hills and can steer to Ilha da Paz Light. At night-time, after loosing sight of Ponta do Vigia Light (Fl. W. 6 sec. 50 m. 15 M.) near Itapocoroia, vessels will sight no long range lights until sighting Ilha da Paz Light. These vessels, in order to navigate safely, must keep away from Remedios and Tamboretes Islets which can be accomplished by keeping Eastward of the 20 m. line, 6 miles seaward. Eastward of this line there are no dangers.

It is safe to sail using the radar, since the coast affords quite well defined lines and good radio wave reflections. Radar systems, with 48 miles range or more, cover the area efficiently and make it possible to guide launches not provided with radar, when there is fog.

ANCHORAGE: For vessels waiting either for Port Authorities Clearance or mooring or under repair, the advisable anchorage site is 1.3 miles North of the SBM, in the following position: Lat. 26° 12′ 30″ S., Long. 48° 25′ 00″ W. The seabed is fine sand and mud. The depth is 22 m. Mooring Master will board arriving tankers in this position.

In no case must vessels drop anchor near the SBM (within a circle 1 mile in radius, centered on the SBM) within the area between the SBM and the coast or in the access channel to Sao Francisco do Sul River, due to existance of submarine pipe-lines and anchor chains on the seabed.

RESTRICTIONS: The buoy is designed for tankers up to 200,000 d.w.t. but due to the depths in the area, the maximum draft allowable is 18 m. (59 ft.). Sometimes, due to bad weather, tankers have to wait for favourable weather conditions, so that mooring may safely be started. Mooring should be undertaken at daylight only.

MAX. SIZE: 200,000 d.w.t. Draft 18.0 m.

HEALTH: Vessels bound for TEFRAN are inspected at the SBM by Health, Customs and Maritime Police Officials. Ship's Agent must apply beforehand for these visits.

RADIO: Vessels bound for Sao Francisco do Sul Terminal, should advise their ETA 72 hours prior to arrival directly to vessel's Agent through a Coastal Station. This arrival message will be passed by the Agent to the Terminal.

Tankers must have their VHF radios tuned to Channel 16 (VHF) or 4125 kHz (SSB), around the clock when nearing the anchorage position, and send updated ETA messages until Mooring Master boards. Weather forecast and/or Sinoptic charts, if available aboard, must be shown to the Mooring Master when he boards.

VHF: Vessels bound for TEFRAN must have their VHF radios tuned 24 hours per day on Channel 16 (Delta) with maximum gain when nearing the area of the SBM. TEFRAN Control Room will contact the arriving vessels and inform their Master about pertinent matters and emergencies. After contacting the Terminal on Channel 16, this contact must be maintained through Channel 14. During mooring and unmooring operations and ship's stay at the SBM, the launches will keep in touch with the Mooring Master through VHF transceivers.

TUGS: No tugs are available at the Terminal for assistance in mooring vessels.

Launches: Launches under direction of the Mooring Master will assist Terminal and the vessel when mooring, unmooring, connecting and disconnecting hoses. They will also assist in personnel transportation, that is to say, crew members, agents, Port Authorities, suppliers, and authorised persons.

BERTHING: The Terminal Maritimo de Sao Francisco do Sul (TEFRAN) consists of facilities for receiving, storage and transfer of oil.

Discharge System: The discharge system consists of an SBM connected to 2 parallel 20 in. diameter × 271 m. long (888.5 ft.) floating hoses.

At the ship's tail end of the hoses there are 2 special 16 in. hoses – "Tanker Tail Hoses" or "Ship Tail Hoses" – to be connected to the ship's manifold, provided with a butterfly valve and a blank flange (each flange is 16 in. in diameter Standard PSI-ANSI B.16.5).

Two 16 in. × 53 m. (173 ft.) in length nylon hawsers are fastened to the SBM turntable for mooring of the vessels.

On the upper part of the SBM there are 3 turning arms for securing the mooring hawsers and the hoses, as well as to balance the system.

From the bottom of the buoy start 2 submarine hoses 20 in. in diameter, connected to the underwater manifolds of the submarine pipe-lines.

Two × 11 km. long × 34 in. diameter submarine steel pipe-lines laid on the sea bottom following the general West-Easterly direction, connect the submarine manifold to the Terminal storage tanks.

Under normal conditions discharge system allows a 10,000 cu.m./h., 10 kg./cu.cm. (150 p.s.i.) pumping rate measured at the ship's gauge.

At the site where the pipe-lines reach the mainland there is a beacon showing an intermittent blue light indicating the general direction of the lines.

The above described discharge system is shown on the Brazilian Nautical Chart No. 1804 issued by the Diretoria de Hidrografia e Navegacao da Marinha do Brasil (Brazilian Navy Hydrographic Office-DHN).

Note: It is forbidden to navigate and to drop anchor within the area limited by two parallel lines 1 mile away from each side of the submarine pipe-lines, between the SBM and the mainland as well as within a circle 1 mile in radius centered on the SBM.

Storage System: The storage system consists of 7 tanks which are able to receive crude oil directly discharged from the tankers moored at the SBM.

The 5 tanks have the following main features:
Type: Cylindrical vertical (floating roof).
Diameter: 86.56 m.
Height: 14.63 m.
Nominal Volume: 86,114 cu.m.
Operational Volume: 77,000 cu.m.
Receiving Line: 36 in. diameter.

Two tanks have the following main features:
Type: Cylindrical vertical (floating roof).
Diameter: 45.72 m.
Height: 14.63 m.
Nominal Volume: 23,850 cu.m.
Operational Volume: 21,500 cu.m.
Receiving Line: 36 in. diameter.

The tanks are equipped with remote control valves and readings, monitored from the Operations Control Room.

Neither the tanks nor the lines are heated.

Ballast System: No conventional tank cleaning procedures are allowed. The SBM is not provided with ballast line.

Arrival: Arrival time is considered to be the time vessel reaches the anchorage site or the time the Mooring Master boards the vessel, whichever occurs first. However, Notice of Readiness will not be considered as the time of arrival unless the vessel is in all respects ready to discharge.

To avoid delays the following items must be observed by the tanker: keep the Terminal advised about any change in ETA; arrive with the port side derrick and an ordinary pilot ladder on lee side rigged, as well as the 2 manifold flanges to be used ready for connection of the hoses, i.e. without blind flanges, reducers fitted if necessary, etc.; 2 good eye-spliced (9 in. circumference at least) nylon ropes on forecastle head; anchor well at home and secured with stoppers and brakes. If the ship's manifold flanges are not standard 150 p.s.i., ANSI-B.16.5-16 in. in diameter, the vessel must advise Terminal through the Agent before arriving.

Mooring: Mooring Master will advise on the way of securing the ship. Tankers are moored by 2 bow nylon hawsers of 16 in. circumference and 53 m. in length. Vessel's messenger lines are shackled, one at a time, to the pick-up wires of the hawsers by the launch crew and hove in by the vessel's windlass until the lengths of the chafing chains are brought over the roller chocks/fairleads and shackled to the wire strops secured to the bollards.

Hoses Connection: The Mooring Master will direct the Terminal's working men in lifting, connecting and lowering the hoses. After the vessel is securely moored, the 16 in. floating hoses must be individually lifted to the rail by the ship's gear. Sundry hose securing and connecting equipment (strops, gaskets, nuts, bolts, wrenches, etc.) will be supplied by the Terminal and put aboard the tanker just after arriving. Hoses will be lifted by the ship's derrick on the PORT SIDE. Minimum lift of 8 tons capacity is required. Winds reaching about 8 Beaufort Scale and waves, 3.0 m. high, may determine the operation to be interrupted and the hoses disconnected, according to the Mooring Master's judgement.

Discharging: Pumping must not be started without permission of the Mooring Master. The maximum allowable pressure is 10 kg./sq.cm. (150 p.s.i.). While the vessel is moored, the vertical angle formed by the hawsers and the sea surface should not exceed 30° degrees, for safety of the SBM. If necessary the Terminal will require the ship to pump sea water through the hose lines in order to displace the remaining oil.

Ballasting: When necessary, due either to excessive pitching or by being trimmed too much by the stern, pumping of ballast must be concentrated in the fore tanks, even though interruption of discharging becomes mandatory.

As a rule, the vessel must be ballasted at the same time the discharge is being carried out. Vessels which fail to do so, will be notified in writing and will be held responsible for the extra time spent at the SBM after the disconnection of the hoses.

No dirty ballast or any oily residues must be pumped overboard, otherwise the vessel may incur a heavy fine from the Brazilian Authorities.

Terminal Personnel On Board: The vessel is required to give proper treatment to the Terminal personnel assigned to work on board, including lodging and meals. As a rule, 7 people (1 Mooring Master and 6 workmen) are assigned to duty onboard the vessel.

Machinery in Readiness: When moored at the SBM, vessels must keep engines and propulsion machinery in readiness to unmoor and proceed under full power at short notice or to prevent riding upon the SBM. An Officer must also be on duty on the bridge. Should the ship not comply with above stated requirements, she may be considered unsuitable for mooring at the SBM.

MEDICAL: Medical treatment and/or hospitalisation, if required, are provided at Sao Francisco do Sul or Joinville private hospitals. Serious illness will usually be treated in Joinville. Dental care is also available in Sao Francisco do Sul. For emergency cases (injury, etc.) TEFRAN first aid may be requested by the Master. As usual, Agent will make such arrangements.

FRESH WATER: Neither TEFRAN nor Sao Francisco do Sul are able to supply either drinking or boiler water to vessels either moored or at anchor.

FUEL: Neither TEFRAN nor Sao Francisco do Sul port can supply bunkers for vessels.

Lubricants: TEFRAN has no way of supplying lubricants to vessels, either moored or at anchor. Nevertheless in urgent cases, Agents must be contacted in order to place orders for lubricants, 15 days in advance. Even then, lubricants can only be supplied in very limited quantities, due to the natural difficulties of transportation to moored ships.

REPAIRS: Limited repairs may be effected by private workshops. Agents must be contacted 72 hours in advance in order to make the necessary arrangements to assist vessels needing repairs.

WATCHMEN: Port watchmen have to be compulsorily assigned to duty onboard all vessels coming from overseas throughout the vessel's stay in port.

CUSTOMS: Brazilian laws are strict with regard to smuggling and Masters are requested to instruct their crew not to retain cigarettes in carton lots, cigars, tobacco, alcoholic drinks, drugs, souvenirs, etc. These should be collected prior to arrival, listed with the items in the Customs Locker to be sealed by the Customs Officials and placed in the custody of the Master throughout the vessel's stay. No commercial transactions will be tolerated, be it among Terminal employees, crew members or anyone else.

TIME: Local time is GMT minus 3 hours.

CONSULS: Most maritime nations maintain consular representatives in Sao Francisco do Sul and Joinville.

GENERAL:

Charts/Publications: The Diretoria de Hidrografia e Navegacao da Marinha do Brasil (Brazilian Navy Hydrographic Office) has issued the following nautical charts of this area: DHN 1800, 1830, 1804, as well as Roteiro DH 1.8 (Brazil Pilot), Lista de Farois DH 2.11 (List of Lights) and Lista de Auxilio Radio DH 8.8 (Radio Aids List).

No charts or navigational publications are available at TEFRAN or Sao Francisco do Sul. When necessary, Masters must contact ship's Agent, in advance, for placing orders for such items in Rio de Janeiro.

Provisions and Stores: Orders for provisions and stores may be placed through the Agents or directly to shipchandlers. Most of the items are obtainable in Joinville but some may be found in Sao Francisco do Sul.

Tidal Amplitudes: The tides in the area of the SBM present the same characteristics as those of the port of Sao Francisco do Sul. (Please refer to the Tide Tables issued by Diretoria de Hydrografia e Navegacao da Marinha do Brasil – Brazilian Navy Hydrographic Office – DG – 16 – 15).

High and low tides occur nearly 40 minutes before they occur in the port of Sao Francisco do Sul and the tidal amplitude at the SBM area is a little below the ones of the said port.

Weather Conditions: As a rule, the conditions in the area of the SBM may be considered fair, as far as operating conditions for the vessels are concerned, except in the occurrence of gales from the South, which sometimes blow for more than 48 hours in Winter time.

Winds: The strong winds recorded in the area originate from the South, caused by cold fronts or instability lines. One of the strongest recorded winds blew on May 18th, 1982, from N.W., reaching an intensity of 130 km. per hour, for a short period of time. It was observed that at the same time the isobathic wind at the sea, blew from the South with an intensity of 40 km. per hour.

Rain: The average annual rainfall is about 980 mm.

Visibility: The visibility in the area is generally fair all year round, except in Winter time when sometimes fog may occur.

Temperature: The local average temperature ranges from 8°C (46°F) in June, July and August, to 32°C (90°F) in January and February.

Humidity: The relative humidity of the air is nearly 80% in the region.

Currents: Currents in the area are not related to the local winds since the set, as well as swells result, as a rule, from deep sea winds which are not always in correspondence with local winds.

According to the variation of the intensity of the high sea winds, it is possible to forecast the variations of the intensity of the currents in the area of the SBM.

In the vicinity of the SBM, when there is no wind or there are only winds of low intensity, the currents of the area are strongly influenced by the tidal set of the bar of the port of Sao Francisco do Sul.

Waves: Southerly winds are originated, as a rule by cold fronts. The waves caused by them are very seldom higher than 3.5 m. (11.4 ft.).

The waves are, usually, 2.5 m. in height and have an 11 second period when Southerly winds blow during the Winter time, from June to October.

The maximum wave height allowable for operating vessels moored at the SBM is 3 m. (9.8 ft.), depending on the conditions of the mooring lines and the tensions over them.

AUTHORITY: Petroleo Brasileiro S.A.-PETROBRAS, Avenida Republica do Chile, 65-12° Andar, 20035 – Rio de Janeiro – RJ. *Contact:* Chief of Operations Division.

SAO LUIS (Including Itaqui), Maranhao:
02.30 S. 44.07 W. **(See Plan)**

LOCATION: *Itaqui:* The Port of Itaqui is located in the bay of Sao Marcos, in the Municipality of Sao Luis, Capital of the State of Maranhao, almost at the edge of the N.E. region of Brazil, and 9 km. to the S.W. of the city, with which it is connected via a breakwater extending over the River Bacanga.

The location, fairly sheltered, encompasses Itaqui Point and extends to the North as far as Madeira Point, where a Terminal is to be constructed for handling iron ore on behalf of Serra Dos Carajas, and to the South, reaches close to the Island of Tauamirim: it is formed by a re-entrance into the coast where the contours (depths) of 0 m., 5 m., 10 m., and 15 m., are almost parallel and are between 30 and 40 m. apart. In front of Itaqui, at a distance of 400 m. from the quay, is the Island of Guarapira with maximum dimensions of 100 m. × 300 m. and stretching in a N.S. direction.

The Area of Administration of the "Maranhao Docks Company" includes the Bay of Sao Marcos and the Islands located within it, being limited by a line which joins Tatinga Point on the mainland, to Sao Marcos Point on the Island of Sao Luis.

(a) The Port of Itaqui is confined between the parallels of 02° 34′ S., and 02° 36′ S. and meridians 44° 21′ W. and 44° 24′ W.

(b) The "Administrative Area" is confined by the following co-ordinates:
Meridians of 44° 24′ W. and 44° 19′ W.
Parallels of 02° 37′ S. and 02° 29′ S.

(c) The Area of Jurisdiction encompasses the whole of the coast of the State of Maranhao, from the border with the State of Piaui as far as the frontier with the State of Para.

DOCUMENTS: See "General" before first port.

PILOTAGE: Approaching coast, the Master must inform Agent via Coast Station Sao Luis – PPB (VHF Channels 16, 24, 25, 26 and 27) or Radio Marinha de Sao Luis – PWM (HF). Pilot launch painted red and provided with conventional lights. Launch awaits at Ponta da Madeira or other places requested in limit by Brazilian Chart DHN–412.

Vessel to notify Pilot service of ETA 6 hours before arrival.

ANCHORAGE: *Sao Luis:* The following areas are reserved for the anchorage of vessels awaiting to enter port.

(a) Location No. 1 for vessels of more than 2,000 g.r.t., up to 21 ft. draft and 135 m. overall (this is the nearest anchorage to the town).
Location No. 2 for vessels up to 18 ft. draft (and that which follows No. 2).
Location No. 3 for vessels up to 18 ft. draft (the nearest to the bar).
These anchorages are situated between the parallels of 02° 30′ 5″ S. and 02° 31′ 5″ S.

(b) Vessels impounded or requiring extensive repairs:
Vessels up to 10 ft. – Lat. 02° 31′ 9″ S., Long. 44° 18′ 7″ W.
Larger vessels: Lat. 02° 30′ 0″ S., Long. 44° 20′ 0″ W.

(c) Anchorage for vessels of less than 2,000 g.r.t. To the South of the partly submerged hull of the *Maria Celeste* between the State Warehouse and the Customs Warehouse.

(d) Vessels in quarantine: Lat. 02° 29′ 5″ S., Long. 44° 20′ 5″ W.
Vessels may not anchor in the approach channel or the turning basin.

Itaqui: The following anchorage zones for vessels arriving at Itaqui:
(a) Vessels over 5,000 g.r.t.: Lat. 02° 35′ 5″ S., Long. 44° 22′ 4″ W.
(b) Vessels impounded or requiring extensive repairs:
Lat. 02° 35′ 1″ S., Long. 44° 22′ 3″ W.
(c) Vessels in quarantine: Lat. 02° 35′ 4″ S., Long. 44° 23′ 3″ W.
(d) Inspection anchorage: Lat. 02° 35′ 2″ S., Long. 44° 22′ 4″ W.

RESTRICTIONS:
Sao Luis: May only be entered during daylight hours and near HW.
Itaqui: Cargo vessels may moor any time during the day or night depending on the state of the tide. Vessels bound for the oil terminal may only berth on the rising tide during the day. Berthing should commence 1 hour before HW.

MAX. SIZE: For port of Itaqui, max. draft at LW is 34 ft. At HW, depth of 45 ft. to 48 ft. available depending on height of tide.

HEALTH: (See "General" before first port.) Health Authorities visit compulsory, due to disinfection by Yellow Fever Service.

Tankers bound for the oil terminal will be inspected at the terminal after mooring is completed.

Vessels awaiting berths will be inspected at the inspection anchorages.

RADIO: Radio Marinha, code PWM, may be used for any message to the Agent.

TUGS: *Sao Luis:* One tug 50 h.p. available.
Itaqui: None.

BERTHING: *Sao Luis:* See "Anchorage".
Itaqui: Administration Quay – Length 164 m., depth 12 m.
Warehouse Quay – Length 164 m., depth 12 m.
North Quay – Length 164 m., depth 12 m.
South Quay – Length 164 m., depth 12 m.

The 80 m. quay will be provided with a ramp for car ferries. Also see "Ponta da Madeira" and "Alumar".

CRANES: *Sao Luis:* 8 portal cranes (2×6 tons, 6×3 tons) 1×50 tons, 2×3 tons, 1×6 ton on order.
Itaqui: 6×3.2 ton (gantry), 2×6.3 ton (gantry)
3×2.5 ton (mobile), 1×4.0 ton (mobile).
1×9.1 ton (mobile), 2×4 ton (tracked mobile).

BARGES: *Sao Luis:* 11 barges of 60 tons, 5 barges of 80 tons and 1 barge of 150 tons capacity. There are also 5 oil barges with a total capacity of 1,090 tons.

BULK HANDLING FACILITIES: 2 mobile grain elevators at Warehouse Quay serving Maranhao Wheat Mill, rate 150 t.p.h. The Maranhao Wheat Mill has silos with 12 cells, capacity 6,000 tons. Additional silos with 2,000 tons capacity available. The rated capacity of the elevators will be doubled in the near future.

STEVEDORES: On receipt of vessel's ETA Agent provides the necessary gangs. Master to mention in his ETA cable the distribution in cargo hold enabling Agent to arrange for number of gangs required. When loading or discharging bagged cargo an average of 4,000 bags per 8 hours work per gang handled.

MEDICAL: Advance notice by radio preferred, since medical assistance in S. Luiz is limited to 1 general clinic and 3 hospitals.

FRESH WATER: *Sao Luis:* Fresh water available by barge, rate 60 tons per day. There is also an outlet at warehouse No. 4 on the quay.
Itaqui: Available ex-wharf, rate 18 t.p.h.

FUEL: *Sao Luis:* Fuel oil available to vessels alongside, delivery by road tanker.
Itaqui: Diesel oil available to vessels alongside the Warehouse Quay and South Quay.

GANGWAY/DECK WATCHMEN: Normally done by the crew.

OPENING/CLOSING HATCHES: Done by stevedores.

CUSTOMS ALLOWANCES: No limit or restrictions.

IDENTITY CARDS: Foreign Crew members not permitted to go ashore without presentation of Identity Card, on which is a photograph of holder and personal details. These cards are provided by the Agent upon arrival. The Identity Card must be given on disembarkation to the Federal Police who will return it to the Crew member on re-embarkation.

CONSULS:

France	Tel. 1117	Spain	Tel. 2664
Portugal	" 1689	Norway	" 1888
Denmark	" 1507	Bolivia, no telephone	

Italian Consul at Itaqui. Tel: 2-04-08.

REPAIRS: Shop for small repairs available.

REPATRIATION: Possible. Last Port Clearance and Crew List required by Maritime Police.

AIRPORT: 13 km. from centre of town (18 km. from Itaqui), with daily flights to North and South of country.

TIME: GMT minus 3 hours.

HOLIDAYS: January 1st; April 21st; May 1st; September 7th; November 15th; December 25th (National holidays). July 28th; September 8th, December 8th, June 29th (local holidays); Maundy Thursday; Good Friday (Church holidays). On all holidays, except Good Friday, work permitted.

POLICE/AMBULANCE/FIRE: Police Tel: 1150; First Aid Ambulance 1943; Fire Brigade 1753.

TELEPHONES: No facilities for placing telephones on board.

GENERAL: The Port of Itaqui is rail-connected with the whole of Brazil, with the exceptions of the States of Para (Belem) and Amazonas (Manaus).

DEVELOPMENTS: Wharf at Itaqui to be extended to 1,068 m. Depth will vary from 30 ft. to 40 ft.

The existing petroleum berth will be replaced by the final extension of the wharf, although plans indicate the intended construction of a new Petroleum Berth on Guapira Island.

New unloader for bauxite, coke and iron ore under construction, rate 1,500 tonnes per hour.

A 16,000 t.p.h. linear shiploader has been ordered for Itaqui.

Also see "Ponta da Madeira" and "Alumar".

AUTHORITY: Companhia Docas do Maranhao, Rua da Paz 561, Sao Luis, Maranhao, Brazil. *Contact:* Washington de Oliveira Viegas, President.

TANKERS: Discharge at Port of Itaqui.
Tank Capacities:

	Esso		*Sabba*		*Texaco*		*Petrobras*		*Gas Butano*	
Products	*No. of Tanks*	*Volume (cu.m.)*	*No. of Tanks*	*Volume (cu.m.)*	*No. of Tanks*	*Volume (cu.m.)*	*No. of Tanks*	*Volume (cu.m.)*	*No. of Tanks*	*Volume (cu.m.)*
Gasoline	2	4,003	2	4,800	1	4,000	1	9,135		
Kerosene	1	1,580	1	8,000	1	400	1	1,544		
Diesel Oil	1	3,200	2	5,500	1	3,200	1	9,135		
Jet Kerosene					2	1,600				
Liquefied Gas									6	704
B.P.F.							1	4,032		

SAO SEBASTIAO: 23.48 S. 45.24 W. (See Plan)

LOCATION: Terminal Maritimo Almirante Barroso (TEBAR) is located on the West edge of the Sao Sebastiao Channel. Safe access is made through the South Entrance. The approximate geographical position of berths is Lat. 23° 48′ 3″ S., Long. 45° 23′ 3″ W.

The port limits extend from Ponta do Araca-Ilha das Cabras to Pontal da Cruz-Pontal do Paquea.

DOCUMENTS: The visiting area of the Port Health Authorities, Federal Revenue and others, is designated by the alignment: Ponta do Araca-Ilha das Cabras (South) and South limit of the zone of submarine cables (North).

Inward clearance is effected on board immediately after docking by Government Port Officials and Agent's Representative. It is necessary that the following documents be ready on arrival.

Any document regarding outward clearance of the ship at last port of call.

5 copies Crew List.
2 copies Store List.
2 copies Personal Effects List.
3 copies Passenger List.
3 copies Cargo Manifest, (or more if available).
3 copies Bill of Lading, (or more if available).
2 copies Maritime Declaration of Health.
Notice of Readiness (Addressed to Petrobras)
List of vessel's particulars: call sign, n.r.t., g.r.t., d.w.t., speed, engine b.h.p., draft, total crew, officers, time of arrival, loading ports and dates of sailing, quantity of cargo for Sao Sebastiao, quantity of cargo in transit for other ports, etc.

PILOTAGE: Pilotage is compulsory between the intersection of the Sao Sebastiao Channel with the alignment of the co-ordinates: Lat. 23° 43′ 18″ S., Long. 45° 20′ 12″ W. and Lat. 23° 43′ S., Long 45° 21′ 18″ W. (North Bar – Chart DHN No. 1643) and the intersection of the Sao Sebastiao Channel with the alignment of the co-ordinates: Lat. 23° 53′ 36″ S., Long. 45° 28′ 50″ W. and Lat. 23° 52′ 42″ S. Long. 45° 29′ W. (South Bar – Chart DHN No. 1644), except for Brazilian vessels less than 10,000 d.w.t. and which do not call at the port itself (passing only).

Pilotage is compulsory in the port of Sao Sebastiao for:

(a) Foreign vessels, tanker vessels, gas vessels and all vessels of any g.r.t. transporting explosives.
(b) All types of vessels over 500 g.r.t. bound for the Tebar Terminal. Pilotage is optional for Brazilian vessels bound for Port of Sao Sebastiao except the above mentioned.

The request for Pilots for entering should be made through the ship's Agents 24 hours in advance via Santos Radio Station (PPS) or Sao Sebastiao Radio (PTS) when the vessel's ETA is given. The ETA should be confirmed 3 hours in advance through Channels 13 or 16 (VHF) to the Pilot's Association of the Port of Sao Sebastiao.

The positions for boarding and disembarking of the Pilot – are defined by the areas of the circles of 0.5 miles radius whose centres are the following coordinates (Chart DHN No. 1614):

(a) NORTH BAR: Lat. 23° 42′ S., Long. 45° 21′ W.
(b) SOUTH BAR: Lat. 23° 53′ 30″ S., Long. 45° 29′ 30″ W.

The Pilot's Association functions at Rua Manoel Ladislau de Mattos, 27, Suite 24. Tel: 52-1332 – Sao Sebastiao. The Pilot's Association also has a branch office in Santos at Rua General Camara 5, Suite 606. Tel: 38-1944, 36-8036, 36-8037 and 36-8038.

APPROACHES: *Approaching Channel:* The channel of the port of Sao Sebastiao is 12.3 miles long. The South Bar Channel, dredged to 25 m. is 300 m. wide at its narrowest part, allowing entrance and sailing of vessels drawing up to 23 m. The North Bar Channel sounded to 18 m. is 550 m. wide at its narrowest part, allowing entrance and sailing of vessels drawing up to 10 m.

Special attention should be paid by vessels drawing over 18 m. when navigating in the Sao Sebastiao Channel; Chart DHN Nos. 1614, 1644 and 1643 show several cautions with depths of 20 m. and less in the proximities of the limits of the channel. "Caution A" on chart DHN No. 1643 should be strictly observed: Existence of submarine cable. It is forbidden to anchor within the marked area.

Tidal Stream: The height of the tide in the port of Sao Sebastiao varies from (−) 0.2 m. at LW and 1.5 m. HW, having an average level of 0.66 m. The tide runs either Northerly into the channel or Southerly with characteristics of permanent flowing as if it was a river following the orientation as given by the channel. The current attains considerable speeds which might prejudice the manoeuvring of vessels in the channel, specially at times of entrance of a cold front when winds also attain a significant force.

Whistling: Vessels approaching the port, prior to coming to Araca Point, must give a long blast on the whistle as a warning.

ANCHORAGE: Anchorages for ships are identified on Charts DHN 1614 and 1643.

Position No. 1: For ships awaiting berths (delay less than 6 hours):
Lat. 26° 49′ 15″ S., Long. 45° 23′ 39″ W.

Position No. 2: For ships up to 150,000 d.w.t., length 300 m., draft 18 m.:
Lat. 23° 48′ 18″ S., Long. 45° 22′ 54″ W.
Lat. 23° 48′ 00″ S., Long. 45° 22′ 39″ W.
Lat. 23° 47′ 24″ S., Long. 45° 22′ 30″ W.

Position No. 3: For larger ships and/or lightering of tankers:
Lat. 23° 46′ 24″ S., Long. 45° 22′ 12″ W.
Lat. 23° 45′ 42″ S., Long. 45° 22′ 54″ W.
Lat. 23° 44′ 54″ S., Long. 45° 21′ 42″ W.
Lat. 23° 44′ 15″ S., Long. 45° 21′ 24″ W.

Position No. 4: For ships in special conditions (quarantine, load/unload of explosives, etc.):
Lat. 23° 49′ 51″ S., Long. 45° 24′ 21″ W.

In the area comprised by the alignments – North Pier end with Itaguacu Point and South Pier end with Pontinha Lighthouse, anchoring will be permitted only in exceptional conditions and with authorisation from Delegacy of Port Captaincy.

RESTRICTIONS: The terminal normally operates around the clock. Ships are moored and unmoored at any hour except when an unexpected event arises, such as breakdowns, gales, heavy squalls, and so on.

Safe draft for passing along the dredged channel is 23 m. (75.5 ft.), no matter what existing conditions are, such as day or night, current set and drift, wind, tide or swell. However, at the discretion of Pilot, according to the prevailing above conditions vessels can use the channel with drafts up 24 m. (78.7 ft.) These figures are not final as they may change in time without previous notice.

Remarks: The limitations mentioned above could result in rejection of the ship as being unsuitable for this terminal.

Speed: Max. speed in port limits is 8 knots.

MAX. SIZE:

Position 1 (External Berth, South Pier): 26 m. (85 ft.) depth, for tankers up to 300,000 d.w.t., with max. draft of 23 m. (75 ft. 05 in.).

Position 2 (Internal Berth, South Pier): 19 m. (62.32 ft.) depth, for tankers up to 155,000 d.w.t., with max. draft of 16.9 m. (55 ft. 06 in.).

Position 3 (External Berth, North Pier): 19 m. (62.32 ft.) depth, for tankers up to 150,000 d.w.t., max. draft of 16.9 m. (55 ft. 06 in.).

Position 4 (Internal Berth, North Pier): 13.7 m. (45 ft.) depth for tankers up to 65,000 d.w.t., max. draft 12.2 m. (40 ft.).

HEALTH: Port doctor visits all ships on arrival and requires Maritime Declaration of Health, Derat Certificate, 2 Crew Lists. Vessels from another Brazilian port automatically receive Free Pratique and should not fly Quarantine Flag. If suspected disease or fever on board it is advisable to cable Agent before arrival.

RADIO: Vessels bound for Sao Sebastiao should advise their ETA 48 hours prior to arrival to PPR (Rio Radio Government Coast Station). Confirmation or change of ETA should be cabled 24 hours before arrival. When within range, tankers may also call TEBAR or FRONAPE VHF radio-telephone stations for instructions. All ETA's should indicate whether it is local time or GMT.

English is generally understood by Pilots and terminal representatives. Weather forecast as well as Notice to Mariners are transmitted by PWZ and PPR radio stations. Radio equipment should not be used at the piers. Communication ship-to-shore will be by telephone.

TUGS: *Owned by Petrobras:*

1×2,360 b.h.p. – Bollard pull 25 tons (twin motors with controlled-pitch propellers – "Kamewa").
2×3,170 b.h.p. – Bollard pull 40 tons (twin motors equipped with controlled pitch propellers – Seize).
1×3,720 b.h.p. – Bollard pull 40 tons (twin motors equipped with Voith Schneider system).

Privately Owned:

1×2,170 b.h.p. – Bollard pull 32 tons (twin motors equipped with Schottel system).

While rendering such assistance, the tugboats act under orders of Harbour Pilot. These tugs are fitted with fire pumps and monitors (including mechanical foam to assist in fighting fires. The following ship's whistle signals code is used for tugs communications:

Calling:	
4 long blasts followed by 1 or 2 short blasts.	The number of short blasts will call 1 or 2 tugs respectively.
Before Towing Line is Made Fast:	
2 short blasts	Prepare to push on the bow or to pick up line from ship's bow.
3 short blasts	Prepare to push on the stern or to pick up line from ship's stern.
After Towing Line is Made Fast:	
1 long blast	Pull to starboard
2 short blasts	Pull to port
3 short blasts	Stop pulling
Manoeuvring Alongside Ship's Hull:	
1 short blast	To pull
2 short blasts	To push

Other ship's whistle signals are used for auxiliaries boats.

Calling:	
2 long blasts followed by 1 short blast	To call small craft or Pilot (launch)
1 long blast followed by 1 short blast	To call motor-boat (launch)

All orders received by tug will be acknowledged with a distinct short blast.

As tugboats are provided with VHF, manoeuvring orders may be given by radio.

Usually orders to fore tug are given by a mouth whistle and to aft tug by ship's whistle.

Tugs are fitted with flashing signal lamps.

Circular: Instructions for employment of tugs during pilotage operations at the "Almirante Barroso" Maritime Terminal (TEBAR):

1. To operate at "TEBAR" vessels over 15,000 d.w.t., should have tug of at least 15 tons bollard pull.
2. The employment of tugs with adequate power is compulsory as from the Manoeuvring Area, both when berthing and anchoring at the Waiting Area. In case the vessel is without propulsion, a minimum of 3 tugs should be employed, 2 forward and 1 aft, with tow line fast.
3. During the unberthing operations of vessels of any given tonnage, the employment of at least 2 tug boats of adequate power is compulsory.
4. During berthing operations under normal conditions, the number of tugs to be employed should be, at least, the number of tugs indicated in table and as many as may be necessary to meet the following minimum requisites of bollard pull.
5. When for the sake of safety the Pilot may consider necessary a number of tugs beyond the number mentioned, he may act accordingly, justifying same, shortly therafter, in writing to the Delegate of the Captaincy in Sao Sebastiao.

6. When the condition of the sea, intensity of the wind or the visibility stop operations, the Pilot's Association should officially inform the Delegacy in Sao Sebastiao, accordingly.
7. The Agents of the companies engaged in the services of tugs at "TEBAR" should submit to the Delegacy and the Pilot's Association in Sao Sebastiao copies of the static pull referring to each tug.

Deadweight Tons (× 1000)	*Static Traction in tons*	*Minimum number of Tugs* *Outer berths* P1	P3	*Inner berths* P2	P4
up to 15	19	2	2	2	2
15 to 30	30	2	2	2	2
30 to 65	40	2	2	3	4
65 to 100	50	2	3	4	—
100 to 135	60	3	4	4	—
135 to 200	70	4	4	4*	—
200 to 250	90	4*	—	—	—
250 to 300	100	4*	—	—	—
300 on	130	4*	—	—	—

*Should extra tugs be available employment is recommended.

GENERAL CARGO WHARF: *Commercial Quay:* Length 150 m., depth 8.2 m. 6 bollards for berthing, spaced 30 m. apart. Fresh water available, 3 hydrants, capacity 10 cu.m.p.h. each. Fuel available by road tanker in small quantities.

Warehouses/Open Storage Areas: The covered storage area, available in the port area is 2,000 sq.m. and has a capacity of 12,000 cu.m. The open storage area for containers in the port area is 20,000 sq.m. and for heavy lifts 24,000 sq.m.

The storage area outside the port area, covered and open, is 10,000 sq.m. and belongs to the Companhia Nacional de Armazens Gerais Alfandegados (National Bonded General Warehousing Company).

There are no cold stores or silos on the port quay.

Cranes: 1×25 ton (private), 1×50 ton, 1×22 ton, 1×16 ton, 1×12 ton and 4×4.5 ton.

Stackers: 21×2 ton – 13.5 ton.

TANKERS: The pier is located on the Western edge of the channel between the shore and Sao Sebastiao Island. Safe access for large tankers is possible through the South Entrance but smaller tanker of draft 35 ft. or less may enter through the North Entrance.

The head of the jetty which is "T" shaped is 1,690 m. (5,544 ft.) from the shore, in position Lat. 23° 48.2′ S., Long. 45° 23.3′ W.

The South Pier is 510 m. (1,673 ft.) length and the North Pier 380 m. (1,246 ft.).

Also see "Max. Size".

Loading Arms:

Position 1	4×16 in.	(cargo)
	2×12 in.	(diesel oil/fuel oil)
Position 2	3×16 in.	(cargo)
	2×12 in.	(diesel oil/fuel oil)
Position 3	2×12 in.	(cargo)
	2× 8 in.	(diesel oil/fuel oil)
Position 4	Same as Position 3	

Reducers are available. All shore hoses are chiksan type arms.

Maximum Height: Max. height of hoses above platform: Position 1: 21.5 m. (70 ft.); Position 2: 17.8 m. (58 ft.); Positions 3 and 4: 16 m. (52 ft.).

Pipe-lines: 2×34 in. diameter pipe-lines, 2,300 m. (7,500 ft.) link the South Pier to the shore tanks. 2×24 in. diameter pipe-lines, 2,000 m. (6,500 ft.) link the North Pier with the shore tanks.

LOADING: *Maximum Permissible Pressure:* Both piers 10 kg./sq.cm. (150 p.s.i.).

Pumping Rates: South Pier: 100,000 bbls.p.h. if using two 34 in. lines and 3 or 4 hoses; up to 50,000 bbls.p.h. if using one 34 in. line and 3 or 4 hoses.

North Pier: Up to 48,000 bbls.p.h. if using two 24 in. lines and 2 hoses; up to 24,000 bbls.p.h. if using one 24 in. line and 2 hoses.

BALLAST: Brazilian laws are very strict in regard to the pollution of harbour and coastal waters. Vessels should not discharge dirty ballast, ashes, refuse, etc., into the water. Heavy fines are imposed for violations. All overboard discharge valves from cargo tanks and bilges are to be secured before any loading or discharging commences. All deck scuppers should be plugged to avoid harbour contamination should an oil spill occur. To offenders, fines will be charged (besides resulting delays) according to the ship's tonnage. Facilities for receiving dirty ballast are available. However, amount is dependent on space in shore tanks at the time. Capacity of tanks 12,000 cu.m. (75,000 bbls).

The Terminal is particularly interested in having vessels complete the deballasting operation promptly in order to minimise time at berth. Simultaneous discharging/loading and deballasting/ballasting is encouraged on properly equipped vessels.

MEDICAL: Medical treatment and/or hospitalisation, if required, is provided in the private local hospital. Dentists are available in the area. For emergency cases (serious illness or injury) TEBAR first medical aid may be requested by the Master. Internal telephone number is 20. If patient does not speak Spanish or Portuguese, an interpreter should accompany him.

FRESH WATER: Fresh water can be supplied if necessary; however, supplies are limited to essential requirements (up to 400 tons). Rates: Minimum 91 t.p.h. Maximum 148 t.p.h.

FUEL: The Terminal is equipped with blending valves and is able to deliver bunker "C", fuel oil, marine gas oil, marine diesel oil and intermediates of any grade – concurrently with working cargo at international prices.

The supply rates are about 300 t.p.h. for bunker "C", 180 t.p.h. for M.G.O. and 450 t.p.h. for intermediates.

Orders for bunkers should be placed, with a minimum of 48 hours notice to:

Divisao de Abastercimento a Navios – Departamento Comercial, Av. Republica do Chile 65, 19.° andar, Rio de Janeiro – Brazil. Telegraphic Address: Petrobrasecope. Telex: 031422 and 031423.

Lubricating Oils: Orders for marine lubricants should be placed at least 15 days in advance and subject to confirmation to: Petrobras Distribuidora, Praca 22 de Abril, 36, 4.° andar, Rio de Janeiro – Brazil. Telegraphic address: Petroedipe Telex: 031422, 031423 and 031424. Tel: 242-9381 and 242-4901.

Simultaneous Bunkering and Discharging Operations: Considering that the loading/discharging hoses cannot be crossed with bunkering hoses, the simultaneous bunkering and discharging operations will depend on the position of the ship's bunkering manifold. If the ship has 2 bunkering manifolds – 1 on each side of cargo manifold – the bunkering and the discharging may be effected at the same time. However, if a tanker has only 1 bunkering manifold at each board (located to the aft part in relation to cargo manifolds), this simultaneous operation will only be possible if the ship, is berthed port side at position 3 or starboard side at positions 1, 2 and 4. Alternatively, upon completion of loading/discharging the ship will have to be shifted a few metres forward to receive bunkers.

SURVEYORS: *Petroleum Inspectors:* None available in Sao Sebastiao. If required, arrangements should be made well in advance. A representative of Chas. Martin and Co. is based in Rio de Janeiro and E. W. Saybolt & Co. in Santos.

GANGWAY/DECK WATCHMEN: Compulsory.

REPAIRS: Some repairs of minor nature can be effected in Sao Sebastiao. When alongside pier, vessels must maintain engines and propulsion machinery in readiness to leave the berth under full power on short notice. No repairs are permitted which would interfere with this requirement. The ship repairing firms usually have branch offices in Sao Sebastiao which are able to undertake many kinds of small repairs. If necessary they can avail themselves of personnel of Santos or Rio de Janeiro branches.

CUSTOMS ALLOWANCES: For each Crew member, 2 packets of cigarettes and 1 bottle of wine or spirits. While the vessel is in port, Brazilian Custom's Officials are assigned on board to ensure compliance with Customs Regulations. Meals must be supplied to these Officials during regular meal hours. Brazilian laws are strict in regard to smuggling and Masters are requested to instruct their crews not to take cigarettes or other articles ashore. Cigarettes in carton lots, cigars, tobacco, alcoholic drinks, souvenirs, etc., should be collected prior to arrival in port, listed with the items in the slop chest and placed in the custody of the Master for deposit in the slop chest or closet which will then be sealed for the duration of the vessel's stay in port. By no means will any commercial transactions be tolerated, be it either among terminal employees, crew members or anyone else. Cigarettes or other stores in bond are not obtainable in Sao Sebastiao.

POLICE/AMBULANCE/FIRE: Police Tel: 521-400. Fire (Petrobras) Tel: 522-711 or VHF Channel 16 to Tebar.

CONSULS: No consular representatives are reported to exist in the area.

REPATRIATION: Possible, but involves lengthy car ride to Sao Paulo or Rio de Janeiro.

AIRPORT: At Ubatuba and Sao Jose dos Campos.

TIME: Local time is GMT minus 3 hours.

HOLIDAYS: 20th January (Sao Sebastiao Day).

SHORE LEAVE: The access pier is 1,600 m. long. The crew can use it to get ashore, but special passes are required for this purpose. There is, however, a launch service provided by Agent.

TELEPHONES: No service at the Commercial Quay. At Tanker Terminal there are telephones in the control room.

GENERAL:

Brazilian Flag and Others: In accordance with international practice, quarantine signals must be displayed by vessels when approaching Brazilian ports. These signals shall be displayed continuously until Free Pratique is granted and are: sunrise to sunset – quarantine flag "Quebec"; sunset to sunrise-signal lights red over white.

Tankers will display the red flag "Bravo" during the day and a red light during the night throughout their stay in port indicating inflammable or explosive cargo.

In addition to quarantine signals which are to be shown until Free Pratique is granted, the Brazilian Flag must be flown from foreign vessel's foremast throughout the vessel's stay in port.

Vessels must provide themselves with this flag before arrival but if circumstances render this impossible, the flag may be supplied by ship's Agent.

The Brazilian Flag must be of proper size, according to the d.w.t. of the vessel.

National Holidays: By order of the local Port Authorities it is requested that all ships in port must be fully dressed on the following National Holidays: 7th September and 15th November.

Watches: An efficient watch must be maintained on board the ship, deck and engine room and a sufficient number of crew members should always remain on board to cope with emergency or port operation situations.

Ratguards: Ratguards must be placed on all mooring lines.

Visit of Authorities: In case the ship enters and berths directly, the official visit of Authorities together with the Agents will take place as soon as she is tied up and the gangway is lowered. However, if the ship is not berthed immediately upon arrival (e.g. in view of the pier being occupied, or any other reason), the visiting party will proceed to the ship by motor-boat as soon as she drops anchor. If the ship arrives after 2100 hrs. it is possible that Authorities will decide to visit the ship next morning at 0800 hrs.; however, the ship is authorised to operate normally and crew members are allowed to go ashore.

Seamen Left Ashore: Ships are not permitted to sail until all crew members are on board. Should, however, a crew member definitely not be found, his passport (or seaman card) and his international vaccination certificates must be given to the Agents, together with a letter requesting him to be repatriated.

Weather and Tide Conditions: The weather at Sao Sebastiao is generally very favourable; however, strong winds and currents are frequent mostly during winter. 128 km.p.h. wind was registered last year. Swell is not observed in the channel. The winds are unpredictable for more than a few hours in advance; usually it blows from N.N.W. or S.S.W. As regards rain, the annual precipitation averages 2,000 mm. The visibility is mostly fair, although in Autumn and Winter it may become rather poor in the early morning. The temperature ranges from 15°C (59°F) in July to 39°C (104°F) in January. The relative humidity of the air is usually high, often exceeding 85%. The normal range of tides is around 1.2 m. (4 ft.). Although higher ranges of 2 m. (6.5 ft.) have been noticed during Spring. The currents are irregular but usually follow the direction of the wind; according to the intensity and the duration of the wind, the drift may range from 1 to 4 knots.

Safety Precautions in Case Imminent Bad Weather:

(a) Wind speed in excess of 30 knots and/or currents more than 3 knots.
Permanent inspection of mooring system.
Pilot, tugboats and longshoremen in readiness.
1 tug to be alongside ship berthed in PP-1 and another alongside ship berthed PP-3.
Engine room-ready.
Steam fed to winches.
Reduce surface exposed to wind.
Discontinue unloading and disconnect loading arms.

(b) Wind speed in excess of 50 knots and current of more than 4 knots.
Do not loosen winch brakes to try to run cables.
Man manoeuvring station.
Call Pilot, tugboats and longshoreman. Discontinue loading/unloading operation.
Increase torque on brakes.
Pass extra mooring lines.
Disconnect loading arms.
Remove gangways.

Derat Certificate: In case the Derat Certificate has expired and needs to be renewed, a radio message should be sent to the Agent a few days before arrival, so that they are able to make the necessary arrangements with the Sao Sebastiao Port Health Inspector.

Renewal of Vaccination Certificates: For the same reason mentioned above, the Master should send, beforehand, a radio message stating how many vaccinations of each kind will be required. The vaccinator has to come from Santos.

Passengers: Passengers will be permitted to disembark if in possession of the required visa and documents for identification.

Visitors: Only the personnel duly authorised by Port Authorities may come on board the ships; this excludes all visitors. Relatives of crew members may obtain from Port Authorities a licence to go on board.

Constant Readiness: During the time the ship is berthed alongside, her engine and propulsion machinery should be in readiness to leave the berth on short notice. No repairs are permitted which would interfere with this requirement.

Smoking: Smoking in open areas of the ship and on the pier, is strictly forbidden. The crew are not to throw lighted cigar or cigarette ends overboard.

Photography: The taking of photographs within the terminal is prohibited.

Emergency Towing Wires: 2 towing wire ropes should be always hanging to the water's surface so that the tugs can easily make fast should an emergency arise.

Gangways: All ships calling at Sao Sebastiao must provide a safe gangway. Authorities may refuse to board the ship if a safe gangway or accommodation ladder is not provided. At night, the pilot ladder must be adequately lit. The terminal is not equipped with platform ladder. The ship's ladder must be used.

Lifebuoy: A lifebuoy with 15 fathoms (27 m.) of rope should be kept nearby the gangway for use in case of emergency.

Ship's Fire-fighting Equipment: At least 2 fire hoses should be connected to hydrants on main deck: 1 forward and the other abaft the cargo valves manifolds. A third hose with an NPU nozzle and 2 mechanical foam containers should be kept nearby the pump-room. The ship's main fire-extinguishing system should be kept under constant pressure.

Minimum Draft for Safe Manoeuvring: Although the amount of ballast carried on vessels is at the Master's discretion, the table below is recommended as a guide:

Vessels of 30 – 40,000 d.w.t. draft for'd 16 ft. aft 20 ft.
Vessels of 40 – 50,000 d.w.t. draft for'd 18 ft. aft 24 ft.
Vessels of 50 – 70,000 d.w.t. draft for'd 20 ft. aft 28 ft.
Vessels of 70 – 100,000 d.w.t. draft for'd 24 ft. aft 32 ft.

Vessels over 100,000 tons should be ballasted to approximately one third of the vessel's deadweight.

Bond Wire: Before the connection of shore hoses, the bonding wire will be connected, by a terminal employee, to ensure a good grounding electric contact.

Boiler Tubes and Sparks: Whilst alongside the pier, no boiler soot blowers may be used. The use of derricks is also forbidden (excepting the poop derrick, when lifting stores, provisions, etc.). Likewise, the use of objects and/or tools which may cause sparks is also forbidden.

Fire Signal: Should fire break out in any part of the ship, the fire alarm should be given: a continuous sounding of 7 short blasts on the whistle, followed by a long one.

Transportation of Stores, etc., from Shore to Ship: The terminal does not permit the carriage of items through the jetty. Consequently, the ship has to use the services of a motorboat, or a tugboat or of a floating craft (which is towed to the ship's side). The motorboat or the tugboat may only approach the ship by the sea side. No derricks may be used, although the terminal has no objection to the use of the poop derrick or crane (sea side). Depending on the nature and the weight of items involved, they may be taken on board using the gangway (sea side).

Provisions and Stores: Provisions and stores are supplied by shipchandlers contracted directly by Owners or Masters or through the Agents. Usually they have to be brought from Santos, which requires a radio advance request, in view of the distance involved. It is hoped that in the near future provisions and stores in large quantities may be easily obtainable in Sao Sebastiao. Some items may be obtained in Caraguatatuba.

Radio Equipment: When the tanker is berthed, its main transmitting aerials should be earthed.

Laundry Facilities: Available at Sao Sebastiao.

Communications: Telex and telephone available at the Agencies and at the terminal.

Rubbish: Garbage bins are available at the Commercial Quay for berthed tankers and anchored vessels, garbage bins are available through boat acquired by Agent. Dry garbage facilities available for anchored and berthed vessels using boat acquired through Agent.

Oil Pollution: The terminal is equipped with a system for oil pollution fighting in the sea.

Compensation for oil pollution damage caused by tankers and cost of fighting pollution performed by terminal are owner's liability.

REGULATIONS:

Craft not directly engaged in the port's traffic should navigate at a minimum distance of 150 m. from the Maritime Terminal and from vessels alongside and at anchor.

Skin diving and underwater hunting are prohibited in the area assigned as being the Port of Sao Sebastiao.

The line between Pontinha Lighthouse and the Cais Comercial (Commercial Quay) should be kept permanently clear due to the traffic of ferry boats.

The passage through the Sao Sebastiao Channel of foreign flag vessels other than those destined for the port itself is prohibited.

The maximum speed allowed between the limits of the port of Sao Sebastiao for vessels over 1,000 d.w.t. is 8 knots.

Craft and vessels berthed on the external side of the Cais Comercial (Commercial Quay) and Maritime Terminal, on both sides, should maintain vigilance and be manned.

All vessels which, for any given reason, may have to stay in the channel and port of Sao Sebastiao for more than 1 week, should communicate in writing to the Delegacy of the Port Captaincy the reason surrounding the fact and informing at the same time the expected time of stay.

SHIPMASTER'S REPORT:

Pilotage: Vessels normally sail and arrive by the Southern Entrance.

Anchorages: The holding ground for VLCCs is not very good, but appears good for smaller vessels. (We had 3 cases of ships dragging during our two and a half weeks stay, all VLCCs.) The current runs Northerly or Southerly depending on the wind.

Tugs: 5 tugs normally used for berthing and unberthing irrespective of vessel's size.

Medical: Dental and routine medical matters available. Specialists are available some miles away. For inoculations the doctor comes from Santos.

Fresh Water: Rates are dependent on number of vessels watering and can be as low as 10 t.p.h.

Customs Allowance: 2 cartons cigarettes per man. Customs no longer stay on board the vessel.

Repatriation: Is possible, but involves lengthy car ride to Santos or Rio de Janeiro. The best and nearest airport is outside Sao Paulo, where international flights are available. This is quicker than going to Rio.

Telephone: Available in jetty control rooms.

Shore Leave: When berthed the Agent can arrange a minibus service from the T-head of the jetty.

Port Regulations: Vessels throwing or discharging anything into Brazilian waters are subject to a fine equalling 2% of the minimum Brazilian basic wage multiplied by the vessel's gross tonnage. Garbage disposal is difficult to arrange and they will only accept dry garbage.

General: Communications are poor, no telex and messages have to be telephoned to Santos. Best method is to use ship's equipment when at anchor.

AUTHORITY: Petroleo Brasileiro S.A. – PETROBRAS.

Head Office: Av. Republica do Chile, 65, 23°, Andar, ZC-06, Caixa Postal 809, 20000 Rio De Janeiro – RJ, Brazil. *Tel:* 221-5577. *Telex:* 31.422.

Transportation Department: Av. Republica do Chile, 65, 12°, Andar, 20035 Rio De Janeiro – RJ.*Tel:* 221-5577 – Ramal 2401

Terminal Almirante Barroso: Rua Guarda-Mor Lobo Viana, 1111. C.P. 187, Sao Sebastiao, Sao Paulo, Brazil. *Tel:* (0124) 522.711. *Telex:* 01137871. *Cables:* Tebar – Petrobras. *Contact:* Stael Prata Silva, Superintendent. Captain Jose Carios Do Carmo, Terminal Manager.

Secretaria dos Transportes do Estado de Sao Paulo, Avenida Dr. Altino Arantes No. 410, Sao Sebastiao. *Tel:* 52-1524, 52-1338.

Capitania dos Portos, Avenida Dr. Altino Arantes No. 544, Sao Sebastiao. *Tel:* 52-1555, 52-1550.

SEPETIBA BAY, (Guaiba Island and Ilha Madeira): 23.00 S. 44.02 W. **(See Plan)**

See "General" before first port.

LOCATION: About 50 miles West of Rio de Janeiro, is the site of a bulk iron ore terminal located off the S.E. end of Ilha Guaiba about 7 miles due North of the bay entrance.

PILOTAGE: Compulsory for all ships entering the bay and berthing and unberthing at the ore facility. Pilots board in the vicinity of Lat. 23° 08′ 39″ S., Long. 44° 04′ 36″ W. A pilot ladder, boat rope, and gangway must be properly rigged with the landing platform of the gangway lowered to within 5 m. (16.5 ft.) of the water. Adequate lighting should be provided at night.

ARRIVAL INFORMATION: Vessels bound for Baia de Sepetiba should send an ETA to their Rio Agents, via Rio Radio, six days, 48 hours, and 24 hours prior to arrival. Any significant change in this ETA should be corrected as soon as possible but not less than 8 hours prior to arrival. Also see "VHF".

ANCHORAGE: In the vicinity of the Pilot boarding area. Ships should not proceed beyond this point unless a Pilot is aboard and instructions have been received from Sepetiba Marine Operations to proceed.

MAX. SIZE: *Ore:* Max. draft 21.98 m. (July 1983). Max. air draft 21.6 m. Max. beam 54 m.

HEALTH: Radio Pratique should be requested 72 hours prior to arrival by transmitting a quarantine message to the Port Health Authorities through the the ship's Agent. This message should contain the following information: name and nationality of vessel; last port of call; number of crew and passengers; general conditions of health on board. Also see "General" before first port.

VHF: Vessels are requested to contact Sepetiba Marine Operations directly when within VHF radio-telephone range. Channel 16 is the calling channel and 11, 12 and 13 are the working channels. Anchoring or berthing instructions should be requested 4 hours prior to arrival or when within VHF radio-telephone range.

TUGS: Tug assistance is compulsory for all manoeuvring in the vicinity of the pier and 3 powerful twin screw tugs are available for this purpose. All ships should be equipped with a wire cable tow line with a nylon pendant. Radio-telephone communication is maintained between the tugs and the Pilots on Channel 6.

BERTHING: Ore: Facilities consist of a deep-water pier located about 400 m. (1,312 ft.) South of the island. The South Berth has a depth of 24 m. (78.75 ft.) alongside and the North Berth has a depth of 19 m. (62 ft.). A mooring dolphin at the West end of the pier provides an overall mooring length of 470 m. (1,541 ft.) alongside the South Berth. Bollards are spaced along both pier faces and quick release hooks and capstans are fitted for breast, bow and stern lines.

Also see "Shipmaster's Report" – dated May 1980.

Coal: Terminal completed and fully operational.

Location: 23.01 S., 44.02 W.

Operator: Cia Docks do Rio.

Berth: Length 575 m. Depth 17 m. Max. draft 15 m.

Equipment: 2 grab unloaders × 1,500 tonnes per hour and 2 grab unloaders × 800 tonnes per hour.

Also see "Reports" – dated December 1980 and August 1984.

BULK HANDLING FACILITIES: Ore: One travelling shiploader serves both berths and has a boom clearance of 22 m. (72 ft.) at shipside and max. outreach of 29.9 m. from fender line. Travel of loader 250 m. Ore is stacked in a storage area and is delivered to the shiploader by conveyor belt which is loaded by either of 2 stackers having an average capacity of about 7,000 tonnes per hour each.

Coal: See "Berthing" and "Reports".

SHIPMASTER'S REPORT: Ore Berth: May 1980.

Agents:

(a) Mineracoes Brasileiras Reunidas, (the operators and loaders). Av. Graca Aranha, 26, 17th Floor, Rio de Janeiro. Tel: 222-5171. Cables: "Brasilore".

(b) Buarque & Cia, (ship's Agent appointed by the Solmer contract), Rua de Rosario, 113, P.O. Box 1542, Rio de Janeiro. Telex: 2121300 BUCL. Cable: "Joarce". Tel: 221-2210, 221-9961.

Arrival Telegrams: According to the charter party, telegraph "Brasilore" and "Joarce" when leaving the previous port of call, and repeat 72 hours and 24 hours prior to arrival. During the last 24 hours, a change of one hour or more in ETA must be reported.

Radio clearance is requested through the intermediary of BUARQUE to whom it is necessary to quote in the 72 hours telegram the following: last port of call, number of crew members, passengers, state of health, date of deratting certificate, name of Master.

BUARQUE replies to the first ETA telegram indicating the possibilities of direct entry or waiting. As MBR remains silent, it is advisable to ask BUARQUE to confirm the tonnage to be loaded and the quantity, more or less, of each type of ore involved. Olinda/PPO (Recife) and Rio/PPR stations are normally used. Good easy connections and no delay. Olinda is particularly well placed for communications with vessels approaching from the North.

If the crew members have no Brazilian pass (even if made out in another port) ask for a photographer.

General Information:

The Port of Sepetiba, opened to ore traffic in 1974, belongs to Mineracoes Brasileiras Reunidas (MBR). It is the maritime outlet for a group of mines located some 1,200 km. inland.

Situation: The terminal is located at the S.E. end of the island of Guaiba, in the East part of the bay of Ilha Grande (Large Island), some 50 miles to the West of Rio de Janeiro.

The island is connected to the mainland by a railway bridge which brings the ore for shipment.

The terminal administrative office is on Sai beach, 5 miles to the N.E. (and 120 km. from Rio by road).

Local Time: GMT minus 3 hours.

Pollution: Deballasting at sea only. The Authorities make pressing recommendations to avoid pollution, warning that fines are heavy and not alterable.

Monetary Exchange: Only at the Agency can cruzeiros be obtained, but dollars are much sought after on land, even by small traders. Advantageous exchange rate.

Navigation:

Charts: Brazilian – 1601, 1602, 1603, 1608, 1610.
British – 3970, 1683, 3970
American – HO 24155, 24164, 24160.

Landfall: No difficulties, using the mountains which are around the entrance: Ilha Grande to the West (1,037 m.) and Ilha de Marambaia to the East (620 m.).

Access: The approach channel, is in two straight parts, and is 7.6 miles long. Buoys are not very visible either by day or by night, but perfectly detectable on radar.

The width of the channel varies from 280 m. up to Buoy No. 7; 580 m. at Buoy No. 9 (bend); 330 m. up to Buoy No. 13; and then widens out into a manoeuvring basin 1.8 miles long and 0.5 miles wide.

Draft: The channel has been dredged to 22.5 m., and the manoeuvring basin to 24.5 m. Vessels drawing 21.5 m. have used it on sailing. The Pilots recommend drafts forward of 30 ft. and aft of 36 ft. for the entry for a vessel of the tonnage 122,000 d.w.t.

Currents: Along the coast, coming from the East, weak and counterclockwise. Inside, tidal currents may reach 1.5 knots.

Tides: Twice a day but not equal every day. Tidal rise about 1 m.

Times of entry and sailing: Night and day.

Maximum vessel dimensions: Within the limit of the practicable draft of 21.5 m. No length restriction.

Pilotage: Compulsory. The Pilot boards between 1 and 2 miles from the channel entrance. On sailing, he leaves the vessel between Buoy No. 8 and No. 6.

The pilot vessel has a white hull, a red roof and shows an alternating red light by night. Max. speed 9 knots.

Call up on VHF Channel 16, work on Channel 13.

For embarkation, lower the accommodation ladder to 5 m. above the water, and the pilot ladder to 1 m. above the water. On leaving the vessel, he only uses the pilot's ladder (if the vessel is fully loaded).

Anchoring: When awaiting the Pilot, vessels can anchor in 24 m. of water, 2 miles to the South or S.S.W. of the channel entrance (unmarked wreck, at a depth of 19 m. 1.5 miles to the S.E. of the entrance).

Whilst waiting to berth, the Pilot anchors the vessel, either to the North of the second part of the channel between Guaiba Island and Mangaratiba Lagoon, in 15 to 18 m. of water. (Four vessels of 150,000 tons would be able to lie there with ease). Or, to the East of Guaiba Island, outside the manoeuvring basin, in 25 to 30 m. of water.

Holding is good in all these anchorages, but vessel exposed to the swell.

Tugs: Three tugs of 4,000 h.p. available (MBR 1, 2 and 3).

The tugs are taken at the entrance near Buoy No. 11. They are released on sailing, before Buoy No. 13.

On entry and sailing, 1 tug forward and 1 astern, each taking 2 lines from the vessel. The third comes alongside amidships and passes 2 lines to the vessel. Communication with the Pilot is by walkie-talkie.

Berths: The pier is 400 m. long and orientated 238°/058°. It is connected to the Island by a bridge approximately 300 m. long carrying the conveyor belt. Vessels can come alongside on the inside (N.N.W.) but for large ships only the outside (S.S.E.) is used.

Berthing: Inside – starboard to quay

Outside – starboard to quay after manoeuvring, or portside to the quay (according to the current).

Fenders: Inside – two thicknesses of large tyres. Outside – metal panels fitted on thick rubber supports and shock absorbers. When heaving off, it is recommended not to slide against these fenders so as to avoid damaging them.

Mooring lines: A strong swell is experienced at the quay, therefore good moorings are necessary. 4 lines at the bow, 2 to 4 amidships and 2 astern. Two launches assist in passing lines. There are windlasses on the quay. The wire lines are positioned afterwards.

Height of Quay: 5 to 7 m. above the water, dependent upon the state of the tide.

Gangway: This is only used after the vessel is fairly well loaded.

Handling:

Equipment: A single conveyor belt, movable through 360°, 22 m. above water level. Personnel, installation and equipment belong to MBR.

Advance Arrangements: Come alongside the quay with holds clean and open. Opening of hatches can be carried out during the approach manoeuvre. Inspection of tanks and slops takes place as soon as the vessel is alongside, and a gas-free certificate is issued.

Working hours: 24 hours.

Holidays: None.

Capacity: The gear can supply 7,000 t.p.h. In reality, the net capacity, with stops deducted was 3,100 t.p.h., and more than 40 hours had to be worked, stops and weighing included, to ship 120,000 tons.

Weighing: As the weighbridge was not operating the only check therefore was reading the draft marks, fairly approximate as there was a swell, carried out by the Master and the draft surveyor (the latter issues the gas-free certificate). It appears that it is necessary to watch calculations closely, particularly as far as the incidence of sag on the deadweight (application on the MBR leaflets of the "Means of means" rule which is less favourable than the "two-thirds rule" generally applied elsewhere).

Formalities:

On arrival: The Agent comes on board with Customs, Health and Immigration. Whilst the photographer is working, and the inspector checks the holds, the following documents are handed over to the different authorities represented:

1 Manifest of Ballast.
9 Crew Lists.
2 Passenger Lists.
5 Stores Lists.
4 Individual Declarations.
1 Health Declaration.
4 Notices of Readiness.

Photographs for passes are brought back within 2 hours and the next morning where a night arrival is concerned. (May 1980 – done on the spot using a Polaroid).

Customs: Seals placed on alcohol and tobacco. No individual limitations.

On sailing the Agent delivers on board:

2 Gas-free Certificates
2 Visaed Notices of Readiness, ship's copy
2 Notices of Readiness, Agency copy

1 Sailing Pass
1 Embarkation Pass
2 Vessel Sailing Passes
1 Draft Survey Results
1 Weight Certificate per type of Ore Loaded
2 Cargo Manifests
2 Cargo Loading Statements
2 Cargo Distribution Plans.

Facilities:

Shore access: The nearest town is Mangaratiba (7,000 inhabitants). To reach it, show your pass at the gatekeeper's office on leaving the port, take a bus (a few minutes) to the landing stage at the foot of the bridge between the island and the mainland.

Take the launch (45 minutes) to Mangaratiba.

From there, another bus goes to Rio (the bus company is EVAL) which takes about 3 hours, leaving every 2 hours. The first bus is at 0800 hrs. Price 18 cruzeiros. Last departure from Rio at 1800 hrs. (Bus station at the corner of the port, at the end of Avenida Francisco Bicalho).

The Agent arranges the times of departure of the launches with vessels' officers.

Medical care: At Mangaratiba for urgent attention and minor treatment. More serious cases must be handled in Rio.

Repairs: Small repairs possible using local personnel. For repairs of some importance, it is necessary to call in Verolme at Angra dos Reis or a shipyard in Rio.

Stores: Some direct purchases possible in Mangaratiba. Limited choice. An order can be sent by telegram to the Agent who will make the necessary purchases in Rio, which will involve the cost of transport, and therefore high prices, particularly for small quantities.

Bunkers: None available.

Fresh Water: Available on the quay, but not drinkable. Output 60 t.p.h.

Telephones: Connection possible on request to the land network.

Lifeboat practice: After prior agreement of Port Captain.

REPORT: December 1980. Coal Berth.

Location: Madeira Island – District of Itaguai – Rio de Janeiro.

Geographical Coordinates:

Latitude: 22° 56′ 11″ South, Longitude: 43° 50′ 20″ West.

Access:

Railroad – Wide gauge linking the Port to Japeri.

Highway – Connecting BR-101 highway to the Northern and Southern highways.

Ocean – Deep channel with 15 m. in the initial phase with 18 m. later.

Infrastructure:

Electric Power – High tension line of 138 kva.

Water – Guandu system, with great capacity.

Available systems of communication: telephone, telex and radio.

Hand-labour – Specialised and semi-specialised, available in the area.

Supplies – Easily available in the area.

Stages of the Project:

1st Stage: The terminal has a capacity to transport 5.8 million tons of coal/year, added to the manoeuvring of 130,000 tons/year of alumina from Valesul. Termination expected in the 2nd half of 1981.

2nd Stage: To be developed soon after the termination of 1st stage. Will be constituted of installations for the exportation of 18 million tons/year of iron ore (2 berths); 4 million tons/year of steel products (3 berths) and a quay for the transport of natural gas, sulphur, fertilisers and containers.

Construction being executed:

Access channel – With 22 km. extension and 200 m. width. Manoeuvring basin of 11 m. depth where vessels will manoeuvre without cargo.

Berthing quay: With 540 m. length and 39.25 m. width, allowing the berthing of 2 vessels (one of 90,000 t.d.w. and another of 50,000 t.d.w., or 2 of 65,000 t.d.w.) at South face, and 2 of 45,000 t.d.w. at North face. It will have 2 conveyor belts for coal and one for alumina, being 3 m. wide reserved for the installation of equipment in the 2nd stage.

Access bridge: The access to the quay is by an "L" shaped bridge, 750 m. in length and 22.5 m. width.

Sea-wall: It covers the Southern part of Madeira Island with an extension of 4,000 m. It will also be utilized for the passage of coal conveyor belt lines, access roads, and in the 2nd stage, for the access of steel products and ore conveyor belt lines to the quay.

Stocking area: Parallelogram-shaped, it will have 2,500,000 sq.m. and a stocking capacity of 500,000 tons.

Rear stocking area:

Reserved for cargo (coal, ore, solid and liquid bulks, etc.)	5,050,000 sq.m.
Reserved for the administration, maintenance and services	1,200,000 sq.m.
Reserved for small industries associated with the port activities	800,000 sq.m.
	7,050,000 sq.m.

Operational equipment:

Quay equipments: Coal – 2 dischargers of 1,500 t.p.h. each
2 dischargers of 800 t.p.h. each
Alumina – 1 sucker of 300 t.p.h.

Transport equipment:

Coal – 2 conveyor belts of 4,500 t.p.h. each
Alumina – 1 conveyor belt of 300 t.p.h.

Piling equipment:

Coal – 2 fork-lifts of 4,500 t.p.h. each
2 recyclers of 3,000 t.p.h. each

Centralised Control: Equipment is controlled by an automated Main Control Centre which will supervise the operations.

Water supplying and fire fighting system: A 200 mm. duct, expected capacity of 200 litres/second. A reservoir of 1,500 cu.m. will supply the whole port including the fire line.

Sewage: A compact modular station has been initially planned, and subsequently an underwater pipe-line.

Buildings and auxiliary installations:

Buildings for the Administration and Operations.
Buildings for the Maintenance and Services.
For the Communications Room.

Expansion: So as to increase the capacity of the coal terminal to 2.8 million tons/year, making a total of 8.6 million tons/year, 2 more dischargers will be required, one (1) with a capacity of 1,500 t.p.h. and another with 800 t.p.h.

SHIP'S OFFICER'S REPORT: August 1984. Coal Berth.

Anchorage: There are 3 main anchorages used by vessels awaiting berthing at Ilha de Madeira Terminal, Sepetiba Bay.

The first is the main waiting anchorage which serves the Pta. do Leme Oil Terminal, Ilha Guaiba Ore Terminal and Sepetiba Bay. This is situated in the vicinity of Lat. 23° 08.8′ S., Long. 44° 04.5′ W. as marked on Chart No. 1683. Pilots will board here.

The second anchorage is that which the Pilots prefer you to use as the waiting anchorage and is situated in the vicinity of Lat. 23° 03.7′ S., Long. 44° 03.0′ W. This area is also the preferred boarding station for the Pilot as vessels proceeding to Sepetiba Bay do not have the draft to require them to use the approach channel to Ilha Guaiba Ore Terminal.

The third anchorage area is the main waiting area for vessels bound for Ilha de Madeira Terminal and lies to the South of Ilha Jurubaiba, North of the main channel, as marked on Brazilian Chart No. 1623, from the vicinity of No. 4 Buoy to the vicinity of the corner to the North of No. 5 Buoy Northwards to the Latitude of 22° 58.0′ S. (Approx.).

Pilotage: Pilotage is provided by the Rio de Janeiro Pilotage Authority who should be given the usual long-range ETA's etc., "Sepetiba Pilot" should be called on VHF Channel 16/13 from about 4 hours before arrival off Pta. de Castelhanos (Lat. 23° 10.2′ S., Long. 44° 05.5′ W.) for instructions. Pilots will not move vessels in Sepetiba Bay after dark and, if there is a ship on the berth at Ilha de Madeira ready to sail they prefer to make one operation of it by sailing the outward bound vessel before taking in the arriving vessel. Should they require an arriving vessel to anchor they prefer it to use the second anchorage mentioned above so that they may leave the outward vessel and transfer to the inward ship around that area. Pilotage is compulsory for all ships using the deep water channel in Sepetiba Bay.

Tugs: There are three powerful twin-screw tugs which serve the ports in and around Sepetiba Bay. They are "MBR I", "MBR II" and "MBR III". They are apparently based at Itacurca. At Ilha de Madeira Terminal they tie up one on the bow, one on the stern and the third assisting as required amidships, using ship's ropes.

Berthing: Ilha de Madeira Terminal is situated on Ilha de Madeira (Lat. 22° 56.15′ S., Long. 43° 50.2′ W.) and consists of a single long jetty lying approx. 086°/266° T. with a connected dolphin each end. The Eastern dolphin is also connected to the shore by a bridge in the direction 357° T. (approx.) which carries the coal and Bauxite belts, service lines and the approach roadway.

The main part of the jetty is 610 m. (approx.) long and can berth two ships on the outside which is protected by large pneumatic rubber fenders. These berths are served by 4 discharging gantries and two belts for the discharge of coal. At present only two of the gantries are operational but work proceeds on the other two and they should be ready in the near future. Ships berth port side at this jetty. There is a berth on the inboard side of the jetty at the Eastern end which handles Bauxite. The rest of the inboard side has bollards at the usual intervals but has no machinery serving it at present.

The jetty was opened for use in February 1983 and development continues. Further development of the port is projected.

The present limiting draft for arrival is considered to be 37 ft. with a limiting draft alongside of 41 ft. Further dredging etc. is projected to improve the approaches.

Stevedores: Stevedoring appears to be under the control of: Servicos Maritimos e Portuarios Ltda., Matriz: Rua de Quitanda 191-5e andar Rio de Janeiro – RJ. Tel: 253 8899 Geral. Telex. 21214915 SMP BR.

Repairs: All repair firms etc. are located in Rio de Janeiro, hence all major work must be done there. Minor work may be carried out in Sepetiba Bay. Divers, etc. would come from Rio if required.

Supplies: All fuel must be obtained at Rio de Janeiro. Fresh water is supposed to be available on the berth but the berth is most unwilling to supply and only then in very limited quantities. The available hydrant is well forward and the shore will provide only sufficient hose to reach the deck. This hose is in extremely poor condition.

Provisions are supplied by road from Rio and appear to be of good variety and quality. Bonded stores are available also.

Services: All services are supplied through or at Rio de Janeiro.

Communications: There is a good road to Rio de Janeiro and there is a rail link. The nearest airfield for international flights is at Rio de Janeiro.

AUTHORITY: Porto de Sepetiba, Cais do Porto, Itaquai, RJ Brazil.
Contact: Francisco X. Bastos do Amaral, Manager.

TRAMANDAI (Rio Grande Do Sul): 29.59 S. 50.08 W.

(See Plan)

LOCATION: *Almirante Soares Dutra Terminal:* Terminal Maritimo Almirante Soares Dutra – TEDUT, is located 6 km. from Tramandai, which is 120 km. from Porto Alegre, Capital of the state of Rio Grande do Sul. The Buoys (SBMs) are positioned 2.05 miles and 3.35 miles from the shore and their geographical co-ordinates are:

SBM No. 1 (West), Lat. 30° 00′ 40″ S., Long. 50° 05′ 42″ W.
SBM No. 2 (East), Lat. 30° 01′ 52″ S., Long. 50° 04′ 35″ W.

DOCUMENTS: Also see "General" before first port.
4 copies Cargo Manifest.
4 copies Bill of Lading.
Cargo's Quality Certificate.
Time Sheet and Ullage Report from the Loading Port.
Narcotics List.
3 copies Crew List.
3 copies Stores List.
Crew's Baggage Declaration.
Passenger's List or Negative.

PILOTAGE: Sea Pilot not required. On daylight arrivals the PETROBRAS launch will meet the ship 2 miles Northeastward from SBM No. 2, carrying the Mooring Master, Port Authorities, Terminal's workers, equipment for mooring and connection of hoses. All manoeuvres will be undertaken by the vessel's Master with the help of a TEDUT Mooring Master who will board the vessel in the anchorage area and advise the vessel's Master on all operations such as mooring, connecting hoses, unloading, unmooring, etc.

It is important to emphasise that the services of the Mooring Master are afforded without charge and upon the express undertaking and condition that PETROBRAS shall not be liable for any damage or injury resulting from any advice, assistance or actions given or made by such Mooring Master. In the event it becomes necessary to disregard the Mooring Master's advice, in order to ensure safety of the vessel, the Master must forward a full written report of the circumstances for delivery to the Captain of the Port through the Terminal. It is the responsibility of the Master to notify the Mooring Master of any special conditions or peculiarities such as defective navigation equipment, tackle, gear or lack of necessary equipment, which might impose hazards related to handling, mooring and unloading the vessel. Vessel must be moored to the entire satisfaction of the Mooring Master. Unsatisfactory conditions will be reported to Superintendent of the Terminal, who is empowered to reject the ship for future calls unless the reported difficulties have been remedied.

ANCHORAGE: The advisable anchorage sites are: For tankers with a draft of 15 m. (50 ft.) or less, the anchorage is in position Lat. 29° 59′ 00″ S., Long. 50° 04′ 30″ W., or with SBM No. 1 (West) bearing 213° at a distance of 1.5 miles to 2 miles, where depth is 20 m. (65 ft.)

For tankers with a draft of more than 15 m. (50 ft.), the anchorage is in position Lat. 30° 00′ 00″ S., Long. 50° 03′ 00″ W., or with SBM No. 2 (East) bearing 217° at a distance of 2 miles to 2.5 miles, where depth is 24 m. (79 ft.)

The seabed in the anchorage area is fine sand and mud. Mooring Masters will board arriving tankers in those areas.

APPROACHES: See Brazilian Chart No. 2010.

There are 3 conspicuous water towers named *Tourist, Agrimer* and *Tramandai*. There is also a meteorological watch steel tower nearby the pier in position Lat. 29° 58′ 32″ S., Long. 50° 07′ 21″ W. There is also, located side by side a lighthouse tower and a radio beacon steel tower, both at position Lat. 30° 00′ 27″ S., Long. 50° 08′ 05″ W. Characteristics of lighthouse: Flash (3) group – white 12 sec. – 25 m. 15 M. Characteristics of radio beacon: Code FB – FOX/BRAVO – continuous, frequency 300 kHz, range 300 miles.

SBMs' Light Characteristics:

Flash Colour:	Yellow
Flash:	0.5 sec.
Eclipse:	3.0 sec.
Period:	3.5 sec.

RESTRICTIONS: Due to the peculiar conditions of the terminal, mooring undertaken only at daytime. Sometimes the leaving of launches seawards depends on the height of tide and the strength of the waves. Tankers may have to wait for favourable weather conditions so that mooring may safely be started.

MAX. SIZE: SBM No. 1 (West), designed for 105,000 d.w.t. tankers, max. draft 16 m. (52 ft.). SBM No. 2 (East), designed for 200,000 d.w.t. tankers, max. draft 19 m. (62 ft.). The distance between the vessel's bow and manifold must not be more than 100 m. for mooring to SBM No. 1 (West) or 150 m. for mooring to SBM No. 2 (East).

RADIO: Vessels bound for Tramandai should advise their ETA 48 hours prior to arrival direct to Fronape/Rio (through government coastal radio station) as well as to their Agents (through PPR – Porto Alegre Radio – government station). In turn these stations will send messages to the terminal. Confirmation or change of ETA should be cabled 24 hours before arrival. Vessels may also contact TEDUT's radio-telephony station either in AM or SSB on the following channels and frequencies:

VHF: Frequencies:
Channel 6 – 156.30 MHz.
Channel 9 – 156.45 MHz.
Channel 11 – 156.55 MHz.
Channel 12 – 156.60 MHz.
Channel 13 – 156.65 MHz.
Channel 14 – 156.70 MHz.
Channel 16 – 156.80 MHz.

SSB Frequencies:
Channel 1 – receives 2,182 kHz. transmits 2,182 kHz.
Channel 3 – receives 4,125 kHz. transmits 4.125 kHz.
Channel 4 – receives 4,084.7 kHz. transmits 4,379.1 kHz.
Channel 5 – receives 8,216.7 kHz. transmits 8,740.6 kHz.
Channel 6 – receives 12,351.7 kHz. transmits 13,122.5 kHz.

Permanent listening: VHF on Channel 14 and SSB on 4125 kHz.

When within range, vessels equipped with radio-telephone should call first on Channel 16/DELTA-156.8 MHz and then change to another agreed Channel, preferably 14/CHARLIE-156.7 MHz for mooring instruction. All ETA's should indicate whether it is local time or GMT. Weather forecasts as well as Notices to Mariners are transmitted by PWZ and PPR radio stations.

HEALTH: Display of quarantine signal – "Q" flag – on approach Tramandai must be maintained until Free Pratique is granted. The National Brazilian flag should remain hoisted throughout vessel's stay in the terminal. Port Doctor visits all ships on arrival and requires Maritime Declaration of Health, Derat Certificate, 2 Crew Lists. Vessels from another Brazilian port automatically receive Free Pratique and should not fly Quarantine Flag. If suspected disease or fever on board, it is advisable to cable Agent before arrival. Also see "General" before first port.

LAUNCHES: Mooring, unmooring and connection operations are assisted by the terminal's launches. While rendering such assistance the boats act under orders of the Mooring Master. Usually 2 service boats are at his disposition. Besides operational assistance they undertake transportation of Mooring Masters, personnel, Agents, ship chandlers and Port Authorities.

ARRIVAL: Arrival time is considered to be the time the vessel reaches the anchorage vicinity or the time the Mooring Master boards the vessel, whichever occurs first. However, Notice of Readiness will not be considered as the time of arrival unless the vessel is in all respects ready to discharge. In the event berthing is delayed by weather conditions, tankers will be unloaded in turn. If, however, the weather is so bad that the port is closed and vessels awaiting discharge have to go out to sea, TEDUT may discharge another vessel on reopening if it arrives before the return of other waiting vessels. More rarely, the Terminal Superintendent may grant priority to a particular vessel out of turn, in special circumstances only.

MOORING: The Mooring Master will advise on the method of securing the ship. Tankers are usually moored by two bow nylon hawsers of 15 in. circumference and 50 m. length. Vessel's nylon messenger lines are shackled – one at a time – to the pick-up wires of the chafing chains by the launch crew and hove in (through the vessel's windlass warping bollard) until the lengths of the chafing chains are brought over the vessel's roller chocks/fairleads. Ship's engines may help the lead-in ropes (vessel's messenger) in coming up to the SBM.

The following items must be observed: Anchors must be well at home and secured with stoppers and brakes. Windlass warping bollards must also be ready to lift chain stoppers, wire strops, shackles, senhouse slips, crowbar, hammer, spikes and other gear to be placed on board for mooring purpose (equipment supplied by TEDUT). Two good eye-spliced (9 in. at least) nylon hand-inlines must be be ready, at each side, on the fo'castle head, to be given to the launch, who in turn will shackle them to the hawser's pick-up wires (marked by little spar buoys).

HOSE CONNECTION: The Mooring Master will direct the Terminal's working men in lifting, connecting and lowering the hoses. After the vessel is securely moored, the 16 in. floating hoses must be individually lifted to the rail by the ship's gear. Sundry hose securing and connecting equipment (strops, gaskets, nuts, bolts, wrenches, etc.) will be supplied by the Terminal and put aboard the ship just after arrival. Hoses will be lifted by ship's derrick, always on the port side. Minimum lift of 5 tonnes capacity required. When wind force reaches about 8 Beaufort Scale and waves are 3.5 m. high, emergency disconnecting operation will take place, even at night time.

UNLOADING: Pumping must not be started without permission of the Mooring Master. The max. allowable pressure is 7.5 kg./sq.cm. (110 p.s.i.). While the vessel is moored, the vertical angle formed by the nylon hawsers and the sea level should not exceed 30°, for safety of the SBM's turntable. When necessary, due either to excessive pitching or by being trimmed too much by the stern, pumping of ballast must be concentrated in the fore-tanks, even if interruption of unloading becomes mandatory. So the Mooring Master may require cargo to be discharged, in certain stages, either from aft or for'd compartments.

As a rule, when unloading is over, the ship should have ballast on board at least 40% of her total d.w.t. tonnage. Besides the Mooring Master himself, some terminal workmen stay aboard ship. Therefore, room and meals for 1 officer and 6 crewmen should be supplied. Upon completion of discharge the Mooring Master will sometimes require the ship to pump sea water through the submarine pipe-lines to displace the remaining oil.

BALLAST: No slop facilities are available for dirty ballast. Brazilian laws are very strict with regard to the pollution of coastal waters. Vessels are not allowed to discharge dirty ballast into the water. Heavy fines are imposed for violations.

Tramandai is the largest Rio Grande do Sul seaside resort and any pollution of the sea in this area will cause damage to the beaches. Hence, no dirty ballast or any oily residues must be pumped overboard within a range of over 50 miles, if no safer alternative exists.

MEDICAL: Medical treatment and/or hospitalisation, if required, are provided at Tramandai or Osorio private hospitals. Serious illness will usually be treated in Porto Alegre. Dentists are also available in Tramandai. For emergency cases (injury, etc.) TEDUT first medical aid may be requested by the Master. As usual, Agent will make such arrangements.

FUEL: Not available.

FRESH WATER: Not available.

CONSTANT READINESS: Since moorings are in open roadstead, vessel's engines and gear must be ready with full power for immediate use through the period the vessel is moored and the ship must be able to clear the mooring immediately on the advice of the Mooring Master or Superintendent of the Terminal.

Whenever necessary, vessels may use their own power to prevent riding upon the SBM.

CUSTOMS REQUIREMENTS: Brazilian laws are strict with regard to smuggling and Masters are requested to instruct their crews not to retain cigarettes in carton lots, cigars, tobacco, alcoholic drinks, drugs, souvenirs, etc. These should be collected prior to arrival, listed with the items in the slop chest and placed in the custody of the Master for deposit in the chest or closet which will then be sealed for the duration of the vessel's stay at the mooring.

By no means will any commercial transactions be tolerated, be it either among terminal employees, crew members or anyone else.

CONSULATES: No consular representatives are reported to exist in the area; however, there are consulates of most maritime nations in Porto Alegre.

TIME: Local time is GMT minus 3 hours.

GENERAL: Lighters not available. Launch connection with shore is entirely dependent on weather conditions and must be considered unreliable.
SHORE LEAVE: Depends upon agreement between ship's Master and Agency.
AUTHORITY: Petroleo Brasileiro, S.A. – PETROBRAS, Terminal Maritimo Almirante Soares Dutra (TEDUT), Caixa Postal 19, 95590 Tramandai-RS. *Contact:* Nelson Nunes Toledo, Superintendent.

TUBARAO (Including Praia Mole): 20.17 S. 40.15 W. (See Plan)

PILOTAGE: Pilotage is compulsory between the anchorage and the berth. Request for the Pilot is made by port operators (CVRD) 4 hours in advance (minimum). The vessel should indicate the time of arrival of the vessel at the entrance and from which point pilotage is required. Pilot may be contacted on the following VHF Channels: 16 for constant listening and 10, 12 and 14 for conversations.

Compulsory pilotage area is from the anchorage area where the Pilot embarks, the access channel, the manoeuvring basin and the existing piers in the port. After a Pilot receives advice of vessels arrival it takes 50 minutes for the Pilot to embark, this is done by a launch of the Vitoria Pilot Service. No difficulties are encountered when embarking except when the sea is very rough and there are strong winds.
Pilotage Area: The inner maritime area is limited by the circumference of 2.5 miles radius, centered on the Tubarao South Light in the sector included between 340° and the island Boi, as far as the berth.
APPROACHES: The access channel is 280 m. wide and dredged to 22.5 m. and runs in a 345°-165° direction. The beginning of the channel is marked by a red light buoy in position Lat. 20° 19′ 36″ S., Long. 40° 14′ 22.5″ W. and a white light buoy in position Lat. 20° 19′ 41.5″ S., Long. 40° 14′ 34.5″ W. (See NHD chart 1401).
Tides: Tidal variation is small, on average, there being 2 high tides and 2 low tides each day. The coastal current generally runs to the South with an average speed of 1 km./hour. The current is less constant in May and June. The maximum size waves, are 1.5 m. with wind coming from N.E. and 2.5 m. with S.W. wind.
Manoeuvring Area: The manoeuvring area for berthing and unberthing has a width of 150 m. along the whole length of the quay, the manoeuvring basin has a diameter of 500 m. and depth of 18.0 m. Anchoring is prohibited in the access channel and the manoeuvring area except with prior permission of the Port Captain.
Access Channel: Vessels destined for the Coal Terminal, located on the Northern edge of the access channel to the port of Tubarao, use this channel as far as slightly ahead of Buoy No. 5 (LF. ev. 3 secs.) turning to the N.E. to enter the terminal manoeuvring basin.
ANCHORAGE: The anchorage area for vessels awaiting berths is Lat. 20° 19.3′ S., Long. 40° 15.1′ W. Vessels in quarantine must anchor in an optional area indicated on chart 1401.
MAX. SIZE: See "Berthing" and "Tankers".
HEALTH: Free pratique may be obtained by radio, the message being sent to the ship's Agent by radio via "Saportos/Vitoria" at least 72 hours prior to the vessels arrival. Declaration of Health must be prepared and typed in order that it may be delivered to the doctor when he comes on board.
RADIO: Vitoria Radio Station PPV operates on the following frequencies: 2 MHz band on transmission frequencies 2086 and 2096.5 kHz and on emergency frequency of 2182 kHz.

4 MHz band – transmission frequencies 4403.9, 4382.2 and 4366.7 kHz., and on emergency frequency 4125, 4143.6 and 4072 kHz.

8 MHz band – on transmission frequencies 8802.6 and 8774.7 kHz, and reception on 8257 kHz.
TUGS: Two tugs of at least 1,500 h.p. are used when proceeding from the entrance to the manoeuvring area off the berth. When berthing 4 tugs and 1 launch assist.

Name	*H.P.*	*Bollard Pull*
Helio Ferrzaz	3,000	31.7
Tubarao	1,900	29
Itabira	1,530	16
Carajas	2,540	39.4
Trombetas	2,540	37.6
B. Horizonte	1,680	20
Guaiba	1,680	21.5
Titan	2,170	36.6
Arcturus	2,160	25
Servemar 10	1,070	7.5
Jamie	600	6
Affonso	1,640	16.4

BERTHING: Should a vessel be departing at the same time as another vessel is entering, the vessel which is leaving has priority and the vessel which is waiting to enter is to wait outside the entrance channel. Vessels are not permitted to pass each other in the channel or the manoeuvring basin. Should the weather conditions be poor, visibility restricted or too dark for the vessel to berth or unberth the decision to manoeuvre will be taken by the Pilot who may decide to change the operations to a more convenient time.
Vale Do Rio Doce Co.

Pier 1: Length 390 m. usable berthing length 350 m., depth on North Side and on South Side 16.0 m. Berthing is possible on both sides. Ship Loaders No. 1 and 2 can load vessels on both sides of the pier.

Ship Loader No. 1: Max. height of hatch coaming above sea level 12.50 m. Max. outreach of loading boom 24 m. Nominal capacity of loader 6,000 t.p.h. Vessels max. LOA 330 m. Max. sailing draft 15.20 m. plus height of tide (average 1.3 m.).

Ship Loader No. 2 (Seaward side of pier): Max. height of hatch coaming above sea level 17 m. Max. outreach of loading boom 33.50 m. Nominal capacity of loader 8,000 t.p.h. Max. length 330 m. Max. sailing draft 15.20 m. plus height of tide (average 1.3 m.).

Pier 2: Max. LOA permissible 350 m., depth alongside 24 m. There are 4 dolphins each with 2 hooks and 4 dolphins each with 3 hooks.

Storage Area: Old area 2 million tons, new area 4 million tons, factory area 1.7 million tons.

This is a new pier now completed parallel and inshore of the existing pier for vessels of 250,000 d.w.t. Max. sailing draft 20.0 m. plus tide (average 1.3 m.). Vessels berth at seaward side only to avoid ranging. 2 shiploaders, swivelling (20 m. airdraft). Load rate 12/16,000 t.p.h. No dirty ballast facilities. Heavy fines for pollution.

Should Pilot wish to berth a bulk carrier on Pier No.1, South side, (Vale Do Rio Doce Co.) and there is a vessel at the Petrobras Terminal, the vessel at Petrobras Terminal will be removed prior to berthing of the bulk carrier.
Praia Mole: The port is situated on the North side of the Bay of Espirito Santo in the approximate position Lat. 20° 17′ S., Long. 40° 14′ E., close to the Port of Tubarao. It is 12 km. from the centre of the town of Vitoria, capital of the State of Espirito Santo, connected by an ashphalted road.

It is an artificial port in the open sea, functioning mainly to receive metallurigal and power generation coal and the shipment of metal products for export.

The Port of Praia Mole consists of a terminal with coal receiving equipment and a terminal with equipment for export of metal products.
Coal Terminal: Built for the movement of 8 million tons/year in its first stage and 12 millions of tons/year in its second stage.

The pier is 730 m. long (operating on one side only) and the civil engineering work is finished. It should be able to receive vessels of 15,000 d.w.t. to 170,000 d.w.t. at Berth No. 1, depth 17.0 m. and vessels up to 250,000 d.w.t. at Berth No. 2 after dredging this berth to 21 m. Present depth 18.0 m. Berth No. 1 length 330 m. Berth No. 2 length 400 m. Manoeuvring basin – diameter 500 m. depth 18.0 m.

The pier is fitted with 3 discharge units with a capacity of 1,800 t.p.h. each. The discharged coal is transported via three lines of conveyor belts (1 line already functioning) for storage in the Coal Storage Area of the port or taken directly to CST or CVRD. The Coal Storage Area will have a capacity of 11 million tons, with 520,000 tons at present. In the Coal Storage Area, for stocking and recovery of coal are planned 3 stackers and 2 recovery units, with capacities per machine of 2,200 t.p.h. and 4,400 t.p.h. respectively. (Currently, 1 stacker is undergoing operational tests, 1 recovery unit is being installed.) The coal recovered from the area will be sent to the cellulos/cement industries for pelletisation by CVRD, to CST or for Usiminas/Acominas by means of a system of loading wagons on the railway system, with a capacity of 2,000 t.p.h. in the phase of current installation.
Metal Product Terminal: Built for moving 3 million tons/year in its first stage and 4.5 million tons/year in its second stage. It comprises a 638 m. long quay with depth of 14.5 m. for taking vessels from 15,000 d.w.t. to 70,000 d.w.t.

On the quay 4 loaders for metallurgical products for vessels with 40 tonnes capacity each. In the rear part of the quay will be formed an area for storage and handling products, with an area of 30,000 sq.m. in its first stage, and 100,000 sq.m. in its second stage (currently 60,000 sq.m. has been finished). This storage and handling area will have 10 rolling bridges with a capacity of 35 tons each and will be served by 5 railway lines along the quay. The railway lines are interconnecting CVRD to the quay.
TANKERS: *Petrobras Terminal:* The berth consists of 2 mooring dolphins which enable vessels of 160 m. LOA and draft of 7.9 m. to berth.
STEVEDORES: Services of stevedores not normally required. Crew open hatches.
MEDICAL: Four hospitals available.
FUEL: Diesel oil in quantities up to 100 tons can be supplied by Petrobras in road tankers at the berths, also vessels with Max. draft of 8 m. and Max. LOA 160 m. can berth at the Petrobras Oil Terminal inside the breakwater to take bunkers and diesel. Vessels at Praia Mole bunkered by barge.
Terminal Rates:

Diesel oil	– 100 t.p.h.
Fuel oil	– 150 t.p.h.
Mixture	– 80 t.p.h.
Crude oil	– 700 t.p.h.

FRESH WATER: Available at all quays of the terminal, maximum quantity per vessel 150 tons. Requests for water must be made by Ships Officers immediately on berthing. If quantity greater than 150 tons is required 48 hours notice must be given in order to establish whether or not the additional quantity is available.
POLICE/AMBULANCE/FIRE: Police Tel: 227-0057. Fire Tel: 228-5193.
REPAIRS: There is a naval repair shop in the area able to carry out normal repairs.
TELEPHONES: Not available for placing on board.
AIRPORT: 8 km. from the port with connections to other cities within the country.
HOLIDAYS: Confraternizacao dos Povos, January 1st; Passion Friday movable; Nossa Senhore da Penha, movable; Tiradentes, April 21st; Labour Day, May 1st; Independence of Brazil, September 7th; Our Lady of Vitoria, September 8th; All Saints, November 2nd; Proclamation of the Republic, November 15th; Christmas, December 25th.
BANKS: The following banks have correspondents in other countries:

Banco Frances e Brasileiro S/A: Credit Lionaise (France), Praca Presidente Vargas, 35 – Vitoria – ES. Telex: 2249.

Banco Sudameris Brasil S/A: Sudameris Paris; Comerciale Italiani; Banque de Paris et Pais Bas; Dresden Bank, Rua Treze de Maio, 48 – Vitoria – ES. Telex: 2265.

Banco Lar Brasileiro S/A: Chase Manhattan, Av. Governador Bley, 137-145. Telex: 2.2174.

Banco de Credito Nacional: Barclay's Bank – England; Av. Princesa Isabel, 53 – Vitoria – ES.

Bradesco-Banco Brasileiro de Descontos S/A (Correspondente): Av. Jeronimo Monteiro, 400 – Vitoria – ES. Telex: 132.

GENERAL:

Smoking: Smoking on tankers and OBO vessels may only take place in compartments specified and as indicated by the Master of the vessel.

Readiness: Vessels must be able to unmoor immediately in cases of emergency. Unmooring is done with the aid of tugs.

Repairs: No repairs undertaken to the vessels engines or any other repairs which may impeed emergency unmooring. Should any repairs at all be necessary these can only be done with the authority of the Terminal.

Deballasting: Discharge of dirty ballast is strictly prohibited. Failure to comply with this rule will result in fines.

Fire Fighting: The ship's fire fighting equipment must be kept in readiness at all times.

Rubbish: There is no collection service.

Deratting Service: Not available.

Stores: Specialising firms in the district, orders must be placed 24 hours in advance.

Degassing and Unloading:

a) All ore/oil and oil/bulk/ore vessels must have their holds and tanks gas free.

b) Ore/oil vessels carrying inert gas must have their holds inerted to receive ore cargo and be free of explosive gas and/or rendered inert.

c) The terminal Inspector must receive, prior to loading, a certificate stating that the vessel on berthing is free of explosive gases and has been rendered/or is inert.

d) The operation of gas freeing is not permitted when the vessel is berthed or in areas deemed to be dangerous by the Terminal authority.

SHIPMASTER'S REPORT: July 1987.

The vessel shifted from Paul Quay at Vitoria on High Water, to complete loading of pig iron at No. 1 Pier (South Side) at Tubarao.

The South Side of the Pier No. 1 has been modified for the shipment of Pig Iron, using the No. 1 loader, from pre-stacked cargo close by the pier. Front-end loaders carry wetted down cargo to the conveyor belts. There are no pre-load shaking griddles to remove the rust and residue. The ship's deck was covered in a heavy sludge, that had to be cut with a hose or shovelled up.

The No. 1 loader has no spout but could accurately place the cargo in the after, outboard and forward sides of the hold. However, for the near side, it could only drop a baffle plate in front of the cargo stream. This created a rough fan spray of cargo dropping nearly vertically close to the nearside hatch coaming. Only by rolling down the slope of the cargo could this pig iron be persuaded to the ship's side.

Thus it is not possible to load the cargo level across the hold. The loader is, however, much superior to the equipment in Vitoria for airdraft, reach and flexibility. The duty officer supervised the loading throughout to obtain the most level stow that could be managed. 3,600 tonnes were loaded in 2 hours into the one hatch.

Notes: It is understood that:-

1. There is a surcharge of US$ 2.00 per tonne loaded at Tubarao, over and above the charges of Vitoria. The manufacturers, selling their goods F.O.B., refuse to pay this surcharge. They insist on shipping from Vitoria's limited berths.
2. Only 3 draft surveys are allowed by the terminal operators while the ship is alongside the pier. Thus reducing delays and the number of parcels that can be loaded.
3. The Pier is unsuitable for bringing bulldozers to the ship, and it is not possible to trim the cargo into the void spaces left by the boom. The terminal does not believe that trimming is necessary, and might not allow the time. There is a widespread disbelief that pig iron shifts.
4. At all berths in Tuburao, the swell is such that draft surveys can be greatly affected.

AUTHORITY: Companhia Vale do Rio Doce, Superintendencia do Porto-Tubarao, C.P. 1078, Vitoria, Espirito Santo, CEP 29000, Brazil. *Tel:* (027) 238-5544, 238-5945. *Telex:* (027) 2517. *Contact:* Roberto W. Kenski, Port Superintendent.

UBU: 20.47 S. 40.35 W. (See Plan)

LOCATION: The Port of Ponta do Ubu is located on the coast of the State of Espirito Santo, approximately 40 nautical miles South of Vitoria. Geographic position of the Ponta do Ubu Beacon:

Latitude: 20° 46′ 48″ S.
Longitude: 40° 34′ 40″ W.

DOCUMENTS: All ships are subject to routine arrival visits by the following port officials:

Health Officers
Customs Officers
Maritime Police Officers
Immigration Authorities
Also see "Shipmaster's Report".

PILOTAGE: Pilotage compulsory for all ships sailing through the channel, berthing and unberthing in Ubu. Pilots will board in the area of anchorage. Pilots attending the Ponta do Ubu area are members of the "Associacao dos Praticos do Porto e Barra do Espirito Santo".

All ships must provide an accommodation ladder and rope ladder, freeboard permitting. The landing platform of the accommodation ladder should be approximately 5.0 m. above the water. Boarding facilities should be adequately lighted.

Ships should request anchoring and/or berthing instructions from Ponta do Ubu Marine Operations 4 hours prior to arrival at the pilot boarding area, or when within VHF range.

Ships must not proceed beyond specified boarding area or anchorage unless so instructed by Ponta do Ubu Marine Operations.

APPROACHES: The Ponta do Ubu area is under the jurisdiction of Diretoria de Hidrografia e Navegacao (DHN), an agency of Brazil's Ministry of the Navy. Ponta do Ubu appears on DHN Charts Nos. 70, 1400 and 1402, and on Admiralty Chart No. 3972, U.S. Hydrographic Office Chart No. 24170 and Brazilian Coast Pilot (Roteiro)

Lights in the Vicinity:

Ilha Escalvada (Island)	Gp. Fl. (2)	6.0 sec.
	27 metres	9 miles
	Lat. 20° 42′ S.	Long. 40° 24′ W.
Ilha do Frances (Island)	Fl.	3.0 sec.
	48 metres	12 miles
	Lat. 20° 56′ S.	Long. 40° 45′ W.
Ilha Branca (Island)	Fl.	10.0 sec.
	5 metres	9 miles
	Lat. 21° 00′ S.	Long. 40° 48′ W.
Ponta do Ubu	Lat. 20° 46′ 48″ S.	Long. 40° 34′ 40″ W.

Channel: See DHN Chart No. 1402 as amended by Aviso aos Navegantes (Notice to Shipmasters) No. 194/85, 71/86, 96/86 – 113/86 and E94/87. Maintained channel depth is 18.0 m. (59 ft.) referred to chart datum.

ANCHORAGE: Anchorage instructions must be requested from Ponta do Ubu Marine Operations. Anchorage area position is Lat. 20° 46′ 24″ S., Long. 40° 32′ 33″ W. Masters are advised to give due consideration to Brazilian antipollution regulations while in coastal waters.

Brazilian Government officials may board ships in anchorage for clearance formalities. Suitable and adequately secured accommodation ladder for this purpose must be provided soon after anchoring. Life ring with line with a minimum length of 50 m. should be on hand and adequate lighting provided.

MAX. SIZE: Ships arriving in ballast are requested to comply with the following recommended arrival drafts, keeping in mind indicated shiploading rates and shiploader clearance height limitations.

Deadweight Tons	*Recommended Arrival Draft* (m.)	(ft.)
30,000 to 40,000	6.1 – 6.7	20 – 22
40,000 to 60,000	6.7 – 7.3	22 – 24
60,000 to 75,000	7.3 – 7.9	24 – 26
75,000 to 100,000	7.9 – 9.1	26 – 30
100,000 to 150,000	9.1 – 11.0	30 – 36
150,000 to 170,000	9.1 – 11.0	30 – 36

Ships unable to meet these suggested drafts due to insufficient ballast capacity, anticipated deballasting problems, etc., should so advise in 48-hour ETA message, along with estimated deballasting time.

Max. Arrival Draft: 10.0 m. plus height of tide (0.6 m. – 1.6 m.) at moment of berthing.

Max. Departure Draft: 15.5 m. plus height of tide at moment of departure.

Report 1988:

Max. LOA	308 m.	
Max. Beam	54 m.	
Max. Airdraft	19.0 m.	
Max. Sailing Draft	15.5 m. (plus height of tide at moment of departure).	
Mean Depth Alongside	Berth – West	18.5 m.
	Berth – East	15.0 m.

RADIO: Rio de Janeiro Coast Radio Station, call sign "PPR" (Telex 491) operates on a 24 hr. basis on the following frequencies: 435 kHz, 8,634 kHz, 13,105 kHz.

The Master of an arriving vessel is required to cable his notice of ETA 15 days (or when departing prior port, if sailing distance is less than 15 days) then 5 days, 48 hours, and 24 hours prior to estimated time of arrival at Ponta do Ubu.

Five day message shall contain ETA, cargo tonnage required by hatch number and whether vessel is O.B.O. or ore/oil carrier.

48 hours message shall provide the following information: ETA, arrival draft, ballast tonnage on board and deballasting time.

24 hours message. Cable your ETA, indicate if vessel is fitted with an inerted system and if compartments will be under control of said system during loading. Also include type, manufacturer's name and the society that approved the classification of the inert system.

When within VHF range, Master is to contact the Marine Manager's office for additional information on docking schedule, anchorage arrangements and cargo information.

VHF: Ponta do Ubu Marine Operations is equipped with VHF radio monitored 24 hours a day.

Frequencies:

Calling Channel: 16 (156.800 MHz)
Working Channels: 156.375 MHz, 156.650 MHz, 156.700 MHz.

HEALTH: Radio Pratique should be requested 72 hours prior to arrival, by forwarding quarantine message to Port Health Authorities through the ship's Agent. The information required is as follows:

Name and nationality of vessel; name of the last port of call; port of destination and name of Agent; nature of cargo, if any; date and place of last derating or exemption certificate; number of crew and passengers; health conditions of all on board; vaccination status of crew and passengers; ETA and any other information that may be required by the quarantine officers.

Radio Pratique does not constitute quarantine clearance, and the ship will require inspection upon arrival. Radio Pratique if granted, will enable ship to enter, berth, and commence loading prior to official quarantine clearance.

The following documents shall be submitted to the Port Health Authority boarding on arrival:

Maritime Declaration of Health, duly filled in as required by Sanitary Regulation No. 2 of the World Health Organization. Copy of up-to-date crew list. Vaccination Certificates of all Crew members as well as their seamen's books or passports.

Quarantine inspection will be carried out at the pier, or at anchorage if required, weather permitting.

Quarantine flag must be flown until Free Pratique is granted.

Masters are advised to have all Vaccination Certificates, Derat Certificate and Clearance from Last Port ready for inspection.

TUGS: Tug service is compulsory for all vessels at Ponta do Ubu. Tugs will operate in accordance with Brazilian regulations covering this matter.

Available tugs: 3×1,680 h.p., 20 ton bollard pull. Additional tugs should be requested by the Agent.

All ships should be equipped with wire cable tow line with nylon pendant.

All communication between tugs and Pilots is via VHF.

Tugs will operate on the same Channel as the Marine Operations office.

BERTHING: Vessels are subject to the berthing/unberthing regulations exercised by Port Authority for night-time manoeuvres.

The Port of Ponta do Ubu is owned and operated by Samarco Mineracao S.A., and is used solely for the purpose of handling and shipping iron ore.

The port consists of a breakwater protected pier, close to the shore with a dredged berth area and access channel.

Product stockpiling and transportation prior to loading: A bucket wheel stacker-reclaimer and a stacker operate around a 3,608 ft. long stockpile area. The stockpile has a total capacity of 1,000,000 metric tons of pellets and 500,000 metric tons of pellet feed.

During normal operations, pellets are stockpiled by the stacker-reclaimer, and pellet feed stockpiled by the stacker. Both pellet feed and pellets are reclaimed using the bucket wheel stacker-reclaimer. The reclaimed material is then conveyed to the shiploader for loading aboard bulk carriers, at rates of up to 8,000 metric t.p.h.

When reclaiming pellets, the output from the pellet plant is bypassed through the stacker-reclaimer and combined with the reclaimed pellets for shiploading. When reclaiming pellet feed, the output from the pellet plant is conveyed to the stacker, while the pellet feed output is conveyed to the stacker-reclaimer, bypassing the machine and combined with reclaimed pellet feed for shiploading.

A simple station is provided to monitor the quality of pellet feed or pellets being loaded into a given ship statistically. Samples are automatically cut from the shiploading conveyor system at preset intervals, without interrupting the loading operation. Each sample is then reduced in size, and subjected to a complete range of quality control tests.

Material reclaimed for shiploading by the stacker-reclaimer is conveyed to a rail-mounted travelling shiploader. The shiploader is designed to load vessels on either side of the pier. A loadout weigh scale located near the shiploader monitors the final product delivered for shipment.

Port facilities: Port facilities at Ponta do Ubu are located in the open sea near the apex of a shallow indentation in the coastline where currents have provided 20 m. deep water within 2 km. of the shore.

The existing depth of water in the dredged channel is minus 18 m. The main berth area was dredged initially to minus 19 m.

Berthing: The breakwater protected pier consists of a 313 m. long by 22 m. wide concrete deck, extending in a 022° 30′ direction. It projects from the Eastern portion of the breakwater to a distance of 685 m. from the shore.

The pier has berths on both East and West sides.

Shiploading: The mobile rail mounted pier shiploader has a 41.6 m. fixed length boom, with a 280° turning angle and a 19.0 m. air draft. Its nominal loading capacity is 9,000 metric t.p.h.

Report 1988:

Tidal range: 0.3-1.6 m.
Max. outreach of boom from fender line: 26.1 m.
Clearance of loading at HWOST: 25.0 m.
Travel of loader: 173.0 m.
Working ranger of loader: 240°
Average loading rate to bulk carriers: 6,500 t.p.h.

LOADING: Vessels will be generally loaded in turn, in their order of arrival, provided that:

(i) They are in all respects ready to receive cargo;
(ii) All the cargo is available at the terminal;
(iii) It is in accordance with the instructions of the charterer or his Agent.

Vessel shall present a detailed loading plan immediately on arrival, including hatch quantities, with loading sequence and quantity of ore to be reserved for fore and aft trimming by hatches.

Ships will leave berth immediately on completion of loading, unless specific permission to do otherwise has been granted by Marine Operations.

Loading hours, subject to change, are as follows: 24 hours operation, Sundays and holidays included.

All ships *must secure bilge systems* while at Ponta do Ubu.

Combination ore/oil and ore/bulk/oil carriers must ensure that ballast tanks and piping systems are free of oil contamination, prior to arrival. Gas-free condition of combination carriers must be confirmed prior to loading. Certification and inspection shall be arranged through the vessel's Agent. Vessels with inerted tanks shall be checked and monitored continuously during loading.

MEDICAL: The medical facilities nearest to Ponta do Ubu are located at Guarapari, 15 minutes away by car.

Vitoria has modern hospital facilities.

FRESH WATER: Not available.

FUEL: Not available.

TIME: Local time is GMT minus 3 hours.

AIRPORT: Guarapari (20 km.) for light aircraft (air taxi).

Vitoria (70 km.) Airport Eurico Sales, connection to other Brazilian towns.

POLICE/AMBULANCE/FIRE: Police (Guarapari) Tel. 261-0151.

SERVICES: There are supermarkets at Guarapari.

HOLIDAYS: *Local holidays:* Confraternizacao dos Povos – 1st January; Passion Friday – movable; Tiradentes – 21st April; Labour Day – 1st May; Sao Pedro – 29th June; Independence of Brazil – 7th September; All Saints – 2nd November; Proclamation of the Republic – 15th November; Day of the City and Day of Our Lady of the Conception – 8th December.

REPAIRS: No facilities.

TELEPHONES: No facilities for placing telephones onboard.

GENERAL: The Brazilian National flag shall be flown while in the Ponta do Ubu area.

Line-handling port personnel will be available for handling ship's lines during berthing and unberthing. All shipboard work necessary for berthing, loading and unberthing, including, but not limited to, handling and tending moorings, opening and closing hatches and normal deck cleanup, shall be performed by the ship's crew.

Ships must have main engines ready and maintain watch while alongside the pier, unless specific permission to do otherwise has been granted by Marine Operations.

The nearest town is Guarapari, 15 minutes to the North by car. Vitoria, capital of the State of Espirito Santo, is about 80 minutes by car to the North. Daily flights, operated by major Brazilian airlines, connect the state capital with the rest of the country.

Ships causing oil pollution, dumping of waste, refuse, etc., in coastal waters will be liable for all resulting fines and cleanup costs. All ships must secure bilge systems while in the Ponta do Ubu area, and combination ore/oil and ore/bulk/oil carriers must exercise all precautions necessary to insure that ballast tanks and/or piping systems are free of oil contamination prior to arrival. *Accidental and deliberate oil or oily mixture discharges in the area must be reported to Ponta do Ubu Marine Operations IMMEDIATELY.*

There are no shore facilities available at the terminal for receiving slops, and dirty or contaminated ballast. Masters are cautioned that discharging of anything other than uncontaminated ballast will be subject to penalties as prescribed by Brazilian law.

Solid garbage and refuse disposal ashore can be arranged through Marine Operations.

Weather conditions and temperatures are moderate with year-round average highs of 27°C (80°F) and year-round average lows of 19°C (66°F).

Winds recorded are less than 30 knots more than 95% of the time and prevailing winds are East to N.E. Local winds may have a significant effect on the tide.

There are no significant currents noticed in the turning basin.

For general information about currents in the Ponta do Ubu area, use South Atlantic Pilot Charts and Brazilian Coast Pilot (Roteiro).

Sea conditions are generally moderate.

Meteorological bulletins are available 24 hours a day through Rio de Janeiro coast radio station, Radio Arpoador, call sign PPR. 17,194 kHz.

SHIPMASTER'S REPORT: 1978 (updated 1988).

Documents: Please refer to other Brazilian ports, vessel came from Rio de Janeiro so only the Agent and the Customs boarded and asked for 3 Crew Lists, 1 Custom Store List and 1 Personal Effect List. We were told that to go ashore every Crew member needed a pass with picture attached but crew went to the near town of Guarapari after showing passport or an identity card at the gate.

Pilotage: The Pilot boards about 2 to 3 miles outside the channel. He comes on board by Pilot boat based at Point Ubu and even though we were in very light condition wanted to use the pilot ladder. Pilots come from Tubarao and Vitoria.

Tugs: Three tugs are based at Point Ubu namely the "Curitiba", "Piracicaba" and "Aquidauana". The first 2 are good and operate respectively on the bow and stern of the ship with 2 ship's nylon ropes. If vessel over 200 m. in length the Port Captain orders a fourth tug that must come from Tubarao (about 3 hours) and it is very helpful and powerful.

VHF: Marine Operations answered us about 2 hours from berth (30 miles).

Bulk Cargo Facilities: We were the sixth ship to load in this port, the loading rate is around 4,000/5,000 t.p.h. at present.

Medical: Ship's Agent can arrange to send people to the doctor at any time or to the hospital in the near town of Guarapari.

Density: Checked over 3 days and always found to be 1026.

Loading: The Bill of Lading figures are taken from the weightometer which is believed to be extremely correct, but it showed a difference of 1,000 long tons over 37,000 long tons loaded on the ship. A surveyor carried out a draft survey on arrival and it was said that it was a check on the weightometer, being normal check that was carried out for these early loadings but the real figures are taken from the weightometer. 2,000 long tons before completion of loading we stopped for trimming and the scale showed about 1,000 long tons more loaded than the ship's figures. Because of this, the Terminal considered the ship's figures (survey) and to these figures they added according to the scale the quantity we requested to complete loading.

OPERATORS: Samarco Mineracao S.A.

Ponta do Ubu: Postal address: Caixa Postal 205, 29.200 Guarapari, .S. Brazil. Tel. 261–1344, 261–0448. Area code* 027. Telex 272204 (SASA BR). Contact: Afranio Camarao Sobrinho, Manager.

Central Office: P.O.Box 1317. 1,122 Paraiba Street, 9th Floor, 30.130 Belo Horizonte, MG, Brazil. Tel: 239-8787, Area Code*031. Cable Address: Samarco. Telex: 0313068.

Rio de Janeiro office: 63 Almirante Barroso Avenue, Group 2817, 20036 Rio de Janeiro, Brazil. Tel: (021) 262-4620. Telex: 31262.

*Code for Brazil: 0055.

AUTHORITY: Capimar, 66 Mandel Silvino Monjardim Square, Vitoria, Espirito Santo, Brazil. *Tel:* (027) 222-4622. *Telex:* 0272102. *Cables:* Capimar Vit. *Contact:* Ivar Marques de Souza.

VILA DO CONDE: 01.33 S. 48.45 W. (See Plan)

LOCATION: Situated on the right bank of the river Para, in the district known as Ponta Grossa, Municipality of Barcarena/Pa., about 40 km. from Belem. The port is an integral part of the industrial port complex built in the region of Barcarena, in conjuction with the two aluminium companies, Albras and Alunorte.

APPROACHES: The access channel to the port is the same as for the port of Belem, as far as the front of the Island of Mosqueiro from there onwards, vessels proceed to the Port of Vila do Conde via the Bay of Marajo, no restrictions of depth in this stretch. They pass to the side of the islands of Cotijuba, Arapiranga and Carnapijo.

BERTHING: Length of pier 251 m. width 45 m. Location: 01° 32′ 42″ S., 48° 45′ W.

The external berth for solid bulk cargo has a depth of 20.0 m. at low tide; the internal berth for general cargo has a depth of 20.0 m. at low tide. The quay can take vessels up to 45,000 d.w.t.

Equipment: 3 stackers and 1 mobile crane. Conveyor belt 4,500 m. long for moving aluminium, copra, pitch and bauxite. Suction plant with 2 tubes and a capacity of 250 t.p.h. per tube.

One covered warehouse measuring 50 m. × 150 m.

SHIPMASTER'S REPORT: November 1986.

Vessel: 38,100 d.w.tonnes.

Berth: Albras Terminal.

Location: Lat. 01° 32′ S., Long. 48° 45′ W.

Pilotage: Call Salinopolis Pilots on VHF Channel 16. Pilots available 24 hours and board on arrival. River Pilot will berth vessel. Same river pilotage for Belem and Vila do Conde.

Approaches: Best approach to Salinopolis Pilot Station (Lat. 00° 31′ S., Long. 47° 22.5′ W.) is a course 167° heading for lighthouse.

Pilot will board on bearing 167° and 8 miles from the lighthouse. A strong current sets in a Westerly direction.

Radio: PPL (Belem Radio) provides reliable services.

Berthing: One berth for Alumina-in-bulk discharge. Length about 210 m. It is not possible to berth if wind greater than Force 4 as no tugs available. Whilst waiting to berth, vessel can anchor about 1 mile off the berth. There is sufficient sea room for turning around. Customs, Immigration and Health officials may board while at anchor. Berthing usually starboard side alongside, using one anchor. Jetty well fendered, but standby with fenders aft.

Discharging: Cargo work possible throughout 24 hours. Two evacuators for discharging, can reach all hatches. Total capacity 600 t.p.h. For the last 800 tons in each hold rate is 150 t.p.h.

Density: About 995 alongside berth.

Fresh Water: Not available at berth.

Fuel: Available at Belem.

Watchmen: Two port watchmen compulsory, to be accommodated on board.

Repatriation: Belem Airport well connected with Recife and Rio de Janeiro, for international flights direct to Europe and U.S.A.

Time: Local time is GMT minus 3 hours. Summer time is GMT minus 2 hours (begins on last Saturday in October).

Shore Leave: No restrictions. Nearest small towns are San Francisco (20 minutes) and Vila do Conde (30 minutes) by car. Port Agent Transnav provides mini-bus. Belem in one hour from San Francisco by speed boat and two hours by regular boats.

Provisions: All fresh provisions and bonded stores available from Belem ship chandlers only, can be ordered by telephone. The transportation costs added to the provisions bill.

AUTHORITY: Companhia Docas do Para, Avenida Presidente Vargas 41 - 20 Andar, Belem, Para, Brazil. *Tel:* 223-0056, 223-2066.

VITORIA: 20.19 S. 40.17 W. (See Plan)

DOCUMENTS: See "General" before first port.

PILOTAGE: Compulsory. Vessel approaching port should communicate with Agent through local radio station, giving date and hour of arrival at pilot station so that they can arrange for a Pilot to be at the roads on arrival. Communicate direct to Pilot Association through VHF Channel 16. Pilots maintain 24 hour watch.

ANCHORAGE: The official limits of the port are:

Arc of a circle of 1 mile radius, seaward, with centre at Santa Luzia Lighthouse. There is a 8.9 m. patch which will be removed in the near future.

Notice of Readiness is accepted as at time the Master radios advising vessel has anchored, SHINC, lay time starting 3 hours afterwards (subject to C/P).

No draft limitations at anchorages.

APPROACHES: Length of access channel 3.5 miles, width 120 m., depth 10.6 m. Maximum speed allowed 5 knots.

RESTRICTIONS: All sailings are to take place on a rising tide. Vessels of up to 205 m. can enter day or night.

Vessels from 205 m. to 242 m. can enter during daylight hours, weather permitting. Vessels of this length must be assisted by 3 tugs, 2 of which must be of at least 1,000 h.p. and the other of at least 400 h.p.

For turning in the manoeuvring basin, 2 tugs are required, 1 to be of at least 1,000 h.p. and the other of at least 400 h.p.

MAX. SIZE: 35 ft. draft at HW and 32 ft. at LW. Also see "Tankers" and "Developments".

HEALTH: Free Pratique obtained by radio to Agents, addressed for "Saportos Vitoria" followed by ship's name, last port, ETA, and the letters ZT (meaning "my replies to the 6 questions on the port health declaration are negative"), and ZS (meaning "the sanitary condition of my ship is satisfactory"). Pratique is granted when this message is delivered by Agent to the port doctor. Also see "General" before first port.

The Agent may send a reply containing the group ZY, meaning "you have Free Pratique". In any case the time of Pratique is registered as time that the ship's cable was received by the Health Authorities. This Pratique does not allow the crew to go ashore until after Customs clearance.

Crew vaccinations are done free.

The Port Doctor usually arrives onboard some time after the visit of Authorities and it is important to have the Health Declaration ready for handing to him by a responsible person (to avoid a fine).

RADIO: Local radio station, Vitoria Radio, call sign PPV. This radio station normally used by Agents when cabling vessels.

Operating Frequencies:

2 MHz band on transmission frequencies 2086 and 2096.5 kHz and on the emergency frequency of 2182 kHz.

4 MHz band – transmission frequency 4403, 4382.2 and 4403.9 kHz on the emergency frequency 4143.6 kHz.

8 MHz band on the transmission frequencies of 8291.1, 8780.9, 8802.6 and 8774.7 kHz and reception 8278.8 kHz and 8257 kHz.

VHF: Request Pilot on Channel 16 and 12 one hour before arrival. Upon notice it then takes Pilot 40 minutes to reach vessel.

TUGS: Tugs join vessels at anchorage. Ship's lines used. Tugs have no lines on board. The lines given to tugs should be without wire as the swell usually prevailing causes severe sudden stresses on the tow lines.

2 tugs of 1,680 h.p., (20 tons) and 4 tugs of 1,600 h.p. (22 tons).

Vessels up to 2,000 g.r.t. require 1 tug, up to 10,000 g.r.t. require 2 tugs and over 10,000 g.r.t. require 3 tugs for berthing.

Vessels up to 2,000 g.r.t. require 1 tug and vessels over 2,000 g.r.t. require 2 tugs for unberthing.

BERTHING:

Commercial Quay: No restrictions for vessels berthing at Nos. 4 and 5 Warehouse, entrance and sailing at any stage of tide. Max. drafts are:

No. 5 Warehouse – 23 ft. 08 in., max. length 582 ft.
No. 4 Warehouse – 23 ft. 08 in., max. length 572 ft.
No. 3 Warehouse – 25 ft. 08 in., max. length 396 ft.
– 25 ft., max. length 297 ft.
No. 2 Warehouse – 15 ft. 04 in., max. length 402 ft.

Vessels at Nos. 2 and 3 restricted to sail on flood tide only.

Usiminas Quay – Coal Discharge: Max. draft 35 ft. 06 in., max. length 853 ft. Limited to entry only at beginning of ebb tide; sailing at any stage of tide. Discharge by 3 mechanical grabs, daily unloading rate, 15,000 long tons.

Capuaba Quay: Length of quay: 2,145 ft. Depth: 30 ft. – 35 ft.

General cargo warehouse of 4,000 sq.m.
Open storage area of 120,000 sq.m.
Road and rail access:
  Length of roadway: 10,236 ft.
  Width of platform: 52 ft.
  Length of bridge over River Aribiri: 413 ft.
  Length of railway: 2,165 ft.

Vertical port silo with capacity 30,000 tons in the first phase and 90,000 tons in the final phase, and the horizontal silo of 40,000 tons. Export cereals (soya, maize, etc.), Ro-Ro, Various products, importation of wheat and containers.

Operational speed: 2 towers of 600 t.p.h. (loading) and 300 t.p.h. (discharging).

Cells: 28 ft. diameter and 115 ft. high.
Tower elevator: 276 ft. high.
Belt transport: 2,625 ft.
Cranes: 2 electric gantry cranes 6.3 tons capacity.
  2 electric gantry cranes 12.5 tons capacity.
  2 electric gantry cranes 32 tons – 40 tons capacity.

Dolphins: **Max. draft 31 ft. 09 in. Max. length 394 ft.**

Flexibras: **Max. draft 22 ft. Max. length 426 ft.**

Ro-Ro: **Max. draft 30 ft. Max. length 485 ft.**

Iron Ore Berths:

Atalaia Quay: Max. draft 28 ft. 06 in., max. length 364 ft. Vessels berth and sail on flood tide.

Paul Quay: (Also see "Shipmaster's Report" – February 1986). Max. draft 35 ft. length 524 ft. There is one loading area with a capacity of 600/900 t.p.h. depending on type of ore. Max. reach beyond quay edge, 49 ft. Width of pontoon, 14 ft.

CRANES: 13 electric gantry cranes 1.5 – 12.5 tons capacity, 2 mobile cranes 15 – 27 tons capacity and 1 heavy lift crane 200 ton capacity.

BRIDGES: Bridge under construction in position Lat. 20° 19′ S., Long. 40° 17′ W.

TANKERS: *Esso and Shell Terminal:* Berthing and unberthing can take place during day or night period, provided vessels draft does not exceed 22 ft. Max. length permitted 531 ft. 5 in. with max. draft of 27 ft. Vessels must enter on ebb tide and sail at high tide.

STEVEDORES: On ETA cable general cargo ships should include number of gangs required.

MEDICAL: No advance notice of required medical attention. Hospital facilities available.

DENSITY: Average density at Vitoria 1025, but lower during rainy season.

FRESH WATER: Fresh water available at Commercial Quay, Vitoria Iron Ore Berths, Usiminas Quay and Esso Terminal. Rate of delivery 30 t.p.h.

A barge with capacity of 50 tons may be adapted to carry water.

FUEL: *Esso Berth:* Bunkers can be taken here, supplied under gravity only.

Max. draft 27 ft., and length restricted to 531 ft. Due to various factors, the taking of bunkers in Vitoria is not recommended, however, fuel is available by road tanker at the Commercial Quay. Rate 10,000 litres/hour.

Esso and Petrobras can supply Bunker "C", fuel oil and diesel oil, the last two being available by truck.

WATCHMEN: Compulsory at Commercial Quay in Vitoria. Not available at Vitoria Ore Terminals.

OPENING/CLOSING HATCHES: Normally done by stevedores except in cases of modern vessels using MacGregor hatch covers, when crew asked to close hatches.

CUSTOMS ALLOWANCES: Each Crew member allowed 200 cigarettes out of the bond. One bottle, wine or spirits opened, for each crew member.

REPAIRS: Deck and engine repairs available.

REPATRIATION: There are flights daily from Rio de Janeiro to Vitoria.

AIRPORT: Airport located 8 km. from centre of town and is served by daily flights to principle cities in Brazil.

TIME: Local time GMT minus 3 hours.

HOLIDAYS: January 1st; April 21st; May 1st; September 7th and 8th; October 12th; November 2nd and 15th; December 25th; Good Friday; Nossa Senhora da Penha and Corpus Christi. Only holiday when no stevedore work is possible is Good Friday; exception made to iron-ore loading.

IDENTIFICATION CARDS: Required with photographs to enable officers and crew members to go ashore. Agents supply forms.

CONSULS: The following countries have consular representatives in Vitoria:

Argentina
Belgium
Finland
France
Germany F.R.
Great Britain
Italy
Lebanon
Netherlands
Panama
Portugal
Uruguay

POLICE/AMBULANCE/FIRE: Police Tel: 190. Maritime Police Tel: 2235000. Radio Patrol Tel: 2272111. Ambulance Tel: 2224646. Emergency Hospital Tel: 2230203. Fire Brigade Tel: 193.

TELEPHONES: No facilities for placing telephones on board.

SHIPMASTER'S REPORT: February 1986.

Vessel: 40,000 d.w.t. Length 625 ft. 5-hold bulk carrier.

Berth: Paul Quay.

Cargo: Loading pig iron.

The following information was obtained during loading at Vitoria.

Question: What is the draft alongside the loading berth at low tide?

Answer: 32 ft. brackish water. This is not true all the way along the berth, as for a length of about 50 m., by way of where No. 2 hold was, there is a mound of mud, which is at a depth of 26 ft. at LW. This mud is very soft.

Question: What is the minimum air draft?

Answer: 39 ft. This also can be more as the loading arm can be raised a further 6 ft., but of course then will not over reach the centre of the hold. There is no need to have ballast in No. 3 hold.

Question: What is the loading rate per hour?

Answer: If the cargo is available and if the machinery does not break down 800 t.p.h. is possible.

Question: What is the water density at low and high tide?

Answer: Low tide 1010, high tide 1024.

Question: How is the quantity of the cargo determined?

Answer: The cargo arrives by train loads and the weight is known but there is no shore scale at the loading equipment and the weight is determined by draft survey.

Question: What is the storage factor of the pig iron?

Answer: 10.80 cu.ft. per long ton.

Question: Which side alongside?

Answer: Always starboard side alongside and ship's gangway used.

Question: Availabilty of fresh water?

Answer: Yes, available at the berth. The vessel must use its own hoses. Unlimited amount.

Question: When are draft surveys taken?

Answer: By Charterer's Surveyors, prior commencement of loading and on completion of loading. The Charterer's Surveyors must be advised prior to commencement of loading of the quantity of bunkers and fresh water that the vessel intends to load. Draft survey determines the Bill of Lading.

Question: What are the working hours?

Answer: 0600–2200 hrs. each and every day.

Question: How many loaders?

Answer: One which moves on rails to which ever hold is to be loaded into.

Details of the loader's dimensions.

Height of loader arm from the jetty, 9.25 m.

Height from the water level at LW to the quay 3.10 m. (Neap tides).

Length of loader outreach 20.7 m. However, distance from loader on its rails to edge of the quay 6.25 m. and further deduction of 3.25 m. for thickness of fender.

Question: What are the facilities for bunkering?

Answer: All bunkers are supplied in Brazil by Petrobras and at Victoria are supplied when the vessel is alongside and are ex-barge. Bunkering can be carried out during loading.

Additional Information: Soundings taken on the starboard side of the vessel indicate an area of mud by way of No. 2 hold.

The vessel moors starboard side alongside and two floating pontoons are placed between the ship and the jetty. These pontoons are 5.0 m. long and 3.5 m. wide. As already stated there is 26 ft. of water only at low tide at No. 2 hold. Therefore once the loading has reached almost that stage, for the vessel to remain afloat, it is neccessary to move the vessel further from the quay forward. The floating pontoons are placed one forward and one aft. If the vessel is hove in aft using the breast lines and the head lines slackened then the bow will come off the quay and an additional floating fender can be placed forward thus the vessel will lie against 2 fenders. There is then enough water to load to 9.75 m. forward at low tide.

Local information says that some ships just ignore the mud (it is very soft) and just load to 9.5 m. without placing the additional fender in place. Once the vessel is lying alongside 2 fenders forward the loader arm can still deposit the cargo into No. 2 hold in the centre of the hold but for No. 1 hold this would not be possible. Therefore, if possible, ensure that the cargo to be loaded into No. 1 hold is completed before moving the vessel off the quay and placing the second fender.

SHIPMASTER'S REPORT: July 1987.

Vessel reported Time, Latitude and Longitude of anchoring position to Vitoria Pilots, Vitoria Port Control and Vitoria Radio (PPV). A telegram was sent to the Agent's telex number via PPR, giving some details and Notice of Readiness. Notice of Readiness was accepted next morning after an evening arrival. Initial advice was a wait of 10 days, and an airdraft of 11.5 m. at high water.

Vessel was ordered to Atalia Quay, by primary Charterers/Exporters after 6 days. This berth found to have 8.55 m. when using 2.5 m. stand-off fenders and only 7.47 m. on 1.0 m. tyres. The stern overhung by 35 m. – 60 m. and a shore gangway was used amidships.

The berth was originally built for iron ore shipment, with a row of bins along the cliff face. 3 loaders, the middle out of order, have a range of about 110 m. travel. The loader couples to the door of the bin, and cannot move while cargo is running. The boom has limited slew and could only reach 10.8 m. on to the ship when using the stand-off fenders (12.3 m. on the rubber tyres). The spout is manually guyed by ropes, which are then tied for the run of the bin. 4 wooden gratings were put on the tank top with a fifth grating on their junction, to break the fall of the first pieces of pig iron.

The pig iron piled up to a height of 7 m. without covering the whole tank top, despite all efforts with the spout, and listed readily towards the quay.

This vessel (45,000 d.w.t.) berthed with No. 3 hold ballasted to obtain the airdraft, and was obliged to load Holds No. 1 and No. 5 alternately while deballasting 10,500 tonnes. This created very high bending moments even on the harbour condition figure. The ship was warped some 25 m. up and down the quay in order for the loaders to reach the hatches.

The vessel finally ceased loading with a list towards the quay and waited for a bulldozer to be provided to trim the cargo. This is an extra charge, fiercely resisted by the shippers, and causes delay. While waiting, the list increased by 1° and pieces of pig iron would break away and roll down the pile dislodging other pieces on the way until some 5 to 8 pieces would hit the shell plating with a loud clang.

The tractor was used for 24 hours, concurrently with loading in other holds, to finish on the rising tide.

All parcels of cargo were measured by Draft Surveyor, with some 5 surveys for the 26,000 tonnes shipped. A claim was made for dead-freight on the shortage.

The vessel returned to sea anchorage to await the secondary Charterer/Exporter's cargo. After a total delay of 8 days the vessel was ordered to Paul Quay, said to be 160 m. long. When berthed on 3.6 m. fenders a depth of 10.0 m. was found at zero tide. The stern overhung by 35 m., and access was by pilot gangway used with small shore brow. The after lines were all abreast on to hooks set into the ground.

The single travelling loader is fed by conveyor belt, and can move while the cargo is running. The boom can also be slewed and luffed, while the spout is operated by hydraulic ram, maximum reach on board the vessel is 11.0 m. The operating range along the quay is about 120 m. and it was necessary to warp ship for No. 5 hold.

The cargo was wetted in the wagon and then shaken on a tray before loading. The pig iron piled up to a height of 5 m. and 6 m. above its sides, in a partly loaded hold. The shipper was required to hire another bulldozer to level out the pile, at a stated cost of US$ 1,100 for 24 hours. The bulldozer also helped to list the ship away from the quay.

The loader is prone to breakdowns, and schedules may slip. The main stockyard for pig iron is said to be 20 km. away, making difficulties in positioning.

Final loading is done on a rising tide to a draft of 10.66 m. All measurements by draft surveys with multiple surveyors frequently in disagreement. Vessel sailed one hour before high water.

The design of both berths is said to be for vessels of 28 m. maximum beam, so it is very frustrating for vessels of 31.5 m. beam. The Inspection party for Port Clearance totalled 7 persons.

Radio: Local radio station now PPV, working only on VHF, with satellite relay further North.

Tugs: Require 2 ship's lines from same fairlead, exactly even, when near Penedo. Tugs sometimes use their own very heavy rope for alongside work.

Bridge: Span over navigation channel in position, said to be 55 m. clearance.

Density: Ranges from 1006 to 1026, according to season, position and tide. The average range for finishing loading 1018 to 1023. Pig iron cargoes require very many draft surveys.

Trimming: Bulldozers available for trimming pig iron inboard at extra cost.

Swinging Circle: Off Cupuaba Quay, said to be limited to 30 ft., with a 6.7 m. rock on the North side.

Berths: South side from West to East:
Tanker pier with dolphins.
Paul Quay – For export of pig iron. 10.0 m. depth at zero tide on pontoon fenders. Vessels load to 10.66 m. on rising tide to sail immediately. Airdraft said to 11.5 m. One loader with 11.0 m. reach inboard.
Usiminas – For import of coal cargoes. 3 grabbing cranes, depth said to be 10.6 m. on pontoon fenders.
Alcohol & Molasses Dolphins – largely unused.
Atalaia Quay – For export of pig iron, 8.55 m. depth at zero tide on metal fenders 2.5 m. from quay. Airdraft 11.5 m. 3 loaders, (one out of order) reach 10.8 m. Vessels load to 9.14 m. on rising tide to sail immediately.
Capuaba Quay – New construction. Silo plant at Western end, open quay with Ro-Ro berth at Eastern end. Ro-Ro vessels berth against dolphins and cliff face.

SHIPMASTER'S REPORT: June 1988.
Documents: We received telex from Agent prior to arrival requesting the following documents on arrival:

- 13 copies Crew List.
- 3 copies Personal Effects List.
- 3 copies Bonded Stores List.
- 1 copy Health Declaration.
- 1 copy Vaccination List.
- 3 copies Spares List (Deck, Engine Room, nautical spares, e.g. Main Gyro – 1 – no spare parts; Gyro Repeaters – 3 – no spare parts; Radar – 2 – no spare parts).

Bridge: New bridge will soon be open to traffic – verticle clearance 55 m.
Agent's Advice: Prior to arrival and on sailing advise "Concontramar Rio de Janeiro" the following: Vessel's name, Nationality, Call Sign, Port of Origin, Type of Vessel, Location and ETD.
Do not leave garbage drums overboard.
Do not leave Pilot Ladder over side.
Keep Brazilian flag in good order – request new flag if necessary.
Beware of thieves boarding at anchorage and on the offside when alongside berth.
Contact Pilot Station on VHF Channel 16 on arrival to guarantee berthing position.

AUTHORITY: Companhia Docas do Espirito Santo – CODESA, Empresa do Sistema Portobras, Av. Getulio Vargas No. 556, Vitoria, Espirito Santo, CEP 29000. *Tel:* (027) 222-1311. *Telex:* (027) 2118.
Contact: Dirceu Cardoso, Director-Presidente.

NOTES

Please also advise Shipping Guides Ltd.

Brunei State

BANDAR SERI BEGAWAN: 04.53 N. 114.56 E.

Brunei State is an independent country governed by H.M. the Sultan with a Council of Ministers and Legislative Assembly. The capital town of Bandar Seri Begawan (formerly known as Brunei Town) is situated 16 miles upriver from Muara Harbour which is at the mouth of the Brunei River. Use of the town wharf at Bandar Seri Begawan is restricted to small wooden coastal vessels operating within the Brunei Bay area not exceeding 80 ft. in length overall and 50 tons gross registered tons. The port of Bandar Seri Begawan comprises a reinforced concrete wharf 730 ft. long with a wharf apron 76 ft. wide and a passenger pier 124 ft. long with a wharf apron 63 ft. wide. Three transit godowns are provided.

BANKS: The Hong Kong and Shanghai Banking Corporation, Bandar Seri Begawan, Brunei. Tel: 22305/22306.

The Chartered Bank, Bandar Seri Begawan, Brunei. Tel: 22386/22458.

The Bank of America, Bandar Seri Begawan, Brunei. Tel: 224911.

The Citibank, Bandar Seri Begawan, Brunei. Tel: 23983/23984.

EMERGENCY CO-ORDINATION CENTRE: The Duty Officer, Search and Rescue Co-ordination Centre, Royal Brunei Armed Forces, Emergency Tel: 32777 or 31111 extension 462.

SURVEYORS: Cargo surveyors and non-exclusive classification society surveyors are available.

SHIP SUPPLY SERVICE:

1. Brunei Shell Petroleum Co. Ltd., Seria, State of Brunei Darussalam.
2. O.I.L. Industrial Services Ltd., P.O.Box 2320, Bandar Seri Begawan, State of Brunei Darussalam.
3. Jackson Marine Mashoor Pte. Ltd., P.O.Box 980, Kuala Belait, State of Brunei Darussalam.
4. Marine Services Ltd., P.O.Box 489, Kuala Belait, State of Brunei Darussalam.

AUTHORITY: Jurisdiction for land based operations in the Ports of Brunei: Controller of Ports, Ports Department, Muara Port, Muara, Brunei. *Tel:* 72240/72220 *Cables:* Ports, Brunei.

Jurisdiction for water based operations in the Ports of Brunei: Director of Marine, Marine Department, H.M. Customs Building, Bandar Seri Begawan, Brunei. *Tel:* 22293/22294 *Cables:* Marine, Brunei. *Contact:* I. G. Faraker, Director of Marine.

LUMUT: 04.43 N. 114.26 E. (See Plan)

DOCUMENTS: The Master will be required to provide 12 copies of the Crew List, Last Port Clearance and International Declaration of Health.

PILOTAGE: The Berthing/Loading Master will board incoming vessels approximately 2 miles North of the berth.

Masters are requested to provide a good lee for the launch to facilitate the boarding of the Berthing Master. The regulation pilot ladder should be rigged.

ANCHORAGE: Anchorage Area for vessels calling at Lumut (Anchorage "C") is located approximately 2 miles North of the loading platform, in the area contained within the following limits:

Latitudes: 4° 45′ N. and 4° 43.5′ N.
Longitudes: 114° 25′ E. and 114° 27′ E.

APPROACHES:

Approaches to the Berth: Mariners are warned that drilling rigs may be encountered when approaching the Brunei coast. Latest Notice to Mariners should be consulted.

RESTRICTIONS: Lumut is not an all weather berth. Sea and swell conditions could cause delays by preventing buoy work, or by causing unacceptable ship movements either during berthing or in berth.

Draft Calculations: There are three factors which are liable to limit the ship's draft:

(i) The approaches to the berth where rolling is likely to reduce the clearance under the keel.
(ii) The pitching movement of the ship in the berth, also likely to reduce the keel clearance.
(iii) The vertical limits within which the loading boom tie rod can be safely connected to the ship's pedestal.

Rolling in the Approaches to the Berth: The swept depth in the approach to the berth is 11.90 m. (39 ft.) below A.C.D.

An underkeel clearance of at least 0.60 m. (2 ft.) is to be maintained at all times after allowance has been made for roll.

The following calculation applies:

Depth of water below A.C.D.	11.90 m.
Allowance for roll	−2.00 m.
	9.90 m.
U.K.C. after allowing for roll	−0.60 m.
Maximum draft on arrival	9.30 m.

Pitching in the Berth: The depth in the Southern part of the berth is 12.0 m. (39.4 ft.) below A.C.D.

An underkeel clearance of at least 0.60 m. is to be maintained at all times after allowance has been made for pitching.

Depth of water in berth below A.C.D.	12.00 m.
Allowance for pitching	−1.00 m.
	11.00 m.
U.K.C. after allowing for pitching	−0.60 m.
Maximum draft	10.40 m.

N.B. i. Tide height varies between −0.10 m. and +2.30 m.
ii. Depth survey September 1987.

Vertical Limits Under the Loading Boom: Levels on the Loading Boom are referred to Seria Datum which 28.23 m. below A.C.D. Clearance should be calculated on the following lines:

Distance from underside of keel to top of ship's tie rod pedestal	31.51 m.
Draft, say	−8.35 m.
Distance from waterline to top of ship's tie rod pedestal	23.16 m.
Height of tide, say	+1.00 m.
Distance of top of ship's tie rod pedestal above A.C.D.	24.16 m.
Correction, A.C.D. to Seria Datum	+28.23 m.
Height of ship's tie rod pedestal above Seria Datum	52.39 m.
Allowance for pitching in swell waves	±1.00 m.
Range of heights of ship's tie rod pedestal above Seria Datum	51.39 m. 53.39 m.

This range must lie within the safe vertical operating limits of the loading boom, which is 50.40 m. to 53.70 m. above Seria Datum.

When connecting the loading arms it is necessary to first haul down the boom rapidly in order to bring the base of the tie rod hood within the retarding section, i.e. to less than 55.90 m. above Seria Datum. A clearance of about 2.00 m. should then be maintained between the base of the tie rod hood and the top of the ship's pedestal before commencing the final stage of the haul down. In the example shown in this section the base of the hood would be brought down rapidly to a point about 55.5 m. above Seria Datum.

HEALTH: A detailed shipping report has to be completed for the Brunei Government Marine Department. Agent will provide the forms for completion.

If the vessel comes from an infected port or its state of health is suspect, the Medical Officer may board in order to inspect crew and relevant International Medical Certificates.

RADIO: *Arrival Advice:* Confirm ETA at least 48 hours in advance, also declaring Bill of Health and estimated cooldown time required. W/T traffic should be passed through Singapore Radio, and addressed to Crosfield Kualabelait.

When within range, vessels are requested to make direct W/T contact with Brunei Shell Petroleum Company (call sign VSL) at the following local times (GMT plus 8 hours) 0945 hrs., 1345 hrs. and 1745 hrs. B.S.P. will transmit on 8558 kHz, call sign VSL, and listen out on 8354 kHz to 8374 kHz.

When contact is made on this frequency a standard information cable will be transmitted to the ship.

VHF: A VHF station at Seria (call sign "Brunei Shell Radio") maintains a continuous watch on Channel 16 with Channel 19 as a working channel.

A VHF Station (Port Control) at Lumut (call sign "Lumut Control") maintains a watch from 12 hours before vessel's ETA, on Channels 69 and 73 as working channels.

TUGS: Available in an emergency only.

BERTHING: This is an open sea berth situated approximately 4.5 km. offshore from the coastline in the vicinity of Seria.

Two mooring boats assist running moorings. The berthing approach is made from Westward. As vessel enters berth confines, an anchor may be used underfoot to assist turning the ship.

Head wires and stern wires are run as required. Head buoys are each fitted with 2 quick release hooks to take the nylon tails of ship's mooring wires. Stern wires are made fast to quick release couplings fitted to the seaward end of the stern mooring nylons on the dolphins. After moorings have been passed, vessel is warped into position with the ship's stern loading platform directly under the loading arms on the gantry.

A loading platform, with loading gantry is situated approximately 2.6 miles offshore. A trestle supporting the loading lines runs from the platform to the shore in a direction 150°T. A branch trestle 380 ft. long runs 240°T from the main trestle, about 350 ft. inshore of the platform, to the Marine Flare. Ship moors stern to the loading platform, using 3 head buoys, and 4 stern dolphins. Heading in berth is 000°.

The loading platform is connected to the shore by a trestle which carries the gas pipe-line. No facilities other than LNG and gaseous nitrogen are provided at the platform.

Design Concept: This is not an all-weather berth.

It has been designed so that the berth may be safely used up to the following limiting conditions:

Swell moderate (significant height 1.86 m.)
Wind speed 30 knots
Current velocity 0.5 knots
or
Swell slight (significant height 0.60 m.)
Wind speed 45 knots
Current velocity 1.0 knots.

The higher swells are normally experienced from directions between N.E and N.W. and the limiting current conditions occur with the current setting across the line of the berth.

Loading Platform: The loading platform carries the crane. It is protected on its North, East and West faces by a heavy defence structure designed to prevent damage to the loading platform in the event of a mismanoeuvre or mooring failure onboard the ship. No moorings are run to the loading platform.

Ship's Moorings: Nylon tails: 5×200 ft.×120 mm. diameter nylon rope tails of plaited construction with a leathered eye at both ends are provided for use on the forward wires at the Lumut berth. These are only for use at Lumut and should be fitted before arrival and disconnected after sailing. Five Mandel type connectors are provided for attaching the nylon tails to the 48 mm. mooring wires forward.

Navigational Aids: The berth is designed for day or night mooring and unmooring. Navigational lights are provided on the mooring buoys and on the trestle head.

SAFETY: Emergency shut down and disconnection systems are provided to protect the loading system in the event of a mooring failure or if the manifold reaches the edge of the loading crane envelope due to the elongation of the stern ropes under load.

Any defects in mooring equipment must be reported promptly to Port Services Department, BSP.

Winch Brakes: Once the ship is moored, winch brakes *must be fully applied* thus ensuring that the designated holding power is obtained from the winch throughout the time that the ship is in the berth.

Attention to Mooring Whilst in Berth: Moorings should not normally require attention during the time that the ship is in the berth other than the routine checking of winch brakes.

It is important, however, to ensure that individual moorings do not become slack for any reason and should this occur the mooring should be tightened up to provide the initial tensioning required.

The Berthing Master will indicate any change in tensioning in after moorings which could lead to a significant displacement of the ship's loading platform relative to the crane.

If it appears that the ship is in danger of moving out of the loading envelope very careful account must be taken of the prevailing wind, current and swell before taking any corrective action. Loading must be discontinued and the loading boom disconnected.

Attempts should not be made to adjust moorings against a high load which may approach the heaving power of the winch.

Preparation for Leaving Berth: This is not an all-weather berth and conditions will arise where it is necessary to vacate the moorings due to deteriorating wind, swell or current conditions. A careful check must be kept on conditions throughout the time that the ship is in the berth in conjunction with the Berthing Master and preparations made to leave the berth if the design limits for the moorings are being approached. It should also be realised that the mooring boat is limited to operating in sea conditions of about 6 ft. height and if this condition is exceeded, the boat may not be able to reach the head buoys and release the hooks.

Unberthing: Standard Manoeuvre: Having singled up fore and aft, the ship can then be released from the moorings and steam out between the head buoys on a suitable course.

LOADING: *Hoses:* Vessel loads through a special loading platform on the stern. The gantry supporting the loading arms is connected to the ship's loading platform by means of a tie rod. Loading/vapour/nitrogen arms and the tie rod are secured by quick release couplings.

Shore Line System: 2×18 in. LNG loading lines from shore to loading platform. LNG can be loaded through both lines, or circulated back to shore on one line. Shore lines lead to 2×16 in. liquid loading lines in loading arms. A further line leads vapour back from ship's manifold to Marine Flare, while a fourth line, the hybrid, may be used either for liquid/vapour return as required. A nitrogen supply line (shore to ship) is also included in the loading arm system.

Ship to shore communication during loading is by direct telephone backed up by VHF.

During loading operations, an Emergency Shut Down System (ESDS) operates to stop cargo and disconnect loading arms safely in the event of an emergency.

Berthing/Loading Master stays on board during loading operations.

DENSITY: 1020 – 1025.

FRESH WATER: Not available.

FUEL: Not available. Bunkers can be obtained at Lutong (Miri).

REPAIRS: Small emergency repairs may be carried out in Brunei Shell Petroleum Company's workshops. Request for repairs should be made in advance by radio.

TIME: Local time is GMT plus 8 hours.

SHORE LEAVE: Not permitted.

GENERAL: *Special Regulations:* The Brunei national flag should be flown during hours of daylight.

The ship's main radio transmitters must not be used whilst the vessel is moored at Lumut.

Immobilisation of Engines: Vessels are not permitted to immobilise main engines whilst at the berth.

Stores and Laundry Facilities: Not available.

Tank Cleaning and Dirty Ballast Facilities: Not available.

AUTHORITY: Brunei Shell Petroleum Co. Bhd., Seria, Brunei. *Tel:* (673) (03) 78443. *Telex:* BU 3133. *Contact:* Captain P. Gill, Head of Marine Offshore Operations.

AGENCY: Agent for all Shell Owned and Chartered vessels calling at Lumut is Jasra Harrison, Jalan Sungei, P.O.Box 16, Kuala Belait, Brunei. Telex: BU 3315. Cable Address: Crosfield Kualabelait.

MUARA PORT: 05.01 N. 115.04 E. (See Plan)

PORT LIMITS: The sea area within Lat. 4° 58′ N. and 5° 05′ N. and Long. 115° 03′ E. and 115° 10′ E.

DOCUMENTS:

2 Crew Lists.
2 Passenger Lists.
2 Dangerous Goods Lists.
2 Manifests (plus 1 additional copy for Port Department).
1 Health Document.

PILOTAGE: Application for Pilot 24 hours in advance by telegraph through ship's Agents. Pilot boat awaits at Beacon No. 1, Lat. 5° 03′ 39.9″ N., Long. 115° 06′ 06.3″ E. Pilot boat painted white with green awning. If on arrival No. 1 Beacon pilot boat not visible then ships should call "Muara Harbour Radio" on VHF Channel 16. Pilotage compulsory and available daylight hours only. Vessel should anchor in vicinity of No. 1 Beacon when awaiting Pilot.

ANCHORAGES: Safe anchorages available vicinity No. 1 Beacon, S.E. of Tanjong Sapo Light (Lat. 4° 59.7′ N., Long. 115° 07.6′ E.) and in Muara Harbour 4 cables S.S.W. of the wharf.

RESTRICTIONS/MAX. SIZE: Entrance to Muara Harbour restricted to daylight hours only at present. Minimum depth in dredged channel 32 ft. ACD. Max. length of vessel 600 ft.

RADIO: See "Tanjong Salirong".

VHF: Ports Department VHF Channels 11, 12, 13, 14 and 16 in operation Mondays to Thursdays and Saturdays from 0745 to 1630 hrs. local time. Call sign "Muara Port".

RADAR: No port radar service available.

TUGS: A Government owned tug is available to assist with berthing and unberthing ships. The tug has a 20 ton bollard pull, firefighting equipment and oil pollution dispersal equipment.

BERTHING: Marginal wharf 1,400 ft. long with depth 32 ft. ACD alongside. Inner Berth 285 ft. long with depth 17 ft. ACD alongside. Mobile shore cranes available up to 30 tons capacity.

STEVEDORES: Provided by ship's Agents. Major commodities are general cargo and cement, oil well cement, tubulars, machinery and vehicles.

MEDICAL: Hospital available 16 miles from port. Port Health Clinic outside port main gate.

DENSITY: Salt water.

FRESH WATER: Readily available at wharf, cost Brunei $4 per 1,000 gallons.

FUEL: High speed diesel available in small quantities.

CONSULS: There are several Consulates, Embassies and High Commissions in Bandar Seri Begawan.

REPAIRS: Minor deck and engine room repairs possible.

DRY DOCKS: None.

SURVEYORS: Lloyd's and American Bureau are represented.

GANGWAY/DECK WATCHMEN: Not compulsory but available through Agents on request.

HATCHES: Opening and closing by crew or stevedores at ship's option.

CARGO GEAR: Loading/discharging normally effected by ship's gear but 30 tonne capacity mobile crane available from Ports Department on request. Slings, nets, tarpaulins, 30 ton capacity low loader and container platform trailer available from Ports Department.

REPATRIATION: There is no Shipping Office but ship's articles are countersigned by the Director of Marine on request.

AIRPORT: International airport 12 miles from port. Regular services to Singapore, Hong Kong, Manila, Kuala Lumpur, Bangkok, Sydney and direct flights once weekly to United Kingdom.

TIME: Local time is GMT plus 8 hours. No alterations in clocks throughout year.

POLICE/AMBULANCE/FIRE: Police 72333 and 22366. Ambulance 22366. Fire 72255.

TELEPHONES: Available onboard with prior arrangement with Telecoms Dept.

SERVICES: Diver available, cold store facilities available.

SHORE LEAVE/IDENTIFICATION CARDS: After clearance inwards Crew members are allowed ashore if in possession of discharge book, identity card or passport.

BANKS:

Bank of America NT & SA, Suri Building Jalan Tutong, P.O.Box 2280, Bandar Seri Begawan. Telex: BU 2235.

The Chartered Bank, 145 Jalan Chevalier, P.O.Box 186, Bandar Seri Begawan. Cable: Chartbank.

CitiBank N.A., 147 Jalan Chevalier, P.O.Box 2209, Bandar Seri Begawan. Telex: BU 2224.

EMERGENCY CO-ORDINATION CENTRE: S.A.R. Control Berakas, Telephone BSB-32777.

STORING: See "Prelims".

1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. Import goods on arrival to be deposited in Customs Warehouse or depending on quantity and weight may be stored outside warehouse. Dangerous goods are not to be stored in warehouse except with Customs approval.

Export cargo to have Customs Declaration approved before storing onboard ship.

6. Yes, but requires supervision.

HOLIDAYS: Hari Raya Puasa, Hari Raya Haji, Chinese New Year (all dates moveable) Christmas Day. Work can usually be arranged on all holidays with exception of Chinese New Year when direct delivery to vehicles only available.

AUTHORITY: *Land Side:* Controller of Ports, Ports Department, Muara, Brunei. *Tel:* 72240, 72220. *Cables:* Ports Brunei.

Marine Side: Director of Marine, Marine Department, Bandar Seri Begawan, Brunei. *Tel:* 22294.

SERIA (Kuala Belait): 04.43 N. 114.19 E.

LOCATION: Seria is an open sea berth port. At present 2 SBM's are in operation located approximately 5.4 miles off the coast in the following positions:

SBM 1: Lat. 4° 42′ 51″ N. Long. 114° 18′ 53″ E.
SBM 2: Lat. 4° 42′ 50″ N. Long. 114° 19′ 44″ E.

Both SBMs are operated by Brunei Shell Petroleum Co. Sdn. Bhd.

WARNING: Masters are requested to give the numerous drilling structures in this area a wide berth.

A safe approach can be made from 5° 02′ N., 114° 10′E. on a course of 160° but caution remains necessary.

Waiting tankers should only anchor in "Bravo" Anchorage. See BA. Chart No. 2109.

FLAGS: The Brunei National Flag should be flown during hours of daylight.

DOCUMENTS: *Papers Required On Arrival:*

6 copies of the Crew List. If the vessel is stemmed for Japan, 6 extra copies are required from non Japanese flag vessels.
2 copies of International Maritime Declaration of Health.
2 Vaccination Lists on the first visit and subsequently an updated List.
1 copy of Last Port Clearance.
2 copies of Ship's Stores Declaration.
2 copies Crews Effects Declaration.
2 copies Cargo Declaration.
2 copies Passenger List (if applicable).
2 copies of all Ship's Certificates.

The boarding clerk will supply and prepare the following documents for the Master's appraisal and signature:

Marine Shipping Report. The form will be completed by the boarding clerk who will need to see the ship's papers.

Quarantine Entry Declaration Form.

Inward Manifest.

Departure: Bills of Lading will be completed by the Berthing Master before the vessel sails.

PILOTAGE: The Berthing Master and Mooring Assistant board incoming vessels 2 miles North of the SBM. The pilot launch leaves from the Kuala Belait river mouth. Low tides may restrict the launch in crossing the river bar for up to 6 hours.

Masters are requested to provide a good lee for the launch to facilitate the boarding and lifting of radio sets and mooring equipment.

The pilot ladder must be in good condition, fitted with spreaders, be properly rigged and secured, adequately lit at night and well clear of the ship's propellers. When the accommodation ladder is used it must be rigged well clear of the water with a pilot ladder below to gain access to the main ladder.

Crew members must be in attendance at the ladder head where a lifebuoy and clean heaving line should be sited.

The Pilot should be met at the ladder and escorted to the bridge. The Berthing Master and Mooring Assistant remain on board throughout and will require accommodation during the vessels stay. A Cargo Surveyor may also remain on board.

APPROACHES: *Approaches to the Berth and Anchorages:*

There are many oil field production structures off the coasts of Sarawak, Brunei and Sabah coupled with a large amount of exploration and drilling activity. These field structures both surface and subsurface pose a hazard to navigation and Masters are advised that they should give all these activities and fields a good wide berth.

Safety zones have been declared around the major oilfields. No vessel may pass through or approach within 500 m. of single platforms.

ANCHORAGE: A tanker anchorage is located approximately 3 miles North of the SBM berths in the area contained within the following limits:

Lat. 4° 45′ N. and 4° 47′ N.
Long. 114° 17′ E. and 114° 19′ E.

Tankers should not anchor in any other locations due to the presence of many submarine pipe-lines throughout the oil field and adjoining areas.

RESTRICTIONS: No port restrictions.

MAX. SIZE: SBM 1: 313,000 d.w.t. max. draft: 58 ft. (17.68 m.)
length between bow and manifold max. 550 ft. (168 m.)
SBM 2: 200,000 d.w.t. max draft: 52 ft. (15.85 m.)
length between bow and manifold max. 550 ft. (168 m.)

An allowance of 5 ft. (1.5 m.) may also be made for 'Loading over the tide', at the discretion of the Terminal and dependent upon prevailing weather conditions.

HEALTH: *Customs and Health Requirements:*

A detailed shipping report has to be completed for the Government Marine Department. Agent will provide the forms for completion.

If the vessel comes from an infected port or its state of health is suspect, the Medical Officer may board in order to inspect the crew and relevant International Medical Certificates. Customs Officers do not normally board incoming vessels but may do so with the Agent.

RADIO: *Information Required Prior to Arrival:*

Radio Advice: Confirm ETA at least 48 hours in advance also declaring state of Health, Master's name, number of crew, destination, and quantity of cargo required.

This data is used to obtain the vessel's "Seria Port Clearance," in advance.

W/T Traffic should be passed through Singapore Radio, and addressed to Crosfield, Kuala Belait or Borneo Kuala Belait (Agents) as appropriate.

The Agent will pass ETA's to the BSP Marine Department and to Seria Oil Terminal.

Vessels making their first call at Seria port will receive a message from the Agent describing the location of the anchorage and information on pilotage, radio stations and papers required on arrival.

When within range, vessels are requested to make direct W/T contact with Brunei Shell Petroleum Company (Call sign "VSL-1" or Brunei Shell Radio) at the following local times (GMT + 8 hrs.) 0945 hrs. to 1000 hrs.; 1345 hrs. to 1400 hrs.; and 1745 hrs. to 1800 hrs.

BSP will transmit on 8558 kHz, call sign Brunei Shell Radio, and listen out on 8354 to 8374 kHz. When contact is made on this frequency a standard information cable describing necessary derrick and mooring arrangements will be transmitted to the ship by BRUNSHELL.

The ship's radio station must not be used whilst the tanker is moored to the SBM.

Agent: The Agent's launch is equipped with VHF Channel 16.

Agent boards arriving vessels from 0600 hrs. to about 1800 hrs.

VHF: A continuous watch on Channel 16 is maintained both by Brunei Shell Radio and by Seria Terminal. Vessels should contact either of these stations as soon as practicable, passing her latest ETA at Seria Pilot Station. While berthing, Channel 13 is normally used to communicate between bridge, mooring boat and forecastle.

Brunei Shell Radio uses Channel 19 as working Channel and can link the ship with the Agents through the Government telephone system.

TUGS: Available in emergency only.

BERTHING: Berthing and unberthing is carried out night and day.

Mooring can usually be safely carried out in sea/swell heights of between 6 ft. (1.83 m.) and 8 ft. (2.44 m.), operations are normally suspended if heights are in excess of 8 ft. (2.44 m.) The operation however is governed by the mooring boat performance in the sea conditions prevailing at the time.

Wind speeds in excess of 20 knots make it difficult to prevent the "bow falling off" when on final approach. Berthing operations are as a rule suspended when wind speeds exceed 25 knots. Again this is governed by the mooring boat performance and the ship's handling characteristics.

Tanker Moorings: Tanker moorings from the buoys comprise of two 12 in. circumference two-in-one braided nylon endless grommet type mooring ropes complete with floating sleeves. They have a soft eye to each end, both ropes being 150 ft. (45.71 m.) long and have a breaking load of 396 tons when new. Fairlead chafing chains with triangle connecting plates are attached to the tanker end of the moorings. Each chain is 25 ft. × 3 in. diameter stud link chain constructed of special quality U2 grade steel. Incorporated within the chain is a further connecting triangle plate for larger tankers.

A 10 in. circumference × 40 ft. polypropylene pick up rope is shackled to the end connecting triangle plate, the free eye of the rope being buoyed off for easy recovery by the mooring launch.

The buoy end of the 12 in. circumference nylon mooring ropes are pinned into a twin triangle plate which in turn is secured to lugs on the revolving turntable by short lengths of chain and connecting shackles.

Preference will be given to vessels complying with the O.C.I.M.F. Standards for Equipment Employed in the Mooring of Ships at Single Point Moorings.

Mooring Equipment: Two portable UHF radios for ship/shore communications during loading are passed to the tanker when the Berthing Master boards approximately 2 miles North of the buoy. If required, for vessels not complying with the O.C.I.M.F. Standards, mooring equipment consisting of 2×15 in. circumference two-in-one braided single type nylon snotters 80 ft. long, with forelock shackles for connecting to the triangle plates are lifted on board the tanker with the ship's derrick from the lee side. In good conditions the equipment is normally taken directly onto the forecastle from the mooring boat, a ship's mooring rope being lowered to the boat and the snotters shackled to the end of it.

The mooring equipment is set out on the forecastle head during the tanker's approach to the SBM.

The snotters must be so placed to be clear of any structure and other forecastle gear and equipment that may cut or damage them.

LOADING: The starboard derrick should be rigged to lift a minimum of 10 tonnes and the crew ready forward with a ship's mooring rope to take the mooring equipment.

Load-on-Top: Unless the vessel has other instructions then the "Load-on-Top" system applies.

Dirty ballast and slops *cannot* be accepted ashore.

Position of Hose Connections: Starboard side amidships.

Hose derrick should be rigged to lift at least 10 tonnes and the vessel to have the appropriate reducers fitted to take standard 16 in. manifold hoses 150 ASA. Hose connection and disconnection by ship's crew.

Pipe-lines and Floating Hose Strings

Pipe-lines: 2 submarine sea lines are laid from the terminal to the buoys. A 32 in. line, 33,000 ft. long to SBM No. 1 and a 24 in. line 32,200 ft. long to SBM No. 2.

A 24 in. crossover line 5,500 ft. long joins the "T" piece connection situated 4,100 ft. from SBM No. 1 PLEM to the Western PLEM valve on No. 2 SBM. All lines are concrete coated and cathodically protected with aluminium anodes.

The main sea lines terminate at "T" piece manifold PLEMs. 75 ft. and 66 ft. from the vertical axis of the buoy on SBM No. 1 and No. 2 respectively.

Two underwater hose strings in "Lazy 'S'" configuration connect the manifolds to the underbuoy flanges. No buoyancy tanks are fitted on these strings.

Connected to the SBM-1 are 2×16 in. hose strings, 800 ft. (245 m.) long, and to SBM-2 1×16 in. hose string, 800 ft. (245 m.) long.

Floating hose strings are electrically continuous except the tail end hoses, which isolate the cathodic protection of the SBM from the tanker.

Either floating hose string can be isolated to allow loading through 1 hose, by closing the butterfly valves sited on the buoy turntable.

CARGO PARTICULARS: Crude Oil and Condensate only.

Approximate loading temperature is 90°F.

Approximate API:

SLEB (Seria Light Export Blend)	35
CE (Champion Export)	24
BL (Brunei Light)	40
BC (Brunei Condensate)	65

Crude oil is loaded at SBM-1 and Condensate at SBM-2.

Approximate loading rate at SBM-1 is 4,500 cu.m.p.h. and at SBM-2 it is 2,200 cu.m.p.h.

Ships are required to load cargo as rapidly as possible in accordance with the terms in their Charter Parties. They are expected to load as fast as Seria Terminal can supply or they can safely receive. The question of how fast a ship may load is the responsibility of the Master having regard to his Owner's instructions and Charter Party and experience of his crew.

Loading is controlled by portable UHF radio sets taken on board with the Berthing Master. Incorporated in these sets is an emergency shut down button which when activated stops all the shore pumps. During loading, four hourly figure comparison checks in long tons are required to ensure no subsea leaks develop undetected.

DIRTY BALLAST: There are no tank cleaning or dirty ballast facilities. All ships must arrive with clean ballast, pumps and lines. Pollution in any form is strictly prohibited.

MEDICAL: In cases where medical attention is required then the Agent will arrange for the patient to be taken by launch and car to the hospital.

In cases of emergency involving serious injury or illness the Berthing Master or Brunei Shell Radio can initiate Brunei Shell Petroleum Company "Medivac Procedure". Representation of the patients, remains with the Agent, who should be informed to immediately contact customs and immigration authorities.

DENSITY: Varies 1020 – 1025 depending on season and rainfall.

FRESH WATER: Not available.

FUEL: Bunkers are not available at Seria.

REPAIRS: Small emergency repairs to Shell owned and chartered vessels only may be undertaken at the Brunei Shell Petroleum Company workshops. There is a small yard at Kuala Belait which also undertakes repairs.

AIRPORT: At Bandar Seri Begawan; 1.5 hours by car from Kuala Belait.

REPATRIATION/JOINING: Crew members leaving or joining vessels at Seria require a valid travel document for travelling through Brunei State from the airport to Kuala Belait or vice-versa. However, the Seaman's Book may be used in lieu of a Passport by all Nationalities that have ratified the ILO's (International Labour Organisation) Convention.

Crew to be repatriated from Seria have their travel documents endorsed in Kuala Belait before travelling to Bandar Seri Begawan International Airport. The Immigration Office in Kuala Belait is open during normal office hours on Monday to Thursday and Saturday. From Bandar Seri Begawan International Airport flights depart regularly to Singapore, Manila, Bangkok, Hong Kong, Jakarta and Darwin. Crew arriving ashore on Friday and Sunday stay overnight in Kuala Belait.

TIME: Brunei keeps local time of GMT plus 8 hours.

SHORE LEAVE: No shore leave is allowed.

WEATHER: The area is affected by squalls associated with cumulonimbus and thunderstorms. These squalls, though not isolated can be very severe and peak gusts of 75 knots are not uncommon. This peak gust is brief and settles to between 25-40 knots. All squalls are accompanied by torrential rain.

SAFETY: *Safety Regulations:* As per International Oil Tanker and Terminal Safety Guide (IOTTSG).

Smoking is only permitted in places jointly approved by the Master and Berthing Master.

One man must be stationed on the forecastle to watch the buoy throughout the time the vessel is moored to ensure the vessel does not approach the SBM.

Engines must be kept available at all times. No main repairs are allowed.

Brunei Shell Petroleum Company reserves the right in the event of flagrant and continued disregard of safety requirements by any ship to stop all operations and order the vessel off the berth for appropriate action to be taken by Charterers and/Owners concerned.

GENERAL: *Refuse:* No garbage, rubbish or refuse may be thrown overboard while the vessel is in Brunei Waters.

Stores and Laundry Facilities: None.

AUTHORITY: Brunei Shell Petroleum Co. Ltd., Seria, State of Brunei. *Tel:* (673) (03) 78443. *Telex:* Bu 3313. *Cables:* "Brunshell" Seria. *Contact:* Captain V. Austel, Head of Marine. Tel: 673-3-78464 or 673-3-33672.

TANJONG SALIRONG: 04.53 N. 115.06 E.

The log-loading anchorage at Tanjong Salirong is situated 12 miles above the Outer Bar at the mouth of the Brunei River. Vessels of up to 21 ft. draft may cross the bar at HW.

DOCUMENTS: *(a)* To be produced on arrival:

Marine Department
Boarding Report.
1 Crew List.
1 Passenger List.

Customs Department
2 Inward Manifests.
1 Crew List.
1 Passenger List.
1 Port Clearance.
1 Stores List.
1 Arms List.

Agents
2 Inward Manifests.
1 Crew List.
1 Passenger List.
2 Hatch Lists.
1 Arms List.

(b) To be supplied before ship's departure:

Customs Department
1 Outward Manifest.
1 Passenger List.
1 Crew List.
1 Export Declaration.

Immigration Department
1 Passenger List.
2 Crew Lists.

Vessels
2 Outward Manifests.
Port Clearance.

PILOTAGE: *Bandar Seri Begawan:* Pilotage is not compulsory. If a Pilot is required by a vessel proceeding to Bandar Seri Begawan a written request must be made at least 24 hours before ship is scheduled to arrive. This must include position where Pilot is required to embark (i.e. at Outer Bar or Sapo Point).

Muara Harbour: Pilotage is compulsory. Application for a Pilot for entering Muara Harbour must be made by written request at least 24 hours before arrival. Pilots board vessels in Brunei Bay at the Northern end of the entrance channel through Pelompong Spit.

Tanjong Salirong: Pilotage is not compulsory. If a Pilot is required for vessels loading logs at Tanjong Salirong then application must be made 24 hours in advance of arrival stating position where it is required for Pilot to embark (i.e. at Outer Bar or Sapo Point). A Customs Officer and Agent's clerk will proceed to Tanjong Salirong from Muara Harbour or Bandar Seri Begawan and will remain on board whilst vessel is loading, accommodation and food provided by ship. Stevedores and tally clerks provide their own food.

ANCHORAGE: Vessels entering Muara Harbour without berthing space will be anchored 5 cables S.S.W. of wharf. If so desired ships may discharge perishable cargo at anchorage into lighters. Consignees must make arrangements with Agent to obtain permission from Customs, who will provide a Customs Officer to attend to discharge.

HEALTH: *(a)* Immigration: Immigration Officer will board vessel and clear her inward after pratique granted by Port Health Authority. Immigration will require 2 copies of passenger lists and 2 copies of crew list. Vessels inward are cleared up to 2000 hrs. only.

(b) Quarantine: For vessels coming from outside State of Brunei, Port Health Authority will board on arrival at wharf or anchorage. Port Health Authority requires complete copy of Entry Declaration of Health and copies of Passenger and Crew Lists.

RADIO:

State of Brunei
Notice to Mariners No. 9 of 1984
Brunei, North West Coast
Establishment of Port and Harbour Radio Station

Date: With immediate effect.

Details: Mariners are advised that a Port and Harbour Radio Station, call sign "VSL3" and in plain language "Muara Harbour Radio" has been established in the Marine Department Signal Station located at the main entrance channel to Muara Harbour in position:

Lat. 05° 02′ 21″ North Long. 115° 05′ 20″ East

and has been put into operation for the convenience and safety of port and harbour users with immediate effect. Details of the radio equipment installed, hours of operation and operating procedures are as follows:

2. A listening watch is kept on VHF Hague Plan Channel 16, (156.8 MHz) radio telephone daily from 0745 hrs. until 1630 hrs., Brunei Time (GMT plus 8 hours). Working Channels are listed below:

International VHF Hague Plan Channel Number	*Channel Allocation*
Channel 16	Calling and Safety
Channel 11	Ship to Shore Working
Channel 12	Ship to Shore Working
Channel 13	Ship to Shore Working
Channel 14	Ship to Shore Working
Channel 8	Pilot and Tug Operations

3. A listening watch is kept on medium frequency radio telephone on 2182 kHz daily from 0745 hours until 1630 hours, Brunei Time.

Single Side Band radio telephone working frequencies are as follows:

Serial No.	*Frequency in kHz*	*Frequency Allocation*
1	2222	Shore to Ship Working
2	2767	Shore to Ship Working
3	4170	Shore to Ship Working
4	6445	Shore to Ship Working
5	8065	Shore to Ship Working
6	12016	Shore to Ship Working
7	16112	Shore to Ship Working

4. Additionally, the following equipment is available to assist ships in distress and with Search and Rescue operations:

4.1 Auto Alarm equipment guarding the wireless telegraphy distress frequency of 500 kHz which is triggered by the first 4 dashes of the International Distress Signal consisting of 12×4 second dashes with a 1 second interval between each dash.

4.2 Auto Alarm equipment guarding the radio telephone distress frequency of 2182 kHz which is triggered by the 2 tone alarm signal transmitted over a period of a least 30 seconds but not exceeding 1 minute.

4.3 A listening watch is kept on the radio telephone aircraft distress frequency of 121.5 MHz daily from 0745 hrs. to 1630 hrs., Brunei Time.

4.4 Radio Direction Finding equipment is available to automatically determine the bearing of a distress signal on wireless telegraphy 500 kHz, radio telephone 2182 kHz, VHF radio telephone Channel 16 (156.8 MHz) or VHF radio telephone 121.5 MHz.

Charts Affected: B.A. No. 2134 and 2109.
Authority: Director of Marine.
Reference: MB 35/200/83 (68).
Date: 11th February, 1984.

STEVEDORES: Stevedoring is in the hands of contractors who supply gangs as required. Working hours are 0730 hrs. to 1215 hrs., 1315 hrs. to 1600 hrs., 1900 to 2300 hrs. (overtime). Overtime is usually worked from 1900 to 2300 hrs., permission to work overtime is required from the Customs Department. No tally clerks available. All tallies to be made by ship's own tally clerks.

MEDICAL: Government General Hospital is situated in Bandar Seri Begawan 16 miles from Muara Harbour. General Hospital is well equipped with facilities to carry out normal surgery. Inoculations and vaccinations given free of charge.

FRESH WATER: Can be supplied from the wharf at Muara Harbour and Bandar Seri Begawan. No fresh water is supplied at Tanjong Salirong. No water-boat in State.

FIRE PRECAUTIONS: Fire-floats are stationed at Fire Brigade sub-station near Customs sub-station in Bandar Seri Begawan. A Government tug with fire fighting capabilities is stationed at Muara Harbour.

CONSULS: There are several Embassies, Consulates and High Commissions in Bandar Seri Begawan.

HOLIDAYS: The Brunei Government working days are Monday to Thursday and Saturday, Friday and Sunday being holidays. Application must be made to Customs for working on Friday and Sunday and other public holidays. Brunei, being a Muslim State, insists on strict observation of all Muslim rites such as The Sultan's Birthday, Har Raya Puasa, Hari Raya Haji, etc. Chinese New Year is also observed.

POLICE/AMBULANCE/FIRE: Emergency telephones numbers are:

From	*Fire*	*Ambulance*	*Police*
Bandar Seri Begawan	22555	22366	22333
Muara	72255	22366	72333

AUTHORITY: The Director of Marine, Marine Department, H.M. Customs Building, Bandar Seri Begawan, Brunei.

NOTES

Please also advise Shipping Guides Ltd.

Bulgaria

BOURGAS: 42.30 N. 27.29 E. (See Plan)

Well protected port at inner end of Bourgas Bay, with good roads, anchorage.

DOCUMENTS:

Master's Declaration.
Cargo Plan.
Custom's Manifest.
Charter Party.
Derat Certificate.
Health Condition Certificate for Crew Members.
Manifest and Consignment of Cargo.
Provision List.
Crew Lists.
Passenger List.
Crew Passports.

PILOTAGE: Pilotage in Inner Roads compulsory for vessels above 100 g.r.t. Application for Inner Roads Pilot must be made to Agents "Inflot" at least 4 hours prior to arrival (if incorrect ETA given – pilotage fee is doubled).

Outer Roads pilotage not compulsory. Vessels requiring Outer Roads pilotage must advise Agents "Inflot" at least 12 hours before time required and give position of required pick-up point.

Applications for Pilot should include Nationality and call letters; gross tonnage; date (2 figures); time (4 figures) when Pilot required; draft in metres (4 figures).

APPROACHES: Through fairway, depth of channel 29 ft. 6 in. LW.

ANCHORAGE: Outer Roads. Vessels anchored must keep close watch on Roads Signal Station for orders given by flag or signal lamp. Vessel ordered by Authorities to proceed to position Lat. 42° 39′ N., Long. 27° 56′ E., for clearance and Pilot.

RESTRICTIONS: Arrival and sailing from Western Port and Fish Port day and night.

RADIO/VHF: Bourgas 500 kHz and VHF Channels 16 and 28. Port Control VHF Channels 16 and 11. Pilots VHF Channel 14.

TUGS: Available and compulsory for vessels over 1,000 g.r.t. Tugs join vessels in the Roads. Tugs lines used.

BERTHING: Compulsory piloting for vessels over 50 g.r.t. Container handling facilities available. 2 berths available for bulk carriers, 11 berths for general cargo ships. No specialised berth for passenger vessels, conventional berth can be provided with 5 days notice.

CRANES: Berths are equipped with electrical portal cranes with capacity from 3 tons to 32 tons. 100 ton capacity floating crane available.

STEVEDORES: Available. Liner ships and chartered vessels on liner terms are obliged to use stevedore and tallyman service.

MEDICAL: All facilities available.

TANKERS: Oil port Drujba. Height of quay 2 m.

Berthing: At the S.W. corner of the Bay there are 2 "T" shaped berths, max. depth 40 ft. There are mooring dolphins for vessels length 250 m.

There is an additional tanker berth for vessels loading only, to the South of the "T" shaped berths, depth 30 ft.

Discharging: 2 × 8 in. hoses are connected to the pipe-line on the catwalk. Discharge rate 1,800 to 2,000 t.p.h. depending on the back pressure. The height limit of the hoses is about 54 ft. above sea level. The berth is protected from the prevailing N.E. wind.

Report received 1977 states that the max. draft is 39 ft. – no length limitation. Max. draft at the Product Berth (gas oil) is 23 ft.

Also see "Shipmaster's Reports".

DENSITY: 1012 – 1014.

FRESH WATER: Available through hose hydrants or ex-barge. 24 hours notice required.

FUEL: From VTO "Transimpex" Tel: 45751. 72 hours notice required, diesel and gas oil available, also Shell and Castrol lubricants.

FIRE PRECAUTIONS: Constant day and night duty, and direct telephone connection with port fire service.

GANGWAY/DECK WATCHMEN: Vessels in Roads not permitted to have gangways down. Vessels alongside quay with lowered gangway must have manropes, safety net, life-buoys with rope of at least 30 m. length attached, an Officer on duty at the gangway and must be lit at night.

OPENING/CLOSING HATCHES: According to charter party.

CERTIFICATES:

Construction
Safety Radio
Classification
Hull and Machinery
Load-line
Cargo gear

CUSTOMS ALLOWANCES: Tobacco – 2 packets per crew member per day. Wines/spirits – for Master, as required, for crew – 1 opened bottle. No limits on board, no seals, crew are allowed to take 1 or 2 packets of cigarettes ashore.

IDENTIFICATION CARDS: Required. Crew members are given shore passes.

CONSULS: Turkey.

REPAIRS: Small repairs only.

DRYDOCKS: Floating dock with capacity 3,000 d.w.t. available.

REPATRIATION: Can be fulfilled if necessary. Replacement of crew by Bulgarian nationals is possible.

AIRPORT: Internal and international flights.

SERVICES: Tank cleaning and removal of sludge.

TELEPHONES: Port Director Tel: 42293; Pilots Tel: 47168; Customs House Tel: 42301; Bulgarian Shipping Register Tel: 47132; Shipping Agency "Inflot" Tel: 45506.

SHORE LEAVE: Allowed.

REGULATIONS: Given to Master on arrival.

DELAYS: Possible while waiting for Pilot owing to bad weather or waiting turn for berth.

TIME: GMT plus 2 hours.

HOLIDAYS: New Year (1st January); May Day (1st/2nd May); Day of Slavonic written language (24th May); Day of Freedom (9th/10th September); October Revolution (7th November). Time from 1300 hrs. on day before Sundays and Holidays until 0800 hrs. day after is non-working time, but loading and discharging carried out at overtime rates.

SHIPMASTER'S REPORT: (Vessel 107,023 d.w.t.).

Danger Area: Minefield area 43.

Documents:

Bill of Health.
6 Crew Lists.
3 Stores Lists.
3 Personal effects Lists.
Ship's documents (Register, Certificates, etc.).
No money list required.

Upon arrival Master receives Port Regulations (re: watchmen, ratguards, stoppage of propeller, waste disposal, pollution, etc.).

Radio: Bourgas Radio, Port Control VHF Channels 16 and 10; Pilots VHF Channel 14.

Density: Average 1012.

Identification, Cards: Crew members are given shore passes and are allowed ashore until midnight. Persons with long hair are refused passes.

Customs Allowances: No limits on board, no seals, crew are allowed to take 1 or 2 packets of cigarettes ashore.

Repatriation: No difficulties.

Airport: Daily flights to Sofia with connecting international flights.

Tugs: 7 tugs available.

Anchorage: Vessel ordered by Authorities to proceed to position Lat. 42° 39′ N., Long. 27° 56′ E. for clearance and Pilot. After clearance vessel proceeded to Lat. 42° 40′ N., Long. 27° 49′ E. for lightening.

Lightening: Vessel required to be lightened to 39 ft. Tankers come alongside; they carry good rubber fenders and one 10 in. discharge hose. Discharge rate varies from 1,500 – 1,800 t.p.h. according to tanker's requirements.

Berthing: At the SW corner of the bay. There are two "T" shaped berths, max. depth 40 ft. Each berth consists of 3 platforms connected by a catwalk. Length of berth used was 125 m.There are mooring dolphins but the length of vessel is 259 m. so all lines were breast ropes and springs.

Discharging: Two 8 in. hoses are connected to the pipe-line on the catwalk. Discharge rate, 1,800 to 2,000 t.p.h. depending on the back pressure. The height limit of the hoses is about 54 ft. above sea-level. Vessels are required to ballast if necessary before reaching this level. The Berth is protected from the prevailing N.E. wind.

Dardanelles Entrance: (Canakkale, Turkey) Pilot station is at Seddulbahir. Call sign "Canakkale Pilot" VHF Channel 16. During Southerly gales Pilot boards close to Kanakkale Town.

Bosporus: North entrance, pilot station at Kavagi, Pilot boards off Dikilikaya Light. Call Pilot on VHF Channel 16.

SHIPMASTER'S REPORT: January 1984.

Arrival: Prior to arrival in Bougas Roads vessel may contact Port Control on Channel 16, shifting to Channel 11.

Anchorage: Port Control advise vessel that the anchorage limits are: Lat. 42° 28′ 18″ N. and Lat. 42° 27′ 30″ N. and Long. 27° 30′ 54″ E. and Long. 27° 29′ 48″ E.

Anchoring is not allowed North of this area.

The Agent, Doctor, Customs and Harbour Master come on board and clear the vessel at the anchorage.

Documents:

1 copy Health Declaration.
6 copies Crew List.
4 copies Personal Effects List.
4 copies Stores List
4 copies Money Declaration List of Crew.

Ship's documents (Register, Loadline, Safety Construction, Safety Equipment, Safety Radio. These documents are kept by the Harbour Master and returned before sailing).

VHF: Bourgas Port Control Channels 16 and 11; Pilot Channel 14, Bourgas Radio Channels 16 and 28.

Identification Cards: Shore passes are given to all crew members and any expired passport holders are not allowed to go ashore. Crew can stay ashore until 0400 hrs.

Customs Allowance: No limits and no seal made on board. Crew can take ashore 2 packets of cigarettes. If the vessel receives any Bulgarian money (Leva) from the Agent, the Money List must be handed to the Customs Office.

The doctor places under seal all meats from all countries, except chickens. Meats are not to be used during stay in port.

SHIPMASTER'S REPORT: March 1988.

Vessel: 40,000 d.w.t. tanker.

Documents:

7 copies Crew List.
1 copy Vaccination List.
1 copy Stores List.
1 copy Crew Declaration

Maritime Declaration of Health (including list of ports called in last 21 days.

Ship's Register.
Safety Equipment Certificate.
Safety Radio Certificate.
Certificate of Financial Security.

The vessel's certificates are retained ashore by the authorities until outward clearance is received.

7 officials boarded for inward clearance and 4 officials boarded for outward clearance.

All ship's personnel are to be sighted by Immigration officials, inward and outward.

Pilotage: The Pilot boards from a tug at the Inner Anchorage.

Tugs: 2 tugs used for berthing. Tugs lines used.

Berthing: Vessel berthed at Berth No. 1. 2 mooring boats assist and run the backsprings first.

Moorings forward: 2 headlines, 2 breast lines and 2 spring lines.
Mooring aft: 2 spring lines and 3 stern lines.
No shore gangway.

Cargo Handling: Slop facilities available. We discharged 450 tonnes.

The Safety Inspector who boarded to sight the Oil Record Book also asked to see the slop discharge receipts.

2×8 in. hoses used for loading.

On completion of loading, paperwork takes about 1.5 hours.

Pilot requires 30 minutes notice by VHF Channels 16, 14 or 11.

Shore Leave: No shore passes issued. Seaman's Book or Passport are stamped by Immigration and used as shore passes.

General: Vessel is allowed to take out sufficient meat for 2 days, remainder sealed.

Overside painting permitted, except for ship's name, draft marks and load line.

AUTHORITY: Shipping Corporation, 17 Panagyurishte Street, Varna, Bulgaria.

Bourgas Port Complex, 8000 Bourgas, Bulgaria. *Tel:* 42293 (Port Director), 43140 (Harbour Master). *Contact:* M. Manolov, Port Director.

AGENT: State Shipping Agency "Inflot". Cables: "Bolinflot". Telex: 083 509, Tel: 45506, 42879.

PORTS IN THE AREA OF PORT BOURGAS

Port Nessebar: Situated on 18 miles North-eastern of Bourgas in the Bourgas Bay. Available 2 berths for passenger and other small ships with draft up to 19 ft.

VARNA: 43.12 N. 27.57 E. (See Plan)

Well protected port at inner end of Varna Bay.

DOCUMENTS:

Master's Declaration.
Cargo Plan.
Customs Manifest.
Charter Party.
Derat Certificate.
Health Condition Certificate for Crew Members.
Manifest and Consignment of Cargo.
Provision List.
Crew List.
Passenger List.
Crew Passports.

PILOTAGE: Pilotage in Inner Roads compulsory, but not compulsory for Outer Roads. Vessels requiring pilotage at Outer Roads must radio Agents "Inflot" 24 and 12 hours prior to arrival giving position of required pick-up point, also: name of vessel; nationality and call letters; g.r.t.; length; draft in metres (4 figures); date (2 figures); time (4 figures).

Pilot comes from Inner Port of Varna. In bad weather impossible for pilot boat to reach Outer Roads and vessel will be so informed by Agents "Inflot" and instructed to proceed to anchorage in Varna Bay.

Pilot boat is a patrol boat with yellow funnel and letter "P" on a blue strip and carries international recognition signals by day and night.

APPROACHES: Through fairway, depth of channel 39 ft.

ANCHORAGES: Outer Roads in area East of meridian 27° 56′ E., beyond fairways. Vessels anchored must keep close watch on Roads Signal Station for orders given by flag or signal lamp.

RADIO: Radio Varna LZW 500 kHz. LZW 42 – 8532 kHz. VHF Channels 26 and 16. Port Control VHF Channels 16 and 11; Pilots VHF Channel 14.

TUGS: Available and compulsory for vessels over 1,000 g.r.t. Ship's lines used.

BERTHING: Compulsory piloting for vessels over 50 g.r.t. Depths at quays up to 31 ft. 10 berths available for general cargo vessels, 1 berth for containers and 3 berths for passenger ships.

CRANES: Berths are equipped with electrical portal cranes with capacity from 3 tons to 32 tons, also 100 ton floating cranes are available.

Container Terminal: Loading and discharging of 10 ft., 20 ft., and 40 ft. containers. The necessary specialized loading and discharging equipment is available.

BRIDGES: When proceeding to and from Varna Lake, vessels pass under the new Asparuhov Bridge (45 m. above the water level).

STEVEDORES: Available. Liner ships and chartered vessels on liner terms are obliged to use stevedore and tallyman service.

MEDICAL: All facilities available.

TANKERS: 2 berths, draft 30 ft. and 28 ft.

DENSITY: 1013.

FRESH WATER: Available through shore hydrants or ex-barge. 24 hours notice required.

FUEL: From VTO "Transimpex", Tel: 230475. No. 14 Chervenoar Meiski Bul. 72 hours' notice required. Bunker "C", diesel and gas oil available. Lubricants: Shell and Castrol – 48 hours notice required.

FIRE PRECAUTIONS: Constant day and night duty and direct telephone connection with port fire service.

GANGWAY/DECK WATCHMEN: Vessels in roads not permitted to have gangway down. Vessels alongside quay with lowered gangway must have manropes, safety-net, life-buoys with rope of at least 30 m. length attached, an officer duty at the gangway and must be lit at night.

OPENING/CLOSING HATCHES: In accordance with charter party.

CERTIFICATES:

Construction.	Hull and Machinery.
Safety Radio.	Load-line.
Classification.	Cargo Gear.

CUSTOMS ALLOWANCES: Tobacco: 2 packets per crew member per day. Wines/spirits: For Master, as required, for crew – 1 opened bottle. No limits on board, no seals, crew are allowed to take 1 or 2 packets of cigarettes ashore.

IDENTIFICATION CARDS: Required. Crew members are given shore passes.

CONSULS: U.S.S.R., D.D.R. Poland, Czechoslovakia, Cuba.

REPAIRS: All kinds of repairs possible in ship-repair yard.

DRY DOCKS: Suitable for vessels up to 30,000 d.w.t.

Floating Docks: 2 floating docks with lifting capacity of 4,500 tons and 12,500 tons respectively.

REPATRIATION: Can be fulfilled if necessary. Replacement of crew by Bulgarian nationals is not possible.

AIRPORT: Internal and International Flights.

SERVICES: Tank cleaning and removal of sludge. Compass adjusting.

TELEPHONES: Port Director 223479; Pilots 227023; Custom House 225532; Lloyd's representative 227167; Soviet Register 222651; Bulgarian Shipping Register 226122; State Shipping Agency "Inflot" 222669.

SHORE LEAVE: Allowed.

REGULATIONS: Given to Master on arrival.

DELAYS: Possible while waiting for Pilot owing to bad weather or waiting turn for berth.

TIME: GMT plus 2 hours (1st October – 1st April). GMT plus 3 hours (1st April – 1st October).

HOLIDAYS: New Year (1st January), May Day (1st/2nd May), Day of Slavonic written language (24th May), Day of Freedom (9th/10th September), October Revolution (7th November). Time from 1300 hrs. on day before Sundays and holidays until 0800 hrs. day after is non-working time, but loading and discharging carried out at overtime rates.

AUTHORITY: Shipping Corporation, 17 Panagyurishte Street, Varna, Bulgaria. *Tel:* 226316. *Telex:* 077424, 077524. *Cables:* OVT. *Contact:* N. Yovchev, Director-General.

AGENT: State Shipping Agency "Inflot". Cables: "Bolinflot". Telex: 077516. Tel: 222669, 222636, 225924.

PORTS IN THE AREA OF PORT VARNA:

Port Varna-West: Situated 14 nautical miles from Port Varna. 7 berths available for bulk carriers, 3 berths for containers and 5 berths for general cargo vessels. Ships of max. 33 ft. draft proceed in one direction only, through 2 deep channels with Varna Lake between them, with limitation in speed up to 6 knots. A container platform for loading and discharging of 20 ft. containers and specialized loading/discharging equipment available.

Ferry-boat Complex: Situated 13 nautical miles from Port Varna, next before Port Varna-West. Two specialised berths for ferries with max. draft 26 ft. available.

Port Balchik: Situated 18 nautical miles North of Port Varna, for ships with max. draft 24 ft. 1 berth for bulk carriers available. Entering and leaving the port with a Pilot commencing from the Outer Roads of Port Varna.

Drujba (Port Topolly): Specialised port for wood materials. Situated on the Northern part of Varna lake, 8 nautical miles from Port Varna. 3 berths for ships with max. draft 26 ft., 21 ft. and 15 ft. available.

Port of the Thermo-Electrical Station Varna: Specialized port for coal, situated on the West part of Varna Lake, 8.5 nautical miles from Port Varna. 2 berths for ships with max. draft 32 ft. available.

NOTES

Please also advise Shipping Guides Ltd.

Burma

RANGOON: 16.47 N. 96.15 E. **(See Plan)**

DOCUMENTS:

Ship's Register.
Crew and Passenger List.
Dangerous Cargo List, if any.
Customs Declaration for Crew and Ship.

PILOTAGE: Compulsory. The services of Pilots are required to bring ships alongside.

Vessels bound for the port of Rangoon should make for the *Dagon* Light Vessel (China Bakir) Lat. 15° 59.9′ N., Long. 96° 14.5′ E. and then proceed towards *Lanthaya* Light Vessel. Vessels of 26 ft. draft and over should anchor off *Dagon* Light Vessel due to insufficiency of depths at the pilot station at low water, and await instructions from the pilot vessel for embarking Pilot.

Vessels below 26 ft. draft may proceed direct to the pilot vessel for embarkation of Pilot.

The pilot vessel or its relief is normally cruising or anchored at Lat. 16° 11.0′ N., Long. 96° 19.6′ E. approximately 10 miles North of *Dagon* Light Vessel and approximately 2 miles East of Lanthaya Light Float and 42 miles from the Port of Rangoon.

ANCHORAGES: Specific areas of the port are reserved for special anchorages as follows:

(a) *Petroleum Anchorage* at Liffey Reach just below Syriam, accommodating two vessels.
(b) *Explosives Anchorage* below Admiralty Jetty near Chokey Point.
(c) *Small Craft Anchorage* at King's Bank accommodating 20 inland vessels and schooners, etc.

ETA: 48 hours advance notice of ETA required, confirmation to be made 24 hours later or one working day ahead of the ship's ETA to enable necessary arrangements to be made regarding Pilots. Information required in the advance notice are:

(a) ETA, *(b)* Fresh Water Draft, *(c)* Speed, *(d)* Gross tonnage, *(e)* LOA and LBP.

RESTRICTIONS: Generally on a flood tide between the time of LW to HW at the pilot station, depending on ship's actual draft and speed in order to obtain sufficient depths at the Outer Bar.

Navigation day and night during river passage, but entry into Inner Harbour is normally restricted to daylight hours.

The Master Attendant regularly issues Draft Forecasts to all steamer Agents advising them of the drafts to be obtained within the next 2 months.

MAX. SIZE: The port is accessible to vessel of 548 ft. LOA, and draft up to 28 ft. at Spring tides. The draft of the vessel entering the river is controlled by the depth available at the Outer Bar, carrying 12 ft. depth at datum. Entry into the harbour is controlled by the Inner Bar off Monkey Point, carrying from 10 ft. to 12 ft. depth at datum. These depths are subject to seasonal variations and are least during the dry season from November to May.

HEALTH:

(a) Maritime Declaration of Health signed by the Master and also by a Ship's Surgeon if one is available.
(b) Valid Derat or Derat Exemption Certificate.
(c) Valid Vaccination Certificates against cholera of crew and passengers (if a certified list of date of expiry of these Certificates is available, the issue of Pratique will be expedited).
(d) Pratique is issued by the Medical Officer on duty, after examination of the crew and passengers of the ship. The Pratique is automatic if the vessel arrives after touching other ports in the country. NO RADIO PRATIQUE IS ISSUED.
(e) Quarantine Clearance on sailing is essential.

RADIO: International single operator watch period for Zone "C". Assigned frequencies are 425, 454, 468, 512, 500 kHz and 2.8, 4.26 MHz, call sign XYCZ.

In cases of inability to contact the pilot vessel by wireless the Master should send cable to the Harbour Master "Portrust" via Rangoon Radio Station, call sign XYR.

Within harbour limits contact can be made with Port Tower by light visual signalling. VHF contact can also be made with Port Tower, call sign XYU, Channel 16 (calling frequency). The working frequencies are Channels 14, 12 and 6 (Hague Convention).

TUGS: Generally not used for mooring and berthing purposes, but available in emergency.

BERTHING: There are 11 wharf berths and 2 pontoon berths for seagoing vessels:

Rice Loading Berths:

(a) *Sule Pagoda Wharf,* Berth Nos. 1 & 2 accommodating two vessels of 450 ft. each. LWOST varies from 24 ft. to 28 ft. approx.
(b) *Ahlone Wharf,* length 440 ft. accommodating a vessel of 440 ft. LWOST varies from 26 ft. to 28 ft. approx.
(c) *Hteedan No. 1,* length 456 ft. accommodating a vessel of 460 ft. LWOST varies from 26 ft. to 30 ft. approx.

General Cargo Berths:

Sule Pagoda Wharf Berth Nos. 3, 4, 5, 6 and 7 accommodating five vessels ranging from 450 ft. to 520 ft. LWOST varies from 24 ft. to 30 ft. approx.

Timber Export Berths:

Brooking Street Wharf: Berth Nos. 1 and 2, accommodating two vessels of 450 ft. each. LWOST varies from 26 ft. to 29 ft. approx.

Passenger Berth:

The Port Health Station. A Pontoon Jetty equipped with a large floating pontoon 500 ft. length and accommodating vessels of 520 ft. to 595 ft. LWOST varies from 25 ft. to 28 ft.

Moorings:

The port is equipped with 13 swinging moorings and 2 sets of fixed moorings in the Inner Harbour; 3 swinging mooring buoys at Hastings, and 2 fixed moorings for oil tankers. In addition, a number of mooring buoys are provided for small sized seagoing vessels.

Mooring and Berthing Procedure:

While in port, ships lie alongside wharves or moorings. The procedure is as follows:

(a) *Single Buoy Mooring* – Vessels moored with ship's own cable which is led through hawse pipe and shackled on to buoy cable. The shackle is provided by the Corporation.

(b) *Fixed Mooring* – Same procedure as above but the vessel is moored to 4 buoys.

(c) *Berthing* – Normal ship's ropes and wires are used for berthing at wharves. In addition wharves' mooring chains are also provided for securing to ship's bollards.

FUEL: Fuel, diesel and gas oil (HSD) from Petroleum Products Supply Corporation. Fuel oil provided by barges of 150 tons to 180 tons capacity alongside vessel during daylight hours. Coal supplied by Government Trade Corporation No. 17.

FRESH WATER: Available either directly alongside the wharves or in midstream, delivered by water boats.

CARGO HANDLING EQUIPMENT: The heaviest lifting capacity of the port is a 40 ton crane at the Brooking Street Wharf.

Heavy packages may be landed or shipped by a vessel's own tackle at the wharves subject to prior notice being given to the Deputy General Manager (Traffic).

STEVEDORES: In two shifts of 0800 hrs. to 1600 hrs., and 2000 hrs. to 0400 hrs. Overtime work is arranged on special request from Agents. Stevedoring undertaken by Port Authority. To enable ship's Agents to order labour gangs in time, it is important to obtain in advance the accurate ETA of vessels. Latest time to order gangs is 1100 hrs. for booking for that night and the next day. For Sundays and Holidays bookings must be made before 1100 hrs. of the preceding working day.

GANGWAY/DECK WATCHMEN: Available on application to the Deputy General Manager (Traffic).

The working hours of a watchman are the same as the wharf working hours.

OPENING/CLOSING HATCHES: Undertaken by port labour.

REPAIRS: Deep-sea repairs are undertaken by Corporation's engineers. The "Setsan Dry Dock", a tidal dock owned by the Corporation, can take vessels up to 1,000 tons and 250 ft. in length.

The Sinmalaik Dockyard can take vessels up to 2,000 tons and 300 ft. in length.

FIRE PRECAUTIONS: A special land-based Port Fire Brigade is maintained by the Port Authority supplemented by a fire-fighting vessel and tugs for emergencies in the river.

CONSULS: The following countries are represented by consulates or embassies at Rangoon:

Afghanistan
Algeria
Australia
Austria
Bangladesh
Belgium
Bulgaria
China
Cuba
Czechoslovakia
Denmark
Egypt
Finland
France
Germany F.R.
Germany D.R.
Hungary
India
Indonesia
Israel
Japan
Kampuchea
Republic of Korea
Laos
Malaysia
Mongolia
Nepal
Netherlands
Nigeria
Norway
Pakistan
Philippines
Poland
Singapore
Sri Lanka
Thailand
U.K.
U.S.A.
U.S.S.R.
Vietnam
Yugoslavia

POLICE/AMBULANCE/FIRE: Port Police 74520; Ambulance 71111; Port Fire Brigade 78653.

HOLIDAYS: Union Day.

Ships may work on Sundays and holidays on application to the Deputy General Manager (Traffic) and on payment of Sunday or holiday fees.

DEVELOPMENTS: Brooking Street Wharves No. 1 & 2 to be converted for container handling. Expected to be operational 1989. The facility will be able to store 1,500 TEU. Reefer points will be provided for 56 containers. Ship's gear will be used in the initial stages.

SHIPMASTER'S REPORT: July 1978.

Approaches: Approach was from the Malacca Strait, in generally overcast and rainy weather. The last reliable fix obtained prior to picking up the Dagon Light Ship at 1330 hrs. on 6/7/78 was at 0530 hrs. on 5/7/78. From 1330 hrs. on 5th, 2° were allowed for Easterly set, apart from a 2-hour period on the 6th, when only the Compass Error was allowed. This would seem to indicate that an Easterly set was experienced, but it is possible that what actually occurred was that the vessel was set to the Eastward by the tide, from about 0900 hrs. on the 6th until the Dagon Light Ship was picked up. We sighted the Dagon at about the time and on about the bearing we expected.

The tidal information provided on B.A. Chart 823, although depending on observations obtained during the dry season, was most helpful.

On clearing the Rangoon River, shortly after HW Elephant Point, there was a slight South-Westerly tidal set, as one would expect. The departure Pilot provided the following information, which we were not able to check:

B.A. Chart 823: "Thuriya" Light Buoy is in position Lat. 15° 19′ N., Long. 95° 01′ E., and not as charted. (Charted position: Lat. 15° 20′ N., Long. 95° 10.5′ E.).

The two dangerous wrecks about 38 and 40 miles South of Thante Light are no longer dangerous.

B.A. Chart 833: The dangerous wreck between Upper Western and Upper Middle Buoys is no longer dangerous. We passed between the buoys without any difficulty, drawing 19 ft. 03 in., fresh water. The following is from our own observations: Upper Spit Buoy is now in approximate position 290°(T) – 7 cables from its charted position. All buoys, from and including Upper Spit Buoy to the berth, with the sole exception of "C.M.B." Buoy, were unlit.

Naturally, vessels do not transit this portion of the river during the hours of darkness. With the exception of Upper Spit Buoy all buoys, light floats and the light ship appeared to be in their charted positions.

When crossing the bars and during the river passage very close attention must be paid to the steering. With a top-class helmsman who is really concentrating, little difficulty would be experienced. In order to carry the tide up to Rangoon, it is important that a vessel should arrive at the pilot station not later than HW Elephant Point; we were in fact 10 minutes late, and would not have continued except that we were fortunate enough to have the most senior Pilot on board.

It was noticed on departure that an inbound vessel giving an ETA at the pilot station 30 minutes after HW Elephant Point, was directed to anchor.

Anchorages: Vessels may anchor in the vicinity of the pilot station shown on B.A. Chart 823 or in the petroleum or explosives anchorages shown on B.A. Chart 833.

Berthing: Vessel was originally placed at a buoy berth, the anchor cable down the hawsepipe and shackled on to the buoy.

As we have a short length of cable inboard of each anchor with a joining shackle, this operation presented little difficulty but took considerable time.

When we were placed at the buoy, it was dark by the time the operation was completed, but if we had gone straight alongside this could have been done under twilight conditions. Neither the Pilot nor I could understand why the vessel was not berthed on arrival, since our berth was then vacant. The explanation I received was that the shore lighting was poor and that, as a safety precaution, ships are only berthed in full daylight.

At 0625 hrs. the next morning, we commenced unshackling from the buoy and the vessel was secured alongside No. 1 Berth, Sule Pagoda Wharf at 0805 hrs. We berthed starboard side to, stemming the ebb tide and river outflow. The buoy anchor remained hung off until after berthing. When berthing, the offshore anchor is placed in a convenient position to assist in getting the vessel off again. When alongside and the cable slack, we had 4.5 shackles out on the port anchor. Moorings were as follows: Forward – 3 headlines, 1 ship's wire and a shore mooring chain, all leading ahead. No spring. The shore chain is brought on board and turned up on the ship's bitts. Aft – 1 breastrope, 2 sternlines and ship's wire leading aft. No spring.

Departure: The vessel leaves the berth on the last of the ebb and drops down the harbour stern first to a position North of the transit beacons on the South bank, where she anchors until there is sufficient water to cross the Inner Bar and proceed downstream.

Pilotage: Is compulsory. River Pilots take the vessel from the pilot station to the port or buoy and Docking Pilots do the berthing and unberthing, including dropping down to the temporary anchorage. The Docking Pilot remains on board while at anchor. River Pilots, when boarding and leaving, require pilot ladder, manropes and a boatrope. Ship comes under the stern, never ahead, of the cutter, with ladder rigged on the lee side. Docking Pilots board and leave by the gangway.

Tugs: There are tugs in the port, but I understand that they are never used for berthing.

Communications: Rangoon Radio, call sign XYR, keeps regular watch schedules on 6 HF frequencies. However from departure Lae on 24th June to 2nd July, nothing was heard of this station.

Two-way contact was established on 3rd July, but after the station had instructed the Radio Officer to change frequency, it ceased working.

It was not until 0500 hrs. GMT on 4th July that traffic could be cleared. Later that day it became possible to work XYR on MF. All calls were then answered promptly and an efficient service provided.

An advice of bad propogation conditions from Portishead Radio was in effect during the period covered by the above remarks. This may have had some bearing on the difficulties experienced. The vessel arrived at the pilot station at 0830 hrs. GMT, 6th July, 1978.

VHF: The Pilot cutter and the Harbour Master's Office are fitted with VHF Channel 16. This is efficiently operated.

Telephone: I spent many hours in the Agent's office, attempting to contact London. We were unsuccessful. The hours, local time, during which one may attempt to call London, are: via Hong Kong – 0900 to 1430 hrs.; via India – 1630 to 1800 hrs. These hours are nominated by the Port and Telecommunication Corporation.

Telex: There is a telex machine in the Agent's office, and the Operator's normal hours of duty are 0930 to 1630 hrs. It was possible to send an outward message only in these hours and so, on occasions, it was necessary to request that the Operator remain on duty until 2000 hrs. The reasons for the difficulty in sending outward messages is: Unless a special request is made otherwise, all outward messages are sent to a central transmitting point. Inward messages were received promptly.

Mail: Both to and from Europe and Australiasia, appeared to be reliable.

Agents: T.A.C. are a government corporation and handle every vessel that uses the port. All concerned are most charming, and very polite. All persons I came into contact with from T.A.C. spoke excellent English.

Documents: Required on arrival: 20 Crew Lists, 6 Crew Personal Effects Lists, 6 Ship's Declarations of Foreign Currency, 6 Crew Declarations of Foreign Currency, 1 International Health Declaration, 1 List of dates of Cholera Vaccinations.

Notes:

1. All on board must be in possession of valid Vaccination Certificate against cholera.
2. The Customs do an efficient rummage on arrival, and again on sailing. Their main concerns seem to be cigarettes, foreign currency and pornography.
3. It is most important that all paper money of any foreign country held either by the ship or by individuals is accurately declared and then placed in one or other of the ship's safes. The safes are then sealed and can only be opened with the approval of the resident Customs Officer. Time and trouble on arrival can be saved by collecting all foreign currency in advance. Some small amounts of foreign currency were found by rummagers, but a lenient attitude was taken and these sums were allowed to be placed under seal. The Penalties for attempting to evade the regulations with regard to foreign currency are severe.
4. All on board are required to be photographed, so that local shore passes may be issued. The passes are valid for 12 months from date of issue and cover subsequent calls at Rangoon or any other Burmese port. No shore leave is permitted until shore passes in quadruplicate have been processed. This happens quite swiftly and takes about 12 hours.
5. With the exception of the Health Declaration, there do not appear to be any pre-printed Burmese Forms, and the ship will have to make up her own.

Departure: At least 6 up-to-date Crew Lists are required. All shore passes must be collected prior to departure, they are stamped by Immigration and returned to the holders.

All 3 government departments involved with the vessel (Customs, Immigration and Quarantine) issue a clearance on departure. In addition, the Master is given a letter from the Burma Ports Corporation for the River Pilot, stating that all sailing documents have been produced and giving permission for the vessel to proceed to sea.

Register and supporting Certificates: (Load Line, Safety Equipment, etc.) are taken ashore by Agents on arrival, against a receipt, and returned immediately prior to departure.

Officials: Supervisors and Tally Clerks wear uniform with badges of rank. They must be provided with an office on board, and it is customary to provide these gentlemen with meals. Two Customs Officers live on board at all times and accompany vessel to anchorage or buoy berth. These Officers must be fed in the dining saloon and provided with accommodation. On arrival the Customs seal the bond and, if requested to do so, will also seal the dry stores, which is a wise precaution.

Beer is not put under seal. The Customs Officer will make an issue of bonded items daily if requested. The only thing to which restrictions are applied is cigarettes, where the daily issue is limited to 40 per man. Customs also exercise a tight control over all local currency drawn from the Agents and all must be accounted for prior to departure, even cash spent on Provisions.

Cargo Work: Two shifts of 8 hours are normally worked, that is, 0800 – 1600 hrs. and 2000 – 0400 hrs. Cargo can be worked at any time. Overtime hours being 1600 – 2000 hrs. and 0400 – 0800 hrs. Ship's gear was used for discharge. Two gangs were employed at each hatch, and rates of discharge were: No. 2 – 10.35 t.p.h. No. 3 – 14.46 t.p.h. The rate of discharge at No. 2 was remarkably good when one takes into consideration that No. 2 after crane, due to a winch breakdown, was not available after the first 1.5 days. Two gangs were employed throughout at this hatch. After the crane failure the after gang were employed in shifting cargo to where the forward crane could plumb it.

Weather permitting, discharge continued 24 hours a day. A total of 37 hours 40 minutes working time was lost due to rain. When one takes into consideration the many delays and the fact that the Watersiders were discharging a random stow, the rate of discharge was most creditable. Crane drivers and Watersiders were very satisfactory; Supervisors were helpful. Pilferage was nil, damage to cargo was slight and there was no damage to the ship.

Pratique: Granted on arrival. There are no facilities for Radio Pratique.

Provisions: Obtained through the Shipchandler. But very expensive. We purchased salad and bread at the local market at reasonable prices and of reasonable quality. This was done by the Purser/Catering Officer, going there with the Agent and paying cash. This is common practice and was condoned by our Customs Officer.

As we had no contact with the Official Shipchandler, we do not know what his prices were or what his product range is. Any future vessel calling at Rangoon should arrive with as much in the storerooms as possible.

Fresh Water: Obtainable either from water boats or the wharf. Give 2 days notice. It is expensive, 10 Kyats (about 79 pence) a ton. As a precaution, we treated what we took with chloride of lime.

Repairs: We employed some electricians from the machine shop of the Central Electric Service to assist in our investigations of the winch fault at No. 2 hatch. An Electrical Engineer and 3 Electricians were provided and appeared competent. Unfortunately, they did not trace the fault.

Currency: The unit of currency is the Kyat, worth approximately 12.69 to the Pound Sterling.

Weather: Hot and humid, with much rain, it being the season of the S.W. monsoon. Winds in the port were generally light. At the time of our stay, the river was just beginning to rise as a result of the monsoonal rains in the high country, but had not reached full flood. There was, however, a continuous outflow past the port at all states of the tide.

Health: Up to date Cholera Vaccination Certificates are required by the local Authorities and anti-malaria precautions should be taken. Mosquitoes and many other insects are numerous, especially in the wet weather.

General: Five watchmen were provided. When at anchor or at buoy berth, the ship must feed them. When alongside, they eat ashore. The security at the gate is very strict indeed and all local people leaving the port area are searched. No ship's gear or personal effects went missing. There is no garbage collection at Rangoon, so the ship must make her own arrangements for storing waste. Burmese people are unfailingly polite and courteous and naturally expect the same treatment in return. The vessel can work cargo on any day.

Repatriation: Possible but not recommended.

SHIPMASTER'S REPORT: August 1982.

Navigation: Dagon Light Vessel was showing Gp. Fl. (3) 20 sec. on the vessel's arrival, but was unlit on departure 10 days later. The Racon was not operating. The light vessel was in its charted position.

The pilot vessel "Thamada", call sign XYCZ, anchors around position Lat. 16° 13′ N., Long. 96° 18′ E. In August 1982 the pilot vessel's VHF was not operating, but they could be contacted by WT on 500 kHz and also by Aldis lamp. When picking up a Pilot the pilot vessel will be under way; boat rope, manropes and heaving line are required; the Pilot comes off by motor launch from the pilot vessel. If the anchorage is crowded extreme caution is advised while manoeuvring, due to very strong tides, estimated at 6 knots to 7 knots at Springs. Many collisions have taken place during embarkation of Pilots.

Lanthaya Light Float was observed to be 1.8' N.N.E. of its charted position. It is small and inconspicuous. Northwards of Lanthaya, buoys and light floats are moved as conditions in the channel require, and their charted positions should not be relied upon.

There are no navigational aids available which are useful in approaching the pilot station; however, acceptable results were obtained by taking RDF bearings of the Burma Broadcasting Service broadcast station operating on 955 kHz with antennaes in position Lat. 16° 52' N., Long. 96° 10' E. (position from World Radio & TV Handbook 1982).

There is a Port Radio station at Rangoon Port, operating on VHF Channel 16, call sign "Port Tower".

Tugs: No tugs are available for berthing, however Pilots are very experienced and all were found to be excellent shiphandlers.

Formalities: Immigration require 4 photographs of each crew member and will issue shore passes; Agents can arrange a photographer to attend on board on arrival.

Customs Regulations are extremely strict, particularly with regard to foreign currency. All foreign currency must be declared and will be put under seal during the vessel's port stay. It has been reported that violations of currency regulations have resulted in severe prison sentences recently. Firearms and narcotics will also be placed under Customs seal. Shore-going crew must undergo Customs inspection at the Main Gate.

Derat is available.

Cargo: The vessel loaded a full cargo of 2,982 hoppus tons of Burmese round logs of mixed varieties; logs were very heavy, averaging out at 1.23 tonnes/cu.m. Cargo was brought alongside by trucks and loaded ex-wharf by ship's gear. Stevedores were inexperienced; stowage was poor and loading rate slow. Cargo was also found to be rat infested. Shippers originaly requested 600 (repeat six hundred) original B/L's, and when this request was dismissed they eventually agreed to 60, issued through Agents, covering 41 parcels of cargo.

Shippers also presented a proforma copy of "Burma Ports Corporation B/L Form" which they requested be issued instead of Owners' forms, stating that this was a standard Burmese B/L form. After studying the clauses contained in this B/L form it was rejected as being poorly written, badly printed, containing many misprints and having no provision for the inclusion of the "Clause Paramount". Masters are therefore advised to exercise caution in accepting a B/L for signature in this form, in order to safeguard Owners' interests.

General: There is a Philippine Embassy in Rangoon, where Filippino crew may renew or be issued with passports conveniently. Call Embassy for appointment. Fresh water is available alongside or by barge. Bunkers are not available. Minor repairs can be undertaken, but are very expensive. Good medical facilities are available. Fresh provisions may be obtained at the local markets at very reasonable prices. The British Embassy is next door to the main post office. The Strand Hotel, near the British Embassy, provides good meals and adequate facilities at reasonable prices.

AUTHORITY: Burma Ports Corporation, P.O.Box No. 1, Rangoon, Burma. *Tel:* 83122. *Telex:* BM 21208, BM 21219. *Cables:* Portrust Rangoon. *Contact:* The Managing Director.

NOTES

Please also advise Shipping Guides Ltd.

Republic of Cameroon

DOUALA: 04.03 N. 09.42 E. **(See Plan)**
TIKO: 04.00 N. 09.24 E.
LIMBE (Formerly Victoria): 04.01 N. 09.13 E.
KRIBI: 02.56 N. 09.54 E.

DOCUMENTS:
5 Crew Lists.
5 Lists of Port of Call.
5 Passengers' Lists.
2 Crew Customs Declarations.
2 Declaration of Provisions on Board.
1 Arms and Ammunition.
2 Stores Lists
2 Manifests or Bills of Lading

PILOTAGE: (With the exception of Kribi and Limbe (formerly Victoria) where ships work cargo at anchorage); Compulsory at Douala and Tiko. Ship's arrival must be notified at least 24 hours in advance, together with draft (F.W.) forward and aft. This must be confirmed.

At Cape Limboh (Limbe) where ships can proceed alongside, pilotage is compulsory.

For Douala, waiting anchorage at Base Buoy (Lat. 3° 54′ 12.3″ N., Long. 9° 32′ 19.8″ E.). Pilot called by VHF (16 – 14).

For entry of Tiko, waiting is at Limbe Anchorage.

ANCHORAGE: Base Buoy for entry at Douala (see "Pilotage") 8 m. depth approx. For Limbe Anchorage on Roads in Ambas Bay about 9 m. depth. Anchorage for Tiko on the Bimbia. Kribi Anchorage by red conical buoy (Lat. 02° 56′ 36″ N., Long. 09° 53′ E.) depth 6.30 m. – 7 m.

RESTRICTIONS: Draft only, for ports of Douala and Tiko. Official level of Wouri Channel is 5.80 m.

MAX. SIZE: At Kribi and Limbe Anchorage, no restrictions.

Douala, max. length 200 m., max. draft 8.0 m.

HEALTH: Free Pratique granted after compulsory checking of vaccination certificates against yellow fever. Health Officials hand the Master a special Health form to fill in.

RADIO: (See "Pilotage"). Douala Radio limited to broadcasting for private individuals. VHF Channels 16 and 14 and R/T 2182 kHz.

For vessels arriving at Douala, Masters should send a message to their Agent at least 48 hours prior to arrival, giving the following information:

(1) ETA at Base Buoy (given in local time).
(2) Cargo tonnage for discharge, and hatch distribution.
(3) Number of gangs required.
(4) Vessel's draft in fresh water.
(5) Any other requirements, e.g. money, medical attendance alongside, etc.
(6) Overall length.

For vessels arriving on a Sunday or on a Public Holiday, Agents must be informed by 1100 hrs., the day before arrival. If overtime or night work is required by vessel, the Agent must be informed by 1700 hrs. the day before arrival. It is also possible to telex information from the last port of call as Douala Radio Station can sometimes be difficult to contact.

VHF: Channels 16 and 14.

RADAR: No radar.

TUGS: Three tugs: 2,000 h.p., 1,100 h.p. and 900 h.p. are available on request to Cameroon National Ports Authority, Operations Head Office. Towage is compulsory for ships of 600 d.w.t. and more, and subject to Pilot's advice.

One tug is available at Cape Limboh, obtainable from the National Ports Authority.

BERTHING: For Douala, there are 11 berths of 2,330 m. approx. Two of these berths have priority berthing for alumina carriers and occasionally tankers. Two other berths downstream from the port have priority berthing for container carriers. One of these berths has Ro/Ro accommodation with 2 dolphins 70 m. apart.

There is a berth consisting of 2 dolphins and 4 buoys used for oil discharging. Tankers moor with 3 head and stern lines to the other outer mooring buoys – 2 breast lines to the inner mooring buoys and spring lines on the dolphins.

At Douala, 9 berths have a depth of 9.50 m. approx. at LW. The tanker berths have a depth of 9.5 m. at LW (tidal range 2.20 m.).

At the right bank (Bonaberi): There are two berths equal to 300 m. in length. One is mainly used by banana carriers (700 tonnes per day) and butane tankers, length 140 m. The other berth is equipped with a Goliath crane used by mineral carriers. These berths have a depth of 13 m. at LW.

Channel from Base Buoy to Douala Port, minimum depth (dredged) 5.5 m. Pilot usually boards at HW at Base Buoy. Vessel sails on flood tide only and swings off the berth. Ship's watchman required, not compulsory to use shore watchman. Agents submit written request to feed men twice a day during loading. Loading intermittent from both rail trucks and lorries.

Vessels have to shift alongside quay with their ropes if required. Decisions are taken every day after the Port Meeting which takes place at 1000 hrs. and 1600 hrs. in order to use optimal quay length.

Limbe: At Cape Limboh (Limbe) one berth available admitting ships of 130 m. in length. Length of quay 150 m. and depth alongside at LW is 10 m. 3 quay cranes available. One mooring buoy (SBM) for ships loading Fuel Oil, max. draft 18 m. and max. tonnage is 90,000 tons. (Also see "Shipmaster's Report").

Kribi: One quay of 250 m. for export of timber, cocoa, coffee, flour, salt and palm products by barge. One crane available.

CRANES: No berths alongside. Loading and discharging is carried out by ship's gear at anchorage. However, there are 2 cranes, one of 100 tons and the other 25 tons for barges.

BULK CARGO FACILITIES: Douala: There is a rolling gantry at the right bank to transport cement to the cement site. Max. height of loading/discharging gear above HW is 2 m. Max. loading/discharging rates – 1,000 tons per day, length 150 m., depth 8.5 m.

No. 2 Berth at left bank is equipped with a rolling gantry to transport aluminium. Max. height of discharging gear above HW level is 2 m., length 280 m., depth 9.5 m.

SPECIALISED CARGO HANDLING FACILITIES: *Containers:* A modern container and Ro/Ro terminal has been created with a frontage of 600 m., dredged to 11.50 m. Facilities include 3 berths, the first 2 of which, with a total length of 400 m., are designed for full container ships and the last for Ro/Ro ships with side ramps. Additional facilities comprise 2 dolphins and 1 Ro/Ro ramp. The adjacent yard has a surface area of 23 hectares and a width varying between 400 m. and 500 m.

At the back of this yard, there exists a stuffing and stripping container warehouse of 7,500 sq.m.

The annual capacity of the Timber Port is 2,000,000 tons. There are 2 gantry cranes.

Timber: The equipment includes:
– timber yard of 20 hectares served by road and rail,
– a water surface of 20 hectares with 3 m. draft in the area next to the quay and 9.50 m. in the rest of the dock. This dock is capable of receiving 4 ships,
– 150 m. quay frontage designed for the handling of floating timber.

STEVEDORES: The number of stevedore gangs is requested from Charterer's Agents, taking into account size of cargo.

MEDICAL: An appropriate Medical Service can be provided on request in case of an emergency, such as an epidemic on board.

TANKERS: At Douala harbour, a berth of 180 m. can accommodate oil tankers of 12,000 tons when the tanker berth has a breakdown. No slops discharge. The depth at LW is 8.00 m. The tanker berth in the river can accommodate tankers of less than 180 m.

At the tanker berth are found 3 connections of 8 in. for white products, discharge rate of about 250 t.p.h. to 300 t.p.h. Bunkers can be supplied but are not always available.

Sailing from the tanker berth: Subject to draft, always on flood tide between 2 hours before HW and LW; sailing/mooring, day and night. 1 or 2 tugs (optional) assist in mooring and sailing proceedings. A permanent tug assists during discharging.

Also see "Berthing" and "Shipmaster's Report" – dated 1982.

DENSITY: 1012.

FRESH WATER: Available at berth; supplied by hoses at 50 t.p.h. Available at Cape Limboh (Limbe, formerly Victoria).

FUEL: Supplies arranged by Charterer's Agent who have their particular suppliers. Available at Cape Limboh (Limbe).

FIRE PRECAUTIONS: In addition to the usual measures, the quay station for oil tankers is isolated during discharging, and there is also a permanent watch by tugs.

REPAIRS: There is a ship repair unit having a 200 m. long quay for afloat repairs.

DRY DOCKS: 3 floating docks of 10,000, 1,000 and 500 tons handling capacities are available.

SURVEYORS: Lloyd's Register; Bureau Veritas; Germanischer Lloyd's; A.B.S. and Det Norske Veritas.

GANGWAY/DECK WATCHMEN: Ship's crew or arranged by Charterer's Agents at Master's option.

Piracy: Acts of piracy have taken place at the ports.

OPENING/CLOSING HATCHES: By ship's crew.

CERTIFICATES: Safety, Radio, Sea-worthiness, Freeboard, Derricks, etc.

CUSTOMS ALLOWANCES: 100 cigarettes per person, not more than 2 bottles of spirits per person in cabin.

CARGO GEAR: Loading and discharging affected by ship's gear.

CONSULS: At Douala.

	Telephone No.
Australia	42.11.19
Belgium	42.38.96
Canada	42.37.19
Chad	42.34.50
Denmark	42.64.64
Equatorial Guinea	42.26.11
Finland	42.92.88
France	42.92.50
Great Britain	42.21.77
Greece	42.44.53
Italy	42.36.01
Lebanon	42.62.65
Morocco	42.14.44
Netherlands	42.50.35
Nigeria	42.48.81
Norway	42.42.88
Spain	42.23.95
Sweden	42.42.88
U.S.A.	42.34.34
UNO	42.41.11
Zaire	42.39.90

REPATRIATION: Repatriation as well as crew changes can be arranged after consultation with the responsible Consuls.

AIRPORT: International airport is situated about 12 km. from Douala Port. Regular airline flights to Europe daily during whole year.

TIME: Local time GMT plus 1 hour. No change during year.

HOLIDAYS: *Official Holidays:* New Year's Day, 1st January; Youth Day, 11th February; Labour Day, 1st May; National Day, 20th May; Christmas Day, 25th December. Any other Day declared by Presidential Decree. *Variable Holidays:* Easter Day; Festival of the Sheep; End of Ramadan; Assumption Day; Ascension Day.

Even though there are public holidays, cargo work may be carried out by arrangements.

SERVICES: Derat and fumigation.

Stores: Fresh provisions of good quality, beer and soft drinks.

POLICE/AMBULANCE/FIRE: Central Police Station, Tel: 42.55.25. Ambulance (Hospital Laquintinie), Tel: 42.68.88; (Polyclinique), Tel: 42.18.40. Fire Brigade (in town), Tel: 18. Cameroon National Ports Authority, Tel: 42.01.33 or 42.73.22 or 42.33.42 (ext. 2440 or 2445).

EMERGENCY CO-ORDINATION CENTRE: None at present apart from the Cameroon National Ports Authority, B.P. 4020 – Douala. Tel: 42.01.33 and 42.73.22. Telex: 5270 KN.

TELEPHONES: No telephone connections on board.

SHORE-LEAVE: Permitted.

IDENTIFICATION CARD: Seaman's Book and shore pass are sufficient.

REGULATIONS: Normal Port Regulations in force.

DELAYS: No unusual delays.

BANKS:

Standard Chartered Bank (formerly Boston Bank Cameroon, SA.), B.P. 1784 – Douala. Tel: 42.36.12. Telex: 5858KN.

Meridien Bank Cameroon, B.P. 1132 – Douala. Tel: 42.98.05, 42.52.91. Telex: 5580KN.

Societe General de Banque au Cameroun (S.G.B.C.), Rue Joss, B.P. 4042 – Douala. Tel: 42.70.10, 42.12.31.

Societe Camerounaise de Banque (S.C.B.), B.P. 4013 – Douala. Tel: 42.98.60, 42.50.56. Telex: 5208KN, 5665KN.

Banque Internationale Pour le Commerce et l'Industrie du Cameroun (B.I.C.I.C.), B.P. 4070 – Douala. Tel: 42.28.19, 42.84.31. Telex: 5225KN.

Banque Internationale Pour l'Afrique Occidental (B.I.A.O.) Cameroun, B.P. 4001 – Douala. Tel: 42.80.11. Telex: 5218KN.

Societe Generale de Banque au Cameroun (S.G.B.C.), P.O. Box 404 – Limbe. Tel: 32.23.83. Telex: 5610KN.

Societe Camerounaise de Banque (S.C.B.), P.O. Box 42 – Limbe. Tel: 33.32.38. Telex: 5281KN.

Banque International Pour l'Afrique Occidentale (B.I.A.O.) Cameroun, B.P. 244 – Limbe. Tel: 33.42.38, 33.24.38. Telex: 5661KN.

Cameroon Bank, S.A., P.O.Box 48 – Limbe. Tel: 33.92.50.

Banque International Pour le Commerce et l'Industrie du Cameroun (B.I.C.I.C.), B.P. 26 – Tiko. Tel: 35.12.27.

Cameroon Bank B.P. 55 – Tiko. Tel: 35.11.34.

Banque Internationale de L'Afrique de L'Ouest B.P. 54 – Kribi. Tel: 46.10.39.

Societe Camerounaise de Banque (S.C.B), B.P. 124 – Kribi. Tel: 46.11.56. Telex: 5539KN.

STORING: See "Prelims".

1. Yes.
2. No regulations.
3. Yes.
4. No jetty.
5. No Customs regulations in force.
6. Subject to arrangement.

SHIP SUPPLY SERVICE: For details contact: Syndicat des Compagnies de Navigation et Consignataires de Navires au Cameroun, B.P. 73, Douala.

DEVELOPMENTS: A new fruit terminal, length 200 m., will be able to accept vessels with draft 9.5 m. The terminal will be operational in the near future, as and when equipment is installed.

SHIPMASTER'S REPORT: March 1982.

Sonara Refinery SBM at Cape Limboh Oil Terminal.

The new refinery is situated at Cape Limboh (Limboh Point). The exact position of the SBM is Lat. 03° 59′ 16″ N., Long. 09° 07′ 36″ E. (B.A. Chart 1455).

Type of Hose (Loading Hose): 16 in. ASA Serial 150 type barbell.

Manifold Derrick: Should be of minimum SWL 10 tons. Connection is made on port side.

VHF: Sonara Refinery keeps watch on Channel 14, make contact 2 hours before arrival.

Pilot: Pilot boards 1 mile South of SBM.

Pipe-line: Submarine line is always kept filled with crude oil therefore if loading fuel oil, the vessel should be in position to receive about 1,500 cu.m. of line contents inside the ship's slop tanks and on completion of loading fuel oil, the line contents must be pumped back into submarine line.

Depth: Depth of water at berth is 21 m.

AUTHORITY: Cameroon National Ports Authority, B.P. 4020 – Douala, Republic of Cameroon. *Tel:* 42.01.33, 42.73.22. *Telex:* 5270KN. *Contact:* Director General.

AGENT: *Douala:* Socopao Cameroun, B.P. 215 Douala. Tel: 42.64.64. Telex: (Shipping) Freight 5319; (Direction) Freight 5252/5214. *Kribi:* Socopao Cameroun, B.P. 38 Kribi. Tel: 46.10.58. Telex: 5688 (in case of difficulties please contact Douala). Fax: 42.09.18.

KOLE: 04.13 N. 08.33 E. **(See Plan)**

LOCATION: The loading point is located at Lat. 04° 13′ 21″ N., Long. 08° 33′ 31″ E. (approx. 285° – 26 miles from Cape Debuncha).

DOCUMENTS:

3 Copies Crew List.
3 Copies List of Ports of Call.
3 Copies Arms and Ammunitions List.
3 Copies Animals List.
3 Copies Store List.
3 Copies List of the Passengers Landing or in Transit.
Ships Manifest.

PILOTAGE: Compulsory. Piloting shall be carried out by the Pilots of the Cameroon National Port Authority. Call signals for a Pilot are those provided for by the International Code. The Pilot may be contacted on VHF Channel 16 (156.8 MHz).

The Pilot will board 2 miles S.W. of loading point "KLB-2" in position Lat. 04° 12′ N., Long. 08° 32′ E.

ANCHORAGE: Vessels loading at Kole may anchor inside an area enclosed by the following coordinates:

A	04° 12.3′ N., 08° 33′ E.	C	04° 11.3′ N., 08° 33′ E.
B	04° 12.3′ N., 08° 34′ E.	D	04° 11.3′ N., 08° 34′ E.

Anchoring within the Prohibited Zone and less than one mile from the Kole loading point is prohibited.

NAVIGATION AIDS: The Elf-Serepca operating facilities located in the Rio Del Rey are protected by a zone where navigation is prohibited. Permission to enter this zone can only be obtained from Elf-Serepca. See "Plan" for buoy top marks.

Buoy A	West Cardinal	Lat. 04° 13′ N.,Long. 08° 22′ 36″ E.
	Light:	VQ(9) every 10 seconds, white.
	Range:	5 miles
Buoy B	South Cardinal	Lat. 04° 13′ N.,Long. 08° 29′ E.
	Light:	VQ(6) then long burst every 10 seconds, white.
	Range:	5 miles
Buoy C	East Cardinal	Lat. 04° 13′ N.,Long. 08° 36′ E.
	Light:	VQ(3), every 5 seconds, white.
	Range:	5 miles
Spar D	East Cardinal	Lat. 04° 18′ N.,Long. 08° 41′ E.
	Light:	Flashes Q(3), every 10 seconds, white.
	Range:	8 miles
Spar E	North Cardinal	Lat. 04° 26′ N., Long. 08° 34′ E.
	Light:	Rapid continuous flashes, VQ, white.
	Range:	8 miles
Spar F	West Cardinal	Lat. 04° 26′ N., Long. 08° 25′ E.
	Light:	Rapid group flashes, VQ(9), every 10 seconds, white.
	Range:	8 miles
Spar G	West Cardinal	Lat. 04° 19′ N., Long. 08° 22′ E.
	Light:	Group flashes, VQ(9), every 15 seconds, white.
	Range:	5 miles

In addition, all platforms and the floating storage facility "Serepca 1" within this zone are equipped with white lights which flash the letter "U" every 15 seconds.

The main loading point "KLB 2", is located at Lat. 04° 13′ 21″ N., Long. 08° 33′ 31″ E. It is a yellow buoy with a white light which flashes the letter "U" every 15 seconds (Range: 6 miles – radar reflector).

The emergency loading point, "KLB 1", is located at Lat. 04° 14′ 57″ N., Long. 08° 33′ 07″ E. and its markings are identical to those for "KLB 2".

A floating hose which can float around each buoy over a radius of 260 m. is marked by small white intermittent lights.

Fog Signals Inside of the Prohibited Area:

Fog horns with a range of 2 nautical miles send the letter "U" every 30 seconds when the horizontal visibility is below 1 mile at the following positions:

Oil production platform "Ekoundou"	Lat. 04° 16′ 28″ N. Long. 08° 25′ 10″ E.
Oil production platform "Kole"	Lat. 04° 16′ 56″ N. Long. 08° 34′ 03″ E.
Floating storage "Serepca 1"	Lat. 04° 15′ 42″ N. Long. 08° 33′ 28″ E.
KLB 1 Loading buoy	Lat. 04° 14′ 57″ N. Long. 08° 33′ 07″ E.
KLB 2 Loading buoy	Lat. 04° 13′ 21″ N. Long. 08° 33′ 31″ E.

RADIO: The vessels should send their ETA to: Elf Serepca, B.P. 2214.

Tel: 42.13.66 Douala. Telex: 5299 Kn Elferap.

Via Coastal Station – Douala Radio.

Call signal: "TJC 5", "TJC 6" or "TJC 8".

The Coastal Station works on 500 kHz and 8718 kHz.

Transmitter Power: 1 kw.

Listening Hours: Permanent watch from 0500 – 2000 hrs. GMT on 500 kHz, 15 minutes transmission at 0600 – 0700 – 0800 – 0900 – 1100 – 1300 – 1500 – 1600 – 1700 – 1800 – 1900 hrs. GMT on the 8 MHz band.

Kole Terminal – "Serepca 1" Floating Storage Facility:

"Serepca 1" – Call sign: "TJAR".

Transmitter power: 400 W on 500 kHz.
1 kW on 2182 kHz (BLU).
1 kW on 8291.1 kHz (BLU)

Radio watch on 500 kHz from 0800 to 0830 GMT.
1600 to 1630 GMT.

Radio watch on 2182 kHz and 8291.1 kHz at the same times.

Continuous VHF watch on Channel 16 and working on Channels 11 and 12.

Arrival Advice: Advise "Elf Serepca" 72 hours, 48 hours and 24 hours before arrival, also advise any changes.

MAX. SIZE: Maximum permissible draft is 22 m. (72 ft.) at "KLB 2" and 16 m. (53 ft.) at "KLB 1". However, Elf Serepca may reduce these drafts should meteorological conditions be unfavourable.

Minimum underkeel clearance 4.5 m. (15 ft.).

HEALTH: Health inspection carried out by doctor or the Pilot. Master to have ready for inspection the following:

Maritime Declaration of Health
Derat Certificate
Vaccination Certificate of the Crew

In case of infectious disease on board, contact the Head Doctor or the Douala Border Health Police B.P. 1115 – Tel: 42.36.33, through the Harbour Master.

TUGS: A motor boat is provided to assist with mooring.

BERTHING: The Elf-Serepca Kole loading points are SPMs.

The bow of the vessel is moored to a buoy consisting of a square (KLB 2) or cylindrical (KLB 1) float. The buoys are anchored by chains with 6 drilled piles. Moorings extend for a radius of 240 m. around the buoys.

Buoys "KLB 1" and "KLB 2" and the floating storage facility "Serepca 1" are respectively connected by 3,000 m. long (36 in. diameter) and 4,600 m. long (24 in. diameter) sealines. Each buoy is connected to the sealine (PLEM) by 2 underwater 20 in. hoses.

For loading, a 24 in. floating hose with 2×16 in. lines at its end connects the buoys to the tanker.

The "KLB 2" loading point is designed for the mooring and loading of tankers from 50,000 to 250,000 tonnes D.W.; "KLB 1" is limited to 150,000 tonnes D.W. maximum. Given the useful storage capacity, the quantity which may be loaded at Kole is limited to approximately 120,000 tonnes.

Water depth at Buoys "KLB 1" and "KLB 2" is 23.5 m. and 30.5 m. respectively at chart datum.

Mooring: Mooring ropes shall be supplied by Elf Serepca. The vessel shall be ready to embark 2 mooring ropes, one on the starboard side, and the other on the port side. Each rope consists of 46 m. of nylon of 13 in. circumference and a 8 m. chain, diameter 64 mm. Each rope is equipped with a polypropylene inhaul of 10 in. circumference and 150 m. long for one and 80 m. for the other.

Messengers are passed to the vessel by a motor-boat. The vessel shall prepare 2 ropes at the bow for taking the messengers onboard.

Mooring and connecting can be carried out by day as well as by night, weather and sea permitting. However, the Pilot reserves the right to delay night mooring.

Sailing is carried out immediately after completion of loading, day and night.

The ship's manifold shall be prepared on the port side for connection with the 2×16 in. flexible hoses.

BALLAST/POLLUTION:

Ballast on Arrival: Ship must arrive with sufficient ballast and correct trim to be able to manoeuvre in complete safety:

The ballast must not be less than 30% of the deadweight. Deballasting will not be allowed without the agreement of the Pilot.

The storage installation is not equipped to receive dirty ballast. The vessel shall, therefore, arrive with clean ballast.

Any vessel approaching with dirty ballast may be forced to leave the loading point and delays arising therefrom shall be to the vessel's account. Acceptance of Notice of Readiness would be rectified accordingly.

It is forbidden to throw into the sea any cinders, burning materials, objects and waste of any kind.

The ship's Master shall be responsible for any spills or pollution and any other difficulties which may involve discharge of oil. The terminal is equipped with an anti-pollution first aid device.

Scuppers shall be plugged during the whole loading time.

LOADING: *Notice:* Notice of Readiness shall be sent to Elf Serepca.

Connection of Flexible Hoses: Loading of the vessel shall be carried out through 1 line of 220 m. of 24 in. flexible floating hoses, terminating in 2×36 m. lengths of 16 in. flexible hose.

Connection with the ship's manifold shall be by 16 in. 150 ASA flanges. Elf Serepca can supply 16 in./10 in. and 16 in./12 in. reducers.

The tanker's derrick shall be rigged before mooring on the port side. The safe working load of the derrick hook shall be 10 tons minimum.

During connection and disconnection of the flexible hoses, assistance of the crew is essential, in particular for the working of winches and derricks. During the whole stay of the vessel at the loading point, the Pilot shall ensure that a safety watch is maintained onboard. The Elf Serepca Representative carries out the duties of Head of Loading and remains in contact with the terminal.

During the entire loading operation, the Elf-Serepca service vessel shall remain available to the tanker; after the loading hoses have been taken aboard the tanker, the service vessel can be used to move the tanker away from the buoy. A hawser shall be located at the stern of the tanker to be used for towing.

A ladder must be kept permanently ready alongside the vessel so as to permit access by the team in charge of the flexible hoses.

Loading: Loading may be carried out with a maximum flow of 4,400 tonnes per hour. The maximum capacity of each part loading is approximately 120,000 tons.

Inspection of tanks after deballasting and ullages after loading shall be taken in the presence of the Loading Supervisor representing Elf Serepca.

The terminal shall place on board the vessel sealed samples of the cargo.

Twenty minutes before the end of loading, the vessel shall notify the terminal by VHF so that pumping may be stopped accordingly.

During Loading: All the hull valves shall be closed except those required for water circulation.

The scuppers of the main deck shall be plugged.

Two fire hoses shall be connected and placed, one at the bow, the other at the stern of the vessel. The fire pump shall be maintained under pressure.

In case of electrical storms, loading may be stopped if necessary.

In case of fire on board a vessel moored at the loading point the Master shall give the alarm by means of short whistle blasts at short intervals. He shall be responsible for the implementation of technical means of fire fighting, maintenance of stability and safety on his vessel. He shall take the required steps to leave should he be required to do so.

MEDICAL: Hospitals, clinics and doctors in Douala. Transportation carried out by Elf at vessels expense.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: There are well-equipped repair workshops at Douala.

TIME: GMT plus 1 hour.

CONSULS: At Douala:

French Consulate
Federal German Consulate
Netherlands Consulate
Danish Consulate
Norwegian Consulate
Swedish Consulate
Monaco Consulate
American Consulate
Lebanese Consulate

AIRPORT: 4 km. from Douala. 1 or 2 flights daily to Europe. Several flights weekly to U.S.A.

GENERAL: *Charts:* French Chart No. 5380 and British Chart No. 1860.

Safety: During the vessel's stay at the loading point the Master shall:

Maintain on board sufficient crew for handling of the vessel and moorings and fire fighting.

Maintain the engines ready for manoeuvring.

Ensure that the moorings function properly without any undue stress or wear.

Ensure that the floating hoses do not wear out or rub, thus causing deterioration.

Ensure that the vessel does not make contact with the buoy either by change in current or change in the direction of the wind or for any other reason. The service vessel moored at the stern of the tanker ensures correct positioning upon instructions from the Pilot, if necessary.

Fire Fighting: It is forbidden to:

Smoke, utilise naked lights or tools liable to give rise to sparks outside the areas normally authorized on a tanker.

Leave the anchors outside the hawse pipe.

Make any repairs or carry out maintenance on deck.

Turn the propellers.

Utilise in the areas classified as dangerous any equipment or tools of a type not recognised for this use by a competent organization.

Elf Serepca reserves the right to take any steps it may deem necessary in case of danger and in particular stop loading.

Stores: Two ship chandlers at Douala can supply the vessel with any foodstuffs they need. But the distance between the Kole Terminal and Douala makes the process very difficult.

Elf Serepca can, in no way, be in charge of the orders and the transportation of foodstuffs.

Territorial Waters: The sovereignty of the Republic of Cameroon extends to 50 nautical miles from the lowest sea watermark along the coast.

Currency: Legal currency is CFA Francs. 1 CFA Franc = 0.02 French Francs.

Meteorology: The rainy season (monsoon) extends from May to September. The dry season extends over a period of 2 to 3 months that is to say from December to February.

Air Temperature: The air temperature varies on an average from 22° C to 30° C.

Sea Temperature: On the surface, the sea temperature varies from 29° C at the beginning of the year to 25° C in July, August and September.

Visibility: Owing to the Harmattan, a hot wind blowing from the Sahara, visibility can be reduced to 1 or 2 miles from December to February. During the rainy season, and especially in June, July and September, visibility can be reduced to 0.5 miles due to rain.

Tides: The tides are of a semi-daily type and the Kole cycle is 15 minutes in advance of Bonny Town. Maximum amplitude is 2.30 m., mean amplitude is: Spring tides 1.80 m. Neap tides 0.90 m.

Wind: Generally from the South and usually less than 15 knots.

Strong winds last for a short period and blow from the East or the S.S.E. in connection with tornadoes.

Current: In the Kole area currents may be of a very changeable speed and direction. However, the ruling currents are the tidal currents.

Slack tide is S.S.E. and flood tide N.N.W. On the surface its speed can reach 3 knots.

Swell: The direction of the swell is S.S.W. (210°). The average height is 2.5 m., period 8 seconds. The waves generated by the local winds are scarcely higher than 2 m.

AUTHORITY: Elf Serepca, B.P. 2214 and B.P. 2215, Douala, United Republic of Cameroon. *Tel:* 421366. *Telex:* 5299 Kn Elferap. *Contact:* Chef Terminal Marin.

AGENT: See "Douala".

MOUDI MARINE TERMINAL: 04.07 N. 08.29 E.

(See Plan)

LOCATION: The Moudi Field, of which Tepcam is the operator, is situated in the Gulf of Guinea about 50 nautical miles West of the town of Limbe (Victoria) in Cameroon, in depths of 50 m. to 58 m.

The Moudi Field comprises the following units:

2 well platforms: VA (Lat. 4° 08′ 11″ N., Long. 8° 27′ 24″ E.) and VB (Lat. 4° 09′ 22″ N., Long. 8° 25′ 55″ E.)

1 production platform; VT (Lat. 4° 08′ 09″ N., Long. 8° 27′ 25″ E.)

1 loading terminal consisting of: 1 floating storage unit (F.S.U.), the "Moudi" (Lat. 4° 08′ 09″ N. Long., 8° 28′ 49″ E.). 1 Single Point Mooring berth (S.P.M.) (Lat. 4° 07′ 00″ N., Long. 8° 29′ 11″ E.)

DOCUMENTS:

Maritime Declaration of Health.

Derat or Exemption Certificate.

Vaccination Certificates for crew and passengers.

After ship's arrival at Moudi Marine Terminal, the Tepcam Representative boards and the Master signs the following documents:

Notice of Readiness.

Acknowledgement of receipt by the Master of Terminal Regulations.

Safety check list before loading.

Following commercial documents are filled out by Terminal and presented to the Master:

Bill of Lading.

Certificate of Quality and Quantity.

Certificate of Origin.

Cargo Manifest.

Time Sheet and Loading Report.

Ullage Report.

Receipt for Samples.

Receipt for Documents.

The Tepcam Representatives on board the ship shall assist with the inspection of tanks after deballasting and ullage measurements after loading.

PILOTAGE: Pilotage is mandatory and carried out by the Pilots of the National Port Bureau of Cameroon.

The Pilot, the Terminal Representative, the Mooring Master, the Cargo Inspector and the Customs Officer must come on board the vessel before the vessel starts mooring to the buoy.

On board the ship, the Pilot acts as a nautical adviser to the Master for handling the ship at the entry and exit of the pilot zone or for movements within this zone.

His advice shall commit neither his responsibility nor that of Tepcam.

Any ship mooring to the loading buoy is required to take the Terminal Pilot on board in the pilot zone extending from anchorage zone to the S.P.M.

The Pilot call signals are those in the International Code. The Pilot may be contacted by VHF Channel 16.

Pilot Boat:

The assistance boat insures the pilotage functions (transport of Pilot and Tepcam employees, transport of equipment required for mooring and hose connections).

It is at the ship's disposal under Pilot's instruction during the whole stay of the ship at the loading buoy for:

Tug assistance (bollard pull 100 tons).

Approach/Mooring assistance/launching of an inflatable dinghy, clearance of hoses.

Exceptionally:

Fire-fighting (2 guns, total delivery 600 cu.m./hr.)

Anti-pollution Assistance (Dispersant and Anti-pollution Spray-ramp, 25 cu.m./hr.)

During operations, the assistance boat monitors permanently the operating VHF frequency and Channel 16.

NAVIGATION AIDS:

Fixed Platforms: The 3 fixed platforms, VA, VB and VT are all equipped with the following:

4 white lights at the 4 corners, range 8 miles, flashing the letter U(· · –) operated by sun switch,

2 fixed white boat landing lights, range 3.5 miles.

2 foghorns, range 1.5 miles, emitting the letter "U", operated manually (visibility less than 1.5 miles).

1 identification panel fixed to the South side displaying "Victoria VA", "Victoria VB", "Victoria VT", respectively in black letters 1 m. high on a yellow background.

Platform VT is also equipped with a fixed red light on the crane, and fixed yellow and blue lights on the helideck.

VA/VT catwalks and flare are equipped with 3 and 4 fixed equidistant white lights respectively.

Floating Storage Unit (Moudi): The Moudi, a converted 220,000 ton tanker, carries the lights of a ship at anchor, 2×360° white lights, 1 in the bow and 1 in the stern. It is equipped with a foghorn, range 1.5 miles emitting the letter "U". It carries the inscription "Moudi" painted in white letters 1.5 m. high on the black hull at port and starboard in the bow and at the stern.

SPM (buoy/hoses): The buoy, painted orange, is equipped with the following:

1 fixed white light, range 5 miles, flashing the letter "U" every 15 secs,

a hand-operated foghorn, range 2 miles, emitting the letter "U" every 30 secs,

a radar reflector.

The floating hoses are equipped with 3 white winker lights (60 flashes per minute).

The ship shall provide adequate and safe means to take the Pilot on board on the most sheltered side.

Pilot Ladders:

1. In all ships where the distance from sea level to the point of access to, or from, the ship exceeds 5 m. (O.N.P.C. requirements), the ship must be provided to embark and disembark Pilots by means of the accommodation ladder in conjunction with a pilot ladder. The ship should carry an accommodation ladder on each side, unless such ladder is capable of being transferred.

2. The ladder should be sited leading aft. When in use, the lower end of the ladder should rest firmly against the ship's side within the parallel body length of the ship and within the mid-ship half section and clear of all discharges. Equally safe arrangements which might be more suitable for special types of ships should be acceptable.

3. The length of the accommodation ladder should be sufficient to ensure that its degree of slope does not exceed 55 degrees.

4. The lower platform of the accommodation ladder should be in a horizontal position when in use.

5. Intermediate platforms, if fitted, should be self-levelling. Treads and steps of the accommodation ladder should be so designed that an adequate and safe foothold is given at the operative angles.

6. The ladder and platforms should be equipped on both sides with stanchions and rigid handrails, but if handropes are used they should be tight and properly secured. The vertical space between the handrail or handrope and the stringers of the ladder should be securely fenced.

7. The pilot ladder should be rigged immediately adjacent to the lower platform of the accommodation ladder and the upper end should extend at least 2 metres above the lower platform.

8. Lighting should be provided at night such that the full length of the ladder is adequately lit.

9. If a trap door is fitted in lower platform to allow access from and to the pilot ladder, the aperture should be not less than 750 mm.×750 mm. In this case the after part of the lower platform should also be fenced as in paragraph 6, and the pilot ladder should extend above the lower platform to the height of the handrail.

10. The accommodation ladder(s), together with any suspension arrangements or attachments, fitted and intended for use in accordance with this Recommendation should be the satisfaction of the Administration.

ANCHORAGES: The anchorage zone is a circle 1 mile in radius centred about 2 miles E.N.E. from the SPM, at the point with coordinates: Lat. 4° 07′ 33″ N., Long. 8° 31′ 04″ E.

Approach to the anchorage should be made from the East. With the S.P.M. as the centre, vessels should steer a course of between 210° and 330°. (See "Plan".)

RESTRICTIONS: The danger zone in which routine navigation and fishing activities are prohibited is defined by the four points AA, BB, CC and DD, of which the coordinates are given below. The field installations are situated about half a mile inside the limits.

AA: Lat. 4° 09′ 10″ N., Long. 8° 29′ 43″ E.
BB: Lat. 4° 06′ 28″ N., Long. 8° 29′ 43″ E.
CC: Lat. 4° 06′ 28″ N., Long. 8° 25′ 24″ E.
DD: Lat. 4° 09′ 58″ N., Long. 8° 25′ 24″ E.

Ship moorings and connections take place from 0600 hrs. to 1800 hrs. weather and sea permitting. They may be performed by night, on Tepcam preliminary agreement conditions. Departures from berth take place day and night.

MAX. SIZE: The loading station is designed for the mooring and loading of ships from 50,000 d.w.t. to 280,000 d.w.t.

The water depth at the buoy is 57 m. to hydrographic zero.

HEALTH: Sanitary boarding is carried out by the Doctor in Chief of the Border Health Police. Pilots are entitled to carry out this inspection. In case of infectious disease on board, contact the Doctor in Chief of the Border Health Police through the Harbour Master before ship's arrival at the terminal. For the application of Health Regulations, the ship shall use the signals in the International Code of Signals.

RADIO: Ships shall announce their arrival by telegram sent 72 hours before their planned arrival. This telegram, addressed to Tepcam shall be sent via Douala Radio and shall announce its ETA in GMT, as well as all information concerning the planned loading:

Arrival ballast.

Deballasting time.

Max. loading rate.

Cargo quantity.

Derrick lifting capacity.

Dimensions of manifold flanges.

Forward anchoring system characteristics.

Sanitary conditions.

The ship shall repeat contact 48 hours and 24 hours before its arrival and correct its ETA if necessary.

Communications between ship and base through Douala Radio should be in decameter or hectometer wave.

Douala Radio works on frequencies 500 kHz, 8449 kHz and 13,069 kHz. Call sign TJC 5, TJC 6 and TJC 8.

During radio contacts preceding the arrival of the ship at the site, the ship shall receive instructions from the Terminal Superintendent for direct mooring or, on the contrary, standby anchorage in the zone defined.

VHF: When 60 miles from the Terminal, the ship shall make contact by VHF on Channels 16 or 13 and then switch to the operating frequencies as indicated below.

The ship shall then receive the instructions required for its mooring to the loading buoy.

Port regulations are communicated as soon as possible to the Master, who shall acknowledge receipt by letter.

Monitoring as well as safety frequency are provided on Channel 16. Also see "Pilotage".

Communications between the ship and the Terminal are provided on:

VHF Marine Total, Channel 69 (156.475 MHz)

VHF (land) between base and Douala headquarters:

Tx: 75.550 MHz Rx 80.550 MHz
Tx: 75.650 MHz Rx 80.650 MHz
Tx: 75.700 MHz Rx 80.700 MHz

VHF Total field communication:

Tx: 159.725 MHz Rx 155.125 MHz

TUGS: See "Pilotage – Pilot Boat".

BERTHING: The Moudi Loading Buoy is of the CALM type (Catenary Anchor Leg Mooring) with a single mooring point.

It consists essentially of a cylindrical body 12 m. in diameter and 4.7 m. high, equipped at the bottom with a skirt projecting 1.7 m., and with a turn-table. The buoy is anchored by means of 6 chains extending in a radius of 380 m. around it.

A 255 m. long line of 24 in. floating hoses terminates in 2×37 m. long extensions of 16 in. hoses equipped with 16 in. Camlock type quick couplings at the ends for buoy/ship connection.

A mooring line and its accessories are used to moor the ship to the turn-table.

The mooring personnel carrying out the polypropylene connection from the buoy to the "Messenger Line" of the ship are provided by the Terminal.

Head of Loading: Representative of Tepcam co-ordinates all the following operations:

Mooring
Connection
Loading.

He is responsible for ensuring compliance with Port Regulations at the Terminal. His instructions shall not be questioned or disputed and he will not check the Pilot's action, who is the Harbour Master's representative at the Terminal.

He may refuse or prohibit, after Pilot's advice, the entry of the ship in cases such as but not limited to:

unfavourable weather conditions,
ship insufficiently equipped or possessing defective equipment,
insufficient or dirty ballast.

He is in charge of obtaining the agreement to start loading. He makes sure of the correct application of safety instructions by the shipboard personnel and of the loading plan.

Once the ship is moored, he may ask the Pilot's advice for an early removal from berth of the ship or may suspend loading of the ship for reasons such as but not limited to:

safety
bad weather
non-compliance with instructions
insufficient drainage of cargo tanks
dumping of polluted water into the sea
incidents affecting the loading buoy or the pumping installation.

During loading operations he insures the radio co-ordination between the ship and the Terminal.

Mooring Master: He acts under the direction of the Head of Terminal. Mainly in charge of inspection of specifically marine equipment, he shall assist and inform the Pilot and the Head of Terminal during approach, mooring, connection/disconnection and loading phases.

Cargo Inspector: Nominated by the buyer, he is in charge of cargo control.

Customs Officer: The attendance of an Agent of the Administration of Customs is compulsory onboard of lifting vessels.

Mooring and Connection: The engines shall be in condition to deliver their maximum capacity if required. The ship's port derrick shall be rigged to project 1 m. over the ship's side and to lift a minimum load of 10 tons.

The Pilot shall instruct the Master of the ship of the standard manoeuvres for berthing and mooring.

Mooring and connection operations shall be performed by the ship's crew.

Once it is moored, the ship shall keep its engines ready to manoeuvre. No work reducing the ship's manoeuvring potential shall be undertaken without the approval of the Terminal Superintendent or his assistant.

The ship's Master shall ensure that the mooring lines guarantee a secure mooring at all times. He shall make sure that the mooring units operate to satisfactory conditions, in order to minimise wear and to prevent their breakage.

LOADING: When the ship is absolutely ready to perform loading operations, the ship's Master shall present the "Notice of Readiness". The "Notice of Readiness" shall not be accepted if the Terminal is closed.

Once the mooring and hose connections have been completed, the checklist shall be checked and signed jointly before the start of loading by the Tepcam Representative and the ship's Master.

The Terminal Superintendent shall issue the order to start pumping, after the ship has confirmed that she is ready to load and shall notify the ship of the progress of loading operations.

Radio connections shall be checked frequently. All information concerning flow rate, gas pressure, change in cargo tank, cumulative quantities, etc., shall be communicated between the ship and the control room.

30 minutes before the end of loading, the ship shall advise the Loading Master in order to stop pumping in due time.

In the case of a storm or leakage, loading shall be suspended.

Measurement of the ullages, temperatures and draft after loading, for control purposes, shall be performed in the presence of the Tepcam representative.

Throughout the loading period, the ship shall carry the following:

- by day, a red flag on the masthead ("B" flag of International Code),
- by night, a red light visible 360°.

This requirement shall also be valid for ships which are loaded, moored, or manoeuvring in the danger zone, and also for ships that are not declared "gas free".

The Terminal shall provide the ship with representative samples of the cargo.

Lookout: During the whole stay of the vessel at the SPM, the Pilot ensures watch of safety on board.

Permanent bow lookout: The Tepcam representative and the Pilot will demand permanent bow watch by a member of the ship's crew and shall be advised of the tanker's position in relation to the buoy.

Permanent lookout at manifold: As soon as connections are made, the Tepcam representative shall demand permanent manifold watch by a member of the ship's crew and shall be advised of the configuration of the tanker rail hoses and if any leaks in the manifold.

BALLAST: The Terminal is not provided with facilities for treating ballast water. Ships shall therefore arrive with clean ballast. The minimum arrival ballast shall be equal to about 30% of the ship's d.w.t., ensuring a draft consistent with safe manoeuvring, a reasonable trim and a propeller submerged, to the satisfaction of the Pilot.

Inspection of the ballast to be unloaded shall be made on arrival, and any ship arriving with dirty ballast may be required to leave the buoy, and to bear responsibility for any delay resulting from this. The acceptance of the "Notice of Readiness" shall be corrected to show this.

Deballasting operations shall only begin with the agreement of the Head of Terminal and the Pilot. As a rule, loading operations shall not begin until deballasting is completed, if the ship is not fitted out for simultaneous deballasting and loading operations. An inspection of tanks shall be carried out after deballasting in the presence of the Tepcam representative.

POLLUTION: It is prohibited to dump any objects or waste of any type into the sea.

It is also prohibited to dump into the sea any liquid liable to ignite or to pollute the water.

The ship's scuppers must be closed/plugged during the loading operations.

A system designed to collect any drips and leaks shall be placed under the hose/manifold connection.

In the case of water pollution caused by the ship, for any reason whatsoever, Tepcam declines any responsibility, and the ship shall be held responsible for the direct consequences of this pollution. In particular, the assistance costs incurred by Tepcam shall be passed on to the ship.

Tepcam also declines any responsibility concerning any infringement by the ship of international regulations or Port Regulations that could be ascertained by the Pilot or any Tepcam employee. Written reservations will be expressed and report will be drawn-up.

Objects falling into the sea: Any object falling into the sea shall be stated in a declaration to the Terminal Superintendent, who shall prescribe the measures to be taken for its recovery. Similarly, the recovery or removal of various objects or equipment stationed or deposited in the danger zone shall be carried out automatically, whenever the owner or operator of the said objects or equipment cannot or does not wish to perform this removal himself.

Recovery and removal shall be carried out at the cost, risk and perils of the parties concerned. For any object, (or person) that has fallen into the sea, a written report shall be addressed to the Harbour Master.

MEDICAL: Emergency cases are evacuated to Douala by Tepcam at ship's expense. Douala has a hospital, clinics and several specialist doctors.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: Consulates in Douala:

Denmark
France
Germany F.R.
Greece
Lebanon
Monaco
Norway
Sweden
U.S.A.

REPAIRS Not available at Moudi Terminal. However, well equipped repair facilities are available at Douala.

REPATRIATION: Not permitted.

AIRPORT: The nearest airport is 4 km. from Douala. 1 or 2 flights daily for Europe, several flights weekly for the U.S.A. (with changes in Europe).

TIME: GMT plus 1 hour.

STORING: Not possible at Limbe. 2 maritime victualling companies are established in Douala.

GENERAL: *Useful Publications:* Ships planning to call at the Moudi Marine Terminal shall refer to the following regulations and documents:

- Safety of Life at Sea,
- IALA "A" system for Navigation Aids,
- International Regulations for Preventing Collisions at Sea,
- Marine Charts Nos. 5633, 5602, 6076 and 5380, of the Service Hydrographique de la Marine (French Marine Hydrographic Service),
- Marine Chart No. 1860 from Hydrographic Office of the Navy,
- ISGOTT (International Safety Guide for Oil Tankers and Terminals (OCIMF/ICS Publication)).

Meteorology: The year is characterised by 2 seasons: Rainy season from June to September, variable season from October to May with low rain frequency.

The outdoor temperature varies on average from 22°C/72°F (July and August) to 30°C/86°F (February to April).

Water temperature at the surface varies from 25°C/77°F (June to September) to 29°C/84°F (February).

The prevailing winds are 4 knots to 10 knots from the S.W. sector throughout the year. The strongest winds, up to 45 knots, are rare and occur from February to May, in October, and in December. They may accompany tornadoes generally travelling from East to West.

Visibility is rarely very good and only rarely exceeds 11 nautical miles. It may be reduced to a half mile by rainfall, especially from June to September.

Tides, Currents, Waves: Tides at the Moudi site are of the semi-diurnal type 35 minutes in advance of those at Bonny (Admiralty Tide Table, Volume 2) or about 1.5 hours in advance of those of Limbe (Victoria) (Service Hydrographique de la Marine).

Surface currents, mainly influenced by the Guinea Currents, generally flow towards the S.W. and rarely exceed a speed of 1 knot.

The predominant direction of waves is S.S.W., with a trough from 0.6 m. to 1.2 m. from October to February, and a trough from 1.3 m. to 1.9 m. from February to September. Mean period 8 seconds to 10 seconds.

SAFETY: *Nautical Safety Rules:* Apart from export tankers using the loading buoy, entry into the "danger zone" is prohibited to all ships except ships of the Administration or those necessary for the development or production of the Moudi Field.

These vessels shall be equipped with fire-fighting facilities and shall not be left without surveillance.

Moreover, it is prohibited in the "danger zone" to establish anchorages, permanent or otherwise, and ships or floating equipment are prohibited from dropping their anchors.

Safety Rules Related to Weather Conditions: Throughout the presence of the ship at the loading buoy, the ship's Master shall ensure that the standard safety regulations are observed, and especially the following:

Keep in service a sufficient portion of the crew in order to guarantee trouble-free manoeuvring of the ship and operating the preliminary fire-fighting facilities.

Keep the engines ready to manoeuvre within a period specified by the Loading Master.

Have a steel wire safety towline, in mousing arrangement, placed starboard bow and stern, in such a manner that the eye can be secured easily by an assistance vessel if the latter is present on the site.

Fire-Fighting Rules: Any person who discovers a fire at the Terminal shall immediately sound the alarm.

If the fire breaks out on the ship, the latter shall transmit the distress signals specified in the international regulations.

Fire-Fighting: The ship's Master shall be responsible for the use of the technical fire-fighting facilities, and the maintenance of the ship's stability and safety.

Throughout the presence of the ship at the loading buoy, the following is prohibited:

Smoking, the use of naked flames or tools liable to generate sparks outside areas normally authorised on a tanker.

Repairs, handling operations or work liable to generate sparks.

The use, in zones classified as dangerous, of equipment or tools which are not of a type approved for this service by a competent agency.

Turning of the propellers, except for steam-ships.

Leaving open hatches and doors leading on to the main deck.

Firing shots.

As a rule, the ships shall comply with the safety requirements specified in the International Safety Guide for Oil Tankers and Terminals. In particular, it shall:

Position and connect 2 fire-hose nozzles in the bow and stern of the ship, ready for use.

Keep the fire-fighting system under pressure.

Position hand extinguishers of a suitable type near the manifold.

Tepcam reserves the right to take any measures that it deems effective in case of danger and, in particular the postponement or interruption of loading operations.

Emergency Measures: In the case of incidents/accidents which occur during loading, the Loading Master and the Pilot shall be notified immediately in order to take the measures imposed by the incident, promptly and in association with the Terminal Superintendent.

In all cases, the Master shall be capable of coping with these situations rapidly and effectively.

AUTHORITY: *Operator:* Total Exploration Production Cameroon (Tepcam), BP 1225, Douala, Cameroon. *Tel:* 42-32-91. *Telex:* 5698 Kn, 5385 Kn. *Contact:* S. Pras, Operations Manager.

NOTES

Please also advise Shipping Guides Ltd.

Canada

GENERAL (See Plan)

PILOTAGE REGULATIONS: Vessels arriving from any point *East* of the Strait of Belle Isle, Cabot Strait or the Strait of Canso are required to give notice of ETA 24 hours in advance, second notice of ETA 12 hours in advance and Final notice confirming or correcting the ETA 4 hours in advance. With the first notice the following information should be supplied:

(a) in the case of the first arrival of the ship in the compulsory pilotage area in any calendar year,
  (1)the name, nationality, call sign and Agent of the ship,
  (2)the length, breadth, moulded depth, deepest draft, speed and the largest net registered tonnage of the ship, and
  (3)the immediate and the ultimate destinations of the ship within the compulsory pilotage area, and
(b) in the case of any subsequent arrival, movage or departure of the ship in the compulsory pilotage area in any calendar year,
  (1)the name, call sign, deepest draft, the speed of the ship and any changes in the information provided under paragraph *(a)*, and
  (2)the immediate and ultimate destinations of the ship within the compulsory pilotage area

The Laurentian Pilotage Authority advises that, where there is failure to give the required notices, without reasonable cause, the Authority is *not* required to provide the vessel with the services of a Pilot.

NOTICE: *Non-Canadian Ships Compliance Certificate:* In September, 1983, the Shipping Federation of Canada advised the following:

We have been informed by the Canadian Coast Guard that many tankers are being diverted unexpectedly in mid-Atlantic to Canadian ports. Some of these vessels have never been involved in Canadian trade before and as a result do not have a Non-Canadian Ships' Compliance Certificate and are therefore in breach of Canadian regulations. The regulations governing the issuance of the certificate apply to all non-Canadian oil tankers of 500 g.r.t. or more trading in waters South of the 60° parallel of North Latitude. The regulations hinge on the 1930 and 1966 Solas Conventions, the navigating appliances regulations, the oil pollution prevention regulations, the charts and publications, regulations, etc. The certificate is valid for two years and essentially indicates that the ship complies with other Canadian regulations.

The Coast Guard has recently permitted several of these vessels to enter Canadian waters and has diverted the offenders to the nearest suitable port where ship inspectors ensure that the vessels meet Canadian standards prior to issuing a certificate. We have been informed by the Canadian Coast Guard that tankers which contravene the regulations will not be permitted to enter the Gulf of St. Lawrence. This diversion to an inspection port creates a loss of time for the shipowner and efforts must be made to correct the situation.

In waters other than Canadian, an inspector of the government of the state in which the ship is registered and representatives of recognised classification societies are empowered to issue the non-Canadian ships' compliance certificate on behalf of the Canadian Coast Guard.

NOTICE TO MARINERS:

NOTICE No. 10: Transmission of Estimated Time of Arrival: In the interest of marine safety Masters should give an early indication of the vessel's ETA to the appropriate Port Authority and in this respect comply with any published instructions relating to this requirement. At ports where instructions have not been published, the ETA should be radioed in sufficient time for Port Authorities to make arrangements for the arrival of the vessel, taking into account actual conditions such as tide, size and draft of the vessel and notice as necessary to alert Pilots and towing services.

Notice to Mariners Nos. 25 and 26 also provides information on reporting procedures for specific areas.

Authority: Department of Transport (CGSN).

NOTICE No. 23: Canada – Ice Information, Routing and Requests for Icebreaker Assistance

1 **HUDSON STRAIT AND CANADIAN ARCTIC**

Arctic Canada Traffic System (Nordreg Canada). Mariners should be aware of the existence of the Arctic Canada Traffic System (Nordreg Canada) and the advantages of reporting to this system which is a voluntary Vessel Traffic Service (VTS) covering the waters of Ungava Bay, Hudson Bay and James Bay South of the parallel of 60° North Latitude and the waters to which the Arctic Waters Pollution Prevention Act applies.

During the Arctic navigation season, a Nordreg office based at Frobisher Bay is staffed with an Ice Operations Officer who provides information on ice conditions and vessel routing in ice. Icebreaker assistance, when requested may be arranged through the Ice Operations Officer. For more detailed information on this VTS system, the definition of waters it covers and the requirements to make certain reports and obtain clearance, Mariners should refer to the current Annual Edition of Notices to Mariners.

(a) *For general information on ice conditions:*
Address: NORDREG CANADA,
Canadian Coast Guard,
Department of Transport,
P.O.Box 718,
Frobisher Bay, N.W.T.
X0A 0H0.
Telephone: 819-979-5724
Telex: 063-15529
Radiogram: Ice Frobisher.

2 **EAST COAST AND GULF OF ST. LAWRENCE**

During the Winter navigation season a similar service is provided to ships intending to transit or to operate in East Coast and Gulf of St. Lawrence waters. Access to this service can be obtained by contacting the Eastern Canada Traffic System (ECAREG CANADA). ECAREG communications procedures are specified in the current Annual Edition of Notices to Mariners.

(a) *For general information on ice conditions:*
Address: ECAREG CANADA,
Canadian Coast Guard Traffic Centre,
Maritimes Region, Canadian Coast Guard,
Department of Transport,
P.O.Box 1013,
Dartmouth, N.S.
B2Y 3Z7.
Telephone: (902) 426-6030 or (902) 426-6031
Telex: 019-22510
Radiogram: Ice Halifax.

(b) For general information on ice conditions and icebreaker assistance in Newfoundland waters, East of Cape Chidley and Long. 58° 00′ W., including Labrador Coast and Hamilton Inlet:
Address: ECAREG CANADA
Canadian Coast Guard,
Newfoundland Region,
Department of Transport,
P.O.Box 1300,
St. John's, Newfoundland.
A1C 5N5.
Telephone: (709) 772-2083 or 2084
Telex: 016-4530
Radiogram: Ice St. John's.

3 **ST. LAWRENCE RIVER**

In the St. Lawrence River West of Long. 66° 00′ W. to Montreal, ship movement is under the general control of the Vessel Traffic Services (VTS) system and ice information and advisory services are handled through this system as follows:

For general information on ice conditions:
Address: Canadian Coast Guard Regional Information Centre,
Wing 2, Ground Floor,
Port of Montreal Building,
Cite du Havre,
Montreal, Quebec,
H3C 3R5.
Telephone: (514) 866-1584, 1-800-371-7770
Telex: 055-60641.

4 **CANADIAN GREAT LAKES**

Vessels entering Canadian waters of the Great Lakes may obtain ice information, routing advice and request icebreaker assistance by contacting the following address:
Ice Operations Officer,
Canadian Coast Guard,
Department of Transport,
16th Foor, Toronto Star Building,
1 Yonge Street,
Toronto, Ontario, M5E 1E5.
Telephone: (416) 369-3918
Telex: 06-23317
Radiogram: Ice Toronto.

5 **GENERAL REMARKS**

A limited number of icebreakers are available for the support of shipping and these are heavily committed. It is emphasised, therefore, that it may not be possible to provide icebreaker support at short notice. In order to make the most efficient use of all available resources, it is important that the Canadian Coast Guard Traffic Centres be kept informed of the position and projected movements of vessels in Canadian waters.

Authority: Department of Transport (CGVO).

NOTICE No. 25: Vessel Traffic Services (VTS).

See Annual Canadian Notice No. 25 (not reproduced) and "Plans" for areas.

REPORT: February 1985.

Herewith is an outline of requirements for chemical tankers which are scheduled to call Vancouver/British Columbia ports.

1. Vessel must have on board a valid non-Canadian Ship's Compliance Certificate.
2. Certificate of Fitness and date.
3. Provide Agents with 7, 4, 2 and 1 day's notice prior to arrival.
4. Advise Agents of the last 2 cargoes.
5. Advise of any cargo in transit (quantity and type).
6. Vessel is required, in Vancouver, to have a clear passage while transiting the First and Second Narrows Bridge – with a minimum of 1 mile visibility. Vancouver Traffic Centre will advise vessel accordingly upon arrival.
7. Canadian Coast Guard will attend on board upon arrival for safety inspection.

In the case that a vessel arrives in Vancouver with ammonia on board, the vessel is permitted to load propane as a second cargo, providing they are fully segregated.

AMHERSTBURG, Ontario: 42.06 N. 83.08 W.

(See Plan)

PORT LIMITS: Southerly Port Limits commence at Buoys 43D and 44D and extend on the Canadian side of the International Boundary Line, Northerly to the Southerly limits of Windsor Harbour.
DOCUMENTS: Vessels may clear Customs at Amherstburg upon request. No Customs Officer available at Amherstburg. Request to clear must be made through Windsor Customs Office.

Pleasure craft 24 hour reporting	Tel. 256-7811.
Customs Office bridge (commercial)	Tel. 254-0893.
Customs Office bridge (auto)	Tel. 253-7271.
Customs Office tunnel (auto)	Tel. 254-3575.

PILOTAGE: Pilotage is compulsory as required by Seaway Regulations.
ANCHORAGES: Windsor Harbour is the only recognized anchorage in Detroit River.
RESTRICTIONS: Seaway draft is maintained in main channel and shallow draft channel of 21 ft. Water levels are affected by fluctuation of Lake Erie. A Low Water Warning is broadcast from Belle Isle on 2670 kHz and 156.6 MHz on the odd hour plus 55 minutes when the water level in the West end of Lake Erie falls 1 in. or more below the lower level of the Lake Survey Centre's predicted range of levels shown in bulletins issued the 5th and 20th of each month during navigation season. Water levels are broadcast on FM radio from Group Detroit.
MAX. SIZE: About 432 ft. long and 21 ft. draft is maximum for Allied Chemical Dock.
HEALTH: Pratique is not necessary as vessel has passed all health requirements before entering Canada.
RADIO: Messages may be sent and received via VBE Sarnia Radio.
VHF: None available for port movement, except as established between vessels in Harbour.
TUGS: Available, but not usually used.
BERTHING: There is no public wharf.

Canadian Coast Guard (C.C.G. Docks available on request for distress or emergency only. Contact by radio or telephone) has two docks: South – 250 ft. in length with approach depth 17 ft.; North – 291 ft., with approach depth 17 ft. The old Town Coal Dock is converted into a public park.

Allied Chemical is a private dock (length 300 ft.)which consists of 3 cement filled caissons protected with steel sheet piling. Import fuel oil and export liquid calcium. Vessels of over 400 ft. length call here regularly, draft approach alongside 21 ft.
CRANES: Shore cranes are available for hire from Windsor, also floating barges with cranes, 100 ton capacity and 200 ft. boom if required.
BULK CARGO FACILITIES: Conditions of various wharves does not warrant any usage for bulk cargoes.
BRIDGES: No bridges within Amherstburg Harbour area.
STEVEDORES: Stevedoring is arranged through Agents in Windsor.
MEDICAL: Should medical attention be required it can be arranged through radio station VBE Sarnia by message to Canadian Coast Guard Base Amherstburg. Hospitals are available in Windsor with Ambulance service. Injured seaman can be taken off if necessary by Canadian Coast Guard in vicinity of Amherstburg, when notified via VBE Radio Sarnia.
TANKERS: Use private wharf of Allied Chemical Limited.
DENSITY: Fresh water only.
FRESH WATER: Fresh water could be supplied in an emergency by tank truck or contacting Public Utilities Commission.
FUEL: Not available on docks, except by truck.
FIRE PRECAUTIONS: Usual ship board fire precautions on board.
CONSULS: None.
REPAIRS: Small ship repairs can be carried out by local firms from Windsor.
DRY DOCK: None.
SURVEYORS: None stationed in port, but arrangements can be made to have an inspector when required.
GANGWAY/DECK WATCHMEN: No regulations requiring watchman.
CUSTOMS ALLOWANCES: Same as all Canadian Customs Regulations.
CARGO GEAR: Ship's gear, unless pallets are used.
REPATRIATION: Arrangements for crew change can be made.
TIME: Local time is GMT plus 5 hours and Summer time plus 4 hours.
HOLIDAYS: All Canadian Holidays, working time requires negotiating with local unions.
POLICE/AMBULANCE/FIRE: Police – 969-6650, Ambulance – 736-5411, Fire – 969-6650.
TELEPHONES: No telephone jacks available on any dock.
SERVICES: Laundry can be done, but takes considerable time. Foodstuffs are available, including fresh produce.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Seaman's I.D. card is sufficient.
REGULATIONS: No unusual regulations.
DELAYS: Private owner's dock is only dock being used for cargo.
AUTHORITY: 1. Canadian Coast Guard, 370 Dalhousie Street, Amherstburg, Ontario. *Tel:* 519-736-5449. *Telex:* 064-77655. *Contact:* I. Bill, Sub-District Manager.

2. Wharfinger – Mr. N. Faucher, 200 St. Arnard Street, Amherstburg. *Tel:* 736-5451.

AMHERST HARBOUR, Quebec: 47.14 N. 61.50 W.

LOCATION: Situated at the N.E. end of Amherst Is., which is part of the Magdalen Islands group.
DOCUMENTS: Amherst is not a port of entry, clearance obtained at previous Canadian port of call.
PILOTAGE: Not compulsory.
ANCHORAGES: Available inside the harbour, depths 4.88 m. to 5.5 m.
RESTRICTIONS: Navigation season from April 1st to December 15th. Channel depth 16 ft. at LWST.
RADIO: Grindstone (VCN).
TUGS: None.
BERTHING: Transport Canada Wharf: Length 183 m., depth alongside 5.18 m. at LW.
STEVEDORES: Available.
FRESH WATER: Available.
FUEL: Diesel available.
REPAIRS/DRY DOCK: Not available.
AIRPORT: Flights to Charlottetown and Quebec Province.
AUTHORITY: Transport Canada, Garde Cotiere Canadienne, Region des Laurentides, 104 Dalhousie, Suite 121, Quebec, P.Q., G1K 4B8. *Tel:* (418) 648-3680. *Telex:* 051-3051. *Contact:* Felix A. Boudreau, Harbour Master, Amherst.

BADDECK, N.S.: 46.06 N. 60.44 W.

(See Plan)

DOCUMENTS:
4 Crew Lists.
Customs Documents.
Harbour Dues Receipt.
Stores List.
Derat Certificate.
Safety Regulation.
Clearance from Last Port.
PILOTAGE: Compulsory. Pilot station at Table Head, see Canadian chart 4367.
ANCHORAGE: Good anchorage in lake. Depths 50 ft. to 500 ft.
RESTRICTIONS: Can be restricted by heavy fog, tide, ice.
Great Bras d'Or: (Entrance to lakes restricted at Seal Island Bridge to vessels less than 119 ft. high).

Entrance into the Bras d'Or Lakes via the Great Bras d'Or is from the Northward, through a 10 mile long fiord which varies in width from 0.5 to 1 mile wide and flanked by high rolling hills.
MAX. SIZE: Largest vessel to dock 497 ft. long, 66.7 ft. wide. Draft 28 ft.
HEALTH: Pratique obtained at Sydney, N.S.
RADIO: Sydney Radio
TUGS: None.
BERTHING: The dock is 330 ft. in length, with an approach way of 80 ft. length, making an "L" shape. Depth alongside at LW is 15 ft. at the inner end and 25 ft. at the outer end.
MEDICAL: No advance notice required. Hospital available.
DENSITY: In sea 35/1000. In lake 25/1000.
FRESH WATER: Supplied at 20 t.p.h.
FUEL: Diesel oil available by truck.
CERTIFICATES: Registry, Derat and Safety Certificates.
CUSTOMS ALLOWANCES: Tobacco, 100 cigarettes per week or 0.5 lb. tobacco. Wine/spirit: None.
CONSULS: None.
REPAIRS: Minor repairs only.
SURVEYORS: Lloyds, ABS and BV available from Halifax.
HATCHES: Normally opened and closed by crew.
AIRPORT: 55 miles. Served by regular airlines.
TIME: GMT minus 4 hours. Advance 1 hour in Summer.
HOLIDAYS: Sundays and Statutory holidays; New Year's Day; Good Friday; Easter Monday; Victoria Day; Canada Day; Labour Day; Thanksgiving Day; Remembrance Day; Christmas Day.
POLICE/AMBULANCE/FIRE: 295 2350, 292 2032, 295 2110.
TELEPHONES: None available for placing on board.
AUTHORITY: Transport Canada, P.O.Box 1013, Dartmouth N.S., B2Y 4K2. *Tel:* 426-6508. *Telex:* 019-22757. *Contact:* William Beck.

Local Authority: Transport Canada, Baddeck, Nova Scotia. Tel: 295-2502. Contact: Mr. MacRae, Harbour Master/Wharfinger.

BAIE COMEAU, Quebec: 49.15 N. 68.09 W.

PORT LIMITS: Starting from a point on the Southern limit of Baie Comeau at Pointe St. Gilles Lat. 49° 12′ 10″ N., Long. 68° 08′ 41″ W. Thence, North-Eastward to Pointe St. Pancrace, Lat. 49° 15′ 14″ N., Long. 68° 04′ 43″ W.

All waters inside of these points are understood to be part of Baie Comeau Harbour.

DOCUMENTS: Baie Comeau is a Port of Entry. Customs and Immigration facilities are located in the Town of Baie Comeau. All vessels arriving from Foreign Ports will be boarded by Customs and Immigration Officers.

The following forms are to be completed prior to arrival at the first Canadian Port:

3 copies Immigration Crew List, IMM-200
3 copies Crew Declaration, Y-14
3 copies Ship's Stores, E-1
3 copies Passenger List, IMM-264
2 copies Quarantine Service, *Q-S-1
*To be supplied by Quarantine Officer on arrival.

ETA: Advise Agent 72, 24 and 4 hours before arrival. Include fuel and stores requirements.

PILOTAGE: Not compulsory. The services of a qualified Docking Master are available through the facilities of Cargill Grain Company. Docking instructions will be given by radio after receiving vessel's ETA.

Normally the Docking Master boards from tug approximately 0.5 mile S.W. of Pointe St. Pancrace.

RESTRICTIONS: Port open for shipping all year round. Deep water approaches without restrictions for any vessel able to berth alongside.

ICE ADVISORY SERVICE: Ships inbound for Baie Comeau from seaward between December 15th and April 15th should advise the Ice Information Officer, Sydney, N.S., 36 hours prior to entering Cabot Strait stating their position, destination, whether loaded or in ballast. This procedure will facilitate the passing of ice information to the ship as necessary.

On request, ice information is also available from Marine Radio Stations at Halifax, Camperdown, Seven Islands, Twillingate and Grindstone. The Canadian Broadcasting Corporation Maritime network also broadcasts ice information daily during the Winter navigation season. Supplementary ice information may also be obtained from Canadian Marine Service icebreakers.

During the ice season, radio broadcasts of ice information are made twice daily from Marine Radio Stations as follows:

	Call	Frequencies	
Cape Race, Nfld.	VCE	420	kHz CW
		2582	kHz RT
Fox River, Que.	VCG	434	kHz CW
		2582	kHz RT
Mont-Joli, Que.	VCF	446	kHz CW
		2582	kHz RT
North Sydney, N.S.	VCO	489	kHz CW
		2582	kHz RT
Halifax	CFH	115.3	kHz CW
		6949.5	kHz
		8662	
		12984	
		17218.4	

MAX. SIZE: Up to 40 ft. draft at Cargill at LW. Size limited only by berth depth.

RADIO: Mont-Joli Radio VCF 2582 kHz (VHF, CRM Co. Ltd., Wharf Office, base to ships on marine frequencies) (Channel 7A – 156.350 MHz and Channel 16 – 156.800 MHz, call XJS94).

HEALTH: Incoming vessels making Baie Comeau port of entry must obtain Pratique by wireless. Radio Pratique may be obtained between 0900 hrs. and 1700 hrs. the day preceding arrival. Address message "Quarantine Quebec": For the purpose of Radio Pratique, vessels are required to give the following information:

1. Name and nationality of vessel.
2. Ports called at during voyage.
3. Nature of cargo.
4. Number of crew.
5. Number of passengers.
6. Port of destination and name of Agent.
7. Number of persons without valid certificates.
8. Condition of health of all on board with details of any sickness or death which has occurred during the voyage.

Ships arriving in English Bay in Quarantine will be inspected by Health Officer at anchorage or on arrival alongside. Should Officer board vessel at anchorage, proper accommodation ladder must be provided.

TUGS: Available. Not compulsory except for Cargill Grain Terminal.

BERTHING:

Dock No. 1: Transport Canada: berth 456 ft. long, max. depth 27 ft.; berth 360 ft. long, max. depth 25 ft. North Shore Paper Company: 1,000 ft. wharf, max. depth 27 ft. Dock Pier: 2 berths, 422 ft. long, 20 ft. depth.

Dock No. 2: Canadian Reynolds Metals Co., Ltd. Wharves consist of breakwater and approach jetty called Berth No. 1, 450 ft. long. Berth Nos. 2 and 3 in slip, 587 ft. and 551 ft. long respectively. The docking area is dredged to 30 ft. at low water at Berth No. 1 and 31 ft. at Berth Nos. 2 and 3 and flares out to marker buoy (Fl. red Ev. 12 secs.) at Northern extremity and 1,000 ft. to its Southern extremity, where depth of water increases rapidly off shore from approximately 400 ft. East of breakwater. A port hand can buoy marks dredging out from S.E. corner of No. 1 Berth.

Dock No. 3: Cargill Grain Terminal, North Pier, 2 loading berths, length 585 ft., North side dredged to 40 ft., South side dredged to 38 ft. South Pier, 1 unloading berth, length 720 ft., North side only dredged to 29 ft.

Quebec-Hydro Dock: Depth alongside 27 ft. (25 ft. depth at berth used by Quebec North Shore Paper Co.).

CRANES: 100 ton stiff leg derrick at Canadian Reynolds Metal Co. Ltd., 5 ton level luffing crane at No. 2 Dock.

Mobile cranes available through local contractor.

CARGO HANDLING FACILITIES:

Canadian Reynolds Metal: 2 Pneumatic unloaders for Alumina and Coke, rate 140 t.p.h. each. at No. 3 Berth.

Cargill Grain Terminal: North Pier: 2 vessels can be loaded simultaneously at a combined average rate of 1,200 t.p.h. (long tons). South Pier: Discharging rate 1,100 t.p.h. (short tons).

STEVEDORES: Each terminal employs own stevedores.

MEDICAL: All facilities available. Local Hospital in Baie Comeau and Hotel-Dieu, Hauterive, 5 miles.

DENSITY: 1000 – 1025.

FRESH WATER: Delivered by pipe-line to the berths (April – October).

FUEL: Available by pipe-line to Cargill Grain Terminal. Diesel oil and gasoline delivered by truck (Imperial, Gulf, Texaco and Shell).

REPAIRS: Minor repairs may be effected through local contractors.

IDENTIFICATION CARDS: Gate passes are issued at the gate to all Crew members when going ashore for the purpose of identity on their return.

AIRPORT: Daily service to Quebec and Montreal.

CUSTOMS ALLOWANCES: 200 cigarettes for each man. Officers may be allowed 1 bottle wine/spirits, Master up to 5 bottles.

TIME: GMT minus 5 hours. Daylight Saving Time: GMT minus 4 hours, applied from first Sunday of April until last Sunday of October each year.

SHORE LEAVE: Crew members allowed ashore. No restrictions.

HOLIDAYS: New Year's Day; Epiphany; Good Friday; Ascension Day; St. John the Baptist Day; Labour Day; All Saints' Day; Christmas Day. No work performed on these holidays.

AUTHORITY: Transport Canada, Baie Comeau, Province Quebec. *Tel:* 418-296-6694. *Contact:* Yvon LeBranc, Harbour Master (Tel: (418) 296-4296).

BAY ROBERTS, Newfoundland: 47.36 N. 53.26 W.

(See Plan)

DOCUMENTS: Documents as per Standard Canadian Requirements.

PILOTAGE: Non-compulsory. Can be arranged by Coast Guard Traffic Management Centre, St. John's. Tel: (709) 772-2083.

ANCHORAGES: Good anchorage in outer area of Bay Roberts Harbour in depths of 5 to 6 fathoms.

RADIO: Ship to Shore through St. John's (VON).

BERTHING: Deep water approach, channel depth approximately 60 ft. Navigable year round.

Wharves: (1) Fisheries and Ocean's Wharf – Finger pier 181 ft. long (55 m.) and 40 ft. (12 m.) across the outer face. Depths alongside 20 ft. – 21 ft. LWOST. Concrete deck. Load limits 300 p.s.f., 15 tons concentrated load.

(2) Fish Plant Wharves – Two finger piers; East Wharf 160 ft. long and 26 ft. across the outer face (49 m.×8 m.), and West Wharf 197 ft. long and 26 ft. across the outer face (60 m.×8 m.). Depths alongside East Wharf 11 ft. to 13 ft. (3.4 m. to 4 m.) and West Wharf 13 ft. (4 m.) LWOST. Load limits unknown.

(3) Spencers Wholesale Wharf – Marginal wharf 263 ft. along the outer face (80 m.) with depths alongside 11 ft. to 14 ft. (3.4 m. to 4.3 m.) LWOST. Load limits unknown.

(4) Avalon Coal Salt and Oil Wharf – Marginal wharf 149 ft. long at the outer face (45 m.) with depths alongside 15 ft. to 19 ft. (4.6 m. to 5.8 m.) LWOST. Load limits unknown.

There are several smaller wharves and piers present.

CRANES: Small mobile cranes only.

STEVEDORES: Local labour; should be arranged by Agent.

MEDICAL: Local clinic. Full hospital facilities at Carbonear, 15 km. distant.

TANKERS: See "Berthing".

FRESH WATER: Available at Fish Plant Wharf.

FUEL: Available at Fish Plant Wharf.

REPAIRS: Limited welding can be arranged locally, nearest major repair shops at St. John's, 90 km. distant.

SURVEYORS: Lloyd's Register, P.O.Box 5044, St. John's, Newfoundland A1C 5V3. Tel: (709) 726-0543, (709) 368-2538 (residence).

GANGWAY/DECK WATCHMEN: Usually ship's crew. Ship's gangway used.

REPATRIATION: Can be arranged by Agent via St. John's airport.

AIRPORT: At St. John's, 90 km. distant.

POLICE/AMBULANCE/FIRE: R.C.M.P. Detachment at Harbour Grace, local fire station, ambulance service available.

EMERGENCY CO-ORDINATION CENTRE: Coast Guard, Search & Rescue, St. John's, Newfoundland. Tel: (709) 772-5151.

GENERAL: Bay Roberts is covered by Chart No. 4572.

SHORE LEAVE: No restrictions.

BANKING: Services available.

AUTHORITY: Transport Canada, Harbours and Ports Directorate, P.O.Box 1300, St. John's, Newfoundland, A1C 6H8. *Tel:* 772-5154. *Telex:* 016-3369. *FAX:* 772-2193. *Contact:* D. A. Lester, Regional Manager.

BECANCOUR, Quebec: 46.24 N. 72.23 W. (See Plan)

PORT LIMITS: Normally vessel has "arrived" when first line on the bollard (subject to Charter-party terms).

DOCUMENTS: Crew Lists, Customs, Health, Manifests, Bills of Lading, Ship's Papers, Certificates, etc.

Customs, Health, Agents, Port Manager will board ship on arrival.

PILOTAGE: First Pilot boards at Les Escoumins Pilot Station. Exchanging Pilots off Quebec Pilot Station, on to berth in Becancour.

ANCHORAGES: Off berth or off main channel or, 5 miles (8 km.) West of harbour or 8 miles (14 km.) to the East off Batiscan; Que.

RESTRICTIONS: None.

Winter Navigation: From December 10th to April following, every year or as soon as the floating aids to navigation have been lifted a second Pilot is compulsory from Les Escoumins to Montreal.

Daylight navigation only between Quebec and Montreal.

Normal navigation resumes as soon as the aids are floated, normally between 15th March and 15th April.

MAX. SIZE: No restriction as to length, although 800 ft. (244 m.) is considered a respectable length. Chart datum depth 35 ft. (10.7 m.), average water level change 3 ft. (1 m.).

HEALTH: Pratique may be requested through any Canadian Coast Guard Radio Station or VHF traffic control stations.

TUGS: Not compulsory. Stationed in Trois-Rivieres and Quebec. Master's request.

BERTHING:

Berth No.	*Length* (m.)	*Depth (C.D.)* (m.)	*Remarks*
B–1	244	10.67	Outside by main channel.
B–2	150	10.67	Inside basin/Ro-Ro ramp (22 m.).
B–3	219	10.67	Inside basin
B–4	225	10.67	Inside basin
B–5	292	10.67	Smelter plant berth 1 suction system – 700 tonnes per hour.

Average water level 3 ft. (1 m.) above chart datum height. No reversing tide effects. Warehousing facilities, as required paved, lighted, open spaces 35 acres (14 hectares). Total stocking area 150 acres (61 hectares).

CRANES: Up to 200 tons capacity, rental or ship's gear.

STEVEDORES: Murray Bay Marine Terminal Inc. (exclusive to Becancour). Normal working hours 0800 – 1700 hrs. Overtime for night work, weekends and holidays can be arranged. Tel. 1-819-294-9911.

BULK HANDLING FACILITIES: Bulk is normally carried by self unloading vessels discharging at a rate of 2,000 t.p.h.

2 cranes on rails (suction type). 500 tons rate per crane.

Total stockpiling area: 150 acres (61 hectares).

SPECIALISED CARGO HANDLING FACILITIES: Ro/Ro ramp 70 ft. (21 m.) wide. Suction system – alumina/coke smelter plant.

MEDICAL: Nicolet, Trois-Rivieres, emergency ambulance standing-by.

DENSITY: Fresh water.

FUEL: Only by truck. Trois-Rivieres depot (35 tons truck). Rate: 20 to 30 t.p.h.

TANKERS: Special tankers are loading chemical products from trucks regularly.

FRESH WATER: From dock pipe-lines and hoses. Agent places order to Port Authority ($1.05 per metric ton).

CONSULS: At Montreal and Quebec.

REPAIRS: Piping and welding repairs, other limited ships repairs.

DRY DOCKS: Quebec, Sorel, Montreal.

SURVEYORS: ABS, Lloyd's, N.V., S.G.S. and private firms.

GANGWAY/DECK WATCHMEN: Recommended.

HATCHES: Opening and closing carried out by crew members.

CARGO GEAR: Ship's gear or shore gear. Heavy lift crane 200 tons (mobile).

REPATRIATION: Can be arranged without restrictions through Montreal International Airport by ship's Agent and Canadian Authorities.

AIRPORT: Inter-provincial airport in Trois-Rivieres. International airports in Montreal and Quebec (1.5 hours). Regular arrival to and from many parts of the world.

TIME: From first Sunday in April (every year) advance 1 hour to E.D.S.T. From last Sunday of October (every year) minus 1 hour from E.S.T.

HOLIDAYS: Same as Quebec Province.

POLICE/FIRE/AMBULANCE: Gentilly, (area code: 819) 298-2211. Becancour (area code: 819) 298-2223

SERVICES: Commercial firms tank cleaning equipment facilities. Electronic aids to navigation repairs.

SHORE LEAVE: Allowed with permission of Master.

IDENTIFICATION CARD: Seaman's Book is sufficient.

REGULATIONS: Copy of the operational regulations will be handed to Master on ship's arrival by Port Authority.

DELAYS: Delays not experienced to date.

GENERAL: The port facilities are administered and operated by "La Societe du Parc Industriel du Centre du Quebec" a provincial Government Corporation under the Minister of Industry, Commerce Quebec.

DEVELOPMENTS: The marine facilities of Becancour are part of an industrial park located within the Municipality of Becancour, Quebec.

The port facilities are already expanding to meet the requirements of major industrial developments.

SHIPMASTER'S REPORT: June 1982. (Updated 1986).

Restrictions: Port open all year round. Mooring/unmooring possible anytime day or night.

Tides: Tidal difference 2 ft. – 3 ft. Current always running downstream.

Radar: Not available.

Tugs: Tugs are not compulsory. No tugs are stationed at Becancour, but can be obtained from Trois Rivieres, about 5 miles away or Quebec through "Marine Traffic Control".

Vessel was berthed at No. B-1 berth, and did not use any tugs berthing or unberthing.

The Pilots told me that tugs were advisable in some cases for berthing at B-2 and B-3 berths, depending of size of vessel, and prevailing weather conditions.

Berthing: Warehousing facilities include a 14,000 sq.ft. (1,300 sq.m.) transit shed on the wharves and a 40,000 sq.ft. bonded warehouse plus a 15 acre fenced-in outdoor storage area a short distance from wharves.

Cranes: Available. Ship's gear used.

Bulk Handling Facilities: Vessel berthed at "B-1". Average loading rate for bundled timber was 43 tonnes per gang hour. Stockpile area of 75,000 sq.ft.

Specialised Cargo Handling Facilities: Ro-Ro ramp at "B-2". Width of ramp 22 m.

Stevedores: Murray Bay Marine Terminal. Tel. 1-819-294-2212. Normal working hours: 0800 – 1200 and 1300 – 1700 hrs. Overtime can be arranged for night work and for work on Saturdays, Sundays and other holidays.

Density: Fresh water.

Fuel: Only by truck. (Vessel received 340 tonnes intermediate fuel oil and 30 tonnes diesel oil from Shell, Canada, Trois Rivieres depot. Each truck about 35 tonnes. Loading rate 20 – 30 minutes per truck.

Repairs: No facilities.

Surveyors: Available in Becancour, Montreal and Quebec.

Gangway/Deck Watchmen: By crew.

Hatches: Open/close by crew.

Customs Allowances: Same as for Trois Rivieres. (Becancour Port is attended to by Trois Rivieres Custom's officers.).

Repatriation: Can be arranged without restrictions from Montreal Airport (about 2.5 hours drive by car). The Agents are usually engaging a specially licensed company, who takes care of the transportation to the airport, and checking that crew members are actually leaving Canada.

Shore Leave: No restrictions.

Identificaton Cards: Passport or seaman's book recommended to be carried whenever leaving the vessel. There is no gate-control of persons entering of leaving the port area.

Developments: Future development of harbour will include additional stockpiling area for bulk material, containers and more warehousing capacity. The planned installations will cover a 200 acre area.

AUTHORITY: "La Societe du Parc Industriel du Centre du Quebec", 1000, Boul. Arthur-Sicard, Parc Industriel Portuaire, Becancour, Quebec, Canada G0X 1B0. *Tel:* (819) 294-6656. *Telex:* 05-837279 (spicq bccr). *FAX:* (819) 294–9028. *Contact:* Captain Jean-Guy Chouinard, Port Director.

BELLEDUNE, N.B.: 47.55 N. 65.51 E.

A deep water harbour administered from Ottawa, Ontario and serving Belledune Fertilizers and other projects in the Bathurst area. This harbour is open to shipping all the year round.

DOCUMENTS: See "Saint John".

PILOTAGE: Pilotage is not compulsory, however, should a Pilot be required, the services of a local Berthing Master Mariner are available on request.

Regardless of pilotage, estimated times of arrival should be given to Belledune Fertilizers Ltd. 72, 48 and 24 hrs. before.

ANCHORAGE: Vessels wishing to anchor will find no difficulty in obtaining an anchorage in more than 10 fathoms, approximately 1 mile to the Northward of the Belledune Breakwater.

TUGS: None available. May be obtained from Halifax.

BERTHING: One berth, length 550 ft., depth at LW, 34 ft.

TIDES: Tides normally rise 6 ft. at springs and 3 ft. at neaps. Tidal current seldom exceeds 1 knot.

STEVEDORES: Bulk cargoes handled by Belledune Fertilizer Ltd., and general cargo by Longshoremen.

CRANES: Heavy-lift equipment available from private companies. Cranes up to 25 tons available.

MEDICAL: Hospital at Bathurst.

FRESH WATER: Available. Delivered by tank trucks upon arrangement with Belledune Fertilizer Ltd.

FUEL: None locally. Can be obtained and delivered by tank trucks.

CONSULS: None.

REPAIRS: Minor repair facilities at Belledune Fertilizer Ltd. machine shop.

STORES: All types of provisions as well as deck and engine stores can be obtained at Bathurst for delivery to Belledune.

AUTHORITY: Canada Ports Corporation, 99 Metcalfe Street, 9th Floor, Ottawa, Ontario K1A 0N6. *Tel:* 957-6709 (Area Code 613). *Telex:* 053-4127. *Contact:* Vice-President, Divisional Ports.

Local Representative: Belledune Fertilizer Ltd. Local Operations Director: R. Boudreau.

BOTWOOD, Newfoundland: 49.09 N. 55.20 W.

(See Plan)

DOCUMENTS:

2 Crew Lists.
2 Passenger Lists.
3 Crews Declaration (Can. Form Y14).
3 Stores Lists (Can. Form E.1).
Health Declaration (Can. Form QS. 2001).
3 Cargo Manifests.
3 Bills of Lading.

PILOTAGE: Compulsory. Pilot boards in position Lat. 49° 19′ 44″ N., Long. 55° 12′ 49″ W. day or night. Send ETA 12 hours and 4 hours in advance. Pilot station and boat equipped with VHF. Coastal pilotage service from St. John's to Botwood available on request.

ANCHORAGE: In Botwood Harbour, off the oil dock in depths of 10 – 20 fathoms.

RESTRICTIONS: Navigation season from mid-April to mid-January approximately. Ice-breaker assistance may be necessary in Winter months. Deep water approaches.

MAX. SIZE: Up to 32 ft. draft.

RADIO: Comfort Cove, St. John's, St. Lawrence or Corner Brook.

HEALTH: Health Officer boards on arrival.

TUGS: None available.

BERTHING: *Pier No. 1:* Owned by Price (Nfld.) Pulp & Paper Ltd., used exclusively for handling newsprint outward and caustic soda inward. Is 500 ft. long; min. depth alongside 32 ft., is adjacent to newsprint storage shed, capacity 20,000 tons (standard newsprint).

Pier No. 2: Berth unfit for use.

Pier No. 3: 600 ft., owned by Private Interests, used for shipping concentrates, and discharging Bunker "C" fuel and sulphur inward. Min. depth alongside 32 ft. Concentrates loaded by 1 fixed conveyor.

Ministry of Transport Finger Pier: Length 150 ft., min. depth alongside 35 ft. Face is 23 ft. – 25 ft. Is connected by pipe-line to bulk fuel storage tanks, owned by Golden Eagle Refining Co. Ltd., and is used primarily for discharging of clean fuels.

Ministry of Transport General Cargo Wharf and Shed: Wharf 269 ft. long, 103 ft. in breadth, cargo shed 200×70 ft., 20 ft. clear height below steel girders. Apron of wharf is 33 ft. wide with access driveway extending around each end of shed to main roadway. Rear cargo doors from shed open at truck level to facilitate mechanical handling. Front and end doors are wharf level.

MEDICAL: Doctors, hospital facilities available.

TANKERS: Finger Pier length 200 ft. with berthing face length 30 ft. Depth alongside 32 ft. Berth owned by Irving Oil Ltd. and used exclusively for discharging oil products.

FRESH WATER: Available at all berths.

FUEL: Only light diesel available by tank truck.

REPAIRS: Minor repair and diving services only.

SURVEYORS: All major classification societies available from St. John's.

CUSTOMS ALLOWANCES: 200 cigarettes for each man. Officers may be allowed 1 bottle wine/spirits, Master up to 5 bottles.

TIME: GMT minus 3.5 hours. Daylight Saving Time: GMT minus 2.5 hours, applied from first Sunday of April until last Sunday of October each year.

SHORE LEAVE: Allowed. No restrictions.

HOLIDAYS: Good Friday; Labour Day; Christmas Day and Boxing Day. No work performed on these holidays.

AIRPORT: Gander International Airport, 60 miles away.

BANKS: Bank of Montreal, 52 Water Street, Botwood, Newfoundland A0H 1E0. Tel: 709-257 2957

EMERGENCY CO-ORDINATING CENTRE: Canadian Coast Guard, St. John's. Telex: 016-4530. Tel: 709-737-2083/4.

AUTHORITY: Ministry of Transport.

Harbour Master: Gordon Roberts, P.O.Box 747, Botwood, Newfoundland, A0H 1E0. *Tel:* 709-257-2182.

BRIDGEWATER, N.S.: 44.23 N. 64.31 W.

(See Plan)

DOCUMENTS: See "Halifax".

PILOTAGE: Not compulsory. Report ETA by radio-telephone or radio-telegraph to Superintendent of Pilots, Halifax, N.S. at least 12 hours before arrival at boarding station. ETA to be confirmed 3 hours before arrival. Pilot boards off Moshers Island Light.

ANCHORAGE: At Dayspring, 2 miles below Bridgewater.

RESTRICTIONS: Port is situated on La Have River, 10 miles from the sea. Channel path at LW, 20 ft.

MAX. SIZE: Length 325 ft. Draft 20 ft.

RADIO: Halifax Radio.

HEALTH: Pratique granted by Customs Officer who boards on arrival at the berth. Also see "Montreal".

BERTHING: Transport Canada Wharf, berthing length, 1,073 ft. Depth alongside 21 ft.

FRESH WATER: Available ex wharf only on West side of river.

FUEL: Diesel and gasoline from storage tanks in port.

MEDICAL: Hospital services available.

REPAIRS: Limited facilities for engine repairs.

STEVEDORES: Available.

HOLIDAYS: Dominion Legal holidays.

AIRPORT: Nearest approximately 90 miles away.

POLICE/AMBULANCE/FIRE: Police Tel: 543-2464. Dawson Memorial Hospital Tel: 543-4603.

BANKS: Bank of Montreal, Tel: 543-2415.
Royal Bank of Canada, Tel: 543-7161.
Bank of Nova Scotia, Tel: 543-8155.
Canadian Imperial Bank of Commerce, Tel: 543-2451.

AUTHORITY: Transport Canada, P.O.Box 1013, Dartmouth, N.S., B2Y 4K2. *Tel:* 426-6508. *Telex:* 019-22757. *Contact:* William Beck.

Local Authority: Transport Canada, Bridgewater, Nova Scotia. Tel: 543-8815. Contact: Glayden L. Conrad, Harbour Master.

CANAPORT, N.B.: 45.12 N . 65.59 W.

PILOTAGE: Compulsory. Government Pilot supplied by the Atlantic Pilotage Authority through "Fundy Traffic" and requires 4 hours notice.

ANCHORAGE: Anchorage Area "C", mud bottom with good holding under fair weather conditions but it should not be considered satisfactory in strong southerly gales. Vessels may anchor South of Lat. 45° 12′ N. without a Pilot.

RESTRICTIONS: Presently daylight berthing only with no restrictions on unmooring. Delays may be experienced due to strong Southerly winds, and in periods of reduced visibility due to fog in the Summer and sea smoke in the Winter.

MAX. SIZE: 350,000 tons S.d.w.t. 400,000 tons may be accepted under favourable weather conditions. No restrictions on length.

RADIO: The terminal will usually request the following information from the vessel prior to arrival:

a) Distance from bow to centre cargo manifold.
b) Hose boom SWL.
c) Distance from cargo manifold to ship's rail.
d) Height of manifold above deck.
e) Size of bow chock opening. Height and width.
f) Distance of bow chock opening to nearest bollard.
g) Distance of bow chock opening to mooring bracket (if fitted).
h) Number and size of cargo manifold connections.
i) Confirm that vessel is capable of maintaining 40% of d.w.t. capacity during discharge with segregated clean and cargo tank ballast with 2 valve separation.
j) Slops, quantity, type and location.
k) Can vessel accommodate 2 Berthing Masters and 6 Canaport crew, who will remain on board?

ETAs to be sent through Agent, 96, 72, 48 and 24 hours prior to arrival. Vessel to contact Canadian Coast Guard via Agents for permission to C.O.W. whilst discharging at Canaport. Canaport operations on VHF Channel 11 for mooring and UHF frequency for cargo operations.

TUGS: One tug used to assist in mooring and unmooring, and one tug towing astern throughout discharge to keep the vessel clear of the SBM. Tugs' lines used throughout.

BERTH: SBM: Situated 4,100 ft. offshore from Mispec Point. Depth at LW 120 ft. and HW 150 ft.

FUEL: Bunker, IFO and MDO available by barge.

FRESH WATER: Available by tug.

BALLAST: It is a terminal requirement that tankers maintain at any stage of the discharge sufficient cargo or ballast, or a combination of both, equal to *40% of S.d.w.t.* Vessels of less than 150,000 tons S.d.w.t. may at the discretion of the Senior Berthing Master, be allowed to reduce this percentage to 30% after taking into account the expected weather condition. In addition, the vessel is to remain at a suitable trim compatible for safe manoeuvring and *not to exceed 18 ft.* by the stern.

The commercial agreements require vessels to lift dirty ballast and discharge concurrently, failure to do so will not count for laytime and will be for the owner's account.

GENERAL: *Arrival:* Hoses may be connected on either port or starboard sides with the weather conditions being the deciding factor as to which side is used. The Berthing Master will advise the vessel which side the hoses are to be connected prior to boarding. Both hose booms should be rigged to lift the mooring equipment from the tug and to lift 2×16 in. hose tails weighing 8 tons each. Pilot ladder should be rigged one side of vessel with accommodation ladder on the other side.

Mooring: Vessel secured to SBM with 2 nylon mooring hawsers and should have 2×3 in. messengers available to pass to the mooring launch. A hammer and crowbar should be available on foc'sle for use in connecting the chafing chains. The first line handled will be dependant on which side of the vessel the hoses are connected.

Cargo Handling: 2 Berthing Masters and a Canaport crew of 6 persons remain on board throughout the discharge to assist in mooring, assist in hose connection and maintain foc'sle head lookout and co-ordinate the discharge. Vessel takes ballast part way through the discharge to maintain 40% of deadweight capacity whilst at the SBM. Vessel's engines must be ready for instant manoeuvring at all times.

Cold Weather Precautions: During January and February air temperature is −7.5°C but temperatures below −20°C may be experienced. Masters are advised in order to protect their interest and to expedite the discharge the following precautions should be taken prior to arrival to prevent freezing:

a) Any C.O.W. lines that contain, or suspected to contain water should be purged with dry crude oil.
b) Quality of anti-freeze or glycol in the deck I.G. pressure vacuum breakers should be checked.
c) Heat on-deck water seal.
d) Deck general service, fire and foam lines should be drained of water.
e) Steam powered deck machinery should be run continuously.
f) Deck hydraulics and machinery not fitted with 'Arctic' type hydraulic oil should be circulated continuously prior to arrival in order to be kept fluid.
g) Whesso type ullage gauges and C.O.W. machines should be drained of any accumulated water.
h) Any exterior fresh water pipes should be drained or lagged.

The above list of precautions should not be considered exhaustive and will vary from ship to ship.

SHORE LEAVE: By launch.

SHIPMASTER'S REPORT: February 1987.

SBM Location: 45° 10.6′ N., 65° 59.7′ W.

Pilotage: Pilot boarding area: 45° 10.6′ N., 66° 03.7′ W.

Pilotage undertaken by Saint John Harbour Authority with the assistance of an Irving Oil Mooring Master, who takes up station on the forecastle. Communication is by Walkie-Talkie.

Documents:
I.O.P.P. (Also for Coast Guard Safety Inspection on arrival).
Safety Construction Certificate.
Safety Equipment Certificate.
Load Line Certificate.
Ship's Register.
3 copies Canadian Crew List (including place of birth).
3 Vaccination Lists.
1 International Maritime Declaration of Health.
3 copies Stores List.
3 copies Personal Effects List.

Prior to Arrival: Pilot ladder rigged on port side and accommodation ladder/pilot ladder combination available on starboard side. Derrick rigged on port side to receive mooring gear and 2 × 16 in. hoses. One 3 in. (25 mm. diameter) manila messenger on forecastle to pick up mooring pennant, one messenger starboard side for tug's line and one messenger on poop for tug's line.

Accommodation for 6 seamen, Mooring Master and Assistant Mooring Master to be prepared. Cold weather precautions (seasonal) to be taken, see Admiralty Pilot Volume 59. Ice reports received via Halifax Radio and Coast Guard VHF broadcast. Irving Oil and Coast Guard to be advised of discharge plan.

The vessel is to maintain 40% of Summer d.w.t. at all times whilst deballasting/loading, and have two valve separation.

Restrictions: Berthing daylight only.

Health: Radio Pratique available through "Quarantine St. John". Vessel to send standard message.

Radio: Halifax Radio, Yarmouth Radio and Canadian Coast Guard Control - Bay of Fundy.

Tugs: One tug with 35 tonne bollard pull in attendance assists Pilot in manoeuvring to buoy. Mooring launch/anti-pollution patrol in attendance.

Mooring: 6 Irving Oil seamen assist ship's crew with mooring.

Standard SBM bridle mooring to AKD bracket preferred. Alternatively shore supply wire snotters and shackles to forecastle bitts. Upon completion of mooring tug will proceed to aft end and place on board a towing wire which is connected to a quick-release hook (supplied by Irving Oil), secured to the vessel's poop bitts.

Hoses: 2 × 16 in. standard ASA fitment (150 p.s.i. maximum working pressure) connected by ship's staff assisted by 6 Irving Oil seamen and Mooring Master. Oil is evacuated by sea water on completion of discharge by ship.

Cargo Survey: Cargo ullages and water dips carried out by Irving Oil Surveyor and monitored by ship's staff.

Tank Dry Certificate will be signed by Irving Oil Surveyor, if acceptable, prior to ballasting concurrent with discharge and on completion of discharge.

Fresh Provisions: Plentiful and good quality but meats and fruits, etc., very costly in Winter months, bonded stores available. All stores are supplied by launch/barge depending on quantity at rate per hour basis, this also is expensive. Shore launch available.

Discharge Rate: Maximum pressure of 150 p.s.i. at the rail is permitted and by using 3 pumps and maintaining 140 p.s.i., a rate of 50,000/53,000 gross bbls. per hour was obtained. Final stripping ashore was part restricted by relatively high back pressure.

General: Throughout discharge the bridge is manned by either the Mooring Master or his assistant, who remains in contact with shore, where strain gauges are available for tension on mooring ropes. Seamen are positioned, throughout the discharge, in two watches of three seamen, one on the forecastle, one at the top of the pump room and one in the manifold area. Ship's crew are required to be in attendance at all times and main engine on maximum 5 minutes notice. Ambient temperatures of minus 35°C were experienced during the hours of darkness with chill factor.

Canadian Coast Guard will attend onboard for general safety inspection and sighting of I.O.P.P. Certificate and Non-Canadian Ship Compliance Certificate. Sailing and/or entrance to routing may be delayed due to malfunction of Navigational equipment and/or manoeuvring ability. Master's Declaration to be radioed at least 24 hours prior to arrival to Canadian Coast Guard, relating to the foregoing.

AUTHORITY: Canaport Ltd., P.O.Box 2055, Saint John, N.B., Canada. *Tel:* 506-633-3000. *Telex:* 014-47344. *Contact:* G.D. Cunningham, Terminal Manager; A. Cumpstey, Marine Superintendent.

CHANDLER, Quebec: 48.22 N. 64.40 W. (See Plan)

LOCATION: Town on the Quebec shore entrance to Chaleur Bay, 10 miles N.E. of Point au Maquereau, 16 miles W. of Cape d'Espoir.
PILOTAGE: Controlled by Atlantic Pilotage Authority, Halifax, N.S. Tel: (902) 426-2550.
RESTRICTIONS: *Navigation Season:* All year round, ice breakers sometimes accompany vessels.
HEALTH: Pratique is secured by radio through Quebec City.
RADIO: Grindstone (VCN) and Fox River.
TUGS: None available or required.
BERTHING: *Transport Canada Wharf:* East Side reserved for fishing vessels.

West Side: Length 500 ft. Depth at LW 32 ft.
STEVEDORES: Skilled labour available.
FRESH WATER: Available.
FUEL: Diesel oil available. Bunker 'C' can be brought in by rail.
REPAIRS: Machine shop available for minor repairs.
SURVEYORS: Lloyd's at Quebec City. ABS at Montreal.
SERVICES: Post office, bank, telephone, notary, telegraph, hospital.
AUTHORITY: Transport Canada. *Contact:* Milton Molloy, Harbour Master – Wharfinger, C.P. 273, Chandler, Province Quebec, G0C 1K0, Canada. Tel. (418) 689-3147.

CHARLOTTETOWN, P.E.I.: 46.14 N. 63.07 W. (See Plan)

PORT LIMITS: A ship is considered to be "arrived" when it reaches Pilot Boarding Station at Lat. 46° 00' N., Long. 63° 08' W.
DOCUMENTS:
Port clearance from previous port.
3 Form QS.2001 Quarantine, if from other than U.S. port or St. Pierre et Miquelon.
3 Form HA.282 Garbage Disposal Warning.
2 Form IMM.200 Crew List, only Canadian documentation acceptable.
3 Form E1 List of Ship's Stores. May use own documentation.
3 Form 71 Crew's Declarations. May use own documentation.
2 Form A6 Report Inwards.
PILOTAGE: Pilotage is compulsory. One Pilot active with privately owned 40 ft. wooden boat, white hull, blue vertical strip midships. The pilot boarding station is in position Lat. 46° 00' N., Long. 63° 08' W. No alternate area in event of bad weather. To avoid a delay in obtaining a Pilot, he may be contacted on VHF Channel 16. Master should report ETA at least 12 hours before the ETA at the pilot boarding station. The ETA must be confirmed or corrected not more than 6 hours later. The Master of a vessel that is to depart or make a move within the compulsory pilotage area must report to "Pilots Charlottetown" 6 hours prior to estimated time of departure.
ANCHORAGES: Anchorage inside harbour at Three Tides – Lat. 46° 13' N. Long. 63° 08' W. Average depth of water 30 ft.
MAX. SIZE: Draft 30 ft.
HEALTH: Pratique procedure carried out by Customs Officers. (Form QS1).
RADIO: VCA Charlottetown, Canadian Coast Guard.
VHF: Canadian Coast Guard (VCA), Channels 16 and 26.
RADAR: Service not available.
TUGS: Not available.
BERTHING: (1) Charlottetown Marine Terminal: West side, berthing length 500 ft. with depth ranging from 30 ft. at outer end to 10 ft. at inner end at low water; East side, berthing length 600 ft. with depth of water ranging from 32 ft. at outer end to 10 ft. at inner end at low water. Outer end has a berthing length of 230 ft. with a depth of water of 30 ft. at low water. Wharf used for loading and discharging general cargo; equipped with one unheated shed – 385 ft. long×50 ft. wide, one heated freight shed 385 ft.×60 ft. Electric light, water, oil and gasoline available. Mobile cranes available.

(2) Ministry of Transport Wharf, 300 ft. wide, with a depth of 33 ft. alongside. Office and stores building, buoy test shop, etc. West side berth, 450 ft. long, with depth of 26 ft. for Coast Guard use only.

(3) Texaco Canada Ltd. Wharf, 365 ft. long, with four large oil storage tanks. Mooring dolphins have been erected adjacent to the wharf and there is reported to be at least 28 ft. alongside at low water.

(4) Irving Oil Ltd. Wharf, on edge of channel, about 600 ft. from Old Bridge Site. Use by Irving tankers only.
CRANES: Shore cranes available.
BULK CARGO FACILITIES: See "Berthing" – "Charlottetown Marine Terminal".
SPECIALISED CARGO FACILITIES: Berths not equipped for handling containers or roll-on/roll-off traffic.
BRIDGES: None.
STEVEDORES: Advise ETA before 1600 hrs. in order to commence 0800 hrs. next day.
MEDICAL: No advance notice required, ample hospital facilities available.
TANKERS: Charlottetown Marine Terminal: Outer end has a berthing length of 230 ft. with depth of water 30 ft., discharge lines 8 in., 10 in. and 12 in., no slop facilities.

Texaco Canada: Wharf 365 ft. long with four large oil storage tanks. Mooring dolphins have been erected adjacent to wharf. Depth 28 ft., discharge lines 8 in. no slop facilities.

Irving Oil Wharf: On edge of channel about 600 ft. from bridge. Discharge lines 8 in. and 10 in. Depth 30 ft., no slop facilities.
DENSITY: 1025 oz. per cu.ft.
FRESH WATER: Available at Charlottetown Marine Terminal. Order through Agent. Rate 12 t.p.h.
FUEL: Delivered by tank truck. Most grades of fuel and diesel as well as marine lubricants can be obtained through supplier.
GANGWAY/DECK WATCHMEN: Usually ship's crew.
OPENING/CLOSING HATCHES: Stevedores work hatches which are not mechanically operated.
CUSTOMS ALLOWANCES: 200 cigarettes or 2.0 lb. tobacco or cigars per man per week. Wine and/or Spirit: 40 oz. of wine or spirits or 288 oz. of beer.
REPAIRS: Minor repairs only.
DRY DOCKS: Not available.
CARGO GEAR: Vessel required to use own gear for loading and unloading.
REPATRIATION: Crew changes and repatriation can be carried out with little difficulty.
AIRPORT: 4 miles distant, with daily flights by Eastern Provincial Airways and Air Canada.
TIME: GMT minus 4 hours, April to October; GMT minus 5 hours, November to April.
POLICE/AMBULANCE/FIRE: Police, 894–5513; Ambulance, 892-5311. Fire, 894–3113.
TELEPHONES: No hookup available.
BANKS:
(1) Royal Bank of Canada, Confederation Plaza, Charlottetown, PEI.
(2) Bank of Montreal, Confederation Plaza, Charlottetown, PEI.
(3) Bank of Nova Scotia, Confederation Plaza, Charlottetown, PEI.
(4) Toronto Dominion, 192 Queen Street, Charlottetown, PEI.
(5) Canadian Imperial Bank of Commerce, Queen Street, Charlottetown, PEI.

HOLIDAYS: New Year's Day; Good Friday; Easter Monday; Victoria Day; Canada Day; Labour Day; Thanksgiving Day; Remembrance Day; Christmas Day; Boxing Day. Work can be arranged on these days.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required unless disembarking. Crew members should then possess Seaman's Book and/or Passports.
DELAYS: If berth available, no delays in loading or unloading.
Ice: The Harbour usually freezes over in late December and is clear of ice by late April.

There are a number of days during the Winter when product cannot be loaded because of weather conditions.
AUTHORITY: Transport Canada, Box 1202, Charlottetown, P.E.I., C1A 7M8. *Tel:* (902) 566-7974. *Telex:* 014-44130. *Contact:* Paul McGonnell, Port Manager.

CHATHAM and NEWCASTLE, N.B.: 47.02 N. 65.28 W. 47.00 N. 65.33 W.

DOCUMENTS:
- Previous port clearance.
- 3 Immigration Crew Lists.
- 3 Ship Stores Lists.
- 3 Crew Declaration.
- Derat Certificate.
- Health of Animals.
- Load Line Certificate.
- Safety Equipment.
- Safety Radio.
- Safety Construction.
- Ship's Register.
- 3 General Declaration Inwards (A6).
- Cargo Manifests.

PILOTAGE: Contact Agent for Pilot at least 12 hours in advance. Pilot boat, wooden hull, length 44 ft., grey, Pilot flag about 20 ft. above sea-level. From April 16th to December 9th Pilot taken aboard 2 miles North of Escuminac Breakwater. In event of very bad weather good anchorage Egmont Bay, PEI. Dec. 10th–April 15th Pilot boards at Eddy Point N.S. when inbound from East. In other cases Pilot boards at point of departure in Canada.

From December 10th – April 15th a helicopter is available at Escuminac for Pilot boarding.
MAX. SIZE: Max. draft 7.62 m.
HEALTH: Pratique procedure carried out by Customs Officer.
RADIO: Use Grindstone (VCN) or Charlottetown Radio (VCA), or Escuminac Pilot (VHF Channel 16).
TUGS: Not required.
BERTHING: Approx. 3 hours from pilot station to Berth. 11 wharves available.
BRIDGES: Bridge at Chatham 35 m. clearance high tide. Hydro wires at Middle Island 41 m. at 60 degrees Fahrenheit at lowest point, channel wide at this point, able to get 55 m. clearance. Morrisey Bridge, max. span opening is 30 m. Overhead cables at Morrisey Bridge.
STEVEDORES: Notice at least 24 hours before arrival.
MEDICAL: Hotel Dieu Hospital, Chatham and Miramichi Hospital, Newcastle.
TANKERS: Hose connections 15 cm.; no slop discharge facilities.
FRESH WATER: Available only at Government wharves at Chatham and Newcastle.
FUEL: All types by tanker truck.
GANGWAY/DECK WATCHMEN: Not necessary.
CUSTOMS ALLOWANCES: 200 cigarettes/man/5 days. Spirits: 40oz./man/5 days.
CREW IDENTIFICATION CARDS: Not needed.
CONSULS: None.
REPAIRS: Light repairs by Miramichi Foundry and Arvin Speciality Machines.
SURVEYORS: Lloyd's Surveyor at Dalhousie. N.B., others at Halifax.
REPATRIATION: Facilities good.
AIRPORT: Chatham. Daily flight to Montreal.
TIME: Atlantic Standard, 4 hours difference GMT. Change from Standard to Daylight Saving first Sunday in April through last Sunday in October. (1 hour forward).
HOLIDAYS: No work Labour Day, Armistice Day, New Brunswick Day. Other holidays may be worked on overtime.
POLICE/AMBULANCE/FIRE:

	Newcastle	*Chatham*
Police:	622–2111	778–8351
Ambulance:	Through Police	773–3492/733–4321
Fire:	622–2500	773–9494

SHORE LEAVE: No restrictions.
DELAYS: Not normally.
EMERGENCY CO-ORDINATION CENTRE: Coast Guard (Maritimes) Emergency Centre. Tel: 1–800–565–1633.
STORING:
1. (1) Vessels may be stored by truck.
2. (2) Trucks may proceed alongside at the berth.
3. (3) Fork-lift trucks may be used.
4. (4) Local riggers may be employed to assist with storing.

GENERAL: Charts required (Canadian) 4023 – Northumberland Straits, 4910 – Miramichi River, Sailing Directions – Gulf and St. Lawrence. Tides; Spring 1.75 m. Neaps; 1.22 m. Night navigation possible.
AUTHORITY: Port Manager, Department of Transport, Box 32, Newcastle, New Brunswick E1V 3M2. *Tel:* (506) 622-0918 or 773-7542.

CHEMAINUS: 48.55 N. 123.42 W.
CROFTON: 48.51 N. 123.38 W.

DOCUMENTS, PILOTAGE, HEALTH, CONSULS etc.: Refer to "Vancouver, B.C.".
ANCHORAGE: Available in Houston Passage.
RESTRICTIONS: Channel depth 48 ft. MLLW. Restricted by berth size only.
TUGS: Available. Tugs for Crofton are ordered from Chemainus.
BERTHING:
Chemainus:

Wharf	*Berthing Length* (ft.)	*Depth at LW* (ft.)	*Remarks*
MacMillan Bloedel	450	39 (North End) 19 (South End)	Crane available
MacMillan Bloedel	560	53 (North End) 30 (South End)	
Crofton:			
Stuart Channel No. 1	650 (Max. LOA)	35	Check draft with Pilot
No. 2	700 (Max. LOA)	40	
No. 3	700 (Max. LOA)	40	Check draft with Pilot. Vessels berth port side too. Ship's gear used for cargo handling.

No loading gear installed at Crofton berths.
STEVEDORES: 22 gangs available. Refer to "Vancouver, B.C.", for holidays, etc.
MEDICAL: Doctors and hospitals facilities available at Chemainus, 5 miles from Crofton.
DENSITY: Salt water.
FRESH WATER: Available at wharves.
FUEL: Diesel oil available from Imperial Oil Wharf at Chemainus.
CUSTOMS ALLOWANCES: See "Vancouver, B.C.".
REPAIRS: Repairs arranged from Victoria or Vancouver Shipyards. Minor repairs available locally.
AUTHORITY: Transport Canada, 10007 Daniel Street, Chemainus. *Tel:* 246-3569. *Contact:* R. B. Guilbride, Harbour Master.

Transport Canada, Chilco Street, Crofton. *Tel:* 246-9185. *Contact:* E. G. Long, Harbour Master.

CHICOUTIMI, Quebec: 48.25 N. 71.02 W. (See Plan)

DOCUMENTS:
- 2 Crew Lists.
- 2 Passenger Lists.
- 3 Crews Declaration (Can. Form Y14).
- 3 Stores Lists (Can. Form E.1).
- Health Declaration (Can. Form QS. 2001).
- 3 Cargo Manifests.
- 3 Bills of Lading.

PILOTAGE: Pilotage is compulsory. Pilots board vessels that are Westerly-bound at Anse-aux-Basques and Easterly-bound at Quebec City. The Master of every ship inward bound in the Gulf of St. Lawrence and destined for ports West of Anse-aux-Basques must report his ETA to Pilots Montreal via Marine Traffic Control on VHF radio Channel 14 (156.7 mHz) or by other means of communication to Seven Islands Radio Station VCK giving his ETA to Escoumains Pilotage Station and the net registered tonnage of his vessel.

A minimum notice of 12 hours must be given to ensure the availability of Pilots at Anse-aux-Basques for vessels proceeding from the Gulf to Chicoutimi.

This notice must be confirmed 3 hours prior to arrival at the pilot station by radio-telegraph or radio-telephone as mentioned above.

The pilot station for vessels upbound to Chicoutimi is located at Anse-aux-Basques, charted 2 miles S.W. of Les Escoumains Wharf on the North shore of the St. Lawrence River. Two pilot boats are constantly on service.
ANCHORAGE: At St. Fulgence, 6 miles before Chicoutimi.
RESTRICTIONS: Navigation season from mid-April to end November approximately.
MAX. SIZE: See "Berthing".
RADIO: Riviere du Loup Radio Station.
HEALTH: Pratique may be obtained by radio to Quarantine Quebec. Health Officer boards on arrival.
TUGS: None available.
BERTHING:
Grande-Anse Marine Terminal:
Location: Saguenay River at about 54 nautical miles from junction of the Saguenay with the St. Lawrence. Latitude: 48° 24.1′ N., Longitude: 70° 49.9′ W.
Wharf Length: 286 m.
Depth: 14.5 m at low tide.
Berthing Capacity: 150,000 metric-ton vessels.
Storage: Transit shed – length 127 m.
width 45 m.
area 5,715 sq.m.
Open storage – 5.5 hectares.
Navigation Period: Year-round. An ice-breaker is available.

Albert Maltais Marine Terminal:
Location: Saguenay River at about 60 nautical miles from junction of the Saguenay with the St. Lawrence. Latitude: 48° 27.0′ N., Longitude 70° 59.2′ W.
Oil Berthing Pier: Length: 40 m., with 2 Ducs D'Albe at 91 m.
Dock: Length: 305 m.
Width: 150 m.
Depth: 9.1 m. at low tide.
Vessels: 10,000 m.t.
Berthing Capacity: Maximum draft: 7.8 m.
Maximum length: 122 m. (foreign) 137 m. (domestic)

Pipelines:

Petro-Canada	41,000	cu.m.	storage	capacity
Texaco	25,000	"	"	"
Ultramar	85,700	"	"	"

TANKERS: Products handled: Gasoline and furnace oil.
DENSITY: Fresh water.
MEDICAL: Doctors, hospital facilities available.
FRESH WATER: Available at Grande-Anse Marine Terminal.
FUEL: Available at oil berth.
REPAIRS: Minor machine shop repairs only.
CUSTOMS ALLOWANCES: 200 cigarettes for each man. Officers may be allowed 1 bottle wine/spirits, Master up to 5 bottles.
TIME: GMT minus 5 hours. Daylight Saving Time: GMT minus 4 hours, applied from first Sunday of April until last Sunday of October each year.
SHORE LEAVE: Allowed. No restrictions.
HOLIDAYS: New Year's Day; Good Friday; Easter Monday; Victoria Day; St. John the Baptist Day; Dominion Day; Labour Day; Thanksgiving Day; Remembrance Day; Christmas Day. No work performed on these holidays.
AUTHORITY: Port of Chicoutimi, C.P. 760, Avenue Lafontaine, Chicoutimi, Quebec G7H 5E1. *Tel:* (418)-543-0263. *Telex:* 051-36218. *Contact:* Guy Deseagne, Port Manager. Guy Dufour, Pier Superintendent.

CHURCHILL, Man.: 58.47 N. 94.12 W. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists (if applicable).
3 Ships Stores Lists.
2 Quarantine Certificates.
1 Certificate for Harbour Master to be prepared after approval.
1 Certificate that Gyro Compass in order certified plus copy of manifest giving weight or measurement for each Bill of Lading. Certification by Local Collector of Customs.

Arctic Pollution Prevention Certificates: Ships have arrived in Churchill without such certificates and have thus contravened the Arctic Shipping Pollution Prevention Regulations. This certificate states that a vessel is in class, complies with SOLAS conventions, and has all of the equipment required by the regulations such as two radars, etc.

A certificate may be obtained from a surveyor employed by a major classification society named in the regulations. Ships unexpectedly diverted to Churchill should contact the Port Warden immediately on arrival at Churchill.

Ship Masters are cautioned to ensure that they comply with the Arctic Shipping Pollution Prevention Regulations.
PILOTAGE: Pilotage is not compulsory, but the pilotage fee is compulsory. Pilots board ships outside the harbour within a radius of 5 miles from Eskimo Point. The fee is $415 per ship inward and $415 per ship outward. Moving vessel within harbour is $290.

Vessels must advise their ETA at the port, and should also advise their time of arrival at Fairway Buoy.

Requests for Pilots should be submitted through the local marine radio. Pilots embark from vessels at the Fairway Buoy. The tug "Twolan" is used as pilot boat.
ANCHORAGES: Inside the harbour, there is anchorage room for one small vessel in 30 ft. of water about 0.75 miles N.W. of wharf. There is insufficient swinging room at this anchorage for large vessels. Large vessels anchor outside the harbour. The outside anchorage is exposed and vessels in a light condition may find it difficult to maintain their anchorage, particularly with a strong N.E. wind.
RESTRICTIONS: Vessels are usually brought in just before high tide, although vessels may enter any time.
MAX. SIZE: Max. length 600 ft. width 100 ft. and depth alongside wharf at zero tide is 31 ft. at three berths, 33 ft. at one berth, 22 ft. at Wolfe Berth and 20 ft. at the coastal Berth.
HEALTH: All vessels must fly yellow flag until cleared by authorities after docking.
RADIO: Department of Transport, Marine Aeradio Station call sign VAP, Channels to be used: 16 for calls and replies, 12 for harbour control, as well as Channel 26.
RADAR: Requirements as laid down by Arctic Pollution Prevention Regulations.
TUGS: Tugs usually join vessels inside the harbour. Two tugs available. Ship's lines used.
BERTHING: Max. allowable salt water draft at sulphur berth 32 ft., thereafter topping-up with the tide for a few more inches.

Loading capacity for bulk grain is 60,000 bushels/hour.
CRANES: 1×100 tons capacity and 1×35 tons capacity.
STEVEDORES: Gangs are available during whole of shipping season, no advance notice required.
MEDICAL: Fully staffed and equipped hospital available, approximately 1 mile from harbour.
TANKERS: Discharge pipes 4 in. diameter. One berth available with max. depth of 33 ft. at zero tide.
FRESH WATER: Fresh water available at all berths. Water pumped through 2.5 in. pipe connected directly to ship, discharged at rate of approximately 60 t.p.h.
FUEL: Bunker fuel requires 30 days advance notice. Arctic fuel available all times.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Carried out by ship's crew.
CUSTOMS ALLOWANCES: See "Montreal".
CONSULS: None.
REPAIRS: Most repair work. Fully equipped machine shop available.
DRY DOCKS: None.
SURVEYORS: By arrangement with Ship Safety at Thunder Bay.
CARGO GEAR: Ship's gear.
AIRPORT: Airport situated 5 miles from the harbour and served by Canadian Air and Calm Air International Ltd., with 2 flights going North and 3 flights South every week (Monday, Wednesday and Friday).
TIME: GMT minus 6 hours. Daylight Saving Time (1 hour forward starts first Sunday in April and ends last Sunday in October).
HOLIDAYS: New Year's Day (January 1st); Good Friday; Easter Monday; Victoria Day (May 24th); Dominion Day (July 1st); Civic Holiday (First Monday in August); Labour Day (First Monday in September); Thanksgiving Day (Second Monday in October); Remembrance Day (November 11th); Christmas Day (December 25th); Boxing Day (December 26th).

Arrangements normally made to have crews available for those days.
POLICE/AMBULANCE/FIRE: Police Tel: 675-8821; Ambulance Tel: 675-8881, Fire Tel: 675-2424.
TELEPHONES: No facilities.
SHORE LEAVE: Allowed, no restrictions.
BANKS: Royal Bank of Canada.
STORING: Vessels may be stored by truck, which may proceed alongside. No forklift trucks available. Riggers may be employed. Customs regulations in force.
DELAYS: Little delay.
AUTHORITY: Ports Canada, P.O.Box 217, Churchill, Manitoba, R0B 0E0. *Tel:* (204) 675-8823. *Telex:* 0766-6513. *Contact:* A.L. Robb, General Manager.

CLARENVILLE, Newfoundland: 48.08 N. 53.56 W.

DOCUMENTS:
Crew List, Form 200 in duplicate.
List of Ship's Stores, Form E1 in duplicate.
Crew Declarations, Form Y.14 in duplicate.
Manifests in triplicate.
Bills of Lading in duplicate.
PILOTAGE: Contact Pilot through St. John's Radio (VON). Pilot usually boards off St. John's.
ANCHORAGE: Good anchorages in Random Sound.
MAX. SIZE: Largest ship 644 ft. long, breadth 84 ft., draft 26 ft.
HEALTH: See "Montreal".
RADIO: St. John's Radio (VON).
TUGS: None available.
BERTHING: Newfoundland Hardwoods Wharf: Length 375 ft., depth at LW 28 ft.
STEVEDORES: Available. 48 hours notice required.
MEDICAL: Necessary for Agents to receive advance notice of medical attention required. Hospitals available in the community and St. John's. Vaccination/Fever Certificates necessary for Pratique.
FRESH WATER: Limited supplies available.
FUEL: Light fuels only (no bunkers).
OPENING/CLOSING HATCHES: By crew.
CERTIFICATES: Load Line, Safety Equipment, Derat Certificates.
CUSTOMS ALLOWANCES: Tobacco 200 cigarettes allowed per crew member per week. Wine and/or Spirit, 1 bottle of spirit allowed per crew member on the first voyage in each year. Each subsequent voyage in one year, 1 bottle allowed only to officers.
IDENTIFICATION CARDS: Not required.
CONSULS: At St. John's.
REPAIRS: Minor repairs possible.
REPATRIATION: Only available by air.
AIRPORT: Gander International Airport located about 2 hours distance by road/served by regular airlines.
TIME: GMT minus 3.5 hours. Daylight saving time from first week-end in April to last week-end in October, clocks advanced 1 hour.
HOLIDAYS: See "Montreal".
POLICE/AMBULANCE/FIRE: Police 466-3211; Fire 466-7777; Ambulance 466-2010.
TELEPHONES: No facilities for placing on board.
SERVICES: Only limited services available.
SHORE LEAVE: Allowed.
AUTHORITY: Canadian Coast Guard, P.O.Box 1300, St. John's, Newfoundland, Canada. *Tel:* (709) 772-5154. *Telex:* 016-3369. *Contact:* D. A. Lester.
AGENT: Newfoundland Hardwoods Ltd.

COME-BY-CHANCE, Newfoundland:
47.48 N. 54.01 W. **(See Plan)**

LOCATION: The Newfoundland Processing Limited plant is located in Placentia Bay. The Terminal position is Lat. 47° 48′ 18″ N., Long. 54° 00′ 35″ W.

DOCUMENTS:
- 3 copies Crew Declaration (Form Y14).
- 3 copies Ship Stores List (Form E1).
- 3 copies Immigration Crew List (Form IMM 200), only Canadian form accepted.
- 2 copies of Bill of Lading or Manifest.

In addition, Customs Clearance from last port, Derat Certificate, extra copy of Crew List, Vaccination List, Ship's Register, Radio Equipment Certificate, Safety Equipment Certificate, Load Line Certificate and Non-Canadian Ship Compliance Certificate. Oil Record log book should be up to date and readily available for inspection by Government Steamship Inspectors.

PILOTAGE: The Placentia Bay compulsory pilotage area is composed of 2 areas, namely:-

Zone "B" which starts off Argentia, approximately 30 miles from the terminal. Pilotage is compulsory for all vessels over 223 m. (731.62 ft.).

Zone "A" which starts off Southern Harbour, approximately 6 miles from the terminal. Pilotage is compulsory for all vessels.

Pilots: The pilot boarding station for vessels subject to pilotage Zone "B" is located near Red Island Shoal. The approximate position is:-

Latitude 47° 22.3′ N.
Longitude 54° 05.6′ W.

The pilot boarding station for vessels subject to pilotage Zone "A" is located near Coombes Rock. The approximate position is:-

Latitude 47° 42.3′ N.
Longitude 54° 03.3′ W.

Arrivals: To avoid a delay in ordering a Pilot, Masters of vessels bound for the Come-By-Chance Terminal must forward their request for Pilots to "Pilots St. John's" as follows:-

First notice 12 hours prior to the ETA (GMT) at the appropriate boarding station stating:
- (a) Which boarding station the Pilot is required at.
- (b) Name.
- (c) Call Sign.
- (d) Deepest draft.
- (e) Speed.
- (f) Agent.
- (g) Length, breadth, moulded depth, deadweight tonnage and the largest net registered tonnage.

Second notice 3 hours prior to the ETA (GMT) at the appropriate boarding station.

Departures/Movages: First notice 9 hours prior to the ETD (Local time). Second notice 3 hours prior to the ETD (Local time).

Embarkation/Disembarkation: Masters of calling vessels are reminded of their obligation to comply with statutory rules and are recommended to comply with the following:
- (a) The Officer responsible for embarkation/disembarkation of the Pilot is a watchkeeping officer.
- (b) The pilot ladder is secure.
- (c) The pilot ladder is adequately illuminated at night.
- (d) Means are provided to enable the Pilot to pass safely and conveniently from the head of the pilot ladder into the ship or on to the ship's deck. Portable stanchion, if used, should be independently secured to the rail or deck, one on each side of the ladder.
- (e) The ladder is in good condition and its treads remain horizontal. The treads to have a rough surface.
- (f) The ladder is rigged so that each step rests firmly against the ship's side.
- (g) Spreaders are provided not more than 10 ft. apart, to prevent the ladder from twisting.
- (h) Manropes should be available, but should not be lowered unless requested by the Pilot.
- (i) A lifebuoy with a self igniting light and a heavy line should be available.
- (j) The ladder should be rigged well clear of overboard discharge and deck scuppers.

If the pilot ladder is not safe, the Pilot may refuse to board and thus cause unnecessary delay to the ship.

ANCHORAGE: Will be assigned by the Pilot in conjunction with Transport Canada, Coast Guard.

RESTRICTIONS: Will be dispatched by Transport Canada to ship's Agent.

MAX. SIZE:

Berth No. 1	Max. Size	—	325,000 d.w.t.
	LOA (berth)	—	1,520 ft.
	Max. Draft	—	85 ft.
	Water Depth	—	110 ft.
Berth No. 2	Max. Size	—	70,000 d.w.t.
	LOA (berth)	—	1,520 ft.
	Max. Draft	—	45 ft.
	Water Depth	—	48 ft.

HEALTH: Vessels arriving from a foreign port may obtain pratique by radio from "Quarantine St. John's" at least 12 hours before arrival. Information required by Quarantine Officer shall include:

Name and nationality of the vessel.
Last port of call.
Nature of cargo.
Number of crew and passengers.
Port of destination.
Name of Agent.
Conditions of health of all on board with details of any sickness or death incurred during the voyage.
Animals if any.

RADIO: The best radio stations to use en route to Come-By-Chance are:

St. John's Marine Radio – call sign VON.
Halifax Marine Radio – call sign VCS.
St. Lawrence Marine Radio – call sign VCP.

To avoid a delay in obtaining a Pilot, Masters of ships bound for Come-By-Chance must report by R/T, W/T or Telex, their ETA to Vessel Traffic Management at St. John's at least 24 hours before vessel's ETA at the pilot boarding station. The times should preferably be in GMT, but whatever time is used it should be expressly stated. ETA should be confirmed or corrected 12 hours and 6 hours prior to arrival at the pilot boarding station by R/T, W/T or Telex through VON Marine Radio Station, St. John's or via any Coast Guard Radio Station. Also see "Pilotage".

Pilotage messages may be forwarded through the nearest Canadian Coast Guard Radio Station. Direct requests can be made through St. John's Traffic Centre on VHF Channel 11 and Placentia Traffic on VHF Channels 12 and 14. Placentia Traffic Tel. (709) 227-2181.

The requirements for water, fuel and ballast should be made known to vessel's Agent in the 72 hour ETA.

TUGS: Tugs will be stationed at Come-By-Chance to assist vessels in berthing and unberthing.

BERTHING: The jetty extends 3,000 ft. from the shore. Berth No. 1 (outside) can accommodate 325,000 d.w.t. tankers. Depth of water alongside 110 ft. Berth No. 2 (inside) can accommodate tankers up to 70,000 d.w.t. Depth of water alongside 48 ft.

Both berths are equipped with hydraulic operated loading arms which are fitted with a speed-seal hydraulically operated manifold coupling.

Berth One

Loading Arm	*Coupling* (in.)	*Product*
1	10	Bunker "C"
2	16	Crude Ballast Clean Products
3	16	Same as No. 2
4	16	Crude Residual Fuel Ballast Clean Products
5	16	Same as No. 4

Note: Berth No. 1 is connected by 1 × 42 in. crude line to the tank farm which is at 90 ft. elevation and approximately 2,136 m. away.

Berth Two

Loading Arm	*Coupling* (in.)	*Products*
6	10	Clean Products Ballast
7	10	Same as No. 6
8	10	Clean Products Ballast Fuel Residual
9	10	Same as No. 8
10	8	Bunker "C"
11	10	Sulphur
12	6	Propane (Manually Operated)
13	4	Propane Vapour (Manually Operated)

Note: The product tanks are approximately 1,707 m. away at elevations ranging from 80 ft. to 100 ft.

Facilities for discharging ballast are available at both berths. The pumping distance is approximately 1,525 m. away to a tank at 62 ft. elevation.

MEDICAL: Masters are requested to notify their Agents at least 72 hours prior to arrival, advising the number of crew to see the doctor and their complaint. The doctors work out of hospital which is about 48 km. from the berth.

FRESH WATER: Limited quantities of fresh water available. Rate of 100 U.S. gallons per minute.

FUEL: Ship's bunkers are available. Bunker requirements, including quantities and specifications, should be made known in the 72 hour message.

FIRE PRECAUTIONS: Usual precautions for a refinery.

CONSULS: The following countries have Consular Representatives in St. John's:

Brazil
Denmark
France
Germany F.R.
Iceland
Italy
Malta
Netherlands
Portugal
Spain
Sweden

REPAIRS: The Agent should receive early advice of requirements, as most repairs are only available at St. John's (Radio, radar, gyro, Satnav and Loran, etc.). The technicians for such equipment work out of St. John's. The following brand names have representatives in St. John's: Racal-Decca, Marconi, Kelvin Hughes, Furono, Atlas and Sperry.

SURVEYORS: Stationed in St. John's: Lloyd's, B.V., N.K.K., A.B.S., Germanischer Lloyd, Italian Registry, U.S.S.R. Registry, China Corp. and Honduran Registry.

GANGWAY/DECK WATCHMEN: Usually ship's crew.

CUSTOMS ALLOWANCES: Each crew member is allowed 200 cigarettes and one 40 oz. bottle of wine or spirits per week.

REPATRIATION: No formal facilities, however crew changes and repatriation can be carried out. Prior notice to Agent is required.

AIRPORT: Nearest airports are St. John's, 152 km. away, and the Gander International Airport, 206 km. away.

TIME: GMT minus 3.5 hours. First Sunday in April clocks advanced 1 hour. Last Sunday in October clocks retarded 1 hour.

SERVICES: *Supplies & Laundry:* Stores and provisions have to be obtained in St. John's. In order to avoid delays, Agent should be notified prior to arrival, of the vessel's requirements. Stores and supplies will be delivered by barge, tug, or small boat. Laundry facilities are not available in Come-By-Chance, but if required will have to be sent to St. John's. Therefore, early notification is required.

Garbage: There are no garbage facilities available in Come-By-Chance. Garbage will have to be disposed of in accordance with Canadian and/or International Rules and Regulations.

TELEPHONES: Not available.

POLICE/AMBULANCE/FIRE: The Police are located in Clarenville.
Telephone: 466–3211
Hospital located in Clarenville.
Telephone: 466–3411
The Fire Department located in Clarenville.
Telephone: 466–7777

TERMINAL REGULATIONS: With the object of protecting all concerned against the possibility of fire hazards, oil and smoke pollution, etc., vessels calling at Come-By-Chance must comply with the following Safety Regulations, as well as any prevailing Government Safety Regulations or other Regulations, which may be issued by proper authorities from time to time.

(a) SMOKING and the use of naked lights is strictly prohibited on board vessels alongside the berths, except in those enclosed spaces aboard ship specifically designated by the Master as "SMOKING AREAS."

(b) FIRE WIRES of steel must be hanging over the side of the manifold off side bow and quarter whilst alongside to enable tugs to connect readily in an emergency situation. The towing eye should be lowered to reach the water line at the vessel's minimum draft on the berth.

(c) BOILER TUBES must not be blown whilst vessel is alongside and every precaution must be taken to prevent sparks and soot particles escaping from the funnel.

(d) SCUPPERS must be securely plugged before loading/discharging commences and all possible care taken to avoid spillage on overflow.

(e) SPILLAGE TRAY or other receptacle should be placed under the flange connection at the vessel's manifold.

(f) OIL absorbing material in a suitable quantity should be placed in the proximity of the manifold.

(g) ENGINE REPAIRS must not be made alongside if they will prevent the prompt sailing in an emergency, or upon completion of cargo transfer.

(h) WORK on deck or hull that could cause sparks is not allowed.

(i) INERT GAS GAUGING: At its discretion, Refinery may require that all crude carrying vessels arrive at the terminal with cargo tanks inerted and that tanks will remain inerted throughout discharge. If vessels are instructed to arrive with inerted tanks, Refinery retains the right to request depressurisation of the tanks, under A.P.I guidelines, to allow measurements by designated inspectors, subject to any restraints by regulatory agencies and to Master's satisfaction and consent that same is deemed safe for the vessel, such consent not to be unreasonably withheld. Vessels discharging at the Refinery are considered as having warranted that they are equipped with a properly working inert gas system and that officers and crew are experienced in the operation of same. Any time lost due to improper operation of the vessel's inert gas systems should not count as laytime.

(j) CRUDE OIL WASHING: All vessels discharging crude oil at the Refinery will, at the discretion of the Refinery, be required to perform crude oil washing. Vessels are to provide any advance information or technical data that may be required relative to the conduct of such crude oil washing operations. Vessels are required to consent to crude oil washing of cargo tanks and consent to conduct same simultaneously with discharge of cargo. Any additional time consumed as a result of crude oil washing, up to a maximum of 6 hours or pro-rata on the basis of number of washed to the number of tanks loaded, shall constitute used laytime.

(k) LIGHTS of any description other than those permitted and approved by a recognised Classification Society or Government Department for use in a vapour atmosphere are not allowed.

(l) CARGO: During cargo transfer or ballast operations or when not in a gas free condition, all vessels shall show a red signal during the day and a red light during the night.

(m) TRANSFER OPERATION shall not be started, or if started, shall be discontinued by either the Duty Officer of the vessel or the Terminal Supervisor, when any of the following conditions come to his attention.
1. During severe electrical storm.
2. If a fire occurs on the vessel or terminal.
3. If there is not sufficient competent personnel aboard the vessel or on the terminal to safely handle the cargo operations in progress.
4. Should any condition develop which represents a hazard to the vessel or Terminal installation.

(n) FIREFIGHTING equipment of ships alongside must be kept ready for instant use at all times.

(o) GAS-FREEING is not allowed alongside the berths without permission of the Terminal Supervisor.

(p) MOORING of boats or craft with mechanical propulsion alongside a vessel loading/discharging or in the process of deballasting is not allowed, unless special permission has been given by the Terminal Supervisor.

(q) UNAUTHORISED or apparently intoxicated or disorderly persons shall be prohibited from entering the Terminal.

(r) NOTHING in these Regulations will relieve Masters of their responsibilities in observing the normal safety fire prevention and security regulations. Terminal personnel are authorised to advise and request Masters of calling vessels to take additional measures to ensure a higher degree of safety, if they find such advice and request warranted.

(s) NON-COMPLIANCE with Safety regulations may result in discontinuation of cargo operations, which will only be resumed upon correction of the infringement and strict compliance with the regulations. A vessel will accordingly be held responsible for any cost and delay, which arise from non-compliance with the safety procedures as outlined.

SHORE LEAVE: In order to comply with Immigration Regulations, crews should be carefully checked before sailing, and any missing crew member reported to Agent.

In case of crew members left ashore for any reason, Masters are requested to furnish a letter accepting responsibility for all expenses incurred, advances (if any) and also instructions for repatriation. An Immigration Bond may be required.

GENERAL: Masters are strongly advised to contact their Agent 72, 48, 36, 24, 12 and 6 hours with ETAs. In the 72 hour message Masters should advise all port requirements.

WEATHER: *Ship's Officer's Report:* The prevailing winds are from the S.W. in Summer and N.W. in Winter. Fog is experienced regularly in April, May, June and July, the latter two months being the worst. The fog is usually associated with a Southerly wind.

There is no shelter afforded on the North, East and South sides of the quay and only a nominal amount on the West side.

Local Pilots report that the range of tide is between 5.5 ft. and 8.5 ft. which can increase if the wind has been blowing from the South for any length of time.

CHARTS: Canadian Hydrographic Charts, S.E. coast of Newfoundland.

No. 4617	Red Island to Pinchgut Point.
4618 L(D2)	Head of Placentia Bay.
4620	Come-By-Chance Harbour.
4622 L(D2)	Cape St. Mary's to Argentia Harbour and Long Island.

AUTHORITY: Transport Canada, Canadian Coast Guard, Newfoundland Region, P.O. Box 1300, St. John's, Newfoundland A1C 6H8. *Tel:* (709) 772-5154. *Telex:* 016-3369. *FAX:* 016-2193. *Contact:* D. A. Lester, Regional Manager, Harbours and Ports.

Newfoundland Processing Limited, Come-By-Chance, Newfoundland. *Tel:* (709) 463–8811.

AGENT: Blue Peter Steamships Limited, P.O. Box 6030, St John's, Newfoundland, Canada, A1C 5X9. Tel: (709) 726–2440 (24 Hrs.). Telex: 016–4510 Bluepeter SNF. Cables: Bluepeter SNF. Fax: (709) 726–2444.

Come-By-Chance: Tel. (709) 463–8841. Fax: (709) 463–8846.

CONTRECOEUR, Quebec: 45.53 N. 73.12 W.

(See Plan)

LOCATION: The Contrecoeur Transfer Dock is located on the South shore of the St. Lawrence River, approximately 25 miles East and downstream from Montreal. (Canadian Chart 1339, Admiralty 422).

DOCUMENTS, HEALTH, RADIO, etc.: Refer to "Montreal" and "Quebec".

PILOTAGE: Compulsory. River Pilot docks and undocks vessels. Boarding at all hours.

ANCHORAGE: Available at Lanoraie 15 miles East of dock and Sorel 20 miles East of dock. Also at Contrecoeur, off the berth.

RESTRICTIONS: Hatch openings must not be less than 25 ft.×35 ft. Vessels will be required to vacate the berth immediately after completion of loading and/or discharging. Masters and/or Agents to advise ETA 36 hours, 24 hours and 12 hours. If any change after 12 hours notice, Terminal to be advised immediately, otherwise charges for waiting time will be assessed.

MAX. SIZE: 850 ft. length; 105 ft. beam; 35 ft. depth chart datum; fresh water, (subject river levels and recommended keel clearance, average river levels vary from +7 ft. above chart datum (April, May) to +3 ft. (Aug., Sept.) with extremes recorded of +10 ft. and +1.5 ft.).

TUGS: Tugs not normally required for vessels docking including vessels in 50,000 to 65,000 d.w.t. range. One tug sometimes used for vessels undocking.

RADIO: *Arrival Notice:* Cable address: CONORE, Montreal. Master or Agent to advise the Terminal of vessel's ETA 48 hours, 24 hours, 12 hours and 6 hours prior to vessel's arrival.

Also see "Restrictions".

BERTHING: Ships will be berthed in regular turn of vessels, providing they present with hatches open, ready for discharging and/or loading, based on the following reporting procedures;

i) Downbound vessel reported out Cote Ste Catherine Lock before upbound vessel passes Trois Rivieres Pilot Station will have precedence and vice versa.

ii) Downbound vessel reported clear of Montreal Wharf before upbound vessel passes Ile des Barques reporting station will have precedence and vice versa.

iii) In cases of two upbound vessels, the first passing Trois Rivieres Pilot Station will be first in turn.

Berthing Facilities: The dock is 1,500 ft. in length and is divided into two berths. Berth No. 1 is 750 ft. in length with dredged depth alongside of 35 ft. fresh water chart datum. It is fitted with two Wellman travelling towers equipped with 7.5 cu.yard grabs with outreach of 57 ft. from fenderline. The tower travel is 476 ft. centre to centre. Concrete pad measuring approx. 600 ft. × 140 ft. is located adjacent to Berth No. 1 and can accommodate approx. 75,000 tons of material stowing less than 20 cu.ft./ton.

Berth No. 2 is 485 ft. in length with dredged depth alongside of 22 ft. chart datum. It is fitted with a stationary boom shuttle for loading bulk materials into vessels. This shuttle is reversible for loading to trucks or rail cars. Bulk commodities can be handled:

a) Direct from vessel to vessel.
b) Direct from vessel to truck or rail cars.
c) Indirect from vessel to pad for stockpiling by truck or reloading to vessel.

Unlimited storage capacity is available for stockpiling bulk materials. Material is reclaimed from dead storage area and returned by trucks to pad for reloading aboard vessels or into rail cars.

The working capacity of discharging or loading free digging bulk materials with a stowage factor of less than 20 cu.ft./ton is as follows:

Transferring direct from vessel to vessel	1600 L/T per hour
Discharging from vessel to dock	1800 L/T per hour
Loading from dock to vessel	1800 L/T per hour
Transferring from vessel to rail cars	900 L/T per hour
Transferring from vessel to trucks	1200 L/T per hour

The railway siding on the dock property can accommodate 70 railway cars. Dock storage and dead storage areas are available by arrangement. Materials can be held in bond subject to Canadian Government Regulations.

STEVEDORES: Available at following times: Regular working periods are from 0800 to 2400 hrs., Monday to Friday. Under special arrangement, work performed outside regular hours. Periodically working around the clock.

MEDICAL: Doctor and hospital available.

FRESH WATER: Available.

FUEL: Available.

HOLIDAYS: Legal holidays are as follows: Good Friday, Ascension Day, Victoria Day, May 1st, St. Jean Baptiste Day, Canada Day, Labour Day, Thanksgiving Day, Remembrance Day.

AGENCY: Contrecoeur Terminal does not handle ship agency. Shipowners or Charterers appoint their own Agents for attending ships' requirements.

AUTHORITY: Contrecoeur Terminal (A division of Iron Ore Company of Canada), 1920 Marie-Victorin, Contrecoeur, Canada J0L 1C0. *Tel:* 514-877-4002 (Traffic), 877-4001 (Manager). *Telex:* 05-267556. *Cables:* Conore. *Contact:* M. R. Morin, Manager.

CORNER BROOK, Newfoundland: 48.57 N. 57.57 W.

DOCUMENTS:

3 Crew Lists – Form IMM.200.
3 Crew Declaration – Y.14.
3 Bonded Store List – E.1.
2 Maritime Declaration of Health – Form QS 2001. (Not required from USA port).
2 Manifests of Cargo (In Transit) and Manifest of cargo for discharge.

Required by Agent:
Vessel Expiry Dates for Canadian Customs:
Load Line Certificate
Radio Equipment Certificate
Safety Equipment Certificate
Derat Certificate
Safety Construction Certificate
Non-Canadian Compliance Certificate (Tankers only)

PILOTAGE: Pilot launch is called *Glenkim* fitted with radio telephone, receives on 2182, 2558, 2134 and 2582 kHz. Radar and VHF onboard. Pilot Station, Frenchman's Head. Pilotage compulsory, operated by Atlantic Pilotage Authority with head office in Halifax. During the ice season, Pilots will board from tug *Indian Lake* approximately 1 mile from Corner Brook Pulp and Paper Ltd. berths. The tug is also fitted with VHF. Also see "Radio".

APPROACHES: Corner Brook Harbour is approximately 20 miles inland from South Head. South Head commands the Southern entrance to the Bay of Islands. There are no off-lying shoals near the approaches.

ANCHORAGES: Good anchorages in Outer Bay. Most convenient is in Humber Arm off Petitpas Cove in 15 to 20 fathoms. Masters requested to contact local Pilots regarding anchorage as a submarine cable enters waters of Humber Arm at Wild Cove and continues out of the bay to Frenchman's Head.

HEALTH: Pratique is granted when all crew have been vaccinated and no suspected sickness on board. Pratique is automatic when from a quarantine port or non-quarantine port, provided Port Health Authorities have been established. Also see "Montreal".

MAX. SIZE: Max. size tankers handled – LOA 600 ft., max. draft 32 ft. at Corner Brook Pulp and Paper Ltd. No. 4 Berth.

RADIO: For short range: Stephenville Marine Radio operated by DOT. WT 500 and 416 kHz. RT call letters VOJ. Receives 2182, 2598, 2134, 2582 kHz. For long range: Via Halifax Marine Radio.

Advice of Arrival: (Vessels docking at premises of Corner Brook Pulp and Paper Ltd.) ETA messages should be sent (to cable address – "Krugship") in GMT, 72, 48, 24 and 12 hours notice recommended. All messages sent to Agents will be given local Pilots and Customs. Cash requirements and other items requiring immediate attention on arrival should be given in the 48 hours ETA.

It is also recommended that notices advise number of gangs vessel can work, also if there is cargo for discharge, quantity and holds stowed. *Other Port Users:* Same as Corner Brook Pulp and Paper Ltd. except when destined for Western (1983) Ltd., send to cable address "Westerm".

VHF: Humber Arm Harbour Master on VHF Channels 16, 14, 12, 11, 19A, and 24. Corner Brook Pulp and Paper Ltd. shipping office on Channels 16, 14 and 24.

TUGS: Not available.

BRIDGES: None.

BERTHING: *Corner Brook Pulp and Paper Ltd. Wharves* located near centre of city waterfront. Consist of 4 berths, and are continuous. Run parallel with shore line. Total length 1,650 ft. Max. draft 28 ft. in No. 1 Berth, elsewhere 32 ft. in No. 2 & 3 and 26 ft. in No. 4 at low tide. Fresh water and electric power available.

Vessels loading normally dock port side to No. 2 Berth. Oil and caustic soda tankers discharge port side to No. 4 Berth. General cargo is normally discharged port side to No. 4 Berth.

Canadian National Railway Wharf: Steel and concrete structure. Length of wharf 600 ft. Depth alongside 32 ft. Storage shed is 240 ft. long by 35 ft. wide. Railway tracks on both sides of shed and accessible to ship's side.

North Star Cement Wharf: Annexed to small Government Wharf. Combined length is 400 ft. Depth of water 24 ft. at Western end and 17 ft. on inner end. Partly laden tankers of T-2 class discharge at this wharf.

Imperial Oil Ltd.: Discharging pier depth of 30 ft. minimum at low tide. Full laden tankers of the T-2 class can discharge.

Irving Oil Company Ltd.: Discharging pier with depth of water at Eastern end of 30 ft. and at Western end 26 ft. Tankers discharge with the forward draft restricted to 26 ft.

Gulf Oil Ltd.: Discharging pier has a depth at Eastern end of 28 ft. and at Western end 22 ft. T-2 tankers may discharge with restricted drafts accordingly.

Ultramar Canada Inc.: Discharge oil at North Star Cement Wharf.

Department of Transport Wharves: Length of wharf is 1,200 ft. Steel and concrete structure. Depth of water alongside is 32 ft. to 34 ft. Shed measures 500 ft. by 120 ft. by 20 ft. high, for a capacity of 1,200,000 cu.ft. Fresh water is available. General cargo is handled.

CRANES: Mobile crane available at Corner Brook Pulp and Paper Ltd. – capacity 11 tons from ship's hold, 18 tons from deck.

Other port users: From local rental Agent. Maximum 65 tons.

STEVEDORES: (Vessels at Corner Brook Pulp and Paper Ltd. premises)

Working Hours:

0800 to 1200	– 2 gangs
1200 to 1230	– Lunch break
1230 to 1630	– 2 gangs
1630 to 2030	– 2 gangs
2030 to 2100	– Meal break
2100 to 0100	– 2 gangs

Overtime: Can be worked Mondays to Saturdays (day gangs) 1630 to 2100 hrs. if requested.

MEDICAL: Hospital available. If ships' Crew members require emergency medical attention *on board immediately on arrival,* this should be stated in message to Agents, together with ETA. Otherwise, doctor appointments can be arranged during regular office hours.

TANKERS: It is recommended by local Pilots that oil tankers for North Star Cement Wharf arrive and sail in daylight, otherwise there are no special requirements except usual advance notice should be given to Agents in order to arrange linesmen. See "Berthing".

DENSITY: Average 1015.
High water, Easterly wind 1025.
High water, Westerly wind 1008.
Low water 1005.

FRESH WATER: Fresh water available at Corner Brook Pulp and Paper Ltd. berths – $1.00 per ton plus $40.00 service charge and Westerm (1983) Ltd. – $0.85 per ton plus $30.00 service charge. Fresh water also available at other docks.

FUEL: (Vessels at Corner Brook Pulp and Paper Ltd. premises). Gas oil and marine diesel available by truck delivery from local oil companies.

Other port users: Available at DOT docks by tanker trucks.

OPENING/CLOSING HATCHES: (Vessels at Corner Brook Pulp and Paper Ltd. premises). Opening and closing hatches is normally done by ship's crew. Rigging ship's gear is normally done by stevedores.

CUSTOMS ALLOWANCES: On arrival per crew member: 3 lb. tobacco or 300 cigarettes or 75 cigars. Two dozen beers or 60 oz. spirits. *Additional issue* will be made *after 7 days* in port. 2 lb. tobacco or 200 cigarettes or 50 cigars. 1.5 dozen beers or 40 oz. spirits.

IDENTITY CARDS: Every Crew member should be in possession of some form of identity card.

CONSULS: Nearest consuls are in St. John's approximately 450 miles.
Brazil
Denmark
Dominican Republic
France
Iceland
Netherlands
Norway
Portugal
Spain
Sweden
Germany F.R.

REPAIRS: Minor ship repairs carried out. No dry docks available. Radar and VHF repairs possible.

REPATRIATION: All necessary crew changes and repatriation facilities available.

AIRPORTS: International Airport, 222 miles from Corner Brook, at Gander. Stephenville Airport, Air Canada and CP, 50 miles from Corner Brook. Deer Lake Airport, CP service available, 30 miles from Corner Brook.

TIME: NST-GMT less 3.5 hours. Newfoundland Daylight Saving Time – GMT less 2.5 hours, first Sunday in April to last Sunday in October.

HOLIDAYS: Following applies to ships docking at premises of Corner Brook Pulp and Paper Ltd. Newsprint Manufacturers and Shippers.
January 1st – New Year's Day
July – Dominion Day (normally first Monday in July)
September – Labour Day (first Monday in September)
December 25th – Christmas Day. No work is performed after 1600 hrs. on Christmas Eve (December 24th), nor on New Year's Eve (December 31st).
Sunday – As per Union agreement. Work can be performed at time and a half rates as follows: *June, July and August* – a maximum of 3 consecutive Sundays. Remainder of the year – no restriction.

Other port users: Similar to Corner Brook Pulp and Paper Ltd.

POLICE/AMBULANCE/FIRE: *Police:* Alongside Corner Brook Pulp and Paper Ltd., Ext. 274, Mill Guards. Local Police. Area Code: (709) 637-4400.

Ambulance: Alongside Corner Brook Pulp and Paper Ltd., Ext. 274, Ambulance. City Area Code: (709) 634-5611.

Fire: Alongside Corner Brook Pulp and Paper Ltd. Ext. 274, Mill Brigade. City Area Code: (709) 634-4333.

Hospital: 634-5000.

TELEPHONES: (Vessels at Corner Brook Pulp and Paper Ltd. premises). None available on board ships, but phones are on the wharf in nearby offices.

Other port users: Can be available at installation and service costs.

GENERAL: Ice coverage can be expected between January 1st and April 15th. Shipmasters should contact "Ecareg Ice Halifax", Nova Scotia, Tel: (Area code 902) 526-5664 or 426-5665. Telex No. 019-22625 for routing and Icebreaker assistance. 36 hours ETA in Cabot Strait is required.

SERVICES: Compass adjuster can be engaged.

SHORE LEAVE: Discretion of Master. No port regulations.

AUTHORITY: Corner Brook Pulp and Paper Ltd., P.O.Box 2001, Corner Brook, Newfoundland, Canada A2H 6J4. *Contacts:* Mr. Ellison Butt, Harbour Master. Tel: (709) 637-4282 or Terminal Manager, Westerm (1983) Ltd., Tel: (709) 639 8961. Telex: 061-44193 (Westerm Cnbk). Cables: Westerm.

Mr. D. Kearley, Customs and Immigration, Tel: (709) 637 4494.

Mr. W. G. Hull, Shipping Superintendent, Corner Brook Pulp and Paper Ltd. Tel. (709) 634-2810 or 637-3291. Telex: 016-44278 (Krugship Cnbk.). Cables: Krugship.

COWICHAN BAY, B.C.: 48.45 N. 123.36 W. (See Plan)

LOCATION: Lat. 48° 44′ 50″ N., Long. 123° 36′ W. Cowichan Bay is entered from Satellite Channel Southward of Separation Point and extends 4.8 km. Westwards, terminating in a large mud flat that is the estuary of the Cowichan and Koksilah Rivers.

PILOTAGE: Compulsory, Pacific Pilotage Authority rates.

APPROACHES: The bay is deep and without danger. The deep sea berths at the S.W. corner of the bay on the edge of the mud flat have deep, open water approaches.

ANCHORAGE: Cowichan Bay Anchorage – 8 permanent anchorages in depths of approx. 40 m. – 50 m. on a line starting 700 m. S.S.W. of Skinner Point and ranging with 3 designated anchorage along the Northern side of Cowichan Bay to Separation Point and then on the Southern side of Satellite Channel with 5 designated anchorages from Separation Point to 1,000 m. North of Hatch Point. Anchorage can also be afforded to small vessels at Genoa Bay, in depths of 4.6 m. – 11 m. which has a rock marked by a beacon in the middle of its entrance, and two other rock hazards nearby.

MAX. SIZE: *Largest Vessel:* LOA 200.51 m., beam 30.89 m.

TUGS: Tug services at Cowichan Bay are provided by Falt Towing Ltd., 1805 Pritchard Road, Cowichan Bay, B.C. V0R 1N0. Tel: 748-8175. Falt Towing has one 500 h.p. and two 300 h.p. tugs operating from Cowichan Bay and can supply additional tugs as required with a minimum of 48 hours' notice.

BERTHING: *Deep Sea Vessels:* The CNR Wharf is owned by Canadian National Railways and is operated by Westcan Terminals Ltd., P.O. Box 1442, 189 Dallas Road, Victoria, B.C. V8W 2X2. Tel: 386-1321. Telex: 049-7312. The deep sea wharf consists of two berths used mainly for loading forest products.

Berth No. 1 (South end) has a length of 155 m. and a depth alongside of 9.3 m.

Berth No. 2 (North end) has a length of 198 m. and a depth alongside of 8.3 m.

At a distance of 3 m. from the wharf face the minimum depth alongside for No. 1 is 9.9 m. and No. 2 is 9.7 m.

Log bundles can be made available to adjust the vessel's position alongside for draft considerations.

The South end of Berth No. 1 has a rail barge slip which connects to the rail car handling and loading facility at the terminal and the rail lines on Vancouver Island.

Note: Berth depths alongside CNR Wharf taken from depth survey by Canadian Hydrographic Service April and May 1980.

Small Vessels: There is a Government Wharf situated on the South shore for small vessels only, with depths of 5.2 m. – 6.1 m. alongside. A pile and timber breakwater protects several floats attached to the Eastern and Western sides of the wharf approach structure. The area inside the breakwater and East of the wharf has been dredged to a depth of 3.0 m. A number of privately owned wharves and floats are located Westward of the Government Wharf, along the Southern shore of the bay.

STEVEDORES: Westcan Terminals/Stevedores Ltd. offers 24 hour 7 day cargo handling services. Shifts: first 0100–0430, 0500–0800; second 0800–1200, 1300–1700; third 1700–2100, 2130–0100. Work ceases 1200 hrs. on Christmas Eve and New Year's Day.

FRESH WATER: Available at berth by local water tanker truck and at berth or at anchor by water barge from Vancouver.

FUEL: Diesel fuel, gasoline and other petroleum products are available in moderate quantities by tanker truck at berth. Heavy fuel and large amounts of bunkers available by bunker barge from Vancouver.

MEDICAL: Full medical facilities available at the Cowichan District Hospital in the town of Duncan, 10 km. away. Dental facilities also available in Duncan.

REPAIRS: See "Victoria", B.C. for information on the graving dock and ship repair facilities in Esquimalt, a suburb of Victoria 60 km. S.S.W. of Cowichan Bay.

SERVICES: The following general services are available in the Cowichan Bay/Duncan area or from Victoria, B.C.

Decca: Racal Decca Canada Inc., 353 Harbour Road, Victoria, B.C. V9A 3S2. Tel: 388-6257.

Fumigation: PCO Pied Piper, 3374 Burns Avenue, Victoria, B.C. V8Z 3P2. Tel: 388-9721.

International Garbage: C.W. Disposals Ltd., P.O.Box 279, Duncan, B.C. V9L 3X3. Tel: 746-4589.

Laundry: Chemainus Laundromat & Dry Cleaners, 9870 Croft Street, Chemainus, B.C. V0R 1K0. Tel: 246-9912.

Marconi: Canadian Marconi Co., 1 Burnside Road W., Victoria, B.C. V9A 1B2. Tel: 386-9414.

Surveyors: Argus Marine Ltd., 2924 Wilkinson Road, RR 2, Mill Bay, B.C. V0R 2P0. Tel: 743-3463. Hull and cargo.

Lloyd's Register of Shipping, non-exclusive surveyor for hull, machinery and cargo attached to Marine Design Associates below.

Marine Design Associates, 493B Garbally Road, Victoria, B.C. V8T 2J9. Tel: 384-4191. Telex: 049-7397. Hull, machinery and cargo.

Welding: Duncan Iron Works Ltd., P.O.Box 855, RR 3, Allenby Road, Duncan, B.C. V9L 3Y2. Tel: 746-5147.

AUTHORITY: Transport Canada, 6th Floor, 224 West Esplanade Avenue, North Vancouver, British Columbia V7M 3J7. *Tel:* 984-3800. *Telex:* 04-53235.

Contact: Captain D. M. Featherby, Harbour Master – Victoria, Esquimalt, Crofton and Cowichan Bay, Tel: 388-3578. Mr. W. H. Briscoe, Government Wharfinger, Tel: 746-5215.

DALHOUSIE, N.B.: 48.04 N. 66.22 W. (See Plan)

DOCUMENTS:

Ship's Register.
Load Line.
Safety Radio and Safety Equipment Certificates.
Stores List and Crew Declaration (E–17, Y–14), if from foreign port.
Pratique, if from a Foreign Port.
Immigration Clearance from last Canadian Port.
If from a Foreign Port, 2 copies of crew list.

For Shipping Master: Ship's Articles if British or Canadian Registry.

PILOTAGE: Telegram sent to Restigouche Pilots, Dalhousie, N.B., or to vessel's Agent. 6 hours minimum notice required except during Winter operations (January – April). Pilot vessel is a 40 ft. steel hull, black, grey superstructure, displays proper flag by day and proper lights by night. Pilots meet and board all inbound vessels in position Lat. 48° 03′ N., Long. 66° 15′ W. Pilots prefer pilot ladder for boarding.

ANCHORAGES: Safe anchorage 1.5 miles offshore due East of harbour entrance. Pilots will board vessels for anchorage in from 6 to 12 fathoms.

RESTRICTIONS: Tide restricted if vessel exceeds 28 ft. on arrival.

MAX. SIZE: Max. length 750 ft., beam 100 ft., draft 36 ft. at the Government Wharf, including oil and bulk carriers. Vessels approaching these dimensions must berth at high water, port side to. Max. draft entering harbour and berthed starboard side to is 28 ft. because of restricted turning basin.

HEALTH: See "Montreal".

RADIO: ETA through Grindstone.

TUGS: Not necessary.

BERTHING: To berth starboard side to at any berth vessel is requested to arrive 3 hours before high water.

STEVEDORES: Contact Agents.

MEDICAL: Hospital and doctors available.

TANKERS: One 12 in. line with three 8 in. connections is laid to the Government Wharf. Depth alongside 34 ft. LWOST.

DENSITY: Average density 1008.

FRESH WATER: Available at all berths from hose lines on the dock. 50 t.p.h.

FUEL: Available by truck if necessary. Advance notice required.

GANGWAY/DECK WATCHMEN: Available if requested.

OPENING/CLOSING HATCHES: As in Charter Party.

IDENTIFICATION CARDS: Not needed.

CONSULS: None.

REPATRIATION: Facilities exist providing sufficient notice given.

AIRPORT: 1 flight daily from Montreal to Dalhousie and Chatham and return to Montreal.

TIME: Daylight Saving during Summer months. Atlantic Standard otherwise.

HOLIDAYS: Official Holidays: New Year's Day; Christmas Day; Dominion Day; Labour Day.

POLICE: Telephone 684–5551.

TELEPHONES: Made available upon prior arrangement.

SHORE LEAVE: Allowed.

AUTHORITY: Transport Canada, Harbours and Ports, P.O.Box 7730, Saint John, N.B. *Tel:* 648-4726. *Contact:* Ms. W. Colpitts.

Local Authority: Don Mealey, Harbour Master, Albertina Sullivan, Wharfinger.

DIGBY, N.S.: 44.38 N. 65.45 W. (See Plan)

DOCUMENTS: See "Montreal".
PILOTAGE: Usually contacted through St. John radio station by VHF. 12 hours notice required. Pilot usually meets ships at entrance to Digby. As long as adequate notice is given no waiting is experienced.
ANCHORAGE: Good Anchorage N.E. from town 15 to 25 fathoms.
MAX. SIZE: Length 400 ft. and 28 ft. depth at low water.
HEALTH: See "Montreal".
RADIO/VHF: St. John Radio call sign VAR.
TUGS: Not normally necessary, light towing available in case of necessity.
BERTHING: Transport Canada Spur Pier 115.0 m. long 'F' shaped pier, 12 m. wide, with 100.0 m. commercial berth with 6.7 m. depth alongside at normal low tide (rise in the tide 6.4 m. – 8.5 m.). Berthing at outer boat basin can provide 100 m. with 4.6 m. depth alongside.
FRESH WATER: Supplied by pipe-line under the wharf.
FUEL: Diesel oil available only.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Usually carried out by crew.
CUSTOMS ALLOWANCES: 200 cigarettes per man, per week; 40 oz. alcohol per man per week for crew.
IDENTIFICATION CARDS: Required or passport.
CONSULS: None.
REPAIRS: No major repair facilities available.
REPATRIATION: Can be arranged.
AIRPORT: Small local line based at St. John N.B. supplies service between St. John and Digby. Halifax International Airport 180 miles away.
HOLIDAYS: New Year's Day (Jan. 1st); Good Friday; Easter Monday; Victoria Day and Queen Elizabeth Day (May 19th) Canada Day (July 1st); Labour Day (Sept. 1st); Thanksgiving Day (Oct. 13th); Remembrance Day (Nov. 11th); Christmas Day (Dec. 25th).
POLICE/FIRE/AMBULANCE: Police 245–2579; Fire 245–2121; Ambulance 245–2205.
TELEPHONES: Available at cost of installation.
SHORE LEAVE: Allowed.
AUTHORITY: Transport Canada, Office of Harbours and Ports – Maritimes Region, P.O.Box 1013, Dartmouth, N.S. B2Y 4K2. *Contact:* The Regional Manager, Tel: (902) 426-2588.

FRASER PORT, B.C.: 49.12 N. 122.55 W. (See Plan)

DOCUMENTS, ANCHORAGE, and further information: Refer to "Vancouver, B.C.".
PILOTAGE: Compulsory from Fraser River Sands Heads. Contact Pilots through Vancouver Pilots. 12 hours notice required. Pilot boards 1 mile off Sandheads. Contact pilot launch on VHF Channel 74.
MAX. SIZE: Draft limited to 35 ft. on 13 ft. tide.
HEALTH: Pratique and quarantine at Victoria B.C.
TUGS: Available, normally join vessel on arrival.
BERTHING: (North and South side of river).
Fraser-Surrey Docks Ltd.: 5 general berths, total length 3,300 ft., 1 sawdust/woodpulp bulk cargo berth. Depths alongside at LW: Berths No. 1 and 2 – 35 ft. Berths No. 3, 4 and 5 – 33 ft. Berth No. 6 – 30 ft. Water, power and telephone connections at all berths. Cargoes handled include forest products, steel, heavy lifts, bulk and general cargo, as well as Roll-on/Roll-off cargoes and containers. Terminal well equipped with fork lifts, front-end loaders, cranes to 250 tons and 2×40 ton Paceco Portainers. Operators are Fraser Surrey Docks Ltd.
Fraser Wharves Ltd.: 1 berth, length 500 ft., width 45 ft., depth 35 ft. Berth for loading and unloading cars.
Annacias Auto Terminals.: 2 berths. No. 1 length 700 ft., width 200 ft. depth 34 ft. No. 2 length 565 ft., width 60 ft., depth 34 ft. Situated at East end of Annacis Island for discharging of cars.
Chatterton Petro-Chemicals Ltd.: 1 berth, length 610 ft., depth 27 ft. Berth connected to plant by 30 in. conveyor belt system for transfer of crude rock gypsum to the plant. Berth is upstream of the Patullo Bridge.
Crown Forest Industries Ltd.: 2 berths, total length 1,300 ft., depth at LW 30 ft. Berth is upstream of the Patullo Bridge.
MEDICAL: All services available.
DENSITY: Varies with location and season.
FRESH WATER: Available.
FUEL: All grades available.
CONSULS: At Vancouver.
REPAIRS: Engine repairs only.
AIRPORT: Nearest is Vancouver International.
POLICE/AMBULANCE/FIRE: Ambulance 872-5151.
SHORE LEAVE: Allowed.
DEVELOPMENTS: Future developments call for channel improvement, expanded berthing facilities and intermodal facility – (16 hectare by 1990).
AUTHORITY: Fraser River Harbour Commission, Suite 505, 713 Columbia Street, New Westminster, B.C., Canada V3M 1B2. *Tel:* (604) 524-6655. *Contact:* R. C. Pearce, Port Manager.

FROBISHER BAY, N.W.T.: 63.44 N. 68.32 W.

LOCATION: An expanding settlement at the head of Frobisher Bay, Baffin Island. Navigation season, mid-July to mid-October depending on ice conditions. Port of entry.
DOCUMENTS: See "Montreal".
PILOTAGE: No service as such but a senior port officer may assist vessels to moorings.
APPROACHES: Anchorage in depths of 38.4 m. to 40.2 m. Approximately 925 m. East of Monument Island settlement. Minimum depths in approaches, 9.8 m.
TIDES: Rise of Tide, 12.2 m., with strong tidal runs between islands. Low powered vessels generally navigate Pike Resor Channel at slack water, high or low tide if current unfavourable. This channel is mostly navigated during daylight hours.
HEALTH: Free Pratique, if health certificate is in order. In the event of suspected disease or fever on board, report to Frobisher Bay Telecommunications Branch call sign VFF, R/T or W/T.
RADIO: Frobisher Bay R/S VFF. Coast Guard Radio.
TUGS: 2 landing craft (LCM's) each powered with two 130 h.p. diesel engines assist vessels in mooring, acting as tugs and running ship's stern lines to Innuit Head.
BERTHING: Tankers of 160 m. length, 17.68 m. breadth and draft of 9.1 m., discharge approximately 243.8 m. off Innuit Head. Method of mooring is to stream both anchors in anchorage area and stern lines to mooring bollards situated on Innuit Head for this purpose. General cargo ships up to 12,000 tons also moor in this position. Vessels should be prepared for a quick departure in event of storm warnings, especially hazardous from N. and S. winds. Maximum length, breadth and draft determined by Master and Owners or Charterers. Delays can be expected due to tidal conditions. All general cargo, machinery, vehicles, etc., transferred from ship to shore and vice-versa via landing craft as no pier exists; beach gradient is gradual. Frequently barges cannot be discharged and re-floated until next rising tide. Delays expected for cargo vessels anchoring off Monument Island and discharging or loading by lighters during high winds and rough seas.
STEVEDORES: Special arrangements are necessary for these services.
MEDICAL: Hospital facilities available.
DENSITY: From August 1st to September 15th mean approx. 1024 increasing slightly as season advances.
FRESH WATER: Small quantity in emergency. Approximately 50 gallons per minute.
Note: Due to tidal conditions considerable delay could result in delivering fresh water.
FUEL: Only supplied in emergency, Arctic diesel Grade 1, viscosity quoted as minus 60. Arrangements to be made through Shell Canada.
OPENING/CLOSING HATCHES: According to agreements.
IDENTIFICATION CARDS: Required if arriving from a foreign country.
REPAIRS: Limited repairs, i.e. welding, R/T and radio.
REPATRIATION: Crew changes can be effected by air passage to or from Montreal.
AIRPORT: Distance approximately 0.8 km. from landing beach, 6 flights weekly to and from Montreal, weather permitting, via Nordair Ltd. of Montreal. 3 flights weekly to Ottawa via First Air.
TIME: GMT minus 4 hours. Summertime kept from April to October.
POLICE/AMBULANCE/FIRE: RCMP 5202; Ambulance 979–5231; Fire 6666.
AUTHORITY: Transport Canada, Ottawa.
Transport Canada, c/o Beach Master, Frobisher Bay, Canada XOA OXO. *Tel:* (819) 797-6298 during season. *Telex:* 063-5529. Telegrams, c/o Canadian National Telegraph via VFF or VAW. *Contact:* Captain C. Cote.

GASPE, Quebec: 48.50 N. 64.29 W. (See Plan)

DOCUMENTS:
Immigration Documents:
Passenger Landing Cards (Tourist) 1 each passenger.
1 Crew List from Immigration.
2 Passenger Lists.
Customs Documents:
3 Inward Reports.
3 Outward Reports.
3 Ship Stores Lists (Form E.1).
3 Crew Declarations (Form Y.14).
National Health and Welfare:
2 QS.1 Maritime Declarations of Health.
Manifests required for cargo unloaded only.
PILOTAGE: Not compulsory but recommended. Pilots available. To obtain Pilot, arrange by radio phone through marine radio station VCG at Fox River, Gaspe PQ, on receipt of message either to Agent (Robert Lagace, see "Authority") or Port Authority, Pilot and other arrangements can be made.
MAX. SIZE: Vessels of 650 ft. and over have both docked and anchored. Tide has no effect as it is very sheltered. Government Wharf depth 35 ft. LW.
HEALTH: On arrival in Canadian waters Master applies for Radio Pratique by radio to Quarantine Officer at Quebec City. Master flies yellow flag on arrival and until Medical Officer decides it can be lowered or otherwise according to regulations. See also "Montreal".
RADIO: VCG Marine Station Fox River, Gaspe PQ.
TUGS: Not necessary, no tugs available unless called for in emergency. Line boats available for docking, by arrangement.

BERTHING: *Transport Canada (Sandy Beach) Wharf:* Wharf re-built in 1986. Berthing length 600 ft., depth alongside at LW 33 ft. to 35 ft. outer face and about 26 ft. inner side; railroad tracks on wharf, oil tanks, electric light and water.
STEVEDORES: Good stevedoring available at all times and hours.
MEDICAL: Hospital and ambulance service.
TANKERS: Oil lines on Transport Canada Wharf owned and used by Gulf Oil Canada, Irving Oil, Shell Canada Limited and Imperial Oil. These lines are privately owned.
FRESH WATER: Available, arranged through ship's Agent.
FUEL: Light and medium diesel available at all times. If bunker fuel required, on request it will be brought in by tanker car.
GANGWAY/DECK WATCHMEN: Recommended watchmen necessary, may be obtained.
OPENING/CLOSING HATCHES: Done by ship's crew.
CUSTOMS ALLOWANCES: On arrival officers and crew permitted 1 bottle and 200 cigarettes and 1 lb. of tobacco for period of 1 week, further allowances of tobacco given after 1 week, as well as spirits to Master only.
IDENTIFICATION CARDS: Not required.
CONSULS: None.
REPAIRS: Only minor repairs.
REPATRIATION: May be arranged by Agent subject to Immigration control.
AIRPORT: Situated about 7 miles from the dock. Twice daily service to Quebec and Montreal. Connections to all parts from Montreal. Charter passengers and freight flights also available.
HOLIDAYS: Saturday, New Year (January 1st); Good Friday; Victoria Day (May 19th); Confederation Day (July 1st); Labour Day (September 1st); Thanksgiving Day (about October 13th); Remembrance Day (November 11th); Christmas Day (December 25th). There are a few other R.C. Church days on which some men are not obtainable. On most of these holidays stevedores and men are available.
POLICE/AMBULANCE/FIRE: Police area 418 call 368–3337. Local RCMP area 418 call 368–2543. Ambulance Area 418 call 368–2835.
TELEPHONES: Possible arrangements may be made with local telephone company for installations to vessel.
SERVICES: Radar repairman available.
Ship Supply Service and Shipping Agent: Calypso Agencies Inc., P.O.Box 890, Gaspe, Province Quebec, G0C 1R0. Tel: (418) 368-3648. Telex: 0142236. Cables: Calypso.
SHORE LEAVE: Crew allowed ashore.
AUTHORITY: Transport Canada, 179 Mgr. Leblanc, C.P. 890, Gaspe, Province Quebec, Canada G0C 1R0. *Tel:* (418) 368-3648. *Telex:* 0142236. *Contact:* Robert Lagace, Harbour Master.

GOOSE BAY, Labrador: 53.22 N. 60.22 W.

DOCUMENTS, HEALTH: See "Montreal".
PILOTAGE: Not compulsory. 2 Pilots available; 12 hours notice of arrival required with confirmation 8 hours and 4 hours before arrival. Contact Pilot on radio-telephone 2182 kHz (working 2716 kHz), calling "Victor Gulf Whiskey". Pilot station at Rigolet (92 miles from Terrington Basin).
ANCHORAGE: Good anchorage, with excellent holding ground in 36 ft. (11 m.), mud, can be obtained in the central part of Terrington Basin. Ships carrying dangerous cargoes must use the designated Explosives Anchorage situated 2 miles N.E. of Groves Point.
RESTRICTIONS: Navigation season early June to end November depending on pack ice movements. Approach – Sandy Point Channel at entrance to Goose Bay and 15 miles from the dock has a width of 300 ft. Harbour Master advises draft of 31 ft. HWF. Groves Point Channel at entrance to Terrington Basin and 1.5 miles from Main Dock has depth of 32 ft. HWF and width of 300 ft.
Caution: When a tanker is seen to be leaving her berth in Terrington Basin or is in or approaching Terrington Narrows, she shall be granted the right of way, and other vessels must not be navigated into the narrows until the tanker is well clear of the channel.
Ice: The entry into Goose Bay Harbour is entirely dependent upon ice conditions at the seaward end of Hamilton Inlet. Ice begins to form in Terrington Basin between the latter part of October and mid November, with complete coverage occurring any time between early November and the beginning of December. During winter the ice attains a thickness of about 42 in. (1.1 m.). Break-up generally occurs between the third week of April and the first week of June.
MAX. SIZE: Max. draft at Government Wharf 19 ft. 06 in.
Also see "Berthing".
VHF: Pilot vessel on Channels 51 and 16.
TUGS: There are no tugs. 3 landing craft available to assist.
BERTHING: The main Government Wharf is situated 1.5 miles W.S.W. of Terrington Narrows; it has a berthing length of 810 ft. (247 m.) and was dredged to 30 ft. (9.1 m.) in 1971, but some silting has occurred and up-to-date depths should be obtained from the Harbour Master. There are 5 large storage sheds on the structure. The office of the Harbour Master is in a building on the main road leading from the wharf.
Another Government Wharf is situated 0.4 miles N.W. of the main Government Wharf; it has a depth of 21 ft. (6.4 m.) at the outer end.
STEVEDORES: A local stevedoring company can provide labour for handling cargo. There are no fixed cranes on the wharves, but mobile cranes can be hired locally.
TANKERS: There is a small oil wharf used for discharging petroleum products at the E.S.E. end of the main Government Wharf. It has a depth of 18 ft. (5.5 m.) at its outer end.
DENSITY: 1000 ~~fresh water~~.
FUEL: Light diesel oil available by pipe-line at the main Government Wharf.
FRESH WATER: Available alongside berths.
REPAIRS: Only minor repairs may be effected in emergency.
AIRPORT: 1.5 miles distant.
HOLIDAYS: New Year's Day; Good Friday; July 1st; Labour Day; November 11th; Christmas Day; Boxing Day.
GENERAL:
Communications: Telephone. Canadian Coastguard Radio Station (see "Radio Aids to Marine Navigation").
Transportation: Airfield with frequent scheduled service by Eastern Provincial Airways to other Newfoundland centres and the mainland. Scheduled cargo and cargo/passenger services during the navigation season by Chimo Shipping Limited and CN Marine.
Mail: Post Office.
Accommodation: Several motels.
Medical: Hospital.
Banks: Royal Bank and Bank of Nova Scotia.
Police: RCMP detatchment.
Supplies: Hudson's Bay Company store and several smaller stores.
Customs: Port of Entry; the Customs Office is situated at Goose Airfield.
AUTHORITY: Harbours and Ports Directorate, P.O.Box 1300, St. John's, Newfoundland A1C 6H8, Canada. *Telex:* 016 3369. *Contact:* D. A. Lester.
Transport Canada, Goose Bay. *Contact:* George Shiwak, Harbour Master. *Tel:* (709) 896-2569.

GRAND BANK, Newfoundland: 47.06 N. 55.45 N. **(See Plan)**

PORT LIMITS: A line drawn from Grand Bank Head to L'Anse au Loup Pt. defines the port limits.
PILOTAGE: Pilotage is not compulsory, but recommended for those without local knowledge. A licensed Pilot can be arranged by giving 24 hours notice of requirement to Pilots, St. John's. The Pilot will board off St. John's in position Lat. 47° 33′ 42″ N., Long. 52° 37′ 54″ W. or off Grand Bank Harbour provided the vessel's local Agent arranges for a boat to embark the Pilot. The Atlantic Pilotage Authority pilot boat No. 2 is used at St. John's; this boat guards VHF Channels 16 and 11 (156.8 and 156.55 MHz.). Alternatively, Shipmaster's may arrange to use local persons in the town for pilotage purposes.
ANCHORAGES: Vessels may anchor in depths of 10 fathoms (18.3 m.) off Grand Bank, but the holding ground has been reported as poor.
BERTHING: The Western Breakwater (deck elevation 4.4 m.), about 600 ft. (183 m.) in length, affords protection to the harbour entrance between the Western Pier and the Eastern Breakwater. In 1977, there was a least depth of 15 ft. (4.6 m.) alongside the Western Pier. Marine coastal vessels berth at this pier which is 240 ft. (73 m.) long. The deck of the wharf has an elevation of about 3.5 m. A shed, 60 ft. by 41 ft. (18 m. by 12 m.), is located adjacent to the pier. Least depth alongside 3.7 m.
A fish wharf 245 ft. (75 m.) in length, situated on the East side of the harbour, had a least depth of 16 ft. (4.9 m.) alongside in 1977. A fish-packing plant is situated on the wharf.
Marginal wharf length 1,140 ft., depth alongside 14 ft. – 18 ft. LWOST.
A government wharf is situated at the South end of the harbour. The harbour is open all year round.
CRANES: Small mobile cranes only.
MEDICAL: Cottage hospital within the town.
EMERGENCY CO-ORDINATION CENTRE: Coast Guard, Search and Rescue, St. John's Tel: (709) 772-5151.
GANGWAY/DECK WATCHMEN: Usually ship's crew, ship's gangway used.
FRESH WATER: Available.
FUEL: Limited supplies of fuel and diesel oil available.
BANKING: Services available.
SHORE LEAVE: No restrictions.
GENERAL: Chart: 4611.
AUTHORITY: Transport Canada, P.O.Box 1300, St. John's, Newfoundland, A1C 6H8. *Tel:* 772-5154. *Telex:* 016-3369 *FAX:* 2193. *Contact:* D. A. Lester, Regional Manager.

HALIFAX, N.S.: 44.39 N. 63.34 W. **(See Plan)**

DOCUMENTS:
Port Doctor: Form QS1; Crew Vaccination Certificates; Derat Certificate.
Customs: Customs Clearance or Certificate From Last Port; Cargo List (if no cargo, words "In Ballast" entered); Bonded Stores List (Form E.1); Crew Declaration for each crew member (Form Y14). Ship's Register; Safety Radio, Load Line and Safety Equipment Certificates.
Immigration: Crew List (Form 200) in duplicate in English; all crew Passports (returned prior to sailing).
PILOTAGE: Compulsory. Essential send arrival notice by radio to avoid delay in waiting Pilot. 12 hour notice of ETA required and confirmed or corrected 3 hours before arrival. All times must be GMT. Radio messages should be addressed Marine Aid Centre, Chebucto Head. All pilotage messages subject to full tolls.
When possible, Pilots will board in vicinity of Inner Automatic Light and Whistle Buoy situated about 2 miles N.E. of Chebucto Head. In heavy weather not always possible for pilot vessel to take up station at

above position, but will proceed as far seaward as feasible to embark or disembark Pilot.

In normal weather pilot vessel shall, in daytime, fly Pilot flag, and at night will show lights required by international regulations. In abnormal weather – fog, mist, snow, heavy rainstorms – when on station on pilotage duty, in addition to regular signals, will blow 4 long blasts at regular intervals. Vessel requiring Pilot should blow 4 short blasts on whistle at intervals until pilot boat sighted. Pilot boats equipped with radar and stand-by on radio telephone operating on frequency of 156.8 MHz or Channel 16 under international VHF designations.

ETA: For provisional clearance to enter the Halifax Marine Traffic Regulating Zone, vessels should supply the following information to "Halifax Traffic":

1. Position.
2. ETA Zone Limit (Zone boundary is approximately 16 miles radius from Chebucto Head).
3. Destination and last port.
4. Draft.
5. Description and weight of pollutants or any dirty cargo carried.
6. Deficiencies in ship's navigational equipment, engine's steering gear or anchors.
7. Any leakage of pollutants or any damage which may result in pollution.
8. Pilots must be advised ETA 12 hours and 3 hours prior arrival at the Pilots Boarding Station, using GMT, to "Pilots Halifax".

For final clearance to enter the Halifax Marine Traffic Regulation Zone:

1. Report to "Halifax Traffic" on VHF Channel 14 or 2182 kHz, when approaching the zone boundary.
2. Report to "Halifax Traffic" when approaching zone boundaries approximately 8 and 4 miles radius from Chebucto Head.

Vessels leaving Halifax are to report to "Halifax Traffic" when approaching zone boundaries.

ANCHORAGE: Vessels anchor in harbour in areas designated by Halifax Port Corporation.

RESTRICTIONS: Controlling depth in channels of approach 60 ft. in main harbour as far as the Narrows. Ice free all year. Ample turning room for the longest vessel.

MAX. SIZE: Length and breadth unlimited. Can berth ships up to 60 ft. draft. Channel depth 60 ft. Tide range 3 ft. to 6 ft. 110,000 ton tankers with drafts 50 ft. enter harbour regularly.

HEALTH: Quarantine – every vessel coming from port outside Canada shall be inspected by Quarantine Officer at a place specified by him. (Quarantine Station in Anchorage No. 1). Where sufficient information can be given by radio, Radio Pratique may be given between 0900 hrs. and 1700 hrs. local time (address "Quarantine Halifax") and message should include (i) name and nationality of vessel, (ii) ports of call during voyage, (iii) nature of cargo, (iv) number of crew and passengers, (v) statement of health, (vi) name of Agent, (vii) ETA pilot station in GMT. A coastwise vessel, free from disease and arriving from a disease-free coastwise port, may be exempted quarantine inspection.

TUGS: Join vessel inside harbour at Quarantine Anchorage. Tugs towing use vessel's lines. Tugs made fast alongside vessel for docking or undocking use their own lines at no extra charge.

RADIO: Halifax Marine Radio Station, Ketch Harbour. Radio-telephone and other services. Masters may contact Halifax Marine Radio on 500 or 2,182 kHz, VHF on 156.8, working Channel 26 (161.9 and 157.3 MHz).

RADAR: Marine Traffic Regulating Center at Chebucto Head. Working frequencies Sector One 156.7 MHz (Channel 14); Sector Two 156.6 MHz (Channel 12). Call sign "Halifax Traffic".

BRIDGES: There are two: Angus L. MacDonald Bridge (Halifax-Dartmouth) min. vertical clearance at HW 158 ft.; A. Murray MacKay Bridge (narrows) min. vertical clearance at HW 157.7 ft.

TANKERS: 110,000 ton tankers, 50 ft. draft, use port regularly. Terminals – 9 berths operated by 5 oil companies.

Imperial Oil, South Dartmouth, 3 piers, vessels up to 282 m.; max. draft 15.2 m., bunkering vessel also provides barge service.

Irving Oil Co. Ltd.: 3 berths, ocean vessels any length, max. draft 11.6 m.; located at Woodside.

Texaco Canada Ltd.: Eastern Passage, 2 berths (1 berth any length vessel) draft up to 10.1 m., barge service provided in harbour.

Ultramar Ltd.: Bedford Basin; 109.8 m. wharf (no restriction vessel length) depth 9.7 m.; located Burnside, Halifax – Dartmouth Marine Terminal.

Also see "Berthing".

BERTHING:
Port Facilities

Berth Number (Usual Name)	*Wharf Length (m.)*	*Depth at LW (m.)*	*Approx. Size (m.)*	*Shedded Approx. Area (sq.m.)*	*Approx. Open Space (sq.m.)*	*Remarks*
Ocean Terminals:						
20	224	12.1	181 × 29	5,250	—	Pipe-lines for tallow to storage tanks. Bagged flour.
21	178	12.1	161 × 29	4,670	—	Bagged flour.
21 Upper Floor			161 × 29	4,670	—	Leased – Navigational School.
22	209	12.5	153 × 29	4,440	—	Bagged flour.
22 Upper Floor	—		153 × 29	4,440	—	Storage.
23	213	9.7	161 × 31	4,990	—	*Heated Shed Breakbulk general cargo
24	137	8.8	—		3,728	Open Terminal – Containers, Steel, Heavy Lifts, etc.
25	168	11.2		—	5,462	Open Pier (Restricted by Grain Galleries) – Bulk Cement.
26	213	10.6	201 × 30	6,030	—	Fixed Marine Leg for discharging Grain – Breakbulk general cargo.
East End Pier A	97	8.8		—	—	—
27	207	13.4	202 × 31	6,250	—	
28	174	12.1	—		4,660	Open Pier (Restricted by Grain Galleries).
29	122	9.1			—	
30	244	10.5		—	1,858	Open Area (part.) Ro/Ro Ramp. Containers, Steel, Heavy Lifts, etc., Cruise Passengers.
31	—	10.5	—	—	5,574	Open Terminal. Containers, Steel, Heavy Lifts, etc., Cruise Passengers.
32 (East End A 1)	88	10.0	—	—		
33	190	12.1	188 × 31	5,830	—	*Heated Shed. Breakbulk general cargo.
34	190	8.2	126 × 31	3,906	1,953	*Heated Shed. Breakbulk general cargo, Containers Ro/Ro, etc.
35	103	4.5	—	—	3,411	Open Area – 15 m. Ro/Ro ramps (2). End loading for vessel on Berth 36 and Berth 34. Containers, Ro/Ro, etc. Ro/Ro cargo – consolidation area.
36-40	190	10.6	—		18,580.60	Open area. Containers.
37	190	12.8	79 × 29	2,290	2,290	Containers, Steel, Heavy Lifts, etc., Shed. Breakbulk general cargo.
38 (East End B)	91	11.5	80 × 31	2,480	—	
39	190	10.9	158 × 29	4,580	—	Breakbulk general cargo.
41	284	14.0		—	—	Container berths, 3 × 40.8 tonne Gantry cranes, berth 41 has 24.4 m. wide stern Ro/Ro ramp. Terminal fenced area 22.7 hectares. Consolidation shed 2,787.07 sq.m.
42	284	11.5		—	—	
Richmond Terminals:						
9	213	8.1	—	—	—	Oil pipe-lines to Storage Tanks.
9A	240	8.1	154 × 37	5,698	—	Breakbulk General Cargo.
9B	213	8.1	168 × 37	6,216	—	
9C	140	8.7	—		6,131	
9D	—	—	—		—	No Berth. Additional area created for storage area.

*Heat available as required.

Private Facilities:

Berth	*Length* (m.)	*Depth LW* (m.)	*Remarks*
Dartmouth:			
Imperial Oil No. 3	67	11.6	Bunkering.
No. 4	122	10.7	Bunkering. Refinery and Storage Tanks.
No. 5	67	14.9	Bunkering.
	30	12.8	Crane: Height 45 m., 11 t. lift, unloading 180 t. per hour. Pipe-line for liquid salt to shore tank.
Mobil Oil Dock	36	8.2	Offshore supply base – approx. 4.86 hectares.
Irving Oil Dock A	94	11.16	Bunkering. Storage tanks.
Irving Oil Dock B (L shaped)	85	—	Bunkering. Storage tanks.
Industrial Estates Wharf	152	7.6	Lay-up Berth.
Eastern Passage:			
Texaco Wharf	168	10.1	Bunkering and oil storage. Refinery.
Autoport – outside	201	13.7	Approx. 36.4 hectares for vehicle storage. **Floating Dock– Ro/Ro side loading and end loading. Pre-servicing available for import vehicles.
Autoport – inside	107	7.6	
Bedford Basin:			
Bedford Institute			Dock at Bedford Institute of Oceanography – Department of Fisheries and Oceans.
Ultramar	110	9.7	Storage Tanks.
National Gypsum Ltd.	197	10.1	Loading capacity of 4,500 t. gypsum rock per hour. Diesel fuel is available.
Fairview Cove Container Terminal	660	13.7	Operator: Ceres Corp. Consolidation shed area: 21.17 hectares (space for expansion as required). Facilities 2×40 tonne dockside gantry cranes; ro/ro ramp end loading.

**Terminal Operation.

BULK HANDLING FACILITIES: *Grain Handling Facilities:* Halifax Port Corporation Elevator – Storage capacity 144,256 tonnes wheat equivalent.

Max. Capacity: Berth 28: 1,000 tonnes per hour. (Wheat equivalent) (loading). Berth 26: 800 tonnes per hour. (Wheat equivalent) (unloading)

MEDICAL: Sick Mariners' Service may be obtained for venereal disease only at the Federal Building, Suite 620, Bedford Row, Monday through Friday, Tel: 426-3998. Doctor always available either by telephone or telephone answering service. Information for emergency treatment outside these hours may be obtained from ship's Agent. Emergency hospitalisation can be obtained only at Camp Hill Hospital.

STEVEDORES: Available from several private companies.

DENSITY: Salt water all tides.

FRESH WATER: Dock side only. No water barges. 50 t.p.h. per hose.

FUEL: See "Tankers".

GANGWAY/DECK WATCHMEN: Can be provided.

OPENING/CLOSING HATCHES: Patent mechanical hatches by ship's crew. Wood and canvas hatch covers by stevedores.

CUSTOMS ALLOWANCES: Tobacco: 1 lb. per man per week; 200 cigarettes per man per week. Wine/spirit allowance: 40 oz. bottle per man per week.

CARGO GEAR: All ships liable to inspection by Government Inspectors. Gear Certificates to be produced, if required. Heavy-lift equipment: 59 pieces ranging in single lift capacity to 300 short tons. Normally available on a few hours notice, including floating cranes.

CONSULS: The following countries are represented in Halifax:

Austria
Belgium
Brazil
Britain
Denmark
Finland
Germany F.R.
Iceland
Italy
Japan
Netherlands
Norway
Peru
Portugal
Spain
Sweden
United States of America

REPAIRS: All types of repairs possible.

SURVEYORS: Surveyors and Cargo Inspectors available.

DRY DOCKS: Floating dock 182.9 m. by 30.5 m. by 9.45 m. deep; Lifting capacity 22,680 tons. Graving dock – 172.9 m. long, 24.4 m. wide at keel blocks; clearance at top is 31.2 m.; max. draft over the keel blocks is 7.9 m., capacity 13,610 tons. Two marine railway slips at Dartmouth capable of hauling vessels from 36 to 2,720 tons displacement. Complete machine shop and other repair facilities as well as Salvage equipment available.

New floating dock. Lifting capacity 36,000 tons. Dimensions 237 m. × 38 m. × 9 m. draft.

AIRPORT: Halifax International. Regular services to Canada, USA and Europe.

TIME: Standard Time GMT minus 4 hours. Daylight Saving Time from first week-end in April to last week-end in October, clocks advanced 1 hour.

HOLIDAYS: New Year's Day (January 1st); Good Friday; Queen's Birthday (May 20th); Dominion Day (July 1st); Labour Day (September 2nd); Thanksgiving Day (October 14th); Remembrance Day (November 11th); Christmas Day (December 25th). Cargo work can be arranged on all holidays except Labour Day, Christmas Day and New Year's Day.

POLICE/AMBULANCE/FIRE: Police Tel: 4105. Harbour Police (Ports Canada) Tel: 426-3629. Ambulance Tel: 429-5151. Fire Tel: 4103.

EMERGENCY CO-ORDINATION CENTRE: Coast Guard Halifax Tel: 426-6030. Halifax Traffic Centre Telex: 22502.

TELEPHONES: Service available at all berths.

GENERAL: Extensive rail and road services plus extensive transit sheds, cold storage with 1,719,000 cu.ft. storage space.

STORING: See "Prelims".

1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. None for local stores.
6. Yes.

SERVICES: All services available including compass adjusting, tank cleaning, etc.

SHORE LEAVE: Crew allowed ashore.

AUTHORITY: Halifax Port Corporation, P.O.Box 336, Halifax, Nova Scotia, Canada B3J 2P6. *Tel:* (902) 426-3643. *Telex:* 019-23591. *Contact:* Captain C. L. Ball, Director of Operations and Harbour Master (Tel. (902) 426-3648). D. F. Bellefontaine, General Manager (Tel. (902) 426-3643).

HAMILTON, Ontario: 43.14 N. 79.41 W. (See Plan)

For important General Information refer to St. Lawrence Seaway.

DOCUMENTS:
Inward manifest 3 days prior to arrival of vessel.
1 Steamship company release covering inward shipment.
1 Loading list, 24 hours prior to vessel loading.
1 Customs report outwards (A.7).
3 Vessel's outward manifest within 3 days after departure of vessel.

PILOTAGE: See "St. Lawrence Seaway".

MAX. SIZE: LOA 730 ft. Max. draft 26 ft.

HEALTH: First port of entry. See "Montreal".

RADIO: VBG Toronto.

Vessels Inbound: Call Burlington Bridge on radio telephone (VHF or AM) for clearance. Call Harbour Master's office for information about docking orders (VHF or AM).

Vessels Outbound: Call Burlington Bridge for clearance. Call Harbour Master's office to advise next port of call.

General: Harbour Master's office keeps radio watch on AM and FM working channels. Tug or linesmen may be ordered through the Harbour Master's office or Agent.

TUGS: Join inside harbour entrance – ship's lines used.

BERTHING: Arrangements made with Harbour Master.

Berthing Capacities: The Port of Hamilton provides berthing facilities for all vessels capable of navigating the St. Lawrence Seaway which can handle maximum size vessels of 730 ft. length × 75 ft. beam with a draft of 26 ft. 6 in.

The Hamilton Harbour Commissioners provide 7,306 m. of berthing and in addition 3,073 m. of berthing is available for private docks i.e. – The Steel Company of Canada, Dominion Foundries & Steel.

Covered Storage Space: Total 59,270 sq.m. from which the Hamilton Harbour Commissioners utilise 39,947 sq.m. and leases to private operators:

9,300 sq.m. to Seaway Terminals Pier No. 14

Outside Storage Space: Total – 276,860 sq.m. Operated by The Hamilton Harbour Commissioners:

Centennial Terminal	74,700 sq.m.
Wellington Street Terminal	46,530 sq.m.
Pier 23	13,000 sq.m.

Leased to Private Operators:

Pier 11	23,225 sq.m.
Pier 12	55,740 sq.m.
Pier 15	14,000 sq.m.
Pier 24	35,000 sq.m.
Pier 25	162,841 sq.m.
Pier 26	100,000 sq.m.

BRIDGES: Lift bridge at harbour entrance can be raised any time.

STEVEDORES: Must be ordered prior to 1545 hrs. on previous day.

MEDICAL: Hospital services available and doctors can be arranged.

FRESH WATER: Available.

FUEL: All types available.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Performed by stevedores.

CUSTOMS ALLOWANCES: See "Montreal".

IDENTIFICATION CARDS: Not required.

CONSULS: Consuls located in Toronto.

REPAIRS: Available.

AIRPORT: Hamilton CVC Airport (10 miles South), and Lester B. Pearson International Airport (30 miles East).

HOLIDAYS: Normal Canadian statutory holidays apply and labour can be arranged at extra cost. See "Montreal" for details.

POLICE/AMBULANCE/FIRE: Police 522-4925 or 911.

TELEPHONES: Can be arranged on board.

SHORE LEAVE: Crew allowed ashore.

DEVELOPMENTS: Pier No. 26 under construction.

AUTHORITY: The Hamilton Harbour Commissioners, 605 James St. N., Hamilton, Ontario L8L 1K1. *Tel:* 416 – 525-4330. *Telex:* 061-8638. *FAX:* (416) 528-6282. *Contact:* R. R. Hennessy, Port Director. I. M. Noble, Harbour Master.

HANTSPORT, N.S.: 45.04 N. 64.10 W. (See Plan)

DOCUMENTS: See "Montreal".
PILOTAGE: Non-compulsory, but advisable. Rates by agreement.
MAX. SIZE: Tidal port and no shipping arrives or departs at low water. Draft of largest vessel that entered port was 24 ft. A draft of 25 ft. can be taken in and out.
HEALTH: Customs Officer acts as Quarantine Officer.
RADIO: Ship-to-shore communications; through St. John N.B. or Yarmouth N.S.
BERTHING: Berthing length 400 ft., no water at low tide, ships lie aground on mud alongside. There are railroad tracks on wharf, main and electric lights laid on.
FRESH WATER: From pipe-line on Government wharf.
FUEL: Oil by truck from various companies.
REPAIRS: Hull repairs can be made at low water with vessel high and dry.
SERVICES: Supplies: ship's stores can be secured in port.
AUTHORITY: Mr. John Harvie, Harbour Master/Wharfinger, P.O.Box 35, Hantsport, Nova Scotia B0P 1P0. *Tel:* 684-3216.

HARBOUR GRACE, Newfoundland: 47.43 N. 53.08 W.

DOCUMENTS:
Crew Lists.
Names of passengers.
Clearance from Last Port of call.
Derat Certificate.
Inoculation List of all crew members and passengers.
Manifest of Cargo.
Copy Bills of Lading.
List of Bonded Goods.

PILOTAGE: Not compulsory, if required cable Agent.
ANCHORAGES: Pilot will instruct Master.
MAX. SIZE: Max. length 650 ft., max. draft 24 ft. low tide.
HEALTH: See "Montreal".
RADIO: Route cables and telephone calls through St. John's Newfoundland Radio.
VHF: Stand by on Channel 6.
TUGS: Not available.
BERTHING: Nothing specific, Pilot will have instructions; Agent should be given 24 hours arrival notice.
CRANE: Available on request.
STEVEDORES: Available. 24 hours notice required.
MEDICAL: Port doctors available; hospital facilities; advance notice would be helpful in providing ambulance services if needed.
TANKERS: Marine storage terminals for oil are served by Canadian tankers.
FRESH WATER: Available, pipe-line delivery at piers, rate of delivery as required.
FUEL: Diesel, gas oil, marine bunkering facilities in piers, available at any time, no notice required.
GANGWAY/DECK WATCHMEN: Not necessary, available if required.
OPENING/CLOSING HATCHES: By crew.
IDENTIFICATION CARDS: Not required.
CONSULS: Norway; Denmark; Spain; Portugal; France.
REPAIRS: Deck and engine repairs available.
AIRPORT: 1 hour 15 minutes drive, service by regular airlines making connection to all points in the world.
TIME: GMT minus 3.5 hours. Clocks advanced 1 hour first Sunday of April each year and are put back 1 hour last Sunday of October each year.
HOLIDAYS: New Year's Day; Good Friday; July 1st; November 11th; December 25th. Cargoes could be worked on these days with exception of Good Friday and Christmas Day.
POLICE/AMBULANCE/FIRE: One telephone number for all services 709-596-5014.
TELEPHONES: Available at pier.
CUSTOMS ALLOWANCES: Tobacco – each man 200 cigarettes per week. Wine and Spirit – each man 40 oz. wine or spirits per week.
SERVICES: Compass adjusting, radar repairs, RT repairs, gyro compass repairs, all types electronic equipment repaired. Divers available for surveys and underwater repairs.
REGULATIONS: Fishing vessels must advise of week-end arrival on Friday so that permit to take supplies can be obtained from Federal Dept. of Fisheries.
SHORE LEAVE: All crew members allowed ashore.
AGENT: Cyril Babb Ltd., P.O.Box 160, Harbour Grace, Newfoundland, Canada A0A 2M0. Tel: (709) 596-5041/3011, (709) 722-2966. Telex: 016-4153 Fishco Hrgc. FAX: (709) 596-7189. Contact: R. Lynch or R. Babb.

HAVRE ST. PIERRE, Quebec: 50.14 N. 63.35 W.

DOCUMENTS: Not a port of entry, clearance can be obtained at a previous port of call or by radio from Quebec.
PILOTAGE: Not compulsory.
ANCHORAGES: Safe anchorage in 42 ft. – 90 ft. to be found in Eskimo Harbour.
MAX. SIZE: Largest vessel; 10,000 tons, draft 28 ft. 6 in.
RADIO: Seven Islands – VCK.
TUGS: None.
BERTHING: Quebec Iron & Titanium Corp: Ore Loading Dock has 640 ft. of berthing space, depth alongside 30 ft. at LW.

Transport Canada Wharf: 400 ft. long, depths 26 ft. to 37 ft. alongside at LW.

Tidal variation from 4.75 ft. – 7.75 ft.
CRANES: 1 rail mounted crane available at the ore loading dock.
BULK CARGO FACILITIES: Conveyor and loading boom (40 ft. extension) at ore loading dock. Capacity 3,500 t.p.h.
MEDICAL: Hospital facilities available.
FRESH WATER: Available ex-town mains supply.
FUEL: Lubricants only.
REPAIRS: Welding repairs can be undertaken.
AIRPORT: Local airstrip with services.
AUTHORITY: Transport Canada, Garde Cotiere Canadienne, Region des Laurentides, 104 Dalhousie, Suite 121, Quebec, P.Q., G1K 4B8. *Tel:* (418) 648-3680. *Telex:* 051-3051. *Contact:* Gustave Sherrer, Harbour Master, Havre St. Pierre. Tel: 418-538-3142.

KINGSTON, Ontario: 44.12 N. 76.30 W.

For important General Information refer to St. Lawrence Seaway.
DOCUMENTS: See "Montreal".
PILOTAGE: Contact Pilotage Officer, in Cornwall, tel: 613-932-8740, USA Pilot Station, Cape Vincent 315-654-2900.
ANCHORAGE: Good anchorage off Penitentiary.
RESTRICTIONS: Channel Depths – Controlling depth at low lake levels 22 ft. until wharves in harbour approached. In upper harbour, controlling depth 17.5 ft. Depths vary from month to month.
Navigating Season April 15th – December 15th.
HEALTH: First port of entry. Quarantine at Quebec City for incoming ships from foreign ports.
TUGS: Available. Necessary for handling ships in rough weather at Elevator and other docks.
BERTHING: Docks extend West from North of bridge (La Salle Causeway) to Little Catariqui Bay – some 4 miles. Transport Canada 455 ft., depth alongside 17 ft. Portsmouth Olympic Harbour – Environment Canada, under construction. Also smaller docks for coastal vessels and private docks, including Canada Steamship Lines Elevator dock 700 ft. long on East side 25 ft. alongside, and 600 ft. on West side depth 22 ft. La Salle Causeway 1,000 ft., 19 ft. alongside, used for berthing in Winter. James Richardson Wharf: Berthing length 800 ft., depth alongside 19 ft.
BULK HANDLING FACILITIES: *Canada Steamship Lines Elevator Dock:* Large Upper Lake vessels are unloaded on East side by two travelling marine towers; canal-size vessels are loaded on the West side, 6 loading spouts. The elevator capacity is 2,500,000 bushels, marine towers 35,000 bushels per hour. Canadian National Railways tracks run to the elevator and cars can be loaded with grain. This dock is also open to general cargo.
MEDICAL: Hospitals, Kingston General and Hotel Dieu.
STEVEDORES: From Toronto.
FUEL: Bunker coal – normal stock 2,000 tons from lighters at wharf. Bunker "C" and diesel oil also available.
FIRE PRECAUTIONS: No unusual precautions.
CUSTOMS ALLOWANCES: See "Montreal".
REPAIRS: Most repairs possible.
DRY DOCK: Will take ships of length 210 ft., beam 44 ft. Depth on sill 13 ft.
TIME: Eastern Standard Time GMT minus 5 hours. Daylight Saving Time from first week-end in April to last week-end in October, clocks advanced 1 hour.
HOLIDAYS: See "Montreal". Port Officials always available.
TELEPHONES: Ship-to-shore phone communications through Kingston (VBH).
AUTHORITY: Transport Canada, P.O.Box 592, Kingston, Ontario K7L 4X1. *Tel:* (613) 546-3335. *Contact:* E. Phipps-Walker, Harbour Master.

KITIMAT, B.C.: 53.59 N. 128.46 W. (See Plan)

PORT LIMITS: All waters of Kitimat Arm and Kildala Arm bounded by the high water mark, North of a line drawn from Hilton Point (Lat. 53° 48′ 54″ N., Long. 128° 52′ 16″ W.) through Louis Point (Lat. 53° 49′ 08″ N., Long. 128° 45′ 38″ W.) on Coste Island to Steel Point (Lat. 53° 49′ 35″ N., Long. 128° 42′ 20″ W.) on the mainland. Canadian Chart 3743.
DOCUMENTS and General Information: Refer to "Vancouver".
PILOTAGE: Compulsory. Pilot boards at Cape Beale, West Coast, Vancouver Island, or Triple Island, off Prince Rupert. Pilotage Authority require 48 hours notice to allow Pilot to meet vessel at Triple Island or Cape Beale.
ANCHORAGE: No vessel shall anchor in the fairway or dredged Channel approaching the wharf or otherwise in a position to interfere with or obstruct the docking or undocking of any other vessel. Pilot will instruct Master. Usual anchorage South of Eurocan Terminal, East side of Kitimat Arm.
RESTRICTIONS: Approach to the port from the South is via Laredo Sound, Laredo Channel, Campania Sound, Whale or Squally Channels and thence via Douglas Channel. From the North via Brown Passage, Arthur Passage, Grenville Channel, Douglas Channel. The route from

the South is approximately 120 miles, from the open sea and from the North approximately 130 miles. Entrance channel to Terminal Wharf No. 1 (red and black buoys with flashing light) is 732 m. long, dredged to a depth of 10.67 m. at low water, width varies from 244 m. at entrance to 183 m. In addition, a turning basin has been dredged to 10.67 m. at low water on the side of the channel opposite wharf, providing a turning basin 198 m. in width. The channel has mooring dolphins on West side, 264 m. South of wharf No. 1 to accommodate vessels up to 16,000 d.w.t. while awaiting berth.

Vessels may enter or depart any time of day or night.

MAX. SIZE: LOA, 207 m. beam 27.4 m., draft 11 m. Mean tide range 4.2 m. Depth alongside at zero tide 10.67 m.

HEALTH: (Radio Pratique Waived): Only in the event of suspected disease or fever on board – also request for Derat, contact the Quarantine Officer at Prince Rupert, B.C. Tel: (604) 627-1381.

RADIO: Prince Rupert Radio "VAJ" 500, 2182, 1630.

ETA: Notice of ETA must be given to Alcan, Eurocan or Agent at Kitimat at least 24 hours and 12 hours before arrival. Alcan, Eurocan or Agent may then assign a berth to the vessel but shall not be liable for any delay in providing berth or for failure to provide a berth. Vessels carrying bulk cargoes for discharge are instructed to request Alcan via radio or wireless telegraph through shore stations as to which hatches are to be opened on arrival alongside unloading berth to permit immediate entry of unloading devices.

TUGS: Tug services available. 3 tugs, 500 h.p., 750 h.p. and 1,000 h.p.

BERTHING: Alcan Terminal Wharf No. 1 (concrete caisson construction) is 229 m. long and has two pneumatic unloading towers discharging to a belt conveyor and a Kangaroo Crane for either bulk and general cargo duties. The wharf is connected by rail direct to Aluminum Co. of Canada smelter yard and to the Terrace – Kitimat spurline of CNR.

Rivtow Straits Ltd. operates a weekly Ro/Ro barge service for containers and palletised cargo to and from Vancouver from a barge loading ramp located south of Alcan's mooring dolphins.

Eurocan Terminal is located to the East of Ocelot Terminal and is 137 m. long with mooring dolphins at South end. To the North of the terminal is located a hydraulic barge loading ramp. Dredged alongside to 10.67 m. at LLW. Principle export cargoes are paper and packaged lumber.

No container or LPG carrier facilities available.

Ocelot Industries Ltd., terminal is located south and east of Alcan's facilities and is of concrete piles and consists of a loading platform with 2 pads on either side with mooring dolphins to the North and South. The distance between breasting pads is approximately 78 m. and the overall length between dolphins is approximately 300 m. The berth area is approximately 430 m. long and 90 m. wide and is dredged to 13 m. at LLW. At the entrance there is a Q.F. flashing red buoy in line with the berth and another at the North end. F. W. range lights bearing 001° are located to the North and have a range of 4 miles. Principal export cargo is methanol. As an extension to the methanol plant, Ocelot is presently constructing a 500 tonne/day Ammonia plant, product will be shipped through existing wharf facilities. A separate pipe-line and loading arm are under construction.

STEVEDORES: ETA sent by cable 24 and 12 hours before arrival.

MEDICAL: Kitimat General Hospital – complete medical service provided.

DENSITY: Varies with state of tide, water depth and season of the year.

FRESH WATER: Available at Alcan's Terminal Wharf No. 1 and at other terminals by tank truck.

FUEL: Only diesel oil available.

GANGWAY/DECK WATCHMAN: Not necessary.

OPENING/CLOSING HATCHES: Normally done by crew on bulk discharge. On general cargo, stevedores open and close hatches.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes or 0.5 lb. tobacco. Liquor: 40 oz. per man, additional issue after 7 days.

CONSULS: Available at Vancouver, B.C.

REPAIRS: Minor repairs only; nearest shipyard facilities Esquimalt or Vancouver.

SURVEYORS: Cargo Inspectors: S.G.S. Supervision Service Inc. located at Kitimat. A.B.S., B.V. and Lloyd's Surveyor available from Vancouver.

REPATRIATION: Facilities convenient for crew changes.

AIRPORT: Three flights daily from Terrace to Vancouver International Airport. Limousine service from Kitimat to Terrace, distance 40 miles.

TIME: GMT minus 8 hours. Daylight saving time from first Sunday in April to last Sunday in October.

HOLIDAYS: New Year's Day, Good Friday, Victoria Day, Dominion Day, Labour Day, Thanksgiving Day, Christmas Day, and Boxing Day.

POLICE/AMBULANCE/FIRE: Police 632-7111; Ambulance/Fire 632-9111 or 639-9111.

EMERGENCY CO-ORDINATION CENTRE: Local fire chief, R.C.M.P. Kitimat. Tel: 632-7111 or Canadian Coast Guard, Prince Rupert. Tel: 624-9146.

STORING: Vessels can be stored by truck, which may proceed alongside the berth. Fork-lift trucks may be used to handle stores. Customs Regulations in force for bonded stores only. Riggers available to assist with storing.

TELEPHONE: Telephone available at dock offices.

SHORE LEAVE: Permitted.

AUTHORITY: Transport Canada, 224 West Esplanade Street, North Vancouver, B.C. V7M 3J7. *Tel:* 984-3800. *Telex:* 04-53235. *Contact:* Walter Koengeter, Harbour Master, P.O.Box 488, Ocelot Road, Kitimat, B.C. V8C 2R9. Tel: (604) 639-9400 (office), (604) 632-2937 (home).

AGENT: Kitimat Shipping Agencies Ltd., P.O.Box 488, Ocelot Road, Kitimat, B.C. V8C 2R9. Tel: (604) 639-9400. Telex: 047-84523. Cables: Kitship.

LES ESCOUMINS, Quebec: 48.20 N. 69.20 W.

LOCATION: Situated on the North shore of the St. Lawrence River, 25 miles East of the Saguenay River.

APPROACHES: Depth in channel is 17 ft. LW. Tidal variation is from 10.75 ft. – 17 ft.

MAX. SIZE: Largest vessel, draft 15.5 ft.

BERTHING: Transport Canada Wharf is 530 ft. long, with 15 ft. depth alongside at LW. There is a ferry berth, used from April 15th to December 15th, for the Les Escoumins – Trois Pistoles Ferry.

BULK CARGO FACILITIES: Pulpwood is loaded at Transport Canada Wharf by means of a conveyor (100,000 cords per season).

FRESH WATER: Available ex-town mains supply.

REPAIRS: Electronic repairs possible.

AUTHORITY: Transport Canada, Garde Cotiere Canadienne, Region des Laurentides, 4 Place Quebec, Suite 103, Quebec, P.Q., G1R 4X3. *Contact:* C. E. Boucher, Wharfinger, P.O.Box 278, Les Escoumins. *Tel:* 233-2739.

LISCOMB, Nova Scotia: 45.01 N. 61.59 W.

APPROACHES: Channel depth ranges from 3.6 m. to 9.1 m.

BERTHING: Government Wharf closed as in a state of disrepair.

CRANES: None available.

TANKERS: Facilities closed.

MEDICAL: Sheet Harbour Hospital, 30 km.

AIRPORT: Halifax International Airport, 225 km.

AUTHORITY: Department of Fisheries and Oceans, Small Craft Harbours Branch, 1721 Lower Water Street, 4th Floor, P.O. Box 550, Halifax, Nova Scotia B3J 2S7. *Tel:* (902) 426-8120. *Telex:* 019-21891. *Contact:* R.W. Young.

LOUISBOURG, Nova Scotia: 45.55 N. 59.58 W.

LOCATION: On the North side of N.E. arm of Louisbourg Harbour, S.E. Coast of Cape Breton Island, Nova Scotia.

PILOTAGE: Compulsory. Pilot boards 5 miles to seaward.

ANCHORAGE: Safe anchorage anywhere clear of the ship channel leading to docks.

RESTRICTIONS: *Navigation Season:* Port open all year. No ice forms sufficiently to hinder shipping

Channel depth: Lowest depth at low tide in ship channels is 30 ft. Draft of largest vessel (8,000 g.r.t.) to enter port was 30 ft. 6 in. Tides rise 4 ft. to 5 ft.

HEALTH: Quarantine Station is in the South West harbour. Health officers board vessels at wharves.

RADIO: Sydney Radio (VCO).

BERTHING: (1) Small Craft Harbours Wharf: Berthing length 530 ft., depth alongside at LW 19 ft., used for general freight. The inner 181 ft. of the wharf is open faced creosoted timber cribwork. The next 217 ft. is of steel sheet pile encased creosoted timber pilework driven through remains of timber cribwork. The remaining outer stem portion and the "T" are of concrete crib construction. The limiting loads are 300 pounds per square foot on the timber cribwork section and 500 pounds per square foot on all other sections.

(2) Louisbourg Fisheries Wharf: 300 ft. long and 60 ft. wide, of concrete construction. Across the head of the wharf there is 20 ft. to 21 ft. of water alongside at LW. From the head of the wharf towards shore the depth decreases from 20 ft. to 15 ft. In addition, there are several smaller wharves in the harbour with 20 ft. and less depth alongside at LW. Administered by Small Craft Harbours.

MEDICAL: Hospital at Sydney.

FRESH WATER: Available.

FUEL: Fuel and diesel oils can be secured from tank wagons or in barrels – no ship storage in bulk. Light diesel oil on pipe-lines to wharves.

REPAIRS: No facilities available.

SURVEYORS: Lloyd's, Bureau Veritas and American Bureau at Halifax.

GENERAL: *Services:* Post Office, Telegraph, Telephone, Customs.

Trade: Exports: Fish. Imports: General Merchandise.

Charts: Canadian Charts No. 4375 and 4376.

Provisions: Available.

AUTHORITY: Department of Fisheries and Oceans, Small Craft Harbours Branch, P.O. Box 1085, Sydney, Nova Scotia B1P 6J7. *Tel:* (902) 564-7362. *Contact:* R. A. Young, District Manager.

Local Authority: C. G. Shaw, Transport Canada – Harbour Master and Fisheries and Oceans – Harbour Manager. *Tel:* 733-2117.

MATANE, Quebec: 48.51 N. 67.35 W.

SHIPMASTER'S REPORT: November, 1983.

PILOTAGE: Optional; advisable on first visit. Pilot can be requested by telephoning (418) 562-3201 or 4083, or by contacting the Harbour Master's Office during office hours.

Pilot boards vessel 1 mile off the entrance.

ANCHORAGE: In the river, 1 mile from the West breakwater, in depths of 9 m. – 18 m. Bottom mud.

MAX. SIZE: Up to 30,000 d.w.t., length 175 m. (575 ft.) and max. draft 8.5 m. (28 ft.).

HEALTH: Pratique is granted on arrival.

RADIO: Mont-Joli: VCF.

VHF: Harbour Authority has no VHF.

BERTHING: Matane is on St. Lawrence River South Shore, 36 miles above Cap Chat. The new harbour is 2 miles West of the town and open to traffic throughout the Winter.

Two breakwaters protect and form Matane harbour, which provides a commercial quay of 183 m. (600 ft.) with 8.2 m. (27 ft.) depth alongside.

An underwater oil pipe-line extends 600 m. seaward N.E. and parallel with the N.E. breakwater. The seaward end in 6 m. of water, is marked by a buoy.

Entry direct from the river. The 150 m. (500 ft.) wide entrance between the breakwater heads faces N.E. In the Autumn, strong N.E. winds send in a heavy sea.

Max. tidal rise is 4.4 m. (14 ft. 6 in.). The mean tidal rise: MHWS 3.4 m. (11 ft.), MHWN 2.7 m. (9 ft.) and MLWN 1.2 m. (4 ft.).

STEVEDORES: Good supply of labour available.

MEDICAL: Full range of medical services available.

DENSITY: 1013.

FRESH WATER: Laid on to berth. Has to be reconnected in Winter season, which makes it expensive.

FUEL: Light fuel and diesel oil available.

CUSTOMS: Matane is a port of entry.

AIRPORT: Daily flight to Montreal.

GENERAL: Port used mainly for Canadian timber exports.

AUTHORITY: Ministry of Transport. *Tel:* (418) 562-0042. *Contact:* Harbour Master.

MONT-LOUIS, Quebec: 49.12 N. 65.44 W.

LOCATION: Village on Mont-Louis Bay, Gaspe Coast, South shore of the St. Lawrence, 16 miles West of Cape Magdalen.

PILOTAGE: No Pilot available.

ANCHORAGE: In the Bay in 6 fathoms, mud bottom. There is not much room to work out from this anchorage.

RESTRICTIONS: Navigation season from April 15th. – December 1st.

Some Masters have found the port and certain berths in it hazardous during bad weather. Shipmasters are advised to take the advice of the local ships' Agents in this respect.

Channel: Depth not less than 19 ft. at LW. Tides rise 9.5 ft. at Springs and 7 ft. at Neaps.

RADIO: Fox River (VCG).

BERTHING: (1) Transport Canada Wharf on West shore of bay. All access at this wharf is prohibited, at present this wharf is falling into ruins.

(2) Transport Canada Wharf, located on the East side of the bay, 403 ft. long and 47 ft. wide at outer end, having a depth of 30 ft. at its outer end.

MEDICAL: Hospital at Ste. Anne des Monts, 39 miles to the West.

SURVEYORS: Lloyd's Surveyor at Quebec City. ABS at Montreal.

GENERAL: *Services:* Post Office, Telephone, Provisions.

Charts: Canadian Chart No. 1230 (Mont-Louis Bay Inset).

Transportation: Good highway connects with coastal villages and Quebec. No railroad.

AUTHORITY: Transport Canada, 104, Dalhousie, Quebec City, Quebec. *Tel:* (418) 648-3680.

Rene Marin, Wharfinger. *Tel:* (418) 797-2819.

MONTREAL, Quebec: 45.30 N. 73.33 W. **(See Plan)**

DOCUMENTS:

3 Crew Lists.
3 Passenger Lists.
3 sets Customs Documents.
3 sets Health Documents.
3 sets Manifests.
3 sets Bills of Lading.
3 sets Ship's Papers.

PILOTAGE: Compulsory. Pilots board inbound vessels at Anse-aux-Basques (near Les Escoumins) to bring ships as far as port of Quebec where Pilots are exchanged for the trip to Trois-Rivieres. Pilots are again exchanged at Trois-Rivieres before ships may proceed to Montreal.

For further information refer to "Quebec".

ICE ADVISORY SERVICE: Ships inbound from seaward between 15th December and 15th April should advise the Ice Information Officer, Sydney, N.S., 36 hours prior to entering Cabot Strait stating their position, destination, whether loaded or in ballast. This procedure will facilitate the passing of ice information to the ship as necessary.

On request, ice information is also available from Marine Radio Stations at Halifax, Camperdown, Seven Islands, Twillingate and Grindstone. The Canadian Broadcasting Corporation maritime network also broadcasts ice information daily during the Winter navigation season. Supplementary ice information may also be obtained from Canadian Marine Service ice breakers.

During the ice season, radio broadcasts of ice information are made twice daily from Coast Guard Radio Stations as follows:

		Call frequencies
Cape Race, Nfld.	VCE	420 kHz CW
		2582 kHz RT
Fox River, Que.	VCG	434 kHz CW
		2582 kHz RT
Mont-Joli, Que.	VCF	446 kHz CW
		2582 kHz RT
North Sydney, N.S.	VCO	489 kHz CW
		2582 kHz RT
Halifax, N.S.	CFH	115.3 kHz CW
		6949.5 kHz
		8662 kHz
		12984 kHz
		17218.4 kHz

ANCHORAGE: Available at Lanoraie, approx. 3 miles above Sorel harbour limits, and at Pointe-aux-Trembles anchorage below Berth 110. Also opposite Versatile Vickers. Boatmen services are available to vessels at anchor.

Anchorages will be allocated by the Harbour Master (Montreal), through the Vessel Traffic Services Centre, Montreal.

MAX. SIZE: Entry only restricted by draft. Main channel depth is 10.67 m. Channel 243.8 m. wide at narrowest point.

HEALTH: Except in case of coastwise vessels free of disease and arriving in Canada from ports or areas that are not infected, every vessel coming from a port outside Canada is inspected by the Quarantine Officer, and shall not make customs entry until it has received pratique.

"Coastwise Vessel" means a vessel operating exclusively between Canada and the island of St. Pierre and Miquelon or between Canada and the United States, including Alaska. A "coastwise vessel" loses coastwise status and is subject to quarantine inspection on its next arrival at a Canadian port when at any time it touches a foreign port other than those mentioned above.

Where sufficient quarantine information can be given by wireless, Radio Pratique may be obtained between the hours of 0900 and 1700 the day preceding arrival:

(a) From "Quarantine Halifax" by vessels bound for Halifax, Nova Scotia.
(b) From "Quarantine Saint John" by vessels bound for Saint John, New Brunswick.
(c) From "Quarantine Quebec" by vessels approaching Canadian ports via the Saint Lawrence River.

For the purposes of Radio Pratique vessels are required to give the following information:

(a) Name and nationality of vessel.
(b) Ports called at during voyage.
(c) Date and place of last fumigation or Derat Exemption certificate.
(d) Nature of cargo.
(e) Number of crew.
(f) Number of passengers.
(g) Port of destination and name of Agent.
(h) Number of persons without valid vaccination certificates.
(i) Condition of health of all on board with details of any sickness or death which has occurred during the voyage.

Vessels proceeding directly into the Seaway may now receive quarantine inspection and clearance while at anchor awaiting entrance to the Seaway.

RADIO: All communications via Montreal Radio, call sign VFN. Vessel Traffic Services handle VHF traffic as follows: Between Yamachiche and Cap St. Michel, VHF Channel 9 (156.45 MHz.). From Cap St. Michel to Montreal, VHF Channel 10 (156.50 MHz.). Ship to ship communication, VHF Channel 6, (156.3 MHz.). Port radar service available.

TUGS: 8 tugs, 1,000 h.p. – 1,600 h.p.

BERTHING:

Berth number (usual name)	*Wharf length (m.)*	*Depth alongside (m.)*	*Remarks*
Bickerdike Basin			
M-6	217.6	4.6	
M-5	628.19	7.62	
M-4		7.62	
M-3		7.62	
M-2		7.62	
M-1	91.4	7.62	
Bickerdike Pier			
East Side			
B-1	568.7	7.6–8.83	
B-2		8.83	
B-3		8.83	
North End			
B-12-N	152.4	8.83	
West Side			
B-4	586.13	8.83	
B-5		8.83	
B-6		8.83	
B-7	357.2	8.83	
B-8		8.83	
Windmill Point Wharf			
5W	141.7	9.14	
6W	152.4	9.14	
7W	163.9	9.14	Grain loading
9 W to 10W	373.6	9.14	Grain unloading
11NE	90.5	4.30	
11NW	41.1	4.30	
12	284.6	4.26–8.83	

Berth number (usual name)		Wharf length (m.)	Depth alongside (m.)	Remarks
Alexandra Pier				
South Side				
Lower	3	163.0	10.2	Berth 3 and 5: Total berthing length of 360.8 m.
Upper	3			Passenger terminal "Iberville" upper shed 3
Lower	5	197.8	10.2	Parking only
Upper	5			Passenger terminal "Iberville" upper shed 5
End of Pier				
	14E	107.3	10.2	
North Side				
Lower	4	162.4	10.2	
Upper	4			
Lower	6	215.2	10.2	
Upper	6			
No. 1 Pier				
South Side	15S	203.1	10.7	
North Side	15N	203.1	10.7	
King Edward Pier				
South Side				
Lower	7	386.5	10.7	
Upper	7			
Lower	9			
Upper	9			
End of Pier				
	16E	107.9	10.2	
North Side				
Lower	8	389.5	10.7	
Upper	8			
Lower	10			
Upper	10			
Section 16	16	178.0	8.8	
Jacques Cartier Wharf				
	16	345.0	10.7	
	17	190.0	10.2	
	18 and 19	421.0	8.83	
Market Basin				
	22	90.5	7.62	
	23	152.4	7.62	
Sect. 25 – 42 inc.				
	25	295.6	9.0	
	27	252.6	9.0	
	28	245.9	9.1	
	29	252.0	9.1	
	30	147.3	9.1	Snow dumping for City of Montreal
	31	154.2	9.1	
	32	153.6	9.1	
	33	151.4	9.1	
	34	143.2	9.1	
	35	168.8	9.1	
	36	161.1	9.1	
	37	163.6	9.1	
	39	183.4	9.1	
	40	185.6	9.1–10.7	
	41	199.9	10.7	
	42	187.7	10.7	
Laurier Pier				
	43SW	133.1	10.21	Capable of handling containers.
	43SE	132.8	10.21	
Tarte Pier				
	44S	225.5	9.9	Salt Berth
	44E	95.7	9.1	
	44N	263.3	9.1	Bulk Cement Facility
	45	162.1	9.1	
Sutherland Pier				
	46	143.8	9.9	Shed
	46SE	162.1	9.9	Bulk sugar facility
	46E	69.1	9.9	
	47	100.5	9.9	Coastal trade Max. berthing length 92.97 m.
Sect. 48 – 56 Inc.				
	48	196.2	9.9	
	49	183.1	9.9	Capable of handling containers
Hochelaga Terminal	50	189.8	9.9–10.7	
	51	239.5	10.7	
	52	338.3	10.7	
Elevator No. 4	54	394.7	10.7	3×1,500 t.p.h. loading towers. Grain loading
	55		10.7	
	56	244.7	8.2	Grain unloading
Vickers East		461.7	9.1	Dry Dock
Vickers West		264.8	9.1	
Sect. 57 – 58 Inc.				
	57	197.8	9.1	One Bridge Crane – Dry Bulk
	58	167.6	9.8	
Racine Terminal				
	59	152.4	10.7	3 gantry cranes, 35 tons each, capable of container handling
	60	152.4	10.7	
	61	190.8	10.7	
	62	245.3	10.7	
Cadillac Terminal				
	64			
	66	199.7	10.36	Ro/Ro
	67	223.1	10.36	From Section 66 to Section 70, 3×40 ton and 2×28 ton travelling container cranes.
	68	214.3	10.36	
Container Terminal				
	70	178.7	10.7	
Sect. 71 –'72 Inc.				
	71	198.1	10.7	Two travelling cranes, 30 tons each – Dry Bulk
	72	171.8	10.7	
Boucherville Terminal				
	73	192.9	10.7	Ro/Ro – One travelling container crane, 45 tons
	74	192.9	10.7	
Norco Terminal				
	76	156.4	10.7	Oil discharging facilities.
Section 77				
	77	249.0	10.7	
Cast Terminal				
	78	489.4	10.7	Container Terminal 2×50 ton portainer cranes.
	79			
	80			
Section 93				
	93	228.6	8.23	

GRAIN FACILITIES:

Elevator No.	Capacity in bushels	Loading galleries at berths	Loading capacity bushels per hour	Remarks
4 (Berths 54-56)	9,500,000	54–55	120,000	Unload at 56 with 3 marine legs and a capacity of 100,000 bushels/p.h.
5 (Berths 9W-10W)	5,100,000	7W	32,000	2 marine legs 484.6 m. loading galleries. Unload at 9W–10W with 2 marine legs and a capacity of 72,000 bushels/p.h.

CRANES: Floating crane 275 ton capacity and many mobile cranes with capacity up to 200 tons.
STEVEDORES: Working hours 0800 to 1200, 1300 to 1700.
MEDICAL: All medical facilities available.
TANKERS: Petroleum Product Facilities:

Berth No. (usual name)		Wharf length (m.)	Depth alongside (m.)	Remarks
Montreal Petroleum Terminal	94	238.05	10.67	
Ultramar	95	404.77	9.1–10.7	
	96			
	97			
Texaco	98	439.52	9.1–10.7	
	99			
	100			
Imperial Oil	101 E	192.6	10.7	Total berthing length 384.96 m.
	102 E	192.5	10.7	
	102 W	97.5	4.6	
Shell Canada	103 S	189.5	10.7	
	103 N	189.5	9.1	
Sunoco Inc.	104	32.6	9.1	Can accommodate ships of 147.8 m. length
Ultramar	105	116.1	9.1	Total berthing length 232.57 m.
	106E	116.4	9.1	
Petro Canada	109	139.0	10.7	Total berthing length 278.12 m.
	110 E	139.0	10.7	
	110 W	163.6	4.57	
Marien Street Wharf	110	31.08	3.7	

FRESH WATER: Available by pipe-line at most berths.
FUEL: Oil – all grades can be delivered at oil companies' terminals; also by bunker barges to vessels lying anywhere in the harbour.

Coal – delivered direct to vessels at coal berths.

Dock and Location: Berth 94, East Montreal.
Operator: Montreal Petroleum Terminal (Scotcan/Motoco Oil Co.). Tel: 645-2241; 353-6821.
Type of Dock: Loading and unloading.
Type of Cargo Handled: Crude oil, gasoline, stove oil, marine fuel oil, marine diesel fuel, No. 2 fuel oil, No. 6 fuel oil.
Size of Pipe-lines: 16 in.; 12 in. and 10 in.; 10 in.; 12 in.; 12 in.; 12 in.
Storage Capacity (Barrels): 1,000,000; 430,000; 80,000; Production capacity: 15,000; 400,000; 300,000.
Distance from Dock to Storage Tanks: 3.5 miles; 1,500 ft.; 1,500 ft.; 3.5 miles.
Length of Dock: 238.05 m.
Depth at Dock: 10.67 m.

Dock and Location: Berth 101 and 102 E.
Operator: Imperial Oil Ltd., 10515 Notre-Dame E., Montreal East.
Type of Dock: Loading and unloading, bunkering.
Type of Cargo Handled: Crude oil, gasoline, stove oil, furnace oil, diesel fuel, bunker "C".
Size of Pipe-lines: 16 in.; 12 in.; and 8 in.; 10 in.; 12 in.; 12 in.; 16 in. and 12 in.
Storage Capacity (Barrels): 3,000,000. Total storage capacity rotated by products depending on seasonal demands.
Distance from Dock to Storage Tanks: 2,800 ft.
Length of Dock: Inside 97.5 m. Outside 385 m.
Depth at Dock: 4.6 m. and 10.7 m.

Dock and Location: Berth 103 S. & 103 N. Montreal East.
Operator: Shell Canada Ltd., 10501 Sherbrooke St. East, Pointe-aux-Trembles, Que. Tel. Marine Bunkers and Lubricants: 866-7571.
Type of Dock: Loading and unloading.
Type of Cargo Handled: Gasoline, stove oil, furnace oil, chemicals jet fuel, aviation fuel, marine diesel, bunker "C", thin fuels 200 secs./3,500 secs.
Size of Pipe-line: 2–10 in.; 2–12 in.; 20 in.
Storage Capacity (Barrels): 4,000,000.
Distance from Dock to Storage Tanks: 1.75 miles.
Length of Dock: 379 m.
Depth of Dock: 10.7 m. S., 9.1 m. N.

Dock and Location: Berth 104.
Operator: Sun Oil Co. Ltd., 11055 rue Victoria.
Type of Dock: Loading and unloading.
Type of Cargo Handled: Gasoline, No. 1 fuel oil, No. 2 fuel oil.
Storage Capacity (Barrels): 7 tanks of 50,000; 2 tanks of 25,000.
Distance from Dock to Storage Tanks: 500 m.
Length of Dock: 32 m. but can accommodate vessels up to 148 m.
Depth at Dock: 9.1 m.

Dock and Location: Berths 105 and 106.
Operator: Ultramar Canada Inc., 1155 Dorchester W., Montreal. Tel: 871-9721.
Type of Dock: Loading and unloading.
Type of Cargo Handled: Crude oil; gasoline; light fuels; marine gasoil; marine diesel; medium fuels 200 secs/3,000 secs; bunker "C".
Size of Pipe-lines: 12 in. and 8 in.; 10 in.; 3–8 in.
Storage Capacity (Barrels): 6,300,000 total storage capacity rotated by products depending upon production requirements.
Distance from Dock to Storage Tanks: 1 mile.
Length of Dock: 232.5 m.
Depth at Dock: 9.1 m.

Dock and Location: Sections No. 109 and 110.
Operator: Petro-Canada, 11701 Sherbrooke Street East, Montreal. Tel: 252-5830.
Type of Dock: Loading and unloading.
Type of Cargo Handled: Gasoline; crude oil; No. 6 fuel oil; middle distilates.
Storage Capacity (Barrels): 650,000; 900,000; 300,000; 540,000.
Distance from Dock to Storage Tanks: 0.75 mile.
Length of Dock: 278.0 m.
Depth at Dock: 10.7 m.
GANGWAY/DECK WATCHMEN: Required.
OPENING/CLOSING HATCHES: Always done by stevedores.
CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes; 50 cigars; tobacco, 2 lb. per person over 16. Wine/Spirits, total of 40 oz. per person over age of 21.

Subsequent issues may be authorised to crew members of foreign vessels, but the max. quantity any crew member may hold at any one time must not exceed 300 cigarettes, 75 cigars, 3 lb. tobacco and 60 oz. liquor.
IDENTIFICATION CARDS: Not required
REPAIRS: All kinds of hull and engine repairs possible.
DRY DOCKS: Steel floating dock: Length 585 ft., lifting capacity 25,000 tons. Steel floating dock section: Length 400 ft., lifting capacity 17,500 tons. Steel floating dock section: Length 200 ft., lifting capacity 6,700 tons.

The 200 ft. sections may be joined to either of the other docks, making the max. length for docking 785 ft. Lifting capacity 28,000 tons.

All docks breadth at entrance 107 ft. Draft over keel blocks 27.5 ft.
SURVEYORS: American Bureau of Shipping, Bureau Veritas, Det Norske Veritas, NKK, RIN, GL and Lloyd's Register of Shipping.
REPATRIATION: All facilities available.
AIRPORT: International Airports at Dorval and Mirabel.
TIME: GMT minus 5 hours. Daylight saving time applied from first Sunday of April to last Sunday of October.

HOLIDAYS: New Year's Day; Good Friday; Victoria Day; St. Jean Baptiste Day (June 24th); Labour Day; Thanksgiving Day; Christmas Day.
CONSULS: (Consul General unless otherwise stated)

	Tel: No.		*Tel: No.*
Argentina	866-3819	Korea	845-3243
Austria	845-8661	Lebanon	276-2638
Belgium	849-7394	Liberia	871-9121
Benin Rep.(Consul)	849-3695	Luxembourg	845-4650
Brazil	866-3313	Madagascar (Consul)	849-9646
Great Britain	866-5863	Mexico	288-2502
Chile	861-8006	Monaco	866-9190
Colombia	849-4852	Netherlands	849-4247
Costa Rica	866-8159	Nicaragua	486-5085
Cuba	843-8897	Nigeria (Consul)	(613) 236-0521
Czechoslovakia	849-4495	Norway	842-6883
Denmark	849-5391	Pakistan	845-2297/8
Dominican Republic	843-6525	Panama	845-6016
E. Caribbean Com.		Peru	932-3692
(Trade Officer)	866-7761	Poland	937-9481/2
Ecuador	849-0200	Portugal	876-1604
El Salvador (Consul)	876-8543	Romania (Trade Com.)	876-1792
Egypt	937-7781/2	Rwanda (Consul)	527-2859
Finland (Trade Com.)	861-1733	San Marino	871-3838
France	878-4381	Senegal	285-8309
Germany, F.R.	286-1820	South Africa (Consul)	878-9217
Greece	845-2105	Spain	935-5235/6
Guatemala	861-5919	Sweden	866-4019
Haiti	871-8993	Switzerland	932-7181/2
Honduras	849-4053	Syria (Consul)	363-2557
Hungary (Trade Com.)	849-9261/2	Thailand	842-0433
Iceland	342-6451	Uruguay	866-0217
Israel	288-9277	U.S.A.	281-1886
Italy	849-8351	U.S.S.R.	843-5901
Japan	866-3429	Venezuela	842-3417/8

POLICE/AMBULANCE/FIRE: Emergency telephones at berths, directly connecting berth with Police and Ambulance.
SHORE LEAVE: Permitted.
BANKS:

- Bank of Canada.
- Bank of Montreal.
- Bank of Nova Scotia.
- Banque Nationale du Canada.
- BNP Canada Inc.
- Banque Provinciale du Canada.
- Canadian Imperial Bank of Commerce.
- Montreal City & District Savings Bank.
- Royal Bank of Canada.
- Toronto-Dominion Bank.

AUTHORITY: Port of Montreal, Port of Montreal Building, Cite du Havre, Montreal, Quebec H3C 3R5, Canada. *Tel:* (514) 283-7011. *Telex:* 05 – 267699. *FAX:* (514) 283-7019. *Contact:* Dominic J. Taddeo, General Manager and Chief Executive Officer; Captain D. Hassib, Director of Operations; Captain D. Montambault, Acting Harbour Master.

NANAIMO, B.C.: 49.10 N. 123.57 W. (See Plan)

DOCUMENTS:

3 copies Crew List Form IMM.200.
1 copy Passenger List.
3 copies Ship Stores E.1.
3 copies Crew Declarations Y.14.
1 Quarantine Certificate.
Manifest from previous Ports.

PILOTAGE: Compulsory. Pilots board off Victoria. Pacific Pilotage Authority – Tel: 666–6771.
ANCHORAGES: Off Harbour entrance, Protection Island.
RESTRICTIONS: No restrictions on Nanaimo Assembly Wharf or Duke Point. Harmac Wharf restricted from 2045 to 0700 hrs.
MAX. SIZE: Controlling depths: Harbour entrance, 17.37 m. at HW and 13.41 m. at LW. Mean channel depth, 9.45 m. at LW. Mean rise of tide 3.97 m.
HEALTH: Pratique granted at Victoria, B.C.
RADIO: Vancouver Radio and Nanaimo Radio, VHF Channel 87.
VHF: Nanaimo Radio on Channel 16. Vancouver Traffic Management on Channel 11.
TUGS: Join vessel at Gallows Point, Protection Island. Ship's lines used if necessary. Available all hours in and out and as required by Pilot.
BERTHING: *Assembly Wharf:*

Berth "A" – 182.88 m. long, LW depth 10.00 m.
Berth "B" – 182.88 m. long, LW depth 10.30 m.
Berth "C" – 182.88 m. long, LW depth 11.70 m.
Coastwise – 60.96 m. long, LW depth 4.88 m.
60 tonne barge ramp.
Terminal Area – 15 ha. paved, 8,332 sq.m. warehouse space.

Duke Point Deep Sea Terminal:
Berth "D" – 170.0 m. long, LW depth 13.5 m.
100 tonne barge ramp.
Terminal area – 6 ha. of paved storage area. Additional 19.5 ha. of storage area available adjacent to barge ramp facility.
Private Wharves:
MacMillan & Bloedel Ltd:
(1) Harmac Pulp Wharf – 115 m. long, LW depth 10.60 m.
(2) Harmac Lumber Wharf – 137 m. long, LW depth 10.40 m.

CP Rail Coastal Marine Wharf:
N.E. side – (lay to berth) – 122 m. long, LW depth 10.00 m.
S.W. side – (guide pier) – 79 m. long, LW depth 9.14 m.
Canadianoxy Chemicals Ltd.:
Wharf – 70.00 m. long, LW depth 11.00 m.
Imperial Oil Ltd.:
Wharf – 48.76 m. long, LW depth 6.10 m.
Petro Canada Inc.:
Wharf – 14.00 m. long, LW depth 4.88 m.

BULK CARGO FACILITIES:
Exports: Lumber, pulp and other related forest products.

STEVEDORES: Ordered by Agent, 16 hours minimum notice.

MEDICAL: No advance notice except in case of serious illness, to be included in arrival cable. Ample hospital facilities available.

TANKERS: Tanker berths at private companies' wharves where own line restrictions apply. See "Berthing".

DENSITY: Average density in port is 1019.5.

FRESH WATER: Available at all berths. Delivery by hose at $0.85 per metric ton plus connection fee.

FUEL: Bunkering by tanker truck and barge.

FIRE PRECAUTIONS: No other specific precautions except during extreme heat when smoking may be prohibited on wharf adjacent to lumber.

GANGWAY/DECK WATCHMEN: Services not necessary but security guards are available.

OPENING/CLOSING HATCHES: Either crew or stevedores whichever to ship's advantage.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes or 1 lb. tobacco and 15 cigars per crew member per week. Wine and/or Spirit: 40 oz. per week per crew member. Beer: No restrictions.

IDENTIFICATION CARDS: Not necessary.

CONSULS: None.

REPAIRS: Possible.

DRY DOCKS: See "Vancouver".

SURVEYORS: See "Vancouver".

REPATRIATION: Facilities exist in Vancouver.

AIRPORT: Nanaimo Airport 16 km. South of port, serviced by various airline companies.

Scheduled Seaplane service from Nanaimo Harbour to Vancouver Harbour. Charters available.

TIME: Pacific Standard Time, 8 hours behind GMT. Daylight Saving Time in effect from early April to late October in 1988.

HOLIDAYS:

(1) Good Friday, Easter Monday, Victoria Day (May 24th), Canada Day (July 1st), British Columbia Day (August 1st), Thanksgiving, Remembrance Day (November 11th) and Boxing Day (December 26th), crews are available at overtime rates by arrangement.
(2) No cargo work on Labour Day, Christmas Day and New Year's Day except in the case of emergency.
(3) Crews cease work at 1200 hrs. on December 24th until 0100 hrs. December 26th; also from 1200 hrs. December 31st until 0100 hrs. January 2nd.

POLICE/AMBULANCE/FIRE: Police: 753–2212, non emergency – 754–2345; Fire: 753–1234, non emergency 753–7311; Ambulance: 758–8181.

EMERGENCY CO-ORDINATION CENTRE: Nanaimo Emergency Rescue Centre: Tel: 758-6430.
Coast Guard Search and Rescue Emergency – Tel: 1–800–742–1313.

TELEPHONES: Available for each vessel.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Not necessary.

DEVELOPMENTS: Actively addressing draft increases at Nanaimo Assembly Wharf, Berths A, B, C and Inner Harbour.

AUTHORITY: Nanaimo Harbour Commission, P.O. Box 131, Nanaimo, British Columbia, Canada V9R 5K4. *Tel:* (604) 753-4146. *FAX:* (604) 753–4899. *Contact:* Port Manager (604-753-4146) or Operations Supervisor (604-754-7701).

NANISIVIK, N.W.T.: 73.04 N. 84.32 W. (See Plan)

DOCUMENTS: Standard Canadian documents, See "Montreal".

PILOTAGE: No pilotage.

ANCHORAGE: Anchorage can be obtained 15 miles within the entrance of Strathcona Sound, 8 cables off the South shore of the Sound in a berthing depth of 69 m. (228 ft.), clay. Good anchorage is reported to be available in English Bay in a depth of 15 m. (48 ft.).

RESTRICTIONS: Vessel must comply with Canadian Arctic Pollution Regulations which govern earliest and latest dates permitted within Arctic zones depending on vessel's ice classification, nature and quantity of cargo and fuel.

MAX. SIZE: Draft must not exceed approx. 40 ft. alongside dock. Mooring facilities feasible for vessels up to 50,000 tons gross but may prove awkward for those over 20,000 tons gross especially under S.E. wind conditions.

HEALTH: See "Frobisher Bay". Customs Officer (R.C.M.P.) acts as Quarantine Officer.

RADIO: Vessels bound North should pass messages through Frobisher Bay VFF until into Lancaster Sound where communications regarding ETA, etc. are relayed via Resolute Bay VFR.

Direct contact may be made with Nanisivik Mines Limited, Call Sign XNR 66, on frequency 4145.0 at 1300 GMT and 2000 GMT during the shipping season (1st July to 15th October). Vessels may transmit and receive on 4145.0.

VHF: Channel 16 monitored once arriving vessels have entered Strathcona Sound en route to port of Nanisivik. Channel 6 monitored as standby.

BERTHING: No special requirements. The dock consists of three parallel 70 ft. wide cells which are 55 ft. apart. The centre cell supports the shiploader. The right and left hand cells each have two bollards (see "plan") each with an additional bollard 150 ft. in from the dock face. To the East and West of the dock there are dolphins supporting single bollards. To connect to these the ship's bow and stern lines are towed ashore and attached to a 0.5 in. diameter × 600 ft. heaving line. Once ashore the lines are shackled to a 3.25 in. diameter × 380 ft. mooring line which is secured to the bollard. The lines are then taken up and made fast.

CRANES: The only shore cranes available are mobile units when they are not in service by the mine.

BULK CARGO FACILITIES: One fixed shiploading gantry capable of loading 100 tonnes per hour. The facilities are automatically shut down when winds exceed 50 m.p.h.

STEVEDORES: As per contract with Nanisivik Mines Limited.

MEDICAL: The community has a large modern nursing station with a full time nurse and occasionally a doctor. No advance notice required. Transportation provided by mine vehicles. For serious medical cases vessels should radio in advance so air transportation can be arranged to Frobisher Bay's hospital.

DENSITY: Density varied with ice conditions and tides. Note — When reading densities it has been found that different readings have been found at different depths due to ice melting.

FRESH WATER: Available by tank truck through Nanisivik Mines Limited.

FUEL: Not available.

REPAIRS: Minor repairs only i.e. welding, etc., by mine personnel.

SURVEYORS: Not available. Nearest availability is Montreal, Quebec.

GANGWAY/DECK WATCHMEN: Not obligatory but recommended due to sudden changes in wind and tide. Nanisivik Mines Ltd. provide gangway.

OPENING/CLOSING HATCHES: Carried out by crew.

CUSTOMS ALLOWANCES: Standard Canadian allowance except no beer or alcohol permitted ashore. This restriction strongly upheld by R.C.M.P.

REPATRIATION: Crew changes may be effected TWICE weekly, Mondays at 1700 hrs. local time and Thursdays at 1600 hrs. local time, to Montreal, Quebec via Nordair Boeing 737 jet service.

Mine requires 1 week's advance notice through Administration Superintendent's Office for lodging arrangements.

AIRPORT: Approx. 8 miles from dock, transportation provided courtesy of mine.

TIME: GMT minus 4 hours during Summer months (shipping season).

BANKS: None available.

EMERGENCY CO-ORDINATION CENTRE: Canadian Coast Guard, Ottawa, Ontario. Tel: (613) 996-9788, Telex: 053-3128.

STORING: See "Prelims". Items 1, 2, 5, 6 not applicable. Items 3 and 4: Trucks and forklift trucks can proceed alongside at the berth.

SHORE LEAVE: Permitted.

TELEPHONES: Not available on or near dock. Phone calls can be made from the mill offices or in the community.

AUTHORITY: Nanisivik Mines Limited, Nanisivik, N.W.T., Canada X0A 0X0. *Contact:* Mr. Eric Rowan (Ship's Agent). *Tel:* (819) 436-7385.

NEW RICHMOND (Black Cape), Quebec: 48.08 N. 65.50 W. (See Plan)

LOCATION: On the North Shore of (Cascapedia Bay) Baie des Chaleurs in the municipality of New Richmond.

ANCHORAGE: Outside Black Cape Wharf. Masters are instructed not to anchor in the area of the effluent line to the West of the wharf (see "Plan").

RADIO: Ship to shore through Grindstone (VCN) or Fox River (VCG). Calling Frequency 2182 kHz.
Arrival Advice: 72, 48, 24 hours prior to arrival.

VHF: Consolidated Bathurst Inc.
Frequencies: 156.500 kHz (Simplex)
Channel No.: 10 (Marine traffic control)
Station location: New Richmond, Quebec, Canada
Co-ordinates: Lat. 48° 09′ 24″ N., Long. 65° 50′ 06″ W.
Call Sign: X 00749
Operating range is about 20 miles.

TIME: Atlantic Standard Time. Daylight Saving time is observed.

GENERAL:
Charts: B.A. Chart No. 1715.
Navigation Aid: Type DCB rotating beacon. White with a flash interval 0.2 seconds duration once every 5 seconds.
Tides: Atlantic Coast Tide and Current Tables.
Prevailing Winds: Southwest.
Port of Reference: Pointe St. Pierre.

SHIPMASTER'S REPORT: May 1979.
Approaches: Straightforward. We used Canadian Chart 4486 – Baie des Chaleurs. The light on the end of the pier is a rotating beacon type, which shows both Green and White on one rotation. The pier is a good Radar target, but is not conspicuous from seaward in daylight.
Anchorage: Vessels may anchor off the pier as convenient (See "Anchorage" above). We did not anchor, but we would imagine the holding ground to be good, as we found stiff clay in the vicinity of the pier.

Berthing: There are no tugs or Pilots at New Richmond. In good weather conditions, such as we experienced, berthing and unberthing present no difficulties. Caution should be exercised, since the tide and prevailing winds set across the pier.

An offshore anchor let go about 2 cables off the pier head, was found to be most useful arriving and leaving. We let the cable run to one shackle on deck. This is a little too much, for it was found necessary to slack away to 4 shackles in order to get the ship alongside. In good weather, the anchor just on the bottom should be sufficient. Line handlers should be arranged with Consolidated prior to arrival. There is no lineboat.

We berthed head in, starboard side to, on the West side of the New Wharf.

The 32 ft. depth is only available for a length of 400 ft., so vessels of greater length will find their stern overhanging. For plan of soundings taken at LW (see "Plan").

Departure: The vessel was backed easily down the pier, heaving in the cable at the same time and carrying down a bresting line to use as a check if necessary. One shackle of cable should be left out to assist with turning the vessel off the pierhead. This turn should be as short round as possible and care should be taken to keep as near as possible on the line of the axis of the pier while making it. We strayed a little to the Eastwards, but maintained a minimum depth of water of 11.5 m. while making the turn.

The pier is unlighted and it is not advisable to berth during the hours of darkness. Sailing in the dark presents no problem, as the ship's decklights proved adequate.

Density: 1016.

Agency: Matters were attended to by the Consolidated Warehouse Manager.

Documents: New Richmond was our second Canadian port and the only documents required were 2 copies of Crew List and clearance from previous port.

Officials: The only official person encountered was the local Customs Officer, who was pleasant and obliging.

Cargo Work: Normal hours of work are 0800 hrs. to 2200 hrs., with breaks from 1200 hrs. to 1300 hrs., 1500 hrs. to 1520 hrs. and from 1700 hrs. to 1720 hrs.

Vessel loaded 448 tonnes of Linerboard rolls, using 2 gangs and ship's gear. Rate of loading, nett time per gang-hour, was 27 tons. The stow was not of very good quality and a lot of chocking and securing was required on completion of loading.

The cargo is brought down to the pier by road transport and waits some time there before being loaded. On a wet day, many rolls will get wet, as Consolidated do not have sufficient covers for all trailers.

General: The pier is some miles from the town of New Richmond.

AUTHORITY: Consolidated – Bathurst Inc., New Richmond, Quebec Province. *Tel:* (418)-392-2133. *Telex:* 014-43111. *Contact:* J. Pierre Savard.

NORTH SYDNEY, N.S.: 46.16 N. 60.13 W. (See Plan)

DOCUMENTS:
3 Copies Crew List 1MM.200.
3 Copies Ships Stores E1.
3 Copies Crew Declarations Y14.
Required ship information.

PILOTAGE: Compulsory. Pilotage distance is approximately 12 miles and administered under the Atlantic Pilotage Authority. The area for Cape Breton Pilot embarkation is the Sydney Outer Buoy: Lat. 46° 22′ N., Long. 60° 08′ W. To avoid delay in obtaining a Pilot, Masters must report by message addressed to Pilots, through Sydney Radio VCO or any coast radio station 24, 12 and 6 hours before vessel's ETA.

ANCHORAGE: The land-locked harbour affords safe anchorage for a large number of any size vessels with depths ranging from 40 ft. – 60 ft.

RESTRICTIONS: Open year round. During Winter months January/March drift ice can be expected. However, vessels can be assisted by Canadian Coast Guard (Ice Operations).

The controlling depth is 38 ft. at lowest normal tides with average rise and fall from 3 ft. – 5 ft.

MAX. SIZE: See "Berthing".

HEALTH: See "Sydney".

RADIO: Eddy Point Vessel Traffic Management Centre, Lat. 45° 31′ N., Long. 61° 15′ W. Call Canso Marine Radio (VAX) VHF, MF. and R/T.

TUGS: Tugs are not necessary to dock powered vessels.

BERTHING:

CN Marine Terminals: Private pier used for ferries carrying passengers and freight daily to Newfoundland. There is 1 transit shed and 2 ro/ro berths to handle passenger car, truck and rail car loadings. The depth of water varies from 20 ft. to 29 ft.

Transport Canada Wharf: The 30.5 m. wide pier is 145 m. long with a depth of 7.0 m.-9.0 m. on both sides. Pier accommodated with power, telephone, fresh water and night lighting. Paved open storage area and 640 sq.m. transit shed provides facilities for handling various commercial cargoes.

Private Freight and Fish Plant Wharves: Range up to 250 ft. in length and have a 12 ft. – 16 ft. depth at LW.

FRESH WATER: Available at all wharves.

FUEL: Fuel oil and diesel oil available. See "Sydney".

DRY DOCK: The North Sydney Marine Railway operates 5 repair cradles, the largest being 125 ft. long and 35 ft. wide at bilge. This can accommodate vessels with a draft of 12 ft. forward and 14 ft. 6 in. aft and a displacement of 550 tons. A connecting machine shop is capable of making major repairs in hulls, engines and other parts.

REPAIRS: Sydney Engineering & Dry Dock Co. Ltd., P.O.Box 100, Sydney, N.S. B1P 2G9. Tel: 902-564 4488.

Atlantic Spring & Machine Co. Ltd., 40 King's Road, Sydney, N.S. B1S 1A1. Tel: 902-564 5559.

North Sydney Marine Railway Co. Ltd., P.O.Box 400, Commercial Street, North Sydney, N.S. B2A 3M4. Tel: 902-794 4791.

SURVEYORS: SGS Supervision Services Ltd., Dominion St., P.O.Box 39, Whitney Pier, Sydney, N.S. B1N 3B1. Tel: 902-562 2344. Telex: 019-35219.

Ship Safety and Inspection: Suite 218, Cabot House, 500 King's Road, Sydney, N.S. B1S 1B1. Tel: 902-539 8530.

AIRPORT: Sydney. Regular service to Halifax and Montreal International Airports.

SERVICES: Radio, Radar and Decca repairs possible. Ship chandlers available.

EMERGENCY CO-ORDINATION CENTRE: Canadian Coast Guard: Oil spills and other emergencies from Sydney Harbour area (no charge) ask operator for Zenith 49000.

AUTHORITY: Transport Canada, P.O.Box 248, North Sydney, Nova Scotia B2A 3M3, Canada. *Tel:* 902-794 3425. *Contact:* Mr. E. Slade, Harbour Master and Wharfinger.

OCEAN FALLS, B.C.: 52.21 N. 127.41 W.

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
3 copies Inward Report (Customs A6).

PILOTAGE: Compulsory. Pilots may be taken at Vancouver or Victoria. ETA to be given to Pilots 6 hours before arrival through radio station VAK.

ANCHORAGE: In harbour, ample room for any size vessels.

RESTRICTIONS: Channel depth 25 fathoms.

MAX. SIZE: For berthing alongside, length 600 ft., draft 30 ft.

HEALTH: Ships from overseas are given Pratique at William Head.

RADIO: Vancouver Radio, VAK.

TUGS: Not usually considered necessary. Can be made available by prior arrangement.

BERTHING: Ocean Falls Corporation owns 4 wharves depth alongside 31 ft. at LW.

FRESH WATER: Available from wharves, free of charge.

CUSTOMS ALLOWANCES: 200 cigarettes or 2 lb. tobacco may be held out of bond per person, and 40 ounces of alcohol.

SHORE LEAVE: Crew members allowed ashore.

HOLIDAYS: Easter Monday; July 1st; Labour Day; Thanksgiving Day; Remembrance Day; Christmas and Boxing Day; New Year's Day.

POLICE/FIRE/AMBULANCE: Police Tel: 957-2388. Fire Tel: 289-3828.

GENERAL: Ocean Falls Corporation Paper Mill ceased operations in 1980 and it is very unlikely to resume in the near future. Ocean Falls Corporation is maintaining a caretaking operation (12 employees) until such a time that there is a decision made on the future of Ocean Falls.

AUTHORITY: Ocean Falls Corporation, P.O.Box 730, Ocean Falls, British Columbia V0T 1P0, Canada. *Tel:* 604-289 3355. *Contact:* F. A. MacDonald, Manager.

OSHAWA, Ontario: 43.52 N. 78.50 W. (See Plan)

PORT LIMITS: The limits of the Oshawa Harbour is defined as follows:

All the waters of Lake Ontario within the following limits: Commencing at the high water mark of Lake Ontario where it intercepts the Easterly limit of Lot 1 of the broken front concession of the Township of East Whitby.

Thence along the high water mark in a Westerly direction to a point where it intercepts the Westerly limit of Lot 17 of the broken front concession of the Township of East Whitby.

Thence in a Southerly direction 3,000 ft. into Lake Ontario on the extension of the said Westerly limit of Lot 17;

Thence on a straight line in an Easterly direction to a point on a Southerly extension of the said Easterly limit of Lot 1, 3,000 ft. from the high water mark.

Thence in a Northerly direction to the point of commencement.

And all water-front property, wharves, piers, docks, buildings, shores and beaches in or along the said waters.

DOCUMENTS: The matter of documentation is done through Hub Transportation Services Limited (Terminal Operator) in conjunction with the Customs Office located at the City of Oshawa.

ANCHORAGES: Off the entrance of Lake Ontario.

RESTRICTIONS: Draft 25.6 ft. at East Wharf and 22 ft. on West Wall.

MAX. SIZE: Applies to maximum size of vessels entering seaway.

HEALTH: Normal formalities are conducted at first port in Canada in the St. Lawrence Seaway or East Coast, and therefore the vessel is usually considered cleared prior to entering the Seaway system.

RADIO: Toronto VOR or by telephone: (416) 576-0400.

VHF: Not available.

RADAR: None.

TUGS: Tugs available at the harbour entrance.

BERTHING: East Wharf – 730 ft., draft 25.6 ft. West Wharf – 900 ft., draft 22 ft. Discharging: Ship's gear or shore equipment.

East Wharf – General Cargo, Petroleum, Sugar, Steel, Automobiles.
West Wharf – Gypsum, Salt, Petroleum Products, Coal, Steel.

CRANES: Mobile cranes having a capacity of up to 300 tons are available at all times. The largest crane in the Great Lakes is permanently stationed at Oshawa with a lifting capability of 326 tonnes.

BULK CARGO FACILITIES: Dry bulk cargoes with the exception of sugar, i.e. coal, salt and gypsum, are carried by self-underloaders and discharged by ship's gear. Sugar is discharged by mobile cranes using clam grabs at a rate of 225 – 250 t.p.h. Present discharging gear by high water level, specific details will be made available on request.

BRIDGES: None.

STEVEDORES: The port stevedore (Hub Transportation Services Limited) employs members of the I.L.A., Local 1997, and 4 gangs are available from this local.

The main commodities handled are unitised general cargo, containerised general cargo, import and export steel, and raw sugar.

The productivity rate is above average, with general cargo usually reaching a level of 20 tons plus, per gang. Depending on units, weights, runs somewhere in the region of 60 – 125 tons per gang hour. Bulk commodities are usually discharged at a rate of 250 t.p.h.

MEDICAL: A full range of medical services is available at the local Medical Clinic and Oshawa General Hospital.

FRESH WATER: Fresh water available at East Wharf only.

FUEL: Available on request.

FIRE PRECAUTIONS: Usual regulations.

CONSULS: All major consuls in Toronto, 29 miles away.

REPAIRS: Available on request.

DRY DOCKS: Contact: Hub Transportation Services Ltd.

SURVEYORS: Classification Societies are represented by Lloyd's, ABS and N.V. in Toronto.

GANGWAY/DECK WATCHMEN: Not required at the Port of Oshawa.

HATCHES: The opening and closing of hatches is normally carried out by ship's crew.

CUSTOMS ALLOWANCES: In accordance with Canadian standards.

CARGO GEAR: Wherever possible by shore crew.

REPATRIATION: Possible.

AIRPORT: Toronto International Airport. All major airlines, 45 miles West.

TIME: EST.

HOLIDAYS: Usual holidays with the exception that Ontario celebrate Civic Holiday which is the first weekend in August. Cargo work can be arranged.

POLICE/AMBULANCE/FIRE: Police Tel: 579-1234. Fire Department Tel: 725-6574. Ambulance Tel: 576-8711.

TELEPHONES: Arrangements can be made through Bell Canada for telephones to be placed on board. A cost of approximately $24.75 installation charge per line.

SERVICES: All services available on request to Terminal Operator.

SHORE LEAVE: Possible.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

AUTHORITY: Oshawa Harbour Commission, 1050 Farewell Avenue, Oshawa, Ontario L1H 6N6. *Tel:* (416)-576-0400. *Telex:* 06-981229. *FAX:* (416) 576-5701. *Contact:* Peter H. Cash, Harbour Master. Donna Taylor, Chief Executive Officer.

PASPEBIAC, Quebec: 48.02 N. 65.15 W. (See Plan)

DOCUMENTS: See "Quebec".

ANCHORAGES: Vessels anchor in 36 ft. in Paspebiac Bay.

RESTRICTIONS: Navigation season May to December.

MAX. SIZE: See "Berthing".

HEALTH: Customs Officers deal with Pratique and quarantine formalities.

RADIO: Grindstone (VCN).

BERTHING: L-shaped wharf owned by Ministry of Transport provides 1,141 ft. of quayage, with depths from 10 ft. – 22 ft. alongside. Berthing not possible due to dangerous condition of wharf. There is a small wharf for fishing vessels.

FRESH WATER: Available.

FUEL: Fuel oil available.

REPAIRS/DRY DOCKS: There is a shipbuilding yard in the port for small to medium size vessels.

AUTHORITY: Transport Canada, Garde Cotiere Canadienne, 104 Dalhousie, Suite 121, Quebec, Que G1K 4B8. *Tel:* (418) 648-3680. *Telex:* 051-3051. *Contact:* Baptiste Parise, Wharfinger, Paspebiac. Tel: (418) 752-2145.

PICTOU, N.S.: 45.41 N. 62.43 W.

DOCUMENTS:

Customs Report Inwards, Form A6 in duplicate.
Clearance from last port.
Stores List, Form E1 in duplicate.
Crew Declarations, Form Y14 in duplicate.
Crew List, Immigration Form 200 in duplicate.
Quarantine Q25 in duplicate.
Fumigating and Derat Certificate.
Load Line Certificate.
Inspection Certificate.
Safety Equipment Certificate.
Radiotelegraphy Certificate.
Certificate of Register.

If Pictou is first port of call in Canada, photostat copies of the ship's ocean bills of lading in duplicate to cover all goods for discharge in Canada.

PILOTAGE: Normally arranged through Halifax as there is no radio station in Pictou. Various pilot boats in use.

ANCHORAGE: Safe anchorage all over harbour in 40 ft.

RESTRICTIONS: No entry restrictions except draft over bar at entrance to harbour, which is 22 ft. low water.

MAX. SIZE: Government Pier 720 ft. long with 27 ft. water on both sides.

HEALTH: Masters must complete Quarantine Form QS.25. Vessel may be quarantined by port doctor, if any disease on board.

RADIO/VHF: Halifax, call sign, VCS, Channels 26, 59, 79. Alternate Charlottetown call sign VCA, Channel 59.

TUGS: Not necessary for berthing.

BERTHING: No specific requirements; berths usually available at all times.

STEVEDORES: Usually 24 hours' notice required for stevedores.

MEDICAL: Hospital facilities available. Serious cases may be transferred to larger hospital at New Glasgow 8 miles distant, or to Halifax 100 miles distant.

FRESH WATER: Supplied by town through 4 in. line. Water pressure 110 p.s.i.

FUEL: Diesel fuel available in quantity. 24 hours' notice required for bunker fuel as it is only brought in on order.

GANGWAY/DECK WATCHMEN: Not usually required unless requested by ship.

OPENING/CLOSING HATCHES: Usually by crew.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes per man. Issue may be made if ship is in port for long periods. Wine/Spirits: One bottle per man.

IDENTIFICATION CARDS: Not required. Customs and Immigration Officer should be notified if any crew member wants to travel any distance from port area.

CONSULS: None.

REPAIRS: Facilities to carry out all types of ship's repairs, including deck, engine, electrical and hull repairs.

DRY DOCKS: Largest dry dock, 2,000 ton capacity, 250 ft. long, 42 ft. beam.

REPATRIATION: Crewmen repatriated through Halifax.

AIRPORT: Closest airport is Halifax International Airport approximately 80 miles distant.

TIME: Eastern Standard Time GMT minus 5 hours. Daylight saving time from first week-end in April to last week-end in October, clocks advanced 1 hour.

HOLIDAYS: New Year's Day; Good Friday; Easter Monday; Queen's Birthday (May 19th); Dominion Day (July 1st); Labour Day (1st Monday in September); Thanksgiving Day (2nd Monday in October); Remembrance Day (November 11th); Christmas Day; Boxing Day. Cargo normally not worked on holidays. Would have to be arranged with stevedoring company.

POLICE/AMBULANCE/FIRE: Police 485-4363; Fire 485-4141; Ambulance 485-4381.

TELEPHONES: Facilities available for placing telephones on ships.

GENERAL: For larger and bulk cargoes stevedores should be notified well in advance. Rates vary according to the type of cargo.

AUTHORITY: Transport Canada – Harbour Master/Wharfinger, Pictou, Nova Scotia. *Tel:* 485-5170. *Contact:* Robert Ross, Harbour Master.

PORT ALBERNI, B.C.: 49.14 N. 124.50 W. (See Plan)

PORT LIMITS: A line drawn 320° through Pill Pt. extending across Trevor Channel and Junction Passage (See Canadian Chart No. 3672).

DOCUMENTS, HEALTH, CONSULS, ETC.: See "Vancouver".

PILOTAGE: Compulsory, contact through Vancouver Radio. Pilot boards at Cape Beale.

ANCHORAGE: Three deep water anchorages available in harbour, each with a radius of 1,000 ft.,depths up to 66 ft.

RESTRICTIONS: Depths in approaches 84 ft. MLLW.

MAX. SIZE: "Panamax" size vessels.

RADAR: There is no Port Control Radar.

VHF: Channel 74 (VTS Tofino); Channel 6, tugs and inter-harbour traffic.

TUGS: Available and required for berthing.

BERTHING: Port Alberni Terminals Berth 3: 600 ft. long with a depth alongside of 40 ft., 50,000 sq.ft. covered storage and 17 acres of open storage.

Port Alberni Terminals Berths 1 and 2: berthing length is 1,050 ft. with 50 ft. minimum depth at the South end of Berth No. 1 decreasing to 37 ft. minimum at the North end of Berth No. 2. Storage sheds and forklifts. 40 ft. container handling capability. All forest products handled. *Private:* A smaller privately owned berth in the river is used for loading 7,200 ton cargoes on specially covered newsprint barges.

CRANES: 2 mobile cranes – 1×50 ton and 1×30 ton.
STEVEDORES: 15 Gangs available. Refer "Vancouver" for holidays, etc.
BRIDGES: There are no bridges.
MEDICAL: Doctors and hospital facilities available.
DENSITY: 1012, approximately.
FRESH WATER: Available at wharves.
FUEL: Supplies by barge from Vancouver or by truck to dockside.
TIME: Local time is GMT minus 8 hours (P.S.T.) or GMT minus 7 hours (P.D.S.T.) in Summer.
TELEPHONES: Service available at all berths.
CUSTOMS ALLOWANCES: See "Vancouver".
REPAIRS: Machine shop capable of major repairs. Also radar, radio, etc.
BANKS: Contact: Port Alberni Shipping Co. Ltd. Telex: Pasco Ttal 044-64553. Tel: (604) 723-7373.
EMERGENCY CO-ORDINATION CENTRE: V.T.S. Centre ("Tofino Traffic") Channel 74 (VHF) or Tel: (604) 726-7777.
STORING: Vessels may be stored by truck, for regulations check with Terminal Manager. Trucks may proceed alongside. For distances check with Terminal Manager.
SURVEYORS: Surveyors and Cargo Inspectors available from Nanaimo and Vancouver B.C.
POLICE/AMBULANCE/FIRE: R.C.M.P., Tel: 723-2424; Fire Hall, Tel: 723-1234; (Ambulance).
SERVICES: Garbage disposal and septic tank extraction by arrangement.

Ship chandlers available.

GENERAL: *Tides:* 12 ft. range at Springs, 8 ft. range at Neaps.
Loading: Carried out by ship's cranes or by mobile cranes if ship's equipment malfunctions.
DELAYS: No delays in berthing should be anticipated – one company scheduling – ice free port.
AUTHORITY: Port Alberni Harbour Commission, 2750 Harbour Road, P.O.Box 99, Port Alberni, B.C. V9Y 7M6. *Tel:* (604) 723-5312 or 723-5333. Port Alberni Terminals: 723-7922. *FAX:* (604) 723-1114. *Contact:* Captain D. E. Brooks, Port Manager. Captain D. C. Drewe, Harbour Master. Mr. K. Fertuck, Terminal Manager.

PORT ALFRED (including Bagotville), Quebec: 48.20 N. 70.52 W. (See Plan)

LOCATION: Ha! Ha! Bay, Saguenay River, about 60 miles from junction of the Saguenay with the St. Lawrence.

Port Alfred, Ville de La Baie, is located within the limits of the National Harbours Board of Haut-Saguenay.

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
3 Crew's Declaration (Can. Form Y.14).
3 Stores Lists (Can. Form E.1).
Quarantine (Can. Form QS.2001).
3 Cargo Manifests.
3 Bills of Lading.
2 Stowage Plans.
Harbour Master Dues receipt.

PILOTAGE: Pilotage is compulsory. A minimum notice of 24 hours must be given to ensure availability of Pilot. This notice to be confirmed 12 hours and 4 hours prior to arrival at pilot station. Reports stating ETA and Nett Reg. Tonnage of Vessel to be addressed to "Pilots Montreal" and passed by the Marine Traffic Control communication system on VHF Channel 14 (156.7 MHz), or by any coast radio station.

The Pilot station for vessels upbound to Baie des Ha! Ha! is located at Anse-aux-Basques, charted 2 miles S.W. of Les Escoumins Wharf on the North shore of the St. Lawrence river and for downbound vessel at Quebec City.

ANCHORAGE: Vessels awaiting berthing facilities anchor off Anse a Philippe (48.21 N., 70.73 W.).
RESTRICTIONS: None. Vessels may enter or depart at any time of day or night.
MAX. SIZE: Vessels of up to 39 ft. draft may berth at Duncan Wharf and 33 ft. and 36 ft. at Powell Wharf. Max. breadth 110 ft. LOA 800 ft. (243.8 m.).
HEALTH: Pratique obtained by cable to Quarantine Quebec, and serves for duration of vessel's stay in Canada. See also "Montreal".
RADIO: Halifax Radio Station used by vessels while in Atlantic and Sept-Iles Radio Station while in Gulf of St. Lawrence.
VHF: VHF radio telephone Channel 66.
TUGS: 2 Voith-Schneider tug-boats available 2,400 h.p. and 3,000 h.p. Join vessel 1 mile off wharves at Port Alfred. Ship's lines used. Tugs are compulsory for all vessels over 3,000 g.r.t. docking or undocking at Duncan Wharf and for tankers above 5,000 g.r.t., docking at Powell Wharf. Also, tugs will be compulsory when judged necessary by the management.
TANKERS: 1×12 in. (Fuel Oil) and 1×12 in. (Caustic Soda) discharge hoses. ASA fittings. No slop discharge facilities. One berth available for tankers at 39 ft. draft. (No. 4 Powell Wharf).
Notice to Tankers: It is important for all vessels discharging fuel oil or caustic soda that the following specific limits be strictly adhered to:
Fuel Oil: Maximum temperatures 150°F, minimum 120°F, with maximum pressure of 115 p.s.i. to a minimum of 75 p.s.i.
Caustic Soda: Maximum temperatures 110°F, minimum 90°F, with maximum pressure of 110 p.s.i. to a minimum of 60 p.s.i.

The above specifications are for security purposes of pipe-lines, and official readings are those on charts on the dock.

BERTHING:
N.H.B. Facilities

Berth	Wharf length (ft.)	Depth at Low Water (ft.)	Remarks
Bagotville Main Wharf (outer face)	167	28	

Private Facilities

Berth	Length (m.)	Depth at Low Water (m.)	Utilisation and General Remarks
Port Alfred (Alcan Smelters and Chemical Ltd, Transport Division).			
(1) Powell Wharf			
South Side	346	10.0	Floor capacity 20,000 tons. Two 5 ton electric level-luffing gantry cranes (bucket or hook) operate on a 35 ft. apron.
North Side	146	11.9	
Across outer end	67	10.0	
(2) Duncan Wharf			
South Side	386	11.9	For unloading bauxite and other bulk cargoes. Two electric gantry towers. 600 t.p.h. each, and one for general and bulk, 10 ton capacity. Also two electric towers 1,000 t.p.h. each.
(3) Consolidated Bathurst			
North Side	183	7.6	

STEVEDORES: ETA sent by cable 72, 24 and 12 hours prior to arrival is sufficient to arrange gangs.
Working hours: The regular working hours at Port Alfred are:
General commodities on Powell Wharf:
(a) From Monday to Saturday: 0800 to 1600 hours
1600 to 2400 hours

(b) For hours worked outside of above hours and on Sundays and holidays, premium will apply.

At commencement of a working period (0800 or 1600 hrs.) a minimum of four (4) hours applies to any gang ordered as per procedure.

All operations cease from 0001 hrs. Sunday to 0800 hrs. Monday except in extreme circumstances such as to complete a vessel within a maximum of two (2) hours.

Rules: The following rules and regulations are now in effect for general commodities on Powell Wharf:
(a) All requests for labour must be done by telex or cable.
(b) In order to insure that gang(s) will be available, it is imperative that the telex message be in Alcan office by 1400 hours the day before the gang(s) is (are) required. Failing this, it will be beyond Alcan control to obtain gangs. Also note that this goes for every day of the week, including Sunday for Monday work. The following is an example of the type of information required on telex or by telephone.
- ETA of vessel.
- Number of gangs required and number of carpenters.
- Tonnage of commodities to be loaded or unloaded per hatch.
- Instruction if machines (forklifts, etc.) can be used at the beginning of the operations.
- if overtime approved when applicable.

Nevertheless Alcanport reserves the rights as to the number of gangs to be placed on any vessel.

Bulk commodities on Duncan Wharf: From 0001 hours each Monday to 2400 hours each Friday, the unloading towers will work three 8-hour shifts daily. Trimming available at the regular working hours.
MEDICAL: General hospital at Chicoutimi located 13 miles away, in addition to local hospital.
DENSITY: Varies, 1002 – 1015.
FRESH WATER: Available at all berths.
FUEL: A Shell Diesel oil station is located at 88 m. (288 ft.) from the Eastern end of No. 4 Powell Wharf, 2 oil pipes of 8 in. diameter
FIRE PRECAUTIONS: Alcanport have a trained fire-fighting crew and fire hydrants installed at all strategic points.
GANGWAY/DECK WATCHMEN: To be attended by ship's personnel.
OPENING/CLOSING HATCHES: Done by crew on bulk discharging. On general cargo, stevedores open and close hatches when required.
CUSTOMS ALLOWANCES: One carton (200) cigarettes allowed for each crew member. Wine and/or Spirits, one bottle for Officers and crew and 5-6 bottles to Master.
IDENTIFICATION CARDS: Not required.
CONSULS: France: Mr. A. Cano, 1500 Roussel, Chicoutimi, secteur Nord (Quebec), G7G 1T4. Tel: 543-8942.

Norway: Mr. C.J. Tremblay, 1522-6th Avenue, Ville de la Baie, Que., Canada G7B 1R6. Tel: (418) 544-1488.

REPAIRS: Only minor deck and engine repairs.
SURVEYORS: Lloyd's at Quebec City. ABS and BV at Montreal.
REPATRIATION: Facilities convenient for crew charges.
AIRPORT: At Bagotville, 6 miles from dock, Daily service to Montreal, Quebec City, Sept-Iles and Baie Comeau.

TIME: Eastern daylight saving time will prevail from early April 1989 to late October 1989 (+4). The remaining part of the year is Eastern Standard time (+5).
HOLIDAYS: 1st & 2nd January, Easter Monday, 1st Monday in June, St. Jean Baptiste Day (24th June), Confederation Day, 3rd Monday in July, 2nd Monday of August, Labour Day & 25th December.
POLICE/AMBULANCE/FIRE: Police 544-6804; Fire 544-6804; Ambulance 544-3335.
TELEPHONES: At the main office and public pay phone outside.
SHORE LEAVE: Crew members allowed ashore.
REPORTING: *Notice to Masters of vessels approaching Canadian waters during Winter months:*

Masters of vessels proceeding from sea inbound to Port Alfred (Ville de la Baie) Quebec must report, at least 24 hours before entering the Gulf of St. Lawrence, to the Canadian Coast Guard, through Halifax Radio Station, N.S. or through any other Canadian Coast Station giving all pertinent information, i.e. name of ship, d.w.t., b.h.p., date built, ice class or non-strengthened, approximate draft and time entering Cabot Strait, destination. Then the Coast Guard should acknowledge and give the vessel the recommended route. When a vessel is beset in ice, the Master must radio for ice-breaker assistance, and in the case where conditions improve and vessel makes progress, it must be reported soonest to the ice-breaker in the vicinity or the Coast Guard so that the breaker coming to the assistance is well informed of the new position.
GENERAL: *Conditions for use of Alcan dock facilities:*

1. Notice of ETA, description and tonnage of the commodity to be loaded or discharged and the number of passengers to be landed or embarked, must be given to Alcanport at least 48 hours and 24 hours before arrival. Alcanport may then assign a berth to the vessel but shall not be liable for any delay in providing a berth or for failure to provide a berth.

2. Vessels shall not berth at Alcanport's wharves before obtaining permission. Berthing instructions will be given on VHF Radio, Channel 66.

3. The normal berthing will be on a "First come, first served" basis but the port management reserves the right to change priority.

4. With a view of expediting the work of the port, Alcanport reserves the right, free of expense to itself, to order (a written three-hour notice) a vessel to vacate its berth or to shift from one berth to another at any time. If the vessel does not vacate its berth or does not shift in accordance with Alcanport's instructions, an additional dockage charge of $500.00 per hour or fraction thereof shall be payable in advance in cash to Alcanport, time to count three hours after notice to shift or vacate has been delivered in writing to the person in charge of the vessel. This clause shall not impair the right of Alcanport to compel removal of the vessel by any lawful means.

5. Any object landed from a vessel on Alcanport's property is to be accompanied by a written permit signed by the Master or Officer-in-charge of the vessel; the said permit is to be handed to Alcanport's gateman.

6. Persons wishing to visit vessels berthed alongside Alcanport's wharves are required to have written permission, signed by the Master of the vessel.

7. No person shall smoke or expose a naked light in any shed or warehouse owned or operated by Alcanport, or in any railway car while on Alcanport's property.

8. Tugs are available on call for service in accordance with the charges and the Standard Towing Conditions.

9. If an anchor is used during the berthing of a vessel at Port Alfred, the Master of such vessel is hereby requested to heave in the anchor on completion of berthing operations.

The cost of any delay caused by any vessel due to not heaving in the anchor will be charged to the owner of such vessel.

Gangways:

10. Vessels berthed on Duncan Wharf or Powell Wharf are to provide safe and efficient gangways fitted with handrails and safety nets, (no ladders allowed). The bottom end of the gangway must rest on the wharf and be tied to the eyebolts of the rails on the wharf. Gangways are to be supervised by ship's personnel.

Note: The safety net must be so installed that it will catch anyone that might fall off when embarking or disembarking the vessel. Also a life buoy with a lifeline must be placed at the bottom end of the gangway and ready for use at all times. In addition, at the Duncan Wharf, such a gangway must be positioned longitudinally in line with the vessel so as to permit free movement to the discharging towers from one berth to another as necessary. In cases where the gangway cannot reach and rest on the wharf, a small union gangway with handrails must be so placed so as to permit safe and free passage from the wharf to the ship's gangway. In order to avoid delays, we urge that these gangways be as ready as possible to be set out quickly on docking of the vessels.

In addition there must be a free passage on ship's decks, free of hazards, so as to permit officials and stevedores to safely carry out their respective duties. Any failure to comply with the above rule may cause the shore personnel to refuse to board, and the cost for any delay incurred while the ship's crew rectify the situation will be charged against the vessel.

Further, during the coldest months, all accesses including hatch covers must be kept free of ice.

For vessels berthed on Powell Wharf only:

There are 2 aluminium gangways available for rental at a minimal fee of $100.00 per 24 hours., or part thereof. It is to be noted that these gangways, as for vessels using their own, are to be under the responsibility and supervision of the ship's personnel at all times while in use by the vessel.

WARNING:

11. This is to advise vessels that Alcanport's wharves are equipped with underwater cathodic protection which prevents corrosion of the wharf structure.

Any debris on the river bed, and especially metallic objects such as wire rope, cans, etc., will adversely affect this expensive system. We request your co-operation to ensure that no refuse of any nature be thrown overboard from vessels. This will avoid damage to the cathodic protection and also claims which we would be compelled to make in the event of damage being caused by refuse from vessels.

It is unlawful to discharge or dispose of any ship's refuse at Port Alfred. (There is no incinerator in this region).

Any ship approaching or manoeuvring near the wharves at Alcanport must ensure that divers working on the cathodic protection system are not under water. When divers are at work, the International Divers' Flag is displayed at the east end of the wharf or wharves involved.

Sailing Directions: Canadian Hydrographic Service in Ottawa (Ontario). St. Lawrence Pilotage (below Quebec City). Canadian Charts Nos. 1202 and 1203.
Tide: Rise and fall 2.1 m. (7 ft.) to 6.7 m. (22 ft.).
Transfer of Funds: All transfers of funds to Alcan Smelters and Chemicals Ltd., Transport Division, or to vessels as cash advance or otherwise through Alcanport, must be sent to: The Royal Bank of Canada, Bagotville Branch, 375 rue Bagot, Ville de La Baie, (Quebec) G7B 2N6. *Tel:* (418) 544-6836.
AUTHORITY: Alcan Smelter and Chemicals Ltd., P.O. Box 10, Ville de la Baie (Sector Port Alfred) P.Q. Canada, G7B 3R1. *Tel:* (418) 544-3311. *Telex:* 051-36176. *FAX:* (418) 544-9622. *Cables:* ALCANPORT. *Contact:* J.L. Mongrain, Port Director. G. Bessette, Marine Superintendent. G. Doyon, Agent (Tel: (418) 544-9674.

PORT ALICE, B.C.: 50.22 N. 127.28 W. (See Plan)

PILOTAGE: Compulsory. Pilots can be secured off Cape Beale, Barkley Sound, South end of Vancouver Island. Master should advise "Pilots Victoria" via Radio Station VAK giving their ETA Cape Beale.
ANCHORAGE: Good anchorage within 0.5 miles of dock in 30 fathoms.
HEALTH: The nearest station is at Victoria, B.C. Ships coming from foreign other than U.S.A. ports and having duplicate Pratique from same to British Columbia ports other than Victoria must obtain Radio Pratique through Victoria, B.C.
TUGS: 2 Small tug (335 h.p.) available to assist berthing and departure if required.
VHF: Ship to shore communications on Channel 6.
BERTHING: Controlling depth from entrance of Quatsino Sound to Port Alice dock 24 fathoms. A draft of 25 ft. can be handled alongside dock and a vessel 525 ft. in length can be berthed with safety.

Oil tankers with draft up to 35 ft. and 580 ft. in length can berth against berthing scow positioned between dock and oil tanker. (Width of scow 35 ft.).

Bulk Carriers with draft of 35 ft., 565 ft. in length are berthed approximately 16 ft. out from dock by means of log fenders. Gantry of monck cranes extending over apron of dock. Largest ship handled of this type, 29,500 d.w.t., draft 35 ft. 4 in. (Cargo loaded – Units of woodpulp).
STEVEDORES: Working day of 12 hours.
MEDICAL: 12 bed hospital, physician in attendance.
FRESH WATER: Available.
FUEL: Limited quantity of diesel oil. Fuel oil only available in an emergency from gravity hose on dock, vessel must supply hoses.
CONSULS: None.
REPAIRS: Minor repairs can be made in the company workshop.
CUSTOMS: Customs board at Port Alice.
CARGO GEAR: No shore cranes, ships use own gear.
AIRPORT: 35 miles from Port Alice, daily service.
HOLIDAYS: All Dominion legal holidays.
GENERAL: Port Alice is a private port open to navigation all year round. Limited quantity of supplies available.
AUTHORITY: Western Pulp Limited Partnership, P.O.Box 2000, Port Alice, B.C. V0N 2N0. Canada. *Tel:* 284-3331. *Telex:* 610-975 7035. *Cables:* West Pulp Pa. *Contact:* L.W. Scott.

PORT CARTIER, Quebec: 50.02 N. 66.47 W. (See Plan)

LOCATION: Port Cartier is located on the North shore of the St. Lawrence River, approximately 25 miles, in a Westerly direction from Sept-Iles (Seven Islands) at Lat. 50° 02′ N., Long. 66° 47′ W.
DOCUMENTS:
Immigration:
Crew List Form IMM.200 in triplicate or IMO No. 6.
Customs:
Report Inwards (A.6) in triplicate.
Crew Declaration (Y.14) in triplicate.
Ship's Stores List (E.1) in triplicate.
Ship's Register.

The above forms will be supplied by mail on request.

The Master shall also have ready for inspection by Customs:

Certificates of Registry, Safety Construction, Safety Equipment, Derat, Safety Radio, Load Line, Clearance from Last Port. Any spares, materials for repair, or materials for furtherance must be declared on Form A6A on arrival.

Also see "Health".

On Canadian or International Crew Lists, black pen or typewriter must be used. Blue is not acceptable because of copy reproduction difficulties.

Designation and dates of expiry of all major trading certificates are required for outward clearance.

Arrangements have been made so that loading can commence before Customs Entry has been completed, and Customs Outward papers will be completed so as not to interfere with immediate departure after completion of loading.

Also see "Shore Leave".

PILOTAGE: Pilotage is compulsory at Port Cartier for docking, sailing and, at Port Authority's discretion, for changing berths.

An exception is made in the case of Coasters or vessels less than 350 ft. LOA unless requested by the Master, or, if considered necessary by the Port Authority.

Pilot will board vessels from attending tug or harbour tender approximately 1 mile off the harbour entrance.

It is the responsibility of all vessels to ensure that the pilot ladder is in good condition and in a safe position for the boarding of the Pilot.

Frequencies for VHF communication with Pilot and Harbour Office. Calling 156.8 mHz. Receiving/transmitting 156.6 MHz. Internal harbour (tugs and Pilots) 156.35 MHz.

Vessels over 40,000 d.w.t. shall also provide accommodation ladder with rope ladder alongside. The landing platform of the accommodation ladder should be approximately 20 ft. above the water.

APPROACHES: The depth of water in the harbour is 50 ft. at MLW. A depth of 54.5 ft. at MLW is maintained in the channel for a width of 200 ft. on each side of the centre line of approach into the harbour. For a distance of 300 ft. on both sides of this channel a depth of 40 ft. at MLW is maintained.

AIDS TO NAVIGATION:

Fairway Buoy: A black and white vertically striped light and bell buoy "Mo (A)" (white light showing the morse code letter A) equipped with a radar reflector, marked "Port Cartier" is in position: Lat. 50° 00′ 12″ N., Long. 66° 47′ 45.7″ W. Removed during Winter season (mid November to mid April).

Rear Range Light: F.G. 255 ft. backed by 10 ft. square fire orange daymarker. Lat. 50° 02′ 25″ N., Long. 66° 46′ 45″ W.

Front Range Light: F.G. 151 ft. backed by 10 ft. square fire orange daymarker. Lat. 50° 02′ 10″ N., Long 66° 46′ 52″ W.

Fog Horn: Signal – Continuous short pulses during poor visibility and fog off Port Cartier on request from vessel. Lat. 50° 01′ 52″ N., Long. 66° 47′. W.

Corossel Island Light: White Gp. Fl.2 ev. 18 secs. 190 ft. 20 miles radio beacon. Fog signal ev. 30 secs. Lat. 50° 05′ 20″ N., Long. 60° 22′ 44″ W.

Local Chart: Canadian Chart No. 1226 Port Cartier and Approaches.

N.B.: All aids to navigation subject to change. ALL VESSELS NOT UNDER PILOTAGE MUST GET PERMISSION FROM THE PORT AUTHORITY BEFORE ENTERING THE HARBOUR, AND MUST ALSO OBTAIN PERMISSION BEFORE LEAVING ANY DOCK WITHIN THE HARBOUR LIMITS.

ANCHORAGE: Anchorage areas have been established as follows:

Designation	*Position*
A.	Lat. 50° 00′ 57.0″ N., Long. 66° 46′ 36.2″ W.
B.	Lat. 50° 01′ 07.1″ N., Long. 66° 45′ 44.5″ W.
C.	Lat. 50° 01′ 16.4″ N., Long. 66° 44′ 53.2″ W.
D.	Lat. 50° 00′ 32.8″ N., Long. 66° 45′ 44.5″ W.
E.	Lat. 50° 00′ 22.7″ N., Long. 66° 46′ 35.0″ W.
F.	Lat. 49° 59′ 56.5″ N., Long. 66° 48′ 43.0″ W.
G.	Lat. 49° 59′ 44.0″ N., Long. 66° 49′ 32.8″ W.

Chart: (Last edition) 1226, dated 27-05-88. Publication – Gulf and River St. Lawrence Sailing Directions, 6th edition 1985.

MAX. SIZE: Vessels of 100,000 d.w.t. and over must have a draft not exceeding forward 33 ft. and aft 38 ft. on arrival. Also see "Berthing" and "General".

HEALTH: All vessels should 24 hours before arrival and during normal office hours, 0900 – 1700 hrs. (holidays and Sundays excepted) radio – "Quarantine Montreal, Quebec" for Radio Pratique. Ships trading between Canada and the United States continuously and touching no other foreign port, since last granted Canadian Pratique, comply with the above, only on first trip to Canada.

The information to be provided to the Quarantine Officer is:

(a) the name and nationality of the vessel;

(b) the ports called at during the voyage of the vessel;

(c) the nature of the cargo on board the vessel;

(d) the number of persons comprising the crew of the vessel;

(e) the number of passengers on board the vessel;

(f) the port of destination of the vessel and the name of the vessel's owner or, if the owner is not in Canada, the name of the vessel's Agent in Canada;

(g) the condition of all persons on board the vessel and details of any death or illness occurring during the voyage;

(h) whether the body of any person is being carried on the vessel;

(i) the estimated time of arrival of the vessel at the port of destination;

(j) the date and place of issuance of any Derat Certificate or Derat Exemption Certificate applicable to the vessel.

Vessels inspected by Port Health Officer soon as possible, in berth or not.

Masters shall have ready for inspection:
Maritime Declaration of Health Form Q.S.2001 in duplicate.
Derat Certificate.

RADIO: Cable Address "Cartier" Port Cartier.

Vessels entering the Gulf from the Atlantic should keep watch on Halifax Radio for all traffic. Information as to time of reports and frequencies will be found in International Radio Aids to Navigation Manual.

Traffic List	420 kHz	Even hours plus 50 GMT
	2582/161.9	Even hours plus 40 GMT

Weather, Ice Reports and Notice to Shipping.

Channel 21	Receiving Frequency	161.65 MHz	(59)
Channel 59	Receiving Frequency	2582 kHz	(59)
Channel 26 and CW	Receiving Frequency	161.9 MHz	(26)

When vessels are 36 hours from Port Cartier, they should keep W/T watch on VCK Seven Islands Radio for traffic from this Port.

VCK – Seven Islands: Tel: 418-968 3118.

	Channel	*Transmitting*		*Receiving*	
W/T Frequency		500	kHz	500	kHz
R/T (HF)	Channel 51	2182	kHz	2182	kHz
	Channel 57	2514	kHz	2118	kHz
R/T (VHF)	Channel 16	156.8	MHz	156.8	MHz
	Channel 12	156.6	MHz	156.6	MHz
	Channel 24	161.8	MHz	157.2	MHz
	Channel 26	161.9	MHz	157.3	MHz
	Channel 21	161.55	MHz	157.05	MHz
Port Cartier Station					
R/T (VHF)	Channel 12	156.6	MHz	156.6	MHz
	Channel 7A (Internal tugs and Pilot)	156.35	MHz	156.35	MHz
Traffic Escoumins					
RT (VHF)	Channel 14	156.70	MHz	156.70	MHz

The Port Office telephone number is 418-768 2485, Telex number is 051-8-6422 and the Fax No. (418) 768-2344. It is also fitted with VHF on the frequencies mentioned above. The office is open to receive messages on a 24 hour basis. Radio and radio telephone traffic by a ship at anchor in the area off Port Cartier is permissible.

THE ST. LAWRENCE WATERWAY TRAFFIC REGULATIONS: The zone extends from Long. 66° 00′ W. to Montreal. In general, the regulations state that a ship must report to the Marine Traffic Regulator by contacting Channel Escoumins on 156.7 MHz, Channel 14 before entering Zone 1 (i.e. crossing Long. 66° 00′ W.). The Port of Port Cartier is in Zone 1. Ships have to maintain a continuous radio watch on Channel 14, except when alongside. Authorisation to communicate on another Channel has to be requested from Channel Escoumins, unless the vessel is equipped with 2 radios. Clearance must be obtained from Channel Escoumins to move within the anchorage.

ARRIVAL ADVICE: Also see "General". ETAs – All vessels must advise ETA 72 hours, 48 hours and 24 hours before arrival. If any change in ETA of more than 1 hour occurs after transmission of the 24 hour ETA, the vessel must send a corrected ETA immediately. These ETAs shall be submitted in local time at Port Cartier.

In the 72 hours ETA vessels will advise: Tonnage of cargo required; grain fittings, if any; quantity orders for supplies; bunkers, water and cash advance requirements; and bonded stores.

In the 24 hours ETA vessels will advise the estimated time for pumping ballast after arrival alongside. However, if because of weather or any other cause the estimated pumping time should change, the Port Authority will be notified immediately.

All ships shall request docking instructions 2 hours before arrival.

TUGS: Compulsory, with the exception of coasters or vessels less than 380 ft. LOA unless requested by the Master, or, if considered necessary by the Port Authority. Meet vessel outside harbour under instructions from Pilot. Tug lines used at all times. Two tugs of 3,800 h.p. available.

BERTHING: Harbour and Terminal:

1. The North Dock is 2,600 ft. in length, the West 2,000 ft. being Berth Nos. 1 and 4 for ore loading and the East 600 ft. being Berth No. 4a for bentonite and limestone discharge. Facilities for oil receiving are located at Berth Nos. 1, 2, 3 and 4.

Coastal vessels may also use Berth Nos. 1, 2 and 3 when permitted to do so by the Port Authority.

2. The depth of water in the harbour is 50 ft. at MLT. A depth of 54.5 ft. at MLT is maintained in the channel for a width of 200 ft. on each side of the centre line of approach into the harbour. For a distance of 300 ft. on both sides of this channel a depth of 40 ft. at MLT is maintained.

3. Vessels of 100,000 d.w.t. and over must have a draft not exceeding forward, 33 ft. and aft, 38 ft. on arrival.

4. The harbour bottom is smooth rock and anchors are of little value, although Pilots may advise Masters as to the use of anchors under special circumstances.

5. The faces of all berths are fitted with rubber and tyre fenders.

6. Mooring bollards are positioned 75 ft. apart at Berth Nos. 1, 2 and 3. There are also hooks at every pier at Berth No. 4. All bollards except those at Berth Nos. 2 and 5 are 4 ft. in extreme diameter and all mooring ropes and wires should have eyes at least 8 ft. in diameter.

7. The East Breakwater Cells are cathodically protected. The cabling and anodes extend approximately 60 ft. from the cells, affording all round protection. The use of anchors, or equipment likely to damage this protection, is not permitted within these areas.

Bentonite and Limestone: The bentonite and limestone discharging facility has a rated capacity of 1,500 t.p.h., with the discharge hopper being in a fixed location on Berth No. 4.

MEDICAL: Hospital facilities are available at Port Cartier. All costs for medical and dental treatment required by seamen will be charged to the vessels in which the seamen are serving as crew members. All crew members requiring medical attention should be available upon the vessel's arrival alongside.

TANKERS: No facilities for slop discharge.

DENSITY: Has been known to vary slightly between 1025 and 1021, but is considered salt.

FRESH WATER: Available to all vessels at Berth Nos. 1, 2, 3, 4 and 5 with connections conveniently located. Rate of approximately 20 t.p.h. The fresh water line is 6 in. with 2.5 in. standard Quebec hose, male connection of 7 threads to the inch. Necessary connections and hoses are to be furnished and handled by vessel.

If required, fresh water can be supplied to vessels at anchor. Max. amount per trip 40 tons.

FUEL: Available at Berth Nos. 1, 2, 3 and 4 for Bunker "C", marine diesel and/or any specialised blend and connections are positioned for ready supply to all vessels. All bunker requirements are directly supplied by Gulf Oil Canada Limited, and proper credits should be established. Bunker "C" can be supplied at approximately 1,500 b.p.h. Marine diesel oil can be supplied at approximately 900 b.p.h., Bunker "C" line is 10 in. with 8 in. reducer flange connection. Marine diesel oil line is 8 in. with 4 in. reducer flange connection. There is no coal available at this port.

Vessels nominated for Port Cartier and required to anchor awaiting a berth, which in the meantime require bunkers, will be permitted to enter the harbour, if a berth is available with bunkering facilities, for the purpose of bunkering, and shall then return to anchor. The fee for this service shall be $3,780 (including second tug if used) plus applicable line handling charges.

GANGWAY/DECK WATCHMEN: Not necessary. Security guards obtainable on request.

OPENING/CLOSING HATCHES: Normally done by crew.

CUSTOMS ALLOWANCES: Canadian Customs Regulations allow each crew member to have in his possession for his personal consumption 200 cigarettes, 50 cigars, 2 lb. pipe tobacco and 40 oz. of spirits. All quantities must be declared on Crew Declaration Form Y-14 along with all personal effects such as radios, cameras, tape recorders, binoculars, souvenirs, etc., plus serial numbers of these items.

N.B.: Masters of vessels are advised that tobacco items and spirits in excess of these amounts in possession of crew members should be collected and placed in bonded stores prior to the vessel's arrival in order to speed up the clearance of the vessel.

Canadian seamen returning from voyages to American or other foreign ports are permitted $100 value of duty free merchandise every quarter for periods outside Canada of over 48 hours and $300 once a year for periods outside Canada of 7 days.

IDENTIFICATION CARDS: Not necessary.

REPAIRS: Minor repairs can be effected. They must be supervised by the vessel's personnel, and will be the responsibility of the vessel.

REPATRIATION: Crew changes and repatriation can be carried out.

AIRPORT: Nearest airport is Seven Islands about 40 miles by road. Services to Quebec City and Montreal, 4 flights daily.

TIME: Port Cartier is located in the Eastern Standard Time Zone (GMT minus 5 hours). Daylight Saving Time (GMT minus 4 hours) is observed from first Sunday in April to last Sunday in October.

HOLIDAYS: See "General".

POLICE/AMBULANCE/FIRE: Police Tel: 766 2233. Ambulance/Fire Tel: (418) 768-2323.

TELEPHONES: No direct connections to vessels. Available on berths.

POLLUTION: The discharge of oil and garbage into the waters of Canada is prohibited by strictly enforced regulations which provide heavy penalties on summary conviction. Every precaution must be taken to prevent escape of oil from a vessel, but should such an escape occur, the regulations require that vessel immediately report it to the nearest Canadian Coastguard Officer or to the Chairman, Board of Steamship Inspection, Ministry of Transport, Ottawa.

SERVICES: Electronic repair services to navigational equipment. Should be requested in advance.

SHORE LEAVE: All ships arriving from a foreign port will be boarded by Customs and Immigration Officers. Ship's personnel are not allowed ashore until permission is granted by these Officers, nor shall crew members joining a vessel board without Customs permission.

DELAYS: Occasionally Easterly weather conditions may delay vessels berthing.

GENERAL: Vessels which have completed discharging of grain and are to load iron ore should have ratguards fitted to all mooring lines at all times.

Ore Concentrate and Pellet Vessels:

I. Advising Arrival: (See also "Arrival Advice") 1. Each vessel operator or its principal shall notify Quebec Cartier Mining at least 2 weeks prior to the expected arrival of each vessel at Port Cartier and Quebec Cartier Mining Company shall forthwith advise such vessel operator or principal whether it can accept the vessel at such time. An allowance of 3 days preceding and 3 days subsequent to the date so fixed will be made for the actual arrival of each vessel. If the vessel's actual arrival is not within such 3 day period preceding or subsequent to the date fixed for its arrival, Quebec Cartier Mining Company may fix another arrival date for such vessel that will not interfere with other scheduled loading. Quebec Cartier Mining Company shall be kept fully advised of all vessel nominations, substitutions, cancellations, delays, sailing dates at Port Cartier of all vessels designated to accept delivery of ore at this Port.

2. The submission of a Notice of Readiness by the vessel will constitute acceptance of all terms and conditions of this Advice to Vessels by the vessel, its Managers, Agents, Master, Operator and or Charterer.

II. Loading Conditions: Ships will be loaded in regular turn of vessel's arrival off Port Cartier provided they present with hatches open and do not have ballast pumping time which will exceed minimum loading time. The 1 shiploader has a rated capacity of 9,000 tonnes/p.h. for concentrate and 7,200 tonnes/p.h. for pellets. A vessel which has berthed at the loading dock and is found to have a deballasting rate time which in the opinion of the Port Authority will not permit loading at maximum rate, may be ordered off the dock and moved to the standby berth or to anchorage until it is in a condition to accept its cargo at maximum loading speed.

The vessel will then be returned to the ore loading berth in turn, following re-submission of Notice of Readiness. All moves to be at vessel's expense. Quebec Cartier Mining Co., Port Authority will be final arbitrator in case of dispute.

III. Loading Minimum and Vessel Specifications: Each vessel designated to accept delivery of ore at Port Cartier, must conform in construction to the following specifications and conditions:

1. Not less than 4 ore hatches of at least 18 ft. square, except Great Lake Bulk Carriers where the minimum width of hatches shall be 9 ft., to accept ore cargo direct from loading tower at Port Cartier.

2. All vessels nominated must be suitable for the loading and the transportation of concentrates or pellets and capable of taking the entire cargo to be loaded in the lower holds without "peak-up" above the tween deck levels. The vessel shall load and stow cargo in accordance with the Canada Shipping Act and Regulations.

3. Hatch opening sufficiently clear of obstruction on deck to permit free and direct contact with loading tower.

4. Vessels may be loaded to a draft of 54 ft. if tides permit them to sail while maintaining a safe under keel clearance (at least 3 ft.) on a rising tide.

If a vessel requests to wait for a following higher tide in order to lift more cargo, and the Port Authority agrees, then this additional time is not to count and, if required by the current operational condition of the Port shifting is necessary, all additional shifting fees will be for the account of the vessel.

5. *Maximum Allowable Dimensions:* Maximum allowable dimensions of vessels at the ore berth.

LOA 995 ft.

Beam 174 ft. Moulded depth 92 ft. (to top of hatch cover).

Air draft under loader:

MHW 42 ft. water line to top of hatch covers.

MLW 52 ft. water line to top of hatch covers.

Draft of Vessel Loaded:

Draft at MLW 48 ft. loaded.

Draft at MHW 54 ft. loaded.

IV. Special Regulations: 1. Any vessel which discharges a cargo of grain and is to load a cargo of iron ore will be considered in turn for loading only after the vessel has completed discharging grain and is in all respects clean and ready to receive iron ore.

2. Loading plan should be available as soon as possible after arrival and must be presented to the ore loading foreman, in metric tons, on arrival at the berth.

3. All shipboard work necessary for docking and loading, including but not limited to line handling and tending, opening and closing hatches, and normal deck cleanup, shall be done by the vessel's crew.

4. Any Owner or Charterer with more than 1 vessel waiting turn to load may interchange his vessels, provided they are of comparable capacity (deadweight). Any interchange of turn must be arranged with and have the approval of Quebec Cartier Mining Company.

5. All weights shown on the Bill of Lading and/or Manifest will be the same as recorded on the weighing facilities of Quebec Cartier Mining Company.

6. The Port will be in operation 24 hours a day, 7 days a week; however, ore vessels will not be loaded on New Year's Day (January 1st), and on Christmas Day (December 25th), nor will they be loaded from 0800 hrs. Sunday to 1600 hrs. Sunday, nor during the same period on the following holidays: Good Friday; St. Jean Baptiste Day – June 24th; Dominion Day – July 1st; second Monday of July; first Monday of August; Labour Day – first Monday of September; Thanksgiving – second Monday of October; Boxing Day – December 26th.

7. Arrangements have been made so that loading operations will commence as soon as possible after the vessel's arrival at the loading berth.

8. Vessels usually dock port side to at Ore Berth.

V. General Instructions in Preparing Vessels' Holds to Accept Iron Ore Concentrate: Quebec Cartier's iron ore is a type of iron ore concentrate which weighs on the average 192 lb. per cu.ft., and stows at approximately 12/13 cu.ft. per gross ton.

The iron ore contains an average moisture content from 2.5% to 3.5%, and could sometimes in the Summer Season be shipped at as high as 5%. The character of this ore is self draining. It will retain moisture up to about 2.5%, but all moisture over and above this will drain on compaction of the material, and also, if the ore is left for long periods in stock-pile or in the hold of a vessel, this drainage of moisture will sometimes leave a considerable quantity of water in the hold of the vessel, and could cause some inconvenience when discharging the cargo. For this reason all bilge strums or wells should be sounded regularly and pumped out at regular intervals, so as to keep the bottom of the hold as dry as possible.

Quebec Cartier's iron ore is abrasive, and could cause damage to bilge pumps. Masters of vessels are advised to cover all bilge strums or wells with burlap in a similar manner as when receiving a grain cargo in bulk; so as to permit a free flow of the water and retain the iron ore in the hold of the vessel.

All holds for the acceptance of this cargo should be clean prior to the arrival of the vessel.

VI. Pellet Stowage Factor: Iron ore pellets will stow at about 17 – 18 cu.ft. per gross ton.

All holds for the acceptance of this cargo should be clean prior to the arrival of the vessel.

VII. All vessels loading more than 18% of their cargo capacity in iron ore concentrate must present a Certificate of "Fitness to Load" as issued by the Canadian Ministry of Transport (Port Warden) prior to loading and a "Fitness to Proceed" prior to sailing.

Port Warden costs will be charged to the vessel in accordance with the government tariff.

Grain Vessels: Berthing and use of the Elevator Dock Facilities: *Regulations, Terms and Conditions:*

(The term 'Tariff' refers to the Tariff issued periodically by the Elevator Company; the term 'Company' in this section refers to the Elevator Company).

1. Application for Berth: For all vessels desiring a berth at the Elevator there shall be filed an Application for a Loading Berth at the Elevator Office, between 0900 – 1700 hrs. Mondays through Fridays and from 0900 – 1200 hrs. on Saturdays, except on holidays. Application shall be made in writing on forms supplied by the Company. Whether or not such Application Form is signed, the Owner and Charterer of each vessel shall be deemed to agree in consideration of the Company permitting the vessel to berth at the Elevator for the purpose of loading or discharging bulk grain, to abide by all rates, rules and regulations stipulated in the Company's current Tariff, and to acknowledge having taken communication of same and, without restricting the generality of the foregoing, to undertake and agree that the berthing of the vessel at the Elevator will be free of risk and expense to the Company. Owners and Charterers also agree to indemnify the Company against and hold it harmless from any and all damages whatsoever and howsoever caused which may be occasioned to its facilities or any of them by the vessel and in like manner to indemnify the Company against and hold it harmless from any and all claims of any nature whatsoever arising from damages which may be sustained by the vessel while berthed or during berthing or unberthing. Owners and Charterers shall in like manner be deemed to agree to make prompt payment of invoices as presented and *in the case of export grain to deliver to Les Silos Port Cartier signed written evidence of the receipt on board of the grain according to the Les Silos Port Cartier Description and Tally (i.e. "Mate's Receipts").* All charges shall constitute a lien against the vessel until paid. The Application for Berth shall be dated and timed and shall constitute a contract between the Company and the Owners and Charterers of the vessel, such that the latter shall be bound by the terms thereof and, without restriction, to comply with all the charges, rules and regulations stipulated in the Company's current Tariff.

2. *Allocation of Loading Berth:* Except as otherwise provided in these regulations, vessels shall be assigned a loading berth in the chronological order in which they file with the Elevator Office the signed Application for Berth, accompanied at the time of filing by the following documents:

(a) Certificate issued by the Canadian Government Department of Agriculture and/or by the United States Department of Agriculture, Grain Division, as the case may be, that all cargo compartments are fit to load in compliance with the regulations of the respective departments.

(b) Certificate of Readiness in all compartments issued by the Port Warden.

(c) Evidence to the effect that the vessel has been entered at the Canadian Customs House.

(d) Evidence to the effect that the vessel has been tendered to and accepted by the Charterer.

Vessels are required to present alongside the Loading Berth with hatches open and gangway and gangway net ready.

3. *Allocation of Unloading Berth to Lake Vessels:* Subject to the exceptions contained herein, but at all times in accordance with the provisions of the Canada Grain Act and Canadian Grain Commission Regulations, Lake vessels shall be assigned to an unloading berth in the order in which they arrive in port and file application and required documents for berth with the Company with evidence of vessel's readiness to discharge.

(a) A hold of a vessel having been partially unloaded at another port shall not be accepted for unloading unless by prior express arrangement with the Company.

(b) A hold of a vessel having a separation between more than one grade or kind of grain shall not be accepted for unloading.

4. *Berthing Prior to Receipt by the Company of Appropriate Certification:*

(a) At the sole discretion of the Company, a vessel may be allowed to berth alongside the Elevator prior to having received all the above certificates. If subsequently, the vessel fails to deliver such certification, it must, immediately on order of the Company vacate the berth. Nothing contained in this rule shall be deemed a waiver of any of the provisions of Item 5 hereinafter.

(b) Any vessel, which has been allowed to berth at the Elevator having previously filed all the certificates enumerated in above item 2, and which subsequently is found by an Official Inspector unsuitable to receive grain for any reason, must, if required by the Company, immediately vacate the Elevator Berth. Nothing contained in this rule shall be deemed a waiver of any of the provisions of Item 5 hereinafter.

5. *Refusal or Failure to Vacate Berth:* Any vessel which fails or refuses to vacate the berth when required by the Company for any reason whatsoever including being under arrest, except as provided hereinafter, in Item 9, shall be liable, in addition to any other charges due hereunder, to pay to the Company a charge of $1,500.00 per hour, or any part thereof after vacating notice has been given in writing to the Owner, Manager, Agent, Master, Mate, Operator or Charterer of the vessel. This charge shall be paid promptly and it is accepted that it accurately represents a minimum estimate of damages to the Company because of refusal or failure of the vessel to vacate. This payment shall not constitute a waiver on the part of the Company to claim greater actual damages that may be sustained as a result of the vessel's failure to vacate.

The Company shall have the right, authority and privilege to compel the removal of the vessel, by any lawful means, at the vessel's own risk and expense and shall not be liable for any damages, delay or other expenses, including legal costs, arising from the act of removal of the vessel, by whomsoever incurred.

6. *Berth Operations:* The Company, in its sole discretion, may:

(a) Alter the turn of vessels whether in berth or not, when confronted by an urgent need to receive or ship a particular grade or kind of grain or when in its judgment

(i) This is necessary or desirable in order to facilitate elevator operation, or

(ii) Conditions within the Elevator or approaches thereto render this necessary or desirable.

(b) Require a vessel to load in overtime hours at vessel's own expense during all hours when labour can be available, continuously until loading is completed, or for any part of such hours as the Company may determine necessary. This rule may be applied whenever more vessels are in port than can be berthed at the Elevator, or in order to expedite the movement of vessels and/or grain, or to ensure the fullest possible use of the Elevator, or to eliminate any threat of actual or possible congestion of any other vessels. Any vessel unwilling to work overtime as directed in accordance with this rule shall vacate the berth without delay and the vacating vessel shall only be permitted to berth again at the Elevator after giving written agreement to load continuously until completed whether in regular or in overtime hours. Should any vessel refuse to vacate, it will be liable for damages described in above Item 5.

(c) If a strike or other labour disturbance involving a vessel at berth or waiting for berth (whether by vessel's crew or otherwise) or any other circumstance affecting a vessel and not attributable to the Company will, in the Company's judgment, tie up or impede operations at the dock, the Company may order such vessel out of berth or refuse to accept it at the berth. Should any vessel refuse to vacate, it will be liable for damages described in above Item 5.

7. *Vessel in Berth:* Any vessel in berth shall at all times maintain appropriate Officers and crew aboard to permit shifting of the vessel or reception or discharge of cargo at any time of day or night including Saturdays, Sundays and Holidays.

All vessels discharging or loading grain shall at all times have adequate rat guards on all mooring lines.

8. *Work Interruptions:* When work is interrupted on account of rainy or other weather conditions, a vessel at its own expense may be required, at the discretion of the Company, to retain on standby, according to local labour rules, stevedore and other labour necessary to the loading, up to a maximum of 4 hours in any stevedoring work period. Any vessel or its Agent failing to have such labour available, if so required, shall be, in addition to any other charges due hereunder, assessed a charge of $1,500.00 per hour for any period where work is subsequently ordered resumed by proper authority (after the weather interruption) but cannot be carried out for lack of labour.

If such interruption occurs during an overtime period or on Saturdays, Sundays or Holidays, the usual charges for overtime periods will still be fully assessable and due in addition to the above charge. This rule shall be applicable unless otherwise agreed by the Company in writing.

9. *Completion of Loading: Upon completion of loading, a vessel shall not occupy the loading berth at the Elevator longer than is necessary to close the hatches, but in any event for not longer than 1 hour.* Vessels requiring extra time to set booms and derricks before making ready for sea or for any other reason may, at the time of docking, request written permission from the Company to do this work at the Elevator Berth, but it shall be at the sole discretion of the Company whether such permission is granted or not. Any vessel not granted such permission must vacate the berth immediately as required by the Company. Most vessels requiring extra dock time will be ordered to a lay-by berth, if available, or to anchorage, at vessel's expense.

Failure to comply with this requirement will automatically cause the vessel or its Agents to be assessed an extra charge of $1,500.00 per hour or part thereof from the time that permission was refused. This charge shall not impair the right of the Company to compel removal of the vessel from the berth nor shall it constitute a waiver on the part of the Company to claim any greater damages that may be sustained as a result of vessel's failure to vacate. The Company shall have the right, authority and privilege to compel the removal of the vessel by any lawful means at the vessel's own risk and expense and the Company shall not be liable for any damages, delay or other expenses including legal costs, arising from the act of removal of the vessel, by whomsoever incurred.

Port Expenditure: In addition to the port charges, the following charges will be applicable:

1. Grain Inspection Fee.
2. Charges as stipulated in the Company's Current Tariff.
3. The Port Warden and D.O.A. and/or U.S./D.O.A. fees when applicable, charged at cost in accordance with the regulations.

Unloading and Loading Facilities: The grain unloading berth is adequate for the largest lakers known and is equipped with 2 marine towers able to unload grain at a peak rate of over 2,240 tonnes (80,000 bushels) per hour.

The loading berth can handle ocean vessels having up to the following maximum dimensions:

Length Overall	900 ft. (see "Note" below).
Beam	137 ft. for self-trimming bulk carriers. 137 ft. for OBO-centre holds only. 125 ft. for tankers, provided off-shore tank openings are a minimum of 15 ft. inside ship's side.
Draft	47 ft. at MLW, subject to slight increase depending on state of tide. Port Authorities require vessels to have 3 ft. under their bottoms at all times.
Air Draft	53 ft. at MLW, to top of hatch covers. 45 ft. at MHW, to top of hatch covers.

Note: Vessels having in excess of 730 ft. LOA up to 900 ft. LOA, may be accepted at the Elevator, but only by prior arrangement with the Company, which reserves the right, at its sole discretion, to refuse to load any vessel over 730 ft. because of its length or other physical characteristics which makes it impracticable to load.

The Port Cartier harbour as well as the grain loading berth have a depth of water of 15.2 m. (50 ft.).

REGULATIONS: Also see "General".

1. Ships will leave the loading or discharging berth immediately on completion of loading or discharging. If any delays occur on documentation, crew members missing etc., ship will leave the dock and all matters will be handled from anchorage or another berth.
2. Vessels ordered to anchor, should do so in the recommended area, see "Anchorage". Failure to do so may result in delays to vessels from being boarded by Port and Government Authorities. *Vessels at anchorage must remain 0.25 miles clear of the Harbour Approach Channel.*
3. Vessels arriving in ballast should ensure they are in good trim for safe handling into the harbour, bearing in mind the loading rate, so as not to cause any delay in loading due to deballasting. However should a vessel not be sufficiently ballasted at the time of proceeding into the harbour, the Pilot may request further ballasting, depending on the prevailing weather conditions. If in doubt the Master should contact the Port Office by Radio Telephone.
4. Vessels should have main engines and deck machinery operable at all times when alongside the berth. Permission contrary to the above must be obtained from the Port Authority.
5. All O.B.O. vessels not in possession of a valid Gas Free Certificate by an independent chemist will advise accordingly in the 72 hour ETA, and arrangements will be made to have a chemist available on arrival at vessel's expense. Masters must present a valid Gas Free Certificate before Notice of Readiness may be tendered.

6. Normally, vessels will be permitted entry to the harbour, to their assigned berth in order of their arrival. However, the Port Authority may alter the order to assure in its sole opinion, efficient operation of the harbour. The Port Authorities shall be the final arbitrator in case of dispute.

7. The Port Authority may require a vessel to vacate an assigned berth, proceed to anchor or standby berth and return to the assigned berth to complete loading or discharging as soon as conditions permit.

8. Any vessel which fails or refuses to vacate the berth when required by the Company, shall be assessed, in addition to any other charges due hereunder, an automatic charge of $2000.00 per hour or any part thereof after vacating notice has been given in writing to the Owner, Manager, Agent, Master, Mate, Operator or Charterer of the vessel. This charge shall be paid promptly and it is accepted that it accurately represents a minimum estimate of damages to the Company because of refusal or failure of the vessel to vacate. This payment shall not constitute a waiver on the part of the Company to claim greater actual damages that may be sustained as a result of the vessel's failure to vacate.

The Company, through the Port Authority, shall have the right, authority and privilege to compel the removal of the vessel, by any lawful means, at the vessel's own risk and expense and shall not be liable for any damages, delay or other expenses, including legal costs, arising from the act of removal of the vessel, by whomsoever incurred.

9. A stand-by charge of $1500.00 per hour will be assessed against any vessel causing delay of ore loading alongside berth when such delay is caused by the vessel not complying with Port regulations and requirements.

AUTHORITY: Quebec Cartier Mining Company, Port Office, P.O.Box 188, Port Cartier, P.Q. G5B 2G8, Canada. *Tel:* 418-768 2400/768 2439/768 2485. *Telex:* 051-86422. *FAX:* (418) 768-2344. *Contact:* L. S. McGee, Port Manager. A. Spence, Marine Supervisor.

PORT COLBORNE, Ontario: 42.52 N. 79.15 W.

Refer to "St. Lawrence Seaway" for important general information.

DOCUMENTS: All documentation carried out by Authorities in Montreal. Only when vessels have called at United States port after departing Montreal will any changes in documentation be necessary, which will consist of a United States Customs Clearance Certificate, to be available on board.

Immigration papers.
1 copy QS2 (Health Certificate).
3 Stores Lists.
Crew Personal Effects List.
Customs Clearance.

All of the above will have been stamped in Montreal.

PILOTAGE: Compulsory for ocean vessels over 250 tons gross. Pilots are available at Port Weller (upbound) and Sarnia (downbound). Supervisor of Pilots located in St. Catharines.

ANCHORAGE: In Lake Erie, beyond the 3-mile fairway buoy at entrance to Port Colborne Harbour.

No anchorage available outside those allocated by the St. Lawrence Seaway Authority, except those vessels waiting to unload at N.H.B. facilities only can moor temporarily on the inner breakwater West of the N.H.B. elevator with permission from the N.H.B. elevator manager.

RESTRICTIONS: Navigation season approximately from April 1st to December 31st. Channel depth 27 ft. dependent on Lake level.

Limiting depth in the channel from Port Colborne piers to Bridge 21 and 20 is 8.23 m. (27 ft.). From Bridge 21 and 20 North to Rameys Bend the limiting depth in the channel is 8.23 m. (27 ft.). The Welland Canal will accommodate vessels not exceeding 222.5 m. (730 ft.) in overall length and 23.16 m. (76 ft.) in extreme breadth. Permissible draft is 7.92 m. (26 ft.).

MAX. SIZE: 730 ft. length, 76 ft. beam, 26 ft. draft.

HEALTH: Pratique granted at Quebec City for incoming vessels from foreign ports.

TUGS: None available.

BERTHING:

Canada Starch Dock (Old Channel) Wharf No. 11:

Type	Grain Discharge into Hopper
Equipment	Ships' Equipment
Length	120 m. (390 ft.) between three dolphins
Depth	8.23 m. (27 ft.)

Rameys Bend, Wharf No. 12:

Type	Stone and Sand
Equipment	Tunnel and Belt Conveyor, Loading
Length	1,797 ft. (547.7 m.)
Depth	27 ft. (8.23 m.).
Operator	Port Colborne Quarries Ltd.

Robin Hood Dock, Wharf No. 13:

Type	Elevator – Grain and Grain Products
Length	1,000 ft. (304.8 m.)
Depth	25 ft. (7.62 m.)
Operator	Robin Hood Flour Mills Ltd.

Wharf No. 15:

Type	Sand
Equipment	Self-unloaders
Length	850 ft. (259.1 m.)
Depth	14 ft. (4.27 m.)
Operators	Beam Building & Supply Co. Ltd. and Underwater Gas Developers Ltd.

Wharf No. 16:

Type	Unloads and loads bulk cargoes, marine diesel oil and coal bunkers available.
Equipment	1 Belt Conveyor 7 in. – 8 in. Pipe-line
Length	1,480 ft. (451.1 m.)
Depth	27 ft. (8.2 m.)
Storage Capacity	27,000 tonnes above.
Operator	Rochester & Pittsburg Coal Co. (Canada) Ltd.

Fuelling Wharves:

Wharf No. 17:

Type	Unloads and loads bulk cargoes using ship's or mobile gear
Equipment	Mobile repair equipment
Length	1,120 ft. (341.4 m.)
Depth	27 ft. (8.2 m.)
Storage Capacity	225,000 tonnes.
Operator	Upper Lakes Shipping, Toronto

Imperial Oil – Shell Canada, Wharf No. 18:

Type	Marine Diesel Fuel, Bunker "C" and Coal
Length	1,650 ft. (502.9 m.)
Depth	27 ft. (8.2 m.)
Storage Capacity	170,000 Barrels.

Maple Leaf Mills Ltd., Wharf No. 19:

Type	Grain Elevator
Length	1,650 ft. (502.9 m.)
Depth	27 ft. (8.2 m.)
Storage Capacity	63,000 tonnes

National Harbours Board, Wharf No. 20:

Type	Grain Elevator
Length	Holding Side 900 ft. (274.3 m.)
Depth:	Holding Side 19 ft. (5.79 m.)
Storage Capacity:	84,000 tonnes.
Operator	Goderich Elevators Ltd.

MEDICAL: Local hospital at Port Colborne. All assistance available.

DENSITY: Fresh water.

FRESH WATER: Available at West Side Wharf.

FUEL: Bunker and diesel fuel available.

REPAIRS: Lay-up berth at West Side Wharf, 9.5 ft. – 13.5 ft. alongside. Local repair shops for boiler, engine and above deck repairs.

DRY DOCK: At Port Weller.

SURVEYORS: ABS at Toronto. Lloyd's at St. Catharines.

AUTHORITY: St. Lawrence Seaway Authority, Western Region, P.O.Box 370, 508 Glendale Avenue, St. Catharines, Ontario L2R 6V8. *Tel:* (416) 641-1932. *Contact:* J. B. McLeod, Regional Vice-President.

PORT DALHOUSIE, Ontario: 43.12 N. 79.16 W.

(See Plan)

LOCATION: On the South shore of Lake Ontario 43 km. Southeast of Hamilton and 5 km. West of Port Weller, the Northern entrance of the Welland Canal. Port Dalhousie is now amalgamated with the City of St. Catharines.

APPROACHES: Access to the port is through 2 parallel entrance piers projecting out into Lake Ontario, which lead into a wide basin utilized by recreational vessels.

RESTRICTIONS: Navigation season: Usually April 1st to December 30th. Channel depth: Limiting depth in the channel between the entrance piers is approximately 21 ft. to 23 ft. below Chart Datum (Elev. 242.8 ft.) and gradually reduces in depth towards the basin.

RADIO: Ship-to-Shore communications: Through Toronto (VBG).

TUGS: No towing facilities.

BERTHING: The entrance to the harbour is between 2 parallel concrete piers 61.0 (200 ft.) apart. The East pier 701.1 m. (2,300 ft.) in length, extends out 457.3 m. (1,500 ft.) from the shore, 76.2 m. (250 ft.) beyond the outer end of the West Pier. Southward of the inner end of the entrance piers, the harbour widens out into a basin utilised by recreational vessels.

MEDICAL: General Hospital and Hotel Dieu at St. Catharines.

CUSTOMS: Officers available at St. Catharines at any hour by previous arrangement.

FUEL: Gasoline available.

SERVICES: Supplies available.

SURVEYORS: Lloyd's at St. Catharine, ABS at Toronto.

DEVELOPMENTS: Ontario Hydro is building a new generating station at the South end of the harbour. It is expected to be operational by 1989.

AUTHORITY: City of St. Catharines (Parks & Recreation Dept.), P.O.Box 3012, 320 Geneva Street, St. Catharines, Ontario, L2R 7C2. *Tel:* (416) 937 – 7210. *Contact:* Robert G. Christie, Harbour Master, or G. J. Shanahan.

PORT HAWKESBURY AND STRAIT OF CANSO, N.S. (See Plan)

PORT LIMITS: Port Hawkesbury and Mulgrave harbour limits are from a line joining Melford Point and Bear Head, and the Canso Causeway.
DOCUMENTS:
3 copies Crew Declaration, Form Y14 (IMO Form 5 acceptable).
3 copies Store List, Form E1.
3 copies Immigration Crew List, Form IMM 200.
3 copies Inward Report, Form A6.
2 copies Shipping Report, Form S1.
3 copies Outward Report, Form A6.
Completed Maritime Declaration of Health, Form QS 2001.
Valid Derating Certificate.
International Vaccination Certificates for crew members.
Complete copy of Manifest for Goods to be Discharged in Canada.
Clearance from Last Port.

Tankers must be in possession of Canadian Compliance Certificate, valid for 2 years, or have arrangements made to receive one.
ICE: Ice Advisory and Shipping Support Service is provided from mid-December to the end of the ice season. Information regarding ice conditions is broadcast regularly and special reports will be obtained on request from "Ice Halifax" through Halifax Radio (VCS).

Masters are cautioned that it may be necessary to remove certain buoys in Chedabucto Bay and the Strait of Canso during the ice season, and it is recommended that Masters request information on their deposition prior to entering.
PILOTAGE: Pilotage is compulsory. Pilotage boarding stations:

Strait of Canso, Northern Approach:	45° 42′ 42″ N. 61° 29′ 12″ W.
Strait of Canso, Southern Approach:	
(a) For vessels of 730 ft. and under:	45° 29′ 30″ N. 61° 11′ 06″ W.
(b) For vessels over 730 ft.:	45° 24′ 00″ N. 61° 01′ 00″ W.

Vessels must report by radio-telephone or radio-telegraph their ETA's 12 hours before the vessel's ETA. Time used must be GMT. ETA's must be confirmed or corrected not more than 8 hours later nor less than 4 hours prior to the new ETA.

Canso pilot boat guards Channel 14 whilst in the area of Chedabucto Bay approach and Channel 12 whilst in the area of St. George's Bay approach.
ANCHORAGES: In the interests of safe navigation, anchorage berths for vessels of 65 ft. registered length have been established.

Anchorages "A" to "F" are situated in Chedabucto Bay in water depths from 14 to 26 fathoms.

Anchorages "G" to "O" are situated in Inhabitants Bay in water depths from 5 to 8 fathoms.
HEALTH: Pratique will be granted on arrival at berth by boarding officers, but it is the Master's responsibility to report by radio all details of any sickness or death occurring during the voyage to "Quarantine Halifax".
RESTRICTIONS: Overhead power cable – clearance 178 ft.
MAX. SIZE: Tankers of 50,000 d.w.t. can be accommodated at the Gulf Canada Ltd., Ocean Terminal. See also "Berthing".
RADIO: Halifax (VCS) continuous year round. 500, A2; 2,182, A3; 156.8; F3 also 4, 6, 8, 12, 16, 22 MHz bands.

Sydney (VCO) continuous year round. 500, A2; 2,182 A3, 156.8, F3.

Canso (VAX) continuous year round. 2,182, A3; 156.8, F3.

Grindstone, Magdalien Island (VCN) continuous year round. 500, A2; 2,182, A3; 156.8 F3.

Canso Locks (VAZ3) continuous during navigation season. 2,182, A3; 156.8, F3.
TUGS: No tugs in the area.
BERTHING: *Gulf Canada Ltd., Ocean Terminal, Point Tupper:* Masters are required to establish communications with the terminal when within a distance of 35 miles of the terminal on VHF Channel 16, using call-sign "Gulf Control".

Situated at Wright Point and is a "T"-shaped structure providing one berth for tankers. Berth can accommodate vessels up to 50,000 d.w.t. with a least depth of 75 ft.

Berth is equipped with 6 hydraulically operated loading arms each fitted with a speed seal hydraulically operated manifold coupling.

Loading arm	*Coupling*	*Purpose*	*Rate*
1	8 in.	Vessel bunker	2,500 b.p.h.
2	12 in.	Cargo bunker	12,000 b.p.h.
3	12 in.	As No. 2	
4	10 in.	Premium gasoline	10,000 b.p.h.
		Regular gasoline	10,000 b.p.h.
5	10 in.	Stove oil	10,000 b.p.h.
		D-40	10,000 b.p.h.
		D-20X	10,000 b.p.h.
		D-25	10,000 b.p.h.
6	8 in.	Vessel bunker	2,500 b.p.h.

Product tanks are situated 3,920 ft. for bunker to 6,400 ft. for gasolines from the berth.

Vessels will be expected to berth with manifold blinds removed, sea valves sealed and locked, pumps and pipe-lines set ready to commence discharge of cargo or ballast immediately on connection of loading arms and on verification of the discharging/loading procedure between the Master or his delegate and the terminal's representative.

On termination of the cargo transfer, the vessel will be required to vacate the berth, if loading, on the completion of gauging, sampling and documentation; if discharging upon ballasting to a draft consistent with the weather conditions prevailing.

Suitably equipped vessels will be able to maintain VHF radio communication with the terminal control room during the cargo operation.

Fresh water and fuel are available for calling tankers.

Nova Scotia Forest Industries Wharf: Situated at Madden Point and serves the pulp and paper manufacturing facility, the wharf is 425 ft. long, with dolphins extending a farther 100 ft. from each end of the wharf, depth alongside 26 ft. at LW. Fresh water available, bunkers not available.

Georgia Pacific Corporation Terminal: Situated at Point Tupper, this gypsum loading facility consists of a series of dolphins capable of mooring a ship over 700 ft. in length and has a min. depth of 32 ft. LW. Conveyor system from plant to centre of dolphins. No fuel oil or fresh water available.

Port Hawkesbury Government Wharf: The 6.7 m. wide pier, 149.3 m. long. Provides a 80.0 m. commercial berth with 5.5 m. at LW. No fresh water or open storage area. Dockside power and telephone available.

Mulgrave Department of Transport Wharf: Berthing length 940 ft., depth of water 18 ft. to 25 ft. Used for wood pulp and general cargo loading/discharging rail tracks, fresh water available, fuel oil delivered by truck, No permanent hoists, mobile cranes upon request.
MEDICAL: Masters are required to give early advice to their Agent regarding medical and dental attention requirements, hospitalisation cases will be referred, Antigonish, 40 miles distant.
DENSITY: 1025. Influenced by Spring thaw run-off.
FRESH WATER: Available in limited quantities.
FUEL: Available at Gulf Canada Ocean Terminal for calling tankers only. Vessels requested to give 72 hours notice of requirement, quantity and specification.
CONSULS: See "Halifax".
REPAIRS: Breton Industrial and Marine perform hull and machinery repairs to vessels afloat. Radio and radar service is available locally, the vessel's Agent should receive early advice of repair requirements.
GANGWAY/DECK WATCHMEN: Usually ship's crew.
CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes or 50 cigars or 2 lb. tobacco per person per week. Wines/spirits: Total of 40 ounces per person over 21 years old.

Subsequent issues may be authorised to crew members of foreign vessels, but the max. quantity any crew member may hold at any time must not exceed 300 cigarettes, or 75 cigars, or 3 pounds of tobacco and 60 ounces wines/spirits.

Crew personal effects such as radios, tape recorders, binoculars, etc., should be declared on manifest.
REPATRIATION: Crew changes and repatriation permitted.
AIRPORT: Regular services by Air Canada from Halifax International Airport 150 miles distance, and from Sydney Airport 90 miles distant. Charter flights by small aircraft can be arranged from Port Hawkesbury Airport to Halifax and Sydney.
SUPPLIES: Provisions and bonded stores can be supplied locally but Masters are advised that to avoid delays, their Agent should be notified prior to arrival on their requirements, particularly for deck and engine stores as these may have to be obtained from Halifax.

Laundry facilities are available and in order to expedite the service, Masters should request their Agent to have a representative to attend on arrival.

Supplies of stores will have to be conveyed to tankers at Gulf's Ocean Terminal by stores boat or barge.
TIME: GMT minus 4 hours. First Sunday in April, clocks advanced 1 hour, last Sunday in October, clocks retarded 1 hour.
POLICE/AMBULANCE/FIRE: Police 625-2220; Ambulance 625-2929 or 625-1911; Fire 625-2838.
SHORE LEAVE: Permitted.
CANSO CAUSEWAY CANAL: Max. vessel dimensions, length 715 ft., width 75 ft., draft 28 ft., vessels with draft greater than 28 ft. and not more than 30 ft. may proceed through with special permission of the Canal Superintendent. Depth of water on the North and South approach mooring berth is 32 ft. During the months December to April, Masters should consult with Ice Operations, Halifax, whether lock in operation.
AUTHORITY: The Harbour Master, Port Hawkesbury, Nova Scotia, Canada.

Strait of Canso Industrial Development Authority, P.O.Box 610, Port Hawkesbury, Nova Scotia, Canada B0E 2V0. *Tel:* (902) 625-1631. *Telex:* 019-37532.

PORT HOPE, Ontario: 43.56 N. 78.17 W.

TUGS: None.
BERTHING: Two breakwaters form artificial harbour. Depth at entrance 5 ft. – 10 ft. Town docks have 650 ft. total berthing length with 7 ft. – 9 ft. alongside. Queen's Wharf is 1,200 ft. long with 6 ft. alongside.
FRESH WATER: Available at Queen's Wharf.
FUEL: Diesel fuel and gasoline available.
AUTHORITY: Port Hope Harbour Commission, 56 Queen Street (P.O.Box 117), Port Hope, Ontario L1A 3V9. *Tel:* (416) 885-4544. *Contact:* E. M. Creighton, Chairman.

PORT WELLER, Ontario: 43.14 N. 79.13 W.

LOCATION: On the South shore of Lake Ontario, West End. Port Weller is the Northern entrance of the Welland Canal and is 5 km. East of Port Dalhousie.

PILOTAGE: Master of ships requiring pilotage service in the Port Weller-Sarnia area should send a notice of their arrival by radio-telephone so as to avoid any delay in waiting for a Pilot. When Westbound, Master should order a Pilot 4 hours in advance of the ETA at Port Weller through Toronto Radio. When Eastbound, Masters should order a Pilot 4 hours in advance of their ETA at Port Huron light vessel or Rogers City. Both an accommodation ladder and a pilot ladder are required to assist Pilots boarding ships at Port Weller.

District Supervisor of Pilots: P. Hansell. P.O.Box 2008, Station B, St. Catharines, Ontario L2M 6P5. Tel: (416) 934-2921.

RESTRICTIONS: Channel depth: Limiting depth at entrance and through the Welland Ship Canal is 8.23 m. (27 ft.). Permissible draft is 7.92 m. (26 ft.). The locks will accommodate vessels not exceeding 222.5 m. (730 ft.) overall length and 23.16 m. (76 ft.) extreme breadth.

Navigation season: April 1st to December 30th.

HEALTH: Quarantine service at Quebec, P.Q., for incoming ships from foreign ports.

RADIO: Ship-to-shore communications: Through Toronto Coast Guard Station (VBG).

TUGS: Available from Port Weller Dry Docks Ltd.

BERTHING: See "St. Catharines".

MEDICAL: Hospitals at St. Catharines.

FUEL: Marine diesel fuel is available to vessels secured at the extreme North end of Wharf No. 2 through St. Catharines Fuels. Tel: 416 685-6511.

REPAIRS/DRY DOCKS: Port Weller Dry Docks, Ltd., 222.5 m. (730 ft.) building dock, gate width 24.38 m. (80 ft.); 228.6 m. (750 ft.) graving dock gate width 24.38 m. (80 ft.); depth over sill 9.15 m. (30 ft.). Also 365.8 m. (1,200 ft.) fitting out berth. Complete machine shop in connection; major conversion jobs and all kinds of hull and machinery repairs. Shipyard gantry crane, 45 tons capacity; shearlegs crane, 125 tons capacity; two self-propelled cranes, 15 tons and a 55 ton level luffing gantry crane extending 609.6 m. (2,000 ft.) from the shipbuilding berth to the fitting out berth. Forged finished shafting available from Canada Foundries & Forgings Ltd.

SURVEYORS: ABS at Toronto. Lloyd's at St. Catharines.

GENERAL: Transportation: All vessels entering the Welland Canal from Lake Ontario, or vessels from Lake Erie to Lake Ontario, via the canal, use this port but no steamship line makes it a regular port of call for discharging or loading freight. Highway connects with St. Catharines, 5.5 km.

Holidays: Officials of canal available at all times during navigation season.

AUTHORITY: St. Lawrence Seaway Authority, Western Region, P.O.Box 370, 508 Glendale Avenue, St. Catharines, Ontario L2R 6V8. *Tel:* 416-641-1932. *Contact:* J. B. McLeod, Regional Vice-President.

POWELL RIVER, B.C.: 49.52 N. 124.33 W. (See Plan)

DOCUMENTS:

Customs Clearance from last port.

Manifest for goods to be off-loaded and "In Transit" cargo tonnage.

Duplicate Pratique for vessels arriving from ports other than U.S. ports.

Canadian Immigration Crew List, (Imm. 200) required in triplicate.

Passenger List in triplicate.

Seamen's passports and I.D. cards should be available when arriving from sea.

Ship's Certificates.

PILOTAGE: Payment compulsory. Incoming ships take Pilot at Race Rocks, near Victoria. Pilotage District of British Columbia.

ANCHORAGE: No suitable anchorage is available in Powell River area. Vessels usually anchor in English Bay (Vancouver) or various anchorages Vancouver Island.

MAX. SIZE: Up to 660 ft. LOA. 32 ft. draft. Tankers up to 615 ft. have berthed for discharging purposes (No. 2).

HEALTH: Duplicate pratique for first port of call. See also "Montreal".

RADAR/VHF: No radar. Pilots are in contact with tugs and mill office using VHF Channel 10.

TUGS: Two tugs available, to 500 h.p.

BERTHING: Berth No. 1 requires a tug when berthing only. Berth No. 2 Pilot's discretion. Accommodation: Channel depth 30 ft. – 35 ft. LW. Two private piers; pier A with Berth No. 1, 500 ft. long, depth alongside 30 ft. LW, Berth No. 2, 482 ft. long, accepts vessels up to 660 ft. length, depth alongside 30 ft. LW.

Three 10-ton elevators. Dock storage for 10,000 tons. The elevators are used for loading barges only.

STEVEDORES: None. Local longshoremen only. Supercargoes are sent from Vancouver to assist in loading vessels. Longshoremen are members of Papermakers' Union.

MEDICAL: Powell River General Hospital and port doctor available. Complete medical services provided.

TANKERS: Bunker oil supplied by barges.

FRESH WATER: Unlimited supply, $35.00 connection charge.

FUEL: Fuel oil, diesel, and gasoline available.

GANGWAY/DECK WATCHMEN: On request.

OPENING/CLOSING HATCHES: By crew prior to arrival and departure.

CUSTOMS ALLOWANCES: 300 cigarettes, or 50 cigars, or 1 lb. tobacco on arrival. Issues every 7 days. 60 oz. or 2 cases beer on arrival. Issues every 7 days.

IDENTIFICATION CARDS: Keep available for inspection.

CONSULS: Available at Vancouver, B.C.

AIRPORT: 5 flights per day to Vancouver International Airport. 4 miles from docks. Charter flights available to Vancouver Island on request.

TIME: Pacific Standard Time.

HOLIDAYS: Union Contract. Usual holidays are New Year's Day, Easter Monday, Labour Day and Christmas Day.

TELEPHONES: Ship's telephone available. No. 483-3326.

SERVICES: Arranged by Powell River Shipping Services.

SHORE LEAVE: Permitted.

STORING: No cargo or equipment to be lifted on or off ship except by mill crews.

AUTHORITY: MacMillan Bloedel Ltd., 6270 Yew Street, Powell River, British Columbia V8A 4Z2. *Tel:* (206) 483-3722. *Telex:* 044755. *FAX:* (206) 483-3164. VHF: Channel 10 – 24 hours.

AGENT: Powell River Shipping Services Ltd., Box 74, Powell River B.C. V8 4Z5. Tel: (206) 483-4232. Telex: 044-767.

PRESCOTT, Ontario: 44.44 N. 75.31 W. (See Plan)

For important General Information refer to "St. Lawrence Seaway".

DOCUMENTS: See "Montreal".

PILOTAGE: Arranged through Agents – Montreal.

ANCHORAGE: Seaway Anchorage.

MAX. SIZE: Up to 8.23 m. draft.

HEALTH: See "Montreal".

RADIO: Seaway Stations.

BERTHING: *Ports Canada Facilities.*

Berth	*Length* (m.)	*Depth alongside* (m.)
Grain Unloading Berth	395.0	8.23
Grain Loading Berth	283.4	8.23
Shed Berth	441.9	8.23
Salt Dock Berth at Shed	441.9	8.23
Salt Dock Berth Up-stream Pier	189.0	8.23

Grain Facilities: Prescott Elevator, capacity 154,000 tonnes, 11 spouts available. Loading capacity 2,180 tonnes/hour, depending on type of vessel and conditions.

STEVEDORES: Stevedores arranged by Montreal Agents.

MEDICAL: Nearest hospital located at Brockville (20 km.). Ambulance service available at Prescott.

DENSITY: No tide – seaway density.

FRESH WATER: Available.

FUEL: Arranged with Montreal Agents.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Ship's crew.

CUSTOMS ALLOWANCES: Tobacco: No limit. Wine and/or Spirits: No limit.

IDENTIFICATION CARDS: Not required.

CONSULS: None.

REPAIRS: Small repairs available.

AIRPORT: Ottawa International Airport – 95 km.

TIME: Eastern Standard Time GMT minus 5 hours. Daylight saving time from first week-end in April to last week-end in October, clocks advanced 1 hour.

HOLIDAYS: See "Montreal". Work can be arranged on holidays.

POLICE/AMBULANCE: Prescott – Police 925-4252; Ambulance 925-2925.

TELEPHONES: Arrangements can be made to place telephones on board.

SHORE LEAVE: Allowed.

BANKS: Royal Bank of Canada, Toronto Dominion, Bank of Montreal.

SHIP SUPPLY SERVICE:

Canadian Coast Guard, Prescott Base, Transport Canada, Prescott, Ontario, K0E 1T0. Tel: (613) 925-2865. Two helicopters, several launches, medical services, 2 "medicboats".

Orraids Limited, River Road East, Prescott, Ontario, K0E 1T0. Tel: (613) 925-4329. Marine equipment and supply.

Port of Prescott, Ports Canada, Prescott, Ontario K0E 1T0. Tel: (613)925-4228. Anchorage for ships, small barge available for ship to shore crew member emergency, ambulance service 3 km. distance from port.

Prescott Machine and Welding Inc., River Road East, Prescott, Ontario K0E 1T0. Tel: (613) 925-4277. Ship repairs.

Simjac Marine Limited, North Channel Road, Prescott, Ontario K0E 1T0. Tel: (613) 925-2457. Tug service, marine contractors.

AUTHORITY: Ports Canada, P.O.Box 520, River Road East, Prescott, Ontario K0E 1T0. *Tel:* (613) 925-4228. *Telex:* 06636515. *Contact:* R. E. Bailey, Operations Manager.

PRINCE RUPERT, B.C.: 54.19 N. 130.19 W. (See Plan)

PORT LIMITS: Prince Rupert Harbour Limits are shown on Canadian Chart No. 3985 and described in British Columbia Coast Sailing Directions (Vol. II), published by the Canadian Hydrographic Service. Porpoise Harbour and Ridley Island are included within the Prince Rupert Harbour limits. Charter-party terms govern when laytime will commence and, as such there is generally no specific geographical point at which a vessel is considered to be an "arrived ship".

DOCUMENTS: If first Canadian port:
Crew List (Imm. 200) 3 copies.
List of Ship's Stores (E.1) 3 copies.
Personal Possession List (Crew Declaration Y.14) 3 copies.
Maritime Declaration of Health (QS 2001) 3 copies.
Calculation of stability for vessels loading bulk grain (82/0579).

Certificates:
Safety Construction.
Safety Equipment.
Derat.
Safety Radio.
Loadline.
Certificate of inspection for chain or wire lashings if timber deck cargo to be loaded.

PILOTAGE: Compulsory. Telegraphic address: "Pilots Victoria", Tel: (604) 627-3015. Telex: 047-89133. 48 hours' notice required with confirmation of ETA Pilot Station at 24 hours and 12 hours. VHF Channels 17, 77 and 16. Pilot boat, "Pacific Pilot Four", 20 m. vessel with red hull and white house. Boarding station 1 mile radius from Triple Islands (Lat. 54° 18′ N., Long. 130° 53′ W.). Heavy weather – follow pilot boat into sheltered waters when advised by Pilot.

ANCHORAGES: Inside harbour limits – allocated by Harbour Master, Port of Prince Rupert.
A: McIntosh Rock Beacon bearing 243°(T) × 6.1 cables, 23 fathoms.
B: McIntosh Rock Beacon bearing 237.5°(T) × 12.1 cables, 19 fathoms.
C: Vigilante Island Peak bearing 048°(T) × 12.4 cables, 22 fathoms.
D: Vigilante Island Peak bearing 040.5°(T) × 6.3 cables, 23 fathoms.
E: Seal Cove Lt. bearing 128°(T) × 4.4 cables, 25 fathoms.
Anchorages "A" – "E" have radii of 549 m. (1,800 ft.).
V: Vigilante Island Peak bearing 333.5°(T) × 3.1 cables, 24 fathoms.

Anchorage "V" has a radius of 396 m. (1,300 ft.) and is solely for log loading vessels not exceeding 170 m. LOA.
X: Greentop IT Light bearing 218° (T) × 15 cables, 31 fathoms, silt and clay bottom.
Y: Greentop IT Light bearing 316°(T) × 19.6 cables, 34 fathoms, silt and clay bottom.
Anchorages "X" and "Y" have radii of 5.0 cables.

Additional anchorages area available outside harbour limits in the vicinity of Prescott Island.

RESTRICTIONS: Nil on Prince Rupert Harbour. Porpoise Harbour, slack water and daylight. Swept to 23 ft, at LW.

MAX. SIZE: The coal berth at Ridley Terminals will accommodate vessels up to 250,000 d.w.t., 325m. LOA, 50 m. beam and 22 m. draft. Vessels of 247 m LOA have berthed at Fairview Terminal where there is 13.7 m. at low tide.

HEALTH: Master shall complete and furnish promptly at the first Port of arrival in Canada, a Declaration of Health in the prescribed form.

Advance radio notification to a quarantine station applies only if a condition of health irregularity occurs onboard.

Masters should acquaint themsleves with Section 12 of the Quarantine Regulations.

RADIO: Prince Rupert Coast Guard Radio 'VAJ' 500, 2182, 4125 and VHF 16.

VHF: Prince Rupert Vessel Traffic Services operate on VHF Channels 11 and 71. Vessels should establish communications with "Prince Rupert Traffic" on VHF Channel 11 when 50 nautical miles West of the Queen Charlotte Islands. Vessels proceeding to Prince Rupert via Vancouver or Tofino Traffic Zones will be advised when to change frequencies to VHF Channel 11.

Vessels wishing to communicate with the Port Authority may contact Prince Rupert Traffic for information.

TUGS: Join vessel off berth. Not all tugs have lines. No extra charge if tug's line used.

Mooring: Linesboat required at berths on Ridley Island. Linesmen available at all berths.

BERTHING: DEEP SEA BERTHS:

Fairview Terminal: (Forest Products, Mineral Concentrates, Grain By-products, Oilseed, Heavy Lifts and General).

Owner	Prince Rupert Port Corporation.
Length	427 m.
Depth	13.70 m.
Open Area	15 hectares
Covered Storage	4,583 sq.m.
Rail Siding	2,750 m.
Ro/Ro	130 ton ramp

Also see "Developments".

Ocean Dock: (Passenger Vessels and Log Carriers).

Owner	Prince Rupert Port Corporation.
Length	151 m.
Depth	7.90 m.–13.00 m.
Open Area	5,754 sq.m.

Cruise Ship Lightering Dock:
Owner: Prince Rupert Port Corporation.

This facility is located 380 m. N.E. of Ocean Dock. It consists of a concrete pontoon 30 m. in length connected to the shore by a 30 m. steel ramp.

Designed to handle passengers from cruise vessels too large to berth at Ocean Dock, the facility can handle two 12 m. tenders at any state of tide. The length of the ramp allows easy access by passengers confined to wheelchairs even at low water.

PRG No. 2 – Ridley Island: (Grain Elevator).
Owner: Prince Rupert Grain Ltd. Tel: (604) 627-8777.

Berth:	Type	Dolphin
	Length	Berthing Dolphins 118 m.
		Mooring Dolphins 240 m.
	Depth	14.5 m.
	Bollard Pull	100 tonnes
	Max. Berthing Speed	12.5 cu.m/sec.

Shiploaders:
Three - Tower Mounted – Spaced 50 m. apart. Slewing Boom.

Shipping Bins	8 at 750 tonnes (28,000 bu.)
Conveyor Routes	2 at 2,000 t.p.h.
Elevator to Ship	600 m.
Shoreline to Ship	200 m.

RTI, Ridley Island.: (Coal).
Owner: Ridley Terminals Inc. Tel: (604) 624-9511.

Type	Dolphin
Length	Berthing Dolphins 150 m.
Max. ship size	Mooring Dolphins 370 m.
	LOA 325 m.
	Breadth 50 m.
	Max. guaranteed draft 20 m.
	Bollard pull 75 and 100 tonnes.

Shiploaders:
2 × 4,500 t.p.h. capacity each.
Quadrant type with elevating boom.
Air draft on berthing – unlimited.
Max. allowable working height 34 m. above LLW
Outreach 43.0 m.
Max. permissible combined hatch length 240 m.
Storage capacity: 1.2 million tonnes.
Stacker Reclaimer: 2 × 6,000 t.p.h. each.
Berthing/Unberthing: At Master's discretion.
Max. berthing speed: 15 cm./sec.
Max. design impact: 15 cm./sec. 250,000 d.w.t. 80% laden.
Tokyo Keiki approach velocity indicator is installed.

Skeena Cellulose, Porpoise Harbour: (Woodpulp).
Tel: (604) 628-3671.

Length	360 m.
Depth	10.6 m.
Berthing	Daylight slack water only.

STEVEDORES: Gangs arranged through Agent.

Main Commodities for Export and Loading Rates:
Grain (Inner Harbour Elevator) – up to 13,500 tonnes per day.
Packaged Lumber – 40,000 to 75,000 fbm per gang hour*.
Logs – up to 20,000 scrib per gang hour*.
Pulp – 45 to 180 tonnes per gang hour*.
Mineral Concentrate – up to 300 tonnes per hour.
*Dependent on ship's gear.

Non-working Days:
Ridley Terminals Inc.: Christmas Day.
All other berths: Labour Day, Christmas Day, New Years Day.

MEDICAL: Hospital facilities available.

DENSITY: Variable, 1013 to 1025.

FRESH WATER: Available at all berths, except for Ridley Terminals Inc.

FUEL: All major companies represented. No Bunker C available at present. Diesel oil available in limited quantities and supplied by truck or barge. Masters should radio fuel requirements in advance of arrival.

GANGWAY/DECK WATCHMEN: Shore gangways available. Port Operating By-Law states that gangways shall be attended at all times by a watchman or other responsible person and clearly illuminated at night.

OPENING/CLOSING HATCHES: This work is carried out by stevedores except for specially constructed hatches such as McGregor.

CERTIFICATES:
Safety Equipment.
Cargo Ship Certificate.
Safety Radio.
Derat.
Load-line.
Cargo Gear Book and Certificates.
All subject to inspection on arrival.

CUSTOMS ALLOWANCES: Tobacco, 50 cigars and 200 cigarettes and 2 lb. of tobacco. Wine and Spirit, 1 bottle per officer, (40 oz.) and Beer 288 oz. or 24 pts.

CARGO GEAR: Cargo Gear Book to be ready for inspection.

IDENTIFICATION CARDS: Not required.

REPAIRS: Minor repairs to hull, machinery and electronics can be effected locally.

SURVEYORS: SGS Supervision Services Ltd., P.O.Box 1082, Prince Rupert, B.C. V8J 4H6. Tel. (604) 624-9745.

Rupert Marine Surveyors Ltd., P.O.Box 292, Prince Rupert, B.C. V8J 3P6. Tel: (604) 624-5330.

Overseas Merchandise Inspection Co. Ltd., 1434 Sloan Avenue, Prince Rupert, B.C. V8J 3X7. Tel: (604) 624-5105.

Classification Societies are based in Vancouver and will attend a vessel in Prince Rupert upon request.

DRY DOCKS: Two small slipways for 150 ft. vessels.

REPATRIATION: Crew changes and repatriation can be carried out with little difficulty. Connections for international flights are made at Vancouver.

AIRPORT: Two flights daily to Vancouver, B.C. Travelling time to airport about 1 hour.

TIME: Zone plus 8 Pacific Standard Time. First Sunday in April to last Sunday in October is Summer Time, clocks advanced 1 hour.

HOLIDAYS: New Year's Day (no work); Good Friday; Easter Monday; Queen's Birthday; Dominion Day; Labour Day (no work); Thanksgiving Day; Remembrance Day; Christmas Day and Boxing Day (no work).

POLICE/AMBULANCE/FIRE: Tel: 911.

EMERGENCY CO-ORDINATION: Within Port Limits call "Prince Rupert Traffic" on VHF Channel 71 or Tel: 624-4157.

TELEPHONE: Placed on board if required.

STORING: Stores are available without restrictions with handling equipment available.

SERVICES: Compasses adjusted. No tank cleaning equipment or facilities for discharge of tank washings. Radios and electronic navigational aids may be serviced by local technicians.

SHORE LEAVE: No restrictions.

SHIP SUPPLY SERVICE:
Tug Services: Minette Bay Ship Docking Ltd., 941-8th Avenue East, Prince Rupert, B.C. V8J 2N2.

RivTow Straits Ltd., P.O.Box 65, Prince Rupert, B.C. V8J 3P4.

Launch Services: Prince Rupert Water Taxi, P.O.Box 685, Prince Rupert, B.C. V8J 3S1.

Minette Bay Marine Services Ltd., (see "Tug Services").

Helicopter Services: Rotortech Helicopters Ltd., P.O.Box 610, Prince Rupert, B.C. V8J 3R5.

Vancouver Island Helicopters Ltd., P.O.Box 115, Prince Rupert, B.C. V8J 3P4.

REGULATIONS: Vessels anchored in the harbour must have engines on stand-by and second anchor ready for letting go if wind speed attains 25 knots.

GENERAL: *Navigation Characteristics:* Large, deep, natural harbour with least depth of 27.4 m. at the entrance. Easy access and well lit with year round, ice-free navigation.

Charts: The Port of Prince Rupert and the approaches are covered by Canadian Charts 3955, 3958 and 3985. The Canadian Hydrographic Service is gradually replacing existing charts with metric versions. The first of these metric charts is 3955. Mariners should consult Canadian Notices to Mariners issued weekly for the publication dates of additional new charts.

Tidal Information: Type: Mixed, mainly semi-diurnal. Mean Tide: Range 4.9 m., HHW 6.1 m. LLW 1.2 m. Large Tide: Range 7.7 m., HHW 7.5 m., LLW −0.2 m.

Customs and Immigration: Officers board on arrival.

DEVELOPMENTS: Fairview Terminal to be extended by 200 m. Construction to commence mid-1988, be operational late 1989 and completed in 1990.

AUTHORITY: Prince Rupert Port Corporation, 110 Third Avenue West, Prince Rupert, B.C. V8J 1K8. *Tel:* (604) 627-7545, emergency after office hours (604) 627-3074. *Telex:* 047-89192. *FAX:* (604) 627-7101.
Contact: R.W. Tytaneck, General Manager.

QUEBEC, P.Q.: 46.49 N. 71.12 W. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists (cargo vessels).
8 Passenger Lists (passenger vessels).
3 Ship's Stores Lists.
3 Crew Declarations.
1 Maritime Declaration of Health.
1 Complete Manifest of cargo to be discharged in all Canadian Ports.
5 Manifest for local cargo.
No bills of lading required to Local Authorities.

PILOTAGE: Compulsory from Les Escoumins and upstream. On arrival at Anse-aux-Basques, a ship takes on board a Pilot of the Laurentian Pilotage Authority to bring the ship to Quebec. Pilotage and payment of dues are compulsory. Pilots board inbound vessels at Anse-aux-Basques. The Master of every ship inward bound in the Gulf of the St. Lawrence and destined for ports West of Anse-aux-Basques must report ETA to Pilots Montreal, via Marine Traffic Control on VHF radio Channel 14 or by other means of communication to Seven Islands Radio Station, giving any information Control may require.

A minimum notice of 24 hours and 12 hours must be given to Montreal Pilot Station. This notice must be confirmed 6 hours prior to arrival at the Pilot station.

Note: Pilot boats (2) and pilot station keep watches on 156.45 MHz. (Channel 9) and have VHF facilities, which are only used for local instructions from one to the other.

Pilot boats (2) in operation: Pilot No. 9 Canada and Pilot No. 10 Canada. Hull painted blue, white superstructure. Pilot-jack welded on stack – all-steel vessels. Equipment: Radar – echo sounder – radio VHF/ all frequencies. A.M. – all frequencies – electric whistle – loud hailer – searchlight.

Pilot station can either be raised by radiotelephone frequency 156.8 MHz., by morse lamp – semaphore – by just blowing the code letter "G" consecutively or displaying code flag "G". Exact location of pilot station Anse-aux-Basques, on North shore of St. Lawrence river. Lat. 48° 19.2′ N., Long. 69° 24.9′ W. Pilotage ground limits are rectangular distance of 2 miles from the station. In bad weather, pilot boats removed from station to more secure position and pilotage service held up until better conditions. Same procedure applies during severe ice conditions. Any changes regarding pilot boat service obtained through Marine Traffic Control.

Vessels using pilot boarding stations within St. Lawrence River – Seaway – Quebec Harbour – Lakehead, requested provide accommodation ladder. Landing platform of accommodation ladder should be 10 ft. above water.

Vessels arriving Anse-aux-Basques without having previously stated ETA pilot station 24 hours and 12 hours in advance, or during such time as pilotage service held up for any reason, vessels normally proceed to anchorage off Ile-aux-Basques on Southern side of river, where good anchorage ground can be found. Further instructions will be given to Vessel by Marine Traffic Control or pilot station on VHF or 156.55 MHz.

ANCHORAGE: See "Pilotage".

Due to submarine cables and other submarine installations, anchoring in the harbour is prohibited without permission of the Harbour Master. Permission for anchoring is to be obtained through Marine Traffic Control Centre. The official anchorage area extends Southwestward from the fixed blue light on Queen's Wharf Lat. 46° 48′ 34″ N., Long. 71° 12′ 12″ W.

RESTRICTIONS: Depth of water in 11 mile dredged channel is 40 ft. to which depth add height of tide which, at times, may give extra 15 ft.

MAX. SIZE: No limit in length and breadth. Draft limited to 46 ft. Winter and 51 ft. in Summer.

HEALTH: Radio Pratique obtained through Seven Islands by wireless. In case of reported suspected disease instructions will be given by wireless. When Pratique granted, vessel automatically cleared for *all Canadian Ports*.

RADIO: Seven Islands: Call sign VCK. Quebec: Call sign VCC, VHF Channel 16.

RADAR/VHF: A marine traffic regulating system is in effect in the approaches to and in the Port of Quebec. The St. Lawrence River Vessel Traffic System (V.T.S.) extends from due South of Sept-Iles to the upper limits of Montreal Harbour. All vessels over 100 gross tons and more than 20 m. in length are required to be fitted with VHF radiotelephone equipment and maintain a continuous listening watch on designated frequencies which are manned at all times at Control Centres located at Les Escoumins 156.45 (Channel 9), Quebec 156.55 (Channel 11) and Montreal 156.5 (Channel 10) and intended exclusively for marine traffic safety information and traffic regulatory control messages. The Master of a vessel must obtain clearance from the proper regulating Centre before entering waters under the Marine Traffic Regulating jurisdiction. A complete description of the system is available from the Port of Quebec Harbour Master.

For vessels not provided with VHF equipment, portable VHF sets will be taken on board by Pilot. Rental charge for this service. Vessels approaching meridian of Longitude passing through Sept-Iles from Eastwards should call Channel Quebec on 156.7 (Channel 14) for further instructions.

TUGS: Tugs join vessels in stream and use ship's lines.

4 tugs available, each equipped with radio-telephone. Two tugs of 4,200 h.p.; one tug of 1,200 h.p. and one tug of 7,200 h.p.

BERTHING:

Berth No.	*Length (m.)*	*Depth at LW (m.)*	*Operator/ Owner*	*Remarks*
Vieux-Port				
4	240.0	3.8/5.4	Port of Quebec Corp.	Light repairs – wintering
5	180.0	5.1/6.6	Port of Quebec Corp.	Light repairs – wintering
14	178.0	6.2	Port of Quebec Corp.	Port services
17	210.0	5.5	Port of Quebec Corp.	Coast Guard
18	240.8	11.0	Port of Quebec Corp.	Grain unloading
19	192.0	9.0	Port of Quebec Corp.	Waiting – Inner Basin
20	342.0	7.5	Port of Quebec Corp.	Light repairs – wintering
21	206.0	11.7	Port of Quebec Corp.	Visiting ships
22	325.0	10.7	Port of Quebec Corp.	Passenger vessels
24	167.6	10.0	Port of Quebec Corp.	Not in use
25	222.5	10.7	Port of Quebec Corp.	General cargo
26	240.8	11.0	Port of Quebec Corp.	General cargo
27	293.2	12.5	Port of Quebec Corp.	Ro/Ro
28	277.4	12.0	Port of Quebec Corp.	Grain loading
29	304.8	11.3	Port of Quebec Corp.	Grain unloading
30	224.0	10.0	Port of Quebec Corp.	General cargo
31	224.0	8.0	Port of Quebec Corp.	General cargo
46	210.0	6.7	Papeterie Reed	Forest products
47	205.0	6.7	Papeterie Reed	Forest products
Beauport				
50	210.3	11.9	Port of Quebec Corp.	Liquid bulk
51	210.3	12.2	Port of Quebec Corp.	Solid bulk
52	211.0	12.2	Port of Quebec Corp.	Solid and liquid bulk
53	213.0	15.3	Port of Quebec Corp.	Solid and liquid bulk
54	213.0	15.3	Port of Quebec Corp.	Solid bulk
Anse au Foulon				
101	198.1	11.3	Port of Quebec Corp.	General cargo
102	134.1	11.3	Port of Quebec Corp.	General cargo
103	210.9	11.3	Port of Quebec Corp.	General cargo
104	210.9	11.3	Port of Quebec Corp.	General cargo
105	195.4	11.3	Port of Quebec Corp.	General cargo
106	195.4	11.3	Port of Quebec Corp.	General cargo
107	173.1	11.3	Port of Quebec Corp.	Liquid and solid bulk
108	180.1	11.3	Port of Quebec Corp.	Liquid and solid bulk
109	22.0	5.8	Petroles Irving Inc.	Petroleum products
South Shore				
70	152.2	8.2	M.I.L. Davie Inc.	Lay-by berth
71	121.9	7.6	M.I.L. Davie Inc.	Lay-by berth
72	106.6	7.0	M.I.L. Davie Inc.	Out-fitting wharf
73	164.4	5.4	M.I.L. Davie Inc.	Out-fitting wharf
74	141.4	4.8	M.I.L. Davie Inc.	Out-fitting wharf
75	168.8	6.0	M.I.L. Davie Inc.	Out-fitting wharf
76	182.8	7.6	M.I.L. Davie Inc.	Out-fitting wharf
77	169.7	5.7	M.I.L. Davie Inc.	Out-fitting berth
78	168.2	5.0	M.I.L. Davie Inc.	Lay-by berth
79	121.9	4.0	M.I.L. Davie Inc.	Lay-by berth
80	91.4	—	Les Industries A.C. Davie Inc.	Small boats building and repairs
81	220.0	10.0	Port of Quebec Corp.	Solid bulk
86	295.0	10.6	Ultramar Canada	Loading Petroleum products
87	335.0	16.7	Ultramar Canada	Unloading crude oil – 150,000 d.w.t. and more.

BULK HANDLING FACILITIES:
Grain Elevators (see Table below):

Storage capacity – 8,000,000 bushels (240,000 short tons). Served by CN and CP railways.

A marine terminal facility on Piers 50, 51 and 52 which include 5 bridge towers with a loading capacity of 3,000 t.p.h., locomotive cranes to unload gondola cars, a track-mobile to shunt cars and other ground rolling stock to manipulate bulk material on paved pads, and two-way underground conveyor system to handle dry bulk cargoes at a present loading rate of 800 t.p.h. 2,000 ft. of dock frontage with a depth of at least 41 ft. at LT and leased from Port of Quebec Corporation over 1 million sq.ft. of land and operating 13,500 ft. of trackage on property connected to CNR. Storage capacity of 7 million imperial gallons for any liquid products serviced by 10 in. marine pipe-lines and a 8 in. loading rack.

Storage facilities: Total shed space of 60,000 sq. m.

CRANES: 100 mobile cranes up to 440 tonnes capacity.

STEVEDORES: Dead-line for orders: 1100 – 1600 – 2200 hrs. for periods starting 0800 – 1300 – 1900 hrs.; 1 hour required before deadline to order gangs.

MEDICAL: No advance notice required for medical attention. Hospital facilities available.

TANKERS: Slop discharge facilities available. Eight tanker berths. Depths from 37 ft. to 50 ft. See "Berthing".

DENSITY: Fresh water.

FRESH WATER: Available to all berths, provided directly from the Corporation's hydrants and hoses to vessels. Rate: St. Charles River piers, 50 t.p.h. Anse-aux-Foulons 50 t.p.h. with 1 line, and 2 lines 100 t.p.h.

FUEL: Available at any berth by truck.

FIRE PRECAUTIONS: Only usual precautions; towing wire hanging overboard.

GANGWAY/DECK WATCHMEN: Watchmen at gangway not necessary, but could be obtained.

OPENING/CLOSING HATCHES: McGregor hatches must be opened by crew. All other cases recommended to be done by crew also, but stevedores would also under conditions specified in stevedoring contract.

SHIP'S CERTIFICATES: Load Line, Safety Equipment, Construction, Radio, Passengers, Cargo Gear, Derat.

CUSTOMS ALLOWANCES: Tobacco, 8 oz. tobacco for 8 days, cigarettes: 1 carton per 8 days. Wine and/or Spirits, 40 oz. only. Officers and Masters will have additional supply for entertainment daily on request to Customs.

CONSULS:

Denmark: 880 chemin Ste-Foy, Quebec, Quebec G1S 2L2	Tel: 681-0708
France: 110 Ave des Laurentides, Quebec, Quebec G1S 3C3	Tel: 688-0430
Netherlands: 71 rue St-Pierre, Quebec, Quebec G1K 7A8	Tel: 692-0660
Mexico: 380 chemin St-Louis, No. 1407, Quebec, Quebec G1S 4M1	Tel: 681-4482
Norway: 2 Nouvelle-France, Anse au Foulon, Quebec, Quebec G1K 7A2	Tel: 525-8171
Sweden: 425 boul. Charest E., 5th Floor, Quebec, Quebec G1K 3H9	Tel: 529-9968
Switzerland: 2985, 1 iere Avenue, Quebec, Quebec G1L 3P2	Tel: 623-9864
United States of America: 1 Ste-Genevieve, P.O.Box 939, Quebec, Quebec G1R 4T9	Tel: 692-2095

All other consuls located in Montreal and send representatives to Quebec on request.

REPAIRS: Repairs of all types can be obtained.

DRY DOCKS: Department of Public Works located within M.I.L. Davie Inc. "Champlain" dry dock 1,150 ft. by 120 ft. at gate entrance. "Lorne" dry dock 624 ft. with floor width 73.5 ft. Also 3 outdoor berths and 1 covered berth.

SURVEYORS:
Classification Societies:

Lloyd's Register of Shipping, P.O.Box 248, Levis, Quebec G6V 6N8. Tel: 837-5763.

American Bureau of Shipping, 360 St. James, Montreal, Quebec H2Y 1P5. Tel: (514) 844-3029.

Bureau Veritas, 360 rue St-Jacques, Suite 1206, Montreal, Quebec H2Y 1P5. Tel: (514) 288-6515. Telex: 05-24691.

Det Norske Veritas, Gall Communications Inc., 2226 rue St-Antoine Ouest, Montreal, Quebec H3J 1A7. Tel: (514) 937-5336.

Cargo Surveyors:

Services de Surveillance SGS Inc., P.O.Box 1606, Quebec, Quebec G1K 7J8. Tel: 661-6624. Telex: 051-3321.

REPATRIATION: All facilities for effecting crew changes and repatriation.

AIRPORT: 20 km. from city limits, served by regular airlines.

TIME: Eastern Standard Time GMT minus 5 hours. Daylight saving time from first week-end April to last week-end October, clocks advanced 1 hour.

HOLIDAYS: Longshoremen Official Holidays: New Year's Day; Good Friday; Victoria Day (3rd Monday in May); Saint Jean Baptiste (June 24th); Confederation (July 1st); Labour Day (first Monday of September); Thanksgiving Day (beginning of October); Armistice Day (November 11th); Christmas Day. Cargo can be loaded or unloaded during each holiday except Labour Day and Saint Jean Baptiste Day.

If a holiday falls on a Saturday or a Sunday, the following Monday shall be deemed as a Holiday.

POLICE/AMBULANCE/FIRE: Police (Harbour) Tel: 648-3645, City Tel: 694 -6123, RCMP Tel: 648-3733. Ambulance Tel: 529-9221, 529-6811. Fire Tel: 648-6441.

TELEPHONES: No existing facilities for placing telephone on board.

TELEPHONE NUMBERS:

Port Warden, Captain Serge Theoret	Tel: 692-3853
Quarantine: Medical and Sick Mariners Service	Tel: 648-3013
Manpower and Immigration	Tel: 648-3513
Transport Canada – Marine Services:	
Regional Director: Jacques E. Clavelle	Tel: 648-4158
District Manager: Richard Leduc	Tel: 648-3420
Aids to Navigation: Lucien Cardinal	Tel: 648-3574
Harbours and Property: Gilles Durand	Tel: 648-3680
Marine Traffic Regulations: L. Misson	Tel: 648-3884
Steamship Inspector Service	Tel: 648-3237
Shipping Master: E. Lebars	Tel: 648-3234
Laurentian Pilotage Authority: P. Paquette	Tel: 648-3353

BANKS:

Bank of Montreal, 800 Place d'Youville, Quebec, Quebec G1R 3P4. Tel: 692-1850. Telex: 051-2241.

Bank of Nova Scotia, P.O.Box 444, Quebec, Quebec G1K 7R9. Tel: 522-1571. Telex: 051-3713.

Banque Nationale de Paris (Canada), 500 Grande-Allee E. – P.O.Box 579, Quebec, Quebec G1R 4R8. Tel: 647-3858. Telex: 051-3947.

Canadian Imperial Bank of Commerce, 650 boul. St-Cyrille E., Quebec, Quebec G1R 4V7. Tel: 529-2101. Telex: 051-2344.

Continental Bank of Canada, 2795 boul. Laurier – P.O.Box 10550 Ste-Foy, Quebec, Quebec G1V 4M4. Tel: 656-6941. Telex: 051-31522.

Federal Development Bank, 871 chemin St-Louis, Quebec, Quebec G1S 1C1. Tel: 648-3972. Telex: 051-3356.

Mercantile Bank of Canada, 580 Grande-Allee E., Quebec, Quebec G1R 2K2. Tel: 647-2921. Telex: 051-2210.

National Bank of Canada, 150 boul. St-Cyrille E. – 18th Floor, Quebec, Quebec G1R 2B2. Tel: 647-6000. Telex: 051-3946.

Royal Bank, 700 Place d'Youville, Quebec, Quebec G1R 4Y4. Tel: 692-3607. Telex: 051-2294.

Toronto-Dominion Bank, 1150 Claire-Fontaine, Quebec, Quebec G1R 5G4. Tel: 522-5684. Telex: 051-3573.

SERVICE: Any services needed.

SHORE LEAVE: No restrictions.

DEVELOPMENTS: Extensive land reclamation work being carried out in the development of Beauport Flats will provide prime waterfront property for container and bulk-loading facilities. Work will commence shortly on the construction of a new berth (No. 55) at Beauport Flats, 1,200 ft. long with a depth of more than 50 ft. alongside. Beauport Flats are connected to the Metro-Quebec expressways.

AUTHORITY: Port of Quebec Corporation, 150 Dalhousie Street, P.O.Box 2268, Quebec, Quebec G1K 7P7, Canada. *Tel:* (418) 648-3640. *Telex:* 051-2297. *FAX:* (418) 648-4160. *Contact:* Ross Gaudreault, General Manager.

Bulk Handling Facilities

Loading Berths (Grain)

Elevator	*Number of berths*	*Berth No.*	*Length of berth*	*Depth of water*	*Number of belts*	*Total hourly capacity (metric tons)*	*Number of travelling loaders*	*Total max. hrly. capy. bushels*
Bunge	1	28	840 ft.	41 ft.	4	3500	4	100,000

Unloading Berths

Elevator	*Number of berths*	*Berth No.*	*Length of berth*	*Depth of water*	*Number of legs*	*Max. hourly capacity of each leg (short tons)*	*Total max. capacity (short tons)*
Bunge	1	18	800 ft.	35 ft.	2	900	1,800

RIMOUSKI, Quebec: 48.25 N. 68.34 W.

DOCUMENTS: See "Quebec". Rimouski is a port of entry with Customs and Immigration Officers stationed at the port. It is also a quarantine sub-station.
PILOTAGE: Not compulsory. Pilots board at entrance to harbour.
APPROACHES: Rimouski is approached through a dredged channel depth 18 ft. Tidal variation is from 10 ft. – 14.5 ft.
ANCHORAGES: Vessels anchor in the roads or near the East end of Barnaby Island.
HEALTH: See "Documents".
RADIO: Mont – Joli (VCF).
BERTHING: There are 2 wharves, operated by Transport Canada.

1. L-shaped wharf, 2,330 ft. long, 243 ft. wide at head of L-shape. Depth alongside 24 ft.
2. Length 2,850 ft., depth 21 ft. alongside, which lies to the West of the L-shaped wharf.

CRANES: Mobile cranes from 7 – 100 tons available.
FRESH WATER: Available ex-wharf.
FUEL: Bunker "C" and diesel available.
REPAIRS: Minor repairs only.
BANKS: Bank Canadian National, 186 Ave. de la Cathedrale, Rimouski, G5L 5H9.
AUTHORITY: Transport Canada, Garde Cotiere Canadienne, Region des Laurentides, 104 Dalhousie, Suite 121, Quebec, Que G1K 4B8. *Tel:* (418) 648-3680. *Telex:* 051-3051. *Contact:* Jacques St. Laurent, Harbour Master, Rimouski. *Tel:* 418-723-6563.

ST. ANDREWS (Bayside), New Brunswick: 45.10 N. 67.08 W. (See Plan)

DOCUMENTS:
Clearance from Last Port.
3 Copies of Crew List.
Crew's Effects List.
Stores List.
2 Copies of Customs Entrance A-6 and Manifests.
Current Safety Radio Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Load Line Certificate.
Derat Certificate.

PILOTAGE: Not compulsory but strongly recommended. Pilot boards off East Quoddy Head, Campobello Island. Notice required 24 hours. The Pilot is a retired fisherman and he only gives advice on tide and weather.
ANCHORAGES: Areas are available a few hundred metres off of the wharf face, 3 miles from the Wharf just East of St. Andrews and in the vicinity of Campobello Island. All of the locations have over 70 ft. of water and good bottom. Those in the vicinity of Campobello can be reached by radio direction from the Pilot if shelter is needed and the Pilot cannot board.
RESTRICTIONS: None have been imposed but daylight berthing and departures are recommended.
HEALTH: Send advice to Saint John, New Brunswick at least 24 hours before arrival.
RADIO: Yarmouth, Nova Scotia.
VHF: Bay of Fundy, Traffic Control Channel 14 (Tel: 506-648-4696); Pilot, Channel 11 (Tel: 506-752-2283). Port Stevedores and line crews, Channel 10 (Tel: 506-529-8866. Telex: 014 47321).
BERTHING: *Sand Point Wharf:* The wharf is located in position Lat. 45° 09′ 35″ N., Long. 67° 08′ 30″ W. The wharf is in the form of an "L" shape.

The outer face has a length of 300 ft. and draft at LWOST of 28 ft. (See "Developments"). The inner face has a length of 260 ft. and draft of 25 ft. Mean tidal range at berth is 26 ft. The ebb tide and river flow set onto the wharf, the flood tides sets off the pier.

The distance from the pilot station to the pier is 21 miles, with a minimum draft of 45 ft. There are navigation lights in the channel and the pier is lit at both ends.

SPECIAL CARGO HANDLING FACILITIES: Conveyors are available to load bagged cargoes (i.e. potatoes). This equipment requires ship's crew to be very diligent in tending lines.
CRANES: Shore cranes are available in the 25 to 35 ton range but the wharf space limits the number of usable cranes to two.
STEVEDORES: Normal working hours are 12 to 16 hours per day (varying by commodity), 7 days per week. Cargoes handled regularly are bulk and cartoned frozen fish, lumber, potatoes, unitised pulp, frozen orange juice concentrate in drums. Transhipping is also done at the pier both across the pier and directly from ship to ship.
MEDICAL: Doctor and hospital available.
DENSITY: 1017 (varies with tide).
FRESH WATER: Available.
FUEL: MDO and IFO are available. Delivery is by truck.
SURVEYORS: Located in Saint John.
GANGWAY/DECK WATCHMEN: Ship's crew. Ship's gangway used. Fixed accommodation ladders are only usable at or near high tide.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CUSTOMS ALLOWANCES: Tobacco each man 200 cigarettes per week. Alcohol each man 40 oz. of wine or spirits per week.
AIRPORT: Nearest commercial airport at Saint John, New Brunswick, (45 miles), but a small public airstrip is located in St. Stephen, New Brunswick (16 miles).
TIME: GMT minus 4 hours. First Sunday in April clocks advanced 1 hour and last Sunday in October clocks retarded 1 hour.
HOLIDAYS: New Year's Day; Easter Sunday; Thanksgiving Day; Christmas Day.
SHORE LEAVE: No restrictions.
GENERAL:
Services: Fresh provisions, ship's laundry service.
Chart: Use U.S. Chart (Calais to West Quoddy Head) No. 13328 for the pilot station to the pier and Canadian Chart No. 4011 for the entrance to Bay of Fundy and traffic control areas.
DEVELOPMENTS: By the Spring of 1989 the wharf will have been extended by 490 ft. to the North, thereby giving a total quay length of 790 ft. with 30 ft. depth alongside.
AUTHORITY: Transport Canada, Harbours and Ports, Champlain Industrial Park, Bayside, St. Andrews, New Brunswick E0G 2X0. *Tel:* (506) 529-8939 (office), (506) 529-3429 (Residence). *Contact:* Milton Cross, Harbour Master.

ST. CATHARINES, Ontario: 43.10 N. 79.16 W.

Refer to "St. Lawrence Seaway" for important general information.
DOCUMENTS: See "Montreal".
PILOTAGE: Commences in lower St. Lawrence River and is continuous from district throughout Great Lakes. See "Quebec".
ANCHORAGES: Good anchorage areas at both ends of the Welland Canal.
MAX. SIZE: Max. size of vessel permitted in Welland Canal is LOA 730 ft. (222.51 m.), beam 76 ft. (23.16 m.), draft 26 ft. (7.92 m.).
HEALTH: Pratique granted at Quebec City for incoming vessels from foreign ports.
RADIO: Toronto Radio (VBG), Buffalo Radio (WBL).
TUGS: Tugs may be obtained from Port Weller Dry Docks Ltd.
BRIDGES: Vessels are instructed by Traffic control on the transit of the Canal. Generally no delay for bridges.
BERTHING:

Port Weller Harbour East, Wharf No. 1:
Type – Various and Sundry Partial Cargoes
Equipment – Self Unloaders or Rented Cranes
Length – 638 ft. (194.5 m.)
Depth – 27 ft. (8.23 m.)
Operator – St. Lawrence Warehousing Ltd., Hamilton, Ontario

Port Weller Harbour West Wharf No. 2:
Type – Coal, Sand, Zircon Ore, Bulk Sugar
Equipment – Self Unloaders only
Length – 1,288 ft. (392.6 m.)
Depth – 27 ft. (8.23 m.)
Storage Capacity – 76,500 tons.
Operator – Seaway Terminals, Hamilton, Ontario Fourum Transport Ltd.

St. Catharines Wharf, Wharf No. 3 (Homer Dock):
No longer in commercial use.
Length – 330 ft. (100.6 m.)
Depth – 25 ft. (7.62 m.)

Abreast of Wharf No. 3 is a turning basin with a depth of 7.62 m. (25 ft.) for ships of 106.68 m. (350 ft.) in length.

MEDICAL: Medical and hospital facilities are available.
TANKERS: There are limited berths suitable for small domestic tankers.
DENSITY: Fresh water.
FRESH WATER: None available except in emergency by tank wagon.
FUEL: Bunker and diesel fuel oil available at the North end of Wharf No. 2 from St. Catharines Fuel Oils Ltd. and marine diesel oil and Bunker C from Champion Group. Tel: 416-685-6511.
GANGWAY/DECK WATCHMEN: At discretion of the Master.
CUSTOMS ALLOWANCES: See "Montreal".
IDENTIFICATION CARDS: Not needed.
CONSULS: No consuls.
REPAIRS: Deck and engine repairs are possible at Port Weller.
DRY DOCKS: Situated at Port Weller able to accommodate vessels, LOA 730 ft.
SURVEYORS: A.B.S. at Toronto. Senior Steamship Inspector, Mr. J. Aspin. Lloyd's at St. Catharines.
AIRPORT: International Airport at Toronto, 75 miles away.
TIME: GMT minus 5 hours. Daylight Saving Time when clocks advanced 1 hour, usually first Sunday in April until last Sunday in October.
POLICE/AMBULANCE/FIRE: St. Catharines – Fire 684-4311; Police 416-688-4111. Welland – Fire 734-4511; Police 416-735-7811. Port Colborne – Fire 834-4511.
SHORE LEAVE: Only when usual formalities are observed, e.g. Customs, Immigration, etc.
AUTHORITY: St. Lawrence Seaway Authority, Western Region, P.O. Box 370, 508, Glendale Avenue, St. Catharines, Ontario L2R 6V8. *Tel:* 416-641-1932. *Contact:* J. B. McLeod, Regional Vice-President.

SAINT JOHN, N.B.: 45.16 N. 66.03 W. (See Plan)

PORT LIMITS: A vessel is considered to be an "arrived vessel" when it enters harbour limits.

Seaward limits of the Port are as follows:
From Cape Spencer Lighthouse (Lat. 45° 11′ 42″ N., Long. 65° 54′ 37″ W.) due South to position Lat. 45° 08′ 03″ N. thence due West to intersect with the HW mark on the mainland near the Easterly entrance to Little Musquash Cove (Lat. 66° 17′ 12″ W.).

DOCUMENTS:

2 Crew Lists.	6 Sets Cargo Manifests.
2 Passenger Lists.	6 Sets Bills on Lading.
3 Sets Customs Documents.	3 Sets Ship's Papers.
3 Sets Health Documents.	

PILOTAGE: Compulsory. Pilot boarding station in vicinity of position: Lat. 45° 10′ 30″ N., Long. 66° 03′ 30″ W. Masters are reminded that it is essential to send ETA by radio directly to ship's Agent 24 hours prior to arrival, to avoid delay in waiting for Pilot. This ETA (in GMT or LMT and so stated) must be amended no later than 4 hours before arrival. Any material change in ETA must be corrected as soon as possible. A Pilot can also be ordered directly through VTM Fundy Traffic or any Coast Guard radio station at least 4 hours prior to arrival at pilot station (Tel: 648-4864).

Pilots can be contacted through Fundy Traffic on VHF Channel 12.

Vessels must report to the Coast Guard Vessel Traffic Management System prior to entering the Bay of Fundy. VHF Channels 14 and 12 are monitored. Vessels must follow instructions from VTM regarding traffic control.

ANCHORAGE: See chart. Also see "Plan".

RESTRICTIONS: Saint John is a tidal harbour experiencing 2 high and 2 low tides every 24 hours; most vessels being handled between 2-3 hours before to 2-3 hours after HW depending on berth.

During the Spring each year, due to thaw conditions, a strong downflow (freshet) is experienced in the main harbour from the Saint John River. Vessels entering or departing from Courtenay Bay may be restricted to 28 ft. maximum draft and daylight movements only depending on conditions at the time. Freshet conditions normally occur between March and June and their duration depends on seasonal conditions.

MAX. SIZE: Controlling depth in main channel is 30 ft. at LW. Vessels length and breadth unlimited. Also see "Tankers".

HEALTH: See "Montreal".

RADIO: VCS Halifax or VAU Yarmouth.

TUGS: Available and considered necessary for docking and undocking large ships unless such vessels are equipped with thrusters. 2 tugs usually needed, both in and out.

SPECIAL CARGO FACILITIES: *Forterm:* Forterm is the corporate trade name for Forest Products Terminal Corporation Ltd.

The terminal is located at Navy Island. Strategically situated for both rail and highway transport access, the spacious 80 ft. wide pierside aprons make shipside cargo loading easy. Berthing space of 1,235 ft. (376 m.) provides for 2 simultaneous loading operations at any given time. Loading records of up to 400 tonnes per hour, per hatch are recorded.

Maple Leaf Mills Ltd.: Maple Leaf Mills Ltd. (Grain Division), a subsidiary of Canadian Pacific Enterprises Ltd., operates elevator "H" with a capacity of 1.5 million bushels under an agency agreement with the Saint John Port Corporation.

This facility has the capacity to receive 80 carloads of grain per 8 hour day through automatic car dumpers. It also has a potential to deliver 80,000 bushels of grain per hour to Berth No. 3.

Brunterm: Container terminal located at Rodney Terminal with 3×45 ton ship-to-shore cranes, 15 toplifters plus a wide array of additional terminal handling equipment. The 3×45 long ton capacity cranes each have an outreach of 115 ft. and a back reach of 60 ft.

Two of the cranes are designed with articulating rail trucks on each of their 4 legs, enabling them to operate on both berths at the 50 acre, L-shaped facility. Brunterm has a 2,000 ft. marginal berth and 1,200 ft. slip berth. Water depth (minimum) is 40 ft.

Brunterm provides a full range of terminal services, including a 33,788 sq.ft. on-site stuffing and de-stuffing shed and facilities for both electrical and cryogenic refrigerated containers.

BERTHING: 27 berths. Dredging done each year to maintain depth. Due to rise and fall of tide, boatmen usually necessary for running lines and docking. All berths are tidal. Tidal range varies from 22 ft. – 28 ft. (HW) and from 0 ft. – 7 ft. (LW).

Port Canada Facilities:

Berth	Wharf Length (m.)	Depth Low Tide (m.)	Remarks
Navy Is. 1a-1b	377	10.4	2 sheds – forest products – 2 Ro/Ro facilities. 1 for axial ramps – 1 for starboard quarter ramps
2a – 2b	312	10.6	Forest products and general cargo (Ro/Ro ramp under construction).
3a – 3b	312	10.6	Grain and general cargo
Rodney A & B	295	12.2	Container Terminal – 3 cranes. 1 stuffing shed (No. 8 – 36,750 sq.ft.)
Rodney C & D	606	12.2	
11	134	9.1	
12a – 12b	265	9.1	
13a – 13b	244	8.5	Heated shed
14a – 14b	244	7.8	
Long Wharf A	189	9.1	
Long Wharf B & C	280	10.7	Heated shed
Pugsley North	92	10.7	Open Terminal
Pugsley A/B	297	10.7	511 sq.m.
Pugsley C	232	10.7	Heated shed
Lower Cove	245	11.0	Open terminal – Ro/Ro facility, (starboard quarter ramp vessels)
Broad St. A – B	274	6.7	Bunker oil – fitting out berth
Barrack Point	245	11.0	Bulk facility – potash

CRANES: Mobile cranes available.

J. D. Irving, Limited, (Equipment Division), have available for rental mobile cranes with hydraulic boom from 8 tons to 75 tons, with conventional boom for 17.5 tons to 140 tons and crawler cranes with conventional boom from 25 tons to 300 tons.

The above (and other equipment) available on prior request only.

MEDICAL: Hospital available, also Seaman's Clinic.

STEVEDORES: Stevedores required in morning must be ordered by 1600 hrs. preceding day, and stevedores required in afternoon must be ordered by 1100 hrs. same day.

TANKERS: Controlling depth in channel to tanker wharves at Courtenay Bay is 18 ft. LW. Also see "Restrictions" and Canaport.

FRESH WATER: Available from pipe-lines throughout the docks.

FUEL: Fuel oil and diesel oil – ample stocks of fuel oil and diesel oil are always available. Diesel and bunker fuel can be delivered by pipeline in Courtenay Bay (vessels restricted to navigation at HW). Irving Oil operates a bunkering barge service and also delivers to ships by pipeline or by truck or tankwagon. Gulf, Crystal Oil Ltd. and Texaco Canada Ltd. also supply vessels by truck.

GANGWAY/DECK WATCHMEN: Available.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes or 50 cigars or 2 lb. tobacco per person over 16 years old.

Wines/Spirits: total of 40 ounces per person over 21 years old.

Subsequent issues may be authorised to Crew members of foreign vessels, but the max. quantity any Crew member may hold at any time must not exceed 300 cigarettes, 75 cigars, 3 lb. tobacco, and 60 ounces wines/spirits.

CONSULS:

Belgian Consulate – Honorary Consul, Joz De Bedie, 6126 Regina Terrace, Halifax, N.S. Tel: (902) 425-6546.

Danish Consulate – Eric L. Teed, Q.C., Seawood Lane, West. Tel: 672-6856.

Dominican Republic – Honorary Vice-Consul, John A. Driscoll, 50 Broad Street. Tel: 693-1403.

Finland – Thomas L. McGloan Jr., Q.C., Harbour Building. Tel: 693-7268.

France – Honorary Consular Agent of France, Charles F. Whelly, Q.C., 122 Carleton Street. Tel: 693-1193.

Italy – Honorary Consular Agent, Guy Gaetano De Giacinto, 634 Queen Street, Fredericton, N.B. Tel: 454-2271.

Netherlands – Honorary Consul, F. G. Elkin, 167 Prince William Street. Tel: 693-1403.

Norway – Honorary Consul, Donald F. MacGowan, 40 Wellington Row. Tel: 652-3800.

Sweden – Consul, G. A. McGillivray, Hilyard Place, Building A. Tel: 642-1046.

Private Facilities: (Saint John)

Berth	Length (m.)	Depth at LW (m.)	Utility and General Remarks
Lantic Sugar	134	9.1	Refinery – bulk sugar unloading – 2 cranes
Irving Pulp and Paper	139	6.7	Loading bleached sulphite pulp
D.O.T. Agency	407	7.9	East side of harbour
Irving Oil	506	12.2	4 berths Courtenay Bay – oil tankers.
Marine Atlantic	253	6.7	Terminal – ro/ro ferry for vehicles/passengers
Rothesay Paper Ltd.	168	—	Ro-Ro loading towed barges in Courtenay Bay

Grain Handling Facilities: (Saint John)

Elevator	Capacity in bushels	Loading galleries at berths	Loading capacity bushels per hour	Remarks
Maple Leaf Mills (West-side)	1,500,000	3	80,000	Combined length of conveyor galleries to berths 2,000 ft.

IDENTIFICATION CARDS: Not required.
REPAIRS: Complete repair facilities and equipment available also salvage equipment.
DRY DOCKS: Two. One 1,780 ft.×125 ft.×53 ft. deep with 42 ft. of water over sills at high tide. Smaller one 440 ft.×60 ft.×34 ft. deep, 22 ft. water over sills at high tide.
SURVEYORS:

Lloyds Register of Shipping – A. L. McIntosh, 133 Prince William Street. Tel: 652-6180.

N.K.K., Tel: 672-1083.

China Corporation Register of Shipping. Telex: 014-47512. Tel: 672-1083.

REPATRIATION: Can be arranged.
AIRPORT: Regular services by Air Canada from airport 12 miles from harbour. Also Canadian Airlines International and private charter flights.
TIME: GMT minus 4 hours. In Summer, time is GMT minus 3 hours.
HOLIDAYS: Sundays, New Year's Day, Good Friday, Victoria Day, Dominion Day, New Brunswick Day (1st Monday in August), Labour Day, Thanksgiving Day, Remembrance Day, Christmas Day and Boxing Day, of which Labour Day and Christmas Day are "No Work Days" for longshoremen.
POLICE/AMBULANCE/FIRE: Available as follows:
(a) Through "Fundy Traffic" VTS (VHF Channel 12).
(b) On regular phones – Dial 911.
TELEPHONES: Telephones can be placed on board vessels at most facilities. Must be ordered ahead through Agent.
SERVICES: All services available including compass adjustment.
BANKS:

Bank of Canada, 75 Prince William St. Tel: 693-1491.

Bank of Montreal, 15 Market Square. (5 branches). Tel: 632-0202.

Bank of Nova Scotia, One Brunswick Square, (King Street). (10 branches). Tel: 658-3365.

Canadian Imperial Bank of Commerce, 44 King Street. (5 branches). Tel: 632-1110.

Continental Bank of Canada, Courtenay Centre, Crown Street. Tel: 632-8110.

Federal Business Development Bank, 75 Prince William Street. Tel: 648-4751.

National Bank of Canada, 71 King Street. Tel: 693-2634.

Royal Bank of Canada, 100 King Street. (5 branches). Tel: 632-8080.

Toronto-Dominion Bank, 40 King and Germain Street. (2 branches). Tel: 657-6550.

SHORE LEAVE: Crew allowed ashore.
SHIP SUPPLY SERVICE: D.M.K. Marine Services Ltd., 58 Collins Street, Saint John, N.B. E2M 3P9, supply launch service to vessels in the vicinity when requested.

Atlantic Towing Limited, 300 Union Place, Saint John, N.B. E2L 1B6. Tel: (506) 652-3540 24 hours. (506) 652-8090. Telex: 014-47518.

A fleet of 22 tugs ranging 8,500 i.h.p., providing:
Ocean, coastal and harbour towing.
Petroleum barging and deck load transport.
Salvage and pollution control.
Dredging, floating cranes and heavy marine winches.

AUTHORITY: Saint John Port Corporation, P.O.Box 6429, Station "A", Saint John, N.B., E2L 4R8. *Tel:* (506) 648-4869. *Telex:* 014-47281. *FAX:* (506) 648-4443. *Contact:* Kenneth R. Krauter, General Manager. C. E. Pringle, Harbour Master and Director of Operations. Captain A. G. E. Soppitt, Assistant Harbour Master.

Harbour Master is available 24 hours per day through Fundy Traffic.

ST. JOHN'S, Newfoundland: 47.34 N. 52.41 W.

(See Plan)

DOCUMENTS:
Quarantine:
Completed Declaration of Health (QSI).
Valid Derat. Certificate.
International Vaccination Certificates.
Customs:
Crew Declarations (Y.14).
3 Ship's Stores (E.1).
Inward Report (A.6).
Complete copy of each Manifest for goods to be discharged in Canada.
Clearance from Last Port.
Immigration:
2 Immigration Crew Lists (200).
2 Tally Sheets (201).
3 Passenger Manifests for passengers not disembarking.
Immigration Control Cards for each person.

PILOTAGE: Compulsory. To avoid a delay in obtaining a Pilot, the Owner, Master, or Agent of a ship bound for St. John's must report via any coast station by R/T or W/T the vessel's ETA 12 hours in advance of ETA. ETA's must be confirmed or corrected not less than 3 hours prior to ETA. Time must be GMT. In message of ETA, the following information must be included.
(1) Name/call sign of vessel
(2) Nationality
(3) Length, draft, and gross registered tonnage.

Pilot Boarding Station: Lat. 47° 33′ 42″ N., Long. 52° 37′ 54″ W. (2 miles (3.22 km.) off entrance)

St. John's Traffic Centre stand by on: VHF Channel 16 (156.8 MHz); VHF Channel 11 (156.55 MHz); Telephone: 772-2083.

Berthing:
(a) Pilot – compulsory. Shifting or ETD requires a 4 hour advance notification to Coast Guard Traffic Centre.
(b) Berths arranged by Harbour Master in advance.
(c) Two small tugs available.
(d) Linesmen arranged through ship's local Agent.
(e) Boatmen – arranged through ship's local Agents.

ANCHORAGE: No anchorages near harbour. Safe anchorage in harbour.
MAX. SIZE: No restrictions except draft 35 ft. max.
HEALTH: Pratique, cable name and nationality of ship, ports of call during voyage, nature of cargo, number of crew and passengers, port of destination and Agent, condition of health of all on board with details of any sickness, and whether all vaccinated. Also see "Montreal".
RADIO: St. John's Coast Guard Radio, call sign VON duplex R/T on 2118 kHz, 2206 kHz, and 4110.8 kHz.
TUGS: As required by Pilots. Normally ship's lines used. 2 small tugs available.
BERTHING:
St. John's Port Corporation:

Berth No.	*Wharf length (m.)*	*Depth at low water (m.)*	*Remarks*
1	175	3.0–6.1	
2	165	9.1	
3	183	9.1	
4	119	9.1	Dangerous cargo berth. Note that explosives in small amounts to be approved by St. John's Port Corporation prior to arrival.
5	160	8.8–9.1	
6	150	6.1–7.0	
7	120	7.0–7.9	(Repairs) D. F. Barnes machine shop – Shed No. 3
8	150	7.9–9.1	
9	150	7.3–7.9	
10	150	9.1	
11	150	9.1	
17	180	7.9–12.2	Ultramar, also shedded berth – Shed No. 3
18	76	12–15	Dolphins
19	115	5.8–7.6	
20	162	5.5–8.2	
21	58	8.5–7.3	
SBB	122	2.7–1.2	Small fishing vessels only

Private facilities:

Berth	*No.*	*Length (m.)*	*Depth, low water (m.)*	*Utility & General Remarks*
Harvey Terminals	12	114	7.3–8.5	Offshore services
Harvey Terminals	14	153	5.8–9.1	
Harvey Terminals	15	107	8.2–9.5	Bulk cargo, container services
Harvey Terminals	16	145	7.6–10.1	General cargo
Mobil Oil	22	153	6.7–9.1	
Imperial Oil	23	145	7.6–10.1	
Irving Oil	24	69	9.5–10.4	
Fisheries College	25	137	4.9–7.3	
D.N.D.	26	61	6.7–7.3	
Husky Bow Valley	27	153	5.5–7.0	
Gulf Oil	28	69	5.2–7.0	
Gulf Oil	29	114	5.2–7.6	
C.O.T.C.	30	99	5.2–5.5	
M.O.T.	31	183	7.0–7.6	
C.N.R.	34	92	10.7	Dry dock
C.N.R.	35	122	7.6–8.5	Dry dock
C.N.R.	36	107	5.8–7.6	Dry dock
C.N.R.	37	114	6.7	Dry dock

CRANES: Newterm Limited, mobile heavy lift crane 2×220 tonnes, 1×150 tonnes.

A. Harvey & Co., mobile heavy lift cranes 2×65 tonnes; 2×35 tonnes; 1×50 Tonnes.

STEVEDORES: Advise before 1600 hrs. ETA in order to commence 1800 hrs. same day or 0800 hrs. next day.
MEDICAL: No advance notice except in case of serious illness to be included in arrival cable, ample hospital facilities available.
TANKERS: Discharge lines 6 in., 8 in., 10 in., 12 in. No slop facilities.
Holyrood Refinery: 47.23 N. 53.08 W.

A bunkering port of Ultramar Canada Ltd., situated in the South Arm of Holyrood Bay at the head of Conception Bay, S.E. coast of Newfoundland.

Channel depth: 35 ft. right up to wharf. Tidal range is 4 ft. – 5 ft. at springs, and 3.5 ft. at neaps. Good anchorage in Holyrood Arm.

One 275 ft. long berth, depth alongside 34 ft. 6 in. high water, 32 ft. low water, with moorings for Bow and stern lines on shore. Situated at Ultramar Refinery. 3 in. water mains for fresh water.

DENSITY: 1025.
FRESH WATER: Fresh water available all berths. Order through Agent. Rate approx. 25 t.p.h.
FUEL: Oil delivered by pipe-line at 8 berths, and by tank trucks at all other berths. Major grades of bunker fuel and diesel as well as marine lubricants can be obtained through suppliers.
GANGWAY/DECK WATCHMEN: Usually ship's crew. Ship's gangway used.
OPENING/CLOSING HATCHES: Stevedores or ship's crew whichever to ship's advantage.
CERTIFICATES:
Construction Certificate.
Safety Equipment Certificate.
Radio Safety Certificate.
Load Line Certificate.
Cargo Gear Book.

CUSTOMS ALLOWANCES: Tobacco: Each man 200 cigarettes per week. Wine and Spirit: Each man 40 oz. wine or spirits, per week.
CREW IDENTIFICATION CARDS: Not required.
CONSULS:

France	726–3837	Dominican Rep.	579–5081
Portugal	726–6958	Netherlands	726–2961
U.S.A.	726–4524	Norway	579–5006
Brazil	726–7702	Spain	726–1804
Denmark	726–8000	Germany F.R.	722–1525
Sweden	726–8000	Iceland	722–4270

REPAIRS: Most deck and engine repairs possible.
SURVEYORS: Lloyd's Register, P.O.Box 5054, St. John's, NF, A1C 5V3. Tel: (709) 726–0543, (709) 368–2538 (Residence).
DRY DOCKS: St. John's Dry Dock (owned by C.N.R.). Length at coping head, 173.9 m.; at floor head, 173.2 m.; maximum length of keel blocks 167.1 m.; width at coping, 23.3 m.; depth of water over sill, 8.2 m.

Machine shop is equipped for major repairs to hulls machinery.

A modern synchrolift development project has been completed and now operational at the Newfoundland Dockyard. The synchrolift is a massive elevator designed to lift ships up to 3,640 tonnes out of the water for repairs.
REPATRIATION: Crew changes and repatriation possible.
AIRPORT: Distance 4 miles served by Air Canada and Canadian Pacific.
TIME: GMT less 3.5 hours. First Sunday in April clocks advanced 1 hour. Last Sunday October clocks retarded 1 hour.
POLICE/AMBULANCE/FIRE: Police 722-5111; Ambulance 726-3037; Fire 722-1234. Emergency No. 911. Ports Canada Police 772-4669.
EMERGENCY CO-ORDINATION CENTRE: Coast Guard, Search and Rescue (St. John's, Newfoundland). Tel: (709) 772–5151.
SERVICES: Compass adjusting, radar repairs, RT repairs, gyro compass repairs, all types electronic equipment repaired. Divers available for surveys and underwater repairs.
SHORE LEAVE: No Restrictions.
REGULATIONS: Fishing ships must advise of weekend arrival on Friday so that permit to take supplies can be obtained from Federal Dept. of Fisheries.
HOLIDAYS: New Year's Day; St. Patrick's Day; Good Friday; St. George's Day; Commonwealth Day; Discovery Day; Memorial Day; Orangemen's Day; Labour Day; Armistice Day; Christmas Day; Boxing Day.

Except for Easter and Christmas, the above holidays are normally taken on the nearest Monday to the festival date.
SHIP SUPPLY SERVICE: *Offshore Services:*

1. Seabase Limited, P.O.Box 5099, Suite 809, Atlantic Place, St. John's, Newfoundland A1C 5V3.
2. Harvey Offshore Services, P.O.Box 5128, St. John's, Newfoundland A1C 5V6.
3. Petro Canada Exploration Ltd., P.O.Box 5190, St. John's, Newfoundland A1C 5V5.
4. Mobil Oil Canada Ltd., Box 62, Atlantic Place, St. John's, Newfoundland A1C 6C9.
5. Husky Bow Valley, Box 79, Suite 810, Atlantic Place, St. John's, Newfoundland A1C 6C9.

Helicopter Services: Helicopter services are available from St. John's Airport just minutes from the St. John's waterfront. These are operated by private interests as follows:

1. Sealand Helicopters Ltd., P.O.Box 5188, St. John's, Newfoundland A1C 5V5.
2. Universal Helicopters, P.O.Box 9025, Station "B", St. John's, Newfoundland A1A 2X3.

AUTHORITY: St. John's Port Corporation, P.O.Box 6178, 3 Water Street, St. John's, NF, A1C 5X8. *Tel:* (709) 772-4664, 772-4665, 772-4666. *FAX:* (709) 772-4689. *Contact:* D. J. Fox, Port Manager.

Captain H. Peden, Harbour Master. *Tel:* (709) 772-4667, 772-4668.

Lieut. M.L. Kenny, Director of Ports Canada Police. Tel: (709) 772-4669.

SARNIA, Ontario: 42.59 N. 82.25 W.

Refer to "St. Lawrence Seaway" for important general information.
DOCUMENTS: All documentation carried out by Authorities in Montreal. Only when vessels have called at United States port after departing Montreal will any changes in documentation be necessary, which will consist of a United States Customs Clearance Certificate, to be available on board.

Immigration Papers.
1 copy QS2 (Health Certificate).
3 Stores Lists.
Crew Personal Effects List.
Customs Clearance.
All of the above will have been stamped in Montreal.

PILOTAGE: Notice of ETA should be given to Pilots at least 12 hours before arrival at Sarnia to avoid delays. Accommodation ladder and pilot ladder should be rigged in readiness.
RESTRICTIONS: Navigation season – ice forms about December 15th and breaks up about the middle of March. Vessels size restricted by Seaway locks.
MAX. SIZE: Length 730 ft., beam 75 ft. 6 in., draft 25 ft. 6 in.
RADIO: Sarnia Radio, call sign VBE, communicate on either AM or FM radio telephone.
HEALTH: Pratique granted at Montreal.
TUGS: Available. Tel: Sarnia 336-5588.
BERTHING: Over 2 miles of water front including main wharves listed below:

C.N.R. Dock, length 1,100 ft., depth alongside 23 ft.; Empire Hanna Coal Dock, length 900 ft., depth alongside 19 ft.; Elevator Dock, length 900 ft., depth alongside 27 ft.; Dept. of Transport Dock, length 1,045 ft., depth alongside 27 ft.; Reid Aggregate Dock, length 500 ft., depth alongside 26 ft.; Imperial Oil Docks – Upper Dock, length 592 ft., depth alongside 23 ft.; Fueling Dock, length 928 ft., depth alongside 26 ft.; Special Products Dock, length 284 ft., depth alongside 26 ft.; Lower Dock, length 720 ft., depth alongside 23 ft.; Polysar Corp. Dock, length 600 ft., depth alongside 26 ft.; Dow Chemical Dock, length 680 ft., depth alongside 26 ft.; Sun Oil Dock North Dock, length 600 ft., depth alongside 26 ft.; South Dock, length 500 ft., depth alongside 26 ft.; Shell Oil Dock North Dock, length 1,000 ft., depth alongside 26 ft.; Middle Dock, length 500 ft., depth alongside 26 ft.; South Dock, length 500 ft., depth alongside 26 ft.
DENSITY: Fresh water.
MEDICAL: Hospital facilities at Sarnia. All assistance available.
FRESH WATER: Available at all berths.
FUEL: All grades available from Imperial Oil and Shell Co. berths.
REPAIRS: Hull, boiler and engine repairs can be effected. No dry docks.
AUTHORITY: Transport Canada, P.O.Box 325, Sarnia, Ontario, Canada N7T 7J2. *Tel:* (519) 337-5121. *Contact:* W. D. McCart, Harbour Master.

SAULT STE. MARIE, Ontario: 46.28 N. 84.22 W.

(See Plan)

Refer to "St. Lawrence Seaway" for important general information.
Note: The water depths quoted are at extreme low water, normally more water available.
DOCUMENTS: See "Montreal".
PILOTAGE: River or local Pilots available on 24 hours' notice. U.S. Corps of Engineers, Sault area operate and control St. Mary's River Falls Canal and regulate traffic through all locks in both cities.
HEALTH: Board of Health Officers can make a call to the ship.
RADIO: Good ship-to-shore telecommunication available through Department of Transport Radio Station (UBB 800), Canadian Pacific Telecommunications and Canadian National Telecommunications. United States Coast Guard maintain fully equipped Coast Guard Base and have radio communication for all frequencies in entire St. Mary's River and Harbour area; they are available immediately for information pertaining to shipping in area and movement of ships in River.
TUGS: Harbour tugs available when required, but prefer advance notice order avoid delays. In Sault Ste. Marie, Ontario tugs available.
BERTHING: Transport Canada Dock, "L" shaped pier length 500 ft. on East side 18 ft. deep. On South side, the river side, it is 356 ft. long, 20 ft. deep. This dock is used for discharging general cargo. No crane facilities for loading and unloading, unless ship's gear is used, mobile cranes have to be brought in. No tug required to berth or unberth a ship at this dock under normal weather conditions.

Algoma Steel Corporation Dock. Situated above Canadian Canal with following berths available:

- *(a)* Coal and ore dock with a combined length of 2,800 ft.
- *(b)* Commercial dock on West side of slip 400 ft. long.
- *(c)* Limestone dock, "L"-shaped dock on West side 355 ft. long and on South side 450 ft. For loading finished steel.

All 3 Algoma Steel Corporation docks 21 ft. 6 in. deep. Only material consigned to or being shipped from Algoma Steel Corporation have access to these docks.

Parks Canada Pier: Northeast pier at Canadian Canal which could be used for berthing ships and also used occasionally to load or unload cargo into trucks. This pier approx. 500 ft. long and mobile lifting equipment could be utilised here if necessary. Depth of water 18 ft. Pier mostly used as tie-up for making minor repairs afloat, for medical purposes, or waiting for berth at Algoma Steel Corporation Dock. Berthing and unberthing carried out any time, Sundays and holidays with exception of extreme bad weather, high winds, or fog. Canal Hours 0700-2300.
STEVEDORES: Available for loading and unloading at any berths in Sault Ste. Marie area.
TANKERS: Gulf Oil Canada Ltd. Dock: Berthing length 400 ft. Depth 18.5 ft. The West side is the Government Dock, depth 22 ft. 12 tanks (capacity 12,000,000 gallons). For fuel oil and gasoline.
FRESH WATER: Available either by hose or by pumper truck at any dock.
FUEL: Diesel bunkers available at any berths via tank trucks. No bunker "C" facilities available at Sault St. Marie.
REPAIRS: Normal ship repairs are carried out on very short notice if required.
AUTHORITY: Transport Canada, Sault Ste. Marie, Ontario. *Tel:* (705) 256-8772. *Contact:* Gordon Graham, Harbour Master.

AGENT: The Algoma Steel Corporation Limited, Marine Division, P.O.Box 757, Sault Ste. Marie, Ontario, Canada P6A 5N3. Tel: (705) 945-3060. Telex: 067-77266.

SEPT ILES (Seven Islands), Quebec: 50.11 N. 66.23 W. (See Plan)

LOCATION: The City of Sept-Iles is located on the N.E. side of the Baie des Sept-Iles, a sheltered circular basin screened to seaward by 7 small islands, on the North shore of the St. Lawrence River in Lat. 50° 11′ N. and Long. 66° 23′ W.

DOCUMENTS: The following inward papers are to be completed prior to arrival and presented to custom officer on boarding:

Health	QS-2001 Quarantine Form	in duplicate
Immigration	IMM-200 Crew List	in triplicate
Customs	A-6 Report Inward	in triplicate
Customs	Y-14 Crew Declaration	in triplicate
Customs	E-1 Ship's Stores	in triplicate
Clearance from last port		

The above forms will be supplied by mail on request.

Note: On Canadian or International Crew Lists, black pen or typewriter must be used. Blue is not acceptable because of copy reproduction difficulties.

Designation and dates of expiry of all major trading certificates is required for outward clearance.

Arrangements have been made so that loading can commence before customs entry has been completed, and customs outward papers will be completed so as not to interfere with immediate departure after completion of loading.

Tankers: Charterers or Operators nominating tankers for discharge at Canadian ports should ensure that the vessel is provided with a "Non-Canadian Ship's Compliance Certificate" prior to sailing for Canada. All major Classification Societies are authorised to issue such a certificate.

DOCKING MASTER: The use of a Docking Master is compulsory for vessels docking, shifting and leaving I.O.C. docks. When docking on arrival, Docking Master will board inside harbour limits in area of 50° 10′ N. and 66° 24′ W. Ships normally proceed to anchorage without assistance, which can be provided on request.

All vessels shall provide rope ladder for boarding Docking Master on arrival and disembarking Docking Master on departure. Ladder must be well secured by adequate lashings to rail or deck.

Power hoists, in good order and properly attended, are acceptable for boarding. In freezing temperatures however, they should not be used unless electrically powered.

Shipmaster's Report: August 1983: With all bridge and engine room equipment working well, we berthed in thick fog (visibility 50 yards – 100 yards). Pilot and tugs most efficient.

ANCHORAGE: Ships should anchor at least 1 mile off dock to facilitate ship movements in bay and should not proceed closer than 1 mile from dock while waiting for Docking Master to board. Vessels may be requested to shift anchorage if their position interferes with normal docking approaches.

MAX. SIZE: Iron Ore Co. Loading Dock (Old): length 850 ft., beam 130 ft., draft 43 ft. Iron Ore Co. Loading Dock (New): length 1,100 ft., beam 175 ft., draft 57 ft. Imperial Oil Dock: length 775 ft., draft 40 ft.

Vessels arriving in ballast to load at No. 2 Dock are requested to present in accordance with the following recommended arrival drafts to ensure safe handling procedures, keeping in mind indicated ship loading rates and ship loader clearances. These drafts are intended to mean minimum draft aft with normal vessel trim.

Summer Deadweight	*Recommended Arrival Drafts*
Under 30,000	4.0 m. to 4.6 m.
30,000 to 40,000	4.6 m. to 5.2 m.
40,000 to 60,000	4.9 m. to 5.8 m.
60,000 to 75,000	5.5 m. to 6.4 m.
75,000 to 100,000	6.1 m. to 7.3 m.
100,000 to 150,000	8.5 m. to 11.0 m.
150,000 to 200,000	11.0 m. to 13.0 m.
200,000 to 250,000	13.0 m. to 14.0 m.
250,000 and over	14 m. and over

Any vessels unable to meet these suggested drafts due to insufficient ballast capacity, anticipated deballasting problems, etc., should state this in 48 hours ETA, along with estimated deballasting time.

Usually ships berth port side to.

Note: Vessels have berthed with lesser draft than recommended when weather conditions permit.

RADIO: Sept-Iles Radio, Canadian Coast Guard Station, Call sign "VCK", Tel: (418) 968-3118, operates 24 hours a day.

CW	Calling frequency	500	kHz	
	Working frequency	420	kHz	
RT	Calling frequency	2182	kHz	Ch. 51
RT (Working Frequency)	Transmitting	2514	kHz	Ch. 57
	Receiving	2118	kHz	Ch. 57
VHF	Calling Frequency	156.8	MHz	Ch. 16
VHF (Working Frequency)	Transmitting	161.9	MHz	Ch. 26
	Receiving	157.3	MHz	Ch. 26
	Transmitting	161.8	MHz	Ch. 24
	Receiving	157.2	MHz	Ch. 24
	Port Operations	156.6	MHz	Ch. 12

Traffic Lists	420 kHz – Odd hours plus 50 minutes GMT
	2582/161.9 0240 UTC – Every 4 hours

Weather, Ice Reports and Notice to Shipping: A continuous marine broadcast is available on VHF Ch. 21, 161.65 MHz. and Channel 83B, 161.775 MHz. Recorded information is updated continuously as received 24 hours per day.

Extended VHF communications facilities are also available in MINGAN 50° 16′ 24″ N., 64° 07′ 56″ W. and Natashquan 50° 08′ 40″ N., 61° 48′ 00″ W.

Ore Carriers:

Advising Arrival: Cable address "Iroccan" Sept-Iles.

Please advise ETA 96 hours, 72 hours, 48 hours and 24 hours out, including in 96 hours ETA the amount of cargo required in metric tons.

Vessels sailing in ballast from Montreal, Sorel, Three Rivers or Quebec should send ETA on departure from these ports with corrected ETA later if necessary.

Advise with 24 hour ETA probable ballast pumping time required on arrival. If any change in ETA or in ballast situation should occur after 24 hour ETA, it should be advised as soon as possible.

The Marine Services office is equipped with VHF radio on 156.6 MHz Channel 12, and also 156.35 MHz, Channel 18A. Vessels calling at Sept-Iles should be fitted with these VHF Channels for efficient harbour communications.

Use of Channel 12 restricted to vessel movements only.

Docking Instructions: Ships are to request instructions 8 hours before arrival. These instructions will be given as promptly and concisely as conditions permit.

Marine Services is set up to receive radio messages on 24 hour basis. Radio traffic by ships at anchor is permissible in Sept-Iles harbour area.

TRAFFIC REGULATIONS: *Traffic regulations for the Gulf and River St. Lawrence:*

1. Eastern Canada Traffic Zone Regulations (ECAREG)
   The zone extends from outside of Belle Isle and Cabot Straits to 66° 00′ W.
   In general, it states that a ship crossing seaward boundary, either entering or leaving the zone, must report to ECAREG via any Canadian Coast Guard Radio Station. Clearance to move within the zone must be obtained from ECAREG and there are "calling-in-points" where a ship has to report.
   There are also additional reports to be made in case of any defects in machinery, navigational aids, accidents, stranding, pollution, etc.
2. The St. Lawrence Waterway Traffic Regulations.
   The zone extends from 66° 00′ W. to Montreal.
   In general, the regulations state that a ship must report to the marine traffic regulator by contacting Channel Escoumins on 156.7 MHz, Channel 14 before entering Zone 1. (i.e. crossing 66° 00′ W.) The port of Sept-Iles is in Zone 1.
   Ships have to maintain a continuous radio watch on Channel 14, except when alongside. Authorisation to communicate on another Channel has to be requested from Channel Escoumins unless the vessel is equipped with two radios.
   Clearance must be obtained from Channel Escoumins to move within the harbour.

HEALTH:

1. Vessels calling at Canadian ports no longer require Radio Pratique unless:
   (i) there is a condition of health irregularity aboard or,
   (ii) if vessel has called at an infected port during this same voyage or,
   (iii) if Derat Certificate is no longer valid or will soon expire.
2. Only vessels to which any of the above conditions apply, should cable "Quarantine Quebec" giving name of vessel, last port of call and detail regarding health conditions aboard.

TUGS: Tug service is compulsory at Iron Ore Company docks and Wabush Mines Docks. Two tugs of 5,400 h.p. available.

All communications between tugs and Pilots are by VHF. Tugs operate on 156.9 (Channel 18A).

All ships should be equipped with wire cable towing line with nylon pendant for tug use in undocking. Ships not so equipped will be provided with tug tow lines. Docking Master to determine adequacy of ship's tow lines.

BERTHING:
Ports Canada – Facilities

Berth Number (usual name)	*Wharf length (ft.)*	*Depth at Low Water (ft.)*	*Remarks*
Pointe-aux-Basques	600	27	Small open section at East end of Shed No. 1
Bulk Shed			
Shed No. 1			General cargo shed
Shed No. 2			General cargo shed West and behind Shed No. 1
Oil Dock	300	38	Dolphins increase capacity for berthing. Max. size 60,000 g.r.t.
Mgr. Blanche Wharf	800	25	General cargo berth. Also has docking facilities at the end of the Finger Pier, approx. 180 ft. with a draft of 27 ft. Docking on the end and the West side of pier only.
Town Wharf*	381	16	Used by coastal fishing boats.
Pointe Noire Wharf	853	48	New wharf offering storage and transit area (30 acres), crane, Ro-Ro ramp and 655 acres of land for port orientated development

*This wharf has been transferred to Fisheries and Oceans Canada.

Private Facilities

Berth	Length (ft.)	Depth at Low Water (ft.)	Utilisation and general remarks
Wabush Mine Co. Mooring Dock	650	41	General cargo and mooring berth (East end).
Loading Dock	950	41	Iron Ore loading berth (West end). Loading ore by means of 2 travelling boom conveyors. Total capacity 8,000 long t.p.h.
Iron Ore Company of Canada Waiting Berth Terminal	800	38	Mooring and general cargo receiving berth (West)
Southeast Berth No. 1 Dock	800	38	Ore loading berth 2 travelling boom conveyors with a total average capacity of 8,000 long t.p.h.
No. 2 Dock	900	60	Total effective mooring length approx. 1,600 ft. 2 travelling shuttle boom loaders with 764 ft. of travel. Max. design capacity 7,500 long t.p.h. each

See also following information on The Ore Company berths. Vessels usually berth port-side alongside.

Number 1 Dock: 2,200 ft. (670 m.) dock divided into 3 berths. The S.E. or Loading Berth is 800 ft. (224 m.) in length and is fendered with large truck tyres mounted over the dock face. The adjoining 800 ft. (244 m.) mooring or waiting berth is also fendered with large truck tyres. The third and last section, 600 ft. (183 m.) in length, is a Government Berth used for general cargo.

Dredged depth at the loading berth is 38 ft. (11.6 m.) at MLW, 34 ft. (10.4 m.) at mooring berth. Designed depth at the Government Berth is 27 ft. (8.2 m.). At the loading berth, iron ore is loaded into vessels by means of 2 travelling boom conveyors (travel 183 m.) with a max. design capacity of 4,000 tonnes/p.h. each.

The distance from MLW to loaders in horizontal position is approx. 35 ft. (10.7 m.). Loaders can operate at an angle of up to 12° from the horizontal. Vessels should present for loading with a maximum distance of 40 ft. (12.2 m.) from waterline to hatch coaming. Number 1 Dock is fitted with bollards spaced at 50 ft. (15 m.) centres.

Number 2 Dock: Deepwater berth is located some 900 ft. (274 m.) S.E. of original dock and extends approx. 230 ft. (70 m.) further into bay. This single berth is open cell construction with 9 parallel cribs giving total berthing face of approx. 925 ft. (282 m.). A tenth transfer house crib, inset from dock face and a dolphin, both structures fitted with mooring winch and bollards, are located approx. 150 ft. (46 m.) and 350 ft. (107 m.) respectively from N.W. corner of dock face. Two additional dolphins, also fitted with mooring winch and bollards, are situated in a line approx. 150 ft. (46 m.) inside dock face and approx. 100 ft. (30 m.) and 400 ft. (122 m.) from S.E. corner of dock. Dolphins are joined to main dock structure by catwalks. Total effective mooring length is approx. 1,600 ft. (488 m.). Cribs are fendered to waterline with triple sets of extra large truck tyres. Dredged depth is 60 ft. (18.0 m.) MLW. Dock is fitted with 2 travelling shuttle boom loaders with 764 ft. (233 m.) of available shiploader travel, and a maximum design capacity of 7,500 long t.p.h. each. Number 2 Dock is fitted with bollards spaced at 100 ft. (30 m.) centres. Recommended maximum airdraft for this berth is 17.0 m.

Tidal characteristics	Neaps	1.68 m.
	Springs	3.05 m.

CRANES: Heavy-lift cranes available. Max. capacity 150 tons.

MEDICAL: Masters are requested to have ready for inspection ship's Derat Certificate.

All crew members requiring medical attention should be available upon ship's arrival. Sick Mariners dues no longer apply for treatment of seamen. Agent will provide form of application to be given to doctor for crew members requiring medical attention.

TANKERS: Berth at Oil Dock. (Max. draft 38 ft.) and Ports Canada facilities at Pointe-aux-Basques.

FRESH WATER: Can be supplied at the approx. rate of 35 t.p.h. Hose is available on the dock but ship's crew are required for connecting and disconnecting.

FUEL: Available on an emergency basis only and subject to inventory situation. All enquiries should be directed to BunkerEsso Montreal.

CUSTOMS ALLOWANCES: Each crew member is allowed to retain in his possession for his personal consumption 200 cigarettes, 40 ounces of spirits, 50 cigars or 2 pounds of pipe tobacco. All quantities must be declared on Crew Declaration form Y-14 along with all personal effects such as radios, cameras, tape recorders, binoculars, etc., plus serial numbers of each such item.

Canadian seamen returning from voyages to American or other foreign ports are permitted $50 value of duty free merchandise every quarter for periods outside Canada of over 48 hours and $150 once a year for periods outside Canada of 7 days.

REPAIRS: Minor repairs can be effected at Sept-Iles. Repairs to be conducted under the supervision of ships' personnel.

TIME: Sept-Iles maintains Eastern Standard Time (GMT minus 5) from last Sunday in October until first Sunday in April. Eastern daylight time (GMT minus 4) is maintained the balance of the year.

SHORE LEAVE: Crew not allowed ashore until permission granted by the authorities.

SAFETY: It is compulsory to have a net under the gangway.

GENERAL: *Customs of the Port:* Ships will be loaded in regular turn of vessels, subject to cargo availability and providing they present with starting hatches open and do not have ballast pumping which will exceed expected loading time. This loading time should be calculated at the rate of 6,600 metric tons/hr. at Dock No. 1 and 10,000 metric tons/hr. at Dock No. 2.

For establishing turn of vessels, a ship will be considered "arrived" at the time of crossing line between Pointe au Corbeau and Pointe aux Basques.

Loading plans should be presented to the loading foreman on arrival.

Ore-Oil and OBO vessels having discharged petroleum products at last port must advise this in first ETA. If gas-free certificate not already granted by independent chemist, arrangements will be made to have chemist attend. The arrangement for such service implies no liability whatsoever on the part of Iron Ore Co. of Canada Marine Services. Expense for ship's account.

Ships will leave the loading dock immediately upon completion of cargo and secure for sea in the bay. If any delays occur on documentation, crew members missing, etc., ship will leave the dock and all matters will be handled from anchorage.

Vessels must have main engine ready when alongside loading docks. Permission to perform work that would affect the readiness of the vessel to leave berth in case of emergency must be obtained from Iron Ore Co. Marine Services before proceeding with such work.

Services: Most supplies can be readily obtained at Sept-Iles. Quantity orders should be included in 48 hour ETA. Requests for bonded stores should be included in 96 hour ETA.

Launch service is available on request through Marine Services.

Walport film exchange available.

Ice Navigation in Canadian Waters: During the Winter, ECAREG CANADA (East of 66° 00′ W.) and the St. Lawrence River Vessel Traffic Management (VTM), West of 66° 00′ W. to Montreal, provide a service consisting of the promulgation of up-to-date information on ice conditions, routeing, the provision of icebreaker support where available and considered necessary, and organisation of convoys as required.

Masters requesting this service should address their request to ECAREG CANADA through any convenient Canadian Coast Guard radio station which will handle the message free of charge.

Basically, each system is under the surveillance of Canadian Coast Guard Traffic Centres which Masters may contact for advice and assistance. These centres have access to a complete and current picture of the ice conditions prevailing and the anticipated trend of conditions. The centres are therefore, well equipped to provide advice on the best route to follow. In order to obtain the maximum benefit from the service, it is essential that Masters report to the appropriate Canadian Coast Guard Traffic Centre before their ships enter waters where ice may be encountered.

Radio communications play a very important part in successful ice navigation. The Master relies upon the receipt of accurate ice information and advice upon which he can base his decisions as to his future course and progress.

Ships proceeding independently throughout the Gulf of St. Lawrence when ice is present should report their positions and progress to "Ice Halifax" at 0800 and 2000 A.S.T.

Radiogram: "Ice Halifax". Radio Station: Halifax, Call sign VCS.

Ships inbound from sea to a port in Zone B should report to "Ice Halifax" 36 hours before passing Cape Ray. Ships outbound should report to "Ice Halifax" 12 hours before departure.

DEVELOPMENTS: In 1983, the Government of Canada announced a new project development in the Pointe Noire sector.

The new project consists of building a 260 m. long wharf with an existing depth of 12 m. and more, the construction on an on-site access road including all services such as waterline of 400 mm., power and waste disposal services, embankments and dykes, as well as a 12 hectares storage area. These new marine infrastructures will also permit to give access to more than 265 hectares of land owned by Ports Canada.

General cargo as well as bulk commodities are handled in this sector. The project started in September 1983 and was completed late 1986.

AUTHORITY: Ports Canada – Port of Sept-Iles, 421 Arnaud St., Room 202, P.O.Box 280, Sept-Iles, Quebec Province G4R 4K5. *Tel:* (418) 968-1231. *Telex:* 051-8-4209. *Contact:* Jean-Maurice Gaudreau, General Manager.

Iron Ore Company of Canada, Marine Services, P.O.Box 900, Sept-Iles, Quebec, Canada G4R 4L5. *Tel:* (418) 968-7540 *Telex:* 051-8-4186. *Cables:* Iroccan Sept-Iles.

SHEET HARBOUR, N.S.: 44.50 N. 62.30 W. (See Plan)

DOCUMENTS: See "Montreal".

ICE: Open all year with aid of icebreaker during January, February and March. Ice forms about January 15th and breaks up between March 1st and 15th.

PILOTAGE: Compulsory. Pilot boards off Sheet Rock Light.

ANCHORAGE: Anywhere in harbour in depths up to 10 fathoms.

MAX. SIZE: See "Berthing".

RADIO: Ship-to-shore communications: through Halifax (VCS).

TUGS: None.

BERTHING: *Transport Canada Wharf:* Length 54.8 m. Depth at LW 6.4 m. No railroad or handling facilities on wharf. Open storage area alongside for handling general cargo.

STEVEDORES: Skilled labour available. Gangs consist of 20 men.

MEDICAL: Hospitals available.

FRESH WATER: Available by hose from mill.

FUEL: Available.

REPAIRS: No facilities available.
AIRPORT: Halifax 75 miles.
TIME: GMT minus 3 hours in Summer. GMT minus 4 hours Winter.
AUTHORITY: Transport Canada, Office of Harbours and Ports, Maritimes Region, P.O.Box 1013, Dartmouth, N.S., B2Y 4K2. *Contact:* The Regional Manager. *Tel:* (902) 426-2588.

SHIP HARBOUR, Nova Scotia: 44.49 N. 62.53 W.

ANCHORAGE: The best anchorage in the harbour is between Salmon Point and Whale Islet. 7.31 m. to 11.89 m. of water in mud bottom.
BERTHING: Government wharf no longer usable.
Tides: LWOST, 0.2 m. above chart datum. HWOST, 2.2 m. above chart datum.
MEDICAL: Hospital at Sheet Harbour, 20 km.
AIRPORT: Halifax International airport, 120 km.
AUTHORITY: Transport Canada, 73 Tacoma Drive. (P.O.Box 1013). Dartmouth, Nova Scotia, B2Y 3Z7. *Tel:* 426-2588. *Telex:* 01922757.

SHIPPEGAN HARBOUR, N.B.: 47.45 N. 64.42 W.

CARAQUET HARBOUR, N.B: 47.48 N. 64.56 W.

(See Plan)

DOCUMENTS: See "Montreal".
PILOTAGE: Approaching vessel hoists flag "G" and uses siren about 1 mile before reaching fairway buoy. Pilot boat motorised 45 ft. vessel, approaches on leeside. Approaching vessels wait for Pilot about 1 mile from Fairway Buoy.
ANCHORAGE: Good anchorage, usually by Fairway Buoy.
RESTRICTIONS: Entry possible night and day, good vision, lighted buoys and beacon lights.
MAX. SIZE: High tide: 23 ft. low tide: 17 ft. (Shippegan, max. tide: 20 ft.).
HEALTH: See "Montreal".
RADIO: VCN Grindstone Radio and VCG Fox River.
TUGS: Not required for these ports.
BERTHING: Caraquet Wharf, 28 ft., Shippegan 25 ft. alongside outer side and 3.2 m. alongside at normal low water along the inside face of wharf.
MEDICAL: No notice required, hospital available, as required when conditions warrant.
FRESH WATER: Available.
CUSTOMS ALLOWANCE: Tobacco, 200 cigarettes per week per man. Wine/Spirits, Spirits allowed to officers. Beer to crew.
REPAIRS: Minor ship repairs and all electrical repairs.
TIME: Atlantic Standard Time GMT minus 4 hours, Daylight saving time from first week-end in April to last week-end in October, clocks advanced 1 hour.
AIRPORT: Moncton, 150 miles, Chatham, 70 miles.
POLICE/AMBULANCE/FIRE: *Caraquet:* Police RCMP 727-2828; Police Town, 727-3167; Fire, 727-2928; Hospital, 727-3435. *Shippegan:* Police, RCMP, 336-2210, Town, 336-2351. Hospital: 344-2261.
AUTHORITY: Fisheries and Oceans Canada, Small Craft Harbours Branch, P.O.Box 717, Tracadie, N.B. E0C 2B0. *Contact:* Tilmon Hache, Harbour Manager (Shippegan). *Tel:* (506) 336-4010.
Rufin Doiron, Harbour Manager (Caraquet). *Tel:* (506) 727-6145.

SOREL, Quebec: 46.03 N. 73.09 W. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
3 Crew Declarations (Canadian Form Y14).
3 Store Lists (Canadian Form E.1).
Health Declaration (Canadian Form QS.2001).
3 Cargo Manifests.
3 Bills of Lading.
General Declaration.
PILOTAGE: Compulsory. Under the Montreal Pilotage Authority. Vessels coming in from sea secure Pilots at Escoumins, Quebec and Three Rivers.
ANCHORAGE: Safe and roomy anchorage is provided in the St. Lawrence River off Sorel in a basin 9 miles long by 0.5 miles wide with 30 ft. to 50 ft. water depth. There is no tidal influence at this point.
RESTRICTIONS: Speed limits not to exceed 8 knots in the Harbour of Sorel. Sections 8, 9 and 10 reserved for D.O.T. vessels.
MAX. SIZE: From St. Lawrence Ship Channel there is a clear approach for 10.67 m. draft vessels to Outer Dock No. 15 and from 6.10 m. to 9.14 m. to almost all other docks.
HEALTH: Pratique may be obtained by radio to Quarantine Quebec. Health Officer boards on arrival.
Sorel is also an organised quarantine sub-station. (See "Canadian Quarantine Requirements" for full particulars).
RADIO: St. Lawrence River Marine Traffic Control call sign VFN Sorel and VBK Three Rivers.
RADAR: Radar service may be obtained by VHF from Montreal (80 km.).
TUGS: Tugs are available all year round at Sorel. Their use is advisable for all berths in the Richelieu River, for berths in Lanctot Basin and at Section 5 for ships exceeding 250 ft. in length or having low manoeuvrability. They are also needed for large ships at Sections 15 and 21 when leaving with an Easterly destination.
BERTHING: Following depths are expressed in metres reduced to chart datum and must be used as guidance only. For up-to-date information refer to Canadian Marine Chart No. 1338 (Sorel Harbour).
Transport Canada Wharves:
Dock 5, berth 182.88 m. long, 9.14 m. depth. Dock 6, berth 106.68 m. long, 8.80 m. depth. Dock 7, berth 152.40 m. long, 8.53 m. depth. Dock 8, berth 160.02 m. long, 6.10 m. depth. Dock 9, berth 60.96 m. long, 6.10 m. depth. Dock 10, berth 160.02 m. long, 6.10 m. depth. Dock 16, berth 160.68 m. long, 4.88 m. depth. Dock 17, berth 213.36 m. long, 4.88 m. depth.
Les Elevateurs de Sorel Ltee Wharves: (Private Wharves).
Dock 11, berth 152.40 m. long, 7.32 m. depth. Dock 12, berth 106.68 m. long, 7.32 m. depth. Dock 13, berth 76.20 m. long, 7.32 m. depth. Dock 14, berth 187.45 m. long, 8.30 m. depth. Dock 15, berth 189.58 m. long, 10.67 m. depth.
Omnimar Inc. Wharf: (Private Wharf).
Dock 18, berth 167.74 m. long, 4.27 m. depth.
Marine Industries Ltd. Wharf: (Private Wharf).
Dock 19, berth 182.88 m. long, 6.10 m. depth.
Fer & Titane du Quebec Wharf: (Private Wharf).
Dock 20, berth 335.28 m. long, 9.14 m. depth. Dock 21, berth 335.28 m. long, 9.14 m. depth.
CRANES: Mobile cranes up to 150 tons capacity available from local firms.
BULK CARGO FACILITIES: (Public Wharves). Open storage space for approximately 20,000 tons available (75,000 sq.ft.)
(Private Wharves). Les Elevateurs de Sorel Ltee: Steel and concrete grain elevators 5,500,000 bushels capacity, loading rate 144,000 bushels/hr. Fer & Titane de Quebec: Electric mobile bridge capacity 900 t.p.h.
STEVEDORES: Available for loading and unloading at any berths.
MEDICAL: Doctors and hospitals facilities available.
DENSITY: Fresh water.
FRESH WATER: Available by pipe-line or tank-trucks at all berths.
FUEL: Available from major oil companies by tank-trucks. Can also be obtained by barges from Montreal (50 miles).
CONSULS: Almost all countries, nearest offices at Montreal.
REPAIRS/DRY DOCKS: Marine Industries Ltd. shops are equipped for steel shipbuilding, construction of engines and boilers and repair services of all kinds. The Company has two marine railways, one of which is the largest end-hauling marine railway in the world, capable of launching and dry-docking cargo ships up to 12,000 tons deadweight with transfer or building area admitting of the construction of 8 ships at the same time. Ships of 5,000 d.w.t or smaller can be launched on the second marine railway. The facilities include modern shops, gas and air plants, as required for the building and repairing of all types of hulls and machineries, while subsidiary and associated companies in the same vicinity for rolling mills, heavy and precision machinery, heavy forgings, all kinds of steel brass and metal castings, propellers, etc. Omnimar Ltd., has docking facilities for repairs afloat of equipment, engine and general ship repairs.
SURVEYORS: Lloyd's.
CUSTOMS: Sorel is a port of entry, customs board ships.
CUSTOMS ALLOWANCES: 200 cigarettes for each man, Officers may be allowed one bottle wine/spirit, Master up to five bottles.
REPATRIATION: Can be arranged through Department of Manpower and Immigration.
AIRPORT: Nearest at Montreal (Dorval) 70 miles.
TIME: GMT minus 5 hours. Daylight Saving Time: GMT minus 4 hours, applied from first Sunday of April until last Sunday of October each year.
HOLIDAYS: New Year's Day, Good Friday, Easter Monday, St. John the Baptist Day, Dominion Day, Labour Day, Queen's Birthday, Remembrance Day, Christmas Day, Boxing Day.
POLICE/AMBULANCE/FIRE: Police/Fire 742-5656; Ambulance 742-9441.
SERVICES: Ship's stores can be secured in Port. Tank cleaning equipment available.
SHORE LEAVE: Crew members allowed ashore. No restrictions.
REGULATIONS: Public Harbours Regulations.
AUTHORITY: Transport Canada, Ports and Harbours, 15 Prince Street, Sorel, Quebec J3P 4J4. *Tel:* (514) 743-7931. *Telex:* 055-60882. *Contact:* Guy Gervais, Port Manager.

SPRINGDALE, Newfoundland: 49.30 N. 56.05 W.

LOCATION: Springdale is in Hall's Bay, a deep narrow inlet situated at the S.W. part of Notre Dame Bay, North coast of Newfoundland.
RADIO: Comfort Cove (VOO).
BERTHING: (1) Transport Canada Wharf, 262 ft. long and 40 ft. wide, with a depth of 20 ft. at the face. Used for general freight. Oil pipe-lines on wharf. There is a red fixed electric light on outer end of wharf.
(2) George Warr Wharf, berthing length 65 ft., depth alongside at LW 28 ft. aft, 13 ft. forward. Shed 50 ft. × 30 ft. Used for general freight.
No crane, electric light or water main on the wharves. Large ships load pulpwood at West Bottom.
FRESH WATER: Not available.
SURVEYORS: Lloyd's at St. John's. ABS at Halifax.
GENERAL: *Services:* Post Office, Telegraph.
Trade: Sawn lumber and pulpwood is exported. General merchandise is imported.
Charts: Canadian Chart No. 4591. BA Chart No. 3223.
AUTHORITY: Transport Canada, P.O.Box 1300, St. Johns, Newfoundland A1C 6H8. *Tel:* (709) 772-2102. *Contact:* Harbour and Ports Department.
Local Authority: Ted Robinson, Wharfinger. *Tel:* (709) 673-4343.

SQUAMISH, B.C.: 49.41 N. 123.10 W.

PORT LIMITS, DOCUMENTS, PILOTAGE, ANCHORAGE, RESTRICTIONS, HEALTH, See "Vancouver".
MAX. SIZE: LOA 700 ft.
TUGS: See "Vancouver".
BERTHING: Two berths, length 450 ft. and 500 ft. Depth alongside at LW 38 ft. and 40 ft. respectively. Forest products mainly handled by ship's own gear. Fork lift trucks of 2,700 kg. – 11,300 kg. available. Flat bed dual control, 40 ft. length trucks for delivery to vessels available.
CRANES: None available
MEDICAL: No advance notice required but in case of serious illness recommend Vancouver facilities.
TANKERS: No facilities.
DENSITY: 1025.
FRESH WATER: Ample supply available by 1.5 in. hose at 60 gallons per minute. $0.99 Canadian per metric ton.
FUEL, CONSULS, REPAIRS, DRY DOCK, SURVEYORS: See "Vancouver".
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: By Stevedores.
CUSTOMS ALLOWANCES: See "Vancouver".
REPATRIATION: No facilities.
AIRPORT: 50 miles to Vancouver Airport – regular airlines.
TIME: See "Vancouver".
HOLIDAYS See "Vancouver".
POLICE/AMBULANCE/FIRE: Police (966) 898-9611. Ambulance 911. Fire (966) 898-9666.
EMERGENCY CO-ORDINATION CENTRE: See "Vancouver".
TELEPHONES: Telephone can be put on board, $50 cost for connection.
SERVICES: None available.
BANKS: Bank of Montreal, Bank of Nova Scotia, Royal Bank of Canada.
SHORE LEAVE: No restrictions.
AUTHORITY: Transport Canada, P.O.Box 344, Garibaldi Highlands, B.C. V0N 1T0. *Tel:* 898-9279. *Contact:* T. Biggin-Pound, Harbour Master.
Operator: Squamish Terminals Ltd, P.O.Box 1520, Squamish, B.C. V0N 3G0. *Tel:* (604) 892-3511. *Telex:* 04-53374. *FAX:* (604) 892-5623. *Contact:* J. R. Wilburn, Traffic Manager.

STEPHENVILLE, Newfoundland: 48.30 N. 58.33 W. (See Plan)

PORT LIMITS: Beginning at Indian Head (Lat. 48° 29′ 58″ N., Long. 58° 31′ 49″ W.); thence running true 210° for 1,700 yards; thence running true 320° for 6,000 yards; thence running true north for a distance of 2,100 yards more or less to the high water mark.
DOCUMENTS:
Completed Declaration of Health
Valid Derat Certificate
3 Crew Lists (Form 200)
3 Crew Declarations (Form Y14)
3 Ship's Stores (Form E–1)
3 Passenger Lists
Manifests
Clearance from Last Port
PILOTAGE: Compulsory. Pilot boards at Fairway Buoy. Pilot ordered by reporting via any coastal radio station by radiotelephone or radiotelegraph to Pilots, Stephenville. 48, 24 and 12 hour ETA required. Time used must be GMT. The Pilot at Stephenville guards Channel 16 (156.8 MHz.) and works Channel 11 (156.66 MHz.).
Harbour Pilot: Capt. Melbourne, Phone: 643-4056.
Stand by Pilots: Capt. W. Collins, Phone: 686-5046, Capt. D. Keeping, Phone: 686-5017.
ANCHORAGE: No sheltered anchorage in the harbour; vessels are exposed to prevailing westerly winds. Limited swinging room and poor holding ground.
RESTRICTIONS: A 75 m. wide × 2,200 m. long channel with a limiting depth of 10 m. has to be navigated to gain access to the turning basin which has a limiting depth of 9.2 m. There are 3 high spots immediately at the face of the wharf with a limiting depth of 8.5 m. Tidal range 1.1 m. at mean tides and 1.7 m. at large tides. Mariners are advised to obtain a copy of the Canadian Hydrographic Services Sailing Directions for Newfoundland and Chart No. 4885 and contact the Harbour Master for any changes in depth restrictions.
RADIO: Stephenville Marine Radio, call sign VOJ. Halifax Marine Radio is recommended for all messages.
BERTHING: 1 berth of 960 ft. Also dolphins can accommodate vessels of over 600 ft. Max. draft at dolphins approximately 27 ft. (8.2 m.). The largest vessel to enter port has been 640 ft. long and any anticipated larger vessels should be discussed with Port Officials.
STEVEDORES: Ordered by Agent.
MEDICAL: No advance notice required unless serious emergency. Hospital facilities available.
TANKERS: Tanker berth is the main government wharf (960 ft. long). Discharge lines are: 1×6 in., 1×8 in. and 2×10 in. The pipe-lines and nearby tanks are owned by Harmon Corporation and are leased to users.
DENSITY: Salt water.
FRESH WATER: Available from pipes on dock at $1.00 per ton. Water pipe is operated by the Town of Stephenville.
FUEL: Marine diesel available. Delivery by truck.
CONSULS: Nearest Consuls are situated in St. John's, which is approximately 500 miles away.
REPAIRS: Minor repairs are possible locally.
GANGWAY/DECK WATCHMEN: Usually crew.
OPENING/CLOSING HATCHES: Normally carried out by vessel's crew.
IDENTIFICATION CARDS: Not required.
REPATRIATION: Can be arranged.
AIRPORT: 5 miles from dock.
TIME: GMT less 3.5 hours. Clocks advanced from first Sunday in April until last Sunday in October. 2 hours in 1988.
POLICE/FIRE/AMBULANCE: Police 643-2118, Fire 643-2176, Russell's Ambulance 643-2472, Hospital 643-5131
EMERGENCY CO-ORDINATION CENTRE: Coast Guard, St. John's, Newfoundland. Tel: (709) 772-5151.
TELEPHONES: Can be arranged through Newfoundland Telephone Company Limited, Market Division, P.O.Box 98, Corner Brook, Nfld. Phone: 643-3197. Phone jack has already been installed on the dock.
SHORE LEAVE: No restrictions.
GENERAL: Ice is navigable throughout the Winter season. Extra information can be obtained from Ice Operations in St. John's – Newfoundland, Tel: 709-737-2083. Cables: Ice Operations – St. John's – Canadian Coast Guard.
AUTHORITY: Transport Canada, P.O.Box 1300, St. John's, Newfoundland A1C 6H8. *Tel:* (709) 772-5154. *Telex:* 016-3369. *FAX:* 2193. *Contact:* D. A. Lester, Regional Manager, Harbours and Ports.
Local Authority: G. R. McLaughlin, Area Manager, Harbours and Ports, Stephenville, Newfoundland. Tel: (709) 643-3632.
Mr J. Cochrane, Harbour Master. *Tel:* (709) 643-5625.

SUMMERSIDE, P.E.I.: 46.23 N. 63.47 W. (See Plan)

DOCUMENTS:
2 IMM.200.
3 E.1.
1 Quarantine 2001.
2 Passenger Lists.
1 Customs Document A.6.
PILOTAGE: 24 hours notice of ETA to Agent who notifies Pilot. Pilot boards Fairway Buoy about 6 miles from wharf.
ANCHORAGE: At Fairway Buoy in depths of 30 ft. – 35 ft.
MAX. SIZE: 550 ft. length, 75 ft. beam, 24 ft. draft.
HEALTH: Vessels coming from U.S.A. accepted without Pratique. Vessel from other countries radio telephone for permission. See also "Montreal".
RADIO: Halifax N.S., Sydney N.S., Grindstone M.I., Charlottetown P.E.I.
TUGS: None available.
BERTHING: Transport Canada Wharf: Length (West side) 600 ft. Depth at LW 26 ft. East side, length 600 ft. Depth at LW 19 ft.
Additional Wharf: Length 300 ft., depth 17 ft.
Holman Wharf: Length 300 ft., depth at LW 8 ft.
Queens Wharf: "L" shaped wharf, head length 155 ft., depth 5 ft.
STEVEDORES: 24 hours notice required.
MEDICAL: Hospital facilities available. Current vaccination/fever certificates required.
FRESH WATER: Available 30 t.p.h.
FUEL: Limited quantities by road tanker.
OPENING/CLOSING HATCHES: Crew/Stevedores.
CUSTOMS ALLOWANCES: Tobacco: 1 carton per man per week. Wine/Spirits: Spirits 40 oz. per man per week. Further allowances made if Master requests.
IDENTIFICATION CARDS: Passports required.
REPAIRS: Only minor repairs.
REPATRIATION: Can be arranged.
AIRPORT: Charlottetown Airport 39 miles away.
TIME: Atlantic Standard Time with daylight saving in Summer.
HOLIDAYS: New Year's Day; Good Friday; Victoria Day (19th May); Dominion Day (1st July); Remembrance Day (11th November); Thanksgiving (13th October); Labour Day (1st September); Christmas Day. Plus all Saturday afternoons and Sundays.
POLICE/AMBULANCE/FIRE: Police 436-9222; Ambulance dial "O" call operator; Fire 436-3333.
TELEPHONES: Telephones can be placed on board.
SHORE LEAVE: Crew allowed ashore.
AUTHORITY: Transport Canada, Charlottetown, Prince Edward Island. *Tel:* 566-7973. *Contact:* Wendall Morrison, Harbour Master and Wharfinger, 2 Morrison Ct., Summerside P.E.I. *Tel:* (Office) (902) 436-2924, (Home) (902) 436-5269.
Transport Canada, P.O.Box 1013, Dartmouth, Nova Scotia, B2Y 4K2.

SYDNEY, N.S.: 46.09 N. 60.12 W. (See Plan)

DOCUMENTS:
Crew's Declaration Y.14 in triplicate.
Ship's Stores E.1 in triplicate.
Crew Tally IMM.201 in duplicate.
Report Inward A.6 in triplicate.
PILOTAGE: Compulsory pilotage distance is approximately 12 miles and administered under the Atlantic Pilotage Authority. The area for Cape Breton Pilot embarkation is Sydney Outer Buoy: Lat. 46° 22′ N., Long. 60° 08′ W. To avoid delay in obtaining a Pilot, Masters must report by message addressed to Pilots, through Sydney Radio VCO or any Coast Radio Station 24, 12 and 6 hours before vessel's ETA.
ANCHORAGES: The land-locked harbour affords safe anchorage for a large number of any size vessels with depths ranging from 40 ft. to 60 ft.

RESTRICTIONS: Berthing allowed day or night. "Harbour Ice", January to March, "Drift Ice" April to May. Navigable with aid of ice breakers requested from Ice Control at Sydney.

MAX. SIZE: Max. draft 37 ft. Governed by least depth in channel of 38 ft. at the lowest normal tides (average rise and fall 3 ft. – 5 ft.).

HEALTH: Sydney is an official quarantine station. Radio Pratique obtained between 0900 and 1700 hrs. local time by radio message to "Quarantine Sydney". Information required from vessel is as follows:

- Name and nationality of vessel.
- Name of three previous ports called at during voyage.
- Port of destination and name of Agent.
- Nature of cargo.
- Date and place of last deratting or exemption certificate.
- Number of crew and passengers.
- Condition of health of all on board with details of any sickness or death occurring during the voyage.
- Vaccination status of crew and passengers.
- The ETA and any other information that may be required by the Quarantine Officers.

The ship will require usual inspection on arrival. However, Radio Pratique will enable vessel to enter port, dock and commence loading or unloading operations prior to official quarantine clearance. Vessels which have not applied for Radio Pratique and all vessels with suspected infectious disease aboard will remain in quarantine until cleared.

RADIO:

Station	*Call Letters*	*Freq. kHz*
Sydney Radio	VCO	500
Grindstone Island	VCN	500
Canso Radio	VAX	500
Halifax Radio	VBO	530
Cape Race	VCE	500

TUGS: Not necessary for docking powered vessels.

BERTHING: *Syd-Port Industrial Park:*

Main Jetty: The outer face of the main jetty is 850 ft. long with a 36 ft. depth at LW. The inner face is 800 ft. with a 26 ft. LW depth.

Outer Quay: The length of the East face wall is 750 ft. with 20 ft. at LWOST. The North face wall is 600 ft. with a maximum LW depth of 20 ft. graduating to 10 ft. LWOST.

Inner Quay: The inner wall is 1,100 ft. long with 20 ft. LW depth.

Services: The services include fresh water, sewage, electric power, all weather paved roads joining the Trans Canada Highway network and 4,564 feet of rail sidings connecting to major Canadian and U.S. rail systems.

Sydney Steel Corporation Piers:

No. 1 Pier: Berthing length 425 ft. Depth at LW 28 ft. Now used primarily for the loading of coke oven by-products (light oil and coal tar). Equipped with railway connections and 4 in. pipe-line for fresh water.

No. 3 Pier: (Bulk Discharge Berth) Berthing length 700 ft. Depth at LW 41 ft. Equipped to handle bulk cargoes by self-unloading boom type vessels and bulker type vessels. Self-unloading discharge into hopper and main in-haul conveyor system designed to handle iron ore pellets at a rate of 3,000 t.p.h. and coal at a rate of 1,500 t.p.h. Bulkers are unloaded by one 8 ton capacity Mobile Grab-Type Unloading Tower at a rate of approximately 7,000 tons per day. Travel distance 328 ft. Pier is also equipped with a 6 in. pipe-line for water, 12 in. pipe-line for diesel fuel and a 16 in. pipe-line for bunker fuel.

No. 4 Pier: (Steel Loading Berth) Berthing length 715 ft. Depth at LW 41 ft. Equipped with one mobile portal type 45 ton capacity crane to handle the loading of finished and unfinished steel products (including 25 m. steel rails) and the discharging of scrap and other general cargoes. Crane equipped with a 120 ft. hinged boom with a 60 ft. back reach. Travel distance 430 ft. Pier equipped with three railway tracks under centre section of crane and one track on the water side. Fresh water is available along with pipe-line for marine diesel and bunker fuel.

Cape Breton Development Corporation Coal Piers:

Coal Pier No. 4 has a berthing length of 810 ft. with 30 ft. of water alongside at LW. There is a 15,000 short ton storage pocket for coal and coke with an additional 2,000 tons loaded car storage over full bin. A conveyor belt system carries product to the pier head where it is boom loaded into vessels at an average rate of 2,000 short tons per hour. This pier, the main of a series of three is connected with the CN railway system. Equipped with 4 in. line for fresh water.

Also see "Shipmaster's Report" and "General".

Sydney Government Wharf:

The berthing length of the West face is 794 ft. with a 28 ft. LW depth. The South face is 300 ft. long sloping off to a 15 ft. LW depth. Facilities include a bonded warehouse (100 ft. × 200 ft.) and 100,000 square footage of bonded open storage with a rail spur line on the waterside with tailgate delivery in the rear. Fresh water and diesel bunkers also available.

STEVEDORES: Available by phoning Rowe Freight & Marine Service Ltd., (Tel: (902) 564-8452 Telex: 019-35275) 24 hours before ETA of vessel. Ships cargo gear is usually employed but mobile cranes up to 125 tonnes are available at short notice for extended hire.

MEDICAL: Two hospitals.

TANKERS:

Irving Oil Pier: Berthing length 24 ft. Depth alongside 23 ft. at LW. 2×8 in. pipe-lines.

Petrofina Wharf: "T" head pier. Berthing length 74 ft. Depth alongside 22 ft. 1×10 in. pipe-line.

DENSITY: Average 1023.

FRESH WATER: Available anytime, supplied through 2.5 in. hose at rate of 25 t.p.h., cost depending on tonnages, from $1.00 to 0.45 cents per ton, plus labour.

FUEL: Marine diesel, bunker fuel and galley fuels are obtainable by pipe-line at Pier Nos. 2, 3 and 4. Rate of bunkering approximately 100 t.p.h.

Suppliers: Northern Petroleum Ltd., 48 Fairview Street, Sydney, N.S. B1P 1P9. Tel: (902) 564-5152.

Gulf Canada, 2020 University Street, Montreal, P.Q. H3A 2L4. Tel: (514) 284-7837.

Petrofina Canada Inc., Marine Terminal, Sydney River, N.S. Tel: (902) 539-6446.

Irving Oil, Bulk Plant, Kings Rd., Sydney, N.S. Tel: (902) 564-5566.

GANGWAY/DECK WATCHMEN: Crew sufficient.

OPENING/CLOSING HATCHES: Crew.

CUSTOMS ALLOWANCES: 200 cigarettes or 0.5 lb. tobacco or 15 cigars, each officer. 40 oz. of spirit per officer.

IDENTIFICATION CARDS: Seaman's identity cards.

CONSULS:

British and Canadian Shipping Master.
Portugal Vice-Consul 794-3515.
Honorary French Consular Agent, North Sydney 794-4800.
Norwegian Vice-Consul, Sydney 564-9288.

REPAIRS/DRY DOCKS: The Sydney Engineering and Drydocks consist of two wharfs (370 ft. and 425 ft. long) with marine rail slips of 3,000 and 1,200 ton capacity and a 45 ton wharf crane. They have 40,000 sq. ft. of production plants using skilled marine tradesmen. Also see "North Sydney".

SURVEYORS: See "North Sydney".

REPATRIATION: Can be arranged.

AIRPORT: Served by Air Canada and Air St. Pierre.

TIME: Sydney is on Atlantic Standard Time from the last Sunday in October to the first Sunday in April, and on Atlantic Daylight Time from the first Sunday in April to the last Sunday in October. GMT minus 4 hours on Atlantic Standard Time and GMT minus 3 hours on Atlantic Daylight Time.

HOLIDAYS: Christmas Day; New Year; Good Friday; Dominion Day; Thanksgiving Day; Labour Day. No work as a rule from 0800 to 0800 hrs. next day.

POLICE/AMBULANCE/FIRE: Police 564-4415; Ambulance 564-5507; Fire 539-3552.

EMERGENCY CO-ORDINATION CENTRE: Canadian Coast Guard: Oil spills and other emergencies from Sydney Harbour Area (no charge) ask operator for Zenith 49000.

SERVICES: Compass adjusting, tank cleaning.

SHORE LEAVE: Allowed.

GENERAL: *Loading Devco Coal:* The Canadian Coast Guard has issued instruction for Masters loading Devco coal at Sydney.

All Masters will receive the instructions before loading commences and Coast Guard surveyors will be in attendance prior to and during loading.

One of the important instructions is that the vessel must be equipped with a suitable surface ventilation system.

DEVELOPMENTS: A feasibility study is to be carried out at Sydney to assess the viability of a floating grain transfer terminal, linked by causeway to the shore. A vessel of 250,000 d.w.t. would be equipped with modern weighing and handling facilities and remain fixed to the harbour bottom. Positive study results would enable erection in 1988.

SHIPMASTER'S REPORT: February 1988.

Cape Breton's International Coal Pier has only one fixed pipe and is very unsuitable and unsafe for larger vessels, especially during Westerly winds, so it is suggested that Masters give a Letter of Protest to whom it may concern immediately after berthing. It is also suggested that the Chief Officer checks the density and reduces it for water temperature as the water is brackish, otherwise they can have significant discrepancies in quantity of cargo to be loaded.

Max. air draft permitted at pier is 30 ft.

AUTHORITY: Transport Canada, P.O.Box 548, Sydney, Nova Scotia BIP 6H2. *Contact:* Donald W. Rowe, Harbour Master. Tel: (902) 564-8427.

TADOUSSAC, Quebec: 48.08 N. 69.43 W.

LOCATION: Situated on North shore of Saguenay River, about 5 miles North of junction with St. Lawrence River.

ANCHORAGES: Available in Tadoussac Bay with depths from 7 – 18 fathoms.

RESTRICTIONS: Navigation season, April 1st to November 30th.

MAX. SIZE: Max. draft alongside 20 ft.

RADIO: Mont-Joli (VCF).

TUGS: Available, not normally required.

BERTHING: Transport Canada Wharf, length 235 ft., depth alongside 28 ft. LW., situated in Tadoussac Bay

FRESH WATER: Available.

AUTHORITY: Transport Canada, Region des Laurentides, 104 Dalhousie, Quebec. P.O.Box 2055, Quebec Terminus, Quebec G1K 7M9. *Tel:* 694-3680 *Telex:* 051-3051. *Contact:* Denis Pelletier, Operations and Properties Manager. Pierre Tremblay, Harbour Master, Tadoussac. *Tel:* 235-4209.

THOROLD, Ontario: 43.05 N. 79.10 W.

LOCATION: Town on Welland Canal, about 8 km. South of Port Weller and 32 km. North of Port Colborne, both ports being the entrances of the Canal linking Lake Ontario with Lake Erie.
RESTRICTIONS: Channel depth: Maximum permissible draft in the Welland Canal and approaches is 7.92 m. (26 ft.). Navigation season: April 1st to December 30th on the average.
HEALTH: Incoming vessels obtain clearance at Quebec City when coming from a foreign port.
RADIO: Ship-to-shore communications: Through Toronto Coast Guard (VBG) or Buffalo (WBL).
BERTHING:
Industrial Dock, Wharf No. 5:
Type: Coal.
Equipment: Self-unloaders.
Length: 152.4 m. (500 ft.)
Depth: 5.50 m. (18 ft.)
Operator: Industrial Docks & Supplies Ltd.

Industrial Dock, Wharf No. 6:
Type: Various Bulk and General Cargo Commodities.
Equipment: 1–2.7 ton Crawler Crane, 1–3.2 ton Crawler Crane.
Length: Dock Wall 121.9 m. (400 ft.),
Berth 342.9 m. (1,125 ft.)
Depth: 8.23 m. (27 ft.)
Capacity: 90,000 tonnes.
Operator: Industrial Docks & Supplies Ltd.

Ontario Paper Pulpwood Dock, Wharf No. 7:
Type: Unloads Pulp and Chemicals.
Equipment: Ship's Gear
Length: 186 m. (610 ft.) plus 210 m. (690 ft.) between dolphins at East end.
Depth: 8.23 m. (27 ft.)
Capacity: 90,000 Cords Pulpwood.
Operator: The Ontario Paper Company Ltd.

Ontario Paper Dock, Wharf No. 8:
No longer in commercial use.
Length: 132.3 m. (434 ft.)
Depth: 7.3 m. (24 ft.)

Beaverboard Dock, Wharf No. 9:
No longer in commercial use.
Length: 306.3 m. (1,005 ft.)
Depth: 8.23 m. (27 ft.)
MEDICAL: Maplehurst Hospital, Thorold; St. Catharines General Hospital, and Hotel-Dieu Hospital, both in St. Catharines.
REPAIRS: Minor repairs possible.
DRY DOCKS: None.
SERVICES: Supplies available.
HOLIDAYS: Customs and Canal Officials always available during the season.
AUTHORITY: St. Lawrence Seaway Authority, Western Region, P.O.Box 370, 508 Glendale Avenue, St. Catharines, Ontario L2R 6V8. *Tel:* (416) 641-1932. *Contact:* J. B. McLeod, Regional Vice-President.

THUNDER BAY: 48.25 N. 89.13 W. (See Plan)

For important General Information refer to "St. Lawrence Seaway".
DOCUMENTS: As inland Port all documentation carried out by Authorities in Montreal, prior arriving. Only when vessels have called at United States Port after departing Montreal, and prior arriving at Thunder Bay, will any changes in documentation be necessary; which will consist of a United States Customs Clearance. Certificates to be available on board:
Immigration papers.
1 copy QS 2 (Health Certificate).
3 copies of Ships' Stores.
Crew Declaration.
Customs Clearance.
All of the above will have been stamped in Montreal.
PILOTAGE: Pilots are obtained by Agent at Master's request, at which time the location of boarding the ship will be stipulated. Ship's Masters are able to contact Agent by ship-shore duplex through VBA Marine Radio, Thunder Bay.
ANCHORAGE: Anchorage areas defined by Thunder Bay Harbour Commission but due to large area and number of entrances to Harbour, Masters are permitted considerable latitude in making own decisions. Usual areas are approximately 1 mile outside of Harbour breakwall, free of shipping lanes. However, Masters should be guided by the advice of Thunder Bay Harbour Commission Radio, VDX 30.
HEALTH: Pratique granted at Montreal.
TUGS: Arranged mutually by Shipmaster's and Agents on arrival in port. Ship lines used. Four tugs available.
Tug Service: Gravel & Lake Services
P.O.Box 2180
Thunder Bay, Ontario
(807) 345-7305

1/2 WHITE

Western Engineering Services Ltd.
274 Kingston Street
Thunder Bay, Ontario
(807) 577-8411

RADIO: Two radio stations; VBA Thunder Bay, is Transport Canada station offering duplex services; VDX 30, Thunder Bay Harbour Commission is operated for the sole purpose of monitoring vessel arrivals and departures and as a safety advisor.

VBA and VDX 30 both operate 24 hours per day during shipping season on following frequencies:

VBA Canadian Coast Guard Radio Station, Federal Post Office Building, 244-33 South Court Street, Thunder Bay, Ontario P7B 5L2. Temp. Tel. (807) 345-8084.
(FM) Channels 12, 26, and 28
VDX 30
(FM) Channels 12, 16 and 14

VBA: Thunder Bay Coast Guard Radio
Telecommunications Operations Manager
Canadian Coast Guard.
244 Lincoln St., Room M 11.
(807) 345-4918
VDX 30: Thunder Bay Harbour Commission
P.O.Box 2266
Thunder Bay, Ontario
(807) 345-6400

BERTHING: Navigational Channels for approaching or leaving the Port of Thunder Bay are identified on Canadian Hydrographic Chart 2301. Chart 2314 is the official chart for navigation within the Port. All vessels within the harbour limits are subject to Thunder Bay Harbour Commission By-Laws.

The Port is divided into four sections: Main Harbour North, Main Harbour Centre, Main Harbour South and Delta Harbour. There are three entrances into Main Harbour and two entrances into Delta Harbour. The Port is accessible on a 24 hour basis.

Berthing Facilities:

Main Harbour North:	
Abitibi-Price – Thunder Bay Mill	
Berthing length 160 m.	Forest Products
Berthing length 22 m.	Coal Wharf
Port Arthur Shipbuilding Co. (PASCOL)	
Dry dock 228 m.	Shipbuilding
Marginal dock 427 m.	and Repairs
United Grain Growers "A" Berthing length 320 m.	Grain
Saskatchewan Wheat Pool 4A and 4B Berthing length 320 m.	Grain
Richardson Terminals Ltd. Berthing length 396 m.	Grain
Great West Timber Berthing length 250 m.	Forest Products.
Main Harbour Centre:	
Saskatchewan Wheat Pool 6 Berthing length 292 m.	Grain
CNR High Dock	
North side berthing length 463 m.	Dock only
South side berthing length 463 m.	
Northern Wood Preservers Berthing length 189 m.	Forest Products
Manitoba Pool Elevator 3 Berthing length 346 m.	Grain
Canada Malting Co. Ltd. Berthing length 305 m.	Grain
Saskatchewan Wheat Pool 7A Berthing length 500 m.	Grain
Saskatchewan Wheat Pool 7B Berthing length 510 m.	Grain
United Grain Growers "M" Berthing length 378 m.	Grain
Manitoba Wheat Pool Berthing length 436 m.	Grain
Parrish & Heimbecker Berthing length 350 m.	Grain
Main Harbour South:	
Transport Canada – Coast Guard	Government Dock
Berthing Length 122 m.	Helicopter Landing Pad
Keefer Terminal	
Berthing length 196 m.	General Cargo Facility
Berthing length 365 m.	Ocean Freight Lake Freight
Berthing length 215 m.	Marginal Wharf, Mobile Cranes, Water, Telephone, & Hydro Storage
Woodland Marine (At Keefer Terminal)	Great Lakes general cargo service
Delta Harbour:	
Imperial Oil Ltd.	Berthing for own
Berthing length 2 dolphins	Tankers Fuelling Facilities
Thunder Bay Terminals Ltd. Berthing length 223 m.	Dry Bulk Transhipment Facilities

Incan Superior Ltd. Berthing length 366 m.	Ro/Ro Service for Rail Cars
Husky Oil Ltd. Berthing length 22 m.	Berthing for own Tankers
Shell Canada Ltd. Berthing length 28 m.	Berthing for own Tankers
Texaco Canada Inc. Berthing length 23 m. and 2 dolphins	Berthing for own Tankers
CP Rail Wharf Berthing length 223 m.	Open Dock
St. Lawrence Cement Co. Berthing length 90 m.	Dry Bulk Cargo Dock
Saskatchewan Wheat Pool 8 Berthing length 305 m.	Non-operating
Mid Canada Marine Works Berthing length 283 m.	Open dock only
Allied Chemical Co. Ltd. Berthing length 174 m.	2 Breasting Dolphins
Superior Grain By-Products Berthing length 198 m.	Grain By-Products
Western Grain By-Products Berthing length 160 m.	Grain By-Products
N.M. Paterson & Sons Berthing length 274 m.	Repair Dock
Dow Chemical Ltd. Berthing length 60 m.	Marginal Dock
Great Lakes Forest Products Ltd. Berthing length 350 m.	Forest Products
Gulf Canada Ltd. Berthing length 46 m.	Berthing for own Tankers
Valley Camp "A" Berthing length 223 m.	Dry bulk transhipment facility
Valley Camp "B" Berthing length 389 m.	Dry bulk transhipment facility
Ontario Hydro Generating Station Berthing length 207 m.	Marginal Dock
Saskatchewan Wheat Pool 15 Berthing length 411 m.	Grain
Cargill Grain Ltd. Berthing length 518 m.	Grain
Abitibi-Price (Mission Mill) Berthing length 646 m.	Marginal Dock

BULK HANDLING FACILITIES:

Grain Elevators: Cargill, Saskatchewan Co-op 15, Parrish & Heimbecker (Superior), Manitoba Pool 1, United Grain Growers "M", Saskatchewan Pool 7, Canada Malting, Manitoba Pool 3, Saskatchewan Pool 6, Richardson, Saskatchewan Pool 4A, Saskatchewan Pool 4B, United Grain Growers "A", Western Grain By-products.

Capacity for over 85 million bushels.

DRY BULK FACILITIES:

Valley Camping: System No. 1 – Free Flowing Dry Bulk facility has all weather covered conveyors, dumper pit, quadrant-type shiploaders. Length of berth 201 m.

System No. 2 – Free Flowing Dry Bulk Transfer facility has ship loaders, dumper pit, radial stacker, mobile bucket wheel claimers.

System No. 3 – Bulk Commodity dock has two gantry bridge cranes of 20 tons and 12 tons capacity.

Storage available.

Thunder Bay Terminals Ltd: System No. 1 – Coal Handling System has rotary dumper, thaw shed, radial traversing stacker, radial traversing bucket wheel reclaimer, bridge-type shiploader with 360° rotating spout.

System No. 2 – Dry Bulk Handling System has shiploaders, 3-car enclosed dumper shed (bottom dumping), 84 in. wide variable speed conveyor belts.

Storage available.

GENERAL CARGO FACILITIES: The Keefer Terminal is the principal general cargo berth available at Thunder Bay. The ocean vessel shed is 121.9 m. long, has a dock 198.1 m. long with a maximum apron width of 19.8 m. All types of import and export general cargo can be handled at this Terminal. Rental mobile cranes are available.

CRANES: *Crane & Equipment Rentals:* Thunder Bay Harbour Improvements Ltd., P.O.Box 2119, Thunder Bay, Ontario. Tel: (807) 344-7294.

MEDICAL: All facilities available and may be arranged through Agent or by calling 623-7451.

DENSITY: Fresh water port. No tide.

FRESH WATER: Available. Contact: Keefer Terminal, P.O.Box 2266, Thunder Bay, Ontario. Tel: (807) 345-6400.

FUEL: Light diesel available by tank truck. Bunker "C" only in emergencies. Contact: Imperial Oil Limited, 1020 Pacific Avenue, P.O.Box 632, Thunder Bay, Ontario. Tel: (807) 623-1551.

GANGWAY/DECK WATCHMEN: May be arranged through Agent.

OPENING/CLOSING HATCHES: Normally done by crew.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes or 50 cigars every 7 days. Spirit/Wine: Officers: 1 bottle liquor each 7 days. Crew: Beer only, at Master's discretion.

CARGO GEAR: Normal safety certificate only required. No special port regulations.

CONSULS: Following countries are represented at Lakehead: Denmark, Finland, Greece, Italy, Netherlands and Norway.

REPAIRS: Full repairs available. Includes mobile equipment by both land and water conveyances.

Ship Repair and Building: PASCOL, P.O.Box 2690, Thunder Bay, Ontario. Tel: (807) 683-6261.

Fabmar Industrial & Marine Fabricators, 1019 Pacific Avenue, Thunder Bay, Ontario P7C 2S7. Tel: (807) 623-5212.

Western Engineering Services Ltd., 247 Kingston Street, Thunder Bay, Ontario. Tel: (807) 577-8411.

SURVEYORS: *Surveyors & Weighers (Consulting):* SGS Supervision Services Inc., 203 Briar Bay, P.O.Box 1101, Thunder Bay, Ontario. Tel: (807) 577-5751.

Thunderbell Marine Consultants, 202-244 Camelot Street, P.O.Box 2116, Thunder Bay, Ontario. Tel: (807) 344-7442.

Steamship Inspection: Transport Canada, 325-33 S. Court Street, Thunder Bay, Ontario. Tel: (807) 345-6953.

DRY DOCKS: One available, length 227.69 m. by 29.87 m. Full service machine and welding shops on site.

AIRPORT: Served by regular airlines with connections to any destination.

TIME: Eastern Standard Time GMT minus 5 hours. Daylight saving time from first week-end in April to last week-end October, clocks advanced 1 hour.

HOLIDAYS: During shipping season from April to mid-December on which stevedores do not work: May 24th, July 1st, September 1st, and Thanksgiving Day (October). Work can be arranged at overtime rates.

POLICE/AMBULANCE/FIRE: Thunder Bay City Police Tel: 623-6471 and 911. Fire and Ambulance contacted most easily through "VBA" Thunder Bay or Tel: 623-5123 and 623-4542 respectively.

TELEPHONES: Telephones at Keefer Terminal only.

SERVICES:

Compass Repairs: Sperry Marine Systems, Thunder Bay Telecommunications, Thunder Bay, Ontario. Tel: (807) 623-1211.

Mr. Ron Thomson (setting only), 36 McKibbon Street, Thunder Bay, Ontario. Tel: (807) 344-6481.

Garbage Removal: Thunder Bay Marine Services Ltd., P.O.Box 2565, Thunder Bay, Ontario. Tel: (807) 344-9221.

Radio Repairs: Thunder Bay Communications, 1135-A Russell Street, Thunder Bay, Ontario. Tel: (807) 623-1211.

Miskelly's Electronics Limited, 60 Squire Street, Thunder Bay, Ontario. Tel: (807) 345-3641.

Missions to Seamen: Missons to Seamen, Keefer Terminal, P.O.Box 3192, Thunder Bay, Ontario. Tel: (807) 344-8241.

Ship Chandler: Frank's Locker Service, 142 S. Hardisty Street, Thunder Bay, Ontario. Tel: (807) 623-4322.

Bay Quality Meats, 282 Bay Street, Thunder Bay, Ontario P7B 1R8.

Waste Removal: A-1 Sewage Services Ltd., R.R. No. 5, Highway 17, Thunder Bay, Ontario. Tel: (807) 939-2712.

Potter Plumbing Services Ltd., R.R. No. 1-2400 Rosslyn Road, Thunder Bay, Ontario. Tel: (807) 577-5221.

GENERAL: All vessels entering, moving in, or departing Port of Thunder Bay required to contact VDX 30 prior making such move. Initial contact must be made before entry from area designated as "Welcome Islands" giving particulars of destination within Harbour and routes to be traversed.

SHIPMASTER'S REPORT: June 1980 (Updated 1986).

Port Limits: Consist of the area surrounded by the chain of islands of which "The Sleeping Giant" is the largest.

Documentation: Generally dealt with at Montreal but Customs, Immigration may board. The bond can be opened after Montreal and sealed again at Thunder Bay.

Pilotage: Arranged in advance by Agent in collaboration with Seaway Authority.

Anchorages: As indicated on Chart 2314. 1 mile of breakwater at the Northern end. Care should be taken to avoid blocking any of the entrances.

Max. Size: Loading draft limited by Seaway Authority at 26 ft. 00 in. on arrival at Lock 8, Welland Canal. Size of vessel limited by Seaway Authority.

Pratique: Through Montreal, where vessel anchors prior to seaway passage.

VHF: Communication through Channels 16, 9, 6, 14, "Thunder Bay Harbour Commission Advisory Radio" or "Pilot".

Tugs: Two of 800 h.p. each. Use ship's lines for securing.

Bridges: Minimum bridge height 130 ft. above water level.

Medical: Seven hospitals.

Density: Fresh water.

Fuel: None except in emergency.

Consuls: None.

Repairs: Minor repairs can be undertaken.

Gangway/Deck Watchman: Unnecessary.

Hatches: Opening and closing by ship's crew.

Customs: Allowance consistent with Montreal (i.e. 1 bottle of spirits and 300 cigarettes).

Cargo Gear: Discharge by ship's gear or mobile crane (expensive).

Airport: Locally with service to all major airports in Canada.

Repatriation: Possible.

Telephone: Facilities at each terminal, none on board.

Shore Leave: Unrestricted.

Identification Cards: None issued locally, but advise taking own ashore.

General: Loading grain vessel should be clean on arrival and ready for inspection by Port Warden. Grain loading documents should be completed prior to arrival.

AUTHORITY: Port of Thunder Bay, Harbour Commission, P.O.Box 2266, Thunder Bay, Ontario P7B 5E8. *Tel:* (807) 345-6400. *Fax:* (807) 345-9058. *Telex:* 073-4347. *Contact:* C. A. Cook, Port Manager. Captain R. J. Legros, Harbour Master.

TORONTO, Ontario: 43.40 N. 79.25 W. (See Plan)

For important general information refer to "St. Lawrence Seaway".

DOCUMENTS: Master should prepare for boarding of Customs, Immigration Officers:

Customs: Crew Declaration Lists (in triplicate) and Ship Store Lists (in triplicate).

Immigration: Crew List and Passenger List (in duplicate).

PILOTAGE: As required by Great Lakes Pilotage Authority.

ANCHORAGES: Vessels anchor in Humber Bay or in Inner Harbour. Anchorages allotted by the Harbour Master.

RESTRICTIONS: Vessels may enter port area at any time.

MAX. SIZE: The port has facilities to accommodate any vessel which can navigate the St. Lawrence Seaway Locks.

Max. size of vessels permitted to transit the Seaway:

(a) Ships not exceeding 730 ft. overall and 75 ft. 6 in. extreme breadth may transit.

(b) Masts must not exceed 117 ft. above the water level.

(c) Max. draft 26 ft.

HEALTH: See "Montreal".

RADIO: Controlling radio station in the Toronto area is VBG Toronto. A port communications centre is located in the Harbour Master's Office and operated for emergency, safety and operational requirements. Ships entering Toronto Harbour should contact the Toronto Harbour Master's Office for information by radio telephone. Call sign XJF on frequencies:

156.8 MHz – Safety and Calling
156.6 MHz – Working
156.7 MHz – Alternate Working

TUGS: Not normally required but available. Tugs use ship's lines.

BERTHING: 20 berths available, 2 of which are Ro/Ro berths.

BRIDGES: Two bridges – Ship Channel Bridge and Keating Channel Bridge. Both lift bridges, no height restriction.

SPECIALISED CARGO HANDLING FACILITIES: The following companies offer berthage and storage for the bulk commodities indicated:

Liquid Chemicals: Allied Chemical Co., Domtar (no waterside storage tanks, trucked directly from vessel). Liquiterminals at Berth No. 425.

Cement: Lake Ontario Cement, Canada Cement Lafarge.

Molasses: Gooderham & Wortz.

Oil: Texaco, Imperial Oil, Sun Oil, Canadian Fuel Marketers, BP, Gulf, Shell, Roy-L Canadian Fuel, Milnes Fuel Oil, Caloil.

Salt: Canadian Salt Co., Sifto Salt, Iroquois Salt.

Chemicals: Domtar.

Sugar: Redpath Sugars Ltd.

Vegetable Oils: Rothesay Concentrates Co. Ltd., Liquiterminals Ltd., Victory Soya Mills.

Grain: Toronto Elevators Ltd., Victory Soya Mills.

CRANES: Stationary dockside crane, capacity 300 short tons at Marine Terminal 35, floating crane 50 ton capacity and mobile crane 40 ton capacity available.

STEVEDORES: General rule is 24 hours notice.

To work ship at 1300 hrs., order gangs by 1030 hrs. the same day.
To work ship at 1800 hrs., order gangs by 1600 hrs. the same day.
To work ship at 0800 hrs., order gangs by 1530 hrs. previous day.

MEDICAL: Doctor and hospital facilities available.

TANKERS: Diameter of load/discharge lines are the American Standard 8 in. Max. draft at berths is 26 ft.

DENSITY: Fresh water.

FRESH WATER: Available at all berths.

FUEL: In most cases, vessels bunker in Montreal. Fuel available at 12 hours notice, either by road tanker or at oil berths.

Shipmaster's Report: Fuel and lub-oils only delivered by road tankers and vessels are not allowed to bunker while alongside Redpath Sugar Berth. Bunkers not available on Sundays and holidays due to Department of Transportation regulations ruling that no trucks are allowed on highways those days.

GANGWAY/DECK WATCHMEN: Crew member or hired by Agent.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CERTIFICATES:

Certificate of Registry.
Articles of Agreement.
Log Book.
Safety of Life at Sea.
Safety Equipment Certificate.
Safety Construction Certificate issued by the Country to which the ship is registered.

CUSTOMS ALLOWANCES: Tobacco, Crew entitlement on first arrival in Canada – 200 cigarettes, 50 cigars, 2 pounds of tobacco. Wine and/or Spirit, Crew entitlement on first arrival in Canada – 40 oz. of spirits, liquors or wines.

CARGO GEAR: Vessel requires a tackle equipment book and a certificate covering cargo equipment which must be kept up to date and notated every 12 months by a competent person. Port of Toronto has modern equipment including stationary Atlas crane, 300 ton capacity; mobile container crane designed for loading and unloading 20 ft. and 40 ft. containers; 56 ton overhead lift truck equipped with a 40 ft. spreader frame. Two additional container handlers and 50 ton floating crane. Private cranes, ranging in capacity from 20 tons to 150 tons are available by arrangement.

IDENTIFICATION CARDS: Visitor passes available from port police office.

REPAIRS: Most repairs not requiring dry dock can be carried out in Toronto. Nearest dry dock is located at Port Weller, 30 miles distant.

REPATRIATION: All facilities.

AIRPORT: (1) Toronto Island Airport located at Western end of harbour. General aviation only with regular airlines.

(2) Toronto International Airport approximately 15 miles distant. Airport is served by nine regular airlines.

CONSULS:

Belgium
Brazil
Colombia
Costa Rica
Cuba
Denmark
Ecuador
El Salvador
Finland
France
Germany F.R.
Greece
Guatemala
Israel
Italy
Japan
Lebanon
Mexico
Netherlands
Nicaragua
Norway
Peru
Portugal
Spain
Sweden
Switzerland
Thailand
Turkey
United States
Yugoslavia

TIME: GMT minus 5 hours. Two alterations made to clocks during year (1) First Sunday morning in April, Eastern Standard Time to Eastern Daylight Time 1 hour ahead. (2) Last Sunday morning in October, Daylight Time to Eastern Standard Time 1 hour back.

HOLIDAYS: Work can be arranged on any holiday at double time rate with the exception of Labour Day which is the first Monday in September of each year. No work is done on this day.

POLICE/AMBULANCE/FIRE: Emergency numbers as follows: Marine Unit 967-3008; Port Security 462-1244; Emergency No. 911.

TELEPHONES: No arrangements available for placing telephones on board.

SHORE LEAVE: No restrictions.

AUTHORITY: The Toronto Harbour Commissioners, 60 Harbour Street, Toronto, Ontario, Canada M5J 1B7. *Tel:* (416) 863-2000. *Telex:* 06-219666. *Fax:* (416) 863-4830. *Cables:* Torport or Worldtrade Toronto. *Contact:* John Jursa, Director – Public Affairs. Ian Brown, General Manager.

TROIS RIVIERES, Quebec: 46.22 N. 72.34 W. (See Plan)

DOCUMENTS:

2 sets Crew Lists.
2 sets Passenger Lists.
3 sets Customs Documents.
3 copies Health Documents.
6 sets Manifests.
6 sets Bills of Lading.
3 sets Ship's Papers.

PILOTAGE: Pilots take charge of vessel at Quebec for Trois Rivieres destination. See "Quebec" for further information.

ANCHORAGES: No vessel shall, except in an emergency, anchor within the harbour without prior permission from the Port Manager and then only at such place as is assigned. The anchorage area used for Trois-Rivieres is located approximately 2 miles up river.

RESTRICTIONS: Port open to navigation 12 months of the year. From January – March inclusive, vessels should be reinforced for ice.

MAX. SIZE: Max. draft 10.6 m. (no tide).

HEALTH: Trois-Rivieres is a Port of Entry. Port doctor at the service of vessels. Also see "Montreal".

RADIO: St. Lawrence River Marine Traffic Control call system letters VBK Trois-Rivieres.

TUGS: Not usually considered necessary for berthing ships. However tugs can be made available upon advance notice.

BERTHING: 20 berths are available, including 16 open and 4 shedded. Total berthing length: 3,318 m., including 2 private berths.

Ports Canada Facilities:

Berth No.	*Wharf Length* (m.)	*Depth at LW* (m.)	*Remarks*
1	152.4	9.1	Shed
2	121.9	9.1	
3	217.9	9.1	
4	117.3	6.4	
6	91.4	6.4	
7	91.4	6.4	
9	99.0	6.4	
10	251.0	10.6	2 Sheds
11	229.0	10.6	Shed/Ro-Ro ramp
13	182.9	9.1	Shed
14	152.4	10.6	Shed
15	121.9	10.6	
16	175.3	10.6	
17	221	9.1	
19	221	9.1	
20	221	10.6	
Cap-de-la-Madeleine	122.5	9.1	
Ste Angele	197.8	4.8	

Private Facilities:

Name of Berth	*Length* (m.)	*Depth LW* (m.)	*Remarks*
Canadian International Paper Company's Wharf	226.8	9.1	Receiving pipe-line for bunker oil. 4×2.5 ton cranes for pulpwood
Consolidated Bathurst (Wayagamack Division) Wharf	103.6	8.5	Receiving pipe-line for Bunker oil

Grain Facilities:

Elevators	Capacity in tonnes	Loading galleries at berth	Loading capacity tonnes per hour	Remarks
No. 1 No. 2 No. 3	163,000	16	2,100	2 Marine legs at Berth 17 Unloading capacity 1,960 tonnes per hour

CRANES: Mobile cranes (private) up to capacity 200 tons available.
STEVEDORES: Stevedores available through local stevedoring firms.
MEDICAL: If medical service is required upon arrival, call through No. 7 (St. Lawrence River Marine Traffic Control System). Hospital facilities available.
TANKERS: Diameter of oil lines 8 in. and 12 in. No slop discharge facilities. 4 tanker berths – 2 for 30 ft. draft and 2 for 35 ft. draft.
FRESH WATER: Hoses connected to harbour hydrants at 14 berths; rate 20 t.p.h.
FUEL: Certain types of fuel oil, in quantity, supplied to ships by Ultramar Canada Inc. Diesel oil is also available.
GANGWAY/DECK WATCHMEN: Not necessary except if dangerous cargo on board.
OPENING/CLOSING HATCHES: Carried out by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes each and/or 2 lb. tobacco. Wine and/or Spirits: One bottle each.
IDENTIFICATION CARDS: Seamen's card and/or passport.
CONSULS: At Montreal.
DRY DOCKS: None.
REPAIRS: Minor repairs done by local machine shops.
REPATRIATION: Can be arranged.
TIME: EDST from first Sunday of April to last Sunday of October, then normal EST.
AIRPORT: 5 miles distant. No scheduled flights.
HOLIDAYS: New Year's Day (Jan. 1st and Jan. 2nd); Good Friday; Easter Monday; Victoria Day; St. Jean Baptiste Day; Canada Day; Labour Day; Thanksgiving Day; Remembrance Day; Christmas Day, Boxing Day (Dec. 25th and Dec. 26th).
POLICE/AMBULANCE/FIRE: Police and Fire 374-3535; Ambulance 373-0505, 376-1212, 376-1286; Poison Treatment 374-6211.
SERVICES: Compass adjusting only.
SHORE LEAVE: Crew allowed ashore.
AUTHORITY: Ports Canada, Port of Trois-Rivieres, 1545 du Fleuve, P.O.Box 999, Trois-Rivieres, Quebec G9A 5K2. *Tel:* (819) 378-3939. *Telex:* 05-837226. *Fax:* (819)378-2487. *Contact:* Paul Alain, Eng., Port Manager.

TWILLINGATE, Newfoundland: 49.40 N. 54.45 W. (See Plan)

PILOTAGE: Pilotage is not compulsory, however, a licensed Pilot is available if desired. A Pilot can be arranged by giving 24 hours notice of requirement to "Pilots, St. John's".

The Pilot will board off St. John's in position Lat. 47° 33′ 42″ N., Long. 52° 37′ 54″ W. or off Twillingate Harbour provided the vessel's Local Agent arranges for a boat to embark the Pilot. The Atlantic Pilotage Authority pilot boat No. 2 is used at St. John's; this boat guards VHF Channels 16 and 11 (156.8 and 156.55 MHz). Alternatively, Shipmasters may arrange to use local persons in the community for pilotage purposes.
ANCHORAGES: The anchorage in Twillingate Harbour is not good as it is open to N.E. winds that send in a heavy sea, and the holding ground is indifferent. The best anchorage is off the West shore N.E. of Twillingate Wharf Light in depths of 6 fathoms (11 m.).
RESTRICTIONS: Navigable from April to February.
BERTHING: The Government Wharf, on the West side of the harbour about 1.4 miles South of Cuckold Point, is 300 ft. (91 m.) long and 35 ft. (11 m.) wide. On the North side of the wharf, the outer 90 ft. (27 m.) decreases gradually from a depth of 34 ft. (10.4 m.) at the head to 21 ft. (6.4 m.), and the next 70 ft. (21 m.) gradually decreases to 13 ft. (4 m.). On the South side, the outer 90 ft. (27 m.) decreases from a depth of 33 ft. (10.1 m.) at the head to 15 ft. (4.6 m.), and the next 90 ft. (27 m.) decreases to a depth of 5 ft. (1.5 m.).

At the boat landing, at the root of the South side of the pier, there is a depth of 2 ft. (0.6 m.). The deck of wharf has an elevation of 10 ft. (3 m.).

A shed 90 ft. (27 m.) long and 41 ft. (12 m.) wide stands on the Government Wharf and is the base for the Canadian Coast Guard Search and Rescue Station. A bait depot is located adjacent to the Government Wharf.

A rubble mound breakwater 560 ft. (171 m.) long extends West from the North end of Fishery Products Wharf, situated on the East shore near the head of the harbour, Three finger piers, with depths of 5 ft. to 8 ft. (1.5 m. to 2.4 m.) alongside, extend 240 ft. (73 m.) South from this breakwater.

At Jenkins Cove, on the N.E. side of the harbour, there is a Community Wharf 163 ft. (50 m.) long and 21 ft. (6 m.) wide with a least depth of 11 ft. (3.4 m.) at the face. A wharf and fish storage shed extend at a right angle from the Community Wharf; this wharf is 175 ft. (53 m.) long with a depth of 3 ft. (0.9 m.) alongside the face.

Another wharf, at Jenkins Cove, is 200 ft. (61 m.) long and 20 ft. (6.0 m.) wide with a reported depth of 15 ft. (4.6 m.) at HW at outer end.
MEDICAL: Full hospital facilities available. Tel: (709) 884-2131.
SURVEYORS: Not available locally. Lloyd's Register, P.O.Box 5054, St. John's, Newfoundland, A1C 5V3. Tel: (709) 726-0543, (709) 368-2538 (Residence).
GANGWAY/DECK WATCHMEN: Usually crew.
CARGO GEAR: Mobile crane can be arranged through Agent.
AIRPORT: 100 km. by paved road to International Airport (Gander).
POLICE/AMBULANCE/FIRE:

Police: R.C.M.P. local detachment (709) 884-2811.
Ambulance: Available locally (709) 884-2131.
Fire: (709) 884-2224.

EMERGENCY CO-ORDINATION CENTRE: Coast Guard, St. John's. Tel: (709) 772-5151 or ask operator for Zenith 07021.
SHORE LEAVE: No restrictions.
BANKS: Scotia Bank (709) 884-2121.
GENERAL: Chart No. 4548 covers the port.
AUTHORITY: Transport Canada, P.O. Box 1300, St. John's, Newfoundland, A1C 5H8. *Tel:* 772-5154. *Telex:* 061-3369. *FAX:* 2193. *Contact:* D. A. Lester, Regional Manager.

VANCOUVER, B.C.: 49.17 N. 123.07 W. (See Plan)

The port is located in an excellent sheltered natural harbour, open to navigation all year round with a minimum depth of 15 m. in the approach channel and at many berths.
PORT LIMITS: The seaward boundary of the inner port within which a vessel is considered to be an "arrived vessel" is a line drawn between Port Atkinson and Port Grey at the entrance to English Bay. The seaward boundary of the outer port is running North-South between the North Arm of the Fraser River and the International Boundary and being 5 miles offshore in the Straits of Georgia.
DOCUMENTS: The following documents are required to be prepared prior to arrival:

3 copies Canadian Customs Form E1-List of ship's stores.
3 copies Canadian Customs Form Y14-List of crew's possessions.
3 copies List of ship's slop chest stores for sale.
3 copies Canadian Immigration Form 200-Crew List.
1 copy Canadian Quarantine Form CS1.

Manifests and other documents are prepared by the Agent.
PILOTAGE: Pilotage is compulsory. Pilots board at the Fairway Buoy off Victoria, Vancouver Island. ETA to be sent to "Pilots Victoria" at least 12 hours before arrival and confirmed 4 hours before arrival. Distance to Vancouver – 135 km.
Victoria Traffic Separation: Vessel Traffic Separations schemes are in effect – Straits of Juan de Fuca and Georgia Strait. Vessel Traffic System – VTS are under the control of the US Coast Guard (Seattle Traffic) and the Canadian Coast Guard (Vancouver Traffic) within the respective territorial limits.
SECOND NARROWS TRAFFIC CONTROL: The following procedures are mandatory and apply to vessels intending to enter or move within the area defined in "Area" below.

In addition, East of the line joining Point Grey (Lat. 49° 15′ 54″ N., Long. 123° 15′ 44″ W.) and Point Atkinson (Lat. 49° 19′ 50″ N., Long. 123° 15′ 48″ W.), the clearance and reporting procedures detailed in *Vancouver Traffic Zone* (G1130) are mandatory for the vessels specified in G1130.
Call: CJU52.
Location: CN Railway Bridge, Second Narrows.
Frequency: Channel 16; 06; 12.
Area: Second Narrows Movement Restriction Area (MRA) lies between the following limits:

(a) West limit: Line due North from the light at the N.E. end of Terminal Dock to Neptune Terminals.
(b) East limit: Line due North from Berry Point Light to the North shore.

Procedure: (1) At least 12 hours before entering the MRA, the following vessels should advise Vancouver Harbour Master of their proposed transit time:

(a) Vessels of 20 m. and over in length.
(b) Towing vessels of 8 m. and over in length.
(c) Towing vessels where breadth of tow is 20 m. and over, or length of tow is 30 m. and over.

Any subsequent amendments should be notified.

(2) All deep sea vessels (i.e. vessels requiring a Pilot) intending to pass through the Second Narrows bridges should report their intentions and ETA at CN Railway Bridge to the bridge operator on Channel 12 when entering the harbour limits and before leaving a berth or anchorage in the harbour. ETA should be confirmed on arrival at the limit of the MRA.

(3) Vessels requiring the lift span of the railway bridge raised should contact the bridge operator on Channel 12 – (1) prior to departing berth or anchorage. (2) upon entering port limits if direct from sea. This signal will be acknowledged by the bridge operator on Channel 12.
ANCHORAGE: There are 28 designated anchorages in the port which are available during periods of congestion. 19 in English Bay, 5 in main harbour and 4 above Second Narrows. Main Harbour anchorages reserved mainly for vessels clearing for grain, bunkering or awaiting berths or tides, assignment is limited to a maximum period of 48 hours. Those outside mainly reserved for vessels expecting long waits. Main Harbour anchorages range from 9 to 21 fathoms and English Bay anchorage from 8 to 16 fathoms. Largest vessels using and expected to use Vancouver Harbour can be accommodated at designated anchorages. Holding ground is good and anchorages are protected. Requests for permission to anchor must be made to the Harbour Master.

RESTRICTIONS: Min. depth at LW is 15.00 m. at the First Narrows. Min. clearance at HW is 60.36 m. under First Narrows Bridge (Lions Gate); Min. depth at LW is 13.3 m. at the Second Narrows. Min. clearance at HW is 44.00 m. under Second Narrows Bridge. Vessels are allowed to transit the Second Narrows Movement Restriction Area (MRA) under conditions contained in the Second Narrows MRA Standing Orders (during periods either side of slack water and stemming the tidal current). (All Oil Terminals and Pacific Coast Bulk Terminal lie above the Second Narrows.)

Vessels carrying dangerous goods, tankers, combined carriers, must obtain special clearance from the Harbour Master prior to entry and/or departure.

Canadian Coast Guard maintain and operate the Vessel Traffic System.

All International and National pollution controls are strictly enforced.

MAX. SIZE: Berthing for vessels up to 250,000 d.w.t. and draft up to 75 ft. at Roberts Bank.

HEALTH: *Quarantine Regulations:* Vessels need only apply by radio (Station VAK), where a condition of health irregularity is suspect, or the vessel has called at a country listed under the World Health Organisation as being infected with plague, or has an expired Derat Certificate.

RADIO: VAI/Vancouver Coast Guard Radio.

VHF: VAS/Vancouver Traffic located just North of the First Narrows Bridge. Manned 24 hours per day. Pilots on radio/telephone contact with Vancouver Traffic at all times. Vessels normally communicate on Channel 12 from Iona Jetty/Cape Roger Curtis inwards. Other frequencies available for communication are 16, 6, 14 and 11.

RADAR: Vancouver Traffic continuous radar surveillance from Point Grey/Point Atkinson inward Second Narrows. Anchorage assistance available.

TUGS: Meet vessels East of First Narrows and off berth. Ship's lines are used. Pilots communicate with tugs by VHF Channel 17.

Attendant tugs are required to escort Deep Sea Vessels through the Second Narrows MRA in the vicinity of the Second Narrows Bridges in accordance with the Vancouver Port Corporation (Port of Vancouver) Second Narrows MRA standing orders.

BERTHING: Five vessel Inner Harbour anchorages, 3 anchorages at mouth of Indian Arm and one anchorage in position 49° 17′ 39.5″ N., 122° 58′ W. (all East of Second Narrows Bridge) for vessels awaiting Grain Inspection/Clearance etc., for a maximum period of 48 hours and 19 large vessel anchorages in English Bay for vessels awaiting to berth are available.

Terminal	*No. of Berths*	*Total Length (m.)*	*Depth (m.)*	*Remarks*
Canada Place Cruise Ship Facility	5	746	10.0	Cruise ship terminal 326 m. (West Side) 110 m. (North Side) 310 m. (East side)
Ballantyne	5	725	10.0	General cargo. Cruise ships. Cargo sheds.
Centennial Terminal	7	1,304	10.7–12.2	Berth No. 1 (183 m.×10.7 m.); No. 2 (183 m.×12.2 m.); No. 3 (179 m.×12.2 m.); No. 4 (183 m.×12.2 m.); No. 5 (Container Berth –195 m.×12.2 m.); No. 6 (195 m.×12.2 m.); No. 7 (185 m.×12.2 m.). 2×40 ton gantry cranes. 1×300 tonne and 1×45 tonne mobile crane. Forklifts to 38 tonne capacity. Cargoes handled: lumber, pulp, general, containers, bulk grain with 2 vacuvators.
Vanterm	5	1,064	15.5	2 berths for container vessels (2×281 m.) and 3 berths for conventional vessels (1×228 m., 1×91 m. and 1×183 m.) 3 berths equipped for tallow loading. 240 reefer plugs 3×40 tonne gantry cranes. 1×250 tonne mobile crane.
Lynnterm	4	838	15.0	Storage and Shipping - Forest Products, Steel, General cargo, heavy lifts. Forklifts up to 41 tonnes.
Fibreco	1	137 m. (265 m. with dolphins)	13.1	Bulk loading woodchips (1,200 t.p.h.) - up to 42,000 d.w.t. and 11.5 m. draft.
Seaboard International Terminal	3	600	12.0	Forest products. Forklifts up to 40 tons.
Cassiar Terminal	1	182	9.0	Asbestos/general Barge ramp (capacity 55 tonnes). Shed storage for 17,500 tonnes.
Neptune Terminal	3	717	12.19–15.23	No. 1 - Depth 15.23 m. Max. LOA 277 m. (152,000 d.w.t.) draft 13.7 m. No. 2 – Depth 13.1 m. can load Panamax. No. 3 – Depth 12.19 m. Max. size 50,000 d.w.t. Cargo handled: Coal, potash, feed pellets, chemical fertilisers, phosphate rock and rape seed oil. Equipment: No. 1 – 1 stacker/reclaimer 4,000 t.p.h. and 1 reclaimer 1,000 t.p.h. 2 shiploaders of 3,000 t.p.h. No. 2 – 3 car dumper, 2 shiploaders of 2,000 t.p.h. each (3,500 t.p.h. combined). No. 3 – 2 bridges of 1,000 t.p.h. each. Hopper capacity 50 tonnes each. There is tank storage for 19,000 tonnes of canola oil which can be loaded at Berths No. 1 and 2.
Vancouver Wharves	5	1,042	10.7–12.8	Berth No. 1, 2 & 3 – Length 540 m. No. 4 & 5 – Length 502 m. Depths: No. 1 – 10.7 m. No. 2 & 3 – 11.3 m. No. 4 & 5 – 12.8 m. Facilities: No. 1: Car unloader, storage sheds, travelling shiploader. Methanol receiving/shipping systems, storage tanks. No. 2: Pulp and paper mobile equipment, storage sheds. Methanol shipping system. No. 3: Pulp and paper mobile equipment, storage sheds. No. 4 & 5: Railcar dumper; bottom-door railcar dumper, sulphur, potash, phosrock, fertiliser shipping/receiving systems. Storage silo, sheds, pads No. 4 berth has twin quadrant retractable shiploaders, and the phosrock receiving system. No. 5 berth has a travelling shiploader trimmer. Storage capacity approximately 800,000 tonnes.
Pacific Coast Terminals	2	386	13.7	2 shiploaders: 1×2,500 t.p.h. and 1×1,800 t.p.h. Bulk liquids – 600 t.p.h. Storage capacity: Sulphur (200,000 tonnes), Ethylene Glycol (13,500 tonnes), Styrene Monomer (13,500 tonnes).
Westshore Terminals				See "Roberts Bank"
United Grain Growers Elevators	2	427	7.3-11.6	Depth: 7.3 m. (East Side), 11.6 m. (West Side). 2 belts×500 t.p.h. each. Storage capacity: 102,000 tonnes. Products handled: Grain and by-products.
Pacific Elevators	3	560	7.66	Berth No. 1 – Length 134 m. plus overhang.Depth 10.6 m. Loading rate 4×16,000 bu./hr. Berth No. 2 – Length 182 m. plus overhang. Depth 13.72 m. Loading rate 4×16,000 bu./hr. Berth No. 4 – Length 244 m. Depth 9.75 m. Loading rate 2×16,000 bu./hr. Cargo handled: Wheat, barley and rye. Storage capacity: 199,150 tonnes.
Alberta Wheat Pool	2	493	10.05-15.24	4× 380 t.p.h. spouts. 282,800 tonnes storage for grain.
Pioneer Grain Terminal	1	180	15.24	2 loaders of 1,000 tonnes/hr. each. Storage capacity 108,000 tonnes. Cargo handled: Grain, grain by-products, flax.

Terminal	*No. of Berths*	*Total Length (m.)*	*Depth (m.)*	*Remarks*
Saskatchewan Wheat Pool	2	460	12.2-15.3	Depths: 12.2 m. (inshore), 15.3 m. (outshore). 5 spouts at each berth. Loading rate up to 2,000 tonnes/hr. (2 commodities maximum). Storage capacity 240,000 tonnes of grain. Products handled: Wheat, canola, barley, grain by-products and durum.
B.C. Sugar Terminal	1	130	9.1	Sugar Gantry Cranes
Goodwin	2	200	15.0	Log loading (500 cu.m./gang shift)
Johnson	1	150		
Hooker Chemical Dock	2	153	6.7	Salt, Caustic Soda
Imperial Oil Ltd.	1	165	10.1	Petroleum Products
Shell Canada	1	122	8.9	Petroleum Products
Petrocanada	2	58	10.2	Petroleum Products
Inc.		40	4.6	
Chevron Canada Ltd.	1	122	9.1	Petroleum Products
Transmountain Oil Pipeline Ltd.	1	91.4 (305 m. between dolphins)	11.0	Crude oil: 12 in. and 24 in. lines 2 × 10 in. hoses for crude. Crude 20,000-25,000 bbls./hr.
Canadian Occidental	1	152	10.66	Salt and Chemicals 3×11,000 tonne tanks and 27,000 tonnes ground storage.
Dow Chemicals (Lynnterm No. 4)	1	200	11.7	Caustic Soda (1,200 t.p.h.), Ethylene Dichloride (1,000 t.p.h.), Ethylene Glycol (800 t.p.h.) Storage: Caustic soda (40,000 tonnes). Ethylene Dichloride (30,000 tonnes). Ethylene Glycol (17,000 tonnes).

There are a number of smaller terminals used principally by the coastal ferry and towing services.

Roberts Bank:
Owners: British Columbia Investment Resources.
Operator: Westshore Terminals Ltd: Roberts Bank, Delta, BC, V4K 3N2. Tel: 946-4491. Telex: 04-355799.
Specialist handling: Coal and coke.
Berth 1: Equipped with a single travelling shiploader. Berthing velocity: Maximum 12 cm./second for a 250,000 d.w.t. vessel fully loaded, approaching 90° to the berth face. Horizontal shuttle range of discharge route: 28.7 m. Maximum chute reach from berth face: With boom elevated 15° – 39.5 m.; with boom horizontal – 41.6 m.; with boom down – 10° – 40.9 m. Operational longitudinal travel along wharf: 243.8 m. Operating luffing range of shiploader boom: 15° above horizontal to 10° below horizontal. Vertical telescopic range of discharge chute: 7.6 m. Vertical clearance under boom above HHWL at berth face: with boom elevated 15° – 19.6 m.; with boom horizontal – 14.8 m.; with boom down 10° – 10.3 m. Water depth: 22.9 m.
Berth 2: Equipped with 2 quadrant shiploaders. Berthing velocity: Maximum 12 cm./second for a 100,000 d.w.t. vessel fully loaded, approaching at 90° to berth face. Horizontal shuttle range of boom: 22.86 m. Operating slewing arc of boom: 71°. Operating luffing range of shiploader boom: 18° above and below horizontal. Vertical clearance at berth face under boom above HHWL: 18.3 m. with boom elevated 18° and fully extended; 25.7 m. with boom elevated 18° and fully retracted; 16.6 m. with boom horizontal. Vertical distance of bottom of trimmer above HHWL: 19 m. with boom elevated 18°, 6.7 m. with boom horizontal. Maximum boom reach from berth face: 34.9 m. with boom elevated 18° and fully extended; 12.04 m. with boom elevated 18° and fully retracted; 13.41 m. with boom horizontal and fully retracted. Water depth: 20.8 m.

Also see "Shipmaster's Report".

CRANES: Floating cranes, 45, 75 and 100 tons and mobile cranes of 150 and 250 tons available.

BRIDGES: See "Restrictions".

STEVEDORES: Gangs normally ordered day before ship's arrival, can be ordered same day for afternoon or evening work.

MEDICAL: All services available.

TANKERS: See "Berthing".

DENSITY: Density varies in different sections of harbour, according to times of year.

FRESH WATER: Available at most berths or by barge. Hose supplied. Delivery 25 t.p.h.

FUEL: All grades of heavy fuel oil and diesel oil are available, delivery by barge or tank truck. Suppliers are:

Chevron, Shell, Imperial, Gulf, Marine Petrobulk and Maritime Oil.

FIRE PRECAUTIONS: All vessels carrying dangerous materials to have suitable towing wires over offshore bow and offshore quarter.

GANGWAY/DECK WATCHMEN: If required, employment arranged through Agent.

OPENING/CLOSING HATCHES: Normally carried out by stevedores, except in cases of bulk carriers.

CONSULS:
Australia – Consulate General
Austria – Consulate
Austria – Trade Commissioner
Belgium – Consulate General
Chile – Consul
China, People's Republic of – Consulate General
Colombia – Consulate
Denmark – Consulate
Ecuador – Consulate
El Salvador – Consulate
Federal Republic of Germany – Consulate General
Fiji Consulate
Finland – Consulate
France – Consulate General
Greece – Consulate
India – Consulate General
Indonesia – Consulate
Italy – Consulate
Japan – Consulate General
Korea, Republic of – Consulate General
Liberia – Consulate
Mexico – Consulate
New Zealand – Consulate
Norway – Consulate General
Peru – Consulate General
Philippines – Consulate General
Portugal – Consulate
Spain – Consulate
Sweden – Consulate
Switzerland – Consulate
Thailand – Consulate
United Kingdom – Consulate General
United States of America – Consulate General
Venezuela – Consulate
Yugoslavia – Consulate General

REPAIRS: All types of engine and deck repairs.

DRY DOCKS: *Versatile Pacific Shipyards:* 2 docks.

	Length	*Length over blocks*	*Inner width*	*Lifting Capacity*
No. 1	220 m.	204 m.	45.8 m.	36,000 tonnes
No. 2				9,000 tonnes

Lay-by berths: 1×230 m. and 2×165 m. Depth 10.0 m.

SURVEYORS: (1) American Bureau of Shipping. Tel: (604) 683-7606.
Germanischer Lloyd, Tel: (604) 738-6723.
Lloyds Register of Shipping. Tel: (604) 985-0477.
The Salvage Association. Tel: (604) 688-9548.
Norwegian Veritas. Tel: (604) 985-0314.

(2) A. S. Blakely Marine Surveyors Ltd. Tel: (604) 321-4166.
Columbia Surveyors (Marine) Ltd. Tel: (604) 731-4101.
General Testing Laboratories. (Div of SGS Supervision Services Inc). Tel: (604) 254-1647.
Global Marine Services Ltd. Tel: (604) 688-0654.
P. A. Haliburton. Tel: (604) 689-9738.
R. T. Harrison. Tel: (604) 738-1120.
Herring & Co. Surveyors Ltd. Tel: (604) 738-6723.
E. Hill. Tel: (604) 682-3091.
F. I. Hopkins Marine Surveyors. Tel: (604) 688-9233.
Total Boat Marine Surveyors Ltd. Tel: (604) 656-5826.
L. C. Langill. Tel: (604) 485-4782.
SGS Supervision Services Inc. Tel: (604) 687-5636.

AIRPORT: 30 minutes to Vancouver International Airport.

TIME: Pacific Standard Time GMT minus 8 hours. Clocks will be adjusted to Summer Time (plus 1 hour) when advised.

HOLIDAYS: New Year's Day*; Good Friday**; Easter Monday**; Victoria Day**; Canada Day**; British Columbia Day**; Labour Day*; Thanksgiving Day**; Remembrance Day**; Christmas Day**; Boxing Day**.

*Non-working holidays.
**Labour available at premium rates.

Work ceases at noon on December 24th and resumes at 0100 hrs. December 26th; ceases at noon on December 31st and resumes at 0100 hrs. January 2nd.

POLICE/AMBULANCE/FIRE: Police 911; Ambulance 879–4511; Fire Vancouver 911; Air-Sea Rescue 732–4272; Ports Canada Police 666–3131.

TELEPHONES: Are placed on board vessels at all berths.

BANKS:
Algemene Bank Nederland NV Bank Canada
Bank of America Canada
Bank of British Columbia
Bank of Canada
Bank of Montreal
Bank of Nova Scotia
Bank of Tokyo, Canada
Banque National de Paris
Barclays Bank of Canada
Canadian Commercial Bank
Canadian Imperial Bank of Commerce
Chase Manhattan Bank of Canada
Chemical Bank of Canada
Continental Bank of Canada
Daiwa Bank
Federal Business Development Bank
Hanil Bank Canada
Hong Kong Bank of Canada
Lloyds Bank International Canada
Mercantile Bank of Canada
Midland Bank of Canada
National Westminster Bank of Canada
Northland Bank
Philippine National Bank
Royal Bank
Seattle First Bank Canada
Societe Generale SA (Canada) Inc
Standard Chartered Bank of Canada
State Bank of India
Swiss Bank Corporation (Canada)
TKM Canada Ltd
Toronto Dominion Bank

GENERAL: Vessels not permitted pump bilges or discharge oil, contaminated ballast or galley refuse into water. Every vessel boarded on arrival by Harbour Patrol Personnel and furnished with applicable excerpts from Harbour by-laws.

SERVICES: Stevedore companies equipped with tank cleaning equipment. Sludge barge available. Services of compass adjuster may be obtained.

SHORE LEAVE: No restrictions, but Immigration will advise of any special circumstances where restrictions might be enforced.

SHIPMASTER'S REPORT: June 1988.
Robert's Bank: 49° 00.6' N., 123° 09.8' W.
Operator: Westshore Terminals Ltd. Telex: 04-355799 (Westshore Rbank).
Notice of Arrival: On approaching Strait of Juan de Fuca, Master has to contact Canadian Coast Guard, cable address "Westreg Canada" or Telex No. 043-52586 and request clearance to enter Vancouver Traffic Zone.

Contact should be made:

1. 48 hours before arrival at 50 miles off Vancouver Island.
   or
2. 48 hours before arrival at Longitude 127° W.
   or
3. 48 hours before arrival at Latitude of Cape Alawa for Northbound vessels.

The Notice of Arrival is to include:
Call sign.
Position.
Course and speed.
Estimated time of arrival at Nos. 1, 2 or 3 above.
Vessel's destination.
Last port of call.
D.W.T.
Draft, forward and aft.

Vessel should also confirm that there are no deficiencies or leakages and that all VHF Channels are available as per Canadian Notice to Mariners Annual Edition or Canadian "Western Region Traffic Services" booklet.

Pilotage: Vessels to contact "Pilots Victoria" (Telex No. 04-97236 PPAPilots Vic.) 48 hours prior to arrival at the pilot station. The 48 hour notice to include: Vessel's name, call sign, agent's name, LOA, breadth, depth, deepest draft, trim, speed, propeller characteristics and ETA at Fairway Buoy off Victoria.

Amended notices are required 24 hours, 12 hours and 4 hours prior to arrival.

Anchorage: Vessels awaiting their turn to load at English Bay anchor at Vancouver.

Berths: Berth No. 1: This berth can accept vessels of 250,000 d.w.t., LOA 350 m., beam 53 m. and loaded draft 21 m.

Loading restrictions are as follows: Maximum distance between end hatches 243 m., air draft at berth face 19 m. and air draft to top of hatch cover 21 m.

Vessels may berth port or starboard side alongside. Loading rate 3,500 t.p.h., however, it is possible to load at up to 5,000 t.p.h.

Berth No. 2: This berth can accept vessels up to 100,000 d.w.t., LOA 263 m., beam 42 m. and loaded draft 18 m.

Loading restrictions are as follows: Distance between end hatches 184 m., air draft at berth face 17 m., air draft to top of hatch cover 18 m.

Vessels berth starboard side to. Loading rate approximately 2,500 t.p.h.

Vessels whose length between end hatches (centre to centre) is greater than 184 m. will be loaded at Berth No. 1.

Vessels having their own loading gear will be loaded at Berth No. 2.

Cargoes/Stowage Factors: The following are types of coal loaded, together with approximate stowage factors: Balmer, Elkview, Fording, Crow's Nest, Gregg River, Obed Marsh, Luscar, McIntyre (all grades), stowage factor 43 cu.ft. per long ton. Greenhills, 45 cu.ft. per long ton. Arco (petroleum coke), stowage factor 46-47 cu.ft. per long ton.

Gangway: Terminal gangways are available for use of ship's crew but are the responsibility of the vessel whilst being used.

Density: 1012 – 1025 (varies).

Fresh Water: Fresh water is free of charge. The vessel is to supply hoses and connections.

Emergency Telephones: Fire 946-4155, Police 946-4444, Ambulance 872-5151, Harbour Master 666-2405.

AUTHORITY: Vancouver Port Corporation, 1900 Granville Square, 200 Granville Street, Vancouver, B.C. V6C 2P9. *Tel:* (604) 666-3226. *Telex:* 04-53310. *FAX:* (604) 666-8916. *Contact:* F. McNaughton, Port Manager and Chief Executive Officer.

AGENT: Interocean Steamship Corporation. No. 230-355 Burrard Street, Vancouver, B.C., Canada V6C 2H7. Tel: (604) 682-4741. Telex: 04-54403. FAX: (604) 682-5718. DDD: (604) 688-6622. Cables: Manchart Vancouver.

VICTORIA, B.C.: 48.25 N. 123.22 W. (See Plan)

PORT LIMITS: Southern tip of Albert Head, to Southern tip of Trial Island (Canadian Charts 3413, 3423 and 3415).

DOCUMENTS: "See Vancouver".

PILOTAGE: Pilots embark at Victoria for all British Columbia ports. Pilot station within 2 mile radius of buoy in position Lat. 48° 22′ 45″ N., Long. 123° 24′ 56″ W. Radio "Pilots Victoria" through radio station VAK giving ETA at least 12 hours and confirmed 4 hours before arrival. Pilot boat on VHF Channel 16 and 17.

APPROACHES: The entrance to Victoria Harbour has a deep, wide, open water approach. The only hazard is Brotchie Ledge 900 m. S.W. of the outer end of the harbour entrance breakwater. The outer end of the breakwater and Brotchie Ledge are fitted with beacons.

ANCHORAGE:

"A"	Lat. 48° 23′ 46″ N.,	Long. 123° 26′ 58″ W.
"B"	Lat. 48° 24′ 09″ N.,	Long. 123° 27′ 36″ W.
"C"	Lat. 48° 24′ 14″ N.,	Long. 123° 26′ 43″ W.
"D"	Lat. 48° 24′ 24″ N.,	Long. 123° 25′ 54″ W.
"E"	Lat. 48° 24′ 44″ N.,	Long. 123° 26′ 37″ W.
"F"	Lat. 48° 24′ 54″ N.,	Long. 123° 26′ 00″ W.

Anchor berths "A", "C" and "D" have a swinging radius of 1,500 ft. and "B", "E" and "F" 1,200 ft.

RESTRICTIONS: Outer Harbour: Depth 35 ft. MLLW. Inner Harbour: Depth 21 ft. MLLW. Largest vessel to use port, length 575 ft. draft 34 ft.

HEALTH: Quarantine Officials board with Pilot. Advise Agent of ETA.

VHF: Pilot station. VAK.

Harbour Master's Office can be contacted on Channel 73. This Channel is also used by ship's Agents in Victoria.

TUGS: Tugs and barges of various powers and sizes are available from Seaspan International Ltd., 345 Harbour Road, Victoria. B.C. V9A 3S2. Tel: 385-7711. Two harbour tugs of 500 h.p. each service the Victoria area. Additional or larger tugs are available giving minimum 48 hours notice.

BERTHING:

Berth	*Length* (ft.)	*Depth* (ft.)	*Remarks*
Ogden Point "A" N. Side	800	35	For handling lumber, pulp, paper, plywood and general cargo. Fresh water available at 20 t.p.h.
Ogden Point "A" S. Side	1,000	35	
Ogden Point "B" N. Side	800	35-40	Dock to be renovated.
Ogden Point "B" S. Side	800	33-35	The South side is used for loading lumber. Fresh water available at 20 t.p.h.

Between Piers A and B (distance 92 m.), at the inner end, is a small fish unloading dock used by the B.C. Packers Cold Storage Plant situated in the terminal area. Ogden Point also has the facilities to handle containers inbound and outbound. The terminal has a 20 acre paved cargo assembly area with on site connections for rail barge, truck barge, tug and barge, and trucks. Vessels must be self loading or unloading, but mobile cranes to 25 tons can be ordered if required.

STEVEDORES: 13 gangs available. Refer "Vancouver" for holidays, etc., arranged by Agent.

Working Hours: Westcan Terminals/Stevedores Ltd. offers 24 hour 7 day cargo handling services. Shifts: first 0100-0430, 0500-0800; second 0800-1200, 1300-1700; third 1700-2100, 2130-0100. Work ceases 1200 on Christmas Eve and New Year's Eve.

MEDICAL: Doctors and hospital facilities available.

DENSITY: Salt water.

FRESH WATER: Available at wharves.

In Gulf Islands servicing Plumper Sound Anchorage: Gulf Islands Water Taxi Ganges – P.O.Box 814, Saltspring Island, B.C. V03 1E0. Tel: 537-2516.

FUEL: FO and MDO available by barge from Vancouver.

CONSULS: Norway.

CUSTOMS ALLOWANCES: See "Vancouver".

SURVEYORS: 1. Canadian Coast Guard, Victoria. Tel: 388-3646.

2. Surveyors available through Yarrows Burrard Shipyard, Victoria. Tel: 385-4421. Lloyd's Sub-Agent: King Bros. Tel: 384-1174.

Also see "Services".

GANGWAY/DECK WATCHMEN: Crew are required to act as deck watchmen.

OPENING/CLOSING HATCHES: By crew or stevedores.

CARGO GEAR: Ship's gear.

REPATRIATION: Possible, arranged by Agent.

AIRPORT: *Victoria International Airport:* 32 km. North of Victoria. Serviced by Air Canada, Canadian Pacific Airlines, Pacific Western Airlines, Air B.C., San Juan Airlines and many international charters with same plane service to Calgary, Edmonton, Montreal, Seattle, Toronto, Vancouver and Winnipeg.

Victoria Harbour to Vancouver Harbour: Serviced by Air B.C. with daily scheduled float plane service.

HOLIDAYS: 11 statutory holidays, however work can be arranged.

POLICE/AMBULANCE/FIRE: Available at dockside 24 hours a day.

REPAIRS: All repairs facilities available.

DRY DOCK: At Esquimalt: Length 1,173 ft.; breadth 125.6 ft.; depth 49.5 ft.

TELEPHONES: Telephones required on all ships, arranged through Agent.

SERVICES: Compass adjusting possible.

BANKS: Algemene Bank, Nederland N.V., 650 West Georgia Street, Vancouver, B.C. V6B 4N7. Tel: 682-5891.

EMERGENCY CO-ORDINATION CENTRE: Rescue Co-ordination Center, CFB Esquimalt. Tel: 388-1543.

United States Coast Guard, Port Angeles, Washington, U.S.A. Tel: (206) 457-431.

STORING: Vessels can be stored by truck or barge, during cargo operations. Trucks may proceed alongside. Fork lift trucks may be used. Customs regulations in force. Yarrows Ltd., can provide riggers.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Seamans' Book sufficient.

SERVICES:

Decca: Racal Decca Canada Inc., 353 Harbour Road, Victoria, B.C. V9A 3S2. Tel: 388-6257.

Fumigation: PCO Pied Piper, 3374 Burns Avenue, Victoria, B.C. V8Z 3P2. Tel: 388-9721.

International Garbage: Cypress Disposal Ltd., 2057 Mills Road, RR 2, Sidney, B.C. V8L 3S1. Tel: 656-0951.

Laundry: Commercial Towel & Linen Supply Co. Ltd., 607 John Street, Victoria, B.C. V8T 1T8. Tel: 383-5112.

Marconi: Canadian Marconi Co., 1 Burnside Road W., Victoria, B.C. V9A 1B2. Tel: 386-9414.

Surveyors: Argus Marine Ltd., 2924 Wilkinson Road, RR 2, Mill Bay, B.C. V0R 2P0. Tel: 743-3463. Hull and cargo.

Lloyd's Register of Shipping, non-exclusive surveyor for hull, machinery and cargo attached to Marine Design Associates below.

Marine Design Associates, 493B Garbally Road, Victoria, B.C. V8T 2J9. Tel: 384-4191. Telex: 049-7397. Hull, machinery and cargo.

Welding: Edwards' Welding Ltd., 727 Caledonia Avenue, Victoria, B.C. V8T 1E4. Tel: 386-3264.

DEVELOPMENTS: Work has commenced on renovation of Pier "B".

AUTHORITY: Port of Victoria, Ministry of Transport, Room 317, 816 Government Street, Victoria, B.C. V8W 1W9. *Tel:* (604) 388-3578 or 3808177 (Mobile telephone). *Telex:* Canadian Coast Guard – Victoria, No. 0497185. *Contact:* Captain D. M. Featherby, Harbour Master.

WELLAND, Ontario: 42.58 N. 79.13 W.

LOCATION: Industrial city on the Welland Canal, 5 nautical miles below Lock 8.

DOCUMENTS: See "Montreal".

RESTRICTIONS: Navigation season: April 1st to December 30th (usually). Channel depth: Controlled at 8.23 m. (27 ft.) in canal channel.

HEALTH: Pratique granted at Quebec City for incoming vessels from foreign ports.

RADIO: Ship-to-Shore communications through Toronto Coast Guard (VBG) or Buffalo (WBL).

BERTHING: New Welland Dock, Wharf 10. Length of dock wall 182.9 m. (600 ft.). Berth 222.5 m. (730 ft.). Depth alongside 8.2 m. (27 ft.). Type of facility: self unloaders and rental cranes.

SURVEYORS: A.B.S. at Toronto. Lloyd's at St. Catharines.

AUTHORITY: St. Lawrence Seaway Authority, Weston Region, P.O.Box 370, 508 Glendale Avenue, St. Catharines, Ontario L2R 6V8. *Tel:* 416-641-1932. *Contact:* R. B. McLeod, Regional Vice-President.

WEYMOUTH, N.S.: 44.27 N. 66.01 W. (See Plan)

DOCUMENTS:

3 Crew Lists.
3 Passenger Lists.
3 Customs Documents.
3 Health Documents.
3 Manifests.
Ship's Papers.

PILOTAGE: Non-compulsory. Ship's Agent contacts vessel through Marine Radio Station, Yarmouth and notifies Pilot, who will then be on lookout. Ship gives standard whistle signal for Pilot, who boards about 2 hours before high tide. In meantime, ship should ride at anchor about quarter mile N.W. of Fairway Buoy. No special pilot boat. Boat used for Pilot is 35 ft. fishing boat.

ANCHORAGE: Good safe anchorage outside harbour in 33 ft. over mud. Also quarter mile N.W. of Fairway Buoy.

MAX. SIZE: Max. length permissible 375 ft., max. beam 55 ft. Draft, approx. 26 ft. of water at high tide.

RADIO: Yarmouth (VAU) or Saint John (VAR).

TUGS: No tugs required. The fishing-boat will run lines to wharf if required.

BERTHING: Government Wharf – North Weymouth: L-shaped pier provides 85.3 m. length berth. Depth alongside at LW: 3.0 m. (mean tidal range 6.1 m.) A gravel open storage area available at wharf approach.

STEVEDORES: Available. Experienced loading lumber and pulpwood.

MEDICAL: Hospital: at Digby, 20 miles distant. Ambulance can be arranged.

FRESH WATER: Available; delivery by truck.

GANGWAY/DECK WATCHMEN: No watchmen necessary.

TIME: Eastern Standard Time GMT minus 5 hours. Daylight saving time from first week-end in April to last week-end in October, clocks advanced 1 hour.

POLICE/AMBULANCE/FIRE: Police Zenith 50000; Ambulance 245-2205; Fire 837-5142.

TELEPHONE: No arrangement for placing telephones on board ship. Telephone available near dock.

DEVELOPMENTS: Re-dredging of channel in near future. Dates not finalised.

AUTHORITY: Transport Canada, Weymouth, Nova Scotia. *Contact:* R. L. Long, Customs Inspector, at Digby, *Tel:* 245-4039. F. Manzer, Harbour Master, Ashmore, Digby County, Nova Scotia. *Tel:* 837-4064, 837-4467.

WINDSOR, Ontario: 42.19 N. 83.03 W. (See Plan)

For important general information refer to "St. Lawrence Seaway".

DOCUMENTS:

Sanitary Health Certificate – fixed on outside of container for agriculture plant protection. 1 paper affixed to each container.

Meat Locker Certificate.
Quarantine Certificate.
3 Crew Lists.
3 Passenger Lists.
3 Stores Lists.
Manifest – 3 A.6 – 2 A.6 out.
Bill of Lading.

PILOTAGE: Pilots board ships at Sarnia Eastbound and Port Weller Westbound.

ANCHORAGES: Windsor Harbour Anchorage lies approximately 0.5 miles North of Fighting Island marked by 2 white buoys, showing flashing white lights, an area of 800 ft. wide and 0.75 miles long. Depth of 5.5 to 6 fathoms.

MAX. SIZE: Can handle any ship the seaway passes. No tide.

HEALTH: In the case of vessels arriving via the St. Lawrence River Radio Pratique may be obtained from Quarantine Quebec. See also "Montreal".

RADIO: WFS Detroit Marine Radio. Call on Channels 26 – 28.

RADAR/VHF: No radar service. Harbour Master may be contacted on VHF Channel 16.

TUGS: Available when required.

BERTHING: (Also see "Plan").

1. Canadian Salt Co.: A major rock salt mine producing salt products for highways, water softeners and chemical use. Large tonnages are shipped by water. Lake freighters load at a 858 ft. (261.5 m.) dock.

2. ADM–Grain Co: (Archer Daniels Midland): A deep water grain terminal elevator with a storage capacity of 2.7 million bushels. Material handled includes soya beans, corn, wheat, oil seeds, as well as meal from adjacent ADM–Agri Industries Ltd. plant. A 1,300 ft. long (396.2 m.) dock enables ships to load and unload with modern conveyor equipment. The location provides easy access to all major railways and highways in Canada and the United States.

3. ADM–Agri Industries Ltd.: Canada's first multi-oilseed processing plant, located on a 40 acre (161.8 ha.) site adjacent to the grain terminal elevators and dock. The plant has an on-site storage capacity for 11,000 tonnes of soya meal and 2,500 tonnes of soft-seed meal, and operates in close co-operation with the adjacent grain terminal docking facility.

4. Morterm Limited: A commercial marine terminal on 70 acres, fenced and lit. Providing large open storage facilities. A capacity of 45 million board feet with a fleet of 15 trucks ranging from 52,000 lb. capacity to 5,000 lb. capacity warehouse lift trucks. Two mobile cranes, 110 ton and 225 ton capacities to enable fast movement of goods between ship and the large paved wharves which include a concrete quay-type wharf of 2,400 ft. (731.5 m.) with direct rail transfer in a 200 ft. (60.9 m.) wide slip. Water depth is full Seaway depth. The Essex Terminal Railway connects with all major railroads.

5. Ontario Hydro Dock: Operated by American-Canadian Distribution Centre (ACDC), 25–30 acres of storage with a proposed 40,000 sq. ft. of inside storage. The dock is 800 ft. and full seaway depth. The commodity handled is primarily lumber, and general building commodities. The location provides easy access to all major railways and highways in Canada and the United States.

6. Bulk Storage (Windsor-Sombra) Ltd.: Operated by Southwestern Sales Ltd. and is used principally to store construction aggregates. The 660 ft. (201 m.) dock accommodates self-unloaders.

7. Canadian Fine Salt Dock: Operated by Van De Hogen Group primarily for package freight of any kind which includes lumber. The dock is 185 ft. (56 m.).

8. Van De Hogen Group Dock: Provides outside storage area for bulk materials and lumber.

9. Transor Terminals: This dock is available for Roll-on/Roll-off for general cargo and bulk materials. Adjacent to the 150 ft. dock is a 63,000 sq. ft. warehouse and large open storage with rail transfer and truck transportation connecting all Canadian and U.S. highways.

10. Van De Hogen Group: Complete material handling, warehousing distribution and transportation services. 56 acres, marine, rail and truck terminals on the Detroit River, 75,000 sq. ft. inside storage, 3,000 ft. of trackage, heavy lift crane service, public weigh scale, 2 fully licenced motor carriers serving Ontario, Quebec and the United States. The location provides easy access to all major railways and highways in Canada and the United States.

11. K Scrap Resources: Provides dock serviced property for storage and processing metal for re-cycling purpose. The river frontage is 650 ft. (198 m.).

12. Windsor Harbour Commission – Liquid Fuel Dock: Owned by the Windsor Harbour Commission and includes a 1,000 ft. (304 m.) berth with fuel bunkering facilities, operated by Sterling Fuels (Ultramar Canada Inc.) to fuel any vessel transiting the Great Lakes. A full range of fuels is available on a 24 hour basis.

13. Windsor Harbour Commission: Dock is located on a site over 12 acres. An 1100 ft. (335 m.) by 100 ft. (30.5 m.) slip runs along the West side. Goods handled are principally bulk stone and sand from self-unloaders.

(a) Canada Building Materials cement mixing plant occupies part of the N.W. portion of the property. A large open storage area immediately upriver is presently being developed to accommodate bulk cargo.

(b) Standard Aggregates Inc. has recently developed a bulk aggregates depot on a 10 acre parcel at this site.

(c) Barge Transport Inc. Has recently been developed for a proposed truck barge operation between Windsor and Detroit at this site.

14. CTX Transport: A large closed storage shed is on the property as well as open storage. In addition to the dock face, the property includes an 850 ft. (259 m.) by 100 ft. (30.5 m.) slip at an average water depth of 25 ft. (7.7 m.).

15. Pyramid Aggregates Ltd: Property includes a 450 ft. (137 m.) by 80 ft. (24 m.) slip adjacent to a steel and concrete warehouse.

16. Mill Cove Marina: Operated by Windsor Harbour Commission. A pleasure boat facility featuring indoor dry stack year-round storage, sales and service.

17. Premier Concrete and Lake Ontario Cement Ltd.: Maintain this dock for the storage of building aggregates as well as bulk cement which is off loaded into silos. The 9 acre site has a 1,000 ft. (340 m.) dock face on the Detroit River.

18. Canadian Pacific Railways: Norfolk-Southern Railway operates a daily Ro/Ro railroad car ferry to Detroit. Two loading aprons with 3 tracks each move rail cars from ferries and operate on a daily full year operation.

SIZE

19. Dieppe Gardens Dock: Owned by the City of Windsor and docking is administered by the Windsor Harbour Commission. Complete with 27 ft. (8 m.) of water at the 800 ft. (244 m.) cement-faced dock, it is used principally for visiting naval ships, cruise ships, etc. Fresh water and sewage disposal are available. Prior application to the Windsor Harbour Commission is required.

20. Canadian National Railways: Used only for ferrying Ro/Ro railroad cars.

21. Hiram Walker & Sons Ltd.: A private dock 2,200 ft. long with water depth at dockside from 19 ft. to 21 ft. during normal water conditions. A self-unloading facility for grain will unload at a rate of 20,000 bushels of grain per hour.

22. Ford Motor Company of Canada: Dock is a private installation 1,800 ft. (549 m.) long and used mainly for storage of sand.

23. Windsor Yacht Club: A private pleasure boat facility for members.

24. Riverside Marina: A public pleasure boat facility owned by Windsor Harbour Commission – ramp, fuel, sales and service.

25. Lakeside Park Marina: Operated by the City of Windsor as a facility for pleasure craft. Docks, launching ramps and parking areas are provided with easy access to Lake St. Clair and the Detroit River.

26. Southwestern Sales Ltd: A bulk storage dock accommodating large quantities of crushed stone and sand received from seld-unloading vessels.

STEVEDORES: Advice as to number of gangs should be received no later than 1600 hrs. on day preceding. Arrange through Agent.

MEDICAL: Four hospitals.

TANKERS: Sterling Fuels; hoses 14 in. and 10 in. Max. depth 27 ft. Slop tanks available.

DENSITY: No tide, the water is fresh.

FRESH WATER: Tank truck delivery.

FUEL: Direct liquid fuel bunkering at Sterling Fuel Dock for ships up to and including 1,000 ft. 24 hr. service (VHF Channel 14 or Tel: (519) 253-4694). Dock adjacent to main shipping channel. No coal bunkering available.

FIRE PRECAUTIONS: Fire Dept. requires man at tank installations ashore while pumping, also notify Fire Dept. and Harbour Commission if any spillage.

GANGWAY/DECK WATCHMEN: Not required, but can be supplied.

OPENING/CLOSING HATCHES: Normally done by the stevedoring company.

CUSTOMS ALLOWANCES: See "Montreal".

IDENTIFICATION CARDS: I.D. cards should be carried.

CONSULS: Italian Consul, tel: 256-0092.

REPAIRS: All repairs above water can be carried out.

AIRPORT: Windsor Airport approximately 5 miles. Regular flights 7 days a week by Air Canada.

TIME: GMT minus 5 hours from October to April. DST subject to local vote.

HOLIDAYS: The following are the legally observed holidays; however, vessels will be worked on these days at applicable rates: Christmas, New Year, Good Friday, Victoria Day, Dominion Day. Civic Holiday, Labour Day, Thanksgiving and Veteran's Day.

POLICE/AMBULANCE/FIRE: Police 258-6111; Fire 258-4444; Ambulance 258-2155; Emergency dial 911.

TELEPHONES: Phones can be placed on board by prior arrangement.

GENERAL: Fluctuation of water level; high Westerly wind drops water level. Detroit River Light should be contacted for water gauge on VHF 16 for upbound ships, and Belle Isle Coast Guard Stations on VHF 16 for downbound ships.

SERVICES: Tank truck available for tank-washings, also radio telephone and radar service. Compass adjustor not available.

SHORE LEAVE: No restrictions on shore leave.

AUTHORITY: Windsor Harbour Commission, 500 Riverside Drive West, Windsor, Ontario, Canada N9A 5K6. *Tel:* (519) 258-5741. *FAX:* (519) 258-5905. *Contact:* David S. H. Cree, General Manager. J. O. Styffe, Harbour Master. Tel: (519) 258-5741, 735-5207.

WOODFIBRE, B.C.: 49.40 N. 123.15 E. (See Plan)

LOCATION: Port located in Howe Sound approximately 21 miles from Port Atkinson.

PILOTAGE: See "Vancouver". Arranged through ship's local Agent.

ANCHORAGE: See "Vancouver".

TUGS: Arranged through ship's local Agents. Squamish Tug Tel: 898-3733. Seaspan International Tel: 988-3111. Rivtow Straits Ltd. Tel: 255-1133.

BERTHING: Dock length – 432 ft. Dock width – 24 ft. Depth alongside – 34 ft. at Chart Datum. Principal cargo – unitised baled pulp.

STEVEDORES: I.L.W.U. – Arranged through ship's Agents.

MEDICAL: Squamish Hospital Tel: 892-5211, (plus Mill First Aid). Dental – Squamish Tel: 892-3111. Doctor – Squamish Tel: 892-5151.

FRESH WATER: Limited supply available.

FUEL: Not available.

CONSULS: See "Vancouver".

DRY DOCKS/REPAIRS: North Vancouver, Burrard Yarrows Corp. Tel: 988-2111.

GANGWAY/DECK WATCHMEN: Ship's crew, ship's gangway used.

CUSTOMS: Tel: Vancouver – 665-1545.

AIRPORT: Vancouver.

POLICE/AMBULANCE/FIRE: Police – R.C.M.P., Tel: Squamish – 898-9611. Ambulance, Tel: Squamish – 898-3311. (Plus Mill ambulance). Fire – Mill Fire Department. Emergency number – 911.

SHORE LEAVE: Mill area is a restricted area.

AUTHORITY: Western Pulp Limited Partnership, Box 5000, Squamish, B.C., V0N 3G0, Canada. *Tel:* (604) 897-5311. *Telex:* 04-508828. *FAX:* (604) 877-5311 (Ext. 338). *Cables:* Westpulp Vcr. *Contact:* Jack Westerberg, Traffic Supervisor.

NOTES

Please also advise Shipping Guides Ltd.

Canary Islands

ARGUINEGUIN: 27.45 N. 15.40 W. (See Plan)

LOCATION: On the South coast of Gran Canaria in position Lat. 27° 44.8′ N., Long. 15° 40.1′ W. Port used for loading/discharging cement products.
PILOTAGE: Compulsory. Advise Agent 6 hours prior to arrival. Pilot boards 7 cables off breakwater from a small tug named "Atlante" which is painted with red letter "P" forward on both sides.
ANCHORAGE: One mile S.E. from breakwater. Sand bottom.
VHF: Continuous watch maintained on Channel 16.
BERTHING:

Berth No.	Length (m.)	Depth at LW (m.)
1	288	5.0 – 8.5
2	25	7.0

CRANES: 2 mobile cranes each with a rate of 200 t.p.h. One mobile crane with rate of 80 t.p.h.
MEDICAL: Hospital at Las Palmas.
DENSITY: 1025.
FRESH WATER: Available at both berths.
OPENING/CLOSING HATCHES: By ship's crew.
AIRPORT: Distance 40 km., served by many airlines.
SERVICES: All services available from Las Palmas.
AUTHORITY: Cementos Especiales S.A., Arguineguin, Gran Canaria, Canary Islands. *Tel:* (928) 735711-12. *Telex:* 95397 Puzz E.

ARRECIFE: 28.57 N. 13.33 W.

DOCUMENTS:
Maritime Health Declaration.
5 Crew Lists.
4 Transit Passenger Lists.
2 Provisions Lists.
8 Manifests Discharge Cargo.
8 Lists of Passengers Disembarking.
PILOTAGE: Call Pilot VHF Channel 16. Pilot boards about 1,000 m. off port.
ANCHORAGE: Safe anchorage available. Cruising vessels may use own boats for transporting passengers.
RESTRICTIONS: None, except draft (see "Berthing").
HEALTH: Pratique granted in berth or at anchorage if vessel not berthing. Suspected disease on board should be reported to Agent by radio before arrival.
RADIO: Las Palmas Radio.
VHF: For communication with Pilot – Channel 16.
TUGS: No tugs stationed at Arrecife. May be ordered from Las Palmas with advance notice.
BERTHING: Muelle de los Marmoles. 1,000 m. long. Max. draft 9 m. Cargo work with ship's own gear.
STEVEDORES: Shifts 0800 – 1400 hrs., 1400 – 2000 hrs. No work Sundays or Holidays except by special arrangement.
MEDICAL: Facilities available. Advance notice required for inoculations/vaccinations which might not be immediately available.
FRESH WATER: Not available either ex-wharf or ex-barge.
FUEL: By arrangement with Spanish Oil Company CEPSA only.
REPAIRS: Slipways up to 400 tons. Workshops for minor repairs.
REPATRIATION: Via Las Palmas only.
AIRPORT: About 15 km. from port. Served by Interinsular flights and charter flights.
TIME: GMT during Winter. GMT plus 1 hour from first Sunday in April to last Sunday in September.
HOLIDAYS: As for Spain, plus local holidays February 7th and August 26th.
SHORE LEAVE: Allowed. Passes not necessary except for Eastern Bloc nationals.
AUTHORITY: Grupo de Puertos de Gran Canaria, P.O.Box 156, Arrecife.

LA SALINETAS: 27.58 N. 15.22 E.

LOCATION: Private wharf about 15 km. South of Las Palmas, port of fertiliser plant.
DOCUMENTS:
Maritime Health Declaration.
6 Crew Lists.
2 Provisions Lists.
8 Manifests of cargo for discharge.
PILOTAGE: Pilot is taken at Las Palmas. Vessels should advise ETA to their Agents in advance and contact Las Palmas Pilots on VHF Channel 16 on arrival.
MAX. SIZE: LOA 150 m., draft 8.5 m.
HEALTH: Pratique granted on berthing.
RADIO: Las Palmas Radio.
TUGS: Not normally used, but available from Las Palmas if required.
BERTHING: Private loading quay 200 m. long, depth 8.5 m.–15 m., can accommodate ships of 150 m. length and 8.5 m. draft. Loading by conveyor belt, 150/200 t.p.h.
MEDICAL: At Las Palmas, full facilities.
FRESH WATER: Available in an emergency only.
FUEL: Not available. Vessels should be stemmed for bunkers at Las Palmas.
REPATRIATION: Arrangeable via Las Palmas Agents.
AIRPORT: Las Palmas Gando Airport – 5 km.
TIME: GMT during winter. GMT plus 1 hour from first Sunday in April to last Sunday in September.
HOLIDAYS: As for Spain, plus local holiday September 8th.
SHORE LEAVE: Allowed. Passes not necessary except for Eastern bloc nationals.
AUTHORITY: Compania Insular del Nitrogeno, S.A., P.O.Box 417, 35080 Las Palmas, Grand Canary, Canary Islands. *Tel:* 690688, 695860. *Telex:* 95046. *Cables:* Insunitro Las Palmas.

LAS PALMAS: 28.05 N. 15.27 W. (See Plan)

DOCUMENTS:
5 Crew Lists.
4 Transit Passenger Lists.
2 Provisions Lists.
8 Copies of Manifest, with Bills of Lading covering cargo for Las Palmas.
8 Lists of Passengers Disembarking.
Passports of passengers landing (required by Immigration Authorities).
1 Maritime Health Declaration.
PILOTAGE: Compulsory. Masters send radio message to Agents 48 hours and 24 hours prior to arrival giving ETA and requirements. Call Pilot by VHF Channel 16. Pilot boats have black hull, white wheel house, with black "P" and boat number painted both sides of wheel house.

Pilot boards approximately ½ mile from harbour entrance.
ANCHORAGE: Good anchorage in roads, depth in excess of 35 m. Sandy bottom in North Roads, sand and shingle in South Roads. Mean tidal range 2.5 m. Tidal velocity negligible.

If anchoring off Las Palmas great care must be taken in choosing a position to anchor bearing in mind the great depths at relatively short distances from the island and the congested nature of the off-port area. Because the bottom is uneven and rocky ships should not steam to the anchoring position with too much cable walked out but, in view of the depths, it is necessary to lower the anchor to the bottom when all way is off the ship. Several ships have lost their anchors during the anchoring manoeuvre off La Luz.
RESTRICTIONS: No length or beam restrictions. Max. draft for vessels bunkering or working cargo 12.65 m. Vessels berth and unberth during day and night. Vessels carrying explosive or dangerous cargoes must apply through their Agent with sufficient advance notice (5 days for explosives) for permission to enter port, declaring quantity, IMO class and UN numbers also ports of origin and destination of the cargo. Tankers in ballast must declare whether tanks gas-free or inerted.
MAX. SIZE: Vessels of any length and beam can safely berth and normally discharge and load cargo while bunkering. Max. allowable draft 66 ft.

Largest vessel berthed 550,000 d.w.t.
RADIO: Las Palmas Radio, call sign EAL.
VHF: Pilots on Channel 16, working Channel 12 or 14.
TUGS: The following harbour and/or salvage tugs are available: *Tamaran,* 2,375 i.h.p.; *Arucas,* 2,200 i.h.p.; *Nublo,* 1,062 i.h.p.; *Doramas,* 1,313 i.h.p. *Punta Anaga,* 1,930 i.h.p.; *Orotava,* 2,062 i.h.p.; *Bandama,* Bollard pull 50 tonnes.
BERTHING: Subject to availability. Information should be radioed to Agent 48 hours prior to arrival, if berthing required, and for what purpose. Harbour approach from open sea with no impediments.
Generalisimo Franco Mole: Runs North/South, approximately 2,000 m. long. This quay is normally used by vessels bunkering, passenger vessels and is fitted with bunker and fresh water line connections along its entire length.

Height of quay above LW averages 4.5 m. Average rise and fall of tide 2.5 m.

Vessels lie safely alongside at the following maximum drafts:

Berths No.		
1 – 14 (Northern part)	36 ft. 0 in.	
15 – 16	34 ft. 0 in.	
17 – 18 – 19	41 ft. 6 in.	(Tankers – Dangerous Cargo)

Vessels using Berths No. 1 to 14 with drafts between 34 ft. and 36 ft. must enter and clear between half and full tide.

The inside of Dique del Generalisimo is a stone wall fendered about every 30 m. with single point fendering consisting of a horizontal hardwood core around which there are rubber truck tyres, each unit being hung from the stone wall face by chains. This fendering has poor energy absorbing characteristics and there have been instances of ships receiving local structural damage when berthed at excessive impact velocity. It is important that the tugs are placed and manoeuvred to fully control the ship's velocity towards the fendering and to ensure the ship is berthed as parallel to the breakwater as possible.

The breakwater berths are allocated by bollard numbers according to the numbers free at the time of allocation. The distance between the two ships on either side of your ship's berth may not be more than 1.1 times your ship's length, therefore careful manoeuvring into berth is essential.

All bollards for moorings are on the edge of the quay spaced 25 m. apart and, therefore, when ships are light, moorings will have a large vertical angle with little breasting effectiveness.

The public has access to the main breakwater and no control of smoking is effected. Extreme vigilance must, therefore, be exercised to guard against unauthorised boarding and fire hazards.

La Luz Mole: This quay is used mainly for cargo operations and has a total of 1,200 m. of berthing space.

A grain silo is situated at the North end of the quay. Maximum draft for berthing at the silo (capacity 12,000 tons) is 32 ft. Two connections for discharge of edible oils to the local refinery are also on this quay. Maximum drafts alongside the connections are 39 ft. and 32 ft. respectively; at the latter connection there is a length restriction of 150 m. One cold storage installation situated on this quay.

Fish Mole (Espigon del Castillo) and Ribera Mole: These 2 quays are used mainly by fishing vessels and coastal cargo vessels. Five cold storage installations are situated on the Fish Mole.

Santa Catalina Mole: Length 400 m., depth 4 m. – 8 m. This quay is used as a terminal for passenger/car ferries, with Ro/Ro ramps.

Queen Sofia Mole: 3,200 m. breakwater with dolphin berth for tankers. Depth of water 22 m. This allows berthing of ULCCs for repairs afloat, painting, underwater cleaning, etc.

Mole EN-1: Length 520 m., depth 12 m. For berthing vessels up to 300 m. LOA. There is a Ro/Ro ramp and container handling facilities. A fertiliser bagging plant and conveyor system is in operation.

Mole EN-2: Length 410 m., depth 12 m. For berthing vessels up to 200 m. LOA. Facility used by container vessels, general cargo vessels and occasionally passenger vessels (to be extended by 160 m. for Ro/Ro vessels).

Mole EN-3: Length 440 m., depth 14 m. For berthing of vessels laying-up and under repair.

BULK CARGO FACILITIES: Grain silo with 4 extractors. Rate 50 t.p.h. for each extractor. Draft alongside 32 ft. Cement silo with 2 extractors.

STEVEDORES: Loading and discharging of general cargo can be carried out between 0800 hrs. and 0200 hrs. including Saturdays.

Stevedoring labour works on a 6-hour shift system, 3 shifts per 24 hours. The shifts commence at 0800, 1400 and 2000 hrs.

Labour for the 0800 hrs. shift must be ordered by 0700 hrs., and for the 1400 hrs. and 2000 hrs. shifts on Monday to Fridays by 1300 hrs. Labour for all Saturday shifts must be ordered by 2000 hrs. on Friday.

CRANES: Floating crane with capacity of 70 tons and mobile cranes up to 125 tons capacity. 2×30 ton container cranes at Mole EN-1.

MEDICAL: Master should advise Agent if medical attention required on arrival. Hospital and ambulance services available day and night. Vaccination and inoculation available any time but notice should be given prior to arrival.

TANKERS: No facilities for slop discharge. Crude oil tanker berth. There is a special berth for large tankers with a draft of 22 m.

Each of the main oil companies have their own valve manifolds in pits in the breakwater roadways. These manifolds are connected to the ship's manifold by hoses and, sometimes, hard pipe strung along the breakwater road.

Berthing Procedures at Generalisimo Franco Mole: Tugs are made fast, using tug's wires putting eyes over the bitts, before entering harbour. Good messengers are required to lift tug's wires on board, especially if light ship. All ships have one tug on the hook forward, 1 tug on the hook aft and from 1 to 3 tugs alongside on the side away from the berth (usually port side). Communications between ship, tugs and mooring boat are effected by portable VHF sets carried by the Pilots, using Channel 11 or 6.

On passing the Southern end of Dique del Generalisimo the ship makes a 90° turn to starboard and proceeds to berth. Ships are normally berthed head to wind and as this prevails from the N.E., most berthings are starboard side to the breakwater. If the wind is from a Southerly quarter the ship is swung off the berth before going alongside.

The pilot boat follows the ship into the harbour and runs the head and stern moorings ashore. 2 head lines and 1 stern line are usually first ashore. At this time it is essential that the offside tugs are in a position to be able to retard the ship's movement towards the berth. Spring lines are put ashore by heaving line.

The ship is not spotted on to a hose handling point but is placed centrally between bollard numbers. Extension hoses and sometimes hard pipe are then used to connect the valve pit with the ship's manifold position.

Cargo/Bunker Connections: All hose handling is achieved with the ship's derrick which should be topped ready before berthing. Hoses used for cargo discharge are 8 in. with normally ASA bolted flange connections but some companies use quick release couplings. Hoses for supply of bunkers are 6 in. or 4 in. with ASA bolted flange connections.

Preparation of Manifold: Hose derricks to be lifted and plumbed for 1 m. outside ship's rail. For cargo discharge 8 in. outlets should be prepared.

Gangway: Ships must provide their own gangway. Because vehicles pass along the breakwater, gangways must be put out in a fore and aft direction or an accommodation ladder used.

Cargo/Bunkers Handled: Esso imports IF180 and Marine Gas Oil. Marine Diesel Oil is imported by other oil companies. These grades of bunkers are available:

Deballasting Facilities: None.

Ullaging, Temperature, Water Finding: To be done after arrival in conjunction with a Shore Inspector.

Cargo/Bunker Handling Facilities: Esso's storage tanks are located at the shore-end of Dique del Generalisimo at the same elevation as the breakwater road. The tanks are connected to the berth as follows:

IF180 by 2 pipe-lines (1×16 in., 1×12 in.), 3,500 m. long; Marine Gas Oil by 1×14 in. pipe-line, 3,500 m. long.

Maximum back pressure on hoses 8.79 kg./sq.cm. Maximum discharge rate 1,200 t.p.h. Pipe-lines are unlagged but temperature drop between ship and storage is not more than 3°C on coldest day.

If other ships require Fuel Oil bunkers during discharge of this grade, these are delivered via the 12 in. line leaving the 16 in. line for discharge.

Bunker deliveries are made at 600/700 t.p.h. maximum. Normal rates 200/500 t.p.h. All bunker deliveries are metered. Bunkers can be delivered by barge to ships at anchor by CEPSA, but arrangements must be made well in advance.

Passing Traffic, Weather, Tide, Current Problems: No traffic or current problems.

Maximum tidal rise 2.7 m. over datum.

Whilst the weather is generally equable, wind from S.E. can cause a problem to ships with high freeboard due to lack of adequate breasting facilities. A close watch should be kept on moorings and weather conditions.

Density of Dock Water: Full salt.

FRESH WATER: Available at inner harbour mole delivered by hose at rate of approx. 50 t.p.h. per hose, while bunkering and/or loading/discharging cargo. Also available by barge at anchorage.

FUEL: Masters to include in messages to Agents amount, grade and viscosity of oil required, and name supplier, 48 hours prior arrival.

Bunkers supplied 24 hours. Fuel oil, diesel and gas oil available ex-wharf, rate 1,000 t.p.h.

GANGWAY/DECK WATCHMEN: Recommended. Arranged by Agents.

OPENING/CLOSING HATCHES: Performed by stevedores.

CUSTOMS ALLOWANCES: No restrictions for tobacco, wine and/or spirits.

IDENTIFICATION CARDS: Not necessary.

CONSULS: The following countries have Consular Representations at Las Palmas:

Argentina
Austria
Belgium
Bolivia
Brazil
Chile
Colombia
Cuba
Denmark
Dominican Republic
El Salvador
Finland
France
Greece
Guatemala
India
Italy
Japan
Korea
Lebanon
Liberia
Mauritania
Monaco
Morocco
Netherlands
Nicaragua
Norway
Peru
Philippines
Portugal
Senegal
Sierra Leone
South Africa
Sweden
Switzerland
Syria
United Kingdom
United States of America
Uruguay

SURVEYORS: The following Classification Societies have resident appointed Surveyors at Las Palmas: American Bureau of Shipping, Det Norske Veritas, Lloyd's Register of Shipping, Nippon Kaiji Kyokai, Registro Italiano Navale, Bureau Veritas and Germanischer Lloyd.

REPAIRS: All types of deck and engine repairs carried out afloat.

DRY DOCK: Repair Wharf length 560 m. depth 8 m. – 12 m. Syncrolift platform, lifting power 9,500 tons, for vessels up to 175 m. length, 30 m. beam and 30,000 d.w.t. 5 mooring points of 180 m. and 2 of 220 m.

REPATRIATION: All facilities for crew changes, by sea and air.

AIRPORT: International Airport 26 km. South of Las Palmas.

TIME: GMT in Winter. Summer-time is GMT plus 1 hour.

HOLIDAYS: Local holidays: 24th June; 8th September.

National Holidays: 1st January; 6th January; 19th March; 1st May; 25th July; 1st November; 8th December; 25th December.

Feast Days: Maundy Thursday (half-day); Good Friday; Ascension Day; Corpus Christi.

Cargo handling during holidays and feast days; no stevedoring labour available from 2000 hrs. from day prior to Good Friday, Christmas Day and 1st January, until 0800 hrs. on following day.

POLICE/AMBULANCE/FIRE: Police, 264431. Ambulance, 264473. Fire, 243100.

TELEPHONES: Line connected to vessels alongside wharves from Harbour Board exchange if required.

SERVICES: Underwater hull cleaning, painting, surveys are carried out in clear water in outer harbour. Compass adjusting, gyro repairs, radar repairs, etc.

SHORE LEAVE: Permitted. For some nationalities, passes must be issued by Immigration Authorities.

OFF-PORT TRANSFERS: 24 hour service throughout the year by helicopter and launch.

Helicopter: Avicopter S.A. Helicopter Service, Edificio Esta J.O.P., Planta 3a Local, 303, Las Palmas de Gran Canaria. Tel: 270726, 270727, 267986. Telex: 95173 Helic.E. Cable: Helicsa Las Palmas. Range: 80 miles.

DEVELOPMENTS: A new Outer Breakwater is already in use. This runs North/South, parallel to the Generalisimo Franco Mole, and approximately 1,000 m. to the East of it. The new breakwater is 3,200 m. long.

The new harbour area thus created contains at the Northern end the Synchrolift drydock and repair installation which is already operational.

This outer area of the harbour is protected from Southerly weather by a newly constructed jetty heading N.E. from the Southern point of the Generalisimo Franco Mole, and will in due course provide further Ro/Ro ramps and also deep-water berths for large vessels.

AUTHORITY: Port Commandant, (Comandancia de Marina) and Chief Engineer of the Port (Ingeniero Director del Puerto). *Tel:* (3428) 261150. *Telex:* 96004 JPLUZ E.

AGENT: Afronaves, S.A., Juan de La Cosa 25, P.O.Box 2595, Las Palmas, Canary Islands. Tel: (34 28) 276953, 220208, 277305.(After office hours 694872, 698354). Telex: 96528 Afrn E. Fax: (34 28) 276883. Cables: Afronaves Las Palmas.

SANTA CRUZ DE TENERIFE: 28.28 N 16.16 W.

(See Plan)

DOCUMENTS:

6 Crew Lists.
6 Passengers in Transit Lists.
8 Passengers Landing Lists.
7 Cargo Landing Manifests.
2 Stores Lists.
1 International Health Declaration.
1 Free Pratique.

If no passenger or cargo landing, must present negative declarations.

PILOTAGE: Compulsory. Recommended give Agent 48, then 24 hours notice of ETA. Contact Pilot station by VHF Channels 14 or 16. Pilot station located at shore end of Muelle Norte. Pilot boards up to 2 miles off extreme end of Muelle Sur. In daytime pilot cutter identified by blue flag with white "P" superimposed; night-time, red and white light. When pilot cutter unable proceed out of harbour due heavy weather, Pilot awaits in lee of extreme end of Muelle Sur. Pilots called by VHF when entering (Channels 16 and 14); on sailing called by local Agent, or by VHF Channel 16 or 14.

ANCHORAGE: Vessels proceeding to anchorage are conducted by Pilot. Anchorage outside breakwater in depths 10 – 40 fathoms.

MAX. SIZE: Floating pipe-line terminal at Honduras, up to 240,000 d.w.t. Dolphins, up to 45,000 d.w.t.

Dique del Este (new part), 700 m. long with 300 m. LOA limitation, draft up to 60 ft.

HEALTH: Free Pratique not granted by radio. "Q" Flag must be flown until vessel cleared inward by Port Health Authorities, which procedure is very quick. If suspected disease or fever on board, Agent or Port Health Authorities must be notified by radio.

RADIO: Tenerife Radio – call sign EAT working frequency 472 kHz. Short-wave EAT 3 working frequency 1930 – 0830 hrs., 8742 kHz. Short-wave EAT 4 working frequency 0830 – 1930 hrs., 13092 kHz. Radio telephone call sign "Tenerife Radio" working frequency 1740 kHz.

There is a 24 hour telephone link with vessels within 100 miles range, which vessels may utilise by calling Tenerife Radio on VHF Channel 16 for connection to Agent's telephone number.

TUGS: Join vessels entering approximately 0.5 miles to 1 mile from extreme end of Muelle Sur. Use of tug's lines optional, but when supplied by the tug, extra charges incurred. Use of tugs not compulsory.

Tugs normally available: *Guimar* 1,600 h.p.; *Tarifa* 2,300 h.p.; *Algeciras* 3,200 h.p.; *Coria* 3,200 h.p.; *El Guanche* 2,200 h.p.; *Gran Canaria* 2,200 h.p.

BERTHING:

Dique del Este: 960 m. length, depth alongside 16.0 m. – 19.5 m.; 294 m. length, depth alongside 12 m. Quay used by tankers, bulk carriers and container vessels. Water and bunkering facilities available.

New Container Base (South Dock): Length 450 m. Depth alongside 10 m. Gantry cranes up to 35 tons available.

Dique Muelle Sur: 803 m. length, depth alongside 12 m.; 213 m. length, depth alongside 10 m.; 638 m. length, depth alongside 8.00 m. Bunkering and fresh water connections available. Quay used by passenger vessels and vessels bunkering.

Muelle de Ribera: 412 m. length, depth alongside 10 m.; 131 m. length, depth alongside 9.5 m.; 295 m. length, depth alongside 8 m., 314 m. length, depth alongside 7 m. There are 5 Ro/Ro berths. Bunkers and fresh water available.

Fishing Harbour: Total length 1,850 m. Depth alongside 6 m. Bunkers are supplied by road tanker and water available at certain points along the quay.

Muelle Norte: 103 m. length, depth alongside 8 m. Bunkers and water available.

Container Terminal (N.E. Dock): Length 420 m., depth alongside 10 m.

Honduras Mole: Length 90 m., depth alongside 8 m.

Dolphin Berth: Length 90 m., depth alongside 10 m.

CRANES:

Muella de Ribera: 9×6 ton and 2×30 ton electric Portal cranes and 8×3 ton Portal cranes.

Muelle Norte: 2×6 ton electric Portal cranes.

Dique del Este: 2×30 ton electric Portal cranes.

Container Terminal (N.E. Dock): 1×30 ton gantry crane. Mobile cranes 180 tons and 125 tons available.

STEVEDORES: Monday to Saturday gangs ordered at 0600, 1200 and 1800 hrs. On Sunday there is only one shift from 0800 – 1400 hrs. and gangs for Sunday work must be ordered at 1300 hrs. on Saturday. Telegraphic information from Masters to be despatched 48 hours prior arrival giving first ETA. Gangs work three 6-hourly shifts, viz. 0800 – 1400 hrs., 1400 – 2000 hrs., 2000 – 0200 hrs. Fourth shift from 0200 – 0800 hrs. by special request. Orders to be made by 1900 hrs. All necessary gear supplied by stevedores.

BULK HANDLING FACILITIES: Grain silo situated at entrance to East Mole, max. discharge rate per extractor, 200 t.p.h. Two extractors available and can work 24 hours a day. It is only used for government department imports. All other shipments are discharged by grabs at the South Mole.

MEDICAL: Masters to advise by radio if medical attention required on board. Yellow fever inoculation possible in daytime subject prior notification.

TANKERS: Local refinery (Compania Espanola de Petroleos SA) have ample couplings, hoses and reducers. Slop facilities available. Tankers up to 240,000 d.w.t. discharge at Floating Pipeline Terminal at Honduras Buoy Zone.

Loading terminals situated at Dique del Este; at Puerto Honduras (used mainly for LPG and refined spirit loading) for 45,000 d.w.t.; and 2 berths at extreme end of Muelle Sur.

DENSITY: About 1025.

FRESH WATER: Available at all berths, delivered by hose any time day or night. Water barges available 24 hours to supply vessels at anchorage, 500 tons and 400 tons capacity. Night-time at extra cost.

FUEL: All grades available from CEPSA (cables "Spanoil Madrid" and/or "Tenerife"). Fuel available at all berths, average rate of loading 500-600 t.p.h. Bunkers at anchor can be supplied by bunkering barge *Mayorga*, 1,400 tons capacity, or *Spabunker*, 6,000 tons fuel; 1,500 tons gas oil. Notice required for refuelling 72 hours, to be confirmed at 48 and 24 hours before arrival.

Also see "Shipmaster's Report".

FIRE PRECAUTIONS: All tugs equipped fire-fighting equipment including foam and 4 water/foam monitors. Refinery well equipped with shore fire-fighting equipment, including mobile foam trucks.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

HATCHES: Normally opened by crew, stevedores lifting beams. If whole operation carried out by stevedores, extra charge possible.

CUSTOMS ALLOWANCES: Free port, no restrictions in force.

REPAIRS: NUVASA offer a synchro-lift, lifting capacity 2,000 tons, and vessels up to max. 83 m. LOA can slip at their yards, where there is space for 14 vessels at a time. Docking can be effected day and night. Also available is a floating dock with 6,000 tonne capacity.

Their workshops can carry out major repairs to ships afloat, including engine and boiler work, and is equipped with modern machinery.

SURVEYORS: Lloyds, ABS, NKK, RIN, BV, GL and NV available from Las Palmas. BV and GL in Santa Cruz.

REPATRIATION: All facilities available for repatriation and crew changes. Daily air flights to Madrid and Europe.

AIRPORT: "Reina Sofia" International Airport situated 65 km. from port, served by Iberia, KLM, Air France, Lufthansa, British Caledonian and others. Daily flights to and from most European capitals.

TIME: GMT in Winter, GMT plus 1 hour in Summer.

HOLIDAYS: Local holiday: May 3rd. National holidays: January 1st, January 6th, March 19th, Maunday Thursday, Good Friday, May 1st, Corpus Christi, July 25th, August 15th, October 12th, December 8th, December 25th.

POLICE/AMBULANCE/FIRE: Police 091; Ambulance 241502; Fire 220080.

TELEPHONES: Facilities exist for connecting telephones on board.

SHORE LEAVE: No restrictions, except for Crew members of East European countries, who must obtain Identification Cards from local Immigration.

IDENTIFICATION CARDS: Not required. For citizens of East European countries local Immigration will deliver Identification Cards, which should be returned to Agent before sailing.

CONSULS:

Austria
Belgium
Bolivia
Brazil
Chile
Colombia
Costa Rica
Denmark
Finland
France
Germany F. R.
Italy
Liberia
Monaco
Netherlands
Norway
Peru
Portugal
Sweden
United Kingdom
Uruguay
Venezuela

SERVICES: Underwater hull cleaning, tank cleaning-compounds (Basic Chemicals, etc.), compass adjusting.

Passenger Transport: 8 special craft are available which listen out permanently on Channel 16 VHF.

Transport, Victualling, Lubricants, etc.: There is a fleet of craft operating 24 hours a day for this pupose.

Cleaning of Hulls and Painting Afloat: The company RETRASUB using the Scamp. system operates, and has special craft for hull painting.

Sick Persons: Brought ashore in small craft, and there are ample medical and surgical services available in Tenerife.

Disembarkation of Crew, Technicians etc.: The airports of the island provide wide international coverage for moving crews, etc.

Waiting for Berths: Very reduced tariffs are applied to vessels waiting on stand-by in the anchorage.

SHIPMASTER'S REPORT: April 1988.

Vessel called for bunkers only. On contacting pilot station, the vessel was given a position to anchor outside the breakwater. The pilot station is to be informed after anchoring. The bunker vessel is fitted with a flow meter and the amount of bunkers supplied is ascertained by the same. The Agent boarded the vessel promptly and took care of all the formalities and issued Port Clearance. If a vessel stays for over 6 hours, additional charges are to be paid. On sailing, the pilot station is to be informed.

AUTHORITY: Junta del Puerto de Santa Cruz de Tenerife, Avda Francisco la Roche. *Tel:* 922-27-78-50. *Telex:* 92077. *Contact:* M. Pintor, General Manager.

AGENT: Miller Y Cia S.A., Avenida de Anaga 43-2, P.O.Box 79, 38080 Santa Cruz de Tenerife, Canary Islands. Telex 92143 Midoc E. Tel: 282316, 282366, 283766. Cables: "Miller Tenerife".

Republic of Cape Verde

PALMEIRA BAY, Sal Island: 16.45 N. 22.59 W.

(See Plan)

DOCUMENTS:

5 Crew Lists.
2 Stores Lists.
2 Personal Effects Lists.
1 Health Declaration.
1 Derat Exemption Certificate.
1 Vaccination List.
1 Statement of Ports of Call from Last Loading Port.
3 Bills of Lading.
2 Certificates of Quality (2 from each shore tank at load port).
3 Certificates of Quantity.
2 Cargo Manifests.
1 Ship Particulars Paper (local supply).

PILOTAGE: Accurate ETA advice is essential, as the Mooring Master and Pilot have to leave St. Vincent over 12 hours prior to the vessel's arrival at Sal. Close radio contact must, therefore, be maintained with St. Vincent. If difficulty is experienced in contacting St. Vincent, messages can be passed via Lisbon Radio. Sal Terminal can be contacted on VHF Channels 16 and 13 and by SSB radio.

Shell, St. Vincent, send a Mooring Master from St. Vincent who will berth the vessel and remain onboard until departure.

ANCHORAGES: Position: Lat. 16° 44′ 47″ N., Long. 22° 59′ 37″ W. Sandy bottom. Pilots recommend NOT to anchor during hours of darkness, especially in the months December/March when heavy swell may be encountered.

RESTRICTIONS: Heavy swell occasionally closes port from December 1st to March 31st inclusive.

RADIO/VHF: Arrival displacement to be stated in ETA message. Also see "Pilotage".

Mooring Masters have portable VHF sets for communication to shore during berthing and discharging operations.

BERTHING: Length of pier 112.0 m. Depth alongside 4.10 m. (seaward 60 m.), 2.00 m. (next 33 m.) and 1.00 m. (Inner 22 m.) Width of pier 25 m.-22 m. Berthing possible on one side only.

TANKERS: A four-buoy (2 forward and 2 aft) sea berth for the supply of refined products to the Airfield on Sal Island, located in Palmeira Bay. Ship drops port anchor in marked location and pays out approx. 7 shackles cable. Three good ropes are required for each buoy. Shore wires are used when swell present. Bottom is stone and rock with some sand patches. Berthing is impracticable in strong South to North West winds which occur usually during winter months.

Engines should be kept ready at all times. The months December/March particularly critical.

Discharging: Shore gang connect hose, however, ship supplies winch driver. Connection is made amidships on starboard side. 1×8 in. flexible hose to an 8 in. submarine pipe-line (length approx 1,000 m.) Max. back pressure 150 lbs./sq.in.

Products Handled: Mogas, Kerosene and Avtur. First product Mogas and last product Avtur.

DENSITY: 1025.

FRESH WATER: None. Nearest at St. Vincent.

FUEL: None. Nearest at St. Vincent.

REPAIRS: None.

GENERAL: A Customs Officer, the Mooring Master and Pilot remain on board during stay in port.

SHIPMASTER'S REPORT: November 1987.

Charts: BA. Charts 366 and 369.

Cargo: Vessel discharged 6,200 tonnes of Jet A-1 to Shell Cabo Verde SARL.

Documents

4 copies Crew List.
1 copy Stores List.
1 copy Ports of Call List.
1 copy Vaccination List.
1 copy Crew Declaration.
Cargo documents from loading port.

Approaches: At night port is easily identified and two sets of leading marks which are visible at a useful distance. In daylight tanks and freezing plant are conspicuous and within 2 miles leading marks can be identified.

Communications: Telex via Portishead Radio to Shell St. Vincent was no problem. Once within 40 miles of the port VHF contact was established on Channels 16 and 13.

Restrictions: Vessels may not berth at night.

Pilotage: Pilotage not compulsory. If Pilot required he is sent by Shell from St. Vincent.

Berthing: The Pilot boards from small boat one mile West of mooring buoys. He is accompanied by the Shell Mooring/Loading Master who used to do the pilotage before Independence and now advises the pilot who advises the Master.

Approach was taken very easily with minimum number of engine movements and the light NNW wind blew the ship into the berth easily.

Two boats pick-up the first lines, 2 lines from each bow and 2 lines from each quarter, the ship is then snugged into position (see "Plan"). One more line is sent to each buoy to complete the tie-up. Lashings are required only for the last line on each buoy, the others being shackled on.

In rougher weather the port anchor is used to assist.

Letting go was simple as an off-shore breeze blew us out to sea as soon as we let go and it was just a matter of turning the ship round.

Discharging: Through 1 × 8 in. hose. Ship provides winch driver. Shore gang pick-up and connect to manifold. Shore gang, which was excellent, consists of 6 to 8 local men who stay on board throughout the discharge. Throughout the discharge the Loading Master and one Customs Officer remain on board.

The pilot will return if weather deteriorates.

General:

Stores: Lobsters from the local freezer plant can be purchased when available for $7.0 per kilo. They average 1.5 – 2.0 kilos each.

Berth information:

Operator: Shell Cape Verde SARL.
Density: 1025.
Distance from Pilot to berth: 1 mile
Controlling depth in approaches: 46 ft.
Maximum permissible draft in approaches: 40 ft.
Depth of water in berth: 46 ft.
Maximum permissible draft alongside: 40 ft.
Maximum dimensions permissible alongside:

	1st April – 30th November (m.)	1st December – 31st March (m.)
Length	183	175
Beam	21	21
Draft	12.5	11.54

Vessels are berthed/unberthed at night except in Winter months with high winds.

Fresh Water: Not available.
Fuel: Not available.
Tugs: Not available.
Anchorage Area: To South and seaward of berth but not recommended by pilot.
Number of loading/discharge hoses: One.
Size of hose: 8 in.
Max. rate: 400 t.p.h.
Maximum pressure allowed: 150 p.s.i.
Length of Pipeline: 3,150 ft.
Slop possibilities: Only for changing grades.
Repair Facilities: None.
Veritas or Lloyd's Representation: None locally.

AUTHORITY: See "Porto Grande".

PORTO GRANDE, St. Vincent: 16.53 N. 25.00 W.

(See Plan)

PORT LIMITS: Inside of a direct line running from Pta. Joao Ribeiro to Pta. do Morro Blanco.

PORT: Porto Grande at Lat. 16° 52′ 55″ N., Long. 25° 00′ 25″ W. City: Mindelo.

HARBOUR: Porto Grande is a natural semi-circular harbour sheltered and safe, facing island of Santo Antao over a channel approximately 10 miles wide at nearest points. In this channel but nearer St. Vincent is the rock of Ilheu dos Passaros on which is a lighthouse. Entry to harbour is from North to South. Weather conditions throughout year usually good to excellent.

DOCUMENTS: On arrival Masters should hand to Agent:

3 Crew Lists.
3 Passenger Lists.
1 Maritime Health Declaration Certificate.
1 Copy Stores List.

Port Doctor will also wish to sight ship's Derat Certificate.

When discharging cargo a minimum of 5 copies of Bill of Lading and 5 copies of Manifest are required. No special form for Passenger Lists and Crew Lists, and those in general use by the vessel will be accepted.

PILOTAGE: Radio notice of ETA must be sent by Master to Agent at least 48 hours before arrival. Pilot boards mid-way between Bird Island (Ilheu dos Passaros) and the Quay. The Pilot prefers to use pilot ladder. Signal for Pilot is 2 long and 1 short blast on ship's whistle. However, sound signals prohibited between 2000 hrs. and 0800 hrs. local time. Time between Pilot boarding to vessel's anchoring or berthing at piers is 10 to 45 minutes. See "Radio".

Important: The Harbour Master requests Masters not to anchor in harbour before Pilot on board. Pilots available day and night. Pilotage compulsory for all vessels entering harbour for anchoring, or berthing. When sailing, pilotage not compulsory for vessels which anchored in harbour. Pilotage compulsory for all vessels berthing and unberthing at piers.

ANCHORAGE: Anchorage berth in 4 to 20 fathoms.

MAX. SIZE: The harbour of Porto Grande can accommodate vessels up to any size. Also see "Berthing" and "Tankers".

HEALTH: Free Pratique can be obtained before arrival on application by radio to Guarda Mor (port doctor) of Sao Vicente de Cabo Verde confirming that crew are in good health. The port doctor, however, usually boards vessel on arrival in company with Police and Customs Guards, in order to provide any medical assistance which may be required. Crew and passengers should be in possession of Vaccination Certificates. Production of these certificates will not, however, be called for unless there is a very good reason for doing so.

RADIO: Advice of ETA should be sent by radio to Agents at least 48 hours prior to entering port. Bunker and water requirements, if any, should also be requisitioned in same message. Cash to Master, provisions, cigarettes, spirits, etc., should be also added. ETA message should also advise number of hatches to be worked and number of tons in each hatch.

St. Vincent radio operates on CQA – 500 kHz and 8.738 MHz 24 hours a day – working frequency 435 kHz on 8 MHz. Listening every 2 hours over the hour and again each half hour on the hour. Pilot station may be contacted on VHF Channel 13-16.

BERTHING:

Pier No.	*Max. Depths* (m.)	*Length of Pier* (m.)
1*	11.50	310.00
2	11.50	310.00
3	9.50	160.50
4	9.50	160.50
5	8.50	90.00
6	6.50	122.00
7	4.50	61.50
8	3.50	106.75
9	3.50	40.00
10	4.50	100.00
11	5.50	100.00

(*This pier is open to the sea and usable subject to prevailing winds and swell).

Floating and suspended fenders are available at the piers. Suspended fenders are each of 3 lorry tyres, 3 ft. wide with a diameter of 2 ft. 6 in. suspended at intervals of 70 ft. Floating fenders are of 5 tyres with a wooden core and are 4 ft. 6 in. long and 3 ft. 6 in. in diameter and are placed at intervals between the suspended fenders. Cruising vessels normally berth at Pier No. 2. Max. draft 33 ft.

Height of Pier No. 2 above sea level approximately 2 m. Vessels moor port side to pier. No shore gangways available. Cruising vessels with drafts too deep to berth alongside piers can anchor in harbour about 1,250/1,500 m. distance from Custom House Pier where passengers may land. Ship's launches must be used for the transport of passengers to and from shore. With tug assistance vessels may berth or unberth at any time of day or night at Pier Nos. 2, 3 and 4, but in adverse weather or other adverse conditions berthing at night may be prevented. Berthing and unberthing at night at other piers generally not possible.

CRANES: 1 heavy lift floating crane, max. lifting capacity 60 tons.

STEVEDORES: If quantity for loading or discharging is of 10 tons or under, and in comparatively small parcels, then cargo can be loaded or discharged using the only small lighter available for vessels at anchorage. If larger quantity to be handled vessel must berth alongside quay. In both instances ship's tackle must be used. Discharging rate for bagged cargo, i.e. flour, rice, etc., is about 30 t.p.h. per hatch. In all cases vessel's derricks and winches are used. There are no lighters available, therefore as described above all cargo in excess of 10 tons must be loaded or discharged at the piers. The opening/closing of hatches is the responsibility of the crew on board, but can be done by the stevedores by arrangement with the Master under the supervision and responsibility of the ship's officers.

TANKERS: Max. length 775 ft.; max. draft 36 ft. Underkeel clearance 4 ft. Max. d.w.t. 53,000 tons.

Discharge effected by barge from starboard side of tanker at anchorage, also through submarine pipe-line in harbour at: Lat. 16° 53′ 30″ N., Long. 25° 00′ 50″ W. length of line, 1,000 m.; diameter, 20 in.; Buoy Berth; hoses 12 in.; number of hoses, 7; position of hose connections, midships starboard side; Max. rate per hour, 2,000 tonnes; density of water at berth 1025.

Submarine Pipe-line Buoy Berth: Tankers moored to 1 forward buoy and 3 stern buoys. Tanker also uses port anchor which is dropped before tying up to buoys. Nature of bottom is coarse sand and gravel. Berthing at buoys carried out 24 hours a day and port tugs of up to 1,200 h.p. used always on berthing and on unberthing according to weather conditions.

Cleaning Tanks: 50 miles from shore only.

Gas Freeing: At present no facilities available.

FRESH WATER: Can be supplied at anchorage or at piers or ex-lighter day or night. Water suppliers request at least 48 hours' notice giving quantity required. A minimum charge covering costs of supply of 20 tons is made on supply for under that quantity. To supply over 750 tons during a 12 hour stay in port with 2 lighters, giving between 25 to 50 t.p.h per hose, would be difficult. Connections of hose couplings from water barges are 3 in. male, 11 threads per inch.

FUEL: Oil bunkering carried out ex-lighter at anchorage at rate of up to 300 t.p.h. dependent upon speed at which vessel can receive. Both fuel and diesel oil bunkers can be supplied at the piers. Gas oil can be supplied in drums to vessel at anchorage or in bulk ex-pipe-line on piers. All bunkering at anchorage ex-barge takes place on starboard side of vessel. Supplier: Empresa Nacional de Combustiveis. Telex: 86 Enacol Cv.

GANGWAY/DECK WATCHMEN: Two Maritime Police are always in attendance and are compulsory.

CUSTOMS ALLOWANCES: Tobacco and Wine and/or Spirits, no restrictions within reason.

CONSULS:

Belgian (Vice-Consul)
Danish (Vice-Consul)
Netherlands (Vice-Consul)
Norwegian (Consul)
Swedish (Vice-Consul)
Venezuelan (Belgian Consul acts in a friendly capacity).

REPAIRS: The St. Vincent ship repair yard, situated at Matiota at Porto Grande of St. Vincent, has been completed.

It is constructed on an embankment and protected from the sea by the cliffs and is fitted out with modern installations, well equipped and endowed with specialised personnel, who will be able to execute any repair work on ships up to 6,000 d.w.t.

The elevator system is of slipway type with lateral transference to the repair parks equipped with an elevator platform of 95 m. length and 18 m. width and capacity of 2,800 tons. It has 6 dry repair posts. There is space for 1 more repair post in future.

A pier with a length of 110 m. is situated at the West front and is expected to receive ships of about 6,000 d.w.t. It is used for ship repairs that do not need the dry dock.

The depth along the pier and in the manoeuvring zone is about 6 m.

On shore besides all buildings for the services of storage, the necessary repair shops for the repairs are fitted out with modern equipment.

REPATRIATION: Facilities exist for effecting crew changes by air, but recommend that Lisbon be contacted by Owners for crew making flights into Sal Island in order to join vessel St. Vincent. Agents should also be informed to make necessary arrangements for flight on local plane from Sal Island to St. Vincent. All crew travelling to Cape Verde must have transit visa issued by Consul in country of origin. All crew, except cases for hospitalisation, must be in possession of a passport before police will permit them to disembark for repatriation. Crew possessing valid passports or sailors' books can land in Cape Verde for medical and/or hospital treatment or for repatriation to country of nationality provided it is country with whom Cape Verde has diplomatic relations and provided Agents of vessel take full responsibility on behalf of Owners for all expenses.

AIRPORT: Airport served by Dove planes for inter-island service only. 20 flights a week in and out of St. Vincent, 4 direct from Praia and 6 via Sal Island inwards. 5 via Sal and 5 direct Praia outwards. Main Airport is at Sal Island where 5 flights a week by Boeing 727 call to and from Lisbon. At Sal Island the only hotel is situated at the Airport.

TIME: GMT minus 1 hour all the year round.

HOLIDAYS: New Year's Day (1st January); National hero's day (20th January); St. Vincent's Day (22nd January); Women Day (8th March); Workman Day (1st May); Children's Day (1st June); National Independence Day; (5th July) Nationality's Day; (12th September); Christmas Day (25th December).

Although offices closed on holidays, loading and discharging of vessels not generally affected.

POLICE/DOCTOR/AMBULANCE/FIRE: Contact police on board or local Agent.

SHIPMASTER'S REPORT: July, 1984.

Pilotage: Pilot boards 0.5 miles from end of breakwater.

Anchorage: Vessel anchored with Mohle No. 2 Light bearing 068° distance 0.5 miles.

Restrictions: Vessel may enter day and night at any stage of the tide.

Tugs: 2 tugs available. Docking and undocking possible without the assistance of tugs.

Radio: Sao Vicente de Cabo Verde.

VHF: Pilot on Channel 16. Port Authority on Channel 15. Agent on Channels 16 and 15.

Documents:

3 Copies Crew List.
1 Copy Stores List.
Maritime Health Declaration.

Facilities: The following facilities are available: Fresh water. Fresh provisions in limited quantity. Repair facilities. Dry docking facilities for vessels up to 11 m. draft. Machine shop. Lloyd's Surveyor and Salvage Surveyor. Laundry service. Telex. Bunker fuel oil and diesel oil. Doctor and hospital.

Berthing: Vessel berthed at Berth No. 2 (Molhe No. 2). Length of quay 1,000 ft.

Depths: Depths at N.E. end 37 ft. and at S.W. 43 ft. Least depth of water in channel from sea to berth is 44 ft. Mean tidal range 0.8 m. Bottom mud. Density 1025.

Cargo Handling Facilities: Cold storage capacity 24,000 tons. No Ro/Ro and bulk handling facilities. No quay cranes on the main quay. Floating quay available. Fork lift trucks available. No handling equipment or storage facilities for containers.

AUTHORITY: Direccao Geral de Marinha e Portos, C.P.7, Mindelo, Republic of Cape Verde. *Tel:* 2433, 2470. *Telex:* 32 Marpor CV. *Contact:* Jaoa Baptista Brites, Harbour Master.

AGENT: Agencia Nacional de Viagens (Seccao Internacional) P.O.Box 16, St. Vincent, Republic of Cape Verde. Cable Address: Anavsi Saovicentecaboverde. Telex: 83 Anav Sv – Cv.

NOTES

Please also advise Shipping Guides Ltd.

Cayman Islands

CAYMAN BRAC (See Plan)

SHIPMASTER'S REPORT: February 1979.

Cayman Brac – Lightering Area

Chart: British Admiralty 462.
Radio: Very weak VHF only Channels 16, 10, 6. Call – "Cayman Energy" Agent recommends using Curacao (PJC) for ETAs, etc.
Boarding Positions:
No. 1: Lat. 19° 46′ N., Long. 79° 46.5′ W.
No. 2: Lat. 19° 40′ N., Long. 79° 53′ W.
Documents: 4 Crew Lists, 3 Stores Lists, 3 Personal Effects Lists, 2 Vaccination Lists, Clearance from Last Port, Cargo Manifest and Health Declaration (supplied).
Pilots: Mooring Master boards service vessel, STBL. 2 Pilots, 2 Assistants and 2 Riggers (for fenders). The above 6 men require accommodation on board.
Mooring: According to Operators "Cayman Energy Ltd.", can be carried out anytime day or night.

Cayman Energy Ltd., based in New York, are the operators of the transhipment operation. The local Terminal Manager and Senior Mooring Master resides on Cayman Brac and usually carries out the berthing operation from the service vessel. Ship to ship transfers commenced in 1977, future developments include the construction of a Transhipment Terminal on Little Cayman using SBMs, this project should come into operation late 1979.

The berthing procedure is straightforward and based on the ICS Ship to Ship Transfer Guide. On this occasion, Texaco were using vessels of about 45,000 d.w.t. as service vessels. These ships are in the region of 20 years old and have no modifications for this work. The Officers and crew of these vessels were mainly Italian and well practised in ship-to-ship transfers.

Upon completion of mooring, the Mooring Master departs and the Pilots remain on both vessels in an advisory capacity. 2×10 in. hoses are connected by the respective crews, the shore riggers assisting. Communications between the two vessels is by VHF.

During the transfer operation, the vessels are expected to remain within 4 to 5 miles from the island and the service vessel kept in the lee of the STBL. This entails maintaining a proper bridge watch and frequent use of the engines. The currents invariably set away from the island and can be quite strong at times. The winds during the latter part of January were extremely variable in both direction and force.

The Texaco practice of the STBL taking dirty ballast from the service vessel whilst reducing the risk of pollution, poses stress problems and also requires strict supervision of line draining between each operation. Ideally, water dips and ullages should be taken prior to and after the deballasting.

Unberthing is carried out by the Mooring Master whilst both vessels are drifting. The off-loader is put on the weather side of the STBL. This practice is questionable in winds over 15 knots – the movement of the smaller vessel together with reduced freeboard causes difficulties with the fenders.

The average berth time for each vessel is approximately 30 hours, the number of off-loaders for a ship of this size is five. If a safe and efficient operation is to be maintained throughout the period it is essential that two additional deck officers be available for cargo watch purposes.

SHIPMASTER'S REPORT: January 1980.

Cayman Brac – Little Cayman (See Plan)

Communications: "Cayharb Cayman Brac" via Slidell Radio WNU (see "Admiralty Radio Signals Volume 6").
Via VHF Channel 16:
"Cayman Energy" (good reception)
"Cayman Pilots" (via ship where the Pilot is at the time)
"Cayman Harbour" (weak signal)
Pilot Boarding Station:
Lat. 19° 43′ N., Long. 79° 53′ W. or Lat. 19° 40′ N., Long. 79° 53′ W.

Note: this position may change with seasonal weather conditions. The position is also used for Port Officials who request accommodation ladder in light condition but accept air pilot hoist or pilot ladder in loaded (tanker) condition.

Documents Required: 4 Crew Lists, 4 Cholera Immunisation Lists, 4 Stores Lists that include Stores, Narcotics, Bond, 4 Cargo Manifests, 4 Crew Declaration Lists.
Bond: Bonded Stores locker remains unlocked and issues may be made to the crew for onboard use only.
Postal Address: Cayman Harbour Corporation Ltd., Stake Bay, P.O.Box 50, Cayman Brac, Cayman Islands, British West Indies.
Facilities Available: Food, some stores, fresh water limited from tug.
Bunkers: Via lightering tanker ordered via Owners/Charterers.
Medical: Doctor can board ship at any time.
Hospital: Available.
Derat Certificate: No renewal certificate available but a letter of acceptance of renewal for Cayman Brac is issued.
Shore Side Facilities: Cayman Brac: Shops, hotels, post office. Little Cayman: Clubs (tourists). Fishing when in soundings.
Anchorages (under Pilots guidance):

Off Western end of Cayman Brac	up to 57 ft. draft.
Off Little Cayman	up to 69 ft. draft.

Currents: Variable, depending on season and weather. Ships experienced very little set and drift North of Cayman Brac 1.5 mile – 2.5 mile distance, other times over 2 knots. Generally N.W. direction. Stronger South of Islands.

Ship-to-Ship Cargo Pumping Operations: Cayman Energy Corporation Ltd. Tug: "Cayman Energy". Mooring ship to ship – see Plan. Fibre mooring lines instead of wire preferred. Operations under way, under guidance of Pilot/Loading Master. Ships separated by floating fenders supplied by Cayman Energy Corporation. Pumping may continue when ships are manoeuvring dead slow. Fenders remain alongside between lighterings and it is possible to manoeuvre up to 7 knots. Smaller vessel is moored on the lee side of discharging vessel (the larger one).

Pilot plus 4 assistants remain onboard for the duration of all cargo lightering operations but may be relieved if lighterings are prolonged ones.

Shore leave for ship's crew is possible via pilot boat or "Cayman Energy".

Cayman Brac Airport: Flights to Grand Cayman and then overseas.

SHIPMASTER'S REPORT: November 1980.

Vessel (230,000 d.w.t.) arrived at Cayman Brac for 2 to 3 months storage and lightening operations. No information or charts were on board prior to arrival.

Cayman Brac is a small island about 12 miles by 1.5 miles and is used solely for lightening operations, a maximum of 4 pairs of ships being handled at one time, but usually only 2.

There are 2 Pilot and Port Official Boarding Areas, North Boarding Area Lat. 19° 43′ N., Long. 79° 53′ W. and South Boarding Area Lat. 19° 40′ N., Long. 79° 53′ W., the choice depending on the wind direction. If no chart on board Cayman Brac can be approached to within 1 mile at any draft. There is no proper harbour, the launches have to be boarded from the beach using small boats, the launches remaining at moorings some distance offshore which can make transfer difficult in bad weather, especially for heavy stores.

There are no stores available on Cayman Brac, all stores have to be flown in from Grand Cayman or from Tampa, Florida. There is no official shipchandler on Cayman Brac although the Agent will assist vessels requesting small amounts of stores. We were informed by other vessels that usual method of obtaining large stores was to arrange for a supply by container direct from Tampa, Florida to the ship using a small coastal freighter. Other ships had stored at Barbados on the way in and way out. All stores are very expensive.

On arrival at Cayman Brac contact was initially made with "Cayman Brac Pilots" on Channel 16. However the call sign "Cayman Brac Pilots" is not usually used as this is in fact "Cayman Energy" who organise all Pilots, launch services and lightening operations. "Cayman Energy" is run by Captain H. Banks who appears to man the shore VHF station 24 hours a day, in addition to occasionally acting as a Pilot.

There are very few suitable anchorage positions, due to deepwater existing right up to the reef. There is one at the West end of Cayman Brac suitable for a VLCC with maximum draft of 66 ft. This is close to the boarding areas. Another at the West end of Little Cayman is suitable for a VLCC but 2 hours by launch from boarding area. There is another at East end of Little Cayman suitable only for vessels up to 100,000 tons. We used the anchorage at the West end of Cayman Brac and although very close to shore experienced no dragging during time anchored. We were informed by Pilots that no ship had ever dragged from that anchorage. Pilot essential for anchoring.

Agents are "Cayman Harbour" who monitor Channel 16 and are very helpful at all times. A doctor is available but no dentist. (Cable: "Cayharb Caymanbrac").

Lightening Operations: Normal procedure is for ship to be lightened (STBL) to fender starboard side before berthing, 4 fenders being brought out by launch "Cayman Mariner" or "North Harbour" also 2 hoses and reducers if required, on a barge. The fenders are positioned and hoses connected using 2 shore operators assisted by ship's crew. This can take up to 6 hours, during which time a Pilot is on board. Two Pilots and 2 shore operators remain on board during lightening. Then, if conditions are suitable both vessels steam with wind 15° on starboard bow, STBL at 4 knots and lightening ship comes up from astern on starboard side and closes with STBL, the operation being controlled by Pilot on lightening ship.

Berthing can take from 1 to 3 hours depending on circumstances, so a suitable clear run is required ahead of vessels to enable this to take place without altering course. Needless to say berthing vessels have right of way over all other vessels and this local rule is enforced by "Cayman Energy".

Both ships have a Pilot during the entire berthing, lightening and unberthing operrations, also Pilot remains on STBL until fenders and hoses removed. This is done unless next lightening operation is expected in near future, as fenders are liable to damage if left in position on STBL.

Due to Cayman Brac lying N.E./S.W. and wind during Winter months generally from N.E. there is not much shelter available but even so lightening operations are only occasionally interrupted due to weather.

Ullages and cargo figures on our vessel and lightening ship were checked by Caleb Brett Surveyors, this service having been arranged by charterers, it is not standard procedure, but depends on charterers.

Whilst lightening, navigation is carried out by STBL so bridge must be manned throughout, as well as cargo control room. Vessel steams normally at slow speed to maintain suitable position, with long periods of "stop" when engines are not required. During this time lightening ship's engines are not used. Maximum discharge rate permitted during discharge is 5,000 t.p.h. No difficulties were experienced during berthing or discharge except that due to communication problems with charterers, STBL and lightening ship occasionally had differing orders regarding discharge quantities, however this could usually be sorted out by "Cayman Harbour" in a short time.

There is a twice daily flight from Grand Cayman to Cayman Brac. This flight is always fully booked but even so seats are usually available. Extra flights are also made when required. Flights lasts 50 minutes and costs £10.00 single. There are 2 hotels on Cayman Brac and rooms are usually available.

Documents: On arrival Customs and Immigration board and require 4 copies each:
Crew Personal Effects Lists (Crew Lists also required before sailing).
Stores Lists including Narcotics.
Crew Lists (with full names).
Vaccination Lists.

Currency is Cayman Island Dollars (CI$) but U.S. Dollars are accepted with exchange rate US$ 1.00 = CI$ 0.82.

AUTHORITY: *Operator:* Cayman Energy Limited, P.O.Box 33, Cayman Brac, Cayman Islands, B.W.I. *Telex:* 4350 Celcb Cp.

GEORGETOWN, Grand Cayman: 19.18 N. 81.23 W. (See Plan)

DOCUMENTS:
Bills of Lading.
Crew List.
Cargo Manifest.
Ship's Register.
Safety Certificates.
Clearance from Last Port.

PILOTAGE: Available on request.
ANCHORAGE: With Georgetown Lighthouse bearing 125° – 150° distance 750 m. to 1,200 m.
RADIO: SSB: 4125 kHz, 0800 hrs. – 1200 hrs. Monday to Saturday. 8291.1 kHz, 1210 hrs. – 1700 hrs. Monday to Friday.
VHF: Channel 16, 24 hours a day.
TUGS: Launches available. No tugs available.
BERTHING:
South Wharf: Length 445 ft. depth 11 ft. – 24 ft.
West Wharf: Length 240 ft. depth 13 ft.
Ro/Ro Ramps: South Wharf: 1 ramp with depth 11 ft. Finger Pier at South Wharf: 1 ramp with depth 21 ft. – 26 ft. West Wharf (South End): 1 ramp with depth 13 ft. – 20 ft.
Cranes: 20 ton, 50 ton and 100 ton cranes available for hire.
Fork Lifts: 5×2.5 tons, 1×5 tons, 1×26 tons, 1×35 tons and 1×40 tons.
STEVEDORES: Stevedores arranged by Agent, recommended by the Port Authority.
Working Hours:

	0800-1200	Monday to Friday
	1300-1700	
	0800-1200	Saturdays
Overtime	1700-2100	Monday to Friday
	1300-1800	Saturdays

In the event that a vessel may finish discharging and sail, 1 additional hour may be worked.

No work Sundays and Holidays unless Port Director considers it necessary.

MEDICAL: Hospital available.
TANKERS: See "Shipmaster's Report".
FRESH WATER: Supplied by truck.
FUEL: Marine diesel only, delivered by truck.
AIRPORT: Scheduled flights by international carriers.
HOLIDAYS: New Year's Day, Ash Wednesday, Good Friday, Easter Monday, Commonwealth Day or Tree Planting Day (3rd Monday in May), Queen's Birthday, Constitution Day (1st Monday in July), Monday after Remembrance Sunday, Christmas Day, 26th December.
SERVICES: Ship chandlers available.

SHIPMASTER'S REPORT: February 1987.
Port Limits: 3 miles off.
Documents:
6 Crew Lists.
4 Cargo Manifests.
2 Crew Declarations.
2 Stores Lists.
2 copies of Bills of Lading.
1 copy Ship's Particulars if first visit.
Clearance from Last Port.

Ship was cleared by Agent and 1 Customs Officer. The Immigration Officer comes if any crew leaving or joining. Clearance was given to leave at this time. Officials were polite and friendly.

Pilotage: Pilot requested through Agent 48 hours in advance but Pilot lives locally and says 30 minutes notice is all he needs and is often all he gets. All communications are carried out through Port Security on Channel 16 and working Channel of vessel's choice. Port Security will contact Pilot, Agent or anyone else vessel wishes to talk to. Pilot boards from small work boat, either the "Eagle" or "Rambler", about 1 mile West of oil tanks. These boats have Channel 6 and Pilot can be contacted on this when he is under way.
Anchorages: Pilot recommended position with South Cay Light 350° by 6 cables if wind from North and at any other time just off town as marked on the Admiralty chart. He stated that at times there were up to 5 passenger vessels anchored here so it could be crowded. Unless vessel is expecting a long delay it is better to lie off.
Restrictions: Tankers berth between daylight and 1800 hrs. but can leave at anytime. Only restriction in berth is max. length of about 600 ft., depth in berth 60 ft. No restriction on breadth.
Health: Pratique granted by Customs Officer.
Radio: Sat Com.
VHF: All communications made through Port Security on Channel 16.
Radar: None.
Tugs: None.
Berthing: See "Plan" for final mooring position.

Vessel approached from the South and passed aft buoy close to starboard, 2 head lines were run to forward buoy and when weight was on these ropes engine was stopped and 2 lines were run aft to buoy. Vessel was then manoeuvred into position on a fore and aft line and a line was run to the port bow buoy. 2 breast lines were then run from the main deck and these were heaved together and vessel pulled towards the shore until it was close to the submarine marker buoy. These lines are very long and even when vessel is in position 1 line was too short. The lines were run efficiently and the 2 work boats being well crewed. The accommodation ladder was rigged on the port side.

Bridges: None.
Medical: Local hospital and ambulance service. Call Port Security on Channel 16 for service.
Tankers: 1×8 in. pipe-line. This is always left in gasoil so if possible leave gasoil parcel to last or if necessary split discharge. This is no problem as grades are pumped face to face. Average rate of discharge was about 700 cu.m.p.h. and max. back pressure 120 p.s.i.
Density: 1024.
Fresh Water: Can be obtained, but expensive.
Fuel: Not available.
Fire Precautions: Usual ship precautions, no tugs so no fire service to ships.
Consuls: None.
Repairs: No facilities.
Dry Docks: None.
Surveyors: B.V. and Lloyd's.
Gangway/Watchmen: None.
Customs Allowances: 200 cigarettes and 40 oz. spirits. Bond sealed.
Repatriation: No problems with staff or crew changes.
Airport: International airport 4 miles from berth. Cayman Airlines, Northwest, Eastern, and Peruvian Airlines starting up in February 1987.
Time: GMT minus 5 hours.
Police/Ambulance/Fire: None.
Emergency Co-Ordination Centre: None.
Telephones: None.
Services: None.
Banks: All major banks.
Storing: Small supplies of all stores, but very, very expensive.
Shore Leave: No restrictions. One of the rope handling boats stays with the ship and runs personnel ashore when required.
Identification Cards: Not required.
Regulations: None.
Delays: Bad weather and daylight berthing.
Developments: None expected.
General: Research Submersibles Ltd. have small submarines that take tourists down 600 ft., these can be encountered near the berth.

AUTHORITY: Cayman Islands Port Authority, P.O.Box 1358, Harbour Drive, Georgetown, Grand Cayman, Cayman Islands. *Tel:* 92055, 92228. *Cables:* Portacay. *Contact:* Errol L. Bush, Port Director.

NOTES

Please also advise Shipping Guides Ltd.

Chile

GENERAL

The ports of the Republic are under the jurisdiction of the General Directorate of Maritime Territory and Mercantile Marine, and for this purpose, the Director of this Service delegates his functions and responsibilities to the Maritime Authorities located in the different ports of the country, and who in turn are organised into Maritime Governorships, Port Captaincies and Marine Mayors, according to the importance of the port and the extent of its territorial jurisdiction.

ARRIVAL ADVICE: Masters of vessels must inform the Port Captain of their ETA, 24 hours in advance of arrival, via a message which must contain the following information:

Name of vessel and flag.
ETA (date and time).
Number of passengers, or negative.
Quantity of hazardous cargo for the port or in transit, or negative.
State of health of the crew and/or passengers.
Draft.

The telegraphic address of the Maritime Authority is "Maritgob" . . . . . . or "Capuerto" . . . . . ., whichever applies.

All commercial ports have a maritime radio station listening out permanently on 2182 kHz. and Channel 16 VHF.

REPORTING: It is recommended to vessels navigating in the maritime area of national responsibility (200 miles) to communicate their daily position at 0800 hrs. and 2000 hrs.; stating course, speed and destination port, for the purpose of maintaining permanently updated information for achieving efficient and timely action in the co-ordination of search and rescue where persons are in danger or lost at sea.

Also see "Search and Maritime Rescue".

DOCUMENTS: All vessels coming from abroad, on arrival at the first Chilean port, are received by the following authorities presided over by the Port Captain.

Human Health.
Customs.
Vegetable Health.
Immigration.

Prior to the Maritime Authority granting Free Pratique, the vessel must present to the Reception Commission the following ALALC documents:

General Health Declaration	1 (First Port)
Clearance Document from last port	1
Vessel's General Declaration	5
Crew List	5
List of Crew's Personal Effects	3
List of Passengers for the Port	5
List of Passengers in Transit	5
Mail Declaration or Negative	5
List of Provisions	6
Cargo Manifest for the Port	10
Manifest for Cargo in Transit	10
IMO Hazardous Cargo Declaration	6
Declaration of Arms and Ammunition	2

At the first port of call, Immigration will ask for the passports of the crew and/or passengers to make out the cards which they are given and which must be returned when the vessel leaves the last Chilean port.

The Port Captain may require further vessel certificates, but generally asks for the following:

Safety Equipment Certificate.
Certificate of Radiotelegraphic Safety.
Tonnage Certificate.
Certificate of Lighthouses and Buoys (Chilean).
Hydrocarbon Book (Tankers).
Water Pollution Liability Certificate.

Prior to sailing, hatches must be hermetically sealed, and on-deck cargo must be duly lashed, and positioned in accordance with international standards.

When the vessel sails, the Maritime Authority grants a "Sailing Document" stamped by Customs, to which is added a list of the crew and/or passengers, stamped by Immigration.

Transit of persons or crew members to and from the vessel is not permitted once the Sailing Document has been issued. If the vessel does not sail within a reasonable time, for reasons of force majeure, this fact must be communicated to the Port Captain, who will seek the return of the corresponding Document, if he sees fit.

PILOTAGE: The use of a Pilot is obligatory in all Chilean ports, both for berthing and unberthing, including oil terminals. Accordingly, a Pilot is taken on board in each Pilotage Area.

For vessels coming from the North, Pilots come aboard at Valparaiso, Talcahuano, Ancud or at the Pilot Station of Laitec, in Quellon. For vessels coming from the Atlantic, the Pilot comes aboard at the station located in Bahia Possession. For vessels coming from the Antarctic, the Pilot comes aboard at Isla Hornos or Cabo San Pio.

HEALTH: All vessels arriving from abroad are required to call at one of following ports for Free Pratique: Arica, Valparaiso or Punta Arenas. Vessels are also allowed to call direct to Tocopilla, Iquique, Antofagasta, Coquimbo, San Antonio, Talcahuano and San Vicente.

Vessels can be exempted from call at one of these ports, and proceed direct to the port of loading and/or discharge providing permission obtained, with 8 days' notice from National Health Service.

Following details in order to apply for exemption on behalf of a vessel are required:

Name and flag of vessel.
Net registered tonnage.
Last port of call.
Cargo carried, or if in ballast.
Port of arrival in Chile and date of arrival.

FLAG: All vessels arriving in Chilean ports must fly their own ensign and also the Chilean Flag, from the highest mast.

On entering port the "Q" flag should be flown until pratique is granted.

The use of whistles or sirens in port must be strictly in accordance with the Rules for The Prevention of Collisions.

RADIO: There are 74 radio stations along the coast.

Notices to Mariners are transmitted from Valparaiso, Punta Tumbes, Puerto Montt, Corona Lighthouse, Punta Arenas and Punta Delgada.

The observation of local weather is transmitted by the following radio stations in radio telephony:

Valparaiso Playa Ancha Radio – CBV.
Talcahuano Radio – CBT-4.
Calbuco Radio – CBC-6.
Corona Radio – CBF-48.
Guafo Radio – CBF-49.
Raper Radio – CBF 51.
Magallanes Radio – CBM-2.

General and special forecasts covering from Arica to San Pedro are transmitted by Valparaiso Playa Ancha Radio in telegraphy on frequencies 464, 4228, 8677, 12741 and 17146.4 kHz. The following information in facsimile:

1130 hrs. GMT: Area Chart.
1920 hrs. GMT: Nepho Analysis.
1940 hrs. GMT: Wave Analysis.
2310 hrs. GMT: Area Chart.

and in telegraphic system:

0110 Weather forecast Zone I – VI.
1210 Weather forecast Zone I – VI.
1210 Analysis.
1210 Weather forecast Zone X.
2020 Weather forecast Zone X.
2030 Analysis.

and NAVTEX at: 0110, 0410, 0810, 1210, 1610 and 2010 hrs. GMT.

0200 hrs. GMT: Forecast Wave Chart.

The Naval Radio Station of Magallanes transmits the general forecast in telegraphy for Zones VII – VIII and X.

The Chilean Air Force Radio Station Presidente Frei transmits the general forecast for Zone IX.

For weather forecasting the country has been divided from North to South into the following areas or zones.

Zone I : from Arica to Coquimbo;
Zone II : from Coquimbo to Valparaiso;
Zone III : from Valparaiso to Constitucion;
Zone IV : from Constitucion to Isla Mocha;
Zone V : from Isla Mocha to Puerto Montt;
Zone VI : from Puerto Montt to Isla San Pedro;
Zone VII : from Isla San Pedro to Evangelista Lighthouse;
Zone VIII : from Evangelista Lighthouse to Lat. 60° 00′ S.;
Zone IX : from Lat. 60° 00′ S. to Lat. 90° 00′ S.;
Zone X : from Long. 80° 00′ W. to Long. 120° 00′ W.

TIME: Chile is normally 4 hours behind GMT, but from the 2nd Saturday in October to the 2nd Saturday in March clocks are advanced 1 hour. However radio transmissions will continue to use GMT minus 4 hours. ETA advices are best made using GMT.

FUMIGATION: If a vessel's Derat Certificate is overdue an Exemption Certificate may be granted provided that there are no rats on board, and no ports infected by Bubonic Plague have been visited recently.

Fumigation can be carried out by the Farming and Cattle Bureau. In such cases the vessel anchors in the inner port or Roads, all crew are landed for a period of 24 hours, and the fumigation carried out before the vessel is berthed.

STEVEDORES: In all Chilean ports there are stevedoring and discharge companies, all of whom have adequate personnel and means for executing the work of loading and discharging vessels.

Daily, Chilean ports work on systems of shifts indicated as follows:

First Shift: from 0800 to 1530 hrs.
Second shift: from 1530 to 2300 hrs.
Third Shift: from 2300 to 0630 hrs.

All vessels in port must have a watchman at its accesses who has the responsibility of ensuring that no person not belonging to the vessel and/or not having due authority comes on board.

Port operations are surveyed periodically by a Safety Patrol whose job it is to ensure that the activity of stevedoring in loading and discharging vessels be carried out in accordance with national and international safety standards. This patrol reports to the Port Captain.

HOLIDAYS: The following dates are public holidays in Chile:

1st January, Thursday and Friday of Holy Week (March/April). 1st May – Labour Day, 21st May – Naval Combat of Iquique (Fleet Day), 29th June (St. Peter & St. Paul), 15th August – Assumption of the Virgin Mary, 11th September – Nation's Liberation Day, 18th September – Independence of Chile. 19th September – Day of the Glories of the Army, 12th October – Discovery of America, 1st November – All Saints' Day, 8th December – Immaculate Conception, 25th December – Christmas.

The holidays do not affect the efficiency of the system of port work.

FUEL: Fuel can be taken on in any port in the country from tanker trucks. Prices are in accordance with fluctuations in the international market. The ship's Agent must request the required amount in advance.

POLLUTION: It is expressly forbidden to throw overboard any ballast, rubbish or waste, or to spill petroleum or any derivative or residue, contaminated waters from mineral processing plants or any dangerous or noxious substance of any kind either into ports or Chilean jurisdictional waters (200 miles limit) without prior authority from the Port Captain. Standing regulations stipulate that no tanker may dump hydrocarbons or other derivatives within fifty miles of the coast.

In accordance with international rules, vessels navigating in Chilean waters must have an insurance policy against risks of marine contamination. In the event of contamination, without prejudice to the administrative sanctions which may be imposed, the rules of civil responsibility for marine contamination will be applied, as established in international regulations.

CREW: Foreign merchant vessels can contract-in Chilean crew members without many problems, the engagement contract having to be authenticated by the Master beforehand.

Curfew: There is no curfew in Chile. Persons may move about freely within the national territory at any hour of the day or night.

MAGELLAN STRAIT: Despite the fact that there is an excellent system of buoys and assistance to navigation, the use of a Pilot (2 Pilots) is obligatory in the Magellan Strait for all vessels and in any condition.

The following lighthouses and installations are equipped with Racon:

Dungenes Lighthouse
Oil Platform PE No. 1
Oil Platform PE No. 2
Oil Platform SPN No. 2
Punta Baxa Lighthouse
Segunda Angostura Lighthouse.

The Government of Chile has established a new system of assistance to navigation in Magellan Strait; in order to provide support to navigation and pilotage in the area; by means of interchange of centralised information with vessels, attempting to provide full safety to human life at sea. This system which has radar stations installed in the Punta Dungenes Lighthouse and the Port Captaincy of Punta Delgada, is at the service of any vessel requesting aid, without any cost to the user, and enables navigation to be guided on the Boca Oriental (Eastern Mouth) and the Banco Triton (Triton Bank) or vice versa.

Vessels requiring this service and who are coming from the Atlantic Ocean, must communicate their arrival at the point located at Lat. 52° 35′ S., Long. 68° 10′ W., at least 24 hours in advance, to Maritime Radio Station Punta Arenas (CBM), using the frequencies and times indicated in the Nomenclature of Coastal Stations, List IV, of the International Telecommunication Union.

At 20 nautical miles from the point of arrival, a direct contact must be made with Punta Dungenes Lighthouse (CBF – 67) or Cabo Espiritu Santo (CBF – 68) on Channel 16 VHF.

Stations at Punta Arenas and Punta Delgada also provide the following information:

traffic present in the area
position of oil platforms and naval installations
indication of the anchorage area and for awaiting the Pilot
weather conditions
tidal information
information concerning urgent notices to mariners and others.

Shipmaster's Report: January 1986.

The transit through Magellan Strait went very smoothly. There are no great difficulties as long as vessel has a good and reliable radar. Extra caution is necessary in Paso Turtoso but there is no problem in passing there during darkness.

Communications with our Agent were good. We sent telex over Maritex and they answered with cable via Valparaiso Radio. Information required by them was a minimum, g.r.t. the most important for obvious reasons. There are no paper formalities at Punta Arenas, Pilot boarding was straight.

Pilot boards one mile due East of Punta Arenas breakwaters, and leaves at Possession Bay. Our Pilot left just after the First Narrows in position: Lat. 52° 24′ S., Long. 69° 24′ W. There are plans to build a pilot station at Punta Felix in position: Lat. 52° 58′ S., Long. 74° 04′ W. and thus making it compulsory to take a Pilot for the whole Strait (ocean to ocean). According to our Pilot this to be effective late 1986 or early 1987.

There are now two reporting points, Los Evangelistas in position: Lat. 52° 23′ S., Long. 75° 07′ W. at the West entrance, and Cabo Espiritu Santo in position: Lat. 52° 40′ S., Long. 68° 36′ W. at the East entrance.

VHF contact to be made with these stations when passing them. They require such information as g.r.t., length, cargo, etc. Their English is fairly good.

Our Pilot did not agree that the best time to pass Punta Arenas was at high water. Because the tide varies in such a way that vessel still has the tide against in the Narrows. Instead he recommended that the tide was calculated for the First and Second Narrows respectively, (with Chilean tables). And then the transit to be made in such a way that the vessel transits the First Narrows just after high slack water. This meant that the vessel would sometimes run against the tide in the Second Narrows. Since the tide in the First Narrows is much stronger, this is more favourable.

Advice from Agent: The Chilean Government issued Decree No. 397 imposing compulsory pilotage for the transit of Magellan Strait in both directions.

Same will become effective from 1st December, 1985, and will apply to all vessels even those crossing ocean to ocean.

Vessels to request Pilots through an Agent in Punta Arenas well in advance of their ETA at either entrance of the Strait.

Westbound traffic will embark Pilots at Possession Bay (Lat. 52° 16′ S. Long. 69° 10′ W.) and disembark them at Punta Arenas.

Eastbound traffic will embark Pilots at Punta Arenas and disembark them at Possession Bay.

SEARCH AND MARITIME RESCUE: (See Plan) In January 1983 Chile established a system of "Notification of the Situation of Vessels" in order to render immediate assistance to vessels in danger or distress. The system is called "SISNAV".

The fundamental objective of the "System" is to provide information for the Head of Search and Maritime Salvage at this General Directorate, and to the Mercantile Traffic Situation Controllers, together with the Operational Centres for Search and Rescue along the extent of the coastline; in the ports of Iquique, Valparaiso, Talcahuano, Puerto Montt and Punta Arenas.

The area of national responsibility, for the purpose of search and rescue, is to the North between Lat. 18° 20′ 08″ S. and Long. 120° W.; and to the South as far as the South Pole, and comprises all jurisdictional waters and the one corresponding to the Chilean Sea. See "Plan".

With regard to the "SISNAV" system, it is necessary to emphasise the following:

(a) The service and its use is free of charge to users.
(b) The format of messages is that recommended by the International Maritime Organisation.
(c) On average, vessels navigating in the area of national responsibility adhere to the SISNAV system; our Service of Search and Maritime Rescue can provide a rapid and efficient aid to any vessel or persons in danger.

Typical messages, provided for the SISNAV system, are as follows, and the maximum priority should be assigned to them:

1. INITIAL REPORT (SP):

(a) When the vessel enters national waters:

The vessel's Master must send the entry message through the intermediary of the Maritime Radio Station corresponding to the sector of the Search and Rescue Service or through that which he is able to contact first.

2. POSITION REPORT (PR):

The message of notification of situation must be originated daily by the vessel's Master at 0800 hrs. and 2000 hrs., or when the situation of the vessel varies considerably from that pre-supposed, and it must be transmitted through the corresponding Maritime Radio Station or through that which the ship is able to contact first.

3. FINAL REPORT (FR):

(a) On leaving the area of national responsibility:

The Master of the vessel must originate the corresponding message through the intermediary of the Maritime Radio Station of the sector of the Service of Search and Rescue in which he is navigating or through that which he can contact first.

SISNAV communications are made using the Network of Maritime Telecommunications, which is able to receive any kind of message of Assistance, Distress or Urgency and those corresponding to the System.

The Maritime Telecommunication Network is shown in List IV, Vol. 1 and 2 of the Coastal Station List of the UIT and for the purposes of the SISNAV system the main radio stations are considered to be Antofagasta (CBA), Playa Ancha (CBV), Talcahuano (CBT), Puerto Montt (CBP) and Magallanes (CBM).

To facilitate the drawing up of typical messages in the System, below are outlined the mechanics of the operation:

Requirement for messages: Vessels should send:

(1) A "SP" report when entering Chilean waters or sailing from Chilean port.

(2) A "PR" report daily at 0800 and 2000 Chilean time. (See ALRS 5 for local time details).

(3) A "FR" report immediately prior to arrival at a Chilean port or on leaving Chilean waters.

Form of messages: Addressed to DIRECTEMAR VALPARAISO. Vessels on a Northerly course should report at the same time to the maritime authority at Punta Arenas, Talcahuano or Valparaiso, addressed MARITGOS.

SP REPORT (Initial Report)
(a) SISNAV
(b) SP
(c) Ship's name and callsign
(d) Date and local time (6 digits followed by LT e.g. 012200LT)
(e) Port of departure
(f) Position (Latitude and Longitude e.g. 1832S 7021W)
(g) True course (3 digit group)
(h) Speed (2 digits)
(i) The letters "CO"
(j) ETA (format as for (d)) and Port of destination
(k) Name and callsign of radio station through which report is sent
(l) Date and local time (format as for (d)) of next report

PR REPORT (Position Report)
(a) SISNAV
(b) PR
(c) Ship's name and callsign
(d) Date and local time (0800 or 2000. 6 digits followed by LT e.g. 010800LT)
(e) Position (Latitude and Longitude e.g. 1924S 7032W)
(f) True course (3 digit group)
(g) Speed (2 digits)
(h) Name and callsign of radio station through which report is sent
(i) Date and local time (format as for (d)) of next report

FR REPORT (Final Report)
(a) SISNAV
(b) FR
(c) Ship's name and callsign
(d) Date and local time (6 digits followed by LT e.g. 251820LT)
(e) Port of arrival or "DEPART CHILEAN WATERS"

SEARCH AND MARITIME RESCUE DISTRICTS:

(a) First District for Search and Maritime Rescue

This corresponds to the North Naval District, from the North limiting parallel to Lat. 26° S. The Centre for Coordination of Search and Maritime Rescue is in the Maritime Control at Iquique.

(b) Second District for Search and Maritime Rescue

Corresponds to the First Naval Zone, from parallel 26° S. to parallel 34° 09′ S. The Centre for Search and Maritime Rescue will be located in the Valparaiso Maritime Control.

(c) Third District for Search and Maritime Rescue

This corresponds to the Second Naval Zone, from parallel 34° 09′ S. to parallel 47° S., excluding the territory included in the Fourth District and as indicated in point (d) of this section.

The Centre for Search and Maritime Rescue will be located in the Talcahuano Maritime Control.

(d) Fourth District for Search and Maritime Rescue
This corresponds to the internal waters of the Second Naval Zone, included between Lat. 41° 21′ S. and Long. 74° W. as far as Lat. 43° 16′ S. and Long. 74° W., and from Lat. 43° 16′ S. and Long. 76° W., as far as Lat. 47° S. and Long. 76° W.

The Centre for Search and Maritime Rescue will be located in the Maritime Control of Puerto Montt.

(e) Fifth District for Search and Maritime Rescue
This corresponds to the Third Naval Zone from Lat. 47° S. to Lat. 90° S., and includes all waters under national control and those corresponding to the Sea of Chile.

The Centre for Search and Maritime Rescue will be located in the Maritime Control of Punta Arenas.

SHIPMASTER'S REPORT: January 1985.
Painting: We called recently at Iquique – Antofagasta – Valparaiso – San Vicente. In *all* ports scraping and painting the hull only allowed after having received permission from Port Captain.
Containers: When more than 6 containers have been (re)loaded on deck the lashing of same are to be checked by Surveyor of Port Captain's Office. Surveyor at San Vicente insisted on chains, even when twistlocks were used and containers only single stacked.
Stability: Prior departure last Chilean port, stability particulars to be given to Surveyor from Port Captain's Office.
Time: Summertime is kept, GMT minus 3 hours.

AUTHORITY: Direccion General del Territorio Maritimo Y de Marina Mercante, Errazuriz 537, Valparaiso, Chile. *Tel:* 258091. *Telex:* 230602 DGTMM CL. *Contact:* Admiral Fernando Camus Scherrer, Director-General.

ANTOFAGASTA (including La Chimba Cove): 23.39 S. 70.25 W. **(See Plan)**

DOCUMENTS: See "General" before first port.
PILOTAGE: Compulsory. Pilot should be awaited in position bearing 300° and 4 – 5 cables from the lighthouse at the head of the breakwater mole. The Pilot will board during 24 hours, weather permitting, and if the vessel is at anchor an extra charge will be made for heaving aweigh while the Pilot is on board.

The accommodation or pilot ladder must be rigged for the Pilot. Pilot can be contacted by VHF Channel 16.
ANCHORAGE: About 1,200 m. from green light on coast mole. Vessels that do not enter port anchor in what is known as "old or outer port" where best anchorage is bearing 103° from anchor painted on hillside, about 5 cables from coast in 37 m. – 22 m. of water.

Small vessels anchor about 4.5 cables from old passenger quay in 22 m. – 18 m. of water. Ships should use 2 anchors and follow the indications of the Port Pilot.

There is a forbidden anchorage zone established to avoid obstructing manoeuvres when a vessel is entering or leaving the artificial port. This zone is located between the Paita Rock and the extreme North of the protected mole. It is 2.5 cables from North to South and 2 cables wide.
RESTRICTIONS: From May to July the surge is stronger and results in rough seas lasting from 2 to 4 days interrupting the traffic of small craft.
MAX. SIZE: *Depths:*
Fishing zone – 24 ft.
Berth No. 1 – 30 ft.
Berth No. 2 – 30 ft.
Berth No. 3 – 30 ft.
Wharf Zone – 16 ft.
Berth No. 4 – 30 ft.*
Berth No. 5 – 30 ft.*
Berth No. 6 – 31 ft.
Berth No. 7 – 33 ft.

The maximum draft is 1.0 ft. less than the depth.
*The maximum draft may be increased by placing pontoons between the vessel and the quay.
La Chimba Cove: Situated about 5 miles North of Antofagasta. The port entrance is 2 cables wide. Max. length 150 m. Draft 27 ft. Vessels use both anchors, and moor to 2 stern buoys on each quarter. Ship's head 345°T. A further line is sent from the port bow to the shore.
RADIO:

Station Call Sign	*Category*	*Frequency*	*Type*	*Receives*	*Transmits*	*Schedule*
Antofagasta	(P)	8 MHz	A1	8354		
CBA 3				8374	8730	H00–30
		4 MHz	A3	4091.6	4396.6	H30–45
		8 MHz	A3	8230	8780	H45–60

Also see "General" before first port.
TUGS: 3 tugs available, 970 h.p., 1,440 h.p. and 4,100 h.p. 1 tug required for berthing and unberthing.
BERTHING: Inner Dock measures 4.5 cables long North to South and 2.5 cables wide at entrance.
CRANES: Berth Nos. 1, 2 and 3: 6×12 ton electric cranes, 4×5 ton electric cranes.

Berth Nos. 4 and 5: 4×5 ton electric cranes.
TANKERS: Buoy moorings for tankers, owned by Esso, Shell, Codelco, and Copec.

All terminals operate 24 hours. Tankers can use steel wires. Mooring buoys are fitted with quick release hooks, difficulties may arise with underpowered mooring launches.
Esso Mooring: Max. length 170 m. Max. draft 28 ft. Flexible hoses. One 10 in. line for products. One 12 in. line for fuel oil.
Copec Buoy: Max. length 180 m. Max. draft 30 ft. fwd., 34 ft. aft. 10 in. lines for fuel oil and clean products. Max. pressure 150 p.s.i.
Codelco Buoy: Max. length 200 m. Max. draft 40 ft. Flexible hose of 8 in. for products and lub oils. Vessel berths using both anchors forward and lines to 3 mooring buoys astern. Hoses lifted midships on port side. No slop disposal facilities.
La Chimba Cove: A 6 in. hose is brought on board on the starboard side. Discharge rate 180 cu.m./hr. 250 p.s.i.
STEVEDORES: Available through the Agents working 24 hours a day in 3 shifts, from 0800–1530 hrs., 1530–2300 hrs. and from 2300–0630 hrs.
MEDICAL: A first class hospital is available with 690 beds and all necessary elements and services. Two modern medical centres also available.
FRESH WATER: Port has 42 standpipes of 2.5 in. situated at the various moles. Delivery is at the rate of about 10 t.p.h.

Fresh water can also be obtained in small quantities from tugboats for vessels anchored out of port and moored to buoys.
FUEL: Fuel and diesel oil supplied by Standard Oil, Shell Mex and Copec from petroleum terminals. For quantities less than 70 tons diesel oil can also be supplied from tank cars on the mole. Also see "General" before first port.

Coal: in case of necessity can be obtained in limited quantities.
GANGWAY/DECK WATCHMEN: Shore watchman.
OPENING/CLOSING HATCHES: By riggers.
IDENTIFICATION CARDS: Required.
CONSULS:
Argentina
Belgium
Bolivia
Colombia
Ecuador
El Salvador
France
Germany F.R.
Greece
Guatemala
Honduras
Italy
Netherlands
Norway
Panama
Peru
Spain
Sweden
U.K.
U.S.A.
Venezuela
Yugoslavia

REPAIRS: There is one shipyard for repair of small craft, also several workshops, and foundries.
REPATRIATION: Facilities available.
AIRPORT: The Cerro Moreno airport, located 28 km. North of Antofagasta is available for all types of commercial aircraft. There is also another landing field in La Chimba, 11 km. North of the city.
TIME: Local time is GMT minus 4 hours during the Winter season and GMT minus 3 hours during the Summer season. See "General" before the first port for dates of local changes in time.
HOLIDAYS: See "General" before first port.
BANKS: Several banks, among them:
Banco Central de Chile, 2688 San Martin St., Tel: 221594.
Banco de Credito E Inversiones, 2683 Washington St., Tel: 225054.
Banco del Estado de Chile, 2578 San Martin St., Tel: 221617.
Banco Espanol Chile, 2600 San Martin St., Tel: 222537.
EMERGENCY CO-ORDINATION CENTRE: Servicio Radio Costera, Tel: 223978.
STORING: Trucks and railway carriages can proceed alongside.

Fork lift trucks and other storing machines can be used to handle stores.
SHORE LEAVE: Allowed.
REGULATIONS: Inflammable explosives over 100 tons must be discharged in Mejillones. An Antofagasta Pilot goes to Mejillones by land, in order to take ships to be anchored.
GENERAL: Antofagasta is a transit port for Bolivia, Argentina and Paraguay cargo. It is one of the ports operated by Empresa Portuaria de Chile.
AUTHORITY: Empresa Portuaria de Chile, Avenida Grecia S/N°, Casilla 190, Antofagasta. *Tel:* 251737 and 223171. *Telex:* 225232 Empor Cl. *Contact:* Jorge Pizarro Sule, Port Manager. Cesar Aviles Fuenzalida, Sub-Port Manager.

ARICA: 18.28 S. 70.20 W. **(See Plan)**

PORT LIMITS: Ships are considered "arrived vessels" the moment they drop anchor within the safe anchorage zone indicated on the chart, or at the pilot station.
DOCUMENTS: See "General" before first port.
PILOTAGE: Compulsory. Ships approaching port should fly international signal flag "G" to request Pilot. Pilot boat is small craft painted white, with "P" or "H" flag on the mast. Pilot boards incoming vessels at pilot station, located 3 cables and 165° from red light at end of breakwater. If more than one ship awaiting Pilot, vessels are requested to hoist, below the flag "G", a numeral, indicating order of arrival, especially if arrived overnight. Vessels waiting to be docked can anchor in Road at pilot station in 10 fathoms of water. Pilot station maintains a VHF watch.

Reception and docking of vessels is done 24 hours a day, but buoy mooring to fuel terminals takes place during daylight hours only.
ANCHORAGE: Safe anchorage for vessels arriving after sunset can be found in a line bearing 194° Faro Isle Alecran distance 7 cables in depths varying from 9 to 10 fathoms.
RESTRICTIONS: There are no restrictions. If the weather permits it, ships can be docked and undocked at any time.
MAX. SIZE: Five berths available within port area. They are numbered from East to West.

Berth	*Vessel Max. Length* (m.)	*Vessel Max. Draft* (ft.)
Berth No. 1	114	13†
Berth No. 2	200	16/20‡
Berth No. 3	200	26/30
Berth No. 4	170	32.5
Berth No. 5	170	34
Berth No. 6	170	34

†Not suitable for larger vessels.
‡Restricted by draft.

If necessary, vessels over 600 ft. in length can be accommodated in Berths 4 to 6, providing the area is available for docking. Oil carriers have mooring buoys outside port area in depths of 48 ft. Installations consist of two groups of buoys, located in the North part of the bay, outside the port but sheltered from the swell prevailing on the coast, by the breakwater. 3 buoys are used to moor tankers loading crude oil from Bolivia. 2 buoys are used to moor tankers discharging clean products for city service.

HEALTH: Health Officer boards after vessel has docked. Pratique granted after routine inspection of certificates and papers requested internationally. Yellow flag is lowered to signal the rest of the boarding party to embark to clear the ship.

In case of fever, and/or suspected diseases on board, Masters are to radio to Port Captain details of the above situation. Upon arrival, vessels will be anchored in Quarantine, and inspected according to international procedures. From another Chilean port, Pratique is automatic. Also see "General" before first port.

RADIO:

Use "Maritgob Arica" via coastal radio CBA 4. Listening watch kept on 8360 kHz. Transmissions at 0800, 1000, 1200, 1400, 1600 and 1800 hrs. on 8478 kHz. A1. Alternatively if necessary use Valparaiso CBV on 500 kHz.

It is advisable however to request Agents at previous port to notify Arica well in advance of arrival.

Also see "General" before first port.

TUGS: 2×500 h.p. Tugs normally join vessel at the end of the breakwater. Tug is compulsory for docking and undocking. Tug provides the line at no extra charge.

CRANES:

Berth 1 – None.
Berth 2 – 1×7 tons.
Berth 3 – 2×3 tons.
Berth 4 –
Berth 5 – 2×3 tons. 2×5 tons.
Berth 6 –

SPECIALISED CARGO HANDLING FACILITIES: Two conveyor belts and loaders to operate with bulk ores, grain, coal, etc., at a rate of 100 t.p.h. per conveyor approx.

Containers are handled with conventional gear, but the port has a Container Yard, served by railroad and a bridge crane capable of lifting 65 tons. Service for containers also includes 10-ton fork-lift trucks, mobile cranes from 12 to 13 tons capacity, and specially designed wagons for their proper transportation.

STEVEDORES: Generally, stevedores are nominated the day before ship arrives, according to ETA, by loading/unloading Agencies. Also nomination can be made during the day. Working hours are 0800 – 1530 hrs., 1530 – 2300 hrs. and 2300 – 0630 hrs. Also see "General" before first port.

MEDICAL: Medical assistance can be obtained at any time requiring no advance notice. Hospital in the city.

TANKERS:

Esso Buoys: Position 053°×830 m. from breakwater light. Can handle vessels up to 45,000 d.w.t., 35 ft. draft. Vessels moor to 3 stern buoys. Wires not used for berthing.

Bolivian Export Buoy: Position 039°×1,084 m. from breakwater light. Can handle vessels up to 60,000 d.w.t., 43 ft. draft. 12 in. hose connection. Loading rate 9,000 bbls.p.h. No deballasting facilities.

Berthing is generally in the morning or early evening. Wires not used for berthing. Vessels moor to 3 stern buoys.

San Martin Bay Buoy: Used for discharge of Bunker C for fishing fleet. Max. draft 45 ft. No length restriction. 8 in. hose connection. Vessels moor to 3 stern buoys. A bolt is required to attach mooring lines to the ring type eyes on the buoys. No wires used.

Also see "General" before first port.

DENSITY: 1025.

FRESH WATER: Fresh water is available. Hoses to be provided by vessels. Rate of delivery about 10 t.p.h.

FUEL: Not available.

FIRE PRECAUTIONS: The discharge of explosives is carried out preferably at Berth No. 6, where there is storage for dangerous cargo. Generally, this kind of cargo is discharged directly into railroad wagons or trucks, in order that they can be evacuated from the port area as soon as possible.

GANGWAY/DECK WATCHMEN: Port regulations call for a gangway watchman.

OPENING/CLOSING HATCHES: Loading/unloading Agencies attend to these services, nomination is by number of hatches working. 5 men to a hatch.

CERTIFICATES:

Tonnage Certificate.
Lighthouse Dues (Chilean).
Safety Radio Certificate.

CUSTOMS ALLOWANCES: One carton cigarettes per man, and one bottle wine/spirits per man.

IDENTIFICATION CARDS: Needed to leave and/or enter port area.

CONSULS: The following countries are represented at Arica:

Argentina
Belgium
Bolivia
Denmark
Ecuador
El Salvador
France
Germany F.R.
Italy
Netherlands
Norway
Paraguay
Peru
Spain
United Kingdom

REPAIRS: Only small repairs can be performed in Arica, like welding, lathe, mechanical and adjusting of motors. Also possible to repair electric motors.

DRY DOCKS: There are 2: intended for fishing boats. Max. capacity 200 tons.

REPATRIATION: Crew changes can be arranged through the local office of Immigration, if repatriated.

AIRPORT: Distance to airport: 7 miles. No international flights are served in Arica, except 2 flights weekly to Bolivia. Domestic flights are available at the rate of 2 per day.

TIME: Local time is GMT minus 4 hours during the Winter season and GMT minus 3 hours during the Summer season. See "General" before first port for date of time changes.

HOLIDAYS: Cargo can be arranged on all holidays except Labour Day (1st May).

POLICE/AMBULANCE/FIRE: Telephone 32315, 32242 and 32323 respectively.

TELEPHONES: Not available on board.

SHORE LEAVE: Permitted.

DELAYS: No delays under normal conditions. Port congestion causes ships to wait at anchorage 24 hours or more, depending on unusual facts as labour strike, swell, or lack of room to bring vessels alongside (when 5 ships are docked).

DEVELOPMENTS: Project to build a new mole in the Northern part of the port, with berthage for two ships of approximately 540 ft.

SHIPMASTER'S REPORT: April 1980.

Documents:

6 General Declarations.
6 Lists of Passengers for the Port.
6 Passengers Lists (even if nil).
6 Mail Lists (or no mail).
12 Crew Lists.
2 Crew Effects Lists.
6 Bond and Canteen Store Lists.
6 General Stores Lists.
Clearance from the Last Port and Health Declaration.

Pilotage: Compulsory. Pilot boards 0.5 miles N.W. of breakwater.

When within 200 miles of the coast of Chile, vessel to send cable to "Maritgob" at 0800 hrs. and 2000 hrs. daily. Cable to include position, speed, course and destination. The same cable is sent to the Port Captain at the port of destination, who also requires 24 hours' notice of arrival and draft. He then arranges for Authorities to board.

Anchorage: Vessels anchor 0.5 miles N.W. of breakwater. Depth 58 ft. at LW.

Max. Size: LOA 600 ft. Draft 32 ft.

Radio: Antofagasta (CBA4) and Valparaiso (CBV).

VHF: Pilot on Channel 16.

Tugs: One tug of 500 h.p. available. Tug use is not compulsory but advisable.

Berthing: Vessel berthed at Berth No. 4. Max. LOA: Over 600 ft. if adjacent berths vacant. Max. draft: 34 ft. (This allows for heavy swell during Winter time).

Cargo Handling Facilities: Two portable conveyors available for handling bulk cargoes. Rate 200 t.p.h. (approx.) There are no Ro/Ro facilities. There is ample mechanised equipment for handling palletised cargoes. Plenty of open quay space available for storage.

There are mobile cranes available and a bridge crane for loading rail cars, capacity 30 tons, however vessels must discharge with ship's gear.

Medical: Doctor and hospital available.

Fresh Water: Available. Rate 10 t.p.h.

Fuel: Bunker fuel oil and diesel oil not available.

Repairs: Minor repairs possible.

Airport: Airport for internal flights only available.

Services: Fresh provisions, laundry service, groceries and meats available.

AUTHORITY: Empresa Portuaria de Chile, Casilla 923, Arica. *Tel:* 32284. *Telex:* 21012. *Contact:* Claudio Lopez Avila, Secretary.

BARQUITO: 26.21 S. 70.38 W.

DOCUMENTS, HEALTH: See "General" before first port.

PILOTAGE: Pilot available in Chanaral Bay.

ANCHORAGE: Open anchorage with no difficulty. The anchorage position lies on the cross bearing between Point Piedra Blanca bearing 110° and Point Brusen bearing 200°. Depth of water 82 ft. Anchoring prohibited to the South of the marker buoy.

MAX. SIZE: Up to 30,000 d.w.t.

TUGS: Not required for mooring. 2 tugs used for towing lighters only.

BERTHING: Three buoys suitable for mooring large vessels situated in depth of 9 fathoms. Buoys 4 and 5 are used for general cargo vessels.

Position: Buoy 4 Barquito Pier bearing 043°×714 m.
Buoy 5 Barquito Pier bearing 027°×390 m.

Vessels moor stern onto the buoys and discharge into lighters, which in turn discharge at the pier head. Several barges of capacity 1,500 tons.

STEVEDORES: Order 24 hours before arrival. Working hours 0800 – 1200 hrs. and 1400 – 1800 hrs. There are 9 gangs of stevedores. Vessels arriving should ensure that hatches are closed and booms secure in order to avoid labour problems. See "General" before first port.

MEDICAL: Facilities available.

TANKERS: Buoys 1, 2 and 3 are for the Oil Terminal.

The hose marker buoy is in position Barquito Pier bearing 180°×268 m. Vessels use starboard anchor to pivot onto the 2 stern buoys. The hose connection will then be made on the port side. Max. draft 27 ft. Max. length 225 m.

FRESH WATER: Not available.

FUEL: Not available.

CUSTOMS ALLOWANCES: No fixed limits.

IDENTIFICATION CARDS: Required.

CONSULS: Nearest at Antofagasta.

REPAIRS: No facilities for major repairs. Two slipways for vessels up to 100 tons.

AIRPORT: At Chanaral, 2 miles away.

TIME: GMT minus 4 hours. Also see "General" before first port.

TELEPHONES: Ship-to-shore communication by walkie-talkie radio.
SHORE LEAVE: Allowed.
AUTHORITY: Agent Portuaria – Codelco Chile – Casilla No. 48, Chanaral, Chile. *Tel:* 80031 (Anexo 517). *Cables:* "Codelco Chile". *Contact:* Arturo Barbera D., Port Agent – Barquito.

CALDERA: 27.03 S. 70.53 W.

PORT LIMITS: A line joining Punta Caleta with Punta Fuerte.
DOCUMENTS: See "General" before first port.
PILOTAGE: Arranged by advice of ETA. Vessels may anchor inside the port while waiting for Pilot.
ANCHORAGE: Prohibited within 800 m. of the Ore Quay.

Working to lighters is carried out 740 m. East of a line from the Ore Quay. 1 anchor is normally sufficient, but with Northerly winds 2 anchors and a kedge are recommended.
MAX. SIZE: Vessels up to 41 ft. draft (12.5 m.) and a max. length of 270 m. can moor at the Ore Quay.
HEALTH: Pratique given after official visit, and automatic for vessels from another Chilean port. In case of contagious disease on board, advance notice is required and vessel may need to be cleared first at Valparaiso.
RADIO: Radio Costera Valparaiso – CBV 2; working during even hours only between 0800–1200 hrs. and 1400–2200 hrs.

Radio Costera Caldera – CBD 2, receiving on 2182 kHz only at following times: 0830–0900, 1030–1100, 1430–1500, 1630–1700 hrs.
TUGS: None available.
BERTHING:

Fiscal Mole: Length 225 m. Depth 29 ft. Vesels can berth stern onto the mole using 3 lines, and 6 or 7 shackles on the starboard anchor. Ship's head should be on 360°. It is advisable to shut all ports and doors prior to berthing due to the large clouds of dust from the Iron Ore Berth.

Iron Ore Berth: Max. length 270 m. Max. draft 41 ft. The loading arm is fixed, hence vessels must shift to position each hatch under the tower. All cranes or derricks must be swung out to starboard prior to mooring. Vessels berth port side to, using 6 mooring buoys for head and stern ropes, and 2 dolphins for springs. Loading rate 1,500/2,000 t.p.h. Berthing allowed only by day, but night sailing permitted.
TANKERS: Tankers moor to 2 stern buoys, using both anchors. No length restriction. Water depth 33 ft. Hose connection 12 in. Daylight berthing only.
STEVEDORES: In ETA to Agent indicate number of gangs required for loading/discharging. Also see "General" before first port.
MEDICAL: First-aid only at Caldera. If needed, advance notice necessary to prepare transport to Copiapo, nearest city 75 km. away. Fumigation carried out at ports of Arica, Valparaiso, or Punta Arenas.
DENSITY: 1026.
FRESH WATER: Not available.
FUEL: Not available.
GANGWAY/DECK WATCHMEN: Arranged by Agent.
OPENING/CLOSING HATCHES: Done by riggers.
CUSTOMS ALLOWANCES: Only amount needed while vessel in port.
CONSULS: None at Caldera.
REPATRIATION: Can be arranged provided that a Police Agent accompanies crew member to Santiago Airport.
AIRPORT: At Copiapo, 75 km. away, a daily flight to Santiago where international connections available.
TIME: Local time is GMT minus 4 hours during the Winter season and GMT minus 3 hours during the Summer season. See "General" before the first port for dates of local time changes.
HOLIDAYS: See "General" before first port.
TELEPHONES: No connection to vessels.
SHORE LEAVE: Allowed.
AUTHORITY: Captain of the Port.

CALDERILLA: 27.05 S. 70.52 W.

Installations of mechanised quay for shipment of iron minerals are owned by the Compania Minera de Atacama.
DOCUMENTS: See "General" before first port.
PILOTAGE: Pilot boards in position 27° 02.65′ S., 70° 50.55′ W.
ANCHORAGE: Vessels less than 180 m. in length can await a berth 4 cables N.N.E. of the East Peninsula, in 42 to 54 ft. of well sheltered water. Larger vessels must anchor in Caldera Bay.
MAX. SIZE: Max. length 230 m., draft 46 ft. (14 m.).
BERTHING: A mechanical loading belt has been built to the N.E. of the Peninsula. There are 2 loading arms each 50 m. long that can load at 1,000 t.p.h. The arms are fixed and vessels must shift to place each hatch under the tower. Vessels moor to 7 buoys, 3 forward and 4 aft. Entry can be made by day only.
MEDICAL: Doctor and hospital 30 miles away. Ambulance available.
FRESH WATER: Not available.
FUEL: Not available.
REPAIRS: Only of a minor nature.
TIME: Local time is GMT minus 4 hours during the Winter season and GMT minus 3 hours during the Summer season. See "General" before the first port for dates of local time changes.

CHACABUCO (Puerto Aisen): 45.28 S. 72.50 W.

(See Plan)

PORT LIMITS: A line joining Punta Weste with Punta Soffia.
DOCUMENTS: The Maritime Authority requires the following list of documents:

Passenger List.
Crew List.
General Declaration.
Cargo Manifest.

PILOTAGE: Compulsory for foreign vessels. Pilot boards in position 45° 28.12′ S., 72° 50.21′ W.
APPROACHES: To enter the Bay of Chacabuco, this must be done by day for vessels exceeding 60 m. LOA, since weather conditions and coastal configuration do not make access easy, there being gusty winds blowing mainly from the South with some frequency.
ANCHORAGES: S.E. part of the bay with a mud bottom, depth 40 m. and 50 m.
RESTRICTIONS: For large vessels, entry at night is not permitted nor when weather conditions are adverse.
MAX. SIZE: Vessels up to 120 m. LOA can be handled with safety, those between 120 m. and 165 m. must manoeuvre with extreme caution. Max. draft 30 ft.
RADIO: Maritime Authority. Call sign "CBH-6".
VHF: Channels 16 and 14.
TUGS: None.
BERTHING: New quay, depth alongside 7.7 m. – 9.2 m.
CRANES: One crane of 4.5 tons.
BULK CARGO FACILITIES: Private conveyor belt.
STEVEDORES: Must be requested 24 hours in advance, via the Agents.
FRESH WATER: Tank capacity: 1,000,000 litres. Pipe: 75 mm. diameter delivery. Rate: 60 cu.m./hr.
FUEL: There is an oil terminal (Copec & Esso).
DRY DOCKS: None.
AIRPORT: Airport of Aisen 2 km. from the port, with a runway 1,300 m. long × 30 m. wide.

Airport of Coyhaique "Teniente Vidal", runway 1,400 m. long × 30 m. wide.

International Airport of Balmaceda 120 km. from Chacabuco, concrete runway 2,098 m. long × 45 m. wide.
TIME: GMT minus 4 hours. Also see "General" before first port.
TELEPHONES: Telephone service to the whole country and abroad, together with post and telegraph office.
BANKS: Banco del Estado de Chile located in Puerto Aisen, 15 km. away.
GENERAL: At Puerto Chacabuco there is a Customs Office, police, a hospital and fire brigade.

To the N.W. of the quay, there is a Ro/Ro terminal for coastal car ferries.
AUTHORITY: Gobernacion Maritima de Aysen, Puerto Aisen, Correo Naval, Chile. *Contact:* Captain Manuel Cofre Munoz, Maritime Governor.

CHANARAL: 26.21 S. 70.38 W.

DOCUMENTS: See "General" before first port.
PILOTAGE: Compulsory for foreign vessels and tankers and for mooring at Mechanised Quay. There is one Pilot at the port. Pilot must be waited for in position bearing 289° and 2,025 m. from reference point indicated on Chilean navigation chart.
ANCHORAGES: Between Point Piedra Blanca and Point Piedra Negra at 325° × 2 cables from head of the Fiscal Quay in 15 m. – 12 m. of water, with good holding ground of sand.
MAX. SIZE: Draft 42 ft., length 800 ft., breadth 100 ft.
RADIO:

Station call sign	*Category*	*Frequency*	*Type*	*Receives*	*Transmits*	*Schedule*
Chanaral CBH-2	(T)	2 MHz	A 3	2182	2182 2000	H30-45
		4 MHz	A 3	4091.6	4396.6 4396.6	H45-60

TUGS: There are 4 small tugs.
BERTHING: Fiscal Quay: About 3 cables S.W. from Point Piedra Negra, 70 m. long by 8 m. wide, depth is 5.5 m. Vessels should lie about 5 cables off the head of the pier and moor to the stern buoy in 40 ft. of water.

Mechanised Quay: At Point Piedra Blanca there is a mechanised pier, property of Compania Minera Santa Fe for loading bulk iron ores. 60 m. long by 10 m. wide, with 14.5 m. depth; sand and mud bottom. Ores transported by means of a conveyor belt to a loading tower from which it is loaded direct to ship's hatches. At present loading tower is fixed so that vessels have to be moved to change hatches, but studies are being made as to possibility of converting it into a mobile tower. Loading rate is 1,000 t.p.h. Vessels up to 224 m. length, 36 ft. draft have loaded alongside up to 34,000 long tons. Vessels moor at head of quay, which has 4 buoys (2 forward and aft.). In addition the quay is provided with bitts to secure mooring ropes, fore and aft.
STEVEDORES: 81 stevedores (9 gangs of 9 men each). Ordinary working hours are from 0700 hrs. to 1100 hrs., and continuing from 1300 hrs. to 1700 hrs., but by special agreement and paying for meals, work can be carried on straight, i.e. from 0700 hrs. to 2000 hrs. and continuing from 2000 hrs. till 0700 hrs. of the following day with a 100% surcharge on wages, etc. Also see "General" before first port.
MEDICAL: Modern hospital and doctors available.
FRESH WATER: No means for supplying vessels.
FUEL: Not available.

GANGWAY/DECK WATCHMEN: Available.
OPENING/CLOSING HATCHES: Done by stevedores.
IDENTIFICATION CARDS: Required.
CONSULS: None at Chanaral, the nearest are at Antofagasta.
REPAIRS: 2 shipyards to repair tugs and lighters only.
REPATRIATION: Facilities exist.
AIRPORT: The airport is located 2 km. North of Chanaral.
TIME: Local time is GMT minus 4 hours. Also see "General" before first port.
SHORE LEAVE: Allowed.
DELAYS: There is frequent surf during June and August, sometimes interrupting traffic and cargo operations in the bay for a short time. Surf generally comes from the N.W. or the West. Fogs are frequent between April and August, but sometimes they are quite heavy during other months of year.
AUTHORITY: Empresa Portuaria de Chile.

COQUIMBO: 29.57 S. 71.21 W. (See Plan)

DOCUMENTS: See "General" before first port.
PILOTAGE: Compulsory for vessels mooring to quay. Pilot boards day and night in position bearing 101° and 1,215 m. from Point Tortuga Lighthouse, between Lat. 29° 55′ 38.5″ S., Long. 71° 19′ 56″ W. and Lat. 29° 56′ 10″ S., Long. 71° 20′ 34″ W.
ANCHORAGES: Vessels lie in roads until ready to tie up to quay. Bay has good anchorage with a sandy bottom and depths varying from 15 m. – 10 m. A forbidden zone is indicated on charts.

Vessels frequently have to anchor first before mooring to the quay as this only has capacity for 2 vessels at a time.

Waiting zone between Lat. 29° 55′ 38″ S., Long. 71° 19′ 56″ W., and Lat. 29° 56′ 10″ S., Long. 71° 20′ 34″ W.
MAX. SIZE: 378 m. long and 32.8 ft. draft.
RADIO:

Station Call Sign	*Category*	*Frequency*	*Type*	*Receives*	*Transmits*	*Schedule*
Coquimbo	(S)	4 MHz	A 3	4091.6	4396.6	H00-30
CBC-2				6265.5		
		6 MHz	A 1	6280	6505.5	H30-60

TUGS: 2 tugs available and motor launches to assist the Pilot and for passing mooring lines.
BERTHING: *Mooring Mole:* 378 m. long, for 2 vessels of 180 m. each with draft of 32.8 ft. Berth No. 1 is on the South side and No. 2 on the North. Can be used at all times except during stormy weather, or when heavy swell is experienced.
Passenger Mole: To the South of mooring mole.
Cranes: 6 rail mounted quay cranes of 5 ton capacity.
Warehouses: 6,250 sq.m. of covered warehousing, of which 3,750 sq.m. for storage of minerals.
STEVEDORES: *Loading/Unloading Rates:* Loading – Barium Sulphate 60 – 80 t.p.h. Unloading – Wheat 80 – 90 t.p.h. Loading – Fish meal 35 t.p.h.

Working hours are 0800 – 1530 hrs., 1530 – 2300 hrs. and 2300 – 0630 hrs.
MEDICAL: Hospitals at Coquimbo and La Serena.
FRESH WATER: Can be obtained in limited quantity at quay at rate of 25 t.p.h. Quality is good.
FUEL: Coal can be obtained in limited quantity. Diesel oil and gasoline can be obtained at the quay from truck or railcar.
GANGWAY/DECK WATCHMEN: Available.
OPENING/CLOSING HATCHES: Done by stevedores.
IDENTIFICATION CARDS: Required.
CONSULS:
Denmark (Vice-Consul)
Liberia
Panama
Peru
Spain
United Kingdom
REPAIRS: No shipyards. There is a private workshop for minor repairs.
REPATRIATION: Facilities exist.
AIRPORT: 7 km. to the East of La Serena and 30 km. from the Port of Coquimbo.
TIME: Local time is GMT minus 4 hours during the Winter season and GMT minus 3 hours during the Summer season. See "General" before the first port for dates of local time changes.
SHORE LEAVE: Allowed.
AUTHORITY: Empresa Portuaria de Chile, Administracion del Puerto, Cas 10-D, Melgarejo 676, Coquimbo. *Tel:* 311365, 311852. *Telex:* 220005. *Cables:* Coquimbo Port – Empor Cl. *Contact:* Rafael Lancellotte Lopez, Port Administrator.

CORONEL: 37.02 S. 73.10 W. (See Plan)

PILOTAGE: Compulsory. The Pilot should be requested at Talcahuano. Pilot boards vessels in front of Punta Pochoco.
BERTHING: *Mechanical Pier:* Vessels berth against dolphins close to the 6 fathom line. The berth is exposed to Northwesterly winds and vessels should be ready to sail at short notice.
FRESH WATER: Available at a rate of 20 tons per day.
FUEL: Not available.
MEDICAL: Doctors and hospital available.
CONSULS: At Concepcion.
TIME: Local time GMT minus 4 hours during the Winter season and GMT minus 3 hours during the Summer season. See "General" before the first port for dates of local time changes.

EASTER ISLAND: 27.08 S. 109.22 W. (See Plan)

DOCUMENTS: *Navy Port Authority:*
Last Port Clearance.
Ship's Certificates.
1 Crew List.
1 Passenger List.
1 Complete Copy of each Manifest for goods to be discharged locally.
Immigration:
2 Crew Lists.
2 Passenger Lists.
Passport and Visas are required for all foreigners.
Customs:
1 Crew Declaration List.
1 Ship's Store List.
Health/Animal and Vegetable Lists.
Complete Declaration of Health.
International Vaccination Certificates.
PILOTAGE: Vessels approaching to anchor do not require pilotage but small boats and launches services to the shore will require assistance of local natives.
ANCHORAGE: The best anchorage is at Hanga Roa Bay (27° 08′ S., 109° 26′ W.) in good sea conditions. Vessels should anchor outside the 30 m. (98.4 ft.) line. Anchorages in general are poor and vessels should be prepared to sail at any time with the onset of bad weather. Other recommended anchorages are:

Vinapu	27° 10′ S.,	109° 24′ W.
La Perouse	27° 04′ S.,	109° 17′ W.
Anakena	27° 04′ S.,	109° 19′ W.

HEALTH: Pratique procedure and action neccessary to obtain Pratique can be arranged through Port Agent.
RADIO: Navy Radio Station, call sign is 'CBY'. Calling on 500 kHz. Other safety radio calling through 2,182 kHz. Further communications on 2,738 kHz or 4,125 kHz.
VHF: Navy Radio Station and Port Captain Authority. VHF service facilities through Channel 16 and for further communications use Channel 8.
CRANES: Shore-Crane available, Bucyrus-Erie Type SP360 with lifting capacity of 17 tonnes. Fork lift truck of 4 tonnes capacity.
MEDICAL: Hospital and dental services are available.
DENSITY: 1025.
FRESH WATER: Potable water is available only on shore. But in extreme emergency can be delivered from land to ship at Vinapu Fuel Terminal. Loading line 2 in. Rate approx. 20 t.p.h. Contact Port Agent.
FUEL: Local Products Availability: Diesel Oil 2-D; 93 Octane Gasoline; Kero Jet AJ-1; Domestic Kerosene. Delivered through pipe-line at Vinapu Fuel Terminal. Discharge 8 in. connecting valve ASTM – A350 6 in. 150 pounds. Contact Port Agent.
CERTIFICATES:
Construction Certificate.
Safety Equipment Certificate.
Radio Safety Certificate.
Load Line Certificate.
REPAIRS: All minor repairs (Carpenter, mechanical and electrical). Other repairs to be carried out will need early advice.
SURVEYORS: Asociacion de Aseguradores de Chile (AACH). Agent Mr. Gerardo Velasco G-H. Tel. 212, 227.
CUSTOMS ALLOWANCES: Tobacco, wine, spirits, personal video/photography equipment.
REPATRIATION: Crew change and repatriation are possible. Contact Port Agent.
AIRPORT: Mataveri Airport is 1 mile from Hanga Roa Bay. LAN-Chile Airline flights connect Easter Island to mainland (Chile) and Tahiti once a week.
TIME: Summertime: From the second Saturday of October to the second Saturday of March, GMT minus 5 hours.

Wintertime: From the second Saturday of March to the second Saturday of October, GMT minus 6 hours.
HOLIDAYS: New Year's Day; Easter Days; May 21st, Navy Day; September 18th-19th, National Festivities; Christmas Day.
POLICE/AMBULANCE/FIRE Police, Tel. 219; Ambulance, Tel. 215, 217; Fire, Tel. 264.
EMERGENCY CO-ORDINATION CENTRE: Navy Station or Port Captain Authority Tel. 222
BANKS: Banco del Estado de Chile. Tel. 221
SHIP SUPPLY SERVICE:
(a) Vaihu Ltd. Tel: 325, 239, 220.
(b) Oceania Ltda.
SHORE LEAVE: No restrictions after ship's reception by the authorities.
IDENTIFICATION CARDS: Shore passes or seaman's book is sufficient.
REGULATIONS: Fruits and vegetables (from abroad) transfer to shore are prohibited.
AUTHORITY: Gobernador Maritimo de Hanga Roa, Policarpo Toro s/n, Isla de Pascua (Easter Island), Chile. *Tel:* 222.

GUAYACAN: 29.58 S. 71.22 W. (See Plan)

DOCUMENTS: See "General" before first port.

APPROACHES: The entrance to the bay between Point Miedo and Point Herradura is 800 yards wide and its depth 42 m. to 65 m.

Since Herradura de Guayacan Bay is a fishing zone, caution must be observed in navigation. Trawlers and hand propelled craft are used.

Currents from the South and S.W. tend to set the vessel to the N.N.E. when entering the bay. There is a light at the entrance to Herradura de Guayacan Bay on Point Herradura.

Vessels should approach the port at reduced speed on course 140° heading on leading line C. When the vessel reaches leading line C, it turns to the port in order to be placed on leading line B, which indicates course 112° in approach to anchorage. Heading on this leading line and once the vessel is located on leading line of Beacon D1 and D2, the starboard anchor will be dropped, leaving as many as 6 shackles in the water. With the help of the engine and rudder the vessel is turned until located parallel to the pier, then it is docked with the mooring lines previously secured to the buoys and pier.

Leading lines D1 and D2 are used for vessels of 300 m. length and leading lines D1 and D3 are for vessels with 250 m. length.

PILOTAGE: Compulsory. Under no circumstances can the pilot's launch exceed the limits of the port. It is imperative that the ETA of the vessel be as exact as possible.

ANCHORAGES: Vessels that are waiting to moor at the Mechanised Quay of Guayacan will anchor in Coquimbo Bay, where the Pilot will embark to guide the vessel to Herradura de Guayacan Bay once the berth is free.

MAX. SIZE: LOA – 315 m., beam – 50 m. Max. draft – 16.2 m.

RADIO: Operators' cable address is CMP, La Serena, Chile, and all messages having their origin in North America should be routed via All America Cables, and in the rest of the world, via Cable and Wireless Limited. Ship's radio messages should be routed via I.T.T. by radio.

Vessels should advise ETA 7 days, 96 hours, 48 hours and 24 hours out by radio. Also advise Agent. Also see "General" before first port.

BERTHING: The ore pier, of steel construction with a concrete deck, is 700 ft. long and located at the N.E. part of the bay. A total of 10 mooring bitts are available on the main pier, with 2 each on mooring dolphins to the South and North of the pier. Two twin mooring buoys, 1 North and 1 South, a distance of 350 ft. and 410 ft. from each dolphin and slightly inshore of the pier, are also available. A twin buoy to assist in docking and undocking is located 460 ft. to the West of the North end of the pier. Depth of water at the pier is 55 ft. at MLW. Max. draft 16.2 m.

MOORING: Vessels dock port side to the pier. On approaching the pier, the starboard anchor is dropped at a position indicated by cross bearing on markers located on the shore to the N.E. and at the South end of the pier and the shore. Lights are located on the markers for night docking. 9 shackles of cable are laid.

Two motor launches assist in rope handling to the pier and buoys. Sufficient deck crew must be available at all times to shift the vessel if required and to adjust moorings during loading.

Engines must be available at short notice. Permission for any major repair to the engines at the dock must be obtained from Maritime Authorities.

LOADING: In the case of combination ore carrier/tanker type of vessel, the Master must present a gas-free certificate before notice of readiness will be accepted. Such certificate may be obtained from a Coquimbo firm and request for same should be included in the 96 hours ETA message, reporting if there is or there is no tank gas detecting instrument on board.

The loading boom extends 51 ft. from the face of the pier and can be retracted 22 ft. It may be raised or lowered 18° from the horizontal when loading.

The tower is mobile with a run of 390 ft. Clear height (above HWL) is 18.0 m. Vessels may have to be shifted. Aft hatches should be loaded first, when possible, to facilitate efficient loading. When not loading the rig is parked at the centre of the pier with the boom in a vertical position inside the pier face. In the horizontal loading position the boom is 40 ft. from the water at LWL and vessels should be ballasted to ensure hatch coamings and other fixed structure at the hatches have a height less than 40 ft. above water at LWL. Booms and other tackle should be cleared from all hatches.

Rated loading capacity is 3,000 t.p.h.

Emergency stops only are permitted on the conveyor system. Vessels on which cargo reaches coamings should note that 390 tons are on the belts between the stockpiles and the ship and this must be cleared before stopping the system.

Cargo is belt trimmed only. Hire of trimmers, if required, is for vessel's account.

On completion of loading, the vessel shall leave the pier. Delays of port operations including delays of other vessels awaiting berth, caused by a vessel which for any reason is not prepared and able to move from the pier when so ordered, are chargeable to the vessel which causes such delays, at the rate of $4,000 per day or at the demurrage rate of any other vessel that may be delayed – whichever is higher.

BALLAST: Vessels should be ballasted to meet the loading tower information given and to ensure safe handling. Wind condition can make docking of light vessels difficult. Ballast may be discharged at the pier while loading. Upper wing tanks emptied by gravity should have covers fitted over discharges. Vessels are liable to fines by Maritime Authority for any oil or other contaminate discharged in the bay either from tanks or from pumping bilges.

MEDICAL: Medical attention may be arranged through the vessel's Agent. No person will be attended unless he is provided with a letter from the Master authorising such treatment.

FRESH WATER/FUEL: Fresh water and fuel are not available at this port, although water and diesel fuel may be obtained in nearby Coquimbo, or at Salinas, near Valparaiso. Bunker "C" type fuel can be obtained at Salinas also.

REPAIRS: Only in cases of extreme emergency can limited ship repairs be effected at this port.

CONSULS: Consulates of Liberia, Panama, Peru, Spain and United Kingdom and Vice-Consul of Denmark are in Coquimbo or the adjacent city of La Serena.

TIME: Local time is GMT minus 4 hours during the Winter season and GMT minus 3 hours during the Summer season. See "General" before first port for dates of local time changes.

HOLIDAYS: If advance ETA is received, ships will generally be received every day with the following exceptions: 1st January; Good Friday; 1st May; 18th September; 25th December. Also see "General" before first port.

SHORE LEAVE: Shore leave may be granted at the Master's discretion. There are no restrictions by local authorities, but crew should be certain to carry their identification cards (shore pass).

SERVICES: Mail for vessel and crew should be addressed care of ship's Agent at Coquimbo, all mail that is received for holding by the Agent will be delivered to the vessel upon arrival.

Do not have parcel post packages sent, as they must go through Customs in Santiago and are delayed from 2 weeks to a month for their despatch.

Spare or repair parts for the vessel should be sent via air express, addressed to the ship, care of ship's agent at Coquimbo, Chile and marked "Ship's Stores in transit", so as to avoid paying Customs duties. Information regarding the shipment should be sent to the Company via air mail correspondence.

A limited supply of provisions is available, but requests should be sent by radio 48 hours prior to arrival.

AUTHORITY: Compania Minera del Pacifico, S.A.

HUASCO: 28.27 S. 71.14 W. (See Plan)

DOCUMENTS:

1 Clearance.
12 Cargo Manifests, or 2 No Cargo Manifests.
6 Passenger Lists, or 1 No Passenger List.
7 Crew Lists.
4 Stores Lists.
3 Crew Personal Effects.
2 Stowage Plans.
2 Per Passenger Baggage Declarations.
1 Health Certificate.

PILOTAGE: Compulsory for vessels mooring at Santa Barbara, Guacolda and Guacolda II mechanised quays. Vessels awaiting Pilot and/or clearance can anchor in position bearing 090° and 1,200 m. from Guacolda Lighthouse, within a circle of 2 cables radius, in 60 m. depth.

ANCHORAGES: Vessels can anchor at N.N.E. of Cayo Isle distance 3 cables in 24 m. – 26 m. depth; small vessels bearing 090° distance 2 cables from Cayo Isle in 12 m. depth of water, sandy bottom.

Depth is generally moderate and level with a sand and shell bottom, while at the maritime terminals of Santa Barbara and Guacolda is quite deep, around 50 m., which has to be taken into account when anchoring. The bottom at these terminals is mud, offering a good holding ground. Pilot compulsory for anchoring in the Bay.

MAX. SIZE: See "Berthing".

RADIO:

Station call sign	*Category*	*Frequency*	*Type*	*Receives*	*Transmits*	*Schedule*
Huasco CBH-3	(T)	2 MHz	A 3	2182	2182	H30-60

VHF: Vessels must call pilot station 2 hours before arrival.

TUGS: No tugs available. At Huasco there are 4 motor launches for use of Pilot.

BERTHING: There are 3 cargo terminals in service: Guacolda I, Guacolda II and Santa Barbara, property of Compania Minera del Pacifico S.A.. The particulars of these installations are:

	Santa Barbara	*Guacolda I*	*Guacolda II*
Max. d.w.t.	—	—	200,000
Max. LOA	290 m.	260 m.	314 m.
Max. Draft	49 ft.	44.3 ft.	23.0 m.
Max. Beam	—	30.0 m.	47.5 m.
Air Draft (HW)	42 ft. 6 in.	42 ft.	22.8 m.
Loading Rate (Average)	2,000-2,500 t.p.h.	2,500 t.p.h.	5,000 t.p.h.
Max. Loading Rate	3,600 t.p.h.	—	6,000 t.p.h.
Loading Arm Reach	30.5 m.	—	42.0 m.

Tidal Range: 3.5 ft. Springs, 2.7 ft. Neaps.

Santa Barbara Terminal: Used exclusively for loading iron ore. No dock to berth only 1 loading tower protected by dolphins (Duque de Alba). Ships berth without tugs to 7 buoys using the starboard anchor. Vessel has to be shifted to receive cargo in all the hatches. Transit through the installations is not allowed, and taxi boat service is provided to go ashore to Huasco wharf.

Guacolda I Terminal: Normally used to load iron ore. Length 183 m. However it is intended in future to use the berth to discharge oil or coal for internal company use. The loader has a 100 m. run. If it is necessary to shift the vessel, this must be done by crew members, as shore gangs are not available.

Guacolda II Terminal: Only Iron Ore pellets loaded – at the present time ship's crew required to shift vessel.

Also see "Shipmaster's Reports".

STEVEDORES: There are 50 stevedores for up to 4 gangs. In addition there are 20 longshoremen and 14 lightermen. Working hours are 0700 – 1200 hrs., 1400 – 2100 hrs.
MEDICAL: Hospital at Huasco, also 2 doctors and dentists.
TANKERS: Berth at No. 1 Guacolda. Max. LOA 272 m., max. draft 13.5 m.
FRESH WATER: Not available.
FUEL: None available.
Not
OPENING/CLOSING HATCHES: By stevedores in general cargo ships.
IDENTIFICATION CARDS: Not required.
CONSULS: Norway – Honorary Vice-Consul.
REPAIRS: Only for the repair of minor craft.
AIRPORT: Nearest commercial airport is at Vallenar, 52 km. away.
TIME: Local time is GMT minus 4 hours during the Winter season and GMT minus 3 hours during the Summer season. See "General" before first port for dates of local time changes.
TELEPHONES: Local and outward service.
GENERAL: Zone for ballast: it is prohibited to deballast in port except clean water from deep tanks. For any other kind of ballast authorisation should be requested first from the maritime authority who will indicate the appropriate place.
SHORE LEAVE: Allowed.

+ See hake repair

SHIPMASTER'S REPORT: September 1986.
Communications: Initial cables were sent via Portishead Radio but when in range Valparaiso Radio was used. There is no shore station at Huasco. On approach to the port contact was made by VHF on Channels 16 and 14.
Approaches: As per "Sailing Directions". The pilot boarding area is in position 090° – 1,200 m. from Guacolda light.
Pilot ladder to be rigged on the port side. As this vessel is over 200 m. 2 Pilots were used.
Berthing/Berth – Guacolda II: Off the berth the starboard anchor is let go to 8 shackles on deck and then held. The vessel is then manoeuvred in towards the loading dolphins, checked with the anchor and laid parallel to the loading arm dolphins about 8.0 m. off. When close enough lines are run to the buoys forward and aft. These together with the anchor hold the vessel in position off the dolphins. When moored the vessel is made fast to 3 buoys fore and aft. 1 buoy ahead and 2 to the landward, 1 buoy astern and 1 seaward and 1 landward. 2 lines are made fast to each buoy.
Berthing took just over an hour from the time the Pilots boarded till all fast.
Pilots advise that there is about 22m. of water at the berth.
Arrival Formalities:
Pratique: Radio Pratique was requested by radio via the Agents but this was not given as the necessary formalities are carried out on berthing. The standard Maritime Declaration of Health is required.
Agriculture Inspection: The galley, refrigerators and provision store rooms are inspected. No fruit or vegetables are to be landed from the vessel.
Customs: 3 copies of Crew Personal Effects were made up and completed prior to arrival and found acceptable. Only the bonded stores (Spirits, tobacco and cigarettes) were sealed.
Immigration: Shore passes for all personnel are required and these MUST be collected and returned prior to sailing. No restrictions on shore leave and no curfew. A launch service to Huasco (15 minutes away) is available.
Arrival Documents:
1 Maritime Declaration of Health.
3 Crew Personal Effects Lists.
8 Crew Lists.
4 Stores Lists (Deck and Engine).
4 Stores Lists (Provisions).
1 'Nil' Passenger List.
2 'Nil' Cargo Manifests.
Register, Derat, etc., required to be sighted.
Loading: The loading of the iron ore pellets commenced once Pratique had been granted and was, with the exception of shifts and shore breakdowns, continuous. The nett loading time was 44 hours and this gave an average loading rate of 2,679 tonnes/p.h.
Shifting ship was necessary to reach the end holds and was carried out by ship's personnel. Rigging gangs are available to assist in shifting and they remain onboard throughout. Before arrival the Agents had inquired if these gangs were required but I advised that the ship's personnel would carry out the shifts. No difficulties were experienced shifting but long lines to the buoys ahead and astern are essential.
As the vessel is kept off the dolphins at all times there is no access to the shore except by launch which is kept alongside for draft checks. As the shore weigh-bridge is not reliable all tonnages are by drafts. The after accommodation ladder is used for access to the vessel.
The final Bill of Lading figure is by draft survey – carried out by ship's personnel.
Departure: Final documentation is completed onboard and takes about an hour after completion of loading with the Port Captain boarding to give a clearance.
All passes are checked and the Master signs a Declaration to the effect that all personnel are onboard.
The Pilot disembarks as soon as the vessel clears the moorings using the accommodation ladder.
General: Provisions/Supplies: No fresh water or fuels available but fresh provisions in season can be supplied and appear to be of reasonable quality and price – £0.45 for a kilo of tomatoes and £8.28 for a case of oranges for example.
Postage: Mail from the UK took about 7 days to reach Huasco. Deliveries are made at noon.
Telephone: Available from the Agent's office. Local line to Vallenar then International.
Repairs: Main Engine maintenance can be carried out but the vessel must be ready for sea within 3 hours at any time. A formal request is required should immobilisation be required.
Tugs: There are no tugs. 3 mooring boats are used and are in contact with the vessel by VHF.
Shore Contact: The loading foreman keeps in contact with his office every 3 hours using the ship's VHF.

SHIPMASTER'S REPORT: March 1988.
The vessel loaded 149,000 tonnes of iron ore pellets at Guacolda II. The vessel is a combination carrier built in 1986, 280 m. length, 45 m. beam and 152,300 tonnes d.w.t.
Berthing: The vessel is required to send out 2 mooring ropes to each buoy, wires are not acceptable. The buoy pattern is similar to that on the plan in "Guide to Port Entry". As the ropes are sent out long before the vessel is near the pier the ropes must be more than 330 m. long. As a normal mooring rope is 220 m. long, this could cause embarrassment and delay if the vessel is not sufficiently prepared.
Bulk cargo facilities: The loading arm at Guacolda II can serve a 110 m. long section of the vessel. For holds more than 110 m. away, the vessel has to be shifted.
Density: 1025.5.
Services: If the Master pays cash for the purchase of provisions worth more than U.S.$1,000, the amount must then be handed over to the Agent and the Agent will in turn arrange for the ship chandler to receive the money. This is required by local regulations.
Repatriation: Crew repatriation is by bus to Santiago. Local law requires relieving crew members to enter the country 48 hours prior to the arrival of the vessel.

AUTHORITY: Armada de Chile, Direccion General, Territorio Maritimo y M.M., Capitania de Puerto, Huasco, Chile. *Contact:* Port Captain.

IQUIQUE (including Patillos Cove): 20.12 S. 70.09 W. (See Plan)

PORT LIMITS: The interior area included between a line joining the Serrano Island and Mole lights and another line running 290° (True) to the North buoy of the Esso tanker anchorage.
DOCUMENTS:
For vessels coming from foreign countries:
Clearance from last foreign port.
Crew list.
Passenger list.
Manifest of hazardous cargo (when applicable).
Insurance policy against contamination (for tankers).
International Maritime Health Declaration.
Derat Certificate.
Tonnage Certificate.
Radio-telegraphy safety Certificate.
Certificate of equipment.
Lighthouses and buoys Certificate.
Freeboard Certificate.
Construction Certificate.
For vessels coming from another Chilean port:
Clearance from last port.
Crew list.
List of passengers.
Manifest of hazardous cargo (when applicable).
PILOTAGE: Compulsory. During the day the pilot cutter displays the "H" flag of the international code, and at night the lights prescribed by the International Regulations. Pilot boards 5 cables North of the head of the breakwater. Berthing and unberthing takes place 24 hours a day. Telegraphic address for the Pilots is "Maritgob Iquique 7", it being necessary to give prior notice of requirement 72, 48, 24 and 12 hours ahead of arrival.
Channel for calling the Pilot is VHF Channel 16 and working is on Channel 6. The launch used by the Pilots is white, and approx. 27 ft. overall length, the Pilot coming out beyond the port limits to board the vessel.
ANCHORAGES: Access to the bay is rendered difficult by the continuous traffic of fishing vessels, which limits the manoeuvring area and makes vigilance very necessary. The bay contains a spacious and suitable anchorage with varying depths from 40 m. to 14 m. with sandy bottom, the depth descending gradually from the entrance towards the East. Vessels which are going to stay for a short period of time and which are not going alongside the moles, are safe with a single anchor and necessary chain, according to the point where they moor.
Vessels which moor at the tanker buoys, either Copec or Esso, must remain with bow heading 270° and anchored with 2 anchors. This is convenient so as to remain with the bow pointing out to sea and not to cause the hoses to work. There are 2 submarine cable zones where only vessels of the Chilean Navy may moor. This is defined by a line joining the head of the Naval Quay (ex Alimar North) to the light of the extreme breakwater (291°) and the demarcation 000° determined by a radius of 460 m. from the centre of the quay head.
RESTRICTIONS: Mist occurs with greater frequency from December to March, and is generally slight and low which produces a danger when making a landfall. The general direction of the current is from South to North at a rate of 0.5 to 3 knots. This current is strong at Punta Gruesa, Cavancha and Punta Piedras. Fierce winds frequently occur from May to September but their action is very much less within the area protected by the breakwater.

MAX. SIZE: The berthing areas with their specifications are as follows: Berths 1 and 2, with a total length of 270 m. and an average depth of 29 ft. The West side quay comprises Berths 4 and 5 with a length of 335 m. and an average depth of 29 ft.

The East side quay comprises Berths 6 and 7 with a length of 280 m. with an average depth of 29 ft. (working with the tide a draft of 31 ft. is allowed).

No. 3 Berth is used by the fishing industry.

PRATIQUE: On arrival in port vessel will be received by the Health Authority, and if everything is in order, by the Maritime Authority and Customs. It will then be granted "Free Pratique". In the event of illness or fever on board, contact must be made with the local Agent who will inform the medical authorities.

RADIO: The best way for the vessel to pass ETA messages, both to Agents and to the Maritime Authority, is to "Maritgob Iquique" via Antofagasta Radio: CBA-3 and Antofagasta Naval Radio: CBA.

VHF: In the Iquique Maritime Control there is VHF equipment to facilitate communications between vessel and Pilot, the procedure used being to call up on Channel 16. The Pilot and tug use walkie talkies which have Channel 16 and 6.

TUGS: 1×720 h.p. and 1×1,200 h.p. Both tugs owned by S.A.A.M. (private company).

BERTHING: Inside the breakwater are Berth Nos. 1, 2 and 3, Berth No. 3 is permanently occupied by deep sea fishing vessels. On the mooring pier on the West side are Berth Nos. 4 and 5, and on the East side, Berth Nos. 6 and 7. When there is a swell, it is not recommended to berth at Berth Nos. 4 and 5 as mooring ropes may be parted. Maximum drafts for mooring are: Berth Nos. 1, 2 and 6: 30 ft.; Berth Nos. 4, 5 and 7: 29 ft. Loading and unloading is by ship's derricks.

Length of Berths

Berth Nos. 1 and 2 – 270 m.
Berth Nos. 4 and 5 – total length 300 m.
Berth Nos. 6 and 7 – total length 270 m.

Patillos Cove: The port is used for the bulk shipment of salt. It is located 33 miles South of Iquique. Pilot boards to the North of Punta Patillos Lighthouse and 6 cables off, weather permitting. Vessels berth to 5 buoys, but must move to present each hatch to the port loader. Max. size: length 250 m., draft 12.0 m.

CRANES: Berths not equipped with cranes for discharging operations. There is one mobile container crane for 80 tons.

MEDICAL: In the event of any serious case or an emergency it is necessary to advise the Agent by telex, otherwise advice should be by Channel 16 VHF. In the district is a modern hospital with sufficient medical resources, and Crew members can be treated.

STEVEDORES: Gangs of stevedores, for ship and shore, must be requested prior to 1600 hrs., which means, in effect, the day prior to that when they are needed. They work continuously, in 3 shifts: 0800 – 1500 hrs., 1530 – 2230 hrs., 2300 – 0600 hrs.

TANKERS: The loading and discharging line is of metal and of 12 in. diameter, reducing at its connecting point to 8 in. There are no deballasting tanks in the port nor any for accepting oil residues. In front of El Colorado Beach, there are 2 groups of buoys with 3 buoys in each, intended for mooring tankers. The North group is for refined products, and the South group for crude oil. Maximum permitted draft is 32 ft.

FRESH WATER: This is brought from the mountain range by pipes for consumption by the town. It can be delivered to vessels moored at the pier in small quantities, and is of good quality.

FUEL: Diesel or boiler oil can be supplied to vessels on request, in any quantity, and for this purpose they must moor at the tanker buoys in front of El Colorado Beach. If quantity required is less than 300 tons, it may be taken at the pier by means of tanker trucks.

CONSULS:

Bolivia
Colombia
Denmark
Italy
Peru
Spain
Sweden
Yugoslavia

REPAIRS: Minor repairs can be effected at the Marco Shipyard.

SURVEYORS: Lloyds.

GANGWAY/DECK WATCHMEN: It is convenient for all vessels to have a gangway watchman, a second guard is required when hazardous cargo is carried.

OPENING/CLOSING HATCHES: Vessels must enter with their holds closed, and these will be opened by a special gang of seamen in the port who, furthermore, attend to all movements of derricks, cranes, and equipment, etc.

DRY DOCKS: There are 2 dry docks for vessels up to 500 tons.

CUSTOMS ALLOWANCES: It is permitted to have all that is required for normal consumption from the ship's store.

REPATRIATION: There are no problems in repatriating crew, either for exchange purposes or for holidays, who have to travel back to their country of origin.

AIRPORT: The airport of Chucumata is 30 minutes away by car, and there are connections by the National Airline and Ladeco (Linea Aerea del Cobre) with foreign airlines at the Airport in Santiago de Chile.

TIME: Local time is GMT minus 4 hours during the Winter season and GMT minus 3 during the Summer season. See "General" before the first port for dates of local time changes.

HOLIDAYS: 1st January (New Year's Day); 1st May (Labour Day); 21st May (Navy Day); 15th August (Assumption); 18th September (Independence); 19th September (Army Day); 12th October (Race Day) (Discovery of America); 1st November (All Saints); 8th December (Immaculate Conception); 25th December (Christmas).

There is also Holy Week which is a movable holiday between end March and middle of April.

POLICE/AMBULANCE/FIRE: Police, Tel. 23456; Ambulance Tel. 22370; Fire Brigade, Tel. 21212.

TELEPHONES: There is no facility for connection on board. Telephones on the quay less than 100 m. from the vessel.

SERVICES: It is possible to obtain gangs for tank and hold cleaning.

SHORE LEAVE: Permitted, no restrictions.

IDENTITY CARDS: Any crew member coming ashore is given an identity card by the International Police, card is returned when the vessel sails.

SHIPMASTER'S REPORT: September 1987.

Vessel loaded a cargo of salt in bulk at Caleta Patillos (Patillos Cove).

When 20 miles from the terminal the vessel should call "Caleta Patillos Radio" on VHF Channel 16 and confirm ETA and advise vessel's particulars, after which the radio station will advise a position for anchoring (Latitude and Longitude). Other vessels may already be anchored in the vicinity of the position allocated.

Patillos Cove is nearly semi-circular, with a diameter of approximately one mile. The best anchoring position is close to the centre of the Cove, about 5 cables N.W. of the shiploader. The bottom is sand, with some scattered small rocks and it proved to be a good holding ground with moderate wind and heavy swell. (The Cove is absolutely unprotected and open to the Pacific Ocean. This vessel stayed 4 days in the anchorage, always rolling heavily, due to a western swell).

Port Authorities and Agents board the vessel during regular working hours, either by the ship's gangway, or by the pilot ladder,depending on the state of the sea. At this time shore passes are issued to each crew member, and the ship's stores are checked by a Health officer, who may order some fruits and vegetables to be put under seal (before ship's sailing, he returns to check if the seals are still intact).

Port Restrictions: Max. LOA 250 m., Max. draft 12.0 m. There is no restriction regarding airdraft, however, the vessel should avoid arriving in a too light condition, as the pilots may refuse to manoeuvre if the wind is anything more than light.

Transport to and from the ship is undertaken by a launch called "Icaiza", any time day or night, and which can be contacted via VHF, Channels 01 and/or 16.

Fresh water is not available in Caleta Patillos, but stores and provisions, and also laundry service are available through ship chandlers from Iquique, who usually board the vessel on arrival. Bonded stores can also be obtained through the chandler, but in our case they failed to deliver them as there was no Customs Officer available to accompany and seal the stores.

Berthing and unberthing is only undertaken during daylight hours,and during the manoeuvre the ship is assisted by a Pilot (who comes from Iquique), a tugboat (Motor Tug "Albatros II" – 1,200 h.p.), and 2 line-handling boats.

The vessel must have at least 10 lines with a length of 250 m. each for mooring to 5 buoys. This is because the shiploader is of fixed type, and the vessel must shift every time it is necessary to change the loading from one hatch to another. The terminal can supply up to 3 lines with this length, and the remainder can be arranged by splicing the ship's ropes, if these are shorter than 250 m.

For berthing, the starboard anchor, 2 head lines, 2 forward breast lines (port), 2 stern lines and 4 after breast lines (2 on port side, 2 on starboard side) are used.

Shiftings from hatch to hatch are made any time day or night, but must be done with the assistance of a Pilot, tugboat and launches. (The Pilot is assisted by 3 men holding portable radios, one on the forecastle, one on main deck and one on the stern).

The salt is loaded at a daily average of 10,500 tonnes (stowage factor 32 cu.ft./ton) by a shiploader fitted with conveyor belt. Draft surveys are performed by a local surveyor upon berthing, before trimming and after conclusion of loading.

The launch ("Icaiza") must be used to go ashore even when the ship is moored to the buoys, since no direct access from ship to shore is available. The terminal ("Salinas de Punta de Lobos S.A.M.") provides a free bus service to and from Iquique, 3 times daily. In Iquique, major attraction is the "ZOFRI", the tax-free complex which is located in the northern part of that city. The salt is brought by trucks from a very interesting salt-mine located inland, and visits can be arranged through the Terminal's Manager.

If heavy swell is experienced in the Cove, loading operations are stopped, as the vessel rolls heavily in the berth. (In extreme cases the vessel must go out to the anchorage).

On completion of loading, Port Authorities board the vessel again to check documents, collect shore passes and to issue the Sailing Clearance. If another ship is waiting for the berth, the loaded vessel must clear the berth and wait for the Authorities in the anchorage (on this occasion, we waited 12 hours as they were busy with other vessels in Iquique Harbour).

AUTHORITY: Empresa Portuaria de Chile, Casilla No. 407, Iquique. *Tel:* 22848. *Telex:* 223054 Empor CL. *Contact:* Francisco Alvares Rojas, Administrador del Puerto.

LIRQUEN: 36.42 S. 72.59 W. (See Plan)

DOCUMENTS: See "Talcahuano".

PILOTAGE: Pilot boards off end of pier.

TUGS: 2×1,300 h.p.

VHF: Facilities available.

BERTHING: Total length of pier 615 m.

Berth No.	*Length* (m.)	*Depth* (ft.)
1	250	41*
2	200	38.5
3	170	32.5
4	170	27.5

*This depth permits vessels to be handled up to 45,000 d.w.t. or greater. For Port Plan see "Port of Talcahuano".

CARGO HANDLING FACILITIES: *Open Storage Areas:* 110,000 sq.m. for storage, excluding the areas intended for traffic.

Warehouses: 8 warehouses covering an area of 27,000 sq.m.

Equipment: 38 stacker trucks with forks and/or grabs from 4,500 lbs. to 22,000 lbs. lifting capacity.

45 tractors

46 haulage trucks.

855 m. of conveyor belts for solid bulk cargoes (30 in. width) and with a capacity of 350–400 t.p.h.

15 mechanical shovels from 900 litres to 3,500 litres each.

8 front loaders (large) with shovels for bulk and/or forks for trunks of timber.

3 front loaders for work on board ship.

4 fertiliser bagging plants, with capacity of 3,500 tons per day of 24 hours.

Loading/Unloading Rates: With special vessels, the following loading and unloading rates per berth have been attained:

Cellulose: (loading) 5,400 tonnes in one shift of 8 hours and 13,430 tonnes in 3 shifts (24 hours total).

Trunks of timber: (loading) 10,380 cu.m. in 3 shifts (24 hours total).

Fertilisers: (Unloading) 7,550 tonnes in 3 shifts (24 hours total).

Types of cargo which are moved through the port: 33% trunks of timber; 30% cellulose, paper and Bristol board; 25% fertiliser; 7% sawn timber and 5% general cargo.

Apart from these cargoes, the port is able to move, where necessary, 100% of the metallic copper coming from the mines in the centre of the country, plus a significant percentage of the exports of fruit not requiring refrigeration facility in the port, and a large part of the imports of cereals which are currently discharged in the ports of the central area.

SERVICES: Fresh water, telephone and telex.

AUTHORITY: (Private Port) Puerto de Lirquen S.A., P.O.Box 173-D, Teatinos No. 220, Office No. 92, 9th Floor, Santiago de Chile, Chile. *Tel:* 716550, 716577, 726941. *Telex:* 240835, 260193 Pudel CL. *Cables:* Lirquenport. *Contact:* Jaime Lea-Plaza or Christian Poulsen.

Lirquen: Recinto Muelle S/No., Octava Region. *Tel:* 451278, 451276. *Telex:* 260193 Pudel CL. *FAX:* 6981698 (Santiago), 451030 (Lirquen). *Cables:* Lirquenport (Penco).

LOTA: 37.06 S. 73.10 W.

DOCUMENTS: See "General" before first port.

PILOTAGE: Service is carried out by the Pilot Corps of Talcahuano. This service is compulsory.

ANCHORAGE: N.W. of the Lutrin Light. The Pilot will board here.

MAX. SIZE: Length 160 m. Max. draft 27 ft. (8.2 m.).

BERTHING: Mechanical Pier: The pier is 277 m. long, 14.7 m. wide. This is a fully mechanised quay with a transportation system and a loading tower on its head, and is designed for coal handling at approx. 600 t.p.h. The outermost 140 m. of the pier is used for berthing with a max. draft of 8.2 m. at HW.

To prevent vessels striking against the pier, they secure to 3 mooring buoys available on their outboard side. There are wires which enable the vessel's stern to be secured to the shore.

FRESH WATER: Available.

FUEL: Not available.

CONSULS: At Talcahuano.

TIME: Local time is GMT minus 4 hours during the Winter season and GMT minus 3 hours during the Summer season. See "General" before first port, for dates of local time changes.

MEJILLONES: 23.06 S. 70.28 W. (See Plan)

DOCUMENTS:

Vessels directly from foreign ports:

5 Crew Lists.

3 Passenger Lists.

3 Stores Lists.

5 Personal Effects Lists.

3 Narcotics Lists.

5 Import Cargo Manifests.

11 Manifests for cargo destined for Bolivia.

Vessels coming from another Chilean port:

1 Crew List.

1 List of Passengers.

1 Stores List.

5 Import Cargo Manifests.

13 Manifests for cargo destined for Bolivia.

PILOTAGE: Service carried out by the Pilot Corps of Antofagasta (65 km. from this port). Service is compulsory. Agent has to apply for the Pilot, and it is important to give arrival notice in good time.

ANCHORAGES: Open bay very well protected and with deep water.

MAX. SIZE: No restrictions. Vessels work cargo at anchor.

HEALTH: Pratique is automatic for vessels coming from another Chilean port, otherwise it will be granted after Sanitary visit.

RADIO: Antofagasta radio station CBA-3. Listens out between 0800 hrs. and 1200 hrs. and between 1400 hrs. and 1800 hrs.

Transmits 8,370 receives 8,354 Telegraphy H 00–30.

Transmits 4,396 receives 4,091 Speech H 30–45.

Transmits 8,780 receives 8,230 Speech H 45–60.

The station is active listening out every 2 hours, i.e. 0800, 1000, 1200, 1400, 1600 and 1800 hrs.

TUGS: There are none available locally but can be supplied from Antofagasta if needed.

BERTHING: There are no berths. Vessels work cargo at anchor.

Annaex or Proquim Terminal: 3 mooring buoys and a small platform for connection for ammonia discharge. Max. length 180 m. (15,000 d.w.t.). Flexible hose of 6 in., temperature – 32°C.

Also see "Shipmaster's Report" dated August 1983.

STEVEDORES: Agent to be informed before 1800 hrs. the day before arrival to order gangs.

MEDICAL: There is a doctor in the port but no hospitals are available and patients are transported to Antofagasta.

DENSITY: Sea water.

FRESH WATER: No fresh water available.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: This service is recommended.

OPENING/CLOSING HATCHES: This work can be carried out by crew and/or stevedores. Derricks operated only by crew.

SHIP'S CERTIFICATES:

Register Certificate.

Tonnage Certificate.

Radio Certificate.

Safety Equipment Certificate.

Derat Certificate.

CUSTOMS ALLOWANCES: 200 cigarettes for each member of the crew besides the ones in the stores. One bottle wine/spirits per person. One customs official stays on board.

REPAIRS: There are no workshops. Vessel repairs done by the crew are allowed.

IDENTIFICATION CARDS: Not necessary, only passport and boarding card.

REPATRIATION: There are facilities for changing the crew.

AIRPORT: 25 km. from Mejillones is the airport Cerro Moreno. To travel to U.S.A. one must go via Santiago. There are daily flights from Antofagasta to Santiago, and from Santiago to U.S.A. with stops in various countries.

TIME: There are two official times:

Summertime: from the second Sunday in October to the second Saturday in March. Local time is GMT minus 3 hours.

Wintertime: from the second Saturday in March to the second Saturday in October. Local time is GMT minus 4 hours.

HOLIDAYS: It is possible to work on holidays with a surcharge of 100%. New Year's Day; Maunday Thursday; Good Friday; 1st May; 21st May; Ascension Day; 18th September; 19th September; 12th October; 1st November; 8th December; 25th December.

POLICE/AMBULANCE/FIRE: Police Tel: 7 Mejillones; Ambulance 222370 Antofagasta; Fire 41 Mejillones.

TELEPHONES: It is not possible to install lines on board.

SHORE LEAVE: Members of the crew are allowed ashore. Shore passes are provided by the port.

SHIPMASTER'S REPORT: August 1988.

Annaex Terminal: Jetty consists of small loading dolphin with 2 separate mooring dolphins, and 3 buoys (2 aft and 1 forward). Mooring arrangement is starboard anchor, 2 headlines forward, 2 springs forward and 4 sternlines and 2 springs aft (See Plan). Shore provides 6 in. hose. Ammonia to be at −33°C and discharge rate 400 t.p.h. Cargo Surveyor attends and samples taken. Max. length 180 m. Daylight berthing only and sometimes permission given for night sailing. Max. force 4 wind for berthing. Port side alongside, ship's head 254° T. Starboard accommodation ladder required.

AUTHORITY: Captain of the Port.

PUERTO MONTT: 41.28 S. 72.57 W. (See Plan)

PORT LIMITS: Between the meridians of 72° 55′ 48″ W., 72° 59′ 00″ W. The Southern limit is the parallel of 41° 29′ 42″ S. in Reloncavi Bay.

DOCUMENTS: See "General" before first port.

PILOTAGE: Pilotage is compulsory. Pilot boards in position 41° 29.25′ S., 72° 56.45′ W. The Harbour Pilot is requested by the Agent on reception of vessel's ETA, at least 24 hours in advance. Otherwise, a request should be made to the Port Captain, cable address "Maritgob Montt". While waiting for the Harbour Pilot, vessels should anchor as indicated below and exhibit code flag "G". Pilot boards from a motor boat at the anchorage. Pilot's boat is equipped with VHF.

APPROACHES: The approach to Puerto Montt is made through the Channels, the most important of which is Canal Chacao, which requires careful navigation due to the existence of rocks and shallow areas, as well as tidal currents that reach up to 8 knots. Any type of vessel may pass this channel without problems with a Pilot aboard.

ANCHORAGES: Vessels of any size can anchor in the Outer Roads of the port. The following positions with respect to the touristic pier near the principal square are recommended: (1) bearing 175°, distance 850 m. in 40 m. depth; (2) bearing 175°, distance 1,780 m. in 59 m. depth; (3) bearing 154°, distance 1,200 m. in 50 m. depth. In bad weather, it is recommended to have a second anchor ready to let go.

RESTRICTIONS: Authorisation for entering the port is considered in each particular case, depending on the type of mooring and vessel's draft and length, according to the tide. Tidal amplitude is 6.50 m. (21 ft. 3 in.).

MAX. SIZE: Max. length 172 m., max. draft 26 ft 6 in. LW. In these conditions, manoeuvring is affected by the tide and favourable weather.

HEALTH: All ships are boarded by Authorities on arrival unless coming from another Chilean port. In case of suspected disease on board vessel must advise Authorities by radio before arrival.

RADIO: Radio Maritima Puerto Montt, used for communications, working frequencies Channel 16 VHF, 2182 kHz and 500 kHz, 24 hours a day.

VHF: Marine Control operates VHF equipment between 0700 hrs. and 2400 hrs. on Channel 16.

TUGS: 1 small tug available, "Bores" 180 h.p., owned by Naviera Magallanes (NAVIMAG).

BERTHING: The Commercial Pier, owned by Empresa Portuaria de Chile, has a total length of 320 m. Berths available: No. 1: 200 m. long, depth 8 m.; No. 2: 120 m. long, depth 7.5 m., both at LW.

Ro/Ro Terminal: 200 m. to the West of the commercial pier is the Ro/Ro Terminal with 4 ramps for vessels up to 120 m. LOA, the max. draft 4 m. The commercial pier as well as the Ro/Ro Terminal operate during day and night, in good weather conditions and taking tidal effects into consideration.

CRANES: 4×3 tons and 1×8 tons capacity. Mobile crane of 23 tons at 3.5 m. outreach also available.

Equipment: 1 forklift, 1 tractor, 2 wagons, 4 grain scoops, 2 chutes and 50 pallets.

STEVEDORES: Vessel should advise Agent before arrival the number of gangs required by hatch, and amount of cargo for discharge.

Working hours are 0800 – 1530 hrs., 1530 – 2300 hrs. and 2300 – 0630 hrs.

Also see "General" before first port.

MEDICAL: All facilities available, vaccination, inoculation can be arranged. Prior notice should be given if urgent assistance required on arrival.

TANKERS: *Esso Chile S.A. Terminal:* Tankers moor at buoys in the Eastern part of the bay, in daylight hours only, for vessels up to 15,000 g.r.t.

Copec Chile Terminal: Out of service for the moment.

Vessels moor using both anchors forward and 2 buoys aft. 10 in. submarine pipe-line, 2×8 in. hoses connected. No slop facilities.

FRESH WATER: Available alongside Commercial Pier at 10 t.p.h.

FUEL: Only diesel oil available, supplied by trucks at Commercial Pier or Ro/Ro Terminal.

See "General" before first port.

OPENING/CLOSING HATCHES: It is obligatory to employ shore labour for this purpose.

CUSTOMS ALLOWANCES: Two cartons of cigarettes and 2 bottles of liquor for each man in his cabin, the rest to be declared with his personal effects.

CONSULS: Argentina, Germany F.R., Spain, and Netherlands are represented locally.

REPAIRS: Minor engine repairs can be effected.

REPATRIATION: Can be arranged.

AIRPORT: Situated 17 km. from the port. Daily flights (75 minutes) to Santiago where international connections can be made.

TIME: GMT minus 4 hours. In Summertime: GMT minus 3 hours.

Also see "General" before first port.

HOLIDAYS: Work may be arranged on most holidays. Also see "General" before first port.

POLICE/FIRE/AMBULANCE: Police Tel: 2240. Fire Tel: 2222. Ambulance Tel: 3991.

TELEPHONES: No facilities for placing telephones on board.

TRANSPORTATION: There are de-luxe bus services, with daily departures, between Puerto Montt, Santiago, Valparaiso, and intermediate points.

SHORE LEAVE: Allowed.

DEVELOPMENTS: Outer berths have been dredged to a depth of 8.50 m.

AUTHORITY: Empresa Portuaria de Chile, Administration del Puerto, Puerto Montt, Chile. *Tel:* 2247. *Telex:* 270007 Empor Cl.

Contact: The Administrator.

Armada de Chile, Puerto Montt. *Contact:* Captain Ignacio Campos, Maritime Governor.

PUNTA ARENAS (including Lenadura, Cabo Negro, Clarence Cove, Gregorio): 53.10 S. 70.54 W. (See Plan)

DOCUMENTS:

10 copies Crew List.
3 copies Personal Effects List.
3 copies Provisions List.
3 copies Deck and Engine Stores Lists.
3 copies General Declaration (will be sent by Agent with Pilot to Pilot Station).
Tarjeta de Tripulante (Crew shore pass; forms sent by Agent as above).
Clearance from Last Port.
3 copies Nil Cargo Manifests (or Transit).
1 copy Maritime Declaration of Health (only required at first port).
Passports or Seaman's Books of crew and passengers.
All ships Certificates, especially Load Line, International Tonnage, Safety and Radio.
*1 copy Sheet of paper stating arrival conditions, such as draft (fore and aft), fuel onboard, diesel onboard, lube oil onboard, fresh water, ballast (if any), cargo to be discharged, T.P.I. or T.P.C., number of miles vessel can travel with fuel/diesel onboard.

*The same information plus cargo loaded will be requested on departure.

PILOTAGE: The following rules apply until a pilot station is built at or near Faro Felix on the Western side of the Magellan Strait.

A. From East to West:

1. Vessels not calling at Chilean ports (example: from Argentina to Peru): Pilotage is compulsory from Bahia Possession to Punta Arenas.
2. Vessels calling at Punta Arenas and later returning to Bahia Possession are required to take a Pilot from Bahia Possession to Punta Arenas and back.
3. Vessels calling at Punta Arenas or other Chilean ports: Compulsory from Bahia Possession to next Chilean port unless the vessel is very small and has no suitable cabin for the pilots, in this case the pilots will leave at Ancud/Laitec.

B. From West to East

1. Vessels not calling at Chilean ports (example: Honolulu to Falkland Islands): Pilotage compulsory from Punta Arenas to Bahia Possession.
2. Vessels calling at Punta Arenas and continuing onward to Atlantic Ocean/Ports: Pilotage is compulsory from Ancud/Laitec/Valparaiso (Owner's choice) or from Faro Felix (local pilots from Punta Arenas are brought to the vessel by tug or boat) to Bahia Possession via Punta Arenas.
3. Vessels coming from any Chilean port, transiting Magellan Strait for the Atlantic: Pilotage compulsory for total extent of Magellan Strait. Pilot will board at last port of call if port is Valparaiso or a port South of Valparaiso or at Valparaiso if last port of call was to the North of Valparaiso.

The pilot boats "Ona", "Nandu" and "Yagan" keep a listening watch on 2,182 kHz. and Channel 16 VHF. All carry International Pilot Lights.

The pilot boarding area at Bahia Possession is a circle of one mile radius with its centre 2.7 miles off Cabo Possession on bearing 216°.

Two pilots are necessary for any navigation that lasts more than 8 hours.

Vessels should advise their Agent of ETA 72 hours, 48 hours, 24 hours and 12 hours in advance of arrival.

If sailing without a Pilot (Punta Arenas to the West), vessel is to report, at 0800 hrs., 1200 hrs., 1600 hrs. and 2000 hrs. (local time) to next radio station or lighthouse the following information – course, speed, flag, present position, port departed from, next port and ETA.

Navigation Assistance by Radar: From Punta Dungenes to Primera Angostura there are several petroleum platforms which often change their location. Some of them are near the navigation track and it is therefore required to consider wide berth. In order to facilitate navigation, there are radars in Dungenes and Delgada, which will help navigation in the area, at no cost, through Channel 16 VHF.

The Pilot for Westbound vessels travels to Bahia Possession by air from Valparaiso. It is therefore important to request the Pilot through the Valparaiso Agent with as much advance notice as possible, and keep the Agent advised on vessel's ETA.

Pilot's travelling expenses from and to Valparaiso are included in pilotage charges.

ANCHORAGES: Anchorage off Punta Arenas is within the following limits:

53° 10′ 53″ S.	70° 54′ 06″ W.
53° 10′ 53″ S.	70° 53′ 27″ W.
53° 11′ 19″ S.	70° 53′ 27″ W.
53° 11′ 19″ S.	70° 54′ 06″ W.

RESTRICTIONS: No tidal restrictions, vessels can come alongside day or night.

MAX. SIZE: *Magellan Straits:* Max. draft 70 ft., no limit on d.w.t. tonnage for very large vessels. Vessels with a draft in excess of 70 ft. may be allowed to pass through but only after the authorities have studied the vessel's characteristics. As a safety measure, large vessels navigate the First Narrows in daylight only and with good visibility.

~~Max. LOA for transit through English Narrow is 160 m.~~

HEALTH: At first Chilean port, doctor will come aboard with Authorities. "Q" flag to be hoisted at every port of call, whether cleared by Health Authorities or not, until cleared by local authorities.

RADIO: There are 2 radio stations: *(a)* CBM Radio Naval of Magallanes permanent watch on 500 kHz. Telegraphy (A1). *(b)* CBM2 Radio Costera Magallanes operating from 0830 to 1830 hrs. on frequencies 4390, 8694 (transmitting) and 4085, 8360 (receiving).

TUGS: 3 tugs available, 560 h.p. – 5,000 h.p. Used to go alongside in Punta Arenas tanker terminals – ship's lines used.

BERTHING: A berth should be requested 24 hours before arrival. The pier is 372 m. long. Max. draft on North side (1st 160 m.) is Forward 26 ft. and Aft 27 ft., after which depth decreases rapidly. Max. draft on South side is Forward 22 ft. and Aft 27 ft.

Vessels berth bow in, and care must be taken to avoid the shallow patches on both sides of the jetty about 120 ft. off. Normally 4 headlines, 4 stern lines and 2 or 4 springs are used.

Berthing is usually at night or early morning as strong winds blow during the day, occasionally rising to Force 12 in the Summer. The port is often closed due to inclement weather.

Weather signals are shown at the North end of the pier.

Weather	*Signal Day*	*Signal Night*	*Meaning*
Variable	Black Ball	1 green light	Put out extra moorings
Bad weather	Flag M	1 red light	Put out extra moorings
Storm	Flag R	2 red lights	Port closed

Tankers: See below. No limits for vessels at anchor.

STEVEDORES: Gangs to be requested 24 hours before arrival. Three shifts are worked from 0800-1530, 1530-2300 and 2300-0630 with 10-15 minutes "coffee break" in each shift.

Overtime is the third shift on a day before a Sunday or holiday or the first and second shifts on a Sunday or holiday.

FRESH WATER: Only available at Punta Arenas Quay through hoses at a rate of 8 t.p.h. In case of emergency it can be delivered by vessel of the Chilean Army, if advance notice is given.

FUEL: Available ex-barge at Punta Arenas, capacity 300 tons (diesel). See "General" before first port.

TANKERS: There are the following terminals for tankers:
Lenadura: Position Lat. 53° 12′ S., Long. 70° 54′ W. Max. length 160 m., draft 30 ft., 18,000 d.w.t. Vessels moor to 3 buoys, 1 astern and 1 on each quarter, using both anchors. Ship's head bearing 090°T. Manifold connection 8 in.
Cabo Negro: Position Lat. 53° 01′ S., Long. 70° 51′ W. Max. length 170 m. Draft 14 m. (46 ft.). Vessels berth port side alongside, using the starboard anchor, and a stern line to a warping buoy 180 m. off the jetty.

Vessels moor to a "T" form jetty head, 280 m. long and 36 m. head. There are also 2 dolphins. The manifold hose is 10 in. Gas is loaded at 1,000 t.p.h. A tug is usually available for berthing.

Facilities are to be enlarged in order to receive vessels up to 60,000 d.w.t.
Clarence Cove: Position Lat. 52° 55′ S., Long. 70° 09′ W. Max. length 200 m. Max. draft limited by the entrance to the cove to 36 ft. (10.97 m.). Vessels berth to 4 buoys, using both anchors. 4 headlines, 3 stern lines, 4 lines to the starboard quarter buoy, and 3 to the port quarter buoy are required. A tug is available. Ship's head 255°T. There are 2 × 8 in. hoses for loading and deballasting facilities will be available shortly.

Forbidden Anchorage Zone: Area within a circle of 0.9 miles radius around the terminal buoys, and leaving entrance clear from 320° to 140°.
Gregorio: Position Lat. 52° 38′ S., Long. 70° 11′ W. Max. length 650 ft. Max. draft 42 ft. (subject to tidal conditions), 75,000 d.w.t. Manoeuvres should be done with daylight and preferably with high and slack water. Vessels moor with ship's head 232°T, using both anchors to 8 or 9 shackles. 14 mooring lines are required to 4 buoys. There are two 10 in. and 8 in. floating hoses for loading crude oil. Loading rate 1,700 cu.m./hr. Deballasting facilities are installed.

Forbidden anchorage zone is the area limiting Lat. 52° 38′ 30″ S. and Long. 70° 11′ 00″ W., maintaining entrance heading of 331° on head of wharf.
MEDICAL: There is a public hospital and a private clinic. Both with modern equipment and good service.
DENSITY: 1025.
FIRE PRECAUTIONS: Tankers are forbidden alongside at the quay.
GANGWAY/DECK WATCHMEN: Foreign vessels obliged to employ a watchman, except on Tanker Terminals.
OPENING/CLOSING HATCHES: Opening and closing of hatches and rigging of ship's gear undertaken by ship's crew.
CERTIFICATES: All International Certificates to be shown on arrival.
CUSTOMS ALLOWANCES: Quantity in possession of every member of the crew to be declared at the Customs.
IDENTIFICATION CARDS: Chilean International Police (Extranjeria) provides a provisional card to stay in the country. It has to be held each time a member of the crew goes ashore.
CONSULS:
Argentine
Belgium
Brazil
Denmark
France
Germany F.R.
Greece
Italy
Netherlands
Norway
Paraguay
Spain
Sweden
United Kingdom
Yugoslavia
REPAIRS/DRY DOCKS: "Asmar" (Astilleros de la Armada) has a shipyard for small vessels up to 1,500 tons as well as a good workshop to effect floating repairs. Some marine spares can be obtained. A 4,000 ton capacity slip will be available November 1986. Max. size: 130 m. LOA; 24 m. beam and 6.0 m. draft.
REPATRIATION: Facilities for repatriation, subject permission of International Police (Extranjeria) and Maritime Authority.
AIRPORT: Distance to airport is 18 km. Daily flights from and to Santiago by two national airlines LAN and LADECO.
TIME: See "General" before first port.
HOLIDAYS: See "General" before first port.
POLICE/AMBULANCE/FIRE: Maritime Police Tel: 221001; Fire 221212; Ambulance 222432.
TELEPHONES: There is no connection on the quay. It is possible to make telephone calls from the ship by calling "Telco Radio" on VHF Channel 16 and changing to Channel 26. International calls may be made from public booths of the telephone company and Entel. Direct dialling possible to most countries.
SERVICES: Compass and gyro compass adjusting can be done.
SHORE LEAVE: Crew allowed to go ashore in all ports of the area. Crew must be in possession of provisional Identity Cards issued by police.

SHIPMASTER'S REPORT: March 1985 (Research Ship) (Updated 1988).
Approaches and Pilotage: Report to Chilean Radio Station when 200 miles off.

Port and Strait Pilot compulsory. The Pilot, a Chilean Naval Officer, boards/leaves via a warship. The Pilot brings his own charts. We did not have a suitable chart of Bahia Cook. On a future visit one should be obtained for a safe approach.
Berths: Either side of a 380 m. long pier. There is a Berthing Pilot, and because of the prevailing very strong winds in the afternoon and evening it is customary to use a tug aft.

Punta Arenas is a busy port.
Officials: Extremely courteous. We were made to feel most welcome. The bond was not sealed. The Port Captain (Navy) visited the vessel on several occasions, and offered every assistance should any need arise.
Immigration: Shore passes are issued, and must be returned on sailing.
Fuel: Diesel was delivered by road wagon. This took most of the day, but saved having to shift the ship to the Oil Jetty – which would have taken all day.
Water: Laid on to the quay.
Provisions: 3 shipchandlers available.

Able to supply all our requirements, even to a medical oxygen bottle adaptor.

The quality of fresh fruit and vegetables was as good as U.K., in some cases better. Prices were similar. The chandler has a refrigerated store, thus items were delivered in prime condition. Even bananas lasted 2 weeks.
Prices: Unfortunately there is, at the moment, no Duty Free facility. In addition all items (and services) are subject to +20% VAT. This included fuel.
Laundry: Very good standard. Average price range (subject to the 20% VAT).
British Consul: Mr. Bill Matheson. Tel: 22325.
Repair Facilities: Not tried, but reported good.
Repatriation: No particular problems. There are flights daily. It is however a long haul back to the U.K., requiring a night stop over in Santiago.

The best hotel accommodation at Punta Arenas was very expensive. Alternative accommodation can be had at Mother Teresa's Home for Seamen at about £20 a night (but not usually single occupancy).

AUTHORITY: Maritime Governor of Punta Arenas.

QUINTERO: 32.47 S. 71.33 W. (See Plan)

PORT LIMITS: The seaward limit of the port is a line from Punta Liles to Punta Ventanilla.
DOCUMENTS:
1 Outwards Clearance Certificate from the last port of call.
5 Cargo Manifests for the port.
5 General Manifests for cargo.
5 Manifests for Cargo in transit.
4 Lists of Passengers for the port.
4 Lists of Passengers in transit.
10 Lists of Crew Members.
5 Lists of Personal Effects.
1 Fumigation Certificate.
Maritime Health Declaration.
Certificate of Dues in respect of lighthouses and buoys.
PILOTAGE: Pilotage is compulsory. Pilots and port officials board ships 2,450 m. off the R.P.C. Pier, bearing 290°, not far from the single Mooring Buoy, and 1,500 m. on 055° from the Los Molles Lighthouse.

The accommodation ladder should be rigged on the starboard side. Vessels can enter and moor during the day only, but it is possible to sail at night. Pilot usually boards between 0700 hrs. and 2200 hrs.

ETA should be sent to Agent 72 hours before arrival, with confirmation 24 hours before arrival. The message should state if any special service is required, and additionally Masters are requested to inform "Capuerto, Quintero".
ANCHORAGES: Vessels may anchor within port limits. The bay is well sheltered with ample room for manoeuvring. Vessels should keep clear of the S.W. portion of the bay, due to rocky nature of the bottom, and of the prohibited zone indicated on the charts. Larger vessels may anchor West of Punta Liles lighthouse, where there are depths greater than 20 m. with sand and mud bottom. An anchorage has been established at Lat. 32° 45.77′ S., Long. 71° 30.5′ W.

The anchorage at Ventanilla is an open roadstead, exposed to S.W. winds and swell, with the possibility of dragging anchors, especially in the Winter months.
RESTRICTIONS: Quintero Bay is entered between Point Ventanilla and Point Liles, entrance 2.5 miles wide, with a bight extending 1.5 miles towards the S.E. Point Liles is surrounded by submerged rocks and reefs for a distance of 2 cables.

Tankers discharging at the buoy terminals may be required to disconnect hoses in the event of bad weather, to avoid damage to the installation.

Also see "Pilotage".
MAX. SIZE: *S.B.M.:* Up to 120,000 g.r.t. (215,000 displacement tons).
Oil Multi-Buoy Terminal: Up to 50,000 g.r.t. (100,000 displacement tons).
Liquid Gas Multi-Buoy Terminal: Up to 30,000 g.r.t. (40,000 displacement tons).
Chilectra Andina Quay: LOA 175 m., draft 32 ft.
Las Ventanas Chemical Terminal: Up to 40,000 g.r.t., max. draft 41 ft.
El Durazno Quay: LOA 96 m., draft 19 ft.
RADIO: The Naval Radio Station of Valparaiso also handles commercial traffic.

The Coastal Radio Service Station situated in the Port Captain's office, call sign "Capuerto Quintero".
TUGS: No tugs available at Quintero, but they can be requested from Valparaiso, or through Agent.
TANKERS:
S.B.M. Quintero Terminal: The depth at the S.B.M. is 47 m. Max. size for berthing, length 342 m. draft 25.5 m. (83 ft.). Manifold connection is 16 in. Ship's derricks must be rigged to carry a 12 ton lift. Max. pressure 200 p.s.i. Average discharge rate 8,000 t.p.h. for 25 API crude.
Gas Berth: Max. size 15,000 tons or 40,000 displacement tons. Max. draft 39 ft. Vessels drop both anchors, and moor to 3 stern buoys. Ship's head should lie on 285°. Hose connection 6 in. Discharge rate 240 cu.m.p.h.

Vessels may moor or unmoor at any time at these terminals. Mooring warps must be more than 400 ft. in length.
R.P.C.: Max. draft 50 ft. Vessels berth to 3 stern buoys, using both anchors, ship's head on 305°. Manifold connection starboard side 10 in. Hose lift 6 tons. Normal pressure 100 p.s.i.
Also see "Shipmaster's Report".

BULK HANDLING FACILITIES: *Chilectra Andina Quay, Las Ventanas:* Quay is 530 m. long with max. depth of 19 m. at the head of the North side of the pier.

Coal berth situated on the North side of the quay, equipped with mechanical discharging tower which loads up to 300 t.p.h.

The South side of the quay is used for loading copper concentrates, with the addition of 4 dolphins vessels up to 160 m., draft 30 ft., can now berth. Bulk grain can also be discharged here, although the loading tower, being fixed, requires vessels to shift berth to unload each hatch. The berth is exposed to a Southwesterly swell.

FRESH WATER: Available by barge from Valparaiso.

FUEL: Only available at Valparaiso. See "General" before first port.

MEDICAL: There is a small local hospital,and there is an ambulance service to Valparaiso. (20 miles away).

REPAIRS: Only minor repairs may be effected at workshops ashore.

CONSULS: Nearest at Valparaiso.

AIRPORT: Nearest commercial airports at Pudahuel and Cerrillos, near Santiago. Military airfield at Quintero may be used in emergencies, subject to necessary authorisation.

SHORE LEAVE: Curfew in operation. Crew must carry an Interpol Identity Card. See "General" before first port.

SERVICES: Food, laundry, etc. can be supplied.

REPATRIATION: Possible.

TIME: GMT minus 3 hours (October to March). GMT minus 4 hours (March to October).

SHIPMASTER'S REPORT: April 1988.

A tug was used to position the vessel when berthing. 2×8 in. hoses were connected on the port side. We were nominated to load fuel oil and had to accept a 500 cu.m. line plug of crude before loading. This was discharged after the loading was completed. Terminal would not accept any dirty ballast or slops.

The following moorings were used:

Starboard anchor – 8 shackles
Port anchor – 9 shackles
Port quarter buoy – 2 lines (90 m.)
Stern buoy – 2 lines (100 m.)
Starboard quarter buoy – 3 lines (90 m.)
Port bow – 1 shore wire
Starboard bow – 1 shore wire

Ship's head in berth 305°. The pilot comes in either a small blue launch or a larger orange boat, depending on which agency is used.

Cargo details: No. 6 F/O API 13.0 temperature 130°F. Loading rate about 900 cu.m.p.h.

Due to the swell a vessel may roll heavily on leaving the berth and when at anchor.

Port officials board with the pilot. The Oil Record Book is inspected. The Port Captain requires to know to what percent capacity is the vessel bunkered and the steaming range with that amount of fuel.

TERMINAL OPERATORS: Refineria de Petroleo Con Con (R.P.C.), Compania Chilean De Electricidad (Chilectra), Andean Mineral Company (Andina), Las Ventanas Chemical Terminal.

AUTHORITY: Quintero Port Captaincy.

SAN ANTONIO: 33.35 S. 71.37 W. (See Plan)

DOCUMENTS:

1 Customs Clearance Document.
2 Light Dues Certificates.
9 Cargo Manifests.
2 Crew Lists.
2 Passenger Lists.
2 Lists of Stores.
1 Arms and Ammunition List.
1 List of Personal Effects.
2 Baggage Declarations per passenger.
1 Derat Certificate.
List of Equipment.
Lifesaving Equipment Certificate.
Tonnage Certificate.
Radio Certificate.
Crew Vaccination Certificates.

PILOTAGE: Compulsory. Pilots board vessels about 1 mile outside the port. Vessels should wait for Pilot with engines stopped in position bearing 060° and 1 mile from Panul Lighthouse.

ANCHORAGES: Vessels must anchor in position 090° and 1.3 miles from the edge of the South Breakwater in 28 m. of water. The bottom is sand and mud, permitting anchorage of vessels of any length or draft.

Mooring Buoys: In the North Basin is located Buoy No. 1, situated 85° and 180 m. from the head of the Maritime Control Quay, which can be used for vessels up to 210 m. LOA, draft 36 ft. and 55,000 d.w.tonnes.

There is also Buoy Location No. 2, which permits transfer of bulk liquids from vessels of 190 m. LOA, draft 33 ft. and 40,000 d.w.tonnes.

RESTRICTIONS: No restriction on vessels of less than 210 m. LOA.

From September to March the predominant winds are from S.W. Fog is most frequent in March and April.

MAX. SIZE:

Berth	Max. Length (m.)	Depth (ft.)
No. 4/5	341	33
No. 6/7	320	28/24
North Quay	200	36
Buoy No. 1	Max. displacement 55,000 tonnes	
Buoy No. 2	Max. displacement 40,000 tonnes	

Vessels intending to discharge are authorised 1 ft. more draft at all Berths, with the proviso that they must berth within 2 hours before high tide, up to 2 hours after high tide, and commence discharge immediately.

RADIO:

Station Call Sign: San Antonio CB2. *Category:* (S)

Frequency	*Type*	*Receives*	*Transmits*	*Schedule*
2 MHz	A 3	2182	2182	24 hours
		2738	2738	As required
4 MHz	A 3	4143.6	4143.6	As required

However, it is advisable to use Radio Playa Ancha, Valparaiso, which is connected by telex with San Antonio.

Port Control can be contacted by VHF on Channel 16, 24 hours a day.

TUGS: 3 modern tugs, 1,000 h.p., 1,250 h.p. and 2,450 h.p.

BERTHING: San Antonio has 4 operational piers, 1 private quay (North Quay) and 2 mooring buoys.

All the piers have double strong fenders.

Berth Usage: Berth Nos. 4 and 5 are used preferably for container vessels, bulk grain carriers and larger sized ships in general.

For transfer of containers, there are 2 mobile cranes type 'Demag MC900 Q' of 50 tons lift and a capacity of 20 TEU per hour.

In the open area of Berths No. 4 and 5, it is possible to store 1,175 TEU simultaneously plus 486 TEU in pre-stacking, there being also a zone for reefer containers with a capacity of 96 TEU.

In the port there are 15,800 sq.m. of covered areas intended for cargo warehousing, and 120,395 sq.m. of open areas.

The private companies entrusted with stevedoring within the port have the necessary equipment for this work, there also being equipment owned by Port Administration which can provide a minimum service.

Note: Berth Nos. 1, 2 and 3 damaged by earthquake.

Fumigation: When vessels are required to be fumigated due to Chilean health restrictions, they must be towed to Buoy No. 2 where the treatment is appropriately carried out. In general, this takes 72 hours, during which time only a security guard may remain on board. It is recommended that these vessels arrive equipped with high resistance ropes.

STEVEDORES: There are various stevedoring contractors who between them have some 2,400 workers specialised in the various port and maritime operations (dockers, shipboard workers, watchmen, deckhands, tallymen, crane operators, etc.). The contractors have equipment for all kinds of work, including 2 fork lifts (Hyster & Taylor) with spreaders for 20 ft., 35 ft. and 40 ft. containers, industrial tractors, lorries, etc. The work timetable for the port is from 0800 hrs. to 0630 hrs. the next day (i.e. 22.5 hours a day).

Average cargo handling rates per gang:

Copper: 120 t.p.h. per shift.
Copper concentrate: 550 t.p.h. per shift.
Wheat pellets: 300 t.p.h. per shift.
General cargo: 30 – 40 t.p.h. per shift.
Containers: 14 – 16 TEU/hour per shift.
Bulk salt: 100 – 120 t.p.h. per shift.
Drums: 35 – 40 t.p.h. per shift.

CRANES:

Berth No. 4:	1 × 5 ton, 2 × 7.5 ton.
Berth No. 5:	2 × 6 ton, 1 × 5 ton.
Berth No. 6:	2 × 5 ton.
Berth No. 7:	2 × 5 ton.

The North Quay has mechanical plant for discharge of bulk cargo.

TANKERS: Oil products can be transferred at North Quay, Berth Buoy No. 2 and Berth Nos. 5 and 6. From North Quay, cargo is transferred to the terminal owned by Liquidos a Granel who have tanks with a total capacity of 25,360 cu.m.

At Berth Buoy No. 2 liquids can be transferred to Terquim who have tanks with a storage capacity of 12,830 cu.m.

Berth Nos. 5 and 6, as with the above locations, have facilities for transfer of liquid products to the Esso terminals, where there is a maximum storage capacity of 19,780 cu.m.

MEDICAL: Hospital with 190 beds and necessary surgeons. 3 clinics with 40 beds for minor surgery.

FRESH WATER: All berths equipped with standpipes to supply fresh water direct to vessels at a rate of about 20 t.p.h.

FUEL: Marine diesel oil can be supplied to vessels, provided this is requested with sufficient advance notice.

Also see "General" before first port.

GANGWAY/DECK WATCHMEN: Available.

OPENING/CLOSING HATCHES: Done by stevedores.

IDENTIFICATION CARDS: Required.

CONSULS: Italy.

REPAIRS: Three workshops for minor repairs. Major repairs in Valparaiso.

REPATRIATION: Facilities exist.

AIRPORT: At Arturo Merino Benitez Airport near Santiago only 2 hours away by road. National and foreign airline services to world-wide destinations.

TIME: Local time GMT minus 4 hours; October to March (Daylight Saving) GMT minus 3 hours.

SHORE LEAVE: Allowed. Also see "General" before first port.

DEVELOPMENTS: A new berth with depth alongside 33 ft. for handling solid bulk cargoes is under consideration.

AUTHORITY: Empresa Portuaria de Chile, Casilla 163-A, San Antonio, Chile. *Tel:* 32159. *Telex:* 38505 Empor CL. *Contact:* Patricio Toro Ferrari, Director.

SAN VICENTE: 36.44 S. 73.08 W. (See Plan)

Also see "General" before first port.
PORT LIMITS: East of meridian from Punta Pardo and South of parallel from Punta Gualpen.
DOCUMENTS: See "General" before first port and "Valparaiso – Documents".
PILOTAGE: Compulsory. Pilot boards inside the port limits. Pilot will designate anchorage. Accommodation ladder must be rigged if the vessel is at anchor awaiting berth as the Port Authorities will board. Pilots are arranged by Agent.
RESTRICTIONS: Berthing or unberthing from 0600 hrs. to 2400 hrs. weather permitting. For tankers daylight only.
MAX. SIZE: Draft only restrictions, can berth ships greater than 200 m. LOA and 42 ft. draft.
HEALTH: Port Authorities give Pratique on arrival.
RADIO: Radio Estacion Naval Talcahuano. 500 kHz. A-1 H-24.
Costera Talcahuano 2182 A-3 H-24.
Radio Estacion Naval Valparaiso. A-1 and A-3 all frequencies H-24.
VHF: Channel 16 safety and calling.
TUGS: 2 tugs × 1,200 h.p. Join vessel at the same time as Pilot.
BERTHING: *CAP Pier:* North, length 240 m. draft 33 ft. at any time; South, length 200 m. draft 24 ft. at any time.
General Cargo Berth:
Pier 1: Length 220 m., draft 34 ft. at any time, ships' own gear.
Pier 2: Length 215 m., draft 36 ft. at any time, 2 cranes for bulk cargoes, for general cargo ships own gear.
Comap Berth "A": Vessel moors with starboard anchor with 7 shackles and 3 lines to 2 buoys astern. Max. LOA 150 m. 1 hose with 8 in. connection on port side midships. Gasoline, kerosene, diesel oil and jet fuel handled. 1 tug and 1 mooring launch available.
ENAP Berth "B": Vessel moors with 2 anchors with 8 shackles on starboard, and 3 lines to 3 buoys astern. Max. LOA 250 m. or up 42 ft. draft. 1 tug and 2 mooring launches required. 3 hoses with 8 in. connections for crude and fuel oil. Handling rate 1,500 cu.m./p.h.
ENAP Berth "C": Vessel moors with both anchors, using 9 shackles starboard side, and 3 lines to 3 buoys astern. Max. LOA 200 m. and 36 ft. draft. 1 tug and 1 mooring launch required. 2 hoses with 8 in. connections, 1 for fuel oil rate 900 cu.m./p.h. can also be used for crude. 1 hose for gasoline, kerosene, turbo, diesel and liquid gas.
STEVEDORES: Through Agents. Stevedores available 24 hours.
MEDICAL: Good hospitals, no special notice required.
DENSITY: Salt water.
FRESH WATER: Available at all piers.
FUEL: Diesel by truck or rail road at piers, or at buoy berths.
CONSULS: Argentina, Belgium, Bolivia, Colombia, Ecuador, France, Germany (F.R.), Italy, Netherlands, Norway, Paraguay, Peru, Spain, Sweden, United Kingdom.
REPAIRS: Deck and Engine workshops.
DRY DOCKS: ASMAR for large vessels.
SURVEYORS: Lloyds, N.V., B.V., N.K.K., A.B.S., G.L.
WATCHMEN: Gangway watchmen compulsory. Deck or Hatch watchmen optional.
HATCHES: Open and closed by riggers gangs.
CARGO GEAR: Ship's gear. 2 cranes for bulk cargoes, rate 200 t.p.h. Heavy lift crane with 50 tons capacity.
REPATRIATION: There are facilities for crew changes.
AIRPORT: 1 airport for internal flights.
POLICE/AMBULANCE/FIRE: Available in the port.
IDENTIFICATION CARDS: Immigration provide identification cards.

SHIPMASTER'S REPORT: 1977 (Updated 1982).
Documents:
Customs:
2 copies List of Ammunition.
7 copies Cargo Manifest.
4 copies Stores List.
4 copies Personal Effects List.
4 copies Crew List.
4 copies Passenger List (or negative).
Port Captain:
Clearance from Last Port.
2 copies Crew List.
2 copies Passenger List (or negative).
International Certificates.
Police:
2 copies Crew List.
2 copies Passenger List (or negative).
Health Inspector:
1 copy Declaration of Health.
1 copy Vaccination List.
1 copy Passenger List (or negative).
Agent:
1 copy Crew List.
2 copies Passenger List (or negative).
2 copies Stores List.
2 copies Personal Effects List.

Navigation: Bay of San Vicente is entered between rock "Villa de Burdeos" and "Point Gualpen".

There is a traffic route for vessels leaving and entering Bay San Vicente. The separation zone bounded by lines connecting the following geographical positions: 73° 10.7′ W., 73° 10.6′ W. and 73° 09.7′ W., 73° 09.8′ W. Vessels inbound should keep close South of this separation zone and vessels outbound close North of the separation zone.

In the traffic route, Pilot boarding position and the anchorage, the depth is 36 ft. Maximum permissible draft is 38 ft.

The wreck in position Lat. 36° 44.3′ S., Long. 73° 08.6′ W. has been removed.

The present breakwater is under extension to 800 m.

Pilot: Pilotage is compulsory and the boarding position is about Lat. 36° 44.7′ S., Long. 73° 09.8′ W. in Bay San Vicente, or 1 mile S.W. of rock "Villa de Burdeos" Gp. Fl. (2) 10 secs.

Anchorage: The anchorage is about 900 m. East of rock "Villa de Burdeos". The Pilot anchors the vessel.

Radio: Advance notice: Vessels bound for San Vicente must advise Port Captain by radio 24 hours before arrival giving information about ETA, draft, if vessel carries passengers or mail, and state of health on board. Cable address: "Maritgob Talcahuano".

Also ETA to pilot station, VHF Channel 16, 1 hour prior to arrival. Pilot station's name is "Gobernacion Maritima Talcahuano" or Capitania de Puerto de San Vicente.

Tugs: At present there are 2 tugs (1,200 h.p.) in operation. Tugs use ship's lines.

Pilot is in VHF contact with the tug(s) which assists in mooring and unmooring vessels.

Mooring Method: Vessel approaches and enters the berth from South. Mooring and unmooring may take place also during hours of darkness, provided weather conditions are fair and visibility good.

When the vessel is near the berth, port anchor is usually let go and dragged or paid-out while a tug slowly pushes the vessel alongside.

The vessel is moored with 4 headlines and 2 springs forward and 4 sternlines and 2 springs aft.

Wharves: The pier is 435 m. long and is provided with rubber fenders. A new pier 110 m. long is under construction. Depth alongside the pier is 34 ft. to 36 ft.

There are 2 cranes on the pier for grain or other bulk cargoes. Each has a capacity of 240 m.t.p.h. (grain).

Behind the pier is 41,975 sq.m. for log storage. There are railway tracks on the pier and the log deposit area. Logs are brought in by railway wagons.

Stevedores: Stevedores work in 3 shifts of 8 hours each.

Logs are loaded with ship's gear and at present the capacity is max. 60 cu.m. per log-gang per hour. Stevedores working rather slowly but make very good stowage.

Medical: There is an ambulance station just outside the pier gate and good hospital facilities near the port.

Supply Service: Bunkers, provision, fresh water and laundry are available.

Shore Leave: All Crew members are issued with landing permit/identification card, which has to be returned before departure.

Time: Local time is GMT minus 4 hours but from second Saturday in October to second Saturday in March GMT minus 3 hours.

Weather and Tide: During Summer the prevailing wind is Southwesterly. In the Winter and specially in the months May to August, the winds are North and Northwesterly.

In general, the weather throughout the year is good, sometimes however, during Wintertime with a Northwesterly wind, weather may become too rough for cargo operations due to the swell and the vessel's heavy movements. In this case the Port Authorities may order the vessel to leave the pier and shift to the anchorage, however that is a rare occurrence.

Tidal difference is 1.50 m.

Advice: All store rooms on deck and in the accommodation should be locked. Crew members should lock their doors, even if they are leaving their cabins for a short period.

Crew members should also take care not to walk alone during late night time near or around the harbour area.

AUTHORITY: Armada de Chile, Direccion Del Litoral y M.M., Gobernacion Maritima, Blanco No. 475, Talcahuano. *Contact:* Captain P. Urbina Sanguesa, Maritime Governor.

Empresa Portuaria de Chile, Casilla 133-V, Valparaiso, Chile. *Telex:* 230313. *Contact:* Vice Admiral Don Jorge Baeza Concha, Director.

Empresa Portuaria de Chile, Administracion Puerto, Casilla 355, Talcahuano.

TALCAHUANO (including Concepcion Bay): 36.41 S. 73.06 W. (See Plan)

DOCUMENTS: See "General" before first port.
PILOTAGE: Compulsory. Pilot boards vessel in position 36° 42.3′ S., 73° 04.87′ W.
ANCHORAGES: Each berth has its own distinct anchorage point.

Berth	*Anchorage*	*Bearing*	*Depth*
Berth 2	Huascar	101° × 600 m.	21 ft.
Berth 3	"	101° × 900 m.	24 ft.
Berth 4	"	101° × 1200 m.	27 ft.
Berth 5	"	101° × 1500 m.	30 ft.
Berth 6	"	088° × 1000 m.	30 ft.
Berth 7	Mole 500 (Sth. Encl.)	104° × 820 m.	28 ft.
Berth 8	" "	136° × 400 m.	21 ft.
Berth 9	Explosives Anchorage	36° 06′ S., 73° 04′ 08″W.	

Vessels in quarantine are moored 182° from Belen Lighthouse and 7 cables distant. Vessels carrying explosives are moored in same direction but 9 cables from Belen Lighthouse.
RESTRICTIONS: Port works 24 hours. Only 6 vessels can moor alongside quay at one time.
MAX. SIZE: Vessels of 28 ft. draft and 195 m. in length can moor on the East side.
RADIO:
Station: Talcahuano. *Call sign:* CBT-4. *Category:* (S).

Frequency	*Type*	*Receives*	*Transmits*	*Schedule*
6 MHz	A 1	6265	6414.5	H00-30
4 MHz	A 3	4085.2	4390.2	H30-60

TUGS: There are two sea-going tugs, 800 h.p. and 350 h.p. Asmar (T) has 3×800 h.p. sea-going tugs.

BERTHING: Berth No. 1: Length 156 m., max. draft 9.44 m. (31 ft.)

Berth No. 2: Length 205 m. of which 180 m. is usable. Max draft 7.01 m. (23 ft.). Berth only used by fishing vessels.

Mole 500/Naval Pier. Max. length 656 ft., draft 26.2 ft., 4 headlines, 4 stern lines and 2 springs required. Ship's gear used for cargo handling.

Passenger Mole: At a distance of 80 m. from the Fiscal Quay and on the Blanco Encalada Mole is the Passenger Pier with concrete steps for passenger traffic.

Chacabuco Quay: Situated in the Inner Harbour for repairs. Vessels up to 21 ft. draft can moor. No railway line or cranes, therefore vessels must work with own derricks to vans. "Asmar" tugs are used for mooring.

Concepcion Bay: Penco Private Pier: The pier is 1700 m. long ending in a platform on which stands a fixed base rotary crane. Vessel's bows lie on 348°T, both anchors used to final shackle. There are 4 buoys, 1 on each bow, 1 astern, and 1 on the starboard quarter. Vessels also tie up to 3 dolphins on the East side of the pier. 12×600 ft. mooring lines are required and also 2 springs. A tug is required. The berth is exposed to strong Northerly winds, and vessels must be prepared to leave at short notice.

Max. draft 33 ft. There are 2 sea-going tugs for docking and undocking.

Also see "Lirquen".

CRANES: 4 × 5 ton Portal crane on the Fiscal Pier. One floating crane 180 tons. One mobile crane 30 tons.

STEVEDORES: 12 gangs available. Loading: assorted goods 12 t.p.h./gang/hatch. Cereals 25 t.p.h./gang/hatch. Timber 100 t.p.h./gang/hatch. Newsprint 20 t.p.h./gang/hatch.

Discharge: assorted goods 12 t.p.h./gang/hatch. Bagged cargo 25 t.p.h./gang/hatch.

When loading is carried out by means of lighters, this is usually done from privately owned moles belonging to the principal commercial firms of the port from their warehouses situated inside the Morro Channel. Working hours are 0800 – 1430 hrs. and 1430 – 2100 hrs. Also see "General" before first port.

MEDICAL: Public hospital with board and sanatorium for infectious/contagious diseases. In addition, private clinics and a naval hospital.

FRESH WATER: Occasionally available on Berth No. 2.

FUEL: Can be supplied only to vessels moored alongside quay and this in small quantities up to 100 tons, by means of cistern-truck or in drums. Also see "General" before first port.

GANGWAY/DECK WATCHMEN: Available.

OPENING/CLOSING HATCHES: Done by stevedores.

IDENTIFICATION CARDS: Required.

CONSULS: Brazilian and Norwegian consulates. At Concepcion the following:

Argentina
Belgium
Bolivia
Colombia
Denmark
Ecuador
El Salvador
Finland
France
Guatemala
Germany F.R.
Honduras
Italy
Mexico
Netherlands
Paraguay
Panama
Peru
Sweden
Switzerland
Spain
U.K.
Uruguay
Venezuela

REPAIRS: "Asmar" or the navy workshop has capable personnel and modern equipment to effect all kinds of repairs, not only to hull, but also to engines, boiler plates, welding, carpentry and electrical works. Chilean Navy has high-sea tugs to effect salvage and assist vessels in danger. 3 private-owned workshops, which can effect small repairs to vessels afloat. Several slipways for construction and repair of small craft.

DRY DOCKS: Naval shipyard and workshops have 2 dry docks, Dock number 1 is 180 m. long by 30 m. wide. Dock number 2 is 250 m. long by 40 m. wide.

Two floating docks: one 200 ft. long by 30 ft. wide for vessels up to 1,000 tons, and the other 333 ft. long by 50 ft. wide for vessels up to 3,500 tons. There is also a workshop for repairs to be effected afloat. There are 6 anchored mooring buoys used by vessels when entering Dry Dock 2.

REPATRIATION: Good facilities exist.

AIRPORT: Carriel-Sur is situated between Talcahuano and Concepcion, 7 km. N.W. of Concepcion. Lan-Chile has connections from this airport with all the towns of the country from Arica to Punta Arenas and abroad.

TIME: GMT minus 4 hours. Also see "General" before first port.

SHORE LEAVE: Allowed.

GENERAL: South wind affects vessels only when moored outside the port zone. Weather signals are indicated on Signal Station of Port Authorities' Building.

Climate: Temperate.

Predominant Wind: South – West at 26 knots.

Rainfall: 736 mm. per year.

Temperature: Average maximum 16°C, average minimum 7°C.

AUTHORITY: Empresa Portuaria de Chile, Casilla 355, Talcahuano, Chile. *Contact:* J. Carlos Arredondo Gallardo, Administrator.

TALTAL: 25.24 S. 70.29 W. (See Plan)

DOCUMENTS: See "General" before first port.

PILOTAGE: No official pilot station at Taltal. If professional assistance required vessel should give ETA 24 hours in advance via Valparaiso Radio. Pilot boards at the anchorage. International code signals used. Harbour Master's Office can be contacted by radio-telephone on 2182 kHz.

ANCHORAGES: Sheltered deep-water anchorage suitable for any size vessels. Locations of designated areas marked on the chart.

RESTRICTIONS: Port closed in Summer from 2000 hrs. to 0600 hrs.; in Winter from 1900 hrs. to 0700 hrs.

MAX. SIZE: Limited only by depths in anchorage.

HEALTH: Vessel boarded on arrival by Health Inspector.

RADIO: Radio Naval Valparaiso or Radio Naval Arica. Use R/T on 2182 kHz. and 2738 kHz. A3 on the half hour from 0800 hrs. to 1800 hrs.

TUGS: One privately owned tug may be called on to assist if necessary.

BERTHING: No berths alongside shore. Vessels work cargo in open anchorage. One buoy berth for tankers. Mooring, unmooring in daylight only. 6 in. hoses for discharging fuel and diesel.

STEVEDORES: At least 24 hours advance notice of ETA required to arrange gangs. Also see "General" before first port.

TANKERS: *Caleta Ossa Mooring Berth:* Vessels berth to 2 stern buoys, using both anchors. Ship's head on approximately 225°T. Depth of water 47 ft. A Pilot is required and comes from Antofagasta.

MEDICAL: Doctors and hospital facilities available. Advance notice desirable.

FRESH WATER: Not available.

FUEL: Not available.

IDENTIFICATION CARDS: Required by all crew members.

CONSULS: There are no local representatives.

REPATRIATION: No facilities for crew change or repatriation.

AIRPORT: There is no airport.

TIME: GMT minus 4 hours. Also see "General" before first port.

HOLIDAYS: See "General" before first port.

TELEPHONES: There is a telephone service.

SHORE LEAVE: Allowed.

AUTHORITY: Capitania de Puerto, Taltal, Chile. *Contact:* Luis Alegre Lepe, Capitan de Puerto.

TOCOPILLA: 22.05 S. 70.11 W. (See Plan)

DOCUMENTS: See "General" before first port.

ANCHORAGE: A good anchorage can be found 5 cables North or N.W. of the moles.

PILOTAGE: Compulsory. Pilot will board between 0700 hrs. and 2000 hrs. The boarding position is 5 to 7 cables North of the moles. Pilot will board at other times on special request from the Agent.

MOORING: The port has 2 buoys for mooring vessels of any tonnage and which are used exclusively by ships discharging or loading general cargo and bagged nitrate. The depth of these moorings is from 15 m.–30 m.

RESTRICTIONS: Ships are boarded by Pilot and Port Authorities up to 2000 hrs. (local time). On special request from Agent, vessels are received up to midnight.

MAX. SIZE: See "Berthing".

HEALTH: On arrival vessel boarded by Sanitary surgeon, who will grant full Sanitary Pratique valid for all Chilean ports of call in the present voyage. In cases of suspected disease he will determine if patient or patients should be removed to local hospital, otherwise he will declare the effected vessel Sanitary Free Pratique cleared.

RADIO: All calls should be directed via Arica, Iquique, Antofagasta or Playa Ancha (Valparaiso) Naval Radio Station. According to Chilean Regulations all vessels in Chilean coastal waters (within 200 miles) must inform position, course, speed and previous and next port of call to Radio Naval Valparaiso to the nearest Coast Guard at 0800 hrs. and 200 hrs. every day whilst at sea.

Valparaiso "CBU" listen on 4349 kHz or 8748 kHz or 12714 kHz. Also see "General" before first port.

TUGS: It is compulsory to use a tug for mooring and unmooring.

BERTHING: *S.I.T.*.

a) Two buoys belonging to S.I.T. (ex-Sociedad Quimica y Minera de Chile) – see "Mooring".

S.I.T. No. 5: Quay for bagged and general cargo with two cranes of 3 tons and 1 crane of 5 tons capacity.

S.I.T. No. 1: Quay for bagged nitrate, one 50 ton and one 3 ton capacity crane. Quay also used for passengers.

Fiscal Quay: Used by fishing vessels.

All cargoes through these quays handled by lighters from rail cars. 15 lighters are in operation, 5 motor launches available.

b) Nitrate Mechanised Wharf (Branch): Max. depth at H.W. is 12.8 m. and minimum 11.58 m.

Nitrate transported by conveyor belts at rate 1,000 t.p.h. from 6 silos of 9,000 tons capacity each. Under normal conditions and using trimmers, a vessel can be loaded at a rate of 800 t.p.h. Fishmeal pellets can be loaded at 350 t.p.h.

Codelco: Mechanised Pier came into operation in August 1987, for coal discharging with 2×30 ton cranes with a rate of 750 t.p.h. each. This pier can also be used for discharge of any bulk, general or container cargo and for loading general or container cargo. Depth alongside 17.5 m.

Max. size: 80,000 tons displacement, LOA 234 m. and max. draft 13.5 m.

TANKERS: Two buoys used for oil discharge. Both for clean and crude products. One of them belongs to Cia de Cobre Chuquicamata – (Codelco), not in use, and operates with 2 lines of 8 in. diameter, the other buoy is property of Sociedad Quimica y Minera de Chile S.A. and has 2 lines of 8 in. diameter for discharge of clean oil and crude.

Codelco Terminal: Maximum draft 36 ft. Maximum length 250 m. manifold distance to bow 130 m., in case greater than 130 m. the maximum draft is limited to 26 ft.

Soquimich Terminal: Maximum draft 45 ft. Maximum length 250 m.

Also see "Shipmaster's Report".

STEVEDORES: Number of gangs required for loading and/or unloading operations should be radioed 24 hours in advance to Agent. Also see "General" before first port.

MEDICAL: In case of urgent need of a doctor on arrival the Master should request medical assistance by radio to Agent and/or Port Captain. A modern hospital is available with adequate facilities. There is a first-aid clinic for minor surgery.

FRESH WATER: Small quantities available at S.I.T. and Codelco.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Compulsory to employ services of a gangway watchman.

OPENING/CLOSING HATCHES: Ship's crew allowed to open or close hatches.

CERTIFICATES:

Safety equipment (radio, etc.).
Tonnage.
Derat.
Radio.
Chilean Light Dues Certificate.

CUSTOMS ALLOWANCES: No special restrictions.

CARGO GEAR: Gear that complies with standard Port Safety Regulations.

IDENTIFICATION CARDS: Required.

CONSULS: None.

REPAIRS: Facilities only for minor repairs.

REPATRIATION: There are facilities.

AIRPORT: At Antofagasta, 200 km. by good road.

TIME: GMT minus 4 hours. Also see "General" before first port.

HOLIDAYS: See "General" before first port.

POLICE/AMBULANCE/FIRE: Police Headquarters 811812; Hospital 811081; Fire Department 811842.

TELEPHONES: No facilities for placing telephone lines aboard.

SHORE LEAVE: Allowed.

REGULATIONS: Not allowed to pump oil or dirty water from bilges or throw rubbish overboard while anchored.

DELAYS: Probable on surf days, mainly in the months of June, July and August.

SHIPMASTER'S REPORT: July 1986 (Updated 1988).
Cargo: 36,400 tonnes of sodium nitrate in bulk.
Shipper: Sociedad Quimica y Minera de Chile (now S.I.T.)/Tocopilla.
Receivers: China National Chemical Import and Export Corporation, Peking.
Documents:

1 copy Last Port Clearance.
3 copies General Declaration.
5 copies Crew List.
3 copies Stores List.
2 copies Personal Effects List.
1 copy International Health Declaration.
Ship's Register.
Ship's Safety Equipment Certificate.

Anchorage: A good anchorage can be found 5 cables from shore, in depths of 50 m. The vessel rolled constantly in a S.S.W. swell.
Pilotage: Compulsory for berthing/unberthing. There is one Pilot (Captain Jerko Huerta Rochas), who is very good.
Mooring at Nitrate Plant: Mooring in daylight only; unmooring any time of day and night.
Clearing: Shortly after anchoring at 2230 hrs., Authorities and Soquimich Surveyors came on board, for which accommodation ladder was prepared.
Health: Applying for Radio Pratique not necessary.
Radio: Vessel, possessing Satcom/telex had no problems contacting Agent. Agent is reachable 24 hours a day on VHF Channel 16. ETA notice to Harbour Master will be given by Agent.
Note: When in 200 mile territorial waters of Chile, daily report to Radio Naval Valparaiso should be given, stating ship's movements.
Tugs: 1×1,500 h.p. and 1×300 h.p. For berthing/unberthing we used the larger tug.
Berthing: Without problems; port side to plant/70 m. from shore (see "Plan").

Sequence:
1. Drop starboard anchor and slack away.
2. 2 lines (not wires) to port forward buoy (all buoys have hooks).
3. 2 lines to starboard aft buoy.
4. 2 lines to port aft buoy.
5. Extra line to starboard buoy on recommendation of Pilot.

When above is completed, a mooring gang comes on board to pick up 2 polypropylene springs from shore, using ship's winches. They stay on board in 3 shifts, to shift vessel under rotating telescopic loading arm. Officers should ensure that vessel is kept within line of port buoys as there are a few rocks close by.

Warning: When loading No. 1 hold (our vessel's length being 186 m.) ship had to be heaved very close to the port aft buoy. Longer vessels could have problems. Problem was recognised by the Pilot, who in the past said to have applied for buoys being replaced to create room for larger vessels.

Maximum permissible draft 36 ft. Depth of water 42 ft. All during her loading vessel experienced a 4 ft. – 5 ft. swell, which kept her rolling constantly.
Medical: Hospital facilities available.
Provisions: Chandler very expensive; many products not available.
Shore Communications: Distance to shore is 70 m.; accommodation ladder found best on starboard side. Agent boats U.S.$12 – 18/two ways, but crew found out, that for a small amount there was always/any time transport available and Agents boat-service was abandoned.
Customs Allowances: No special restrictions; bonded store was not sealed.
Meatroom: Not sealed as in most other Chilean ports.
Identification Cards: Necessary. Will be issued by arrival boarding party. Have to be returned on sailing.
Time: Local time is GMT minus 4 hours (second Saturday in March to second Saturday in October), otherwise GMT minus 3 hours.
Delays: Vessel experienced no delays due to weather or swell. Apparently delays occur sometimes on surf days, mainly in June, July and August, when vessel has to leave berth.
Authority: Port Captain.
Watchmen: From shore 24 hours a day in 3 shifts. Found very co-operative; no pilferage.
Report Loading 36,400 tonnes Sodium Nitrate in Bulk:

1. Holds have to be extremely clean. Most vessels find themselves rejected on arrival and after agreeing about price of cleaning, will be cleaned by Soquimich (now S.I.T.) personnel with their water-pressure equipment. This being the only way to start loading. For taking the heavy compressor on board cargo gear at all holds is necessary. Some vessels were said to have been forced to have their holds/tanktops painted, before being passed.
2. The cargo is stowed in 6 silos and transported to the ship via a belt, which runs into a turnable arm, which can bridge a distance of 90 m. including the last 26 m., covered by a telescopic extension. The loading did not produce extensive dust and the vessel's decks and accommodation were easily cleaned after sailing.
3. Loading rate found to be max. 900 t.p.h., overall calculation (including minor delays) 600 t.p.h. (Max. rate 1,200 t.p.h., depending on type of product).
4. Stowage factor appeared to be slightly higher than stated (0.88 against 0.84/0.86).
5. Air draft as per Charter Party had to be max. 10.50 m. Found air draft loading arm-end to be approximately 12 m. But there has to be a safe allowance for the 4 ft. – 5 ft. swell. Vessel experienced no problems however, the air draft being the recommended 10.5 m.
6. When loading was completed, the cargo was covered with plastic sheets, before closing the holds.
7. The stevedores were found very co-operative.

AUTHORITY: Port Captain.
Servicios Integrales de Transitos y Transferencias Ltda. (S.I.T.), Arturo Prat No. 1060, (Castilla 2098), Tocopilla, Chile. *Tel:* 811011 – 811012. *Telex:* 325601 sqmsit ck. *Cables:* Salagencia. *Contact:* J. Patricio Guerrero T., Port Manager – S.I.T.

VALPARAISO: 33.02 S. 71.39 W. (See Plan)

PORT LIMITS: A line joining Roca la Baja and Punta Gruesa.

DOCUMENTS:

1 Clearance.
1 Light Dues Certificate.
7 Port Cargo Manifests.
4 General Cargo Manifests.
7 Transhipment Cargo Manifests.
3 Passenger Lists for the Port.
3 Passenger Lists for Transit.
18 Crew Lists.
1 Personal Effects List.
Passenger Baggage Declaration (2 per passenger).
1 Fumigation Certificate.

24 hours prior to vessel's arrival, the Port Authority require a Cargo Manifest, Stevedoring Plan, List of Cargo per hatch, List of Hazardous Goods in accordance with I.M.D.G. Code, tally books and List of Containers.

PILOTAGE: Compulsory. Pilot boards vessel 0.5 miles from East Dupret Light.

ETA: Port Authorities require 24 hour and 4 hour notice prior arrival.

ANCHORAGES: Outside the harbour and close by, vessels find good anchorage in 25 – 15 fathoms of water. It is always prudent to secure a good anchorage owing to possible strong winds during all periods of the year which cause heavy swells.

In Winter, vessels anchor with one anchor with full chain and have another ready for emergencies. During Winter it is not convenient to anchor near the coast due to the risk of dragging; during Summer the nearer to coast, the better.

With the object of keeping the entrance to Valparaiso Bay clear and to assure a proper anchorage when arriving at this port, the Harbour Master has fixed the following anchorages according to arrival, so that vessels may proceed to berth in order of arrival.

Anchorage No.		
1	104° True and	980 m. from breakwater's red light.
2	099° True and	1,400 m. from breakwater's red light.
3	079° True and	820 m. from breakwater's red light.
4	083° True and	1,220 m. from breakwater's red light.
5	056° True and	980 m. from breakwater's red light.
6	066° True and	1,340 m. from breakwater's red light.
7	070° True and	1,730 m. from breakwater's red light.
8	041° True and	1,250 m. from breakwater's red light.
9	052° True and	1,550 m. from breakwater's red light.
10	059° True and	1,900 m. from breakwater's red light.

If any vessel does not occupy the anchorage assigned, she shall be shifted by a Pilot of the Harbour Master's Office for Account of Owners.

Should the ten anchorages be occupied when vessel arrives, a provisional one shall be expressly given by the Harbour Master's Office to the vessel that requires it.

RADIO/VHF: Maritime Radio Station of Valparaiso in Playa Ancha which attends the public maritime service. Coastal Radio Service (SRC) with its station situated in the Port Captaincy Building, also attends the public maritime service, both national and foreign (CBV-2).

Maritime Radio Station "Valparaiso Playa Ancha Radio/CBV" serves the Official Correspondence (OC) and Public Correspondence (PC) of the National and International Maritime Mobile Service (MMS).

Station Call Sign	*Frequency*	*Type*	*Receives*	*Transmits*	*Schedule (UTC)*
Valparaiso	500 kHz	A1A	500	500	H24
Playa Ancha Radio "CBV"	4 MHz	A1A	b.4/c.1, 5, 6	4349	0400-0430 0600-0630 0800-0830 1000-1030 1200-1400 2200-2400
	8 MHz	A1A	b.8/c.1,5,6	8478	1200-0400
	12 MHz	A1A	b.12/c.1,5,6	12714	1200-1400 1600-2000 2200-0400
	16 MHz	A1A	b.16/c.1,5,6	16956	1400-1600 2000-2200
	22 MHz	A1A	b.22/c.1,5,6	22473	1400-1600 2000-2200
	2 MHz	A3H J3E	2182	2182	H24
	4 MHz	A3H J3E	4125	4419.4	H24
	156.80 MHz	F3	c.16 VHF	c.16 VHF	H24

Station Call Sign	*Frequency*	*Type*	*Receives*	*Transmits*	*Hours of service*
Gobernacion Maritima Valparasio Radio/"CBV5"	2 MHz	J3E	2182	2182	H24
	156.80 MHz	F3	c.16 VHF	c.16 VHF	H24

The pilot station "Gobernacion Maritima Valparaiso Radio/CBV5", located in the same building, has a VHF Radio and communications are carried out directly with ships for the entrance and/or departure from port. Contact pilot boat on VHF Channel 6.

TUGS: There are 4 privately owned tugs, ranging from 800 s.h.p. – 1,440 s.h.p.

BERTHING:

Berth No.	1	2	3	4	5	6	7	8	9	10
Length (m.)	175	175	260	200	165	245	120	240	220	205
Depth (m.)	10	10	10	10	10	10	10	10	10	10
Quay cranes	5	5	4	—	—	7	2	7	4	—
Telephone	1	1	1	1	1	1	—	1	1	—

Berthing by day or night.

Earthquake 1985: All berths are operational and cranes are in use at all berths except Berths No. 7 and 8.

STEVEDORES: The stevedoring syndicate has 397 registered members and 108 substitutes. Working hours are 0800 – 1530 hrs., 1530 – 2300 hrs. and 2300 – 0630 hrs.

MEDICAL: Several hospitals and clinics with qualified staff.

TANKERS: *Las Salinas Oil Terminal:* Depth 40 ft. Max. displacement 40,000 – 50,000 tons. Sailing anytime, day or night.

FRESH WATER: Delivered by hoses connected to the existing standpipes. The quality of the water is good and can be delivered at the rate of approximately 20 t.p.h. The couplings are 2.5 in.

FUEL: Oil: Copec, Shell Chile, or Esso Standard Oil deliver petroleum or diesel oil in any quantity needed by pipe-line at Salinas, approximately 5 miles North of the port, mooring vessel in 7 fathoms water to special buoys and embarking a Pilot at Valparaiso Port. Delivery is at a rate of 180–200 t.p.h. There is also a barge with a capacity of 180 tons for delivery in Valparaiso Bay itself. Diesel oil can be delivered from tank cars by pipe at the quay.

GANGWAY/DECK WATCHMEN: Available and are to be used by Law.

OPENING/CLOSING HATCHES: Carried out by the stevedores by Law.

CUSTOMS ALLOWANCES: No unusual restrictions.

IDENTIFICATION CARDS: Required.

CONSULS:

Consulate Generals:

- Argentina
- Bolivia
- Brazil
- Colombia
- Ecuador
- Germany F.R.
- Greece
- Guatemala
- Italy
- Norway
- Panama
- Peru
- Spain
- Sweden
- Venezuela

Consulates:

- Belgium
- Denmark
- Dominican Republic
- El Salvador
- Finland
- France
- Haiti
- Honduras
- Monaco
- Netherlands
- Nicaragua
- Paraguay
- Switzerland
- United Kingdom
- United States
- Uruguay

REPAIRS: Several shipyards, workshops and foundries for repairs to hull, boilers, machinery and engines. The principal is Asmar belonging to the Navy. There are several other smaller shipyards for construction and repair of minor craft.

DRY DOCKS: Floating dock 10,000 tons lifting capacity with length 167.1 m. and inside width 26.1 m. Max. draft possible is 9.7 m. Max. displacement 30,000 tons. Max. d.w.t 24,000 tons. 2 × 15 ton cranes.

REPATRIATION: Facilities available.

AIRPORT: International airport at Pudahuel, 90 km. from Valparaiso. Los Cerrillos is the nearest airport. From Pudahuel, Lan-Chile maintain daily services to Arica to the North and to Punta Arenas with stops at all the principal towns.

TIME: Local time October to March, GMT minus 3 hours. March to October, GMT minus 4 hours.

HOLIDAYS: See "General" before first port.

SERVICES: Compasses, radars, meteorological instruments and other nautical equipment can be tested and fixed. Charts and maps can be obtained from the Chilean Navy Navigation and Hydrographic Department.

SHORE LEAVE: Allowed.

WEATHER: A weather report showing the condition at various points off the coast of Chile can be obtained from Playa Ancha Radio twice a day. A general rule for the next day's forecast: the weather condition at Juan Fernandez Islands will be 24 hours later than the conditions at Valparaiso.

Climate: Temperate.
Average Amount of Cloud: 4.8 – 8 hours.
Predominant Winds: S.W. and N.W., speed 23 knots.
Rainfall: 360.2 mm. in one year.
Temperature: Average max. – 19°C.
Average min. – 11°C.

PORT REGULATIONS: It is strictly prohibited to dismantle the main engine or effect repairs to the engines without previous notification and authorisation from the Maritime Authorities. Also, to deballast petroleum, pump bilges, throw waste or refuse overboard in the artificial port.

SHIPMASTER'S REPORT: April 1980 (updated 1984).

Documents:

6	General Declarations
12	Crew Lists
6	Passenger Lists for the Port
6	Passenger Lists (even if nil)
6	Mail Lists (or no Mail)
2	Crew Effects Lists
6	Bond and Canteen Lists
6	General Stores, Food Lists
	Clearance from Last Port.

Pilotage: Compulsory. Pilot boards vessel 0.5 miles East of Dupret Light. 24 hours notice required to Port Captain (Maritgob).

Anchorage: Anywhere outside the "Prohibited Anchorage Area". The holding ground is moderate.

Restrictions: Port closed for all kinds of activities only in bad weather.

Max. Size: Max. LOA: 200 m. (depending on berth). Max. draft 10 m. (except Berths No. 9 and 10) after completion of dredging which is in progress. 2 ft. keel clearance required.

Health: Quarantine message should be sent 24 hours prior to arrival.

Radio: Playa Ancha Radio "CBV".

VHF: Port Captain on Channel 16. Pilot on Channel 6, vessel's Agent equipped with Private Channels, contact on Channel 16.

Tugs: 4 tugs available. Compulsory for large vessels.

Cargo Handling Facilities: Portable screw elevators available for grain. Berth No. 9 is equipped for handling bulk cargoes.

Most berths equipped with cranes of 3 and 5 tons capacity. There is sufficient equipment for handling of palletised cargoes and containers, and there is sufficient storage space for the containers.

Density: 1025.

Fresh Water: Available. Rate 15 to 20 t.p.h.

Fuel: Bunker fuel oil and diesel oil available, but expensive.

Airport: At Santiago.

Repairs: Very good services available.

Services Available: Fresh provisions, machine shop, Lloyd's Surveyor, Salvage surveyor, laundry service, lubricating oil, doctor, hospital, meats and groceries.

AUTHORITY: Empresa Portuaria de Chile, Casilla 133-V, Valparaiso. *Telex:* 230313. *Contact:* Vice Admiral Don Jorge Baeza Concha, Director, Calle Blanco 839. *Tel:* 257167, ext. 301.

Maritime Governor of Valparaiso, Av. Errazuriz 537. *Tel:* 25 80 91.
Port Administrator, Av. Errazuriz 629. *Tel:* 25 55 73.

People's Republic of China

GENERAL:

We have been advised by the Head Office of the China Ocean Shipping Agency in Beijing that Ship Masters of foreign vessels calling at Chinese Ports should contact the Branch Office at the Port concerned (cable address "Penavico") in order to be provided in due time with necessary information relating to port entry requirements.

DOCUMENTS: *Shipmaster's Report:* 1987.

First Port

1 Maritime Declaration of Health.

2 Reports of Entry for foreign ships.

6 Crew Lists (names and addresses of Chinese and Hong Kong crews to be written in Chinese and others in English).

3 Lists of Specified Articles (money, gold and silver).

4 Passenger Lists (if carrying passengers).

1 Import Cargo Manifest. (If none on board then it is essential for the Master to make one. Suitable blank Chinese forms are available).

Note: All the above are to be made on Chinese forms.

Second and Subsequent Ports:

2 Report of Entry and 6 Crew Lists, Last Port Clearance and travelling documents in a sealed envelope.

Departure:

1 Report of Clearance form.

4 copies of a simple declaration of all crew changes.

All crew Identity cards and shore passes for checking.

Other Notes on Arrival:

Ship's Certificates are examined on board. If any taken ashore ensure a receipt is obtained.

Bond locker is usually not sealed, or the contents declared. However, some ports now reported to be sealing the Bond Locker.

Shore Leave: Shore leave is granted after inspection of documents. Chinese and Hong Kong seamen need only Identity card to go ashore. Non-Chinese need a shore pass in addition.

For Arrival or Departure Inspections a large room is needed, capable of seating 8 to 12 persons. Cigarettes, tea, soft drinks and occasionally beer are acceptable. Sometimes a meal will be requested. One cabin will be requested for the Guards (2 berth cabin such as hospital is suitable) for duration of stay in port. Sometimes another room is required for a Customs Officer.

PILOTAGE: *Regulations with Respect to Sea-port Pilotage issued by The Ministry of Communications:* These Regulations have been made with a view to safeguarding the sovereignty of the People's Republic of China and ensuring the safety of ports and vessels.

Article 1: For all foreign vessels which enter, leave, or navigate or shift berths within any port of the People's Republic of China, pilotage is compulsory. No foreign vessel shall enter, leave, or navigate or shift berths within a port without having on board a Pilot designated by the Harbour Superintendency Administration. In cases of emergency, such as a sudden change of weather, a vessel at anchor may, however, for the purpose of ensuring safety, shift from her original anchor position to any other position in its vicinity without a Pilot, provided the Harbour Superintendency Administration is notified of the same simultaneously.

Article 2: Incoming foreign vessels shall anchor in the designated anchorage or pilot station and await the Pilot. In case an outgoing foreign vessel requests the Pilot to conduct the vessel beyond the limits of the pilotage waters, the Pilot has the right to refuse such request.

Article 3: Prior to arrival at the pilot anchorage, incoming foreign vessels shall communicate with the pilot station (boat) or the port signal station by exhibiting appropriate signals prescribed by the Chinese Port Authorities and follow the instructions given by the pilot station (boat) or the port signal station.

Article 4: When the Pilot is boarding or leaving, it is the duty of the Master of the vessel piloted to take safety measures and furnish a pilot ladder complying with the requirements of the International Convention for the Safety of Life at Sea for embarking and disembarking the Pilot safely and quickly, with due regard being paid to the safety of the pilot boat.

Article 5: The Master of the vessel piloted shall give the Pilot a correct description of the vessel's navigability and steering qualities, and shall meet the Pilot's demands in piloting. Failing to do so, the Master shall be responsible for the consequences arising therefrom.

Article 6: While the vessel is under pilotage, the Master thereof shall in no way be relieved of his responsibility for management and operation of the vessel. The Master shall still give care to the safe navigation of the vessel and must co-operate closely with the Pilot. In the interests of safe navigation, the Master may put forward reasonable recommendations and requirements, but shall not interfere in the Pilot's work unreasonably. If the Master has to leave the bridge temporarily, he shall inform the Pilot of the same and designate an officer as his representative during his absence.

Article 7: In order to ensure the vessel's safety, the Pilot has the right to suspend pilotage when necessary until the circumstances are suitable for safe navigation again.

Article 8: For marine accidents occasioned by the fault of a Pilot in the course of piloting, the Pilot shall be duly punished, but shall hold no liability for loss or damage resulting therefrom.

Article 9: When sea conditions or other special circumstances make it impossible for the Pilot to board an incoming vessel at the designated place, the vessel shall first be guided by the pilot boat to a place at which the Pilot can safely embark and then be conducted by the Pilot into the port after his boarding.

In the case of an outgoing vessel, if the Pilot finds it difficult to disembark at the designated place for the same reasons as are stated above, he may disembark midway at a safe place and then guide the vessel out of the port with the pilot boat.

Article 10: The Pilot may be accompanied by apprentice Pilots who go on board for practice. The Master of the vessel piloted shall provide them with conveniences in regard to both work and life.

Article 11: The Master of the vessel piloted shall sign the Pilotage Bill and pay the pilotage or shifting charges according to the prescribed tariff. If the Pilot considers that the vessel should be assisted by a tug or tugs, the charges for the tugs actually employed shall also be for the account of the vessel.

Article 12: These Regulations shall come into force on the date of publication. The "Regulations Relating to Sea-Port Pilotage", promulgated by the Ministry of Communications of the People's Republic of China on 9th December 1959, shall at the same time be abrogated.

ANCHORAGES: Typhoon Shelters: Approaching the typhoon season, seriously affecting the safety of shipping along the Southern stretch of China's coast, we publish herewith a circular received from the Mapping Agency of the Navigation Guarantee Department of the Chinese Navy Headquarters.

In the text "Dao" means island, "Gang" port, "Shan" mountain and "Wan" bay. The chart numbers refer to those issued by the same authority.

Anchorages: The coast in this area is very indented and hence numerous good harbours and bays are found. The anchorages affording shelter from bad weather for foreign vessels are Dongshan Wan, Jiazi Gang and Hailingshan Gang. Guangzhou Gang, Huangpo Gang, Zhanjiang Gang and Shantou Gang also have good anchorages for shelter.

Section 1 – Dongshan Wan Anchorage: Charts 9111, 9314.

General Remarks: Dongshan Wan is situated near the boundary line of Fuijan and Guangdong Provinces. Xiamen Gang lies 68 miles to the N.E. It is considered to be one of the good harbours in South Fujian.

Its entrance lies between Dongshan Dao and Gulei Bandao. Gulei Bandao is long and narrow, with several outstanding mounts 100 m. to 270 m. high on its Southern half.

Huyu Dao Southwestern Anchorage lies between Huyu Dao and Ta Yu (Dong-men Yu). It has a water area about 4 cables wide and about 10 m. deep, bottom is mud, sand-mud, shell and small rock. It is good for shelter from N.E.'ly gales. In this anchorage, tidal streams are strong and swell is rather heavy.

Meteorology and Hydrography:

Winds: Southerly to Southwesterly winds prevail from June until August, while Northeasterly winds prevail in the other months. The annual average wind force is 4. Wind is stronger from October to March, during which period the average wind force is 5 to 6. It may attain Force 9 to 10 during the onset of severe cold air wave. The number of gale days (wind Force 6 and above) is about 119 days in a year, and about 11 to 16 days per month during the period from October to March, and only 1 to 2 days in July, which is the minimum.

Typhoon: Occurs mostly in August and September. In September 1957, when the centre of a typhoon landed here, the wind velocity exceeded 44 metres per second, and high waves of 3 m. to 5 m. were experienced.

Fog: There are about 31 fog days in a year. The monthly average of fog days in March and April is about 7 to 8, and in January, February, May and June, about 2 to 4 days. It is the least in October and November.

Tides: Tide is of irregular semi-diurnal nature. The Spring rise is 3.52 m. and neap rise, 2.96 m., and mean sea level, 2.16 m.

Tidal streams: At Gulei Anchorage, flood sets Northward, and ebb Southward, at a rate of about 1.5 knots. Outside the entrance, flood sets Northeastward, at a rate of about 2.3 knots.

Aids-to-Navigation and Lankmarks:

Gulei Tou, lying at the Southern extremity of Gulei Bandao, is a steep cliff. At its Southern part, a light (U) is exhibited, at an elevation of 113 m., from a square stone column.

Gulei Shan, lying about 3.6 m. N. × E. of Gulei Tou Lightbeacon, has a conspicuous sharp peak. There is one more summit close to its Southeast, so that a comparatively deep saddle is formed.

Ta Yu (Dongmen Yu) lies about 2.3 miles Westward of Gulei Tou Lightbeacon, with the main summit lying at its Southwestern part. There is a stone tower on its top at an elevation of 91 m. (height of the tower is 10 m.).

Shuwei Yu lies at the outer extremity of a reef extending Southeastward from Ta Yu.

Huyu Dao lies about 1.4 miles N. × E. of Shuwei Yu. Its Eastern top, surmounted by a pile of stone, is high. Yousui Yan, 34 m. high, lies Southward of Huyu Dao.

Daping Yu, lying about 0.6 miles N.W. of Huyu Dao, is fringed with rocky ledges extending outwards.

Obstructions: Yunnan Yan, with a depth of 3.8 m. over it, lies about 3 miles S.W. of Gulei Tou Lightbeacon. Between this rock and Gulei Tou there is a shoal of less than 10 m. depth, with a least depth of 6.8 m. over it.

A shallow spot, with a depth of 8.4 m. over it, lies about 3.2 miles S.E. of Gulei Tou Lightbeacon.

At the Southern extremity of Yousui Yan, Southward of Huyu Dao, there is a rocky ledge and reefs extending Southward about 1.5 cables.

Directions for Navigation: Ships intending to enter Gulei anchorage should first sight Gulei Tou, and on reaching a position about 0.6 miles Southwestward of Gulei Tou Lightbeacon, alter course so as to make for the anchorage.

Section 2 – Jiazi Gang Anchorage: Charts 9113, 9423.

General Remarks: Jiazi Gang, lying between Shantou Gang and Shanwei Gang, is situated at the place where the river named Ying Jiang empties into the sea. The anchorage is situated with Jiazi Jiao Lighthouse bearing 104°, about 1.5 miles distant, having depths of 7 m. to 10 m., sand bottom. It can afford shelter from Easterly to Northeasterly winds. There is a mooring buoy at its Northeastern part. It is an anchorage generally used for shelter by vessels plying between Shantou Gang and Shanwei Gang.

Meteorology and Hydrography:

Tides: Tide of this harbour is diurnal. However, during the period of semi-diurnal tides, mean high water is 0.81 m. and mean low water, 0.57 m. During the period of diurnal tides, mean higher high water is 1.26 m., mean lower low water, 0.18 m. and mean sea level 0.89 m.

Tidal Streams: Flood sets Northeastward at a rate of 1 knot and ebb sets Southeastward at a rate of 1.5 knots.

Aids-to-Navigation and Landmarks: Jiazi Jiao is an outstanding cape. A lighthouse named Jiazi Jiao, exhibiting a light at an elevation of 78 m. from a white square brick tower, lies on Qilin Shan about 2.5 cables Northeastward of Jiazi Jiao.

Bie Yan, a rock 5.4 m. high, lies about 1.5 miles Southward of Jiazi Jiao Lighthouse. Haijia Shan, situated about 8.6 miles W. × N. of Jiazi Jiao Lighthouse, is a conspicuous summit in its vicinity.

Hudong Jiao, an outstanding cape, lies about 3.2 miles Southwestward of Jaijia Shan.

Obstructions: Wu Jiao, a rock 2 m. high, lies about 1.7 miles Northwestward of Jiazi Jiao Lighthouse.

A wreck lies about 13.6 miles Southeastward of Jiazi Jiao Lighthouse. An obstruction lies about 13.6 miles Southwestward of Jiazi Jiao.

Directions for Navigation: Ships from the West may use Jiazi Jiao Lighthouse as an aid, and steer to about 5 miles S.W. of Jiazi Jiao Lighthouse, and then alter course for the anchorage.

Ships from the East should steer to about 5 miles Southward of Jiazi Jiao Lighthouse, when it is in line with Bie Yan, bearing 000°, alter course for the anchorage.

Section 3 – Hailingshan Gang Anchorage: Charts 9316, 9426.

General Remarks: Hailingshan Gang, between Zhujiang Kou and Zhanjiang Gang, lies on the Western side of Hailingshan Dao, and is an anchorage affording shelter for vessels plying between Guangzhou Gang and Zhanjiang Gang.

This anchorage lies on the Western side of a line from about 1 mile Westward of Hudie Zhou to Huoyan Shan. It is about 4 miles long and about 0.5 miles wide, in depths of from 6 m. to 13 m., bottom sand and mud-sand. It is sheltered from Northeasterly, Easterly and Southeasterly winds. During Southwesterly, Northwesterly and Northerly winds, there is considerable swell.

Meteorology and Hydrography:

Winds: In Summer, S.W. wind is predominant and rainstorms are frequent. In Winter, N.E. wind is predominant and thick fog is frequent. Typhoons are most frequent from June to August. N.E. gales are mostly experienced here during the approach of a typhoon.

Tides: Tide in this harbour is irregular, diurnal. During the period of semi-diurnal tides, mean high water is 2.45 m., mean low water 0.95 m. During the period of diurnal tides, mean higher high water is 2.98 m., mean lower low water 0.52 m. and mean sea level 1.70 m.

Tidal Streams: Flood sets N. × E. at a rate of 1.3 knots and ebb sets S.W. at a rate of 2.5 knots.

Aids-to-Navigation and Landmarks: In this vicinity, there are numerous islands and islets, which are isolated and readily identifiable. Landmarks usually used are, Mawei Zhou Lightbeacon, Mawei Shan, Longgao Shan, Shuangshan Dao, Hudie Zhou, Paotai, Zui, Xizaizai Shan, Dier Shan, Huoyan Shan, etc.

Obstructions: There are many shoals on either side of the anchorage, some of them dry at low water.

Yamui Pai, a rock, lies about 1 mile Northward of Paotai Zui. At its Western side, there is a rock which dries.

Directions for Navigation: Ships, arriving S.W. of Mawei Zhou Lightbeacon and when Xizaizai Shan is in line with Huoyan Shan, should alter course so as to follow this leading line. When Mawei Zhou Lightbeacon comes beam to starboard, alter course N. × E. for the anchorage.

Traffic of fishing vessels in this harbour is very heavy. Ships should always be on the alert to take appropriate action to avoid collision.

TIME: GMT plus 8 hours. Summertime (1986) May 4th – September 14th – GMT plus 9 hours.

REGULATIONS:

Regulations governing the passage of non military foreign vessels through the Chiungchow Straits.

Article 1. According to "The Declaration of the Government of the People's Republic of China on China's Territorial Seas, the Chiungchow Straits (the Hainan Straits) are Chinese inland waters, where all foreign military vessels are prohibited from passing through. Any non military foreign vessel in need of passing through the Straits must apply for permission in accordance with the present Regulations.

Article 2. For facilitating the control of the Chiungchow Straits, the Chinese Chiungchow Straits Authority of the People's Republic of China (hereinafter referred to as the Chinese Chiungchow Straits Authority) is hereby set up.

The present Regulations are to be carried out under the supervision of the Chiungchow Straits Authority.

Article 3. The water area which comes under the control of the Chiungchow Straits Authority (hereinafter referred to as the Control Area) is bounded temporarily as follows: West of the line connecting the Hainan Head Light Beacon (approx: Lat. 20° 09′ 37″ N., Long. 110° 41′ 00″ E.) and San Kao Lung Light Beacon (approx: Lat. 20° 26′ 00″ N., Long. 110° 30′ 22″ E.) (known as the East Line) and East of the line connecting Cape Kami Light Beacon (approx: Lat. 20° 13′ 30″ N., Long. 109° 55′ 30″ E.) and Cape Lin Kou Light Beacon (approx: Lat. 20° 00′ 22″ N., Long. 109° 42′ 06″ E.) (known as the West Line).

Article 4. Any non military foreign vessel passing through the Chiungchow Straits must comply with the following procedures:

1. Apply for passage permission by cable to the Chiungchow Straits Authority 48 hours before the vessel enters the control area, or before the vessel leaves the port of departure, giving detailed information on ship's name, nationality, gross tonnage, speed, hull colour, funnel marks, port of departure and destination as well as date and time of sailing.

2. After obtaining the passage permission, inform the Chiungchow Straits Authorities 24 hours before entering the control area or within 2 hours after vessel port of departure of the exact time of entering the control area.

All cables relating to the application and permission for the passage through the Straits are to be transmitted through the Haikou Branch of China Ocean Shipping Agency.

Article 5. Notification may be given by the Chiungchow Straits Authority, whenever it deems necessary, to cancel the permission already granted to those non military vessels for passing through the Straits.

Article 6. Passage through the control area by non military foreign vessels should be made in the day time only. They should enter the control area after sunrise and leave before sunset. On the basis of the ship's speed the Chiungchow Straits Authority shall fix the time for the non military foreign vessel concerned to enter or leave the Straits.

Article 7. Non military foreign vessels entering and leaving the Chiungchow Straits should pass through the middle channel, unless special permission has been granted by the Chiungchow Straits Authority.

Article 8. Non military foreign vessels passing through the control area should navigate within the following specified navigation area: North of the line connecting the point on the East line 4 nautical miles away from the Hainan Head Light Beacon to the point on the West line 4 nautical miles away from the Cape Lin Kou Light Beacon; and South of the line connecting the point on the East line 6 nautical miles away from the Hainan Head Light Beacon, the point 4 nautical miles due South of the Cape Paimi Light Beacon (approx: Lat. 20° 15′ 00″ N., Long. 100° 17′ 00″ E.) and the point on the West line 14 nautical miles away from the Cape Lin Kou Light Beacon.

Article 9. Non military foreign vessels passing through the Chiungchow Straits must punctually observe the time as reported and comply with the stipulations on the limit of the navigation area. All vessels entering and passing through the control area should immediately answer and unconditionally comply with the signals from the shore or patrol ships. The vessels in question shall be held responsible for all consequences arising from non observance of the above stipulations.

Article 10. Non military foreign vessels passing through the Chiungchow Straits are not allowed to use radar. If the vessels are under the conditions of restricted visibility caused by dense fog, torrential rains, etc., which necessitates the use of radar, they should make an application to the Chiungchow Straits Authority, giving their reasons as well as the ship's position, speed, etc., and they may set ship's radar in operation when permission is obtained. In the case of emergency which endangers safe navigation of the ships, they may use their radar while making their application simultaneously; after that, they should submit a detailed account (report) to the Chiungchow Straits Authorities giving a full account, together with a statement of facts of the time as to when the radar set in use and when ended for the archives.

Article 11. Non military foreign vessels passing through the Chiungchow Straits are not allowed to take photographs, soundings, or do any other things in violation of the laws and regulations of the People's Republic of China.

Article 12. Any non military foreign vessel violating the present Regulations shall be treated as follows:

1. Before entering the control area, the vessel may be ordered to stop proceeding and to round out by her original route, so as to sail around the Hainan Island; or, to wait until the necessary formalities are completed and the permission for passage granted.

2. In case the vessel has entered the control area, she may be ordered to stop and be escorted to Haikou for inspections; and she shall be treated according to the findings after inspection. After that, the vessel may, as circumstances require, be allowed to pass through the control area, or ordered to return out from the control area, or even be escorted out of the Straits.

Guide to foreign vessels calling at Shanghai

1. Regular channel in Chusan area: Foreign vessels may navigate in the regular channel between Chusan and Raffles Island which is open to navigation, but are not allowed to navigate in other channels between these islands. (By the regular channel is meant the channel from Tongting Island, Steep Island, Elgar Island, Bonham Island, Button Island, Gutzlaff Island to Chang Kiang Kou).

2. Pilotage Area:
   (a) Pilotage on vessels entering/leaving port commences from/termination at the position Lat. 31° 05′ N., Long. 122° 10′ E. at Chang Kiang Kou.
   (b) The Pilot vessel, when engaged on her pilotage duty, will anchor near 1 mile East of the entrance buoy No. 54 (Lat. 31° 04′ 52″ N., Long. 122° 10′ 00″ E.) at Chang Kiang Kou.

3. Anchorage awaiting for the tide:
   (a) Foreign vessels may, when the draft at the time of entry is 25 ft. or less, proceed direct to the pilot station (Lat. 31° 05′ N., Long. 122° 11′ 30″ E.).
   (b) In the case of draft at time of entry is more than 25 ft. or it is impossible to arrive at the pilot station at the declared ETA or impossible to proceed direct to the pilot station for reasons of the tide, then the foreign vessels may anchor and wait for the tide near 1 mile N.E. of the Chang Kiang Kou Lightvessel. Such foreign vessels waiting there may telegraph to ask "Penavico" Shanghai for the time of arrival at pilot station and picking up the Pilot.

4. Notice to Mariners: Chang Kiang Kuo South Channel.
Also see "Shipmaster's Report", date July 1984 (after No. 7).
   (a) The Chang Kiang Kuo Light vessel No. 50 is as described below:
   Location Lat. 31° 01′ 48″ N., Long. 122° 25′ 14″ E.
   Characteristic Flashing every 6 seconds.

(b) Vessels entering or leaving the port should keep Chang Kiang Kou Lt. Vessel on vessel's port side:
1. Fairway Buoy M.1:
Location Lat. 31° 02′ 51″ N., Long. 122° 19′ 35″ E.
Characteristic Group flashing (3) every 6 seconds.
Shape – can shape, red and white chequered.

(c) No vessel allowed to enter the dangerous areas bounded by lines connecting the following points:
1. Lat. 30° 47′ 15″ N., Long. 123° 03′ 00″ E.
2. Lat. 30° 47′ 15″ N., Long. 123° 05′ 54″ E.
3. Lat. 30° 44′ 45″ N., Long. 123° 03′ 00″ E.
4. Lat. 30° 44′ 45″ N., Long. 123° 05′ 54″ E.

5. Telegraphic Communication:
Foreign vessels at sea may despatch radiograms to "Penavico" Shanghai via Shanghai Coastal Radio Station, the particulars of which are as follows:

Call sign: XSG
Calling frequency: 500 kHz
Working frequency: 458 kHz
Working hours: 0000 – 2400

Answering frequency:		Listening frequency:	
8502 kHz	GMT 0000 – 2400	8364 kHz	GMT 0000 – 2400
6414.5 kHz	GMT 2200 – 1000	6273 kHz	GMT 2200 – 1000
12871 kHz	GMT 0000 – 1400	12546 kHz	GMT 1000 – 1400
4349 kHz	GMT 1000 – 2200	4182 kHz	GMT 1000 – 2200

6. Large number of fishing vessels around areas 25-30 miles N.E. of North saddle and 20-25 miles East of East saddle, Barren Island and Lukon Island, please navigate with caution.

7. Anchorage for awaiting tide – Changkiang Kuo:

(a) The water area bounded by lines connecting the following points is the anchorage of Changkiang Kuo for vessels awaiting tide:
Lat. 31° 01′ 00″ N., Long. 122° 24′ 42″ E.
Lat. 31° 01′ 00″ N., Long. 122° 20′ 00″ E.
Lat. 30° 56′ 00″ N., Long. 122° 20′ 00″ E.
Lat. 30° 56′ 00″ N., Long. 122° 24′ 42″ E.

(b) All vessels are strictly prohibited to anchor at any place out of the said anchorage of Changkiang Kuo for waiting tides without obtaining permission (permits) from Shanghai Harbour Authority concerned.

Shipmaster's Report: July, 1984.

Following telex received July 1984.

Quote:

AAA Changkiangkou Lightvessel 31° 03′ 30″ N., 122° 23′ 1″ E.

BBB Changkiangkou Lightbuoys M1 H11-H20 replaced by Buoys 44-49.

Buoy 44	Lat. 31° 03′ 22″ N.,	Long. 122° 19′ 52″ E.	Fl. 3/10 secs.
Buoy 45	Lat. 31° 03′ 14″ N.,	Long. 122° 16′ 58″ E.	Fl. 3/6 secs.
Buoy 46	Lat. 31° 03′ 06″ N.,	Long. 122° 14′ 02″ E.	Fl. 3/10 secs.
Buoy 47	Lat. 31° 03′ 00″ N.,	Long. 122° 11′ 06″ E.	Fl. 3/6 secs.
Buoy 48	Lat. 31° 03′ 34″ N.,	Long. 122° 08′ 14″ E.	Fl. 3/10 secs.
Buoy 49	Lat. 31° 04′ 11″ N.,	Long. 122° 05′ 26″ E.	Fl. 3/6 secs.

Pilot vessel moving in/area Buoy 47/49 serving/as pilot station.

Unquote.

Regulations governing Supervision and Control of Vessels of Foreign Registry sailing in the Chanjiang (Yangtse River). (Dated April 1983).

Article 1. The Chanjiang (Yangtse River) is the inland waterway of the People's Republic of China. These Regulations have been formulated with a view to safeguarding the sovereignty of the People's Republic of China, to ensuring safety of vessels and to maintaining order of traffic in the Chanjiang (Yangtse River) Waterway and its Ports in accordance with the Regulations governing supervision and control of foreign vessels by the People's Republic of China.

Article 2. These Regulations and all relevant laws and administrative statutes issued by the Government of the People's Republic of China shall be complied with by all propelled and non-propelled vessels and other water-borne means of transport of foreign registry (hereinafter referred to as "vessels") sailing in the Chanjiang (Yangtse River) Waterway or berthing at its Ports.

Article 3. For the purpose of these Regulations, the "Chanjiang (Yangtse River) Waterway" shall mean the main waterway extending from the line joining Liuheiwu (Lat. 31° 30′ 52″ N., Long. 121° 18′ 54″ E.) at the lower reaches of the Estuary of the Liu River, and the signal post (Lat. 31° 37′ 34″ N., Long. 121° 22′ 30″ E.) at the lower reaches of the Estuary of the Shiqiao River, Congming Island, and upwards to the upper boundary of Zhangjiagang (a line joining point Lat. 31° 59′ 35″ N., Long. 120° 20′ 00″ E. and point Lat. 31° 57′ 13″ N., Long. 120° 20′ 00″ E.).

For the purpose of these Regulations, the term "Ports" shall mean Nantong and Zhangjiagang, being those open to vessels of foreign registry in the Chanjiang (Yangtse River) Waterway.

Article 4. These Regulations shall be enforced by the Harbour Superintendency Administration of the People's Republic of China, and all vessels shall be subject to their supervision and control.

Article 5. No vessels can enter the Chanjiang (Yangtse River) Waterway or its Ports without the Permission of the Harbour Superintendency Administration of the People's Republic of China. Those permitted to enter the Chanjiang (Yangtse River) Waterway shall be subject to inspection of the Quarantine Office, the Harbour Superintendency Administration, the Frontier Defence Office, the Customs and the Animal and Plant Inspection Office, and complete all relevant formalities. The above-mentioned authorities are entitled to exercise control on board if required.

Article 6. Vessels entering the Chanjiang (Yangtse River) Waterway shall not engage in shipping business between the ports along the Chanjiang (Yangtse River) and between the Ports and the Port of Shanghai, nor shall they engage in other unauthorised operations.

Article 7. Vessels entering the Chanjiang (Yangtse River) Waterway and its Ports shall:

(a) a week prior to its expected time of passing through the Port of Shanghai, apply to the Harbour Superintendency Administration at her expected port of arrival through the port Agent for completion of entry formalities;

(b) 24 hours in advance of her passing through the Port of Shanghai (or on her departure from the last port of call if the voyage takes less than 24 hours), report the vessel's expected time of passage and the vessel's ETA at her expected port of arrival along the Chanjiang (Yangtse River), the vessel's size, fore and aft drafts, the maximum height above the actual water line to the Harbour Superintendency Administration of Shanghai and of the expected port of arrival through the port Agents;

(c) give timely advice of any alteration in the ETA reported.

Article 8. Vessels sailing in the Chanjiang (Yangtse River) Waterway or berthing at its Ports shall apply to the Harbour Superintendency Administration at the port of arrival along the Chanjiang (Yangtse River) for pilotage and for passing through the Port of Shanghai, shall apply to the Shanghai Harbour Superintendency Administration for pilotage.

Article 9. Upon arrival at the port, vessels shall immediately submit the Entry Report and other relevant forms, ship's papers and relevant documents for examination and be subject to inspection. Before leaving the port, vessels shall report the time of departure and the port of destination to the Harbour Superintendency Administration and complete departure formalities through the port Agent and may only leave the port after port clearance has been obtained.

Article 10. Vessels sailing in the Chanjiang (Yangtse River) Waterway or berthing at its Ports shall by day hoist the national flag of the People's Republic of China at the top of the foremast and the national flag of state of registry at the stern; an "H" flag shall in addition be hoisted when there is a Pilot on board. On entering or leaving Ports or shifting berths, vessels shall moreover display signal-letters and other prescribed signals.

Article 11. Vessels making use of their VHF radio-telephone in the Chanjiang (Yangtse River) Waterway or its Ports shall comply with the provisional Regulations Governing the use of VHF Radio-telephone by foreign vessels issued by the Ministry of Communications of the People's Republic of China.

Article 12: In the Chanjiang (Yangtse River), vessel's radio-telegraph and radio-telephone transmitters can only be used to communicate with the river or coastal radio-stations of the People's Republic of China, and they can only be used in Ports in case of emergency, and reports shall be made to the Harbour Superintendency Administration immediately afterwards.

In the Chanjiang (Yangtse River) Waterway and its Ports, vessel's signal rockets, flare or gun signals can only be set off in case of emergency, and reports shall be made to the Harbour Superintendency Administration immediately afterwards.

Article 13. Vessels sailing in the Chanjiang (Yangtse River) Waterway or berthing at its Ports are prohibited from carrying out the following activities:

(a) having military installations and military ships photographed, drawn pictures of, videotaped or surveyed; or

(b) shooting, swimming, fishing, and setting off firecrackers or fireworks; or

(c) other activities threatening the national safety, interests and good order of the People's Republic of China.

Article 14. Vessels sailing in the Chanjiang (Yangtse River) Waterway shall anchor as near the outer limit of the fairway as is practicable under extraordinary circumstances such as bad weather, flood peaks, etc., which make temporary anchoring necessary, and shall not take the main fairway. Those vessels shall have the position and time of anchoring and the time of departure promptly reported to the nearest Harbour Superintendency Administration, and no one shall be allowed ashore without permission of the local public security authorities.

Article 15. Vessels sailing in the Chanjiang (Yangtse River) Waterway shall not proceed at a speed that would threaten the safety of other vessels and installations ashore.

Article 16. With respect to the regulations on navigation, berthing and prevention of collisions, vessels in the Chanjiang (Yangtse River) Waterway or berthing at its Ports shall comply with the Regulations governing prevention of collision in inland waterways promulgated by the Ministry of Communications of the People's Republic of China.

Article 17. While using signals, vessels shall comply with the Regulations governing prevention of collision in inland waterways and other relevant signal regulations; signals not being specified therein shall be displayed in accordance with the relevant international regulations.

Article 18. No vessel sailing in the Chanjiang (Yangtse River) Waterway or berthing at its Ports shall discharge or dispose of oils, oily mixtures or other harmful pollutants or refuse into water.

Article 19. Matters provided for in these Regulations shall be carried out in accordance therewith, while those not being set forth herein shall be dealt with in accordance with the Regulations governing supervision and control for foreign vessels by the People's Republic of China and other relevant laws and statutes.

Article 20. These Regulations shall become effective upon the date of promulgation.

Regulations for Merchant Ships passing through Lao Tie Shan (Liauti-shan) Channel.

Merchant vessels passing through the Lao Tie Shan Channel must observe the following regulations:

1. The water area with Lao Tie Shan Lighthouse as centre and a distance of 10 miles as radius, and the water area with North Huang Cheng Dao Light Beacon as centre and a distance of 7 miles as radius are prohibited areas.

The middle channel between these two prohibited areas is a navigable channel.

Note:

(a) Characteristics of Lao Tie Shan Lighthouse (Lat. 38° 43′ 37″ N., Long. 121° 08′ 02″ E.) Fl. (2) 30 sec. 25 miles.

(b) Characteristics of North Huang Cheng Dao Light Beacon (Lat. 38° 23′ 40″ N., Long. 120° 54′ 33″ E.) Fl. 3 sec. 15 miles.

2. Merchant vessels intending to pass through Lao Tie Shan Channel must send a wireless message to "Harbour Master, Dalian" at least 8 hours prior to the passage reporting the following matters:

Ship's name, nationality, call sign, port of departure, port of destination, speed, colours of ship's hull, funnel mark and the accurate expected time to pass the line joining Lao Tie Shan Lighthouse and North Huang Cheng Dao Light Beacon.

Note:

(a) Dalian Coastal Wireless Station:
Signal letters: X S Z; calling frequency 500 kHz;
Working frequency: 462 kHz; 8694 kHz; reserve frequency: 8678 kHz; working day and night.

(b) If weather conditions should cause any change in the expected time of passage, the facts must be immediately reported to "Harbour Master, Dalian".

3. Merchant vessels passing through the Lao Tie Shan Channel must show the lights or signals in accordance with the International regulations for Preventing Collisions at Sea, 1972.

4. Vessels are prohibited to pass through the area with Hai Mao Dao (Lat. 38° 52′ N., Long. 121° 01′ E.) as centre and a distance of 10 miles radius.

5. Any vessel violating any of the above mentioned regulations will be held responsible for all consequences.

Guide to Foreign Vessels Calling at Dalian (Dairen): Also see "Dairen" - Shipmaster's Report, dated April 1984.

(1) When entering or leaving Dalian Harbour please pass through the channel between Daisansantao and Hwangpotsui. You are not allowed to navigate within area 2.5 miles radius from Daisansantao Lighthouse Lat. 38° 51′ 50″ N., Long. 121° 49′ 20″ E. and 1 mile radius from Lighthouse Hwangpotsui Lat. 38° 54′ 14″ N., Long. 121° 42′ 54″ E.

(2) After entering joining line between Daisansantao and Hwangpotsui Lighthouses, radar, radio transmitter and other forbidden articles are prohibited from use, in case of danger or necessity for transmitting emergency message you must report to Harbour Superintendency Administration immediately after using.

(3) You are requested to wait for quarantine and Pilot within area bounded by lines connecting the following areas: Lat. 38° 57′ 02″ N., Long. 121° 45′ 00″ E., Lat. 38° 55′ 30″ N., Lat. 121° 44′ 28″ E., Lat. 38° 57′ 02″ N., Long. 121° 41′ 11″ E., Lat. 38° 56′ 19″ N., Long. 121° 41′ 11″ E.

(4) All merchant vessels are informed that vessels passing through the Liau-ti-shan Channel entering or leaving the Port of Dalian, besides it ought to observe the regulations relating to the Liau-ti-shan Channel, must keep the way to navigate through the Southern water area beyond the tangent line joining from the Encounter Rock (Lat. 38° 34′ 21″ N., Long. 121° 38′ 12″ E.) to the outer verge of the Liau-ti-shan prohibited area and the Eastern water beyond Northward meridian line of the Encounter Rock to the continent.

(5) Dalian Coast Radio Station.

Call sign:	XSZ
Calling frequency:	500 kHz
Working frequency:	462 kHz
Answering frequency:	8694 kHz
Listening frequency:	8364 kHz

Working day and night.

Guide to Foreign Vessels Calling at Huangpu (Whampoa).

(1) Foreign vessels are prohibited to sail in the water areas of the joint lines among Vanshan, Chaieng and Tankan Islands, except the route as designated hereunder:

(a) The vessels calling at Huangpu from ports other than Hong Kong, should proceed from seaward to Lat. 21° 40′ 44″ N., Long. 113° 56′ 00″ E. and set course to 318°T, or to Lat 21° 37′ 30″ N., Long. 113° 37′ 45″ E. and set course to 047°T; proceed to Lat. 21° 47′ 45″ N., Long. 113° 49′ 32″ E. then alter course to 013°T; proceed to Lat. 22° 00′ 00″ N., Long. 113° 52′ 34″ E., then alter course to 334°T; to Lat. 22° 05′ 36″ N., Long. 113° 49′ 36″ E., then straight to Lafsami Pilot Anchorage waiting for Pilot.
Vessels departing should sail along the opposite course and positions above mentioned, after disembarking Pilot at Lafsami Pilot Anchorage.

(b) The vessels calling at Huangpu from Hong Kong should proceed throught West Lamma Channel to Lat. 22° 08′ 44″ N., Long. 113° 55′ 30″E. then alter course to 295°T; to Lat. 22° 12′ 04″ N., Long. 113° 47′ 41″ E. then alter course to 204°T to Lat. 22′ 10′ 36″ N., Long. 113° 47′ 00″ E. then straight to Lafsami Pilot Anchorage waiting for Pilot.
The vessels departing for Hong Kong should sail along the opposite course and positions above mentioned, after Pilot disembarked at Lafsami Pilot Anchorage.

(2) The position of Lafsami Pilot Anchorage:
Lat. 22° 07′ 20″ to 22° 08′ 30″ N.
Long. 113° 45′ 48″ to 113° 47′ 54″ E.
3. Kwangchow (formerly Canton) Coastal Radio Station:

Call sign:	XSQ
Calling frequency:	500 kHz
Working frequency:	445 kHz
Answering frequency:	8514 kHz
Listening frequency:	8364 kHz

Working day and night.

Guide to Foreign Vessels Calling at Qinhuangdao (Chinwangtao):

(1) When non-military foreign vessels call at Qinhuangdao, they may pass through Liau-Ti-Shan channel. For governing regulations, please refer to "Regulation for merchant vessels passing through Liau-Ti-Shan Channel". If a vessel violates the said regulations and enters the prohibited area, the Master of the vessel is to be held responsible for whatever consequence arising therefrom.

(2) All foreign vessels should anchor 3 miles off Qinhuangdao Lighthouse waiting for Pilot. In case vessels come from foreign ports, quarantine inspection will be carried out at anchorage. After all formalities completed vessels can enter the harbour with Pilot.

(3) In order to make necessary arrangements beforehand, when vessels calling at this port, the ship should send the following information to Penavico Qinhuangdao:

(a) Vessels ETA, the draft fore and aft, stowage plan (if loading export cargo), length overall and derricks' capacities (if first call this port).

(b) Further advice of accurate time of arrival will be required 24 hours before arrival.

(c) If any change in the arrival time owing to certain cause, it should be reported to the Agents immediately.

(4) If weather permits, vessels are requested to lift up all derricks before going alongside, thus enabling vessel to load cargo immediately after berthing.

(5) All telegrams to "Penavico Qinhuangdao" from the vessels at sea should be sent via Qinhuangdao Coastal Radio Station:

Call sign;	XSE
Working frequency:	286, 8734 kHz
Calling frequency:	500, 8364 kHz
Working hours:	0600 – 2400

Guide to Foreign Vessels Calling at Taku Bar:
(Xiang Jiang, Tanggu and Tianjin)

(1) Foreign vessels entering Bohai (Pohai Gulf) are only allowed to pass through Changshan Channel and/or Liau-ti-Shan Channel. If the latter way is taken, the vessel must send a wireless message to "Harbour Master, Dalian" for directions 8 hours prior to passage. It should be noted that no other channels are permitted for navigation.

(2) Vessels passing Liau-ti-Shan Channel for Dalian must take a detour along the East of "Encounter Rock".

(3) Position of sunken dredger "SE Ho" is at Lat. 38° 31′ 00″ N., Long. 119° 10′ 05″ E. Vessels should keep far away from the above mentioned area during navigation.

(4) Position of the Taku Bar Light Vessel is at Lat. 38° 56′ 51″ N., Long. 117° 55′ 32″ E. Vessels may anchor at N.E. direction of the Light Vessel, according to different condition of vessel's arrival draft, to wait for Pilot.

(5) Vessels are prohibited to enter into the area joining the following four buoys:

Lat.	Long.	
38° 56′ 35″ N.	117° 58′ 33″ E.	flash every 6 secs.
38° 56′ 29″ N.	117° 59′ 11″ E.	flash red (2) every 6 secs.
38° 55′ 45″ N.	117° 58′ 59″ E.	flash red every 6 secs.
38° 55′ 51″ N.	117° 58′ 22″ E.	flash (2) every 6 secs.

(6) Vessels may send radiogram to "Penavico Xiang Jiang" (via Xiang Jiang Coastal Radio Station, Call Sign XSV, calling frequency 500 kHz, working frequency 445 kHz, reserve frequency calling 8600 kHz, listening 8364 kHz, working hours 0000 – 2400) giving exact *ETA also fore and aft draft, before entering Bohai (Pohai Gulf).*

(7) The pilot station is at Tanggu. Any foreign vessel, according to harbour regulations, is required to have a Chinese Pilot when entering or leaving the port and among Taku Bar, Xiang Jiang, Tanggu and Tianjin. The Pilot will board the vessel at Taku Bar Anchorage after receipt of exact ETA given by the Master.

Guide to Foreign Vessels Calling at Qingdao (Tsingtao):

(1) Definite route must be taken when sailing in or out : From Lat. 35° 56′ 24″ N., Long. 121° 05′ 00″ E. to Lat. 35° 56′ 24″ N., Long. 120° 46′ 42″ E. course 270° (090°).
From Lat. 35° 43′ 15″ N., Long. 120° 53′ 09″ E. to Lat. 35° 56′ 24″ N., Long. 120° 46′ 42″ E. course 335° (155°).
Thence from Lat. 35° 56′ 24″ N., Long. 120° 46′ 42″ E. course 283° (103°) to Lat. 36° 02′ 00″ N., Long. 120° 15′ 56″ E. then alter course 000° (180°) proceed to Quarantine Anchorage within following 4 points: Lat. 36° 05′ 18″ N., Long. 120° 15′ 34″ E.; Lat. 36° 05′ 18″ N., Long. 120° 16′ 50″ E.; Lat. 36° 04′ 00″ N., Long.120° 16′ 22″ E.; Lat. 36° 04′ 00″ N., Long. 120° 15′ 20″ E.

(2) Pilot station is within the area: with the point Lat. 36° 02′ 00″ N., Long. 120° 18′ 16″ E. as its centre and 3 cables length as its radius (all called Outer Anchorage where vessels inward anchor for initial clearance from Authorities).

(3) Dropping and dragging anchor are strictly prohibited within the following areas:

(a) Within the 4 points: Lat. 36° 04′ 00″ N., Long. 120° 14′ 00″ E.; Lat. 36° 03′ 12″ N., Long. 120° 17′ 00″ E.; Lat. 36° 03′ 27″ N., Long. 120° 14′ 00″ E.; Lat. 36° 02′ 40″ N., Long. 120° 16′ 56″ E.

(b) Within the 4 points: Lat. 36° 02′ 42″ N., Long. 120° 20′ 00″ E.; Lat. 36° 00′ 48″ N., Long. 120° 18′ 00″ E.; Lat. 36° 03′ 36″ N., Long. 120° 23′ 16″ E.; Lat. 35° 59′ 48″ N., Long. 120° 18′ 30″ E.

(4) Must advise ETA Chalientao 24 hours before ship's arrival.

(5) When abeam Chalientao on ship's entry, should cable again immediately time abeam Chalientao and accurate time arriving pilot station and awaiting Authorities instructions attentively.

(6) Proceeding on above mentioned route following stipulations should be observed:

(a) Ship's national flag and code flags should be flown in daytime.

(b) Dumping rubbish and pumping out oil and oily substance are prohibited.

(c) If by some reasons the vessel needs to anchor, Master should report to Harbour Authorities first for permission.

(7) Within harbour limit the prohibited articles should not be used. In case the use of radar is required for navigation, Master should report to Harbour Authorities beforehand.

(8) Above mentioned Regulations should be strictly complied with. Otherwise the vessel is held responsible for all the consequences arising from the violation of the above.

(9) Qingdao Coastal Radio Station:

Call sign:	XST
Calling frequency:	500 kHz
Working frequency:	435 kHz
Answering frequency:	8546 kHz
Listening frequency:	8364 kHz

Working day and night.

Guide to Foreign Vessels Calling at Lianyungang (Lienyunkang):

(1) Foreign vessels must anchor at pilot station to wait for Pilot. Pilot anchorages:
- (a) For vessels under 5,000 d.w.t.
  Lat. 34° 45′ 20″ N., Long., 119° 31′ 36″ E. (about 3,000 m. East of Tunglientao Lighthouse).
- (b) For vessels over 5,000 d.w.t.
  Lat. 34° 46′ 54″ N., Long. 119° 34′ 45″ E. (about 4.5 miles off Tunglientao Lighthouse).

(2) Foreign vessels calling this port shall advise the Agents (Penavico Lianyungang) of her ETA via the Shanghai Coastal Radio Station.

Guide to Foreign Vessels Calling at Zhanjiang:

(1) Pilot station: North Anchorage of Nau Chow Island.
Lat. 20° 58′ 21″ N., Long. 110° 36′ 42″ E.

(2) Zhanjiang Coastal Radio Station:

Call Sign:	XSJ
Calling frequency:	500 kHz
Working frequency:	462 kHz
Answering frequency:	8614 kHz
Listening frequency:	8364 kHz

Working day and night.

Guide to Foreign Vessels Calling at Basuo (Pasuo):

(1) Basuo Coastal Radio Station:

(a) Call Sign:	XSH	
(b) Working frequency:	452 kHz	0000 – 2400 (local time)
	4278 kHz	1800 – 0900 (local time)
	8634 kHz	0900 – 1800 (local time)
(c) Listening frequency:	500 kHz	0000 – 2400 (local time)
	4182 kHz	1800 – 0900 (local time)
	8364 kHz	0900 – 1800 (local time)

(d) Traffic list at 20 minutes pass every odd hour.

(2) Pilot station:
Lat. 19° 07′ 09″ N., Long. 108° 36′ 02″ E.
Bearing upon Telanchau 175° (T) distance 1 mile.

(3) Signal station.
The signal station is on top of Telanchau Hill (Lat. 19° 06′ N., Long. 108° 37′ E.) with light beacon of white light Gp. Fl. (2) 6 sec. 54 m. 12 M. at night.

(4) Radio report before ship's arrival:
Masters are requested to advise "Penavico Basuo" of the following particulars. 48 hours before ship's arrival or right after departure from last port:
- (a) 48 and 16 hours ETA.
- (b) Route taken (via Hainan Straits or Yulinkong).
- (c) Cargo to be loaded in each hold and/or tweendeck.
- (d) The ship's length overall (first call only).
- (e) Ship's breadth (first call only).
- (f) T.P.I. (laden) (first call only).

Remarks: All derricks up and beams off before arrival if and when weather permits.

Guide to Foreign Vessels Calling at Wenzhou (Wenchow):

(1) When arriving at or departing from the Port of Wenzhou, foreign vessels should pass through Whang Dan Sha Channel to enter or leave the Quarantine and Pilot Anchorages.

Before reaching Whang Dan Sha Channel, the vessels should navigate along the water areas 27° 46′ N. – 27° 54′ N. between Fu Tou You Light Beacon and Dong Yu, Dong Tou, Heng Zhi Shan Light Stations, but keep off the area within 27° 55′ N. – 28° 05′ N. and 121° 35′ E. – 121° 55′ E. a suspected minefield.

The vessels should not be allowed to enter into the water areas East of the joint line of Dong Yu and Heng Zhi Shan Light Stations, and also the water areas West of Fu Tou You Light Beacon and Dong Tou Light Station for navigation or anchorage.

(2) Quarantine Anchorage is in the water area with the point Lat. 28° 01′ 10″ N., Long. 121° 05′ 20″ E. as its centre and 0.6 nautical miles in length as its radius.

(3) The above Regulations should be effective as from 0000 hrs. 1st January, 1972, and observed by the foreign vessels accordingly.

(4) Aids to navigation available for fixing ships position.
- (a) Fu Tou You Light Beacon:
  Lat. 27° 50′ 08.7″ N., Long. 121° 14′ 48.8″ E.
  White light Gp. Fl. 6 sec. 99 m. 16 M. (U).
  Fog signal sounded on foggy day.
- (b) Dong You Light Station:
  Lat. 27° 55′ 56.8″ N., Long. 121° 13′ 24″ E.
  White light Gp. Fl. (3) 10 sec. 39 m. 9 M. (U).
- (c) Dong Tou Light Station:
  Lat. 27° 57′ 43.5″ N., Long. 121° 08′ 46.7″ E.
  White light Gp. Fl. (2) 6 sec. 21 m. 7 M. (U).
- (d) Heng Zhi Shan Light Station:
  Lat. 28° 01′ 03″ N., Long. 121° 08′ 34″ E.
  White light Gp. Fl. (3) 10 sec. 58 m. 7 M. (U).
- (e) Quarantine Light Buoy:
  Lat. 28° 01′ 10″ N., Long. 121° 05′ 20″ E.
  Orange and yellow can buoy; orange and yellow light Gp. Fl. (2) 6 sec.
- (f) Yuan Yi Shan and Lang Dang Light Stations should be suspended to navigate by the foreign vessels as from 0000 hrs. 1st January, 1972.

Other points for attention:

When it is necessary for the foreign vessels to call at Fuzhou, Xiamen, Shantou and Beihai, it is requested to contact Messrs. Penavico at relative port direct 48 hours before vessel's arrival at the port in order to know the position of pilot station and quarantine anchorage as well as directions to be observed for navigation.

Regulations Governing Supervision and Control of Foreign vessels by the People's Republic of China (ENGLISH TRANSLATION)

Dated: 1979

GENERAL PROVISIONS

Article 1

These Regulations have been formulated with a view to safeguarding the sovereignty of the People's Republic of China, to maintaining traffic order in port areas and coastal waters, to ensuring safety of navigation and to preventing pollution of waters.

Article 2

These Regulations as well as all relevant laws, statutes and rules issued by the Government of the People's Republic of China shall be complied with by all foreign vessels (hereinafter referred to as "vessels") navigating in port areas and coastal waters of the People's Republic of China. Vessels shall be subject to inspections by the Harbour Superintendency Administration set up in the port by the Government of the People's Republic of China where the latter deems such inspections necessary.

The term "coastal waters" mentioned in these Regulations means inland waters and territorial sea of the People's Republic of China as well as water areas officially defined as coming under the jurisdiction thereof.

Part 1 ENTRY, DEPARTURE AND NAVIGATION

Article 3

The Master or owner of a vessel shall, a week prior to its expected arrival at the port, submit the required forms to the Harbour Superintendency Administration through the vessel's port Agent for completion of entry formalities, and shall report, 24 hours in advance of her arrival (or on her departure from the last port of call if the voyage takes less than 24 hours), the vessel's ETA, fore and aft drafts on arrival to the Harbour Superintendency Administration through the port Agent. Should there be any change in the ETA, same shall be reported in time.

A report shall be submitted in advance to the Harbour Superintendency Administration in case of special circumstances, such as the vessel being in distress, the engines broken down or her crew or passengers suffering from acute disease, which necessitate the vessel to make an emergency entry into or to return to the port during the voyage.

Article 4

No vessel shall enter or leave the port, or navigate or shift berths therein without a Pilot being appointed by the Harbour Superintendency Administration. Matters regarding pilotage shall be dealt with according to the Regulations with respect to Sea-port Pilotage issued by the Ministry of Communications of the People's Republic of China.

Article 5

Upon arrival at the port, vessels shall immediately submit the Entry Report and other relevant forms for checking; besides, vessels shall submit ship's papers and relevant documents for examination and be subject to inspections. Prior to leaving, vessels shall submit the Departure Report and other relevant forms for clearance examination and may only leave the port after port clearance has been obtained.

Article 6

Upon arrival at the port, arms and ammunition on board are to be sealed up by the Harbour Superintendency Administration. Radio-telegraph transmitter, radio-telephone transmitter, signal rockets, flare signals and signal guns shall only be used in case of emergency, and a report shall be made to the Harbour Superintendency Administration immediately afterwards.

Article 7

Shooting, swimming, fishing, setting off of firecrackers or fireworks and other actions calculated to endanger the order and security of the port shall be prohibited.

Article 8

The Harbour Superintendency Administration is fully authorised to detain the vessel concerned, or to order the vessel to stop sailing, to change route or to return to the port under any of the following circumstances:
- (a) unseaworthiness;
- (b) violation of laws or regulations of the People's Republic of China;
- (c) involvement in marine accident;
- (d) non-payment of expenses to which the vessel is liable or failure to produce security required; or
- (e) other cases prohibiting the vessel from sailing.

Article 9

Vessels navigating in Chinese port areas and coastal waters shall not be engaged in activities endangering the national safety, rights and interests of the People's Republic of China and shall comply with regulations governing straits, waterways, routes and areas closed to navigation.

Article 10

Vessels navigating within the port areas shall not proceed at a speed liable to endanger the safety of other vessels and port installations.

Article 11

Boats (rafts) attached to vessels shall not be manoeuvred within port areas except for life-saving purposes.

Article 12

No vessel shall have its boats, derricks and gangways, etc., rigged outboard while navigating or shifting berths within port areas.

Article 13

Vessels requiring to enter any of the Chinese ports open to foreign trade for shelter or temporary stay shall apply to the Harbour Superintendency Administration for permission. Such application shall state: name of the vessel, call-sign, vessel's nationality, name of the shipping company, port of sailing, port of destination , vessel's position, speed, drafts, colour of hull and colour and mark of funnel. Such vessels shall take shelter at places designated.

Vessels requiring to take shelter or to lie at anchor temporarily at places other than any of those Chinese ports open to foreign trade shall, in addition to the above formalities observe the following regulations:

(a) reporting promptly to the nearest Harbour Superintendency Administration the time and position of anchoring and the time of departure;

(b) fulfilling the requirements of local authorities concerned and submitting to their inspections, inquiries and instructions; and

(c) no one to be allowed ashore and no cargo loaded or discharged without permission of local authorities concerned.

Part 2 BERTHING

Article 14

While berthing in port, vessels shall have on board a sufficient number of men to ensure safe manoeuvring, and, in case of emergency such as typhoon warning, etc., all hands shall return immediately aboard to take necessary precautions and urgent measures.

Article 15

Gangways for access of crew members, passengers and other persons shall be properly secured and fitted with railings or manropes. Rope ladders shall be safe and strong. Sufficient illumination shall be available at night.

Article 16

Vessels requiring to turn propellers shall pay close attention to the surroundings at the stern, and shall only do so under the condition that the safety of other vessels and harbour installations has been ensured.

Article 17

While berthing in port, all exhaust valves and discharge openings of the vessel which may give trouble to other vessels, harbour craft, the wharf or the access of persons shall be properly covered.

Article 18

No light of any vessel shall be exhibited in such a manner as to impair the safe navigation of other vessels; strong lights directed at the fairway must be properly screened.

Article 19

All vessels should be in safe and good working condition for cargo operation as required. All cargo handling equipment should be maintained in good working order and certificate of fitness should be made available.

Article 20

Vessels shall apply in advance for and obtain permission from the Harbour Superintendency Administration before carrying out the following operations:

(a) overhauling of any boiler, main-engine, windlass, steering gear or radio-station;

(b) trial trip of engine-test;

(c) lowering boat (raft) for life-saving drill;

(d) welding (except for repairing in shipyard) or working with naked light on deck; or

(e) decorating with colourful lights.

Article 21

Vessels under fumigation shall take strict safety measures and exhibit appropriate signals prescribed by the Harbour Superintendency Administration.

Article 22

In order to ensure the safety of the port and vessels, when ordered to shift berth or to sail ahead of or behind the schedule, vessels shall observe such orders as given by the Harbour Superintendency Administration.

Part 3 SIGNALS AND COMMUNICATIONS

Article 23

Vessels navigating or berthing in Chinese port areas or coastal waters shall by day hoist the national flag of the country of registry. On entering or leaving port or shifting berths, vessels shall in addition display signal-letters and relevant signals prescribed by the Harbour Superintendency Administration.

Article 24

When entering or leaving port or at anchor, vessels shall pay close attention to the call and signals of the port signal-station. When visual signals are used, the Regulations with respect to Coastal Port Signals issued by the Government of the People's Republic of China shall be complied with. Where signals are not specified by Chinese coastal ports, the International Code of Signals shall be applicable.

Article 25

Vessels shall not make sound signals at will within the port except when necessitated by safety of navigation. Vessels requiring to test whistles shall make an advance report to the Harbour Superintendency Administration.

Article 26

Vessels making use of their VHF radio-telephone in port shall comply with the Provisional Regulations governing the Use of VHF Radio-telephone by Foreign Vessels issued by the Ministry of Communications of the People's Republic of China.

Part 4 DANGEROUS CARGOES

Article 27

Vessels carrying or handling dangerous cargoes shall exhibit the prescribed signals, comply with the regulations relating to the carriage of dangerous cargoes and take all necessary safety measures. Cargoes of contradictory nature, in particular, must be separately stowed. It is strictly forbidden to stow explosives with ignitable materials or inflammable cargoes in the same hold.

Article 28

Vessels carrying Grade 1 highly hazardous cargoes shall, 3 days prior to the ETA, apply to the Harbour Superintendency Administration through their port Agent for endorsement, with their descriptive names, properties, packing, quantity, place of stowage stated in detail and a booklet of Description of Dangerous Materials attached, and shall not enter the port, discharge the cargoes or make transit unless permission has been obtained. Such cargoes being: explosives, highly poisonous articles, radio-active substances, compressed gases, liquefied gases, oxidising agents, substances liable to spontaneous combustion, substances which, in contact with water, emit inflammable gases, inflammable liquids, inflammable solids, acidic corrosives, etc.

Vessels intending to carry the above-mentioned hazardous cargoes for export shall, 3 days prior to the loading thereof, apply for endorsement and shall not load until permission has been obtained.

Article 29

Vessels applying for Certificate of Safety Stowage of Export Dangerous Cargoes shall, 3 days prior to loading, submit a written application to the Harbour Superintendency Administration, stating, inter alia: descriptive names, properties, packing, quantity, place of stowage (accompanied by stowage plan), intermediate ports, port of destination, and shall load at the berths designated by the Harbour Superintendency Administration.

Part 5 FAIRWAY PROTECTION

Article 30

Vessels under way shall comply with the Rules of Navigation and maintain traffic order. In case of accidents involving the risk of sinking, a report shall immediately be made to the Harbour Superintendency Administration and all effective measures shall be taken to steer clear of the fairway to avoid impeding the traffic and endangering other vessels. If the vessel is sunk, a temporary signal shall promptly be marked by the parties involved at the place of the wreck.

Article 31

Salvage operations on shipwrecks or other objects in port areas or coastal waters shall be carried out in accordance with the Regulations Governing the Salvage of Shipwrecks or Sunken Objects issued by the Government of the People's Republic of China. The Harbour Superintendency Administration may, as it thinks fit, notify the owners thereof to carry out salvage and clear the fairway within a specified time, or to arrange an immediate salvage to refloat or demolish the sunken vessel or object and to clear the fairway, with all responsibilities and expenses incurred borne by the owners concerned.

Article 32

Where any sunken or floating object has been found by any vessel, a report thereon shall be made and the object salvaged handed over to the Harbour Superintendency Administration, whereupon, a reward may be given by the latter as appropriate.

Article 33

Where any vessel wishes to dispose of any refuse such as garbage in port, it shall exhibit signals prescribed by the Harbour Superintendency Administration to request ash boats (cars).

Article 34

Fairway installations and aids to navigation shall be well cared for. Vessels causing damages thereto or to harbour constructions or other facilities shall report immediately to the Harbour Superintendency Administration and shall be held responsible for the restoration made or the expenses incurred.

Part 6 PREVENTION OF POLLUTION

Article 35

No vessel shall discharge oils, oily mixtures or other harmful pollutants or refuse within port areas and coastal waters of the People's Republic of China.

Article 36

If any ballast water, tank washings or bilge water is to be discharged from any vessel, an application shall be made to the Harbour Superintendency Administration for approval. Where a vessel has arrived from a plague-infested port, necessary sanitary treatment should been given by the Quarantine Authorities. Dirty water and hold washings from holds where dangerous cargoes or harmful pollutants have been stowed shall only be discharged at the designated place after their having been tested by and to the satisfaction of the sanitation departments concerned.

Article 37

Oil tankers and vessels with oil as fuel shall carry the Oil Record Book on board and make appropriate entries as required.

Article 38

Where a pollution has occurred within the port area or coastal waters, the vessel at fault shall have all relative particulars entered in the Oil Record Book and the Deck Log, and shall have the matter immediately reported to the Harbour Superintendency Administration. Meanwhile, all effective measures shall be taken to prevent the oil from spreading. Where any chemicals should be applied, an application together with a description of their compositions and properties shall be sent to the Harbour Superintendency Administration for approval.

Article 39

Matters not provided for in this part shall be dealt with in accordance with the regulations relating to the prevention of pollution of marine environment issued by the Government of the People's Republic of China.

Part 7 FIRE FIGHTING AND SALVAGE

Article 40

Smoking or naked flames in the hold or elsewhere liable to cause fire hazard to the vessels is strictly prohibited.

Article 41

Vessels bunkering oil or oil/tankers handling cargo oil shall take strict fire prevention measures for safety.

Article 42

While welding in port, vessels shall clean up the surrounding area beforehand, take strict precautionary measures, be provided with fire-fighting apparatus and examine the work site before and after the operation. No welding can be done inside or near oil compartments, unless and until all the oil has been emptied, oil residues cleared out, the compartments sufficiently ventilated, the inflammable gases expelled, and a certificate of fitness obtained.

Article 43

Should any vessel be involved in a fire hazard or marine casualties, an immediate report shall be made to the Harbour Superintendency Administration. Such report must contain ship's position, tonnage, drafts, cargo on board, damages suffered and assistance required.

Article 44

Where necessary, the Harbour Superintendency Administration may order and direct any vessel in port or in coastal waters to rescue the vessel in distress. The vessel so ordered and directed is obliged to do its utmost to render every possible assistance as long as its own safety will not be endangered.

Article 45

As soon as the officers from the Harbour Superintendency Administration or the salvage departments concerned have arrived, the Master of the vessel in distress shall report the accident occurred and measures taken so far, provide all information and facilities required and make suggestions with regard to the salvage as appropriate. All decisions taken by the Harbour Superintendency Administration for maintaining safety and order shall be complied with by all parties concerned.

Part 8 MARINE ACCIDENTS

Article 46

Should any vessel be involved in marine accident, the Master shall give the Harbour Superintendency Administration a summarised report by telegram or radio-telephone soonest possible. In case the accident has occurred outside of port areas, the Master shall, within 48 hours of the vessel's arrival at the first port of call, submit a marine accident report to the Harbour Superintendency Administration. Such report shall be submitted within 24 hours of the accident if the same has happened in port.

Article 47

Should any vessel be involved in marine accident causing death of or injury to persons or damages to properties in port areas or coastal waters of the People's Republic of China, the Master of the vessel at fault shall render every possible assistance to the ship and persons in distress, make timely report to the Harbour Superintendency Administration and be prepared for investigation and settlement. Should the party at fault refrain from rendering any assistance in spite of the imminent danger or flee into hiding, severe punishment will be imposed.

Article 48

Should death happen to any person on board, an immediate report thereof shall be sent to the Harbour Superintendency Administration. Where any damage or death has caused to the port or its persons through the fault of the ship, or vice versa, the spot should be kept untouched and timely reports should be given to the Harbour Superintendency Administration by both parties. In case of dispute, either party may resort to the Harbour Superintendency Administration for investigation and settlement. Matters involving penal proceedings shall be dealt with by judicial organs of the People's Republic of China.

Article 49

Matters not provided for in this part shall be dealt with in accordance with the Regulations Governing Investigation and Settlement of Marine Accidents promulgated by the Ministry of Communications of the People's Republic of China.

Part 9 PENALTIES FOR VIOLATION OF REGULATIONS

Article 50

Vessels violating these Regulations and all relevant laws, statutes and rules issued by the Government of the People's Republic of China shall, according to the seriousness of the case, be warned or fined by the Harbour Superintendency Administration. All offences of vicious or serious nature shall be handed over to the judicial organs.

Article 51

Any offender not yielding to the conclusions made by the Harbour Superintendency Administration may, within 15 days of the receipt thereof, appeal to the Bureau of Harbour Superintendency of the People's Republic of China. The above said conclusions, however, shall remain valid before its being modified.

Part 10 SUPPLEMENTARY PROVISIONS

Article 52

Matters concerning prevention of collisions not provided for in these Regulations and relevant rules and regulations issued by the Government of the People's Republic of China shall be dealt with in accordance with the International Regulations for Preventing Collisions at Sea accepted by the Government of the People's Republic of China.

Article 53

These Regulations shall become effective upon the approval by the State Council of the People's Republic of China. The Regulations Governing Entry and Departure of Foreign Vessels Into and From Ports of the People's Republic of China promulgated by the Ministry of Communications of the People's Republic of China on the 12th March, 1957 shall at the same time repealed.

BASUO
NEW BEI HAI
BZ 28

✓

CHIWAN, Including Shekou: 22.28 N. 113.53 E.

(See Plan)

LOCATION: Shekou Gang (port) is about 30 kilometres from Shenzhen Urban District and about 20 nautical miles from the centre of Hong Kong. The port is an important component of the expanding Shenzhen economic special zone (Sez).

The port area covers wharves in Shekou and Chiwan and is still under further development.

PILOTAGE: Compulsory for foreign vessels entering and leaving the port. Pilot boards in position Lat. 22° 25.5′ N., Long. 113° 53.1′ E.

ANCHORAGE: The anchorge, with depths of 5 m. – 11 m. (mud and sand bottom with good holding ground), can accommodate more than 10 vessels of 5,000 to 10,000 d.w.t. and can also be used as a typhoon shelter for vessels over 1,000 d.w.t. The area Eastward of Wuwan Channel Light Buoy No. 5 serves as the anchorage for medium and small size vessels.

CHANNELS: Shekou Port Channel is sub-divided into Shekou Port Area Channel and Chiwan Port Area Channel. The former comprises the outer one between light buoys No. 1 to No. 5, and the inner one between light buoys No. 5 to No. 9. The channel has a total length of 3.14 miles, a width of 60 m. and a minimum depth of 5.8 m.

Chiwan Port Area Channel, with a total length of 1,000 m., a width of 80 m. and a minimum depth of 9 m. is marked by the light buoys No. 1 to No. 3. Light buoy No. 1 is at the entrance of the Chiwan Port Area. Light buoys No. 2 and No. 3 are positioned at the junction of the basin and the channel.

BERTHING:

Name	*Position*	*Length* (m.)	*Depth* (m.)	*Capacity* No. Tons
Shekou				
Southsea Oil	Wuwan	340	5.9	3×5,000
Passenger Berth	Wuwan	150	3.5	2×1,000
Small Passenger Berth	Wuwan	22	3.5	
Hovercraft Berth	Wuwan	22	3.5	
Jetty Berth No. 1	Wuwan	123	3.5	1×1,000
Jetty Berth No. 2	Wuwan	200	6.0	1×5,000
Jetty Berth No. 3	Wuwan	110	6.0	1×5,000
Sino-British Oil Wharf	Wuwan	100	4.0	1×3,000
Dong Jiao Tou	Wuwan	100	5.5	1×5,000
Chiwan				
Berth No. 1	Chiwan	200	10.0	1×20,000
Berth No. 2	Chiwan	250	10.0	1×20,000
Nanhai Oil Wharf	Chiwan	300	6.6	
Aquatic Wharf				
Wharf No. 1	Shekou	(long frontage for small coastal vessels)		

Warehouse and Storage: Warehouses No. 1 to No. 3 have a total capacity of 19,500 sq.m., but the total space is not yet fully operational. The container stacking area is 13,300 sq.m. and the storage area for goods in bulk and steel products are 2,500 sq.m. and 5,500 sq.m. respectively.

SHIPMASTER'S REPORT: April 1984.

New port still under construction situated in Lat. 22° 28.5′ N., Long. 113° 53′ E. Pilot station is located in position Lat. 22° 25′ N., Long. 113° 52.6′ E. It is reached by passing through Hong Kong East Lamma Channel then passing North of Ma Wan Island. There is plenty of water until the pilot station. Anchorage is in very good holding ground. Density of water at any stage of the tide is 1020. Alongside the pier (only one working at the moment), the depth is 8.5 m. but the bottom is soft mud. At HW it varies from 9.5 m. to 10 m. according to the stage of the tides. Fresh water is available at a low rate alongside the pier. Chiwan Radio working on Channel 16 and 84. Discharging at about 1,000 tons per day with ship's gear and shore cranes. Only one crane is assembled at the moment. 3 cranes of 10 tons capacity will be available in the near future, 1 crane of 40 tons is already working.

Facilities to go to Hong Kong: (2 photographs must be available for the Immigration Visa) Hong Kong dollars are accepted as currency. US dollars must be changed at the local Banks. Entering and leaving the port only during daylight hours. 2 low powered tugs assisting mooring and unmooring the ship.

DALIAN ✓ (Dairen): 38.55 N. 121.40 E. **(See Plan)**

Also see "General" before first port.

ANCHORAGES:

Quarantine Anchorage:		
	Lat. 38° 57′ 00″ N.	Long. 121° 42′ 00″ E.
	Lat. 38° 57′ 00″ N.	Long. 121° 46′ 00″ E.
	Lat. 38° 56′ 18″ N.	Long. 121° 41′ 00″ E.
	Lat. 38° 55′ 00″ N.	Long. 121° 46′ 00″ E.
Fumigation Anchorage:		
	Lat. 38° 59′ 08″ N.	Long. 121° 45′ 00″ E.
	Lat. 38° 59′ 08″ N.	Long. 121° 46′ 55″ E.
	Lat. 38° 57′ 39″ N.	Long. 121° 45′ 00″ E.
	Lat. 38° 57′ 39″ N.	Long. 121° 46′ 55″ E.
Tanker Anchorage:		
	Lat. 38° 59′ 08″ N.	Long. 121° 42′ 30″ E.
	Lat. 38° 57′ 39″ N.	Long. 121° 42′ 30″ E.
	Lat. 38° 57′ 39″ N.	Long. 121° 45′ 00″ E.
	Lat. 38° 59′ 08″ N.	Long. 121° 45′ 00″ E.
Hei Zui Anchorage:		
	Lat. 38° 56′ 9.7″ N.	Long. 121° 37′ 38″ E.
	Lat. 38° 56′ 4.8″ N.	Long. 121° 37′ 31″ E.
	Lat. 38° 56′ 7.5″ N.	Long. 121° 37′ 38.2″ E.
	Lat. 38° 56′ 12.2″ N.	Long. 121° 37′ 35″ E.
Dalian Xin Gang Inner Anchorage:		
	Lat. 38° 58′ 36″ N.	Long. 121° 56′ 30″ E.
	Lat. 38° 58′ 36″ N.	Long. 121° 57′ 30″ E.
	Lat. 38° 57′ 30″ N.	Long. 121° 56′ 30″ E.
	Lat. 38° 57′ 30″ N.	Long. 121° 57′ 30″ E.
Dalian Xin Gang Outer Anchorage:		
	Lat. 38° 55′ 00″ N.	Long. 121° 59′ 00″ E.
	Lat. 38° 56′ 48″ N.	Long. 121° 59′ 00″ E.
	Lat. 38° 56′ 48″ N.	Long. 122° 02′ 00″ E.
	Lat. 38° 55′ 00″ N.	Long. 122° 02′ 00″ E.

MAX. SIZE: *Max. Draft:*

Type of Cargo	*Summer* (m.)	*Winter* (m.)
General/Ore	10.05	10.66
Iron/Fertiliser	9.75	10.36
Crude	14.93	(Not available)
Others	8.83	9.44

TUGS: Tugs up to 1,200 h.p. available.

BERTHING:

Area 1: For petroleum products with storage tanks and railway connection. Total berth length 847 m. with average depth 10 m., capable of accommodating 4 tankers of 10,000 d.w.t. each. Also 2 smaller berths for tankers of up to 3,000 d.w.t. This area is able to accept up to 10,000 tonnes of slops a day.

Area 2: This area can berth about 30 ships of various sizes (4 × 25,000 d.w.t., 11 × 10,000 d.w.t., 1 × 7,000 d.w.t., 7 × 5,000 d.w.t. and another 7 × 3,000 d.w.t.) Total length of berths 5,110 m. with depths of between 6.9 m. and 12.1 m. There are about 90 shore cranes.

Area 3: 4 berths, mainly for timber exports, totalling 825 m. with depths between 7 m. and 8 m. These berths can accept 2 × 5,000 d.w.t. and 2 × 7,000 d.w.t. log carriers. Railway connection up to berths.

Area 4: Mainly for coal exports with berth length of 400 m. and depth of 10 m., capable of accomodating 2 vessels of 10,000 d.w.t. each. There are 4 shore based cranes.

Area 5: The Nianyuwan Crude Oil Terminal can accept tankers up to 100,000 d.w.t. for loading and discharging. The export crude oil is sent by pipeline direct from the Daqing oil field, at a rate of 70,000 bbls/hr. The main berth (205 m.) has maximum depth 17.50 m., while two secondary berths on the other side have depth of 14 m., suitable for 50,000 d.w.t. tankers. Onshore storage capacity is about 350,000 tonnes and maximum slop receiving capacity is about 20,000 tonnes per day. Berths are equipped with fresh water supply, fire fighting equipment and tug services.

Area 6: Mainly for coastal and short sea (Japan/North Korea) vessels.

Area 7: For feeder vessels and other vessels owned and operated by the Port Authority.

MEDICAL: Hospital available.

FRESH WATER: Available.

FUEL: Available.

AIRPORT: Dalian Airport, flights to Hong Kong and Japan.

DEVELOPMENTS: Container Berth: Length 270 m. under construction. 2 × 30.5 ton Paceco portainers and 2 × 30.5 ton transtainers will be provided.

Grain Terminal: To be built for vessels of 80,000 d.w.t. 2×750 t.p.h. shiploaders to be installed.

SHIPMASTER'S REPORT: March 1980.

Berth: Oil Terminal No. 1 Berth (Lat. 38° 58′ 30″ N., Long. 121° 54′ 10″ E.).

Chart: B.A. 1798.

Draft: Departure draft, 38 ft. 4 in., fore and aft.

Approach: The approach to the Inspection/Pilot Boarding Anchorage is clear of obstructions but large concentrations of fishing vessels were encountered off Shantung Promontory.

Anchorage: S.E. of Hsien Chiao Light (Lat. 38° 57′ 45″ N., Long. 121° 59′ 05″ E.) and bounded by Positions:

Lat. 38° 55′ 42″ N., Long. 121° 59′ 00″ E.
Lat. 38° 56′ 48″ N., Long. 121° 59′ 00″ E.
Lat. 38° 56′ 48″ N., Long. 122° 02′ 00″ E.
Lat. 38° 55′ 42″ N., Long. 122° 02′ 00″ E.

Depth 15/18 fathoms.

Entry Inspection: Carried out at the Anchorage, during daylight hours, by 8 officials representing Customs, Immigration, Harbour Authority and Agency. The entry formalities were very easy and a Bonded Stores List was not required and the Bond was not sealed. The Immigration Officer checked all passports but a Crew muster was not required. After pratique has been granted and other entry formalities completed, 2 Immigration Guards stay on board until the vessel berths, and during this time they make out Crew Shore passes from Passports. After berthing, the Agent's representative lives on board during the vessel's stay and is very obliging and helpful.

Berth: A modern (1977) concrete dolphin structure with tower/elevator gangway and winches on all dolphins, 420 m. long, direction 149°/329°.

No. 1 (outside)	Max. size:	100,000 d.w.t.
	Depth:	17 m.
	Max. draft:	15 m.
	Max. length:	360 m. O.A.
	Loading arms:	4×12 in. Chicksans
	Max. load rate:	10,000 t.p.h.
No. 2 (inside)	Max. size:	50,000 d.w.t.
	Depth:	14 m.
	Max. draft:	12 m.
	Max. length:	230 m.

Fresh water is available on the berths but bunkers are supplied by barge from Dalian old port.

The berths are connected to the shore by a cantilever bridge approximately 0.5 miles long and vehicles are not permitted over the bridge.

There is a dirty ballast reception facility with a maximum rate of 3,000 t.p.h.

Berthing/Unberthing: Carried out at any time with 3 Pilots, 2 large and 1 medium tug for berthing and 2 Pilots and 2 large tugs for unberthing. Berthing at No. 1 Berth is always port side to and is straightforward with plenty of men for handling moorings. Starboard anchor is let go about 100 ft. off the berth. Pilots advise there can be moderate swell with E./S.E. winds.

On departure the vessel is swung to starboard off the berth by 2 tugs and the Pilots disembark shortly after the swing is completed. The Red Flashing Buoy in Lat. 38° 58′ 20″ N., Long. 121° 55′ 00″ E. is left to port when berthing and to starboard on sailing.

Communications: Agents: China Ocean Shipping Agency, Cable: Penavico, Dalian, require following message 7 days, or after sailing from previous port; name, call sign, nationality, ETA, draft fore and aft, cargo quantity to be loaded, crew's nationality and number, departure port and destination after Dalian.

72 hours: ETA, clean and dirty ballast to discharge, cash required.
48, 24 and 8 hours: ETA.
8/12 hours: ETA to Harbour Master Dalian.
8/12 hours: ETA, crew health condition to Port Health Dalian.

Dalian Port Radio can be contacted on VHF Channel 16 and will transfer call to Agents on Channel 9.

Agent: China Ocean Shipping Agency, will provide cash advance but any unused currency must be returned to Agent before departure. Foreign currency can be exchanged ashore. Agents will provide mini-bus/taxis for crew travel to Dalian Town which is about one hour's drive. After completion of loading there is a delay of 3 to 5 hours before documents are brought on board for signature. Immigration require all shore passes to be returned and Customs wish to sight Tonnage Dues Certificate provided on arrival. There is an armed guard stationed at the shore end of the gangway at all times, and he inspects shore passes and Passports when leaving and returning to the vessel.

Cargo: Taching Crude Oil. A.P.I.: 32 – 33, Pour Point: 28° – 33°C, Sulphur: 0.1%, Load Temp: 40° – 45°C.

Harbour Authority: As vessel's first call, authorities visited after arrival alongside and checked and inspected all safety and fire-fighting equipment, and required details of engine room bilge and sewage disposal whilst in port. Also checked Oil Record Book. They were a little concerned at direct mooring with wires and would perhaps be better to have rope pendants on mooring wires. Normal tanker port restrictions apply regarding pollution avoidance from oil, garbage and sewage, also no fishing is allowed either at anchorage or alongside. When alongside shore labour empty garbage receptacles once per day.

Chandler: Dalian Ocean Supply Corporation have a comprehensive range of catering supplies, and limited deck and engine stores. From the price list obtained the range and price of provisions was extremely competitive. As no stores were purchased quality cannot be commented upon although the Catering Officer did visit the store in Dalian and reported that most of the articles listed in their brochure seemed to be available and of reasonable quality. Our call being in Winter season, fresh vegetables, fruits, salads, etc., were in short supply.

Chandlers Cable Address: Supco, Dalian. Telephone 26820.

SHIPMASTER'S REPORT: September, 1980.

This is a brief report on port information obtained when vessel (42,764 g.r.t. 75,877 d.w.t.) called at Dalian in September, 1980 for loading Daqing Crude Oil.

Oil Terminal: Position Lat. 38° 59′ N., Long. 121° 54′ E.

Documents:

To be submitted to the Port Officials:

a) Crew Lists (Chinese Form)	6 copies
* Japanese crew members are required to fill in their names and address in Chinese characters	
b) Report of entry for foreign-going ship (Chinese Form)	2 copies
c) Maritime Declaration of Health	1 copy
d) Import Manifest (Free Form)	1 copy
e) List of specified articles, foreign currencies, gold, silver belonging to ship and/or member of crew (Chinese Form)	1 copy
* Specified articles mean watch, camera, recorder and transistor radio, etc.	
f) Vaccination List (Free Form)	1 copy
g) Application for discharge of dirty ballast water to shore facility (Chinese Form)	1 copy
h) Application for discharge of segregated ballast water into sea (Free Form)	1 copy

* Store List is not required
* Chinese Forms are obtainable by the Agent

To be shown to the Port Officials:

a) Ship's Register
b) Last Port Clearance
c) Derat Certificate
d) Load Line Certificate
e) Safety Equipment Certificate
f) Safety Construction Certificate
g) Safety Radiotelegraphy Certificate
h) Oil Record Book
i) Certificate of Financial Security in respect of Civil Liability for Oil Pollution Damage
j) Discharge Books, Passports and Yellow Cards

Pilotage: Compulsory for berthing and unberthing at the oil jetty. Pilot boards about 5 miles E.S.E. of the jetty.

No pilot boat, tug used.

Anchorage: Quarantine Anchorage surrounded by the following four points is established:

a) Lat. 38° 56′ 48″ N., Long. 121° 59′ 00″ E.
b) Lat. 38° 56′ 48″ N., Long. 122° 02′ 00″ E.
c) Lat. 38° 55′ 42″ N., Long. 122° 02′ 00″ E.
d) Lat. 38° 55′ 42″ N., Long. 121° 59′ 00″ E.

Nature of bottom is mud, depth of water 27 m. to 35 m.

Restrictions: Entering formalities, so-called "General Examination" made, as a general rule, during day time only by the Port Officials of Quarantine, Immigration, Customs and Harbour Superintendency Administration.

Berthing and sailing operations take place 24 hours a day with the exception that the vessel does not berth on Berth No. 2 during night time.

Berths: There are 2 tanker berths on the oil jetty with a length of about 400 m. and depth of 17 m. at Berth No. 1, 14 m. at Berth No. 2.

Max. Size:

Berth No. 1: 100,000 d.w.t., LOA approx. 260 m., max. draft 15 m.
Berth No. 2: 50,000 d.w.t., LOA about 230 m., max. draft 12 m.

Berth No. 1 is located on the offshore side of the jetty and Berth No. 2 on the inshore side.

Vessels generally berth portside alongside.

Health: Radio pratique is not available. The Master has to show the yellow cards together with a vaccination list and submit a Declaration of Health.

Radio: The Master or owner of a vessel, shall 7 days prior to vessel's arrival, submit the required forms to the Harbour Superintendency Administration through the Agent (Penavico, Dalian) for completion of entry formalities. They require:

a) Vessel's name
b) Nationality
c) ETA
d) Arrival draft
e) Quantity of cargo to be loaded at Dalian
f) Nationality and the number of the ship's personnel
g) Last port
h) Destination

The Master has also to radio to the Agent her ETA and arrival draft, 24 hours in advance of her arrival, through Dalian Radio, who is to advise the Harbour Superintendency Administration.

Furthermore, the Master is also required to advise her Agent 2 or 3 days prior to her arrival, of the quantities of the segregated water ballast and other water ballast retained on board at the time of arrival.

VHF: Dalian VHF station keeps a 24 hour listening watch on Channel 16 and is available to communicate with Agent (Penavico).

Tugs: Available. Normally 3 tugs join the vessel for berthing and 2 for unberthing.

Fresh Water: Available either from the shore or barge.

Fuel: Fuel oil and marine diesel oil are both available from barge.

Ballast: No ballast water is allowed to be discharged into the sea, except segregated ballast water.

Shore reception facilities with a capacity of 30,000 tons can receive 3,000 tons of oily ballast water per hour at a cost of 0.8 Yuan per ton.

According to the Regulations, the Authorities will allow discharge of ballast water into the sea subject to the oil content of the ballast water being less than 10 p.p.m. However, as a matter of fact, any ballast water loaded in cargo tanks is not allowed to be discharged into sea for the reason that the Master cannot give them any evidence of the oil content of the ballast water.

Therefore, there is no necessity for cleaning cargo tanks for ballasting purpose.

Customs Allowances: Ship's bonded stores are not sealed. No limitation to cigarettes or wine/spirit for use on board.

Identification Cards: Shore leave is granted from sunrise to midnight.

Shore passes are issued by the Immigration Officer.

Crew members going ashore must carry the shore passes together with their passports or discharge books.

There is a seamen's club with a Chinese restaurant and some souvenir shops. Bus service is also available between the terminal and the seamen's club.

Cargo: The crude oil shipped at this terminal is the Daqing Crude. The properties of Daqing Crude which the vessel loaded in September 1980 at this terminal were as follows:

a) API	32.84
b) Temperature of cargo loaded	41.0°C. (106.0°F)
c) Pour point	24.0° – 25.0°C (77.0°F)

Cargo heating may be required.

Loading:

Berth	Size of arm flange	Number of arm
No. 1	12 in.	5
No. 2	12 in.	3

Max. loading rate is reported to be about 7,000 t.p.h. using 3 arms.

Notice of Readiness will be accepted at the time of completion of the general examination.

Agent: China Ocean Shipping Agency, Dalian Branch (Penavico Dalian).

Provisions: Available at a low price. Ship chandler will be arranged by the Agent.

SHIPMASTER'S REPORT: April, 1984.

I made a port call at Dalian in April 1984 and found after anchoring without Pilot that I had made a wrong passage in the channel, switching off radar, etc. in accordance with previous regulations.

There is now no restrictions or prohibitions on using navigational aids in the harbour.

When entering the Inner Harbour Anchorage without Pilot it is important for the Master, on the first visit, to know that there is a Traffic Separation Scheme and it is sometimes congested with vessels.

SHIPMASTER'S REPORT: October, 1984.

Master received following telex from Dalian Agent:

"When entering Dalian Harbour you must pass through Dasanshan Channel and navigate within Right Traffic Lane of Traffic Separation Scheme.

Separation Zone, 0.3 nautical miles wide, is centred upon following geographical positions:

Lat. 38° 51′ 00″ N., Long. 121° 46′ 12″ E.
Lat. 38° 54′ 24″ N., Long. 121° 46′ 12″ E.

Separation Lane is connecting following:

Lat. 38° 55′ 00″ N., Long. 121° 46′ 12″ E.
Lat. 38° 57′ 00″ N., Long. 121° 46′ 12″ E.

and turn into Ganjingzi Channel at Light Buoy H2 (Lat. 38° 57′ 21″ N., Long. 121° 46′ 12″ E.) then enter into Quarantine Anchorage:

Lat. 38° 59′ 08″ N., Long. 121° 42′ 30″ E.,
Lat. 38° 57′ 39″ N., Long. 121° 42′ 30″ E.,
Lat. 38° 57′ 39″ N., Long. 121° 45′ 00″ E.,
Lat. 38° 59′ 08″ N., Long. 121° 45′ 00″ E.

The East Boundary Line between the Separation Lane and the Inshore Traffic Zone is:

Lat. 38° 51′ 00″ N., Long. 121° 48′ 30″ E.,
Lat. 38° 54′ 24″ N., Long. 121° 48′ 00″ E."

SHIPMASTER'S REPORT: December 1986.

Documents: Only 1 copy of each document required except for Crew List (6 required). Refused to accept 'Marine Declaration of Health' as it was in English only. All documents had to be in Chinese/English – all available from Agent as well as 'application' forms (de-ballast, postage, etc.). Main papers were Customs Declaration (including Foreign Currency List) Vaccination List, and 'normal' ship's papers. (Register, Derat, etc.).

Officials: Boarded by 'Joint Inspection Team', which consists of 8 people (Immigration, Customs, Port Authority and Agent).

Bond sealed by Customs and unsealed prior to sailing, when the 'Joint Inspection Team' clears the vessel for sailing.

Anchorage: Instructed by Agent to anchor in 'Tanker Quarantine Anchorage' (North of fairway). No problems encountered in entering, buoys in position, but lights rather weak.

No. 1 General Cargo Anchorage very crowded with small vessels.

Unable to contact Port Radio (VHF) on entering and had to wait until following morning.

All vessels are visited at anchor; possibly in order of arrival.

Radio Station: Receives and transmits as per ALRS; but not very good at answering on H/F. Once within M/F range, Radio Officer reported the station as reasonable.

Berth: Vessel berthed starboard side to Pier No. 1, which has a maximum draft of 9.5 m. Pier No. 2, to the East, is believed to be restricted to 8.7 m.

Cargo: 18,000 tonnes of gas oil. Pumping rate: 750 t.p.h. – 800 t.p.h.

Shore Leave: No apparent restrictions, except that all crew have to be back onboard by midnight. Shore pass and passport/CDC book to be carried when going ashore.

Local Seaman's Club and Friendship Store will change any foreign currency.

Taxis to and from club or store apparently paid for by them; from elsewhere taxis appeared to be a little expensive.

SHIPMASTER'S REPORT: January 1987.

Vessel: 105,000 d.w.tonnes with segregated ballast tanks.

Berth: No. 1 Berth.

Max. Draft Allowed: 15.0 m.

Loading: The shore loading rate was given as 2,000 tonnes p.h./boom. This was an optimistic estimate as we received at a maximum rate of 5,200 tonnes p.h. with 4×12 in. booms connected. This decreased to about 4,000 tonnes p.h. when a vessel was loading at Berth No. 2.

Ballast: During entry formalities, the Harbour Master checked the Oil Record Book and the Deck Log Book to confirm where the ballast was shipped. Any ballast taken in Singapore or the Malacca area is considered 'infected' and must be discharged ashore.

Mooring Wires: Vessel is fitted with mooring wires and this caused a delay when sailing as there were not enough personnel to heave in sufficient slack to let go.

Shore Leave: A minibus is available to take personnel ashore to the International Seaman's Club and times are organised to suit ship's staff. For 8 round trips during the vessel's stay the charge was approximately £7 and the journey takes about 10 minutes. Local cash is available but almost any currency can be used at the Seaman's Club, where there is a bar/restaurant, shop and facilities for International telephone calls (£2.00 per minute to the U.K.)

Documents: Discharge Books only were checked by Immigration Officials on arrival, no passports or vaccination cards were required.

AUTHORITY: Port of Dalian Authority, 1 Gangwan Street, Zhongshan District, Dalian, China. *Tel:* 237873, 222824. *Telex:* 86246 DHAB CN.
Contact: Shen Chun, Deputy Director.

AGENT: See "Shanghai".

DANDONG: 40.08 N. 124.20 E.

LOCATION: *Langtou Port District:* 40° 07′ N., 124° 09′ 02″ E.
Dandong Port District: 39° 49′ 05″ N., 124° 09′ 02″ E.

PILOTAGE: Pilotage is compulsory and is undertaken day and night. For Dandong Port District, Pilot boards at the Quarantine Anchorage. For Langtou Port District, Pilot boards at Jiangkou Anchorage.

ANCHORAGES:

Name	Depth of Water (m.)	Max. size of Vessel tons	Use of Anchorage
Jiangkou	8.0-10.0	10,000	Shelter
Langtou	4.0- 5.0	1,000	Waiting
Donggang	8.0-13.0	10,000	Lightering
Quarantine	over 10.0	10,000	Quarantine
Dandong	9.0-10.0	10,000	Quarantine

RESTRICTIONS: Max. draft in the channel 6.3 m.-8.0 m.

VHF: Radio Station 'XSB 48' maintains a 24 hour service. Calling on Channel 16 and working on Channel 11.

TUGS: 1×40 h.p., 1×600 h.p. and 1×900 h.p.

BERTHING:

Name of District	No. of Berth	Length (m.)	Depth (m.)	Use
Langtou	No. 1	68	5.2	Grain
	No. 2	122	8.2	Grain
	No. 3	126	8.2	Metal
Dandong	No. 1	198	10.0	Metal and Coal
Old Berth	–	68	5.2	General Cargo

REPAIRS: Facilities available for carrying out repairs.

✓

FANGCHENG: 21.45 N. 108.21 E.

PILOTAGE: The pilot boards from a tug which flashes its lights when approaching the vessel. The boarding place is 1 mile South of the Quarantine Light Buoy.

ANCHORAGE: *Quarantine Anchorage:* A Quarantine Anchorage has been established between Latitudes 21° 21.5′ N. and 21° 28′ N. and Longitudes 108° 20′ E. and 108° 26′ E. The Quarantine Light Buoy (yellow; flashing (4) every 10 secs.) is located in the North part of this area in position Lat. 21° 28′ N., Long. 108° 21.5′ E.

RESTRICTIONS: There is a depth of 5.8 m. on the bar. The channel has a minimum width of 80 m. and is dredged to a minimum depth of 7.4 m. The channel is 7.5 miles long and is marked by light buoys and leading light beacons. The width of the turning basin off the berths is 1,200 ft.

MAX. SIZE: Maximum draft 9.3 m.

VHF: Port Radio Station on Channel 16.

ANCLUDED

TUGS: Tugs are available to assist with berthing.

BERTHING:

Berth	Depth (m.)	Use
No. 1	9.3	General cargo
No. 2	9.3	Coal
Nos. 3-7	9.5-10.0	Bulk or general
No. 8	–	Containers (under construction 1987)

CRANES: 1×10 ton crane at Berth No. 1.
2×10 ton cranes at Berth No. 2.
5×10 ton cranes at Berths No. 3-7.

FRESH WATER: Available.

FUEL: Fuel available by barge from the nearest bunkering port if sufficient notice given.

DEVELOPMENTS: Upon completion of the port modernisation program, 54 berths will be available for handling of vessels up to 50,000 d.w.t.

ADD - SMR

✓ ✓

FUZHOU (Foochow): 26.03 N. 119.18 E.

INSERT G.A.C. INFO

SHIPMASTER'S REPORT: July 1985.

DOCUMENTS: Documents required are same as for other Chinese Ports. 7 copies of Notice of Readiness must be provided. Inspection party boards with Agents and all formalities are carried out promptly. Formalities include Port Health Inspection (granting of Quarantine) and Immigration and Customs clearance. 2 Police Officials remain on board throughout until vessel's departure.

PILOTAGE: At Quarantine Anchorage 2 Pilots board, and the vessel is taken 5 miles up river to either Guantou Anchorage or a few miles further up river to Minan Anchorage.

APPROACH: From 5 miles S.W. of Baiquan Liedo pass around its S.W. side and approach position Lat. 26° 06.22′ N., Long. 119° 52′ E. Then turn West to cross bar at HW (daytime only). Set course 265.5°T against Baiyun Shan leading lights. (These are visible clearly as white concrete structures on hills in daytime at least 15 miles off). On reaching Lat. 26° 05′ 37″ N., Long. 119° 41′ 40″ E. and 0.21 miles Southward of Buoy No. 3 in position Lat. 26° 05′ 49″ N., Long. 119° 41′ 42″ E. alter course to 308°T against Culudao leading lights. These leading lights are not marked on BA. Chart 2400. The forward light (white concrete structure) is on Xifengshi Point in approximate position Lat. 28° 08.2′ N. Long. 119° 38.3′ E. Thence approach Quarantine Anchorage. Whilst awaiting daylight HW vessel can anchor in position Lat. 26° 06′ 30″ N., Long. 119° 50′ 00″ E. There is no restriction on use of Radar or echo sounder. *General:* Vessel must cross bars and arrive at Quarantine Anchorage marked on BA. Chart 2400. Time of arriving at Quarantine Anchorage is time of Arrival at the Port. Pilots usually do not reply when called on VHF, however, Fuzhou Radio can be called on Channel 16 at any time and asked to convey message to Pilots. Fuzhou Radio will also make VHF contact with Penavico. Thus for any assistance Fuzhou Radio on VHF Channel 16 can be contacted at any time.

Authorities do not board at this anchorage, since it is far from Ma Wei. Agents main Office is situated in Fuzhou City but their full Operations Department is stationed in Ma Wei within the dock area. From Quarantine Anchorage vessel is Piloted to either Guantou or Minan waiting anchorage, about 12 miles and 6 miles respectively from Ma Wei. The Arrival formalities are carried out at these anchorages.

RESTRICTIONS: Navigation and all movements during daylight HW only. Max. draft 7.5 m. for going to Ma Wei. No navigation is possible beyond Ma Wei. If vessel is drawing more than 7.5 m. she can be lightened at anchorage, but this will be difficult and cause delays due to shortage of barges, etc. In any case maximum draft permissible is 8.00 m. However it is advisable not to load to more than 7.5 m. if complications are to be avoided. Vessels of more than 155 m. length may find difficulties at anchorages. Ideally vessels of 10,000 tons gross are suitable.

Prohibited area for Navigation is bounded by Beipiao Peninsular Lat. 26° 21′ N., Long. 119° 55′ E.; Mazuleidao Lat. 26° 09′ N., Long. 119° 55′ E.; Baiquan Liedo Lat. 25° 57′ N., Long. 119° 58′ E. and Tongyindao Lat. 26° 22′ N., Long. 120°30′ E.

RADIO: 48 hours and 24 hours Notices of Arrival must be sent via Fuzhou Radio. Call sign "XSL". Frequencies: MF-430 kHz all day, and HF-4343 kHz (1800 hrs. – 0600 hrs. local time) or 8598 kHz (0600 hrs. – 1800 hrs. local time) to "PENAVICO Fuzhou". All foreign vessels are handled by Penavico. They will reply with radio message giving tide times and arrival instructions which are similar to those found in BA. Pilot.

BERTHING: Four ships can be berthed at Ma Wei. Berth No. 1 is suitable for ships drawing 7.5 m., other berths can accommodate vessels drawing 7.00 m. About 5 to 6 vessels can work at anchorages off Ma Wei. Discharge rate about 1,000 tons per day (Bags/about 4 gangs). *Cargo Gear:* There are 4 cranes of about 5 tons capacity, one for each berth. Cargo work is mostly carried out with ship's derricks. There are several new mobile cranes, and new fork lifts capable of handling 20 ton containers. Cargo is discharged on to trailers and taken to storage sites or directly to railway wagons.

STEVEDORES: State controlled. Work is continuous in three shifts daily.

MEDICAL: Hospitals situated very close to dock area with full facilities. Inoculations can be carried out.

FRESH WATER: Laid on at wharf. Rate 50 t.p.h. Due to waiting period vessels must arrive with tanks full, and water must be rationed during waiting period. With difficulty water is supplied at anchorages by barge (capacity 60 tons.)

FUEL: All grades available.

DENSITY: 1000 at LW. 1015 at HW.

TIME: GMT plus 8 hours.

DEVELOPMENTS: Large areas are being reclaimed and long term plans exist to increase berthing facilities. Extensive dredging is also in progress.

DELAYS: Vessels may have to wait for berths for long periods. Sometimes 30 to 40 days.

GENERAL: *Provisions:* Reasonable amounts of fresh provisions are available at very good prices. However dairy products like butter and frozen provisions not available. Vegetables in limited variety. Fresh meat, poultry and fish are plentiful.
Laundry: Local Seamen's Club handles laundry. Delivery after about 10 days. Service is unreliable.
Agents: China Ocean Shipping Agency, Jiesang Road (West), Fuzhou. Cable Address: Penavico Fuzhou. Telex: 92137 FAHN CN.

✓ ✓ ✓

GUANGZHOU, including Huangpu (Whampoa): 23.05 N. 113.25 E.

Also see "General" before first port.

TUGS: 21 tugs up to 1,800 h.p.

BERTHING: The Port of Guangzhou spreads over some 40 km. along the Pearl River from Huangpu's new port area located at the mouth of the East River in the East to the terminals located at the East Bridge, crossing the Pearl River in the West.

The port offers 21 berths for vessels up to 10,000 d.w.t., 43 berths for vessels up to 1,000 d.w.t. 15 mooring buoys and 15 operational anchorages. The depth of the channel is 9 m. and vessels up to 25,000 d.w.t. can enter this port at high tide. Vessels with deeper draft can be lightened at anchorage before entering the port.

The Huangpu area within the Port of Guangzhou is divided as follows: *Old Port Area:* 17 berths (on both sides of the river) accommodating vessels of up to 10,000 d.w.t. and one berth for vessels of maximum 5,000 d.w.t. Depths alongside up to 7.0 m. There are over 20 warehouses of about 50,000 sq.m. and stockyards covering about 147,000 sq.m.
New Port Area: 10 specialised berths for bulk grain, bulk fertiliser, containers and bulk oil handling, accommodating vessels up to 20,000 d.w.t. Depth alongside 11.9 m. Ample warehouses and stockyards for all kinds of cargo, one grain silo and facilities to handle bulk fertiliser, including bagging, are provided. General cargo ships may use these berths when space available.

Container Terminal: Two berths totalling 471 m. in length with 12.0 m. depth and a container yard of 90,000 sq.m. The three container gantry cranes have lifting capacities of 30.5 tonnes.

Coal Terminal: There are 3 berths at this terminal capable of accommodating 2 vessels up to 20,000 d.w.t. or 3 vessels of maximum 10,000 d.w.t. 1 × 1,000 t.p.h. shiploader and 4 × 500 t.p.h. ship unloaders.

While the Huangpu area of the Port of Guangzhou has the general restrictions of LOA 180 m. and draft of 9.0 m., the Port Authority is prepared, on a case to case basis, to consider acceptance of vessels with LOA/draft slightly over these limits.

CRANES: Quay cranes of 3 tons – 10 tons capacity and 5 floating cranes with capacity 30 tons – 250 tons.

MEDICAL: Hospital available.

FRESH WATER: Available.

FUEL: Available.

AIRPORT: Guangzhou Airport.

DEVELOPMENTS: The Port of Guangzhou is presently expanding. Tenders are being called for the construction of 10 multi-purpose berths for vessels up to 35,000 d.w.t. in the Xin Sha project, 5 of which are planned to be completed by 1994 and in the Li Jiao Terminal with capacity of 3 million tonnes of cargo annually, to be completed by 1990.

SHIPMASTER'S REPORT: July 1981 and October 1984.

Item Nos. 6 – 9 amended by report received in October 1984.

Southern Approaches to Huangpu:

1. Vessels approaching from the South, bound for Canton and Whampoa should steer a course of 005°, so as to arrive approximately 5 miles West of Wen-Wei Chou (Gap Rock). An occasional light is exhibited from Gap Rock Lighthouse, but more often this light does not function and therefore should not be relied upon.

2. On approaching Gap Rock the first land mark that appeared on the horizon was the group of Great Ladrone Islands at a distance of approximately 20 miles on a clear afternoon. On closing Great Ladrone to a distance of about 10 miles, the group of islets to the East of Gap Rock were seen. Closing further to a range of 8 miles only, the Gap Rock was seen and identified.

3. The Gap Rock Islet is rugged in appearance and devoid of any vegetation. The lighthouse is located at the centre of the islet and differs slightly from the illustration in the Pilot, in that the dome-like structure is non-existent. The structure is slightly inclined and looks neglected.

4. The light on the Chuk Wan Shan Island is prominent and was visible at a distance of approximately 15 miles and is located at the summit. It is whitish and dome-like in appearance.

5. On identifying Gap Rock, vessel should proceed on the recommended course of 013°, keeping clear of the wreck marked 3 miles (approximately) West of Gap Rock and follow the recommended track so as to arrive at the Quarantine Anchorage demarcated West of La Sa Wei Island. It was observed that most ships prefer to anchor closer to the Ma Wan Light due to deeper waters. The anchorage off La Sa Wei affords good holding ground and shelter from all types of weather.

6. Vessels remain at this Quarantine Anchorage for a considerable length of time and all ships requirements, Pilot, berthing instructions, movements, etc., will have to be sought from the Agents "Penavico" through Guangzhou Radio on 8490 MHz.

7. Loaded vessels may have to anchor at the Bar before entering the Chuen Pi Channel at Lat. 22° 45′ N., Long. 113° 39′ E. (B.A. 1741) to await the next tide. Once ready for heaving anchor and swinging the vessel's bow into port direction, Pilots ask for the lights "Red" over "White" to be switched on for turning and to switch them off again after completing the turning manoeuvre.

Pilots listen on VHF Channels 9 and 16 and vessels can try to contact them once approaching La-Sa-Wei Quarantine Anchorage but vessels have to be patient as not many of shore personnel appear to understand English and they will not reply unless there is a Pilot standing by to attend.

8. The usual muster of crew is not carried out. However, a very thorough inspection is carried out by Immigration at Pratt Point, about 3.5 miles downstream (B.A. 1742). At that position the vessel drops anchor and awaits Immigration, who once on board order all the crew into one messroom, leaving wardrobes, lockers and cabin doors open. Then 4 men of the crew will be chosen, 1 to go with 1 soldier through the accommodation, 1 to go with another through the engine room and 2 others to accompany 2 other soldiers through the cargo holds. This procedure takes about 1 hour. Only after this inspection does Master obtain his clearance and is able to sail.

9. Huangpu Port (Whampoa) has been extended enormously. There are pier facilities for at least 6 medium size general cargo ships and at appprox. position Lat. 23° 03.25′ N., Long. 113° 28.5′ E. near Shuang Kang (B.A. 1742) there exists a new container and Ro/Ro pier for 3 ships.

The cargo of my vessel (ST 14 of 11,363 tonnes) of bagged urea was discharged in 62 hours after working with up to 9 gangs (5 hatches) day and night.

10. The Seaman's Club Representatives board the vessel soon after arrival and will arrange any sight seeing tours at nominal cost. Seaman's Club provides good meals and club facilities. Seaman's Store and the Friendship Stores afford good shopping at reduced prices. Ship provisions and fresh vegetables are available in abundance.

11. Vessels leaving Whampoa, Northbound will have to follow the same route unless prior approval is sought from the Agents to go through the Lema Channel.

AGENT: See "Shanghai".

HAIKOO (FROM LATE)

HANGZHOU: 30.43 N. 121.20 E.

PILOTAGE: The pilot boards in position Lat. 30° 38′ N., Long. 121° 20.3′ E.

BERTHING: *Jinshan Tanker Terminal:* The recently completed tanker terminal has 2 berths where vessels with draft 6.5 m. can berth.

FRESH WATER: Not available.

FUEL: Not available.

GENERAL: Officials travel from Shanghai which is 100 Km. from the port.

NEW – LAN SHUI
LANSHANTOO
LIANYUNGANG

LONGKOU: 37.39 N. 120.20 E.

AMEND

ANCHORAGE: The quarantine anchorage is bounded by latitudes 37° 37.0′ N. and 37° 37.8′ N. and longitudes 120° 12.5′ E. and 120° 13.9′ E. The bottom of sand and mud provides good holding ground.

TUGS: Tugs of up to 900 h.p. are available.

CRANES: Cranes with up to 16 tons capacity are available at Berths No. 7-10.

BULK HANDLING FACILITIES: There is a conveyor belt at Berths No. 3-4 for handling of sand and coal.

BERTHING: The port is open to foreign shipping and can accept vessels of 5,000 d.w.t. Cargoes handled are coal, salt, sand and general cargo.

Berth No.	*Depth* (m.)	*Use*
1-2	–	Tugs
3	6.8	Sand
4	6.8	Coal
5	6.8	General cargo
6	6.8	Passengers
7	4.5	Salt
8	4.5	Salt
9	7.5	Salt
10	7.5	Salt

DEVELOPMENTS: A coal terminal is to be constructed for vessels up to 10,000 tons. Two additional berths for vessels of 5,000 tons and 16,000 tons are to be built. The channel is to be dredged to handle these larger sizes vessels.

NANJING (Nanking): 32.03 N. 118.47 E.

← ADD GAC INFO

SHIPMASTER'S REPORT: May 1988.

LOCATION: The Port of Nanjing is located about 195 miles upriver on the Changjiang (Yangtse River) in position 32° 03′ N., 118° 47′ E. The oil port is located in approx. position 32° 10′ N., 118° 57′ E., about 180 miles upriver.

Note: All distances stated are in nautical miles upriver from Wusong Kou (entrance to Shanghai), unless otherwise stated.

PORT LIMITS: In the opinion of the Agent, a vessel is considered to be an 'arrived ship' only when she reaches Nanjing Port, or at the Nanjing Waiting Anchorage or Quarantine Anchorage, located in position 32° 14.5′ N., 119° 10′ E., about 165 miles upriver, or 15 miles before Nanjing Oil Port. The Joint Inspection (Inward Clearance) is carried out at this anchorage.

DOCUMENTS: The documents required are as stated in the 'Guide'. Details are as given below:

For Joint Inspection on Arrival:

Crew List – 6 copies.
Report of Entry – 2 copies.
Maritime Health Declaration – 1 copy.
Crew Effects Declaration – 1 copy.
Ship's Equipment List – 1 copy.
Bonded Stores List – 1 copy.

For Joint Inspection on Departure:

Maritime Health Declaration – 1 copy.
Report of Clearance – 4 copies.

Note: Chinese forms must be used for Report of Entry, Report of Clearance and Maritime Health Declaration. Ship's own forms can be used for the other documents, if it is the vessel's first call. On arrival obtain blank forms for Report of Clearance and have them filled out prior to departure.

PILOTAGE: Pilotage upriver is in two stages. The first stage is from Changjiang Kou to Baoshan, which is by Shanghai Pilots. The second stage is from Baoshan to Nanjing, which is by Nanjing Pilots. The pilotage up to Baoshan is arranged by "Penavico Shanghai". Changjiang Kou is the customary waiting anchorage for vessels for Shanghai or proceeding upriver.

Application for pilot should be made to Shanghai agent "Penavico Shanghai" by cable or telex prior to arrival. When the arrangements are made, they will reply by cable/telex and it is recommended that vessel does not proceed to pilot station unless they receive this message. The Pilot boards at South Channel, No. 5 Buoy, as indicated on B.A. Chart No. 1602.

The distance from Changjiang Kou to Baoshan is 53 miles. Baoshan is located 3 miles upriver. The vessel may have to anchor here for Nanjing Pilots, in our case, they boarded on arrival, the Shanghai Pilot disembarked, and vessel continued without stopping. Three pilots board at Baoshan to do the passage up to Nanjing, which is a distance of 177 miles.

NAVIGATION/ANCHORAGES: Our vessel picked up pilot at 0645 hrs. and was at Baoshan by 1030 hrs., where the pilots changed. Shortly after Baoshan the fishing and small boat traffic increases. At times the number of fishing boats and river barges appear as an impenetrable wall, however by repeated use of the ship's whistle, a path is created for the ship to pass through. The barges are tied in a line (as many as 13/14) and under tow, thus they have difficulty manoeuvring. The navigable channel in the river is clearly marked by buoys. The buoys were green/black on the starboard hand and red on the port hand. The traffic generally remains to the right hand side of the channel, and vessels pass port-to-port. The pilots call up the vessels on Channel 6. This is helpful in conditions of restricted visibility.

Depths were checked regularly on the echo sounder and the average depth obtained was about 18 m. – 20 m. On one or two occasions the depth reduced to 11 m., but in most cases it was 18 m. – 20 m. or in excess, at times up to 40 m.

Due to the heavy traffic, the vessel proceeds at manoeuvring speed. In our case this was 12 knots, however as the flood tide was flowing right through, the ship averaged a speed of 15 knots, despite having to slow down frequently for the fishing boats.

As there is no night pilotage, the vessel anchors for the night at Kouan Shuiddo (32° 18.5′ N., 119° 47′ E., about 125 miles upriver). This appears to be the normal anchorage as two other vessels anchored with us. The vessel anchored by about 1830 hrs. The pilots stay onboard and suitable accommodation is to be arranged.

The anchorage has good holding ground and is about 3 cables from the shore. The pilot produced a chart for the anchorage area. 6 shackles are used in depths of 15 m. The maximum current experienced was 2 knots.

Transit was resumed at 0600 hrs. on the following day and the vessel arrived at Nanjing Waiting Anchorage (32° 14.5′ N., 119° 10′ E.) by 1100 hrs. The pilots leave the vessel after arrival at this anchorage.

The vessel had to wait 3 days at this anchorage as the berth was occupied. Here too, the holding ground is good and 6 shackles are used in 18 m. depth. Distance to the shore was 2.4 cables, which reduced to 1.4 cables whenever vessel swung to the tide. Even when vessel swung closest to the bank, the depths were in excess of 15 m. There were no tide tables for the area but it was noticed that vessel used to lie for about 3 hours to the flood and 7 hours to the ebb. The maximum current experienced was 2 knots. No chart is available for this anchorage and one has to rely on radar distances to verify vessel's position. A couple of light beacons and buoys are also visible.

The Berthing Pilot boards at this position and the distance to the berth is about 15 miles, which is covered in 2 hours.

RESTRICTIONS: There is a restriction on night navigation and vessels also anchor in times of poor visibility. The only information obtained regarding size restrictions was 30,000 d.w.t. No information could be obtained regarding LOA and beam. The draft restriction as advised by the agent is 9.00 m. (FW). At the anchorage I noticed a Chinese vessel with a draft of 9.50 m. (FW). It appears that the draft restrictions are for the mouth of the river, near Changjiang Kou, as the depths in the river were more than adequate.

There is no night berthing or unberthing.

In position Lat. 32° 13.5′ N., Long. 119° 40′ E. there is an overhead electric cable with clearance at the centre of 55 m. This may vary due to the seasonal tidal range.

HEALTH: No Radio Pratique available. On arrival at Quarantine Anchorage, the Quarantine Officer boards and grants Pratique.

RADIO: *Communications:* Communications were by Inmarsat telex. If cables are used Shanghai Radio would be the best.

Telex Numbers: Penavico Shanghai: 33052 Penav C Cn.
Penavico Nanjing: 34059 Njpen Cn.
Sinochem Nanjing: 34109 Cienj Cn. (Shippers)

VHF: On arrival at Changjiang Kou, contact Shanghai Pilots on Channel 16. They use Channel 16 for calling and working. For information regarding pilots, agents "Penavico Shanghai" can be contacted on Channel 11.

At Nanjing, agents "Penavico" should be contacted on Channel 8 about all matters, including berthing, etc. When at anchorage, watch should be kept on this channel.

TUGS: Two tugs were used for berthing and unberthing. One of the tugs gave a tug's line while the other one asked for a ship's line.

BERTHING: The berth is a barge which is 90 m. in length, anchored by chains fore and aft. It is also connected to the shore by 2 steel arms located at the fore and aft end. The steel arms are mounted on swivels (at the shore end), which permits vertical movement due to the tide. All pipelines also have a flexible section, which permits vertical movement. All this is to cater for the great tidal range. The daily range is very low, about 1.0 m. However, the seasonal range is as high as 7.0 m. In the Summer months, after the snow melts, the river levels increase by as much as 7.0 m. Our vessel was 170 m. LOA and rather long for the berth, hence the mooring arrangement was not very satisfactory.

The moorings consisted of 5 lines each fore and aft. One line is picked up from shore at each end. Four ship's lines are sent to the barge. Due to this, no lines lead out as head or stern lines, and all the ropes act as breast or spring lines. The Pilot advised that the current was less than a knot and the winds not very strong, hence the vessel would be safe in this condition. Soundings (by hand lead) taken at the berth, at low water indicated a depth of about 12.0 m. all round the vessel.

LOADING: The vessel loaded unleaded gasoline. Loading is via 1×8 in. ASA connection. This branches to a "Y" piece to which 2×6 in. flexible hoses are connected. The hose length is adequate for a freeboard (waterline to deck level) of 10.7 m. This information was not given to us by the terminal, but deduced by our own observation. Ship's crane/derrick is required to lift the hose on board. A crane is fitted on the berth but was not able to operate due to the ship's high freeboard.

The density of the cargo was 0.7305 at 15°C. The density supplied by the terminal is at 20°C., and has to be converted to 15°C. The density is given only after completion of loading. The average loading rate achieved was 450 tonnes p.h. – 500 tonnes p.h. Bill of Lading is based on the ship's figures which are obtained by the surveyors. The only documents given to the vessel are Bill of Lading and Manifest.

There were 6 berths identical to the one described above. Some laden tankers were coming alongside, which I would assume were carrying crude oil for the refinery.

MEDICAL: Medical and dental facilities available. Agent must make the necessary arrangements.

FRESH WATER: Available by barge and no limitation on quantity. Barge is not permitted to come alongside while the vessel is loading dangerous cargo. Cost is 1.5 RMB per ton. Barging is an additional charge.

FUEL: Fuel and diesel available in small quantities. 3 days' notice is required.

Specification of diesel oil available as follows:-

	No. O Type	No. 20 Type
Density at 20°C.	0.83	0.85
Viscosity at 20°C.	4.70	2-8
Pourpoint	0°C.	20°C.

No. 0 Type is more expensive than No. 20 Type and is also referred to as LDO.

Bunkers *will not* be supplied during loading or *after* loading dangerous cargo. Hence it should be supplied before the vessel commences loading. This is the regulation as advised by the agent. In our case, the barge came alongside, and loading had to be suspended during the period the barge was alongside.

SHORE LEAVE: Shore leave is permitted. Nanjing town is located about 15 miles away and takes about 50 minutes by car. Transport must be arranged by the agent, as taxis, etc., are not available at the berth. A round trip by Minibus costs about 80 RMB. Nanjing is a pleasant town with a few modern hotels and high rise buildings. Overseas calls can be made from Jinling Hotel.

SURVEYORS: Cargo tank inspection prior to loading and cargo calculations on completion of loading is carried out by CCIB - China Commodity Inspection Bureau.

China Register Surveyor available on behalf of other Classification Societies.

STORING: Provisions and bonded stores available. They are inexpensive and of average quality. Fresh vegetables are seasonal. Only the government chandler is available. He stated that he was unable to provide any labour to load the provisions.

The truck can come to a distance of about 80 m. from the ship and a hand trolley is used to carry the stores to the ship's side, and crane used to lift on board. Ship's staff must do this work. In case funds have been remitted, the agent/chandler will permit the invoices to be signed, otherwise cash payment must be made.

GENERAL: The agent stayed on board throughout the vessel's stay in port. He was of great assistance in all matters, i.e. bunkering, discussions with surveyors, Loading Master, shipchandler, etc. He also acts as interpreter where necessary. He stated that this was the normal procedure in the case of foreign vessels calling at Nanjing. I assume this only applies to the oil port, due to the great distance from town. On completion of loading and cargo calculations, he prepares the Bill of Lading and Manifest on board.

One problem encountered, was the inability to get accurate information. When the vessel was at Nanjing Anchorage, the Agent was called daily at 0900 hrs. for berthing information. On the day the vessel berthed, we called at 0900 hrs. and were informed that there was no berthing information, and we should call back the next day. One hour later, a pilot boat came alongside and 2 pilots boarded and requested that heaving of anchor be commenced as vessel was berthing.

After berthing, the agent and cargo surveyor confirmed that the refinery would be able to supply the entire nomination plus 10% (i.e. 22,000 tonnes). The Shipper's Representative boarded the next day and informed us likewise. When the vessel had loaded about 18,000 tonnes, the Loading Master boarded and stated that no more cargo was available, and loading was completed. On enquiring about the loading rate, we were informed that it was 200 tonnes p.h. During loading the actual rate was about 500 tonnes p.h. This should be borne in mind and any information received should be treated with care.

OUTWARD PASSAGE: The passage downriver was identical to the passage upriver. Vessel departed berth at 1200 hrs. and anchored for the night at Kouan Shuddo. In addition, the vessel also had to anchor at Baoshan on the next night as Shanghai Pilot was not available to take the vessel to sea.

NANTONG: 32.01 N. 120.49 E.

ATTEND

LOCATION: The port is situated on the North bank on the lower reaches of the Changjiang (Yangtse River), Nantong port is in Nantong City which is about 51 miles East of Wusong Kou. The position of the port is Lat. 32° 00′ 45″ N., Long. 120° 48′ 45″ E.

PILOTAGE: Compulsory. Pilotage is only performed between sunrise and sunset. The Pilot boards at Baoshan Anchorage.

APPROACHES: Foreign vessels proceeding upstream from Baoshan Anchorage are required to be well informed of the water depth along Baimaosha Nan Shuidao, the South Channel, so that they may safely pass with the tide. Before approaching light buoy No. 12A a close watch should be paid to see if any ship is steaming down the river. If a vessel is outward bound it is advisable to reduce speed and wait until it is clear of the channel, in order to avoid meeting at the shallow part of the channel.

All foreign vessels entering or leaving the port are requested to observe the following regulations:

1. "The Regulations on Supervision and Control of Foreign Vessels by the People's Republic of China".
2. "The Regulations on Supervision and Control of Vessels Flying Foreign Flags Sailing in the Changjiang by the People's Republic of China".
3. "Regulations for Prevention of Collision at Inland Waters".

Foreign vessels are requested to take great care, as the buoyage system of the coastal waters and the river are different.

ANCHORAGE: *Joint Inspection Anchorage:* The anchorage is situated at Dong Shuidao on the lower reaches of the Changjiang (Yangtse River). This is within the harbour limits and has an area of 2,500 m.×600 m., depths range from 7.0 m.-25.0 m. and the nature of the bottom is sand and mud.

RESTRICTIONS: Entry and departure not permitted after sunset.

MAX. SIZE: See "Berthing".

BERTHING:

Name of District	*No. of Berth*	*Length* (m.)	*Depth* (m.)	*Max. Draft* (m.)	*Max. LOA* (m.)	*Use*
Langshan	No. 1	180	(D) 10.0 (F) 16.0	9.5	180	Coal/Containers/Ore
	No. 2	180		9.5	180	Feed/Sugar/Containers
	No. 3	187		9.5	180	Timber/Pig iron/Fertiliser
Nangtong	No. 3	74.0	(D) 5.5 (F) 10.8	5.0	70	General Cargo
	No. 4 No. 5 No. 7	–	–	–	–	Passengers

Note: (D) Dry Season.
(F) Flood Season.

With prior agreement vessels can also load/discharge certain types of cargoes at buoys.

VHF: 'Penavico Nantong' maintains a 24 hour watch.
TUGS: 1×2,400 h.p., 1×1,670 h.p., 2×980 h.p. and 2×480 h.p.
GENERAL: *Imports:* Timber, ore, bulk sugar, fertiliser and pig iron.
Exports: General cargo and cotton.
Meteorology and Hydrography: The tide at this port is irregular semi-diurnal, with Spring rise of 3.4 m., Neap rise of 2.7 m. and mean sea level of 2.1 m.

The direction of the stream, either floor or ebb, is approximately parallel to the bank of the river. The rate of flood is 0.8 knots, while that of the ebb may reach 4.3 knots.

The wind is variable in direction and force, due to the effect of the monsoons. The average wind force is 3.1 m. per second. Gales may arise suddenly, but mostly occur in Winter. The annual average of "gale days" is 12.8. This port may be threatened by typhoons from July to September with wind forces ranging from Force 6 to Force 8. In August a wind Force 11 is sometimes experienced.
Aids to Navigation: The aids mainly consist of light buoys. The lateral port hand buoys are black in colour with spherical shaped top-marks. Starboard hand buoys are painted red in colour.

NINGBO (Ningpo), Including Beilun: 29.52 N. 121.31 E. (See Plan)

BERTHING: Principal Wharves:

	Name	Location	Construction	Length (m.)	Width (m.)	Depth (m.)	Capacity (tons)
Work Area No. 1	Chezhan Lu	North bank of the river	Steel concrete pontoon	50.0 46.5	8.5	3.8	3,000
	Pier No. 1	North bank of the river	Steel concrete pontoon	40.0 40.0	9.0	3.8	3,000
	Pier No. 2	North bank of the river	Steel concrete pontoon	49.0	9.0	3.8	1,000
	Pier No. 3	North bank of the river	Steel concrete pontoon	40.0	9.0	3.8	500
	Barge	North bank of the river	Steel concrete pontoon	16.8	6.0	2.0	60
Work Area No. 2	Concrete Pier	East bank of the river	Platform beam type	25.5	8.5	3.0	200
	Framework Pier	East bank of the river	Framework platform	6.0	2.4	0.25	200
	Ferry	East bank of the river	Steel concrete pontoon	18.0	6.0	2.0	60
Work Area No. 3	Landing Stage	Xiabaisha	Steel concrete pontoon	50.0	8.5	3.8	2,000
	Berth Nos. 1 – 9	Xiabaisha	Platform beam type	250.0	33.0	5.0	5,000
	Berth Nos. 10 – 11	Xiabaisha	Platform beam type	80.0	9.8	4.5	3,000
	Berth No. 12	Xiabaisha	Platform beam type	31.0	15.4	4.5	3,000
	Berth Nos. 13 – 16	Xiabaisha	Platform beam type	92.0	15.4	4.5	3,000
Meixu Pier		Meixu	Steel concrete pontoon	20.0	6.1	3.0	50
Zhejiang Oil Refinery	Products Oil Pier	Eastward of Hongqiao	Steel concrete pontoon	46.0 46.0	9.0	3.2	3,000
Work Area No. 4	Harbour Boat West Pier	South side of Zhaobao Shan	Steel concrete pontoon	36.0	9.0	3.4	300
	Harbour Boat East Pier	South side of Zhaobao Shan	Steel concrete pontoon	36.0	9.0	3.4	300
	Coal Pier	Outer side of Zhaobao Shan	Gravity, retaining wall	310.0	—	10.7	20,000
Zhejiang Oil Refinery	Crude Oil Pier	In the vicinity of Qingliang Shan	Jetty with piers	619.4	—	11.0	25,000
Beicang Gang	Ore Transfer Pier	Eastward of Laoshu Shan	Platform beam type	351.0 499.6	36.5 16.0	18.2 12.0	100,000 50,000
	Harbour Boat Pier	Eastward of Laoshu Shan	Platform beam type	172.0	12.0	5.0	3,000

MAX. SIZE: 150,000 d.w.t. at high water.
VHF: Pilot on Channels 16 and 9. Agent on Channel 12, contact through Ningbo Harbour Radio on Channel 16.
CRANES: *Work Area No. 3:* 2 gantry cranes. (Berth Nos. 1 – 9). 2 tower cranes (Berth No. 12). 2×3 ton tower cranes. (Berth Nos. 13 – 16).
Work Area No. 4: 10 ton crane and loading machines at coal pier.
CONTAINER FACILITIES: New berth with length 200 m. and depth 12.0 m. Two cranes available.
BULK HANDLING FACILITIES: 2 unloaders × 2,100 t.p.h. each. 2 loaders × 4,200 t.p.h. each.
TANKERS: The VLCC "Beilun" is anchored a mile or so off Beilun, storing crude oil and other products delivered by smaller tankers from the onshore fields. Depth of water 23.0 m.

The petroleum berth is operated by Sinochem, Ningbo branch, and accepts at one end loading product tankers and at the other discharging crude oil tankers.

Also see "Berthing".
FRESH WATER: Available.
TIME: GMT plus 8 hours. GMT plus 9 hours in Summer.
DEVELOPMENTS: Additional deepwater berths are to be constructed.

SHIPMASTER'S REPORT: May, 1983.
Beilun
Port Limits: The port is part of Ningbo Port Complex and situated at approx. Lat. 29° 55.7′ N., Long. 121° 52.6′ E. Port consists of a pier accommodating 1 ship of 100,000 d.w.t. and a pier accommodating 2 ships of 25,000 d.w.t. – See B.A. Chart 1429.
Documents:

12 copies Crew List (preferably Chinese forms).
1 copy Customs List (Chinese form mandatory).
2 copies Health Declaration (Chinese forms mandatory).
4 copies List of Narcotics (free form).
2 copies Master's Report (Chinese forms mandatory).
12 copies Passenger List (free form).
4 copies Arms and Munitions List (free form).

Regarding Customs List: Following to be declared: tobacco, spirits, watches, cameras, radios, tape-recorders, T.V. sets, video recorders. Gold, silver jewels, foreign currency. All electronic equipment and cameras to be named with brand, number, etc.
Pilotage: Following received by cable from agents before arrival: "From outer sea steer to position Lat. 30° 10′ 15″ N., Long. 123° 03′ 20″ E. Then, course 218° to reach position Lat. 29° 45′ 00″ N., Long. 122° 40′ 36″ E. at 8.3 miles from Tung Ting Tae L/H bearing 326°. Then course 270° steering directly to pilot station between Lat. 29° 44′ 30″ N., – 29° 46′ 00″ N. – Long. 122° 20′ 30″ E. – 122° 22′ 30″ E. Use of other channels is forbidden. Please contact Pilots through VHF Channel 16 one hour before arrival pilot station."
Call: Ningbo Pilot VHF Channel 16. Pilot boards from pilot vessel which comes from Ningbo. Pilot vessel is same size as a large harbour-tug, white hull and long white superstructure. Funnel placed aft-part of superstructure, and painted in chinese colours – red band with yellow stars. Equipped with radar and VHF. Difficulties experienced in contacting Pilot on arrival and the difficulties are believed to be because of distance from the pilot vessels stationed in Ningbo and the ship waiting on the above pilot station.

3 Pilots boarded the ship, and the ship continued via the narrow but deep strait of Shih-Peng-Chiang.

Anchorages: Above designated pilotage area considered to be a good anchorage for large vessels. Minimum depths of 10 fathoms. Current setting NW and SE with rates up to 4 knots.
Restrictions: No information on restrictions upon entry. The Strait of Shih-Peng-Chiang and inwards to the port was found to be well equipped with lighthouses and other navigational aids (not shown on the chart). Shore based Decca-radars cover the area and give instructions to Pilots during navigation in these waters. The outermost of the radar station is situated in approx. position Lat. 29° 44.4′ N., Long. 122° 18.3′ E. Our vessel arrived at pilot station on LW. Echo-sounder was used and there was not found to be less water than charted.
Max. Size: The port is designed to accommodate 1 ship of 100,000 d.w.t. and 2 ships of 25,000 d.w.t. Minimum depth on the outer-pier said to be not less than 18 m. on LLW.

During ship's stay in Beilun at Outer Pier the LLW depth alongside the pier was found to be 22.30 m. Only measured by echo-sounder.
Health: No special requirements. Ship cleared by Health Authorities after arrival.
Radio: No special instructions. During voyage cables regarding ETA and arrival-conditions were sent to Penavico Beijing and Penavico Ningbo via Shanghai Radio XSG. When within range Ningbo Radio was used (XSN).
VHF: See "Pilotage".
Radar: See "Restrictions".
Tugs: 2 tugs of 3,200 h.p. stationed in port. Very efficient. Meet ships off the pier using tug's lines. They handle vessels "Japanese style" in making fast on ship's sides.
Berthing: The port consists of 2 piers built out into the sea, parallel to the coast. The piers are connected to the coast by a long bridge, estimated 3 km. long. The density of water was measured to be 1019 but varies.

The outermost pier is used for large vessels. It is equipped with a sonar docking system, which shows the distance between the pier and the ship's bow and stern, and the vessel's approach speed in cm. per second. This pier is for bulk cargo discharge only. It is well protected with large rubber fenders. The pier is high and fenders keep ship so far from the pier that most ships unable to use normal accommodation ladder. Necessary to use gangway at right angles to the ship. No gangway supplied from shore.
Cranes: The outermost pier is equipped with 2 large gantry cranes with grabs. They are Japanese built Hitachi-cranes 30 ton SWL. Grabs used are 9.5 cu.m. The cranes discharge from ship to a belt conveyor leading to storage facilities on shore. Estimated length of conveyor belt 3.5 km. During our stay the cranes did not work in wind force exceeding 10.8 m./sec., or in dense fog. Also not working during periods of rain.

The innermost pier is equipped with 2 plants designed for loading bags into ships. The plants are fed with bags from 2 belt conveyors coming from the storage/packing area on shore. The bags slide from the top of the plant to the ship's hold via a "snail".

None of the piers are designed for anything other than discharging bulk or loading bags. Maximum discharge rate unknown. Our ship, which was unloading potash was guaranteed 1,500 tons per day but more than 5,000 tons per day was experienced. Only one crane was used, and it was only working slowly, because of delays in the packing area. All cargo from the ship was bagged immediately after discharge.

Stevedores: Labour arranged by Agent. Working day and night without any stops, weather permitting.
Medical: Seaman's hospital in Ningbo about 45 km. from the port.
Density: Varying with tide but average 1019. Water discoloured by mud.
Fresh Water: Available from pipes on the pier. Delivery rate 18 t.p.h. Approximate cost 1.5 Yuan/Tons.
Fuel: No fuel on the pier. Not known whether any bunker supply in the area.
Consuls: None.
Hatches: Operated by ship's crew.
Customs Allowances: On arrival each man had max. 1 bottle of spirits and 200 cigarettes. No objections was made to this. No cabins were searched. Neither were the Chief Steward's lockers with spirits, beer and slop chest checked. Chief Steward was allowed to take out any of the above mentioned goods for use during stay in port.
Cargo Gear: All cargo work carried out with shore gear.
Repatriation: Arrangements can be made. Crew members are transported to Shanghai by ship or train.
Time: GMT plus 8 hours.
Holidays: None.
Shore Leave: Crew members not allowed to go outside the gate situated on the shore end of the bridge connecting pier to shore. Distance from pier to gate about 3 km. There is a seaman's club in Ningbo. On request the club will arrange tours and sightseeing. The cost for a tour to Ningbo and return to the ship is 7.5 Yuan per man.
Identification Cards: Shore passes are issued on arrival. Each time a crew member steps ashore or comes aboard the ship, the shore pass and national passport should be shown to the Emigration Officer.
Watchman: An Emigration Officer is constantly on board checking passports each time people leave or come to the ship.
Telephones: Telephone placed on board for convenience of Agents, Stevedores, etc.
Regulations: Following received by cable from Agent before arrival: "Not permitted to use radio transmitters at anchorage or in port unless emergency. Must keep main engine, steering gear, rudder indicator, telegraph communication equipment, whistle/siren, gyro compass repeaters, radars and echo sounder in good condition, but not permitted to use any of them unless allowed by Pilot. Photographing and survey are not allowed in Chinese territorial waters, stay at anchorage or in port. The above regulations must be observed strictly."
Delays: No delays observed.
General: A ship's chandler from Ningbo is able to deliver all usual kinds of provisions.

Agent will arrange for laundry.

During the stay I was invited to see the packing area. The potash goes from the belt conveyor to 8 spouts, which weigh out the cargo and fill it into bags. Each spout capable of average 45 t.p.h. I was told that more equipment would be installed this year thereby doubling the packing capacity. Behind the packing house, there was a large area where ore of various kinds, which was discharged from large bulk-carriers at the outer pier, could be stored. The ore is reloaded into smaller ships at the inner pier using the same plants as when loading bags. These plants are designed for both bags and bulk. The loading rate of ore is said to be up to 4,000 t.p.h.
Agent: China Ocean Shipping Agency, Ningbo Branch. No agent's port office at Beilun. No telex available from Ningbo. Cables from ship to Owners/Charterers and vice versa are taken by car to/from Ningbo which makes communication slow and expensive.

SHIPMASTER'S REPORT: December 1985
Location: Beilun Oil Terminal in position 29° 57.4′ N., 121° 48.7′ E., about 45 km. by road from the town of Ningbo.
Chart: B.A. Chart No. 1429.
Documents:

Required on arrival:
*5 Crew Lists.
*1 Personal Effects List (see 'note' below).
*1 Health Declaration.
1 Vaccination List.
2 Cargo Manifests ('Nil' return if in ballast).
1 Drugs List.
*1 List of Arms and Ammunition.
*3 Copies of Application for Entry and Inspection.
*Indicates a Chinese form, others not acceptable.

On Personal Effects List individual crew members must declare radios, cassette players, cameras, watches, jewellery and currency.

No stores lists of any kind required. Bond is not sealed and crew issues may be made without restriction.
Formalities: All Officials board in Quarantine anchorage (believe occasionally in Ching Tang Yang). Pratique granted first and then vessel berths, remainder of formalities completed alongside.

Formalities are minimal and consist mainly of checking arrival papers, Register and Statutory certificates. No searches, crew inspections, etc. 2 Immigration Officers (Frontier Police) remain on board throughout vessel's stay and require accommodation.
Approaches/Pilotage: Telex from Agents prior to arrival with information as to approach track to follow and position of Pilot Station Anchorage – see "copy of telex" below. Communications with Pilot on VHF Channel 16. Difficult from outer anchorage due distance involved. Pilot establishes contact from pilot vessel or an outward bound ship about 1 hour to 2 hours before boarding. Pilot boards within Shih Peng Chiang which is well sheltered. It should be noted that this approach to Ningbo Gang is the only one permitted to foreign vessels and passage is in daylight only.

Thereafter navigation to anchorages/berth is straightforward. No objections raised to use of any of the vessel's navigational equipment or charts. Pilot brought his own charts of certain sections which could be referred to but not copied.

From entrance to Shih Peng Chiang inwards there are a considerable number of navigation marks and lights not marked on B.A. chart.

There is a Harbour Radar System with a chain of stations which would appear to give complete coverage from outer approaches to Ningbo; this was not in operation on either our inward or outward passage. Pilot stated that radar itself was excellent (Decca) but standard of operators poor and information received on VHF link unreliable.
Copy of Telex: Ningbo approaching guidance as follows please steer from high-seas to position 28° 53′ 00″ N., 122° 26′ 45″ E. 10 miles East of Beiyushan lighthouse (disused), therefrom take course of 013 degrees to reach position 29° 45′ 00″ N., 122° 40′ 36″ E. at 8.3 miles from Dongtingshan lighthouse (bearing 326 degrees) stop Then A/C 270 degrees and steer directly to p/anchorage (situated between 29° 44′ 30″ N.-29° 46′ 00″ N., 122° 20′ 30″ E.-122° 22′ 30″ E.) and must await Pilot there stop Other channels forbidden stop Photographing and survey are not allowed after entering China's territorial waters stop Please contact Pilot through VHF Channel 16 one hour before arrival at p/anchorage and keep on listening VHF Channel 16 until Pilot aboard stop Not allowed to use radio transmitter at anchorage unless emergency stop Must keep main-engine steering-gear rudder-indicator telegraph communication equipment whistle/siren gyro-compass repeaters radar and echo-sounders in good condition but not allowed to use any of them after arrival at p/anchorage unless permitted by Pilot stop Above regulations must be observed strictly stop Please confirm upon receiving.
PENAVICO
Anchorages:

1. Outer (pilot station) Anchorage as given in pre-arrival telex (See "Approaches/Pilotage".)
2. 'Mashi' Anchorage, to North and N.W. of Tieng-fing Shan (29° 52.5′ N., 122° 13.6′ E.), which is used for bad weather and typhoon shelter.
3. Quarantine Anchorage in area between latitudes 30° 00.3′ N. and 30° 02.4′ N. and longitudes 121° 48.0′ E. and 121° 49.7′ E. (approximate position).

Note: Quarantine Anchorage already marked on chart, centred on approximate position 29° 59.8′ N., 121° 46.9′ E. is used for small vessels only.

4. There were a number of vessels anchored in Ching Tang Yang between the Ore and Oil terminals, apparently awaiting cargo.

Also a crude oil storage tanker of approximately 220,000 d.w.t. on a permanent mooring here. Good holding ground reported at all anchorages.
Radio: Agents: China Ocean Shipping Agency, Ningbo Branch, 20 Xi Cao Ma Road, Ningbo, China. Telephone: 55375, 56449, 55744-573. Cable address: PENAVICO. Telex: 37028, 35289 NBPEN CN.

All communications prior to arrival by sat/comm telex without problem. W/T traffic lists copied from Ningbo Radio (M/F only) and Shanghai Radio; both stations appeared to handle traffic efficiently. Good weather forecasts in English from Shanghai Radio. As mentioned initial VHF contact with Pilot difficult. Within the port, Agents may be contacted on VHF through 'Ningbo Harbour Radio'; call on Channel 16 and then switch to working Channel 12. Agents listen on Channel 12 but this is the preferred method of contact. Use of main transmitter prohibited after arrival at pilot station, as is use of sat/comm.

When in port all cables and telex messages are required to be routed through Agents; these can be passed by VHF. If Agent has to collect/deliver messages it can take some time due to distances involved – all port offices and telex facilities are at Ningbo town.

All Chinese personnel dealing with vessel, i.e. Pilot, Agents and Port Officials spoke excellent English.
Tugs: 4 tugs available of 3,200 h.p. 2 tugs used when berthing and unberthing, tugs' lines used. Tugs well handled to Pilot's instructions. It was noted that Chinese tankers of about 20,000 d.w.t. berthed/unberthed without tugs.
Berthing: Vessel moored to No. 2 Berth. Conventional berth (See "Plan") with good mooring points and fendering. Ship's gangway used.

Berthing and unberthing daylight only at any state of the tide; berthing in wind up to force 5/6, unberthing up to force 8 (Pilot's estimate).

No mooring boats; all lines passed by messenger with winches adjacent to each shore bollard (except for springs). Offshore anchor used.

Shore based berthing approach aid on No. 1 and No. 2 berth. Visual display on top of jetty house gives speed of approach (cm./sec.) and distance off (metres) of each end of vessel. No details available.

Strong tidal streams (probably up to 5 knots) but run along line of berth, i.e. 134° – 314° and did not cause any difficulties.

Berth exposed to North and N.W.; a Northwesterly gale gave rise to some swell movement.

Maximum permitted draft on berth given variously as 9.0 m. and 12.0 m. Echo sounder indicated a minimum depth of approximately 15.0 m. at LW but not permitted to sound round the vessel.
Cargo Facilities: Cargo hoses on No. 2 berth all of 6 in. diameter and handled by ship's equipment and small (mobile) shore crane.

An English speaking interpreter on duty at jetty head throughout vessel's stay alongside.

Communication between jetty head and pump station/tank farm appeared to be slow and difficult.

No. 1 berth (of similar construction to No. 2 – see "Plan") is understood to handle only crude oil imports from North China; apparently all by Chinese tankers.

No. 2 berth handles all export products. Understand only products available are gas oil, gasoline, naphtha and fuel oil. A cargo of approximately 20,000 tonnes of gas oil is exported each month. No information on other grades.

No. 3 berth is for LPG. No information available.

The previously mentioned 220,000 d.w.t. storage tanker (Chinese) (See "Anchorages") moored in Ching Tang Yang is understood to be for transhipment of crude oil (from North China) for export. Equipped with Yokohama type fenders on starboard side. No other information available.

Ballast Facilities: No ballast may be discharged overboard without Harbour Master's permission. This is virtually automatic in case of segregated/permanent ballast.

Permission to discharge clean cargo tank ballast must be requested in writing and ballast water is subjected to analysis before permission is granted. Analysis takes about 6 hours.

Dirty ballast or ballast which fails analysis, may be discharged ashore. Receiving rate approximately 250 cu.m.p.h., maximum capacity unknown. There is a charge for this, understood to be 1.5 Yuan/ton.

Medical Facilities: Hospital at Ningbo. Transport provided by Seamen's Club.

Fresh Water: Available on jetty at cost of US$1.00/ton. Rate and quantity unknown. Also available by barge at Quarantine and Ching Tang Yang anchorages but 3 days' notice required. Cost unknown.

Fuel: Agents advise that marine diesel and also fuel oil bunkers are available but minimum of 7 days' notice required.

Repairs: No information on facilities available. Harbour Master's permission required for immobilisation of main engines.

Cargo Surveyors: Zhejiang Import & Export Commodity Inspection Bureau who attended for final ullaging and sampling were efficient.

Repatriation: No difficulties with repatriation of sick crew members or arranging routine changes. It takes 1 to 2 days to arrange visas and Agents will only arrange flights as far as Hong Kong. Airline Prepaid Ticket Advice accepted.

Shore Leave: Allowed. Passes issued on arrival by Immigration (must be returned). Transport provided by Seamen's Club at Ningbo and arranged through Agent.

General: Chandler: Not used. Understand meat/fish available at any time. Vegetables and salad seasonal.

Laundry: Available. Not used. Reputed to be good quality service and fast.

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QINGDAO (Tsingtao): 36.03 N. 120.20 E. (See Plan)

Also see "General" before first port.

~~**VHF:** Qingdao Radio on Channel 16.~~
~~**TUGS:** Up to 3,200 h.p.~~
~~**BERTHING:** 50 berths available with depth up to 12.0 m.~~
~~**CRANES:** Max. lifting capacity 50 tons.~~
~~**FRESH WATER:** Available.~~
~~**FUEL:** Available.~~
~~**REPAIRS:** Possible.~~
~~**AIRPORT:** Qingdao Airport.~~

INSERT NEW G.A.C. INFO

SHIPMASTER'S REPORT: September 1979.

Documents: On arrival: 1 Report on Entry, 4 Crew Lists, 1 Import Cargo Manifest, 1 List of specified Articles, Currency, gold, etc. and all ship's certificates.

Navigation: BA Chart 876. On passing Cha Lien Tao Island, call "Qingdao Radio" for entry instructions. The outer quarantine anchorage for which Pilot is not compulsory is in position Lat. 36° 02′ N., Long. 120° 18.3′ E. The approach is straightforward and the lighthouses are in good working order. The authorities board at the outer anchorage via pilot ladder from a tug. The use of radar in the harbour area must be sanctioned by Pilot or Harbour Authorities. All other navigational gear may be used as required.

Communications: Both Agents and Harbour Authorities have VHF with most Channels. When vessel is at Inner anchorage, Agency contact vessel twice daily for berthing times, etc.

Currency: Local Yuan available.

Draft: Up to 35 ft. alongside at discharging berth – in approach entrance off Horseshoe Reef up to 34 ft. depending on tide.

Agents: China Ocean Shipping Agency are sole Agents. They visit vessels twice daily and are also in VHF contact from their office. Communications with other countries from Qingdao is by cable only, telex is due to be installed next year.

Medical: Hospital and doctors available.

Laundry: Excellent and not expensive.

Provisions: Not expensive but very limited in both content and availability. Not to be relied on, especially if in port for short stay.

Fresh Water: Alongside from quay – 35 t.p.h. Also available at anchorage from water barge.

Time: GMT plus 8 hours.

Immobilisation: Permitted by arrangement with Harbour Authorities.

Opening/Closing Hatches: Either ship's crew or stevedores. In the case of the latter, a charge is payable.

Garbage: Removed when requested by small barge.

Repatriation: Difficult at present as no regular air passenger flights from Qingdao. Only way would be overnight train journey to Beijing then flight to Europe.

Repairs: Possible, large repair shops and naval yards in port area.

Bunkers: Available to Chinese vessels. Gas oil also available if adequate notice given.

Cargo Working: Discharged 24,000 m/tons sulphur in 6.75 working days, using shore cranes and grabs. Discharged into railway wagons on twin rail tracks also into large "silo" adjacent to the berth. Good standard of crane operation. Cargo tonnage discharged determined by draft surveys performed by Government surveyors and ship's staff. Statement of facts drawn up by Agents.

Watchmen: One gangway guard for inspecting Crew members' passes.

Tugs: Four large tugs – one of 3,000 h.p.

Pilots: Usually three on each vessel – reasonable English.

Density: Varies between 1020 and 1025.

Tours, etc.: Tours are arrangeable via the Seaman's Club and are good value. There are no shore leave restrictions and cameras may be used. Inter ship visiting is allowed also film and book exchanges between ships.

Shore leave is possible from the Inner anchorage by tug.

Mail: From Europe by air freight via Tokyo and Beijing takes 7 days.

Bond, etc.: Not sealed or inspected by Authorities. Stores Lists NOT required.

Floating Crane: Available, lifts estimated 150 tons.

General: Stevedore labour appeared plentiful – delays are occurring due to large increase in foreign trade. New berths are being planned and dredging is taking place continuously. Officials, Agents, etc. most pleasant and helpful and very eager to learn English. It is advisable to make a 'sea protest' to the Harbour Authorities if any bad weather experienced on voyage.

SHIPMASTER'S REPORT: June 1981.

Port: Qingdao ~~(Qingdao)~~. ⊙/

Berth: Huang Dao Oil Terminal. 36° 04′ N., 120° 13.5′ E.

Departure Draft: Forward 11.7 m. Aft 12.1 m.

Charts: BA 1255, 876, 857. Chinese (up to date) 9106, 9408, 9432.

Approach: Only by 'defined routes':
from: 35° 56′ 24″ N., 121° 05′ 00″ E. or 35° 43′ 15″ N., 120° 53′ 09″ E.
Course 270°T Course 338°T
to 35° 56′ 24″ N., 120° 46′ 42″ E.
then Course 283°T
to 36° 02′ 00″ N., 120° 18′ 16″ E. (Pilot boarding/Arrival Inspection Anchorage)

and reverse courses to same positions outward.

Entry: Arrival inspection formalities carried out at above anchorage, by boarding party of 8 persons from Agents, Customs, Immigration and Harbour Authority. We arrived at 1700 hrs. and inspection party boarded at 0930 hrs. next morning. China Ocean Shipping Agents, representatives spoke very good English and most helpful. Chinese documents required, including crew declaration form but Bonded Stores list not required and Bond not sealed. After inspection, about 30 minutes, shifted to Inner Tanker Anchorage with 2 Pilots.

Agents: China Ocean Shipping Agents, Cable: Penavico 2213 Qingdao.

VHF: Channel 16 to Qingdao Radio who will give you a channel to Agents, usually Channel 11.

Anchorage: Inner Tanker Anchorage is 1 mile North of Oil terminal with varying depths from 11 m. to 30 m.

Berths: Concrete dolphin structure, adequately fendered. West berth max. draft 12 m., berth port side to, approach from North. East berth max. draft 13 m., approach from South rounding No. 23 buoy to starboard when coming from Inner anchorage, Port side to. No shore gangway. Connection with flexible hoses so derrick required. Usual moorings. Head and stern line dolphins have small winches on them but out of order so mooring gang reluctant to handle wires.

Berthing/Unberthing: Competently carried out by 3 Pilots and 2 tugs. Tugs, Nos. 10 and 11 are 3,200 h.p. Gather vessels of our size (55,000 d.w.t.), and above only depart during daylight and on HW.

Cargo: Loaded Shengli Crude API. 23.3, loading temperature 40°C. Terminal state maximum loading rate 2,500 tonnes per hour. We achieved 1,980 t.p.h. Connection is by 2×10 in. 'Y' connectors at manifold connected to flexible hoses. After completion documents take 3/5 hours to prepare and bring on board.

Ballast: As first cargo after dry dock we received permission from Harbour Authority to deballast to sea although pumped tank bottoms ashore just in case. I gather that it is normal to deballast to shore reception at maximum rate of 600 t.p.h. and believe charge per ton is quite high so it is prudent to arrive with minimum dirty ballast.

Repairs: Appear to be quite readily available. We had some boiler tubes welded and Chief Engineer reported that the work was competently carried out. Chinese surveyors also act on behalf of Lloyd's.

Fresh Water: Available at anchor from powered barge at 50 t.p.h. and also available on terminal but pressure is unreliable.

Shore Leave: Allowed from anchorage and terminal. Request for launch to be passed to Agents by VHF before 1100 hrs. and launch alongside around 1230/1300 hrs. and returns from shore between 1700/1900 hrs. There is a Seamen's Club with a new hotel attached which was opened during our stay. Seamen's Club will arrange football matches, and various tours. International telephone calls can be made from Agents' office.

Garbage: A garbage collection boat calls every other day whilst at anchor.

General: During our 16 day stay in June there was fog during some part of nearly every day, occasionally dense.

+ SMR.

AUTHORITY: Qingdao Harbour Administration Bureau, 4 Dai Gang Yan Road, Qingdao, People's Republic of China. *Tel:* 27641. *Contact:* Bai Wen-Xuan, Deputy Director.

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QINHUANGDAO (Chinwangtao): 40.00 N. 119.30 E. (See Plan)

Also see "General" before first port.

NOTICE: Chinese Notice June 1984.

Anchorages with bearings and distances from Nanshan Tou light (Lat. 39° 54.6′ N., Long. 119° 36.9′ E. approx.):

(a) Oil tanker anchorage. Sector between bearings 100° and 110° and distances 3.0 miles and 7.0 miles.

(b) East Anchorage. Sector between bearings 110° and 135° and distances 3.0 miles and 7.0 miles.

(c) West Anchorage. Sector between bearings 165° and 190° and distances 3.0 miles and 5.0 miles.

PILOTAGE: Compulsory. Pilotage is undertaken day and night. Pilot boards at the relative pilotage quarantine anchorages.

ANCHORAGES: There are 3 anchorages in the Port of Qinhuangdao.

1. Eastern Pilotage Quarantine Anchorage:

Location:	A sector area with Nanshantou Lighthouse as its centre, lying between the true bearings of 119° and 135° and between two arcs of 3 miles and 7 miles in radius.
Depth:	14.0 m.
Bottom:	Mud and sand.
Vessel size:	50,000 d.w.t.

2. Western Pilotage Quarantine Anchorage:

Location:	A sector area with Nanshantou Lighthouse as its centre, lying between the true bearings of 165° and 190° and between two arcs of 3 miles and 5 miles in radius.
Depth:	12.0 m.
Bottom:	Mud and sand.
Vessel size:	35,000 d.w.t.

3. Anchorage for Tankers:

Location:	A sector area with Nanshantou Lighthouse as its centre, lying between the true bearings of 110° and 119° and between two arcs of 3 miles and 7 miles in radius.
Depth:	14.0 m.
Bottom:	Mud and sand.
Vessel size:	50,000 d.w.t.

RESTRICTIONS: Entry and departure possible after sunset.

Draft limitation in channel is 13.5 m.

TUGS: 7 × 3,200 h.p. and 3 × 167 h.p.

BERTHING:

District	*Berth* No.	*Length* (m.)	*Present Depth* (m.)	*Cargo Handled*
1st Cargo Handling Ward	101	278.5	9.9	Crude oil
	102	278.5	10.0	Crude oil
	103	322.5	13.3	Crude oil
2nd Cargo Handling Ward	201	507.4	12.8	Coal
	202		13.0	Coal
	203	615.4	13.0	Coal
	204		13.0	Coal
3rd Cargo Handling Ward	4	107.3	6.8	Coal
	7	151.7	9.3	Coal
	8	200	9.6	Coal
	9	200	9.9	Coal
4th Cargo Handling Ward	2	123.4	5.7	Bulk and general cargo
	5	151.7	8.6	,,
	6	151.7	8.7	,,
	14 }	463.7	10.7	,,
	15 }		10.8	,,
	Berth at transverse end of Pier A	171.9	9.1	,,
5th Cargo Handling Ward	10 }	512.6	New berth	,,
	11 }		New berth	,,

STEVEDORES: First shift: 0730 hrs. – 1930 hrs. Second shift: 1930 hrs. – 0730 hrs. (Sundays and holidays included).

MEDICAL: Facilities available.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Facilities available for repairs to large vessels.

TIME: GMT plus 8 hours. Summertime GMT plus 9 hours from May 4th until September 14th (1986).

DEVELOPMENTS:

Berth	*Depth* (m.)	*Remarks*
General Cargo (2nd phase)	12.0	3×35,000 d.w.t. 3×15,000 d.w.t.
General Cargo (3rd phase)	12.0	2×35,000 d.w.t. 3×20,000 d.w.t.
	10.5	2×20,000 d.w.t.
Coal Terminal (By Year 2000)		5×20,000 d.w.t.
	12.0	3×35,000 d.w.t.
Crude Oil Terminal (3rd phase)		1×100,000 d.w.t.
	13.5	2×35,000 d.w.t.

SHIPMASTER'S REPORT: March 1981.

Lat. 39° 54.6′ N., Long.: 119° 36.7′ E.

Chart: BA No. 3378.

Documents:

5 copies Crew Lists.
1 copy Import Manifest.
1 copy List of Specified Articles belonging to Ship and/or Members of Crew.
1 copy Maritime Declaration of Health.

Anchorage: In case there is ice at anchorage in Winter it is advisable to anchor further off and not pay out too long scope of chain.

Also see "Notice".

Pilotage: Pilotage is compulsory for foreign vessels entering and leaving the port. Pilots board ships at pilotage/quarantine anchorage. Pilotage is undertaken day and night. Pilot boat (tugboat) displays the International Pilot Signal when on pilotage duty. There are about 12 Pilots available. Pilots can speak and understand English sufficiently.

Channels: In port there are three channels. Original channel, new channel and oil pier channel.

Original channel is about 1.7 miles in length, 100 m. in width and 9 m. to 10.4 m. depth. It is used bys berthing and leaving the large pier and the small pier.

New channel about 0.9 miles in length, 100 m. in width and 9.4 m. to 10.4 m. in depth. It is a branch of the original channel and is used by ships berthing and leaving the new pier.

Oil pier channel is about 2 miles in length, 100 m. in width and 10.7 m. in depth. It is used by ships berthing and leaving the oil pier.

Berthing:

	Name		Capacity
Small pier	Berth No. 2		1 × 5,000 ton
Large pier	Berth No. 4		1 × 7,000 ton
Large pier	Berth No. 5		1 × 10,000 ton
Large pier	Berth No. 6		1 × 10,000 ton
Large pier	Berth No. 7		1 × 10,000 ton
New pier	Berth No. 8	} Pier B	1 × 10,000 ton
New pier	Berth No. 9		1 × 10,000 ton
New pier	Berth No. 14	} Pier A	1 × 10,000 ton
New pier	Berth No. 15		1 × 10,000 ton
Oil pier	East Berth		1 × 10,000 ton
Oil pier	West Berth		1 × 10,000 ton

Radio: Foreign ships calling at this port may according to International Radio Regulations communicate with Qinhuangdao Coastal Radio Station.

Name	Qinhuangdao Radio
Call sign	XSE
Medium frequency (kHz)	486
Hours of service	0000 – 2400
High frequency (kHz)	8484
Hours of service	0600 – 2400
Time of traffic list	At H + 10 each given hour.

There is VHF Channel 16 at port control and Channel 11 at 'Penavico' Agents. To call Agents first call port control and then change to Channel 11 after informing the vessel's intention to use VHF.

General: The port is equipped with lifting machinery, tippers, universal lifting machines, belt conveyors. Cargo is unloaded directly into railway wagons. Coal loading is done by conveyor belts. Hatches are opened by ship's crew. Stevedores are not competent in derrick work. Stevedores work in three shifts of eight hours each commencing at 0600 hours. Discharging rate is fully dependent on availability of wagons. There are 11 tugs available. Fresh water and fuel are available by boats. Limited provisions are available.

There is a Seaman's club in the city, well equipped with recreation facilities. A trip to Great Wall of China can be arranged through the club.

AUTHORITY: Qinhuangdao Port Adminstration, 6 Haibin Road, Qinhuangdao, The People's Republic of China. *Tel:* 34812-3522. *Telex:* 271051 QH PEN CN. *Cables:* 2156 Qinhuangdao. *Contact:* Huang Guo-sheng, Port Director.

SANYA (FROM LATE) ← QUANZHOU

ATENA
G.A.C.

SHANGHAI: 31.14 N. 121.28 E.

Also see "General" before first port.

PILOTAGE: Pilot available 24 hours. Working VHF Channels 16 and 6.

Pilot boards:

(a) Vessels using Beicao Hangdao and Beicao Hangcao: between Light Buoys "Y1" and "Y4";

(b) Vessels using Nangcao Hangdao: between Light Buoys "47" and "49".

Send ETA at the outer roundabout, when at least 4 nautical miles from it, on Channels 6 or 16. Vessels making for Beicao Hancao should make a safety broadcast 3 nautical miles before entering it and on entry, broadcast their name and the time. Vessels intending to navigate in Yawosha Hangcao should be equipped with VHF Channel 6.

TUGS: 20 × 3,000 h.p.

BERTHING:

No. of Berths	*Length*	*Cargoes Handled*
6	596	Minerals, bagged/bulk salt, rubber, general, fertiliser and food stuffs.
5	569	Minerals, sugar and coal, food stuffs in bulk (specialised berths).
8	1,211	Steel products and non-metal minerals.
5	752	Minerals and steel products, timber (specialised berths).
7	1,114	Steel products and others.
2	308	Steel products, timber and others.
9	1,355	Coal.
10	1,758	Bulk ore, steel products, fertiliser, chemicals and others.
7	1,324	Containers (specialised terminal), heavy lifts, steel products, iron ore, cars and chemical products.
9	1,600	Containers (specialised terminal), steel products, cement, chemicals and others.
10	993	Minerals, steel products and coal.
10	887	Minerals, coal, food stuffs and others.
10	1,038	Passenger terminals.

SPECIALISED CARGO HANDLING FACILITIES:

Chemicals/Fertilisers: The special wharf for handling bulk chemical fertiliser and bulk soda has a quay length of 350 m. able to accommodate two 10,000 d.w.t. vessels or one 30,000 d.w.t. vessel. The wharf is equipped with cranes with capacity exceeding 15 tonnes and various types of hold cleaning machinery. With 22 sets of advanced bagging machines available, bulk cargoes can be bagged in warehouses or at ship's side.

Bulk Grain: With a quay length of 383 m. the mechanised bulk grain handling wharf can accommodate 25,000 d.w.t. ocean-going vessels and smaller coastal vessels simultaneously. The wharf is equipped with 6 sets of pneumatic suckers with capacity of 150-200 tonnes p.h.

After discharge by suckers, grain is transferred to silos. The silos, having a total capacity of 51,000 cu.m. are equipped with 6 elevators with capacity of 300 tonnes p.h. each. 6,000 tonnes of grain can be bagged per 24 hours.

Timber: Handling of timber takes place at 4 specialised berths with a total quay length of 689 m. for 10,000 d.w.t. ocean-going vessels as well as at mooring buoys. The terminal has a stacking yard of 40,000 sq.m. and a river basin of over 10,000 cu.m. for timber storage. Timber is handled with 6 portal gantry cranes of 10 tonnes capacity and other specialised equipment.

Containers: There are 4 container berths enabling 4 second generation full container vessels to be handled simultaneously. The 2 container terminals are equipped with 6 gantry cranes, 14 straddle carriers, and forklifts. The well laid out container yards and container freight stations cover an area of 240,000 sq.m. and have railway connection.

MEDICAL: Facilities available.

FRESH WATER: Available.

FUEL: Available

REPAIRS: Facilities available.

AIRPORT: Located 30 km. from the port.

DEVELOPMENTS: Container wharves at Wusong under construction. Two berths. Hitachi container crane (30.5 tonne) under construction.

Two coal wharves (4 berths) being re-built.

Seven new berths for vessels of 10,000 d.w.t. to be built.

SHIPMASTER'S REPORT: March 1980.

Tanker's Particulars:

Ship's Length: 170.75 m. Breadth: 26.09 m. Depth: 14.9 m.

Summer Deadweight: 31,600 tonnes. Draft: 11.33 m.

Loaded Shanghai: 19,897.184 tonnes Chinese motor gasoline.

Sailing Draft: Forward 8.54 m. Aft 9.02 m.

Navigation: British Admiralty Charts 1601 and 1602 (T) proved most reliable with all buoys in their correct position exhibiting the correct lights. Where the channel is constantly dredged, there are a few extra buoys but they follow the normal numbering of odd on the starboard hand and even to port when proceeding up river.

Anchorage: Anchorage is obtained in the area shown S.E. of Chang Kiang Kou Lightvessel. There is a constant strong tide running here and at least 6 shackles in the water are recommended.

Pilotage: The pilot vessel is anchored at Lat. 31° 03.4′ N., Long. 122° 12′ E. The Pilots listen on Channel 16 but berthing information usually comes from the Agents "Penavico", through Shanghai Radio. When picking up the Pilot, vessels are told to approach as close to the pilot vessel as possible and the Pilot boards from a small boat. An approach to the pilot station may be made either by keeping well South of the Yangtze Channel or going up the channel until Buoy No. 14, then cutting down South.

Radio: Pilots listen to VHF Channel 16. The national agency "Penavico" listen on Channel 11 for all ships. Foreign ships are especially asked to listen at the following times when they will normally be contacted. 0715 hrs., 1115 hrs., 1515 hrs. and 1915 hrs.

The Agents "Penavico" also have Channel 27 if Channel 11 is busy.

Papers: The following papers are required, and must be on the Chinese printed forms:

2 Report of Entry for foreign-going ship
1 Maritime Declaration of Health
1 Report on articles restricted for use in port
7 Crew Lists
1 List of specified articles, foreign currencies, gold, silver belonging to the ship and/or members of the crew.
1 Import manifest showing goods to be imported into Shanghai

A boarding official came aboard with the Pilot and all the Chinese forms were completed en route to the Quarantine Anchorage. At the Outer Anchorage, no persons boarded.

Clearance and Pratique at the Quarantine Anchorage took about an hour. After this all the officials and the Pilot left.

All non-Chinese are given Identity cards. Each man receives a currency card and all cash drawn on the ship is noted and stamped by the Agent. All unused cash must be returned.

Shore leave is allowed from the Quarantine Anchorage. There are two boats daily, one at 0900 hrs. and the other 1600 hrs. Vessels requiring this boat must hoist the flag signal "DI".

Berthing: All berthing information comes from the Agent via VHF. Berthing is carried out day or night at Kao Chiao Sha which is on the North bank of the river between Buoy Nos. 107 and 108. Berth is in position Lat. 31° 20.75′ N., Long. 121° 32.1′ E. Vessels loading berth starboard side alongside so they can turn around in the narrow river whilst still light draft. Vessels turn in the river off Buoy No. 110. The turn is made to starboard using the engines and a tug which pushes on the port bow. Sometimes the starboard anchor is used. At the berth one tug only is used, this not being made fast at all. It simply pushes where required.

Moorings are 4 headlines plus 2 springs forward with 4 sternlines and 2 springs aft. Whilst approaching the berth, the port anchor is run out although its usefulness is doubtful.

The actual berth is a "T" shaped concrete pier on wooden piles. It is about 400 ft. long with a maximum depth of 9.5 m. 560 ft. is about the maximum length for the berth. Springs go to the jetty whilst other lines go to the shore. Despite the heavy traffic on the river, very little surging was experienced on the berth.

No fuel, water, diesel available ex-berth. All available from a barge but not during cargo operations. No slop facilities ashore, again a barge is available if required.

No ballast to be discharged into the river without the permission of the Harbour Authorities. A written application must be made through the Agents for the authorities to inspect the ballast. After inspection, permission may then be given to start de-ballasting. This ballast check is most stringent and samples of every tank are taken plus a really good visual check carried out. The oil record book is also checked by the authorities.

Whilst at the berth, no visitors are allowed on board. Four border guards are on the vessel at all times. Two maintain a continuous gangway watch recording the arrivals and departures. Customs Officials also stay on board throughout. Whilst at the berth, an Agent's representative also stays aboard.

Facilities: Medical facilities are good and they are arranged by the ship chandler. Provisions and stores are readily available and found to be of good quality and inexpensive. The bond was not sealed.

There is a free transport to and from the seaman's club in Shanghai which was about 1 hour's drive. Photography is allowed in all areas except the docks and military areas.

Notice of Readiness is only accepted during office working hours. Anything required such as cargo surveyors, tank inspectors, bills of lading or certificates of quality and quantity must be applied for in writing well in advance.

Repatriation is possible, the ship chandler provides all the necessary alien application forms.

If tankers wish to take a shore line sample at the start of loading, written permission must be applied for.

Tankers should be well advised to ballast well out to sea as the water 20 miles from shore tends to contain a lot of mud and sand.

Sailing: All unused cash, plus currency cards and passes are collected prior to sailing. Papers take about 4 hours. The maximum river draft is 9.0 m. fresh water.

Two tugs are used for unmooring, one each end and use either tug's or ship's gear. Before singling up, the anchor is pulled home if possible. Ships with deep draft have 2 Pilots who speak good English. Once the vessel is off the berth, the tugs depart. There seemed to be no radar assistance or traffic control on the river. Each Pilot depended greatly on the whistle and smaller craft seemed to keep the main channel clear. Pilots sometimes talked ship to ship on VHF, Channel 6.

In the main Chanjiang (Yangtse River) there are 3 shallow areas and if drawing 9.0 m., they cannot all be transited in one passage. First after un-mooring day or night, the vessel clears the shallow area off Buoy No. 58 at HW. Anchor is then dropped with 6 shackles on deck in the anchorage just off Buoy No. 57. Just prior to the next high tide, vessels weigh anchor to pass shallow areas off Buoy Nos. 55 and 23, the latter being passed at HW. The minimum under keel clearance recorded was 1.0 m.

Pilots depart as close to the pilot vessel as possible, taking ships South of the channel to do this. It is up to the Master whether he remains outside the channel or goes back in it after the Pilot has left.

Conclusion: There were no musters of officers or crew. No problems were encountered and all shore personnel seemed pleasant and polite.

The berth itself was rather old with no gear at all. Ship's gangway was used and ship's derrick was required to handle 2×6 in. hoses. Loading rate was 450 t.p.h. and the jetty was manned at all times.

Agency Notice: To the Master,

m.v. "..."

Dear Captain,

Please find attached herewith the following forms required by the Port Authorities at the Joint Inspection which is to be conducted on your vessel's arrival at the Quarantine Anchorage:

2 Report of Entry for foreign-going ship
1 Marine Declaration of Health
1 Report on articles restricted for use in port.
1 set of specified articles, foreign currencies, gold, silver belonging to ship and/or members of crew
7 sets Crew List

Please have the above forms filled in now and be ready to submit them to the port officials on their boarding for Joint Inspection.

Yours faithfully,
China Ocean Shipping Agency
Shanghai Branch

SHIPMASTER'S REPORT: October 1980.

Shanghai pilot vessel will now give orders about proceeding inwards to pilot vessel or remaining outside at designated anchorage. Pilot checked to make sure we had anchored in the correct anchorage. Channel buoys as per "Guide to Port Entry". See "Circulars – Guide to foreign vessels calling at Shanghai – Para 3(c)". These buoy positions and descriptions were transmitted to vessel but only 4 hours before arrival at channel entrance. Pilot vessel tends to be between Buoy Nos. 14 and 18. All other information in the Shipmaster's reports appears to be still valid.

Since about July 1980 foreigners changing money ashore are issued with Bank of China foreign exchange certificates, likewise if drawing cash from Agent. Denominations of 50, 10, 5, 1, 0.50, 0.10 yuans. The certificates (like banknotes) are printed with the following:

"The yaun expressed in this certificate is equivalent in value to the Renminbi yuan. This certificate can only be used within China at designated places. No request to register its loss will be accepted by the Bank".

The Renminbi Yuan is the official currency unit. Designated places are Seaman's Club, Seaman's Store and Friendship Store. The two former have cheaper prices for seamen. Other designated places are the tourist hotels.

For tankers, authorities require a cargo manifest of nil cargo, no special form required.

For entry papers the official Chinese forms must now be used for 'Report of Entry for Foreign-Going Ship, Crew List and List of Specified Articles, Foreign Currencies, Gold, Silver belonging to Ship and/or Members of Crew'. If not available on board before arrival then vessel must now transfer the information to the Chinese forms.

If vessel coming from what they describe as a cholera infected port then the following are required. A statement of ballast quantities and disposition (required from clean port also) and where the ballast came from, i.e. open sea or which river. They are most concerned that no ballast is imported from a cholera infected port. Ballast is inspected by quarantine officials and the slightest "rainbow" on top means the top one third of that tank will have to be pumped into a barge. They will not give statement to say they consider any tank is not suitable to pump overboard into river. A statement of where you last took fresh water, amounts taken and amounts remaining on board. They analysed our water from Bangkok and declared it was not very good and chlorinated the drinking water tank and also the wash water tanks but again they would not give a statement to say what was wrong with it, although they do not give a certificate to say the tanks have been chlorinated. A list of stores taken at any 'cholera infected port'. If any fresh stores were taken then samples are taken ashore for analysis. Obviously, it is best to endeavour to ascertain beforehand whether they consider your last port cholera infected.

Other papers required are crew declaration (to include makers names for items like watches, radios, etc.). Ten copies of Notice of Readiness. They do not consider a vessel ready until all ballast has been discharged. They did not require lists of bridge navigational equipment or lists of pyrotechnics or lists of radio equipment.

Light dues are payable for 3 months or 30 days. For 30 days, dues are calculated at Yuan 0.90 per nett registered ton. For 3 months it is more expensive.

At Quarantine Anchorage, accommodation required for 2 guards. At berth same required plus accommodation for 2 Customs Officials, 1 Agent and possibly 1 cargo surveyor.

Inspection is carried out on arrival at the Quarantine Anchorage and prior to departure berth. This was just the entry and departure formalities. No search was made and there was no crew assembly. Passes issued to everyone and collected prior to sailing.

Apparently fresh water and bunkers are available. There appeared to be no restrictions on use of radar, echo sounder, binoculars, etc.

Gasoline cargo loaded was about average S.G. with a loading temperature of 23.5°C. Cargo papers on sailing are manifests and Bills of Lading only.

SHIPMASTER'S REPORT: July, 1984.

Shanghai Entrance. Buoys as follows:

AAA Changkiangkou Lightvessel Lat. 31° 03′ 30″ N., Long. 122° 23′ 1″ E.

BBB Changkiangkou Lightbuoys M1 H11-H20 replaced by Buoys 44 – 49.

Buoy 44	Lat. 31° 03′ 22″ N.,	Long. 122° 19′ 52″ E.	Fl. 3/10 secs.
Buoy 45	Lat. 31° 03′ 14″ N.,	Long. 122° 16′ 58″ E.	Fl. 3/6 secs.
Buoy 46	Lat. 31° 03′ 06″ N.,	Long. 122° 14′ 02″ E.	Fl. 3/10 secs.
Buoy 47	Lat. 31° 03′ 00″ N.,	Long. 122° 11′ 06″ E.	Fl. 3/6 secs.
Buoy 48	Lat. 31° 03′ 34″ N.,	Long. 122° 08′ 14″ E.	Fl. 3/10 secs.
Buoy 49	Lat. 31° 04′ 11″ N.,	Long. 122° 05′ 26″ E.	Fl. 3/6 secs.

Pilot vessel moving in/area Buoys 47 – 49 serving/as pilot station.

SHIPMASTER'S REPORT: January 1986

Documents: The following papers are required by the Port Authorities:

1 copy Maritime Declaration of Health.
2 copies Report of Entry for Foreign Going Vessels.
4 copies Crew List.
1 copy List of Specified Articles, Foreign Currency, Gold, Silver belonging to the ship or crew members.
1 Import Manifest.

The following certificates and papers are to be submitted for examination by the Port Authorities:

Registry Certificate.
Tonnage Certificate.
International Load Line Certificate.
Derat Certificate.
Deck and Engine Log Books.
Tonnage Dues Certificate.
Manifest of Cargo for Discharging and Transit Cargo.
Oil Record Books.

Clearance: Clearance of the vessel usually takes place at the Shanghai Quarantine Anchorage located in the following position between the buoys:

Buoy No. 25	Lat. 31° 20.8′ N.,	Long. 121° 39.7′ E.
Buoy No. Q1	Lat. 31° 21.9′ N.,	Long. 121° 37.8′ E.
Buoy No. 29	Lat. 31° 23.0′ N.,	Long. 121° 35.9′ E.
Buoy No. Q4	Lat. 31° 23.5′ N.,	Long. 121° 36.3′ E.
Buoy No. Q3	Lat. 31° 22.6′ N.,	Long. 121° 38.4′ E.
Buoy No. Q2	Lat. 31° 21.8′ N.,	Long. 121° 40.4′ E.

After clearance vessel proceeds for berthing/mooring. Occasionally Port Authorities instruct Pilots to proceed direct for berthing/mooring and Entry Clearance of the vessel carried out after berthing or mooring.

Navigation: B.A. Charts No. 1601 and No. 1602 proved most useful when entering the South Channel in order to receive Pilots.

The positions and new numbers of the buoys are indicated below:

Changjiang Kou Lightvessel	Lat. 31° 03.4′ N.,	Long. 122° 23.2′ E.
Buoy No. 1 (ex-Buoy No. 44)	Lat. 31° 03.4′ N.,	Long. 122° 19.8′ E.
Buoy No. 2 (ex-Buoy No. 45)	Lat. 31° 03.2′ N.,	Long. 122° 17.0′ E.
Buoy No. 3 (ex-Buoy No. 46)	Lat. 31° 03.1′ N.,	Long. 122° 14.0′ E.
Buoy No. 4 (ex-Buoy No. 47)	Lat. 31° 03.0′ N.,	Long. 122° 11.1′ E.
Buoy No. 5 (ex-Buoy No. 48)	Lat. 31° 03.6′ N.,	Long. 122° 08.2′ E.
Buoy No. 6 (ex-Buoy No. 49)	Lat. 31° 04.2′ N.,	Long. 122° 05.4′ E.
Buoy No. 7 (ex-Buoy No. 50)	Lat. 31° 05.4′ N.,	Long. 122° 02.8′ E.
Buoy No. 8 (ex-Buoy No. 51)	Lat. 31° 06.6′ N.,	Long. 122° 00.2′ E.
Buoy No. 9 (ex-Buoy No. 52)	Lat. 31° 07.6′ N.,	Long. 121° 57.7′ E.

The characteristics of all the above buoys of the South Channel are Red/White with radar reflector on top.

The South Channel is used for vessels in light condition or vessels with a draft up to 7.5 m. (FW).

The North Channel is used for large vessels or vessels with a draft over 7.5 m.

The numbering of the buoys of the North Channel is still the same as indicated on B.A. Chart No. 1602 but in the near future this channel will also be re-numbered.

Pilotage: During good weather the pilot vessel is anchored in position Lat. 31° 03.8′ N., Long. 122° 07.2′ E. and Pilots board vessels between Buoys Nos. 5 and 6 in the South Channel.

For vessels using the North Channel, boarding area is between Changjiang Kou Lightvessel and No. 1 Buoy of South Channel.

During bad weather or strong winds Pilots board between No. 6 and No. 7 Buoys of South Channel and occasionally near No. 8 Buoy.

For entry or departure through the South Channel all ships navigate anti-clockwise within a radius of 1.3 miles of the Changjiang Kou Lightvessel but clear of an inner radius of 0.3 miles centred on Changjiang Kou Lightvessel and then entering South Channel within 500 m. North of the line joining mid-channel Buoy Nos. 1 – 9 or 500 m. South of the line joining mid-channel Buoy Nos. 1 – 9 on leaving.

Pilots listen on VHF Channel 16, and give instructions to vessels entering or berthing at Shanghai. They also give instructions as to the Pilots' boarding position. Foreign vessels contact the pilot station at 0845 hrs., 1115 hrs., 1515 hrs. and 1915 hrs. to enquire if they are on the daily list for entering.

Local Agents "Penavico Shanghai" also inform vessels by cable via Shanghai Radio of berthing prospects and Pilots' boarding time. Two Pilots board vessel and they stay on board until vessel is berthed or moored.

Anchorage: Vessels anchor in the area indicated to the S.E. of Changjiang Kou Lightvessel (between 30° 35′ N. and 31° 00′ N. and between 122° 25′ E. and 122° 32′ E.).

Due to strong current and tide at least 6 – 7 shackles are recommended when anchoring in the above anchorage.

Radio: All telexes transmitted to Agents via Singapore Radio and Shanghai. Agents "Penavico" relay cables via Shanghai Radio only.

The following information is required by the Agents:

Forward and aft arrival draft (Salt Water).

Crew/Passengers on board and if all healthy.

Ports of call from Loading Port with dates of arrival/departure each port.

Quantity of main provisions, drinking water, ballast water on board and when and where taken.

Derat or Derat Exemption Certificate, port and date of issue.

"Penavico" use VHF Channel 11 for all ships when giving any information required by the vessels.

Berthing: All berthing information received from the Agent via VHF. Berthing or shifting carried out day and night.

For discharging of soyabean oil, vessel moored to No. 81 – 82 Buoys located on the ninth section of the river. The actual berth for soyabean oil is a small wooden pier used only by small coasters and barges. During mooring 1 tug used only for pushing. 4 headlines and 1 slip wire used forward and only 4 stern lines used aft.

No ballast water can be discharged into the river without the permission of the Harbour Master.

For a short period (6 – 8 hours) the Port Authorities (through the Agent) give permission for engine inspection and overhauling of pistons.

Discharging: Notice of Readiness tendered on vessel's arrival at the Outer Anchorage but accepted by "Penavico" after berthing and only during office hours.

Cargo Surveyors (3 persons), board vessel and check the quality of the cargo, taking ullages and samples. The Surveyors company is the national firm China Commodity Inspection Bureau.

After cargo inspection and test, and if they find cargo in good order, they give permission for discharge to commence. No ship's papers or cargo calculations signed by them.

Cargo discharged into the barges at a maximum rate of 350 tonnes/p.h. through a flexible 6 in. hose. Each barge has a capacity of about 350 – 500 tonnes. There is always a shortage of barges. For a quantity of 10,000 tonnes the discharging time is usually 4 – 7 days.

The daily quantity discharged was:

Day 1 – 350 tonnes (1 barge).
Day 2 – 685 tonnes (2 barges).
Day 3 – No discharging. No barges available.
Day 4 – 1,250 tonnes (3 barges).
Day 5 – 1,745 tonnes (4 barges).
Day 6 – 2,200 tonnes (5 barges).
Day 7 – 3,515 tonnes (9 barges) maximum.
Day 8 – 485 tonnes (1 barge).

The daily maximum quantity which they can receive is approximately 3,500 tonnes.

After discharging and squeezing of the cargo the Surveyors inspected all the tanks carefully and gave their own Dry Certificate. If there is a difference between the ship's figures and shore figures, vessel's departure is postponed until a final settlement is reached.

Unberthing: 2 tugs are used for unmooring, one each end, using tugs' lines.

Large vessels always use 2 Pilots and they speak good English. The Pilots use the ship's whistle a lot in order to keep the main channel clear as no safety regulations followed by small craft, barges, ferries, etc.

Both anchors to be ready for use at all times when berthing/unberthing.

Facilities: Free transportation by a small ferry is available from the ship to the ferry station.

Two guards and 1 Customs Officer stay on board from arrival until sailing.

Provisions, stores, bunkers and water are available with 2 – 3 days' notice. The water is not very good quality so should be avoided if possible. Bonded stores are not sealed. Port Authorities and Agents are very pleasant and polite. The vessel did not face any problems during entering, stay alongside or when leaving Shanghai.

SHIPMASTER'S REPORT: March 1986.

Vessel anchored with 6 shackles in the water; Changjiang Kou Lightvessel bearing 277°×9.5 miles. Strong winds (force 6) were experienced and vessel rolled 20°. Ebb tide is stronger than the flood. All messages were passed on to the Agents via W/T, who keep watch 24 hours on VHF Channel 11, but there was no answer. Entry and departure is through the South Channel (Nancao Hangdoa). Changjiang Kou Lightvessel and the buoys are in position as marked on Chart No. 1602; but no racon was observed on any of the lightvessels. Light Buoy Nos. 44 onwards are re-numbered as Nos. 1 onwards; and are red and white can buoys with spherical topmarks. The lightvessel and all the buoys are to be passed on the port side. 2 pilot vessels were cruising between No. 5 and 6 Buoys and Pilot boards from a small boat coming alongside.

Vessel had to anchor for Free Pratique at Woosung Quarantine Anchorage, which was granted in 30 minutes. After the vessel was tied up at berth between Buoy Nos. 44 and 45, Customs and Immigration boarded the vessel (4 people). The following documents were required: 6 Crew Lists; 1 Private Property List including currency; List of Provisions and where purchased; quantity of fresh water, ballast and where and when taken; List of Ports of Call during last 30 days.

All passports and health books to be collected. Bonded Stores not sealed. No separate List of Foreign Currency on Board required. Foreign currency can only be changed at "Friendship Stores", Seamen's Club or big hotels in exchange for specially made notes for use of foreigners – but can also be used in any other stores or hotels. No restrictions on the use of VHF, radar, echo sounder or any other navigational equipment. Cargo Manifest was sighted.

Two officials from Customs and Immigration stay on board and a cabin has to be made available. Everyone has to show shore passes before going ashore. There is a launch every hour – last one at 2330 hrs. Charges US$10.0 per day for every ship on the buoys.

AUTHORITY: Port of Shanghai Authority, 5th Floor, Shanghai Customs House, 13 Zhong Shan Road (E.1), Shanghai, People's Republic of China. *Tel:* 290680. *Telex:* 33023 SHACO. *Contact:* Yan Run-Gian, Director.

AGENT: Jardine Matheson (China) Ltd., Room 1502, Union Building, 100 Yanan Road, Shanghai, Peoples's Republic of China. Tel: 203888. Telex: 33079.

Jardine Transport Services (China) Ltd., Room 1224, Peking Hotel, East Chang An Avenue, Beijing, People's Republic of China. Tel: 5137766 ext. 1224 and 3861. Telex: 210267 JSABJ CN. Cables: Jarocean. Fax: 5137440.

Associated with Jardine Shipping Agencies.

SHIJIUSHUO (NEW)

TAKU BAR: 38.56 N. 117.53 E.

Also see "General" before first port.

SHIPMASTER'S REPORT:

Guide to foreign vessels calling at Taku Bar (Xiang Jiang, Tanggu and Tianjin) issued by the Harbour Master at Tianjin.

1. Foreign vessels entering Bohai (Pohai Gulf) are only allowed to pass through Changshan Channel and/or Laotiehshan Channel. If the latter way is taken, the vessel must send a wireless message to "Harbour Master, Dalian" for directory 8 hours prior to passage. It should be noted that no other Channels are permitted for navigation. (Also see "Dalian").

2. Vessels passing Laotiehshan Channel for Dalian must make a detour along the East of "Encounter Rock".

3. Position of sunken dredger "Se Ho" is at Lat. 38° 31′ N., Long. 119° 10.5′ E. Vessels should keep far away from the above-mentioned area during navigation.

4. Position of Taku Lightvessel is at Lat. 38° 56′ 51″ N., Long. 117° 55′ 33″ E. Vessel may anchor N.E. of the lightvessel according to different condition of vessels arrival draft, to wait for Pilot.

5. Vessel may send radiogram to "Penavico Xiang Jiang" (via Xiang Jiang Coastal Radio Station XSV, calling frequency 500 kHz, working frequency 445 kHz, reserve frequency calling 8630 kHz. Listening 8364 kHz, working hours 0000 – 2400), giving exact ETA also fore and aft draft, before entering Bohai (Pohai Gulf).

6. The pilot station is at Tanggu. Any foreign vessels, according to Harbour Regulations are required to have a Pilot, when entering or leaving the Port of Taku Bar, Xiang Jiang, Tanggu and Tianjin. The Pilot will board the vessel at Taku Bar Anchorage after receipt of exact ETA given by the Master.

The Salation Light Beacon in position Lat. 38° 56′ 16″ N., Long. 118° 30′ 38″ E. shows a white flash every 3 seconds and visible at a distance of 13 miles.

Regulations Issued by the Harbour Superintendent's Office:

1. All foreign vessels (hereafter referred to as vessels) entering or leaving the Port of Tianjin (hereafter referred to as this port) are required to observe strictly the provisions of the Regulations Governing the Entry and Departure of Foreign Vessels into and from Ports of the People's Republic of China (hereafter referred to as Regulations Governing Foreign Vessels) and of the Port Regulations of Tianjin.

2. On arrival at this port, vessels are prohibited to use the articles enumerated in Article VII of the Regulations Governing Foreign Vessels. Should it be necessary to repair any of the articles enumerated in Item 2 of the same article, permission to do so must be obtained beforehand from the Harbour Superintendent's Office.

3. Articles placed under seal shall not be used and the seals shall not be removed without permission. Should any of the paper seals be found falling off, the fact shall be reported to the Harbour Superintendent's Office immediately.

4. Whilst in port, vessels are not allowed to dress ship or hoist flag at half mast without the permission from the Harbour Superintendent's Office.

5. Vessels in port desiring to undertake any of the following work must first apply in writing to the Harbour Superintendent's Office. After permission is obtained the work can then be carried out at the appointed place.

(*a*) Lifeboat practice;
(*b*) Overhauling boiler, main engine, steering engine or windlass;
(*c*) Engaging in welding work or burning anything on board;
(*d*) Pumping out ballast water regardless of whether the water is contaminated with oil or not.

6. After a vessel's arrival at this port, sounding, survey sketching, photo-taking, fishing and swimming are strictly prohibited.

7. After arrival at this port, vessels are strictly prohibited to dump ballast materials, coal ashes, garbage, rubbish and mud, or to discharge dirty oil or oily bilge water into the harbour. It is also prohibited to wash double bottom oil tanks or oil deep tanks inside the harbour.

8. Vessels in port must provide secure gangways or gang planks with rails or manropes for passengers, crew and all workers to embark or disembark. All gangways or gang planks are to be provided with lights at night.

9. Vessels lying alongside the pier should properly cover up all their exhaust valves and discharge openings on the ship's side facing the pier.

10. Garbage bins or drums with tight covers must be provided on board. The bins or drums should not be filled to overflow. When the garbage-collecting cart comes daily to the ship to collect the garbage and rings the bell on its arrival, the ship should arrange to deliver the ship's garbage into the cart.

11. If, owing to some special reasons, a vessel desires to return to this port after departure, the Master should first telegraph to the Harbour Superintendent for permission and must act according to the instructions given.

Frontier Inspection Station:

1. All the officers and crew of a foreign vessel and the passengers on board should produce their passports or other certificates to the Frontier Inspection Station and submit to the inspection of the Station.

2. When the ship's crew or passengers in transit desire to go ashore, the Master is to apply to the Frontier Inspection Station and the passport endorsing authorities, respectively, for landing permits.

3. A landing permit is valid only at the port where it is issued. On the ship's departure, all landing permits for the crew should be returned to the Frontier Inspection Station for cancellation.

4. The time limit for going ashore is from sunrise to midnight. When any Crew member wishes to stay overnight on shore, the Master should apply for permission on his behalf. Staying overnight ashore without permission is not allowed.

5. All laws and regulations of the People's Republic of China must be observed.

Quarantine Office:

1. During a vessel's stay in port, if any person on board is found to be in high fever or to be feverish continuously for several days (or with the swelling of the lymphatic gland), or to suffer from acute rash on the skin with or without fever, or to suffer from acute diarrhoea and in a state of collapse, or to suffer from jaundice with fever, the matter should first be reported to the Quarantine Office. The patient can go ashore for medical treatment only when he has been examined and allowed to do so by the Quarantine Officer.

2. Effective rat-guards or other rat-preventing devices should be fixed on all mooring ropes.

3. Gangways and gangplanks are not allowed to be put on to the wharf when not required. Should they be used at night, strong electric lights should be provided.

4. Should any dead rats or mice be found or any rats or mice caught on board a vessel, the fact should be reported to the Quarantine Office for the necessary inspection to be made.

The above regulations are in force at most Chinese ports.

Berthing: In the fairway and on the West side of the first pier vessels may pass on 34 ft. draft. Length of pier about 1,500 ft.

Another pier is under construction, and when ready will have berths for 5 vessels of about 600 ft. length. The depth alongside will be 34 ft.

On the first pier 7 cranes with a capacity of about 10 tons. It was not possible to obtain information on the older berths. Four tugs with up to 1,000 h.p.

All bunkers to be brought in from Dalian.

✓ ✓ AMEND GRC.

TIANJIN (Tientsin): 39.06 N. 117.10 E.

APPROACHES: *Tianjin:* The channel to Tianjin is dredged to allow vessels with max. draft 4.0 m. to be handled. The distance from Dagukou Maodi (anchorage) to the city is 54 miles.

Tianjin New Port: The new port is situated in position Lat. 38° 59′ N., Long. 117° 45′ E. in Bohai Bay at the mouth of the Haihe River. The main channel has a depth of 11.0 m. at H.W. and is 150 m. wide.

ANCHORAGE: The anchorage is unprotected and provides no shelter from wind, sea or swell. With a North Westerly or Westerly wind the sea is slight but when the wind is strong the tide is greatly reduced. Ships should take great care in selecting a suitable anchorage position.

TUGS: Tugs available up to 1,200 h.p.

BERTHING: *Tianjin:* The Tianjin area for smaller ships and barges further upstream is situated along the right bank of the river within the Urban district of Tianjin.

Tianjin New Port: The new port lies on the North side of the river and is a man-made harbour. Between two breakwaters, constructed on the South and North sides of the work area is the entrance to this harbour with a width of 1,300 m. 5,000 ton vessels can pass through the 13 mile long, two-way channel of the port at high water. The channel is being dredged to 16 m. (now 13 m.) and will enable 10,000 ton general cargo vessels to pass through.

The total berthing length is about 6,000 m. Cargo operations are usually carried out with the ships alongside wharves and only occasionally by means of lighters in midstream. The depths alongside berths vary from 8.0 m. – 12.5 m.

The general draft restrictions are as follows:

Vessels loaded with bulk grain (Winter)	10.1 m.
Vessels loaded with bulk grain (Summer)	10.4 m.
Vessels loaded with steel products and general cargo for import	8.5 m.
export	8.2 m.

At present, there are 31 berths – four for container vessels, one for bulk salt export, two for bulk grain import, one for tankers, 21 for general cargo and two for passenger vessels. Most berths have railway connections.

Brief description of berths:

No. 1-5	General cargo, depth about 7 m., for 7,000-10,000 ton vessels.
No. 6	General cargo, depth about 8.5 m., for 10,000 ton vessels.
No. 7	General cargo, depth about 10 m., for 10,000 ton vessels.
No. 12-13	Bulk grain, depth about 12.5 m., suitable for discharging 30,000 ton vessels.
No. 14-18	General cargo, depth between 10 m.-11 m., for 10,000 ton – 15,000 ton vessels.
No. 19-20	Steel products, depth about 11 m., for 2×15,000 ton vessels.
No. 21	Containers, depth about 12 m., total quay length 397 m. 6 gantry cranes (one on standby) of 40.5 tonnes capacity. The terminal is China's largest.
No. 22-26	General cargo, depth about 12 m.
No. 27-29	Containers, depth not available. Land reclamation is taking place to extend the quay area Eastward. 4 gantry cranes of 40.5 tonnes capacity.

Tanggu:

There is a lock at the Western end of the New Port, connecting it with the Tanggu area on the left bank of the river. The river from the lock is narrow and winding and its water level varies greatly with the seasons. The lock is 180 m. long×21 m. wide and 5,000 ton vessels in a laden condition can pass at high water.

Tanggu has 7 berths – five for general cargo and two for passenger vessels. Berths No. 5 and No. 6 have a total length of 230 m. and a depth of 5.5 m. for 1×3,000 ton and 1×5,000 ton vessel. Berths No. 10 and No. 11 have a combined length of 355 m. and a depth of 6 m. for 7,000 ton vessels. Connection with railway system.

REPAIRS: There are ship repair facilities at Tianjin and at the New Port.

AIRPORT: Tianjin Airport. Flights to Shanghai and other major cities.

MEDICAL: Facilities available.

AGENT: See "Shanghai".

WEI HAI (NEW)

ADD GAC.

XIAMEN (Amoy): 24.30 N. 118.04 E.

SHIPMASTER'S REPORT: February 1986.

DOCUMENTS: Standard Chinese Forms.

PILOTS: Pilots ordered by Agents only if the vessel shifting from working anchorage to alongside after clearance.

APPROACHES: As per sailing directions and charts. The swept channel is very narrow, and the ship must pass 3 cables off a rock awash to port soon after an alteration. Then 3 cables off another rock to starboard. The channel is not marked for night navigation, and navigation should only be attempted with good radars and very careful planning. Navigation lights are weak and extinguished. Pilotage is not available from sea to Quarantine/Working Anchorage and vice versa. (Quemoy and Matsu lie close to starboard of channel).

ANCHORAGE: Quarantine and cargo working anchorages are to the South and West of Gulang Yu Island. Cable crossing area to Eastward, some dangers as shown on chart. Good shelter from monsoon.

HEALTH: Standard Chinese Health Declaration and Vaccination Lists required.

RADIO: Xiamen Radio Station used when within range and if the operator is on watch. Otherwise vessel should use Guangzhou or Shanghai Radio.

VHF: Xiamen Radio. Call on Channel 16, ask for 'Penavico' and the station will patch through, normally on Channel 12.

TUGS: For berthing 2 tugs pushing, for sailing 1 tug pushing.

BERTHING: The Inner Harbour or Neigang is only suitable for small coastal vessels. Ocean-going vessels may berth at Dong Du (24° 30′ N., 118° 04′ E.) at new wharf for 5 vessels. Large range and fall of tide, loaded vessel's bulwarks drop below wharf level. Said to be capable of berthing two 50,000 ton vessels, and others of 10,000 tons.

CRANES: At Dong Du, one standard container crane on rails at No. 1 Berth. A number of standard Chinese two wire grabbing/general cranes. Ship's gear also used which may work ashore or overside.

BULK CARGO FACILITIES: At Dong Du, 2 berths equipped for bagging bulk cargo discharged by grabs. Artificial fertilisers are worked at wharf and anchorage.

SPECIALISED CARGO HANDLING FACILITIES: Full container terminal behind container crane.

DENSITY: About 1022 at Dong Du.

FRESH WATER: By barge at anchorage or by low pressure shore hose at Dong Du.

FUEL: Fuel oil and diesel oil said to be available but details not known.

REPAIRS: A small local shipyard, and several boatyards but details not known.

TIME: GMT plus 8 hours.

REPATRIATION: Possible. Local airfield with flights to major cities in China and some times to Hong Kong. Twice weekly overnight ferry to Hong Kong.

TELEPHONES: *Telephones/Telexes:* Recently modernised as part of the Special Economic Zone centred on the nearby Huli Industrial Estate. Direct dialling to Hong Kong. Quick operator service to the U.K.

Mail service was erratic, 7-20 days from Hong Kong, one despatch went missing.

STORING: Provisions supplied by light truck to foot of gangway at Dong Du.

SHORE LEAVE: Allowed. Shore passes issued for non-Chinese personnel.

DEVELOPMENTS: 4 berths to be built. One berth for container vessels and 3 berths for general cargo and bulk (3×25,000 d.w.t. vessels). The port is likely to have a Free-port within the next few years.

AGENT: China Ocean Shipping Agency. Cables: "Penavico".

XIANG JIANG (Hsingkang): 39.02 N. 117.41 E.

Also see "General" before first port

SHIPMASTER'S REPORT: 1974.

B.A. Chart 2653. China Sea Pilot No. 32, Vol. 111.

NAVIGATION: The lighthouse in position Lat. 38° 55′ N., Long. 117° 59.5′ E. was visible at a distance of 10 miles, flashing every 10 secs., and is surrounded by 4 units buoys at a distance of about 180 m. from the tower. The Fairway to berth installations is being dredged, but presently appears to permit a draft of only 25 ft. LW with a draft of 27 ft. It was necessary to await HW before sailing.

PILOTAGE: Pilot and Port Authority Agent board at the anchorage. Pilot boat is large tug which may also be used as an ice-breaker, and has black hull with white superstructure. Pilots are careful and efficient, and speak some English. No VHF or HF radio facilities are available to the Pilot.

MAX. SIZE: See "Navigation". All berths are suitable for vessels of up to 9 m. draft.

TUGS: Six large tugs, and three smaller tugs.

BERTHING: The harbour is under considerable development, and at present has availability for about 15 or more vessels. All berths have rail connections and are approachable by trucks. There are no sheds at the berths and refrigerated stores are only available at Tianjin to where they are transported by train, lighters or trucks. Berths are equipped with rubber fendering, suitable for all requirements.

CARGO GEAR: There are some cranes available and in operation with a lifting capacity of about 10 tons. There are also about 3 floating cranes with capacities of up to about 80 tons. Where no cranes are available, vessels are required to load and discharge with ship's gear.

FRESH WATER: Connections at some points have still to be made, but otherwise fresh water is available at all berths. Due to the very long waiting time for berthing and the lack of some of the connecting points, it is advisable to arrive with full F.W. tanks.

PROVISIONS: It is essential to check all provisions when delivered since they may be of poor quality. Rejected goods are accepted back without problems.

YANTAI (Yentai): 37.33 N. 120.24 E.

LOCATION: The Port of Yantai is situated on the Northern shore of the Shandong Peninsula, facing the Huang Hai. The harbour is embraced by the Northern Chefoo Island and other islands providing natural shelter for it, and is an ice-free port owing to its moderate climate.

BERTHING: Yantai Port, with rail connection, has 14 berths for loading and unloading, including 3 berths for vessels of 15,000 d.w.t. with a designed water depth of 9.9 m. The storage area covers 94,000 sq.m. and warehouse area 30,000 sq.m.

CARGO HANDLING FACILITIES: The port is equipped with modern cranes, conveyors, loaders, tractors and carriers. The maximum lifting capacity of the shore cranes is 36.5 tons and that of a floating crane 63 tons. The coal wharf has 3 unloaders.

Packing and Transhipment Services: Automatic bagging machines available. The production lines of the bagging machines for bulk fertiliser and bulk aluminium are completely automated.

DEVELOPMENTS: The construction of 6 berths in the West Basin is underway and they are expected to be put into operation in 1989.

SHIPMASTER'S REPORT: March 1987.

Documents: See "General" before first port.

Pilotage: Refer to BA. Charts 1255 & 1260. Pilot usually boards at Inner Quarantine Anchorage in position Lat. 37° 34.5′ N., Long. 121° 25.7′ E. For deep draft vessels, Pilot will board on request at Quarantine Anchorage No. 2 in position Lat. 37° 39′ N., Long. 121° 29.5′ E. Yantai Gang is a large sheltered bay and may only be entered by the Bei Shuidao. Passage through Dong Shuidao is prohibited.

Navigation: Vessels may enter Yantai Gang without a Pilot and proceed to the Quarantine Anchorage. Entry presents no problems, except for deeper draft vessels which have little choice of anchorages. Most navigation lights are low powered and Diliuxing and Dajiaoshi are fishing lights and will probably not be seen. The bay is exposed to Northerly gales which are frequent in Winter and heavy swell will develop inside the bay. The bottom is soft mud and poor holding ground. During gales both anchors will be needed with a large amount of cable.

Restrictions: Despite occasional ice in Winter the port is always open. Maximum depths in the Quarantine Anchorage, where ships are lightened, is 13 m. to 15 m. The inner harbour has been dredged to give 10 m. at a number of berths. Largest ship berthed 225 m. LOA.

Tugs: 2 large tugs of 3,200 h.p. and 7 smaller tugs are available.
Berthing: Depth alongside berths is 10.0 m.
Cranes: 9 large grab cranes are available on the main quay. There are 2 floating cranes, one with a lifting capacity of 60 tons and a larger one of unknown capacity.

Lightening operations are carried out at the anchorage, weather permitting.
Fresh Water: Water can be supplied alongside the quay at a rate of 5 t.p.h. Water barges of 200 tons and 400 tons capacity are also available.
Fuel: IFO and MDO available by barge from Dalian.
Consuls: None locally.
Repairs: Minor repair facilities available. Repair squads can be brought in from Qingdao.
Repatriation: Partial crew change of some 20 crew members undertaken with difficulty.
Airport: Adjacent to the city. Services available to Shanghai, Nanking, Beijing, etc.
General:

Trade & Developments: Yantai had a population in 1987 of about 380,000. It has little export trade, but is a large importer of logs and fertiliser. Some steel is also imported. A ship breaking yard is also in operation. The port area and the Western shore of the bay are under development.

Communications: Yantai is connected, by road and rail and has regular passenger ship services to Dalian and other coastal cities on daily basis.

Agent: China Ocean Shipping Agency, 23 Hai Gang Road, Yantai. Cables: "PENAVICO YANTAI". Telephone: 23181. Telex: 32562 OSAYT CN.

YINGKOU (FROM LATE) ✓

ZHANGJIAGANG: 31.58 N. 120.24 E.

LOCATION: Zhangjiagang is situated at the South bank of the Changjiang, about 114 km. East of Wusong Kou (anchorage for Shanghai).

The port is almost land-locked, with Changshan on the West; Wushan and Xiangshan on the South and Fujiangsha on the North; all of which shelter the port from strong winds and heavy seas. The port is a natural harbour having deep water, able to accommodate vessels of 10,000 tons which can enter or leave whenever necessary.

The port is under the administration of the Shanghai Harbour Bureau.
PILOTAGE: Pilotage is compulsory for vessels flying foreign flags on entering or leaving. The Pilot Station is off Baoshan, within the area bounded by a line connecting Buoys No. 67, 69, 15 and 14, where the depth of water varies from 8 m. – 17 m., mud bottom.
APPROACHES: *Tidal Stream:* During the dry period, the tidal stream is multi-directional, while during the flood period it changes between multi and single directions. The rate of ebb is greater than that of flood. The direction of flood or ebb stream is somewhat parallel to the river bank and the direction of the deep channel, with the exception of a few places.
Wind: Year round the prevailing wind is S.S.E. and E.S.E. or E.N.E. and S.E. The strong wind is from E.S.E. and S.E. The annual average wind force is 3.8 m. per second. Typhoons may threaten the port in the period from July to September, especially in August, with a force up to Force 10.
Aids to Navigation: The harbour is provided with 16 light buoys numbered Funan No. 1 to 14, beginning from the lower entrance. There are two No. 7 and two No. 8 light buoys. No. 14 light buoy stands as a Fairway Buoy, navigable on both sides. Port hand buoys are painted black with a black spherical topmark, starboard hand buoys are painted red.
Obstructions: At the West side of the lower entrance along the channel, there is a large shoal patch, extending Eastward with a depth of less than 5 m. over it.
ANCHORAGE: Quarantine Anchorage is situated in the area North of the line connecting No. 30 light buoy and No. 30B light buoy. Water depth is 10 m. – 13 m., bottom sand and mud, capacity of four to five vessels. This anchorage is also for Joint Inspection.
TUGS: 2 × 960 h.p.
BERTHING: There are 2 groups of floating wharves consisting of 4 berths each, of which two are for taking vessels of 10,000 tons. No. 1 and No. 2 floating wharves are each composed of 3 pontoons and 2 joint bridges and connected to the shore by 6 steel bridges.

There are also floating piers for harbour tugs, and temporary floating piers.

There are 7 mooring buoys numbered from No. 1 to No. 7, beginning from the lower entrance.
Warehouses: There are warehouses and storage ground along the wharves for cargo stowage.

✓ Gal.

ZHANJIANG (Tsamkong): 21.11 N. 110.24 E. (See Plan)

SHIPMASTER'S REPORT: December 1987.
Also see 'General' before first port.
PORT LIMITS: Port Limits extend to Longitude 110° 38′ E.
Notes: Vessel not normally 'Arrived' until cleared.

Notice of Readines may not be accepted until the vessel has berthed.
DOCUMENTS: Standard Chinese Forms used.

6 copies Arrival Crew List required.
ANCHORAGES: There are about 18 anchorages designated by the Harbour Master. In addition there are 12 mooring buoys that may be used by vessels of 10,000 tons during a typhoon.
PILOTAGE: Total distance about 22 miles. Vessels over 9.5 m. draft and vessels of irregular dimensions embark the Pilot at the Outer Pilot Station from a large tug.

Regular size vessels and vessels of light draft embark the Pilot at the Inner Pilot Station.

There is a heavy concentration of fishing vessels between the dredged channel and the Inner Pilot Station.
RESTRICTIONS: Channel said to be 9.5 m. (Datum) and Inner Basin Channel 8.5 m. (Datum).
MAX. SIZE: Tankers up to 11.73 m. and cargo vessels up to 11.4 m. draft. It is however necessary to confirm this on each visit.
HEALTH: Standard Chinese Arrival Inspection Procedure carried out at anchorage, preferably as near to the port as is accessible at the time. The Inspection Party consists of 8 or more persons.

Pratique is only required at the first port of entry.
RADIO: Radio Station 'XSJ' on W/T MF and HF and VHF Channels 16, 11 and 13. No public telephone correspondence available.
VHF: Call Radio Station on Channel 16 and change to Channel 13 to speak to Harbour Master, Stevedores, Agents, etc.
RADAR: The Harbour Master's Office is equipped with radar. However, we do not believe it is used to assist vessels in harbour.
TUGS: There are 4 'Duck-Peller' tugs equipped with VHF and fire fighting equipment. Normally 2 tugs are used, with ship's lines. There is a dedicated fire float and 2 large and older tugs used as pilot boats.
BERTHING: The harbour operates in 4 sections (length 1,700 m., depths up to 12.5 m.).

Section One: The original wharf, with a new extension to the North of the basin. There are 8 berths and an 'end-on' berth for Ro-Ro operations of local ferries.

Section Two: Located at the South end of the harbour. All oil operations are carried out at this section.

Section Three: Located upstream from the port.

Section Four: Newly built on reclaimed land. Six berths, including a silo at the end of the quay, with depths of 11.0 m. or more.
CRANES:

Section One: 2 Portal grabbing cranes on the newest berths.

Section Three: Number of cranes not known.

Section Four: There are cranes available at all berths, suitable for grabbing.
BULK HANDLING FACILITES:
Imports: Wheat is handled by pneumatic elevators or crane and grab. Other cargoes handled by crane and grab into mobile hoppers. All bulk cargoes are bagged for onward carriage into hinterland.
Exports: Barytes, talc lumps, fluorspar, etc. Cargo is tipped by lorries onto the quay and loaded by grab and crane. Phosphate and coal also handled.
BRIDGES: None.
STEVEDORES: Cargo worked throughout 24 hours in 3 shifts.
MEDICAL: Facilities available. Foreign seamen handled by ship chandler at the request of the agency.
TANKERS: Mostly domestic Chinese vessels observed. No details of berths obtained.
DENSITY: 1018 – 1020.
FRESH WATER: Available ex-wharf and by barge.
FUEL: Standard Chinese Grades available. Vessels should be aware of the wax content and high pour points. Bunkers available by barge, normally in daylight. Also available at anchorage.
REPAIRS: Minor repairs possible.
SURVEYORS: The Chinese Classification Society 'ZC' acts on behalf of most major Societies for survey work. Cargo Surveyors and Draft Surveyors available from Chinese National Organisations.
GANGWAY/DECK WATCHMEN: Immigration Police act as gangway guards on all foreign vessels.
CUSTOMS ALLOWANCES: Crew allowed 200 cigarettes on arrival. The bond is sealed. Weekly issues are allowed upon written application.
CARGO GEAR: All berths are equipped with railway lines and have standard Chinese two wire portal cranes of possibly 10 tons SWL, but unmarked. Various designs of grabs available according to normal commodities handled.

One four wire crane observed handling 20 ft. containers. Floating crane observed. Some mobile cranes also available. In the main, ship's gear is used as a last resort.

There are a number of mechanical handling units such as front end loaders, tipping lorries, tractors and trailers. Some fork lifts with tines or hook gantries. Mobile conveyors, bagging plants, hoppers, etc.
REPATRIATION: Possible via Kwangchow and/or Hong Kong. Land communication is mostly by overnight bus. Occasional ferry to Hong Kong.
AIRPORT: Domestic flights, but recently 2 charter flights per week to Hong Kong direct.
TIME: GMT plus 8 hours. Summertime of GMT plus 9 hours has been introduced.
TELEPHONES: Section 4: Some berths have telephones whose installation is compulsory. Foreign ships are charged 200 F.E.C. for connection.
STORING: Permitted alongside but usually in limited quantities, delivery is by trishaw or minivan.
SHORE LEAVE: Permitted until midnight only. Foreign seamen are logged out and back at the Dock gate by Immigration Officials.
IDENTIFICATION: Seamen's I.D. or Passports to be carried at all times. Foreigners also require 'Landing Permit'.
REGULATIONS: Standard uniform Port Regulations for China.
DELAYS: Possible due to congestion or for operational reasons. Port is also in the typhoon area, which may require ship's to clear the wharves.

Supercargo's can sometimes arrange despatch agreements.
DEVELOPMENTS: Nine berths newly built and in use, five berths under reconstruction on the old quay.
AUTHORITY: Harbour Superintendancy Administration.
AGENT: China Ocean Shipping Agency, No. 7 Ren Min Road, E.1. Xia Shan, Zhanjiang, Guangdong, China. Telephones: 24936, 24255. Telex: 45234 PNVCZ CN. Cables: PENAVICO, Zhanjiang.

Christmas Island

CHRISTMAS ISLAND, Indian Ocean:
10.25 S. 105.43 E. **(See Plan)**

PORT LIMITS: The area of sea in and adjacent to Flying Fish Cove in the Territory of Christmas Island enclosed by a line commencing at a point where a line bearing 270° True from the flagstaff at Government House intersects the coastline of Christmas Island at MHW thence bearing 270° True for a distance of 2 km. thence bearing 360° True for a distance of 2 km. thence S.E. by a straight line to Rocky Point thence generally S.W. along the coastline of Christmas Island at MHW to the point of commencement.

DOCUMENTS:

Port Clearance.
2 Crew Lists.
2 Passenger Lists.
2 Manifests.
Health Certificate.
Certificate of Registry.
Load Line Certificate.

On arrival at the Island, all usual customs formalities must be observed.

Immigration Officers will board to clear vessel inward. Until the vessel has been cleared, crew members and passengers must not go ashore.

PILOTAGE: Vessels must not close the moorings nearer than one mile until such time as the Harbour Master, or his Assistant, boards to supervise securing to the mooring system. All Harbour Masters are qualified Master Mariners and will render pilotage assistance.

ANCHORAGE: No sea anchorage is available at Christmas Island, the depth of water being too great. Vessels unable to moor due to adverse weather, berth occupancy or late arrival, usually drift off the port and return by daylight next morning, or when advised to do so by the Harbour Master.

RESTRICTIONS: It is not normal practice to moor vessels at night, but unmooring is carried out at all hours.

MAX. SIZE: LOA 192 m. Beam 28 m. Summer d.w.t. 35,000 tons.

HEALTH: Health procedures are basically as those set out by the World Health Organisation in their International Sanitary Regulations. Vessel whose last port of call was in Australia, do not need Pratique clearance.

All other vessels should request Free Pratique by radio when less than 48 hours from the Island.

The Pratique cable should state:

Last port of call and date of departure.

Number of persons on board and number of passengers for the Island.

Any suspected or confirmed infectious diseases on board.

The Port Health Officer may board to inspect passengers, crew, medical papers and/or cargo.

Also see "Regulations".

RADIO: *ETA Advice:* The telegraphic address is "CIPHOS, Christmas Island", and through Perth, Western Australia, or Singapore Radio. On sailing from the previous port, an ETA should be radioed to the Harbour Master. 48 hours before arrival, a confirmation of the ETA should be sent.

Also, the Island should be advised of:

the passengers on board,
number of bags of mail,
total quantity of inward cargo, and
the hatch disposition of the inward cargo.

Ships in Port: In conformity with international regulations, no radio transmissions are allowed by vessels whilst berthed at Christmas Island. Any telegrams requiring despatch must be lodged at the Post Office for transmission. Post Office hours are 0800-1200 and 1300-1500, Monday to Friday only.

VHF: The Marine Office is equipped with VHF and may be called on Channel 16 from 0000-0900 hrs. (G.M.T.), Monday to Friday, weekends by arrangement only.

Call sign is "Christmas Island Marine".

TUGS: None.

BERTHING: On receipt of radioed advice, arrangements should be made to arrive at the boarding position, i.e. one mile West of Smith Point, at the appointed time. On arrival, the way should be taken off the ship and the engines stopped, as, when the weather permits, the mooring gear is also loaded at this position. Six 52 mm. mooring lines will be placed on board. Shore labour carry out this operation and also moor the vessel.

Main Engines and Deck Machinery: It is imperative for the vessel's safety that the main engines are ready for proceeding to sea at all times, as occasionally sharp squalls set in which make it necessary for the ship to proceed offshore at very short notice.

When the vessel is moored, the engines must not be used except for proceeding to sea. This also applies to moving engines for testing, for which the prior permission of the Harbour Master must be obtained.

Power, whether steam, electric or hydraulic, must be kept on the windlass and all winches the whole time the vessel is in port. It is particularly important that the windlass and aft mooring winch are in first class order.

BULK CARGO HANDLING: Vessels Loading Bulk Phosphate:

Loading Plant: Bulk phosphate is loaded by 2 cantilever arms. When the ship is moored in the loading position, the arms are swung over the appropriate hatches and the cargo poured directly into the holds. The capacity of each arm is 1,500 tonnes per hour; i.e. 3,000 tonnes per hour overall loading rate.

Ballast: Vessels should arrive with sufficient ballast to allow them to be handled without tugs in a strong breeze. However, on ships loading bulk phosphate the amount of ballast should be restricted to the amount which can be discharged comfortably whilst loading. The bottom of the loading chute, when fully raised, is 16 m. above MHWS.

The Loading Berth: The bulk loading plant is served by a system of outer and inner buoys. Initially, a vessel is secured to the outer buoys, which are anchored in very deep water and then breasted to an inner buoy system (Inner Berth).

Preparation Before Arrival:

i) The forecastle head should be left as clear as possible of chain, lashings, etc., so that all pipes, fairleads and bitts are available for use.
ii) The derricks or cranes at No. 1 and at the aftermost hatch should be ready for loading cantilever mooring gear. At the other hatches, all derricks should be hoisted and swung over to the port side so that derricks, guys, preventers and runners are well clear of the hatchway. Hatches should be open before the Pilot boards ready for immediate loading once the ship is secured in the berth. It is essential that all lower holds are clean and free of dunnage on arrival. Hatch beams need not be removed.
iii) If general cargo is to be discharged, a good boat rope should be rigged on the both sides for the full length of the vessel going well forward and well aft with "stirrups" abreast of the ends of each hatchway.
iv) Any jumper stay, mast stay, or wireless aerial which obstructs a hatch should be free and ready for releasing.
v) The ship is required to have ready 3 mooring ropes forward and 3 mooring ropes aft. These ropes should be at least 52 mm. in diameter and in good condition. One rope forward and one rope aft should be at least 200 m. in length.
If there is doubt about the condition, size or length of ship's ropes, the Harbour Master should be requested, by telegram, 24 hours before arrival, to supply extra shore ropes.
vi) The pilot ladder should be rigged on the starboard side sufficiently far forward to be on the flat side of the vessel clear of the overhang of the hull aft. The bottom rung should be one metre above the water. Manropes must be fitted.
vii) All discharges or scuppers in the vicinity of cargo boats, pilot ladders or gangways, must be effectively screened or blocked off.
viii) As the loading rate is high (approximately 3,000 tonnes per hour) vessels should endeavour to arrange the discharge of water ballast so that loading can be completed without interruption. However, the vessel should not arrive trimmed excessively by the stern as this could make her extremely difficult to handle in the prevailing fresh South East breeze.
ix) All derricks, hatch boards, and beams will be handled by ship's crew only.
x) Mooring winches aft and windlass forward should have power on ready for shore labour to handle mooring ropes.

Stowage Factor: The free pour stowage factor of Christmas Island phosphate is 0.75-0.84 cu.m./tonne in bulk carriers. The angle of repose is about 35°.

Weighing Machine: A weighing machine is installed at the loading plant *but it must only be used as a guide to the quantity loaded and scale figures should be checked against the vessel's draft.*

Loading will be stopped at any quantity desired short of the final figure to allow the draft to be determined and alterations made to end hatch figures for adjusting the vessel's trim.

Loading Distribution Plan: A loading distribution plan should be made up, to be presented to the Loading Master on arrival.

Fastest overall loading time will be achieved if amounts can be more or less evenly distributed between the two loading arms.

Draft gauges are supplied from shore and fitted to ship's side to assist with draft readings.

It is recommended that planned loading allows a balance of 500/1,000 tonnes for trimming after draft survey. No draft surveys are carried out by shore personnel. The ship must carry out is own draft survey and call for additional cargo required to make up Bill of Lading or Manifest quantity as per charter party.

Vessels Loading Bagged Phosphate Dust:

The Loading Plant: Bagged phosphate dust is loaded by ship's gear. The bags, stowed on cloverleaf slings, are brought alongside by powered barges, hoisted inboard and block stowed in the hold. The net weight on each sling is 2 tonnes.

Ballast: Ships loading bagged dust should, to expedite loading, retain all their ballast until approximately half the cargo is on board.

The Loading Berth: Bagged phosphate is usually loaded at 'B2' mooring. Here the vessel is moored between two buoys, the bow to the main mooring and the stern to a buoy further inshore.

Preparation Before Arrival:

i) The derricks should be raised and ready to work. Weather permitting, 2 hatches should be open and ready to commence loading with 2 gangs immediately upon arrival.
ii) A good boat rope should be rigged on both sides of the vessel going well forward and well aft with supporting "stirrups" abreast of the ends of each hatchway.
iii) Two heavy mooring ropes should be ready forward to run from either bow to the buoy. In addition to the head mooring lines, 2 good mooring ropes should be available aft. These ropes should be positioned so that they can be run from either quarter.
iv) All ropes should be at least 200 m. long. If there is doubt about the condition or length of the ship's ropes, the Harbour Master should be requested by telegram 24 hours before arrival to supply extra shore ropes.
v) The pilot ladder should be rigged on the starboard side sufficiently far forward to be on the flat side of the vessel clear of the overhang of the hull aft. The bottom rung should be one metre above the water. Manropes must be fitted.
vi) All discharges or scuppers in the vicinity of cargo boats, pilot ladders or gangways must be effectively screened or blocked off.
vii) All derricks, hatch boards and beams will be handled by ship's crew only.

Stowage Factor: Bagged dust stows at approximately 45 cu.ft. per ton (1.25 cu.m./tonne).

Bill of Lading Tonnage: Loading will be stopped at any quantity desired short of the final figure to allow the draft to be determined and alterations made to end hatch figures for adjusting the vessel's trim.

CRANES: On wharf, 1 Favco 20 tonne S.W.L. and 1 Babcock & Wilcox 4 tonne S.W.L.

STEVEDORES: Supplied by Agents.

MEDICAL: The Medical Superintendent may be consulted on payment of the usual fees. Members of the ship's company requiring treatment should be provided with a letter from the Master stating the nature of their ailments. This letter will also be an undertaking from the Master that the Doctor's fees will be paid.

If Hospital accommodation is desired, please apply to the Medical Superintendent beforehand, regarding fees, etc.

TANKERS: Furnace and diesel oils pumped ashore simultaneously through floating pipe-lines, 8 in. and 6 in. diameter respectively.

DENSITY: 1023 constant.

FRESH WATER: In an emergency, a limited quantity of fresh water may be obtained. Requirements should be advised by radio the day prior to arrival and confirmed with the Harbour Master when he boards.

Sufficient water should be carried to allow for a prolonged period of drifting off the Island in unfavourable weather conditions.

FUEL: No facilities are available for the provision of fuel oil, other than very small quantities of diesel oil for boats or visiting yachts.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: All beams and hatches to be handled by ship's crew.

CERTIFICATES: Register of Cargo Gear and Test Certificates.

CARGO GEAR: To comply with requirements of the Australian Navigation Act, 1912-58.

IDENTIFICATION CARDS: Not required.

CONSULS: Administrator's Office performs some consular functions.

SURVEYORS: Cargo Surveyors: The Harbour Master or his assistant in his capacity as Lloyd's Agent. There are no authorised hull surveyors.

REPAIRS: No facilities exist.

REPATRIATION: Only for medical emergencies.

AIRPORT: Weekly flights from Perth and Singapore.

TIME: GMT plus 7 hours throughout the year.

HOLIDAYS: New Year's Day; Australia Day (26th January); Hari Raya Haji; Chinese New Year – two days; Good Friday; Easter Monday; Queen's Birthday; Territory Day (1st October); Hari Raya Puasa; Christmas Day; Boxing Day.

No work performed on New Year's Day, Hari Raya Puasa, Good Friday, 1st day of Chinese New Year and Christmas Day.

POLICE/AMBULANCE/FIRE: Police Tel: 444. Ambulance Tel: 333. Fire Tel: 222.

EMERGENCY CO-ORDINATION CENTRE: The nearest Co-ordination Centre is the Coastal Surveillance Centre, Canberra. Tel: Canberra 476666. Cables: "Marineops" Canberra.

BANKS: The Bank of New South Wales, Christmas Island, Indian Ocean. Telex linked direct to head office of the Bank of New South Wales in Perth, Australia.

STORING: See "Prelims".

1. The Island is stored purely for local needs with limited quantities and range of supplies. It would therefore only be in cases of extreme emergency that stores would be supplied to ships.
2. In such cases vessels would be stored by barge, and this would take place at any convenient time prior to or during loading.
3. Not applicable as moorings are off shore.
4. Fork lifts are available to assist in loading stores.
5. There are no Customs regulations or requirements pertaining to the loading of ship's stores.
6. Local labour is available to load stores onto ships.

TELEPHONES: Placed aboard when required by Port Authorities. No charge.

SHORE LEAVE: See "Regulations."

REGULATIONS: The importation of animals and poultry into Christmas Island is subject to strict control. No animals or poultry may be imported into Christmas Island without a permit from the Administrator; therefore animals or poultry must not be accepted on board a ship for carriage to the Island unless the following documents are produced:–

(a) A Permit from the Administrator..

(b) A Certificate of Health and Declaration by Owners on Form B301 signed by a Government Veterinary Surgeon and Quarantine Officer (Animal).

(c) A Certificate of Stock signed by an Inspector of Stock.

(d) A permit to embark animals on Overseas vessels signed by a Quarantine Officer (Animal).

Shore leave is, in normal weather, at the discretion of the Master and shall *expire at 1700 hours local time.* When the weather is doubtful the Harbour Master may prohibit shore leave altogether.

We must ask the Master to take action to prevent the Steward and other members of the crew selling or supplying liquors or other goods to any person on the Island. Breaches of the Liquor and Trading Laws render offenders liable to heavy penalties.

Whilst the vessel is in port the disposal of garbage overboard is prohibited.

The port of Christmas Island is a gazetted port regulated by the Australian Navigation Act and the Merchant Shipping Ordinance of the former Colony of Singapore. The Mining Corporation's Harbour Master and Assistant Harbour Masters are appointed by the Government as Deputy Harbour Masters responsible for enforcing these regulations. Your co-operation with them is earnestly requested.

WEATHER: The barometer is not a reliable guide in these latitudes. While the wind is steady from the Eastward with a clear sky, fine weather may be expected; but if the wind falls light or if clouds bank up in any quarter, squalls blowing onshore can be expected. Also, lightning in any quarter is usually followed by unsettled weather.

Whilst shore labour is on board, a Harbour Master is on duty. He will advise if the weather conditions necessitate taking the vessel to sea and will supervise the unmooring operations. However, when the ship is moored, but idle, sea watches must be kept. Should the wind blow onshore at Force 3 or more, or the vessel's movements place undue strain on the moorings, the ship must be taken to sea at once.

QUESTIONNAIRE: To facilitate loading the vessel, the questionnaire should be completed and forwarded to the Corporation's General Manager on arrival.

M.V.
S.S.
Off.

The General Manager,
Phosphate Mining Corporation of Christmas Island,
CHRISTMAS ISLAND,
INDIAN OCEAN.

Dear Sir,

I acknowledge receipt of your brochure giving information in connection with mooring and loading at Christmas Island which I have carefully noted.

The following are the particulars of this ship:–

Call Sign____________________

Tonnage – Gross__________ Net__________

Tonnage Summer Displacement__________

Length__________ Breadth__________ Depth__________

Size of Panama Lead – if fitted__________

Size of Chain Cable__________

Weight of Anchors__________

Last Port of Departure__________

Date of Sailing__________

Quantity of Phosphate required for full cargo this voyage________tonnes

Number of hatches into which Phosphate will be loaded__________

Quantity to be loaded into each Hatch: No. 1________ No. 2________

No. 3________ No. 4________ No. 5________ No. 6________

Spare cabins available__________

Additional cabins which can be made available if required__________

Number of berths in additional cabins__________

Total number of passengers who can be taken__________

Quantity of fuel on board on arrival__________

Service Speed__________

Daily Fuel Consumption – Steaming__________ Drifting__________

____________________) MASTER

AUTHORITY: Phosphate Mining Corporation of Christmas Island, Christmas Island 6798, Indian Ocean. *Tel:* 8264. *Telex:* Indian Ocean 766 78005. *Cables:* Ciphos, Christmas Island. *Contact:* Captain A. G. Turner, Harbour Master.

Phosphate Mining Corporation of Christmas Island, 5 Mill Street, Perth, Western Australia 6000. *Telex:* AA 92047 Ciphos. *Cables:* Ciphos, Perth.

Colombia

GENERAL:

DOCUMENTS:

Consular Documents:

In foreign ports where cargo for Colombia is loaded, the Colombian Consulate must receive two copies of the Cargo Manifest, on a special form (Colombian Freight List), one of which is returned to the vessel and the other is filed at the Consulate.

Prior to Arrival:

Notice of arrival:

The agency must prepare the standard Colombian document for confirmation of vessel arrival, giving the characteristics of vessel and indicating the services requested: pilotage, towing, anchorage, berthing, cargo to be loaded and unloaded, as well as water, electric power, telephone, fuel and lubricants.

This form is addressed to the Director of Operations of the Marine Terminal of the Colombian Port Authority (COLPUERTOS) and is submitted in seven copies (original and three copies for the Marine Terminal and a copy each to the Port Captain, the Customs Security Office, and the Port Public Health Officer). If passengers disembark, an additional copy must be submitted to Migration.

Information on cargo for the port:

At least 24 hours in advance of the vessel's arrival, the agency must receive the following documents by airmail, for distribution as indicated:

Documents	*Customs*	*Marine Terminal*	*Agency*	*Total*
Freighted Manifest (Freight List)	–	–	1	1
Freighted Bills of Lading	1(a)	3	1	5
List of Cargo by Hatch	–	1	1	2
List of Dangerous Cargo in Transit	–	1	1	2
Stowage Plans	–	1	1	2

(a) Stamped.

Request for Port Services:

The agency must submit to COLPUERTOS, 8 hours in advance of the vessel's arrival, the following documents, in original and two copies: request for berthing crew, cranes, terminal crew, motorised equipment and storage; request for inward pilotage and towing.

On Arrival:

On the entrance of a vessel, the following documents must be submitted, either on the model forms established by LAFTA Resolution 254 (IX), or on similar forms, except the cargo manifest, which will be made out on the Colombia Freight List form.

Type of Documents	*Number and Distribution of Documents*						
Basic Forms	*Capt. Port*	*Cus. Sec.*	*Marine Term.*	*Port Pub. Health*	*Migr.*	*Agency*	*Total*
1. General Declaration	1	1	–	–	–	1	3
2. Cargo Manifest	–	1	1	–	–	–	2
3. Crew List	1	2	–	1	1	1	6
4. Passenger List	1	1	–	1	1(a)	1	5
5. Ship's Stores	1	2	–	–	–	1	4
6. Crew Effects Declaration	1	2	–	–	–	1	4
7. Maritime Declaration of Health	–	–	–	1	–	–	1
8. Mail List	–	2(b)	–	–	–	1	3
Additional Documents:							
9. Clearance from Last Port	–	–	–	–	–	–	+
10. List of Passengers in Transit	1	1		1	–	1	4
11. "No Passengers" Declaration (c)	1	2	–	1	–	1	5
12. List of Dangerous Cargo in Transit (c)	1	–	1	–	–	1	3
13. "No Mail" Declaration (c)	–	2(b)	–	–	–	1	3
14. List of Passengers' Baggage (a)	–	3	–	–	–	–	3

(a) Only for those disembarking.
(b) One copy for the Post Office.
(c) When required.

Other Requirements:

The agency provides a landing permit for each crew member and passenger, which is stamped on board by the Captain of the Port.

Prior to Departure:

Clearance for the vessel is requested from the Captain of the Port on a special form. It is prepared in triplicate (original for the vessel, one copy for the Port Captain's file and one for the agency). The following documents accompany it:

1 Crew List.
1 Passenger List or "no passengers" declaration.
1 Ship's Stores List, and
1 Fuel Supply Declaration or negative

Request for Pilotage:

At least 2 hours before departure, a request for pilotage, clearance and unberthing crew must be submitted to the COLPUERTOS Maritime Section.

Port Authority Circular: July 1986.

Documentation Required:

The Maritime Agencies must present:

(a) Maritime Sector Discharge (imports and transit):

Up to date stevedoring plans showing the location of the cargo for the port and hazardous cargo.

List of Cargo per Discharge Hold.

List of Containers for the Port.

Sets of Bills of Lading.

Sets of Check Lists of Cargo with Manifest.

Tally Books.

List of Missing Cargo showing the ship which recorded them but did not load them, together with their Bills of Lading and Check Lists against the Manifest.

For cargoes in-transit, national or international, transhipment, Declaration of Final Destination, with presentation of the Memorandum of Authorisation of Customs.

Certificate of the draft survey of the port of shipment for bulk cargo.

(b) Maritime Sector Cargo (Exports):

List of Cargo for Shipment by Port of Destination.

List of Empty Containers to be Shipped.

Shipment Orders Authorised by the Customs.

Sets of lists checking loading against Manifest once loading has been completed.

FREE PRATIQUE: There is no Radio Pratique. The standard W.H.O. Health Certificate must be used.

PILOTAGE: Pilotage is compulsory for all vessels over 200 g.r.t. The Pilot must be requested by the Agent at least 24 hours in advance.

Berthing preference will be given as follows:

1. Warships.
2. Passenger vessels and Mail Boats on a fixed itinerary.
3. Vessels with livestock and perishable cargoes.
4. Passenger vessels not on a fixed itinerary.
5. Vessels loading cargo for export.
6. Vessels discharging cargo for import.
7. Tankers.
8. Coasters.
9. Vessels carrying explosives.

On sailing all vessels must fly the "P" flag.

Vessels at anchor can be authorised to work to lighters.

All Colombian ports are open 24 hours a day.

ARRIVAL ADVICE:

(1) The local Agent must advise Empocol 72 hours, 48 hours and 24 hours in advance the vessel's ETA.

(2) With the ETA pre-arrival advice, Owner or Master must advise the Agent the following:
  (a) Estimated arrival draft, aft and forward
  (b) Full vessel's particulars, including breadth
  (c) Vessel's side for which she must be docked (port side or starboard)
  (d) Cargo hatch distribution

(3) At least with 48 hours in advance, the Agent must receive in order to give to Empocol (together with others issued by the Agent according to the information supplied by the Master and Owner), the following documents:
  (a) 5 original copies (not photocopies) of each Bill of Lading, duly freighted and signed by the shipper
  (b) Stowage plan.

(4) Also 24 hours prior vessel's arrival, the Agent must pay to Empocol the proforma invoice which amounts to the estimated port expenses plus 25 per cent surcharge. Hence it is of paramount importance the Agent receives well in advance the funds required, in order to convert the U.S. Dollars into local currency and proceed to effect the corresponding payment.

It is important to point out that in case the above mentioned instructions are not fulfilled, or the documents are not presented and the proforma invoice is not paid in due time by the Agent, Empocol will not authorise docking and operations of the vessel.

STEVEDORES: Supplied by the Port Authorities although it is often necessary to employ extra labour through the Agent, due to the fact that gangs are seldom complete. At week-ends, gangs required for Monday must be ordered by 1000 hrs. on Saturday. Masters should bear this in mind when sending their ETA.

Cargo in a damaged condition or showing signs of pilferage will not be handled until inspected by a Port Official and ship's officer, leaving on record the actual condition of the cargo.

Containers are discharged or loaded as all other cargo, though if they are stuffed or unstuffed immediately this must be done with the Port Labour provided.

Opening and closing of hatches, and the rigging of gear, is done by a gang of riggers. The ship's crew can do this work, but it is advisable to use Union Labour.

Rain tents are not supplied by the port.

All gear, slings, spreaders, etc., must be supplied by the ship.

Rat guards must be fitted on all mooring lines whilst in port.

PORT SECURITY MEASURES: All ports are rigorously patrolled by Port Police, and crew members are advised to carry Identification Cards at all times when ashore.

FUMIGATION: This can only be carried out alongside with the permission of the Port Authority.

GARBAGE: No garbage may be thrown overboard. This includes flakes of paint from vessels chipping or scraping the hull. No paint must be allowed to drop into the water or onto the quayside. Overboard discharges must be kept off the quay.

POLLUTION: The standard requirements for the prevention of oil pollution must be adhered to within the continental shelf off the Colombian coast.

All vessels calling at Colombian ports must have "Pollution Policy" onboard. If not onboard vessel will be heavily fined and clearance will not be granted by the Port Captaincy.

All vessels must ensure that the Oil Record Book is up to date prior to arrival, as it is likely to be inspected.

Fines can range from 50,000 to 500,000 Pesos, not including the cost of any clean up operation.

No vessel contaminating the waters of any port may sail until the corresponding fine has been paid.

Oil Tankers are not permitted to clean tanks within 60 miles of the Colombian shores. A vessel arriving in port with dirty ballast will be ordered to proceed to sea beyond the 60 mile limit, and take on clean ballast.

CREW: The authorities will not allow crew to be of unkept appearance or improperly dressed at any time while the vessel is in port.

FUEL: Bunkers are only supplied to vessels which were supplied in 1972, and are actually trading to Colombia. Vessels may not take more bunkers than the amount they received in that year. Requests for bunkers must be made to Agents at least 1 week in advance.

TIME: GMT minus 5 hours. Summertime is not observed.

STOWAWAYS: In 1988 70 stowaways were found on one vessel.

Likely hiding places are containers and palletised cargo.

BARRANQUILLA: 10.58 N. 74.47 W. (See Plan)

DOCUMENTS:
Clearance from Last Port.
Ship's Register.
Load Line.
Safety Radio.
Safety Equipment.
Cargo Gear.
Oil Pollution Certificate – Policy of Insurance.
6 Crew List.
5 Crew Personal Effects List.
5 Provision List.
5 Store List.
6 Passenger List (In Transit).
6 Passenger List (Disembarking).
4 Declarations of Passenger Baggage.
4 List Port Mail.
1 Sanitation Declaration.
Sets of manifests covering port cargo.

PILOTAGE: Compulsory for all vessels over 200 g.r.t. The Pilot Department of Empresa Puertos de Colombia at Barranquilla require that the vessel's Agent advises them with at least 24 hours in advance, the best vessel's ETA, together with the estimated arrival draft (fresh water).

Therefore it is important that Masters of vessels advise Agent 72, 48 and 24 hours in advance the best ETA to the port, in order to avoid any delays because of unavailability of Pilot.

The Pilot will board and leave vessels at Bocas de Ceniza, 1 mile North of the Western Breakwater, and they are not authorised any more to pick up/leave vessels at either Cartagena or Santa Marta, except when the weather does not permit such operation at Bocas, in which case the Pilot Department will decide whether the Pilot must be picked up/left at any other place.

Radio telephone frequency of pilot station 2738 alternative 2638 or 2182 kHz and VHF Channel 16. 2 pilot boats speed 7 – 9 knots. Sufficient depth to allow vessels wait for Pilot in boarding position, including trade wind season end November to beginning April.

ANCHORAGE: If awaiting Pilot, anchor 1 or 2 miles West of West Breakwater during non-windy season. After Pilot boards and when no berthing space at the quay, anchorage is made in the river, about 1,500 ft. off the dock in approximately 40 ft. of water. 3 shackles of chain required in good holding ground.

RESTRICTIONS: Depth at the river bar is being maintained at a minimum of 34 ft., however, the actual permissible draft has been curtailed to 30 ft. or less (check with Agent) on account of silting conditions of the river and low river levels, particularly around the area known as Siape, approximately 4 miles from the dock area.

MAX. SIZE: Recommended max. LOA 600 ft. due necessity for turning vessel before sailing. Also see "Restrictions". Rate of current 2.5 knots during dry season, 4 knots in rainy season.

HEALTH: On arrival port doctor boards vessel to inspect crew Yellow Fever Certificates, also Derat Certificate. If any crew members suspected suffering contagious disease Master to radio prior arrival advising Agents accordingly. Port doctor visits vessel even if previous port was in Colombia.

RADIO: Messages to and from Agents routed through station HKB. Ship's messages should include call letters.

TUGS: Generally no tugs required for river entrance. Tug assists berthing and turning vessels before sailing. 1×1,225 h.p. tug available.

BERTHING: 7 berths. Total length of quay 1,058 m. Depth alongside 32 ft. Vessels berth starboard side alongside.

CRANES: 2×10 ton quay cranes and 1×60 ton floating crane.

6 privately operated cranes of 30 tons – 100 tons capacity.

STEVEDORES: Agents should receive advance copies of stowage plan and adequate notice ETA order arrange gangs. Working hours: First shift Monday to Saturday and Holidays: 0800 – 1200 hrs. and 1400 – 1800 hrs. Second shift Monday to Friday: 1800 – 0200 hrs. No work on Sundays.

MEDICAL: All facilities available.

TANKERS: No facilities.

FRESH WATER: Available. Rate about 20 t.p.h.

FUEL: Only small quantities of gas oil available.

FIRE PRECAUTIONS: No vessel requirements. Terminal has own fire-extinguishing equipment.

GANGWAY/DECK WATCHMEN: Request watchmen through Agents.

CUSTOMS ALLOWANCES: No limitations for individual consumption.

IDENTIFICATION CARDS: Supplied by Agents.

CONSULS:
Austria
Belgium
Bolivia
Brazil
Chile
Costa Rica
Denmark
Dominican Republic
Ecuador
Egypt
El Salvador
Finland
France
Germany F.R.
Greece
Guatemala
Haiti
Honduras
Italy
Jordan
Mexico
Netherlands
Norway
Panama
Peru
Portugal
Spain
Sweden
Switzerland
Syria
United Kingdom
U.S.A.
Venezuela

REPAIRS: Good facilities for mechanical or electrical and radio repairs.

DRY DOCKS: Only one dry dock for very small vessels.

REPATRIATION: Good facilities available.

AIRPORT: 6 km. from city. Airport served by major airlines.

TIME: GMT minus 5 hours.

HOLIDAYS: 1st January, 6th January, 8th April, 9th April, 1st May, 23rd May, 2nd June, 29th June, 20th July, 7th August, 15th August, 12th October, 1st November, 11th November, 8th December, 25th December.

POLICE/FIRE/AMBULANCE: Fire 411828, ext 38. Ambulance 410736 or 319594. Police 411937.

TELEPHONES: Arrangements available for placing telephones on board.

SPECIAL RECOMMENDATION: Masters to warn crew to close and lock cabins.

REGULATIONS: No special facilities for discharging explosives.

If explosives on board vessel not allowed berth.

DEVELOPMENTS: Two more berths under construction. Dredging under way in access channel.

AUTHORITY: Direccion General Maritime Y Portuaria – Capitania de Puerto de Barranquilla.

BUENAVENTURA: 03.53 N. 77.05 W. (See Plan)

DOCUMENTS: On vessel's arrival, Master must present following documents to Port Captain's Office:
Travel Memorandum.
Sole document or Consular despatch from the last port or ports where vessel disembarked or embarked passengers.
3 Crew Lists.
3 Provision Lists.
3 Lists Crew's Personal Effects.
3 Lists Passengers in transit (or negative).
3 Lists Disembarking Passengers (or negative).
3 Lists Port Mail (or negative).
1 Sobordo or Manifest of Cargo for the port.
2 Declarations of Passenger Baggage, if any.

Destined to Maritime Terminal:
3 Sets Sobordos or Manifests covering port cargo (or negative).
1 Set of Bills of Lading, covering discharge cargo.
20 Tally Books for discharge cargo.

Destined to the Custom House:
3 Sets of Sobordos or Manifests for cargo destined to the port.
1 Set of Bill of Lading for port of destination.
1 Tally Book for cargo to be discharged in port.
2 Declaration Lists for Passenger Baggage, if disembarking.

Destined to the Health Doctor:
Vessel's Travel Memorandum.
International Health Certificate.
1 Crew List.
List of Passengers in Transit (or negative).
1 Vessel's Fumigation Certificate (for presentation only).
1 Port Passengers List (or negative).
Certificate of Exemption of Derat (for presentation only).

Destined to Immigration Authorities:
1 Crew List.
1 List of Transit Passengers (or negative).
1 List of Port Passengers (or negative).

Destined to Agents:
1 Travel Memorandum as above mentioned.
9 Crew Lists for Consular despatch and handling of sailing permit.
6 Lists of Passengers in Transit (or negative), for Consular despatch.
6 Lists of Personal Effects for Consular despatch.
2 Mail Lists for the Port (or negative).
3 Sets of Sobordos or Manifests covering port discharge cargo (or negative).
4 Sets of Bills of Lading covering port discharge cargo.
10 Tally Books covering discharge cargo.
2 Lists of Passenger Baggage Declaration for the port, if any baggage.

PILOTAGE:

(a) Entry marked by Channel having minimum depth of 3.25 fathoms low tide. Advisable enter Channel or leave wharf 1 hour after low tide and 2 hours after high tide, restricting departure during any other periods, particularly when draft exceeding 20 ft. Pilot boards in vicinity of No. 1 Buoy (position: Lat. 03° 50′ 00″ N., Long. 77° 10′ 00″ W.).

(b) 72, 48, 24 and 12 hours before reaching port, Master must cable separately to Agent and Port Captain confirming hour of arrival Punta Basan (pilot station). Message to Agency must indicate, in addition to ETA, quantity of cargo destined for the port, number of disembarking or in-transit passengers, number of gangs required for operations, draft, mail for the port, if fresh or running water is required; fuel-oil, cash to Master or any other special requirement; whether special side of wharf is required for berthing, and whether dangerous cargo (explosive) or inflammable cargo, and what quantity. Message to Port Captain must also indicate arrival time, quantity of cargo destined to the port, number of disembarking or in transit passengers, mail, whether dangerous or inflammable cargo is carried and in what quantity, and any other data that may be considered useful in accordance with International regulations.

(c) Radio beacon at Punta Soldado, characteristics: Frequency, 317 kHz. Letters, B.T. Time 0000 – 2400 hrs. every day and every 10 minutes with 20 minutes of rest during 30 minutes work. Flashes 12 seconds duration.

(d) Radio-telephone in pilot station of Punta Basan or La Bocana (opposite to Punta Soldado), characteristics: VHF Channels 11 and 16 every day from 0600 – 2400 hrs.

(e) Since Master's advice to Agency serves as notification to pilot station, Pilot will be at Punta Basan ready for vessel. In case of delay due to any circumstance, vessel may anchor and request Pilot by 4 short blasts.

(f) Port has 8 Pilots.

(g) Pilot ladder must be lowered a few feet from the surface. Vessel must proceed slowly in order facilitate boarding.

(h) Pilotage compulsory.

ANCHORAGE: Marked by Buoy No. 7, located Lat. 03° 53′ 59″ N., Long. 77° 04′ 04″ W.; depth from 33 ft. to 70 ft. and distance from wharves approximately 1,000 yards.

There are 3 additional anchorage zones and their use will be ordered by the Authorities.

RESTRICTIONS: Max. draft for crossing bar is 28 ft. one hour before/after HW. Bar is located in position 03° 48′ N., 77° 19′ W.

MAX. SIZE: No restrictions on the length of vessel, depth alongside wharf approximately 12 ft. – 30 ft. under terms "not always afloat but safely aground", low tide.

HEALTH: *(a)* As soon as vessel anchored by Pilot within bay, Port Authorities including doctor, will board by means of ladder which must be lowered when port area entered.

(b) In case of sickness on board, Master must advise in order doctor may determine whether vessel will be under quarantine or not. This will apply even if vessel arriving from a port of the same country.

(c) Time-table for meeting vessel: Ordinary or regular time – ordinary time: 0800/1200-1400/1800 hrs.; overtime – 0700/0800-1200/1400-1800/2200 hrs. Sundays and holidays, overtime.

(d) After 2000 hrs. and up to 0700 hrs. of following day it is not possible to make arrangements for meeting vessels, unless in emergency.

RADIO: (Also see "Pilotage"). Port has receiving-transmitting radio station Buenaventura/Colradio HKC. For listening and transmitting there are following frequencies:

Listening	*Transmitting*
8354 to 8374 kHz	8574 kHz
12531 to 12561 kHz	13087.5 kHz
6265 to 6280 kHz	6386.5 kHz

In emergency: Listening: 500 kHz. Transmitting: 441 kHz. Station operates 24 hours a day.

TUGS: Normally only required for berthing. Tug operation handled by Pilot. Generally tug service consists of pushing from stern or bow as required. When necessary to use ropes, they must be supplied by vessel. 2 tugs of 1,200 h.p. each and 1 of 350 h.p.

BERTHING: Main wharf 2,136 m. long, where import and export cargoes handled. There are 3 warehouses for the storage of export cargoes, including Colombian coffee.

Berthing arranged by turn according to time of anchoring in bay for each vessel. Tidal currents exist alongside berths.

Berth	*Length*	*Depth at LW*
Shed No. 1	202 m.	12 ft.
Shed No. 2 – No. 9	1,257 m.	23 – 25 ft.
New Pier	80 m.	30 ft.
	597 m.	17 – 20 ft.

Depths 25 m. off the quays is 30 ft. – 32 ft.

BULK HANDLING FACILITIES: The port is equipped with an automated bulk sugar loading installation which can load 12,000 tonnes in about 4 days.

STEVEDORES: Port has at present time 80 gangs of 16 men each.

Working Hours: First Shift: Monday to Saturday and holidays from 0800 – 1700 hrs. Second Shift: Monday to Friday and holidays from 1700 – 0100 hrs. and Saturdays from 1700 – 2400 hrs.

No work from 2400 hrs. Saturday until 0800 hrs. Monday.

MEDICAL: Agent must be given advance notice of urgent medical attention. Properly equipped hospital.

TANKERS: Independent oil pier with depth 33 ft. (25 m. off) with capacity to accommodate vessels of medium size. 4×8 in. hoses for discharge of petroleum products, and 2×6 in. and 1×4 in. hoses for unloading chemicals. Average rate of discharge of gasoline is 5,000 b.p.h. (approx.) Fuel oil and chemicals 1,500 b.p.h.

DENSITY: 1012 (approx.) average.

FRESH WATER: Drinking water unlimited quantity. Delivered through hose from end of wharf. Rate of delivery: 6 t.p.h.

FUEL:

(a) Two kinds of fuel, marine gas oil and bunker "C" fuel. Characteristics of gas oil: API gravity 33.0 at 60°F. Specific gravity: 0.8602. Characteristics of bunker "C" fuel: API gravity, 13.2 at 60°F. Specific gravity, 0.9779.

(b) To take bunkers vessel must berth between warehouse 2 to 9, and for delivery of gas oil between warehouse 1 to 5.

(c) Rate of delivery (approx.), 250 b.p.h. for bunkers and 700 b.p.h. for gas oil.

(d) Deliveries depend on quantity available when order placed, consequently Agent must know well in advance (10 – 15 days) vessel's requirements.

(e) Cash payment according to prevailing prices at time of delivery; otherwise, according to contracts between Shipowner and supplier.

FIRE PRECAUTIONS: Fire station within port installations with proper equipment. In city also another fire station, co-operating if necessary.

WATCHMEN: Service necessary both by crew members' and Agents' personnel. There is an established body of watchmen named "Policia de Vigilancia Portuaria" (National Police); additionally, the steamship agencies carry out this work with their own personnel with previous request by Master. The port has a Port Police body and Custom House Guards which co-operate in vessels' watch.

Piracy: Mariners are advised to be alert to unusual, abnormal or hostile activities by pirates (especially during darkened hours) in the approaches to and in Buenaventura Harbour/Anchorage.

OPENING/CLOSING HATCHES: All Agents have special gangs to handle this operation and to fix the vessel's gear for discharge and/or loading. These personnel permanently stand by on board on account of climatic conditions of port with frequent and sudden rains. No prohibition against crew carrying out such operations when charter parties are involved and which stipulate that such operation must be done by crew. It is known from experience, however, that vessel's personnel are not, on occasions, sufficient to do this work.

CUSTOMS ALLOWANCES: No regulations establishing quantities which each crew member may have outside bond, but must not be excessive order avoid problems with authorities.

CARGO GEAR: Ship's gear used. Also see "General".

IDENTIFICATION CARDS: Agent will supply special cards to crew and passengers in transit so that they may go ashore. Cards valid for entering and leaving port installations and for identification with the Immigration authorities. Must be returned before vessel departure.

CONSULS: Panama Tel: 2 22 50. Most countries have consuls in Cali – approximately 120 km. from Buenaventura.

REPAIRS: According to port regulations vessels must at all times be ready with engines to sail, consequently repairs of engines not allowed when ship berthed at wharf. No prohibition against minor repairs on deck. When engine or deck repairs taking a long time are necessary, vessels not being loaded and/or discharged simultaneously with repairs must go to anchoring ground, since crowding of vessels at port does not permit vessel being inactive occupying space while other vessels are anchored waiting for berth.

REPATRIATION: Authorities render co-operation for change of crew and arrangements of repatriation in co-ordination with ship's Agent.

AIRPORT: Located 18 km. from Buenaventura. Airport is small and is inactive. Agent in charge of the repatriation of a crew member must handle necessary connection in Cali or Bogota, where there are international airports.

TIME: GMT minus 5 hours. Permanent.

HOLIDAYS: New Year's Day; Good Friday; Workers Day (May 1st); July 14th and 16th (from 1200 hrs. to 2400 hrs.); December 24th and 31st (from 1200 hrs. to 2400 hrs.); Christmas Day (no working in the port). On Sundays there is no work in the port, but sometimes when required there is working, especially to finish loading or unloading vessels.

POLICE/AMBULANCE/FIRE: A voluntary firemen corps in the city. Alarm, Tel: 22222; Guard, Tel: 23720; Firemen, Tel: 15; Ambulance, Tel: 22830, 22638, 23708, 24475; Police, Tel: 22738.

BANKS: Colombia Republic Bank, Popular Bank, Bogota Bank, etc.

GENERAL: Provisions available. Cable service to all parts of the world. Telephone and telex service inside country and to foreign countries through Bogota. Weather conditions: generally rainy. Explosives: if the vessel is transporting dynamite and detonating caps they are placed in separate lighters, and armed guards are required on board any vessel transporting explosives. In such cases, the vessel must anchor in front of Buoy No. 9 and discharge to lighters during daylight. No vessel can berth at the wharf if transporting explosives, and only permitted with dynamite in closed hatches, which will not be opened at the wharf according to government regulations. Port is equipped with following shore cranes and equipment: 2×80,000 lb. capacity (mobile), 1×60,000 lb. capacity (mobile), 3×20,000 lb. capacity (mobile), 2×14,000 lb. capacity (mobile), and 1×10,000 lb. capacity (fixed). New equipment includes 3×16 ton mobile cranes to work in yard operations only and 2×40 ton Hyster heavy lift trucks for container handling.

1×60 ton Hyster heavy lift truck has recently been purchased and is expected to arrive in the port in the near future.

Floating crane: 1×45 tons capacity.

Lighters available: 3 with following characteristics:

Size *Length/width*	*Capacity*	*Type*
24.40× 9.45 m.	280 tons	Flat surface
34.40× 7.60 m.	150 tons	Flat surface
38.80×10.60 m.	150 tons	Flat surface

No refrigeration space available.

SHORE LEAVE: Permitted (with ID cards).

DELAYS: At anchorage in Bay average delay of 1 day while waiting for berth. On account of the rainy condition of the port, discharge or loading is at times stopped up to 12 hours.

DEVELOPMENTS: Container and general cargo yards are being rebuilt and expanded to improve storage and other facilities. Sheds are also being constructed, and a general port modernisation plan is under way.

SHIPMASTER'S REPORT No. 1: 1978.

Pilotage: Normally the Pilot boards at Punta Basan but can be arranged at No. 1 Buoy at request of Master as most shallow water is from No. 1 Buoy to No. 5 Buoy.

Anchorage: Vessels are warned not to anchor near No. 1 Buoy or at Punta Basan because of piracy. Pirates steal ships' cargoes at these anchorages.

Buoys: All buoys marked on chart are not dependable (for example the No. 1 Buoy has been shifted 070° about 1 mile).

Berthing: Depth 9 m. at LW, capacity for 12 ocean going vessels.

Stevedores: For general cargo, each gang 6 – 8 persons. Working hours 0800 – 1130, 1400 – 1730, 1800 – 2300, 0000 – 0300 hrs.

Watchmen: Policemen engaged on board on arrival as gangway watchmen and hatch watchmen. Vessel to victual those persons.

Caution: Strong tidal current up to 3 knots in this port, vessel must keep strict watch when anchored and when berthed.

Shallower depth may exist due to silting at fairway and at inner side of the pier.

SHIPMASTER'S REPORT No. 2: 1978.

Whilst at the port we were boarded by two well organised gangs of thieves. The first incident took place in the Roads, when thieves managed to steal cases of whisky and a Xerox machine from No. 1 lower hold before being seen and chased off by the ship's crew. The second incident, which could have had serious consequences, occurred whilst at anchor in the estuary awaiting sufficient water to cross the river bar. Here, an aggressive, well disciplined gang, armed with parangs and staves boarded, and only after a running skirmish with the ship's officers did they retreat having stolen one box of cargo from No. 2 lower hold. A constant two-man deck patrol has been in operation since arriving at Buenaventura, but the only method of deterring these experienced thieves is effective hold security.

SHIPMASTER'S REPORT No. 3: August 1979.
Silting of Berths: Whilst berthed at No. 2 considerable problems have been experienced due to lack of water alongside the berth (See "Plan").

The berth is charted as having 9.1 m. alongside, maximum draft of vessel being 7.64 m. However, 2 hours before first LW alongside, the vessel had clearly taken the mud and began to come off the wharf. Considerable slacking was necessary in order to prevent parting of moorings. At LW the vessel had come to rest 30 ft. off the quay fore and aft whilst still maintaining reasonable weight on moorings. After draft was indicating 7.00 m. and vessel listed 3° to port. This tide was particularly low, being −0.5 m. below chart datum. It had been previously observed from anchorage that the previous vessel alongside, a large Colombian vessel, had been having similar problems but it was noted that she had been 2 ft. deeper draft.

As the tide flooded the vessel was gradually heaved alongside, but it was 2 hours after LW before she was fully alongside. Similar tending of moorings was necessary during the following 4 days alongside. However, it was found beneficial to give her a list to port which had the effect of lessening the movement of the berth. During this period, 4 hours cargo work was lost at each LW (2 hours before and after) as the derricks could not plumb the wharf. However, I am assured that we were not paying for this lost period. In addition, the Chief Engineer experienced considerable cooling problems due to the intake of mud, leaves and organic matter.

On the Sunday during the period alongside when there is normally no cargo work, all 10 vessels alongside were shifted out to anchor so that soundings could be taken by the Port Authority. The vessel was returned to Berth No. 3, but there proved to be a similar lack of water. (See "Plan").

The silt alongside these berths is very soft mud and therefore does not pose any danger to the hull, however the situation is entirely unsatisfactory and as can be seen from the Plan, soundings alongside the jetty show depths of 3 m. to 4 m. less than charted. I am told by the Agent and Port Authority that a large contract dredger is due to begin work within one month.

SHIPMASTER'S REPORT No. 4: November 1979.
Vessel called at Buenaventura recently, drawing 27 ft. The vessel was berthed 1 hour before HW and experienced no difficulty getting alongside the berth. The draft was then reduced to 25 ft.

However, on the falling tide, the vessel could not be kept alongside and also listed 2.5°. On sounding the berth I found only 20 ft. of water at low tide.

On taking up the matter with the Agents I was informed that it is quite normal to sit on the bottom, which is soft mud. Furthermore, the berths have not been dredged in the last 10 years and the depth of 24 ft. cannot be relied upon.

I am also advised that plans are afoot for a massive dredging operation, due to commence sometime in November this year.

AUTHORITY: Puertos de Colombia, Terminal Maritimo de Buenaventura, Apartado 570, Buenaventura, Colombia. *Tel:* 24421, 24425. *Telex:* 052371. *Cables:* Termarit. *Contact:* Edgardo Caicedo Rivas, General Manager. Victor Julio Gonzalez R., Operations Director.

CARTAGENA (Incl. Mamonal and Ecopetrol): 10.26 N. 75.33 W. (See Plan)

(A) GENERAL CARGO (B)TANKERS

(A) GENERAL CARGO

DOCUMENTS:
- Clearance from Last Port.
- 7 Crew Lists.
- Ships Papers and Certificates.
- Oil Pollution Certificates.
- 7 Personal Effects Lists.
- 3 Sets of Cargo Manifests of each port with respective bills of lading.
- Tally books of cargo for each port.
- Health Declaration, Certificate of Vaccination, Derat Certificate.
- 7 Lists of Passenger to Disembark (or negative).
- 7 Lists of Passengers in Transit (or negative).

PILOTAGE: Compulsory. Boarding position, at sea buoy in position: Lat. 10° 19′ 44″ N., Long. 75° 36′ 14″ W. 2 Pilot boats, black hull, white superstructure. Speed 6 knots. Sound signals, 4 long blasts for all type of vessels. Radio: VHF – standing by on Channels 11 and 16. Also Channels 6 and 26 to shift. Service 24 hours every day. At Central Radio Terminal there is A.M. radio on frequency 2738 and 2638 kHz and VHF.
ANCHORAGE: Anchorage in foul weather or other reasons 0.5 mile S.W. from Buoy No. 1. For vessels awaiting berth in Cartagena, South from Punta Castillo Grande. For tankers in Mamonal, West of the pier of Refineria Ecopetrol.
RESTRICTIONS: Depth in access channel 38 ft. Entry day or night.
MAX. SIZE: Cartagena: Length 600 ft., beam 79 ft., draft 30 ft. (for berthing).

Tankers: Length 85~~0~~3 ft., beam ~~110~~ 125 ft., draft 38 ft. Tankers anchor and berth in port of Mamonal, within bay, using same approach.
HEALTH: Doctor requires the Crew Lists with data of vaccination. International regulations in cases of contagious sickness or epidemic are carried out.
RADIO: Radio Barranquilla – HKB
VHF: Pilot station, pilot boat, Terminal Superintendent and Agents on Channel 16.
TUGS: 1×750 h.p. tug. Compulsory for all vessels over 2,000 g.r.t. at Cartagena and in Mamonal.
BERTHING: Port has two piers: Berth No. 1, outside length 202.60 m., depth 32 ft.; inside length 184.76 m., depth 32 ft.; Berth No. 2, outside length 184.76 m., depth 32 ft. A new marginal dock is in service with length 258 m. and depth 32 ft., located West of piers. Between the two piers there is a 134 m. dock with 32 ft. depth. Docking and undocking around the clock. Berthing shifts or turns: 1st, Passenger vessels (Tourist). 2nd, Cargo vessels with live animals. 3rd, Vessels with mail. 4th, Cargo vessels according to arrival in port.
Cranes and Cargo Handling Equipment:

Floating crane:	1×40 tons capacity
Truck cranes:	1×30 tons capacity
	1×20 tons capacity
	3×10 tons capacity
Fork lift trucks:	1×62,000 lbs.
	2×45,000 lbs.
	30×6,000 lbs.
	2×15,000 lbs.
Tractors:	13
Trailers:	24

Over a three year period the Port of Cartagena will acquire:

Fork lift trucks:	3×15 tons
for empty containers:	3
for loaded containers:	3
for loading and unloading containers:	3×4,000 lbs.
cranes:	1×4 ton capacity
	3×16 ton capacity
5th wheel tractors:	5
Trailers for 20 ft. containers:	17
Trailers for 40 ft. containers:	7

STEVEDORES: Can be requested with 24 hours notice. Services for Mondays must be requested on Saturdays before 1000 hrs. Ship starting work after a Holy Day, must request personnel the day before the Holy Day, before 1500 hrs. No work on Sundays, January 1st; Good Friday; November 11th; December 25th; May 1st. When ship is delayed there is a conventional waiting time of 4 hours, after that time stevedores retire charging the vessel with 4 hours work (union arrangement). Port Authority charges commence when Pilot boards on arrival and cease when the Pilot disembarks on sailing.
Working Hours: First shift: Monday to Saturday and holidays, from 0800 – 1200 hrs. and from 1400 – 1800 hrs. Second shift: Monday to Friday, from 1800 – 0200 hrs.
BULK HANDLING FACILITIES: Grain unloading undertaken with clamshell or vacuum equipment for bagging on the quay. Rate in excess of ,200 tons for a 14 hour shift.
MEDICAL: Requests for medical service through Telecom Radio Station. 6 hospitals. Also dental services. Vaccinations can be given.
TANKERS: See "Section B".
FRESH WATER: Available at all berths.
FUEL: Requirements should be ordered at least 8 – 10 days in advance, via the vessel's Agent.

Agent requires the following details:
- (i) Vessel's name and nationality.
- (ii) Daily consumption at sea and in port.
- (iii) BHP.
- (iv) N.r.t. and g.r.t.
- (v) Next port after Colombia.
- (vi) Port of origin.
- (vii) ETA.
- (viii) Quantity and type of bunkers required.

DENSITY: 1015 (At Mamonal)
WATCHMEN: Watch service at the gangway and deck. Officially this service is done by port's guards. It is recommended that members of crew assist in this service.
CLOSING/OPENING HATCHES: Undertaken by port stevedores.
IDENTIFICATION CARDS: Agents supply cards signed by Port Captain and Master.
CONSULS:
- Belgium
- Bolivia
- Costa Rica
- Chile
- Denmark
- Dominican Republic
- Ecuador
- Finland
- France
- Germany F.R.
- Guatemala
- Honduras
- Italy
- Mexico
- Netherlands
- Nicaragua
- Norway
- Panama
- Peru
- Spain
- Sweden*
- Venezuela

*Consular representative.
DRY DOCK/REPAIRS: Commercial Shipyard "Conastil":

Synchrolift 120 m. length, 22 m. width. Lifting capacity 5,000 tons.

8 repair positions ashore; 4 with a capacity of 5,000 tons and 4 with a capacity of 10,000 tons.

600 m. length of piers with 18 ft. depth with all services and repair facilities.

Mechanical, fitting, welding, electrical, motor, and carpentry shops.
SURVEYORS: The following cargo inspectors and surveyors are available: Saybolt, P&I, Lloyd's Register of Shipping, American Bureau of Shipping, Bureau Veritas and Germanischer Lloyd.
REPATRIATION: Facilities available for crew changes.
AIRPORT: Only local airlines Avianca and SAM serve flights from/to Cartagena.

All international airlines serve Bogota (the capital).
TIME: Colombian official time: 5 hours behind GMT. Permanent.
HOLIDAYS: Eighteen days of holidays during year, but at terminal there is no service on following dates only: New Year Day (January 1st); Good Friday (Viernes Santo); Labour Day (May 1st); Cartagena Independence Day (November 11th); Christmas Day (December 25th). During the days December 24th and other holidays there is 24 hour service with 50% surcharges.

POLICE/AMBULANCE/FIRE:

Police Radio patrol	04
Red Cross	20360
Hospital Universitario	22380
Hospital Bocagrande	40270
Hospital Naval	40248
Clinica de Manga	40762
Clinica Cartagena	20910
Ambulance of Terminal	Channel 16 VHF
Firemen of Terminal	Channel 16 VHF
Firemen of Cartagena	42222, 20903

TIME: Colombian official time: 5 hours behind GMT. Permanent.

TELEPHONES: May be placed aboard.

SHORE LEAVE: Crew allowed disembark. Every member of crew is given card signed by Port Captain and Master of the vessel.

REGULATIONS: To clear the wharf if required for tourist vessels or export cargo vessels.

SERVICES: Contact: Maritima Comercial Agencia Naviera Ltda., P.O.Box 207, Cartagena, Colombia. *Tel:* 45-557, 45-752 and 46-532. After Hours: 43-481. *Telex:* 37804 Marco Co.

Services: Ships agency, ship chandler, launch and tug service, private Pilot, medical assistance for sick crew, crew repatriation, etc.

GENERAL: Cartagena can be entered or left at any time day or night. Vessels can also berth or unberth in dry season or rain seasons, and services are rendered during 24 hours.

There is a very tight security system with a detachment of 145 port police, watch towers, dogs, sodium vapour lighting, access control, full identification, cargo control unit. This new unit, and the administrative controls that complement it, has reduced losses to near vanishing point.

The port has international communications with telex, phone and cable. Complete marine service with VHF and can communicate with Bogota and the other Colombian ports with S.S.B. radio.

AUTHORITY: Puertos de Colombia, Terminal Maritimo de Cartagena, Apartado Aereo 94, Nacional 200, Cartagena. *Tel:* 64655, 63478. *Telex:* 37718. *Cables:* Termarit. *Contact:* Vivian Dahl Pareja, Chief of Information Office. Gilberto Rengifo Varon, Port Captain.

(B) TANKERS

LOCATION: Cartagena is located on the Bay of Cartagena, North coast of Colombia, Lat. 10° 19′ N., Long. 75° 31′ W.

DOCUMENTS: Documents necessary for a petroleum tanker arriving at Cartagena are as follows:

1 copy Clearance (Despacho) from Last Port (if vessel was directed while en-route, Master's affidavit). Consular visa unnecessary.
1 copy Consular Dispatch.
4 copies Crew List.
4 copies Personal Effects Lists.
2 copies Ballast Manifest (Manifiesto de Lastre).
4 copies Stores List.

PILOTAGE: Pilotage is compulsory. If, on arrival outside the entrance to the channel leading to Cartagena harbour, a Pilot does not meet vessel, vessel is to sound the whistle signal, 4 long blasts, and display International Code Flag "G" for a Pilot.

Vessels are not to pass each other in the channel leading into the harbour of Cartagena and inbound vessels are to give way to outbound vessels.

Vessels entering or leaving the port must have a Pilot on board, otherwise they might be subject to a fine for failure to comply with this regulation.

The vessel must sound 4 long whistle blasts so that it will be met by the Mooring Master inside the harbour and who will take it alongside immediately if berth is available. If the ship's Master sees that another ship is at the loading berth, he must anchor.

It will be necessary to deliver to the Mooring Master a report stating the exact time he arrived on board and left vessel outside the channel. If, when inbound, the Pilot does not meet vessel outside the channel, Master is to note this fact on the Pilot's Report.

NAVIGATION AIDS: For information pertaining to Navigation Aids, consult the latest edition of the Light List (H.O. III A) or equivalent British Light List; also the Sailing Directions covering the area.

RESTRICTIONS/MAX. SIZE:

		Refinery Terminal Max. – Min.	*Nestor Pineda Terminal* Max. – Min.
Size of vessel that can safely berth:	Length (ft.):	853 – 492	853 – 577
	Beam (ft.)	125 – 65	125 – 82
	Draft (ft.):	38	38
	d.w.t.:	85,000 – 12,000	85,000 – 25,000
Location of Terminals South of the City of Cartagena:		7 miles	5 miles
Latitude:		10° 19′ 09″ N.	10° 19′ 39″ N.
Longitude:		75° 30′ 42″ W.	75° 30′ 54″ W.
Distance from port entrance:		5.5 miles	6.5 miles
Least depth of water from Bocachica Channel to Terminal:		44 ft.	44 ft.
Depth of water at Terminal at Mean Low Tides:		40 ft.	40 ft.
Mean Tidal Range at Terminal:		1.5 ft.	1.5 ft.
Nature of bottom at Terminal:		Mud	Mud
Docking and unloading:		Night and day	Night and day

Also see "Berthing".

RADIO: Masters of vessels proceeding to the Cartagena Terminals are to send a radio notice at least 48 hours prior to arrival to the Agent at Cartagena; this should be corrected promptly in the event of any change in the time of arrival.

The Agency, upon receipt of the arrival cable, will cable the vessel with pertaining instructions about the cargo, if not ready, or if the berth is occupied at the time of arrival by another vessel. In these instructions, the Agency will indicate the estimated docking time.

BERTHING: Ecopetrol owns 2 terminals on the Bay of Cartagena:

Refinery Terminal: The dock of the Refinery Terminal consists of a "T" loading platform with trestle connection to shore, 4 breasting dolphins and 2 mooring dolphins. These facilities are used for receiving crude oil, gas oil and white products and shipping refined products and spent caustic in tankers up to 85,000 d.w.t., either empty or partially loaded to a maximum draft of 36 ft.

Nestor Pineda Terminal: Consists of an isolated loading platform, connected to the shore by 7 submarine pipe-lines, 3 breasting dolphins, and 2 mooring dolphins. These facilities are used for receiving crude oil and shipping fuel oil and aromatics in tankers up to 85,000 d.w.t., either empty or partially loaded to a maximum draft of 36 ft.

The size of tankers entering Cartagena's bay is limited by the depth of the entrance channel (Boca Chica), which is limited to ships with a maximum draft of 38 ft.

Vessels are supposed to berth alongside the dock with bow and stern lines from both the port and starboard bow and stern.

To dock vessels over 2,000 d.w.t., Maritime and Port Authorities request the use of tugs. Tug costs are on the ship's account. It is recommended that 2 mooring lines be bent together on the starboard quarter. The Mooring Master boards the vessel about 0.5 mile from dock and remains aboard during the entire stay of the vessel at the dock. The Loading Master is to be supplied with room and meals on board.

LOADING/DISCHARGING:

Name of grades handled at Refinery Terminal:

	No. and Size of F.M.C. Tubular Arms	*Diameter of Pipe-line (in.)*	*Max. Pumping Rate – Barrels Per Hour*	*Max. Pump. Pressure psig.*
Crude Oil	3 – 12 in. × 60 ft.	20	20,000	150
Fuel Oil	3 – 12 in. × 60 ft.	2 – 14	5,000	150
Gasoline	3 – 12 in. × 60 ft.	18	10,000	150
Kerosene-turbo	1 – 12 in. × 60 ft.	8 – 10	2,100	150
Diesel	2 – 12 in. × 60 ft.	12	7,000	150
Spent Caustic Soda	1 – 12 in. × 60 ft.	6	2,000	150
Ballast Water	3 – 12 in. × 60 ft.	16	20,000	150

Name of grades handled at Nestor Pineda Terminal:

	No. and Size of F.M.C. Tubular Arms	*Diameter of Pipe-line (in.)*	*Max. Pumping Rate – Barrels Per Hour*	*Max. Pump. Pressure psig.*
Fuel Oil	3 – 12 in. × 60 ft.	24	10,000	150
Crude Oil	3 – 12 in. × 60 ft.	20	20,000 (1)	150
White Products (2)	2 – 12 in. × 60 ft.	6	1,500	150
Ballast Water	3 -- 12 in. × 60 ft.	16	20,000 (1)	150

(1) From ship to shore facilities.
(2) Includes facilities for loading Aromatics (Benzenes and Xilenes).

BALLAST: Vessels must arrive with sufficient ballast to permit safe handling in port. Vessels in ballast shall not have greater than 4 ft. trim difference between the fore and after draft. Dock Master requirements in this connection under normal weather conditions are interpreted as drawing approximately 14 ft. forward and 18 ft. aft.

The deballasting facilities are as follows:

In the Refinery Terminal the pipe-line to the shore installations is 2,835 ft. long and 16 in. diameter, 3×12 in. loading arms are available to a maximum rate of deballasting of 20,000 bbls.p.h. In the Nestor Pineda Terminal the pipe-line to the shore is 3,600 ft. long, and 16 in. diameter, also there are 3×12 in. loading arms to a maximum rate of deballasting 20,000 bbls.p.h.

No dirty or clean ballast, nor engine room, or pump room material must be pumped overboard while inside the port.

The Ship's Master should be fully aware of the Colombian laws and regulations pertaining to pollution of the environment and the sanctions derived from their infringement.

Extreme care must be taken to avoid spillage of oil or any other contaminants. In the occurrence of any spillage attributable to the crew's responsibility, immediate action must be taken in order to clean the affected areas. The costs of this action are on the ship's account.

There are strict legal regulations concerning pollution problems. Those responsible for this type of situation will be heavily fined by the Port Authority.

FRESH WATER: Fresh water is available only at Nestor Pineda Marine Terminal. This water is not recommended for drinking.

FUEL: Bunker C, Marine Diesel and Diesel Oil are available only in the tanker anchorage area, from local suppliers.

GANGWAY/DECK WATCHMEN: An accommodation ladder shall be lowered on the port side upon arrival at the port.

SHORE LEAVE: Shore leave is granted to members of the crews of vessels calling at Cartagena. Before granting shore leave, the Master must address a letter to the Port Authority requesting permission to grant shore leave and must assume all responsibility for his men.

Crew deserters will be arrested by the local police and the vessel in all probability will be fined. Every precaution, therefore, is to be taken to prevent members of the crew from going ashore without permission from the Master. The Port Authority restricts, under penalty of fine, the boarding of any tanker while at the loading terminal by all persons except those having official duties to perform on board. Masters are to make sure that no unauthorised persons are permitted to come on board their vessel while at the terminal.

REGULATIONS: Ecopetrol requires that all vessels loading or unloading at their terminals comply with the following regulations:

a. Tankers must arrive in port with hose derricks rigged and mooring lines on deck.
b. During the time the tanker is at the loading platform a sufficient number of the ship's crew must be on duty to properly attend the mooring and hose lines; so that necessary changes can be promptly made.
c. The tanker must furnish one member of the crew to operate the ship's winch, which operation, however, is to be under the direction of the Loading Master.
d. The tanker's crew must handle all ship's valves.

e. The ship's officers must follow the instructions, in all aspects, from the Loading Master as to all the signals to be given to the shore loading stations. When the tanker is about to be loaded, a "stand-by" signal is to be given. The "Slow-down" signal must be given at least 5 minutes before the "Shut-down" signal.

f. In order to facilitate the above, the crew should be on deck immediately following the "stand-by" signal and preparations must start to unberth the ship on completion.

g. No ship will be berthed except under the sole direction of the Mooring Master.

h. While the ship is berthed, the propellers must not be moved; engines shall be ready for immediate use and steam, or power must be available to work winches and windlasses to meet emergencies at all times.

i. All instructions from the Loading Master, whether contained in these regulations or not, must be followed by the ship's officers and if not, all operations will be discontinued, and, if necessary, the ship removed from the loading berth until such time as the ship's officers comply with orders of the Loading Master.

j. No maintenance, or repair to the ship, such as welding, or any other hot work will be undertaken, while at the berth and which will endanger the safety of the installations, or equipment, owned by Ecopetrol.

k. When loading/unloading operations are complete, the crew shall endeavour toward clearing the facilities in the shortest period of time possible.

SHIPMASTER'S REPORT: August 1979 (Updated 1986).

Approaches: Cape Santa Domingo shows up at 35 miles on radar. During Summer months May to September strong N.E. winds with heavy swell are prevalent in the approaches.

Thunderstorms and squalls are usual in Summer near the coast with a marked shift in wind.

Boca Chica Light and Fairway Buoy Light are conspicuous. Bancas Salmedina Light on wreck merges with shore lights from the West.

Generally even with strong N.E. winds in Summer it is fairly calm off Fairway Buoy, even if blowing strongly a few miles further seaward.

Pilotage: Pilot boards off Fairway Buoy, usually starboard side, using gangway/pilot ladder arrangement.

The pilot station is on Isla Draga on the South side of Boca Chica Channel, 24 hour service maintained.

The proper launch is a large black hulled craft but at present (August '79) it is being re-engined. A small pleasure type craft is being used at present of very low speed and light construction. In the bay the Pilots have a turbo craft, small but very fast. The Boca Chica Pilots are a Government service and dock vessels at public piers only, otherwise take vessels to area off private piers and hand over to private Pilot, same when leaving. Pilots speak some English.

The private Pilot at Mamonal Pier is good and speaks good English.

VHF: Appear to use Channel 16 only.

Boca Chica: The narrow entrance to Cartagena Bay Channel well lighted by buoys as per British Admiralty Chart. Max. draft 38 ft. accepted. Sometimes cross currents are Southerly across the entrance with strong Northerly winds. Course steered 086°.

Anchorages: For Mamonal Oil Pier, 1 mile S.W. of pier, with 3 shackles, whole of bay affords good shelter and all the bay is compulsory pilotage.

Berths: Mamonal Pier virtually due East of Boca Chica Channel. It is owned by Ecopetrol and leased to Amocar Refinery behind the berth. Both state owned. Max. size 75,000 d.w.t. (approx.).

Draft: Limited by Boca Chica Channel. This vessel's draft: 41 ft. 3 in. forward and 50 ft. aft.

Jetty: Vessel berthed heading North. A short jetty, length 50 m. with pipe gantry and dolphin each end connected by catwalk. Total length 100 m.

The pier ashore is for the pipes and has a narrow catwalk. No stores could be loaded along jetty. No fresh water on the berth. Gangway is a problem and is nearly impossible to land. Ships with long "B.O.T. type" can be landed on the jetty. We lowered ours to the water and used mooring boat which is on constant stand-by at jetty.

Fenders in a bad state of repair. The aft dolphin has no fender and vessel is kept off by port quarter buoy line. Fender is under repair.

Tugs: Generally two small tugs used for pushing, however, we used only one. A larger tug of 2,500 h.p. should be back in service after repairs.

Mooring: (See "Plan"). The first two lines fast each end are the springs, then the port quarter line aft to keep vessel off the damaged dolphin.

A line boat is used which goes backwards and forwards each end. The berth is approached from the South and port anchor is let go off the berth. Vessel eventually had 5 shackles in water. It takes about three hours from picking up Boca Chica Pilot to all fast.

Cargo: The pier handles gasoline, ammonia, propane and butane outward and crude oil inward. About 6,000 tonnes a month of ammonia is shipped for export.

About three 40,000 ton shipments of crude per month are brought in mostly from the Colombian Pacific coast but an occasional Nigerian shipment is also received.

Hoses: All flexible hoses, no Chicksan arms. Ammonia 8 in. 150 ASA with gate valve at ship's manifold, flexible wire braided with rubber covering. Joints liable to leak. Generally two connected ready, but we had to use three and P&O 'Galara' class have to use four due to high freeboard.

No vapour line. No Nitrogen purging. Shore labour connect. Can take up to 1.5 hours to connect/disconnect.

Rate: Maximum Ammonia rate 450 t.p.h. Four pumps at refinery, using two only seems to make 50 t.p.h. difference. Emergency stop – recirculates on jetty.

Survey: Bill of Lading on ship's tanks.

Loading Master: Speaks good English and very helpful. He requires a cabin as does a Pollution Inspector, Agent's runner and Surveyor.

Pratique: No radio pratique available.

N.O.R.: Signed by Pier Master on behalf of 'AMOCAR' refinery on arrival alongside or at anchor if waiting for berth.

Holidays: Public holidays with banks closed. 1st January, 1st May, 20th July, 7th August, 25th December.

Documents:

5 Crew Lists.
2 Personnel Effects.
2 Store Lists.
Vaccination List.
Maritime Declaration of Health.
Ship's Papers.

Generally very good co-operation with four persons boarding, none on departure, Agent brings clearance. Require to sight register, load line certificate, radio certificate, safety certificate and DTI/P&I Pollution Certificate.

In some publications a document called 'SOLE' form is mentioned. The Agent said this was a form from Colombian Consul at last port to say all papers in order but no longer required. Shore passes valid for 3 days are issued, no photographs required. Passes are not returned.

Customs: Will only board between 0700 hrs. and 1900 hrs. If the vessel has not cleared before 1900 hrs. she cannot start cargo. This is a new law by the Port Captain since the end of July 1979, previously he used to issue a waiver and allow loading but some Agencies didn't apply to him and started before Customs came with waiver. A meeting is due to be held before the end of August 1979 on this subject between Agencies, Customs and Port Captain. This means, at present, that it is not advisable to pick up the Boca Chica Pilot between 1730 hrs. and 0530 hrs. as vessel will not be able to work cargo and will probably have to pay an extra day's port costs as they are on 24 hour arrival Pilot basis.

Communications: Barranquilla "HKB". Frequencies: 476; 6463.5; 8666; 13087.5. HF: Channels 5/6; 6, 8, 12 MHz.

Telex: Good.

Telephones: To Europe from Cartagena, 2 to 3 hours delay.

Bunkers/Fresh Water: At Bay piers, can easily be obtained by barge.

Agent: Did not seem aware of new Port Captain decree on not starting cargo at night which cost extra day's port charges, which could have been avoided, until he boarded with Customs.

Apart from the above, very good and attentive. Can be contacted on VHF Channels 16 and 6. A "runner" is on board all the time with a walkie-talkie.

I was told that crew changes are easily done as long as 24 hours notice is given for Immigration clearance. It is quite normal for ships to sail with crew members adrift and as long as Master gives Agent letter of authority for hotel costs and air ticket there are no problems with the Authorities. The nearest British Consul is in Bogota.

Shore Leave: It takes about 20 minutes from Amocar Refinery (At foot of Mamonal jetty) to Cartagena by bus. Rate of exchange: Pesos to Dollar = 200 (1986).

Thieving/Stabbing: All officials and Pilot advised us to make sure we had a very good deck patrol with no ladders overside, thieving at Bay Berths is rife. Also make sure you have some strong weapon with you and you lock yourselves in at night as people have been stabbed in bed when woken by thieves. Lock everything up.

Developments: Considerable developments have taken place in the area in recent years. Cartagena is a big tourist centre from Venezuela and the U.S.

Exports include coffee, fruit, lumber, tobacco, precious metals and petroleum products.

Good road and rail communications exist with Bogota the capital taking about 18 hours.

The Eastern shore of the bay is being developed as an industrial area. The following piers and sea island are in evidence.

ECOPETROL sea island (Nestor Pinead Terminal) takes up to 100,000 d.w.t. tankers, 54 ft. at the berth but limited by Boca Chica Channel. Chicksan connections. FW piped to berth, mooring to buoys. Used for export of fuel oil and other petroleum products. Situated just North of Brujas Island.

Cement Jetty	in position:	Lat. 10° 20.4′ N., Long. 75° 30.9′ W.
Soda Pier	in position:	Lat. 10° 19.9′ N., Long. 75° 30.85′ W.
Syncrolift	in position:	Lat. 10° 19.7′ N., Long. 75° 30.8′ W. 15,000 d.w.t.
LPG Barge Pier	in position:	Lat. 10° 19.4′ N., Long. 75° 30.8′ W.
Mamonal Pier	in position:	As charted
Industrial Berth	in position:	Lat. 10° 17.3′ N., Long. 75° 30.4′ W.
Products Pier	in position:	Lat. 10° 18.2′ N., Long. 75° 30.55′ W.
Products Pier	in position:	Lat. 10° 18.2′ N., Long. 75° 30.7′ W.

Considerable barge traffic with big pusher tugs use the River Dique, which comes out in the Southern part of the bay, this joins up with the River Rio Magdalena in the interior and to Barranquilla, etc.

SHIPMASTER'S REPORT: May 1987.

Manomal is the oil port for Cartagena. It consists of an industrial complex with several berths, mainly handling bulk cargoes. The tanker berth is a relatively small sea island about 600 ft. long. This vessel, (Panamax, Summer d.w.t. 61,391 tonnes, L.O.A. 738 ft. Beam 106 ft.) visited Manomal in May 1987.

Approaches: At a distance of 15 miles – 20 miles Isla Tierra Bomba Light is clearly visible. It is now equipped with a Racon (C) which shows clearly on both 3 cm. and 10 cm. radars. Land shows up clearly on radar, and is easily identifiable with topography shown on BA. Chart No. 2434. Light on Boca Chica Sea Buoy also very good and seen at 7.5 miles – 8 miles on this occasion. Vessel had to anchor to await berth, and did so in about 36 fathoms of water, 7 cables S.W. of the Sea Buoy. No difficulties experienced anchoring or weighing anchor. Government Pilot boards vessel in the vicinity of the Sea Buoy and takes vessel as far as the berth where a Mooring Master takes over. The Berth is marked on the Plan on BA. Chart No. 2434 in position Lat. 10° 20.63′ N., Long. 75° 30.93′ W. as a "Platform". Ships always berth starboard side to, the normal mooring pattern being 3 head and stern lines, 2 breast lines and

2 springs, each end. The berth is a fairly recently built Sea Island but is not really large enough for ships over about 500 ft. in length. All our lines with the exception of lines from the main deck mooring winches ended up as springs. The berth is well fendered, so no problems lying alongside. 2 tugs available for berthing, one of about 2,500 h.p. is quite useful, but second one is small, and not much help berthing, although it does help to keep the vessel alongside whilst mooring is in progress. Line boat available and linesmen seem quite competent. No shore Gangway, but vessel was able to use her accommodation ladder amidships with a little difficulty.

Facilities: 3 × 10 in. Chicksan arms available for loading. Informed by shore that berth is served from the shore by 3 × 24 in. lines. (1 for Crude, 1 for Fuel Oil and 1 for deballasting ashore.) Loading Rate (F.O.) is about 15,000 bbls./hr., although vessel told that 10,000 bbls./hr. would be maximum. All shore personnel found to be helpful and cooperative. 4 hours required for cargo documentation after the completion of cargo.

Informed by the shore that there is 55 ft. of water at the berth, but limiting factor is the Boca Chica Channel, where we were limited to 37 ft. 06 in. Outgoing Pilot informed that there is an absolute maximum depth of 39 ft. in this Channel. Range of tide only about 1.5 ft.

Security: KEEP A SHARP LOOKOUT FOR THIEVES. Strict security measures, everything locked up. Vigilant deck watch to be maintained. Very little security seems to be practised by Terminal personnel. Shore Watchmen are available, and should be employed. Also had trouble with a large number of women who tried to board the vessel soon after shore Authorities had cleared ship inwards. Master had to personally refuse access to vessel for these "unauthorised visitors". Suggest deck watch doubled when near the completion of loading when vessel has a small freeboard. This vessel kept a good deck watch at all times, even so, an after store was broken into and a small quantity of paint stolen.

Sailing: No difficulties experienced leaving the berth. Tugs used but not made fast, they just push. Mooring Master unberths ship and turns her round off berth, when Sea Pilot takes over. Under normal circumstances this Pilot leaves the ship when passing between the last channel buoys (outwards) in Boca Chica Channel.

Note: During night approach to the port, the Stranded Wreck in Position Lat. 10° 22.9′ N., Long. 75° 38.7′ W. was showing clearly on the radar, but the light was not seen, and therefore presumed unlit, either temporarily or permanently.

AUTHORITY: *Operator:* Empresa Colombiana de Petroles, "Ecopetrol", Apartados: Aereo 5938-6813, Postal 808, Bogota, Colombia. *Telex:* 44464. *Cables:* Ecopetrol. *Contact:* Jorge Lozano, Depto. Coordinacion de Operaciones.

COVENAS (Gulf of Morresquillo): 09.25 N. 75.42 W.

(See Plan)

OFFSHORE PETROLEUM TERMINAL – CRAVO NORTE ASSOCIATION

See "General" before first port.

LOCATION: Situated in the Gulf of Morresquillo approximately 56 miles S.S.W. of Cartagena. "Arrived Ship" position is Lat. 09° 33′ N., Long. 75° 51.5′ W. which is 4.5 nautical miles from the Floating Storage Unit (FSU). (See "Plan"). The Terminal loads one grade of crude oil (API 29.3°. Temperature 88°/90°F).

DOCUMENTS:

Clearance from Last Port.
9 Crew Lists.
9 Personal Effects Lists.
Health Declaration.
Vaccination Certificate.
Derat Certificate.
Certificates – Load Line, Safety Construction,
  Safety Equipment, Safety Radio, Oil Pollution
  Insurance, Cargo Gear.

PILOTAGE: Compulsory except for anchoring. A company Mooring Master will board the incoming tanker approximately 4.5 nautical miles N.W. of the FSU. VHF Radio – Stand-by on Channel 16, shift to Channel 10 for manoeuvring – 24 hours' service, weather permitting.

ANCHORAGE: The recommended anchorage for export tankers and vessels having business with the off-shore terminal is within a radius of 1.5 nautical miles of position: Lat. 09° 33′ N., Long. 75° 51.5′ W.

APPROACHES: Golfo de Morrosquillo is entered between San Bernardo (9° 42′ N., 75° 42′ W.), which is low and sandy, and Punta Mestizo 17 miles S.S.W., its shores are fringed by mangroves and wooded swamps.

The head of the Gulf is backed by a plain, skirted by extensive savannahs, rounded to the East by a mountain range. The highest peaks, standing 12 miles East of the town are Tetas de Tolu, which forms two easily identified hills.

A lighted buoy (flash every 6 secs.), is established on Roca Morrosquillo (9° 35.5′ N., 75° 59.5′ W.) and represents the mid entry point to the Gulf.

RESTRICTED AREA: An area has been nominated as a Restricted Area.

Within this area all activities which could endanger the subsea installations such as anchoring of vessels, dredging, mechanical fishing (trolling and trawling), disposal of refuse, etc. are forbidden.

The area is bounded by lines joining the following reference points:

1. Punta Bolivar:	Lat. 09° 25′ 20″ N.,	Long. 75° 43′ 40″ W.
2. Punta Piedras:	Lat. 09° 25′ 25″ N.,	Long. 75° 39′ 05″ W.
3.	Lat. 09° 34′ 00″ N.,	Long. 75° 46′ 25″ W.
4.	Lat. 09° 32′ 25″ N.,	Long. 75° 48′ 45″ W.

RESTRICTIONS: Berthing night and day, weather permitting, in open water in the Gulf of Morrosquillo.

MAX. SIZE: *FSU:* 180,000 tonnes displacement with LOA 265 m.

Minimum Size: 55,000 tonnes displacement with LOA 220 m. for berthing alongside. Vessel can berth either side.

TLU: For berthing at the Tanker Loading Unit (TLU) 145,000 tonnes displacement with LOA 300 m.

Minimum Size: No minimum size providing vessel can handle the system equipment.

The max. draft at the FSU and TLU is 17.0 m. and the max. beam 40.0 m.

HEALTH: Port Authorities grant Free Pratique on clearing the vessel inwards. International regulations in cases of contagious sickness or epidemic are carried out.

RADIO: Radio Barranquilla, HKB.

VHF: Pilot station, Terminal Superintendent and Agents on Channel 16. Shift to Channel 10 for pilot boat, and for manoeuvring with harbour small craft. Shift to Channel 11 for loading.

RADAR: Use of harbour radar, situated on FSU, is available on request. Call on Channel 16 and shift to Channel 10.

TUGS: The use of terminal tugs (2) is at the Mooring Master's and/or Port Authorities' discretion. The mode of operation is made in conjunction with the vessel's Master.

BERTHING: The terminal can load 2 tankers simultaneously, one alongside the FSU and one at the TLU (See "Plan").

The FSU (Position: Lat. 09° 31′ 45″ N., Long. 75° 47′ 11″ W.) is a modified 384,000 tons ULCC, yoke-moored on a custom built catenary anchor leg mooring system with a 6 anchor pile spread. The installation is the principal unit in the terminal complex. The Terminal operations and control centre, communications network and accommodation facilities are housed on board. Water depth is 35 m. at the berth. Tankers can berth either side (preferably port side alongside) with 3×12 in. hard arm loading arms. Maximum loading rate 40,000 bbls.p.h. Max. height of manifold above sea level is 30 m.

The TLU (Position: Lat. 09° 29′ 46″ N., Long. 75° 44′ 15″ W.) is a catenary anchor, 6 legged, SPM functioning as a secondary tanker loading berth. Water depth is 25 m. at the berth. Loading is via 24 in. floating hose string with 2×16 in. connections on tanker port side, lifted by 10 ton S.W.L. ship derrick. Maximum loading rate 29,000 bbls.p.h. Max. height of manifold above sea level is 15.0 m. Max. distance bow to manifold 140 m.

BALLAST: No facilities for accepting dirty ballast or slops.

MEDICAL: Emergency medical services are available if needed but not on a routine basis.

DENSITY: 1015–1025, depending on state of Sinu River which empties into the Gulf.

FRESH WATER: Not available locally but could in an emergency be barged from Cartagena.

FUEL: Not available locally but can be barged from Cartagena.

FIRE PRECAUTIONS: See "Port Regulations" (copy placed on board on arrival).

CONSULS: None at Covenas – the nearest being Cartagena – 3 hours' drive.

REPAIRS: No dry dock facilities – minor repairs can be carried out through Cartagena.

SURVEYORS: Cargo Inspectors – Saybolt on site. Caleb Brett and S.F.S. available on few hours' notice.

Surveyors – Lloyd's Register, A.B.S., etc. Available on few hours' notice.

CARGO GEAR: Port derrick (10 tons S.W.L.) required at TLU.

REPATRIATION: Can be arranged but not encouraged.

AIRPORTS: Cartagena – (3 hours' drive) to U.S.A. and Monteria – (1.5 hours' drive) to Bogota for connections world wide.

TIME: GMT minus 5 hours all year round.

HOLIDAYS: Terminal loads 24 hours per day, 365 days per year.

SHORE LEAVE: Not permitted.

GENERAL: *Prevailing Currents:* Currents off the North coast are set generally E.N.E. to N.E., being a continuation of the Caribbean counter current, and have rates of 0.5 knots – 1.5 knots.

In the entrance to the Gulf, the flow is affected by the coastal counter current, which is E.N.E.-going and attains a rate of nearly 0.75 knots.

Within the Gulf it is affected by tidal streams which are sometimes strong enough to cause a resultant W.S.W.-going flow. This reverse flow seldom exceeds 0.25 knots.

CHARTS: BA. Chart No. 1277. U.S. Chart No. 24512.

SHIPMASTER'S REPORT: June 1986.

Vessel: 36,800 g.r.t.

Operator of Terminal: Occidental de Colombia, Inc.,

Pilotage: Compulsory within terminal area, except when proceeding to anchor.

A Company Mooring Master will board all vessels scheduled to occupy a loading berth at a position nominated by Mooring Master. At present 3 miles North of SPM (approx.). Mooring Masters are fully licensed Colombian Master Pilots. Mooring Masters remain on board throughout loading and require facilities complying with accepted standards.

Anchorage: At present 3.5 miles North of SPM. Actual position will be given by Covenas Control.

Max. Size: Vessels up to 145,000 tonnes displacement and not exceeding 300 m. LOA may be loaded at SPM. Mean sea level at berth is 25 m.

Tugs: 2 multi-service vessels, including tug capability (equipped with fire fighting and anti-pollution equipment). 2 personnel/pilot vessels. 1 fast boom layer. 1 oil-mop vessel/line handler. 1 hose and line handling vessel.

Medical: No facilities except in an emergency.

Shore Leave: Strictly forbidden.

Fuel: Available from Cartagena; 7 days' notice required.

Repairs: No dry dock available. Minor repairs may be carried out by local engineering firm in Cartagena. These services should be arranged through Agents.

Ballast: Discharge of dirty ballast into sea is strictly prohibited. No facilities for accepting dirty ballast or slops. Vessels must arrive with clean ballast. Ballast samples taken by shore Authorities (this vessel has segregated ballast and samples were taken).

Berthing: One SPM (Tanker Loading Unit) in position Lat. 09° 29′ 46″ N., Long. 75° 44′ 15″ W. is a catenary anchor, 6 legged, SPM.

Development – An FSU consisting of a converted 384,000 tons ULCC yoke moored on a custom built catenary anchor leg mooring with a 6 anchor pile spread, mooring in position Lat. 09° 31′ 45″ N., Long. 75° 47′ 11″ W. This installation will be the principal unit in the terminal complex as it is due for operation in August 1986. This unit will house Terminal Operations and Control Centre, communications network and accommodation facilities. The unit (FSU) will be capable of simultaneously receiving stabilised crude oil, and loading 2 export tankers, 1 secured alongside and 1 at the TLU (SPM) at a maximum of 40,000 bbls.p.h. each unit. Mean sea level at this berth is 35 m. At present the TLU (SPM) has a maximum loading rate of 7,000 bbls.p.h. and only 1×16 in. hose is connected; 2 will be available when complete complex in operation. Vessels arriving at TLU (SPM) should have port derrick rigged and a bow chain stopper capable of accepting a 76 mm. diameter chain. The vessel is also required to supply a good mooring rope on the forecastle head to use as a messenger for the buoy mooring. Bow fairlead(s) require an opening of 600 mm. × 450 mm. The complex is a joint venture between Ecopetrol, Occidental and Shell.

SHIPMASTER'S REPORT: September 1986.

The conventional buoy mooring no longer exists, it has been replaced by a Tanker Loading Unit (TLU) in position Lat. 09° 29′ 46″ N., Long. 75° 44′ 15″ W., which is in effect an SBM. There is also a Floating Storage Unit (FSU) in position Lat. 09° 31′ 45″ N., Long. 75° 47′ 11″ W., which is a 390,360 d.w.t. tanker permanently moored.

Documents: All ship's certificates sighted. Authorities mainly interested in vessel's Safety Certificates and Pollution Certificates. Shore personnel board vessel once on the SBM, sometimes at anchor if more than one ship being cleared. It would appear authorities only board vessels during daylight hours but this does not prevent commencement of cargo operations.

Pilotage: Vessel contacts FSU when 30 miles off port, FSU will pass on any information regarding berthing, etc. When due to berth Pilot will contact vessel on VHF Channel 16. Pilot usually boards when vessel passing North of FSU, actual boarding area is 3 miles North of TLU.

Anchorage: Approximately 3 miles West of FSU centred on Lat. 09° 29′ 49″ N., Long. 75° 41′ 44″ W. with a radius 1.5 miles from this position.

Restrictions: None, 24 hour port operations.

Tugs: One small tug assists in berthing, pushing only as required.

Berthing: SBM. One chain through centre panama lead onto vessel's AKD stopper, shore able to provide mooring gear if vessel not fitted with AKD stopper. Pilot on forecastle head when approximately one mile from SBM, he is in radio contact with Master on bridge.

Loading: 2×16 in. hoses connected port side. Shore labour connects hoses. 1 crew member required to drive crane/winch. Loading rate 25,000 bbls.p.h. (4,000 cu.m.p.h.). Vessels can load directly from shore or from the FSU.

Ballast: There are *no shore facilities for dirty ballast so vessels must arrive with clean ballast.*

Points of Interest: Accommodation required for Pilot (who also acts as Loading Master), and 1 Cargo Surveyor. One person (clerk) arrives on board towards end of cargo operations, he completes Bills of Lading on board on completion of loading. Medical facilities are available, the largest town close to Covenas being Tolu.

SHIPMASTER'S REPORT: September 1986.

Documents: The officials (Immigration, Customs, Agent, etc.) board before the approach manoeuvre.

The following documents are required:

Crew Lists.
Stores Lists.
Crew Effects Lists.
Cargo Lists.

The authorities also checked the following certificates: Classification, Radio, Construction, Safety Equipment, Oil Pollution and Insurance, Cargo Gear Register (at least 10 tonnes SWL), Last Port Clearance, Derat Certificate.

Pilotage: The pilot boarding area is about 1.0 miles – 2.0 miles W.N.W. of the FSU. The Pilot (Loading Master) remains on board during the loading.

Restrictions: Mooring is carried out during daylight only, unmooring possible day and night.

VHF: VHF Channels 16, 10 and 13 used.

Tugs: There are 2 tugs (supply vessels) with sufficient power to moor and unmoor large vessels. Tugs lines are used.

Berthing: The conventional buoy mooring is no longer in operation and has been replaced by two new units:

Floating Storage Unit: Tankers up to 230,000 tonnes' displacement moor alongside on either side of the FSU. The FSU has 3×12 in. loading arms on each side and hydraulic cranes for the transfer of Loading Master, Assistant, etc.

Mooring consists of 4 headlines, 2 breast lines and 2 spring lines forward and aft. If the vessel uses wire moorings, nylon tails are required. The FSU has quick release hooks.

Tankers Loading Unit: This is a Single Point Mooring for tankers up to 145,000 tonnes' displacement and is equipped with two ADK bow stoppers and fairleads of 600 mm.×450 mm. (for 76 mm. chain).

Manifold connections are on the port side (2×16 in.). Ship's derrick/crane required for hoisting hoses.

IGS: Tankers are required to be inerted (less than 8% oxygen) and are checked prior to loading.

AUTHORITY: *Operator:* Ecopetrol, Distrito Cano Limon Covenas, Redoma San Mateo, Autopista Internacional, Antiguas Oficinas Torovega, Cucuta, Norte de Santander, P.O.Box No. 1107, Colombia. *Tel:* (970) 32741, 44013, 40268, 42497. *Telex:* 76636. *FAX:* (940) 41804. *Contact:* Captain M. I. Keiller, Terminal Superintendent (FSU) Covenas.

POZOS COLORADOS TERMINAL: 11.09 N. 74.15 W.

(See Plan)

LOCATION: North coast of Colombia, approximately 6 miles S.W. of Santa Marta.

DOCUMENTS:

For the Port Captain:

1 Clearance for Last Port.
1 Voyage Report.
1 Crew List.
1 List of Passengers for Santa Marta.
1 List of Passengers in Transit.

Vessel Certificates: (These only need to be shown).

Registration Certificate.
Load Line Certificate.
Classification Certificate.
Safety Equipment Certificate.
Radiotelegraphy Safety Certificate.
Construction Certificate.
Cargo Handling Equipment Safety Certificate.
Oil Pollution Certificate (Insurance for US$1,000,000).

For Port Health Authority:

Derat Certificate.
Maritime Health Declaration.
Toxic Element Certificate.
Crew List with dates of vaccination.
List of Passengers for Santa Marta.
List of Passengers in Transit.

For Customs:

3 Cargo Manifests.
3 Crew Lists.
3 Lists of Passengers for Santa Marta.
3 Lists of Passengers in Transit.
3 Lists of Crew Personal Effects.
3 Lists of Provisions.
3 Mail Lists.

For Agencies:

1 Voyage Report (these only need to be shown).
2 Crew Lists.
2 Lists of Passengers for Santa Marta.
2 Lists of Passengers in Transit.
2 Crew Personal Effects Lists.
2 Lists of Mail for the Port.
4 Cargo Manifests.
4 Bills of Lading.
2 Cargo Stowage Plans.

PILOTAGE: Mooring Master will meet vessels approximately 1 mile seaward of terminal location. He will remain on board throughout the vessel's stay and should be provided with accommodation.

ANCHORAGE: When vessels arrive at night, they anchor 1 mile out to sea from the Terminal.

RESTRICTIONS: Docking only during daylight 0500 hrs. – 1600 hrs. Undocking 0430 hrs. – 1800 hrs.

MAX. SIZE: Berth in approximately 52 ft. of water and can accommodate vessels of up to 69,000 d.w.t., LOA 900 ft., beam 110 ft. with max. draft 45 ft.

HEALTH: Port Authorities board with Mooring Master to enter ship and attend all formalities.

RADIO: *Notice of Arrival:* Agent for the vessel must confirm arrival of vessel at the Port with a minimum advance notice of 24 hours, giving with this information the following information:

Name of the vessel
Name of the Master
Nationality
Last port of call
Destination of the vessel
Overall length
Draft forward and aft
Tonnage to be unloaded
Time at which Pilot is required.

VHF: Permanent communications Vessel-Terminal with VHF Channels 16 and 6. National and International communications through "Empresa Nacional de Telecomunicaciones (Telecom)" 0800 hrs. – 2200 hrs.

BERTHING: The vessel will be berthed in the area surrounded by the 7 mooring buoys, in following order from for'd port side, passing round stern to for'd starboard side: No. 7, 1, 2, 3, 4, 5, 6. Vessels lie in berth on approximate due North heading; vessel's lines run by means of mooring launch to stern, quarter, and breast buoys. Vessels up to 20,000 d.w.t. require at least 5 good manila lines; vessels in excess of 20,000 d.w.t. require at least 12 good manila lines. These lines must be of not less than 120 fathoms in length each. Synthetic lines of equivalent strength may be used. Vessels equipped with wire mooring winches may use wires in lieu of fibre lines. The mooring requires use of both bower anchors, each having at least 150 fathoms of chain and be prepared to handle 5-ton lift on starboard side at ship's manifold. Because of rigidity of submarine hose, a small movement of vessel out of correct position could damage submarine equipment. Extreme caution must be exercised to ensure that vessel is correctly moored. During loading operation slack must be kept out of submarine hose by adjustment of vessel's anchor and lines.

TUGS: Tugs are available if necessary for manouevring when berthing and unberthing.

TERMINAL REPRESENTATIVE: The Terminal has skilled personnel to represent its business on board and they will remain on board during all operations.

HOSES: Submarine hose 16 in. with 16 in. to 12 in. reducer for connection to vessel's 12 in. deck hose. For vessels not equipped with 12 in. deck hose, a 12 in. to 10 in. reducer is available. A 25 ft. length of 10 in. deck hose is also available for vessels not having a deck hose on board. Ship's crew perform all hose connecting, disconnecting, etc.

PUMPING: Average pumping rate 12,000 b.h.p. Max. working pressure 120 p.s.i.

CARGO HANDLING: Terminal is designed for loading and unloading crude oil or products. Currently, it is used to unload white products (motor gasoline and virgin naphtha). The products must be transported and unloaded in segregated form. The total capacity of storage is 750,000 bbls. Distance to tanks 9,997 ft. Diameter of line 20 in.

BALLAST: The utmost care must be exercised by all tankers to avoid any contamination of the terminal bay waters, since the entire area is a developing tourist resort. This means that absolutely no deballasting or disposal of bilge water must take place in the bay. Shore deballasting facilities can handle up to 84,000 bbls. if ship provides advance warning.

FRESH WATER: Not available.

FUEL: No bunkers available at terminal. Acquisition is possible at Cartagena (Colombia). See "General" before first port.

MEDICAL: Doctor and hospital located at Santa Marta, throughout 24 hours.

CONSULS: No consular office in vicinity of terminal.

The following countries have consulates in Santa Marta:

		Phone
Costa Rica	Avda. Libertador No. 33-47	32199
Dominican Republic	Cra. 21 No. 15-99	32962
Ecuador	Las Villas 2a. etapa, Villa No. 15, El Rodadero	27590
Finland	Edificio de bs Bancos Oficina No. 605	35317
France	Calle 17 No. 2-56, Of. 212	32014
Guatemala	Calle 11 No. 1C-23 P. 8	34048
Netherlands and Sweden	Calle 15 No. 3-94	33403
Norway	Calle 11 No. 1C-23 Dpto. 306	33501
Panama	Calle 17 No. 2-56 Of. 416	34253
Peru	Calle 16 No. 1-92	33420

Other Consuls located in Barranquilla, approximately 35 miles distant.

REPAIRS: Limited repair facilities available in Santa Marta, approximately 6 miles from terminal.

SURVEYORS: There are 3 petroleum inspection companies.

SHORE LEAVE: Through the ship's Agent, shore leave can be arranged, but sufficient crew must remain on board to handle emergencies. Most Maritime Agencies own 2 safety launches for vessel-shore-vessel routine.

GENERAL: No ships' stores.

SHIPMASTER'S REPORT: November, 1984.

1. The Terminal is now used exclusively for the import of gasoline.
2. *Mooring:* Forward: 2 anchors and 1 starboard breast line to buoy.
   Aft: Lines to 5 buoys, 3 of which require double lines (8 ropes in total aft).

N.B. All ropes require a 'long drift' as buoys are well away from ship. Wire ropes not suitable for this terminal. (Mooring is a long procedure).

3. Pilot and 'Loading Master' joined at anchor – awaiting tide – and stayed on board throughout stay; in addition 10 personnel have to be fed.
4. *Port Papers:* All ship's documents required for sighting and expiry dates (except, in our case, Ship's Register).

Agents advised the following required:
4 Crew Lists (provided 12 copies and all 'required').
3 Personal Effects Lists (provided 9 copies and all 'required').
3 Stores Lists (provided 4 copies and all 'required').
3 Bonded Lists (provided 4 copies and all 'required').
N.B. Federal Police require at least 2 Crew Lists with complete names not just surnames and initials ('difficult' with Indian crew).

5. *Stores:* Fresh provisions.
6. *Shore Leave:* Shore Passes issued, no problems except for distance to shore. Passes to be returned prior to sailing.
7. No repairs possible – no fresh water – no bunkers.
8. *Discharge:* With 1×12 in. line but fitted with 10 in. reducer to 24 in. undersea line to shore, about 2 km.
   Can accept 15,000 bbls./p.h. subject to 7 kg./sq.cm. pressure.
9. *Weather:* (November) Very heavy swell running but this was reported as being very unusual for this time of year. Vessel rolled heavily.

SHIPMASTER'S REPORT: March 1988.

Mooring: The following arrangement was used.

Starboard fo'c's'le shoulder	Two ropes of 150 m.
Starboard aft maindeck	One rope of 150 m.
Starboard quarter	One rope of 200 m.
Stern buoy	
Centre lead aft	Two ropes of 200 m.
Port quarter	One rope of 180 m.
Port aft maindeck	One rope of 180 m.
Port fo'c's'le shoulder	One rope of 200 m.
Port anchor	9.5 shackles
Starboard anchor	8.0 shackles

Vessel moored with a North-going current, in a freshening N.N.E. wind, which reached 30 knots by the end of the mooring. The trade wind is augmented by the sea breeze and blows from approximately 1300 hrs. to 0100 hrs., making conditions difficult for the mooring launch, which is underpowered. One 750 h.p. tug was used and proved effective in positioning the vessel by pushing.

Ship's head in berth was 020°, Pilot stated that 025° to 030° would have been preferable, in order to present less angle to the wind. Berth was originally configured for a ship's head of 000°. The buoy pattern has remained the same, but the ship is now aligned to starboard, which accounts for the differing lengths of moorings required. Winter months are stated to be worst weather conditions, especially February and March.

Cargo Discharge: Rate overall was 2,119 cu.m.p.h. and reached a maximum of 2,640 cu.m.p.h.

AUTHORITY: *Operators:* Empresa Colombiana de Petroleos "Ecopetrol", Departamento de Coordinacion de Operaciones, Bogota, Colombia. Telex: 44 787. Tel: 85 67 97.

Estacion Pozos Colorados, Santa Marta, Colombia. Telex: 38 849. Tel: 7499, 7095.

PUERTO BOLIVAR: 12.16 N. 71.57 W. (See Plan)

LOCATION: Puerto Bolivar is at the entrance of Bahia Portete, a natural bay on the North coast of Colombia's Guajira Peninsula, located at Lat. 12° 16′ N., Long. 71° 57′ W. It is on the Caribbean, about 350 km. N.E. of Barranquilla.

DOCUMENTS:

1. According to the rules in force at the time these regulations were approved, the vessel's Master shall show the Authorities and the Port Cargo Inspector the following documents:

Register Certificate.
Classification Certificate. Cargo ships shall show the Certificate of Safety Construction for Cargo Vessels.
Load line Certificate.
Pollution Certificate that must cover Colombian waters (see 'note').
Certificate of Radiotelegraphy and/or Radiotelephony.
Cargo vessel Safety Equipment Certificate with valid annual inspection carried out by an independent surveyor.
Derat Certificate.
Clearance from the Last Port.

Notwithstanding the above, the Master shall show the Port Authorities whatever other documents they may require.

Note: All vessels and marine craft that arrive in Puerto Bolivar shall comply fully with the International Convention for the Prevention of Pollution by Vessels of 1973 and its 1978 Protocol (Marpol 73/78) including all its amendments in force.

2. According to the rules in force at the time these Regulations were approved, the Master shall hand over the following documents to the Port Authorities:

5 Crew Lists containing the following information: name, capacity in which serving, I.D. Documents – class and number – or licence, nationality, date and place of birth.
4 Store Lists; narcotics for medical use must be listed in detail as well as tobacco, alcoholic beverages and taxable goods according to the Customs General Directorship.
4 Mail Lists, if any.
3 Crew Curio and Personal Effects List.
3 Passenger Lists, if any.
2 Quarantine Declarations.
4 Stowage Plans.

Notwithstanding the above the Master shall hand over to the Port Authorities other documents that they may require.

PILOTAGE: Compulsory. Pilot normally boards at the Fairway Buoy, unless otherwise advised.

Pilot Ladder: Unless otherwise advised, the pilot ladder should be rigged on the starboard side of arriving ships.

The pilot ladder, should be of a SOLAS 1974 approved type. To meet those specifications it must have one-piece non skid steps equally spaced, about 14 in. apart with spreader bars five steps from the bottom and then at 9 ft. intervals.

Ships having a freeboard in excess of 30 ft. must have a suitable accommodation ladder rigged adjacent to the pilot ladder so that the Pilot can transfer to it when boarding. Ships' Masters may know this as "The Rotterdam Rig".

ANCHORAGES: Defined by Colombian Port and Maritime Directorship (DIMAR) as follows:

The anchorage area for vessels and marine craft that arrive in Puerto Bolivar shall be located within the following points and geographical co-ordinates:

Point A. Lat. 12° 18′ 00″ N., Long. 72° 00′ 00″ W.
Point B. Lat. 12° 16′ 15″ N., Long. 71° 58′ 45″ W.
Point C. Lat. 12° 15′ 00″ N., Long. 72° 00′ 30″ W.
Point D. Lat. 12° 16′ 45″ N., Long. 72° 01′ 45″ W.

The quarantine area for vessels and marine craft that arrive in Puerto Bolivar shall be located within the following points and geographical co-ordinates:

Point A. Lat. 12° 16′ 30″ N., Long. 72° 02′ 45″ W.
Point B. Lat. 12° 15′ 00″ N., Long. 72° 02′ 45″ W.
Point C. Lat. 12° 15′ 00″ N., Long. 72° 03′ 45″ W.
Point D. Lat. 12° 16′ 30″ N., Long. 72° 03′ 45″ W.

The anchorage and quarantine areas established in the above articles are experimental and therefore all vessels and marine devices shall manoeuvre with care.

APPROACHES: *Landmarks:* For vessels arriving from the Eastern Caribbean, Punta Gallinas (Lat. 12° 28′ N., Long. 71° 40′ W.) is approximately 20 miles E.N.E. of Puerto Bolivar.

For vessels arriving from the Panama Canal or ports to the West of Puerto Bolivar, Cabo de la Vela (Lat. 12° 13′ N., Long. 72° 10′ W.) is approximately 12 miles W.S.W. of Puerto Bolivar. Both Landmarks have prominent lighthouses which are shown in the appropriate light lists.

In addition there is a rotating beacon on the shiploader at Puerto Bolivar with the following characteristics:

Position: Lat. 12° 15′ N., Long. 71° 58′ W.
Description: Rotating white beacon.
Period: Flashing white every 2 seconds.
Height: 35 m. (115 ft.).
Visibility: 18.75 miles.

Fairway Buoy: A lighted radar reflector sea buoy located in position Lat. 12° 19′ N., Long. 72° 00′ W. marks the entrance to the Port. The sea buoy has the following characteristics:

Colour: Red and white vertical stripes.

Shape: Pillar with spherical topmark.

Topmark: Single red sphere.

Light: Colour: White. Rhythm: Isophase, 2 seconds on – 2 seconds off.

Aero Beacon: The company airport at Puerto Bolivar has an aero beacon located in position Lat. 12° 13′ N., Long. 71° 58′ W. with the following characteristics/frequencies: 400 kHz – "PTE" – Continuous. Also 230 kHz – "PB".

Channel: Vessels will enter and leave the port by a dredged channel 3.5 km. in length that connects the turning basin with the open sea. The channel's allowable ship's draft is 17 m. (max.). Minimum depth in channel and Berth Reach is 19 m.

Turning Basin: Allowable ballasted draft is 9.0 m. (max.). Vessels scheduled to load enter the circular turning basin, depth 11.5 m., where they are completely stopped, then turned by tugs to berth at the coal pier, port side to.

MAX. SIZE: The Port can accommodate vessels with the following dimensions:

LOA	300 m. (984 ft.).
Beam	45 m. (147 ft.).
Max. Loaded Draft	17 m. (55 ft.).
Max. Ballasted Draft	9 m. (30 ft.).

HEALTH: Radio Pratique is not granted and vessels arriving will have to be granted Pratique upon entering port or at anchorage. The standard World Health Organisation Certificate must be used.

RADIO: Coastal Station HKB may be used for routine messages.

Estimated Time of Arrival Notices: Masters should advise their ETAs upon receipt of orders to proceed to Puerto Bolivar. In addition, 72, 48 and 24 hour ETAs should be transmitted to INTERCOR with a copy to Agent.

ETA Message Text: (To be cabled with the first ETA, at least 72 hours before arrival).

		Bulk Carrier	*OBO*	*General Cargo*	*Tanker*
AAA	Vessel's name	R	R	R	R
BBB	ETA – date and time (local)	R	R	R	R
CCC	Flag and port of registry	R	R	R	R
DDD	Call letters	R	R	R	R
EEE	Agent's name	R	R	R	R
FFF	Last port of call	R	R	R	R
GGG	Arrival draft*/freeboard and expected sailing draft	R	R	R	R
HHH	Ballast on arrival (long tons) and expected deballasting time (hours)	R	R	NA	NA
III	Is ballasting/deballasting concurrent with loading/discharging	R	R	NA	NA
JJJ	Port of destination	R	R	NA	NA
KKK	Cargo to be loaded/discharged by hold, and hold rotation if bulk carrier	R	R	R	NA
LLL	Is vessel gas free?	NA	R	NA	NA
MMM	Condition of steering/navigation equipment	R	R	R	R
NNN	Condition of mooring equipment	R	R	R	R
OOO	Parcels and sequence of grades to be discharged	NA	NA	NA	R
PPP	Official deadweight tonnage (d.w.t.) taken from ship registry	R	R	R	R
QQQ	Length of loading area from Hatch No. 1 forward to end of last hatch aft	R	R	NA	NA

R = Information requested.
NA = Information not requested because not applicable to vessel's class.
* = Maximum segregated ballast possible, including fore peak and after peak, provided max. draft does not exceed 9 m., the propeller is totally immersed and the trim does not exceed 6 ft. by the stern.

Lack of compliance with any of the above requirements will result in non-acceptance of the vessel at Puerto Bolivar Terminal.

This format is to be included in the Port Information Manual and should be used for the first ETA radio message to be received from incoming vessels not later than 72 hours before their arrival at Puerto Bolivar's Sea Buoy.

VHF: VHF Radio Channels 14 and 16; call "Puerto Bolivar Marine" for anchoring or berthing instructions. Normal marine communications will be available.

TUGS: 3×3,700 h.p. to be located at the port. The use of tugs both entering and leaving is mandatory. Tugs will be utilised as deemed necessary by the Pilot. Tugs will normally be made fast prior to entering the channel for inbound ships. Tugs will utilise their own lines but ships should have crew standing-by with heaving and messenger lines to be used as directed by the Pilot.

BERTHING: *Cerrejon Coal Terminal:* The single coal berth is in operation 24 hours daily, year round. It has 3 breasting dolphins and is designed for a maximum ship size of 150,000 d.w.t., 300 m. LOA, 45 m. beam, and 17 m. draft.

Access to the Port is via a dredged lighted buoy channel approximately 3.5 km. (1.9 miles) long and 225 m. (738 ft.) wide on a 326° – 146° true heading. The principal coal loading berth is located on the West side of the bay.

An additional pier designed for other commodities may be utilised for coal loading. Length of pier 280 m. Max. draft permissible 9.8 m. Tankers berth on East side and general cargo vessels on the West side.

After embarking the Pilot, vessel proceeds down the main ship channel past the coal loading pier. During transit and mooring tugs are used depending on vessels size. Vessel continues into turning basin where she is completely stopped and turned, to berth port side to. Smaller ships using the commodities pier may or may not be turned prior to berthing.

Vessels will normally load on a first come, first served basis.

Ships to load must arrive with clean ballast carried in segregated ballast tanks, with holds swept clean and, in the case of ore-oil or OBO vessels gas free.

At Pilot's discretion and with approval of Port Operator a vessel may be requested to ballast a cargo hold for manoeuvring and berthing purposes.

The maximum distance between the bottom of the shiploader spout and MLW is 23 m. The average tide is 0.35 m.

Mooring Line Arrangements: The number of lines or wires will depend on the d.w.t. and/or displacement of the vessel. In general, vessels will utilise head, stern and spring lines. The leads for the head and stern lines are almost perpendicular to the ship's side.

The number of lines and specific mooring arrangement will vary from ship to ship and will be reviewed by Pilot and Master, prior to mooring.

Should a vessel have insufficient or poor quality mooring ropes or wires to safely keep her properly berthed, the terminal will provide same as necessary. This determination will be made by the Pilot prior to berthing or by the loading supervisor after the ship is alongside. Charges will be assessed against the vessel for these services.

BULK HANDLING FACILITIES: *Railroad:* The 150 km. mine to port railroad is dedicated to handling Cerrejon coal.

Stockpile: Maximum storage is 1.7 million metric tons (tonnes), live storage is 1 million tonnes.

Weights: Will be determined by draft survey.

Sampling: The Ramsey automatic sampler operates according to ASTM standards.

Analysis: ASTM standards are applied.

Shiploader: One line loader can handle up to 10,000 tonnes/p.h.

Trimming: Spout trimmed.

Also see "General".

MEDICAL: First aid treatment is available, but not on a routine basis. Extreme emergencies must be handled at Barranquilla.

FRESH WATER: Not available.

FUEL: Not available. Nearest bunkering ports are Cartagena, Aruba and Curacao.

CONSULS: Located at:

Barranquilla
Austria
Belgium
Bolivia
Brazil
Chile
Costa Rica
Denmark
Dominican Republic
Ecuador
Egypt
El Salvador
Finland
France
Germany F.R.
Greece
Guatemala
Haiti
Honduras
Italy
Jordan
Mexico
Netherlands
Norway
Panama
Peru
Portugal
Spain
Sweden
Switzerland
Syrian Arab Republic
United Kingdom
U.S.A.

Cartagena
Belgium
Bolivia
Chile
Costa Rica
Denmark
Dominican Republic
Ecuador
Finland
France
Germany F.R.
Guatemala
Honduras
Italy
Mexico
Nicaragua
Norway
Panama
Peru
Spain
Sweden
Venezuela

Santa Marta
Costa Rica
Ecuador
Finland
France
Guatemala
Netherlands
Norway
Panama
Peru
Sweden

REPAIRS: No facilities for major repairs. Also see "General".

SURVEYORS: Exclusive surveyors for A.B.S. and Lloyds' are located at principal Colombian ports. These surveyors may or may not also act as non-exclusive surveyors for other classification societies.

Masters should be reminded that sufficient advance notice (at least 72 hours) should be given when requesting classification society services.

OPENING/CLOSING HATCHES: Opening and closing of hatches will be the ship's responsibility. Sufficient hatches are to be open in order to permit commencement of loading upon acceptance of Notice of Readiness. Ship's crew will also be responsible for opening hatches in sequence so as not to delay loading.

REPATRIATION: Because of the port's remoteness, it is suggested that seamen neither join or leave at Puerto Bolivar.

AIRPORT: The nearest international airport is at Barranquilla (326 km.).

TIME: Local time is GMT minus 5 hours.

GENERAL: Port charges available upon Master's and/or Agent's request. Charges will be made for pilotage and tug service. Full agency service will be provided through a licensed Colombian Agent of Owner's and/or Charterer's choice.

Publications:

N.O. Chart No. 24460.
B.A. Chart No. 1529.
Sailing Direction No. 144 (U.S.) and Coast Pilot No. 7A (British).

Weather: Puerto Bolivar is generally outside the hurricane belt. Prevailing winds are from the North East. In the area of the Port, winds may gust to 35 – 40 knots.

Months of high winds are December to March and July and August. Dry season is from November to May. The wet season is from May to November. This is in general for this area. At Puerto Bolivar, rain is infrequent.

Stores: Very limited amounts of stores of an emergency nature only will be available and can be expected to be expensive due to the remote location. Request must be advised with the first ETA and availability still cannot be guaranteed.

Bonded Stores: No bonded stores are available.

Navigational Publications and Charts: Navigational charts and/or publications are available on a very limited basis with prior radio request through the Agent.

Mail: Mail may be sent and received through vessel's local Agent. Owners should be advised that as all mail must be channelled through Barranquilla or Cartagena Agents, addresses in those respective cities should be used as no mail is received at Puerto Bolivar at this time.

Laundry: No laundry services are available at this time.

Transportation: As Puerto Bolivar is in a remote location it is suggested that crew members neither join nor be repatriated from Puerto Bolivar. However, should it be deemed necessary that this be done, the Agent can arrange same. As the closest international airport is in Barranquilla, approximately 326 km. away, the cost will be significant. Air transportation out of Barranquilla is not on a daily basis to all world points and costly delays could possibly be encountered.

Gangway: Vessels will be expected to provide their own gangway or accommodation ladder.

Emergency Towing Wires: Vessels while alongside piers shall have fire wires to enable the vessel to be towed from the pier should it become necessary. These fire wires will consist of at least 2 wires, one forward and one aft, hanging from the vessel on the outboard side. They shall be made fast on deck and small hang approximately 6 ft. from the water's edge when the vessel is in a light condition. They shall consist of wire of a diameter in proportion to the size of the vessel, however, the minimum acceptable fire warp shall be 1 in. wire. Each wire will have an eye at the end hanging over the water.

Notice of Readiness: Notice of Readiness shall be submitted by Master and will be accepted by the Loading Supervisor at such time when vessel has arrived at the loading port, is ready to load, and in Free Pratique whether at berth or not.

Cleanliness of Holds: All holds will be inspected prior to commencement of loading by the Loading Supervisor to ascertain that they are clean, dry and suitable for the receipt of cargo.

Emergency Shutdown: If an emergency should occur making it necessary to immediately stop loading operations, the ship shall sound short blasts in groups of five blasts on the ship's whistle and immediately contact Puerto Bolivar Marine Operations on VHF Channel 14 or 16.

Ballast: The maximum ballasted draft for vessels entering Puerto Bolivar is 9.0 m. All ballast must be clean and carried in segregated ballast tanks. It is prohibited to pump any ballast overboard other than that which has been carried in designated ballast tanks and is clean. Vessels arriving at Puerto Bolivar should have all cargo holds clean and ready to receive cargo. Should ballast have been carried in the holds, it would be necessary for this hold to be cleaned and dried prior to entering port.

Prior to entering port the Pilot will inspect the vessel and may or may not request more segregated ballast to be pumped out or additional ballast be added to certain segregated ballast tanks should the trim of the vessel so require. Vessels down by the head or according to their size, trimmed excessively by the stern thus making their manoeuvrability unacceptable will not be allowed to enter port.

Trim: The terminal shall co-operate in every possible way with the ship to obtain the required trim. Masters are reminded that the responsibility to trim their vessel for sailing draft shall be their responsibility and the terminal shall load the vessel based on information submitted by the ship's Master.

Customs and Immigration: Puerto Bolivar is a Port of Entry and Colombian Government Customs and Immigration officials will board vessel either at anchor or when made fast alongside the pier. All formalities and necessary documents should be made available to them at this time. Masters are advised that they are expected to extend the usual common courtesies to visiting officials. However, gratuities in the form of liquor or cigarettes are neither necessary nor expected.

Swimming and Fishing: Swimming in the harbour is prohibited, either from the ship, pier or shore.

Fishing over the side or from the pier is also prohibited.

Firearms and Ammunition: The display, carrying or discharge of firearms is prohibited on board or within the port area.

Drugs and Alcohol: The purchase or sale of drugs is illegal and is strictly prohibited. Violation of this law may result in fines and/or imprisonment.

The sale of alcohol by ship's crew is also prohibited.

Fire Signal: Fire on board shall be indicated in the same manner as emergency shutdown – short blasts in groups of 5 on the ship's whistle for at least 1 minute or until acknowledged by shore side marine operations. Advice of fire should also be given by VHF on Channel 12 or 16.

Fire Fighting Procedures: Vessels while alongside or at anchor have the responsibility for fire fighting aboard their own vessels. Upon request, the terminal operator may join in fighting a shipboard fire by utilising the tug boat water/foam fire fighting capabilities.

INTERCOR reserves the right to fight fires and take other action as deemed necessary, even if not requested, including removal of the vessel from her berth to anchorage if it appears that the fire is a threat to the terminal.

Loading Supervisor: The Loading Supervisor shall be in charge of all cargo operations and in conjunction with the vessel's Chief Officer shall control the vessel's loading operation. Prior to commencement of loading, planned loading procedure and hatch sequence will be agreed upon between the Loading Supervisor and the Chief Officer. Prior to arrival, the Chief Officer should be requested to have drawn up a proposed loading plan for review.

Loading Rate: Normal loading rate is 10,000 t.p.h. Vessels must be able to discharge all ballast in time so as not to impede loading. Should a cargo loading shutdown be necessary because of vessel's inability to discharge her ballast in time to prevent exceeding her permissible draft, all time lost will be for vessel owner's account.

Overload Drafts: Prior to loading, the full amount of cargo to be loaded should be determined between the Chief Officer and the Loading Supervisor. Masters are advised that they are responsible for obeying all laws pertaining to International Load Lines and shall be held solely responsible for any overloading on their part. When topping off, the terminal shall in every way co-operate with the ship to assist in attaining their legal draft within Puerto Bolivar constraints. Should erroneous information be given to the terminal and should the vessel for some reason be overloaded, the costs of discharging any cargo shall be for the account of the vessel's Owners.

Repairs: Only repairs of a very minor nature can be effected at Puerto Bolivar. These must be proven to be of an emergency nature and necessary for the pursuit of the voyage. While every effort will be given to assist vessels in any way possible, Masters must keep in mind that no shore side facilities are available.

SHIPMASTER'S REPORT: August 1986.

Vessel: 107,000 d.w.t.

Location: Puerto Bolivar is situated at the entrance to the Bay of Bahia Portete approximately 350 km. N.E. of Barranquilla. The port is the outlet for coal mined at Cerrejon 150 km. away, the coal is transported from the mine by train.

Organisation: The terminal has been recently constructed by a large American contractor and is now operated by INTERCOR (International Colombia Resources Corporation). The mine, product sales, marketing, etc. are handled by CARBOCOL (Carbones de Colombia S.A.). The terminal is extremely remote, all labour being flown from Barranquilla on a 4 day on 4 day off basis. The terminal is self sufficient in all services, electricity, fresh water, maintenance, etc.

Product:

Bituminous steam coal from El Cerrejon.

Density +0.8 to 1.0 tonnes/cu.m.

Stowage factor is given as 41/42 cu.ft./ton but as a practical guide we stowed at 41.5 cu.ft./tonne.

All cargo weights used are tonnes.

Particle size loaded: Max. 50 mm.

No methane gas is emitted from coal.

No history of spontaneous combustion. No ventilation is recommended, holds being kept sealed whilst under way.

Moisture content: 11.5%.

Maximum size of vessel: The largest ship to visit the port to date is 150,000 d.w.t. which is the maximum allowed at this time. Max. allowed sailing draft is 17 m., max. LOA 300 m. and max. beam 45 m.

Approach: No Radio Pratique is granted.

Two hours before arrival contact "Puerto Bolivar Marine" on VHF Channel 16 for berthing/anchoring instructions.

Vessels over 100,000 d.w.t. are not allowed to berth in the dark as yet but will do in the future. However, night-time sailing is allowed for this size of vessel.

The sea buoy shown on the chartlet issued by Intercor is not in position and it is not intended to replace this Buoy. Channel Buoy No. 1 will be fitted with racon (morse 'M') in the future. (Also see "Shipmaster's Report" – September 1986).

Charts: Colombian chart COL. 228 issued by the Colombian Government and the United States Hydrographic Department. This chart will be available from the Marine Senior Supervisor at the terminal. There is also a small chartlet issued by Intercor.

Anchorage: The anchorage is very exposed. Recommended anchorage is 3.5 nautical miles N.W. of Buoy No. 2 in 170 ft. of water. The prevailing winds are N.E. 25 to 35 knots. The prevailing current is S.W. going at a rate of 1 knot to 2 knots. We anchored with 8 shackles in the water and yawed between N.N.E. and East.

Pilot: The Pilot Instructor is an American who boarded with 2 local trainee Pilots. The Pilots board from a tug in position 2.5 nautical miles N.W. of Channel Buoy No. 2. The Draft Surveyor also boards with the Pilots.

The pilot ladder was rigged on the starboard side 2.0 m. from the water. The Pilot carries out an inspection of the holds and issues a Hold Inspection Certificate if the holds are found dry and clean without mineral residues. Ballast holds are inspected after the vessel is alongside.

The Pilot will not berth the vessel if the wind exceeds 35 knots.

Draft Surveyor: The Bill of Lading weight is determined by SGS Surveyor not belt scales. The Surveyor determines the net lightweight of the vessel prior to loading then completes his survey on completion.

A Weight Certificate and Survey Report is provided for the ship.

Tugs: 2×4,000 h.p. and 2×3,000 h.p. Three of the tugs are chartered and will be used until the regular 4,000 h.p. tugs are built. All 4 tugs make fast on the starboard side of the vessel using their own lines. 3 tugs make fast before the vessel enters the approach channel.

Channel: Well buoyed. Length of channel 4 km. Width 225 m. and depth 19 m. Maximum draft allowed 17.0 m.

Turning Basin: Width 600 m., depth 11.0 m. Max. allowable draft 9.0 m.

The Pilot likes to ensure that the propeller is 100% immersed due to the 25 to 35 knot prevailing wind blowing onto the berth. We deballasted No. 6 hold and the forepeak prior to berthing.

Vessels are turned to port before berthing port side to the loading berth.

Coal Loading Berth: Maximum air draft allowed 21.0 m.

To date only working 0600 hrs. to 1800 hrs. every day. This is due to shortage of trained operators and staged development of productivity. 24 hour operation is planned for the future.

The vessel berths against 3 large patent fenders with mooring lines being made fast to quick release bollards using shore capstans to heave the lines.

Springs are made fast first, then breast lines, then head/stern lines.

Ship's gangway cannot be used. Shore gangway must be lifted on board by ship's gear and a safety net provided.

The single loader is fitted with a trimming spoon. Maximum throughput is 11,000 tonnes/p.h. However, this is dependent on stacker/reclaimer rate. Presently only 1 reclaimer is in operation, rate approximately 5,000 tonnes/p.h.

Most of the coal was loaded directly onto the conveyor belt from the train cars giving a maximum load rate of 6,000 tonnes/p.h.

At the present time 3 trains run from the mine every day. Each train lifts 10,000 tonnes of coal. The balance of the coal was loaded from the stock pile.

The stockpile can store a maximum of 1.7 million tonnes.

The loader stops work if wind exceeds 35 knots.

Officials on Arrival: 1 Port Captain, 3 Customs Officers, 1 Port Health Official, 2 Agents.

No Immigration Officials as shore leave is not allowed.

Arrival Forms: 6 Crew Lists, 1 Maritime Health Certificate, 2 Bonded Stores Lists, 2 Ship's Stores Lists, 2 Crew Effects Lists, 2 Vaccination Lists.

Certificates Required by Port Captain Prior to Clearance: Ship's Register, Clearance from Last Port, Derat Certificate, International Oil Pollution Certificate, Load Line Certificate, Safety Radio Certificate, Safety Equipment Certificate.

Shore Leave: Not allowed.

Repatriation: Not recommended due to the remoteness of the port.

Fresh Water: Not available.

Bunkers: Not available.

Ship Repairs: No facilities.

Chandler and Provisions: None available.

Medical: First Aid treatment is available only in emergency. Extreme cases must be flown to Barranquilla.

Time: Local time is GMT minus 5 hours.

Security: Watertight as no unauthorised persons are allowed on board and no shore leave is allowed.

SHIPMASTER'S REPORT: August 1986.

Vessel: 72,000 d.w.t. LOA 230 m. Sailing Draft: Forward 12.78 m. Aft 12.80 m.

ETA: Master to give 14, 10, 5, 4, 3, 2 and 1 days ETA to INTERCOR Barranquilla, INTERCOR Puerto Bolivar and ship's Agent.

Arrival: Pilots and tugs meet ships about 2 nautical miles N.W. off Buoy No. 1. Two tugs making fast with tug's ropes assist ship through the dredged channel. Having passed the loading pier, the ship is stopped, and the 2 tugs swing the ship assisted by 1 or 2 more tugs as appropriate. Vessels always berth port side alongside. This vessel (230 m. LOA) used 2 lines, 2 breasts and 2 springs each end.

After Pilot came on board, Master and Pilot exchanged information regarding ship's particulars and berthing procedure, etc.

A Vessel Inspection Report/Pre-Berthing delivered by Pilot and to be filled in before entering port. Puerto Bolivar Safety Regulations and Safety Check List also delivered.

Various regulations received from Agents by telex. The essence of the regulations is that the loading facility is very effective, and ship's officers are not allowed to stop loading for making draft surveys, etc. A stop can only be done *once,* and it should be for trimming purposes. The importance of having calculated a fixed and reliable loading rotation should be emphasised.

Approaches to Puerto Bolivar: At present there is no official chart of Puerto Bolivar and approaches, however I managed to obtain a "working copy" of a chart from the Agent. Even though it is cautioned not to use the chart for navigating purposes I found is extremely useful as an addition to B.A. Chart No. 1529. It should be noted that the Sea Buoy has never been in it's charted position. The Pilot advised that the Sea Buoy would be placed in the position of Buoy No. 1 about September 1st, 1986. (Also see "Shipmaster's Report – September 1986").

Anchorage: The anchorage is about 2 nautical miles N.W. of Outer Channel buoys, holding ground found to be good.

Ballast: It is recommended to have the ship well ballasted when passing through the dredged channel when current and wind are abeam of the ship.

Gangway: It is difficult to rig a good and safe gangway from ship to shore, and on this ship it was only possible to rig a combination pilot ladder/gangway. A gangway is available on shore, but there is no shore crane to lift it to the ship's rail. As only a few big bulk carriers are equipped with cranes/derricks it will often be impossible to lift the gangway on board.

Crew Changes: Crew change is difficult but possible. One crew member joined the ship and one was repatriated. They were transported from and to Barranquilla by car – a journey of about 6 hours.

VHF: Puerto Bolivar Marine (Port Control) and Agents listen on VHF Channel 16 around the clock, working on Channel 14.

Tugs: 4 powerful tugs in the port. 1 is under Colombian flag, 1 under British flag and 2 under Dutch flag. Pilots advised that 2 more Colombian tugs are being built at present, and hopefully another one later. Pilots insist that 3 tugs are not sufficient for handling vessels.

Survey: A surveyor from SGS Colombia S.A. (Societe Generale de Surveillance S.A.) carries out draft survey on arrival and departure and issued certificates. Bills of Lading are issued on basis of draft survey.

Supplies: No people live in the port and surrounding area. All workers work for 4 days and then go home for 4 days. No shops or markets or ship's chandlers available. All necessary supplies have to come from Barranquilla which is costly and difficult. However, in the port area there is a small supermarket, where shore personnel can buy their daily needs. It may be possible for Agents to supply a very limited amount of fresh fruit and a few kilos of coffee.

Port: Port found to be very safe in spite of the wind constantly blowing against the pier with wind forces up to 40 knots. There was no swell at all, but very choppy sea made it difficult to read ship's draft.

SHIPMASTER'S REPORT: September 1986.

Vessel: 117,600 d.w.t.

Navigation: The Sea Buoy in position Lat. 12° 19′ N., Long 72° 00′ W. (B.A. Chart No. 1521 – last correction 618 (1986)) was removed in September 1986.

Buoy No. 1 (position Lat. 12° 17′ 31″ N., Long. 71° 58′ 48″ W.) in the Harbour Approach Channel has been fitted with Racon and bell.

No light exists on Point Coco.

Pilot boards about 2 nautical miles W.N.W. of Buoy No. 1.

Tugs: 4 good tugs work in this harbour.

General: Cargo holds are inspected by the Pilot while at anchor, and a Certificate of Cleanliness is issued if the holds are found acceptable.

Used St. Lys Radio (FFL) when in the Atlantic and when in the Carribean used Barranquilla Radio (HKB). All cables received at Agents main office in Bogota without delay.

Messages regarding ETA should also be cabled direct to Port Authorities in Puerto Bolivar, care of "INTERCOR Puerto Bolivar".

Shore Leave: Not permitted.

AUTHORITY: *Operator:* INTERCOR, C.E.I. Cra. 54 No. 72-80 Barranquilla, Colombia. *Tel:* 457339 or 562131. *Telex:* 033577 – 031251 Itcor Co. Port Operator telex at Puerto Bolivar is 31354 Itcor Co.

SANTA MARTA (Including Puerto Prodeco): 11.15 N. 74.14 W. **(See Plan)**

DOCUMENTS:

For the Port Captain:

1 Clearance from Last Port.
1 Voyage Report.
1 Crew List.
1 List of Passengers for Santa Marta.
1 List of Passengers in transit.
1 List of Provisions.

Vessel Certificates: (these only need to be shown)

Registration Certificate.
Load Line Certificate.
Classification Certificate.
Safety Equipment Certificate.
Radiotelegraphy Safety Certificate.
Construction Certificate.
Cargo Handling Equipment Safety Certificate.
Oil Pollution Certificate.

For Port Health Authority:

Derat Certificate.
Maritime Health Declaration.
Crew List with dates of vaccination.
List of Passengers for Santa Marta.
List of Passengers in Transit.

For Customs:

3 Cargo Manifests.
3 Crew Lists.
3 Lists of Passengers for Santa Marta.
3 Lists of Passengers in Transit.
3 Lists of Crew Personal Effects.
3 Lists of Provisions.
3 Mail Lists.

For Agencies:

1 Voyage Report.
6 Crew Lists.
6 Lists of Passengers for Santa Marta.
6 Lists of Passengers in Transit.
6 Crew Personal Effects Lists.
2 Lists of Mail for the port.
4 Cargo Manifests.
4 Bills of Lading.
2 Cargo Stowage Plans.

PILOTAGE: Pilot boarding station:

Lat. 11° 14′ 44″ N., Long. 74° 13′ 58″ W. Information regarding ETA should be relayed to Agent, who will advise Port Authority. Pilotage compulsory for all vessels over 200 g.r.t.

ANCHORAGES: When it is not possible to come alongside a berth immediately, the vessel may anchor within the area included within the following coordinates.

Lat.	Long.
11° 14′ 45″ N.	74° 13′ 15″ W.
11° 14′ 45″ N.	74° 14′ 00″ W.
11° 14′ 15″ N.	74° 13′ 25″ W.
11° 14′ 15″ N.	74° 14′ 00″ W.

Seabed is rocky and sandy, with depths about 120 ft.

Vessels should anchor in the lee of the Morro Grande and Morro Paqueno (large and small headlands), particularly during the months of December to March, when there is a strong N.E. wind.

RESTRICTIONS: None. Good visibility throughout year. Difference in tides negligible.

MAX. SIZE: 730 ft. length, 40 ft. draft. No limit to beam. Oil carriers: Refer to Pozos Colorados.

PRATIQUE: Pratique granted by Port Captain who visits vessel immediately on arrival. Doctor also attends on this visit.

RADIO: Barranquilla Radio or Cartagena Radio; radio stations messages relayed by telex to Sta. Marta. Ship's Agents use same system. Terminal Office may be contacted on radiotelephone, 2738 kHz.

TUGS: Join vessels just before entrance to inner harbour; they may use own lines or vessels lines.

BERTHING:

Quay	*Length*	*Minimum Depth*
No. 1	175 m.	38 ft.
No. 2	145 m.	33 ft.
No. 3	232 m.	45 ft.
No. 4	153 m.	40 ft.
No. 5	153 m.	60 ft.
No. 6	100 ft.	15 ft.

Facilities exist for container traffic. 30,000 tons silo for grain storage and discharge facilities for up to 5,000 tons per day.

CRANES: 5×10 ton – 30 ton mobile cranes and 2 cranes 90 tons and 100 tons on rails.

BULK HANDLING FACILITIES: *Puerto Prodeco:*

Location: Lat. 11° 09′ N., Long. 74° 13′ W.
Depth: 18.0 m.
Loading: At anchorage 1 mile – 2 miles offshore.
Working: 24 hours a day, 7 days a week.
Facilities: 4×1,500 d.w.t. barges for carrying coal.

Barges loaded at pier at a rate of 8,000 tonnes per day.

STEVEDORES: ETA to be given 72 and 24 hours before arrival, indicating number of gangs required. Unloading rate of general merchandise 10 t.p.h., and homogeneous cargoes around 15/20 tons.

Working Hours: First shift: Monday to Saturday and holidays, from 0800 to 1200 hrs. and 1400 to 1800 hrs. Second shift: Monday to Friday, from 1800 to 0200 hrs.

MEDICAL: Advance notice required whenever special medical attention needed on arrival; hospital available.

TANKERS: See "Pozos Colorados".

DENSITY: 1025.

FRESH WATER: Available alongside docks: delivery (approx.) 10 t.p.h.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Deck watchmen supplied by Agent.

OPENING/CLOSING HATCHES: By special gang ordered by Agent.

SHIP CERTIFICATES: Load Line, Cargo Gear, Classification, Lifeboat, Main Engines, Radio Equipment, Fire Fighting Equipment, Ship's Register, Officers' Certificates (licences).

CUSTOMS ALLOWANCES: (Tobacco), 2 cartons of cigarettes per man. All other tobacco will be sealed by Customs. (Wine and/or Spirits), 1 open bottle of liquor permitted per crew member. All other spirits will be sealed by Customs.

IDENTIFICATION CARDS: Given by Port Captain once quarantine is cleared.

CONSULS:

Costa Rica
Ecuador
Finland
France
Guatemala
Italy
Netherlands
Norway
Panama
Peru
Sweden

REPAIRS: Only minor welding.

REPATRIATION: Facilities available.

AIRPORT: 19 miles from town.

TIME: 75th Meridian time, Eastern standard time. GMT minus 5 hours.

HOLIDAYS: New Year (January 1st); Church Holiday (April 12th); Labour Day (May 1st); Local Holiday (July 29th); Church Holiday (December 24th); Christmas Day (December 25th); Church Holiday (December 31st). No work on New Year's Day, Labour Day, Local Holidays, Christmas Day. Work until 1600 on other holidays.

POLICE/AMBULANCE/FIRE: Police, Tel: 6079; Ambulance, Tel: 3116 – 5555; Fire, Tel: 6091 – 4545 – 6055.

SHORE LEAVE: Granted after quarantine cleared.

DELAYS: Up to 12/14 hours because of shortage of docking space.

AUTHORITY: Captain Jaime Sanchez, General Manager. Captain Jaime Gaviria, Port Captain.

TUMACO: 01.49 N. 78.45 W.

DOCUMENTS:

5 Crew Lists.
5 Stores Lists.
5 Passenger Lists (local, in transit, or negative).
1 Sanitation Declaration.
12 Complete sets Manifests.
3 Mail Certificates (when not included in Manifest).

PILOTAGE: Compulsory. Entrance to the port can only be made during the day by vessels with a max. draft of 19 ft. – 20 ft., due to the bar between Buoy Nos. 2 and 3.

For the Tumaco Terminal vessels are boarded by the Pilot in position Lat. 01° 53′ 00″ N., Long. 78° 48′ 35″ W.

ANCHORAGE: Sufficient area available in depths of 25 ft. to 35 ft.

RESTRICTIONS: Entrance channel depth 20 ft. Height of tide varies from 8 ft. to 12 ft.

HEALTH: On arrival, port doctor boards vessel to inspect crew Yellow Fever Certificates, also Derat Certificate. If any crew members suspected suffering contagious disease Master to radio prior arrival advising Agents accordingly. Port Doctor visits vessel even if previous port was in Colombia.

RADIO: Ships must communicate with the Texaco Head Office in Bogota, who will then inform the Terminal. The Terminal can be reached using VHF Channel 16 at a range of up to 30 miles.

BERTHING: Wharf is 310 m. long. Depth alongside averages 22 ft. Berthing for two vessels of 4,000 – 5,000 tons. 1×5 ton and 1×10 ton crane available.

STEVEDORES: Stevedores work continuously with breaks at 1200-1400 hrs. and 1800-2000 hrs.

TANKERS: *Empresa Colombiana de Petroleos:* Vessels moor to 7 buoys, using both anchors. Ship's Head 255°T.

Manifold connections are 12 in., although 10 in. and 8 in. reducers are available. Hoses are connected on the starboard side.

The Mooring Master will remain on board throughout, and accommodation must be provided.

Location: Lat. 01° 50′ 25″ N., Long. 78° 49′ 49″ W.

Tidal Conditions: Range of tide: 12 ft. Currents: 2 knots.

Controlled depth in the proximity of the mooring is 110 ft. of MLT.

Maximum Size of Vessels: Deadweight: 80,000 tons. Overall Length: 1,200 ft. Draft 90 ft.

Class of Cargo and Pumping Rate: Crude. Maximum rate of pumping 30,000 bbls.p.h.

Ballast and Bunkering Facilities: There are no ballast facilities. No bunkers or water available.

Additional Information:

1. The discharge of dirty ballast is prohibited in Tumaco.
2. Berthing can only be carried out during daylight hours and on the rising tide.
3. Tankers can sail at night.
4. Customs documents are required for berthing.
5. Medical services available.

FRESH WATER: Available from wharf.

FUEL: Supplied by Esso Colombia, by barge.

CARGO GEAR: Terminal owns 3 cranes of 5 to 15 tons capacity.

AIRPORT: Suitable for DC.4 type aircraft, situated 4 km. from port.

DEVELOPMENTS: Programme for deepening the port to 33 ft. at HW.

AUTHORITY: Empresa Puertos de Colombia, Tumaco, Colombia.

Contact: Vicente Marines Valencia, Manager.

TURBO: 08.06 N. 76.43 W.

ANCHORAGES: Anchorage 2.5 to 3 miles off mouth of Leon River, used for loading bananas from barges.

CLEARANCE: Vessel must first proceed to Punta las Vacas for official visit of Port Authorities to obtain clearance.

MOORING: With sea and wind from the North, loading operations are not possible unless vessel employs the "Baltic Moor".

On arrival at the Leon River Anchorage, vessels should let go a couple of shackles. After that, a 3 in. to 3.5 in. wire (or mooring line) is passed from the after leads on the poop, along the ship's side, outside and clear of everything. This wire is to be shackled to a number three chain shackle.

By heaving in the wire and slacking the chain as required (about a 60° angle) vessel will give the necessary shelter to banana barges, for normal cargo operations.

SHIPMASTER'S REPORT: 1976. *Chart used No. 24515 (American).*

Vessels ordered to Turbo first proceed for clearance off Turbo town and anchor in position about 1 mile West of Pta. las Vacas Lighthouse (Lat. 08° 04′ N., Long. 76° 45′ W.). The lighthouse, which is situated on the Southern end of Pta. las Vacas is not readily identifiable from the N.W. until within about 2 miles and the light is reported to be poor. The chart in the area of Pta. Turbo, about 4 miles Northward of Pta. las Vacas, does not correspond to the radar picture presented, and therefore a berth of at least 2 miles is recommended.

After clearance by Port Authorities at Turbo vessels should proceed to Pinchindi, about 7 miles W.S.W. of Pta. las Vacas, for loading during the period December to May. It is reported that during the season May to December vessels load off the mouth of the Rio Leon, about 7.5 miles S.S.E. of Pta. las Vacas. Approaches to this berth apparently pose no problems and the loading position is reported to be close to a buoy off the river mouth, the position of which could not be confirmed.

There is no Pilot available at Turbo.

Vessels loading at Pinchindi should steer to pass about 1.5 to 2 miles S.E. of Boca Pinchindi. When the black buoy, Fl. 3 sec. (marked on chart No. 24515) bears about 335°(T), but not less than 315°(T) course should be altered to bring the buoy right ahead and anchorage should be taken up as convenient on this bearing. The black buoy referred to above is very difficult to pick up against the land, and in February 1976 was extinguished. There are two mooring buoys to the Eastward of the black flashing buoy. These are unlighted and not marked on the chart. Positions of these mooring buoys are as follows, bearings and distances from the black Fl. 3 sec. buoy: BWVS 83.5° (T)×380 m. R 99.5° (T)×760 m. These mooring buoys are more readily identifiable from the offing than the Fl. 3 sec. buoy, particularly the red one, which is painted in "International Orange". However it should be borne in mind that this buoy may have just received a new coat of undercoat at the time this report was written. The red buoy may be seen over the land which lies on the Eastern side of the anchorage before course is altered for the final approach. Vessels of draft up to 25 ft. may anchor up to within about 300 m. of the Fl. 3 sec. buoy in about 22 m. of water.

As the wind strengthens during the afternoon to about force 5/6 from between N. and N.E., and due to the proximity of other vessels in the anchorage, it was considered advisable to use two anchors; the vessel in fact used port anchor with 4 shackles on deck and starboard anchor underfoot. This prevented the vessel from yawing more than a maximum of about 15°, while other vessels moored with only one anchor were observed to be yawing considerably more during the afternoon breeze.

Winds, during the period while the vessel was at Turbo (February 2-4) were predominately from North to N.E. and no significant currents were observed in the anchorage described above.

Caution is advised while navigating in this anchorage at night, as vessels loading logs often have large unlighted timber rafts alongside. It should also be borne in mind that tugs, lighters and launches are often unlighted, and radar echoes from these might easily be mistaken for those of the buoys. While the radar echoes of the land in this anchorage are quite clear, they do not in any way correspond with the chart.

No opportunity presented itself for checking soundings, however, on the vessel's track arriving and sailing soundings on the whole agreed with charted depths.

Loading of bananas is carried out in the anchorage using mechanical conveyors from lighters through vessels sideports, and on the whole was found to be quick and efficient.

No fresh water or provisions are available at Turbo. Indeed no facilities whatever are available from ashore. There is no radio station, although banana shippers "Uniban" have VHF 16 in their office during office hours, Spanish language only. Agents for United Brands Company have VHF Channel 16, call sign is "Casanova".

Caution should be exercised when taking any navigational advice from Officials in Turbo as this may at times be misleading and it is questionable whether persons proffering advice regarding best anchorage position etc. are in possession of all facts necessary for safe navigation in the area.

Documents Required for Inward Clearance at Turbo:

1 Clearance from last port.
6 Crew Lists.
5 Passenger Lists (Nil passengers to be declared).
5 Disembarking Passengers.
5 Mail Lists (No mail to be declared).
1 Maritime Declaration of Health.
1 Vaccination List.
6 Manifests.

Ships Certificates for Inspection:

Register.
Safety Equipment Certificate.
Safety Radio Certificate.
Radio Station Certificate.
Cargo Gear Certificate.
Derat Certificate.
Ship's Capacity Plan.

In addition to above list of documents required, the following are also to be presented to Authorities on arrival:

2 Store Lists.
2 Crews Personal Effects.

SHIPMASTER'S REPORT: February 1979.

Pilotage: It is necessary to take a Pilot at Punta las Vacas for entrance to the bay. Thereafter, any movement inside the bay will also require a Pilot.

SHIPMASTER'S REPORT: July 1979.

Vessel arrived Pta. las Vacas anchorage at 0207 hrs. 30th July. Cleared Port Officials and proceeded to R. Leon Anchorage where vessel anchored at 1010 hrs. to port anchor, 4 shackles in water. Rigging gangs boarded at 1330 hrs. 31st July and completed rigging hatches at 1900 hrs. Loading commenced at 2230 hrs. and completed at 1210 hrs. 2nd August. All gear and labour off vessel at 1220 hrs. At the start there was no co-operation from the stevedores and repeated requests for information regarding which side doors and how hatches and derricks were required to be rigged met with no response until such time as the riggers boarded. It was then expected that the vessel could do everything at one and the same time. To commence only starboard side doors were used but on completion of No. 5 hatch it was decided to work No. 2 hatch both sides, once again no mention of doubling No. 2 hatch was made although the question had been asked repeatedly, the stevedore assured the Chief Officer that the port side doors would not be required. No information regarding quantity of bananas to be loaded or number of Bills of Lading was forthcoming and there was a very definite language barrier until it was made clear that any Bills would be claused "mixed". From this point co-operation improved and the language problem became less difficult. During loading there were numerous delays for weather, machinery breakdowns on the barges and waiting for cargo to arrive alongside. Before cargo operations commenced vessel was requested to "point" the ship using a rope from the port quarter to the port anchor cable and this was attempted with varying amounts of cable paid out, before operation could be completed the wind died down and wind and tide were acting against one another with result that operation was ineffective.

Turbo must now be regarded as being on a par with "ports" regarding theft and all precautions taken, many horrific reports on theft were heard from other vessels; however, if vessel was obviously taking all precautions then generally after being looked over, vessel is left alone. One case concerning a crew member and radio took place but his property was recovered by Cargo Supervisor and Customs Official, although culprit was not apprehended.

SHIPMASTER'S REPORT: August 1981.

Pilots are now compulsory at Turbo and board with the inspection party off Pta. las Vacas. They also board after loading is completed and leave off Pta. Vacas.

The larger United Brands banana vessels now use overhead conveyors for loading instead of the sideports.

NOTES

Please also advise Shipping Guides Ltd.

Republic of Comoros

PORT DZAOUDZI (Ile Mayotte): 12.50 S. 45.10 E.

SHIPMASTER'S REPORT: August 1982 (updated 1988).

Mayotte Island is situated in position Lat. 12° 46′ S., Long. 45° 13′ E. in the Indian Ocean and known to be one of the Comoro group of Islands, but it is under the administration of French Government. It has no connection with the Comoro Government. Therefore, vessels calling "Zaoudzi" should hoist French National flag. Population is mostly Muslims. The island is surrounded by a barrier reef which is broken by many small passages but the main passage to arrive Ilot Zaoudzi is via Passe Mount Zamboro. This passage is deep but very narrow with a width of 9 cables safe water in between the Eastern extremity of Recif du Nord and the N.W. extremity of Grand Recif du Nord-East. It leads to the anchorage off Ile Pamanazi and the Ile Dzaoudzi, where vessels work cargo on anchor moorings. The maximum draft permissible is 40 ft. The inhabitants of the island speak French, Arabic and a mixture of Somali and other African languages. There is nobody who can speak English, therefore care should be taken while arranging Pilot and entry to the Zaoudzi harbour.

DOCUMENTS: On arrival Harbour Master and Customs Officer boards the vessel.

Customs Officer Requires: 2 copies Cargo Manifest; 2 Crew Lists; Bonded and Provision Stores Declaration Lists. (2 copies).

Harbour Master Requires: 2 Crew Lists; 1 Vaccination List; 1 copy Cargo Manifest.

No other documents are asked for. Agent does not require any documents, not even ship's papers. Agents are only interested in ship's husbandry.

PILOTAGE: Pilotage is compulsory for vessels over 40 m. LOA. Messages to Agent or Pilot Office are to clearly indicate which Pass the vessel will use, ETA at Pilot Station, LOA and max. draft.

Pilot boards vessel about 1.5 miles off M'Zamboro Passage. Only one Pilot available.

Pilot available from sunrise to sunset in M'Zamboro Passage and throughout 24 hours via Baudele Passage for vessels with draft up to 5.0 m.

ANCHORAGES: Vessels should only call or enter the barrier reefs in daytime, that is from sunrise to 1 hour before sunset. Therefore, daytime approaches should be maintained. There are no good anchoring grounds outside or inside Recif du Nord. Vessels arriving after hours have to keep on steaming until day breaks. However in case of emergency a temporary anchorage can be made on Banc de la Prudente, 2 miles N.W. of Ile M'Zamboro. This anchorage should be used with utmost care because of poor holding ground. In case vessels can cross barrier reefs and shallows from the Passe M'zamboro entrance to Bancs Jameaux (position: Lat. 12° 40′ S., Long. 45° 08′ E.), then she can anchor in depths where it is safe and sound, or she can make, if time permits, to arrive straight to Zaoudzi anchorage.

Anchorage Around Dzaoudzi: According to wind season, anchorages are fixed North or South of Dzaoudzi, near Dzaoudzi or Mamoutzou, according to freight destination.

MAX. SIZE: There is no restriction on the size of the vessel, because there are no berths. Every vessel has to anchor and work cargo, however drafts are taken into consideration. Max. draft permitted 40 ft. (12.19 m.). Vessel's engines and steering should be very reliable while navigating through passage to Zaoudzi.

HEALTH: All persons are required to have valid health certificates against Cholera. Yellow fever vaccination not required, but can be arranged if ship requires.

COMMUNICATION/ETA's: It is the vessel's duty to communicate ETA at Pilot Station 24 hours prior to arrival to Pilot Office (Telex No. 915807 MY) or to Agent (Telex No. 915811 MY) and confirm by VHF Channel 16 when 24 miles off.

Satellite Station permits direct contact by telephone or telex worldwide.

On arrival off M'Zamboro passage vessels can call "Zaoudzi Harbour Control" on VHF Channel 16. The range of their VHF is about 25 miles. Therefore vessels can call "Zaoudzi Harbour" when 25 miles off and arrange passage through barrier reefs to Zaoudzi. Pilots are always booked by cable, because it takes a long time for Pilot to arrive outside M'Zamboro Pass from Zaoudzi.

TUGS: One tug of 700 h.p. belonging to the French Navy. A tow boat is available for towing the barges and lighters.

BERTHING: There are no berths, all vessels have to anchor.

MEDICAL: Good hospitals are available in Zaoudzi and Momutzu. All kinds of cases are dealt with.

STEVEDORES/CARGO HANDLING: Agents work as stevedores, they arrange lighters and labour. There is no limit in ordering labour but lighters are limited. Therefore cargo discharging rate is affected.

If continuous flow of lighters is available then bagged cargo could be discharged at the rate of 100–150 tons per hook per day. There is no night work. During Ramadan they work from 0700 hrs. to 1600 hrs. and no work in the night. During normal days they work from 0700 hrs. to 1900 hrs. There is no floating crane. About 6 steel barges and remainder are wooden sail boats which carry 10 to 20 tonnes at a time.

DENSITY: 1025.

FRESH WATER: Abundance of fresh water on the island but no arrangements to supply to the ships. In case of emergency naval barge which has desalting plant can supply small quantity of evaporated water (up to 40 to 50 tonnes) provided it is arranged 7 days in advance. This is very expensive, therefore it should be avoided.

PROVISIONS: Very small quantities of meat, fish, vegetables and fruits are available. Ship's personnel can only go and buy it. There is little variety of vegetables or fruits. Vegetables: Lettuces, local spinach, French beans, local onions and potatoes, etc.

Fruits: Apples from South Africa, bananas, coconuts and when in season pineapples are available but in small quantities.

FUEL: Nothing can be arranged.

GANGWAY WATCHMEN: This is a very peaceful island, no pilferage, therefore watchmen are not kept or arranged.

OPENING/CLOSING HATCHES: It is normally done by ship but in case of frequent rains and with special cargo like rice or wheat, extra labour could be arranged with Agents.

CUSTOMS ALLOWANCES: No restrictions on any type of goods. Bonded stores are not sealed, therefore no limit on allowances.

CARGO GEAR: Only ship's gear is used, however rope slings are arranged by the stevedores.

SHORE LEAVE: No restrictions on shore leave and no passes are issued.

CONSULS: No Consulates. Difficulties if any, can be handled by Mayotte Administration.

REPAIRS: No workshop. No repairs possible by shore persons.

REPATRIATION: There are three flights a week from Ile Pamanzi Airport to Reunion Island only, i.e. on Tuesday, Thursday and Saturday. Repatriation can be arranged on these days.

TIME: GMT plus 3 hours. No variation in the time throughout the year.

HOLIDAYS: French administrative holidays i.e. 1st January, 1st May, and 25th December (Christmas Day), the local people enjoy Muslim rites holidays such as Eid-ul-Fitar, Eid-ul-Azha, 10th of Muharam holidays. The labour works on Saturdays and Sundays.

GENERAL: *Communications: While at Anchor:* Ships are allowed to use their transmitters for sending cables. However, cables can be sent through Agent. Ship to shore communication is by VHF Channel 16 for Port Control and Pilot Office and VHF Channel 12 with Agent's office, during office hours only.

Currency: French franc is the local currency. There are two banks: Banco de Franco, (one on Zaoudzi Island and other on Mamuzu). U.S. dollars can be changed either at the banks or direct at shops. No other currency is accepted in the shops.

AUTHORITY: Mr. Le Capitaine du Port de Dzaoudzi, Representation du Gouvernement, B.P. 20, 97610 Dzaoudzi, Republic of Comoros. *Tel:* 19 (269) 60.10.33. *Telex:* 915810 MY.

AGENT: There is only one Agent at the moment who is M/S Societe Mohoraise d'Acconage de Representation et de Transit (short form SMART), Dzaoudzi Mayotte. Cable address: SMART Dzaoudzi. They work ship to shore communication via VHF Channel 12 – only during office hours i.e. from 0800 to 1600 hrs. If one wishes to communicate during night hours, one should call VHF Channel 16 and ask Port Control to inform "SMART" to call the ship on VHF Channel 12, then communications can be established.

NOTES

Please also advise Shipping Guides Ltd.

People's Republic of Congo

DJENO TERMINAL: 04.56 S. 11.54 E. (See Plan)

LOCATION: The loading point is located 3,800 m. from the coast in position Lat. 4° 56′ 35″ S., Long. 11° 54′ 15″ E., that is to say 9.5 miles S.S.E. of the main Pointe Noire Lighthouse.

NAVIGATION:
Djeno Lighthouse: Position Lat. 04° 55′ 01″ S., Long. 11° 55′ 45″ E.

The Terminal has a prohibited area which is covered by the red sector of light. No vessel may enter this area between depths of 50 m. and 70 m. as there are offshore production installations, underwater pipelines and the loading point within the red sector from approximately S. 3° W. to S. 73° W. Also vessels may not proceed inside 25 m. depth of the red sector without a Pilot on board.

The lighthouse has the following characteristics:

17 m. metallic tower, aluminium colour;

Light is regular occulting light at 4 second intervals, light 29 m. above MHWS.

Range of white light 18 miles and red light 15 miles.

SBM: Equipped with radar reflector and white light with 60 flashes per minute, range 6 miles. The floating pipe extending over a radius of 245 m. round the buoy is lit by small white intermittent lights.

PILOTAGE: Compulsory. Pilotage is carried out by Pilots from Pointe Noire (See "Shipmaster's Report"). Call signals for the Pilot are those provided for by the International Code. The pilot station keeps a permanent watch on VHF Channel 16. Pilot boarding position: Lat. 4° 47.44′ S., Long. 11° 48.10′ E.

Limits of Pilotage Zone: South, parallel 5° 07′ S.; West, meridian 11° 46′ E.; North, parallel 4° 42′ S.

During the day, when leaving the mooring, request for Pilot is to be made to the Port Commander's Office 3 working hours before the hour of departure. If vessel is ready to leave and the Pilot has not boarded, he may be called by means of the following signal, International flag "G" and at the same time 3 long blasts on the ship's whistle.

If departure should be during the night, request for Pilot should be made to the Port Commander's Office before 1700 hrs., indicating as near as possible the probable time of departure.

Should any changes take place in the time of departure the Port Commander's Office is to be advised at least 1 hour in advance in order that the vessel should not incur any surcharge. During these hours call for the Pilot shall be made at the Port Commander's Office by the ship's Master or his representative.

Sound Signals: The use of ship's whistle is forbidden between 1700 and 0600 hrs.

Should Pilot be required at any time on a Sunday, order should be placed before 1200 hrs. on Saturday. Should a Pilot be required on a public holiday, order should be placed by 1700 hrs. on the day prior to holiday.

ANCHORAGE: Vessels loading at Djeno may anchor in Pointe Noire Roadstead, 1 mile North of the Outer Dyke Light.

MAX. SIZE: Maximum permissible draft 16 m. (52 ft. 6 in.). However, Elf Congo may reduce this draft if weather conditions are unfavourable.

Also see "Berthing".

HEALTH: The Pilot may act for the Hygiene Department, Pointe Noire if instructed to do so by Pointe Noire.

RADIO: Call signal "TNA".

Permanent watch on 500 and 2182 khz from 0600 to 1800 hrs.
Transmits on 8,722 kHz from 0930 to 0945 hrs. (GMT)
from 1030 to 1045 hrs. "
from 1330 to 1445 hrs. "
from 1530 to 1545 hrs. "
from 1730 to 1800 hrs. "
on 13,101 kHz from 0630 to 0645 hrs. "
from 0730 to 0745 hrs. "
from 0830 to 0900 hrs. "
from 1700 to 1715 hrs. "

Elf Congo Terminal: Watch VHF Channel 12 – 156.1 MHz whilst tanker at the loading point.

Pointe Noire Office: Call signal: "Echo Lima". Watch radiotelephony – 2182 kHz.

Management of Port of Pointe Noire: Permanent watch on VHF Channel 16.

Advice of Arrival: Tankers shall have their arrival at Djeno notified by their consignees 72, 36 and 24 hours in advance.

Thereafter, they shall notify any appreciable change in their ETA.

TUGS: Three tugs available from Pointe Noire. 1,000 h.p., 600 h.p. and 1,800 h.p. Request for tugs should be made at least 3 hours in advance and before 1700 hrs. if required during the night. For berthing, mooring boats will be supplied by Elf Congo.

BERTHING: The loading point of Elf Congo at Djeno is of an SBM type, with single mooring at the bow.

The vessel is moored by the bow to a buoy consisting of a cylindrical frame of diameter 10 m. and 4.35 m. high.

This buoy is moored by chains to 6 drilled piles. Anchor moorings extend over a radius of 300 m. around the buoy.

A 40 in. sea-line connects the tank farm with the loading point; the buoy is connected to the sea-line by 2 lines of flexible hoses 20 in.

The loading point is provided for the mooring and loading of full-loaded tankers of approximately 40,000 d.w.t. – 140,000 d.w.t. and half-loaded tankers of 240,000 d.w.t.

Depth of water at the buoy is 22 m.

The connection between buoy and tanker is by 2 floating flexible hoses, approx. 220 m. long and 20 in. in diameter, each ending in a length of 16 in.×30 m. flexible hose. Connection to the tanker manifold is by 16 in. hose.

Notice of Readiness: Shall be sent to Elf Congo.

MOORING: Mooring ropes supplied by Elf Congo. The vessel shall be ready to take aboard two mooring ropes, one on the starboard bow and the other on the port bow. Each rope consists of 45 m. of nylon of 14 in. circumference and 5 m. of 47 mm. diameter chain. Each rope is equipped with a polypropylene lead of 10 in. circumference, 105 m. long for one and 45 m. for the other.

Leads are passed to the vessel by a motor boat. The vessel shall have two ropes ready at the bow to take them aboard.

Mooring can be carried out by day as well as by night, weather and sea permitting.

The derrick shall be rigged before arrival on the port side with a minimum hook SWL of 10 tons.

The ship's manifold shall be made ready on the port side for connection of the two 16 in. flexible hoses.

Flexible Hoses: Loading of vessels carried out through 2 lines of 220 m. of 20 in. flexible floating hose, terminating in 2×20 m. sections of 16 in. flexible hose. Manifold connections on board shall be 16 in. ASA flanges. Elf Congo can supply 12 in. to 16 in. reducers.

During connection and disconnection of the flexible hoses, assistance by the crew is essential, in particular for the handling of the winches and derricks. During the whole stay of the vessel at the loading point, the Pilot shall maintain safety watch on board and also assume the duties of head of loading in the absence of a representative of Elf Congo.

The Elf Congo service vessel shall remain at the disposal of the Pilot and shall remain alongside the tanker or nearby. A ladder must be kept permanently alongside the vessel so as to permit access by the team in charge of the flexible hoses.

LOADING: Loading may be carried out with a maximum flow of 8,000 cu.m./h. with two pumps or 5,500 cu.m./h. with one pump.

Inspection of tanks after deballasting and after loading shall be undertaken in the presence of the Elf Congo loading representative.

The Terminal shall place on board the vessel sealed samples of the cargo.

20 minutes before the end of loading, the vessel shall warn the Terminal by VHF so that pumping may be stopped accordingly.

The ship's Master shall be fully responsible for the manoeuvring of the valves and safety of the cargo on board.

DEBALLASTING: The Djeno storage installation is not equipped to receive dirty ballast. The vessel shall, therefore, arrive with a clean ballast.

Any vessel arriving with dirty ballast may be forced to leave the loading point and delay arising therefrom shall be fully incumbent on it. Acceptance of Notice of Readiness will be rectified accordingly.

It is forbidden to throw into the sea any cinders, burning materials, objects and waste of any kind.

The ship's Master shall be responsible for any leaks on board. Such leakage shall be stopped immediately.

Scuppers shall be plugged during the whole loading time.

SAFETY: The ship's Master shall be responsible for safety aboard the vessel at all times. Sufficient crew members must be aboard the vessel at all times for handling moorings and fire appliances. The vessels main engines must be kept ready at all times. A watch should be maintained to ensure that no undue stress is placed on the moorings and that the floating pipe-lines do not rub against the vessel. Also the vessel should not be allowed to come into contact with the single buoy mooring which may be caused by changes in current, wind direction or other reasons.

Smoking outside of authorised area, use of naked lights, or tools liable to cause sparks not allowed.

Vessel's anchors should be secured in the hawse pipe. No repairs allowed whilst at the mooring also no stores or equipment may be handled on the deck whilst at the mooring.

Whilst Loading: All hull valves shall be kept closed except those required for water circulation. The scuppers on the main deck shall be blocked. Two fire hoses shall be connected and placed one at each end of the vessel. The fire lines should be under pressure at all times.

If there is a fire aboard a vessel moored at the SBM, the following sound signal shall be given on the vessel's whistle: continuous short blasts. The Master of the vessel shall immediately take charge of fire fighting operations.

MEDICAL: There is one hospital, 2 clinics and several doctors.

FRESH WATER: Drinkable water at quays inside the Port of Pointe Noire or by tanker of 200 tons in roadstead under shelter (minimum delivery 100 tons).

FUEL: Not available at Djeno. Vessels proceed to tanker berth at Pointe Noire.

REPAIRS: Workshops at Pointe Noire. Facilities for repairing radar and radios.

WATCHMEN: Compulsory.

TIME: GMT plus 1 hour.

AIRPORT: 6 km. from the Port of Pointe Noire. 1 or 2 flights daily to Brazzaville. 1 or 2 flights daily from Brazzaville to Europe.

CONSULS: At Pointe Noire: French Consulate, Tel: 94.00.02. Federal German Consulate, Tel: 94.00.10.

GENERAL: *Charts:* French chart No. 3357 and B.A. chart No. 3206.

Stores: A ship chandler at Pointe Noire can supply vessels with any foodstuffs required.

Territorial Waters: The sovereignty of the Republic of the People of Congo extends to 30 nautical miles as from the lowest sea watermark along the coast.

Boat Service: A motor boat can be rented through the consignee. Elf Congo motor boats must not be used by the tanker crew except for an urgent medical evacuation.

Meteorology: The rainy season extends from November to May with a maximum in February and March.

Visibility: Visibility can be reduced to less than 1 mile in June, July and August.

Sea: Mean density of the sea at the loading point is 1025. Sea temperature varies between 27°C in February (austral Summer) and 22°C in August (austral Winter).

Tide: Tide is of a semi-diurnal type. Mean amplitude of spring tides is 1.60 m.

Wind: S.S.W. generally less than 15 knots.

Swell: Generally S.S.W. less than 2.50 m. with periods of 10 to 12 seconds.

Current: Sector S. to S.S.E. generally less than 1.5 knots on surface. The current can change to the North without any apparent reason for a period rarely greater than 2 days.

SHIPMASTER'S REPORT: September 1984.

Documents: Documents required: 3 each of Crew Lists, Vaccination Lists, Stores & Crew Declaration. 2 each of Passengers (or Nil) List, Birds and Animals, Narcotics, Arms and Ammunition. 1 Notice of Readiness. All paperwork carried out by Loading Master.

On departure, vessel steams slowly back to Pointe Noire while calculations and papers are completed on board.

Pilotage: Pilot and Loading Master boarded from pilot boat which has speed of about 20 knots.

On departure, the Pilot, Loading Master and Cargo Surveyor left using an inflatable dinghy. They prefer the ladder on the starboard side. The tug carries 2 inflatable dinghies.

Anchorages: For tankers waiting to berth at Djeno the indicated anchorage off Pointe Noire was found to be good with thick grey mud. Gear for mooring and hose connecting put on board from tug at anchorage. The tug then goes to Djeno to standby.

Tugs: There is a small buoy N.E. of the SBM and the tug moors there when not working.

Mooring: While mooring, tug is used to keep hoses clear.

Loading: Cargo Surveyor boarded while deballasting. Used combination accommodation ladder/pilot ladder on port side. Pilot, Surveyor and Loading Master stay on board.

OPERATOR: Elf Congo, Terminal de Djeno, B.P. 761, Pointe Noire, Congo. *Tel:* 94.20.41. *Telex:* Elfco 8239 Kg. and 8277 Kg.

POINTE NOIRE: 04.47 S. 11.49 E. (See Plan)

PORT LIMITS: *Pointe Noire Pilotage area limits:*

South:	5° 07′ S.
West:	11° 46′ E.
North:	4° 42′ S.

DOCUMENTS: On arrival, the Master must hand over to:

The Agents:

4 Crew Lists.
4 Lists of Crew Boys.
4 Passenger Lists or negative.
4 Lists of Ports of Call.
2 Lists of Crew Personal Effects.
2 Stores Lists.
5 copies of Cargo Manifest.
1 List Narcotics.
1 List Arms.
1 List Ammunition.
1 List Animals.
Master's copy of B/L.

Harbour Authorities:

1 Arrival Form issued by Port of Pointe Noire.
1 Departure Form issued by Port of Pointe Noire.

Health Authorities:

1 Vaccination List for crew members.
1Declaration of Health (form issued by the port of Pointe Noire).
Vaccination cards for the whole crew.

PILOTAGE: Compulsory. Telegraphic address: Harbour Master's Office of the Port of Pointe Noire. Pilot station can be contacted by VHF Channel 16; 24 hour service.

Boarding position: Pilot boards 1 mile North of the green channel light buoy.

Tankers awaiting a Pilot for the SBM at Djeno should wait 2 miles West of the main light at Pointe Noire.

APPROACHES: *Shipmaster's Report:*

The approach to Pointe Noire from the West using Chart 4105 Freetown to Luanda is clear of dangers as far as our experience goes. After crossing the 200 m. (100 fathom) line, the soundings are consistent with a gently shelving coast until there is 30 m. – 40 m., 3 miles West of Pointe Noire breakwater.

Approaching Pointe Noire from the West the radar picture of the coast about 20 miles North of Pointe Noire is very similar to Pointe Noire itself. This could confuse and lead one to think that the ship is further South than she really is, but the cluster of oil rigs should be a good guide.

There is a cluster of oil rigs with flares S.S.W. by 13 miles from Pointe Noire main lighthouse, with another cluster about due South by 17 miles, both good radar targets. Do not go in between these clusters. Watch out for numerous small dugouts, etc. fishing.

Oil rigs with 1 flare in position Lat. 4° 28.8′ S., Long. 11° 15.4′ E.

RESTRICTIONS: Minimum draft allowed for ore-carrying vessels of more than 130 m. drawing alongside at Quay G: 20 ft. aft and 15 ft. forward. Max. draft allowed for all vessels: 31 ft. at any hour. Max. draft allowed for ore carriers leaving Quay G ~~will be~~ 34 ft. 4 in. ~~after dredging of the channel in 1980~~ (1 hour before high tide). Tying to mooring buoy can be done only between sunrise and sunset.

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Max. draft tankers 33 ft. 6 in. Tankers to enter in same period as departing ore carriers (1 hour before high tide).

HEALTH: Port Health Officer boards immediately on berthing. Compulsory vaccinations: Yellow fever and cholera.

RADIO: Pointe Noire Radio, call sign TNA. Continuous service on 500 and 2182 kHz from 0600 to 1800 hrs. GMT. Transmission on 8722 kHz. TNA from 0930 to 0945, 1030 to 1045, 1330 to 1445, 1530 to 1545, 1730 to 1800 hrs. GMT; on 13101 kHz. TNA from 0630 to 0645, 0730 to 0745, 0830 to 0900, 1700 to 1715 hrs.

Shipmaster's Report: If vessel is coming from the South it is advisable to pass messages through Luanda.

RADAR/VHF: The Harbour Master's Office has a VHF set (call Channel 16) but no radar.

TUGS: 2 tugs 1,800 h.p. and 900 h.p. Tugs normally join the vessel as soon as it crosses the passage. The vessel's own lines are usually used.

BERTHING:

		Length	Draft Permitted
Quay D:	Berth 1	720 m.	24 ft.
	" 2		26 ft.
	" 3		28 ft.
	" 4		29 ft.
	" 5		29 ft.
Quay G:	Ore Berth	530 m.	34 ft. 04 in. (See "Restrictions")
	Tanker Berth	—	33 ft. 06 in.
Mole 1:	Timber Berths	350 m.	31 ft.
	Lighter Berth	—	12 ft.

Potash Berth: 4 miles Southward of Pointe Noire. Max. draft 44 ft.

STEVEDORES: The Agent requires the following information 48 hours in advance, in order to arrange gangs: precise ETA; number of gangs required for unloading/loading; distribution per hold unloading/loading; draft, fore and aft – before 0600 hrs. in the morning on weekdays counting as overtime; before 0600 hrs. Saturday mornings for the weekend or day before holiday also counted as overtime.

MEDICAL: Notice for medical attention not needed. There are 2 private clinics.

TANKERS: Diameter of loading/unloading lines: 6 in.=aircraft fuel. 10 in.="white product". 12 in.=1500 fuel. Hoses=8 in.

Also see "Djeno Terminal".

DENSITY: 1025 on average. Only slight variations according to tides.

FRESH WATER: 2 hoses can be connected at each berth. Rate: 20 t.p.h. per hose.

FUEL: Ordered from suppliers: Hydrocongo. Pipe-line supply to tanker berth and berth Nos. 1 and 8.

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FIRE PRECAUTIONS: The port must be informed of ETA of tanker 24 hours in advance.

GANGWAY/DECK WATCHMEN: Compulsory for tankers and gas carriers.

OPENING/CLOSING HATCHES: Usually the crew's responsibility. Can be carried out by the stevedore for payment.

CUSTOMS ALLOWANCES: No limit – must be stated on crew declaration, and quantities must be accurately stated.

CARGO GEAR: Derricks to be in good condition. There are 2 cranes at the new jetty.

IDENTIFICATION CARDS: Seaman's cards or passport needed.

CONSULS: France, Tel: 94.00.02–94.00.03. Germany (F.R.) 94.00.10.

REPAIRS: Most repairs for the deck and engines are possible. Also facilities for electronic repairs.

DRY DOCKS: One slipway for vessels up to 800 tons.

REPATRIATION: Every facility for crews equipped with a crew card and passport.

AIRPORT: 6 km. from the port. 1 to 2 flights per day to Brazzaville. 1 to 2 flights per day from Brazzaville to Europe.

TIME: Local time is GMT plus 1 hour.

HOLIDAYS: 1st January (1 day's holiday); 1st May (2 days' holiday); 31st July (1 to 2 days' holiday); 15th August (2 to 3 days' holiday); 1st November; 25th December (1 day's holiday).

POLICE/AMBULANCE/FIRE: Police 17; Fire 94.00.49; Ambulance 94.00.49, 94.21.98.

TELEPHONE: Cannot be connected on board ship but there is one in the middle of Quay D for the use of vessels.

GENERAL: As the Congolese Customs are very strict, the drawing up of the Store List and Crew Declaration should be carried out very carefully, as the slightest error is penalised and a fine imposed.

Stores are expensive and not easily obtainable. Fish available, also fruit and vegetables but not in the Rainy Season.

SHORE LEAVE: No restrictions.

PORT REGULATIONS: In the event of congestion, vessels are obliged to work at night and on Sundays, and if they refuse to do this, they may be relegated to the roadsteads and thereby lose their turn to draw alongside.

DELAYS: *Shipmaster's Report:* Occasionally tankers are delayed for long periods as the shore tanks may be full.

SHIPMASTER'S REPORT: Mail takes between 3 and 7 days from Pointe Noire to Paris, and Pilot assures that it is reliable.

SHIPMASTER'S REPORT: March 1980.

Pilotage: Compulsory. Pilot boards in position 4° 45.5′ S., 11° 45.9′ E. 24 and 12 hours notice required.

Anchorage: Position 4° 47.2′ S., 11° 49.4′ E.

Restrictions: Vessels able to enter and leave at any stage of the tide day or night.

Max. Size: Max. draft 31 ft.
Health: Quarantine Authority require 12 hours notice of arrival.
Tugs: 1 tug available.
Radio: Luanda or Portishead. No replies locally.
VHF: Pilot and Port Authority on Channel 16.
Berthing: Position 4° 46′ S., 11° 50′ E. Distance from entrance to berth less than 1 mile. Nature of bottom sand and mud. Vessel able to dock and undock at any stage of the tide day or night. There are facilities for loading coal in bulk. No quay cranes available, ships gear used. There is no link span for Ro/Ro vessels. Usual precautions taken with regard to security, no losses suffered. There is sufficient equipment for handling palletised cargo. Ship's gear is used for handling containers and the necessary shore equipment is available.
Density: 1025.
Fresh Water: Available.
Fuel: Bunker fuel oil, diesel oil and lubricating oils available.
Medical: Doctor and hospital available.
Provisions: Fresh provisions available but expensive as they are flown in from South Africa. Meats and groceries also available.
Repairs: Small repair facilities and small machine shop available.
Airport: Local airport with flights to Brazzaville.

SHIPMASTER'S REPORT: July 1987.

When approaching the port from the N.W., vessel should steer 105° T directly towards Dique Exterieure Head Lt. When 5 miles off steer 090° T for 2 miles thence about 100° T, shaping towards the anchorage and keeping at least 5 cables off the land. We disregarded the 148° T leading line on BA. Chart No. 3285 due to shoaling taking place to the North and West of West Breakwater. Sight the green conical buoy on the starboard hand and stop the ship some 5 cables off the breakwaters, heading about 170° T, directly towards the entrance. The green buoy will be about 2 cables abeam to starboard at this position. The pilot will then board from a launch on the port side, manropes and bulwark ladder required.

The Petroleum Pier (P.P.) is situated 3 cables directly inside the harbour entrance. 2 tugs, pushing only, and 1 mooring boat, even though 2 mooring boats are normally available. Vessel berthed Port side alongside. No photography allowed.

Moorings: Forward: 4 headlines to shore, 2 forward head springs to dolphin. Aft: 2 aft back springs to dolphin, 2 stern lines to a hook buoy, 2 long stern lines to shore with lashings.

Berthing and sailing at any time during daylight hours on 31 ft. draft, or 3 hours before to 2 hours after HW on 33 ft. 06 in. maximum draft. Density 1025.

1 × 8 in. Chicksan connection, loading rate about 875 cu.m./h., temperature of fuel oil 140° F.

The Officials are French speaking and are courteous and obliging if all in order. The following boarded, 6 Customs Officers, 2 Immigration Officials (shore passes required), 2 Port Health Officers (vaccinations up to date), 1 Agent, 2 Harbour Masters, 1 Port Captain (Safety Check List and dates of SOLAS Certificates inspected), 1 Loading Master and 1 Charterer's Representative.

No port watchmen, firemen, security etc., and no extra meals required. Loading Master advises that mugging, etc. prevalent on the shore.

Weather: Dry season from mid-May to mid-September, when cloudy and cool. The remainder of the year is hot, wet and humid.

AUTHORITY: Direction du Port de Pointe-Noire, P.O.Box 711, Pointe-Noire, People's Republic of Congo. *Tel:* 94.00.52.

AGENT: Ponteco-Socopao, BP 664/714, Pointe Noire, Peoples Republic of Congo. Cable address "Freight Pointe Noire". Tel: 94.11.20. Telex: 8201, 8300 and 8252. Fax: 94.31.75.

NOTES

Please also advise Shipping Guides Ltd.

Cook Islands

AVATIU, (Including Avarua) Rarotonga: 21.12 S. 159.47 W. (See Plan)

DOCUMENTS:

Health:	International Maritime Declaration of Health. 1 Passenger List 1 Crew List
Customs:	(Immigration) 2 Manifests of Cargo showing weight or measurement (basis on which freight calculated). 2 Crew Lists. 2 Passenger Lists (landing and transit). Each disembarking passenger to complete a landing card and baggage declaration. Clearance from Last Port.
Agent:	5 Manifests of Cargo. 1 Crew List. 1 Passenger List.

PILOTAGE: Not compulsory at present. However, Pilot available. Arrange through vessel's Agent 24 hours notice of ETA. Pilot boards from 35 ft. steel tug *Avatiu*. Craft painted blue hull, white superstructure. Tug equipped with VHF Channels 6, 12, 14 and 16. Pilot normally boards 0.75 miles off entrance Avatiu on line of leads.

ANCHORAGES: *Avarua:* As shown on Admiralty Chart No. 1264. Prevailing wind is S.E. and the anchorage is safe except in some instances when wind and/or sea are fresh from N.W. through N.E. 4 to 5 shackles of cable in the water has been found the most satisfactory in normal circumstances in 25 fathoms.

RESTRICTIONS: None. Anchorage, in 25 fathoms, is well defined with cross leads.

MAX. SIZE: No restrictions.

HEALTH: Vessel should radio "Porthealth Rarotonga" not less than 24 hours before arrival giving ports of call for preceding 3 weeks, number of crew, number of passengers, state of health and requesting Free Radio Pratique.

RADIO: Call sign ZKR continuous listening watch on 2182, 4125 and 8198 kHz, also Channel 16 on the VHF. Weather forecasts are broadcast daily by R/T on 2207 kHz, and 8291.1 kHz at 0615 hrs. GMT and 1815 hrs. GMT after a preliminary call on 2182 kHz.

VHF: Harbour Master has VHF for communication between vessel and office on Channels 6, 12, 14 and 16. Listening watch on Channel 16 between the hours 0800 – 1200 and 1300 – 1600 (local time) from Monday to Friday. Harbour Master can be contacted after hours by arrangement through vessel's Agent.

TUGS: Small tug available (1.25 ton bollard pull) to assist with mooring.

BERTHING: *Avatiu:* Vessels berth port or starboard side too as may be necessary, berth 328 ft. in length having a maximum depth alongside of 6.2 m. below MSL. Inner Overseas Berth, length 128 m. Outer Overseas berth, length 135 m. Swinging basin for vessels not over 270 ft. in length. Draft 18 ft. aft, 16 ft. forward.

STEVEDORES: Arranged by ship's Agent or Waterfront Commission.

MEDICAL: Medical and hospital facilities available. International vaccinations/inoculations required depending on prior ports of call.

TANKERS: Small tanker from Fiji, using ship's 4 in. hose for discharge. The LPG shore manifold is sited at the Northern corner of No. 1 shed. The oil shore manifold is sited at the Northern corner of No. 3 shed in Avatiu Harbour.

DENSITY: 1025.

FRESH WATER: Available in limited quantities (alongside berth).

FUEL: Available by delivery trucks.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: By crew or stevedores to vessel's convenience.

TOBACCO ALLOWANCE: 200 cigarettes, or half pound tobacco or 50 cigars.

WINE AND/OR SPIRIT ALLOWANCE: Allowance is 1 opened bottle of either wine or spirits, or a reasonable quantity of beer per person, for consumption on board. Under no circumstances may any wines, spirits or beer be brought ashore.

CARGO GEAR: Ship's gear for discharging and loading, 2×12 ton heavy lift cranes available.

IDENTIFICATION CARDS: Not required.

CONSULS: New Zealand and Nauru are represented.

REPAIRS: Only minor repairs possible such as welding and repairs to pumps and other auxiliaries.

REPATRIATION: Confined to repatriation of crew landed for hospitalisation.

AIRPORT: Rarotonga International Airport is 2 miles away.

TIME: GMT minus 10 hours. Daylight Saving Time (GMT minus 9.5 hours) from last Sunday in October to first Sunday in March.

HOLIDAYS: Cargo cannot be worked on any Sunday or on Good Friday and Christmas Day. Other Holidays: Boxing Day (26th December); New Year's Day; Easter Monday; ANZAC Day (25th April); Queen's Birthday (1st Monday in June); Constitution Celebrations (4th Monday in August).

POLICE/AMBULANCE/FIRE: Ring exchange operator or dial 999, 998 or 996.

TELEPHONES: No connection available at present. Telephone available at Wharf Gate for emergency services.

GENERAL: Bananas available at times. Green vegetables are always difficult to obtain. Oranges, lemons, mandarines available March-August, pineapples November-February.

SHIP SUPPLY SERVICE: There are no ship-to-shore services available as a regular daily schedule. However, there are occasions when vessels are anchored off the Avatiu Harbour or in the 'Roads' that requests for boat transport are provided by the small tug of the Department of Trade after application by the Shipping Agent for its services.

The Agent is The General Manager of the Waterfront Commission. Telex: 62002. Rarotonga, Cook Islands.

DEVELOPMENTS: Harbour development at Avatiu although not completed, is currently in use and accommodating vessels of about 2,200 tons and 320 ft. in length.

No. 2 shed to be demolished and a container terminal to be constructed.

On completion of dredging a turning circle of 130 m. will be available.

AUTHORITY: Department of Trade, Labour & Transport, P.O.Box 61, Rarotonga, Cook Islands. *Telex:* Shipping RG 62202. *Cables:* Labcom, Rarotonga. *Contact:* Joseph Caffery, Secretary for Trade, Labour & Transport. Ioane Iro, General Manager, Waterfront Commission. Captain H. M. Besetimoala, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Costa Rica

GENERAL:

DOCUMENTS: *Prior to Arrival:* Arrival Notice: In practice, owing to the closeness of other ports of call, the shipping Agent notifies the Port Authority 48 to 72 hours in advance of the vessel's arrival. 24 hours before the vessel's arrival in the Pilot Waiting Zone, the Agency must report in writing to the Port Authority (Dockmaster) the vessel's time of arrival and the company that owns it. 12 hours before arrival, the time of arrival is confirmed, also in writing. One of these two written notices must contain the distribution list of the cargo to be unloaded, although failure to submit this information shall not delay docking. In addition, the number of longshoremen for loading and unloading, and if necessary, the number of launches or feluccas that will be required if the pier is occupied on both sides (Puntarenas) must be reported. Failure to confirm the time of arrival may result in losing the vessel's turn in docking.

Copies of the arrival notice should be sent to the Port Captain's Office, which performs the functions of Migration, Customs Administration, Customs Security, Delegate of the Ministry of Agriculture and Livestock (MAG) and the Veterinary Health Officer. In addition, copies must be submitted to the shipping agent and Customs for them to report to their clients on the arrival of the shipments and to initiate import procedures.

Information on cargo for the port

It is recommended that the shipping Agency send by airmail 2 Cargo Manifests and 2 copies of the Bills of Lading; 1 copy of each document shall be kept for the Agency's internal use, and the other shall be used to report to the Customs Agents and the cargo consignees.

On Arrival:

Type of Documents	Number and Distribution of Documents					
Basic forms	*Captain of Port*	*Customs*	*Maritime Health*	*MAG*	*Port Authority*	*Total*
General Declaration	1	1	–	1	–	3
Cargo Manifest	12(a)	5	–	–	3	20
Crew List	3(b)	–	1	–	–	4
Passenger List	1	1	1	–	–	3
Ship's Stores List	–	1	1	1(d)	–	3
Crew Effects Declaration	–	–	–	–	–	–
Maritime Health Declaration	–	–	1	–	–	1
Mail Guide	–	–	–	–	–	1(e)
Additional Documents:						
Visaed Clearance Permit	1	–	–	–	–	1
Consular Manifest	–	2	–	–	–	2
Crew List (f)	–	1	–	–	–	1
Passenger List (f) (g)	1	1	–	–	–	2
Maritime Health Declaration (f)	–	1	–	–	–	1
Cargo Tally Books	–	15(h)	–	–	–	15

(a) To be distributed among Customs agents.
(b) A copy remains in the control booth at the exit of the port area.
(c) Sometimes checks vaccination certificates.
(d) Inspects meat in ship's stores (Ministry of Agriculture & Livestock).
(e) If there is a mail bag, the list is submitted to the ship's Agent.
(f) With consular visa.
(g) A visaed "no passengers" declaration is also required, when appropriate.
(h) For use of Customs and the Port Authority.

Other Requirements:

The Agency must provide a card to each crew member and passenger, which is stamped by the Captain of the Port and filled out on board. The card is used when passengers and crewmen go ashore and return on board the ship.

Prior to Departure:

The clearance permit is requested from the Captain of the Port 24 hours in advance of the ship's departure, or immediately upon its arrival, if the ship is to remain less than 24 hours in the port.

The clearance permit requires Customs Clearance (certification that there are no charges pending) and remains in force up to 24 hours after the requested departure time.

CALDERA: 09.54 N. 84.43 W. (See Plan)

LOCATION: The Port of Caldera is located in the Gulf of Nicoya in position Lat. 09° 54′ 44″ N. and Long. 84° 43′ 14″ W.

DOCUMENTS:

2 Certified copies of Clearance from Last Port.
2 Certified copies Crew Lists and 6 copies for distribution.
2 Certified copies Passenger Lists and 6 copies for distribution.
2 Certified copies Cargo Manifest and 25 copies for distribution.
2 Certified copies Stores/Provisions List and 6 copies for distribution.
3 Sets of Bills of Lading.
Construction Certificate.
Safety Equipment Certificate.
Radio Safety Certificate.
Load Line Certificate.
Cargo Gear Book.

PILOTAGE: Pilots are available and compulsory, arranged by Agents.

ANCHORAGE: Anchorages are defined on a chart supplied by the Port Authority (approx. position 09° 55′ N., 84° 45′ W.).

RESTRICTIONS: None. Vessels can enter or depart at any time.

MAX. SIZE: Max. LOA 205 m. Max. draft 10 m.

HEALTH: Vessels must be in possession of a Maritime Sanitary Declaration signed by the Master. In case of any suspected disease or fever aboard, Master to notify by radio to Port Authorities and vessel to wait outside the limits of territorial waters until clearance is given.

RADIO: *Arrival Notice:* Agents must be advised 24 hours and 12 hours prior to ship's arrival indicating amount of cargo to be discharged in metric tons. This information is required by the Port Authority.

Radio Station: Call sign: T.E.C. (Tango Echo Charlie). Geographic Position: 09° 58′ 56″ N., 84° 48′ 36″ W.

1300 GMT-1500 GMT, working 8,472.0 kHz (A1A), listening Channel 5.
1500 GMT-1530 GMT, working 8,291.1 kHz (J3E), listening Simplex.
1530 GMT-1600 GMT, working 12,429.2 kHz (J31), listening Simplex.
1600 GMT-1800 GMT, working 13,058.0 kHz (A1A), listening Channel 7.
1800 GMT-2100 GMT, working 8,472.0 kHz (A1A), listening Channel 5.
2100 GMT-2130 GMT, working 8,291.1 kHz (J3E), listening Simplex.
2130 GMT-2200 GMT, working 12,429.2 kHz (J3E), listening Simplex.
2200 GMT-0000 GMT, working 8,472.0 kHz (A1A), listening Channel 5.

On VHF 24 hours, working Channel 16.

Transmitting traffic list at H-00 each hour, on the frequency and hour indicated above (from 1300 GMT to 0000 GMT).

TUGS: Compulsory for berthing and unberthing. 2 tugs available. 1×1,700 h.p. and 1×1,800 h.p.

BERTHING:

No. of Berth	*Length (m.)*	*Depth (m.)*	*Max. d.w.t.*
1	210	11.0	25,000
2	150	10.0	15,000
3	130	7.5	5,000

For Berth Nos. 4 and 5 – see "Puntarenas".

CARGO HANDLING FACILITIES: The port is equipped to handle general cargo, containers, Roll-on/Roll-off and solid bulk cargoes.

Cranes: Mobile cranes and stacker trucks of varying capacities, also other modern port equipment. See "Port Equipment".

Bulk Cargoes: The Port Authority owns and operates a discharge system with pneumatic suction units and silos for storage.

Port Equipment: In its first stage, operations at Caldera will be supported by the following equipment:

Fork lifts: 28×3 ton, 5×6 ton, 1×10 ton, 1×35 ton.
Flat Beds: 20×8 ton, 5×30 ton.
6 Towing tractors.
4 Mobile cranes from 10 tons to 127 tons.
3 Trucks.

Containers: Container reefer station with capacity to handle 40 TEU's.

STEVEDORES: The Port Authority provides stevedores throughout 24 hours.

Gangs must be ordered at the following times: At 0700 hrs. to commence working at 0900 hrs., 1200 hrs. or 1500 hrs. At 1500 hrs. to commence working at 1800 hrs., 2000 hrs. or 0800 hrs. the following day.

TANKERS: *Caldera Bay:* Buoy mooring for tankers about 1,000 ft. offshore. Vessels moor using starboard anchor and lines to 3 buoys astern. Hoses connected on port side by ship's crew.

MEDICAL: Medical services can be provided at a clinic in the port or at a hospital in Puntarenas.

FRESH WATER: Provided by the Port Authority at all berths.

FUEL: Available by road tanker, arranged by Agents.

FIRE PRECAUTIONS: Vessels must comply with all the port requirements regarding fire prevention, contamination and safety to navigation within the port.

GANGWAY/DECK WATCHMEN: At the discretion of the Port Authority. All vessels anchored in the port must be adequately covered by watchmen service.

REPATRIATION: Crew changes and repatriation possible.

AIRPORT: Distance 100 km. Served by KLM, Eastern, LACSA, COPA and NANICA. Various flights daily.

TIME: Local time is GMT minus 6 hours.

HOLIDAYS: January 1st, March 19th, Holy Thursday and Good Friday, April 11th, May 1st, May 29th, Saint Peter and Paul, July 25th, August 2nd, August 15th, September 15th, October 12th, December 8th and December 25th. The port works throughout 24 hours, except Good Friday.

TELEPHONE: Telephones may be placed onboard on request. International and local telephone and telex services available on shore.

IDENTIFICATION CARDS: On landing, crew members and passengers in transit must carry identity documents which are to be submitted to the Port Authority.

SHORE LEAVE: Possible.

REGULATIONS: The vessel, the Owner and his Agent must comply with all the arrangements set out in the Port Services Regulations and the General Tariff. The Port Authority will supply these regulations on request.

GENERAL: The new Port of Caldera commenced operating in 1982. Since commencing operations at Caldera, Puntarenas is considered as an extension of the port of Caldera. Caldera has a marginal wharf of 490 m. long consisting of three berths. The outer berth or Berth No. 4 at Puntarenas and the inner berth or Berth No. 5 are at Puntarenas. Both of these berths are out of service due to their poor condition.

Please note that Puntarenas is now strictly for handling bulk cargoes and Caldera is for break-bulk and container operations.

DEVELOPMENTS: In the medium term, the second stage of the port complex of Caldera will be constructed, with which the current capacity will be doubled to 1,200,000 tons per annum.

SHIPMASTER'S REPORT: October 1982

Draft: Forward 5.6 m. Aft 8 m.

Pilot: Pilot boards vessel 2 miles S.W. off end of breakwater.

Tugs: 2 tugs available, one is compulsory for berthing. We employed one pushing and the other as a line boat taking 2 stern lines ashore.

Berthing: Vessel let go port anchor to 2 shackles in water with view to it being used to draw vessel away from quay on leaving.
Line Gangs: Good – 4 men per gang.
Tie-up: 4 headlines and 2 springs each end. This proved sufficient throughout stay, even though moderate surge from swell was experienced.
Gangway: A shoreside gangway was available and used. Gangway/line watchman was provided by Port Authority.
Quay: Modern concrete construction 490 m. in length. 50 tonne bollards and good solid, non spring loaded rubber fenders – both placed every 20 m. along quay.

Electricity, telephone and water all supplied to wharf.
Cargo: Port has good lighting and good sized sheds. Container storage area under construction.

No shore side cranes at present – proposed 40 tonne capacity container gantry.

Fork lifts are plentiful and in good working order.

AUTHORITY: Instituto Costarricense de Puertos del Pacifico, Caldera, Costa Rica. *Tel:* 63-41-51. *Telex:* 6045. *Contact:* Winfield Lawrence Tom I., Operations Manager.

Institute Costarricense de Puertos del Pacifico, Apartado 545-1000, San Jose, Costa Rica. *Tel:* 23-71-11. *Telex:* 2793 Pocni.

GOLFITO: 08.37 N. 83.10 W. (See Plan)

DOCUMENTS:
- 2 certified copies of Clearance from Last Port.
- 2 certified copies of Crew List and 6 copies for distribution.
- 6 certified copies of Passenger List and 6 copies for distribution.
- 2 certified copies of Cargo Manifest and 25 copies for distribution.
- 4 certified copies of Stores Provisions List and 6 copies for distribution.
- 3 sets of Bills of Lading.

PILOTAGE: No Pilot in port. Cia. Bananera sends a launch to guide vessel to quay if requested. Arrival has to be notified at least 24 hours in advance.
ANCHORAGES: Anchorage area to S.E., diagonal towards end of quay. Depth: 35 ft. – 50 ft. Area 1,000 m. by 300 m. approx. Quay distance: approx. 500 m. Sufficient space for 4 vessels.
RESTRICTIONS: Vessel allowed to enter at any time, day or night.
MAX. SIZE: Length of quay is 1,040 ft., enough for two vessels to berth, one in banana berth and the other in cargo berth, each one of 450 ft. Depth 35 ft. alongside.
HEALTH: Any vessel that enters this port has to be in possession of a Sanitary Manifest (Sanitary Maritime Declaration) signed by Master of vessel. In case of any suspected disease or fever aboard, Master to notify by radio to Port Authorities and vessel to wait outside the limit of territorial waters until clearance is given.
RADIO: Station call sign TIM, frequencies 8478 and 500 kHz. Working hours 0400 – 1300 GMT.
Notice of Arrival: Radio Agent at least 24 hours before arrival advising date and time of arrival, number passengers disembarking, if any, amount of cargo to discharge in metric tons, number of gangs required to work on board. This information is required by Port and Customs Authorities.
TUGS: No tugs. A launch from the Cia. Bananera takes lines from vessel to quay.
BERTHING: Vessels berth starboard side to. Vessels of Cia. Bananera have preference.
STEVEDORES: Cia. Bananera controls gangs. Advance notice required. Work possible 24 hours a day.
MEDICAL: Cia. Bananera has a hospital for its employees. They can give assistance if a request through the Agency has been made 24 hours in advance. On arrival of vessel a valid vaccination certificate of each member of crew has to be shown.
TANKERS: Can berth in cargo area if length is less than 450 ft., depth is 35 ft. Diameter of pipe-lines 8 in. and 6 in.
FRESH WATER: Cia. Bananera supplies any quantity at a rate of 50 t.p.h. through shore hoses.
FUEL: Diesel and fuel oil available from time to time.
GANGWAY/DECK WATCHMEN: Available but not compulsory. Customs guard on gangway.
OPENING/CLOSING HATCHES: Normally carried out by stevedores.
CUSTOMS ALLOWANCES: No limit on board but only one packet cigarettes when going ashore. No alcohol may be taken ashore.
IDENTIFICATION CARDS: Required.
CONSULS: Nicaragua, Honduras and Panama represented locally.
REPAIRS: Cia. Bananera of Costa Rica has a workshop that can do small repairs such as soldering or small winch repairs.
REPATRIATION: Can be arranged. A
AIRPORT: One airport one mile from port. Serviced by two airlines "Lacsa Airlines" with two daily flights, one at 0700 hrs. and the other at 1030 hrs. "Ave Airlines" offer only one daily flight, Sundays included, at 0700 hrs. "Lacsa" has no Sunday flights.
TIME: GMT minus 6 hours.
HOLIDAYS: 1st January, no work can be arranged; 19th March, work at double time; Easter Thursday, no work can be arranged; Easter Friday, no work can be arranged; 11th April, work at double time; 1st May, no work can be arranged; Corpus Christi, work at double time; 29th June, work at double time; 2nd August, work at double time; 15th August, work at double time; 15th September, no work can be arranged; 12th October, work at double time; 8th December, work at double time; 25th December, no work can be arranged. Stevedores are not obliged to work Sundays and holidays if not voluntary.
POLICE/AMBULANCE/FIRE: It is sufficient to ask operator for connection with the desired department.
TELEPHONES: No facilities on board vessels.
SHORE LEAVE: Crew are allowed on shore.
DELAYS: Only when quay is occupied by vessels of Cia. Bananera de Costa Rica, which have preference.

SHIPMASTER'S REPORT: January 1980.
Documents: As per "Guide to Port Entry". Documents to be certified by Costa Rican Consul at last port.
Pilotage: No Pilot available.
Restrictions: It is advisable to berth and unberth during daylight hours. Vessel can enter and leave at any stage of the tide.
Max. Size: Safe draft in channel 30 ft. Mean tide range 10.5 ft.
Tugs: None available.
VHF: Agent on Channels 16 and 14.
Berthing: Vessel berthed at the Banana Wharf which is 2 miles from the entrance and is 1,000 ft. in length. There is a banana elevator at the N.W. end.
Docking: Starboard side alongside: Approached Golfito as per Pilot Book, steering North until leading marks bear 047° then steer on leading marks at dead slow speed to pass 2 cables S.E. of Beacon 'A'. With ebb tide running vessel sets to the S.E. when approaching Beacon 'B'.

Vessel stopped and way taken off when about 3 cables from wharf, then proceeded to a position between Beacon 'F' and shore to attempt to turn round to port with port anchor on the bottom, however anchor did not hold against engine, so hove up anchor and turned short to starboard. Final approach to wharf made at an angle of about 30°, let go port anchor when approaching close to wharf and canted stern well in to wharf to pass heaving line. No noticeable current when close to wharf. When in position, port anchor had 3 shackles in water.
Unberthing: Left on ebb tide with another vessel moored close astern. Singled up to headline and spring forward, tightened up on anchor cable and hove on headline to cant stern off. Very short ahead movements and full starboard rudder necessary to achieve this, as current had little effect. Anchor did not hold sufficiently to pull head off the wharf, so came astern on engine until sufficiently clear of wharf to make port turn to leave harbour.

Very little wind on docking or undocking.
Facilities: The following are available: Fresh water, fresh provisions, minor repairs, airport, telex, bunker "C", diesel oil, doctor and hospital.

No dry docking facilities, no laundry service and no lubricating oils available.
Consuls: Nicaragua, Honduras and Panama.
General: Cautions: Beacon 'G' destroyed (January 1980). Rear range lights/marks 047° have very little horizontal separation. There is a small buoy in the approximate position of Beacon 'G' but exact position not established.

If vessel is loading on the Banana Berth, the secondary leading marks will probably be obscured by that vessel's superstructure.

Poor holding experienced when anchoring off the berth.

SHIPMASTER'S REPORT: July 1984.
Documents: As per "Guide to Port Entry".
Pilotage: Not available.
Restrictions: Vessels may enter/leave at any stage of the tide day or night as long as the lights are working and they are familar with the port.
Max. Size: Max. LOA 680 ft. Max. draft alongside 30 ft. Tidal range 10.5 ft. Limiting conditions are the swinging room between Beacons "4-G" and "6-F" and the wharf.
Tugs: None available or necessary.
Radio: Limon Radio "TIM" and Slidell Radio "WMU".
VHF: Bananera on Channels 16, 14, 6 and 8.
Berthing: See "Report" below.
Density: 1010.
Equipment: 1 small mobile crane. 4 banana elevators. 2×3 ton fork lift trucks.
Report: Berthing at Golfito:

From a position 2.8 miles due South of Curupacha Point Light the vessel was turned onto the channel leading marks (047°T) and speed reduced to pass Beacon "H-2" at dead slow ahead, a course of 049°T was required to maintain the leads in line with Buoy "4-G". Beacons "4-G" and "6-F" have now been replaced with square white buoys, same light characteristic as the original beacons. S.S.W. of Beacon "B-3" turned onto leads 036°T. Both these leading marks are quite small and the front triangle is not easy to make out against the steel work of the shed.

A very small tidal stream was observed passing Beacon "4-G" setting approximately West.

Rounding Beacon "4-G" the ship was swung to starboard to bring the channel marks 2 points on the port bow then commenced swinging to port using engines and rudder the ship was brought to within heaving line distance and a head line landed, the vessel now lying at approximately 45° to the wharf. Despite several engine movements she would not swing any further to port. The line boat (an old ship's lifeboat) lacked power, and dedication of the crew to pull a rope ashore in an attempt to land a stern line and control the stern while using the engine to back against the tide. The tidal stream was noticibly stronger the closer the ship came to the wharf, running parallel to the wharf in a N.W.'ly direction. After the failure of the boat to land a stern line I decided to berth port side to. By the time the stern line was inboard the vessel was being carried rapidly N.W.'wards and lying bows on at 90° to the wharf. The head line was let go and the vessel backed off to about 300 ft. and commenced swinging to starboard with the engines. Due to the stronger current closer to the wharf the swing to starboard was checked on each astern movement. The starboard anchor was let go to one shackle to control the bows. The use of the anchor proved very effective and the ship was steered alongside dredging the anchor through the mud. Berthing safely port side to at 1310 hrs., nearly 3 hours after HW.

Departure: Sailing time was set for 2 hours after HW with the tide running diagonally out under the wharf. Singled up to after backspring, head line and for'd spring and with all lines slack I expected the ship to be set off the quay by the tide, but she remained alongside.

The after spring was let go and the stern canted off by heaving on the head line, finally the engines were used against the for'd back spring to cant her to approximately 60° to the wharf. Let go for'd and came astern until the poop as in a line between Beacons "7-D" and "5-C" then commenced turning short around to starboard, the tide carried the ship down to line up on the 036°/216° leads nicely and course was set down the channel to sea.

Conclusions: 1. The ebb tide sets N.W. along the wharf and is about 50% stronger than the flood.

2. Berthing starboard side to is preferred as sailing is much easier at any state of the tide, but should not be attempted after HW.

3. Considering the ease with which the ship dredged the anchor I would say that the holding ground is poor and due to the limited swinging room and the necessity to use a short scope cable I would not recommend waiting at anchor within the harbour.

A safe waiting anchorage can be found approximately 6 miles S.W. of the entrance channel in depths of 60 ft., firm mud and shell.

4. No reliance should be placed on the line boat.

5. Use of the anchor should be considered when berthing either side to, even under ideal conditions, as this would greatly reduce the number of engine movements and conserve engine starting air.

AUTHORITY: Instituto Costarricense de Puertos del Pacifico, 001-5400 Puntarenas, Costa Rica. *Tel:* 63-40-06 and 63-40-23. *Telex:* 6045 Incop Cr. *Contact:* Lic. Rodrigo Arauz Bonilla, Presidente Ejecutivo.

PUERTO LIMON: 10.00 N. 83.01 W. (See Plan)

PORT LIMITS: Limits considered as arrival are 0.5-1.0 mile distance from breakwater, anchorage is required.

DOCUMENTS: Required by Port Authorities at Port Limon:

2 certified copies of Clearance from last port. (Zarpe) (original and dup.)

Crew List, 1 original legalised copy. 5 copies not legalised.

Passenger List, 1 original, 1 copy. 5 additional copies not legalised (if no passengers carried, this must be stated on the same document).

Maritime Health Certificate, 1 original, 1 copy.

Provisions List, not legalised : 7 copies.

Stowage Plan, not legalised : Total cargo on board, 4 copies.

Hatch List, not legalised: Total cargo on board, 4 copies.

Cargo Manifest, legalised (manifiestos de carga): From each calling port. 1 original, 1 copy. 30 additional copies, not legalised.

Bills of Lading: 4 sets.

Local Agents or General Agents require the following documents urgently, by Air Mail (Special Delivery), from each calling port directly to address in San Jose, Costa Rica.

2 sets Cargo Manifest – copies
2 sets Ship's Declaration
2 sets Bills of Lading.

If there are Ocean Freight rates to be collected at destinations, please send Agent by Air Mail (registered), the 3 originals and 2 copies, in order to get the payment of the freight rates in time.

Data in every document must be in Spanish or with proper translation.

PILOTAGE: Pilot boards ship with Port Authorities about 1 mile from pier. Also see "Shipmaster's Report".

ANCHORAGES: All anchorages are South-West of "Isla Uvita" in depths between 34 ft. – 36ft.

MAX. SIZE: See "Berthing".

HEALTH: In the event of contagious disease or fever being suspect on board, agency should be advised immediately.

RADIO: Call letters TIM, frequency 500 kHz and 8478 kHz – working hours 0400 to 1300 GMT.

Notice of Arrival: Radio Agent at least 24 hours before arrival, advising date and time of arrival, length, draft, number of passengers disembarking (if any), amount of cargo to discharge in metric tons, number of gangs required to work on board. This information is required by Port and Customs Authorities.

VHF: Port Authority on VHF Channel 16. All vessels anchoring in the port must communicate with the Pilot office on Channel 16.

TUGS: Two tugs are available, each with a capacity of 850 h.p., these are required for berthing and unberthing.

BERTHING:

Berth No.	*Usage*	*Depth (ft.) Fore*	*Aft*	*LOA (ft.)*
1	Conventional	32	29	600
2	Conventional	25	26	400
3	Conventional	29	30	450
4	For small craft			
5	Conventional	12	16	300
6	Ro/Ro	28	30	300
7	Conventional	29	35	500
8	Conventional	30	30	500
9	Conventional	18	28	200
10	Ro/Ro	32	30	800
11	Containers	33	33	705*
12	Containers	33	33	705

*35 ton container crane available.

Note: Measurements are given in feet. Berth Nos. 1–2 have a length of 1,020 ft. In order to use No. 2 berth Agents need to know or check LOA of the vessel at No. 1 berth, if it is less than 520 ft. it is possible to berth a vessel.

CRANES:

1 Portal Crane	10 ton capacity.
1 Grove Crane	30 ton capacity.
1 P & H Crane	50 ton capacity.
1 Liebherr Container Crane	45 tons, under hook, and 35 tons, under spreader.

STEVEDORES: ETA should be sent to Agent in due time. There are 2 stevedoring companies who work throughout 24 hours.

MEDICAL: No advance notice except in case of serious illness to be included in arrival notice, ample hospital facilities available.

TANKERS: See "Puerto Moin".

FRESH WATER: Available and obtained alongside pier delivered by hose, .5 to 2 t.p.h. cost $1.56 per ton.

FUEL: Any quantity can be obtained as there is a refinery at Limon.

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: One packet of cigarettes may be taken ashore. No alcohol may be taken ashore.

IDENTIFICATION CARDS: They are needed and supplied by the Agent.

CONSULS:

Colombia	Tel: 58.02.21	Nicaragua	Tel: 58.04.47
Ecuador		Norway	58.01.83
France	58.02.21	Panama	58.09.65
Honduras	58.03.13		

SURVEYORS: Lloyds, ABS and Norske Veritas.

REPAIRS: Minor repairs only.

REPATRIATION: Facilities available.

AIRPORT: 5 miles from city. 2 daily flights (except Sundays) to San Jose International Airport. Also air taxi service to the whole country.

TIME: Local time minus 6 hours.

HOLIDAYS: Holidays and days on which the port will remain closed:

1st January from 1200 hrs. to 0600 hrs. following day; Holy Thursday and Good Friday from 0001 hrs. on Thursday to 2400 hrs. on Friday; 1st May from 0001 hrs. to 2400 hrs.; 12th October from 0001 hrs. to 2400 hrs.; 24th December 1800 hrs. – 26th December 0001 hrs.

POLICE/AMBULANCE/FIRE: Police Tel: 117; Red Cross Ambulance Tel: 580125; Fire Tel: 118.

SHORE LEAVE: Crew members are allowed to go ashore.

BANKS:

Banco Popular.
Banco Nacional de Costa Rica.
Banco Anglo Costarricense.
Banco de Costa Rica.

STORING: Vessel can be stored by truck, which can proceed alongside the berth, local riggers can be employed.

GENERAL: There is a small surge alongside the berths in Port Limon, especially when winds coming from the South East, which occurs occasionally (August and September).

In Port Moin the surge occurs when winds come from the North, which occurs occasionally in the months of December and January.

SHIPMASTER'S REPORT: May 1984.

Before leaving Gulfport I contacted Standard Fruit Company at Boca Raton, Florida. They confirmed that the Pilot boards off Limon breakwater. They also confirmed that there is a heavy surge alongside the berths in Moin Bay due to the prevailing swell and that shore springs are not normally available at the cargo berths although they are supplied to tankers.

This vessel possesses 2×6 in. nylon tails and 2×3.25 in. mooring wires and these were made ready.

A cable was sent to the Agent at Limon requesting information concerning berthing arrangements. A reply was received to the effect that the ship would berth at the "German Wharf". This conveyed nothing to me at the time.

It turned out that the "German Wharf" is, in fact, the new container berth in Puerto Limon. This berth does not appear on the navigational chart but is shown in the "plan section" of "Guide to Port Entry".

The old banana berth at Puerto Limon is no longer used and all banana loading takes place at Puerto Moin. The Pilot confirmed that there is a heavy surge at Limon/Moin and also that newcomers to the trade are boarded off Limon whilst regular traders are met by the Pilot off Moin fairway buoy.

The "German Berth" is not supplied with shore springs and there is a considerable surge alongside. We secured starboard side to using 4 lines and 1 spring at each end plus the 2 wires with nylon tails. It is considered that the latter are essential in this port as considerable chaffing of the polypropylene lines can be expected.

The berth is provided with very effective sprung fenders but these ensure that the ship is held several feet off the quay. No shore gangway is supplied and access was by way of the accommodation ladder which was landed on the quay at an angle of about 30° to the ship's side. To avoid damage to the ladder due to surge it is essential that particularly secure moorings be used.

A powerful tug is available at Limon and another at Moin.

AUTHORITY: Junta de Administracion Portuaria y de Desarrollo Economico de la Vertiente Atlantica (JAPDEVA), Administracion Portuaria, Apartado "T", Puerto Limon, Costa Rica, Central America. *Tel:* 58.05.67. *Telex:* Japuer 8518. *Contact:* Reinaldo Maxwell Kennedy, Port Manager.

PUERTO MOIN: 10.00 N. 83.05 W. (See Plan)

PORT LIMITS: See "Puerto Limon".

DOCUMENTS: Required by Port Authorities at Port Moin:

2 Certified copies of Clearance from last port (Zarpe original and dup).

Crew List: 1 original legalised copy, 5 copies not legalised.

Passenger List: 1 original, 1 copy, 5 additional copies; not legalised (if no passengers carried; this must be stated on the same document).

Maritime Health Certificate: 1 original, 1 copy.

Provisions List, not legalised: 7 copies.

Stowage Plan, not legalised: Total cargo on board, 4 copies.

Hatch List, not legalised: Total cargo on board, 4 copies.

Cargo Manifest, legalised (manifiestos de carga): From each calling port 1 original, 1 copy, 30 additional copies, not legalised.

Bills of Lading: 4 sets.

Local Agents or General Agents require the following documents urgently, by air mail (special delivery), from each calling port directly to address in San Jose, Costa Rica.

2 sets Cargo Manifests – copies.
2 sets Bills of Lading.
2 sets Ship's Declaration.

If there are Ocean Freight rates to be collected at destinations, please send Agent by air mail (registeres), the 3 originals and 2 copies, in order to get the payment of the freight rates in time.

Data in every document must be in Spanish or with proper translation.

PILOTAGE: Pilot boards off Puerto Limon breakwater if first visit. Regular visitors take Pilot near Puerto Moin fairway buoy.

Also see "Puerto Limon" – Shipmaster's Report.

ANCHORAGES: One mile off piers.

MAX. SIZE: ~~Tankers up to 35 ft. draft. Also~~ S see "Berthing".

HEALTH: In the event of contagious disease or fever being suspected on board, Agency should be advised immediately.

RADIO: Call letters TIM, frequency 500 kHz and 8478 kHz; working hours: 0400 to 1300 GMT.

Notice of Arrival: Radio Agent at least 24 hours before arrival, advising date and time of arrival, number of passengers disembarking (if any), amount of cargo to discharge in metric tons, number of gangs required to work on board. This information is required by Port and Customs Authorities.

VHF: Port Authority on VHF Channel 16. All vessels anchoring in the port must communicate with the pilot office on Channel 16.

TUGS: Available if required.

BERTHING:

Berth No.	Usage	Depth(ft.) Fore	Depth(ft.) Aft	Length (ft.)
1	Bananas	39	39	659
2	Bananas	39	39	659
3	Ro-Ro – Oil Pier (MIXT)	47	47	715

STEVEDORES: ETA should be sent to Agent in due time. There are 3 stevedoring companies who work throughout 24 hours.

MEDICAL: Complete medical attention and hospital facilities available.

TANKERS: Berth No. 3 (oil pier) 47 ft. ~~draft.~~ DEPTH

Shore Lines:

Black/White: 2×20 in. lines and
2×10 in. hoses
Av. gas: 1×6 in. line and 1×6 in. hose.
LPG: 1×6 in. line and 1×6 in. hose.
Bunkers: 1×8 in. line and 1×8 in. hose.

FRESH WATER: Obtained alongside.

FUEL: See "Puerto Limon".

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: One packet of cigarettes may be taken ashore. No alcohol may be taken ashore.

IDENTIFICATION CARDS: They are needed and supplied by the Agent.

CONSULS:

Colombia	58 – 02 – 21	Ecuador	58 – 01 – 60
Honduras	58 – 03 – 13	Nicaragua	58 – 01 – 83
France	58 – 02 – 21	Panama	58 – 09 – 65
Norway	58 – 01 – 83		

SURVEYOR: Lloyd's, ABS and Norske Veritas.

REPAIRS: Minor repairs only.

REPATRIATION: Facilities available.

AIRPORT: 5 miles from city, 2 daily flghts (except Sundays), to San Jose International Airport. Also air-taxi service to the whole country.

TIME: Local time GMT minus 6 hours.

HOLIDAYS: Holidays and days on which the port will remain closed: From 0001 hrs. to 2400 hrs. 1st January, Holy Thursday and Good Friday; 1st May, 15th September, 12th October, 25th December.

POLICE/AMBULANCE/FIRE: Police tel. 117; Red Cross ambulance tel. 58 – 01 – 25; Fire tel. 118.

SHORE LEAVE: Crew members are allowed to go ashore.

GENERAL See "Puerto Limon".

AUTHORITY: See "Puerto Limon".

PUNTARENAS: 09.58 N. 84.49 W. (See

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DOCUMENTS: See "Caldera".

PILOTAGE: Pilots are available and compulsory, arranged by Agent. Signal for Port Captain and other officials is 2 long blasts.

ANCHORAGE: Vessels should keep Eastward of four submarine cables originating at Puntarenas where suitable anchorage may be found in 6 – 7 fathoms depth. Vessels should anchor as near the pier as safety permits to facilitate boarding by port officials.

RESTRICTIONS: Recommended that vessels not equipped with radar enter in daylight only.

HEALTH: Any vessel that enters this port has to be in possession of a Sanitary Manifest (Sanitary Maritime Declaration) signed by Master of vessel. In case of any suspected disease or fever aboard, Master to notify by radio to Port Authorities and vessel to wait outside the limit of territorial waters until clearance is given.

RADIO: Station call sign TIM, frequencies 8478 and 500 kHz. Working hours 0400-1300 GMT.

Notice of Arrival: Radio Agent at least 24 hours before arrival advising date and time of arrival, number passengers disembarking, if any, amount of cargo to discharge in metric tons, number of gangs to work on board. This information is required by Port and Customs Authorities.

TUGS: None available.

BERTHING: Vessels usually moor in daylight only. Unmooring night and day.

Muelle Nuevo: Pierhead runs East/West, connected to shore by 350 ft. gangway. One special heavy mooring line supplied from pier in addition to ship's ropes. Heavy surge experienced at the berth.

Berth No. 4 (outer berth): Length 140 m. Depth alongside 9.0 m. at LW.
Berth No. 5 (inner berth): Length 117 m. Depth alongside 7.5 m. at LW.

Berths No. 4 and 5 are out of service as they are in poor condition. All cargo operations handled at Caldera.

Also see "Caldera" – General.

There are lighters available for hire for vessels working cargo at the anchorage.

STEVEDORES: Available for work 24 hours a day.

MEDICAL: Facilities available at Puntarenas.

FRESH WATER: Available only from pier at Puntarenas.

FUEL: Not available.

IDENTIFICATION CARDS: Required.

TIME: GMT minus 6 hours.

TELEPHONES: No connection to vessels.

SHORE LEAVE: Allowed at Puntarenas.

SHIPMASTER'S REPORT: 1978.

Anchorage: Vessel originally anchored in the area marked (Pilots) on Chart B.A. 1931, but subsequently moved in to a position with the Light on the Pier bearing 332°(T) – 9 cables and lay to the starboard anchor, 3 shackles, in 6 fathoms of water. Other ships and draft permitting, it is safe to anchor 5 cables off the pier.

This is a quiet, safe anchorage. A Pilot is not used arriving and sailing from the anchorage, but is compulsory if berthing.

Berthing: There are two berths on the pier. As the port was very congested, we remained at anchor.

Communications: With the Charterer's Agents when at anchor, were by VHF, Channel 16. Long-range communication was by radio.

Documents: As per "Guide to Port Entry".

Cargo Work: Due to congestion, we waited 3.5 days to start work, although we only had a small quantity of cargo for discharge. When work did start, discharge was continuous and at a good rate.

I understand that ships loading export cargo receive preference for labour.

Pratique: Granted on arrival.

Provisions: Available, but great care is necessary with regard to price and quality.

Fresh Water: Normally available only when alongside the pier. As we were very short of water by the time we had been in port for a few days, we managed to obtain a minimum supply from a tug. This can only be obtained as an emergency measure.

General: It was noted that the Light on the Pier was flashing letter "P" in the Morse Code and was not Gp. Occ. (4) as shown on the Chart.

Shore Leave: A launch service was arranged through the Agents for this purpose.

AUTHORITY: Instituto Costarricense de Puertos del Pacifico, 001-5400 Puntarenas, Costa Rica. *Tel:* 61-06-28. *Telex:* 6045 Incop Cr. *Contact:* Lic. Rodrigo Arauz Bonilla, Presidente Ejecutivo.

Also see "Caldera".

Plan)

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GENERAL:

ARRIVAL ADVICE: ETA messages should be sent to Mambisas Havana when Havana is the first port of call, or to Mambisas (at port of call) and Mambisas Havana simultaneously, when the first port is other than Havana.

Mambisas Agency at the port where vessel was nominated for operation or call will advise Port Authorities and concerned parties, but this in no way relieves Masters from any specific obligation to advise other parties according to Charter Party, or orders received from Owners, Managers, Charterers, etc., to such effect. The following list of Agencies is in geographical order, starting from the Westernmost port Head Agency on the North coast (Mariel) in an Easterly direction, and from East to West on the South coast, ending at the sub-Agency of Nueva Gerona.

Mariel:	(including Santa Lucia, Bahia Honda and Cabanas): Mambisas Mariel.
Havana:	Mambisas Havana.
Matanzas:	Mambisas Matanzas.
Cardenas:	Mambisas Cardenas.
Isabela de Sagua:	Mambisas Sagua la Grande.
Caibarien	Mambisas Caibarien.
Nuevitas:	Mambisas Nuevitas.
Puerto Padre:	(including Manati): Mambisas Puerto Padre.
Antilla:	(including Banes, Felton, Preston, Nicaro, Tanamo and Vita): Mambisas Antilla.
Moa:	(including Punta Gorda): Mambisas Moa.
Guantanamo:	Mambisas Caimanera.
Santiago de Cuba:	Mambisas Santiago de Cuba.
Manzanillo:	(including Pilon, Niquero, Media Luna and Ceiba Hueca): Mambisas Manzanillo.
Guayabal:	Mambisas Santa Cruz Del Sur.
Cienfuegos:	(including Tunas de Zaza and Casilda): Mambisas Cienfuegos.
Nueva Gerona:	Mambisas Nueva Gerona.

PILOTAGE: Pilotage is compulsory for all foreign and Cuban vessels at all Cuban ports.

DOCUMENTS: Required on arrival at *every* port:

Sanitary Authorities:

1 Bill of Health.
1 Crew List.
2 Passenger Lists (if any).

Vaccination cards and Derat Certificate will be inspected by Authorities.

Immigration Authorities:

3 Crew Lists.
3 Passenger Lists (if any).

Customs Authorities:

3 Crew Lists.
3 Passenger Lists, including baggage (if any).
3 Crew Personal Effects Lists.
3 Copies Foreign Money List.
2 Provisions Lists.
2 Spares and Stores Lists.
3 Cargo Manifests (if any cargo on board).
3 In-Ballast Manifests (if no cargo on board).
3 Manifests of Cargo in care of the Master (if any).
1 Copy of Clearance from Last Port.

Agents:

4 Crew Lists.
3 Cargo Manifests
2 Copies each Bill of Lading.
3 Manifests of cargo in care of the Master.
6 Hatch Lists.
6 Stowage Plans.

Shipmaster's Comment: One Crew List returned to vessel stamped by Customs/Immigration for next port.

CERTIFICATES REQUIRED:

Ship's Register.
Safety Equipment.
Load Line.
Safety Radio.
Safety Construction.
Derat.

Instructions for Master of Vessel: How to process Custom's Model Dirad-7, in connection with crew's money control and personal effects.

Custom's inspector when boarding the vessel besides carrying out their usual duties, should deliver to the Master duly legalized, as many of these forms as members of the crew are reported on Crew List.

Legalization of these forms consists of Customs Inspector's signature, Customs stamps and consecutive numbering which indicates quantity of forms delivered to Master.

2. Ship's Master or Officer in charge should fill in only those spaces of the form as: crew member's name, number of passport, as well as ship's name and date of arrival in port, on the first page of the card.

Besides amount of money delivered to the crew member, date of delivery and signature must be shown as evidence that the crew member has been provided with the money, with signature of the Master alongside, all of this information appears on page 2 of the form (card).

In case crew member requires additional amount during vessel's stay in port, notation should be entered following the first, in same way.

3. No crew members, except the Master, are allowed to come in or leave the Custom House premises without presenting this form to the Custom's Inspector at the gate, who will enter therein the pertinent notations.

All these forms legalized by Customs must be carefully kept for subsequent delivery to Customs upon vessel's departure, even those that might become useless.

Should a crew member require more than 1 form because of that previously delivered having been filled up, or become useless, Master will give a new one which the crew member will present, together with the previous one, to Custom's Inspector at the gate. Thereafter, notations should be entered in the new form, the previous one must be returned to Master for subsequent delivery to Customs.

If at any time more forms are required because those previously delivered have become exhausted, they should be requested from Ship Clearance Department of the Custom House, phone 61-8572. After 1800 hrs. these should be requested from Guard Room, phone 6-9698.

4. Upon ship's sailing, Master will gather all the forms from the crew, delivering same to Custom's Inspector who boards the vessel and will perform the following verifications:

(a) To see that none of the legalization forms are missing.
(b) To verify that such forms have no alterations, erasures, etc.
(c) To add up total spent by all crew members and to verify it with amount settled with ship's Agents Consignatarias Mambisas.

5. Non-compliance with above instructions will subject the violator to corresponding penalty.

Director of Customs.

LOCAL TIME: Official local time in all Cuban territory is that for the 75th West Greenwich Meridian and there is a difference of 5 hours compared to GMT, that is, 1200 hrs. GMT is equivalent to 0700 hrs. local time.

From the last Sunday in April to the last Sunday in September, Summer Daylight Saving Time is in effect and the difference then is only of 4 hours, that is, 1200 hrs. GMT is equivalent to 0800 hrs. local time.

HEALTH AND SANITARY REQUIREMENTS: Free Pratique is automatic for vessels coming direct from another Cuban port; from foreign countries, usual procedure of Sanitary Inspection applies. In case of suspected disease or fever on board, Master must radio Mambisas Agency in order to advise the Health Office.

All crew and passengers must have vaccination cards up to date.

Below is copy of warning sent to us by a Ship's Master. The words in italics are the Master's comments.

National Veterinary Medicine Institute
Warning
Master:

You are kindly requested to comply with and acknowledge this warning regarding veterinary sanitary regulations and also to inform your crew members of same.

One Green Vet. Form given to ship to take to next Cuban port, one copy for ship also.

1. Refrigerators of vessels which contain in their victuals meat and meat products originated in countries declared as being affected with foot-and-mouth disease, Rinderpest, Vesicular stomatitis, African swine fever and other diseases non existent in the Republic of Cuba, shall be sealed while remaining in our territorial waters.

Sealed.

2. Milk, butter, cheese, fish and poultry products, as well as canned meat, and meat and meat products from Australia, New Zealand and Canada, are not subject to this procedure for the time being.

All victuals of animal origin must be declared to the Frontier Veterinary Services Officer.

3. Prohibitions:

(a) Arriving in port with live food animals (cattle, swine, poultry, etc.) on board, unless duly authorised by the Animal Health Authorities of the Republic of Cuba;

If pets on board – not allowed ashore.

(b) Unloading or releasing of any species of pet animals. These animals (birds included) are subject to quarantine control on board;
(c) Unloading of victuals of whatsoever origin, including those not subject to sealing procedures;
(d) Arriving in port with compartments or receptacles containing garbage;

Dump rubbish at sea 6 miles out from Cuba.

(e) Scattering of garbage containing food scraps, portions or other wastes of animal origin, or throwing them overboard into the sea or onto shore.

Cover garbage drums.

4. Ratguards must be placed once the vessel has docked.

Fines if not done or if they fall off!

5. Footwear and clothing of the crew members of ship coming from countries known to be affected with diseases dangerous to the fauna of the Republic of Cuba shall be subject to fumigation with formaldehyde gas.

6. Non-compliance of the sanitary regulations, or any action aimed to prejudice or evade them, shall be regarded as an offence liable to a fine of not less than $500.00 (Cuban Official Currency), or to the implementation, at the expense of the transgressor, of appropriate quarantine measures intended to minimise the consequences resulting therefrom.

The following is reproduced from a booklet given to Masters of arriving vessels. The booklet is produced by the Ships' Agent and dated 1983. Comments are made throughout the text by the Master who supplied us with an earlier booklet – such comments are reproduced in italics.

PORT REGULATIONS: In order that you may be properly informed, on not only Port and Cuban Government Regulations, but also on various matters related to the loading and/or discharging operations of your vessel, we wish to bring to your attention the following:

1. Crew Regulations (Important Notice to Masters)

(a) The Customs Authorities have put into effect new Regulations which the Masters of all vessels arriving at Cuban ports are under obligation to observe. The regulations in question are as follows:

First: The Master must advise vessel's ETA at least 24 hours in advance and is obliged to deliver to the Customs Authorities at the port of arrival the complementary documents to the Cargo and Passenger Manifest, which comprise:

(a) Hatch List, Hazardous Cargo List, Stowage Plan, Provisions, Accessories and Spare Parts List, Narcotics List (crew's usage). Firearms List and Clearance Certificate (from previous Cuban port). Ship's Register must be exhibited.

(b) List of crew belongings including objects, property of each crew member which he maintains on board for his use, such as, for instance, electric shaving machines, watches, radios, soaps, etc. *(4 copies required at every port – Declare everything in personal possession).* See "Shipmaster's Report".

(c) Detailed list of all articles transported by crew members free of charge, including those which are for his use on board, or that may be destined to other persons (men, women or children), such as for instance perfume, umbrellas, dresses, ladies stockings and lingerie, cloth to make dresses, etc. *(4 copies every port – declare everything and place in bond.)*

(d) Foreign currency whether convertible or not, must be declared on a crew list. *(4 copies required every port – placed in ship's safe).*
Narcotics List – 4 copies morphine only. Provisions List – not listed but requested.

(e) Upon vessel's arrival the Master will be provided with money control cards for each crew member which must be carried by them when going ashore and shown to Custom House Inspector whenever requested.

(f) Each crew member must declare the articles referred to in paragraphs (b), (c) and (d) immediately upon vessel's arrival, since Harbour Officers may search the vessel at any time they should deem convenient.

Second: Each crew member may keep in his cabin up to 200 cigarettes and a bottle of spirits.

Third: The importation into, and the exportation from the Republic of Cuba of Cuban currency is forbidden, and no crew member may have in his possession any amount in excess of that delivered to him by Master from the cash advanced by the agency.
(Collected and sealed in safe).

Fourth: Each crew member is allowed to have in his cabin, only those articles which are for his use on board. Any article in excess (more than 1 radio, 1 shaver, etc.) should be kept in the bond store.

Fifth: Any article not declared, or possessed by the crew member in excess of the amount allowed, also Cuban and foreign currency not properly accounted for, will be confiscated and should circumstances warrant, the courts of law will be informed, the latter having the right to impose penalties, or fines, depending on the value of the objects found in the crew member's possession. Immediately following the arrival of the vessel, the Master is under obligation to make these regulations known to each and every crew member, as the Customs Authorities will consider that the Master and the crew have been put on notice as to what is herein provided at the moment the vessel has been cleared through Customs, insofar as concerns any violation of the above referred to regulations.

Masters are likewise required to provide a place or space sufficiently ample to deposit the articles transported by the crew free of charge or, in other words, those articles referred to in paragraph (c) above.

Sixth:

(a) Crew members are not allowed to buy personal effects on shore, except in the sailors' or tourists' shops and the articles so obtained can not be sold to any other person.

(b) Except for the Pilots and the Public Health Officials, no other person can go on board and no crew member or passenger of vessels arriving at Cuban ports from abroad is allowed to disembark until the vessel has been cleared by the Immigration and Customs Authorities.

(c) Crew members, including Officers and Master, in addition to their standing passports or seaman's books, must be provided with immigration passes (landing cards) to go ashore.

(d) Depending upon the characteristics and circumstances of the different ports there might be certain limitations in the hours the crew may remain ashore. Port Authorities, through the Agent will advise the Master accordingly.

(e) Shore passes are confined to the city limits of the port where the ship is lying and whenever a crew member requires to move away from the said area, the corresponding permit must be obtained from the immigration port authorities through the agent. Each territorial infringement is subject to a fine.

(f) Upon arrival at Cuban port of any vessel proceeding from foreign country, the Immigration Authorities will deliver to Master the Entrance Certificate which is valid for all Cuban ports and will be under custody and preservation of the Master until final sailing.

(g) If a vessel enters into or sails from any Cuban port without having fulfilled all requisites or procedures of clearance and inspection of the Immigration Authorities it will be subject to a fine.

(h) To take away or to violate the seals or straps fixed by the Customs Authorities means vessel will be subject to sanction or fine.

2. Sanitary Regulations

(a) Following docking, crew members are not allowed to go down to the pier to fix the ratguards or the gangway until the Sanitary Inspection (Free Pratique) has been completed and for non fulfilment of this regulation a fine of 2,000 pesos will be imposed on the Master.

(b) Thereafter, ratguards are to be kept in proper place otherwise the Master shall be liable to as many fines as there are ratguards missing.

(c) If any crew member should go down to the pier from a vessel which is under sanitary observation, the vessel will be penalised with a 5,000 pesos fine.

(d) Vessels proceeding from countries affected by animal diseases which do not exist in Cuba, are subject to full disinfection at the time when the sanitary veterinarian authorities of the Republic of Cuba deem it convenient.

Phytosanitary Regulations

(a) The Master has to deliver to the Phytosanitary inspectors the following documents:
– Phytosanitary certificate of all vegetable origin or regulated cargo carried by the vessel.
– Fumigation certificate, if said cargo was fumigated before arriving at Cuban port.
– Copy of cargo plan.
– Copy of provisions list.

(b) It is forbidden to withdraw from the vessel while at Cuban ports, products of vegetable origin (fruits, fresh vegetables, plants, parts of plants and seeds), soil or organic materials, origin, of micro-organisms, insects, acarus and threadworm in any state of their biological cycle.

(c) The waste of vegetable origin must be hermetically packed in plastic bags and treated as instructed for garbage in article 7 here below.

Veterinary Sanitary Control – Complete sealing of ships' refrigerators which contain dangerous victuals.

(a) It is hereby instructed that the refrigerators of Cuban and foreign flag vessels which contain in their victuals meats and cattle products originating in countries affected by bovine pest, vesicular stomatitis, African pork pest and other animal diseases not existent in Cuba, must be completely sealed.

Exempt from the above are cattle products industrially canned, salted butter and cured cheese destined to be consumed only aboard ship.

(b) Only ships' refrigerators which contain victuals of animal origin shall be sealed. Compartments where vegetables and other victuals are kept, will not be sealed.

(c) Ships' refrigerators will be opened under Veterinary supervision. *(US $5.00 each time).*

(d) Meats and other animal products purchased in Cuba must be so placed in the refrigerator that they will not enter into contact with similar products purchased abroad.

(e) Sealing of ships' refrigerators will apply to vessels at berth as well as to vessels at anchorage.

(f) Sealing must be performed in an effective manner. To this end, it is necessary to verify that it was done correctly; a sufficient enough depression of the seal which makes it impossible to withdraw the wire.

(g) It is forbidden to have on board live animals for consumption and to fish using baits of animal origin.

(h) Any pets carried by the ship will be placed in quarantine aboard.

(i) For the breaking of the seal or the violation of any of these dispositions the Master will be brought to Court where according to the Law the corresponding penalty or fine will be imposed.

3. Labour Regulations

In accordance with Resolution of the Cuban Labour Ministry, it is forbidden for vessels' crews, during their stay in port, to do work that should be performed by port labourers, such as loading or discharging, rigging booms, driving winches, opening and closing hatches, (except MacGregor type or any other type of special mechanical system), laying wood or paper dunnage, construction of stalls, etc. Therefore you should apply to us in writing, so that arrangements can be made for the necessary port labour to perform such work.

Please note that if any of the work described were to be done by ship's crew, port labourers must be paid as if they had actually performed the services.

4. Bunkers

Should your vessel be bunkering at this port, it is necessary that we be notified in advance, so that appropriate arrangements can be made not only with the local suppliers, but also to comply with government regulations, which provide that funds to cover the cost of bunkers be received from the Owners *or Charterers* prior to delivery. Since this procedure takes a few days, it is suggested that any request for bunkers be made with due anticipation.

When delivery of bunkers is to be made in the port of Havana, the order or requisition must be sent to the suppliers at least 2 days in advance of the desired date of delivery, and 3 days in advance when delivery is to be made at a port other than Havana.

5. Galley Oil or Coal

The above requirements for bunkers do not, of course, apply to galley oil or coal as this item, if needed, is to be purchased directly by the ship from a shipchandler.

6. Cleaning

In accordance with Port Regulations, this work must be performed by local shore labour. The cleaning work done by shore labour is limited to only the sweeping of cargo compartments.

7. Garbage: *(Vessel needed 10 drums).*

Port and Customs Regulations forbid the throwing of garbage on to the pier or into the sea while the vessel is within the harbour limits.

According to Sanitary Regulations vessels must arrive at each Cuban port of call with the garbage deposits or tanks empty.

Garbage cannot be thrown into the sea inside Cuban territorial waters. While in port the garbage must be hermetically packed in plastic bags and kept in drums with fitted covers.

Drums, in clean and hygienic condition, are to be placed in a properly selected place in the vessel until the bags are delivered to the garbage collector.

The services of the garbage collector must be requested by the Master, who can apply for it through the Agent.

For the non compliance of this regulation the ship will be subject to a fine.

8. Cash to Master *(Owners must remit cash in advance).*

Cash advances authorised by Owners or Charterers will be supplied to the Master upon request. Such request is to be made during office hours and the money will be delivered at the Agent's place of business.

Upon completion of loading and/or discharging operations, any unused funds of Cuban Currency must be handed over to the Local Agent; in other words, Cuban Currency left over from a cash advance drawn at one port cannot be returned or used at any other port.

However, further cash advances may be requested at the next Cuban port of call.

9. Damage to Cargo

As you undoubtedly realise, it is necessary to establish with the utmost degree of accuracy possible with whom the responsibility for damage to cargo lies, whether for vessel's or stevedores' account.

To ascertain this, the Terminals in Cuba employ Damage Inspectors to take note of all cargo that is found on board in damaged condition prior to its discharge from the ship, and the Master or Chief Officer is asked to sign an acknowledgement. Therefore, we suggest that in order to avoid unnecessary discrepancies between the vessel and the Terminal, and to properly protect the Owners' interests, you please instruct your cargo officer to coordinate his work in this connection with that of the Terminal Damage Inspector. Upon completion of discharge operations, the Terminal will submit to the Master for signature the relevant Survey Report.

Should you Note Protest owing to bad weather on the voyage or any other reason whatsoever, since the note must be presented to Harbour Master within 24 hours after ships' arrival, it must be handed to the Agent with time enough to prepare translation. One copy of the Note of Protest should be delivered to the Agent for record purposes.

10. Stevedore Damage to the Ship *(Stevedores usually repair damage).*

Any damage caused to the vessel during the loading and/or discharging operation, should be reported immediately to the Head Discharging Foreman on the Terminal, followed by a written notice to us in duplicate. Such notice should be made out within 24 hours following the incident, otherwise the Terminal will not accept any claim.

11. Repairs for Vessel's Account

Any repair work to be done for vessel's account must be requested in writing, sufficiently in advance of vessel's estimated departure in order to obtain from the repair shop the budget for the work, in the event of course, that the job can be done locally.

12. Engine Repairs or Engine Overhaul while in port

In the event vessel requires engine repairs or an engine overhaul (usually performed by the ship's crew) even if berthed at a pier or dock in port, it is necessary that the Master so informs his Agents before undertaking such work in order that his Agents may, in turn, notify all parties concerned, and obtain necessary authorisation from Harbour Master.

Read Charter Party/"Baltime" usually 24 hours' notice for engine cleaning.

The reason for this is that it may be necessary to shift the vessel from one berth to another, for any reason whatsoever, and it is necessary to know in advance if the vessel can move with her own engines or whether tugboats will be required for the movement. In the latter case it is of course understood that the cost of tugboats will be for vessel's account.

13. Hull Repairs and Maintenance

It is forbidden to perform any repairs or welding work in the hull, without obtaining, through the Agent, the previous authorisation of the Maritime Safety Office.

14. Redelivery

If your vessel is to be re-delivered at this port, this should be made known to us as soon as possible after arrival here, for although we may be aware of this fact, there is a possibility we might be lacking the necessary details concerning the terms of re-delivery.

15. Lowering Boats *(Apply in writing).*

Port regulations prohibit the lowering of boats except for fire drill or to do maintenance work of the ship (painting, etc.). For either of these purposes, a permit is required from the Harbour Master, and the crews of such boats are not allowed to land on any pier or board any vessel in the harbour. Please be informed that our Ministry of the Interior has issued the following instructions to be strictly observed by the Masters of all foreign vessels during their stay at Cuban ports:

(a) When a vessel is carrying out paint work or similar tasks while in port, at the end of the day's work the craft or boat used to perform the work should under no circumstances remain in the water, but must be hoisted aboard to be again lowered the following day or whenever the work is resumed.

16. Radio Communications

Vessels within harbour limits are not allowed to transmit messages by radio.

17. Port Expenses

The bills covering port expenses will be submitted for your approval and signature, prior to vessel's departure from this port, regardless of the fact that such expenses might be for Owner's or Charterer's account, as this can subsequently be easily determined by examination of the Charter Party. However, if we are to obtain reimbursement for the amounts expended to cover port expenses, it is necessary that your approval and signature be secured.

Mark Owner's account or Charterers' account.

18. Stowaways

(a) In the event of vessels arriving from foreign countries, carrying stowaways or persons without documents, the Master or the Shipowner must advise the Immigration Control of the port immediately, who in turn, will advise them of the respective regulations in force.

(b) Masters are kindly requested to instruct all ships' officers that every possible precaution should be taken to prevent stowaways.

(c) Whenever the Master of a vessel finds a stowaway on board, either in port or outside the port's limits but within Cuban territorial waters, he is under obligation to deliver same to the Port Unit and Harbour Master's Authorities of the Frontier Guard Troops. If the stowaway is found outside the port, the Master must report this by radio so that the stowaway may be picked up by Port Unit and Harbour Master's Authorities of the Frontier Guard Troops.

(d) At no time are the Masters of vessels allowed to lower rope ladders or ropes on the vessel opposite the dock where the ship is berthed.

19. Paper and Dunnage: (very important).

In the event that your vessel is scheduled to load sugar in bags, citrus fruits, cement, etc., in Cuba and should you require paper and/or wood dunnage, you must make known to us your needs in writing as soon as possible, bearing in mind that the suppliers require at least five (5) days for delivery.

20. Loading Sugar

Whenever your vessel is assigned to load sugar the following precautions are to be taken:

(a) Cleaning and Dunnaging of Hatches: You must be extremely careful to have the vessel's hatches thoroughly dry, clean and without odour, as well as properly dunnaged to the satisfaction of the shippers, before starting loading.

(b) Cleaning Holds: In order to avoid damage to the sugar cargo during the voyage, please make proper arrangements for the closing of holds before starting loading in 'tweendecks.

(c) Tally: With respect to the dispute that occasionally arises between the vessel and the shippers during the course of loading sugar shipments regarding the number of bags delivered on board, we wish to inform you that the only document with official validity is the tally sheet prepared by the shore tallyman assigned to each loading hatch, and that if you wish to verify the accuracy of said tallying you could hire a tallyman's service, through the Agency, in those ports where we have this service available, to count the cargo jointly with the shore tallyman, as this is the only possible way of avoiding discrepancies in the checking of the bags actually delivered on board.

Consequently, we request that you please keep the above in mind, as this will tend to reduce if not completely eliminate, the problems which are now being confronted.

21. Agency Office Hours

We list hereunder our office hours:

From Monday to Friday: 0800 to 1200, 1300 to 1700.

Saturday: 0800 to 1200.

Our representatives will call on the ship as regularly as possible to discuss with the Master any matter or problem he may have in connection with the operations of his vessel and to deliver the crew's mail; however, such calls are contingent upon the volume of work, for which reason we suggest that the Master calls at our office when any matter arises which requires immediate attention.

22. VHF Communication System

The VHF (150 MHz) communication system is officially established between most of our Agencies and ships in port or close to port. Normally, service will be provided during the Agency's regular office hours only, but this work schedule will be expanded in the near future, as is now at our Havana Agency, where service is granted 24 hours a day.

Havana Pilot Channel 16. Agent's Channel 12.

23. Medical and Dental Services

Any man requiring medical or dental attention should be sent to our office whenever possible, with a letter from Master containing full name and rank, at 0800 or 1300 hrs. from Monday to Friday, and we will see to it that he is promptly sent in a car to the hospital and back to the ship afterwards.

In the event of an accident or serious illness, please contact Mambisas Agency on the telephone, and an ambulance will be sent immediately to transport the man to the hospital.

24. Safety Measures

(a) Vessels are obliged to have on-board the manoeuvre and safety elements indicated in the International rules and regulations. Any vessel lacking or having in bad condition any of these elements (defective derricks, lack of electricity, etc.) will not be brought to pier and if berthed will be removed at vessel's expense.

(b) The Master must remove anything protruding from the vessel, like boats, anchors, booms, etc., or overhanging, like tackles and riggings whenever they constitute a risk or danger for the workers, port installations, other vessels, etc., or whenever they interfere with the operations.

25. Other Regulations

(a) Any exchange of provisions, films, spare parts or any kind of object, etc., between vessels in any port, requires the previous authorisation of the Customs House. Therefore, in order to apply for this permit, Masters are kindly requested to give a letter to the Agent detailing all articles that are to be transferred.

(b) It is forbidden, unless previously authorised by Customs House:
   to bring ashore any article or merchandise.
   to allow any boat, launch, tugboat or any other type of craft, to approach to the vessel at a distance of less than 25 m. except for the purpose of transferring passengers or to perform any service duly authorised.
   to lower ladders on any side of the vessel.

(c) All provisions, belongings and spare parts not declared in the corresponding documents, or found on board in excess of those declared, will be confiscated. This is valid also for the commercial stores of passenger vessels.

(d) Any mistake in the manifest must be amended within 48 hours after arrival of the vessel.

(e) All articles carried on board and destined for Cuban territory, must be declared in the cargo manifest or in the complementary documents.

26. Important Notice

Pollution: Very strict regulations are in force and Port Authorities keep a close watch on this matter. It is absolutely forbidden to pump or throw out of the ship, oil, dirty water, wastes of animal origin, dunnage wood, or any kind of Liquid or substance into the sea, whether inside or outside the ports and any infringement will bring the Master to Court.

FROM INFORMATION BOOKLET COMPILED BY MAMBISAS AGENCIES

USE OF SOUND SIGNALS IN PORT: It is prohibited to use sound signals except those internationally known for safe navigation, fire or emergency.

DRY DOCK: There is a dry dock at the port of Havana with berthing capacity of 440 ft. length and 91 ft. width which can accommodate vessels up to 23 ft. draft.

SURVEYORS: Following surveyors are established in Cuba:

Cuban Maritime Regulation Surveyors, Bureau Veritas, Lloyd's Register, German Lloyd and U.S.S.R. Ship's Register.

Above listed surveyors should be contacted through the Consignataria Mambisas main office.

EIGHT HOURS DAILY WORK: We wish to call attention to the fact that although the working periods observed at the various Cuban Ports vary considerably, as for example, the port of Jucaro where the period is from 0600 – 1000 hrs., 1200 – 1600 hrs.; Caibarien 0700 – 1100 hrs., 1200 – 1600 hrs.; Havana 0700 – 1300 hrs., 1300 – 1900 hrs. etc., and others from 0700 – 1100 hrs., 1300 – 1700 hrs.

Labour Legislation presently in force provides that the number of hours to be worked is 8 hours daily, from Monday to Friday, and 4 hours on Saturday, for a total of 44 hours weekly.

HOLIDAYS:

National Anniversaries	*Holidays*
January 1st.	July 25th.
May 1st.	July 27th.
July 26th.	Sundays
October 10th.	

REPATRIATION: There are good facilities and repatriation can be arranged through Mambisas Agency.

SHIPMASTER'S COMMENTS: Also see "Shipmaster's Report" for Nuevitas dated February 1984.

Fresh Water: Always take full fresh water. Water barges available at Havana and Santiago. No fresh water at Jucaro or Boca Grande.

Documents: Sample crew manifest to avoid confiscation: 2 Radios, packet of paints, tape recorder (Akai), gloves, speakers, star plotter, cassette tapes, set of ship plans, earphones, plastic mac, 3 prs. sunglasses, dress uniform, calculator, battle dress uniform, matchstick model ship, brown suit, plastic battleship model, blue coat, bridge coat, 10 packs glue, grey trousers, 1 pk. razor blades, 3 khaki shirts, 1 Fernox medicine, 1 Savlon cream, 3 khaki shorts, 3 balsa cement, 5 uniform shirts, 1 stop watch, 1 briefcase, 2 coloured shirts, 1 tee shirt, 1 knapsack, 6 uniform white shirts, 1 photographic bag, 3 white shorts, assorted films, 4 ties, 2 cravats, 1 brown cardigan, 1 pullover, 1 dressing gown, 1 pair longjohns, 1 pr. sandals, 2 alarm clocks, 1 sextant, 4 watches, 1 boiler suit, 3 plastic trays, 2 beakers, 1 belt, 2 toy engines, cellotape, 14 wagons, gold braid, 8 points, keys, 8 curved rails, tape recorder cords, 4 vests, swimming trunks, 5 pants, 1 blue socks, 5 brown socks, 6 white socks, 1 cap cover, 1 pr. pyjamas, 1 silk scarf, 1 pr. black shoes, 1 pr. brown shoes, toilet articles, 1 copy stand, 1 enlarger, assorted chemicals, powersaw, typewriter, calculator, adding machine, 4 packs tea, 4 cameras, 1 lens, 1 light meter, 3M duplicator, binoculars, Sanyo tape cassette, assorted perfumes and curios. 1 kitbag, 1 flip-flops.

200 cigarettes, 1 spirits, number cans of beer, number of bottles of wine.

If in doubt – put it in a suitcase and lock it in the bonded store!

SHIPMASTER'S REPORT: December 1983.

All foreign currencies must be declared and may be used freely ashore.

A landing pass and foreign currency pass is issued to each member of the crew and they are to be accompanied by Seaman's ID Card or Discharge Book when going ashore.

A cabin is to be set aside and marked Transit Room. Would advise that anything and everything that is not required during your stay in Cuba be put in a suitcase and lodged in the Transit Room which is sealed on arrival and then left alone. All cameras must be placed under seal on arrival (i.e. in the Transit Room). Permission is granted to use them in Havana but was not allowed in Nuevitas.

A strict Customs search usually follows arrival with every cabin and compartment thoroughly searched. This vessel was not searched by Customs at Havana but was at Nuevitas.

Prior to departure from each Cuban port the vessel is searched by Harbour Master Guards.

On the whole relationship between ship and Authorities was good. The Agents proved very helpful and telex communication was satisfactory.

Only meats of origin U.S.A., Australia and New Zealand are permitted to be used whilst vessel is at a Cuban port.

The Port Authorities are very strict regarding rat guards which must be checked at frequent intervals, also garbage which must be placed in sealed bags ready for collection by shore labour.

ANTILLA: 20.50 N. 75.44 W. (See Plan)
(and sub-ports of Felton, Nicaro and Preston)

LOCATION: The Port of Antilla is located on the North side of Nipe Bay, on the North Coast of Cuba: Lat. 20° 50′ N., Long. 75° 44′ W.

Nipe is the largest bay in Cuba and is considered among the biggest in the world.

Within Nipe Bay there are 3 ports: Felton, Preston and Antilla, Antilla being the head port of a region, and very important because of its natural resources in agriculture, mining, etc., as well as for sugar industries close to the port.

The Antilla Agency attends also at the following ports: Preston, Felton, Nicaro, Banes, Tanamo and, temporarily at Vita.

Nipe Bay is suitable for large vessels of any length and up to 20 m. draft, which can anchor in the vicinity of buoy No. 9, (La Estrella Shoal) inside the triangle formed by Pt. Saetia, Pt. Berraco and La Estrella Shoal.

Antilla is a very efficient port in all respects but as a sugar shipping port ranks among the best in the nation.

ENTRANCE TO PORT: Entrance to Nipe Bay is safe and free of risks. Limitations as to length and draft of vessels are only those imposed by the places of operations or ports.

Entrance channel is ample (0.75 miles wide at its head and 0.33 miles at its narrowest point, located South of Pt. Caimanes), having a minimum depth of 150 ft. up to Saetia Anchorage.

From Saetia up to Antilla piers the distance is 10 miles.

Navigating toward Western Nipe Bay, in the direction of Antilla, after Saetia is past, to the South can be seen: Cayagima Cove, Point Cobos, the mouth of Mayari River and the Port of Preston.

To the North can be seen after departing from Saetia: the town of Ramon, located on high lands at the back of Melilla Cove, Pt. Berraco, Pt. Las Chivas, Honda Cove, Pt. Salinita, Hermenegildo Cove, Pt. Negra, Felipe Cove, Pt. Carbonera and Pt. Salina.

From the latter onward, Antilla's piers channel is navigated, and to the North can be seen Pt. Barrancones, Marbella Cay and finally the town and port of Antilla.

PILOT: *Where Pilot should be taken and distance to place of operation:*

The place where Pilots board the vessels nominated to perform operations at Antilla, Preston, Felton, Banes or Nicaro, is located at 1 mile N.E. of Point Mayari, that is in an East/West line from Pt. Mayari lighthouse on the course of the bearings indicated by the port chart.

The exact position where Pilots board vessels is: Lat. 20° 47′ 46″ N., Long. 75° 32′ 15″ W.

From this point the distances to the ports are:

	Miles to pier	*Miles to anchorage*
Antilla	13	13.5
Preston	6.5	6.5
Felton	5	4
Nicaro	13	12
Banes	17	17
Fondeadero Saetia	2.5	

Point Mayari Lighthouse consists of a conical/cylindrical steel tower, painted aluminium, 40 ft. tall and its light is visible up to 10 miles away.

As the pilot station is located in Antilla, upon receipt of an ETA message from an incoming vessel, Mambisas Agency immediately informs the Pilots who depart accordingly to Saetia to await the vessel.

Once the Pilot is in Saetia it is almost impossible to communicate with him, therefore Masters must exert care in sending ETA messages to Antilla in order to offer the Pilots the closest ETA at Pt. Mayari, thus avoiding unnecessary problems for Pilots or delays to ship.

ANCHORAGES: Anchorages at Nipe Bay are used only when waiting for berth, or at Saetia, to await favourable tide to enter Banes or Nicaro.

No operations are performed at anchorages.

Saetia Anchorage: Located about 1,000 m. West of Pt. Carenero (Saetia).

Limitations: Draft 20 m., Length: No limitations. Swinging area: About 800 m.

3 vessels (557 ft. in length) or one supertanker can be accommodated at this anchorage.

The bottom is soft mud but anchors hold well, ships usually anchor with 4 or 5 shackles of chain.

In front of this anchorage is the small town and beach of Saetia.

Usually this anchorage is used by vessels destined for Felton or to await favourable tide to enter the ports of Banes or Nicaro.

La Chiva Anchorage: Located at about 1.25 miles from Pt. Berraco, to the North on the Melilla Heights, the small town of Ramon can be seen.

Limitations: Draft 20 m., Length: No limitations. Swinging area: About 900 m.

Can accommodate two 557 ft. length vessels or 1 supertanker.

The bottom is hard sandy mud with loose stones and anchor holding is good. It is sheltered from the winds by Melilla Heights.

Ships usually anchor with 3 or 4 shackles of chain.

This anchorage is used for similar reasons as Saetia.

Cajimaya Anchorage: Located just in front of the port of Felton.

Limitations: Draft 32 ft., Length 600 ft. Swinging area: About 400 m.

2 vessels can be accommodated at anchorage.

The bottom is soft mud but anchors hold well.

Sheltered from winds by Saetia mountains, ships usually anchor with 3 or 4 shackles of chain.

This anchorage is used by vessels awaiting berth at Felton.

Pt. Salinas Anchorage: Located about 500 m. S.S.W. of buoy marking Salina Grande Shoal; Antilla Town is about 3 miles to the N.W. and at a similar distance is Preston to the S.S.W.

Limitations: Draft 31 ft., Length: No limitation. Swinging area: About 500 m.

Four or five regular size vessels can be accommodated at this anchorage.

The bottom is soft mud but anchors hold well.

It is not sheltered from winds, being located in a spot where, when there is bad weather, the sea becomes rough.

Usually vessels anchor with 3 shackles of chain.

This anchorage is used by vessels awaiting berth at Antilla.

Preston Anchorage: Located about 1,200 m. N.N.W. of the head of Preston pier; to the South of the small town of Guatemala (formerly Preston) sugar mill can be seen.

Limitations: Draft 30 ft., Length: No limitations. Swinging area: About 1,000 m.

Three or four regular size vessels can be accommodated at this anchorage.

The bottom is soft mud but anchors hold well, anchorage is open to the winds.

Usually vessels anchor with 3 shackles of chain, depending on wind force.

This anchorage is used by vessels awaiting berth at Preston.

Corojal Anchorage: Located about 320 m. N.W. from Antilla pier head, just in front of Antilla town.

Limitations: Draft 18 ft., Length 557 ft. Swinging area: About 180 m.

Anchorage can accommodate 1 vessel only.

Bottom is soft mud but anchors hold well.

Anchorage is open to the winds and vessels anchor with 2 shackles of chain, depending on wind force.

This anchorage is used to wait for Port Doctor visit in cases of incoming vessels from foreign countries and also to await berth at Antilla.

Antilla Anchorage No. 2: Located about 700 m. from Antilla pier head.

Limitations: Draft 23 ft., Length 500 ft. Swinging area: About 300 m.

Anchorage can accommodate 1 vessel only.

Bottom is soft mud but anchors hold well.

It is open to the winds and vessels anchor with 3 or 4 shackles of chain. If strong winds do blow, then vessels drop another anchor to reduce the swinging action.

This anchorage has the same use as Corojal Anchorage.

Saetia, La Chiva and Cajimaya Anchorages have no transportation service; the remaining anchorages have launch service available, if requested by Masters.

MAX. SIZE: Vessels' maximum official draft and length allowed to enter or sail from Antilla are: Length 557 ft., draft 21 ft. fore, 23 ft. aft.

Regarding length of 557 ft., it is the maximum advisable for dry cargo vessels.

Tankers having a length of 610 ft. have called at this port to load molasses.

Entrance to or sailing from Nipe Bay and Antilla can be effected either during day or night-time.

CLEARANCE: All Port Authorities, Port Doctor, Customs, Immigration and Captain of the Port have their offices at Antilla. Vessels may proceed directly to sub-ports without entering Antilla for clearance. Port Authorities clear ships at sub-port when necessary.

Launch service is the preferable means of transportation used by the Port Authorities to the various sub-ports under Antilla jurisdiction.

There are Custom House Delegations at sub-ports of Preston, Nicaro, but no Immigration. The Custom House Delegate at the sub-port of Nicaro also acts as Delegate for the Captain of the Port.

Although there is no Port Doctor Delegate at the sub-ports, the General Hospital Doctors may act as such, if requested, in order to give a quick entry to the ship.

Notwithstanding the above, in those cases when a ship is coming from a Cuban or foreign port, destined to Nicaro, and happens to lose the slack water tide, it will be necessary for the ship to anchor at Saetia (Antilla) and to wait the next tide. In these particular cases the Port Authorities give entry to the ship at Saetia anchorage, and it is not necessary for another Port Authority visit at the sub-port of Nicaro.

RADIO: At Antilla, means of communications are: Telephone, telegraph, radiograms RCA System, telex and Post Office.

The Antilla Agency is connected to the National Telex System, which is the quickest means of communication.

Vessels proceeding to Cuba can communicate with Mambisas Antilla Agency through "CLA" Havana Radio Station which immediately relays the messages to Antilla by radiograms, telegraph or telex.

Masters must send their ETA messages simultaneously on VHF Channel 16 to Mambisas Antilla and Mambisas Havana.

TUGS: No tug is required for entry to Antilla. There is a tug available 24 hours of the day, but service must be requested at least 24 hours in advance. Name, *Macabi;* length, 81 ft. 1 in.; width, 24 ft. 0 in.; gross tonnage, 183.53; net tonnage, 86.00; motor, one diesel; h.p., 750; speed, 8.5 knots.

BERTHING: The 3 berthing spaces of this port have standard gauge railroad tracks.

Each pier is connected with 1 railway which is independent of the others, but with no car outlet at end of piers, consequently, to perform any movement, it is necessary to take out the remaining cars. For that reason, there is no road connecting the piers, and since piers are not paved, trucking operations cannot be performed.

Pier No. 4

North Side: Length 458 ft., maximum length vessel allowed 557 ft., draft 17 ft. forward and 23 ft. aft.

South Side: Length 458 ft., maximum length vessel allowed 557 ft., draft 21 ft. forward and 23 ft. aft.

The construction of this pier is concrete, that is the platform and the piling. It is protected by hard wood fenders and has a fixed red light at the S.W. end.

Cargo handled: Bagged raw sugar, molasses, general cargo.

Coast Pier: Length 398 ft., draft 20 ft. even keel., maximum advisable vessel length for operation 455 ft.

Construction of this pier is similar to Pier No. 4, concrete piling and platform, and, in fact, is really a continuation of Pier No. 4 South Side and for that reason if a vessel longer than 455 ft. is docked at this pier, it is in detriment to the operations of vessel docked at No. 4 South Side, which will have part of its length outside the pier.

Cargo handled by this pier: Bagged sugar, general cargo, gasoline, kerosene and diesel oil.

Diesel oil, kerosene, gasoline: Connections 1×8 in., 1×6 in. and 1×4 in. diameter.

STEVEDORES: Working periods – loading sugar; Monday to Friday – 0700 – 1100/1300 – 1700 hrs. Saturday – 0700 – 1100/1300 – 1700 hrs. Sunday – no work performed.

Labour legislation presently in force provides that the number of hours to be worked is 8 hours daily, from Monday to Friday, and 4 hours on Saturday, for a total of 44 hours weekly.

Capacity: Three ships can be performing sugar loading operations simultaneously, although the labour force available is for a total of 12 gangs.

1. Raw Sugar: *(a)* Loading rate: 1,330 bags of raw sugar (of the 220-pound type) per 4 hours per gang. *(b)* Bags per sling: 6 bags of raw sugar (of the 220-pound type).

2. Refined Sugar: *(a)* Loading rate: 2,100 bags of refined sugar (of the 100-pound type) per 4 hours per gang. *(b)* Bags per sling: 12 bags of refined sugar (of the 100-pound type).

No shore crane available at this port, but there are 5 machine throwers for bulk sugar operations, grates and canvas funnel, etc. These machines function with diesel motors.

Sugar bags are opened in the square of the hatch.

TANKERS: Molasses pumping rate is at an average of 35,000 gallons per hour. Two connections 1×8 in., 1×12 in. diameter.

MEDICAL: There is a hospital where crew members may be hospitalised.

WATER: *(Potable or for boilers):*

Small amounts of water (about 30 tons) can be delivered if requested 48 hours in advance.

Water is brought to the port by railroad tank-cars from distant places, and is pumped directly to ships by portable pump.

Water deliveries at Antilla are deficient and not reliable, because on occasions there are no tank-cars available.

Price: $4.83 per ton FOB, delivery rate 15 t.p.h.

Daily delivery rate cannot be determined due to unreliability of transportation.

FUEL: Not available.

PAPER/WOOD DUNNAGE: It is advisable that vessels nominated for operations at Antilla, or any of the ports listed as attended by Antilla Agency, arrive with enough wood dunnage.

Wood dunnage, although not impossible to obtain, sometimes is hard to secure, and to avoid delays it is better to have the vessel supplied at a prior port of call.

Paper is supplied if ordered at least 3 days in advance.

REPAIRS: No repairs can be performed.

DEVELOPMENTS: It is planned to build at this port, among other improvements, a bulk raw sugar shipping plant.

AGENT: Attending the port of Antilla, and the sub-ports of Preston, Nicaro and Felton, also the port of Banes.

Agency Address: Empresa Consignataria Mambisa, Agencia Antilla, Avenida 28 de Enero No. 67, Apartado No. 52, Antilla, Prov. de Oriente. Telephone: 98248 and 98225 (office); 98580 (night). Telex: 21302. Cables: Mambisas Antilla.

Agency VHF works on Channel 16.

Mail and Parcels: Should be sent to the Main Office at Havana from where it will be sent to Antilla by the quickest means possible.

SUB-PORTS:

Distance from Antilla to:

Preston (Guatemala), 7 miles.

Felton, 11 miles.

Nicaro, 14 miles.

To the port of Banes, which is attended by Antilla Agency, 50 km. Highway transportation is used from Antilla to Banes.

Time from Antilla to:

Sub-port	*Launch*	*Highway*
Preston	1 hour	1 hour 45 minutes
Felton	1 hour 30 minutes	2 hours 15 minutes
Nicaro	2 hours	3 hours

There is only a regular launch service from Antilla to Nicaro, leaving daily from coastal pier Antilla at 0900 hrs., arriving Nicaro at 1100 hrs.

(a) SUB-PORT OF PRESTON (GUATEMALA):

LOCATION: This port is located on the North coast of Cuba: Lat. 20° 46′ N., Long. 75° 40′ W.

Preston is one of the 3 ports located within Nipe Bay and is situated on the South coast of said bay, on a peninsula named "Punta Tabaco", S.E. of Antilla.

Traditionally this port has shipped the production of "Guatemala" sugar mill (formerly "Preston") which ranks among the biggest in the sugar industry.

Mayari River flows to the East and close to the port, and maintenance dredging is necessary alongside pier to preserve the depth required.

Dredging is effected at the West side of pier as the East side is not used.

PILOT: From the place where Pilots board the vessels to Preston pier the distance is 6.5 miles.

ENTRANCE TO PORT/CONDITIONS/LIMITATIONS: As is described under Antilla, up to Pt. Carenero (Saetia), the channel is common to the 3 ports located in Nipe Bay.

On reaching Pt. Carenero, vessels take a course Northwestward in the direction of the buoy marking "La Estrella" Shoal and then take a course W.S.W. up to Preston pier.

On the North side can be seen: Pt. Piedra, Melilla Cove and on the hills the town of Ramon. Pt. Las Chivas and the rest of coast of the bay up to Antilla port and town, which is clearly visible.

On the South side can be seen: The entrance to Cajimaya Cove and Felton town, Pt. Cobos, light buoy No. 5 marking "La Estrella" Shoal, the mouth of Mayari River and lastly the town and port of Preston.

There are no limitations as to vessel's length, and max. draft allowed is 25 ft., which is imposed by pier's depth.

Entrance to or sailing from Preston can be effected during day or night-time, generally without tugboat assistance, except when there is flood tide or wind interference, then tugboat assistance is required.

TIDAL VARIATION: Tidal variation at this port averages from 2.25 ft. to 2.5 ft.

CLEARANCE: See "Antilla". Port Doctor, Immigration and Port Captain travel from Antilla to Preston to give ship's entry. Custom Delegation at this sub-port only occasionally, and in order to avoid delay Preston Hospital Doctor clears the ship.

Vessel can proceed directly to this sub-port, since Port Authorities come from Antilla to give ship's entry.

RADIO: See "Antilla".

TUGS: See "Antilla". No tug available, but can be obtained from Antilla.

BERTHING: Preston pier is located at the Northern extremity of Punta Tabaco.

Its construction is entirely of hardwood, including its piling, and at the moment it is not in good condition and requires rebuilding.

Along the pier run double standard railroad tracks but there is no outlet at pier's end.

Guatemala Pier: (Formerly Preston Pier) Overall length: 1,036 ft. – berthing length: 586 ft. Draft: 25 ft. even keel. No limitations as to vessel's length. Water available, but bunkers not available.

No cargo operations are conducted in the bay.

STEVEDORES: Loading sugar – working period (max. 4 gangs). Monday to Friday: 0700 – 1100/1300 – 1700 hrs. Saturday: 0700 – 1100 hrs. Sunday: No work is performed.

General cargo: No discharging operation is performed at this port.

Labour legislation presently in force provides that the number of hours to be worked is 8 hours daily, from Monday to Friday, and 4 hours on Saturday, for a total of 44 hours weekly.

Raw sugar-loading rate: About 1,330 bags of raw sugar (of the 220-pound type) per 4 hours per gang.

Bags per sling: 6 bags of raw sugar (of the 220-pound type).

Operational capacity: At this sub-port only one vessel at a time can be operated.

Refined sugar: No refined sugar has been shipped by this sub-port.

Equipment: There is one movable shore crane available with lifting capacity of about 60 tons with 75° boom inclination. Boom length 50 ft. Crane is mounted on a railroad flat car which is operated by steam supplied by an adapted boiler. As the greater part of the year this crane remains idle, it is possible that its lifting capacity might have decreased. Five grates, but no thrower machines.

TANKERS: Molasses pumping rate average of 75,000 gallons per hour.

Fuel Oil: 2 connections – 1×8 in., 1×10 in. diameter.

Molasses: 2 connections – 1×8 in., 1×10 in. diameter.

MEDICAL: There is a hospital at Preston which offers very good service to ship's crew. In cases requiring special attention, patients can be taken to Holguin, where there are reliable specialists.

WATER: *(Potable or for Boilers):* Delivered by pipe-line to ships while docked to Preston pier. Delivery rates: During sugar harvesting season, from 5 to 10 tons daily, only during night-time, otherwise from 40 to 50 tons daily, depending upon the pressure on the line.

FUEL: Not available.

REPAIRS: No repairs can be performed at Preston.

TRANSPORTATION: Usually transportation between Preston and Antilla (and other nearby ports) is performed by launch and also by road.

From Preston there are the following distances and travelling time to:

	by launch	*by road*
Antilla	7 miles – 1 hour	1 hour 45 minutes
Nicaro	8 miles – 1 hour	1 hour 15 minutes
Felton	5 miles – 45 minutes	45 minutes

COMMUNICATIONS: Vessels cannot communicate directly with Preston. Means of communications between Felton and Antilla (and other nearby ports) is only by telephone.

Telephone communications are rather irregular and sometimes are the cause of delays in urgent matters.

PORT AUXILIARY EQUIPMENT: This port has no auxiliary equipment.

AGENT: See "Antilla".

(b) SUB-PORT OF NICARO (LENGUA DE PAJARO) LEVISA BAY:

LOCATION: Lat. 20° 43′ N., Long. 75° 33′ W. **(See Plan)**

The port of Nicaro is situated inside Levisa Bay, on a small peninsula named "Lengua de Pajaro", located at the Southwestern part of the bay.

Levisa Bay is landlocked, sheltered and moderately ample. Its shores are rather irregular due to numerous points, creeks, coves and inlets. The centre of the bay is free of cays, but close to the coast and around it, there are several cays.

Ample zones of shoals almost entirely cover its extension, except the channels and the anchorage zones.

Nicaro region is very rich in mineral fields and the port is used principally to export the production of the mining enterprise located there.

At the West side and next to Levisa Bay, Nipe Bay is located, and to the East, having a common entrance, which is divided as a fork by Pt. Dos Bahias, is Cabonico Bay.

PILOT: Distance from the place where Pilots board the vessels to Nicaro anchorage is 12 miles, to Nicaro pier 13 miles.

ENTRANCE TO PORT/CONDITIONS/LIMITATIONS: The entrance channel for the port of Nicaro is difficult for vessels over 350 ft. length, due to its narrowness and because of having sharp turns, some of them forming angles of almost 90°. Also, its bottom and banks are rock and coral. Regarding draft it offers no obstacles as there are about 174 ft. and 47 ft. depths max./min. respectively.

To minimise all risks and perform a fairly safe crossing of the entrance channel, while entering to or sailing from this port, the following measures must be accomplished:

(i) Entrance or sailing to be effected only during daylight hours, at slack water.

(ii) Tugboat assistance is required for vessels exceeding 350 ft. in length.

(iii) Vessel's length should not exceed 500 ft., the extreme max. length allowed, if really necessary, being 513 ft.

(iv) Simultaneous entrance or sailing of 2 or more vessels is not permitted.

Channel is navigable by only one course.

Max. draft allowed to vessels operating at Nicaro pier is 28 ft. forward and 29 ft. aft. (at low tide).

As vessels larger than 350 ft. length require tugboat and it is obtained from the nearby port of Antilla, it is necessary that vessels assigned to perform operations at Nicaro advise their ETA with sufficient time in advance to vessel's arrival.

The restrictions for vessels to sail or enter this port during night-time are due to the port conditions such as: lack of light buoys in the bay and the channel, as well as the inherent dangers in the channel due to its narrowness and its winding shape.

ANCHORAGES: There are two anchorages at Nicaro:

Anchorage No. 1: Located at about 1,200 m. S.W. of Pt. Gorda and 1,500 m. N.N.E. of Raton Cay.

Limitations: Draft: 30 ft. – Vessel's length: 513 ft.

Swinging area: About 200 m.

Can accommodate 1 vessel only.

Soft mud bottom but anchors hold well.

It is open to the winds. Usually vessels anchor with 2 or 3 shackles of chain.

Anchorage No. 2: Located at about 1,000 m. N.E. of pier's head.

Limitations: Draft: 30 ft. Vessel's length: 513 ft.

Swinging area: About 200 m.

Can accommodate 1 vessel only.

Soft mud bottom but anchors hold well.

It is open to the winds, usually vessels anchor with 2 or 3 shackles of chain.

At both anchorages launch service is available at Master's request.

TIDAL VARIATION: Tidal variation averages from 2.25 ft. to 2.5 ft.

CLEARANCE: Although Nicaro, under Cuban Customs Laws and Regulations, is a sub-port of Antilla, all Authorities are located at Nicaro (delegations).

RADIO: Vessels proceeding to Cuba can communicate with Antilla Agency through "CLA" Havana Radio Station which promptly relays the message to Antilla.

Vessels cannot communicate directly with the port of Nicaro.

Masters must send their ETA messages simultaneously to Mambisas Antilla and Mambisas Havana.

Means of communications at Nicaro are:

Long distance telephone, RCA System Radiograms and telegraph.

Telephone communications are rather irregular and difficult, therefore any instruction or sudden change in previous instruction to vessels operating at Nicaro may not be delivered in time.

TUGS: Obtained from port of Antilla. Therefore it is recommended that when vessels are assigned to this sub-port, advice of their ETA be given with sufficient time prior to vessels' arrival. Particulars of tugboats are shown under "Antilla" information.

BERTHING: The place of operation of Nicaro is its pier, a large installation built of reinforced concrete, 690 ft. long, of which, counting from the head of pier, 450 ft. corresponds to the berthing area, and the remaining 240 ft. is the narrow part of pier connecting with the shore, not used for operations.

Along both sides of pier run railroad tracks of standard gauge, and also trucks can operate.

At the South side of pier, mounted on rails, there is a gantry crane.

The boom of the crane is about 50 ft. long and although mounted on the South side, can also operate at the North side, which is not often done because it loses much in efficiency and speed.

The crane is electrically powered and its accessories are: A grab 1.5 tons and another 3 tons capacity, steel slings, special slings for loading nickel, etc. It can lift up to 20 tons.

This equipment, excluding ship's tackle, is the only equipment available for loading or discharging at this port.

Both sides of pier have muddy bottom.

Nicaro Pier.

Overall length: 690 ft. Berthing length: 450 ft.

Max. length allowed to vessels: 513 ft.

No bunkers available.

North Side:

Draft: 26 ft. 6 in. forward and 29 ft. aft.

Kind of cargoes handled by this side: Bagged raw sugar, general cargo, fuel oil, diesel oil and liquid ammonia.

Water available by pipe-line.

Tanker Information:

Liquid ammonia: 2×6 in. diameter.

Fuel oil: 2×8 in. diameter.

Diesel oil: 1×6 in. diameter.

South Side:

Draft: 28 ft. forward and 29 ft. aft.

Kind of cargoes handled by this side:

Anthracite coal, nickel oxide, nickel sinter, bagged raw sugar, general cargo.

Water available by pipe-line.

This side of pier was dredged in 1969.

Port can operate 2 vessels at a time: One dry cargo vessel loading or discharging and 1 tanker vessel.

At the present time the port does not have enough personnel to operate 2 dry cargo vessels at a time.

No cargo operations are carried out in the bay.

STEVEDORES: Loading or unloading of general cargo, nickel, mineral coal, etc., is performed by port workmen of sub-port of Nicaro.

Raw sugar-loading rate. At present, average loading rate in a period of 4 hours per gang, is about 1,330 bags.

Bags per sling (Guatemala sugar): 6 bags of raw sugar (of 220 pound type) per sling. Nicaragua sugar: 6 bags of raw sugar (of 220 pound type) per sling. Sugar bags from sugar mills Guatemala and Nicaragua are transported from respective mills to Nicaro in railroad flat cars, already slung.

Refined sugar. No refined sugar is exported.

General cargo discharging rate. General cargo of a fragile nature and careful handling: about 5 tons per gang hour. General cargo of sturdy nature and easy handling about 20 tons per gang hour.

Bagged cargo: about 30 tons per gang hour.

Mineral coal: at present the shore crane is averaging 110 t.p.h.

Nickel: at an average of 800 bags (26 tons) per gang hour.

Bulk sugar: no bulk sugar equipment available. In those cases when bulk sugar operations are performed, the necessary equipment is obtained from sub-port of Preston.

Working Hours: Sugar: Monday to Friday: 0700 – 1100 hrs., 1300 – 1700 hrs. Saturday: 0700 – 1100 hrs.

Nickel loading and other cargoes: Monday to Friday: 0800 – 1130 hrs.,1230 – 1700 hrs. Saturday: Same periods.

On Sundays the port does not perform any work, except discharging of tanker vessels.

Labour legislation presently in force provides that the numbers of hours to be worked is 8 hours daily, from Monday to Friday, and 4 hours on Saturday, for a total of 44 hours weekly.

TANKERS: No molasses or alcohol re-loaded. Only fuel oil, liquid ammonia and gas oil are discharged. Average discharging of fuel oil at present is about 400 t.p.h. Liquid ammonia discharge averages about 27 metric t.p.h.

MEDICAL: Hospital at Nicaro offers good service to ships' crew members. In case of special attention, the patient can be taken to Holguin, where there are reliable specialists.

Dental care is available at Levisa, 6 km. distant.

WATER: *(Potable or for boilers):* It is supplied to vessels while docked to Nicaro Pier (both sides). Average delivery rate: 30 t.p.h.

Water is usually delivered by night in order not to disturb the Nickel Plant production, although, occasionally it is delivered during the daytime. Vessels must furnish the hoses.

FUEL: Not available.

REPAIRS: There is no repair shop at this port.

DISTANCES: The nautical distance between Nicaro and Antilla for vessels drawing over 6 ft. draft is 24 miles. For small craft drawing less than 6 ft. the distance is 14 miles. By highway, 130 km. from Nicaro to Antilla.

Sea transportation takes 1 hour 45 minutes, and highway 2 hours 30 minutes. There is a daily launch service between Nicaro and Antilla. Launch leaves Antilla 0930 hrs. arriving at Nicaro at 1130 hrs. and a launch leaves Nicaro at 0930 hrs. arriving at Antilla at 1130 hrs.

AUTHORITY: Sub-port of Nicaro is under Antilla Custom House jurisdiction. There is a Custom House Delegate at this sub-port, who acts as a Delegate of the Captain of the Port.

Vessels at Nicaro are handled by personnel of Antilla offices who visit Nicaro, and are located at Oficina de la Marina, Tel. 216. In case this office is closed, these personnel could also be contacted through Customs House telephone of Nicaro.

AGENT: Antilla Agency personnel attend. Agent has a small office, close to the pier, telephone number 62.

(c) SUB-PORT OF FELTON:

LOCATION: Lat. 20° 44′ 45″ N., Long. 75° 35′ 40″ W. **(See Plan)**

Felton, as are Antilla and Preston, is located in Nipe Bay and is the closest port to the Bay entrance.

It is located 1.75 miles to the S.W. of Saetia, just in Cajimaya Cove and 3 miles East of Preston.

At the present time this port mainly handles the importations of raw materials for the fertiliser plant in the vicinity of the port.

PILOT: From the place where Pilot boards the vessel to Felton Pier there is a distance of 5 miles.

ENTRANCE TO PORT/CONDITIONS/LIMITATIONS: As described under Antilla, up to Pt. Carenero (Saetia), the channel is common to the three ports located in Nipe Bay.

On reaching Pt. Carenero, vessels turn course Southward seeking Felton Channel and after four changes in the pilotage route the port is seen.

The most remarkable points of visual orientation after Pt. Carenero is sailed past, are:

On the East side: Saetia Cay, Points Campeador No. 1, 2 and 3; light buoys Nos. 1-A and 3-A (green light) and the unlit buoys indicating the port channel.

On the West side: Pt. Cobos, Pt. Largo, the town of Felton and the unlit buoys marking the channel.

Entrance to the port up to Cajimaya Anchorage can be effected either in day or night-time, but docking or undocking is performed only during daylight hours, if it is not windy.

Limitations as to draft and length of vessels are those imposed by the place of operation or Cajimaya Anchorage. Anchorage for this port is Cajimaya Anchorage, but Saetia Anchorage can also be used.

TIDAL VARIATION: Tidal variation at this port averages from 2.25 ft. to 2.5 ft.

CLEARANCE: Vessels can proceed directly to Felton, as Port Authorities from Antilla are taken by launch to visit vessel at Felton pier, or at sea in Cagimaya Anchorage.

RADIO: Ships can communicate with Felton by wireless via CLA, but it is recommended that ETA messages be given to Mambisas Antilla and Mambisas Havana simultaneously.

The means of communication between Felton and Antilla are telephone and telegraph.

BERTHING: The place of operation of Felton is a solid coastal-pier built of concrete, although vessels are not docked directly at it.

Vessels are berthed to 3 solid steel dolphins, the first and the third being spaced 350 ft. apart.

Dolphins are located at about 50 ft. from the side of the pier and therefore vessels are 50 ft. off the pier.

Pier is located at the East side of that portion of land on Nipe Bay and runs from North to South.

Besides the three solid dolphins, vessels are secured also to two mooring buoys located 250 m. to the West, in front of and parallel to the pier.

There is an electric shore crane mounted on rails that runs along the pier, which is used mainly for the discharge of bulk raw materials for fertilisers, with a 4 ton grab. If the grab is removed the crane is capable of lifting up to 40 tons, and can be used for the discharging of heavy equipment, such as tractors, bulldozers, etc. This crane has a wide field of operation.

Also in operation at this port is a device called "Unicular", a kind of hopper-car, which runs on rails from the hatch of the vessel to the pier, and is loaded by ship's gear to its full capacity of 3 tons.

Taking into consideration the characteristics of pier, the manoeuvring basin and the approach channel to place of operations, the following regulations must be followed:

Vessels up to 500 ft. length:

Can dock without tugboat assistance, during daylight hours, if the wind and sea do not interfere with the manoeuvres.

Same conditions for undocking.

Maximum draft allowed 28 ft.

Vessels longer than 500 ft. and up to a maximum of 557 ft. length:

(a) Assistance of tugboat, of 750 h.p. or more, is required.
(b) Vessels must dock with bow facing North.
(c) Docking must be effected during flood tide.
(d) Condition of sea and wind at the time of docking must be taken into consideration in order to avoid interference of wind and sea with the manoeuvres.
(e) Maximum draft allowed is 26 ft. or 27 ft., depending on the type of vessel, its manoeuvrability, etc.

Tanker Information: Fuel oil: 1×8 in. diameter.

For discharging fertiliser raw materials or fuel oil, 24 hours a day are worked, Saturdays and Sundays included. For general cargo, when occasionally discharged, from 0700 hrs. to 1500 hrs. Monday to Saturday. Berthing space of this port only permits operating 1 vessel at a time.

No cargo operations conducted in bay.

MEDICAL: There is a small hospital at Felton where crew members requiring medical and dental care are attended.

Cases requiring surgical or specialised treatment, are sent either to Mayari Hospital or Lenin Hospital, at Holguin.

FRESH WATER: Temporarily no water available at Felton.

FUEL: Not available.

REPAIRS: Cannot be performed at this port.

TRANSPORTATION: Usual means of transportation between Felton and Antilla, and other nearby ports, is by launch and also by road.

From Felton there are the following distances and travelling time to:

	By launch	By road
Antilla	11 miles – 1 hr. 30 min.	2 hrs. 30 min.
Nicaro	3 miles – 30 min.	50 min.
Preston	4 miles – 40 min.	1 hr.

DEVELOPMENTS: Specialised fertiliser unloading equipment to be introduced at port.

AUTHORITY: The Port Authorities are located at Antilla and visit Felton as necessary.

AGENT: See "Antilla". Mail should be sent through Antilla's main office by registered mail. Spares by railway express to Antilla.

BANES: 20.54 N. 75.41 W.

LOCATION: Banes is located on the North coast of Cuba: Lat. 20° 53′ N., Long. 75° 40′ W.

Banes is a sheltered, land-locked port located next and to the West of Nipe Bay.

Traditionally this port used to ship raw sugar and molasses, that is, the production of "Nicaragua" sugar mill, formerly "Boston".

Due to limitations imposed by the characteristics of this port to the length of vessels, and the constant increase in size and tonnage of vessels operating currently in Cuba, gradually the port lost its use and importance, and nowadays is only used for coastal trade.

While approaching Banes, the points of visual orientation are:

Banes Bay Light, shown from a red iron skeleton structure, 30 ft. above sea level, situated about 400 yds. Southward of Pt. Fuerte. A small house located on the Southern side of the entrance to bay, and the port entrance itself, cliffs at both sides and forming a remarkable canyon.

Banes port mouth lighthouse is located on the Western extremity of Caracolillo Beach, between Pt. Fuerte and Pt. Penasco.

At the extremity of Pt. Penasco there is a masonry house, visible up to 2 or 3 miles away.

PILOTAGE: Vessels should pick up Pilot at 20° 53′ N., 75° 29′ W., 1 mile N.E. of Banes Canyon Lighthouse. Pilot station located at Embarcadero (Banes). Agent informs Pilot of ship's arrival by means of local telephone. Distance from point where Pilot boards vessel to pier is about 6 miles.

RESTRICTIONS: Entrance is through narrow channel with sharp turns where there is a strong current. For this reason vessels can only enter on slack water tide and during daylight. Assistance of tug necessary for entering and sailing. Bottom and banks are rock and coral. Depth about 60 ft.

MAX. SIZE: Max. length due to characteristic of channel is of 360 ft. Due to insufficient water at pier, and in bay, ships are limited to draft 19 ft. forward and 23 ft. aft.

Average of about 2 ft. 4 in. between high and low tides.

ANCHORAGES: *Macabi Anchorage:* Located S.S.W. of Nicaragua Pier.

Limitations: Max. draft 31 ft., max. length 360 ft. Swinging area: About 620 m.

Anchorage can accommodate 2 or 3 vessels.

Bottom is soft mud but anchors hold well and vessels anchor with 3 or 4 shackles of chain.

TUGS: At present no tug available, but when needed same is requested from Antilla. Particulars of tug shown under Antilla information.

RADIO: Ships can communicate with port by wireless via CLA, but recommended that ETA message be sent to Antilla Agency, simultaneously advising Mambisas Havana.

MEDICAL: There is a hospital where sick crew members may be hospitalised. Dental care is also available.

BERTHING: Nicaragua Pier (formerly Banes Pier): Length 240 ft., max. length allowed to vessels 360 ft., draft 19 ft. forward and 23 ft. aft.

The pier is built entirely of wood and in need of repairs.

Only 1 vessel can be berthed.

At the present time only cargo handled is the discharge of fuel oil (coastal trade).

Tanker Information: Fuel oil: 1×8 in. diameter.

No cargo operations performed at anchorage.

STEVEDORES: *Working Periods:* For discharge of fuel oil: 24 hours a day, 7 days a week.

Dry cargo vessels operate Monday to Friday: 0700 – 1100 hrs., 1300 – 1700 hrs. Saturday: 0700 – 1100 hrs. Sunday: No work performed.

Labour legislation presently in force provides that the number of hours to be worked is 8 hours daily, from Monday to Friday; and 4 hours on Saturday, for a total of 44 hours weekly.

FRESH WATER: Fresh water supplied, delivered by 3 in. diameter pipeline, with average delivery 4 t.p.h.

FUEL: Not available.

REPAIRS: No repairs can be effected at this port.

TRANSPORTATION: Transportation between Nicaragua Pier and Antilla or Banes is by road. From the pier to Banes there is a distance of 15 km. and to Antilla 50 km.

COMMUNICATIONS: Only means of communications between Antilla and Banes are telephone and telegraph.

PORT AUTHORITIES: All Port Authorities are located at Antilla except Port Captaincy which is located at Banes.

Authorities travel from Antilla to clear vessels at Banes.

AGENT: See "Antilla".

For information regarding ship's operations, Antilla Agency should be contacted. Antilla office personnel travel to Banes to attend vessels operating there. Any mail should be addressed to Antilla Agency. Spare parts by railway express.

BARACOA: 20.21 N. 74.30 W. (See Plan)
(and sub-ports of Moa and Punta Gorda)

LOCATION: This port is located on the North coast of the extreme Eastern portion of Cuba in Oriente Province:

Lat: 20° 21′ N., Long: 74° 30′ W.

Its bay is fan shaped and is almost in its entirety sand and mud bottom, 325 yds. in width at its entrance, and opens out to 1,150 yds. in a N.W. and S.W. direction, and 800 yds. in breadth.

Its shores are bordered by sand banks.

"Buren", an isolated rock visible only at low tide, lies about 30 yds. North-Westward of Pt. Barlovento; the sea always breaks on it; it is steep-to and constitutes the only danger.

S.E. of the town is Miel Bay where excellent anchorage is available.

PILOTAGE: Pilots board vessels 2 miles off port. Pilot station located in Baracoa City. Distance from point where Pilots board vessels to operation place (anchorage) is about 2 miles.

RESTRICTIONS: Vessels can enter port only during daylight.

MAX. SIZE: Entrance channel straight – without turns. Vessels up to 400 ft. length and 28 ft. draft can enter through Channel. Two to 3 ft. rise of tide.

TUGS: Not available.

STEVEDORES: No pier at this port. Vessels anchor in bay for operations. Several barges, capacity 100 tons.

Only one vessel can be handled at a time.

Working periods: Monday to Friday 0700 – 1100 hrs., 1300 – 1700 hrs.; Saturday 0700 – 1100 hrs.

Labour legislation presently in force provides that the number of hours to be worked is 8 hours daily, from Monday to Friday, and 4 hours on Saturday, for a total of 44 hours weekly.

Discharge rate: about 80 tons daily per gang.

RADIO: Vessels navigating to Baracoa can communicate with the Port Agency through "CLA" Havana Radio Station which relays the messages promptly to Baracoa.

Masters must send their ETA messages simultaneously to Simon Baracoa and Mambisas Havana.

MEDICAL: There is a general hospital for sick crew.

FUEL/FRESH WATER/REPAIRS: Not available.

TRANSPORTATION: Transportation to and from Baracoa is difficult.

There is daily air service and also bus service to Moa and other towns in the province, but best advisable means of travel is by car.

AUTHORITY: Port Authorities located at Baracoa. They have Delegation at Sub-port of Moa.

AGENT: See "Moa".

(a) SUB-PORT OF MOA (Moa Bay): 20.41.15 N. 74.52.30 W. (See Plan)

Vessels can proceed directly to sub-ports of Moa and Punta Gorda where they are visited by Customs Authorities.

LOCATION: The port of Moa is situated in the rear part of Yaguasey Bay, where in an artificial inner harbour lies the pier of Moa, and at the entrance of the inner harbour a small coastal trade pier.

Both the port of Moa and the sub-port of Punta Gorda mainly handle the imports and exports of the huge mining enterprise, Major Pedro Soto Alba.

PILOTAGE: Pilots board vessels at Moa Port mouth which is distant about 2 miles from entrance. Pilot station located at Punta Gorda at distance of about 5 miles from port entrance. Distance from point where Pilot boards vessel to Darsena de Moa (pier) is about 4 miles; to Moa Anchorage about 2 miles.

ENTRANCE TO PORT/CONDITIONS/LIMITATIONS: Entrance channel to Moa is almost straight having two very slight turns, minimum depth on its course is 40 ft. and length and draft limitations to enter to or sail from this port are those imposed by Moa pier and inner harbour:

Draft: Vessels drawing 28 ft. 6 in. can enter/sail at any tide, those drawing more than 28 ft. 6 in. up to 30 ft. only at high tide.

Length: 500 ft.

Channel bottom from its head up to the pier is as follows: From the head to Grande or Del Medio Shoal, coral and rocks; then up to Yaguasey Bay, coral and mud; and on its final stretch to the pier, hard red mud.

Length of channel: 1,560 m.; minimum width 200 m. and maximum 720 m.

For both, Moa and Punta Gorda, entrance to or sailing from, can only be performed during daylight.

As tidal currents average only 1.25 m.p.h., and since the inner harbour is almost devoid of currents, it is not necessary to wait for slack water for entering, sailing or crossing the channels.

Approaching the port of Moa, at both sides of port entrance, strings of breakwaters can be seen.

Behind the Western side breakwater, Moa Grande Cay is conspicuous and a lighthouse rises at about the middle of its North coast.

ANCHORAGES: Moa: *Anchorage No. 1:* Located Northward of Fabrica River and S.E. of Pt. Pajaros: Lat. 20° 40′ 38″ N., Long. 74° 53′ 10″ W.

Minimum depth: 38 ft. Swinging area: 250 m.

Anchorage No. 2: Located Northward of Fabrica River and South of the Eastern extreme of Moa Grande Cay: Lat. 20° 40′ 35″ N., Long. 74° 53′ 28″ W.

Minimum depth: 37 ft. Swinging area: 250 m.

Anchorage No. 3: Located N.W. of Del Medio Shoal: Lat. 20° 40′ 32″ N., Long. 74° 54′ 04″ W.

Minimum depth: 68 ft. Swinging area: 300 m.

Anchorage No. 4: Located Northward of Del Medio Shoal: Lat. 20° 40′ 43″ N., Long. 74° 52′ 30″ W.

Minimum depth: 41 ft. Swinging area: 250 m.

Although above anchorages are listed under the port of Moa, they can be used if necessary, for shipping or unloading cargoes destined to Punta Gorda.

TIDAL VARIATION: Tidal variation at these ports averages 30 in.

TUGS: Tug used at Moa for docking. Tug operated by Mining Enterprises.

RADIO: There is a Government Radio Station at Moa.

Vessels navigating to Cuba can communicate with Mambisas Moa through "CLA" Havana Radio Station and the message will be relayed to Moa by telegraph or telex.

Masters must send their ETA messages to Moa or Punta Gorda, simultaneously to Mambisas Moa and Mambisas Habana.

BERTHING: *(a) Moa Pier* (Also known as Moa Darsena): It is a solid concrete construction in an artificial inner harbour. Berthing length: 308 ft. Max. length permitted to vessels: 500 ft. Draft: Vessels drawing 28 ft. 6 in. can enter/sail at any tide, those drawing more than 28 ft. 6 in. up to 30 ft. only at high tide.

Due to pier dimensions, only 4 hatches can be worked at a time, but despite above limitations, occasionally larger vessels have been operated.

Cargo handled by this pier: Importation: Bulk sulphur, empty ore containers, occasionally general cargo.

Exportation: Nickel and cobalt concentrate in containers and drums.

Coastal trade: Discharge of fuel oil, diesel oil, kerosene, gasoline, sulphuric acid.

Tanker Information: Mining Enterprise: Gasoline/kerosene: one connection 6 in. diameter. Fuel oil: 4 connections 8 in. diameter.

ICP: Gasoline/kerosene/diesel oil: one connection 6 in. diameter.

(b) Coastal Trade Pier: It is a small coastal pier for small vessels, located at the entrance of the inner harbour. Constructed of piles and filled with earth.

Cargo handled by this pier: Coastal trade, general cargo.

No cargo operations in the bay.

STEVEDORES: *Working Hours:* Monday to Friday 0700 – 1100 hrs., 1300 – 1700 hrs. Saturdays 0700 – 1100 hrs.
EQUIPMENT: 1 shore crane 30 tons with 3 tons grab; 4 contact grabs; 2 trucks 30 tons capacity each; 1 pay loader; 2 fork lift trucks; 1 stationary crane; 1 steel barge 500 tons capacity; 1 tugboat (2 diesel engines 180 h.p. each).

Loading/discharging operations: Raw material for the nickel plant is imported as well as fuel oil. Nickel concentrate is exported.

Loading/discharging rate – Nickel (in containers): loaded at a rate of approximately 30 tons per hour-gang.
MEDICAL: Industrial Hospital where crew members can be hospitalised. General Hospital at Baracoa.
FUEL: Not available.
FRESH WATER: Delivery at rate of about 10 t.p.h.
REPAIRS: There are machine shops at nickel plant where small emergency repairs can be performed.
AUTHORITY: Port Doctor, Customs and Port Captain Delegations at this sub-port. Immigration Delegate is the same one who attends vessels at Baracoa and other sub-ports. Vessels can proceed directly to Moa where they are cleared by Port Authorities. Means of transportation from Baracoa to Moa or other sub-ports are: air, launch and overland (jeep). Customs House inspectors travel from Moa to Baracoa.

Baracoa to Moa about 32 miles distant. Following services used: by plane, 20 minutes; by launch, 6 hours; by jeep, 5 hours. Daily flights and regular bus services.
AGENT: Empresa Consignataria Mambisa, Agencia Moa, Reparto "Rolo Monterrey" No. 163, Moa, Prov. de Oriente. Telephone: 7527 (day) 7105 (night). Telex: 021123. Cable: Mambisas Moa.

(b) SUB-PORT OF PUNTA GORDA: 20.38.30 N. 74.51.15 W.

(See Plan)

LOCATION: Punta Gorda is located at about 3.5 miles East of Moa and consists of an anchorage where loading is effected by means of barges.
APPROACHES: Entrance channel to Punta Gorda is the same as for Moa, and once the first stretch of it up to Del Medio Shoal is sailed past, it turns to the East, following a winding course, having four turns. The turns themselves are difficult but what makes them really dangerous is the lack of proper buoying and navigational signals.

Maximum width of channel is 300 m. and minimum 200 m. Maximum length and draft to enter to or sail from Punta Gorda are as follows: Length: 442 ft.; Draft: 28 ft.
RESTRICTIONS: Vessels can enter only during daylight.
PILOTAGE: Pilots board vessels at Moa port mouth. Pilot station located at Punta Gorda at a distance of about 5 miles from port mouth.

Distance from point where Pilot boards vessels to the anchorage (loading place) is about 4.5 miles.
ANCHORAGES: Located North of Punta Gorda and East of Pt. Yagrumage.
TUGS: One tug which tows 1 or 2 barges as necessary. Work performed day and night.
RADIO: Through Simon – Baracoa by Inalambrica (cable).
LOADING: *Punta Gorda Anchorage:* Located North of Punta Gorda and East of Pt. Yagrumage: Lat. 20° 38′ 55″ N., Long. 74° 51′ 13″ W.

Minimum depth: 31 ft. Max. draft allowed to vessels: 28 ft. Max. length allowed to vessels: 442 ft. Swinging area: 300 m.

Vessels operating at Punta Gorda load their cargo by means of barges.

Only cargo handled at this anchorage is loading of bulk refractory chromium.
STEVEDORES: Chrome, at average loading rate of 1,000 tons (approx.) per day of 24 hours. Loading operations carried out at anchorage. There are 2 wooden barges 130 tons capacity each; 1 tugboat; 2 trucks 10 tons capacity each; 1 pay loader; 1 shore crane.
MEDICAL: No hospital at Punta Gorda. Crew members can be attended to at Moa or Baracoa Hospital.
FUEL/REPAIRS: Not available.
FRESH WATER: No water available at anchorage but can be supplied at Moa pier (Darsena).
AUTHORITY: Customs Delegation at this sub-port. Vessels can proceed directly to Punta Gorda. Port Authorities from Baracoa travel to Punta Gorda for clearance. Moa Port Doctor clears vessels at Punta Gorda. From Baracoa to Punta Gorda, following ways of transportation used: air, launch and overland, which takes 20 minutes, 5 hours and 4.5 hours respectively. No regular transportation.
AGENT: See "Moa".

CAIBARIEN: 22.32 N. 79.28 W.

LOCATION: This port is located on the North coast of Cuba: Lat. 22° 32′ N., Long. 79° 28′ W.

Port operations are effected at Cay Frances Anchorage, 16 miles from the City of Caibarien.

In rough weather, operations are generally suspended, because it is not possible for the lighters to remain alongside ship.

In spite of the fact that all cargo operations are effected by lighterage, this port is most efficient and very often surpasses the cargo rates of other ports.
PILOTAGE: Pilots board vessels 0.5 mile from Catalina buoy (entrance) of Cay Frances anchorage. Pilot station located at Cay Frances at place known as Punta del Asta. Usual means of communication is radiotelephone, which is available at Port Captain's Office in Cay Frances, close to pilot station. Advice also given by motor-launch.

Distance from point where Pilots board vessels to:

Inner anchorage (La Caldera)	–	2 miles
Outer anchorage (La Poza)	–	0.5 mile
Outer anchorage (Port Buoy)	–	at same place where Pilots board vessels.

ANCHORAGES: Cay Frances anchorage easily accessible, free of shoals and reefs. Bottoms at anchorage "Caldera" and "Poza" are mud and sand. Bottom at third anchorage (port buoy anchorage) is stone, but free of reefs.

Cay Frances Light, group occulting white, visible 8 miles away, stands on an iron skeleton structure 36 ft. high, on the Western end of the Cay.

Vessels can enter or sail Cay Frances anchorage with any length and with max. draft up to 35 ft. When vessels draw less than 20 ft. they proceed to inner anchorage (La Caldera): over 20 ft. and up to 26 ft. to the outer anchorage (La Poza); and those over 26 ft. proceed to third anchorage (port buoy).

Following regulations must be observed during vessels stay at Cay Frances Road:

(1) Vessels arriving with draft of 19 ft. 6 in. or less:
(a) All ships arriving with draft of 19 ft. 6in. or less must proceed to inner anchorage and remain in this anchorage until reaching draft of 20 ft. even keel.
(b) Any Master refusing proceed to inner anchorage with draft of 19 ft. 6 in. or less, incurs penalty of extra charge of about 7 cents on each bag of sugar delivered in port (payable to crew of sugar barges employed in transportation of cargo from shore warehouse to anchorage at Cay Frances).

(2) Shifting or changes of anchorages:
(a) Vessels must remain at place where official Pilot orders anchoring.
(b) Not permitted to shift or change from place indicated by official Pilot of the port without authorisation from Custom House Officer-in-charge on board the vessel. All shifts and changes to be done only under supervision and command of local Pilot.
(c) Master will notify Custom House Officer on board when shiftings or changes of anchorage places required.

In event aforementioned orders not followed or observed by Ship's Master and/or ship's officers, a penalty or fine minimum $500 (five hundred dollars) will be charged to the vessel, and will have to be paid by Master prior to departure from this port. Besides penalty, no cargo will be delivered to ship anchored in any other place, other than indicated by local Pilot.

Tidal variation averages 2 ft.

Vessels can enter during day and night-time.
RADIO: Means of communications between Caibarien and Cay Frances is radiotelephony.

Several tugboats operating at this port are also equipped with radiotelephony; likewise stevedores enterprise, Port Captaincy and the molasses reservoir (Ponton San Pascual).

The official radiotelephony hours of communication are: 0800 – 0900, 1100 – 1400 and 1600 hrs., but after these hours, other communications can be established, upon request.

At Caibarien there are the following means of communication: National wireless telegraphy, telegrams, long distance telephone and Post Office.

Mambisas Caibarien Agency is connected with the National Telex System and this is the best means of communication with this port.

Vessels navigating to Cuba can send their messages to Caibarien through "CLA" Havana Radio Station which relays the messages promptly to Caibarien.

Masters must send their ETA messages simultaneously to Mambisas Caibarien and Mambisas Havana.

Pilot VHF works on Channel 16.
TUGS/BARGES: It is not necessary to use tug for entering/sailing, but following tugboats used for towing barges.

Tug Name	*Length*	*Speed*	*H.P.*
Gonzalez Lines	75 ft.	8/9 knots	250
Cmdte. Fajordo	55 ft.	8/9 knots	300
Jose Marti	60 ft.	8/9 knots	180

BARGES: Following barges available:

Name	*Capacity Bags*	*Capacity Approx. Long Tons*
Transporte No. 1	2,860	328
Transporte No. 4	2,860	328
Transporte No. 3	2,860	328
Transporte No. 8	2,860	328
Transporte No. 10	2,860	328
Transporte No. 11	2,860	328
Patana Punta Alegre No. 1	2,860	328
Patana Cadagua	2,860	328
Patana Victoria	2,860	328
Patana Americana No. 2	3,640	417
Patana Miriam Lourdes	2,080	240
Lanchon Antonio	2,080	240
Lanchon Marcelo	2,080	240
Lanchon Emilio	2,080	240
Lanchon Armando	2,080	240
Lanchon Dolores	1,040	120
Lanchon Juanita	1,040	120
Lanchon Laura	845	97
Lanchon Marianela	845	97
Lanchon Gloria	715	82
Lanchon Elvira	680	78
	45,945	5,163

STEVEDORES: Sugar working periods: Monday to Friday 0700 to 1100 hrs. and 1300 to 1700 hrs. Saturdays 0700 to 1100 hrs. Sunday, no work is performed unless urgent.

Although bagged raw sugar is reported as an exportation product of the port, for the last 2 years no sugar has been exported through Caibarien.

Loading rate: About 1,000 bags of raw sugar per gang-period. For each gang, not less than 1,950 bags are placed alongside vessel for each 8 hours working period.

For vessel able to make faster reception, it is possible some days for about 3,000 bags to be loaded.

Bags per sling: 5 bags per sling loaded.

Work capacity: 2 vessels can be operated simultaneously.

General cargo: Only empty jute bags imported and discharging rate approx. 20 tons per gang hour.

TANKERS: Only blackstrap molasses exported by this port. When tankers arrive drawing less than 20 ft. or in ballast, they dock at Pontoon or Hulk *San Pascual,* proceeding generally to complete at another port.

On other occasions they are shifted from Pontoon (Hulk) *San Pascual,* to outer anchorage "La Poza" where they complete cargo which is delivered by barges.

Average pumping rate 55,000 gallons per hour.

MEDICAL: There is a hospital at Caibarien for sick crew members.

BUNKERS: No bunkers available.

FRESH WATER: No water available.

DUNNAGE: No wood available, paper available if requested well in advance.

REPAIRS: Minor repairs only. Repair shops at Caibarien, but due to distance from Caibarien to Cay Frances, it is difficult and expensive to perform repairs.

TRANSPORTATION: Transportation means to and from Caibarien are poor, although railroad and bus services are available.

Best means of transportation is by train or bus to Santa Clara and from there transportation is available to any place or city.

AUTHORITY: All port authorities located at Caibarien 16 miles from Cay Frances anchorage, where they travel by launch or motor-boat to clear vessels.

AGENT: Empresa Consignataria Mambisa, Agency Caibarien, Avenida 9 No. 601, Apartado No. 72, Caibarien, Prov. de Las Vilas. Telephone: 3706 (office) 3859 (night). Telex: 041224. Cable: Mambisas Caibarien.

As Caibarien has no air mail or air express service, all mail and parcels should be sent to the Havana main offices from where it will be relayed by the quickest means to Caibarien.

CARDENAS: 23.03 N. 81.12 W. (See Plan)

Cardenas is the Northernmost port of Cuba being in a large bay 9 miles wide N.W. to S.W. and from 6 to 10 miles long from West to East.

It is a shallow bay with muddy bottom.

PILOTAGE: Pilots board vessels in vicinity of Cayo Piedras.

Pilot station at Cardenas. Distance from where Pilot boards to the pier is 16 miles, and to Cayo Diana 6 miles.

APPROACHES: Entrance to port is effected between Mono Cay and Piedras Cay.

The channel head is located at a point almost equidistant to Blanco Cay and the end of Hicacos peninsula, but closer to the latter.

It is an artificial channel but it has no narrowness and no turns.

Its bottom is rock, sandy at the head and for the first mile, and muddy all the rest of its course.

In front of the pier the channel opens in the shape of a funnel forming around it the inner harbour or basin.

Approaching Cardenas, the most conspicuous points of visual orientation are:

Piedras Cay lighthouse which stands 78 ft. above high tide, a stone cylindrical construction on a white building, its white light visible up to a distance of 14 miles.

Southwestward of Piedras Cay the long ribbon of white sands of Varadero Beach can be seen, and in the background the hotels and buildings.

To the S.E. Diana Cay lighthouse, a 38 ft. high metal tower and the string of cays such as: Chalupa, Romero, Blanco, etc.

RESTRICTIONS: Considering that from the place where Pilots board the vessels up to the pier or vice-versa takes about 4 hours, including manoeuvres, vessels must commence manoeuvres to enter or sail from this port at least 3 hours before dusk. Vessels are allowed a maximum length of 560 ft., max. draft of 20 ft. 6 in. at any tide, and 22 ft. at high tide. Tidal variation averages 2 ft.

In case of large vessels, it is necessary to wait for slack water for crossing the channel stretch known as Buba Channel, about 2 miles long, between Buba and Diana Cays.

ANCHORAGES: *Bay Anchorage No. 1:* Located 1.25 miles Northward of pier, about a mile in extension and a draft of 15 ft.

Bay Anchorage No. 2: Located 2 miles Northward of pier, about a mile in extension and a draft of 15 ft.

Poza Diana Cay Anchorage: Located about 7 miles from pier, about 1.25 miles in extension, draft 30 ft.

Los Meritos Anchorage: Located about 12 miles from pier, about 1 mile in extension, draft 23 ft.

Piedras Cay Anchorage: Located 16 miles from pier in the open sea, unlimited swinging area, draft 40 ft.

RADIO: Vessels navigating to Cuba can communicate with Mambisas Cardenas through "CLA" Havana Radio Station which immediately relays the messages to Cardenas.

While navigating in Cuban waters approaching Cardenas, vessels can communicate by radiotelephone with "CLW" Cardenas Radio Station at 2760 kHz.

Masters must send their ETA messages simultaneously to Mambisas Cardenas and Mambisas Havana.

TUGS: Normally tug not required to assist berthing, but when vessels have to berth head to shore, assistance of tug is necessary.

BERTHING: The only place of operation at Cardenas is its pier.

It is of solid reinforced concrete construction having double standard railroad tracks along the length of pier, on each side. It is also well paved and trucking operations can be performed alone or in combination with railroad operation.

Railroad cars do not interfere with cargo operations, as once emptied they can be carried out by shifting them to the second track or by going around the pier by the opposite side.

Tankers discharging fuel can be operated at either side or at the pier head.

There are 3 fresh water intakes on each side and 1 at the head of the pier.

Pier is capable of operating 5 vessels at a time, that is: 4 regular size vessels, 2 at each side, and a tanker at the head.

Both sides of pier are of equal length and have same facilities, being at the N.W. and the S.W. sides.

Cardenas Pier:

Length 319 m. (1,014 ft.), width 80 m. (262 ft.), draft alongside 24 ft. Max. draft allowed for vessels' operations 20 ft. 6 in. at any tide, 22 ft. at high tide.

The dock has space to dock 4 vessels (2 at each side) and a small size vessel at the head of pier, but personnel available at present time is enough for working only 1 dry cargo vessel and a tanker vessel discharging fuel oil. Dredging of the port has recently been completed and there is a plan to increase port personnel

No operations at bay or anchorage performed at this port.

STEVEDORES: Export of refined sugar and alcohol. Port has the following auxiliary equipment: 1 shore crane, 3 fork lift trucks, 4 conventional tractors, 3 rail tractors.

Working periods: loading sugar from Monday to Friday 0700 – 1100 hrs., 1300 – 1700 hrs.; Saturday 0700 – 1100 hrs.; Sunday: no work performed.

When vessel does not achieve daily rate during regular hours, work is carried out from 1900 to 2300 hrs.

Raw sugar loading rate: about 1,138 bags (of the 220-pound type) loaded per 4 hours per gang. This is not a fixed rate but when exceeded stevedores to be paid extra. Bags per sling: 4 bags of raw sugar (of the 220-pound type) loaded per sling.

Refined sugar: about 2,500 bags (of the 100-pound type) or 2,272 bags of 50 kilos, loaded per 4 hours per gang period. This is not a fixed rate, but when it is exceeded an additional payment must be made. Bags per sling: 12 bags (of the 50-kilo type and 100–pound type) loaded per sling.

Bulk: Only grates are available for loading bulk sugar.

TANKERS: Discharge of fuel oil: There are 4 intakes at the pier:

Two at North side, 1 at the head and 1 at South side.

Pipe-lines 8 in. and all connections 6 in. in diameter.

MEDICAL: Cardenas General Hospital and a clinic.

FRESH WATER: Pier has 7 water intakes connected to a water reservoir which is supplied by tank-trucks and/or railroad tank-cars.

Delivery rate: 20 t.p.h.

Daily delivery rate dependent upon transportation available.

FUEL: Not available.

REPAIRS: No repair shop at this port.

DUNNAGE: No wood available. Paper available if requested well in advance.

TRANSPORTATION: Transportation to and from Cardenas is good.

To Havana there are scheduled bus departures about every 2 hours, to Varadero every 30 minutes, and also several departures to Sagua la Grande, Isabela and other nearby cities.

AUTHORITY: All port authorities located at Custom House building.

AGENT: Consignataria Mambisa, Agencia Cardenas, Calle 2 entre Cespedes y Ave. 2da., Apartado No. 2847, Cardenas, Prov. de Matanzas. Telephone: 306 (office); 4264 (night). Telex: 052168. Cables: Mambisas Cardenas.

All urgent mail and parcels should be sent to our main offices at Havana from where it will be relayed to Cardenas by the quickest means possible to ensure prompt delivery.

Ordinary and non-urgent mail or parcels can be sent directly to Mambisa's Cardenas Office.

CIENFUEGOS: 22.09 N. 80.27 W. (See Plan)
(including sub-ports of Casilda (Port Trinidad) and Tunas de Zaza)

LOCATION: Cienfuegos Bay, by its natural characteristics, offers ample protection for vessels within port premises. It is about 10 miles long, from North to South and 3 miles wide, from East to West, surrounded by high ground and mountains.

The Coastal outline is rugged inside the bay, due to numerous points and creeks and at the widest part of the bay, to the N.W., is the city of Cienfuegos and some of the port's installations, and further, to the North of the city, the remainder and most modern of the port installations.

PILOTAGE: The Pilot boards the vessel at 0.5 miles S.W. of Los Colorados lighthouse at the following geographical position:

Lat. 22° 01′ 33″ N., Long. 80° 26′ 53″ W.

From this place to the different places of operation of the port there is a distance of 7 to 8 miles.

Pilot station is located at Jagua Castle, on the West coast of the bay, just in front of and to the West of Pasa Caballos Point.

Pilot service is available 24 hours daily and they have a 24 hours watch, and advice of arriving or sailing ships is announced by a semaphore station.

ENTRANCE TO PORT/CONDITIONS: Entrance to port is performed by a channel which begins between the points of Los Colorados and Sabanilla and runs for 3 miles up to La Milpa Point. From La Milpa the channel continues toward the interior of the bay firstly by the South and afterwards by the West of Carenas Cay up to the General Anchorage.

From the General Anchorage vessels can proceed either to the piers at the South of the port or to the North anchorage and the installations of the North Zone.

The bottom of the channel is muddy and its various depths are as follows:

From the head of the channel up to Las Milpas max. depth is 214 ft. at lighted buoy No. 3 and minimum of 68 ft. at the West of Pasa Caballos Point.

From La Milpa up to General Anchorage minimum is 48 ft. and from then on up to the North Anchorage minimum of 40 ft.

The channel has 2 sharp turns only, but adequate precautions must be taken when entering Cienfuegos harbour, always with Pilot on board, which is compulsory at all ports. The first turn of 68° is at Pasa Caballos Point and because this is the narrowest part of the channel where Tidal currents flow strongly, it is here where precautions should be exerted.

The second turn of 98° is at West of Carenas Cay, but due to the width of the channel at this point and the fact that tidal currents have no great effect, manoeuvres are easier at this turn.

No tugboat required for entering or sailing from this port and vessels with a length of 207 m. have entered without tugboat assistance but vessels from 207 m. up to a max. of 225 m. entering or sailing from Cienfuegos should take the following measures:

Only during daylight hours, during slack water and the assistance of 2 suitable tugboats. Vessels of 4,000 g.r.t. or larger can sail from the port only at slack water to avoid the risks of tidal currents at Pasa Caballos turn, but this measure does not apply to incoming vessels which can enter at any time.

The port of Cienfuegos can be entered at day or night time.

At the entrance to the port, at Los Colorados Point, there is a lighthouse also named Los Colorados which rises 83.1 ft. above high tide, located at Lat. 22° 02′ 04″ N., Long. 80° 26′ 29″ W.

The lighthouse is painted in a white-yellowish shade and flashes white light every 5 seconds visible 21.8 miles away.

B1

ANCHORAGES: The bay of Cienfuegos has ample anchorage zones.

The most important are: General anchorage at about the middle of the bay and North anchorage, at the North part of the bay.

Regarding the capacity and conditions of Cienfuegos anchorages it can be said that they meet the requirements of the largest vessel which presently or in future could enter this port.

North Anchorage: Located on the North part of the bay, at the Zone N.W. of the city and South of Tricontinental Pier and Ramirez Cove.

This zone is located between: Lat. 22° 09′ and 22° 09′ 30″ N. and Long. 80° 28′ and 80° 28′ 30″ West.

Although the bottom is soft mud the anchors hold perfectly well and securely.

Minimum depth of anchorage is 40 ft. and it can accommodate several large vessels with sufficient swinging area. Vessels anchor with 3 shackles of chain.

At this place vessels await berth, bunker or water, etc. and also can discharge or load by means of barges.

General Anchorage: Located in the middle of the bay and covers a square space limited by Pt. Gorda and Jaragua Cove at the South and Pt. Majagua and Pt. Salinas at the North:

(Lat. 22° 07′ – 22° 08′ 15″ N., Long. 80° 27′ 15″ – 80° 28′ W.).

Minimum depth is 48 ft. Bottom is soft mud but in spite of this anchors hold well and securely. Usually vessels anchor with 3 shackles of chain.

At this anchorage vessels await berth, bunker, water, provisions, etc. and also can discharge or load by means of barges.

Quarantine and Explosives Anchorage: Located at 0.5 mile off Pt. Barril.

As indicated by its name, this anchorage is used in case of quarantine to vessel or when carrying explosive cargo. The bottom is soft mud having a depth of 50 ft. Vessels anchor at this anchorage with 3 shackles of chain.

ICP Submarine Pipe-line Anchorage (Formerly Standard Anchorage): Located on the West side of Pt. Majagua.

The submarine pipe-line is 2,900 ft. long from the intake up to the deposit tanks, 12 in. in diameter. The connection is 8 in. in diameter.

Vessels berth to 3 mooring buoys aft, using both anchors. Minimum depth at this place is 58 ft.

The only product handled is fuel oil, which averages a rate of discharge of 420 metric t.p.h.

Berthing operation performed only during daylight hours.

Fertilisers Plant Submarine Pipe-line Anchorage: Located at the South of Ramirez Cove.

A fuel oil pipe-line 2,310 m. long, 16 in. in diameter with a 10 in. connection. The naphtha pipe-line is 10 in. in diameter with a 10 in. connection.

Vessels berth to 3 mooring buoys aft and use starboard anchor of the ship. The official draft is 31 ft. even keel. The bottom is soft mud.

Vessels discharging naphtha must pump, after discharging same, about 200 tons of fresh water. Water must be taken at prior ports of call as delay may result to vessel if Cienfuegos water barge is not able to supply the water.

Average rates of discharge are:

Naphtha: 400 t.p.h.

Fuel oil: 450 t.p.h.

Berthing operation to this place performed only during daylight.

Thermoelectric Plant Submarine Pipe-line Anchorage: Located on the North side of the North Anchorage.

Pipe-line is 14 in. in diameter and 6 in. connection.

Vessels berth to 3 mooring buoys aft and to another mooring buoy at the port side forward and use the starboard side anchor. Minimum depth is 38 ft.

Only product handled is fuel oil which can be discharged at an average rate of 500 t.p.h.

Berthing operation can be performed only during daylight hours.

MAX. SIZE: Max. length with which vessels can enter port is 700 ft. with draft up to 37 ft. making use of the best conditions, such as slack water, and daylight. Tidal variation about 1 ft. 6 in.

RADIO: Vessels navigating toward Cuba can communicate with Mambisas Cienfuegos Agency through "CLA" Havana radio station which relays the message to Cienfuegos immediately.

When navigating in Cuban waters and nearing Cienfuegos, vessels can communicate directly through "CLC" Cienfuegos radio station which immediately informs Mambisas Cienfuegos Agency of any message received and the Agency can answer through "CLC", which also have radiotelephony system.

Masters must send their ETA messages simultaneously on VHF Channel 16 to Mambisas Cienfuegos and Mambisas Havana.

There is complete telephone service: Local, long distance and International.

RCA System radiograms have national and international service.

There are also the Wireless Service, Government Public Telegraph Service and Post Office.

Our Agency can communicate with Havana and the rest of the parts by telex, this service being the most reliable and quickest of the means of communication.

Cienfuegos telex number is 042118, 042109.

BERTHING:

	Draft in ft. Fore	Draft in ft. Aft
Tricontinental Pier: East Side (Bulk Sugar)	32	33
West Side (General Cargo)	26	28
Pablo E. Guzman Pier: West Side (Discharge of clean petroleum products)	27	30
East Side: Out of use		
Molasses Terminal: Loading of molasses	33	33
ICP Submarine Pipe-line: Discharge of Fuel Oil	58	58
Olimpia Medina Pier: General Cargo	24.5	25.5
Fertilisers Plant Submarine Pipe-lines: Discharge of Naphtha & Fuel Oil	31	31
Thermoelectric Plant Submarine Pipe-line: Discharge of Fuel Oil	38	38
North Anchorage: Discharge/Loading of General Cargo	40	40
General Anchorage: Discharge/Loading of General Cargo	48	48
Quarantine and Explosives Anchorage:	50	50

Tricontinental Pier: Located on the North coast of the bay, at the West of Manaca Cove, in front of the city of Cienfuegos.

It is a solid construction of reinforced concrete, 206 m. (676 ft.) long and 43 m. (141 ft.) wide. The East side of the pier is specially conditioned for loading bulk raw sugar and has 2 cranes, mounted on rails, that run along the length of pier, each capable of loading 600 tonnes/p.h.

Although the length of the pier is 206 m., at the East side the berthing length is only 165 m., because at the shore end there are 2 resting bases for the cranes, where they remain when idle.

In direct line with the pier is the parabolical warehouse, which is capable of holding 90,000 tonnes of bulk raw sugar. Next to it is the receiving station of the plant, where a continuous flow of railroad hopper cars discharge the sugar coming from many sugar mills in Las Villas and Matanzas provinces.

The West side of the pier is being used as a general cargo discharging berth, but the future planning for this side is for discharge of bulk wheat, to supply the flour mill, now under construction.

Tricontinental Pier

East Side:

Berthing length: 542 ft., overall length: 666 ft.

Max. length of vessel to dock and operate: 615 ft.

Drafts: 32 ft. fore, 33 ft. aft.

Cargo handled this side: Loading of bulk raw sugar.

Fresh water available by pipe-line.

West Side:

Overall and berthing length: 666 ft.

Draft: 26 ft. fore, 28 ft. aft.

Cargo handled this side: Discharge and loading of general cargo.

Fresh water available by pipe-line.

Docking to this pier can be effected either in day or night-time because it is well lit.

All operations, except loading bulk raw sugar, must be effected by means of trucks because although railroad tracks reach the shore end of pier, there are no tracks alongside.

Vessels nominated to load bulk raw sugar at Cienfuegos, must arrive at Tricontinental pier clean and ready to load and any undesirable dunnage material must be discharged at other ports or piers, due to the fact that it has only sufficient personnel to attend the mechanical loading and there are no stevedores available.

Pablo E. Guzman Pier (Formerly Ferrocarril Pier): Located on the N.W. side of the city, between Pt. Arenas and Pt. Verde.

It is only used to discharge clean petroleum products and for supplying diesel oil bunker to vessels.

It is of steel and concrete construction with rubber and wood fenders.

Fixed light at pier permits night docking.

The bottom at both sides of pier is soft mud.

West Side:

Length: 300 ft.

Vessel's max. length for docking: 610 ft.

Width: 73 ft.

Draft: 27 ft. fore, 30 ft. aft.

Cargo handled by this side: Discharge of diesel oil, kerosene and gasoline*. Connection diameter: 8 in.

Discharging rate: About 400 t.p.h.

*Although three different products are discharged, only one can be discharged at a time, as there is only one pipe-line to shore tanks.

East Side: Out of use.

Olimpia Medina Pier (Formerly Cacicedo Pier): Located on the South side of the city at Marsillan Cove.

Only one vessel can be worked, being of concrete construction with wooden/rubber fenders. The fenders are going to be replaced as at the present they are not suitable.

It has a fixed bearing light in order to dock vessels at night.

Cargoes can be handled either by trucks or railroad as the place is paved and has railroad tracks alongside.

Length: 383 ft. Width: 45 ft.

Draft: 24 ft. 6 in. fore, 25 ft. 6 in. aft.

The bottom alongside pier is soft mud.

Operations performed at this pier are usually loading or discharge of general cargo.

Also see "Anchorages".

TANKERS: Molasses Terminal Berth *(Formerly Naticorp Pier):* Located on the West coast of Pt. Majagua, this installation consists of a wooden narrow passage 1,804 ft. long ending at a steel platform along which runs the pipe-lines, one 16 in. and other 12 in., and a catwalk.

Loading of molasses is performed through three connections, diameter 8 in. each, but in the near future they are going to be replaced by 10 in. diameter connections.

Docking can be effected only during daylight hours.

Vessels berth to 4 solid dolphins, 2 mooring buoys aft, and 2 fore, across the head of the installation.

Draft: 33 ft. even keel (not official)(†).

Max. length: 610 ft., Loading rate: 350 t.p.h.

(†)This place has been dredged recently (Former draft 30 ft. – 30 ft. 6 in.) but new official draft has not been released at the moment of publication, and mentioned draft is only the result shown by previous experience. Also see "Anchorages".

STEVEDORES:

Mondays to Fridays:	0700 – 1100 hrs., 1300 – 1700 hrs.
Saturdays:	0700 – 1100 hrs.

Although the above are the official working hours of the port of Cienfuegos, frequently 3 shifts of 8 hours each are worked, commencing at 0640 hrs. Also on Sundays a shift is worked from 0640 to 1100 hrs. This is done whenever all conditions, including personnel and weather, are favourable.

The port can operate 9 ships simultaneously as follows:

1 Loading bulk raw sugar.
2 Loading or discharging general cargo (docked).
1 Loading or discharging general cargo (on anchorage).
1 Loading molasses.
4 Tanker vessels discharging petroleum products.

Through this port all kinds of cargoes are imported with the exception of bulk wheat and bulk fertilisers.

Exports: Bulk raw sugar, molasses and occasionally general cargo.

Coastal trade consists mainly of discharge of petroleum products, and other kinds of coastal trade cargoes are seldom handled by this port.

The following equipment is owned and operated by the port:

4 Tugboats: 2×150 h.p., 1×168 h.p., 1×120 h.p.
8 Cargo Barges: 3×100 tons, 3×130 tons, 1×150 tons, 1×180 tons.
1 Fuel Oil Barge: 240 tons.
1 Water Barge: 200 tons.
1 Floating Crane: 35 tons.

All bulk raw sugar is shipped by the Bulk Raw Sugar Shipping Plant by means of modern mechanical equipment and bulk raw sugar ex-bags is not shipped through this port.

MEDICAL: Two hospitals, General Hospital and Mutualist Clinic (formerly Sanatorio de la Colonia Espanola), where sick crew members can be hospitalised.

FUEL: Regular bunkers can be obtained at this port (whatever type of diesel oil or fuel oil may be stored in the shore tanks at the time of delivery).

Fuel oil is supplied to vessels by means of barge, capacity 240 tons which is towed to the place where ship is operating or berthed.

Diesel oil is supplied by docking at pier, by pipe-line.

If any tanker vessel is operating at "Pablo E. Guzman" pier, delivery must wait until tanker finishes operations and leaves pier.

Mixtures of fuel and diesel oil, IFO, (Intermediate fuel oil), cannot be obtained at this port.

FRESH WATER: *(Potable or for Boilers):* Delivered by means of barge, capacity 200 tons, which at the present time is in bad condition, having frequent breakdowns and is often out of operation. It is going to be replaced, but until such time water delivery by barge must be considered as only a possibility, not to be depended upon, so it is unreliable.

Water can be obtained at either side of Tricontinental Pier at an average rate of 10 t.p.h.

DUNNAGE: This port has conditions and facilities to supply dunnage materials, but specially in the case of wood dunnage, requisition must be placed at least 5 days before delivery date.

REPAIRS: Repair shop available, but can only carry out winch repairs and other light work.

SHIPMASTER'S REPORT: May 1979.

Documents:

1 Copy Maritime Declaration of Health.
1 Copy Clearance from Previous Port.
Derat Certificate or Exemption.
1 Copy Cargo or Ballast Manifest.
10 Copies Crew Lists.
5 Copies Personal Effects (including new clothing). All individual Crew Lists must have Christian names as well as Surnames – initials not sufficient.
3 Copies Provisions Lists. Meats and weights to be separated by countries i.e. Beef (Argentina) 200 lbs., Beef (U.K.) 400 lbs., etc.
4 Copies Stores Lists.
1 Copy Vaccination List. Apparently no vaccination necessary for Cuba.
4 Copies Currency Lists. All currency placed in Master's safe together with jewellery, valuables etc., and sealed.

N.B. Crew only allowed: 1 watch, 1 radio, 1 tape-recorder and 6 cassettes, remainder to be bonded.

Officials: On arrival ship is boarded by Doctor who gives pratique, after which ship is boarded and sealed by Customs and Immigration. After this the Customs Control Board, and the ship is searched from stem to stern.

There is also a search when the ship sails although the search is not so thorough and they only seem to be looking for stowaways.

Meat and fish room are sealed throughout stay but sanitary inspectors board every day (and charge 5 pesos per visit) to take out sufficient selected stores for the day.

Pilotage: Compulsory.

Anchorage: Safe anchorage inside the bay only. Outside the entrance the water is too deep. There is sufficient room for anchorage of 15 vessels. Depth 8 fathoms. The bottom is soft mud which gives very good holding ground.

Restrictions: There is a whirlpool in the entrance at "Pasa Caballos Turn" at various states of the tide when navigation is not possible during a rising tide. Sailing is only possible between HW and LW when the tide is ebbing.

Max. Size: Max. permissible draft 38 ft., tidal range about 1.5 ft., max. LOA 207 m.

Radio: The radio room is sealed throughout the stay.

VHF: VHF Radio in Pilots and Agents office. The Pilots all seem to speak English. There is no VHF on pilot launches, they were expecting new sets.

Tugs: One tug available, 1,200 h.p.

Berthing: Tricontinental East Pier: Max. draft 31 ft. forward, 33 ft. aft. However the berth is being dredged to 38 ft. Max. LOA 200 m. Length of pier 555 ft. Tidal range approximately 1.5 ft. Density 1022.

Vessel loaded bulk sugar and with full ballast (except No. 3 deep tank) vessel had 5 ft. clearance at the ship's side rail.

Bulk sugar loaded from conveyor belt on the shore which is said to have a very accurate weightometer incorporated.

Loading rate with one loader 400 tonnes p.h. and with two loaders 1,000 tonnes p.h.

The warehouse on the quay is said to hold 30,000 tonnes.

Work carried out throughout 24 hours.

The stowage factor of the bulk raw sugar was 43.8 cu. ft./metric tonne.

The berth is very well fendered, however the after mooring points were poor.

Fuel: Available. Grade not known.

Fresh Water: Available. Rate 10 t.p.h. Also available by water barge.

Medical: Two hospitals and doctor available. Vaccinations by the port doctor were said to be free but ship was charged by the Agents.

Repatriation: Possible.

Repairs: Engine work can be done with permission for immobilisation.

Shore Leave: Shore pass not to be in any way defaced or shore leave for that person will be stopped. Shore leave is only allowed between 1800 hrs. and 2400 hrs., and any person late back will be fined. Ship's pass and Seaman's Discharge Book is handed to guard at bottom of gangway who issues another pass. This has to be exchanged for another pass further up the dock where all money is counted, all valuables are written on pass, time ashore is entered on pass and then one is free to proceed to the town by bus. There is no seaman's mission or any places of recreation, etc.

The same procedure has to be gone through on the return to the vessel.

General: The spare propeller must be sighted before loading can commence.

Flags: Courtesy flag must be higher than house flag.

Lifeboat: Lifeboats can be swung out.

Painting: Punt can be used for shipside painting.

Stores: Fruit and eggs very cheap and plentiful and of good quality.

Refuse: Garbage must be in covered containers which are sprayed together with the ship's fridges, storerooms, galley and pantries on vessel's arrival.

Ratguards: Ratguards must be on all ropes throughout vessel's stay and must not be allowed to fall or blow off or vessel is fined. Many rats were seen in the dock area.

AUTHORITIES: All port authorities are located at port of Cienfuegos.

From Cienfuegos to Casilda and Tunas de Zaza, following transportation can be used: railroad, trucks, barges.

It takes from 2 to 5 hours, according to transport conditions, to travel from Cienfuegos to Casilda or Tunas de Zaza.

Distance, by sea, from Cienfuegos to Casilda 45 miles; to Tunas de Zaza 80 miles. Suggested that railroad or highway be used to travel from Cienfuegos to Casilda or Tunas de Zaza. There is daily omnibus and auto service from Cienfuegos to Casilda and Tunas de Zaza.

There is a daily flight Havana – Cienfuegos which arrives at Cienfuegos around 1130 hrs. and departs for Havana at about 1200 hrs.

Also a daily departure of passenger railroad service Cienfuegos – Havana.

Bus line Cienfuegos – Havana has scheduled departures every 2 hours.

Other bus lines have excellent service to Camaguey, Santa Clara and other cities.

Taxi service is available to any point within city limits or to any place or city and should be requested to our Cienfuegos Agency.

AGENT: Empresa Consignatarias Mambisas, Agencia Cienfuegos, Avenida 50 No. 2712, POB 420. *Tel.* 5718 – 6422 (Night: 6715). *Telex:* 042118, 042109. *Cables:* "Mambisas Cienfuegos".

Recommended that all correspondence or instructions be sent through Havana main office. Cienfuegos Agency attends ships that operate at Casilda and Tunas de Zaza. For any information concerning vessels operating at these sub-ports, Cienfuegos Agency should be contacted.

Mail should be sent by airmail, parcels and spare parts by air express.

Any mail or parcels received at Havana by our Main Office, destination Cienfuegos, are sent daily by air express to Cienfuegos Agency, which use the same method from Cienfuegos to Havana.

(a) SUB-PORT OF CASILDA: 21.45 N. 79.59 W. **(See Plan)**

LOCATION: The Port of Casilda is located on the South coast of Cuba. Lat. 21° 45′ N., Long. 79° 59′ W.

This is the shipping port for Trinidad, distance 3 miles from Casilda.

The town of Casilda and the port are situated on the North shore of a safe, landlocked small bay, shoal over its greater part.

PILOTAGE: Vessels should pick up Pilots at Cayo Blanco. Distance from point where Pilot boards vessels to pier is 9 miles.

ENTRANCE TO PORT/CONDITIONS/LIMITATIONS: Jobabo channel is the main entrance to this port and runs East of Blanco Cay.

Channel bottom is soft mud and on its course has a difficult "S" shape turn where precautions should be taken, nevertheless tugboat is not required for entering or sailing manoeuvres.

Entrance to port can be effected only during daylight hours and Masters must take notice that if vessel arrives before daybreak and Pilot is required in order to anchor and wait for daylight, an extra charge will be incurred.

In the same manner, if vessel arrives at dusk, it is probable that she cannot enter port, because docking must take place during daylight hours.

ANCHORAGES: The port has several anchorages, such as: "La Poza", located at bay, 17 ft. draft; "Bajo del Medio", an area 2.5 square miles, draft 25 ft.; "Jobabo" 26 ft. draft.

Also N.E. of Blanco Cay there are anchorage areas, having 40 ft. draft, and more.

MAX. SIZE: Vessels can enter and sail with max. draft of 25 ft. and length up to 565 ft. Tidal variation about 2 ft.

RADIO: Vessels navigating to Cuba can send their messages via "CLA" Havana Radio Station, which immediately relays the message to our Cienfuegos Agency.

While navigating in Cuban waters, Masters can contact "CLC" Cienfuegos Radio Coastal Network, which also relays the messages promptly to Cienfuegos Agency, and can answer them by the same system.

Station "CLC" also has radiotelephony.

Masters must send their ETA messages simultaneously to Mambisas Cienfuegos and Mambisas Havana.

TUGS: None.

BERTHING: Casilda Pier is built in the shape of an "L" the upright part of the "L" being the West side and the inferior part the South side.

Vessels docked at pier can be supplied limited quantities of fresh water and also, if necessary, electric power 110/220/440 volts.

Pier has railroad tracks along its length and at the paved West side trucking operations can be effected.

South side is not paved and is mostly used for operating tankers.

Coastal Pier No. 1: (East Side):

Length: 520 ft. Max. length permitted: 565 ft. Draft: 25 ft.

Cargoes handled on this side:

Importation: General cargo, wood pulp, lumber, caustic soda, etc.

Exportation: Bagged refined and raw sugar.

Coastal Trade: Occasionally general cargo.

Docking only during daylight hours.

Coastal Pier No. 2: (South Side):

Length: 390 ft. max. length permitted: 565 ft. Draft. 25 ft.

Cargoes handled by this side:

Importation: Fuel oil and crude oil, and occasionally diesel oil.

Exportation: Alcohol.

Coastal Trade: Fuel oil and crude oil, and occasionally diesel oil.

Two vessels can operate simultaneously at Casilda:

One at the West side of pier loading sugar or discharging dry cargo, and another at the South side discharging petroleum products or loading alcohol.

During dry spells it is possible to operate 2 dry cargo vessels, one on each side of pier, but this is not advisable as both vessels will be worked at half capacity because of limit of labour.

No operations at bay or anchorage performed at Casilda.

STEVEDORES: Working periods:

Monday to Friday 0600-1000 hrs., 1200-1600 hrs.; Saturday 0600-1000 hrs., 1200-1600 hrs.; Sunday when necessary, same periods.

Raw sugar loading rate: 1,200 sugar bags, loaded per gang per day. Bags per sling: 6 sugar bags per sling. Operation capacity: only one vessel can operate.

Refined sugar loading rate: 1,500 bags per gang per day. Bags per sling: 12 bags loaded per sling.

Shore crane: No shore crane available.

Bulk sugar equipment: no bulk sugar equipment available.

Warehouses: 2 warehouses with capacity for storage of 70,000 bags of sugar. No. 1 (at the pier) 40,000 bags (250 lb.). No. 2 (at the Real Street) 30,000 bags.

TANKERS: Fuel/Crude Oil: 1×8 in. diameter.

Diesel Oil: 1×6 in. diameter.

Alcohol: 1×5 in. diameter.

Also see "Berthing".

MEDICAL: Sick crew members can be sent to General Hospital.

FUEL/REPAIRS: Not available.

FRESH WATER: Vessels can be supplied with fresh water, delivered by means of electric turbine at the pier. Delivered at average of 30 t.p.h.

DUNNAGE: Wood dunnage is not available at Casilda. Paper dunnage is available if requested well in advance as there is a small stock in the port, and if vessel's requisition exceeds port's stock, difference can be brought from the paper mill nearby.

TRANSPORTATION: Transportation to or from Casilda is difficult.

Railroad system connects Casilda with Trinidad continuing to Cumbre, where it joins the Central railroad system, or to the city of Placetas, located on the Central highway system. From Cumbre railroad travel is available to any place in Cuba, likewise at Placetas by road.

There are also roads to Cienfuegos and Sancti Spiritus.

AUTHORITIES: Port Captain, Custom Authorities and Port Doctor travel from Trinidad to Casilda.

AGENT: If any information required regarding ships operating at Casilda, Cienfuegos Agency should be contacted. Agent in the port available, but difficult to contact. Telephone number 2077.

Crew mail or any other mail should be sent to Havana main office, from where it is sent to Cienfuegos.

(b) SUB-PORT OF TUNAS DE ZAZA: 21.37 N. 79.32 W. **(See Plan)**

LOCATION: Seaport of Sancti Spiritus. Port lies about 1.25 miles North of Point Ladrillo.

PILOTAGE: Pilot may board vessels either at Breton Channel or Tunas Channel.

Distance from point where Pilot boards vessel entering through Breton Channel to Tunas de Zaza anchorage is 8 miles. From place where Pilot boards vessel entering through Tunas Channel is 1.5 miles. Pilot station for Tunas Channel, located at Cayo Zaza de Fuera. For Breton Channel, entrance of Breton, that is, 8 miles from anchorage.

MAX. SIZE: Two channel entrances for this port; one through Breton Channel, which is with turns, but not dangerous. Vessels can enter or sail through this channel drawing up to 29 ft. The other one through Tunas Channel, has no turns. Vessels can enter and sail through this channel, drawing up to 22 ft. No length restrictions.

Tidal variation 1 ft. 6 in. Vessels can enter day and night.

RADIO: Via Radio Havana, for relay through Cienfuegos Agency.

TUGS: 3 tugs: *Arturo, Don Juan,* and *Tuinicu,* which tow up to 6 barges.

BERTHING: All operations are effected at anchorages.

Inner Anchorage: Located about 1.25 miles South-Westward of the town. Draft: From 24 ft. to 27 ft. Soft mud bottom.

Outer Anchorage: Located South of Pt. Ladrillos. Draft: 30 ft. (load only up to 29 ft.). Soft mud bottom.

Only one vessel at a time can be handled.

There are 9 barges available for loading sugar with total loading capacity of 7,500 bags. Sugar loading rate: 1,500 bags per gang daily. Bags per sling: 6 sugar bags loaded per sling.

Bulk sugar equipment: None.

STEVEDORES: Working periods – loading sugar: Monday to Friday 0600-1000 hrs., 1200-1600 hrs.; Saturday 0600-1100 hrs., 1200-1600 hrs.; Sunday: when necessary.

MEDICAL: For sick crew members, there is a general hospital at Sancti Spiritus.

FUEL/REPAIRS: None.

FRESH WATER: No water available.

DUNNAGE: None.

TRANSPORTATION: There are two daily car services, and also road transportation is possible by bus but car service is preferable.

AUTHORITIES: There are Custom House and Captain of the Port Delegations at this sub-port. Customs also acts for Immigration. Port Doctor located at Zaza del Medio.

Vessels can proceed directly to this sub-port where they are visited by port authorities. Means of transportation used by port authorities to give entry is by launch service.

At this sub-port Custom House and Captain of the Port have delegations, but not port Doctor.

AGENT: Vessels operating at this sub-port are attended by personnel from Cienfuegos Agency.

Mail should be sent to Havana for forwarding to Tunas de Zaza.

GUANTANAMO: 19.59 N. 75.10 W. (See Plan)

LOCATION: Guantanamo is an ample, sheltered, landlocked bay of an approximate extension of 11 miles.

The mouth of the port is formed by 2 points: Point Leeward on the West side and Point Windward on the East side. Point Windward is round shaped, drab olive coloured and with arid cliffs, where, on a grey painted building is located a lighthouse, the white light of which flashes twice every 20 seconds and is visible up to a distance of 26 miles. Point Leeward is low, having a landing field.

For description purposes, Guantanamo Bay may be divided into what could be considered outer harbour and inner harbour. The outer harbour is rugged having a number of creeks with several cays, mostly in the centre. This outer harbour is almost entirely occupied by the United States of America Naval Base and it is convenient to make clear that the merchant vessels nominated for operations at Boqueron, located in the inner harbour, do not need any permit or authorisation of said Naval Base.

The inner harbour is most ample, practically free of cays and widening out forms 2 bays, separated by Point Manati. The bay located at the N.E. is known as Joa Bay.

Guantanamo City is located at a distance of 23 km. inland, in the most important coffee-growing district of Cuba.

Guaso River flows into the Northwestern extreme of Guantanamo Bay and Guantanamo River at St. Nicolas Point.

PILOTAGE: Pilots board vessels at distance of 1 mile from Buoy No. 1 at port entrance.

Distance from where Pilots board vessels to: General anchorage: 7.5 miles. "Boqueron" Pier: 7 miles.

RADIO: Vessels navigating toward Cuba can communicate with Mambisas Caimanera Agency through "CLA" Station at Havana and the message will be relayed to Caimanera by telegraph service.

Masters must send their ETA messages simultaneously to Mambisas Caimanera and Mambisas Havana.

At Caimanera there are the following services:

Telephone, local and long distance, telegraph and Post Office.

There is no telephone communication between Caimanera and Boqueron.

APPROACHES: Wide entrance channel with mud bottom and free from navigational hazards.

ANCHORAGES: Max. draft 25 ft. to 27 ft. Swinging area 400 m.

MAX. SIZE: Vessels can enter with max. draft up to 19 ft. and length 610 ft. (tankers), 500 ft. (cargo vessels). Tidal variation is from 1.5 ft. to 2.5 ft. depending on season.

TUGS: Not available.

BERTHING: The pier is a solid concrete construction 504 ft. long and 60 ft. wide.

Along the pier run 4 railway tracks of standard gauge.

Molasses is loaded at the North side only, but sugar can be loaded at both sides of the pier.

Although the draft at either side of pier is 22 ft., vessels load only up to 19 ft., owing to the draft of the port channel.

Boqueron Pier:

(a) North Side:

Length: 504 ft. Draft: 22 ft.

Cargo handled: Molasses and bagged raw sugar.

(b) South Side:

Length: 504 ft. Draft 22 ft.

Cargo handled: Bulk raw sugar.

Two vessels can operate simultaneously:

A tanker loading molasses at the North side of the pier, and another vessel loading sugar at the South side.

STEVEDORES: Sugar and molasses loading operations are carried out at this port.

Working periods loading raw sugar: From Monday to Friday 0700-1100 hrs., 1300-1700 hrs.; at night time whenever necessary. Saturday 0700-1100 hrs.; at night time whenever necessary. Sunday: above-mentioned periods, whenever necessary.

Bagged sugar loading: 780 bags loaded per gang-period. Sugar bags per sling: 4 sugar bags per sling.

Capacity: Two vessels can load simultaneously at Boqueron Pier.

Raw sugar in bulk: Four complete sets of machines and 10 grates.

TANKERS: Molasses pumping rate average of about 35,000 gallons per hour.

MEDICAL: At Caimanera there is a modern hospital equipped for both medical and dental services, where crew members are attended when required.

In serious cases or when highly specialised medical care is required, the patients are sent by ambulance to Guantanamo Regional Hospital.

FRESH WATER: Can only be supplied by Boqueron Pier through 2.5 in. pipe-line. Delivery rate is 10 t.p.h. Vessel must furnish hoses.

FUEL/REPAIRS: Not available.

TRANSPORTATION: Transportation between Caimanera and Boqueron is effected only by means of launches.

Distance between Caimanera and Boqueron is 1.5 miles.

From Caimanera to Guantanamo, travelling could be effected either by railroad or paved highway and for both routes the distance is 23 km.

There are 3 daily scheduled trains and 14 modern bus departures, travelling time being approximately 40 minutes.

From Guantanamo to Havana there is a scheduled bus service with several departures daily. Travelling time from Guantanamo to Havana by bus is 16 hours. Also there is a daily departure at 1230 hrs. of an airway service Guatanamo/Santiago/Havana.

There is a very efficient service of minibuses for the transportation of travellers to and from the airport.

From Guantanamo to Santiago de Cuba there is also bus service with several departures daily, travelling time being 2 hours.

DUNNAGE: Although dunnage materials can be obtained at Guantanamo, if possible, it is preferable that vessel arrives supplied with same, because sometimes the requisition of the vessel may be higher than the port stock, and that could mean delays.

Whenever necessary to request dunnage materials at this port, the requisition should be made not less than 5 days in advance of vessel's arrival.

AUTHORITY: All Port Authorities are located at Caimanera where Mambisas Agency Office also is located. Caimanera lies across the bay, just in front of Boqueron Pier, at a distance of 1.5 miles.

AGENT: Empresa Consignataria Mambisa, Linea No. 9 entre Marina y Correos, Apartado No. 5, Caimanera, Guantanamo, Prov. de Oriente. Telephone: 9186, 99135 (Night). Telex: 062138. Cable: Mambisas Caimanera.

Agency VHF works on Channel 16.

Mail and Parcels: Must be sent to the Main Office at Havana, because vessels loading sugar at Guantanamo usually load their cargo in a very short time and all mail and parcels received would be sent to Guantanamo or a second loading port, whichever is deemed to ensure delivery.

HAVANA: 23.09 N. 82.21 W. (See Plan)

Havana is a natural, landlocked, well sheltered harbour and the most important port of the country owing to its port facilities and for being the capital.

PILOTAGE: Compulsory. For requesting Pilot, in daytime or at night, ships shall use signals established in International Signal Code, also they can direct light signal to Morro semaphore and make sound signals at intervals.

Pilot service is compulsory for all foreign ships more than 40 gross tons.

Master must inform Pilot: port of origin, illness of any person on board, or if ship is carrying explosive or easily inflammable materials, in which case the ship shall be anchored in special berths and shall be under control of port authorities.

Any ship in port requiring immediate Pilot services should either call telephone numbers: 62–3602 or 62–2896; or hoist "G" Flag, sound 2 prolonged blasts.

Pilots board vessels approximately 1 mile from port mouth, although in some cases, especially at night-time, they will go out about 3 miles to meet incoming vessels.

Pilot station located at San Pedro St. No. 2. Telephones: 62–3602 and 62–2896.

Distance from where Pilots board vessels up to port anchorage or wharves is about 1 mile.

APPROACHES: The port is entered through a straight channel with Morro Castle to the East, La Punta Castle to the West.

The bottom is muddy, with no narrowness, but at the entrance there is a strong current which is to be taken into consideration in the entry manoeuvres of any vessel.

Port can be entered to or sailed from, either in day or night time and it is not necessary to wait for slack or favourable tide, except tankers drawing 37 ft. which can enter only at high tide.

While approaching Havana the most remarkable points of visual orientation are its tall buildings and Morro Castle, located on the East side of the entrance.

ANCHORAGES: There is an ample anchorage zone area where loading and discharging operations are performed.

MAX. SIZE: Max. draft in channel at low tide is 12.8 m. Max. draft in main anchorage is 10.06 m., minimum depth throughout the bay (except the refinery) is 10.06 m. Tankers can enter drawing up to 11.28 m., as they take special course once they are inside bay. Tidal variation about 45 cm.

RADIO: Vessels navigating to Cuba can communicate with Mambisas Havana through "CLA" Havana Radiotelegraphy Station which relays messages immediately by telex.

While approaching Havana vessels can communicate by VHF radiotelephony with:

Mambisas Agency: Channel 12.

Pilots: Channel 16.

Both, Agency and Pilots, are on the air 24 hours of the day.

Masters must send their ETA messages to Mambisas Havana.

The following means of communication are available at Havana:

Cable: C.L.A. International, R.C.A., Western Union.

Telephone: Local, long distance and international.

Telex: Local, National telex system and international.

Airmail and Air Express: National and international.

At the main office in Havana there are two telex machines, which is the quickest means of communication available.

TUGS: Supplied by Port Authority.

BERTHING: The port is divided into numerous docks, which are detailed below.

Andres Gonzalez Lines Dock: This dock is used for the discharge of fertilisers in bulk and coal. It is 332.2 m. long with drafts that vary from 5.18 m. to 9.14 m. There are railway connections and an overhead discharge crane.

Sierra Maestra Terminal:

Pier	*Length of Pier* (m.)	*Max. draft with which vessels may perform operations* (m.)
Pier No. 1 (North Side)	201.8	9.14 – 10.06
Pier No. 1 (South Side)	201.8	9.14 – 10.06
Pier No. 2 (North Side)	201.8	9.14 – 10.06
Pier No. 2 (South Side)	183.5	9.14 – 10.06
Pier No. 3 (North Side)	190.5	9.14 – 10.06
Pier No. 3 (South Side)	171.3	9.14 – 10.06

There is one warehouse at each of these piers and all have rail connections. The terminal is used for loading and discharging general cargo.

Margarito Iglesias Terminal:

Pier	*Length of Pier* (m.)	*Max. draft with which vessels may perform operations* (m.)
Pier No. 1 (North Side)	135	6.10
Pier No. 1 (South Side)	135	6.10
Pier No. 2 (North Side)	135	6.10
Pier No. 2 (South Side)	135	6.10
Pier No. 3 (North Side)	135	5.49
Pier No. 3 (South Side)	135	5.49

Both these general cargo piers have a warehouse, each with a capacity of 22,304 cu.m.

All piers have rail connections. The terminal is used for loading and discharging of general cargo.

Havana Central Pier: This pier, which is used for discharging and loading general cargo, is on the North side. Length 132.3 m., width 60.95 m. Depth alongside 9.45 m. at Bay end or East side, 8.84 m. at centre and 7.92 m. at its West shore end. On South side, length 146.3 m., width 60.95 m. Depth alongside 9.75 m. at the Bay end or East side of the pier, 7.92 m. at the centre and 5.79 m. at its West or shore end. Pier has a sheltered warehouse capacity of 21,285 cu.m. and a railroad siding connected with main track.

Aracelio Iglesias Terminal: This terminal used in the discharge and loading of general cargo, consists of a dock and a pier. The dock is 174.6 m. long and 13.41 m. wide and depth alongside ranges from 6.10 m. to 7.92 m. Dock has one sheltered warehouse with capacity of 110,463 cu.m. Pier (North side), length 157.8 m., width 31.70 m., depth 11.28 m. at the East or Bay end, 9.14 m. at centre and 7.31 m. at shore or West end.

Pier (South side), length 152.1 m., width 31.70 m. with depth alongside of 10.36 m. at East or Bay end, 10.36 m. at the centre and 8.23 m. at the West or shore end.

Pier has a sheltered warehouse with a capacity of 30,880 cu.m.

Both dock and pier have railroad siding connecting with the main track.

Juan Manuel Diaz Terminal: The terminal used in discharge and loading of general cargo consists of two docks and one pier. Dock No. 3: Length 158.8 m., width 17.07 m. with depth alongside of 6.40 m. at the N.E. end, 6.70 m. at the centre and 7.92 m. at S.W. end. Dock has a sheltered warehouse with a capacity of 50,230 cu.m. Pier (North side) length 152.4 m., width 38.10 m., depth alongside 10.67 m. at the Bay end or East side, 9.14 m. at centre and 6.10 m. at the West or shore end. Pier (South side), length 161.5 m., width 38.10 m. with depth alongside of 10.36 m. at Bay end or East side, 9.14 m. at centre and 7.31 m. at the shore or West end. Dock No. 2: Length 146.6 m., width 9.45 m. and depth alongside 6.40 m. at N.E. end, 6.70 m. at centre and 7.92 m. at S.W. end. Pier has sheltered warehouse with capacity of 39,821 cu.m. while Dock No. 2 has a sheltered warehouse with capacity of 112,471 cu.m. Both docks and pier have railroad sidings connecting with main track.

La Coubre Dock: No longer in operation.

Tallapiedra Dock: This dock used in discharge of lighters, has a length of 138.1 m., depth alongside 4.27 m. at N.E. end, 5.73 m. at centre and 4.57 m. at the S.W. end.

Antonio Guiterras Dock: This dock, used in the discharge of lighters of heavy lifts, from vessels performing operations in Bay, is 258.1 m. long, depths alongside (from Tallapiedra Pier No. 2) 7.92 m., 6.40 m., 5.49 m. and 3.35 m. If no lighter is used, vessels drawing up to 7.01 m. only can berth at this dock.

Osvaldo Sanchez Docks: These docks used chiefly in discharge of lumber. Dock No. 1 (formerly Atares), is 130.5 m. in length, 9.14 m. wide with depth alongside 6.70 m. at N.E., 7.01 m. in centre and 7.31 m. at the S.W. end. Dock No. 2 (formerly Vaccaro) is 155.7 m. long, 9.14 m. wide with depths alongside of 7.92 m., 6.40 m., 3.66 m. and 5.18 m. These docks have sheltered warehouses. There are no sidings.

Melones Dock: This dock has installation for discharge of fuel oil as well as an overhead crane for discharge of fertilisers and coal. Dock length 218.8 m., width 10.67 m. Depth alongside 5.49 m. at the N.E. end, 3.96 m. in centre, 3.05 m. at the S.E. end. Not in operation at present due to shallow draft. No sidings. Storage in open.

Puerto Pesquero de la Habana: Consists of Pote Dock, Hacendados Pier and Dock which have the following facilities.

Dock	*Length* (m.)
No. 1	259.9
No. 2	153.9
No. 3	224.9
No. 4	157.5
No. 5	157.5

Drafts: Minimum 7.31 m. Maximum 7.92 m.

Haiphong Terminal: (Formerly Maritima). This dock is used for the discharge and loading of general cargo. Length of dock 532.5 m., width 21.94 m. and depth alongside 9.75 m. to 10.67 m., along entire length of dock. This dock has 2 large warehouses and sidings, although at present only trucking operations are performed. It has 12 gantry cranes with a maximum lifting capacity of about 12 tons and berthing space for 3 average sized vessels, but in the near future will have two additional berths.

Manuel Porto Pena Terminal: Terminal consists of the following docks:

Manuel Porto Pena (formerly Burrus): Dock used for discharge of bulk shipments of grain. Equipped with elevator and silos having storage capacity of approximately 20,000 tons. Permitted discharge rate of approximately 1,200 tons per day. Length of dock, 167.6 m., width 7.92 m. and depths alongside 7.92 m. and 9.29 m.

Manuel Porto Pena No. 1: This dock used in discharge and loading of general cargo and sugar is 96 m. in length and 10.67 m. wide with depths alongside from 7.01 m. to 8.23 m. Dock has one sheltered warehouse and railroad sidings.

Manuel Porto Pena No. 2: This dock is used for loading and discharging sugar and general cargo. Length 136.2 m., width 10.88 m. with depth alongside of 7.92 m. at S.E. end, 7.62 m. at centre and 8.23 m. at the N.W. end. No warehouse, but is equipped with railroad sidings and has installations for discharge of fuel oil.

Manuel Porto Pena No. 3: This dock used for discharge and loading of general cargo is 201 m. in length and 9.14 m. wide, with depth alongside 9.75 m.

Turcios Lima (Grain Silo Dock). Installation for discharge of bulk shipments of grain. There are 36 grain silos and 18 part silos with a total capacity of 30,000 tons. Unloading rate 100 t.p.h. This dock has 1 sheltered warehouse and railroad sidings, and installations for the discharge of fuel oil and gasoline.

Manuel Porto Pena Berth No. 17: Length 170 m., depth 10 m.

Extractora de Aceite Berth: This dock is not in use at present.

Quinto de Regla Pier: This pier used mainly for loading of sugar. Pier (South side) 189.6 m. long, 10.36 m. wide with depth alongside 8.23 m. at S.W. or Bay end, 7.62 m. at the centre and 5.18 m. at the S.E. end. Pier (North side), length 104.5 m. width 16.46 m., depth alongside 8.53 m. at N.W. or Bay end, 7.92 m. at centre and 6.70 m. at the N.E. end. Pier has railroad sidings.

Fresser Pier: This pier has installations for loading molasses. Pier (South side), 141.7 m. in length, 9.14 m. in width with depth alongside 8.23 m. at S.W. or Bay end, 7.62 m. at the centre and 7.01 m. at S.E. end. Pier (North side), 124.1 m. in length, 9.14 m. in width with depths alongside of 6.70 m. at N.W. or Bay end, 7.92 m. at the centre and 7.62 m. at West end. This side of pier used only for docking purposes.

Edificios No. 1 and No. 2: These docks used in discharge of fertilisers also have installations for loading/unloading molasses.

Edificio No. 1 Dock: Length of dock 157.2 m., width 7.62 m. with depths alongside 6.40 m. – 6.70 m. of water throughout whole dock.

Edificio No. 2 Dock: Length 115.8 m., with 32.91 m. with depth alongside 5.79 m. at N.E. end, 4.27 m. at the centre and 4.27 m. at S.W. end. No operations are performed at this dock due to its shallow draft. Sheltered warehouses with a total capacity of 64,645 cu.m.

Fertiliser processing plant.

Facilidades Maritimas Dock: This dock used chiefly for loading of molasses and discharge of tallow and chemical products, has length of 248 m., width 7.92 m. and depth alongside 7.62 m. at N.E. or Bay end, 7.92 m. at centre and 7.01 m. at S.E. end. Dock has railroad sidings and is suitable for docking.

Nico Lopez Pier Nos. 1 and 2: (Minimum depth at LW 11.12 m.). These piers are used exclusively in discharging fuel oil, gasoline, etc., and are operated by oil refineries. Pier No. 1 (North side), length 313 m., depth alongside 10.97 m. at Eastern or shore end, 10.67 m. at centre and 10.36 m. at West or Bay end. Pier No. 2 (South side), length 313 m., depth alongside 10.97 m. at East or shore end, 10.67 m. at centre and 10.36 m. at West or Bay end. Pier No. 2 (North side), length 301.7 m. with depth alongside of 10.67 m. at East or shore end, 10.97 m. at the centre and 11.58 m. at the West or Bay end.

CONTAINER/RO-RO FACILITIES: Available.

EQUIPMENT: As the Port of Havana owns and operates a large number of auxiliary equipment, only the most important of those are listed here:

Four floating cranes: (1×100 tons) (3×35 tons) lifting capacity.

40 shore cranes: ranging from 30 tons to 5 tons lifting capacity.

Six cargo barges: 125/150 tons cargo capacity.

Nine tugboats: (1×1,200 h.p.) (1×860 h.p.) (1×540 h.p.) and remaining 6 are from 325 to 165 h.p.

STEVEDORES: Monday to Friday: working periods 0700 – 1300 hrs. and 1300 – 1900 hrs., although if necessary, 2 additional periods of 6 hours each may be worked. Saturday: Same as above. Sundays: No work performed.

Raw Sugar: Approximately 1,400 bags of raw sugar loaded per gang period. Six raw sugar bags loaded per sling. Loading raw sugar on 3 vessels simultaneously.

Refined Sugar: Approximately 3,800 bags of refined sugar (of 50 kg.) loaded per gang period. 12–15 bags loaded per sling.

General cargo: Approximate average discharging rate per gang hour:

General cargo about		10.0 tons
Bagged merchandise	up to 51 kg.	16.0 tons
Bagged merchandise	up to 92 kg.	17.0 tons
Bagged merchandise	more than 92 kg.	19.0 tons
Wood		8.4 tons

Fertilisers:

Superphosphate	9.9 tons
Simple Superphosphate	8.1 tons
Ammonium	9.0 tons
Potash	9.9 tons
Muriate (Chloride)	10.5 tons
Sulphur	10.3 tons
Phosphoric Rock	11.9 tons
Triple Phosphate	8.0 tons
Sodium Silicate	9.0 tons
Ferromanganese	9.0 tons

Floating Cranes:

Pablo Sandoval	100 tons – boom 51 m.
Frank Pais	25 tons – boom 10 m.
Matilde	6 tons– boom 9 m.

TANKERS: Average pumping rate of molasses is about 60,000 gallons per hour. Average pumping rate of fuel variable, from 3,000 up to 15,000 b.p.h. Also see "Berthing".

TELEPHONES: May be installed on board at Master's request.

MEDICAL: Crew members requiring medical attention are treated at "Commander Fajardo" Hospital where they can be hospitalised if necessary.

Those cases requiring dental care are treated at "10 de Octubre" Dental Clinic.

FUEL: Vessels can be supplied with bunkers at Havana, and following types are available:

Regular diesel oil, regular fuel oil, I.F.O. mixtures (intermediate fuel oil).

Diesel oil is supplied by a 350 ton capacity barge, and fuel oil by a 1,500 ton capacity vessel which is towed to piers or anchorage in order to fulfill deliveries. This vessel also delivers the I.F.O. mixtures and is named 'Playa Colorada'.

I.F.O. mixtures are prepared at the following viscosity degrees: 50 – 200 – 400 – 600 – 800 – 1,000 and 1,500 maximum. (Redwood International Scale, at 100°F).

I.F.O. mixtures are only available at the port of Havana.

Note to Chief Engineers: It is advisable when ordering I.F.O. mixtures to specify always maximum and minimum allowable viscosity of the product.

FRESH WATER: Vessels can be supplied with fresh water by barge in the bay. Six barges available with capacities of 350, 200, 320, 350, and 60 tons. Average rate of delivery about 100 t.p.h.

REPAIRS: Reliable repair shop (Tel: 62.0009).

DRY DOCK: Dry dock operated by Empresa de Talleres Maritimos, an operating unit of Empresa de Navegacion Mambisa. Berthing capacity 134 m. in length and 27.73 m. width, and can handle vessels up to 7.01 m. draft.

East Lateral: Length 194.4 m., width 11.58 m., depth alongside 10.06 m. at Bay end, 8.84 m. at centre and 5.49 m. at shore end.

West Lateral: Length 225.5 m., width 11.58 m., draft 7.01 m. at Bay end, 7.62 m. at centre and 6.10 m. at shore end.

DUNNAGE: Dunnage materials are available at this port but must be requested 3 days in advance of intended delivery.

FIRE PRECAUTIONS: Port of Havana has a fire extinguishing ship, kept on permanent watch duty by Safety Corp. who can be reached through telephone number 6–0777.

AIRPORT: Jose Marti International Airport is 15 km. from the port.

HOLIDAYS: Liberation Day (January 1st), Labour Day (May 1st), Day of National Rebellion (July 26th), Commemoration of Wars of Independence (October 10th). July 25th and 27th are also holidays.

DEVELOPMENTS: There is a plan to build a new terminal for discharge of bulk cargoes such as fertilisers, coal, etc. between the area comprised by the piers Quinto de Regla and Facilida des Maritimas (Aguilera).

Under this plan, Quinto pier and Chemical dock will cease to operate, and Facilidades Maritimas (Aguilera) dock will be shortened in its actual length (814 ft.).

Construction of container terminal to be completed.

GENERAL: (1) The port of Havana is approachable 24 hours a day, and dock Pilots keep permanent watch duty on their stations located in surroundings of harbour channel, very close to beacon marker of Pila de Neptuno.

(2) Any ship approaching port in daytime shall hoist national flag, merchant flag, and quarantine flag, not lowering the latter until granted "pratique" by doctors in charge of sanitary inspection. At night she shall show only quarantine lights as prescribed by International Sanitary Regulation.

(3) In case of emergency, ships at anchor shall immediately contact land through Official Radiophone Station CLT, available 24 hours a day, through 2260 kHz. In very urgent cases, CLT can be contacted through 2182 kHz CLT services are free of charge.

(4) Ships moored to piers standing off pier heads at night must keep visible red light at the ship's extremity facing the sea.

(5) Every moored ship must strengthen its lines on first warning from Port Authorities when deemed necessary due to bad weather.

(6) Small boats belonging to ships are not authorised to be used for crew or passengers' service within port limits unless otherwise duly authorised by Harbour Master.

(7) When berthing, ratguards must be placed on all mooring ropes.

(8) Port provides boats to dispose of ship's wastes. Services provided free of charge and can be requested through ship's Agent.

SHIPMASTER'S REPORT: November 1978.

Pilotage: Compulsory. Advise Agent of vessel's ETA. Pilot boards 1 to 0.5 miles N.W. of Pta. Barloventa.

Restrictions: Vessel is able to enter and leave during hours of darkness and at any stage of the tide.

Max. Size: Max. draft for cargo vessel 33 ft. and for tankers 37 ft.

Tugs: There are 3 large tugs and 7 small tugs available (145–860 h.p.). Vessel is able to dock and undock without the assistance of tugs.

Radio: Havana Radio "CLA".

VHF: Port Authority and Pilot operate on Channel 13. Agent on Channel 12.

Fresh Water: Available.

Repairs: Facilities available.

Fuel: Bunker fuel oil and diesel oil available.

Medical: Doctor and hospital available.

Facilities: Laundry services available, telex available but unreliable. Groceries and meat available but in limited quantity.

Berthing: Terminal Sierra Naestra Berth No. 3 South:

Position of berth: Lat. 23° 08′ 25″ N., Long. 82° 20′ 42″ W. Distance from entrance 1 mile. Max. size of vessel that can berth LOA 520 ft., beam no restriction. Max. draft 29 ft. Least depth of water in channel from sea to berth 40 ft. Range of tide 1.5 ft. Vessel is able to dock and undock at any stage of the tide day or night.

Bulk Handling Facilities: Two grain silos available.

Cranes: 1 quay equipped with 12 cranes, capacity unknown. 4 floating cranes available, 1×100 tons, 3×75 tons capacity.

Special Cargo Handling Facilities: Ro/Ro facilities available. There are facilities for handling palletised cargo and containers, also there is a reasonable amount of storage space for containers.

Stevedores: Stevedores are allocated by Port Authority and the vessel has no say in the number of gangs supplied. There are a limited amount of steel barges.

Density: 1014.

General: On arrival, vessel waited 2 hours outside for a Pilot then entered harbour where we waited another two and a half hours for a ship to sail, no ship sailed and no other reason given for delay.

Docked starboard side to Sierra Maestra No. 3 South depth 24 ft. forward, 37 ft. aft, 1 tug pushing. Pilots good.

Officials boarded shortly after arrival, following documents required:

Port Health:	1 Health declaration. 3 Crew lists. 1 Vaccination list. All vaccination books.
Immigration:	All discharge books. (To be inspected) 5 Crew lists.
Customs:	3 Personal declarations. (In detail) Cargo plan. 5 Crew lists. Cargo Manifests. Pornography in bond.
Agriculture:	2 Crew lists. 1 Provisions list. (Comprehensive) Cargo plan.

Personal declaration must include watches, cameras, radios, tape recorders, presents, new clothes and money all of which must be placed under seal. One watch and 1 radio allowed to be retained by each Crew member and 1 camera by Master. Advisable to have all above collected prior to arrival.

Vessels normally searched by police and anything found, i.e., watch, radio, money, new clothes and cameras, etc., confiscated whether declared or not. To the surprise of officials this vessel was not searched.

All crew are issued with a shore pass with the exception of the Master. Shore leave extends from 0800 hrs. to 2400 hrs., extension may be obtained but only on special request to the Agent. Shore passes must show the money issued and must be signed by the Master.

On going ashore money and other articles are checked together with watches, jewellery and lighters, etc., and entered on the pass. Should any shortage or excess be found on return a fine will be imposed. On return money remaining is entered on the pass and anyone taking ashore more than the amount shown on the pass will have it confiscated (this actually happened in Isobela).

Communications outside Cuba are difficult, telexes are accepted by Agents but certainly not always sent the day handed in.

Incoming telexes can be delayed up to 6 days. Telephone calls may be made but usually take 3 to 5 hours by which time offices in Europe are closed. In an emergency British Embassy will transmit urgent messages via direct radio link. Embassy most pleasant and helpful. As will be seen by foregoing, it is essential that schedule made with Portishead and Charterers informed to send all messages via this station.

Stevedores very co-operative but due to uncertainty of transport and information on number of gangs, time of completion was uncertain until last day. All discharge was direct to trucks.

Agriculture Department demand that all garbage be placed in plastic bags with neck tied (they supply bags if none on board and charge vessel). Bags collected twice weekly and shore labour do all handling. All meats except New Zealand and Australian sealed. Daily issue of New Zealand and Australian meats given and fridges resealed, any other meats required must be purchased ashore.

Fuel oil, diesel oil and fresh water available by barge but time of delivery uncertain therefore water must be ordered well in advance of requirement. Agents advised fuel would arrive Thursday morning, eventually arrived Monday night. Diesel oil had arrived prior to the fuel with no advice given to the vessel that vessel was bunkering at all.

Fresh vegetables in very limited supply, though Chandler seemed keen to sell meats.

Repair firm and dock exist but after being promised labour for 3 days and none arriving repairs cancelled.

SHIPMASTER'S REPORT: April 1979.

Documents:

12 Crew Lists
3 Store Lists
3 Declarations
3 Currency Declarations
3 Vaccination Lists

Points of note:

(a) Anchorage is very close to coast and in cable area, recommend drifting about 5 miles from coast.

(b) Contact made via Morro Signal Station, VHF Channel 16.

(c) Pilot boards about 1 mile from entrance and they do not appear to work at night.

(d) The port is heavily polluted.

(e) When we sailed we had to wait for 5 hours till a tug was available.

(f) The vessel may lower its gangway for the Pilot to leave but it then must be raised until Port Officials arrive.

(g) All crew must be sighted by Immigration and are handed their discharge books.

(h) All cameras, gifts, items purchased during voyage and not in use, extra radios, watches, etc., and "magazines" must be placed in bond. All except the "magazines" should be declared.

(i) All currency must be declared and placed in safe and sealed. If cash purchases made from Chandler, e.g. Cigars, they must be paid for with Canadian or U.S. dollars. The Customs attend with Chandler and open safe for correct amount to be removed.

(j) Cuban pesos issued by Agent and any not used must be returned. Each person is issued with a card and the amount drawn is entered, then each time they return from shore the Immigration guard enters the amount remaining.

(k) Immigration guard issues passes. He is always on duty, crew member hands his discharge book to him and he gives him a pass. This pass has the time that he must be back onboard by, normally 2400 hrs., extensions may be obtained by advising Agent 24 hours in advance. Fines may be imposed for returning late. On return the guard takes the pass and discharge book is returned.

(l) Port Health insist that all rubbish be put in polythene bags and these bags put in bins with lids. The port maintains a garbage disposal service which attends on request.

(m) All meat, if not of New Zealand, Australian, Canadian or American origin must be placed under seal.

(n) The Agent can be contacted by VHF. Call "Mambisa" on Channel 12, office hours only.

(o) Postal service not recommended as very slow.

(p) Berthed at Turcios Lima. 33 ft. alongside. The discharger has two heads and moves the length of the berth. Wheat was discharged at an average of 60 tonnes per hour. Work was on a 24 hour basis.

(q) All hatches were inspected even though only one was to be discharged.

(r) The vessel was not searched but we were told that it could happen at anytime during our stay.

(s) The Officials who attended this vessel were all very friendly and helpful.

SHIPMASTER'S REPORT: December 1983.

Documents:

10 copies Crew List.
3 copies Stores List.
2 copies Deck and Engine Stores.
Personal Declaration Forms (1 copy plus 1 per individual crew member.)
Currency Declaration List.
Drugs List.

Accommodation ladder required for boarding officials.

Pilotage: Compulsory. ETAs should be sent via Agent 72, 48 and 24 hours prior to arrival. Pilot boards at entrance to harbour.

Anchorages: Only available inside harbour.

Vessels await entrance instructions 5 miles North of Morro Light.

Restrictions: Vessels may dock/undock day or night, at any stage of tide.

Max. Size: Max. length 280 m., draft 32 ft.

Radio: Havana Radio.

VHF: Havana Radio – Channels 16, 13 and 11. Pilots – Channels 16 and 11. Port Authority – Channel 16. Agents – Channel 16 and 10.

Tugs: 7 tugs of various sizes available.

Berthing: Vessel loading potatoes; berth 2.1 miles from Harbour entrance. Max. LOA 575 ft., max. beam 80 ft. Max. draft – for'd 22 ft., aft 32 ft. Nature of bottom at berth was mud. Depth in channel 33 ft.

There are no fenders on the quays at Havana. Ensure that there are ample fenders on board.

Cranes: No cranes at cargo quay. 1 floating crane available, capacity 175 tons.

Bulk Cargo Facilities: Silos available for grain. Grabs available for handling coal/coke.

Specialised Cargo Handling Facilities: Facilities available for Ro/Ro vessels.

Equipment to handle palletised/break bulk/20 ft. – 40 ft.containers available. Ample storage areas for containers, etc.

Steel lighters available for work at anchorage.

Stevedores: Satisfactory work carried out by stevedores.

Medical: Doctor and hospital facilities available.

Fresh Water: Available.

Fuel: Bunker fuel oil, diesel and lubricating oils are available.

Consuls: Majority of nations are represented.

Repairs: Can be undertaken.

Surveyors: Lloyds' and Salvage Surveyors available.

Services: Laundry service, telex, limited supply of fresh provisions, groceries and meats available.

All international telephone calls had to be made through the Merchant Seaman's Club.

SHIPMASTER'S REPORT: October 1987.

Vessel (34,000 d.w.t. bulk carrier) called at Havana and Santiago de Cuba to discharge 28,000 tons of wheat. Arrival draft Havana 32 ft. salt water even keel.

Havana was our first discharge port and one day prior to arrival at Havana, vessel was instructed by Agents to anchor at Caibarien Anchorage (BA. Chart No. 425; Lat. 22° 39′ N., Long. 79° 14′ W.) and await our turn to discharge in Havana.

This anchorage, so I understand, is increasingly used as a waiting anchorage for vessels bound to Havana. We anchored without a Pilot with Cayo Frances Lt. 140° at a distance of 0.9 miles from the same light and depth of water was 67 ft. – 75 ft. good holding ground, mud. Total distance Havana to Caibarien 190 miles. Due to drafts available, this anchorage can only accommodate very few deep drafted vessels.

Consuls: Greek Embassy resides at the "Commodoro Hotel" in Havana. Tel. 225551 (room 422).

Customs Formalities; On arrival at Havana, Customs handed to us Customs Forms to be filled in by each crew member in duplicate. Original was kept by them and the second copy was handed back to us on sailing, in order to be given to the Customs at second port (Santiago de Cuba). Apparently no extra copy was required in Santiago de Cuba.

AUTHORITIES: Ministry of Transport.

All port authorities located at Custom House building. Means of transportation used by authorities to clear vessel is launch. Each authority has its own launch for these services.

AGENT: Empresa Consignataria Mambisa, Agencia Havana, Lamparilla No. 2, P.O. Box No. 1785, Havana, Cuba. Telephone: 61 – 1159 (day and night), 61 – 6706 – Agency Export Dept., 61 – 9068 – Agency Clearance Dept. Cable: Mambisas Habana. Telex: 511576.

Agency VHF works on Channel 12.

ISABELA DE SAGUA: 22.52 N. 80.00 W. (See Plan)

Although the port of Isabela is not located in a bay and lies on a small peninsula oriented S.W./N.E., it is a fairly protected harbour because a barrier of cays, lined from N.W. to S.E., forms a protective levee against the roughness of the sea and the force of the winds.

Behind the port and town of Isabela, to the S.E., and as if splitting the small peninsula in two, Sagua La Grande river flows into the sea.

Isabela is mostly a sugar shipping port but also handles a rather important amount of import cargoes.

In the vicinity of Isabela, besides several sugar mills, there are an Electro-Chemical Industry and a very important foundry.

PILOTAGE: Pilots board vessels about 1 or 2 miles out from Nos. 1 and 2 Buoys. Pilot station located at Custom House building, Isabela de Sagua. Distance from place where Pilots board vessels to anchorage is 7 miles.

From seaward by stages, the bottom is sandy, coral reef and hard rock, mud and rock under mud, mud and clay.

Turns in channel are not dangerous but there are narrows with dangerous currents.

ANCHORAGES: *Inner Anchorage No. 1:* This anchorage is located about 300 m. N.W. from the piers and can be considered part of the manoeuvring basin.

Bottom is soft mud but anchors hold well with 3 shackles of chain.

Draft allowed: 24 ft. or 25 ft. depending upon vessel's length.

Swinging area: About 250 m.

Vessels load or discharge at this anchorage by means of barges.

Inner Anchorage No. 2: This anchorage is located close to and South of Palomo Cay.

Bottom is soft and mud but anchors hold well with 3 shackles of chain.

Draft allowed: 4.4 m.

Swinging area: Unlimited.

Several vessels can be accommodated.

Vessels load or discharge at this anchorage by means of barges but it is chiefly used for vessels awaiting berth.

Outer Anchorage: Located East of Del Cristo Cay and about 8 miles from the port of Isabela, and also known as Ingles Anchorage.

Bottom is mud and coral reefs but anchors hold well with 3 or 4 shackles of chain.

This anchorage is marked with a well lighted buoy.

Vessels can load safely up to 32 ft. 8 in. draft.

Loading or discharging is effected by means of barges.

Operations can be performed at this anchorage when there are good weather conditions.

RESTRICTIONS: Entry and sailing only during daylight due to lack of lights in channel.

MAX. SIZE: Max. draft 23 ft. Max. length 500 ft. Tidal variation about 2.5 ft.

PORT EQUIPMENT: 3 Tugboats (250 h.p. each). 1 Water launch (30 tons capacity). 6 Barges (200 tons cargo capacity each). 1 Transportation Launch.

BERTHING: Isabela operation places (piers) are located on the North coast of the peninsula previously mentioned.

Formerly 4 piers were operated by the port but due to shallowness alongside Begueristain pier, nowadays the latter is used only for small craft and barges drawing 10 ft. maximum. Another berth, Garcia pier, is out of service undergoing repairs, the date of completion of which has not yet been determined.

Amezaga Pier: This consists of a solid concrete well paved construction.

As double standard gauge railroad tracks run along the length of pier, operations can be performed either by railroad or trucks, or a combination of both.

Although it has 2 sides, only the Eastern is used for vessel operations, because at the West side the depth alongside is 9 ft. only.

East Side: Length 324 ft., draft allowed 24 ft. 0 in. (7.32 m.), width 35 ft.

Cargo handled by this pier: General cargo, bagged cargoes, bagged raw and refined sugar, etc.

Alfert Pier: Draft allowed 21 ft. (6.4 m.) Ship's max. length 557 ft. (170 m.).

This pier consists of an all-hardwood construction not in good condition, needing repairs, which are taking place.

It has standard gauge railroad tracks connecting with the main tracks and is not suitable for trucking operations.

East Side: Length 450 ft., Width 30 ft., draft allowed 21 ft. 6 in. (6.40 m.).

Tanker information: Molasses: 2 × 8 in. diameter connections.

Loading rate: 200 t.p.h.

Cargoes handled by this side: General cargo, molasses, bagged sugar.

West Side: Length 450 ft., width 30 ft., draft 21 ft. 6 in. (6.40 m.).

No operations performed at this side due to shallowness alongside.

Beguiristain Pier: Max. vessel's length 525 ft. (160 m.), Draft. (West side) 18 ft. (5.40 m.).

Length 540 ft., width 30 ft.

East side of this pier is out of service due to shallowness alongside.

STEVEDORES: Raw Sugar loading rate: 1,300 bags of raw sugar (of 250-lb. type) loaded per 4 hour-gang period, or 1,490 (of 220-lb. type). From 4 to 5 bags loaded per sling. From lighters, 5 bags.

Refined Sugar: 2,360 bags of refined sugar (50 kg.) are loaded per 4 hour-gang period. 12 bags loaded per sling.

Operational capacity: Three vessels can be operated simultaneously.

Equipment for bulk sugar: Twelve grates available but trimming performed with shovellers.

Loading Raw Sugar – Working periods: From Monday to Friday 0700–1100 hrs., 1300–1700 hrs. Saturday 0700–1100 hrs.

General cargo operations occasionally performed at this port, for which above periods apply.

TANKERS: Molasses average pumping rate 40,000 g.p.h.; alcohol average pumping rate 70-77,000 g.p.h. No fuel oil or ammonium discharging operations performed.

FUEL: Not available.
FRESH WATER: Fresh water supplied by barge water-tug up to max. 40–60 tons daily depending on efficiency of aqueduct. Capacity of barge 30 tons. Delivery rate 60 tons per day. Water can be supplied at any pier or inner anchorage.
REPAIRS: Minor repairs can be effected at Isabela de Sagua, larger repairs to be effected at Sagua la Grande, where two repair shops available: Fundicion Marfarlane Nacionalizada and Talleres Esponda Nacionalizado.
MEDICAL: Crew members requiring medical or dental care are treated at Sagua La Grande Hospital, where they can be hospitalised if necessary. At Isabela there is only a Polyclinic.
DUNNAGE: Dunnage material, specially wood dunnage, is difficult to obtain at Isabela.

Paper dunnage can be obtained if ordered well in advance.
TRANSPORTATION: Means of transportation to and from Isabela are: train, bus or car.

From Isabela to Sagua La Grande is a distance of about 17 km. by road or train.

From Sagua La Grande to Santa Clara is a distance of about 50 km. by road.

From Santa Clara there are numerous means of communications to any place or city in Cuba.

There are bus lines Sagua/Cardenas, Sagua/Havana, Sagua/Santa Clara, Sagua/Isabela.

SHIPMASTER'S REPORT: November, 1978.
Pilotage: Pilot boards 1.5 miles N.E. Cayo Cristo lighthouse in position Lat. 23° 02′ N., Long. 79° 59.4′ W. Pilotage is compulsory. ETA should be sent to vessel's Agent.
Max. Size: Max. LOA 606 ft. Max. beam 75 ft. Max. draft 23 ft. I would suggest the max. size as being 520 ft. LOA, 70 ft. beam and 22 ft. max. draft. Tidal range 2 ft.
Tugs: 3 tugs available each approx. 140 h.p.
Radio: Havana Radio "CLA".
VHF: Not available.
Documents: 8 Crew Lists. 1 Vaccination List, Health Declaration, 4 Currency Lists (crew and ships). (Also see "General").
Consuls: Nearest are in Havana.
Medical: Doctor and hospital available in Sagua La Grande at a distance of 10 miles from the port.
Berthing: Espg. De Amezuga Berth: Position Lat. 22° 56′ 54″ N., Long. 80° 00′ 40″ W. Distance from berth to entrance 7 miles. Max. size of vessel that can be safely berthed, LOA 520 ft., beam 70 ft. and deepest draft 22 ft. Least depth of water in channel from sea to berth 25 ft. Vessel able to dock and undock at any stage of the tide also vessel able to dock and undock during hours of darkness at times. Special bulk facilities handled at the port include Molasses. There are no quay cranes, Ro/Ro facilities or floating cranes.
Stevedores: Believe there are a total of 8 gangs available for working of general cargo. There are steel and wooden dumb barges available (length 75 ft., beam 30 ft.).
Density: 1004.
General: Documents required: 3 Manifests (Crew Declarations); 8 Crew Lists; 4 Bonded Stores Lists; 4 Provision and Meats Lists; 4 Currency Lists (Crew and Ship's); Certificate of Sanitary/Veterinary Inspection (from last Cuban port); 1 Stowage Plan; Cargo Manifest.

Seals may be opened coastwise but advise not to, with exception of meats.

All conditions as Havana except shore leave only 1800 – 2200 hrs., except Master, extension granted for officers to 2400 hrs. if requested via Agent.

Only chandler 70 miles away.

Fresh water available at 8 t.p.h. (amount may be limited) but must be ordered immediately on arrival if required. We did not order until the last day as we believed we were bound for a U.S.A. Gulf Port, it took 8 hours to hook up and a lot of pressure on Agent.

Berth unsuitable for this size of vessel though using mooring buoys vessel lay securely moored. Concrete pier with wooden fendering slightly dilapidated in places but quite adequate. Pier 320 ft. long and 4 ft. high. Stern secured to 2 mooring buoys, one each quarter, distance approx. 200 ft., but buoy moorings are believed to be suspect. No cargo can be worked at No. 5 except by lighters. Harbour Master states largest vessel suitable for this berth 120 m. LOA. Depth alongside by soundings 22 ft. Forward, 26 ft. aft. Pilots good.

Gangway must be used, as companion ladder will not reach quay.

Channel requires local knowledge but it is well buoyed.

Cargo discharge depends on supply of trucks. Can only work one truck at each hatch therefore to speed up discharge last day two gangs No. 4 discharged into lighter offshore.

AUTHORITY: All port authorities located at port of Isabela de Sagua.

When vessels at anchorage awaiting berthing, authorities transported by tug-boat for clearing purposes.

AGENT: Empresa Consignataria Mambisa, Agencia Isabela de Sagua, P.O.Box 18, Isabela de Sagua, Prov. de Las Villas. Tel: 698122 (office) 698130 (night). Telex: 041222. Cable: Mambisas Sagua La Grande.

Pilot VHF works on Channel 16.

Cables, messages should be addressed "Mambisas Sagua la Grande", but recommended be sent through main office "Mambisas Havana". ETAs should be sent simultaneously to both.

JUCARO: 21.37 N. 78.51 W.
(including the sub-ports of Boca Grande, Palo Alto and Santa Maria)

APPROACHES: Vessels proceeding to Jucaro sub-ports must call first at Jucaro for Port Authority's clearance.

Tidal variation 1 ft. 6 in. It is not necessary to await slack water before entering. Recommended that *(a)* vessels arriving from Cuban ports situated to the East of Jucaro, such as Caibarien, Puerto Padre, Manati, Vita, Banes, Antilla, Sagua de Tanamo, Moa, Baracoa, etc., or from foreign ports, should enter Jucaro Port through Breton Channel, and *(b)* all vessels not exceeding 22 ft. draft proceeding from those Cuban ports situated to the West of Jucaro, such as Havana, Mariel, Matanzas, Cardenas, Isabela de Sagua and Cienfuegos, should enter Jucaro port through Tunas Channel.
DOCUMENTS:
10 Crew Lists.
10 Passenger Lists (if passengers on board only).
10 Manifests of Cargo (or ballast).
4 Customs Crew Declaration (including currency).
4 Ship's Provision Stores, including bonded and narcotics.
1 Health Declaration.
1 Vaccination List.
Clearance from Last Port.
Derat Certificate.
PILOTAGE: Pilots board vessels which enter through Breton Channel at Buoy No. 2, which is situated to East of channel entrance, 21° 08′ 18″ N. 79° 30′ 24″ W. with water depth 33 ft. Through this channel vessels can enter drawing up to 29 ft. with max. length 800 ft. Bottom is coral reef. There are dangerous turns at "pasa" of Baandra until Ana Maria Cays have been passed.

For vessels which enter through Tunas Channel, Pilots board at No. 2 Buoy which is situated to East of Channel entrance, Lat. 21° 31′ N., Long. 79° 41′ 21″ W. Through this channel vessels can enter drawing up to 22 ft.

No pilot station. Pilots are to be notified of vessel's arrival 24 hours in advance. Distance from place where Pilots board vessels to Jucaro anchorage is 50 miles.

From Jucaro Anchorage to:

Boca Grande Sub-port	– 14 miles
Palo Alto Sub-port	– 5 miles
Santa Maria Sub-port	– 24 miles

RESTRICTIONS: Vessels can enter and sail through both channels day and night.
ANCHORAGES: Loading places, ex-lighters. Three anchorages (very good holding ground), namely, No. 1 Anchorage – 6 miles from the port at South of Obispo Cay, depth 24 ft. No. 2 Anchorage – 7 miles from the port at S.E. of Obsipo Cay, depth 27 ft. No. 3 Anchorage: Anchorage 8 miles from the port and 1 mile to Eastward of No. 2 anchorage, depth 30 ft.
RADIO: Call "Jucaro Radio" on 2182 kHz, will answer on 2760 kHz.
VHF: Pilot boat, Port Captain and Agency equipped with VHF and work on Channel 16.
LOADING: This port only exports bagged refined sugar in 100 kilos jute bags or 50 kilos cotton bags, molasses and fresh fruits.

Fuel oil is discharged either imported or by coastal trade.

Working periods: Monday to Friday 0600 – 1000 hrs., 1200 – 1600 hrs.; Saturday 0600 – 1000 hrs., 1200 – 1600 hrs. It is possible to work overtime, also possible to work Sundays and holidays, if required.

Work carried out on a piece-work basis, and at an average of 2,000 bags per gang-period. 6 sugar bags loaded per sling.

Refined sugar: Work is carried out on a piece-work basis and loading rate averaged about 4,000 bags of the 50 kilo type and 2,000 of the 100 kilo type per gang-period.

Sugar in bulk: Venezuela and Ecuador sugar mills have 5 thrower machines each for distributing sugar in vessels' hatches. Loading carried out by cutting sugar bags through grates placed on vessels' hatches.

Shore cranes: None.
TANKERS: Average pumping rate of molasses 20,000 g.p.h.
FUEL/REPAIRS: Not available.
FRESH WATER: No water available.
OPENING/CLOSING HATCHES: By crew.
PROVISIONS: Available, but expensive.
TRANSPORTATION: Distance between Jucaro Port and its sub-ports:

To Santa Maria	– 31 miles
To Boca Grande	– 15 miles
To Palo Alto	– 9 miles

Motor launches are used between port and sub-ports, and take 4.5 hours, 2.5 hours and 1.25 hours between Jucaro and Santa Maria, Boca Grande, and Palo Alto respectively.

By automobile, 3.5 hours to Santa Maria and 2 hours to Boca Grande. No highway from Jucaro to Palo Alto.
MEDICAL: There are two hospitals at Ciego de Avila where sick crew members can receive attention. Distance between Jucaro and Ciego de Avila is 27 km.

SHIPMASTER'S REPORT: 1977.

Lines to the barges to be provided with rat-guards.

Very strict regulations concerning crew declaration of effects, currency and pornography.

All personal effects of crew members will be sealed by Customs, even their used clothes, allowing them out only a couple of clothes changes, one carton of cigarettes and one bottle of spirits.

Advisable to instruct crew members to declare all currency and not to try to take any money ashore. They could not use or change it and could run into a great deal of trouble.

Vessel's deck, engine and accommodation will be searched by Port Authority party.

Cholera vaccination available on request.

Shore leave for crew allowed only from 1800 to 2200 hrs.

No kind of restrictions for the Master, whose shore leave is unlimited. Strict Customs regulations do not affect him.

No amenities available ashore.

Loading of oranges fast if available. About 200 tons per gang shift.

Pre-cooling of cargo chambers is not required. Oranges stowed in two tiers of four cartons with battens in between. Maximum height of eight cartons. Stowage factor about 95.

AUTHORITY: Custom House, Captain of the Port and Immigration, located at Jucaro. Port doctor located at Ciego de Avila.

AGENT: Empresa Consignataria Mambisa,
Agencia Nuevitas,
P.O. Box No. 350,
Puerto Tarafa, Nuevitas,
Prov. de Camaguey.
Telephone: 2779, 2107 (office),
3190 (night).
Telex: 3190.
Cable: Mambisas Nuevitas.

Mambisas Nuevitas Agency also attends at the port of Nuevitas.

Jucaro and Boca Grande are attended by Nuevitas Agency personnel.

Any information about vessels operating at Jucaro or Boca Grande should be requested from our main offices at Havana or to Nuevitas Agency because it is extremely difficult to communicate directly with the Agent attending the vessel. Agents at Jucaro and Boca Grande communicate periodically with Nuevitas Agency which relays the information to our main office.

SUB-PORT OF BOCA GRANDE:

SHIPMASTER'S REPORT: Port will not be operational after 1977.

LOCATION: About 15 miles East of Jucaro.

APPROACHES: See "Jucaro".

PILOTAGE: See "Jucaro". Distance from place where Pilots board vessels to Boca Grande is 64 miles. Entrance channel: same as for Jucaro. Tidal variation 1 ft. 6 in.

ANCHORAGES: Anchorage No. 1: Located 3 miles off Boca Grande DEPTH ~~Firth. Draft~~ 24 ft. Anchorage No. 2: Located 5 miles off Boca Grande ~~Firth. Draft~~ 30 ft. Both these anchorages have soft mud bottom.

Kind of cargoes handled. Importation, fuel oil. Exportation, bagged refined sugar, molasses. Coastal trade, discharge of fuel oil.

LOADING: At present only refined sugar is exported. All sugar-loading operations are carried out at anchorage by means of lighters. Following lighters available:

Barges	*Capacity* (50 kg. bags)	*Capacity* (100 kg. bags)
Ana	4,900	2,500
Loretto	4,400	2,100
Mascot	4,400	2,100
F 55	4,400	2,100
Trusco 89	5,100	2,980
Angel	3,440	1,700

Working Periods: Monday to Friday 0600/1000 hrs., 1200/1600 hrs.; Saturday 0600/1000 hrs., 1200/1600 hrs. When working is performed on Sundays, same periods apply.

Work is performed on a piece-work basis, and average loading rate is about 2,000 bags, basis 6 bags per sling, and 100 kilo bags. Only one vessel can be worked at a time.

TUGS: Three tugs available.

TANKERS: Discharging operations at No. 1 or No. 2 anchorages. Discharging rate approximately 20,000 g.p.h.

There are also steel barges for transportation of molasses and/or sugar:

Guanales:	100 ft.×30 ft.×7 ft. Sugar capacity: 1,600 bags. Molasses capacity: 65,000 gallons.
Loreto:	100 ft.×30 ft.×7 ft. Sugar capacity: 1,600 bags. Molasses capacity: 65,000 gallons.

Each of these barges has 4 tanks measuring 15 ft.×36 ft.×7 ft. Capacity: 3,780 cu.ft. or 28,274 gallons each tank. Total capacity: 113,100 gallons. Each barge can load a max. of 400 tons of molasses and each is equipped with steam pump.

COMMUNICATIONS: Launch transportation. It takes 2.5 hours for travelling from Boca Grande to Jucaro or Santa Maria. Captain of the Port's radio-telephone is used as means of communication.

All communication and instructions for vessels operating at this sub-port must be given to Nuevitas Agency.

MANZANILLO: 20.20 N. 77.12 W. (See Plan) (and sub-ports of Ceiba Hueca, Media Luna, Niquero and Pilon (Ensenada de Mora).)

PILOTAGE: Pilots board vessels at Cabo Cruz. Pilot station located at Cabo Cruz and Pilots communicate with Manzanillo by means of radio-telephone. Distance from place where Pilots board vessels up to Manzanillo through Madrona Channel is 68 miles. Through Palomino Channel (Coloradas de Fuera) is 55 miles.

APPROACHES: *(a)* Madrona Channel: This channel has sharp and narrow turns. Bottom is of soft mud. Max. draft with which vessels can enter through this channel is 33 ft. Channel has depth not less than 35 ft. Vessels must wait for slack or favourable tide to proceed through this channel. No tug is necessary.

(b) Palomino Channel: This channel has turns, but they are less sharp and less narrow than those of Madrona Channel. Bottom is of soft mud. Max. draft with which vessels can enter through this channel is 20 ft. No tug is necessary.

The average tidal variation is 1 ft. 6 in.

RESTRICTIONS: Due to present conditions of channel lights and distance, it is suggested that vessels enter and sail only during daylight.

ANCHORAGES: Inside harbour: No. 1, draft 24 ft. Distance from shore 1 mile. Use: sugar/general cargo.

Outside harbour: No. 2, draft 29–30 ft. No. 3, draft 33 ft. Distance from shore 1.5 miles to 2 miles. Use: sugar/general cargo. Although about 40 ft. depth at this anchorage, it is limited to 33 ft. which is official draft of the entrance channel. Vessels have been loaded at this anchorage up to 33 ft. 6 in. draft.

ICP Submarine Pipe-Line Anchorage: The submarine pipe-line anchorage is located as follows:

Lat.: 20° 21′ 12″ N. – Long.: 77° 10′ 21″ W.

There is no limitation to the length of vessels operating at this place and maximum official draft is 28 ft.

Distance from shore is about 2 miles and the means of transportation are the tugboats of the stevedore enterprise Terminales Mambisas.

The vessel is secured to 4 buoys and the mooring is performed by Terminales Mambisas tugboats and personnel.

The pipe-line is 8 in. (203 mm.) in diameter and connection is 6 in. (152 mm.).

The cargo handled is: Discharge of kerosene, gasoline and diesel oil.

The prevailing winds are those of the first quadrant.

EQUIPMENT: The port has 6 barges of 200 tons cargo capacity, 2 of 140 tons and 1 of 100 tons, this last one having a derrick capable of lifting up to 2 tons.

There are 3 tugboats servicing the port:

"Punta Morrillo" the biggest and most powerful, capable of towing 5 barges, "Aracelio Iglesias" and "Cdte. Turcios Lima" which can tow 3 barges each.

These tugboats are also used to transport shore/vessel personnel from shore to anchorage or vice versa.

There are no cranes or pay loaders in the port.

LOADING: Sugar-loading operations performed at anchorage by lighters.

At sugar mill "La Demajagua", town of Calicito, at a distance of 2 km. from the sugar mill, there is a small pier with a draft of 10 ft. where the barges are loaded with bagged raw sugar for vessels operating at Manzanillo.

At sugar mill "Francisco Castro Ceruto", town of Campechuela, at 500 m. from the sugar mill there is a pier with a draft of 12 ft. where barges are loaded with bagged raw sugar for vessels operating at Manzanillo or Ceiba Hueca.

For the discharge of barges with import cargoes the coastal pier of Manzanillo Fishing Port is used, about 3 km. distance from the city.

Bulk cargoes are not handled by this port except the discharge of petroleum products.

Docks are suitable for reception and handling of import and export cargo (bulk cargo excepted). They have railroad tracks of non-standard gauge, which connect with warehouses.

Sugar and general cargo: Working periods: Monday to Friday 0700 – 1100 hrs., 1300 – 1700 hrs.; Saturday 0700 – 1100 hrs.

2,000 raw-sugar bags loaded per gang per day of 8 hours.

DISCHARGING: Rates:

Bagged cargo (of 100 lb.)	approx. 25 t.p.h.
Bagged cargo (of 200 lb.)	approx. 35 t.p.h.
Iron	approx. 7 t.p.h.
Wood	approx. 8 t.p.h.
Jute bags	approx. 15 t.p.h.

FUEL/FRESH WATER: Not available.

REPAIRS: Mechanic and foundry shop under control of Industry Ministry, where light repairs of machine parts can be performed.

TRANSPORTATION: Distance from Manzanillo to:

Ceiba Hueca:	15 miles by sea, 32 km. by highway
Media Luna:	23 miles by sea, 45 km. by highway
Niquero:	45 miles by sea, 79 km. by highway
Pilon:	90 miles by sea, 130 km. by paved highway, which reaches up to 15 km. from Niquero whereafter a dirt road must be used to reach Pilon. Dirt road distance of 40 km. During rain season a jeep is used to travel by this road.

Car is used to travel from Manzanillo to above sub-ports, and takes: to Ceiba Hueca 1 hour; to Media Luna 1 hour; to Niquero 2 hours and to Pilon 3 hours (in rainy season about 5 hours).

Daily car services from Manzanillo to Niquero; to Pilon there are trucks specially prepared for this service.

COMMUNICATIONS: There is direct communication between Manzanillo and its sub-ports by telephone or telegraph.

In Manzanillo there is a long distance telephone service, radiograms, telegrams and Post Office.

Ocean-going vessels navigating to Cuba can communicate by radiotelegraphy, contacting "CLA Havana" station, which relays the messages to Manzanillo by telex.

Vessels navigating in Cuban waters can communicate any message by means of radiotelephony, contacting "CLM Coastal Network", Manzanillo. CLM station relays the messages to Manzanillo Agency by direct telephone call.

The Manzanillo Agency is connected to the National Telex System and the Manzanillo number is 02321. This is the quickest method of communication with Manzanillo Agency.

ETA messages should be given simultaneously to "Mambisas Manzanillo" and "Mambisas Havana".

MEDICAL: There is a hospital at Manzanillo where sick crew members can receive attention.

DUNNAGE: Vessels nominated for loading sugar in Manzanillo or any of its sub-ports must arrive supplied with wood dunnage because in the Manzanillo Jurisdiction it is extremely difficult to obtain wood dunnage.

Dunnage paper can be supplied if requested in advance.

AUTHORITIES: All Port Authorities, Custom House, Immigration Port Doctor, Port Captain are located at Manzanillo.

Vessels can proceed directly to any of the sub-ports, where Manzanillo Port Authorities travel to give clearance, but advance information must be given to these Authorities for the corresponding permit, as Manzanillo regulations provide that vessels must enter Manzanillo as Custom Official Port.

AGENT: Empresa Consignataria Mambisa, Calle Bateria No. 2, Manzanillo, Prov. de Oriente. Cable Address: Mambisas Manzanillo. Telex: 063121 – Tel: 2533, 2535 (Office); 2535 (Night).

(a) SUB-PORT OF CEIBA HUECA: (See Plan)

Vessels may proceed direct to sub-ports (see Manzanillo under "Authorities").

PILOTAGE: Pilots board vessels at Cabo Cruz. Distance from place where Pilots board vessels up to Ceiba Hueca pier is about 42 miles.

APPROACHES: See Manzanillo information. For operations at Ceiba Hueca it should be noted that the pier has a depth of only 19 ft. towards the sea end for loading. Tidal variation about 1 ft. 6 in.

BERTHING: A motor-boat is required to assist in handling lines to pier and buoys. Boat is brought from Manzanillo.

LOADING: As Ceiba Hueca pier is in bad condition, it is only used currently to dock small tankers (325 ft. length) to discharge fuel oil, or to load molasses (max. 500 ft. length) across the head of the pier, securing ship to 2 mooring buoys port side and 2 starboard side.

(a) *Indio Diaz Machado Pier* (Formerly Ceiba Hueca Pier):
Length 130 m. (426 ft.), draft 19 ft.
Discharge of fuel oil: Connection 8 in. diameter.
Loading of molasses: Pipe-line 16 in., 2 connections 8 in. each.

(b) *Ceiba Hueca Anchorage:* Located at 1 mile N.W. of pier.
Max. draft allowed is 33 ft.
The bottom at anchorage is soft mud.

Two vessels can be operated simultaneously: One loading sugar and another discharging fuel or loading molasses at the pier.

There is railroad of non-standard gauge from the sugar mill warehouse to the dock platforms.

Working periods: Monday to Friday 0700–1100 hrs., 1300–1700 hrs.; Saturday 0700–1100 hrs.

2,000 bags are loaded per gang-period. 6 bags per sling.

TANKERS: Vessels are loaded with molasses at Ceiba Hueca pier and average pumping rate is 25,000/30,000 g.p.h. Tankers with fuel oil are also operated.

FUEL/REPAIRS: Not available.

FRESH WATER: Vessels can be supplied. Delivery made through pipeline alongside vessel. Average delivery rate is about 1 t.p.h. (due to low pressure).

MEDICAL: Crew members requiring medical attention are treated at the Polyclinic of the nearby town of Campechuela.

When hospitalisation or specialised medical care is required, patients are sent to Manzanillo Hospital.

COMMUNICATIONS: Government telegraph communication between Manzanillo and Ceiba Hueca up to 1800 hrs. however, there is a telephone line which communicates by means of relay with "La Demajagua" sugar mill, which has direct telephone communication with Manzanillo. This communication is only during sugar-mill office hours, and it is very poor due to above relay.

SHIPMASTER'S REPORT: October, 1984. (See Plan).

Vessel loaded sugar in Bulk.

A new berth (constructed 1981) consisting of the following:

1. A long passage way from land to seaward having a length of about 500 m. containing the belt which carries the sugar.

2. Seven square dolphins 5 m.×5 m. constructed of cement with rubber fenders and 1 bollard on each. Distance between the first and seventh dolphins is about 250 m.

3. One semi-circle cement construction about 40 m. length containing the movable conveyor.

The conveyor has a capacity of about 500 tonnes/p.h. – 600 tonnes p.h. Loading operations can be done only into 3 cargo holds and then vessel has to shift by means of warping. No tug available or shore mooring men. It is best to leave a seaman ashore for any rope moving.

The berth is affected by strong Northeasterly – Southeasterly winds and precautions must be taken during vessel's shifting.

Max. sailing draft allowed 32 ft. The channel is marked with 3 pairs of buoys. No night mooring or unmooring. All other details as per "Guide to Port Entry".

AGENT: Vessels operating at this sub-port attended by Manzanillo Agency Personnel.

(b) SUB-PORT OF MEDIA LUNA: (See Plan)

Vessels may proceed direct. (See Manzanillo under "Authorities").

PILOTAGE: Pilots board vessels at Cabo Cruz. Distance from place where Pilots board vessels to Media Luna is about 38 miles.

APPROACHES: See "Manzanillo".

MAX. SIZE: Max. draft for vessels to enter and carry out loading operations at this sub-port is 33 ft. Tidal variation 1 ft. 6 in.

LOADING: Loading operations are carried out at anchorage where vessels can load up to 33 ft. Barges and tug-boats are used from Manzanillo.

Working periods: Monday to Friday 0700 – 1100 hrs., 1300 – 1700 hrs.; Saturday 0700 – 1100 hrs.

2,000 bags are loaded per gang-period. Vessels can only work with 3 or 4 gangs. Only one vessel can work at a time.

TANKERS: No facilities.

FUEL/FRESH WATER/REPAIRS: Not available.

MEDICAL: There is a hospital and also a polyclinic at Media Luna where sick crew members receive medical or dental care.

Whenever hospitalisation or specialised medical care is required, patients are sent to Manzanillo Hospital.

COMMUNICATIONS: There is direct telephone service with Manzanillo, also telegraph and post office.

AUTHORITIES: See "Manzanillo".

(c) SUB-PORT OF NIQUERO: (See Plan)

Vessels may proceed direct. (See Manzanillo under "Authorities").

PILOTAGE: Pilots board vessels at Cabo Cruz. Distance from place where Pilots board vessels to Niquero Pier is 15 miles. Tidal variation 1 ft. 6 in.

LOADING: Pier length 400 ft. – 450 ft., depth up to 23 ft. (North and South sides). There are railroad tracks of different gauges and sidings for shifting of flat cars.

Working periods: Monday to Friday 0700 – 1100 hrs.,1300 – 1700 hrs.; Saturday 0700 – 1100 hrs.

2,000 bags loaded per gang-period. 6 bags loaded per sling.

Although Niquero pier has two sides for docking, sugar mill can only supply sugar for working 1 vessel at a time unless overtime be worked at both sugar mill, warehouse and pier.

FRESH WATER: Can be delivered at pier by means of tank cars, capacity 8 tons. About 5 – 6 tank cars can be delivered daily but operation has to be performed outside loading hours.

FUEL/REPAIRS: Not available.

TANKERS: No facilities.

MEDICAL: All crew members requiring medical or dental attention are treated at Niquero Hospital, where they can be hospitalised if necessary.

COMMUNICATIONS: Long-distance telephone communication between Manzanillo and Niquero sugar-mill office. Distance from sugar-mill office to pier is about 5 km.

AGENT/AUTHORITIES: See "Manzanillo".

(d) SUB-PORT OF PILON (ENSENADA DE MORA): (See Plan)

Vessels may proceed direct to sub-ports (see Manzanillo under "Authorities").

PILOTAGE: Pilot boards vessel at Cabo Cruz.

APPROACHES: From Cabo Cruz to Pilon mouth entrance is open sea. From Pilon mouth to the pier is through channel, with rocky bottom and turns.

ANCHORAGES: Permitted draft up to 23 ft.

MAX. SIZE: Max. draft permitted for vessels entering and sailing harbour is 20 ft. Tidal variation 1 ft. 6 in. Cargo vessel 450 ft. – 470 ft. length, tankers 500 ft. length.

LOADING: Berth length 150 m., depth 20 ft. (presently in bad condition). Sugar and molasses loading are performed at this berth. There is a railroad track of non-standard gauge between the sugar mill and the berth.

Working periods: Monday to Friday 0700 – 1100 hrs., 1300 – 1700 hrs.; Saturday 0700 – 1100 hrs.

2,000 bags of sugar loaded per gang per day of 8 hours. 6 bags loaded per sling. In cases when winches are slow, the number of bags per sling is increased. Only one vessel can operate at this berth at a time.

TANKERS: Molasses average pumping rate is 25,000 – 30,000 g.p.h. One connection 8 in. diameter, 12 in. pipe-line.

FUEL: Not available.

FRESH WATER: Can be delivered at berth by pipe-line. Average delivery rate about 1 t.p.h.

MEDICAL: Medical attention and dental care rendered at Pilon Hospital.

COMMUNICATIONS: Government telegraph at Pilon. Also local telephone between sugar-mill office and Niquero, where there is Inalambrica system.

AGENT/AUTHORITY: See "Manzanillo".

MARIEL: 23.01 N. 82.46 W. (See Plan) (and sub-ports of Cabanas, Bahia Honda and Santa Lucia)

PILOTAGE: Pilots board vessels about 1 mile from entrance of port. Vessels proceeding to sub-ports of Cabanas and Bahia Honda must pick up Pilot at same place. Pilot station located at 84 street, 5/a and 7/a, Barrio Boca. No telephone communication.

Distance from position where Pilots board vessels to:

Pier of Unit No. 1	– 1.25 miles
Anchorage	– 2.50 miles
Pier of Unit No. 2	– 2.75 miles

Pilot Works VHF on Channel 16.

APPROACHES: Entrance channel where buoy No. 1 is situated is over a sand bank with 50–55–60 ft. depth. No. 3 buoy situated in 32 ft. of water on rocky bottom, but having close by a depth of 95 ft. No. 5 buoy situated in 30 ft. of water on sand having close by a depth of 33 ft. max. This channel is 328 ft. wide (approx.).

ANCHORAGES: General anchorage – swing area 450 m., depth 29 ft.
Punta Gorda anchorage – swing area 340 m., depth 36 ft.
Cargo operations do not take place at anchorages.

RESTRICTIONS: Vessels can enter and sail during day and night hours, but this should be checked in each case prior to vessel's arrival as on occasions the buoys are missing.

MAX. SIZE: Max. draft with which vessels can enter and sail through channel is 30 ft. and max. length of 610 ft. Tidal variation 16 in. Also see "Berthing".

BERTHING: All places of operation at this port are located on the East coast of the bay: Unit No. 1 close to the port entrance; Cement Plant pier located just in front of Pt. Gorda and Unit No. 2 located at the North of the town of Mariel.

All operations at Mariel piers are effected by means of trucks.

(a) Unit No. 1, Berth No. 2 (N.W.): Length 134 ft., max. draft allowed 22 ft. Used mostly for general cargo and bulk fertiliser.

(b) Cement Plant Pier: Length: 544 ft. Draft: Vessels with a length under 500 ft. can dock with a draft of 29 ft. even keel.

This pier is used only to discharge fuel oil destined either for the Cement or the Thermoelectric Plants.

Vessels over 500 ft. and up to 610 ft. can enter with a draft of 27 ft. fore and 29 ft. aft. Assistance of a large tugboat (850 h.p.) or 2 smaller ones is necessary for vessels exceeding 532 ft. and up to 610 ft. length. Tanker information: Fuel Oil: 1×8 in. diameter.

(c) Unit No. 2: This installation is located at the North side of the town of Mariel.

It consists of 3 berthing spaces, that is, a pier 607 ft. long by 267 ft. wide, built of concrete, but earth filled and not properly paved.

Berth No. 5 (N.E.): Draft: 21 ft. fore and 23 ft. aft. Length: 607 ft.
Berth No. 6 (N.W.): Draft: 25 ft. fore and 27 ft. aft. Length 267 ft.
Berth No. 7 (S.E.): Draft 29 ft. even keel – Length: 607 ft.

Cargo handled by this unit: Bulk fertilisers, general cargo and lumber. Water available by tank-truck.

(d) A new plant for shipping bulk raw sugar is operating at new pier, draft 30 ft.

STEVEDORES: Working periods: Monday to Saturday 0700 – 1300 hrs., 1300 – 1900 hrs., 1900 – 0100 hrs.

Raw sugar: 845 bags loaded per gang-period. 9 bags per sling. Only one sugar vessel can operate at a time.

General cargo: discharging rate: from 6 to 9 tons per gang hour.
Bagged merchandise: about 13 tons (100 lb. bag type).
Iron: about 18 tons (fluctuates according to type of iron).
Wood: 12 tons (approx.).
Fertilisers: Muriate of potash: 10 to 13 tons.
Sulphate of ammonia: 8 to 10 tons.
Superphosphate simple: 15 to 18 tons.

Shore cranes: There is one caterpillar (PH movable crane with boom of 80 ft. length, and which can lift 12 tons).

FUEL/REPAIRS: Not available.

FRESH WATER: Can be supplied at Unit No. 2 berth by means of tank-truck with capacity of 5 tons. In dry season supplied only during night time.

MEDICAL: No hospital. Crew members requiring medical attention are sent to Havana.

TRANSPORTATION: Distance from Mariel to:

Cabanas (anchorage):	25 km.	45 minutes by car.
Cabanas (pier):	57 km.	hour 47 minutes by car.
Bahia Honda:	73 km.	2 hours by car.
Santa Lucia:	250 km.	4 hours by car.

Car is hired for transportation to above sub-ports. There is daily transportation only between Mariel and Cabanas anchorage.

AUTHORITIES: Located at Mariel as follows:
Customs House and Immigration: Ave. 65. 126 Street and 128 Street.
Captain of the Port: Playa "La Boca" at the entrance of the port.
Port Doctor: 128 Street. Ave. 67. and Litoral.

AGENT: Consignataria, Mambisa, Agencia Mariel, Ave. 65 No. 12411 entre 124 y 126, Apartado No. 5, Mariel. *Tel:* 92305, 92183 (office), 922326 (night). *Telex:* 05740. *Cable:* "Mambisas Mariel".

Mariel Agency also attends the ports of Bahia Honda, Cabanas and Santa Lucia.

(a) SUB-PORT OF CABANAS: (See Plan)

Vessels assigned to Cabanas do not have to enter Mariel for clearance, but must pick up Pilot at Mariel port entrance.

PILOTAGE: See "Mariel".

Distance from position where Pilots board vessels to Cabanas is 12 miles.

APPROACHES: Entrance channel has sandy bottom on Eastern side, and rocky bottom on Western. It is about 70 m. wide.

ANCHORAGES: Excellent anchorage is available about 620 m. S.E of Pt. Mangle, with draft well above port's operations draft.

This is a very desirable anchorage as it offers protection in all weathers.

There is another anchorage about 4.5 miles distant from Gloria Rock.

MAX. SIZE: Max. draft permitted for entry and sailing is 19 ft., and max. length 574 ft. Tidal variation 1 ft. 4 in.

RESTRICTIONS: Vessels should enter and sail only during daylight.

BERTHING: Present name: ECA "Pablo de la Torriente Brau". Former name: "Almacenes de Cabanas". Length 360 ft. (max. length permitted 450 ft.), depth 20 ft.

This dock is commonly known as "Orozo Dock", which is used in shipments of raw sugar. There are railroad tracks of standard gauge.

If for any reason a tugboat is required, tugboat 'Caharata' is available, if requested in advance.

LOADING: Working periods: raw sugar: Monday to Friday 0700 – 1100 hrs., 1300 – 1700 hrs.; Saturday 0700 – 1100 hrs.

845 bags are loaded per gang-period. 6 bags loaded per sling.

FUEL/FRESH WATER/REPAIRS: Not available.

MEDICAL: Crew members requiring medical care are attended at Cabanas Polyclinic. In those cases requiring hospitalisation or specialised medical treatment, they are sent to Havana.

AGENT/AUTHORITIES: See "Mariel". There is a Port Captain and Immigration at Cabanas.

(b) SUB-PORT OF BAHIA HONDA: (See Plan)

Vessels assigned to load at Bahia Honda do not have to enter Mariel for clearance, but must pick up Pilot at Mariel port entrance.

PILOTAGE: See "Mariel". Distance from position where Pilots board vessels to Bahia Honda is 21 miles.

APPROACHES: The entrance channel has sandy bottom on Eastern side, and rocky bottom on Western and is approximately 150 m. wide up to Corojal Anchorage.

RESTRICTIONS: Entry and sailing only during daylight and necessary to await favourable tide.

ANCHORAGES: Draft 28 ft. Swing area 300 m. Max. length permitted 623 ft. Anchorage used for completion of sugar loading by means of barges that are brought from Havana.

MAX. SIZE: Length 450 ft. and max. ship draft for proceeding up to Corojal anchorage is 28 ft. Tidal variation 1 ft. 4 in.

BERTHING: Dock: "Central Harlem" (formerly "Bahia Honda"):
Length 260 ft., draft 19 ft. Dock is commonly known as Sugar Dock of Harlem Sugar Mill. It has railroad track of standard gauge.

LOADING: Sugar working periods: Monday to Friday 0700 – 1100 hrs., 1300 – 1700 hrs.; Saturday 0700 – 1100 hrs.

845 bags of raw sugar are loaded per gang-period as minimum (more than the above stipulated amount is always loaded). Only one vessel can load at a time.

BUNKERS/WATER/DUNNAGE/REPAIRS: No facilities.

MEDICAL: Crew members requiring medical care are attended at Bahia Honda Polyclinic. Those cases requiring hospitalisation or specialised medical treatment are sent to Havana.

AGENT/AUTHORITY: See "Mariel".

(c) SUB-PORT OF SANTA LUCIA: 22° 44′ N. 83° 59′ W.

Vessels assigned to Santa Lucia do not have to enter Mariel for clearance, nor to pick up Pilot.

PILOTAGE: Pilots board vessels at Pasa Honda, 2 miles off the phosphorescent buoy. No pilot station. Advice of ships' arrival is given to Custom House Delegation by cable. Distance from place where Pilots board vessels up to first anchorage is 4 miles.

APPROACHES: Channel approximately 200 m. width, rocky bottom. It has two turns with dangerous narrows. Tidal variation averages 18 in.

LOADING: There are the following anchorages:

1st Anchorage: Has depth of 30 ft., but vessels are limited for sailing to max. draft of 15 ft., and length 500 ft.

2nd Anchorage: Has depth of 20 ft., but vessels are limited for sailing to max. draft of 18 ft.

3rd Anchorage: Open sea without draft limitation.

Working periods: Work is performed all day (during daylight) including Saturday and Sunday.

Average loading rate is about 900 tons daily, but rate might be improved in the following cases:

1. Vessels with more than 3 hatches available.
2. Vessels with booms (not of the crane type) since loading is performed by grabs which are to be rigged in order to perform quick loading.
3. Provided only one vessel performs operations (2 vessels may be loaded simultaneously but above rate cannot be complied with).

Loading at this sub-port is by means of grabs rigged to vessel's boom. In cases where vessel has no booms, but cranes, the loading is carried out very slowly as buckets are used in such cases, and having to shovel mineral into buckets delays loading operations.

There are 6 barges for loading mineral with a capacity of 150 tons each.

TUGS: 2 tugs, *Adis* and *Julita* which can tow 2 barges each.

FUEL/FRESH WATER/REPAIRS: Not available.

MEDICAL: Crew members requiring medical care are attended at Santa Lucia Polyclinic. Those cases requiring hospitalisation or specialised medical treatment are sent to Pinar del Rio Hospital, distance 80 km. from Santa Lucia.

AGENT/AUTHORITIES: See "Mariel".

Port Authorities use launches for clearing vessels. Agents use a car to travel from Mariel to Santa Lucia which takes 4 hours.

There are Custom House and Port Captain Delegations at the sub-port of Santa Lucia.

MATANZAS: 23 03 N. 81.34 W. (See Plan)

Matanzas Bay is open and most ample, being about 5 miles long and 2.75 miles wide.

Its waters are deep and only start losing depth at about 150 yds. from shore; for this reason it is most suitable to accommodate large vessels, regardless of length or draft.

Occasionally the prevailing winds affect and interfere with docking and undocking manoeuvres.

Within bay limits, 3 rivers flow:

San Juan and Yumuri Rivers, which empty into the South-Western extreme of the bay, after crossing the city of Matanzas; and Canimar which drains into the S.E. of the bay.

PILOTAGE: Pilots board vessels about 3 miles after passing the port entrance, in front of Electrical Plant and close to Empresa Consolidada del Petroleo Pier (Texas). Pilot station located at Reynold Garcia Pier (Terminal Maritima). Tel. number 2688.

Distance from place where Pilots board vessels to:

Reynold Garcia Pier (Terminal Maritima)	– 200 m.
Juan A. Morales Bayona (Cubadist)	– 300 m.
Jose Luis Dubrocq (formerly Fomento)	– 500 m.

ANCHORAGES:
Indio Anchorage: depth 17 ft.; swing area 120 m.
South Anchorage: depth 30 ft.; swing area 230 m.
Del Medio Anchorage: depth 27 ft.; swing area 200 m.
West Anchorage: depth 21 ft.; swing area 150 m.
North Anchorage: depth 25 ft.; swing area 150 m.
Casacajales Anchorage: depth over 30 ft.

APPROACHES: There are three entrance channels:
(i) North Channel: 50 ft. minimum depth with muddy bottom.
(ii) South Channel: 80 ft. minimum depth with rocky bottom.
(iii) Middle Channel: 22 ft. maximum draft. Because of the limited draft of this channel, it is seldom used.

The most remarkable points of visual orientation while approaching Matanzas are:

Point Maya Lighthouse, which rises 58 ft. above high tide, flashing white light visible up to 13 miles away, located on the East side of the port mouth.

To the West the Pan de Matanzas mountain and to the East the mountain range known as Tetas de Camarioca, 7 miles inland, with three distinct summits.

While entering the port at night-time, on the West side of the entrance, there is a huge brightly illuminated building of a tannery which can be used as a landmark to determine where to pick up Pilot, as the location is 700 m. after sailing past the building.

Tidal variation at this port averages 1 ft. 6 in.

RESTRICTIONS: Vessels can enter or sail at night but Port Authorities should be advised in advance.

BERTHING: At Matanzas Port there are 5 separate berthing installations of which Jesus Menendez Pier, formerly known as Texas Pier, has been out of use for some time.

All port installations are located on the N.W. shore of the bay.

Jose Luis Dubrocq Pier was enlarged and rebuilt in 1970 and all piers and the bay have been recently dredged, these works having been completed at the beginning of 1973.

Jesus Menendez Pier (formerly Texas Pier): Length 794 ft., draft 28 ft. Used to discharge fuel oil.

Presently no operations are performed at this pier due to the bad condition of its solid dolphins. Pier itself is in good condition and may be used as soon as solid dolphins are replaced.

Frank Pais Pier (formerly Armour Pier): It is a solid construction of concrete and stones.

Although it has two sides, only the West side is used, the East side being out of use. Length 350 ft., draft 22 ft.

Cargo handled by this pier: Only coastal trade discharge of: Fuel oil, diesel oil, gasoline, kerosene and occasionally cement or general cargo.

Reynold Garcia Pier (formerly Terminal Maritima Pier): The pier is of solid concrete construction at the entrance of which the pilot station and the stevedores' office are located.

North Side: Length 450 ft., draft 32 ft. Cargo handled by this side: Exportation: Bagged refined sugar, dextrana, rayon, liqueurs, etc. Import: Occasionally dry cargo (general cargo), liquid ammonia.

South Side: At this side of pier are the mechanical installations of the bulk raw sugar shipping plant. Length 529 ft., draft 32 ft.

Cargo handled by this side: Exportation: Bulk raw sugar, occasionally bagged refined sugar, dextrana, rayon, liqueurs, etc. Importation: Can be used if no sugar is scheduled to be shipped.

Morales Bayona Pier (formerly Cubadist Pier): It is a steel and concrete construction, consisting of a long narrow passage along which run the molasses and water pipe-lines, and a catwalk.

At this installation tankers berth to 2 solid dolphins and 2 mooring buoys fore and aft. Max. length permitted to vessels 615 ft., draft 32 ft.

Cargo handled by this pier: Exportation of molasses and alcohol.

Jose Luis Dubrocq Pier (formerly Fomento Maritimo Pier):

Section No. 1: Recently enlarged and rebuilt; at this time 2 heavy overhead cranes are being installed for discharging of bulk fertilisers. This installation is a coastal pier. Length 600 ft., draft 32 ft.

Cargo handled by this Section: Import: General cargo, bulk fertilisers, bagged cargoes, lumber, etc. Export: General cargo.

Section No. 2: Length 532 ft., draft 27 ft.

Cargo handled by this Section: Similar to Section No. 1.

Trucking operations are usual at this pier.

STEVEDORES: Monday to Friday: 0700 – 1100 hrs., 1300 – 1700 hrs. Saturday: 0700 – 1100 hrs. Sundays: No work performed unless in special cases.

Raw sugar: 855 raw-sugar bags loaded per gang-period. 5 bags loaded per sling.

Refined sugar: 2,004 refined-sugar bags (50 kg. type) are loaded per gang-period (797 of 100 kg. type).

12 bags of 50 kg. type per sling; 6 bags of 100 kg. type.

General cargo: average rate of discharge of other kinds of cargo varies depending on the type.

Average rate of fertiliser discharge about 11 tons per gang-hour.

Crane: one steam crane with a boom of 60 ft. which can lift about 40 tons. Crane is mounted on railroad tracks and is used only at Jose Luis Dubrocq pier.

Bulk sugar: The installation of bulk sugar throwers operated by Empresa Consolidada del Azucar, at Reynold Garcia Pier, is by system of conveyor and distribution crane which runs from Parabolicos warehouses up to the end of the pier. A special structure protects the conveyor.

The crane runs on special rail throughout the pier (fore and aft) stopping at each vessel's hold. In cases where the vessel has projecting superstructure, she has to be separated from the pier.

Average loading rate is about 350 t.p.h., depending on the type of vessel. On vessels without tweendecks, an average of 43 t.p.h. has been attained.

Weights of shipment estimated on draft and information provided by Master. Notations are entered in Bill of Lading declaring quantity as subject to amount discharged at destination, which is supervised by Cuban Producers' Representative.

MEDICAL: Following hospitals where sick crew members can receive attention: Civil Hospital, Army Hospital, Clinica Moderna, Clinica Villar, Clinica Matanzas.

TANKERS: Discharge of fuel oil: 1 connection 6 in. diameter.

Discharge of gasoline/kerosene/diesel oil: 1 connection 6 in. diameter.

Alcohol: Pipe-lines 10 in. diameter, 2 connections 8 in. diameter.

Molasses: Pipe-lines 12 in. diameter, 4 connections 8 in. in diameter.

FRESH WATER: Water available by pipe-line only while docked to the underlisted piers:
Reynold Garcia: Delivery rate: From 7 to 10 t.p.h.
Morales Bayona: Delivery rate: From 10 to 12 t.p.h.
Jose Luis Dubrocq: Delivery rate: From 5 to 7 t.p.h.

FUEL: No bunkers available.

REPAIRS: Can be performed by Cearra y Trabazo.

COMMUNICATIONS: Long-distance telephone, Corporacion Inalambrica Cubana, Press wireless, Government telegraph, postal communication, railroad and buses.

Vessels can communicate through CLA via Cardenas and/or Havana.

DEVELOPMENTS: Specialised fertiliser unloading equipment to be introduced at the port.

AUTHORITIES: Located as follows:

Port Doctor:	Milanes St. No. 2. Tel. 2672 (home tel. 2338).
Immigration:	Santa Teresa St. No. 19. Tel. 2695.
Port Captain:	Muelle del Real. Tel. 2469.
Custom House:	Versalles St. e/Navia and Riech St. Tel. 2269 (home tel. 2339). (Chief of Custom House watching services.)

AGENT: Empresa Consignataria Mambisa, Agencia Matanzas, Milanes No. 28002, Apartado No. 245, Matanzas. Telephone: 2519 and 3079 (office), 3081 (night). Telex: 52132. Cable: Mambisas Matanzas.

Ocean going vessels navigating to Cuba can communicate with the Matanzas Agency by radiotelegraphy, contacting "CLA" Havana Station, which relays the messages immediately to Matanzas.

The Matanzas Agency is connected to the National Telex System and its number is 05232. This is the quickest method of communication with Matanzas Agency.

Masters must send their ETA messages simultaneously to Mambisas Matanzas and Mambisas Havana.

Matanzas Agency VHF works on Channel 16 during office hours.

NUEVA GERONA (Isla de Pinos): 21.58 N. 82.56 W. (See Plan)

Isla de Pinos is the largest island of Los Canarreos Archipelago, located on the South coast of Cuba, just in front of Batabano Gulf and the boundary between Pinar del Rio and Havana provinces.

Isla de Pinos is 54 km. long from North to South and 58 km. from East to West. (2,200 sq. km.). The North coast is 229 km. long and the South coast 98 km.

Nueva Gerona Anchorage lies in front of the mouth of Las Casas River.

PILOTAGE: Pilots board vessels at Punta Frances. Distance from place where Pilots board vessels to loading berth is about 34 miles. No pilot station. Chief Pilot is located at No. 3 St. Mo. 612 e/ 6 and 8 Streets, Nueva Gerona, Isla de Pinos.

APPROACHES: Entrance channel or passage from the Gulf to the bank is about 2 miles wide. Bottom throughout the 34 miles is mud (from entrance to anchorage in front of Las Casa River). No dangerous turns or narrows.

RESTRICTIONS: Entry and sailing only during daylight.

ANCHORAGES: Gerona Anchorage: Located just in front and close to the mouth of Las Casas river. Draft 19 ft. No limitations regarding length. Swing area is 600 ft.

Loading of fruits at anchorage is performed only when shipment is effected in vessels whose draft does not permit them to enter through the river.

Auxiliary equipment for exportation of fruits: 2 barges, 1 tugboat.

Working periods: Monday to Friday 0700–1100 hrs., 1300–1700 hrs.; Saturday 0700–1100 hrs.

Whenever sufficient cargo is supplied by the packing plant, the loading rates should be about 120 tons per gang in 8 hours.

MAX. SIZE: Max. draft up to which vessels can load out of the river is 19 ft. Tidal variation 1 ft.

BERTHING: Nueva Gerona Pier: Located about 2 miles up river. Length 200 ft. Max. length allowed to vessels, 90 m. (295 ft.). Draft 14 ft. 6 in.

FUEL/REPAIRS: Not available.

FRESH WATER: Available only at berth.

MEDICAL: General hospital "Heroes de Baire", where sick crew members can receive attention.

COMMUNICATIONS: There are telephone, telegraph and cable (Inalambrica) communications, also air postal service.

AUTHORITIES: Port Authorities are located at Nueva Gerona.

It is strongly recommended that when vessels are assigned to this port, all measures be taken for perfect co-ordination between Agents, Pilots and Port Authorities, and Masters should give ETAs in advance.

SUB-AGENT: Empresas Nacional de Cabotaje, Calle 31 y 22 (Terminal Maritime), Nueva Gerona, Isla de Pinos. Tel.: 2467, 3300. Telex: 054118. Cable: Mambisas – Nueva Gerona.

NUEVITAS: 21.33 N. 77.16 W. (including sub-ports of Pastelillo, Puerto Tarafa, and Bufadero): (See Plan)

The port lies on a peninsula orientated from West to East, and all port installations are located on the North of said peninsula: Tarafa on the Western extreme, Bufadero and Cement Pier at about 0.5 miles East of Tarafa, and Pastelillo at the Eastern extreme.

The city of Nuevitas is located about 4.5 km. to the S.W. of Tarafa.

The city spreads widely from the shores of Guincho Bay.

Neuvitas Bay has an extension of 57 square miles, but despite its extension, owing to its geographical configuration, is fairly well sheltered and can accommodate vessels of large tonnage. Bottom of the bay is mostly hard mud, but there are areas of sand and others where it is sandy/muddy.

(a) **SUB-PORT OF PASTELILLO:** **(See Plan)**

PILOTAGE: Pilots board vessels at Punta Practicos, 1 mile from Buoy No. 1.

The following are the distances from the place where Pilot boards the vessel up to: Pastelillo: 8 miles; Bufadero: 10 miles; Tarafa: 10.75 miles.

Pilot station is located at Nuevitas and usual means of communications with it are telephone or car.

APPROACHES: Entrance to or sailing from this port is only effected at slack water in order to avoid tidal currents.

Usually entrance or sailing from port is performed during daylight hours but incoming vessels, which have advised their ETA well in advance and draw 30 ft. or less can enter during night-time at slack water, if all the navigational signals and marks are in good order. If any lighted buoy is out of service, night entrance or sailing are not performed.

Channel bottom is rocky/sandy along most of its entire course but if crossing the channel with official draft allowed to vessels, there are no difficulties regarding draft as there is ample depth.

Limitations as to draft and length to enter to or sail from Nuevitas are as follows: Draft 33 ft., length 650 ft.

Limitations as to draft for crossing the bay interior channels are:

Entrance channel up to Botijuela Anchorage:	35 ft.
La Estrella Channel up to Pastelillo:	33 ft.
Channel between Pastelillo and Tarafa:	26 ft. 6 in.

ANCHORAGES: *La Poza Anchorage:* Located near Pt. Practicos. Geographical position: Lat. 21° 36′ 46″ N., Long. 77° 05′ 11″ W. Limitations: Draft 38 ft., length none. Swinging area: Unlimited. Can accommodate one vessel. Distance from shore: 400 m.

Botijuela Anchorage: Located S.E. of Ballenato Grande Cay. Geographical position: Lat. 21° 31′ 34″ N., Long. 77° 10′ 39″ W. Limitations: Draft 35 ft., length 650 ft. Swinging area: 400 m. Can accommodate 15 average type vessels. Distance from shore: 2 miles.

Pastelillo Anchorage: Located East of Pastelillo. Geographical Position: Lat. 21° 32′ 34″ N., Long. 77° 12′ 38″ W. Limitations: Draft 20 ft., length 500 ft. Swinging area: 200 m. Can accommodate 2 vessels. Distance from shore: 0.25 miles.

Guincho Anchorage: Located East of Pt. Guincho. Geographical Position: Lat. 21° 31′ 57″ N., Long. 77° 14′ 00″ W. Limitations: Draft 16 ft., length 250 ft. Swinging area: 100 m. Can accommodate 1 small vessel. Distance from shore: 1.25 miles.

Tarafa Anchorage: Located to the N.W. of "D" pier. Geographical position: Lat. 21° 34′ 30″ N. Long. 77° 14′ 45″ W. Limitations: Draft 22 ft., length 525 ft. Can accommodate 1 vessel. Distance from shore: 400 m.

MAX. SIZE: Up to 575 ft. length – 33 ft. draft. Up to 610 ft. length – 31 ft. draft. Tidal variation 1 ft. 6 in.

BERTHING: *Pastelillo Pier:* North Side: Length 458 ft., width 55 ft., max. draft 33 ft.

Depths alongside from shore end to pier head: 31 – 35 – 37 – 37 – 37 – 36 – 37 ft.

Cargo handled by this side: General cargo, equipment, machinery, bagged raw and refined sugar, molasses, etc.

South Side: Length 458 ft., width 55 ft., max. draft 33 ft.

Depths alongside from shore end to pier head: 24 – 33 – 34 – 33 – 36 ft.

It is well cared for and recently underwent complete repairs, being the topping-off berth for sugar and molasses loading of the port, as well as the deep draft berth for vessels with import cargoes.

Petroleum products (fuel oil, diesel oil, gasoline and kerosene) for the use of the whole Camaguey province, are discharged at this pier.

The pier has railroad sidings connecting with the main tracks but is not suitable for trucking operations.

STEVEDORES: Working periods: Monday to Friday, 0700–1300 hrs., 1300–1900 hrs.; Saturday, 0700–1300 hrs., 1300–1900 hrs.; Sunday, no work is performed.

Raw Sugar: loading rate: max. 1,800 bags per gang in 6 hours. Minimum fixed rate 975 bags in 4 hours or equivalent in 6 hours. 6 bags loaded per sling.

Loading Capacity: 2 sugar vessels can perform sugar loading operations simultaneously.

Refined Sugar: this type of shipment is not regularly performed.

Loading rate: 3,300 bags of 100 lb. each are loaded per gang in a 6 hour period.

General Cargo: discharging rate is about 11 to 12 t.p.h.

EQUIPMENT: The port owns and operates the following equipment: 6 fork lift trucks; 7 tractors; 3 trailers; 6 tow motors; 5 shore cranes (from 5 to 20 tons lifting capacity); 2×300 ton capacity cargo barges; 1 (1,200 h.p.) tugboat.

TANKERS: Molasses pumping rate about 85,000 g.p.h.

FUEL: Currently the only bunkers available at Nuevitas are Regular Fuel Oil, which is the type of fuel oil stored at shore tanks.

Deliveries are effected only at Pastelillo Pier by pipe-line gravity from the deposit tanks and due to the method used, are slow.

Bunkers must be requested well in advance.

FRESH WATER: Can be supplied at No. 4 pier. Delivered by means of railroad tank cars, each with capacity of approximately 34 tons. Delivery rate about 20 t.p.h.

REPAIRS: Repair Shop "Boga" incorporated in the Industry Ministry.

MEDICAL: There is a municipal hospital where sick crew members can receive attention.

COMMUNICATIONS: Vessels navigating to Cuba can communicate with Mambisas Nuevitas Agency through "CLA" Havana Radio Station which relays the message promptly to Nuevitas.

When navigating in Cuban Waters nearing Nuevitas, vessels can communicate directly with "CLK" Coastal Radio Network Nuevitas by radiotelegraphy at 500 kHz, general call, 446 kHz, for working. Radiotelephony frequency 2760 or 2182 kHz.

This Coastal Network Station rapidly relays any message to Mambisas Nuevitas Agency.

Masters must send their ETA messages simultaneously on VHF Channel 16 to Mambisas Nuevitas and Mambisas Havana.

SHIPMASTER'S REPORT: August 1985.

See "Sub-port of Tarafa".

AUTHORITIES: Located at Nuevitas.

Authorities travel from Nuevitas to clear the vessels for whichever of the 3 berths they may have been assigned, i.e. Pastelillo, Tarafa or Bufadero.

Means of transportation for port authorities from Nuevitas to the loading/discharging berths is automobile or launches.

AGENT: Empresa Consignataria Mambisa, Agency Nuevitas, P.O.Box No. 350, Puerto Tarafa, Nuevitas, Prov. de Camaguey. Telephone: 2779, 2107 (office), 3109 (night). Telex: 031151. Cable: Mambisas Nuevitas.

Mambisas Nuevitas Agency also attends the port of Jucaro and sub-port of Boca Grande.

(b) **SUB-PORT OF TARAFA:** **(See Plan)**

PILOTAGE: See "Pastelillo". Distance from place where Pilots board vessels to Tarafa is about 10.75 miles.

APPROACHES: See "Pastelillo".

RESTRICTIONS: Vessels can enter or sail only during daylight and should wait for slack water.

BERTHING: *Tarafa Terminal:* This terminal consists of 3 solid concrete piers, each with railroad sidings connecting with the main tracks and also suitable for trucking operations.

It is capable of operating 7 vessels simultaneously: 6 average size vessels and 1 medium or small.

Cargo handled at Tarafa Terminal: General cargo, equipment, machinery, bagged cargoes, fresh and canned fruits, sugar, etc.

Tarafa Pier "B": North Side: Length 480 ft., width 65 ft., max. draft 19 ft.

Depths alongside from shore end to pier head: 19 – 23 – 25 – 25 – 25 – 28 ft.

South Side: Length 480 ft., width 65 ft., max. draft 19 ft.

Depths alongside from shore end to pier head: 14 – 21 – 20 – 22 – 22 – 24 – 25 ft.

Tarafa Pier "C": North Side: Length 437 ft., width 61 ft., max. draft 26 ft.

Depths alongside from shore end to pier head: 26 – 25 – 26 – 29 – 31 ft.

South Side: Length 437 ft., width 61 ft., max. draft 26 ft.

Depths alongside from shore end to pier head: 23 – 23 – 25 – 25 – 25 – 26 – 27 ft.

Tarafa Pier "D": North Side: Length 768 ft., width 65 ft., max. draft 27 ft.

Depths alongside from shore end to pier head: 28 – 29 – 31 – 32 – 33 – 34 – 33 – 34 ft.

South Side: Length 477 ft., width 65 ft., max. draft 26 ft.

Depths alongside from shore end to pier head: 19 – 27 – 29 – 29 – 30 – 30 – 29 – 28 ft.

STEVEDORES: Working periods – raw sugar, loading rate, refined sugar, general cargo, etc., same as for Pastelillo. 6 sugar vessels can operate simultaneously. No crane available.

FUEL: No bunkers usually supplied at this terminal, but in special cases bunkers have been supplied at Pier "B".

FRESH WATER: Can be supplied at Pier "B", "C", and "D".

SHIPMASTER'S REPORT: March 1980.

General Cargo: There are 3 piers for handling general cargo, all in the same place at Tarafa. All about the same length, and ships can moor both sides.

Fresh Water: Fresh water can be supplied at anchorage and at all piers by barges (about 200 tons).

Agent: The Agent "Mambisas" has an office just outside the gate (large green house) and listens on VHF Channel 12 from 0900 – 1100 hrs. and 1500 – 1700 hrs.

SHIPMASTER'S REPORT: November 1981.

Pilotage: Compulsory. 12 hours' notice required.

Restrictions: Vessel can enter and leave port during hours of darkness. Vessel can only enter and leave at slack water due to narrow entrance.

Max. Size: Length 511 ft., beam 70 ft., max. draft 24 ft.

Tugs: Available and should be used.

Radio: CLK.

VHF: Pilot on Channels 16 and 13. Port Authority on Channel 13. Agent on Channel 12.

Consuls: None.

Services: The following services are available: Fresh water, fresh provisions in small quantities, laundry service, telex, bunker fuel oil, diesel oil, lubricating oil, doctor and hospital.

Agents: Nearest Agent in Havana.

Berthing: Location: Lat. 21° 34′ N., Long. 76° 14.5′ W.

Vessel berthed at Berth B. Distance from entrance to berth 12 miles. Least depth of water in channel from sea to berth 8 m. Max. tidal range at berth 1 m. Nature of bottom mud. Density 1025.

Facilities Available: Limited bulk handling facilities, no ro-ro, no floating cranes. Equipment available for handling palletised cargoes. No facilities for handling containers.

Anchorage: The anchorage is 6 miles from the berth. Vessels with draft of over 20 ft. have to anchor in channel.

Barges: Fresh water barge available.

Tankers: Tanker terminal available.

SHIPMASTER'S REPORT: December 1983.
Documents: See Havana "Shipmaster's Report: December 1983".
Pilotage: Compulsory. 24 hours' notice should be given via Agent. Pilot boards at No. 1 Buoy (entrance to bay).

Distance from entrance to berth is 12 miles through a very narrow channel with sharp bends. This channel may only be transited at slack water during daylight.

Charted depth in channel was 4 fathoms but we found at least 30 ft. Tidal range 0.5 m. Currents of 2 – 4 knots are experienced 2 hours after HW or LW.
Anchorages: Available in centre of bay at Lat. 21° 31′ N. Long. 77° 11.5′ W.
Restrictions: See "Pilotage".
Max. Size: Max. LOA 650 ft., max. draft in channel 33 ft.
Radio: Neuvitas.
VHF: Pilot and Port Authority use Channel 16.
Tugs: At least 3 tugs available.
Berthing: Vessel berthed at Tarafa "B" pier (Lat. 21° 34.2′ N., Long. 77° 14.7′ W.). This vessel (length 575 ft.) was very much the maximum size for this pier. Max. draft at East end – 19 ft. Mean tidal range at berth was 18 in.

Nuevitas has 3 piers for receiving and exporting general cargoes. The 3 piers are "B", "C", "D", with berths on North and South sides of each. Lengths of piers are said to be "B" 480 ft., "C" 437 ft. and "D" 766 ft. The South side of "B" Pier is silted up limiting the draft to about 17 ft.

We were offered "C" Berth 437 ft. which I rejected as being unsafe for this size of vessel. The Pilot and Port Officials agreed with me.

The vessel berthed North side of "B" Pier. Only 470 ft. of pier was usable as heavy boulders and mud extended from the East end of the berth consequently 110 ft. of the vessel overlapped the jetty into the stream where a current of from 1 to 2 knots can be experienced. Every use was made of bollards and horn cleats on the quay, some of which were very dubiously secured to the wharf. All available leads on the vessel were used, even so there are no means or facilities for breasting the stern in. During a heavy squall the ship was about 12 ft. off the jetty.

"D" Berth is the only suitable berth for this size of vessel. Unfortunately it is used only for receiving bulk fertiliser.

Other berths off the Port are only used for the export of sugar and cargoes moved by rail trucks.

Vessel must depart berth 2 hours prior to slack water in order to transit channel at slack water.
Bulk Cargo Facilities: "D" Pier is for discharge of bulk fertiliser; ship's gear used.
Stevedores: Available and satisfactory.
Medical: Doctor and hospital facilities available.
Fresh Water: Available.
Fuel: Limited quantities of bunker fuel, diesel and lubricating oils available.
Consuls: Nearest at Havana.
Surveyors: Salvage Surveyor available.
Airport: Local airport.
Services: Telex facilities. Limited supplies of fresh provisions, groceries and meats.

SHIPMASTER'S REPORT: February 1984.
We recently loaded a cargo of bagged sugar in Nuevitas, Cuba. Thanks to your publication, all crew had made out complete Personal Effects lists, and most of their valuables had been placed in cases and placed in the bond.

On berthing, I was presented with a set of Customs Regulations which stated what had to be placed in bond during the ship's stay in Cuba. This says (in English) Quote: "On arrival Cuban port all Masters of any ships must put under transit room that not be of personal use so as toys, guns, ammunitions, spirits, cigarettes, narcotics and kinds of pornographic pictures". No mention is made of cameras.

The day after berthing, the ship was searched by the Port Captain, who confiscated two cameras belonging to crew members, even though these had been declared. According to the Agent in Cuba, these people had no right to take these articles, and he was certain he would get them back. However, despite numerous requests and letters, they were not returned on sailing.

The above may prove of assistance to other ships.

See "Shipmaster's Comments" in "General" before first port.

SHIPMASTER'S REPORT: August 1985.
Notices: The required notices and ETA messages were sent to "Mambisas – Havana" and once the loading port was declared contact was established with "Mambisas – Nuevitas" – the local Agents, all messages were then directed through them.

Response of Havana Radio (CLA) on HF was poor, all messages had to be sent through U.S. coast stations, however, once the vessel was in MF range all traffic was directed through Havana Radio and the local station Nuevitas Radio (CLK).
Approaches: 2 hours prior to time of arrival the vessel was informed by the Pilots (on VHF) that the Pilot would board at 1130 hrs. which meant a delay of 2 hours. We went up close to the Pilot Boarding Ground to register and report the time of arrival and then went out to drift. We then sent message to Agents to tender Notice of Readiness on Master's behalf with time to be stated as 0930 hrs. (it was a Saturday).

All entrances to the bay are made when tide is slack at No. 1 Buoy, ETA to be timed accordingly. Pilots prefer to enter between Slack Water and Flood Tide. All sailings are timed for 1 hour before Slack Water, the idea is to be at No. 1 Buoy at Slack Water.
Limitations: If draft less than 30 ft. then vessel can enter and leave the port by day or night provided the above conditions are met. If draft is more than 30 ft. then the vessel can enter and leave the port at HW – Slack Tide by day only. Max. draft 33 ft. There is a strong currrent in the channel and at the neck of the bay of up to 4 – 5 knots.
Anchorages: No safe anchorage with good holding ground is available outside the bay near the entrance, so it is advisable to drift. Vessel must be well out as there is a strong set. Pilots advise that if it is necessary to anchor then the vessel can anchor in a position bearing 000° (T) × 4 cables from Pta-de-Cos Practicos, but for an hour or so only.

We understand that if a vessel has to anchor for longer periods then one can anchor on the Great Bahama Bank as shown (see "Plan"). Vessels have been known to anchor here for hatch cleaning, etc. I personally feel it is not a very good proposition. Inside the bay there are good and safe anchorages available. There is no safe anchorage off Pastelillo Pier. Off Tarafa there is an anchorage to the N.W., max. draft 22 ft., it is used only as a temporary holding ground during manoeuvres.
Pilotage: Pilots board 1 mile North of No. 1 Buoy. Pilots and tugs communicate – using walkie-talkie. If wind is more than Force 4, the Master has to issue a letter before Pilots undertake any docking/undocking operations, especially if in light draft and with high windage area.
Tugs: This port has experienced many tug breakdowns and delays. We were given to understand that on one occasion (March 1985) all docking and undocking operations were delayed for 6 days, all for the want of one tug. At some berths Pilots require 2 tugs.

For our departure from Pastelillo Pier, we were also delayed due to tug breakdown. Master had to request the Port Officials for special permission and only after overnight consultation and delay did they permit undocking with one tug, provided the Master issued a written request. This was done and the vessel undocked.
Density: We observed a dock water density of 1027 at both Tarafa and Pastelillo. This high figure is due to the fact that the area had experienced an unusually long dry season. As per the Surveyors average figure is 1023 – 1024.
Berths at sub-port of Tarafa: There are 3 piers 'B', 'C' and 'D' with berths on each side designated North and South berths.

Pier 'B' is generally used for reefer and smaller general cargo vessels.

Pier 'C' is used for sugar and general cargo.

Pier 'D' is used for fertiliser and other bulk cargoes.

Official drafts and depths are not to be relied upon as there is heavy silting at all berths mainly attributed to the bulk operations.

We berthed at Pier 'C' – South berth, starboard side to, head in, with the stern protruding well out beyond the pier. This is due to the progressive silting at the forward end. Depths at this pier were sounded and are as per plan (see "Plan"). Max. draft at Pier 'C' – South berth as per the Pilots is 24 ft. forward and 26 ft. aft. Vessel can load up to 25 ft. 03 in. max. (aft) and sail at any state of tide. If over this draft vessel must sail at HW only.

If draft exceeds 25 ft. 03 in. when transiting the Tarafa-Pastelillo Channel one tug is required to assist the vessel to round the bend at No. 41 Buoy.

Max. draft allowed in the Tarafa-Pastelillo Channel is 27 ft. at HW. For docking/undocking Pilots require 2 tugs but use only one. This is mainly due to the lack of manoeuvring space when there is a vessel at the adjacent berth.
Berths at sub-port of Pastelillo: The berths at this pier are considered the topping-up berths. Generally vessels load part cargo at Tarafa and then shift to Pastelillo.

There are 2 berths at this pier designated North and South. The North Berth is for tankers and the South Berth is for sugar loaders. Cargo to this berth is fed by rail road.

The knuckle on the Southern side has been badly damaged and has some irregular blocks of concrete and steel jutting out, necessitating extreme caution during the approach and positioning of the vessel.

We berthed at Pastelillo – South Berth, starboard side to, head in. The berthing operation can be a little tricky, especially if there is a slight wind, this is made more so by the channel which turns sharply at the head of the pier.

The official maximum draft allowed at this berth is 33 ft. Hand lead soundings showed depths in excess of 36 ft., on the off-shore side and 33 ft. on the in-shore side.

With a draft of 30 ft. a vessel can undock at any state of tide, by day or night. However, with a draft in excess of 30 ft. undocking is during the day only, with the max. draft of 33 ft. only during the daytime and at high tide.

Tidal restrictions for departure from the bay still apply, so the vessel may be required to anchor in the bay to await tidal conditions. Pilots and Port Officials require 2 tugs for all docking/undocking operations at Pastelillo.
Documents:

Crew List	9 copies	Any format.
List of Ports of Call	4 copies	Any format.
Declaration of Health	1 copy	Special format.
Vaccination List	4 copies	Any format.
Foreign Currency Declaration	4 copies	Any format.
Narcotics List	4 copies	Any format.
Firearms & Weapons List	4 copies	Any format.
Cargo/Ballast Manifest	4 copies	Any format.
Stores List, Deck, Eng., Radio, Catering	5 copies	Any format.
Provisions List	6 copies	Any format.
Bonded Stores List	6 copies	Any format.
Personal Property Declaration	2 copies	Special format.
Currency Card	1 copy	Special format.
Shore Pass	2 copies	Special format.

Vessel should make a fairly detailed declaration of ship stores with special attention to electrical, electronic equipment and new (unused) items.

Crew Personal Property Declaration has to be *very detailed* with all items listed. All new items and those not in use should be packed up in a bag and put away in a spare cabin. This spare cabin is sealed by the Customs.

Each crew member is allowed: 1 bottle of alcohol, 1 carton of cigarettes, 1 watch, 1 radio. Beer is not considered a bonded item. No cameras allowed for the crew.

The Master is permitted to keep: 5 bottles of alcohol, 5 cartons of cigarettes and 1 camera. (We had kept the Polaroid camera out of bond to use during cargo operations).

The Customs seal can be opened upon request every 5 days for a fresh issue to the crew.

Inspections: Pratique, Veterinary, Agriculture, Sanitary, Harbour Master (Ministry of Interior – Guards), Customs:

Pratique: Doctor and assistant board the vessel with the Pilot when inward bound. They clear the vesel and issue the Free Pratique chit.

Veterinary: A veterinarian from the Institute of Veterinary Medicine will inspect the holds and dunnage wood and see if spaces are fit to load sugar. Also if the wood is free of termites. He will then issue a "Fit to Load Sugar" Certificate. The Veterinary Inspector will also check the meat room to see if all the meat onboard is clean and fit for consumption. He will be looking out for the stamp of approval. Chinese sausages are not permitted. If any non-approved items are found then the meat room will be sealed and they will board every day to enable removal of rations for 24 hours. The charge for this service is CPeso 5/– per visit.

Agriculture: An Inspector from the Department of Agriculture will board the vessel to check the dry provisions and the vegetable room. They will take samples of fruit, garlic, some vegetables away for testing and they may recommend some items to be sealed up in plastic bags. It is advisable to keep dry-fish 'ikkan billis' and preserved Chinese vegetables well out of sight.

Sanitary: Inspector from the Department of Public Hygiene will check the galley, all cabin stores in the accommodation and on deck, also check the garbage drums, etc. They are mainly looking out for mosquitoes, as there was a very severe epidemic of malaria resulting in a large number of deaths. The Sanitary Inspector will board every 5 days.

Harbour Master (Ministry of Interior Guards): They can search the vessel at any time, for any reason, any number of times. They searched our vessel twice on arrival and prior to departure. The shore passes are issued by them. Everyone is expected to stand-by their cabins during the initial and final search. They appeared to be looking out for 'literature', objectionable to the government, and stowaways. This Department will issue a "Permission to Sail" Certificate.

Customs: The Customs Officials are mainly looking for US$ and Cuban Pesos in excess of the declared amount. Any *news items* or any item they *feel* is in excess of personal requirement will be confiscated whether declared or not, if found in the cabin. All crew should be advised to keep only the bare minimum and all other items should be put away to be sealed. Currency Declaration cards for all crew are given by them. Customs will, prior to departure, issue a "Clearance".

Agents: Empresa Cosignataria Mambisa – Nuevitas are the local Agents with the main office in Havana. The Agents board the vessel on arrival and thereafter every day. They can be contacted on VHF (call – Mambisa) Channel 12 and 16 between 0800–1130 hrs. and 1400–2100 hrs. The office is located very close to the main gate at Tarafa. Working hours are up to 1700 hrs. However, there is an Agent on duty until 2100 hrs. All telex messages are sent through Havana. International telephone calls can be made from the Agent's office. Even with 24 hours prior notice there are delays. Agents are attentive and helpful.

Shipchandler: There is one company, arranged through the Agents. The chandler supplies fresh and dry provisions and dunnage material. The chandler claimed to have fresh vegetables, fresh fruit, meats, etc. Prices of seasonal local fruits and vegetables are very reasonable. When the order was placed they were able to supply only one or two items as all fresh vegetables and fruits were out of stock.

Medical: Arranged through the Agent. The Protocol Officer will take the crew member to the local hospital, for medical attention. Cost Cuban Pesos 20/– per consultation, transport and medication extra.

Fresh Water: Available by barge. We did not take water at this port.

Shore Leave: The crew is permitted to go ashore any time. There is no curfew in force. While at Tarafa the most convenient mode of transportation to and from town is by bus. Taxis are available but difficult to come by. From Pastelillo the crew is not allowed to go ashore, by road transport. Boat service has to be arranged. Pastelillo-Tarafa is a 40 minute ride one way, cost per round trip is C. Peso 46/–. However, if anyone is to go to the doctor then the Agent will arrange a car and boat service is not required.

General: The crew should be warned against Black Market transactions in US Dollars as there are plain clothes policemen on the look-out. Crew are permitted to take US$ ashore but they must be changed at a bank. Apparently the incidence of STD (sexually transmitted diseases) is quite high and the crew should be warned accordingly. There were some indications that drugs are quite freely available and in use, so one must be more vigilant as some of the crew may be tempted or misled. At the time when the vessel called the exchange rate was 1US$ = 0.96 Cuban Peso.

Stevedores: The regular working periods at this port are:

Monday to Friday	0630 hrs. to 1350 hrs.	1st shift.
	1420 hrs. to 2140 hrs.	2nd shift.
Saturday	0630 hrs. to 1350 hrs.	1st shift only.
Sunday and Holidays	No work.	

The above are the times of regular work. However, cargo can be worked on Saturday 2nd shift and Sunday if required. Stevedore Supervisor will enquire, as to the number of gangs vessel requires to work. Vessel must ensure that at no time to commit less than 4 workable hooks as per Charter Party. Sometimes they bring less gangs to suit the availability of cargo. Ship's crew are to rig derricks but stevedores will assist. Opening and closing hatches by ship's crew. Stevedores are fast and efficient, did not experience any problems.

The 2 areas to be wary are:

(a) Stacking of bags when the head room decreases, in the under coaming spaces.

(b) Covering up all the steel work, and the top tier with kraft paper.

At Tarafa sugar in bags is fed to the wharf by covered wagons and also on trucks.

The average weight of cargo per wagon is 57 tonnes. Usually there are 12 bags per sling and 1 sling per lift. If there is sufficient supply of cargo and wagons, one gang can average 2,400 – 3,000 bags per shift. Provided the rate is maintained, on a 4 gang/2 shift basis the total lifting per day can be in the region of 19,000 – 24,000 bags which is 1,880 tonnes – 2,300 tonnes per day.

At Pastelillo the sugar is fed to the wharf by rail wagons only. Here the normal system is 6 bags per sling and 2 slings per lift. Due to the height of the wharf and the positioning of the rail tracks the production at this pier is much greater than at Tarafa.

The above figures are on the basis of regular supply of sugar and wagons. During our stay there were times when cargo had to be stopped or slowed down and the number of gangs reduced due to non-availability of cargo. The production figures for our port stay are as follows:

	Tarafa	*Pastelillo*
Time alongside	4 days 22 hrs. 18 min.	5 days 20 hrs. 36 m.
Time workable as per port working hours after berthing (Sundays & Holidays inc. if worked)	3 days 23 hrs. 50 min. (10 shifts)	3 days 13 hrs. 14 min. (12 shifts)
Deductions from workable time		
– Rain	0 days 00 hrs. 35 min.	—
– Preparing for loading	0 days 01 hr. 30 min.	—
– Waiting for cargo	—	0 days 11 hrs. 50 min.
– Waiting for shifting/sailing	—	0 days 16 hrs. 00 min.
Time actually worked	02 days 21 hrs. 45 min.	02 days 09 hrs. 24 min.
Total cargo lifted	81,530 bags	60,167 bags
Total gangs worked	35	24
Cargo/gang/shift	2,329 bags	2,507 bags
Average cargo/day of 24 hours (basic time alongside)	1,620 tonnes/day	1,006 tonnes/day

Tally: Tally by shore personnel quite accurate and in addition independent tally by ship's staff (used deck cadets, and crew when more than 4 working gangs). Did not experience any serious discrepancy.

Vessel must instruct ship's tally cadet and shore tally clerk to compare figures at the end of each wagon or truck, and note any discrepancy before commencing the next wagon or truck. This way there is no squabbling at the end of the day when the figures are presented to the Chief Officer and there appears some large and mysterious discrepancy. Due to the presence of the ship's staff the shore tally personnel are more attentive.

Cargo Condition: The general cargo condition was satisfactory as could be judged from the appearance of the bags and by feel. Some of the bags were wet and or stained. There were also some bags which were hard when touched. All wet, stained, torn, seeping and hard bags were rejected. The rejected bags were re-loaded onto the wagons. Ship's staff on tally duty checked and rejected the bags. There is an organisation called Empressa Cubana de Control short 'Cubacontrol'. Surveyors/checkers from Cubacontrol check the cargo quantity and quality. They have one representative per gang and in addition there is one person who collects samples at random. From experience gained on the voyage, we noted that this cargo is prone to heavy sweating. There is considerable amount of inherent moisture and heat in the sugar crystals/granules.

Cargo Weight: The cargo of granulated raw brown sugar in bags is fed to this port from 5 factories. In spite of standardisation there is a difference in bag weight and condition. The rail wagons are weighed, at random, before and after handling to obtain the cargo weight and thus the average bag weight. This average is used to compute the cargo quantity being loaded. The averages range from as low as 94.1 kg./bag to 101.9 kg./bag. For our shipment the general average bag weight worked out at 98.993 kg./bag. The shippers Cubazucar (local representative Marcos Allen) advised that from past experience *all* sugar ships to China have experienced a shortfall per the receivers. To safeguard their interest the shippers request a Draft Survey on Shipper's Account. The Draft Survey was carried out by Cubacontrol.

By shore tally cargo quantity worked out to 14,020.072 tonnes gross, 13,879.755 tonnes net.

By draft survey cargo quantity worked out to be 13,903.395 tonnes gross.

B/L was signed on basis of shore tally weight, gross and net. Freight basis net weight. Master had requisitioned/nominated for 14,020 tonnes of cargo. Issued Letter of Protest and Right to Claim Deadfreight.

Dunnaging Material: Laying of dunnage done by stevedore gangs, separate dunnage men employed per working hatch.

Flat dunnage wood is very difficult to obtain and when available, is very expensive. It is customary to use cardboard cartons and kraft paper. Transportation charges are unreasonably high so it is advisable to order your requirement in large amounts. However, returning is not permitted.

Flat dunnage wood at CPeso 110.2/cu.m. + 18% and transport
– None ordered

Cardboard cartons 122 cm.×61 cm.×0.35 cm. at CPeso 350 per bundle of 100 pieces
– Total used 12 bundles

Kraft paper 122 cm. wide ×100 m. per roll at CPeso 16 per roll
– Total used 107 rolls

We had 12 cu.m. of flat dunnage left over from the previous voyage, this was used in the lower holds – double dunnage, i.e. fore and aft and athwartships, this was then covered with kraft paper. Where no wooden dunnage was used cartons were placed which were then covered with kraft paper before cargo was loaded. All steel surfaces were covered with kraft paper to prevent contact with the bags. The top tier was covered with kraft paper. In the square of the hatch the top tier was covered with kraft paper and then with cardboard cartons.

Stowage Factor: The smaller holds (1 & 3) gave a stowage factor of 48 – 48.5 cu.ft./long ton whereas the larger holds had a stowage factor of 46.7 – 47.7 cu.ft./long ton. The average stowage factor for the full laod worked out to be 47.5 cu.ft./long ton.

No. 3 Hold – Tween deck had some empty space – 13,457 cu.ft. (i.e. additional 284 tonnes).

No. 4 Hold – Tween deck had empty space – 3,200 cu.ft. (i.e. additional 68 tonnes) which with the stowage factor obtained gives a possible full load of 14,372 tonnes after making due allowances for bunkers, etc.

Sealing of Hatches: On completion of loading each hatch was sealed in the presence of the Ministry of Interior Guards and Customs. The sealing was carried out by Cubacontrol the locally based recognised company, in the absence of a P&I correspondent. The services of Cubacontrol for the sealing were ordered through the Agents on Owner's Account.

All hatch covers, hatchways and ventilators were closed and sealed using copper wire and snap-on seals. In all 24 seals were used. The Surveyors issued a Certificate and Plan on completion of sealing with all the seal locations and numbers.

AUTHORITIES: See "Pastelillo".

(c) SUB-PORT OF BUFADERO:

PILOTAGE: See "Pastelillo". Distance from place where Pilots board vessels to Bufadero is 10 miles.

APPROACHES: See "Pastelillo".

RESTRICTIONS: Vessels drawing over 25 ft. 3 in. should await high tide for shifting to anchorage.

For entering/sailing, vessels should wait for slack water and only during daylight.

MAX. SIZE: Max. draft with which vessels can enter/sail to/from Bufadero is officially up to 25 ft. 3 in. but actually up to 25 ft. 6 in. Length 600 ft. Tidal variation 1 ft. 6 in.

BERTHING: Pier, length 557 ft.; draft, North side, 25 ft.; draft, South side, 25 ft.

This pier is only used for molasses and fuel oil. Average pumping rate of molasses is 70,000 g.p.h. Only South side is in operation.

Cement Dock: This is a concrete coastal dock where bulk cement is shipped by means of silo-trucks. It is located West and close to Bufadero Pier. Length 275 ft., width 31 ft. Depths alongside from East to West: 14 – 16 – 18 – 16 – 16 ft.

FUEL/FRESH WATER/REPAIRS: Not available.

AUTHORITIES: See "Pastelillo".

PUERTO PADRE-Cayo Juan Claro: 21.17 N. 76.32 W. (and sub-port of Manati) (See Plan)

It is a safe, sheltered and ample port, situated at one of the richest and important sugar cane zones of the nation.

In the neighbourhood of the port there are 2 sugar producing colossus: Antonio Guiteras sugar mill, 8 km. away and Jesus Menendez sugar mill, distance 18 km. Both of these mills are among the biggest and most modern in Cuba.

The port itself is located on the West coast of Cayo Juan Claro and is named Puerto Carupano.

Cayo Juan Claro is connected with the mainland at its extreme Southern tip by a narrow gauge railroad and parallel to the tracks runs a road recently built.

Both the railroad and the road communicates with the city of Puerto Padre, sugar mills of Antonio Guiteras and Jesus Menendez.

Cayo Juan Claro and Cayo Puerco, divide the bay into two parts. The part located at the West is Puerto Padre bay and that at the East is known as Chaparra Bay.

PILOTAGE: Pilots board vessels at entrance, not less than 1 mile from mouth of port. Distance from place where Pilots board vessels to pier is about 2.5 miles.

APPROACHES: Funnel-shaped at entry. 2 turns, but the one to take into consideration when manoeuvring vessels over 525 ft. is "Careneoro" turn. Vessels with a length of 565 ft. have entered this port. Bottom is rocky in entrance channel and muddy in bay.

RESTRICTIONS: Vessels can enter only during daylight and must wait for slack water for entering/sailing due to current in the channel.

MAX. SIZE: Vessels can sail with max. draft of 25 ft. up to length of 500 ft. Over 500 ft. length with draft up to 24 ft. Max. length permitted 557 ft. Tidal variation 2 ft. 3 in.

ANCHORAGES: *Official Anchorage:* Located at Puerto Padre Bay at following position: Lat. 21° 14′ 46″ N., Long. 76° 33′ 34″ W.

Max. length permitted 170 m.

Vessels usually anchor by 3 or 4 shackles of chain but there is enough swinging area for 8 or 9 shackles.

Draft allowed to vessels 25 ft. Anchorage bottom is mud and shells.

Quarantine Anchorage: Located East of Cayo Juan Claro at Chaparra Bay, about 2 miles from the piers.

Max. length permitted is 170 m. and depth is over the port official draft.

Vessels usually anchor by 3 or 4 shackles of chain, but there is enough swinging area for 10 shackles. Anchorage bottom is mud and shells.

BERTHING: Pier Nos. 1 and 2 are located on the West side of Cayo Juan Claro.

Salt Mill Pier is located on the East coast of the entrance channel, just in front of Pt. Gracia, and about 1.75 miles from Pier Nos. 1 and 2.

(a) *Pier No. 1* (Formerly known as Sugar Pier): It is a coastal pier built entirely of hard wood.

Two narrow gauge railroad tracks run along the length of the pier.

Loaded cars enter by the North end of pier and after discharging are taken out by the South end.

Trucks can operate at this pier, but are not used for sugar cargoes.

Length 523 ft., max. length permitted to vessels 557 ft. Width 32 ft. Draft 27 ft. – 28 ft.

Cargo handled by this pier:
Importation: Occasionally general cargo or jute bales.
Coastal trade: Occasionally general cargo.
Water available by railroad tank-cars.
Berthing operation performed only during daylight hours.

(b) *Pier No. 2* (Formerly known as Molasses and Oil Pier): It is a steel and hard wood construction 271 ft. long, of which 235 ft. corresponds to a passage 7 ft. wide along which run the pipe-lines and a catwalk, ending in a platform 36 ft.×36 ft.

Vessels operating at this pier, berth across it, forming a "T" shape.

Length 271 ft., max. length permitted 557 ft. Draft 26 ft. – 28 ft. Width 7 ft.

Platform 36 ft.×36 ft.

Cargo handled by this pier:
Export: Molasses.
Coastal trade: Discharge of fuel oil.
Berthing operation performed only during daylight hours.

(c) *La Salina Pier:* Located at the entrance channel East coast, just in front of Pt. Gracia.

It is a small coastal pier built to ship coastal trade cargo of salt.

Berthing length 44 ft. Width 22 ft. Max. length allowed 192-200 ft. Draft 12 ft.

STEVEDORES: Working periods: Monday to Friday 0700 – 1100 hrs., 1300 – 1700 hrs.; Saturday 0700 – 1100 hrs.

Raw sugar: loading rate max. 1,430 raw sugar bags loaded per gang period. Minimum is 650 bags. 5 bags loaded per sling. Only one vessel can operate at a time. Empty jute bags have been discharged and average discharge rate is about 45 metric tons per gang period. No crane available.

Sugar in bulk: 5 thrower machines for loading sugar in bulk.

TANKERS: Molasses average pumping rate 50,000 g.p.h. Fuel oil, discharging rate 45,000 g.p.h. Gas oil discharging rate 35,000 g.p.h.

Puerto Padre Pier No. 2: Fuel Oil: One connection 8 in. diameter. Diesel Oil: One connection 8 in. diameter. Molasses: Two connections 8 in. diameter.

FUEL: Not available.

FRESH WATER: Can be supplied at No. 1 pier by pipe-line. Delivery rate 17 t.p.h.

REPAIRS: Port has no repair shop, but in event winch damage or any other light repairs, this work can be carried out at the Sugar Mill "Central Antonio Guiteras" Repair Shop.

MEDICAL: General Hospital at Puerto Padre where sick crew members can receive attention.

IMPROVEMENT OF PORT FACILITIES: At the present time new deposit tanks for petroleum products are being built to increase greatly the port storage.

Also a water reservoir and an above ground tank will be built, and in the future it will be possible to supply water by pipe-line to vessels docked at Pier No. 2.

TRANSPORTATION: Distance from Cayo Juan Claro where all cargo operations are performed to Puerto Padre is 3 miles. Means of transportation between Puerto Padre and Cayo Juan Claro: motor-boat, railroad, and automobile.

From Puerto Padre to Cayo Juan Claro it takes: by motor boat 30 minutes; by automobile 5 minutes; railroad 20 minutes.

COMMUNICATIONS: Means of communications available at Puerto Padre: telephone, cable (Inalambrica), telegraph and postal service. Vessels can communicate with Puerto Padre via CLA Havana.

AUTHORITIES: Port Doctor and Custom House are located at Puerto Padre. Immigration at Chaparra. Port Captain at Cayo Juan Claro.

AGENT: Office Address: Calle 3 No. 12, Cayo Juan Claro, P.O.Box 38, Central "Antonio Guteras, Tel.: 52565 (Puerto Padre), 210-2 (office), 108-2 (night). Cable: Mambisas Puerto Padre. Telex: 024118.

Agency works VHF on Channel 16.

Postal Address: Empresa Consignataria Mambisa, Agencia Puerto Padre, Apartado No. 38, Central Antonio Guiteras, Delicias, Prov. de Oriente.

Puerto Padre Agency personnel also attends the port of Manati.

SUB-PORT OF MANATI: 21.24 N. 76.48 W. (See Plan)

The Port of Manati lies on an arm in the sea, through the centre of which runs a narrow and deep channel, leading to the shallow bay of Sabanalamar or Manati.

This arm in the sea is about 3 miles long and 800 m. wide at the entrance mouth, between Pt. Roma and Pt. Jesus, and 700 m. at its end, when it reaches Sabanalamar Bay.

Manati is located on the West coast of the arm in the sea, at about 2.5 miles from Pt. Roma and 0.5 miles from the end of it.

The port of Manati exports the production of sugar mill Argelia Libre formerly known as Manati.

PILOTAGE: Pilots board vessels about 1 mile from entrance. No pilot station. Pilots located at Manati and ETA notice to be given to them well in advance. Distance from place where Pilots board vessels to pier is about 3 miles.

APPROACHES: Narrow channel, very deep (minimum depth 38 ft.) Bottom is irregular, parts where it is sandy and others rocky.

RESTRICTIONS: Not necessary to await slack water for entry/sailing; but considering large tonnage of vessels presently entering port for topping-off, if there is a strong current Pilots wait until current loses strength in order to avoid accidents. Vessels can enter and sail only during daylight.

ANCHORAGES: Swing area 600 ft. (approx.). Owing to reduced space, this anchorage is not safe for anchoring vessels drawing over 26 ft.

MAX. SIZE: Incoming vessels draft limitations:

	Vessel length	*Max. draft*
Vessels up to	500 ft.	26 ft.
Vessels up to	525 ft.	20 ft.
Vessels up to	560 ft.	17 ft.

In some exceptional cases 560 ft. length vessels have entered this port but it is advisable to nominate this type of vessels to operate at any other suitable ports because at Manati the max. advisable length allowed to vessels is 525 ft.

Tidal variation, 2 ft. 6 in.

BERTHING: Manati Pier has the shape of an "L" and projects from the West coast of the arm of sea toward the centre of it seeking the border of the deep channel.

It goes straight out and then turns Northward in a 90° angle.

The 90° angle constitutes its South end, and from there to the head of pier, or North end, it is 465 ft. long, having at this end a fixed red light.

As is clear by the above description, pier has an East and a West side, but only the East side is used because the West side does not have enough water to operate vessels.

It is a hard wood construction supported by concrete piles. Bottom alongside pier is soft (mud and sand) along three-quarters of its length from North to South except at the South end where it becomes shallow, hard and rocky, which renders worthless about 70 ft. of docking space.

Pier has double standard railroad tracks and a single narrow gauge track. It is not possible to operate trucks at this pier.

Manati Pier (Also known as La Gloria Pier): Length 465 ft. Max. length allowed 525 ft. Max. draft 30 ft. 6 in.

Tanker Information: Molasses: 2 connections 8 in. in diameter. Fuel Oil: 1 connection 8 in. in diameter.

STEVEDORES: Loading sugar: working periods: Monday to Friday 0700–1100 hrs., 1300–1700 hrs.; Saturday 0700–1100 hrs., 1300–1700 hrs. When necessary, work is performed at night. Sunday is also worked when required. 1,040 sugar bags loaded per gang period; 6 sugar bags loaded per sling. Only one vessel can operate at a time. No refined sugar operations performed. No shore crane available. Sugar mill has 5 grates and 3 machines for spreading sugar in hatches.

TANKERS: Molasses pumping rate 25-30,000 g.p.h. Fuel oil pumping rate at average of 1,700 b.p.h.

FUEL: Not available.

FRESH WATER: Supplied by pipe-line at pier. Pipe-line 2 in. in diameter and delivery at an average rate of 15 – 16 t.p.h. Amount that can be delivered depends on supply at sugar mill. Supply not to be depended upon.

REPAIRS: Sugar mill repair shop for minor repairs. Welder available.

MEDICAL: Crew members requiring medical attention are treated at Manati Polyclinic, but the majority of cases are treated at Argelia Libre Hospital, where there is also a Dental Clinic.

Cases requiring surgical or specialised treatments are sent to Lenin Hospital at Holguin.

COMMUNICATIONS: Long-distance telephone communication between Manati and Puerto Padre; although difficult owing to fact that there are only two lines from Manati and they are almost always congested. There are some occasions when an entire day is spent trying to obtain communication without result. Victoria de las Tunas telephone operator serves on occasions as "relay".

Vessels cannot communicate by radio with this port.

AUTHORITIES: Under Cuban Custom laws and regulations, Manati is a sub-port of Puerto Padre, therefore all Authorities are located at Puerto Padre, nevertheless vessels nominated for operations at Manati can proceed directly to the port, where authorities clear the vessels.

AGENT: Manati is attended by Mambisas Puerto Padre Agency personnel and there is no office at Manati, however, the Agent attending a vessel at Manati can be reached at Minaz office, tel. 146. At night and for urgent matters he can be reached at Manati Chief Pilot tel. 144-15.

SANTA CRUZ DEL SUR: 20.42 N. 77.59 W. (and sub-ports of Manopla and Guayabal): (See Plan)

PILOTAGE: Pilots board vessels close to buoy indicating entrance channel (Cuatro Reales) between "La Ceiba" bank and Carapacho Cay Lighthouse. Distance from place where Pilots board vessels (Cuatro Reales Channel) to Santa Cruz anchorage is 11 miles.

APPROACHES: Entrance channel has depth of 45 ft. Bottom is mud, gravel and loose sand. In the narrowest part of channel is a turn of about 20 degrees.

RESTRICTIONS: Vessels cannot enter/sail at night. Not necessary to wait for slack water for entering/sailing.

ANCHORAGES: No. 1, 24 ft.; No. 2, 26 ft.; No. 3, 36 ft.; No. 4, 40 ft. Sugar-loading operations were performed at anchorages. There were 10 barges available which are presently operating at the sub-port of Santa Maria (Jucaro). Similarly, the tugs which were used at this port are at present operating at Jucaro.

MAX. SIZE: Vessels can enter/sail through channel with any draft and length subject official draft of the port which is 35 ft. Tidal variation 1 ft. 5 in.

LOADING: Raw sugar: working hours: Monday to Friday 0600–0800, 0830–1100, 1200–1530; Saturday 0600–0800, 0830–1030; Sunday: when it has been necessary, work has been performed.

Loading rate: 1,950 bags loaded per gang period. 6 bags loaded per sling. Only 1 vessel can operate at a time. No crane available.

Refined sugar – no operations performed.

Raw sugar in bulk – no sugar in bulk is shipped by this port. Bulk sugar is shipped by the sub-port of Guayabal.

TANKERS: No tankers operate at Santa Cruz del Sur proper.

COMMUNICATIONS: Long-distance telephone communication with Guayabal can be established through San Francisco Sugar Mill. Telegraph can also be used. There is no telephone or telegraph communication beteen Santa Cruz and Manopla.

At Santa Cruz del Sur there are long-distance telephone, Government telegraph and postal service. Vessels can communicate with Santa Cruz by telegraph via Radio Havana.

MEDICAL: No hospital. The nearest hospital where sick crew members can be attended to is located at Camaguey, 80 km. from Santa Cruz.

FUEL/WATER/REPAIRS: Not available.

TRANSPORTATION: Distance from Santa Cruz del Sur to Manopla: 14 miles; Guayabal: 14 miles. From Santa Cruz to Manopla by sea 1.5 hours; by road 1 hour. To Guayabal by sea 3 hours; by road 2.5 hours.

No daily transportation between Santa Cruz and its sub-ports. Launch or automobile are to be hired for this purpose.

AUTHORITIES: Port Authorities are located at this port. Launch services are used by Port Authorities to clear vessels.

AGENT: Empresa Consignatarias Mambisas, Calle Carretera No. 255, P.O.Box 49, Santa Cruz del Sur, Camaguey. Tel. 2547 (night 2141). Telex 031285 Cables: "Mambisas Santa Cruz del Sur".

(a) SUB-PORT OF MANOPLA:

PILOTAGE: After Pilot boards vessel at Cuatro Reales Channel, vessel proceeds to Santa Cruz for clearance, thence takes another Pilot and proceeds to sub-port of Manopla, 14 miles distant from Santa Cruz.

APPROACHES: See Santa Cruz. Entrance channel to sub-port of Manopla – Canal de Media Luna, Canal de los Bayameses, where vessels anchor, is a mile wide, bottom soft mud. No dangerous turns. Vessels of any length can enter and the anchorage depth is 24–40 ft. Official permitted draft 35 ft. Vessels can enter/sail only during daylight. Not necessary to wait for slack water for entering/sailing. Tidal variation 1 ft. 6 in.

LOADING: Anchorage No. 1: 26 ft.; No. 2: 40 ft. Loading sugar operations were performed at above anchorages by means of barges. The following barges and tugboats were available:

Macareno No. 1 – capacity: 329 metric tons, 2,870 bags of raw sugar or 75,000 gallons of molasses.
Macareno No. 2 – capacity: 329 metric tons, 2,870 bags of raw sugar or 75,000 gallons of molasses.
Eulalia – capacity: 269 metric tons, 2,350 bags of raw sugar. Has no tanks.
Miguelito – capacity: 269 metric tons, 2,340 bags of raw sugar. Has no tanks.
Josefa – capacity: 269 metric tons, 2,340 bags of raw sugar or 48,000 gallons of molasses.

Tug: *Fox* – length 66 ft., breadth 14 ft., 165 h.p. Tows the fleet of barges utilised at Manopla.

TANKERS: Average pumping rate of molasses 20,000 g.p.h.

COMMUNICATIONS: No long-distance telephone communication. There is telegraph service which works up to 1800 hrs.

FUEL/WATER/REPAIRS: Not available.

AUTHORITIES: See "Santa Cruz".

(b) SUB-PORT OF GUAYABAL: (See Plan)

PILOTAGE: After Pilots board vessels at Cuatro Reales Channel, they proceed directly to sub-port of Guayabal (a distance of 27 miles), where Customs clearance takes place. Also see "Shipmaster's Report".

APPROACHES: Dredged channel 2,474 m. in length, 60 m. in width with average depth of 30 ft.

ANCHORAGES: Suitable for vessels with draft up to 40 ft.

MAX. SIZE: Official draft for the port is 35 ft., but Pilots advise max. draft with which vessels may sail from the berth is 32 ft. 6 in. at HW, with max. length 510 ft.

BERTHING: The West side of the pier is specially designed for loading bulk raw sugar mechanically and is the deepest side where vessels can be loaded up to 32 ft. 6 in. for sailing at high tide or up to 30 ft. 6 in. to sail at any time.

It must be understood that such draft of 32 ft. 6 in. is given only for sailing loaded, but does not indicate that an arriving vessel with 32 ft. 6 in. draft can dock, even at high tide.

This situation is originated by the dimensions of the manoeuvring area around the pier.

Max. draft allowable for vessels arriving to complete cargo at Guayabal (molasses, alcohol, or sugar) at the West side of pier is 27 ft.

A tanker nominated for discharging fuel oil at Guayabal must arrive with a max. draft of 30 ft. 6 in. to be docked at the West side, bow facing shore, and must discharge until a draft of 27 ft. or less is attained, in order to turn around and sail out.

At the East side of the pier vessels can dock bow facing shore, with max. draft of 24 ft. fore and 27 ft. aft.

Vessels nominated to load bulk raw sugar at Guayabal must arrive clean and ready to load.

Any undesirable material or any remaining dunnage materials, must be discharged at a previous port, because at Guayabal the only available personnel are those operating the equipment of the Bulk Raw Sugar Terminal and no stevedores are available.

When jute bales or any other cargo is discharged at Guayabal, stevedores from other ports are used.

The pier is a solid and well maintained construction of concrete.

Guayabal Pier:

(a) West. Length 508 ft., max. draft allowed 32 ft. 6 in. (for sailing high tide), 30 ft. 6 in. (for sailing any tide), max length of vessel 200 m.

On this side is where the equipment for loading bulk sugar operates. The boom of the equipment can reach out up to 10.36 m. (34 ft.), from the outer edge of the pier.

Vessels loading bulk raw sugar can be supplied with water at a rate of 5 t.p.h. as long as the loading equipment is working and 10 t.p.h. when it is not working.

Cargoes handled by this side: Bulk raw sugar, molasses and alcohol. Occasionally: Fuel oil, jute bales and spare parts for sugar mills.

(b) East. Length 508 ft., max draft allowed 24 ft. fore and 27 ft. aft (bow facing shore), max. length 200 m.

STEVEDORES: Sugar loading in bulk. Loading of molasses and alcohol takes place frequently. Fuel oil and general cargo discharge.

Working Hours: Monday to Friday: 0600–0800 hrs., 0830–1100 hrs.,1200–1530 hrs.

Saturday: 0600–0800 hrs., 0830–1030 hrs.

Sunday: When it has been necessary, work has been performed.

Sugar in bulk – at pier there is an installation operated by electric motor control which moves a convex-shaped conveyor and transports the bulk sugar from warehouse to the vessel. 2 thrower machines, 600 and 400 t.p.h. respectively. Average loading rate about 250 t.p.h. although occasionally average of 400 tons has been obtained. There is some time lost on account of shifting the crane. Occasionally shovellers are required, and work continues 24 hours a day.

General cargo – it is not customary to receive general cargo at this sub-port, although on occasion bales of empty jute bags have been received, destined to neighbouring sugar mills. At present there are no facilities for discharge of general cargo, and no shore cranes available.

TANKERS: Shipment of molasses and alcohol is quite frequent. Vessels discharging fuel oil may berth with max. draft of 27 ft. without touching bottom, which is of soft mud.

COMMUNICATIONS: Communications between Guayabal and Santa Cruz del Sur are rather poor.

By means of relays Guayabal/Amancio Rodriguez/Camaguey, telephone communication may be obtained with Havana and other Cuban ports, but owing to the relay system necessary to obtain communication, it is of dubious value in urgent matters.

Radiograms (RCA) can be sent/received by means of telephone call Guayabal – Camaguey.

In the Bulk Sugar Terminal there is telex, but due to limitations of lines it is frequent to encounter difficulties to obtain communication.

ETA messages from Masters should be sent Mambisas Santa Cruz del Sur and Mambisas Habana, simultaneously.

FUEL/REPAIRS: Not available.

FRESH WATER: Supplied at pier by pipe-line at average rate of delivery 10 t.p.h.

SHIPMASTER'S REPORT: 1978.

Pilotage: Pilots are arranged by the Agent at Santa Cruz del Sur, (Mambisas). The boarding station shown on charts and mentioned in Pilot Books is now non-existent. Instead the Pilot comes direct from Santa Cruz when a ship is expected and boards the vessel between No. 2 Buoy and No. 4 Buoy South of the entrance to Cuatro Reales Channel. Vessel then proceeds to Guayabal, where it is necessary to anchor off the port for clearance.

Approaches: The navigable width of the approach channel, is at present 50 m., the buoys being moved accordingly, with an average depth of 32 ft. The centre alignment of the approach channel is 011.5° T. This is indicated by two fixed leading marks. The forward one, a metal pole with a yellow triangle mark, apex up, at night a fixed red light. The rear mark is a yellow triangle apex up, attached to the top of a water tank (on a framework tower) at night a fixed green light. This leading line leads "down" the Eastern side of the one and only jetty, along the top of the elevated (roofed-over) conveyor belt.

Documents/Customs:

Crew Declaration (Manifest)	6 copies
Steward's store list	6 copies
Deck/Engine store list	6 copies
Maritime Declaration of Health	3 copies
Dangerous drugs list	6 copies
Slop chest/Bonded stores	6 copies
Explosives list (Distress Rockets, etc.)	6 copies
List of foreign currency	5 copies
List of ship's equipment, i.e. films, binoculars, T.V.s, sextant, etc.	4 copies

All foreign currency, cameras, dangerous drugs, and crew presents to take home were all sealed up in the bond locker along with its contents. Meat room sealed up. Although all our meat is of Australian or New Zealand origin, some of the lamb had a USA wrapper on it which made it American meat and this is not acceptable in Cuba. As far as I can understand the meat from Australia, New Zealand, Japan, USSR, only is acceptable in Cuba.

SHIPMASTER'S REPORT: April 1984.

Vessel loaded raw sugar in bulk:

Documents:

9 copies Crew List.*
3 copies Animal List.
2 copies List of Ports.
4 copies Narcotics.
4 copies Arms and Ammunition.
5 copies Provisions.
3 copies Store List.
3 copies Bonded List.
1 copy Vaccination.
4 copies Crew Currency.†
4 copies Total Currency.‡
2 copies Crew's Effects .§

Notes:

*On sailing they requested another 6 Crew Lists.

†Crew Currency List – With all paper money that every crew has in his possession also the coins.

‡Total Currency List – With the total amounts of foreign currency held by crew and vessel. i.e. US Dollar 4,525.00; German Mark 150.00; Greek Drachmas 25,500; Japanese Yen 15,000, etc., including total coins.

§Crew's Effects – Vessel is provided with special forms. Each form in duplicate is to be filled for each crew member.

Pilots: Pilot comes aboard at Canal de Cuatro Reales. Same Pilot berths the vessel and remains on board until loading completed to unberth and sail the ship.

Approaches: Dredged channel. Vessels can sail at high water with draft up to 32 ft. No night sailing, berthing or unberthing.

Max. Size: Vessels of about 210 m. length are handled.

Berth: Works in progress to lengthen the berth by about 40 m. Up until now the first 20 m. are in preparation.

Max. draft alongside West side of Pier, 35 ft. aft and 33 ft. for'd.

Equipment: 1 convex-shaped conveyor with trimmer machine. Average loading rate 600/650 tonnes/p.h. 24 hours continuous working. The boom extends about 35 ft. and is about 30 ft. – 32 ft. above sea level.

Sugar in bulk loading at about 300,000 tonnes per month. No sugar loaded in bags.

Fresh Water: Available ex-wharf, rate about 3 t.p.h. at a cost of about US$2.70 per ton.

Doctor: Crew must go to another town, but usually no transportation, except emergencies.

Repatriation: Possible. Crew will travel by boat to Santa Cruz del Sur (about 3 hours), and then by car to Havana (about 12 hours), where the International Airport is located.

Ship Chandler: Comes from another port, charging about US$100.00 for transportation.

Population: Population of this port about 1,500.

AUTHORITIES: Port Captain and Immigration's Delegations at Guayabal. Customs delegate travels from Santa Cruz to Guayabal to conduct clearance. Distance 24 miles (by sea) from Guayabal to Santa Cruz. By road 60 km. Time 3 hours by sea and 2 hours by road.

AGENT: Postal Address; Empresa Consignataria Mambisa, Agencia Guayabal, Apartado No. 49, Santa Cruz del Sur, Prov. de Camaguey.

Office Address: Guayabal Bulk Sugar Terminal, 3rd Floor, Tel: No. 2547, 2141 (night). Telex: 031285. Cables: Mambisas Santa Cruz del Sur.

SANTIAGO DE CUBA: 19.50 N. 75.52 W. (See Plan)

PILOTAGE: Pilots board vessels 1 mile from mouth of port. Pilot station located in small Cay at entrance of bay known as Gramma Cay (formerly Smith Cay). Launch service is only means of communication available between Santiago de Cuba and Gramma Cay. Pilots also have office located at Custom House building with telephone communication. Distance from place where Pilots board vessels to: Piers 5 miles; Anchorage 4.5 miles; Refinery Pier 2.5 miles.

APPROACHES: The entrance, up to a distance of 0.5 mile, has a rock bottom. Thereafter, for a distance of 1 mile muddy bottom, and remaining 2.5 miles is soft mud. There are some turns, and the channel and entrance to the port are narrow.

RESTRICTIONS: Vessels can enter and sail only during daylight from 0600 to 1800 hrs.

ANCHORAGES: *Inner Anchorage:* Located from the North of Ratones Cay up to the West of Buoy No. 20. Can accommodate several vessels.

Limitations to vessels: Draft 30 ft., length 702 ft.

Outer Anchorage: Located West of Pt. Gorda and just in front of refinery piers. Can accommodate 1 or 2 vessels and is used mainly by tankers. Max. draft: 36 ft. Max. length allowed 702 ft.

Also see "Shipmasters' Reports".

MAX. SIZE: Vessels with a length of 702 ft. and a draft of 36 ft. can enter up to the refinery, provided they arrive during early morning hours. Tidal variation 1 ft. 3 in.

BERTHING:

Luis F. Mena Gil Dock (Formerly Malecon): This installation comprises the whole zone known as Malecon del Puerto and consists, mainly, of a docking area 1,345 ft. long, which, being able to operate three vessels, are regarded as West, Centre, and East berths, but there is no mark or boundary between any of the berths.

West of the Western berth is under construction, but already in operation, a new berth, temporarily known as Western extreme berth and, East of the Eastern berth is a berthing space for barges.

This dock is built of concrete, and was rebuilt and paved recently. As standard gauge railroad tracks run along the length of dock, operations can be performed either by railroad or trucks, or a combination of both.

The particulars of each berth are:

Western Extreme Berth: (New Berth): (Known as Malecon Extremo Oeste):

Max. length allowed: 100 m. Draft: 18 ft.

Cargo handled at this berth: general cargo, cement, etc.

Western Berth: (Known as Malecon Oeste):

Draft allowed: 24 ft. fore, 25 ft. aft.

Cargo handled at this berth: bagged raw sugar, general cargo and occasionally lubricating oil.

Centre Berth: (Known as Malecon Centro):

Draft allowed: For Loading: 28 ft., leaving pier at high tide. Under these conditions, vessels rest in 1 ft. of almost liquid mud but this does not interfere with sailing manoeuvres.

For Docking Loaded: 27 ft. even keel. Cargo handled at this berth: bagged raw sugar, general and heavy cargoes.

Eastern Berth: (Known as Malecon Este):

Draft allowed: 23 ft. fore, 26 ft. aft.

Cargo handled at this berth: light general cargo, molasses and petroleum products.

Ferrocarril Pier: This pier out of use since 1972 but rebuilt recently. It is a concrete construction ending in a small platform but vessels do not moor directly to the dock but to 4 solid dolphins; first and last dolphins being 400 ft. apart. Vessels are also secured to belaying cleats situated on shore.

This installation is used for shipping molasses but there is a possibility that pipe-lines for petroleum by-products will be installed, although this has not been confirmed.

Length: 240 ft. Draft allowed: 26 ft.

Rolando Roca Pacheco Pier (Formerly La Maritima): This pier is a complete concrete construction, (both platform and pilings) rebuilding of which was finished in 1973; the installation is in very good condition in all respects, permitting truck and trailer operations alongside vessel, as well as railroad operations, because tracks cross just in front of the pier shore entrance.

North Side: Length: 650 ft. Max. length allowed: 600 ft.

Draft allowed: 25 ft. fore, 26 ft. aft.

Cargo handled at this side: General cargo.

South Side: Length: 650 ft. Max. length allowed: 600 ft.

Draft allowed: 26 ft. fore, 27 ft. aft.

Cargo handled at this side: General cargo.

Romero Pier: This pier is a concrete construction, and although in rather fair condition, needs repairs.

All cargo handled at this pier is on the basis of a trucking operation only.

It is used chiefly for coastal trade vessels but also by medium size vessels, such as refrigerated ships.

East Side: Length: 492 ft. Max. length allowed: 400 ft.

Draft allowed: 14 ft. fore, 19 ft aft.

Cargo handled at this side: general cargo, bagged cement, etc.

West Side: Length 492 ft. Max. length allowed: 400 ft.

Draft allowed: 20 ft. fore, 23 ft. aft.

Cargo handled at this side: General cargo, bagged cement, refrigerated cargo such as lard, butter, frozen fish, etc.

Frank Pais Pier (Formerly La Molinera): This installation consists of a long narrow passage, at the end of which the vessel is berthed across the installation to 4 solid dolphins. It is used for the discharge of bulk grain (wheat and maize) by mechanical means through conveyors and pipe-lines.

There is no limitation as to length of vessels. Draft allowed: 30 ft.

Cement Plant Pier (Known as Muelle del Cemento): This berth is a coastal pier that can accommodate one vessel.

It is used only for loading cement, either by silos/truck depending upon whether bulk or bagged cement is involved. This installation is well paved and all operations are performed by means of trucks.

As the pier is not long enough, there are solid dolphins at each end of pier, in order to berth securely vessels up to 460 ft. long.

Length: 290 ft. Max. length allowed: 460 ft.

Draft allowed: 22 ft. fore, 23 aft.

Refinery Pier: This pier is located at a small peninsula on the West coast of the bay, its orientation being from North to South and therefore its sides are West and East.

It is a solid, well cared for, concrete construction, having similar facilities at both sides.

Length: 789 ft. Max. length allowed: 702 ft.

Depth: 40 ft. Max. draft allowed: 36 ft.

STEVEDORES: Working periods: Monday to Friday 0700–1300 hrs., 1300–1900 hrs.; Saturday the same; Sunday worked only if vessel completing cargo.

Raw Sugar: Loading rate about 1,200 bags loaded per gang period; 6 bags loaded per sling. 2 vessels can load sugar simultaneously.

General Cargo – approximate discharging rates:

General cargo	7–8 tons per gang hour
Bagged cargo	15 tons per gang hour
Iron	7 tons per gang hour
Wood	3 standards
Fertilisers	15 tons per gang hour

Shore Crane – there is movable crane with boom of 75 ft. length and lifting capacity about 19 tons.

Bulk sugar – 5 thrower machines available.

EQUIPMENT: One floating crane: 35 tons lifting capacity; 10 shore cranes: ranging from 16 to 5 tons lifting capacity; 40 tractors; 21 fork lift trucks: 70 h.p.; 13 trucks.

Besides, there are several tugboats ranging from 1,200 to 150 h.p., also several cargo barges and other minor port auxiliary equipment not listed.

TANKERS: Average pumping rate: Molasses 30,000 g.p.h. Fuel oil 13,000 b.p.h.

COMMUNICATIONS: Radio telegrams, radiotelephony, telegraph and telephones. R.C.A., Inalambrica. All-American, Prewi, radio and Government telegraph. Also air, railroad and bus services.

Vessels can communicate with Santiago de Cuba through CLM and RCA.

MEDICAL: Sick crew members can be attended at Santiago Provincial Hospital.

FUEL: Fuel oil and diesel oil available. Delivery rate about 7,000 b.p.h.

FRESH WATER: Can be supplied docked/anchored.

REPAIRS: Following repair shops: Joaquin Lamas, Giron.

DEVELOPMENTS: Since 1973 all port facilities admitting repair or rebuilding are included in a plan in order to improve port facilities.

Through this plan several installations have already been rebuilt and others are undergoing repairs.

This plan also includes the installation of water pipe-lines to all piers where possible, in order to supply the vessels while operating.

Luis F. Mena Gil Wharf will be the first to have water installation to supply vessels.

There is a plan for the dredging of the port in the very near future.

SHIPMASTER'S REPORT: April 1979.

Also see "Shipmaster's Report" from Havana dated April 1979.

Documents:

12 Crew Lists.
5 Store Lists.
5 Declarations.
5 Currency Declarations.
5 Vaccination Lists.

These were all required even though the vessel had only come from Havana. Also a large number of transit documents were issued in Havana for entry here. Bond and safe seals may be opened whilst vessel at sea.

Points of Note:

a. No anchorage, recommend drifting about 5 miles from coast.

b. See Havana Report.

c. See Havana Report.

d. Port reasonably free of pollution, but large amount of construction in progress in harbour area.

e. No tugs appeared when we berthed.

f. At grain elevator shore gangway used.

g. No crew inspection.

h. See Havana Report.

i. See Havana Report.

j. See Havana Report.

k. Same system as Havana but shore leave from 1800 to 2200 hrs. and travel to town by launch. Also only allowed in area shown on pass. In this port fines are imposed for being late back or going outside area of pass. First time 25 peso, second time 50 peso and third time pass revoked. Only ten persons allowed ashore at any one time and a list of those going ashore must be presented to the Immigration guard before 1000 hrs. that day.

On Saturday and Sunday 16 persons are allowed ashore till 2400 hrs. and 2300 hrs. respectively.

l. See Havana Report.

m. See Havana Report.

n. As Havana, except Channel 16.

o. See Havana Report.

p. Berthed at grain elevator. 30 ft. alongside. The discharger has 2 heads and is fixed, the ship has to be warped up and down the quay. Wheat discharged at average 50 tonnes p.h. Work on a 24 hour basis.

q. All hatches again inspected.

r. As Havana, vessel was searched here 4 days after arrival. The search was carried out by the police and was very thorough. It included checks on money and goods declared and under seal. The radio room was sealed at the time.

s. See Havana Report.

t. Customs issue may be obtained every 3 days if required. I believe this applies in Havana as well.

u. In light of this vessel's experience I would advise any vessel proceeding to Cuba to carry at least one month's reserve provisions.

SHIPMASTER'S REPORT: April 1981.

VHF: Santiago Pilots and the Agents "Mambisas Santiago" are both available on VHF Channel 16 at all hours.

Restrictions: There are no restrictions as to the times for entry and departure of vessels. Pilots are available 24 hours and I believe it has been so for the last two years.

Awaiting Pilot: Owing to the large depths, bad holding ground (rocky bottom) and frequent fresh winds, it is not advisable to anchor outside the harbour entrance. This was my opinion which the local Pilots have confirmed and have definitely advised against anchoring. If there is any delay in embarking the Pilot, the vessel should keep steaming.

SHIPMASTER'S REPORT: October 1987.

Vessel called at Santiago de Cuba after call at Havana (see "Havana – Shipmaster's Report" dated October 1987).

Vessel berthed alongside "Frank Pais" silo. Crew can only go ashore by either motor launch or bus. Both services have to be arranged by Agent. No walking in the premises of the silo is allowed which is guarded by army units. There are no restrictions regarding the times crew can go ashore.

Fire/Boat Drills: Port Authorities did not allow us to carry out routine drills.

Berth "under construction" at Pta. Duany: This berth is now fully operational for refrigerated cargoes. No drafts were available, however I understand extensive dredging was done on both sides of the pier for berthing/turning.

Presently there is a shortage of water both at Havana and Santiago due to very prolonged dry years (last 5 years). No fresh provisions were available at both ports except limited amounts of pineapples.

AUTHORITIES: Located at Custom House building.

AGENT: Empresa Consignataria Mambisa, Agencia Santiago de Cuba, Avenida Jesus Menendez No. 658, Apartado No. 522, Santiago de Cuba, Prov. de Oriente. Tel: 22834 – Night: 4524. Telex: 061120, 061238. Cable: Mambisas Santiago de Cuba.

Agency VHF works on Channel 16.

TANAMO: 20.44 N. 75.20 W. (See Plan)

LOCATION: Tanamo Bay is moderately ample, landlocked, having numerous cays dispersed within. High ground surrounds the bay, except by the East and S.E. It is 3.5 miles long by 1.25 miles wide.

Tanamo is mainly a sugar shipping port, but also exports molasses and receives coastal trade shipments of fuel oil.

Tanamo exports the production of Frank Pais sugar mill, formerly Tanamo. At about 12 km. from the port are the town of Cayo Mambi and Frank Pais sugar mill.

PILOTAGE: Pilot boards about 1 mile from entrance. Pilot station located at entrance of port mouth. Usual means of communication is by launch. Distance from place where Pilots board vessels to: Punta Gorda Dock: 5 miles; Cayo Mambi Dock: 7 miles.

ENTRANCE TO PORT/CONDITIONS/LIMITATIONS: Entrance to port is effected through a channel in the form of an "S" with turns up to 90°.

The bottom is rock and sand, its maximum width being 175 m., located between the shoals at both sides of the entrance, and its minimum width 160 m., located in the vicinity of Pt. Gitana.

Channel tends to narrow in the middle of its course and it is here where precautions should be exerted, because it is considered dangerous. In its deepest part the channel is 162 ft. deep, and its minimum depth is 66 ft.

Limitations as to length and draft of vessels to enter to or sail from this port are those imposed by the place of operation, Punta Gorda Pier: Draft 19 ft. fore, 22 ft. aft, length 535 ft.

Due to the strong tidal currents it is necessary to wait for slack water, to enter to or sail from this port, which can be effected only in daylight.

Vessels up to 500 ft. length do not require tugboat assistance, but from 500 ft. up to 535 ft. tugboat assistance is required.

Due to pier's length, vessels nominated to load sugar should not exceed a length of 450 ft.

ANCHORAGES: Del Medio Cay Anchorage:

Located at about 500 m. West of Bruja Cay.

Draft 28 ft., max. length allowed 535 ft.

Swinging area: About 350 m.

Soft mud bottom but anchors hold well.

It is sheltered from the winds, except those from the S.E.

In the rainy season, when rivers overflow, currents can be felt.

BERTHING: The place of operation at Tanamo is the pier, located on the West coast of the bay at a small town named Punta Gorda. Pier is built of concrete but is not well cared for and is in need of repairs. Some wooden aggregate at South side of pier crumbled away and interferes with loading No. 1 hatch of vessels. Stern hatches are loaded first, and afterwards the vessel is run astern in order to load No. 1 hatch.

Pier has double narrow gauge railroad tracks at each side.

Sides of the pier are North and South.

Punta Gorda Pier: Length 357 ft., max. length allowed 450 ft.

Drafts: South Side: 19 ft. fore, 22 ft. aft.
North Side: 14 ft. fore, 19 ft. aft.

STEVEDORES: Working periods: Monday to Friday 0700–1100 hrs., 1300–1700 hrs.; Saturday 0700–1100 hrs.; Sunday no work performed.

Raw sugar: 975 sugar bags loaded per gang period. 6 sugar bags loaded per sling.

Refined sugar: 1,875 bags of 100 lb., loaded per gang period. 12 bags of 100-lb. type loaded per sling.

General Cargo: Working periods same as for sugar.

There is berthing space for 2 vessels, but due to lack of port personnel, it is advisable to operate only 1 vessel at a time.

TANKERS: Molasses average pumping rate: 20,000 g.p.h. Fuel oil average pumping rate: 11,750 b.p.h.

Tanker vessels up to 535 ft. can enter and operate at pier.

Fuel oil: 1 connection 12 in. in diameter.

Molasses: 1 connection 8 in. in diameter.

COMMUNICATIONS: Only means of communication at Tanamo is telephone service. However this service is not to be depended upon and it is advisable to notify Antilla Agency well in advance of any instructions or changes pertaining to vessel's operations.

TRANSPORTATION: Transportation means to and from Tanamo are rather poor. Transportation between Tanamo and Antilla (and other nearby ports) is performed by car.

Last 4 km. of road to reach Tanamo are embankment roads in very bad condition which can be transited only by jeep or truck.

There is a rail car service up to Cayo Mambi.

Best advisable means of travelling is to travel to Nicaro by road and from there fly to Santiago or Havana.

FRESH WATER: Can be supplied at Punta Gorda, delivery by pipe-line at rate of 5 t.p.h.

FUEL/REPAIRS: Not available.

MEDICAL: There is no hospital at Tanamo. Crew members requiring medical care are treated at Cayo Mambi. If specialised treatment or hospitalisation is required, patients are sent to Mayari Hospital or Lenin Hospital at Holguin.

AUTHORITIES: Under Cuban Customs laws and regulations, Tanamo is a sub-port of Antilla. Some of the Authorities have delegations at Cayo Mambi, others are located outside of Tanamo, but if ETA message is given sufficiently in advance, all Authorities travel to Tanamo, where they wait to clear the vessel.

AGENT: Tanamo is attended by Antilla Agency personnel.

VITA (sub-port of Gibara – Oriente Province): 21.05 N. 75.57 W. (See Plan)

LOCATION: Vita is a small, sheltered, landlocked bay on the North coast of Oriente province.

Vessels within its premises are well protected against all kinds of weather.

This port handles the export of the production of Rafael Freyre sugar mill, formerly Santa Lucia. As it is close to the town of Santa Lucia and due to the former name of the sugar mill, this port is also known as Santa Lucia Oriente.

PILOTAGE: Pilots board vessels 3 miles from entrance channel. Pilot station located at Vita. Interior telephone communication. Distance from place where Pilots board vessels to dock: 5 miles.

APPROACHES: Owing to narrowness of channel, turns may be considered as dangerous for vessels over 450 ft. length.

While approaching Vita, on the East side of port entrance, Pt. Barlovento lighthouse can be seen, located: Lat. 21° 06′ 01.1″ N., Long. 75° 57′ 39.4″ W., 45 ft. high, above high tide, white light of which flashes twice every 6 secs., visible up to 10 miles away.

RESTRICTIONS: Entry and sailing only during daylight.

MAX. SIZE: Max. draft with which vessels can enter/sail is 27 ft. at high tide and 26 ft. at low tide. Tidal variation averages 2.9 ft. Max. length 500 ft. (although vessels with length of 550 ft. have entered this port).

ANCHORAGES: Vita anchorage is located at about 190 m. from the pier, but as there is insufficient swinging area, it is only recommended as suitable for medium sized vessels.

BERTHING: The pier is located at a village named Vita on a peninsula which projects from the South shore of Vita bay.

The pier lies across the end of the mentioned peninsula, orientated from East to West; the berthing space is the North side since the South side is partially attached to shore.

Along the length of the pier and connected to Rafael Freyre sugar mill, runs single narrow gauge railroad tracks.

Vita Pier: Length 300 ft. Max. length allowed: 500 ft. Draft allowed: 26 ft.

Importation: Jute bales, bagged fertilisers.

Exportation: Bagged raw sugar, molasses.

Coastal Trade: Discharge of fuel oil.

Only 1 vessel can be operated.

STEVEDORES: Working periods: Monday to Friday 0700–1100 hrs., 1300–1700 hrs.; Saturday 0700–1100 hrs.

800–1,100 sugar bags loaded per gang period. Four sugar bags are loaded per sling.

TANKERS: Average pumping rate (molasses) 25,000 g.p.h.

COMMUNICATIONS: Means of communication of Vita are telephone and telegraph.

Telegraph service is slow for urgent matters. Telephone service at Vita is irregular due to bad lines and, sometimes, it is very difficult to establish communication.

These facts must be taken into consideration when a vessel is operating at Vita, because orders to Vita or information from the port almost always takes 2 or 3 days to reach destination.

Vessels navigating to Cuba can communicate with Antilla Agency through "CLA" Havana Radio Station which relays the message promptly to Antilla.

Vessels cannot communicate directly with Vita.

Masters must send their ETA messages simultaneously to Mambisas Antilla and Mambisas Habana.

MEDICAL: Crew members requiring medical attention are treated at Santa Lucia Hospital.

In cases where surgical or specialised medical treatment is required patients are sent to Gibara Hospital or Lenin Hospital at Holguin.

FUEL/REPAIRS/DUNNAGE: Not available.

FRESH WATER: Can only be supplied in exceptional cases. Delivery by 2-in. diameter pipe, by gravity. Delivery average 3 t.p.h. Recommended that Masters always check availability in advance.

TRANSPORTATION: Transportation to and from Vita is difficult and best advisable means is by car or to travel to the city of Holguin, from where transportation is available to any place or city of Cuba by bus, train or airway.

AUTHORITIES: All Port Authorities are located at nearby towns, but travel to Vita in order to clear vessels.

Under Cuban Custom laws and regulations, Vita is a sub-port of Gibara.

AGENT: The port of Vita is temporarily attended by Mambisas Antilla Agency personnel.

NOTES

Please also advise Shipping Guides Ltd.

Cyprus

DHEKELIA "B": 34.58 N. 33.45 E. (See Plan)

Sovereign Base Area

DOCUMENTS:
- 3 Crew Lists.
- 4 Passenger Lists.
- 1 Arrival Declaration.
- 1 Crew Declaration.
- 1 Store List (for cigarettes, spirits, etc.).
- 2 Manifests (Customs forms).

PILOTAGE: Compulsory for berthing. The tanker berth is situated in open roadstead. Pilot available through Harbour Master at Larnaca (5 miles).

RESTRICTIONS: Vessels may dock in daylight only.

MAX. SIZE: Tankers up to 735 ft. length with max. draft 41 ft.

HEALTH: Pratique granted by Health Authorities after boarding on arrival. No Pratique necessary when vessel arrives from another port in Cyprus.

RADIO: Walkie-talkie.

TUGS: Available and necessary for docking. Not required for undocking.

BERTHING: Three conventional buoy moorings for tanker discharging fuel oil to Dhekelia "B" Power Station. Connection made amidships on the port side. No slop facilities available. Terminal crew connect and disconnect hoses. Ship's gangway required. Diameter of line 12 in. Distance to tanks 2,136 ft. Max. pressure 140-145 p.s.i. Depth of water 15.85 m.

MEDICAL: Necessary for Agent to receive advance notice of medical attention required. Hospital facilities available.

DENSITY: 1025.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: Light machine shop.

CUSTOMS ALLOWANCES: See "Limassol".

IDENTIFICATION CARDS: When on shore leave, Seamen's Books required.

TIME: GMT plus 2 hours. GMT plus 3 hours from last Sunday in March until last Sunday in September.

AUTHORITY: Electricity Authority of Cyprus, 15 Photis Pittas Street, Nicosia. *Tel:* (02) 462001. *Telex:* 2432 Grid Cy. *Cables:* Grid, Nicosia. *Contact:* The General Manager.

FAMAGUSTA: 35.07 N. 33.57 E. (See Plan)

DOCUMENTS:
- 1 Arrival Declaration Form.
- 1 Maritime Declaration of Health.
- 4 Crew Lists.
- 4 Passenger Lists.
- 1 List of Ship's Stores.
- 1 Personal Declaration of Crew (wines, spirits, tobacco, cigarettes, cigars, jewellery, cameras, watches, arms and ammunition, etc.)
- 1 Appointment of Agent Form.
- 1 Cargo Manifest (If not forwarded by airmail).
- 1 Dangerous Cargo List.

PILOTAGE: Masters to cable ETA 24 hours before arrival to Agents so as to enable them to arrange berthing and pilotage. Pilotage is compulsory for ships in excess of 300 g.r.t.

In normal weather conditions Pilot boards vessel at Turning Buoy or at anchorage. In rough weather conditions, Pilot may advise Master to proceed to entrance of Outer Harbour, where Pilot will board the vessel. Communications between pilot stations and vessels approaching port and/or anchored at roadstead by VHF Channel 16.

Pilot Boat: Open motor launches, light grey colour, flying Pilot's flag, light and sound signals for Pilot.

Requirements: International signals apply.

ANCHORAGES: Vessels not berthing on arrival, to anchor at roadstead; East of flashing buoy (Lat. 35° 08′ 55″ N., Long. 33° 56′ 06″ E.) which marks the entrance to the channel.

Exposed to: N.E., E. and S.E. winds. In case of very bad weather, a safe anchorage to be sought further North, near Boghaz area.

Small vessels may anchor within the breakwater in depth of 5.5 m. to 7.3 m.

RESTRICTIONS: Passenger vessels (Vessels built to carry more than 12 passengers) allowed to enter port up to 2300 hrs., provided such vessels will be at Turning Buoy by that time and also if berth space is available.

Cargo vessels allowed to berth until sunset provided berth space is available.

No tide restrictions, but for vessels entering Inner Basin max. draft 22 ft. and for Outer Basin max. draft 30 ft.

MAX. SIZE:

Inner Harbour:	Max. permissible draft 6.7 m. (22 ft.)
	Max. permissible LOA 131 m. (430 ft.)
Outer Harbour:	Max. permissible draft 9.15 m. (30 ft.)
	Max. permissible LOA 220 m. (722 ft.)

Height of quay above sea level is 1.8 m.

The approach channel to the Outer Harbour is 10.30 m. deep and mean width of entrance 183 m. Range of tide: 0.45 m.

HEALTH: Pratique is required only at first port of call in Northern Cyprus. Pratique is granted either before or after berthing as appropriate.

RADIO/VHF: "Northern Cyprus Radio" R/T 2182, VHF Channel 16. Famagusta Pilots equipped with VHF radio-telephone operating on Channel 16 and 14 during office hours.

TUGS: 3 tugs, 150 h.p., 650 h.p. and 1,300 h.p. available. Tugs join vessel at entrance of Outer Basin and ship's lines are used. Use of tugs is at the discretion of Pilot. No charges made for the use of first tug. If more than one tug is required they may be hired on hourly basis.

BERTHING: According to rotation of ships with exception of passenger and citrus ships. Vessels may berth alongside between 0600 hrs. and sunset, unberthing of ships between 0600 hrs. and midnight including weekends and official holidays.

Inner Harbour Quay: Length: 540 m.
Outer Harbour Quay: Length: 655 m.
Ro-Ro vessels may berth either bows on or stern to the quay.

CRANES: A floating crane lifting 60 tons at 20 m. 21 mobile cranes of different lifting capacities.

BULK CARGO FACILITIES: Vessels up to 3,000 d.w.t. discharged with mobile grab cranes.

Average discharge rate for ore and bulk cargoes is 450 tonnes per day.

Two pneumatic conveyors of 60 t.p.h. capacity also available.

STEVEDORES: Gangs to be ordered by 1500 hrs. previous day. For Saturday and Sunday work, gangs to be ordered by 1500 hrs. Friday. It is also possible to apply for gangs during the weekdays a.m. and/or p.m. subject to gangs available.

Average rate of discharge: General cargo, 10 – 15 tons, bagged cargo, 15 – 20 t.p.h. per gang.

Working hours weekdays 0800 – 1200 hrs., 1300 – 1700 hrs., overtime work until 2300 hrs. is possible, but with extra charge.

MEDICAL: Advisable for Masters to include in ETA message to Agents if any medical attention required; hospital and private clinic facilities available. Inoculations or vaccinations according to prevailing circumstances.

DENSITY/TIDE: Mediterranean salt sea water. Difference of 1 ft. – 2 ft. between low and high water.

FRESH WATER: Water hydrants installed alongside quay, both at Inner and Outer Basins and delivery through hoses; rate of delivery 10 – 15 tonnes per hydrant per hour.

Note: Certain limitations to quantities deliverable can be possible during Summer months (June-September) owing to general shortage of water.

FUEL: No bunkering facilities alongside quay. Limited fuel deliveries to vessels alongside quay can be made by lorry tankers of 8 – 10 tons each.

GANGWAY/DECK WATCHMEN: Not obligatory, but may be used if Master requires.

OPENING/CLOSING HATCHES: Carried out by ship's crew; stevedores on board are sometimes willing to assist but they are not obliged to do so.

CUSTOMS ALLOWANCES: 200 cigarettes or 250 grams tobacco, and 0.75 cl. spirits, 0.75 cl. wine per man per week.

For reasons of administrative convenience, issues of high duty goods for use by crew on board is being made every week.

The Master, Chief Officer and the Chief Steward of ocean going vessels may be granted more quantities of the above high duty goods as may be considered reasonable by Customs Authorities, on request.

The above allowances are in force in all Northern Cyprus ports.

CARGO GEAR: Mostly supplied by shore stevedores or other contractors against payment. Any gear supplied by the vessel should be certified to the effect that it is tested and found to be suitable for the purpose used.

IDENTIFICATION CARDS: Passports and/or Seaman's Books are accepted by the Police and Immigration Authorities.

On ship's arrival, passports and/or Seaman's Books are retained by the Immigration Authorities against the issue of Landing Cards which are used until the ship's departure when the passports and/or Seaman's Books are returned to the Master.

REPAIRS: Minor repairs for deck and engine can be carried out at local workshop. Cement boxes and plating both above and underwater can be carried out.

DRY DOCKS: No dry docks. 2 slipways operate at South end of port and can take vessels up to 500 tons burden.

SURVEYORS:
1. (1) Cargo surveyors available.
2. (2) Refet L. Egemen & Co., Nicosia. Sub-Agent of Catoni Agents, Mersin, Turkey, who are the representative of Lloyd's in Mersin, Turkey (for insurance purposes but not for classification).

AIRPORT: Ercan Airport, 30 miles from Famagusta. Connections to U.K. and Middle East countries via Turkish airports.

TIME: GMT plus 2 hours.

HOLIDAYS: Recurrent official port and Customs holidays:

First weekday of January, 23rd April, 1st May, 19th May, 20th July, 1st August, 30th August, 29th October, 15th November, Ramazan Bairam (1st, 2nd and 3rd days), Kourban Bairam (1st, 2nd, 3rd and 4th days), Birthday of Prophet.

All ports closed for work with the exception of shipping traffic on New Year's Day and on 1st May.

POLICE/AMBULANCE/FIRE: Police Headquarters Tel: 036-65310, 036-65321. Ambulance Tel: 036-65328, 036-62876. Fire Brigade Tel: 036-65389.

EMERGENCY CO-ORDINATION CENTRE: Not specially available, but Famagusta pilot station Tel: 036-65388, 036-64790 and/or Port Headquarters Tel: 036-62626, 036-62627, 036-62951 may be of assistance.

TELEPHONES: Public telephone boxes available on the quayside.

GENERAL: Flag of Northern Cyprus to be hoisted on mast from 0800 hrs. to Sunset.

Landing of dogs or other animals not allowed. Disposal of garbage and waste strictly prohibited both in port and territorial waters. Garbage and waste are collected by the municipality against a nominal fee, through Agents.

Charts: Relevant Admiralty Publications: B.A. Chart 847, 851, List of Lights Vol. E., Mediterranean Pilot Vol. V., Tide Tables Vol. I. (European Waters).

Free Port: Part of the Outer Harbour is being used as a Free Port, adjacent to which is the Industrial Free Zone with a maximum development area of 554,964 sq.m.

The Free Port and Zone is managed by the Free Port Manager who is responsible to the Board of Directors and function under the auspices of the Ministry of Trade and Industry.

Directorate: Tel: 036-66164, 036-64775. Telex: 57140 Mslb Tk.

SERVICES: Compass adjusting; radar repairs; scraping and painting ship's sides.

BANKS: Messrs., Midland Bank (Overseas Branch) Ltd., in the U.K. is the official correspondent of the following local Banks:

Name	*Address*	*Telex:*
Turkish Bank Ltd.	Famagusta	57138 Trba Tk
		57103 Otaf Tk
Is Bank (A.S.)	Famagusta	57179 Isbm Tk
Credit Bank Ltd.	Famagusta	57246 Kklb Tk

STORING: See "Prelims".

1. Vessel can be stored by barge or truck.
2. No regulations concerning barge storing. Customs Stores Regulations applicable.
3. Trucks can proceed alongside at the berth from a close distance of 2 ft. from the edge of the quay walls.
4. Fork lift trucks can be used on the jetty to handle storing.
5. Customs storage charges in force.
6. Local Riggers can be employed to assist with storing.

SHORE LEAVE: All crew members allowed ashore after Free Pratique granted. Each crew member to carry Landing Card.

REGULATIONS: Authority is required from Harbour Master: for immobilising engine for cleaning or repairs whilst vessel alongside quay; for lowering lifeboats; for using ship's radio; for sailing (Port and Customs Clearances are required).

Ships berth by rotation according to time of arrival. However, passenger and cruising vessels as well as ferryboats can berth (maximum 2 berths) on priority.

DELAYS: Delays in berthing are very seldom. Slight congestion of 1 or 2 days during citrus export season.

AUTHORITY: Ministry of Communications & Works, Department of Ports, Famagusta, Northern Cyprus.

Postal Address: The Director of the Department of Ports, Famagusta (Gazi Magosa) via Mersin 10, Turkey. *Tel:* 036-62626, 036-62627, 036-62951. *Contact:* Ergun Demirciler, Director of Ports.

Harbour Master's Office: *Tel:* 036-65388, 036-64790.

Also see "General".

GEMIKONAGI (Morphu Bay): 35.08 N. 32.50 E. (See Plan)

DOCUMENTS: See "Famagusta".

PILOTAGE: Government pilot available from Kyrenia Tourism Harbour.

ANCHORAGES: Anchorage point Lat. 35° 09.2′ N., Long. 32° 49.8′ E. Anchorage exposed to W. and N.W. winds.

RESTRICTIONS: Karavostassi Jetty established for loading minerals, discharging operations not available.

HEALTH: Pratique is required only at first port of call in Northern Cyprus. Pratique is granted either before or after berthing as appropriate.

RADIO/VHF: "Northern Cyprus Radio" R/T 2182 kHz. and VHF Channels 16, 26 and 27.

Kyrenia Tourism Harbour Pilots maintain VHF watch on Channel 16, during working hours.

BERTHING:

Karavostassi: One jetty berth with depth alongside 18 m. for loading minerals by conveyor belt. Average capacity 1,000 t.p.h. Vessels moor to buoys.

Xeros Pier: 132 m. long with depth of 4.3 m. at outer end. Pier only used by small coasters, weather permitting, as it is exposed to North winds. One crane of 5 tons capacity is available.

MEDICAL: Government hospital in Lefka area.

DENSITY: 1027.

FRESH WATER: Not available.

FUEL: Not available.

CUSTOMS ALLOWANCES: See "Famagusta".

REPAIRS: Minor repairs for deck and engine can be carried out at local workshop.

AIRPORT: 70 km. to Ercan Airport.

TIME: GMT plus 2 hours in Winter. GMT plus 3 hours in Summer.

SHORE LEAVE: All crew members allowed ashore after Free Pratique granted. Each crew member to carry a Landing Card.

GENERAL: *Tides:* Max. tide 0.45 m.

Stores: Available.

AUTHORITY: Ministry of Communications & Works, Department of Ports, Famagusta.

Postal Address: The Director of the Department of Ports, Famagusta, via Mersin 10. *Tel:* (036) 62626, (036) 62627, (036) 62951. *Contact:* Ergun Demirciler, Director of Ports.

Official at Gemikonagi: Officer in charge of Customs: Tel. 32008.

KALECIK (Gastria Bay): 35.19 N. 33.59 E. (See Plan)

DOCUMENTS: See "Famagusta".

PILOTAGE: Not compulsory. If required, supplied from Famagusta.

ANCHORAGES: Anywhere within the limits of Gastria Bay. Occasional storms mainly from North, N.E. and N.W. directions. No hazards or sandbars exist. Vessels can approach from any direction as there is no approach channel.

NAVIGATION AIDS: Soon after the construction of the installations it was deemed necessary to establish a lighthouse in the vicinity of Cape Elia.

Characteristics:

Name: Cape Elia Lighthouse.

Place: 10 nautical miles N.E. of Famagusta.

Position: Lat. 35° 19.5′ N., Long. 34° 02.8′ E.

Characteristics of Light: Fl. 10 secs.

Range of Light: 15 nautical miles.

Period and Phase: Fl. 1 sec., ec. 9 secs.

Arc of Visibility: 360°.

Colour and Peculiarity of Lighthouse: Concrete tower with horizontal black and white stripes.

Height in metres of building from base to vane: 11 m.

Height in metres of centre of lantern above MHWS: 31 m.

RESTRICTIONS: None, but advance notice should be given by cable.

HEALTH: See "Famagusta".

RADIO/VHF: No radio or VHF facilities at this port. Ships calling at Kalecik should communicate with Northern Cyprus Radio or Famagusta Pilot Station.

TUGS: Not required. Private mooring boats available to assist in the mooring operations.

BERTHING: Concrete pier with a conveyor belt and crane operated by Boghaz Industry & Mining Co. Ltd. and solely used for exportation of cement, etc. Lat. 35° 19′ N., Long. 34° 00.1′ E.

Length of the pier 42 m. At a distance of 44 m. from the far end of the pier there is a dolphin used for mooring purposes. Ships of 100 m. LOA may have a safe berth alongside. Depth of the water alongside the pier is 6.0 m. Installation suitable for unloading and/or loading of bulk and bagged cargoes with a maximum hourly rate of 250 tons.

STEVEDORES: Privately arranged by the Shippers.

MEDICAL: See "Famagusta".

TANKERS: Tanker terminal with underwater pipe-lines extending 410 m. into the sea. Operated by Cyprus Turkish Petroleum Products Co. Ltd. Lat. 35° 19.1′ N., Long. 33° 59.4′ E.

Ships moored between two buoys which have a distance of 160 m. from one to the other, also using anchors. Max. depth 9.0 m.

DENSITY: 1025.

FRESH WATER: Not available.

FUEL: Not available.

CUSTOMS ALLOWANCES: See "Famagusta".

CARGO GEAR: Ship's gear.

IDENTIFICATION CARDS: See "Famagusta."

REPAIRS: Minor deck and engine repairs may be carried out by local workshops.

DRY DOCKS: No dry docks.

AIRPORT: Ercan Airport 50 miles from port.

TIME: GMT plus 2 hours.

HOLIDAYS: See "Famagusta".

POLICE/AMBULANCE/FIRE: See "Famagusta".

TELEPHONES: Available at the nearby installations.

GENERAL: Flag of Northern Cyprus to be hoisted on mast from 0800 hrs. to sunset.

SERVICES: See "Famagusta".

SHORE LEAVE: All crew members allowed ashore after Free Pratique granted.

REGULATIONS: Authority is required from the Harbour Master Famagusta for using ship's radio. For sailing, Port and Customs Clearances are required.

DELAYS: No delays.

AUTHORITY: Harbour Master and Senior Pilot – Famagusta.

Tel: 036-65388, 036-64790.

KYRENIA: 35.20 N. 33.19 E. (See Plan)

LOCATION:

Kyrenia Tourism Harbour: 35° 20.5′ N., 33° 19.8′ E.

Kyrenia Yacht Harbour: 35° 20′ N., 33° 19′ E.

DOCUMENTS: See "Famagusta".

PILOTAGE: Pilotage is compulsory for vessels over 300 g.r.t. Harbour Pilot maintains VHF watch on Channel 16, during working hours.

Pilot Boat: Open motor launch, light grey colour, flying Pilot's flag, light and sound signals for Pilot.

Requirements: International signals apply.

ANCHORAGE: 0.8 miles N.W. of Yacht Harbour Entrance light, in depths 22 m. to 24 m.

APPROACHES: Sea approach is unobstructed with deep water and Tourism Harbour entrance has a 180.0 m. width.

RESTRICTIONS/MAX. SIZE:

a) Kyrenia Tourism Harbour: This harbour used only by passenger vessels (passenger ferries, hydrofoils, etc.).

Max. LOA: 150 m.

Max. draft: 8.0 m.

b) Kyrenia Yacht Harbour: This harbour used only be pleasure craft and yachts.

Max. LOA: 30 m.

Max. draft: 2.6 m.

HEALTH: Pratique is required only at first port of call in Northern Cyprus. Pratique is granted either before or after berthing as appropriate.
RADIO/VHF: Northern Cyprus Radio. Radio Telephone 2182 kHz. VHF Channels 16, 26 and 27.
TUGS: One tug of 150 h.p. A new tug of 350 h.p. is under construction.
BERTHING: Berthing and unberthing of vessels carried out between 0600 hrs. and midnight, including weekends and official holidays.

Kyrenia Tourism Harbour: 6 quays with depths of 4.0 m. – 8.0 m. and various quay levels above LWOST from 1.25 m. – 1.75 m.

Kyrenia Yacht Harbour: Depth in basin 3.2 m. Depth alongside 3.0 m.
MEDICAL: State hospitals and private clinics available.
DENSITY: Mediterranean salt sea water (1027).
FRESH WATER: Available. U.S.$5 per tonne.
FUEL: No bunkering facilities alongside quay. Limited fuel deliveries to vessels alongside quay can be made by lorry tankers of 8–10 tons each.
REPAIRS: Minor repairs for deck and engine can be carried out at local workshop.
CUSTOM ALLOWANCES: Same as Famagusta.
AIRPORT: 40 km. to Ercan Airport from Kyrenia.
TIME: GMT plus 2 hours in Winter. GMT plus 3 hours in Summer (May–September).
HOLIDAYS: Same as Famagusta.
POLICE/AMBULANCE/FIRE:

Police Tel.:	(081) 52014 – 52125.
Ambulance Tel.:	(081) 52266 – 52254.
Fire Tel.:	(081) 199.

BANKS:

Name	Telex
Turkish Bank Ltd., Kyrenia.	57119
Is Bank A.S., Kyrenia.	57233
Credit Bank Ltd., Kyrenia.	57334

Midland Bank (Overseas Branch) Ltd. in the U.K. is the official correspondent of the above banks.
SHORE LEAVE: All crew members allowed ashore after Free Pratique granted. Each crew member has to carry a Landing Card.
REGULATIONS: Same as Famagusta.
GENERAL: Flag of Northern Cyprus to be hoisted on mast from 0800 hrs. to sunset.

Landing of dogs or other animals not allowed. Disposal of garbage and waste strictly prohibited both in port and territorial waters. Garbage and waste are collected by the municipality against a nominal fee, through Agents.

Relevant Admiralty publications: B.A. Charts 2632, 237, 2074, 2606. Mediterranean Pilot: Vol. V. List of Lights: Vol. E.
Weather: Harbour exposed to N., N.E., N.W. and E. occasional storms.
Tide: Max. tide 0.45 m.
Provisions: Plentiful.

AUTHORITY: Department of Ports, Ministry of Communications & Works, Nicosia, via Mersin 10. *Tel:* (020) 72331. *Telex:* 57165 Lefk Tk.

Harbour Master and Pilot: Mr Davut Izkan. Tel: (081) 54987 – 54988.

LARNACA: 34.55 N. 33.39 E. (See Plan)

PORT LIMITS: The port limits are: That part of the coastline and the territorial waters of Cyprus contained within a line drawn 089° to the high seas from Livadhia Church Belfry and a line drawn 089° from Mosque (Hala Sultan Tekke) on Admiralty Chart No. 851 of 8th August, 1941.
DOCUMENTS:
4 Crew Lists.
4 Passenger Lists.
4 Transit Passenger Lists for passenger ships only.
1 Arrival Declaration.
1 Crew Declaration for dutiable goods.
3 Stores List (cigarettes, spirits, etc.).
2 Manifests (Customs Forms).
1 Customs General Declaration.
1 Fire Arms Declaration.
1 Health Declaration.
1 Cargo Gear Declaration.
PILOTAGE: Ships are not allowed to enter the port or berth at the mooring buoys outside the breakwater port without Pilot, unless permission is granted by the Port Authority. Pilot boards vessel at roadstead. Master must give 24 hours notice of ETA to vessel's Agents to enable them inform the Port Manager in time. Pilot boats are off-white in colour with words "Larnaca Pilots" written on the sides in blue letters. Pilot may be contacted on VHF Channels 16/14 during office hours 0730 – 1330 hrs. and Channel 14 at any other time during port operations. Pilot's telegraphic address is "Port Manager, Larnaca Cyprus". Tel: 041-53563.
ANCHORAGES: Open roadstead.
Prohibited Anchorage:

Positions of Prohibited Anchorage:
1. Lat. 34° 54′ 39″ N., Long. 33° 38′ E.
2. Lat. 34° 54′ 16.8″ N., Long. 33° 41′ E.
3. Lat. 34° 52′ 48″ N., Long. 33° 38′ E.
4. Lat. 34° 52′ 48″ N., Long. 33° 41′ E.

Positions of Prohibited Anchorage obstruction of the Port Entrance:
1. Lat. 34° 55′ 21″ N., Long. 33° 37′ 49″ E.
2. Lat. 34° 55′ 21″ N., Long. 33° 40′ 18″ E.
3. Lat. 34° 55′ 55″ N., Long. 33° 39′ 03″ E.
4. Lat. 34° 55′ 55″ N., Long. 33° 40′ 37″ E.

RESTRICTIONS: See "Max. Size" and "Berthing". Rise of tide up to 1.5 ft.
MAX. SIZE: For berthing in the port, vessels must not exceed 600 ft. LOA. However, vessels of few feet in excess may receive berthing permission if vessel's manoeuvrability and prevailing weather conditions permit.

The port is being dredged to 10.0 m. Max. draft allowed 9.4 m. The height of the quay above sea level is 2.30 m.

Tankers discharge outside port at mooring buoys. Draft up to 32 ft. Max. LOA 600 ft.
HEALTH: Pratique is required at Cyprus first port of call only. Pratique is granted either before or after berthing as appropriate.
RADIO: Cables sent through "Cyprus Radio", call sign: 5BA.
RADAR/VHF: Port Manager Larnaca and Pilot service on VHF Channel 16.
TUGS: Port Authority tugs join vessels outside breakwater using ship's lines. 3 tugs available.
BERTHING: Vessels may berth inside port between 0600 hrs. and midnight, but may unberth and sail until midnight. Cargo vessels are allowed to berth during night-time provided berth space is available and vessel will immediately operate with at least 1 gang.
Quay length: (a) Main quay 666 m. and (b) Floating pontoon quay 200 m.

Ro-Ro ramp available in Northwestern basin of the port.
Warehouse Space: 18,000 sq.m.
Container and General Cargo paved Stacking Areas: 150,000 sq.m.
Equipment: 1×45 tonne heavy duty crane on rails with articulated jib, especially designed and equipped to handle containers. 1×35 ton level luffing crane. 1×36 ton heavy harbour mobile crane for containers. 8×5 – 16 ton mobile cranes. 4×15 – 40 ton fork-lift trucks for container handling. 17×2 – 8 ton fork lift trucks. 36×10 – 40 ton trailers and 5 tractors.
BRIDGES: None.
STEVEDORES: 24 hours notice of ETA to Agent is required to enable him arrange gangs.
MEDICAL: It is necessary for Agents to receive advance notice of at least 2 – 3 hours before vessel's arrival. Hospital facilities constantly available. Inoculations or vaccinations are required according to prevailing circumstances.
TANKERS: Diameter of discharge lines up to 12 in. Max. draft 32 ft. Discharging takes place at mooring buoys outside port. Position of buoys Lat. 34° 54.75′ N., Long. 33° 39′ E. No slop discharge facilities.

Buoy berths outside port:
Oil Tankers Berths:
Cyprus Petroleum Refinery: Berth: LOA 214 m. Max. draft 11.6 m. Depth of water 13.7 m.
Petrolina: Stern discharge facilities only. LOA 214 m. Max. draft 11 m. Depth of water 13 m. Slop tank 2,000 tonnes.
Gas Tankers Berths:
Mobil: Pipe diameters: 3 in. for liquid, 2 in. for vapour. Depth of water 13 m. LOA 110 m.
Cinergas: Pipe diameters: 4 in. for liquid, 2 in. for vapour. LOA 110 m. Depth of water 9 m. Draft 8.5 m.
Central Gas: Pipe diameters: 3 in. for liquid, 2 in. for vapour. LOA 110 m. Depth of water 6.5 m. Draft 6 m.
DENSITY: 1025.
FRESH WATER: Facilities available on quay. Delivery by hoses at about 50 t.p.h.
FUEL: All types provided by special bunkering vessels at berths and roadstead and by tanker lorries at the quay.
FIRE PRECAUTIONS: No tankers are allowed in the port. Vessels and operators must comply with internationally applicable regulations concerning explosives and dangerous goods.
CONSULS: Italy, Sweden, Denmark, Portugal, Finland.
REPAIRS: Minor repairs and overhauls may be carried out.
DRY DOCKS: Not available.
SURVEYORS: Lloyd's, Bureau Veritas, Registro Italiano Navale, Germanischer Lloyd.
GANGWAY/DECK WATCHMEN: Not necessary but available.
HATCHES: Opened and closed by crew.
CUSTOMS ALLOWANCES: 50 grams tobacco or 40 cigarettes, and 0.25 litres spirits, 0.25 litres wines, per man per day.

For reasons of administrative convenience, issues of high duty goods for use by Crew on board will be made every 3 days, beginning with the first day of the ship's arrival in Cyprus waters. For each member of the Crew (other than the Master, the Chief Officer and the Chief Steward) each issue will consist of, 120 cigarettes or an equivalent quantity of other tobacco goods. 1 bottle of spirits, and 3 bottles of wine.

Each issue for the Master, the Chief Officer and the Chief Steward of ocean-going vessels will consist of: 200 cigarettes, 2 bottles of spirits and reasonable quantity of wine they may request.

Concessions to Crew landing from ship. On coming ashore, for a short period, 50 grams of tobacco, or 40 cigarettes per day or part thereof.

The above allowances are in force for all Cyprus ports.
CARGO GEAR: Load or discharge may be effected either by ship's or shore gear. 35 ton heavy lift crane available.
REPATRIATION: Facilities are available.
AIRPORT: Larnaca International Airport 3 miles from Larnaca Port. Daily flights to Europe and Middle East.
TIME: GMT plus 2 hours. Summertime – GMT plus 3 hours (last Sunday in March to last Sunday in September).
HOLIDAYS: Every Sunday; 1st January; 6th January; 25th March; 1st May; 28th October; 29th October; Good Friday; Saturday following Good Friday; Easter Monday; First Day of Kurban Bairam; Birthday of Prophet; First Day of Ramazan Bairam; Christmas Day; Boxing Day.

Work can be arranged on any holiday other than New Year's Day, Christmas Day, and Easter Sunday.
POLICE/AMBULANCE/FIRE: Dial 199.
EMERGENCY CO-ORDINATION CENTRE: Port Manager Tel: 53563. Res. Tel: 52171/55542/57043. Marine Police Tel: 52001.
TELEPHONES: Line available for placing telephone on board.
SERVICES: Compass adjusting; Radar; Radio telephones; Gyro compass repairs; hull scraping and engine repairs.
SHORE LEAVE: Crew members are allowed ashore.
IDENTIFICATION CARDS: Shore leave passes are issued. Seaman's Book or Passport required whilst ashore.

REGULATIONS: Port Manager's permission is required for: immobilising engine, cleaning or repairs whilst vessel alongside quay, lowering lifeboats and use of ship's radio. Port and Customs clearance required before departure. Cyprus flag to be hoisted on mast from 0800 hrs. to sunset. Landing of dogs or other animals not allowed; also discharging of fruits, vegetables and eggs unless authorised by Produce Inspection Office. Disposal of garbage and waste strictly prohibited both in port and Cyprus waters.
DELAYS: According to prevailing circumstances but normally no delays.
GENERAL: Weather conditions permit entrance and working of ships all the year round.

Garbage collection and disposal service available to vessels.
AUTHORITY: Cyprus Ports Authority, 23 Crete Street, P.O. Box 2007, Nicosia, Cyprus. *Tel:* (02) 450100. *Telex:* 2833 CYPA CY. *FAX:* (02) 365420. *Cables:* Cyports. *Contact:* The General Manager.

Larnaca Port, Larnaca, Cyprus. *Tel:* 041-53563 or 53405. *Telex:* 2833 Cypa. *Cables:* Port Manager, Larnaca. *Contact:* Port Manager.

AGENT: Gulf Agency Co. (Cyprus) Ltd., P.O.Box 546, Larnaca, Cyprus. Tel: 21897/8. Telex: 3967 Gaship Cy. Cables: Gacship, Larnaca.

LATCHI: 35.03 N. 32.27 E.

DOCUMENTS: See "Limassol".
ANCHORAGE: 0.5 miles North of Mavroli Pier, depth 10 fathoms.
MAX. SIZE: No restrictions on size.
HEALTH: All necessary action to obtain Pratique made by Agent in the event of any suspected disease on board, necessary action and precautions taken by Health Authorities.
RADIO: Cyprus Radio – call sign 5BA on 500 or radio telephone 2182.
TUGS: None available.
BERTHING: Mavroli Pier in Khrysokhou Bay, in position 35° 03′ 15″ N. 32° 27′ 10″ E. bearing 072° approximately 3.2 miles from Latchi. Necessary to have Cyprus flag, and to have gangway and not a rope ladder for Authorities and stevedores to board.
STEVEDORES: ETA advice required order arrange gangs at least 24 hours. Loading rate 2,000 tons per day. Loading from 6 barges, average capacity 45 tons each.
MEDICAL: Agent to receive 24 hours notice. Hospital facilities available at Ktima, 24 miles from Terminal at Limni. Each member of crew to possess valid vaccination certificate.
DENSITY: 1025.
FRESH WATER: None available.
FUEL: Not available.
GANGWAY/DECK WATCHMEN: Unnecessary.
OPENING/CLOSING HATCHES: Done by the crew.
CUSTOMS ALLOWANCES: See "Limassol".
IDENTIFICATION CARDS: Required.
CONSULS: None.
REPAIRS: No repairs can be carried out.
REPATRIATION: Can be arranged through Larnaca International Airport.
AIRPORT: Larnaca Airport 70 miles away, served by regular airlines.
TIME: GMT plus 2 hours. Permanent.
HOLIDAYS: See "Limassol".
POLICE/AMBULANCE/FIRE: Such services arranged through Agent.
TELEPHONES: No arrangements exist for placing on board.
SHORE LEAVE: Landing permits obtainable from local Police Authorities by lodging passports or Seamen's Books.
AUTHORITY: Cyprus Ports Authority, P.O.Box 2007, Nicosia, Cyprus. *Tel:* (02) 450100. *Telex:* 2833 CYPA CY. *FAX:* (02) 365420. *Contact:* The General Manager.

LIMASSOL: 34.40 N. 33.03 E.

DOCUMENTS:
1 Arrival Declaration.
4 Crew Lists.
4 Passenger Lists (the latter in case of passenger vessels).
4 Transit Passenger Lists.
1 Fire Arms Declaration.
1 Stores Declaration.
1 Declaration signed by each member of Crew stating dutiable goods in their possession.
1 Form of appointment of Agent.
1 Maritime Declaration of Health.

PILOTAGE: Ships are not allowed to enter the port or to berth at the mooring buoys outside the breakwater port without Pilot, unless permission is granted by the Port Authority. Pilot boards vessel at roadstead. Master must give 24 hour's notice of ETA to vessel's Agents to enable them inform the Port Manager in time. Pilot's Telegraphic Address is Port Manager, Limassol, Cyprus. Tel.: 051-65246.
ANCHORAGE: No specific boundary but ships usually anchor about 0.5 mile S.E. of lighter basin entrance where depth is 8 fathoms or S.S.E. of the entrance to the new breakwater port.
RESTRICTIONS: See "Max. Size" and "Berthing". Rise of tide up to 1.8 ft.
MAX. SIZE: *Old Port:* Vessels berthing must not exceed 265 ft. LOA and 14 ft. draft.
New Breakwater Port: Depth alongside 11 m. Max. draft 10.5 m. No LOA limit on ships entering and berthing. The height of quay above sea level is 2.30 m.
HEALTH: Pratique is required at first Cyprus port of call only. Pratique is granted either before or after berthing as appropriate.
RADIO: Cables sent through "Cyprus Radio", call sign: 5BA.
RADAR/VHF: No port radar service. Port Manager and Pilots equipped with VHF radiotelephone operating on Channels 16 and 10 during office hours only.
TUGS: Port Authority tugs join vessels outside breakwater using ships' lines. 2 tugs, 1,320 h.p. and 750 h.p.
BERTHING: Vessels may berth inside port between 0600 hrs. and sunset, but may unberth and sail until midnight. Cargo vessels are allowed to berth during night-time provided berth space is available and vessels will immediately operate with at least 1 gang.
Quay Length: 1,280 m. Ro-Ro vessels can discharge/load on the quays.
Warehousing Space: 40,700 sq.m.
Paved Yard for Containers (full and empty): 300,000 sq.m.
Paved Stacking Area for General Cargo: 111,000 sq.m.
Grain Silo: Modern, (recently built) with a 30,000 tonnes storage capacity, connected with the quay via an overhead conveyor belt.
Equipment: 60 ton floating crane. 35 ton level luffing crane. Twenty 3-16 ton and four 45-60 ton mobile cranes. Four 7-15 ton fork lifts and seven 32 ton van carriers for container handling. Eighty-eight 3-60 ton fork lifts for general cargo handling. One hundred and fourteen 3-25 ton trailers, fifteen tractors and other auxiliary equipment.

2×40 ton gantry cranes for container handling at the East Quay.
STEVEDORES: 24 hours notice of ETA to Agent is required to enable him arrange gangs.
MEDICAL: It is necessary for Agent to receive advance notice of at least 2–3 hours before vessel's arrival. Hospital facilities constantly available. Inoculations or vaccinations are required according to prevailing circumstances.
TANKERS: Not allowed to berth in the port. No slop discharge facilities.
FRESH WATER: Facilities available on quay.
FUEL: All types provided by special bunkering vessels at berths and roadstead and by tanker lorries at the quay.
FIRE PRECAUTIONS: No tankers are allowed in the port. Vessels and operations must comply with internationally applicable regulations concerning explosives and dangerous goods.
CONSULS: Belgium, Netherlands, Italy and France.
REPAIRS: A floating dock 66 m. long and 18 m. wide capable of lifting a 1,200 tons light ship is in operation.
SURVEYORS: Lloyd's, Bureau Veritas, Registro Italiano Navale, Germanischer Lloyd.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: By crew or stevedores.
CUSTOMS ALLOWANCES: 50 grams tobacco or 40 cigarettes, and 0.25 litres spirits, 0.25 litres wines, per man per day.

For reasons of administrative convenience, issues of high duty goods for use by crew on board will be made every 3 days, beginning with the first day of the ship's arrival in Cyprus waters. For each member of the crew (other than the Master, the chief officer and the chief steward) each issue will consist of, 120 cigarettes or an equivalent quantity of other tobacco goods, 1 bottle of spirits and 3 bottles of wine. Each issue for the Master, the chief officer and the chief steward of ocean-going vessels will consist of: 200 cigarettes, 2 bottles of spirits and reasonable quantity of wine they may request. Concessions to crew landing from ship. On coming ashore, for a short period, 50 grams of tobacco, or 40 cigarettes per day or part thereof.
CARGO GEAR: Load or discharge may be effected either by ship or shore gear. 35 tons heavy lift crane, 36 ton mobile container crane on pneumatic tyres and 60 tons floating crane available.
REPATRIATION: Facilities available for effecting crew changes and arranging any necessary repatriations. Usually arranged with Agent.
AIRPORT: Larnaca International Airport served by regular lines, situated 43 miles from Limassol.
TIME: GMT plus 2 hours. Summertime GMT plus 3 hours in force from last Sunday in March to last Sunday in September.
HOLIDAYS: Every Sunday; 1st January; 6th January; 25th March; 1st May; 28th October; 29th October; Good Friday; Easter Monday; First Day of Kurban Bairam; Birthday of Prophet; First Day of Ramazan Bairam; Christmas Day; Boxing Day. Work can be arranged on any holiday other than New Year's Day, Christmas Day, and Easter Sunday.
POLICE/AMBULANCE/FIRE: Tel: Police 75611; Ambulance 63111, Fire Brigade 52191 or 999.
TELEPHONES: Available on request, for placing on board.
SERVICES: Compass adjusting, servicing of radar, R/T, echo sounders.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Shore leave passes are issued. Seaman's Book or Passport required whilst ashore.
SHIP SUPPLY SERVICES:
1. Brasal Off-Shore Services Limited, P.O.Box 1518, Limassol.
2. Vasos Aivaliotis Limited, 4 Ermou Street, P.O.Box 110, Limassol.
3. Messrs. Thesseas Savva, 118 Franklin Roosevelt Avenue, P.O.Box 114, Limassol.
4. Mercury Divers Company Limited, P.O.Box 114, Limassol.

REGULATIONS: Port Manager's permission is required for: immobilising engine, cleaning or repairs whilst vessel alongside quay, lowering lifeboats and use of ship's radio. Port and Customs clearance required before departure. Cyprus flag to be hoisted on mast from 0800 hrs. to sunset. Landing of dogs or other animals not allowed; also discharging of fruits, vegetables and eggs unless authorised by Produce Inspection Office. Disposal of garbage and waste strictly prohibited both in port and Cyprus waters.
DELAYS: According to prevailing circumstances but normally no delays.
GENERAL: Weather conditions permit entrance and working of ships all the year round.
AUTHORITY: Cyprus Ports Authority, Headquarters, 23 Crete Street, P.O.Box 2007, Nicosia, Cyprus. *Tel:* (02) 450100. *Telex:* 2833 CYPA CY. *FAX:* (02) 365420. *Cables:* Cyports. *Contact:* The General Manager.

Limassol Port, Limassol, Cyprus. *Tel:* 65246 or 66022 (Limassol). *Cables:* Port Manager, Limassol. *Contact:* John Ghighis, Port Manager.

AGENT: Gulf Agency Co. (Cyprus) Ltd., P.O.Box 1141, Limassol, Cyprus. Tel: 68222/8. Telex: 2817 and 2744 ("Gacship Cy"). Fax: 72932. Cables: "Gacship", Limassol.

MONI: 34.42 N. 33.11 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
4 Passenger Lists.
1 Arrival Declaration.
1 Crew Declaration.
1 Store List (for cigarettes, spirits, etc).
2 Manifests.(Custom forms).

PILOTAGE: Compulsory for berthing. The tanker berth is situated in open roadstead. Pilot available through Harbour Master at Limassol (8.5 miles).

RESTRICTIONS: Docking in daylight only. Sailing possible at any time.

MAX. SIZE: Tankers up to 600 ft. length with max. draft 40 ft.

HEALTH: Pratique granted by Health Authorities after boarding on arrival. No Pratique necessary when vessel arrives from another port in Cyprus.

RADIO: Communication by Walkie-talkie

TUGS: None available or required.

BERTHING: Electricity Authority of Cyprus. Three conventional buoy mooring for tanker discharging fuel oil to Moni Power Station. Depth of water 18.20 m. – 30.48 m.

Cyprus Cement Factory. Depth of water 9.75 m.

MEDICAL: Necessary for agent to receive advance notice of medical attention required. Hospital facilities available.

TANKERS: Flange at end of flexible line is ASA 300 – 15 in. OD. (12×1 in. holes. 13 in. P.C.D.). Hose connection made on port side. No slop facilities available. Terminal crew connect and disconnect hoses. Ship's gangway required. Distance to shore tanks 3,950 ft. Max. pressure 135 p.s.i. Minimum receiving rate 500 tonnes per hour, 1500 sec. Redwood No. 1.

Loading signals – 1 blast, stop pumping. 2 blasts, start pumping.

DENSITY: 1025

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: Light machine shop.

CUSTOMS ALLOWANCES: See "Limassol".

IDENTIFICATION CARDS: When on shore leave, Seamen's Books required.

TIME: GMT plus 2 hours. GMT plus 3 hours from last Sunday in March until last Sunday in September.

SHIP SUPPLY SERVICES:
1. Brasal Off-Shore Services Limited, P.O.Box 1518, Limassol.
2. Vasos Aivaliotis Limited, 4 Ermou Street, P.O.Box 110, Limassol.
3. Messrs. Thesseas Savva, 118 Franklin Roosvelt Avenue, P.O.Box 114, Limassol.
4. Mercury Divers Company Limited, P.O.Box 114, Limassol.
5. A.Y. Steel and Marine Construction Co. Ltd., P.O.Box 4035, Limassol.

AUTHORITY: Electricity Authority of Cyprus (Headquarters), P.O.Box 4506, Nicosia, Cyprus. *Tel:* (02) 462001 (Nicosia). *Telex:* 2432 Grid Cy. *Cables:* Grid Nicosia. *Contact:* The General Manager.

Moni Power Station, Electricity Authority of Cyprus, P.O.Box 471, Limassol, Cyprus. *Contact:* Power Station Manager.

Cyprus Ports Authority, 23 Kritis Street, Nicosia, Cyprus. *Tel:* (02) 450100.

VASSILIKO BAY: 34.43 N. 33.19 E.

LOCATION: 13.5 miles due East of Limassol and 1.5 miles West of Zyghi (Lat. 34° 42′ 46″ N., Long. 33° 18′ 37″ E.)

PILOTAGE: Pilots available for berthing and shifting operations. Can be contacted on VHF Channel 16, working frequency 12. Owners or Master of vessel must give by cable/radio ("Helco Nicosia" or "Vascem Nicosia" 48) notice of vessel's ETA 24 hours in advance. Message of ETA must also include:
(a) Name/call sign of vessel.
(b) Nationality.
(c) Length, draft, gross and n.r.t.

MAX. SIZE: Vessel's LOA, 150 m.; Breadth, no restriction; Draft 8.40 m.

HEALTH: For Pratique, vessel must cable name and nationality, last port of call, number of crew and passengers, and condition of health on board. For vessels calling first at another port in Cyprus, Pratique is automatic.

RADIO: "Cyprus Radio".

TUGS: Tugs available from Larnaca port. 12 hours' notice in advance is required.

BERTHING: Length of quay, 540 m. Depth at LW, 9 m.

LOAD/DISCHARGE: Can be effected by shore equipment and/or ship's own gear.

Bulk cargoes (i.e. Pyrites, Cement, Copper, Chrome, Ore, Gypsum Rock, Phosphate Rocks, Coal, etc.) and liquid chemical cargoes (i.e. Liquid Ammonia, Sulphuric Acid).

CRANES: 3 mobile cranes of 30 tonnes SWL capacity each are constantly available. Services of an 80 tonne mobile crane can be also secured on request.

SPECIALISED CARGO-HANDLING FACILITIES: Facilities for Roll-on/Roll-off traffic and for handling liquid chemicals are available.

TANKERS: One pipe-line to buoy berth, depth of water, 12.19 m. Position of buoys, Lat. 34° 42′ 42″ N., Long. 33° 18′ 42″ E.

FRESH WATER: Available.

FUEL: Full bunkering facilities available, provided by tank tankers or a small tanker.

OPENING/CLOSING HATCHES: Ship's crew.

REPATRIATION: Crew changes and repatriation facilities available.

AIRPORT: Distance 35 miles; served by regular operators.

TIME: GMT plus 2 hours.

HOLIDAYS: 1st January, 6th January, 25th February, 25th March, 1st April, 12th April, 13th April, 15th April, 1st May, 3rd June, 15th August, 1st October, 28th October, 24th December, 25th December, 26th December.

Port workers will abstain from work on 1st January, 13th April, 14th April, 15th April, 1st May, 15th August and 25th December, but they may normally work on overtime basis during the rest of the holidays.

AUTHORITY: Vassiliko Cement Works Ltd., Headquarters, P.O.Box 2281, Nicosia, Cyprus. *Tel:* 42005-10 (Nicosia). *Telex:* 2039 Vascem Cy. *Cable:* Vascem, Nicosia.

NOTES

Please also advise Shipping Guides Ltd.

Denmark

GENERAL (See Plan)

CUSTOMS ALLOWANCES: For use on board during the stay in Denmark a total of 40 cigarettes or 40 grammes of tobacco, 0.25 litres of alcohlic liquors and 0.25 litres of wine can be released per member of the crew a day.

Tobacco may be released for 5 days' consumption at a time, i.e. 200 cigarettes, alcoholic liquors and wine may be released for 3 or 4 days' consumption, i.e. 1 bottle containing 0.25 or 1.0 litres.

ROUTEING: A routeing system has been established, so ships with a draft up to 17 m. (55.77 ft.) can pass the Great Belt. Ships bound for the Baltic are restricted to a draft of 15 m. (49.21 ft.) owing to shallow waters N.E. of Gedser.

For the passage through Danish waters by ships with a d.w.t. of more than 40,000 tons or with a draft of 13 m. or more, we would like to draw your attention to the "IMO–recommendation of Nov. '75 on navigation through the entrances to the Baltic Sea", and to the radio reporting system established by the Danish Ministry of Commerce.

ROUTE "T" (17 metres Transitroute) – THE SOUND – RADIO REPORTING SERVICE (Shippos): With the object of ensuring the safety of navigation of large ships passing through Danish waters and also of reducing the risk of oil pollution resulting from the grounding and collision of tankers, the Danish Government has established a transitroute between Skagen and the area N.E. of Gedser with a minimum depth of water of 17 m. The route is named "Route T".

The route is marked by lightbuoys and lights, the Decca coverage is good and Danish Pilot assistance is available. Portable Decca equipment can be hired for use during the passage through Danish waters and can be taken on board at the pilot stations Skagen or Allinge (Bornholm). Under ice conditions Danish icebreakers, as far as possible, render free assistance to shipping.

In spite of the good buoyage, navigation through Danish waters presents, however, in certain areas difficulties to large ships on account of narrow waters, sharp bends, strong currents and shallow depths. Furthermore there is an intensive East and Westbound ferry traffic in Store Baelt, particularly in the area immediately South of Sprogo.

Therefore a radio reporting service (SHIPPOS) has been established the rules of which are given in the following.

The International Maritime Organisation (IMO) has adopted a recommendation on navigation through the entrances to the Baltic Sea according to which ships with a deadweight-tonnage of over 40,000 tons or with a draft of 13 m. or more shall fulfil certain conditions about equipment, navigation, etc.

IMO has furthermore adopted a recommendation (which see) according to which certain ships shall use a Pilot when navigating in the Sound.

The Commission of the European Communities has adopted a directive which makes it compulsory for tankers of 1,600 gross tonnage and more en route to a community port to transmit a Sailing Plan and to complete a "Tanker Check List". The directive has been put into force by Order No. 306 of 4th June 1981 concerning minimum requirements for certain tankers entering or leaving a Danish port.

Rules concerning radio reporting service in Danish waters – SHIPPOS:

1. With the objects of ensuring the safety of navigation and of reducing the risk of pollution of Danish coasts and waters as may result from grounding or collision of oil tankers, gas carriers and chemical tankers, a reporting service has been established for the purposes mentioned below:
   a. To inform shipping about large ships' movements, so that smaller ships can take into account the limited manoeuvrability of those and in order to avoid the risk of large ships meeting one another in areas difficult to pass.
   b. To inform ships about navigational hazards en route and deviations from normal conditions of current, water level, and wave height.
   c. To notify the ferry traffic South of Sprogo about the passage of large ships.
   d. To facilitate the authorities early and effective pollution combatting action in case of an accident.
   e. To notify the authorities immediately about any deficiency which could affect safe navigation and the marine and coastal environment, and about ships' observation of considerable pollution.

2. The reporting service applies to:
   a. all ships of 20,000 tons gross tonnage and above,
   b. all ships with a draft of 13 m. and more,
   c. all loaded oil-, gas- and chemical tankers of 1,600 tons gross tonnage and above, and
   d. all ships carrying radio active cargoes.

3. Messages to the reporting service shall be sent over a Danish coast radio station as telegrams addressed to "SHIPPOS Aarhus".

The transmission of reports from ships is free of charge.

Information about position of large ships, mentioned under 2, a. or b., participating in the radio reporting service will be broadcast over VHF as "SHIPPOS INFORMATION" by the coast radio stations Lyngby Radio and Skagen Radio.

The broadcast will include information about actual water levels and serial numbers of Navigational Warnings in force for the SHIPPOS – area.

The broadcast will be preceded by an announcement over Channel 16, informing about the Channel used for the broadcast.

The information will be broadcast every third hour according to the table below, preferably by using the mentioned Channels. Other Channels might be used, which – if occasion should arise – will appear from the preceding announcement on Channel 16.

Position of VHF-station	*VHF-Channel*	*Time UTC*	*Serviced by*
Skagen	4	0220, 0520, 0820, etc.	Skagen Radio
Laeso	64		
Arnholt	7	0220, 0520, 0820, etc.	Lyngby Radio
Fornaes	5		
Rosnaes	2		
Karleby	63		
Mon	2		

4. In the SHIPPOS-system the following reporting lines are established (See "Plans"):
   a. Skaw.
   b. Hatter.
   c. Baltic W
   d. Sound N.
   e. Sound S.
   f. Moen.

5. Ships which are **inward bound** en route to a Danish port or to the Baltic Sea shall when passing the reporting line SKAW send a *Sailing Plan* (SP) (See "Drafting of Messages") to "SHIPPOS Aarhus".

During their voyage ships shall send *Position Reports* (PR) (See "Drafting of Messages") when passing the reporting lines SOUND N. or HATTER and BALTIC W.

Ships **outward bound** (from the Baltic) shall when passing the reporting line MOEN or SOUND S. send a *Sailing Plan* and during their voyage send *Position Reports* when passing the reporting lines BALTIC W. and HATTER or SOUND N..

6. Ships which en route to or through Danish waters do not pass the reporting line SKAW, MOEN or SOUND S. shall in sufficient time before passing first reporting line during the voyage send a *Sailing Plan* to "SHIPPOS Aarhus".

7. About 2 hours before **departure** from a Danish port, ships shall send a *Sailing Plan* to "SHIPPOS Aarhus".

8. Upon **arrival** at a Danish port, when passing the reporting line SKAW outward bound or when passing the reporting lines MOEN or SOUND S. inward bound a *Final Report* (FR) (see "Drafting of Messages") shall be sent to "SHIPPOS Aarhus".

9. If destination is changed, or if after transmission of a report **changes** occur which result in a time difference of more than 30 minutes from the estimated time of passing the next reporting line, or – for ships en route to a Danish port – the estimated time of arrival, the ship shall as soon as possible send a *Deviation Report* (DR) (see "Drafting of Messages") to "SHIPPOS Aarhus".

10. If during the voyage through Danish waters deficiencies occur, which might reduce the normal and safe manoeuvring capabilities of the ship, or a situation arises, which can endanger the marine environment and the adjacent areas, ships shall as soon as possible send an *Incident Report* (IR) (see "Drafting of Messages") to "SHIPPOS Aarhus". An Incident Report shall also be sent when observing an oil pollution or a pollution by any other substance, which is considered to be harmful to the marine and coastal environment.

11. Due to the intense East- and Westbound ferry traffic in Store-Baelt South of Sprogo the following special rules apply for ships of 20,000 tons gross tonnage and above and for ships with a draft of 13 m. and more when navigating in this area:

About one hour before passing the ferry route the ferries shall if possible be informed thereof on VHF, using the call sign "Ferry Leader". The call shall be made on Channel 16 and the information should be sent on Channel 10 or another available Channel (see "Drafting of Messages").

Ships which cannot operate VHF are requested to inform "SHIPPOS Aarhus" 2 hours before passing the ferry route about the estimated time of the passing.

Upon receipt of such information the ferries will endeavour to navigate so that risk of collision does not arise. If, nevertheless, risk of collision does arise, the International Regulations for Preventing Collisions at Sea must always be applied.

This special rule can also apply for ships with a draft of 10 m. and more regardless of tonnage.

Drafting of messages:

1. Messages transmitted in accordance with the Rules concerning radio reporting service in Danish waters shall be sent over a Danish coast radio station as telegrams addressed to "SHIPPOS Aarhus".

To ensure brevity of messages and to reduce the possibilities of mistakes the following designations shall be used for reporting lines (see "Plans"):

Latitude 57° 45′ N.: SKAW
Latitude 56° 00′ N.: HATTER
Latitude 54° 40′ N.: BALTIC W.
The line Nakkehoved – Kullen: SOUND N.
The line Stevns – Falsterb: SOUND S.
Position of Mon SE. Lightvessel: MOEN

Positions, other than the above mentioned, shall be given in latitude and longitude or by stating name of port.

2. All messages shall begin with the word SHIPPOS as the first word in the text.

The messages shall be drafted according to the following format:

Designator	*Function*	*Information Required*
	System identifier	"SHIPPOS"
	Type of report	One of the following 2-letters identifier. "SP" (Sailing Plan) "RP" (Position Report) "FR" (Final Report) "DR" (Deviation Report) "IR" (Incident Report)
A	Ship	Name and call sign
B	Date and time of event	A 6 digit group giving date of month (first two digits), hours and minutes (last four digits). The digit group to be followed by the letter "Z" indicating time in UTC. (e.g. 041330Z).
C	Position	Geographical position by two 4 digit groups giving latitude in degrees and minutes suffixed with N (North) and longitutde in degrees and minutes suffixed with E (East). (e.g. 5610N 1230E).
D	Position	Reporting line, port of departure or port of arrival
E	True Course	A 3 digit group
F	Speed in knots	A 2 digit group
G	Port of departure	Name of last port of call
I	Destination and expected time of arrival	Name of port and date time group expressed as in B
J	Pilot	State whether a pilot is on board (e.g. PILOT EMBARKED)
L	Route information	Intended route (e.g. 1. Route T – The Sound) (e.g. 2. Route T – Great Belt)
N	Expected time of passing next reporting line and its identification	Date time group as in B and reporting line (e.g. 071500Z HATTER)
O	Maximum present draft in metres	A 4 digit group giving metres and centimetres
P	Cargo	Type and amount of cargo including whether cargo included in the International Maritime Dangerous Goods Code is carried
Q	Defects/Damage/ Deficiencies/other limitations	Brief details of defects, damage, deficiencies or other limitations
R	Description of pollution incident or observation	Brief details including type of pollution (oil, chemical, etc.)
U	Ship size and type	Gross registered tonnage and type
X	Miscellaneous	Any other information – give brief details

3. The different types of reports shall contain information according to the following table:

Designator	*Type of Report*				
	SP	PR	FR	DR	IR
A	M	M	M	M	M
B	M	M	M	M	M
C/D	M	M	M	M	M
E	O	M	–	O	–
F	O	M	–	O	–
G	O	–	–	–	–
I	M	–	–	O	–
J	O	O	O	O	O
L	M	–	–	O	–
N	M	M	–	O	–
O	M	–	–	–	–
P	M	–	–	–	O
Q	O	O	O	–	O
R	O	O	O	–	O
U	M	–	–	–	–
X	O	O	O	O	O

M = "Mandatory" (always to be included).
O = "Optional" (to be included if appropriate).

4. *Sailing Plan* ("SP") shall be sent
   (a) when passing reporting line SKAW inward bound,
   (b) when passing reporting line MOEN outward bound,
   (c) when passing reporting line SOUND S. outward bound,
   (d) in sufficient time before passing the first reporting line during the voyage if passage has not taken place as mentioned under (a),(b), or (c),and
   (e) about 2 hours before departure from a Danish port.

Specimen Message 1:
SHIPPOS AARHUS =
SHIPPOS
SP
A. NONSUCH/MBCD
B. 041800Z
D. SKAW
E. 135
F. 15
G. ROTTERDAM
I. STOCKHOLM 061400Z
J. PILOT EMBARKED
L. ROUTE T – NORTH OF BORNHOLM
N. 050600Z – HATTER
O. 1450
P. CRUDEOIL 60000 TONS
U. 32.000 BRT TANKER =

Specimen Message 2:
SHIPPOS AARHUS =
SHIPPOS
SP
A. NOBODY/DLAN
B. 171000Z
D. VEJLE
I. BERGEN NORWAY 190600Z
J. PILOT EMBARKED IN FJORD
L. GREAT BELT – W. OF LAESOE
N. 171600Z – HATTER
O. 0650
P. CAUSTIC SODA 600 TONS
U. 1600 BRT CHEMTANKER =

5. *Position Report* ("PR") shall be sent
   (a) when passing reporting line HATTER
   (b) when passing reporting line BALTIC W., and
   (c) when passing reporting line SOUND N.

Specimen Message 3: (Same ship as in Specimen Message No. 1)
SHIPPOS AARHUS
SHIPPOS
PR
A. NONSUCH/MBCD
B. 050615Z
D. HATTER
E. 215
F. 10
N. 051600Z – BALTIC W. =

Specimen Message 4: (Same ship as in Specimen Message No. 2)
SHIPPOS AARHUS
SHIPPOS
PR
A. NOBODY/DLAN
B. 171600Z
D. HATTER
E. 350
F. 12
N. 180400Z – SKAW
Q. GYRO BREAKDOWN =

6. *Final Report* ("FR") shall be sent
   (a) when passing reporting line SKAW outward bound,
   (b) when passing reporting line MOEN inward bound,
   (c) when passing reporting line SOUND S, inward bound, and
   (d) on arrival to a Danish port.

Specimen Message 5:(Same ship as in Specimen Message No. 2)
SHIPPOS AARHUS
SHIPPOS
FR
A. NOBODY/DLAN
B. 180415Z
D. SKAW

7. *Deviation Report* ("DR") shall be sent if the destination or the earlier given intended route is changed and if earlier given times are changed more than 30 minutes.

Specimen Message 6: (The ship in Specimen Message No. 3 will arrive at reporting line BALTIC W. later than expected)

SHIPPOS AARHUS
SHIPPOS
DR
A. NONSUCH/MBCD
B. 051500Z
C. 5510N 1105E
N. 051900Z – BALTIC W. =

8. *Incident Report* ("IR") shall be sent as soon as possible.

(a) when deficiencies occur which might reduce the normal and safe manoeuvring capabilities of the ship, e.g. break-down in the main propulsion engine, steering gear or defect in radar or gyro,
(b) when an accident (e.g. grounding) occurs, which might cause pollution,
(c) in case of spill of oil or other harmful substance, and
(d) when observing pollution, which does not come from own ship.

Specimen Message 7:

SHIPPOS AARHUS =
SHIPPOS
IR
A. NONSUCH/MBDC.
B. 042110Z
C. 5712N 1131E
R. MAJOR OILSLICK 2 MILES WEST OF ME
X. WIND N.W. 8 M/S CURRENT N. 1,8 KNOTS =

9. *Passage of the Ferry Route South of Sprogo* shall be reported on VHF to the ferries, call sign FERRYLEADER, about 1 hour before passing. The call shall be made on Channel 16 and the report shall be transmitted on Channel 10 or on another available Channel.

Specimen Message 8:

FERRYLEADER THIS IS NONSUCH = EXPECT TO PASS SPROGO AT 1300 =

Pilotage within Route T: Pilotage through Route T from Skagen to Bornholm can be ordered from "SKAWPILOT", Skagen, via a coast radio station.

Pilotage through Route T from Bornholm to Skagen can be ordered from "SOUNDPILOT", Copenhagen, via a coast radio station.

When ordering a pilot the following information is required:

1. Name and call sign.
2. Estimated time of arrival (ETA) at the position from where pilotage is required.
3. Gross tonnage and draft.
4. Sea speed.
5. To where pilotage is required.

The order should be given at least 12 hours before ETA and should be confirmed or corrrected 3 hours before ETA. The pilot stations at Skagen and at Bornholm keep a continuous watch on VHF Channel 16.

Anchorages: If anchoring is considered necessary the following anchorages are recommended:

(a) Off Skagen.
(b) Off Sjaellands Rev.
(c) N.W. of Rosnaes.
(d) Off Romso.
(e) Off Keldsnor.

Furthermore anchoring is possible in most places along the route depending on the draft of the ship.

It must be emphasized, that for ships with a draft of 13 m. or more anchoring may be necessary owing to the weather and sea conditions in relation to the size and draft of the ship and to the sea level.

Electronic position-fixing equipment: IMO recommends that ships with a draft of 13 m. (42 ft. 7 in.) or more when navigating through the entrances to the Baltic Sea should have on board suitable electronic position-fixing equipment.

With proper notice (a minimum of 24 hours) ships not fitted with such equipment can rent a portable Decca receiver on application to Racal-Decca Navigator Aktieselskab, Kalvebod Brygge 20, 1560 Kobenhavn V., Denmark. Tel: (01) 12 83 10. Telegram: DECCAMAR.

The Decca receiver can be installed when passing Skagen or Bornholm.

The installation time is about 1 hour and the receiver can be installed by day and night.

The pilot station will assist with the arrangement and will also on request give information about fees for hire.

The Decca receiver can be delivered fitted for one of the following voltages:

DC: 24 v./32 v., 110 v. and 220 v.; AC: 85-260 v., 40-440 Hz.

It is quite important when requesting rent of Decca receiver to state the voltage available on board.

The receiver can remain on board until the ship again leaves Danish waters at Skagen, or it can be dismounted in a port in Denmark, Sweden, Finland or the Federal Republic of Germany.

Payment for rent and installation is to be settled through Racal-Decca Navigator Aktieselskab.

Recommendation on navigation through the entrances to the Baltic Sea: (Resolution A. 339 (ix) adopted by IMO in November 1975)

The assembly,

Being aware of the close relationship between safety of navigation and the prevention of pollution from ships,

Being also aware of the urgent need to protect the vulnerable Baltic Sea area which has been designated a special area against pollution,

Noting that the navigation of large ships through the entrances to the Baltic Sea area constitutes, due to risk of grounding or collision, a potential danger of pollution of the entrances and due to the strong sea-current also pollution of the entire Baltic area,

Noting also that this passage at several places will be difficult to navigate.

Taking note of

Resolution 5: Intentional Pollution of the Sea and Accidental Spillages adopted by the International Conference on Marine Pollution, London 1973,

Resolution A. 159 (ES. IV): Recommendation on Pilotage and

Resolution A. 156 (ES. IV): Recommendation on the Carriage of Electronic Position-Fixing Equipment.

Recommends the following,

(a) That ships over 40,000 d.w.t. when passing through the entrances to the Baltic Sea, in view of the fact that 17 m. is the max. obtainable depth without dredging in the area North-East of Gedser and that the charted depths, even under normal conditions, may be decreased by as much as 2 m. due to unknown and moving obstructions, should:

(i) not pass the area unless they have a draft with which it is safe to navigate through it taking into account the possibility of depths being as much as 2 m. less than charted as mentioned above, additionally taking into account the possible changes in the indicated depth of water due to meteorological or other effects,
(ii) participate in the radio position reporting system operated by the Government of Denmark,
(iii) in certain areas in Store-Baelt (Hatterrev, Vengeancegrund and in the narrow route East of Langeland) when constrained by their draft show the signal prescribed in Rule 28 in the International Regulations for Preventing Collisions at Sea, 1972,

(b) That ships with a draft of 13 m. or more should furthermore:

(i) be equipped with a VHF radiotelephone installation, fitted with appropriate frequencies,
(ii) have on board suitable electronic fixing equipment to make use of hyperbolic systems which will provide sufficient fixing accuracy for navigating in this area.
(iii) use for the passage the pilotage services locally established by the coastal States.
(iv) be aware that anchoring may be necessary owing to the weather and sea conditions in relation to the size and draft of the ship and to the sea level and in this respect take special account of the information available from the Pilot and from radio navigation information services in the area.

(c) That a routeing system be established so that ships referred to and complying with the recommendations contained in paragraphs (a) and (b) above can safely navigate into the Baltic.

Note: In November 1987 IMO is expected to adopt an addition to the effect that the Recommendation also include ships carrying a shipment of Class 7 radioactive materials as specified in paragraph 9.5.2. of the introduction to Class 7 of the International Maritime Dangerous Goods (IMDG) Code.

Recommendation on the use of Pilotage services in the Sound: (Resolution A. 579 (14) adopted by IMO in November 1985).

The Assembly,

Recalling Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety and marine pollution,

Being aware of the close relationship between safety of navigation and the prevention of pollution from ships,

Being also aware of the urgent need to protect the Baltic Sea area which is listed as a special area in Annex I to the International Convention for the Prevention of Pollution from ships, 1973, as modified by the Protocol of 1978 related thereto,

Noting that navigation of loaded gas carriers and loaded chemical tankers of 1,600 gross tonnage and above carrying noxious liquid substances of category A or B, as defined in Annex II to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 related thereto and ships carrying a shipment of class 7 radioactive materials as defined in paragraph 9.5.2. of the introduction to class 7 of the International Maritime Dangerous Goods (IMDG) Code, constitutes a potential danger of pollution of the entrances to the Baltic Sea and a potential hazard to international shipping,

Bearing in mind:

- Resolution 5 on intentional pollution of the sea and accidental spillages adopted by the International Conference on Marine Pollution, 1973,
- Resolution A.159(ES.IV) on pilotage,
- MSC/Circ.158 of 5th April 1974 on the control of movements of chemical tankers and gas carriers,
- Resolution A.339(IX) on navigation through the entrances to the Baltic Sea.

1. Recommends that loaded oil tankers with a draft of 7 metres or more, loaded chemical tankers and gas carriers irrespective of size and ships carrying a shipment of class 7 radioactive materials as specified in paragraph 9.5.2. of the introduction to class 7 of the International Maritime Dangerous Goods (IMDG) Code, when navigating the Sound between a line connecting Svinbadan Lighthouse and Hornbaek Harbour and a line connecting Skanor Harbour and Aflandshage (the southernmost point of Amager Island), use the pilotage services established by the Governments of Denmark and Sweden;
2. Revokes Resolution A.427(XI).

Order on the Calling of a Pilot:
(Royal Danish Administration of Navigation and Hydrography, Order No. 29 of 30th January 1985 as amended by Order No. 795 of 11th November 1986).

Pursuant to section 7(4) of the Danish Pilotage Act and under the authority of the Minister of Defence it is hereby laid down:

1. (i) Ordering of a pilot from Danish pilot stations shall be made to the pilot station in question subject to the notices stipulated in section 2 hereof. The order shall contain information as to:
    1) Name and call sign of the ship,
    2) estimated time of arrival at the place from which pilotage is requested,
    3) gross registered tonnage and draft of the ship,
    4) speed of the ship, and
    5) place to which pilotage is requested.

    (ii) In connection with arrival of the ship at the place from which pilotage is requested, the international signal "G" should be used and be displayed by flag or flashlight.
2. (i) With respect to ships coming from the sea the order shall be given at least 6 hours before estimated arrival at the place from which pilotage is requested, and this shall be confirmed or corrected 1 hour before the estimated time of arrival, see also subsection 2 of this section.

    (ii) Where transit pilotage takes place via Route "T" from the waters off Skagen to the waters around Bornholm, or conversely, the order must, however, be given at least 12 hours before estimated time of arrival and shall be confirmed or corrected 3 hours before estimated time of arrival.

    (iii) With respect to ships requesting pilotage from harbour, anchorage or the like the order shall be given at least 4 hours before the pilotage is requested to commence. Confirmation and possible changes shall be given at least 1 hour before estimated time of departure.
3. (i) The ship's Master shall manoeuvre the ship in such a way that the pilot can embark or disembark the ship in the safest and fastest manner.

    (ii) If due to special circumstances the Pilot is prevented from boarding the ship, pilotage can take place from the pilot boat or from shore.
4. Unless prevented by special circumstances, the Master of the ship shall during pilotage be obliged to take the pilot boat in tow upon the Pilot's request.
5. During pilotage the Master of the ship furthermore has a duty to provide the Pilot with all information of importance to the pilotage.
6. Apart from the lights prescribed in accordance with the International Regulations for Preventing Collisions at Sea, a vessel performing pilotage duty shall fly a flag the upper half of which is white and the lower red. In addition the vessel shall fly the national flag.
7. Any contravention of sections 3-6 shall in pursuance of section 23(2) of the Pilotage Act be punished by a fine.
8. (i) This Executive Order shall come into force on the 15th February 1985.

    (ii) With effect as from same date Executive Order No. 120 of 21st March 1979, of the Royal Danish Administration of Navigation and Hydrography as amended by Executive Order No. 643 of 16th December 1983, on the Calling of a Pilot, etc., shall be repealed.

Notice about Passage to the Harbour of Enstedvaerket, the Harbours of Stigsnaesvaerket and Gulfhavn, Stigsnaes, of Ships with a Draft of 13 metres or more: (Ministry of Industry, Notice of 7th January 1987).

1. The maximum draft for entering the harbour of Enstedvaerket and the harbours of Stigsnaesvaerket is 17.0 m. and for Gulfhavn, Stigsnaes, 15.5 m.
2. With reference to IMO Resolution A. 339 about navigation through the entrances to the Baltic Sea it is recommended that ships with a draft of 13 m. or more comply with the following:
    a. A pilot shall be used during the entire passage within the Skaw.
    b. The ship shall be equipped with a VHF fitted with appropriate frequencies.
    c. The ship shall have on board suitable electronic position-fixing equipment to make use of hyperbolic systems which will provide sufficient fixing accuracy for navigating in this area.
    d. The ship shall be equipped with a 3 cm. and a 10 cm. radar both able to function.
    e. The ship shall participate in the ship reporting system operated by the Government of Denmark (SHIPPOS).
    f. When constrained by its draft the ship shall show the signal prescribed in Rule 28 in the International Regulations for Preventing Collisions at Sea.
    g. The Master must be aware that temporary anchoring may be necessary owing to the weather and sea conditions in relation to the size and draft of the ship and to the sea level.
3. Attention is drawn to the fact that under ice conditions, when the buoyage cannot be expected to be in position and in order, there exists a greater risk of grounding than under normal conditions.

    3.1. If the passage takes place under ice conditions, when the buoyage cannot be expected to be in position and in order, it is recommended that ships furthermore comply with the following:
    When navigating South of the latitude 56° North (Sjaellands Odde) ships shall use 2 tugs, which both are equipped with Decca and with a pilot on board, and the navigation should, when considered necessary, take place in daylight and in good visibility.

    3.2. For ships equipped with operational Channel Navigation System the use of the tugs mentioned in 3.1. can be limited for the passage between Keldsnor and Enstedvaerket.
4. Pilot stations and "SHIPPOS Aarhus", when being aware of the fact that ships with destination to one of the harbours concerned does not comply with the recommendation herein, are requested to report such to the Ministry of Industry.

PILOTAGE:

The Baltic Pilotage Authorities Commission Recommendation:

The Baltic Pilotage Authorities Commission, recognising that Deep-Sea Pilotage helps to enhance safety of navigation and prevention of pollution of the marine environment, in particular to reduce the risks resulting from the high density of ships carrying dangerous or noxious cargoes and that the presence of a Deep-Sea Pilot on board would strengthen a vessel's navigational team and improve emergency measures in case of incidents and having considered the necessity to establish a certain order in Deep-Sea Pilotage in the Baltic Sea, recommends

A. Masters of ships which are constrained by their draft and

B. Masters of ships other than registered in one of the Baltic states, infrequently sailing in the respective area

coming from or being bound for ports in the Baltic Sea to avail themselves of Deep-Sea Pilots, certified by a competent authority of a Baltic coastal state.

AABENRAA: 55.02 N. 09.26 E. (See Plan)

LOCATION: Aabenraa is situated on the East Coast of Jylland (Jutland) in the Aabenraa Fjord.

DOCUMENTS: Crew list, passenger list, tobacco list, stores list, loadline certificate (all vessels above 150 g.r.t.), safety equipment (all cargo vessels of 500 g.r.t. and over), derat, tonnage and nationality, clearance from last port of call, cargo documents.

PILOTAGE: Telegraphic address: "Pilot – Aabenraa". Short notice about 2–4 hours – VHF Channel 16. Small red motor-boat flying international pilot flag. Normally located middle of Aabenraa Fjord.

Larger ships usually take Pilot by Skaw L/V or at Kiel. Pilots to be ordered by ETA-telegrams to "Skawpilot Skagen", at least 12 hours in advance when passage via the Skaw. Skawpilot listening on VHF Channel 16.

ANCHORAGES: Aabenraa Fjord or Road. Depths: about 75 ft. – 80 ft.

RESTRICTIONS: See "General" before first port.

MAX. SIZE: Depth of water in the Channel, at the Sonderjyllandskajen and at the Oil Jetty 11.0 m. Max. length at the Oil Jetty 200 m. No restriction on beam. Max. length at Sonderjyllandskajen 250 m. No breadth restriction.

Depth of water in dry cargo basins from 4.0 m. to 8.5 m. Max. length 200 m. No breadth restrictions. No tide – occasionally low water of 3 ft. – 5 ft. in heavy gales from West. Entry day or night.

HEALTH: In event of disease or fever on board, vessel's Agent to be informed before arrival.

RADIO: Blavand Radio or Lyngby Radio.

VHF: The port is equipped with Channels 12, 13 and 16.

TUGS: There are no tugs stationed in the port, however, tugs of 1,400 h.p. – 3,600 h.p. available at 24 hrs. notice.

BERTHING: There are 3 basins, a dry cargo pier and a tanker berth.

Sydhavn: 340 m. quay, depth 4.0 m.

Gammelhavn: 680 m. quay, depth 7.5 m.

Nyhavn: 600 m. quay, depth: First 160 m., 8.5 m. Next 140 m., 7.5 m. Remaining 300 m., 6.5 m. – 6.75 m.

Sonderjyllandskajen: 250 m. quay, depth 11 m.

Oil Jetty: "T"-head with breasting dolphins, depth 11 m.

For the port the mean water-level is 0.0. Extreme high water level is plus 1.5 m. and extreme low water is minus 1.4 m. due to strong North/Easterly gales and strong South/Westerly gales. There are no currents except in connection with the mentioned high and low water. The port can be entered day and night, and is generally open for navigation throughout the year and in case of ice-difficulties during Winter, state-owned icebreakers will keep the port open for navigation.

DENSITY: Average water density in port area 1015.

CRANES:
1 mobile crane – lifting capacity 36 tons.
1 mobile crane – lifting capacity 30 tons.
2 mobile cranes – lifting capacity 23 tons.
1 mobile crane – lifting capacity 11 tons.
1 front loader.
1 fork lift – 4 tons capacity.
Tractors and similar modern machinery also available.

STEVEDORES: Stevedores arranged by Agent.

MEDICAL: 12 hours notice required to arrange for doctor to come on board. Hospital in Aabenraa.

TANKERS: Load/discharge connection 6 in. or 8 in. Also see "Berthing". Facilities for dirty ballast available.

FRESH WATER: Day and night from shore line, 25 – 30 t.p.h.

FUEL: All grades available by barge or truck. Minimum 24 hours notice.

GANGWAY/DECK WATCHMAN: Can be arranged.

OPENING/CLOSING HATCHES: By crew.

CUSTOMS ALLOWANCES: See "General" before first port.

IDENTIFICATION CARDS: Not needed.

CONSULS: German (F.R.); Finnish; Norwegian; Swedish; British.

REPAIRS: All types of deck and engine repair are possible.

DRY DOCK: Shipyard with floating dock of 600 tons lifting capacity. Max LOA 53 m.

SURVEYORS: Lloyd's and N.V. available.

REPATRIATION: Facilities exist for effecting crew changes.

AIRPORT: Skrydstrup. Distance from airport is 25 km. Airport is served by regular airlines.

TIME: Local time is GMT plus 1 hour.

POLICE/AMBULANCE/FIRE: Dial "000".

TELEPHONES: Available for placing on board at the Sonderjyllandskajen.

SHORE LEAVE: Crew members allowed ashore.

DELAYS: Normally no delay except during severe Winters due to ice between mid December and end March.

AUTHORITY: Aabenraa Port Authority, Havnekontoret, 25 Mellemvej, 6200 Aabenraa. *Tel:* (National) 04 622514, (International) 454 622514.

AALBORG: 57.03 N. 09.55 E. (See Plan)

DOCUMENTS:

Ship's Register.
Load-line Certificate. (All vessels over 150 g.r.t.)
Road Safety Certificate.
Safety Equipment Certificate.
Derat Certificate or Exemption.
1 Crew List.
Stores List.
Crew Personal Effects List.
Cargo Manifest or Bills of Lading.
Oil Liability Insurance Certificate.

PILOTAGE: Pilotage is compulsory for the following:

(a) All tankers of 1,500 d.w.t. or more.
(b) Tankers of less than 1,500 d.w.t. which carry or having uncleaned tanks last containing ammonia or other hazardous liquid chemicals as listed in the Ministry of Commerce Notice No. 195 of 12th May 1970 on sea-borne hazardous cargoes.
(c) All LNG and LPG carriers.
(d) Vessels drawing 5.0 m. or more which pass through the dredged channel over Hals Bar.

Pilot may board at Hals Bar Roads in one of 4 different positions. Pilot station and Pilot boat equipped with VHF Channel 16.

The Western entrance at Logstor is only navigable in daylight for vessels under 4 m. draft.

ANCHORAGE: Anchoring inside the port area can only take place when permission has been granted by the Port Authorities. Permission can be requested on VHF Channel 16 or on Telephone No. (08) 122777.

RESTRICTIONS: The port is situated in the Limfjorden, 10 – 16 miles from entrance at Hals. Controlling factor is depth at Hals Bar of 10.4 m. at MLW.

MAX. SIZE: Max. draft for crossing Hals Bar 9.3 m.

HEALTH: Pratique granted by Customs Officers who bring Health Declaration for Masters to complete. In event of suspected disease or fever on board radio details to Agent before arrival.

RADIO: Radio stations to be used: Skagen and Lyngby, Port Authority, Pilot Station. Tugs and Bridges can be contacted on VHF Channel 16.

TUGS: Eight tugs available from 250 h.p. to 2,000 h.p. Not compulsory except through bridges for vessels over 1,500 d.w.t.

BERTHING: Aalborg on North and South sides of Limfjord. Total quayage 11.5 km., whereof public quays 10.1 km. All main quays suitable for vessels able to cross Hals Bar. Depths alongside 7.5 m. to 10.0 m.

Rordal Cement factory wharf, depth 7.5 m. – 9.3 m.

Nefo Coal Pier, depth 10.0 m. owned by Nordjylands Electric Co. and managed by Elsam. Max. LOA 260 m., max. draft 9.5 m. 2×12 ton cranes. Discharge rate for coal 10,000 tonnes per day.

BRIDGES: Two bascule bridges cross Western end of Aalborg harbour. Horizontal opening 30 m. Only vessels bound for Lindholm Pier are affected.

Close South East of the power station is an overhead power cable (vertical clearance 50 m.) which spans the fjord. Pilotage is compulsory for vessels over 800 g.r.t.

MEDICAL: Doctors, hospital facilities available.

FRESH WATER: Available at all berths.

FUEL: All grades available.

DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Normally by crew with assistance of stevedores.

IDENTIFICATION CARDS: Not required.

CONSULS:

Belgium	Tel.	(08)	12 47 80
Brazil	"	"	13 12 33
Finland	"	"	13 30 33
France	"	"	18 16 66
Greece	"	"	13 31 00
Iceland	"	"	16 33 39
Netherlands	"	"	12 44 22
Norway	"	"	17 00 88
Spain	"	"	18 50 99
Sweden	"	"	13 36 66
United Kingdom	"	"	16 56 77

REPAIRS: All hull and machinery repairs can be effected.

DRY DOCKS: One dry dock for vessels up to 119 m. long. Three floating docks max. capacity 20,000 tons (80,000 d.w.t.).

CUSTOMS ALLOWANCES: See "General" before first port.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours (April – September).

HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Monday; Prayer Day; Ascension Day; Whit Monday; Christmas Day; Boxing Day. Half-holidays; May 1st, June 5th and December 24th.

REPATRIATION: Aalborg Soefarts Service (Seamen's Service) Tel: (08) 17 12 12.

POLICE/AMBULANCE/FIRE: Tel: 000

TELEPHONES: Installed by request at certain quays.

SHORE LEAVE: No restrictions.

AIRPORT: Situated 3 miles from town centre.

DEVELOPMENTS: Aalborg has considerable areas under development for industry. In connection with this, preparations are being made for the building of new public harbour facilities. On the South bank of the fjord the Port Authority has available a 3.2 km stretch of coast with an area of approx. 206 hectares. This area is in connection with a new industrial and residential district of approx. 400 hectares. According to present plans approx. 7,000 m. of new quayage can be built here. Investments are estimated at 350 mill. Kr. Factories within the electronic and textile sectors are already established here and a continuous expansion goes on. On the site a special harbour with a quayage of 660 m. and depth 8.5 m. with facilities for unit load ships as well as conventional cargo ships, with warehouses and administration blocks etc. was constructed during 1972 as base port for the Royal Greenland Trade Department's routes calling at all ports in Greenland. Enterprises undertaking construction, repairs and maintenance of oil rigs etc., for offshore activities have also settled on this site. (See "Plan" – East Harbour).

AUTHORITY: Port of Aalborg Authority, 104 Vesterbro, DK-9000 Aalborg, Denmark. *Tel:* (08) 122777. *Telex:* 69933 Aalbhv Dk. *FAX:* 08-129388. *Contact:* J. E. Kruhoffer, General Manager. H. Plougheld, Harbour Master.

AARHUS: 56.09 N. 10.13 E. (See Plan)

DOCUMENTS:

Ship's Register.
Derat Certificate.
Load Line Certificate (all vessels above 150 g.r.t.).
Radio and Equipment Safety Certificates.
Customs Clearance from last port.
Spirits and Tobacco List for ship and crew.

PILOTAGE: Harbour Pilotage only compulsory for:

a) Tankers of 1,500 d.w.t. or above.

b) Tankers loaded with inflammable liquids with flash point below 23°C.

c) Tankers loaded with, or have unclean tanks which have recently contained, dangerous liquid chemicals listed in IMO's "Code for the construction and equipment of ships carrying dangerous chemicals in bulk", and

d) Non gasfree gas tankers.

Exceptions for frequent callers.

Harbour Pilot boards 1-2 miles outside port.

Larger vessels usually take Pilot by Skaw L/V. Pilots to be ordered by ETA-telegrams to "Skawpilot Skagen", at least 12 hours in advance. Skawpilot listening on VHF Channel 16.

Vessels leaving harbour or changing berth should report at least 15 minutes in advance, to the pilot station on Channel 16 or 12, or to the harbour office. If the movement is delayed, a further report should be sent 10 minutes in advance.

ANCHORAGE: Anchorage in roads – good holding ground. Nature of bottom: clay.

RESTRICTIONS: No restrictions. Night entry permitted. Also see "General" before first port.

MAX. SIZE: Oil port 10.5 m. General cargo port up to 9.5 m. Container terminal up to 10.5 m. Eastern Division 11.5 m. Coal terminal 13.0 m. No tide.

HEALTH: Necessary formalities carried out by Customs on arrival.

RADIO: Radio stations to be used: Skagen and Lyngby. Pilot station and tugs can be contacted on VHF Channel 12 and 13 – emergency 16.

TUGS: 2 Tugs stationed at the port. Additional tugs available from outside.

CARGO HANDLING FACILITIES: 5 cranes for coal, fertilisers, sulphur, ore, etc.; max. capacity per crane, 300 t.p.h. 5 cargo handling cranes up to 2.5 tons and 9 cranes up to 5 tons. 2 mobile cranes up to 4 tons.
Container Terminal: Max. depth of water 11 m. Total quay length 816 m. 4 gantry container cranes up to 40 tons. Fork lifts up to 40 tons.
Multi-Terminal: Quay length 450 m., depth 12 m. Facilities for bulk, break bulk, container & Ro/Ro cargoes. 1×50 tonne crane. 2 multi-purpose cranes (25 tonnes on hook and 12 tonnes on grab).
Roll-on/Roll-off: 1 movable and 4 solid Roll-on/Roll-off berths. Fork lifts up to 40 tons. Several berths for liquid chemicals and LPG carriers.
Private Cranes: Coal terminal: Length 450 m., depth 13.5 m. 2 gantry cranes, combined capacity 1,000 t.p.h. 4 travelling cranes on carriage bridges for handling of coal, coke, fertiliser, and broken stone, etc., capacities 5 – 7.5 tons. 1 travelling crane on fixed bridge for handling of sand, stone and gravel, etc., capacity 90 t.p.h. 2 travelling cranes on carriage bridges for handling of general cargo, capacity 1.5 tons. One floating crane up to 20 tons.
Private Suction Plants, etc.: 4 grain suction plants, capacities of 60 – 100 t.p.h. 1 grain elevator, capacity of 35 t.p.h. 4 grain loading pipes. 6 cup elevators for copra and soya beans (80 t.p.h. each). 4 suction elevators for copra and soya beans (125 t.p.h. each). 1 loading pipe for copra and soya beans.
Aarhus Stevedore Company:

	No.	*Capacity* (tons)
Fork trucks with telescopic yoke for top lifting of containers	10 1	40 30
Fork trucks with top-lift for empty containers	8	12.5
Fork trucks	25	3-7
Electric pallet lifters	5	3
Shovel trucks for stowing	6	
Terminal tractors with appurtenant swan's necks	17	
Terminal Carriages	43	

STEVEDORES: Available. Ordered by Agents.
Normal Working Hours: Mondays/Fridays 0700 – 1630 hrs. Work on Saturdays, Sundays and Holidays is on full overtime terms only.
Meal Hours: 0830 – 0900 hrs. and 1200 – 1300 hrs.
Shifts: Labour can be employed Mondays/Fridays at 0700 hrs. and at 1000 hrs., although the 0700 hr. shift is by far the best supported.

On Fridays and on a day preceding a holiday labour can also be employed at 1300 hrs. (for overtime work generally).

Furthermore labour can be transferred from a completing vessel to another job within normal working hours provided certain union regulations are observed. Crew is not allowed to load, discharge or run the winches under normal circumstances.

Overtime: Can be worked round the clock against overtime pay. The rates for the first 3 hours are plus approximately 50% and all following hours plus 100%.

First shift is from 0700 – 2100 hrs. and next from 2100 – 0700 hrs. the following morning.

Week-end Work: Can be ordered as late as Friday 1300 hrs. (deadline) but ordering during Thursday gives a far better position for making a good arrangement.

MEDICAL: All medical services possible. Call Pilots if medical attendance required on board.

TANKERS: Discharge lines: 4 in., 6 in., 8 in., 10 in. and 12 in. Quay 201 – 203, max. oil discharging 1,200 cu.m./hr. Quay 202 and 124, 1,000 cu.m./hr., and Quay 120, 800 cu.m./hr. Berth 313 depth 12.0 m.

FRESH WATER: Shore installations at most berths.

FUEL: All grades available.

FIRE PRECAUTIONS: Tankers discharging: Fire watch. Special harbour fire fighting on tugs.

DECK WATCHMEN: Available, but not compulsory.

OPENING/CLOSING HATCHES: Normally by crew with assistance of stevedores.

IDENTIFICATION CARDS: Not required.

CONSULS:

Belgium	Tel: 06.14.71.00	Japan	Tel: 06.12.58.55
Brazil	06.12.88.88	Netherlands	06.12.04.66
Finland	06.29.21.00	Norway	06.14.59.40
France	06.19.32.77	Spain	06.12.46.44
Germany F.R.	06.12.32.11	Sweden	06.13.63.11
Greece	06.27.12.66	United Kingdom	06.17.66.33
Iceland	06.13.40.00		

REPAIRS: Most repairs and overhauls possible.

DRY DOCKS: Dannebrog Vaerft A.S. The shipyard possesses a large repair section and specializes, among other things, in extending ships and in undertaking comprehensive re-building. But all kinds of ships' repairs and overhauls of machinery are performed in its modern workshops. It employs a staff of 500–600, and it has recently invested in new cranes, floating docks, and workshops.

Dock No. 1 has a lifting capacity of 19,000 tons. Dock size – 190 m.× 25 m.

Dock No. 2 has a lifting capacity of 4,000 tons. Dock size – 110 m.×22.8 m.

There is also one minor slipway in the Port of Aarhus, and the city has numerous service workshops.

REPATRIATION: Aarhus Sofarts Service. Tel: 06.19.13.33.

AIRPORT: 32 km. from port.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summertime (April to October).

HOLIDAYS: New Year's Day, Maundy Thursday, Good Friday, Easter Monday, Prayer Day (fourth Friday after Easter), Ascencion Day, Whit Monday, Constitution Day, Christmas Day, Boxing Day.

POLICE/AMBULANCE/FIRE: Tel: "000".

TELEPHONES: At several piers.

SHORE LEAVE: No restrictions.

AUTHORITY: Port of Aarhus Authority, P.O.Box 130, Europaplads 2, DK-8100, Aarhus C, Denmark. *Tel:* 06.13.33.33. International + 456.13.33.33. *Contact:* K. Schmidt, Port Director. Captain Kjeld Bruun, Harbour Master.

AEROSKOBING: 54.54 N. 10.25 E. (See Plan)

DOCUMENTS: See "Copenhagen".

PILOTAGE: Contact using VHF Channel 16, Tel: (09) 521253.

MAX. SIZE: Length 70 m., beam 17 m., draft 4.5 m.

HEALTH: See "Copenhagen".

RADIO: Lyngby Radio OXZ.

VHF: Harbour Master/Pilot on Channels 16 and 12.

TUGS: Not compulsory, pilot boat assists if necessary. Larger tugs can be ordered on request.

BERTHING: 3 berths available.

CRANES: 1 mobile crane available.

STEVEDORES: Ordered by Agents.

MEDICAL: Doctors and hospital facilities available.

FRESH WATER: Available.

FUEL: Available.

FIRE PRECAUTIONS: Normal fire precautions.

CONSULS: None.

REPAIRS: All repairs possible.

DRY DOCKS: None, however there is one slipway for vessels up to 50 m. × 10 m.

GANGWAY/DECK WATCHMEN: Not necessary.

HATCHES: Opening/closing carried out by crew.

AIRPORT: Local airport 9 km. away, with private connections to Copenhagen. Nearest commercial airport at Odense.

TIME: GMT plus 1 hour; Summertime (March – September) GMT plus 2 hours.

HOLIDAYS: Normal Danish holidays.

POLICE/AMBULANCE/FIRE: Dial 000.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: Not required.

BANKS: Den Danske Bank and Sydfynsk Discontobank.

STORING: By truck alongside.

AUTHORITY: Harbour Master L. Andersen. *Tel:* 45-9-521253.

AGENT: W. Nielsen & Co., P.O.Box 20, DK 5970, Aeroskobing. Tel: 45-9-521150. Telex: 50583. Cables: Williamco.

ASNAES (Asnaes Power Station, Kalundborg): 55.40 N. 11.05 E. (See Plan)

PORT LIMITS: When boarded by Harbour Pilot at the Firth of Kalundborg; or when at anchorage at the Firth waiting for berth.

DOCUMENTS:

Ship's Register.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Derat or Exemption Certificate.
Construction Certificate.
Certificate of Insurance or other financial security in respect of civil liability for oil pollution damage.
2 Crew Lists.
Tobacco and Spirit List covering all goods on board belonging to crew, officers, Master, ship's bar or passengers.
Cargo Manifest or Bill of Lading.

PILOTAGE: Pilotage not compulsory. Harbour Pilot boards at entrance of Kalundborg Firth; bigger ships usually take Pilot by Skaw light vessel about 130 miles from Kalundborg. Skaw as well as Harbour Pilots listening on VHF Channel 16.

Pilots to be ordered by ETA–telegram to Agents at least 24 hours in advance.

ANCHORAGE: Large vessels anchor in 16 m. of water outside between Roesnaes and Asnaes; S.W. to N.W. winds cause swell, but holding ground is good.

RESTRICTIONS: No entry restrictions; arrival day and night and no tide with normal winds. Also see "General" before first port.

MAX. SIZE: Oil Berth: Depth alongside: 11 m.

Old Coal Berth: Depth alongside: 11 m. Length of quay: 285 m.

New Coal Berth: Depth alongside: 13 m. Length of quay: 216 m. However, vessels with length of 290 m. acceptable as there are dolphins between the Oil Berth and the New Coal Berth.

Ash Berth: Depth alongside: 8.0 m.

HEALTH: No special restrictions as to Free Pratique, which will be granted by authorities on arrival.

RADIO: Lyngby Radio.

VHF: Channel 16 to pilot station (also Skaw Pilot).

RADAR: No radar installations.

TUGS: At Firth of Kalundborg – 2/3 miles from port – ships' lines to be used.

BERTHING: One oil berth: Length 200 m. (a further length of ships at about 100 m. acceptable for berthing alongside the dolphins). Max. safe arrival draft: 36 ft. (10.97 m.).

Old Coal Berth: Length 285 m. Max. safe arrival draft: 35 ft. (10.67 m.). 4 cranes available.

New Coal Berth: Length of quay: 216 m. (See "Max. Size"). Max. safe arrival draft: 12.67 m. 2 cranes available.

Ash Berth: Safe draft 25 ft. (7.65 m.). Loading only, by pipe-line from 6,000 cu.m. silo.

DENSITY: Brackish – about 1011.

STEVEDORES: Private stevedores to be ordered through receivers – coal discharge rate: about 700 t.p.h.

New Coal Berth: Discharge rate about 850 t.p.h.

MEDICAL: All medical and hospital facilities available. No advance notice necessary.

TANKERS: 2 discharge hoses (a possibility of 3) of 8 in. each. Average discharge rate 3,000 t.p.h., max. back pressure 14 kg. Also see "Berthing".

FRESH WATER: Available by pipe-line at the berth. Rate 10 t.p.h.

FUEL: Available by barge or truck.

CONSULS: Swedish and Norwegian at Kalundborg. Others at Copenhagen.

REPAIRS: All types of smaller repairs can be carried out.

DRY DOCKS: No dry dock available.

SURVEYORS: Messrs. Caleb Brett has a local office in Kalundborg. SGS Inspection (Danmark) A/S has office in Copenhagen.

GANGWAY/DECK WATCHMEN: Not recommended.

HATCHES: Opening/closing hatches to be carried out by crew.

AIRPORT: Nearest at Copenhagen (100 Km.).

CUSTOMS ALLOWANCES: See "General" before first port.

REPATRIATION: All repatriation can be arranged normally via Copenhagen 100 km. from Kalundborg.

TIME: GMT plus 1 hour (from Late September– Late March). GMT plus 2 hours (from Late March–Late September).

HOLIDAYS: Saturday/Sunday normally no work, also no work on holidays declared as official Danish holidays.

POLICE/AMBULANCE/FIRE: 0–0–0 all alarms.

TELEPHONES: No telephone connection on board.

EMERGENCY CO-ORDINATION CENTRE:

Radio: VHF Channel 16 Lyngby Radio – will contact the Authorities involved.

BANKS: Kjoebenhavns Handelsbank A/S, Holmens Kanal 12, 1091 Copenhagen K. Telex: 12186 HACO DK.

A/S Den Danske Bank, Holmens Kanal 12, 1092 Copenhagen K. Telex: 15880 DDBFX DK.

Privatbanken A/S, Boersgade 4, 1215 Copenhagen K. Telex: 27196 PRIVCO DK.

STORING: See "Prelims".

1. Vessel can be stored from barge and truck.
2. No restrictions – can be stored during discharging.
3. Trucks can proceed alongside.
4. Fork lift trucks can be used on the Jetty.
5. No special customs' regulations except: spirits and tobacco, and other goods under bond to be declared to Customs before unloading loading.
6. Local riggers can be employed.

SERVICES: No tank-cleaning facilities; all other services to ships can be arranged through specialists from Copenhagen.

SHORE LEAVE: No restrictions for shore leave.
IDENTIFICATION CARDS: Shore passes necessary.
AUTHORITY: *Owners of the Port:* IFV – Energi i/s, Strandvejen 102, DK-2900 Hellerup. *Tel:* 1-624141. *Telex:* 37500. *FAX:* 1-612888.
Local Office: Asnaes Power Station, Asnaesvej, 4400 Kalundborg. *Tel:* 3-511500. *FAX:* 3-515004.

ASSENS: 55.15 N. 09.53 E. (See Plan)

LOCATION: On West side of Funen in Little Belt. Open all year except in severe weather when Little Belt may be frozen.
DOCUMENTS:
Customs Declaration for Ships, Form G25.
Maritime Declaration of Health, Z2 Ln 00-146.
Master's Declaration, Arrival, P650-010 (3/79).
Ice-Breaker Dues, Form G92 (only from 15th December – 31st March).
Crew List.
All Forms can be obtained from the Agent.
PILOTAGE: Not compulsory. Pilot requires 4 hours' notice. Pilot boarding points are 1 – 2 miles North or South of Assens. If necessary, Pilot can board in Little Belt.
ANCHORAGES: In the Roads North of Assens and S.W. of Assens.
MAX. SIZE: Vessels up to 130 m. LOA, max. draft 7 m. and max. beam 20 m. No tides.
RADIO: Lyngby Radio (OXZ).
VHF: There is a VHF station at the pilot station, Channel 16.
RADAR: There is radar in the tug used by the Pilot.
TUGS: There is a small tug, for larger tugs 6 hours' notice to be given. Ship's lines are used.
BERTHING: Loading/discharging normally takes place in the Northern Basin, depth 7 m., which is served by railway. The total length of quays is 400 m., made up of 100 m. on the North side, 170 m. on the East side and 130 m. on the South Side.
CRANES: 2 mobile cranes each max. 32 tons.
STEVEDORES: Working hours 0700 – 1600, Monday to Friday. Overtime by arrangement.
MEDICAL: Full hospital facilities available without prior notice.
FRESH WATER: Good quality potable water available in unlimited quantities.
FUEL: Can be delivered, if sufficient notice given.
REPAIRS: Most types of repairs can be undertaken at the shipyard.
DRY DOCKS: One floating dock for ships up to 1,350 tons, max. length 80 m. and 15 m. beam. 1 slipway for ships up to 300 tons, max. length 60 m. and 9.5 m. beam.
GANGWAY/DECK WATCHMEN: Not necessary.
HATCHES: Opening/closing done by crew.
CUSTOMS ALLOWANCES: See "General" before first port.
AIRPORT: Odense, 50 km. away. Daily connections to Copenhagen.
TIME: GMT plus 1 hour; Summertime GMT plus 2 hours from March to September.
HOLIDAYS: Usual Danish holidays.
POLICE/AMBULANCE/FIRE: Dial 000.
TELEPHONES: Available aboard vessels.
STORING: See "Prelims".
1. Vessels can be stored by truck.
3. Yes.
4. Yes.

SHORE LEAVE: Permitted.
DELAYS: Normally no delays.
AUTHORITY: Assens Havn, Harbour Office, Ndr. Havnevej 3, DK-5610 Assens. *Tel:* (09) 713165-713580. *Contact:* N. Hald-Andersen, Harbour Master.

AGENT: A. Fage-Pedersen A/S, Strandgade 19, DK5610, Assens. Tel: 09-711200. Telex: 50301 (Fage DK). Cables: Shipping.

BANDHOLM: 54.50 N. 11.30 E. (See Plan)

DOCUMENTS:
1 Crew List.
1 Passenger List.
1 Stores List.
1 Manifest or Bill of Lading.
PILOTAGE: Not compulsory. Pilot boards vessel at Sea Buoy off Vejroe from pilot vessel, hull painted green and "Pilot" on each side of the hull. Pilot ordered through Agent, telephone 03–88 80 11 four hours prior arrival at Sea Buoy. VHF Channel 16. Telephone number of Pilot Station 03-89 49 75/03-89 41 52 day/night.
ANCHORAGE: Near Sea Buoy off Vejroe.
RESTRICTIONS: See "General" before first port.
MAX. SIZE: Length 100 m.(approx), draft 5.10 m.
HEALTH: Normal quarantine rules.
RADIO: Lyngby Radio or Kiel Radio.
TUGS: None.
BERTHING: Sheltered harbour with 366 m. of stone quays available and easily accessible. Depth of water at entrance 5.10 m. Depth at West quays, 4.4 m. At East quay 244 m. there is 5.8 m. average depth. Electric coal crane to discharge 60 t.p.h with grab. Average daily rates: Coal and coke 500 – 1,000 tons. Grain elevator at East quay, loading capacity 110 t.p.h. storage capacity 25,000 tons. Grain elevator at East quay, loading capacity approximately 90 t.p.h. Storage capacity 12,000 tons.
STEVEDORES: Ordered by Agent. Working hours Monday to Friday from 0700 hrs. daily to 1600 hrs. on Monday and Tuesday, to 1530 hrs. on Wednesday and Thursday and to 1500 hrs. on Friday. Saturday no work.
MEDICAL: Doctors, hospital facilities available.
FRESH WATER: Supplied from quay installations.
FUEL: Available.
OPENING/CLOSING HATCHES: Carried out by crew.
GANGWAY/DECK WATCHMEN: Not necessary.
CUSTOMS ALLOWANCES: See "General" before first port.
IDENTIFICATION CARDS: Not required.
REPAIRS: Small deck and engine repairs possible.
AIRPORT: Maribo Airport, 15 km. away. Kastrup Airport (Copenhagen) 150 km. away.
TIME: GMT plus 1 hour.
HOLIDAYS: See "Copenhagen".
POLICE/AMBULANCE/FIRE: Dial 0-0-0 and ask for Police, Ambulance or Fire Brigade.
TELEPHONE: Not available on board vessels.
SHORE LEAVE: Allowed.
GENERAL: Tide normally 1 ft.
AUTHORITY: Knuthenborg Godskontor, Bandholm, DK-4930, Maribo, Denmark. *Tel:* (45) 03888088. *Telex:* 40256 hoban dk.

AGENT: Alfr. Hovmand, Shipbroker, Havnepladsen 6, Bandholm, DK-4930 Maribo. Tel: 03-88 80 11. Telex: 40256 Hoban Dk. Fax: 03888350. Cables: "Hovmandship, Maribo".

COPENHAGEN: 55.42 N. 12.37 E. (See Plan)

DOCUMENTS:
1 Crew List.
2 Passenger Lists.
1 List giving stock of stores and provisions.

Customs Officers bring form to be signed by Master indicating that no epidemic diseases are on board. Formal Bill of Health signed by Danish Consul in port of departure is not necessary.
ARRIVAL: Before a vessel enters the port, its national flag shall be hoisted and the anchors shall be ready to drop. If the vessel is to pass any of the bridges or the lock, outboard davits, etc. shall be taken in.

All vessels shall notify their entry, departure or shifting (of berth) in advance and in ample time to the Port of Copenhagen's Traffic Control Centre by telephone 45 1 14 43 40 or by calling via VHF, Channels 12 or 16. When making such notification, the vessel's name, port of registration and the location from which it is to come or to which it is to sail shall be declared.

Passage through the Port of Copenhagen is forbidden, under the penalty of a fine – cf. Section 70 of these Regulations – to vessels which are not to discharge and load in the port, unless the vessels can pass under both Knippelsbro and Langebro without opening (i.e. raising) of these bridges.
PILOTAGE: Telegr. address: Coppilot-Copenhagen. Tel. 01 38 67 00. Pilotage not compulsory. ETA minimum 1 hour. VHF Channel 16. Pilot boats painted red. "Pilot" painted in white on side. Pilot flag "G" (white light) – VHF. Pilot comes on board at Middelgrund Fort (Pilot for Drogden at the same place). Pilot boards by ship's ladder.

Bigger ships usually take Pilot by Skaw L/V. Pilots to be ordered by ETA–telegrams to Skawpilot Skagen, at least 12 hours in advance. Skawpilot listening on VHF Channel 16.
ANCHORAGE: Depth 11 m., 1 mile North of Middelgrund Fort.
RESTRICTIONS: See "General" before first port.
MAX. SIZE: Limited by draft only. Depths in the port, 10 m.; in the Oil Harbour, 10.5 m.; at the Oil Pier (Berths No.842, 843 and 844), 12.0 m.
HEALTH: See "Documents". If fear of suspected disease or fever: yellow flag – VHF.
RADIO: Lyngby Radio: OXZ. VHF Channel 16 to all installations. ETA cables to Agents and receivers, preferably by Lyngby Radio.
RADAR/VHF: No port radar. VHF Channel 16.
TUGS: Towage not compulsory. Tugs join ships at entrance to port. Ship's hawsers only.
CONTAINER TERMINAL: At the Levant Quay in the free port. Quay length 665 m., depth alongside 10 m. 2 Container cranes capacity 32 tons, also two luffing cranes of 50 tons and 5 tons capacity for general cargo. Horizontal handling by two straddle carriers and a number of front loaders.
STEVEDORES: ETA earliest possible by VHF and not later than noon on the day before loading or discharging is intended to be commenced.
MEDICAL: No advance notice necessary. Hospitals available.
TANKERS: 10/12 berths according to size.
Provestens Oil Harbour:

Depth at Quay 1:	10.5 m.
Quay 2:	9.1 – 10.5 m.
Quay 3:	6.0 – 9.1 m.
Quay 4:	9.1 – 10.5 m.
Quay 5:	10.5 m.
Oil Pier North:	6.0 m.
Oil Pier East:	12.0 m.

Length and beam unimportant. Slop barge available.
FRESH WATER: From quay or water boat.
FUEL: All grades available. At bunker station, no notice required, delivery 24 hours a day. By lighter in port or in roads; 10 hours notice preferred.
FIRE PRECAUTIONS: Ready hawsers fore and aft. No engine repairs.

BERTHING:

Harbour	*Quay* No.	*Lengths** (m.)	*Depths** (m.)
Fiskerhavnen	1 – 9	80 – 178	2.5 – 3
Sluseholmen	14 – 19	50 – 155	7
Teglvaerkshavnen	23 – 34	42 – 166	2 – 7
Teglholmen	38 – 52	73 – 144	2 – 7
Teglgadeomradet	59 – 60	22 – 28	4
Frederiksholmslobet	71 – 76	29 – 183	4
Enghave Brygge	81 – 87	80 – 135	4.4 – 6.3
Tommergraven	88 – 94	61 – 120	2.5 – 5
Gasvaerkshavnen	97 – 101	52 – 140	3.7
Kalvebod Brygge	102 – 113	73 – 150	4 – 6.9
Christians Brygge	114 – 122	26 – 90	3.1 – 6.9
Borsgraven	125 – 126	117 – 147	2.5 – 5
Slotsholmskanalen	127 – 128	168 – 300	3.7
Frederiksholms Kanal	129 – 132	137 – 238	2.5 – 4
Slotsholmskanalen	133 – 134	180 – 362	3.7
Borsgraven	135 – 138	26 – 108	2.5 – 5
Havnegade	139 – 143	100 – 120	6.9
Nyhavn	144 – 152	29 – 114	2.5 – 5
Kvaesthusbroen	153 – 159	45 – 125	6.2 – 8
Kvaesthusgraven	160 – 161	78 – 119	6.2 – 7.5
Amaliehaven	162 – 164	100 – 158	7.5 – 8.1
Sondre Toldbod	165 – 168	92 – 95	6.9 – 8.1
Bombroen	169 – 170	45 – 50	3 – 6
Nordre Toldbod	171 – 179	25 – 77	2.5 – 7.5
Lystbadehavnen	183 – 187	57 – 118	3
Langeliniekaj	190 – 199	27 – 131	4 – 10
Sondre Frihavn	200 – 219	38 – 230	7 – 9.1
Mellembassin	220 – 228	115 – 145	3.5 – 7.5
Nordbassin	230 – 239	50 – 240	3 – 9
Redmolen	240	425	9.1 – 10
Kronlobsbassin	241 – 249	55 – 180	9.5
Orientbassin	250 – 266	72 – 165	7 – 10
Skudehavnen	317 – 320	80 – 110	2.5 – 2.8
Faergehavn Nord	390 – 398	15 – 177	6 – 6.7
Kalkbraenderihavnen	400 – 428	35 – 115	2.8 – 6.7
Svanemollehavnen	429 – 437	30 – 150	1 – 4
Sjaellandsbroen	508 – 509	100 – 130	3.7
Slusehavnen	510 – 514	63 – 80	3.7
Islands Brygge	550 – 564	50 – 140	6.2 – 9.5
Christianshavn	570 – 572	110 – 120	3.1 – 6.2
Christianshavns Kanal	573 – 602	60 – 135	1 – 6.2
Christianshavn	603 – 637	29 – 127	1 – 7.5
Christiansholm	640 – 650	65 – 145	1 – 10
Refshaleoen, vest	662 – 683	45 – 210	1 – 8.1
Lynettehavnen	684 – 688	95 – 125	1 – 5
Refshaleoen, ost	812 – 838	40 – 140	2.5 – 10.5
Provestenshavnen	840 – 861	35 – 145	5 – 12

Also see "Tankers".

*Please note that the minimum and maximum lengths of the quays are not directly related to the depths shown. The depths are the minimum and maximum depths in the relevant harbours.

BRIDGES: Larger ships must take Pilot and tugs to pass the bridges down to the South Harbour.

The Knippelsbro and Langebro and Sjaellandsbroen will be closed experimentally for passage as follows:

	Knippelsbro/Langebro	*Sjaellandsbroen*
Monday – Friday	0000 – 0550 hrs.	0000 – 0600 hrs.
	0615 – 0655 hrs.	0615 – 0655 hrs.
	0735 – 0900 hrs.	0735 – 0900 hrs.
	1500 – 1800 hrs.	1500 – 1800 hrs.
		2000 – 2400 hrs.
Saturday	0000 – 0655 hrs.	0000 – 0600 hrs.
	0735 – 0900 hrs.	0615 – 0655 hrs.
	1200 – 1230 hrs.	0735 – 0900 hrs.
	1300 – 1330 hrs.	1200 – 1230 hrs.
	1800 – 2400 hrs.	1300 – 1330 hrs.
		2000 – 2400 hrs.
Sundays and Holidays	0000 – 0800 hrs.	
	1200 – 1800 hrs.	
	2000 – 2400 hrs.	
15th May – 15th September		0000 – 0600 hrs.
		1000 – 1700 hrs.
		2000 – 2400 hrs.
16th September – 14th May		0000 – 0700 hrs.
		1000 – 1700 hrs.
		1800 – 2400 hrs.
Constitution Day 5th June	1200 – 1300 hrs.	1200 – 1300 hrs.
Christmas Eve 24th December and New Year's Eve 31st December	1800 – 2400 hrs.	1800 – 2400 hrs.

GANGWAY/DECK WATCHMEN: Deemed unnecessary.

OPENING/CLOSING HATCHES: To be opened by ship's crew.

CERTIFICATES: To be on board:
- Ship's Register.
- Radio Safety Certificate.
- Safety Equipment Certificate.
- International Load Line Certificate.
- Derat Certificate.

CUSTOMS ALLOWANCES: See "General" before first port.

IDENTIFICATION CARDS: Not necessary except in Oil Harbour, where the Port Authority deliver the cards.

CONSULS: The following countries are represented.

Argentina
Australia
Austria
Bangladesh
Belgium
Bolivia
Brazil
Bulgaria
Canada
Chile
China
Colombia
Costa Rica
Cuba
Cyprus
Czechoslovakia
Dominican Republic
Egypt
El Salvador
Finland
France
Germany D.R.
Germany F.R.
Ghana
Greece
Guatemala
Guinea
Haiti
Honduras
Hungary
Iceland
India
Indonesia
Iran
Iraq
Ireland
Israel
Italy
Ivory Coast
Japan
Korea
Kuwait
Lesotho
Liberia
Libya
Luxembourg
Malaysia
Malta
Morocco
Mauritania
Mexico
Monaco
Nepal
Netherlands
Nicaragua
Norway
Pakistan
Panama
Paraguay
Peru
Philippines
Poland
Portugal
Romania
San Marino
Saudi Arabia
Senegal
Somalia
South Africa
Spain
Sri Lanka
Sudan
Sweden
Switzerland
Thailand
Tunisia
Turkey
Uganda
Upper Volta
United Kingdom
United States
U.S.S.R.
Venezuela
Yugoslavia

REPAIRS: All types of repairs possible.

DRY DOCKS: Respective lengths, 787 ft. 5 in., 712 ft. 11 in. and 478 ft.

REPATRIATION: Facilities exist for changing crew and arranging any necessary repatriation.

AIRPORT: 6 miles from centre. Direct lines for all parts of the world.

TIME: GMT plus 1 hour.

HOLIDAYS: New Year's Day (January 1st); Maundy Thursday; Good Friday; Easter Monday; Prayer Day; Ascension Day; Whit Monday; Christmas Day (December 25th); Boxing Day (December 26th).
Half Holidays: Labour Day (May 1st); Constitution Day (June 5th); Christmas Eve (December 24th).
Working Hours: 0700 – 1630 with 2 half-hour meal breaks.

Overtime work on Saturday and Sunday should be ordered by 1130 hrs. on Friday.

The working hours vary slightly from port to port as some start at 0730 and others at 0800 hrs., but a 42.5 hour week is common to all.

POLICE/AMBULANCE/FIRE: Call "000".

TELEPHONES: In many berths telephones can be placed on board ships.

GENERAL: Customs Authorities supervision of ship's provisions and bonded stores is carried out in the Free Port in the same way as in Customs Port. In this connection the Free Port is not a Free Port.

SERVICES: All services available (tank cleaning, discharge of tank washings, compass adjusting etc.).

SHORE LEAVE: No restrictions.

AUTHORITY: Port of Copenhagen Authority, P.O.Box 2083, Nordre Toldbod 7, DK-1013 Copenhagen K. *Tel:* (01) 144340. *Telex:* 15439. *FAX:* (01) 932340. *Cables:* "Copenport". *Contact:* Harbour Master.

ENSTED: 55.01 N. 09.26 E. (See Plan)

Also refer to "Aabenraa".

DOCUMENTS: See "Aabenraa".

PILOTAGE: See "Aabenraa".

ANCHORAGES: See "Aabenraa".

HEALTH: In event of disease or fever on board, vessels Agent to be informed before arrival.

RADIO: Blaavand or Lyngby Radio.

TUGS: Large vessels may require towage assistance on entering and leaving Ensted Harbour. 24 hours notice is required to call a Svitzer tug.

VHF: Pilot on Channels 12 and 16.

BERTHING:

Oil Terminal: Largest vessels which can be accommodated at the Oil Pier: (Berth No. 1).

Length overall	350 m.
Beam	No limits
Water depth	18 m.
Bow/centre	165 m.
Max. height water-level/manifold	26.5 m.

Coal Terminal: Largest vessels which can be accommodated at the Deep Sea Coal Berth:

Max. Length Overall	350 m.
Max. Beam	No restriction.
Water Depth	18 m.
Discharging facilities for coal	1×40 ton unloading crane and 1× continuous unloader (1,550 cu.m./hour)
Total outturn/24 hours	40,000 tonnes
Height from water level to hatchcoaming	20 m.
Outlay of cranes from quay side to centre grab	38 m.
Max. distance between centre of cranes (grabs)	285 m.

STEVEDORES: To be informed by Agent.

DENSITY: 1015.
MEDICAL: A few hours notice required to arrange for doctor to come on board. Hospital in Aabenraa.
TIDE: No tide – arriving and sailing day and night.
FRESH WATER: Fresh water from shore line 5 t.p.h.
FUEL: Available by barge or truck.
OPENING/CLOSING HATCHES: By crew.
CONSULS: Norway, Germany F.R., Finland, Sweden and United Kingdom.
REPAIRS: All types of deck and engine repairs are possible.
REPATRIATION: Facilities exist for effecting crew changes.
AIRPORT: Skrydstrup. The distance from airport is 25 km. Airport is served by regular airlines via Copenhagen.
POLICE/AMBULANCE/FIRE: Telephone number 000.
SHORE LEAVE: Crew members are allowed ashore.
TELEPHONES: Available for placing on board.
AUTHORITY: Soenderjyllands Hoejspaendingsvaek, Flensborgvej 185, DK–6200 Aabenraa. *Tel:* (International +45) 4 624231. *Telex:* 52140 SHDK. *FAX:* (04) 630901. *Contact:* N. E. Pedersen, Harbour Master.
AGENT: Aabenraa Shipping Agency Ltd. (Aabenraa Skibsagentur ApS). Kilen 29 (P.O.Box 31), DK–6200 Aabenraa. Tel: (International +45) 4 627700 (day and night). Telex: 52160 AGENCY DK. Cables: Shipagency Aabenraa.

ESBJERG: 55.28 N. 08.26 E. (See Plan)

DOCUMENTS:
Tonnage Certificate.
Derat or Exemption Certificate.
1 Crew List.
1 Crew Personal Effects List.
1 Master's Declaration.
1 Stores List.
Cargo Manifest or Bill of Lading.
Dangerous Cargo List.

PILOTAGE: Advance notice of 12 hours prior to ETA pilot station at "Graadyb Barre" is required. This ETA to be confirmed/altered 3 hours prior to actual time of arrival.

Message can be given via coast radio station "Blaavand Radio" (OXB) or via Port Authority's VHF – watch is kept on Channel 16. (Tel: (05) 129200).

Cable address: "Pilotstation Esbjerg".
Telephone: 05-121065.

Two pilot vessels, painted orange, with "Pilot" painted in white on sides stationed in the Port of Esbjerg. One is a 78 g.r.t. vessel and one is a fast launch.

Both vessels equipped with VHF Channel 16 and carrying signals as prescribed. Pilot boards outside Graadyb Barre, at Buoy No. 2. Vessels awaiting Pilot or high tide should anchor approximately 1 mile West of buoy No. 2. Large vessels wait 2 miles from buoy No. 2.

Pilot is not compulsory except for tankers over 500 d.w.t. and when tugs are assisting in berthing.
ANCHORAGES: There are anchorage areas West of Buoy No. 2 (depth 35 ft. at MLWST).
RESTRICTIONS: No ice to impede navigation. No ice dues charged. Also see "General" before first port.
MAX. SIZE: Pilot Restrictions: Max. draft accepted: 31 ft. 02 in.

Entry to port is through a dredged channel over Graadyb Barre, width 200 m., depth 9.3 m. at MLWST.

Tide: Difference between normal high water and normal low water is 4 ft. (approx.). Max. current 2.5 knots – 3 knots.
RADIO: Blaavand Radio, call sign OXB. In position Lat: 55° 33′ N., Long: 08° 06′ E.
TUGS: Tugs join vessel at Esbjerg Roads. Ship's own hawsers must always be used. 3 tugs available of 800 h.p., 2,500 h.p. and 4,000 h.p.
BERTHING:

	Approach at MLWST	*Berth at MLWST*
Trafikhavn	31 ft.	22 ft.–35 ft.
Foergehavn	28 ft.	15 ft.
Outer Foergehavn for Roll-on/Roll-off vessels	31 ft.	22 ft.–28 ft.
Dokhavn	22 ft.	22 ft.
Englandskaj	31 ft.	25 ft.
Osterhavn	31 ft.	22 ft.–35 ft.
Osterhavn – New Berth (when entering max. draft 31 ft., LOA 705 ft.)	31 ft.	35 ft.
Sonderhavn	31 ft.	35 ft.
Tauruskaj	17 ft.	20.6 ft.
Fishery Harbour – Consumption	15 ft.	15 ft.–17 ft.
Fishery Harbour – Industrial Fish	22 ft.	17 ft.–22 ft.

For berthing in Trafikhavn with vessels of (approx.) 5,000 g.r.t. or more and for berthing in Sonderhavn with vessels of 10,000 g.r.t. or more. The Pilots require "Slack Water" – i.e. high or low water.

Max. draft for berthing on high water: 31 ft. 02 in.
Max. draft for berthing on low water: 26 ft. 00 in.

CARGO HANDLING: The Port of Esbjerg has no specially equipped berths besides the tanker berths, and container terminals for lift-on/lift-off equipped with one travelling gantry crane 32 tons, but private companies own suction plants for discharge/loading of feeding stuffs. Furthermore, mobile cranes also with grabs and stationary coal cranes are available. Container terminals for Roll-on/Roll-off. Vessels with own gear can however be handled successfully, at different berths. 22 mobile cranes, capacity between 5 tons and 180 tons, 86 trucks, capacity between 1.5 tons and 42 tons, 4 bobcats, 1,200 trailers 20 ft. and 40 ft., and 30 tugmasters.
STEVEDORES: Gangs are mustered daily at 0700, and 1000 hrs. ETA should be given to above hours to ensure that gang(s) are available on arrival. Working hours are from 0700 to 1630 and meal hours are 0830–0900 and 1200–1300. No work on Saturdays. Overtime can be arranged.
MEDICAL: Medical attention can be arranged at any time. Modern hospital facilities available.
TANKERS:
Trafikhavn: Depth in approaches to oil berths in Trafikhavn MLWST 31 ft. (MHWST 36 ft.)

New Oil Berth No. 101: Depth alongside old oil berth No. 101 MLWST 35 ft. (MHWST 40 ft.)

Old Oil Berth No. 102: Depth alongside new oil berth No. 102 MLWST 25 ft. (MHWST 30 ft.)

The length between the outer point of No. 101 and the opposite outer point of No. 102 is 1,200 ft.
Osterhavn: Depth in approaches to oil berth in Osterhavn MLWST 31 ft. (MHWST 36 ft.). Max. draft 31 ft. 2 in.
Powerstation Vestkraft No. 506: Depth alongside MLWST 35 ft. (MHWST 40 ft.).

Under normal weather conditions Pilot states to be able to berth tankers with a LOA of max. 735 ft.
FRESH WATER: Can be delivered at all berths. Rate 20 t.p.h.
FUEL: All viscosities available by road tanker. Marine Gas Oil also by tanker vessel. 4 hours should be given, always during office hours.
FIRE PRECAUTIONS: A fire watch is necessary when loading/discharging oil and petrol, if flash point is under 50°C.
GANGWAY/DECK WATCHMEN: Watchman is not essential, but advisable.
OPENING/CLOSING HATCHES: This can be done by members of ship's crew, or by stevedores at an additional charge of 8%.
IDENTIFICATION CARDS: Not necessary.
CONSULS:

Belgium	tel. (05) 13 26 00
Finland	tel. (05) 12 22 66
France	tel. (05) 12 31 33
Germany F.R.	tel. (05) 12 31 33
Iceland	tel. (05) 12 51 00
Netherlands	tel. (05) 12 13 11
Norway	tel. (05) 18 04 11
Sweden	tel. (05) 14 42 22
United Kingdom	tel. (05) 13 08 11

CUSTOMS ALLOWANCES: See "General" before first port.
REPAIRS: All types of deck and engine repairs can be effected.
DRY DOCKS: No dry docks, but slipways: Slipway No. 1 for trawlers, with weight max. 125 tons; Slipway No. 2 for vessels, with weight max. 250 tons; No. 3 – 500 tons; No. 4 – 750 tons.
REPATRIATION: Ample facilities for effecting crew changes and arranging repatriations.
AIRPORT: 8 km. from centre of town. Daily flights to Copenhagen Stavanger and Humberside.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer (6th April – 28th September).
HOLIDAYS: New Year's Day (Jan. 1); Maundy Thursday; Good Friday; Easter Day; Day after Easter Day; the 4th Friday after Easter; Ascension Day; Whit Sunday and Whit Monday; Christmas Day and Boxing Day. Permission to load/discharge on these days obtainable.
POLICE/AMBULANCE/FIRE: In case of emergency, dial "000" and ask for: Brand (fire), Politi (police), or Ambulance. Regular Tel. numbers are: Police 12 46 66; Ambulance and Fire Dept. (Falck/Zonen) 12 82 99.
TELEPHONES: Possible to have telephones installed on board.
SERVICES: No tank-cleaning equipment available. For discharge of tank washings apply to Port Master's Office Tel. 12 92 00. Compass adjusting can be effected.
SHORE LEAVE: Normally granted.
DEVELOPMENTS Extension of the Harbour towards the East, and modernisation of Trafikhavn, Sonderhavn and Fishery Harbour. Extension of Lo-Lo Terminal.
AUTHORITY: Port of Esbjerg Authority, Hulvejen, P.O. Box 2, DK–6701 Esbjerg, Denmark. *Tel:* (05) 12 41 44. *FAX:* (05) 133167 (Harbour Master's Pffice). *Contact:* B. O. Juhl, Deputy Manager. I. M. Nielsen, Port Captain. V. V. Leisner, General Manager.

FREDERICIA: 55.33 N. 09.45 E. (See Plan)

DOCUMENTS:
1 copy Bill of Lading for all cargo (manifests are not required).
1 copy Manifests for Dangerous Cargo.
2 copies Crew List.
2 copies List of Dutiable Goods.
2 copies Stores Lists.

PILOTAGE: Four Pilots available for docking purposes and for through traffic to any place in Denmark or the Baltic. Pilots have a 24-hour watch and are located on the top floor of the KFK Grain Silo in the West Harbour. Can be contacted day or night over VHF radio Channel 16, working 12, 13 and 71, or Tel. 05-920959. Pilotage is compulsory for tankers carrying chemicals or LPG and for all other tankers above 2,500 d.w.t.

Bigger ships usually take Pilot by Skaw L/V. Pilots to be ordered by ETA-telegrams to "Skawpilot Skagen", at least 12 hours in advance. Skawpilot listening on VHF Channel 16.
Shipmaster's Report: June 1985.

Pilot may be taken onboard near buoy in position Lat. 55° 34.8′ N., Long. 9° 50.8′ E.

ANCHORAGE: To avoid hindrances to docking or undocking ships, ships of over or about 4,000 d.w.t. are requested to anchor off Trellenes. Smaller ships will find good anchoring conditions in Strib Bugt.

RESTRICTIONS: Day and night entry possible, least depth in the approach channel is 15.0 m. Also see "General" before first port.

MAX. SIZE:

	Max. draft acceptable
Kastels Harbour	11.70 m.
Old Harbour	5.3 m. to 7.20 m.
Shipyard Harbour	2.80 m.
Dock Entrance	4.60 m.
West Harbour	6.70 m. to 8.70 m.
Mollebugt Harbour	8.70 m. to 11.70 m.
Centre Harbour	14.70 m.

Also see "Tankers".

HEALTH: See "Copenhagen".

RADIO: VHF Channel 16.

TUGS: Tugboats from Svitzer's Salvage Enterprise is stationed in Fredericia, but any amount of tugs are available, when ordered previously.

BERTHING:

Mollebugt Harbour: Quays Nos. 24, 25, 26 and 27. Length 610 m., depth 9 m. – 12 m.

Facilities for container traffic and Ro/Ro traffic. 40 ton gantry crane and 3×25 ton gantry crane with hook and grab, max. capacity 300 t.p.h. 2 mobile cranes, capacity 6 to 36 tons. Railtracks. Facilities for temporary storage of goods. Modern quayside warehouses.

Centre Harbour: Quay No. 22, length 250 m., depth 15 m., 2 × 25 ton gantry cranes with hook and grab, max. capacity 450 t.p.h.

Facilities for temporary storage of goods and warehouses are planned.

Gas, Oil & Chemicals Harbour: Quays Nos. 18, 19, 20, 41 and 42 for tankers. Quays Nos. 18 & 19, length 90 m., depth 7 m. in berth. Equipped for loading and discharging gas tankers.

Quay No. 20 – 15 m. depth in berth. Hydraulically operated hose handling gear for discharging petrol and oil products. 10 in. and 12 in. ASA. Connection range between + 0.4 and 18.5 m. above MWL.

Quay No. 23 – 7.5 m. depth in berth. Equipped for discharging liquid chemical products. 4 in. DIN hoses.

Quay No. 41 – 10 m. depth in berth. Equipped for loading and discharging petrol and oil products.

Quay No. 42 – 15 m. depth in berth. Equipped for loading and discharging petrol, oil products and crude oil.

West Harbour: Quays Nos. 13 to 17. Length 670 m., depth 7 m. – 9 m. in berth.

Facilities for container traffic, Ro/Ro traffic. 25-ton gantry crane with hook and grab, max. capacity: 300 t.p.h. 6-ton gantry crane with hook and grab, max. capacity: 150 t.p.h. 2 mobile cranes, capacity 6 to 36 tons. 2 gantry cranes* 5-tons. Suction plant* available for discharging feedstuffs – max. capacity: 80 t.p.h. Railtracks. Facilities for temporary storage of goods. Bulk terminal for loading feedstuff max. capacity 300 t.p.h.

Modern quayside freezing and storage facilities.

Shipyard Harbour: Quays Nos. 8 to 12. Length 500 m., depth 5.0 m. – 6.5 m. in berth. Modern repair and equipment piers with workshops. Slipways available for 75-ton and 1,000 ton light displacement. Floating dock 80 m. × 14.5 m. max. capacity: 1,200 ton light displacement. Floating dock 150 m. × 23.05 m. max. capacity: 8,000 tons light displacement. Dry dock facilities 110 m. × 22 m., 5.1 m. access depth. Average docking/sailing time: 45 mins.

Old Harbour: Quays Nos. 6 & 7. Length 200 m., depth 5.6 m. – 7.5 m. in berth. Mobile cranes, capacity: 6 to 36 tons. Suction plant* available for discharging grain – max. capacity 60 t.p.h. Facilities for discharging liquid chemical products. Railtracks. Facilities for temporary storage of goods.

Kastels Harbour: Quays Nos. 1 & 2. Length 450 m., depth 12 m. in berth. Mobile cranes, capacity: 6 to 36 tons. Loading facilities for bulk fertiliser* – max. capacity: 400 t.p.h. Grab crane* – max. capacity: 300 t.p.h. Siwertell worm conveyor – max. capacity: 600 t.p.h. Facilities for loading and discharging liquid chemical products and ammonia. Railtracks. Facilities for temporary storage of goods. Preference for vessels destined for the Superfos Company.

* Private.

CARGO HANDLING FACILITIES: The Port possesses all types of modern facilities for loading and discharging. Crane facilities include a 40 ton gantry crane, 6 grab cranes with a max. capacity of 300 – 450 t.p.h. and a number of grab and hook cranes and mobile cranes with capacities ranging from 6 to 36 tons. There are ample facilities for container and Ro/Ro traffic. The suction plant* is capable of handling up to 80 t.p.h. and the Siwertell worm conveyor equipment* has a max. capacity of 400 t.p.h. In addition, there are modern facilities for handling liquid chemicals, gas, petrol and oil products and bitumen. There are also facilities for handling fertiliser* – max. 400 t.p.h. The Port has a rail network freeze/cold stores*, approximately 6,000 sq.m. modern warehouse space and ample facilities for temporary quayside storage.

* Private.

STEVEDORES: Ordinary working hours Monday to Friday: 0700 – 0830 hrs., 0900 – 1200 hrs., 1230 – 1600 hrs. Night gangs on week days must be ordered no later than 1230 hrs. the same day. Working overtime weekends is possible, but gangs must be ordered no later than Friday 1230 hrs. Average output per 8-hour day, loading or unloading general cargo, is 200 tons per gang.

MEDICAL: Hospitals available.

TANKERS:

	Berth 18 (liquid gas)	*Berth 20*	*Berth 23 (Chemicals)*
Max length acceptable (approx.)	90 m.	275 m.	150 m.
Max. beam acceptable	no limit	no limit	no limit
Max. draft acceptable	6.40 m.	13.00 m.	7.20 m.
Depth in berth	6.70 m.	15.00 m.	7.50 m.
Water Density (approx.)	1015	1015	1015
Type of berth	Quay	T-Head	T-Head
Nature of bottom	Sand	Sand	Sand
Hose connections	Amidship	Amidship	Amidship

	Berth 41	*Berth 42*
Max. length acceptable (approx.)	190 m.	274 m.
Max. beam acceptable	No limit	No limit
Max. draft acceptable	10.00 m.	13.25 m.
Depth in berth	10.30 m.	15.00 m.
Density of water (approx.)	1015	1015
Type of berth	T-head	T-head
Nature of bottom	Sand	Sand
Hose connections	Amidship	Amidship

Jetty I – Chicksan arms – for vessels discharging bitumen and other special products, and for loading fuel-oil, gas-oil, gasoline, diesel fuel, and LPG.

Jetty II – Curacao hosehandling gear – for vessels discharging and loading crude, fuel-oil-handling subject to size of vessel.

Pilotage: Pilotage is compulsory for tankers carrying chemicals or LPG, and for all other tankers above 2,500 d.w.t.

Dirty Ballast Reception: Oily ballast reception facilities available – maximum quantity 5,500 cu.m.

Restrictions: Height from normal water level to hose connections must not exceed 15.90 m. during discharging and ballasting.

Communication: The port is equipped with VHF station – Channels 16, 12 and 13.

FUEL: Available.

FRESH WATER: Available ex wharf. Rate 10–50 t.p.h.

GANGWAY/DECK WATCHMEN: Available upon request.

OPENING/CLOSING HATCHES: Stevedores or crew.

CERTIFICATES:

Ship's Register.
Load Line Certificate.
Radio Safety Certificate.
International Safety Certificate.
Derat Certificate.

CUSTOMS ALLOWANCES: See "General" before first port.

IDENTIFICATION CARDS: Required.

CONSULS: Finland, France, Iceland, Netherlands, Norway and Sweden.

REPAIRS: All repairs undertaken with modern equipment. Also see "Berthing – Shipyard Harbour".

DRY DOCKS: Length 354 ft., breadth 72 ft. Max. depth at Dock gate 16 ft. 06 in. Slipway available for ships up to 1,000 tons, light displacement (divers available). Also see "Berthing – Shipyard Harbour".

AIRPORT: At Billund and Beldringe 35 miles from Fredericia.

REPATRIATION: All facilities exist.

TIME: GMT plus 1 hour in Winter and GMT plus 2 hours in Summer (late March – late September).

HOLIDAYS: See "Copenhagen".

POLICE/FIRE/AMBULANCE: Police 921577; Ambulance 932222; Fire 921166; Emergency 000.

TELEPHONES: Both oil piers have telephones in the watchmen's room but for local calls only.

SHORE LEAVE: Allowed.

AUTHORITY: Port of Fredericia, Vesthavnsvej 33, Post Box 242, 7000 Fredericia. *Tel:* 05-920255/05-927900. *Contact:* P. E. Skoett, Port Director. P. Tophoj, Harbour Master.

FREDERIKSHAVN: 57.28 N. 10.33 E. (See Plan)

DOCUMENTS: Ship's papers, 2 Crew Lists, 1 Passenger List, 2 Bills of Lading, 1 Manifest, 1 Customs Declaration of tobacco and spirits for Officers and crew, 1 Customs Declaration (TOLDPAS) if arrived from port in EEC or Scandinavia.

PILOTAGE: Call the Pilot either over the coast radio station "Skagen Radio", call sign "OXP", telephone 08 445566. Pilot outside the harbour boards at the buoy 1.7 miles S.E. of the harbour entrance. ETA required as soon as possible.

ANCHORAGE: In the roads South of the red leading lights in 10 m. water depth. Good holding ground. At the entrance to the fishing harbour between the pierheads for a width of 50 m. on each side of the heads, anchoring is prohibited (submarine cable).

RESTRICTIONS: Vessels coming from or entering the naval base and the fishing harbour must wait for ships entering or leaving the commercial harbour. Maximum speed Frederikshavn L/B – to harbour 12 knots, in outer basin – 7 knots, Harbour – 3 knots. Entering the Naval Base without special permission prohibited. Ships entering the harbour must if necessary wait outside for ships leaving the harbour. Also see "General" before first port.

MAX. SIZE: Max. length about 200 m., depth in harbour 8 m. Tide about 0.3 m.

HEALTH: Use international quarantine signals. If suspected disease or fever on board cable the Agent to arrange everything to obtain pratique as soon as possible.

RADIO: Nearest coast radio station "Skagen Radio", call sign "OXP".
VHF: The harbour office is fitted with VHF Channels 16, 12 and 13. Watch kept day and night. Vessels must call the Harbour Office before entry and leaving.
TUGS: Tugs join vessel outside the harbour between the buoy and the harbour entrance. Only the ship's line to be used.
BERTHING: No special requirement for berthing in the harbour, but several big ferries are running in and out during day and night and sailing after a time schedule. Vessels must call the harbour office, VHF Channel 16, for permission to enter and before leaving the berth.
BULK HANDLING FACILITIES: One grain berth, with 8 m. depth alongside, equipped with suction pipe capacity 60 t.p.h. approx.

Ferry berths in Harbour, depth 6.4 m. to 8 m., equipped for handling containers and Roll-on/Roll-off traffic.
TANKERS: Oil quay max. depth 8 m., Hoses 8 in. diameter. Reducing pieces may be necessary. Slop water discharging and cleaning can be done by oil-separator. Tankers max. draft 8 m.
DENSITY: 1,020 (approx.).
STEVEDORES: ETA advices are required before 0900 hrs. in order to arrange gangs for discharge/loading the same day.
MEDICAL: No special requirement is necessary for medical attention. The town has all ordinary medical and hospital facilities.
FRESH WATER: Supplied by water hydrants on all quays.
FUEL: All kinds of fuel are available and no advance notice is necessary.
FIRE PRECAUTIONS: No smoking and no open fire if discharging oil.

Fire watchman from the Harbour Authority required if discharging gas, dangerous chemicals and ammunitions, etc. Besides the watchman, the Harbour Authority will require restricted access to vessel.
GANGWAY/DECK WATCHMEN: Not compulsory but available if required.
OPENING/CLOSING HATCHES: Ship's crew open and close the hatches. If necessary the longshoremen can do it for extra pay.
CUSTOMS ALLOWANCES: See "General" before first port.
CONSULS:

Finland	Tel. 08 421466	Norway	Tel. 08 422299
France	" 08 422155	Sweden	" 08 422922
Germany F.R.	" 08 420011	Iceland	" 08 425333

REPAIRS: Three steel shipyards and one wood shipyard doing all types of repairs.
SURVEYORS: Cargo Inspector – B. K. Mortensen, Ahaven 17. Tel: 08-425064.
DRY DOCKS: Four dry docks, two floating docks and two small slips. Dimensions of largest dry dock: length 212 m., breadth 32.2 m. and depth 7 m. Largest floating dock: length 129 m., breadth 28 m., depth 6.5 m., capacity 7,500 tons.
REPATRIATION: Agent will arrange repatriation. All facilities for changing crew.
AIRPORT: Aalborg Airport, 60 km. from port, several daily flights to Copenhagen.
TIME: Local time GMT plus 1 hour.
HOLIDAYS: Weekends, Easter, Whitsun, Christmas, New Year and two Danish holidays in the Spring.
POLICE/AMBULANCE/FIRE: Police, Tel. 08-421444; Ambulance, Tel. 08-422222; Fire, Tel. 08-420801; in emergency dial 000.
SERVICES: Separating of slop water, compass adjusting, oil bunkering, repairing all kinds of navigation instruments and provisions.
STORING: (See "Prelims"). All stores available. Fork lift trucks can assist. Trucks can proceed alongside at berth. Local riggers can be employed. No difficulties with paperwork (Customs).
BANKS: National and local.
SHORE LEAVE: After clearing inwards, crew members are allowed ashore without special permission.
AUTHORITY: Havnekontoret, Langerak 2, Postbox 129, DK-9900 Frederikshavn. *Tel:* 08-421740, 08-420298. *FAX:* 08438338. *Contact:* Captain B. K. Mortensen, Port Captain.

GEDSER: 54.34 N. 11.56 E. (See Plan)

LOCATION: Gedser is situated on the Southern extremity of the island of Falster.
PORT LIMITS: A line drawn between the two outer pier heads defines the limit of the harbour.
DOCUMENTS: Customs Declaration, Crew Lists, Passenger Lists, Ship's Log and Safety Certificates.
APPROACHES: Three entrance channels lead to the harbour, the main channel (Rodsand Rende) has a width of 150 m. and a depth of 6.2 m. (20.3 ft.). The harbour can be entered by day and night.
PILOTAGE: It is recommended that all vessels over 500 tons use a Pilot. Requests for a Pilot must be made at least 6 hours before arrival to Guldborgsund Pilot Office in Nykobing (Falster) over Lyngby Radio or VHF Channel 16.
RADIO: Lyngby Radio.
BERTHING: Gedser Harbour is considered a ferry harbour where De Danske Statsbaner (Danish State Railways), Deutsche Bundesbahn (West German Railways) and Deutsche Reichsbahn (East German Railways), have first priority to the harbour and Rodsand Rende.
MEDICAL: Full hospital facilities in Nykobing (Falster). Doctor in Gedser. Tel: (03) 879440.
DENSITY: 1010 – 1014.
FRESH WATER: Available.
CUSTOMS ALLOWANCES: EEC Rules apply.
REPATRIATION: Hourly bus connections to Nykobing (Falster) with daily train connections from Nykobing (Falster) to Copenhagen.
AIRPORT: Kastrup Airport at Copenhagen.
TIME: GMT plus 1 hour.
POLICE/AMBULANCE/FIRE: Police in Gedser. Tel: (03) 879021. Ambulance and Fire Brigade in Nykobing (Falster). Tel: (03) 851807.
TELEPHONES: There are no arrangements for placing telephones on board. There is a post and telegraph office close by the harbour.
SHORE LEAVE: Possible for crew members with valid passport or visa. There is no need for identity cards.
GENERAL: *Tides and Currents:* Tidal range 0.3 m. Winds from N.E. can raise water level by 1.8 m.; winds from S.W. can lower water level by 1.5 m.

Lifeboat Station: A lifeboat is stationed by the harbour.
AUTHORITY: Havnekontoret Gedser, Postbox 16, 4874 Gedser, Denmark. *Contact:* B. Kristensen, Harbour Master. *Tel:* Gedser (03) 879145, ext. 30 or (03) 855619.

GRENAA: 56.25 N. 10.56 E. (See Plan)

PORT LIMITS: A Line drawn between the outer breakwater heads.
DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
1 Crew Personal Effects List.
1 Ship's Bonded Stores List.
1 Stores List.
1 Animal/Pets List.
1 Health Certificate.
Ship's Log.
Last Port Clearance.
1 Bill of Lading.
1 Cargo Manifest.
Safety Certificates: Construction, Equipment, Load Line, Radio and Oil Pollution Prevention.

PILOTAGE: Pilotage is not compulsory except for laden tankers with hazardous liquid chemicals or tankers with uncleaned tanks which have carried hazardous liquid chemicals.

The pilotage regulations do not apply to Masters who have been to Grenaa Harbour at least 5 times in the last 6 months.

Ships approaching Grenaa Harbour should be aware of the "Kalkgrunden", a limestone reef just outside the harbour entrance, stretching Easterly for approximately 7 cables and with 1 m. depth.

Notice of ETA and request for Pilot must be made to the Agent and/or to the pilot station with 24 hours and 12 hours notice.

There are telex facilities. VHF Channel 16 is continuously watched and ETA may be confirmed or adjusted on this frequency.

Pilot boat is 8 m. LOA, orange upperwork and orange hull with the word "Pilot" on each side.

The usual international signals may be displayed by vessels requiring a Pilot.

The usual pilot boarding point is 1.5 miles E.S.E. of harbour entrance.
BUOYAGE: IALA "System A".
ANCHORAGE: Anchorage is best North of the harbour with depth of 7 m. to 9 m. The holding ground is fine hard sand.
RESTRICTIONS: No restrictions, except that larger vessels should not approach the Easterly breakwater head closer than 80 m. in the area East and Southeast of this.

Also be aware of the "Kalkgrunden" (see "Pilotage").
MAX. SIZE: Vessels up to 110 m. LOA, 14 m. breadth and draft 6.2 m.
HEALTH: Normally Free Radio Pratique will be granted.
RADIO: Lyngby Radio (OXZ) is the long range area station.
VHF: At the harbour office, open for communications on Channel 16 each week-day between 0800 hrs. and 1600 hrs.

A continuous watch is maintained at the pilot station on Channel 16.
RADAR: There is no Port Control Radar but the pilot boats are radar equipped.
TUGS: No tugs available.
BERTHING: There are 6 general cargo berths.
Nos. 31, 32 and 33: Length 210 m., depth 6.5 m.
No. 34: Length 110 m., depth 6.5 m.
No. 41: Length 80 m., depth 7.2 m.
No. 42, 43 and 44: Length 308 m., depth 7.2 m.
Sydhamn: Length 176 m., depth 4.5 m.

Bulk and general cargo is handled at Nos. 31, 32, 33, 41, 42, 43 and 44, whereas container and Ro-Ro handled at No. 34 Berth.
CRANES: There are 2 mobile cranes of 32 tonnes each and 2 container forklifts of 25 tonnes and 42 tonnes.
BRIDGES: There are no bridges or other restrictions to prevent access to the port.
STEVEDORES: Working hours from 0700 – 1600 hrs., Monday to Friday. Evening and night shift as well as week-end labour can be arranged.
MEDICAL: Full hospital facilities available without prior notice.
TANKERS: *Oil Pier:*
North Side: Length 140 m., depth 6.50 m.
South Side: Length 140 m., depth 6.50 m.
Slop discharge facilities in accordance with the Helsinki Convention.
DENSITY: 1018 (average).
FRESH WATER: Good potable water available in unlimited quantities at a rate of 10 t.p.h.
FUEL: All kinds of fuel can be delivered by road. Longest possible notice is desirable.
CONSULS: Vice-Consulates for Norway and Sweden.
REPAIRS: There are 2 shipyards as well as an engine building factory with repair facilities.
DRY DOCKS: No dry docks, but 5 slipways, where up to 300 tonnes deadweight is available.

SURVEYORS: Lloyd's sub-agent. Agents from other Classification Societies and Surveyors can be brought from Aarhus at short notice.
GANGWAY/DECK WATCHMEN: Gangway and deck watchmen not necessary, but can be arranged.
OPENING/CLOSING HATCHES: Normally handled by ship's crew.
CUSTOMS ALLOWANCES: See "General" before first port.
CARGO GEAR: Ship's gear or mobile cranes/conveyors from shore.
REPATRIATION: 25 km. to Tirstrup Airport with international flights to London, Malmo (Sweden) and Stavanger (Norway) and domestic scheduled flights to Copenhagen with international connections.

Railway connection to Aarhus.

Ferry connection to Zealand (Hundested) and Sweden (Varberg, Halmstad and Helsingborg).

All facilities exist for changing of crew and repatriation of seamen.

Repatriation and change of crew can be arranged on the Roads for ships passing Grenaa en route to and from the Baltic. See "Ship Supply Service".

TIME: Local time is European Standard Time, GMT plus 1 hour. Summertime is used.
HOLIDAYS: *Official Holidays:* New Year's Eve (half day), New Year's Day, Maundy Day, Good Friday, Easter, Whitsun, Labour Day (half day), Ascension Day, Constitution Day (5th June, half day), Christmas Eve (half day) Christmas Day.

Work can be arranged except Christmas Day and Good Friday.

POLICE/AMBULANCE/FIRE: Emergency 000; Police 321011; Ambulance 322222; Fire 320812.
TELEPHONES: There are no arrangements for placing telephones on board.
SERVICES: A Compass Adjuster resides at the Port. Decca and Radio repairs possible.

Facilities for reception of Oil, oily mixtures, sewage, garbage, etc., exist in accordance with the Helsinki Convention.

SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: No identification cards required.
REGULATIONS: No unusual regulations for the port.
DELAYS: No delays can normally be expected.
BANKS: All major Danish banks are present in Grenaa.
EMERGENCY CO-ORDINATION CENTRE: Danish Coast Guard, S.O.K. Kystvaernsvej, Aarhus. *Tel:* 06-131822. Outside office hours – 123099.
STORING: Vessel can be stored by truck alongside. Local Riggers can be employed to assist with storing.
SHIP SUPPLY SERVICES: Storing possible on Roads at Buoy No. 4 in position: Lat. 56° 25′ N., Long. 11° 06′ E. Contact: Shipbroker G. Ostergaard I/S. Telex: 63489 Broker Dk. Tel: (06) 32.02.44. *FAX:* (06) 324565.
AUTHORITY: Harbour Master, Grenaa Harbour, Nordhavnsvej 1, DK-8500 Grenaa, Denmark. *Tel:* 06-321204. *Cables:* Harbourmaster, Grenaa. *Contact:* J. A. Ovesen, Harbour Master or E. Stein Laursen, Assistant Harbour Master.

GULFHAVN: 55.12 N. 11.16 E. (See Plan)

DOCUMENTS:

Ship's Register.
Load Line Certificate.
Safety Radio-telephone Certificate.
Derat Certificate or Exemption Certificate.
Exact list of tobacco, cigarettes and spirits showing the vessel's and the crew's supply on arrival.
Bill of Lading (if vessel is carrying cargo).
Copy of the Crew List is required by Kuwait Petroleum Refining (Denmark) A/S.

PILOTAGE: 3 Pilots and pilot vessel available. Pilot acts as Berthing Master. May be requested to board vessels at any place in the proximity of Gulfhavn.

Pilot vessel equipped with VHF Channels 6, 10, 12, 16 of which Channel No. 6 used for ship-to-ship communication. Pilot station also equipped with VHF Channels 12, 13 and 16. Pilot can be contacted at the station on Channel 16.

A vessel's ETA should be communicated by Master to Agent, 72, 48 and 24 hours prior to arrival. Agent will keep Refinery advised and make necessary arrangement with Pilot.

Bigger ships usually take Pilot by Skaw L/V. Pilots to be ordered by ETA-telegrams to "Skawpilot Skagen", at least 12 hours in advance. Skawpilot listening on VHF Channel 16.

ANCHORAGES: Korsor: Roads: Depth 20 m. (65.6 ft.). Bottom sand, good holding ground. Width of area about 2 square nautical miles. Gulfhavn Roads: Depth 30 m. (98.4 ft.). Bottom clay. Good holding ground. Width 0.5 nautical miles. Length 1.5 nautical miles.

Power cables running between Zealand and Agersoe Island (marked on charts) must be avoided.

RESTRICTIONS: See "General" before first port.
MAX. SIZE: Max. draft at normal tide is 15.5 m.
VHF: Call sign "Gulfhavn" Channels 12, 14 and 16, on 16, 24 hours a day.
TUGS: None available locally. If required 24 hours notice must be given. Pilot will advise if weather conditions demand use of tugs (in good time).
MEDICAL: Hospital at Slagelse. Tel: Slagelse (03) 52 19 00.
DENSITY: Ranges between 1023 and 1007, dependent on season and weather conditions.

BERTHING: Oil pier is a T-shaped structure on which 4 berths provide – 1 berth for 120,000 d.w.t. tankers, 1 for 30,000 d.w.t. tankers, 1 for 5,000 d.w.t. tankers and 1 for smaller vessels up to 500 d.w.t.

Depths alongside:		
Berth 1	16.0 m.	(52.5 ft.)
Berth 2	12.0 m.	(39.4 ft.)
Berth 3	7.5 m.	(24.6 ft.)
Berth 4	4.5 m.	(14.8 ft.)

Adequate lifting facilities to assist in hose connecting and handling of necessary hose equipment should be ready on arrival. Refinery representative will board on arrival and discuss discharging/loading operation.

Berth No. 1

Berth No. 1 is equipped with mechanically operated Woodfield hose-handling structure. The booms are 12.2 m. (40 ft.) long. Berth is primarily equipped for handling incoming crude, but can be used for other purposes (gasoils, intermediate and heavy fuels) when not being occupied by crude vessels.

The booms are arranged in the following sequence of product handling:

Boom No.	*Size of booms and contents*
1	10 in. Ballast water
2	12 in. Crude oil
3	12 in. Crude oil
4	12 in. Crude oil
5	8 in. Intermediate and heavy fuel

The sequence is from South to North or from right to left as you face the shore.

The distance from Danish Mean Sea Level to the highest position of centre line of manifold is 17.0 m. (55.8 ft.).

In addition to the oil products handled on Berth No. 1 there are the following other connections on the pier:

Size of connection	*Contents*
6 in.	Ballast water
6 in.	Gas oil
6 in.	Intermediate and heavy fuel
4 in.	Tetra methyl lead

A hydraulic gangway is installed at No. 1 Berth.

Berth No. 2

Berth No. 2 is equipped with mechanically operated hose-handling structure (Woodfield). The booms are 9.1 m. (30 ft.) long.

The booms are arranged in the following sequence of product handling:

Boom No.	*Size of booms and contents*
1	10 in. Ballast water and crude oil
2	10 in. Intermediate and heavy fuel
3	12 in. Intermediate and heavy fuel
4	10 in. Diesel fuel
5	10 in. Diesel fuel
6	10 in. Gasoline
7	10 in. Gasoline – Naphtha

The sequence is similar to Berth No. 1, i.e., South to North.

The distance from Danish Mean Sea Level to the highest position of centre line of manifold is 15 m. (49.2 ft.).

In addition to the oil products handled on Berth No. 2, there are the following other connections on the pier:

Size of connection	*Contents*
6 in.	Intermediate and heavy fuel
6 in.	Gas oil
6 in.	Ballast water
6 in.	Kero and Jet fuel
6 in.	Naphtha
6 in.	Light virgin naphtha
6 in.	Gasoline
6 in.	Gasoline – FCC components

In addition to the oil products handled on Berth No. 2 and No. 3, Berth Nos. 3 and 4 can also handle L.P.G. (liquid petroleum gas). All connections on Berth Nos. 3 and 4 are 6 in. Berth No. 3 also handles Bitumen (Asphalt).

Mooring: If wires are used for mooring, polypropylene tails are required.

FRESH WATER: Available at all 4 berths. Limited to 160 tons. Supplied with a pumping rate of 10 t.p.h.
FUEL: Bunker fuel available at all 4 berths. 24 hours' notice required.
FIRE PRECAUTIONS: The harbour is not equipped with fire-fighting vessel. Fire-fighting equipment is stationed on quay.
GANGWAY/DECK WATCHMEN: Available if required.
IDENTIFICATION CARDS: Required by crew.
CONSULS:

Finnish Consulate: (Mr. Sv. Mogensen) 10 Oernumvej, DK-4220 Korsoer, Tel. (03) 57 00 13.

Norwegian Consulate: (Mr. G. Sjelle) Jens Baggesensgade 35, DK-4220 Korsoer, Tel. (03) 57 00 06.

German (F.R.) Consulate: (Mrs. K. Poulsen) Batterivej 7, Korsoer, DK-4220. Tel. (03) 57 05 86.

All other consulates are situated in the Copenhagen area.

REPAIRS: Small deck and engine repairs can be carried out on request with permission.
REPATRIATION: Facilities exist via Agent.
AIRPORT: Copenhagen 120 km. away.
TIME: GMT plus 1 hour.
POLICE/AMBULANCE/FIRE: Police Skelskor (03) 59 61 00; Ambulance Skelskor (03) 59 47 07; Fire Refinery 222.
TELEPHONES: A public telephone box situated at the foot of the jetty.
SHORE LEAVE: Allowed, but personnel not allowed to walk in refinery area. Transport will be arranged from ship to refinery entrance upon request.
AUTHORITY: Korsoer Toldkontrol.

Kuwait Petroleum Refining (Danmark) A/S, Gulfhavn, 4230 Skaelskor, Denmark. *Tel:* (03) 59 49 00. *Telex:* 40033. *Cables:* Kupdanref. *Contact:* B.A.Webb, Refinery Manager.

HADERSLEV: 55.15 N. 09.29 E.

DOCUMENTS: See "Copenhagen".
PILOTAGE: Aarosund Pilot station.
ANCHORAGES: Aarosund.
RESTRICTIONS: Impossible to enter Haderslev by night since there are no lights in the fjord. Also see "General" before first port.
MAX. SIZE: Length 110 m.; width 17 m.; depth 4.9 m.
HEALTH: See "Copenhagen".
RADIO: Lyngby Radio.
TUGS: None available.
MEDICAL: Advance notice required if hospital facilities are required.
FRESH WATER: Fresh water from quay.
FUEL: Available by ~~lorry~~ TRUCK.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: Carried out by the crew.
CUSTOMS ALLOWANCES: See "General" before first port.
IDENTIFICATION CARDS: Not needed.
CONSULS: Swedish, French, Belgian.
REPAIRS: Small repairs available.
REPATRIATION: No facilities.
AIRPORT: 15 km. from Haderslev.
TIME: GMT plus 1 hour.
HOLIDAYS: Discharging can be arranged on holidays.
POLICE/AMBULANCE/FIRE: Police, 045 2 2525; Ambulance, 000; Fire, 000.
TELEPHONES: No facilities.
SHORE LEAVE: Allowed.
AUTHORITY: J. C. Hansen, Honnorkajen 3, Box 11, 6100 Haderslev, Denmark. *Tel:* (04) 522404/522405. *Telex:* 51-596. *Cables:* Maltsand. *Contact:* J. C. Hansen.

HELSINGOR (Elsinore): 56.02 N. 12.37 E. (See Plan)

DOCUMENTS:
1 Cargo Manifest.
2 Crew and Passenger Lists.
2 Tobacco Lists.
2 Stores Lists.
Measurement Certificate or Registry Certificate.

PILOTAGE: Cable address: "Soundpilot". Telex: 27515 Sundet Dk. Tel: 01-386700. VHF: Channels 16, 13 and 12. Address: The Sound Pilot Station, Marmorvej 1, Frihavnen, DK-2100 Copenhagen, Denmark.

For vessels entering The Sound from Kattegat, Pilots can be ordered from "Soundpilot" via coast radio.

The following details are to be given:

1. Name and call sign.
2. ETA position from where pilotage is required.
3. Gross tonnage and draft.
4. Sea speed.
5. Pilotage requirements.

Pilots perform pilotage duties to all ports in The Sound, through The Sound and to any Baltic port. There are some exceptions to ports of Soviet Union.

Pilots should be ordered 6 hours prior to ETA Buoy "M1" and the message should be confirmed or corrected 1 hour prior to ETA "M1".

Pilot cutter, orange hull and superstructure, "Pilot" painted on superstructure.

Boarding by Buoy "M1".

ANCHORAGE: South of the port, in the roads of Helsingor, depths from 19 m. to 25 m. with sand or loose clay bottom.
RESTRICTIONS: The Port Authority must be informed 15 minutes before arrival/departure/shifting on VHF Channel 16. Ship departing waits for ship entering. When a vessel gives signal to enter (1 long whistle or blast) it is regarded as an entering vessel.
MAX. SIZE: Up to 21 ft. 06 in. draft. Also see "General" before first port.
RADIO: Harbour Office of Helsingor call VHF Channel 16, shift to Channels 12 or 13 for working.
TUGS: Tugs come from Copenhagen at 2–3 hours notice.
BERTHING: Vessels berthed in order of arrival.
MEDICAL: Hospital and medical facilities available.
FUEL: Not available.
FRESH WATER: Approx. 15 tons of fresh water per hour delivered through 1.5 in. hoses at the berths.
WATCHMEN: Not required.
CUSTOMS ALLOWANCES: See "General" before first port.
IDENTIFICATION CARDS: Crew need passports.
DRY DOCKS: Dock No. 1: 155 m. long, 21.5 m. wide, 6.4 m. depth. Dock No. 2: 116 m. long, 16.5 m. wide, 5.5 m. depth.
AIRPORT: 1 hour by car to Copenhagen International Airport.
TIME: GMT plus 1 hour.
HOLIDAYS: Work can be performed all the year round.
POLICE/FIRE/AMBULANCE: Police Tel. 02.211448; Ambulance/Fire Tel. 02.222222.
TELEPHONES: Telephones are only available on board in particular circumstances.
SHORE LEAVE: Crew are free to go ashore.
AUTHORITY: Helsingor Havnekontor, Sophie Brahesgade 1, 3000 Helsingor. *Tel:* 02-210515. *FAX:* 02-217299. *Contact:* John Christensen, Harbour Master.

HOLBAEK: 55.43 N., 11.43 E. (See Plan)

PILOTAGE: Hundested Pilotage Authority.
MAX. SIZE: Max. draft 5.6 m.
VHF: Channel 16.
TUGS: Available.
STEVEDORES: Working hours: 0700 – 1600 Monday to Friday. No weekend work.
MEDICAL: Services available.
FRESH WATER: Available.
FUEL: Available.
CONSULS: At Copenhagen.
REPAIRS: Possible.
DRY DOCKS: No facilities.
CUSTOMS ALLOWANCES: Kalundborg Custom House is the authority.
REPATRIATION: Facilities available.
AIRPORT: Nearest airport at Copenhagen (Kastrup) – 70 km.
AUTHORITY: Holbaek Port Authority, P.O.Box 120, 4300 Holbaek, Denmark. *Tel:* 03/43 01 61. *Contact:* Aage Hyrup, Harbour Master.

HORSENS: 55.52 N. 09.52 E. (See Plan)

DOCUMENTS:
Crew List
List of Tobacco.
Manifest (for Agents and Stevedores).
Bills of Lading (for Agent's use).
Ship's papers:
International Load Line Certificate.
Certificate of Register (international letter of measurement).
Derat Certificate.
Radio Safety Certificate.

PILOTAGE: Pilot station is situated at Juelsminde. Normally pilot boat will be located South of Lillegrund.
VHF: Channels 6, 12 and 16. Advance notice of 2 hours required.
ANCHORAGE: No special anchorages at the firth; vessels may anchor where safe navigation permits – attention is called to cable area at Hjarno Sound.
RESTRICTIONS: See "General" before first port.
MAX. SIZE: Max. length, approx. 500 ft.; max. breadth, approx. 70 ft.; max. draft, approx. 22 ft. A dredged channel 32 m. wide and 6.9 m. deep leads to the harbour.
HEALTH: Inform Agent or Port Authorities in advance in event of any suspected disease or fever on board. Normally no necessary procedure to obtain pratique. Pratique is automatic after calling at another Danish port.
RADIO: VHF at Harbour office, Channels 9, 12, 13 and 16.
TUGS: Tug "Vitus" stationed in the harbour.
STEVEDORES: For working Monday morning ETA must be given Friday during office hours. Otherwise ETA must be given the day before work to commence. One suction apparatus for discharging grain. Normally the cargo is handled by shore cranes. There are 2 coal cranes and 5 piece-goods cranes available.
MEDICAL: No advance notice required. Hospital facilities available.
TANKERS: Discharge lines diameter: 6 in. and 8 in. Four berths for tankers, 1 at Gropa with 5.6 m. of water alongside, 1 at DAK with 6.9 m. of water, 1 at KH with 6.9 m. of water and 1 at Nynas Johnson.
FRESH WATER: Delivered alongside from shore connections.
FUEL: All types of light fuel available.
GANGWAY/DECK WATCHMEN: No service of watchmen necessary.
OPENING/CLOSING HATCHES: Normally carried out by crew, but can be done by stevedores.
CUSTOMS ALLOWANCES: See "General" before first port.
IDENTIFICATION CARDS: Not needed.
CONSULS: Finland, 05-623433; Norway, 05-624666; Sweden, 05-624411; France, 05-623288.
REPAIRS: No shipyard – only small repairs can be carried out.
REPATRIATION: No special facilities for effecting crew changes exist.
AIRPORT: Distance from airport about 50 km., with regular airlines.
TIME: GMT plus 1 hour.
POLICE/AMBULANCE/FIRE: Dial 000. Fire alarms placed around the port.
TELEPHONES: Not available on board vessels.
SHORE LEAVE: Allowed.
DELAYS: No delays can normally be expected. Larger ships with big draft may expect delay during nights with poor visibility. They have to wait for daylight in order to enter port through dredged channel.
AUTHORITY: Havnemesteren, Havnen 45, 8700–Horsens. *Tel:* 05-621014. *Contact:* Jorgen M. Olsen, Harbour Master.

KALUNDBORG: 55.41 N. 11.06 E. (See Plan)

Also see Port of Asnaes.

(A) KALUNDBORG HARBOUR.
(B) STATOIL A/S OIL TERMINAL.

(A) KALUNDBORG HARBOUR.

DOCUMENTS:
Ship's Register.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Safety Construction Certificate.
Derat Certificate or exemption.
Bill of Lading (if cargo).
Crew List.

Customs need a Tobacco and Spirit List, showing the vessel's and the crew's supply by arrival.

PILOTAGE: Not compulsory. Pilot station situated at Kalundborg, telegram: Kalundborg Pilot, Tel: Kalundborg 03.51.20.42. Green vessel carrying international signal flag or lights for Pilot. Contact by VHF Channels 16, 12 and 6. Pilot is taken on board at the entrance of Kalundborg Fjord.

Bigger ships usually take Pilot by Skaw L/V. Pilots to be ordered by ETA-telegrams to "Skawpilot Skagen", at least 12 hours in advance, Skawpilot listening on VHF Channel 16.

ANCHORAGE: Large vessels anchor in 42 ft. of water outside between Rosnaes and Asnaes; S.W. to N.W. winds cause swell but holding ground is good. Small vessels anchor between Gisselore Point and Harbour, from where channel leads to harbour.

Tankers: The anchorage is approximately 4 – 5 miles W.N.W. of the Oil Pier. Particulars regarding the anchorage will be given by the Pilot.

RESTRICTIONS: *Tankers:* Depth in channel and at entrance 39 ft. 4 in., entrance width 131 ft. Also see "General" before first port and "Section B".

Kalundborg Harbour: Depth of Entrance Canal: 10.0 m. Bottom width of Entrance Canal: 100 m.

MAX. SIZE: See "Berthing" and "Section B".

HEALTH: Pratique granted by Customs Officers who bring Health Declaration for Masters to complete. In event of suspected disease or fever on board radio details to Agent before arrival.

RADIO: *Arrival Message:* The Masters of deep-sea vessels are requested to advise their Agents of their ETA 72 hours in advance, and again 24 hours before ETA. For other vessels operating in Scandinavian waters, a 24 hours ETA notice will be required. For coastal traffic in Danish waters, ETA is required when departing for Kalundborg. If there should be any significant change in the ETA over 2 hours, additional advice is required.

VHF: Harbour office on Channel 16 (0700 – 1600 hrs.).

TUGS: Available, normally join vessel off harbour, often using vessel's lines. If tug's lines are used, an extra charge will be made.

Tankers: See "Section B".

BERTHING:

Kalundborg Harbour:

West Harbour: Length 400 m., width 60 m., depth 6 m. Quay I: Length 250 m., depth 6.0 m. Quay II: Length 125 m., depth 6.0 m. Quay III: Length 80 m., depth 6.0 m.

East Harbour: Length 260 m., width 130 m., depth 7 m. – 8 m. Quay VI: Length 240 m., depth 8.0 m. Quay VII: Length 170 m., depth 7.0 m. Quay VIII: Length 70 m., depth 7.0 m. Quay IX: Length 280 m., depth 7.0 m. Quay X: Length 245 m., depth 8.0 m.

South Harbour: Oil Quay: Length 170 m., depth 9.5 m. Quay XII: Oil and General Cargo, length 350 m., depth 10 m.

Quay Nos. II-X and XII equipped with ramps.

Railway on quays in the East and the South Harbour. One crane (privately operated), capacity 40 to 60 t.p.h.

CRANES: The following cranes are available from the Port Authorities:

1. One mobile crane (lattice crane).
Capacity: Radius 11 m. – 30 tons – lift height 25 m.
Radius 29 m. – 12 tons – lift height 25 m.

2. One P.P.M. 25.01 mobile crane (lattice crane).
Carrying capacity with 4 m. jib: 21 tons. Lift height 9 m.
Carrying capacity with 6 m. jib: 12 tons. Lift height 19 m.
Carrying capacity with 17 m. jib: 2.5 tons. Lift height 12 m.
The crane can be mounted with a 1,500 litre prehensile scoop to unload grain, gravel, fertiliser, etc.

3. Two 10-ton 12/25-ton gantry rocker cranes.
Lift height above rails 22 m. in hook operation.
Carrying capacity with 20 m. jib (13.5 m. from quayside): 12 tons.
Carrying capacity with 13 m. jib (6.5 m. from quayside): 25 tons.
Mounted with 5,000 litre prehensile scoop: 6 tons excluding weight of scoop with 20 m. jib.

4. One P.P.M. 23.09 mobile crane (telescope).
Carrying capacity with 4 m. jib: 15.2 tons. Lift height 14.5 m.
Carrying capacity with 6 m. jib: 8.7 tons. Lift height 20.0 m.
Carrying capacity with 15 m. jib: 2.3 tons. Lift height 21.5 m.

5. One 12-ton 14/25 tons gantry rocker crane.
Lift height above trails 25 m. in hook operation.
Carrying capacity with 28 m. jib (18.5 m. from quayside): 14 tons.
Carrying capacity with 18 m. jib (14.5 m. from quayside): 25 tons.
Mounted with 6,000 litre prehensile scoop: 7 tons excluding weight of scoop with 28 m. jib (18.5 m. from quayside).

Also see "Berthing".

TANKERS: See "Section B".

STEVEDORES: Available, ordered by Agent, no ETA to stevedores necessary.

MEDICAL: Hospital and doctors available.

DENSITY: 1011.

FRESH WATER: Available, supplied from shore by hose, about 15 t.p.h. 25 t.p.h. in Oil Harbour.

FUEL: All grades available, 24 hours ETA required by truck or barge (Statoil, BP).

FIRE PRECAUTIONS: No smoking allowed.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Carried out by crew.

CUSTOMS ALLOWANCES: See "General" before first port.

IDENTIFICATION CARDS: Not required.

CONSULS: Norway: Mr. Jorgen Moller, Consul. Tel: (03) 51.19.01.
Sweden: Mr. H. Meredin Petersen, Vice-Consul. Tel: (03) 51.00.51.

REPAIRS: All types of repairs available.

DRY DOCKS: None.

REPATRIATION: All facilities exist.

AIRPORT: Nearest at Copenhagen about 80 miles from Kalundborg. Served by regular airlines.

TIME: GMT plus 1 hour. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day; Easter Thursday; Good Friday; Easter Monday; Ascension Day; 1st May; Whit Monday; Prayer Day; 5th June; Christmas Day; 2nd Christmas Day. No work can be carried out.

SHORE LEAVE: Allowed.

POLICE/AMBULANCE/FIRE: Police (03) 51.14.48. Hospital: (03) 51.10.01.

BANK: Den Danske Bank, Kordilgade 18, DK – 4400 Kalundborg. Tel: (03) 51.08.00. Open 9.30 a.m. – 4.00 p.m. (closed Saturday and Sunday).

SHIP SUPPLY SERVICES: Schierbeck's Supply Service, Njalsgade 21, 2300 Copenhagen S. Tel: 01-57 00 66 (day and night). Cables: Schierbeck Copenhagen. Telex: 31143. Maximum cargo 8 and 40 tons. Maximum 12 passengers.

Kalundborg Supply Service, Ulshojvej 25, 4400 Kalundborg. Tel: 03-51 20 42 and 51 69 17. Maximum cargo 10 tons. Maximum 12 passengers.

Service: 24 hours.

Rendezvous position for deep draft vessels:
Lat. 55° 43.5′ N. Long. 10° 47.8′ E.

Notice: 6 hours' notice required through Agent.

Supply vessel: "Kalundborg Supply" is an ultra modern supply boat equipped to the standards approved by the Danish Government Inspection of Ships.

She was built and delivered in 1982 and has 2×150 h.p. engines with twin screw which delivers a service speed of 16.5 knots. Her loading capacity is 10 tons with a deck space of 5 m.× 3 m.

Wulff's Eftf. I/S Skibshandel, 8 Skibbrogade, DK-4400 Kalundborg. *Tel:* (03) 510345. After office hours (03) 513706 and (03) 508720. *Telex:* 44359. *Cable Address:* Wulffsef Kalundborg Territory: Kalundborg, Kalundborg Roads, Great Belt and Stigsnaes. Can also deliver provision, bonded stores, deck and engine stores.

DELAYS: Due to ice between 15th December and 31st March.

AUTHORITY: Kalundborg Port Authority, P.O. Box 50, Radhuset, DK – 4400 Kalundborg, Denmark. *Tel:* Harbour Board (03) 51.33.11. Harbour Master (03) 51.01.88.

(B) STATOIL A/S OIL TERMINAL:

LOCATION: Statoil A/S's refinery is situated at the bottom of Kalundborg Fjord in the island of Zealand, at Lat. 55° 40.6′ N., Long. 11° 5.5′ E. Largest chart of Kalundborg Fjord: B.A. No. 2596/D.A. No. 145.

DOCUMENTS: The following documents are required on arrival and for clearance:
Ship's Registration.
Load-line Certificate.
Safety, Radio and Telephony Certificates.
Safety Equipment Certificate.
Derat Certificate.
Crew List.
Construction Certificate.
Tobacco and Spirits List.
Oil Pollution Certificate.
B/L (if carrying cargo).
Certificate of Origin (T2L.EUR1).

In addition, a list of tobacco and spirits must be presented to the Customs service, showing the ship's and crew's supply on arrival.

PILOTAGE: For vessels over 5,000 d.w.t., a Harbour Pilot must always be used. In case of special reasons, an exemption from this rule can be granted by the Pier Master.

A Harbour Pilot must be used for vessels under 5,000 d.w.t. in those cases where the Master of the vessel in question calls at the pier for the first time as Master of the ship.

ANCHORAGE: The anchorage is 4 – 5 nautical miles W.N.W. of the Oil Pier. Closer information concerning the anchorage will be given by the Pilot.

RESTRICTIONS: The pier is open to navigation day and night, apart from restrictions under special weather conditions.

Navigation Restrictions: The harbour is closed to traffic when the wind force is over 23 m./sec. (force 9), or when the visibility is less than one ship's length.

Pier A and B: If the wind direction is between S.W. and N.N.W., and the wind force is between 15 m./sec. (force 7) and 23 m./sec. (force 9), Pilot and tug must be used. An exemption from this rule can be given only in special cases.

Pier C: If the wind direction is between S.W. and North, and the speed is between 15 m./sec. (force 7) and 23 m./sec. (force 9), then Pilot and tug must be used. Only in special cases can there be granted exemptions from this rule.

MAX. SIZE: See "Berthing".

HEALTH: See "Section A".

TUGS: Tugs are to be ordered through the Agent according to the scheme below. The minimum requirements for tug assistance under normal weather conditions (wind force below 10 m./sec.) are as follows:

	Vessel's Size (k.d.w.t.)	*Number of Tugs*	*Total Min. h.p.*	*Min. Bollard Pull* (tonnes)
Pier A Arrival	10-16	1	2,000	18
	16-26	2	3,500	36
	26-56	3	5,000	75
	56-70	3	7,500	85
	70-90	4	9,500	120
	90-120	4	11,000	130
Pier A Departure	10-16	1	1,800	17
	16-56	2	3,500	36
	56-120	2	5,000	60
Pier B Arr./Dep.	10-16	1	2,000	18
	16-	2	3,500	36

For vessels over 16 k.d.w.t. equipped with bow thruster the number of tugs is reduced by 1, however, by not more than 1,500 h.p.

If the wind force exceeds 10 m./sec. then with due regard to the expected weather situation for the area, the Shipmaster, the Pilot of the watch and the Refinery must come to an agreement on whether the vessel shall wait for a weather improvement, or whether the tugboat capacity shall be increased.

Mooring Boats: Mooring boats and men must be used, and are available from Kalundborg Boat Service.

Speed: Ships, which call at the pier without tugboat assistance, must reduce their speed to an absolute minimum before passing the outer dolphins. Prior to this, a realistic astern movement must have been made in order to ensure that the reversing functions satisfactorily.

BERTHING:

PIER A:

Max. vessel size 120,000 d.w.t.

Max. vessel LOA – 262 m. (860 ft.).

Max. freeboard 46 ft.

Max. draft for vessels up to 70,000 d.w.t. 12.50 m. (41 ft.) in brackish water at normal water level.

Max. draft for vessels over 70,000 d.w.t. 12.19 m. (40 ft.) in brackish water at normal water level.

Discharge of crude oil takes place via 2×12 in. cargo hoses fitted with 12 in. ASA flanges for a 30 in. pipe-line to the Refinery. The 30 in. crude oil line to the Refinery is about 2 km. long. Discharge rate for crude oil is about 5,500 cu.m.p.h. at maximum pressure. Max. loading/discharge pressure on the product and crude oil line is 7 bar.

During discharging through the crude oil line, the line pressure will be monitored at the Pier Office.

The following products are available at Pier A:

JP1, JP8	loading/discharge	6 in. ASA flange
Naphtha	loading/discharge	6 in. ASA flange
Regular gasoline	loading	6 in. ASA flange
Premium gasoline	loading	6 in. ASA flange
Autodiesel	loading/discharge	6 in. ASA flange
Gas oil	loading/discharge	6 in. ASA flange
Marine gas oil/motor gas oil	bunkering	
Various fuel oil grades	loading/discharge	6 in. ASA flange

PIER B:

Max. vessel size 16,000 d.w.t.

Max. vessel LOA 171 m. (560 ft.).

Max. draft 10.06 m. (33 ft.) in brackish water at normal water level.

Max. loading/discharge pressure on crude oil and product lines is 7 bar.

The following products are available at Pier B:

JP1, JP8	loading/discharge	6 in. ASA flange
Naphtha	loading/discharge	6 in. ASA flange
Regular gasoline	loading	6 in. ASA flange
Premium gasoline	loading	6 in. ASA flange
Autodiesel	loading/discharge	6 in. ASA flange
Gas oil	loading/discharge	6 in. ASA flange
Marine diesel/motor diesel	bunkering	
Marine gas oil/motor gas oil	bunkering	
Various fuel grades	loading/discharge	6 in. ASA flange
Crude oil	loading/discharge	6 in./8 in. ASA flange

PIER C:

Max. vessel size 5,000 d.w.t.

Max. vessel LOA 110 m. (360 ft.).

Max. draft 6.4 m. (21 ft.) in brackish water at normal water level.

Max. loading/discharge pressure on the product line is 7 bar, however, max. pressure on the LPG system is 19 bar.

The following products are available at Pier C:

Regular gasoline	loading	6 in. ASA flange
Premium gasoline	loading	6 in. ASA flange
Autodiesel	loading	6 in. ASA flange
Gas oil	loading	6 in. ASA flange
Marine diesel	bunkering	
Marine gas oil/motor gas oil	bunkering	
HFO	loading	6 in. ASA flange
LSHFO	loading	6 in. ASA flange
Asphalt	loading	6 in. ASA flange
LPG	loading/discharge	4 in. ASA flange
Crude oil	discharge	6 in. ASA flange

RADIO: *Arrival Advice:* For crude and ocean-going vessels the Master is requested, through the ship's Agent, to inform the Refinery of the ETA 72 hours before arrival, and again 24 hours before arrival.

For vessels which operate in Northern waters, ETA is to be given 24 hours before arrival. For local traffic, ETA is to be given on departure for Kalundborg. If there should be changes in ETA, in excess of 2 hours, this has to be reported to the Refinery via the Agent or over VHF.

VHF: Calls to the pier are made on VHF Channel 16. The working frequencies of the pier are Channels 9 and 12.

About 5 nautical miles before arrival, the pier is called on VHF, and the vessel informs the Pier Foreman of the precise time of arrival.

CARGO HANDLING: On any receipt of cargo, a representative of Statoil A/S will come on board on arrival of the ship, and together with the ship's Chief Officer make a complete cargo calculation, and also take out an average sample of all the ship's tanks intended for Statoil A/S.

Measurement of ullage will be made to the nearest 0.125 in. or 1 mm.

Temperature measurement will be made electronically to the nearest 0.25°C of an average measurement of top, middle and bottom of all cargo tanks' content designated for Statoil A/S.

Any measurement of free water on arrival, and also Remaining On Board (ROB) after discharging, will be corrected for possible trim.

If the quantity of ROB is more than 0.1% of the B/L, samples will be taken of the ship's tanks that contain relatively large ROB, for later reference, but in this connection it is important to point out that Statoil expect that the ship does its utmost to drain both ship's tanks and pipe systems satisfactorily.

If the ship is not furnished with a satisfactory "Vessel Experience Factor", then this is calculated in concert with a Representative of Statoil A/S, and this factor is used for cargo calculation. About 1 hour after finishing the discharge, a Representative of Statoil A/S will come on board and present a preliminary statement of the discharged quantity, as compared with B/L and sea transport.

The following shipping documents are to be handed over to Statoil A/S:

Tank Condition Certificate – Prior Loading.

Bill of Lading.

Quantity Certificate (Intake Certificate/Shoreside Measurement).

Quality Certificate (Laboratory Report of Tests).

Copy of any Protest issued to Loading Terminal.

Vessel Ullage Report – Loading/Discharging.

Dry Certificate or Post Discharge Vessel Ullage Report.

2 Sealed Samples from Loading Port.

Static Electricity: Some of the oil products, which are shipped through the terminal, have poor conductivity, and therefore accumulate static electricity under certain conditions.

The electrostatic generation arises especially during flow in the pipe system at start of loading, as water and rust particles in pipes and tank bottom are stirred up. Turbulence and "splashing" are also a contributing cause. It is therefore necessary to observe special measures and precautions.

Handling of Statically Accumulating Products:

The following statically accumulating products are shipped at the pier:

Regular gasoline.	Jet fuel.
Premium gasoline.	Gas oil.
Naphtha.	Diesel oil.

Loading speed: If the ship is gas-free on arrival, the loading speed will normally be about 500 cu.m.p.h. It is a condition that the product to be loaded can meet the requirements of the scheme (see "Rules").

If the ship's tanks are kept inerted during loading, then static precautions are not necessary.

The following table can be used for calculating the flow velocity with different pipe-line dimensions:

Pipe Diameter	*Flow Velocity*
80 mm./ 2 in.	16 cu.m.p.h./m. per sec.
100 mm./ 4 in.	29 cu.m.p.h./m. per sec.
150 mm./ 6 in.	65 cu.m.p.h./m. per sec.
200 mm./ 8 in.	116 cu.m.p.h./m. per sec.
250 mm./10 in.	182 cu.m.p.h./m. per sec.
305 mm./12 in.	262 cu.m.p.h./m. per sec.

During loading and within 30 minutes after finishing loading, no conductive objects, such as thermometers, sounding tapes, etc., must be lowered into the tank, or be contained in the tanks.

It shall be noted that liners for thermometers and samplers shall be of a natural product; synthetic fibres must not be used.

After a period of 30 minutes, metallic equipment may be used for sounding, dipping, etc., but it is important that the equipment is grounded to the ship before it is lowered into the tanks, and that it remains grounded until it is removed from the tank hatch.

Firmly installed ullage measuring devices do not represent a static danger, provided that the float has conductive connection to the ship's deck, and metal guide wires are intact. Measurements and sampling with non-conducting equipment without metal parts are possible at any time. Measurements in sounding pipes are possible at any time, provided that the sounding pipe is below the liquid surface.

Rules for Handling Static Products: (With ullage measuring, sampling, temperature measuring, loading and discharge).

		Are static measures necessary?		
Product	Remarks	Tanks Inerted	Gas-free	Not Gas-free
Gas oil	Temperature lower than 45°C	No	No	Yes
Gas oil	Temperature higher than 45°C	No	Yes	Yes
Gasoline, Naphtha, Jet Fuel, Kero	Flashpoint below 60°C	No	Yes	Yes

LPG:

Propane (C_3H_8):	Colourless gas or liquid, almost odourless. Flash point: Less than −18°C. Explosive limit: 2% – 10% Health limit: 1,000 p.p.m.
Butane (C_4H_{10}):	Colourless liquid or white crystal-like dry matter. Flash point: Less than 0°C. Explosive limit: 1.5% – 9% Health limit: Not accessible

If this happens	*Do this*
Fire	Shut off the gas inlet, and use powder, CO_2 or other chemical extinguishing medium. Cool the tanks with sprinkler equipment or water fog.
Liquid in the eyes	Rinse the eyes carefully with clean water for at least 15 minutes. Go to see a doctor as soon as possible.
Liquid on the skin	Treat the exposed area with hot water until it is thawed. Go to see a doctor as soon as possible.
Inhaled vapour	Go out into the fresh air at once. If necessary, start resuscitation by "mouth-to-mouth" or "mouth-to-nose" method.
Spillage	Avoid contact with the liquid which will quickly evaporate. Avoid ignition. Contact the pier immediately if larger spillage should arise.

Working Procedure for LPG-Arm:

1. On arrival, attempts are to be made to position the ship in such a way that the Loading Arm gets the greatest possible freedom of motion when mounted on the manifold.
2. During cargo handling, the ship shall always lie within the operating range of the Loading Arm.
3. If one of the Loading Arm's limits is reached, an alarm consisting of a yellow quick flash signal, on a mast behind the Loading Arm will be activated. At the same time, an alarm will be activated at the pier office.
4. When the loading/discharging operation is complete, and the Loading Arm is drained empty, this is purged with nitrogen from ashore.
5. In case of a critical situation, the shore valve is closed by using the yellow actuator box placed onboard.

There is no danger connected with the closing of this valve, as there are expansion systems at the pier.

IMPORTANT: The Loading Arm must only be operated when it is empty of liquid, as otherwise it will be out of balance.

Maximum operating pressure of the LPG-plant is 19 bar. If the maximum operating pressure is exceeded, an alarm bell will be activated at Pier C.

BALLAST: Ballast shall be discharged to a ballast tank ashore, with the exception of pure ballast water from clean permanent ballast tanks.

The ballast tank ashore can hold 4,500 cu.m.; there is usually about 2,000 cu.m. available.

It is important that all ships, which are to pump ballast water, as early as possible inform the Pier Foreman over VHF about the quantity of ballast water to be pumped ashore. Tankers of 7,000 d.w.t. and more, that wish to use the ballast facilities, shall as early as possible advise the pier via the ship's Agent of the quantity of ballast/purified water, which can be expected on arrival, as well as of the last cargo type.

The Refinery will only accept ballast water from ship's tanks, which on the previous voyage have contained mineral oil products. Ballast water, containing any kind of chemicals, cannot be accepted. While the ship is alongside the pier, all sea and overboard discharge valves in connection with the cargo system, must be kept closed and sealed. The sealing must only be broken in concert with the Pier Foreman.

On taking in ballast alongside the pier, sea valves must not be opened until the pump is working, and the other valves are open. Ballast tanks must not be filled higher than ullage 7 ft.

It is important in this connection to emphasise the danger of ballasting in tanks not free from gas. Watch out for gas concentrations both on the ship and at the pier, and reduce the ballast intake, if necessary.

Tank Inspection: Prior to loading, the tanks are to be inspected for water, impurities, and foreign matter by the pier personnel.

During the inspection, the loading valves must remain open so that there is no liquid in the pipes.

The inspection is to be done from the deck through the hatches or sounding holes by using torches or mirror.

The pier personnel are not allowed to enter ship's tanks without special permission.

Before entering a ship's tank, a permit must be obtained from the Pier Master or the Shift Supervisor, and only after having made sure personally and in concert with the Ship's Officer on duty that the situation is such that entering the tank is justifiable.

Inert Gas System and Tank Cleaning with Crude Oil: The Refinery does not make additional demands on Inert Gas Systems and tank cleaning with crude oil than those described in international regulations (IMO) and VIM 020-040-005.

It is the Master's direct responsibility to ensure that the inert gas plant is operated according to instructions, and that tank cleaning with crude oil is carried out safely and efficiently, and that loading officers, who are responsible for the cargo handling, are familiar with all rules and procedures for controlling the system.

The Refinery will normally always require a 100% COW of all cargo tanks designated for discharging in Kalundborg, in order to maximise the receiving quantity.

On arrival of the ship, a Pollution/Performance Inspector will go on board, and remain on board throughout the ship's stay.

The Inspector's task will be to assist the ship in all aspects, which can contribute to a safe and good operation alongside the pier, and to supervise that the stay proceeds within the existing safety/pollution limits, including a thorough check-up on tank cleaning with crude oil and the inert gas plant, and he will especially watch closely the percentage of oxygen in the ship's tanks, which at no time must exceed 8%, and that the inert gas plant always maintains a positive pressure in the cargo tanks during discharging.

If the ship is unable to maintain a positive pressure in the cargo tanks, or cannot maintain less than 8% oxygen in the tank atmosphere, the Shipmaster will be requested to shift to anchor until the inert gas plant is operative again, allowing for the risk of self-ignitable iron sulphides.

Prior to cargo handling, the responsible officer will be requested in concert with the Pollution/Performance Inspector, or the Pier Foreman, to fill in safety check lists and a check list for COW so that the ship as well as the Refinery may be sure that cargo handling can be commenced within the existing minimum safety regulations for the operation.

MEDICAL: Medical and dental treatment are arranged by the ship's Agent.

FRESH WATER: The ship can be provided with fresh water at a delivery rate of approximately 25 t.p.h.

FUEL: Bunkers and lubricating oils can be supplied through the Agent. Orders should be given in good time through the Agent before arrival.

TELEPHONE: A pay phone for international calls is installed in the Pier Office building. Furthermore, a mobile telephone plant is set up with the Master. This gives access to the Refinery and the Danish authorities in case of an emergency. The telephone also gives access to international calls.

SAFETY: *Mooring:* The ship shall be moored satisfactorily, and the ropes held taut during the entire stay at the pier. Steel wires must not be used for mooring unless they have rope tails and these are fastened on quick-release hooks. Wires and fibre ropes shall not be used together in the same direction.

Anchors not being used shall be secured.

Fire Wires: Fire wires shall be placed correctly fore and aft. Wire eyes shall be placed directly below the waterline, and adjusted regularly during cargo handling. The ends shall be properly secured to the ship's bollards, and have sufficient slack on deck. The slack of these wires shall be so secured that it can easily be broken by tugboats.

Access between Ship and Pier: Immediately after completing mooring, the ship shall land a gangway ashore. The landing may consist of an adequately mounted gangway or accommodation ladder.

At Pier A, larger ships have a gangway from the shore. Special consideration has to be given to the difference in height between ship and pier which may grow large.

Emergency escape: In connection with the normal gangway/accommodation ladder described above, a safe and fast emergency escape possibility shall be readily accessible on both ship and pier.

On the ship, this can consist of a lifeboat ready for immediate use, placed aft.

GENERAL: *Duc d'Alba:* Ships must only moor at the pier, and not at the duc d'Alba.

Traffic at the pier: There is lively ferry traffic in the harbour. About 15 times in 24 hours, a ferry passes by the pier at a distance of 100 m. – 300 m. from the pier head.

Dry cargo ships up to 10,000 d.w.t. call at Kalundborg Harbour at a distance of approximately 500 m. from the pier head. Sailing is done at reduced speed. Tankers and bulk carriers call at Asnaesvaerket in varying sizes up to about 160,000 d.w.t.

Sailing: As soon as loading/discharge is finished, all ships have to leave the pier on request.

Lightening: According to Order No. 472 of 21st September, 1978, by the Ministry of Commerce, lightening of tankers must only take place in position 55° 42.0′ N., 10° 59.8′ E., and within a radius of 0.3 nautical miles. When tankers lighten in Kalundborg Fjord, other vessels must pass the area with caution and at slow speed.

Lay-time: To expedite the turn-round of vessels, the Master is requested to co-operate with the personnel ashore in order to minimise the lay-time. Any delay arising, and which can be expected to drag on, must be reported to the Pier Office so that it can contribute to solving possible problems.

Portable Receiver: On arrival of the ship, the Officer on duty is handed a portable receiver. This radio must be turned on, and be carried during the entire stay at the pier. The radio is to be tested at regular intervals.

Lighters and Boats with Supplies: Lighters and boats with supplies are not allowed to lie alongside the quay or ship's side, unless they are properly equipped to work in a possible oil-containing atmosphere, and have permission respectively from the ship's Master and the Pier Master or his deputy.

Tide and Current: The difference between the average high tide and average low tide is about 0.3 m. A gale from N.W. can give a rise of 1.3 m. above the daily level, while a gale from S.E. can give a fall of 0.9 m. below the daily level. There is almost no current at the pier.

Winds: The predominant wind direction is West, but most of the gales come from N.W. Wind velocities which exceed 15 m./sec. (force 7) usually occur for about 20 hours a year from S.W., about 15 hours from West, 40 hours from N.W. and 25 hours from North.

Storage Supplies: For quantities exceeding 5 tons, supplies shall be arranged by sea via a special lighter (this rule does not apply to luboil supplies).

Repair of Nautical Equipment and Instruments: Repairs can be arranged through the Agent. It is recommended that the Agent receives such requests in good time.

Sanitary Measures: Standard regulations for Danish harbours regarding sanitary conditions apply at the Oil Pier. Waste must not be thrown overboard. Special waste containers are placed at the pier. Special consideration to avoid pollution of the pier from flushing of toilet, bathroom, etc., must be taken. If the ship wishes to pump sewage ashore, facilities are available at the pier, but a minimum notice of 6 hours is required. This is given via the Agent.

Mail: The Agent delivers and receives mail from the ship.

Visitors to the Ships: Only persons doing business may come to the pier. Visitors, such as guests of the Master, can get permission to come on board, on condition that the Master has made a request to the Pier Office. Further details on permission for visitors are available on application to the Pier Office.

On arrival of the ship, magnetic cards are handed out which give access to the gate into the pier area. It is the Master's responsibility together with the ship's Agent to ensure that cards are handed out to relevant members of the crew.

Oil Spillage: Attention is drawn to the fact that there have been bad experiences with regard to oil spillage, caused by opening sea valves before having started the ballast pumps, and by tanks overflowing during loading. Very small quantities of oil that get into the water have to be removed and this can become rather costly.

In order to spare the shipping company unnecessary expenses, the responsible persons are enjoined to have their attention directed to all conditions that can cause even small oil spillages. Oil spillage comes under the authorities' sphere, and that matters of dispute as to guilt can be referred to the police.

Air Pollution: The Master must take precautions against emitting large quantities of smoke from the funnel. Use of soot blowers whilst the ship is in port is not allowed.

Inspection: The Pier Master or his deputy must at any time be admitted to all ships to see that all directions are complied with.

Agent: Immediately after arrival of the ship, the ship's Agent goes on board so that the Master can inform him of the ship's necessities. Ships which are requested to anchor outside the harbour to wait for mooring space can possibly get an Agent on board at the anchorage. When the ship lies at the pier, telegrams and radiograms are to be delivered ashore. Contact the Agent for further information, and the Agent's representative for further dispatch via the facilities.

OPERATOR: Statoil A/S, Refinery, DK-4400 Kalundborg, Denmark. *Tel:* (03) 511900. *Telex:* 44343. *Cables:* Stara. *FAX:* (03) 516298, 517081. *Contact:* M. H. Thyssen, Pier Master.

KOGE: 55.27 N. 12.12 E. (See Plan)

DOCUMENTS: For Customs, vessels require:

Vessels of 150 ton and upwards, Load Line Cert.

Vessels of 300 ton and upwards, Load Line Cert., Radio Safety Cert.

Vessels of 500 ton and upwards, Load Line Cert., Radio Safety Cert., Equipment Safety Cert.

For all passenger vessels also Safety Cert.

For stevedores vessel shall have Bills of Lading, Manifests and Loading plans.

PILOTAGE: Pilotage compulsory for all tankers and vessels over 300 g.r.t. or 750 d.w.t. Vessel to call Pilot 2 hours before arrival. VHF on pilot station and pilot boat. Watch on Channel 16. Normal international light and sound signals used. Pilot boat located about 2 nautical miles East of port. No difference in bad weather.

ANCHORAGES: 1–2 nautical miles East of port with good bottom conditions.

RESTRICTIONS: See "General" before first port.

MAX. SIZE: Max. permissible length, 160 m.; max. permissible draft, 7 m.

HEALTH: Normal quarantine rules.

RADIO: Lyngby Radio or any other radio station in Denmark.

TUGS: 1 tug of 300 h.p. available. Additional tugs can be obtained from Copenhagen.

STEVEDORES: Normal ETA and description of vessel required.

MEDICAL: Doctor and hospital assistance available; other facilities to be obtained from Copenhagen.

TANKERS: Only 1 tanker berth, no specific requirements. LPG also handled.

FRESH WATER: Water from wharf.

FUEL: Products are delivered in Koge, others from Copenhagen.

FIRE PRECAUTIONS: Normal fire precautions. Tankers cannot request to go to berth before loading/discharging. 2 fire watchmen from the fire department.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: See "General" before first port.

IDENTIFICATION CARDS: Not needed.

CONSULS: Nearest at Copenhagen.

REPAIRS: Small repairs.

DRY DOCKS: 2 small slipways for vessels up to 200 tons.

REPATRIATION: No facilities exist.

AIRPORT: Nearest in Kastrup Lufthavn; Copenhagen about 40 km. away.

TIME: GMT plus 1 hour.

HOLIDAYS: Normal Danish holidays, change from year to year. Normally work can be arranged.

POLICE/AMBULANCE/FIRE: Ambulance and Fire (03) 653300; Police 651448 or use alarm 000.

TELEPHONE: No arrangements exist for placing on board.

GENERAL: The North Port of Koge, "Nordhavn", Lat. 55° 27′ 4″ N., Long. 12° 11′ 7″ E. Length of quayage 300 m. Depth 5.5 m.

WIND: Wind between N.E. and S.E. can give up to 1.6 m. HW and West wind up to 0.9 m. LW.

SERVICES: Pilot makes compass adjustments.

SHORE LEAVE: Allowed.

AUTHORITY: Koge Havnekontor, Havnen 39, 4600 Koege. *Tel:* 03-650113. *Contact:* Harbour Master.

KOLDING: 55.29 N. 09.29 E. (See Plan)

DOCUMENTS:

3 copies Crew List.

3 copies Crew Declaration (Tobacco, Spirits, etc.).

1 copy Tobacco List.

1 copy Stores List.

PILOTAGE: Pilot station in Skaerbaek at mouth of Kolding Fjord. Tel. (05) 564425. VHF Channel 16 (Working on Channels 12 and 13) when vessels are expected.

Harbour Office to be advised of ETA/ETD one hour in advance during office hours.

Pilot also available at Assens Pilot Station (55° 16′ N., 09° 45′ E.). 2 hours notice required. VHF Channel 16 or Tel. (05) 564425.

ANCHORAGES: At Skaerbaek.

RESTRICTIONS: See "General" before first port. Max. speed in port is 4 knots.

MAX. SIZE: Maximum permissible length 200 m. Max. draft: 7.0 m.

RADIO: Lyngby Radio.

VHF: During office hours the Harbour Office is on Channel 16, working on Channels 12 and 13.

TUGS: Available.

BERTHING: See "Plan".

CRANES: *Port Authority:* 2.5 tons, 5 tons and 25 tons portal jib cranes (hook/grab) operate at Quay No.9 and Quay No.13 respectively. Mobile cranes with grab/hook operate at Quay No.1 to Quay No.13, capacity 7.5 tons, 24 tons and 60 tons.

Private: 2 × 5 tons slewing grab cranes at Quay No.2. 1 × 7 tons slewing grab crane at Quay No.11.

There is also a suction plant for handling grain at Quay No.10. Rate of loading 350 t.p.h.

STEVEDORES: Obtained through Agents.

Normal Working Hours:

Monday – Wednesday	Thursday – Friday
0700 – 0830	0700 – 0830
0900 – 1200	0900 – 1200
1230 – 1600	1230 – 1530

MEDICAL: Hospital facilities available.

FRESH WATER: Available from quay. (120kr. per ton).

FUEL: Available.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: See "General" before first port.

IDENTIFICATION CARDS: Not needed.

CONSULS:

Finland: J. Borum, Haderslevvej 25, Kolding. Tel. (05) 521233.

Malta: Chr. Hindkjoer, Fabriksvej 27, Kolding. Tel. (05) 525533.

Peru: M. Ohmeyer, Hobbelskoven 29, Kolding. Tel. (05) 528981.

Sweden: Ove Gronborg, Osterbrogade 14, Kolding. Tel. (05) 522711.

REPAIRS: Only small repairs can be carried out.

AIRPORT: Distance from Billund Airport 40 km. Billund Airport is served by regular airlines.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer (March – September).

HOLIDAYS: See "Copenhagen".

POLICE/AMBULANCE/FIRE: Police, Tel. (05) 522800; Ambulance, Tel. (05) 522222; Fire, Tel. (05) 522222, Help, Tel. 000.

TELEPHONES: Telephones obtainable on board.

SHORE LEAVE: Allowed.

AUTHORITY: Havnemesterens Kontor, Jens Holmsvej 1, 6000 Kolding. *Tel:* 05-520594 (24 hour relay). *Contact:* Per Bendix Jensen, Harbour Master.

KORSOR: 55.20 N. 11.08 E. (See Plan)

DOCUMENTS: See "Copenhagen".

PILOTAGE: Not compulsory. ETA and request for Pilot must be made to Belt Pilot 4 hours before arrival via VHF Channel 16.

ANCHORAGES: 0.5 miles S.W. of buoy "Nygrund". It is prohibited to anchor inside the outer pier.

MAX. SIZE: LOA 225 m., and 7.5 m. draft. Tidal variation 0.3 m.

RADIO: Lyngby Radio OXZ.

VHF: Korsor Harbour on Channels 16, 13 and 12. Tugs are worked on Channel 12.

RADAR: Pilot boats are radar equipped. There is no Port Control Radar.

TUGS: Available. 24 hours notice to Agents, via Lyngby Radio, must be given.

CRANES: 1 mobile crane of 24 tons, 4 cranes with grabs. Further equipment may be obtained at short notice.

BULK CARGO FACILITIES: Grain elevator with three pneumatic dischargers.

SPECIALISED CARGO-HANDLING FACILITIES: At present, 2 berths for Ro/Ro traffic.

BRIDGES: There are bridges between Gl. Havn and Inderhavn. Max. LOA 100 m., beam 25 m., draft 5.7 m., allowed to pass under these bridges.

STEVEDORES: Working hours 0700 – 1600 hrs. (1 shift), Monday to Friday. Night shifts by arrangement.

MEDICAL: Hospital at Slagelse, 15 km. away.

FRESH WATER: Available.

FUEL: Available by tank truck, if sufficient notice given.

CONSULS: Norwegian, German (F.R.), Swedish and Finnish.

DRY DOCKS: None. One slipway of 600 tons displacement.

SERVICES: Compass adjuster available.

GANGWAY/DECK WATCHMEN: Not necessary.

HATCHES: Opening/closing normally done by ship's crew.
AIRPORT: Nearest at Copenhagen, 1 hour 10 minutes by rail.
TIME: GMT plus 1 hour. Summertime GMT plus 2 hours from March to September.
HOLIDAYS: Usual Danish holidays.
GENERAL:

Chart: Danish Chart No. 143, Storebaelt between Langeland – Sprogoe, covers this port, which lies 3 miles East of Route T.

Ferry Traffic: Attention is drawn to the intense ferry traffic between Korsor and Nyborg.

AUTHORITY: Korsor Port Authority, Amerikakajen 2, DK4220, Korsor. *Tel:* 03-570085. *Contact:* A. Skjold Hansen, Harbour Master.

KYNDBY (Kyndby Power Station): 55.49 N. 11.53 E. (See Plan)

PORT LIMITS: Vessel is considered to be an "arrived ship" when alongside the quay or at anchorage waiting for berth.
DOCUMENTS:
- Ship's Register.
- Load Line Certificate.
- Radio Safety Certificate.
- Safety Equipment Certificate.
- Derat Certificate or exemption.
- 2 Crew Lists.
- Cargo Manifest or Bills of Lading.
- Construction Certificate.
- Certificate of Insurance or other financial security in respect of civil liabilities for oil pollution damage.
- Tobacco and Spirit List, covering all goods on board belonging to crew, officers, Master, ship's bar or passengers.

PILOTAGE: Pilotage not compulsory. Pilot boards at the entrance of Isefjord and takes the vessel to the port and berths her. Pilots listening on VHF Channel 16.

Pilots to be ordered by ETA telegram to Agent at least 24 hours in advance.

ANCHORAGES: Larger vessels anchor in 15 m. – 20 m. of water either in the Isefjord or outside the entrance to the Isefjord. Holding ground good.
RESTRICTIONS: Arrival only by daylight. No tide under normal conditions. Vessel's draft entering Isefjord not to exceed 22 ft.

Also see "General" before first port.

HEALTH: No special restrictions as to Free Pratique, which will be granted by authorities on arrival. Suspected disease or fever must be telegraphed to Agents before arrival.
RADIO: Lyngby Radio.
VHF: Channel 16 to pilot station (also Skaw Pilot).
RADAR: No installation.
TUGS: Available. Join at Isefjord, outside the entrance to the Port of Kyndby, ship's lines to be used.
BERTHING: One Oil berth: Length 570 ft., draft 21 ft. 6 in.

One Coal berth: 530 ft. long, draft 22 ft. Water brackish.

CRANES: As berth private, only handling own coal cargoes – 3 cranes available.
STEVEDORES: Private stevedores to be ordered through receivers – coal discharge – rate per crane per hour: about 200 tons.
MEDICAL: All medical and hospital facilities available, no advance notice necessary.
TANKERS: 2 discharge hoses, one of 12 in. and one of 16 in.

No slop facilities.

One tanker berth, safe arrival draft: 21 ft. 6 in. Average discharge rate: 1,000 t.p.h.

DENSITY: Brackish.
FRESH WATER: By hose from quay – 10 t.p.h., D. Kr. 2.50 per ton.
FUEL: Available from all bigger companies by trucks or barge from Copenhagen – about 40 miles from Kyndby.
FIRE PRECAUTIONS: No specific precautions.
CONSULS: Nearest Copenhagen about 40 miles from Kyndby.
REPAIRS: All types of smaller repairs can be carried out.
DRY DOCKS: No dry dock available.
SURVEYORS: All large Classification Societies represented in Copenhagen about 40 miles from Kyndby.
GANGWAY/DECK WATCHMEN: Watchmen not necessary but available.
OPENING/CLOSING HATCHES: To be carried out by crew.
CUSTOMS ALLOWANCES: See "General" before first port.
CARGO GEAR: Shore coal cranes.
REPATRIATION: Can be arranged normally via Copenhagen about 40 miles from Kyndby.
AIRPORT: About 40 miles to Airport in Copenhagen.
TIME: GMT plus 1 hour (from late September – late March). GMT plus 2 hours (from late March – late September).
HOLIDAYS: Saturday/Sunday normally no work, and further no work on holidays declared as official Danish holidays.
POLICE/AMBULANCE/FIRE: 0–0–0 all alarms.
TELEPHONES: No telephone connection on board.
SERVICES: No tank-cleaning facilities; all other services to ships can be arranged through specialists from Copenhagen.
SHORE LEAVE: No restrictions.
IDENTIFICATION: No shore passes necessary.
REGULATIONS: None.
DELAYS: None.
DEVELOPMENTS: None at the present time.
AUTHORITY: Private port owned by: IFV – Energi i/s, Strandvejen 102, DK–2900 Hellerup. *Tel:* 1-624141. *Telex:* 37500. *FAX:* 1-612888.

Local office: Kyndby Power Station, DK-3630 Jaegerspris, Denmark. *Tel:* 2-321101. *FAX:* 2-321166.

MASNEDOEVAERKET: 55.00 N. 11.53 E.

LOCATION: Masnedoevaerket is situated on the island of Masnedoe, which is connected to Sjaelland by a bridge 150 m. East of the harbour.
DOCUMENTS:
- Ship's Register.
- Load Line Certificate.
- Safety Radio Certificate.
- Safety Equipment Certificate.
- Safety Construction Certificate.
- Derat Certificate or Exemption.
- Bill of Lading.
- Crew List.

Customs need a Tobacco and Spirit List, showing the vessel's and the crew's supply on arrival. Nearest Customs at Naestved.

PILOTAGE: Pilot boarding ground off Masnedo N.W. flak. Sea Pilots available from Spodsbjerg, Korsor or Gronsund.
APPROACHES: From West via Smalandsfarvandet depth of water 24 ft. From South East via Gronsund, max. draft permitted 16 ft. 6 in. From Pilot boarding ground, there is a buoyed channel, dredged to 7 m., with leading lights.
ANCHORAGES: Off the entrance channel.
MAX. SIZE: LOA 120 m., beam 25 m. and draft 6.8 m.
TUGS: Available on request, not normally used by vessels less than 4,500 d.w.t.
BERTHING: Power Station Quay 270 m. long, depth alongside 7 m.
CRANES: There are 2×7.5 ton travelling cranes and 1×100 ton crane.

There will be no cranes available after January 1990.

BRIDGES: Storstromsbroen has a vertical clearance of 26 m. A new bridge was opened in 1985 across the Storstrom with a vertical clearance of 21 m. Power lines with 36 m. vertical clearance lie to the West of the harbour.
FRESH WATER: Available from hose on the quay.
FUEL: Available by tank truck.
REPAIRS: Minor repairs can be carried out at nearby machine shops.
AIRPORT: Copenhagen, 60 miles distant.
AUTHORITY: SEAS-Sydostsjaellands Elektricitets Aktieselskab, Tingvej 7, 4690, Haslev, Denmark. *Tel:* 45-3-692700. *Telex:* 40234. *FAX:* 45-3-695042. *Cables:* Seas. *Contact:* Peter Ramussen.

MIDDELFART: 55.30 N. 09.44 E. (See Plan)

DOCUMENTS: See "Copenhagen".
PILOTAGE: Not compulsory. Middelfart Pilot Station operates on Channel 16.
MAX. SIZE: 5,000 d.w.t. – 6,000 d.w.t., 6.5 m. draft.
TUGS: Available at short notice.
BERTHING: New Harbour: 2 quays, one of 190 m. length, depth 6.5 m., the other of 100 m. length, depth 5.7 m.

Old Harbour: 2 quays, one of 100 m. length, the other of 80 m. length, depth 6.5 m. at both quays. Ro-Ro ramp.

Private Wharves: A. C. Hansens Quay, length 90 m. max., draft 4.6 m. Open to public traffic.

Nordiske Kabel & Trpdfabrikkers Quay, max. length 100 m., depth 7 m.

CRANES: One 15 tonne mobile crane. One 3 tonne crane at A. C. Hansens Quay. Mobile cranes of all sizes available at short notice.
BULK CARGO FACILITIES: Cranes and forklifts of 2 – 15 tonnes. Crane at A. C. Hansens Quay for bulk stores.
STEVEDORES: Working hours: 0700 – 1600 (overtime possible).
Rates of Work: Bulk Cargo: 200 t.p.h. Iron, etc.: 180 t.ph.
MEDICAL: Local hospital available.
FRESH WATER: Available.
FUEL: All grades of fuels and lubricants available at short notice.
DRY DOCKS: One slip for vessels up to 100 tonnes.
CUSTOMS REGULATIONS: See "General" before first port.
AIRPORT: At Billund and Beldringe, both 30 km. away.
TELEPHONES: This service is available aboard ships at all berths by prior arrangement through the Agent. Standard rates apply.
AUTHORITY: Middelfart Havnekontor, Havnegade 79, DK-5550 Middelfart, Denmark. *Tel:* 09-410253. *Contact:* Mogens Jensen, Harbour Master. Office hours 1100 – 1200 hrs.

AGENT: Middelfart Shipping, Havnegade 18, DK-5500 Middelfart. Tel: 09-410072. Telex: 58240 "Miship DK". Cable: Midship.

NAESTVED: 55.14 N. 11.45 E. (See Plan)

DOCUMENTS: See "Kalundborg".
PILOTAGE: Compulsory between the entrance to Karrebaeksminde and Naestved for all ships over 150 g.r.t. VHF Channel 16. Tel. 03 – 727366 and 03 – 742397.
ANCHORAGES: 1 – 2 miles S.W. of head light in Karrebaeksminde in 10 m. – 12 m. depth.
RESTRICTIONS: Only navigable from half hour before sunrise to half hour after sunset, and according to tides. Also see "General" before first port.

Use of tug compulsory through bridge for vessels over 1,800 d.w.t.
MAX. SIZE: Max. length 100 m. Max. draft 5.60 m. with breadth 12.20 m. Max. breadth 14.40 m. with draft 4.80 m.
HEALTH: See "Kalundborg".
RADIO: Lyngby Radio. VHF Channel 16.
TUGS: M/S "Eno" 360 h.p. VHF. Ship's lines. Also see "Restrictions".
BERTHING: No berthing in Karrebaeksminde. Naestved 3 quays: 365 m., 270 m. and 170 m., all with depth 6 m.
BRIDGES: One in Karrebaeksminde, total width 22.0 m. with open bridge, free side height is 20.0 m. Also see "Restrictions".
MEDICAL: Hospital available.
FRESH WATER: Available from quay, 10 t.p.h.
FUEL: All grades. Deliveries by lorry only.
AIRPORT: Kastrup Airport, Copenhagen 90 km. away.
TIME: GMT plus 1 hour.
SHORE LEAVE: No restrictions.
AUTHORITY: Naestved Havnekontor, Toldbodgade 4, 4700 Naestved. *Tel:* 03 – 720056. *Contact:* E. Andersen, Harbour Master.

NAKSKOV: 54.50 N. 11.08 E. (See Plan)

DOCUMENTS:
- Tonnage Certificate.
- Load Line Certificate.
- Valid Derat Certificate (renewal at Nakskov possible).
- Crew Declaration.
- 3 Crew Lists.

PILOTAGE: At Albuen at the entrance of the firth. The pilot station named "Belt Pilot". VHF Channel 16. Notice of ETA to be given as early as possible and not later than 4 hours before arrival.
ANCHORAGES: Safe anchorage in port area for smaller vessels or outside on the Roads in Langelandsbaelt. The pilot station will advise best position depending on wind and current.
RESTRICTIONS: Sailing to and in the harbour at night-time with help of projector and with good visibility only. Also see "General" before first port.
MAX. SIZE: D.w.t.: Approx. 2,000 tons. Draft: 19 ft. Length: 660 ft. Breadth: 70 ft. Height: None – no bridges to pass.
RADIO: Lyngby Radio.
VHF: Operated by Harbour Office during daytime only on Channel 16. Also communication via the pilot station on VHF Channel 16.

All movements to be reported to the Agent only.
TUGS: Tug available with 24 hours notice.
BERTHING: Protected from all winds. Depth up to 20 ft. 6 in. (6.3 m.) 7,500 ft. of quay. In the fairway leading up to the harbour there is a depth of 20 ft. 6 in. (6.3 m.), distance about 6 miles. Max. draft in Fairway 19 ft.
BRIDGES: No bridges to pass. Airdraft unlimited.
STEVEDORES: Arranging gangs for work after noon, notice to be given to the stevedores latest 0900 hrs. For work in the morning, notice to be given to the stevedores the day before latest noon.
CARGO HANDLING FACILITIES: Tracks along the quays in connection with the railway station and all Danish Railways. Also good road connections.

3 grain silos: 4,000, 12,000 and 15,000 tons. 3 grain elevators loading rate 120 t.p.h., 80 t.p.h. and 50 t.p.h. respectively. 1 grain elevator discharging rate 40 t.p.h.

4 mobile belt conveyors loading up to 110 t.p.h.

2 mobile cranes (22 and 32 tons capacity) – also grab and polygrab.

3 forklifts 2.0 – 3.5 tons available. Up to 4.5 tons on request.

3 miniloaders (Bobcats) for discharging of bulk cargoes.
MEDICAL: Treatment all kinds possible, including hospital. Medical attention at dentist, eye and ear specialist normally requires 24 hours notice if possible.
DENSITY: Fresh water.
FRESH WATER: Available from quay or by truck.
FUEL: Available.
CONSULS: Dutch, Finnish, French, Norwegian and Swedish.
REPAIRS: Blacksmith and electrical workshops available to carry out some repairs on deck and engine.
SURVEYORS: At present no surveyors at Nakskov. Must be ordered from Copenhagen.
GANGWAY/DECK WATCHMEN: Not necessary.
DRY DOCKS: Shipyard provided with 2 dry docks up to 32,000 d.w.t., building slips up to 35,000 d.w.t. Cranes to lift up to 100 tons.
OPENING/CLOSING HATCHES: Always carried out by crew.
CUSTOMS ALLOWANCES: 40 cigarettes or 40 grams tobacco, 0.25 litre spirits and 0.25 litre wine per man per day.
CARGO GEAR: Loading/discharging always effected by shore gear, unless otherwise agreed in C/P.
REPATRIATION: Facilities available.
AIRPORT: Small airport for taxi flights close to the port. About 160 km. to the nearest airport served by regular world-wide airlines.
TIME: GMT plus 1 hour. March-September, Summertime GMT plus 2 hours.
POLICE/AMBULANCE/FIRE: Police Tel: 921448. Ambulance Tel: 921744. Fire Tel: 923041. Emergency Tel: 000.
EMERGENCY CO-ORDINATION CENTRE: Soevaernets Operative Kommando (SOK), Aarhus. Call via Radio Stations Lyngby, Roenne, Skaw or Blaavand.
BANKS:

Lollands Bank A/S, DK-4900 Nakskov. Telex: 47542.
Den Danske Bank A/S, DK-4900 Nakskov. No telex.
Handelsbanken A/S, DK-4900 Nakskov. No telex.

STORING: See "Prelims".
1. Vessel can be stored by truck.
2. Trucks can proceed alongside ship.
3. Fork lift can be used.
4. Customs documents from supplier to be shown at the Customs House before loading the stores. In case of bonded stores the loading will be supervised by Customs Officer.

SHORE LEAVE: The crew are allowed ashore, but depending of nationality not allowed to leave the town without permission.
IDENTIFICATION CARDS: Seaman's Book is sufficient.
GENERAL: Provisions to be supplied from a supermarket. If bonded stores are required this has to be delivered by a ship Chandler at another port – transportation fee then to be paid – usually about DKR 300 – depending on distance and order given.
AUTHORITY: Nakskov Havn, Havnen, DK-4900 Nakskov. *Tel:* 3-920313. *Contact:* Harbour Master.
AGENT: Casper Andrea's Eftflg, P.O.Box 66, DK-4900 Nakskov, Denmark. Tel: 03-923333. Telex: 47545 Andrea Dk. FAX: 03-925900. Cables: Andrea Nakskov.

NYBORG: 55.19 N. 10.49 E.

DOCUMENTS:
- Health Declaration.
- Customs Declaration.

PILOTAGE: Required notice ETA 6 hours. Pilot boat VHF Channel 16. Belt Pilot Station, Spodsbjerg Tel: 09-501535, Office Nyborg 09-310089.
ANCHORAGE: South of Knudshoved Lighthouse. Depth 16 m. (52 ft.). Small vessels anchor S.W. of Avernakke Pynt.
RESTRICTIONS: See "General" before first port.
MAX. SIZE: Avernakke Pynt Bro (Oilpier) draft 32 ft. length about 600 ft. Vesterhavn draft 24 ft. length about 400 ft. Lindholm draft 16 ft. length 300 ft.
RADIO: Lyngby Radio.
VHF: Harbour office of Nyborg, call Channel 16, shift to Channels 12 or 13 for working.
TUGS: One tugboat normally stationed in the port. Tugs required notice 8-10 hours.
CRANES: 4 mobile cranes with capacity up to 32 tons with grab.
STEVEDORES: Ordered by Agent.
MEDICAL: Hospital facilities available.
TANKERS: Discharge at Avernakke. Discharge lines 8 in. and 10 in.
DENSITY: About 1005.
FRESH WATER: Supply by pipe-line to berths.
FUEL: All grades available.
GANGWAY/DECK WATCHMEN: Not compulsory.
OPENING/CLOSING HATCHES: Crew allowed open and close, otherwise according Charter Party.
CUSTOMS ALLOWANCES: See "General" before first port.
IDENTIFICATION CARDS: Not required.
CONSULS: Finland 311198, Sweden 310106.

In Odense (near Nyborg);

France	115515	Iceland	131809
Germany F.R.	141414	Spain	136644
Netherlands	119060	United Kingdom	132301

REPAIRS: Most repairs possible.
DRY DOCKS: Floating Dock: 1,000 d.w.t.; Slipway 70 d.w.t.
SURVEYORS: Independent Hull, Machinery, Cargo and P & I Surveyors. Contact: Fyn Besigt, Tel. (09) 311200 (day and night).
AIRPORT: Nearest airport, Beldringe, Odense.
TIME: GMT plus 1 hour.
HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Monday; Prayer Day, Ascension Day; Whit Monday; Christmas Day; Boxing Day.
POLICE/AMBULANCE/FIRE: Police 311448; Ambulance 000; Fire 000.
TELEPHONES: Available at Vesterhavn.
SHORE LEAVE: No restrictions.
SHIP SUPPLY SERVICE: Supplies/crew changes, etc., for ships passing Great Belt. Contact: Thomas Wang A/S. Tel.: (09) 310057. Telex: 50304. Fax: (09) 310016. Cables: Wang.
AUTHORITY: Nyborg Havn, Havnepladsen 10, 5800 Nyborg. *Tel:* (09) 310587. *FAX:* (09) 311580. *Contact:* Soeren Weis, Harbour Master.

NYKOBING (Falster): 54.46 N. 11.52 E. (See Plan)

DOCUMENTS:
- Ship's Register.
- Loadline Certificate.
- Derat Certificate.
- Crew List stating quantity of cigarettes, cigars, tobacco, cigarette paper, spirits, wine and guns.
- Cargo List.

PILOTAGE: Pilot ordered through Agents or VHF Channel 16 (Guldborg Pilot) and will board at Skellerev or Argus Ground (both outside Guldborg Bridge).

ANCHORAGE: (Sand) By Skellerev, S.E. of Argus is safe ground.
RESTRICTIONS: Port only accessible by daylight, max. draft 19 ft. 6 in., max. breadth for passing Guldborg Bridge 25 m. Entrance from South (Gedser) not recommended, as depth of water in the Southern part of Guldborgsund only amounts to 8 ft. Also see "General" before first port.
RADIO: For vessels coming through the Kiel Canal, Kiel Radio could be used, otherwise nearest station Lyngby Radio.
TUGS: Available on request.
BRIDGES: Vessels calling Nykobing Falster have to pass Guldborg Bridge about 8 miles North of harbour. Bridge, breadth 25 m., opens by request after sunrise and half an hour after sunset (from 1st Nov. to 1st March from half an hour before sunrise). When requesting passage use international flag "N" on half foremast and give one long and one short blast.
STEVEDORES: Ordered by Agents on receiving vessel's ETA.
MEDICAL: No advance notice required for medical attention.
FRESH WATER: Supplied from quay installations.
FUEL: All grades obtainable – delivered by tank lorry.
GANGWAY/DECK WATCHMEN: Not necessary
OPENING/CLOSING HATCHES: Carried out by crew.
CUSTOMS ALLOWANCES: See "General" before first port.
IDENTIFICATION CARDS: Not necessary.
CONSULS:

- Finland
- Germany F.R.
- Netherlands
- Norway
- Sweden

REPAIRS: Small deck and engine repairs possible.
AIRPORT: Nearest at Copenhagen (2 hours by train).
TIME: GMT plus 1 hour.
HOLIDAYS: New Year; Maundy Thursday; Good Friday; Easter Monday; Prayer Day; 1st May (Labour Day, half only); Ascension Day; Whit Monday; Constitution Day (5th June, half only); Christmas and Second Christmas Day.
POLICE/AMBULANCE/FIRE: Dial 0-0-0 and ask for police, ambulance or fire service.
SHORE LEAVE: Crew members may go ashore without any restrictions.
AUTHORITY: Nykobing Falster Havn, Havnekontoret, Tommergade 4, DK-4800 Nykobing Falster. *Tel:* (03) 850563. *Contact:* Allan Forne.

NYKOBING (Mors): 56.48 N. 08.52 E.

PORT LIMITS: A line drawn between Orodde Point in a S.W.'ly direction to Refshammer Point defines the seaward limits of the port.
DOCUMENTS: See "Copenhagen".
PILOTAGE: Pilotage is compulsory for vessels more than 200 b.r.t. when passing the Oddesund-bridge, and for vessels with a draft more than 2.8 m. when passing Logstor. Vessels arriving from the West (North Sea) shall contact Thyboron Pilot 3 hours before arrival Thyboron Canal. Vessels arriving from the East (Kattegat) shall contact Hals Barre Pilot 3 hours before arrival Hals Barre Lighthouse. Both stations listen on VHF Channels 16 and 12. When passing Logstor, the Pilots there will take over; also working Channels 16 and 12.
ANCHORAGES: Anchoring is prohibited in the buoyed channel to Nykobing (Mors) Harbour and in the white sector from Glyngore Lighthouse. Good sand holding ground North and East of Orodde Pt.
RESTRICTIONS: None, tankers can be moved during the hours of darkness.
MAX. SIZE: Vessels up to LOA 105 m., beam 25 m. and 4.3 m. draft (SW).
HEALTH: Danish rules apply.
RADIO: Blaavand, Skagen or Lyngby Radio are working on VHF, MF and HF.
VHF: See "Pilotage" and "Radio".
RADAR: None.
TUGS: Available if necessary.
BERTHING: General and bulk cargo can be handled at two berths. The East Pier is 70 m. long but vessels up to 105 m. LOA can be berthed. The South Pier is 57 m. long. Least depth at the inside berth is 4.3 m.
CRANES: 1 mobile crane 25 tonnes without advance notice and 1 mobile crane 15 tonnes with short notice.
BRIDGES: (a) "Sallingsundbroen" connecting the island of Mors to Salling is situated 1 nautical mile S.E. of Nykobing Mors Harbour. Max. vertical clearance is 26 m.
(b) "Oddesundbroen" connecting Thyholm and Struer is situated between Nykobing and Thyboron.
(c) When coming from Kattegat 2 bridges are to be passed. Firstly "Limfjordsbroen" connecting Aalborg and Norresundby, then "Aggersundbroen" N.E. of Logstor.
STEVEDORES: Working hours Monday-Friday 0700 – 1630.
MEDICAL: Full hospital facilities available without prior notice.
TANKERS: There is one berth for tankers, length 63 m. but vessels up to 75 m. LOA can be berthed, depth 4.3 m. One pipe-line only for diesel oil (150 mm.).
DENSITY: 1027.
FRESH WATER: Available, rate 2.5 t.p.h.
FUEL: Available, delivered by trucks.
CONSULS: None.
REPAIRS/DRY DOCKS: Soeren Larsen & Soenner Shipyard, 7900 Nykobing Mors. Tel: 07-721544. Telex: 66698 SLS – DK. Cables: SLS – Yard. Patent slipway up to 350 t., light ship. All kinds of deck and engine repairs. Shipbuilding up to 499 b.r.t.
SURVEYORS: Lloyd's Agents, P. H. Hoejgaard Jensen Aps., 8 Asmusvaenget, DK 8530 Hjortshoej, Aarhus. Tel: 06-196500. Aalborg Survey Association, 4 Vesteraa, DK 9000, Aalborg. Tel: 08-166022.
GANGWAY/DECK WATCHMEN: Not necessary.
HATCHES: Opening/closing carried out by crew.
CARGO GEAR: Loading/discharging normally done by shore gear.
REPATRIATION: All facilities exist for crew changes and repatriation.
AIRPORT: At Thisted (45 km.) and Karup (70 km.). Several departures daily to Copenhagen.
TIME: GMT plus 1 hour. Summertime from March to September (GMT plus 2 hours).
HOLIDAYS: No cargo work on all Danish local holidays.
POLICE/FIRE/AMBULANCE: In emergency dial 000. Otherwise Police: 721800, Ambulance and Fire: Falck 721222.
TELEPHONES: Available onboard for naval vessels only.
SERVICES: Compass adjusting.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not necessary.
DELAYS: Normally no berthing delays.
DEVELOPMENTS: None.
AUTHORITY: Morsoe Kommune, Jernbanevej 7, 7900 Nykobing Mors. *Tel:* 07-721488. *Contact:* B. F. Nielsen, Harbour Master, Havnekontoret, 7900 Nykobing Mors. Tel: 07-720049.

ODENSE: 55.25 N. 10.23 E. (See Plan)

DOCUMENTS:

- Ship's Register.
- Load Line Certificate.
- Radio Safety Certificate.
- Safety Equipment Certificate.
- Derat Certificate or Exemption.
- 1 Crew List.
- 1 Stores List.
- 1 Crew Personal Effects List.
- 1 Cargo Manifest or Bills of Lading.

PILOTAGE: Compulsory for all tankers and for all other vessels of 1,500 d.w.t. and over. Odense Pilot boards just North of light-buoy 2A outside of Gabet. In bad weather the Pilot will board inside of Gabet between light-buoys 2 and 4. Send request for Pilot 6 hours and 1 hour in advance.
ANCHORAGE: Inside of Gabet in depths of 7.5 m. Larger vessels anchor outside of Gabet.
RESTRICTIONS: Port is entered through dredged canal, minimum 35 m. wide, 7.5 m. deep. Navigation usually throughout the year. Ice-breaker assistance available if necessary. Vessels over 3,000 d.w.t. enter in daylight only. Speed limit of 6 knots in entrance canal. Arriving ships must wait for vessels leaving port. Also see "General" before first port.
MAX. SIZE: Draft, max. 6.7 m. fresh water, length, max. 160 m. controlled by swinging basin and draft. Permissible draft for vessels over 100 m. in length to be obtained from Agent.
HEALTH: Pratique granted by Customs Officers who bring Health Declaration for Masters to complete. In event of suspected disease or fever on board radio details to Agent before arrival.
RADIO: Lyngby Radio.
VHF: Port Authority and tug communicate on Channel 12. Odense Pilot on Channels 16 and 12.
Reporting system compulsory. All ships have to call the Pilot Station 30 minutes before entry or departure and comply with instructions from the Pilot Station to ensure safe navigation.
TUGS: Tug is available (660 h.p.). Not compulsory but necessary for large vessels. Tug normally joins vessels in port. Large vessels at Gabet. Ship's line.
BERTHING: Three harbour basins including 4,200 m. of quays with depth of 7.5 m. alongside. Coal quays at Fynsvaerket, depth 7.5 m. alongside.
CRANES: At Basin I: 1×3.5 ton crane with grab if needed.
At Basin II: 1×3.5 ton crane with grab if needed.
At Basin III: 2×6 ton cranes, 1 with grab if needed; 1×15 ton crane and 1×34 ton crane with 12 ton grab if needed.
Quay along the canal: 1 private crane with grab.
At Fynsvaerket: 2 cranes with grab and 1 continuous unloader.
Also available in the port: 1×6 ton mobile crane. No floating cranes.
BULK CARGO FACILITIES: 5 private suction-installations for grain, etc. Coal and chemicals are handled by crane.
At Basin II: Grain Loading Terminal. Weather protected. Capacity 250 t.p.h.
At all quays: Mobile Grain Loading arrangement available. Capacity up to 200 t.p.h.
SPECIAL CARGO FACILITIES: Berths available for handling of containers and Ro/Ro traffic. 1 × 16 ton truck.
BRIDGES: No bridges but power lines max. height 45 m.
STEVEDORES: To be arranged through Agent.
MEDICAL: Doctors and hospital facilities anytime. Arrange through Agent.
TANKERS: One berth length 160 m., depth 7.5 m. also one jetty, depth 6 m.
DENSITY: 1003.
FIRE PRECAUTIONS: In addition to the usual precautions a firefighter is posted at the vessel while in the port when the cargo is petrol, kerosene, etc.
AIRPORT: Situated 15 km. from the harbour. 3 – 5 flights a day to and from Copenhagen.
POLICE/FIRE/AMBULANCE: Dial 000 and ask for service required.
CONSULS: All European countries represented.
FRESH WATER: Available by pipe-line at all berths. Rate: 10 – 15 t.p.h.
FUEL: All grades available by road transport.

CUSTOMS ALLOWANCES: See "General" before first port.
TIME: GMT plus 1 hour. Summertime GMT plus 2 hours.
HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Monday; Prayer Day; Ascension Day; Whit Monday; Christmas Day; Boxing Day.

Half-holidays: May 1st, June 5th and December 24th. Work can be arranged.
REPAIRS: All engine and boiler repairs can be effected.
DRY DOCKS: One 500,000 d.w.t. and two 100,000 d.w.t. dry docks in Lindoe Shipyard.
SURVEYORS: N.V. and Lloyd's.
HATCHES: Normally opened by ship's crew.
REPATRIATION: Can be arranged.
TELEPHONES: No telephones on board.
SERVICES: Compass adjustment can be arranged.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not necessary.
REGULATIONS: Nothing unusual.
DELAYS: None.
AUTHORITY: Odense Port Authority, Londongade 1, DK-5000 Odense C, Denmark. *Tel:* (09) 120025. *FAX:* (09) 914774. *Contact:* Finn Vinther, Harbour Master.

OREHOVED: 54.57 N. 11.51 E. (See Plan)

PILOTAGE: Pilots may be ordered through Masnedo Pilot on VHF Channel 16 or through the Harbour Authorities.
MAX. SIZE: Max. LOA 150 m., Max. draft 6.5 m.
VHF: Harbour Office on Channel 16 during office hours and when vessel expected. Working on Channels 13 and 12.
TUGS: To be ordered 12 hours in advance.
BERTHING: Length of quay 165 m. Depth alongside 5.0 m. – 7.0 m. Depth in basin 7.0 m.
CRANES: 1×20 ton travelling crane.
FRESH WATER: Available
AUTHORITY: Orehoved Shipping and Stevedoring Aps., Orehoved Havn, DK-4840, Nr. Alslev. *Tel:* (03) 84 61 58. After Hours: (03) 84 63 61, (03) 83 47 42. *Telex:* 40104. *Cables:* Shipohoj. *Contact:* J. Toft.

RANDERS: 56.29 N. 10.04 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Lists with statement of each crew member's cigarettes, tobacco and spirits.
PILOTAGE: Apply for Pilot 6 hours before arrival. VHF Channel 16, one hour before. Pilot station, Tel: 06-485024.
ANCHORAGE: Outside Entrance buoy in 8 m.
RESTRICTIONS: Only vessels less than 1,000 d.w.t. may enter at night. Also see "General" before first port.
MAX. SIZE: Max. length, 475 ft.; breadth, 57 ft.; draft, 19 ft.
HEALTH: No special requirements.
RADIO: Lyngby Radio and Skaw Radio.
VHF: VHF service from Harbour Office, Channel 16, icebreaking 16.
TUGS: 900 h.p. tugs available – use ship's lines.
BERTHING: 76 berths available. Depth alongside 7 m.
STEVEDORES: Ordered by Agents. Working periods: Monday to Friday 0730 – 1130 hrs., 1200 – 1615 hrs. Saturday no work.
MEDICAL: Hospital facilities available.
TANKERS: 6 in. and 8 in. discharge lines; no slop facilities.
DENSITY: Brackish in port area. No tide.
FRESH WATER: Shore installations.
FUEL: All grades. Deliveries by lorry only.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: By crew.
CERTIFICATES: Tonnage Certificate, Derat Certificate, Load Line Certificate.
CUSTOMS ALLOWANCES: See "General" before first port.
IDENTIFICATION CARDS: Not required.
CONSULS: Norway (06) 42 61 00, Finland (06) 42 77 11, France (06) 42 35 83, Sweden (06) 43 46 74, Iceland (06) 42 55 55.
REPATRIATION: Several hotels and Seamans' Home.
REPAIRS: Engine repairs and minor repairs.
SURVEYORS: Arranged by Agent.
AIRPORT: Tirstrup Airport 40 km. from Randers, 5 – 7 daily connections with Copenhagen.
TIME: GMT plus 1 hour in Winter. Summertime from March-September.
HOLIDAYS: 1st January (New Year); Maundy Thursday, Good Friday, Easter Monday; 1st May from 1200 hrs. (Labour Day); Whit Monday from 1200 hrs.; 24th December from 1200 hrs.; 25-26th December (Christmas).
POLICE/AMBULANCE/FIRE: Tel. 000.
AUTHORITY: Harbour Master, Randers Havnevaesen, Ostervold 46, 8900 Randers. *Tel:* 06 – 421057. *Contact:* G. Drachmann, Harbour Master.

RODBY: 54.39 N. 11.20 E. (See Plan)

DOCUMENTS:
1 Crew List.
1 Passenger List.
1 Stores List.
1 Manifest or Bill of Lading.
PILOTAGE: As the harbour is so easily accessible there is no Pilot. A person with local knowledge may be engaged by calling ferry "Danmark" VHF 16.
ANCHORAGES: At a distance of 1.5 – 2 miles, bearing S.E. – S.S.E. of approaching buoy, depth of water 10 m.
RESTRICTIONS: See "General" before first port.
REGULATIONS: Ferries owned by D.S.B. or D.B. (Train ferries) have priority using the entrance.
MAX. SIZE: Largest vessel: Length 80 m. Draft 4.5 m. Depth of water in North and West Basin: 5 m. N.E. Storm can give rise of up to 1.5 m. S.W. Storm can give fall of 1.2 m. on daily depth.
HEALTH: No Certificates required.
RADIO: All messages via "Lyngby Radio" and Port Radio, VHF Channel 16, working Channels, 8, 10 and 11.
TUGS: None.
BERTHING: Quay length 518 m. equipped with 1 mobile crane 25 tons capacity. Two grain silos, loading capacity 60 – 90 t.p.h.
STEVEDORES: Provided by "LF Shipping" Tel: 03.905522. Telex: 40022; Shipbroker A. Hovmand, Tel: 03.888011, Telex: 40256; Shipbroker H. Kristiansens Eftf, Sakskobing, Tel: 03.894434.
MEDICAL: 2 hospitals available.
FRESH WATER: Can be supplied alongside the quay.
FUEL: Obtainable alongside the quay.
OPENING/CLOSING HATCHES: By crew or stevedores, ship's option.
CERTIFICATES: On arrival, ship's register only.
CUSTOMS ALLOWANCES: See "General" before first port.
IDENTIFICATION CARDS: Not required.
AIRPORT: Maribo Airport, 14 km.
SHORE LEAVE: After clearing inwards, Crew members are allowed to go ashore without special permission.
AUTHORITY: Havnekontoret, Ostre Kaj 3, 4970 Rodby. *Tel:* 03.905722. *Contact:* Captain J. H. Roer, Port Captain, Tel: 03.905322 (private). Assistant Tel: 03.900407.

RONNE: 55.06 N. 14.42 E. (See Plan)

DOCUMENTS:
1 Crew List.
1 Passenger List.
1 Customs Declaration.
1 Declaration for crew's tobacco, spirits, etc.
1 Declaration of Health.
1 Declaration to Police, number of crew, passengers, etc.
1 Bill of Lading (or Manifest).
PILOTAGE: Apply for Pilot via Ronne or Lyngby Radio, advance notice not less than 1 hour. Pilot listens continuously on VHF. Call Ronne Pilot or Ronne Harbour. Area where Pilot to be taken on board is by Ronne Light Buoy, 2 miles S.W. of the harbour; if weather bad pilot boat guides the ship inside the breakwater and then Pilot boards.
ANCHORAGE: No safe anchorages outside the harbour.
RESTRICTIONS: See "General" before first port.
MAX. SIZE: Max. length 400 ft. – 450 ft., draft 22 ft. There is no tide.
HEALTH: No special procedure necessary, but if there is suspected disease or fever on board or ship comes from area with fever, etc., call for quarantine doctor. If ship's last call was Danish port Pratique automatic.
RADIO: Ronne Radio, call-sign OYE; or Lyngby Radio, call-sign OXZ.
VHF: Listens on Channel 16. Working Channels 12 and 13. Same in tug and Pilot boat. Mainly traffic concerning pilotage and harbour operations.
RADAR: Located at pilot station, mostly look-out aid, but advice on entering can be given.
TUGS: Normally join the vessel inside breakwater; ship's lines to be used.
BERTHING: 3 berths equipped with hydraulic ramps for Roll-on/Roll-off traffic via stern or head only, one of which is suitable for ships up to 450 ft. length, 65 ft. beam, draft 21 ft.

3 berths for sand loading 400 – 600 t.p.h., for vessels up to 350 ft. length, 21 ft. draft.

2 berths for macadam loading 400 t.p.h., for vessels up to 300 ft. length, 21 ft. draft.

3 mobile cranes with capacities up to 60 tons are available for both hook and grab operations.

Also berths for handling coal and grain.
STEVEDORES: To arrange gangs Monday morning, advices have to be given Friday before 1100 hrs. To arrange work other days, notice must be given before 1600 hrs. the day before.
MEDICAL: Hospital facilities are available. It is not necessary to give advance notice.
TANKERS: Two berths for coastal tankers, draft up to 22 ft., length up to 300 ft. For tankers of 1,500 d.w.t. and upwards, Pilot is compulsory when entering and leaving the port.
DENSITY: 1013.
FRESH WATER: Available alongside, rate 10 t.p.h.– 12 t.p.h.
FUEL: Light fuel, Redwood 200 sec. Heavy fuel 3500 sec., also 1000 and 1500 sec. Notice 6 hours ETA.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Carried out by crew.

CERTIFICATES: Nationality Certificate, Derat Certificate, Load Line Certificate, Radio Certificate. (Safety Certificate for passenger ships only).
CUSTOMS ALLOWANCES: see "General" before first port.
IDENTIFICATION CARDS: Not needed.
CONSULS: The following countries are represented in Ronne: Sweden, Finland, France, Netherlands, Norway and Germany (F.R.).
REPAIRS: All kinds of repairs can be carried out.
SURVEYORS: Available from Copenhagen. The Harbour Master has from time to time been appointed by insurance companies and surveyors to carry out hull and cargo surveys.
DRY DOCKS: Only small ships up to 350 tons.
REPATRIATION: Possible.
AIRPORT: 3 miles, served 3 – 5 times per day by SAS to Copenhagen.
TIME: GMT plus 1 hour. Summertime GMT plus 2 hours from last Sunday in March to last Sunday in September.
HOLIDAYS: New Year's Day; Easter, 3 days: Thursday, Friday, Easter Day (Monday); May 1st; Whit Monday; June 5th; Christmas Eve; Christmas Day; 2nd Christmas Day. Cargo work only possible for foodstuff, etc.
POLICE/AMBULANCE/FIRE: In emergency cases dial 000 or call by Ronne Radio.

In ordinary cases: Police 03951448. Ambulance 03951808. Fire 03951247.

SERVICES: Supply of charts, nautical publications, sounding paper, etc. Radio and Radar repairs carried out. Compass adjustment is carried out by means of transportable Gyro compass.
BANKS: No American or European banks in this area, most Danish banks have connections with the major international banks.

Kobenhavns Handelsbank, Ronne Branch. Tel: (03) 95 22 11, Telex: 48155 Roco Dk.

Bornholmerbanken, Ronne. Tel: (03) 95 00 61, Telex: 48117 Bornbk Dk. Connected to Den Danske Provinsbank, Copenhagen, American Express International Banking Corp. London and Midland Bank Ltd., London.

Andelsbanken, Ronne. Tel: (03) 95 20 01. This bank is a branch of Andelsbanken, Copenhagen, which has Telex: 27086 Dk. Connected to London & Continental Bankers Ltd., London, Internationale Genossenschaftsbank, Basel Switzerland and Europaischer Genossenschaftsbank, Zurich, Switzerland.

EMERGENCY CO-ORDINATION CENTRE: Emergency operations in Danish waters are co-ordinated by the Royal Danish Navy. Emergency operations in the area around Bornholm are co-ordinated and guided by the Royal Danish Navy Surface Rescue Centre. Tel: (03) 95 20 11. No telex number is available, but on request by telephone the rescue centre can answer by telex.
STORING: See "Prelims".

1. Vessels can be stored both by truck and by barge, but as all loading and discharging is taking place alongside piers, barges are never used for storing ships. Furthermore, no special barges are available for that purpose.
2. There are no special regulations concerning the storing of ships. Normally ships do not take large quantities of stores at Ronne.
3. Trucks can proceed alongside ships on all piers except on Pier 12 (oil pier), where the truck must remain about 80 yards from the ship.
4. Likewise fork lifts can be used on all piers except Pier 12.
5. Customs regulations regarding bonded stores only.
6. Normally only the ship's crew employed.

SHIP SUPPLY SERVICE: None. Pilot boat is normally used for transferring stores, crew and sick personnel. Ships are normally served in the roadstead outside the harbour.
SHORE LEAVE: Allowed.
DELAYS: None.
DEVELOPMENTS: New outer breakwaters are under construction. Leading lights temporarily extinguished as new leading line is under construction. Fog signal is now situated on South outer breakwater head.
AUTHORITY: Ronne Havnevaesen, Havnekontoret, Finlandsvej 3, 3700 Ronne, Denmark. *Tel:* 03-950678. *Contact:* John Lou, Harbour Master.
Harbour Board (Municipal): Ronne Kommunes Havneudvalg, Landemaerket 26, 3700 Ronne, Denmark.

SKAELSKOR: 55.15 N. 11.18 E. (See Plan)

Admiralty Charts 2597 and 2118 cover the approaches to and the port of Skaelskor. Depth at the entrance to port is 4.5 m.
DOCUMENTS: See "Copenhagen".
PILOTAGE: Not compulsory. Pilot to be ordered via Agents with minimum 6 hrs. notice. Pilot vessel is equipped with VHF; Channels 16, 12, 10 and 6.
ANCHORAGES: Available outside Skaelskor Fjord.
RESTRICTIONS: Entering the port at night is permitted only by vessels equipped with a searchlight.
MAX. SIZE: Max. draft 4.2 m., max. length 60 m., max. beam 10 m.
HEALTH: Usual Danish regulations apply.
RADIO: Lyngby Radio.
VHF: See "Pilotage".
TUGS: None.
BERTHING: Outer harbour: Depth 4.5 m., 200 m. quayage. Inner Harbour: Depth 3.8 m., 120 m. quayage.
CRANES: 1 mobile crane with 7 tons lifting capacity.
BULK CARGO FACILITIES: 1 belt conveyor available for loading grain.
MEDICAL: Facilities available.
TANKERS: No dirty ballast facilities available.
DENSITY: Varies from 1007 to 1023.
FRESH WATER: Available.
FUEL: Available.
REPAIRS: Can be undertaken.
DRY DOCKS: None.
SURVEYORS: Available.
REPATRIATION: Can be arranged.
AIRPORT: Nearest at Copenhagen.
TIME: GMT plus 1 hour; Summertime (March – September) GMT plus 2 hours.
TELEPHONES: No facilities for placing telephones on board vessels exist.
AUTHORITY: Skaelskor Havnekontoret Naestvedvej 15, DK-4230, Skaelskor. *Tel:* (03) 594204. *Contact:* R. Larsen.
AGENT: Aage C. Frederiksen I/S, P.O.Box 4, DK. 4230 Skaelskor. Tel: 453 594002. Cables: "Shipbroker". Telex: 40222 (ACF DK). Fax: 453-590544.

SKAERBAEK: 55.31 N. 09.37 E. (See Plan)

DOCUMENTS:
Ship's Register.
Load Line Certificate.
Radio Safety Certificate.
Safety Equipment Certificate.
Derat Certificate or Exemption.
1 Crew List.
Stores List.
Crew Personal Effects List.
Cargo Manifest or Bills of Lading.

PILOTAGE: Not compulsory. Pilot joins at mouth of Kolding Fjord. Can be contacted by VHF Channel 16.

Bigger ships usually take Pilot by Skaw L/V. Pilots to be ordered by ETA-telegrams to Skawpilot Skagen, at least 12 hours in advance. Skawpilot listening on VHF Channel 16.

ANCHORAGE: Off Skaerbaek in depths of 39 ft.
RESTRICTIONS: See "Tankers" and "General" before first port.
MAX. SIZE: LOA 250 m. Max. draft 38 ft.
RADIO: Lyngby Radio.
TUGS: Available, at short notice.
BERTHING: Power Station Wharf: 253 m. length; depth alongside 25 ft. Oil Jetty: depth 39 ft.
CRANES: 2×12 ton coal cranes.
STEVEDORES: Working hours: Monday to Friday 0700 – 1530 hrs.
TANKERS: One berth, depth 39 ft. (11.9 m.). Max. length between bow/stern and manifold 127 m. (417 ft.). 3×12 in. discharge arms, rate 4,000 t.p.h.
MEDICAL: Medical attention available, nearest hospitals at Kolding and Fredericia.
DENSITY: 1017 (approx.).
REPAIRS: Local machine shops can manage small repair jobs.
DRY DOCKS: None.
FRESH WATER: Obtainable from quay.
FUEL: Available by barge from Fredericia.
CONSULS: Nearest at Kolding. Distance 15 km.
REPATRIATION: Possible.
AIRPORT: Billund or Odense, both approximately 50 km. distant, and with daily flights to Copenhagen.
CUSTOMS ALLOWANCES: See "General" before first port.
TIME: GMT plus 1 hour.
HOLIDAYS: New Year's Day; Maundy Thursday; Good Friday; Easter Monday; Prayer Day; Ascension Day; Whit Monday; Christmas Day; Boxing Day. Half holidays: May 1st, June 5th and December 24th.
AIRPORT: Billund Airport, 40 km. distant.
AUTHORITY: I/S Den Sydostjydske Faellescentral Skaerbaekvaerket, DK 7000 – Fredericia. *Tel:* 05/562466 or 05/562733. *Telex:* 51145. *Cables:* Elship Fredericia.

SKAGEN: 57.43 N. 10.36 E. (See Plan)

DOCUMENTS: Crew List, Tobacco List, Stores List, Derat Certificate, Health, Tonnage, Nationality and Cargo documents.
PILOTAGE: Local Harbour Pilot available on request to the Harbour Office. Sea Pilot may take vessels to all harbours on the East coast of Jutland, to the Sound, and through the Great Belt to the Baltic Sea. Tel: 08445566 or VHF Channel 16.
ANCHORAGES: Off the harbour entrance.
APPROACHES: The entrance between the outer moleheads is 75 m. wide and facing S.E. Approaching vessels should – when 400 m. from the entrance – keep the leading lights in line bearing 334°. Entering vessels have right of way over departing vessels. Maximum speed inside the outer harbour is 3 knots.
Tides and Current: Tidal range 0.3 m. Gale from W. may raise the sea level by 1.4 m. and from E. lower it by 0.9 m. Winds from S.S.W. – W. cause N.E. going current and those from N. – E. – S.E. cause S.W. going current. The prevailing current runs N.E., up to 2 knots.
MAX. SIZE: Largest vessels which can enter Skagen Harbour: Length 125 m., beam 18 m., draft 6.7 m.
VHF: Day and night watch on Channel 16 by Port Captain's Office.
BERTHING: The harbour consists of 6 basins. Depths: Outer Harbour 7.0 m.; East Basins I & II 6.5 m.; Auction Basin 5.0 m.; Middle Basin 5.0 m.; West Basin 5.0 m.; Pound Net Basin 3.5 m.
FRESH WATER: Available.

FUEL: Available by barge.
DRY DOCKS: Yards with slips for vessels up to 50 m. length and 600 tonnes displacement.
GENERAL: Imports: Oil. Exports: Fishmeal and other fish products.
AUTHORITY: Skagen Havn, Havnekontoret, P.O.Box 140, Havnevagtsvej 30, DK 9990 Skagen, Denmark. *Tel:* No. 08–441060, 08-441346. *FAX:* 08-450338. *Contact:* Bruno Thaibert, Harbour Master.

SONDERBORG: 54.55 N. 09.47 E. (See Plan)

DOCUMENTS:
Ship's Register.
Crew List.
Radio Safety Certificate.
Load Line Certificate.
Safety Equipment Certificate.
Customs Declaration.

PILOTAGE: Vessels exceeding 6.5 m. in draft or 4,000 gross tonnage use Northern entrance where Pilot boards vessels North of Snogbaek Hage, or further North if required.

Vessels coming from South, Pilot boards off the Middelgrund.

RESTRICTIONS: No restrictions on night entry. No tide. Current mostly North-going with a maximum speed of 3 knots. N.E. to Easterly winds raise water level up to 1 m. West to North-Westerly winds lower the water level by the same amount.

MAX. SIZE: From South passing through the harbour bridge, 4,000 g.r.t., draft 6.5 m.

From North 30,000 g.r.t., draft 9.5 m., air draft 33 m., LOA 200 m.

VHF: Radio on pilot station, Channel 16, 12 and 13. For Pilot and Harbour Master tel: 04-422765.

TUGS: Small harbour tug available; 6 hours notice required.

BERTHING: *South Harbour:* Mainly used by passenger vessels and fishing boats.

New quay with length 120 m. and depth alongside 7.5 m. has been completed.

North Harbour: Concrete quay about 800 m. long, depth alongside 7.5 m. Plywood factory, dolphin moorings with depth of 9.0 m.

Mooring facilities at heavy dolphins over 650 m., 25 m. from shore and along paved road, water depth 9.0 m. Generally used for laying up.

CARGO GEAR: Discharging and loading by ship's own gear or by mobile cranes of which the harbour have three, with a max. lifting capacity of 30 tons (60 ton crane).

BRIDGES: King Chr. X's Bridge divides Sonderborg port into South Harbour and North Harbour. The bridge is a double wing bascule bridge with an opening width of 30 m. For passage call "Sonderborg Bridge" on VHF Channel 16 regarding opening times.

North of the harbour, the Alssundbridge crosses the sound. The bridge has a horizontal clearance of 150 m., and a vertical clearance of 33 m.

MEDICAL: Full hospital facilities available without prior notice.
FRESH WATER: Supplied by pipe-line to berths.
FUEL: Available day and night.
REPAIRS: Routine maintenance and smaller engine repairs can be carried out. Shipyard and floating dock (46 m. × 10 m.) with lifting capacity of 350 tons.
CONSULS: Finland, Netherlands and Norway.
AIRPORT: In Sonderborg, with regular flights to Copenhagen.
TIME: GMT plus 1 hour.
STORING: Vessel may be stored by truck or barge. Trucks may proceed alongside, fork lift trucks and riggers may be used.
AUTHORITY: Sonderborg Havnekontor, Norrebro 1, 6400 – Sonderborg, Denmark. *Tel:* 04-422765. *Contact:* Lass Andersen, Harbour Master and Pilot.

STEGE: 54.59 N. 12.17 E. (See Plan)

LOCATION: Stege is situated in a sheltered bay on the N.W. coast of Moen.

DOCUMENTS:
Ship's Register.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Safety Construction Certificate.
Derat Certificate or Exemption.
Bill of Lading (if cargo).
Crew List.

Customs need a Tobacco and Spirit List, showing the vessel's and the crew's supply on arrival. Customs clearance effected at Naestved.

APPROACHES: From the West, Stege is approached via Masnedsund. From the Baltic via Bogestrom Channel (2.1 m. depth). There is an entrance channel, 5 miles long and dredged to 4.1 m., leading to the port.

PILOTAGE: Local Pilots from Masnedoe, meet the vessel off the entrance channel. Sea Pilots can be taken from Spodsbjerg, Korsor or Gronsund.

ANCHORAGES: In Ulvsund, off the entrance channel.
RESTRICTIONS: Daylight navigation only. During winter, harbour may close due to ice.
MAX. SIZE: LOA 80 m. and 3.8 m. draft. Tidal range 0.3m.
VHF: Pilots can be contacted by VHF.

BERTHING: 800 m. of quayage in a series of basins.

Depths are: (i) N. Harbour 3.7 m. – 4.2 m.
(ii) Outer Harbour up to 4.3 m.
(iii) Sugar Factory Harbour 4.0 m.
(iv) Inner Harbour 3.7 m.

CRANES: 1 × 3.5 tons, at Sugar Factory Harbour. 1 × 5.0 ton stationary crane at the Outer Harbour.

BRIDGES: Storstromsbroen has a vertical clearance of 26 m. A new bridge has been constructed across the Storstrom with a vertical clearance of 21 m. Power lines with 36 m. vertical clearance lie to the West of Masnedoevaerket. To the East of Masnedoevaerket, there is a bascule bridge with 25 m. horizontal clearance. Dronning Alexandrines Bridge has a vertical clearance of 26 m. across Ulvsund.

STEVEDORES: Working hours: 0700 – 1600.
MEDICAL: Local hospital available.
FRESH WATER: Available.
FUEL: Available.
REPAIRS: Machine shop available.
DRY DOCKS: None. 1 slip for vessels up to 150 tons.
AIRPORT: Copenhagen, 110 km. distant.
AUTHORITY: Mon Kommune, Ved Stranden 4, DK-4780 Stege, Denmark. *Tel:* 03-815525. *Contact:* Gunner Andersen, Harbour Master.
AGENT: Ole H. Jorgensen, Box 7, DK-4780, Stege. Tel: 03-814018. Telex: 40301 (Ohjstg Dk).

STIGNAESVAERKETS: 55.12 N. 11.15 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
2 Crew Declarations.
2 Ship's Stores Lists.
Usual Ship's Documents.

PILOTAGE: Vessels to apply for a Pilot through their Agent. ETA to be given 48, 24 and 12 hours prior to arrival.

Pilot boat equipped with VHF Channels 16, 13 and 12. It is painted orange on hull and wheelhouse and is stationed at Agersoe.

For vessels coming from the North, Pilots board at Korsoer. For vessels coming from the South, Pilots board at Egholm Flak.

ANCHORAGES: Korsoer Roads, depth 20 m., bottom sand, good holding ground. With area of about 2 nautical square miles.

Gulfhavn Roads, depth 30 m., bottom clay, good holding ground. Area – 1.5 nautical miles long and 0.5 nautical miles wide.

RESTRICTIONS: None.
MAX. SIZE: Coal Berth: Length 300 m. Max. beam 43 m. Max. draft 17 m.

Oil Pier: Draft 15 m.
Ash Berth: Max. draft 7.5 m.

HEALTH: Usual regulations.
RADIO: Skagen Radio or Lyngby Radio.
VHF: Stigsnaesvaerkets Havn, Channels 16, 14 and 12.
RADAR: None.
TUGS: No tugs stationed at Stigsnaes, ship's lines to be used. Minimum of 12 hours to arrange tugs.
BERTHING: Coal Berth: Length 300 m., depth 18 m., max. draft 17 m. – discharging by shore equipment.

Oil Pier: Length no restrictions, depth 16 m., max. draft 15 m., discharge by shore equipment.

Ash Berth: Depth 8.0 m.

CRANES: 2×20 tonne cranes at coal berth, travel 245 m., height from water 22 m. Outlay 31.5 m. Designed average discharging about 850 tonnes/p.h.
BULK CARGO FACILITIES: See "Berthing" and "Cranes".
SPECIALISED CARGO/HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: None.
MEDICAL: If not urgent, no notice required. Doctor, dentist and hospital available.
TANKERS: 1 Berth, depth 16 m., max. draft 15 m. Average discharge 60,000 tonnes/24 hour.

1×12 in. and 2×16 in. booms. The 12 in. boom can hydraulically connect to 8 in., 10 in. and 12 in. flanges, all standards. The 16 in. boom can hydraulically connect 12 in., 14 in. and 16 in. flanges, all standards.

DENSITY: 1007 – 1023.
FRESH WATER: By hose, 15 tonnes/p.h. 10 dkr/tonne.
FUEL: Not available.
FIRE PRECAUTIONS: No special precautions.
CONSULS: Norwegian and Finnish Consuls nearby, others in Copenhagen (120 km.).
REPAIRS: Small repairs can be carried out.
DRY DOCK: None.
SURVEYORS: 1. Caleb Brett and S.G.S. have local representatives.

2. Lloyd's Register, American Bureau and Bureau Veritas must be requested from Copenhagen (120 km.).

GANGWAY/DECK WATCHMAN: None.
OPENING/CLOSING HATCHES: By crew.
CUSTOMS ALLOWANCES: 1 bottle of spirits, 1 bottle of wine, 200 gm. tobacco or 200 cigarettes.
CARGO GEAR: Coal Berth, Oil Pier and Ash Berth, all by shore gear.
REPATRIATION: Possible.
AIRPORT: Distance to Copenhagen airport 120 km. Served regularly by all international airlines.
TIME: GMT plus 1 hour. Summertime (from end March to end September) GMT plus 2 hours.
HOLIDAYS: Depending on situation.
POLICE/AMBULANCE/FIRE: Tel: 000.
EMERGENCY CO-ORDINATION CENTRE: None.
TELEPHONES: None.
SERVICES: Most services can be ordered through Agent.
BANKS: Skaelskoer Bank a/s. Tel: (03) 596070. Telex: 40139.

STORING: See "Prelims".

1. By truck.
2. Yes.
3. Yes.
4. Yes.
5. None.
6. Yes.

SHIP SUPPLY SERVICE: See "Kalundborg".
SHORE LEAVE: Crew can always leave vessel and go ashore.
IDENTIFICATION CARDS: Seaman's Book sufficient.
REGULATIONS: None.
DELAYS: None.
AUTHORITY: S.E.A.S., Stigsnaesvaerket, DK-4230 Skaelskoer. *Tel:* (03) 596011.

STUDSTRUP: 56.15 N. 10.21 E. (See Plan)

LOCATION: The harbour is located in Aarhus Bay in Kalo Inlet.

The harbour of Studstrupvaerket is a private harbour owned by I/S Midtkraft, Aarhus, and is run by Studstrupvaerket.

PILOTAGE: Pilot assistance is imperative for navigation through the prohibited zone on entering Kalo Vig (inlet).

Pilot station: State pilot station, Udbyhoj. Tel: 06 48 50 24.

ANCHORAGE: Ships can anchor in the inlet outside the channel.

APPROACHES:

Leading Marks: On the harbour territory: 2 red fixed lights on bearing 304° 45′ 40″ (T). lead into the harbour.

Rear Light: On boilerhouse: Red triangle with down-turned apex.

Front Light: On the berth: Trellis mast with triangle with upturned apex.

RESTRICTIONS: The harbour is not accessible without special permission from the works management, and it must only be used for purposes concerning operation of the power stations under I/S Midtkraft, and, for the delivery and shipping of fuel to or from the power stations of the companies within Elsam, co-operating with I/S Midtkraft.

The harbour is navigable day and night. The anchor can be used on arrival as well as on departure.

Depth of Water: On entering: 11.3 m. (37 ft.). At the Eastern 405 m. of the quay: 11.3 m. (37 ft.). At the innermost 90 m. of the quay: 7.7 m. (25 ft.).

Water Level: The difference between MHW and MLW is 0.15 m.

Western and Northwestern wind may give HW up to 1.25 m.

Eastern and Southeastern wind may give LW up to 0.9 m.

MAX. SIZE: *Largest Vessels:* Coal: LOA 245 m., beam 33 m. and draft 36 ft. Tankers: LOA 245 m., beam 33 m. and draft 33 ft.

TUGS: Tugs not available locally. An agreement on tug assistance has been made with Svitzer to whom applications can be made. Cable address: Svitzersalvage. Tel: (01) 155195. Telex: 15983.

Tug assistance is normally not required for vessels up to 16,000 d.w.t. capacity.

The harbour supplies a mooring boat for assistance on entering.

BERTHING: Length of quay 495 m. Depth alongside 7.7 m. – 11.3 m.

CRANES: *Discharging of Coal:* 3 travelling cranes with a capacity of 12 tons.

MEDICAL. First-Aid Station: Falck, Hornslet.

Nearest Hospital: Aarhus K/H (Municipal Hospital).

Nearest Doctor: Laegehuset, Skudstrup.

TANKERS: 1×12 in. discharge line for oil. Capacity 1,500 t.p.h. (approx.).

Connections available for 8 in., 10 in. and 12 in. hoses.

FRESH WATER: Available. Rate 14 cu.m.p.h.

FUEL: The port has no stock of bunker oil. If ordered through a broker, bunker oil may be loaded from a tank truck alongside the quay.

REPAIRS: No facilities, however, assistance can be ordered from the repair shop of the power station.

TELEPHONES: See "General".

IDENTIFICATION CARDS: For passing through the main gate a harbour pass is required.

Blank harbour passes for filling in by the ship's personel will be handed over by plant representative upon arrival.

GENERAL: *Clearance:* Nearest Custom House at Aarhus.

Supplies: The nearest towns are Skudstrup (3 km.) and Lugten (4 km.).

Telephone: Telephone calls can be made from the main gate. Payment will be collected by the gatekeeper.

The telephone on quay is for plant purposes and emergency calls only.

Special Regulations: Traffic to and from the port takes place through the gate of the main driveway of the plant by using the direct route from the quay.

Traffic is not permitted to stay or drive in the port.

Instructions from the gatekeeper or from factory employees must be obeyed.

Relatives of ship's crew are permitted to visit the ship provided that the above regulations are observed.

Dealing in commodities of any kind is prohibited in the area of the power station.

Safety Precautions: The port has no special personnel or equipment for fire fighting or life-saving. There is, however, a plant protection unit who handle limited fire fighting and life-saving equipment. There are a number of men trained in first-aid.

In Case of Fire or Accidents: Use the quay telephone. Dial extension 52 (Control Room of the station) and make your report. The Control Room is the alarm centre of the station, and can send for fire fighting assistance, ambulances, and medical attention along with first-aid.

AUTHORITY: I/S Midtkraft – Studstrupvaerket, DK-8541 Skudstrup, Denmark. *Tel:* 06 991700.

SVENDBORG: 55.03 N. 10.38 E. (See Plan)

DOCUMENTS:

Certificate of Registry.
Freeboard Certificate.
Radio Safety Certificate.
Derat Certificate.
Crew List.

PILOTAGE: Telegraphic address, "Pilotstation, Svendborg". For contacting pilot boat on VHF, use Channel 16. International signals for Pilot. In Eastern entrance Pilot boards at Thuro Rev. In Western entrance Pilot boards at Lehnskov, or if ordered at, Skrams Flak.
ANCHORAGES: At Lunkebugt (Eastern entrance) and by Lehnskov (Western entrance).
RESTRICTIONS: See "General" before first port.
MAX. SIZE: Longest ship ever docked was 541 ft. long, 67 ft. breadth, draft 21 ft. 06 in. Shorter ships may enter with deeper draft.
HEALTH: Pratique automatic.
RADIO: All Danish coast stations can be used. (See "Horsens".)
TUGS: Normally tugs stationed in Svendborg, ships wanting tugs order through Agent before arrival.
BRIDGES: 1 mile West of harbour a bridge crosses the sound. Free height 33 m.
STEVEDORES: Ordered by Agent.
MEDICAL: Doctors and hospital service always available.
DENSITY: Approx. 1024.
FRESH WATER: Available at all piers. 20 t.p.h.
FUEL: No bunker lines. Diesel can be delivered by tank lorries.
GANGWAY/DECK WATCHMEN: Available, but not compulsory.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CUSTOMS ALLOWANCES: See "General" before first port.
IDENTIFICATION CARDS: Not needed.
CONSULS: Vice-Consulates: Norway, Tel: 09 21 31 17; Sweden, 09 21 14 10; Finland, 09 21 22 21; W. Germany, 09 21 15 39; Iceland, Tel. 09 21 18 83.
REPAIRS: All repairs to deck and machinery carried out by shipyard.
DRY DOCKS: Floating docks for ships up to 10,000 tons weight.
REPATRIATION: Facilities exist.
TIME: GMT plus 1 hour.
HOLIDAYS: New Year's Day; the day before Good Friday; Good Friday; Easter Monday; May 1st; Ascension Day; May 5th; Prayer Day; Whit Monday; June 5th; 25th and 26th of December.
FIRE/AMBULANCE/POLICE: Call 000.
TELEPHONE: No telephone for ships.
SERVICES: Compass adjusting.
SHORE LEAVE: No restrictions concerning shore leave for crew. Dogs not allowed to go ashore.
AUTHORITY: Port Authority of Svendborg, Jessens Mole 9, 5700 Svendborg, Denmark. *Tel:* 09-210657. *Contact:* Kurt Hansen, Harbour Master.

TUBORG HAVN: 55.44 N. 12.35 E. (See Plan)

DOCUMENTS: Same as Copenhagen.
PILOTAGE: Not compulsory except for tankers loading with petrol. For Pilot call Copenhagen Pilot (see Pilot Information for Copenhagen).
ANCHORAGES: See "Copenhagen".
MAX. SIZE: Max. draft 6.0 m., 4,000 d.w.t.
HEALTH: See "Copenhagen".
RADIO: Lyngby Radio: OXZ. VHF Channel 16 to all installations. ETA cables to Agents and receivers preferably by Lyngby Radio.
TUGS: Can be obtained from Copenhagen.
CRANES: Mobile cranes up to 110 tons can be obtained from Copenhagen.
SPECIALISED CARGO-HANDLING FACILITIES: Shore ramp for Ro/Ro traffic. Modern container-handling equipment available.
MEDICAL: No advance notice necessary. Hospitals available.
FRESH WATER: From water boat.
FUEL: All grades available by lighter. 10 hours notice preferred.
CONSULS: See "Copenhagen".
GANGWAY/DECK WATCHMEN: Not necessary.
HATCHES: Opening and closing carried out by ship's crew.
REPAIRS: All forms of deck and engine repairs can be effected.
CUSTOMS ALLOWANCES: 200 cigarettes. 1 bottle wine, 1 bottle spirits.
REPATRIATION: See "Copenhagen".
AIRPORT: Copenhagen airport 14 miles (23 km.) from Tuborg port. Connections to all parts of the world.
TIME: GMT plus 1 hour. Summertime is kept.
HOLIDAYS: See "Copenhagen".
POLICE/AMBULANCE/FIRE: Dial 000.
TELEPHONES: Not available on board.
SERVICES: Services available for compass adjusting, radio and radar repairs.
SHORE LEAVE: No restrictions.
AUTHORITY: Tuborg Harbour, Tuborg Havnevej 11, DK-2900 Hellerup, Denmark. *Tel:* (1) 29 59 25. *Telex:* 16347 Tuborg DK. *Cables:* Tuborg Copenhagen. *Contact:* K. Guldberg Mikkelsen, Harbour Master – Tuborg Havn.

VEJLE: 55.42 N. 09.33 E. (See Plan)

DOCUMENTS: Required on arrival:
2 Crew Lists.
2 Passenger Lists.
1 Tobacco List.
1 National Reg. Certificate.
1 Load Line Certificate.
1 Tonnage Certificate.
1 Manifest.
1 Bill of Lading.
1 Derat Certificate.
1 Radio Safety Certificate.
1 Clearance inward and outward.
1 Safety Certificate.

PILOTAGE: Pilot station now at Juelsminde, radio Pilot Vejle VHF Channel 16 – 3 hours notice of ETA. The Pilot will embark and disembark at Rosenvold Hage on the N-side of the fjord.

ANCHORAGES: (1) At Rosenvold Hage, (2) at Traeskohage.

RESTRICTIONS: See "General" before first port.

MAX. SIZE: Max. length 550 ft., max. draft 23 ft.

HEALTH: Pratique procedure is carried out by Customs dept.

RADIO: Lyngby Radio, OXZ, Blaavand Radio OXB.

TUGS: Available inside port, ship's lines.

BRIDGES: A highway-bridge has been built over the fjord over the entrance-channel about 1 mile outside the harbour entrance.

Max. height over the channel is 40 m.

STEVEDORES: Available. 0700 hrs. start must be informed 24 hours in advance.

MEDICAL: Hospital facilities available day and night with doctors available 24 hours per day.

TANKERS: 2 tanker berths, max. draft 23 ft. No slop tank available. Diameter of discharge lines 8 in. and 6 in.

DENSITY: Average density 1020.

FRESH WATER: Delivered from lines on piers. 14 t.p.h.

FUEL: All grades available. No advance notice required.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Carried out by crew.

CUSTOMS ALLOWANCES: See "General" before first port.

IDENTIFICATION CARDS: Not needed.

CONSULS: Vice-Consuls: Greece, 821929; Norway, 829122; Spain, 820233; Germany F.R., 820011.

REPAIRS: Deck and engine repairs can be undertaken.

DRY DOCKS: None.

REPATRIATION: No facilities.

AIRPORT: Billund 32 km., 3 flights per day.

TIME: GMT plus 1 hour.

HOLIDAYS: New Year's Day; Easter; 1st May, Whit Sunday, Christmas holidays. Cargo work can be done on overtime except 1st May (Labour Day).

POLICE/AMBULANCE/FIRE: Police, tel. 821744; Ambulance, 822244; Fire, 822244.

TELEPHONES: No arrangements exist for placing on board.

SHORE LEAVE: Allowed.

AUTHORITY: Vejle Havn, Havnepladsen 5, 7100 Vejle, Denmark.

VORDINGBORG (South Harbour – formerly Masnedsund): 54.59 N. 11.54 E. (See Plan)

DOCUMENTS: See "Copenhagen".

PILOTAGE: Available from Masnedoe Pilot Station, Tel: 03-772170.

ANCHORAGE: Vordingborg Roads.

RESTRICTIONS: See "General" before first port.

MAX. SIZE: Draft 19 ft. max., breadth 25 m. (depending on vessel's height) owing to passage of bridge before entering harbour. Width of bridge opening 25 m. At a height of 25 m., width of opening 22 m. due to angle of raised bridge.

RADIO: Lyngby Radio.

TUGS: Available from Nakskov, Korsoer, Copenhagen. Notice for towage about 6 – 8 hours.

BERTHING: Berths equipped for handling grain, ore, coal, liquid chemicals and LPG carriers.

Masnedoe Power Station: See "Port of Masnedoevaerket."

BRIDGES: Passage of bridge 25 m. wide, opening day and night. Bridge normally in radio contact with pilot station. Fully lighted. Approach to power station from the West – pier situated just to the West of opening bridge, and therefore no passage.

In the approach to Vordingborg and power station passage are overhead power cables, max. airdraft 36 m.

STEVEDORES: Local stevedores ordered by Agent.

MEDICAL: Hospital available.

FRESH WATER: Supplied by pipe-line to berths.

FUEL: All common fuels available.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Crew allowed to open and close, otherwise as per C/P.

CERTIFICATES:
Registered Certificate of Tonnage.
Derat Certificate.
Construction Certificate.
Load Line, and Equipment Certificate on first call.

CUSTOMS ALLOWANCES: See "General" before first port.

CARGO GEAR: 2 mobile cranes, one grain-sucker and elevator.

IDENTIFICATION CARDS: Not required.

CONSULS: At Copenhagen.

REPAIRS: Most repairs, engine and equipment available. Electronic service only available from Copenhagen.

DRY DOCK: No local dry dock. Nakskov/Copenhagen nearest.

HOLIDAYS: See "Copenhagen".

POLICE/AMBULANCE/FIRE: Police 03-771448; Ambulance, Fire Brigade 0-0-0.

AUTHORITY: Vordingborg Kommunes, Havnevaesen, 4760 Vordingborg.

NOTES

Please also advise Shipping Guides Ltd.

Republic of Djibouti

DJIBOUTI: 11.36 N. 43.08 E. (See Plan)

PORT LIMITS: *Maritime Limits:* The reference data for the delimitation of the maritime zone coming under the Port of Djibouti are as follows:

Point I:	The pyramid situated on the right bank of the mouth of the Oued Ambouli.
Point II:	Lat. 11° 36′ N., Long. 43° 08′ E.
Point III:	Lat. 11° 39′ N., Long. 43° 06′ E.
Point IV:	Lat. 11° 39′ N., Long. 43° 10′ E.
Point V:	Lat. 11° 37′ N., Long. 43° 08′ E.

DOCUMENTS: Crew List for ship's Agent. Crew Manifests and Manifests of Passengers in Transit or for disembarkation, for whom disembarkation cards are to be completed. Presentation of Health Declaration and verification of compulsory immunisations by the health representative.

The following documents are required, preferably prior to the arrival of the vessel.

	Cargo Manifest	*Freight Manifest*	*Dangerous Cargo List*	*Stowage Plan*	*Hatch List*
For Djibouti Port Authorities	6	—	2	—	1
For Stevedores	3	—	—	1	1
For Agent	1	2	—	—	—
If transhipment, additional	2	—	—	—	—
To be despatched by airmail or airfreight in due time, prior ship's arrival at Djibouti	3	1	1	1	1
On board vessel and if impossible by airmail or airfreight	7	1	1	—	—

Derat Certificate: At the present time Derat cannot be carried out at Djibouti, but the Port Health Authority, after inspection, are empowered to extend expired certificates by one month.

PILOTAGE: Pilotage is compulsory for all vessels with a nett tonnage in excess of 300 tons and is available 24 hours a day, throughout the year.

Pilots board inward bound vessels between No. 1 Buoy and No. 2 Buoy. Outward bound vessels normally disembark their Pilot between No. 2 Buoy and No. 4 Buoy. Pilot boats are painted white and carry the flag "H" by day and the usual lights by night.

An internationally approved pilot ladder on the lee side with manropes, and suitably illuminated at night time, must be available.

Vessels calling for Pilots at departure if unable to contact the pilot station on VHF should sound 3 long blasts on whistle or siren half an hour prior to sailing, this signal also calls the tug and mooring gang.

ANCHORAGE: Anchorage zone is within following limits:

1. Eastern limit: a line parallel to and 0.25 miles West of the North passage.
2. Southern limit: Latitude 11° 37′ N.
3. Western limit: a bearing with the Western extremities of Penguin and Ambouli Banks in alignment.

It is forbidden to anchor 1.5 cables on each side of the alignment of Ambouli and d'Ayabele Lights.

Average depth is of 15 m. to 20 m. Anchor holding is excellent, even with a strong S.W. monsoon when there is often a heavy swell.

It should be noted that anchorages within a quarter of a mile of either side of the entry transit line is strictly prohibited.

APPROACHES: Djibouti Bay can be reached from 2 channels – North and East. Only the Northern one is marked.

The Traditional Channel – The "North" Pass: The port, which has easy access by day or night, is normally entered by the North Channel, vessel after rounding Ras Bir, passing to the Northwards of Musha and Maskali Islands until the transit towers situated to the Westward of the town are sighted. The two transit towers, when in line, bear 184° (T) from seaward. Both towers exhibit quick flashing lights which at night time may be easily seen at a distance of 9 miles. In daytime the two towers may be located by first sighting Mount Direction, a distinctive conical hill to the Southward. The nearest transit tower is a white rectangular building with a single wide vertical black stripe while the further tower is a white rectangular building with two broad horizontal stripes.

When on the leading line proceed to Buoy No. 2 on the Heron Bank, where the Pilot will board; the Master is advised to await the Pilot slightly North of Buoy No. 2.

The "South" or "East" Channel: The Southern or Eastern approach for vessels entering passes South of Musha and the Maskali Islands after clearing the Arab Bank. Vessels using this approach must keep at least 1 mile North of the Heron Bank until they reach the transit line described above. The Pinqouin Bank Buoy situated West of the transit line makes a good check point.

The Northern channel is usually used for vessels proceeding in a N.N.E. direction.

The Eastern channel is not marked, and is not recommended for vessels approaching the port. Approaching from the East of the island of Musha by day can be dangerous if visibility is poor.

RESTRICTIONS: Entry during the day or night. Highest tide 2.90 m. Mean tide is approximately 1.60 m., and lowest are 0.20 m. Tidal currents are very weak in bay and rarely exceed 1 knot.

MAX. SIZE: Entrance to inner roads dredged to 11 m. depth.

Max. Draft: Cargo vessels 32 ft. Vessels bunkering 36 ft. Tankers (white products) 32 ft. Tankers (black products) 36 ft.

HEALTH: Generally Free Pratique by radio can be granted to all ships applying through Coast Station Djibouti Radio. Ships must radio in plain or international code, a maximum of 12 hours and a minimum of 4 hours prior to arrival in port. In all cases, when Pilot boards vessel he gives Master a copy of Maritime Health Declaration which must be filled in by Master and countersigned by ship's doctor, if the crew includes one. An examining official comes on board when vessel arrives to receive the Maritime Health Declaration. Cholera and Yellow Fever Certificates required from all travellers coming from an infected area, excepting children of under 6 months of age.

RADIO: *Via the Harbour Master's Office:* For short distance communications, ships can link up with the Harbour Master's Office, by VHF radio-phone: the Harbour Master's traffic unit is equipped with a VHF station for broadcasting and receiving on Channel 12 (156.6 MHz) and Channel 16 (156.8 MHz). These links are solely for the exchange of nautical information between the Harbour Master's Office and vessels (confirmation of ETA; ship's draft; and orders concerning the boarding time of the Pilot and dropping the anchor to wait for Pilot.)

Via Djibouti Coastal Station: For medium or long distance communications, ships can link up with the shore through the coast station at Djibouti, by radio telephone or telegraph. This station can meet all requirements from ships using the port of Djibouti. It handles official and private communications and is permanently on watch.

Call sign J2A maintains a continuous 24 hours listening watch on 500 kHz and replies on 464 kHz.

For long distance communication using the call sign "J2A8", the station maintains listening watches between 0400 hrs. and 1000 hrs. GMT and 1200 hrs. to 1715 hrs. GMT on 8682 kHz. Traffic lists are transmitted at 0400 hrs., 0600 hrs., 0800 hrs., 1200 hrs., 1400 hrs. and 1600 hrs. GMT.

In the 12 megacycle band using the call sign "J2A9", the station works on the frequency 12,782 kHz between 1000 hrs. and 1200 hrs. GMT. Traffic lists are transmitted at 1000 hrs. and 1100 hrs. GMT.

Radio-telephony: Djibouti Radio (J2A) service covers the following:

(a) The station can cover medium distances through radio-telephone, from 1605 kHz to 2850 kHz.

Call sign: Djibouti Radio/J2A.
Call frequency: 2182 kHz.
Working frequency: 2586 kHz.
Power: 1 Kw.
It is open for the international calls (2182 kHz) at the following times:
From 0500 – 0900 hrs., and from 1300 – 1500 hrs. GMT.

(b) VHF
Listening Channel 16 (156.8 MHz).
Working Channel 20 and 24 (24 hours).

Vessels can link up with subscribers of the automatic telephone system in Djibouti.

Radio telegrams sent to ships at sea must be delivered to the telegraphic section at the post office, Ave de la Republique, during office hours.

TUGS: In Winter (slight Easterly monsoon), a single tug is generally sufficient for manoeuvring. In Summer during the Khamsin period, berthing or sailing often requires 2 tugs. There is a 1,500 h.p. diesel tug *Aboubaker Pacha;* a 1,800 h.p. tug, *A. Rimbaud;* a 1,400 h.p. diesel tug *Henri Lambert;* a 2,200 h.p. tug *Bab-El-Mandeb* and 1 auxiliary 600 h.p. tug. All tugs equipped with fire fighting equipment.

BERTHING:

Quay	*Length* (m.)	*Depth* (m.)	*Usage**
No. 1	180	9.5	L, D, B, Containers
No. 2	220	12.0	L, D, Containers, Ro-Ro
No. 5	210	9.0	L, D
No. 6	180	9.0	
No. 7	250	10.0	L, D, Ro-Ro
No. 8	200	10.0	L, D, B
No. 9 (dolphins)	200	9.0	L, D, B, Refrig.
No. 10 (dolphins)	220	11.5	B, Lay-by Berth
No. 11 (dolphins)	180	11.0	B, Discharge Black Oils
No. 12 (dolphins)	250	12.0	B
No. 13	210	10.8	B, Discharging Black and White Products L, D, B, Discharge of Liquid Gas and Loading of Molasses in bulk

*KEY = L = Loading.
D = Discharging.
B = Bunkering.

CRANES: There are no cranes on quays, but the port has 2 mobile cranes of 25 tons and 40 tons capacity plus a floating crane for the handling of heavy-lifts of 80 tons capacity.

BULK CARGO FACILITIES: Molasses can be handled. Flour storage facilities (Private) with capacity of 4,000 tons.

SPECIALISED CARGO HANDLING FACILITIES: Open ground and shedded areas for containers, Roll-on/Roll-off traffic and Quay for the traffic of lighters.

Container Terminal: 2×35 ton Paceco gantry cranes, 4×40 ton Hyster lift trucks, 2×12 ton Hyster lift trucks, 8 Mafi tractors and 12 Gaussin low trailers.

BRIDGES: None.

STEVEDORES: Four companies available, office hours from 0700 to 1730 hrs. Stevedoring 24 hours.

Working Hours: Normal working hours are 0700 – 1200 hrs. and 1300 – 1800 hrs. Overtime can be worked between 1900 – 2400 hrs., and if necessary to finish a vessel, between 0100 – 0600 hrs. It should be noted that Friday is the normal day of rest and all work on this day is at overtime rates.

MEDICAL: Port Medical Service directed by medical practitioner specialised in industrial medicine is situated in a building neighbouring the port offices. It operates a dispensary. Passengers and sailors in transit are treated by private doctors from town who may visit the ships. Serious cases can be hospitalised in Djibouti's civil or military hospitals.

TANKERS: Reception lines: Berth Nos. 12 to 13 specially equipped for reception of bunkering products are linked with installations of the petroleum companies by a 16 in. dock-line and 12 in. (FO) and another of 12 in. (DO). Pier No. 10 is connected to the installation with a dock-line of 12 in. Rate of discharging can reach between 2,000 and 2,500 t.p.h. Reception of white products is assured from Quay No. 13 by an 8 in. line; for gas there is a 4 in. line.

Shipmaster's Report: July 1982.
Pilot advises max. draft for loaded tankers is 14.0 m.

FRESH WATER: Each quay provided with 3 – 5 (200 mm.) water-hydrants. Delivery of 40 cu.m. of water per hour. Regardless of the season, there is never any shortage of fresh water.

FUEL: Available at oil berths and commercial berths. A complete range of different viscosities and products is available. Meets all the usual requirement of bunkering vessels. Ample supplies of fuel and diesel oil are always available. Normal rate 200 – 300 t.p.h.

Suppliers: Mobil, Shell and Total.

GANGWAY/DECK WATCHMEN: Available.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

IDENTIFICATION CARDS: Required.

CONSULS:

Belgium
China
Egypt
Ethiopia
France
Germany F.R.
India
Iraq
Italy
Libya
Oman
Saudi Arabia
Somalia
Sweden
Yemen (N)
Yemen (S)
United Kingdom
U.S.A.
U.S.S.R.

REPAIRS: Small repairs available.

SURVEYORS: Agent of the American Bureau of Shipping: Gellatly Hankey, BP 81, Djibouti. Tel: 35 56 68.

Agent of Bureau Veritas, Germanischer Lloyd and Nippon Kaiji: DHK Mitchell Cotts, Tel: 35 20 83.

Agent of Lloyd's Register: Gellatly Hankey, BP 81, Djibouti. Tel: 35 56 68.

Insurance Companies:

L'Union des Assurances de Paris (CMAO), BP 2650. Tel: 35 54 70.
Lloyd's Assurances (Gellatly Hankey), BP 81. Tel: 35 56 68.
Salvage Association (Gellatly Hankey), BP 81. Tel: 35 56 68.
Groupement Francaise d'Assurances (MARILL), BP 57, Djibouti. Tel: 35 16 50.

REPATRIATION: Good facilities exist.

AIRPORT: International airport at Ambouli (7 km.), with international and regional flights every day of the week.

TIME: GMT plus 3 hours.

HOLIDAYS: New Year's Day (1st January); Aid Seghir (El Fithir) and the following day; Labour Day (1st May); Aid El Kebir and the following day; Muslim New Year (1st Mouharam); National Holiday (27th June); Mouloud El Nabi; Al yarah wal Mirage.

Dates referring to religious holidays vary every year, particularly where Muslim holidays are concerned. Loading and discharging operations as well as bunkering can be carried out during all of above holidays when other services are also available.

POLICE/AMBULANCE/FIRE: In emergency Tel: 17 and 18. A detachment of the fire brigade is on permanent duty in the port area.

Fire Brigade – 35 05 22, Police 37 07 80.

TELEPHONES: Available on every berth, international calls on request.

SHORE LEAVE: Allowed.

BANKS: Indo Suez Mer Rouge, Banque de l'Indochine et de Suez – Mer Rouge. Registered Office: 10 Place Lagarde – Djibouti B.P.88. Tel: 35 30 16. Telex: 6829 DJ. Telegrams: "Indomer Djibouti".

Banque pour le Commerce et l'Industrie – Mer Rouge BCIMR (Branch of the Banque Nationale de Paris) B.P.2122. Tel: 35 08 57, 35 08 58, 35 08 59. Telex: 5821 DJ. Telegraphic Address: "Mericomi Djibouti".

Bank of Credit and Commerce International S.A., Registered Office: 39 Bd. Royal, Luxembourg. Agency at Djibouti: 10 Avenue Pierre Pascal, B.P.2105. Tel: 35 17 41. Telex: 810 FS.

Banque de Djibouti et du Moyen-Orient S.A., Head Office, 6 rue de Marseille, Djibouti B.P.1471, Rep. of Djibouti. Tel: 351178, 351190. Telex: 5943 Banco Djib. Branch of the Middle East Bank Ltd., Dubai, U.A.E.

Commercial Bank of Ethiopia, Head Office, Addis Ababa (Ethiopia), Djibouti Branch: rue de Marseille, Djibouti B.P.187. Tel: 352101, 352102. Telex: Ethio Bank 5835 DJ.

Commercial and Savings Bank of Somalia, Head Office, B.P.203 Mogadisho. Branch of the Commercial and Savings Bank of Somalia. Office: Place Lagarde, Tel: 353666, 351282. Telex: Savcom 5879 DJ.

EMERGENCY CO-ORDINATION CENTRE: Being formed.

STORING: In the Port of Djibouti, vessels are bunkered at all the quays, and are supplied with fresh water (without limitation as to the amount requested), whilst they are carrying out their commercial operations of loading or discharge of cargo).

GENERAL:

Tides: The highest tides reach 2.9 m., the average tide is around 1.6 m., and the lowest drop to 0.20 m.

Tidal currents are very weak in the bay, only rarely exceeding one knot. They usually move Eastwards during the ebb tide, and Westwards during the flood tide.

Winds: From October to the beginning of May moderate Easterly winds dominate. During the S.W. monsoon, from the middle of June to early September, there are frequent gales from the West (Khamsin), when the sea becomes rough or very rough. There is little or no wind in May and September.

Swell: The sea is usually very calm in the outside roadstead, in the anchoring zone protected in the East by the Heron Bank. In normal weather the swell does not exceed 1 m. During the Khamsin period, it can reach 2.0 m. – 2.5 m. However, there is no undertow inside the port.

DEVELOPMENTS: The Port of Djibouti will undertake a 2nd development project in 1989.

1. Storage shed No. 1 and 2 to be dismantled.
2. Construction of maintenance facilities in the vicinity of the C.F.S.
3. Container yard modifications and extension of the Free Trade Area.
4. Extension of the container terminal area.
5. Rehabilitation of Berth No. 10.

SHIPMASTER'S REPORT: September, 1979.

Approaches: After passing Muskali Beacon on approaching, the leading lights, during daytime (183.5° True) are often not visible due to the sun's glare. At night these make an excellent approach.

Pilotage: Do not proceed beyond No. 2 Heron Bank Buoy. Pilot boat 12 m., blue hull, white top and displaying Pilot signals.

Radar/VHF: Channel 12 for calling and operations. No Port radar.

Hatches: Opening/Closing normally carried out by ship's crew.

General: Provisions both fresh and dry available, but expensive.

AUTHORITY: Port Autonome International de Djibouti, P.O.Box 2107, Djibouti, Republique de Djibouti. *Tel:* 35 23 31, 35 10 31; 35 32 66 (Container terminal). *Telex:* 5836 DJ; 5853 DJ (Container terminal). *Cables:* Dirport Djibouti and Comport Djibouti. *Contact:* Aden Ahmed Douale, Port Director. Captain Huchet, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Dominica

PORTSMOUTH: 15.32 N. 61.29 W. (See Plan)

Portsmouth is an anchorage port principally engaged in the export, by lighter, of bananas and the export of agricultural produce by small inter-island vessels.

Documentation required is as for "Roseau". Safe anchorage is available anywhere within the port with distance off dependent on the size of vessel. Pilotage is not compulsory and if required must be obtained at the Roseau Pilot Station.

No alongside facilities (except those for lighters) exist and no cargo handling equipment is maintained.

A steel piled/concrete decked "L" shaped pier 225 ft. long, 40 ft. wide with 12 ft. of water at the head provides lighterage berthing and accommodates inter-island sloops, schooners and motor vessels. Final planning of upland and equipment is yet to be undertaken.

All enquiries in the respect of the use of the port of Portsmouth should be addressed to the Port Authority, Roseau.

MEDICAL: A Cottage Hospital is available.

POLICE/AMBULANCE/FIRE: Police Tel. 5222. Ambulance Tel. 5237 (Hospital). Fire Tel. 5215. Custom House Tel. 5255.

BANKS: See "Roseau".

EMERGENCY CO-ORDINATION CENTRE: See "Roseau".

STORING: See "Roseau".

SURVEYORS: See "Roseau".

SHIPMASTER'S REPORT: January, 1979.

Pilotage: Not compulsory or required.

Restrictions: Vessels may enter or leave at any stage of the tide during day or night.

Tugs: None available.

VHF: Not available.

Anchorage: Vessel anchored with the lighter jetty bearing 100°, distance 4 cables. Depth of water 70 ft. Cargo is delivered to the vessel by small lighters which are towed from a timber and steel jetty owned by Geest Line. Loading of bananas is carried out through side doors only. The quality of work was good.

Services Available: Doctor and airport (fresh water, fuel and other services are not available).

AUTHORITY: Dominica Port Authority, P.O.Box 243, Roseau, Dominica. *Tel:* 4431/2/3. *Cables:* Domport. *Contact:* O. M. Norris, General Manager (Home *Tel:* 4375).

ROSEAU: 15.17 N. 61.24 W. (See Plan)

PORT LIMITS:

Lat. 15° 19′ 00″ N., Long. 61° 24′ 29″ W.;
Lat. 15° 21′ 00″ N., Long. 61° 24′ 29″ W.;
Lat. 15° 21′ 00″ N., Long. 61° 23′ 09″ W.

DOCUMENTS: Port Authority requires before commencement of discharge, 2 copies of the vessel's manifest, and 1 stowage plan or hatch block sheet. Masters are advised that these should be airmailed ahead of the arrival. On arrival, documents required are:

Port Authority:
Ship's Register to sight.
International Health Declaration.
1 Crew List.
1 Passenger List.
1 Hazardous Cargo List.

Customs:
Clearance from last port.
1 Stores List.
2 Personal Effects Declaration.
1 Manifest.
1 Crew List.
1 Passenger List.

Immigration:
1 Crew List.
1 PassengerList.

PILOTAGE: Pilotage is compulsory for berthing all vessels in excess of 100 g.r.t. Pilotage is available for anchorage on request. Pilots will board in approx. position Lat. 15° 17′ 54″ N., Long. 61° 24′ 50″ W. The pilot boat will display International code "H" by day and a white light over red light by night. Requests for Pilots should be made 24 hours in advance either through the vessel's Agent or by cable to "Domport". Vessels may contact the Port Authority through Dominica Port Radio on VHF Channel 16 from 0800 – 1600 hrs., and for 2 hours in advance of the vessel's ETA.

ANCHORAGES: A restricted area exists in Woodbridge Bay between:

Lat. 15° 19′ 00″ N., Long. 61° 24′ 15″ W.,
Lat. 15° 18′ 00″ N., Long. 61° 24′ 15″ W.,
Lat. 15° 18′ 00″ N., Long. 61° 24′ 00″ W.

and vessels may not anchor therein, except under General Manager's instructions. Anchorage may be taken South of this area and in Roseau Roadstead 1.5 – 2 cables offshore in 15 – 30 fathoms depending on the vessel's size. All anchorages are steep-to and care should be exercised so as not to drag off the bank when anchoring.

MAX. SIZE: See "Berthing".

HEALTH: International Declaration of Health. In addition any death, fever or suspected contagious disease should be notified in advance to Agents or Port Authority by cable or radio.

RADIO: HF/SSB. 8281.2 – Monday – Friday 1200 – 2000 hrs. Also see "Pilotage".

TUGS: None.

BERTHING: Woodbridge Bay Ocean Berth Length 500 ft., min. depth 36 ft. MLWOST.

Schooner berth 120 ft. with a depth alongside of 9 ft. (inshore) to 36 ft.

Roseau Jetty, Length 93 ft. min. depth 18 ft. (Out of commission due to hurricane damage).

STEVEDORES: Stevedores and longshoremen arranged by Dominica Stevedores Ltd.

CARGO HANDLING FACILITIES:

Mechanised Cargo Handling: Breakbulk cargo is handled palletised on ships/shippers/port pallets. Adequate forklift trucks, trailers, and tractors are available to work all berths, Small inter-island vessels can be discharged by 15 ton Lorain crane. Containers up to 20 d.w.t. can be handled ashore if placed on port trailers by ship's gear. Ro-Ro barges capable of trimming to ramp height of +10 ft. are accommodated on the South end of Woodbridge Bay Pier.

TANKERS: Petroleum products are presently handled at 5 different anchorages on the West coast.

L.P.G.: Woodbridge Bay (2) max. draft 12 ft. floating hose from vessel.

Mogas – Gasoil (Dieselene), Kerosene, Sprayoils:
Rockaway (2), 1 mile North of Woodbridge Bay, draft 18 ft. 800/900 ft. floating hose from ship.

Boiler Fuel (Bunker C): Belfast, 2 miles North of Rockaway, max. draft. 18 ft. (up to 25 ft., if vessel equipped for stern discharge) 4 in. submarine line.

Bulk Edible Oils and Soap Chemicals: Belfast max. draft 14 ft., 4 in. floating hose (200 ft.) from shore.

The above are single anchor, stern-to berths with stern lines to shore posts. Vessels should have at least 4 ropes available aft and provision to bend 2 lines together.

The above are private facilities but pilotage is available. In the case of Woodbridge Bay (L.P.G.) pilotage is compulsory. Tankers in their ETA advice should include their cargo by products and their draft.

MEDICAL: One Government general hospital, one private group medical clinic and one private dental clinic are available.

On board visits by a doctor can be arranged.

Where possible advance notice should be given.

DENSITY: Approx. 1025.

FRESH WATER: Available alongside all berths at a cost of EC $20.00 for 1,000 gals.

FUEL: Dieselene (Gas oil) available in limited quantities ex-tank wagon at all berths. Other grades not available.

GANGWAY/DECKWATCHMEN: Available if required.

OPENING/CLOSING HATCHES: Beam and board hatches, crew or stevedores; Ship's option. Patent Hatches; ship's crew.

CERTIFICATES: Previous Port Clearance; Ship's Register, to sight.

CUSTOMS ALLOWANCES: 200 cigarettes, or 0.5 lb. tobacco or 25 cigars, 26 ounces of spirits per crew member.

IDENTIFICATION CARDS: Dock passes for crew members will be issued through the vessel's Agents.

CONSULS: (Or Consular Agents).

		Business	*Residence*
France	C. A. Butler	Tel. 2033	Tel. 1146
Netherlands	W. A. Astaphan	3221	2524
Belgium	Achille L. Pinard	2781	2756

REPAIRS: Minor and emergency repairs can be arranged. Engines and deck gear cannot be put out of service without permission of the Port Manager.

SURVEYORS: Lloyd's Agent available for cargo survey. A non-assigned Hull Surveyor is available.

REPATRIATION: Limited inter-island flight capacity to nearest international airports – Guadeloupe, Martinique, Antigua, Barbados.

AIRPORT: Melville Hall 37 miles. Inter-island services only. Canefield Airstrip 2 miles – Charter aircraft and Air Guadaloupe.

TIME: GMT minus 4 hours.

HOLIDAYS: New Year's Day, Carnival (Mardi Gras) 2 days. Good Friday, Easter Monday, Labour Day, Whit Monday, August Monday, National Day (Nov. 3rd – 4th), Union Conference Day (A Sunday in November), Christmas Day, Boxing Day.

Minimum working: Can be arranged on these days, but it is not advised over the Carnival or National Day Holidays.

POLICE/AMBULANCE/FIRE: Police Tel. 2222 or call on 2182 kHz., Fire Tel. 2888, Ambulance Tel. 2321.

At anchor or away from a telephone, blow 3 short and 1 prolonged blast at frequent intervals until acknowledged on VHF Channel 16 or by lamp.

TELEPHONES: On board service can be provided at the Ocean Wharf, Woodbridge Bay (discontinued at present due to hurricane damage).

SERVICES: Assistance can be given for emergency repairs to electronic equipment, compass adjusting and D/F calibration subject to advance notice. Provisions can be obtained, but advance notice should be given especially for fruit and vegetables of high quality.

SHORE LEAVE: After inward clearance, there are no restrictions on shore leave. Masters are advised to note that immigration law holds the vessel/owner/agent, financially reponsible for any crew member or intransit passenger left behind (for whatever cause). Vessel's having no accredited Agent will be required to satisfy Immigration Authorities before outward clearance is granted.

BANKS: Barclays Bank International Ltd., Royal Bank of Canada, Bancque Antilles Francais. The National Commercial & Development Bank of Dominica has international correspondents.

EMERGENCY CO-ORDINATION CENTRE: Port Authority connected with other Regional Port Authorities and U.S.C.G. VHF Channel 16, HF, S.S.B. Standby 2182 and 8281.2. Working 4136.3, 4139.5, 8284.4, 12421.0, 12424.5, 16565.0 and16568.5.

STORING: Vessel can store by truck. No facilities to store by barge. Trucks may proceed alongside for direct delivery/discharge, subject to Port Authority agreement. Fork lift trucks may be used. Vessels must be cleared outward for duty free concessions. Riggers available to assist with storing.

NOTES

Please also advise Shipping Guides Ltd.

SHIPMASTER'S REPORT: 1979.

Pilotage: Compulsory. Pilot boards 0.5 miles off the quay and requires two hours notice of vessel's arrival.

Restrictions: Vessel is able to enter or leave at any stage of the tide day or night.

Max. Size: M.V. "Oriana". LOA – 804 ft., draft 30 ft.

Tugs: Not available. Vessels able to dock and undock without the aid of tugs.

VHF: Channel 16.

Berthing: One berth only available with wooden fenders. A heavy swell may be experienced whilst alongside berth as it is very exposed. Loading rate for bananas is 16 t.p.h. per gang. There is ample mechanised equipment for loading palletised cargoes. There is also storage space for breakbulk and palletised cargoes. The quality of the labour was good. There is no equipment for handling containers and there is no storage space for containers (containers can be handled ex- ship's gear at about 10 units per hour). Accommodation ladder required.

Services Available: Fresh water, fresh provisions, airport, hospital and doctor (no fuel, repair facilities or other services available).

AUTHORITY: Dominica Port Authority, P.O.Box 243, Roseau, Dominica. *Tel:* 4431/2/3. *Cables:* Domport. *Contact:* O. M. Norris, General Manager (Home *Tel.* 4375).

Dominican Republic

GENERAL

DOCUMENTS:

Vessels calling at Dominican ports require a complete Dominican consular despatch from every loading port as well as from the last foreign port of call. Should there be no Dominican Consulate at the respective loading port, the Agents should prepare 3 copies of the manifest to be delivered to Customs. If no Dominican Consulate at the last foreign port of call, the Agent will attend to all the formalities required by the local port authorities.

Derat Exemption Certificate will be required by the Port Doctor.

Additional papers, besides consular despatch, required by authorities are as follows:

Port Doctor:
1 copy Crew List.
1 copy Landing/Transit Passenger List.

Harbour Master:
Port clearance from last port of call.
3 copies Crew List.
3 copies Landing/Transit Passenger List.
3 copies Negative Passenger List (if none landing).
3 copies Arms List.

Customs:
2 copies Crew List.
2 copies Arms List.
2 copies Landing/Transit Passenger List.
2 copies Negative Passenger List (if none landing).
2 copies Stores List.
1 copy tallybook.

Immigration:
2 copies Crew List.
2 copies Landing/Transit Passenger List.

Police:
1 copy Crew List.
1 copy Landing/Transit Passenger List.

Department of Agriculture:
1 copy Stores List.
1 copy tallybook.

Agency:
1 copy Crew List.
1 copy Landing/Transit Passenger List.
4 copies Manifest (if not airmailed previously).
2 copies each B/L (if not airmailed previously).
7 copies tallybook.

Additional lists, etc., required are:
10 Crew Lists.
10 Landing/Transit Passenger Lists.
5 Negative Passenger Lists (if none landing).
5 Arms Lists.
3 Stores Lists.
9 tallybooks.
4 copies Cargo Manifest (if not previously airmailed).
2 copies B/L (if not previously airmailed).

HOLIDAYS: New Year's Day (January 1st); Our Lady of High Grace (January 21st); Duarte's Day (January 26th); Independence Day (February 27th); Good Friday (Variable); Labour Day (May 1st); Corpus Christi (Variable); Restoration of Independence (August 16th); Our Lady of Mercy (September 25th); Christmas Day (December 25th).

Regular working hours of stevedores: 0800–1200 hrs., 1400–1800 hrs., Mondays to Fridays and 0800–1200 hrs. Saturdays.

Regular working hours of the Port Authority are from 0800–1600 hrs. Mondays to Fridays and 0800–1200 hrs. on Saturdays.

Saturday: Overtime is payable to labour for work performed after 1200 hrs. Pilots and government officials are paid overtime rates all day, but Customs personnel are only paid overtime rates after 1200 hrs.

The above holidays are legal in the Dominican Republic and for the diplomatic and consular representations abroad.

Work can be performed on all Sundays and holidays against payment of overtime to labour, Pilots, Customs and government officials.

TIME: GMT minus 4 hours all year round.

SPARES: Same can be withdrawn same day of arrival via air express. No Customs duties assessed as brought under Customs custody on board vessel. Airwaybill should be addressed to Agent, with clear indication that it covers spares for such and such a vessel.

SECURITY: Stevedores board vessel with special passes issued for vessel in question. Any other visitors must obtain pass from Harbour Master's Office. Nevertheless it is definitely recommended that all cabins be kept locked. This also applies to hatches that are not being worked.

POLLUTION: No garbage, refuse, etc., can be thrown overboard. Vessels liable to heavy fines for oil pollution, etc.

PLAGUE CONTROL: All lines leading to shore must be protected by ratguards. Non-compliance subject to Customs fines.

AGENCY: *Contact:* Asociacion de Navieros de Santo Domingo, Calle Jose Contreras No. 108, P.O.Box 923, Santo Domingo, Republica Dominicana. Tel: (809) 533-4931.

✓

AZUA (Puerto Viejo): 18.30 N. 70.40 W.

See "General" before first port.

PILOTAGE: Ordered by Agent; vessel should wait for Pilot at a distance of 0.5 miles from the port.

ANCHORAGES: In the approaches, depth is 28 ft.

RESTRICTIONS: Berthing during daylight only.

HEALTH: Pratique is obtained by Agent. In case of infectious illness the whole crew is put in quarantine.

TUGS: Not available.

BERTHING: Finger pier, length 650 ft., width 120 ft. Dredged to 35 ft.

MEDICAL: Necessary for Agent to receive advance notice of required medical attention. Doctor available.

FRESH WATER: Delivered by truck.

FUEL: ~~None~~ NOT available.

GANGWAY/DECK WATCHMEN: Required.

OPENING/CLOSING HATCHES: Carried out by crew.

CUSTOMS ALLOWANCES: Bonded stores are sealed.

IDENTIFICATION CARDS: Not required.

CONSULS: None.

REPAIRS: Minor repairs only.

REPATRIATION: Facilities available.

AIRPORT: Situated 170 miles from port.

POLICE/AMBULANCE/FIRE: Tel: 175.

TELEPHONES: None available on board.

SHORE LEAVE: Allowed.

AUTHORITY: Comandancia de Puerto de Azua.

AGENT: See "General" before first port.

✓

BARAHONA: 18.10 N. 71.10 W.

See "General" before first port.

PILOTAGE: Pilot arranged by Agent on basis of Master's advance notice of ETA. Pilot and Agents can be contacted by radio telephone frequency 2738. Pilot boards approximately 1.5 miles outside the port. Pilot also on VHF Channel 16.

ANCHORAGES: Deep water anchorage available outside port. Pilot will advise best location.

RESTRICTIONS: No entry or departure at night.

MAX. SIZE: 575 ft. length; 29 ft. draft.

HEALTH: Pratique granted after Health Authorities have boarded and cleared vessel. In case of disease aboard notify Agents before arrival. Pratique is automatic when proceeding from another port in the same country.

RADIO: When within range, Santo Domingo Radio.

TUGS: One small tug available, ship's lines used.

BERTHING: Sugar Molasses Wharf, depth 28 ft. General Gypsum Wharf, depth 30 ft.

STEVEDORES: ETA's required 24 and 12 hours before arrival to arrange gangs.

MEDICAL: Medical attention can be arranged after vessel is cleared, preferably ashore. Minor cases are dealt with locally, more serious cases are transported to Santo Domingo.

TANKERS: Discharge at Molasses Wharf.

DENSITY: Salt water inside harbour.

FRESH WATER: Pipe-line at wharves, ship's hoses used.

FUEL: Small quantities of diesel available by truck from Santo Domingo.

GANGWAY/DECK WATCHMEN: Compulsory gangway watch kept by Customs guards.

OPENING/CLOSING HATCHES: Can be performed by crew or stevedores.

CUSTOMS ALLOWANCES: Bond is sealed, but can be opened at Master's request.

IDENTIFICATION CARDS: Shore passes are provided by Immigration Authorities.

CONSULS: All Consuls at Santo Domingo.

REPAIRS: Minor repairs only.

REPATRIATION: Can be arranged.

AIRPORT: Distance to airport 230 km.

POLICE/FIRE/AMBULANCE: Police, Tel: 417; Ambulance, Tel: 441; Fire, Tel: 348 or 398.

TELEPHONES: Shore telephone alongside ship connected to Sugar Mill.

SHORE LEAVE: Allowed.

GENERAL: No boats to be lowered without official permission.

AUTHORITY: Comandante de Puerto.

AGENT: See "General" before first port.

✓

BOCA CHICA: 18.27 N. 69.35 W.

See "General" before first port.

PILOTAGE: Pilot arranged by Agent on basis of Master's advance notice of ETA. Pilot and Agents can be contacted by radio telephone frequency 2738 kHz, and 2638 kHz. Pilot also on VHF Channel 16. Pilot boards 1 mile outside the harbour.

ANCHORAGES: Deep water anchorage available outside port. Pilot will advise best location.

RESTRICTIONS: No entry or departure at night.

MAX. SIZE: 400 ft. length; 25 ft. draft.

HEALTH: Pratique granted after Health Authorities have boarded and cleared vessel. In case of disease aboard notify Agents before arrival. Pratique is automatic when proceeding from another port in the same country.

RADIO: When within range, Santo Domingo Radio.

TUGS: One small tug available, ships lines used for docking.

BERTHING: Depth alongside 24 ft.

STEVEDORES: ETA's required 24 and 12 hours before arrival to arrange gangs.
MEDICAL: Medical attention can be arranged after vessel is cleared, preferably ashore. Minor cases are dealt with locally, more serious cases are transported to Santo Domingo.
TANKERS: Only small propane gas tankers can be accommodated.
DENSITY: Salt water inside harbour.
FRESH WATER: Pipe-line connection at dock, low pressure, ship's hoses used.
FUEL: Only available by truck from Santo Domingo.
GANGWAY/DECK WATCHMEN: Compulsory gangway watch kept by Customs guards.
OPENING/CLOSING HATCHES: Can be performed by crew or stevedores.
CUSTOMS ALLOWANCES: Bond is sealed, but can be opened at Master's request.
IDENTIFICATION CARDS: Shore passes are provided by Immigration Authorities.
CONSULS: All Consuls at Santo Domingo.
REPAIRS: Minor repairs only.
REPATRIATION: Can be arranged.
AIRPORT: 6 km. to airport, served by regular airlines with numerous flights daily.
POLICE/FIRE/AMBULANCE: At Santo Domingo.
TELEPHONES: No connection to vessels.
SHORE LEAVE: Allowed.
AUTHORITY: Comandante de Puerto.

AGENT: See "General" before first port.

CABO ROJO: 17.55 N. 71.39 W.

See "General" before first port.
PILOTAGE: Pilot arranged by Agent on basis of Master's advance notice of ETA. Pilot and Agents can be contacted by radio telephone, frequency 2738 kHz. Pilot boards 2 miles off the port.
ANCHORAGES: Deep water anchorage available outside port. Pilot will advise best location.
RESTRICTIONS: Entry and departure permitted daylight only.
MAX. SIZE: 600 ft. length; 40 ft. draft.
HEALTH: Pratique granted after Health Authorities have boarded and cleared vessel. In case of disease aboard notify Agents before arrival. Pratique is automatic when proceeding from another port in the same country.
RADIO: When within range, Santo Domingo Radio.
TUGS: No tugs available.
BERTHING: Alcoa Private Wharf, bauxite only. Mechanical loading, no stevedores.
MEDICAL: Medical attention can be arranged by Alcoa after vessel is cleared, preferably ashore. Minor cases are dealt with locally, more serious cases are transported to Santo Domingo.
TANKERS: One tanker at a time could be accommodated.
DENSITY: Salt water inside harbour.
FRESH WATER: Sometimes available.
FUEL: Not available.
GANGWAY/DECK WATCHMEN: Compulsory gangway watch kept by Customs guards.
OPENING/CLOSING HATCHES: Performed by crew.
CUSTOMS ALLOWANCES: Bond is sealed, but can be opened at Master's request.
IDENTIFICATION CARDS: Shore passes are provided by Immigration Authorities.
CONSULS: All Consuls at Santo Domingo.
REPAIRS: Not possible.
REPATRIATION: Can be arranged.
AIRPORT: Distance to airport 360 km.
POLICE/FIRE/AMBULANCE: Contact Port Authority.
TELEPHONES: Telephone on dock connected to Alcoa office.
SHORE LEAVE: Allowed.
GENERAL: No boats to be lowered without official permission.
AUTHORITY: Comandante de Puerto.

AGENT: See "General" before first port.

LA ROMANA: 18.27 N. 69.01 W.

See "General" before first port.
PILOTAGE: Compulsory. Ordered by Agents on receipt of vessel's ETA, 72, 48 and 24 hours before arrival. Pilot launch painted white with grey cabin and with letters "LP-24" painted on sides. Pilot boards 1.5 miles from port entrance (N.E. of Catalina Island). Contact Pilot on 2738 and 2638. Pilot also on VHF Channel 16.
ANCHORAGES: West of Isla Catalina in depths of 15 to 18 fathoms.
RESTRICTIONS: No entry or sailing in hours of darkness.
MAX. SIZE: Length: 580 ft. Draft: arrival 25 ft., sailing 28 ft.
HEALTH: Pratique granted after Health Authorities have boarded and cleared vessel. In case of disease aboard notify Agents before arrival. Pratique is automatic when proceeding from another port in the same country.
RADIO: Santo Domingo Radio, HIX2, frequency 2738 kHz. Near the port, use Centromana Radio on same frequency.
TUGS: One tug of 620 h.p. available. Extra charge for use of tugs line.
BERTHING: One concrete pier 720 ft. long. Depth 28 ft.
STEVEDORES: To be ordered 4 hours before commencing work.
MEDICAL: Doctors and hospital facilities available. Medical attention can be arranged after vessel is cleared, preferably ashore. Minor cases are dealt with locally, more serious cases are transported to Santo Domingo.
TANKERS: Berth for 1 tanker at the pier. Discharge lines 10 in., 8 in., and 4 in.
DENSITY: 1025.
FRESH WATER: Available from 2 in. pipe-line on pier. Very low rate of supply.
FUEL: Available by truck from Santo Domingo.
WATCHMEN: To be provided by vessel. Compulsory gangway watch kept by Customs Guards.
OPENING/CLOSING HATCHES: Generally by ship's crew.
CUSTOMS ALLOWANCES: Seamen may take ashore only 2 packets of cigarettes and no alcohol.
IDENTIFICATION CARDS: Shore passes issued by Immigration Officer.
REPAIRS: Only minor repairs can be effected.
REPATRIATION: Arranged via Santo Domingo.
AIRPORT: Distance 70 km.
POLICE/FIRE/AMBULANCE: Police, 235; Ambulance, 455; Fire, 455.
TELEPHONES: In dock office, ask Sugar Mill for number required.
SHORE LEAVE: Allowed.
AUTHORITY: Comandante de Puerto.

AGENT: See "General" before first port.

MANZANILLO: 19.43 N. 71.45 W.

See "General" before first port.
PILOTAGE: Compulsory. Pilot comes from Puerto Plata. Boards incoming vessels about 1 mile from the dock. (The Pilot's working hours from 0800 to 1200 hrs., 1400 to 1700 hrs.; a fee charged after working hours. A fee is also charged for movements in harbour.) Ships will be received Saturdays and Sundays and at night for the same rate for the Pilot. Contact Pilot on 2738 and 2638, also on Channel 16 VHF.
ANCHORAGES: Vessels that cannot be docked on arrival will find safe anchorage to the East of the dock where there is plenty of swinging room, in about 20 fathoms of water, with good holding ground of mud and sand.
APPROACHES: Coast Guard Service recommend that a ship, entering Manzanillo Bay from the East, should stay well out until it has rounded shoals surrounding Seven Brothers Islands. At approximately Lat. 19° 58′ N. a course of 127° will bring it into the bay near the wharf. A ship arriving from the West should stay about 6 miles off Cape Haitian Light. When abreast the light a course of 111° will lead into the Bay a short distance North of the pier.
RESTRICTIONS: Entry and departure day and night.
RADIO: Radio Station HIL31. This station is private and for the use of Grenada Co. only. Messages of ETA, etc. from vessels should be sent via Miami WAX or New Orleans Radio WNU.

Vessels bound for Manzanillo, should radio their ETA to Santo Domingo Pilot Station daily, from 0600 to 1800 hrs. on frequency 2738 and 2182.

Vessels having single sideband equipment may also contact Radio Instituto Agriario Dominicano at Manzanillo, at wavelength 2670 and 2638 kHz from 0700 to 1200 hrs. and 1400 to 1700 hrs. EST.
TUGS: No heavy duty tugs available but there is a launch for the handling of ship lines. Tug available from Puerto Plata if required due to size of vessel.
BERTHING: Prevailing winds are Easterly and sometimes interfere with docking or undocking. On the East side vessels should dock bow in, since there is not enough room to swing vessels safely around for a port docking. On the West side vessels can dock either side to the pier, depending on the direction and force of the wind. In general banana vessels will be docked on West side of the pier and cargo vessels on the East side. Pier has a concrete deck 744 ft. long, 72 ft. wide. Both sides of the pier are protected with a pine fender system. The water depth at land end of pier is 10 ft. and at the seaward end 40 ft.
MEDICAL: Small dispensary in Manzanillo. Hospital facilities in Monte Cristi, 30 km. away.
STEVEDORES: Available.
FRESH WATER: Available for ships calling at this port only. Not!
FUEL: None available.
GANGWAY/DECK WATCHMEN: Carried out by crew.
OPENING/CLOSING HATCHES: Crew or stevedores.
CUSTOMS ALLOWANCES: Each crew member will be allowed to take ashore one only opened package of cigarettes.
CREW IDENTIFICATION CARDS: Required.
REPAIRS: Small repairs carried out only.
REPATRIATION: Facilities available.
SHORE LEAVE: Members of crew are allowed to go ashore at this port, but Masters should caution them not to take on their persons any dutiable articles, as the Customs will search such men upon landing and should any such articles be found on their persons, this will be treated as an attempt to smuggle; severely punishable offence.
AUTHORITY: Comandante de Puerto.

AGENT: See "General" before first port.

PALENQUE: 18.12 N. 70.11 W.

SHIPMASTER'S REPORT (1976). Updated 1988.

The vessel called at Punta Palenque to discharge a cargo of feedstock from Venezuela. The SBM is located in position 18° 12.2′ N. 70° 11.3′ W. and operated by Refineria Dominicana de Petroleo, S.A.

DOCUMENTS:

7 Crew Lists.
2 Store Lists.
1 Crew Effects List.
2 Passenger Lists.
2 Lists of Arms & Ammunition.
2 Lists of Narcotics.
1 Health Declaration.
Clearance last Port.

PILOTAGE: Pilotage is compulsory. Mooring and unmooring 24 hours a day. Pilot boards about 1 mile Southwest of SBM.

Pilot boat, a small tug with black hull and white superstructure, is equipped with VHF Channels 16 & 14, call sign Punta Palenque Pilot. Pilot moors the vessel with the assistance of the Loading Master who gives directions on the focs'le. The tug delivers the mooring gear consisting of 2 nylon tails put on vessel's bits and shackles. The nylon tail will be shackled to SBM mooring lines. These mooring lines consist of about 100 ft. nylon rope and 10 ft. chain. The chain is heaved inboards by means of 1 wire and 1 nylon or polyprop messenger and connected to nylon tails on vessel's bits.

MAX. SIZE: Vessels up to 260 m. in length with max. draft of 14.6 m. A circle of 2,000 ft. around the buoy with a min. depth of 50 ft.

HEALTH: Radio Pratique not available.

RADIO: Crude predominantly supplied from Pemex (Mexico, Pajaritos) and Maraven (Venezuela, Cardon/Miranda). Masters to send ETA Punta Palenque before sailing from loading ports, handing the message to local agents.

Messages should include draft on arrival, number of crew, whether any sickness on board. Messages to be sent to Refidomsa, Santo Domingo and copy to Agent (Baez & Rannik, S.A.).

TUGS: Not available for mooring. Messengers to and from SBM are handled by a small work boat.

BERTHING: Single Buoy Mooring, property of Refineria Dominicana S.A. (Telegraphic Address: Refidomsa), located about 2,500 m. offshore, or 2.5 miles S.W. of Punta Palenque light. Nature of bottom: sand over coral. Buoy fitted with Radar Reflector and flashing red light.

Loading Master plus 3 men remain on board.
Connection amidships, port side.

LOADING: Shore Line System: From shore to ship:

1×28 in. line from tank farm to shore 750 m.
1×28 in. submarine line 2,550 m.
2×16 in. underwater hose systems from seabed to buoy.
2×16 in. floating hoses, about 165 m. long.
2×12 in. hoses to ship's manifold 27.5 m. long.
Maximum rate of discharge: 4,800 cu.m./hr.
Maximum back pressure: 150 p.s.i.
Product: Crude oil discharge.
Storage: 525,000 barrels.

REPAIRS: None available.

GENERAL: No navigational hazards approaching Punta Palenque from the South. SBM shows on radar at a distance of about 11 miles.

Reference: B.A. charts 3689, 471; West Indies Pilot Volume 1, Supplement No. 3 1975.

Weather: Wind: N.E. Trades

Current: Predominating from East to West but sometimes shifting to opposite direction for short periods. Velocity about 1.5 knots.

Services: Fresh water, provisions, fuel oil and diesel oil not available. No medical assistance. Shore leave not permitted, repatriation not possible.

Master's Remarks: When approaching from the South, the coast of Dominican Republic gives a good radar target. SBM could be picked up at about 11 miles distance. Punta Palenque Pilot could be contacted at a distance of 30 miles.

Authorities: After vessel is moored Pilot acts as Agent together with a senior Custom Officer who came on board with the Pilot. Two junior Custom Officers will stay on board during the stay in port, also Loading Master and/or his assistant. Pilot delivers Outward Clearance.

SHIPMASTER'S REPORT (1977). Updated 1988

DOCUMENTS: Last Port Clearance.

8 Crew Lists.
6 Passenger Lists (nil).
3 Stores Lists.
5 Firearms Declarations.
1 Vaccination List.

To be legitimised by Dominican Consulate if possible, otherwise notarised by the Chamber of Commerce at sailing port or pay local requirements fee.

PILOTAGE: Pilotage compulsory. Pilot boards 1 mile S.W. of S.B.M. which is the waiting area. ETA required by Pilot at least 6 hours before arrival. The vessel cannot under any circumstances dock without the Pilot as the Loading Master is stationed on the forecastle head and advises Pilot of helm and engine requirements when approaching S.B.M.

ANCHORAGES: Temporary anchorage on the coastal bank to the West of S.B.M. to suit vessel's draft.

RESTRICTIONS: A vessel may enter and leave the port during hours of darkness and at any stage of the tide.

MAX. SIZE: Max. length 854 ft. Max. draft 48 ft.

TUGS: No tug assistance required. Mooring launch attends on arrival and departure bringing to and removing from the vessel all the gear required for mooring (Snotters, Strops, etc.). At night the launch also illuminates the hose string.

RADAR: The radar reflector on the S.B.M. is excellent and gives out a good echo at 10 miles.

BERTHING: Position of S.B.M. 18° 12′ N., 70° 11.4′ W.

Terminal Operator: Refineria Dominicana De Petroleo S.A. (Refidom SA).

At the time of berthing depth of water under the keel by echo sounder was 45 ft., the nature of the bottom at the berth was sand and coral.

As stated above the vessel is able to dock and un-dock at any stage of the tide day or night.

When 1 mile from the S.B.M. (waiting area) vessel approaches the buoy on a N.E. heading parallel to the hose strings and then turns the vessel to stem the current flow.

Moorings: Plaited ropes with cable chafing lengths shackled between the two plaited ropes. Snotters to the bitts from the central panama lead.

The port derrick to be rigged in advance to accept mooring gear from the tug and lift hoses (2×12 in. string).

Hoses: S.B.M. hoses connected to the ship's manifold (2×12 in.). Distance from the S.B.M. to the shore tanks is 1.5 miles. Shore booster pump not available, steam jacket or similar facilities not available. Max. pressure on line 125 p.s.i., max. weight to be lifted 5 tons. Product Handled: Crude Oil. Ship's accommodation ladder not required.

DENSITY: 1025.

SERVICES: None of the following are available; fresh water, provisions, repairs, airport, fuel oil, doctor, hospital, laundry.

All cargo handling surveyed by independent inspector nominated by Refidomsa. Slop discharge possible upon request and after agreement. Under no condition is pure water to be discharged via the hoses.

TIME: Pilot advises time is GMT minus 4 hours (throughout the year).

GENERAL: Vessel's ETA by telex to be given to Santo Domingo from the last port of call, any changes should be passed to the Agent through 'Curacao Radio' as at no time whilst on passage from Punta Cardon could traffic be passed through 'Santo Domingo Radio'. The Pilot acts for Agent. Customs and Immigration are in attendance, leaving with papers, cables and telex, consignees documents etc., after the vessel is all fast. The ship's official documents were not examined. 2 custom guards and the Loading Master remain on board and should be provided with cabins and meals.

Cargo surveying is carried out by an independent surveyor, he also maintains VHF contact with the Agent in Santo Domingo through the refinery.

The Loading Master, Berthing Master and Sailing Pilot all speak English. VHF contact made with the refinery when 45 miles from the S.B.M. who then passed our amended ETA to the Pilot.

SHORE LEAVE: Not possible.

AUTHORITY: Refineria Dominicana de Petroleo, S.A., Apartado 1439, Santo Domingo, Republica Dominicana. *Tel:* 533-3161. *Telex:* 3460342 (ITT), 3264320 (RCA). *Cables:* Refidom. *Contact:* Ronald Storrer, Superintendent.

PUERTO DUARTE (El Botado): 19.12 N. 69.26 W.

See "General" before first port.

PILOTAGE: Pilot will board vessels between No. 2 Buoy and No. 4 Buoy.

TUGS: Not available.

BERTHING: Finger pier, length 230 m. Depth alongside 30 ft.

FUEL: Available by truck.

REPAIRS: Not possible.

GENERAL: *Chart:* No. 917.

AUTHORITY: Captain of the Port.

PUERTO PLATA: 19.49 N. 70.41 W.

See "General" before first port.

PILOTAGE: Pilot arranged by Agent on basis of Master's advance notice of ETA. Pilot and Agents can be contacted by radio telephone, frequency 2738 and 2638. Pilot boards 0.5 miles from port entrance. Pilot also on VHF Channel 16.

ANCHORAGE: Deep water anchorage available outside port. Pilot will advise best location.

RESTRICTIONS: Night entry not recommended.

Depth at entrance 42 ft., depth on bar 37 ft. HW and 34 ft. LW, depth in harbour 30 ft. to 35 ft.

HEALTH: Pratique granted after Health Authorities have boarded and cleared vessel. In case of disease aboard notify Agents before arrival. Pratique is automatic when proceeding from another port in the same country.

RADIO: When within range, Santo Domingo Radio.

TUGS: Tugs not available.

BERTHING: One wharf 30 ft. alongside. Pier 496 ft. long, 135 ft. wide. Facilities include water, electricity, warehouses. New pier recently constructed is 934 ft. long, with depth alongside 35 ft., also 144 ft. wide.

CRANES: Not available.

STEVEDORES: ETAs required 24 hours and 12 hours before arrival to arrange gangs.

MEDICAL: Medical attention can be arranged after vessel is cleared preferably ashore. Minor cases are dealt with locally, more serious cases are transported to Santo Domingo.

TANKERS: Berth at molasses/petroleum berth.

DENSITY: Salt water inside harbour.

FRESH WATER: Pipe-line at wharves. Ship's hoses used.

FUEL: Diesel and fuel oil available by truck from Santo Domingo.
GANGWAY/DECK WATCHMEN: Compulsory gangway watch kept by Customs guards.
OPENING/CLOSING HATCHES: Can be performed by crew or stevedores.
CUSTOMS ALLOWANCES: Bond is sealed, but can be opened at Master's request.
IDENTIFICATION CARDS: Shore passes are provided by Immigration Authorities.
CONSULS: Germany F.R. – Mr. E. T. Heinsen.
REPAIRS: Minor repairs only.
REPATRIATION: Can be arranged.
AIRPORT: Distance 250 km.
POLICE/FIRE/AMBULANCE: At Santo Domingo.
TELEPHONES: Nearest in Customs House alongside wharves.
SHORE LEAVE: Allowed.
GENERAL: No boats to be lowered without official permission.
AUTHORITY: Comandante de Puerto.

AGENT: See "General" before first port.

RIO HAINA: 18.25 N. 70.01 W. (See Plan)

See "General" before first port.
PILOTAGE: Pilot boards from small boat flying a flag with a white "P" on a black background, about 1.0 mile from harbour entrance. Contact Pilot on 2738 or 2638 and Channel 16 VHF.
RESTRICTIONS: It is recommended to sail during daylight only.
MAX. SIZE: Max. draft 30 ft. 6 in.
TUGS: 2 tugs, 1,200 h.p. and 850 h.p.
BERTHING: 12 berths available. Vessels going to load sugar swing inside the harbour with the aid of a tug, and berth starboard side to the quay. Ship's gangway is recommended. There is sometimes quite a swell running inside the harbour. The port anchor is used for berthing and unberthing.
LOADING: Sugar is loaded by 3 mechanical loaders which are fixed so that large vessels are required to shift along the quay to load in end hatches. Loading rate is quoted as being 350 t.p.h. Cargo quantities are given in short tons.

At least one beam has to be removed from each hatchway to allow loader to enter.

Possible to load 8,500 ton vessel within 24 hours.
SPECIALISED CARGO HANDLING FACILITIES: Roll-on/Roll-off facilities on East bank of river. Container gantry crane destroyed by hurricane. Mobile cranes available for container and bulk cargo discharge.
TANKERS: See "Developments".
FRESH WATER: *Shipmaster's Report:* October 1982. Fresh water can be supplied alongside fertiliser plant and container quay only, ship's hoses used.
FUEL: Fuel oil, diesel and intermediate fuels available from bunker barge.
REPAIRS: Minor repairs in Santo Domingo.
DEVELOPMENTS: Berth under construction. On completion there will be 750 m. of berthing space for 3 Ro/Ro vessels.

A new CBM operated by Refineria Dominicana de Petroleo, S.A. will be in operation in mid – 1988.

SHIPMASTER'S REPORT: March 1984.

Four Buoys have been installed in front of the entrance to the port and are not in line with the leading lights when entering. On the starboard side there are 2 red buoys (Fl. red) and on the port side 2 black buoys (Fl. green).

AUTHORITY: Autoridad Portuaria Dominicana.
AGENT: See "General" before first port.

SAN PEDRO DE MACORIS: 18.30 N. 69.12 W.

See "General" before first port.
PILOTAGE: ETA required 24 hours before arrival. Pilot meets vessels 0.5 miles from buoy. Pilot Radio Station frequency is 2738 and 2638 also VHF Channel 16. In the event of bad weather vessel should remain 3 miles South of the buoy. Pilot boards from small unmarked motor boat.
ANCHORAGES: One mile South of the lighthouse; depth 60 ft.
RESTRICTIONS: Channel depth 28 ft. Up to 480 ft. length, no restrictions. Arrival is preferable during daylight hours. Departure daylight hours only.
MAX. SIZE: Vessels of 600 ft. length have berthed alongside. Draft up to 27 ft. maximum.

Larger vessels leaving port after loading may require to use port anchor to manoeuvre around sharp bend in buoyed channels just inside harbour entrance.
HEALTH: In case of illness or death on board, send a cable before arrival; doctors available.
RADIO: Radio Station, frequency 2738, call Radio Pilot de San Pedro de Macoris.
TUGS: Compulsory. Tug joins vessel inside the port – 150 ft. from the quay. One tug 500 hp.
BERTHING: Quay No. 1, 900 ft. long, 25 ft. depth; Quay No. 2, 600 ft. long, 25 ft. depth; Quay No. 3, 600 ft. long 24 ft. depth.

Large vessels arriving to load swing inside the harbour using starboard anchor and berth port side to quay. At a later date barges are placed between the ship and quay, to permit greater draft, and Pilot receives extra payment for doing so. Use of gangway is recommended.
LOADING: Vessels loading sugar use ship's gear and ship has to supply rope slings. The chains on the centre sections of MacGregor hatches are broken, and a gap of about 2 ft. made, through which the bags of sugar are bled into the holds at the rate of about 220 tons per gang per day. Only 6 bags per sling are lifted at a time. Stevedores cover hatch openings with tarpaulins when loading is completed for the day. They will make up any extra slings that are required if ship supplies rope.
TANKERS: Oil line diameter 8 in. Max. pressure 60 p.s.i.
FRESH WATER: Available.
FUEL: Supplied by truck.
GANGWAY/DECK WATCHMEN: Available.
OPENING/CLOSING HATCHES: Crew.
CUSTOMS ALLOWANCES: Only sufficient for port consumption. Allowed take only 2 open packets cigarettes ashore.
IDENTIFICATION CARDS: Required.
CONSULS: Great Britain Vice-Consul only. Others at Santo Domingo.
REPAIRS: Minor repairs only.
AIRPORT: Airport is located at 40 km. distance.
TELEPHONES: No telephones on board.
REGULATIONS: Rat guards to be fitted on all ropes. No boats to be lowered without official permission.
REPATRIATION: Can be arranged.
SHORE LEAVE: Allowed.
AUTHORITY: Comandante de Puerto.

AGENT: See "General" before first port.

SANTO DOMINGO: 18.28 N. 69.53 W. (See Plan)

See "General" before first port.
PILOTAGE: Pilot arranged by Agent on basis of Master's advance notice of ETA. Pilot and Agents can be contacted by radio telephone, frequency 2738, 2182, and 2638 kHz. Pilot boards 1.5 miles off breakwaters. Pilot also on VHF Channels 12 and 16.
ANCHORAGES: Deep water anchorage available outside port. Pilot will advise best location.
RESTRICTIONS: If draft over 24 ft., Master should advise Agent before arrival. Berthing after dark not advisable for petroleum and grain berths.
MAX. SIZE: Length over 650 ft. inadvisable. Max. draft 30 ft. 06 in. at grain berth, 29 ft. for tankers at 28 ft. at general cargo berth.
HEALTH: Pratique granted after Health Authorities have boarded and cleared vessel. In case of disease aboard notify Agents before arrival. Pratique is automatic when proceeding from another port in the same country.
RADIO: When within range, Santo Domingo Radio.
TUGS: Join vessel inside port. Ship's lines used. 2 tugs available, 1,200 h.p. and 800 h.p.
BERTHING: 7 berths for vessels up to 600 ft. length. Depths 18 ft. – 28 ft.

Daylight berthing only for vessels proceeding to private Tallow/Soda terminal and Cement Wharf. Shore cranes up to 80 tons capacity available.
BRIDGES: Vessels proceeding up river, height limited to 95 ft. above waterline.
STEVEDORES: ETA's required 24 and 12 hours before arrival to arrange gangs.
MEDICAL: Medical attention can be arranged after vessel is cleared, preferably ashore.
TANKERS: One berth, draft 29 ft., at Sans Souci. LPG facilities under construction.
DENSITY: Brackish inside harbour. Effect of tide negligible.
FRESH WATER: Pipe-line alongside berths. Ship's hoses used.
FUEL: Fuel oil, intermediate fuel and diesel available ex-tanker berth. At other berths by bunker barge.
GANGWAY/DECK WATCHMEN: Compulsory gangway watch kept by Customs guards.
OPENING/CLOSING HATCHES: Performed by crew or stevedores.
CUSTOMS ALLOWANCES: Bond stores are sealed.
IDENTIFICATION CARDS: Shore passes are provided by Immigration Authorities.
CONSULS: All Consuls at Santo Domingo.
REPAIRS: Minor repairs only.
DRY DOCK: Can accept vessels up to 320 ft. long, 50 ft. beam and 17 ft. draft.
REPATRIATION: Can be arranged.
AIRPORT: Distance, 26 km.; served by regular airlines with numerous flights daily.
POLICE/FIRE/AMBULANCE: Police, San Domingo 682-3000; Ambulance, San Domingo 682-4288; Fire, San Domingo 682-2000.
TELEPHONES: No connection to vessels.
SHORE LEAVE: Allowed.
GENERAL: No boats to be lowered without official permission.
DEVELOPMENTS: Santo Domingo's Sans Souci Tourism Wharf, phase 1, is now under construction on the Eastern side of Santo Domingo harbour.

Phase 1 of the project comprises the construction of a dock with a platform measuring 250 m. in length by 31.40 m. in width. Totally made out of precast prestressed concrete members, it is designed to accommodate simultaneously two 20,000 metric ton displacement passenger ships or one of 50,000 metric tons. Besides the dock itself, there is a 20,000 sq. ft. passenger terminal building to be built which will be equipped with all the services and facilities necessary to allow cruises to originate in the new port.

Also under construction is a 1,000 metric ton potable water reservoir with a 50,000 g.p.h. pumping station.

The site selected, the Eastern shore of Ozama River, is 15 minutes by car from Santo Domingo's Las Americas International Airport.

The entire harbour will be dredged to a minimum depth of 35 ft. below mean sea level.

The Sans Souci Tourism Wharf completed. Depth 28 ft.

Phase 2 and Phase 3 consist of berthing facilities for one 20,000 metric ton displacement passenger ship each; construction of these additional berths has not yet been ordered by the Government.

AUTHORITY: Comandante de Puerto.

AGENT: See "General" before first port.

NOTES

Please also advise Shipping Guides Ltd.

Ecuador

GENERAL

REPORTING: All vessels on entering within 200 miles of the Ecuadorian coastline should contact Guayaquil Naval Radio Station HCG on 8360 kHz and advise ETA at port and name of Master. If no contact is made, keep a copy of message and log on times it was intended to be passed. This copy must be given to the Agent on arrival.

DOCUMENTS:

Consular Documents:

In the port of origin of the voyage to Ecuador or in the last foreign port where there is a Consulate before the vessel's arrival in the country, the following documents are to be submitted to the Consul for approval on model forms DIMERC 100 to 107, in 5 copies:

(a) Cargo Manifest.
(b) Crew List.
(c) Passenger List or "no passenger" declaration.
(d) In-transit Passenger List or "no in-transit passenger" declaration.
(e) Ship's Stores List.
(f) Crew's Effects Declaration.
(g) Maritime Health Declaration.
(h) Mail List.

The original set of these documents remains on board the vessel, the duplicate and triplicate are submitted to the Customs Administration, if they refer to cargo, and to the Captain of the Port, if they refer to the crew or passengers. The quadruplicate is sent to the Ministry of Foreign Affairs, and the quintuplicate remains in the Consul's files.

Prior to Arrival:

Arrival Notice: 72 hours before the vessel's arrival in the pilot waiting area, the shipping agency shall submit to the Port Authority the arrival notice form, on a special port format or its own format, containing basic data on the vessel and the request for services (pilotage, towage, berthing, etc.).

The vessel's arrival time should be communicated to the following authorities 24 hours in advance: Captain of the Port, Customs, Customs Police, Migration and Maritime Health.

Information on cargo for the port: The agency shall submit to the Port Authority the following documents by the deadlines indicated:

(a) General Import Cargo Manifest, in triplicate	24 hours before start of operations
(b) Import Bill of Lading, complete set	At the time operations start
(c) Cargo Stowage Plan by hatch	24 hours before start of operations
(d) Cargo List (breakdown of cargo)	24 hours before start of operations
(e) Container Contents List	24 hours before start of operations
(f) Dangerous cargo List	48 hours before vessel's arrival in the pilot waiting area
(g) Tally books, 15 copies (must be true copy of Bills of Lading and have an alphabetical index)	6 hours before start of operations.

On Arrival:

On entrance of the vessel, the following documents should be submitted on DIMERC forms 100 to 107, which, although they follow LAFTA/OAS forms 1 to 6, differ from them in that they bear the seal of Ecuador and must satisfy the following requirements:

Type of Documents	*Number and Distribution of Documents*					
Basic Forms:	*Captain of Port*	*Customs Police*	*DIMERC*	*Migration*	*Maritime Health*	*Total*
1. General Declaration	1	1	–	–	–	2
2. Cargo Manifest	1	2	1	–	–	4
3. Crew Roll	1	2	–	1	1	5
4. Passenger List (a)	1	2	–	1	1	5
5. Ship's Stores (b)	1	2	–	–	–	3
6. Crew's Effects Declaration (c)	–	2	–	–	–	2
7. Maritime Health Declaration (e)	–	–	–	–	1	1
8. Mail List	–	2(d)	–	–	–	2
Additional Documents:						
9. Clearance Permit from Last Port	1	–	–	–	–	1
10. In-transit Cargo Manifest	1	1	1	–	–	3
11. "No Passenger" Declaration	1	2	–	1	1	5
12. "No Passenger" Declaration or In-transit Passenger List	1	2	–	1	1	5
13. Cargo Manifest (e)	–	2	–	–	–	2
14. Crew List (e)	2	–	–	–	–	2
15. Passenger List (e)	2	–	–	–	–	2
16. Ship's Stores (b)	–	2	–	–	–	2
17. Crew's Effects Declaration (c)	–	2	–	–	–	2
18. Maritime Health Declaration	–	2	–	–	–	2
19. Mail List (e)	–	2	–	–	–	2
20. Cargo Bill of Lading	–	–	1 set	–	–	1 set
21. Passengers' Baggage List	1	2	–	–	–	3
22. List of Unaccompanied Baggage or "no baggage list"	1	2	–	–	–	3

(a) Does not indicate sex.
(b) Has additional column for storage place.
(c) Omit crew signature column.
(d) One copy for the Postal Service.
(e) With Consular visa.

Prior to Departure:

Before departure, a complete set of the general export cargo manifests and a complete set of the export loading bills of lading are submitted to the Port Authority.

Clearance of vessel shall be requested from the Captain of the Port on a special form, which is submitted in 2 copies, each of which is to be accompanied by the following documents:

General Declaration	1
Crew List	1
List of Passengers or "No Passenger" Declaration	1
Stores List	1

The Captain of the Port returns to the ship the original clearance permit, duly certified, and retains one copy for his file.

In addition, 2 hours before departure, a clearance form must be submitted to the Customs Police, and a list of embarked passengers or a "no passenger" declaration and a list of crew changes is to be submitted to Migration.

PRATIQUE: Radio Pratique is not normally granted. Notice of arrival should be given at least 24 hours prior to arrival to Radio Naval Guayaquil, call sign HCG. Listens on 500 kHz, 8,385 kHz and 8,320 kHz. Answers back on 8,472 kHz and 8,475 kHz.

The message should read as follows:

CAPUERTO
MEDICO SANIDAD
ADMINISTRADOR ADUANA followed by name of port
IMMIGRATION
"vapor . . . 1 . . . 2 . . . procedente . . . 3 . . . no enfermos abordo, no explosivos, no pasajeros para . . . 4 . . . pasajeros en transito . . . 5 . . . tons carga para descargar . . . 6 . . . sacos correo para descargar eta boya . . . 7 . . . agencia . . . 8 . . . 9 . . . Capitan. or in translation (original must be sent in Spanish).
SS . . . 1 . . . 2 . . . from . . . 3 . . . no sick on board, no explosives, no passengers for Guayaquil (or name of port) . . . 4 . . . passengers in transit . . . 5 . . . tons cargo to discharge . . . 6 . . . bags of mail to unload ETA Sea Buoy . . . 7 . . . Agency . . . 8 . . . 9 . . . Captain.

1. Name of the vessel.
2. Nationality of the vessel.
3. Last port and port of call.
4. Number of passengers in transit (logically, if there are passengers for the port call, instead of saying (no pasajeros para . . . the correct number would be indicated).
5. Number of weight tons of cargo for the port.
6. Number of bags of mail.
7. Estimated hour of arrival at Sea Buoy, or Buoy No. 1 off Data.
8. Agent's name.
9. Master's name.

The same message should be sent to the ship's Agent.

When quoting arrival times use GMT or Ecuadorian Time (GMT minus 5 hours). Summer time is not kept.

The boarding party usually arrives on berthing.

The Vaccination Certificates should be ready in the same order as the Crew Lists.

FLAG: The national flag has yellow, blue and red horizontal stripes. The yellow is twice the width of the others. Government vessels show the national Arms in the centre of the flag.

All foreign vessels will fly the flag from the highest mast.

PILOTAGE: Pilotage is compulsory for all vessels over 500 tons gross. Vessels should await the Pilot off the Sea Buoy at all ports unless instructed to the contrary. The Pilot must be requested by the Agent at least 12 hours in advance. They are available 24 hours a day, every day of the year.

STEVEDORES: The stevedores are drawn from the 4 respective unions in rota. The foremen are generally selected by the Agent. The same gang will work the ship until completion, working around the clock if necessary. Gangs will start work at virtually any hour.

Opening and closing of ship's hatches is undertaken by the stevedores and also the rigging of gear. Even though the stevedores receive payment for rigging anyway, it is advisable to use the ship's crew.

Cold fresh water and lavatories must be made available to the stevedores.

Tally clerks are selected in a similiar way to the stevedores.

WATCHMEN: 1 or 2 Customs guards will remain on duty, nevertheless the use of watchmen is advised.

GARBAGE: Before docking all vessels should cover all discharge points to prevent material or water being deposited on the quayside. The dumping of any waste is strictly forbidden except in an emergency. No oil may be dumped within 50 miles of the coast, and Ecuador strictly enforces the Anti-Pollution laws.

RAT GUARDS: These must be placed on all mooring lines while the vessel is in port. This rule is strictly enforced.

FIRE DRILL: Periodical fire drills are held. The signal is 6 short blasts. Smoking on dock is prohibited, and cigarettes must not be thrown through port holes.

CREW: Shore leave is permitted except at the tanker berths. Each man must carry an identity card. It is difficult to sign on a foreign crew member in Ecuador, unless he has been left behind by another company vessel. A visa is not required for replacements arriving from abroad, but the crew member must have a passport or seaman's book, together with a letter from the ship operator stating name of vessel to be joined.

In declaring personal effects, all new purchases must be listed, as well as electrical devices, typewriters, sextants, etc.

The Master has the right to issue or annul boarding passes if he has the approval of the Port Authority.

As a rule visitors are not allowed entry to the Port Area, although special permits are given to certain vendors. They may come on board solely at the discretion of the Master.

PIRACY: Acts of piracy have taken place on vessels alongside in the Port of Quayaquil.

BALAO TERMINAL (Esmeraldas): 01.02 N. 79.44 W. (See Plan)

LOCATION: The Terminal Petrolero de Balao is comprised of the area between the following geographical co-ordinates:

Lat. 00° 55′ 00″ N, Long. 79° 40′ 00″ W.
Lat. 01° 04′ 00″ N, Long. 79° 40′ 00″ W.
Lat. 00° 55′ 00″ N, Long. 79° 46′ 00″ W.
Lat. 01° 04′ 00″ N, Long. 79° 46′ 00″ W.

The Terminal Petrolero de Balao consists of 2 mooring areas: The SBM area for loading crude oil; and the TEPRE area for loading refined products.

The terminal has a storage area for crude oil situated on a hill 180 m. above sea level made up of 9 storage tanks that constitute the final leg of the Trans-Ecuadorian Oil pipe-line.

Each of the tanks has a 332,000 barrel capacity (or 13,524,000 gallons, 42 gallons per barrel). The tanks are 18 m. high and 60 m. in diameter.

Manifolded to each tank are 2 pipes that gravity feed the SBM's. One is 42 in. in diameter and the other 36 in.

The Offshore Terminal at Balao is made up of 2 SBMs nominated "X" and "Y" Buoys and a terminal for refined products (TEPRE).

Relative Location: "X" Buoy (SBM – West) designed for ships up to 100,000 d.w.t., is located 4.5 miles N.W. of the mouth of the Esmeraldas River (Rio Esmeraldas). "Y" Buoy (SBM – East), designed for ships up to 100,000 d.w.t., is situated 3.3 miles from the coast at its closest point and 1 mile on True bearing 081° from "X" Buoy. Both are at a minimum depth of 120 ft. LWS.

Tankers with a maximum of 1,000 ft. between perpendiculars, a maximum beam of 135 ft., and a maximum draft of 52 ft., can moor at the buoys. There should be between 400 ft. and 525 ft. between the bow of the tanker and the underwater manifold.

The TEPRE area is composed of a Conventional Buoy Mooring System (CBM), and forms a parallelogram with an East-West axis.

The mooring facility can receive ships between 6,000 d.w.t. and 20,000 d.w.t. A tolerance of 10% less for ships in the lower range is provided for. The minimum depth of available water is 14 m. DLWS and the greatest admissible draft that will not cause damage to the underwater installations is 10 m.

Geographical Location:
SBMs:
Buoy "X" (SBM – West) Lat. 01° 02′ 03″ N., Long. 79° 42′ 57″ W.
Buoy "Y" (SBM – East) Lat. 01° 02′ 12″ N., Long. 79° 41′ 52″ W.
Terminal for Refined Products (CBM):
Buoy A – Lat. 01° 01′ 3″ N., Long. 79° 40′ 7″ W.
Buoy B – Lat. 01° 01′ 3″ N., Long. 79° 40′ 5″ W.
Buoy C – Lat. 01° 01′ 1″ N., Long. 79° 40′ 5″ W.
Buoy D – Lat. 01° 01′ 1″ N., Long. 79° 40′ 7″ W.

DOCUMENTS: For the official reception of the vessel, the Port Authorities, presided over by the Superintendent and Shipping Agent, will come aboard immediately upon arrival of the ship. In order to be declared in Free Pratique, the tanker must have the following documents ready:

Sailing documents from the last port of call.
Crew List (4 copies).
Declaration of Stores.
Declaration of Personal Effects of Crew Members (2 copies).
List of Passengers (6 copies).
Cargo Manifest (4 copies).
Bill of Lading (2 copies).
General Declaration (5 copies).
Ship's Register.
TOVALOP or P&I Insurance.

PILOTAGE: Pilotage is compulsory. The ship will approach to a distance of 1.5 miles North of Buoy "X".

According to Ecuadorian law pilotage is mandatory and Masters must obey all Statutory Laws and Regulations such as: The Code of Maritime Police; the Pilotage Regulations; and the Operations Regulations for Oil Terminals.

The following dispositions must also be followed:

(a) The officer responsible for boarding and putting ashore the Pilot is the officer on duty.
(b) The vessel must have an accommodation ladder and/or a pilot ladder.
(c) The length of the ladder must not exceed 30 ft. If the distance between the water level and the access point to the main deck is greater than 30 ft., a combination of one section of pilot ladder and another of accommodation ladder must be used.
(d) The pilot ladder must be properly secured and placed on both sides of the vessel.
(e) At night the pilot ladder and its immediate vicinity must be adequately illuminated.
(f) The top of the ladder must be so arranged that the Pilot can safely pass on to the deck of the vessel.
(g) The ladder must be maintained in good condition and its rungs must remain horizontal upon boarding and going ashore. The surface of the rungs must be rough.
(h) The ladder must be stable in such a way that each step rests on the side of the vessel and with spacers placed at least every 10 ft. in order to prevent the ladder from turning.
(i) Nylon ladders must not be used.

Pilotage Area: This area is within the following co-ordinates:
(a) Lat. 01° 00′ 00″ N., Long. 79° 40′ 00″ W.
(b) Lat. 01° 00′ 00″ N., Long. 79° 46′ 00″ W.
(c) Lat. 01° 04′ 00″ N., Long. 79° 40′ 00″ W.
(d) Lat. 01° 04′ 00″ N., Long. 79° 46′ 00″ W.

The waiting area, the anchorage area and the berthing area are included in this zone.

The Waiting Area: The area to wait for the Pilot is 1 mile North of Buoy "X".

The Anchorage Area: The vessels that must anchor upon arrival will proceed to the waiting area 1.5 miles North of Buoy "X" (SBM – West) and with the Pilot on board will navigate to the anchorage area between:
(a) Lat. 01° 00′ 30″ N., Long. 79° 44′ 00″ W.
(b) Lat. 01° 00′ 30″ N., Long. 79° 46′ 00″ W.
(c) Lat. 01° 02′ 00″ N., Long. 79° 44′ 00″ W.
(d) Lat. 01° 02′ 00″ N., Long. 79° 46′ 00″ W.

Operation Area for Tankers: This area, where mooring Buoys "X" and "Y" are found, is located between:
(a) Lat. 01° 00′ 00″ N., Long. 79° 40′ 00″ W.
(b) Lat. 01° 00′ 00″ N., Long. 79° 44′ 00″ W.
(c) Lat. 01° 03′ 00″ N., Long. 79° 40′ 00″ W.
(d) Lat. 01° 03′ 00″ N., Long. 79° 44′ 00″ W.

LIGHTS: *SBM Lights:*
Characteristics:

Buoy "X" (SBM – West)		Buoy "Y" (SBM – East)	
Light	Amber	Light	Amber
Flash	1.2 secs.	Flash	0.7 secs.
Dark	6.8 secs.	Dark	0.3 secs.
Period	8.0 secs.	Period	1.0 sec.
Range	5.3 miles	Range	5.3 miles

Lights at the terminal for refined products:

Light	Yellow
Flash	1 sec.
Dark	3 secs.
Period	4 secs.
Range	5 miles

APPROACHING: The most outstanding sights approaching Balao are: The Coquito Lighthouse, located 2 miles West of Punta Este (entrance of Rio Esmeraldas); the crude storage tanks in Balao on a hill (186 m. above sea level) visible from approximately 20 miles; and Punta Gorda, a craggy rise situated approximately 4.4 miles S.W. of Punta Coquito. The prominent points are easily detected by radar.

From Punta Las Palmas to Punta Gorda the coast consists of cliffs and small valleys for about 5 miles in a West by S.W. direction.

Punta Gorda, a craggy rise with nearby cliffs, has a reef that extends half a mile offshore North of the point. From Punta Gorda to Punta Sua, about 9.5 miles East by S.E., the coastline is low except for the cliffs close to Punta Gorda.

ANCHORAGE: While awaiting berthing at the offshore terminal ships can anchor in the following area:
(1) Lat. 1° 00′ 30″ N., Long. 79° 44′ 00″ W.
(2) Lat. 1° 00′ 30″ N., Long. 79° 46′ 00″ W.
(3) Lat. 1° 02′ 00″ N., Long. 79° 44′ 00″ W.
(4) Lat. 1° 02′ 00″ N., Long. 79° 46′ 00″ W.

MAX. SIZE: Maximum 100,000 d.w.t., max. load 100,000 tons/730,000 bbls., max. LOA 274.3 m., max. beam 39.6 m., max. draft 15.2 m., and max. distance aft/manifold 137.1 m.

Therefore tankers up to a maximum of 100,000 d.w.t. will be moored. Acceptance of tankers' dimensions and d.w.t. must be obtained in advance.

RADIO/VHF: Vessels bound for Balao must advise their ETA to the Superintendencia and their Agents, 72 hours and 24 hours before arrival. The message must contain vessel's name, ETA, Master's name.

The Pilots listen on Channel 16 (VHF) then change to Channel 14 once contact has been established.

The Terminal maintains a 24 hour watch on VHF-FM frequency 156.800 MHz, Channel 16, with an approximate range of 40 – 60 miles, and HF radio from 0800 hrs. – 1200 hrs. on 8,291.1 kHz and from 1200 hrs. – 1800 hrs. on 12,432.1 kHz. Once contact has been made with the tanker, either Channel 14 or any other channel designated by the radio operator will be used.

TUGS: 5 tugs available, all radio equipped.

MOORINGS: *(SBM's):* The SBMs "X" and "Y" have rotating tables on which the oil handling and mooring devices are mounted. These can turn in the direction of the tanker.

The mooring ropes: Each buoy has 2 mooring ropes for securing to the bow and these are permanently attached to the buoy. Each rope is 185 ft. long and 15 in. thick and is connected to 30 ft. of 2 in. chain that is secured to the bitts of the ship with cable grommets and mooring shackles provided by the Terminal.

TEPRE CBM: The underwater manifold is located 2.1 miles from shore at the end of the product pipe-line. Its function is to distribute the products from the dispatch lines to the tanker or to the product re-cycling lines, whatever the case may be. The underwater manifold also houses the deballasting line.

The tankers are loaded by underwater hoses connected to the product loading outlets on the underwater manifold. The hoses are hoisted onboard the tanker once it is properly moored to the buoy field.

How the buoy field is secured: Stud Link grade U2 0.5 in. chain.
Rupture Tension 223 tons.
Working Tension 159 tons.

Anchors: Conventional, according to design specifications recommended by R.I.N.A. (Italian National Register).

Each buoy is secured by a chain to the anchor in order to avoid displacement by wind, current, or the tension of the ship. They are anchored with enough weight to avoid drifting.

BERTHING: Mooring operations will take place during daylight hours under normal weather conditions.

The unmooring operations will take place 24 hours a day.

Mooring Turn (Arrival): Priority for tying up is determined by the ship's time of arrival in port. In any case, those that arrive first have priority if and when they have received authorisation from the Direccion General de la Marina Mercante y del Litoral to operate freely.

The port derrick must be rigged and ready for use on arrival and vessels should be warned that the weight of each hose is at least of 5 tons under favourable conditions. This will be used to lift the floating deballasting/loading hoses as well as crates of materials that will be delivered by a terminal tugboat at the anchorage before the mooring operations begin.

For the mooring operations the ship must provide the following personnel and materials, which must be ready on the foredeck:

Personnel:
First Officer on deck
Boatswain
2 winch operators
2 seamen to handle the ropes.

Materials:
2 winches that work
2 mooring lines 2.5 in. in diameter; 600 ft. long
2 nylon mooring lines 1 in. × 10 ft.
2 manila heaving lines 0.25 in. diameter × 30 ft.
1 nylon or polypropylene mooring line 2.5 in. in diameter and 300 ft. long centre astern.

Mooring: The approach and mooring of the tanker will take place with the aid of the Pilot from Balao and the Loading/Mooring Master from the CEPE-TEXACO Consortium in accordance with the Operation and Tariff Regulations for Oil Terminals.

When the vessel is at a reasonable distance from the berth, the mooring tugboat will take 2 of the ship's warping lines. Tie these to the mooring lines which are attached to the buoy and bring them on board. As the buoy ropes come clear of the water, it will be noted that chains are attached to them. These chains are to be secured to the bitts in such a manner that the nylon is outside of the external length of the ship so the chains absorb any chafing if the buoy lines cross the bow. There are 2 buoy lines. Power must be available at all times on all deck winches and windlass while the vessel is at the berth.

A mooring line must be available aft, secured to the bitt and of sufficient length to enable a tug boat to pick up the eye and tow it off to re-position the vessel if necessary.

Mean Time For Operations At The Terminal: Subject to the differences of each ship, the following times can serve as a guide:

1. Approach to the buoy from anchorage	50 minutes
2. Approach from waiting area	30 minutes
3. Loading the equipment used for mooring and connecting the hoses	20 minutes
4. Mooring	30 minutes
5. Lifting and connecting the hoses	80 minutes
6. Disconnecting the hoses	40 minutes
7. Casting off from buoys	10 minutes
8. Unloading personnel and equipment	25 minutes

HOSES: *Buoys "X" and "Y":* Lifting, connecting, disconnecting, lowering and other operations will be performed by a special team from shore under the Loading/Mooring Master's orders with assistance of the ship's deck officer. Port derrick must be rigged and ready for use before mooring operation begins.

Members of the ship's crew will be required to operate the winch or winches. Particular care should be taken during the hose handling operation in order to avoid serious damage to the hoses, the plastic floats and buoys on the plate edges, rails, etc.

BALLAST: *Deballasting:* The Terminal is not able to receive slops on shore, therefore its discharge is prohibited. The deballasting line for clean ballast has been damaged.

Vessels are to be equipped with clean segregated systems which are reserved for ballast only. Vessels so equipped will be permitted to pump segregated ballast overboard after being accepted and approved by shore inspectors.

After the tanks have been inspected and approved by the Terminal, deballasting will commence under the supervision of the Loading/Mooring Master. Upon completion the tanks will be inspected again and if ready for loading, a certificate will be signed by a representative of the consortium.

For the water processing of ballasted tankers, the Balao Terminal has an adequate system that starts in the hoses of the buoys and passes through a submarine pipe going to a pre-separator, where it hits and separates: first the water of the hydrocarbons, then goes to a decantation pool, where it stays 48 hours and after goes to a final separator in which are collected the last traces of hydrocarbons and finally the clean water is drained to the sea.

LOADING: Loading is through SBM's which are 49.5 ft. in diameter and held, each one in position by fixed chains secured to piles sunk into the sea bed.

Buoy "X" is equipped with a 750 ft. length and 20 in. self float loading hose which is manifolded to two 105 ft. length and 12 in. tail hoses. Buoy "Y" is equipped with a 20 in. hose and is manifolded in the same fashion as Buoy "X".

1. Loading ratio. Not withstanding greater capacity, currently the loading rate has been reduced to 32,000 bbls.p.h. at both buoys with a minimum of 10,000 bbls.p.h. and maximum pressure of 100 p.s.i. on land.

2. Under no circumstances will the vessel be loaded at a rate greater than that requested by the Master. It is the Terminal's responsibility to maintain the requested loading rate.

3. The load on top system is accepted at this terminal and vessels are requested to arrive with slop tanks "settled out".

UNMOORING: The Loading Master will advise to Texaco Control the estimated time for the completion of loading and will ask for Official Pilot. Then, hose disconnecting operation is undertaken aboard ship. After the unmooring takes place, the tug boat comes alongside the ship to transfer all materials and personnel that have been used during the operation. Then the vessel will proceed to the anchorage area where anchored it will await loading and sailing documents.

TEPRE OPERATIONS: *Mooring and Unmooring at the Terminal for Refined Products:* The Pilot on duty will be in charge of mooring and this will take place according to the wind and current conditions.

Loading: Once the vessel is secured, loading will be directed by the State Petroleum Corporation of Ecuador (CEPE). For this, 3 divers, 4 hosemen and 1 loading supervisor will come to the vessel and together with the ship's crew, connect the hoses.

Description of the Operation: Once the tanker's derrick is ready, a diver will dive to the ocean floor with a hook that will be attached to the hose of the product to be loaded. Once on deck, the hose will be connected to the ship's manifold.

Loading rates:

Product	*Designed Rate* cu.m.p.h.	*Admissable Rate* cu.m.p.h.
Gasoline	636	700
Kerosene/Diesel	477	650
Fuel Oil	800	1,100

Deballasting	(d.w.t.)	
Tanker	6,000	300
Tanker	12,000	400
Tanker	20,000	600

Diameter of Flexible Product Hoses	(in.)
Fuel Oil	10
Gasoline	10
Kerex/Diesel	10

Deballasting: The same system used for loading will be employed for deballasting differing only in that the ship will pump to shore.

Products: The products that are currently being loaded at the TEPRE terminal are: Gasoline, diesel, kerex and bunker.

MEDICAL: The city has two hospitals: Hospital Delfina Torres de Concha and Hospital Franlin Tello Mercado.

FRESH WATER: Available in limited quantities. If more than 200 tons are needed, this must be requested 72 hours in advance.

FUEL: Limited availability and only in emergencies.

CONSULS: Colombia: Calle Sucre s/n entre Piedrahita y Manuela Canizarez. Tel: 713-661.
Chile: Calle Colon y 10 de Agosto. Tel: 710-045.
France: Av. Eloy Alfaro y Salinas.
Panama: Av. Kennedy 1100, Las Palmas. Tel: 710-370 and 711-180.

REPAIRS: Only minor repairs can be carried out and this is with the exclusive authorisation of the Superintendencia. These must not jeopardise the safety of the vessel or the installations.

REPATRIATION: Only if the person has all the necessary documents (passport, certificates, etc.).

TIME: GMT minus 5 hours.

SHORE LEAVE: Considering local operating conditions, permission to come ashore is subject to the approval of Migracion y Extranjeria (Immigration) and must be requested by the vessel's Agent. Transportation must be provided by the Agent and subject to the rates established by the respective authorities.

SERVICES: Yagua General Services Ltd. and Semarf Agents Cia. Ltda. can offer the following services:
Launch services.
Water supply.
Hospital medical attention.
Shipchandler.
Crewmember exchange, etc.

They could also be appointed as protecting Agent of any particular vessel.

GENERAL: *Flags:* The quarantine flag must be flown by the vessel when approaching the Balao Terminal. It must be lowered once the ship has been declared in Free Pratique.

The National Flag of Ecuador will be permanently flown while the ship is at the Terminal.

Contraband: Ecuadorian law is rigorous in reference to contraband. The Master must instruct his subordinates to avoid taking cigarettes, cigars, tobacco, alcoholic beverages, drugs, etc. to the shore.

These articles must be reported before arriving at the Terminal and with their respective lists put under the Master's custody during the ship's stay.

In no way will commercial transactions between crew members and Terminal employees or third parties be tolerated.

Visitors: With the exception of Terminal personnel and other employees whose duties require them to board (Port Authorities, Ministry of Natural Resources Inspectors etc.), all visitors are strictly forbidden. Exceptions to this rule will require the authorisation of the Superintendencia.

Watches: Permanent watches must be maintained on board; on deck as well as in the engine room. These watches must have sufficient crew members to move the ship in case of emergency.

Charts: National charts: I.O.A. 1002 Port of Esmeraldas. Ed. December 20, 1982. Foreign charts: N. 021033 (HO-1176).

Wind and Currents: The predominant wind and marine currents throughout the year are S.W. During the rainy season (December – May), however, the wind and current suffer a slight change and at times come from the N.E. and North.

In the berthing area the currents often vary and will oppose the direction of the wind and cause the ship to yaw strongly.

Tide: The tide in syzygy comes up 13 ft., in quadrature 11.5 ft. The tidal currents have been reported (1956) at a rate of 1.5 knots, a little stronger during low tide.

REGULATIONS: (Not all Regulations printed). Due to the fact that Balao is very close to Las Palmas, Atacames, Sua, etc., any pollution will cause serious damage to the beaches and fishing grounds. Therefore, ships are obliged to avoid any possible pollution of local waters that would be caused by pumping crude oil, diesel, or other fuels or oily mixtures from the engine room bilges.

In the piloting area the traffic of small craft such as fishing vessels, coasting vessels engaged in cabotage is absolutely prohibited with the sole exception of small craft used in the reception and mooring of tankers and these must be authorised by the Superintendencia.

Masters Responsibility: While the ship is at this Terminal, the Master will continue to be responsible for the security of the vessel.

While the ship remains at the buoys, its main engines must be ready for any emergency. If they are turbines they must be in reverse.

Vessel's Obligations in Port:

1. It is the obligation of the Master of the ship, or his representative, to receive the Pilot and the Loading/Mooring Master at the gangway, and provide them with all the information they may need.
2. The Master will delegate the First Officer or another responsible officer to receive the Port Authorities at the gangway and provide them with the documents and other information they may request while on board.
3. The Master must present the Superintendencia with a Certificate of Pollution Insurance issued by TOVALOP, the Ship's Register and any other document that may be required.
4. Meals must be provided for Superintendencia personnel and Customs, Police, etc. that are on duty.
5. A cabin and meals must be provided for the Loading/Mooring Master on duty during the loading operation.
6. The ship must provide meals for the 4 hosemen on board.
7. Meals and cabins must be provided for the Superintendencia's Safety and Pollution Control Inspectors when necessary.
8. Meals and a cabin must be provided for the Pilot if on board at mealtime.
9. All required materials and personnel must be placed at the disposition of the Terminal's Representative so that he can adequately carry out his job especially for easy and safe access of personnel on board.
10. The ship must provide personal assistance and other facilities required by the Ministry of Natural Resources Engineers on duty, so that they can efficiently control and inspect the oil being loaded and the tanks used.

Reports to the Superintendencia: During their stay in Port, the Master of the tanker must report any problem on board concerning:

1. Breaches in safety measures during mooring, deballasting, loading and unmooring operation.
2. Oil spills produced by bad hose connections, breaks in the hoses, filtration due to improper plugging of scupper holes, or any other reason.
3. Pollution caused by bilge pumping, tank washing, or any other operation that is not permitted.
4. Any abnormal situation that might affect the operating safety of the tanks.
5. Personnel accidents during work.
6. Theft on board or discovery of commercial transactions between crew members and Terminal workers etc. (contraband)
7. A copy of the measurements on board once the vessel is loaded.

Safety Regulations: The deck officer on duty must check the list of questions one by one to make sure the vessel's safety measures are in order. Some of the points that must be observed are as follows:

11. Are the mooring lines in good condition? (TEPRE – 12 nylon or polypropylene lines according to the tonnage of the tanker. SBM – 2 nylon or polypropylene lines, 600 ft. long.)
12. Are the short lines in good condition? (TEPRE: 12 short nylon lines, 1 in. thick and 10 ft. long each one.)
13. Is the derrick in good condition and has capacity for at least 5 tons?
24. Is the hydrocarbon log up-to-date? Check it!
25. Is the Master aware of the port regulations?

Safety Precautions for Ships:

1. Verify that mooring conditions are in accordance with Terminal requirements.
2. As a safety measure during operations, ships headed for Balao to load crude oil must arrive with enough ballast to correspond to 25% to 30% of its cargo capacity and down no more than 10 ft. by the stern.
9. The red flag, BRAVO, must be raised during the day and a red light must shine at night.
10. Ashtrays in the smoking room must contain water.
11. Due to the underwater chains, pipes and hoses, it is absolutely forbidden to use anchors close to the buoys.
12. All of these rules will be enforced by the Safety and Pollution Control Inspectors, along with the Loading and Mooring Masters.

AUTHORITY: Superintendencia del Terminal Petrolero de Balao, Casilla 286, Esmeraldas, Ecuador. *Tel:* 711-100, 712-200, 712-300. *Telex:* 7579. *Contact:* Captain Fernando Gavilanes Granja, Superintendent, Captain Victor H. Morales P., Chief of Operations.

AGENT: *Main Office:* Yagua Ltd., Shipping Agency, P.O.Box No. 69, Quito, Ecuador. Victor Hugo 114e, Isla Pinzon, (Jipijapa), Quito, (Ecuador). Cable: Yagua Quito (Ecuador). Telex: 022220 Yagua Ed (Monday through Friday. See Operations Office for Saturdays and Sundays). Tel: 554-484, 554-485, 543-429.
Operations Office: Avenida Kennedy 1100 (Las Palmas). Cable: Yagua Esmeraldas (Ecuador). Tel: 710-370, 711-180 (available 24 hours a day). Telex: 7589 Yagua Ed.

Also on VHF Channels 16, 6, 12 and 71.

ESMERALDAS: 01.00 N. 79.39 W. (See Plan)

PORT LIMITS: Between the meridians 79° 38′ W. and 79° 39′ W. and the parallels 00° 59′ N. and 01° 02′ N.

NAVIGATION AIDS: The port complex of Esmeraldas has navigational aids consisting of the installation of 6 lighted buoys which mark the access channel to the port; 1 landfall buoy in the waiting area for Pilots; 4 lights located at the head of quays, 2 on the 2 breakwaters (principal and secondary) which limit the commercial quay and in the accesses to the dock of the Fishing Port and 2 pairs of leading lights – one pair at the top of Coquito Hill to the S.W. of the port and another pair near to the residential area of Tachina towards the S.E. of the port.

DOCUMENTS: The documents required by the Port Authorities on arrival of vessels are as follows:

Clearance From Last Port.
4 General Declarations.
1 Health Declaration.
5 Lists of Crew Members.
5 Lists of Passengers.
6 Sets of Cargo Manifests.
4 Sets of Bills of Lading.
1 Stevedoring Plan.
Certificates of Tonnage and Radio to be checked.

PILOTAGE: Pilotage is compulsory.

Prior to commencement of manoeuvring and navigation, the Pilot will require from the Master the following information: conditions of steering, conditions of ship machinery, condition of the aids to navigation, conditions which may limit the manoeuvres which are about to be effected, the draft forward and aft, nature of the cargo, availability of mooring lines and the system of anchorage.

The Pilot will require the presence of the Master of the vessel on the bridge at all times during manoeuvres.

ANCHORAGE: The area for awaiting the Pilot and quarantine is located between meridians 79° 39′ 15″ W. and 79° 40′ 00″ W. and the parallels 01° 01′ 00″ N. and 01° 01′ 50″ N.

MAX. SIZE: The port is limited to receiving vessels not greater than 200 m. LOA and 35 ft. max. draft.

RADIO: The Port of Esmeraldas currently has no radio service, but the Terminal of Balao: Lat. 01° 02′ N., Long. 79° 44′ W., which is relatively close, has a radio service.

To communicate through Balao, vessels arriving at Esmeraldas must advise or communicate their ETA to the Naval Superintendency of Esmeraldas, 72 and 24 hours prior to arrival. Messages must contain the names of the vessel, ETA and name of the Master.

24 hours listening out is maintained on HF-SSB-2182 – 2136.3 kHz call-up frequency and 4139 – 6210 kHz working frequency and on Channel 16. Generally vessels will have contact with this channel at a distance of 20 to 30 miles from the port. Channel 14 will be used for contact between the vessel and the Naval Superintendency before arrival in port.

BERTHING: All systems of maritime transport of general cargo (Ro/Ro LASH, USO multiple and containers with own crane equipment) can be used in the Port of Esmeraldas, since there is:

An ample dock of some 35 hectares with direct access. The port is not affected by winds, tides or undertow.

A marginal quay, 350 m. long and 26 m. wide at its forward part, giving facilities for handling and transfer of any kind of cargo.

Areas of free spaces for the storage of containers, semi-trailers and other types of cargo with an area of 66,000 sq.m. A closed warehouse of some 6,000 sq.m. area, and areas reserved for future usage of 110,000 sq.m.

A ramp for Ro/Ro vessels whose position is perpendicular to the quay designed so that vessels operating in loading and unloading are not interrupted by tidal differences.

Equipment for handling containers, semi-trailers, palletised cargo and others. Mobile cranes 2×60 tons, 2×35 tons, 2×15 tons, 20 loaders of 7.5, 6 and 3 tons and 8 trucks with platforms.

STEVEDORES: The port offers services to vessels without any restrictions and uninterrupted during all days of the year, 24 hours a day, with the exception of the 24th December when work is interrupted from 1700 hrs. until 0800 hrs. on the 26th December and the 31st December from 1700 hrs. until 0800 hrs. on the 2nd January.

MEDICAL: Doctors available.

FRESH WATER: Available.

FUEL: Available.

DEVELOPMENTS: The second stage of port works which have been projected, comprise:

Construction of a container quay 210 m. long with a storage area of 8 hectares.

A marginal quay 140 m. long with the same characteristics as the quay of 350 m. long and is a continuation of it, which will permit the berthing of 3 deep-sea vessels at one time.

Two additional warehouses of 6,000 sq.m. each.

Open air storage surface areas covering 3.5 hectares.

Extension of electric and sanitary services to the new areas.

SHIPMASTER'S REPORT: June 1979.

Navigation: Two orange coloured beacons on the land to the East side of the river, act as leading marks (bearing 166°T) from approx. 4 miles to seaward, right up to the entrance of the port. They are not lit. Depths along this line were not less than 100 m.

Off the entrance to the port, two orange coloured beacons on the West side near Coquitos Point Lighthouse, are the leading marks into the harbour. They are not lit. Entering the harbour, the deep water shoals rapidly to about 12 m., but at no time were echo soundings of less than 11.5 m. MLWS encountered either in the entrance, or in the manoeuvring area inside, or alongside. Beacons mark the extremities of the breakwaters but they are not lit.

Two buoys mark the East and West edges of the deep water channel outside of the breakwater. They are lit. Further buoyage is planned to mark the deep water area.

Pilots: 2 Pilots on board, 1 to communicate with each tug. Only 1 Pilot and 1 tug equipped with 'walkie-talkie' radios.

Tugs: 2 square bowed American type river-barge pusher tugs are available and they have adequate power to assist in manoeuvring on and off the berths. Unfortunately, the 2 vertical posts on their bows are likely to cause sharp indentations in vessels' bow and stern plating when the tugs are used for pushing. They should only push against the flat vertical surfaces of the hull.

Berthing/Facilities: There are 2 berths and a Ro/Ro facility, but only 2 large vessels can be accommodated alongside at any one time. A large cargo shed is under construction opposite Berth No. 2, and the container and open cargo areas have been surfaced. Both berths are to be supplied with bunkering and fresh water facilities, but these are not operative at present time. No actual assessment of cargo handling equipment could be made, but it was noted that there were 2×30 ton mobile cranes and 5×7.5 ton forklift vehicles in the parking area in the compound. The Agent reported that low-loaders and trailers were available for the movement of containers and that forklifts could be hired for use in the hatches.

The loading of bundles of balsawood was carried out directly from lorries which brought the cargo alongside and the rate of loading was about 165 bundles (20,600 board feet) per gang hour.

At present the harbour is somewhat obstructed by anchored fishing boats and small craft, but these are to be shifted to the new fishing port being constructed to the South of the main harbour.

AUTHORITY: Autoridad Portuaria de Esmeraldas, Casilla 280, Avda. Jaime Roldos-Las Palmas, Esmeraldas, Ecuador. *Tel:* 711-910, 710-800, 711-996. *Telex:* 7586 Aupesm-Ed. *Cables:* Aupesm. *Contact:* Ing. Teddoro Moroan Moran, Manager.

GUAYAQUIL: 02.12 S. 79.52 W. (See Plan)

DOCUMENTS:

Port Doctor:
Derat Certificate.
Maritime Declaration of Health.
Crew Roll.
Passenger List.
Passenger List in Transit.

Harbour Master's Office:
Voyage Report.
Clearance from last port.
Crew Roll with original visa from Ecuador Consul in first port of voyage (3 copies).
Passenger List with original visa from Ecuador Consul in embarking port, or declaration that they have no visa, signed by Master (2 copies).
Passenger List in transit signed by Master or declaration that they have no passengers in transit (2 copies).
Provisions List, Stock and Medicines on ship (3 copies).
Cargo Manifest in transit (1 copy).
Combustible or inflammable Cargo (1 copy).

Customs:
8 copies of Manifest.
Sealed envelope of Manifests, consular and commercial invoices and non negotiable vouchers.
Cargo index and copy of Cargo Manifest in direct transit (8 copies).
A Register (8 copies) of spare parts for vessel and provisions.
Crew Roll and detailed list (8 copies) of personal belongings of officers and crew.
Passenger List, with indication of their suitcases and list of suitcases that travel without their owners; in this case should be specified the port where they were put on board and personal declaration of each passenger (8 copies).
If the vessel with ballast, Master will be obliged to produce (besides the ballast certificate) documents already mentioned in each respect. Master or Maritime Agency will produce a written statement to Customs within 12 hours from arrival of vessel whether they decide to take any cargo for exporting. If not loading vessel must leave within the following 24 hours.

Immigration:
Crew List signed by Master.
Passenger List of those who disembark there or a declaration of none for this port, signed by Master.
Passenger List in transit, or a negative declaration signed by Master.
In case of having passengers to disembark in this port, Master should produce passports and visas.
Crew identification cards or similar documents.
Inspection of ship by Authorities will be done (compulsory) within 3 hours of arrival, usually as soon as ship berths, or in quarantine.

PILOTAGE: Vessels approaching port to notify their arrival by Naval Radio Station HCG, 24-hour service, frequency 8476 kHz and 500 kHz. Traffic list broadcast every hour on 8476 kHz.

Advance notice of not less than 12 hours required, addressed to Capuerto Aportuaria Agencia in either English or Spanish with the following details: date, and time of ETA, destination (whether Buoy No. 1 or Puna), maximum draft, cargo details, details of passengers or mail, and if Pilot required.

Pilot Station for Puerto Maritime: Situated in position Lat. 02° 43′ 18″ S., Long. 80° 17′ 30″ W. Pilot boat needs 1 hour to go from pilot station to Buoy No. 1. Contact by VHF Channel 16, 24-hour service. Pilot boat is wooden, 45 ft. long, black hull, white cabin, with letter "P" on sides. During day carries blue flag with letter "P" and by night has regulation pilot lights.

Pilot Station for River Guayas: Situated in village of Puna. Pilot boat requires a minimum of 30 minutes to move from pilot station to vessel. Vessels requiring Pilot signal Morse letter "X" by lamp or sound.

Pilot boat has grey iron hull, white cabin with Lancha de Practicos written on both sides. By day carries blue flag with letter "P". By night regulation pilot lights.

ANCHORAGES: *Puerto Maritime:* 1 mile South and 2 miles West of Sea Buoy in position Lat. 2° 44′ 26″ S., Long. 80° 24′ 44″ W. Min. depth in the area is 35 ft.

Guayas River: Inside area between bearings 180° and 135° from the lighthouse of Punta Mandinga at Puna, 1 mile from the lighthouse.

MAX. SIZE: Max. length for ships entering Puerto Maritime is 650 ft., with a max. draft of 33 ft. Vessels of deepest draft should begin to enter 1 hour before high tide. For Guayas River max. length 600 ft., max. draft 23 ft. 6 in.

HEALTH: Procedure to obtain Free Pratique is to produce health certificates to port doctor upon arrival. To get Free Pratique by radio, ship must radio to port doctor any changes in health situation on board since leaving last port.

TUGS: Normally join vessel beyond Buoy No. 80. Tugs are compulsory, also use of their lines is compulsory. Cost of both services is included in total cost of port duties.

BERTHING:

Berth	*Length* (m.)	*Depth* (ft.)	*Remarks*
Marginal Pier	960	31	5 berths
New Port			
Berth 1A	185	33	Bananas,
1B	185	33	General,
1C	185	33	Containers.
1D	151	33	Bulk, sugar, grain, vegetable oil.

BRIDGES: No bridges that restrict traffic either in Estero Salado nor in Guayas River, but ships that are to berth in village of Eloy Alfaro (Duran) should take into consideration height of telephone lines between Guayaquil and El Islote, minimum height 48 ft.

STEVEDORES: Radio message to ship's Agent will give agency enough data to make all arrangements required for operations of loading/discharging. In Maritime Terminal an average discharge/loading rate of 25 tonnes/p.h. per hook.

MEDICAL: If ship requires medical attention, a notice of 12 hours should be given to Agents. Guayaquil Hospital and clinics are available.

TANKERS: Discharge asphalt in Guayas River at a special quay, max. draft 23 ft. 6 in. Discharge of petrol for aviation in Puerto Maritime is to lighters, max. draft permitted is 33 ft.

DENSITY: 1012.

FRESH WATER: Available. Three pipes at each berth delivering at a rate of about 20 tonnes/p.h. each.

FUEL: ~~None~~ available.

NOT

GANGWAY/DECK WATCHMEN: Capitania del Puerto provides members of the Policia Maritima. Ships to supply watchmen with food.

Piracy: Acts of piracy have taken place alongside. The pirates boarded from a speedboat and threatened crew with knives.

OPENING/CLOSING HATCHES: Carried out by crew.

CERTIFICATES: All ship's certificates required.

CUSTOMS ALLOWANCES: Each member of crew allowed 600 cigarettes. Each Crew member or passenger allowed 1 litre of wine and 1 litre of spirits.

IDENTIFICATION CARDS: Not required.

CONSULS:
Argentina
Belgium
Bolivia
Brazil
Chile
Colombia
Costa Rica
Denmark
Dominican Republic
Finland
France
Germany F.R.
Greece
Guatemala
Haiti
Honduras
Israel
Italy
Japan
Lebanon
Mexico
Netherlands
Nicaragua
Norway
Panama
Paraguay
Peru
Philippine Republic
Portugal
Salvador
Spain
Sweden
Taiwan
United Kingdom
U.S.A.
Uruguay
Venezuela

REPAIRS: All types of deck and engine repairs are possible.

DRY DOCKS: Dry dock with capacity of 3,600 tonnes.

REPATRIATION: Facilities for effecting crew changes and arranging any necessary repatriation.

AIRPORT: Airport is 8 miles from Maritime Terminal and has scheduled international flights.

TIME: Local time is GMT minus 5 hours. There are no alterations during year.

HOLIDAYS: 1st January; Good Friday, 1st and 24th May; 24th and 25th July; 10th August; 9th and 12th October; 2nd and 3rd November; 25th December. Only on the 1st January and 25th December is there no working in port.

POLICE/AMBULANCE/FIRE: For any of these services call 211 (interno del Puerto).

TELEPHONES: Arrangements for placing telephone on board ships on request.

SHORE LEAVE: Allowed.

PURSER'S REPORT: (March 1975)

The government have now issued their own set of papers. These must be made out in sets of 7 i.e.: 7 Crew Lists. 7 Passenger Lists, 7 Crew Customs Declaration Forms, 7 Cargo Manifests, 7 Dangerous Cargo Manifests (if carried), 7 Lists of Mail (if none – nil returns on sheet), 7 General Declarations, 1 Maritime Health Form, 7 Stores Lists.

All Forms should be certified by Ecuadorian Consul or friendly Nation at Port of departure.

AUTHORITY: Capitan del Puerto de Guayaquil, Puerto Maritimo.

LA LIBERTAD: 02.12 S. 80.55 W. (See Plan)

DOCUMENTS: Port clearance is effected at La Libertad.

The following papers must be ready for presentation to the authorities on arrival:

1 Bill of Health signed by the Master and visaed by the Ecuadorian Consul at port of departure.
1 Ballast Certificate visaed by Ecuadorian Consul at port of departure.
6 copies of Cargo Manifest (if any cargo for the port).
6 copies Bills of Lading.
9 Crew Lists (original visaed by Ecuadorian Consul at port of departure).
9 Passenger Lists for the port (if no passengers state "without passengers"). If applicable, the list should show names, sex, age, nationality, port of embarkation, occupation and whether married or single. Passengers must make a declaration of their luggage on Ecuadorian Form No. 94.
9 Stores Lists.
5 Lists of Crew's personal effects (new articles only).
4 Lists of unaccompanied baggage (if none, state "without them").
4 Lists of Encomiendas (list of small private parcels to be landed in Ecuador – if none, state "without them").
4 Lists of Mail (if none, state "without them").

If there is no Ecuadorian Consul at the port of departure, the documents must be visaed by the Consul of a friendly nation.

PILOTAGE: Compulsory. Pilots boarding in position Lat. 2° 08′ S. – Lat. 2° 10′ S. and Long. 80° 55′ W. – Long. 80° 56′ W. ETA should be given to port 12 hours before arrival. Open roadstead.

ANCHORAGE: No limitations except depth 36 ft.

Vessels proceeding to oil terminal should anchor about 1 mile N.N.E. of the mooring buoys (which are about 15,000 ft. off-shore) where the Port Authorities and Mooring Master board. The anchorage is an open roadstead with sandy bottom.

RESTRICTIONS: *Tankers:* Daylight berthing only.

MAX. SIZE: *Tankers* – LOA 650 ft.
Beam 84 ft.
Max. loaded draft 34 ft. 6 in.
Depth MLWS at mooring is 43 ft.

HEALTH: Vessels arriving from foreign ports should fly appropriate International Code signals to advise state of health and request Free Pratique. Vessels put in quarantine required to fly signal "QL" all the time they are in port until Port Health Authority advises to the contrary.

RADIO: ETA messages may be sent by radio to Radio Naval, HCG Guayaquil Radio, 8476 kHz, 500 kHz. Radio Naval would then repeat the message to the Naval Station in Salinas, or to the Telegraph Office. Radio Naval has VHF/RT and Telex.

TUGS: Only tankers require tugs to berth at the buoys. Other vessels work cargo at anchor.

BERTHING: No wharves for large vessels, only for coasters.

STEVEDORES: Arranged by Agent; separate ETA not required.

MEDICAL: If urgent medical attention required, Master should radio details in advance. All facilities available.

TANKERS: The Anglo-Ecuadorian Oil Fields Terminal is located in Santa Elena Bay. Four small marker buoys indicate the seaward end of the submarine pipe-line. An Easterly current usually prevails, rate being from 0.5 to 1.5 knots. There is 1×14 in. submarine pipe-line fitted with 2×10 in. flexible hoses for connecting to ship. Max. loading rate is about 450 t.p.h, and max. pressure is about 150 p.s.i.

Mooring Master assists in berthing vessels. Vessels are moored port side to, using starboard anchor off the starboard bow and mooring buoys for lines to the port bow and astern. Vessels moored during daylight hours only; however, they may unmoor at any hour of the day or night. Recommended that at least 1 tank of clean ballast be retained on board vessels until mooring has been completed. Ballast will then be pumped overboard. Vessels should be equipped with three 9.5 in. or 10 in. (circ.) – 200 fathom hawsers for use in mooring and 7 rope stoppers each at least 3 fathoms long. The following signals are used in connection with the loading of cargo.

By Day: Start loading 2 long blasts of vessel's whistle or siren, 1 red flag hoisted; stop loading 4 long blasts of vessel's whistle or siren, flag hauled down.

By Night: Start loading, 2 long blasts of vessel's whistle or siren, 1 red light hoisted; stop loading, 4 long blasts of vessel's whistle or siren, 1 red light hauled down.

To summon the launch, 3 long blasts are to be blown on the vessel's whistle.

DENSITY: 1028

FRESH WATER: Not available.

FUEL: Bunkers available, but have to be requested 72 hours prior to arrival in order to make transport arrangements.

CONSULS: There is no consular representation of any country at La Libertad. The nearest are at Guayaquil.

GANGWAY/DECK WATCHMEN: Available, but not compulsory.

OPENING/CLOSING HATCHES: Can be done by the crew or stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle wine/spirits per man.

IDENTIFICATION CARDS: Required.

REPAIRS: Anglo-Ecuadorian Oil Fields Company can effect small repairs.

REPATRIATION: Can be effected from port of Guayaquil.

AIRPORT: At Guayaquil, 130 km. away, served by regular airlines.

TIME: GMT minus 5 hours.

HOLIDAYS: January 1st; Carnival; Good Thursday; Good Friday; May 1st; May 24th; July 24th; August 10th; October 9th; October 12th; November 2nd; November 3rd; December 25th.

TELEPHONES: No connections to vessels possible, except at tanker moorings which is direct to loading installation only.

SHORE LEAVE: Permitted.

GENERAL: Dirty ballast or slops not admissible at La Libertad.

AUTHORITY: Terminal Superintendence La Libertad.

MANTA: 00.56 S. 80.43 W. (See Plan)

DOCUMENTS:

A. List of documents, 1 copy.
B. Sailing Permit from last port. Original to Captain of Port.
C. General Declaration, 5 copies – Health Department 1, Captain of Port 1, Immigration 1, Custom House 1, and Port Authority 1. (See Note No. 2 below):
   1. Health Declaration.
   2. Stores Declaration.
D. List of passengers destination Manta, including list of their baggage, 2 copies – Customs 1, Immigration 1.
E. List of Passengers in transit, 2 copies – Immigration 1, Port Authority 1.
F. Crew List (including and indicating any members leaving vessel at Manta), 4 copies – Customs 1, Immigration 1, Captain of Port 1, Port Authority 1.
G. Manifest of Cargo for discharge at Manta including transhipment 4 copies – Customs original and copy, Port Authority 2.
H. Checking Books, 5 copies, plus 1 copy for each point of possible discharge of cargo from vessels for Port Authority.
I. Bills of Lading, 1 complete set for Port Authority.
J. List of vessel supplies including liquors, cigars, cigarettes, other tobacco products, matches, lighters, clothes, novelties, and provisions will be maintained in Purser's Office for review by Custom House.
K. Tissue Manifest, hatch list and cargo plan. 1 copy of each for Port Authority prior to arrival of vessels. These papers to be sent by air mail as per regulations.
M. General Manifest. This manifest will include all cargo loaded during voyage which will include all cargo in transit – 1 copy. General manifest will be maintained in Purser's Office for review by Custom House, and be accessible for Customs at all times.

Note No. 1: Port Authority reserves the right to refuse berthing facilities until all documents received. Of course, this authority will be handled with discretion to avoid unnecessary or unwarranted delay to vessels, passengers, and cargo.

Note No. 2: General Declaration should contain the following:

A. Name of vessel, length and registered tonnage.
B. Owners.
C. Voyage number and ports of call on voyage.
D. Total number of passengers aboard.
E. Total tonnage (of 1,000 kilos) of cargo aboard.
F. Total number of passengers for Manta.
G. Total tonnage (of 1,000 kilos) of cargo for Manta.
N. Health Declaration.
O. Stores Declaration that ship's consumable foodstuffs and consumable supplies are under lock and key; that the slop chest, shop, and store-rooms containing liquors, cigars, cigarettes, other tobaccos, matches, lighters, clothes, novelties, sports material, toilet articles, cosmetics, medicines, etc. have been locked and sealed with metallic non re-usable seals with serial numbers. The seals are identifiable by their non-repeat numbers.

All vessels should have these seals aboard and should equip doors and door frames with suitable secure hardware through which seals can be passed. (Model of the form for the above document may be obtained from the Port Authority).

PILOTAGE: Compulsory. Pilot boat by day will show Pilot flag at mast head; by night red light 2 ft. 6 in. below mast head light, both visible around the horizon.

Pilot will board at point located at distance of 1 mile, 000° from Manta Breakwater Light (Lat. 00° 56′ 20″ S., Long. 80° 43′ 02″ W.). He will immediately proceed to conduct ship to inner harbour and dock at assigned pier or anchor in assigned anchorage.

Vessels will not have to anchor, but will reduce speed to steerageway and stop propeller. Lower pilot ladder so Pilot may board safely on port side of vessel. Pilot will act as Representative of Port Authority. Other Officials and Representative of steamship Agency will embark once ship has tied up.

Pilotage compulsory for all foreign vessels over 500 tons, with following exceptions:

(1) Fishing craft, yachts, tugs, barges and other craft of less than 500 tons total displacement whose handlers are suitably licensed by Captain of the Port of Manta.

(2) Vessels of the Ecuadorian Navy.

Note: Masters of large vessels and handlers of small craft who do not follow all rules of safety, including Rules of the Road may lose their right to navigate within jurisdiction of the Port Authority and may be subject to additional sanctions.

ANCHORAGES: Free anchorage area located around a point 1 mile from Manta Lighthouse (Lat. 00° 56′ 03″ S., Long. 80° 43′ 01″ W.). Depth 45 ft. Anchorage inside breakwater will be assigned by Pilot.

RESTRICTIONS: No restrictions upon entry. Vessels up to 33 ft. draft may enter at any time of day or night.

MAX. SIZE: Max. permissible length 600 ft., breadth 60 ft., draft 33 ft.

HEALTH: Radio Pratique granted all ships in accordance with International Sanitary Regulations. Health documents will be delivered to boarding officer of Port Authority. When Pratique granted by radio, not necessary for port doctor to board vessel.

In request by radio for Pratique, vessels should give following data 12 to 24 hours before arrival.

A. Date and hour of expected arrival.
B. Number of Ecuadorian passengers.
C. Number of alien passengers.
D. Statement regarding existence or non-existence of communicable diseases aboard.

RADIO: Manta HCM 8372 kHz. Radio telephone 2182 kHz. VHF Channels 10 and 16 (Costera Manta).

TUGS: 2 tugs. 1×1,300 h.p. and 1×1,800 h.p. Tugs join vessel in vicinity of pier. Ship's lines usually used. Use of tug for docking and undocking is at discretion of Port Authority.

BERTHING: Berth will be assigned by Pilot at boarding time.

Berthing Facilities:

2 Piers Length 200 m. for vessels with draft up to 10 m. 2 Roll-on/Roll-off ramps, facilities at 2 piers., depth 22 ft.

Marginal Quay, length 150 m., for vessels with draft up to 7.5 m.
Marginal Quay, length 150 m., for vessels with draft up to 5.7 m.
Marginal Quay, length 150 m., for vessels with draft up to 3.8 m.

Cranes: Mobiles cranes with capacity 12 – 35 tons.

Storage Area: 100,000 sq.m. of open storage available.

STEVEDORES: Arrangement for stevedores made by ship's Agent prior arrival.

FRESH WATER: Fresh water available in small quantities.

FUEL: Diesel oil available in small quantities by truck.

FIRE PRECAUTIONS: Regular fire precautions should be taken by all ships. Smoking should be prohibited in any section of the ship used for cargo. No smoking on the weather deck, cargo decks, and the ship's holds, whether cargo being worked or not. Smoking around hatches or at cargo winches must be prevented.

Smoking should be restricted to the passenger section of vessels, and to officers' and crew's quarters where suitable receptacles are available.

Persons including officials can be fined or refused entrance to terminal at discretion of Port Authority for careless or intentional disregard of reasonable fire prevention precautions.

Port Authority reserves right to inspect cargo working sections of vessel, to check precautions against fire, and to determine whether there are any undue accumulations of combustible materials.

Pumps and other fire fighting equipment aboard should be maintained in a state of readiness as long as vessels are in the terminal.

GANGWAY/DECK WATCHMEN: Custom police keep watch at the gangway.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CUSTOMS ALLOWANCES: Tobacco, small amounts for personal use while in port. Wine and/or Spirits, wines and liquors by the glass for consumption on board while in port.

CARGO GEAR: Ship should have cargo nets, but Port Authority can provide cargo nets at extra cost.

IDENTIFICATION CARDS: Crew members should have identification cards while ashore at all times.

CONSULS:

Panama: Mr. Jorge Alava, Banco del Pichincha, Tel: 612411 – 611089.
Germany F.R.: Mr. Wolf Harten, Tel: 610740.
Spain: Mrs. Pilar Quilez de De Genna, Tel: 613548.

REPAIRS: Minor repair facilities available.

REPATRIATION: Repatriation of crew members through Port of Guayaquil.

AIRPORT: Airport with 2,500 m. runway. Flights to Quito at 0915 hrs. on Monday to Saturday. From Portoviejo (36 km.) flights to Quito on Monday to Friday at 1700 hrs. Air taxis on request.

TIME: Local time GMT minus 5 hours.

HOLIDAYS: No movement of cargo within the terminal on 1st May, Christmas Day, or after 2000 hrs. on the 31st December, or on New Year's Day.

POLICE/AMBULANCE/FIRE: Police 610900; Ambulance 612014; Fire 610100.

TELEPHONES: Telephone service can be obtained at Terminal Office, at same rate as public telephones.

SHORE LEAVE: Crew members are welcome ashore.

DELAYS: In rainy season, from January to April, irregular swell is present in the Manta Bay (3 days before and after full moon), also at new moon tides.

AUTHORITY: Autoridad Portuaria de Manta, Apartado 4768, Manta, Manabi, Ecuador. *Tel:* 613111. *Telex:* 04-6182. *Cables:* Aportuaria. *Contact:* The General Manager.

PUERTO BOLIVAR: 03.14 S. 80.01 W.

DOCUMENTS:

3 Voyage Memorandums.
2 Maritime Health Declarations.
1 Consular Despatch.
1 Port of Origin Certificate.
10 Crew Lists.
8 Stores Lists.
3 Individual Declaration List for each member of the crew.
8 Lists Passengers Disembarking at this port.
8 Lists Passengers in transit.
4 Luggage, Mail and Commissions Lists.
4 Manifest of Cargo Lists.

Documents for Port's Authority should be supplied by Agents:

1. General Cargo Manifest in complete sets (Importation in triplicate, Exportation one set).
2. Bill of Lading, complete sets: Importation (one set), Exportation (one set) at time of sailing.
3. Export Customs House Clearance Document (one set). This document is replaced by the Bill of Lading.
4. Certificate of Ballasting.
5. Request for Mooring Berth.
6. Stevedore's cargo plan per hatch.
7. Muster-roll of cargo.
8. Tally books: 15 copies in Spanish. These must be in accordance with the current Tally Law.

PILOTAGE: Send ETA through Radio Naval of Guayaquil 24 hours before arrival. Pilot will board vessel on the port side 1 mile from the Sea Buoy on arrival and disembark on the starboard side. In case Pilot not available it is recommended to anchor 1 mile from "Punta Jambeli" between the buoy and the lighthouse of Lambeli. Pilot boat is steel, black hull and white cabin, it carries pilot signals in accordance with International Regulations. Service available 24 hours a day. Pilotage is compulsory.

ANCHORAGES: Pilot will indicate recommended anchorage.

RESTRICTIONS: Depths 30 ft. at LW, from 0600 to 1800 hrs. draft allowable 30 ft. From 1800 to 0600 hrs. draft allowable 27 ft.

MAX. SIZE: At Espigon Quay depths alongside 30 ft. inner end to 36 ft. at quay head.

HEALTH: On the arrival of vessel the authorities come on board. If there are no illnesses aboard, the doctor gives Free Pratique. In case of any illness, Master should advise by radio and the vessel waits in quarantine for the visit of Port Health Doctor.

RADIO: Radio Naval of Guayaquil, Radio Naval of Puerto Bolivar VHF available call pilot station on Channel 16, effective reception 30 miles.

TUGS: 2 tugs available one at 1,200 h.p. and one of 500 h.p Usually, ship's lines are used. This service is free.

BERTHING: At Espigon Quay should be carried out within 1 hour before or after slack water. Tidal currents of 1 – 3 knots in dry season and 3 – 5 knots in Winter are at right angles to berthing face of the quay.

Wind: From 000° in the morning, speed 3 – 5 knots. From 210° in the afternoon and night, speed 3 – 5 knots.

STEVEDORES: Agents take charge of gangs.

MEDICAL: Hospitals, clinics and dental surgery in Machala, 6 km. from the port. There is also a medical service for vaccination.

DENSITY: Salt water.

FRESH WATER: Only available by tanker truck, capacity 7 tons.

FUEL: No fuel in this port. In case required one has to contact Guayaquil and they send it by small tankers.

GANGWAY/DECK WATCHMEN: The Agent names 1 or 2 watchmen for the vessel besides the Maritime Police and Coast Guard.

OPENING/CLOSING HATCHES: Carried out by shore gang supervised by someone on board.

CERTIFICATES: Vessel's Register and Tonnage Declaration required.

CUSTOMS ALLOWANCES: 100 cigarettes per person and 1 bottle wine or spirits per person.

IDENTIFICATION CARDS: Not necessary.

CONSULS: Consul of Peru, Tel: 920608.

REPAIRS: There are no facilities in this port.

REPATRIATIONS: The Immigration Office can arrange.

AIRPORT: Distance to the airport is 6 km. It has 6 daily flights in connection with Guayaquil.

TIME: GMT minus 5 hours; there is no change.

HOLIDAYS: No work from 1700 hrs. on 24th December till 0800 hrs. on 26th December, and 1700 hrs. on 31st December till 0800 hrs. on 2nd January; Carnival; Maundy Thursday; Good Friday and Saturday; 1st May; 24th and 25th July; 9th October.

POLICE/AMBULANCE/FIRE: There are services.

TELEPHONES: Can be connected to the vessel.

GENERAL: When the vessel is anchored, landing service is done by launches. They are called by 1 long whistle and 2 short ones. This service works 24 hours a day.

At Night: A flashing light is to be used to call launches and not the whistle.

SHORE LEAVE: Passengers or crew do not need any special permit to land.

DEVELOPMENTS: A marginal pier for general cargo is being built. Length of pier 360 m.

SHIPMASTER'S REPORT: 1978

Fresh Water: Water is available at anchorage by a barge of 48 ton capacity. For ships berthed alongside, water is delivered by modern trucks of 7 or 8 ton capacity.

Surveyor: A non-exclusive surveyor acting for Lloyd's, Det Norske Veritas, and the Japanese Classification Society, is based at Guayaquil. Loadline survey and engine survey work done. He travels by air from Guayaquil (45 minutes).

Watchmen: One Customs and one Naval guard are obligatory, and should be fed and provided with room to sleep. Ship's crew should be employed day and night, one as accommodation watchman and one as deck watchman. Store-rooms should be locked up, and all loose equipment and lifeboat equipment stowed in lockers or accommodation. Only one accommodation door should be left unlocked, and a ship's watchman posted there, day and night.

Banana Cargoes: Loaded through side doors from the quay or from barges, or both together. No cranes, derricks or mechanised equipment used. About 400 men employed at one time. Very fast.

Casual Labour: This is freely available for painting hull, cleaning engine room, etc.

PURSER'S REPORT: See "Guayaquil".

AUTHORITY: Port Captain.

Arab Republic of Egypt

GENERAL

NAVIGATION REGULATIONS:

The following rules for ships navigating in the Gulf of Suez have been approved by IMO.

1.1 Ships should take into account that crossing traffic may be encountered in the traffic junction Eastward of Ain Sukhna and in the precautionary area off Ras Shukheir, and should be in a high state of readiness to manoeuvre in these areas.

1.2 Exceptional care is needed, when overtaking another ship within a lane, not to enter the separation zone or force the overtaken ship to do so.

1.3 Ships navigating in the Gulf of Suez are requested to keep continuous listening watch on the Suez Gulf Traffic Information Broadcasts and report any aids to navigation which are malfunctioning or are out of position and which are not already included in the Suez Gulf Traffic Information Broadcasts.

2.1 All ocean ships should have their radar in effective use by day and night throughout the passage between Shaker Island and Suez Port as an aid to achieving maximum feasible lane conformity and avoiding risk of collision. Particular care is required for strict adherence to the confines of relevant traffic lanes.

2.2 Ships proceeding South from Suez should be alert for tankers heading for the Sumed Oil Terminal off Ain Sukhna.

2.3 Northbound tankers heading for Sumed Oil Terminal should report their intention of using the traffic junction off Ain Sukhna on the appropriate frequencies.

2.4 All ships North and Southbound when navigating through the precautionary area off Ras Shukheir or in the vicinity of the July Oilfield should avoid overtaking in the traffic lanes in these areas.

2.5 All ships including service and supply craft serving the oil workings in July, Ramadan and Morgan Oilfields proceeding in and out of Ras Shukheir Oil Terminal, should only cross the South and Northbound traffic flow through the precautionary area off Ras Shukheir. Within the precautionary area local rules relating to crossing traffic apply.

2.6 Tankers leaving the Ras Shukheir Oil Terminal and intending to join the Northbound traffic lane should only do so when no through Southbound traffic is in the vicinity and should always report their movements to other ships beforehand on VHF.

2.7 Ships anchored in the designated waiting area for Ras Shukheir should ensure that they are never less than 0.25 miles from the edge of the Southbound traffic lane and should pay special regard to their correct light signals for ships at anchor. They should also show their deck lights.

AIN SUKHNA: 29.32 N 32.24 E. (See Plan)

Also see "General" before first Port.

LOCATION: Ain Sukhna Sea Terminal is situated in the Northern end of the Gulf of Suez.

The position of the sea terminal is: Lat. 29° 32′ N., Long. 32° 24′ E. As a reference point, there is a light which is exhibited from a metal structure standing close to the seaward side of an old abandoned lighthouse on Ras Abou Darag.

DOCUMENTS: All vessels calling at Ain Sukhna have to deliver directly their official documents, as indicated below, to SUMED's Port Authority:

Certificate of Registry.
Load Line Certificate.
Safety Certificate.
Derat Certificate.
Radio Certificate.
Suez Canal Tonnage Certificate when applicable.
Panama Canal Tonnage Certificate when applicable.

Vessel's official documents, after being reviewed, will be handed to the vessel's Master after discharging and before vessel departs from SUMED's port.

PILOTAGE: SUMED's Mooring Master and his assistant board the tanker 2 miles S.E. of Buoy "S2".

Notifications: ETA messages should be sent by cable via Alexandria/Port Said Radio on leaving previous port. Cables should be prefixed "For urgent delivery send via Telex 54108 or 54033 SUMED UN" and be confirmed 72, 48 and 24 hours prior to arrival. (Day and Night berthing and operation). Arrival draft should be indicated.

LOCATION OF BUOYS: (SBMs)

S1: Lat. 29° 35′ 16″ N., Long. 32° 23′ 35″ E.
S2: Lat. 29° 34′ 12″ N., Long. 32° 22′ 42″ E.
S3: Lat. 29° 35′ 17″ N., Long. 32° 22′ 16″ E.

The 3 SBMs are painted orange and have the following characteristics:

Lights: A flashing light, activated by an automatic photo-electric sun switch.

Light frequencies are as follows:

SBM No. 1	Morse Code A
SBM No. 2	Morse Code B
SBM No. 3	Morse Code C

Fog Horn: An acoustic signal with an approximate range of 2 miles.

Hose Line Marker Beacons: 3 flashing lights with the following characteristics are fitted to the floating hose strings to mark the line during darkness.

Flashing character 1-10 at 20-60 flashes/minute activated by an automatic photo-electric sun switch. Lens: white.

Radar Reflector: Each buoy is provided with an octahedral radar reflector constructed in stainless steel with a diameter of 0.5 m. installed on top of the rope guard.

ANCHORAGES: Tankers can anchor to the S.E. of the buoyfield.

RESTRICTIONS: *Maximum Weather Conditions for Occupying SBMs:*

The SBMs are designed to accommodate tankers up to the following weather conditions.

Wind velocity (knots)	35 (65 km./hr.)
Maximum tidal range	2.0 m.
Maximum wave height	3.4 m.
Maximum surge/seiche conditions	0.5 m.
Current: Surface	2.0 knots.
Seabed	1.0 knot.

The above conditions are not relevant to the safety of the ship but to the safety of the buoys. Consequently the Mooring Master shall have the authority to decide whether the ship should remain moored or vacate the buoy due to adverse weather conditions.

MAX. SIZE: The three berths are spaced one from the other so that each has:

Mooring Area Radius: 410 m. for S1 and S2 (accommodates vessels up to 285,000 d.w.t.); 320 m. for S3 (accommodates vessels up to 13,000 d.w.t.); Manoeuvring Area Radius: For S1 and S2, 1,220 m.; For S3, 915 m.

Water Depth and Draft Limitations:

For S1 and S2: 85 ft. minimum water depth
75 ft. maximum draft
For S3: 65 ft. minimum water depth
55 ft. maximum draft

HEALTH: Vessels proceeding to Ain Sukhna must be in possession of the following documents:

(a) Maritime International Declaration of Health.
(b) Valid Derat or Derat Exemption Certificate.
(c) Valid Vaccination Certificates for all passengers and crew members.
(d) Certificates of inoculation against any communicable diseases prevailing at the Ports of departure.

Masters are required to immediately notify SUMED by cable in the manner outlined in "Radio – ETA" in case of any epidemic diseases or illness onboard while the vessel is bound for Ain Sukhna. The same message is to be conveyed to the terminal as soon as an HF or VHF contact is established, at least 6 hours before arrival.

RADIO: *ETA:* In order to avoid undue delays it is essential that Masters of vessels proceeding to Ain Sukhna terminal cable their ETAs to "SUMED" Alexandria.

The cable to be prefixed quote "to be conveyed via telex (54108) or (54033) SUMED UN operations office-oil movement" unquote.

ETA notifications to be sent as follows:

Immediately upon sailing from loading port/s
In case of a change in ETA exceeding 6 hours
72, 48 and 24 hours prior to arrival.

Confirmation of ETA: An additional contact can be made with the Ain Sukhna Terminal on HF 2182 kHz 24 hours before arrival.

Moreover, Masters are required to contact the terminal on VHF 6 hours before arrival on Channel 16 (or preferably Channels 78 and 79 if available).

Information from the Vessel: All vessels proceeding to unload their cargoes at Ain Sukhna are required to convey the following information to SUMED.

(a) Immediately upon sailing from loading port/s vessel is to cable, in the manner outlined in "Radio – ETA" the following information:

(i) ETA (in GMT) and expected arrival draft at Ain Sukhna, vessels are requested to arrive even keel.
(ii) All B/L data and ship's figures at loading port/s, stating quantity of free water on board after loading.
(iii) Whether the vessel loaded on top of slops stating grades of crude that were commingled with residues, quantity and API of contents of slop tank/s.
(iv) If the vessel is loaded with more than one grade of oil, Master is requested to confirm ability to unload according to the sequence agreed upon with the shipper (vessel's owner or charterer as the case may be).
(v) SUMED is to be immediately notified in the case any repairs are required that could delay commencement of discharging.
(vi) Estimated time for unloading the cargo if no restrictions are imposed by shore.

(b) On arrival at Ain Sukhna the following written information is to be handed to SUMED's Mooring Master:

(i) Whether vessel equipped with inert gas system. Vessels arriving with gas inerting blankets should, on arrival depressurise their system sufficiently to allow visual sampling and ullaging of cargo tanks. Upon completion of ullaging, pressurisation of inerting system shall be resumed and maintained throughout discharge.
(ii) Whether the vessel has external impressed cathodic protection.
(iii) Vessel's readiness to connect 2×16 in. hoses ASA 150.
(iv) The pressure which the vessel expects to maintain at the ship's rail and which is required to be a minimum of 100 p.s.i. unless otherwise specifically requested in writing by shore.
(v) Whether vessel requests to perform crude washing and in the affirmative the relevant check list should be filled in by the Master. See "Crude Oil Washing" under "Discharging".
(vi) Full names and addresses of Owners, Managers and Charterers of the vessel and their Agents in Egypt if any.
(vii) Whether the tanker's Owners/Bareboat Charterers are members of a P & I club stating name and address of such club, if available.

Information from Terminal:

The following information will be given to the vessel upon arrival at the anchorage area or when SUMED's Pilot boards the vessel:

(i) Any expected pre-mooring delays and their likely duration.
(ii) Any special mooring instructions.
(iii) Details of any restrictions on discharging rate.

All such restrictions and their duration will be confirmed in writing by SUMED.

VHF: Channels 16, 78 and 79.

TUGS: Tug "Sukhna" 3,200 h.p. with fire fighting and with anti-pollution equipment is available as required.

Mooring Launches: 500 h.p. mooring launches assist in mooring and hose operations.

BERTHING: Ain Sukhna Sea Terminal consists of 3 sea berths all of which are single point mooring buoys (SBMs).

2 large buoys for vessels up to 285,000 d.w.t. and 1 small buoy for vessels up to 120,000 d.w.t.

Subject to SUMED's prior approval and acceptance in each case the buoys can accommodate vessels larger than those specified above within the following limits:

Large Buoys (S1 and S2)	up to 350,000 d.w.t.
Small Buoy (S3)	up to 200,000 d.w.t.

maintaining all other length and draft limitations. Each of the larger buoys is connected to shore by a submarine line 48 in. (1.22 m.) in diameter and approximately 8 km. in length.

The small buoy is connected to shore by a submarine line 42 in. (1.067 m.) in diameter and approximately 5 km. in length.

Ropes: All SBMs are equipped with twin 15 in. circumference nylon ropes each 180 ft. long ending with a 20 ft. chafing chain 2.3125 in. diameter. A support buoy is connected to the chain.

The port side mooring rope has a 350 ft. polypropylene 10 in. pick-up rope with a 3 ft. soft eye at the end.

The starboard side is the same but the pick-up rope is only 150 ft., 10 ft. or 12 ft. snotters with shackles are used for connecting the chafing chain to ship's bollard.

Mooring Master Duties: When the Mooring Master boards he will advise the ship's Master or officer in charge of the bridge on the approach to the berth, arrangements for mooring and unmooring, connecting and disconnecting of the hoses, and all other operations within the berthing area. The Mooring Master will submit and receive from the Master all forms, documents and papers required, to be filled and signed or received by the Master.

Adequate Lighting: There must be adequate search lights rigged on both wings of the bridge when mooring at night to facilitate running lines to the buoys.

VHF: The Mooring Master will be in direct charge of the portable VHF ship to shore radio telephone communications.

Mooring: Pick-up from the mooring boat:

2 wire rope snotters of 12 ft. or 20 ft. length (to suit tanker bollard location).

Weight of 12 ft. – 80 kg	23.8 in. diameter
Weight of 20 ft. – 135 kg.	23.8 in. diameter

2 bow shackles 55 tons SWL (weight of shackle = 43 kg.) or 2 bow shackles 75 tons SWL (weight of shackle = 68 kg.) for tankers over 130,000 d.w.t.

Tool box.

Move these items to bow.

Slip the soft eye of the snotter onto bollard having a good lead to forward fairlead. The forward winches should be tested, drained and be in good working order.

Ensure that both anchors are secured by stoppers in the hawse pipe. Anchors must not be dropped at the berth.

Prepare messenger line, (about 10 in. circumference × 500 ft. length polypropylene), and pass through the forward fairlead and lower as directed by Mooring Master, starting at the port side.

The mooring boat will fasten this messenger to the 10 in. × 350 ft. polypropylene pick-up line on the buoy mooring system.

Upon the boat's signal, heave away until the chafing chain is in the fairlead or Panama lead with the support buoy close outside.

Shackle the free end of the wire snotter to the open end link of the chafing chain.

Ease back on the pick-up line until the weight falls on the bollard wire snotter.

Should the vessel have a "Smits" type towing bracket, release the pin, install the open link and lead the pick-up so that the end link of chain is directly fastened to the open link with the bow shackle.

Same procedure will be adopted to the starboard polypropylene pick-up rope of 150 ft. length connected to the buoy mooring system.

Mooring Sequence:

Prompt Berthing: SUMED will make every effort to moor ships arriving according to agreed schedules as promptly as operational circumstances permit.

Notice of Readiness: To be tendered when vessel arrives at Ain Sukhna anchorage area provided that vessel is ready in all respects to unload her cargo. NOR will be accepted according to SUMED's agreement with the relevant shipper.

Arrival Time: Arrival time will be considered at the time the vessel anchors.

Cargo Operations: Vessel moored to the SBMs must limit their stay to the allowed berth occupancy time stipulated in the transportation agreement between SUMED and the relevant shipper.

Unless vessel sizes are otherwise classified in the said agreement the allowed berth occupancy time is as follows:

More than 285 KDWT	52 Hours
Over 240 to 285	42
From 200 to 240	36
Less than 200	28

Delay due to weather: In the event that berthing delayed on account of adverse weather conditions the vessels will maintain their position in line.

Port Closure: Should vessels be requested to vacate the berth on account of adverse weather conditions closing the port, they shall keep in contact by VHF with the terminal in order to be readily available for re-entry as soon as the terminal so requires, after weather conditions permit.

Port Re-opening: When the port is re-opened discharging will recommence according to the firm schedules agreed upon with SUMED's shippers.

Vessel refusal: SUMED reserves the right to decline to berth a specific vessel should it consider that such vessel's condition or facilities are unsafe.

Unmooring: Take the weight of the moorings on the pick-up starting with the starboard side first, using windlass. Unshackle the wire snotter (or unpin the "Smits" brackets).

Slack the pick-up until the support buoy is in the water. Pay out the pick-up line (as ship clears from the berth). Return the wire snotters, bow shackles and tool box to mooring boat prior to Mooring Master's departure.

The tug and mooring launches will be in attendance.

HOSES: SBMs No. 1 and 2 contain twin crude floating hose strings each 297.2 m. (975 ft.) in overall length consisting of:

23 hoses	24 in. × 35 ft.
1 hose	24 in./20 in. × 35 ft.
1 hose	20 in./16 in. × 35 ft.
2 hoses	16 in. × 35 ft.
1 hose	16 in. × 30 ft.

SBM No. 3 contains twin crude floating hose strings each 243.9 m. (800 ft.) in overall length.

Each consists of:

19 hoses	20 in × 35 ft.
1 hose	20/16 in. × 35 ft.
2 hoses	16 in. × 35 ft.
1 hose	16 in. × 30 ft.

All tail hoses are 16 in. in diameter and the gear attached to each of the 16 in. crude oil hose tails consists of a lifting eye, butterfly valve, spool piece with camlock and light weight blind flange.

The camlock is suitable only for connections with tanker manifold flange of 16 in. ASA 150.

Quick Release Safety Couplings: Quick coupling (Camlock) are connected at each hose end and they will be used as follows:

In case of emergency the butterfly valve shall be immediately closed and the quick coupling immediately disconnected.

Hose Connecting and Disconnecting: The connecting and disconnecting of cargo hoses shall be performed by the crew of the vessel under instructions from SUMED's Mooring Master.

Preparations: The tanker crew are required to lift 2×16 in. crude hose strings and connect them to the vessel's port side manifold.

To avoid delays the following items should be prepared prior to berthing, otherwise the vessel will not be considered ready to discharge.

3×16 in. standard 150 ASA flange connections in position on selected lines for discharging crude oil.

Port derrick with a minimum 10 ton SWL rigged for maximum height and load lifting. The derrick shall be guyed to plumb the vessel's rail-hose bolster bar at the vessel's manifold.

If possible, the topping lift of the boom shall be on its own winch. All winches shall be tested, drained and in ready running condition.

Drip trays, sand bags, dispersant and fire fighting equipment in position.

A steel basket to contain tools, gaskets, nylon lifting slings and other equipment for lifting on board from the mooring boat.

Equipment to be Onboard Before Berthing: In order to expedite the connection of the hoses the following equipment must be available.

2 polypropylene messenger lines
(about 10 in. circumference 500 ft. long).
Sledge hammer.
Large crowbar.
Large marlin spike.
Large flashlight.
Bags of sand.

Manifold on the port side must be used:

All manifolds to be ready with 16 in. flange ASA 150.
Hose derrick rigged.
Derrick fall fitted with cargo hook 10 ton SWL.
Heaving line.
2 × 1-1-2 ton pullers.
Copper hammer.
Steel spike.
Spare bolts and 16 in. gaskets.
Nylon lifting slings.

DISCHARGING:

Terminal Design: The design of the discharging terminal is based on the following flow rates with crude oil characteristics as follows:

Viscosity = 17 cst
Specific gravity = 0.867 kg/cu.cm.

SBMs No. 1 & 2	Max.	12,500 tonnes/p.h. 200 p.s.i.
	Min.	7,400 tonnes/p.h. 100 p.s.i.
SBMs No. 3	Max.	7,400 tonnes/p.h. 120 p.s.i.
	Min.	5,900 tonnes/p.h. 100 p.s.i.

Inert Gas System: Vessels equipped with inert gas system are to depressurise tanks before berthing in order to allow for sampling and ullaging upon arrival and after completion of discharge to check remainders on board. Pressurisation of inerting system should be resumed as soon as ullaging and sampling are completed and throughout the discharge.

Crude Oil Washing: COW is usually acceptable if the ship can maintain an average flow rate of no less than 7,400 tonnes/p.h. (100 p.s.i. at ship's rail throughout discharging). However, COW is subject to the terminal's approval depending on both operational circumstance and if this operation has been previously carried out by the vessel.

When vessel requests permission to perform COW the Master must respond in writing to the "Crude Oil Wash Check-off List".

COW of slop tank is prohibited.

Crude Oil Wash (COW) – Checkoff List: Vessels requesting permission to perform crude oil wash while unloading at Ain Sukhna, are requested to respond to the following check-off list:

Inert gas system is fully operational and tested.

Each tank will be positively pressurised and method of recording pressure will be available.

Each tank will be kept below 8% oxygen before and during operation.

Inert gas system flue gas oxygen content will be continuously monitored and maintained below 8% oxygen.

Oxygen alarm in cargo control room set to give visual indication when to abort crude washing.

Pressures in cargo tanks are available to vessel's control room personnel.

Washing systems have permanent steel pipework and will be pressure tested to 10 to 15 p.s.i. above expected working pressure but to minimum of 150 p.s.i. prior to use.

All tank openings are sealed and remote tank gauging system is operational.

All necessary throttling of discharge for crude spraying will be done on vessel's valves.

There is a responsible designate person in charge of operation. (Give name.)

Effective communication will be maintained between vessel and shore.

Water will not intrude into the crude wash cycle.

Washing to be commingled and discharged at the same time with the rest of the cargo.

Previous crude wash exprience of key personnel is (list).

Tanks crude washed last 2 voyages are (list).

Any additional vessel requirements or comments.

Emergency Communication: If ship-to-shore communication fails the ship's whistle shall be sounded continuously. Discharging shall be immediately stopped and will not be resumed until communications have been re-established.

Overside Lighting: During night discharging sufficient overside lighting must be provided to readily detect any oil spill so that immediate appropriate action may be taken.

International Code of Signals: During discharging operations the following signals shall be displayed:

By Day : The International Code flag "B".

By Night : A red light visible all round the horizon for distance of at least 2 miles.

Unloading Procedures: Upon being informed by the vessel's Master or responsible officer that the vessel is ready to start discharging, the Mooring Master will contact the Terminal Control Room to co-ordinate the commencement of unloading in accordance with the terminal's instructions.

The control room operator will normally give a "standby warning" by VHF approximately 10 minutes before the shore tanks are ready to receive cargo.

When the request to commence discharging is received the Mooring Master will ensure that discharging commences at slow speed. This starting procedure will always be adhered to.

Discharging will commence utilising 1 pump only with circulating system and when it has been confirmed that there is no significant rise in pressure on the discharging line which could indicate a blocked or closed valve on the shore or ship's discharging system, the crude oil will be discharged at the steady operating flow previously agreed upon.

Should there be any significant rise in pressure, discharging must be immediately stopped. The ship will be advised to check the on-board systems, take any necessary remedial steps and inform the terminal's control room.

At the same time the underwater and floating hoses should be checked to ensure that there are no obstructions.

Should the Master be requested to increase or decrease the cargo discharging rate this should be promptly implemented provided the vessel's pumps are capable of an increased rate.

SUMED may allow vessels to simultaneously ballast while unloading provided they are equipped to properly segregate the ballast and avoid any possible commingling with the cargo. Pumping ballast water into the sealine is strictly prohibited.

Any suspension and subsequent resumption of discharging of cargo must be logged both ashore and in the "Tanker Time Sheet".

All events regarding mooring, commencement, termination of unloading, stoppages, if any, and unmooring are both logged and recorded ashore at the terminal's control room as and when they are received from the Mooring Master.

These events shall jointly be logged in the Tanker Time Sheet by the vessel's Master and SUMED's Mooring Master.

Vacating Berth: Vessels shall vacate berth immediately after disconnection of hoses, allowing the least possible time to take ballast if essential for the safe manoeuvering of the vessel while vacating the berth.

Emergency Shut-Down: In case of emergency such as fire, sudden deterioration of sea and weather conditions, failure in ship to shore communications, etc, the discharging operations must be immediately suspended at the request of the Mooring Master. The ship's discharging pumps must be stopped immediately, the butterfly valves of the floating hoses and the manifold valves must be closed.

Depending upon the reasons causing the emergency, the ship's Master and Mooring Master will decide whether or not to disconnect the hoses and vacate the berth. In case of dispute the final decision will be taken by the Mooring Master.

Sampling: Representative samples of the cargo will be taken either from the vessel's cargo tanks or from the online automatic samplers.

The samples will be divided into 3 equal portions of about 1 gallon each, one portion will be handed to the quality control laboratory, the second to the ship's Master (sealed by SUMED) and the third retained by SUMED for 60 days (sealed by the Master).

The ship's Master will sign a receipt on receiving the ship's sealed and stamped container of the sample.

MEDICAL: Neither medical nor hospital facilities are provided by SUMED. In case urgent medical assistance is required the vessel should contact SUMED's Harbour Master by VHF radio. Private doctors and facilities are available at Suez.

REPAIRS: Masters of vessels discharging at Ain Sukhna Terminal are instructed that under no circumstances may engines be shutdown for repairs whilst their vessel is moored to the SBMs. There are no facilities at Ain Sukhna Terminal for repairs. Repair facilities are available at Suez.

It is emphasised that all vessels at the SBMs must be prepared to clear immediately on instructions from the Mooring Master.

CONSULS: Consular or diplomatic representatives for most maritime nations are in Cairo.

REPATRIATION: Crew changes are only permitted in cases of emergency.

SHORE LEAVE: There is no shore leave for personnel of vessels whilst at Terminal.

WEATHER:

Climate: The climate in the Ain Sukhna area is generally good. Summers are hot and dry and winters are relatively cool.

The visibility is usually excellent with few sand storms and infrequent fog. Sub-zero temperatures are unknown and there are very few rain squalls.

Summary of Weather Statistics (1884 – 1967):

Average rainfall year	0.8 in.
Mean maximum temperature	84°F (29°C)
Mean minimum temperature	62°F (16.7°C)
Extreme maximum temperature	111°F (44°C)
Extreme minimum temperature	35°F (1.7°C)
Average relative humidity	60%

Winds: The prevailing winds at Ain Sukhna are from the N.W. throughout the year.

Tides: The tidal range is up to a maximum of 7.4 ft.

Waves: The estimated characteristics of the 100 year extreme waves are:

Maximum height	12.0 ft. (3.7 m.)
Maximum crest elevation	11.0 ft. (3.3 m.)
Period	7.5 secs.
Length	280 ft. (85 m.)
Speed	22 knots (41 km./hr)
Direction from	North

Tidal Streams: At Ain Sukhna the tidal streams set parallel to the coast line Northwards on the flood tide and parallel to the coast Southwards on the ebb tide. Maximum rate is 0.5 knots (0.9 km./hr.) at the surface.

Currents: There is no fixed current in this area and any flow is caused entirely by the prevailing tidal stream and winds.

Sea Salinity: The Red Sea and Gulf are extremely saline and salinity is around 40,000/50,000 parts per million.

Sea Temperature: The surface temperature of the sea ranges between 66°F (19°C) in February and 80°F (26.7°C) in August.

GENERAL:

Navigation: When entering, manoeuvering or leaving the Port Limits of Ain Sukhna, the Master has to conform with the conditions setforth in this Manual and has to adhere to the 1972 International Regulations for preventing Collisions at Sea which will be complied with at all times.

The Master guarantees that his vessel fulfils all navigational and worthiness conditions in particular those required for vessels carrying dangerous cargo, (crude oil) in accordance with the provisions setforth in the Appendix for vessels carrying Dangerous cargo annexed to Rules of Navigation of the Suez Canal Authority to the extent that such provisions are applicable.

Master should submit the respective certificate and declarations whenever required in this respect.

Helicopters (available in emergencies): Should the services of a helicopter be required by SUMED for any purposes whatsoever the vessel will be given a minimum of 30 minutes warning notice before the helicopter's approach in order that cargo operations can be stopped and all tanks and vents closed.

A responsible officer should be on deck to assist the helicopter in making the approach to the vessel. Although the safety of the helicopter remains at all times the responsibility of its pilot, helicopter services shall not be employed in any event without the express prior consent of Shipper and vessel's Master.

Supplies: Stores and supplies are available through an Agent and can be delivered from Suez to Ain Sukhna anchorage area after unloading but entirely at the vessel's own risk.

Government Officials: A.R.E. officials, such as Customs Director, Quarantine Officer and Immigration Officer are stationed at Ain Sukhna. Should Customs guards be stationed on board vessels whilst moored it is expected that vessels will extend all courtesies to them and or other officials while on board.

Ship's Readiness: This terminal is an open roadstead and therefore, during the time a ship is moored, the engines must be ready with full power for immediate use.

Vessels at berths must clear immediately upon advice of the Mooring Master or as directed by SUMED's terminal superintendent. Ship's personnel should be at their respective stations at all times during mooring, unmooring and cargo transfer operations.

Courtesy Flag: All vessels are required to fly A.R.E. Ensign on the foremast during daylight hours.

Quarantine Regulations: The rules governing quarantine regulations are the same as for Suez.

Unauthorised Craft: The presence of unauthorised craft alongside is extremely hazardous.

SUMED prohibits the boarding of individuals other than those authorised to do so in the bona fide conduct of the vessel's operation. No unauthorised person is allowed to board the vessel whether at anchorage or while moored.

Contraband: SUMED prohibits unauthorised craft from coming alongside vessels. To avoid the possibility of undesirable items getting aboard vessels, it is requested that Masters discourage craft coming alongside whilst the vessel is in the terminal.

AGENCY SERVICES: Not required under normal circumstances.

TIME: GMT plus 2 hours.
AUTHORITY: Arab Petroleum Pipeline Company (Sumed), 431 El-Guish Avenue, Loran, Alexandria, Egypt. Postal Address: P.O.Box 158, El-Saray, Alexandria, Egypt. *Tel:* 5866723, 5866711, 5866712. *Telex:* 54033, 54108 Sumed Un. *Contact:* Captain M. W. Sharaf, Marine Manager.

ALEXANDRIA (Including El Dekheila): 31.09 N. 29.53 E. (See Plan)

DOCUMENTS:
4 copies of Crew List.
Complete set of Manifests covering all cargo on board showing names of Shippers and Consignees.
4 copies List of Passengers in Transit.
Landing cards for passengers landing finally in A.R.E. and for those landing in A.R.E. in transit.
4 copies List of passengers finally landing in A.R.E. (if any) together with their addresses in A.R.E.
Deck log books showing date of last call at a A.R.E. port, completed up to the time of arrival.

For Quarantine: Quarantine Questionnaire in duplicate (Form No. 15 Q.A.) showing all ports of call, as well as dates of sailings for the last 30 days, nature of cargo on board, destination, as well as sickness among crew or passengers, if any, specially when it is presumed that the sick will be hospitalised. These forms can be filled on arrival if not available on board before arrival.
1 Crew List and 1 Passenger List.
Derat Certificate should be handy for inspection.
Clearance from Last Port.

For Immigration Officer:
Arrival Immigration Form, duly completed.
1 Passenger List.
List of Passengers Finally Landing, in duplicate.
Crew List.

Valid passport with entry visa is required for landing in A.R.E. for passengers landing. Emergency visa can be granted on arrival if so required.

For Customs Use:
Bonded Stores List, in duplicate.
Crew List and Passenger List in duplicate.

PILOTAGE: Compulsory. Pilot boards off harbour entrance. International code signals used.

Vessels are not to proceed from the waiting area (Lat. 31° 12.6′ N., Long. 29° 44.5′ E. with radius of 1.5 miles) without a Pilot onboard.

RESTRICTIONS: Entrance channels 13.0 m. depth × 220 m. width and 9.14 m. depth × 91.4 m. width. Arriving vessels should keep 50 miles offshore between sunset and sunrise.

MAX. SIZE: Up to 32 ft. draft at general cargo berths in Alexandria.

HEALTH: On entering, vessels must hoist the International Quarantine Signal for compulsory quarantine. Any sickness must be reported to the doctor. The Quarantine Doctor meets ships whilst entering the port and ships are boarded in turn.

In the event of a vessel arriving from a port that has been internationally declared infectious and the incubation period has not yet expired at the time of the ship's arrival at an A.R.E. port, the vessel is put under compulsory quarantine, moored at an isolated berth and no shore contact is allowed. Nevertheless the ship can still carry out her normal operations on condition that all shore personnel are holding valid vaccination and/or inoculation certificates issued by the Quarantine Administration. The ship's personnel should also carry International Vaccination and/or Inoculation Certificates. Final landing passengers, not carrying such certificates, will be landed under quarantine supervision and will be kept isolated at the lazarette until incubation period is over.

Pratique may be granted prior to ship's arrival provided the following conditions are adhered to:
(1) The vessel must be a regular liner known to the Quarantine Authorities and have a doctor on board.
(2) Details shown on the Quarantine Statement should be wirelessed to the Quarantine Authorities 24 hours prior to ship's arrival.
(3) Masters of vessels must declare before their arrival any accidents, which might have taken place on board prior to the arrival in port.
(4) The ship must not have called at any infected port.

RADIO: Alexandria Radio, call sign SUH, operating 24 hours daily on 444, 500 and 8578 kHz and between 0600 to 1800 GMT on 12,974 kHz. Also harbour VHF Channel 16.

TUGS: 5 tugs available up to 1,200 h.p.

BERTHING: Alongside quays in depths up to 34 ft.
Refrigerated store with capacity of 6,000 tons.
Ro/Ro facilities available.
Cement to silos and bagged in heavy cloth (no paper bags permitted).

Coal: Discharged at Berth Nos. 63 and 64. Max. draft 33 ft. 4×25 ton cranes. Rate 10,000 tonnes per day.

Cranes: Capacity 5 tons-50 tons. Floating cranes of 70 tons, 100 tons and 120 tons capacity.

Fertiliser Terminal: Length of quay 447 m. Depth alongside 10.0 m.

Timber: Handled at 3 quays. Depths 7.0 m.-9.0 m.

Grain: 2 silos, 1×48,000 tonnes and 1×100,000 tonnes. Depth alongside 10.0 m. Max. size 40,000 d.w.t.

El Dekheila: Located 7 km. West of Alexandria and managed by Alexandria Port Authority.

Industrial Port: Access channel: Length 3.5 km. and depth 20.0 m. Turning circle: 750 m. diameter and 20.0 depth. Approach channel: Width 250 m., depth 20.0 m. One jetty (2 berths). Length 640 m. Depth alongside: Inner Berth 16.0 m. Outer Berth 20.0 m. Max. Size: 60,000 d.w.t. and 160,000 d.w.t. respectively. An additional berth to handle vessels up to 250,000 d.w.t. may be constructed later. 2×30 ton capacity grab cranes and 2 belt conveyors for handling iron ore pellet at 1,000 t.p.h. each (900 t.p.h. for coal).

Commercial Port: Access channel 1.2 km. in length is a branch off the access channel to the industrial port. Depth of channel 14.0 m. Width 210 m. - 150 m. Commercial port will have over 1,500 m. of berthing space with 14.0 m. of water alongside. Cargoes to be handled will include containers, general cargo, timber, chemicals and Ro/Ro vessels.

CONTAINER FACILITIES: Length 700 m., depth alongside 14.0 m. 3×32 tonne container gantry cranes, 2×32 tonne transtainers and 4×42 tonne forklifts.

TANKERS: Petroleum Basin: in West part of Outer Harbour, Berth Nos. 3 and 4, depth alongside 38 ft., max. length 700 ft., draft 35 ft. Berth Nos. 3 and 4: in East part of Outer Harbour. Stern to moorings.

It has been reported that tankers are required to take on ballast in excess of that deemed to be necessary by the Master, even in fine weather. One Master was ordered to bring his forward draft to 21 ft. Once the vessel was alongside a charge was made for deballasting the vessel.

LNG/LPG: Max. LOA 122 m. Max. draft 28 ft.

FRESH WATER: Available by barge, and alongside most quays.

FUEL: Available by barge.

MEDICAL: All facilities available. International Vaccination Certificates required.

REPAIRS:
Alexandria Shipyard: Builds vessels up to 40,000 tons. One drydock capacity 85,000 d.w.t., cranes with up to 30 tons capacity. One drydock capacity 20,000 d.w.t., cranes with capacity up to 30 tons. Fully equipped engineering workshops capable of carrying out extensive repairs alongside quays length 1,200 m. Depth alongside 11 m.

Alexandria Ship Repair Co.: Ship repairs including engine repairs and boiler repair. Fully equipped workshops.

The Egyptian Shipbuilding and Repairs Co.: Floating dock for ships up to 12,000 d.w.t. 100 ton floating crane. All types of hull and machinery repairs possible.

TIME: GMT plus 2 hours.

HOLIDAYS: See "Suez Canal".

DEVELOPMENTS: Control tower with radar and VHF being constructed.
Dekheila: See "Berthing".

SHIPMASTER'S REPORT: 1976

Approaches: Ships making the passage from Port Said to Alexandria are obliged to keep to the route laid down by the Egyptian Authorities. The coastline is rather featureless and a good operational radar is invaluable. Radar conspicuous objects were found to be – Ras el Barr Lighthouse and fort, forts numbers 2 & 4, the forts and lighthouses at Brulos and at Rosetta Mouth and also Nelson Island.

The anchorage can be identified from a considerable distance by the number of ships at anchor off the port – often more than fifty. The prohibited area marked on Chart No. 243 to the East of Great Pass is ignored and ships anchor as convenient but as near to the pilot ground as possible. Ras el Tin Lighthouse, Great Pass Beacon and the Minaret (248) were found to be good marks. There is a latticed beacon to the West of Great Pass Beacon which should not be confused with the latter. The new beacon is not marked on the chart and was stated by the Pilot to be for a new channel which is being constructed.

Arrival Procedure: It is important to register one's arrival with the Alexandria Port Control as soon as possible. This is done by means of VHF.

At 1100 hrs. (approx.) a traffic list is broadcast and ships mentioned should contact Port Control and obtain berthing instructions. They will probably be told to move in to the pilot boarding ground 2 miles N.W. of Great Pass Beacon. When there, they should anchor again and await either further instructions or the unannounced arrival of the Pilot.

Berthage is decided at a meeting held around Noon so there may be a supplementary traffic list around 1400 hrs. In any case, it is a good idea to call Port Control at least once a day to remind them that you are still awaiting a berth.

A Pilot will take the ship into the anchorage in the Outer Harbour where Health, Immigration etc. officials board and clearance given. The Agent may also board. The main radio transmitter is sealed at this time. The ship will then await allocation of a berth.

Anchorages: At the anchorage outside the port depths vary from 20 to 30 fathoms but the holding ground seems to be good. This ship lay comfortably with 7 shackles of cable out. Ships usually leave each other ample room in case of bad weather. There are good anchor bearings.

The anchorages inside the Outer and Inner Harbours are very congested and the holding ground (said to be sand) is not good. Time spent at anchor here can be a very anxious period.

The ship was anchored in the Inner Harbour just off the end of the Passenger Quay. When it was pointed out to the Pilot that, in the Master's opinion, she was too close to the 3 fathoms line at the old Aircraft Moorings, the Pilot stated that it would be all right because the ship wouldn't swing that way. If the vessel had swung the other way she would have gone aground.

At 0300 hrs. the following morning the ship began to swing onto the sand bank. Fortunately there was no wind and it was possible to turn her, weigh anchor and find another anchorage. A call to Port Control on VHF was made for a tug and Pilot but was not acknowledged.

The main engine should be kept at very short notice when at anchor inside the harbour.

The accommodation ladder should never be left down while at anchor but should be raised and lowered as required.

It is usually an easy matter to hail a passing boat and bargain for a trip either ashore or to another ship. However, all ship movements and boatwork are officially prohibited after dark.

Pilotage: The pilot launches are Fairmiles (ex H.D.M.L.s) painted light blue with white wheelhouses and the word 'Pilot' in black on the side of the bridge.

All the Pilots employed spoke good English and were competent. They board at any time during the day and often without the slightest warning. They order tugs as they think necessary.

The beacons and leading marks in the Great Pass were good but the Fairway Buoy at the outer end of the channel is no longer there. Most of the mooring buoys marked on Chart No. 3119 have either been removed or changed.

As a result of experience, the Pilots have considerable skill in handling ships in very congested situations and they are to be relied upon.

Arrival Formalities: These are carried out at the Outer Harbour Anchorage. A list of documents required follows.

Documents:

2 Health Declarations*
1 Crew Customs Manifest
1 Arrival Form†
1 Stores List
1 Bond Stores List
8 Crew Lists‡

* Supplied by Quarantine Officers
† Brought out by Agent.
‡ This is the minimum number required.

Notes: Customs Manifests, Stores Lists and Crew Lists should be typed out on plain paper – there does not appear to be any proper forms.

Immigration Officers wish to see all Dis 'A' Books and will then issue Shore Passes which will have to be filled in by the ship. On departure, the Officials ask for the passes but, if they have not been collected will only request that they be destroyed when the ship sails.

Berthage: Every foot of wharfage is used and space is at a premium. This ship lay at Berths 16 to 20 and in both cases had ships ahead and astern with very little room between.

Berth 16 has unequal but good fendering, Berth 20 has none at all. Both are concrete wharves. There are an adequate number of bollards.

Berths 16 and 20 are both at the Passenger Quay and the soundings obtained by hand lead are shown on the plan. In theory, telephones are available at both berths. Water is laid on but the pipe is of small bore and delivery is slow (about 8.5 t.p.h.). Arrangements should be made through the Agent.

Berthage is said to be under the sole control of the Harbour Master. Ships may be ordered to berth, shift or move out to anchor without any warning. It should be noted that the Pilots always insist that Agents are told of a move the day before. In no case did this ship receive official notice. It is wise to hand a written notice to the Agent informing him of the time required to prepare the main engine for a move. However, in our case, the Agent did not bother to forward the information to the Harbour Master.

Being at the Passenger Terminal means that a cargo vessel has to move out to anchor frequently to allow passenger ships to berth. Unfortunately there seems to be only one other berth with enough water alongside for a fully loaded ship such as our vessel.

Repairs: Repair firms are available. There is a shipbuilding yard and graving and floating docks. Radio and radar servicing as well as gyro are available. There is a Lloyd's Register surveyor.

There is an abundance of small firms offering to do scaling and painting quite cheaply.

Medical: The Agent will arrange for a doctor to visit the ship if required. Unless special equipment and/or facilities are necessary, this is the best arrangement.

Repatriation: Apparently available via Cairo Airport.

Stores: Only small quantities of fresh fruit and vegetables were bought and these were good and cheap but the Catering Officer should be prepared to bargain.

Bunkers: The barges arrived alongside without any warning. There were separate barges for D.O. and I.F.O. The pumping rate for D.O. was 75 t.p.h. and for I.F.O., 143 t.p.h. It is reported that it is advisable to check the viscosity of fuel.

Communications: While at anchor outside the port, the ship's radio station is available and is by far the best means of communication.

Port Control, Pilots and launches all use Channel 16 both for calling and working. Making contact with Port Control to report arrival or request information is a matter of perseverance.

Agents: Memphis Shipping Agencies.

There is a main office in the city (Sesostris St.) to which the Master must go to draw money. Two hours will be needed for this plus an hour for travelling. In addition there are two offices in the Main Hall of the Passenger Terminal between Berths 16 and 20.

The Agents will arrange for doctor, waterman and watchmen. They will advance cash to the Master.

Garbage: Subject to negotiations with a private company. An old lighter will be moored alongside while the ship is in port. All garbage should be thrown into it. It is completely uncovered and after a while, in Summer time, would probably become highly offensive.

Fresh Water: Although there was no reason to suspect the water supply, Stabochlor was added as a precaution. As the ship may be sent out to anchor without notice for an unspecified time, it is wise to keep the water tank topped up.

Watchmen: The civilian watchmen employed were obtained through the Agent.

Two uniformed guards are put aboard by one or other of the authorities. Both the official and civilian guards will stop and search stevedores and take from them the cargo they have taken.

Tugs: These are arranged by the Pilot. There are several ranging from old coal burners to fairly modern diesels and they are well handled and efficient.

Cargo Work: It is supposed to be against the law to work frozen cargo during daylight hours. Therefore work was mainly carried on between 1700 and 0500 hrs. with a break about 2300 hrs., the same labour working through.

A gang consists of a total of 20 men. There is a foreman, two winchmen and eight stevedores in the hatch. The rest work ashore and on the lorries. The men in the hatch 'spell' each other and this is a major cause of lost time.

The butter and cheese was loaded onto pallets which were landed on the lorries and the cargo transferred. There are three pallets per gang but shortages often occur and the gear is not very good, two of the pallets breaking under load.

Crane and Velle derrick drivers were generally competent.

Lloyds Agency was asked to appoint a surveyor to witness the opening of the hatches and later to conduct a continuous survey during discharge. The surveyor was particularly helpful at the commencement of discharge. His firm asked for and received an advance of one hundred Egyptian pounds in cash from the ship because payment through the Agent was said to be slow.

Miscellaneous: Photography is forbidden within the port area and a permit must be obtained to take a camera ashore.

It is important to fit rat guards. A fine of £20 may be imposed for each one not fitted.

There is at least one floating crane with a SWL of 150 tons.

The Port Surveyor will ask to see the Suez Canal Certificate. If this has been retained by the Canal Authorities, he will require a signed statement to that effect.

Departure: The Agent will inform the various authorities of the expected time of departure.

Immigration Officers will board to check any changes in the crew.

The Agent will put aboard the clearance and the sanitary clearance and the senior official guard will demand a written statement that all crew are aboard.

The Sea Pilot will board with the Harbour Pilot. The latter disembarks into a motor boat as soon as the ship is clear of the berth, the former when she is clear of the Great Pass. If the weather is rough, a pilot ladder will be required outside instead of the accommodation ladder.

SHIP'S OFFICER'S REPORT: September 1979.

Arrival: On arrival at waiting area (BA Chart 243), vessel is required to register with "Alexandria Port Control" on VHF Channel 16.

The following information is required:

Ship's name and country of registry.
Time (local) of anchoring in waiting area.
Length overall and max. draft.
Description and tonnage of cargo for discharge at port.
Bearing and distance from Ras el-Tin Lighthouse.
Last port of call.
Name of Agent in Alexandria.

It is also necessary to confirm arrival time by W/T, with the Harbour Master and ship's Agent via Alexandria Radio on 454 kHz or 8578 kHz.

Traffic Lists, giving the names of vessels programmed for port entry that day, are generally broadcast on VHF Channel 16 at 0600 hrs. and 1400 hrs. daily. However, times may be altered without prior warning or list may be omitted altogether.

Fresh Water: Fresh water is unavailable in August at anchorage. Within port, fresh water is available from barge said to contain 150 tons, at an approx. rate of 40 t.p.h. No information on water supply at berths.

Also see "General" below.

Services: Doctor and hospital facilities are available on order via Agents or chandler.

Chandlers will approach vessel at anchorage – complete proof of identity should be obtained before trading commences. Also see "General" below.

Local labour is available for tank cleaning.

General:

(1) All telegrams via Alexandria Radio to addresses in Alexandria should contain a request for confirmation of receipt from addressee.

(2) Within the first 24 hours of anchoring the vessel is besieged by numerous persons, claiming to be chandlers, Agent's runners, watermen, receivers of the cargo, etc. Their proof of identity should be most carefully checked.

(3) The fresh water situation during this vessel's anchorage was desperate. It appears that from late July to mid-September, no water is available for vessels outside the harbour. Rationing is required on board, even if a water barge is ordered for the next day. Several ships ran out of fresh water at the anchorage during our stay and had to lower their boats to obtain minimal supplies from nearby ships. A good supply can apparently be obtained at Cyprus. Stores will not be brought out to the anchorage and boats cannot be ordered through Alexandria Port Control for medical or personnel transport.

SHIPMASTER'S REPORT: October 1987.

Documents:

12 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest (Ship's Stores, Bonded Stores, Currency, etc.).
1 copy Health Declaration.
8 copies Cargo Manifest.
All Passports.
Vaccination Certificates.

Port Health Officials board on arrival.

Immigration boarded with the Security Police about 3 hours after arrival. They require all passports and issue shore passes. Prior to departure they again check all passports and collect all shore passes.

The Security Police seal the radio room.

Customs Officers boarded 24 hours after arrival. They sealed the bond and left the beer room open.

Clearance on departure is given by Agent and endorsed by Immigration. Pilot sights Clearance before departure.

Pilotage: Vessels always take 2 pilots. One for Great Pass and one for Inner Harbour (Berthing). Great Pass Pilot boards about 1 mile W.N.W. of Great Pass Beacon from large launch with blue hull and white superstructure (ex-naval craft).

Berthing Pilot boards inside Outer Breakwater near the Petroleum Harbour, or off New El Dekheila Mineral Jetty. On departure, Pilot leaves at the same position.

The Quarantine Flag (Q) and Pilot Flag (H) must be displayed.

Great Pass Pilot leaves at Great Pass Beacon. No night pilotage for tankers. Pilots operate in winds up to about Force 6, although swell is the important criteria.

Approaches: The coast is low and featureless. Ras El Tin Lt. observed at 20 miles. El Agami Island and El Atta Fort observed on radar at 30 miles.

Channel: Depths are as charted. The navigation marks are poor, buoys either out of position or unlit, Great Pass Beacon destroyed.

The new channel of 20 m. depth to El Dekheila Mineral Berth is reported by pilots to lie 153°, commencing just West of Great Pass Beacon to 31° 09.20′ N., 29° 48.85′ E.

Anchorage: As per BA. Chart No. 243 Waiting Area. Very exposed, in Winter months, can be untenable due to wind and heavy swells.

Dependent on density of ships, most small vessels anchor in S.W. corner of Waiting Area. Vessels can approach coast at night, no restrictions advised.

We tried to contact Port Control on VHF Channel 16 at 0300 hrs. without success, so sent telex on anchoring. We had previously advised Port Authority by telex of approach course and speed and ETA at Waiting Area. Only 2 ships waiting at anchor on this visit.

VHF: Channel 16 seems to be used for all Pilot and Port operations. It is difficult to raise Pilots/Port Control at night or before 0600 hrs. Port Authority has telex which is useful - 54310 APA UN.

Tugs: 8 tugs of 2,500 h.p. available.

Port Regulations: Up to 270 ft. no tugs required. 270 ft. to 400 ft., 1 tug required. Over 400 ft., 2 tugs required.

For Petroleum Harbour we had one tug fast forward, using ship's line, entering and leaving. Tugs are well handled.

Berthing: Butane for E.G.C.P. discharged at Berths No. 1 and 2 on Quarantine Breakwater in Petroleum Harbour.

Both berths in a poor state of repair, fendering also poor. Vessel berthed port side alongside. Starboard anchor let go to 2 shackles approaching berth which keeps bow off forward landing (see BA. Chart No. 3119).

Moorings: 3 head lines, 2 stern lines, 2 stern back springs and 2 head back springs from after end of main deck. This seems to work with no hull contact with unfendered concrete.

Berths exposed to N.W. winds. Ship's gangway used. Petroleum Harbour can take up to 750 ft. length and 11 m. draft. (Re-checked several times as Echo sounder and chart indicate considerably more water. With Easterly wind depth can fall about 1.0 m.)

Berths as per BA. Chart No. 3119, Berth No. 3 (Product Pier), vessels berth head in. Berths Nos. 4 and 5 (Crude Oil), vessels berth head out. Berths Nos. 85, 86 & 87 now flat faced to make stockyard for cattle ships, also used to load oil products from road tankers.

In Outer Harbour area 10 m. is generally the maximum draft, and Pilots report channel dredged to 13.4 m. and water as charted elsewhere. Pilots report greater draft handled at Container Quay (31° 10.3′ N., 29° 51.9′ E.)

New LPG (Ethylene) Sea Island in position 31° 08.9′ N., 29° 49.13′E. Berthing on West side of Island, head out starboard side to.

One Pilot stays onboard throughout stay at Island with 1 tug on standby nearby.

Mineral Pier at El Dekheila now in full operation with berthing on west face, port side too, head in. Pilots report 20 m. depth alongside. So far, vessels up to 110,000 d.w.t. handled, for iron ore and coal serving new steel mill nearby.

Cargo Handling: Ambient temperature. Butane discharged for domestic use at Berths Nos. 1 and 2 into 3 × 3,600 cu.m. and 4 × 1,000 cu.m. pressure tanks situated 4 km. from berths. 6 in. line – 300 ASA coupling. Rubber hose, ship's derrick required.

Maximum back pressure of 10 Bar allowed. With 5 pumps we reached 8.5 Bar. With 2 pumps and a booster pump we again reached 8.5 Bar.

No Surveyor as such, Receiver's Representative is very particular over gauge readings and checking sample cocks for liquid on completion.

Density in air differed substantially when compared with Bill of Lading in vacuum.

Generally maximum size of vessel handled is 3,000 cu.m. LPG imports for domestic use will probably stop next year when natural gas comes on stream. At present, there is one shipment every 10 days, mainly from Augusta, Sicily. VHF Channel 6 used to contact E.G.C.P. and Channel 74 for "Petrogas", both are butane receivers.

One Receiver's Representative onboard throughout, cabin required.

At LPG (Ethylene) Sea Island the maximum size of vessel so far handled is 2,600 cu.m. Believe product heated to minus 60°C. on platform before pumping to Chemical Plant about 1.5 km. onshore, through undersea pipeline. Sea Island opened in June 1987. I believe it is taking in feedstock over 1 year then maybe exporting.

Fresh Water: By barge at berths and inner anchorage, and in calm weather at El Dekheila area and Waiting Anchorage.

General: Difficult to contact agent in port.

Make sure "everything" locked and sealed. We kept just one door unlocked. Lifeboats half out and all fire hoses charged and 2 ship's crew on duty at night.

Not necessary to employ watchman or use garbage boat, however you will be encouraged to do so.

Rat guards are required on all lines.

Development/Changes:

1. El Dekheila Mineral Jetty now open, berthing on West face, two large grab gantries in use.
2. Container Quay under construction just south of El Agami Island.
3. Area to West of New Mineral Jetty all built up with flats and houses. Believe El Dekheila Airport no longer exists.
4. Petroleum Harbour Berths Nos. 85,86 and 87 formed into Livestock quay by extending Quarantine breakwater inshore face line 150° to shore line and infilling.
5. Signal Station Tower (Conspic.) in position 31° 09.65′ N., 29° 51.10′ E. just behind livestock jetty, although of modern construction with microwave dishes, Pilots report not used.
6. New Port Authority Control Tower (Conspic) with Radar Scanner on top at Coal Quay (31° 11.25′ N., 29° 52.10′ E.).
7. Outer breakwater S.W. Lt. in position 31° 09.92′ N., 29° 50.68′ E. Fl. R. 4 secs.
8. Quarantine breakwater lighthouse in position 31° 09.93′ N., 29° 50.95′ E. Qk. fl. 2 G. ev 3 secs.
9. Kamaria Port (works in progress 1984) completed with 2 moving discharge suckers associated with adjacent grain silo.
10. Expunge hulk in position 31°10.12′ N., 29° 51.22′ E.
11. Floating Dock located in position 31° 09.10′ N., 29° 48.18′ E.
12. LPG Terminal located in position 31° 08.90′ N., 29° 49.13′ E.
13. Expunge Approach Buoy in position 31° 10.95′ N., 29° 47.55′ E.
14. Fairway Buoy in position 31° 10.25′ N., 29° 48.15′ E. is unlit.
15. Great Pass Beacon partly destroyed and unlit has been replaced by light in position 31° 10.00′ N., 29° 48.45′ E.
16. No. 8 Buoy in position 31° 09.70′ N., 29° 49.65′ E. is unlit.
17. There is a new light at Head of New Mineral Jetty (Fl. G.) in position 31° 08.38′ N., 29° 48.48′ E.
18. There are 2 new unlit pillar buoys (Green) in position 31° 09.40′ N., 29° 49.75′ E. and 31° 09.20′ N., 29° 48.18′ E.
19. Naval Base in position 31° 11.20′ N., 29° 51.50′ E. is a prohibited area.

AUTHORITY: Alexandria Port Authority, 106 El Horreya Avenue, Alexandria, Egypt. *Tel:* 4834321/24 (4 lines). *Telex:* 54310 APA UN. *Contact:* Captain Attif Maroni, Chairman. Admiral Hamdy, General Manager. Admiral Mahmoud Yousef, Harbour Master.

DAMIETTA: 31.29 N. 31.45 E. (See Plan)

LOCATION: The new port is 60 km. West of Port Said and 250 km. East of Alexandria in position: Lat. 31° 28.5′ N., Long. 31° 45.25′ E.

PILOTAGE: Pilotage is compulsory. Vessels proceeding to Damietta Port are to inform Damietta Port Authority by cable 7 days and 24 hours before their arrival. On arriving at the waiting area, the Master must call the pilot station by VHF Channel 16 and advise time of arrival, draft, length, cargo, etc. Vessels are advised to approach through the Northwestern side of the waiting area. Vessels are not allowed to approach without a Pilot on board.

ANCHORAGE: *Waiting Area:*

The Waiting Area has been marked with 5 buoys as follows:

1. *North East Buoy (Approach Buoy)*
   (a) Position: Lat. 31° 36′ 30″ N., Long. 31° 46′ 12″ E.
   (b) Description: Conical buoy painted in red and white strips.
   (c) Top mark: Red ball.
   (d) Character of Light: Occulting white (2+1 = 3).
   (e) Range: 7 nautical miles.
2. *North Buoy*
   (a) Position: Lat. 31° 36′ 43″ N., Long. 31° 44′ 58″ E.
   (b) Description: Conical buoy painted in black.
   (c) Top mark: Two black cones point up.
   (d) Character of Light: V.Q. white (0.3+1.2 = 1.5).
   (e) Range: 7 nautical miles.
3. *West Buoy*
   (a) Position: Lat. 31° 35′ 41″ N., Long. 31° 44′ 33″ E.
   (b) Description: Conical buoy painted yellow and black bands.
   (c) Top mark: Two black cones point in.
   (d) Character of Light: White, 9 flashes 9 (0.31) + 4.37 = 10.
   (e) Range: 7 nautical miles.
4. *Middle Buoy*
   (a) Position: Lat. 31° 35′ 33″ N., Long. 31° 45′ 20″ E.
   (b) Description: Conical buoy painted in yellow colour on black base.
   (c) Top mark: Two black cones point down.
   (d) Character of Light: White, 6+1 flashes 6 (0.31, 0.31) + 2 + 4.25 = 10.
   (e) Range: 7 nautical miles.
5. *East Buoy*
   (a) Position: Lat. 31° 35′ 25″ N., Long. 31° 46′ 06″ E.
   (b) Description: Conical buoy painted in yellow colour.
   (c) Top mark: St. Andrew's cross yellow in colour.
   (d) Character of Light: Yellow, group flash (1+1+1+7 = 10).
   (e) Range: 7 nautical miles.

Depth in Waiting Area is 17.0 m.

APPROACHES:

Access Channel:

The port is limited from its North side by Access Channel of 11 km. length, 300 m. width. This channel has been marked with 18 buoys each of 2.91 m. diameter, 7.55 m. height and 2.318 m. draft. The odd numbers (Nos. 1 – 17) are defined the Western Buoys and the even numbers (Nos. 2 – 18) are defined the Eastern Buoys as follows:

Buoy No.	*Position of Platform Latitude*	*Longitude*	*Shape*	*Character of Light*	*Range Nautical miles*
1	31° 34′ 48″ N.	31° 46′ 32″ E.	green cone	green flash (0.5+2 = 2.5)	6.3 – 8.3
2	31° 34′ 44″ N.	31° 46′ 51″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3
3	31° 34′ 04″ N.	31° 46′ 22″ E.	green cone	green flash (0.5+2 = 2.5)	6.3 – 8.3
4	31° 34′ 01″ N.	31° 46′ 41″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3
5	31° 33′ 21″ N.	31° 46′ 12″ E.	green cone	green flash (0.5+2 = 2.5)	6.3 – 8.3
6	31° 33′ 18″ N.	31° 46′ 31″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3
7	31° 32′ 40″ N.	31° 46′ 02″ E.	green cone	green flash (0.5+2 = 2.5)	6.3 – 8.3
8	31° 32′ 35″ N.	31° 46′ 20″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3
9	31° 31′ 55″ N.	31° 45′ 51″ E.	green cone	green flash (0.5+2 = 2.5)	6.3 – 8.3
10	31° 31′ 52″ N.	31° 46′ 10″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3
11	31° 31′ 12″ N.	31° 45′ 42″ E.	green cone	green flash (0.5+2 = 2.5)	6.3 – 8.3
12	31° 31′ 09″ N.	31° 46′ 00″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3
13	31° 30′ 29″ N.	31° 45′ 31″ E.	green cone	green flash (0.5+2 = 2.5)	6.3 – 8.3
14	31° 30′ 25″ N.	31° 45′ 50″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3
15	31° 29′ 46″ N.	31° 45′ 21″ E.	green cone	green flash (0.5+2 = 2.5)	6.3 – 8.3
16	31° 29′ 42″ N.	31° 43′ 40″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3
17	31° 29′ 33″ N.	31° 45′ 22″ E.	green cone	green flash (0.5+2 = 2.5)	6.3 – 8.3
18	31° 29′ 31″ N.	31° 45′ 33″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3

Breakwater:

1. West Breakwater Light:
   Beacon No. 31:
   (a) Position: Lat. 31° 29′ 33″ N., Long. 31° 45′ 15″ E.
   (b) Description: Iron green tower of 10 m. height.
   (c) Character of Light: Green flash (1+4 = 5).
   (d) Range: 6.3 – 8.3 nautical miles.
   (e) Breakwater of 1,400 m. length.
2. East Breakwater Light:
   (a) Position: Lat. 31° 20′ 21″ N., Long. 31° 45′ 37″ E.
   (b) Description: Iron red tower of 10 m. height.
   (c) Character of Light: Red flash (1+1+1+7 = 10).
   (d) Range: 6.3 – 8.3 nautical miles.
   (e) Breakwater of 560 m. length.

Inner Buoys: Transit from Access Channel to quays is marked by 7 buoys as follows:

Buoy No.	*Position Latitude*	*Longitude*	*Shape*	*Character of Light*	*Range Nautical miles*
19	31° 28′ 42″ N.	31° 45′ 20″ E.	green cone	green flash (0.5+2 = 2.5)	6.3 – 8.3
20	31° 28′ 43″ N.	31° 45′ 20″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3
21	31° 27′ 51″ N.	31° 45′ 13″ E.	green cone	green flash (0.5+2 = 2.5)	6.3 – 8.3
22	31° 28′ 34″ N.	31° 45′ 18″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3
24	31° 28′ 14″ N.	31° 45′ 23″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3
26	31° 27′ 55″ N.	31° 45′ 56″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3
28	31° 27′ 36″ N.	31° 45′ 47″ E.	red cone	red flash (0.5+2 = 2.5)	6.3 – 8.3

Leading Light:

Beacon No. 30:
(a) Position: Lat. 31° 27′ 43″ N., Long. 31° 45′ 02″ E.
(b) Description: Metallic tower of 20 m. height.
(c) Character of Light: Occulting green – white – red lights.
(d) Range: 10.5 – 15.1 nautical miles.

Barrage Channel Lights: The Barrage Channel is marked with 4 beacons each of 3 m. height as follows:

Beacon No.	*Position Latitude*	*Longitude*	*Shape*	*Character of Light*	*Range Nautical miles*
33	31° 28′ 37″ N.	31° 45′ 23″ E.	green tower	green flash (1+4 = 5)	6.3 – 8.3
34	31° 28′ 41″ N.	31° 45′ 24″ E.	red tower	red flash (1+1+1+7 = 10)	6.3 – 8.3
35	31° 27′ 36″ N.	31° 47′ 57″ E.	green tower	green flash (1+4 = 5)	6.3 – 8.3 (under construction)
36	31° 27′ 33″ N.	31° 47′ 54″ E.	red tower	red flash (1+1+1+7 = 10)	6.3 – 8.3 (under construction)

Quay Light:

Beacon No.	*Position of Platform Latitude*	*Longitude*	*Shape*	*Character of Light*	*Range Nautical miles*
37	31° 28′ 08″ N.	31° 45′ 37″ E.	3 m. tower	blue flash (0.5+2 = 2.5)	7.2 – 9.6

Depths:
(a) Waiting Area – 17 m.
(b) Access Channel, Inner Channel, Turning Area: 14.5 m., the depths differ near the sides of Access Channel.

MAX. SIZE: Berths No. 1 – 4: Max. Draft 12.8 m.
Berths No. 5 – 12: Max. draft 11.0 m.

BERTHING:

Quay No.	*Length (m.)*	*Depth (m.)*	*Remarks*
1	250	14.5	Container, Ro-Ro
2	250	14.5	Container, Ro-Ro
3	250	14.5	Container, Ro-Ro
4	250	14.5	Container, Ro-Ro
5	200	12.0	General Cargo
6	200	12.0	General Cargo
7	200	12.0	General Cargo
8	200	12.0	General Cargo, Ro-Ro
9	200	12.0	General Cargo, Neobulk
10	200	12.0	General Cargo, Neobulk
11	200	12.0	General Cargo, Neobulk
12	200	12.0	General Cargo, Neobulk
3	300	14.5	Bulk Carriers (Grain)
14	300	14.5	Bulk Carriers (Grain)

The port is ready to receive Ro-Ro ships, container ships and bulk carriers up to 250 m. in length.

The container berths are equipped with 4×40 ton container gantry cranes and various handling equipment.

The grain terminal is equipped with 2×350 t.p.h. unloaders. Storage capacity 100,000 tons.

AUTHORITY: Damietta Port Authority.

EAST ZEIT TERMINAL: 27.51 N. 33.36 E.

LOCATION: The C.A.L.M. is located in position Lat. 27° 51′ N., Long. 33° 36′ E. and is approximately 85 km. North of Hughada.

ANCHORAGE: Tanker should call East Zeit Terminal before approaching and enquire if necessary to drop anchor in the anchorage area.

Vessel is not permitted to anchor outside the anchorage area.

Waiting Area: South of C.A.L.M. The Southern half of a circle of 1 mile radius around position: Lat. 27° 48.5′ N., Long. 33° 37.0′ E. depth 20 m. – 44 m. with 39 m. at centre.

RESTRICTIONS: No night berthing. Unberthing at any time.

MAX. SIZE:
Max. 85,000 tons d.w.t. fully loaded.
Min. d.w.t. of tanker 35,000 tons
Max. length decided by d.w.t. but distance bow to manifold not greater than 450 ft.

RADIO/VHF: Tankers calling at East Zeit Bay must send ETA message 72, 24 and 12 hours before arrival at the terminal to "Esso Suez Inc.", office Telex No. 21148 Esosz Un, addressed to Exploresso for East Zeit Terminal attention Marine Supervisor, via any coastal radio station: Port Said (Suez and Kosseir).

ETA messages to Esso Suez Inc. should give the best estimates of ship's arrival time at the terminal. This ETA message should also include a definite statement of details of any equipment required from shore for connecting 12 in. floating hoses. Bearing in mind that such hose needs tanker to be equipped with crane classed/certified up to 10 tons capacity.

Master must call East Zeit Terminal 4 hours prior to arrival on VHF Channel 13 which is considered the calling (by the vessel's side only) and working channel.

BERTHING: *Terminal Facilities:*
C.A.L.M. (Catenary Anchor Leg Mooring).
Cargo hose 12 in. type, with camlocks.
Max. loading rate for crude oil 3,000 tonnes/p.h.
Loading from port side.

If cargo hose or connection is different, Master should contact "Esso Suez Terminal Office" 72 hours prior to his arrival at East Zeit stating the tanker hose and connection type.

Mooring facilities on tankers's bow should be ready prior arrival. Tanker must be trimmed about 4 ft. by the stern and have adequate ballast for manoeuvring.

BALLAST: *Deballasting Facilities:* Available at East Zeit Terminal. Shore facilities can accept up to 75,000 bbls. over 12 in. floating hose connected for this purpose. If Master will require deballasting of clean cargo tanks ballast while loading in operation, letter should be submitted to the terminal that all bulkheads are fully tight and no leakage to avoid any contamination. Master on behalf of Owners and/or Charterers will bear all costs and expenses for cleaning operations required to remove any pollution which might occur due to pumping ballast overboard as well as a fine of US$15,000.

OPERATOR: Esso Suez Inc.

GEISUM MARINE TERMINAL: 27.38 N. 33.43 E.
(See Plan)

LOCATION: Geisum Marine Terminal is a closed sheltered mooring inside the Tawila Channel, in Egyptian waters and known as Hurghada Area. The Terminal lies about 1.2 nautical miles SE of the South point of South Qeisum Island and 9 nautical miles East from the nearest land, East Coast of Gulf of Suez, Egypt.

The Terminal consists of a 228,700 d.w.t. VLCC converted to a Floating Production Storage and offloading facility (FPSO) which is permanently moored to an 8-point spread mooring system, fixed in position:

Latitude : 27° 38′ 08.47″ N.
Longitude: 33° 43′ 03.70″ E.

Ship's head is 141°, stern to the prevailing winds.

Geisum Oil Company, as operator, produces crude oil from Geisum Oil field, known as "Geisum Crude Oil" and delivers the crude oil to tankers for export.

Nominations: Tanker nominations for Geisum Crude Oil Liftings are coordinated through Conoco Geisum Inc., Cairo, Egypt and Egyptian General Petroleum Corporation, (EGPC).

All crude oil sales and tanker chartering are arranged by the following parties in each of their locations: Conoco Geisum Inc., Mobil, Mobil AG, Texaco, Norsa Hydro and Oranje-Nassau, as well as any of their subsequent permitted assignees.

Tanker scheduling is coordinated for all the partners through Conoco Geisum Inc., Cairo, Egypt and arranged through Geisum Oil Company of Cairo, Egypt.

PORT LIMITS: *Terminal Limits:* The area South of parallel 27° 42.8′ N.

North tip of coral ridge of South Geisum and Gubal Islands is a prohibited area and must not be entered without a Company Mooring Master onboard. Anchoring of vessels within this area is strictly prohibited.

DOCUMENTS:

Bill of Health.
Health Declaration.
Manifest, if cargo on board.
Last Port Clearance.
Certificate of Registry.
Ship's Construction Certificate.
Load Line Certificate.
Safety Equipment Certificate.
Safety Radio/Telegraph Certificate.
Derat Certificate or Derat Exemption Certificate.
Crew List.
Passenger Manifest.
Stores List.

Clearance: A.R.E. officials, Immigration, Customs, Quarantine, Captain of the Port and Police stationed at Hurghada or Ras Al Bahr will board the vessel after arrival to grant clearance. The Port Health Officer will provide Health Clearance. On arrival the Master must fill out International Health forms. The rules governing quarantine of vessels are the same as normally found in other parts of the world.

Should Customs Guards be stationed onboard vessels while in the mooring, it is expected that ships will provide food for these guards and other officials. All vessels calling at Geisum Terminal must provide an accommodation ladder, rigged if possible on the starboard side for the officials.

PILOTAGE: Pilotage is compulsory within the Terminal Limits. Vessels to be berthed at Geisum Marine Terminal will normally be boarded by Mooring Master in the Anchorage Area.

The Mooring Master will advise the Ship's Master on approaches to the FPSO, mooring and unmooring, connecting and disconnecting hoses and in all other operations within the Terminal area. All manoeuvreing of ships within the Terminal area shall be done in accordance with the advice of a Geisum Mooring Master, subject to the understanding that in all cases and circumstances the Master of the vessel being manoeuvred shall remain solely responsible, on behalf of his vessel's Owner for the safety and proper manoeuvreing of the vessel. The Ship's Master or a qualified deck officer must be on the bridge at all times while the ship is manoeuvring.

Pilot Ladder: Vessel's are requested to have a pilot ladder, clean, safely and securely rigged, ready for immediate use, and long enough to reach the Mooring Master's tug boat. If at night, adequate lighting must be rigged overside for the Mooring Master's ladder. Vessels will provide a lee for the Mooring Master, both when boarding and leaving. If a pilot ladder is not suitable for use, then it is the responsibility of the Master to change it. Any delay regarding this matter will be charged to the vessel and will be indicated in the vessel's time report. Vessel with a freeboard greater than 9.0 m. is requested to use a combination pilot and accommodation ladder.

Signals to be Displayed on Arrival: In accordance with the practise in A.R.E. ports: A.R.E., Quarantine and Pilot flags must be displayed by all vessels approaching Geisum. These signals shall be displayed continuously until clearance is granted. The signals are as follow:

Sunrise to Sunset: A.R.E. Ensign and Quarantine flag "Q".

The "G" flag (Request for pilot) should be flown until the Mooring Master boards. As soon as the Mooring Master boards, the "G" flag should be replaced by "H" flag.

ANCHORAGES: If tankers are requested to anchor, the recommended anchorage area is located N.N.E. of South Qeisum Island and is centred on position as follows:

Latitude : 27° 43.9′ N.
Longitude : 33° 45.0′ E.

This position represents the centre of a circle with a radius of one mile which should be used by vessels required to wait at anchor.

Anchoring within the Terminal Limits is strictly prohibited.

Prior to arrival, the Master of tankers should contact the Floating Production Storage Offloading Facility for information concerning anchorage positions.

Submarine Hoses: There are no submarine hoses or submarine communications cables in the vicinity of Geisum Marine Terminal. However, Masters are requested to anchor their vessels in the recommended anchorage area.

APPROACHES: *Landmarks:* Ashrafi Island Lighthouse is a landmark by day and night for vessels approaching from the North (Gp. Fl. (3+1) 15 sec. 38 m. 17 M.), but caution should be exercised regarding the 2 mile long shoal extending South of the lighthouse.

For vessels approaching from the South, Bluff Point lighthouse (Fl. WR. 3 sec. 25 m. 14 M.) at the North point of Gubal Island is an excellent landmark, but caution should be exercised regarding a shallow coral reef extending 2.5 miles N.E. of Bluff Point.

Navigational Aids: Inside the Tawila Channel there are 3 unlighted navigation buoys.

In addition to the FPSO, there are 3 drilling platforms located West of the FPSO. The FPSO has a flare boom on the bow, 150 ft. high during normal operating conditions. The flare may be observed from a considerable distance depending on prevailing atmospheric conditions.

The FPSO and structures within the Geisum Marine Terminal will by day and night, exhibit the shapes and lights as required by the Regulations for Preventing Collisions at sea, Rule 30, paragraph (a) and (c) and during periods of restricted visibility the sound signals prescribed in Rule 35, paragraph (g) shall also be given. During the hours of darkness, various working lights will also be in use to illuminate the decks and structures.

Navigational Charts: The British Admiralty Charts No. 757 and 2375 cover this area, also U.S. Defense Mapping Agency Chart No. 62191. There is a private chart of Tawila Channel for the use of the Mooring Master only.

RESTRICTIONS: *Hours of Operation:* The Geisum Marine Terminal will operate 24 hours per day, 7 days a week. Ships are loaded and unmoored at any hour, weather and other circumstances permitting and at full discretion of Field Manager. Vessels are berthed during daylight hours only. In special circumstances, at the sole descretion of the Terminal, night berthing may be allowed. The Terminal will never be closed due to Religious Holidays.

Also see "Max. Size".

MAX. SIZE: *Maximum and Minimum Size Export Tankers:* When the FPSO is in full storage condition, the greatest single lift which could be expected would be approximately 1,250,000 bbls. However, the physical restrictions of the terminal are:

Maximum length overall of export tanker:	270 m. (886 ft.)
Maximum distance from stern to centre manifold:	138 m. (452 ft.)
Maximum distance from forward to centre manifold:	131 m. (430 ft.)

There are no restrictions on beam or draft. The overall restriction is up to maximum 150,000 s.d.w.t., with midship manifolds and sufficient fairleads/Panama leads to make a secure and safe mooring, which is at the sole discretion of the Field Manager.

The minimum size export tanker would be that which can accept a 12 in. discharge hose (midship manifold) and safely accept oil at more than 15,000 barrels per hour and, in any event, not smaller than 20,000 s.d.w.t.

Water Depth: The water depth in the vicinity of the FPSO is typically 50 m. with individual "high spots" not shallower than 42 m. Water depths start reducing until 35 m. is encountered 2 miles N.E. of the FPSO, then water depths increase from 50 m. to 79 m. all along the North Channel.

RADIO: *Geisum Oil Company:*

Cable address:	GUSUAR CAIRO.
Telex address:	92375 GEISO UN.
Telephone:	Cairo 3505888.
Office address:	Geisum Oil Company, 30 Road 276, Maadi, Cairo, Egypt.

Initial ETA: It is important that all in-coming tankers advise Geisum Marine Terminal at least 72 hours before the estimated time of arrival, giving best estimate of the ship's arrival time at the Terminal via the operator.

Time to be used for ETA is local time (GMT plus 2 hours through the year).

The first message should also include the following information:

1. Name of tanker and radio call sign.
2. Cargo requirements.
3. De-ballasting time and quantity of ballast.
4. Maximum loading rate.
5. Arrival draft, forward and aft.
6. Last port of call.
7. Confirm that vessel has clean Bill of Health.
8. If there is any sickness onboard, give all available information as to the possible type of sickness.
9. Distance in feet from the stern to the tankers loading manifold.
10. Total LOA (length overall).
11. If the ship's hose connections are different from 12 in. standard.

Subsequent ETAs: Further ETA messages should be sent to Geisum Marine Terminal via the above address, telex or telephone number when the tanker is 48 hours and 24 hours from the Terminal and additional notification shall be given if the vessel's ETA will vary from the original notification by 6 hours or more. Notwithstanding the foregoing, in case the sea passage from the vessel's last port is less than 72 hours from the Geisum Terminal, the first notice shall be given immediately after leaving such port of call and subsequent notices shall be given at the regular times.

Should the ETA change by one hour or more following the 24 hour notice, the vessel shall promptly notify the terminal of the new ETA.

Geisum Control Radio Stations: Ships may send their cables to Geisum Oil Company office through the Commercial Coast stations in Alexandria, Kosseir and Port Said. Upon receipt of such cables, the coast station will immediately relay it to the Geisum office through Cairo Radio telegraph office teleprinter circuits. The cable address for Geisum is "Gusuar Cairo".

However, should any difficulty arise in communicating with the coast radio stations, ships may send their messages via their agents or owners by International Telex Service. The International Telex Number for Geisum is 92375 GEISO UN.

Cable or telex messages addresses to Geisum Marine Terminal would undergo the same procedures but upon receipt in Cairo would immediately be relayed to Geisum Terminal.

Cables from Geisum Marine Terminal to the ship would be given to Geisum Cairo radio office on the radio teletype channel and will immediately be sent on a teleprinter line to Cairo telegraph office which would, in turn, send it over in the same manner through one of the Coast radio stations.

Unauthorised Radio Communications: The use of the vessel's radio station while at anchor in terminal waters is forbidden by law.

The ship's Master is responsible to ensure that no communication by radio is made within the Terminal area. Unauthorised radio communications will be cause for cessation of all operations, except when clearing the berth, and the vessel's Notice of Readiness will be immediately nullified.

Radar or other electrical equipment must not be energised while the vessel is alongside, except VHF radios, telephone and communications equipment approved by the Terminal.

VHF: The FPSO maintains a continuous watch on Channel 16 and Masters are recommended to use this channel when they are within range of Geisum Marine Terminal, particularly when approaching the port. Attention to VHF/FM communications minimise risk of delays in berthing.

During berthing, the ship's radio will be under sole control of the Master and the FPSO radios will be under sole control of the Field Manager. Masters are reminded that if their vessel is requested to anchor to await berthing, it is their responsibility to maintain a constant listening watch on VHF Channel 16 to receive Terminal instructions. Any delay due to failure to maintain constant listening watch on Channel 16 will be for the ship's account and will not be included in a subsequent laytime calculation.

The communication equipment onboard the FPSO is capable of switching to all VHF marine frequencies.

Communications after Mooring Master has Boarded: For subsequent inter-ship communications with the Terminal, portable VHF radio-telephone units will be utilised by the Mooring Master. These sets will be intrinsically safe.

TUGS: *Tugs, Mooring and Hose Equipment:* Tug or tugs may assist in berthing vessels and these will be under the direct control and supervision of the Mooring Master.

READINESS: *Notices of Readiness:* The Mooring Master will act on behalf of The Company to acknowledge receipt of the Vessel's Notice of Readiness, which should be tendered at time of arrival.

Arrival time will be considered as the time the anchor is dropped at the anchorage area.

Notice of Readiness will be accepted at time of Mooring Master boarding the vessel, or the tanker shall have dropped anchor within the recommended anchorage area and has advised the Terminal of the time of anchoring. Exception to the above will be if the tanker is in the anchorage area awaiting arrival of the Mooring Master and has been requested by the Terminal not to anchor. In this case Notice of Readiness will be accepted from the time the Terminal requested the ship not to anchor.

Port Closed: Notice of Readiness will not be accepted during periods when the port is closed, only received. The port is closed when the weather is such that it is too rough for exporting tankers to berth or remain safely alongside the FPSO. Any decision regarding the opening and closing of the port will be made solely at the discretion of the Geisum Field Manager. In such cases the Terminal will provide the Master with a written notice of the times during which the port was closed due to adverse weather conditions. In the event that berthing is delayed on account of weather, vessels will keep their position in line. Vessels required to leave the port area on account of weather should keep in contact with the Terminal via radio in order that they will be readily available when weather moderates. The Company reserves the right to decline to berth a specific tanker if in the Field Manager's opinion, existing conditions or facilities are considered unsafe for berthing or loading, even though the berth may be open to other tankers. Various combinations of wind, sea and tidal conditions as well as the size, length, ballasted trim and handling qualities of a vessel can affect the decision to berth a vessel at Geisum Marine Terminal. All these factors have to be evaluated before a final berthing decision is made. Should a vessel be rejected for any of the aforesaid reasons the Terminal will supply the vessel and Owners/Charterers with written reasons for non-acceptance.

BERTHING: *Order of Berthing:* Vessels will normally berth in order of arrival with due regard to nominated date ranges, etc. And except when, in The Company's judgement, there exist extenuating circumstances which make it necessary to berth the vessels in a different order.

MOORING: *Preparation for Mooring:* Preparation for mooring will be advised by the Terminal through VHF communication prior to tanker's arrival or by the Mooring Master before the mooring operation commences. The export tanker will moor with her port side to the Terminal FPSO port side and Masters are required to have all the mooring lines and mooring equipment pre-rigged and ready in all respects for port side berthing. Prior to mooring, tankers are required to have ready on the port side, a derrick of at least 5 tons SWL, rigged and ready for connecting and disconnecting loading hoses.

When alongside the Terminal FPSO, on the forecastle, 5 good mooring lines shall be required for head and breast lines. On the port main deck, 2 forward springs and 2 aft springs are required. At the stern 5 good mooring lines must be ready for stern and breast lines.

Note: All the mooring ropes must be polypropylene or nylon ropes. Use of mooring wires (without rope tails) is forbidden. If in the opinion of the Mooring Master, the vessel is not equipped with adequate mooring facilities, lines or gear, he will so inform the vessel's Master and in such an event, the vessel shall not be brought into the berth until facilities, lines or gear are deemed satisfactory. Mooring lines coming out from the same point shall all be of the same material.

Tending of Mooring Lines and Loading Hoses: It is the responsibility of the vessel to ensure that all mooring lines are properly tended. The Mooring Master may direct at any time that additional ship's lines be secured to the FPSO as necessary.

At all times sufficient crew must be available to carry out, under the supervision of a responsible licensed officer, the instructions given by the Mooring Master.

Raising, lowering, connecting and disconnecting of oil loading hoses as well as other labours and duties on the export tanker connected with the loading of cargo or maintaining mooring lines in a correct manner will be performed by the ship's crew directed by a responsible officer as required by the Mooring Master.

Ships must have an adequate supply of reducers, nuts, bolts, gaskets and wrenches to connect cargo and deballasting hoses.

TERMINAL FACILITIES: The "Al Kahera" is a VLCC used as The Company's Crude Oil Floating Production Storage Offloading Facility and Terminal Administration Office. There is a laboratory onboard, capable of carrying out a limited number of tests on the crude oil stock, an injection skid, a Generator skid, a production skid, a fuel gas skid, a flare scrubber and flare boom, a compressor skid and a meter skid. The FPSO tanker is of 228,700 d.w.t. long tons in salt water and is registered under the Liberian flag. It has an overall length of 324.973 m. (1,060 ft.) and a loaded Summer draft of 20.443 m. (67 ft.). Total crude oil storage capacity is 1,327,020 barrels at 98%. Total dirty ballast reception capacity is 62,656 long tons.

The FPSO tanker is permanently moored (stern to the prevailing winds) to an 8-point spread mooring system. To load crude oil, the export tanker will be moored alongside the port side of the FPSO, i.e. bow of the export tanker to the stern of FPSO, for this purpose 4 large (3.3 m. × 6.5 m.) "Yokohama" pneumatic marine fenders are laid on the water along the port side of the FPSO approximately 150 ft. apart and interconnected by lengths of wire. The two groups of fenders are made fast using wires to the mooring winches on main deck forward and aft. These wires can be adjusted as necessary to compensate for any change of draft of the FPSO and also to match on each end of the parallel body of the offtanker. Masters of offtankers are reminded that when their vessel is being berthed alongside the FPSO, it is desirable that the "Yokohama" fenders should uniformally absorb the impact of the two ships coming together side by side. To achieve this goal, advice provided by the Mooring Master regarding the handling of mooring lines during berthing should be utilised.

N.B. The Master of the export tanker will always be responsible for the safety of his own vessel and has the right to make the final decision relating to the safety of his own vessel.

Laboratory: The crude oil testing laboratory is equipped to perform the following tests: API Gravity, pour point, basic Sediment & Water, Sulphur and salt content.

LOADING: *Loading Hoses and Flange Sizes:* The crude oil loading hoses are connected from the port side midship manifold of the FPSO to the port side midship manifold of the export tanker. The loading hoses consist of two strings of 12 in. diameter (each 75 ft. length) with (150 ASA) flanges and quick release systems. It is therefore necessary that the export tanker presents a 12 in. diameter (150 ASA) manifold connection and if her manifold flange is not 12 in. diameter (150 ASA), then suitable reducers must be fitted to the export tanker to facilitate hose connection without undue delay. For this purpose, reducers and various quick connection fittings will be carried out onboard the FPSO to facilitate connection, should the export tanker be unable to supply the necessary flange connection.

The Terminal will have a limited number of reducers available but will accept no liability or obligation to provide them.

Rate of Loading: The minimum loading rate on the storage tanker is 15,000 barrels per hour, the maximum being 25,000 barrels per hour. However, to save time and make the berth available for other vessels, it is requested that export tankers receive crude oil as fast as it can be delivered, and it is requested that ballast water be pumped as fast as possible, both operations consistent with regard to safety. Masters are reminded that for safety reasons, it is advisable to have the export tanker loaded as quickly as possible. For "topping-off" cargo tanks, the loading rate can be reduced as necessary. The export tanker should advise FPSO at least 30 minutes prior to completion of loading, so that cargo oil pumps can be stopped immediately on export tanker's request.

Inspection of Cargo Tanks: The tanker's cargo tanks are to be inspected by a Geisum Marine Terminal representative and if suitable for loading, a signed notation to this effect will be made on the Company "Tank Inspection Report".

Scuppers to be Plugged: Before loading commences, all overside scuppers shall be plugged and made oil-tight.

Completion of Loading: Normally completion of loading is by ship's stop and any request for the Terminal to stop the flow of oil at a predetermined tonnage must be in writing. The request must include the statement by the export tanker's Master that The Company will not be held responsible for any error and that in the case of the vessel being overloaded, the excess cargo cannot be pumped back to the FPSO (only in a real emergency and all costs and delays will be on account of export tanker). The Ship's Master will be responsible for any oil spills caused by this request.

Communication during Loading: All communications relative to the loading of the vessel shall be routed through The Geisum Terminal Representative who will remain in contact with the Terminal Control constantly via portable VHF units. In case of temporary breakdown of the portable VHF circuits, contact may be continued on International VHF Marine Channels 16,13,10 and 9.

Failure of Communication: In the event of a total failure of communications with the Terminal, the vessel should sound the emergency signal. Continuous blasts of the vessel's whistle will be sounded to notify the Terminal of the radio failures. Upon hearing this signal from a loading tanker, the FPSO will immediately cease loading to the export tanker until radio communications have again been established.

Leaking Oil Tankers: If it is discovered that oil is leaking from an export tanker whether at anchor, deballasting or during loading so as to constitute, at the sole discretion of the Field Manager, a safety or pollution hazard, then the tanker will cease operations and may be requested to leave the Terminal limits. Completion of loading will only be undertaken when satisfactory evidence of repair is duly certified by Lloyd's, ABS or Det Norske Veritas Surveyors or an other recognised classification society and is submitted.

Valve Closure during Loading: No valves which stop or reduce the flow rate of oil from the pumps of the FPSO are to be operated without prior agreement of Geisum Terminal Representative. It is extremely dangerous to close a ship's valve against the incoming stream, as such a procedure creates excessive pressure, which may damage hoses, ship's piping, or Terminal facilities. Vessels will be held responsible for damage resulting from failure to observe this precaution. The practice of throttling back on the ship's cargo valves is to be avoided. If a lower loading rate is required, the Terminal is to be advised and pumping rate will be reduced to the agreed rate.

A reduction in loading rate before topping-off a final tank or tanks may be arranged through the Mooring Master by the ship's officer in charge. On advice from the ship, a minimum of 3 minutes is required to stop the flow of crude oil.

Crude Oil Overflow during Loading: Masters are warned that if, at any time an overflow of crude oil occurs, loading will be suspended immediately. Loading will only be resumed when the oil is cleaned up and removed from the decks of the vessel and/or from the surface of the sea and any damage is repaired and no further danger exists.

All spillages of oil must be reported immediately to the Geisum Field Manager and subsequently a detailed report is to be made in writing, by the Master of the vessel concerned, giving all relevant details.

A joint survey of the vessel by its Master and the Field Manager or his designate will be required.

BALLAST: *Precautions Regarding Pollution:* It is the export tanker's Master's responsibility to observe International Convention Laws and Egyptian Government Regulations and to ensure that no crude oil, bunker C, diesel, bilges or dirty ballast is pumped or spilled overboard from his vessel whilst in the area of Geisum Marine Terminal. Drip pans should be used, especially when disconnecting hoses in order to prevent any spillage.

Facilities for Receiving Dirty Ballast: "FPSO Al Kahera" has facilities for receiving dirty ballast. Tankers are recommended to arrive with clean ballast. In the event a tanker does have dirty ballast, the tanker may discharge ballast as desired into the proper line as soon as all arrangements have been made for this action. "FPSO Al Kahera" has dirty ballast water tanks equipped with oily water separator and oily water content monitor, and can accommodate approximately 62,000 tons of dirty ballast.

Inspection of Ballast Tanks: As soon as practical after arrival, all vessel's cargo oil tanks, cofferdams, bunker tanks, and other void spaces will be inspected by a Geisum Marine Terminal representative. If evidence of oil appears during the discharge of "clean ballast" or any other sea pollution becomes evident, the vessel will automatically be requested to discharge the ballast to the FPSO and her Notice of Readiness will be modified accordingly.

Discharging Ballast at Night: In addition to the lights usually displayed, vessels discharging ballast or loading cargo during darkness, will illuminate the area around the ship, to the satisfaction of the Mooring Master, in order that any oil on the surface of the sea may be readily detected, and appropriate action taken. Vessels unable to illuminate the sea satisfactorily, may not discharge ballast during darkness. Vessels should provide suitable flood lights for working on deck during night operations. Vessels equipped with a separate system of tanks (SBT) will be allowed to discharge ballast and load oil simultaneously, providing that approval from both the Field Manager and the Petroleum Inspector is secured.

Ballast Required for Berthing: A vessel must have sufficient ballast for safe manoeuvring. However, by a careful watch of the weather information, berthing instructions and frequent exchange of information between ship and terminal, and by a knowledge of the behaviour of his own vessel, a Master may desire to come to the Terminal with minimum safe ballast.

Load-on-Top or Discharge of Slops: Most responsible shipowners have adopted a system of tank cleaning using circulatory methods of transfer of tank washings. The result is that no oil is discharged into the sea and the oil separated is collected to avoid pollution and with the written permission of the Lifting Company, the Terminal will load-on-top of such slops.

Penalties for Pollution of the Sea: The categories of pollution include crude oil, bunkers, bilges and dirty ballast or any other matter that may result in pollution of the sea, any fines imposed for such pollution will be for the ship's account.

DEPARTURE PROCEDURE: *Government Requirements:* Prior to the vessel's departure, the Immigration Official requires copies of the Crew List to be marked for "Departure Clearance". The Customs Official on duty will issue Customs Departure Clearance.

Harbour Master will issue the Port Clearance.

Final clearance formalities will be carried out onboard the FPSO or in the Anchorage Area. The Master should advise the Terminal of the vessel's ETA at destination. This should be done through the Company Mooring Master.

Cargo Documentation: Crude oil loading documents such as Bill of Lading, Quality Certificate, Quantity Certificate, Dry Certificate, Ullage Report, Time Loading Report, Certificate of Origin, Cargo Manifest and Master's Receipt for shipping documents and samples are prepared at Geisum Marine Terminal.

Signing of these documents by the Master will take place at the same time as the final departure formalities are being carried out.

Protest: Notes of Protest if any, should be handed to the Mooring Master for onward delivery to the Geisum Oil Company of Cairo, Egypt.

Masters are required to pay particular attention to the fact that the Mooring Master will only acknowledge receipt of any Note of Protest and *is not authorised to accept* such letters.

MEDICAL: *Hospital Facilities:* Neither medical or hospital facilities are provided by Geisum Oil Terminal. Hospitals are available in Hurgada.

Emergency Medical Assistance: Vessels requiring emergency medical assistance should hoist International Code Flags (VV) in daylight and at night send (VV) in morse on signal lamp to attract immediate attention. If the Mooring Master is onboard he should be advised. Ship's agent will be advised as soon as possible of the emergency medical aid required.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: There are no consulates available at Geisum Marine Terminal. However, consular or diplomatic representatives for most nations maintain offices in Suez or Port Said.

CUSTOMS: *Bonded Stores List:* Present regulations allow each seaman to retain in his possession a maximum of 50 cigarettes or 1 ounce of tobacco or 5 cigars. The balance of all smoking items must be collected and carefully listed prior to arrival. This list will be checked by Customs before sealing locker. If there are any discrepancies, the vessel will be subject to a fine.

Contraband: Geisum Oil Terminal prohibits unauthorised craft from coming alongside ships while in the mooring. To avoid the possibility of undesirable items getting onboard vessels, it is recommended that Masters discourage bumboats or similar craft coming alongside while vessel is in the vicinity of the Terminal.

TIME: Geisum Marine Terminal time is GMT plus 2 hours throughout the year.

REPATRIATION: Crew changes can be arranged between the ship's agent and the Immigration Office. All expenses incurred will be for vessel's account. Crew members proceeding ashore on medical grounds will be repatriated to country of origin. They will not normally be returned to the ship.

SHORE LEAVE: Ship's personnel (other than medical or emergency cases) are not allowed to disembark or embark at the Terminal, if shore leave was not arranged between ship's agent and the A.R.E. Security Office.

WEATHER: *Climate:* The climate in the Gulf of Suez is generally good. The visibility is usually excellent with dust storms and infrequent fog. Freezing weather is unheard of and there are very few rain squalls.

Weather Data and Summary:

Average rainfall:	0.16 inch/year
Relative humidity:	80%
Mean Maximum temperature:	84°F.
Mean Minimum temperature:	41°F.
Extreme maximum temperature:	108°F.
Mean temperature:	72.5°F.

Winds: Winds are usually from N.-N.W. direction (80% of time) with average speeds of 12 knots. Southerly winds with maximum velocity of 45 m.p.h. are encountered occasionally.

Tides: The tidal range is between 2 ft. and 3 ft.

Sea Conditions: Sea and swells are usually from N.N.W. and wave height can reach up to 20 ft. but average is less than 6 ft.

Currents are generally experienced in mid-channel and set North when the tide is rising in Suez and South when the tide is falling. The rate is about 2 knots maximum.

Sea Salinity: The salinity of the sea is 41,000 PPM to 47,000 PPM.

Sea Temperatures: The surface temperature of the sea ranges from minimum 63°F., maximum 85°F., mean 72°F. (depending on the season).

GENERAL: *Language:* Language of the port is English and Arabic.

Visitors: Only authorised personnel or visitors are permitted on the FPSO and/or export tankers. Visitors must obtain a special pass from Geisum Oil Company and the A.R.E. Security office. It is strongly recommended that visitors be restricted to a minimum.

Currency: The unit of currency is the Egyptian pound (L.E) or (100 piastras). The rate of exchange varies from time to time. The Master can obtain the current exchange rate from the agent.

Supplies: Commissary supplies as well as steward's stores are not available. Marine lubricants are not available, except through marketing representatives in Cairo, Suez or Port Said by arrangement through ship's agent.

AGENCY: *Appointment of Agent:* Geisum Oil Company does not perform any vessel's agency functions. Owners of vessels calling at Geisum Marine Terminal must arrange for their own ship's agents.

The following information should be given in the telex or cable to the agent:

1. Name of vessel.
2. Flag.
3. Port of Registry.
4. Registration Number of Certificate.
5. Name of the Master.
6. Number of crew.
7. Last Port of Call.
8. ETA at Geisum Marine Terminal.

OPERATOR: Geisum Oil Company, P.O.Box 282, 30 Road 276, Maadi, Cairo, Egypt. *Tel:* Cairo 3505888. *Telex:* 92375 Geiso Un. *Cables:* Gusuar Cairo.

HAMRAWEIN: 26.15 N. 34.12 E. (See Plan)

APPROACHES: *Daytime Leading Marks:*
Front mark: Lat. 26° 15′ 05.984″ N., Long. 34° 12′ 01.622″ E.
Rear mark: Lat. 26° 15′ 01.46″ N., Long. 34° 11′ 54.95″ E.

BERTHING: Length of quay 67 m. Max. draft 33 ft. Conveyor belt and mechanical apparatus available. Daily average loading rate 4,000 tons. In addition to mooring bollard on the quay there are 4 mooring buoys.

SHIPMASTER'S REPORT: April 1988.

As berthing is carried out during daylight hours only, vessel should adjust ETA accordingly. The nearest anchorage is at Quseir, about 8 miles to the South, where good anchorage is obtained about 2 miles offshore (See B.A. Chart No. 3043).

Radio: Quseir Radio – SUK.

Health: Quarantine inspection for Pratique can be done at berth or at anchorage at Quseir.

Pilotage: Arranged by Agent or Misr Phosphate Co. There is no VHF communication with berth or pilot boat. Pilot boards about one mile East of the breakwater by a motor launch displaying flag 'H'. Vessel may give a few blasts on the whistle to attract attention. Pilot is unlicensed and does not speak English. It is advisable to discuss mooring plans with him prior to approaching the berth. It is further recommended that the Master should con the vessel himself to avoid confusion due to difficulty in communication. Vessel should have good long ropes ready to be sent out to the mooring buoys from quite a distance away. There are no tugs available and the vessel is turned around by warping. Vessel should be prepared to join 2 ropes together if length of one is insufficient. Extreme care is advised as windshifts can be quite abrupt and this vessel had to abandon attempts to berth mid-way through approach and put to sea and wait for the wind to subside.

Tugs: No tugs available.

Berth Facilities: The berth is exclusively operated by the Misr Phosphate Co. for loading rock phosphate in bulk. There is a mechanical loader with 2 loading chutes about 50 m. apart. They are stationary and only one is used at a time. The vessel has to be warped forward and aft to bring the appropriate hatch under the chute.

General: Limited quantities of fresh provisions are available. Watchmen and garbage disposal services were provided by the same supplier. Masters are advised to scrutinise all bills thoroughly prior to signing as attempts are made to obtain signature on blank bills on the pretext that they are requisition slips.

MARSA AL HAMRA (El Alamein): 30.59 N. 28.52 E.

WEPCO Terminal:
The Mono Mooring Buoy is in an open and unsheltered roadstead. The mooring buoy is located at Lat. 30° 58′ 07.5″ N., Long. 28° 52.2′ E. It is 53 miles on a bearing of 255° from Ras-el-Tin Lighthouse, Alexandria, and 3 miles offshore in approximately 66 ft. of water.

DOCUMENTS:

4 copies Crew List.

Deck log books showing date of last call at a A.R.E. port, completed up to the time of arrival.

Quarantine Questionnaire in duplicate (Form No. 15 Q.A.) showing all ports of call, as well as dates of sailings for the last 30 days, nature of cargo on board, destination, as well as sickness among crew or passengers, if any, specially when it is presumed that the sick will be hospitalised. These forms can be filled on arrival if not available on board before arrival.

Derat Certificate should be handy for inspection.

Clearance from Last Port.

Bonded Store List, in duplicate.

Crew List and Passenger List in duplicate.

PILOTAGE: The S.-S.W.-W. quandrant from the buoy is a Prohibited Anchorage Area. Gebisa Reef is at Lat. 30° 58′ 30″ N., Long. 28° 49′ 10″ E., at 2.7 miles on a bearing of 260° from the buoy.

The mooring buoy carries a light, flashing red 6 times per minute, and visible all round to a distance of 4.5 – 5 miles in clear tropical weather. It also has a fog horn, sounding "U" and a radar reflector.

Surface current sets East at 10 miles offshore at the rate of 1 knot. Maximum rise and fall of tide in the mooring area is 2 ft.

Vessel arriving should approach to within 2 miles North of the buoy, where they will be met by the Harbour Master or Pilot who will advise the ship's Master on approaches to the mooring buoy, mooring and unmooring.

ANCHORAGE: 15 miles N.E. of SBM.

RESTRICTIONS: Normally vessels are moored during daylight hours only, but permission can be obtained to sail at night.

MAX. SIZE: 100,000 d.w.t.

HEALTH: Hoist International Code Quarantine Signals when entering. Any sickness must be reported to local authorities.

RADIO: The commercial radio station at Alexandria will handle WEPCO radio traffic. Alexandria Coast Radio Station (call sign SUH) operates 24 hours a day on 444, 500 and 8,578 kHz, and between 0600 hrs. and 1800 hrs. GMT on 12,974 kHz.

Ships nearing Al Hamra Terminal may contact the terminal by FM/VHF radio on 156.70 MHz or 2182 kHz.

While at the mooring, ship-to-shore communication is by portable VHF radio-telephone units, under the direct charge of the Mooring Master. The terminal uses Channel 10 VHF for all communications.

TUGS: Not available and not required.

BERTHING: 2 good lines must be ready on the forecastle to be sent to the buoy plus a further 2 lines for use as messengers. Ship's lifting gear must be ready near the port manifold for lifting and connecting 2×12 in. hoses, with proper reducers if the manifold does not fit 12 in. hose with 150 ASA standard flanges. The total weight per hose assembly is approximately 5 tons. Maximum loading rate is 3,700 t.p.h.

A pilot ladder must be safely rigged for immediate use and long enough to reach the Mooring Master's launch. At night adequate lighting must be rigged overside to enable the Mooring Master to approach and board the ship safely, and searchlights should be rigged on both sides of the bridge to assist in running lines to the buoy.

BALLAST: No dirty ballast may be pumped overboard, and it is the ship's Master's responsibility to ensure that no oil – whether crude, diesel, bunker or bilge – is pumped or spilled into the waters of and surrounding the Terminal. Ballast can be pumped ashore through one or both of the floating hoses direct to disposal facilities on shore.

CUSTOMS ALLOWANCES: Present regulations at El Alamein allow each seaman to retain in his possession a maximum of 50 cigarettes or 1 ounce of tobacco or 5 cigars. All other smoking items must be collected and listed before arrival. The list will be checked by Customs before sealing the locker, and any discrepancies will be subject to fines.

FRESH WATER: Not available.

FUEL: Not available.

MEDICAL: Nearest hospital facilities are at Alexandria, at least 90 minutes drive from the terminal.

First Aid could be provided and if necessary, transportation to hospital in Alexandria.

TIME: GMT plus 2 hours.

AUTHORITY: Western Desert Operating Petroleum Company – (WEPCO), Borg El Saghr Building, Safia Zaghloul Street, P.O.Box 412, Alexandria, Egypt. *Tel:* 28710/17/18/19. *Telex:* 54075 Un. *FAX:* 4934016. *Cables:* Wepoil Alexandria. *Contact:* A. Abou Ouf, Operations Manager.

RAS BUDRAN: 28.56 N. 33.08 E. (See Plan)

Ras Budran is an open area, unsheltered roadstead. There are presently 5 large storage tanks with a total capacity of 120,000 cu.m., painted a pale yellow colour. To the North of the tank farm is the production area with ballast receiving and treatment facilities. There is a flare structure S.E. of the storage tanks and another small flare on the production platform in position: Lat. 28° 58.2′ N., Long. 33° 07.8′ E. located 2.3 miles North of SBM.

Vessel will moor to a single mooring buoy located 2.3 miles off Ras Budran Lighthouse on a bearing of 260°.

The yellow painted SBM is located in a water depth 34 m. in position: Lat. 28° 56′ 05″ N., Long. 33° 07′ 49″ E.

The SBM has an orange light, visible 5 miles.

Cargo vessels can be loaded and/or discharged alongside the jetty at Ras Budran. The length of the jetty is 120 m. and the depth of the water is 6 m.

PILOTAGE: SUCO (Suez Oil Company) Pilot/Mooring Master boards approximately 1.5 miles West of SBM with mooring gangs. Pilot will normally meet and embark incoming vessels at Lat. 28° 51′ N., Long. 33° 06′ E. Vessel provides leeside on a course away from the shore.

Pilot ladder and/or accommodation ladder should be kept in good order, cleaned and should be of adequate length and strength. Ladder should be provided with a safety line. A light shall be provided at night so that the pilot ladder is adquately lit.

When Mooring Master boards, he will advise the Ship's Master, on the approach to the SBM, arrangements for mooring and unmooring, connecting of the hoses and all other operations within the mooring area. The Mooring Master will submit and receive from the Master all forms, documents and papers required, to be filled in and signed or received by the Master.

ANCHORAGES: SUCO will make every effort to moor ships arriving according to the agreed schedules as promptly as operational circumstances permit.

If mooring is not possible, vessel will anchor in Anchorage Area in position: Lat. 28° 52.5′ N., Long. 33° 06.9′ E.

Area within 1 mile radius of this area has been surveyed and is considered clear of any obstruction. Anchoring outside the area is strictly prohibited.

The ground at Anchorage Area is sandy mud.

RESTRICTIONS: Weather conditions may prevent berthing. This is the case when wind speed exceeds 25 knots. Vessel will then remain in the anchorage until weather improves. Daylight berthing only. Unberthing anytime.

MAX. SIZE: 30,000 tons (s.d.w.t) to 250,000 tons (s.d.w.t) with a max. permissible draft up to 18.0 m.

HEALTH: Masters are to indicate in their ETA, notification of any sickness on board. SUCO will arrange with Health Authorities if so required.

RADIO/VHF: SUCO installation is to be supplied with relevant information on lifting gear, connections, ballast/segregated/dirty and quantity.

On the berth (SBM) communications by VHF Channels 12 (24 hours listening) and 74 (Marine Office, 0700 – 1800 hrs.). SSB 2638 kHz to be used during office hours.

TUGS: 2 mooring boats (1×500 h.p. and 1×1,100 h.p.), available to assist with mooring and hose connection. The boats are equipped for anti-pollution operations.

1 fire fighting tug is available on a standby basis whilst loading operations are in progress.

BERTHING: All mooring equipment is available and will be placed onboard the vessel when Mooring Master boards.

A vessel can make the final approach and moor to buoy from any direction bearing in mind prevailing weather and tidal conditions. The approach shall be made from the direction which is consistent with a safe approach and speed shall be subject to the prevailing forces (i.e. wind, current and tidal stream) at the location at the time of berthing with the assistance from mooring boats stationed at the buoy.

Once moored the vessel is free to turn through 360° under the influence of the prevailing forces.

HOSE CONNECTION: 16 in. standard 150 ASA flange connection for crude oil and ballast hoses. Port derrick with minimum 10 tons SWL rigged for max. height and load lifting.

Ship's crew shall be responsible for connecting and disconnecting hoses, with assistance of shore crew.

A quick release coupling (camlock) is connected to each hose end and is to be used as follows:

1. In case of emergency the butterfly valve shall be immediately closed and quick release coupling immediately disconnected.
2. Do not hammer but try to use the camlock wrench supplied or use copper hammer only.
3. Tanker should be ready with reducer if it's manifold is not 16 in. size.
4. Bags of sand to be available.
5. Weight of the hose is approximately 6 tons.

LOADING: Upon being informed by the vessel's responsible officer that vessel is ready to start loading, Mooring Master will normally advise the Control Room and ensure that the loading commences at a low rate (by gravity).

When it has been confirmed that there is no significant rise in pressure on the loading line, the crude oil will be loaded, pumping with a maximum rate of 6,000 tonnes/p.h.

Crude oil is delivered through the submarine pipe-line to the buoy and thence via a floating hose to the vessel's port side midship manifold. Hose diameter is generally 24 in., changing at the ship's end to 16 in.

It is forbidden to close any valve onboard the tanker against the flow of the crude oil until the butterfly valve of the loading hose has been closed.

If ship-to-shore communications fail during loading operations the emergency whistle signal is a continuous blast on the tanker's whistle.

Loading shall immediately be stopped and will not be resumed until communications have been re-established.

Before loading, cargo tanks are dipped by an independent Inspector and a Terminal Inspector. If dirty ballast is retained on board until the next discharge port then amount of water and oil on top will be checked.

Density of Ras Budran Crude is approximately 0.900/15°C. Temperature when received on board approximately 31°C.

Immobilisation of engines at SBM not permitted.

BALLAST/POLLUTION: *Deballasting System:* It is preferable that vessels load crude oil while discharging ballast, but Master or officer-in-charge must be sure that no contamination or pollution takes place.

If the vessel is not equipped with 2 lines in order to load and deballast at the same time, a quantity of crude should be loaded prior to deballasting to ensure proper segregation.

Dirty ballast must not be in the emulsion form and is not to contain chemicals or detergents.

Deballasting will be effected by ship's pumps delivering the ballast water to the dedicated submarine ballast line.

The floating hose is normally 20 in. diameter, and the ship's end connection is 16 in. diameter.

It is strictly forbidden to discharge dirty ballast overboard.

Pollution: The Master has to comply with all regulations and instructions prohibiting pollution under A.R.E. laws and under any pertinent instructions issued by SUCO when conveyed to Master.

Also the provisions for International Convention for Prevention of Pollution from Vessels 1973 and the Protocol of 1978 relating to this connection will be applied to the extent that such Convention and Protocol are in force in A.R.E. Owner/operator shall be liable for any damage resulting from the pollution caused by the vessel and shall pay for all the expenses incurred for its removal and elimination.

Oil Spill: In the event of a spill or its detection, SUCO Mooring Master must be notified instantly for the necessary action to be taken.

MEDICAL: In case urgent medical assistance is required the vessel should contact SUCO Marine Manager by VHF radio. A doctor and facilities are available but no hospital in the area.

DENSITY: 1030.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: Not available.

REPATRIATION: Possible in an emergency only.

TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.

HOLIDAYS: Ras Budran Terminal will never be closed due to religious holidays.

SHORE LEAVE: There is no shore leave for personnel of vessels whilst at the terminal.

HELICOPTER: Should the services of a helicopter be required in emergency or for any purpose whatsoever, the vessel will be given a minimum of 30 minutes' notice.

WEATHER: Gales can be expected from a North-Westerly direction from October through May.

Maximum weather condition for keeping the vessel on SBM is 40 knots.

The above conditions are only for guidance and are not relevant to the safety of the vessel but the safety of the buoy.

The Mooring Master shall have the authority to decide whether the ship should remain or vacate the buoy.

Climate: The climate in the Gulf of Suez is generally good. The visibility is usually excellent with few dust storms and infrequent fog. There are a few rain squalls.

Winds: The general flow of the wind over this part of the Gulf of Suez is predominatly from the N.N.W. Winds are steadier in the Summer months (May-October) and almost nil from June to September. Gales can mainly be expected from a North-Westerly direction from October through May.

The maximum velocity is approximately 45 knots, whilst the mean wind speed is approximately 20 knots and is prevalent for some 98% of the year. There are occasional light Southerly winds.

Tides: The tidal range is between 3 ft and 4 ft.

Sea Condition: The surface temperature of the sea ranges from 18°C to 27°C depending on the season.

Seas and swells are usually from the N.N.W. and wave height can reach 18 ft. but average is about 6 ft. During the Summer months (May/August) there are many day's of 12 ft. – 15 ft. seas.

Currents are generally located in mid-channel and set North when the tide is rising in Suez and South when the tide is falling. The rate is about 1.5 knots at Springs and 0.5 knots at Neaps.

AUTHORITY: Suez Oil Company (SUCO), 21 Ahmad Orabi Street, El Mohandessin, P.O.Box 2622, Cairo, Arab Republic of Egypt. *Tel:* 650723, 650544, 807922, 813554, 807854. *Telex:* 93455 Suco Un, 92300 Suco Un. *Cables:* Dexgulf. *Contact:* A. Nassef, Planning and Follow-up Manager.

RAS GHARIB: 28.21 N. 33.06 E.

A natural port at the Western side of Suez Gulf sheltered by the Cape and a chain of reefs.

DOCUMENTS:

4 copies Crew List.

Derat Certificate should be handy for inspection.

Clearance from Last Port.

Bonded Store List, in duplicate.

Crew List and Passengers' List in duplicate.

Quarantine Questionnaire in duplicate (Form No. 15 Q.A.) showing all ports of call, as well as dates of sailings for the last 30 days, nature of cargo on board, destination, as well as sickness among crew or passengers, if any, specially when it is presumed that the sick will be hospitalised. These forms can be filled on arrival if not available on board before arrival.

PILOTAGE: Compulsory. International Pilot flag must be hoisted and Pilot will board vessel on arrival. Vessels should approach the anchorage from South-eastward and wait Southward of the Prohibited Anchorage until boarded by the Harbour Master who will pilot them either to moorings or to an anchorage clear of the prohibited area of the pipe-lines.

2 pairs of leading beacons stand about 4 and 5.5 cables, beside 3 others that stand about 12 cables Southward of Ras Gharib light-structure. About 2 cables further Southward are 2 leading beacons. All the above beacons are difficult to identify until close inshore.

ANCHORAGES: Ras Gharib Anchorage, South-westward of the Cape, affords some shelter, but a moderate swell round the Cape is experienced on most days. Vessels can obtain anchorage in depths of about 5 fathoms.

During most of the year there are Northerly winds, force 3 – 5, but in December and January there are occasionally calms. On very rare occasions, there are Southerly gales of short duration which make the anchorage untenable.

The Northerly wind causes some swell in the anchorage, but it is not normally severe enough to interfere with the working of lighters or boats of moderate size. It is, however, unpleasant for small boats, except alongside the piers, which are well protected.

Except in the vicinity of the piers, there is usually some swell on the beaches. There is practically no rainfall and sand storms occur only very occasionally and they do not interfere with work in the anchorage.

Anchorage is prohibited, owing to the existence of pipe-lines, within an area indicated by pecked lines on the chart.

HEALTH: On entering, vessels must hoist the International Quarantine Signal for compulsory quarantine. Any sickness must be reported to the doctor, specially when it is presumed that the sick will be hospitalised.

The vessel's personnel should carry international vaccination and/or inoculation certificates.

TUGS: 2 tugs, 400 h.p. and 80 h.p. available.

BERTHING: There is an ore pier where vessels may berth with max. draft of 11 ft. without any restrictions in length. Vessels with deeper draft may discharge whilst at anchorage on to supply boats.

Two cranes are available with capacities of 30 tons and 35 tons. Towage is also available.

TANKERS:

	Northern Pier No. 1	*Southern Pier No. 2*	*New Pier No. 3*
Depth at the pier	27 ft.	36 ft.	78 ft.
Max. permissible draft	24 ft.	32 ft.	55 ft.
Max. length for tanker	450 ft.	600 ft.	980 ft.
Min. length for tanker	350 ft.	500 ft.	600 ft.
Diameter of crude hose	18 in.	18 in.	30 in.
Diameter of water hose	10 in.	12 in.	18 in.
Min. capacity of tanker's derrick	5 tons	5 tons	5 tons
Loading capacity (t.p.h.)	650	1,200	2,000
Max. permissible load (tons)	8,000	30,000	100,000

Cargo: Ras Gharib Blend. API 24.1. Loading temperature 92°F/33°C.

Moorings: Vessels require 12 mooring ropes for sending to 6 buoys, and 4 spare ropes.

SUPPLIES: Transit and fresh provisions as well as deck and engine stores provided by the United Arab Contracting and Marine Supply Company.

FRESH WATER: Not available.

FUEL: Not available.

CUSTOMS ALLOWANCES: Present regulations allow each seaman to retain in his possession a max. of 50 cigarettes or 1 ounce of tobacco or 5 cigars. All other smoking items must be collected and listed before arrival. The list will be checked by Customs before sealing the locker, and any discrepancies will be subject to fines.

TIME: GMT plus 2 hours. GMT plus 3 hours (1st May – 30th September).

AGENCY: See "Suez Canal".

RAS SHUKHEIR: 28.08 N. 33.17 E. (See Plan)

Also see "General" before first Port.

ADVICE OF ARRIVAL: It is important that ships establish radio contact with "GUPCO" (Gulf of Suez Petroleum Co.) when 3 days distant from Terminal and maintain this contact until just previous to arrival at the Terminal. All ships should send a 72 hour ETA message to "Panintoil Cairo" giving the best estimate of ship's arrival time at the Terminal. This ETA message should also include a definite statement of the details of any equipment required from shore for connecting submarine hoses to ship's manifold. Further ETA messages should be sent to "Panintoil Cairo" when the vessel is 24 hours and 12 hours distant from Ras Shukheir and at any other time any appreciable change occurs in the original ETA or those subsequent thereto. The 12 hour ETA should include a positive statement regarding ship's readiness to load on arrival and the number of hours that will be required to discharge ballast after ship is berthed in mooring.

–6 hours before arrival, tankers should call Ras Shukheir on VHF Channel 16 to be advised if berthing is available or not, also to be advised of the approximate time for berthing.

DOCUMENTS:

4 copies Crew List.

Deck log books showing date of last call at an A.R.E. port, completed up to the time of arrival.

Derat Certificate should be handy for inspection.

Clearance from Last Port.

Bonded Store List, in duplicate.

Crew List and Passenger List in duplicate.

Quarantine Questionnaire in duplicate (Form No. 15 Q.A.) showing all ports of call, as well as dates of sailings for the last 30 days, nature of cargo on board, destination, as well as sickness among crew or passengers, if any, specially when it is presumed that the sick will be hospitalised. These forms can be filled on arrival if not available on board before arrival.

PILOTAGE: Compulsory. International Pilot Flag must be hoisted and Pilot will board vessel on arrival. Ras Shukheir Lighthouse is located in Lat. 28° 08′ 15″ N., Long. 33° 16′ 20″ E. It is a white flashing light, flashing every 3 seconds and visible for 10 miles.

Gebal Gharib, situated about 18 miles South-westward, 5,742 ft. high. It makes a nearly perfect equilateral triangle with Ras Shukheir and Ras Gharib Lighthouse. Ras Gharib Lighthouse is an excellent landmark whether by day or night for vessels approaching from North, but caution should be exercised since this Light is obscured from 308° to the Westward. The sea-berth buoys are unlit.

The company's Mooring Master will meet all incoming tankers about 2 miles from Ras Shukheir Terminal on a bearing of 290/300° from Ras Shukheir Lighthouse and will advise ship's personnel in mooring and unmooring, raising and lowering of hoses.

Vessels are requested to have a pilot ladder safely and securely rigged, ready for immediate use, and long enough to reach the Mooring Master's launch. If at night, adequate lighting must be rigged overside for the Mooring Master to approach the side and climb the ladder safely.

ANCHORAGES: There are a number of oil well installations, structures and submarine pipelines located in the Gulf of Suez opposite Ras Shukheir Terminal and approaching vessels are warned of these obstacles in manoeuvring and anchoring. Vessels should approach from the Eastward and if necessary anchor S.E. of the sea berth.

Never anchor North of the sea berth.

Tankers should only anchor in Ras Shukheir Anchorage Area which is located as follows:

Lat. 28° 04′ 30″ N.
Long. 33° 30′ 15″ E.

RESTRICTIONS: The Ras Shukheir Terminal operates 24 hours per day, 7 days a week. Ships are loaded and unmoored at any hour, weather and other circumstances permitting. Vessels are moored during daylight hours only, however, an exception may be made at the discretion of the Terminal.

MAX. SIZE: See "Berthing".

HEALTH: The vessel's personnel should carry international vaccination and/or inoculation certificates.

RADIO: The Alexandria or Port Said coast radio stations will handle GUPCO radio traffic. Ships may contact GUPCO through their cable address "Gupcoil Cairo". The message will be received on their Cairo Radio Telegraph Office local teleprinter circuit, tape perforated and relayed to the Ras Shukheir Terminal.

Cables from Ras Shukheir Terminal to the ships would be handled in the same manner. The Alexandria or Port Said coast radio stations transmit traffic lists at regular intervals listing the call signs of all ships for which they have traffic on hand. Thus any ship hearing its call sign in the traffic list of the coast station would call the coast station immediately after the traffic list.

VHF: When ships are near Ras Shukheir Terminal, they may use their FM/VHF radios to contact the Terminal using Channel 16.

BERTHING: One pier where vessels with max. length of 76 m. are allowed to berth alongside with a max. draft of 16.5 ft. Vessels may discharge whilst at anchorage and propeller type lighters are available for such cargo operations.

Four cranes with capacities of 15, 30, 40 and 50 tons respectively are available together with floating crane with capacity up to 200 tons. Towage is also available.

TANKERS:

	Seaberth No. 1	*Seaberth No. 2*	*Seaberth No. 3*
Depth	95 ft.	95 ft.	90 ft.
Max. permissible draft	55 ft.	55 ft.	50 ft.
Max. length for Tankers	1,000 ft.	1,000 ft.	800 ft.
Min. length for Tankers	750 ft.	750 ft.	600 ft.
Numbers of Crude hoses	3	3	2
Diameter of Crude hoses	12 in.	12 in.	12 in.
Diameter of Ballast hose	12 in.	12 in.	12 in.
Min. capacity of –Tanker's derrick	5 tons	5 tons	5 tons
Loading capacity (t.p.h.)	6,000	4,000	3,000
Max. permissible load (tons)	150,000	150,000	70,000

LPG: In addition to the 3 Sea Berths, there is Sea Berth No. 4 for loading L.P.G. tankers which is located 6 miles South of Ras Shukheir lighthouse.

The specifications are as follows:-

The Channel Entrance is marked by one radar reflecting (turning buoy), 6 pontoon guiding light buoys with radar reflectors, 3 green lights located on the starboard side of the channel, and 3 red lights on the port side of the channel. Flashing characteristic of the signal is "U" with 3.6 second intervals. The max. water depth in the channel and the berth is 24 ft. The berth consists of 4 mooring buoys, 8 loading hoses and 6 vapour hoses.

The max. capacity of vessels using this berth is 1,600 tons with a length no greater than 330 ft. Max. draft after loading is 17 ft.

SUPPLIES: Transit and fresh provisions as well as deck and engine stores provided by United Arab Contracting and Marine Supply Co.

SUBMARINE HOSE LOADING BERTH: Tanker is loaded by means of submarine pipe-lines to which are attached 2 or 3 hoses for loading and 1 hose for discharging ballast. A 36 in. pipe-line transports the oil and a 24 in. line in No. 1 Seaberth, or 16 in. lines in Nos. 2 and 3 Seaberths transports the dirty ballast to a ballast pit ashore. The loading berths are located approximately 3,580 ft. offshore in a water depth of approximately 95 ft. The loading and ballast lines are laid in the same trench and run in a direction 055°. The mooring buoys are numbered 1, 2, 3, 4, 5, 6, 7 and 8 (on the port bow) and running consecutively in a clockwise direction.

LOADING READINESS AND ARRIVAL TIME: The company will make every effort to load vessels upon arrival or as promptly as berth is available, weather permitting. Notice of Readiness will not be accepted as at time of arrival unless the vessel is in all respects ready to load. Arrival time will be considered as the time the Mooring Master boards the vessel or the time that vessel anchors, whichever occurs first.

FRESH WATER: Not available.

FUEL: Not available.

REPATRIATION: Not recommended.

CUSTOMS ALLOWANCES: Present regulations allow each seaman to retain in his possession a max. of 50 cigarettes or 1 ounce of tobacco or 5 cigars. All other smoking items must be collected and listed before arrival. The list will be checked by Customs before sealing the locker, and any discrepancies will be subject to fines.

TIME: GMT plus 2 hours.

AUTHORITY: *Operator:* Gulf of Suez Petroleum Co. – GUPCO, (P.O. Box 2400) Palestine Street, 4th Sector, New Maadi, Cairo, Egypt. *Tel:* 3522846, 3521365. *Telex:* 92248 Gupco Un. *Cables:* Gupcoil, Cairo. *Contact:* Captain Hassan Hafez, Marine Division Manager.

AGENCY: See "Suez Canal".

SAFAGA: 26.46 N. 34.00 E.

DOCUMENTS: The following documents are required on arrival:

Quarantine Questionnaire in duplicate (Form No. 15 Q.A.) showing all ports of call, as well as dates of sailings for the last 30 days, nature of cargo on board, destination, as well as sickness among crew or passengers, if any, specially when it is presumed that the sick will be hospitalised. These forms can be filled on arrival if not available on board before arrival.

1 Crew List and 1 Passenger List.

Derat Certificate should be handy for inspection.

Clearance from Last Port.

Complete set of Manifests covering all cargo on board showing names of shippers and consignees.

4 copies List of Passengers in Transit.

4 copies Crew List.

Deck log books showing date of last call at an A.R.E. port, completed up to the time of arrival at Port Said or Suez.

PILOTAGE: Compulsory. International pilot flag must be hoisted and Pilot will board vessel on arrival. Vessel should endeavour to arrive at the N. end of the island by sunrise, at Safaga Port by early morning; the light behind them will show up the reefs clearly. Wind, light in the morning, gains strength during the day, making tying up more difficult. A beacon (Morewood Beacon), visible a mile off, is erected on the Southern spit of the island. After rounding the spit, Masters keep 5 cables clear of visible reefs and enter the harbour keeping the 2 large beacons to the North of the pier in line. The Manager, or his representative, of the Safaga Phosphate Company will meet ships in launch with instructions on berthing.

MAX. SIZE: Safe draft in the fairway, over reefs and alongside pier: 27 ft. 6 in.

HEALTH: On entering, vessels must hoist the International Quarantine Signal for compulsory quarantine. Any sickness must be reported to the doctor especially when it is presumed that the sick will be hospitalised.

The vessel's personnel should carry international vaccination and/or inoculation certificates.

BERTHING: There are 2 mooring buoys marked B and C and 2 mooring posts marked A and D.

(1) The anchor position is marked by a small red or white flag. When mooring, manila ropes only should be used, as wire ropes can be run out afterwards when ship is alongside.

(2) Due to rocky nature of sea bottom, it is very desirable that ship in coming into berth, does not override her anchor, as, if this happens, chain is apt to foul coral bottom and cause trouble later on.

(3) Endeavour to have all way off ship when anchor position is reached. Drop anchor as close to flag as convenient and go astern. If necessary check cable when 2 shackles have been paid out.

(4) Run rope to Buoy C, run rope to Buoy B, run rope to Post D, then run rope to Post A. Run Spring to S1, S2, S3, and pull alongside. Company's launches will run all ropes.

(5) If wind is blowing strongly off shore, a Spring may be run to S3, immediately a good rope to Buoy B is made fast.

(6) The best way to reach the anchor position is to steer straight for same, keeping Buoy C on port side. This will keep vessel clear of Buoy C and when anchor is dropped, the stern should swing clear of this Buoy. If it does not, a rope can be run to S3 and the stern pulled in before falling back on pier.

(7) With anchor dropped as shown, 6 shackles should see No. 1 hatch at the pier, but if chain is slackened carelessly, it may foul bottom and be insufficient to reach pier.

If visibility is very good, a course can be made between the Hyndman and Cannon Reefs, and altered to bring the beacons referred to into line.

Rock phosphate and ground phosphate are loaded at this port for shipment all over the world. The mines are situated some 30 km. away and are connected by company's own railway. Rock phosphate loaded (1,000 metric tons per day) from elevator and phosphate in bags by ship's gear.

Cargo vessels can berth alongside a new quay of 600 m. with a draft of 27 ft. Quay used for loading and discharging general cargo. It can accommodate 2 medium size vessels and one large vessel. Part of the quay is used by vessels discharging aluminium.

STEVEDORES: Canal Stevedoring Co.

SERVICES: Water, deck and engine stores and provisions provided by Egyptian Contracting and Marine Supply Co.

TIME: GMT plus 2 hours.

HOLIDAYS: See "Suez Canal".

DEVELOPMENTS: Grain berth has been extended to accommodate vessels up to 900 ft., 42 ft. draft and 75,000 d.w.t. Travelling gantry will have a discharge rate of 600 t.p.h.

SHIPMASTER'S REPORT: January 1981.

Pilotage: Pilotage for berthing is compulsory, and the Harbour Master acts as Pilot.

Entry or departure at night is forbidden, without special permission from the Naval Authorities.

Anchorages: Vessels are allocated an anchor berth in the inner harbour by the Harbour Master. Vessel anchored in the Northern part of the anchorage, with Morewood Beacon bearing 135.5° × 2.8 miles, in 30 m. of water, with 6 shackles of cable out, and no difficulties were experienced, despite a period when wind from the North of Force 5, gusting 6, occurred when the ship had a 3,000 tonne coaster alongside.

Approaches: Vessel arrived off Safaga Island at approximately 2130 hrs. and no difficulty was experienced in anchoring with Morewood Beacon bearing 334° × 11 cables. The N.E. point of Safaga Island, and the headland near Bir Safaga showed up well on radar, as did Morewood Beacon, once identified.

Upon entering harbour the next morning at first light, a little difficulty was experienced in locating the leading beacons. From outside the harbour, the most prominent object visible is the alumina silo and elevator, and this uncharted feature being mistaken initially for the charted phosphate transporter, we were looking in the wrong place. Once sighted, however, the beacons were found to show up well in the early morning light. (These leading beacons are fitted with Fixed Red lights, but these are only turned on when Naval Vessels are entering or leaving port by night). A can shaped mooring buoy situated in the middle of the inner anchorage just North of the leading line is of assistance, but the buoys marking the dredged channel are non-existent. This mooring buoy is a handy turning point for ships proceeding to the Northern part of the anchorage.

A partly ruined beacon is visible on the sand spit at the Southern end of Safaga Island approximately 3 cables from Morewood Beacon.

Of the two stranded wrecks charted on the S.W. shore of the inner anchorage, the Northern one (marked PA) has been salvaged. The Southern one is conspicuous, and afloat at high water. It is reported that this one may well be salvaged soon.

There appeared to be little or no tidal stream or current to speak of in the inner anchorage, vessel lying to the wind most of the time.

Max. Size: The largest size of ship handled is about 50,000 tonnes d.w.t., with a max. draft of about 11 m.

Radio: There is no radio station at Safaga, and telephone/telex links are minimal. Harbour authorities wishing to communicate with ships entering use VHF sets of ships alongside. We maintained a normal sea watch (1 Radio Officer) both at anchor and alongside, and good communications were obtained with Portishead Radio.

Tugs: There are no tugs available.

Berthing: Commercial Wharf: Approximately 500 m. in length.

This has 3 berths at present. No. 1 Berth is the one at the N.E. end, Berth No. 2 in the middle, and the alumina berth at the S.W. end.

Berths No. 1 and 2 are kept exclusively for the discharge of wheat; cement ships use the alumina berth by private arrangement. Depth alongside Berth No. 2 is officially 9.1 m., but reported deeper. (We berthed drawing 9.6 m.) and at Berth No. 1 the depth is stated to be 9.7 m. alongside, but 11.0 m. if barges are placed between the ship and the quay. Works are in progress to extend the commercial wharf Northeastwards from Berth No. 1 almost up to the Naval Wharf, which extends as marked on the chart.

The Oil Jetty charted to the South of the town is reported to be part of the Naval Base.

Cargo Handling: Bulk wheat is discharged by portable pneumatic conveyors (vac-u-vators) into hoppers on the quay, where it is bagged and taken away by lorry. (Discharge rate for this vessel approximately 1,900 tonnes/day).

Alumina is discharged direct to the silo by fixed elevator.

Cranes: There are no cranes on the wharves. It was reported that there is a mobile floating crane, of 15 tonnes SWL at 35 m. radius, although this was not seen by us. A small floating crane is in use for the extension works.

Medical: A doctor is available, and will visit ships at the inner anchorage. Cholera Vaccination Certificates are required, and the doctor will do vaccinations.

Density: 1030.

Fresh Water: There is a limited supply of fresh water, the quota being 500 tonnes a month for all ships, but this is expensive.

Fuel: No fuel oil of any kind available.

Consuls: None locally.

Repairs: The nearest repair facilities are at Suez.

Gangway/Deck Watchmen: Employment by the ship of shore watchmen is compulsory, and they have to be accommodated on board both alongside and at the inner anchorage. Whilst shore labour is onboard, a policeman is placed on board to guard the ship's accommodation.

Shore Leave: Permitted, passes being issued when ships are alongside, although apart from one hotel there is very little to do in Safaga. Agents can arrange trips to the River Nile, Valley of the Kings, etc., but special passes are required.

General: Provisions: Fresh provisions are available in season, and a chandler will visit ships without prior appointment.

Cargo Handled:

The principal activities of the port are:

(i) Import of wheat: approximately 100,000 tonnes/month.

(ii) Import of alumina: 60 – 75,000 tonnes/month. (3 – 4 ships).

(iii) Import of cement: 13 – 15,000 tonnes/month. (1 – 2 ships).

(iv) Export of phosphates: approximately 20,000 tonnes/month. (1 – 2 ships).

(i), (ii) and (iv) are all under the control of the Egyptian Government, (iii) is carried out privately.

SHIPMASTER'S REPORT: September 1982

1. Pilot does not board on arrival.

There are very good visible leading markers (red and white), also 5 buoys have been laid out marking the dredged canal. They are ordinary unlit mooring buoys. Pass between these buoys with the leading beacons 310° True and vessel is clear of dangers. On the 5th buoy, which is (single) on vessel's starboard side vessel can turn out of the channel and proceed to any place outside the 310° lead.

2. Discharging grain, draft limit 36 ft. 3 in. With 30 ft., vessel shifts to Berth No. 2 to finish. Daily rate of discharge is about 3,600 tonnes.

3. Water comes by pipe-line from Nile River not by barge from Suez.

4. Berthing: Use starboard anchor. A motorboat takes first 2 headropes then 2 stern ropes ashore and then heave the ship alongside. Pilots are careful.

Mooring: Have 3 headropes, 2 breastlines and 1 spring ready (same aft).

When shifting from Berth No. 1 to No. 2 ship does not shift along the berth but makes a new berthing due to anchor.

SHIPMASTER'S REPORT: January 1983.
Pilotage: The Harbour Master has ceased allocating anchorage and ships now anchor wherever they like inside bay. Our vessel is 610 ft. long and drawing 36 ft. 6 in. and like your earlier report arrived and anchored half a mile South of Morewood Beacon at 2140 hrs. and moved up to anchor four cables from grain berth in the morning. Passage over reef crossing bay (apart from clearly shown leads) is now marked by four mooring buoys and channel is 13 m. depth.
Berthing: There is now a 900 h.p. tug to assist. The new berth towards the Naval Wharf is nearing completion. We berthed at No. 1 drawing 11.13 m. with barges between ship and quay.
Fresh Water: Service is prompt when needed.

SHIPMASTER'S REPORT: March 1988.
Approaches: (B.A. Chart 3043). Vessels approaching from the South should keep on Ras Abu Soma which shows up well on Radar at about 24 miles. Panorama Reef Beacon shows up well on Radar at about 10 miles. Safaga Beacon bearing 265° gives a good echo on Radar at 24 miles.

After coming abeam of Panorama Reef Beacon at a distance of 2 miles to the North, steer 211° passing abeam of Morewood Beacon at a distance of about 9 cables. Morewood Beacon shows up well on Radar at about 14 miles. Cnsult soundings continuously as vessel has to anchor 1 mile South of Morewood Beacon. This is on the instructions of the Pilot (VHF Channel 16), who always boards in the roads from a tug. Entering the harbour with Pilot is compulsory. There are no difficulties and no significant current was experienced. The tide is considerable. The roads have good holding ground.

Weather conditions are mostly good. Visibility also good. No rain, drizzle on no more than a few days a year.

If approach is adjusted for dawn the reefs show up clearly. A conspicuous white cubiform building lies to the South of Safaga Island at approximate position 26° 42.7′ N., 33° 59.7′ E.

Entering and leaving the Harbour is only possible during daylight hours.

The 4 buoys marking the dredged channel of about 14 m. depth, found to be in the charted position. They are "can-shaped" unlit mooring buoys with the colour of rust (unpainted). There is another (fifth) buoy on the North side, of same characteristics (uncharted), at approximate position 25° 43.32′ N., 33° 57.55′ E. The tug is usually made fast to the buoy.

The leading beacons can easily be located. There is a conspicuous sharp mountain summit far behind (see picture in Pilot Book), in line with the leading beacons. Vessels sailing from the Harbour disembark the Pilot inside the Harbour, West of the fifth buoy. Pilot is picked up by a pilot boat. Accommodation ladder is usually used.

Anchoring inside the Harbour (7 shackles in the water), is always with the assistance of the Pilot. Good holding ground.
Restrictions: Vessels have to arrive with a max. draft of 36 ft. 6 in. (11.13 m.) which is the maximum according to local regulations. However, 1.0 cm.–2.0 cm. by head or by stern is not a problem, but if over 2 cm. vessel is in trouble. If she is not covered by Charterer's orders and instructions, a big problem could arise against the vessel. Receivers will not accept N.O.R. and Charterer puts vessel "off-hire" for the time she takes to discharge the quantity corresponding to the said 2 cm. overdraft and the vessel has also to pay about U.S.$ 10.0 per tonne of the quantity discharged up to 11.13 m. alongside berth. This happened to us, but as vessel proved that it was not responsible, the Egyptian Charterers accepted the entire liability for time and expenses. Since both Charterers and Receivers are government companies, I did not understand the problem.
Grain Berth: The new grain berth, close to the Naval Wharf, was completed in March 1987. Depth alongside the berth is 39 ft., and 36 ft. reported at the South West end of the berth. Vessels of 225 m. in length are warped ahead when the draft reaches 10.0 m. or less. Berthing is as described in "Shipmaster's Report" September 1982, paragraph No. 4. One tug assists when berthing.

The grain silo has 100,000 tonnes capacity. Trucks continuously load from the silo. The 2 movable modern "Buhler Miag" unloaders with two pipes each, work continuously from 0730 hrs. to 2345 hrs., 7 days a week. When other ships are waiting at the anchorage they may work overtime up to 0200 hrs. next morning. Discharging is fast, average rate about 8,800 t.p.d.

There is a plan to accommodate a special 100,000 tonne grain vessel.
Repatriation: Possible by air from Luxor or Harghada Airport via Cairo or by car to Cairo via Suez (10 to 12 hours). Repatriation can only be arranged through state agents' head office in Suez.
Density: 1030.
Fuel: Not available in Safaga but large quantities can be arranged and come from Suez by bunker barge (small tanker). Fuel and gasoil of very good quality.
Fresh Water: Limited supply and expensive. Quality may be poor.
Provisions: Fish available in Safaga. Other provisions could also be supplied from Suez, transportation cost is U.S.$125.00, including Customs formalities.
Communications: Harbour Master/Pilot and Agent have VHF. There is a telephone station in Safaga. It is easier to call overseas in the afternoon. From Luxor it is very easy and clear with automatic telephone in telephone station or in hotels.
Telexes: For vessels with INMARSAT telex on board, the following telex numbers are very useful as Egyptian Charterers do not provide telex numbers.

Martrans Cairo: 00 91 92909/92243; Arabnavi Alex: 00 91 54131/54509/54311; Estram Cairo: 00 91 93472/92062; Egyptalum Alex: 00 91 94131; Silo Cairo: 00 91 23154; Maramon Alex: 00 91 54507/54127; Minship Port Said 00 91 63263/63034; Minship Suez: 00 91 66042; Memship Alex: 00 91 54162/54502; Mishipco Alex: 00 91 54193.

General: Pilot Book No. 64S/1986 shows phosphate silo.

In addition to cargo ships (phosphate, grain, cement), cruise ships call at Safaga and anchor in the inner anchorage and passengers visit Luxor which is 3 hours away from Safaga (about 220 km.). Crew are able to visit River Nile, ancient Kings' and Queens' tombs and the museum in Luxor. Permission from Immigration is required but could easily be arranged by state Agent who also arranges the transportation. A visit to the nearby tourist village of Harghada is also possible (20 minutes from Safaga by car) where there are very good hotels and tourist shops. Permission can again be obtained through state Agent. Crew interested in diving can hire divers suits, etc. from special companies (Rate 80 Egyptian pounds for 2 hours, including transportation).

AUTHORITY: Ports and Lights Administration.

AGENCY: See "Suez Canal".

SIDI KERIR: 31.06 N. 29.37 E. (See Plan)

DOCUMENTS: Free zone area, no entry documents to the offshore terminal are required.
PILOTAGE: SUMED's Mooring Master and his assistant board the tanker 2 miles North of Buoy A1.
Notifications: ETA messages should be sent by cable via Alexandria/Port Said Radio on leaving previous port. Cables should be prefixed "For urgent delivery send via Telex 54108 or 54033 SUMED UN" and be confirmed 72, 48 and 24 hours prior to arrival. (Day and night berthing and operation). Arrival draft should be indicated. Vessels should arrive with a trim of 8 ft. by the stern and appropriate ballast to ensure that propeller is completely submerged.
LOCATION OF BUOYFIELD: (SBMs)
A1: Lat. 31° 06′ 26″ N., Long. 29° 36′ 46″ E.
A2: Lat. 31° 05′ 32″ N., Long. 29° 35′ 38″ E.
A3: Lat. 31° 04′ 24″ N., Long. 29° 35′ 37″ E.
A4: Lat. 31° 04′ 54″ N., Long. 29° 37′ 39″ E.
A5: Lat. 31° 05′ 40″ N., Long. 29° 38′ 24″ E.
ANCHORAGES: Tankers can anchor to the North and N.W. of the buoyfield.
MAX. SIZE: The five berths are spaced one from the other so that each has:

Mooring Area Radius: 410 m. for A1 and A2 (accommodate vessels up to 285,000 d.w.t.); 320 m. for A3, A4 and A5 (accommodate vessels up to 130,000 d.w.t.); Manoeuvring Area Radius: For A1 and A2, 1,220 m.; For A3, A4 and A5, 915 m.
Water Depth and Draft Limitations:

For A1 and A2:	85 ft. maximum water depth
	75 ft. maximum draft
For A3, A4 and A5:	60 ft. mimimum water depth
	52 ft. maximum draft

RADIO: All messages to be sent via Alexandria/Port Said Radio. Sidi Kerir has a HF long range radio working on 2182 kHz and 4142.5 kHz.
VHF: Channels 16, 78 and 79.
TUGS: Tug "Kerir" 3100 h.p. with fire fighting and anti-pollution equipment is available as required.
Mooring Launches: 500 h.p. mooring launches assist in mooring and hose operations.
BERTHING: *Ship's Derrick:* The ship's derrick should be capable of lifting 10 tons and rigged on the port side ready on arrival to take the gear on board for berthing the ship and connecting the hoses.
Hoses: Each berth has two cargo hoses with a 16 in. connection (ASA 150). There is a ballast unloading facility with 16 in. connection. Connection of hoses to be performed by the vessel under the supervision of SUMED's Mooring Master.
Loading/Deballasting Rates:

Buoys A1 & A2	Loading	Max. 12,000 tonnes per hour
	Deballasting	5,000 tonnes per hour
Buoys A3, A4 & A5	Loading	Max. 10,000 tonnes per hour
	Deballasting	3,000 tonnes per hour

Shipmaster's Report: January 1986.
Dirty ballast reception: 1×16 in. floating hose. Hose to be connected by ship's crew together with cargo hoses. Max. discharge pressure 100 p.s.i. according to Loading Master there is no limit on quantity.
SUPPLIES: No bunkers or supplies are available or permitted.
MEDICAL: Private doctors and hospitals are available in Alexandria.
SHORE LEAVE: There is no shore leave for personnel of vessels loading at Sidi Kerir Terminal (disembarkment from vessels is strictly forbidden except in emergencies).
AGENCY SERVICES: Not required under normal circumstances.
TIME: GMT plus 2 hours.

SHIPMASTER'S REPORT: *General:* Sidi Kerir is the Northern end of the pipe-line from Ain Sukhna in the Gulf of Suez. The pipe-line is owned by the Arab Petroleum Pipeline Co. and operated by SUMED Co. (Suez – Mediterranean).

The Sidi Kerir Terminal (Tankfarm) position is at Lat. 31° 03′ N., Long. 29° 40′ E. There are at the moment 5 SBMs for loading vessels, more are planned for the future. The buoy field is marked by the following points: "A" Lat. 31° 08′ N., Long. 29° 37′ E., "B" Lat. 31° 04′ N., Long. 29° 31′ E., "C" Lat. 31° 01′ N., Long. 29° 35′ E., "D" Lat. 31° 05′ N., Long. 29° 41′ E.

The area within ABCD is a prohibited anchorage area and may not be entered without a Pilot.

The position of the 5 SBMs is within the area:

1. Lat. 31° 06.7′ N., Long. 29° 35.7′ E. For loading Arabian Light & Kirkuk Crude.
2. Lat. 31° 05.9′ N., Long. 29° 36.9′ E. For loading Arabian Light & Kirkuk Crude.
3. Lat. 31° 04.6′ N., Long. 29° 36.9′ E. For loading Arabian Light & Kirkuk Crude.
4. Lat. 31° 05.0′ N., Long. 29° 37.9′ E. For loading Arabian Light & Kirkuk Crude.
5. Lat. 31° 05.1′ N., Long. 29° 38.6′ E. For loading Basrah Crude.

(a) The current sets usually from N.W. at about 0.5 knots but may increase during Summer to 1 knot; there is no considerable tide.

(b) References: BA Chart 3356; BA Pilot Book 49, 6th edition 1976.

Documents: One crew list, one ship's stores list and clearance from last port.

Pilotage: Pilot also acts as Loading Master and boards vessel at the anchorage. A pilot ladder/accommodation ladder combination is to be rigged on the starboard side. Vessels must give a lee for the pilot launch. Pilots work preferably during daylight hours.

Anchorage: The anchorage is one to two miles North of the buoyfield in 20 to 40 fathoms of water. There is good holding ground on sandy bottom; no shelter during Northerly winds or swell. The port closes during strong winds and swell. An open sea approach; no dangers on the way to the anchorage. The coastline is low desert and gives a poor echo, the best radar echo during the approach was the tankfarm and the pipeline.

Max. Size: Max. draft 70 ft. No limit on size of vessel.

Radio: ETA information to be given preferably via Alexandria Radio to telex number 54108 attention "SUMED operations – Alexandria" at 72, 48, 24 hours prior to arrival. Initial message should give call sign; Summer deadweight; Summer draft; cargo requirements with name of crude and approximate quantity required in cubic metres and long tons, also maximum loading rate required in cubic metres; last port; whether vessel carries 2 × 16 in. reducers.

Health: Free Pratique is given by the Pilot/Loading Master.

Tugs: One tugboat, 5,000 h.p., is on standby at the buoyfield and will assist on request.

Berthing: The vessel moors to a SBM. The mooring equipment, 2 wire slings, 2 shackles and a toolbox, are taken from the launch.

SBM Loading Berth: The hoses are connected by the ship's crew under the supervision of the Loading Master. The (2×16 in.) hoses are of a floatable type with a Camlock connection.

The maximum loading rate is given as 15,000 cu.m./h. or as requested by vessel. Before completion of cargo the pumps are stopped and the balance loaded by gravity. At the present time the dirty ballast facilities are under construction.

Repairs/Drydocks: At Alexandria about 12 miles to the East. No facilities at Sidi Kerir.

Time: GMT plus 2 hours.

Density: 1026.

Supplies/Services: None.

Authority: The Pilot/Mooring Master acts as Government Representative.

SHIPMASTER'S REPORT: November 1987.

Pilotage: The Pilot/Loading Master and the surveyor boarded by helicopter. No Notice of Arrival was given.

Documents: The pilot takes the vessel's Register, Load Line Certificate, Safety Construction Certificate, Derat Certificate and Safety Radio Certificate for clearance. Various local forms are supplied by the pilot for completion.

Anchorage: Vessel used B.A. Chart No. 3356 (New edition March 1976).

Vessel anchored with the radio mast bearing 113° (True) and the water tower bearing 141.5° (True). The distance from the stern to the shore by radar was 2.6 miles and the distance from the stern to the buoy was 1.2 cables.

Notice: The following notice was handed to the Master on arrival:

QUOTE

Ship's Alertness.

This Terminal is on an open roadstead, therefore, during the time a ship is moored at the Terminal, the ship's engines and gear must be ready with full power for immediate use.

A vessel in a submarine berth must be able to clear and shall clear immediately upon advice of the Mooring Master or as directed by Sumed's Terminal Superintendent.

Ship's personnel should be at their stations and alert at all times during mooring, unmooring, and during cargo transfer operations.

Watchman must be stationed forward to watch the buoy, ropes and floating hoses.

Watchman must be stationed beside the manifold to watch the connection.

The vessel must stand-by on the VHF (Channel 78) at all times during the loading operations.

UNQUOTE

AUTHORITY: Arab Petroleum Pipeline Company (Sumed), 431 El-Guish Avenue, Loran, Alexandria, Egypt. Postal Address: P.O.Box 158, El-Saray, Alexandria, Egypt. *Tel:* 5866723, 5866711, 5866712. *Telex:* 54033, 54108 Sumed Un. *Contact:* Captain M.W. Sharaf, Marine Manager.

SUEZ CANAL (including Port Said and Suez): (See Plan)

Also see "Rules of Navigation".

DOCUMENTS:

The following documents are required on arrival:

The last Classification Certificate issued.

Information concerning a vessel transiting the canal.

4 copies Crew List.

*Ship's Register and Suez Canal Special Tonnage Certificate.

General arrangement and capacity plans of the vessel, if transiting the Suez Canal for the first time, or, undergone any alterations.

Suez Canal Authority's double bottom tanks capacity form.

Navigability form.

Complete set of Manifests covering all cargo on board showing names of shippers and consignees.

4 copies List of Passengers in Transit.

Landing cards for passengers landing finally in the A.R.E. and for those landing in the A.R.E. in transit.

4 copies List of Passengers finally landing in the A.R.E. (if any) together with their addresses in the A.R.E.

Deck Log Books showing date of last call at an A.R.E. port, completed up to the time of arrival at Port Said or Suez.

Mail Waybills for ports beyond Suez Canal ports and alternatively, a document from the Master is required (cargo and passenger ships only).

Quantity of bunkers, water and cargo on board.

Free Pratique Certificates issued by the local Quarantine Doctor.

In case of a Northbound vessel loading or discharging alongside quay staying more than 24 hours in Suez, the following documents should also be presented.

(1) Load Line Certificate.

(2) Safety Equipment Certificate.

(3) Radio Safety Certificate.

(4) Documents covering names and ratings of ship's officers and their certificates.

* It is essential, to have amongst ship's documents, on board the vessel valid National Ship's Registry Certificate showing latest ship's name and her present Owners.

The above procedure is requested by the Suez Canal Authority, Traffic Control, to avoid delay for ships in joining the first convoy, or being liable to be stopped in the Canal in case of direct transit from Roads.

Advance notice to both Suez Canal Authority's Traffic Control and Measurage, with minimum period of 48 hours prior arrival.

For Pilot's Use:

(1) Arrival form of the Suez Canal Authority.

(2) Declaration "E" form for dangerous cargo on board in transit.

(3) Any other documents relating to shipments of dangerous cargo, radio-active or fissile.

N.B. Plain Suez Canal Forms are normally handed to Master by Pilots or ship's Agents, to be filled on arrival and also for use on consequent voyages.

Quarantine Authorities:

Quarantine Questionnaire in duplicate (Form No. 15 Q.A.) showing all ports of call, as well as dates of sailings for the last 30 days, nature of cargo on board, destination, as well as sickness among crew or passengers, if any, specially when it is presumed that the sick will be hospitalised. These forms can be filled on arrival if not available on board before arrival.

1 Crew List.

1 Passenger List.

Derat Certificate should be handy for inspection.

Clearance from last port.

Passports:

For Immigration Officer the following documents are required on arrival:

Arrival Immigration form, duly completed.

1 Passenger List.

List of Passengers finally landing, in duplicate.

Crew List.

Valid passport with entry visa is required for landing in A.R.E. for passengers landing. Emergency visa can be granted on arrival if so required.

For Customs Use:

(1) Bonded Store List, in duplicate.

(2) Crew List and Passengers' list in duplicate, showing rate of consumption of each.

Arrival Formalities - Documentation:

Upon arrival at Port Said or Suez for transiting the Suez Canal, Master will be presented with the following documents by the local authorities:

1.	Maritime Declaration of Health	4 pages
2.	Ship's Report	1 page
3.	Notice for Port Officer	1 page
4.	Declaration for Ships in Ballast	1 page
5.	Statistical Declaration	1 page
6.	Information Concerning a Ship	1 page
7.	Information Concerning a Vessel Transiting the Canal	1 page
8.	Declaration of State of Navigability	1 page
9.	Declaration Concerning Use of Double Bottom Tanks and Lower Parts of High Tanks	2 pages
10	Passport Control Office Declaration on Arrival	2 pages
11.	Requisition for Canal Projector Apparatus	1 page
12.	Canal Mooring and Lights Co. (receipt)	1 page
13.	Passport Control Office - Declaration on Arrival and Departure	1 page
14.	Declaration on Departure	1 page

Note: Shipmasters should pay special attention to Document No. 9, being the Declaration Concerning Use of Double Bottom Tanks and Lower Parts of High Tanks, which document will assist the Suez Canal Authorities in assessing the Canal tolls. The schedule on the reverse side of the form must be filled thus avoiding any over-assessment of the Canal tolls.

Moreover, and when Shipmasters are requested to sign 2 copies or more of the same document, they should ensure that the first page is marked/stamped as "original" and all other copies to be marked/stamped as "copy".

Shipmaster's Report: January 1984.

Crew Personal Effects Declaration, Bonded Stores Declaration andStores List are not required.

The Bonded Store is not sealed.

The ship's Log books are not taken ashore but the Certificate of Registry is taken in Port Said and returned at Suez.

Circulars: Issued by Canal Shipping Agencies Company, Port Said:

Circular No. 42/81: To all Shipowners and Masters.

We append hereunder free translation of Circular No. 2004/T81 received from the Deputy Manager, Transit Section, Suez Canal Authority, Port Said:

"It has been noticed that the necessary notification which should be given before the ship's entry in harbour in case of carrying dangerous cargo on board is neglected by Masters who also fail to fulfil the relative declarations, as stipulated in the Suez Canal Authority's Rules of Navigation Appendix for Vessels Carrying Dangerous Cargo (Edition 1977), which may expose both the vessel and the port to risks arising from the goods in question.

Kindly, therefore, draw the attention of Owners and Masters to the necessity of adhering to the said rules, noting that the Master will be entirely responsible navigably and criminally for any occurrence which may arise from failure to give the required notification, inaccuracy of details or omitting to take the necessary precautions on board".

Circular No. 23/82: To all Shipowners and Masters.

We once again should like to draw your kind attention to the fact that some Owners abroad do not provide the Protection Centre, Nuclear Research Centre of the Atomic Energy Establishment, Cairo with sufficient information in respect of such shipment on board their vessels.

In this connection, we would refer to our Circular No. 3/79 dated 6th January, 1979, text of which is quoted hereunder for your easy reference.

"According to Circular No. 4/3BA-406012, dated 1st September, 1964 and the amending Circulars issued by the Transit Section of the Suez Canal Authority and also the Suez Canal Authority's Rules of Navigation Appendix for Vessels Carrying Dangerous Cargo, the transport of radioactive substances carried by vessels transiting the canal are subject to protective conditions concerning transportation and transit, as specified therein, with the object of ensuring the safety of the said water channel and its environment.

However, it has lately been noticed that due attention is not given by Shipowners and Shippers abroad to forwarding the relative complete data which must reach the Atomic Energy Establishment before each shipment with regard to substances of Group 1 or on shipment with regard to substances of Group 2, this being in accordance with Item 3 of the aforesaid circulars and also Chapter 3 of the Appendix in question.

Kindly, therefore, advise Shipowners and Shippers that all the said conditions should be fulfilled, especially regarding the complete information relating to radioactive substances which should be sent immediately upon its receipt to: Head of the Protection Section, Nuclear Research Centre, Atomic Energy Establishment, Atomic Energy Post Office, Cairo.

This will enable us to take the necessary action to safeguard public interest.

We add that it is of vital importance that you also supply your Agents with all the required relative information and documents sufficiently in advance, to enable them to take the necessary action with both the Suez Canal Authority and the Atomic Energy Establishment in Cairo.

MAX. SIZE: *Directorate of Transit, Suez Canal Authority Circular No. 432832 (7.3.85):*

Recently several shipowners contacted the S.C.A. requesting the possibility of transiting their vessels at a draft over 42 ft. Southbound.

To help canal users, specially nowadays, with the present world situation in shipping, the S.C.A. undertook some studies and decided to allow such vessels to transit the Canal, on the following conditions:

1. Any tanker or vessel may transit the Canal Southbound at a draft over 42 ft. and subject to our Circular No. 432144 dated 24.10.83, regarding beam and speed of 13 km./hr. (Also see "Rules of Navigation").

2. The Suez Canal Authority is to be informed at least one week before loading.

3. Owing to special traffic arrangement and precaution taken by the S.C.A., additional charges will be levied for each case separately.

4. As each case is studied, the following information is required:

(a) Port of loading and discharging.
(b) T.P.I.
(c) Beam, d.w.t., S.C.N.T.
(d) Last transit and maximum draft.
(e) Transit draft for particular transit Southbound.

5. If vessel is up to 150,000 d.w.t., one tug escort.

If vessel is over 150,000 d.w.t., two tug escorts.

A rate of 5,000 S.D.R. will be charged for each tug escort.

HEALTH: On entering, vessels must hoist the International Quarantine Signal for compulsory quarantine. Any sickness must be reported to the doctor specially when it is presumed that the sick will be hospitalised. The Quarantine doctor meets the ships whilst entering the port and the ships are boarded in turn. To get a quick clearance and not to be left for later attendance, Masters are requested to receive the doctors as soon as they board and to have the following documents ready:

Quarantine Forms in Duplicate: When inserting the ship's register net tonnage special care should be taken in indicating same on the 2 quarantine forms (Form No. 15 Q.A.) as the dues are calculated on that tonnage, as incorrect information may cause complications.

Derat Certificate should be handy for inspection.

Clearance from Last Port should also be handy.

All ports at which the vessel has called as well as dates of sailings for the last 30 days should be inserted in the form.

Quarantine Signals:

By day: "Q" flag (signifying vessel healthy). *"Q" Over first substitute (QQ).* (Vessels have cases of infectious diseases more than 5 days ago, and there have been unusual mortality among the ratings or crew on board.) *"Q" over L flag (QL)* signifying (vessel is infected and has cases of infectious diseases less than 5 days ago.)

By night: red light over white: The flags and lights must remain hoisted until Free Pratique is granted. Ships in transit under Quarantine through the Suez Canal will use the same signals until they clear the other end of the Canal.

Important: In the event of a vessel arriving from a port that has been internationally declared infectious and the incubation period has not yet expired at the time of the ship's arrival at an A.R.E. port the vessel is put under compulsory Quarantine, moored at an isolated berth and no shore contact is allowed. Nevertheless, the ship can still carry out her normal operations on condition that all shore personnel are holding valid vaccination and/or inoculation certificates issued by the Quarantine Administration. The ship's personnel should also carry International Vaccination and/or Inoculation Certificates. Final landing passengers, not carrying such certificates, will be landed under Quarantine supervision and will be kept isolated at the lazarette until incubation period is over.

Pratique Granted by Radio: Pratique may be granted prior to ship's arrival provided the following conditions are adhered to:

(1) The vessel must be a regular liner known to the Quarantine Authorities and has a doctor on board.
(2) Details shown on the Quarantine Statement should be radioed to the Quarantine Authorities 24 hours prior to ship's arrival.
(3) Masters of vessels must declare before their arrival any accidents which might have taken place on board prior to the arrival in port.
(4) The ship must not have called at any infected port.

RADIO: *Authorised Personnel Checks:* Masters of vessels are requested to contact the Suez Canal Authority via its wireless station "SUQ" (watch frequencies 425 kHz, 454 kHz and 468 kHz) whenever they want to make sure of the identity of any Suez Canal personnel embarking their vessels, either in the approaches or in the harbours or in the Canal waters. Also in case of any urgent complaints which may need quick investigation.

TUGS: Highly qualified crew are available on board several tugs owned by the Suez Canal Authority in Port Said, Suez and in all Suez Canal stations. These tugs assist vessels to berth in Port Said harbour as well as in Canal if a case arises. It is left solely to the Canal Authority to decide whether more than 1 tug is needed (free of charge) to assist any ship to moor in the Port Said harbour, but if a Master of a vessel finds it necessary to employ an extra tug for berthing or if he needs a tug for any other reason, such an operation will then be charged against the vessel.

Salvage Tug Boats:

(1) 3,200 h.p. *Mounir, Moawen 1, Moawen 2.*
(2) From 3,500 to 5,000 h.p. *Antar, Bassel, Barei, Fahd.*
(3) 6,400 h.p. *Mared, Shahm.*

Harbour Tug Boats:

1,600 h.p. *Bori, Wakar, Chadid, Hout, Kirsh, Morgan, Shabar.*

BERTHING:
Port Said:

Places or Names	*No. of Berths*	*Nos.*	*Length of berth* (m.)	(ft.)	*Length of vessel* (m.)	(ft.)	*Remarks*
Isolated Berths*	3	1	280	919	232	761	
		2	250	820	202	662	
		3	314	1,030	266	872	
Outer Harbour Basin	10	1 A	245	803	197	646	
		2 A	300	984	252	827	
		3 A	without limitation				Vessel heading 270°
		4 A					
		5 A					
		6 A					
		7 A					
		8 A					
		9 A.N.					
		9 A.S.					
	5	4 A.E.	. . . . .		107	350	Vessel heading 090°
		5 A.E.					
		6 A.E.					
		8 A.E.					
		9 A.E.					
Red Berths*	7	0 R	140	459	92	301	On the Western side of channel
		1 R	245	804	197	646	
		2 R	290	951	242	794	
		3 R	238	780	190	623	
		4 R	295	968	297	975	
		5 R	162	532	114	374	
		6 R	280	919	232	761	
Black Berths*	7	1 N	270	886	193	633	On the Eastern side of channel
		2 N	170	558	122	400	
		3 N	270	886	222	728	
		4 N	205	672	157	515	
		5 N	220	721	172	563	
		6 N	225	738	177	580	
		7 N	230	754	182	596	

Places or Names	No. of Berths	Nos.	Length of berth (m.)	Length of berth (ft.)	Length of vessel (m.)	Length of vessel (ft.)	Remarks
Navy House	6	1			61	200	
		2			61	200	
		3			101	330	
		4			168	550	
		5			168	550	
		6			168	550	
Cherif Quay			Alongside				
Abbas Quay			Alongside				
Hussein Basin	17				91 to 180	300 to 620	South of the inflection point North of the inflection point
E Berths*	4	1 E	325	1,066	277	879	Depth 28 ft.
		2 E	280	919	232	742	Depth 31 ft.
		3 E	250	820	202	662	Depth 32 ft.
		4 E	220	721	172	563	Depth 32 ft.

**Note:* In good weather the length on buoys may be increased from 3 m. to 9 m. according to the length of the berth and height of the vessel.

Quays at Port Said: The Suez Canal Authority has quays to enable vessels to berth alongside at Cheriff and Abbas Basins. Length about 1,300 m. Height about 2 m. from sea level. Also 14 cranes of 3 tons lifting capacity each, running on rails have been installed. Maximum draft allowed is 27 ft. The best part of these quays is ready and vessels with full cargo for discharge are now berthing alongside. Vessels drawing more than 27 ft. have to lighten their cargo into lighters to that draft before berthing.

The distance between Bollards 23 and 24 South of deep Abbas Quay (30 m.) has been reserved for the berthing of one Ro/Ro vessel by the stern, within the present allowed draft (27 ft.).

Height of quay from sea level: 2 m.
Average tide all year: from 40 to 50 cm.
Thickness of fender: about 50 cm.
Breadth of quay edge: from 50 to 60 cm.

Container quay length 350 m. to be completed October 1988. Depth 45 ft. 2×45 ton cranes are being installed. An additional 250 m. multi-purpose quay has been built adjacent to it.

Grain vessels of 45,000 d.w.t. can berth alongside a 100 m. length hulk with 2 barges as spacers. Rate of discharge 400 t.p.h. Storage capacity: 10×400 ton silos and 1×20,000 silo.

Suez:

Port Ibrahim: Port Ibrahim is the Port of Suez. It consists of North and South Basins.

North Quay: The North Basin has, on the North side, a quay length of 2,415 ft. a total breadth of 975 ft. and depth of 26 ft. at high tide. Quay can accommodate 4 large ships.

Berths 4 and 5, where stores are available, are suitable for general cargo.

Khedivial Quay: Berths No. 9, 10 and 11, length 119 ft., depth 24 ft. at high tide.

Mobile cranes available; 5 tons, 15 tons and 30 tons capacity.

Pilgrim's Quay: (Pontoon Berth) No. 6, 1 berth, length 1,000 ft., draft 26 ft.

Adabiya Quay: This quay is situated on the Western shore of the Suez Bay, and is under the control of the Naval Authorities. The max. draft is 26 ft. 06 in. and can accommodate 4 large vessels. Max. length of vessel allowed to berth alongside quay 500 ft. Mainly bulk wheat discharge and direct delivery of general cargo. Also see "Developments".

Marakib Quay: Situated at the entrance of the Canal depth 28 ft.; can accommodate passenger and cargo vessels.

Storage Capacity at Suez:

North Quay	40,150 sq.ft.
Pilgrims Quay	20,952 sq.ft.
Khedivial Quay	8,448 sq.ft.
	69,550 sq. ft.

While stacking spaces on the quays are: 332,050 sq.ft.

STEVEDORES: As stated in the ETA messages, Masters are advised to include in their messages details of cargo to be discharged in either Port Said or Suez, hatch by hatch and gangways required, if possible. All loading and discharging operations in Port Said Harbour and Suez Roads are effected by lighters. There are steel lighters, and self-propelled barges available for this purpose that will allow rapid work to be carried out. At Port Said several reefer ships are provided with flat floating pontoons to facilitate discharge of cargo. At Port Said the draft of water does not allow ships to be berthed alongside quays to carry out cargo operations except in Cherif and Abbas Quays which accommodate vessels up to 27 ft. and consequently same are carried out also from and into lighters which are brought alongside the vessels whilst at anchor.

MEDICAL: It is very essential for Agent to receive advance notice of required medical attendance at least 24 hours prior to ship's arrival. All ordinary medical supplies are available and prescriptions are executed at any time at moderate prices and delivered during ship's stay in port. Medical assistance at Port Said and Suez is available. Consultations on board could be arranged through ship's Agent at any time by day or night. Reliable dentists are available at Port Said and could be consulted on board, if necessary, and during the following period at their clinics: From 0900 to 1300 hrs. and from 1600 to 1900 hrs.

Oculists are available for consultations at town clinics in Port Said during usual working hours. Opticians are also available at Port Said.

The following hospitals are available with ample first, second and third class accommodation, accepting patients irrespective of nationality at reasonable charges:

At Port Said	*At Suez*
Al Mabarra Hospital	Al Mabarra Hospital
Notre Dame de la Deliverande Hospital	Abou El-Azayem Hospital
Two General Government Hospitals	General Government Hospital
T.B. Hospital	Isolation Hospital
Isolation Hospital	Ophthalmic Hospital
Ophthalmic Hospital	

Ship's personnel should carry international vaccination and/or inoculation certificates if a vessel is arriving from a port that has been internationally declared infectious and the incubation period has not yet expired at the time of arrival.

TANKERS: There is a bunkering station at Port Said harbour which can accommodate 4 tankers with not more than 38 ft. draft for the purpose of discharging their cargo of fuel or diesel oil to the different oil bunkering companies.

Tankers in Suez discharging bunkers and changing crew do so in the New Suez Terminal or the Suez Petroleum Basin. Tankers in Port Said discharge bunkers only.

Oil Storage: There is ample tank storage for bulk petroleum products.

New Suez Terminal: The terminal is situated in Suez Roads.

(1) Presently one berth has been reconstructed and is used by tankers chartered by EGPC.
(2) Minimum depth of water at LWOST in the approach Channel is 38 ft.
(3) Minimum depth of water at LWOST alongside each berth is 38 ft.
(4) Maximum safe length of tanker applicable 750 ft.
(5) Six pipe lines each berth:–
    4 lines × 20 in.
    2 lines × 16 in.
    1 line × 4 in. (fresh water)
(6) All types of oil products can be handled at this berth.
(7) No facilities are available at present for reception of ballast.

Suez Petroleum Basin:

Jetty No. 4 can take tanker length 500 ft. with 26 ft.draft.
Jetty No. 5 Max. length 530 ft. Max. draft 26 ft.
Jetty No. 7 Max. length 570 ft. Max. draft 26 ft.

There are sufficient pipes for discharge.

FRESH WATER: Available for supply ex self-propelled barges to any quantities required at all times with minimum supply of 50 tonnes for vessels exceeding 500 tonnes gross provided vessels inside the harbours, vessels at anchorage areas minimum supply quantity is 200 tonnes.

Canal Shipping Agencies Company – Circular No. 123/84:

Fresh water supply for Southbound vessels in Bitter Lakes and Ballah West Branch:

Owners and Masters are hereby notified that Southbound vessels entering the Canal direct from sea, will be able to have their fresh water supply while at anchor in the Bitter Lakes or in Ballah berths as from 20th November, 1984.

The Suez Canal Authority has its lightening vessel "Nagda I" stationed at Ismailia and ready for this purpose.

The vessel "Nagda I" is 3,200 d.w.t., 85 m. long, 15 m. breadth and her fresh water tanks capacity is 1,200 tons.

Demands for fresh water should be made through the Agent representing the vessel, 24 hours pre-arrival, to Port Said Harbour, price per ton of fresh water is the same as in Port Said harbour against receipts signed by Masters for the quantities received (minimum quantity is 200 tons).

FUEL: Different grades of fuel oil are available from different firms. It is customary that the Master should advise in his ETA message of the vessel's requirements, fuel or diesel oil, at least 24 hours prior to ship's arrival into port. Bunkering is by contract between the Owners and the different bunkering firms, and nominations should be arranged for each vessel separately between the Owners and Head Office of the bunkering firm abroad, and for which payment is also effected abroad. Only the Compagnie Orientale des Petroles accepts payment in cash out of Shipping Account No. 2 for supplies effected by them and in which case a nomination is not required. Vessels can be berthed in the oil installation and thus can effect their bunkering requirements through pipe-lines. Tankers which are not gas-free, cargo vessels carrying dangerous materials and passenger vessels, which are moored opposite the town, can be supplied with requirements of fuel and diesel oil ex self-propelled barges with max. capacity of 700 tons.

Port Said: Vessels can also be supplied at the anchorage areas and in Port Berths by means of supply tankers and self-propelled barges respectively.

Suez: Bunkering always done ex-barges.

FIRE PRECAUTIONS: In accordance with the Suez Canal Authority's regulations, tankers and vessels carrying dangerous materials must comply with their requirements, concerning fire regulations.

GANGWAY/DECK WATCHMEN: In both basins Cherif and Abbas at Port Said, where cargo vessels are normally berthed, ships' gangways can be used for disembarkation and embarkation. Passenger vessels are moored in special berths, i.e. Red Buoys, opposite the town, and can be supplied with 1 or 2 floating bridges (snake pontoon) which can connect the ship with the shore to enable the transit passengers and members of crew to proceed ashore. Cargo ships and other vessels mooring at the different buoys must lower their gangway to facilitate disembarkation and embarkation of ship's personnel as well as different officials. As far as Suez is concerned, all vessels must lower their gangway for the same purpose stated above. A deck watchman is recommended.

Also see "Police/Ambulance/Fire".

Circular No. 1/87:

1. Each vessel, tanker and/or floating unit of any type which berths in Port Said and/or Suez either to transit the Suez Canal and/or to carry out operations has to engage watchmen in the following procedure:

Gross Tonnage of Floating Unit	*Minimum No. oi Watchmen to be engaged per Unit*
(a) up to 999 tons	1 watchman
(b) from 1,000 tons to 2,999 tons	2 watchmen
(c) from 3,000 tons and over	3 watchmen
(d) passenger ships	According to Master's requirements with a minimum of 3 watchmen.
(e) Large cargo ships	

2. Each Contactor has to submit to the Master a list showing names of watchmen engaged and their serial numbers.

3. The vessel has to ascertain that each watchman is in possession of an identity card and/or badge bearing a serial number, photo and name of the marine contractor through whom he has been engaged.

4. Masters are kindly requested not to sign blank receipts as it is recommended to keep a copy of same onboard for perusal in case of need.

5. Any incident concerning watchman's attitude on board has to be reported immediately to the Agents so that necessary steps can be accomplished on the spot for the safeguard of ship's interests.

Circular No. 86/84:

On the occasion of the current security precaution measures adopted at present, kindly advise Owners and Masters to the following steps:

1. Upon ship's arrival in Canal waters, security personnel may board vessels with at least two persons with certified identity cards issued by the Suez Canal Security Directorate. The above procedure is a part of security plan to safeguard ships' transit in the Canal due to the prevailing circumstances.

2. Utmost care and accuracy to be taken in relaying information about ship's tonnage and all particulars concerning cargoes onboard, thus complying with manifests, avoiding ship's delay or checking.

3. Special attention to be given on passing information for expected vessels either from the North or the South, and immediate notice for any alteration to be relayed to concerned parties with a minimum period of 6 hours before arrival at Anchorage Area to avoid being delayed.

OPENING/CLOSING HATCHES: In accordance with Charter Parties, the opening and closing of hatches are dealt with as instructed in this Agreement, but for vessels carrying out minor cargo operations, it is customary that stevedores open and close ships' hatches against ships' account. To expedite vessel's transit, it is always recommended that ship's crew, during vessel's entering into the harbour should open the hatches and rig ship's derricks in order that they may be ready for cargo operations immediately upon ship's arrival at either Port Said or Suez.

CUSTOMS ALLOWANCES: Every member of crew is entitled to have 1 carton of cigarettes, 8 ounces of tobacco, and 1 bottle of spirits for his own consumption during ship's stay in Port Said, Suez Canal transit, until vessel exits the Canal or vice-versa. Same applies to passengers, and a limited quantity of bonded stores can be permitted in public rooms and bars on passenger ships. Crew and passenger list, in duplicate, showing the amount in possession of each must be ready on vessel's arrival for submission to the Customs Representatives who normally proceed on board on arrival to seal up the Bonded Stores.

IDENTIFICATION CARDS: Every member of crew must have a seaman's book deposited with the Officer in charge for inspection, if so required by the Immigration Authorities. If a vessel is stopping in Port Said or Suez for a lengthy time, these seamen's books are normally taken off the ship by the said Authorities and kept in their departing office pending ship's sailing day when they are placed on board by the proper officer on a previous advice. Identity cards are also needed if a crew member wishes to proceed ashore for a short visit to the town or for proceeding to any excursion inland.

CONSULS: The following countries have Consulates or Consular Agencies in Port Said:

Denmark
Finland
France
Germany F.R.
Greece
India
Italy
Netherlands
Norway
Panama
Republic of China
Spain
Sweden
U.K.
U.S.A.
U.S.S.R.

The following countries have Consular Agencies in Suez:

Denmark
Finland
Norway
Sweden

REPAIRS: Most types of repairs whether temporary or permanent can be carried out here by the Suez Canal Authority's shipyard or its subsidiary companies, under the supervision of the appropriate surveyors, if necessary. Suez workshops are well equipped for undertaking all kinds of marine repairs to hull, main and auxiliary engines, boilers, navigation aids, radar and cooling, and installations.

Vessels carrying explosives are not allowed to carry out repairs. Tankers loaded or in ballast but not gas free are not allowed to carry out repairs, except in cases of force majeure of which the Canal Authority is sole judge. Gas-free tankers must present Gas-free Certificate before they are allowed to carry out any repairs. If unavailable, a chemist approved by the Suez Canal Authority can be appointed for testing the tanks and issuing the Gas-free Certificate. The aforementioned restrictions are applicable at Port Said only and not at Suez where vessels anchor at roads and are of no danger.

Other Repair Facilities: Exist at Port Said for air conditioning, wireless telegraphy, radar, course and rudder recorder, refrigerators, and refrigerating units.

All kinds of repairs to echo sounding devices are carried out at Port Said and Suez by experienced specialists at reasonable charge. In Port Said different types are dealt with by the Port Said Engineering Works with the exception of Raytheon radar, B.T.H. radar and Cossor radar which are represented by the Eastern Electronics. The electrical repair workshop in Suez is operated by Suez Electronics.

CARGO GEAR: These are normally supplied by the stevedores to comply with the nature of cargo discharged or loaded from cargo ships. Rope lengths and other cargo gear may be additionally required to expedite ship's discharge.

DRY DOCKS: A floating dock of 25,000 tons, capable of docking vessels up to 50,000 d.w.t., is available at Port Said as well as a dry dock at Suez. Sufficient notice is required to book the date for either the floating or the dry dock.

Repair facilities are available at Suez, where a dry dock is suitable to accommodate vessels up to 8,000 d.w.t.

Dimensions:

Extreme length to inner sill	464 ft.
Breadth at entrance	73 ft.
Height of water over keel blocks: at Spring tide	22 ft. fore, 26 ft. 3 in. aft
at Neap tide	19 ft. fore, 23 ft. 3 in. aft

The max. draft at which a vessel can use the dry dock is 17 ft. fore and 20 ft. aft. Deeper drafts may be arranged with the management.

The Suez Canal Authority's Floating Dock and Shipyard is situated at the Northern entrance of the Suez Canal, opposite to Port Said lighthouse.

Ships up to 50,000 d.w.t. may undergo all kind of repairs in the shortest possible time. Tankers, by gas-freeing during their voyage from their home harbour to Port Said, will save at least 4 days if they carry out their repairs in our dock.

Port Said Shipyard has 3 floating cranes, 1×40 ton, 1×100 ton and 1×200 ton capacity available for hire.

CREW CHANGES:

By law, only the official State Agents are permitted to handle reception or repatriation of crew in Egypt.

Crew members arriving at Cairo Airport to join a vessel must have a letter of introduction addressed to the Manager of Cairo Shipping Agency, 7 Abdel Khalek Tharwat Street, P.O.Box 468, Cairo, telephone number 745755 or 745863. This introductory letter is to be produced immediately upon arrival to the representative attending at the airport.

Note: A representative is usually in attendance when the crew member steps off the bus and passes through the doors at the entrance hall. Distance from the bus about 20 m. – 25 m. – just in front of the banks.

Visas can be obtained at the airport.

The Suez Canal Authorities have also stipulated the following requirements for arriving crew members:

(a) Be of same nationality as the vessel's flag.
(b) Be in possession of a contract signed and stamped by the shipowners.
(c) Be holding a valid Seaman's Book.

Note: Crew members joining vessels at Suez Canal are not permitted to bring with them spare parts, equipment, electrical apparatus, etc., for vessels unless the goods in question are accompanied by an air waybill which must indicate the words "in transit", together with an invoice from the suppliers stating description and value of the goods.

Principals are requested to telex their Agent giving full details of crew changes including names, flight numbers, dates and times of arrival.

Agent's Notice: This is to bring to your kind attention due to the fact that Owners are sending the return tickets for repatriation of crew members by PTA which procedure entails delay in reserving a place on board the aircraft in addition to the delay that results in tracing the whereabouts of the PTA. This in turn causes extra hotel expenses and we are therefore requesting that Owners leave the ticketing to us in order to cut hotel expenses. Please note the usual crew discount is obtained.

AIRFREIGHT: The Official State Agents are the only Agents legally entitled to handle airfreighted consignments such as parcels, spares, etc., and the following procedure should always be followed:

All parcels should indicate:

(a) Name of vessel to which consignment is intended and port of delivery.
(b) Name of Official State Agent.
(c) The wording . . . . "delivery at Cairo Airport to Cairo Shipping Agency only, on behalf of (insert name of Official State Agent)".
(d) All parcels to be encircled with a wide self-adhesive tape, coloured red. In addition a self-adhesive label to be affixed bearing the name of Cairo Shipping Agency and also the name of the Official State Agent in large capital letters.
(e) The parcel and air waybill must indicate the words "In Transit for M/V......".
(f) Suppliers of the spare parts must always be instructed to enclose with the parcel, copy of their invoice stating description of the contents and value and to ensure that the commodity of the cargo can be indicated precisely on the relative Bill of Lading.

Note: Crew members joining vessels at Suez Canal are not permitted to bring with them spare parts, equipment, electrical apparatus, etc., for vessels unless they are accompanied by an air waybill and an invoice duly completed as instructed above. Please note that any goods for vessels arriving with embarking crew members must also follow precisely points (e) and (f) as indicated above otherwise the Customs Authorities will refuse to release such goods "In Transit".

In order to enable check upon airfreighted consignments, Principals are requested to telex advise their Agent giving full details of flight number, date, air waybill number, etc.

Circular No. 19/83: Dated 8th February, 1983.

Parcels of spare parts, equipment and electrical apparatus arriving care of crew members without transit shipping documents.

Reference is made to our previous circulars, dealing with the above subject, ending with No. 101/82, dated 31st October, 1982, requesting you to kindly ascertain that the air waybill covering a parcel of spare parts must show that same is "In Transit for M/V......".

The object of the present circular is to bring to your kind attention that, considering that, according to Regulations, a crew member is allowed to be accompanied only by his personal effects, the Customs Authorities refuse to release "In Transit" other goods, such as spare parts, various equipment, electric apparatus of high value (T.V., video etc.) arriving care of crew members. As already explained, the goods in question should be accompanied by an air waybill and an invoice duly completed as described previously.

Kindly, therefore, arrange for parcels of spare parts, equipment, apparatus etc. not to be forwarded care of crew members unless they are accompanied with complete shipping documents, otherwise it will not be possible to have them released "In Transit".

Circular No. 114/1983:

We would refer to our various Circulars ending with No. 19/1983 (see above), dated 8.2.1983, dealing with the necessity of instructing Suppliers of spare parts to ensure that:

(a) the parcels be accompanied by copies of invoices showing description of their contents and its value.

(b) that the relative Bills of Lading should point out the commodity of the cargo precisely.

Moreover, you are also kindly requested to make certain that the respective Air Waybill should clearly show that the parcel is "In Transit for M/V......", indicating the vessel's name to enable the Customs to avoid dealing with the parcels as "Import Cargo", which irregularity causes much complication and delay.

In this respect, it is also recommended that parcels be airfreighted to Cairo four days before ship's arrival, taking into consideration the weekends and official holidays.

Circular No. 121/84: Arrival of ship's stores consignments by airfreight to Cairo Airport: Notice is hereby drawn to the urgency of notifying all concerned as regards the arrival of airfreighted ship's stores consignments in ample time before reaching Cairo Airport, prior ship's arrival at one of the Suez Canal ports, with a minimum period of four days before ship's arrival. This will enable our Cairo branch to complete the necessary Customs formalities, and ensuring delivery to respective vessels.

Kindly be guided accordingly.

AIRPORT: The distance between the international airport at Cairo and Port Said or Suez is normally 2.5 hours. International airlines serve this airport. Cairo Shipping Agency is on constant contact with Agent for the necessary instructions.

In the interest of all and in order not to lose any time and to avoid any restrictions when sending crew members by plane to join their respective vessels, it is essential that the Agent concerned should notify by cable in good time the flight number as well as the time and date of the arrival in Cairo, thus enabling the Agent to notify Cairo Shipping Agency for the necessary clearance and as to whether they should be sent to join their vessels.

TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.

HOLIDAYS: *General Holidays.*

February 22nd	Unity Day
May 1st	Labour Day
May 9th	Sham El Nessim (Spring Holiday)
June 18th	Evacuation Day
July 10th – 13th	Ramadan Bairam (End Of Ramadan)*
July 23rd	Revolution Day (National Day)
September 16th –	Courban Bairam (Pilgrimage Feast)**
20th	Armed Forces Day
October 6th	Islamic New Year***
October 7th	Suez Day
October 24th	Mouled El Nabi (Birth of the Prophet)
December 16th	

*Possibly observed July 11th – 14th

**Possibly observed September 17th – 21st

***Possibly observed following day.

The Dates of the Islamic holidays are stated approximately. Working hours: 0600–1800 hrs. Overtime: 1800–0600 hrs. Friday is the weekly day of rest but it does not affect labour.

If a holiday falls on a Friday it is possible that the following working day will be decreed a holiday also.

Ramadan: Thirty days' fast and how it affects labour; Cargo operations can be carried out at night and on Fridays and General Holidays against payment of overtime rates. Arrangements should be made on the previous working day to enable Customs to delegate the necessary personnel in time.

Local Holiday

Port Said:

December 23rd – Port Said Day

POLICE/AMBULANCE/FIRE: Vessels which are moored in the harbour either in Port Said or Suez requiring assistance from the Port Police, should hoist the International Code Signal (YM). There is always a police guard appointed by these Authorities on each ship in either Port Said or Suez harbour. First-aid assistance can provide ambulances at a request through the Agent. In case of fire on board when in port, the Master must inform the Port Authorities (the Suez Canal Authority) imediately and at the same time give a general warning by means of a long blast of whistle or siren and be prepared to move his ship to another berth if so required. The Suez Canal Authority own 7 tugs and other craft distributed in various points of the Canal with individual output from 10 to 950 t.p.h. well equipped with fire-fighting appliances, ready for use at any moment.

Police guards are placed onboard vessels in Suez Roads for vessels' protection.

TELEPHONES: There are no telephone facilities available in Port Said except at Berth No. 4 Red where passenger ships are normally berthed, and this can be connected when snake pontoon is fixed with ship's gangway.

SERVICES: Port Said and Suez being situated at a middle point between the East and the West, have become an ideal centre for replenishing stores and provisions which can be obtained in bond or from town.

Delivery of provisions and stores is effected 24 hours a day at Port Said and Suez.

It is recommended that Masters should order their requirements prior to their arrival with a view to avoiding any delay specially for ships joining the 0700 hrs. convoy Southbound.

Deck and engine stores are ample and are also available and sold at (in bond) prices.

Paints: All kinds (bottom, boot-top, topside, enamel, engine ready mixed, heat resisting, varnishes) are also available at "in bond" prices. Painting of ships or undertaking any maintenance work on board is permitted while ship is in port waiting to join the North or the Southbound convoys as well as while transiting the Suez Canal.

The following companies are represented here:

International Marine Paint	Sole agent in Egypt: International Shipping Enterprise.
Hemples Marine Paint Camrex Marine Paint	Represented by The Egyptian Marine Supply and Contracting Co. (cable address: "Consup")

Chemicals: The following chemical firms are represented in Port Said and Suez:

Gamlen & Co.	Represented by The Egyptian Marine Supply and Contracting Co. (cable address: "Consup")
Bird Archer/Norus (Tommons & Chartes) Chemicals. Drew Chemicals Cameroid Products. Paroline Chemicals Cameroid Products. Walker Bow.	Represented by The International Marine Services Co. (cable address: "Marinco")
Houseman Marine Chemicals	International Shipping Enterprise

Grease and lubrication oils. Available from:

Esso Petroleum Co.
Misr Petroleum Co. (ex Shell)
Mobil Oil Co.
Caltex Oil Co.
Ocean Oil Co.
Wisure Oil Co.
Fina Oil Co.
Gulf Oil Co.
Castrol Burma Oil.

An advance notice of 48 hours is necessary to arrange for lubricating oils and/or bunkers required.

Charts: Admiralty Charts are available at Port Said from the Egyptian Marine Supply and Contracting Co. If any order has to be supplied at Suez, arrangements can be made for the required charts to be sent there.

Defense Mapping Agency, Washington and British Admiralty Charts available from International Shipping Enterprise, who also act as distributor for Pains-Wessex Marine distress signals and line-throwing equipment.

Cigarettes: American and British cigarettes are available "in bond".

Technical Gases: Technical gases are also available at Port Said and Suez, and empty containers can be exchanged.

Fish: Bream, prawns, crab, rock fish available throughout the year; Mullet available June/February; Slip soles available November/March.

Vegetables: Beans, beetroots, cauliflower, cabbages, carrots, eggplant, endive, garlic, herbs, lettuce, marrows, parsley, radishes, spinach, tomatoes, turnips, escarole, onions, potatoes: *Available throughout the year.*

Green peas, celery, pumpkins: *Available January/March.*
Artichokes: *Available October/April.*
Parsnips, spring onions: *Available November/May.*
Green pepper, mint, lady's finger: *Available June/September.*
Capsicum: *Available May/December.*
Cucumber: *Available February/December.*
Lemons, limes: *Available throughout the year.*
Fresh figs, fresh dates: *Available August/October.*
Bananas: *Available October/June.*
Grapefruits, oranges, tangerines: *Available October/May.* (When out of season import citrus are Available).
Apricots: Available May/June.
Water melons, sweet melons: *Available May/October.*
Grapes: *Available June/October.*
Plums, peaches: *Available June/October.*
Mangoes: *Available August/September.*
Pears: *Available August/October.*
Apples: *Available November/February* (also imported the whole year).

Eggs: Eggs are available throughout the year.

Meat: Fresh meat is only supplied to vessels having a Mohammedan Crew after permission is obtained from the Customs. Other vessels are supplied with "frozen" in bond.

Laundry: Well equipped, reliable and fast services are available at Port Said, through the ship's contractor. Ship's laundry is usually delivered within 24 hours. For vessels remaining a few hours in Port Said and transiting the Canal, their laundry could be collected, washed and ironed and then transported to Suez by special car or lorry for delivery to them there.

Garbage: No refuse or ashes are allowed to be thrown whilst ships are moored in Port Said, transiting the Canal or in Suez Roads. Small barges are available in Port Said and Suez for disposal of garbage or ashes, which craft can be obtained at a reasonable hire.

Divers: Suez Canal Authority's Divers as well as other Contractors' experienced divers are available, capable of carrying out any kind of underwater repairs including welding and fees are subject to the kind of job to be performed. Anchors and other articles left behind by any ship in Canal waters are retrieved on no cure no pay basis.

SHORE LEAVE: Crew members are allowed ashore provided that they obtain a shore leave pass issued by the Immigration Authorities through the local Agent. They can proceed ashore by means of motor launches or rowing boats at their own expense. For vessels mooring opposite the town and connected with the shore by snake pontoon, crew, together with passengers, can proceed ashore free of charge.

DEVELOPMENTS: There is a modernisation plan underway at Suez.

When the modernisation is complete, cargo handling will be largely mechanised, resulting in a great increase in the port's capacity. The first stage of the expansion will provide 3 multi-purpose berths, shoreside installation, container-handling facilities, and grain storage facilities. An offshore grain pier connected to onshore storage silos is expected to be built during the next phase.

Additional berthing facilities under construction at Adabiya with depth 11.0 m. – 13.0 m.

Also see "Berthing - Port Said".

SHIPMASTER'S REPORT No. 1: *Suez Canal Transit (South/North) (1976)* - updated 1986.

Cape Guardafui light was clearly seen and identified at a range of 39 miles.

There was an oil rig operating Southwards of the Cape in approximate position Lat. 11° 44′ N., Long. 51° 21′ E.

The Straits of Bab El Mandeb were congested but the traffic separation scheme seems to be satisfactory. The passage of the Red Sea does not seem to be any different from the past.

When passing Aden, a preliminary message was sent to the Suez Agent. This was of doubtful value but it is advisable to send a message addressed to 'Port Authorities Suez', via station "SUK", giving the following information:–

Ship's name and flag.
Whether transit of canal is desired.
Destination.
Where from.
Cargo aboard.
Whether any dangerous cargo carried.
Draft.
ETA at – 23° North, Straits of Gubal, Suez.

All radio messages through the Egyptian radio stations must have a signature, i.e. 'Master'.

The ETAs can be updated as necessary. The message to the Port Authorities is mandatory.

Approaches: The Gulf of Suez is congested by oil rigs – particularly in the vicinity of Ras Shukheir and the Ramadan and July oil fields where there are many rigs and flares and supply vessels crossing the Gulf. One oil rig was working in the middle of the fairway East of Ras Dib. With poor visibility, if a Southbound convoy were to be met in this region, it might be wise to proceed at manoeuvring speed.

A pilot cutter operates just South of the waiting area but an approaching ship will be called by signal lamp from ashore, asking for the ship's name and making "VHF". Contact is then established on Channel 16, changing to 6 when the ship will be told whether to anchor in the waiting area or remain underway until the Pilot boards.

Pilotage: The Pilot boards from a launch by means of the accommodation ladder (which should be lowered to within 3 ft. of the water) and takes the ship to her designated anchorage in Suez Bay.

Arrival Formalities: Quarantine and Customs authorities (about 8 people) board the ship at the anchorage together with the Agent. The accommodation ladder is used for all boarding and disembarkation within the canal. It should be raised when not actually in use otherwise the ship will be boarded by numerous "Businessmen".

A list of forms required is listed below but there are others which the various authorities bring with them and some are presented for filling in more than once and by different officials. This ship's transit was delayed because the Agents had not received funds from London. Deck log books for the past six months have to be landed.

The Suez Canal Cargo Declaration Form (in duplicate) is handed to the Pilot who disembarks at Ismailia.

At Anchor: With 3 shackles out, this ship lay comfortably at A8 berth. Some difficulty, however, was found in reconciling the various anchor bearings with the chart.

A bumboatman will seek permission to set up shop aboard. Care should be taken to agree methods of payment beforehand.

A listening watch should be kept for Suez Control on Channel 6. Water can be ordered through the Control and will be delivered in a large water boat carrying about 300–400 tonnes. Rate of delivery is about 50 t.p.h.

Convoy lists are made out at about 0300 hrs. and ships can call Suez Control soon after that to learn their convoy number and time of Pilot boarding. Convoys can start as early as 0500 hrs. This vessel was number 10 and hove up at 0830 hrs. Our searchlight was brought out at 1700 hrs. and the boats at 0500 hrs. We were asked to carry 4 extra boats but Pilots advise against this as the time taken to unload 6 boats can cause delay at the other end of the canal.

Transit: The Pilots change at Ismailia. The convoys cross in the Great Bitter Lake, anchoring as necessary. There is now one convoy from each end every day.

A Harbour Pilot takes over on reaching Port Said and, as soon as the searchlight and boats have been off-loaded and the ship has entered the approach channel, he disembarks.

The Agent will board at Port Said with yet another form to be filled in and he will return the log books.

Documentation:

2 Health Forms (Egyptian)
1 Passport Form (Egyptian)
1 Radio Frequencies Form
1 D.B. Tank Statement (Egyptian)
2 Cargo Declarations
*4 Cargo Manifests
8 Crew Lists

Plus several others which will be produced by the various officials.

*It was explained that our company's vessels do not carry cargo manifests but the Agent said that a typed statement of the amount of cargo aboard, destination and where loaded would suffice.

SHIPMASTER'S REPORT No. 2:
Suez Canal Transit (South/North) – (1976) - updated 1986.

After clearing Aden a radio message was sent to the Port Authorities Suez via Port Said Radio advising them of the following:

Ship's name and flag.
Whether desire transit.
Destination and last port.
Cargo aboard total tonnage and type of cargo.
Whether dangerous or explosive cargo carried.
Draft.
British tonnages gross and nett.
Date Suez Canal Certificate issued.
Tonnages gross and nett from Suez Canal Certificate.
Advice as to whether searchlight required.
ETAs 23° North, Straits of Gubal, Suez.

During the passage in the Red Sea both Port Authorities and Agents received up-dated ETA messages. When using SUK radio to give up-dated ETA this station advised that a cable was necessary to be sent to Port Authorities Port Safaga via SUK giving ETA Strait of Gubal.

Navigation in the Red Sea does not seem to be any different from the past. The Traffic separation scheme in the Straits of Bab El Mandeb seems satisfactory.

Straits of Gubal and passage in the Gulf of Suez was in daylight. Especially in the Straits of Gubal very few seem to adhere to any form of traffic separation scheme. There is no doubt that if it were night time or poor visibility then it would be advisable to be on 'Stand-by'. There is now an oil rig Lat. 27° 57′ N., Long. 38° 41.2′ E., or 349°, 5.7 miles from Ashrafi Lt. Ho.

The Ramadan and July Oil Field area has many oil supply ships, most of the Southbound traffic was met in the Straits of Gubal thus further North it was very quiet.

The ship was anchored in the waiting area South of Newport Rock but alas this area shown as being to the East of the 2 green flash buoys is *now wrong!* The waiting area is to the S.E. of the most Southern Green flash buoy. About 1 mile South of the previous position. Evidently there is shoaling in the old area and ships have grounded.

On arrival at the waiting area the ship had to anchor as the Southbound convoy was clearing. A tug with Pilot Signal closed the ship to ask for information with regard to tonnages, cargo etc. After first vocal contact Channel 6 VHF was used. The ship was not called up by lamp nor did the Port Control answer any VHF requests etc. It would seem that if the Tug is on station advice is received from there. They did not, however, attempt to advise the ship that the waiting area had been altered.

As the ship anchored a boat came alongside with two watchmen but as I had not requested these and the visitors had not boarded they were sent ashore.

Later a Pilot boarded via the accommodation ladder to shift the ship from the waiting area to a designated anchorage, in our case '1B'. Ship was anchored in '1B' by 0030 hrs. on 12th, having arrived at the waiting area at 1947 hrs. on the 11th.

As the ship had some essential repairs to the main engine which would only take a short time, engines were immobilised. Pilot had advised that 0800 hrs. would be earliest time for transit. During the middle watch the area was hit by a fierce short lived blow from a Southerly direction. Although the vessel did not drag, ships close by did. It was necessary to pay out more cable to ensure a bulk carrier cleared us comfortably. During this time a ship called Port Control to say they had dragged some 3 to 5 cables.

As the weather for some 3 hours was considered bad for small boats the first of the visitors did not board until 0515 hrs.

The Canal Surveyor, who was the first to board was quite helpful and pleasant. He took the Suez Canal Tonnage Certificate for verification as the ship was making a first transit. This I have been informed will be returned to the Company in about 2 months.

Later other officials boarded about 0700 hrs. The Agent also came off with the mail. The 2 electricians for the searchlight insisted on being given a cabin or they would not remain on board. As there was no spare cabin, except one in the crew accommodation, I endeavoured to explain that a reasonable shelter had been built on the after end of No. 2 hatch. It transpired that in the end I moved a patient who had tonsilitis out of the hospital. Later the Canal Pilot informed me that the electricians cannot be so demanding provided a reasonable shelter is provided.

Documentation was found to be as advised in the report above. One small difference is that the Cargo Declaration form is only required as 1 copy and is now in English with one form for South to North ship's and another for North to South ships.

At the moment there is only the 1 convoy each way per day. Hours of commencing transit seem a little doubtful. I gather that first Southbound ship leaves Port Said at 0100 hrs. while the first Northbound ship now leaves Suez at 0600 hrs.

Searchlight and 2 boats were brought alongside and loaded in ample time prior to the Canal Pilot boarding at 0909 hrs. I gather that because of the 'bad' weather for those few hours the delivery of searchlights and boats was delayed. Also no advice was obtainable on the VHF after 0300 hrs. with regard to convoy number or time of proceeding. About 20 minutes' notice was given over the VHF.

The Transit was quite straight forward. Ship was anchored in the North Anchorage, Bitter Lakes for 3.5 hours, the Southbound convoy passing. Transit was commenced at 0947 hrs. At Ismailia the Pilot changed. He took the Cargo Declaration with him.

Port Said was reached at 0033 hrs. on the 13th. The Sea Pilot boarded here as did the Agents who returned the Ship's Register and Log Books which had been landed at Suez. The ship had to keep moving while the boats and searchlight and personnel were either off-loaded or disembarked. At night this is not easy and the whole crew are required to ensure a safe and quick operation. Once these matters were completed the Sea Pilot left well within the breakwater. Accommodation ladder was used at all times for Pilots, Officials and Agents boarding and disembarking. Fairway Buoy was abeam at 0148 hrs. on the 13th.

SHIPMASTER'S REPORT: September 1979.
The Pilot advises that vessels anchoring further South than the 0.5 mile limit South of No. 1 Buoy at Suez may not receive Pilot.

SHIPMASTER'S REPORT: June 1982 - updated 1986.
Suez Canal – Northbound.
Vessel was 8th in convoy and joined convoy at about 0600 hrs. On arrival Suez contact Suez Agent on VHF Channel 6 or 13. When Northbound and messages are sent to Agents at Port Said we found it was necessary to repeat the messages to Agents at Suez otherwise you do not receive any advance information. The Port Said Agents pass the messages to Suez Agents but Suez Agents do not repeat to the ship.

We transited with experimental loaded draft of 46 ft., plus one tug escort. The tug changes twice during transit so have altogether 3 tugs during transit. If the Pilot gives a bad report about the vessel then SCA will assign 2 tugs, one ahead and one astern.

According to the Pilots, maximum permissible draft is 53 ft.

We were clear of Canal about 1730 hrs. and full away 1 hour later.

In the Gulf of Suez there are now drilling rigs in the traffic lanes but they give out good and regular navigational warnings.

SHIPMASTER'S REPORT: October 1983.
Anchorages: Northbound:
Anchorage area for Northbound VLCCs, 3rd generation container ships and vessels over 38 ft. draft is rarely used as Agents are understandably reluctant to board vessel there.

To ensure prompt transit vessel should anchor in the Northern waiting area. However, it would be prudent for deep draft ships arriving after midnight to anchor in the deep draft area and move to the Northern anchorage around 0800 hrs.

SHIPMASTER'S REPORT: July 1984.
ETAs and information on ship's data were sent after departure Jeddah as per Shipmaster's Reports No. 1 and 2 to both Agents "Assiuship Suez" and Port Authorities Suez and updated at entering Gubal Straits. First VHF contact was made by Chabana Shipchandlers who called us and relayed our message in Arabic to the Port Authorities. Pilot station called vessel only after having anchored at the outer waiting anchorage to tell us that we were anchored in a wrong position while at least 12 other ships were anchored in the prohibited anchorage area. However, the pilot station did not come back so the vessel stayed anchored where she was. When vessel approached the waiting area several heavily manned and well equipped business motorboats approached and besieged the ship and could only be stopped from entering the ship by placing seamen along the ship's rail. I knew these businessmen from years ago but they seemed to have become more aggressive by trying to enter the ships and they even followed the ship to the inner anchorage which they had never done before. The Pilot boarded the ship at very short notice and brought her inside. Clearing by Agent and Immigration was as usual, the only difference I noted was that the logbook did not have to be handed to be checked ashore. The next morning (Friday!) vessels were not called as usual to receive their number and Pilot boarding time. The Pilot suddenly came on board without any notice and therefore it is wise to have the engine standing by all the time while expecting to join the convoy. Suez Canal passage was as usual and vessel left the Canal through the new channel.

SHIPMASTER'S REPORT: August 1984 – updated 1986.
Vessel transited Canal Northbound. At the time of the Pilot boarding at Suez the Canal boat had not yet arrived although the boatmen were on board. The Pilot on being informed, contacted the Port Control and then asked if vessel would agree to using a lifeboat if the need arose. This was agreed and vessel transited Canal.

SHIPMASTER'S REPORT: February 1986.
If vessel has engine trouble and is unable to join convoy as designated it is necessary to have a classification surveyor issue certificate stating repairs have been carried out satisfactorily. After repairs completed a Pilot will board for engine trials.

If vessel has only one crane amidships and carries 2 Canal boats then one boat must be carried over the side during transit.

SHIPMASTER'S REPORT: May 1987 (Vessel Northbound).
The deepwater anchorages South of Conry Rock originally designated for VLCC's, 3rd. Generation Container ships and vessels over 38 ft. draft are no longer used and all vessels must proceed to the waiting area North of Conry Rock to undergo pre-transit formalities and subsequent embarkation of Pilot. Vessels over 38 ft. draft are not required to shift anchorage into Suez Bay but enter the Canal directly from the waiting area at the appointed time. Pilot boards at the waiting area. I would assume this also applies to VLCC's and 3rd. Generation Container ships. Our own transit draft was 39 ft.

Rigging of Accommodation Ladders for Canal Transits: Pilots advise that the following may safely be regarded as standard procedure due to the prevailing winds. On Northbound transits, rig ladder on starboard side. On Southbound transits, rig ladder on port side.

SHIPMASTER'S REPORT: June 1988.
Departure Port Said (Northbound):
When entering the Mediterranean from the Suez Canal (East Channel), and as soon as the searchlight and boats have been off-loaded the Pilot departs, even though the vessel is still within the breakwaters.

The East Channel is 11 miles in length and strong currents prevail. In 1987 a tanker grounded even though a pilot was on board, due to the vessel having violated local traffic regulations.

When proceeding Southbound into the Canal, the Pilot boards at the Fairway Buoy of the West Channel leading into Port Said.

AUTHORITIES: The Suez Canal Authority, Ismalia, Egypt. *Tel:* Ismailia (064) 20000 - 20009. *Cables:* Sucanal Ismailia. *Telex:* Sucan 92153 and 63238 (Ismailia), Scaps Un 63256 (Port Said) and 63543 Sucan. *Contact:* Director of Transit or Control of Navigation.
Port Said Port Authority.
Suez Port Authority.

AGENCY: Canal Shipping Agencies Company is responsible for shipping agencies in the Canal, Suez Gulf and Egyptian Red Sea ports, through 4 branches at Port Said for each of which there is a branch at Suez and 1 in Cairo. Their names are:
Port Said Head Office: 26 Palestine Street, P.O.Box 262. Tel: 20662/20666. Telegrams: Canaship. Telex: 63075 Agen Un.

Suez Office – Port Tewfik: Canal Shipping Agencies Co. Bldg., Canal Street. Tel: 2639 (02) 773561. Telegrams: Canaship. Telex: 63055 Agency Un.

Branches (Port Said):
Assiut Shipping Agency, Port Said. 9 Mostafa Kamel Street, P.O. Box 128, Telegrams: Assiuship. Telex: 63262 Asut Un and 63138 Assiu Un. Tel: 20522 20523.

Asswan Shipping Agency, Port Said, 8 El Goumhouria Street, P.O. Bag. Telegrams: Swana. Telex: 63261 Swan Un or 63291 Swana Un. Tel: 20790/20793.

Damanhour Shipping Agency, 40 El Goumhouria Street, P.O.Box 126. Telegrams: Damanship. Telex: 63264 and 63146 Daman Un. Tel: 20351/20356.

El Menia Shipping Agency, Port Said, 31 El Goumhouria Street, P.O.Box 328 and 130. Telegrams: Minship. Telex: 63263 or 63034 Meni Un. Tel: 20675/20677.

Branches (Suez Offices – Port Tewfik):
Assiut Shipping Agency, Canal Shipping Agencies Co. Bldg., Canal Street. Telegrams: Assiuship. Telex: 63108 Asuez Un. Tel: 2790 and 3025.

Asswan Shipping Agency, Canal Shipping Agencies Co. Bldg., Canal Street. P.O.Box 4. Telegrams: Swana. Telex: 63104 Ssuez Un. Tel: 3216.

Damanhour Shipping Agency, Canal Shipping Agencies Co. Bldg., Canal Street. P.O.Box 4. Telegrams: Damanship. Telex: 63055 Agency Un. Tel: 3176 and 3009.

El Menia Shipping Agency, Canal Shipping Agencies Co. Bldg., Canal Street. P.O.Box 4. Telegrams: Minship. Telex: 63106 Msuez Un. Tel: 3018 and 3085.

Cairo Branch:
Cairo Shipping Agency, Cairo. 7 Abdel Khalek Tharwat Street, P.O. Box 468. Telegrams: Maragent. Telex: 92673 Marg Un. Tel: 745755, 745836.

Offices at Safaga, Kosseir and Ras Gharib:
Telegrams: Canaship. Telephones: Safaga 10, Kosseir 14, Ras Gharib 71.

N.B.: Safaga, Kosseir and Ras Gharib to be contacted via Kosseir Radio around the clock.

Port Said offices to be contacted via Alexandria or Port Said Radio around the clock.

Suez offices to be contacted via Alexandria or Port Said Radio around the clock.

TRANSIT SERVICE: Gulf Agency Company operate a Suez Canal Transit Service the purpose of which is to assist Owners and Shipmasters with the numerous formalities applicable to transit of the Canal including supervising the pre-payment of Canal Dues and ensuring no delay in entering or clearing the Canal. Full details of the service are obtainable from Gulf Agency Co. Ltd., P.O.B. 17071, Kolonaki, 10024 Athens, Greece. Telex: 216344, 218687, 214548. Tel: 7211713, 7248587/8. FAX: 7236921. Cables: "Gulf Agency" Athens.

SUEZ CANAL – RULES OF NAVIGATION*

JANUARY 1986 (with amendments)

Part I Navigation
Part II Canal and Lakes (Characteristics)
Part III Communications – Signals

*Not all the Rules of Navigation are printed herein. Part IV is concerned with tonnage and dues and the Appendix with carriage of dangerous goods.

GENERAL

Article 1: Transit Through the Suez Canal

(a) Transit through the Suez Canal is open to vessels of all nations, subject to their complying with the conditions stated in the present Rules of Navigation and all the references and circulars which shall be issued by the Suez Canal Authority. They will constitute an integral part of these rules, and the provisions of the International Regulation for Safety Of Life At Sea, and its amendments, as well as the provisions of the International Regulations for Preventing Collision at Sea, and all laws, orders and regulations issued by the A.R.E. Government.

However, the Suez Canal Authority reserves the right to refuse access to the Canal Waters, or order the towage or convoying of vessels considered dangerous or troublesome to navigation in the Canal. Non or erroneous declaration of dangerous cargo (see "Article 47 Bis").

(b) By the sole fact of using the Canal Waters, Masters and Owners of vessels bind themselves to accept all the conditions of the present Rules of Navigation, with which they acknowledge being well acquainted, to conform with these conditions in every respect, to comply with any requisition made with a view to their being duly carried out, and to adhere to the Canal Authority's private Code of Signals as shown in Part III of these Rules.

Article 2: Agents

Every vessel other than warships intending to transit the Suez Canal or staying at Port Said or Port of Suez, or in the Suez Canal Basins or docks must have a recognised Shipping Agent.

The Egyptian Authorities are to be notified of intended transit of warships in the Suez Canal : *Viz* : Ministry of Foreign Affairs, Ministry of Defence as well as Ports and Lights Administration.

Article 3: Canal Waters (Definition)

Canal Waters mean the Canal proper, and the access channels thereto,(1) the waters within the Canal Authority's Concession adjacent to the Canal proper and Port Said Harbour and Port of Suez.

The Canal proper, as to its length, is reckoned to run from Km. 3.710 West Branch for vessels entering from Port Said Harbour and from Km. 1.333 East Branch for vessels entering through the East Approach Channel, to Hm. 3 at Suez, including the 2 channels of the Great Bitter Lake and all Canal by-passes.

As to its width the Canal is bounded by the banks when they are above water; when the banks are submerged, the width of the Canal is limited to the perpendiculars at the point of intersection of the sub-marine bank with the horizontal plane corresponding to the max. draft authorised including squat.

(1)Port Said Eastern and Western Entrance channels, Suez Entrance channel which includes the Port of Suez Eastern channel leading to the Canal entrance.

Article 4: Responsibilities

When in Canal Waters, the Owners and/or Operators of any vessel or floating structure of any description are responsible for any damage and consequential loss it may cause either directly or indirectly to the Canal Authority properties or personnel without option for the Owners and/or Operators to release themselves from responsibility by purely and simply abandoning the vessel, floating structure or wreck.

The words "Owners and/or Operators" for the purpose of the present article, shall be construed to mean person, persons or corporate body responsible for the vessel at the time of the navigational accident or incident.

Moreover, the vessel guarantees to indemnify the Canal Authority in respect of any claim against the latter by reason of any damage whatsoever she may cause either directly or indirectly to third parties.

The vessel waives the right to claim against the Suez Canal Authority for any damages caused by third parties that she may sustain while in Canal Waters.

Vessels carrying petroleum or dangerous cargo must comply with these regulations and also with the Appendix to the Rules of Navigation for vessels carrying dangerous cargo.

Article 5: Temporary Delaying of Vessels

The Canal Authority may delay a vessel for the purpose of investigating any claim or dispute that may arise, or any formal or informal complaint, or allegation of violation of the laws of the Canal.

A vessel may be delayed until in the opinion of the Canal Authority, its tenderness, trim, list, cargo, hull, machinery have been put into such condition as will make the vessel reasonably safe for her passage through the Canal.

No claim for damages is accepted or considered because of any such temporary delaying of vessels.

Article 6: Pilotage

Pilotage is compulsory for all vessels whatever their tonnage,(2) when entering, leaving, moving, changing berth or shifting in Canal Waters or Port Said and Port of Suez harbours.

Any exemption must be explicitly authorised by the Suez Canal Authority (See Art. 11(e)).

(2)Except Egyptian vessels under 300 Tons Suez Canal Gross Tons authorised to work in Canal Port and Accesses and Egyptian fishing vessels under 300 tons S.C.G.T. This does not apply for the Canal proper.

Article 7: Changing Berth in Road Anchorages

Vessels in Port Said Anchorages Area (Northern and Southern Anchorages), Suez VLCCs and 3rd generation container ships Anchorage, Suez Roads, the Bitter Lakes or Timsah Lake are not authorised to change berth or anchorage without explicit authorisation from the Suez Canal Authority.

PART I – NAVIGATION

CHAPTER I: SUEZ CANAL FEATURES

SECTION I: Approaches
Article 8: Port Said (See "Plan")

Ten miles before arrival to Approach Buoy,(3)(4) all vessels arriving from seaward should contact the Suez Canal Harbour Office by VHF (Channel 16). If not able to, by R/T (2182 kHz) or by W/T via S.U.Q. for instructions (see Part III Articles 87 and 88).

Approach Buoy: Position: Lat. 31° 25′ 30″ N., Long. 32° 22′ 00″ E. Height 10 m., black and yellow horizontal bands.

Daymark: 2 black cones points in.
At Night: Group flashing white light (9) every 13 seconds.
Fitted with a Racon and fog horn.(5)

(3) See "Plan".
(4)All buoys in the Canal and access channels may be replaced temporarily by others of smaller size.
(5)Not fitted at time of printing.

(A) ANCHORAGE AREAS(6): The incoming vessels have two anchorages.

(1) The Northern Area

(i) For VLCCs, 3rd generation containerships and vessels over 38 ft. draft.

(ii) The area is limited as follows:

North Limit Latitude	31° 25′ 00″ North
South Limit Latitude	31° 23′ 12″ North
East Limit Longitude	32° 20′ 30″ East
West Limit Longitude	32° 16′ 00″ East

(6)All vessels arriving from sea have to anchor in the berth allocated to them by the Suez Canal Port Authority.

(iii) V Berths: Centre of Circle (radius 750 m.)

Berth	*Latitude*	*Longitude*
V1	31° 23′ 42″ North	32° 19′ 30″ East
V2	31° 24′ 30″ North	32° 19′ 30″ East
V3	31° 23′ 42″ North	32° 18′ 30″ East
V4	31° 24′ 30″ North	32° 18′ 30″ East
V5	31° 23′ 42″ North	32° 17′ 30″ East
V6	31° 24′ 30″ North	32° 17′ 30″ East
V7	31° 23′ 42″ North	32° 16′ 30″ East
V8	31° 24′ 30″ North	32° 16′ 30″ East

(iv) Vessels at anchor in this area when entering the Canal (East Channel) will proceed between the East and West Buoys at Hm. 135.(7)

At. Hm. 150 (East) a buoy is fixed to be used as a lead when approaching the 2 Entrance Buoys of Hm. 135 (course 194°).

Hm. 150 Buoy: Red Buoy. Red St. Andrew's Cross. At Night: Occulting red (1) every 4 seconds.

Hm. 135 Buoys: West: Black Buoy. At Night: Quick flashing green light. East: Red Buoy. At Night: Quick flashing red light.

(7) All the buoys in the Suez Canal and its approaches are fitted with Radar Reflectors.

(2) The Southern Area

(i) For all other vessels.

(ii) The area is limited as follows:

North Limit Latitude	31° 23′ 03″ North
South Limit Latitude	31° 21′ 15″ North
East Limit Longitude	32° 20′ 30″ East
West Limit Longitude	32° 16′ 42″ East

(iii) C Berths: Centre of Circle (radius 500 m.)

Berth	*Latitude*	*Longitude*
C1	31° 21′ 30″ North	32° 20′ 06″ East
C2	31° 22′ 06″ North	32° 20′ 06″ East
C3	31° 22′ 42″ North	32° 20′ 06″ East
C4	31° 21′ 30″ North	32° 19′ 24″ East
C5	31° 22′ 06″ North	32° 19′ 24″ East
C6	31° 22′ 42″ North	32° 19′ 24″ East
C7	31° 21′ 30″ North	32° 18′ 42″ East
C8	31° 22′ 06″ North	32° 18′ 42″ East
C9	31° 22′ 42″ North	32° 18′ 42″ East
C10	31° 21′ 30″ North	32° 18′ 00″ East
C11	31° 22′ 06″ North	32° 18′ 00″ East
C12	31° 22′ 42″ North	32° 18′ 00″ East
C13	31° 21′ 30″ North	32° 17′ 18″ East
C14	31° 22′ 06″ North	32° 17′ 18″ East
C15	31° 22′ 42″ North	32° 17′ 18″ East

(iv) Vessels at anchor in this area will enter the Port of Port Said through the West Approach Channel as follows:

(a) Take on their starboard: Fairway, No. 8, No. 7 and No. 6 Buoys.

(b) On the port are 3 yellow buoys showing yellow lights.

(c) On reaching No. 5 pair of buoys at Hm. 80 showing occ. green and red, one every 4 seconds, they will proceed through the Old Channel to port (course 217.5°).

(3) Prohibited Area for Anchorage

The area between the East limit of the 2 anchorage areas and the approach channels is prohibited for anchorage to all vessels and floating units.

(B) DANGEROUS AREAS

(1) Wreck. A wreck buoy is situated on the Western side of a sunken ship at Hm. 195 West of the approach channel:

Lat. 31° 25′ 19″ North Long. 32° 23′ 00″ East.

Height 5 m., painted black and red horizontal bands, with day mark 2 black balls. Showing group flashing white (2) every 10 seconds. (See "Plan").

(2) Dumping Areas. The hopper dredgers, dredge underway for several months every year in the entrance channels and dump in the following areas.

3,140 m. East of the axis of the East channel at Hm. 140.
Lat. 31° 20′ 48″ North Long. 32° 25′ 48″ East.
4,000 m. East of the axis of the East channel at Hm. 80 approximately
Lat. 31° 18′ 42″ North Long. 32° 24′ 42″ East.

(C) PORT SAID APPROACH CHANNELS

(1) Buoyage (See "Plan" – "Suez Canal North Entrance").

The Port Said West approach channel extends from the port of Port Said till Hm. 80 where it joins the East approach channel.

The Port Said East approach channel extends from the land boundary, East of Port Said, till Hm. 195.

The 2 channels are marked, on each side, by light buoys of 5 m. height. The light is red on the Eastern side and green on the Western.

(a) East Approach Channel (See "Plan").

The buoys of the East Approach Channel are black with day mark cone point up in the West and red with day mark can in the East, showing by night flashing lights, except: the 2 buoys indicating the Northern end of the channel, at Hm. 195, are Isophase (2 secs. on, 2 secs. off). The distance between them is 745 m.

(b) Junction of East and West Approach Channels

Three yellow buoys mark the junction of the East and West approach channels. They are placed at Hm. 83, Hm. 95 and Hm. 105.

Buoy at Hm. 83: Yellow in colour, is fitted with a yellow St. Andrew's cross day mark and shows by night group flashing yellow (5) every 20 seconds.

Buoy at Hm. 95: Yellow in colour, shows a fixed yellow light.

Buoy at Hm. 105: Yellow in colour, is fitted with a yellow St. Andrew's cross day mark and shows by night group flashing yellow (4) every 15 seconds.

(c) West Approach Channel

The buoyage of the West approach channel of Port Said Harbour, is as follows:

(i) Port Said Fairway Buoy (See "Plan").

Off Port Said, a fairway light buoy, height 10 m., painted black with yellow vertical stripes, surmounted by a day mark 2 cones point out, and showing group flashing white light (3) every 10 seconds.

Lat. 31° 21′ 18″ North Long. 32° 20′ 42″ East.

(ii) The buoys of the West approach channel are black with day mark cone point up in the West and red with day mark can in the East and show fixed lights, except the Northern buoy on the West side of the channel which shows occ. green (1) every 4 seconds (Buoy No. 5 of Hm. 80) and is fitted with day mark cone.

(2) Navigation

(a) Northbound Vessels: (i) All Northbound vessels use the East Approach Channel. The end of the navigable channel is the pair of buoys at Hm. 195. (course 014°). From Hm. 195, vessels are to steer North (000°) for 5 miles before altering course.

(ii) Vessels leaving Port Said harbour to sea, use the West Approach Channel (course 037.5°) till Hm. 80 where it joins the East Approach Channel (course 014°) till Hm. 195. From Hm. 195, vessels are to steer North (000°) for 5 miles before altering course.

(iii) Vessels of the Northbound convoys wishing to enter Port Said Harbour shall proceed through the East Approach Channel till Hm. 195, then steer North (000°) for 5 miles and then steer for the anchorage berth allocated by the Harbour Office(8).

(b) Southbound Vessels: The maximum draft authorised for Southbound vessels is limited to 42 ft.(9) in accordance with the tables giving the maximum draft according to the vessel's breadth.

(i) VLCCs, in ballast or partially loaded, 3rd generation container ships and vessels having a draft of more than 38 ft. and up to 42 ft.(10) maximum, have to use the East Approach Channel (course 194°).

The said vessels enter the channel between flashing green buoys of Hm. 165 and Hm. 135.

(ii) All other vessels, either transiting the Canal or berthing at Port Said, have to enter through the West Approach Channel (course 180°) from the entrance, passing between the West green buoys and the East yellow buoys till Hm. 80, then *alter course* to 217.5° passing between green and red buoys, till Port Said Harbour.

(D) BREAKWATERS:

(1) The breakwater protecting the West Approach Channel is situated to the West of the channel and extends from land boundary till Hm. 73 with a submerged part from Hm. 50. This part is marked by cigar shaped unlit buoys.

(2) Two breakwaters protect the East Approach Channel. The Eastern extends 2 km. from the land boundary; the Western, 0.5 km.

Each breakwater has a small fixed white light on its end.

Article 9: Suez (See "Plan")

Five miles before arrival at the First Separation Zone Buoy, all vessels coming from sea should contact the Suez Canal Harbour Office by VHF Channel 16. If not able to, contact by R/T (2,182 kHz) or by W/T via S.U.Q. for instructions. (See Part III, Articles 87 and 88).

(A) Separation Zone

A Separation Zone has been established. Extending 0.3 miles on each side of the line connecting the two Separation Buoys mentioned hereafter. All vessels arriving or leaving have to pass the Separation Zone Buoys(11) on their Port side.

Separation Zone Buoy No. 1 (Southern Buoy-Lightfloat):

Lat. 29° 39′ 33″ North Long. 32° 32′ 00″ East

Height 5 m., yellow in colour with a yellow St. Andrew's Cross daymark and a fog horn. Showing flashing yellow light (1) every 2 seconds.

Separation Zone Buoy No. 2 (Northern Buoy-Lightfloat):

Lat. 29° 48′ 36″ North Long. 32° 32′ 00″ East

Height 5 m., yellow in colour with a yellow St. Andrew's Cross daymark. Showing group flashing yellow light (4) every 15 seconds.

(B) Anchorage Area for Northbound VLCCs, 3rd Generation Container Ships, and Vessels Over 38 ft. Draft

This Anchorage Area is indicated by the following buoys:

(1) South Shoal Buoy:

Lat. 29° 38′ 48″ North Long. 32° 35′ 54″ East

Black, cone shaped, showing a green isophase light, (2 seconds ON – 2 seconds OFF); fitted with a 12 mile Racon. (Not fitted at time of printing).

(2) Buoy "K":

Lat. 29° 41′ 12″ North Long. 32° 38′ 42″ East

Black, cone shaped, showing a fixed green light.

(3) Buoy "L":

Lat. 29° 45′ 00″ North Long. 32° 38′ 42″ East

Height 5 m., black, cone shaped and showing a flashing green light.

(4) Conry Rock Buoy:

Lat. 29° 48′ 18″ North Long. 32° 34′ 09″ East

Height 5 m., black, cone shaped, and showing group flashing green light (2) every 7 seconds; fitted with a 5 mile Racon. (Not fitted at time of printing).

(i) V Berths: Centre of Circle (radius 833 m.)

Berth	*Latitude*	*Longitude*
V1	29° 46′ 30″ North	32° 35′ 00″ East
V2	29° 45′ 30″ North	32° 35′ 00″ East
V3	29° 45′ 30″ North	32° 36′ 00″ East
V4	29° 45′ 00″ North	32° 37′ 00″ East
V5	29° 44′ 30″ North	32° 36′ 00″ East
V6	29° 44′ 30″ North	32° 35′ 00″ East
V7	29° 44′ 00″ North	32° 37′ 00″ East
V8	29° 43′ 30″ North	32° 36′ 00″ East
V9	29° 43′ 30″ North	32° 35′ 00″ East

(C) Waiting Area for other Northbound Vessels

The area bounded by:

Conry Rock Buoy	Lat. 29° 48′ 18″ North	Long. 32° 34′ 09.0″ East
Buoy (M)	Lat. 29° 50′ 00″ North	Long. 32° 35′ 18.0″ East
Buoy (N)	Lat. 29° 50′ 39″ North	Long. 32° 35′ 18.0″ East
Spherical Buoy (D)	Lat. 29° 51′ 20″ North	Long. 32° 35′ 18.0″ East
Spherical Buoy (C)	Lat. 29° 52′ 00″ North	Long. 32° 35′ 18.0″ East
Spherical Buoy (B)	Lat. 29° 52′ 08″ North	Long. 32° 34′ 34.0″ East
Spherical Buoy (A)	Lat. 29° 52′ 15″ North	Long. 32° 33′ 51.0″ East
Buoy Hm. 60.00 E	Lat. 29° 52′ 22″ North	Long. 32° 33′ 07.5″ East
Buoy Hm. 70.50 E	Lat. 29° 51′ 48″ North	Long. 32° 33′ 13.0″ East
Buoy Hm. 80.50 E	Lat. 29° 51′ 16″ North	Long. 32° 33′ 17.0″ East
Position (R)	Lat. 29° 48′ 36″ North	Long. 32° 33′ 12.0″ East

(D) – Arrival to Suez of Northbound Vessels

Vessels coming from sea have to pass East of the separation zone.

VLCC's 3rd generation Containerships and vessels over 38 ft. draft have to anchor in the anchorage area specified for these vessels (V Berths) in the berth allocated to each vessel by the Suez Canal Authority. Other vessels have to pass East of the separation zone and anchor in the Waiting Area as previously indicated.

(E) – Prohibited Area for Anchorage. The area bounded by:

	Latitude	*Longitude*
Western Buoy	29° 51′ 16″ North	32° 33′ 17″ East
Eastern Buoy	29° 51′ 15″ North	32° 33′ 06″ East
Position (P)	29° 48′ 36″ North	32° 30′ 54″ East
Position (R)	29° 48′ 36″ North	32° 33′ 12″ East

is strictly prohibited for anchorage for all ships.

(F) – Suez Entrance Channel

(Including the Eastern Channel leading to the Canal Entrance).

This channel is used for vessels entering or leaving Suez Canal and also by those entering Port of Suez and using its anchorages (12)

Buoyage of Suez Entrance Channel.

This channel is buoyed as follows:

(1) A pair of light buoys at Hm. 80.5 (entrance buoys):

(i) The Eastern Buoy, height 5 m., black, cone shaped and showing a green occulting light (1) every 4 seconds.

(ii) The Western Buoy, height 5 m., red, can shaped and showing an occulting red light (1) every 4 seconds.

The distance between the Eastern and Western Buoys is 340 m.

(2) Proceeding Northward, the channel is marked on both sides by light buoys, height 5 m.

(i) On the Eastern side of the channel, the buoys are black, cone shaped and show a flashing green light.

They are placed as follows:

Hm. 70.50
Hm. 60.00
Hm. 44.40
Hm. 24.00
Hm. 7.00
Km. 162.150 (Occ. green light)

(ii) On the Western side, the buoys are red, can shaped and show a flashing red light.

They are placed as follows:

Hm. 70.50
Hm. 60.00
Hm. 44.40
Hm. 21.00
Hm. 17.20
Hm. 1.00 (Occ. red)

Course: From the entrance buoys (Hm. 80.50) (New Port Rock Channel) to the green light buoy of Hm. 24.00.

Northbound: 352.5°
Southbound: 172.5°

(G) – Canal South Entrance

The Canal South entrance is marked by 2 light buoys, height 7 m.

(1) The Eastern at Km. 162.150 is black, cone shaped and showing occulting green light (1) every 4 seconds.

(2) The Western at Hm. 1.00 is red, can shaped and showing occulting red light (1) every 4 seconds.

(H) Port of Suez: Port of Suez is delimited by the imaginary line which extends from Ras Misalla to Mersa Sadat and comprises the coastal zone North of this line, up to Suez Canal entrance.

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(8)This is to avoid crossing incoming vessels to the Northern Anchorage Area.

(9)Maximum draft will be increased to 42 ft. on further notice.

(10)Maximum draft will be increased to 42 ft. on further notice.

(11)See "Plan".

(12)The max. draft authorised for vessels using Ibrahim Basin, the Petroleum Basin or El Adabya must not exceed 26 ft. at HW.

SUEZ CANAL – RULES OF NAVIGATION*

JANUARY 1986 (with amendments)

Part I Navigation
Part II Canal and Lakes (Characteristics)
Part III Communications – Signals

*Not all the Rules of Navigation are printed herein. Part IV is concerned with tonnage and dues and the Appendix with carriage of dangerous goods.

GENERAL

Article 1: Transit Through the Suez Canal

(a) Transit through the Suez Canal is open to vessels of all nations, subject to their complying with the conditions stated in the present Rules of Navigation and all the references and circulars which shall be issued by the Suez Canal Authority. They will constitute an integral part of these rules, and the provisions of the International Regulation for Safety Of Life At Sea, and its amendments, as well as the provisions of the International Regulations for Preventing Collision at Sea, and all laws, orders and regulations issued by the A.R.E. Government.

However, the Suez Canal Authority reserves the right to refuse access to the Canal Waters, or order the towage or convoying of vessels considered dangerous or troublesome to navigation in the Canal. Non or erroneous declaration of dangerous cargo (see "Article 47 Bis").

(b) By the sole fact of using the Canal Waters, Masters and Owners of vessels bind themselves to accept all the conditions of the present Rules of Navigation, with which they acknowledge being well acquainted, to conform with these conditions in every respect, to comply with any requisition made with a view to their being duly carried out, and to adhere to the Canal Authority's private Code of Signals as shown in Part III of these Rules.

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Every vessel other than warships intending to transit the Suez Canal or staying at Port Said or Port of Suez, or in the Suez Canal Basins or docks must have a recognised Shipping Agent.

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The words "Owners and/or Operators" for the purpose of the present article, shall be construed to mean person, persons or corporate body responsible for the vessel at the time of the navigational accident or incident.

Moreover, the vessel guarantees to indemnify the Canal Authority in respect of any claim against the latter by reason of any damage whatsoever she may cause either directly or indirectly to third parties.

The vessel waives the right to claim against the Suez Canal Authority for any damages caused by third parties that she may sustain while in Canal Waters.

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The Canal Authority may delay a vessel for the purpose of investigating any claim or dispute that may arise, or any formal or informal complaint, or allegation of violation of the laws of the Canal.

A vessel may be delayed until in the opinion of the Canal Authority, its tenderness, trim, list, cargo, hull, machinery have been put into such condition as will make the vessel reasonably safe for her passage through the Canal.

No claim for damages is accepted or considered because of any such temporary delaying of vessels.

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Vessels in Port Said Anchorages Area (Northern and Southern Anchorages), Suez VLCCs and 3rd generation container ships Anchorage, Suez Roads, the Bitter Lakes or Timsah Lake are not authorised to change berth or anchorage without explicit authorisation from the Suez Canal Authority.

PART I – NAVIGATION

CHAPTER I: SUEZ CANAL FEATURES

SECTION I: Approaches

Article 8: Port Said (See "Plan")

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Height 10 m., black and yellow horizontal bands.
Daymark: 2 black cones points in.
At Night: Group flashing white light (9) every 13 seconds.
Fitted with a Racon and fog horn.(5)

(A) ANCHORAGE AREAS(6) The incoming vessels have two anchorages.

(1) The Northern Area

(i) For VLCCs, 3rd generation containerships and vessels over 38 ft. draft.

(ii) The area is limited as follows:

North Limit Latitude	31° 25′ 00″ North
South Limit Latitude	31° 23′ 12″ North
East Limit Longitude	32° 20′ 30″ East
West Limit Longitude	32° 16′ 00″ East

(iii) V Berths: Centre of Circle (radius 750 m.)

Berth	*Latitude*	*Longitude*
V1	31° 23′ 42″ North	32° 19′ 30″ East
V2	31° 24′ 30″ North	32° 19′ 30″ East
V3	31° 23′ 42″ North	32° 18′ 30″ East
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V6	31° 24′ 30″ North	32° 17′ 30″ East
V7	31° 23′ 42″ North	32° 16′ 30″ East
V8	31° 24′ 30″ North	32° 16′ 30″ East

(iv) Vessels at anchor in this area when entering the Canal (East Channel) will proceed between the East and West Buoys at Hm. 135.(7)

At. Hm. 150 (East) a buoy is fixed to be used as a lead when approaching the 2 Entrance Buoys of Hm. 135 (course 194°).

Hm. 150 Buoy: Red Buoy. Red St. Andrew's Cross. At Night: Occulting red (1) every 4 seconds.

Hm. 135 Buoys: West: Black Buoy. At Night: Quick flashing green light. East: Red Buoy. At Night: Quick flashing red light.

(2) The Southern Area

(i) For all other vessels.

(ii) The area is limited as follows:

North Limit Latitude	31° 23′ 03″ North
South Limit Latitude	31° 21′ 15″ North
East Limit Longitude	32° 20′ 30″ East
West Limit Longitude	32° 16′ 42″ East

(iii) C Berths: Centre of Circle (radius 500 m.)

Berth	*Latitude*	*Longitude*
C1	31° 21′ 30″ North	32° 20′ 06″ East
C2	31° 22′ 06″ North	32° 20′ 06″ East
C3	31° 22′ 42″ North	32° 20′ 06″ East
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C10	31° 21′ 30″ North	32° 18′ 00″ East
C11	31° 22′ 06″ North	32° 18′ 00″ East
C12	31° 22′ 42″ North	32° 18′ 00″ East
C13	31° 21′ 30″ North	32° 17′ 18″ East
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C15	31° 22′ 42″ North	32° 17′ 18″ East

(iv) Vessels at anchor in this area will enter the Port of Port Said through the West Approach Channel as follows:

(a) Take on their starboard: Fairway, No. 8, No. 7 and No. 6 Buoys.

(b) On the port are 3 yellow buoys showing yellow lights.

(c) On reaching No. 5 pair of buoys at Hm. 80 showing occ. green and red, one every 4 seconds, they will proceed through the Old Channel to port (course 217.5°).

(3) Prohibited Area for Anchorage

The area between the East limit of the 2 anchorage areas and the approach channels is prohibited for anchorage to all vessels and floating units.

(B) DANGEROUS AREAS

(1) Wreck. A wreck buoy is situated on the Western side of a sunken ship at Hm. 195 West of the approach channel:
Lat. 31° 25′ 19″ North   Long. 32° 23′ 00″ East.
Height 5 m., painted black and red horizontal bands, with day mark 2 black balls. Showing group flashing white (2) every 10 seconds. (See "Plan").

(2) Dumping Areas. The hopper dredgers, dredge underway for several months every year in the entrance channels and dump in the following areas.

3,140 m. East of the axis of the East channel at Hm. 140.
Lat. 31° 20′ 48″ North   Long. 32° 25′ 48″ East.
4,000 m. East of the axis of the East channel at Hm. 80 approximately
Lat. 31° 18′ 42″ North   Long. 32° 24′ 42″ East.

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[1] Port Said Eastern and Western Entrance channels, Suez Entrance channel which includes the Port of Suez Eastern channel leading to the Canal entrance.

[2] Except Egyptian vessels under 300 Tons Suez Canal Gross Tons authorised to work in Canal Port and Accesses and Egyptian fishing vessels under 300 tons S.C.G.T. This does not apply for the Canal proper.

[3] See "Plan".

[4] All buoys in the Canal and access channels may be replaced temporarily by others of smaller size.

[5] Not fitted at time of printing.

[6] All vessels arriving from sea have to anchor in the berth allocated to them by the Suez Canal Port Authority.

[7] All the buoys in the Suez Canal and its approaches are fitted with Radar Reflectors.

(C) PORT SAID APPROACH CHANNELS

(1) Buoyage (See "Plan" – "Suez Canal North Entrance").

The Port Said West approach channel extends from the port of Port Said till Hm. 80 where it joins the East approach channel.

The Port Said East approach channel extends from the land boundary, East of Port Said, till Hm. 195.

The 2 channels are marked, on each side, by light buoys of 5 m. height. The light is red on the Eastern side and green on the Western.

(a) East Approach Channel (See "Plan").

The buoys of the East Approach Channel are black with day mark cone point up in the West and red with day mark can in the East, showing by night flashing lights, except: the 2 buoys indicating the Northern end of the channel, at Hm. 195, are Isophase (2 secs. on, 2 secs. off). The distance between them is 745 m.

(b) Junction of East and West Approach Channels

Three yellow buoys mark the junction of the East and West approach channels. They are placed at Hm. 83, Hm. 95 and Hm. 105.

Buoy at Hm. 83: Yellow in colour, is fitted with a yellow St. Andrew's cross day mark and shows by night group flashing yellow (5) every 20 seconds.

Buoy at Hm. 95: Yellow in colour, shows a fixed yellow light.

Buoy at Hm. 105: Yellow in colour, is fitted with a yellow St. Andrew's cross day mark and shows by night group flashing yellow (4) every 15 seconds.

(c) West Approach Channel

The buoyage of the West approach channel of Port Said Harbour, is as follows:

(i) Port Said Fairway Buoy (See "Plan").

Off Port Said, a fairway light buoy, height 10 m., painted black with yellow vertical stripes, surmounted by a day mark 2 cones point out, and showing group flashing white light (3) every 10 seconds.

Lat. 31° 21′ 18″ North Long. 32° 20′ 42″ East.

(ii) The buoys of the West approach channel are black with day mark cone point up in the West and red with day mark can in the East and show fixed lights, except the Northern buoy on the West side of the channel which shows occ. green (1) every 4 seconds (Buoy No. 5 of Hm. 80) and is fitted with day mark cone.

(2) Navigation

(a) Northbound Vessels: (i) All Northbound vessels use the East Approach Channel. The end of the navigable channel is the pair of buoys at Hm. 195. (course 014°). From Hm. 195, vessels are to steer North (000°) for 5 miles before altering course.

(ii) Vessels leaving Port Said harbour to sea, use the West Approach Channel (course 037.5°) till Hm. 80 where it joins the East Approach Channel (course 014°) till Hm. 195. From Hm. 195, vessels are to steer North (000°) for 5 miles before altering course.

(iii) Vessels of the Northbound convoys wishing to enter Port Said Harbour shall proceed through the East Approach Channel till Hm. 195, then steer North (000°) for 5 miles and then steer for the anchorage berth allocated by the Harbour Office(8).

(8)This is to avoid crossing incoming vessels to the Northern Anchorage Area.

(b) Southbound Vessels: The maximum draft authorised for Southbound vessels is limited to 42 ft.(9) in accordance with the tables giving the maximum draft according to the vessel's breadth.

(9)Maximum draft will be increased to 42 ft. on further notice.

(i) VLCCs, in ballast or partially loaded, 3rd generation container ships and vessels having a draft of more than 38 ft. and up to 42 ft.(10) maximum, have to use the East Approach Channel (course 194°).

The said vessels enter the channel between flashing green buoys of Hm. 165 and Hm. 135.

(10)Maximum draft will be increased to 42 ft. on further notice.

(ii) All other vessels, either transiting the Canal or berthing at Port Said, have to enter through the West Approach Channel (course 180°) from the entrance, passing between the West green buoys and the East yellow buoys till Hm. 80, then *alter course* to 217.5° passing between green and red buoys, till Port Said Harbour.

(D) BREAKWATERS:

(1) The breakwater protecting the West Approach Channel is situated to the West of the channel and extends from land boundary till Hm. 73 with a submerged part from Hm. 50. This part is marked by cigar shaped unlit buoys.

(2) Two breakwaters protect the East Approach Channel. The Eastern extends 2 km. from the land boundary; the Western, 0.5 km.

Each breakwater has a small fixed white light on its end.

Article 9: Suez (See "Plan")

Five miles before arrival at the First Separation Zone Buoy, all vessels coming from sea should contact the Suez Canal Harbour Office by VHF Channel 16. If not able to, contact by R/T (2,182 kHz) or by W/T via S.U.Q. for instructions. (See Part III, Articles 87 and 88).

(A) Separation Zone

A Separation Zone has been established. Extending 0.3 miles on each side of the line connecting the two Separation Buoys mentioned hereafter. All vessels arriving or leaving have to pass the Separation Zone Buoys(11) on their Port side.

(11)See "Plan".

Separation Zone Buoy No. 1 (Southern Buoy-Lightfloat):

Lat. 29° 39′ 33″ North Long. 32° 32′ 00″ East

Height 5 m., yellow in colour with a yellow St. Andrew's Cross daymark and a fog horn. Showing flashing yellow light (1) every 2 seconds.

Separation Zone Buoy No. 2 (Northern Buoy-Lightfloat):

Lat. 29° 48′ 36″ North Long. 32° 32′ 00″ East

Height 5 m., yellow in colour with a yellow St. Andrew's Cross daymark. Showing group flashing yellow light (4) every 15 seconds.

(B) Anchorage Area for Northbound VLCCs, 3rd Generation Container Ships, and Vessels Over 38 ft. Draft

This Anchorage Area is indicated by the following buoys:

(1) South Shoal Buoy:

Lat. 29° 38′ 48″ North Long. 32° 35′ 54″ East

Black, cone shaped, showing a green isophase light, (2 seconds ON – 2 seconds OFF); fitted with a 12 mile Racon. (Not fitted at time of printing).

(2) Buoy "K":

Lat. 29° 41′ 12″ North Long. 32° 38′ 42″ East

Black, cone shaped, showing a fixed green light.

(3) Buoy "L":

Lat. 29° 45′ 00″ North Long. 32° 38′ 42″ East

Height 5 m., black, cone shaped and showing a flashing green light.

(4) Conry Rock Buoy:

Lat. 29° 48′ 18″ North Long. 32° 34′ 09″ East

Height 5 m., black, cone shaped, and showing group flashing green light (2) every 7 seconds; fitted with a 5 mile Racon. (Not fitted at time of printing).

(i) V Berths: Centre of Circle (radius 833 m.)

Berth	*Latitude*	*Longitude*
V1	29° 46′ 30″ North	32° 35′ 00″ East
V2	29° 45′ 30″ North	32° 35′ 00″ East
V3	29° 45′ 30″ North	32° 36′ 00″ East
V4	29° 45′ 00″ North	32° 37′ 00″ East
V5	29° 44′ 30″ North	32° 36′ 00″ East
V6	29° 44′ 30″ North	32° 35′ 00″ East
V7	29° 44′ 00″ North	32° 37′ 00″ East
V8	29° 43′ 30″ North	32° 36′ 00″ East
V9	29° 43′ 30″ North	32° 35′ 00″ East

(C) Waiting Area for other Northbound Vessels

The area bounded by:

Conry Rock Buoy	Lat. 29° 48′ 18″ North	Long. 32° 34′ 09.0″ East
Buoy (M)	Lat. 29° 50′ 00″ North	Long. 32° 35′ 18.0″ East
Buoy (N)	Lat. 29° 50′ 39″ North	Long. 32° 35′ 18.0″ East
Spherical Buoy (D)	Lat. 29° 51′ 20″ North	Long. 32° 35′ 18.0″ East
Spherical Buoy (C)	Lat. 29° 52′ 00″ North	Long. 32° 35′ 18.0″ East
Spherical Buoy (B)	Lat. 29° 52′ 08″ North	Long. 32° 34′ 34.0″ East
Spherical Buoy (A)	Lat. 29° 52′ 15″ North	Long. 32° 33′ 51.0″ East
Buoy Hm. 60.00 E	Lat. 29° 52′ 22″ North	Long. 32° 33′ 07.5″ East
Buoy Hm. 70.50 E	Lat. 29° 51′ 48″ North	Long. 32° 33′ 13.0″ East
Buoy Hm. 80.50 E	Lat. 29° 51′ 16″ North	Long. 32° 33′ 17.0″ East
Position (R)	Lat. 29° 48′ 36″ North	Long. 32° 33′ 12.0″ East

(D) – Arrival to Suez of Northbound Vessels

Vessels coming from sea have to pass East of the separation zone.

VLCC's 3rd generation Containerships and vessels over 38 ft. draft have to anchor in the anchorage area specified for these vessels (V Berths) in the berth allocated to each vessel by the Suez Canal Authority. Other vessels have to pass East of the separation zone and anchor in the Waiting Area as previously indicated.

(E) – Prohibited Area for Anchorage. The area bounded by:

	Latitude	*Longitude*
Western Buoy	29° 51′ 16″ North	32° 33′ 17″ East
Eastern Buoy	29° 51′ 15″ North	32° 33′ 06″ East
Position (P)	29° 48′ 36″ North	32° 30′ 54″ East
Position (R)	29° 48′ 36″ North	32° 33′ 12″ East

is strictly prohibited for anchorage for all ships.

(F) – Suez Entrance Channel

(Including the Eastern Channel leading to the Canal Entrance).

This channel is used for vessels entering or leaving Suez Canal and also by those entering Port of Suez and using its anchorages (12)

(12)The max. draft authorised for vessels using Ibrahim Basin, the Petroleum Basin or El Adabya must not exceed 26 ft. at HW.

Buoyage of Suez Entrance Channel.

This channel is buoyed as follows:

(1) A pair of light buoys at Hm. 80.5 (entrance buoys):

(i) The Eastern Buoy, height 5 m., black, cone shaped and showing a green occulting light (1) every 4 seconds.

(ii) The Western Buoy, height 5 m., red, can shaped and showing an occulting red light (1) every 4 seconds.

The distance between the Eastern and Western Buoys is 340 m.

(2) Proceeding Northward, the channel is marked on both sides by light buoys, height 5 m.

(i) On the Eastern side of the channel, the buoys are black, cone shaped and show a flashing green light.

They are placed as follows:

Hm. 70.50
Hm. 60.00
Hm. 44.40
Hm. 24.00
Hm. 7.00
Km. 162.150 (Occ. green light)

(ii) On the Western side, the buoys are red, can shaped and show a flashing red light.

They are placed as follows:

Hm. 70.50
Hm. 60.00
Hm. 44.40
Hm. 21.00
Hm. 17.20
Hm. 1.00 (Occ. red)

Course: From the entrance buoys (Hm. 80.50) (New Port Rock Channel) to the green light buoy of Hm. 24.00.

Northbound: 352.5°
Southbound: 172.5°

(G) – Canal South Entrance

The Canal South entrance is marked by 2 light buoys, height 7 m.

(1) The Eastern at Km. 162.150 is black, cone shaped and showing occulting green light (1) every 4 seconds.

(2) The Western at Hm. 1.00 is red, can shaped and showing occulting red light (1) every 4 seconds.

(H) Port of Suez: Port of Suez is delimited by the imaginary line which extends from Ras Misalla to Mersa Sadat and comprises the coastal zone North of this line, up to Suez Canal entrance.

(1) Navigation:

(a) General Rules:

(i) All vessels shall conform to the International Regulations for Preventing Collision at Sea.

(ii) Navigation in the port is limited to approved channels only.

(iii) Crossing or overtaking in the channels is strictly forbidden.

(iv) Vessels must proceed in the port with caution and at reduced speed.

(v) Vessels must not let go their anchors except in the anchorage.

(b) Traffic Regulation:

(i) Vessels entering the port from sea and vessels leaving the port for sea.

These movements shall be effected through the Western channel, except for vessels to which the following anchorages have been allocated: 1C – 2C – 3C – 4C – 5C. They should use the Eastern channel.

(ii) Vessels entering the Canal from the Port, the Zone N.W. of Green Island, anchorages 8C to 16C and anchorage groups A and B shall pass through the Western channel, then South of Green Island to join the Eastern channel and then proceed to the entrance of the Canal.

Vessels entering the Canal from the Zone N.E. of Green Island and Anchorages 1C to 7C shall proceed directly from their anchorages to the entrance of the Canal.

If the number of vessels exceeds the number of anchorages, vessels in excess shall anchor South of the Western channel, parallel to anchorages 2A, 4A, 6A, 4B and 7B, making sure to leave the Western channel clear for navigation at all times.

Vessels entering the Canal from the Zone South of Green Island and anchorages 1D to 6D shall proceed directly from their anchorages to the entrance of the Canal; or if leaving for sea, shall use the Eastern Channel.

(iii) Vessels coming from the Canal shall proceed to sea through the Eastern Channel. If anchoring in the Zone N.W. of Green Island or anchorages 8C to 16C and anchorage groups A and B, shall proceed through the Eastern Channel, then the Western Channel, until reaching the designated anchorage. If anchoring in the Zone N.E. of Green Island or anchorages 1C to 7C, they shall proceed directly from the Canal to the designated anchorage.

(c) Priority of Movement in the port:

Priority of movement in the port shall be as follows:

(i) Vessels coming out of the Canal.

(ii) Vessels proceeding to the Canal.

(iii) Vessels coming from sea must wait outside the port until the Eastern channel is clear.

(iv) Vessels leaving the anchorages of the Port of Suez.

(v) Vessels coming out of the Basins (Ibrahim Basin – Adabeya – Petroleum Basin).

(vi) Vessels using the New Petroleum Jetty.

(d) Priority of Passage in the Eastern Channel:

Vessels leaving:

(i) The Canal.

(ii) Anchorages of Port of Suez, and proceeding Southward to sea, have to pass through the Eastern channel.

Ships approaching Port of Suez from seaward should wait outside until the channel is clear.

Buoys:

Buoy 2A	281.5° – 20.9 cables from Newport Rock Light
Buoy 3A	278.5° – 26.9 cables from Newport Rock Light

These buoys show flashing red light (1) every 5 seconds.

(2) Buoyage of Port of Suez:

Position of Green Island Light: Lat. 29° 54′ 39″ North, Long. 32° 31′ 48″ East.

(a) Eastern Channel (East of Green Island) is limited by the following buoys:

(i) In the East:

Buoy	*From Green Island Light*	*Distance (m.)*
Hm. 7.00 East	062°	2440
Hm. 14.00 East	080°	1820
Hm. 24.00 East	111°	1720
Hm. 44.40 East	144°	3300
Hm. 60.00 East	153°	4720
Hm. 70.50 East	166°	5720
Hm. 80.50 East	159°	6680

(ii) In the West:

Buoy	*From Green Island Light*	*Distance (m.)*
Hm. 1.00 West	050°	2600
Hm. 17.20 West	082°	1390
Hm. 21.00 West	108°	1260
Hm. 44.40 West	150°	3110
Hm. 60.00 West	157°	4640
Hm. 70.50 West	160°	5630
Hm. 80.50 West	162°	6630

(b) Shallow water in the Green Island Zone is limited as follows:

North Buoy bearing 000° at a distance of 1,490 m. from Green Island Light, showing flashing green light (1) every 2 seconds.

Red Buoy of Hm. 17.20.

Red Buoy of Hm. 21.00.

South-West Buoy bearing 239.5° at a distance of 780 m. from Green Island Light, showing group flashing green (3) every 7 seconds.

West Buoy bearing 308° at a distance of 820 m. from Green Island Light, showing group flashing green (2) every 5 seconds.

Oil Jetty quick flashing white light.

(3) Anchorages of Port of Suez:

Anchorage	*Bearing of Green Island Light*	*Distance from Green Island Light (cables)*
(a) Group "A":		
1A	308.0°	6.1
2A	333.0°	7.2
3A	334.5°	4.2
4A	358.0°	6.4
5A	018.0°	3.9
6A	023.0°	7.1
7A	048.0°	5.8
8A	041.5°	8.9
9A	061.5°	8.2
10A	083.0°	7.2
(b) Group "B":		
1B	101.5°	14.4
2B	092.5°	12.1
3B	078.0°	12.4
4B	064.0°	13.9
5B	090.0°	15.2
6B	098.0°	17.25
7B	071.5°	17.2
8B	095.0°	20.2
9B	086.0°	20.3
10B	079.5°	15.1
11B	089.5°	17.9
12B	090.5°	22.2
13B	078.0°	19.3
(c) Group "C":		
1C	220.0°	11.8
2C	208.5°	11.5
3C	187.5°	11.2
4C	235.0°	8.5
5C	214.5°	8.1
6C	170.5°	9.4
7C	161.0°	10.6
8C	158.0°	8.55
9C	142.0°	9.3
10C	143.0°	12.3
11C	133.5°	12.0
12C	144.0°	6.58
13C	121.5°	6.5
14C	104.0°	6.7
15C	097.0°	4.7
16C	073.5°	4.8
(d) Group "D":		
1D	346.0°	12.9
2D	004.0°	12.6
3D	021.0°	13.4
4D	035.0°	14.5
5D	041.0°	16.7
6D	047.0°	18.4
(e) Group "H":		
1H	298.0°	12.0
2H	308.0°	14.3
(f) Adabeya Anchorage:		
1	059.0°	28.3
2	054.0°	28.8

(4) In Bad Weather When Harbour is Closed:

(a) Vessels coming from sea:

It is recommended not to enter the Port of Suez when it is closed by foul weather which prevents the Pilots from boarding the vessels.

However, any vessel who would like to enter on her own responsibility will have to contact the Suez Canal Authority wireless station (SUQ) and ask permission for doing so, giving her draft and length in feet, by the following cable:

"I wish to enter Suez Anchorage on my own responsibility.
Length . . . . ft. Draft . . . . ft.

If permission is granted, the Master will receive the following cable:

"Port is closed. Entering on your own responsibility.
Available Anchorage. . . . ."

(b) Vessels coming out from the Suez Canal:

In case when the embarkation of the Road Pilot is not possible the following cable will be sent to the ship:

"Owing to bad weather Road Pilot will not board your ship".

The following will be added in case the vessel would ask for an anchorage:

"Available Anchorage . . . ."

(c) Vessels anchored in the Port of Suez leaving for sea:

Vessels who would like to sail on their own responsibility, will have to hoist the signal for Pilot, send the following cable to SUQ and wait for orders:

"I wish to go to sea on my own responsibility. Please confirm".

They may proceed if they receive the cable:

"You may proceed to sea on your own responsibility".

Article 10: Roads and Harbour Pilot Signals:

Vessels requiring a Pilot for:

(a) Entering from sea
(b) Sailing out to sea
(c) Changing berth
(d) Entering the Canal

should hoist a black ball over G by day and 3 white lights by night in a vertical line. These signals are to be hoisted where can best be seen.

SECTION II

Article 11: Pilotage

(A) Pilotage is compulsory in Canal waters:

All vessels (13) entering or leaving Canal waters, must take a Pilot.

However, the Suez Canal Authority reserves the right to put on board vessels under 1,500 tons gross a tug Master and under 800 tons gross a patron conducteur, instead of a Pilot.

Men of war and any vessel carrying dangerous cargo must have a Pilot regardless of their tonnage.

Roads Pilots, on boarding vessels arriving from sea, hand over to the Master the present Rules, the Declaration of State of Navigability and the Pilotage Form.

(13) See footnote as attached to Article 6.

(B) Port Said:

VLCCs, 3rd generation containers, and vessels over 38 ft. draft are piloted from Northern anchorage area for Canal transit through the East Approach channel. Other vessels, either for local trade or intending to transit the Canal, are piloted from Fairway Buoy to berths in the harbour through the West channel. Vessels are piloted between Port Said harbour and Port of Suez by Canal Pilots who are relieved at Ismailia. Northbound vessels either through East or West Branches are piloted till Hm. 80.00.

(C) Port of Suez:

VLCCs, large bulk carriers, 3rd generation containers, and vessels over 38 ft. draft are piloted from anchorage area South of Conry Rock for Canal transit. Other vessels are piloted from waiting area to anchorage area in the Port of Suez. These vessels are also piloted from Port of Suez by Canal Pilots who are relieved at Ismailia. Southbound convoy and vessels in Port of Suez Anchorages sailing South are piloted to Hm. 80.50. Pending Master's request, piloting may end at Hm. 44.40 (Newport Rock).

Vessels have to maintain course through the channel till the last pair of buoys keeping the separation zone on the port side.

(D) Master and Pilot:

(1) Master:

When a vessel is transiting the Canal, the Master or his qualified representative should be present at all times on the bridge; he has to keep the Pilot informed concerning any individual peculiarities in the handling of the vessel so that the Pilot might be in a position to give better advice to control the navigation and movement of the vessel.

(2) Pilot:

The duties of Pilots commence and cease at the entrance buoys of Port Said and Port of Suez. He only gives advice on manoeuvring the vessel, courses to steer, etc. He puts at the disposal of the Master his experience and practical knowledge of the Canal, but as he cannot know the defects or difficulties of manoeuvring every vessel, the responsibility falls completely upon the Master. The Pilot has to ensure the execution by the vessel of:

(a) The Articles of Rules of Navigation.

(b) The orders of transit given by Movement Control.

The manoeuvre and orders are carried out under the direction of the Master who is solely responsible.

It is therefore for the Master, taking into account the indications given by the Pilot, to give the necessary orders to the helm, to the engines, and tugs. If, in the interest of quick manoeuvres the Master thinks it preferable to allow the Pilot to give orders direct, manoeuvres carried out in these circumstances shall be considered as having been carried out on the order of the Master and on his sole responsibility.

Masters are held solely responsible for all damage or accidents of whatever kind resulting from the navigating or handling of their vessels directly or indirectly by day or night.

(3) The Pilot must inform the Movement Control Office or the Port officials immediately by WT and/or VHF or UHF if their advice and/or their orders, regarding the safety of navigation are not accepted or respected by the vessel.

The vessel in this case if underway is considered navigating without Pilot and an additional due of 15,000 Egyptian Pounds is charged.

(E) Moving in Suez Canal Waters without Pilot's assistance:

(1) Unless explicitly authorised by the Suez Canal Authority:–

(a) Whenever a vessel moves in Canal Waters or Port Said Harbour without having a Pilot on board she shall be charged an additional due of 15,000 Egyptian Pounds(14).

(14) Vessels under 300 tons SCGT are subject to Rules of Navigation for small craft.

(b) An additional due of 2,237.5 Egyptian Pounds shall be charged to vessels moving in Port of Suez Anchorages, or entering or leaving Basins at Port of Suez without having a Pilot on board(15).

(15)Vessels under 300 tons SCNT are exempt.

These dispositions do not apply in the event of the Pilot being suddenly unable to carry on with his duties owing to sickness or death, in this case the Master must:

Warn the vessels astern of his intended manoeuvre by means of the visual and sound signals as well as VHF and W/T.

Reduce speed and make fast if in the Canal, or the entrance channels; or anchor if in the Lakes.

The Movement Office at Ismailia is to be informed at all times by UHF and confirmed by W/T.

(2) Exceptions:

In case of bad weather to the extent of not allowing pilotage in Canal Approach channels, Masters will be authorised by notice from the Suez Canal Port Offices, to sail with their vessels on their own responsibility at the following positions:

(a) For Southbound convoy, from Km. 162 to sea.

(b) For Northbound convoy, from Hm. 30 in East Port Said channel Northward.

(c) For vessels leaving Port Said Harbour through West Approach channel, from Hm. 30 Northward.

(d) For vessels anchoring in Port of Suez anchorages wishing to head to sea, also for vessels in Waiting Area wishing to enter Port of Suez anchorage area.

(e) For vessels entering Port Said Harbour either for transiting Canal or for trade, through West Approach channel till Hm. 50 approximately where Roads Pilot will board vessels.

(f) For vessels entering Port Said East Approach channel, between Hm. 165 and Hm. 135 from VLCCs anchorage area to join Southbound convoy, Canal Pilot will board vessels at Km. 0 of East Port Said channel.

(g) For VLCCs and other large vessels joining Northbound convoy from new anchorage area South of Conry Rock, Canal Pilots will board vessels at Km. 161 approximately.

(h) For other vessels joining Northbound convoy from Port of Suez anchorages, Canal Pilots will board vessels at Km. 161 approx.

N.B.: (1) For items c, d, e, f, g and h, the time of proceeding will be fixed by Suez Canal Port Authority.

(2) In all cases advice will be given if necessary by shore radars to vessels(16).

(16)Vessels in Port Said Anchorage Area (Northern and Southern Anchorages), the Bitter Lakes or Lake Timsah, if changing berth or mooring without explicit authorisation from the Suez Canal Authority, shall be charged an additional due of 3,600 Egyptian Pounds and 2,237.5 Egyptian Pounds in Suez VLCC anchorage and waiting areas.

(F) Calling Pilots unnecessarily:

When a vessel signals for Pilot, and it is found when boarding that she is not ready to get underway in the limited time, the vessel is liable to be delayed and Pilot disembarked. The vessel will pay extra pilotage dues for the new Pilot as mentioned before.

(G) Extra Pilots:

(1) Additional Pilots shall be assigned in the following cases:

(a) Vessels over 80,000 SCGT.

(b) Vessels having cargoes or installations impeding visibility from inside the wheelhouse (obstructions to all-round view).

(c) If a Pilot is disembarked and relieved by another Pilot, in case of slow speed vessels, vessels having troubles which prevent continuation of transit with same convoy, or vessels that have to transit by day only.

(d) If vessel has no accommodation for the Pilot to rest while anchored in Bitter Lakes or making fast in mooring places for a long period.

(e) An extra Pilot for assisting the Pilot in charge, may be assigned on Master's request or by the Canal Authority if deemed necessary.

(2) A due of L.E. 200 (200 Egyptian Pounds) for every additional Canal Pilot and L.E. 100 (100 Egyptian Pounds) for every additional Roads Pilot is charged.

CHAPTER II: ARRIVAL AND PREPARATION FOR TRANSIT

SECTION I: Pre-Arrival of Vessels

Article 12: Booking for transit

Vessels may book for transiting the Canal. The booking notice shall reach the Suez Canal Authority Offices not later than four days prior to the transit date. It must contain the name, nationality of the vessel, her type (container, Ro-Ro, etc. . . .) her draft, Suez Canal Gross Tonnage and deadweight tonnage.

Vessels booking for fixed date will have priority to catch the convoy on that date, if they arrive within the time limit defined by the present Rules.

Booking can be cancelled or altered by notice to the Suez Canal Authority offices at least 24 hours before the date booked, otherwise the vessel shall be charged 100 (one hundred) Egyptian Pounds.

In case of VLCCs and similar vessels, this charge will be 1,000 (one thousand) Egyptian Pounds on account of the special arrangements made by S.C.A.

Vessels arriving without previous booking will catch the convoy if capacity of movement in the Canal permits, otherwise they may catch the following convoy.

Article 13: Notice of Arrival

Masters of vessels fitted with wireless apparatus are requested to transmit the following information to their Agents, 48 hours prior to the vessel's arrival.

The name and nationality of the vessel, her ex-name if any.

Suez Canal gross tonnage and deadweight tonnage.

Whether they intend transiting or merely stopping in the harbours and, in this case, mention the duration of stay required.

The ETA.

Whether they carry dangerous cargo, stating quantity and class according to IMO's regulations.

Number of crew on board plus number of passengers on board and their nationalities.

Furthermore, upon arrival anchorage areas vessels have to contact the Harbour Office by VHF (Port Said on Channel 9 – Port of Suez on Channel 15) giving full details either for transit or stoppage in harbour.

Vessel carrying dangerous cargo: Advance notice of arrival must reach the Canal Authority Offices at least 48 hours before the vessel's arrival to the Canal entrances. Masters of vessels carrying dangerous cargo, are required to furnish the Canal Authority with the detailed list of the dangerous goods they have on board, stating quantity and their IMO Classification. Moreover, the Master must inform the S.C.A.office by wireless telegraphy (SUQ) – NOT V.H.F.– of the above mentioned information as soon as possible. (Non or erroneous declaration of dangerous cargo – see "Article 47 Bis").

The above mentioned list, sent directly or through the shipping agency, must reach the Suez Canal Authority offices at least 48 hours before the vessel's arrival; failing which the vessel may be subject to delay before being authorised to enter the Canal Waters.

Article 14: Contacting Port Offices on Arrival

(a) Vessels have to contact the harbour office by VHF(17).

(17)Port Said on Channel 16 – Port of Suez on Channel 16.

(1) Ten miles before arrival at Approach Buoy off Port Said.

(2) Five miles before arrival at separation Zone Buoy No. 1 off Port Suez.

(b) When in touch, give the following information:

(1) Latitude and longitude.
(2) Vessel's name.
(3) Vessel's call sign.
(4) Suez Canal official number, if any.
(5) Suez Canal gross tonnage and deadweight tonnage.
(6) Draft.
(7) Loaded or not.
(8) Kind of cargo.
(9) If transiting the Canal for the first time she has to send[18]:
  (i) Date of building.
  Having Suez Canal Tonnage Certificate or not.
  Date of issue if any.
  Call sign or official number.
  (ii) Length overall.
  (iii) Beam.
  (iv) Type of engines.

This information will assist the Harbour Master to identify the vessel through his radar, acquire and assign her identification "ID" tag which will follow her path until the other end.

(c) If failing to contact by the assigned Channels, Masters may use, with the consent of the Harbour Master through the International R/T (2182 kHz) or SUQ (W/T), any of the following frequencies:

(1) 156.650 (Channel 13) Port Said.
(2) 156.600 (Channel 12) Port Said.
(3) 156.550 (Channel 11) Port of Suez.
(4) 156.700 (Channel 14) Port of Suez.

(d) Any vessel who does not contact the Port offices during her approach is subject to delays in catching the convoys.

(e) When berthing, changing berth or sailing, the Master must handle the mooring ropes by means of ship's boats or mooring boats of a firm approved by the Suez Canal Authority.

Article 15: Documents to be produced

(a) Suez Canal Special Tonnage Certificate.
(b) Certificate of Registry.
(c) Statistical Declaration.
(d) Extract from the vessel's official documents and information concerning the vessel's type and her cargo (containers, barges, etc.).
(e) Declaration concerning the use of double bottom tanks and the lower parts of the high tanks.
(f) Declaration concerning vessels in ballast.
(g) Declaration of State of Navigability (see Art.79).
(h) The last Classification Certificate issued.
(i) Any other information necessary for transiting the Canal.

The Master of a vessel wishing to transit the Canal must register at the Canal Authority offices and pay the various dues.

He must furnish the Canal Authority's officials with all the particulars requested.

The vessel must in addition comply with the requirements of the A.R.E. Government Authorities.

In case the Authority deems it necessary to be supplied with a new Seaworthiness Certificate, the following Classification Societies are recognised to deliver same:

(1) Lloyd's Register of Shipping.
(2) Bureau Veritas Francais.
(3) American Bureau of Shipping.
(4) Registro Navale Italiano.
(5) Germanischer Lloyd.
(6) Norske Veritas.
(7) U.S.S.R. Register.
(8) Nippon Kaiji Kyokai.

Seaworthiness Certificates are accepted by the Suez Canal Authority in Arabic or English. If written in any other language, it is to be translated in one of these two above mentioned languages and duly certified by the Embassy or Consulate of the Arab Republic of Egypt.

In case of impossibility of obtaining said translation, it may be translated by the Embassy or Consulate to which the vessel belongs, in Egypt.

Failing to do same, a Seaworthiness Certificate is to be obtained locally from one of the recognised Classification Societies in the Canal Zone.

(A) Warships:

Warships transiting the Suez Canal Waters must be provided with a Suez Canal Special Tonnage Certificate showing the Suez Canal Gross and Net Tonnages.

If such document is not onboard, the Commanding Officer has to give, in writing, the following information:

(1) Name of Ship.
(2) Name of Commanding Officer.
(3) Call sign of the ship (Radio Call).
(4) LOA, beam overall and depth of the ship.

As long as the ship is not provided with the Suez Canal Special Tonnage Certificate, transit dues will be levied on the temporary Gross Tonnage product of the empirical formula without any allowance till the presentation of the documents required.

(B) Erroneous Declarations:

If the Canal Authority Officials discover false information concerning the cargo carried[19] or the ship's situation ballast or loaded, resulting from the shipping clerk's or the Master's negligence, in statistical declarations held, the tolls difference will be doubled.

The tolls difference means the difference between the correct and the wrong amount of transit dues.

Article 16: Stay in the Harbour

(a) The Master is responsible for the mooring of his vessel in Port Said harbour and Port of Suez.

(b) He must pay special attention to the instructions in the following paragraphs.

(c) When the vessel is moored to the buoys, the mooring ropes must be watched to ensure safe mooring. If two vessels are moored to the same buoy, when one leaves, the other must adjust her moorings.

(d) Masters must comply with the Harbour Master's advice regarding mooring ropes during the stay of their vessel in port; especially when, in case of expected bad weather, it is necessary to increase the moorings if required.

(e) When a vessel is moored with her stern to the bank, the Master must keep himself continuously informed of the depth of water aft, to avoid grounding on the submerged slope either as a result of the settling of the vessel as she loads, or her proximity to the bank.

(f) At night, the vessel, whether moored or manoeuvring, must show the lights prescribed by the International Regulations for Preventing Collisions at sea, in addition to the Suez Canal Light Signals.

(g) Unless authorised, barges alongside a vessel must not be more than two abreast.

(h) It is forbidden to try projectors, or to turn the propellers during the process of warming-up, in the absence of the Pilot, or without informing him when onboard.

(i) Vessels must not put their engines out of working order for any reason whatsoever without permission from the Canal Authority.

(j) The Master must always keep onboard sufficient crew to ensure efficient handling of the moorings, fire fighting and damage control.

(k) The Harbour Master or his delegate should have free access onboard to ensure the carrying out of the Regulations, to verify the vessel's seaworthiness, and to ascertain that dangerous cargo onboard complies with the Suez Canal Regulations.

Article 17: Change of Berth

(a) If the Master wishes to change the berth of his vessel, he should notify the Harbour Office stating the desired time when the shift should take place. A tug or more will be imposed to assist in the manoeuvres. The change of berth will take place at the time fixed by the Harbour Office. A Pilot will be sent to the vessel in due time.

(b) Shifting at the Master's request and the tugs used are charged for as per rates set down by the Suez Canal Authority.

(c) Charges for shifting due to erroneous or incomplete declarations by the Master must also be paid by the vessel.

(d) When necessary, the Harbour Master may order a vessel to shift; when so ordered, it should be made as quickly as possible. In such a case it is free of charge.

SECTION II: Preparations for Transiting the Canal

Article 18: Measures taken before entering the Canal

All vessels ready to enter the Canal must have their ladders and jib-booms run in, their boats swung in and any derricks or cranes obstructing the view forward, lowered.

Article 19: Mooring Ropes

At least 6 flexible floating mooring ropes of appropriate size for the vessel, in good condition, fitted with spliced eyes, must be in readiness for any emergency, at suitable points on deck. All arrangements must be made for their quick handling. For vessels equipped with tension mooring wires the number of floating ropes may be reduced to 4. It is to be noted, however, that any mooring lines, likely to produce sparks by their manipulation are absolutely forbidden on board petroleum tankers, LPG or LNG or any vessel carrying flammable substances.

It is recommended that:

(a) One of the ropes which is selected as "first line ashore" must be of floating material to ensure quick securing to the shore.

(b) Wires should not exceed 5.5 in. circumference to facilitate handling.

(c) All vessels should have:

Two fire ropes (wire) made fast, one forward and one aft, and hung over the vessel's side ready for use in case of emergency.

Article 20: Mooring Boats

(a) Vessels transiting the Canal must have mooring boats as mentioned hereafter hired from a mooring company approved by the Suez Canal Authority. In case no mooring boats from the said company are available, ship's boats if suitable for mooring in the Canal can be used and must be manned by shore crew, hired from the same mooring company. Each boat is to be manned by three men.

These vessels are required to have their lifeboats in constant readiness for mooring and unmooring operations.

(b) One mooring boat or one motor boat for vessels under 2,500 tons gross, SCGT (SCGT = Suez Canal Gross Tonnage).

(c) One mooring boat and one motor boat or two mooring boats for ships from 2,500 to 30,000 tons SCGT.

(d) Two motor boats for vessels over 30,000 tons SCGT.

(e) Ships may ask for additional motor boats or mooring boats according to Master's request. These mooring boats must be in constant readiness for lowering to run the ropes to the mooring posts without any delay during the transit of the vessel. (Vessels contravening (b), (c) and (d) above will not be permitted to transit).

(f) Ships must be fitted with lifting appliances capable of lifting mooring boats of 4 tons weight.

(g) Ships may carry extra mooring boats for safety of navigation. However, LPG, LNG and Loaded Tankers are not allowed to carry any extra boats.

(h) The handling of mooring boats must be carried out well clear from the ship's propellers.

(i) If the vessel has no means for lifting mooring boats and ship's boats are not suitable for mooring in the Canal, the vessel shall not be allowed to transit the Canal.

Article 21: Spreaders (Slings)

Container ships are advised to have their own spreaders (slings) to assist unloading and reloading containers in case of necessity. Those carrying different sizes of containers must have their own spreaders.

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[18] In all cases the Master must inform whether aiming to transit the Canal or just stay in the harbour.

[19] e.g. The carriage of sweet water as cargo and declared as ship's water ballast; the omission of declaring the presence or quantity of containers on the weather deck or any cargo onboard, passengers, etc. . . .

Article 22: Indicators

There must be a rudder angle indicator and an engine RPM indicator in the wheelhouse so located and illuminated as to be easily visible by the Pilot.

Article 23: Bow Anchors

The bow anchors must be ready to let go. (If only one anchor, see Article 57, paragraph f).

Article 24: Accommodation and Pilot Ladders

(a) Pilot Ladder: In anchorage areas, outside the Canal, North or South, pilot ladders can be used to embark and disembark Pilots.

The ladder shall be secured in such position that each step rests firmly against the vessel's side and so that the Pilot can have safe access to the vessel. Whenever the distance from sea level to the point of access to the vessel is more than 12 ft. (or 3.65 m.), access from the pilot ladder to the vessel shall be by means of an accommodation ladder or other equally safe and convenient means.

The treads of the pilot ladder shall not be less than 19 in. long, 4.5 in. wide and 1 in. in thickness. Steps shall be joined in such a manner as will provide a ladder of adequate strength with treads maintained in a horizontal position and not less than 12 in. or more than 15 in. apart.

A man-rope properly secured, and a safety line shall be available and ready for use if required. Handholds are to be provided to assist the Pilot to pass safely and conveniently from the head of the ladder into the vessel or on to the vessel's deck and vice versa.

If necessary, spreaders shall be provided at such distance as will prevent the ladder from twisting.

Arrangements shall be such as:

(1) The rigging of the ladder, the embarkation and disembarkation of the Pilot is supervised by a responsible officer of the vessel.

(2) A self igniting life buoy is to be available at hand.

(b) Accommodation Ladders: Accommodation ladders are to be used in the Canal, harbours and lakes to embark and disembark Pilots.

In case no accommodation ladder is available, or difficult to rig, the vessel has to inform S.C.A. before entering harbour or Canal. The change of Pilot which is originally carried out at Ismailia, will take place in the Bitter Lakes after anchoring. In such case, the vessel will be charged an extra 200 L.E. (Egyptian Pounds) as pilotage dues for each relieving Pilot.[20]

[20] Ships with freeboard of less than 10 ft. may use pilot ladder.

Article 25: Efficiency of Vessel's Equipment

Before entering the Canal it must be ascertained that main engines, steering gear, engine room, telegraph, rudder angle and r.p.m. indicators, W/T, VHF and radar are in good working order.

Every vessel navigating in the Suez Canal Waters under the advice of the Suez Canal Pilot, should maintain bridge and engine bell books. In the bridge bell book, each engine movement and the time of its transmission from the bridge to the engine room is to be recorded as well as in the engine room bell book.

No vessel is required to maintain any bell books if equipped with an automatic device which produces a permanent legible record of every engine movement.

The bell books and the automatic records referred to, must be handed, upon request, to the Suez Canal Officials for the purpose of investigation if necessary.

Note: Gyro Pilot should not be utilised on board during the transit of the Suez Canal, the ordinary steering Telemotor apparatus is to be utilised, making sure of the steersman's ability, with a view to realising the safety of navigation and avoiding any risk of error involving grounding or any other accident.

Article 26: Deck Cargo

Deck cargo is to be stowed in a way so as to provide a clear view from the navigating bridge while transiting the Canal, as well as not to affect the vessel's stability.

The deck cargo should not protrude more than half the vessel's breadth on any side with a maximum of 15 m. if breadth exceeds 30 m.[21]

Note: Vessels having a deck cargo protruding in excess of the fixed limit, may be exceptionally granted authorisation to transit on the following conditions:

Each case is to be studied separately. If authorisation is granted, an additional due of 2 per cent of the transit dues is levied on each foot or fraction of foot in excess.

[21] Containers on containerships are not considered as deck cargo. Specially built vessels and barges carrying drillers or bulky deck cargo to be studied separately.

Article 27: Water Ballast

Vessels in ballast must fill spaces intended to be used for carrying water ballast in such proportion as the Officials of the Suez Canal Authority may direct.

Article 28: Searchlight

(A) Before transiting the Canal, the vessel should be provided with a searchlight (projector) placed on the Bow in the axis of the vessel which shows the Canal clearly. It must have the following characteristics:

1. Minimum range of radiation of single beam 1,800 m. ahead (brightness of 1 Lux approximately at the atmospheric transmission factor = 0.85).
2. The power of the lamp must give a luminous intensity of single light beam not less than 3 million candela, which is equivalent to high efficiency incandescent lamp of:
   2,000 Watts for vessels up to 30,000 S.C. tons gross.
   3,000 Watts for vessels over 30,000 S.C. tons gross.
3. The drum and stand should be of high corrosion resisting material and can be operated both horizontally and vertically.
4. The front glass must be of hardened type and can stand rapid cooling.
5. The reflector must be in two halves of precise ground glass mirror of highest quality or of polished aluminium having at least 95% the reflective capacity of the glass mirror.
6. The two halves of the reflector can be brought together (zero position) to make a single reflector light beam and can be parted to give two separate light beams each of 5° at least, on the horizontal level with adjustable dark sector from 0 to 10°.
7. The searchlight drum must be watertight (presssure test 0.25 kg./sq.cm.) and gastight (according to the classification rules for the vessel's electric appliances within dangerous areas) and provided with a vent-out to which a flexible hose can be fitted on the drum to dissipate the heated air out of the searchlight in addition to a safety vent.
8. The searchlight must be equipped with 2 lamps carrier that can be turned into position to let the lamp exactly in the focus of the reflector, and the current must be switched on automatically.
9. The electric system (switches, plug, socket and cables) must be of first class marine type. The degree of protection IP 55 or similar standards.
10. The searchlights must have a certificate for the "type test" issued by one of the Classification Societies (Lloyd's Register, etc.). The original to be submitted to Suez Canal officials and thereby after test by S.C.A. inspection the searchlight can be accepted.

(B) For vessels carrying petroleum products, LPG, LNG, or flammable substances, or vessels Not Gas Free, the searchlight must be gastight and all electrical connections leading to it should be insulated. If a device for expelling the hot air from the interior of the searchlight exists, exit of the air must be effected in a place devoid of flammable gas. For safety reasons it has been decided that on all vessels of whatever type, electric cable installations for searchlight and all electrical connections leading to it must be permanently fixed, insulated and gastight.

At the end of the cables a fixed and gastight socket should be installed close to the searchlight.

(C)The searchlight, to be approved, must have a Certificate for the 'Type test' issued by one of the recognised Classification Societies, which will be submitted to the Suez Canal Authority Inspector, and be tested in the Canal and proved to be in good working order. On board vessels electrically propelled or having electrically driven gear (steering, winches, etc. . . .) the number of generators and their individual power output must be sufficient to ensure uninterrupted functioning of the searchlight in the event of stoppage of one of the generators.

No exception to this rule will be allowed except when there is an independent generator and circuit on board specifically set apart for the searchlight.

(D) This projector can be hired locally from the Canal Mooring and Light Company and weighs 1.5 tons.

(E) For vessels fitted with their own projector, 2 shore electricians should operate it during the transit.

(F) Vessels with bulbous bow, may be provided with searchlight on condition that top of bulbous bow be lower than sea level by not less than 10 ft.

However, LPG and LNG vessels, without any exception, must be provided with their own searchlight.

Vessels entering the Canal, direct from sea must also be provided with their own searchlight.

(G) If electrical connections and/or searchlight do not conform, the vessel is liable to transit only in daylight and therefore is subject to delay.

An additional due of 3,000 Egyptian Pounds will be imposed when the searchlight and/or electrical connections do not conform for the 3rd and each following transit.

Article 29: Overhead Lights (Deck Lights)

Overhead lights visible all round the horizon with a minimum range of 200 m. (roughly 650 ft.).

Article 30: Bridge Wing Projectors

Bridge wing projectors on either side of the bridge must be fitted to show the Canal banks clearly during the transit and mooring operations.

Characteristics: Power about 4 LUX at an atmospheric transmission factor (T = 0.74) and minimum range 200 m.

Article 31: Funnels

Funnels must be lit to facilitate the identification of the vessel by night.

Article 32: Bridge and Engine Room Communication

Communication system between engine room and bridge must be in good working condition.

Article 33: Pumping Draining Arrangements

The pumps and pumping arrangements including valves, pipes and strainers from holds as well as from the engine and boiler spaces must be in good working condition.

Article 34: Watertight Bulkheads and Doors

All watertight bulkheads and doors are required to be in good efficient condition.

Article 35: Draft Marks

All vessels shall have the draft plainly marked and painted upon the stem, amidships (including Plimsoll Mark and Deck Line) and stern post or rudder post.

Article 36: Whistles and/or Sirens Must Always be Ready for Use

As prescribed in Part III, Article 93.

Article 37: Fire Fighting Equipment on Vessels

As prescribed in Article 61.

Article 38: Side Doors

When side doors are used for boarding, and the minimum vertical distance between the waterline and the bottom of the side door is less than six feet, they should be closed immediately after embarking and disembarking of Pilot and during transit through the Canal.

Article 39: Manning Vessels

The crew of vessels intending to transit the Canal should have efficient and good knowledge of their vessel and be sufficient in number to permit safe handling of the vessel during transit.

Article 40: Deck Watch & Engine Room

When underway in Canal Waters the vessels shall keep a full watch on the bridge and in the engine room, as well as anchor watch.

Article 41: Special Arrangements for VLCCs

(See Article 58).

Article 42: Accommodation

A SUITABLE (OFFICER CLASS) ACCOMMODATION IS TO BE PUT AT THE PILOT'S DISPOSAL WHILE AT ANCHOR IN THE BITTER LAKES OR MADE FAST IN MOORING PLACES ALONGSIDE THE CANAL. IN CASE OF NO SUITABLE ACCOMMODATION AVAILABLE, THE VESSEL WILL PAY EXTRA DUES OF LE200 (TWO HUNDRED EGYPTIAN POUNDS) FOR EACH RELIEVING PILOT. SHE MAY BE DELAYED IF NO RELIEVING PILOT IS AVAILABLE.

A sheltered place is to be provided for the mooring boatmen (6 to 9 men according to the size of the vessel) and 2 shore electricians for the projector, during transit.

Article 43: Vessels Carrying Timber

The timber deck cargo shall be compactly stowed, lashed and secured in a way that it shall not hinder navigation and allow safe access on deck. The loading must not exceed the Tropical Timber Load Line (LT). The height of the deck cargo above the weather deck shall not exceed one third of the extreme breadth of the vessel.

Article 44: Life Saving Appliances

Life saving appliances for vessels navigating in the Canal Waters should meet with the requirements of the International Convention for the Safety Of Life At Sea.

Article 45: Anchor Watch

An anchor watch has to be added during bad weather or poor visibility and when advised by the Pilot.

Article 46: Stoppage in Canal

When anchored in the Bitter Lakes, Lake Timsah or stopped in the Canal, the engines should always be ready for use.

If failing to comply with any of the previous requirements, a vessel may be delayed from joining the convoy and/or may be subject to special arrangements for her transit. This includes imposing convoying tug boats. Access to the Canal may also be refused.

SECTION III: Interdiction to Enter Canal

Article 47: A vessel will not be allowed to transit the Canal in any of the following cases:

(a) Any vessel considered by the Suez Canal Officials, dangerous for navigation.

(b) If carrying dangerous cargo and not conforming to the Appendix of Rules of Navigation for vessels carrying dangerous cargo.

(c) If having a list more than 3 degrees.

(d) If trimmed in a way causing bad manoeuvrability.

(e) If having deck loads protruding from vessel's sides in a manner endangering the safety of transit (see Article 26).

(f) If the vessel is tender or loaded in a manner that dangerously affects her stability.

(g) If her draft is in excess of the maximum permitted according to these Rules.

(h) For VLCCs and ULCCs if there is strong wind.

(i) The Suez Canal Authority may consider delaying the entry to the Canal in cases of bad weather.

(j) Any vessel whose Tropical Load Line is submerged, or Plimsol Marks not plainly visible.

Article 47 Bis:

(a) The Suez Canal Authority reserves the right to refuse access to Canal Waters to any vessel in case of non or erroneous declaration of the presence of dangerous cargo on board such as ammunition, explosives, radioactive substances, etc.

(b) If the dangerous cargo mentioned in para (a) is discovered during the transit, the Suez Canal Authority reserves the right to refuse access to Canal Waters to this vessel for a period not exceeding two years. An additional due of 30,000 L.E. (thirty thousand Egyptian Pounds) will be imposed for this violation.

SECTION IV: Proceeding to the Canal

Article 48: General

Masters shall ask for Pilots by clearly displaying "G" flag by day and 3 white lights at night, at least two hours before the time they expect their vessel to be ready to get underway. *Singling Up* should not be before the Pilot is on board. When several vessels are ready to get underway at the same time, the order of their sailing will be fixed by the Canal Authority.

All vessels must stop whenever the passage ahead is not clear. They must slow down passing collapsed or under repair banks, as well as when passing all vessels in sidings, hoppers, dredgers and other floating plants made fast.

As soon as a vessel is made fast, she must hoist the signals pendant No. 2 by day and red light aft at night. The vessel must be ready to slack down ropes or cut them if need be. Engines must always be ready for manoeuvring.

CHAPTER III: CONVOY SYSTEM – Maximum Dimensions, Towage and Escorting

SECTION I: Convoy System

Article 49: Formation of Convoys

A 3 convoy system is applied in the Suez Canal.

(A) *Northbound Convoy*

Starts about 0615 hrs. at Km. 160 and consists of 2 groups of vessels.

(1) *Group A*

(a) Third generation container ships, LPG and LNG, speed of transit 14 km./hr.[22]

(b) Loaded VLCCs, conventional loaded tankers and heavy bulk carriers,[23] speed of transit 13 km./hr.[22]

[22] Without current and in good weather conditions.

[23] Draft over 38 ft. or length over 950 ft. B.P.

(2) *Group B*

Cargo and other vessels anchored in Suez Anchorages.

The speed of transit of this group is 14 km./hr.[22] The Northbound convoy has a free run from Port of Suez till Port Said. It passes through the East Kabrit Channel, the Eastern Dredged Channel in the Bitter Lakes, the Deversoir East Channel, the East Channel of Lake Timsah, the East Channel of Ballah By-pass and the East Channel from Km. 17 Northward.

In case the Northbound convoy has to stop in the Bitter Lakes due to traffic situation of Southbound convoy or any emergency:

(a) Container vessel heading in convoy will drop anchor in the suitable East Anchorage Areas of the Bitter Lakes.

(b) VLCCs will anchor in the suitable East Anchorage according to their draft.

(c) All other vessels will anchor in the East Areas corresponding to their draft.

(d) 3 berths are available in Kabrit East Branch, in case of emergency.

Note: LPG, LNG in ballast or loaded, and loaded chemicals in bulk are included in the Tankers Group for safety.

(B) *Southbound Convoy (N1)*

Starts from 0100 hrs. to 0500 hrs. and consists of 2 groups of vessels.

(1) *Group A,* consists of vessels who are made fast in Canal West Branch from Km. 15 to Km. 4 and Port Said Harbour.

(2) *Group B,* consists of vessels anchored in the new anchorage areas to the N.W. of Port Said, third generation container ships, VLCCs in ballast and vessels of over 38 ft. draft. This group will be headed by the container ships and the first vessel will enter through the Port Said East Approach Channel as soon as the last vessel Northbound clears Hm. 150. The speed of transit is 14 km./hr.[22]

The Southbound convoy has a free run to the Bitter Lakes. It passes through the East branch of Ballah By-pass, the East Channel of Timsah Lake, the Deversoir West Channel and anchors in the Western anchorages in the Bitter Lakes.

The sequence of vessels when route continues from Bitter Lakes will be the third generation container ships, followed by VLCCs in ballast and then other vessels. The first ship of the Southbound convoy will regulate speed to cross the last Northbound vessel abeam of Kabrit station.

[22] Without current and in good weather conditions.

(C) *Third Convoy (N2)*

A third convoy, Southbound, according to intensity of traffic from North or South. Max. draft 35 ft., max. beam 115 ft.

In case of forming a second Southbound convoy the starting time from Port Said will be at 0700 hrs. and up to 0900 hrs. Vessels will make fast in Ballah West Branch and continue route after last Northbound vessel clears Km. 60.

Vessels not authorised to join this convoy are the following:

Loaded tankers carrying Petroleum Grades and similar substances.

LPG and LNG.

Vessels carrying chemicals in bulk.

Vessels carrying radioactive substances.

NOTICES: Issued by Canal Shipping Agencies Company, Port Said:

Circular No. 80/83: (Amended April 1987).

We have been advised by Suez Canal Authority that as a trial from 23.7.83 convoy timing will be as follows:

First Convoy from Port Said:

From 0100 hrs. until 0500 hrs.

Followed by small vessels up to 5,000 tons until 0600 hrs.

(Limit time arrival waiting area 1900 hrs.).

(Latest time for hoisting the signal asking for Pilot 2030 hrs.).

Second Convoy from Port Said:

From 0700 hrs. until 0900 hrs.

(Limit time arrival waiting area 0300 hrs.

(Latest time for hoisting the signal asking for Pilot 0300 hrs.).

Following vessels are not permitted to join second convoy:

A – Tankers loaded petroleum flash point −23°C.

B – LPG.

C – LNG.

D – Tankers carrying chemicals in bulk.

E – Vessels carrying radioactive materials.

Convoy from Suez:

A – Containers and Ro-Ro vessels from 0600 hrs.
(Limit time arrival waiting area 0100 hrs.)

B – Tankers from 0700 hrs. followed by ordinary vessels until 1130 hrs.
(Limit time arrival waiting area 0300 hrs.)

Masters have to send by radio to the Agents the following information at least 48 hours before vessel's arrival.

Gross and net tonnage indicated by the Suez Canal Special Tonnage Certificate and date of latest certificate.

Gross and net tonnage indicated by Registry Certificate and date of latest certificate.

Vessel's nationality.

Owner's name.

Type of vessel (cargo – container ship – LASH vessel – Ro/Ro, etc.).

If vessel has previously transited canal under her present or former name. Affirmatively mention date of last transit.

If any alteration has been made in the vessel's particulars. In case no alterations made, they have to send "Particulars No Change".

Circular No. 90/83: **Second Convoy from North (Convoy N2)**

We would like to inform you that it has been decided as from the 23rd July, 1983, to authorise the following categories of vessels to join the second convoy from North (Convoy N2) and, therefore, to moor at Ballah Loop:

Loaded tankers carrying Petroleum Grades B – C and similar substances (Flash Point +23°C).

Tankers in ballast NGF.

Vessels carrying Group 1 dangerous cargo (Explosives).

Consequently, vessels NOT ALLOWED to join the Convoy N2 that has to moor at Ballah Loop, are:

1. Loaded tankers carrying Petroleum Grade A and similar substances (Flash Point −23°C).
2. LPG and LNG vessels.
3. Vessels carrying chemicals in bulk.
4. Vessels carrying radioactive substances.

Circular No. 27/87: Directorate of Transit, Suez Canal Authority, Ismailia.

Circular No. 433681 dated 26.4.1987.

As from 1st May 1987 vessels with beam and draft as indicated below are authorised to make fast at Ballah West Branch, excluding tankers in ballast with Suez Canal gross tonnage of over 90,000 tons.

Beam (ft.)	(m.)	*Draft* (ft.)	(in.)
141	42.98	38	00
142	43.28	37	11
143	43.59	37	07.5
144	43.89	37	04
145	44.20	37	00
146	44.50	36	08
147	44.80	36	04
148	45.11	36	00

Circular No. 54/85: **Transit of VLCC's:**

We append hereunder text of Circular letter No. 432939, dated 28.5.1985, received from the Director of Transit, Suez Canal Authority, Ismailia, in connection with the transit of VLCC vessels in the Suez Canal, contents of which are self-explanatory:-

Quote:

Owing to the request of several shipowners for the transit of vessels with beam over 218 ft. and up to 230 ft., the Suez Canal Authority taking into consideration the present shipping situation, undertook careful studies to comply with the said request.

The S.C.A. has the pleasure to inform you that the above mentioned vessels may transit the Canal under the following conditions.

1. A pre-approval to be obtained in good time prior to transit.
2. Transit to be effected in good weather (wind not exceeding 10 knots).
3. 10% of the transit dues for precautionary measures and special arrangements.
4. 2 tug escort against 5,000 SDR per tug.

Unquote.

Circular No. 23/86: **LNG/LPG:**

We append hereunder, for your information text of Circular No. 433224, dated 2.3.86, received from the Director of Transit, Suez Canal Authority, Ismailia, the contents of which are self-explanatory:

Owing to the great danger involved in the transit of LPG and LNG through the Suez Canal, the following is to be applied:

I *From date of issue*

1. *From North*
   (a) LPG and LNG whatever the tonnage are not allowed to make fast in Port Said Harbour.
   (b) Anchor in the Northern Waiting Area.
   (c) Join the first Southbound convoy direct from sea through the Eastern Branch.
   (d) The turn to be rearranged at the Great Bitter Lake to take the lead of the convoy.
2. *From South*
   (a) LPG and LNG whatever the tonnage are not allowed to anchor in the Inner Bay at Suez.
   (b) Anchor in the Waiting Area South of Conry Rock.
   (c) Join the Northbound convoy direct to the Canal following the 3rd generation containership, Ro/Ro and similar and ahead of the loaded tankers and bulk carriers.

II *As from 1.4.1986*

1. LPG and LNG up to 80,000 tons S.C.G.T. will be escorted by 1 S.C.A. tug against 5,500 s.d.r.
2. LPG and LNG over 80,000 tons S.C.G.T. will be imposed 1 S.C.A. tug as per Rules of Navigation Art. 57.

Circular No. -/87: **Two engines and one propeller:**

We append hereunder, for your information, text of Circular No. 433658, dated 31.3.87, received from the Directorate of Transit, Suez Canal Authority, Ismailia, the contents of which are self-explanatory:

A vessel with 2 engines, on 1 propeller, requesting to transit the Canal with 1 engine, as the other is under repair or dismantled, the following to be applied:

1. Undergo sea trails.
2. Valid Seaworthiness Certificate from a recognised Classification Society, mentioned in Suez Canal Rules of Navigation Art. 15, stating that vessel is with 1 engine able to maintain Canal speeds. (Max. speed without current not less than 10 knots.)
3. If sea trials are satisfactory, vessel may transit Canal without imposed tug.

Circular No. 433381: dated 24/7/1986

Possibility of Increase Loading of Partial Loaded Tankers - Northbound at 13 km./hr.

Authorising vessels and loaded tankers to transit the Suez Canal from South (13 km./hr.) with draft exceeding the current permissible one stated in Rules of Navigation, edition January 1986 (Table "C-1") (column No. 1, and not to exceed draft mentioned in column No. 2 attached table overleaf).

1. On completion of the first stage of Suez Canal development project in December 1980, and after widening and deeping the Canal, loaded vessels from South (speed 13 km./hr.), of beam not exceeding 140 ft. were authorised to transit with draft 53 ft.; the more beam is, the less draft will be.

Table of draft in relation to beam over 140 ft. in column No. 1 extracted from Rules of Navigation, edition January 1986, Art. 54, pages 76-80 is attached.

2. As the Authority has recently widened the Northern section of the Canal by 50 m. average width. In this connection, various studies and laboratory experiments have been successfully conducted.

Accordingly the Authority decided to increase the current permissible draft stated in the Rules of Navigation, edition 1986 for loaded vessels from South (speed 13 km./hr.).

3. Column No. 2 of attached table clarifies maximum authorised draft increase.

4. An additional due of 0.6% (six per thousand) will be levied for every inch or fraction of an inch which surpasses the current permissible draft stated in the Rules of Navigation, January 1986 edition.

5. This Circular comes into force as from 26/7/1986.

The Director of Transit

Explanatory Example

Beam (ft.	in.)	*Permissible Draft Before Development Column (1)* (ft.	in.)	*Permissible Draft After Development Column (2)* (ft.	in.)	*Draft Increase*	*Dues Increase*
143	09	52	00	53	00	1 ft. (12 in.)	7.2%
176	06	41	04	43	04	2 ft. (24 in.)	14.4%

NORTHBOUND LOADED VESSELS TRANSITING AT 13 km./hr.

Beam *ft.*	*in.*	*Permissible Draft Column (1)* *ft.*	*in.*	*Permissible Draft Column (2)* *ft.*	*in.*
140	00	53	00	53	00
	03	52	11		00
	06		11		00
	09		10		00
141	00		09		00
	03		08		00
	06		08		00
	09		07		00
142	00		06		00
	03		05		00
	06		04		00
	09		03		00
143	00		03		00
	03		02		00
	06		01		00
	09	52	00		00
144	00	51	11	53	00
	03		10	52	11
	06		09		10
	09		08		09
145	00		07		08
	03		06		07
	06		05		06
	09		04		05
146	00		03		04
	03		02		03
	06		01		02
	09	51	00		01
147	00	50	11	52	00
	03		10	51	11
	06		09		10
	09		08		09
148	00		07		08
	03		06		07
	06		05		06
	09		04		05
149	00		03		04
	03		02		03
	06		01		02
	09	50	00	51	01
150	00	49	11	50	11
	03		10		10
	06		09		09
	09		08		08
151	00		08		07
	03		07		06
	06		06		05
	09		05		04
152	00		04		03
	03		03		02
	06		02		01
	09	49	01	50	00
153	00	49	00	49	11
	03	48	11		10
	06		10		09
	09		09		08
154	00	48	08	49	08
	03		07		07
	06		06		06
	09		05		05
155	00		04		04
	03		03		03
	06		02		02
	09		01		01
156	00	48	00	49	00
	03	47	11	48	11
	06		10		10
	09		09		09
157	00		08		08
	03		07		07
	06		06		06
	09		05		05
158	00		04		04
	03		03		03
	06		02		02
	09		01		01
159	00	47	00	48	00
	03	46	11	47	11
	06		10		10
	09		09		10
160	00		08		09
	03		07		08
	06		06		07
	09		05		07

Beam		Permissible Draft Column (1)		Permissible Draft Column (2)	
ft.	in.	ft.	in.	ft.	in.
161	00	46	04	47	06
	03		03		05
	06		02		04
	09		01		03
162	00	46	00		02
	03	45	11	47	00
	06		11	46	11
	09		10		11
163	00		10		10
	03		09		10
	06		08		09
	09		07		08
164	00		06		07
	03		05		06
	06		04		05
	09		03		04
165	00		02		03
	03	45	00		02
	06	44	11		01
	09	44	10	46	01
166	00	44	09	46	00
	03		08	45	11
	06		07		10
	09		06		09
167	00		05		08
	03		04		08
	06		03		07
	09		02		07
168	00		01		06
	03	44	00		05
	06	43	11		04
	09		10		03
169	00		09		03
	03		08		02
	06		07		01
	09		06	45	00
170	00		05	44	11
	03		05		10
	06		04		09
	09		03		08
171	00	43	02	44	07
	03		01		06
	06	43	00		06
	09	42	11		05
172	00		10		05
	03		09		04
	06		08		04
	09		07		03
173	00		06		03
	03		05		02
	06		04		02
	09		03	44	00
174	00		02	43	11
	03		01		11
	06	42	00		10
	09	41	11		10
175	00		10		09
	03		09		08
	06		08		07
	09		07		06
176	00		06		05
	03		05		05
	06		04		04
	09		03		03
177	00		02		02
	03		01		01
	06	41	00	43	00
	09	40	11	42	11
178	00		10		10
	03		09		09
	06		08		08
	09	40	07	42	07
179	00	40	06	42	06
	03		05		05
	06		04		04
	09		03		03
180	00		02		02
	03		01		01
	06		01		01
	09	40	00	42	00
181	00	39	11	41	11
	03		10		10
	06		09		09
	09		08		08
182	00		07		07
	03		06		06
	06		05		05
	09	39	04	41	04
183	00	39	03	41	03
	03		02		02
	06		01		01
	09	39	00	41	00
184	00	38	11	40	11
	03		10		10
	06		09		08
	09		08		07
185	00		07		05
	03		06		03
	06		05		02
	09		04		01
186	00		03	40	00
	03		02	39	11
	06		01		09
	09	38	00	39	08
187	00	37	11	39	07
	03		10		05
	06		09		04
	09		08		03
188	00		07		02
	03		06	39	01
	06		05	38	11
	09		04		10
189	00		03		09
	03		02		08
	06		01		07
	09	37	00	38	06
190	00	36	11	38	04

Article 50: Limit Time of Arrival to Join Convoys

Also see Article 49 – "Notices".

(A) ***Southbound Convoy***

(1) 3rd generation container ships, VLCCs in ballast and loaded vessels over 38 ft. draft who will anchor in the new anchorage area (V berths) N.W. of Port Said and declared by Agents ready for transit, have to reach the anchorage area before 1800 hrs.

(2) Other ships entering from Port Said harbour have to reach the anchorage area before 1800 hrs.

(3) Ships arriving after 1800 hrs. and not later than 0200 hrs. will join the second convoy either from Port or direct from sea and be declared by Agents ready for transit, providing the capacity of the Canal permits.

(B) ***Northbound Convoy***

(1) Ships anchoring South of Conry Rock: 3rd generation container ships, VLCCs, super tankers, heavy bulk carriers and vessels over 38 ft. draft, have to reach the anchorage area (V berths) and be declared by Agents ready for transit before 2400 hrs,

(2) Other vessels who will anchor in the anchorages of the Port of Suez, have to reach the waiting area and be declared by Agents ready for transit before 0200 hrs.

(C) In all cases the documents required should be produced before the passage of the vessel to the Canal office at Port Said or Port Tewfik.

Article 51: Courses to Keep on Leaving for Sea

(A) ***At Port Said***

Vessels of Northbound convoy have to maintain course through the East approach channel till Hm. 195 then alter course North 000° for five miles before altering to destination.

(B) ***At Port of Suez***

Vessels proceeding to sea have to maintain course through the channel till the last pair of buoys, then keep the separation zone on the port side till the separation zone Buoy No. 1.

SECTION II: Maximum Dimensions (Vessel's Sizes and Drafts)

Article 52: Dimensions of Vessels Authorised to Transit (To be amended in near future)

These dimensions are given hereunder:

(a) *Max. length:* No restrictions.

(b) *Max. beam:* 210 ft.

(c) *Max. draft:* The tables A, B and C give the maximum draft authorised in relation to the beam of vessel according to the following:

(i) *Table "A":* For vessels in ballast transiting in either direction.

(ii) *Table "B":* For loaded vessels transiting Southbound. The speed of transit being 14 km./hr.

(iii) *Table "C":* for loaded vessels transiting Northward and includes two tables C-1 and C-2.

(a) Table C-1 gives the draft for vessels transiting at speed of 13 km./hr.

(b) Table C-2 gives the draft for vessels transiting at speed of 14 km./hr. (including LPG, LNG vessels and vessels carrying chemicals in bulk).

In these Tables the beams are given in metres and feet and the drafts in feet only.

Article 53: Conditions of Transit

(A) For loaded vessels the max. draft for each vessel according to tables B and C or her tropical loadline whichever is less.

Notes:

1. (a) Vessels allowed to transit at a draft of over 53 ft. must for the first passage effectuate a successful sea trial before entering the canal either at Suez or Port Said Roads.

(b) Sisterships are not to get benefit of authorisation granted to a particular ship of the group.

2. Vessels with beam over 200 ft. and up to 210 ft. are allowed to transit only in calm weather, i.e. beam wind not exceeding 10 knots.

3. Northbound LPG, LNG vessels and vessels carrrying chemicals in bulk, are subject to the Tables of Beam and Draft for vessels proceeding at 14 km./hr. speed.

For safety measures they are included in the "tankers" group.

(a) Chemicals in bulk vessels are included in the "tankers" group **only** when they are **loaded.**

(b) LPG and LNG vessels are included in the "tankers" group either loaded or in ballast and they are put ahead of the loaded tankers.

4. Vessels with Load Line Certificate not mentioning the amount of Freeboard of their Tropical Load Line and consequently do not have the Tropical Load Line marked on their sides, will be authorised to transit Suez Canal with a maximum draft up to the SUMMER Load Line only, or the maximum allowed draft Tables A, B, C-1 and C-2, whichever be the less.

Table "A" Vessels in Ballast.

Max. draft for different beams for vessel from North or South.

Beam	Up to 160 ft. (48.77 m.)	Over 160 ft. Up to 190 ft. (48.77 m. up to 57.91 m.)	Over 190 ft. Up to 210 ft. (57.91 m. up to 64.00 m.)
	Recommended	*Recommended*	*Maximum*
Draft in feet	*Fore 25* *Aft 29*	*Fore 28* *Aft 32*	*Fore 29* *Aft 33*

Note: Vessels with beam up to 190 ft. or 57.91 m. are not authorised to transit at a draft over 33 ft.

Table "B" – Loaded Vessels.

Note: For technical considerations LPG and LNG vessels *in ballast* are admitted to transit the Canal at draft of 33 ft.

In case of use of fresh water for ballast, vessel loses the privilege of being in ballast, and therefore, dues will be levied on the basis of laden vessel.

1. *Maximum draft for different beams for loaded vessels transiting Southbound*

Speed 14 km./h.

Beam				*Draft*	
ft.	*in.*	*m.*	*cm.*	*ft.*	*in.*
156	00	47	55	42	00
	03		63	41	11
	06		70		11
	09		78		10
157	00		85		09
	03		93		08
	06	48	00		08
	09		08		08
158	00		16		06
	03		23		05
	06		31		05
	09	48	39	41	04
159	00	48	46	41	03
	03		54		02
	06		62		02
	09		69		01
160	00		77	41	00
	03		84	40	11
	06	48	92		11
	09	49	00		10
161	00		07		09
	03		15		08
	06		22		08
	09		30		07
162	00		38		06
	03		45		05
	06		53		05
	09		61		04
163	00		68		03
	03		76		02
	06		83		02
	09		91		01
164	00	49	99	40	00
	03	50	06	39	11
	06		14		11
	09	50	22	39	10
165	00	50	29	39	09
	03		37		08
	06		44		08
	09		52		07
166	00		60		06
	03		67		05
	06		75		05
	09		82		04
167	00		90		03
	03	50	98		02
	06	51	05		02
	09		13		01
168	00		21	39	00
	03		28	38	11
	06		36		11
	09		43		10
169	00		51		09
	03		59		08
	06		66		08
	09		74		07
170	00		82		06
	03		89		05
	06	51	97		05
	09	52	04	38	04
171	00	52	12	38	03
	03		20		02
	06		27		02
	09		35		01
172	00		42	38	00
	03		50	37	11
	06		58		11
	09		65		10
173	00		73		09
	03		81		08
	06		88		08
	09	52	96		07
174	00	53	03		06
	03		11		05
	06		19		05
	09		26		04
175	00		34		03
	03		42		02
	06		49		02
	09		57		01
176	00		64	37	00
	03		72	36	11
	06		80		11
	09		87	36	10
177	00	53	95	36	09
	03	54	02		08
	06		10		08
	09		18		07
178	00		25		06
	03		33		05
	06		41		03
	09		48		02
179	00		56	36	00
	03		63	35	11
	06		71		09
	09		79		08
180	00		86		06
	03	54	94		05
	06	55	02		05
	09		09		04
181	00		17		03
	03		24		02
	06		32		02
	09		40		01
182	00		47	35	00
	03		55	34	11
	06		63		11
	09		70		10
183	00		78		09
	03		85		08
	06	55	93		08
	09	56	01		07
184	00		08		06
	03		16		05
	06		23		05
	09		31		04
185	00		39		03
	03		46		02
	06		54		02
	09		62		01
186	00		69	34	00
	03		77	33	11
	06		84		11
	09	56	92		10
187	00	57	00		09
	03		07		08
	06		15		08
	09		23		07
188	00		30		06
	03		38		06
	06		45		06
	09		53		06
189	00		61		06
	03		68		06
	06		76		06
	09		83		06
190	00		91		05
	03	57	99		05
	06	58	06		05
	09		14		05
191	00		22		05
	03		29		05
	06		37		05
	09		44		05
192	00		52		05
	03		60		05
	06		67		05
	09		75		05
193	00		83		05
	03		90		05
	06	58	98		05
	09	59	05		05
194	00		13		04
	03		21		04
	06		28		04
	09	59	36	33	04
195	00	59	44	33	04
	03		51		04
	06		59		04
	09		66		04
196	00		74		04
	03		82		04
	06		89		04
	09	59	97		04
197	00	60	04		03
	03		12		03
	06		20		03
	09		27		03
198	00		35		03
	03		43		03
	06		50		03
	09		58		03
199	00		65		03
	03		73		03
	06		81		03
	09		88		03
200	00	60	96		03
	03	61	04		03
	06		11		03
	09		19		03
201	00	61	26	33	02
	03		34		02
	06		42		02
	09		49		02
202	00		57		02
	03		64		02
	06		72		02
	09		80		02
203	00		87		02
	03	61	95		02
	06	62	03		02
	09		10		02
204	00		18		02
	03		25		02
	06		33		02
	09		41		02
205	00		48		01
	03		56		01
	06		64		01
	09		71		01
206	00		79		01
	03		86		01
	06	62	94		01
	09	63	02		01
207	00		09		01
	03		17		01
	06		25		01
	09		32		01
208	00		40		00
	03		47		00
	06		55		00
	09		63		00
209	00		70		00
	03		78		00
	06		85		00
	09	63	93		00
210	00	64	01	33	00

Table "C-1"

Max. draft for different beams for loaded vessel transiting Northward.

Speed 13 km./hr.

(To be amended in the near future)
See "Notices" before article No. 50.
(loaded tankers and heavy bulk carriers)

Beam				*Draft*	
ft.	*in.*	*m.*	*cm.*	*ft.*	*in.*
140	00	42	67	53	00
	03		75	52	11
	06		82		11
	09		90		10
141	00	42	98		09
	03	43	05		08
	06		13		08
	09		20		07
142	00		28		06
	03		36		05
	06		43		04
	09		51		03
143	00		59		03
	03		66		02
	06		74		01
	09		81	52	00
144	00		89	51	11
	03	43	97		10
	06	44	04		09
	09		12		08
145	00		20		07
	03		27		07
	06		35		06
	09	44	42	51	05
146	00	44	50	51	03
	03		58		02
	06		65		01
	09		73	51	00
147	00		80	50	11
	03		88		10
	06	44	96		09
	09	45	03		08
148	00		11		07
	03		19		06
	06		26		05
	09		34		04
149	00		41		03
	03		49		02
	06		57		01
	09		64	50	00
150	00		72	49	11
	03		80		10
	06		87		09
	09	45	95		08
151	00	46	02		08
	03		10		07
	06		18		06
	09		25		05

Beam				Draft	
ft.	*in.*	*m.*	*cm.*	*ft.*	*in.*
152	00	46	33	49	04
	03		40		03
	06		48		02
	09		56		01
153	00		63	49	00
	03		71	48	11
	06		79		10
	09		86		09
154	00	46	94		08
	03	47	01		07
	06		09		06
	09		17		05
155	00		24		04
	03		32		03
	06		40		02
	09		47		01
156	00		55	48	00
	03		63	47	11
	06		70		10
	09		78		09
157	00		85		08
	03	47	93		07
	06	48	00		06
	09		08		05
158	00		16		04
	03		23		03
	06		31		02
	09		39		01
159	00		46	47	00
	03		54	46	11
	06		62		10
	09		69		09
160	00		77		08
	03		84		07
	06	48	92		06
	09	49	00		05
161	00		07		04
	03		15		03
	06		22		02
	09		30		01
162	00		38	46	00
	03		45	45	11
	06		53		11
	09		61		10
163	00		68		09
	03		76		08
	06		83		08
	09		91		07
164	00	49	99		06
	03	50	06		05
	06		14		04
	09		22		03
165	00		29		02
	03		37	45	00
	06		44	44	11
	09		52		10
166	00		60		09
	03		67		08
	06		75		07
	09		82		06
167	00		90		05
	03	50	98		04
	06	51	05		03
	09		13		02
168	00		21		01
	03		28	44	00
	06		36	43	11
	09		43		10
169	00		51		09
	03		59		08
	06		66		07
	09	51	74	43	06
170	00	51	82	43	05
	03		89		05
	06	51	97		04
	09	52	04		03
171	00		12		02
	03		20		01
	06		27	43	00
	09		35	42	11
172	00		42		10
	03		50		09
	06		58		08
	09		65		07
173	00		73		06
	03		81		05
	06		88		04
	09	52	96		03
174	00	53	03		02
	03		11		01
	06		19	42	00
	09		26	41	11
175	00		34		10
	03		42		09
	06		49		08
	09		57		07
176	00	53	64	41	06
	03		72		05
	06		80		04
	09		87		03
177	00	53	95		02
	03	54	02		01
	06		10	41	00
	09		18	40	11
178	00		25		10
	03		33		09
	06		41		08
	09		48		07
179	00		56		06
	03		63		05
	06		71		04
	09		79		03
180	00		86		02
	03	54	94		01
	06	55	02		01
	09		09	40	00
181	00		17	39	11
	03		24		10
	06		32		09
	09		40		08
182	00		47		07
	03		55		06
	06		63		05
	09		70		04
183	00		78		03
	03		85		02
	06	55	93		01
	09	56	01	39	00
184	00		08	38	11
	03		16		10
	06		23		09
	09		31		08
185	00		39		07
	03		46		06
	06		54		05
	09		62		04
186	00		69		03
	03		77		02
	06		84		01
	09	56	92	38	00
187	00	57	00	37	11
	03		07		10
	06		15		09
	09		23		08
188	00		30		07
	03		38		06
	06		45		05
	09		53		04
189	00		61		03
	03		68		02
	06		76		01
	09		83	37	00
190	00		91	36	11
	03	57	99		11
	06	58	06		10
	09		14		10
191	00		22		09
	03		29		09
	06		37		08
	09		44		08
192	00		52		07
	03		60		07
	06		67		06
	09		75		06
193	00		83		05
	03		90		05
	06	58	98		04
	09	59	05	36	04
194	00	59	13	36	03
	03		21		02
	06		28		02
	09		36		01
195	00		44		01
	03		51	36	00
	06		59	35	11
	09		66		11
196	00		74		10
	03		82		10
	06		89		09
	09	59	97		09
197	00	60	04		08
	03		12		08
	06		20		07
	09		27		07
198	00		35		06
	03		43		06
	06		50		05
	09		58		05
199	00		65		04
	03		73		04
	06		81		03
	09		88		03
200	00	60	96	35	02
	03	61	04		02
	06		11		01
	09		19		01
201	00		26		00
	03		34	35	00
	06		42	34	11
	09		49		11
202	00		57		10
	03		64		10
	06		72		09
	09		80		09
203	00		87		08
	03	61	95		08
	06	62	03		07
	09		10		07
204	00		18		06
	03		25		06
	06		33		05
	09		41		05
205	00		48		04
	03		56		04
	06		64		03
	09		71		03
206	00		79		02
	03		86		02
	06	62	94		01
	09	63	02		01
207	00		09		00
	03		17	34	00
	06		25	33	11
	09		32		11
208	00		40		10
	03		47		10
	06		55		09
	09		63		09
209	00		70		08
	03		78		08
	06		85		07
	09	63	93		07
210	00	64	01	33	06

Table "C-2"

Speed 14 km./hr.

Beam				Draft	
ft.	*in.*	*m.*	*cm.*	*ft.*	*in.*
166	00	50	60	42	00
	03		67	42	00
	06		75	41	11
	09		82		11
167	00		90		10
	03	50	98		10
	06	51	05		09
	09		13		09
168	00		21		08
	03		28		08
	06		36		07
	09		43		07
169	00		51		06
	03		59		06
	06		66		05
	09		74		05
170	00		82		04
	03		89		03
	06	51	97		03
	09	52	04		02
171	00		12		01
	03		20		01
	06		27	41	00
	09	52	35	40	11
172	00	52	42	40	10
	03		50		09
	06		58		09
	09		65		08
173	00		73		07
	03		81		06
	06		88		06
	09	52	96		05
174	00	53	03		04
	03		11		03
	06		19		03
	09		26		02
175	00		34		01
	03		42		00
	06		49	40	00
	09		57	39	11
176	00		64		10
	03		72		10
	06		80		09
	09		87		09

Beam				Draft	
ft.	*in.*	*m.*	*cm.*	*ft.*	*in.*
177	00	53	95	39	08
	03	54	02		08
	06		10		07
	09		18		07
178	00		25		06
	03		33		05
	06		41		05
	09		48		04
179	00		56		03
	03		63		02
	06		71		02
	09		79		01
180	00		86	39	00
	03	54	94	38	11
	06	55	02		11
	09		09		10
181	00		17		09
	03		24		08
	06		32		08
	09		40		07
182	00		47		06
	03		55		05
	06		63		05
	09		70		04
183	00		78		03
	03		85		02
	06	55	93		02
	09	56	01		01
184	00		08	38	00
	03		16	37	11
	06		23		11
	09		31		10
185	00		39		09
	03		46		08
	06		54		08
	09		62		07
186	00		69		06
	03		77		05
	06		84		05
	09	56	92		04
187	00	57	00		03
	03		07		02
	06		15		02
	09		23		01
188	00		30	37	00
	03		38	36	11
	06		45		11
	09		53		10
189	00	57	61	36	09
	03		68		08
	06		76		08
	09		83		07
190	00		91		06
	03	57	99		06
	06	58	06		05
	09		14		05
191	00		22		04
	03		29		04
	06		37		03
	09		44		03
192	00		52		02
	03		60		02
	06		67		01
	09		75		01
193	00		83		00
	03		90	36	00
	06	58	98	35	11
	09	59	05		11
194	00		13		10
	03		21		09
	06		28		09
	09		36		08
195	00		44		08
	03		51		07
	06		59		06
	09	59	66	35	06
196	00	59	74	35	05
	03		82		04
	06		89		04
	09	59	97		03
197	00	60	04		03
	03		12		02
	06		20		01
	09		27		01
198	00		35		00
	03		43	35	00
	06		50	34	11
	09		58		11
199	00		65		11
	03		73		10
	06		81		10
	09		88		09
200	00	60	96		09
	03	61	04		09
	06		11		08
	09		19		08
201	00	61	26	34	07
	03		34		07
	06		42		06
	09	61	49	34	06
202	00	61	57	34	05
	03		64		04
	06		72		04
	09		80		03
203	00		87		03
	03	61	95		02
	06	62	03		01
	09		10		01
204	00		18		00
	03		25	34	00
	06		33	33	11
	09		41		11
205	00		48		11
	03		56		10
	06		64		10
	09		71		09
206	00		79		09
	03		86		09
	06	62	94		08
	09	63	02		08
207	00		09		07
	03		17		07
	06		25		06
	09	63	32	33	06
208	00	63	40	33	05
	03		47		04
	06		55		04
	09		63		03
209	00		70		03
	03		78		02
	06		85		01
	09	63	93		01
210	00	64	01	33	00

Article 54: Speed

The speed of convoys is the following:

(a) Southbound: 14 km./hr.

(b) Northbound:

(1) 13 km./hr. for loaded tankers and bulk carriers group.

(2) 14 km./hr. for ordinary group.

SECTION III: Towage and Escorting

Article 55: Canal Authority Tugs

(A) At Port Said Harbour, tugs may be placed at the disposal of Masters if the Canal Authority deems it necessary. No charge is made for the assistance given by these tugs to transiting vessels for mooring and getting underway. In all other cases, a charge is levied by the Suez Canal Authority. Vessels manoeuvring in the harbour are required to provide their own ropes. Wire tow-ropes are not allowed.(24)

(B) In other cases, tugs can be hired for mooring, towing or getting a vessel afloat. Charges paid by the vessel will be according to rates set by Suez Canal Authority.

(C) In accordance with the terms of Article 57 of the present Chapter, the Officials of the Canal Authority may impose on certain defective vessels, or vessels carrying dangerous cargo, a tug or more for towing or escorting during transit of the Canal.

In such cases, charges are paid according to rates set by Suez Canal Authority.

(D) The Master of a vessel using a tug placed at his disposal has the exclusive direction and control of the manoeuvres of both the vessel and the tug.

(E) Whatever may be the conditions or circumstances under which the Canal Authority tugs are made use of by a vessel, the Master of the vessel is responsible for any damage or accidents whatsoever resulting directly or indirectly from the use of the said tugs, including damage which may occur to the tugs themselves, and to equipment.

Article 56: Use of Private Tugs

Shipowners are authorised to have their vessel towed or conveyed by their own tugs under their entire responsibility. Such tugs must be approved by the Suez Canal Authority. Apart from the special towage dues, tugs belonging to private owners are subject to the strict observance of all the parts of the rules relative to vessels manoeuvring, in transit or berthing.

Towing arrangement must be supervised and approved by the Suez Canal Authority personnel.

Article 57: Cases of Imposed Tugs

Chargeable tugs shall be imposed during Canal transit, at the tariff hire rate, in the following cases:

(a) The Canal Authority may require any vessel to take a tug or tugs through the Canal, when in its judgement such action is necessary to ensure safety to the vessel or to the Canal.

(b) LPG and LNG of over 80,000 tons (SCGT). It is also requested that a steering light, to be lit at night, be fitted on the extremity of the tanker's bows.

(c) Any vessel without mechanical power, or the machinery of which is (or becomes) disabled, or steers badly, or which is liable to become unmanageable for any reason, shall be towed through the Canal.

(d) Bad view vessels owing to deck cargo, containers, cranes or constructions impeding the view from the wheelhouse and wings.

(e) Vessels with defective indicators, or vessels without indicators, on their second trip through the Canal.

(f) Vessels unable to use one of her two anchors.

Vessels built with one anchor or without anchors.

Vessel's anchors and chains should comply with specifications of the Classification Society.

(g) Drilling vessels.

Article 58: Escorting

The escort of VLCCs, ULCCs, large bulk carriers and other vessels will be as follows:

(a) Loaded vessels under 110,000 d.w.t. will be escorted by 1 tug if for technical reasons the Suez Canal Authority finds it necessary, or when the vessel's draft exceeds 45 ft.

(b) Loaded vessels from 110,000 d.w.t. to 150,000 d.w.t. will be escorted by 1 tug.

(c) Loaded vessels over 150,000 d.w.t. will be escorted by 2 tugs.

(d) Vessels in ballast over 200,000 d.w.t. will be escorted by one tug.

Above mentioned vessels have to prepare 2 polypropylene ropes 16 in. circumference(25) to join the stern to the tug during stopping operations. The ropes should be eye spliced to fit in the quick release hook on the tug and with adequate length to give distance between fore of the tug and stern of vessel at about 50 m. On the vessel these ropes will be made fast on stern bitts port and starboard. The eyes will be hanging over the stern about 2 m. above water and lashed with rope stoppers to break loose when necessary.

Transit of drilling rigs and towed units:

1. (a) Drilling vessels.
   (b) Drilling rigs loaded on special vessels are to be escorted by a Suez Canal tug.
2. (a) Drilling rigs with self steering power.
   (b) Drilling rigs without self steering power.
   (c) Drilling rigs with legs which can be lifted so that nothing extends under the rig's bottom.

(24) Wire tow-ropes should not be confused with the fire-wire ropes made fast onboard and fitted with an eye splice or connecting shackle hanging over the side as required. See Article 61 (C).

(25) For vessels under 100,000 d.w.t., if their draft is over 45 ft.

The above are to be assisted by a Suez Canal tug aft and another Suez Canal tug as escort, in addition to a powerful tug forward to make speed in the Canal not less than 12 km. per hour over the ground. They must also be in good state of stability.

3. Drilling rigs with legs that cannot be lifted and a part remains under the rig's bottom: Each case has to be studied separately to decide whether the unit is allowed to pass the Canal or not.

4. Other towed units are not allowed to transit Suez Canal, unless they are towed by a tug suitable to the size of the unit and powerful enough to maintain a speed in the Canal not less than 12 km. per hour over the ground, in addition to the assisting Suez Canal tugs, whenever found necessary by Suez Canal officials.

General:

(a) All enquiries concerning the possibility and/or approval of transit of towed units, drilling rigs, dredgers, etc., are to be submitted by the Owners of the units or Local Official Agency, accompanied by a General Arrangement plan and all particulars of the unit: name, LOA, beam, draft, height, self steering, etc.

The application must reach the Suez Canal Authority (Directorate of Transit, Ismaila, Egypt) not less than two weeks before sailing of the unit from its base.

(b) Any towed unit must be supplied with floating mooring ropes in good condition and suitable in number (more than six) and size according to the dimensions of the unit.

(c) A responsible person and a crew of at least 10 persons must be on board the unit during the transit.

(d) A valid Seaworthiness Certificate for the towage through Suez Canal must be available.

(e) The unit must comply with the Suez Canal Regulations.

(f) If the transit is authorised a survey of the unit shall be made on the arrival, in order to take the definite steps and make the final arrangements for the transit, if it complies to Suez Canal Rules.

(g) The transit is subject to the circumstances of the Navigation in the Canal, and the weather conditions.

CHAPTER IV: ACCIDENTS – LEAKS – PRECAUTIONS AGAINST FIRE AND POLLUTION

Article 59: Accidents

(A) Whenever a vessel underway is accidently stopped, she must, if other vessels are following, attract their attention by giving five or six short blasts on the whistle or siren. This signal is to be repeated at short intervals. It means "I am reducing speed and may have to stop and make fast". Vessels stopped accidentally at night, must in addition, immediately replace their white light astern with a red light.

In case of grounding, the Master must immediately hoist the following:

	By Day	*By Night*
Passage clear for tugs	Black Ball Pendant No. 2	Red Light
Passage not clear for tugs	Black Ball; Pendant No. 2; International Code Flag "N".	2 Red Lights.

Send also a radio message stating whether a tug is required or not, whether or not passage is clear for the tug and whether lightening is necessary, etc.

(B) When a vessel runs aground, the Canal Authority Officials are alone empowered to order and direct all operations required to get the vessel afloat and if necessary, have her unloaded and towed. Neverthless, Masters remain responsible for all damages or accidents of any kind which may be the direct or indirect consequence of the grounding.

All attempts on the part of other vessels to refloat a vessel aground are strictly prohibited.

(C) When a vessel grounds or stops in the Canal itself in consequence of an accident other than a collision, the Canal Authority, in order to clear the way with all possible speed, and to get her underway, will assist with the necessary tugs to refloat her, free of charge. If, once afloat, and the Canal Officials find it necessary to tow or escort the vessel by one tug or more, she must from that moment, pay towage charges as set down by Suez Canal Authority, moreover, it is understood that the vessel bears all expenses necessary for repairs of any damage or breakdown which might interfere with her getting underway regardless of the time when such damage or breakdown takes place.

(D) When a vessel grounds or stops outside the Canal itself or if the grounding or stoppage is due to a collision, all charges for getting the vessel afloat, towing, unloading, reloading, etc., are payable by the vessel and must be settled as per statement drawn up by the Canal Authority before the vessel leaves Port Said or Port of Suez.

(E) Whenever a collision appears probable, vessels must not hesitate to run aground should this be necessary to avoid it.

(F) When a vessel or floating structure of any description runs aground or strands or sinks or is left abandoned, either in the Canal itself or in one of its ports, Waiting or Anchorage Areas, and the Canal Authority deems it an obstruction or a menace to navigation in Canal Waters, the Authority has the right to take of its own accord such action as may be necessary for the purpose of removing or destroying the vessel or floating structure by whatever means the Canal Authority may select and at the risk and expense of the Owner of, or the person responsible for the vessel or the floating structure. The Suez Canal Authority has – in this case – the right to sell the vessel or the floating structure or the wreck salvaged or all of them together in public auctions with a view to covering all kinds of expenses.

Article 60: Leaks

In the case of leaks, when in harbour the Master must inform the Harbour Office at once. When in Canal or anchored in lakes, he must inform immediately the Movement Office. He must at the same time make the appropriate International Signal and call attention by sounding a prolonged blast on the whistle or siren; and take all necessary measures to stop the leakage and ensure the safety of the vessel.

The Suez Canal Authority Officials whose decision shall be final may order any action deemed necessary in the best interest of all concerned: change of berth or mooring, beaching, taking the vessel out to sea. The Master is nevertheless responsible for all damage or accidents arising directly or indirectly from the salvage operations.

Article 61: Fire Fighting

(A) Vessels transiting the Canal should be equipped with the fire fighting equipment in accordance with the requirements of the International Convention for the Safety of Life at Sea. All equipment should be in a good and efficient condition.

(B) Fire hoses with suitable nozzles attached shall be connected to the outlets of fire lines at all times while in Canal Waters. Sufficient hoses shall be connected to reach all parts of the vessel.

(C) Approaching Canal Waters, as precautionary measures, all vessels must have a fire wire hanging over the side ready for use fore and aft, before entering Canal Waters.

Article 62: Fire Onboard

(A) In case of fire onboard, when in harbour the Master must inform the Harbour Office at once. When underway or in the Canal or anchored in Lakes or made fast in Canal, he must inform the Movement Office.

He must at the same time make the appropriate International Signal and call attention by sounding a prolonged blast on the whistle or siren. He must make ready to get underway if required to do so.

(B) Neighbouring vessels must in such cases also be ready to change berth.

(C) Masters are responsible for the use onboard their vessels of fire fighting appliances and installations and for the stability and safety of their vessel.

(D) *The Suez Canal Officials will co-operate with the Master for the purpose of directing the fire fighting operations.*

The vessel's crew shall co-operate with the Suez Canal Authority personnel.

(E) If in the opinion of the Canal Authority Officials, whose decision shall be final – there is a risk of fire spreading, they may order any action deemed necessary in the best interest of all concerned (change of mooring, beaching, taking vessel out to sea); it is understood that Masters are nevertheless responsible for all damages or accidents arising directly or indirectly from outbreaks of fire or salvage operations.

Article 63: Fuelling

A vessel at fuel berth or while being supplied by fuel in Waiting Areas shall at all times be ready for immediate fire fighting. She shall keep up steam and be ready to move on short notice.

Article 64: Pollution

Before arrival from sea at either of the Terminal Ports, vessels should comply with the requirement of appropriate Convention currently in force.

(A) Discharge of Substances Polluting Water

Vessels must not discharge or throw into the Canal Waters any polluted water ballast, heavy slops, engine or fire room polluted bilge water, oil or any other substances that will cause pollution.

In case of violation, the vessel shall be charged an additional due of 10,000 L.E. (Ten Thousand Egyptian Pounds), shall be liable for any damage resulting from the pollution and shall pay all expenses incurred for its removal. Moreover, she may be prevented from transiting the Canal.

In case of leakage of any polluting material from a vessel, due to any reason, the Master, the Owners and/or operators of the vessel shall be liable for any damage resulting from the pollution and shall pay all expenses incurred for its removal.

(B) Dumping Garbage

Dumping Garbage is Strictly Forbidden

In case of violation, the vessel will be charged an additional due of 1,000 L.E. (One Thousand Egyptian Pounds).

If a vessel is anchored in Canal Waters for a considerable length of time, she may get rid of garbage by requesting garbage lighter alongside.

(C) Whenever a vessel observes *oil spill* in Canal Waters, she must at once inform the Suez Canal Authority with the following information if possible.

(i) The place and area covered by spill.

(ii) The direction of motion of the spill.

(iii) If known, the name of vessel causing the spill.

CHAPTER V: Prohibitions and Charges

General

When a vessel is in Canal Waters, either in anchorage areas or ports or during transit, the following is prohibited:

Article 65: Use of Anchors and Thrusters

Masters must avoid anchoring and using the thrusters in the Canal, except in case of absolute necessity.

Article 66: Misuse of Whistle or Siren

The sounding of a whistle or siren is prohibited except for giving any authorised or required signal, as mentioned in Part III, Article 93.

Article 67: Firing Shots

(A) Firing shots is not allowed.

(B) An additional due of 200 L.E. (two hundred Egyptian pounds) will be imposed for violation of this rule.

Article 68: Picking up Object from Water

(A) Whenever any object or merchandise whatsoever falls overboard, it must be immediately reported to the Canal Authority. If it is considered that the picking up cannot be effected by the vessel without impeding transit, the Canal Authority will proceed to carry it out, at the expense of the vessel.

(B) An additional due of 200 L.E. (two hundred Egyptian pounds) will be imposed for violation of this rule.

Article 69: Riveting, Welding etc.

(A) Riveting, welding, burning, metal cutting or similar operations requiring the use of heat, are not allowed unless authorised by the Suez Canal Authority.

(B) An additional due of 500 L.E. (five hundred Egyptian pounds) will be imposed for violation of this rule.

Article 70: Pollution

(A) See Article 64 and following.

(B) An additional due of 10,000 L.E. (ten thousand Egyptian pounds) will be imposed for discharge of substances polluting water. Besides, the vessel may be prevented from transiting the Canal any more.

(C) An additional due of 1,000 L.E. (one thousand Egyptian pounds) will be imposed for throwing waste.

Article 71: Direct Lights

Under no circumstances shall the rays of any blinding lights be directed to the bridge or any other direction which would interfere with the safe navigation of other vessels.

Article 72: Embarking and Disembarking of Persons

(A) Unless authorised by the Canal Authority or Port Officials, no person shall embark or disembark from a vessel while passing through the Canal or in Ballah, Timsah Lake or the Bitter Lake.

(B) An additional due of 200 L.E. (two hundred Egyptian pounds) will be imposed for violation of this rule.

Article 73: Boats, other than the Canal Authority's own are not allowed to come alongside vessels underway or manoeuvring except the following at their own risk.

(A) Quarantine and police boats.

(B) Mooring boats.

(C) The ship's Agent's boats.

Article 74: Vessel Overtaking Another

(A) Vessels proceeding in the same direction are not allowed to overtake one another while underway in the Canal Waters and ports unless authorised by the Suez Canal Control Office.

(B) An additional due of 500 L.E. (five hundred Egyptian pounds) will be imposed for violation of this rule.

Article 75: Boat Drills

(A) No rowing or sailing boat drills are allowed except after authorisation.

(B) An additional due of 200 L.E. (two hundred Egyptian pounds) will be imposed for violation of this rule.

Article 76: Venting

(Tank openings to be closed through the whole transit).

(A) Venting of gas for the purpose of tank cleaning is prohibited in Canal Waters.

(B) An additional due of 10,000 L.E. (ten thousand Egyptian pounds) will be imposed for violation of this rule.

Article 77: Long Stay

(A) Unless due to conditions of traffic or incidents in the Canal, transiting vessels should not remain more than 24 hours in Port Said berths, anchorages in Port Said and Port of Suez roads, Timsah Lake or Bitter Lakes.

(B) An additional due of 2 P.T. (two Egyptian piastres) per Suez Canal net ton/day will be imposed.

Article 78: Vessels Having Damaged Container With Dangerous Cargo

If upon arrival of a vessel in waiting areas or port or while transiting the Canal, it is found that a container of dangerous cargo has been damaged or is leaking, the Master of the vessel has to notify the Suez Canal Port Authority at once. In cases of dangerous situations the vessel may be ordered to leave the port or waiting area for sea.

Article 79: Declaration of State of Navigability

I, the undersigned, Master of the...

(a) Certify that my ship satisfies the conditions laid down in Part I, Articles 22 and 25 of the Navigation Regulations and that, in particular, the engines and the steering gear are in good working order(*).

(b) Declare that my ship has, at the present time, the following defects in engines or steering gear(*).

(c) I declare, also, that the wireless installations of my ship permit to transmit on the frequencies hereafter, in kHz:

Telegraphy...............kHz. Telephony...............kHz.

(d) I state also that my ship is/is not (*) fitted with a rudder angle indicator and engine r.p.m. indicator on the bridge in such a position that the Pilot may read both without having to move away from his station and that the rudder angle indicator/engine r.p.m. indicator(*) is/are in good working condition.

I undertake to bring to the notice of the Suez Canal Authority, before my ship enters the Canal, any defects, not specified above, which may appear.

Made at Port...................., the.......................

Signature........................

(*)Delete where inapplicable.

PART II – CANAL AND LAKES

CHAPTER VI: CANAL AND LAKES

Article 80: Canal and Approaches

(A) Length of the Navigable Channel

(1) East Approach Channel (Port Said).

(a) Distance from outer pair of buoys at Hm. 195 to Hm. 94.90 where it joins the West Approach Channel is 10.010 km.

(b) Distance from Hm. 94.90 to the pair of revolving lights at Km. 3.000^E is 12.490 km.

(2) West Approach Channel (Port Said).

(a) Distance from Fairway Buoy to Port Said Lighthouse is 11.040 km.

(b) Distance from Port Said Lighthouse (Km. 0.000) or (Km. 3 East Branch) to Ismailia is 78.5 km.

(c) Distance from Ismailia to Port Tewfik (Km. 162.250) is 83.750 km.

(d) Distance from Port Tewfik (Km. 162.250) to the outer pair of buoys Hm. 80.50 is 8.500 km.

(e) Total length of the navigable channel is 193.250 km.

(B) Characteristics of the Navigable Channel (Canal and Approaches).

(1) North Approaches

(a) East Port Said Approach Channel from Hm. 195 to Km. 1.333 East.

(i) Depth of water 20.00 m.

(ii) Channel width measured at 20 m. depth – Hm. 195.00, 745 m.; Hm. 80.00 East, 400 m.; Km. 1.333 East, 120 m.

(iii) Side Slopes

Natural land side slopes, ranging from 5/1 near shore to about 20/1 in the off-shore part.

(b) West Port Said Approach Channel from Hm. 95.00 to Port Said

(i) Depth of water 14.00 m.

(ii) Channel width measured at 12.50 m. depth – Hm. 95.00, 1400 m.; Hm. 25.00, 350 m.

(2) Canal Cross Sections (See Plan)

(a) The Canal cross sections are trapezoidal in shape, having side slopes of 4/1 in the Northern part up to Km. 61.00 and of 3/1 in the Southern part. Toussoum Zone is the only place where the Western slopes are 2.5/1.

(b) Tables of main dimensions of cross sections all through the Canal (See below).

(c) Both sides of the Canal are provided with mooring bollards.

(3) South Approach from Hm. 0.00 (Km. 162.250) to Hm. 80.50

(a) Depth of water 23.50 m.

(b) Channel width measured at 18 m. depth Hm. 0.000 to Hm. 80.50, 298.00 m.

(c) Side slopes 3/1.

(C) Depth and Width of Different Parts of the Canal: i. Main Canal and Bitter Lake West Channel. ii. Canal East Branches and Bitter Lake East Channel

i. *Main Canal and Bitter Lake West Channel*

Kilometric Position		*Designation of Different Parts of the Canal*	*Theoretical Depth (m.)*	*Width of Canal at 18 m. Depth (m.)*	*Width of Canal at 14 m. Depth for West Branches (m.)*	*Remarks*
Origin point of Km.		*Axis of Port Said Canal*				
From Km.	To Km.					
0.000	1.450	Ismail Basin	13.00			
1.450	3.650	Basins for Coal and Fuel oil vessels	13.00			
3.729	4.890	Junction	15.00			
4.890	5.878	Straight line	15.00			
6.410	16.663	Straight line	15.50		151	
16.663	17.000	Junction	15.50 – 19.50		151 – 172	
17.000	19.000	Southern entrance to Port Said By-pass	19.50	Variable		
19.000	30.414	Straight line	19.50	119		
30.414	32.350	Northern Approach to encoche (cut)	19.50	119 – 246		
32.350	32.950	East encoche of Km. 32	19.50	246		
32.950	33.950†	Southern approach to encoche (cut)	19.50	246 – 104		
33.950	49.512	Straight line	19.50	104		
49.512	51.477	Northern approach to Ballah Loop	19.50	Variable		
51.477	51.800	Straight line	18.50		146	
51.800	52.054	Straight line	15.50		146	West Branch Ballah Loop
52.054	53.512	Curve of Km. 53	15.50		Variable	
53.512	54.098	Approach to curve	15.50		160.64 – 146	
54.098	56.871	Straight line	15.50		146	
56.871	58.797	Curve of Km. 57	15.50		Variable	
58.797	59.269	Approach to curve	15.50		157.82 – 146	
59.269	59.900	Straight line	15.50		146	
59.900	60.308	Straight line	18.50		146	
60.308	60.333	Curve of Km. 61	18.50		146 – 146.10	
60.333	63.419	Curve of Km. 61	18.50 – 19.50	Variable		
63.419	64.514	Approach to curve	19.50	143.96 – 118		

†The Southern approach to the encoche of Km. 32 will be amended in future.

Kilometric Position		*Designation of Different Parts of the Canal*	*Theoretical Depth (m.)*	*Width of Canal at 18 m. Depth (m.)*	*Width of Canal at 14 m. Depth for West Branches (m.)*	*Remarks*
Origin point of Km.		*Axis of Port Said Canal*				
64.514	71.164	Straight line	19.50	118		
71.164	71.964	Approach to curve	19.50	118 – 148		
71.964	75.311	"S" Curves	19.50	148		
75.311	76.025	Straight line	19.50	148		
76.025	77.370	Curve (Centre on West Bank)	14.50		102 – 173	West Branch Timsah Lake
77.370	77.672	Junction	14.50 – 14.00		173 – 226	
77.672	77.912	Junction	14.00		226 – 282	
77.912	79.943	Curve of Lake Timsah (Centre on East Bank)	13.50			
79.943	80.312	Straight line	13.50 – 15.50			
80.312	80.384	Junction	15.50		94 – 80	
80.384	81.250	Straight line	15.50		80	
82.575	85.027	Straight line	19.50	148		
85.027	87.414	Curve of Km. 85	19.50	148		
87.414	88.814	Approach to curve	19.50	148 – 118		
88.814	92.950	Straight line	19.50	118		
92.950	93.050	Junction to Syphons Zone	19.50	118 – 198		
93.050	93.446	Syphons Zone	19.50	198		
93.446	95.000	Junction to Deversoir by-pass	19.50	Variable		
95.000	95.250	Junction to West Branch	17.25		188 – 152	Deversoir West Branch
95.250	100.200	Straight line	15.50		152	
100.200	101.050	Junction	14.50		152 – 411.43	
101.050	103.957 W. 104.160 E.	Junction	14.50		411.43 – 250	Bitter Lakes West Channe
104.160	114.749	West Channel	14.50		250	
114.957	115.603	Junction	14.50		from approx. 400 to 152	Kabrit – Loop West Branch
115.603	122.100	Straight line	15.50		152	
122.100	125.507	Curve of Km. 122	19.50	Variable		
125.507	129.499	Straight line	19.50	148		
129.499	131.975	Curve of Km. 130	19.50	148		
131.975	133.175	Approach to curve	19.50	148 – 118		
133.175	144.714	Straight line	19.50	118		
144.714	147.164	Encoche of Km. 146	19.50	Variable		
147.164	153.524	Straight line	19.50	118		
153.524	154.724	Approach to curve	19.50	118 – 148		
154.724	155.724	Curve of Km. 154	19.50	148		
155.724	156.274	Straight line	19.50	148		
156.274	159.998	Curve of Km. 157	19.50	148		
159.998	161.050	Straight line	19.50	148		
161.050	162.250	Southern approach of the Canal	19.50	148 – 309		

ii. *Canal East Branches and Bitter Lake East Channel*

Kilometric Position		*Designation of Different Parts of the Canal*	*Theoretical Depth (m.)*	*Width of Canal at 18 m. Depth (m.)*	*Width of Canal at 14 m. Depth for West Branches (m.)*	*Remarks*
Origin point of Km.		*Axis of Port Said Canal*				
1.500 E.	15.465 E.	Straight line	19.50	114		Port Said By-Pas
51.449 E.	51.785 E.	Curve of Km. 51 East	19.50	104		East Branch Ballah – Loop
51.785 E.	59.943 E.	Straight line	19.50	104		
76.032	76.519	Straight line	19.50	148		
76.519	78.900 E.	Curve of Timsah	19.50	148		Timsah By-Pass
78.900 E.	80.949 E.	Encoche of Km. 82	19.50	Variable		
80.949 E.	81.692 E.	Curve of Timsah	19.50	148		
95.000	95.250	Junction to East branch	19.50	243.55 – 210.99		Deversoir East Branch
95.250	96.000	Junction to East branch	19.50	210.99 – 148		
96.000 E.	100.666 E.	Straight line	19.50	148		
100.666 E.	102.600 E.	Straight line	19.50	148		
102.600	105.030	Curve	18.50	Variable		Bitter Lakes East Channe
105.030	112.860	Main Channel	18.50	364		
112.860	114.200	Junction	18.50	Variable		
114.200	114.956	Junction with Kabrit – Loop		Variable		
114.956 E.	115.144 E.	Junction	19.50	from approx. 250 to 118		Kabrit – Loop East Branch
115.144 E.	118.000 E.	Straight line	19.50	118		
118.000 E.	121.937 E.	Straight line	19.50	118		
121.937 E.	122.100 E.	Beginning of Km. 122 curve	19.50	118		

(D) Bends in the Canal

(1) The bends in the navigable channel have the following characteristics:

(a) Radius of navigation line = 5,000 m.

(b) Width of channel at −11.00 m., depth = 190 m.

(c) Width of channel at −18.00 m., depth North of Km. 61.000 (side slopes 4/1) = 134 m.

(d) Width of channel at −18.00 m., depth South of Km. 61.000 (side slopes 3/1) = 148 m.

(e) At the ends of two bends, there is usually a funnel made to allow increasing the width of the channel gradually from 160 m. to 190 m. (at −11.00 m. depth).

(f) Locations of beginning and end of each bend are included in the following table:

Canal Bends	*Kilometric indication of beginning point*	*Kilometric indication of end point*
Km. 53	Km. 52.050	Km. 53.520 West
Km. 57	Km. 56.870	Km. 58.800 West
S. "Curves"	Km. 71.960	Km. 75.300
Timsah Curve	Km. 76.520	Km. 81.700 East
Km. 85	Km. 85.030	Km. 87.400
Km. 103	Km. 102.600	Km. 105.030 West
Km. 130	Km. 129.500	Km. 131.980
Km. 146	Km. 145.500	Km. 146.330
Km. 154	Km. 154.700	Km. 155.720
Km. 157	Km. 156.280	Km. 160.000

(2) At the approaches of the by-passes, bends are made with radius more than 5,000 m. Location of these bends are included in the table hereafter.

Approaches	*Kilometric indication of beginning point*	*Kilometric indication of end point*
Km. 51	Km. 49.510	Km. 51.480 West Km. 51.790 East
Km. 61	Km. 60.310 West Km. 59.940 East	Km. 63.300
Km. 122	Km. 121.940 East Km. 122.500 West	Km. 125.510

(E) By-Passes and Loops

(1) Port Said By-Pass (see "Plan").

A new by-pass is dredged East of Port Fouad starting at Km. 17.000 and extending straight to join the existing Port Said Roadstead at Hm. 94.90 and continuing until Hm. 195. This channel (By-Pass) will be used for the exit of Northbound ships, the entry of VLCCs in ballast and vessels with draft over 38 ft. coming from North.

Characteristics and dimensions: The kilometric marks are followed by letter "E" to distinguish them from those of the West branch. The inland part (from Km. 1.500 E. to Km. 15.465 E.) width (at 18 m. depth) is 114 m. with side slopes 4/1 and depth 19.5 m., fitted with bollards on the Western side, spaced every 100 m.

The seaward part (from Km. 1.500 E. to Hm. 94.90 E.) with width (at −20 m. depth) ranging from 120 m. at Km. 1.333 E. to 400 m. at Hm. 80.00 E. with natural side slopes (average 5/1 – 10/1).

Two revolving lights, one on each bank to indicate the entrance of Canal from East Approach channel at Km. 3.000 E.

(2) Ballah Loop (see "Plan").

Between Km. 51 and 61 the Canal is doubled in the East, by a branch. The zone comprising the 2 branches of the Canal limited by the North and South ends where the 2 branches meet, is called "Ballah Loop".

In the East Branch the kilometric marks are followed by letter "E". The length of the East Branch is 8.490 km.

	West Branch	East Branch
Kilometric marking of North end	51.477	51.449 E.
Kilometric marking of South end	60.333	59.943 E.

Slope of bank 4/1. In the West branch 15 mooring posts are situated on the Eastern bank and numbered South to North.

(3) Timsah By-Pass (see "Plan").

Between Km. 76.580 and Km. 81.700 E.

Characteristics and dimensions

The kilometric marks are followed by letter "E". Length: 5.110 km. counted at right angle from Km. 76.578 to Km. 81.700. Width: 148 m. at a depth of 18 m. Slope: The side slope is 3/1. The radius of its axis is 4905 m. The by-pass will be used by North and Southbound vessels.

(4) Deversoir By-Pass (see "Plan").

A new branch is dredged East of the existing channel at Deversoir zone. This branch begins at Km. 95.000 and joins the main East channel in the Great Bitter Lake at Km. 104.160. The branch will be used by Northbound vessels.

Dimensions

Width: 148 m. at 18 m. depth. Depths: 19.500 m. from Km. 95.000 to Km. 100.670; 19.900 m. from Km. 100.670 to Km. 102.600; 18.500 m. from Km. 102.600 to Km. 104.160. Side slope: 3/1.

(5) Kabrit By-Pass (see "Plan").

The By-Pass is situated to the East of the main Canal. It begins at Km. 114.960 and ends at Km. 122.100. It is 250 – 118 m. wide at a depth of 18 m., the bank slope is 3/1. The By-Pass is separated from the main Canal by a submerged island at a depth between 2 and 6 m. The width of the island varies between 200 m. in the North and 66 m. in the South. Some mooring bollards have been installed on the submerged island to be used in case of emergency. The two extremities of the submerged island are marked at Km. 115.025 and 122.150 by a light buoy painted horizontally white and red and showing a flashing white light. The by-pass (East channel) is to be used by Northbound vessels. Southbound vessels use the West channel.

Article 81: Lakes

(A) Lake Timsah (see "Plan").

Lake Timsah extends from Km. 76.500 to Km. 80.520. In the presence of the new Timsah By-Pass, Lake Timsah will be used mainly as an anchorage area.

(B) Great Bitter Lake (see "Plan").

There are 2 dredged channels in the Great Bitter Lake. The East is the main channel about 364 m. wide at 18.00 m. depth and dredged to 18.50 m. for Northbound vessels. The West channel 250 m. wide at 14.00 m. and dredged to 14.50 m. depth for Southbound vessels.

These channels divide the Great Bitter Lake into two anchorage areas, one to the East and the other to the West.

Article 82: Floating Bridges

The fixed parts of floating bridges are outside the line of navigational buoys. The bridges may be rigged day or night.

CHAPTER VII: BUOYAGE SYSTEM IN THE CANAL

Article 83: Buoyage

The navigable channel is marked by pairs of light buoys. On the East side Black buoys showing Green lights. On the West side Red buoys showing Red lights.

In the straight parts, the distance between each pair is 1.5 km. in the North Section, and 1.0 km. in the South Section. In the curves the distances will be less than 1.0 km. All buoys in the Canal and its approaches are fitted with radar reflector.

Article 84: Location of Buoys in the Suez Canal. See "Plan".

CHAPTER VIII: TIDES AND CURRENTS IN SUEZ CANAL

Article 85

The Suez Canal is divided in three main sectors according to the nature of tide in each.

The characteristics of each can be summarised as follows:

(A) The Northern Sector

This part is located between Port Said and the Great Bitter Lake.

1. The height of tide at Port Said co-oscillates with the tides of the Mediterranean sea with 0.50 m. extreme tidal range (difference between highest and lowest levels) at Spring tides. This tidal range decreases gradually going South, to be about 0.20 m. at the entrance of Lake Timsah.

2. In this sector, the peak tidal current may reach 1.0 knot (in case of no wind).

3. Currents can be doubled by strong prevailing winds.

4. Peak currents occur about 50 minutes after predicted HW and LW at Port Said.

5. The duration and velocity of currents in this sector are greatly affected by the relative mean sea levels between the Mediterranean sea, the Bitter Lakes and the Red Sea as follows:

(a) *In Summer:* Between July and October, the mean sea level at Port Said is slightly higher than that of the Bitter Lakes. This difference (which reaches its maximum about 0.20 m. in September), due to the great evaporation at the Bitter Lakes, causes the *predominance of the Southward* current in duration and velocity.

(b) *In Winter:* Between December and May, the mean sea level at the Bitter Lakes is slightly higher than that of Port Said. This difference which reaches its maximum of about 0.30 m. in January, causes the *predominance of the Northward* current in duration and velocity.

(B) The Lakes (Timsah and Bitter Lakes)

1. The Lakes along the Canal have an important role in dampening the effects of sudden meteorological changes.

2. The Bitter Lakes with a surface of about 250 sq.km. reduce the vertical movement of the tide to a minimum between Km. 100 and Km. 130.

3. The high Spring tidal range (MHWS) in the Great Bitter Lake may reach 0.25 m.

4. The phase of the vertical tide in the Great Bitter Lake is about 3 hours later than that of Port Tewfik.

5. The vertical tide in Lake Timsah is almost in phase with the tide in the Great Bitter Lake.

(C) The Southern Region

This part is located between Port of Suez and the Bitter Lakes.

1. The height of tide at Suez co-oscillates with the tides of the Red Sea with extreme tidal range of about 1.90 m. at Spring tides. This range decreases gradually going North till the Bitter Lakes entrance where it is 0.15 m. at Genefa.

2. The tidal volume of the Bitter Lakes is very large compared to the tidal volume of the Southern section. Consequently the currents are relatively strong and almost uniform between Port Tewfik and Genefa.

3. In this region the Northward current is called *Flood* and the Southward current is called *Ebb*.

4. Peak currents about 50 minutes after predicted HW and LW at Port Tewfik.

5. At the entrance of the Canal, Km. 159, the *Flood* tide starts at an average of 3 hours after the LW at Suez. The *Ebb* tide 3 hours after HW in Suez.

6. Generally in Summer, the duration of the *Ebb* exceeds the average of 6 hours. In Winter, the *Flood* is the predominant. The *Ebb* is prolonged by "Strong Northerly Winds". The *Flood* is prolonged by "Strong Southerly Winds".

7. In this region the average peak current is about 1.5 knots. In Spring tides, current may reach 2.5 knots.

8. The change of current occurs 5 to 10 minutes later in the bottom of the Canal, than on its surface.

Article 86: Weather Forecast

Six meteorological stations are installed on the Canal area. Information about local weather will be passed to vessels through Pilots.

PART III – COMMUNICATIONS – SIGNALS.

CHAPTER IX: RADIOCOMMUNICATIONS

Article 87: Wireless and Radio Telephony

Masters of vessels are requested to contact the Suez Canal Authority via its wireless station "SUQ" (watch frequencies 425 kHz, 454 kHz and 468 kHz) whenever they want to make sure of the identity of any Suez Canal personnel embarking their vessels, either in the approaches or in the harbours or in the Canal waters. Also in case of any urgent complaints which may need quick investigation.

(A) Vessels must have their W/T and/or Radio Telephony apparatus in good working order before entering the Canal.

They must also be fitted with a VHF set easily operated from the bridge. It will have the frequency range of 156 to 174 MHz (Channels 9, 11, 12, 13, 14, 15 and 16). If not, they will rent one from the Suez Canal Authority for the transit. Channel 9 may be used as a stand-by channel at Port Said and Port of Suez.

(B) "SUQ" transmits on a frequency of 421 kHz.

Vessels communicating with SUQ must transmit on a frequency of 425 kHz, 454 kHz or 468 kHz.

(C) Master shall place their wireless apparatus at the disposal of Pilots during transit through the Canal.

(D) In addition, vessels arriving at Port Said or Port of Suez from sea can call by Radiotelephony.

Article 88: Radiotelephony (VHF)

(A) Radiotelephony for vessels from sea

(1) *At Port Said*

(a) Harbour Office: Call Sign: "Port Said 16" (HP-1) 156.800 MHz. Working Channel 13 (Inner Harbour), Channel 12 (Outer Harbour).

(b) Pilot Vessel and Radar Guidance:

(i) Outside the Harbour: Call Sign: "Port Said 12" (HP-2) 156.600 MHz.

(ii) Inside the Harbour: Call Sign: "Port Said 13" (HP-3) 156.650 MHz.

(iii) East Branch: Call Sign: "Port Said 8".

(c) Measurement Office: Call Sign: "Port Said 73" (M) 156.675 MHz.

(2) *At Port of Suez*

(a) Harbour Office: Call Sign: "Suez 16" (HP-1) 156.800 MHz.

(b) Pilot Vessel and Radar Guidance:

(i) Outside the Harbour: Call Sign: "Suez 11" (HP-2) 156.550 MHz.

(ii) Inside the Harbour: Call Sign: "Suez 14" (HP-3) 156.700 MHz.

(c) Measurement Office: Call Sign: "Suez 74" (M) 156.725 MHz.

(B) Radiotelephony in the Canal (UHF)

Channel No.	*Transmission Frequency MHz*	*Reception Frequency MHz*	*Function*
1	415.350	412.850	V/Ls from North (SB)
2	415.600	413.100	V/Ls from South (NB)
3	415.850	413.350	Emergency (EM)
4	416.600	414.100	In Port of Suez Harbour HP (T)
5	416.350	413.850	In Port Said Harbour HP (S)
6	416.125	413.600	Emergency Critical (EMC) (V/Ls out of convoy)

Escorting Tugs – Towing Tugs

Channel 1 – 414.750 MHz	another set
Channel 2 – 414.775 MHz	
Channel 3 – 414.800 MHz	

Note: Channel 9 (156.450 MHz) may be used as stand-by Channel at Port Said or Port of Suez.

CHAPTER X: THE SUEZ CANAL VESSEL TRAFFIC MANAGEMENT SYSTEM (SCVTMS)

Article 89: Overview

The SCVTMS is a new integral system for traffic management in the Suez Canal. The system offers the following services:

(a) Continuous monitoring of vessel's position, speed, off-track and gap by means of highly accurate computerised tracking radars (at Port Said, Port Tewfik and Great Bitter Lake), also a dedicated Loran-C position fixing chain (covering the Canal and its approaches).

(b) A dedicated voice communication network that enables direct and uninterrupted communication between Pilots and Movement Centres.

(c) A computerised data base containing vessel's information and transit requirements (e.g. early booking) files.

This system greatly enhances safety of transit in the Suez Canal.

Article 90: Sequence of Events for Vessels Transiting The Canal.

(a) At each Port, a radar covers approximately 35 km. offshore. A vessel approaching the Canal at either end[26] is requested to call the Port Office on one of the frequencies listed in Chapter IX of the present Part. The Harbour Pilot boarding the vessel will have his own portable transceiver. The vessel is requested to declare her position when anchored in the anchorage area (if instructed to do so).

(b) When calling the Port Office for the first time, the vessel is requested to give her international call sign and her Suez Canal file number (if any). This file number will be registered on a special card by the Suez Canal Authority and given to any vessel transiting after June 30th, 1981. If the vessel does not carry a file number, she should so advise the Port Office. This file number is used by the computerised data base system in retrieving data pertaining to the vessel.

(c) Approaching the roads, the vessel is requested to call the Port Office declaring her international call sign. This is essential to start radar tracking of the vessel's speed, position, off-track and separation distances. Before entering the road, the Port Office monitors the vessel by radar.

(d) The Port Office follows the vessel as long as the Harbour Pilot is on board. On entering the Canal, the Canal Pilot will board. On boarding, the Canal Pilot will have a special set (Carry On Receiver Transmitter, called CORT) receiving Loran-C signals from SCVTMS dedicated chain continuously. The time difference calculated by the CORT is not displayed at the CORT. Instead, this information is continuously sent by the CORT to Ismailia centre where it is used to calculate vessel's speed, position, off-track and separation distances.

Circular No. 73/84:

Masters of vessels transiting the Suez Canal are hereby kindly requested to render all facilities and necessary assistance to the Canal Technician boarding their vessels for the purpose of supervising the Electronic CORT during Canal passage.

Article 91: Some Considerations to be Taken into Account

(a) The CORT should be mounted on the West wing of the vessel. The area around should be clear of any obstruction within 10 ft. radius. A trained technician will mount the CORT in place and operate it before disembarking. The CORT power is self-sufficient and does not need any attendance while in operation. At the other end of the Canal it is dismounted by a SCA technician.

(b) After mounting and operating the CORT, the Pilot is requested to report same to Ismailia Movement Office through VHF or UHF (Canal Pilots are equipped with portable UHF sets linked to Ismailia Movement Office). The Pilot is also requested to declare his approximate position, the vessel's "SCA" file number and "Call sign". This is essential to start the Loran-C tracking of the vessel.

(c) Vessels will be tracked simultaneously by radar and Loran-C at the Great Bitter Lake area.

(d) When approaching either end of the Canal (Km. 3 East Port Said Branch or Km. 162.000), the respective Port Office will be handed the responsibility of following up the vessel to sea.

(e) On passing either end, the Canal Pilot will declare his position together with the vessel's call sign and file number.

(f) The Harbour Pilot will then board the vessel while the CORT will be dismounted by a SCA technician.

(g) Any changes in the vessel's characteristics should be reported to Canal Officials to be filed in SCA vessel's file.

CHAPTER XI: SIGNALS

Article 92: Generalities

All signals used in Canal Waters are shown hereafter.

All flags and pendants to be hoisted by vessels, as shown hereafter, should be those in the International Code of Signals.

Night signals shall be hoisted where best seen by other vessels.

Article 93: Sound Signals

(A) Normal Manoeuvre

(1) The International Regulation for Preventing Collision at Sea Signals.

"One short blast": I am altering my course to starboard.
"Two short blasts": I am altering my course to port.
"Three short blasts": I am operating astern propulsion.

(2) The signal 5 or 6 short blasts repeated several times at short intervals to say: "I am reducing speed and may have to stop or make fast".

At night besides the blasts, four to five long flashes with the Aldis lamp or signal mast lamp.

(3) The signal one prolonged blast to attract attention. The expression "short blast" means a blast of about 1 second duration.

The expression "prolonged blast" means a blast of 4 to 6 seconds duration.

(B) Obstruction in Channel in all Circumstances

A vessel which under any circumstances causes or finds obstruction in the channel must immediately warn the vessels in the vicinity.

That warning is given by whistle or siren:

4 long blasts meaning: "The channel is not free".

That warning must be repeated every 3 minutes until vessels concerned have answered in the same manner. As soon as they hear the signal mentioned above, the vessels take steps to stop and instruct a Radio Watch, to receive full details of the alert given by the vessel that sent the said signal. The vessel should maintain Radio Watch until otherwise advised.

(C) Engine or Steering Failure Approaching Dredger

In case of engine or steering failure making the vessel not under command, while approaching a dredger, the vessel has to give the signal one long blast followed by two short blasts (– · ·).

(D) Vessel Mooring Voluntarily for Fog or Sand

During the mooring manoeuvre, the vessel sounds every 2 minutes a series of 6 short blasts.

Once made fast (Signal Garage Volontaire hoisted), the vessel must rapidly ring the bell for 5 seconds at intervals not exceeding one minute. For vessels over 350 ft. (106.75 m.) they will have to ring the bell forward and in addition a gong aft, at intervals not exceeding one minute, (a gong or any other instrument which tone and sound will be different to that of the bell forward).

These signals are stopped when the vessel is told that all vessels concerned have been notified of her mooring.

(E) Vessel Aground or Across Canal

See Article 93 (B) Obstruction in Channel.

(F) Between Vessels and Tugs

(1) Vessel Aground in Canal

Signals between a vessel aground in the Canal and a tug.

These signals are for manoeuvre of refloating, as long as the vessel has one of the grounding signals.

Pull slowly	(– ·)
Increase	(– · ·)
Stop	(– –)
Slack the line	(– – ·)
I am to let go	(– – · ·)

These signals are to be repeated by the tug.

(2) Vessel Towed in the Canal

Signals between a vessel towed in the Canal and a tug.

Radiotelephony is used as communication between ship and tug, besides the following signals.

By Day (Flag)		*At Night (Sound)*
Slow speed	: "A" hoisted above bridge	(– ·)
Half speed	: "A" hoisted half way	(– · ·)
Normal Tow	: "A" hoisted right up	(– · · ·)
Steady	: "A" lowered	(– –)

(Or sound signals if considered surer).

The sound signals are to be repeated by the tug. The flag signal remains flying as long as the tug is to give the signalled speed. By day, every change of flag signals is followed by a long blast.

(G) Signals Between VLCCs and Escort Tugs

(1) Attention to Start Manoeuvre

Prolonged blasts given by the ship.

(2) Stern Tug

Bring my stern to starboard	(·)
Bring my stern to port	(· ·)
Keep my stern in the axis	(· · ·)
Pull my stern aft slowly	(· · · ·)
Increase pulling my stern up to half speed astern	(· · · · ·)
Increase pulling my stern up to full speed astern	(· · · · · ·)
Stop pulling (very long blast)	(——)

(3) Forward Tug

Give me a push on starboard bow	(–)
Give me a push on port bow	(– –)
Stop pushing	(– – –)

Article 94: See "Plan".

WADI FIRAN: 28.44 N. 33.13 E.

An open anchorage on Sinai coast in the Gulf of Suez about 85 nautical miles South of Suez.

There are 12 large and conspicuous storage tanks in 2 parallel rows of 6 tanks each lined on shore near the pumping station and painted with aluminium.

DOCUMENTS:
4 Crew Lists.
2 Stores Lists.
2 Vaccination Lists.

PILOTAGE: Pilot boards each tanker at anchorage.

ANCHORAGE: Lat. 28° 44.5′ N., Long. 33° 09.5′ E.

RESTRICTIONS: Mooring and unmooring during daylight only.

MAX. SIZE: 105,000 d.w.t. Max. draft 75 ft. at Berth No. 1.

RADIO: It is essential that vessels bound for Wadi Firan give 72 hours and 24 hours notice to both "Petmisr Cairo 92049 UN" and "Petbel 92449 UN", to be accepted on the berth without delay. Contact Abu Rudeis on VHF Channel 16 when in range. There is no radio station at Abu Rudeis. Pilots working on Channel 14.

VHF: VHF radio is used for communication between tanker and pumping station.

TUGS: 1×3,080 h.p. and 1×4,080 h.p. available for mooring and unmooring.

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[26] Ten miles before arrival to Approach Buoy at Port Said. On Passing Separation Zone Buoy No. 1 at Port of Suez.

BERTHING: Tankers must approach berth from West, never from North, and must follow same track on their departure to be entirely clear of shallow water. Tankers at berth will be connected to shore pumping station by submarine hoses for pumping crude oil (12 in. hose from the starboard side).

Two mooring launches available. Both ship's anchors are used, the port anchor first, normally 9-10 shackles in the water on each. At the stern 4 wire ropes from buoys are taken on board. Special care should be taken when mooring in Southerly winds. If blowing strong, berthing may be delayed.

	Berth No. 1	*Berth No. 2*
Position:	Lat. 28° 45′ N. Long. 33° 11.5′ N.	Lat. 28° 43.5′ E. Long. 33° 11.5′ E.
~~L.O.A.:~~	~~1,200 ft.~~	~~1,000 ft.~~
Water Depth:	75 ft.	58 ft.
Max. D.W.T.	105,000	50,000
Sea Line (Crude):	24 in.	18 in.
Sea Line (Ballast):	18 in.	18 in.
Tanker's Length:	900 ft.	700 ft.
Max. loading rate:	2,800 cu.m.p.h.	1,600 cu.m.p.h.

Reception facilities for 30,000 cu.m. of dirty ballast.

Two tankers can moor simultaneously but only one may load.

DENSITY: 1032.

FRESH WATER: Not available.

FUEL: Not available.

AUTHORITY: Belayim Petroleum Co., 5 El Mokhayam El Dayem Street, Nasr City, Cairo, Egypt. (P.O. Box No. 7074). *Tel:* 2621738, 2621739, 2621740, 2621742, 2621743, 2621744. *Telex:* 21003 Petbl UN, 92373 Petbl UN, 92449 Petbl UN. *FAX:* 2609792 Cairo. *Contact:* Ibrahim El Shafie, Operations General Manager.

ZEIT BAY: 27.50 N. 33.36 E. (See Plan)

(A) SBM. (B) LPG BERTH.

(A) SBM.

LOCATION: Zeit Bay Terminal is approximately 60 km. North of Hurgada.

ANCHORAGES: Waiting area centred on Lat. 27° 48.5′ N., Long. 33° 37.0′ E. Radius 1 mile. Depth ranges from 22 m. to 38 m., with 31 m. at centre.

Vessel is not permitted to anchor outside the anchorage area.

RESTRICTIONS: Weather conditions may prevent berthing. This is the case when wind speed exceeds 25 knots. Vessel will then remain in the anchorage until weather improves. Daylight berthing only. Unberthing any time.

MAX. SIZE: 30,000 tons (SDWT) to 250,000 tons (SDWT) with permissible max. draft up to 18.0 m.

HEALTH: Masters are to indicate any sickness on board in their ETA notification. SUCO will arrange with Health Authorities if so required.

RADIO: Tankers calling at Zeit Bay must send ETA message 72, 24, and 12 hours distant from the terminal to SUCO Head Office, via any coastal radio station: Alexandria, Port Said, Suez and Kosseir.

ETA messages to SUCO should give the best estimates of ship's arrival time at the terminal and relevant information on lifting gear, connections, ballast/segregated/dirty and quantity. This ETA message should also include a definite statement of details of any equipment required from shore for connecting 16 in. floating hose, bearing in mind that such hose needs tanker to be equipped with crane, classed and certified to at least 10 tons capacity.

VHF: Master must call "Zeit Bay" 4 hours prior arrival on VHF Channel 16, working Channel 12.

TUGS: Two mooring line boats, 1×500 h.p. and 1×1,000 h.p. are available to assist with mooring and hose connection. The boats are equipped for anti-pollution operations.

One fire fighting tug available on a standby basis whilst loading operations are in progress.

BERTHING: All mooring equipment is available and will be placed on board the vessel when Mooring Master boards.

A vessel can make the final approach and moor to buoy from any direction, bearing in mind prevailing weather and tidal conditions. The approach shall be made from the direction which is consistent with a safe approach, and speed shall be subject to the prevailing forces (i.e. wind, current and tidal stream) at the location at the time of berthing with assistance of mooring boats stationed at the buoy.

Once moored the vessel is free to turn through 360° under the influence of the prevailing forces.

HOSE CONNECTION: 16 in. standard 150 ASA flange connection for crude oil and ballast hoses. Port derrick with minimum 10 tons SWL to be rigged for max. height and load lifting.

Ship's crew shall be responsible for connecting and disconnecting hoses with assistance of shore crew.

A quick release coupling (Camlock) is connected to each hose end and is to be used as follows:

1. In case of emergency, the butterfly valve shall be immediately closed and quick release coupling immediately disconnected.
2. Do not hammer but try to use the Camlock wrench supplied or use copper hammer only.
3. Tanker should be ready with reducer if its manifold is not 16 in.
4. Bags of sand to be available.
5. Weight of the hose is approximately 8 tons.

LOADING: Upon being informed by the vessel's responsible officer that vessel is ready to start loading, Mooring Master will normally advise the Control Room and ensure that the loading commences at a low rate (by gravity).

When it has been confirmed that there is no significant rise in pressure on the loading line, the crude oil will be loaded, pumping with a maximum rate of 5,000 tonnes/p.h.

Crude oil is delivered through the submarine pipeline to the buoy and thence via a floating hose to the vessel's port side midship manifold. Hose diameter is generally 24 in., reducing to 16 in. at the ship's end.

It is forbidden to close any valve onboard the tanker against the flow of the crude oil until the butterfly valve of the loading hose has been closed.

If ship-to-shore communications fail during loading operations, the emergency whistle signal is a continuous blast on the tanker's whistle.

Loading shall immediately be stopped and will not be resumed until communications have been re-established.

Before loading, cargo tanks are dipped by an independent inspector and at Terminal Inspector. If dirty ballast is retained on board until the next discharge port, then the amount of water and oil on top will be checked.

Density of Zeit Bay Crude is approx. (0.854/15°C.). Temperature when received on board is approximately 34°C.

Immobilisation of engines at SBM is strictly prohibited.

BALLAST/POLLUTION: *Deballasting System:* It is preferable that vessels load crude oil while discharging ballast, but Master or officer-in-charge must be sure that no contamination or pollution takes place.

If the vessel is not equipped with 2 lines in order to load and deballast at the same time, a quantity of crude should be loaded prior to deballasting to ensure proper segregation.

Dirty ballast must not be in the emulsion form and is not to contain chemicals or detergents.

The floating hose is normally 20 in. diameter, and the ship's end connection 16 in. diameter.

It is strictly forbidden to discharge dirty ballast overboard.

Pollution: The Master has to comply with all regulations and instructions prohibiting pollution under A.R.E. laws and under any pertinent instructions issued by SUCO when conveyed to Master.

Also, the provisions for International Convention for Prevention of Pollution from vessels 1973 and the Protocol of 1978 relating to this connection will be applied to the extent that such Convention and Protocol are in force in A.R.E. Owner/operator shall be liable for any damage resulting from the pollution caused by the vessel and shall pay for all the expenses incurred for its removal and elimination.

Oil Spill: In the event of a spill or its detection, SUCO Mooring Master must be notified instantly for the necessary action to be taken.

MEDICAL: In case urgent medical assistance is required, the vessel should contact SUCO Marine Manager by VHF radio. A doctor and facilities are available but there is no hospital in the area.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: No facilities.

REPATRIATION: Possible in emergency only.

TIME: GMT plus 2 hours.

HOLIDAYS: Zeit Bay Terminal never closes on religious holidays.

SHORE LEAVE: There is no shore leave for personnel of vessels whilst at the SBM.

GENERAL:

Helicopter: Should the services of a helicopter be required in emergency or for any purpose whatsoever, the vessel will be given a minimum of 30 minutes notice.

Weather: Gales can be expected from a North Westerly direction from October through May.

The above conditions are only for guidance and are not relevant to the safety of the vessel but to the safety of the buoy.

The Mooring Master shall have the authority to decide whether the ship should remain or vacate the buoy.

Climate: The climate in the Gulf of Suez is generally good. The visibility is usually excellent, with few dust storms and infrequent fog. There are a few rain squalls.

Winds: The general flow of the wind over this part of the Gulf of Suez is predominantly from the N.N.W. Winds are steadier in the Summer months (May/October) and almost nil from June to September. Gales can mainly be expected from a North-Westerly direction from October to May.

The maximum velocity is approximately 45 knots, whilst the mean wind speed is approximately 20 knots and is prevalent for some 98% of the year. There are occasional light Southerly winds.

Tides: The tidal range is between 4 ft. and 5 ft.

Sea Condition: The surface temperature of the sea ranges from 18°C. to 30°C., depending on the season.

Seas and swells are usually from the N.N.W. and wave height can reach 18 ft., but average is about 6 ft. During the Summer months (May/August) there are many days of 12 ft.-15 ft. seas.

Currents are generally located in mid-channel and set North when the tide is rising in Suez, and South when the tide is falling. The rate is about 2.5 knots at Spring tides and 0.5 knots at Neap tides.

(B) LPG BERTH.

LOCATION: Zeit Bay is an open area and unsheltered.

LPG tankers will moor alongside a pier which is perpendicular to the shore. The pier length is 50 m. and water depth is 8 m.

Pier position: Lat. 27° 48.1′ N.
Long. 33° 33.7′ E.

There are 2 mooring buoys, located North and South of the pier and about 50 m. off pier's edges, to secure the tanker in its proper position while undertaking operations.

DOCUMENTS: Masters are requested to hand the following original documents to "SUCO" Mooring Master upon arrival. These documents will be returned when cargo documents are signed on departure.

Certificate of Registry.
Load Line Certificate.
Safety Certificates.

PILOTAGE: SUCO Mooring Master will board the vessel in the LPG waiting area. Pilot ladder should be kept in good order, clean and should be adequate in length and strength.

When Mooring Master boards the vessel, he will advise the Master on the approaching, berthing operations and provide him with all necessary information.

Mooring Master will check all original Certificates and receive them from the Master.

APPROACHES: *Approaching the Anchorage Area:* When an LPG vessel arrives at position Lat. 27° 50.2′ N., Long. 33° 37.2′ E., Master can alter vessel's course to 172°(T) for heading towards anchorage area, a sailing distance of about 2.9 nautical miles.

Below are 4 objects that can be seen by day or night that will be of assistance to vessels:

A. Two grounded ships on North of Saab's Ashrafi:
  First position: Lat. 27° 49.5′ N., Long. 33° 38.7′ E.
  Second position: Lat. 27° 49.3′ N., Long. 33° 39.2′ E.
B. On marine chart No. 2375, East Zeit Bay Terminal SBM flashing Mo(U) 15 sec.
C. Zeit Bay Terminal, located one mile S.S.E. of East Zeit Bay Terminal flashing Mo(D) 30.5 sec.
D. Lighthouse in position Lat. 27° 49.6′ N., Long. 33° 34.9′ E.
  Black and white colour with approximate height of 30 m., flashing white every 10 seconds.

Approaching Zeit Bay Channel and Shipping Lane: The vessel under her Master's command and Mooring Master's advice will navigate on a course of 155°(T) from anchorage area for about 1.5 miles.

When Ashrafi Lighthouse is observed abeam, course is to be altered to 195°(T). This course will lead toward entrance of Zeit Bay Channel. While passing through Zeit Bay Channel, true course to be 270°/090°.

Due to relationship between a vessel traversing the channel and the prevailing N.N.W.'ly wind and current, there is the possibility of a sideways drift.

When vessel arrives at the end of the West entrance of the channel, course will be altered to 335°(T). After sailing for about 2.5 miles, vessel will alter course to 310°(T) for about 1.1 miles.

Final approach to L.P.G. Pier will be on a course of 010°(T), for about 1.5 miles.

Use of anchor is forbidden from the time the vessel reaches the Western entrance of Zeit Bay until final approach to pier, because of pipelines.

Outside the shipping lane on the port side, there are 4 yellow platforms provided with navigation aids. Vessels navigating in the shipping lane will pass near Platform "C" at a safe distance.

Zeit Bay Channel and Shipping Lane: Channel is guaranteed to be 6.0 m. below L.A.T.

Channel length is about 2 nautical miles and about 200 m. width.

Channel is marked by lighted buoys, each equipped with a radar reflector. When ship is heading Westerly (270°(T)), there will be 3 green buoys on the starboard side and 3 red buoys on the port side.

The shipping lane between Ghanim and Ras ʼElbahar Islands is marked by red marker buoys, showing the end of shoals and reefs.

Buoys coordinates: (a) Lat. 27° 45′ 39″ N., Long. 33° 34′ 10″ E.
(b) Lat. 27° 46′ 18″ N., Long. 33° 33′ 22″ E.

All vessels should keep at least 30 m. from the buoys as a safety measure.

All marker buoys can be seen from any direction and in poor visibility, according to international specifications and regulations of port navigational aids.

ANCHORAGE: SUCO will make every effort to moor ships arriving according to the agreed schedule. If not berthing, vessel will drop anchor at the Anchorage Area in position: Lat. 27° 47.3′ N., Long. 33° 37.6′ E. This position is located South of the Crude Oil Carrier Waiting Area.

LPG anchorage area is half mile radius with 18 m. depth. The area is considered clear of obstructions.

Anchoring outside the waiting area or in Crude Oil Carrier Area is strictly prohibited.

RESTRICTIONS: Weather conditions may prevent berthing. This is the case when wind speed exceeds 18 m.p.h. The vessel will then remain in the anchorage area until weather improves.

The decision of acceptance is subject to Master's and SUCO Mooring Master's approval.

Berthing/unberthing during daylight hours only.

Also see "Berthing".

READINESS: Arrival time will be considered to be the time the vessel arrives at the Anchorage Area.

Notice of Readiness will be accepted when vessel is in all respects ready to receive her cargo, usually after loading arms are connected.

RADIO: Incoming tankers must advise ETA 48 hours prior to arrival.

VHF: Zeit Bay radio room maintains a 24 hour listening watch on Channel 12.

Fully detailed instructions for berthing, loading, etc., will be given to vessel's Master while approaching the waiting area.

TUGS: *Mooring Boats:* Two mooring line boats are available at all times, (500 h.p. and 1,000 h.p.) The vessel will be assisted by the mooring line boats, which are deemed essential for safe operations.

BERTHING: The pier is equipped with 2 positive hydraulic fenders, in addition there are 4 bitts for mooring ropes.

Vessel's ropes will be used, and handled by the pier crew.

When vessel is completely moored and secured alongside pier, vessel's heading will be 330°/150°, depending on which side is alongside.

Mooring and Unmooring: All berthing operations and passage of the channel inward and outward, should be executed with adequate daylight. Final approach shall be made from the direction which is consistent with a safe approach. Speed shall be subject to the prevailing forces (current, tide, stream).

Mooring line boats will assist during approach to prevent drifting on to the pier. Ship's anchor can be used in case of necessity.

When ship is finally moored and properly secured, ship's crew have to hang off the towing wires (fire towing wires), forward and aft, for line boats in case of emergency.

Jetty details:

Max. Size:	Max. draft: 5.0 m. Max. length: 108 m. Max. beam: No limit. Max. deadweight: 2,500 tons.
Product:	LPG (butane and propane mixtures).
Loading arms:	Two. Designed for connection to 6 in. Camlock quick coupling and 3 in. vapour return line.
Loading rates:	Up to 280 t.p.h.
Nitrogen:	Available for line purging only. Vessel's tank purging only with previous agreement.
Atmospheric vent:	Not available.
Flare line:	Yes.
Fire line:	2.5 in. hose available.

LOADING: Before loading commences the LPG Check List is to be completed. Emphasis is placed on close cooperation and good communications between mutually interested parties to achieve safe operations.

Operations Meeting and Inspection: The following will take place before any operations commence:

(a) Complete the Safety Check List.
(b) Complete the LPG safety and observed Check Lists.
(c) Discuss any additional precautions required.
(d) Ensure that tanks are in a fit condition to receive cargo without any hazards or contamination.
(e) Discuss and agree tanks inspection and samples required.
(f) Discuss and agree loading programme, including quantity, loading rate, pressure, temperature, connecting and disconnecting hoses, purging requirements and any other necessary requests.

Pressure, Temperature and Loading Rates for LPG:

Product: LPG.
Pressure: Up to 10.3 bar.
Temperature: Ambient to 60°C.
Loading rate: Up to 280 t.p.h.

Recommended maximum vapour concentration in ship's tanks before loading LPG:

Previous cargo in vessel	*Recommended Maximum Concentration*
Ammonia	100 ppm.
Ethylene oxide	30 ppm.
Propylene oxide	50 ppm.
Vinyl chloride	30 ppm.
Acrylonitride	30 ppm.

The above concentrations refer to vapour concentrations considered safe for venting. They do not infer that these concentrations are acceptable from a cargo contamination point of view.

Operational Procedures: Loading will not commence until all the safety checks have been carried out to the satisfaction of the Company.

I. The Company Operators will connect the shore boom/hose to the correct ship's manifold as indicated by the Master. Under no circumstances will a ship be connected to a vapour return/vent system if oxygen content of any tank is above 0.5% volume. If any of the ship's tanks are under vacuum the ship will be connected only if prior agreement has been reached.
  The boom/hose will be purged to shore vent line and pressure tested to approximately 100 p.s.i. with nitrogen. The nitrogen will then be vented and the vent closed.
II. The Jetty Supervisor and Master will agree that systems are correctly lined up for operations to begin.
  Loading must now commence slowly to avoid rapid pressure build up.
  Ships must check that pull-off does not cause cargo temperature to drop below tank minimum operating temperature.
III. During loading the ship's tank pressures must be checked every 30 minutes and the information logged by the Jetty Operator. The Master must inform the Jetty Supervisor of any deviation from the agreed cargo handling plan.
IV. Company Operator will remain on the jetty at all times during loading.
V. A crew member with a good command of the English language must remain on deck at all times during loading.
VI. The ship must not shut valves against the shore pumps while loading.
VII. The ship must give at least 10 minutes' notice of the requirement to stop or start pumping, except under emergency conditions.
VIII. The Company Operators will clear the boom/hose with nitrogen. A watch on ship's pressure must be maintained during this time if hose contents are cleared to ship.
IX. The ship's valves will then be shut and Company Operators will purge and depressure the boom/hose.
X. The cargo loaded will be calculated from shore dips.
XI. The Jetty Supervisor will witness ship's dips/ullage and obtain from the Master the quantity loaded according to ship's figures. The quantity entered on cargo documents will be calculated from shore figures.

Cargo Handling Requirements:

I. Chemist's Certificate: The Company reserves the right to require an independent chemist to check the condition of ship's tanks or the quality of cargo before commencing to load. Reasonable notice of this requirement will be given.

II. Emergency shutdown systems: When ship is loading and it is necessary to manually initiate an emergency shutdown, the jetty system must be used.

III. Nitrogen: Nitrogen is available at approximately 7 bars and the berth nitrogen is available for line purging only.

IV. Portable instruments: The Company reserves the right to require intrinsically safe portable instruments to be placed on board ship during loading operations.

Reasonable notice of this requirement will be given.

V. Purging: Purging from ship's tanks to atmosphere is not permitted at the jetty. The Master must ensure the ship's tanks are in a fit condition to load cargo before arrival.

VI. Third party Independent Surveyor: The Company reserves the right to instruct a third party Independent Surveyor for the sampling and measuring of cargo. Reasonable notice of this requirement will be given.

VII. Vapour return line: Vapour return lines are provided to enable ships to return compatible vapour to storage tanks to be pressured up with vapour from storage. Oxygen content of returned vapour must be less than 0.3% volume.

Under no circumstances may nitrogen or other uncondensible gases be returned along the vapour line to storage tanks.

VIII. Vent line: Vent lines are provided to enable uncondensible vapours to be vented to flare system. Permission to use the flare system will only be granted if oxygen content of ship's tanks as determined by Company analysis is less than 0.5% volume.

The ship's intention to use the vent system must be clearly specified to the Jetty Supervisor at the pre-operations meeting.

Use of ship's mast vent is not permitted without Company Authorisation.

All operations shall, in general, be conducted in accordance with the requirements of the International Chamber of Shipping Tanker Safety Guides for Liquid Petroleum Gases and the International Maritime Dangerous Goods Code.

Communications on Loading Pier:

1. The jetty will be continuously manned by company personnel while a ship is loading. All normal communications should be passed through the Jetty Operator. In emergency situations, ship's personnel may use the jetty head telephone.
2. A responsible English speaking crew member must be on duty at all times and must remain on deck during loading/discharging.

FRESH WATER: Not available at berth.

FUEL: Not available at berth.

TIME: GMT plus 2 hours.

POLICE/AMBULANCE/FIRE: Fire 3333.

GENERAL: The following should be taken into consideration when vessel is alongside:

(a) Visiting is not permitted.

(b) Smoking and/or usage of naked lights is forbidden.

In emergency cases, a special permit is to be issued by authorised SUCO personnel to cover situation.

Vessel refusal: Owing to special hazards associated with LPG and the degree of expertise required during its handling and carriage, SUCO reserves the right to refuse to load any vessel where in the Mooring Master's opinion, the condition of the ship or the conduct of her operations give rise to concern over the safety of ship, personnel, company premises, or the environment.

Fire Fighting Vessel: There is a vessel fully equipped with fire fighting equipment. The vessel will be available at all times during operations. It has 4 monitors installed on the main and upper deck, each 12,200 cu.m.p.h. and able to reach 120 m. and a height of 45 m., foam compound is available.

Towing of Ships to Hazardous Waiting Area in Inner Bay: In the event of an emergency, Jetty Superintendent will immediately stop the loading operation and will inform SUCO Mooring Master whether to wait alongside or pull the ship away with the assistance of the mooring line boats.

The following position already surveyed, with a water depth of 8.0 m. and co-ordinates Lat. 27° 47.7′ N., Long. 33° 32.2′ E. is reserved as a waiting area.

Climate: The climate in the area is generally good and the visibility is usually excellent, except for occasional sandy storms during Summer time. Fog can be seen in Winter time. Occasional rain during Winter time.

Wind: The direction of the wind in Summer is from N. or N.W., occasionally wind reaches 40 m.p.h.

During Winter, average wind speed is about 15 m.p.h. – 20 m.p.h.

Southerly winds are encountered occasionally, but are usually light airs and accompanied by calm sea.

Tide, Current and Sea Swell: The tidal range is between 3 ft. and 4 ft. Current reaches 2 knots to 3 knots.

Sea swell is from N. or N.W. and/or S. or S.E., with a maximum height of 4 ft.

AUTHORITY: Suez Oil Co. (SUCO), 21 Ahmed Orabi St., El Mohandessien, P.O. 2622, Cairo, A.R.E. *Tel:* 650723, 650544, 807922, 813554, 807854. *Telex:* 93455 SUCO UN or 92300 SUCO UN. *Cables:* Dexgulf. *Contact:* A. Nassef, Planning and Follow-up Manager.

NOTES

Please also advise Shipping Guides Ltd.

El Salvador

ACAJUTLA: 13.35 N. 89.50 W. (See Plan)

PORT LIMITS: Not determined.

DOCUMENTS:

Consular Documents:

Only the requirement for visa of shipments of firearms and narcotics, which must be carried out at the port of embarkation, remains in force.

Prior to Arrival:

Arrival Notice:

24 hours before the vessel's arrival, notification is submitted in writing to the Autonomous Port Executive Committee (CEPA) on the time of arrival and the number of stevedores that will be needed. The CEPA serves as a kind of single shipping agency. In that capacity, it arranges for entrance and clearance of vessels, payment to other Official Agencies and draws up the port account for the ship's Agent.

Information on Cargo for the Port:

Prior to the vessel's arrival, the following documents are to be submitted to CEPA:

16 copies of the Cargo Manifest.
1 set of the Shipper's Manifest.
1 Mail Guide.
4 copies of the cargo distribution for each hold.
1 Stowage Plan.
1 List of Container Contents.
14 to 16 Cargo Tally Books, depending on the number of stevedores.

If this information is not available before the vessel's arrival, it may be submitted at the time of the reception visit (boarding party).

On Arrival:

Type of Documents	*Number and Distribution of Documents*				
Basic Forms	*Captain of Port*	*Customs*	*Plant Health*	*CEPA*	*Total*
General Declaration	1	1	1	1	4
Cargo Manifest	1	2	1	16	20
Crew List	2	1	1	1	5
Passenger List	2	1	1	1	5
Ship's Stores List	1	1	1	1	4
Crew's Effects Declaration	–	–	–	–	–
Maritime Health Declaration	1	–	–	–	1
Mail List	–	–	–	1	1
Additional Documents:					
Clearance from Last Port	1	–	–	–	1
Consular Manifest	–	1	–	–	1
Set of Bills of Lading	–	–	–	1	1
Cargo Distribution	–	–	–	4	4
Contents of Containers	–	–	–	1	1
Stowage Plan	–	–	–	1	1
Cargo Tally Books	–	–	–	14/16	14/16

Prior to Departure: The CEPA draws up the clearance permit and has it signed by Customs before submitting it to the Captain of the Port. When loading and unloading is completed, a representative of the Captain of the Port delivers the clearance permit on board.

PILOTAGE: Compulsory. *(a)* Vessels should apply for Pilots calling VHF radio station through Channel 27 which operates on 157.36 MHz to receive and 161.95 MHz to transmit. Channel 16 operates on 156.8 MHz ships calling and safety.

Notice of ETA must be made to Port Manager not less than 48 hours before arrival at the port limits. Confirmation of ETA is required 10 hours before arrival. VHF radio station is on service 24 hours a day, so vessels may call at any time. *(b)* Pilot boards vessel between one or two km. before arrival at the port limit; where vessels should stay with engine running, Pilot ladder ready. Gangways should be raised and folded. Derricks and cranes inboard and anchors ready for berthing. Pilot is equipped with walkie talkie for communicating with tugs. *(c)* Inform radio station if cargo manifests are carried on board or if they were air mailed to vessel's Agent.

ANCHORAGE: There is no specific anchorage area. Water depth is over 15 m. Bottom nature: Sand laying over volcanic tuff.

RESTRICTIONS: Vessels can berth any time day or night. Main engines should always be on short notice, due to swell as mooring lines often break. Vessels are advised to make use of extra shore mooring lines which may be provided if Agent makes request. The least depth in the berths is 30 ft.

MAX. SIZE: "C" Pier (breakwater berth) has 12 m. of water alongside and can berth vessels of up to 40,000 d.w.t. It is well fendered. Containerised, general and bulk cargoes can be handled at this pier.

Also see "Tankers".

HEALTH: On arrival, vessel should always fly a yellow flag. If there is any suspicion of illness aboard, Master has to inform by radio 24 hours in advance, indicating nature of disease and all details.

Free Pratique will not be granted to vessels at anchor. It will be granted to tankers discharging at buoys and in emergency cases.

RADIO: Advise ETA to Agents at San Salvador 96, 48, 24 and 12 hours before arrival. Telex available at Port Facilities. Area Code 301. Telex No. 27000.

VHF: There is no special time for calling. VHF service is open 24 hours a day. Contact through Channels 16 and 27.

Business operations: Channel 27 receives on 157.36 MHz and transmits at 161.95 MHz.

Channel 16 for ship calling and safety.

RADAR: There is no port radar service.

TUGS: Tug lines are not used. If required, the tug's line will be used and the charge is included in the docking and undocking services. There are four tugs available with the following capacities: 800, 1,200, 1,400 and 1,800 h.p. Tugs meet vessels off the docks at all times.

SPECIALISED CARGO HANDLING FACILITIES: Pier "A" with liquid cargo facilities for vegetable, animal and mineral oil, as well as chemical liquids.

BERTHING: Vessels can berth in safety at any time during day or night.

In the case of cargo vessels it should be stressed that the swell experienced alongside is sometimes a serious problem and Masters would be well advised to make use of the shore lines offered on hire to save undue wear and tear on their moorings.

Berth	*Max. Draft* (m.)	*Depth at MLW* (m.)	*Vessel Length* (m.)
A–1	9	10	140
A–2	10	12	160
B–3	9	10	140
B–4	10	12	195
B–5	9	10	180
B–6	10	10	180
C–7	12	13.7	128
C–8	12	13.7	128

There are three piers. The first one "A" consists of a breakwater mole 760 m. long. The access mole in its first section from land side to pier "B" has a width of 10.50 m. and is 260 m. long. The second section from Pier "B" to Pier "A" has a width of 7 m. and is 180 m. long. The overall length of access is 450 m.

Pier "A" is 37 m. wide and 310 m. long, it consists of a mooring dock with two berths called "A–1" and "A–2", for general bulk and liquid cargoes and has a transit shed of 4,500 sq.m. At the end of Pier "A" is constructed another breakwater section in a N.W. direction, in line with the existing Pier "A", connecting this pier with the Pier "C" with a length of 35 m. Then direction of Pier "C" is changed to the North, with an angle of 30° and extended over 270 m. with a width of 18 m. This breakwater offers two berths, "C–7" and "C–8", capable of handling containerised, general and bulk cargoes.

The third pier called "B", with four berths is 348 m. long and has a free width of 28 m. This pier handles containerised (max. gross weight 20 tonnes), general and bulk cargoes.

CRANES: Two semi-portic cranes of 3 tonnes capacity are available at Pier "A". At Pier "B" there is a 25 tonnes crane for general bulk and containerised cargoes. Pier "B", berths "B–5" and "B–6" as well as Pier "C", berths "C–7" and "C–8", have no cranes available and vessels are required to use their own cranes or derricks.

BULK CARGO FACILITIES: For berthing length of quays and max. permissible draft in salt water at MLW see "Berthing".

Cargoes handled: Importation: Grains, fertiliser, soda ash, phosphoric rock sulphur, soya flour, etc.

Exportation: Raw sugar cane, cotton seed meal and flour, grains, etc.

Berth Equipment: 25 tonne cranes which operates for imports at Berth "B–3" and "B–4" and unloads vessels with clamshells of different capacities ranging from 5 cu.m. to 9 cu.m., and feeds the conveyor systems through a hopper of 85 tonnes. Maximum height of discharging gear above MWL: 19 m.

Conveyor System: Two belt conveyor systems exist for importation and exportation. Both systems interconnected with port warehouses as well as private silos and warehouse facilities. Loading/discharge rates: 500 tonnes/p.h.

BRIDGES: None.

STEVEDORES: ETA advice required to arrange gangs, should be made 12 hours before vessel's arrival. A line handling gang is always standing by and also attends gangways without charge. Stevedores are available for nightwork.

Average load and discharge rates:

General cargo	35 tonnes/p.h.
Bulk cargo	190 tonnes/p.h.
Liquid cargo	110 tonnes/p.h.

MEDICAL: There are doctors in the port who attend normal cases and specialists and hospitals in Sonsonate City (20 km. by road) and at San Salvador, capital of the Republic, 85 km. from the port.

TANKERS: Mooring at RASA (Refineria de Acajutla Sociedad Anonima). This refinery is the property of Esso Standard Oil and Shell Petroleum Co.

Buoy berth: Depth of water is about 15 m. Diameter of buoy hoses: 2×25 cm. for clean products and one of 75 cm. for crude and fuel oil. There are no facilities for residue discharge.

DENSITY: 1027.

FRESH WATER: Delivered by hoses. Rate approximately 40 t.p.h., cost US$1.60 per metric ton.

FUEL: Possible to supply diesel (Grade "2") and Bunker "C" only in limited quantities, delivered by tank truck. Viscosities: Bunker "C" 175 sec. Saybolt furol. Diesel 40 sec. Saybolt universal.

FIRE PRECAUTIONS: Inspection of hoses; no smoking; not allowed to weld or light any kind of fire; isolation of the place of loading and discharging operations; fire equipment to be ready to use at all times.

CONSULS: There is a Consular representative of The Republic of Guatemala at this port and most countries have Consular representatives in San Salvador City, Capital City, at 85 km. from the port.

REPAIRS: Possible to make minor engine and deck repairs. Other repairs can be carried out at Capital City, San Salvador. Any repairs that will delay sailing of vessel cannot be made without previous and specific authorisation of the Port Manager.

DRY DOCKS: None.

SURVEYORS: At the port there is P & I representative and surveyor and independent marine surveyors. G.L. Surveyor at San Salvador City.

GANGWAY/DECK WATCHMEN: Gangway is watched by Customs Police and marine members without charge. Deck watchmen available on request.

HATCHES: The opening and closing of hatches is carried out by stevedore gangs, and its costs are included in the loading or discharging tariff rate. Whenever vessel's Master decides to carry out these operations with his crew, a stand-by charge will be debited.

CUSTOMS ALLOWANCES: Customs only allow tobacco for personal use to be taken out of the vessel. Not allowed to take any wine or spirits out of the vessel.

CARGO GEAR: Ship's gear has to be used on request. Semi-portic cranes for general cargo may be used at Berths "A–1" and "A–2". Heavy lift crane at Berths "B–3" and "B–4". This crane is also used to unload bulk cargoes to a conveyor belt system.

REPATRIATION: There are facilities for repatriation, it is also possible to effect crew changes.

AIRPORT: The "El Salvador International Airport" is 134 km. from the port (by road), which is served by regular airlines.

TIME: No alterations in time during the year; local time is GMT minus 6 hours.

HOLIDAYS: The port has the following official holidays:
(*)1st January; 2nd February; (b) Thursday, Friday and Saturday of Easter Week; (*)1st May; (c) 10th May; 3rd and 6th August; 15th September; 15th October; (*)2nd November; (a) 24th; (*)25th and (a) 31st December.

(*) No work.
(a) Port operations cease at 0700 hrs.
(b) Port operations cease at 1700 hrs. on Thursday until 2300 hrs. on Saturday (Easter Week).
(c) 10th of May port operates only from 0700 hrs. until 1500 hrs.

POLICE/AMBULANCE/FIRE: National Police (Sonsonate) Tel: 51-0838; Ambulance (Sonsonate) Tel: 51-0374 – 51-0200; Fire Department (CEPA, Acajutla) Tel: 52-3200.

TELEPHONES: No possibilities of installing telephones aboard.

SERVICES: No facilities to discharge tank-washings. No equipment for tank cleaning or facilities to adjust compasses. Minor electronic repairs at Agent's request.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Valid passport must be shown to Authorities on request.

REGULATIONS: None.

DELAYS: Normally there are no delays to be expected during berthing, loading, discharging or bunkering. Bunkering operates at a slower rate than normal loading and discharging.

GENERAL: Quarantine Authorities pay strict attention to garbage and any residue must be kept aboard properly covered. It is forbidden to drop garbage or any residue in the sea whilst vessel is in the port area.

In the case of swell, special hawsers and wires can be requested on hire at US$ 1.50 on every 1,000 g.r.t. per day or part of a day.

SHIPMASTER'S REPORT: 1979.

Port Limits: No port limits stated.

Documents:
Clearance from last port.
5 Crew Lists.
4 Voyage Memorandums.
4 Store Lists.
4 Passenger Lists, (negative required).
1 Ship's Health Declaration.

Manifests prepared by the Agent:
2 Copies for the Customs.
1 Copy for the Port Captain.
1 Copy for Quarantine Inspector.
16 Copies for the Stevedores.

Customs seal the spirits and tobacco, but not the beer. No private declarations required.

Boarding party of about 8 persons board the vessel with the Agent who will attend to documents and other needs of Officials.

Pilotage: Pilotage is compulsory, Pilot boards vessel up to 3 miles from "A" Pier.

Restrictions: Vessels can berth any time day or night, main engines should always be on short notice, due to swell at berths, as moorings often part. Vessels are advised to make use of extra shore moorings provided, these can be requested via the Agent.

The least depth at the berths is 30 ft.

Max. Size: "C" Pier (outer berth) has 46 ft. of water alongside and can take vessels of up to 40,000 d.w.t., it is well fendered. General cargo and liquid cargo can be handled at this berth.

Health: Standard Health message to be sent to Agents who will make the necessary arrangements, every vessel coming in should fly the "Q" flag, this is to avoid fines.

Radio: Advise ETA to Agents at San Salvador 96, 48, 24 and 12 hours before arrival. For Telex messages use "WLO" Mobile. For W/T messages use "KSF" San Francisco.

For Port Control use VHF Channels 16 and 27. (Range 40 miles). Hours of operation 24 hours. Call sign: "Acajutla Tower" also R/T on 2182, 2163 and 2169 kHz. Tugs work on 2182, 2163, 2196, 2638 and 2738 kHz.

Radar: There is no Port Radar service.

Tugs: There are three tugs available with the following power: 800 h.p., 1,200 h.p. and 1,800 h.p. Tug's lines are used at no extra charge.

Berthing:

Pier	*Berth No.*	*Depth* (m.)	*Remarks*
"A"	1	9.0	General Cargo, 2×3 ton cranes. Liquid cargo (Berth No. 1)
	2	10.0	
"B"	3	9.1	General cargo, bulk cargo. 25 ton crane on Pier "B".
	4	10.0	
	5	9.1	
	6	10.0	
"C"	7	14.0	General cargo, liquid cargo. No cranes available.
	8	14.0	

Stevedores: Arranged by the Agents, and based on information passed in ETA advise, vessels arriving from New Zealand may well be at the port before the cargo plans arrive. Stevedores work round the clock.

Medical: Doctor available but nearest hospital 13 miles away, Doctor will board the vessel, advise the Agents before arrival.

Density: Observed density 1025.

Fresh Water: Available at about 20 t.p.h.

Fuel: Only available in emergency.

Provisions: Limited quantity available, 24 hours notice required.

Fire Precautions: Tugs have fire fighting equipment on board. As no phones on board, contact can be made on VHF with "Acajutla Tower".

Consuls: British Vice-Consul at Sansonate 14 miles away from the port.

Repairs: Minor repairs only possible.

Dry Dock: No dry dock available.

Surveyors: Arie Van-Helden (Lloyd's Agents only), San Miguel, Cutuco, La Union.

Gangway/Deck Watchmen: Shore gangway available and recommended due to swell at the port, full deck patrol necessary during night time.

Hatches: For safety it is better to open and close the hatches with the ship's crew, which is allowed at this port.

Cargo Gear: Ship's gear and shore cranes used depending on which berth the vessel at.

There are no Reefer points ashore. There are no tower units ashore. Containers can be landed on flats. Forklift trucks are well maintained.

Repatriation: Not advisable from this port.

Airport: Ilopango Airport is 8 miles from San Salvador, flights from this airport connect with international flights at Mexico City.

There are three flights a week from Mexico City to London.

Holidays: December 25th, January 1st, also Special Holiday for this region being August 5th and 6th. (From 1500 hrs. 5th to 1900 hrs. on the 6th).

Police/Ambulance/Fire: This is covered by the Agent who remains on board all the time the vessel is in port, the Agent will require a room to live in whilst he remains on board.

Services: No special services available.

Shore Leave: Permitted.

Identification Cards: Not required, but Crew Members are advised to carry some means of identification.

Regulations: No unusual regulations.

Delays: Vessels have to leave the berth due to swell, this decision is left to the Master of the ship.

General: Vessels alongside the berth, move quite a lot, but the shore fenders are well maintained. Stevedores will unpack containers on board the vessel.

AUTHORITY: Comision Ejecutiva Portuaria Autonoma (CEPA), Boulevard de Los Heroes, Torre Roble, Apartado Postal 2667, San Salvador, El Salvador, Central America. *Tel:* San Salvador (Area Code 503) 24-1133; Acajutla 52-3200. *Telex:* San Salvador (Area Code 301) 20194; Acajutla 27000. *FAX:* Acajutla 52-4100. *Cables:* CEPA. *Contact:* Pedro Armengol Ramos, Port Manager, Acajutla.

LA LIBERTAD: 13.29 N. 89.19 W.

CLOSED TO CARGO VESSELS SINCE MAY 1976

AUTHORITY: Comision Ejecutiva Portuaria Autonoma (CEPA), Apartado Postal 2667, San Salvador, El Salvador. *Tel:* 24-1133. *Telex:* (301) 20-194. *FAX:* 24-13-55. *Cables:* CEPA. *Contact:* Jose Ricardo Hernandez Platero, Manager.

LA UNION (Cutuco): 13.20 N. 87.50 W. (See Plan)

DOCUMENTS: *Consular Documents:*

Only the requirement for visa of shipments of firearms and narcotics, which must be carried out at the port of embarkation, remains in force.

Prior to Arrival:

Arrival Notice:

24 hours before the vessel's arrival, notification is submitted in writing to the Autonomous Port Executive Committee (CEPA) on the time of arrival and the number of stevedores that will be needed. The CEPA serves as a kind of single shipping agency. In that capacity, it arranges for entrance and clearance of vessels, payment to other Official Agencies and draws up the port account for the ship's Agent.

Information on Cargo for the Port:

Prior to the vessel's arrival, the following documents are to be submitted to CEPA:

16 copies of the Cargo Manifest.
1 set of the Shipper's Manifest.
1 Mail Guide.
4 copies of the cargo distribution for each hold.
1 Stowage Plan.
1 List of Container Contents.
14 to 16 Cargo Tally Books, depending on the number of stevedores.

If this information is not available before the vessel's arrival, it may be submitted at the time of the reception visit (boarding party).

On Arrival:

Type of Documents	*Captain of Port*	*Customs*	*Plant Health*	*CEPA*	*Total*
Basic Forms					
General Declaration	1	1	1	1	4
Cargo Manifest	1	2	1	16	20
Crew List	2	1	1	1	5
Passenger List	2	1	1	1	5
Ship's Stores List	1	1	1	1	4
Crew's Effects Declaration	–	–	–	–	–
Maritime Health Declaration	1	–	–	–	1
Mail List	–	–	–	1	1
Additional Documents:					
Clearance from Last Port	1	–	–	–	1
Consular Manifest	–	1	–	–	1
Set of Bills of Lading	–	–	–	1	1
Cargo Distribution	–	–	–	4	4
Contents of Containers	–	–	–	1	1
Stowage Plan	–	–	–	1	1
Cargo Tally Books	–	–	–	14/16	14/16

Prior to Departure: The CEPA draws up the clearance permit and has it signed by Customs before submitting it to the Captain of the Port. When loading and unloading is completed, a representative of the Captain of the Port delivers the clearance permit on board.

PILOTAGE: Obtained usually through Agent, can be cable-requested to Port Captain-La Union. Fenadesal has availability to dock and undock vessels any time required.

ANCHORAGE: La Union Bay – up to 34 ft. Approximately 14 Class II and a large number of Class III anchorage berths are available in the harbour. 5 Class II berths are in the vincinity of the pier in depths of 33 ft. to 30 ft., and approximately 9 more, in depths of 70 ft. to 30 ft., are just Westward of Isla Zacatillo. The first area has a mud bottom; the second is sandy and rocky. The large number of Class III berths are in an area Northward of the pier and in the area between the 2 anchorages providing Class II berths. The least depth in each of the areas is 25 ft. A large number of relatively unsheltered anchorage berths of all classes are available outside the harbour in the Gulf of Fonseca.

RESTRICTIONS: Enter any time – preferable on flood tide with draft over 24 ft.

MAX. SIZE: Largest vessel that can be accommodated in harbour would occupy an anchorage berth with a min. depth of 43 ft. and a diameter of 3,300 ft. Largest vessel that can be accommodated alongside wharf would occupy a berth with least depth of 25 ft.; length is not a limiting factor, although a max. 550 ft. is recommended due to strong currents, 3 – 4 knots, and pressure on part of any vessel extending for any greater distance beyond length of wharf.

HEALTH: Disease should be reported. Pratique necessary on each occasion.

RADIO: Direct to Agents or Fenadesal, Telex: 20-194, Area 301, San Salvador.

TUGS: No tugs required.

BERTHING: Berthing usually carried out on slack tides due to cross currents, up to 3 – 4 knots. The estimated military port capacity is 1,800 tons of general cargo per day. Port can accommodate 2 standard-type ocean-going cargo vessels, and possibly one alternative class T/C (small ocean-type tanker under favourable conditions) alongside berths, and approximately 14 ocean-type cargo vessels, and a large number of Class III (coaster-type cargo vessels) at anchorage berths. Ro/Ro pier, depth alongside 16 ft. LW.

STEVEDORES: Prior advice preferable. Stevedore force consists of 9 gangs of up to 16 men per gang for on-board work. Similar gangs are available on pier, and up to 300 labourers, crane and fork-lift operators comprise shore gangs.

MEDICAL: Services available – no special restrictions.

TANKERS: Drafts 25/34 ft. fore and aft. Tankers of up to 550 ft. in length can be accommodated at either side of pier, where adequate connections of 6 in. – 8 in. and 10 in. pipe-lines are located. Largest vessel that can be accommodated alongside would occupy a berth with a least depth of 25 ft.; length is not a limiting factor, except as noted previously.

FRESH WATER: Four 2 in. connections on each side; volume estimated at 10 t.p.h.

FUEL: Bunkers and diesel – can be delivered when berthed.

GANGWAY/DECK WATCHMEN: Not required – National Marines on guard.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: Not controlled, but restricted ashore.

IDENTIFICATION CARDS: Passes for leaving ship to have Master's signature.

CONSULS: Only Honduras is represented.

REPAIRS: No facilities.

REPATRIATION: Can be arranged.

AIRPORT: "El Salvador", 102 miles away in the "Comalapa's Valley".

TIME: GMT minus 6 hours. No alterations.

HOLIDAYS: Easter Thursday, Good Friday. Port not worked only on those dates.

POLICE/AMBULANCE/FIRE: In La Union – Close to the Port.

TELEPHONES: Available.

SHORE LEAVE: Allowed.

AUTHORITY: Ferrocarriles Nacionales de El Salvador (Fenadesal), Cutuco-La Union, El Salvador. *Contact:* Port Manager.

Ferrocarriles Nacionales de El Salvador, Apartado Postal 2292, San Salvador, El Salvador C.A. *Tel:* 715632, 22-9000. *Telex:* (301) 20-194. *FAX:* 24-13-55. *Cables:* Fenadesal.

Comision Ejecutiva Portuaria Autonoma, Apartado Postal 2667, San Salvador, El Salvador. *Tel:* 24-11-33. *Telex:* 20194. *FAX:* 24-13-55. *Cables:* Cepa. *Contact:* Jose Ricardo Hernandez Platero, Manager.

NOTES

Please also advise Shipping Guides Ltd.

Equatorial Guinea

GENERAL

PIRACY/TERRITORIAL WATERS: *Shipmaster's Report:* Whilst steaming from Lagos towards Douala (passing North of the island Fernando Poo which is considered the normal route) the vessel was hailed at 0640 GMT by Equatorial Guinean Patrol Boat "LP 009" with two 20 mm. double automatic guns pointed at vessel. The vessel's position was Lat. 03° 48.4′ N., Long. 09° 03.0′ E. (about 10 nautical miles from the island).

An Officer with the rank of Lieutenant and 2 men boarded the vessel. They claimed that the vessel had violated Equatorial Guinean territorial waters having passed inside the 12 nautical mile limit. The Officer wished to take a crew member ashore to prove that the vessel had been boarded, but when the vessel's Master protested, the Officer claimed cases of whisky as proof. Having no alternative, the vessel's Master was forced to accept and the patrol boat departed 0745 GMT.

BATA: 01.52 N. 09.46 E. **(See Plan)**

SHIPMASTER'S REPORT

Roadstead with single point mooring buoy connected to the shore with 6 in. pipe-line, 6 in. hose: (everything in a deplorable state). No tugs or Pilots available. Master should have local knowledge when approaching berth in hours of darkness. Vessels are moored with 2 anchors forward and 2 ship's lines (plus two 8 in. shore lines) to the single point mooring buoy. 5 lengths of 15 m. hose available. Preferable stern discharge connection to be used. Max. pressure: 4 kg./sq.cm. All grades through this line. Linewash of water in between the different grades. There is rubber ball for cargo separation.

ADVICE: 1. In view of the deplorable state of buoy, lines and hose, Master should be very careful in mooring his vessel – which has to be done by himself – in order not to damage same.

2. Master should have ship's motorboat ready to run ship's lines to the buoy because motor launch, which is supposed to do this is very old and liable to breakdown at a crucial moment.

3. Anchors should be dropped in a position S.W. of the buoy in order to stay well clear of the unmarked wrecks, in good holding ground with 4 to 5 lengths of chain.

4. Tidal currents move the ship relative to the mooring buoy – so it is necessary to heave anchors tight – bearing in mind that the construction, etc. of the buoy is very weak.

5. The buoy carries a light but the light does not work. Anyway mooring after dark is not advisable.

DOCUMENTS: Only a small Customs Post available here:

1 Cargo Manifest.
1 Store Manifest.
1 Crew List.

CUSTOMS ALLOWANCES: No restrictions – no sealing of bonded stores.

SHORE LEAVE: Allowed by ship's boat.

RADIO COMMUNICATION: None. Though there are officially coast radio stations in this country, they do not operate on schedule. Telegrams should be sent via coastal radio stations of other countries. No VHF.

Also see "Purser's Report", Rey Malabo.

PUERTO MACIAS (Puerto Nuevo): 01.49 N. 09.44 E.

Situated about 1 mile South of the mouth of the Rio Ekuku. This is quite a new jetty – developed in 1973 – shaped like the letter "L", where the long leg of this "L" is connected to the shore and 4 dry cargo vessels can moor alongside the short leg in about 14 m. of water. Every vessel has on her off-shore side 2 mooring buoys to assist in mooring and unmooring. No tugs available. Though it is stated that a Pilot is available, this information should be treated as unreliable. The pier is used for the discharge of general cargo and the loading of logs and sawn wood. According to information received this jetty will be made available to tankers for discharge of oil products.

DOCUMENTS: See "Bata". This new jetty falls under the jurisdiction of Bata Authorities.

RADIO COMMUNICATION: See "Bata".

SHIPMASTER'S REPORT: October 1979.

Documents:

Crew List	6 copies	(vessel's care)
Passenger List	6 copies	(vessel's care)
List of Ports of Call	6 copies	(vessel's care)
Crew Declaration	6 copies	(vessel's care)
Store List	6 copies	(vessel's care)
Cargo Declaration	2 copies	(vessel's care)
Arms & Ammunition	2 copies	(vessel's care)
List of Narcotics	2 copies	(vessel's care)
List of Animals on Board	2 copies	(vessel's care)
Vaccination List	2 copies	(vessel's care)
Cargo Manifest for discharge cargo	6 copies	(vessel's and loading port Agent's care)

Authorities boarded the ship on the Roads.

Pilotage: Pilot is available, native, has knowledge of local currents and winds, otherwise is not skilled. Speaks only Spanish.

Anchorage: Half a mile West of the breakwater or further in depths from 12 to 25 m., sand, the holding ground is good but swell can be heavy.

Restrictions: Berthing possible only during daylight.

Berthing: The jetty can accommodate four ships, two on each side but at present all mooring buoys are removed, except Buoy No. 8. For this reason only ships equipped with stern anchor could be moored outside, to keep herself (with anchor) clear from the breakwater owing to swell, current and wind from S.W. Also the inner berth is not protected against the swell, because the breakwater was constructed of concrete piles. According to information the mooring buoys will be replaced in near future.

Loading/discharging with ship's gear, no shore cranes available. Oil products can be discharged by pipe-line connected with shore storage tanks.

Stevedores: Available, arranged through Agent of shippers/receivers.

Medical: Hospital facilities available, but there is total shortage of drugs.

Fresh Water: Available from quay.

Opening/Closing Hatches: Normally done by crew.

Customs Allowance: No limit. No sealing of bonded stores.

Shore Leave: No restrictions. Identification cards not needed.

Airport: There is an airport close to Bata with flights to the capital (Malabo) and Douala.

Time: GMT plus 1 hour.

Currency: Ekuela.

Stores: Not available.

REY MALABO, (formerly Santa Isabel): 03.46 N. 08.48 E.

Situated on the Island of Macias Ngueme Biyogo (formerly Fernando Poo) Capital of the Republic of Equatorial Guinea.

DOCUMENTS:

9 Crew Lists.
3 Stores Manifests.
3 Crew Declarations.
2 Lists of Arms and Ammunition.
4 Lists of Ports of Call.
2 Passenger Lists or negative.

GENERAL: No tugs.

PILOTS: Effectively none. Only a locally informed inhabitant of this port comes on board to inform the Master, he is equipped with a large scale Spanish chart of this bay, but he has no nautical knowledge and he does not know how to handle a ship.

Note: 1. Masters should bear in mind that they have to manoeuvre and moor the vessel themselves.

2. In view of the continuous breakdowns (and insufficient power) of the mooring-launch it is absolutely necessary to have the ship's motor boat at stand by to run the ship's mooring-lines ashore.

MOORING PROCEDURE: Tanker Berth: Old jetty (Muelle Viejo). The ship should be moored stern-to to this jetty. On entering the port with the lights in line starboard anchor is dropped in the middle of the bay and the ship has then to manoeuvre around with her own engines, until in line with the berth.

N.B. Because there is very seldom anybody present at the jetty to accept the mooring lines (on arrival as well as on departure) the vessel's crew should be kept on standby to do this job.

ARRIVAL/DEPARTURE: Between 0600 hrs. and 1800 hrs.

TANKERS: Preferably stern discharge into a 6 in. line with 6 in. hose. All grades through one line – linewash with water in between – pressure 4 kg./sq.cm. max.

DRY CARGO VESSELS: Berth at a new jetty on the West side of the bay. No cranes available.

ADVICE: 1. Masters should be very careful when dropping their anchors as some vessels (Men of war) moor with their sterns to the dry cargo jetty and have their anchors in the middle of the bay. These anchors are very easily fouled by incoming vessel's anchors. A useful suggestion might be to put anchor buoys on the anchors in order to show another incoming ship their position.

2. Because it is quite difficult to manoeuvre a tanker around in this bay without any tug assistance, it should be borne in mind that when the wind is over Force 2 manoeuvring with a sizeable vessel is apt to falter, and no assistance can be expected from any quarter.

DEPARTURE: Vessels are free to leave within mentioned hours without Pilot.

RADIO COMMUNICATION: See "Bata".

CUSTOMS ALLOWANCE: No limit – no sealing of bonded stores.

SHORE LEAVE: No restrictions, but with own motor boat.

Currency: Equatorial Guinea Peseta = Spanish Peseta.

PURSER'S REPORT:

Documents:

9 Crew Lists.
9 Passenger Lists (Marked "none" if no passengers on board).
3 Customs Declarations.
3 Stores and Provisions.
4 Arms and Ammunition.
1 Vaccination List (Cholera and Yellow Fever).
9 Cargo Manifests.

Stores: No stores were purchased at this port, advise top up prior to calling at this port.

Mail: Advisable to send to next big port.

Bata: Same papers as above. No officials come out to the ship at this port, however, papers should be kept ready. Vessels moor to a buoy for discharge.

SHIPMASTER'S REPORT: May 1984.

Pilotage: There are no Pilots at Malabo. Masters are expected to berth the vessel themselves on receiving instructions from Agents via VHF to proceed to the berth. If requested an Agents' representative may board the vessel but they are not persons with nautical knowledge and can be helpful only in communicating with the mooring boat.

Berth: The general cargo berth on the S.E. side of the bay is 200 m. long and fitted with good fenders. Depths alongside vary from 6.0 m. at the extreme S.E. end to about 7.0 m. one third of the length from the end and nearly 9.0 m. at the N.W. end of the pier.

There is no definite draft restriction but a vessel with a maximum after draft of 24 ft. can safely berth alongside. Off the pier the water is deep with depths of 14 m. to 17 m.

Berthing Procedure: Vessels berth starboard to without using anchor. After passing the red buoy about 20 m. off to port swing to starboard to bring vessel as close to and as parallel to the pier as possible. Mooring boat takes the ship's lines ashore.

Unberthing Procedure: Using headline and forward springs swing vessel off pier sufficiently to drop astern to the centre of the bay. Then swing using engines to proceed out. (Note: It is advisable not to attempt berthing or unberthing if the wind is unfavourable, particularly with large vessels. There are no other craft in the port other than two mooring boats).

Cargo Handling: Vessels discharge cargo using their own gear. There is one small wooden barge fitted with outboard motor for handling small consignments. There are no lighters or towing boats or tugs in Malabo.

Radio Communications: All the radio stations in Equatorial Guinea are unreliable and mostly not operating. Messages should be sent via Douala or some other major coastal station.

Lights: None of the lights shown on the chart were functioning. At night only vessels with radar should approach close. There has been a complete breakdown of the power supply to the town of Malabo for 8 weeks. It is uncertain when the power supply will resume.

Consulates: Spanish, Belgian, French, American, U.S.S.R. and Cameroon.

Fresh Water: Available, laid on to the pier, good pressure.

NOTES

Please also advise Shipping Guides Ltd.

Ethiopia

ASSAB: 13.01 N. 42.44 E. (See Plan)

PORT LIMITS: A line drawn from Ras Gombo to the Northern point of Umm al Baher (Islands) to Southern point of Umm al Baher, then to Ras Marcanah.

DOCUMENTS:
- 5 Manifests for Transit Passengers and passports.
- 5 Manifests for Landing Passengers and passports.
- 5 Crew Lists.
- 1 Complete Crew Provisions List.
- 1 Crew Personal Effects List.
- 1 Store List.
- 6 Cargo Manifests.

PILOTAGE: Compulsory Pilots take tankers in and out of oil harbour only during daytime. Pilots embark about 1 mile N.N.E. from Northern extremity of breakwater. Commercial harbour gives 24 hour service. Vessels calling Assab must advise Agent through Assab Coastal Radio Station by call sign ETC. Assab Radio Signal Station is available.

ANCHORAGES: Assab Bay provides good anchorage in 42 ft. to 48 ft. of sand and coral bottom, good holding ground. Generally weather in Assab can be divided into two: Summer time and Winter time weather, during Summer (May–September) Northerly wind blows with a maximum force of 3/4 BS. During Winter time (October-April) South-easterly local monsoon winds blow usually 5/6 BS but reaching force 7/8 BS during daytime and generally drop at night. This 7/8 BS force is mainly experienced about December to February.

RESTRICTIONS: There are 2 entrances, the North and the South entrance, the depth at the entrances is 38 ft. Least width 1,300 ft.

Vessels of any size enter or leave port during hours of darkness except tankers, and vessels carrying dangerous cargo. In these cases, where vessels are carrying explosives or other dangerous cargoes, Agents of calling vessels must notify the Port Office in advance of discharging and/or loading of explosives. Inflammable and other highly dangerous cargoes in commercial harbour are permitted from 0600 to 1800 hrs. local time.

MAX. SIZE: Largest vessels which can enter commercial harbour 180 m. LOA, 80 ft. beam, 33 ft. draft.

HEALTH: Quarantine and sanitation services available. Quarantine officer boards arriving vessels and necessary medical clearance given.

RADIO: Coastal radio station available *(a)* Position Lat. 13° 01′ 24″ N., Long. 42° 44′ 38″ E.

(b) Coastal radio station in service for 13 hours per day 0700 hrs. to 2200 hrs. Call sign ETC. Transmits traffic lists on 489 kHz after a preliminary announcement on 500 kHz, 30 minutes past each odd hour starting at 0500 and ending 1700 hrs. (0530, 0730, 0930, hrs. etc.).

(c) Transmit traffic lists on 6509 at 0500, 0900 and 1300 hrs. and searches 6265.5 – 6280.5 between 0515 – 0600, 0915 – 1000, and 1315 – 1400 hrs.

(d) Transmit traffic lists on 8618 at 0700, 1100 and 1500 hrs. and searches 8354 – 8374 between 0715 – 0800, 1115 – 1200 and 1515 – 1600 hrs.

(e) Rates shall include station charges and charge of transmission over telecommunication network within Ethiopia.

(f) Accepts ship letter telegrams (SLT) from ships for delivery in Assab.

(g) For radio telephone service. Station keeps watch and replaces on 2182 for radio telephone service at 0615 – 0700, 0815 – 0900, 1015 – 1100, 1215 – 1300, 1415 – 1500, 1615 – 1700 hrs. and transmits traffic same hours on 4379.3. Service hours will be extended to 24 hours.

VHF: VHF system is in operation in the port area.

TUGS: Tug service compulsory for ships over 300 n.r.t. 3 tugs of 600, 1,200 and 1,400 h.p. attend ships during arrival and departure.

BERTHING:
- (a) North Half Jetty 1,620 ft. length, 36 ft. depth.
- (b) South Half Jetty.
  - (i) 1115 ft. length and 33.8 ft. depth.
  - (ii) 459 ft. length and 29.5 ft. depth.
  - (iii) 164 ft. length and 19 ft. depth

Fenders are good and protect ships from impact; harbour is modern and has modern breakwater 711 m. length. 7 large vessels can be accommodated at a time. In addition stern ramp ro/ro vessels are accommodated at the ends of the North and South Jetties.

Salt Loading Terminal: Located 1.7 miles from the Commercial Harbour, salt loading ships drawing up to 33 ft. are berthed at this terminal using 2 anchors and mooring to buoys and dolphins. Not in use at present time.

STEVEDORES: 14 stevedoring agencies, any kind of cargo can be discharged and loaded. Skilled labourers and loading/discharging capacity are respectively 30-15 t.p.h. Crane lift capacity 50 tons.

Normal working hours: 0700 to 0600 hrs. (23 hours a day).

MEDICAL: 1 hospital in town and clinic in port. When sick person on board, hoist (by day) International code flag "W", (by night) 3 lights in vertical line upper one red, and middle and lower, white lights. Doctor may be called on board at any time to attend sick crew or passengers by arrangement with Agents.

TANKERS: Oil harbour about 1.5 miles S.E. of commercial harbour with draft 33 ft. Crude oil discharging terminal 500 m. from Southern end of breakwater open sea buoy berth – tankers of 800 ft. length, and 36 ft. draft can be accommodated. Diameter of pipe-line for loading and discharging black products – 16 in., white products 10 in.

Tankers at the Shell Berth are moored by dropping 2 anchors and tying up 2 ropes from each quarter to the buoys, and 1 rope from each quarter to the dolphins. All grades of oil in bulk discharged into shore storage tanks from this harbour, and fuel oil is discharged from the Commercial Harbour.

In Assab, the petroleum installations are of Shell Red Sea Co., Mobil Oil East Africa Co. and Ethiopian Petroleum Corporation

DENSITY: At berths is 1030 while the tides are negligible for all seasons; max. 1 ft.

FRESH WATER: Available. Supplied upon request by Agent and can be delivered at 60 t.p.h.

FUEL: All grades available, at commercial harbour. Advance notice necessary. Rate of 300 t.p.h.

FIRE PRECAUTIONS: Modern fire brigade.

GANGWAY/DECK WATCHMEN: Watchmen on deck necessary, and rate arranged as per agreement of employer and employee.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CERTIFICATES: All ship's International Certificates should be on board.

CUSTOMS ALLOWANCES: Tobacco, 400 cigarettes. Wine and/or spirits: 1 litre or bottle of spirit.

CARGO GEAR: Different types of certified cargo handling equipment available.

IDENTIFICATION CARDS: Needed.

CONSULS: Only Italian Consulate in Assab, others in Addis Ababa.

REPAIRS: Minor repairs can be carried out at Port Office workshop.

REPATRIATION: Possible.

AIRPORT: 15 km. from Assab.

TIME: GMT plus 3 hours.

HOLIDAYS: See "Massawa".

POLICE/AMBULANCE/FIRE: Port Police Tel: 60049; Hospital Tel: 60119; Port Office Fire Brigade Tel: 60102.

GENERAL: 1 modern hotel and 1 motel available in town.

SHORE LEAVE: Crew allowed ashore, with boarding passes.

DEVELOPMENTS: Tug berth under construction, completion expected early 1989.

Berths No. 13 and 14 to be dredged down to 12.0 m. from the current 10.0 m.

Deepwater berth with length of 500 m. to be constructed. It will have heavy duty paving and will be used for handling containers. No cranes on order at present.

SHIPMASTER'S REPORT: January 1983.

VHF: VHF system is installed. Call sign "Assab Signal Station". Working Channel 12.

Medical: No dentist available in city.

Fresh Water: Available in emergencies only, Port Authority advises that all vessels should take sufficient water at previous port.

We advise that water should be purified before drinking.

Repairs: Not possible. No oxygen or acetylene available.

General: No spares of any description available. Provisions can be supplied in small quantities.

SHIPMASTER'S REPORT: February 1985.

Documents: No cargo documents whatsoever were received by Agent prior to ship's arrival. The day after arrival at the roads, the Agent came on board to collect a full set of cargo documents. This procedure seemed to be a fairly normal practice on ships other than regular liner ships and tankers arriving at Assab.

After having berthed, Authorities came on board to collect 5 Crew Lists, 3 Stores' Declarations and 3 Crew's Effect Declarations. Ship's Certificates were not examined. Ship's lockers with tobacco and spirits were sealed by Customs. Beer-store not sealed. No search of crew cabins.

Pilotage: Signal station working VHF Channels 16 and 14, giving berthing instructions and other information. Also signal station is most willing to pass any messages to Agents, etc.

Pilot boards ships on the roads approx. 0.5 miles off the breakwater. 2 Pilots are serving the port. This ship was handled by the Chief Pilot, who is very skilled in handling ships, making effective use of wind when berthing/unberthing/shifting ships in port.

Anchorages: Ship arrived on the roads 14th January, 1985 and was at anchor for 18 days. In that period the wind blew during the night with Force 4/5 from S.E., shifting E.S.E. Force 6/7 during daytime – often reaching Force 8. Holding ground good.

Restrictions: Draft restriction 33 ft., but Pilot advised me that 34 ft. has been handled. The problem is not the depth alongside the pier but a small patch of sand close to the breakwater, with a minimum depth over it of 35 ft. Ships with the deepest draft are berthed at Pier No.1 (The outer end of the Northern Pier).

Health: After arrival in roads, ships are called by a Quarantine Officer on VHF Channels 16/14, who asks relevant questions such as last port, crew members on board, if any sickness, gross/net tonnage. If satisfied with answers ship is granted Free Pratique.

Radio: Assab Radio (ETC) was impossible to use during voyage to Assab, and all messages were passed via Aden Radio (7OA). After having anchored at Assab Roads, Assab Radio did answer and arrival message and Notice of Readiness were sent via ETC.

Tugs: Tugs meet ships inside the breakwater. 1 tug built 1979 and 1 built 1981, respectively 1,200 and 1,400 h.p. Both of them are working very effectively. Large ships are normally berthed at Pier 1 or 2 – the outer ends of piers – bow heading out. An anchor is used to hold the ship's bow while tugs are pushing the ship into position. 1 larger tug and 1 smaller tug were seen in the port, but they were not in use during our visit.

Cranes: On the Northern pier there are 9 cranes, and on the Southern pier 7 cranes. All were electric cranes working well and well maintained. 2 of the cranes on each pier are 20 ton capacity and the others 6 ton. At least 3 mobile cranes were seen, one with capacity up to 60 tons.

Bulk Cargo Facilities: Bulk grain is discharged by grab to portable bag filling equipment on the pier. Capacity unknown. Simultaneously, dump trucks are used to carry bulk grain from ship to warehouse. 2 cranes are normally used and an outturn of 2,500 tons is said to obtainable.

Stevedores: Agents arrange gangs. Shifts worked: 0600 hrs. – 1400 hrs., 1400 hrs. – 2200 hrs., 2200 hrs. – 0600 hrs. It seems normal practice that all ships work around the clock with maximum possible gangs.

Density: 1023.5.
Fresh Water: Available but in very limited quantities, 10 to 30 tons per ship only. Quality said to be poor.
Watchmen: Gangway watchman compulsory. 1 watchman works from 0600 hrs. to 1800 hrs. The other from 1800 hrs. to 0600 hrs. Meals are to be supplied by ship.
Customs Allowances: Each crew member had 200 cigarettes and some had a bottle of spirits on arrival. No comments were made to this quantity.
Repatriation: Said to be possible. Local plane to Addis Ababa and from there international flight connections.
Shore Leave: Immigration Department issue a special shore pass, which is shown when passing the gate to and from the port.
Supplies: Ships should not rely on any supplies. At a local market, some supplies of fresh vegetables can be obtained, but most are of poor quality.
Delays: Depending on type of cargo. Army material seems to have priority over other cargo. Berth Nos. 1 and 2 are said to have been promised to ships with food aid.

Notice:
TO:
THE MASTER
M/V " . . . . "
ASSAB

Assab Port Authorities: General Instructions to be followed:

1. The hours between 2400 and 0600 are curfew hours.
2. Any crew member going ashore should hold his passport or seaman's book together with a shore pass given by the Immigration Officer. Misuse or loss of a shore pass card will not only lead to payment of Birr 10.00 (Ten) per card but also strong measures will be taken upon the individual crew member who involves himself in such misuses.
3. Attempts to exchange foreign currency on black market leads to serious prosecution. Official bank exchanges are authorised. (Rate of exchange 1 US$=2.05 Birr.)
4. Ship's crew are not permitted beyond the following limits:
    (A) The hospital to North East
    (B) Starlite Hotel to the West, and
    (C) The Agip Motel to the South West.
5. All crew's personal belongings should be shown in Crew Declaration. The Customs Authorities will inspect all individual cabins upon arrival and departure.
6. Rat guards should be fitted to all mooring ropes immediately after berthing. Contravention of this will incur a fine Birr 300.
7. Anchoring in Ethiopian Territorial Waters and generally from "T10" to "Ras Damera" is strictly prohibited. When entering territorial waters you must open your VHF Channel 16 and inform Naval Base of your identity.
8. Two hours before departure, "G" flag should be hoisted by day and vertical "Red White Red" should be lit by night, for Pilot.
9. Before sailing from our port you must institute a thorough search of your vessel to ensure that no unauthorised persons or stowaways are on board at the time of departure.
10. Any crew member found in illegal possession of harmful and toxic drugs or found circulating same directly or indirectly shall be seriously dealt with according to the penal code.
11. Diving, swimming and fishing within and or near by the premises of the harbour is strictly prohibited.
12. Photography within the port or around the town is strictly prohibited.
13. Smoking inside port area is strictly prohibited.

SIGNED: . . . .
MASTER

SHIPMASTER'S REPORT: July 1987.
Fresh Water: Available, no limits. We received 200 tons in 7 hours.
Shore Leave: Allowed. Crew must take U.S. Dollars ashore to change to local currency. No other currency accepted.

AUTHORITY: Ministry of Communication, Department of Marine.

MASSAWA: 15.37 N. 39.28 E.

PORT LIMITS: The coastline of Gurgussum Peninsula, at Lat. 15° 39′ N. to a point Lat. 15° 39′ N., Long. 39° 30′ E. to Lat. 15° 35′ N., Long. 39° 30′ E. to the coastline at Lat. 15° 35′ N., Long. 39° 26′ 50″ E.
DOCUMENTS:
2 sets Manifests.
2 sets Bills of Lading.
5 Crew Lists.
5 Passenger Lists.
2 Stores Lists.
APPROACHES: Through North Channel and South Channel. In channel, in direction of leading lights 243°, max. depth 31 ft. (but alongside 30 ft.) Marker buoy showing a wreck in position approximately 200 m. S.E. of North Breakwater.
PILOTAGE: Pilotage is compulsory for all vessels over 100 n.r.t. Pilot section headed by a Chief Pilot and 2 other Pilots.
There is 1 pilot boat. ETA should be given to Agent who will inform Pilot 72 hours prior to arrival. Signal tower located in port area contacts vessel on arrival informing Agent and Pilot, and receiving or transmitting by Morse lamp messages to and from vessel.
ANCHORAGES: 8 cables East of main lighthouse. Anchorage North of leading light not recommended.
Tides: Normally the range of tide varies between 1.5 and 2.0 m., but during spring tide season the range varies up to 3 m.
MAX. SIZE: Length 180 m., draft 29 ft.
HEALTH: Doctor normally boards with Pilot, but can be asked to board together with Customs and Immigration while vessel on roads. All crew members must be vaccinated against yellow fever, and possess necessary certificates. Derat and other health certificates required. Derat cannot be effected at Massawa, but exemption certificate can be obtained.
RADIO: Assab Radio, call sign ETC, Djibouti Radio, or Aden Radio may be used. Asmara Radio, call sign ETC 2, working hours 0500 to 1700 GMT. Radio-telegraphy and radio-telephone services.
TUGS: Compulsory. Join vessel in port.
3 tugboats are available, two of 350 h.p. and the third 1,000 h.p. The smaller motor tugboats used for assistance mainly within the port limits, and the deep-sea salvage motor tugboat, for salvage operations, but whenever conditions demand, is also employed for assistance within the port.
BERTHING: Vessels normally drop anchor before berthing.
Commercial Harbour: 6 berths, namely 1 to 6, and the overall distance from Berth No. 1 to Berth No. 6 is 907 m. These berths normally used by vessels handling general cargo, bagged cargo and livestocks. Depth of water at mean low water springs (MLWS) is shown below:

Berth No. 1 – 16 ft. 6 in.
Berth No. 2 – 24 ft. 6 in.
Berth No. 3 – 28 ft. 6 in.
Berth No. 4 – 28 ft. 0 in.
Berth No. 5 – 27 ft. 0 in.
Berth No. 6 – 30 ft. 0 in.

Salt Berth: This is a single berth where vessels load salt in bulk. The depth at the berth is 32 ft. Max. draft 29 ft. Loading with the help of conveyor belt at the rate of about 300 t.p.h.
Cement Berth: Depth 18 ft.
American Jetty: Depth 18 ft.
However, dredging will be carried out to accommodate vessels of a greater draft in the future.
STEVEDORES: Radio 24 hours' notice of ETA stating number of gangs required. Loading discharging rates 5 t.p.h. on general, 10 – 15 t.p.h. on bagged cargo.
DENSITY: 1025.
MEDICAL: Notice should be given to Agent only when specialist needed. Hospital treatment available. Dental facilities available at Asmara, 110 km. away.
TANKERS: AGIP, Arkiko Oil Station Terminal: Max. draft for entering channel 29 ft.
Total Pier, depth alongside 36 ft., max. draft 30 ft.
FRESH WATER: Supplied alongside, Max. rate 600 tons per day or by barge of 50 tons on roads. Barge can be loaded/discharged in 8 hours.
FUEL: Can be obtained alongside oil terminals and at Berth Nos. 5 and 6 for heavy fuel only. Diesel can be supplied by lorries alongside. No bunker barge available.
GANGWAY/DECK WATCHMEN: Compulsory when alongside.
OPENING/CLOSING HATCHES: Normally by labourers, but can be done by crew.
CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes per man. New allowance can be delivered after 1 week. Wine/Spirits: 1 bottle of wine/spirits (opened). Wine and beer quantity necessary for the stay in port allowed upon reasonable request on arrival.
IDENTIFICATION CARDS: Not needed. Immigration gives port entry card (without crew member's name) which must be given back prior to departure. In case of loss a fine is likely.
CONSULS: Italian Vice-consulate, Box 62. Tel: 52214. Other consulates at Addis Ababa for Belgium, France, Italy, Sudan, U.S.A., U.K. and others.
REPAIRS: Good workshops for minor engine repairs. Slipway for vessel up to 600 g.r.t.
REPATRIATION: Via Asmara by chartered air-taxi, then by international flights. Or Massawa-Asmara by road, 110 km., asphalt road (daily convoy).
TIME: GMT plus 3 hours.
HOLIDAYS: January 7th (Christmas Day – Coptic); January 19th (Epiphany); March 2nd (Victory of the Battle of Adowa); March 13th (Prophet's Birthday); April 6th (Victory Day); April 23rd (Good Friday – Coptic); April 25th (Easter Sunday – Coptic); May 1st (Labour Day); September 11th (New Year's Day); September 12th (Abolition of Feudalism); September 27th (Finding of the True Cross); October 6–8th Id-al-Fatir; December 18th Id-al-Kebir and Sundays.
POLICE/AMBULANCE/FIRE: Police, Tel: 52425; Ambulance, Tel: 52234-5-6; Fire Brigade, Tel: 52220.
TELEPHONES: Possible to place telephones on board. Arranged by Agent.
SERVICES: Radar and gyro compass technician available, but special spare parts not available.
SHORE LEAVE: Crew cannot leave vicinity of Massawa without special immigration permit.
AUTHORITY: Department of Marine.

EUROPEAN ECONOMIC COMMUNITY

Tanker Check List

(For oil, gas and chemical tankers of 1,600 g.r.t. and over – whether fully or partly laden – including those empty but not yet degassed or purged of hazardous residues entering European Economic Community ports).

A. Vessel identification

Name of vessel — Owner

Flag — Call sign — Year built

Port of registry — Length overall — Gross tonnage

Classification society

Class notation — Hull — Machinery

Propulsion machinery — Output

Agent

Draft: forward — amidships — aft

Kind of cargo loaded (according to tank loading plan) — Volume of cargo loaded

B. Safety installations aboard	In good working order Yes	No	Deficiences
1. Construction and technical equipment			
Main and auxiliary engines	☐	☐	
Main steering gear	☐	☐	
Auxiliary steering gear	☐	☐	
Anchor gear	☐	☐	
Fixed fire-extinguishing system	☐	☐	
2. Navigational equipment			
Manoeuvring characteristics available	☐	☐	
First radar installation	☐	☐	
Second radar installation	☐	☐	
Gyro compass	☐	☐	
Standard magnetic compass	☐	☐	
Radio direction-finding apparatus	☐	☐	
Echo-sounding device	☐	☐	
Other electronic position fixing aids	☐	☐	
3. Radio equipment			
Radiotelegraphy installation	☐	☐	
Radiotelephony installation (VHF)	☐	☐	

C. Safety certificates and other documents	Certificates/documents valid on board Yes	No
Cargo ship safety construction certificate	☐	☐
Cargo ship safety equipment certificate	☐	☐
Cargo ship safety radiotelegraphy certificate	☐	☐
Ship safety radiotelephony certificate	☐	☐
Load line certificate	☐	☐
Classification certificate	☐	☐
Oil liability certificate	☐	☐
Oil record book filled in	☐	☐

D. Officers and ratings	Yes	No
Master	☐	☐
Chief mate	☐	☐
Second mate	☐	☐
Third mate	☐	☐
Chief engineer	☐	☐
First engineer officer	☐	☐
Second engineer officer	☐	☐
Third engineer officer	☐	☐
Radio officer	☐	☐
Total number of ratings — Deck — Engine room		
Deep-sea Pilot taken aboard	☐	☐

Date — Signature of the Master or, if he is indisposed, of the deputy

Falkland Islands

NOTES

Please also advise Shipping Guides Ltd.

PORT STANLEY: 51.42 S. 57.51 W. (See Plan)

PORT LIMITS: West of the line joining Mengeary Point and Cape Pembroke.

DOCUMENTS:
- 2 Copies Crew Lists.
- 2 Copies Passenger Lists.
- 2 Copies Customs Documents.
  - Health Document.
  - Manifest and Bills of Lading.
  - Ship's Papers.
  - Ship's Certificates.

PILOTAGE: Pilotage should be requested via Cable & Wireless Radio Station. 24 hours notice of arrival required. Frequency 2182 kHz.

ANCHORAGES: For large vessels, the anchorage is somewhat confined; except South of Navy Point, where there is good swinging room in depths of from 8.2 m. to 10.4 m. (27 ft. to 34 ft.). There is good anchorage N.N.E. of the cathedral, but, owing to the prevailing strong Westerly winds, a vessel may have some difficulty in turning, when leaving this position. The best time to leave is after 1800 hrs. or before 0800 hrs. as, unless there is a widespread area of bad weather over the islands, the wind, which is local, is seldom strong between these hours. The holding ground is good, and vessels have not dragged during winds of up to force 8, though a second anchor is often necessary.

The bottom of the harbour is stiff mud, which is very noisome and sticky; it is necessary to allow plenty of time for cable washing when weighing.

Several small boats, none of which exhibit a riding light at night are moored at the South side of the harbour.

RESTRICTIONS: No restrictions on entry.

RADIO: Cable & Wireless Ltd.

VHF: Port Radio, call sign "Port Control", listening on Channels 16 and 12 from 0800 – 1200 hrs. and 1315 – 1630 hrs.

RADAR: No port radar service.

TUGS: No harbour tugs.

BERTHING: Falkland Islands Company jetty with a depth of 1.5 m. at its head. T shaped Head.

Flexiport floating berth in operation.

CRANES: 1×5 ton crane.

BULK CARGO FACILITIES: None. Drummed cargoes only are handled.

STEVEDORES: 1 week's notice required. If Falkland Islands Company charter vessel (4 voyages a year) is being worked then stevedores will not be available until work on the charter vessel has been completed.

MEDICAL: Advance notice required.

TANKERS: Advance information should be sought.

Mare Harbour: Tanker mooring buoy and pipe-line in position: Lat. 51° 54.11′ S., Long. 58° 29.87′ W.

DENSITY: Full salt water.

FRESH WATER: Available at night. Delivery by direct hose. Cost £3.75 per ton +33% of the cost of the labour involved.

FUEL: Fuel is available by special arrangement with Stanley Services Ltd. Grade 47 Cetane (viscosity cSt 100° F – 1.8; s.g. at 15° C – 0.840). Delivery by lighter and pump.

FIRE PRECAUTIONS: Normal safety requirements.

CONSULS: Norwegian.

REPAIRS: Minor repairs to machinery.

DRY DOCKS: None.

SURVEYORS: Not available.

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: By ship's crew.

CUSTOMS ALLOWANCES: Quantity permitted by crew is one bottle of spirits, 200 cigarettes or 1 lb. of tobacco, 6 bottles of wine, 1 case (24 cans) beer.

CARGO GEAR: There is 1×5 ton crane. Ship's gear may be used.

AIRPORT: 32 miles from Port.

TIME: GMT minus 4 hours. Summer time from October to end of March.

HOLIDAYS: Cargo can be handled on the 10 public holidays.

POLICE/AMBULANCE/FIRE: Police – 95; Fire – Exchange; Ambulance – 54.

TELEPHONES: Connection possible at rate of £30 a year.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Seaman's Book sufficient.

REGULATIONS: No particular or unusual regulations.

DELAYS: Delays may be experienced if berthing alongside only commercial jetty if firms charter vessel is being handled. Four voyages a year: – turn around 1 week.

AUTHORITY: Harbour Master, Customs and Harbour Dept., Port Stanley, Falkland Is. *Tel:* 22. *Contact:* L. J. Halliday, Harbour Master.

Faroe Islands

KLAKKSVIK: 62.14 N. 06.35. W. (See Plan)

DOCUMENTS:
One of Each:
Crew List.
Passenger List.
Custom Documents (one list crew's quantity of tobacco and spirits).
Health Document.
Manifest.
Bill of lading.

PILOTAGE: Not compulsory but available. Give ETA via Torshavn Radio, OXJ, 1 or 2 hours before arrival, and Pilot will meet vessel in Roads. International signals can always be used. VHF Channels 16, 12, and 6 in use.

ANCHORAGE: In Roads in 12 to 20 fathoms; good anchorage.

RESTRICTIONS: No restrictions upon entry.

MAX. SIZE: Up to 450 ft. length, but draft must not exceed 20 ft.

HEALTH: Pratique usually automatic.

RADIO: Torshavn Radio, OXJ, is only coast station in Faroe Isles.

TUGS: No tugs available.

BERTHING: Ships will be berthed on arrival, if ETA announced 12 hours before arrival.

New quay with depth 7.0 m. available.

STEVEDORES: Ship's Agent will arrange stevedores.

MEDICAL: Inform doctors before arrival. Hospital facilities available.

TANKERS: Only small tankers, up to 2,000 – 3,000 tons can be handled.

FRESH WATER: Available from quay. 30 t.p.h.

FUEL: Diesel oil available, usually without notice (or short notice).

GANGWAY/DECK WATCHMEN: Watchmen usually unnecessary, but available if desired.

OPENING/CLOSING HATCHES: Normally done by crew.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 litre of spirits.

IDENTIFICATION CARDS: Not needed.

CONSULS: British, Tel: 55109 and 55489; Norwegian, Tel: 55018 and 55353.

REPAIRS: All types of deck and engine repairs possible. Slipways for ships up to 200 ft. length.

REPATRIATION: Small changes in crew can usually be arranged and, for example, sick seamen/fishermen are often sent home, when recovered.

AIRPORT: Nearest airport on Vagoy, about 6 hours travelling. Regular flights, 6 times a week.

TIME: GMT. GMT plus 1 hour (Summertime) from last Sunday in March until last Sunday in Spetember.

HOLIDAYS: Cargo work can be arranged on holidays.

POLICE/AMBULANCE/FIRE: Police 55348; Ambulance 55464; Fire 04.

TELEPHONES: Can be arranged on board at one berthing place, at about 50.00 kr plus dues for conversations.

SERVICES: Compass adjusting, day and night.

SHORE LEAVE: Crew members allowed ashore.

DELAYS: Normally there are none.

AUTHORITY: Klakksvikar Havn, P.O.Box 26, FR-700 Klakksvik. *Tel:* 55081.

AGENT: Christen Joensen Stengavegur, P.O.Box 179, FR-700 Klaksvik, Faroe Islands. Cables Christen Joensen. Tel. Klaksvik 55922.

SOERVAAG: 62.04 N. 07.18 W.

DOCUMENTS:
Bill of Lading.
Customs Documents (including Crew List).
Ship's Certificate (stating size of ship).

PILOTAGE: Ships can call Pilot via Torshavn Radio. Pilot has good knowledge of local conditions.

ANCHORAGES: Danish Chart No. 82 (B.A. Chart No. 85) – on Soervaag Fjord – can be recommended as good. Bottom gravel.

RESTRICTIONS: Difference between high and low water up to 2 m. on Spring tide and up to 1 m. on Neap tide.

MAX. SIZE: Largest vessel reported in Soervaag was 12,000 d.w.t. tanker. Harbour about 150 m. long and formed with one long pier and another one stretching from it. Depth at pier 8 m. Pier runs N.E./S.W. Max. draft permissible 26 ft.

HEALTH: Ships coming from countries having epidemic-disease have to fly the flag "Q". No persons allowed connection with shore, before official doctor given Free Pratique. Doctor comes from Midvaag or Wesmannahavn and can be at Soervaag in half hour.

RADIO: Only civilian radio on Faroe Islands is Torshavn-Radio (Int. call sig.: OXJ) via this radio ships can call for medical assistance and weather forecast. These 2 services are free. All traffic to Faroe Islands via Torshavn-Radio.

VHF: Port Office on Channels 16 and 12 during working hours (0800–1700).

TUGS: No actual tugs can be obtained, but many small vessels which can be used as tugs.

BERTHING: Captains should take care when berthing not to come on to East side of pier – owing to very low water.

STEVEDORES: Arranged through Agent.

MEDICAL: Hospital in Torshavn with all facilities.

TANKERS: Ordinary pier also used by tankers, size of load/discharge-lines: 3 in. and 6 in.

FRESH WATER: Ships can obtain fresh water direct from pier.

FUEL: Marine diesel fuel; turbo-jet A1–100; gasoline-petroleum.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: By crew.

CUSTOMS ALLOWANCES: Tobacco, each crew member is allowed to have 200 cigarettes or 250 gm. of tobacco. Wine and/or Spirit, 1 litre spirits and 1 litre wine.

IDENTIFICATION CARDS: Not required.

CONSULS: Belgium, Finland, Greece, Iceland, Norway, Spain, U.K., Germany F.R., Brazil, France, Netherlands, Italy, Portugal, Sweden.

REPAIRS: Small deck and engine repairs carried out.

DRY DOCKS: On Skaalefiord, dry dock up to 1,500 d.w.t.

REPATRIATION: Can be arranged.

AIRPORT: Faroe Island has 1 airport – only 3 km. from Soervaag. Flights 6 times a week to Copenhagen, and weekly services to Glasgow.

TIME: GMT. Summertime from last Sunday in March to last Sunday in September.

HOLIDAYS: Same as Denmark. Cargo work can be arranged on holidays.

POLICE/AMBULANCE/FIRE: Police Tel: 33448; Ambulance Tel: 326011. Fire Tel: 000.

TELEPHONE: Telephones can be placed on board.

SHORE LEAVE: Crew members are allowed ashore.

SERVICES: Compass adjusting only.

REGULATIONS: Per ordinary regulations in Danish Ports. Harbour dues to be paid before ship's departure.

DELAYS: Usually none.

AUTHORITY: Harbour Master, Soervaag 3867, Faroe Islands. *Tel:* Office 32046. Residence 32283.

TORSHAVN: 62.00 N. 06.45 W.

DOCUMENTS: See "Klakksvik".

PILOTAGE: Not compulsory. Can be obtained through Torshavn Radio 2182 kHz or Channel 16 VHF (Harbour Office).

ANCHORAGES: Due South of breakwater in depths about 30 fathoms.

MAX. SIZE: Max. draft 25 ft. This is only restriction.

HEALTH: Pratique usually automatic.

RADIO: Torshavn Radio, OXJ.

TUGS: No tugs available.

STEVEDORES: Must be arranged with the Agent.

FRESH WATER: 100 t.p.h., by pipe-line.

FUEL: All kinds of fuel at 100 t.p.h.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: By crew.

CUSTOMS ALLOWANCES: Tobacco (1 carton); 1 litre of spirits or 2 litres of wine.

IDENTIFICATION CARDS: Not required.

REPAIRS: All kinds are possible.

DRY DOCKS: Slipway for vessels up to 2,000 tons.

REPATRIATION: Can be arranged.

AIRPORT: Regular airlines, 2 hours by car from Airport.

TIME: GMT. Summertime GMT plus 1 hour (late March – late September).

HOLIDAYS: Cargo work can be arranged on holidays.

POLICE/AMBULANCE/FIRE: Police, 11448; Ambulance, 13540; Fire, 000.

TELEPHONES: No facilities.

SERVICES: Compass adjusting only.

SHORE LEAVE: Allowed.

AUTHORITY: Torshavnar Havn, Torshavn, Faroe Islands. *Tel:* 1-1762. *Contact:* Hogni Mohr, Port Director.

TRANGISVAAG: 61.33 N. 06.50 W.

DOCUMENTS:
1 Crew List.
1 Passenger List.
1 Bill of Lading.
1 Bonded Store List.

PILOTAGE: When Pilot required pre-arrange with Agent by telegram or telephone, 2 hours notice of ETA required. Pilot boat is local fishing-boat, usually boarding vessel at harbour entrance.

ANCHORAGES: Safe sheltered harbour up to 30 fathoms deep along the entrance transit bearing. Vessels anchor 1 cable offshore in 8 fathoms, clay bottom.

RESTRICTIONS: Vessels may enter harbour day and night.

MAX. SIZE: Vessels may berth with draft up to 7 m.

HEALTH: Pratique granted if no contagious illnesses aboard and all arrival formalities accomplished by the boarding officials.

RADIO: Torshavn Radio, call signal OXJ, 24 hours service, listens 2482 kHz, replies and transmits traffic on 1778 kHz, traffic lists on 1778 kHz 35 minutes past each even hour. VHF service: Channel 16 (156.80 MHz) Channel 26 (161.90 MHz). All ETA messages, etc. must be routed through Torshavn Radio.

TUGS: None; if required local fishing-boats are capable to act as tugs.

BERTHING: Tveraa at Northern side of fjord. Outer side of quay 280 m. length and 20/21 ft. alongside. Inner side length 170 m. and 15 ft. alongside. Quay is for general cargo, fish and salt.

Harbour basin length 58 m., depths 7 ft. to 18 ft. alongside.

Drelnes on South side of fjord. Quay length 89 m. Depth alongside outer side 23 ft.; inner side length 43 m., depth 22 ft.

STEVEDORES: In order to enable Agent to arrange gang important obtain in good time accurate ETA from vessel. Work normally not carried out on Sundays.
MEDICAL: Advance notice to Agent preferable, good hospital facilities for both surgery and medicine.
DENSITY: 1024.
FRESH WATER: Water available at main quay, rate 50 t.p.h.
FUEL: Diesel gas oil available, 50 t.p.h., no advance notice required.
GANGWAY/DECK WATCHMEN: Available, but not compulsory.
OPENING/CLOSING HATCHES: Crew allowed to open and close hatches.
CUSTOMS ALLOWANCES: Each crew member allowed 200 cigarettes or 200 grams tobacco out of Bond. Limited quantity wine and spirits.
IDENTIFICATION CARDS: Not needed.
CONSULS: Spanish Vice-Consul.
REPAIRS: Local marine repair companies can undertake all repairs of general nature to deck, engines, hull, electric and radio equipment, etc. Slipway available for small vessels.
REPATRIATION: May be arranged by sea or air.
AIRPORT: (Vagar) Served by regular airlines, located 50 miles from Trangisvaag.
TIME: GMT. Summertime (GMT plus 1 hour) from last Sunday in March to last Sunday in September.
HOLIDAYS: New Year's Day; Good Friday; Easter Monday; Labour Day; Ascension Day; Whit Monday; Christmas Day; Second Christmas Day; work not carried out these days.
POLICE/AMBULANCE/FIRE: Police Tel: 10 and 53; Ambulance 134; Fire 159.
TELEPHONES: Usually not placed aboard, but can be arranged.
SHORE LEAVE: Allowed.
SHIP SUPPLY SERVICE: Contact Vaktar-OE Bjargin-Gartenastan, Torshavn, Faroe Islands.
DEVELOPMENTS: New quay under construction as extension of existing quay.
AUTHORITY: Tvoroyrar Havn, 3880 Tvoroyri, Faroe Islands. *Tel:* 71055. *Contact:* Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Fiji Islands

LABASA: 16.26 S. 179.22 E.

SHIPMASTER'S REPORT: January 1983.

PORT LIMITS: Port limit is up to the entrance of Mali Passage.

DOCUMENTS:

1 Crew Personal Property Declaration.
8 Crew Lists.
5 Passenger Lists.
4 Stores Lists.
3 Parcels Lists.
4 Maritime Declarations.
3 Form 'D' Regulation 46.
Maritime Declaration of Health.
1 Vaccination List.
1 Copy Fiji Quarantine Ordinance cap–92.

PILOTAGE: Compulsory. Agent arranges booking for Pilot. Pilot boards at entrance to Mali Passage from 30 ft. long, white hulled boat (no flag). Docking/undocking carried out during daylight hours only. Pilotage is also available for inshore passages to Suva, Lautoka, etc. Reef navigation is carried out by Pilots during daylight hours only.

ANCHORAGES: Safe anchorage is available only after passing Mali Passage; about 6 miles to the S.E.

If vessel arrives early, she can drift safely about 20 miles N.N.W. of Mali Passage.

RESTRICTIONS: Docking/undocking only during daylight hours. Max. draft 10.5 m.

MAX. SIZE: LOA 174 m., draft 10.5 m. Max. shipment available 27,000 tonnes as this is the max. storage capacity at Labasa.

HEALTH: Anti-malarial squad boards vessel with Pilot. They inspect and spray the vessel; only then is Pratique granted.

If vessel is coming from a "Malaria Infested" region, spraying is done twice daily during the vessel's stay in port.

TUGS: None available. 2 mooring boats are used for taking lines ashore.

BERTHING: *Malau Wharf:* Length 150 m., depth alongside 11 m. Vessel berthed starboard side to, using 1 head/sternline, 2 breastlines and 1 spring at each end.

As the sugar loader is fixed, this mooring system enabled vessel to shift fairly easily when loading in different hatches.

Caution must be exercised while docking, undocking and shifting to avoid contacting the middle piled dolphins of the wharf, as they are unfendered and non-loadbearing.

No tidal restrictions for wharf or port.

BULK HANDLING FACILITIES: Raw bulk sugar: 400 t.p.h./24 hours a day.

MEDICAL: Facilities available in local hospital and from private practitioners.

DENSITY: 1024.5.

FRESH WATER: Not available.

FUEL: Available at Suva only. Very expensive.

SURVEYORS: Pilot carries out hatch inspection prior to loading. Also see "Suva".

GANGWAY/DECK WATCHMEN: None.

HATCHES: Attended to by crew.

AIRPORT: Local airport with connections to Suva and Lautoka.

HOLIDAYS: Most of the population is of Indian descent, hence some Indian holidays observed.

TELEPHONES: No telephone provided for berth.

DELAYS: Normally 12 hours documentation time (non-laytime) after completion is provided for in the Charter Party; which may not be necessary.

GENERAL: *Communications:* Well connected via Suva. Telexes can be sent via Suva or Lautoka, by telephoning Agent's office there.

Formalities, Clearance, etc: Labasa is not a 'Port of Entry' (about 2 vessels per month call here). Pilot, Agent, Surveyor, Customs, Immigration, Agricultural Inspector, Malaria Prevention Squad, etc., all have to come from Suva or Lautoka. Customs Officer *only* stays on board the vessel until departure.

Pilferage: None reported.

Bonded Stores: Not available.

Provisions: No shipchandler. Fresh fruit, vegetables, etc., are available at reasonable prices from the local market, about 8 miles from the wharf.

AUTHORITY: See "Suva".

LAUTOKA, (Vuda Point): 17.36 S. 177.26 E. (See Plan)

DOCUMENTS/HEALTH: Refer to "Suva".

PILOTAGE: Not compulsory at present. However, most vessels avail themselves of a Pilot, who boards at Navula Passage, 20 miles South of Lautoka. Masters should telegraph to their Agents ship's ETA at Navula and indicate whether they require a Pilot or not at least 24 hours in advance.

Note: Radio communications with Fiji can be difficult and Masters are advised that telephone or telex messages worked via New Zealand or Australia direct to their Agents are far more reliable.

The Pilot normally boards from a 26 ft. wooden launch, blue hull with white superstructure, buff cabin top with orange liferaft on forward cabin. The pilot vessel can be contacted on VHF 16/6. Listening watch only when vessels are expected. Pilot normally boards 1 mile seaward of the passage on the leads. In heavy weather it may be necessary for a vessel to enter the passage to embark the Pilot. There is no anchorage outside the passage.

Vessels requiring Pratique should anchor approximately 1 mile to the Westward of Vio Island in Lautoka Harbour. If prior arrangements have been made through Agent, Health Officers may board inside Navula (The Health Officers inspect vessels only from 1 hour after sunrise to 1 hour prior to sunset). The Pilot for those vessels not employing one from Navula but requiring a Pilot for berthing will board at the Quarantine Anchorage off Vio Island.

ANCHORAGES: The whole of the area enclosed by a circle of diameter approximately 1 mile between Vio Island and Pinder Reefs is an acceptable anchorage with depths ranging from 9 to 13 fathoms.

MAX. SIZE: Minimum depth in approaches to wharf 32 ft., depth alongside 36 ft. Generally speaking, any vessel not exceeding 32 ft. draft can be accommodated. Main wharf is only 457 ft. long but overhangs are allowable, ("Oriana" LOA 804 ft., berthed at Main Wharf), dolphins for mooring lines being situated off each end of the wharf. Range of tide approximately 5.5 ft. at Springs and 3 ft. at Neaps, but state of tide does not affect the foregoing.

At Vuda Point, the tanker berth of Lautoka, tankers in the 18,000 to 24,000 d.w.t. class can be handled. This is a submarine pipe-line installation, the ship mooring to 4 buoys, available depth being about 36 ft.

VHF: Port Control on Channels 12 and 16 during normal office hours.

TUGS: No tugs available. Can be obtained from Suva if reasonable notice is given.

BERTHING: Berthing and unberthing at Vuda Point only in daylight. Berthing at Lautoka is at discretion of Harbour Master or Pilot, but in normal conditions is effected at any hour of day or night.

Berthing in Lautoka is generally effected port side to.

Wharf	*Length*	*Depth*
Queens West	457 ft.	36 ft.
Queens North	257 ft.	24 ft.
Queens East	423 ft.	12 ft.
*F.S.C.	577 ft.	32 ft.

*Bulk sugar loading installation for Fiji Sugar Corporation Ltd.

FUEL: Diesel fuel is available at the North and East berths on Queens Wharf.

FRESH WATER: Fresh water is available at all berths, there may be some restrictions in the dry season.

TANKERS: See "Max. Size". No slop discharge facilities. Discharge line 8 in. diameter.

DENSITY: 1025.

CONSULS: None.

REPAIRS: Only comparatively minor repairs can be effected such as welding jobs and repairs to pumps and other auxiliaries.

SURVEYORS: Cargo and Marine Survey Ltd., P.O.Box 3395, Lautoka. Tel: 63922. Telex: FJ 5194.

REPATRIATION: Repatriation can be effected through vessel's Agents.

AIRPORT: Nandi International Airport is 16 miles from Lautoka. Frequent flights to all parts of the world by several major airlines operating through Nandi.

TIME: GMT plus 12 hours. No alterations to clocks.

HOLIDAYS: *Public holidays:* New Year's Day, Good Friday, Easter Saturday, Easter Monday, Queen's Birthday, Bank Holiday, Fiji Day, Deepwali, Prince Charles' Birthday, Prophet Mohammed's Birthday, Christmas Day, Boxing Day.

POLICE/AMBULANCE/FIRE: Dial 000 in emergency. Police, 60222; Ambulance, 60399; Fire, 60211.

SERVICES: Tank-cleaning labour and labour for painting, chipping, etc. can be provided, but no equipment. No facilities for discharge of slop tanks etc. Compass adjustments can be arranged.

Telephone connection on wharf (3 lines). Police post on wharf.

AUTHORITY: Ports Authority of Fiji, G.P.O. Box 780, Suva, Fiji. *Tel:* 312700. *Telex:* 2203 PAF FJ. *Cables:* Pafiji Suva. *Contact:* Isimeli Bose, Director General.

LEVUKA: 17.41 S. 178.51 E. (See Plan)

DOCUMENTS:

Goods carried in Unregistered Space (C.E. 148) (1 only).
List of articles in possession of Crew, Officers and Master (1 only).
Crew List (8 only).
Passenger List (8 only).
Parcel List (2 only).
Primary Health Report (1 only).
Special Malaria Forms (1 only).
Vaccination Certificates (1 for each person).
Derat Certificates (1 only).

PILOTAGE: Pilots are arranged through Agents. Pilot boards in position – Lat. 17° 40.64'S., Long. 178° 52'E.

MAX. SIZE: Length 560 ft. Max. draft 25 ft.

HEALTH: Radio Pratique may be granted when any vessel has not visited any malarious port and Master declares that crew and passengers are healthy and vessel has not come from any area where internationally quarantinable diseases are endemic or in epidemic. Vessel may then enter port by day or night. On berthing, Master must immediately deliver to Quarantine Officer fully completed Primary Health Report and Derat or Derat Exemption Certificate. If there is any suspected case of disease or fever on board, vessel must be anchored at Quarantine Anchorage until cleared by Port Medical Authority. Pratique is automatic if a vessel has been granted Pratique at another port in Fiji.

TUGS: No tug service available.

BERTHING: Only 1 vessel berthing at a time.

Berthing in Levuka is generally effected starboard side to, outside Queens Wharf. Both dry cargo vessels and tankers use the one berth available for overseas shipping at Levuka.

Wharf	*Length*	*Depth Alongside*
Outer Face	255 m. (837 ft.)	7.9 m. (26 ft.)
Inner Face	208 m. (683 ft.)	6.7 m. (22 ft.)

STEVEDORES: Estimated time of arrival of any vessel and tonnage of cargo to be discharged should be received at least 24 hours from time of arrival.

MEDICAL: Normal hospital facilities are available. Specialist services not available but can be arranged for within 24 hours. Cholera and yellow fever valid Vaccination Certificates are required to be held by ship's crew and passengers, except those coming from New Zealand, Australia, Kiribati, Tuvalu, Tonga or Samoa.

TANKERS: Load and discharge lines 8 in. steel pipe. 1 berth only.

DENSITY: 1025.

FRESH WATER: Available only during normal working hours, which is from 0600 to 1600 from Monday to Thursday, and Friday up to 1500. Rate of delivery of water is about 15 t.p.h.

FUEL: Light marine diesel only – viscosity kin. at 100°F. = 3.4.

FIRE PRECAUTIONS: Bunkering only permitted during period between sunrise and sunset.

GANGWAY/DECK WATCHMEN: Services of watchman highly recommended to stop unauthorised persons from going on board.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CUSTOMS ALLOWANCES: All crew and Officers will be issued with 25 cigarettes per day. A maximum of 4 days' allowance may be given at any one time. Cigars or tobacco may be taken in lieu of cigarettes. Masters and other Officers may be allowed to keep in their possession small quantities of liquor.

Daily allowances: Spirits, 1 reputed quart to Master; 0.25 reputed quart to other Officers; Beer, 2 reputed quarts to Master; 2 reputed quarts to other Officers.

IDENTIFICATION CARDS: Not compulsory.

CONSULS: None.

REPAIRS: Minor engine repairs are possible, but deck and major engine repairs could be carried out at Port of Suva, which is about 57 miles away.

SURVEYORS: See "Suva".

REPATRIATION: Facilities exist for repatriation.

AIRPORT: Situated on island of Viti Levu and the distance is about 200 miles. It is served by regular airlines (international). Connections twice daily from local airport, 12 miles from port.

TIME: GMT plus 12 hours.

HOLIDAYS: Working of cargo is not permitted on Sundays, Good Friday and Christmas Day. Application to work on Sundays is to be made to the Ports Authority of Fiji at Levuka.

Public Holidays: See "Lautoka".

POLICE/AMBULANCE/FIRE: Police, 44222; Ambulance, 44015; Fire, 44014.

TELEPHONES: Arrangements may be made with Postmaster for installing telephone on board.

GENERAL: Rat guards must be affixed to all shore moorings or cables greased when alongside to prevent the advent of rats.

SHORE LEAVE: All crew members are allowed shore leave unless there is a special restriction from any Government authorities.

DELAYS: No berthing at night (lines cleared by Quarantine Authorities). Bunkering from sunrise to sunset. No loading or discharge during rain.

AUTHORITY: Port Authority of Fiji, G.P.O.Box 780, Suva, Fiji. *Tel:* 312700. *Telex:* 2203 PAF FJ. *Cables:* Pafiji Suva. *Contact:* Isimeli Bose, Director General.

SUVA: 18.08 S. 178.26 E. **(See Plan)**

PORT LIMITS: A vessel is considered to be an "arrived vessel" having passed the West Reef Beacon at the entrance to Suva Harbour.

DOCUMENTS:

1 Last Port of Clearance Certificate.
2 Declaration of Nett and Unregistered Tonnage form.
8 Passenger Lists.
8 Crew Lists.
6 Stores Lists (for high duty goods).
Passenger liners are required to submit Transit Passenger Lists and also a Letter of Guarantee from Master.
Vaccination Certificates for Passengers and Crew.
Derat Certificates.

PILOTAGE: Arranged through vessel's Agents. 24 hours notice of ETA with confirmation 12 hours before arrival. Suva Harbour Control should be contacted on VHF Channels 16 and 20 when within range. Pilot vessel is a white clipper bow launch with word "Pilot" in black on each side and will leave wharf 30 minutes before signalled ETA of vessel. Pilots board on leads 5 miles from front lead. Vessels may stand in on leads to meet pilot vessel. Vessels are advised to provide 2 manropes for pilot ladder which will usually be required on the port side. No anchorage for vessels awaiting a Pilot.

ANCHORAGES: Safe anchorage may be found in depths of 10 to 20 fathoms within the harbour. Holding is good, mud bottom.

RESTRICTIONS: Vessels may enter at any time of day or night.

MAX. SIZE: No length or draft limitation for conventional vessels entering port. Largest vessel regularly entering is 42,000 tons.

HEALTH: Health authorities require that vessels cable details of ports visited within 50 days of ETA. Radio Pratique will be granted to vessels which are healthy and have not visited a port in a malarial area within 50 days. Health authorities board and inspect any vessel which has visited a malarial port within 50 days and will spray any vessel which has visited a malarial port. Vessels arriving from malarial areas are not permitted to berth during hours of darkness. Authorities board from a launch as vessel enters harbour. Quarantine Officer will sight Maritime Declaration of Health and Derat Certificate on boarding. No further Pratique formalities are required in Fiji ports other than first port of entry.

RADIO: Suva Radio, call sign 3 DP. 500 kHz., 24 hours listening watch.

VHF: Port Control maintains a 24-hour port radio control watch at Suva on VHF Channels 16 and 20. The call sign is "Suva Harbour Control".

TUGS: One tug available – 1,125 h.p. Compulsory for vessels of 3,000 g.r.t. and upwards.

BERTHING: Vessels berth port or starboard side to King's Wharf or port or starboard side to Walu Bay Wharf as may be necessary. King's Wharf is 495.0 m. in length, having a least depth alongside of 11.6 m. at MLWS at the North end and 10.6 m. at the South end, whilst Walu Bay Wharf is 183.0 m. in length, having a least depth alongside of 9.0 m. MLWS. Ro/Ro cargoes handled.

Vegetable Oil: Vessels loading vegetable oils berth at Walu Bay or North King's Wharf.

LPG Carriers: Berth North King's Wharf or Walu Bay.

Equipment: 1 × 10 ton crane. Fork lift trucks 2.5 tonnes – 25 tonnes capacity.

STEVEDORES: Arranged by ship's Agents.

Working Hours:

Day Shift:	0800 – 1300 hrs.	: 5 hours
	1300 – 1400 hrs.	: unpaid meal break
	1400 – 1600 hrs.	: 2 hours
		7 hours
Afternoon Shift:	1600 – 2100 hrs.	: 5 hours
	2100 – 2200 hrs.	: unpaid meal break
	2200 – 2400 hrs.	: 2 hours
		7 hours
Night shift:	2400 – 0500 hrs.	: 5 hours
	0500 – 0600 hrs.	: unpaid meal break
	0600 – 0800 hrs.	: 2 hours
		7 hours

MEDICAL: Advance notice of medical assistance is desirable. Hospital facilities available. Current international vaccination certificates required.

TANKERS: Discharge lines 8 in. diameter. Tankers discharge at King's Wharf, North and South Berths. Depths alongside 42 ft. No residue discharge facilities.

DENSITY: Salt water, density 1025 approx. No tide effect on density.

FRESH WATER: Available at all berths. Delivery rate 30 t.p.h. per hose. Hose diameter 75 mm.

FUEL: Furnace fuel oil, diesel fuel oil, gas oil available by prior arrangement through oil company.

GANGWAY/DECK WATCHMEN: Employment of deck/gangway watchmen is recommended and normally provided by ship's Agents.

OPENING/CLOSING HATCHES: Normally opened and closed by stevedore labour but crew may be employed at Master's discretion.

CERTIFICATES:

Load Line.
Certificate of Registry.
Safety Equipment Certificate.
Radio Certificate.
Derat Certificate.
Maritime Declaration of Health.

CUSTOMS ALLOWANCES: 1 oz. tobacco per man per day. No alcohol.

IDENTIFICATION CARDS: Not compulsory.

CONSULS: *Diplomatic Heads of Missions Resident in Fiji:*

Australian High Commissioner	H.E. Mr. J. Herder
British High Commissioner	H.E. Mr. Roger A. R. Barltrop
French Ambassador	H.E. Mr. D. Dupont
Indian High Commissioner	H.E. Mr. C. P. Ravindranathan
Japanese Ambassador	H.E. Mr. K. Yoshida
New Zealand High Commissioner	H.E. R. Gates
Papua New Guinea High Commissioner	H.E. Mr. E. Lalatute
Ambassador for the People's Republic of China	H.E. Mr. J. Chaozho
Tuvalu High Commissioner	H.E. Mr. F. Tipu
United States Ambassador	H.E. Mr. C. E. Dillery
Malaysian Ambassador	H.E. Mr. Abdul Karim Bin Marzuki
South Korean Ambassador	H.E. Mr. Sung Kwoo Kim

Consular Representatives in Fiji:

Denmark	Mr. A. Dickson
Finland	Mr. S. L. Christian
Italy	Mr. R. M. Warner
Nauru	Mr. D. Gataraoa
Netherlands	Mr. R. J. Woodman
Norway	Hon. Senator Sir Robert L. Munro
Pakistan	Mr. Rahim Zullah
Philippines	Mr. Abdul Lateef
Sweden	Mr. Aminiasi Katonivualiku

REPAIRS: Engine and deck repairs may be carried out at local machine shops. 3 slipways for vessels up to 1,000 tonnes.

SURVEYORS: *Non-Exclusive Classification:*
Lloyd's Register of Shipping
Panama Bureau of Shipping Inc.
Det Norske Veritas
Nippon Kaiji Kyokai
Germanischer Lloyd
Korean Register of Shipping
China Corporation Register of Shipping
Bureau Veritas
American Bureau of Shipping

The resident Surveyor Mr. D. Sunderland of Billett, Wright & Associates Ltd. is based in Suva, however attendance in other Fiji ports is possible providing adequate notice is given. Surveyor may be arranged by contacting Ship's Agents.

Cargo Surveys:

Cargo & Marine Survey Ltd. of Lautoka (See "Lautoka") provide all manner of services including draft surveys and damaged cargo inspection.

Resident Surveyor Captain D.E. Worthington is also available to attend at Malau Labasa. Surveys may be arranged through Ship's Agents.

REPATRIATION: Facilities exist for crew changes and repatriation.

AIRPORT: 15 miles to Nausori (Suva) Airport, serving Pacific Islands on weekly basis. Numerous daily flights to Nandi International Airport.

TIME: Local time is 12 hours ahead of GMT.

HOLIDAYS: See "Lautoka".

Cargo is not worked on Public Holidays.

POLICE/AMBULANCE/FIRE: Police, 311222; Hospital, 313444; Ambulance, 312439; Fire, 22688; Emergency, 000 for any of the above services.

TELEPHONES: Telephone connections to ships are provided.

SERVICES: Compass adjusting may be carried out.

SHORE LEAVE: Allowed.

DELAYS: Delays are not usual except for rain during hurricane season from November to April.

AUTHORITY: Ports Authority of Fiji. G.P.O.Box 780, Suva, Fiji. *Tel:* 312700. *Telex:* 2203 PAF FJ. *Cables:* Pafiji Suva. *Contact:* Isimeli Bose, Director General.

OUT PORTS OF SUVA: Customs and Pilot are embarked at Suva or Lautoka.

Ellington: Lat. 17.20° S., Long. 178.14° E. Private wharf for loading sugar and molasses from Raki Raki Mill.

Naikorokoro: North Coast of Kandavu. Anchorage for loading sawn timber.

Savu Savu: Lat. 16.47° S., Long. 179.21° E. Government wharf for local coast trade and anchorage for cruise vessels.

Vatia Point: Lat. 17.25° S., Long. 177.46° E. Private wharf for discharging explosives and fuel to gold mines.

NOTES

Please also advise Shipping Guides Ltd.

Finland

EKENAS / TAMMISAARI (Including Skogby): 59.58 N. 23.26 E.

DOCUMENTS:

International or Finnish Measurements Certificate.
1 Personal Effects List.
1 Ship's Provisions List.
2 Crew Lists (passengers to be included).
1 Customs Declaration (official forms supplied by the Customs Authorities).
4 Manifests.
2 Bills of Lading.

PILOTAGE: Pilots for Ekenas / Tammisaari applied for at Hango Pilot Station by approaching pilot station outside Hango/Hanko, where pilot boat will meet vessel right outside pilot station.

Telegram address: Hango Pilot.

MAX. SIZE: Max. draft 15.1 ft. (4.6 m.). No other restrictions. At Skogby, draft up to 24 ft. – No tide.

RADIO: Hanko Radio, Call sign OFI.

TUGS: Normally no tugs stationed at Ekenas but can be arranged from Koverhar or Hanko (12 nautical miles and 20 nautical miles from Ekenas respectively).

BERTHING: Two quays at Ekenas: "Trakajen", length about 160 ft.; "Stenkajen", length about 500 ft.

3 mobile cranes, capacities 27, 36 and 56 tons are available. Two of the mobile cranes are equipped with grabs suitable for discharging of bulk cargoes such as coal, coke, china clay, ball clay, salt and grain.

Situated about 6 nautical miles from Ekenas is Skogby Sawmill Quay. Depth alongside and in channel 24 ft. Skogby Sawmill exports packed sawn goods and chipboard, mainly to U.K. Mobile cranes available. Largest vessel 17,900 d.w.t., LOA 165 m. Fresh water available. Working hours 0700 – 1600.

STEVEDORES: ETA to be given to Agent 1400 hrs. Finnish time on the day before arrival in order to prepare loading/discharging (Stevedore: J. A. Westerlund).

Working Hours: Normal working hours are Monday to Friday 0700 – 1600. Daily overtime can normally be arranged for up to 4 hours (1600 – 2000). All overtime is, however, voluntary.

MEDICAL: Hospital treatment can be arranged when needed.

DENSITY: 1001.

FRESH WATER: Fresh water is delivered to the ship's side by means of hose in summertime. Also at Skogby.

FUEL: Bunkering available at Ekenas by means of tank trucks.

CUSTOMS ALLOWANCES: 200 cigarettes permitted for each crew member. 1 open bottle of 1 litre wine or spirit is allowed for each crew member over 18 years of age.

REPAIRS: Minor electrical and deck repairs may be carried out.

AIRPORT: Nearest airport is Helsinki Airport, situated about 100 km. from Ekenas.

HOLIDAYS: On Saturdays and days preceding Church holidays, the eve of Independence Day, the day preceding May Day, on Whitsun Eve and on New Year's Eve the working day consists of four working hours, starting from 0700 hrs. or 0800 hrs. and lasting to 1100 hrs., or 1200 hrs. respectively without break for meals. May Day, Independence Day, (6th December), Easter Saturday, Midsummer Eve and Christmas Eve are considered as labour free days.

POLICE/AMBULANCE/FIRE: Police, Tel: 000; Ambulance, Tel: 000 or 14100; Fire, Tel: 000.

TELEPHONES: There are no arrangements for placing telephones on board the vessel but telephone calls can be made from the Harbour Constable's Office.

SUPPLIES: Ship stores and provisions can be ordered from Hango through Agent.

SHORE LEAVE: Shore leave allowed for crew members.

IDENTIFICATION CARDS: Not needed.

OPENING/CLOSING HATCHES: Normally carried out by crew.

AUTHORITY: Hamnkontoret i Ekenas, Postbox 52, SF-10601 Ekenas. *Tel:* 911 – 12364. *Telex:* 13 – 121 Sbrok Sf. *Contact:* Rolf Artzen, Harbour Master.

HAMINA: 60.34 N. 27.11 E. (See Plan)

PORT LIMITS: A vessel is considered to be an "arrived vessel" subject to Charter Party Terms, when arrived at roads.

DOCUMENTS: Normally required:

1 Crew List.
1 Passenger List.
3 Manifests.
1 Bill of Lading of each consignment.

Customs Documents:

1 Special List (personal effects).
1 Provision List (Ship's Articles).

Ship's Papers Required:

Safety Equipment Certificate.
Radio Safety Certificate.
Construction Certificate.
International Tonnage Certificate.
International Load Line Certificate.
Certificate of Registry.
Tonnage Dues and Ice Dues Certificates if vessel called previously.

PILOTAGE: Sea Pilot boards at Orrengrund. Fairway 33 miles from Orrengrund to Hamina, depth 9.0 m. New Fairway 38 miles long, depth 10.0 m. VHF radio telephone Channel 16; pilot boat: hull red, superstructure yellow. Vessels coming from Eastward can take Pilot at Haapasaari (Aspo), but must order Pilot by radio via Coast Radio Station at least 6 hours before ETA Haapasaari.

Harbour Pilotage: Harbour Pilot takes over at Roads. Harbour pilot boat: hull black, superstructure yellow, word "Pilot" painted with black letters. Harbour pilotage optional.

ANCHORAGES: 2 anchorages with good holding grounds at Roads.

RESTRICTIONS: Usually no restrictions. Max. draft 10.0 m. Port open throughout year.

MAX. SIZE: Draft is governing factor. No tide but prolonged Easterly winds can cause lower water level, which must be checked before entering berths.

HEALTH: Bill of Health not required. In case suspected disease or fever on board, doctor to be contacted, preferably via Agent, by radio before arrival.

RADIO: Vessels in Baltic Sea usually contact Helsinki Radio/OHC, A1 and OHG, A3. VHF Channels 16 and 26. Vessels in Eastern part of Gulf of Finland contact Kotka Radio/OHF, A1 and OFU, A3. VHF Channels 16, 25 and 27.

RADAR/VHF: There is no land radar service. Harbour is equipped with VHF radio telephone, Channels 16 and 12. Also see "Radio".

TUGS: Join vessels at Roads. Ship's lines usually used.

BERTHING:

Quay	*No.*	~~*Draft*~~ Depth (m.)	*Length* (m.)
Coal Quay		6.9	345
Lakulahti (L)	L1 – 2	8.6	216
	L3 – 8	7.9	591
L5 – Ro/Ro		7.9	
Hiirenkari	1 – 2	7.9	158
	3	8.4	110 also Ro/Ro
	4 – 5	8.6	200
HK6 – Ro/Ro		8.6	
Palokangas	PK1	10.0	176 also Ro/Ro
	PK2	10.0	224
Oil Pier	1	9.0	
	2	10.0	
LPG Terminal	—	9.0	170
Roads		8.6	
Outer Roads		10.0	

CRANES:

	No.	*Capacity/Tons*	*Type*
Coal Quay	3	5	
	2	6.5	
	6	36 – 55	mobile
Hiirenkari Quay	1	33	container

STEVEDORES: ETA is expected in good time before arrival.

MEDICAL: Advance notice helpful but not compulsory. Hospital facilities available at town.

TANKERS: Possibility to discharge oily water ballast.

Also see "Berthing".

DENSITY: 1003.

FRESH WATER: Available at majority of quays; elsewhere supplied by boat.

FUEL: Fuel and diesel oils available at short notice. Delivery by tank truck.

GANGWAY/DECK WATCHMEN: Shore watchmen available, Sundays and holidays 100% extra.

OPENING/CLOSING HATCHES: Crew close automatic hatch covers. Hatches to be covered manually are usually covered by stevedores.

CUSTOMS ALLOWANCES: Tobacco: Master 200 cigarettes or 200 grams tobacco. Others, 100 cigarettes or 100 grams tobacco. Wine and or Spirit: Master, 3 bottles wine or spirits. Others, 1 bottle.

CONSULS: Denmark, Netherlands, Norway, Sweden, United Kingdom.

REPAIRS: Minor repairs effected.

REPATRIATION: There are facilities for repatriation.

AIRPORT: Helsinki Airport, distance 145 km. Regular flights.

TIME: Local time is GMT plus 2 hours. GMT plus 3 hours in Summer.

HOLIDAYS: New Year's Day (Jan. 1); Epiphany (Jan. 6); Good Friday; Easter Monday; Labour Day (May 1); Ascension Day; Whit Monday; Midsummer Day; All Saints' Day; Independence Day (Dec. 6); Christmas (Dec. 25 and 26); Midsummer's Eve.

POLICE/AMBULANCE/FIRE: Police 1; Ambulance 1; Fire 000.

TELEPHONES: None available for placing on board.

REGULATIONS: Regular terminal vessels have preference at certain berths.

AUTHORITY: Port of Hamina Authority, PL 14, SF-49401 Hamina. *Tel:* 952-54940. *Contact:* Tapio Mansikka, Harbour Master. S. Vaulo, Port Director.

HANKO: 59.49 N. 22.58 E. (See Plan)

DOCUMENTS:

Ship's Register.
Crew List.
Manifests.
Bills of Lading.
Provisions List.
Health Certificate.

PILOTAGE: Compulsory, distance from sea to port is 6 miles. Pilot boat painted red, arriving outside Russaro called by radio via Hanko Radio or by flag, sound or Morse: "G".

ANCHORAGES: Inside Gustavsvarn.
RESTRICTIONS: Draft 26.5 ft., length/breadth no restriction; no tide.
RADIO: Cable Agents giving ETA via Hanko or Helsinki Radio.
RADAR: At pilot station; service for ships entering port, contact by ship's radio.
TUGS: In Winter harbour tug assists ships to and from the quay.
BERTHING: Quay height about 6 ft. above sea level. Shore fenders keep vessel about 2 ft. off quay. Special quays for Ro/Ro traffic.

Quay	*Permitted draft* ft. in.	*Length of quays* (m.)
Germany	19	150
Great Mole	22 04	704
Notholms	24	275
	26	150
Free Harbour	25	170
Kone Oy	20	125 (railway connection and shore cranes).
Deep Quay	43	300

CRANES:

	No.	*Capacity/tons*	*Type*	
Great Mole	1	6	Movable	
	2	3	"	
Notholms quay	1	2.5	"	
	2	5	"	1 with grabs
	1	40	"	

Free Harbour: One mobile crane, lifting capacity 40 tons. 21 fork lift trucks available.
STEVEDORES: Ordered by Agents.
FRESH WATER: Delivered from shore installations during daytime. Rate of delivery about 20 t.p.h.
FUEL: Delivered by rail cars only.
DENSITY: 1005.
WATCHMEN: Available but not compulsory.
HATCHES: Crew allowed to open and close hatches.
CUSTOMS ALLOWANCES: No restrictions in the Free Port, outside about 200 cigarettes and limited amount spirits per man.
IDENTIFICATION CARDS: Not required.
CONSULS: Denmark, Iceland, Netherlands, Norway, Spain, Sweden.
REPAIRS: Small repairs possible.
SURVEYORS: Surveyors and cargo inspectors available.
TIME: Local time GMT plus 2 hours. GMT plus 3 hours in Summer.
POLICE/AMBULANCE/FIRE: Police 003; Fire 005; Ambulance 82228.
STORING: Storing possible by barge or truck. Fork lift trucks and riggers available.
AUTHORITY: Port of Hanko, Bulevardi 15, 10900 Hanko. *Tel:* (911) 83131. *Contact:* Tom Luoma, Port Director, *Tel:* (911) 81217.
Harbour Master, *Tel:* (911) 81201.

HELSINKI: 60.10 N. 24.57 E. (See Plan)

DOCUMENTS: See "Oulu".
PILOTAGE: Compulsory. ETA required 24 hours prior arrival. At present there are 5 different channels available for vessels approaching Helsinki.

1. *Helsinki Lighthouse-Harmaja-Helsinki:*
The main approach to Helsinki, this channel starts from East of the Helsinki Lighthouse, a caisson beacon on the shoals South of Helsinki, at a distance of around 22 km. from the port. It proceeds via the Harmaja pilot station and the Kustaanmiekka Strait between the islands of Suomenlinna and Vallisaari, to the open area of water beyond, known as Kruunuvuorenselka. To this point the channel is navigable by vessels drawing up to 9.6 m. The fairway branching off North of the Harmaja pilot station and leading to the West Harbour has a depth of 8.9 m. Pilots are taken on board from the station at Harmaja.

2. *Helsinki Lighthouse-Melkki-Helsinki:*
This 11 m. channel leads from the Helsinki Lighthouse between the islands of Pihlajasaari and Melkki to the West Harbour. Pilots are taken on board from the Harmaja pilot station.

3. *Porkkala-Helsinki:* (Southern Finland Winter Fairway).
The Winter fairway into Helsinki begins from roughly 8 km. West of the Porkkala Lighthouse. The channel is 10 m. deep from Sommaro, decreasing to 9 m. from Ronngrund. The fairway joins the 11 m. channel (see above) leading to the West Harbour S.W. of Katajaluoto, and joins the 9.6 m. lead to Helsinki North of Harmaja.
During the Winter season, when the passage from the Helsinki Lighthouse to Harmaja is closed owing to ice conditions, all vessel traffic into Helsinki is directed via the routes above. Pilots are taken onboard from the Porkkala pilot station.

4. *Porkkala-Helsinki:*
In addition to the above channel, there is a 7.9 m. fairway leading from Porkkala to Helsinki, which begins from roughly 1 km. West of the Porkkala Lighthouse and joins S.E. of Pihlajasaari with the 8.9 m. channel leading to the West Harbour. Pilots are taken onboard from the Porkkala pilot station.

5. *Emasalo-Helsinki:*
From the East there is a 9 m. channel leading to Helsinki through the outer islands, which joins with the main approaches to Helsinki North of Harmaja. Pilots are taken onboard from the Emasalo pilot station.

Pilots are obtainable from:

Emasalo Pilot Station	VHF Channels 16 or 13.	Tel. (915) 27710.
Harmaja Pilot Station	VHF Channels 16 or 13.	Tel. (90) 668122.
Porkkala Pilot Station	VHF Channels 16 or 13.	Tel. (90) 298 4112.
Port Authority	VHF Channels 16 or 13.	Tel. (90) 169 3777.

APPROACHES: *Directions for arrival in the port:* Vessels using the main approach to the port from Helsinki Lighthouse should keep the Harmaja Lighthouse Beacon in line with the church tower on the island of Suomenlinna. The light from Harmaja is visible at a distance of 37 km. (20 nautical miles), and the approach channel has a bearing of 007°. The islet of Harmaja is left on the Western side of the fairway. In the event that the Master of the vessel is not thoroughly acquainted with the fairway and its markings, he is strongly advised not to proceed without the assistance of a Pilot any closer than 3.7 km. (2 nautical miles) to Harmaja, where the channel veers to a bearing of 010°.
ANCHORAGES: Good anchorage available outside harbour, depth 26 ft. – 32 ft. clay bottom.
MAX. SIZE: Draft 31 ft., length no limit.
HEALTH: See "Oulu".
DIRECTION FINDING: Harmaja Radio Beacon (frequency 298.8 kHz. Signal "HA") transmits:
Non-directional radio signals, with a modulation frequency of 395 kHz. By listening to these signals with a direction finding receiver, equipped with frame aerial, a ship can determine her bearing to the beacon.
Harmaja lighthouse and Helsinki lighthouse fitted with "Racon" for 3 cm. radar (X-area).
DEPTH OF CHANNELS:
From Helsinki to East 9 m.
From Helsinki Lighthouse to Helsinki 9.6 m. and 11.0 m.
From sea South via Porkkala 9.0 m.
Variations in water level: There are no tidal variations as such in the port, but rather the differences noted are the result of weather or climatic conditions.

Max. +1.30 m.
MHW +0.85 m.
MLW −0.65 m.
Min. −0.90 m.

VHF: Harmaja Pilots, Porkkala Pilots and Port Authority call VHF Channel 16 or 13.
TUGS: Several available: charges based upon time when tug leaves station berth until moment of return to same station.
BERTHING: Port and equipment owned by Municipality of Helsinki. 5 principal parts of port are South Harbour and West Harbour, Sornainen Harbour, and Herttoniemi and Laajasalo Oil Harbours.
Foreign passenger traffic is concentrated on the South Harbour.
West Harbour handles main part of transoceanic traffic; heavy goods and container terminal in West Harbour fitted with 2 container cranes and 1 multi-purpose crane (lifting capacity of each 40 tons), also silos of 2 flour-milling plants (Vaasanmylly Oy and State Granary), into which grain discharged by suction. On silo quay pneumatic grain unloader owned by State Granary travels along 71 m. long bridge alongside ship to be unloaded. Equipment is 30 m. above quay level and range of suction pipe 11 m. from edge of quay. Unloading equipment can handle 100 t.p.h. Mass export articles such as cellulose, paper and wood goods, loaded chiefly in this harbour. In West Harbour is free-zone warehouse, which offers same privileges as free port.
The Sornainen Harbour operates mainly as a North Sea general cargo harbour. The area contains a coal harbour.
Herttoniemi and Laajasalo form the oil harbour, where the leading oil companies have oil storage tanks and their own piers.
Also see Tables.
BULK HANDLING FACILITIES: Specially equipped berths for handling bulk cargoes in Sornainen Harbour. Berths equipped for containers or roll-on/roll-off traffic in West Harbour (40-ton container cranes and multi-purpose crane) and Sornainen Harbour (40 ton multi-purpose crane).
Also see Tables.
STEVEDORES: 24 hours ETA required. Companies available of which 1 specialises in discharging timber and coal.
Working hours: Weekdays, 0700 – 1600 hrs. and 1600 – 2230 hrs. Saturdays, 0700 – 1500 hrs. Lunch break weekdays and Saturdays 1100 – 1130 hrs.
MEDICAL: Agents to be informed by radio if fever suspected.
TANKERS: Max. draft 9.6 m.
Herttoniemi and Laajasalo form together the oil harbour of Helsinki, where the leading oil companies have oil tanks and their own piers.

Harbour	*Quay length* (m.)	*Depth alongside* (m.)	*Depth of channel* (m.)
Herttoniemi Oil Harbour:			8.0
Oil pier	2×96	8.25	
Oljynpuristamo Co's pier	100		
Paasivaara-Yhtyma Co's pier	24		
Laajasalo Oil Harbour:			9.6
Shell Co's pier	32	10.0	
Esso Co's pier	30	10.6	
Neste Co's pier	58	10.2	

DENSITY: 1004 – 1005.
FRESH WATER: Unlimited amount available by hoses from hydrants at quays.
FUEL: All grades available; any amount at short notice.
GANGWAY/DECK WATCHMEN: Recommended but not necessary.
OPENING/CLOSING HATCHES: Crew/Stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes, 1 litre wine and 1 litre spirits each man.
IDENTIFICATION CARDS: Required.
CONSULS: All maritime countries are represented in Helsinki.
REPAIRS: All types available.
DRY DOCKS: *Wartsila Marine, Helsinki Shipyard:*

Dock	*Extreme length* (m.)	*Breadth at entrance* (m.)	*Depth on sill* (m.)	*Location*
Dry dock 1	142	20	6.6	Hietalahti
Dry dock 2	208	34	9.6	Hietalahti

REPATRIATION: Available.
AIRPORT: Distance to airport 25 km. Flights every day all over Europe.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: New Year's Day (1st January); Epiphany; Good Friday; Easter Monday; 1st May; Ascension; Whitsun; Midsummer's Eve and Day; All Saints' Day; Independence Day (6th December); Christmas Eve; Christmas Day (25th December); Boxing Day (26th December).

South Harbour:

					Lifting cranes and ramps		
South Harbour	*Ramp*	*Length (m.)*	*Depth in Fairway (m.)*	*Depths[1] alongside (m.)*	*Number and type of crane*	*Lifting capacity tons*	*Radius (m.)*
Olympia Quay	LP 1	150	7.9	7.5			
"	LP 2	190	7.9	8.3			
Makasiini Quay	LP 3	140	7.9	7.0			
"	LP 4	130	6.9	7.0			
Pakkahuone Quay		135		5.5			
Lubeck Quay		95	3.5	2.5 – 3.5			
Keisarinluoto Quay		80		3.0			
Linna Quay		96		3.0 – 4.5			
Katajanokka Quay		70		3.5			
"	LP 5–6	520	7.9	8.5 – 9.0			
"	LP 7	220	7.9	8.9			
Cruise Pier		280	9.6	10.0			

		Ramp details			
Quay	*Ramp*	*Height above mean water (m.)*	*Width (m.)*	*Centre line from quay side (m.)*	*Max. axle load Max. bogie load tons*
Olympia Quay					
Bridge ramp	LP 1	1.8 – 3.35	12.0	9.5	30 (60)
Bridge ramp	LP 2	1.4 – 3.5	22.0	14.0	
Makasiini Quay					
Shore ramps	LP 3 and LP 4	1.65 – 2.2	16.5	8.2	
Katajanokka Quay					
Shore ramp	LP 5	2.3 – 2.7	15.0	10.8	
Shore ramp	LP 6	1.85 – 2.65	23.5	14.0	
Bridge ramp	LP 7	1.5 – 3.2	13.0	11.0	

[1] Minimum depth from mean water mark to bottom.

West Harbour:

					Lifting cranes and ramps		
West Harbour	*Ramp*	*Length (m.)*	*Depth (m.)*	*Depths[1] alongside (m.)*	*Number and type of crane*	*Lifting capacity tons*	*Radius (m.)[3]*
Salmisaari Quay		124	7.3	8.0			
Tammasaari Quay		135	6.9	7.8			
Energy Board Oil Quay		137	8.9	10.0			
Jaalaranta Quay		20		3.9			
Saukko Quay		527	8.9	5.2 – 8.5	1 Container crane for 20 ft. 40 ft. containers	40	24
	LP5	—	8.9	9.0	1 Container crane for 20 ft. and 40 ft. containers	45	30
Jatkasaari Quay		1,335	8.9	3.4 – 9.8	Cranes for general cargo:		
,,	,,		8.9		23 portal cranes	1.5 – 6.0	15 – 12.5
,,	LP 1		8.9	8.7	1 stationary crane	10 – 25	19.5 – 9.5
,,	LP 2	250	8.9	9.7			
Sampo Quay		187	8.9	5.5			
Valtameri Quay	LP 3	210	11.0	11.0			
Melkki Quay	LP 4	220	11.0	12.1	1 Multi-purpose crane		
					Container/hook	30.5/40	23.3
					Hook	10	25.8
Silli Quay		177		3.4 – 5.0			
Hietalahti Quay		165		6.5 – 6.7			
Munkkisaari Quay		360	8.9	7.3 – 8.2			
Hernesaari Quay		260	8.9	7.3	Pneumatic grain unloader[2]		
Rudus Quay		48					

		Ramp details			
Quay	*Ramp*	*Height above mean water (m.)*	*Width (m.)*	*Centre line from quay side (m.)*	*Max. axle load Max. bogie load tons*
Jatkasaari Quay					
Shore ramp	LP 1	2.60 – 3.00	20.5	10.30	50
Bridge ramp	LP 2	1.15 – 4.25	17.0	11.00	50
Valtameri Quay					
Bridge ramp	LP 3	1.85 – 4.15	17.0	11.00	52
Melkki Quay					
Shore ramp	LP 4	1.30 – 2.60	31.0	17.50	
Soukko Quay					
Shore ramp	LP 5	1.30 – 2.60	28.5	14.25	
Hernesaari Quay					
Floating Bridge ramp		2.40 – 3.0[4]	11.5	10.00	10 (16)

[1] Minimum depth from mean water mark to bottom. [2] Owned by the state granary. [3] Outreach from quay/fender seaward. [4] Height from water level.

Sornainen Harbour: (Helsinki)

					Lifting cranes and ramps		
Sornainen Harbour	*Ramp*	*Length* (m.)	*Depth* (m.)	*Depths*[1] *alongside* (m.)	*Number and type of crane*	*Lifting capacity* tons	*Radius* (m.)[2]
Hanasaari Quay		648	9.0	7.0 – 9.6	2 Portal cranes	6.2	16.6
					1 Stationary crane	150.0	10.0
						50.0	18.0
						30.0	20.0
Oy Partek Quay		100	5.5	6.0			
Sompasaari Quay	LP1–LP3	590	9.0	8.7 – 9.0	6 portal cranes	3.0 – 5.0	22.8 – 14.8
	LP4			7.0	1 multi-purpose crane		
	LP5			7.5	–container/hook	30.5/40.0	24.3
					–bucket	11 cu.m.	24.3
					–hook	10.0	26.8
Timber Quay		399	6.1	5.5	2 Portal cranes	3–5	22.3 – 14.3

			Ramp details		
Quay	*Ramp*	*Height above mean water* (m.)	*Centre line Width* (m.)	*Max. axle load from quay side* (m.)	*Max. bogie load* tons
Parru Quay					
Bridge ramp	LP 1	0.7 – 3.8	17.0	11.0	50
Sompasaari Quay					
Bridge ramp	LP 2	1.2 – 3.9	19.0	12.5	35 (70)
Shore ramp	LP 3	1.5 – 2.6	14.0	10.0	
Floating ramp	LP 4	1.9 – 2.5	18.5	9.25	22 (44)
Bridge ramp	LP 5	1.4 – 4.3	15.0	13.0	50

[1] Minimum depth from mean water mark to bottom. [2] Outreach from quay fender seaward.

POLICE/AMBULANCE/FIRE: Police 002; Ambulance 006; Fire 005. General alarm 000.

TELEPHONES: Available.

SERVICES: Compasses are adjusted by competent adjusters approved by the Board of Navigation. For compass adjustment the port has constructed piles or buoys with direction markings. These appliances can be used also for radio direction-finders.

Vessels using the compass-adjustment facilities must have on board a Harbour Pilot, who is entitled to the same compensation as for harbour pilotage.

CLASSIFICATION SURVEYORS: Lloyd's Register of Shipping, Bureau Veritas, Germanischer Lloyd, Det Norske Veritas.

ICEBREAKERS: During ice seasons one of the following Government icebreakers assigned to assist ships from open water to harbour area and vice versa:

	Length (m.)	*Breadth (m.)*
Varma	86.5	21.2
Apu	86.5	21.2
Tarmo	84.0	21.1
Voima	83.5	19.4
Otso	99.0	27.2
Kontio	99.0	27.2
Hanse	74.6	17.4
Sisu	104.7	23.8
Urho	104.7	23.8

Masters should communicate with icebreakers between January and March.

GENERAL: *Waste Management:* In accordance with the terms of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, the discharge or jettisoning of solid or liquid waste into the sea is, with certain exceptions, prohibited throughout the Baltic Sea Area.

On their arrival at the quay, vessels are provided with numbered special waste sacks (yellow), intended for the reception of all special waste carried by vessels arriving from a foreign port. This category of special waste includes raw meat from mammals or birds or poultry, raw offal, meat packaging materials and wrappings, and bones. Vessels are specifically required to take the filled, sealed sacks only to the yellow special waste storage bins on the quay, which bears the same text and markings as on the sacks.

Normal waste and refuse should be deposited in the transparent refuse sacks which are also delivered to vessels on arrival in the port, and the filled sacks are to be taken to the grey storage bins provided for the purpose on the quayside.

Port Authority duty personnel and shipping agents can provide more detailed directions on the reception of waste in the port.

Oil pollution control: In the event of an oil spill or accident involving the risk of oil pollution, contact should be made immediately with the Helsinki Fire Department, emergency Tel. 000.

AUTHORITY: Port of Helsinki Authority, Ehrenstromintie 11, 00140 Helsinki. Mailing Address: P.O.Box 26, 00131 Helsinki. *Tel:* 358-0-173331. *Telex:* 124913. *FAX:* 358-0-169-3773. *Contact:* Mr. Eljas Muurinen, Managing Director (*Tel:* 169 3801.) Mr. Juha Lainio, Harbour Master (*Tel:* 169 3775).

INKOO: 60.01 N. 23.55 E.

PILOTAGE: Pilot station is Porkkala pilot station. Pilotage service 24 hours a day, VHF watch on Channels 16 and 13, 24 hours a day. Notice must be given 2 hours before arrival at boarding place (Lat. 59° 54′ N., Long. 24° 12′ E.). Distance from boarding place to harbour area about 14 miles. Pilot may also be ordered by telephoning Helsinki 2984112.

APPROACHES: Max. draft 13 m., turning place for large vessels (over 200 m. LOA) is 1 mile East of harbour area.

MAX. SIZE: See "Berthing".

ANCHORAGES: 2 – 4 miles S.W. of Sommaro Island.

VHF: Call sign "Inkoo Harbour", watch maintained 16 hours a day on Channel 16.

TUGS: Tugs are available at any time, notice required is same as Pilot. If the vessel is over 200 m. LOA tug joins at Fagero Island about 5 miles before harbour area, otherwise tugs join at the turning place 1 mile before harbour area. Tugs use ship's lines.

BERTHING:

Oy Lohja Harbour: Max. draft 7.8 m.

Coal Quay: Length 175 m., 2 cranes, 10 tons and 6 tons by hook and half the capacity by grab.

Paper Quay: Length 140 m., mobile cranes available.

Imatran Voima Oy Inkoo Power Plant: Max. draft 13 m. and 10 m.

Total length of quay 455 m., max. draft 13 m. at the East part of the quay (240 m.), and the West part, max. draft 10 m. (length 215 m.). 3 cranes, 10 tons each by hook and half the capacity by grab, working area 410 m.

Inga Hamn – Inkoon Satama Oy: Same as the East part of Inkoo Power Plant.

FRESH WATER: Available.

DENSITY: 1004.

DEVELOPMENTS: Dredging underway.

AUTHORITY: *Oy Lohja Harbour:* Oy LK-Shipping AB, 10210 Inkoo, Finland. *Tel:* (International) 3580218121. *Telex:* 1418 Lkin Sf. *Cables:* Elcoy. *Contact:* Rolf Danielsson.

Imatram Voima Oy, Inkoo Power Plant Harbour: Imatram Voima Oy, Inkoo Power Plant, 10210 Inkoo, Finland. *Tel:* (National) (09)-2180410; (International) 35802180410. *Telex:* 1422 Ivoin Sf. *Cables:* Imatranvoima Inkoo. *Contact:* Kenneth Kullstrom.

JAKOBSTAD (Pietarsaari): 63.42 N. 22.42 E.

(See Plan)

DOCUMENTS:

International Measurement Certificate.
3 Manifests.
2 Bills of Lading of each consignment.

Customs Documents:

1 Crew List.
1 Special List (personal effects).
1 Provision List (ship's articles).

Important: If the vessel is calling at two or more Finnish ports, 2 of each of these lists are to be produced at the first port of call.

PILOTAGE: VHF Channel 16, MF 2182 kHz. Anchorage for vessel awaiting a Pilot: outside the lighthouse "Kallan". Pilot boat equipped with radar.

ANCHORAGES: On inner roads called "Ado Roads", depth 8 m.

MAX. SIZE: Max. draft in the inner harbour 9.0 m. No tide.

HEALTH: See "Oulu".
RADIO: Vasa Radio Station. Gamlakarleby/Kokkola VHF Channels 16/28.
TUGS: Tugs (1,300 h.p.) are normally stationed in the harbour. Ship's lines to be used.
BERTHING: Southern Quay: Length 200 m., depth 7.4 m.
Old Quay: Length 180 m., depth 4.9 m. (inside), 6.0 m. (outside).
Busko Quay (Ro/Ro Berth): Length 160 m., depth 7.4 m.
Laucko Quay: Length 150 m., depth 9 m.
Elevator Quay: Depth 6 m.
CRANES: 6 mobile cranes available.
STEVEDORES: 1st shift Monday to Saturday 0700 – 1600 hrs. (meal hours 1100 – 1200 hrs.); 2nd shift Monday to Friday 1600 – 2400 hrs. To commence loading at 0700 hrs. notice must be given latest at 1600 hrs. the day before, or before 1200 hrs. if commencing at 1600 hrs.
MEDICAL: Advance notice not required. All facilities available.
TANKERS: Vessel's draft must not exceed 9.0 m.
DENSITY: Fresh water.
FRESH WATER: From pipe-line alongside quay.
FUEL: Light Fuel Oil and Heavy Fuel Oil available.
GANGWAY/DECK WATCHMEN: Watchmen recommended.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CERTIFICATES: Derat Certificate to be kept on board.
CUSTOMS ALLOWANCES: Tobacco: 100 cigarettes per 3 days for each crew member. Wine and/or Spirits: 1 bottle per 6 days for each man over 20 years of age.
IDENTIFICATION CARDS: Not needed.
CONSULS: Danish, Tel: 10144; Swedish, Tel: 10444.
REPAIRS: All types of repairs possible.
REPATRIATION: Crew changes can be effected.
AIRPORT: Kronoby Airport about 30 km. from Jakobstad. 4 flights daily.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: 1st and 6th January; Good Friday; Easter Eve; Easter Monday; Labour Day (1st May); Ascension Day; Midsummer Eve; Whit Monday; 6th December (Independence Day); 25/26th December; All Saints' Day.
POLICE/AMBULANCE/FIRE: Police 002; Ambulance and Fire 000.
TELEPHONES: Connection for telephone on board available.
AUTHORITY: Jakobstad Port Authority, Hamnkontoret, 68600 Jakobstad, Finland. *Tel:* 967-12128. *Contact:* Ingmar Fagerudd, Harbour Master.

no

KASKINEN (KASKO): 62.23 N. 21.13 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Customs Lists.
2 Passenger Lists.
Manifest, Bill of Lading, etc.

Between 1st December – 30th April (Winter) ice breaker available. The Finnish Ice Class Certificate, (required since 1984) can be obtained in Kaskinen.
PILOTAGE: Kaskinen Pilot boards 4–5 miles outside pilot station. Pilot boat or station can be called by VHF Channel 16 or 13.
ANCHORAGES: Safe areas of anchorages, 3 miles W.S.W. of Salgrund, depths 10 m. – 20 m.
MAX. SIZE: Max. draft 8 m.
HEALTH: In case of sickness onboard, contact the Agent.
RADIO: Vasa Radio.
RADAR/VHF: Radar service/VHF Channel 13 (Kaskinen Pilot).
TUGS: None.
BERTHING:
Pier 250 m. length, 8.0 m. – 10.0 m. depth
Pier 35 m. length, 7.0 m. depth
Pier 160 m. length, 6.0 m. – 7.0 m. depth
DENSITY: 1004.
STEVEDORES: Available; rates about 250 – 300 tons pulp per work gang.
MEDICAL: Hospital available.
FRESH WATER: Available at berths. Charge 12 Fmk. per ton.
FUEL: Available by tank truck.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes. Wine/Spirit: 1 bottle spirit.
CONSULS: None.
REPAIRS: Only small repairs.
AIRPORT: Distance to Vasa Airport 100 km. Served by regular airlines.
TIME: GMT plus 2 hours.
HOLIDAYS: See "Oulu".
POLICE/AMBULANCE/FIRE: Police 002; Ambulance 006; Fire 005.
TELEPHONE: Can be connected. Cost for connection is 60 Fmk.
SHORE LEAVE: Allowed.
GENERAL: Port is the most Northern in Finland which under reasonable conditions can be kept open throughout Winter.
AUTHORITY: Kasko Hamnkontor (Harbour Office), 64260 Kaskinen, Finland. *Tel:* 962 – 27201. *Contact:* Matti Vihanto, Harbour Master.

KEMI (Ajos): 65.40 N. 24.31 E. (See Plan)

LOCATION: Ajos harbour is a municipal port owned and managed by the city of Kemi. It is located at Ajos, about 10 km. (6 nautical miles) South of Kemi, Lat. 65° 40′ N., Long. 24° 31′ E. The area is shown on Finnish Charts Number 275 and Number 59.
APPROACHES: The distance from Kemi lighthouse to the harbour is about 21 nautical miles (39 km.). The minimum width of the channel is 100 m. (328 ft.), and approved depth up to the oil harbour is 10 m. (32.8 ft.).

The water level varies between +1.5 m. and −0.75 m. (+5 ft. and −2.5 ft.) depending on winds (water level rises during Southerly and falls rapidly during Northerly winds). There are no tides in the area.

During normal winters the harbour is frozen from the beginning of December to the end of May. Over this period the channel from the open sea to the harbour area is kept navigable by state-owned ice-breakers. The Finnish Board of Navigation determines the restrictions and requirements for vessels allowed to enter the harbour during this period. The port has been kept open throughout the year since 1971.
DOCUMENTS: Documents to be handed over after berthing:
2 Crew Lists.
1 Provision List.
1 Special List (Customs).
Tonnage Certificate.
Cargo Documents.
PILOTAGE: Pilot boards from "Kemi I" Lighthouse or Nukkujanmatala Lighthouse. VHF and radio telephone watch maintained.
RESTRICTIONS: Ships can enter and leave Ajos harbour 24 hours a day.
MAX. SIZE: Sea to Fairway at Ajos. Max. draft 10 m. Sea to Fairway at Veitsiluoto. Max. draft 7.1 m. Also see "Berthing".
RADIO: *Entering the Harbour:* Time passing Kiel/Holtenau/Copenhagen is to be given via Harnosand Radio, Mariehamn Radio or Stockholm Radio.

ETA to be given 12 hours before the calculated time of arrival.

Notice is to be given to the pilot station, which is situated at the S.W.-end of Ajos Island via VHF Channels 16/13 two hours before ETA at the pilot embarking point, which is between Kemi lighthouse and lighthouse Nukkujanmatala depending on the weather.

The notice is to include the name, call sign and the nationality of the vessel, n.r.t., the draft and length of the vessel, time of arrival (at the Pilot's boarding site) and tugs needed for berthing.
TUGS: Icebreaker tugs of 3,500 h.p. and 1,300 h.p. Ship's lines used.
BERTHING:

Quays:	*Length* (m.)	*Depth* (m.)	*Permitted draft* (m.)
Oil Quay	90	11.4	10
No. 1	420	7.3–8.3	6.7–7.6
No. 2	315	9.3	8.5
No. 3	185	5.8	5.0
No. 4	168	5.8	5.0
2 Ro/Ro Berths	—	6.8 and 9.3	—

CRANES: Mobile cranes. 2×6 tons capacity; 2×55 tons capacity; 18×5 tons – 25 tons capacity.
FRESH WATER: Available at Quay Nos. 1 and 2.
FUEL: Available.
DENSITY: 1001.
AIRPORT: At Lautiosaari, Tel: 53519.
TIME: GMT plus 2 hours.
TELEPHONES: Lines on the quays at Berth Nos. 1 and 2 and the Ro/Ro Berth.
POLICE/AMBULANCE/FIRE: Police Tel: 16981. First Aid Tel: 23931.
AUTHORITY: Port of Kemi Authority, 94900 Kemi, Finland. *Tel:* 9698-82018. *Contact:* Harbour Master.

KOKKOLA (Yxpila): 63.50 N. 23.08 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Customs Lists.
2 Passenger Lists.
Manifest, Bill of Lading.
PILOTAGE: Pilot boards 2 miles North of Tankar Pilot Station. Pilot on VHF Channel 16. Distance to port 12 miles.

The vessel's ETA must be given at least 6 hours in advance of arrival to pilot station.
ANCHORAGES: 1 mile North of the breakwater.
RESTRICTIONS: *Winter Navigation:* The port is open throughout the year. Ice class restrictions apply in Winter.
MAX. SIZE: No restrictions except draft 11.0 m.
VHF: Vassa Radio VHF Channel 28. Kokkola Harbour Office Channel 16.
TUGS: 2 tugs available, 2,460 h.p. and 1,500 h.p. Normally ship's lines used.
BERTHING:

	Length	*Max. draft*
Deep Quay	181 m.	11.0 m.
Shore Quay (South side)	323 m.	9.5 m.
Shore Quay (North side)	100 m.	7.1 m.
Stone Pier	137 m.	7.1 m.
Outokumpu Quay	390 m.	9.5 m.
Kemira Quay	160 m.	9.5 m.
Packhouse Quay	126 m.	4.0 m.
Oil Quay	83 m.	9.5 m.
Ro-Ro Quay	85 m.	6.0 m.

CRANES: 2×8 ton cranes at Shore Quay. 1×40 ton crane and 1×10 ton crane at Outokumpu. 1×8 ton crane at Kemira Quay. 4 mobile cranes 10 – 41 tons.

BULK CARGO FACILITIES: Discharging belt for zinc concentrate at Outokumpu Quay. Loading and discharging facilities for fertilisers at Shore and Kemira Quays.
SPECIAL CARGO-HANDLING FACILITIES: Discharging lines for phosphorus, nitric acid and ammoniak at Kemira Quay.
Discharging lines for oil at Outokumpu and Oil Quay.
STEVEDORES: Normally working Monday-Friday 0700 – 2400 hrs. On Saturday 0700 – 1200 hrs.
TANKERS: Discharging lines for oil at Outokumpu and Oil Quay.
MEDICAL: 6 km. to hospital in Kokkola.
DENSITY: 1002.
FRESH WATER: Available at berths.
FUEL: Available.
CONSULS (Vice-Consuls): Sweden Tel: 968/11141; Norway Tel: 968/13791; Denmark Tel: 968/12564.
REPAIRS: Small deck and engine repairs can be carried out.
SURVEYORS: Cargo inspectors and draft surveyor available.
GANGWAY/DECK WATCHMEN: Usually ship's crew. Ship's gangway used.
OPENING/CLOSING HATCHES: Usually ship's crew.
CUSTOMS ALLOWANCES: Tobacco: Each man 200 cigarettes per week. Spirits: Each man a bottle per week.
CREW IDENTIFICATION CARDS: Not required.
AIRPORT: Kokkola Airport 19 km.
REPATRIATION: Crew changes and repatriation can be carried out.
TIME: GMT plus 2 hours. GMT plus 3 hours late March to late September.
HOLIDAYS: Official holidays of Finland.
POLICE/AMBULANCE/FIRE: Police Tel: 002, Ambulance Tel: 000, Fire Tel. 000.
SHORE LEAVE: No restrictions.
AUTHORITY: Kokkola Harbour Office, Satamakatu 53, 67900 Kokkola, Finland. *Tel:* 968/26295. *Telex:* 76148 Koksa Sf. *Contact:* Eero Maki, Harbour Director. Hans Biskop, Harbour Master.

KOTKA: 60.28 N. 26.57 E. (See Plan)

DOCUMENTS:
Crew List.
Passenger List.
1 copy of Cargo Manifest.
1 copy of every Bill of Lading.
Ship's Register.
Ice Certificate.
Customs Manifest for Stores, for ship and individual.

PILOTAGE: On arrival off Orrengrund, contact Orrengrund Pilot by VHF. On arrival off Kotka, contact Harbour Pilot Kotka, VHF Channel 11. Depth in approaches 32 ft. 10 in.
ANCHORAGES: Havouri Roads, Kukouri Roads and at the entry to the harbour. Max. draft 32 ft. 10 in.
MAX. SIZE: Max. draft 32 ft. 10 in.
HEALTH: In case of sickness on board, contact the Agents before entering the port.
RADIO: Kotka Radio call sign OHF.
VHF: See "Pilotage".
TUGS: Tugs normally join the vessel in the harbour entrance. Ship's lines are to be used. 3 tugs available, 4,000 h.p., 1,650 h.p., and 630 h.p.
BERTHING:

Quay	*Permitted Draft* (ft.)	*Length* (m.)
Hietanen Terminal Harbour	26-33	740
Main Harbour	16-33	1,600
Bulk Quay (Poland Quay)	27.5 (air draft 37 m.)	360
Sunila Quay	22-26	400
Inner Roads	12-24	
Outer Roads	25-29	
Halla Quay	14-23	250
Oil Harbour	29-33	
Power Plant (Mussalo) Coal Quay	26	200
Oil Quay	33	

CRANES: 30 shore cranes with capacity of 3-60 tons.
SPECIALISED CARGO-HANDLING FACILITIES: Hietanen Terminal, consisting of 4 Ro/Ro berths and 3 conventional berths and is equipped with 2 container cranes.
MEDICAL: Master to advise by Radio Kotka on arrival if medical attendance required aboard.
TANKERS: 2 tanker berths, draft 32 ft. 10 in. Also see "Notice".
DENSITY: 1003.
FRESH WATER: All berths are equipped with water pipe-lines, but in Sunila port only supplied by tugs.
FUEL: All grades of fuel available.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Normally by the crew.
SHIP CERTIFICATES: List of Certificates to be on board:
Passenger Ship Safety Certificate.
Cargo Ship Safety Construction Certificate.
Cargo Ship Safety Equipment Certificate.
Cargo Ship Safety Radio-telephony Certificate.
Cargo Ship Safety Radio-telegraphy Certificate.
Exemption Certificate.
Nuclear Passenger Ship Safety Certificate.
Nuclear Cargo Ship Safety Certificate.
Derat Certificate.
CUSTOMS ALLOWANCES: For passengers: Tobacco: 200 cigarettes or 0.2 lb. of other manufactured tobacco. Wine and Spirits: 1 litre.
CONSULS:

Belgium	Tel. 190111	Iceland	Tel. 14260
Denmark	Tel. 11 440	Netherlands	Tel. 190111
France	Tel. 63 100	Norway	Tel. 190111
Germany (F.R.)	Tel. 190111	Spain	Tel. 190111
Great Britain	Tel. 11 709	Sweden	Tel. 190111

REPAIRS: All types of repairs can be carried out.
DRY DOCKS: Wartsila Marine: 4 floating docks. Docking dimensions for vessels:
Length 165 m., beam 28 m., draft 7.8 m./12,000 tons.
Length 127.2 m., beam 20.1 m., draft 6.8 m./5,000 tons.
Length 130 m., beam 19.7 m., draft 5.8 m./4,500 tons.
Length 96 m., beam 16.5 m., draft 4.5 m./2,500 tons.
REPATRIATION: Facilities exist.
AIRPORT: Nearest Helsinki-Vantaa, 140 km.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: New Year's Day (Jan. 1st); Epiphany (Jan. 6th); Movable Holidays; Easter Holiday, 4 days (Sunday included); Ascension Day, 1 day; Whitsunday, 2 days (Sunday included); Midsummer Day, 3 days (Sunday included); All Saints' Day, 1 day (first Saturday of Nov.); Christmas Holidays (Dec. 24th-26th). Other free days: May 1st; Dec. 6th (Independence Day). Cargo work can be done on all above holidays.
POLICE/AMBULANCE/FIRE: Police 002; Ambulance 000; Fire 000.
TELEPHONES: On some berths telephones placed on board.
GENERAL: It is prohibited to let or throw any substance or refuse causing pollution or shoaling in the harbour area.
SERVICES: Compass adjusting service available.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
NOTICE: Port Authority Notice to Masters.
Instructions Concerning Waste Disposal:

The Port Authority of Kotka informs you hereby that in the Port of Kotka the rules and regulations concerning the protection of the marine environment of the Baltic Sea Area as stated in the Helsinki Convention have to be followed by all ships.

On the strength of this convention no waste shall be discharged into the water while the ship is in the port area. Breaking of these rules cannot be accepted. The Port Authority will check that the instructions are observed without exception.

While your ship is in the port an amount of sacks for waste disposal will be delivered to the ship. The waste emanating from your ship shall be put into these sacks and before the departure of your ship the sacks shall be delivered *by your crew* to the waste container in the vicinity of the berth of your ship.

In case you want to get rid of oily residues please inform the Harbour Master either through your Agent or directly. For the reception of these wastes the Port Authority does not charge you separately as the cost of this service is included in the general waste disposal fee.

In case your ship is a tanker loading oil products and you wish to dispose of oily water such as tank washing water or ballast water it has to be agreed separately with the Port Authority.

All questions in connection with the waste disposal service will be answered by the Harbour Master (Tel: 11672).

Signed: Port Director.

DEVELOPMENTS: The construction work at the new deep-water terminal in Kotka, the depth of which is 15.3 m., is now at the halfway stage. The first quay which is intended for tankers, and the railway leading to the port will be completed Autumn 1988. The completion of the 440 m. long main quay is expected at the end of 1989. Measures to purchase cranes have also been taken.

The work on the navigable passage to the deep-water terminal will commence in the Summer. The National Board of Navigation is responsible for the work.

After its completion, the deep-water terminal in Kotka will be the third 15.3 m. deep harbour in Finland. A deeper harbour cannot be built due to the draft limit set by the Straits of Denmark.

AUTHORITY: Port Authority of Kotka, Laivurinkatu 7, SF-48100 Kotka 10. *Tel:* 358-52-181200. *Telex:* 53144 Portk Sf. *FAX:* 358-52-181375. *Cables:* Port Authority of Kotka. *Contact:* Ilmari Elo, Port Director.

KOVERHAR: 59.52 N. 23.13 E.

DOCUMENTS:
Ship's Register.
Crew List.
Manifests.
Bills of Lading.
Provisions List.
Health Certificate.

PILOTAGE: Compulsory. There are 2 approaches: (1) Via Ajax, max. draft in fairway 33 ft. Pilot arrives from pilot station at Hanko. Distance to port 11 miles.
(2) Via Hanko, max. draft in fairway is 28 ft. Pilot arrives from pilot station at Hanko, Tulludden (Tel. Hanko 82246, radio-telephone, VHF). Station has radar. Distance to port 23 miles.
MAX. SIZE: Max. draft alongside quay 30 ft. Max. LOA 200 m. Max. breadth 26 m. No tide.
RADIO: Cable Agents giving ETA via Hanko and Helsinki Radio.
TUGS: *Ingrid* 700 h.p. and *Waija* 1,850 h.p.
BERTHING: Length 250 m., depth 30 ft. Quay 6 ft. above sea level.
New berth, length 120 m., depth 30 ft. Quay 6 ft. above sea level.
CRANES: Two of 13 tons and one of 12.5 tons capacity.
STEVEDORES: Ordered by Agent.
FRESH WATER: Available rate 20 cu.m./hr.

HEALTH: See "Oulu".
RADIO: Vasa Radio Station. Gamlakarleby/Kokkola VHF Channels 16/28.
TUGS: Tugs (1,300 h.p.) are normally stationed in the harbour. Ship's lines to be used.
BERTHING: Southern Quay: Length 200 m., depth 7.4 m.
Old Quay: Length 180 m., depth 4.9 m. (inside), 6.0 m. (outside).
Busko Quay (Ro/Ro Berth): Length 160 m., depth 7.4 m.
Laucko Quay: Length 150 m., depth 9 m.
Elevator Quay: Depth 6 m.
CRANES: 6 mobile cranes available.
STEVEDORES: 1st shift Monday to Saturday 0700 – 1600 hrs. (meal hours 1100 – 1200 hrs.); 2nd shift Monday to Friday 1600 – 2400 hrs. To commence loading at 0700 hrs. notice must be given latest at 1600 hrs. the day before, or before 1200 hrs. if commencing at 1600 hrs.
MEDICAL: Advance notice not required. All facilities available.
TANKERS: Vessel's draft must not exceed 9.0 m.
DENSITY: Fresh water.
FRESH WATER: From pipe-line alongside quay.
FUEL: Light Fuel Oil and Heavy Fuel Oil available.
GANGWAY/DECK WATCHMEN: Watchmen recommended.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CERTIFICATES: Derat Certificate to be kept on board.
CUSTOMS ALLOWANCES: Tobacco: 100 cigarettes per 3 days for each crew member. Wine and/or Spirits: 1 bottle per 6 days for each man over 20 years of age.
IDENTIFICATION CARDS: Not needed.
CONSULS: Danish, Tel: 10144; Swedish, Tel: 10444.
REPAIRS: All types of repairs possible.
REPATRIATION: Crew changes can be effected.
AIRPORT: Kronoby Airport about 30 km. from Jakobstad. 4 flights daily.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: 1st and 6th January; Good Friday; Easter Eve; Easter Monday; Labour Day (1st May); Ascension Day; Midsummer Eve; Whit Monday; 6th December (Independence Day); 25/26th December; All Saints' Day.
POLICE/AMBULANCE/FIRE: Police 002; Ambulance and Fire 000.
TELEPHONES: Connection for telephone on board available.
AUTHORITY: Jakobstad Port Authority, Hamnkontoret, 68600 Jakobstad, Finland. *Tel:* 967-12128. *Contact:* Ingmar Fagerudd, Harbour Master.

no

KASKINEN (KASKO): 62.23 N. 21.13 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Customs Lists.
2 Passenger Lists.
Manifest, Bill of Lading, etc.
Between 1st December – 30th April (Winter) ice breaker available. The Finnish Ice Class Certificate, (required since 1984) can be obtained in Kaskinen.
PILOTAGE: Kaskinen Pilot boards 4–5 miles outside pilot station. Pilot boat or station can be called by VHF Channel 16 or 13.
ANCHORAGES: Safe areas of anchorages, 3 miles W.S.W. of Salgrund, depths 10 m. – 20 m.
MAX. SIZE: Max. draft 8 m.
HEALTH: In case of sickness onboard, contact the Agent.
RADIO: Vasa Radio.
RADAR/VHF: Radar service/VHF Channel 13 (Kaskinen Pilot).
TUGS: None.
BERTHING:
Pier 250 m. length, 8.0 m. – 10.0 m. depth
Pier 35 m. length, 7.0 m. depth
Pier 160 m. length, 6.0 m. – 7.0 m. depth
DENSITY: 1004.
STEVEDORES: Available; rates about 250 – 300 tons pulp per work gang.
MEDICAL: Hospital available.
FRESH WATER: Available at berths. Charge 12 Fmk. per ton.
FUEL: Available by tank truck.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes. Wine/Spirit: 1 bottle spirit.
CONSULS: None.
REPAIRS: Only small repairs.
AIRPORT: Distance to Vasa Airport 100 km. Served by regular airlines.
TIME: GMT plus 2 hours.
HOLIDAYS: See "Oulu".
POLICE/AMBULANCE/FIRE: Police 002; Ambulance 006; Fire 005.
TELEPHONE: Can be connected. Cost for connection is 60 Fmk.
SHORE LEAVE: Allowed.
GENERAL: Port is the most Northern in Finland which under reasonable conditions can be kept open throughout Winter.
AUTHORITY: Kasko Hamnkontor (Harbour Office), 64260 Kaskinen, Finland. *Tel:* 962 – 27201. *Contact:* Matti Vihanto, Harbour Master.

KEMI (Ajos): 65.40 N. 24.31 E. (See Plan)

LOCATION: Ajos harbour is a municipal port owned and managed by the city of Kemi. It is located at Ajos, about 10 km. (6 nautical miles) South of Kemi, Lat. 65° 40′ N., Long. 24° 31′ E. The area is shown on Finnish Charts Number 275 and Number 59.
APPROACHES: The distance from Kemi lighthouse to the harbour is about 21 nautical miles (39 km.). The minimum width of the channel is 100 m. (328 ft.), and approved depth up to the oil harbour is 10 m. (32.8 ft.).

The water level varies between +1.5 m. and −0.75 m. (+5 ft. and −2.5 ft.) depending on winds (water level rises during Southerly and falls rapidly during Northerly winds). There are no tides in the area.

During normal winters the harbour is frozen from the beginning of December to the end of May. Over this period the channel from the open sea to the harbour area is kept navigable by state-owned ice-breakers. The Finnish Board of Navigation determines the restrictions and requirements for vessels allowed to enter the harbour during this period. The port has been kept open throughout the year since 1971.
DOCUMENTS: Documents to be handed over after berthing:
2 Crew Lists.
1 Provision List.
1 Special List (Customs).
Tonnage Certificate.
Cargo Documents.
PILOTAGE: Pilot boards from "Kemi I" Lighthouse or Nukkujanmatala Lighthouse. VHF and radio telephone watch maintained.
RESTRICTIONS: Ships can enter and leave Ajos harbour 24 hours a day.
MAX. SIZE: Sea to Fairway at Ajos. Max. draft 10 m. Sea to Fairway at Veitsiluoto. Max. draft 7.1 m. Also see "Berthing".
RADIO: *Entering the Harbour:* Time passing Kiel/Holtenau/Copenhagen is to be given via Harnosand Radio, Mariehamn Radio or Stockholm Radio.

ETA to be given 12 hours before the calculated time of arrival.

Notice is to be given to the pilot station, which is situated at the S.W. end of Ajos Island via VHF Channels 16/13 two hours before ETA at the pilot embarking point, which is between Kemi lighthouse and lighthouse Nukkujanmatala depending on the weather.

The notice is to include the name, call sign and the nationality of the vessel, n.r.t., the draft and length of the vessel, time of arrival (at the Pilot's boarding site) and tugs needed for berthing.
TUGS: Icebreaker tugs of 3,500 h.p. and 1,300 h.p. Ship's lines used.
BERTHING:

Quays:	*Length* (m.)	*Depth* (m.)	*Permitted draft* (m.)
Oil Quay	90	11.4	10
No. 1	420	7.3–8.3	6.7–7.6
No. 2	315	9.3	8.5
No. 3	185	5.8	5.0
No. 4	168	5.8	5.0
2 Ro/Ro Berths	—	6.8 and 9.3	—

CRANES: Mobile cranes. 2×6 tons capacity; 2×55 tons capacity; 18×5 tons – 25 tons capacity.
FRESH WATER: Available at Quay Nos. 1 and 2.
FUEL: Available.
DENSITY: 1001.
AIRPORT: At Lautiosaari, Tel: 53519.
TIME: GMT plus 2 hours.
TELEPHONES: Lines on the quays at Berth Nos. 1 and 2 and the Ro/Ro Berth.
POLICE/AMBULANCE/FIRE: Police Tel: 16981. First Aid Tel: 23931.
AUTHORITY: Port of Kemi Authority, 94900 Kemi, Finland. *Tel:* 9698-82018. *Contact:* Harbour Master.

KOKKOLA (Yxpila): 63.50 N. 23.08 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Customs Lists.
2 Passenger Lists.
Manifest, Bill of Lading.
PILOTAGE: Pilot boards 2 miles North of Tankar Pilot Station. Pilot on VHF Channel 16. Distance to port 12 miles.

The vessel's ETA must be given at least 6 hours in advance of arrival to pilot station.
ANCHORAGES: 1 mile North of the breakwater.
RESTRICTIONS: *Winter Navigation:* The port is open throughout the year. Ice class restrictions apply in Winter.
MAX. SIZE: No restrictions except draft 11.0 m.
VHF: Vassa Radio VHF Channel 28. Kokkola Harbour Office Channel 16.
TUGS: 2 tugs available, 2,460 h.p. and 1,500 h.p. Normally ship's lines used.
BERTHING:

	Length	*Max. draft*
Deep Quay	181 m.	11.0 m.
Shore Quay (South side)	323 m.	9.5 m.
Shore Quay (North side)	100 m.	7.1 m.
Stone Pier	137 m.	7.1 m.
Outokumpu Quay	390 m.	9.5 m.
Kemira Quay	160 m.	9.5 m.
Packhouse Quay	126 m.	4.0 m.
Oil Quay	83 m.	9.5 m.
Ro-Ro Quay	85 m.	6.0 m.

CRANES: 2×8 ton cranes at Shore Quay. 1×40 ton crane and 1×10 ton crane at Outokumpu. 1×8 ton crane at Kemira Quay. 4 mobile cranes 10 – 41 tons.

BULK CARGO FACILITIES: Discharging belt for zinc concentrate at Outokumpu Quay. Loading and discharging facilities for fertilisers at Shore and Kemira Quays.
SPECIAL CARGO-HANDLING FACILITIES: Discharging lines for phosphorus, nitric acid and ammoniak at Kemira Quay.
Discharging lines for oil at Outokumpu and Oil Quay.
STEVEDORES: Normally working Monday-Friday 0700 – 2400 hrs. On Saturday 0700 – 1200 hrs.
TANKERS: Discharging lines for oil at Outokumpu and Oil Quay.
MEDICAL: 6 km. to hospital in Kokkola.
DENSITY: 1002.
FRESH WATER: Available at berths.
FUEL: Available.
CONSULS (Vice-Consuls): Sweden Tel: 968/11141; Norway Tel: 968/13791; Denmark Tel: 968/12564.
REPAIRS: Small deck and engine repairs can be carried out.
SURVEYORS: Cargo inspectors and draft surveyor available.
GANGWAY/DECK WATCHMEN: Usually ship's crew. Ship's gangway used.
OPENING/CLOSING HATCHES: Usually ship's crew.
CUSTOMS ALLOWANCES: Tobacco: Each man 200 cigarettes per week. Spirits: Each man a bottle per week.
CREW IDENTIFICATION CARDS: Not required.
AIRPORT: Kokkola Airport 19 km.
REPATRIATION: Crew changes and repatriation can be carried out.
TIME: GMT plus 2 hours. GMT plus 3 hours late March to late September.
HOLIDAYS: Official holidays of Finland.
POLICE/AMBULANCE/FIRE: Police Tel: 002, Ambulance Tel: 000, Fire Tel. 000.
SHORE LEAVE: No restrictions.
AUTHORITY: Kokkola Harbour Office, Satamakatu 53, 67900 Kokkola, Finland. *Tel:* 968/26295. *Telex:* 76148 Koksa Sf. *Contact:* Eero Maki, Harbour Director. Hans Biskop, Harbour Master.

KOTKA: 60.28 N. 26.57 E. (See Plan)

DOCUMENTS:
Crew List.
Passenger List.
1 copy of Cargo Manifest.
1 copy of every Bill of Lading.
Ship's Register.
Ice Certificate.
Customs Manifest for Stores, for ship and individual.
PILOTAGE: On arrival off Orrengrund, contact Orrengrund Pilot by VHF. On arrival off Kotka, contact Harbour Pilot Kotka, VHF Channel 11. Depth in approaches 32 ft. 10 in.
ANCHORAGES: Havouri Roads, Kukouri Roads and at the entry to the harbour. Max. draft 32 ft. 10 in.
MAX. SIZE: Max. draft 32 ft. 10 in.
HEALTH: In case of sickness on board, contact the Agents before entering the port.
RADIO: Kotka Radio call sign OHF.
VHF: See "Pilotage".
TUGS: Tugs normally join the vessel in the harbour entrance. Ship's lines are to be used. 3 tugs available, 4,000 h.p., 1,650 h.p., and 630 h.p.
BERTHING:

Quay	*Permitted Draft* (ft.)	*Length* (m.)
Hietanen Terminal Harbour	26-33	740
Main Harbour	16-33	1,600
Bulk Quay (Poland Quay)	27.5 (air draft 37 m.)	360
Sunila Quay	22-26	400
Inner Roads	12-24	
Outer Roads	25-29	
Halla Quay	14-23	250
Oil Harbour	29-33	
Power Plant (Mussalo) Coal Quay	26	200
Oil Quay	33	

CRANES: 30 shore cranes with capacity of 3-60 tons.
SPECIALISED CARGO-HANDLING FACILITIES: Hietanen Terminal, consisting of 4 Ro/Ro berths and 3 conventional berths and is equipped with 2 container cranes.
MEDICAL: Master to advise by Radio Kotka on arrival if medical attendance required aboard.
TANKERS: 2 tanker berths, draft 32 ft. 10 in. Also see "Notice".
DENSITY: 1003.
FRESH WATER: All berths are equipped with water pipe-lines, but in Sunila port only supplied by tugs.
FUEL: All grades of fuel available.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Normally by the crew.
SHIP CERTIFICATES: List of Certificates to be on board:
Passenger Ship Safety Certificate.
Cargo Ship Safety Construction Certificate.
Cargo Ship Safety Equipment Certificate.
Cargo Ship Safety Radio-telephony Certificate.
Cargo Ship Safety Radio-telegraphy Certificate.
Exemption Certificate.
Nuclear Passenger Ship Safety Certificate.
Nuclear Cargo Ship Safety Certificate.
Derat Certificate.
CUSTOMS ALLOWANCES: For passengers: Tobacco: 200 cigarettes or 0.2 lb. of other manufactured tobacco. Wine and Spirits: 1 litre.
CONSULS:

Belgium	Tel. 190111	Iceland	Tel. 14260
Denmark	Tel. 11 440	Netherlands	Tel. 190111
France	Tel. 63 100	Norway	Tel. 190111
Germany (F.R.)	Tel. 190111	Spain	Tel. 190111
Great Britain	Tel. 11 709	Sweden	Tel. 190111

REPAIRS: All types of repairs can be carried out.
DRY DOCKS: Wartsila Marine: 4 floating docks. Docking dimensions for vessels:
Length 165 m., beam 28 m., draft 7.8 m./12,000 tons.
Length 127.2 m., beam 20.1 m., draft 6.8 m./5,000 tons.
Length 130 m., beam 19.7 m., draft 5.8 m./4,500 tons.
Length 96 m., beam 16.5 m., draft 4.5 m./2,500 tons.
REPATRIATION: Facilities exist.
AIRPORT: Nearest Helsinki-Vantaa, 140 km.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: New Year's Day (Jan. 1st); Epiphany (Jan. 6th); Movable Holidays; Easter Holiday, 4 days (Sunday included); Ascension Day, 1 day; Whitsunday, 2 days (Sunday included); Midsummer Day, 3 days (Sunday included); All Saints' Day, 1 day (first Saturday of Nov.); Christmas Holidays (Dec. 24th-26th). Other free days: May 1st; Dec. 6th (Independence Day). Cargo work can be done on all above holidays.
POLICE/AMBULANCE/FIRE: Police 002; Ambulance 000; Fire 000.
TELEPHONES: On some berths telephones placed on board.
GENERAL: It is prohibited to let or throw any substance or refuse causing pollution or shoaling in the harbour area.
SERVICES: Compass adjusting service available.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
NOTICE: Port Authority Notice to Masters.
Instructions Concerning Waste Disposal:

The Port Authority of Kotka informs you hereby that in the Port of Kotka the rules and regulations concerning the protection of the marine environment of the Baltic Sea Area as stated in the Helsinki Convention have to be followed by all ships.

On the strength of this convention no waste shall be discharged into the water while the ship is in the port area. Breaking of these rules cannot be accepted. The Port Authority will check that the instructions are observed without exception.

While your ship is in the port an amount of sacks for waste disposal will be delivered to the ship. The waste emanating from your ship shall be put into these sacks and before the departure of your ship the sacks shall be delivered *by your crew* to the waste container in the vicinity of the berth of your ship.

In case you want to get rid of oily residues please inform the Harbour Master either through your Agent or directly. For the reception of these wastes the Port Authority does not charge you separately as the cost of this service is included in the general waste disposal fee.

In case your ship is a tanker loading oil products and you wish to dispose of oily water such as tank washing water or ballast water it has to be agreed separately with the Port Authority.

All questions in connection with the waste disposal service will be answered by the Harbour Master (Tel: 11672).

Signed: Port Director.

DEVELOPMENTS: The construction work at the new deep-water terminal in Kotka, the depth of which is 15.3 m., is now at the halfway stage. The first quay which is intended for tankers, and the railway leading to the port will be completed Autumn 1988. The completion of the 440 m. long main quay is expected at the end of 1989. Measures to purchase cranes have also been taken.

The work on the navigable passage to the deep-water terminal will commence in the Summer. The National Board of Navigation is responsible for the work.

After its completion, the deep-water terminal in Kotka will be the third 15.3 m. deep harbour in Finland. A deeper harbour cannot be built due to the draft limit set by the Straits of Denmark.

AUTHORITY: Port Authority of Kotka, Laivurinkatu 7, SF-48100 Kotka 10. *Tel:* 358-52-181200. *Telex:* 53144 Portk Sf. *FAX:* 358-52-181375. *Cables:* Port Authority of Kotka. *Contact:* Ilmari Elo, Port Director.

KOVERHAR: 59.52 N. 23.13 E.

DOCUMENTS:
Ship's Register.
Crew List.
Manifests.
Bills of Lading.
Provisions List.
Health Certificate.
PILOTAGE: Compulsory. There are 2 approaches: (1) Via Ajax, max. draft in fairway 33 ft. Pilot arrives from pilot station at Hanko. Distance to port 11 miles.

(2) Via Hanko, max. draft in fairway is 28 ft. Pilot arrives from pilot station at Hanko, Tulludden (Tel. Hanko 82246, radio-telephone, VHF). Station has radar. Distance to port 23 miles.
MAX. SIZE: Max. draft alongside quay 30 ft. Max. LOA 200 m. Max. breadth 26 m. No tide.
RADIO: Cable Agents giving ETA via Hanko and Helsinki Radio.
TUGS: *Ingrid* 700 h.p. and *Waija* 1,850 h.p.
BERTHING: Length 250 m., depth 30 ft. Quay 6 ft. above sea level.
New berth, length 120 m., depth 30 ft. Quay 6 ft. above sea level.
CRANES: Two of 13 tons and one of 12.5 tons capacity.
STEVEDORES: Ordered by Agent.
FRESH WATER: Available rate 20 cu.m./hr.

OPENING/CLOSING HATCHES: By crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits per man.
IDENTIFICATION CARDS: Not required.
REPAIRS: Small repairs possible.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
POLICE/AMBULANCE/FIRE: Police 002; Ambulance 12660; Fire 43100.
AUTHORITY: Dalsbruk Oy AB., Koverhar, SF-10820 Lappvik. *Tel:* 911-43100. *Telex:* 13152 Kovsh Sf. *Cables:* Koverhar Ekenas. *Contact:* Rainer Sandberg, Harbour Master.

KRISTINESTAD: 62.16 N. 21.23 E.

DOCUMENTS:
- Ship's Measurement Certificate.
- 2 Crew Lists.
- Cargo Manifest.
- Copy Bill of Lading.
- 2 Provision Lists and Tobacco Lists for Customs.
- Ice Certificate 1.12–3.4.

PILOTAGE: Pilot boards at Hojerstein Light Buoy. At least 2 hours ETA required. Pilot boat has red painted hull, white marking "L" on bow, and deck house yellow. Pilot station situated on Hoggklubb Island South of Kristinestad, International pilot call signals to be used, also radio telephone 2182 and VHF Channel 16.
ANCHORAGES: Good safe holding ground off Adgrund. Depth 10 m.
MAX. SIZE: For general cargo and timber, 20 ft. draft in old port. For tankers, 33 ft. in the oil port. Depth at new coal harbour 33 ft.
See also "Tankers".
RADIO: Messages through coastal stations. Also Kristinestad VHF Channel 24. Also see "Pilotage".
TUGS: 1 tug available 240 h.p. Additional powerful tugs available with sufficient notice.
BERTHING: No special requirements. Pilot gives orders for berthing.
Inner Wooden Quay. Length 75 m., depth alongside 15 ft.
Outer Stone Quay. Length 250 m., depth alongside 20 ft.
There are 3 mobile cranes of 10 tons capacity.
SPECIALISED CARGO HANDLING FACILITIES: Bulk cargoes can be discharged at quay, 4 portable cranes available. There is 1 ramp for Ro/Ro ships in oil harbour at Bjorno.
New coal harbour at Bjorno Power Station, depth alongside 12 m. Berth is equipped with 1 conveyor for handling self-discharging vessels.
STEVEDORES: Advise ETA and gangs required as stipulated in charter-party. Also when laytime will commence to count. Only timber cargoes loaded.
Normal working hours 0700 – 1600 hrs. all weekdays.
DENSITY: 1004.
MEDICAL: Hospital facilities available.
TANKERS: Oil harbour at Pohjolan Voima Oy, power station at Bjorno. Depth 33 ft. (10 m.) alongside the oil pier. One berth for tankers. Discharge capacity with 2×10 in. pipe-lines 2,500 t.p.h. Fresh water supply to tankers available from shore installation rate 30 t.p.h.
FRESH WATER: Fresh water supply by shore installation. Any amount available.
FUEL: Fuel available by tank cars of about 20 tons capacity at short notice.
GANGWAY/DECK WATCHMEN: Not compulsory at Timber Pier. Compulsory in oil harbour, according to rules of Board of Navigation.
OPENING/CLOSING HATCHES: Normally carried out by crew, but on request may be handled by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes per 6 days, per man. Wine/Spirit allowance: 1 bottle per man.
CARGO GEAR: BOT Certificates. No additional requirements.
CONSULS: Danish, Tel: 962-12350.
REPAIRS: No shipyards, but welding pipe-line electric repairs possible.
SURVEYORS: Surveyors and Cargo Inspectors available.
AIRPORT: Nearest airports in Vaasa and Pori within 100 km., several flights per day.
TIME: Local time GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: See "Oulu".
POLICE/AMBULANCE/FIRE: Police Station of Kristinestad 12055 or 002; Ambulance 11626; Fire Brigade 005.
TELEPHONE: Public telephones on the pier.
GENERAL: Timber pier in Port of Kristinestad closed from the end of December to the middle of April owing to ice. Oil port will be kept open according to the general ice situation of Gulf of Bothnia.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Not required.
EMERGENCY CO-ORDINATION CENTRE: Kummalgrund Coast Guard Station: Tel: 962-29142 (Kristinestad) or VHF Channel 16.
STORING: Vessels may be stored by truck which may proceed alongside. No special Customs regulations in force. Riggers and fork lift trucks available.
AUTHORITY: Kristinestad Harbour Office, 64100 Kristinestad, Finland. *Tel:* 962-11051. *Contact:* Sakari Laipio, Harbour Master.

LOVISA (Valkom): 60.25 N 26.16 E. (See Plan)

PILOTAGE: Pilot arrives from pilot station at Orrengrund (Tel. 915-565334, radio telephone). Station equipped with radar. Distance to port 12 miles.
APPROACHES: Depth in fairway (Orrengrund – Valko) – 8.5 m.
TUGS: 1 tug available, 1,250 h.p., between December and April.
BERTHING: *Coal Quay:* Length 141 m., depth 8.5 m.
Middle Quay: Length 280 m., depth 7.30 m.
Connection Quay: Length 115 m., depth 7.30 m.
Roll-on/Roll-off Berth: Length 20 m., depth 7.30 m.
South Pier (East Side): Length 130 m., depth 8.50 m.
Inner Harbour: Length 80 m., depth 4.20 m.
CRANES: 6 mobile cranes, lifting capacity 6 – 36 tons. 2 shore cranes, lifting capacity 6 tons. 1 shore crane lifting capacity 6 – 28.5 tons.
DENSITY: 1003.
DEVELOPMENTS: Land area from 23 ha. to 76 ha. (1983-90).
AUTHORITY: Lovisa Port, 07910 Valkom, Finland. *Tel:* Port Director: 915-565514. Harbour Master: 915-515163. *Contact:* Pekka Pajunen, Port Director. Bengt Sandvik, Harbour Master.

MARIEHAMN: 60.06 N. 19.56 E. (See Plan)

PORT LIMITS: The Southern boundary of the port is on a line between Lat. 60° 03.5′ N., Long. 19° 56.1′ E. and Lat. 60° 04.2′ N., Long. 19° 55′ E.
DOCUMENTS:
- 1 Crew List.
- 1 Passenger List.
- 3 Provision Lists.
- 2 Special Lists (in possession each crew member – cigarettes, tobacco, spirit, radios, etc.).
- 2 Bills of Lading.
- Registered Tonnage Certificate.

PILOTAGE: Pilot arrives from station at Hamngatan 4, in Westerhamn harbour, and meets entering vessels about 2 nautical miles S.W. of Marhallan lighthouse. 3 hours' notice of ETA is required. Pilot station and cutter are fitted with VHF radio and keep watch on Channel 16, 24 hours a day. Working Channel is 13. Pilot can also be ordered by cable via Mariehamn Radio.
Pilot can also be taken from Nyhamn pilot station 12 miles from the port. Nyhamn has VHF, Radio 2182 kHz and Radar.
At Nyhamn, Sea Pilot may be obtained for the Baltic Sea, Bay of Bothnia and Bay of Finland.
ANCHORAGES: Good anchorages North of Grano Island in 10 m. to 20 m. water.
MAX. SIZE: Ships of 160 m. length and 7 m. draft can enter the port, but require twin screw and bow thruster for safe manoeuvring.
RADIO: Mariehamn Radio, call sign OHM on telegraphy and OFH for telephony. Connected to the public telegraph and telephone service.
VHF: Following stations keep watch on VHF Channel 16: Mariehamn Radio, Mariehamns Pilot, Mariehamns Hamn (Harbour Office), Sjobevakningen Mariehamn. (The Coast Guard at Mariehamn.)
TUGS: 1 tug of 320 h.p. available. The m/s *Gustaf Erikson* belongs to the Alands Lifeboat Society. Usually ships' lines are used.
BERTHING: *Quays for Passenger Vessels:*

Berth No.	*Length* (m.)	*Depth* (m.)	*Remarks*
1	100	5.0	
2	150	6.0	
3	190	7.3	Ro/Ro
4	120	6.5	Ro/Ro
5	140	7.3	Ro/Ro

Power Station Pier: Depth 5.0 m.
CRANES: 7 mobile cranes can be rented. Maximum lift, 2 cranes of 25 tons and 5 of 16 tons on the shortest radius.
SPECIALISED CARGO-HANDLING FACILITIES: 3 berths for Roll-on/Roll-off traffic, used by car ferries.
STEVEDORES: Ordered by Agents. ETA in good time to obtain gangs.
DENSITY: 1005.
TANKERS: Max. LOA 100 m. Depth alongside 5.5 m.
MEDICAL: All services available.
FRESH WATER: Most berths supplied by shore installations about 15 t.p.h., otherwise by truck.
FUEL: Only diesel oil, no heavy products.
GANGWAY/DECK WATCHMEN: Available but not necessary.
OPENING/CLOSING HATCHES: Normally done by crew.
CERTIFICATES: International Tonnage Certificate or National Tonnage Certificate.
CUSTOMS ALLOWANCES: 200 cigarettes and limited amount spirits for each crew member.
CONSULS: Denmark 11 454, Netherlands 12 070, Iceland 21 849, Norway 12 050, Sweden 11 624, U.S.S.R. 11 524, Germany F.R. 16 270. France 13 931
REPAIRS: Most repairs possible.
DRY DOCKS: Slipway for small vessels, max. about 300 d.w.t.-400 d.w.t.
SURVEYORS: No permanent surveyors at Mariehamn.
REPATRIATION: Mariehamn is a good place for repatriation, with many connections to Sweden and to the Finnish mainland every day, with car-ferries and aeroplanes. About 1 million tourists visit Aland Island every year.

AIRPORT: About 5 km. from town, daily traffic to Stockholm and Abo/Turku.
TIME: GMT plus 2 hours. Summertime GMT plus 3 hours.
HOLIDAYS: See "Oulu".
POLICE/AMBULANCE/FIRE: Police 002 or 15 444; Ambulance 000, Fire 000 or 11 000.
TELEPHONES: Available at berths for passenger ships.
IDENTIFICATION CARDS: Not needed for Scandinavian citizens. Passports for all others.
AUTHORITY: Port of Mariehamn, Harbour Office, Box 5, SF-22101 Mariehamn, Finland. *Tel:* 928-13962. *Contact:* Captain Uno J. Gottberg, Harbour Master.

NAANTALI: 60.28 N. 22.01 E. (See Plan)

DOCUMENTS:
- Health Certificate.
- Crew List.
- Passenger List.
- Dangerous Cargo List.
- Ship's Register.

PILOTAGE: Pilot compulsory at Uto Pilot Station. When approaching Uto communicate via VHF Channel 16 – ETA, name of vessel, destination, draft. Change of Pilot takes place in Lohm. Harbour Pilots available at the port. Distance Uto-Lohm, 25 miles. Lohm-Naantali, 28 miles, depth 10.0 m. Uto-Houtskar-Naantali, 62 miles, depth 13.0 m.
ANCHORAGES: Good safe anchorage in harbour area. Max. draft for vessels 10 m. Anchorage for vessels with draft 13.0 m. at Airisto.
MAX. SIZE: Maximum permissible length for tankers 210 m., main quay – maximum length for any vessel 250 m.
HEALTH: International Quarantine flag required in case of suspected disease or fever including preliminary report by VHF, otherwise ask Agent.
RADIO: Hanko Radio; Mariehamn Radio; VHF Turku 26; VHF Mariehamn 27; VHF Korpo 23.
VHF: Communication on Channel 16, own working Channel 11.
RADAR: When Radar Service needed, contact Agent.
TUGS: Harbour icebreaker tug *Naantali* 1,200 h.p., equipped with bow steering propeller. Use ship's lines. Additional tugs on application from Turku.

DEPTHS ?

BERTHING: No special requirements. Harbour/Drafts: No tide. Main quay, length 370 m., draft 13 m. Timber quay, length 110 m., draft 8.0 m. 3 car-ferry piers, length 80 m./125 m./95 m., drafts 9 m./6.4 m./6.0 m. Lubricating Oil pier/Car Ferry pier, length 95 m., draft 6.0 m. Sugar quay, length 32 m., draft 4.5 m.

not changed

CRANES: 2 cranes owned by electric powerplant of 6 tons each.
BULK CARGO FACILITIES: Grain handled by two pneumatic elevators and belt conveyor, Loading/Discharging 500 t.p.h., maximum reach for outlet/inlet 15 m. and 18.7 m., maximum height above quay level 9.0 m. and 16.0 m. when loading, discharging limits are 11.6 m. and 18.6 m., 200 m. of main quay intended to be for handling of grain, 170 m. for coal, which is handled by 2 cranes of 6 tons each and belt conveyor, discharging rate about 2,000 t.p.h.
SPECIALISED CARGO-HANDLING FACILITIES: Ro/Ro traffic possibility.
STEVEDORES: Available, ordered by Agent.
MEDICAL: Advise by radio prior arrival if medical attendance required aboard.
TANKERS: Oil Harbour, Neste Oy. Discharge lines ashore 10 in., 12 in., 18 in., Diameter of cargo hoses and respective depth of tanker berths:
- Berth No. 1, 6 in., 5.7 m.
- Berth No. 2, 10 in., 10.0 m.
- Berth No. 3, 8 in., 10 in., 12 in., 13.0 m.

DENSITY: 1007.
FRESH WATER: Supplied by shore installations at most berths.
FUEL: All grades available.
FIRE PRECAUTIONS: Usual precautions.
GANGWAY/DECK WATCHMEN: Available. Tankers compulsory.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CUSTOMS ALLOWANCES: 200 cigarettes/200 gm. tobacco and 1 bottle spirits/wine.
CONSULS: In Turku 17 km. away.

Austria	Tel: 382538	Iceland	Tel: 516196
Belgium	Tel: 393666	Italy	Tel: 515000
France	Tel: 534625	Norway	Tel: 652211
Germany F.R.	Tel: 334800	Sweden	Tel: 331310
Greece	Tel: 644300	U.S.S.R.	Tel: 336441
Honduras	Tel: 395495	U.K.	Tel: 662211

REPAIRS: Small repairs can be carried out, ask Agent.
DRY DOCKS: None, see Turku. Naantali shipyard owned by Wartsila Marine Oy, Rauma-Repola Oy and Valmet Oy, new buildings, main dimension of dry dock 220 m. × 70 m., outfitting dock 180 m. × 125 m., sill depth 8.2 m.
SURVEYORS: Contact Agent.
REPATRIATION: Good connections.
AIRPORT: 20 km. distant. Regular service.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: New Year's Day, Epiphany, Good Friday, Easter Monday, Labour Day, Whit Monday, Midsummer, All Saints' Day, Independence Day, (6th December), Christmas.
TELEPHONES: A telephone connection available at Main Quay and Quay No. 22.
SERVICES: Facilities for discharge of tank-washings, 10,000 cu. m. (Oil Harbour). Compass adjusting, ask Agent.
SHORE LEAVE: No restrictions for crew members.
IDENTIFICATION CARDS: Not required.
REGULATIONS: Oil pollution strictly prohibited. Dumping of waste, refuse, etc., also prohibited.
DELAYS: Usually no delays.
POLICE/AMBULANCE/FIRE: Police 751 133; Ambulance 751 123, Fire Brigade 000.
AUTHORITY: Naantalin Satamalaitos, Satamatie 13, 21100 Naantali, Finland. *Tel:* 921-755111. *Contact:* Harbour Manager or Hannu Haatainen, Assistant Harbour Master.

OULU: 65.00 N. 25.25 E. (See Plan)

PORT LIMITS: The seaward boundary of the port is drawn West of Oulu Roads. The arriving vessel passing the line Hermanni Island – Kyrokari Ice Buoy is inside the boundaries and if necessary to anchor on the roads, is considered to be an "arrived vessel".

Port consists of four separate parts: Toppila, Nuottasaari, Oritkari and Vihreasaari harbours.

DOCUMENTS:
- 2 Crew Lists.
- 2 Passenger Lists.
- Customs Documents.
- 2 Crew Bond Declarations.
- 2 Ship's Bond-store Lists.
- Derat Certificate.
- 4 Manifests.
- 2 Bills of Lading.
- Ship's Register, Certificate of tonnage.

PILOTAGE: Vessel requiring Pilot applies from Marjaniemi. Pilot station, Lat. 65° 02′ 4″ N., Long. 24° 34′ E., near West point of Hailuoto Island. Pilots require 12 hours' notice of ETA to Peltinmatala lightbuoy (Pilots) or to alternative position 3 miles North of Kelmi lightbuoy. Pilot boat red coloured displaying usual international pilot signs. Pilot station equipped with MF (2182) and VHF, listening on Channels 16 and 13, radar and RC. Morse signalling by light. No specific requirements on part of Pilots boarding, only safe pilot ladder according to rules. Anchorage near lightbuoy Peltinmatala, when awaiting for Pilot in fine weather; in bad weather advisable to ride against weather and wind. Pilot for Oulu can also be obtained near the "Kemi 1" light-tower. Vessels with a draft more than 8.0 m. must use this fairway and apply for Pilot either from Marjaniemi or "Kemi 1" pilot station, wireless 2182 or VHF Channels 16 and 13.
ANCHORAGES: Safe anchorage on Oulu roads. There are no safe anchorages West of Hailuoto Island.
RESTRICTIONS: Day and night service, no tides. Winter season, contact ice-breaker 24 hours in advance on MF (2182), or VHF Channel 16.
MAX. SIZE: *Marjaniemi Fairway:* 8.0 m. (10 m. Late 1989).
Kemi Fairway: 10.0 m.
Toppila Harbour: Toppila Quay depth 6.1 m., Hietasaari Quay, depth 6.1 m.
Oritkari Harbour: Main Quay, depth 9.0 m. Stern Door Quay, depth 7.0 m. North Quay, depth 10.0 m.
Nuottasaari Harbour: Main and Chemical Quay, depth 6.4 m.
Vihreasaari Harbour: Oil Quay, length 72 m., depth 10.0 m. Bulk Quay, length 150 m., depth 10.0 m.
Also see "Berthing".
HEALTH: No special rules existing in obtaining pratique. If disease or fever is suspected on board report to ship's Agent; will contact the Health Authority for necessary arrangements.
RADIO: Vaasa Radio (North Quarken). Close to Hailuoto Island call "Oulu Radio" VHF Channel 27 or Channel 24.
RADAR/VHF: At Marjaniemi Pilot station, radar range 30 miles. Contact with MF (2182) or VHF (Channel 16). All ice-breakers keep watch on frequency 2182 and VHF (Channel 16).
TUGS: Tug optional, but for vessels over 140 m. long use is advisable. Tug ("Tuura", 3,600 h.p.) will meet on Oulu Roads according to agreement; customary to use ship's lines in open water and lines from tug during ice operations.
BERTHING: *Toppila Harbour:* Depth 5.0 – 6.1 m. Toppila Quay length 992 m. Hietasaari Quay length 600 m.
Nuottasaari Harbour: Main Quay, length 320 m. Chemical Quay, length 125 m.
Oritkari Harbour: Main Quay, length 270 m. Stern Door Quay, length 85 m. North Quay, length 170 m. Facility for Ro/Ro service.
Vihreasaari Harbour: Oil Quay, length 72 m. Bulk Quay, length 150 m.
CRANES:

	No.	*Capacity (tons)*	*Reach of arm (m.)*	*Type*
Nuottasaari Harbour	1	5	12	Movable
Toppila	1	5	12	"
Toppila	1	3	12	"
Vihreasaari	1	6	22	"
Vihreasaari	1	8	26	"

CARGO HANDLING FACILITIES: Toppila Harbour is equipped with 2 cranes, Vihreasaari Harbour with 2 cranes and Nuottasaari Harbour with 1 crane to load and discharge bulk cargoes and general cargoes with hook. 10 mobile cranes available from stevedores in all ports.

Ro/Ro berth is adjacent to the Oritkari Harbour.

Oritkari Harbour is built to mechanically handle paper cargoes.

Free zone warehouse in Toppila (700 sq.m.) and free zone area in Oritkari (18,000 sq.m.). Warehouses in Toppila and Oritkari of 31,500 sq.m. There is a large amount of open storage in all harbours.
BRIDGES: No bridges. Electric cable across Toppila fairway, 50 m. above water.

STEVEDORES: 24 hours' notice of ETA to be given to Agent who arranges necessary gangs.
MEDICAL: Medical attention arranged through Agent, 2 – 4 hours' notice required. Good hospital facilities available.
TANKERS: One principal tanker berth in Vihreasaari Oil Harbour, depth 10.0 m. Discharge lines of 12, 14 and 18 in. Pressure 10 kg./sq.cm.
DENSITY: Fresh water.
FRESH WATER: Available at main berths and Oil Harbour from pipeline, cost about 9.00 Fmk/ton. Elsewhere water is delivered by boat, cost about 10.00 Fmk/ton.
FUEL: Small quantities of all grades available, delivered by lorries.
GANGWAY/DECK WATCHMEN: Watchmen recommended.
OPENING/CLOSING HATCHES: Normally carried out by crew. Stevedores will do it by order of Master and will charge as shipwork.
CERTIFICATES:
Nationality Certificate.
Measuring Certificate.
Load-line Certificate.
Classification Certificate.
Safety Equipment Certificate.
Radio Safety Certificate.
Derat Certificate.
CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes or 200 gm. pipe tobacco or equal amount of cigars allowed to each member of crew. Wine and/or Spirit: One bottle wine or spirit allowed for each member of the crew.
CARGO GEAR: Tested cargo gear to international safety regulations. Test certificates to be on board vessel.
IDENTIFICATION CARDS: Not needed.
CONSULS: Sweden, Norway, Denmark, Netherlands and United Kingdom.
REPAIRS: Minor deck and engine repairs carried out. Docking only for small tug boats.
SERVICES: Compass adjusters and ship's cleaning.
DRY DOCKS: One small slipway. Max. vessels of 25 m. length and 8 ft. draft.
REPATRIATION: Good facilities for effecting crew changes and to arrange necessary repatriation.
AIRPORT: Oulu Airport 15 km. from harbour served by regular airlines. Six daily flights to Helsinki (worldwide connections) and six flights from Helsinki to Oulu with continuous connection to Kemi and Rovaniemi.
TIME: Local time GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: General holidays in Finland: New Year's Day (January 1st); Good Friday; Easter Monday; Labour Day (May 1st); Independence Day (December 6th); Christmas Day (December 25th); Boxing Day (December 26th).
POLICE/AMBULANCE/FIRE: Fire 005, Reserve 006; Ambulance 006, Reserve 005; Police 002, Reserve 003.
TELEPHONES: A telephone connection available in all harbours.
SHIP SUPPLY SERVICE: English speaking Pilots keep watch round the clock at Oulu pilot station on VHF Channels 13 and 16. The have pilot boats for ship-to-shore transport in emergency cases. In other cases Oulu Harbour Radio keeps English speaking watch in office hours VHF Channels 13 and 16. At other times the Pilots help to translate messages to tugowners. Oulu Harbour and a few private Owners have tugboats for service around the clock. Vaasa Coastal Radio has watch around the clock on Channels 16 and 27. They can arrange a helicopter in emergency cases for service in whole Bay of Bothnia area.
DEVELOPMENTS: The 8.0 m. channel from Marjaniemi Pilot to Oulu Roads is under dredging to 10.0 m. with completion in late 1989.
AUTHORITY: Port of Oulu Authority, Harbour Office of Oulu, P.O.Box 48, 90521 Oulu, Finland. *Tel:* 981-344266. *Cables:* Satama. *Contact:* Veikko Lauriala, Port Captain. Tel: 358-81-344266.

PARGAS: 60.18 N. 22.18 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
2 Customs Provisions Lists.
2 Customs Special Lists.
2 Passenger Lists.
2 Copies each Bill of Lading.
Tonnage Certificate and in special instances other regular documents.
PILOTAGE: On arrival at Pargas, from Gulf of Finland, from Baltic via Uto, from Gulf of Bothnia via Enskar, information of ETA to be given in good time to respective pilot stations. VHF Channel 16 for calling, 13 for further communication. Charge for pilotage in accordance with official Finnish tariff. Harbour Pilot available, but not compulsory, and can be ordered through Sea Pilot.
ANCHORAGES: Well sheltered and safe anchorage, immediately outside harbour area.
MAX. SIZE: Maximum depth both in channel and along quay 6.70 m. As regards length of quay and possibilities for a quick dispatch, it is desirable (though not an absolute stipulation) that discharging vessel be a bulk carrier with the engines aft.
HEALTH: Free Pratique automatic for all vessels, but temporary exceptions in and according to regulations issued by WHO and Authorities may occur.
RADIO: Radio-telephone contact with Agent and consignee/shipper is obtained via Mariehamn, radio-call 2196 kHz, reply 1852 OHF; or via Hango, radio-call 1967 kHz, reply 2649 OFO. Contact with VHF is made via Abo, Channel 26.
TUGS: A small motor tug of 200 h.p. available.
BERTHING: Directions to berth via nearest pilot station, Pargasport. Quay level above water 1 – 2 m., dependent on berth.

Length of quays, 800 m. 2 electric coal-discharging bucket cranes and one electric conveyor belt.
STEVEDORES: Arrangements will be made by Agent, who must be advised of ETA previous day to enable arrange men, trucks, etc.
MEDICAL: Medical Officer available locally. Necessary examination and taking of tests usually done in Abo. Regular appointment with local physician can be arranged by telephone with Agent or doctor.
DENSITY: Brackish water 1002.
FRESH WATER: Delivery from installation on quay.
FUEL: No local supply. In case of need delivery by truck from Abo.
GANGWAY/DECK WATCHMEN: Available but not necessary.
OPENING/CLOSING HATCHES: Must always be performed by crew.
CERTIFICATES: Normally Tonnage Certificate only but in special instances other regular ship's documents may also be needed.
CUSTOMS ALLOWANCES: Tobacco, Wine and/or Spirits. In accordance with the decision of Customs Authorities.
CONSULS: See "Turku".
REPAIRS: Facilities for arranging small repairs on deck and engine in Pargas, but usually carried out by reliable companies in Abo.
DRY DOCKS: No local docking facilities. See "Turku".
AIRPORT: Nearest airport in Abo. Distance about 25 km.
HOLIDAYS: Whit Monday, Midsummer (2 days), All Saints' Day, Independence Day (6th December), Christmas (25th December). Work in harbour carried out during these days only under very pressing circumstances.
POLICE/AMBULANCE/FIRE: Police 744048; Ambulance 744064; Fire 005; Life-saving Corps 356595.
TELEPHONE: No facilities for placing telephone on board. Telephone available on quayside.
SHORE LEAVE: No restrictions for crew members.
IDENTIFICATION CARDS: Not required.
DELAYS: Vessels dispatched in order of arrival. Usually no delays occur as work has generally been carried out within the time limit stipulated in C/P. Port activity aimed at good dispatch of vessels, and consequently work in 2 shifts has been arranged.
AUTHORITY: Oy Partek Ab., 21600 Pargas, Finland. *Tel:* 921-742111. *Telex:* 62220. *Cables:* Pkpar Finland. *Contact:* Karl-Erk Lindholm, Manager of Shipping Department.

PATENIEMI: 65.06 N. 25.23 E. (See Plan)

OPERATORS: Veitsiluoto Oy, Pateniemi Sawmill. Port used for export of timber only, about 120,000 cu.m. per year. 12 km. North of Oulu.
DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
Customs Documents.
2 Crew Bond Declarations.
2 Ship's Bond Store Lists.
Derat Certificate.
4 Manifests.
2 Bills of Lading.
Ship's Register, Certificate of Tonnage.
PILOTAGE: Pilot station at Marjaniemi. Marjaniemi – Oulu Roads 40 nautical miles, 7.0 m. depth. Oulu Roads – Pateniemi 6.0 m. depth.
ANCHORAGES: Safe anchorage on Oulu roads. There are no safe anchorages West of the Hailuoto Island.
RESTRICTIONS: Day and night service, no tides. Winter season, contact ice-breaker 24 hours in advance on HF (2182), or VHF Channel 16.
MAX. SIZE: Only dry cargo vessels use this terminal. Max. draft 6.0 m. Length 100 m. (approx.).
HEALTH: No special rules existing in obtaining Pratique. If fever or disease suspected on board to be reported to ship's Agent, he will contact Health Authority for necessary arrangements.
RADIO: "Vaasa Radio" (North Quarken). Approaching Oulu contact Agent through "Vaasa Radio". Close to Hailuoto Island call "Oulu Radio" VHF Station, Channel 27.
RADAR/VHF: At Marjaniemi Pilot station, radar range 30 miles. Contact with HF (2182) or VHF (Channel 16). All ice-breakers keep watch on frequency 2182 and VHF (16).
TUGS: Tug optional. Tug will meet on Oulu Roads, according to agreement. Customary to use ship's ropes.
BERTHING: One berth of 85 m. enabling one vessel of medium size to load at quay. Depth at quay is 6.61 m.
STEVEDORES: 24 hours' notice of ETA to be given to Agent, who arranges necessary gangs.
MEDICAL: Medical attention arranged through Agent. 2–4 hours' notice required. Good hospital facilities available.
DENSITY: Fresh water.
FRESH WATER: Available and delivered by boat and from pipe-line.
FUEL: Small quantities of all grades available, delivered by lorries.
FIRE PRECAUTIONS: Smoking prohibited in timber yards.
GANGWAY/DECK WATCHMEN: Recommended.
OPENING/CLOSING HATCHES: Normally carried out by crew. Stevedores will do it by order of Master and will charge as ship work.
CERTIFICATES:
Nationality Certificate.
Measuring Certificate.
Load Line Certificate.
Classification Certificate.
Safety Equipment Certificate.
Radio Safety Equipment.
Derat Certificate.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes or 200 gm. pipe tobacco or equal amount of cigars allowed to each member of crew. Wine and/or Spirit: 1 bottle wine or spirits is allowed for each member of the crew.
CARGO GEAR: Tested cargo gear to international safety regulations. Test certificates to be on board.
CONSULS: British (Consul), Danish, French, Dutch, Italian, Norwegian and Swedish Vice-Consuls at Oulu.
SERVICES: Compass adjusters and ship's cleaning (no tank-washing).
REPATRIATION: Good facilities for effecting crew changes and to arrange necessary repatriations.
AIRPORT: Oulu Airport about 25 km. from harbour served by regular airlines. 7 daily flights to Helsinki and 6 flights from Helsinki to Oulu with continuous connection to Kemi and Rovaniemi.
TIME: Local time GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: General Holidays in Finland: New Year's Day (January 1st); Epiphany; Good Friday; Easter Monday; Labour Day (May 1st); Ascension Day; Whit Monday; Midsummer Day; All Saints' Day; Independence Day (December 6th); Christmas Day (December 25th); Boxing Day (December 26th).
POLICE/AMBULANCE/FIRE: Fire Tel: 005, Reserve Tel: 006; Ambulance Tel: 006, Reserve Tel: 005; Police Tel: 002.
REGULATIONS: Oil pollution strictly prohibited. Considerable number of logs lying in water and damages are ship's responsibility.
SHORE LEAVE: Crew members allowed ashore without restrictions.
IDENTIFICATION CARDS: Not needed.
AUTHORITY: Oulu Oy, Head Office, P.O.Box 196, SF-90101 Oulu 10, Finland. *Tel:* Int +35881 221411. *Telex:* 32138.

Sawmill Industry at Pateniemi: PL 29, SF-90581 Oulu, Finland. *Tel:* (9) 81 510555. *Telex:* 32274. *FAX:* (9) 81 511533. *Contact:* Shipping Department.

PORI, (including Mantyluoto, Reposaari and Tahkoluoto): 61.36 N. 21.29 E. (See Plan)

PORT LIMITS: The line between the lighthouses on Mantyluoto and Reposaari.
DOCUMENTS:

Ship's Register.	Customs Documents.
Crew List.	Manifests.
Passenger List.	Bills of Lading.

PILOTAGE: Pilot compulsory. Cable address: Luotsiasema, Mantyluoto (pilot station Mantyluoto), VHF Channel 16 or frequency 2182. 24 hour service by pilot boats from Mantyluoto pilot station, boats red-painted, international light or sound signals. Pilot to be taken 4 miles off Mantyluoto. In heavy fog, if required, pilot station able to navigate vessels into harbour by radar, provided vessel has corresponding equipment.
ANCHORAGES: Reposaari Roads and outside the breakwater.
RESTRICTIONS: Depth in the channel 8.6 m.
MAX. SIZE: *Tahkoluoto Oil Harbour:* Max. draft: 10.0 m.
Tahkoluoto Bulk Harbour: Max. draft: 10.0 m. Length of the quay 145 m.
Deep Water Harbour: (Berth Nos. 23-24). Length of quay 450 m. max. draft 15.3 m.
Reposaari: Max. draft 3.9 m.
RADIO: Inform Agents giving ETA via Helsinki Radio, Hanko Radio, or Mariehamn Radio, or VHF Channel 26, Pori.
TUGS: 5 tugs available from 200 h.p. up to 3,520 h.p. Tugs normally join the vessel near the quays. Tugs use ship's lines.
BERTHING:

Quay	*Quay Section*	*Depth of water (at normal water) (m.)*
Kivilaituri	1	6.0 – 6.5
	2	4.5 – 5.5
Betonilaiturin lansipaa	3, 4, 5	7.0
Betonilaiturin itapaa	6, 7, 8	6.5
	9	3.9
Vasikkaniemen etelalaituri	10	3.9
	11, 12	6.5
Vasikkaniemen paalaituri	13	7.0
Vasikkaniemen pohjoislaituri	14-18	8.1
Kirrisannan laituri	19	8.3
Reposaaren laituri	20	4.5
Tahkoluodon laituri	21	11.5
Deep water harbour	23,24	17.5

CRANES:

Quay	*Quay Section*	*Cranes*	
		Number	*Capacity*
Kivilaituri	1	—	—
	2	—	—
Betonilaiturin lansipaa	3, 4, 5	2 2	3 tons 3/5 tons
Betonilaiturin itapaa	6, 7, 8	—	—
	9	—	—
Vasikkaniemen etelalaituri	10 11,12	2	5 tons
Vasikkaniemen paalaituri	13	1	25 tons
Vasikkaniemen pohjoislaituri	14-18	2 1 1	6 tons 15/30 tons 16/40 tons
Kirrisannan laituri	19	1	200 tons
Reposaaren laituri	20	—	—
Tahkoluodon laituri	21	2	6 tons
Deep water harbour	23,24	1	1,500 t.p.h. (unloader)
		2	20/40 tons

CARGO HANDLING FACILITIES: Three Ro/Ro berths (Berths No. 2, 18 and 19)., 30-ton and 40-ton cranes able to handle containers.
Tahkoluoto Bulk Harbour: Transhipment berth (Berth No. 21) equipped with conveyor, rate 1,200 t.p.h. Unloading capacity at new Deep Water Harbour is 1,000-1,400 t.p.h. by Siwertell travelling ship unloader.
STEVEDORES: The vessels receive workers in the order in which they enter the harbour. ETA advices appreciated in order to facilitate arranging gangs.
MEDICAL: No advance notice for medical attention required. Hospital facilities available.
TANKERS: Berth No. 22. Depth 11.5 m. Max. draft 10.0 m.
DENSITY: 1004.5.
FRESH WATER: Supply by shore installation.
FUEL: All grades available.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: This work normally carried out by crew.
CERTIFICATES: Load Line Certificate; and during Winter season Ice Dues Certificate which issued by authorities for each season.
CONSULS: Vice-Consuls: Britain, Tel: 939/443122; Denmark, Tel: 939/443122; Netherlands, Tel: 939/443222; Norway, Tel: 939/443222; Sweden, Tel: 939/11141.
REPAIRS: Most repairs possible.
AIRPORT: Distance from airport 22 km. Served regularly by Finnair.
TIME: Local time 2 hours ahead of GMT. 3 hours ahead in Summer. (end March – end September.)
GENERAL: Harbour icebreaker "Porin Karhu", 3,500 h.p. available.
AUTHORITY: Port of Pori Authority, 28880 Pori 28, Finland. *Tel:* 39-443700. *FAX:* (35839) 443911. *Contact:* Hannu Sjoros, Harbour Master. Simo Hermonen, Port Manager.

PORKKALA (Kantvik): 60.05 N. 24.23 E. (See Plan)

Documents and all general information, refer to "Helsinki".
PILOTAGE: A Pilot can be obtained from the Pilot Station of Porkkala, Tel. 90–2984 112 or VHF Channels 13 and 16. Distance to port about 14 miles. Pilotage in the harbour area may be carried out only by State-appointed Pilots. Pilotage in the harbour is not obligatory.
MAX. SIZE: Maximum draft 30 ft. 2 in. (9.2 m.).
APPROACHES: There are four official ship routes leading to the port of Porkkala (Kantvik) of Suomen Sokeri Osakeyhtio. The deepest one is 9.2 m. (30 ft.) and the shallowest one is 5.5 m. (18 ft.). The port does not have an ice-breaker of its own and the fairway is kept open by means of the State's ice-breakers.
CLEARANCE: The Customs formalities of the port are attended to by the Custom House of Helsinki.
TUGS: A tug is available.
BERTHING: The Port of Porkkala (Kantvik) is owned by Suomen Sokeri and it is located at Kantvik. Directly in the vicinity of the port there is the factory of Suomen Sokeri Osakeyhtio (sugar mill). The port basin has 3 quays:

The outer quay is 110 m. long, draft 9.2 m. (30 ft. 2 in.).

The inner quay is 50 m. long, draft 5.3 m. (17 ft. 4 in.).

The fairway of the port basin is 120 m. wide, narrowing up at its end to 76.5 m. South quay (at the South bank of Kantvik Bay) is 60 m. long, draft 9.2 m. (30 ft. 2 in.).
DENSITY: 1004.
CRANES: Two cranes, capacity 8 tons. One crane is on the outer quay and one on the South quay.
FRESH WATER: Available at quays.
CONSULS: Nearest in Helsinki.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Normally by the crew.
AIRPORT: Nearest Helsinki, distance 45 km.
TIME: Local time is GMT plus 2 hrs. GMT plus 3 hours in Summer.
HOLIDAYS: On Saturdays, Sundays and General Holidays in Finland no cargo work is done.
POLICE/AMBULANCE/FIRE: Contact the Gatehouse of Factory.
TELEPHONES: Can be arranged on board. Telephone calls can be made from the Harbour Office during day-time.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not needed.

SHIPMASTER'S REPORT: The sugar discharging berth for Porkkala is at Kantvik, situated in Lat. 60° 05′ N., Long. 24° 23.25′ E., about 21 miles West of Helsinki.

The Pilot for the port is embarked at the position indicated on British Admiralty Chart No. 2331, 115°×3.5 miles from Porkkala lighthouse. From there to the berth is 12 miles and the passage presents no difficulties. It is well lit, and there is ample water. The least depth recorded was 31 ft. and that was alongside the berth. There is a powerful tug for assisting in berthing and unberthing.

The discharging berth, alongside which vessels lie port side to, is modern and well fendered. It is sheltered from most directions. Unfortunately, the berth is short for a 500 ft. vessel, and additional moorings have to be placed from amidships.

There is only 1 crane on the berth and to work either of the end hatches a shift would be necessary. Work was continuous while the vessel discharged her part cargo at Kantvik, and an out-turn rate of 100 t.p.h. was achieved.

Fresh water is readily available from the Jetty, and presumably, fuel could be obtained from Helsinki. Telephones in the dock offices are available for official use.

There is a bus service to and from Helsinki, the journey taking about 40 minutes.

AUTHORITY: Finnish Sugar Co. Ltd., Porkkala Plant, SF-02460 Kantvik, Finland. *Tel:* +358-0-297-41 (international); (90)297-41 (domestic). *Telex:* 121076 Supo Sf. *Contact:* Claes E. Tigerstedt, Harbour Master. Tel: (09) 298-5266 (Residence).

PORVOO (Skoldvik): 60.18 N. 25.33 E. (See Plan)

The harbour is a private oil harbour owned and managed by Neste Oy.

The harbour is located at Skoldvik in the municipal area of Porvoo about 45 km. (28 miles) East of Helsinki, Lat. 60° 18′ N., Long. 25° 33′ E. The area is shown on Finnish Marine Chart Nos. 17 and 902.

The distance from the Kallbadagrund Lighthouse to the harbour is 20.5 nautical miles (38 km.). The minimum width of the harbour channel is 270 m. (885 ft.) and the approved depth is 15.3 m. (50 ft.).

The water level varies between +1.5 m. and −0.75 m. (+5 ft. and −2.5 ft.) depending on the wind. There are no tides in the area.

The Winter period is from January to the end of April. During this time the channel from the open sea to the harbour is kept open by icebreakers owned by the State. The Finnish Board of Navigation determines the requirements for vessels allowed to enter various ports during this period.

DOCUMENTS: The following documents shall be handed over after berthing:

4 Crew Lists.
2 Lists of Visitors.
3 Passenger Lists.
1 Provision List.
1 Special List (Customs).
Ship's Register, Certificate of Tonnage.
Cargo Documents.

PILOTAGE: Pilotage is compulsory. The Pilots are Sea Pilots employed by the State. They also perform the pilotage inside the port area.

The pilot station is at the outer end of Emsalo Island. Vessels entering from the sea are boarded by the Pilot at Kallbadagrund, Lat. 59° 59.1′ N., Long. 25° 36.1′ E.

The Pilot shall be called by using the international code, VHF Channels are 13 and 16.

The Sea Pilots serve as Docking Masters berthing the vessel with the help of 2 tugs when the vessel is over 15,000 tons.

RESTRICTIONS: Vessels can enter and leave the harbour 24 hours a day. However, vessels whose keel clearance is minimal are not allowed to berth in darkness or under unfavourable wind conditions.

In Winter, port kept open by ice-breakers.

MAX. SIZE: Up to about 260,000 d.w.t. Max. draft 15.3 m.

HEALTH: Bill of Health not required. In case suspected disease or fever on board, radio Agent full details before arrival to advise Port Health Officer in advance.

RADIO: Notice of arrival shall be given 12 hours before the calculated time of arrival by the ship's Agent (Helsinki Radio). Two hours before arrival at the boarding site for the Pilot, the same notice shall be sent, including

1) The name and the nationality of the vessel
2) Nett registered tonnage
3) The time and date of the notice
4) The draft of the vessel
5) Time of arrival at the boarding site for the Pilot.

VHF: The harbour office is open 24 hours a day. It is provided with the VHF station "Neste". The following Channels are available: 6, 9, 13, 15, 16, 17 and 21. Telex connection is 12467159.

TUGS: The harbour tugs "Esta" and "Esko" owned by Neste are available to handle vessels. Respective capacities are:

"Esta" 1,000 kW (1,330 h.p.)
"Esko" 2,352 kW (3,200 h.p.)

Vessels over 80,000 d.w.t. need additional tugs, which the ship's Agent shall order from Helsinki.

The ship's own lines shall be used for towing.

Tug to stand-by whilst vessel discharging if vessel over 130,000 d.w.t.

BERTHING: There are 5 berths available for discharging crude oil and loading of oil products. 2 additional berths are available for handling of petrochemical products.

Loading and discharging is possible around the clock. During the icefree period all berths are surrounded by oil booms.

Berth 1: Face direction 023° 42′
Water depth 12.6 m. (41 ft.)
Maximum vessel size about 50,000 d.w.t.

Berth 2: Face direction 128° 42′
Water depth 17.6 m. (57 ft.)
Maximum vessel length 330 m. (1,082 ft.) without special permission
N.B.
Vessel to be moored starboard side alongside
Shore gangway
Maximum reach of loading arms +21.5 m. (+70 ft.) from sea level

Berth 3: Face direction 128° 42′
Water depth 17.6 m. (57 ft.)
Maximum vessel length 280 m. (918 ft.)
N.B.
Vessel to be moored starboard side alongside
Shore gangway
Maximum reach of loading arms +19.5 m. (+64 ft.) from sea level

Berth 4: Face direction 017° 56′
Water depth 15.3 m. (50 ft.)
Maximum vessel size about 150,000 d.w.t.

Berth 5: Face direction 002° 58′
Water depth 8 m. (26 ft.)
Maximum vessel size about 8,000 d.w.t.

Berth 8: Face direction 004° 42′
Water depth 13.5 m. (44 ft.)
Maximum vessel size about 40,000 d.w.t.

Berth 9: Face direction 333° 18′
Water depth 7.3 m.
Maximum vessel size about 7,000 d.w.t.

The water depths correspond to the normal water level.

All loading arm flanges are ANSI 150 lb. RF. For tugs and cargo vessels there are separate berths in the harbour.

DISCHARGING/LOADING: The usual methods are applied in discharging and loading. While discharging and loading the safety rules for Neste tank vessels and oil harbours shall be followed.

Crude oil can be discharged simultaneously at a maximum of three berths. However, at Berths 2 and 3 only one ship at a time can be discharged because of a common pipe-line.

Berth 8 is used for benzene loading, capacity 500 cu.m./h. and propylene loading, capacity 400 cu.m./h.

During cargo handling adequate crew shall be on board. A gangway watchman is not required.

Loading and Discharging Facilities:

Berth 1: Discharging rate 4,000 cu.m./h., shore line 24 in. diameter, arms No. 12 and No. 13, 2×12 in. diameter.

Loading rate for heavy fuel oil 3,500 cu.m./h., shore line 20 in. diameter, arms No. 12 and No. 13, 2×12 in. diameter.

Loading rate for diesel oil 2,000 cu.m./h., shore line 14 in. diameter, arm No. 14, 1×12 in. diameter.

Loading rate for gasoline 2,000 cu.m./h., arm No. 15, 1×12 in. diameter.

Loading rate for jet fuel 500 cu.m./h., arm No. 16, 1×8 in. diameter.

Deballasting 1,000 cu.m./h., arm No. 12, 1×12 in. diameter.

Bunkering rate 600 cu.m./h., arm No. 11, 1×8 in. diameter.

All flanges ANSI 150 lb., RF.

LPG loading rate 80 cu.m./h., hose 1×4 in. diameter, flanges ANSI 300 lb., RF.

Berth 2: Discharging rate 11,000 cu.m./h., main shore line 40 in. diameter, arms No. 22, No. 23 and No. 24, 3×16 in. diameter.

Loading rate for heavy fuel oil 5,000 cu.m./h., arm No. 22, 1×16 in. diameter.

Deballasting 1,000 cu.m./h., arm No. 22, 1×16 in. diameter.

Bunkering rate 600 cu.m./h., arm No. 21, 1×10 in. diameter.

All flanges ANSI 150 lb., RF.

Berth 3: Discharging rate 6,000 cu.m./h., main shore line 40 in. diameter, arms No. 34 and No. 35, 2×12 in. diameter.

Loading rate for heavy fuel oil 5,000 cu.m./h., arms No. 34 and No. 35, 2×12 in. diameter.

Loading rate for diesel oil 2,500 cu.m./h., arm No. 33, 1×12 in. diameter.

Deballasting 1,000 cu.m./h., arm No. 35, 1×12 in. diameter.

Bunkering rate 600 cu.m./h., arm No. 37, 1×8 in. diameter.

All flanges ANSI 150 lb., RF.

Berth 4: Discharging rate 6,000 cu.m./h., shore line 24 in. diameter, arms No. 42 and No. 43, 2×12 in. diameter.

Loading rate for heavy fuel oil 4,000 cu.m./h., shore line 20 in. or 24 in. diameter, arms No. 42 and No. 43 or No. 43 and No. 44, 2×12 in. diameter.

Loading rate for diesel oil, cat cracked spirit and unleaded gasoline 2,000 cu.m./h., arm No. 44, 1×12 in. diameter.

Loading rate for gasoline 2,000 cu.m./h., arm No. 45, 1×12 in. diameter.

Loading rate for straight-run naphtha 1,500 cu.m./h., arm No. 44, 1×12 in. diameter.

Loading rate for bitumen 1,000 cu.m./h., arm No. 40 1×8 in. diameter.

Deballasting 1,000 cu.m./h., arm No. 42 and No. 44, 2×12 in. diameter.

Bunkering rate 600 cu.m./h., arm No. 41, 1×8 in. diameter.

All flanges ANSI 150 lb., RF.

Discharge rate for coal: 11,000 tons per 24 hours.

Berth 5: Discharging rate 1,000 cu.m./h., arm No. 51, 1×8 in. diameter.

Loading rate for heavy fuel oil 1,000 cu.m./h., arm No. 51, 1×8 in. diameter.

Loading rate for diesel oil 1,000 cu.m./h., arm No. 52, 1×8 in. diameter.

Loading rate for gasoline 1,000 cu.m./h., arm No. 53, 1×8 in. diameter.

Deballasting 1,000 cu.m./h., arm No. 51, 1×8 in. diameter.

Bunkering rate for heavy fuel oil 600 cu.m./h., arm No. 51, 1×8 in. diameter.

Bunkering rate for diesel oil 40 to 1,000 cu.m./h., arm No. 52, 1×8 in. diameter and hose 1×2 in. diameter.

All flanges ANSI 150 lb., RF.

LPG loading rate 80 cu.m./h., hose 1×4 in. diameter, flanges ANSI 300 lb., RF.

Berth 8: Loading rate for benzene 500 cu.m./h., arm No. 81, 1×8 in. diameter.

Loading rate for phenol 100 cu.m./h., hose 1×6 in. diameter.

Loading rate for propylene 400 cu.m./h., hose 1×8 in. diameter.

Loading rate for oily water 100 cu.m./h., hose 1×4 in. diameter

Loading rate for acetone 300 cu.m./h., arm 1×8 in.

Flanges for propylene loading ANSI 300 lb., RF.

All other flanges ANSI 150 lb., RF.

Berth 9:
Discharging rates for:

Styrenemonomer	500 cu.m./h.
Ortoksylene	500 cu.m./h.
Hexanol	500 cu.m./h.
Glykol	60 cu.m./h.
Oktanol	500 cu.m./h.
VCM	45-200 cu.m./h.
Isobutene	270 cu.m./h.
Ethylene	270 cu.m./h.
Vinylasetate	200 cu.m./h.
Alfol-610	500 cu.m./h.
Butadiene (loading)	270 cu.m./h.

BALLAST: There are facilities for discharging ballast at oil berths. However, discharging can be effected simultaneously only from 2 berths.

The capacity of the ballast handling system of the refinery is 30,000 cu.m. and the maximum discharging rate at each berth is 1,000 cu.m./h. Ballast over 5,000 cu.m. must be reported 48 hours prior to arrival.

The harbour office collects a charge to cover treatment costs for receiving ballast.

Berth No. 8: Flushing water for the tanks can be discharged provided that the pollutants can be handled in the Neste waste water treatment system. In that case the capacity is 100 cu.m./h.

MEDICAL: In emergency a doctor can be called on board. To call ambulance, dial 69-2222. The nearest hospitals are in Porvoo and in Helsinki. Ship's Agent helps in other medical problems, such as providing medicines.

DENSITY: 1006.

FRESH WATER: Drinking water can be supplied from:

Berths 1, 4 and 5	25 cu.m./h.
Berths 2 and 3	50 cu.m./h.(2 connections)
Berths 8 and 9	20 cu.m./h.

FUEL: Bunkering facilities are installed at oil berths. Two grades are available, marine fuel oil and marine diesel oil.

The bunkering capacities:

Marine fuel oil	600 cu.m./h.
Marine diesel oil	up to 1,000 cu.m./h.

The diesel oil can be delivered through product lines. Bunkers must be ordered with 72 hours' notice addressed to Neste Marine Product Sales, Telex: Hki 12-4641.

Bunkering at Berths No. 8 and 9 is by truck only.

GANGWAY/DECK WATCHMAN: Not required.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle wine or spirits for each man.

REPAIRS: Only minor repairs can be effected following the safety rules and with the permission of the harbour office.

REPATRIATION: Disembarking is possible. A foreigner needs a passport. Distance to Porvoo is 20 km. (12.5 miles) and to Helsinki 45 km. (28 miles).

AIRPORT: There are daily flights from Helsinki – Vantaa Airport with good connections all over the world. Distance to the airport is about 50 km. (30 miles).

TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.

TELEPHONE NUMBERS: After berthing a telephone connected to the local automatic exchange will be placed on board all vessels, the respective dial numbers being:

Berth 1	23333
Berth 2	23334
Berth 3	23335
Berth 4	23336
Berth 5	23337
Berth 8	23341
Berth 9	(90) 224304

Important Numbers:

Harbour Office	23339 693115 and 693117
Customs	23293
"Esta"	23423 or 693134
"Esko"	23423 or 693134
Fire Alarm/ Ambulance	69-2222

Bus Connections, Taxi:

Bus connection daily to Porvoo from 0700 to 2300 hrs.

Taxi 24 hours

	Tel.
Neste Oy Taxi Station	23245
Pekema Oy Taxi Station	23390
K-O Johansson	22252

GENERAL: *Inspections:*

To avoid oil accidents, an inspection based on the checking list is carried out before loading/discharging to find out the preparedness of the vessel to act in an emergency.

Vessels loading/discharging oil products are surrounded by oil booms.

Inspections are carried out and loading/discharging is supervised by the Loading Master, whose instructions must be followed. If he is not on board, he can be contacted by telephone, No. 23339 or 693115 or 693117.

REGULATIONS: In addition to the existing Finnish laws, statutes and other regulations the Port Regulations of Neste Harbours must be followed.

Some excerpts:

Entering the Harbour: Vessels carrying explosives or flammable liquids or gases shall observe what has been separately laid down concerning such cargo. The vessel shall show the prescribed caution sign in the harbour area.

Traffic in the Port Area: In the port area the speed of the vessel shall be according to the circumstances, so that no harm or danger shall be caused to anyone. Oil booms, underwater jobsites etc. shall be passed with special care. The maximum speed allowed in the port area is 6 knots, unless otherwise stated by the Harbour Office.

Berthing of the Vessel: Without urgent need, anchorage is prohibited in the marked fairway, in the vicinity of the submarine pipe-lines or cables or in any place where the vessel may disturb the traffic.

The vessel shall be moored alongside the berth appointed by the Harbour Authorities and it shall not be removed without permission.

While berthing or unberthing or whilst moored at the berths the relevant safety precautions shall be taken to avoid any damage to the berths.

All ships' scuppers must be plugged or closed by mechanical means so that no water, steam or dirt comes into contact with the berth or its immediate vicinity.

A sufficient crew shall be maintained on board to ensure that the ship can be removed, if necessary.

Prevention of Shallowing and Contamination of the Harbour: In the port area it is prohibited to discharge oil or oil-emulsified water. In the Baltic Sea the existing restrictions must be observed.

The jettisoning of garbage and refuse is prohibited in the port area. The blowing of tubes and boilers of the ship while at the berth is prohibited.

AUTHORITY: Neste Oy, Porvoo Works, Harbour Office, 06850 Kulloo, Finland. *Tel:* 693106. *Telex:* 12464159. *Contact:* Harbour Master.

RAAHE (Rautaruukki Oy): 64.41 N. 24.29 E. (See Plan)

PORT LIMITS: Vessel is considered to be an "arrived vessel" subject to Charter Party Terms, when passing breakwaters if not ordered to anchor near Raahe Lighthouse by Port Authority.

DOCUMENTS:
- Crew Lists.
- Passenger List.
- Ship's Register.
- Custom List.
- Provisions List.

PILOTAGE: Compulsory. To avoid delay in obtaining a Pilot the Owners, Master or Agent of the ship bound for Raahe must report vessel's ETA 6 hours in advance of ETA. ETAs must be confirmed or corrected not less than 2 hours prior to ETA by VHF contact with pilot station on Channel 16.

Pilots board and disembark by pilot cutter (red) near Raahe Lighthouse (Lat. 64° 39′ N., Long. 24° 13′ 5″ E.). Day and night service. Distance from lighthouse to port is 6 miles.

ANCHORAGES: Vessels can anchor outside Raahe Lighthouse, depth 15 m. – 20 m. No anchorages inside breakwaters.

RESTRICTIONS: No restrictions night entry.

MAX. SIZE: Max. sailing draft at MLW from Port of Rautaruuki Oy is 7.8 m.

RADIO: Helsinki Radio, 2182 kHz, call sign OHG, Mariehamn Radio, 2182 kHz, call sign OFH; Vaasa Radio 2182 kHz and VHF Channels 16, 24 and 27, call sign OFW.

RADAR/VHF: No port radar services. Pilot station. Radio, 2182 kHz, VHF Channel 16. Rautaruukki Oy Harbour Office, VHF Channel 16 and 9 (0600 hrs. – 2200 hrs.) and tugs on VHF Channel 16.

TUGS: 2 tugs, 600 h.p. and 350 h.p. Tug assistance not compulsory but recommended.

BERTHING:

Pier	*Berth No.*	*Length (m.)*	*Depth at MLW (m.)*
Import Pier	1,2,3	370	9.05 (280 m.) 7.40 (90 m.)
Export Pier	4,5	270	9.05 (180 m.) 7.40 (90 m.)
Oil Pier	6,7	200	9.05
Lapaluoto	8	140	6.70 (outer berth) 5.40 (inner berth)
Ore Harbour	9		6.70

STEVEDORES: Rautaruukki Oy, in Steelworks Harbour; Lapaluoto private firms.

SPECIALISED CARGO – HANDLING FACILITIES: Lapaluoto Harbour, no shore cranes, Ore Harbour (Helmi), only conveyor. Rautaruukki Oy Harbour, import quay equipped with 3×12.5 ton shore cranes and conveyor; export quay equipped with 1×12.5 ton and 1×40 ton shore crane, straddle carriers, forklifts, payloaders, lorries and equipment for handling steel, bulk and general goods.

LIFEBOAT STATION: Lifeboat cutter "Niilo Saarinen", 360 h.p., 10 knots. Radio 2182 kHz, VHF Channel 16, Radar, fire and suction pump 4,000 litres/minute. Alarm through National Lifeboat Service, Pilot or Police Stations.

DENSITY: Average density 1003.

FRESH WATER: Available at all berths in Rautaruukki's harbour.

FUEL: Small quantities available, one day's notice required.

FIRE PRECAUTIONS: No special precautions in Lapaluoto Harbour.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Normally by the crew.

CUSTOMS ALLOWANCES: About 200 cigarettes and limited amount spirits per man.

CONSULS:
Denmark 31146 – 37269
Norway 31146 – 37269
Sweden 37300 – 37007

REPAIRS: Mechanical workshops available. Slip for small ships.

DRY DOCKS: None.

SURVEYORS: Lloyd's and Norske Veritas.

AIRPORT: Oulu Airport, about 70 km. from Raahe.

REPATRIATION: Crew changes and repatriation can be carried out without difficulties.
TIME: Local time is GMT plus 2 hours. GMT plus 3 hours in Summer, (early April – late September).
HOLIDAYS: New Year's Day; Twelfth Night; Good Friday; Easter Monday; Labour Day (1st May) holiday when no work takes place; Ascension Day; Whitsun Monday; Midsummer Day; All Saints' Day; Independence Day (6th December); Christmas Day and Boxing Day.
POLICE/AMBULANCE/FIRE: Police 37911; Ambulance; Fire and First Aid 005.
TELEPHONES: Telephones may be placed on board at a charge.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
GENERAL: *Shipping Season:* Normal shipping season for non-ice strengthened vessels is May – December. During the rest of the year icebreaker assistance is normally necessary and given only to ice strengthened vessels.

Harbour basin stays free of ice throughout the year because of factory's warm cooling water.

The installations of the harbour are operated throughout the year.
Services: Lub. oil, drinking water, boiler water, provisions, stores, launches, facilities to receive garbage and oily water and minor repairs.

Consult Rautaruukki Oy Harbour office for further information.
Litter: Littering is forbidden. In such cases, harbour authorities will activate the cleaning process and charge the ship for expenditure. All garbage must be sent ashore.
Spirits: Selling of alcohol on board a cargo vessel is forbidden by the law. Penalties in such cases are high.

Drunken workers will be relieved of their duties immediately.
Cameras: The steelworks area is private property. Photographing is forbidden in the whole area. Exceptions may only be made by the owner.
Safety: All necessary precautions must be taken for the safety of the workers.

A protective net must be placed under the gangway stretching about 2.0 m. over its lower part in order to prevent any falls.

Safety inspection is undertaken on ship's arrival by the harbour authorities.
Visitors: Visitors will be allowed into the harbour area if they have a pass card signed by the ship's Master and the security service of the factory.
AUTHORITY: Rautaruukki Oy, Raahe Steel Works, Harbour Office, Box 93, 92170 Raahensalo, Finland. *Tel:* 358-82-302304. *Telex:* 32132 Steel SF. *FAX:* 358-82-302239. *Cables:* Rautaruukki, Raahe. *Contact:* Captain R. Rahja, Port Captain. Tel: 982-302304.

RAUMA: 61.08 N. 21.30 E. (See Plan)

PORT LIMITS: Southern entrance port limit when passing Tankkarit, northern entrance port limit when passing Riskonpoella.
DOCUMENTS: 2 Crew Lists and 1 Passenger List. Ship's Register, Customs Documents, Ship's Papers, etc. (Ship's Agent will give the necessary advice).
PILOTAGE: Pilot station at Kylmapihlaja-island, Lat. 61° 08′ 7″ N., Long. 21° 18′ 4″ E. Pilot boards vessels East of Rauman Majakka light. International Pilot signals, VHF Channels 16 and 13. Fairways: Valkeakari 6.5 m.; deep passage 9.0 m.
ANCHORAGES: Ample area for anchorage in Archipelago.
RESTRICTIONS: Entrance: North Channel 6.5 m., South Channel 9.0 m., max. draft 9.0 m. Harbour open all year round.
MAX. SIZE: Draft limit only.
HEALTH: In the event of any suspect contagious disease ask for orders by wireless. Port Regulations do not allow such a ship to come alongside or closer than 350 yards. Pilot must not leave ship before allowed by the Doctor. Pilot does not board an infected ship but ship piloted to safe anchorage by pilot boat.
RADIO: Helsinki Radio, Hanko Radio, Mariehamn Radio and nearest station Vaasa Radio.
VHF: Vaasa VHF, intermittent watch on Channels 16, 26 and 28. Channel 16 used for calling Pilot, tug etc. Channels 13 and 12 for further operations.
RADAR: When required pilot station radar used for advising Pilot onboard.
TUGS: 3 ice-breaker tugs available (up to 3,500 b.h.p.) 24 hours per day. 2 hours' notice recommended.
BERTHING:

Quay	*Length* (m.)	*Depth Alongside* (m.)	*Remarks*
Petajas	223	10.9 – 11.1	Bulk Cargo
Hakuni	250	6.7 – 7.3	General Cargo
Central	410	6.6 – 7.3	General Cargo
Laitsaari	280	9.15	General Cargo
Suoja	110	5.7	General Cargo
Chemical I	100	5.5	Liquid Cargo
Chemical II	110	7.25	Liquid Cargo
Oil	125	9.15	Oil Carriers
Ro-Ro No.1	—	6.6 – 6.8	—
No.2	250	6.7 – 7.3	—
No.3	120	8.6	—
No.4	110	8.5	—
No.5	—	5.0 – 7.3	Under construction

CRANES: 2×6 tons; 1×5 tons; 2×3 tons. 15 mobile cranes 5 – 42 tons available. 1 jib crane of 40 tonnes for containers and 30 tonnes for bulk.
STEVEDORES: 24 hours' notice to Agent recommended.
BULK CARGO FACILITIES: Part of Central Quay for bulk carriers, shore cranes, max. draft 7.0 m.

Petajas Quay for bulk carriers, max. draft 9.0 m. (depth alongside 10.9 – 11.1 m.).

Facilities for grain cargo.
SPECIALISED CARGO – HANDLING FACILITIES: Containers can be handled by harbour cranes and mobile cranes.

Good berths for Roll-on/Roll-off traffic.

Oil slop discharge to tanks available.

Different kinds of liquid chemicals can be handled in special berths.
MEDICAL: Advance notice recommended if possible. Hospital available (231 beds).
TANKERS: See "Berthing".
DENSITY: 1004 – 1003.
FRESH WATER: Fresh water available on any quay. Charges depending on amount taken. An extra fee is charged if tug is used.
FUEL: Fuel brought by tank-trucks.
GANGWAY/DECK WATCHMEN: Available if wanted. Watchmen supplied by private company.
OPENING/CLOSING HATCHES: Performed by ship's crew or by Stevedores at request of ship.
CUSTOMS ALLOWANCES: Tobacco: 6 day's ration (about 200 cigarettes or 200 gm. tobacco). Wine and/or Spirits: 1 opened bottle of wine or liquor, subject to Customs Regulations.
CARGO GEAR: At Central Quay and Petajas Quay shore gear available. Other quays mobile gear or ship's gear.
CONSULS: Denmark, Norway and Sweden.
REPAIRS: All types available.
DRY DOCKS: Rauma-Repola Oy: Dry dock 159 m.×21.7 m.×7.3 m. All sorts of repairs. Hollming Oy: Slipway for ships up to 600 d.w.t.
Cranes: Movable electric crane up to 80 tons.
SURVEYORS: Oy Saletra Ltd. (independent marine surveys) Tel: 358-38-221440. Fax: 358-38-211939.

SGS Inspection Services Oy. (chemical surveys). Tel: 358-38-241177. Fax: 358-38-222332.
REPATRIATION: Repatriation and signing on or off.
AIRPORT: Pori – airport 50 km. away. Regular connections.
TIME: Local time is 2 hours ahead of Greenwich (Long. 30° E.). GMT plus 3 hours in Summer.
HOLIDAYS: See "Turku".
POLICE/AMBULANCE/FIRE: Police, 002 and 003; Ambulance, 006; Fire alarm, 005. Public emergency, 000.
TELEPHONES: Oil quay, Laitsaari Quay and Iso-Hakuni Quay.
SERVICES: Compass adjusting facilities and compass adjusters.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Normally no identification card needed but passport or Seaman's Book preferable.
DELAYS: No delays in berthing, loading and discharging weather permitting.
DEVELOPMENTS: New warehouses and storage fields under construction.

Bulk berth and Ro/Ro No. 5 Berth to be completed December 1989.
AUTHORITY: Port of Rauma Authority, 26100 Rauma, Finland. *Tel:* 358 38 3411. *Telex:* 65182 Raupo Sf. *FAX:* 358-38-226369. *Cables:* Rauma Harbour Master. *Contact:* Seppo Koskinen, Harbour Master.

SAIMAA CANAL AND PORTS IN LAKE AREA OF SAIMAA (See Plan)

APPROACH CHANNELS: The canal can be reached from the international waters of the Gulf of Finland through an approach channel South of Someri. The channel passes the Island of Vihrevoi and continues, at the Island of Malyj Vysotski, as the Vysotski-Viipuri Channel, from which the approach channel departs at a distance of 10 km. from Malyj Vysotski. The length of the approach channel from the point of departure to the Brusnitchnoe Lock is 14 km. The distance from the international water area to the Island of Vihrevoi is 94.5 km. and the length of the section Vihrevoi-Malyj Vysotski 12 km. The total length of the channel from the territorial waters of the Soviet Union to the Brusnitchnoe Lock is thus 131 km.

From the territorial waters of Finland the canal may be reached through the so-called coastal channel starting from the Finnish border at the island of Santio and joining the above sea channel at the Island of Vihrevoi. The length of the channel from the border to Vihrevoi is 49 km. and the overall length to the Brusnitchnoe Lock is 85.5 km. The channel and its refuge harbours have been marked on the Soviet sea charts Nos. 1131 and 1132 and on Finnish charts Nos. 11 and 12. The coastal channel may also be used by vessels of other nationalities.
Canal: The length of the canal on the Finnish side of the border is 23.3 km. and that of the part on the Soviet side 19.6 km. The overall length of the Saimaa Canal is thus 42.9 km. The average difference in the height between Lake Saimaa and the Gulf of Finland is 75.6 m. The canal has 8 locks, the heights of fall of which range between 5.54 m. and 12.69 m. Earth transports will use the 7 moving bascule bridges and the 6 stationary bridges across the canal.
NAVIGATION SEASON: The natural open water season of the Saimaa Canal lasts on average 211 days. Since most vessels navigating in the Canal have been strengthened and inspected for navigation in ice, a season of navigation of nine months has lately been reached, the season beginning in early April and ending in January. The goal is to prolong little by little the season to ten months long.

The opening and closing of the season of navigation on the Canal is decided each year by the Finnish and Soviet Saimaa Canal Delegates. The opening will be announced not later than 1 day before the opening day and the closing not later than 7 days before the closing day.

During the season of navigation the Saimaa Canal and the other deep channels are kept open 24 hours a day.
PILOTAGE: *Use of Pilot is compulsory in the Soviet territory:* Pilotage in the Soviet water area is carried out by the Soviet Pilot Service. Pilotage is needed when using the outer channel between Vihrevoi – Brusnitchnoe and when using the coastal channel between the border – Brusnitchnoe. All vessels must use Pilot on these channel sections.

Pilotage on the Saimaa Canal: Pilotage on the section Brusnitchnoe – the lock of Malkia is carried out by canal pilots subordinated to the Saimaa Canal Office. All vessels, excluding small Finnish vessels less than 25 m. in length, shall use a Pilot when proceeding through the Canal. The Canal Office may grant upon application to a Master of a vessel the right to navigate a certain vessel on the Canal without a Pilot provided that the Master of the vessel has passed an examination required for the purpose.

Pilot must be ordered 12 hours in advance of point of receipt of Pilot: In navigation from the Gulf of Finland the Pilot must be ordered from the Viipuri Section of Inflot 12 hours before the arrival at the point where the Pilot is taken on board. The order must be checked 4 hours before the start of the pilotage. When using the coastal channel it is recommended, however, that the checking is done 6 hours before the start of the pilotage. To avoid excessive work by the Pilot Service and to eliminate delays special attention is to be paid to the accuracy of the time the pilotage is to be started, particularly in the last notifications.

In navigation from the Lake Saimaa the Pilot must be ordered from the Canal Office 12 hours before entrance into the Canal. The order must be checked two hours before the pilotage is to be started.

In navigation from the Gulf of Finland a Canal Pilot need not be ordered separately. Similarly, a Soviet Pilot for the approach channel need not be ordered separately when the vessel proceeds from Lake Saimaa.

Pilotage in the water system of Saimaa: Pilotage in the water system of Saimaa is carried out by Pilots of the National Board of Navigation in Finland. The order for Pilots shall be made 6 hours before the start of the pilotage to the pilot stations of Saimaa of the National Board of Navigation in Finland.

MAX. SIZE: The canal can be used by vessels with dimensions not exceeding the following:

Length	82.0	m.
beam	11.8	m.
draft	4.35	m.
height of mast	24.5	m.

The draft of a vessel in tow, however, shall not exceed 4.5 m. For vessels larger than those mentioned above, a permit for navigation on the canal may be granted upon application to the Canal Office of the Saimaa Canal.

The permit may contain regulations concerning the structure or equipment of the vessel or special provisions pertaining to navigation of the vessel on the canal such as good manoeuvrability, liability to wait or speed restrictions.

The Canal Office of the Saimaa Canal may also grant a vessel or equipment with slightly larger dimensions, carrying exceptional cargo, a Trip Let Pass for one passage through the canal.

The Rules and Regulations for Traffic on the Saimaa Canal also contain more detailed directions – among others on the permissible dimensions of vessels in tow and timber rafts using the open canal sections.

NEW VESSELS: When designing new vessels, to be used also in traffic through the Saimaa Canal, the designers are advised to consult the main dimensions and the structure of the vessels with the canal authorities. The conditions of navigation in the canal depend, first of all, on manoeuvrability, though certain other factors are also important.

MAXIMUM PERMISSIBLE SPEED AND TIME OF PASSAGE: The highest permissible speed on the actual channel of the Saimaa Canal is 9 km./hr. for vessels with a draft greater than 3.9 m. For vessels navigating on lesser drafts the speed is graduated within the limits of 9–15 km./hr. depending on the draft. In the lake parts of the Canal the highest permissible speed varies between 15–18 km./hr. depending on the size of the vessel. Detailed regulations available from the Canal Office. The time of passage through the part of the Canal provided with locks (mouth of the Canal on Lake Saimaa–Lock of Brusnitchnoe) is 5–8 hours depending on waiting time at locks caused by heavy traffic volumes, and on size of vessels.

SIGNS AND SIGNAL LIGHTS: The sign system of the approach channel of the Saimaa Canal, the canal and the channels on Lake Saimaa is adequate to ensure safe navigation throughout the day, also at night and in poor visibility.

The approach channel is provided with beacons, light buoys and signs in accordance with the Lateral System. The signs have been erected by Soviet authorities. The illumination and the signalisation systems of the Saimaa Canal are based on the same principles with beacons and signs, but in the signal system of the canal, sign lanterns, signboards, line markers, water traffic signs and radar reflectors have been used. The colour of sign lanterns is orange on the West bank and green on the East bank of the canal. In marking of the lake channels of Saimaa according to the Cardinal and Lateral System, leading and warning lights, light buoys, range beacons, landmarks and signs have been used. Information of the marking of the water system of Saimaa has been issued as a booklet by the National Board of Navigation in Finland: "Sisavesistojen loistot I 1983" – "Beacons of Inland Water Areas I 1983".

RADIO: There are two radiotelephone networks for marine use in the sphere of influence of the Saimaa Canal. On the frequency of 160 MHz reserved for actual marine radio communications there are also the Pilot radiotelephone and the public radiotelephone networks.

The Pilot radiotelephone network covers all stationary radiotelephone equipment at all locks, on the Kansola Bascule Bridge, at pilot stations and in the traffic office in the administrative building at Mustola as well as portable radiotelephone apparatus used by canal Pilots. The radiotelephone equipment of the canal Pilots operate on Channel 11 of the international marine radio. The telephone of the Brusnitchnoe Lock and the Lock of Malkia and the radio telephone in the Administrative Centre of the canal are also provided with a general calling and safety Channel 16.

When approaching from the sea the vessel makes a radio contact with the Brusnitchnoe Lock by using Channel 11. After this all radio communications required by navigation on the canal also use Channel 11. On Lake Saimaa, radio communications move over to Channel 13 on which the traffic office of the Saimaa Canal and the pilot station of Lauritsala are also able to operate.

The general radiotelephone network on Lake Saimaa (the so-called Saimaa Radio) uses Channels 23–28 of the international marine radio. The network covers the entire region of the water system of Saimaa extending from Lappeenranta to Iisalmi and Lake Pielinen. Channel 24 is the calling channel of the Saimaa Radio.

Two marine radio stations for general traffic have been built at Nuijamaa and Virolahti especially for navigation on the Saimaa Canal. Both radio stations are on duty and they are remote-controlled from the Coast Station of Kotka. The stations have the calling and safety Channel 16 and a calling Channel 24 for public traffic. The Nuijamaa Station operates on Channel 28 and the Virolahti Station on Channel 23. The range of the Nuijamaa Station extends from South of Viipuri to Southern Saimaa and the range of the Virolahti Station covers the entire Bay of Viipuri. The stations can be called either on Channel 16 or on the operating Channel. The Kotka Radio calls vessels either on Channel 16 or 24.

The principal purpose of both the Saimaa and the Kotka Radios is to ensure the communications of the safety service of navigation. These stations may also be used to transmit calls to the public telephone network – also to foreign countries – or vice versa, to receive calls from the public telephone network.

BERTHING:

THE HARBOURS OF LAKE SAIMAA:

Mustola Harbour:

Situated in the Saimaa Canal.
Authority: The City of Lappeenranta, Harbour Office,
Address: Kipparinkatu 7, 53100 Lappeenranta, Finland.
Tel: Nat. (953) 518841, Int. + 358 53 518841.
Room for six ships, draft 4.35 m. Railway connection.
Terminal store of 3,200 sq.m., first class storage yard of 10,000 sq.m., second class storage yard of 30,000 sq.m..
Electricity, water, telephone, etc., services available.
Harbour Master, Tel: 518841.

Kaukas Quay:

Owner: Oy Kymme Ab, Kaukas Mills.
Address: 53200 Lappeenranta, Finland.
Tel: Nat. (953) 5141, Int + 358 53 5141.
Telex: 58211.
Room for two ships, draft 4.35 m.
Pilotage distance from the canal entrance 1.5 nautical miles.

Rapasaari Quay:

Authority: The City of Lappeenranta, Harbour Office.
Address: Kipparinkatu 7, 53100 Lappeenranta, Finland.
Tel: Nat. (953) + 518841, Int. + 358 53 518841.
Room for one ship, draft 4.35 m.
First class storage yard of 3,000 sq.m., second class storage yard of 3,000 sq.m. Railway connection.
Pilotage distance from the canal entrance 6 nautical miles.
Harbour Master, Tel: 518841.

Harbour of Joutseno:

Owner: Honkalahden Teollisuuslaituri Oy.
Address: 54100 Joutseno, Finland.
Tel: Nat. (953) 50560, Int. + 358 53 50560.
Room for one ship, draft 4.35 m.
First class storage area 3,000 sq.m.
Pilotage distance from the canal entrance 13 nautical miles.

Kaukopaa Quay:

Situated in the City of Imatra.
Owner: Enso-Gutzeit Oy.
Address: 55800 Imatra, Finland.
Tel: Nat. (954) 31866, Int. + 358 54 31866.
Telex: 5710.
Room for one ship, draft 4.35 m.
Pilotage distance from the canal entrance 25 nautical miles.

Harbour of Vuoksi:

Situated in the City of Imatra.
Owner: Enso-Gutzeit Oy.
Authority: Oy Saimaa Terminals Ab.
Address: Raatimiehenkatu 18, 53100 Lappeenranta, Finland.
Tel: Nat. (953) 50560, Int. + 358 53 50560
Telex: 58107 sterm sf.
Telefax: 50710
Room for three ships, draft 4.35 m.
Terminal store of 3,673 sq. m.
First class storage yard of 30,869 sq. m.
Railway connection.
Electricity, water, telephone, etc., services available.
Pilotage distance from the canal entrance 25 nautical miles.

Harbour of Ristiina:

Authority: The Community of Ristiina.
Address: 55800 Ristiina, Finland.
Tel: Nat. (955) 41310, Int. + 358 55 41310.
Room for one ship, draft 4.35 m.
First class storage yard of 5,000 sq.m.
Pilotage distance from the canal entrance 49 nautical miles.

Harbour of Savonlinna:
Authority: The City of Savonlinna, Technical Office.
Address: Olavinkatu 40, 57130 Savonlinna, Finland.
Tel: Nat. (957) 12771, Int. + 358 57 12771.
Room for one ship, draft 4.35 m.
First class storage yard of 6,000 sq.m., second class storage yard of 5,000 sq.m. Railway connection.
Electricity, water, telephone, etc., services available.
Pilotage distance from the canal entrance 84 nautical miles.
Harbour Master, Tel: 12771.

Harbour of Joensuu:
Authority: The City of Joensuu, Harbour Office.
Address: Ukonniemi, 80220 Joensuu, Finland.
Tel: Nat. (973) 201335, Int. + 358 73 201335.
Room for three ships, draft 4.35 m.
Sawn goods shed of 1,200 sq.m., first class storage yard of 6,000 sq.m., second class storage yard of 60,000 sq.m. Railway connection.
Electricity, water, telephone, etc., services available.
Pilotage distance from the canal entrance 188 nautical miles.
Harbour Master, Tel: 201335.

Harbour of Puhos:
Situated in the Community of Kitee.
Owner: Puhoksen Satama Oy.
Address: 82430 Puhos, Finland.
Tel: Nat. (973) 421151, Int. + 358 73 421151.
Telex: 46160.
Room for one ship, draft 4.35 m.
First class storage yard of 5,000 sq.m.
Pilotage distance from the canal entrance 169 nautical miles.

Harbour of Akonniemi:
Authority: The City of Varkaus, Harbour Office.
Address: P.O.B. 208, 78710 Varkaus, Finland.
Tel: Nat. (972) 292508, Int. + 358 72 292508.
Room for one tanker and one dry cargo ship, draft 4.35 m.
Pilotage distance from the canal entrance 123 nautical miles.
Harbour Master, Tel: 292508.

Harbour of Taipale:
Authority: The City of Varkaus, Harbour Office.
Address: P.O.B. 208, 78100 Varkaus, Finland.
Tel: Nat. (972) 292508, Int. + 358 72 292508.
Room for two ships, draft 4.35 m.
Quays are located in the Lock of Taipale, waiting berths for ships passing the Lock of Taipale.
First class storage yard of 6,000 sq.m.
Pilotage distance from the canal entrance 125 nautical miles.
Harbour Master, Tel: 292508.

Harbour of Kosulanniem:
Owner: Enso-Gutzeit Oy, Varkaus Mills.
Address: P.O Box 185, 78261 Varkaus, Finland.
Tel: Nat. (972) 251, Int. + 358 72 251.
Telex: 4315.
Room for two ships, draft 4.35 m.
Water, etc., services available.
Pilotage distance from the canal entrance 126 nautical miles.
Harbour Master, Tel: 25874.

Harbour of Kumpusalmi:
Authority: The City of Kuopio, Harbour Office.
Address: Kuopion Satama, 70100 Kuopio, Finland.
Tel: Nat. (971) 185191, Int. + 358 71 185191.
Room for two dry cargo ships and for one tanker, draft 4.35 m.
Terminal store of 2,500 sq.m., sawn goods shed of 2,000 sq.m., first class storage yard of 25,000 sq.m., second class storage yard of 28,000 sq.m. Railway connection.
Electricity, water, telephone, etc., services available.
Harbour Master, Tel: 185191.

Oil Harbour of Kelloniemi:
Situated in the City of Kuopio.
Owner: Oy Esso Ab.
Address: Kelloniemi, 70460 Kuopio, Finland.
Tel: Nat. (971) 343333, Int. + 358 71 343333.
Room for one tanker, draft 4.35 m.
Pilotage distance from the canal entrance 169 nautical miles.

Siilinjarvi:
There are two quays, each with berthing for one vessel, in the Community of Siilinjarvi, draft 4.35 m.
Owner: Kemira Oy.
Address: 71800 Siilinjarvi, Finland.
Tel: Nat. (971) 421144, Int. + 358 71 421144.

Owner: Lohja Oy.
Address: 71800 Siilinjarvi, Finland.
Tel: Nat. (971) 431300, Int. + 358 71 431300.

AUTHORITIES: Canal Office of the Saimaa Canal, 53420 Lappeenranta, Finland. *Tel:* Nat. (953) 859111, Int. + 358 53 859111. *Telex:* 58236 Tvlsk Sf. *FAX:* 859127.

Roads and Waterways Administration, Waterways Department, Opastinsilta 12 (P.O. Box 33), 00521 Helsinki, Finland. *Tel:* Nat. (90) 1541, Int. + 358 0 1541. *Telex:* 121108 Tvhv Sf. *FAX:* 1542775.

Board of Navigation, the Pilot District of Saimaa, Olavinkatu 24, 57130 Savonlinna, Finland. *Tel:* Nat. (957) 572350, Int. + 358 57 572350.

The Viipuri Section of Inflot. *Tel:* Viipuri 52-01. *Telex:* 64121521. *Cables:* Inflot, Viipuri.

TOLKKINEN (Tolkis): 60.20 N. 25.35 E.

PILOTAGE: Pilot arrives from port station at Emsalo (tel. 915 – 27710). Station equipped with VHF, radiotelephone and radar. Pilot boards between Kalbadagrund and Porvoo Lighthouse. Pilotage distance to port 22 miles.

APPROACHES: Max. draft of fairway from sea to roads 15.0 m., and from Roads to quay 7.0 m.

TUGS: Several tugs available from oil harbour.

BERTHING: Tolkis North Quay, depth 7.0 m. Tolkis South Quay, depth 5.2 m. Oil Harbour (see "Porvoo").

CRANES: Tolkis South Quay equipped with 1 movable crane. Lifting capacity 2.5 tons with grab and 5 tons with hook. Several mobile cranes up to 70 tons available for hire.

STEVEDORES: Working hours from 0700 – 1600 hrs. 4 – 5 gangs available Monday to Friday. On Saturday only 1 gang.

FUEL: Small quantity available by tank-car.

FRESH WATER: Fresh water available. Rate 8 t.p.h.

DENSITY: 1004.

AGENT: Oy Borga Stuveri Ab., 06750 Tolkis, Finland. Tel: 915 – 24530. After office hours: Tel: 915 – 143952. Telex: 1758 clear sf. FAX: 915 – 24285. Cables: Stevedore. Contact: Captain Christer Lindstrom. (Car Telephone No. 949-203952).

TORNIO: 65.51 N. 24.09 E. (See Plan)

The outer harbour of Tornio is Roytta situated about 6 miles S.W. of Tornio.

DOCUMENTS:
2 Crew Lists.
2 Provisions Lists.
Passenger List.
One set of Bills of Lading, Ship's Papers, Health Documents.

PILOTAGE: Ajos pilot station VHF Channel 16. Pilot to be taken on board by lighthouse "Kemi 2" in position 65° 30.3′ N., 24° 22.5′ E., 10 miles from Ajos.

ANCHORAGES: In Roads, depth is 24 ft.

MAX. SIZE: At same time there can be 2 vessels of 100 m. – 120 m. length, draft 21 ft. 06 in.; 2 vessels of 50 m. – 60 m. length alongside Main Quay; and 2 vessels of 50 m. – 60 m. length, draft 14 ft. at Old Quay.

RADIO: Vaasa Radio/OHX or Harnosand Radio, Sweden/SAH.

TUGS: No tugs available at Tornio. To be ordered from Kemi 12 hours before arrival.

CRANES: 3×20 ton mobile cranes for general cargo and several cranes for discharging bulk cargo.

STEVEDORES: Ordered by Agent (Telex 35 – 12). Agent must be given 24 hours ETA. Normal working time 0700 – 1100 hrs., 1200 – 1600 hrs. and 1600 – 2400 hrs. (Two shifts).

DENSITY: Fresh water.

FRESH WATER: Fresh water can be delivered by tank lorry (8 tons).

FUEL: Ordinary fuel by lorries from Kemi.

OPENING/CLOSING HATCHES: By the ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes or 200 grams tobacco and 1 bottle spirits.

CONSULS: France tel. 40473; Sweden tel. 23651; Norway tel. 14411.

REPAIRS: No docks but accommodation for small repairs.

AIRPORT: At Kemi, 20 km. from Tornio; served by Finnair.

TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.

POLICE/AMBULANCE/FIRE: Police 003; Fire 005; Ambulance 006; Salvage 47472.

AUTHORITY: Tornion Satamakonttori, PL60, SF-95400 Tornio, Finland. *Tel:* 980 – 40416. *Contact:* J. Arvola, Harbour Master.

TURKU (Abo): 60.27 N. 22.15 E.

DOCUMENTS: See "Oulu".

PILOTAGE: Telegram to Agent with 24 hours ETA to sea pilot station. There are 4 entrances:

Uto: Fairway 10 m., Radio Beacon, VHF, coastal radar, telephone via Hanko or Mariehamn Radio. A 13.0 m. channel is to be established between Uto and Turko.

Nyhamn: 8.2 m. on Rodhamn, radio beacon.

Isokari-Enskar: 7.1 m., radio beacon, VHF radio.

Hanko: 7.3 m., radio beacon, telephone via Hanko Radio.

Lighthouse and Pilot at each.

All fairways sheltered. No tide. Channel to main harbour 10 m.

When approaching port ETA by VHF to Port Information Centre, international VHF Channel 12 for Harbour Pilot. Cutter whilst in action, same Channel, but takes orders from Port Traffic Control Centre only. Pilot cutters painted red with white circular field marked "L" on the bows. Flying flag in daylight, showing red and white lights vertically at night. Coming out when required to pilot station 0.75 miles from Main Harbour.

All ships arriving from sea will get necessary information from Sea Pilot, whose service is compulsory. Harbour Pilot not compulsory.

ANCHORAGES: Outer anchorage at Bay of Airisto, 2 miles from Port, 15 m. – 18 m.

MAX. SIZE: Maximum draft in Commercial Harbour 11.0 m. fresh water. In Oil Harbour 9.0 m. in fresh water. Max. length 230 m. and breadth of minor importance. No tides.

HEALTH: International Quarantine flag required in case of suspected disease or fever including preliminary report by VHF, otherwise, ask Agent.

RADIO: Hanko Radio and Mariehamn Radio. In addition these have telephone and VHF service. Local telephone network on VHF, Mariehamn on Channels 26 or 23 and Hanko on Channel 2.

TUGS: Advisable to apply for tugs in advance. 6 tugs available.

BERTHING: Priority given to arriving and departing passenger ships on regular lines. 4 hydraulic stern loading Roll-on/Roll-off berths and 4 without hydraulics.

Total length of quays 5,145 m.

Berth depths 5.00 m. – 11.0 m.

Container facilities available.

CRANES:

No.	*Capacity* (tons)	*Type*
11	5	Movable
9	6	Movable
1	60	Movable
1	40	Multipurpose, movable.

DENSITY: 1004.

STEVEDORES: Agent should be well informed about ETA and Master's Requirements. Normal working hours: 0630 – 1030, 1100 – 1500, 1500 – 2300. Saturdays and days preceding public holidays 0700 – 1530 hrs. The Port Office: 0900–1700 hrs. Saturdays and days preceding public holidays closed.

MEDICAL: All medical and hospital facilities available. No special requirements regarding inoculations, etc.

TANKERS: No special requirements. Small slop discharge facilities. 1 berth, depth 9.0 m. for larger ships.

FRESH WATER: From pipe-lines along berths. Approx. 11.00 fmk. per ton.

FUEL: Most grades available. No advance notice neccessary if from motor vehicles. In case of greater quantities, from Oil Harbour only. This requires advance notice to Agent.

GANGWAY/DECK WATCHMEN: Gangways to be rigged out so that they do not obstruct quay crane movements. Watchmen customary, but not necessarily hired.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CONSULS: The following countries are represented by Consuls or Vice-Consuls in Turku: Austria, Belgium, Denmark, France, Germany (F.R.), Great Britain, Greece, Honduras, Iceland, Italy, Norway, Portugal, Spain, Sweden and U.S.S.R.

REPAIRS: All types of repairs possible.

DRY DOCKS: Graving dock: length 183 m.×25.6 m.×8.3 m.

Floating dock: 155 m.×23.5 m.×7.0 m. with lifting capacity of 8,500 tons. Floating dock: 116.4 m.×21.6 m.×5.8 m. with lifting capacity of 4,500 tons (November 1988).

Owner: Wartsila Marine. Tel: 666 111. Telegrams: "Wartsila". Telex: 62484 wty sf.

REPATRIATION: Good connections everywhere.

AIRPORT: 10 km. from port, regular lines.

TIME: GMT plus 2 hours.

HOLIDAYS: New Year's Day (January 1st); Good Friday; Easter Bank Holiday; May 1st; Midsummer Day; All Saints' Day; Independence Day (December 6th); Christmas Day; (December 25th); Boxing Day (December 26th).

POLICE/AMBULANCE/FIRE: Dial 000.

GENERAL: Ice-breakers maintain Winter traffic.

TELEPHONES: Ships' telephones available.

IDENTIFICATION CARDS: Not needed.

AUTHORITY: Port of Turku Authority, Linnankatu 80, SF-20100 Turku, Finland. *Tel:* (21) 674 111. *Teletex:* 244-1021502 tuport. *FAX:* (21) 674 125. *Contact:* Tom Joutsia, Harbour Master. Henrik E. Pettersson, General Manager.

UUSIKAUPUNKI: 60.48 N. 21.24 E.

APPROACHES: 3 fairways lead to harbour through sheltering archipelago; Uto-Uusikaupunki, 78 miles; Isokari-Uusikaupunki, 13 miles; Kylmapihlaja-Uusikaupunki, 24 miles.

Good sheltered anchorage in the roads. Depth of fairways 10.0 m.

DOCUMENTS:

Agent will prepare during clearance:

- 2 Ship's Report.
- 1 Declaration List, Arrival (Board of Navigation).
- 1 Declaration List, Departure (Board of Navigation).

To be prepared before Arrival:

- 2 Provision Lists (own provision of the ship).
- 2 Special Lists (must be signed by each member of the crew).
- 2 Crew Lists.
- Bill of Admeasurement.
- Certificate of Registry.
- Ice-class Certificate (during Winter months, 1st December-30th April, issued by hull surveyor).
- Bill of Lights (issued by Customs).

PILOTAGE: Embark Pilot at Isokari or Uto Pilot Stations. Distance through archipelago Isokari-Uusikaupunki 13 miles, Uto-Uusikaupunki 78 miles. Under normal circumstances first fairway recommended. During Winter months, if ice-situation difficult in Gulf of Bothnia, traffic goes via Uto.

Both pilot stations equipped with radio 2182 kHz, Channels 16 and 24, VHF duplex-Channels 18, 20 or 22 and radar. Pilot-boat red, with letter "L" and fitted with VHF Channels 13 and 16. Pilot boards usually between Sandback-Isokari, to where "Hauteri" light leads in line 134.5° – 314.5° (T). Notice of ETA at least 4 hours prior reaching station.

ANCHORAGES: Many areas of safe anchorages in Archipelago. Pilot advises.

RESTRICTIONS: No entry restrictions. No tide. During North and East winds sea-level can fall about 40 cm. below normal, which may sometimes delay deep loaded vessels reaching port.

HEALTH: Pratique not necessary. In the event of any disease/fever on board or in last port of departure, vessel has to inform before arrival, hoist quarantine-flags, or in darkness 2 lights, red light above white, showing all round horizon.

RADIO: Mariehamn Radio OFH; Helsinki Radio OHG.

TUGS: 2 available; normally tugs join vessel at port, ship's lines used.

BERTHING: *Kemira Quay:* 340 m. long, owned by fertiliser factory Kemira Oy, has depth 10 m. alongside, two 8 ton cranes, two discharging pipes, one for discharging ammonia at minus 32°C and one for sulphur acid. Discharging capacity depending material 140-170 tons/hour/crane and loading/discharging bags 45-50 tons/hour/crane.

Esso Quay: 40 m. long, owned by Oy Esso AB, depth in channel and alongside 5 m. Terminal is used for discharging LP gas.

Telakka Quay: 140 m. long, owned by Uudenkaupungin Telakka Oy, has depth alongside 5 m. Quay is only used for ship repairs, and fitting works for new buildings. There is also a floating dock with 5,000 ton capacity.

Hepokari Pier: 90 m. long and 18 m. breadth, owned by town. Channel and alongside depth 7 m. There is terminal on South side for Ro-Ro traffic.

Saunasilta Quay: 60 m. long and depth 3.5 m., owned by town. Used only by small coasters.

STEVEDORES: Available. Contact Agent.

MEDICAL: Hospital facilities, vaccination, certificates, etc., available. Contact Agent.

TANKERS: For discharging and loading liquid ammonia – Marine Loading arm "Luceat/Chiksan, Type RCMA" 8 in., ASA 300.

c/

DENSITY: No tide, density 1004.

FRESH WATER: Water-hoses, about 20 t.p.h.

FUEL: Fuel available, contact Agent.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: All certificates according to International Convention for the Safety of Life at Sea, Class Certificate, etc.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes per each member of the crew. Wine and/or Spirit: 1 bottle wine or spirit per each member of the crew.

CARGO GEAR: No additional requirements.

CONSULS: None.

REPAIRS: All types of deck and engine repairs possible.

DRY DOCKS: Uudenkaupungin Telakka Oy has a floating dock, lifting power 5,000 tons, draft 6.1 m., breadth 19.6 m., and length 130 m.

REPATRIATION: Facilities exist for effecting crew changes and arranging any necessary repatriations.

AIRPORT: Distance to Turku Airport about 90 km. Airport is served by regular Airlines.

TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.

HOLIDAYS: Official Holidays are: New Year's Day (January 1st); May 1st; Midsummer Day (Saturday between June 20th and June 26th); Independence Day (December 6th). Usually no work on those days.

POLICE/AMBULANCE/FIRE: Police 002 or 3002; Ambulance 3005; Fire 005 or 3005.

TELEPHONES: Available.

SHORE LEAVE: Crew members are allowed ashore.

IDENTIFICATION CARDS: Not needed.

AUTHORITY: Uusikaupunki Harbour Office, Satamantie 9, 23500 Uusikaupunki. *Tel:* 922 – 22963/21511. *Cables:* Satamatoimisto. *Contact:* Harbour Master.

VAASA: 63.06 N. 21.36 E. (See Plan)

DOCUMENTS:

- 3 Crew Lists.
- 3 Passenger Lists.
- 2 Customs Documents.
- 2 Health Documents.
- 5 Manifests.
- 5 Bills of Lading.

PILOTAGE: Pilot vessel not cruising in open sea. Pilot meets vessels at boarding ground (63° 09.8′ N., 20° 45.0′ E.).

Pilot signals: Letter "G" as flag, light or sound. Radio telephone call: Pilots watching 24 hours on 2182 kHz, also VHF.

Pilot vessel: 30 ft. motor yacht with wheelhouse and radar. Hull red all over with letter "L" painted on bow.

Harbour Pilot available from Vaasa Pilot Station Tel. 527725.

ANCHORAGES: To Pilot's advice.

RESTRICTIONS: No locks. Fairway lit all the way. Depth of Channel 9.0 m.

No tide, but water level may be reduced by up to 20 in. in Spring and early Summer, or increased by 10 in. to 25 in. in Autumn.

MAX. SIZE: Depth alongside piers up to 29 ft. 4 in. At the Oil Harbour, max. recommended LOA is 610 ft., depth 26 ft. 3 in.

HEALTH: See "Documents" – no restrictions. Hospital and Doctor for any purpose available.

RADIO: Vaasa Radio – OFW 2803 kHz.

RADAR/VHF: No radar service in port area. Pilot vessels at sea pilot stations equipped with radar. VHF radios on pilot stations, harbour tug-boat and Harbour Office. Channels 16, 13 and 12.

TUGS: Harbour tug-boat and ice-breaker 1,200 h.p., 727 kW. available 24 hours. Radio telephone/VHF – call sign OIQE. Charge according to size.

BERTHING: 2 piers of 180 m. length and the Reins Quay of 240 m. length. Depth 23 ft. 0 in. to 29 ft. 4 in. New Coal Quay length 145.9 m., depth 29 ft. 4 in. There are 3×5 ton cranes on the South Pier.

The Ferry Pier, 106 m. and 118 m. length, depth alongside 5.0 m. with berths for Ro/Ro traffic (4 Ro/Ro ramps).

CRANES: 3×5 tons and mobile cranes up to 100 tons.

STEVEDORES: ETA as usual according to C/P to Agent, etc.

MEDICAL: If serious illness advance notice to Agent necessary.

TANKERS: The Oil Harbour is at Vasklot. Depth alongside 26 ft. 3 in. Tankers discharge through three arms of 500 mm. and 400 mm. diameter. Storage capacity 500,000 cu.m.

DENSITY: 1004-1006. No tide.

FRESH WATER: Available, no limit. Direct from quay-side, through pipes, rate about 25 t.p.h.

FUEL: All grades of bunker fuel available – direct from oil jetty or by lorries to berth.

FIRE PRECAUTIONS: Dry cargo ships; no smoking in holds. Tankers: usual restrictions. Tankers with petrol cargo not allowed to berth at dry cargo piers.

GANGWAY/DECK WATCHMEN: Not compulsory, ship's own crew can be used.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES:
- Safety Equipment Certificate.
- Stability Certificate.
- Load Line Certificate.
- Derrick and Hoisting Gear Test Certificate.
- Derat Certificate.
- Nationality Certificate.
- Measurement Certificate.
- Ice-class Bill.

CUSTOMS ALLOWANCES: Tobacco: Max. 200 cigarettes per man or 50 gm. of tobacco. Wine/Spirit: Maximum 1 bottle of each per man to be opened and used on board only.

CARGO GEAR: Cargo gear test book to be in order – all gear to be tested within a year otherwise risks for breaks in discharging/loading.

IDENTIFICATION CARDS: Not needed.

CONSULS:
- Belgium
- Denmark
- France
- Netherlands
- Norway
- Sweden
- United Kingdom

REPAIRS: Nearest dry dock at Rauma.

REPATRIATION: Can be carried out easily.

AIRPORT: Vaasa Airport (about 8 miles from town) served by regular airlines, domestic and abroad, Stockholm, U.K., Continent, etc.

TIME: Local time GMT plus 2 hours. GMT plus 3 hours in Summer.

HOLIDAYS: Working hours in port: 0700 – 1100 hrs., 1300 – 1600 hrs. Monday to Friday, Saturday: 0700 – 1100 hrs. Sunday free. Working days in port: Monday to Saturday. Working days ashore: Usually Monday to Friday. All banks closed on Saturday. Shops open all weekdays. Other holidays: 6th December – Independence Day – Christmas, etc., as usual.

TELEPHONES: Can be arranged on board.

POLICE/AMBULANCE/FIRE: Police 002; General Emergency No. 000.

GENERAL: Ships approaching port of Vaasa in Winter time (January-May) when sea area icebound, have to call any of Government ice-breakers operating in area or to inform Harbour Authorities of exact ETA – engine power, size and nationality, and whether strengthened for ice or not. Call signs, etc., for Government ice-breaker can be obtained from nearest coast radio station.

SERVICES: Compass adjusting available.

DELAYS: Only Winter time when Government ice-breaker is arranging, waiting or assisting in outbound convoys of ships.

AUTHORITY: Vaasa Harbour Office, SF-65170 Vaasa 17, Finland. *Tel:* 358-61-128862. *Contact:* Captain Lars Holmqvist, Harbour Master.

VEITSILUOTO: 65.42 N. 24.37 E. **(See Plan)**

DOCUMENTS: Usual documents for Finnish ports. In addition the Harbour Master requires a copy of the Crew List.

PILOTAGE: Inwards compulsory for vessel in foreign trade. Boarding about 8 miles before Ajos. Ajos Pilot Station may be contacted on VHF Channel 16/13.

ANCHORAGES: Good holding ground about 1 mile from Rautakallio and by Koivuhauta 2 miles from harbour entrance.

RESTRICTIONS: No tide. Entry by day or night. Approach Channel, depth 7.1 m. It is recommended that vessels longer than 150 m. and with a minimal keel clearance avoid berthing under unfavourable weather conditions.

MAX. SIZE: See "Berthing".

VHF: Make initial contact on Channel 16/13.

HEALTH: See "Oulu".

TUGS: Available when required, charges according to net tonnage. Use ship's lines.

BERTHING: Total length of Quays 574.5 m.
- Berth No. 1: Length 135.5 m. Depth 7.1 m.
- Berth Nos. 2 and 3: Total length 209 m. Depth 7.1 m.
- Berth Nos. 4 and 5: Total length 230 m. Depth 7.1 m.
- Max. draft at all berths 7.1 m.

CRANES: Load/discharge by ship's gear or mobile cranes.

SPECIALISED CARGO HANDLING FACILITIES: 2 Ro/Ro berths, no special equipment.

STEVEDORES: Ordered by Agent.

MEDICAL: Hospital at Kemi. Masters to advise if medical attendance required aboard.

FRESH WATER: Available at short notice.

FUEL: Ordinary fuel, diesel and gas oil. Deliveries by lorries only.

FIRE PRECAUTIONS: No special precautions. Company's fire-fighting corps.

GANGWAY/DECK WATCHMEN: Available, ordered by Agent.

OPENING/CLOSING HATCHES: By crew.

IDENTIFICATION CARDS: Not required.

CONSULS: Norway, others at Kemi.

REPAIRS: Available at Kemi.

SERVICES: Radar repairs possible in Kemi.

AIRPORT: At Kemi, approx. 15 km. from port.

POLICE/AMBULANCE/FIRE: The nearest emergency services are available through the Alarm Centre of the Veitsiluoto Company, telephone number 22. If you phone outside the Company, call first 8141 (the number of the Company), and then ask for number 22.

SHORE LEAVE: Crew members allowed ashore.

DELAYS: Not normally expected.

REGULATIONS: Port regulations delivered to ship on arrival on request.

AUTHORITY: Veitsiluoto Oy, SF-94830 Kemi, Finland. *Tel:* (980) 814452. *Telex:* 3614 Vto Sf. *Contact:* Harbour Master, Tel: (980) 82017.

NOTES

Please also advise Shipping Guides Ltd.

France

GENERAL

NOTICE TO MARINERS: No. 2005/81

Regulations concerning vessels laden with hydrocarbons (including) oil or other dangerous cargoes approaching French ports.

Regulations have been promulgated by the French Authorities concerning vessels laden with hydrocarbons (including oil) or other dangerous cargoes in the approaches to French Mediterranean ports and the ports in Corse.

Any such vessel intending to enter French territorial waters (including Corse) from seaward, or to sail from a French port or anchorage, is required to signal certain details to the Prefet Maritime of the Third Region at Toulon 6 hours beforehand. Should there be any subsequent change in the vessel's intended movements, or in her material state, a further signal should be made. All such vessels are required, throughout their stay in French territorial waters, except when lying alongside in port, to maintain radio watch on Channel 16 or the local frequency, if applicable.

Any such vessel which suffers significant damage at sea, or the threat of damage, from whatever cause, while within 50 miles of the French coasts, is required to signal certain details to the Prefet Maritime at Toulon. Subsequent developments must be reported, including the time of requesting assistance, the expected time of its arrival and the actual time of arrival. Any ship joining the damaged vessel to render assistance is required to signal details to the Prefet Maritime, and to render reports on the casualty on arrival. These signals are informative and do not constitute a request for rescue or assistance.

For details of all signals required above see *Admiralty List of Radio Signals, Vol. 6.*

Vessels exceeding 1,600 gross tons laden with hydrocarbons (including oil) or other dangerous cargoes must not approach the French coasts within 7 miles, unless instructed to do so by the French authorities or within the port approach channels listed below. Exceptions to this rule are made in the channel between Corse and Capraia, where the minimum distance is reduced to 5 miles, and in the Bonifacio Strait.

Such vessels approaching, or departing from, the ports of Port-la-Nouvelle, Sete, l'Espiguette, Golfe de Fos, Marseille, Toulon, Ajaccio, Porto Vecchio, Solenzara, Lucciana and Bastia are required to use the charted port approach channels. When in these channels such vessels are priority vessels and must display Flag "B" of the International Code by day, and exhibit one red light, visible all round, at night. The provisions of Rule 9 of the *International Regulations for Preventing Collisions at Sea (1972)* explicitly apply.

NOTICE TO MARINERS: No. 2379/81.

Regulations concerning tankers laden with hydrocarbons and vessels carrying dangerous cargoes navigating in the approaches to the N. and W. coasts of France.

The French authorities have issued the following regulations concerning the above mentioned vessels.

(a) **Laden vessels exceeding 1,600 tons gross** must keep at least 7 nautical miles from the French coast, unless otherwise instructed by a Prefet Maritime, except within:–
The N.E.-bound lane of the Dover Strait traffic separation scheme.
Race of Alderney.
The access channels to the following ports:
Dunkerque, Calais, Boulogne, Dieppe, Fecamp, Le Havre-Antifer, Rouen, and the ports of the lower Seine, Caen/Ouistreham, Cherbourg, Granville, Val de Saire transhipment area, Saint-Malo, Saint-Brieuc, Roscoff, Brest, Douarnenez, Concarneau, Lorient, ports of the Loire, Les Sables-d'Olonne, La Rochelle/La Pallice, Ports of the Gironde, Bayonne.

(b) **Vessels intending to enter French territorial waters (12 miles) or to sail from a French port or anchorage,** are required to inform Marine Brest and Marine Cherbourg 6 hours beforehand, either by radio or through the port authority, giving the following details:–

Prefix	SURNAV FRANCE
A	Name, nationality and call sign.
B	Date and time (GMT) suffixed "Z".
C	Position.
E	Course.
F	Speed.
I	Destination.
J	Date, time (GMT) and position of entering French territorial waters or of getting underway.
K	Date, time (GMT) and position of leaving French territorial waters, or of arriving at destination in French waters.
N	RT watch being maintained.
P	Draft.
Q	Cargo: type (as defined in MARPOL 73) and quantity.
R	Whether manoeuvring ability is normal or impaired by defects in propulsion, steering or anchoring equipment.
S	Whether operational fitness is normal or impaired by defects in radar, radio, safety or ballasting equipment.

Any subsequent changes should be reported immediately.

Constant listening watch must be maintained on Channel 16, or a frequency specified for this purpose by a local authority throughout the period the vessel is in French territorial waters, except when lying alongside in a port.

(c) **Vessels within French territorial waters suffering from an impairment of normal navigational or manoeuvring capability,** are required to take such an action as the Prefet Maritime may require to ensure, the safety of navigation and to avoid the threat of pollution.

(d) **Vessels within 50 nautical miles of the French coast suffering damage or having defects,** are required to report to Marine Brest and Marine Cherbourg any occurrence (collision, stranding, incident on board or external) which could result in damage to the vessel or cargo.

Any vessel going to the assistance of the damaged vessel is also required to make a report.

These reports are informative and do not constitute a request for rescue or assistance.

Requests for assistance, if required, should be made in accordance with international regulations, keeping Marine Brest and Marine Cherbourg informed.

The damaged and the assisting vessel are required to take such action as the Prefet Maritime may direct with a view to avoiding danger to navigation and threat of pollution, whether they are in French territorial waters or international waters.

Form of signalled report to be made by the damaged vessel:–

Prefix	SURNAV AVARIES
A	Name, nationality and call sign.
B	Date and time (GMT) suffixed "Z".
C	Position.
E	Course.
F	Speed.
I	Destination.
J	Time (GMT) and nature of a call for assistance or towage.
K	Name of assisting vessel, if present, or ETA (GMT).
M	Name and telegraphic address of Owner, Charterer and any French consignee.
N	Radio watch being maintained.
P	Draft.
Q	Cargo: type (as defined in MARPOL 73) and quantity.
R	Nature of damage or development of the situation.
T	Any other information.

Subsequent developments are also to be reported.

Form of signalled report to be made by the assisting vessel:–

Prefix and A to I as above, but details applicable to the assisting vessel.

J	Date, time (GMT) and position of casualty.
K	Name, nationality and call sign of casualty.
L	Course of casualty, or destination, if known.
M	Speed of casualty, if known.
N	Radio watch being maintained.
Q	Cargo of casualty if known.
R	Damage of casualty.
T	Any other information.

Further reports on the casualty are required after arrival.

(e) **Laden vessels exceeding 1,600 tons approaching or departing from the following French ports:–**
Saint-Malo, Saint-Brieuc, Roscoff, Brest, Douarnenez, Concarneau, Lorient, ports of the Loire, Les Sables-d'Olonne, La Rochelle/La Pallice, ports of the Gironde, Bayonne are required to comply with the following regulations:–
To use the authorised approach and entry channels and waiting areas.
Inform the Port Authority on entering the approach channel.
When in these channels and waiting areas, display Flag B of the International Code of Signals by day and exhibit one red light at night, clearly visible all round.
Anchoring or waiting in the approach and entry channels is not permitted except in emergency, in which event the Port Authority must be informed as soon as possible.
Vessels crossing approach or entry channels should do so as nearly as possible at right angles to the channel and well clear of vessels in the channel.
These regulations do not in any way absolve Masters and Pilots from the requirement to comply with the International Regulations for Preventing Collisions at Sea (1972).

For further details of signals required by the above regulations see *Admiralty List of Radio Signals Vol. 6.*

Similar messages must be sent to Marine Toulon by vessels in the Mediterranean.

Navigation in French Territorial Waters:

Any ship as specified above must keep permanently 7 nautical miles off the French Coast, except:

1. When entering a French harbour, in the specified channel leading to this harbour;
2. In the N.E. lane of the Dover Straits Separation Scheme;
3. In the Channel of Corsica between the Italian island of Capraia and the Corsican shore, where the limit is reduced to 5 nautical miles.

DISTRESS, SEARCH AND RESCUE:

Search and Rescue operations are controlled by the following organisations:

1. Centre Regional Operational de Surveillance et de Sauvetage pour la Manche-Mer du Nord (CROSSMA) covers the North coast of France from the Belgian border to Mont St. Michel (48° 38′ N., 1° 31′ W.). Stations at Cap Gris Nez (50° 52′ N., 1° 35′ E.). and Jobourg (49° 41′ N., 1° 54.5′ W.) maintain a continuous watch on 2182 kHz and VHF Channels 16 and 11.

2. Centre Regional Operational de Surveillance et de Sauvetage Corsen-Ouessant (CROSSCO) covers the N.W. coast of France from Mont St. Michel to the latitude of Pointe du Raz (48° 02′ N.). A station at Corsen (48° 25′ N., 4° 48′ W.) maintains a continuous watch on 2182 kHz and VHF Channels 16 and 11.
3. Centre Regional Operational de Surveillance et de Sauvetage pour L'Atlantique (CROSSA) covers the Atlantic coast of France from the latitude of Pointe du Raz (48° 02′ N.) to the Spanish border. Stations at Etel (47° 39′ N., 3° 12′ W.) and Soulac (45° 31′ N., 1° 07′ W.) maintain a continuous watch on 2182 kHz and VHF Channel 16.
4. Centre Regional Operational de Surveillance et de Sauvetage Mediterranee (CROSSMED) covers the Mediterranean coast of France. A station at Toulon (43° 06′ N., 6° 00′ E.) maintains a continuous watch on 2182 kHz, 2677 kHz and VHF Channel 16. Tel: 94.27.27.11. A station at Agde (43° 18′ N., 3° 30′ E.) maintains 0500–2100 watch from 15th June to 15th September on 2182 kHz, 2677 kHz and VHF Channel 16.

There is a station for Corsica at Ajaccio, Tel: 95.20.13.63.

VISAS: Foreign visitors (except EEC nationals and Swiss nationals) are required to be in possession of visas before arrival in France.

Companies sending foreign crewmen to join vessels in French ports should arrange visas through French Consulates.

AJACCIO, Corsica: 41.55 N. 08.44 E. (See Plan)

DOCUMENTS:

Cargo Vessels:
1 Stores List.
1 Personal Effects List.
1 Crew List.
1 Passenger List.
2 Manifests.
Ship's Register.

Passenger Vessels:
1 Stores List.
1 Personal Effects List.
3 Crew Lists.
3 Passenger Lists.
Ship's Register.
2 Manifests.

PILOTAGE: No advance notice required for regular ships. Vessels call Pilot with 3 blasts on ship's siren. Pilot boat flies usual Pilot flag. Pilot joins approaching vessel at a line Isolella/Chapelle des Grecs. Available 24 hours a day. Pilot boat has VHF Channel 6.

ANCHORAGES: Several safe anchorages in harbour which can be indicated by Pilot.

MAX. SIZE: Length 200 m., draft 7 m. At anchor, no limit.

HEALTH: Health Officer boards on arrival. Pratique automatic unless suspected contagious disease on board, when it is necessary to notify Agent or Health authorities in advance by cable.

RADIO: ETA cables, etc., via Grasse Radio, Marseilles Radio or Ajaccio Radio. VHF Channel 24.

VHF: Port Captain on Channel 9.

TUGS: None available.

BERTHING: Regular vessels have priority at all berths. 3 Ro/Ro berths.

CRANES: Up to 20 tons.

STEVEDORES: Advice should be sent 24 hours prior to arrival. French vessels have priority of labour.

MEDICAL: Advance notice required Tel: 95.21.52.08. All hospital facilities available. Except in the case of an epidemic in any country from which the vessel has sailed, no inoculations or vaccinations are necessary.

TANKERS: Max. draft 6 m., length 110 m. Preferably with bow thrust unit. Gas tankers also preferable with bow thrust unit.

FRESH WATER: Available at all berths, except Gas Berth.

FUEL: All grades available, 48 hours notice required.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: Ship's Register.

CUSTOMS ALLOWANCES: Tobacco, 2 oz. or 200 cigarettes per member of crew. Wine, no restrictions. Spirits 1×20 oz. bottle.

IDENTIFICATION CARDS: Required.

CONSULS: Greek, Dutch, Monaco, Danish, Swedish, Finnish.

REPAIRS: Minor repairs can be carried out.

SURVEYORS: None.

DRY DOCKS: None.

REPATRIATION: Can be arranged by Ship's Agents.

AIRPORT: 8 km. from port. Served daily by Air France regular lines.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: 1st January; Easter Monday; Whit Monday; 1st May; 14th July; 15th August; 1st November; 11th November; 25th December. Cargo work can be arranged on all dates except 1st November.

POLICE/AMBULANCE/FIRE: Police 17; Ambulance 95.21.50.50 (SAMU); Fire 18.

TELEPHONES: Can be placed on board warships only.

BANKS: Banque de France, Tel: 95.21.00.05. Telex: Banfra Ajacc 460083; Banque Internationale pour l'Afrique Occidentale, Tel: 95.21.34.75. Telex: Bancafr 460291; Banque Worms, Tel: 95.21.00.13. Telex: BWOR 460032; Banque Nationale de Paris, Tel: 95.21.54.90. Telex: 460894 BNP; Credit Lyonnais, Tel: 95.23.37.42 and 95.21.51.26. Telex: 460824 Credion Ajacc; Societe Generale, Tel: 95.21.41.30. Telex: 460757 Sogener Ajacc.

EMERGENCY CO-ORDINATION CENTRE: Crossmed Toulon, Tel: 94.27.27.11. Telex: 430024 Cromd.

Affaires Maritimes, Tel: 95.21.55.53. Telex: Afmar Ajacc 460690.

STORING: Stores and bunkers by truck only. Trucks may go alongside except at gas berth and tanker berth. Fork lift trucks available. Dockers available to assist.

GENERAL: Galley waste, etc., must not be discharged inside the bay, but into special containers at berth.

AUTHORITY: Departmental de l'Equipement de la Corse du Sud, Terre Plein de la Gare, 20184 Ajaccio. *Tel:* 95.23.31.12. *Telex:* Corsequi 460943. *Contact:* Port Director.

Port de Commerce d'Ajaccio, Quai l'Herminier, 20000 Ajaccio. *Tel:* 95.51.21.80. *Telex:* 460084. *Contact:* M. Grimaldi, Port Director.

ANTIBES: 43.35 N. 07.08 E. (See Plan)

DOCUMENTS:

(a) For Harbour Master:
Ships Papers.
Declaration of Exit and Entry.
Crew List.
Passenger List.

(b) For Customs:
Health Declaration.
Provision List.

PILOTAGE: Not obligatory for yachts. Port cannot receive pleasure boats longer than 40 m. Ensure pilotage authorities advised of ETA. VHF Channel 9 day and night.

ANCHORAGE: In winds of N.E. to S.E. anchorage in front of Antibes not advised. Recommended anchor in Bay de Golfe-Juan, in shelter of Cap d'Antibes, in direction of Juan-les-Pins. In winds from N.W. to S.W., good anchorages on East face of Cap d'Antibes, Bay of Garoupe, Bay of La Salis, Bay of Ilette.

RESTRICTIONS: None.

MAX. SIZE: For yachts length 50 m., width 6 m., draft 3.5 m.

VHF: Port Captain on VHF Channel 9 throughout 24 hours.

TUGS: None.

FUEL: For pleasure boats only.

CONSULS: None.

REPAIRS: For pleasure boats only. 2 travelifts for boats of max. weight 45 tonnes and 120 tonnes.

REPATRIATION: Must be arranged through Consulates at Nice or Marseilles.

AIRPORT: Nice, Cote d'Azur. 15 km.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Tel. Police 93.33.58.58 and 17; Ambulance 18; Fire 18.

SERVICES: Water and electricity on each pier.

AUTHORITY: Capitainerie du Port d'Antibes, Port Vauban, S.A.E.M. de Gestion, Port Vauban, 06600 Antibes. *Tel:* 93.34.74.00. *Telex:* 970480 F. *Contact:* J. Pluym, Le Commandant du Port.

BASTIA, Corsica: 42.41 N. 09.27 E.

DOCUMENTS: See "Ajaccio".

PILOTAGE: Address, Vieux Port, Bastia. Tel: 95.315095. VHF Channel 16. Pilot boats, 12 m. long, black and white with navigation and pilotage lights. Previous advice to Pilots necessary before arrival. Pilot boards in bay of Porto Vecchio, North of the citadel.

ANCHORAGE: Anchoring not recommended in Easterly winds. Depth 15 m. to 30 m. in Porto Vecchio Bay. Bastia harbour: up to 4.50 m. deep.

RESTRICTIONS: Ships may enter harbour any time.

MAX. SIZE: Max. length: 160 m.; draft 7 m.

TUGS: None available.

BERTHING: Ships berth in order of arrival. Accommodation for about 10 ships. General Cargo.

Mooring carried out by watermen. Same address as Pilots.

MEDICAL: Medical controls made by Customs officer. Doctor available.

FRESH WATER: Supplied ashore.

FUEL: Available in small amounts.

FIRE PRECAUTIONS: General rules. One wharf reserved for tankers.

GANGWAY/DECK WATCHMEN: Night watchman supplied by Agent.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: None on entry, 10 packets cigarettes when leaving. Wine/spirits unlimited when leaving.

IDENTIFICATION CARDS: Required.

CONSULS: Nearest at Ajaccio.

REPATRIATION: No facilities exist.

AIRPORT: Bastia 20 km. from ports. Departures every day to continent.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Police, 17; Ambulance, 17; Firemen, 18.

TELEPHONES: As a rule telephone is put only on naval ships.

SHORE LEAVE: Crew may go ashore.

AUTHORITY: Direction Departementale de l'Equipement de la Haute-Corse, B.P. 214, 20200 Bastia. *Tel:* 95.31.99.66. *Telex:* 460680 F. *Contact:* Mr. Halakuc, Port Captain, Hanger No. 1, Nouveau Port. Tel: 95.31.07.15.

BAYONNE: 43.30 N. 01.28 W. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
3 Lists of Provisions on Board.
3 Individual Lists of Tobacco and Spirits.
3 Manifests of Cargo.
1 Set Bills of Lading.

PILOTAGE: Station extends 3 miles between the parallel of Ondres to the North and the limit of French territorial waters to the South. When weather permits, the pilot boat comes out of l'Adour and comes alongside ships near the light buoy situated W.N.W. of the port entrance. Contact Pilot at least 12 hours before arrival relaying through Bordeaux Arcachon Radio and stay on radio watch in the pilot zone. VHF Channel 12.

ANCHORAGE: Ships must not anchor in the river.

RESTRICTIONS: In bad weather ships are led to take the Pilot at the pilot boat which is based on St. Jean-de-Luz and are led either towards l'Adour or to the anchorage of St. Jean-de-Luz.

When alongside, even in fine weather, a swell may be experienced causing lines to part.

MAX. SIZE: The Adour is accessible to ships of 160 m. length (15,000 – 20,000 tonnes). Depth at the mouth varies with the seasons and are maintained by dredging. They are never less than 7 m. during Summer but during Winter can be reduced following Westerly storms. The height of the tide has to be added to these depths but the draft can never exceed 8.0 m.

HEALTH: A Declaration of Health Form is lodged by the Customs Service on arrival; it must be completed by the Master. In case of a suspect illness, advise Agent 24 hours in advance.

RADIO: Bordeaux – Arcachon Radio. The signal tower on the South side of the mouth, and the Harbour Master's Office, in the tower, has a VHF radio station, Channel 12.

TUGS: 1 tug available, 1,250 h.p., 10 tons bollard pull. Request for tug through the Agent. Tug waits at the entrance to the Adour.

BERTHING: When working berth is occupied, vessel is directed to a waiting berth. Large ships or those carrying dangerous cargo can be requested to wait outside the entrance.

Berth	*Max. Length Vessel*	*Recommended Draft*
Socadour	150 m.	29.5 ft.
Cement Wharf	160 m.	24 ft.
Satec Wharf	160 m.	24 ft.
Grain Silo	130 m.	23 ft.
SNPA Sulphur Quay	150 m.	25 ft.
Other berths	120 m.	22 ft.

BULK HANDLING FACILITIES: Silos with capacity 60,000 tonnes (maize). Rate 450 t.p.h.

3 silos, total capacity 10,000 tonnes at Armand Gommes Quay.

Phosphate handled at Boucau Quay with 3 cranes of 10 tonnes capacity, feeding conveyor belts with capacity 350 t.p.h. – 400 t.p.h.

CRANES: Edmond Foy Quay: 3×3 ton and 2×6 ton cranes.
Pierre Le Roy Quay: 4×3 – 4 tonne cranes.
Boucau Quay (Socadour): 2×10 tonne cranes.
Marcel Forgues Quay: 1×10 tonne and 1×8 tonne crane.
Jean Letellier Quay (private): 1×10 tonne crane.
Armand Gommes Quay: 2×3 – 4 tonne cranes.

STEVEDORES: Arrival must be notified to Agent 24 hours in advance.

MEDICAL: Medical attendance can be organised by the Agent without advance notice, Hospital and private clinic available. However, if medical attendance required as soon as the ship arrives, particularly at night, it is advisable to send a radio message 12–15 hours before the arrival of the ship.

TANKERS: No installation to receive residues. Two berths for unloading of refined products. Refinery de Midi: max. length 120 m., max. draft 6 m. Saint Gobain, length 150 m. max. draft. 24 ft.

FRESH WATER: Available at each berth, minimum supply 3 cu.m.

FUEL: Available by arrangements in advance through Agent or suppliers.

GANGWAY/DECK WATCHMEN: Not obligatory except for ships with dangerous merchandise on board.

OPENING/CLOSING HATCHES: Generally carried out by the crew.

CUSTOMS ALLOWANCES: 200 grammes or 250 grammes of tobacco for each crew member and for 8 days (must without fail be declared in the individual list of provisions). 1 bottle of wine or spirits (must without fail be declared in the individual list of provisions).

IDENTIFICATION CARDS: Not necessary – Seaman's Identity Card sufficient.

CONSULS:
Belgium
Brazil
Chile
Finland
Norway
Peru
Portugal
Spain
Sweden
United Kingdom
Uruguay

REPAIRS: Running repairs to hull, machinery, radio and radar can be effected.

SURVEYORS: Bureau Veritas. Tel: 59.25.20.44.

DRY DOCK: Usable length 98 m. Length on stocks 94.1 m. Width of entry 15 m. Depth above sill, neap tides 4.5 m., spring tides 6 m.

REPATRIATION: Possible for all countries as well as crew changes.

AIRPORT: At Biarritz: 7 km. away. Regular service with Paris. Two services per week to and from London.

TIME: European Standard Time: GMT plus 1 hour and GMT plus 2 hours from 2nd April to 1st October.

HOLIDAYS: 1st January; Easter Sunday/Monday; 1st May; Ascension Day; Whit Sunday/Monday; 14th July; 15th August; 1st November; 25th December.

POLICE/AMBULANCE/FIRE: Police, telephone 17 or 59.55.84.09., Anglet: 17 or 59.03.76.10 Boucau: 17 or 59.55.29.53. St. Leon Hospital: 59.63.50.50. Fire Station: 18 or 59.59.21.84.

TELEPHONES: Telephones on board not possible.

SHORE LEAVE: Crew are authorised to go ashore.

AUTHORITY: Direction Departementale de l'Equipement Alles Maritimes, 64109 Bayonne. *Tel:* 59.25.43.60 *Contact:* Ch. Lesbordes, L'Ingenieur Des T.P.E.

Capitainerie du Port, 128 Av. de L'Adour, Anglet. *Tel:* 59.63.11.57. *Telex:* Porbayo 55 04 57.

BORDEAUX (inc. Verdon, Bassens, Ambes, Pauillac, Blaye): 44.50 N. 00.34 W. (See Plan)

DOCUMENTS:
Tonnage Certificate.
2 copies Provisions List.
2 copies Personal Effects List.
2 copies Crew List.
Customs Clearance.
Crew Manifests.
Check List.

PILOTAGE: To embark and disembark at sea from ships entering or leaving the Gironde Estuary, Pilots use either a 17 m. fast launch or a twin-turbine helicopter Ecureuil AS355F1.

With the helicopter, winching is the normal procedure to transfer Pilots.

The service at sea extends from 1 hour before to 5 hours after Cordouan LW.

For container ships, special arrangements can be made through the Agent.

When weather conditions do not permit service to ships at sea, the Pilot boards as soon as possible, after the ship has crossed the bar. In that case and after Master's agreement, a Pilot gives navigation assistance from Verdon shore-based radar station, until Pilot's boarding point or for outward ships, from Pilot's disembarking point to sea.

Vessels should announce their arrival at 'BXA' Fairway Buoy at least 24 hours in advance to the Commandant du Port de Bordeaux through Coast Station "Bordeaux-Arcachon Radio". Masters must confirm to the Harbour Master's Office, Channel 12 and the pilot station at least 12 hours before arrival their ETA, ship's draft and speed, and give their agreement for an eventual helicopter operation. *Three hours before arrival at 'BXA',* Masters must contact Gironde Pilot Station on Channel 16 or 6 and communicate on Channel 6 or 12. Ships can also call Verdon Pilot Station by Telephone No. 56.09.63.85 or by Telex PILVDON550167F.

Ships leaving ports located between Santander and Lorient, must send the above mentioned message on departure. In case of any change of more than 3 hours of the initial ETA, Masters must send a correcting message.

Helicopter Service: The helicopter is red and white, and "PILOTE BX" is painted in black. The VHF call sign is "PAPA GOLF" or "Gironde Pilot Helicopter". During the flight, VHF contact between the ship and helicopter must be maintained on Channels 6 or 12.

The Pilot is boarding in the vicinity of 'BXA' Fairway Buoy and winching is the normal procedure. Depending on weather conditions, the Master may be requested to alter the course or speed of the ship for safe boarding of the Pilot.

The helicopter is working in accordance with International regulations and particularly with the rules of the International Chamber of Shipping.

Masters are asked to watch very carefully the following points:
- check that there are no horizontal aerials or wires above the helicopter's manoeuvring zone
- check that no loose object, in the proximity of the manoeuvring zone, could be swept up by the effects of the wind created by the rotor blades
- at night, the manoeuvring zone must be well illuminated but in such a way that the helicopter Pilot is not dazzled
- if necessary, provide for washing the area to avoid dust being blown around by the effects of the rotor.

No extra charge for the Pilot boarding by helicopter.

Pilot Launch Service: When operating with a fast launch, the Pilot boards between 'BXA' Fairway Buoy and the entrance to Grande Passe de l'Ouest. Masters are requested to maintain a speed of about 5 knots. The pilot ladder should be rigged well amidships and the bottom of the ladder should be 1.50 m. above the water level. No line or rope shall be attached to the bottom of the pilot ladder.

The pilot launch keeps watch on VHF Channels 16 and 6.

Vessels less than 70. m. long, for which pilotage from the sea to Verdon is not compulsory, may embark River Pilot at Le Verdon providing Masters have advised the pilot station accordingly.

ANCHORAGE: The normal waiting anchorage area is the Roadstead of Le Verdon, depth 10 m. to 12 m. and sand silt bottom. The big tankers with more than 10 m. draft find a good anchoring area in the Saintonge Roadstead with a depth of 15 m. to 20 m. (sand silt bottom).

APPROACHES:
Report: 1986

Of primary concern in approaching or leaving the berths is the difficulty of the channel between Le Verdon and Ambes, especially for inbound/outbound tankers at the maximum draft.

When loading full cargo at Bordeaux/Ambes, Masters have to pay careful attention to the maximum permissible draft alongside at LW and to the maximum draft (fresh water) allowed for transitting channel outbound, owing to the many shelves especially around the Buoys 20 and 28.

Port Approaches: There is no special navigation difficulty for approaching 'BXA' Light buoy, though there is no noticeable landmark by daytime, but the 'BXA' Racon is efficient and the buoys of the entrance channel Passe de l'Ouest are detected early on the radar. The soundings may also give useful information.

Anchoring outside is *not* recommended during bad weather owing to the heavy swell. Ships have to use the tide to transit the River Channel which takes about 4 hours. They need about 2 hours for taking the Pilot and proceed to the Le Verdon Roads where they enter the river.

Best arrival time at 'BXA' Light buoy is between 4 to 6 hours before the HW of Pointe de Grave; this will avoid anchoring, leaving sufficient time for Master/Pilot exchange on the soundings in the channels which are the major problem during the transit for deep drafted tankers, especially in the river. Movements are carried out on a round the clock basis.

Heights of water are given on VHF Channel 17, every 5 minutes, for many places in the river corresponding to the main shoal areas (given in metres in the French language).

A monthly recommended maximum draft for vessels proceeding to and sailing from Ambes A.P. and E.D.F. is issued and always calculated based on fresh water. This sheet is given to the Agent and may be given to the Master when the Pilot boards.

The Under Keel Clearance considered in this draft calculation is mainly subject to local atmospheric and hydrological conditions but never less than 0.50 m. for the river transit. Meanwhile, in the River Channel, siltation and moving soft mud patches may reduce the deep draft passage width between the buoys. The Pilot must know these latest limitations as the Port Authority cannot give a complete safe sounding statement to Masters.

RESTRICTIONS: The great entrance to the Gironde estuary (Western entrance) is dredged to a depth of 13.50 m. under the zero of French sea charts. It permits the sailing in of ships with a draft of 15 m. (49 ft.) at practically all tides.

MAX. SIZE: Verdon Petroleum Harbour. Tankers up to 240 m. length or approximately 80,000 d.w.t. can be accepted.

Bec d'Ambes: Tankers up to 32 ft. 6 in. draft, 210 m. length.

Pauillac: Tankers up to 32 ft. draft, 240 m. length.

Bassens: Vessels up to 34 ft. draft.

Blaye: Vessels up to 25 ft. draft.

HEALTH: Vessel should ask for Free Pratique by radio at least 12 hours before arriving at port. Message should be addressed to Sanipor – Bordeaux routed via Bordeaux/Arcachon Radio. Otherwise, Pratique given by Customs Officers who board on arrival. If any case of suspected disease on board or any reason why vessel should not receive Free Pratique, Master should radio Agent before arrival, advising full details.

Health Control: Hospital Saint Andre, 1me Jean Burguet, Bordeaux. Tel: 56.50.64.52.

RADAR/VHF: Port radar is in operation in the Gironde estuary and approaches. Vessels may contact this station for navigation information by calling Verdon Port Radio on VHF Channel 14.

RADIO: Arcachon Bordeaux Port Radio: Radiotelephony 1,862 kHz. Radiotelegraphy 421 kHz.

Port Authority by VHF: Calling band 156.8 MHz Channel 16. Traffic band 156.6 MHz Channel 12 (port). Traffic and 156.7 MHz Channel 14 (radar).

Pilots: Telegraphy: watch on 500 kHz at the prescribed hours. Telephony: continuous watch on 2,182 kHz. VHF: continuous watch on Channel 6.

Every vessel fitted with HF radio equipment shall keep a constant watch and be in contact with "Arcachon-Bordeaux-Port-Radio" Station when navigating in the area between the landing buoy and her berth, or at least watch at the sending times of this station, when moored and awaiting orders.

Every vessel fitted with VHF radio equipment, shall also keep permanent watch and maintain contact with the Port Operations Station on 156.6 MHz (Channel 12) when navigating in the zones indicated below, or when moored and awaiting orders.

Le Verdon zone: call "Radar-Verdon".

Bordeaux zone: call "Port-Bordeaux".

TUGS: Tug assistance is available as ordered by the Pilot. Tugs will join vessels at the following places: In Verdon Roads for vessels mooring at Verdon. In Pauillac Roads for vessels mooring at Pauillac. At Buoy BA1 for vessels mooring at Ambes. Off the Harbour Basins for vessels mooring at Bordeaux Docks.

As a rule ship's tow-lines are used; when a tug line is required there will be an additional charge.

BERTHING: *Le Verdon Deep Water Terminal:* 2 containership berths, length 600 m., depth alongside 12.5 m. at LW; slip for quarter ramp Ro/Ro handling. Operations carried out 24 hours a day 7 days a week. 100 power points for reefer containers. 3 container gantry cranes (1×32 ton and 2×40 tons capacity below spreader). One is multi-purpose and can work with a 30 ton grab for bulk unloading.

Riverside Quays: 18 berths, depth alongside 7.5 m. – 9 m. at LW. Now available only for cruise ships and naval vessels.

Enclosed Docks: 2 basins joined by a lock 25 m. wide. Entrance effected by two locks of the following dimensions: Large lock 146 m. long 22 m. wide. Small lock 100 m. long 14 m. wide. Depth of water in the basins is maintained at 6.50 m. These are now used only for repairs and yachting.

Queyries: 493 m. long, depths offered are 7 m. alongside. 4×6 ton cranes.

Bassens-Amont: 740 m. long, depth alongside at LW up to 9.5 m. – 11.0 m (4 berths). The quay caters for general trade. Equipped with 6 cranes of 2.5/6 tons, 2 of 10/12.5 tons, 2 Caillard cranes 15/24 tons.

The heavy bulk storage zone has a capacity of 128,000 cu.m. It is served by two railway sidings with road/rail weighbridges for re-dispatch.

One of the berth at Bassens-Amont is equipped to cater for molasses which can be stored in 3 reservoirs.

Bassens-Amont is also the centre of the ports phosphate traffic, bound for neighbouring industries and stocked in a silo depot, which is linked to the quay by a conveyor belt network.

During the last quarter of 1982, the bulk trades received at Bassens-Amont ceded their place to general cargo. In the context of this redevelopment, which enables better throughput rates and more flexibility, a 6,000 sq.m. shed has been built. Containers are already provided with a storage yard of 12,000 sq.m. in the first sector and will have on completion, 20,000 sq.m. in the second sector; they are handled by 2 Caillard cranes of 15/24 tons.

Bassens-Aval: 10 berths, total length 1,474 m. Depth alongside 9.50 m. – 11.0 m. at LW. 5 × 6 ton cranes, 4 × 2.5 – 6 ton cranes, 2×15 ton – 24 ton Caillard cranes and 5×15 ton – 25 ton Ceretti cranes.

A Bulk terminal is available with discharge capacity 2,000 t.p.h. Max. size 120,000 d.w.t.

In addition there are facilities for heavy bulk goods, Ro-Ro; coal; forest products terminal; grain conveyors of 150 t.p.h., 400 t.p.h., 600 t.p.h. and 900 t.p.h.

Blaye: Public berth 8.0 m. depth, 170 m. long. Berth can accept vessels of 10,000 d.w.t., length 190 m. and draft 8.0 m.

Pauillac: Public berth for vessels drawing up to 9.75 m. Total quay length 280 m.

Also see "General".

TANKERS: *Verdon Terminal:* Main berth. The ship is berthed on elastic dolphins (steel pipes) with an available depth of 17 m. Ship makes fast with own hawsers on four mooring dolphins, two up and two down on the wharf and set back about 35 m. from the face. This mooring is strengthened by very flexible steel warp hawsers of 55 and 60 mm. diameter. Five hawsers of this type may be placed at each end of vessel according to needs and weather conditions. Ships must have strong chain or claw-stoppers for turning on bitts.

For crude oil, the berths have following equipment: 1×30 in. line connecting the main berth to storage; 1×16 in. line connecting the coaster berth to the foresaid lines; 2 lines for bunkering. Discharge rate, 2,500 t.p.h.

Arms for connecting pipe-lines to ship. Connecting of the crude oil pipe-lines is made by ASA type, 16 in. Mannesmann arms (1 at main berth). The Port Authority has a number of connecting collars in various dimensions and types. Ships are requested to inform before arrival on the type and data of their own collars. Connecting to the bunkering line is made by flexible hoses (ships must use their own handling gear).

Fire wire must be rigged on forecastle and poop, the eye 1 m. (3 ft.) above the water (all the time) when ship is light. Each fire wire must have a 10 m. (30 ft.) coil laying between bitts and fair lead.

If no other request, the ship is assisted by 2 tugs (with Kort nozzle 23 ton thrust) one of which stays at disposal during the call.

Telephone. Telephone is connected to every ship on arrival. In that way the ship is regularly connected to the French telephone network (Tel. No. 56.09.63.92 – Le Verdon).

Pauillac: Oil installation operated by Shell, 33 ft. alongside.

✓ *Ambes:* Terminal for tankers up to 210 m. length, 32 ft. 6 in. draft. Operated by Societe Elf and Esso. Also see "Shipmaster's Report" – dated June 1981.

There is a new private wharf at Ambes, catering for liquified gas tankers. Length, 125 m. Maximum ship's length 145 m. Max. draft 7.70 m.

Unloading by articulated arm which connects to ship's manifold. This manifold should be as close to the central perpendicular as possible.

Standard security measures for handling propane and butane. This berth belongs to Cobogal and has been allotted Berth No. 515.

Bassens: See "Report" dated March 1981.

DENSITY: Verdon 1023 to 1015. Pauillac 1026 to 1000. Ambes approximately 1000. Bordeaux approximately 1000.

FUEL: Vessels wishing to bunker during their call at Bordeaux-Le Verdon, shall make known their needs of quantity and quality to their Agents or consignees before arrival in port. Requests must be forwarded, 48 hours in advance (at least), to one of the bunkering Agents of the following companies:

Shell – Bassens. Tel: 56.81.21.55.
Esso – Worms. Tel: 56.43.56.43.
ELF/SIMA. Tel: 56.50.56.70.
B.P. Floirac. Tel: 56.86.53.25.
Total C.F.R. Tel: 56.85.00.33.

A very large proportion of the bunkering fuels comes from the Shell refinery at Pauillac. These fuel-oils are mainly intermediate oils made by viscosity mixing between 80 and 460 centistocks (at 50°). Orders must therefore be for a quantity of at least 400 tons.

The quality control of mixtures is carried out by the Shell refinery laboratory, whose opening hours are: Monday: from 0400 to 1630 hrs. Tuesday, Wednesday, Thursday, Friday & Saturday: from 0400 to 2000 hrs.

MEDICAL: All facilities available. Malaria and cholera vaccinations can be performed at the Military Hospital or at the Port Vaccination Centre (Shed 14).

CONSULS:

Algeria	56 98 44 90	Kampuchea	56 44 27 41
Austria	56 48 57 57	Liberia	56 50 84 34
Belgium	56 52 32 39	Madagascar	56 44 78 81
Benin	56 52 32 69	Mauritius	56 24 17 50
Bolivia	56 52 68 17	Mexico	56 50 84 34
Brazil	56 52 83 57	Monaco	56 44 16 55
Chile	56 48 56 17	Morocco	56 52 34 34
Colombia	56 44 78 37	Netherlands	56 52 16 75
Denmark	56 81 24 10	Norway	56 52 52 40
Dominican Rep.	56 08 43 63	Peru	56 08 25 35
El Salvador	56 23 06 78	Portugal	56 52 19 50
Finland	56 44 94 45	Senegal	56 81 19 90
Germany F.R.	56 08 60 20	Spain	56 52 80 20
Greece	56 52 26 17	Sweden	56 39 33 33
Guatemala	56 08 23 92	Switzerland	56 52 18 65
Honduras	56 40 00 88	Togo	58 71 00 81
Iceland	56 48 22 39	United Kingdom	56 52 28 35
Italy	56 52 24 89	United States	56 52 65 95
Ivory Coast	56 52 30 86		

DRY DOCKS: There are 3 dry docks and 5 small covered docks. Dimensions of the largest graving dock are 247 m. length 34 m. width 13.40 m. depth.

REPAIRS: ARLI, Face au 81 Rue Des Etrangers, 33300 Bordeaux. Tel: 56.50.35.73.

Les Ateliers et Chantiers du Sud-Ouest, 162 quai de Brazza, Bordeaux. Tel: 56.86.37.28.

Ateliers et Chantiers Auroux, 7 boulevard Chanzy, Arcachon. Tel: 56.83.32.62.

Anciens Ets Mounerat et Gaussens, 99 a 107 rue Bourbon, 33028 Bordeaux. Tel: 56.39.75.06.

Service de Travaux et d'Etudes Maritimes et Industrielles, 110 Rue Achard, BP 115, 33028 Bordeaux Cedex. Tel: 56.50.40.35.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of alcohol per man.

IDENTIFICATION CARDS: Crew men going ashore should carry passport or identity card.

AIRPORT: Situated 10 km. from Bordeaux. Frequent and Daily flights to most parts of Europe and North Africa. Good internal service.

POLICE/FIRE/AMBULANCE: Police 17; Ambulance 17; Fire 18.

TELEPHONES: Can be connected on board vessels moored at quays in Bordeaux, Bassens, Ambes, Pauillac, and Verdon.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year (1st January, no labour available); Easter Sunday (possibility of labour with overtime); Easter Monday (no labour available); Labour Day (1st May, no labour available); Ascension Day (possibility of labour with overtime); Whit Sunday (possibility of labour with overtime); Whit Monday (no labour available); National Day (14th July, no labour available); Assumption Day (15th August, no labour available); All Saints' Day (1st November, no labour available); Armistice Day (11th November, possibility of labour with overtime); Christmas Day (25th December, no labour available). N.B. Every Sunday and day marked "possibility of labour with overtime" can be worked at the rate of 100%.

Le Verdon Container Terminal: Operational 24 hours per day, 365 days per year.

BANKS:

Le Verdon:

B.N.P., 17 rue Plage Soulac. Tel: 56.59.86.11.

Credit Agricole, Le Verdon. Tel: 56.09.61.25.

Credit Maritime, 41 rue de la Plage, Soulac. Tel: 56.09.88.76.

Pauillac:

B.N.P., 10 rue Albert 1er. Tel: 56.59.05.71.

Credit Agricole Mutuel, rue Ferdinand Buisson. Tel: 56.59.00.25.

Credit Lyonnais, place de Lattre-de-Tassigny. Tel: 56.59.18.20.

Societe Bordelaise de C.I.C., rue Albert 1er. Tel: 56.59.06.49.

Societe Generale, place Michel-Montaigne. Tel: 56.59.08.60.

Blaye:

B.N.P., 27 cours de la Republique. Tel: 57.42.29.10.

Credit Agricole Mutuel, rue Paul Tardy. Tel: 57.42.29.54.

Credit Commercial de France, 13 cours du Port. Tel: 57.42.00.37.

Credit Mutuel, 6 place Rabotte. Tel: 57.42.27.13.

Credit de Nord, 1 rue Andre Lamande. Tel: 57.42.00.45.

Societe Bordelaise de CIC, 31 ter. cours de la Republique. Tel: 57.42.00.33.

Ambes:

Credit Agricole Mutuel, place du 11 Novembre. Tel: 56.20.10.90.

Societe Generale, rue Mal Leclerc. Tel: 56.20.10.62.

Bassens:

Credit Agricole Mutuel, 12 avenue St. Exupery. Tel: 56.06.27.96.

Societe Centrale de Banque, avenue St. Exupery. Tel: 56.06.14.69.

Bordeaux:

Banque de l'Aquitaine, 2 Pl. Comedie. Tel: 56.48.03.88.

Banque de France, 15 rue Esprit-des-Lois. Tel: 56.81.56.66.

Banque de l'Indochine et de Suez, 15 allees de Chartres. Tel: 56.44.07.67.

Banque Internationale pour l'Afrique Occidentale, 17 Allee de Tourny. Tel: 56.44.08.14.

Banque Nationale de Paris, 40 cours du Chapeau-Rouge. Tel: 56.90.92.96. – 75 quai des Chartrons. Tel: 56.81.42.22.

Banque de Paris et des Pays-Bas, 50 cours du Chapeau-Rouge. Tel: 56.44.80.05.

Banque Populaire du Sud-Ouest, 5 place Jean-Jaures. Tel: 56.44.84.26.

Banque Rothschild, 5 pl. des Quinconces. Tel: 56.52.79.90.

Banque Worms, 14 allees de Tourny. Tel: 56.44.51.20.

Barclays-Bank S.A., 4 rue Esprit-des-Lois. Tel: 56.52.64.61.

Credit Commercial de France, 10 allees d'Orleans. Tel: 56.90.93.25.

Credit Lyonnais, 13 cours de l'Intendance. Tel: 56.48.91.23.

Credit du Nord, 2 cours du XXX-Juillet. Tel: 56.90.93.90.

International Westminster Bank Ltd., 32 allees d'Orleans. Tel: 56.48.10.43.

Societe Bordelaise de Credit Industriel et Commercial, 42 cours du Chapeau-Rouge. Tel: 56.52.49.25.

Societe Centrale de Banque, 60 cours de l'Intendance. Tel: 56.44.73.56.

Societe Generale, 28 cours de l'Intendance. Tel: 56.90.91.74.

GENERAL:

Mooring Regulations: Vessels fitted with radio equipment, which, for any accidental cause, (engine damage, fog, etc.) are obliged to moor or ground at any point in the area between the landing buoy "BXA" and the "Ponts de Pierre" (Stone Bridges) at Bordeaux and Libourne, must immediately indicate their mooring or grounding position, by cable to the Harbour Master, Bordeaux. In all cases, the text of the message must specify whether the moored or grounded vessels interferes or not with shipping.

Berthing: Berthing is carried out on the advice of the Pilot, following instructions from the Harbour Officers.

Special precautions are recommended during Spring Tide periods to ensure that vessels in the river are held fast to the quay.

The following instructions apply:

Special Instructions for Securing Vessels at the Quay During Spring Tide Periods (K > 90).

Given the disturbances caused by the strong currents of tides with a K of over 90, the securing of vessels on the quay must receive unremitting attention.

Pilots shall pay close attention to the mooring lines, for which the Master remains constantly responsible.

Masters shall follow Pilot's instructions and provide all means asked for in terms of both manpower and equipment.

A strict surveillance is necessary to ensure that lines remain correctly secured by adjusting them according to the height of the tides.

A sufficient number of crew shall be kept on board, to carry out any handling which might eventually be ordered by the Harbour Officers.

Fire Fighting: 1. All vessels berthed in the Port of Bordeaux, be they loading, discharging, or under repair, must have permanently on board a sufficient watch to keep effective surveillance, to take all preventive measures and to fight any fire on board.

2. It falls to the Master or the watch, and this under their sole responsibility, to use the signalling equipment at their disposal.

3. Communication and signalling equipment. Telephones and fire hydrants available on all quays.

4. Fire fighting is carried out under the direction of the Master, but gangs intervening, especially the fire brigade, remain under the command of their respective officers.

The ship's crew must be able to guide the rescue teams. A plan of the ship and her loading plans, in particular those showing the location of dangerous goods on board, shall be put at their disposal on arrival. Where there is a risk of the fire spreading, for which the Harbour Master is the sole judge, he shall lead operations and order all necessary steps to be taken to safeguard public interests.

REPORT: The following report was received from a Ship Operator in March 1981.

Michelins Reception Facilities at Bassens:

1. The equipment consists of 2 pipes: One 10 in. diameter with a normal capacity of 500 cu.m./h.and the other 6 in. diameter. These capacity limits result from the meter which is fitted. Either pipe can be used independently according to conditions and features of the ship's pumps and equipment.

The absolute maximum pressure allowed in whole system is 10 bars.

Length of pipes:

2,315 m. for 10 in. pipe.

2,274 m. for the 6 in. pipe.

The equipment incorporates a meter post consisting of a Smith LB 250 volumeter normal temperature – 3 degrees normal pressure, 8 bars accuracy, 0.2 outputs of between 110 and 570 cu.m./.h. The equipment does not include a vapour return line.

2. Deliveries must be made by tanker vessels specifically designed and fully equipped for carriage and refrigerated liquid gases. The liquid must be delivered at a temperature of between −2° and −5°Celcius when measured at the ship's discharge connection.

The ship must be fitted with suitable pumping equipment, in full working order and of a capacity sufficient to maintain throughout the whole unloading operation and under the condition of temperature and pressure already specified, an hourly delivery rate at least equal 1/16th the total shipment and in any case not less than 100 cu.m./h. As indicating the pumps must be specifically designed for the movement of butadiene in the order that any premature failure, or suction of gas, be avoided. A further reason for the pumps and compressors being in perfect condition is that the quay is public and any delay prejudicial to the movement of vessels requiring to use it. The ship's discharge equipment must include a security device capable ensuring at all times, both under normal conditions and in the event of accidental or unforeseen mishandling that the delivery pressure at the connection point for the hose never exceeds 10 bars.

The ship must have lifting gear (derrick, hoist, etc.) with a minimum 2 tons capacity and sufficient reach to maintain the flexible hose at right height, even at low tide. The ship must be capable of completely emptying each tank and the systematic use of nitrogen must be avoided, as it is detrimental to the manufacturing process.

To enable receivers to prepare for cargo, following information required at least one week prior arrival of vessel.

1. The position of discharge outlets in relation to central axis of vessel and to the level of the deck.

2. Type and diameter and thread dimensions of the sampling connection.

3. Diameter and details of the ship's outlet union.

4. The details of the discharging equipment for each pump or compressor.

5. The normal and maximum rates of discharge and pressure of delivery should be given.

The vessel is equipped with 2 sampling positions in the middle and lower positions of each tank.

Notice of Arrival: Either the seller or the carrier must give to the Bordeaux Authorities (Port Autonome de Bordeaux) notice of the estimated arrival of the vessel at Bassens either 7 days advance of the tanker getting under way at the previous port of call should this be less than 7 days before arrival. Confirmation of the arrival of the vessel off the Gironde Fairway/Buoy (BXA) must be given to the Bordeaux Port Authorities by cable, telex or other means at least 24 hours in advance.

If the vessel is likely to arrive during a weekend, Michelin Bassens must be informed by Friday mid-day at the latest, otherwise operations will not be able to commence before 0800 hrs. on Monday.

Discharge: The ship's crew must scrupulously observe all general security regulations, together with any particular ones laid down by the officials appointed by the Bordeaux Port Authority to supervise the safety of discharging operations.

Receivers cannot be held responsible for any mishandling, excessive pressure or untimely purging that may occur during the discharge operation due to the vessel, or for the consequences of any failure to observe the security regulations by any person not employed by Michelin.

On arrival of the ship, Michelin, assisted by the crew, will connect up the shore line to the ship's outlets union by means of flexible hose. The ship's crew will be responsible for the use of their own lifting equipment (crane and derricks) for the raising of the flexible pipe to a sufficient level above the quay so as to take into account the tide. Jointly with representatives of the ship and the sellers, Michelin will proceed with, the drawing of samples from each tank (for quality control).

The Liaison of Discharging Procedures: Michelin's representatives are to be introduced to the crew members appointed to the discharging operation.

Throughout the duration of the discharging operations the rate and pressure of the output must remain constant and within the agreed limits in order that the metering equipment shall function correctly. On having completed discharge of the liquid from the last tank, the ship must cease pumping to permit:

The meter post personnel to by-pass the meters.

Michelin in conjunction with the representatives of the seller and the ship, to check the remaining cargo (the weight of liquid butadiene discharged thus being determined).

The gas can then be pumped out – the quantity being determined by measuring the difference in pressure and temperature of the ship's tanks, on the assumption that it contains only gas both before and after pumping out.

Unloading Completion: On the representatives of the sellers and the ship agreeing that the discharge of the butadiene has been satisfactorily completed, the receiver's personnel and the ship's crew will uncouple the flexible hose.

In the event that after complete discharge of all liquid, it is agreed between the ship and the seller to pump out the gas, the quantity involved will be calculated by measuring the difference in pressure and temperature of the ship's tanks, on the assumption that they held only gas both before and after pumping.

DEVELOPMENTS: Dredging underway in the Bassens area in order to accommodate vessels up to 11 m. draft by 1988.

SHIPMASTER'S REPORT: June 1981.

Bordeaux – Bec d'Ambes: If proceeding further up river then Sea Pilot leaves at Le Verdon and River Pilot boards. Pilot gives an Inwards Declaration which (different from EEC check list) is to be completed and handed to Port Officer after boarding.

Reference Admiralty List of Radio Signals, Volume 6, 1980, Part 1, Page 205, paragraph (2), vessels wishing to enter La Gironde should address the 24 hour message to "Capiport Bordeaux" and 3 hours before entering French Territorial Waters should request, via 'Capiport' permission to enter La Gironde. These messages are free of charge.

Port regulations require the berthing (River Pilot) Pilot to stand-by, together with 1 tug, until a loaded vessel has lightened to 28 ft. fresh water maximum draft.

When berthing starboard side to then one tug on port bow and second tug just for pushing.

Usually, first ropes on board are one shore head wire and one shore head breast. Final moorings usually 2 shore heads, 2 shore breast, (fore and aft) and 2 shore stern lines, and 2 springs each end from ship.

The shore moorings consist of a chain cable connected to the shore, this is connected to a 57 mm. wire which is made fast on board. The wires are hove on board by means of a messenger (ship) which is attached to a small size, long length pennant attached to the 57 mm. wire. The shore end of the 57 mm. wire is attached to a chain cable thus creating a 'catenary effect' which proves very good in keeping the vessel alongside. For berthing there is one shore rigger each end to advise and assist.

For unberthing one rigger boards to assist in singling up to 1 shore wire and one back spring each end. He then goes ashore by pilot ladder. Vessels berth day and night depending on tide.

Agent requires in advance the distances from bow and stern to centre of manifold.

AUTHORITY: Port Autonome de Bordeaux, Palais de la Bourse, 2 Place Gabriel, 33075 Bordeaux-Cedex. *Tel:* 56.90.58.00. *Telex:* 570617 Pablv. *FAX:* 56.90.58.77. *Cables:* Poronom – Bordeaux. *Contact:* P. Valls, Director General. Commandant Bozec, Harbour Master – Ext. 5931-32-33-34.

BOULOGNE SUR MER: 50.43 N. 01.35 E. (See Plan)

DOCUMENTS: As for "Calais".

PILOTAGE: Compulsory for vessels over 50 m. length. Vessels can communicate with pilot station, tel. 21.31.36.08, through Boulogne Radio. When pilot launch is at sea, contact by VHF Channel 12.

The most favourable boarding point is between the sea buoy and the wreck buoy situated 1.5 miles to the South, or slightly nearer the land if there are strong Westerly winds. In any event, the surf created by the Carnot breakwater must be avoided by keeping at least 1 mile off shore. If Pilot is not immediately available, vessel must wait in Outer Roads, if necessary at anchor, until further instructions received. On no account should vessel attempt to enter Carnot Roads without Pilot.

ANCHORAGE: The outer anchorage for large vessels is midway between Bassure de Baas and the Carnot Breakwater. Anchorage prohibited in the main approach channel.

RESTRICTIONS: Entrance depends on tidal conditions. For larger vessels best to enter the breakwaters at slack water which occurs 2 hours before time of high tide. Arriving vessels are obliged to contact Harbour Master's Office immediately by radio, or VHF Channel 12.

MAX. SIZE: For outer harbour: length, 230 m.; draft, 10.67 m. springs, 11.00 m. neaps. Max. d.w.t., 35,000 (approx.). Bassin Loubet: length, 130 m.; draft, 7.5 m. springs, 7.75 m. neaps.

RADIO: Boulogne Radio, call sign FFB, also on VHF Channel 25.

HEALTH: Pratique given by Customs Officers who board on arrival. In case of suspected disease on board, Master should radio Agents prior arrival advising details.

TUGS: Tugs meet vessel as requested by Master on Pilot's advice.

BERTHING:

Sarraz-Bournet Dock: Europe Quay, 775 m., depth 11 m.; Ore Quay, 240 m., depth 11 m. max. rate 12,000 tonnes per day.

Carnot Basin: Mooring on dolphins for Ro-Ro vessels up to 146 m. long, beam 14 m. – 32 m., depth 9 m., max. draft 8.5 m. Connection to the open area by ramp capable of taking up to 175 tons.

Loubet Basin: (Closed by a lock, depth 5.50 m.) Huguet Quay, 240 m. for Ro-Ro/Lo-Lo vessels up to 132 m. LOA; Voisin Quay, 700 m. (for refrigerated vessels up to 135 m. LOA).

Fore-Port and Tidal Port: Cross-channel terminal with 3 ramps (one of which is dual level/double lane for new generation car ferries), capacity 40/175/144-228 tons. Can accept car ferries up to a length of 145 m. and a draft of 4.50 m.

Hoverport: Can receive 3 hovercraft at same time.

The station can accommodate the transit of 10,000 passengers a day. Direct connection by railway with Paris.

The port offers 70,000 sq.m. of warehouses and 150,000 sq.m of open storage area. 250,100 sq.m. of cold storage space.

A silo enables 42,500 tons of clinker to be stored for loading directly on to vessels at a rate of 1,200 t.p.h.

CRANES: 3×12.5-20 tons jib cranes for ore and 1 gantry for clinker (rate 1,200 t.p.h.). 24×0.6 tons, 6×3 tons, 1×5 tons, 11×6 tons cranes.

FRESH WATER: Supplied by pipe-line to all berths.

FUEL: SMCL quay can supply marine fuel. Quay is limited to vessels less than 100 m. length and 5 m. draft, otherwise fuel obtainable by tanker lorry from Dunkirk.

OPENING/CLOSING HATCHES: Performed by crew.

CONSULS: Finland, Tel: 21. 30-44-55.
Great Britain, Tel: 21. 30-25-11.
Iceland, Tel: 21. 30-54-04.
Sweden, Tel: 21. 30-31-11.

REPAIRS: Only quick repairs may be effected because of congestion at the quays. Slipway for vessels up to 2,500 tons.

SURVEYORS: Soemari, 52 Rue Blanzy – Pourre, 62200, Boulogne-sur-Mer. Tel: 21922200. Telex: 110013.

Bureau Veritas, Building A, Boulevard Gambetta, 62200 Boulogne-sur-Mer. Tel: 21315240.

TIME: GMT plus 1 or 2 hours according to the time of the year.

HOLIDAYS: No work Sundays and legal holidays in the afternoon.

POLICE/AMBULANCE/FIRE: Police, Tel: 21.30.12.34; Ambulance/Fire, Tel: 18.

EMERGENCY CO-ORDINATION CENTRE: At Sea: Crossma, Gris Nez. Tel: 21928666. Telex: 130680. In Port: Port Directorate and Port Captaincy.

TELEPHONES: Can be connected on board vessels at Quay de L'Europe.

BANKS: Banque de France, 1 place d'Angleterre. Telex: 110902.
Banque de la Henin, 80 Grande Rue.
Banque Nationale de Paris, 14 rue Victor Hugo. Telex: 110016.
Banque Populaire du Nord, 87 rue Thiers.
Banque Scalbert Dupont, 32 place Dalton. Telex: 110018.
Barclays Bank (SA), 85 Grande Rue. Telex: 135886.
Compagnie Bancaire (Societe Cooperative d'Etudes et de Gestion du Groupe de la), 99 Grande Rue. Telex: 110999.
Credit Agricole, 85 Boulevard Mariette.
Credit Commercial de France, 48 rue Thiers. Telex: 160184.
Credit Lyonnais, 45 rue Victor Hugo. Telex: 110048.
Credit Maritime Mutuel, Quai Chanzy. Telex: 810756.
Credit Mutuel C.M.A.A., 24 rue des Pipots.
Credit du Nord, 37 rue Faidherbe. Telex: 110971.
Societe Generale, 60 rue Victor Hugo. Telex: 110044.
Union Francaise de Banques (U.F.B.), 99 Grande Rue. Telex: 110999.

STORING: See "Prelims".
1. Storing by lorries.
3. Lorries can proceed alongside at berth.
4. Ship's stores can be loaded by any means.
5. Fuel is free of taxes, the same applies to provisions (within proportions estimated by Customs with relation to the number of crew members).

SHORE LEAVE: Permitted, no restrictions.

DEVELOPMENTS: To the West of the mole of the Sarraz-Bournet Dock, it is envisaged that a 400 m. quay for commercial traffic will be provided.

AUTHORITY: Service Maritime des Ports de Boulogne-sur-Mer, et de Calais, 96 Boulevard Gambetta, 62321 Boulogne-sur-Mer-Cedex. Postal address: B.P. 689, 62321 Boulogne Sur Mer Cedex. *Tel:* 21301000. *Telex:* 110968 Sermar F. *Contact:* Directeur de l'Exploitation du Port.

BREST: 48.24 N. 04.30 W. (See Plan)

DOCUMENTS: See "Dunkirk".

PILOTAGE: Pilots do not stay out at sea, but only go to meet ship at estimated time of arrival as sent by ship. Normally pilot boat positioned on the line Toulinguet lighthouse and Beuzec (or Charles Martel) buoy, about 2.5 miles N.W. Toulinguet lighthouse. If strong S.W. wind, pilot boat waits for ship at entrance of Camaret Bay, about 1.5 miles N.E. Toulinguet lighthouse. If sea too rough to allow pilot boat to sail out, boat waits for ship at entrance of Brest Roads, near Portzic lighthouse.

Ships proceeding Brest must send last message giving ETA Pilot station (stating if *local time or GMT*), about 5 hours before arrival. Message to be addressed *"Brest Pilot Office"* through Brest Le Conquet radio station (call sign FFU). Day and night watch at pilot office. Radio station phones message direct as soon as received. Any alteration in ETA should be passed pilot office immediately.

Pilot boat sails from Brest harbour about 1.5 hours before ship's ETA, and 0.5 hour later pilot boat takes radiotelephony watch on 2182 kHz, calling ship from time to time on same frequency. Ships fitted with radiotelephony should listen and call on 2182 kHz. Pilot boat also equipped VHF Channels 16, 9, 6, 12 and Pilot office Channel 9.

ANCHORAGE: At Pilot's discretion. Anchoring in main approaches restricted as indicated on charts.

RESTRICTIONS: Entry subject draft and height of tide on day in question. Two entrances to port, one dredged to 6 m. below zero of charts and the other 5.8 m. below zero. Depth at quays varies according berth from 6 m. to 11 m. below zero.

MAX. SIZE: Inside harbour, max. length 320 m. Draft up to 35 ft. subject to tide.

HEALTH: If from foreign port, cable Maritime Health Service 48 or 24 hours prior arrival requesting Free Pratique. If risk of contagious disease exists, vessel will be held in roads until cleared. If from another French port, Free Pratique automatic.

RADIO: Brest Le Conquet – FFU.

VHF: VTS in operation.

Also see "Pilotage".

TUGS: Two port tugs, 1,900 h.p. and 2,900 h.p. Tugs join vessel at main entrance to port. Marine National places tugs at ship's disposal for all port movements. Generally, tow rope supplied by tug at additional charge.

One French salvage tug belonging to the Abeille Company is stationed at the port, but only gives assistance for vessels requiring aid outside the port area.

BERTHING: According to draft, ships may have to wait in roads before berthing, depending on height of tide in fairways. Also see "Restrictions".

Commercial Harbour Facilities:

Dock	*Quay*	*Utilisation*	*Length (m.)*	*Depth (m.)*	*Equipment*
1	West	Wine, Other goods Railways	212	5.30	Mobile cranes
3	"Eperon"	Refrigerated goods, Potatoes, other goods.	140	9	2 cranes 3 ton at 22 m.
5	West	Refrigerated goods, Potatoes, Fruit, Other goods, Railways	174	7	2 cranes 6 ton at 22 m.
5	North	Refrigerated goods, Potatoes, Other goods, Railways	330	7	mobile cranes
5	East	Cereals, Wood, Refrigerated Goods, Other goods, Railways	440	10 – 8	1 crane 12 tons at 30 m. 2 cranes 6 ton at 22 m.
6	West	Hydrocarbons, Molasses.	150	8	
6	East	Cereals, Phosphate, Manioc, Soya Beans, Soya Meal, Soya Oil.	175	9	3 cranes 8 tons at 30 m. Conveyor belts (550 t.p.h., 1,000 t.p.h. in near future).
6	Coaster	Not in use.	110	6	
6	South	Containers, Railways, Soya Beans, Soya Meal and Manioc.	230	12	1 crane 40 ton at 24 m. 2 cranes 8 tons at 30 m. Conveyor belts (1,000 t.p.h.)

Complete area of the Port: 250 hectares.

Storage:

1. In open air 100 hectares (with the Industrial Zone near Dry Dock No. 3).
2. Covered sheds 35,750 sq.m.
3. 3 silos 87,000 tons.
4. Refrigerated shed 21,000 cu.m. and shortly 63,000 cu.m.

BULK HANDLING FACILITIES: See "Berthing".

STEVEDORES: Agent has responsibility of making all arrangements for unloading, and is in touch with stevedores who arrange necessary gangs.

MEDICAL: Hospitals and clinics available. In the case of ship needing medical assistance, request should be addressed to Maritime Health Service through Conquet Radio Station, advising ETA, where vessel coming from and state of patient.

TANKERS: One berth for receipt of refined products destined for local storage tanks. Berth length 142 m., dredged alongside to a depth of 10 m. below zero of charts over an area 250 m. long and 30 m. wide.

FRESH WATER: All berths have fresh water supply. Apply to Chamber of Commerce who make necessary arrangements. Loading rate 13-15 t.p.h.

FUEL: Delivered by Societe de Depot des Petroles Cotiers and by Societe Maritime des Petroles.

TANK CLEANING: Station situated at the Southern extremity of the East Mole. Can operate 4 Victor Pyrate machines simultaneously. Equipped with 3 boilers to supply steam, 3 pumps, oily water separator and an extractor for solid residues.

The tank-cleaning station is connected by pipe-line to Repair Quays No. 1, 2 and 3 where tankers of 550,000 d.w.t. may be accommodated.

The new tank-cleaning and bunkering station, situated behind the dry-docks No. 2 and 3 is operational.

This station is connected by pipe-lines to dry docks No. 2 and 3, all repair quays and so to the 6 South for bunkering facilities.

It includes four sections:

A tanker cleaning section with oil-water separator (2,000 cu.m.p.h.);
An oil-treatment section to transform the recovered oil into commercial products;
A bunkering section with tanks of 35,000 cu.m.;
A section that is able to separate the solid residues of tankers.

WATCHMEN: Compulsory for ships carrying dangerous materials, non gas-free tankers, vessels with chemical products, munitions, etc.

CERTIFICATES:

Nationality.
Gross Tonnage.
Classification.
Derat.
Vaccination.

CUSTOMS ALLOWANCES: Tobacco, Wine/Spirit. Ship's provisions must be under seal.

CONSULS: The following countries are represented by Consuls at Brest:

Belgium
Chile
Denmark
Finland
Germany F.R.
Netherlands
Norway
Portugal
Spain
Sweden

REPAIRS: Repair Quay No. 1 at the South of the dry dock No. 2. Length: 320 m.; Depth: 9 m. to 9.50 m.

Repair Quays Nos. 2 and 3. Length: 608 m.; Depth: 8.30 m. to 10.70 m. Can accommodate vessels up to 550,000 d.w.t.

Repair Quay No. 4. Length: 400 m.; Depth 11 m.

Repair Quay No. 5. Length: 400 m.; Depth: 12.5 m.

These two quays are situated to the North and to the South of the dry dock No. 3.

The 5 floating repair piers totalling 1,700 m. in length in water at a depth varying between 9 m. to 12.5 m. at the lowest tide, and connected to a tanker cleaning and bunkering station specially equipped to handle slop and residue from ship tanks.

Several modern lifting machines, among which:
1 crane of a capacity of 80 tons at 25 m.
1 crane of a capacity of 150 tons at 38 m.

Piers and dry docks equipped with electricity, steam, compressed air, oxygen, acetylene, telephone, potable water and fire fighting equipment.

DRY DOCKS: *No. 1:* Dimensions 225 m. by 26.77 m., entrance sill 4 m. below datum, situated at the Northeast angle of Basin No. 5. The entrance lock can receive 2 vessels simultaneously, 1 of 75 m. length and the other of 150 m. length, with some adjustments.

Max. draft, at Spring tides: 11.50 m.; at neap tides: 10 m.

No. 2: Dimensions 338 m. by 55 m. Can accept tankers of up to 280,000 d.w.t. Entrance sill 7.25 m. below datum. Dock situated in the Southeast of the Industrial Port Zone. Can accept vessels of the following dimensions.

At mean Spring tides: length 335 m.; beam 50 m.; draft 12.50 m.
At neap tides: length 335 m.; beam 50 m.; draft 10 m.

No. 3: Dimensions 420 m. by 80 m. Can accept vessels of 550,000 d.w.t. Entrance sill: 9 m.

AIRPORT: At Guipavas, 7 km. from Brest – 4 daily services to Paris for onward connections.

TIME: Local time GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

POLICE/AMBULANCE/FIRE: Police 98444850 and 98445861; Police Secours 17; Ambulance and Fire Brigade 18 or 98442766.

TELEPHONES: Can be placed aboard at certain berths.

SERVICES: Degassing station, tank-cleaning and slop discharge, adjustment of chronometers, chart and document department, weather forecasting, permanent daytime service for signing on crew, barometer adjustment. Also Compass and D/F adjusting.

Port Weather Service: Port Office, 30 Bis, Quai Commandant Malbert. Health Service: Quai Commandant Malbert.

DEVELOPMENTS: A new port industrial zone with an area of 100 hectares, and frontage of approx. 1,800 m. which will enable the construction of quays with depths of 10 m. – 12 m.

Furthermore, the Port is studying a vast plan to develop the commercial port, so that the latter may adapt itself to the requirements of modern maritime transport (1985-90).

AUTHORITY: Port de Brest, Direction Departementale de l'Equipement, 2 rue Alderic Lecomte, 29200 Brest Cedex, France. *Tel:* 98.80.13.44 (12 lines). *Telex:* 940586. *Contact:* M. Redoulez, Ingenieur des Ponts et Chaussees.

CAEN: 49.13 N. 00.21 W. (See Plan)

DOCUMENTS:

3 copies Crew List.
3 copies Provisions List.
3 copies Crew Personal Effects List.
Derat Certificate or Exemption.

PILOTAGE: Pilot boat is on station from 2.5 hours before HW until 3 hours after HW. Vessels can contact the Pilot on VHF Channels 12 and 16. The pilot boat is stationed in the outer port of Ouistreham and goes out to the roads on vessels approach. International code flag signals are used to call Pilot.

Caen Pilot boat has a black hull with white stripe. The words "Pilote Caen" are written in white letters on the hull. During the Summer months the pilot boat is replaced by a launch bearing the same markings. As soon as the Pilot boards he will hand the Master an Entry Declaration to be completed.

ANCHORAGE: While waiting for the tide vessels may anchor in the vicinity of the light-buoy in Ouistreham Roads. The position of this buoy is Lat. 49° 19′ 50″ N., Long. 00° 14′ 18″ W. The buoy is positioned in depth of 10 m. Anchorage is open to winds from West through North to East; good holding ground. Currents do not exceed 2 knots at spring tides.

RESTRICTIONS: Dimensions of locks – East Lock length 181 m., width 18 m. West Lock length 225 m., width 28.45 m.

The locks are open to navigation from 2 hours before HW to 3 hours after HW. The locks can be used up to a maximum of 1 hour before/after these times by special permission of the Harbour Master and payment of additional dues.

Maritime Canal, length 14 km. The canal is dredged to 9.89 m. depth up to Herouville Dock. Vessels proceeding to the docks at Herouville and Calix must pass 2 bridges: Herouville 30 m. wide and Colombelles 30 m. wide.

Vessels proceeding to new dock must also pass the bridge at Calix, 21.76 m. wide. Maximum speed authorised in the Maritime Canal is 7 knots.

Maximum air draft for New Dock and St. Pierre Dock, 33 m.

MAX. SIZE: *Daytime:* Length 205 m., beam 23.5 m., draft 28.8 ft. sea water.

Night-time:

Blainville/Herouville	Length 160 m.	Beam 20 m.	Draft 25.9 ft. SW.
Calix	Length 150 m.	Beam 20 m.	Draft 25.9 ft. SW.
New Dock	Length 135 m.	Beam 16 m.	Draft 21.4 ft. SW.

HEALTH: Free Pratique is automatic for all ships. Health control is carried out by Customs Officers under the direction of the Havre Port Health Office. For ships coming from ports in Africa, Asia, or Pacific Islands a Maritime Declaration of Health is required.

In case of suspected epidemic or fever on board Master must advise the port authorities who will instruct him to proceed to an appropriate anchorage to be boarded by the Port Health Doctor.

RADIO: Nearest radio station Boulogne Radio, call sign FFB.

VHF: Vessels may communicate with the Harbour Master's Office by VHF Channels 12 and 68. This service only operates during the hours when the locks are operating.

TUGS: The use of 1 or 2 tugs is recommended for vessels over 16.50 m. beam.

BERTHING:

Dock	*Quay*	*Facilities*	*Length* (m.)	*Draft* (F.W.)
Saint Pierre	Vendeuvre	Reserved for pleasure boats	280	4.0
	Cafarelli		150	4.0
Nouveau Bassin	President	4 cranes 5 t	150	7.0
	Hippolyte Lefevre	Cereals machinery rate: one 200 t.p.h.		
	President Gaston Lamy	4 cranes 3 t	550	6.5
	De Normandie	2 cranes 5 t; 1 crane 8 t	375	5.8
De Calix	Calix	3 cranes 6 t	140	8.60
		Storage of Molasses: 13,500 t		
		Roll-on/Roll-off Berth	180	7.6
D'Herouville	President Delaunay	4 cranes 6 t	370	8.95
	Mole a Charbon	Private berth, 4 cranes 8 t	200	8.95
Blainville	Blainville	Cereals machinery 2 units, rate 1,000 t.p.h. 1 crane 6 t; 3 cranes 20 t; 2 cranes 26 t	560	8.95
Ouistreham	Fore Port	Car ferry berth	140	5.0 (SW) at LW

STEVEDORES: Arranged by Agent on basis of ETA provided by vessel before arrival.

MEDICAL: Doctors and hospital facilities available.

TANKERS: There is a tanker berth (D.P.C.) in Calix Dock, max. draft 8.60 m. Gas-freeing is prohibited.

FRESH WATER: Available at all berths, rate about 5 – 10 t.p.h.

FUEL: Can only be supplied by tanker lorries.

WATCHMEN: Not compulsory during daylight hours from 0600 hrs. to 1800 hrs.

OPENING/CLOSING HATCHES: This work is normally carried out by the crew.

CUSTOMS ALLOWANCES: Amount of tobacco and alcohol for crew consumption must be declared on the stores list. Quantities held out of bond are at Customs discretion.

IDENTIFICATION CARDS: Not required.

CONSULS: The following countries are represented locally:

Denmark Tel: 31.72.35.30	Norway Tel: 31.52.04.74
Finland Tel: 31.97.33.27	Sweden Tel: 31.82.21.76

REPAIRS: Deck and machinery repairs can be carried out by local workshops. Nearest dry docks at Le Havre or Cherbourg.

REPATRIATION: Can be arranged.

AIRPORT: Situated 12 km. from the port. There are no regular services, but an air taxi with 5 seats can arrange connections to international airports.

TIME: GMT plus 1 hour or GMT plus 2 hours in Summertime.

HOLIDAYS: Work is carried out on legal holidays. No work on "Jours de Fetes" and Sundays.

POLICE/FIRE/AMBULANCE: Police Tel: 17; Fire Tel: 18; Ambulance Tel: 18.

TELEPHONES: Can be connected on board ships. Quayside telephone situated in Blainville Dock.

SHORE LEAVE: Allowed.

AUTHORITY: Ingenieur des Ponts et Chaussees, Chef de l'Exploitation, Direction Departmentale de l'Equipment, B.P. No. 517, 14035 Caen Cedex. *Tel:* 31.45.30.90. *Telex:* 170213 FT.

Commandant du Port, Pont de la Fonderie, B.P. 517, 14035 Caen Cedex. *Tel:* 31.52.12.88 and 31.82.36.36. *Telex:* 772071 F. *Contact:* Harbour Master.

CALAIS: 50.58 N. 01.50 E. (See Plan)

DOCUMENTS:

Ship Register.
Manifest of Cargo.
Bill of Lading
3 Lists of Provisions on board.
4 Lists of Articles held by Crew.
3 Lists of Crew.
List of open spaces.
Health Certificate, endorsed by Master on arrival.
Derat or Exemption.
For tankers, Certificate of Cargo Specification and Certificate of vessel's suitability to transport inflammable liquids in bulk.

PILOTAGE: Compulsory when entering or leaving harbour, except for ships less than 50 m. length. Pilotage area: 3 miles from piers. Ships required to give notice of their arrival 18 hours before, through Boulogne Radio. Pilot waits between buoys CA4 and CA6. Pilot boat: Black, white side stripe, bearing the inscription "Pilote Calais". She is equipped with VHF, Channel 6 and Channel 16.

ANCHORAGES: Between CA6 and CA8, 15 m. to 17 m. deep, sand and gravel. Good anchorage. When bad weather from North, ships are advised to stand out to sea or anchor in the roads of Les Dunes. Ship will receive instructions from Pilots or Harbour Captain's office when to enter roads of Calais.

RESTRICTIONS: Harbour channel 230 m. wide. In channel and outer harbour, depths are maintained at 8.40 m. MWL. Vessels should enter harbour preferably about 2.5 hours before high tide or half an hour after high tide. Because of the shape of sluice at the entrance larger vessels cannot have direct access to the Bassin Carnot at certain tides. These vessels may lighten in outer port, at "Quai Paul Devot", where depth is 9 m. LWOST.

MAX. SIZE: "Bassin Carnot", 150 m. max. length; "Bassin Ouest", (West Dock) 110 m. max. length; "Quai P. Devot", 190 m. max. length; "Bassin Carnot", 19 m. max. beam; "Bassin Ouest", 16 m. max. beam. Max. draft: 9.15 m. (29 ft. 6 in.). Port accessible to vessels of 20,000 d.w.t.

HEALTH: Sanitation controls can arrange derat and exemptions. International Vaccination Certificates required for ships coming from an epidemic zone.

RADIO: Messages through Boulogne Radio. ETA must reach pilotage station or Harbour Master's offices 18 hours before arrival. Near Calais, ships equipped with VHF can call Harbour Master on Channel 12 or pilotage station on Channel 16.

TUGS: Generally join ships at end of the piers. Towing ropes are generally ships own but can be supplied by tug.

BERTHING: Max. height of tide 7.30 m. Depth on dock sills 2 m. LWOST.

At West dock, entrance between 1.5 hours before and half an hour after high tide. In Bassin Carnot, entrance between 3 hours before and 1 hour after high tide.

There are 2 berths equipped for handling Roll-on/Roll-off traffic, situated in Bassin Carnot.

CRANES:

Maritime Station Quay	Electric cranes – 6 tons	3
Paul Devot Quay	Electric crane – 6 tons with automatic scoop	1
	Electric crane – 12 tons with automatic scoop	1
	Electric cranes – 15 tons with automatic scoop	2
Transit Station	A block of 2 gantries able to handle a load of 40 tons (containers)	
West Basin		
South Quay of the West Basin	Electric crane – 3 tons	1
	Electric cranes – 6 tons	2
	Electric cranes – 6 tons with automatic scoops	2
Carnot Basin		
Vistule Quay	Electric cranes – 6 tons	2
Loire Quay	Electric cranes – 6 tons	3
	Electric cranes – 6 tons with automatic scoops	6
	Electric cranes – 12 tons with automatic scoop	2
	Electric gantries – 6 tons with raisable forepeak and equipped with weights and automatic scoops	2
Crespin Quay	Electric cranes – 6 tons with automatic scoops	3
Fournier Quay	Electric cranes – 6 tons	5
	Electric crane – 12 tons with automatic scoop	1
Volga Quay	Electric cranes – 6 tons with automatic scoops	2

Dry Dock: One electric crane – 15 tons. 2 mobile cranes of 1/9 tons and 1 mobile crane "PPM" of 18 tons complete the lifting machinery of the Public Equipment of the Port.

BRIDGES: Swing bridges (West Dock) and draw bridges (Bassin Carnot) are situated on sluices.
STEVEDORES: Informed by Agent of tonnage, nature and condition of cargo.
MEDICAL: All facilities available.
TANKERS: Two posts provided for tankers: "Quai Paul Devot" for medium-sized tankers. "Bassin Ouest" (West Dock) for small tankers. "White and black" products can be accepted at "Bassin Ouest". Only "black" products admitted at "Quai P. Devot". Tankers are allowed to enter harbour only by daytime. They must leave as soon as operations are finished. Hoses 10 in. and 12 in. in diameter. Barges discharged with a 10 in. hose.
DENSITY: Salt.
FRESH WATER: Supplied from hydrants on wharves.
FUEL: Any fuel can be supplied by tank lorry of large capacity.
GANGWAY/DECK WATCHMEN: Ships must be guarded.
OPENING/CLOSING HATCHES: As a rule hatches are opened/closed by crew.
CUSTOMS ALLOWANCES: Tobacco: No limit for foreign ships, but the quantity must be declared on the lists of articles held by crew.
IDENTIFICATION CARDS: Identification cards and seamen's books are required.
CONSULS: *Vice-Consuls:*
Netherlands, G. Dumont, 12 Bd. des Allies.
Denmark, J. Mulard Jr., Place de Suede.
Finland, H. Ravisse, 12 Bd. des Allies.
Greece; P. Foissey, 12 Bd. des Allies.
Norway, Y. Lefebvre, 12 Bd. des Allies.
Sweden, T. Pagniez, 198 Rue des Quatre Coins.
United Kingdom, R. Martin, 14 Rue Gustave Courbet, B.P. 655, 62228 Calais Cedex.
REPAIRS: Deck and engine repairs possible.
DRY DOCKS: One, 153 m. long, 21 m. wide. Depth at sill, 7.45 m.
REPATRIATION: Pilot boats and tugs may trans-ship equipment or hands in outer roads.
AIRPORT: Calais, Dunkirk (International), 7 km. away.
TIME: GMT plus 1 hour. Spring and Summer GMT plus 2 hours.
HOLIDAYS: 1st January; Easter Monday; 1st May; Ascension Day; Whit Monday; Tuesday afternoon following 1st Sunday of July (local feast); 14th July; 15th August; 1st November; 11th November; afternoon of 24th December; 25th December; Sundays.
POLICE/AMBULANCE/FIRE: Police 17; Ambulance 21.34.39.24; Fire 18.
SHORE LEAVE: Crew are allowed ashore.
DEVELOPMENTS: Ro/Ro ramp No. 6 to be available December 1986.
AUTHORITY: Directeur de l'Exploitation du Port de Calais, Place de l'Europe, B.P. 451, 62226 Calais, Cedex. *Tel:* 21-96-63-00. *Telex:* Sermar 160758 F. *FAX:* 21-34-74-11. *Contact:* M. Neveu, Port Director.

CALVI, Corsica: 42.34 N. 08.46 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
1 Provisions List
1 Cargo List.
1 List of Articles (new and Customs-barred) in possession each crew member – cameras, binoculars, radios, cigarettes, spirits, etc.
1 Health Declaration.
PILOTAGE: Not compulsory. If required, telephone pilot station at Bastia, Tel: 95.31.50.95.
ANCHORAGE: Outside port for cruise vessels.
MAX. SIZE: Draft 6.5 m.; length 140 m.
RADIO: Within 50 miles call Ajaccio Radio VHF Channel 16. Then connected over Channel 23 to telephone network.
TUGS: None available.
BERTHING: 3 wharves, the main wharf being the Corsica ferry berth.
STEVEDORES: 24 hours accurate ETA necessary for ordering gangs. No work on Sundays and official holidays.
CARGO GEAR: Only a few nets and slings available; all other gear must be supplied by ship. Ship's derricks used.
FRESH WATER: Available at very slow pumping rate.
FUEL: Diesel fuel available.
REPAIRS/CONSULS: None.
AIRPORT: Calvi (5 miles), regular flights to Nice.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
AUTHORITY: Capitainerie du Port, Quai Landry, 20260 Calvi, Corsica. *Tel:* 95.65.05.21.
Affaires Maritimes, Quai Landry, 20260 Calvi, Corsica. *Tel:* 95.65.01.71.

CANCALE: 48.40 N. 01.51 W.

Used by fishing and pleasure vessels only.
PILOTAGE: Pilot available from St. Malo. Tel: 99.81.63.59.
BERTHING: 2 public wharves, depths from 0.5 m. to 13 m. at spring tides.
CRANES: One 3 ton crane available.
MEDICAL: Hospital facilities available at St. Malo, 15 km. distant. Tel: 99.81.60.40.
FRESH WATER: Available in small quantities.
FUEL: Diesel oil available by truck and by pipeline on wharf.
AIRPORT: Nearest at Dinard, 30 km. away.
AUTHORITY: Subdivision Maritime de l'Equipement, Quai du Pourquoi Pas., 35402 Saint Malo, France. *Tel:* 99.56.07.24. *Telex:* 950197. *FAX:* 99.40.11.70. *Contact:* Xavier La Prairie, Engineer.

CANNES: 43.33 N. 07.01 E.

DOCUMENTS:
To be sent on departure from previous port.
3 copies of Passenger List.
1 copy of Crew List.
Required on arrival:
4 copies of List of Passengers, showing Christian name, surname, age, date and place of birth, nationality.
2 Crew Lists.
5 copies of a Special Arrival form (supplied on arrival).
PILOTAGE: No Pilot station at Cannes. A tender with Company's flag on top of its mast will meet the vessel: *(a)* If ship is proceeding to anchorage No. 1, in Golfe de la Napoule, about half a mile South of the lighthouse at end of Cannes port Pier (Quai Lauboeuf); *(b)* If ship is proceeding to either anchorage No. 2 or 3, in Golfe-Juan, half a mile North of Ile Ste Marguerite.

The tender will lead to anchorage and will give 1 blast of the siren when correct position has been reached. At night, tender has a fixed white light at top of its mast, which replaces the flag. Should it not be possible to advise by wireless before arrival at anchorage and weather conditions making it necessary for ship to anchor at either position No. 2 or 3, boat will meet ship in Golfe de la Napoule, 2 miles South of Cannes port lighthouse. In this event, ship must proceed to anchorage No. 2 or 3 as appropriate, steaming to South of Ile St. Honorat, whilst tender will proceed by channel between Ile Ste Marguerite and the mainland.

ANCHORAGE: Advice of anchorage is passed to Master via Grasse Radio or Monaco Radio, VHF Channel 16 usually about 1 hour before arrival. There are 3 anchorages, any of which may be used according to the weather:

No. 1 off the port of Cannes, approximately half a mile South of end of breakwater, used by calm sea or by East or N.E. winds.

No. 2 is situated to North of Ile Ste Marguerite, used by S.E. or S.W. or South winds.

No. 3 to the East of Cap de la Croisette, used by West or N.W. winds. It could happen during the call, winds may change direction and movement from anchorage No. 1 to No. 2 or No. 3 become necessary. Shift takes about 1 hour.

HEALTH: Port officials will embark immediately the ship anchors. Free Pratique may be granted by wireless telephone 1 hour before arrival at ship's surgeon request stating: "no illness on board".
FRESH WATER: One water barge (capacity 65 tons) and 2 water barges (capacity 20 tons) available.

12 hours notice required for orders up to and including 100 tons. 24 hours notice required for amounts in excess of 100 tons. Pumping rate 30–40 cu.m./hr. with one or two boats.

GANGWAY/DECK WATCHMEN: Watchmen for gangways should be provided by ship and passengers are requested to present their landing cards every time they use the gangways.
AIRPORT: Nice Cote d'Azur (20 km.).
AUTHORITY: Capitainerie du Port Gare Maritime, 06400 Cannes, France. *Tel:* 93.39.61.77. *Contact:* Patrick Joxe, Harbour Master.

CHERBOURG: 49.38 N. 01.38 W. (See Plan)

DOCUMENTS:
Declaration of Health.
Manifest of Provisions on Board.
Manifest of Crew's Possessions.
Manifest of Cargo – in certain cases.
Manifest of Equipment.
DEEP SEA PILOTAGE: Pilots board off "CH1" Buoy. Radio ETA to "Hutchinson Gravesend" Telex 965225 or "Cherbourg Pilots" Telex 170952 or "Pilotage Hauturier Cherbourg" Telex 130566 and others (48 and 6 hours notice.) On approaching Cherbourg contact Cherbourg Signal Station on VHF Channel 16 confirming ETA. Also see "Pilotage".
HELICOPTER SERVICE:
Air Affaires – Heli-Services, Aerodrome de Cherbourg – Maupertus, B.P.1 – Gonneville, 50840 Fermanville. Tel: 33.44.56.96. Telex: 171348 Helip.

Description of Services: A 24 hours – 7 days per week service, within a radius of 150 nautical miles of Cherbourg, to and from ships without the necessity of reducing speed or changing course, in any sea conditions.

The positioning and pick-up of persons are accomplished either by landing or by winching on all types of vessels, serving even small coasters and fishing boats.

Doctor and stretchers for injured personnel available within minutes of your call.

Note the possibility to put technicians and specialists on board for up to 12 hours work while underway and take them ashore again.

Recommended Procedure:

(A) 48 hours before	Please cable through Saint Lys Radio (FFL) or any radio station to Heli-Services Cherbourg Telex 171348 HELIP the following information: (a) ship's name (b) state you require Helicopter and reason for request (c) ETA rendezvous point requested (d) VHF in good order or not (e) Confirm full landing, restricted or winching area available.
(B) 24 hours before	With the same radio procedure confirm your ETA.

(C) 4 hours before	Call "Jobourg Traffic" (French Marine Traffic Centre) on VHF 16/11 to confirm your ETA. Heli-Services office is directly connected with Jobourg Traffic and transmit information concerning rendezvous point and helicopter operation.
(D) When helicopter is flying, its pilot contacts you on VHF.	Give information about relative wind and start locked key homing signal on 410 kHz.

Services are assured 24 hours per day with 2 hours' notice, or immediately in case of emergency.

Rendezvous Points:

Standard Points

For normal operations, 4 rendezvous points are recommended.

Point A: 13 nautical miles North of Cap de la Hague.

Point B: 10 nautical miles North of Cap Levi.

Point C: 5 nautical miles North of Cap Levi (prohibited area for tankers).

Point D: 27 nautical miles North of Cap Levi (ships West bound).

However, if desired by the Master, the helicopter can meet the vessel at any point.

PILOTAGE: Requests for pilotage must indicate arrival time at the buoy CH1. They may be addressed to Agent or direct to pilot station, telegraphic address "Pilotage Cherbourg" Telex: 170952, or through the Homet look-out station by means of the usual signals. To avoid delay it is well to warn the pilot station 4 hours in advance of arrival. As a general rule, the pilot boat always comes out, whatever the weather. In bad weather, the vessel follows the pilot boat and Pilot boards as soon as shelter permits.

Deep-sea Pilots for Tankers: Deep-sea Pilots for loaded tankers carrying hydrocarbons or other dangerous cargoes are embarked 7 miles North of Fort de l'Ouest Light, or at least 7 miles off the coast, the exact boarding place being given on each occasion by R/T from the Pilotage Service.

ANCHORAGES: Anchoring must be made strictly according to the instructions of the Pilot so as not to get in the way of movements and anchorage of steamers. Depths vary from 6 m. to 12 m. in safe anchorages.

MAX. SIZE:

	Length (m.)	Breadth (m.)	Depth Average Tide Spring (m.)	Depth Average Tide Neap (m.)
In the Roads	No Limit	No Limit	11	12.50
Trans-Atlantic Dock	No Limit	No Limit	7.0–12.5	8.5–14.0
Mielles Dock	150		5.00	6.50
Oil berth at Querqueville	200	31	9.0	10.50
Berth Amiot	100		3.0	4.50
Ro/Ro No. 1	130	20	7.0	8.50
Ro/Ro No. 2	200	30	8.0	9.50

Ro/Ro No. 3: (Quai de France – South). Length: No limit. Width: 44 m. Depth: 12 m.

HEALTH: From French port to French port, no formalities. From foreign port to French port, request for Free Pratique (yellow flag). In case of sickness on board, warn the Agent in advance. No crew member may leave ship before consultation and agreement of Port Doctor.

RESTRICTIONS: In the wet dock, the bridge is opened 1 hour before until 1 hour after high water.

RADIO: The stations which offer the best facilities are Boulogne Radio, Brest le Conquet Radio, and St. Lys for ships which are a long way off.

TUGS: Tugs generally join vessel in the main approaches. With regard to the tow rope, a charge is made.

BRIDGES: Only the swing bridge at the entrance to the wet dock, which is opened on request from 1 hour before until 1 hour after high tide for the entry and exit of ships.

STEVEDORES: Agent needs ETA, to arrange personnel and equipment to be used for handling cargo.

CRANES: 35 ton capacity gantry for road/rail container and kangaroo operations. 40 ton capacity mobile crane for container and kangaroo operations. 30 to 90 ton floating cranes. Various mobile cranes for light and heavy lifts. Fleet of tugmasters and fork-lift trucks.

Also see "Berthing".

MEDICAL: Advise Agent of any requirements at the same time as ETA. There are 2 hospitals, civil and military, both very well equipped.

TANKERS: There is a discharge berth at Querqueville Jetty. Length of berth 200 m., max. draft 9 m.

FRESH WATER: Water points on all quays.

FUEL: Available from local suppliers – Esso, Shell, etc.

WATCHMEN: Every ship in port must have a watchman, usually a crew member.

OPENING/CLOSING HATCHES: At the discretion of Master, crew may perform this.

CUSTOMS ALLOWANCES: Free allowance for each crew member – 200 cigarettes or 50 cigars, and 1 litre of alcohol. Common Market Countries – Crew: 300 cigarettes, 75 cigars and 1.5 litres of alcohol.

IDENTIFICATION CARDS: Each crew member must carry his seaman's card.

AIRPORT: At Maupertuis, 12 km. from Cherbourg. There are no regular services in the immediate vicinity.

CONSULS:

Belgium	Finland and Norway	Greece
Portugal	Haiti	Sweden
Denmark	Venezuela	United Kingdom

REPAIRS: All types of hull and engine repairs are possible.

DRY DOCK: Commercial Port's dock: length 75 m., width 14 m.

Dry Dock Nos.	Sill Length (m.)	Max. dim. of vessel able to enter Length (m.)	Max. dim. of vessel able to enter Breadth (m.)
N. Dry docks			
1	90.00	97.85	18.50
2	100.00	107.85	18.50
3	100.00	107.85	18.50
4	90.00	97.85	18.50
S. Dry docks			
5	200.00	206.40	25.70
6	180.00	184.00	22.15
7	69.30	75.75	17.30
Homet	235.00	248.00	35.00

REPATRIATION: Can be arranged.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: January 1st; Easter Sunday/Monday; May 1st; Ascension; Whitsun Sunday/Monday; July 14th; Assumption; 15th August; November 1st; Victory Day, November 11th; Christmas Day, December 25th.

BERTHING:

Name of Dock	*Name of Quay*	*Use*	*Number/type of lifting equipment (H.d. = Heavy duty)*	*Length of quays (m.)*	*Open storage area*	*Depth (m.)*	*Lock Nos.*
Trans-Atlantic	France	Containers, general-cargo, passengers, various other services	3 cranes 7.5 t, 13 t in tandem	620	2 ha.	–13	None
Trans-Atlantic	Normandie	General-cargo, Ro/Ro car carriers, various other services	1 crane 7.5 t	500	5 ha.	–11	None
Car Ferry	Post No. 1	Ro/Ro freight and passenger	H.d. linkspan ramp for vehicles, passenger jetty and terminal Capacity 188 tonnes	120	20,000 sq.m.	–6	None
Freight Ferry	Post No. 2	Ro/Ro freight	H.d. linkspan 17 m. wide capacity 280 t	150	33,000 sq.m.	–8	None
Trans-Atlantic	Post No. 3	Ro/Ro	Capacity 65 t	620		–11	
Des Flamands	None	Ro/Ro and container freight storage	2 cranes 120 t 2 mobile cranes 40 t	240	50 ha. (10 ha. for containers)	–13	None
Querqueville	Oil dock	Bulk petroleum		200		–9	None
Commercial Basin	Alexandre III l'Entrepot	Fishing Coasters		800		–4	One
Navy Yard		Construction and repairs (dry docks)	Various				Seven
Commercial Dock		Dry dock		75			One

POLICE/AMBULANCE/FIRE: Police: 33.44.20.22 or 17. Ambulance: 33.53.13.29. Fire: 33.53.01.23 or 18.
TELEPHONE: Generally, ships do not request the installation of a telephone line, unless for a prolonged stay.
DEVELOPMENTS: Deep draft berths (13.0 m. depth), length 300 m. to be built.
AUTHORITY: Capitainerie du Port, Pont Tournant, 50.100 Cherbourg, France. *Tel:* 33.20.41.25. *Telex:* 170849 (Port Director).

Direction Departementale de l'Equipement, Allee Du President Leon Menut, 50100 Cherbourg. *Tel:* 33.43.01.33. *Telex:* 170011 Didello (Saint Lo).

CONCARNEAU: 47.52 N. 03.55 W. (See Plan)

DOCUMENTS:

Ship's Registration Certificate.
Cargo Manifest.
Stores List.
Crew Personal Effects List.
List of Crew and Passengers with dates of Vaccinations.

PILOTAGE: The pilotage area is limited to the East by alignment of the sea marks of Point of Raguenes (Lat. 47° 47′ N., Long. 03° 48′ W.) and the Ile Verte (Lat. 47° 46′ 40″ N., Long. 03° 48′ W.), to the South by the Parallel of the "La Jument Buoy" (Lat. 47° 39′ N., Long. 04° 01′ 20″ W., to the South of the Glenan Islands), to the West by the meridian of the "Basse Rouge" Buoy.

Pilotage is not required for vessels with an overall length of less than 50 m., except for tankers carrying oil products or gas.

It is recommended to warn the Pilot 24 hours in advance, indicating the most accurate ETA (Tel: 98.58.85.05).

The pilot craft is not stationed at sea. The Pilot generally boards to the South of the Cochon Tower or, on request, between Cochon Tower and the Ile aux Moutons; the craft carries the "H" flag by day and white flashing lights at night.

If the state of the sea does not permit the Pilot to board, the pilot craft makes the signal "T" (by flag or morse code) signifying: "follow-me, the Pilot will board in the shelter of the Peneroff Breakwater". If the state of the sea does not allow the pilot craft to come out, it stations itself in the shelter of the Peneroff Breakwater and makes the signal "BT".

Access: It is not advisable for vessels of a certain size whose Masters do not know the channel well to proceed without a Pilot, at LW in particular, to the North of the line Beg-Meil – Trevignon Point.

ANCHORAGE: *Main Roads:* Vessels anchor in the bay, on request, on a muddy bottom, on the alignment at 028.5° from the Beuzec church tower through the la Croix lighthouse.

Small Roads: Vessels anchor in the small roads sheltered from the North to Southeast by East, in 8 m. of water and a bottom of sand and mud, on the access alignment or to the West of this alignment.

At night, when on the access alignment, as soon as the Lanriec Light appears, the alignment is opened so as to see the Beuzec Light to the left of the La Croix Light, and when the Lanriec Light disappears, the vessel anchors in 8 m. of water.

The recommended landing stage is on the La Croix Breakwater.

Kersos Cove (Lat. 47° 52′ N., Long. 03° 55′ W.): It is possible to anchor here sheltered from winds from North to South by East, but with a reduced turning area. Vessels anchor half way between the Kersos Tower and the coast to the N.E. in 3 m. – 5 m. water with a good holding ground of sand and mud.

MAX. SIZE: *Tankers:* By day: 91 m. overall; by night: 81 m. overall.
Other vessels: By day: 101 m. overall; by night: 91 m. overall.
RADIO: Contact Conquet Radio.
VHF: Tugs on Channel 12 on weekdays during working hours from 0800 – 1200 hrs. and 1400 – 1800 hrs.
TUGS: 2 tugs available on demand, meet vessels near Cochon Light, large vessels use a tug for berthing.
BERTHING: As Concarneau is essentially a fishing port, a commercial vessel of a certain size cannot enter without the authorisation of the port services, who must prepare a quay berth for her in advance.

The Port of Concarneau includes the Port of La Croix located to the West of the La Croix Lighthouse, a fore-port and a rear-port separated by the peninsula on which is Ville-Close. The Lanriec Passage connecting these two port areas is cleared at 3 m. depth and marked by 5 light towers.

Fore Port: In the middle of the fore port are 540 m. of pontoons enabling 265 pleasure craft with a draft of 2.5 m. approx. and length of 10 m. to berth.

Along the Peneroff Quay, deposits formed by a hard bottom covered by a thin layer of muddy water from 1 m. to 2 m. Along Ville-Close, the bottom dries from 2 m. to 5 m. Along the North face of the South Breakwater, a slipway permits careening of craft.

Rear Port: The Rear Port is comprised of 1,537 m. of mooring quay.

Aiguillon Quay: Depth 1 m., length 110 m.
Carnot Quay: Depth 2.50 m., length 250 m.
Lin Quay: Depth 2.50 m., length 250 m.
East Quay: Depth from 2.50 m. to 5 m., length 140 m.
Petrol Tanker Quay: Depth 5 m., length 95 m.
Sand Quay: Depth 5 m., length 25 m.
Right Bank Moros Quay: Depth 5 m., length 257 m.
Left Bank Moros Quay: Depth 5 m., length 220 m.
A Ship's Lift Pier: Depth 5 m., length 90 m.

These quays receive fishing and commercial vessels and vessels under repair. The vessels are positioned according to their characteristics and the nature of the goods to be unloaded or taken on board.

CRANES: 1 × 17.5 tonne (East Quay), 4 × 2.0/13.0 tonnes (mobile).
MEDICAL: Municipal Hospital at Porzou. Tel: (16-98) 97.10.60.
CUSTOMS ALLOWANCES: *Tobacco:* Fixed at 30 grams per day, at sea, per person.
Alcohol: The equivalent of 5 centilitres of rum at 42° per day, at sea, per person.

These allowances are free of tax for use on board, but may not be landed.

IDENTIFICATION CARDS: Any National Identity Documentation will suffice.
POLICE/AMBULANCE/FIRE: Police Tel: 98.97.17.17; Ambulance and Fire Brigade Tel: 18.
FRESH WATER: Available.
FUEL: Available.
DRY DOCKS: Synchrolift available. Max. capacity 2,000 tons; max. LOA 95 m.; max. keel length 76 m.; max. beam 14 m.; max. draft 5.50 m. Fresh water, electricity, compressed air and cranes available.

There is a slipway which can accommodate vessels of 350 tonnes.

AIRPORT: At Quimper – Pluguffan 30 km. from the town. Twice daily flights to Paris and flights to London during the Summer months.
AUTHORITY: Monsieur le Directeur, Direction Departementale de l'Equipement, Cite Administrative de Kerfeunteun, B.P.506, 29325 Quimper Cedex. *Tel:* 98.95.70.32. *Telex:* 940.424.

Capitanerie du Port, Quai Est, B.P. 231, 29182 Concarneau. *Tel:* 98.97.33.80. *Contact:* L. Tanguy, Le Commandant de Port.

DIEPPE: 49.55 N. 01.04 E. (See Plan)

DOCUMENTS:

4 Crew Lists.
2 Lists of Stores.
1 Loading Manifest.
1 Passenger List.
1 Declaration (furnished by Agent) stating that ship possesses up-to-date Safety Certificates.
1 Health Declaration.

PILOTAGE: Pilot boards 4 miles from breakwaters. Pilotage is compulsory in this area except for vessels less than 50 m. long equipped with VHF (Channel 12). Pilot boat is ready to put to sea from 2.5 hours before to 1 hour after high tide when a vessel is expected. During this period maintains radio telephone watch. VHF Channel 12.

All vessels must send ETA to the pilotage authority of the Seine/Rouen/Dieppe at least 5 hours prior to arrival in the Dieppe Roads, any delay greater than 2 hours or where a tide is missed must be signalled at least 3 hours before the initially ETA. Vessels not obliged to take on a Pilot must indicate in their ETA whether or not a Pilot is needed.

Address: PILSEINE – 21 rue du Mont Diboudet – Rouen, Telephone 35.71.68.50; Telex 770575.

APPROACHES: Coming from the West, immediate landfall is Cap d'Ailly which is passed at 3 miles distance and then vessels proceed to the landfall buoy of Dieppe marked D.1. (East Cardinal, black yellow black, very quick flashing light, 3 flash every 5 seconds and a bell).

Location: Lat. 49° 57′ 15″ N., Long. 1° 01′ 20″ E., or 2.5 miles to the N.W. of the port entrance.

The cliffs which surround Dieppe give very good radar echoes.

ANCHORAGE: It is recommended to anchor in zone bounded by following points: *(a)* Lat. 49° 56′ 55″ N., Long. 01° 04′ E.; *(b)* Lat. 49° 58′ 40″ N., Long. 01° 02′ 45″ E.; *(c)* Lat. 49° 57′ 42″ N., Long. 00° 59′ 20″ E.; *(d)* Lat. 49° 55′ 50″ N., Long. 01° 00′ 30″ E.

This anchorage area includes buoy D.I and depths are from 6 m. to 12 m. with sand and broken shell bottom. Larger vessels anchor approximately 0.5 miles to North of Buoy D.I in depths of 10 m. to 12 m.

Forbidden Anchorage: It is forbidden to anchor in the area defined by the following points: Lat. 49° 56′ 55″ N., Long. 01° 05′ 29″ E. – Lat. 49° 56′ 25″ N., Long. 01° 03′ 03″ E. – Lat. 49° 56′ 05″ N., Long. 01° 04′ 50″ E.

RESTRICTIONS: The lock gates of the commercial basins are only open from 2 hours before to 1 hour after high tide. Vessels remain at anchorage in the roads until the gates are opened. Large vessels enter preferably at the time of high tide to benefit to the maximum from the level of water under the keel and the best conditions of navigation.

Entry and Leaving: Vessels entering must arrive in the roads at the latest 25 minutes after high tide, except for large vessels which must be in the roads at the latest at high tide. Vessels leaving must be ready at the latest 30 minutes after high tide.

Entry and Leaving Signals: Entry and leaving signals are exhibited on the signal post on the West jetty and on the repeater post of the fore port (signals in accordance with the Lisbon Convention of 23rd October, 1930.) At the Colbert Sluice and at the various locks the signals are simplified.

MAX. SIZE: Vessels LOA 155 m. and beam 21.5 m. can enter. In certain cases vessels of LOA 165 m. may be permitted to enter.

Colbert Lock (Dimensions of Lock): 230 m. length, 37 m. width, controls entrance to Inner harbour, where depth maintained about 7.50 m.

Canada Docks: length 154 m.; width, 21 m.; draft 8 m.
Paris Dock: length 154 m.; width 21 m.; draft 7 m.

Opening of Canada and Paris basins: 2 hours before to 1 hour after full tide, night or day. The port is accessible to vessels up to 10,000–12,000 d.w.t.

HEALTH: Pratique given by Customs Officers who board on arrival. In case of suspected disease, Master required to radio details to Agent in advance.

RADIO: Boulogne Radio (FFB). *Arrival Advice.* Masters of vessels must send to the Port Authority, 24 hours in advance, or at the latest when leaving the previous port where this is located less than 24 hours away, the expected time of arrival in the roads, indicating the name of the vessel, tonnage, length, beam, the date and time of arrival, maximum draft of the vessel on arrival, the nature and tonnage of various items of its cargo and hazardous cargo (in transit or to be landed), possible damage to the ship, its equipment or to the cargo. A rectifying message must be sent in the event of a change. Address: Port Captaincy: 1 Quai de la Cale, Dieppe. Tel: (35) 84 10 55. Telex: Mardiep 180414F.

VHF: Dieppe Radio maintains continuous watch on Channels 2 and 24 and calls vessels on Channel 16. The Port Authority (Call sign "Dieppe Port") maintains watch on Channel 12.

TUGS: 3 tugs available (1,400 h.p., 750 h.p., 600 h.p.). Requests for use must be made to the Port Captaincy. Two tugs in service at all times.

BERTHING:

Dock	*Quay*	*Facilities*	*Length (m.)*	*Sea level chart*
Paris	Norvege	1 Roll-on/Roll-off ramp (80 t.)	715	7.5/9
	Maroc	6 noria conveyors for banana handling	600	7.5/9
Canada	Indes	1 grain bagging funnel	150	7.5/9
	Quebec	grain silo (cap. 12,000 tons). Capacity 500 t.p.h.	160	7.5/9
Avant-Port	Henri IV	1 Roll-on/Roll-off ramp (40 t.)	380	4.5/5 minimum
Arriere-Port	Quai Guynemer	1 Roll-on/Roll-off ramp (120 t.)		

Handling Capacities:

	Loading:
Colza oil	200 t.p.h. (from the quay)
Colza grains	60 tons/man hour
Grain and wheat	500 t.p.h. (silo)
Rough timber	23 to 28 cu.m./man hour
	Unloading:
Colza oil	(taken from quay)
Colza grains	50 tons/man hour
Sand and gravel	100 to 150 tons/man hour
Bananas	about 3,000 cartons/man hour
Citrus fruit on pallets	55 to 65 pallets/man hour
Citrus fruits not palletised (cases, cartons, crates)	16 to 21 tons/man hour
Pre-slung timber	about 80 cu.m./man hour
Bulk timber	about 25 cu.m./man hour
Iron and steel	50 to 60 tons/man hour

CRANES: One 30 ton crane at Quay de Tonkin. One mobile crane, 40 ton and jib 40 m.

Quay Cranes: 6×3 ton, 2×3-6 ton, 2×6-12 tons and 6×2 ton gantry cranes.

BRIDGES: There are 3 bridges without vertical obstacles, and to request opening of the Colbert Bridge give 3 long blasts on the ship's whistle, to call for the opening of the Admiral Rolland Bridge give 3 long blasts on the whistle, and for the opening of the Jehan Ango Bridge give 2 long blasts on the whistle.

STEVEDORES: Normal hours are 0800–1200 and 1400–1800. Possible to work from 1800–2200 to complete operations. No work on Sundays or holidays.

MEDICAL: All medical facilities available.

FRESH WATER: Supplied by pipe-line. There are a great number of outlets on the quay.

FUEL: Available in small quantities; delivered by tanker lorry.

GANGWAY/DECK WATCHMEN: Available if required.

IDENTIFICATION CARDS: Embarkation card or passport is sufficient.

CONSULS: Norway Denmark
Sweden Netherlands

REPAIRS: Good facilities exist, all types carried out.

DRY DOCKS: Dry dock in the inner harbour, dimensions 130 m.×18 m. It can receive ships 129×17 m. One lift of 300 tons and 7 repair sites.

SURVEYORS: Bureau Veritas at Dieppe; Lloyd's at Le Havre and Rouen; American Bureau of Shipping at Le Havre; Det Norske Veritas at Le Havre.

OPENING/CLOSING HATCHES: According to agreement, either by crew or stevedores.

CUSTOMS ALLOWANCES: EEC countries – 300 cigarettes 1.5 litres of spirits and an exemption of 600 francs. Antilles: 400 cigarettes, 1 litre of spirits of more than 22°; Africa: 400 cigarettes and 1 litre of spirits of more than 22° and an exemption of 140 francs per passenger.

REPATRIATION: Good facilities.

AIRPORT: Dieppe Saint Aubin (3 km.) has two daily connections with Shoreham, England. The nearest main airport is Paris.

TIME: GMT plus 1 hour, but during the period from beginning April to end September (six months) the legal time is advanced by 1 hour (GMT plus 2 hours).

HOLIDAYS: 1st January; Good Friday; Easter Monday; Ascension Day; Whit Monday; 1st May; 14th July; 15th August; 1st November; 11th November; 25th December.

POLICE/AMBULANCE/FIRE: Police (Duquesne Quay) 35.84.87.32 or 17. Fire and Ambulance 18 or 35.84.33.00.

TELEPHONES: No connections on the quays.

SERVICES: Compass adjusting, etc. available.

SHORE LEAVE: Allowed.

AUTHORITY: Port de Dieppe, Quai de la Cale, 76208 Dieppe. *Tel:* 35.84.10.55. *Telex:* Mardiep 180414 F. *Contact:* P. Leminicier, Commandant du Port.

DONGES: Refer to Nantes.

DUNKIRK: 51.03 N. 02.24 E. (See Plan)

PORT LIMITS: The seaward boundaries of the port within which a vessel is considered to be an "arrived ship" is the Dyck Lightship or the Roads if the ship comes from the East.

DOCUMENTS:

Entry Bill (all information about ship), given by Pilot to Master, who fills it in and gives it to Harbour Officer.

To be given to Customs:

- 3 Crew Lists.
- 3 Passenger Lists.
- 3 Copies Stores/Bonded Stores List
- Manifest or copy.
- Form for increase of tonnage.
- Declaration of open spaces.
- 3 Lists of objects held by crew.

PILOTAGE: Pilotage station limits – there are 2 pilotage zones.

1. The Outer Zone which is limited:
   To the West by the meridian of Calais Lighthouse (Long. 01° 51′ E.);
   To the East, by the meridian of Long. 2° 27′ E.;
   To the North, by the line situated 3 miles seawards of the LW mark;
   To the South, by the Calais Pilotage Zone, the coast and the Inner Zone defined below.
2. The Inner Zone limited:
   To the West by meridian Long. 02° 08′ E.;
   To the North, by a continuous broken line constituted by the parallel Lat. 51° 03′ N., the line of the coast, the meridian Long. 02° 20′ E., the parallel Lat. 51° 04′ 30″ N.;
   To the East by the meridian of Dunkirk Lighthouse (02° 22′ E.);
   To the South by the end of the water levels of the autonomous port of Dunkirk.

Pilotage is compulsory in Inner Zone for ships over 150 n.r.t. or ships of max. length 50 m., or with dangerous cargo.

Pilotage compulsory in Outer Zone for ships not fitted with VHF, or over 1,000 nett tons or max. length 100 m. or with dangerous cargo.

Vessels coming from the West should call Pilots 12 hours before arrival or when leaving the former harbour. Vessels coming from the East should call Pilots 2 hours before arrival. ETA based on time of arrival at Dyck Lightship, should be given through Boulogne Radio (telegraphy) or by radiophone (2182 kHz). ETA to state: ETA (at pilot station). Length of the ship. Draft. Place where the Pilot is requested: Dyck/Dunkirk Light Vessel; Dunkirk Roads; Zuydcoote Pass.

ETA will be considered null and void if vessel does not arrive within 2 hours of stated ETA.

In vicinity of pilot boat, vessels may communicate with Pilots by VHF Channel 16, or R/T 2182 kHz or by Aldis lamp or flag signals when pilot boat is in sight. Telegraphic address of Pilot: Piloduk. Telex: 820902.

Pilot boat is about 50 m. long, black hull with white horizontal stripe, "Pilot Dunkerque" written on hull. Black funnel with white anchors insignia.

Pilot boat is positioned between Dyck Lightship and Buoy CA.2. In bad weather, pilot boat stays on radio watch but may leave for a more sheltered place, or put into port.

Ship's Departure: Sailings must be ordered at the Harbour Office, pilot station, towage office and linemen's office.

Pilots: For a sailing between 0800 and 2000 hrs. 1.5 hours' notice is necessary to Pilot for the ships moored in Dunkirk-East (Mardyck Bassin excepted) a 2 hours' notice for ships moored in Mardyck Bassin and Dunkirk-West.

For a sailing between 2000 hrs. and 0800 hrs. vessels are required to give notice to the pilot office before 1600 hrs. and to order the Pilot before 1800 hrs.

ANCHORAGES: Large vessels waiting for entrance must anchor in the area West of Dyck Light Vessel. In bad weather, ships may anchor off English coast, in the roads of Les Dunes, with good mooring ground of sand and mud 20 m. deep. On the Roads of Dunkirk, ships must anchor East of Buoy E.1 so as not to disturb the entrance of ships.

APPROACHES: A new route, which allows vessels with draft 9.0 m. coming from the North Sea to reach Dunkirk more directly, has been buoyed. Vessels drawing 11.0 m. should adjust their course to round the Dunkirk Lanby (51° 03.0′ N., 01° 51.8′ E. approx.) after passing Ruytingen S.E. Buoy.

Buoys have been laid to mark the route.

It is recommended that this route should not be used by vessels not having a pilot on board.

The buoys marking Le Dyck and Haut-fond de Gravelines are liable to change.

RESTRICTIONS/MAX. SIZE: Movement of vessels: Normal operating conditions. Exceptionally, dispensations may be given by port services after study of specific cases.

Eastern Port

VIA CHARLES DE GAULLE LOCK:

ENTRY: By day: Passage to breakwaters from sunrise to sunset.

Before high tide (HW –3 hours). Length 250 m. or under – max. draft 12 m.

After high tide (HW +2 hours). Length 280 m. plus 1% or under if vessel is engine-driven and length 265 m. or under if vessel is turbine-driven – max. draft 14.20 m. Beam 45 m. or under.

After agreement of Captaincy/Pilotage/Tugs is obtained, a second vessel can be taken at the entrance, up to 2 hours after high tide, providing its draft is 12.80 m. or under and beam 39 m. or under.

If tugs have to be changed during the entry manoeuvres of 2 large vessels, the Master of the vessel using the tugs must be warned in advance by a message from the Captaincy.

At Night:

Before high tide (HW –3 hours). Length 250 m. or under – max. draft 12 m. Beam 39 m. or under.

After high tide (HW +2 hours). Length 250 m. or under – max. draft 12.50 m. Beam 39. m. or under.

SAILING:

If length 251 m. or over and beam 39 m. or over, register for sailing between 1 hour before sunrise and 1 hour before sunset, except for Berth AP 1, vessel with bow facing West, where the limit is 2 hours before sunset.

From tide-coefficient 95 onwards (h=5.85 m.) no registration required between HW – 3.5 hours and HW – 0.5 hours.

If the length is between 250 m. – 251 m. and beam is under 39 m. sailing registration possible from 0500 to 2200 hrs. (Summer and Winter) except for tankers, where length is still limited to 250 m. and beam under 39 m.

If length is under 250 m. and beam is under 39 m. sailing registration day and night without restriction.

Max. Draft on Leaving Port:

Max. draft 13.0 m. during slack water before high water. Registration 1 hour after low water.

Max. draft 13.5 m. during slack water after high water. Registration 1 hour before high water.

A period of 3.5 hours must be allowed between time of registration of sailing of a vessel up to 7.25 m. draft and time of passage to the quays of a large vessel making no headway.

VIA WATIER LOCK:

Passage prior to high tide: Max. draft 11.50 m. – beam 32 m. or under.
Passage after high tide: Max. draft 11 m. – beam 32 m. or under.
Max. length (before or after HW).

By Day: Length 230 m. or under with no vessel at Mole V. Length 220 m. or under with vessel at Mole V.

By Night: Length 220 m. or under with no vessel at Mole V. Length 210 m. or under with vessel at Mole V.

VIA TRYSTRAM LOCK:

Max. draft 8 m. – beam 22 m. Length 150 m. or under on leaving port, Tixier Lock pumps stopped on Pilot's request. Length 140 m. or under on entering port, Tixier Lock pumps stopped on Pilot's request.

CHANNEL – MARDYCK LOCK:

Usable length: 144 m.
Usable width: 11.40 m.
Draft: 3.20 m. for canal level of 0.66 m.
Air draft: 5.50 m. for basin level of 6.30 m.

DUNES CHANNEL – DUNES LOCK:

Connects the East and West sections of the port.
Length of lock: 185 m.
Usable width: 11.40 m.
Max. Draft: 5.0 m.
Air clearance under bridge with 7.0 m. water height.
Bridge lowered – 5.25 m.
Bridge raised, dimensions of side wall – 15.0 m.
Theoretical depth of channel – 3.50 m.

BP BERTHS:

By day and by night, on direct entry or with tow relinquished: Length 250 m. or under. Draft 12.50 m. or under (this can be extended to 12.80 m. max. dependent on water level in basins).

DRY DOCK 6 – DOVER – PANAMA QUAYS:

Large vessels may manoeuvre in good visibility and wind less than Force 5 Beaufort.

Max. dimensions of vessels admitted to dry dock 6:
Length 280 m.×beam 45 m.×draft 6.50 m. Bow/8.5 m. Stern.

On Relinquishing Tow: Entry and sailing registration on Dock 6:

By day, registration from sunrise less 1 hour to sunset less 2 hours for vessels length 251 m. or over or beam 39 m. or over.

Registration from 0500 hrs. to 2200 hrs. if length between 250 m. and 251 m. and beam under 39 m. No limit on registration time if length is 250 m. or under and beam is under 39 m.

Entry Direct of vessels length over 250 m. and/or beam over 39 m.: passage to jetties when daylight 2 hours after HW – latest time 2 hours before sunset.

Direct Sailing to Sea from Dock 6 of vessels length over 250 m. and/or beam over 39 m.: Registration 3 hours before sunset.

Note: Mole V, Eastern section, must be clear for vessels of length over 250 m. swinging in front of Dry Dock 6 and Watier Amont Quay free for passage of vessels of length over 250 m. via Brocquaire Channel.

RECOMMENDED DRAFTS FOR SAILING OR
TOW RELINQUISHING MOVEMENTS

Length	150 m.-180 m.	180 m.-205 m.	205 m.-230 m.	230 m.-280 m.
Draft	B 5 m.-S 6 m.	B 6 m.-S 7 m.	B 7m.-S 8 m.	B 9 m.-S 10 m. (except for repairs)

B=Bow, S=Stern.

Western Port:

FLANDERS TANKER BERTH:

In Normal conditions of Dredging – Entry: Passage to jetties from sunrise to 1 hour before sunset if length over 300 m.; Passage to Jetties from 0400 hrs. to 2100 hrs. (or sunset) if less than 300 m. length.

Before high tide (3 hours before HW at Dunkirk East). Draft 19.50 m.

After high tide (HW at Dunkirk East plus 2.5 hours). All coefficients draft 20.50 m.

Tugs must be present at "DW 13/DW 14" 45 minutes before theoretical time of passage to berths of the tanker they are serving.

Theoretical Number of Tugs:

D.w.t.	D.w.t.	No. of tugs	
under	125,000	3	According to Pilot's request
125,000 –	175,000	4	According to Pilot's request
175,000 –	250,000	5	According to Pilot's request
250,000	and over	5 or 6	According to Pilot's request

Sailing: Sailing registration from 1 hour before sunrise to 1 hour before sunset if length over 300 m.; Sailing registration from 0500 hrs. to 2200 hrs. is less than 300 m. length.

With coefficient over 95, no sailing registration from HW – 3 hours to time of HW. The interval between registration time for sailing of a tanker from the Flanders Tanker Berth at the time of passage to the jetties of an incoming tanker must not be less than 3 hours.

Recommended draft on sailing:

Length 280 m. or under	Length over 280 m.
8 m. bow/9 m. stern	9 m. bow/10 m. stern

No. of tugs to be used:
D.w.t. under 150,000 tons – 3 according to Pilot's request.
D.w.t. over 150,000 tons – 4 according to Pilot's request.

Note: Wherever possible, between buoys DW 14 and DW 16, large vessels leaving Dunkirk East should not cross tankers entering Dunkirk West.

HEAVY LIFT QUAY:

Entry day and night without restriction, if length up to and not exceeding 300 m. and vessel's bow southward.

Sailing day and night without restriction if vessel's bow facing northward.

Sailing by day only if vessel is facing southward and length 250 m. or over.

On entry by day the vessel can be positioned with bow facing North if length less than 260 m.

Draft before and after high water 18.0 m.

Heaving off at Heavy Lift Quay/Eastern Port – length up to and including 280 m., beam up to and including 45 m., draft 14.20 m. and less.

Minimum registration for heaving off, 5 hours before passage to quays of Eastern port. Priority on entry if length greater than 250 m. and draft greater than 12.5 m.

OPERATION OF S.F. BP OIL BASIN BERTHS:

North BP Berth:

Max. draft 12.5 m.	Length 250 m.

Middle BP Berth:

Max. draft 12.5 m.	Length 245 m.
Max. distance stern/connection	122.5 m.

South BP Berth:

Max. draft 10.5 m.	Length 230 m.
Max. distance stern/connection	120 m.

Coaster Berth – North Face: (No longer equipped for commercial operations).

(a) West Part, from Bollard 2.5 to Bollard 7 (quay length 80 m.) – Max. draft 6.5 m.

(b) East Part, to the East of Bollard 7 (length of quay 90 m.) – Max. draft 7.5 m.

Max. length of vessels admitted to coaster berth is 120 m. with a draft of 6.5 m.

Coaster Berth – South Face: Solely reserved for river traffic.

Bunker Berths: Reserved for bunkering craft.

Note: The drafts shown correspond to a minimum water depth in the basins of 5.3 m.

At all BP berths, vessels are positioned bow facing West.

Simultaneous usage of BP North and Middle Berths is only possible, under normal conditions, if the total beam of the 2 vessels in question is less than 70 m., otherwise the manoeuvring of these vessels, both on entry and sailing, can only be envisaged by day and in fine weather.

Vessels of larger dimensions than those covered by this note can be admitted to the following berths only after prior study and subject to special conditions of draft, berthing and securing cables, etc.

Overflow rafts: See Article 412 of Permanent Instruction No. 57.

Max. length of vessels, with draft of 12.5 m. transiting Brocquaire Channel is fixed at 250 m.

HEALTH: For ships coming from *(a) All European Countries:* Declaration of Health is not obligatory but general International Certificates are controlled. *(b) Other Harbours:* Admission subject to Declaration of Health and usual controls of certificates. Admissions in Free Pratique only in daytime except special cases (intervention of a physician). Request for Free Pratique may be made to Sani-Port, Dunkirk, through Boulogne Radio. In case of necessity, health service can – on request – intervene at night.

RADIO: Dunkirk Harbour Station (FFF), VHF call sign "Dunkerque Port", for messages about port service through VHF Channels 73 and 16. Communications other than in VHF made through Boulogne Radio (FFB).

VHF: Dunkirk Port Station maintains continuous watch on VHF, Channels 73 and 16.

RADAR: There is radar at the control tower of harbour. It is not a guiding radar.

TUGS: Tugs normally join vessel between Buoys DW.28 to DW.30 and DW.16. Smaller vessels are joined by tugs in the outer port.

On departure tugs must be ordered with a 2 hour notice for Dunkirk-East and a 4 hour notice for Dunkirk-West. Moreover, for manoeuvring between 1900 hrs. and 0700 hrs. tugs must be reserved before 1600 hrs. and ordered before 1800 hrs.

It is possible to cancel or delay any order for tugs, without indemnity, provided this request is done with a 1 hour (daytime) and 2 hours' (night-time) notice for Dunkirk-East, with a 2 hours' (daytime) and 4 hours' (night-time) notice for Dunkirk-West.

Also see "Restrictions".

CONTAINER FACILITIES: *Dunkirk-West:* Quai de Lorraine and Quai de Flandre. Total length 1,200 m. equipped with 4 container gantry cranes capable of lifting 45 tons on spreaders for 20 ft.–40 ft. units.

ROLL-ON/ROLL-OFF FACILITIES: *Dunkirk-West:* Quai d'Alsace is equipped for direct transhipment of vehicles, trailers and wagons. Quai de Lorraine and Quai de Flandre are provided with movable steel ramps for direct transhipment of vehicles and trailers. A fixed quarter ramp has been installed at the West end of Quai de Lorraine.

Dunkirk-East: Quay Freycinet VII, the berth South of Freycinet VI, has been provided with a fixed ramp for roll-on/roll-off for ships up to 8 m. draft and 22 m. beam, and Quay Freycinet XIII, South part, is fitted with a fixed ramp for ships up to 12.50 m. draft.

BERTHING: Berthing priority is decided by Port Captain's office. Vessel is informed by radio of the location and priority given to her.

Dock	Quay	Length (m.)	Min. Depth of water (m.)
1	Freycinet I (North Part)	196.7	6.90
	(South Part)	299.0	
1	Freycinet II (North Part)	95.6	7.30
	(South Part)	155.9	
1	Freycinet III	496.7	7.80
	Front du mole 1	187.3	7.20
2	Freycinet IV	430.6	7.60
2	Freycinet V	630.0	7.40
	Front du mole 2	146.0	7.70
3	Freycinet VI	528.4	9.10
3	Freycinet VII	516.8	9.40
	Front du mole 3	114.3	9.00
4	Freycinet VIII	558.3	9.20
4	Freycinet IX	500.6	8.80
	Front du mole 4	126.4	7.40
5	Freycinet X	484.5	11.20
5		120.2	10.10
5	Freycinet XI	446.8	11.00
	Front du mole 5	406.6	10.30
6	Freycinet XII	715.9	12.80
6	Fond de darse 6	177.6	12.50
6	Freycinet XIII	702.2	12.70
	Front du mole 6	165.6	4.20
	Upstream West Watier Lock	104.0	4.80
	Quai des Monitors (Tidal Quay)	431.2	5.00–7.00
Oil Port	N. station	105.0*	13.20
Oil Port	N. central station	95.0*	13.20
Oil Port	S. central station (1)	95.0*	11.20
Oil Port	N. coasting station	200.0	7.00
Oil Port	S. coasting station	200.0	3.50
Bassin Maritime	Grain berth	195.0	14.20
Bassin Maritime	Quai Usinor No. 5 & 6	703.5	14.20
Bassin Maritime	Quai Usinor No. 2, 3 & 4	649.1	14.00
Bassin Maritime	Quai Usinor No. 1	277.3	6.80
Bassin Maritime	Heavy cargo berths No. 1 & 2	507.5	16.00
Bassin Maritime	Heavy cargo berth No. 3	174.5	12.00
Bassin Maritime	Heavy cargo berth No. 4	262.0	12.40
Bassin Maritime	Berths for general cargo (E. section for barges)	282.5	5.10
Bassin Maritime	General cargo berth	618.0	14.80
Bassin de Mardyck	Appt C.F.R. Poste Est	170.0*	12.40
Bassin de Mardyck	Appt C.F.R. Poste Quest (2)	65.0*	16.00
Bassin de Mardyck	Quais du Braek (3)	85.0	6.90
Bassin de Mardyck	Quai de l'Escaut	643.0	12.00
Fore-port – West	Appt petrolier C.F.R. (4)	105.0*	23.00
Dunkirk West			
Quai d'Alsace	Ferry berth	132	5.00
Quai de Ramsgate	Ro/Ro	180	—
Quai de Lorraine	Ro/Ro and Container berths	260	7.00
		500	13.30
Quai de Flandre	Ro/Ro and Container Berths	423.4	13.30
Quai Pondereux Ouest	Heavy Cargo (5)	270	20.00

(Bed: Length 340 m. × 100 m. width)

*platform

(1) Maximum length of vessels permitted: See "Tankers" – S.F.B.P. Oil Basin Berth.

(2) Maximum length of vessels permitted:
E. station of CFR berth 240
W. station of CFR berth 275 m.

(3) Maximum length of vessels permitted: 105 m.

(4) Maximum length of vessels admitted: approx. 360 m.

(5) Max. size permitted: Without lightening.

Entry 3 hours before HW: Max. length 310 m. Max. draft 17.25 m.
Entry 2 hours after HW: Max. length 310 m. Max. draft 16.80 m.

During 1988, after dredging of Quai Ponderaux Ouest, vessels of Max. length 310 m. and Max. draft 18.00 m. will be allowed before and after high water.

CRANES:

Electric Cranes:	Cranes of 3 t	Cranes of 6 t	Cranes of 10 t	Cranes of 15 t	Cranes 7.5/10 t
Quai de reparations			1		
Quai a marchandises diverses			2	3	
Freycinet I		5			
Freycinet III		3			
Freycinet IV		5			
Freycinet V		3			
Freycinet VI		2			4
Freycinet VII		4			
Freycinet VIII		6			
Freycinet IX		4			
Freycinet X		2	4		1
Freycinet XI		2			4
Freycinet XII		1	2		3
Fond de Darse VI					
Freycinet XIII					8
Quai de Suez					
Quai de l'Escaut			2	1	3

2 Sugar Loaders at Freycinet IX.
1×50 ton Crane at Quai de l'Escaut.

Floating Crane:

Number of cranes	Lifting power	Outreach measured from the pontoon max.	Outreach measured from the pontoon min.	Height under hook	Power agent	Type	Equipment hooks	Equipment tonnes
1 (bigue)	250	7.20	5.00	32.00	Steam	Construc-	2	125
	125	15.70	8.00	50.50		tion	2	62.5
						hollandaise	1	5

Mobile Cranes (Port Services): 1 at 6/10 tons and 2 at 17/36 tons. Possibility of mobile cranes from other yards.

BRIDGES: Bridges of locks and wet docks are closed to navigation for short periods to allow trains or work hands to go. The maritime traffic is practically never disturbed.

BULK HANDLING FACILITIES: Bulk Quay No. 1, formerly known as the ore quay. Equipped with 2 gantry cranes. Principally used for iron ore destined for Usinor Dunkirk and Usinor Valenciennes. There is a loader for clinker at the Western part of the Quay.

Bulk Quay No. 2, a common quay with 2 berths belonging to the Dunkirk Port Authorities. Equipped with 2 polyvalent iron ore/coal gantry cranes. This quay is accessible for largest ships able to enter the port. Used to discharge coal destined for the Usinor coke mill, also receives coal for other operators, manganese ore and all iron ores for receivers other than Usinor.

Bulk Quay No. 3, an extension of the Usinor Quay for iron ore cargo. Equipped with 3 gantries of 50 tons capacity. Permissible draft 14.20 m.

Phosphate Quay, situated West of Bulk Quay No. 2. Berth is 600 m. long with a min. depth alongside of 14.8 m. Bulk carriers of 80,000 d.w.t. with a draft up to 14.2 m. can be accommodated.

Unloading equipment consists of 3 cranes with grabs, each with a max. discharge capacity of 565 t.p.h.

A new silo is situated at Quai de Grande Synthe. Capacity 70,000 tons. Permissible draft 13.5 m. 1×1,000 t.p.h. shiploader.

The second new silo, (Silonor), will have horizontal handling and storage under a shed of 100,000 tonnes. Half of the capacity (50,000 tonnes) currently available.

Sugar is handled at Freycinet No. 9 silo capacity 83,000 tonnes.

Dunkirk-West: The Western Bulk Terminal (Q.P.O.): For lage bulk carriers (iron ore and coal) with 1 berth for vessels up to 220,000 d.w.t. (according to dredging conditions). Equipped with 2×50 ton grab gantry cranes linked to storage yard with a 600,000 cu.m. capacity.

OIL TANKERS: The following tanker berths are available:

West Port: Flanders Oil Berth: max. draft 20.50 m. Discharge lines to Total Refinery, and to the B.P. Refinery. The access channel has been dredged to a depth of 22 m. at L.W. The turning circle at the entrance to the Outer Port West has a diameter of 1,400 m. Max. discharge rate 20,000 cu.m./hr.

East Port: S.F.B.P. Oil Dock.

Middle wharf North, max. draft 12.50 m. Loading/discharging lines 2×22 in. and 3×16 in. lines, bunker line 16 in. diameter.

Middle wharf South, max. draft 12 m. Dimensions of lines as for Middle wharf North.

Coasters Wharf, max. draft 7.50 m. Loading/discharge lines 6 in.

Bassin de Mardyck Oil Port: Appt C.F.R. – Poste Est. Max draft 11.70 m., Poste Ouest draft 14.20 m.

Facilities for discharge of dirty ballast are available at all main tanker berths.

Stocknord Pier: Pier of length 440 m. with 4 platforms.

P.1 – For barges only.

P.2 – For barges and coasters up to 100 m. length and 8.50 m. draft.

P.3 – Oil and Gas. For vessels up to 100,000 d.w.t., 280 m. length and 14.20 m. draft.

P.4 – Gas only. Max. length 160 m. and draft 10.3 m.

C.P.A. Quay: Berth at Mole V. Mainly for Fuel and Vegetable Oil. For vessels up to 250 m. length and max. draft 9.60 m.

GAS TANKERS:

Appt. C.F.R.: Bassin de Mardyck: 1 berth for butane and propane. East side of pier for vessels up to 11.60 m. draft.

Stocknord: Bassin de Mardyck. The total length of the quay is 440 m. with a width of 30 m.

Alongside this quay, are berths or platforms P1, P2, P3 and P4.

P1: Oil only.

P2: Oil only.

P3: Coasters of 90 m. LOA and tankers of 280 m. LOA, d.w.t. 100,000 tonnes on East side of pier.

P4: Coasters LOA minimum 60 m. and gas-carriers of LOA max. 160 m., max. d.w.t. 10,000 tonnes on West side of pier.

Products: LPG, ethylene, FR and PP.

P3 can take LPG products and chemical products: Vessels up to 280 m. length.

Distance from P3 to storage areas: Approx. 800 m. with a 10 in. line.

Nitrogen in gas-form available on site (2 in. and 3 in.).

P4 is for vessels of LOA 160 m. max. with a d.w.t. of 10,000 tonnes, and a max. draft of 10.3 m. Beam – no limits.

Products: LPG, derivates, propylene, ethylene, butadine. 10 in. lines and arm flanges of 8 in. ASA 300. Products can be refrigerated or at ambient temperature.

Connection with P3 and with the storage areas.

Nitrogen in gas-form on the quay (2 in. and 3 in.).

Length of platform: 25 m. Width of platform: 12 m. Height above water line: 5 m.

Loading and discharge by 8 in. Luceat arms.

Tidal movement at the quay is minimal: Approx. 1.0 m. min./max. Predominant winds from the West.

Transhipment from vessel to vessel can take place at berths P3 and P4 by connection line between the two berths.

The possibility of transhipment with a first vessel berthed and a second connected to it is accepted. For this to happen:

1. Advise the authorities minimum of 24 hours before the operation.
2. A technician must be on hand.
3. The owner must supply hoses and defences.
4. Port rights and occupation of the quay is to be discussed with the owner.
5. A tug must be available for both vessels.
6. If the wind is blowing above Force 5, the operation must be stopped and the connected vessel must go out to the roads with Pilot and tug, if the quay which can accept the type of vessel is not free.
7. Transhipment from vessel to vessel via connection lines from Berth P4 and Berth P3. If during this operation a priority vessel must at all costs berth, the operation of transhipment must be stopped and one of the vessels must connect up to continue the operation or go out into the roads (Pilot and tug necessary).

Port Entry: It must be emphasised that the depth of water at the port entrance towards the Mardyck Basin at Charles de Gaulle Lock, foreport East is 14.20 m. max. with a beam of 45 m.

Storage facilities: At approx. 800 m. from the Stocknord quay. 2 LPG – Propylene storage points of around 3,500 cu.m. each take propane for the account of the company CDF Chimie. They have a service pressure of 15 kg/sq.cm. and a temperature of −10°C.

From these 2 facilities, it is possible to load/discharge to and from lorries (18 tonnes) or trucks (45 tonnes).

Consumption of vapocracker (set for between 300 tonnes and 500 tonnes per day) is with the use of propane and naphtha.

List of storage points at Stocknord:

2×3,500 cu.m.	Propane–butane–Btd–propylene operating pressure 15 kg/sq.cm. Minimum temperature −10°C.
1×17,000 cu.m.	C2
1×17,000 cu.m.	C3
1×9,000 cu.m.	C4
8×6,000 cu.m.	Essences
9×6,000 cu.m.	Pyrolised essences
6×20,000 cu.m.	Naphtha, gasoil, diesel and fuel oil
2×2,000 cu.m.	(drums) chemical products
1×1,000 cu.m.	(drums) chemical products

Trains–trucks: Stocknord can hire, load, discharge trucks or lorries.

By truck: convoys of 1,000 tonnes of all products and throughout France.

By lorry: 15–20 tonnes LPG–ethylene, etc.

By truck: 45–50 tonnes each, filling in groups of 6; for each group of trucks filling takes approx. 20 minutes for all liquid products.

Nitrogen: Possibility of degassing at berths P3 and P4 (from 800 to 1,000 cu.m. per hour of nitrogen in gas-form).

Heater: Currently, there is a propylene land-based heater (350 cu.m./hour) of the steam type working from −47°C to +5°C.

This heater can be connected to the lines of the new propane storage facilities: time involved, approximately 1 month.

STEVEDORES: Each Master will contact his consignee.

MEDICAL: Hospitals and all medical facilities.

DENSITY: Salt.

FRESH WATER: Available in unlimited quantities. Numerous hydrants on all wharves.

FUEL: Supplied by barges or tank lorries if no connection at wharf. Fuel, diesel and gas oil available. Requests for bunkers must be made 48 hours in advance to Agents.

FIRE PRECAUTIONS: The preventive measures are taken for tankers are those of the I.M.O. recommendations. Rounds of the port officers. Ship's Master is given instructions of the harbour concerning tankers if necessary when filling the I.M.O Checklist. In case of storm, the Harbour Officer can stop loading or discharging.

GANGWAY/DECK WATCHMEN: Guarding is strongly advised.

OPENING/CLOSING HATCHES: Carried out by crew.

CERTIFICATES:

Certificate of Nationality.

International Certificate of Tonnage.

Certificates from the Classification Office where ship is registered, especially:

Certificate of Freeboard.

Classification Certificate, engine and boiler.

Classification Certificate, hull.

Classification Certificate, electric equipment for tankers.

List of Hoisting Apparatus.

Derat Certificate.

TOVALOP Certificate or similar for tankers.

CUSTOMS ALLOWANCES: Tobacco: Amount allowed for each member of crew: 200 cigarettes or 200 gramme tobacco. Wine and/or Spirits: 1 bottle.

IDENTIFICATION CARDS: An official identity certificate is compulsory ashore (Passport, Identification Card, Seaman's Book, etc.).

CONSULS:

Belgium
Brazil
Denmark
Finland
Germany
Greece
Italy
Luxembourg
Netherlands
Norway
Portugal
Spain
Sweden
United Kingdom

REPAIRS: All repairs possible.

DRY DOCKS:

	Usable at top	length at bottom	Level sill (m.)	Admissable draft of ship	Max. length of ship (m.)	Max. beam of ship (m.)
Dry Dock No. 5	112.72	108.05	2.05	6.30 m.	107	13.5
Dry Dock No. 3	90.36	86.40	0.55	5.40 m.	80	13
Dry Dock No. 4	192.98	190.77	1.85	7.05 m.	160	20.5

Dry Dock No. 6: Length 310 m. Width 50 m. Max. length of vessel 280 m. Max. beam 44 m. Max. draft bow 6.50 m., Stern 8.50 m. Crane 1×25 tons capacity available.

Floating Docks:

Characteristics of the dock	*Dock 13,000 T*	*Dock 20,000 T*
Overall length	170.20 m.	206.00 m.
Length on blocks	159.80 m.	185.00 m.
Width	24.60 m.	32.00 m.
Optimal characteristics of ships which can be docked		
Overall length	175.00 m.	215.00 m.
Overall beam	23.00 m.	30.00 m.
Maximum draft	6.50 m.	8.30 m.
Variation of draft allowed	3 cm./m.	2 cm./m.
Cranes	2 of 10 t.	2 of 7 t.

AIRPORT: Calais, Marck, 35 km.; International airport of Lille Lesquin, 80 km.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: 1st January; Easter; Whitsuntide; 1st May; 14th July; 15th August; 1st November; 11th November; Christmas. On public holidays, handling operations can be carried out from 0600 hrs. to 1200 hrs.

POLICE/AMBULANCE/FIRE: Police 17; Ambulance 28646054; Firemen 18.

TELEPHONES: In Wet Dock 6, in the tankers' harbour, at the quay for minerals, at the wharf for cereals, in the Dry Docks and Repair Quay, a telephone on board can be obtained and connected to the general system.

SERVICES: No specific port equipment for gas-freeing. Dirty ballast can be received at all oil terminals and by barges of the Port Service. Compass adjustment, radio repairs.

SHORE LEAVE: Crew are allowed ashore.

DEVELOPMENTS: Canal des Dunes (connects Dunkirk-West and Dunkirk-East) for barges with length 200 m., beam 12.0 m. and draft 5.50 m.

New ferry terminal under construction at Quai d'Alcase.

AUTHORITY: Port Autonome de Dunkerque, Terre-Plein Guillain, B.P.6.534, 59386 Dunkerque Cedex 1. *Tel:* 28.29.70.70. *Telex:* 820055 Poronom, Dunkq. *FAX:* 28.29.71.06. *Contact:* M. Kerisel, Port Director.

Harbour Office: East Harbour 28.29.72.62. West Harbour 28.29.72.79. *Telex:* Capdk 130972 F.

FECAMP: 49.46 N. 00.22 E. (See Plan)

DOCUMENTS:

2 Crew Lists.
2 Custom Lists.
1 Health Form.
Ship's Register.
Cargo Manifest.
Bills of Lading.

PILOTAGE: Pilots informed of arrivals by Agents. Pilots wait at port station 2 hours before HW each tide. Inform Harbour Master by VHF Channel 16.

ANCHORAGE: Half mile West of jetties.

MAX. SIZE:

Spring Tides: Length 105 m., beam 17.0 m., draft 7.25 m.

Neap Tides: Length 105 m., beam 17.0 m., draft 6.00 m.

HEALTH: Pratique obtained when Customs Officer boards few minutes after berthing.

RADIO: Boulogne Radio.

VHF: Harbour radio station keeps watch on Channel 16.

Vessel arriving at Fecamp, or waiting in roadstead must keep watch on Channel 16.

TUGS: None.

BERTHING:

Berth	*Depth* (m.)	*Length* (m.)	*Remarks*
Outer Harbour			
Grand Quai	1.50	140	Heavy swell by W.N.W. wind.
		80	Moorings for local fish boats.
		60	Swell absorber (N.E. end)
Inner Harbour			
Quai de la Peche	−1.50	52	
Bassin Freycinet			
Quai de la Marne	−1.00	190	
Apppontement			
Quai de la Marne	−1.00	150	
Quai de Verdun Est	−1.50	150	
Quai de Verdun Ouest	−1.50	170	
Bassin Berigny			
Quai Berigny Est	+0.25	200	Heavy swell during opening of watergates by W.N.W. wind.
Quay Sadi-Carnot	−1.50	300	
Quai de la Mature	−1.50	90	

STEVEDORES: Informed by Agents (available).

CRANES:

Mobile Cranes: 1×180 tonnes, 3×40 tonnes, 2×160 tonnes.

Electric Cranes: 2×6 tonnes, 4×3 tonnes, 1×500 tonnes.

MEDICAL: Notice not required for medical attention. Doctors and hospital always ready.

FRESH WATER: Available from shore (pipes each 50 m. on quay).

FUEL: No fuel in port. Available only by lorries for bunkering.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: By crew.

CERTIFICATES: In accordance with international regulations:

Load Line.
Radio Equipment.
Safety Equipment.
Derat, etc.

CUSTOMS ALLOWANCES: About 200 cigarettes per man; wine/spirits at Customs Officer's discretion.

IDENTIFICATION CARDS: Not required.

CONSULS:

Consulate of Norway	Tel: 35.28.00.08.
Vice-Consulate of Denmark	Tel: 35.29.22.86.

REPAIRS: Possible.

DRY DOCKS: 1 slipway for vessels of maximum 1,500 tons displacement, total available length 75.60 m.

Max. water height in dock: 7.50 m. dredged down to minus 2.50 m.

Max. forward draft for access: 1.80 m.

REPATRIATION: Agents carry out these operations.

AIRPORT: Paris is the nearest.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: Arrangements for working during holidays can be made if necessary.
POLICE/AMBULANCE/FIRE: Police, Tel: 0.17 and 35.28.06.68; Ambulance, Tel: 35.28.31.91 and 35.28.09.59; Fire, Tel: 0.18.
TELEPHONES: No arrangements for placing telephone on board.
SERVICES: No possibilities for tank cleaning, etc. Compass adjusting available if necessary.
SHORE LEAVE: Always possible for crew members to go ashore.
AUTHORITY: Chambre de Commerce et d'Industrie de Fecamp, Palais Consulaire. 8 Rue Bailly, B.P. 126, 76400 Fecamp. *Tel:* 35.28.00.99. *Telex:* 190452. *Contact:* J. Saunier, Director General of Services. J. York, President.

Port Authority: 16 Grand Quai, 76400 Fecamp. Tel: 35.28.23.76.
Port Office: Passe Gayant, 76400 Fecamp. Tel: 35.28.25.53.

GRANVILLE: 48.50 N. 01.37 W. (See Plan)

DOCUMENTS: See "Calais".
PILOTAGE: Pilotage not compulsory for ships of less than 45 m. length, except for those carrying dangerous cargo. Pilots board from fishing boats carrying regulation marks of a pilot boat, and maintain position at Videcoq buoy when a vessel is expected.

Limits of Granville pilotage are: 1. On entering, towards the West, the line joining "la Pierre d'Herpin", and Chausey lighthouse. To the North, alignment of Chausey lighthouse and "le Pignon". 2. On leaving, alignment of Mont. St. Michel through Champeaux Point. Ships bound Granville required notify ETA 18 hours in advance.

Telegraphic address: Telex 170002 SCAC Granville – Ship's Agency – Handling. Telex 170777.

1.5 hours before to 1.5 hours after high tide contact with Port Officer (Tel: 33.50.12.45 and 33.50.17.75 Granville) can be established by relay through "Coastal" Stations. During same hours contact can be made with pilot boat and with Port Office by VHF Channel 12 (port wave band 156.6).
ANCHORAGE: At landfall buoy of Le Videcoq.
RESTRICTIONS: Draft restrictions apply at neap tides. Width of Lock – 20 m. Length – 40 m.
MAX. SIZE: Vessels 115 m. long, 18 m. wide and with a max. draft of 7.50 m. may enter the tidal basin during 6 days, twice a month with effect from a tidal coefficient of about 80.

For a vessel of this size, it is recommended to give advance notice of arrival as far ahead as possible at the commencement of tides with a coefficient of 80.

Entry of a deep draft vessel may make it necessary to close the tidal basin more quickly after high tide.

Speed in the channel, the fore port and the tidal basin is limited to 5 knots.
HEALTH: Pratique arranged by Customs.
RADIO: Boulogne Radio for ships coming from the North. Brest-Le Conquet Radio for ships coming from the South.
TUGS: Port not equipped with tugs. Pilot boats used as "pushers" for port manoeuvres, or for carrying hawsers to tying-up points.
VHF: Port Authority on Channels 16 and 12 during working hours.
BERTHING: Determined according to nature of cargo.
Tidal Basin: 3 electric cranes (2×7 tons and 1×6 tons) serve the South quay, and 1×10 tons serves the North and East quays.

Open areas, warehouses and storage silo capable of receiving all goods in bulk, bags or packages.

Internal transport: rail and road.
Fore Port: Open area and mobile cradle capable of hauling up vessels up to 100 tons. 1×5 ton crane on cradle. Repair yards.
West Quay: Between tidal basin and fore-port – solely for fish discharge and auction. Quay to be lengthened by 110 m. and widened by 14 m.
STEVEDORES: Work hours 0800/1200, 1400/1800. Overtime possible.
HOLIDAYS: See "Calais". Local holiday, Mardi Gras afternoon.
MEDICAL: Hospital available. Tel: 33.50.11.37. Also Medical Centre.
TANKERS: 2 berths for unloading domestic fuels through 8 in. pipes.
DENSITY: 1025.
FRESH WATER: Available at all quays, international connections.
FUEL: Available from tanker lorry to commercial vessels at 48 hours notice.
OPENING/CLOSING HATCHES: Carried out by crew.
GANGWAY/DECK WATCHMEN: Available on request.
CUSTOMS ALLOWANCES: Tobacco. 200 cigarettes. Wines and spirits. 1 bottle spirits.
CONSULS: None.
REPAIRS: Possible. Also radio repairs.
REPATRIATION: Paris, 3.5 hours by train.
AIRPORT: 10 km. from the port at Breville. Air-taxi and commercial flights.
TIME: Local Time GMT plus 1 hour in Winter and GMT plus 2 hours in Summer (1st April – 1st October).
POLICE/AMBULANCE/FIRE: Police Tel: 33.50.11.16; Fire Service 18; Ambulance 33.50.11.37.
GENERAL: Marina with 1,050 berths at Herel. Max. length 15 m. Max. depth available 2.75 m.
AUTHORITY: Le Commandant de Port, Port de Granville, Terre-Plein de l'Ecluse, 50400 Granville, France. *Tel:* 33.50.17.75 or 33.50.12.45. *Contact:* R. Ragel, Port Officer.

HONFLEUR: 49.25 N. 00.14 E. (See Plan)

DOCUMENTS: See "Rouen".
PILOTAGE: Served by "Pilotage de la Seine" (address: 9 Chaussee Kennedy, 76 le Havre). Ships bound for Honfleur are received on the Carosse Roads (Rade de la Carosse) where the following signals should be made for summoning a Pilot. By day – flag "G" of the international code of signals. By night – in Morse by signalling lamp.

Complementary signals which can be used on arriving on the roads. By day – globe or ship's national flag hoisted at masthead. By night – red light at main masthead. At all times, sound signal of 5 long blasts.

Advice of ETA and draft in salt water is to be given to Rouen Port at least 5 hours prior arrival roads, as well as to Agent.

Similarly, vessels anticipating a delay of more than 2 hours after their reported ETA should notify Rouen Port or the pilot boat of this at least 3 hours before the time originally reported.

Before arriving on the roads, ships should call pilot station "Rouen-Pilot" which keeps a permanent VHF watch on Channels 16 and 11.

A Pilot is obligatory for every ship of more than 55 m. length.
RESTRICTIONS: Access to port made through channel 100 m. wide, protected by 2 dykes about 500 m. long, which leads to outer harbour. A tidal port, Honfleur possesses 3 basins:

Dock	Length	Width	Sluice width
West Dock	128 m.	77 m.	10.50 m.
East Dock	295 m.	71 m.	16.50 m.
Carnot Dock	788 m.	108 m.	13.00 m.

East Dock joins outer harbour: ships of more than 70 m. long must anchor in Carnot Dock which spans from East.
MAX. SIZE: Port can receive ships 100 m. long and 15.50 m. wide berthing in East Dock; but with Carnot Dock, only ships less than 12.50 m. wide can enter. Drafts vary according to tides: 6.00 m. with average spring tide, 4.70 m. in average slack water, and subject to variations because of silting up of harbour which necessitates frequent dredging.
HEALTH: Bill of Health is under the jurisdiction of Customs office of Honfleur. Hospital nearby.
RADIO: Boulogne Radio, Brest Radio or St. Lys Radio. A permanent watch is maintained by Rouen Port on Channels 16 and 73. Disengagement frequency after call on Channel 16 is Channel 75.
TUGS: If necessary are provided by "La Societe des Abeilles" of Le Havre.
BERTHING:

Name	No. of Berths	Depth(m.) Neaps	Depth(m.) Springs	Equipment	Remarks
Bassin Republique Quai Nord	3	5.10	6.27	Rail track 1×6 ton crane on rails	2 Berths equipped with pipe-line
Quai Tostain	3	5.10 4.60	6.27 5.77	—	—
Bassin Carnot Quai Nord	2	5.10	6.27	Rail track. 1×4 ton crane	Cereals and various cargoes.
Quai S.W. and South Approach	7	5.10	6.27	Rail track, 3×5 ton cranes	1 berth for coasters
Wharf	1	5.10	6.27	—	Fishing vessels and pleasure craft.
Bassin de L'Ouest	2	3.60	4.77		
Avant Port	1	5.10	6.27		Fishing vessels
Quai en Seine	1	7.50	8.50	2×15 ton cranes	

1 "Richier" crane on tyred wheels available for use in the Port. Capacity: 30 tons at 3.50 m., 3.5 tons at 15 m.
TANKERS: Berth "Miroline" on dolphins in River Seine for tanker of 35,000 tons after lightening according to the depth conditions.
FRESH WATER: Available. Supplies arranged through Agent.
FUEL: Supplies arranged through Agent.
AIRPORT: Deauville – St. Gatien Airport, 12 km. from Port.
AUTHORITY: M. Pourcelle, Ingenieur des T.P.E., La Lieutenance, BP 45, 14603 Honfleur Cedex. *Tel:* 31.89.20.02. *Telex:* 170196. *Contact:* J. Tocqueville, Harbour Master.

ILE ROUSSE: Corsica: 42.39 N. 08.56 E.

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
1 Provisions List.
1 Cargo List.
1 List of Articles (new and Customs-barred) in possession each crew member – cameras, binoculars, radios, cigarettes, spirits, etc.
1 Health Declaration.
PILOTAGE: Not compulsory.
ANCHORAGES: Outside port for cruise vessels.
RESTRICTIONS: None.
MAX. SIZE: Draft 5 m; length 160 m.
RADIO: Within 50 miles call Ajaccio Radio VHF Channel 16. Then connected over Channel 23 to telephone network.
TUGS: None available.
BERTHING: Depths alongside 2.0 m. – 6.0 m. Only available when not occupied by ferry.
STEVEDORES: 24 hours accurate ETA necessary for ordering gangs. No work on Sundays and official holidays.
CARGO GEAR: Only a few nets and slings available; all other gear must be supplied by ship. Ship's derricks used.
FRESH WATER: Available at very slow pumping rate.
FUEL: Not available.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
AUTHORITY: Bureau du Port de Commerce, 20220 Ile Rousse, Corsica. *Tel:* 95.60.00.68 or 95.60.14.50.

LA CIOTAT: 43.10 N. 05.36 E. (See Plan)

PILOTAGE: Chantiers Navals de La Ciotat (C.N.C.). have 2 Pilots.
ANCHORAGES: Good anchorages available in La Ciotat Bay. Anchoring in the harbour is forbidden.
APPROACHES: La Ciotat Bay is situated between Toulon and Marseilles. The bay is sheltered from North and N.W.'ly winds. The "Bec de L'Aigle", height 155 m., makes an easily recognisable landmark for the approach to the harbour.

The entrance channel to the harbour has a depth of 7 m.
MAX. SIZE: Largest vessel 380 m. long, 60 m. beam and 7.5 m. draft.
VHF: Signal station keeps watch on Channel 16 from 0630 – 2100 hrs.
TUGS: 2 tugs of 180 h.p. and 200 h.p.; tugs also available from Marseilles.
BERTHING: Harbour is formed by 6 moles. Depth in harbour varies from 1.32 m. to 7.62 m., vessels drawing up to 7.31 m. can enter. Total quayage 1,610 m. There are two basins near the main harbour specially equipped for pleasure craft.
CRANES: Electric cranes: 1×250 tonnes, 1×120 tonnes, 1×50 tonnes, 2×40 tonnes, 1×20 tonnes, 3×6 tonnes and 1×5 tonnes. One floating crane of 80 tonnes. All cranes belong to C.N.C.
MEDICAL: Private clinics and local hospital available.
FRESH WATER: Available from C.N.C.
FUEL: Available.
DRY DOCKS: Building Dry Dock: 360 m. × 60 m. × 9 m.

No. 1 Slipway: 228 m. × 39.30 m. with lifting apparatus for 7 – 150 tonnes.

No. 2 Slipway: 172 m. × 31 m. with lifting apparatus for 5 – 150 tonnes, one 660 tonne gantry crane and one 500 tonne gantry crane.
AIRPORT: Marseilles (Marignane) 55 km. away.
POLICE/AMBULANCE/FIRE: Police – Tel: 42.83.90.00. Fire – Tel: 18.
AUTHORITY: Capitainerie du Port de la Ciotat, Mole Berouard, 13600 La Ciotat. *Tel:* 42.08.43.84. *Contact:* L.C.Mertz, Harbour Master.

LA NOUVELLE: 43.01 N. 03.04 E. (See Plan)

DOCUMENTS:
1 Passenger List.
4 Crew Lists.
2 Stores Lists.
1 Cargo Manifest.
Bill of Health.
Safety Certificates.

PILOTAGE: Vessels call Pilot on VHF Channels 15 and 16. 3 pilot boats available. International Code pilot signals used.
MAX. SIZE: For port entry: Length 140 m., beam 20 m., draft 6.50 m. Tanker sea line: Max. draft 18 m.
HEALTH: Pratique is given by Customs Officers who board vessel on arrival. In case of suspected disease on board, Master should radio Agents advising details before arrival.
TUGS: Not available. There are several launches to assist in mooring.
BERTHING: Effected in the order in which vessels arrive. Specialised berth for Roll-on/Roll-off available.
STEVEDORES: Arranged by consignees.
MEDICAL: Doctors available at La Nouvelle. Nearest hospital is at Narbonne, 27 km. away.
TANKERS: 1 sea line berth at buoys in depth of water greater than 18 m. 4 dolphin berths in the oil dock, max. draft 8.5 m. One of these berths is used for LPG cargoes. No slop disposal facilities.
DENSITY: 1025.
FRESH WATER: Supplied at all town berths.
FUEL: Available from several suppliers.
FIRE PRECAUTIONS: Usual safety regulations strictly applied. A barrage can be positioned across the channel to contain burning oil.
OPENING/CLOSING HATCHES: Optional, performed by stevedores or crew.
CUSTOMS ALLOWANCES: Each crewman allowed to retain only sufficient for his own consumption while in port. It is forbidden to take alcohol ashore.
IDENTIFICATION CARDS: Any person going ashore should carry a passport or identity card.
CONSULS: No local representation.
REPAIRS: Not possible ashore, except very minor ones.
AIRPORT: Perpignan (Internal and Charter flights). Marseille (International flights).
REPATRIATION: No difficulties.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: In principal, no work done on legal holidays.
POLICE/FIRE/AMBULANCE: Police, 68.48.00.11; Fire, 68.48.00.17; Ambulance, 68.48.10.13.
TELEPHONES: No connections can be made on board.
SHORE LEAVE: No restrictions.
AUTHORITY: Ponts et Chaussees, Service Maritime et de Navigation du Languedoc-Roussillon, 34 Avenue de la Mer, 11210 Port La Nouvelle. *Tel:* 68.48.00.37.

Capitainerie du Port, 32 Avenue de la Mer, 11210 Port La Nouvelle. *Tel:* 68.481764. *Contact:* Captain Gilbert Guillaume, Commandant du Port.

LA ROCHELLE/LA PALLICE: 46.10 N. 01.14 W. (See Plan)

DOCUMENTS:
3 Cargo Manifests, or Manifest of Ballast.
Certificate of Cargo Space.
2 Bills of Lading.
2 Stores Lists.
2 Personal Effects Lists.
6 Crew Lists.
3 Passenger Lists.
Health Declaration.
Derat Certificate or Exemption.

PILOTAGE: Access from sea is through Pertuis d'Antioche, the strait between Isle of Re and Isle of Oleron. Pilotage compulsory for all vessels over 55 m. length. Pilot launch named *Armeria,* meets vessels at Chauveau Buoy in position Lat. 46° 06′ 05″ N., Long. 01° 16′ W. Contact Pilot via VHF Channel 16, 2 hours before arrival. ETA must be given to Capiport (Telex: 791780) 12 hours before arrival. In same message, Master must also advise if engine, rudder, winches, windlass, cargo pumps, radar, VHF and radio are in good working order. Master must also give the expiration date of the Oil Pollution Liability Certificate and state insurers name.

Vessels which do not receive berthing instructions on arrival should wait in the vicinity and South of Chauveau Buoy, keeping watch on VHF Channel 16.
ANCHORAGES: Vessels which do not receive berthing instructions on arrival should wait at anchor in the vicinity and 0.5–1.0 miles South of Chauveau Buoy. Keeping watch on VHF Channel 16.
Tanker Anchorage: Lat. 46° 05′ N., Long. 01° 15′ W.
RESTRICTIONS: Tankers usually berth at HW on the East side and either at HW or LW on the West side, providing their draft allows it.

Sailing possible at any time.

Vessels in excess of 140 m. length can enter Inner Basin only from 2 hours before to 1 hour after HW.
Lock: 165 m.×21.3 m.×4.0 m. (sill).
MAX. SIZE:

Location	*Max. LOA* (m.)	*Max. draft (dependent on tide)* (m.)	*Max. d.w.t.*
Basin	165	7.0 – 9.0	16,000
Fore Port			
(Quai Lombard)	165	8.5 – 10.0	20,000
Berth AP 02 Berth AP 01	200	8.5 – 10.0	40,000
Chef de Baie			
Berth CB 01	210	12.0 – 13.0	55,000
Mole d'Escale			
Berths ME 01 – ME 03	210	9.5 – 12.0	25,000 – 40,000
Berths ME 06 – ME 05	280	11.0 – 14.5	35,000 – 100,000
Repair Quay (ME 07)	180	6.5 – 8.0	—
Tanker Berths			
West Berth (AP WE)	280	14.5 – 16.0	100,000
East Berth (AP SE)	175	11.0 – 12.5	25,000

HEALTH: Pratique given by Customs Officers who board on arrival. In case suspected disease on board, radio Agent in advance advising details.
RADIO: Bordeaux-Arcachon Radio. Also see "Pilotage".
VHF: La Pallice Port on Channels 16 or 12. Bordeaux-Arcachon Radio on Channels 21 and 26.
TUGS: Join vessels either in outer roads or inner roads of La Pallice. Normally tugs' lines are used.

3 tugs are permanently based at La Pallice, 1×1,250 h.p. (13 tons), 1×1,500 h.p. (22 tons) and 1×2,700 h.p. (30 tons).

Port Regulations prescribe the number of tugs to be used depending on tanker's deadweight:
Outer Port:

Berthing			*Sailing*	
Without bow-thruster	*With bow-thruster*	*d.w.t.*	*Without bow-thruster*	*With bow-thruster*
1 (12 tons)	none	5,000–10,000	none	none
2 (30 tons)	1 (20 tons)	10,000–25,000	1 (20 tons)	1 (20 tons)
2 (40 tons)	1 (30 tons)	25,000–40,000	1 (30 tons)	1 (30 tons)
3 (60 tons)	2 (50 tons)	over 40,000	2 (50 tons)	2 (50 tons)

Inner Port:

Tankers over 5,000 d.w.t. require 1 tug (12 tons) for berthing and sailing.
BERTHING:

Location	*Berth No.*	*Length* (m.)	*Bottom Width* (m.)	*Average Depth* (m.)	*Remarks*
Basin	BF 01-BF 04 BF 09-BF 11	565 500	Usable Width of lock 21.3 m.	7. 0 m. (8.0 m. with Raft.)	1 Ro/Ro Ramp 18 m. Width
	BF 13-BF 17	2×190		7.0	Submarine Base
Fore Port	AP 02	160	22	7.5	Cereals, 1 × 400 t.p.h. 1 × 1,000 t.p.h. Loading Gantries Bulk Liquids
Quai Lombard	AP 01	200	27	8.5	
	AP 00	300	35	12.5	New extension
Chef de Baie	CB 01	250	40	12.5	
Mole D'Escale	ME 01-ME 03	540	45	10.0 – 11.50	
	ME 06-ME 05	380	45	11.0 – 12.0	1×400 t.p.h. Cereal Loading Gantry
Repair Quay	ME 07	215	30	6.0	
Tanker Berth					
West Berth	AP WE	360	40	14.5	
East Berth	AP ES	180	30	11.0	

CRANES: *Basin:* North Quay: 2×5 tons at 18 m., 3×10 tons at 15.5 m., 1 × 12 tons at 16.5 m.
South Quay: 6×6 tons at 18 m., 1×3 tons at 18 m.
Dry Dock: 1 Titan crane×20 tons at 25 m.
Fore Port: Chef de Baie: 3×33.5 tons at 22 m.
Mole D'Escale: East Side: 5×12 tons at 16.5 m., 1×5 tons at 14.5 m.
West Side: 3×15 tons at 31 m., 2×33.5 tons at 20 m., 1×10 tons at 15 m.

STEVEDORES: Normal working hours for stevedoring are: 0800 – 1200 hrs. and 1400 – 1800 hrs. 2 hours overtime may be worked from 1800 – 2000 hrs. When a quick despatch must be given to a vessel, an 8-hour shift can be arranged, from 0500 – 1300 hrs. and 1400 – 2200 hrs. during the week, and 0500 – 1300 hrs. on Sundays and holidays.

MEDICAL: All facilities available. Advance notice should be given if assistance required on arrival.

TANKERS: Only refined products are discharged at La Pallice. Four installations can receive cargo at both berths (West or East). Petroles de l'Ouest, Total and Raffinerie du Midi use the same pipe-line of 16 in. with a metal arm of 10 in. on each side. The Picoty installation has its own pipe-line of 12 in. with a metal arm of 12 in. on West side and one of 10 in. on East side.

All shore tanks are 3 km. to 4 km. from oil jetty.

Also see "Berthing" and "Max. Size".

FRESH WATER: Available from all wharves. Loading rate 15 t.p.h. No barges available.

FUEL: Supplied by tank trucks only. Diesel oil available locally. Light fuel oils available with sufficient notice. Tankers must stop pumping during bunkering.

FIRE PRECAUTIONS: Smoking is prohibited on the oil jetty. Entrance to the oil jetty is controlled by watchmen.

OPENING/CLOSING HATCHES: Performed by ship's crew.

GANGWAY/DECK WATCHMEN: Available from shore if required. *Tankers:* An automatically–moving shore gangway is available providing that the ship's deck has a sufficient clear surface.

CUSTOMS ALLOWANCES: 200 cigarettes and bottle wine/spirits per man.

IDENTIFICATION CARDS: Crewmen going ashore should carry passports or identity cards.

CONSULS:

Denmark	Tel: 46.41.10.66	Norway	Tel: 46.67.63.47
Finland	Tel: 46.44.15.17	Panama	Tel: 46.42.13.44
Greece	Tel: 46.42.13.44	Peru	Tel: 46.42.13.44
Italy	Tel: 46.41.35.94	Spain	Tel: 46.41.17.25
Netherlands	Tel: 46.42.61.94	Sweden	Tel: 46.42.13.44

REPAIRS: All kinds of deck, hull and engine repairs can be carried out by S.T.I.M.A.

Vessels not exceeding 21 m. beam may be repaired in the inner basin. Larger vessels are repaired at berths outside the inner basin.

DRY DOCKS: 2 dry docks in Inner Basin: 176 m.×22 m. and 107 m.×14 m.

REPATRIATION: Can be arranged without difficulty.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer. (April–September).

HOLIDAYS: New Year (1st January), no labour available; Easter Sunday, possibility of labour with overtime; Easter Monday, no labour available; Labour Day (1st May), no labour available; Ascension Day, possibility of labour with overtime; Whit Sunday, possibility of labour with overtime; Whit Monday, no labour available; National Day (14th July), no labour available; Assumption Day (15th August), no labour available; All Saints' Day (1st November), no labour available; Armistice Day (11th November), possibility of labour with overtime; Christmas Day (25th December), no labour available.

N.B. Every Sunday and day marked "possibility of labour with overtime" can be worked at the rate of 100% extra.

POLICE/AMBULANCE/FIRE: Police Secours 17; Commisariat Central 46.41.92.44; Ambulance 18; Fire Service 18.

TELEPHONES: Telephones are available at all berths at the mole.

SHORE LEAVE: Allowed, no restrictions.

GENERAL: Old harbour at La Rochelle is used only by fishing vessels and pleasure craft.

DEVELOPMENTS: Cereals quay to be lengthened and facilities to be upgraded. Vessels up to 100,000 d.w.t. will be able to be accommodated by late 1988.

AUTHORITY: Capitainerie des Ports de La Rochelle, Terre-Plein de l'Ecluse, B.P. 2042, La Pallice, 17009 La Rochelle Cedex, France. *Tel:* 46.42.60.12. *Telex:* Capipor 791780 F. *Contact:* J. Le Quilliec, Commandant du Port.

D.D.E., Service Maritime, 5 Rue de la Cloche, 17000 La Rochelle. *Tel:* 46.41.92.33. *Telex:* 790766.

LE CHATEAU d'OLERON: 45.53 N. 01.11 W.

Very small fishing port on Ile d'Oleron. Entrance to port is 9 m. wide.

BERTHING: Tidal harbour with 350 m. of quayage. Depths alongside from 4.9 m. HW to zero at LW.

CRANES: One 2.5 ton crane available.

REPAIRS: Minor repairs only.

AUTHORITY: Monsieur Le Maire de la Commune du Chateau d'Oleron, 17480 Oleron.

AGENT: M. Le Boutillier, 106, Bd. Emile Delmas, P.O.Box 2038. 17009 La Rochelle Cedex. Tel: 46.421344. Telex: 790742 ("Ships 790742 F"). Cables: "Daylight – La Rochelle".

LE HAVRE (Including Antifer): 49.30 N. 00.07 W.

(See Plan)

DOCUMENTS: At arrival in-bound bill tendered by Pilot to be filled up and signed by Master specifying ship's data and dangerous cargo on board. After berthing: The Master must also complete the inwards declaration as soon as the Pilot comes onboard. Any abnormality must be reported to the Harbour Master (VHF Channel 12).

For Customs Officers
1 Crew List.
1 Crew Declaration List (personal effects, camera, radio set, cigarettes, cigars, tobacco, etc.).
1 Ship's Store List.
1 Passengers' Manifest (disembarking).
1 Passengers' Manifest (in transit).

For Health Officers
1 Crew List.
1 Health Declaration.
Derat Certificate.
1 Passengers' Manifest (disembarking).
1 Passengers' Manifest (in transit).
Individual International Certificates of Vaccination.

For Customs Broker
1 Crew List.
1 Crew Declaration List (personal effects, camera, radio set, cigarettes, cigars, tobacco, etc.).
1 Ship's Store List.
1 Certificate of open space occupied by cargo.
1 Passengers' Manifest (disembarking).
1 Baggage Manifest (unaccompanied).
Tonnage Certificate.

For Agents
1 Crew List.
2 Passengers' Manifests (disembarking).
2 Passengers' Manifests (in transit).
2 Baggage Manifests (accompanied).
2 Baggage Manifests (unaccompanied).
2 Dangerous Cargo Manifests and usual cargo documents.

For Immigration Office
1 Crew List.
1 Passengers' Manifest (disembarking).
1 Passengers' Manifest (in transit).

PILOTAGE: ETA to be sent to Harbour Master (see "Radio"). Advisable then to confirm directly to "Havreport" between 24 and 12 hours before arrival (see "Radio"). Pilot boats have orange hull with "Pilote Havre" in black letters on both sides, green flag with white anchor on fore-mast. Located off Le Havre channel entrance East of the intermediate landfall buoy (HP). Pilot boat on continuous service, a helicopter is also available.

Vessels may anchor near LHA Buoy, South of entry alignment in good weather and further off in bad weather.

Light or sound signal to be made by vessels requiring a Pilot, letter "G" in morse code.

Pilots also board by twin-screw helicopters. This method is most frequently used to bring the Pilot(s) to large tankers (only during the day), and Pilots are landed either by the craft landing on the deck or being winched down if the vessel has no landing area.

Pilots on VHF Channels 16, 12 and 20. Tel: 35.42.28.32.

Shipmaster's Report: June 1988.

Master, after having sent his ETA by telex or cable, has to contact Le Havre Port by VHF at least 4 hours before arrival and confirm his ETA.

Usually 3 hours before arrival is accepted, but, when coming from the North, it is very difficult or impossible due to distance to have contact by VHF with Le Havre Port. In good weather conditions, Master will be able to contact Le Havre 1 hour to 2 hours before pilot station.

To avoid difficulties with Le Havre Port and Pilot, Master can send a cable through Boulogne Radio giving and confirming his ETA. This cable is free of charge.

ANCHORAGES: Anchoring forbidden in the channel between both parallels 100 m. South and North of channel and in a zone 1 nautical mile long and 500 m. wide in prolongation of channel.

RESTRICTIONS: Depth in main channel 15.5 m. LW. Depth in tidal basin 14.5 m. LW.

Main lock entrance to enclosed basins, length 400 m. width 67 m., depth 14.5 m.

Vessels berthing in tidal docks (Bassin Theophile Ducrocq) dependent on tide if draft in excess of 10 m.

Quinette de Rochemont Lock open from 2 hours 20 minutes before high tide until 40 minutes after. During this period vessels of max. length 210 m. and max. breadth 26 m. may pass through. Otherwise max. length authorised is reduced to 180 m. In some circumstances some locks are completely closed around low tide.

CIM Berth No. 10 may receive tankers up to 280,000 d.w.t. with draft varying between 19 m. and 20.7 m. depending upon tide. Such vessels enter only by daylight and must arrive at Le Havre Buoy at least 3 hours before HW.

MAX. SIZE: Tankers: length 392 m., draft (approx.) 20 m. subject tide.

Berths of Compagnie Industrielle Maritime (C.I.M.): Max. draft recorded 20.73 m. Another vessel with following dimensions has also berthed – length 391.83 m., beam 68.05 m., 423,699 d.w.t.

Antifer (East and West Berths): Max. dimensions recorded: Length 414 m., beam 79 m., 555,051 d.w.t., draft 28.85 m.

Bulk Carriers: 149,949 d.w.t. (coal). draft 17.16 m.

HEALTH: Free Pratique automatic for vessels coming direct from Continent or Italy and "Q" flag not to be flown. From other countries including Spain and Portugal usual applies. Free Pratique may be obtained by radio message to Sanipor Le Havre specifying name of vessel – where coming from – total number of Crew members, number of Crew members vaccinated (yellow fever, cholera).

Tankers: For tankers it is advisable to ask Free Pratique by radio in order start operation as soon as vessel berths.

RADIO: Masters of ships are requested to send to Le Havre Harbour Master their expected time of arrival at Le Havre Light Buoy and maximum draft.

The message will be sent through radio stations of: Boulogne-Radio/FFB (working frequencies 1771 kHz and 2747 kHz) or Brest le-Conquet Radio/FFU (1806/2726 kHz). 24 hours before arrival and confirmed 3 hours before arrival

It will give the date and time GMT of ETA, and the maximum draft. It will be sent about 12 hours before arrival and corrected by another message if necessary. This service is free. Same stations of Boulogne and Brest to be used to contact Agent and in addition Saint Lys/FFL. This ETA must be confirmed to Le Havre Port by VHF, 3 hours before arrival in the roads.

Port Operations Radio Service: The "Havreportradio" station keeps a permanent watch on the following frequencies: 156.6 MHz (Channel 12); 156.8 MHz (Channel 16); 157.0-161.6 MHz (Channel 20 duplex). This station sends and receives all messages for the port operations control.

Ships call "Havreportradio" directly on Channels 12 or 20. Ships mooring, leaving or moored on roads *must keep watch on Channel 16.*

Ships with Pilot on board must keep watch on Channels 12 or 20 from Pilot on board until arrival at berth, and from departure of berth until disembarking Pilot. Havreportradio/FFY keeps watch on 2182 kHz. This frequency will be used only in a radius of 22 miles from Havre Light Buoy and only when it is not possible to use VHF.

Public Correspondence Service: Ships fitted with VHF sets can obtain telephone calls through the Le Havre Radio Station.

Telephone calls are admitted with ships on berth.

Ships must call "Le Havre Radio" directly on Channels 23, 26, 28 and 82. "Le Havre Radio" calls ships on Channel 16.

BERTHING: Agents generally inform Master by radio of berthing prospects, arrival time limits and any special requirements.

Dock	*Quay*	*Facilities*	*Length* (m.)	*Sea* level chart* (m.)
Bassin de la Manche	Terminal d'Angleterre	1 crane 3-6 tons	dolphins	−5.00
	Roger Meunier	3 cranes 5-10 tons 3 cranes 6-10 tons	500	−8.50
Theophile Ducrocq	Pierre Callet	6 cranes 6-10 tons 2 cranes 6-16 tons 1 crane 70 tons	598	−10.00
	Joannes Couvert	5 cranes 5-10 tons 1 crane 20 tons	720	−10.00
	Mazeline	2 cranes 5-10 tons	428	−10.00
	Terminal d'Irlande		dolphins	−8.0
	Mole Central 3		120	−10.00
	Mole Central 4	4, 15 ton gantry cranes Coal+minerals	194	−12.00
	Mole Central 6	Coal 2 cranes 30 tons	240	−16.00
	Methane		30	−10.00
	C.I.M.1		84	−10.00
	C.I.M.2		84	−10.00
	C.I.M.3		85	−10.00
	C.I.M.4		83	−10.00
	C.I.M.5		152	−10.00
	C.I.M.6		120	−12.00
	C.I.M.7		120	−12.00
	C.I.M.8		75	−17.00
	C.I.M.10		56	−21.00
Bassin Rene Coty	Atlantique	4 gantry cranes 40 tons	800	−12.00
Bellot	Hermann du Pasquier	Grains (theoretical output) 2 gantry cranes for loading cereals in bags 150 t.p.h. 3 gantry cranes import export 280 t.p.h. 1 gantry crane import 300 t.p.h. 4 cranes 3 tons 4 cranes 10 tons	1,485	−4.00
	Jean	4 cranes 3 tons 4 cranes 10 tons	486	−2.70
	Reinhart	General cargo; wood; fruit (capacity 20,000 tons)		
	Tonkin	Ro-Ro	90	−1.50
	Colombie	Ro-Ro	80	−1.00
	Bresil	2 cranes 10 tons	525	−2.00
Eure	Cameroun		224	−1.00
	Marseille		135	−0.00
	Malakoff	Bulk liquid – non oil	140	−0.00
	Guinee	2 cranes 6 tons	317	−1.35
Dixieme Bassin	Rochambeau		237	−0.50
Citadelle	Norvege		360	+1.00
Bassin	Antilles		555	−0.75
Dock	Reunion		555	−0.75
Vetillart	Gironde	6 cranes 6 tons	931	+0.5 to 1.2
	Garonne	2 cranes 10 tons	845	−1.0
Marcel Despujols	Rhin	5 cranes 6 tons	628	−1.90
	Moselle	2 cranes 6 tons; minerals	330	−2.00
Lancement	Sepp	Refined oil	103	+3.00
Canal Tancarville	Orcher	Refined oil	85	+2.00
	HOC CFR		125 on dolphins	+1.00
	HOC UGM		85 on dolphins	+2.00
Canal Bossiere	Europe	5 gantry cranes 40 tons	250 910	−2.00 −6.00
	Appontement Jonction I	Refined oil	9	−1.00
	Appontement Jonction II	Refined oil	14	−2.00
	Jonction III	Refined oil	15	−6.00
Grand Canal de Havre	S.N.A.	Bulk fertilisers	140	−3.00
	Sogestral 1	Chemical	10	−5.00
	Sogestral 3	Products		−0.50
	Sogestral 5	Chemical products		−0.90
	Petrochimie	Chemical products	40	−4.00
	Lafarge	Cement	95	−3.80
	Multivrac	Ore and coal	250	−7.60
	Bulk Centre	1 gantry crane 30 tons output 1,200 t.p.h.		
	Roll-on/Roll-off	Ro/Ro 1 dolphin		−3.50
		" 2 dolphins		−4.00
		" 3	238	−3.30
	Cofaz 1	Fertiliser	250	−5.00
	Cofaz 2	Liquids	15	−3.50
Darse de L'Ocean	Bougainville	5 gantry cranes 40 tons 5 cranes 10 tons	1,625	−6.50

*Access Conditions:

Mean level 4.57 m.

Unit of Height 3.45 m.

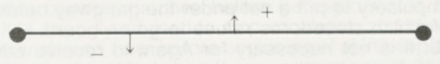
Width of the Outer Channel 300 m.

Depth of the Outer Channel under Chart Datum 15.5 m. on the shipping route.

Inner Channels and Swinging Areas, depths under Chart Datum 15 m.

Level Reading: The levels quoted represent those of the bottom or of a piece of work in comparison with the zero on marine charts.

The zero of the charts is the reference point defined by the level of the lowest possible sea.



Contrary to marine customs signs (+) correspond to a height above zero. Signs (−) correspond to a height below zero.

A quarterly timetable gives for each tide the maximum admissible draft for large ships calling at the port.

Calculation is Based on the Following Principle: The vessel must keep a keel clearance equal to 10% of the admissible draft.

As a guidance, in Spring Mean Tide:

Example:

Coefficient	95
High Water	7.7 m.
Depth of the Outer Channel under Chart Datum	15.5 m.
Depth of the Inner Channel under Chart Datum	15.0 m.
Water depth	22.7 m.
Maximum admitted draft	20.65 m.

RADAR/VHF: Radar assistance may be obtained by calling Le-Havre-Radar on Channel 16 (156.80 MHz). Then working frequencies are Channels 14 and 22. Radar coverage is from 20 km. to the West of the Light-Buoy and 40 km. to the West of Antifer.

Le Havre Port on Channels 16, 12 and 20. Antifer Port on Channels 16 and 22.

Also see "Radio".

TUGS: 12 tugs available, from 1,000 to 4,800 h.p. Normally join vessel inside the jetties in outer harbour. Ship's lines or tug's lines used at ship's option. Extra charge for use of tug's line. 2 tugs are equipped for fire fighting.

BULK HANDLING FACILITIES: *Minerals:* 9 berths with cranes, outreach 15 m. – 37 m. Able to accept vessels up to 300 m. LOA and 150,000 d.w.t. Depths up to 16.0 m. Discharge rates up to 2,400 t.p.h.

Grain: Quai Hermann du Pasquier for ships up to 28,000 d.w.t. Grains (theoretical output) 2 gantry cranes for loading cereals in bags 150 t.p.h., 3 gantry cranes import/export 280 t.p.h., 1 gantry crane import 300 t.p.h. Max. LOA 210 m., max. draft 8.83 m. – 10.65 m.

Quai Joannes-Couvert: For ships up to 60,000 d.w.t., 2 elevators (grains – export gantries) theoretical output 600 t.p.h. Max. draft 11.7 m. – 14.2 m.

Quai des Arachides: For ships up to 6,000 d.w.t. Max. LOA 130 m. Max. draft 7.3 m.

Fruit: 7 berths available (2 banana berths). Depths up to 6.30 m. Max. LOA 300 m.

Containers: Quai de l'Atlantique: Length 800 m., 3 berths for large vessels. Depth −12 m.

4 gantry cranes of 40 ton capacity with 35 m. extension, at quay's edge. 2 French Railway's gantries for handling on to wagons. 1×7,000 sq.m. shed under construction near to terminal for container groupage and breaking bulk. 16 hectares open air areas. Extensive parking facilities. LASH facilities also available.

Quai de l'Europe: Length 1,160 m. 4 berths for large vessels, 3 of which are equipped to handle Roll-on/Roll-off traffic.

5 gantry cranes of 40 tons with 40 m. extension, at quay's edge. 1 shed 10,108 sq. m., 1 shed of 7,023 sq. m., already used for groupage and break-bulk of containers and 1 shed of 10,000 sq.m. under construction.

2 S.N.C.F. gantry cranes for loading and unloading of wagons. 45 hectares of open air areas. Extensive parking facilities.

Quai de Bougainville: Actual length 1,625 m. Equipped with 5 gantries for containers of 40 tons and 5 cranes 6 – 10 tons.

Roll-on/Roll-off: Four berthing places in the tidal basin, five berths in the wet dock, eight berthing places in the non-tidal docks.

Liquid Chemicals: At the berths of "Societe Normandie de L'Azote", "Sogestrol", and "Petrochimie" along the Grand Canal du Havre. 7 berths available, depths 0.5 m. – 5.0 m. For vessels of 80 m. – 240 m. LOA and 7,000 – 45,000 d.w.t.

LPG: 4 berths available, depths up to 9.0 m. For vessels up to 75,000 cu.m. and LOA of 240 m.

LNG: 1 berth. Depth 10 m. for vessels 70,000 cu.m. and LOA of 240 m.

CRANES: Also see "Berthing".

71 wharf cranes of 2.5 tons – 10 tons.

3 floating cranes 8, 90, 200 tons.

24 electric gantry cranes 6 tons – 40 tons.

1 land sheer legs 650 tons.

4 grain elevators 280 t.p.h. – 300 t.p.h.

2 gantry cranes for loading cereals in bags 150 t.p.h.

BRIDGES: No special restrictions. Opened upon request. Master will be informed as above in case any bridge stopped for repairs.

STEVEDORES: 2 Normal shifts (0700 – 1400 hrs. and 1500-2100 hrs., possibility of 2 hours overtime) every week-day including Saturday. Night shift on overtime 2100-0600 hrs. For fruits and reefer cargo and passenger ships possible working 2 hours overtime before morning shift to start at 0600 hrs. subject ordering gang the previous day at 0600 hrs., with 23 hours notice to stevedores. Night gang ordered the same day at 1400 hrs. with 9 hours notice to stevedores (same consequently involves 36 hours and 12 hours notice to Agents for morning and night overtime respectively).

Vessels completing loading/discharging may order 2 hours overtime from 1400 to 1600 hrs., after morning shift or only 1 hour overtime from 2300 to 2400 hrs., after afternoon shift. No possibility of dividing the shift of 8 hours. Consequently time lost between completion of work and end of shift is charged to the vessel at the cost of about Frs. 560.00 per hour (depending upon type of cargo).

No work possible on Sunday and legal holidays nor during night between Sunday or holiday and next working day. Necessary to give Agent soonest possible accurate ETA and hatch partition in order to enable his arranging work at the best, keeping in mind that shift cannot be split.

Work done with shore crane. Ship's derricks used only exceptionally. No hatch tents available from shore.

It is compulsory to put a net under the gangway before starting work, for lack of which stevedores refuse to go on board.

MEDICAL: It is not necessary for Agent to receive advance notice of required medical attention except when Master requests a doctor on board. The Master must after berthing inform Agent of number of patients and nature of disease, name of patient, rank, in order Agent may arrange corresponding appointment with doctors, dentists, specialists, etc. Hospital facilities available provided admission ordered by local doctor.

Inoculation. Yellow fever – effected only at the hospital once per week on Thursdays 1400 to 1500 hrs. Other inoculations may be effected by local doctors (with appointment).

TANKERS: Diameter of connections at different berths of C.I.M.: No. 3, 4 and 5, 10 in.; 6 and 7, 12 in.; 8 and 10, 16 in.

9 additional berths available for refined products. Max. LOA 270 m. (50,000 tons), depth 6.0 m.

Tankers calling first time at Le Havre recommended to inform Agents of position of manifold connection. Slop reception facilities available up to 1,000 t.p.h.

Berth	*Max LOA* (m.)	*Level* (m.)	*Pumping rate* t.p.h.	*Max* d.w.t.
C.I.M. 1	175	−10.00	900 (petrol)	22,000
C.I.M. 2	198	−10.00	1000 (petrol)	22,000
C.I.M. 3	242	−10.00	2000 (crude)	50,000
C.I.M. 4	200	−10.00	4000 (crude)	30,000
C.I.M. 5	230	−10.00	4000 (crude)	40,000
C.I.M. 6	260	−12.00	5000 (crude)	90,000
C.I.M. 7	278	−12.00	7000 (crude)	100,000
C.I.M. 8	320	−17.00	10/15,000 (crude)	230,000
C.I.M. 10	350	−21.00	15/20,000 (crude)	250,000
Antifer W	500	−29.80	15/20,000 (crude)	550,000
Antifer E	500	−29.80	15/20,000 (crude)	550,000
Mazeline 1	350	−10.00	800 (gas-oil fuel)	
M.C. 3	220	−10.00	1000 (gas-oil fuel)	45,000

Berth	*Admissible Length* (m.)	*Level** (m.)	*Remarks*
Canal de Tancarville Orcher			
Berth for loading	100	+2.0	Refined products
Waiting Berth	100	+2.0	Refined products
4 Berths for barges	80	+3.5	Refined products
Appt. Saint-Denis 1	85	+2.5	Refined products
Appt. Saint-Denis 2	60	+2.5	Berth for self-propelling barges
Waiting Berth in Garage de Tancarville	80	+3.5	Bunkering only
Canal Bossiere			
Jonction 1	80	−1.0	Accessible to 4,000 d.w.t. tankers
Jonction 2	150	−2.00	Accessible to 12,000 d.w.t. tankers
Jonction 3	270	−6.00	Accessible to 50,000 d.w.t. tankers

*Level: For explanation see "Berthing".

Report: *Port Approaches:* After having rounded the Barfleur Cape, at least 7 miles off the French coast for tankers carrying dangerous cargoes, vessels approaching Le Havre have to take care of the heavy traffic coming from this port or from the River Seine.

In Port: As the approach channel is tidal, attention must be paid to cross currents when transitting and especially outside the breakwater entrance (250 m. wide) where the setting effects can be very important. Drift allowance to counteract the current will vary from about 5° on Neap tides with no wind to 20° on Spring tides with strong cross winds. Inside the harbour there is practically no current from 2 hours before HW time up to 1 hour after. No vessel is permitted to anchor in any part of the port except in an emergency or for docking purposes.

Berthing: The Avant port is entered between two breakwaters about 860 ft. apart, and tankers bound for the CIM Berths proceed through a second set of breakwaters into the tidal basin Theophile Ducrocq, where those bound for CIM Berth Nos. 6, 7, 8 and for SHMPP Berth MCT 3 are swung, assisted by tugs, in the first turning basin, and those for CIM Berth 10 in second turning basin.

It is a difficult manoeuvre, particularly for VLCCs' to slow the vessel down and connect tugs within the time and space available from passing the breakwaters till the turning basin is reached. It is, therefore, important that engine response is prompt and that personnel and equipment are ready to connect up the tugs.

General: The CIM Berths are located on the South side of the tidal basin. Berth Nos. 1 to 7 are aligned at a 45° angle and the VLCC Berth Nos. 8 and 10 are parallel to the basin.

On the North side of the tidal basin, facing the CIM Berth No. 8, is the SHMPP Berth MCT 3, on the South side of the Mole Central. Two other SHMPP Berths, Junction 2 and 3 are located in the Constant Level Dock, facing the new Lock Francois Ier, which is at the Eastern extremity of the tidal basin.

Water density in the port averages 1024 – 1026.

Tugs:

Vessel (k.d.w.t.)	Up to 40	50/60	70/80	90/120	190/250
	Number usually used				
Berthing	2	3	3/4	4	6
Unberthing	2	2	2	3	3/4

6 tugs are recommended for mooring VLCCs. If possible, the 3 more powerful tugs available are used.

2 tugs are made fast on the hook forward and aft and 2 others are secured alongside. On ships bound for CIM Berth Nos. 6, 7, 8 and for SHMPP Berth MCT 3, which will swing in the first swinging area, it is very important to expedite the making fast of tugs, and only good heaving lines and messengers should be used.

Especially for VLCCs, it is recommended to use tug lines putting eye over bitt.

Berthing Procedure:

(a) CIM Berth Nos. 1, 2, 3, 4 and 5: Tankers bound for these berths are, after having made tugs fast, moved directly into berth, mooring head in. Starboard side alongside Berth Nos. 1, 3 and 5; and port side alongside Berth Nos. 2 and 4.

(b) CIM Berth Nos. 6, 7, 8 and SHMPP Berth MCT 3: Tankers bound for these berths are swung in the first turning basin and towed stern first into the berth mooring head out with starboard side alongside Berth No. 7 and SHMPP Berth MCT 3, and port side alongside Berth Nos. 6 and 8.

(c) CIM Berth No. 10: A tanker bound for this berth is, assisted by tugs, swung in the second turning basin just upstream of the berth, then moved into position parallel to the berth about 100 m. off and pushed alongside by the tugs, mooring with port side alongside.

Exceptionally, when 2 VLCC's have to be berthed during the same HW tide, they can be berthed at CIM No. 8 and 10 starboard side to, this saving 30 – 40 minutes corresponding to the swing.

(d) SHMPP Berths JON 2 and 3: Tugs (usually 1 forward and 1 aft) are made fast while vessels are proceeding through the tidal basins.

Locking time is about 45 minutes, port side or side under the wind alongside, with 1 head line and 1 spring line forward and aft. After leaving the lock, vessels are berthed port side alongside at Jonction 3 and starboard side alongside at Jonction 2.

Also see "Report" dated June 1982.

Antifer:

The Port of Le Havre – Antifer, attached to the Port of Le Havre which covers it administratively, is a port on the coast located 4 km. South of Cape Antifer, at Saint-Jouin-Bruneval.

It is an oil terminal, designed to accommodate vessels of 550,000 d.w.t. and of 28.5 m. draft (Also see "Max. Size").

The port comprises: A breakwater 3,500 m. long protecting the port in its Northern area and starting at Groin Point, 3 km. South of Cape Antifer. A manoeuvring zone. A dry-land area of 35 hectares at the foot of the cliffs intended for hydrocarbon storage and for port operation installations. A 8 hectare service port. A mooring installation with 2 positions for tankers. The oil discharged into storage tanks is pumped away to installations in Le Havre port, by means of a pipe-line of 42 in. dia. and 25 km. long.

Tides and Currents: At Antifer, the influence of the Seine estuary is much less than at Le Havre. The tidal curve is of the sinusoid type, without, however, being perfectly symmetrical. Slack water only lasts a short while (about 20 minutes). With winds from the North to East, there is a drop of about 0.25 m. to 0.50 m. increasing with the amplitude of the swell.

With winds from the South to N.W., passing through a Westerly point, there is either a slight drop (0.15 m.) or a rise corresponding to the extent of swell and sometimes reaching 0.75 m.

Tidal currents are alternating in their direction and generally parallel to the coastline. With Spring tides they reach a speed of 3 knots.

The breakwater protects the port from the action of ebb currents.

A Waiting Area which has the approach route on its Southern edge. It has the form of a trapezium 2 miles in length. The Western commencement of the large base of this area is marked by buoy "A3". It incorporates 2 anchoring areas: the N.W. area for vessels of more than 25 m. draft, and the S.E. area for vessels of less than 25 m. draft. The 2 areas are separated by buoy "A5".

A Connecting Area trapezoidal in shape and 2.5 miles in length, connecting the approach route to the approach channel.

An Approach Channel, 1,000 m. wide, marked on its Northern edge by buoys "A8", "A12", "A14", "A16", "A18", and on its Southern edge by buoys "A7", "A9", "A17". This channel is orientated in the same direction as the approach route on a bearing of 118.5°. Buoys "A7", "A8" and "A9" form at the entry of the channel a triangle easily identifiable by radar.

An Access Channel 3.5 miles long, 700 and then 550 m. wide and on a bearing of 127.5°. It is marked by 4 pairs of buoys: "A19/A20", "A21/A22", "A23/A24", "A25/A26". Its depth is 25 m.

A Separation Area adjacent to and to the South of the access channel, allowing vessels on entering to make a half-turn to come out of the channel and then come if necessary to the waiting area. The centre of this area is marked by buoy "DA".

A Swinging Area sheltered by the main breakwater, marked to the South by buoy "A27", and to the East by buoy "A29". This area is dredged to a depth of 24.70 m.

The conditions of current (direction and force) and the height of the tide determine, in terms of the drafts of vessels, the periods during which the port may be entered, and which are somewhere between full and low tides.

Vessels must, therefore, on leaving the separation area, follow entry instructions given to Masters by the Pilots, with the agreement of the Port Captaincy of Havre-Antifer.

Pilotage: The Pilot is taken onboard in the waiting area in the disengagement area by means of a pilot boat, a launch or the helicopter allocated to the Le Havre pilotage service.

Port: To the North of the swinging area, is the mooring area dredged to 26 m. allowing access to 2 alongside berths which have depths of water of 29.80 m.

The service port is reserved for the mooring of tugs, pilot boats, anti-pollution equipment (booms) and servicing equipment.

Arrival Advice: Masters of vessels destined for Antifer, as well as those whose vessels may enter either Le Havre or Antifer, must send to the Harbour Master of Le Havre a message stating the date and time GMT of their arrival at the Antifer landfall buoys or at the Le Havre lightship and stating the draft of their vessel.

This message must be sent via a coastal station at least 12 hours in advance and confirmed by a VHF message 3 hours prior to arrival at the landfall buoys of Antifer or at the lightship. In return, the vessel will receive from the Havre Port station all information and necessary instructions.

Radio: The Antifer Port Control (call sign Havre-Antifer) listens out permanently on the following frequencies:

156.8 MHz	(Channel 16)	VHF
157.10 – 161.7 MHz	(Channel 22)	

If Channel 22 is not available on board the vessel, Channel 14 (156.7 MHz) can be used after having first called up on Channel 16.

Radio communications are used for: Port operations (movements of vessels) and guiding vessels during times of fog.

Radar Assistance: During times of fog, radar assistance is supplied to vessels by the radar located on La Heve lighthouse (guidance provided by the Semaphore Lookout of Le Havre) as well as by the radar of the Oil Terminal (guiding provided by the Captaincy of Antifer from the Buoy "A–16"). Vessels requiring radar guidance must start by requesting it on the call-up frequency (Channel 16). Only after an affirmative reply can they switch in to the connections affected by radar, taking necessary precautions (listening out in advance) not to disturb a guiding process already taking place. Assistance is given in strict rotation of requests. Information is supplied free of charge in French and in no way renders the Port Authority responsible. Such information covers the following: route clear or not, vessels anchored or under way in the vicinity, successive positions in relation to the landfall buoys, possible position of the pilot vessel, then guidance in the channel as far as the swinging area and mooring area.

Syledis: A system of aid to navigation and to manoeuvring, covering the receipt on board the vessels of parameters covering in particular the position, the speed, is in the course of being tried out. It requires the Pilot bringing on board a small transmitter/receiver.

Aids to Manoeuvring: In order to facilitate swinging manoeuvres and mooring of large tankers, the Port of Antifer has 3 lights of different colours, the positions and characteristics of which are as follows:

Access guiding light (on the open storage area at the foot of the cliffs) – light with red, white, green sectors, regularly flashing (4 secs.) the red sector to the North the green to the South.

Guiding lights for coming alongside (on the breakwater).

West light (position 3) – light of red, white, green sectors, regularly flashing (4 secs.) – Red sector to the East, green to the West.

East light (position 2), light of red, white, green sectors, flashing twice (6 secs.), red sector to the West, green to the East.

Each quay berth is equipped with aids for mooring comprising luminated panels showing the distance to the berthing point of the bow and the stern of the vessel; the speed (in cm./sec.) of approach or pulling away of the bow and stern of the vessel in relation to the berthing point.

Fresh Water/Fuel: Supplied by pipe-lines on the berth (S.H.M.PP. depot).

Cranes: 2 cranes of 2.5 tons capacity on the berth (1 per position). Berth for heavy items in the service port – handling by mobile crane.

Floating Equipment: Pontoon for transporting heavy items.

Tugs: Stationed in the service port are 1 or 2 tugs of 4,000 h.p. Other tugs required for manoeuvring come from Le Havre.

Pollution: Barrages laid on pontoons in the service port can be very quickly placed into service.

General Information:

The Port Captaincy is situated on the open land area of the Service Port.

Tel: 35.21.74.00 Extension (92) 403 or (92) 404.

Pilot's office: At Le Havre Pilot's Office.

Customs: In the C.I.M. operational building (1st floor).

Towing: The Les Abeilles Company on the pontoon in the service port.

Police: In the C.I.M. operational building (1st floor).

C.I.M. Depot: 35.26.51.05.

S.H.M.PP. Depot: 35.24.11.77.

Communications: By buses from Saint Jouin. The airport of Le Havre – Octeville is 16 km. to the South of Antifer.

Control tower: Tel: 35.46.38.02.

Operating: Tel: 35.46.09.81.

DENSITY: In outer port and tidal docks: salt water. In inside docks brackish. Density depending upon season and amount of fresh water brought in by river Seine and Canal de Tancarville.

FRESH WATER: Most berths supplied by shore hydrants. Otherwise by barge minimum quantity invoiced then being 50 cu.m. Overtime charged in addition. Late cancellation of barge invoiced.

FUEL: All grades available, viscosities from 200 sec. to 3000 sec. Redwood. Minimum 48 hours advance notice required to prepare barges.

FIRE PRECAUTIONS: Dangerous cargo must be declared on "Inbound Bill" and in order not to delay vessel's entry it is highly recommended to inform Agent of quantity and exact nature of dangerous cargo on board 48 hours prior to arrival, thus enabling Agent to get in touch with Harbour Master and take necessary steps which may go from a single smoking prohibition up to a fire-picket on the quay during all the call.

Tankers: A "Notice to Master's of ships loading/unloading hydrocarbons" is handed to Master upon arrival. This notice specifies *inter alia:* repairs, ventilation/cleaning of tanks, handling of goods subject to Harbour Master's authorisation. All naked lights and fires prohibited, boiler furnaces and galley ranges excepted, such exception cancellable on simple order of Harbour Master or Depot Manager.

GANGWAY/DECK WATCHMEN: Compulsory, by ship's crew. Sworn watchmen in uniform and equipped with a VHF set may be obtained from the Port Authority per hour for day and night, working days and holidays. Some other companies may also supply watchmen (not sworn) at lower prices.

OPENING/CLOSING HATCHES: May be done by stevedores at the same price as shifting of cargo depending upon the type of cargo and consequent number of men included in the gang.

It is highly recommended to carry out opening by the crew before beginning of shift to avoid both loss of time and expensive charges and also risk of accident to stevedores who are sometimes not well aware of vessel's closing system.

It is emphasised that for reefer cargo stevedores wait for cold exhaust half an hour after opening hatches before getting down in the holds. Consequently it is strongly advised to stop ventilation and start opening hatches with crew about 1 hour before beginning of shift keeping in mind that for reefer cargo, the morning shift may commence at 0500 hrs.

CERTIFICATES:

Tonnage Certificate.

Safety Construction Certificate.

Loadline Certificate.

Safety Radio Certificate.

Safety Equipment Certificate.

Derat Certificate.

Cargo Gear Register.

(Fresh water analysis certificate may also be requested.)

CUSTOMS ALLOWANCES: 200 cigarettes or 200 grammes tobacco plus 1 bottle spirit (must be mentioned on Crew Declaration List). Crew members may obtain extra allowance but only after 5–6 days' call.

CARGO GEAR: Cargo handling usually carried out by means of shore cranes. Hatch-tents to be supplied by vessel.

CREW IDENTIFICATION CARDS: Not required. Recommended to have passport or seaman book to go ashore.

CONSULS: The following countries have representatives at Le Havre:

Argentina
Belgium
Brazil
Chile
Colombia
Costa Rica
Denmark
Dominica
Ecuador
Finland
Germany F.R.
Greece
Guatemala
Haiti
Honduras
Italy
Ivory Coast
Japan
Liberia
Madagascar
Mexico
Netherlands
Norway
Panama
Peru
Portugal
Salvador
South Africa
Spain
Sweden
Switzerland
United Kingdom
Uruguay
Venezuela

REPAIRS: 11 berths for vessels up to 350 m. Depths up to 10.0 m. 2 berths can accept vessels up to 550 m. LOA.

Societe Nouvelle des Ateliers et Chantiers du Havre (SNACH), 30 rue Jean-Jacques Rousseau, 76090 Le Havre. Tel: 35.26.81.77. Telex: 190 322 F.

Specialises in: Ship repairs (boilers, engineering, fitting out, electricity); Alterations and conversion; Jumboisation.

Compagnie Generale de Reparation (COGER), Route du Mole Central, P.O.Box 1359, 76065 Le Havre Cedex. Tel: 35.25.35.43. Telex: 190 964 F COGER.

Specialises in: Ship repairs (boilers, engineering, fitting out, electricity); Alterations and conversion; Jumboisation.

Siren – Route du Mole Central, B.P.1286, 76068 Le Havre Cedex. Tel: 35253543. Telex: 190964 F.

Also see "Dry docks".

DRY DOCKS:

Graving docks	*Overall length* (m.)	*Inside length at block level* (m.)	*Entrance width at block level* (m.)	*Depth above blocks* (m.)
International Ship Repair Centre				
Floating Dock	310.00	290.00	53.00	(9.70*)
Dry Dock VII	319.00	313.00	38.00	(−7.75)
Eure Dry Docks				
Dock IV	184.10	181.46	28.12	(−0.45)
Dock V	168.75	163.70	19.05	(−0.85)
Dock VI	131.00	127.33	14.20	(−0.00)

High tides vary from (+5.80) to (+8.30).

*Maximum draft.

New floating dock, capacity 220,000 tonnes. Lifting capacity 50,000 tons.

SURVEYORS:

Bureau Veritas, 71 bd. de Strasbourg, 76600 Le Havre. Tel: 35.22.69.23.

American Bureau of Shipping, 4 rue Andre Caplet, 76600 Le Havre. Tel: 35.42.39.83.

Det Norske Veritas, 19 quai George-V, 76600 Le Havre. Tel: 35.42.26.05.

Germanischer Lloyd, 110 rue Gustave Flaubert, 76600 Le Havre. Tel: 35.43.75.18.

Lloyd's Register of Shipping, 7 rue Pierre Brossolette, 76600 Le Havre. Tel: 35.42.42.15.

REPATRIATION: Except if airplane chartered by Owners, all crew have to pass through Paris.

AIRPORT: Le Havre Airport 7 km. from the centre of the town, with a runway of 1,800 m. × 40 m. may receive chartered planes up to 40 tons total weight (50 T. with special authorisation). Regular flights from and to Orly (Paris Airport) twice a day, holidays excepted.

TIME: GMT plus 1 hour from last Sunday in September to last Sunday in March and GMT plus 2 hours last Sunday in March to last Sunday in September.

POLICE/FIRE/AMBULANCE: Emergency (Fire) 18; Emergency (First Aid) and SAMU 15; Police 17 or 35.21.77.00.

TELEPHONE: Possible at most berths. Apply to ship's Agent prior to arrival.

HOLIDAYS: New Year's Day (January 1st); Easter Monday; Labour Day (May 1st); Victory Day (May 8th); Ascension Day; Whit Monday; National Holiday (July 14th); Assumption B.V. Mary (August 15th); All Saint's Day (November 1st); Armistice Day (November 11th); Christmas Day (December 25th). No work possible except for passenger ships and tankers the latter being loaded/discharged round the clock every day.

SHORE LEAVE: Authorised within port and town area. Foreign seamen wishing to go further and more especially to Paris must obtain police authorisation and consequent pass.

REGULATIONS: Vessels carrying dangerous cargo must when on roads or in the entrance channel, show the red flag by daylight or 1 red light by night-time. When leaving the port they must keep their Pilot up to the end of the channel.

Vessels arriving with hazardous cargoes must declare same to Port Control 48 hours prior to arrival.

General: When the Pilot comes on board, he hands to the Master a file containing:

A leaflet showing a map of the port, the position of the fire brigade points, call-up points in the event of fire, fire-fighting hydrants, a list of important telephone numbers, a list of VHF Channels monitored by the Captaincy.

One copy, with map, of the the Maritime Prefect's decrees covering the circulation of vessels in the roads and channel, and in particular oil tankers.

An entry declaration which the Master must complete and which enables a check to be made that the hazardous material transported has already been the subject of a prior declaration to the Captaincy.

On berthing, instructions are handed to vessels:

– either by the ship's Agent where conditioned goods are involved.

– or by the operator of the berth for bulk carriers (liquid or liquified hydrocarbons, chemical products).

Furthermore, for these vessels, a check-list in accordance with that recommended by the IMO must be completed and signed jointly by the vessel and the terminal, prior to commencement of commercial operations.

DEVELOPMENTS: 1×600 m. and 1×300 m. container berth with depth of 13.5 m. to be constructed downstream from Francois 1 Lock. Completion expected late 1989.

REPORT: June 1982 (Updated 1988).

Requirements When Vessels Call to Load/Discharge LPG at Norgal:

Further to difficulties encountered for some months now in receipt or despatch of vessels, we would like the associates of NORGAL (or their customers) to let us know by telex, as soon as possible and for each operation, information of a general, technical and administrative kind, *those sections which are an obligatory nature being preceded by the sign* (+).

1. *General Information:*
   - + Name of vessel and its ETA (expected date of arrival in the roads).
   - + Nature of the operation (import, export, transit under Customs control).
   - + Approximate quantity in tonnes and product and possibly the breakdown of capacity confirmed by a telex from the interested associate.
   - Name of consignee (if possible).
2. *Technical Information:*
   - + Temperature of product.
   - On board pressure.
   - Hourly pumping capacity.
   - Height of manifold in relation to water level.
   - Dimension and series of manifold flanges.
   - Laydays and possibly demurrage.

Receiving Possibilities at NORGAL

Propane:

a) If temperature = 42°C and max. pressure 30 mb. (with return of gas) : 1,000 tonnes per hour.

b) If temperature = −10°C and max. pressure 3 bars : 300 tonnes per hour.

c) If full pressure : 80 tonnes per hour.

Butane:

a) If temperature = 10°C and max. pressure 30 mb. (with return of gas) : 1,000 tonnes per hour.

b) If full pressure : 70 tonnes per hour.

Characteristics of vessels:

Maximum length : 240 m.
Total displacement : 67,000 tonnes.
Depth of water : 12.0 m (39 ft. 04 in.).

Quality if Product Admissible:

French commercial standards, for butane, the temperature must not be less than −8°C for a tv of 0 bar (effective).

3. *Administrative information (for Customs).*

a) *Imports:*

- + Product origin.
- + Price per tonne and currency of invoicing.
- + Kind of contract (f.o.b., c. and f., c.i.f.). If contract is f.o.b. state the amount of freight and insurance per tonne. If contract c. and f. state amount of insurance.
- + Invoice weight (at level acceptable to Customs).
- + Bank domiciliation (name of bank, number of pay office, number of domiciliation file) or the bank domiciliation file.

Note: The invoice and possibly the original of the Certificate of Origin justifying exemption form Customs duty (T2L, Certificate type "A", Certificate EUR1) must be sent to us *as quickly as possible* to be attached to the Customs entry or to put right this entry as quickly as possible.

b) *Exports:*

- + Consignee of the invoice and final destination.
- + Price per tonne and currency of invoicing.
- + Kind of contract (f.o.b., c. and f., c.i.f.). If contract is c. and f. or c.i.f., state f.o.b. value.
- + Invoice weight (as recognised and acceptable to Customs).
- + Name of domiciling bank and number of pay-office.

Note: The export invoice must be sent to us urgently for settlement at the end of the month.

c) *Transit Under Customs Control:*

(i) *Receipt.*

- + Declaration of Transit A42, if it has not been able to be placed on board.
- + Amount of freight per tonne for payment of VAT, where a foreign vessel is involved.

(ii) *Despatch.*

- + Consignee and Customs Office of destination.
- + Number of derogation of flag monopoly if a foreign vessel is involved. This number is required by Customs before loading.

SHIPMASTER'S REPORT: June 1987.

Berth: Berth ATO 2 at Gonfreville.

Documents:

6 copies Crew List.
1 copies Crew Declaration.
2 copies Manifest (including bond, ship's stores, currency, etc.).
1 copy Health Declaration.
2 copies Cargo Manifest.

Pilotage: Le Havre Pilot boards in the vicinity of LH14 Buoy from a high speed launch. Helicopter can be used in poor weather.

Approaches: Vessels can cross Antifier Channel after obtaining clearance on VHF Channel 22.

Vessels cannot cross East of Buoys A21/22. Pilots advise just West of A17/18.

Tugs: Not required for our vessel inward or outward except if high winds blowing.

Locks: Vessel locked into canal system after passing through Francoise Premier Lock. Time in lock about 20 minutes. Vessels can be delayed up to 1 hour if other ships lock-in at the same time.

Berthing: Vessel berthed port side to Berth ATO 2 on the North side of Grand Canal du Havre, which is about 20 minutes from the lock.

For ethylene loading an 8 in. 150 ASA loading arm and a 6 in. 150 ASA vapour return line are provided. The vapour return line can only return on completion of loading. Chemical handling using Chicksan arms is also possible on the berth.

The shore tanks have 0.6 kg./sq. cm. pressure relief valves. Maximum loading rate 250 t.p.h.

If port side to, vessel can only use After liquid line/After vapour line. If starboard side to, use Forward liquid/vapour line.

Moorings at this berth consist of 2 head lines and 2 springs forward and aft.

Depth alongside 10.4 m. Maximum size vessel accepted at the berth is 30,000 cu.m.

Shore gangway provided.

Fresh Water: Available from the pier ex-hydrant.

Stores: Lorries delivering ship's stores may proceed to within 50 m. of the vessel.

AUTHORITY: Port of Le Havre Authority, Terre-Plein de la Barre, B.P. 1413, 76067 Le Havre Cedex. *Tel:* 35.21.74.00 *Telex:* 190663 Port Havre.

Harbour Master's Office: Boulevard Kennedy, 76600 Le Havre. *Tel:* 35.21.74.37/35.21.74.38. *Telex:* 190663. *Cables:* Havreport.

LES SABLES D'OLONNE: 46.29 N. 01.47 W. (See Plan)

PORT LIMITS: Entrance to wet dock constitutes port limits.

DOCUMENTS:

2 copies Crew and Passenger Lists.
2 copies Personal Effects Lists.
2 copies Stores Lists.
1 copy Cargo Manifest from ship's papers for Customs Authorities and all Bills of Lading, Ship's Papers, etc.

PILOTAGE: Pilotage is compulsory for all vessels equal to or exceeding 50 m. in length and for all oil and gas tankers.

The compulsory pilot boarding points are two straight lines from "La Petite Barge" Buoy (Lat. 46° 28.9′ N., Long. 01° 50.6′ W.), to "Le Phare des Barges", and to "La Peruse" rock.

Confirmation of ETA can be given to the Agent or Pilot. Tel: 51-32-60-97.

Channel 16 VHF is continuously watched as soon as Pilot is on board. Pilot boat is 9 m. long (black and white hull).

ANCHORAGES: Vessels awaiting Pilot may anchor in the waiting area with sand bottom. They can use pilot services in bad weather.

MAX. SIZE: Vessels up to 110 m. LOA and beam 16 m. Draft 4.8 m. to 6.2 m., dependent on tides.

HEALTH: Customs take action against suspected diseases or fever on board when vessel arrives.

RADIO: Saint Nazaire & Arachon Radio. All ETA and other messages should be in local time.

VHF: Harbour Authorities keep watch on Channel 16 during opening of lock gates. At neap tides, the watch is kept for 1 hour 30 minutes before and after HW.; at Spring tides for 2 hours before and after HW.

RADAR: There is no Port Control Radar.

TUGS: None, pilot boat assists.

BERTHING: Max. beam 16 m. to allow passage through lock gates. Max. LOA 110 m.

BRIDGES: None.

CRANES: Mobile cranes 15 tons – 30 tons.

STEVEDORES: Working hours from 0700 – 1200 hrs. and 1200 – 1900 hrs. No work on Saturdays.

MEDICAL: Full hospital facilities available.

FRESH WATER: Available in unlimited quantities, with 6 to 12 hours prior notice.

FUEL: By lorry from Nantes or La Pallice.

REPAIRS: Small repairs carried out if sufficient spares available.

SURVEYORS: None.

HATCHES: Opening/closing carried out by vessel's crew.

CUSTOMS ALLOWANCES: 200 cigarettes and 2 litres of spirits per person.

REPATRIATION: Possible.

AIRPORT: At Nantes, 87 km. distant. 6 – 7 flights daily.

TIME: GMT plus 1 hour. Summertime GMT plus 2 hours (March to September).

HOLIDAYS: Port is open all year round.

POLICE/AMBULANCE/FIRE: Police, 17; Ambulance, 51 951953; Fire, 18.

SHORE LEAVE: When Immigration and Customs requirements have been satisfied, there is no restriction on crew shore leave so long as they rejoin the vessel before departure.

SERVICES: Compass adjusting.

DEVELOPMENTS: None.

AUTHORITY: Mr. le Ingenieur des Ponts et Chaussees, Service Maritime. Quai Dingler, 85100 Les Sables d'Olonne. *Tel:* 51-32-62-61.

Mr. Keroulle, Harbour Master: *Tel:* 51-32-11-79.

AGENT: Yves Lambot, Quai Archereau, B.P. 65, 85102 Les Sables d'Olonne Cedex. Tel: 51-951010. Telex: 710634.

LIBOURNE: 44.55 N. 00.15 W.

APPROACHES: Channel Buoyed and dredged to 4.0 m. – 5 m. below LW.

RESTRICTIONS: Max. air draft 25.0 m.

BERTHING: One wharf managed by the Chamber of Commerce, length 65 m., depth 4.5 m. Berth can accommodate vessels up to 120 m. LOA.

CRANES: 2×15 ton, 1×20 ton, 2×30 ton and 1×45 ton.

AUTHORITY: Service Maritime de la Gironde.

Operator: Chambre de Commerce et d'Industrie de Libourne, 125 Avenue Georges Pompidou, B.P. 162, 33503 Libourne Cedex. *Tel:* 57.51.71.11. *Telex:* 570598. *Contact:* Jean-Loup Metivet, Chief of Mission.

LORIENT: 47.45 N. 03.21 W. (See Plan)

DOCUMENTS:

Cargo Manifest or Manifest of Ballast.
Certificate of Cargo Space.
Bills of Lading.
Ship's Register.
6 Crew Lists.
3 Passenger Lists.
Health Declaration.
Derat Certificate or Exemption.
Declaration of Crew Personal Effects.

PILOTAGE: Compulsory for all vessels over 60 m. length. Vessels must contact pilot station advising ETA at least 6 hours before arrival by radio to the pilot station. On arrival at the Outer Roads or Groix vessels should call Pilot by VHF Channel 16. The pilot launch will be standing by from 1 hour before to 1 hour after the ETA previously advised by the ship. The pilot station is manned 24 hours per day. Pilot station telephone number 371480.

ANCHORAGES: The Outer Roads of the port are open to winds from the S.E. to S.W. Vessels waiting to enter the port may anchor in depths of 15 m. – 20 m., sand and shell bottom, good holding ground.

Mooring buoys are positioned off Port Tudy on the North coast of Ile de Groix. These buoys are reserved for the use of the French Navy. There are prohibited zones for anchoring due to presence of submarine cables, marked on chart.

RESTRICTIONS: There are 2 entry channels to the port. The South Channel, depth 3.6 m. is used exclusively by local fishing boats. The West Channel is marked by the alignment of Kerbel Light and Lohic Light. The depth in this channel is 8.0 m. (March 1988). Both channels are very well marked.

Traffic signals are hoisted at Port Louis Citadel as follows: Red flag or red light – entry prohibited. Green flag or green light – exit prohibited. Red over green flags or lights – port closed.

Tankers: Vessels carrying more than 500 cu.m. of hydrocarbons, or other dangerous cargoes in bulk, intending to navigate North of Les Trois Pierres Tr., should report 6 hours in advance to "Marine Lorient" and Port Captain giving details of cargo and of any defects which may affect manoeuvrability. Such vessels should establish contact with Vigie Port Louis giving ETA at Les Trois Pierres on arrival, or Keroman Mole (Lat. 47° 43.7′ N., Long. 3° 21.9′ W.) on departure. Other vessels may obtain information about such movements on Channel 16.

HEALTH: Pratique given by Customs Officers who board on arrival. If any case of suspected disease on board or any reason why vessels should not receive Free Pratique, Master should radio Agent before arrival, advising full details.

RADIO: Use local station Radio Conquet or Radio Saint-Nazaire.

VHF: Port Captain on Channels 16 and 12.

TUGS: 1 tug of 1,000 h.p., 2 tugs of 700 h.p., 3 tugs of 250 h.p. belonging to the French Navy.

1 tug of 700 h.p. at the fishing port (Morbihan Chamber of Commerce & Industry) and 1 tug of 1,800 h.p.

1 tug of 1,740 h.p. and 1 tug of 2,556 h.p. also available.

BERTHING: Kergroise Quays, 568 m. Max. length of vessels 250 m. Depth of water 10.5 m.

One new berth, length 150 m. Depth of water 10 m.

2 discharge gantries, 500 t.p.h. and 750 t.p.h., serving a silo and road/rail transit station.

8 cranes. 3×10 tons at 30 m. and 5×6 tons at 22 m. Also 1 mobile crane of 6 tons.

TANKERS: The Oil Jetty is 112 m. long and can accommodate tankers up to 180 m. length, max. draft 10 m.

FRESH WATER: Can be supplied from the quays at Kergroise and at the Oil Jetty. Rate 10 t.p.h.

REPAIRS: Minor deck and engine repairs can be carried out. Slipways can accommodate 6 fishing boats at the same time. There are 3 dry docks the largest of which is 186.20 m. long×26.33 m. wide.

MEDICAL: All facilities available. Local maritime and civil hospitals.

IDENTIFICATION CARDS: Crewmen going ashore should carry passport or identity card.

CONSULS: Norway, Denmark, Netherlands and Sweden.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year (1st January, no labour available); Easter Sunday (possibility of labour with overtime); Easter Monday (no labour available); Labour Day (1st May, no labour available); Ascension Day (possibility of labour with overtime); Whit Sunday (possibility of labour with overtime); Whit Monday (no labour available); National Day (14th July, no labour available); Assumption Day (15th August, no labour available); All Saints' Day (1st November, no labour available); Armistice Day (11th November, possibility of labour with overtime); Christmas Day (25th December, no labour available). N.B. Every Sunday and day marked "possibility of labour with overtime" can be worked at the rate of 100%.

POLICE/FIRE/AMBULANCE: Police Tel: 97.21.19.16; First Aid Tel: 17; Ambulance Tel: (97) 65.33.44; Fire Tel: 18.

AUTHORITY: D.D.E. Morbihan – Service Maritime et de Navigation, Boulevard Adolphe Pierre, 56321 Lorient. *Tel:* 97.64.11.36. *Telex:* Marilor 950 887 F. *Contact:* Port Director.

Capitainerie du Port, ll Bd. J. Cartier, 56110 Lorient, France. *Tel:* 97.37.11.86 and 97.37.12.71. *Telex:* Capilor 951 566 F. *Contact:* F. Morin, Port Commandant.

MARANS: 46.18 N. 01.00 W.

LOCATION: Marans is situated on the Sevre-Niortaise River.

PILOTAGE: Compulsory. Pilot boards at La Pallice.

RESTRICTIONS: Entry during daylight hours only.

MAX. SIZE: Length 60 m., beam 10 m. Contact Agent for advice on draft.

BERTHING: 3 berths available.

CRANES: One mobile crane.

REPAIRS: Minor repairs only.

AUTHORITY: Monsieur l'Ingenieur des Ponts et Chaussees, Le Port, 17230 Marans. *Tel:* 46.01.10.35. *Contact:* Harbour Master.

AGENT: M. Le Boutillier, 106 Bld. Emile Delmas, P.O.Box 2038, 17009 La Rochelle Cedex, Tel: 46.42.13.44. Telex: 790742 (Ships). Cables: Daylight La Rochelle.

MARSEILLES: 43.18 N. 05.25 E. (See Plan)

(a) Old Port to Estaque
(b) Port de Bouc/Lavera/ Caronte/Etang-de-Berre/La Mede
(c) Fos

(a) OLD PORT TO ESTAQUE

DOCUMENTS:
Inward Declaration (Printed Form presented by Pilot on boarding).
Ships Register.
Declaration of Health.
3 Crew Lists.
2 Provisions Lists.
2 Lists of Passengers in Transit.
2 Lists of Passengers disembarking.
1 List of Ports where cargo is loaded for Marseilles.
Cargo Manifests and Bills of Lading.
1 List of Crew Personal Effects.

Entry Procedures: On arrival, French Authorities do not visit the ships systematically. However, as circumstances require, Police, Customs and Health may do inspection on board.

Free Pratique by radio is possible be sending cable to "Saniport Marseilles" through Marseilles Radio before arrival on roads.

Inward Declaration, duly filled in by Master must be delivered to Port Authority upon arrival.

Other formalities are completed by shipbrokers and consignees.

PILOTAGE: *Arrival:* Contact port authority by VHF on Channel 12 one hour before arrival ("Marseilles Port"). Compulsory. 21 pilot launches, mostly painted black, wooden hulls with white anchor insignia on the bow.

Contact pilot station and pilot boats by VHF Channel 8, one hour before arrival.

Southern Entrance: Pilot boards between "Le Frioul" and "Chateau d'If" island. Max. recommended draft 28 ft. 06 in. in good weather.

Northern Entrance: Pilot boards at Estaque roads. In case of strong N.W. winds or for all deeper draft vessels the Northern entrance is preferred.

Vessels anchoring in roads without a Pilot will still incur full pilotage fee.

On departure, 15 to 30 minutes notice sufficient to order Pilot and tugs.

ANCHORAGES: Marseilles North, Saint Marie and Endoume.

MAX. SIZE: Draft dependent on berth depth up to max. of 14.5 m.

HEALTH: Free Pratique automatic for vessels coming direct from continent or Italy and "Q" flag not to be flown. From other countries – including Spain and Portugal – usual procedure applies. Unless special arrangement for passenger liners Free Pratique not given by radio also practice issuing Health or Customs clearance on sailing now discontinued.

Free Pratique by Radio: Send cable to "Saniport Marseilles" through Marseilles Radio between 0700 hrs. and 1900 hrs., containing the following information:

Ship's Name, ETA Marseilles, from (last 3 ports in reversed order) number of crew.

Then "ZT" (my Maritime Declaration of Health has negative answers concerning the 6 health questions).

Date of Derat (exemption) Certificate.

Then "ZS" (my ship is healthy and I ask for Free Pratique).

Example: Balder Antwerpen ETA 17/2300 Malaga, Hamburg, Bremen crew 25 stop ZT stop 06/07/81 stop ZS. Regards Master.

From 0700 hrs. to 1900 hrs., answer of Saniport will be: "ZY" (Free Pratique is granted).

If Free Pratique is requested and granted by radio, no sanitary officials will board the vessel, no declaration must be filled in, and crew members are granted shore leave without delay. Furthermore, the "Q" flag must not be flown on arrival.

The above information was supplied to a Ship's Master by the Port Health Officials.

RADIO: Within 150 miles Marseilles Radio/FFM – otherwise St. Lys/FFL.

VHF: Port Authority on Channels 12. Tugs on Channel 6.

RADAR: Port and approach radar station.

TUGS: About 5 tugs available, from 1,200 h.p. to over 3,000 h.p. Ship's lines normally used.

BERTHING: When specific side alongside berth required. Agents radio Master prior arrival also advise Pilot. Otherwise side alongside at discretion Master after conferring with Pilot.

Berth No.	*Usable Berthing Length (m.)*	*Max. Permissible Draft (m.)*	*Remarks*
96	105	7.70	Ro/Ro berth
95	104	7.70	Wine, Rate 150 t.p.h.
94	105	7.70	Ro/Ro berth
92	147	7.70	Ro/Ro berth
91	130	7.80	
90	130	7.80	Ro/Ro berth
88	155	8.00	Ro/Ro berth
87	130	8.00	
86	131	8.00	Ro/Ro berth
84	147	8.00	Ro/Ro berth
83	135	8.00	
82	135	7.75	Ro/Ro berth
81	140	7.60	Ro/Ro berth
80	130	9.00	Equipped with Ro/Ro pontoon
79	109	9.00	Fruit
78	109	9.00	Fruit
77	109	9.00	Fruit, refrigerated shed
76	109	9.20	Fruit
75	109	9.00	Fruit
74	109	9.00	Ro/Ro berth
70	132	9.60	Ro/Ro berth
69	131	8.50	
68	100	9.00	Equipped with Ro/Ro pontoon = 36 m.
67	120	6.35	
66	120	6.35	Ro/Ro berth
65A			Service berth
65	138	5.50	Ro/Ro berth
64	137	6.50	
63A	102	6.70	Waiting berth
63	127	7.00	Ro/Ro berth
60 ′		8.80	
59	173	8.00	Ro/Ro berth
58	175	9.60	Banana Terminal – 4 unloaders
54	—	9.80	Ro/Ro berth
57	—	9.60	Ro/Ro berth
53	149	10.00	Air-Conditioned Shed
52	120	8.00	Waiting berth
51	115	7.50	
50	111	7.00	Ro/Ro berth
49			Service and marine fire brigade
48	135	8.00	Solid bulk cargoes
47	135	10.00	Solid bulk cargoes
46	106	8.50	Waiting berth
45	129	7.00	
44	130	7.50	Ro/Ro berth
43	151	8.00	Ro/Ro berth
42	150	7.00	Ro/Ro berth
41	150	7.00	Not available
40	171	10.00	Ro/Ro berth
32	200	10.00	
31	200	10.00	
30	196	9.75	
28	135	8.50	Ro/Ro berth
27	150	8.50	Specialist paper berth
26	150	8.50	Ro/Ro berth
25A	100	9.00	Service berth
25	152	12.00	Specialist cereal berth
24	154	12.00	Specialist cereal berth
23	134	8.70	Waiting berth
22	145	10.50	
21	145	10.50	
20	145	10.50	Sugar
19	145	10.00	
14	227	9.70	Ro/Ro and Alumina in bulk
13	171	10.00	Refrigerated store
12	171	10.50	
11	171	10.50	Cruise ship terminal
10	171	10.50	
9	—	11.50	Waiting berth
8	157	10.70	
7	157	10.00	
6	178	10.10	
5	178	10.10	
4	140	10.10	Banana terminal
3	140	11.60	
2	140	11.60	
186	162	14.50	
185	162	14.00	
184	162	12.00	
183	162	12.00	
182	161	12.00	
181	162	12.00	Ro/Ro pontoon
163	no limit	13.50	Naval repair berth
161	50	2.50	Barges with heavy lifts
160	104	9.00	Naval repair berth
157	154	11.70	Ro/Ro berth
156	154	11.70	Container Terminal 2×40 ton gantry cranes
155	154	11.70	
154	154	11.10	
153	154	11.60	Refrigerated Shed
152	155	11.60	Ro/Ro berth
151	137	11.50	MAVRAC quay
150	136	11.50	Liquid bulk cargo
148	220	9.50	Ro/Ro berth
144	173	10.50	Ro/Ro berth
143	90	9.50	Deballasting berth, max. size 540,000 d.w.t. Also liquid gas carriers, light hydrocarbons, cleaning station

Berth No.	Usable Berthing Length (m.)	Max. Permissible Draft (m.)	Remarks
145	70	4.20	Tanker Berths (Refined Products) Tanker Barges only
146	105	4.20	
147	133	4.20	
170	132	5.00	
190	450	10.60	Floating repairs quay
131	215	11.00	Naval repairs (under inert gas)
130	215	11.00	
129	216	11.00	Naval repairs – engine testing
128	127	8.50	Waiting berth
127	170	8.50	Waiting berth
126	170	8.50	Naval repairs
125	170	8.80	
124	170	9.00	
123A	78		Service – lighthouses and buoys
123	150	11.00	Naval repairs
122	150	11.00	
121	151	11.00	
120	151	11.00	
119	151	11.00	
119A	100	7.20	Naval repairs
118	160	10.00	Naval repairs
117	160	10.00	
116	160	10.50	
115	160	10.50	
115A	85	5.50	Naval repairs
114A	75		Service
114	151	10.50	Naval repairs Clinker (5 cranes) Ro/Ro (Berth 109A)
113	151	10.50	
112	151	10.50	
111	151	11.60	
110	151	11.60	
109	152	11.60	
109A	68	12.00	
108			
107	355		Service
106A	70	5.70	
106	120	5.50	
105	120	5.50	
104A	100	7.70	Bulk wine, 3 pumps (rate 1,000 hl/h.).
104	100	5.60	Bulk wine, 1,000 h/l. loading, 1,100 h/l. discharging also livestock
103	139	4.30	Service berth
102	139	4.70	
101	139	3.50	
100	139	3.50	
99	139	3.50	Not available
98	450	8.00	
AVB	300	8.50	Naval repairs

CRANES:
Public Quay Cranes: 1×3 tonnes; 5×3 – 5 tonnes; 42×6 tonnes.
Public Mobile Cranes: 1×4 – 8 tonnes; 4×6 – 12 tonnes; 6×15 tonnes; 3×40 tonnes.

14 dry dock cranes, largest has a lifting capacity of 150 tonnes.

2 floating cranes for public use, owned by the Port Authority, capacities 90 tonnes and 150 tonnes and one floating derrick owned by the Port Authority, capacity 500/600 tonnes.

BULK HANDLING FACILITIES:

Cereals:

President Wilson Dock: Berth Nos. 24/25. Storage: The Madrague Silo, owned by the Societe Fonciere et Commerciale du Silo de la Madrague, has a capacity of 30,000 tonnes in 143 cells. The silo is connected to the berth by covered conveyors. The silo is outside the port area. 1 suction unit, rate 600 t.p.h.

Grande Joilette Dock: Used for storage only. The silo, owned by the Marseilles Port Authority, is within the port area and has a capacity of 22,000 tonnes in 99 cells.

Minerals in Bulk:

National Dock: Berth Nos. 47 and 48. Specifically for bulk traffic, handled by bucket-cranes. Storage: 4,000 sq.m. (43,040 sq.ft.) in the open, beside the East Quay. 3 cranes, rate 300 t.p.h. or 150 t.p.h. per crane.

3 berths on the Seaward Breakwater, Berth Nos. 109, 110 and 111. Theoretical length 151 m. each, max. draft 12 m. Storage capacity 50,000 tonnes.

These berths are equipped with 5 bucket cranes of 7 tonnes and facilities for storing clinker.

President Wilson Dock: Berth No. 14. Allocated specifically for alumina. Storage: 2 silos, with a total capacity of 11,000 tonnes, constructed by and belonging to Pechiney Cie. and Ugine Cie., to facilitate the import/export of dehydrated alumina in bulk.

There is an additional warehouse with 1,000 sq.m. on Mole "D" which is used for hydrated alumina. Vessels are handled via Berth No. 47 (National Basin). Storage capacity 3,000 tonnes.

Leon-Gourret Dock: Berth No. 8. Allocated specifically for bulk traffic that can be handled by grab-bucket. Storage: An open area of 4,000 sq.m. (43,040 sq. ft.) at the quayside; suitable for import/export.

Liquids in Bulk:

Mourepiane Dock: Berth Nos. 151 and 148. For vegetable oils and chemicals. Storage: The private company, Marseilles Vrac, which operates this depot, has 32 vats of 125 to 1,640 cu.m. (4,412 to 57,892 cu.ft.), with a total capacity of 24,500 cu.m. (864,850 cu.ft.). There are pipelines to the quay for discharging tankers.

Import and Export: The major import is vegetable oil; export is chemical products in bulk.

Berth Nos. 104 and 104A for wine in bulk.

Sugar:

President Wilson Dock: Berth Nos. 19 and 20. Storage: The silo, which has a capacity of 24,000 tonnes is within the port area and is owned by the Port of Marseilles Authority. Sugar is discharged by bucket-crane into hoppers which feed the conveyor belts to the silo. The total conveyor capacity is 250 tonnes per hour.

SPECIALISED CARGO HANDLING FACILITIES:

Heavy Load Berths:

In Mirabeau Basin there is a special berth (No. 161) designed to receive barges loading and unloading heavy loads. This berth is located between Berth No. 160 and the Leon Gourret Mole and consists of a quay 80 m. long into which has been built a barge basin 50 m. long by 20 m. wide with a depth of 2.5 m.

Apart from this special berth, there are 29 Ro/Ro berths in operation in the Port of Marseilles which permit direct loading of heavy loads into Ro/Ro ships. There are also numerous conventional berths that can be used for vertical loading and unloading of heavy loads, with the assistance of the port's "Atlas" and "Goliath" floating cranes, which have a lifting capacity of 90 and 150 tonnes respectively and can be coupled to lift a maximum of 220 tonnes.

In addition to these floating cranes, the following floating equipment is also available:

The Port Authority's floating derrick, "Protis", which has a lifting capacity of 500 to 600 tonnes.

Various types of private floating equipment with capacities ranging from 40 to 60 tonnes.

Various public or private heavy load barges.

The Port Authority's submersible seagoing barge.

This barge is designed for transporting heavy loads, or for putting them into the water in the case of floating loads (within the limits of its deadweight capacity of 1,800 tonnes; the loading and unloading of heavy floating loads of 1,800 to 2,000 tonnes must be carried out in dry docks). The barge can be loaded vertically, horizontally (Ro/Ro), or by floating the load into the hold in the case of a floating load.

Also see "Berthing".

CONTAINER HANDLING FACILITIES: Various quays are devoted to container traffic: At the Leon Gourret mole (14.5 m. permitted draft, large open areas, railway tracks); at the Mourepiane quay, in the Mirabeau basin, where there is a new terminal:

3 public berths, Berth Nos. 155, 156 and 157, each of which has a theoretical length of 154 m. and a max. draft of 11.7 m.

Container handling equipment: 2×40 tonne Caillard gantry cranes. 4×30 tonne at 30 m. mobile cranes.

Railed tracks: 2 railway tracks alongside the quay; 1 railway track behind warehouse 20; 2 railway tracks at the Eastern limit of the dense storage area behind warehouse 20.

Area alongside the quay 35 m. wide comprising: A working area 15 m. wide equipped with 2 railway tracks and a trailer movement area; a storage area for short periods, 17 m. wide (under the rear jib of the gantries).

Storage areas covering a total of 90,000 sq.m.

BRIDGES: Turning bridge near Southern end of port – Pont d'Arenc – opens from 0545 hrs. – 2055 hrs. twice each hour between 5 minutes before the quarter of the hour and 5 minutes afterwards, and 5 minutes before the three quarter hour and 5 minutes afterwards. Closed from 2055 to 0545.

Bridge further North – Pont de la Pinede – opens 0600 – 2200 hrs. twice each hour between 5 minutes before the hour and 5 minutes afterwards, and between 5 minutes before half hour and 5 minutes afterwards. Open continuously 2200 – 0600 hrs.

STEVEDORES: Enable Agent order gangs important obtain in good time accurate ETA from vessels. Latest times to order gangs; normal and deferred shifts 0530 hrs. same morning – night shift 1600 hrs. same day – Saturday and Sunday, 1600 hrs. Friday. Failure to give precise ETA may result in ship losing 12/24 hours also cost gang waiting time includes waiting vessel's arrival – Free Pratique – opening/closing hatches – rain – shifting cargo or dunnage – crane or derrick breakdowns – time lost between finishing and end of shift. Work can be arranged on following official holidays – New Year's Day, Easter and Easter Monday, Whitsun, 14th July, 15th August, 1st November, Christmas Day, 1st May holiday when no work takes place, Stevedoring hours (normal shift) Monday to Saturday, 0630 – 1300 hrs. and 1330 – 2000 hrs. (Two shifts). Sunday, 0630 – 1300 hrs., if required – one shift 0800 – 1115 hrs. and 1300 – 1615 hrs. Night work if required or short night work 2015 – 2330 hrs. No work allowed Sunday night. All necessary gear supplied by stevedores except rain tents which vessel must supply.

MEDICAL: Yellow fever inoculations only in hospital (Tuesdays and Friday). Masters to advise by radio prior arrival if medical attendance required aboard.

TANKERS: See "Port de Bouc" and "Fos".

DENSITY: About 1028.

FRESH WATER: Can be obtained from hydrants or quays or from water-boats. When delivered by barge, minimum quantity invoiced is 50 tons. Preferable order prior arrival to avoid delays. Minimum pumping rate 50 t.p.h.

FUEL: Ordinary fuel, also fuel oil max. 1000 secs., diesel and gas oil. Deliveries by barge only.

FIRE PRECAUTIONS: Special harbour fire-fighting corps, with two fire-fighting vessels.

WATCHMEN: Available but not compulsory.

HATCHES: Crew allowed open and close.

SHIP CERTIFICATES: On first call Registered Tonnage Certificate; thereafter not required unless gross/net tonnages changed.

CUSTOMS ALLOWANCES: About 200 cigarettes and limited amount spirits per man.

CARGO GEAR: No additional requirements; all gear supplied by stevedores except rain tents.

IDENTIFICATION CARDS: Not required.

AIRPORT: Marseilles-Provence is the second largest airport in France with 18 air companies serving 60 national and international destinations.

The international airport of Nimes-Garons (50 km. from Fos) serves the West region of the Marseilles district.

CONSULS: The following countries are represented in Marseilles:

Algeria
Argentina
Austria
Belgium
Bolivia
Brazil
Canada
Colombia
Costa Rica
Cuba
Cyprus
Denmark
Dominica
Ecuador
Egypt
Finland
Germany F.R.
Greece
Guatemala
Haiti
Honduras
Iceland
Israel
Italy
Ivory Coast
Japan
Lebanon
Liberia
Madagascar
Mauritania
Mexico
Morocco
Netherlands
Nicaragua
Norway
Panama
Peru
Philippines
Portugal
Senegal
Spain
Sweden
Switzerland
Thailand
Tunisia
Turkey
United Kingdom
U.S.A.
U.S.S.R.
Uruguay
Venezuela
Yugoslavia

REPAIRS: Most repairs and overhauls possible. Prior notice recommended.

SERVICES: Deballasting and degassing services can be provided on request in the Ports of Fos and Lavera (only deballasting).

Vessels coming for repairs in Marseilles can discharge their slops, if any, under particular conditions.

DRY DOCKS:

No.	*Usable Length* (m.)	*Usable Width* (m.)	*Depth* (m.)	*Cranes* (tons)	*Sea Water*	*Telephones*
1	171	19.60	5.30	2×9	–	1 line
2	135	17.30	4.20	1×9 – 1×20	–	1 line
3	100	15.60	4.60	–	–	1 line
4	80	12.50	4.75	–	–	1 line
5	122	14.60	5.30	1×9	–	1 line
6	125	15.60	5.30	1×9	–	1 line
7	200	23.00	8.10	1×9 – 1×20	–	1 line
8	320	49.00	11.00	1×6 – 1×9 1×50	800t/h	2 lines
9	250	36.00	8.50	1×6 – 1×9 1×50	800t/h	2 lines
10	465	84.00	10.00	3×25 – 1×150	10,800t/h	12 lines possible

Fresh water and power available at all berths.

One floating dock: Usable length 165 m., usable width 25 m. Depth 6 m. 2×7 tonne cranes. Fresh water and telephone available.

POLICE/FIRE/AMBULANCE: Police (disturbance of peace): Tel: 17. Marine Fire Brigade (fire, ambulance, injury, explosion, flooding, man overboard, etc.) Tel: 18. Police and Marine Fire Brigade can also be called through the Central Watch Tower (VHF Channel 12) or Telephone: 91.56.15.00 (Marseilles Port).

DEVELOPMENTS:

1. Tracked electric cranes to be reduced from 75 to 60.
2. A fourth 30 tonne (at 30 m.) mobile crane has been ordered.

AUTHORITY: Port Autonome de Marseilles, B.P. 1965, 23 Place de la Joliette, 13226 Marseilles Cedex 02, France. *Tel:* 91.91.90.44 – 91.91.90.66. *Telex:* 440746 Portauto Marsl. *Cables:* Portauto Marseilles. *Contact:* Harbour Master.

(*b*) **PORT DE BOUC,** including Port de Lavera 43.23 N. 05.00 E., Port de Berre 43.27 N. 05.10 E., Port de la Mede 43.24 N. 05.07 E. Caronte 43.24 N. 05.02 E. **(See Plan)**

DOCUMENTS: On arrival:

Inward Declaration (presented by Pilot on boarding).
1 Cargo Manifest or manifest in ballast.
Bill of Lading.
Ship's Register (if required).
6 Crew Lists (8 if Spanish or U.S.S.R. ship or ship bound for these countries).
3 Passenger Lists.
Health Declaration.
Derat Certificate.
Bunker's Supply (3 forms).
1 Crew Declaration of Personal effects – cameras, binoculars, radios, cigarettes, tobacco, etc. If on inspection articles or quantities not in conformity or in excess, Master held responsible, articles removed and heavy fines imposed.

PILOTAGE: Pilotage is compuslory for tankers over 50 m. LOA and other vessels over 70 m. LOA.

Call "Port de Bouc Control" on Channel 16. Channel 12 for traffic. Pilot must be taken to enter Port de Bouc, Fos and Port St. Louis du Rhone. Contact by Marseilles Radio or pilot boat VHF (Channel 16 for calling, Channel 14 for traffic). Pilot boards in the Roads between 2 and 2.5 miles S.W. of Bouc Tower or further out if required, for entering Port de Bouc and Fos. Motor launch black hull, white cabin, white anchor on bow, "H" flag.

ANCHORAGE: It is recommended to ask for Pilot before anchoring in Outer Roads to avoid forbidden places for ships bound for Port de Bouc and Fos. Permanent watch on VHF Channel 16 is compulsory.

RESTRICTIONS: No entry restrictions for Lavera. Night transit of Caronte Canal to Etang de Berre forbidden to tankers above 6,000 g.r.t. Transit of Caronte Canal to Etang de Berre is forbidden for vessels over 180 m. (598 ft.) overall and over 24 ft. draft.

Notice: *"Port Authorities instructions concerning Fos/Lavera Tanker Areas.*

Special Notice No. 94/81.

Re: Berthing of Tankers Loaded with Naphtha or Gasoline.

Taking into account the recurring risks encountered with tankers discharging naphtha, super gasoline, gasoline or condensate, until further notice, it has been decided that only one vessel at a time, carrying said cargo, will be allowed to discharge in above areas of Port Autonome de Marseille.

For the time being these restrictions do not apply to coasters.

Furthermore, vessels concerned, whatsoever the year of building, will only be allowed alongside providing that pump room is clean, gas free and that no product is leaking at ship's valves or pumps.

Should above conditions not be fulfilled vessels could not be accepted in above areas".

MAX. SIZE: Lavera: LOA 275 m., draft 12.80 m.
Caronte: LOA 170 m., draft 8.84 m.
Berre: LOA 180 m., beam 24 m., draft 7.0 m.
La Mede: LOA 180 m., beam 24 m., draft 7.2 m.

HEALTH: Pratique given by Customs Officers who board on arrival. In case of suspected disease on board, notify Agents by radio before arrival.

Also see "Marseilles".

RADIO: Within 150 miles traffic through Marseille Radio/FFM, otherwise St. Lys (FFL).

VHF: Port de Bouc Radio (Harbour Office) VHF used for navigation purposes only – Channel 16 for call, Channel 12 for traffic.

RADAR: Port and approach radar station.

TUGS: 8 tugs available from 90 h.p. to 3,000 h.p. Normally join vessel in entrance channel off Port de Bouc. Tow lines furnished if required.

BERTHING: Lavera: 19 berths (Total berthing length 3,088 m.) for public and private use. Permitted drafts: 3 berths of 2 m. to less than 3.6 m.; 4 berths of 3.6 m. to less than 5.5 m.; 1 berth of 5.5 m. to less than 6.1 m.; 5 berths of 10 m. to less than 11 m.; 3 berths of 11 m. to less than 12.5 m.; 3 berths of 9.9 m.

1×12 tonne public mobile crane.

Lavera Harbour has been specifically designed and equipped to handle refinery products and the discharge of oil tankers.

Each berth has flexible pipe connections, with articulated metal arms, supported by special cranes. The type of pipework depends on the product handled (crude or refined) and is connected to the storage tanks of:—

C.F.R. and Shell
S.F.P. – B.P. Refinery at Lavera
The maritime terminal of S.P.L.S.E., which supplies the Esso Refinery at Fos.

Berths A1, A4, H Bis, H and K1 have been designed to handle the loading and unloading of propane and chemical products.

Crude: 8 public berths in 4 basins.

Name of Berth	*No. of Berth*	*Max. Length* (m.)	*Max. Draft* (m.)
B	721	325	12.00
C	722	325	12.00
D	723	325	11.89
E	724	325	12.20
F	725	325	12.80
G	726	325	12.80

Refined Products: 12 public berths.

Name of Berth	*No. of Berth*	*Max. Length* (m.)	*Max. Draft* (m.)
A1	711	210	10.10
A2	712	210	9.90

Name of Berth	No. of Berth	Max. Length (m.)	Max. Draft (m.)
A4	714	240	12.20
B	721	325	12.00
C	722	325	12.00
D	723	325	11.89
E	724	325	12.20
F	725	325	12.80
G	726	325	12.80
K1	701	100	6.10
K2	702	88	3.90
K5	705	100	5.30
K6	706	100	5.20

Liquid Gas: 6 public berths.

Name of Berth	No. of Berth	Max. Length (m.)	Max. Draft (m.)
A2	712	210	11.10
A4	714	240	12.20
G	726	325	12.80
H	727	200*	11.80
H Bis	—	120*	11.00
K1	701	100	6.10

*Usable length 100 m.

Annual capacity of loading or discharge: 600,000 tons based on the 4 multi-purpose berths being exclusively used for discharge of vessels bringing propane gas.

Average output per quay 600 cu.m./h. (300 t.p.h.)

Storage capacity: The storage capacity of propane gas of the Societe GEOGAZ is 120,000 cu.m (60,000 tons).

Chemical Products (exclusively): 3 public berths.

Name of Berth	No. of Berth	Berthing Length (m.)	Permitted Draft (m.)
A4	714	240	12.20
H	727	200*	11.80
H Bis	—	120*	11.00

*Usable length 100 m.

Berth A4 is also equipped for crude oil traffic, refined oil products and for the importation of liquid gas.

Berths G, H and H Bis can also accept liquid gas.

Annual capacity of loading or discharge: 2,700,000 tonnes if these 2 berths are exclusively used for chemical product traffic.

Discharge rate using vessels' pumps: 150 t.p.h. Loading rate using land pumps 150 t.p.h. to 300 t.p.h.

Storage capacity: Societe NAPHTACHIMIE: factory. Societe MAVRAC: 53,000 cu.m. Density 0.80 – 1.62.

Report: Berthing Procedures: Tugs are made fast between the 2 buoys "Lavera" and "Les Tasques", using the "On the Hook" method. Tugs watch VHF Channel 6.

Loaded or ballasted tankers are berthed heading outwards. Ships are swung off the head of the pier and backed alongside stern first. On request (ship's manifold too far, only gangway available, weather conditions, etc.) they may be moored directly and swung on departure.

Anchors are only used in case of emergency or when the ship's bow overhangs the pier's end.

Port Authorities do not advise anchoring method for safety reasons (delay if emergency departure needed).

No shore gangway is available at this terminal. Vessels must use their own gangway with safety nets and lifebuoys.

Port de Bouc/Caronte: Quay berths reserved exclusively for commercial operation of sea-going vessels: Berth Nos. 780 to 786 and 2 berths for river barges.

Total length of quays: 763 m.; Usable berthing length: 1,000 m.; Permitted draft: 2 berths for barges with draft of less than 4 m.; 5 berths of 8 m. to less than 9 m.

Berths reserved for repairs afloat (Agglomerate Quay No. 787): Total length of quays: 250 m. Max. draft 4.5 m.

Equipment:

Quay cranes: 2 cranes of 3–6 tonnes
3 cranes of 6–12 tonnes
2 cranes of 12 tonnes

Seven cranes, private, forming part of the installations of the Etablissement Maritime de Caronte et de Fos (CARFOS)

Quay gantries: 2 gantries of 10–20 tonnes, private (CARFOS) used for ores, stacking and removal from stock. Lifting capacity of the most powerful: 15 tonnes.

1 phosphate reloading gantry (CARFOS) with a capacity of 400 t.p.h.

Cranes allocated to naval repairs afloat, at the Agglomerate Quay: 2 private cranes from 6 to less than 15 tonnes. Lifting capacity of the most powerful: 4–8 tonnes.

Floating cranes: 1 private crane, with a lifting capacity of 100 tonnes.

Storage:

Quay-side sheds	8,200 sq.m.	(private)
Other sheds or warehouses	4,875 sq.m.	"
Quay-side open areas	16,000 sq.m.	"
	10,000 sq.m.	(public)
Other open areas	8,000 sq.m.	(private)

Bulk Liquids: Vegetable or animal oils and chemical products:

1 public quay under private use (Favat installation) (Berth No. 780): Verminck Quay. Useful berthing length: 120 m. Permitted draft: 7.50 m.

Discharge of oils is effected by shipboard pumps and the relay pump of the land installations – rate 200 t.p.h.

Storage capacity: 6,000 tonnes.

The Favat storage installations located outside the port area, on private property, have a total capacity of 12,000 cu.m. These installations are connected by a network of 3 pipelines of 200,150 and 100 mm. to the discharge points at the quayside. Storage Shed: 4,000 sq.m.

Chemical products exclusively: 1 private berth (Berth No. 786): Kuhlman Quay (Ets. Kuhlman). Useful berthing length: 140 m. Permitted draft: 7.10 m. Factory storage capacity: 2,500 tonnes.

Bulk Solids: Ores, coal, heavy minerals:

5 berths at the Caronte Quay (Berths Nos. 781–785) private use granted to Etablissement Maritime de Caronte et de Fos (CARFOS).

Usable berthing length: 650 m. Permitted draft: 8.40 m.

1 quay berth for loading phosphate barges, located between berth No. 785 and berth No. 780. Berthing length: 80 m. Permitted draft: 3.50 m.

The Caronte Quay has a specialised installation comprising:

3 transporting units and weighing hoppers with a unit output of 135 t.p.h.

1 transporting unit and specialist weighing hopper specialised in wagon loading: output 150 t.p.h.

2 weighing hopper towers – unit capacity: 1,200 tons per day.

2 weighbridges (40 and 80 tonnes).

The 7 scoop cranes are emptied into weighing hoppers which in turn discharge on to conveyor belts which terminate either above wagons to be loaded, into sheds or open storage areas. Hourly capacity per crane 120–150 t.p.h.

The quay is also equipped with 2 gantry cranes of 10 to 20 tonnes used for stacking and reclaiming minerals and 1 gantry crane with a capacity of 400 t.p.h. used for reloading phosphate.

Storage capacity: 63,000 tonnes.

The CARFOS storage installations include:

3 phosphate sheds of 6,800 sq.m.
1 ilmenite shed of 550 sq.m.
1 open area of 6,000 sq.m.

Oil seeds – oil cake: 2 berths (No. 784 and No. 785) at the Caronte Quay, private use granted to CARFOS

Available berthing length: 170 m. each. Permitted draft: 8.84 m.

Storage capacity: 10,000 tonnes. These berths are also used for ores, coal and heavy minerals.

Installations and equipment: Identical to those on the quays for ores, coal and heavy minerals.

Etang de Berre/La Mede:

Available berthing length: La Mede – 70 m. Berre – 560 m.

La Mede: 1 berth. Berre: 4 berths.

Port of La Mede: Cie de Raffinage et de Distribution (C.R.D. Total). Berth No. 744.

Name of Berth	Berth No.	Type of installation	Available berthing length (m.)	Permitted draft (m.)
4	744	Pier	70	5.40

The installations of the C.R.D. Total permit loading or unloading of 100–600 cu.m./h. according to product.

The installations of C.R.D. Total are connected to tanks by pipelines of varying sizes under the waters of the Berre Lake and Canal from Marseilles to the Rhone.

Storage capacity: Depot of the Refinery of C.R.D. Total – 1,510,000 tons of refined products to which may be added 346,500 tons of crude brought by pipeline from the berths at Lavera and Fos to the Refinery.

Port de La Pointe de Berre: Cie. de Raffinage Shell Francaise (Berths No. 751 to No. 754). Refined oil products. 4 private berths.

Berth Name	Berth No.	Max. length (m.)	Permitted draft (m.)
A	751	160	7.31
B	752	160	7.01
Salins Berth	754	160	7.01
South West (coasters)	753	80	3.60

The berthing installations of the Cie. de Raffinage Shell Francaise S.A. have connections to its tanks by specialised pipelines for the various products. They provide loading and discharge outputs from 120 to 2,500 cu.m./h. according to product.

Storage capacity: Depot of the Port de La Pointe de Berre 154,000 tons.

Storage area of the Shell Refinery 1,572,000 tons.

To the above capacities should be added 303,000 tons of crude oil brought by pipeline to the Shell Refinery from the Lavera and Fos berths.

BRIDGES: 1 railway bridge and 1 road bridge across Caronte Canal each having special times for opening. Ships of less than 21 m. height clearance may pass below the railway bridge. Motorway bridge over Caronte Canal with 44.00 m. clearance.

STEVEDORES: To enable Agent order gangs important obtain accurate ETA between 24 hours and 48 hours in advance. 2 shifts 0500 to 1300 hrs. and 1300 to 2100 hrs. normally 6 days a week. Confirmation to be made at 0900 hrs. for afternoon shift, and 1700 hrs. for next day morning.

MEDICAL: All hospital and medical facilities. Yellow fever inoculation made by appointed doctors. Masters to advise by radio prior arrival if medical attendance is required on board.

TANKERS: See "Berthing".

DENSITY: About 1028. Variable in Canal de Caronte and Etang de Berre owing to discharge of hydraulic plant of St. Chamas.

FRESH WATER: Available generally by pipes and hoses at the berths. Water barges available from Marseille.

FUEL: By barges for cargo ships and vessels in the Roads. Tankers at Lavera refuel by pipe-line at the berths. All grades available.

FIRE PRECAUTIONS: Oil Harbour fitted with a system of 203 mm. (8 in.) or 254 mm. (10 in.) sea water pipes at 5 bars permanent pressure. It may be increased by pumping station up to 9 bars, and supply 500 cu.m./hr. Each wharf has 5 fire hydrants with first-aid equipment: fire hoses and spray nozzle, foam nozzle with powder cans. If fire breaks out on a ship, the hose handling gantries are protected by a screen of sprayed water. All fire equipment and installations are painted red.

There is a special fire-fighting Corps with fire vessel. Call for firemen 06.21.29 or in case of fire call Port de Bouc Control – phone 06.22.26 or 06.63.39 or VHF Channel 16.

GANGWAY/DECK WATCHMEN: Available but not essential.
OPENING/CLOSING HATCHES: Always by crew.
CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes every 5 days; wine/spirit: limited amount per man.
IDENTIFICATION CARDS: Seamen going ashore should carry passport or identity card.
CONSULS: Norwegian, Swedish, Danish and Spanish consuls at Port de Bouc. Others at Marseille.
REPAIRS: Permission must be granted by Port de Bouc Harbour Master only.
DRY DOCKS: Nearest at Marseille.
REPATRIATION: All facilities for crew change and repatriation by railway or planes.
AIRPORT: Marignane Airport 40 km. and Nice Airport 230 km. (Nice for SAS lines).
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: Same as "Marseille".
POLICE/AMBULANCE/FIRE: Police, 42.06.23.74 or 42.07.03.31; Fire, 42.06.21.29 or 42.06.28.37.
TELEPHONE: On application can be connected on board at Lavera. Telephone ashore in other places.
SHORE LEAVE: Allowed.
SHIP SUPPLY SERVICES: *Auxiliaire Maritime:* Monsieur Seguin Technical Manager – Tel: 42.06.09.89, 20 Cours Landrivon, 13110 Port de Bouc, France. Telex: 430 274. Regular and spot launches service.
Port Service: Monsieur Erick Ganaye, Operations and Technical Manager, Place de Narvik, Port Petrolier, 13117 Lavera, France. Tel: 42.81.62.30, Telex: 401 305. Shinc boat service, Interpreters, spot helicopter service, watching.
Societe Citerna: Anse Aubran 13110 Port de Bouc, France. Tel: 42.06.09.90, Telex: 420 730. Bunkering (with no limits of tonnage).
Societe Ouvrages Sous-Marins et Portuaires: Monsieur Boscolo – Director, Anse Aubran, 13110 Port de Bouc, France. Tel: 42.06.22.44, Telex: 400 035, SHinc diving operations – wet docking. Speaking English, German and Spanish.

SHIPMASTER'S REPORT: October 1987.
Berth: Berth No. A1 at Lavera.
Documents:
6 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest (including bond, ship's stores, currency,etc.).
1 copy Health Declaration.
The agent assisted with all formalities.

Anchorage: The vessel anchored in Fos Bay about 1 mile West of Lavera North Breakwater (Port de Bouc). Pilot now compulsory for anchoring. Under certain circumstances vessels can vent off gas at anchor if wind from North. Use West anchorage. Normally for venting have to go 12 miles off coast.

Pilotage: Pilot boards off Lavera Buoy from a fast launch.

Reporting: Report to "Couronne" Signal Station on VHF Channels 16 and 10 when inbound at Omega Buoy and when outbound leaving Lavera or Fos. They require details of vessel, cargo type and tonnage and destination.

Currents: There are strong currents in the Basin of Lavera piers due to outflow from Etang de Berre through Canal de Caronte. Eddies encountered in the vicinity of A4 Berth. Vessels often experience strong cross current off Port de Bouc entrance.

Tugs: Tugs not normally required by small vessels, except in strong winds.

Berthing: Vessel berthed at Berth A1 for loading ethylene, this being the nearest pier inside the harbour. If vessel is loading vinyl chloride monomer (VCM) Berth A4 is used. This berth is just behind Berth A1. Butadiene and propylene are also loaded at Berth A1.

There are good fenders at both berths.

Moorings consisted of 3 head/stern lines and 2 springs forward and aft.

A shore telephone is connected and an English speaking deck watchman is compulsory whilst working cargo only.

Fresh water is available at both berths.

Storing: Lorries delivering stores to Berth A1 may proceed to within 60 m. of the ship's rail. However, at Berth A4 storing is difficult as lorries are not allowed within 200 m. of the vessel.

Cargo: Ethylene (Berth A1) and VCM (Berth A4) are handled through 8 in. liquid and vapour Chicksans.

The loading rate for ethylene is about 150 t.p.h. Digital temperature readout available.

VCM is loaded at an approximate rate of 230 t.p.h.

At Berth A1 vapour return up to a back pressure of 3 Bar was obtained with ship's compressors. However, if vessel is careful, 2 compressors can be used to facilitate loading rate/cool down.

At Berth A4 the shore stop was on the exact quantity. A tonnage check is given about 1 hour before completion. Anything in the 3 km. shore line must be taken on board. This was stated to be 140 tonnes but can be over or under by 10 tonnes.

The GECO Surveyor is in constant attendance at both berths and the office is close at hand. The surveyor speaks fairly good English.

Nitrogen can be taken from shore line at ambient temperature at both berths, rate about 500 cu.m.p.h.

There are no shore foremen.

The maximum venting to atmosphere that is allowed by Port Authority is 10% of lower explosive limit of Cargo Vapour in tanks.

General: The nearest airport is Marseilles Marinagne, which is about 8 miles away.

Berth A1 telephone number from UK is 010 33 42.81.55.70.
Berth A4 telephone number from UK is 010 33 42.81.56.36.

Nitrogen can also be taken at H Bis Berth at far side of harbour. No meter on tank volume. Telephone from UK 010 33 42.81.84.44.

Nitrogen also taken at "K1" Berth on the other side of pier from 'A4'. Again, no meter on tank volume. No telephone available.

No V.R.L./vent line at H Bis and K1 Berths, hence 100% LEL atmospheric venting.

Port side to both berths.

K1 Berth only for small vessels, stern protrudes.

AUTHORITY: Port Autonome de Marseille, Capitainerie des Bassins Ouest, B.P.200, 13528 Port de Bouc Cedex. *Tel:* 42.06.22.26. *Telex:* 440164 PORFOS. *Cables:* PORFOS. *Contact:* Harbour Master.

(c) FOS: 43.24 N. 04.53 E. **(See Plan)**

DOCUMENTS:
Inward Declaration (Presented by Pilot on boarding).
1 Cargo Manifest or Manifest in Ballast.
Bill of Lading.
Ship's Register (if required).
6 Crew Lists (8 if Spanish or U.S.S.R. ship or ship bound for these countries).
3 Passenger Lists.
Health Declaration.
Derat Certificate.
3 Bunker Supply Forms.
Declaration of crew personal effects, cameras, binoculars, radios, cigarettes, tobacco, etc.

If on inspection, articles or quantities not in conformity or in excess, Master held responsible, articles removed and heavy fines imposed.

PILOTAGE: Compulsory. Contact by Marseilles radio or direct to pilot boat by VHF Channel 16 for calling, Channel 9 for traffic. Pilot boards in the roads between 2 and 2.5 miles S.W. of Bouc Tower or farther out if required. Motor launch, black hull, white cabin, white anchor on bow, flying "H" flag.

Port de Bouc Port Control, call on Channel 16, Channel 12 for traffic. Pilot boat on Channel 16 for calling and Channel 14 for traffic.

ANCHORAGE: It is recommended to ask for Pilot before anchoring in outer roads to avoid prohibited anchorages. Permanent watch on VHF Channel 16 compulsory.

RESTRICTIONS: When large tankers are proceeding in the Fos Channel, other vessels' entrance may be delayed.

Access channel for very large vessels dredged to 22 m. over a width of 250 m.

Notice: *Port Authorities Instructions Concerning Fos/Lavera Tanker Areas.*

Special Notice No. 94/81.

Re: Berthing of Tankers Loaded with Naphtha or Gasoline.

Taking into account the recurring risks encountered with tankers discharging naphtha, super gasoline, gasoline or condensate, until further notice, it has been decided that only one vessel at a time, carrying said cargo, will be allowed to discharge in above areas of Port Autonome de Marseille.

For the time being these restrictions do not apply to coasters.

Furthermore, vessels concerned, whatsoever the year of building, will only be allowed alongside providing that pump room is clean, gas free and that no product is leaking at ship's valves or pumps.

Should above conditions not be fulfilled vessels could not be accepted in above areas.

MAX. SIZE: Max. draft at Oil Jetty 22.25 m.; Solmer in Dock No. 1 – 18.6 m.; Mineral Quay in Dock No. 1 – 14.93 m. Dock No. 2 – 16.76 m. Dock No. 3 – 14.93 m.

HEALTH: Pratique given by Customs Officers who board on arrival. In case of suspected disease on board, notify Agent by radio before arrival. See also "Marseilles".

RADIO: Within 150 miles, traffic should be routed through Marseilles Radio, FFM, otherwise via St. Lys. FFL.

VHF: Channel 16 for calling. Channel 12 for traffic and Channel 14 for pilot.

RADAR: Port and approach radar station.

TUGS: Tugs normally join vessel in the entrance channel. Ship's lines are used, or from tugs if required.

GENERAL CARGO FACILITIES: *End of the Mole between Docks 2 and 3:* 1 berth (No. 870). Serviceable length: 110 m. Max. draft: 6.50 m.

This berth permits sea-going barges to come alongside and is reserved for stern-loading Ro-Ro vessels.

Gloria Basin: On the East side of the basin: The Brule Tabac Quay for miscellaneous traffic.

3 berths (Nos. 871-873).
Berth 871: Serviceable length: 221 m. Max. draft: 11.50 m.
It is equipped with a floating ramp for Ro/Ro traffic.
Berth 872: Serviceable length: 222 m. Max. draft: 11.50 m.
Berth 873: Serviceable length: 222 m. Max. draft: 10.80 m.

It is equipped with a floating pontoon, permitting access for stern-loading Ro/Ro vessels.

Equipment: 1 quayside railway for direct transhipment; 2×15 tonne mobile cranes; 1×8 tonne mobile crane; a storage area of 170,000 sq.m.; a transit shed of 9,000 sq.m.

In addition to the above equipment, the Port Authority's 500/600 tonnes floating derrick "Protis" is available for use in the harbour areas of Marseilles, Port Saint Louis du Rhone and Fos.

On the West side of the basin: A deep-water quay, the Gloria, will be able to receive vessels of ever-increasing size which cannot be accommodated at the quays of Port Saint Louis du Rhone. (Phase 1 completed).

Berth 821: Solmer finished products dispatch quay.

South Dock: Length 360 m. Max. draft: 12.00 m. Equipped with 2 cranes of 50 tonnes at 26 m.

Berth 859: Private berth at the end of Dock 2, serving the installations of the Compagnie Francaise d'Entreprises Metalliques (CFEM).

Length: 120 m. Max. draft: 6.10 m.

BULK HANDLING FACILITIES: Fuel, solid minerals, ores: 3 public berths and 2 private berths.

Public Berths:

3 berths Q1 (No. 851), Q2 (No. 852) and Q3 (No. 853) in Dock 1, West Quay: Total length of quay: 884 m. Usable length of quay: 850 m. Max. depth of water at quay side berth: 16 m.

Largest admissible ship: Deadweight capacity: 100,000 d.w.t. (approx.). Length: about 300 m. Max. draft: 49 ft. (14.93 m.).

Equipment: (Capacities for products of density = 1.3).

For discharge: 2×20 tons bucket gantry cranes (P1.P2) (2×700 t.p.h. peak output). 2×15 tons at 30 m. reach, bucket cranes (K1.K2) (2×600 t.p.h. peak output). 2×70 cu.m. hoppers connected to cranes.

For loading: 1 continuous loading gantry C1 (Aluminium Pechiney) (1,500 t.p.h. peak output). 1 continuous loading gantry C2 for ships up to 50,000 d.w.t. (1,600 t.p.h. peak output). 1 assembly loader (tilting conveyor with feeder) for ships up to 25,000 d.w.t. (1,500 t.p.h. peak output). 1 loading berth for river barges (800 t.p.h. peak output).

Conveyors: 1 fixed reversible longitudinal conveyor belt L1 (2 speeds: 1,600 and 2,000 t.p.h. nominal). 1 fixed reversible transversal conveyor belt T1 (1,600 t.p.h. nominal). 1 train of 7 mobile conveyors (PMA) with stacker (1,600 t.p.h. nominal). 1 fixed longitudinal conveyor belt LP supplying loading gantry C1. 1 fixed import transversal conveyor belt T2 (2 speeds: 1,600 and 3,400 t.p.h. nominal). 1 fixed reversible longitudinal conveyor belt L2 (2 speeds: 1,600 and 3,400 t.p.h. nominal). 1 reversible fixed longitudinal conveyor belt L3 (1,600 t.p.h. nominal). 1 second train of 7 mobile conveyors with stacker (CARFOS) (2 speeds: 1,600 and 2,000 t.p.h. nominal. 3 mobile conveyors of 36 m. (1,600 – 2,000 t.p.h. nominal).

Storage: Buffer stock: approx. 7 acres. Storage area: approx. 21 ha. Covered storage: 3,840 sq.m. shed. Whole storage capacity: approx. 900,000 cu.m. (excluding buffer stock. 25,000 tons aluminium silo (Aluminium Pechiney).

Commercial throughput subject to product specific gravity and grade, type of vessel, operating conditions.

Discharge: Three shifts daily (20 hours work) commercial rate for products from specific density 0.8 (coal) to 1.3 (bauxite, sulphur): Using 2×20 ton bucket gantry cranes: 12,000 to 16,000 t.p.day. Using 2×15 ton bucket cranes: 7,000 to 10,000 t.p.day.

Loading: Hourly commercial output for products of 0.8 to1.3 specific density: With the loading gantry C1: 600 to 1,000 t.p.h. With the loading gantry C2: 800 to 1,300 t.p.h. With combined use of assembly loader (inclinable conveyor) and feeder: 300 to 600 t.p.h. On the river barge berth: 600 t.p.h.

Annual terminal throughput capacity between 4.0 and 4.5 million tonnes per year consisting of:

3.0 to 3.5 million tonnes incoming cargo. 1.5 to 1.0 million tonnes outgoing cargo.

DEVELOPMENTS SINCE 1983.

Maximum water depth on Berth Q2: Deepened to 17.50 m.

Largest admissible vessel: Deadweight capacity: 140,000 d.w.t. (approx.). Draft: 55 ft. (16.76 m.).

Equipment: For discharge: 1 Five Cail Babcock continuous unloader (P+) for vessels up to 150,000 d.w.t. Peak output: 2,200 t.p.h. (coal). 2,700 t.p.h. (bauxite).

River barge loading berth. A new river barge loading berth with commercial output reaching (100 m. long North End): 750 t.p.h.

Conveyors. 1 fixed transversal export conveyor belt T3 supplying either conveyor belt L3 to loading gantry C2 or river barge berth.

Discharging commercial output. Three shifts daily (20 hrs. work) commercial rate on a 140,000 d.w.t. bulk carrier for product of specific density 0.8 (coal). Using: 1 continuous unloader (P+) plus 1 train of mobile conveyors: 22,000 t.p.day. Using 1 continuous unloader (P+) plus 2×15 ton bucket cranes (K1.K2) plus high capacity storage installation: 28,000 t.p.day.

Annual terminal throughput capacity. Between 5.0 and 6.0 million tonnes per year consisting of: 4.0 to 5.0 million tonnes incoming cargo. 2.0 to 1.0 million tonnes outgoing cargo.

Until the high capacity storage installation is put into service, this traffic capacity can only be reached by increasing the turnover rates of existing storage areas.

A further quay and equipment is planned to handle much larger vessels.

DRY BULK EQUIPMENT: P.M.A. equipment:

2×20 tonne bucket gantry cranes. 2 cranes of 15 tonnes at 30 m. 6 fixed conveyors. 10 public and 7 private mobile conveyors. 2 stackers on tyres. 3 feeders with a capacity of 1,500 t.p.h.; 1 of these is privately owned. 1 ship loader of 1,000 t.p.h. capacity. 1 continuous unloader with a capacity of 28,000 tonnes per day has also been brought into service.

Private equipment: 2 discharging gantry cranes on the Solmer import quay. 2 cranes of 50 tonnes at 26 m. on the Solmer export quay. 1 loading gantry crane of 1,500 t.p.h. conceded to a private firm (Pechiney Co.) with the obligation to give public service on the ore quay.

Private Berths: Two private berths (Nos. 811 – 812) in Dock 1 – Eastern Quay. Ste. Solmer reception quay.

Available berthing length: 640 m. Permitted draft: 18.60 m.

Annual capacity of loading or discharge:

Solid minerals, fuels – Coal: 3,000,000 tons/year.
Ores: 4,000,000 tons/year.

The Societe Solmer Quay is equipped with 2×40 ton gantries, each having an hourly rate of discharge of 2,000 tons.

Storage Capacity: Fuel, solid minerals, Coal: 350,000 tons.
Ores: 1,000,000 tons.

Societe Solmer has a quayside open area of 360,000 sq.m. for the receipt and storage of coal and ores.

LNG FACILITIES:

At Dock No. 1. (Berth No. 830) (Owned by Gaz de France).

Length available for berthing 180 m. Max. draft 9.75 m.

2 storage tanks, for LNG in the liquid phase (−160°C.), each with a capacity of 35,000 cu. m. (1,235,500 cu. ft.) and 1×80,000 cu.m.

The pumps on the LNG Carrier discharge through articulated pipes of 300 mm. diameter (11.8 in.), 3 are specifically for discharge; one is to return the methane, in the vapour phase to the carrier.

After warming up from the liquid phase, with the addition of nitrogen to conform with the value in the French Gas Grid, the gas, in the vapour phase, is despatched by pipe-line to the underground storage at Tersanne, 214 km. from Fos (134 miles), and to Marseilles and the Cote d'Azur.

LPG FACILITIES: *Propane:* Geogaz's underground storage of 120,000 cu.m. at Lavera is connected directly by pipe-line to the oil refineries and the port

Butane: Underground storage of Geobutane at Lavera. Capacity of 170,000 cu.m. can now be raised to 230,000 cu.m. following a positive geological survey.

Reshipment Traffic: The port has established an international reputation for its technically delicate operations.

CHEMICAL PRODUCTS: 2 privately managed berths on the East quay of Dock 2.

Facilities of the PCUK Company (Berth 858):

Serviceable length: 90 m.; Max. draft: 11.30 m.

This berth is reserved for the export of chemical products such as vinyl monomer chloride and washing soda.

Arco Terminal:

Serviceable length: 135 m. Max. draft 11.30 m.

This berth is reserved for the export of MTBA.

CONTAINER HANDLING FACILITIES:

5 berths (Nos. 862–866) in Dock 2, Graveleau Quay.

Available berthing length: 1,060 m.

Permitted draft: 13.00 m. (Berth No. 866 – max. draft 12.00 m.

Annual loading or discharge capacity: 150,000 containers, i.e. 2,500,000 tonnes (approx.) (20 ft. and 40 ft.)

P.M.A. equipment: 5 Paceco quayside gantry cranes of 40 tonnes, capacity 20 – 25 containers p.h. and 2 Caillard gantry cranes of 40 tonnes.

Private equipment for handling containers on ground surfaces:

2 transtainers (on tyres) capable of stradling 6 rows, 4 high, plus 1 service road and of lifting 40 tonnes; 15 front-lifters with 40 tonne lifting capacity; 6 fork-lift trucks with 12 tonne lifting capacity; 2 fork-lift trucks with 10 tonne lifting capacity; 10 fork-lift trucks with 3 tonnes lifting capacity; 32 park tractors with adjustable couplers; 77 skeleton trailers for containers.

Storage capacity: 15,000 containers i.e. 225,000 tonnes (approx.) (20 ft. and 40 ft.). Users have at their disposal a storage area with a total surface of 27 hectares.

Annual capacity of output or input: 150,000 containers (20 ft. and 40 ft.) i.e.: 2,000,000 tonnes (approx.) by lorries or railway. The French Railways Transcontainers terminal has 2 gantries on open areas with lifting capacity of 40 tonnes.

The terminal also has: A control centre of 2,000 sq.m.; 2 service areas of 200 m.×70 m.; a stuffing and unstuffing area of 3,200 sq.m. comprising 2 sheds of 25 m.×20 m. each.

TANKERS: Chicksan loading/discharge arms fitted at all berths. Ballast discharge ashore through pipe-line. Tank cleaning slop or oil residue not accepted through shore line, but can be disposed of by barge from Marseilles. Possibility of crude cleaning for vessels with inert gas system if cleaning does not exceed time of discharging operations.

Crude: 6 public berths, of which 2 are multi-purpose 0 and 0 Bis (Nos. 800 and 807).

Designation	Berth No.	Berthing Length (m.)	Max. Draft (m.)
0	800	250	12.40
0 Bis	807	250	12.80
1	801	370	20.58
2	802	350	17.90
3	803	420	22.25
4	804	420	14.00

Berths 0 and 0 Bis (800 and 807) are equipped to handle either export or import of refined products, or the loading of crude oil from a tanker moored at one of the berths 1, 2 or 3 (Nos. 801, 802, 803)

Berths 1, 2 and 3 (Nos. 801, 802, 803) are for receiving crude oil only. Berth 2 (No. 802) is specially equipped to tranship, by using special pipe-lines, crude oil from a vessel alongside at Berth 1 (No. 801) and No. 3 (No. 803).

Specialised lines, dependent upon the nature of the products, connect these berths to the oil depot of Fos, to the CRAU depot (Shell-C.F.R.-B.P.) to the Esso refinery and to the S.P.S.E. terminal, all located in Fos.

Shipmaster's Report: October 1986.

On Berth Nos. 1, 2 and 3 the outboard lifeboat is to be lowered down to the embarkation deck and rigged ready for immediate use.

Storage Capacity:

S.P.S.E. Terminal	2,660,000 cu.m.
CRAU Depot	1,910,000 cu.m.
Esso Refinery	1,040,000 cu.m.
Total:	5,610,000 cu.m.

Berth 4 (No. 804): Located at Mole No. 2 of the oil terminal, offers in a primary stage a depth of water of 15 m. The berth is intended for berthing in ballast of vessels of 550,000 d.w.t. for washing out tanks prior to repair.

It also permits the reception of crude oil imports and the transhipment of crude from tankers moored at Berths 801, 802 and 803.

The maximum permissible draft is at present 14 m.

The berth is connected to the new deballasting station by a 20 in. diameter pipe-line. During the current first phase of development, this station treats only ballast of low oil content.

The berth can also be used for discharging crude from tankers with drafts up to 14.02 m., and is equipped with one 42 in. diameter discharge pipe and two 16 in. diameter discharge arms.

During the current first phase of development, this berth is not equipped with refuelling pipes or boarding towers.

This berth is also used for transhipment from ship to ship (alongside each other) for crude and gas operations.

Refined Products: 4 berths of which 2 are multi-purpose – 0 and 0 Bis (Nos. 800 and 807).

Designation	Berth No.	Berthing Length (m.)	Max. Draft (m.)	*Remarks*
0	800	250	12.40	Public
0 Bis	807	250	12.80	Public
C.2	808	100	6.30	Public
Solmer	821A	100	5.50	Private

Independently of the receipt of crude oil, berths 0 and 0 Bis are equipped to handle either refined product import or export traffic, or the loading of crude oil from tankers berthed at berths 1, 2 and 3 (801, 802, 803).

Berth C.2 (No. 808) specialises in loading refined products on coastal vessels and the Solmer berth specialises in the receipt of fuel oil.

Storage capacity:

Fos Oil Depot		522,000 cu.m.
Esso Refinery		1,023,000 cu.m.
	Total:	1,545,000 cu.m.

Report:

Berthing Procedures: Tugs are secured in the dredged channel between Buoy Nos. 3 to 7, using the "On the Hook" method. Tugs watch VHF Channel 6.

Loaded or ballasted tankers are usually berthed starboard side to the berth and are swung on departure. But on request (ship's manifold too far displaced or only one gangway available) or in some weather conditions (S.E. winds), ships may be berthed port side alongside. The swing is always difficult and requires careful attention.

Usual parallel landing method is followed for berths 0 – 0 Bis and 4, and ship's anchor may sometimes be used in special weather conditions.

When instructed to berth at No. 1 or 2, Masters should be aware that the speed has to be carefully checked and agreed with the Pilots. When passing the last buoy of the channel (No. 11), the engine has to be put "full astern" and the effect of the propeller may bring the vessel approximately parallel to the jetty. The berth approach is then conducted at an angle of less than 30° with tugs' control.

Only Berth No. 4 is equipped with an approach velocity indicator which may be moved to No. 3 in the future.

For all the berths, ships' lines are taken ashore by mooring launches and lifted by hand on to the bollards or quick release hooks.

Spring lines are sent first, then breast lines and tugs will come alongside to push. Mooring boats make VHF contact on Channel 6.

Shore gangways are available only on Berth Nos. 1, 2 and 3, put on the ship's deck forward of the manifold (ships' lifebuoys used). On the other berth ships' gangways are needed with safety nets and lifebuoys.

Berths: Managed by the "Port Autonome de Marseilles", the berths consist of concrete platforms with rubber fenders. All are equipped with counter balanced hard arms, bolted connections. Shore personnel carry out connections/disconnections and a permanent watch is maintained on the berth. This watch may be made from a control room where video surveillance is carried out for the berths by one camera mounted on the arms and another one watching the entire berth.

The outside arms can be used for bunkering and for discharge of ballast.

Storage for ballast is up to 80,000 cu.m. and discharge rate to 5,000 cu.m.p.h.

Shore lines have *No Non-Return* valves, and ships are advised to carefully close their manifold gate valves during any stops.

Port Regulations give maximum cargo temperature allowed for discharging heated cargo using crude oil lines: in these special cases, 55°C (131°F) may not be exceeded.

BALLAST: *deballasting station:* This station is situated to the rear of the oil jetties; in the current phase of development it treats ballast of only low oil content.

Its main characteristics are as follows:

Primary separation: 4,000 cu.m/hr., with apparatus for removing sediment and the oil recovered.

Intermediate storage in a basin of 80,000 cu.m., 320 m. long by 108 m. wide by 3.50 m. deep.

Secondary separation capable of rejecting water containing less than 5 p.p.m. of crude oil and petroleum products (by infra-red measurement) with a throughput of 250 cu.m/hr.

Storage of oil-rich mixtures (slops) 4×360 cu.m.

Auxiliary installations (fire).

Storage of oil-rich mixtures, 4,520 cu.m. will shortly be in service.

FIRE PRECAUTIONS: A special fire fighting corp. operates at Fos. Tel. 42.06.21.29 or Port de Bouc Control on VHF Channel 16 or Telephone 42.06.63.39.

FRESH WATER: Available by pipe-line at all berths.

FUEL: Available by barge only.

MEDICAL: All hospital and medical facilities. Yellow fever inoculation made by appointed doctors. Masters to advise by radio, prior arrival, if medical attendance required on board.

REPAIRS: Ore berth can be used as a repairs berth when not required for cargo operations. Permission must be obtained for tanker repairs. No tankers repairs if vessel is not gas free. Permission given by Harbour Master only.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes every 5 days. Wine/Spirits: limited amount allowed per man.

CONSULS: Norwegian, Swedish, Danish and Spanish Consuls at Port de Bouc. Others at Marseilles.

AIRPORT: Marseilles/Marignane Airport about 60 km. distance.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

TELEPHONES: On application, telephones can be connected on board.

SHIPMASTER'S REPORT: August 1987.

Berth: PCUK Berth.

Documents:

6 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.

Pilotage: Pilot boards at No. 3 Bis Buoy, 1.5 miles North West of Lavera Buoy. The vessel is to call Port de Bouc Control 2 hours before arrival and on passing Omega Buoy. The distance from No. 3 Bis Buoy to the berth is 5 miles.

Berthing: PCUK Berth is a private facility at the North East end of Dock 2. The depth alongside is 12 m. The berth is capable of handling 30,000 d.w.t. vessels. Products handled are vinyl chloride monomer (VCM) and caustic soda.

The berth has a 50 m. face with mooring/fender dolphins either side giving a flat fendering of about 100 m. The vessel berthed port side to, head out. The mooring dolphins are fitted with large rubber fenders.

Tugs: No tugs are required by small vessels, mooring to the dolphin and the shore is carried out by use of a launch.

Cargo: VCM is handled through an 8 in. Chicksan with a 6 in. vapour return line attached. Caustic soda is also handled through a Chicksan on the North end of the pier. The VCM Chicksan is in the centre of the pier.

Vapour is returned to the shore tanks.

VCM intake temperatures average −8°C and the loading rate is approximately 260 cu.m.p.h. VCM storage not inhibited. Inhibitor added to each ship's tank through loading arm, after first foot samples taken.

The ship makes the stops. After completion ship blows back ashore.

The plant/berth works in tandem with Berth A4 at Lavera. If Lavera berth is occupied and the PCUK berth free, ships berth at PCUK.

Storing: Diesel trucks are allowed to back-up to within 50 m. of the vessel. Fuel tankers and lub. oil tankers are not allowed near the vessel while the arm is connected.

General: Fresh water is available at the quay. There is no charge made.

Developments: A new chemical complex and berth are under construction for ARCO Chemical Company 3 cables South East of PCUK. It is anticipated that the berth will handle 1 vessel a day and average about 300 vessels per year.

AUTHORITY: Port Autonome de Marseille, Capitainerie des Bassins Ouest, B.P. 200, 13528 Port de Bouc Cedex. *Tel:* 42.06.22.26. *Telex:* 42.44.01.64 Porfos. *Cables:* Porfos. *Contact:* Harbour Master.

NANTES: 47.14 N. 01.34 W. (See Plan)
ST. NAZAIRE: 47.17 N. 02.12 W.
DONGES: 47.18 N. 02.04 W.
MONTOIR: 47.18 N. 02.08 W.

DOCUMENTS:

Cargo Manifest or Manifest of Ballast.
Certificate of Cargo Space.
Bills of Lading.
Ship's Register.
6 Crew Lists.
3 Passenger Lists.
Health Declaration.
Derat Certificate or Exemption.
Declaration of Crew Personal Effects.

PILOTAGE: Compulsory for vessels longer than 245 ft. owning radar/VHF. Starts about 4 miles North of lighthouse of Le Pilier, on lightbuoy "SN 3". Pilot boat on station day and night, if weather conditions permit, West of a line drawn between "SN 3" lightbuoy and lightbuoy of "La Couronnee" about 2 miles N.N.E. If Pilot unable to come aboard he may invite ship to follow his boat until they have reached better shelter. Ships heading for one of the Loire estuary ports should give ETA at least 24 hours before arrival to Port Captain of Saint-Nazaire. Approximate time of arrival at "SN 3" buoy, the onward destination and speed should be given. VHF contact can be made direct with St. Nazaire pilot boat or "Estuaire de la Loire" pilot station.

ANCHORAGE: When Pilot service withdrawn, anchor near "SN 3" lightbuoy or in "Rade des Charpentiers". In rough sea ships heave to off harbour. In case of doubt contact pilot boat by VHF or phone. Vessels are not allowed to anchor before Quay Emile Cormerais and Chevire Power Station Embankment (cables).

MAX. SIZE:

St. Nazaire: South Entrance Lock: Max. LOA 210 m. Max. draft 8.50 m. Max. beam 28 m.

Montoir: Length 300 m., max. draft 16.1 m.

Donges: Length 350 m., max. draft 16.1 m.

Nantes: Length up to 225 m., max. draft 10.05 m., minimum 8.55 m.

HEALTH: Pratique given by Customs Officers who board on arrival. If any case of suspected disease on board or any reason why vessel should not receive Free Pratique Master should radio Agent before arrival, advising full details.

RADIO: St. Nazaire Radio operates on 1687 MHz. It keeps a continuous watch on VHF Channel 16 and 2182 kHz.

VHF: VHF Radiotelephone must be used for giving information and obtaining clearance to navigate from the Harbour Master.

The following Channels and frequencies are used:

Channel 16	Frequency: 156.8 MHz
Channel 12	Frequency: 156.6 MHz
Channel 6	Frequency: 156.3 MHz

The Pilots can be contacted on VHF Channels 16 and 12.

A continuous watch is maintained on Channels 16 and 12.

RADAR: The radar service can be contacted on VHF Channels 16 and 12.

TUGS: *Nantes:* 4 "Abeille" tugs 500 h.p. to 1,000 h.p.
Donges – Montoir – St. Nazaire: 6 tugs 2,000 h.p. to 4,500 h.p. They are provided by "Union des Remorqueurs de l'Ocean".

BERTHING: St. Nazaire: Is a port with locks. Max. draft: 28 ft. (vessels up to 20 – 25,000 d.w.t. in the best conditions of tides).

Dock Water Density: 1003 to 1025.

Length of Quay: 2,700 m.

Number of Berths: 15.

Numerous cranes up to 12 tons and a 400 ton derrick.

Traffic: Timber, heavy loads, metallurgical products, refined products, fertilizers, grain (capacity of the grain silo: 10,000 tons. Loading rate 400 t.p.h.), oil seeds, phosphates. Tanker berth – Deballasting station. Ro/Ro operations can be carried out.

Montoir: Port Authority use own steel cables to supplement ship's ropes.

Dock Water Density: 1000 to 1020.

Specialised Facilities: Ro/Ro Berth – Max. LOA 140 m. Warehousing and 36,960 sq.m. of back up land.

LNG: 2 privately managed berths can receive gas-carriers up to 125,000 cu.m. Also see "Shipmasters Report" dated "June 1980".

Dry Bulk: Length of quay 630 m., cranage 2×15 tons, 5×15/30 tons average throughput per crane 500 t.p.h. Storage facilities and grain silo with gantry crane.

Traffic: Oil seeds, oil cakes, timber, coal, soya pellets, fertilisers.

Liquid Chemicals: Connections for acids and liquids, molasses average throughput: 600 t.p.h.

Container Terminal: Length of quay: 360 m., max. draft 12.0 m. Storage facilities, 2×25 ton cranes and one gantry crane. Ro/Ro vessels with side ramps also berth. 24 power points for refrigerated containers.

Coal: A coal berth is operational to receive ore carriers up to 140,000 d.w.t., rate 2,500 t.p.h.

Donges: Mooring of vessels to Dock No. 3 is performed with ship's ropes. On Dock Nos. 4, 5, 6 and 7, Port Authority use own steel cables to which ship is secured to supplement her own ropes.

Berth Nos. 5, 6 and 7: To reduce the time of mooring a special mooring gang can be put at Master's disposal for arrival and departure. Arrangements must be made 48 hours in advance of this service. Permanent watch on VHF Channel 16 is recommended.

Tanker Berths: Can receive fully loaded tankers of 120,000 – 140,000 d.w.t. or the 280,000 d.w.t. lightened. Number of berths 7.

4 berths are designed for handling refined products and LPG. Throughput: 1,500 to 5,000 cu.m./hr.

3 berths are designed for discharging crude oil. Throughput: 10,000 cu.m./hr.

Crude Connections: No. 5 Berth 4×12 in. Chicksan arms, 12 holes type 150 lbs. No. 6 Berth 5×12 in. No. 7 Berth 5×16 in. Chicksan arms. 12 holes type 150 lbs. Reducers available, notice required prior to arrival.

Bunkering Lines: No. 5 Berth 8 in. Chicksan arm with 6 in. connection. No. 6 Berth, 6 in., 8 in., or 12 in. No. 7 Berth 16 in.

Camet: Berth for tankers up to 180 m. LOA.

Nantes: Vessels may be moored with bow facing up or downstream. During heavy flood periods, however, bow to face upstream.

Dock Water Density: 1000.

Quai Chevire: Traffic: Timber and containers. 3 berths. Cranes up to 25 tons. Two 15 to 25 ton cranes are able to operate together, providing a 25 ton to 45 ton lifting capacity. Spreader available for handling 20 ft. containers (about 20 containers per hour). Storage facilities.

Quai Wilson: Length 1,472 m., 13 berths. Traffic: Heavy loads and containers in the Eastern part.

Phosphates, coal, pyrites, sulphur, salt, sugar, fruits and vegetables. Storage facilities. Numerous cranes up to 60 tons capacity.

Quai Roche-Maurice: 6 berths. Cranes up to 6 tons capacity. Discharging: phosphates, grains (loading rate 700 t.p.h.), molasses, fertilizers. Storage capacity of the grain silo: 80,000 tons.

Additional facilities for discharging oil and coaltar, chemical products, wine and various cargoes, length of quays: 1,500 m.

CRANES: 60 ton heavy lift crane at Nantes. 400 ton derrick at St. Nazaire.

BRIDGES: Vessels coming up the river to Montoir, Donges and upstream pass underneath the St. Nazaire bridge: Clearance 61 m. at lowest water.

STEVEDORES: Available.

MEDICAL: Facilities available at any time.

TANKERS: See "Berthing".

Degassing and deballasting operations possible at St. Nazaire, capacity 1,700 cu.m.p.h.

FRESH WATER: Available at docks.

FUEL: Available in any grade or viscosity. Advance notice of at least 2 days must be given if vessel has to bunker on Saturday or Sunday. Otherwise, delivery within 36 hours by barge.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Done by crew.

IDENTIFICATION CARDS: Not needed.

CONSULS:

Algeria	40.74.38.19	Netherlands	40.47.16.31
Belgium	40.71.57.10	Norway	40.71.33.35
Brazil	40.47.72.21	Portugal	40.73.05.04
	40.22.41.46	Spain	40.48.67.95
Denmark	40.71.89.13	Sweden	40.34.00.67
Finland	40.75.53.08	Switzerland	40.71.67.66
Germany F.R.	40.73.29.46	Tunisia	40.71.10.52
Greece	40.73.46.13	United Kingdom	40.71.08.50

FIRE PRECAUTIONS: Usual precautions for tankers in neighbourhood of refineries. No fire, no smoking, Ground wire for ship.

REPAIRS/DRY DOCKS: Very good facilities exist for all types of repair work.

St. Nazaire: "L. Joubert" graving dock, length 350 m., width 50 m. Dock can accommodate ships up to 240,000 d.w.t.

Dry Docks: No. 1 Ships up to 40,000 d.w.t. No. 2 Ships up to 1,500 d.w.t. No. 3 Ships up to 6,000 d.w.t.

Nantes: One 4,500 ton floating dock accommodating ships up to 130 m. long. One careening unit of 1,700 ton accommodating ships up to 100 m. long.

CUSTOMS ALLOWANCES: Tobacco: 300 cigarettes or 75 cigars. Wine; 7 pints. Spirits: up to 22° – 5.3 pints, beyond 22° – 2.7 pints. Coffee: 26 ozs. Tea: 5 ozs.

AIRPORT: *Nantes:* Good connections with French internal network (Air Inter) and also international, mainly with stop-over Paris. 5 daily flights to the capital. Direct flights to Bordeaux, Lorient, La Rochelle, Lyon, etc. *St. Nazaire:* 2 daily flights to Paris.

TIME: GMT plus 1 hour, seasonal alteration.

HOLIDAYS: New Year (1st January, no labour available); Easter Sunday (possibility of labour with overtime); Easter Monday (no labour available); Labour Day (1st May, no labour available); Ascension Day (possibility of labour with overtime); Whit Sunday (possibility of labour with overtime); Whit Monday (no labour available); National Day (14th July, no labour available); Assumption Day (15th August, no labour available); All Saints' Day (1st November, no labour available); Armistice Day (11th November, possibility of labour with overtime); Christmas Day (25th December, no labour available). N.B. Every Sunday and day marked "possibility of labour with overtime" can be worked at the rate of 100%.

POLICE/FIRE/AMBULANCE: Police 17; Fire 18; Ambulance 18.

TELEPHONE: Arrangements are possible.

SHORE LEAVE: No restrictions.

SHIPMASTER'S REPORT: June 1980.

Montoir: (Discharging ammonia) – See "Plan".

Approaches: B.A. 3216, 2989 and 2647, outer coverage not very good. Arrived in good visibility so shore lights gave good positions. Ile de Yeu does not show up very well on the radar until only about 16 miles off. The light on Ile de Yeu is listed on different charts as having different characteristics and in fact agreed with that in the Light List. The mainland showed up for some considerable distance but no worthwhile details were identified until well up to "SN1" Buoy (Racon).

The light on "SN2" was seen about the same time as "SN1" and is much brighter. Both buoys were seen on radar at ten miles. As there are many fishing vessels, identification of these buoys in poor visibility would require a great deal of care.

Once in the "tanker channel" proceed to the pilot station as indicated on the chart.

NOTE: Remember the standard message to "Surnav France" for a tanker carrying hydrocarbons.

Pilotage: Contact made on Channel 16, working Channel 12. Good communications.

Pilot cutter is a large vessel which will come close alongside and send away a small boat. Pilot ladder virtually to the water.

The cutter surprised us by steaming towards us at full speed and we eventually met some 3 miles West of the boarding area.

Vessel may only berth (and unberth) at slack water at Montoir. Being loaded means having to arrive at the top of the tide, although if in ballast one may sail at low slack water. Should any supertankers be moving at that time, presumably having booked their tide first, vessel will not be allowed to sail. The Pilot could not confirm whether incoming ships had priority.

NOTE: Unberthing tugs and Pilot to be booked by 1800 hrs. for the following morning. Vessel charged if unable to meet that particular slack water after ordering.

Three tugs used for berthing and unberthing; tugs lines, 1 forward, 1 aft and 1 pushing amidships. Backsprings sent away first.

When unberthing vessel moves upstream to turn.

Mooring boat to handle ropes.

NOTE: There were a lot of buoys which are not marked on the chart due, no doubt, to extensive dredging operations and spoil ground dumping.

Length of pilotage to first line ashore 1 hour 30 minutes.

Berth: Consists of a small "T" jetty with a line of dolphins standing proud of it by 1.5 m. These extend from just forward of the accommodation to No. 1 tank dome, 150 m. approx.

Mooring arrangements were adequate and the linesmen were reasonably adept.

Shore gangway must be used.

It is necessary to rig the low extension to the liquid manifold as the shore chicksan has insufficient upreach. Invariably berthing port side alongside.

Storing: Prior to this call the berth operators allowed vessels to take on provisions and foodstuffs but port regulations forbid the loading of machinery items or heavy lifts during discharge.

The derrick only plumbs the after corner of the "T" jetty and all items have to be manhandled from the gate to the derrick hook.

If any items of machinery are to be landed or loaded, it is necessary to do this either before discharge or after completion; the port authorities insist on the chicksan being disconnected, merely stopping discharge is not sufficient.

Similarly they will not allow a fork lift truck to operate on the berth during pumping operations.

Lube oils were taken at this call and we were able to continue this during discharge, simply because the lines were connected before the chicksan and the lorry was still parked outside the jetty access.

However, after discharge, protest was made against the very low discharge rate and frequent stoppages; the berth operators were most upset by this and have sworn that NO STORING will be allowed there in future. This situation will obviously have to be checked very thoroughly in the event of having a large storing/lube oil programme. Barges are not allowed alongside during discharge.

Discharge: As already noted the low load/discharge line must be rigged on the port side prior to arrival.

There is no vapour return line. Ship supplied 10 in. reducer.

Storage capacity ashore is about 25,000 tonnes.

On arrival there was only a reported 2,000 tonnes in the shore tanks and they were therefore warm with consequent problems for the initial discharge. Apparently these tanks are loaded from the top, the liquid being allowed to free fall to the bottom. In the first 24 hours the discharge rate was little more than 80 t.p.h. and there was a total of 5 hours 29 minutes stoppages at shore request. We could not discover whether this was usual or if it was due to some uncommon machinery defect.

On boarding, the receivers quoted a maximum rate of no more than 400 t.p.h. and probably no more than 300 t.p.h. In fact, once the shore problems were resolved we rapidly increased to 550 t.p.h. and then up to 800 t.p.h. at times. At all times ship discharged to shore requirements, shore personnel at the chicksan communicating with the officer of the watch, but only by coming on board. No telephone contact, no walkie-talkie.

A telephone was put on board by the Agents.

Port Regulations require ship to maintain continuous VHF watch on Channel 16.

Receivers originally requested vessel to blow through lines on completion but this was not required.

Overall discharge rate 365 t.p.h.

Surveyor: Redwoods, figures taken on gauging of ship's tanks.

General: Fresh water available from quay, not costly.

Bunkers must come by barge, usual restrictions.

No film exchange possible unless with another vessel. If the depots at out ports have sufficient it may be possible to carry out an exchange if ample warning is given.

Chandler was quite good but closes over the weekend, plenty of warning should be given for unusual items.

Access to St. Nazaire by taxi, about 50 francs.

Papers: 2 Crew Declarations. 2 Stores and Bonded Stores Lists. Port Health Form; their own form, spares supplied. 1 Passenger Declaration, made up on board.

Applied for Radio Pratique but this was not granted prior to arrival.

Agents: Very good, very helpful with good representation on board. Local office in Donges, main office at Nantes.

Ballast: The river water is very dirty indeed, flood only being marginally less so than the ebb. High injection points only should be used.

If at all possible ballasting should only be carried out from about half flood to just beyond HW to minimise the amount of deposits within the ballast tanks. Even then an immediate programme of flushing tanks should be put into effect on clearing the river.

Density varied between 1025 and 1010.

AUTHORITY: Port Autonome de Nantes – St. Nazaire, B.P. 3139, 44031 Nantes Cedex 04. *Telex:* 700425 F. *Contact:* Harbour Master – Upstream: 18 quay Ernest Renaud, 44000 Nantes. *Tel:* 40.44.20.20. Downstream: 3 bis, boulevard de Verdun, B.P. 422, 44606 Saint-Nazaire. *Tel:* 40.22.08.46. *Telex:* 700912.

NICE: 43.42 N. 07.17 E. (See Plan)

PORT LIMITS: The Port is situated in the N.E. part of the Baie des Anges (Bay of Angels) between the castle hill and the Boron Mount which form at the Nice Cape a rocky promontory towards the South.

DOCUMENTS: The Master of a vessel, when he arrives, is required to fill out an entry declaration, a copy of which is handed to him by his Agent or by the Port Captaincy.

A Crew List and a List of Passengers intended for the Port Commissariat must be drawn up before arrival at the port.

All documents required by marine regulations, i.e. health declaration, manifest, vessel's safety plan etc., . . . are required by the port services.

PILOTAGE: The pilot station operates 24 hours a day and is attended by 2 licensed Pilots. Pilotage is obligatory for vessels of LOA 50 m. and over. Pilotage is exempt for vessels of less than 50 m., and if they are equipped with VHF, vessels of less than 70 m. The licence of Pilot is valid for vessels of a length equal to or greater than 120 m. equipped with a bow thruster and VHF. Specialised vessels carrying liquid oil, gas, and toxic products are subject to pilotage.

The pilotage area of Nice-Villefranche extends as far as 3 miles from the coast between the meridians of the left bank of the Var (07° 12′ E.) and of Cap Ferrat (07° 20′ E.). Vessels must, if possible, give warning of their arrival 24 hours in advance, particularly if they intend arriving during night-time hours.

Pilots may be called up by regulation signals during the day and night or by radiotelephone to Grasse Radio or Monaco Radio both stations on VHF Channel, telephone Nice Station (93 85 52 41) or to the Port Captaincy (Tel. 93 89 50 85).

ANCHORAGE: The coast being very rocky, does not allow anchorage close to the port. The Villefranche Roads, on the other hand, offers a sheltered zone, giving very good anchorage facilities. In the Villefranche Roads, 2 buoys can be used with the permission of the Nice Captaincy, by vessels merely calling at the port or waiting for a place on the quay at the Port of Nice. There is access for vessels of all dimensions.

RESTRICTIONS: The transport and handling of dangerous or infected materials, within the limits of the Nice Port, are subjected to the requirements of decree of the 1st February 1951 which controls the transport and handling of dangerous materials in maritime ports. There is no operation in this respect at night.

All operations, prescriptions, order and stipulations as laid down in the general regulations and the local regulation covering "Port Services" are governed by the Port Commandant.

MAX. SIZE: The commercial port is accessible to vessels of 145 m. in length and 7.0 m. draft.

HEALTH: Health control at the frontiers is subject to the measures prescribed by the international health conventions; the functions of health police and health guard are entrusted to an Agent in the service of Health. Urgent medical help can be obtained through the intermediary of the radio stations of Monaco and Grasse who establish contact directly with the department concerned.

VHF: Port Officer is on duty 24 hours a day and listens on Channel 16. Working on Channels 12 and 9.

There are two Channels, i.e. 9 and 12 for communication purposes. No communication of a private nature may be handled.

RADIO: Monaco Radio.

RADAR: None.

TUGS: 1×1,000h.p.

BERTHING: Length of usable quays 1,600 m. having a depth of 5.0 m. – 7.50 m. and 10 berths available.

CRANES: Quai Infernet: 2×5 tons cranes on rails (scoop and hook).

Commerce: (Commercial Quay) 2 cranes on rails of 6 tons capacity (scoop and hook).

Commerce: (Commercial Quay) 2 hoppers of 50 cu.m. capacity – on rails. 2 Nellen cranes on tyred wheels, capacity 4.2 tons at the end of the jib and 8 tons at 6 m. (with tackle block), and 1×10 ton capacity Gottwald crane with rubber tyred wheels.

CARGO HANDLING FACILITIES:

Material Handling Equipment: All the handling equipment is supplied by the stevedores. 1 forklift of 4 tons capacity and 11 forklifts between 4 and 8 tons capacity.

Storage Facilities: 45,000 sq. m. of open air areas. Specialised equipment for the discharge of bulk equipment (pyrite, clinker, mineral etc.)

Unloading or loading capacity – cement 1,400 tons per day; various: 400 tons to 700 tons per day and per gang; ores in bulk: 1,200 tons per day with 2 hoppers, 2 cranes and 2 gangs.

Facilities for Specialised Goods: 4 platforms for Ro-Ro traffic. Height of quays 1.23 m. and 3.06 m.

BRIDGES: None.

STEVEDORES: 67 professional dockers; 10 occasional dockers.

Employer – Bureau Central de la Main d'Oeuvre (B.C.M.O.) of the Port of Nice.

MEDICAL: Hospitals are situated in the town and give excellent treatment in the case of accidents or illnesses of any nature whatsoever.

Passengers coming from foreign countries are required to abide by the prescriptions of international agreements (vaccination certificates, health certificates, etc.).

TANKERS: No facilities.

DENSITY: *Salinity:* Varies between 34 gm. and 38 gm. per litre.

FRESH WATER: It is possible to take on fresh water at all quays by connection to the main supply. Average rate of supply 15 t.p.h. – price 8.55 Fr. per ton.

FUEL: All types available by truck.

FIRE PRECAUTIONS: The town provides fire fighting facilities. The fire station is close to the Port.

CONSULS: Algeria, Germany F.R., Austria, Belgium, Brazil, Colombia, Ivory Coast, Republic of Benin, Denmark, Dominican Republic, Spain, United Kingdom, U.S.A., Finland, Gabon, Greece, Ireland, Iceland, Italy, Liberia, Luxembourg, Mauritania, Monaco, Niger, Norway, The Netherlands, Peru, Philippines, St. Marino, Sweden, Switzerland, Tunisia.

REPAIRS: All possible deck and engine repairs can be carried out. There is no dry dock. Hull careening is carried out by underwater procedure.

SURVEYORS: Lloyd's of London, The Coasting Mediterranean Company, The Venturer Company, Weir (S.A.), Societe Azureenne de transports et d'affretements Maritimes, Societe Nationale Maritime Corse, Mediterranee, Pittaluga & Co., Martini & Co., Cie Charles le Borgne, Cie Fabre, Cie Fraissinet, Cie Messageries Maritimes, Nautilus Line, Barry Rogliano et Cie.

HATCHES: Hatches are opened and closed by crew.

CUSTOMS ALLOWANCES: 30 cigarettes per person per day; 1 litre of aperitif per 6 persons per day.

REPATRIATION: Airport and railway network in the town.

AIRPORT: International Airport 4 km. from the Port. Principal countries are served by international airlines.

TIME: GMT plus 1 hour (Winter). Summertime kept from April to October.

HOLIDAYS: These are staggered as far as dockers are concerned so that there is continuity of operation.

POLICE/AMBULANCE/FIRE: Police Tel: 17; Ambulance Tel: 18 or 93.92.55.55; Fire Brigade Tel. 18 or 93.86.16.11.

TELEPHONES: Telephones can be installed on board at Papacino Quay, Entrecasteaux Quay, Quai du Commerce, Quai de la Traverse, and Quai Ribotti.

SHORE LEAVE: Crew members may disembark after checking with Police.

IDENTIFICATION CARDS: For foreign seamen a permit to come ashore is issued by the Port Police.
GENERAL: There is a bus and taxi service very close to the port also there are coastal trading entities within the Port precincts.
AUTHORITY: Capitainerie du Port de Nice, 2 Quai d'Entrecasteaux, B.P 3, 06300 Nice. *Tel:* 93.89.50.85. *Contact:* Captain F. Guivarch, Port Captain.

PARIS: 48.51 N. 02.20 E. (See Plan)

PORT LIMITS: Within 1 km. of loading or discharging berth or, if occupied by another vessel, where the Pilot will place the vessel in agreement with the consignees.
DOCUMENTS: As Rouen is considered as the frontier port for vessels entering or leaving the Seine above this port (estuary to Rouen is known as "Seine Maritime", Rouen to Paris and beyond as "Seine Fluviale"), documents relating to vessel, crew, passengers, cargo, health, etc., are exactly the same as for Rouen and must be presented to the Agent on arrival in this port. If the vessel has never traded to ports inland from Rouen, technical inspection may be carried out in Rouen on first voyage.
PILOTAGE: As for Rouen, except that in spite of Rouen Agents being notified by Rouen pilot station of vessels' time of entry into Seine and ETA Rouen, also in most cases of the final destination of vessel, Masters should notify by radiotelephone Rouen Agents before entry into Seine of the final destination so that "Seine Fluviale" Pilots are waiting to take the vessel from Rouen to inland destination.
ANCHORAGE: See "Rouen".
RESTRICTIONS: Above Rouen, night navigation possible on request to Rouen Agents.
MAX. SIZE: 120 m. length, 15.5 m. beam, 3.5 m. draft up to Paris; beam reduced to 11.4 m. and draft to 3.0 m. on River Oise and River Marne up to Bonneuil or even 2.8 m. on River Seine beyond Paris; airdraft is limited at 8.75 m. up to Gennevilliers, at 6.0 m. beyond Paris, on River Oise and River Marne up to Bonneuil and at 5.5 m. on the upper section of River Seine (Montereau facilities).
HEALTH: See "Rouen".
RADIO/VHF: Vessels arriving in Seine Estuary are automatically notified to Rouen Agents. Any special messages to inland Agents or Receivers should be made by radiotelephone direct or via Rouen Agents, or by VHF to Rouen Agents when in "Seine Maritime". Pilot can always help Masters to send these messages via pilot stations. In the "Seine Fluviale" all locks have VHF and telephone by which messages can be relayed in case of accident, breakdown or delays. Pilot notifies inland Agents by telephone of such incidents.
RADAR: There is no radar service in the "Seine Fluviale". Bridge piles are equipped with radar reflectors.
TUGS: No offical tug service on "Seine Fluviale", but in case of breakdown, local tugs may be hired.
BERTHING: Many public or private facilities may be reached; main public ones are:

Quay	*Quay Length* (m.)	DEPTH ~~*Draft*~~ (m.)	*Shed Capacity* (sq.m.)	*Remarks*
Bonneuil	3,500	3.0	30,000	Container terminal with 40 ton mobile crane.
Gennevilliers	8,000	3.5	95,000	Container terminal with 30, 12 and 6 ton lift trucks; Ro/Ro and heavy lift facilities.
Conflans-Ste Honorine	1,400	3.5	2,000	
Limay	1,600	3.5	24,000	3×20 ton travelling cranes; Ro/Ro facilities.
Saint-Ouen l'Aumone	200	3.0	—	
Bruyeres-sur-Oise	600	3.0	—	

CRANES: All types of cranes available from leasing or handling firms.
BULK CARGO FACILITIES: 3×1,000 t.p.h. bucket wheels for coal unloading at Vitry-sur-Seine, Champagne-sur-Oise and Porcheville power stations.
SPECIALISED CARGO HANDLING FACILITIES: Containers handled at Gennevilliers and Bonneuil-sur-Marne; Ro-Ro facilities at Limay, Gennevilliers (cars) and Evry (heavy loads); reinforced quay for heavy loads at Gennevilliers.
BRIDGES: See "Max. Size".
STEVEDORES: Available.
MEDICAL: See "Rouen".
DENSITY: River fresh water beyond the first lock.
FRESH WATER: Available at most quays.
FUEL: One barge delivers fuel and water.
CONSULS: Nearly all countries represented in Paris.
REPAIRS: *Main Yards:*
Chantiers Navals d'Acheres, La Croix d'Acheres 78260 Acheres. Tel: (1) 3911.02.27. Telex: 697703 Cnacher.
Societe Francaise de Construction Navale, 66 quai Alfred Sisley, 92390 Villeneuve-la-Garenne. Tel: (1) 4794.64.46. Telex: 610998 Fracona.
Chantiers Navals de la Haute-Seine, rue des Voeux Saint-Georges, 94290 Villeneuve-le-Roi. Tel: (1) 4597.31.60. Telex: 691674 Auseine.
DRY DOCKS: Slips in the yards above. 1×1,250 ton synchrolift in Acheres (73 m.×13 m. platform).
SURVEYORS: Bureau Veritas, Lloyd's, American Bureau of Shipping and Norske Veritas have surveyors in Rouen or Paris.
GANGWAY/DECK WATCHMEN: Not normally considered necessary.
HATCHES: Normally opened by crew.
CUSTOMS ALLOWANCES: Same allocation per man per day as Rouen with allowance made for inland voyage.
AIRPORT: Paris "Charles de Gaulle" and "Orly".
TIME: GMT plus 1 hour (Winter), GMT plus 2 hours (Summer).
HOLIDAYS: See "Rouen".
TELEPHONES: Not available, but telephone always within short distance of quays.
SERVICES: Compass adjusting may be arranged by Rouen on outward trip.
SHORE LEAVE: Seamen's Book sufficient.
AUTHORITY: Port Autonome de Paris, 2 quai de Grenelle, 75732 Paris Cedex 15. *Tel:* (1) 45.78.61.92. *Telex:* 204487 Poronom, Paris. *FAX:* (1) 45.78.08.57. *Contact:* Bruno Grange, General Manager. Remi Loth, Head of Public Relations.

PORT-VENDRES: 42.31 N. 03.07 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
5 Passenger Lists.
2 Store Lists.
1 Maritime Health Declaration.
4 Cargo Manifests.
2 Bills of Lading.
Ship's Papers: Nationality Act, International Tonnage Certificate.
PILOTAGE: Three long blasts. ETA required for Agent, Pilot usually taken on outside unless in very bad weather. Call Pilot on Channel 16, 30 minutes before arrival.
MAX. SIZE: Max. length 150 m. max. draft 25-26 ft. ft./
HEALTH: Usually Customs give Free Pratique. In event of suspected disease or fever on board must advise naval doctor.
RADIO: Marseille Radio (or St. Lys Radio) or Perpignan Radio.
TUGS: None available.
CRANES: 1 shore crane available only of 55 tons.
SPECIALISED CARGO-HANDLING FACILITIES: 2 Roll-on/Roll-off berths, 1 refrigerated warehouse 11,000 cu.m., and 1 warehouse of 1,200 sq.m. with temperatures regulated at 10° centigrade.
STEVEDORES: ETA to be given to Agent in order to arrange gangs (usual rate per day. 8 normal working hours). 200 tonnes per gang.
MEDICAL: Perpignan Hospital (30 km. away).
TANKERS: Berth for wine tankers with pipe-line.
DENSITY: Salt water.
FRESH WATER: Supplied by Chambre de Commerce, Port-Vendres.
FUEL: For small craft only, otherwise delivery by trucks.
DRY DOCK: 1 travelift for craft up to 150 tons.
SURVEYORS: Available from Sete or Marseilles.
OPENING/CLOSING HATCHES: Normally to be carried out by crew (or as per charter party if any).
CARGO GEAR: Load/discharge effected by ship's gear.
GANGWAY/DECK WATCHMEN: Recommended if loading dangerous cargo.
CERTIFICATES:
Load Line Certificate.
International Tonnage Certificate.
Derat Certificate.
CUSTOMS ALLOWANCES: See "Calais".
IDENTIFICATION CARDS: Only Seaman's Book required.
REPAIRS: Minor repairs only.
AIRPORT: Perpignan Rivesaltes (30 km.)
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
HOLIDAYS: As for whole France – cargo work can be arranged on those days as overtime.
POLICE/AMBULANCE/FIRE: Tel. 17 or 82.00.60 or five long blasts. Officier du Port: 82.12.00.
EMERGENCY CO-ORDINATION CENTRE: Crossmed Toulon.
SERVICES: Workshop for small repairs, radio/radar repairs available, ship chandler for bonded stores, laundry.
STORING: Vessels can be stored by truck only, which are able to proceed alongside the berth. Fork lift trucks available. Customs Regulations in force.
SHORE LEAVE: Crew members are allowed ashore.
AUTHORITY: Service Maritime-Capitainerie du Port, 66660 Port – Vendres. *Tel:* 82.12.00.

PROPRIANO: Corsica, 41.40 N. 08.54 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
1 Provisions List.
1 Cargo List.
1 List of Articles (new and Customs-barred) in possession each crew member – cameras, binoculars, radios, cigarettes, spirits, etc.
1 Health Declaration.
PILOTAGE: Not compulsory.
ANCHORAGE: Outside port for cruise vessels.
MAX. SIZE: Draft 5 m.; length 160 m. (Ferry Berth).

RADIO: Within 50 miles call Ajaccio Radio VHF Channel 16. Then connected over Channel 23 to telephone network.
TUGS: None available.
BERTHING: 3 basins, depths 4.0 m., 6.0 m. and 3.7 m. New Marina with 370 berths. Facilities include fresh water, electricity, telephone. Crane (12 tonne) available for lifting pleasure craft. Engine repairs also possible.
STEVEDORES: 24 hours accurate ETA necessary for ordering gangs. No work on Sundays and official holidays.
CARGO GEAR: Only a few nets and slings available; all other gear must be supplied by ship. Ship's derricks used.
FRESH WATER: Available at very slow pumping rate.
FUEL: Available. Tel: 95.76.12.37.
REPAIRS/CONSULS: None.
TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.
AIRPORT: Propriano Tavaria 6 km. Direct flights to Marseilles, Nice and Lyons in Summer. Daily connections Airport Campo del Oro/Ajaccio.
POLICE/AMBULANCE/FIRE: Tel. Gendarmerie Propriano 95.76.00.17.
AUTHORITY: Administration du Port de Propriano, Quai St. Erasme, Propriano. *Tel:* 95.76.10.40. *Contact:* Captain A. Duval, Port Captain.

QUIMPER CORNIQUEL: 47.58 N. 04.07 W.

DOCUMENTS:
- Crew List.
- Passenger List.
- Customs Documents.
- Port Health Documents.
- Manifest of Cargo.
- Stores on Board.
- Ship's Papers.

PILOTAGE: Pilot Station, Tel: 910640. Contact via Le Conquet Radio or St. Nazaire Radio.

If vessel's ETA changes, telephone either the Agent or the Pilot at least 3 hours before arrival.

The pilot boat is a small black launch, white bulwarks with anchor painted on bow of each side, white cabin at the stern, one mast.

Only one Pilot on duty, but will meet ship at the time given in their ETA. Pilot boards either on the bearing 346° with Lighthouse of Benodet and du Coq in alignment, or on the bearing 000° with Lighthouses of Benodet and Combrit in alignment. Vessel should come as near as possible to the entrance. Vessels are anchored at the port entrance, or in the river, and await the tide, or proceed directly to the port.

In case of bad weather, when the Pilot may not embark, vessel to follow the pilot launch on the bearing 346° up to Plage du Trez, where boarding is possible. Vessels at anchor awaiting Pilot should get under way to approach the pilot boat on the bearing 346° when they see the launch approaching.
ANCHORAGE: Depths of 11 m. in position with the Taro Tower, bearing 245°; distance 0.8 miles.

Depths of 6 m. in position with the Point of Combrit bearing 000°; distance 0.5 miles.

Depth of 9 m., bottom sand and mud, in Du Trez Anchorage at the mouth of the Odet.
RESTRICTIONS: Vessels arriving at night must anchor outside the port entrance. It is dangerous to enter the river at night as there are no lights, and the channel is restricted by yachts at anchor.
MAX. SIZE: At spring tides: length 78 m.; breadth 12 m.; draft 4.95 m. At neap tides: length 72 m.; breadth 12 m.; draft 3.40 m.
RADIO: The Port Superintendent requires 24 hours notice of arrival.
TUGS: No tugs available.
BERTHING: At one quay there is 226 m. length for coasters. One quay of 120 m. length for discharging sand. 3 cranes available for discharge of cargo and one for discharge of gravel.
TANKERS: There is a fuel/oil depot at Quimper Corniquel supplied by coastal tankers from Donges. Max. draft for tankers at Quimper is 3.50 m. to 4.10 m.
FRESH WATER: 5 drinking-water hydrants situated on the quay, loading rate 12 t.p.h.
FUEL: Can be supplied by various companies from tanker lorries.
AIRPORT: Airport of Pluguffan situated 5 km. from the port. 2 regular daily flights to Paris.
AUTHORITY: Le President du Conseil General, Direction des Ports, Maison du Department, 29196 Quimper Cedex. *Tel:* 98.95.42.80.

ROCHEFORT SUR MER: 45.56 N. 00.57 W. (See Plan)

For all general information refer to Tonnay-Charente.
MAX. SIZE: Max. permissible length: 116 m; breadth: 16.5 m. (ships must pass through a lock of 18 m. width).

Max. draft is 5.6 m. at Neap tides, 6.3 m. at Spring tides.
Max. Size using Lock: LOA 100 m. Beam 16.5 m. Vessels enter 3 hours before to 3 hours after HW.
BERTHING: Lock Quay: Open storage area 1,900 sq.m.

South Quay: 2 berths, length 100 m. and 250 m. Public storage 4,200 sq.m. and private storage 9,200 sq.m.

West Quay: 2 berths, length 110 m. each. Public open storage 7,900 sq.m.

Bachelar Quay: 2 berths, 110 m. each. Public open storage 2,500 sq.m., private warehouse 4,000 sq.m. and public warehouse 2,900 sq.m.
CRANES: 2×5 ton electric cranes on rails and 2×5 ton mobile cranes.
POLICE/AMBULANCE/FIRE: Police 17; Ambulance 46.87.10.33.
AUTHORITY: Direction Departementale de l'Equipement de la Charente-Maritime, Service Maritime, Subdivision Maritime-Hydrologie, B.P. 125, Avenue William Ponty, 17306 Rochefort-Sur-Mer Cedex. *Tel:* 46.99.44.93. *Contact:* M. Verbieze, Surveillant de Port.

Chambre de Commerce et d'Industrie de Rochefort, Corderie Royale, 17306 Rochefort, France. *Tel:* 46 87 34 56. *Telex:* 791 171 F. *FAX:* 46 99 13 28.

ROSCOFF: 48.43 N. 03.59 W. (See Plan)

PILOTAGE: Send ETA at least 24 hours in advance. Pilot and Harbour Master listen on VHF Channel 16, 0700 – 1100 hrs., 1300 – 2200 hrs. Pilotage compulsory for vessels over 150 n.r.t.

Pilot boards 0.5 miles East of Astan Buoy.
ANCHORAGE: Anchorage and laying-by can be carried out in an area sheltered from S.E. and N.W. winds, bounded on the East by the "Basse Bloscon" and on the West by the "Menk" and "Duons" Reefs.
VHF: Pilot and tugs on VHF Channel 16 throughout 24 hours.

Signal Station on the Isle of Batz: Tel: 98.61.76.06 or VHF Channels 12 and 16.

Signal Station at Brignogan: Tel: 98.83.50.84 or VHF Channel 16.

Signal Station at Ploumanach: Tel: 98.23.21.50 or VHF Channel 16.
BERTHING: Safely accessible pier 194 m. long with 7 m. of water at lowest tides.

Quay 90 m. long with 4.5 m. of water at lowest tides.

Quay 120 m. long with 5.0 m. of water at lowest tides.

Storage warehouses (1,200 sq.m.).

Weighbridge (60 tonnes).

20 acres of parking facilities and other space.

Cranes available on request.

Electric power supply on all quays.

With strong N.E. winds, conditions in the harbour can be uncomfortable.

Minimum depths as per "Plan". Range of tide 7.6 m. maximum.
Cargoes Handled: Car Ferries – Inward: Fish and shellfish, milk, china clay, meat and cattle, steel, machine parts, paper, etc.

Car Ferries – Outward: Vegetables, fruit, meat, paper, machine parts, plastics, ship's stores, etc.

Freighters – Inward: Sand and marine aggregates, ammonia sulphate, fertilisers, seed potatoes, shellfish, etc.

Freighters – Outward: China clay, scrap iron.
CRANES: 2.5 tonne mobile available.
FRESH WATER: Piped on to quays.
FUEL: By road tanker.
AIRPORT: Airport at Morlaix, 13 miles away. Airport at Brest, 35 miles away, flights to London and Paris.
TELEPHONES: Payphones available at the Ro/Ro terminal.
SERVICES: Laundry available at Roscoff.

Chandler at Brest. The Agent can arrange for small quantities to be delivered from the hypermarket at St. Pol de Leon, 2 miles.
GENERAL: Customs are based at the Ro/Ro terminal.

Daily car ferry service to Plymouth, weekly to Cork. Local train service.
AUTHORITY: Chambre de Commerce et d'Industrie de Morlaix, 14 Place des Otages, B.P. No. 6, 29201 Morlaix Cedex, France. *Tel:* 98.88.61.74. *Telex:* 940696. *Contact:* Roscoff Port Office, Tel: 98.61.27.85. Roscoff Harbour Master, Tel: 98.61.27.84.

ROUEN: 49.28 N. 01.04 E. (See Plan)

DOCUMENTS: Cargo Manifest or Manifest of Ballast. Certificate of Cargo Space. Bills of Lading. Ship's Register. 6 Crew Lists. 3 Passenger Lists. Health Declaration. Derat Certificate or Exemption. Declaration of Crew Personal Effects. Certificate of Insurance for Oil Pollution Damages (tankers over 2,000 tons).
PILOTAGE: Vessels proceeding to the ports of Rouen and Honfleur are met by Pilot on La Carosse Roads (Rade de La Carosse). Pilotage is compulsory between the mouth of the Seine and Rouen. Vessels of 55 m. length and less can be exempt from the obligation for the lower sector of the river, and vessels of 45 m. and less for the upper sector, on condition that such vessels be equipped with suitable radar, with VHF sets and able to speak French, and that they are not carrying dangerous goods. Each vessel taking a Pilot for the downriver stage between La Carosse Roads and Caudebec, or vice-versa, and a Pilot for the upriver stage between Caudebec and Rouen, or vice-versa.

The following signals should be made for summoning a Pilot on La Carosse Roads: By Day: flag "G" of the International Code of Signals. By Night: in morse by signalling lamp. Failing this, the vessel should hoist her national ensign at the foremasthead.

The following additional signal can be made: 5 prolonged blasts (– – – – –) to call attention to Pilot.

The radio station "Rouen-Pilot", located in the radar tower at Honfleur keeps a permanent watch day and night on VHF Channels 16 and 73. Masters are requested to call this station when arriving on the Roads.

Vessels leaving harbour or shifting berth should apply for a Pilot to the Pilotage Office, 21 Avenue du Mont-Riboudet, Rouen (Tel: 35-71-68-50).

Helmsman: Masters and Owners are advised that temporary crew members including helmsmen for the river are available from the Boatmen Association of Rouen. In the case of an incoming ship, they should be requested by cable to Harbour Master at least 6 hours before arrival in roads.

ANCHORAGE: In the outer roads at La Carosse and at several places in the river.

One waiting berth on buoys at Villequier and one on dolphins at Vatteville.

RESTRICTIONS: The height of water above chart datum at Le Havre is broadcast by Honfleur VHF radar station on request.

MAX. SIZE: Vessels over 280 m. length have entered. Draft approximately 3.5 m. more than height of tide at Le Havre. Maximum about 37 ft. Port accessible to vessels of 40,000 d.w.t. fully laden and 110,000 d.w.t. partly laden.

HEALTH: Pratique given by Customs Officers who board on arrival. If any case of suspected disease on board or any reason why vessel should not receive Free Pratique, Master should radio Agent before arrival, advising full details.

RADIO: Vessels are obliged to give their ETA and draft in salt water at least 5 hours before arrival to Rouen Information Centre via Brest – Le Conquet Radio or Boulogne Radio. The Port of Rouen Authority has introduced a VHF network of frequency modulation for port needs working on the following frequencies: Channel 16 (156.800 MHz); international safety and watch frequency. A permanent watch is maintained on this frequency at the Information Centre of the Port of Rouen.

Channel 73 (156.675 MHz) compulsory frequency to be used by all ships, boats, ferries . . . in movement between the pilot boat station and Rouen.

Channel 68 (156.425 MHz) upper part of river, Channel 15 (156.750 MHz) town part of river, secondary working frequencies.

Special Process for Tankers and Vessels Carrying Dangerous Goods in Bulk: For oil tankers it is compulsory, before entering the 12 miles limit, to have a VHF contact with Rouen-Pilot or with Rouen-Port, and to keep permanent VHF watch till the ship is back out of this limit.

Tankers over 250 m. length or 12 m. draft must wait for Pilot 7 miles from shore, others can come to La Carosse Roads, passing half mile South of Buoy Le Havre and remaining always South of a line marked by the buoys LH and RN.

They have obligation to announce every fault in engines, anchors or windlass, steering gear, radar, mooring gear, and their Masters must sign an inquiry paper given by the Pilot when coming on board.

TUGS: Permanently available in the Port of Rouen. Tug assistance in the River Seine is available on request.

MOORING: See "Notice".

TANKERS: Petit Couronne, Shell, 3 berths. One berth for vessels up to 250 m. length and 11 m. draft.

Port Jerome, Esso and Mobil Oil, 2 berths for vessels up to 11 m. draft (7 berths total).

Honfleur, Miroline – 1 berth.

Deballasting facilities available at all berths.

Report: 1982.

Petit Couronne (Butane/Propane): Max. LOA 170 m. Bollards 40 m. downstream from loading arm and 30 m. upstream from loading arm. Vessels berth with bow to seaward. Max. draft 24 ft. (7.3 m.). Height of manifold above waterline 10.0 m. Max. distance between edge and manifold of ship 4.9 m. There is no special connection for the gas phase. Diameter of discharge arm 6 in. (300 ASA).

Report: 1985.

Port Approaches: Tankers carrying dangerous cargo, when approaching River Seine Ports need to be aware of the heavy traffic. When sailing inside the French Territorial Waters, these vessels have to follow special French Regulations as mentioned in Sailing Directions. For example, navigation is forbidden inside a 7 mile limit off the French coast without Pilot, except for anchoring in emergency or in some dedicated places; no crossing of Antifer, Le Havre entrance channels permitted within this 7 mile limit or during a VLCCs transit, etc.

In-Port: The Port Jerome berths' main short-comings are: The strong tide currents and the passing ships' effect when berthing/unberthing. VHF contact with Pilots of passing ships are very important as these can disturb the manoeuvre.

When berthed, moorings have to be strictly and frequently checked; they must be maintained tight as passing ships' effect is very significant, especially at LW.

Tidal Entry: The "River Seine Pilotage" issues a monthly recommended maximum draft for each HW for vessels proceeding to and sailing from River Seine ports.

Water heights may be influenced by atmospheric (winds) and Hydrologic perturbations (flow of the river).

Ships have to use the tide to enter the river taking into account ship's draft, tidal currents and the possibility to moor the tanker at Port Jerome starboard side to during the last hour of flood stream. Tide also to be used when leaving Port Jerome berths.

Vessels may proceed by day or night.

In consideration of all above conditions, Pilot will advise any modification of the permissible draft taking into account a 2 ft. underkeel clearance.

BERTHING: The main Maritime Port of Rouen extends from the Guillaume le Conquerant Bridge as far as La Bouille over a distance of 11 miles. Quays and wharves cover the length of both banks of the Seine. There are also 5 basins in direct connection with the river without the interposition of any locks.

On the Right Bank: St-Gervais Docks; on the Left Bank: the Timber Dock, the Rouen-Quevilly Dock, the Floating Docks tidal basin, and the "Bassin aux Hydrocarbures" at Petit-Couronne.

The extent of quayage in the Maritime Port is about 38,000 ft., and in the river docks 5,900 ft.

Between the downstream limits of the Port of Rouen and the sea are a number of maritime establishments serving local requirements. The most important of these, all of them managed by the Port Authority of Rouen, being the petroleum terminal at Port Jerome and the quays of St. Wandrille (2,000 ft.) and Radicatel (1,380 ft.).

Containers: 2 berths at the Quai de l'Ouest (St.-Gervais Dock) with 2×25 ton cranes, 2 berths at Rouen Quevilly Dock with 2×25 ton cranes and 2×35 ton gantry cranes.

One private berth at Radicatel Quay with a gantry crane.

2 berths at Grand Couronne Moulineaux with 2×35 ton gantry cranes.

Roll-on/Roll-off: 4 berths in service of which 2 Roll-on/Roll-off berths at Petit Couronne and Quai de Rouen – Quevilly able to load or unload rolling heavy lifts up to 400 tons (max. draft: 10 m.)

Dock	*Quay*	*Facilities*	*Length* (m.)	*Depth at low water* (m.)
Saint-Gervais	St.-Gervais	1 ramp – load up to to 30 t (Vehicles and paper pulp)	—	—
	Quai de L'Ouest	6 electric cranes 6 t; 2 cranes 8 t 2 cranes 25 t (containers) 1 crane 35 t	411	10.0
Seine	Rive Droite	3 cranes 4 t; 5 cranes 6 t;	2,636	6.3/8.8
Seine River Droite (Aval)	Skalli Silo	1 unloading machine for hard corn – 150 t.p.h. – Grain shed capacity 32,000 t		7.3
	Paper Mill Aubry			7.3
	Silo Soufflet	1 loading machine for cereals 800 t.p.h. – Grain shed capacity 58,000 t		10.0
	Silo Levy	1 loading machine—cereals 500 t.p.h. – Grain shed capacity 27,000 t		10.0
	Poste 19			7.5
	Silo Lecureur	1 loading machine for cereals 800 t.p.h. – Shed capacity 40,000 t		10.5
	Poste 25	Pipe-lines, vegetable oils, Molasses, etc, 56,000 cu.m. specialised tanks		7.8
	Poste 23			7.0
Seine	Rive Gauche	3 cranes 6 t; 5 cranes 7.5 t; 1 crane 8 t Open storage – coal	2,343	7.0/9.8
Bassin Aux Bois	Quai de France	10 cranes 7.5 t; 2 cranes 6 t Specialised newsprint;	723	7.5
		Sugar	270	10.0
	Quai Neuf	Speed of cranes for cereals: 2 cranes 300 t.p.h.; 2 cranes 800 t.p.h. 1 crane 600 t.p.h. + 1 crane 1,200 t.p.h. silo 100,000 t + 50,000 t	800	9.0/10.5
Rouen-Quevilly	Rive Nord	6 machines for unloading grains 150 t.p.h.		7.3
	Rive Sud	11 cranes 8 t; 3 cranes 7.5 t, 6 cranes 6 t, 1 crane 35 t, 1 ro/ro ramp capacity 400 t 2 container cranes (25 t.) 2 container gantry cranes (35 t.)	1,610	10.5
Seine Rive Gauche (Aval)	Maprochim	2 gantry cranes 7 t and 1 gantry-crane 10 t (Phosphates Rhone-Poulenc)	220	8.8
		1 berth for liquid ammonia, 1 pipe-line	–	10.0
	Cory		290	8.8
	Poste 14			8.0
	Poste 10	Cereal; loading speed 2 × 400 t.p.h. linked with silo of 70,000 t		10.5
	Petit-Couronne (QPC)	2 cranes 35 t, 2 cranes 5 t, 2 cranes 8 t, 4 cranes 6 t, 1 ramp capable of carrying 400 t for roll-on/roll-off and 1 special gantry for loading bags	625	10.0
	SCAC	4 moving gantry cranes 7.5 t	310	8.8
	M.R.M.	flour loading machinery for cereals 2 × 400 t.p.h. and 1 × 1,000 t.p.h. silo 100,000 t capacity		11.0
	SAMS	4 cranes 8 t, 2 cranes 5 t.	390	8.2
	SOGEMA	2 electric cranes 8 t; 1 crane 6 t; 1 crane 5 t 2 cranes 10 t;	285	8.2/10
	Petit-Couronne	Refined products and Gas pipe-lines		7.5/9.5
	Appontement Jupiter	Crude oil; pipe-lines		11.1
Moulineaux	Moulineaux	2 container cranes 35 t	400	11.0
	Gd. Couronne	1 crane 7.5 t		
St. Wandrille	St. Wandrille	1 crane 30 t, 2 cranes 25 t, 2 cranes 8 t, fertiliser	645	9.5
Radicatel	Radicatel	20,000 d.w.t. ships	420	10.0
Honfleur	Honfleur		122	9.0

PORT RADAR: Two radar stations are located respectively at the East of Honfleur and on the right bank of the river 12 miles upstream at Radicatel.

Both stations are operated from Honfleur and work as navigational aids between the first buoys of the channel and Aizier, from 2 hours after until 8 hours after low water Le Havre.

To obtain information call on VHF Channel 16 (156.800 MHz) or 73 (156.675 MHz).

Information given by this radar, at ship's option, is considered as an aid only and implies no responsibility either to the Port Authority or its Agents in any subsequent recourse to such information, which is given free of charge.

STEVEDORES: From Monday to Friday:

General working schedule; 0730–1130, 1330–1730, with possible overtime.

Special working schedule 0730–1330, 1330–1930, 1930–0130 or 1930–0430, 0130–0730.

On Saturday: for all ships 0730–1330 and 1330–1800.

MEDICAL: All facilities available. Vaccination Certificates required if vessels coming from a North African port. Yellow fever inoculations required if vessel coming from South of parallel 30° N.

DENSITY: Except at Honfleur, all berths are in fresh water.

FUEL: All grades available by barge.

CONSULS: The following countries are represented in Rouen: Algeria, Belgium, Denmark, Finland, Germany F.R., Greece, Ireland, Italy, Ivory Coast, Korea, Morocco, Netherlands, Norway, Poland, Portugal, Senegal, Spain, Sweden, Turkey, U.K. and U.S.S.R.

WATCHMEN: Recommended to employ watchmen on board tankers and vessels handling dangerous cargo.

HATCHES: Opening and closing hatches always performed by ship's crew.

REPAIRS: All deck, engine and radio repairs can be effected.

DRY DOCKS: Two floating docks, the largest of which is 180 m. long. 25 m. wide for vessels up to 14,000 tons.

SURVEYORS: Bureau Veritas, Lloyd's Register, Registro Italiano, Det Norske Veritas, A.B.S. and Germanischer Lloyd.

AIRPORT: Nearest Rouen-Boos. Le Havre – Octeville, 80 km. away. Paris – Orly or Paris – Roissy, 120 km. away.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Spring and Summer.

POLICE/FIRE/AMBULANCE: Police 17; Fire 18; Ambulance 15 or by VHF via Rouen-Port on Channel 73 (24 hours).

TELEPHONES: Can be connected on board at some berths.

IDENTIFICATION CARDS: Crewmen going ashore should carry passport or identity card.

HOLIDAYS: No labour available on the following days; New Year (1st January); Easter Monday; Labour Day (1st May); 8th May; Ascension Day; Whit Monday; National Day (14th July); Assumption Day (15th August); All Saints' Day (1st November); Armistice Day (11th November); Christmas Day (25th December).

SHIP SUPPLY SERVICE: In case of emergency (sick crew members, exceptionally urgent stores) a liaison can be established by launch with a ship when passing off Port-Jerome or off Caudebec.

NOTICE:

Notice to Masters:

General Instructions: Masters shall in all circumstances comply with Port Officer's orders either verbal, written, or given through the medium of Pilots and especially the orders regarding manoeuvring in the port, towage, berth, and mooring.

Mooring: The attention of Masters is particularly drawn to the provisions contained in Section 6-01 of the Police Regulation in the Port of Rouen and River Seine (issued June 26th 1974), which stipulates as follows:

1. Vessels can moor either bow upstream or downstream, unless particular orders are issued by the Port Officers.

2. Vessels must moor with a sufficient number of bow and stern ropes, breast ropes and springs according to their deadweights.

If possible each line must be fastened on a different fixed point.

3. The mooring must be homogeneous, this means that the lines having the same function must have the same mechanical qualities.

4. The lines must be in good condition.

5. Keep a permanent watch upon the lines and their slack must be hauled at any time if necessary, and especially before the Spring tide flow.

According to the position of the berth and to meteorological conditions, when the expected height of high water in Le Havre exceeds 750 cm. (approx. tide coeff. 90), risk of bore exists. In this case moorings must be heaved tight one half hour before the expected time of local low water and ship's main engines must be available for immediate use.

It is recommended that a Pilot be on board at this time.

Further information may be obtained from either Pilots of Port Officers.

6. According to the deadweight of their vessels, the situation of the berths, the height of high water in Le Havre, Masters must take all necessary precautions as the tide is arriving.

7. Vessels which, to make their berthing easier have dropped their anchor, must, unless contrary to Port Officer's orders, heave it up, if they are berthed in the basins.

8. Vessels must have adequate fenders along the quay, these fenders must have a sufficient diameter to prevent the vessel being in direct contact with the quays and the cranes.

9. A sufficient free space must exist near the hatch-coaming to allow easy access to the gangway.

Gangway Ladders, Foot-Bridges Giving Access to Dry Land: The link between shore and vessel must comply with the International Convention No. 32, signed in 1932 concerning the protection of people working on board ships.

Action in Case of Accident or Fire: Anyone discovering a fire, or seeing an accident, should immediately give the alarm:

to the Harbour Master on VHF Channels 73 or 16, call sign ROUEN-Port).

Measures to be Taken on Board Vessels: Fire-fighting will be under the direction of the Master, but the operating crews from shore, especially the fire-brigade, will be under the orders of their respective chiefs.

The vessel's crew should be able to guide the assistants from shore. Plans of the ship, the cargo plan, and stowage of hazardous cargo on board, should be available on their arrival.

The Harbour Master can decide upon the shifting of the vessel, or that of neighbouring vessels. No decision such as scuttling, beaching, overloading to upset the stability, nor in general any action which may have an effect on the working of the port equipment, can be taken without the consent of the Harbour Master.

Oil tankers, or vessels loaded with dangerous cargoes, should always have a hanging wire tow-line each end ready to be hooked by a tug boat.

Cleanliness: In order to preserve the River Seine and our shore cleanliness please use plastic bags for your ship's domestic wastes.

Full bags closely fastened should be laid at the place marked by "garbage" signal. These bags will be delivered on request to your Agent.

Injury or Sickness On Board: In case of serious injury, call the fire brigade in the same way as in case of fire or the Rouen Port Station (VHF Channel 73).

In case of sickness, a doctor can be obtained quickly by VHF Channel 73.

Radio Communications: Masters of vessels are advised that they can get communications by radio-telephone with telephone subscribers ashore on metric wave-lengths (VHF).

They must call:

when below Tancarville – LE HAVRE-Radio direct on Channels 26, 28, 82 or 23 Semi-duplex;

when above Tancarville – ROUEN-Radio direct on Channels 25, 27 duplex or 21 Semi-duplex.

Do not use Channel 16 for these communications.

These radio communications are authorised when alongside berth.

Furthermore it is useful to keep watch on Channels 16 or 73. LE HAVRE-Radio and ROUEN-Radio stations use Channels 16 or 73 when they call vessels.

Notice to Masters of Vessels Proceeding to Le Havre and to Rouen: The attention of Masters of vessels bound to or from the ports of Le Havre and Rouen is drawn to the regulations laid down in by-law No. 190 of the Marine Superintendant of the 1st District appertaining to anchorage and navigation of vessels in the Le Havre roadstead dated August 21st 1972.

Masters of vessels bound to or from Rouen, without calling at Le Havre, are particularly concerned with the terms of Article 2.

BORE:

1. The bore is the name given to the phenomenon caused by the arrival of the tidal wave in the river at times of high tides. The current is reversed, going from ebb to flow.

The rise in water is then very rapid, and the level of the river can rise 1 m. in less than 10 minutes.

The greater the tidal coefficient and the lower the river flow, the greater the phenomenon.

Basically, it starts to be felt in the Seine when the full tide height at Le Havre reaches or exceeds 7.6 m., i.e. for tidal coefficients equal to or greater than 90.

It is generally stronger when the coefficients are falling than when they are rising, and it is greater in Summer than in Winter.

It is also stronger when atmospheric pressure drops and West winds produce tidal heights greater than normal.

In Winter, the Seine is in flood, and the very considerable river flow attenuates considerably the effect of the bore.

On the other hand, in Summer the relatively low level of the river favours the rise in water, and the bore is then much stronger.

The bore is experienced between Caudebec and downstream of the Port of Rouen. It then weakens by virtue of various structures in the river and some basins. Upstream of the port, it is no longer present except for high tidal co-efficient.

2. Vessels berthed at quays or discharge/loading points are subject to the effect of the bore all the more when they are heavy and loaded.

Downstream of the port, vessels are wherever possible positioned with their bows downstream. They can be assisted during the passage of the flood by a Seine Pilot and possibly tugs.

The arrival of the bore is announced on VHF by the Rouen Port Station giving the time when it will pass La Bouille, which is the downstream limit of the Port of Rouen, and where a recorder is installed. It is then easy to forecast the time of its passage at different points in the port, by knowing the time taken for the flood to go from La Bouille to different berths:

Moulineaux Roulier: 4 minutes.
MRM Silo: 8 minutes.
Sogema Quay: 10 minutes.
Petit-Couronne Quay: 15 minutes.

In principle, it occurs at the time of local low-tide, but according to circumstances, it can be advanced by almost half an hour over the theoretical expected time.

3. During very high tides, the measures to be taken before the passage of the flood are as follows:

To be well berthed and tied up and to ensure opportunely that all lines are working in the same way.

Take up the gangway.

Stop handling operations in order to disengage cranes or gantries, or disconnect tankers.

Have engines ready for manoeuvring (30 minutes before theoretical time). Engines must be started up before the flood arrives and manoeuvred so as to counter the effect of the bore during its passage. Once the bore has passed, no risks exist.

The Port Captaincy carries out continuous watch on VHF Channel 73, and can give at any time all information to vessels on the bore and its strength.

DEVELOPMENTS: Dredging operations in order to accommodate vessels of 60,000 d.w.t. at Port Jerome and Honfleur.

SHIPMASTER'S REPORT: June 1987.

Port: Port Jerome.

Anchorage: Vessel anchored in Rouen waiting area, just South of Le Havre fairway in a depth of 12 – 13 fathoms.

Documents:

6 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest (including bond, ship's stores, currency, etc.).
1 copy Declaration of Health.
2 copies Cargo Manifest.

Customs Officers board after arrival.

Pilotage: Pilot boards in the anchorage area from a high speed launch.

Passage: It is about 2.5 hours from the anchorage to Port Jerome berth, which is just beyond Tancarville Bridge.

Inward transit is made from about 3 hours before to 3 hours after high water at Le Havre. Time of leaving the anchorage depends upon the vessel's draft.

The outward transit from Port Jerome is again from about 3 hours before to 3 hours after high water at Le Havre. Time of leaving Port Jerome depends upon the draft of the vessel.

The maximum draft to Rouen is 11.5 m. inwards and 10.0 m. outwards.

Berthing: Tugs not used for berthing. Vessel berthed starboard side to at Esso No. 1 to load ethylene. Vessel used starboard anchor to swing in river.

Moorings were made up of 2 head/stern line, 2 breast lines and 2 springs forward and aft. It is advisable to use long lines as the rise and fall is about 4.5 m. Fendering consists of large wooden buttresses with protruding bolts.

Ship's gangway constantly on the move due to tidal range and has to be constantly shifted.

Cargo: 6 in. liquid and vapour arms connected. Ship's reducer required for vapour arm.

The SGS surveyor attended.

A control box was placed onboard which regulates the loading valve at the base of the Chicksan arm.

Rate of loading is about 60 t.p.h. with 1 shore pump. A second pump can be used on the line to increase the rate to 100 t.p.h.

If necessary, the rate can be reduced to 20 t.p.h. Cargo can be stopped in about 6 seconds.

A dead man arm is incorporated in the control box. This stops cargo loading if it is not pressed every 12 minutes.

The manifold temperature during loading was −93°C. Two compressors were run returning vapour ashore throughout loading. The temperature on completion of loading was approximately −98°C after which one plant was put on internal cooling with one compressor still running ashore. This was maintained for 9 hours until temperature reached −101°C.

The terminal personnel were generally very helpful. If required, they would backload liquid after the vapour return but the initial plug would be hot after sitting in the line.

General: All services are provided from Le Havre.

AUTHORITY: Port Autonome de Rouen, Capitainerie, 34 Boulevard de Boisguilbert, B.P. 4075, 76022 Rouen Cedex. *Tel:* 35.88.81.55. *Telex:* 770865 Capipor. *Cables:* Poronom-Rouen. *Contact:* R. Fossaert, Le Commandant du Port.

ST. LOUIS DU RHONE: 43.23 N. 04.48 E. (See Plan)

DOCUMENTS:

1 Cargo Manifest or Manifest in Ballast.
Ship's Register.
Bills of Lading.
6 Crew Lists (8 if Spanish or U.S.S.R. or ships bound to these countries).
3 Passenger Lists.
Health Declarations.
Derat Certificates.
3 Bunker Supply forms.
1 Declaration of Crew Personal Effects. If on inspection articles or quantities not in conformity or in excess, Master held responsible, articles removed and heavy fines imposed.

PILOTAGE: Compulsory for vessels exceeding 70 m. LOA (50 m. for tankers). Contact Pilots by Marseilles Radio or by VHF Channel 12 for calling Fos Port Control. Pilot boards off Lavera Buoy.

River Pilot required by vessels loading salt in the Rhone river, boards at the locks entrance to Port St. Louis basin off Lavera Buoy.

ANCHORAGE: Suitable anchorage outside Port St. Louis keeping well clear of Fos channel.

RESTRICTIONS: The St. Louis Canal is 3,300 m. long and 63 m. wide, with a depth of 26 ft. 6 in. The lock has a length of 135 m., width 22 m., and depth 18 ft. Max. ship size: length 95 m., beam 16 m.

No entrance allowed between 2100 hrs. and 0500 hrs. except in emergency, although entrance may be effected up to 2400 hrs. if ordered before 2100 hrs.

Entrance may be delayed when large tankers are proceeding in the Fos Channel.

HEALTH: Pratique given by Customs officers who board on arrival.

RADIO: Within 150 miles use Marseilles Radio FFM, otherwise St. Lys FFL.

TUGS: Two tugs available of 1,060 h.p. Ship's lines are normally used.

BERTHING:

Quays	*No. of Berths*	*Draft*
Quai Ouest	3	6.00 m.
,, Nord	2	6.00 m.
,, East	3	5.20 m.
,, Hardon	1	5.50 m.
,, de la Suisse	3	7.92 m.
,, Charles	1	7.92 m.

SPECIAL CARGO FACILITIES:

Company	*Berth* No.	*Length* (m.)	*Max. draft* (m.)	*Remarks*
C.R.E.A.	924	100	4.5	2 berths – Military, refined products.
Frahuil	925	80	6.7	Capacity 17,550 tons. Refined products.
Medistock	919	100	6.5	Natural Gas – Loading and discharging. Berth also used by Medistock.
Sedipa	921	100	4.0	Public berth, storage capacity 9,000 tonnes. (Chemicals, vegetable and animal oils). (Not in use.)
Soterm	923	150	7.0	Private berth (destroyed 1982) used by Soterm, Mazout and Deleup. Storage Capacity (still available): Mazout 15,000 tons. Deleup and Soterm 30,000 tons.
Gedemer (H.G.D.)	916	100	6.7	Private berth. Storage Capacity: 5,000 tonnes. (Liquid tar).

Basin	*Berth* No.	*Length* (m.)	*Max. draft* (m.)	*Remarks*
Port St. Louis/Rhone	904	110	5.2	Ro-Ro
	909	130	6.0	Ro-Ro
Tellines	951	130	7.92	Ro-Ro.
,,	952	147	7.92	—
,,	954	147	7.92	Ro-Ro, heavy lifts. (4 ton/sq.m. – 6 ton/sq.m.).
,,	953	160	7.92	Heavy lifts (4 ton/sq.m.). Private crane, 544 tonnes capacity and Port Authority floating derrick 500/600 tonnes capacity, located at this berth.

STEVEDORES: Shifts are 0800 – 1200 hrs., 1300 – 1730 hrs. Saturday afternoon, Sunday and Holidays in overtime. Shifts of 0600 – 1200 hrs. and 1300 – 1900 hrs. count as a day each.

CRANES: Also see "Berthing".

Quay cranes: 5×6 tonnes (Quay de la Suisse). One private crane at heavy lift berth, capacity 540 tonnes.

Mobile cranes: 1×6 tonnes, 1×12 tonnes.

Floating crane: Marseilles Port Authority operate a floating derrick, capacity 500-600 tonnes.

Front Loaders: 1×30 tonnes for containers.

FRESH WATER: Available from hydrants on the quays at a rate of 10 t.p.h.

FUEL: Available only by barge or railcar.

AIRPORT: Marseille-Provence Airport distant 70 km.

AUTHORITY: Port Autonome de Marseille, 23 Place de la Joliette, 13002 Marseille, France. *Tel:* 91.91.90.44. or 91.91.90.66. *Telex:* 440746 Portauto-MARSL *Contact:* M. Pechere, Director. Captain Malpote, Harbour Master.

ST. MALO: 48.38 N. 02.02 W. (See Plan)

PORT LIMITS: A vessel is considered to have arrived within the Port limits, when it is within a radius of 3 miles to the North of the Grand Jardin lighthouse.

DOCUMENTS:

Ship's Register.
Store List in duplicate (ship's stores).
2 Crew Declarations of Bonded Stores.
Health Declaration.
Manifests and B/Ls.
3 Crew Lists.
3 Passenger Lists.

One Security Form (Inwards Declaration) with vessel's details to be handed to Port Captaincy when passing through the lock.

PILOTAGE: Compulsory for vessels over 45 m. LOA and over 150 n.r.t..

(1) During tidal hours, 2.5 hours before and after high water, vessels may enter into direct contact with the Pilots on VHF Channel 12. Call Sign "Pilot – St. Malo".

(2) Outside tidal hours and during working hours, vessels may call the Port Office on VHF Channel 12. Call sign "Port Control – St. Malo".

When waiting for the Pilot, vessels anchor near the "Shore Buoy" and report their arrival to the Port Office.

In good weather, the Pilot boards near the "Shore-buoy". In bad weather when the wind is from N.E. or N.W. the Pilot may guide the vessel as far as Dinard Roads, where the Pilot will come aboard.

Pilot Cutters: One cutter ("Nepture" – length 13 m., speed 9 knots) fitted with radar, relief cutter ("Pilote Vayva" – length 10 m., speed 18 knots) both fitted with radio-telephone and VHF Channels 6, 12, 14, 16, 24 and 25.

ANCHORAGE: Large vessels with draft greater than 13 m. anchor by the land-buoy. Smaller vessels may anchor in St. Malo Roads, there is sufficient swinging room for vessels with draft of 7 m. It is recommended to use a Pilot to come into this anchorage.

RESTRICTIONS: Vessels are allowed to enter from 2.5 hours before to 2.5 hours after high water. To be certain of mooring, vessels should arrive at the lock (Naye Lock: Length 150 m., width 25 m.) at least 1 hour after high water.

Depth available 20 ft. to 22 ft. at Spring tides for the Bouvet and Duguay Trouin Basins.

No movements during foggy weather. Large vessels (length greater than 100 m.) approach the lock at high-tide. Tankers lock in by themselves (no other vessel allowed in the same lock) in daytime only. Movements are carried out day and night.

Vessels with hazardous cargo and large vessels (more than 135 m. LOA) enter in daytime only.

MAX. SIZE: The height of the tide, the length of the lock and width of the channel must be taken into account.

Cargo Vessels:

(a) Overall length 150 m., beam 20 m. or

(b) Overall length 135 m., beam 21.5 m.

Max. Draft: Spring tides 9 m. Neap Tides: Equal to the depth of water in the access channel according to the tide (height of water above zero of French charts) at the time when the vessel passes through the access channel to the lock (normally 8.5 m.), 2 tugs required.

Characteristics of the Channels: Permissible dimensions for vessels:

St. Malo Channel linking the Vauban Docks to Duguay Trouin and St. Servan Channel linking the Vauban Docks to Bouvet. Length 120 m., breadth 16.5 m. Depth in the docks 5 m. (sill of the channels: 5 m.)

Jacques Cartier Channel linking the Vauban Docks to Jacques Cartier. length 150 m., breadth 21 m. – at the moment – depth of the docks 3 m.

Tankers: Length 147.50 m. (443 ft.), beam 20 m. (65.6 ft.), draft see "Cargo Vessels" above. 2 tugs required if vessel not fitted with bow-thruster.

HEALTH: Customs Officers are appointed as Health Officers and deliver Pratique. In case of suspect disease, Masters must declare it at once by radio to their Agents who will contact authorities.

RADIO: Vessels coming from West use Brest le Conquest Radio, call letters FFU. Vessels coming from North should go through Boulogne Radio, call FFB.

Arrival Advice: The requirements on arrival of large vessels must be given to the Port Captaincy 8 days in advance.

For vessels with a length less than 100 m., 48 hours notice must be given.

The precise ETA mst be sent 24 hours before arrival in the Roads.

VHF:

(a) Port Office: Channels 12 and 16, 24 hours

(b) Pilot: Channels 6, 12 and 16, when awaiting a vessel.

(c) Tugs: Channels 6, 12 and 16, at the time of high tide.

(d) St. Nazaire Radio: Channels 1 or 2, for telephone communications.

Vessels call Pilot and tugs on 12 or 16 and change to Channels 6 or 8 for working.

TUGS: 3 tugs are available at St. Malo (1,500, 650 and 650 h.p.). Usually joins vessel at the end of breakwater. Ship's lines are usually used.

Towing is obligatory on entering or leaving the docks for vessels which have a length greater than 80 m., as well as for oil tankers and vessels carrying hazardous cargo whatever their size.

BERTHING: 1 Ro/Ro berth outside lock for car ferries.

Duguay Trouin Dock: Length 2,000 (commercial), 2 Ro/Ro ramps for vessels less than 120 m. (Berths No. 6 and 7).

1 wine store house (Berth No.13).

1 berth for molasses (Berth No. 1).

1 grain silo (Berth No. 10) 6,000 tons.

Vauban Docks: St. Louis Quay: 360 m. – marina: 700 berths.

Corsaires Quay: 385 m. comprising:

1 continuous discharging apparatus for phosphates.

2 discharge points for molasses.

1 discharge point for hydrocarbons.

1 discharge point for phosphoric acid – (1,000 t.p.h.).

2 cranes on rails – 12 tons at 14 m.

1 dry dock: 120 m. × 15.5 m.

1 Ro/Ro ramp: In the North part of the Corsaires Quay.

Bouvet Dock: 641 m. for commercial trade.

260 m. for discharging fish.

850 m. for activities connected with fishing.

1 slipway – for vessels less than 500 tons.

1 slipway for yachts.

Jacques Cartier Dock: Length 300 m., comprising:

1 dockyard (ACM).

2 electrical cranes of 24 tons.

Numerous sheds – vats for molasses and acid (6,000 cu.m.)

The installations of this quay will be clarified in due course. 2 cranes on rails are envisaged.

Grain Silos: 1 of 6,000 tons capacity with loading possibilities of 130 t.p.h. and 2 of 6,500 tons capacity each with loading possibilities about 100 t.p.h. each are situated in Bassin "Duguay Trouin".

TANKERS: Tanker quay, extension of Quai des Corsaires, length 130 m. Diameter of discharge pipe 200 mm., one mobile arm, vessels to supply reducers. Max. discharge rate, 650 cu.m./hour.

No deballasting facilities. Tankers wishing to effect repairs must leave port and wash out their tanks and obtain a gas-free certificate.

On completion of operations tankers must leave on the next tide. If a second tanker is waiting to berth she must wait in the roads.

Safety instructions are issued when the vessel passes through the locks.

BERTH ALLOCATION: Dependent upon goods to be discharged and characteristics of vessel. Bearing in mind the widths of the channels, their depth and dimensions at the foot of the quays, the height of the dock which varies on average between 11 m. and 12.5 m.

The largest vessels tie up at Quai des Corsaires.

It is recommended that an advance notice be sent via Agents to the Port Office 15 days prior to arrival, so that the vessel may be received under the best possible conditions.

BRIDGES: 3 bridges can be passed during tide vacation, otherwise, notice required to open.

CRANES: 8 mobile cranes, 5 – 12 tons and 9 electric cranes (on rails) 8 – 24 tons.

STEVEDORES: In order to have workers ready on arrival, Masters are kindly requested to give as accurate as possible ETA the day before arrival, especially if there are many ships discharging at same time.

Normal working hours 0800 – 1200 hrs., 1200 – 1800 hrs. and 2000 – 2400 hrs. from Monday to Saturday, except holidays. There is no night overtime. Dispensations may be made to finish a vessel so that she may catch the tide.

MEDICAL: Notice is required to obtain an appointment with doctors or dentists. Hospital is available in St. Malo.

DENSITY: Average density is 1022.

FRESH WATER: Can be delivered from quay. Rate 3 t.p.h. – 10 t.p.h.

FUEL: Bunkers delivered at St. Malo (with notice varying, depending on the Company – Shell 2 days, Esso 1 week, etc.) come from Donges by road lorries and cost of haulage is supported by the ship (expensive). D.O. can be obtained from local suppliers but out of contract.

FIRE PRECAUTIONS: Usual non-smoking precautions (a watchman is compulsory for tankers). In case of fire call Port Captain on VHF Channel 12.

GANGWAY/DECK WATCHMEN: Watchmen are not compulsory except for tankers.

OPENING/CLOSING HATCHES: This work is normally carried out by crew. Stevedores' cranes may help for the beams, but dockers will not touch them.

CERTIFICATES: As per International Conventions, all Safety Certificates, Load line, Radio, etc.

Important: All vessels entering the port must be up to date with safety certificates as required by international conventions. An attestation must be handed in by the Master when he passes through the lock.

CUSTOMS ALLOWANCES: 200 cigarettes, or 200 grams of tobacco, and 1 bottle of spirit per crew member.

IDENTIFICATION CARDS: Crew members must have an identification card or their Seaman's Book when going ashore.

CONSULS:

Netherlands	(16-99) 56.07.21.
Denmark (Vice-consul)	(16-99) 56.07.21.
Norway	(16-99) 56.07.21.
Finland (Vice-consul)	(16-99) 56.31.57.

REPAIRS: Deck and engine repairs can be carried out by shipyard or workshops. Electricians are also available. RAMAC Agency can repair radars and radios, also Radio-Ocean agency.

DRY DOCKS: One dry dock. Max. length admissible 120 m., breadth 16.0 m. and draft 8.0 m. One slipway, 500 tons. Length admissible 45 m., breadth 9 m. With sufficient notice.

REPATRIATION: Can be effected from St. Malo by train or plane.

AIRPORT: Pleutuit/Dinard Airport 10 km. from port. Wintertime, services to Jersey (C.I.), with onward flights to England and Wales. Summertime, several times per day to Jersey, London, and to Paris except weekends.

TIME: Local time is GMT plus 1 hour. From April till September GMT plus 2 hours. ETA messages must specify GMT or Summer Time.

HOLIDAYS: French legal holidays. Stevedores do not work on Sundays or public holidays.

POLICE/AMBULANCE/FIRE: Police, 40.85.80 and 17; Ambulance and Fire, 18. Port Captaincy, Tel: 56.23.86, or VHF Channel 12.

TELEPHONES: None.

DELAYS: Berthing delay will only be due to tide. For loading or discharging, it depends what kind of cargo is handled.

Deadlines: All vessels must leave the quay once unloading has terminated. They may be towed away to another waiting berth – if need be.

Vessels are admitted to port as soon as their berth is vacant, and providing nautical conditions permit.

Time limits for loading or unloading depend on the quantity of the nature of the goods. There is no special rule governing purely port operations.

It is rare for vessels to wait in the roads.

Special Cases: Vessels are not authorised to enter or to leave the port in fog.

In storms, starting at force 8 – Pilots cannot embark, nor disembark from vessels, without danger.

With strong N.W. winds (8 to 9) the port may be ordered to be closed to prevent damage to the lock gates and to structures (bridges).

SERVICES: Compass adjusting, radar or radio repairs can be carried out.

SHORE LEAVE: Crew members are allowed ashore.

AUTHORITY: L'Ingenieur Charge de l'Arrondissement de Saint Malo, 1 Rue de la Crosse, 35400 St. Malo. *Tel:* 56.55.45. *Telex:* Dde-Atm-950-197 F. *Contact:* J. Lannou, Port Commandant, Ecluse du Naye, 35400 St. Malo. *Tel:* 81.62.86.

SETE: 43.24 N. 03.42 E. (See Plan)

PORT LIMITS: The seaward boundaries of the Port within which a vessel is considered to be an "arrived vessel" are indicated as follows: To the South by a line with the red light of Eastward end of breakwater bearing 257°; to the East by a line with the church tower of Frontignan bearing 005°; to the North by coastline.

A second zone is a circle of 1 mile radius centered on a point located on the bearing 310° and at 2.8 nautical miles from Eastward end (Red Light) of breakwater. This zone is connected from a landing buoy (Lat. 43° 14.9′ N., Long. 03° 53.7′ E.) by a channel 1 nautical mile wide steering 326°. This area is only for large tankers from 100,000 tons up to 280,000 tons which operate at buoy IMODCO Single Point Mooring System.

DOCUMENTS:
Cargo Manifest or Manifest of Ballast.
Certificate of Cargo space.
Bills of Lading.
Ship's Register.
3 Crew Lists.
4 Passenger Lists.
Health Declaration, eventually vaccination list.
Derat Certificate or Exemption.
Declaration of Crew Personal Effects.
2 Provision Lists.
Tankers: IOPP Certificate – National Certificate of Insurance for Oil Pollution Damage.

PILOTAGE: Request Pilot by international signals (sound, flags, light signals) or telephone through Marseilles Radio or VHF by Sete Radio Channel 25, Tel: 91.73.11.14/91.90.57.30 (or pilot boat VHF Channel 12). Description of pilot boats; motor launch with black hull, white band, white anchor on hull at bow. Pilot embarks between 1 and 2 miles South of breakwater in good weather. In bad weather he embarks in the shelter of l'Epi Delon (Eastern Entrance). In this case make prior contact by radio or VHF (Marseille or Sete Radio) or Port Office VHF Channel 12. Provide a ladder on each side.

ANCHORAGE: In Roads from 0.5 miles to 3 miles to South of breakwater. (See "Port Limits" and "Tankers").

RESTRICTIONS: *Commercial Harbour:* In the Canal Maritime, length max. 145 m., breadth 20 m., draft 7.0 m. (23 ft.).

Bassin a Petrole – see "Berthing".

MAX. SIZE: *Sea Line Frontignan:* South Berth: S.B.M. Tankers 300,000 d.w.t. draft 21.80 m. (71 ft. 6 in.).

North Berth: C.B.M. Tankers up to 100,000 d.w.t. lightened draft 13.1 m. (43 ft.).

Bassin a Petrole: New Tanker Berth (P2) – 35,000 d.w.t., length 225 m., draft 11 m. (36 ft.) P1 – length 140 m., draft 33 ft. P3 – Barges.

Darse No. 2 for ore carriers 225 m. length; 13.0 m. draft (42 ft. 7 in.)

Commercial Harbour up to 11.0 m. draft (36 ft.).

Commercial Harbour in the Canal Maritime: max. length 140 m.; breadth 20 m., draft 6.85 m. (22 ft. 6 in.).

HEALTH: Pratique given by Health Officers or by Custom's Officers who board on arrival. If any case of suspected disease on board or any reason why vessel should not receive Free Pratique, Master should radio Agent before arrival, advising full details.

BERTHING:

Bassin du Midi:

North Quay:	Berths No. 16, 17, 18, 19 and 20 Draft 6.50 m. (21 ft. 04 in.) Cranes: 4 Fives Lille, 7.5 tons at 22 m. with scoop and hook. All berths: Ore.
South Quay:	Berth No. 14 Draft 7 m. 15 Draft 6.10 m. Ro/Ro Cranes: 2 Fives Lille, 7.5 tons at 22 m. All berths: Livestock and general cargo.

Canal Maritime:

Quai Paul Riquet:	Berth No. 10 Draft 5.50 m. 11 Draft 6.40 m. 12 Draft 6.40 m. 13 Draft 6.10 m. All berths: Wine and general cargo. Cranes: Nil.
Quai Vauban:	Berth No. 24 Draft 3.70 m. 25 Draft 4.60 m. 26 Draft 4.10 m. Berths No. 25 and 26: Wine. Cranes: Nil.
Quai Francois Maillol:	Berth No. 27 Draft 5.80 m. 28 Draft 5.20 m. 29 Draft 5.20 m. All berths: Wine. Cranes: Nil.
Quai d'Orient:	Berth No. 7 Draft 5.50 m. 8 Draft 5.50 m. 9 Draft 5.50 m. 5 Draft 5.00 m. 6 Draft 4.60 m. Restriction: Berths No. 5 and 6: breadth = 15 m. All berths: Wine and general cargo. Cranes: Nil.
Quai de la Republique:	Berth No. 30A Draft 5.20 m. 30B Draft 4.30 m. All berths: Wine. Berths No. 31 and 32 – Tugs. Berth No. 33 – Fishing repairs. Cranes: Nil.
Quai d'Alger (Algier Quay):	Berth No. 34 Draft 8.20 m. 35 Draft 8.20 m. 36 Draft 8.20 m. All berths: Wine. Passenger Quay: Length 200 m., draft 8.20 m. For example: German m.v. Europa.
Quai du Maroc (Morocco Quay):	Berth No. 37 Draft 7.60 m. (Ro/Ro) Length 130 m. Passengers and wine.
Bassin Orsetti:	Max. Length: 170 m. Berth B1 Draft 8.25 m. B2 Draft 8.25 m. Ro/Ro B1 and B2: Passengers General cargo. B2 Ro/Ro Gare Maritime Orsetti. Lines: Algeria. Baleares (Spring and Summer). Cranes: 1 Fives Lille, 6 tons at 22 m. Berths: D1 Draft 8.55 m. D2 Draft 8.55 m. D3 Draft 8.25 m. Length 152 m. Ro/Ro. All berths: General cargo. Cranes: 4 Caillard 6 tons at 22 m.
Mole Masselin:	Cereals 1 berth on 180 m. of quay dredged to 10.36 m. 1 loading gantry of a capacity of 550 t.p.h. 2 storage silos of 22,000 tons capacity. (annual 100,000 tonnes).
Dock No. 1 or Colbert Dock:	Berth E3 Draft 10.40 m. Ro/Ro. E2 Draft 10.40 m. E1 Draft 11.00 m. All berths: Containers – general cargo. Wood pulp and sawn timbers. Cranes: 3 Caillard 6 tons at 22 m. 9 tons at 19 m. 7.5 tons at 22 m. 1 container gantry crane 35 tons at 35 m. Berth G1 Draft 7.50 m. Ro/Ro. G2 Draft 11.00 m. G3 Draft 11.00 m. Ro/Ro. All berths: Sawn timbers – logs and general cargo. Cranes: 3 Callaird and 2 Peiner 7.5 tons at 22 m.; 8 tons at 30 m.
Dock No. 2 or New Dock:	Berth H2 Draft 12.91 m. Ro/Ro. No crane. Berth I3 Draft 12.91 m. Ro/Ro. Named berth for all ponderous bulk cargoes. Max. length 225 m. (Panamax). Cranes: 1 Delattre Levivier 20 tons at 44 m., 2 Peiner 12 tons at 30 m. – all with scoop and hook.

Also see "Developments".

RADIO: Marseille or Sete Radio VHF Channel 21 or 25, Port Office Channel 12. Port Authority Telex No. 480220.

TUGS: 3 tugs (2×1,200 h.p. and 1×2,200 h.p.) to be ordered from Compagnie Setoise de Remorguage. Tel: 67.74.64.49 or VHF Channel 12. Tow line to be furnished by ships. Vessels taken in tow near the breakwaters on the North side.

TANKERS: Frontignan Sea Line Terminal North Berth (C.B.M.) 1 berth for tankers up to 100,000 d.w.t. lightened draft 13.1 m. (43 ft.). 2×12 in. hoses for crude oil discharge. Submarine pipe-line 28 in. diameter.

Commercial Port: 1 berth for tankers up to 35,000 d.w.t. draft 11 m. (36 ft.). Five loading arms for black and white products. 1 old berth for tankers up to 140 m. length or 10,000 d.w.t., draft 10.1 m. (33 ft.). Slop disposal facilities available up to 1,000 cu.m.p.h. Also see "Max. Size".

Frontignan Sea Line Terminal (South Berth) Mobil SBM.
Operator: Mobil Oil Francaise.
Position: Lat. 43° 22′ 12″ N., Long. 03° 46′ 49″ E.
Restrictions: Least depth of water 92.5 ft.
Max. Size: No limit on length and beam. Max. draft 21.8 m. (71 ft. 6 in.) and 300,000 d.w.t.
Pipe-line: Length, 26,000 ft. Diameter 44 in.
Hoses: 2×16 in. Bow to manifold distance should not exceed 600 ft. Connections port-side.
Max. Pressure: 125 p.s.i. at rail.
Pumping Rates: 8,500 t.p.h.
Density: 1026.
Fresh water: Not available.
Fuel: Bunker "C" available by barge, capacity 900 tons. D.O. not available.
Ballast: No facilities for receiving dirty ballast.

Vessels up to 50,000 d.w.t. normally berth at spread mooring.

Regulations and Information: When scheduled to discharge at SBM Master will receive the following standard message from Mobiltrans Ny: "Your vessel will discharge at Frontignan SBM. located 43° 22′ 12″ N., 3° 46′ 49″ E. stop 4 days prior arrival radio your Agent your ETA SETE contact "Sete Port Office" on VHF Channel 12 approximately 30 miles range advising your ETA to entrance buoy located 43° 14′ 55″ N., 3° 53′ 40″ E. Only when authorisation is granted by "Sete Port Office" you may proceed to SBM on *compulsory* route on course 326° extending 0.5 miles each side of line joining approach buoy to SBM. When proceeding on compulsory route your vessel shall exhibit additional marks by day 3 black shapes in a vertical line the highest and lowest 1 ball the middle 1 diamond every one spaced by 1.5 m. stop. by night 3 all-round lights in a vertical line the highest and lowest red the middle white every one spaced by 2 m. stop. Pilot will board approximately 3 miles seawards from SBM on compulsory route".

Your Agents will forward the following cable: "Advise ETA type size your manifold flanges whether suitable reducers available and Smit's Bracket fitted on forecastle stop Boom to lift 16 in. ID floating hose and two 16 in. 150 ANSI standard flanges ready on portside. On forecastle have 2 polypropylene 8 in. messengers 150 fathom ready. Accommodation ladder on starboard and boat ropes each side."

The "approach buoy" referred to in para 1, is located in Lat. 43° 14′ 55″ N., Long. 03° 53′ 40″ E. having the following characteristics:

3 m. diameter – 7 m. height mast painted with vertical strip white and red with 2 crosswise shapes, with a white light Isophase 4 seconds – Racon – whistle. Proceeding inshore of this buoy and inside the 12 mile line is not allowed without prior authorisation granted by "Sete Port Office" on VHF Channel 12.

An approach channel exists between the approach buoy and the SBM extending 0.5 miles each side of a line joining the approach buoy to SBM and must be used as a compulsory route on a course of 326°. Same compulsory route applies for outgoing tankers leaving the SBM.

When proceeding in the approach channel the vessel shall exhibit in addition to the normal navigation signals: *By day:* 3 black shapes in a vertical line the highest and lowest 1 ball, the middle one a diamond – every one spaced by 1.5 m. *By night:* 3 all-round lights in a vertical line, the highest and lowest red, the middle one white, every one spaced by 2 m.

The Pilot boards incoming tankers and leaves outgoing tankers approximately 3 miles seawards from SBM on the compulsory route. He will stay on board during the period the vessel remains secured to the SBM.

Every vessel proceeding to or departing from the SBM which requires to anchor should use the following anchorage areas:

Anchorage A – Vessels with less than 15 m. (49 ft.) draft should anchor in the area bounded in the North by the 20 m. depth contour, and in the East and West by meridian passing through the extremities of the breakwater, and in the South by the parallel of the breakwater at 3 miles off the breakwater.

Anchorage B – Vessels having a draft of greater than 15 m. (49 ft.) should anchor in the Southern semicircle around the SBM extending between 400 m. (1,310 ft.) and 1,850 m. (6,000 ft.) from the SBM.

When a vessel is proceeding to the SBM a Marine Superintendent and a mooring team will board. Then anchors should be secured and cable pawls in the down position, deck scuppers must be plugged tight and VHF on standby on Channel 12.

Throughout the period the vessel remains at the SBM the engine should be ready and power available on deck winches and windlass.

Adequate deck lighting must be available at night, and a constant fo'c'sle watch kept on the SBM.

Propeller r.p.m. must be kept to a minimum. Intermediate ballasting may be required in order to prevent excessive strain on moorings.

While weather operational limits will depend on circumstances port regulations specify the following criteria: Vessel must cease discharge when wind is 30 knots, significant wave height 8 ft. (assumed current 2 knots) vessel must leave berth when wind is 45 knots and significant wave height is 18 ft.

The Master of every oil tanker coming to Sete to load several refined products, some of which are heated, is required to give the Port Office, a cargo plan before loading.

Masters of oil tankers are invited to follow the terms of new French Law (Arrete Prefectoral No. 23/83 du 6 Mai 1983) specially to send a message to the French Admiralty (Prefet Maritime de Toulon) 6 hours before entering the territorial waters and 6 hours before leaving the Port of Sete (even if leaving for another French port).

Shipmaster's Report: March 1985.

Berth: Vessel berthed at C.B.M. berth which is a multiple buoy mooring just outside the East Harbour Entrance in position: Lat. 43° 24.3′ N., Long. 03° 44.6′ E.

Pilot boards just S.E. of the SBM Berth, together with Mobil Representative, Cargo Surveyor and a mooring gang of 7 men. At the same time, 3 slings of equipment are placed on board on the port side, including chain stoppers for mooring aft and discharge monitoring equipment.

One tug is used, through the centre lead aft; using ship's lines (2). Vessel approaches the berth on course of approximately 030°; ship's log was used for assessment of ship's speed, the Pilot preferring to drop the first anchor at a speed of between 1.0 – 1.5 knots.

Starboard anchor is dropped first and allowed to run to 10 shackles on deck as the vessel is canted to starboard to a heading of 045°. When about 10 shackles have run, the port anchor is let go and then engine and tug used to manoeuvre the stern towards a group of 3 mooring buoys. 3×42 mm. diameter wires are picked up from these buoys, then 2 further wires from submerged clumps and finally 2×42 mm. wires from submerged clumps are secured forward. Both anchors are then hove in to about 8.5 shackles each to tension the moorings aft, vessel's head being finally 135°. Moorings, distances and dimensions are as per the berth drawing in *Guide to Port Entry* – "Plans". Mooring was very competently accomplished, the anchors being very accurately placed close to 2 small marker buoys (not on chart).

Discharge: The berth has very recently been converted to clean products only. 2×12 in. hoses are connected to the port side manifolds. Each of these is fitted with a butterfly valve, however, a noticeable amount of the previous cargo ran into the drip trays while the hoses were being connected. Connection of hoses was made by the mooring gang.

The sea bed line is 28 in. and maximum pressure permitted is 9 bar. This line has previously received crude oil at rates of up to 5,000 tonnes/p.h. so it was not surprising when vessel did not make this pressure, even at full speed. Discharge of 30,000 tonnes took a total of 15.8 hours, giving a final rate of 1,900 tonnes/p.h. This included approximately 2 hours slow pumping at the start and all the stripping time.

A 30 minute water plug was requested before discharge commenced. Mobil normally expect a vessel to be ballasted within 6 hours of completion of discharge; on this occasion, extra ballast was taken as the vessel would be unmooring in a 30 knot wind.

The Mobil Representative, Cargo Surveyor, Pilot and the 7 man mooring gang all remain on board until after completion of unmooring. Meals and accommodation should be provided.

General: Charterer's Agent, Mobil Oil Francaise, is in Paris (Telex: 610417). They operate through local agency S.N.C.M. (Telex: 490545). On clearing the Suez Canal, vessel was contacted by Ferymer Sete, (Telex: 480065) with a standard message giving full instructions for mooring at the SBM (South Berth) requesting C.O.W. Discharge Plan, etc. Agent attended on berthing and for remainder of stay contact was maintained by portable VHF which proved to be quite satisfactory.

Up to 6 boats per day for shore leave, etc. can be provided; if all 6 boats are taken the cost is high – 7,000 francs. However, for vessel's requirements some boats were required in any case.

Port Health, Immigration and Customs did not attend at any time, all their paper work being carried out by the Agent.

BRIDGES: To proceed to or leave the Bassin du Midi bridges have to be opened. Request to be made to Capitainerie du Port (Tel: 67.74.88.20/67.46.00.81) before 1700 hrs. Friday, when arrival or departure is expected during weekends.

FRESH WATER: Available on most quays or by lighter of 140 tons capacity during working hours. Advance notice required for Saturdays and Sundays.

FUEL: All qualities available subject to advance notice given.

REPAIRS: Claverie: Tel: 67.48.62.52 – Mechanical workshop for heavy repairs and boiler repairs.

Di Biase: Tel: 67.74.32.12 – general repairs.

C.R.M.: Tel: 67.74.06.83 – Electronic and radio aids to navigation repairs.

Touat: Tel: 67.48.62.37 – Electrical and generator repairs.

Farre: Tel: 67.53.41.28 – Under water work.

CONSULS:

Denmark	Tel: 67.74.30.20	Norway	Tel: 67.74.31.83
Finland	Tel: 67.48.63.16	Sweden	Tel: 67.48.63.16
Netherlands	Tel: 67.48.63.16		

Others at Marseilles.

WATCHMEN: Service necessary for ships loading or unloading dangerous merchandise. Optional for other ships. (Tel: 67.48.77.37).

CUSTOMS ALLOWANCES: 40 grammes tobacco per day per man (calculated in accordance with the length of voyage undertaken by the ship). Amount of alcohol fixed by Customs in accordance with the crew, and length of ship's stay in port. It is a matter of tolerance and not of right.

REPATRIATION: Repatriation and crew changes are easily arranged.

AIRPORT: Airport (Class B) at Montpellier-Frejorgues, located 30 km. from Sete. (30 minutes by car on the motorway), and has services to Paris, Nice, Bordeaux, Clermont-Ferrand and London. The international airport of Marseilles-Marignane is 160 km.

IDENTIFICATION CARDS: Crew men going ashore should carry passport or identity card.

TIME: GMT plus 1 hour – alteration from end of March to end of September to GMT plus 2 hours.

HOLIDAYS: New Year (1st January, no labour available); Easter Sunday (possibility of labour with overtime); Easter Monday (no labour available); Labour Day (1st May, no labour available); Ascension Day (possibility of labour with overtime); Whit Sunday (possibility of labour with overtime); Whit Monday (no labour available); National Day (14th July, no labour available); Assumption Day (15th August, no labour available); St. Louis Day (Monday, no labour available); All Saints Day (1st November, no labour available); Armistice Day (11th November, possibility of labour with overtime); Christmas Day (25th December, no labour available).

N.B. Every Sunday and day marked "possibility of labour with overtime" can be worked at the rate of 100%.

DEVELOPMENTS: Maximum draft at entrance and Dock No. 2 (Berths H and I) to be increased up to 13.18 m. in the near future.

AUTHORITY: Capitainerie du Port de Sete, Quai du Maroc, 34200 Sete, France. *Tel:* 67.74.88.20. *Telex:* 480220. *Contact:* Commandant Pierre Guillard, Commandant du Port de Sete (Harbour Master).

STRASBOURG: 48.34 N. 07.42 E. (See Plan)

PORT LIMITS: In Strasbourg (Lat. 48° 34′ N., Long. 7° 42′ E.), the Port Autonome extends from the Km. 285 to the Km. 297 upon the Rhine, occupying an area of 1059 ha., of which 205 ha. are water areas including 15 docks (7 have a constant level, 8 a variable level), and 2 fore-harbours.

Out of these limits, the Port Autonome de Strasbourg includes 13 branches designed for the handling of building materials and cereals, and 2 ports, Marckolsheim (at Km. 242) and Lauterbourg (at Km. 349), all the branches and ports being on the left bank of the Rhine.

DOCUMENTS: The ships must hold some documents, which they have to keep at disposal of the administration or the inspection authority when required, as following:

Certificate of Survey.
Certificate of Tonnage.
Certificate of Registration.
Log-Book.
Booklet of Verification of the used oils.
Attestation for Equipments of liquified gases.
Customs Documents for the carriage of goods.
Fluvial Bill of Lading.
Rhine Manifest.
Certificate of Ability to steer the ship.
Police Regulation for the Navigation on Rhine.
A.D.N.R., regulation for carriage of dangerous goods.
the documents relating to the boilers and other tanks under pression.

PILOTAGE: Pilotage is not compulsory on the Rhine and usually Masters do not ask for a Pilot except for Gebirge and the Haut-Rhin. A Pilot can be obtained in the Port of Kehl by dialling the number 19 – 49.7851.20.70.

ANCHORAGES: The ships have at disposal an area of about 10 ha. in the North and South fore-harbours to take anchorage. Depth of water at least 5.20 m.

RESTRICTIONS: Restrictions to navigation are published by the Nautical Corporation of the Inland Water Transport.

MAX. SIZE: The max. sizes of ships allowed on the Rhine are as follows: Length: 110 m., – breadth: 11.4 m. Ships on the Rhine do not exceed a draft of 4.0 m.

Dimensions of the locks: – North lock: length 125 m., breadth: 13.5 m., South lock: length 125 m., breadth: 13.5 m.

In the constant level docks, the water depth is 3.5 m., but only along the North-South axis of the port; if not there, the water depth is 2.5 m.

In the variable level docks, which are the docks with a direct communication with the Rhine, the minimum depth is 4.30 m.

These depths are given, the Rhine being supposed at its lowest bench-mark: 135 m.

HEALTH: There is no Health Service for the Rhine.

RADIO: All communications on the Rhine are performed by radio-link and radiotelephony:

VHF Channels 10 and 13: used for ship to ship communications.

VHF Channels 20 and 22: used for transmitting of nautical advice in the way shore-ship and in the reverse order.

VHF Channels 24, 25, 26 and 27: used for public communications.

RADAR: There is no radar station on shore.

TUGS: The Port Autonome de Strasbourg put at disposal of customers two tugs and one 600 C.V. pusher according to their needs.

BERTHING: 10 km. of quays can be used for mooring. Some of these quays are situated in the constant level docks (max. draft 2.5 m.), some are in the docks that link with the Rhine (max. draft 4.30 m.). Tankers berth only in the Oil Dock Harbour.

BULK CARGO FACILITIES: Grain elevators: 2 berths for loading, and 2 berths for discharging.

Loading of gravel on the Rhine by belt-conveyors (11 facilities).

Loading and unloading of hydrocarbons in the Oil Dock Harbour by 18 facilities operating each at the rate of 300 cu.m./hr.

SPECIALISED CARGO-HANDLING FACILITIES: Containers up to 40 tonnes; heavy packages up to 350 tonnes.

The two operations are carried out at the container and heavy loads terminal at Adrien Weirich Dock and utilise a length of 180 m. of quay. Regular Rhine container lines to the North Sea ports.

A plurimodal international transport centre, "Eurofret Strasbourg", is being developed in the Southern sector of the port, close to the container terminal and including a road transport centre (10 ha.), a warehousing area (20 ha.) and an area grouping various activities (12 ha.).

BRIDGES: The head room under the bridges reaches 8.8 m. in the constant level docks.

MEDICAL: Civil Hospital, 1, place de l'Hospital, 67000 Strasbourg, Tel: 88.36.71.11.

DENSITY: The density of water is about 1000.

FRESH WATER: Fresh water is supplied by Ets. Koejac, Tel: 88.61.26.78.

FUEL: Bunkering can be arranged with the m/s *Robertsau*, G.P.S., Tel: 88.61.68.32 or m/s *Jumbo*, Ets. Koejac, Tel: 88.61.26.78.

CONSULS:

Germany F.R.	88.32.61.86
Belgium	88.35.43.63
U.S.A.	88.35.31.04
Netherlands	88.61.00.29
Switzerland	88.35.00.70
Austria	88.35.13.94

REPAIRS/SLIP: All the repairs can be carried out at: Forges de Strasbourg — Scar, Tel: 88.79.41.41. 101, rue du Rhin Napoleon, 67100 Strasbourg.

Any vessel capable of using the port can use the Forge-de Strasbourg slip.

SURVEYORS: Surveyors of the Commission de Visite, named by the Commission Centrale pour la Navigation du Rhin, can be obtained by the Master.

WATCHMEN: Ship's crew, if required.

OPENING/CLOSING HATCHES: Opening and closing of the hatches are performed by the crew or by the staff of the company freighting the ship, as any other handling. Dockers do not exist in the port of Strasbourg.

REPATRIATION: All the facilities exist for effecting crew changes and arranging any necessary repatriation.

AIRPORTS: Distances from Strasbourg: Strasbourg-Entzheim: 15 km. Strasbourg-Mulhouse: 130 km. (airport Mulhouse Bale). Strasbourg-Francfort: 220 km.

HOLIDAYS: Work is stopped during the weekends and the statutory holidays. Labour can be obtained on these days if necessary.

POLICE/AMBULANCE/FIRE: Police: 17 – Ambulance (with doctor) 88.33.33.33. – Firemen: 18.

TELEPHONES: Office of the P et T, 5, rue du Port du Rhin, 67000 Strasbourg. In case of emergency: La Capitainerie du Port, 5, rue du Port du Rhin – North Lock of the Port, quai Jacoutot, can be contacted at any time. Tel: 88.32.49.15. There is also a public call box at the disposal of anybody at any time.

SERVICES: For the ship: Tank cleaning: SITAL, 14, rue de Rouen, 67000 Strasbourg, Tel: 88.61.40.45

Supplying of material: Koejac, quai des Belges, 67000 Strasbourg, Tel: 88.61.26.78.

Electronic repairs or supplies: Radio-Metzger, 17, rue de Dunkerque, 67000 Strasbourg, Tel: 88.35.45.42.

For the crew and various formalities (customs): La Capitainerie du Port, 5 rue du Port-du-Rhin, 67000 Strasbourg, Tel: 88.32.49.15.

REGULATION: The Reglement Particulier de Police du Port is very helpful to the Master and will let him know the particulars of the Port of Strasbourg.

SHORE LEAVE: The Master must introduce himself, within the 2 hours following his arrival, to the Commissariat Special du Port, 5 rue du Port du Rhin, 67000 Strasbourg, and produce the passports of the crew. The passenger ships have to comply with the regular supervision of authority. Each member of crew must be holder of an identification card or a passport when he is ashore.

DELAYS: The commercial operations begin and finish at the dates and hours shown upon the fluvial bill of lading. Every delay is subject to the payment of penalties. Except for the passenger ships, ships do not give notice of their arrival to the authority, before they enter into the port.

AUTHORITY: Port Autonome de Strasbourg, 25 Rue de la Nuee Bleue, F-67081 Strasbourg Cedex. *Tel:* 88.32.49.15. *Telex:* 880476 F Poronome Strbg. *FAX:* 88.23.56.57. *Contact:* M. Georges Delmas, Port Director.

TONNAY CHARENTE: 45.57 N. 00.53 W. (See Plan)

DOCUMENTS:

2 copies Crew List.
2 copies Ship's Stores Lists.
2 copies Crew Manifests (Tobacco List).
2 copies Passenger List (if any).
1 Declaration of Ballast.
Manifest form Last Port.
1 copy Bill of Lading (in case of any cargo to be landed).
Ship Register to be shown.
Derat Certificate or Exemption.

PILOTAGE/ANCHORAGE: Vessels have to proceed to about half a mile S.S.W. Isle of Aix Lighthouse and to drop anchor in the No. 115 alignment when safe anchorage is open (lowest tides; minimum depth of water 26 ft.).

River Pilot joins ships there, about 3 hours to 1 hour before HW, depending on draft and size of vessel concerned.

Pilot boat is equipped with VHF.

RESTRICTIONS: As the River Charente is unlit, movements are not possible at night. However, vessels may leave anchorage in dark and come up river at daybreak (anchorage area is about 5.5 miles from the mouth of the river). Sailing up river possible 0300 hrs. – 2100 hrs. and sailing down river possible 0400 hrs. – 2100 hrs.

MAX. SIZE: Max. permissible LOA 120 m.; max. permissible draft 5.7 m. at Neap tides, 6.4 m. for sailing at Spring tides and 6.6 m. for entering at Spring tides.

HEALTH: Free Pratique is to be obtained on arrival at port. Usual yellow flag signal to be raised.

RADIO: Ships coming from South: Bordeaux-Arcachon Radio Station. Ships coming from North: Saint-Nazaire or Brest le Conquet Radio Stations.

VHF: Vessels arriving in the roads must keep watch on Channel 16.

TUGS: No tug is available. In case of need, tug may be obtained from La Rochelle-Pallice (about 20 miles).

BERTHING: 1 private berth for grain loading, which can take vessels up to 100 m. length. 1 berth 200 m. long for handling general cargo. 3 waiting berths. The central waiting berth can be used for handling small cargoes from 500 tonnes to 1,000 tonnes. Depth of water along the quays is an average of 6 m.

CRANES: 2×5 tonne cranes, 1×3 tonne crane, 2×5 tonne mobile cranes. All the cranes are capable of working with hooks or scoops.

BRIDGES: The Rochefort Bridge clearance over highest water is about 98 ft. (30 m.).

STEVEDORES: A 24-hour notice is required in order to arrange loading/unloading operations.

Discharge rates: Coal – about 1,200 tons per day of 8 hours' work.
Phosphates – about 1,500 tons per day
Zinc concentrates – about 1,400 tons per day.
Loading rates: Grain 2,000/2,500 tons per day.

OPENING/CLOSING HATCHES: This is the responsibility of the crew.

MEDICAL: The nearest hospital is at Rochefort (about 4 miles).

FRESH WATER: Fresh water may be obtained alongside, from hydrants, at the rate of about 10 t.p.h.

FUEL: Must be obtained from La Pallice (about 20 miles) by lorries.

REPAIRS: Small repairs may be carried out by local workshops. Nearest shipyard is at La Pallice.

REPATRIATION: Changing crew and necessary repatriation formalities may be effected.

AIRPORT: The nearest airport is La Rochelle (about 30 miles). Possible to reach Paris airports in a few hours by train.

POLICE/AMBULANCE/FIRE: Police: Rochefort H.Q. – Tel: 17; Tonnay-Charente Gendarmerie: Tel: 46.88.20.38; Ambulance: Tel: 46.99.30.69; Fire: Tel: 18 or 46.88.20.38.

AUTHORITY: Direction Departementale de l'Equipement de la Charente-Maritime, Service Maritime, B.P. 125, Subdivision "Maritime-Hydrologie", 17306 Rochefort-Sur-Mer Cedex. *Contact:* M. Drieu, Sous-Lieutenant de Port.

Mairie de Tonnay-Charente, Rue Alsace-Lorraine, 17430 Tonnay-Charente, France. *Tel:* 46 88 78 11.

TOULON: 43.07 N. 05.55 E. (See Plan)

DOCUMENTS:

Cargo Manifest or Manifest of Ballast.
Certificate of Cargo Space.
Bills of Lading.
Ship's Register.
6 Crew Lists.
3 Passenger Lists.
Health Declaration.
Derat Certificate or Exemption.
Declaration of Crew Personal Effects.

PILOTAGE: Pilot station is situated on Est Quay, address: B.P. 742, Toulon. Tel: 94.41.03.28. Pilotage compulsory for vessels over 150 g.r.t. Pilot boards 100 m. North of the semaphore station at Cap Cepet.

RESTRICTIONS: Entry can be made by day and night except for vessels loading with refined petroleum or dangerous cargoes which are not allowed to enter between sunset and sunrise.

MAX. SIZE: The port is approached by a channel 125 m. wide. The docks can accommodate without tug assistance ships up to 250 m. length and 10.0 m. draft.

Renovation and reconstruction work is being carried out, after which passenger vessels of over 300 m. length and cargo vessels of up to 11 m. draft will be accommodated.

HEALTH: Pratique given by Customs Officers who board on arrival. If any case of suspected disease on board or any reason why vessel should not receive Free Pratique, Master should radio Agent before arrival, advising full details.

TUGS: Naval Tugs. There are many harbour tugs up to 1,000 h.p. and several deep sea tugs up to 2,000 h.p. controlled by the French Navy which may be called on for assistance by the Harbour Master or Pilots.

Commercial Tugs: 1×500 h.p. and 1×1,500 h.p.

BERTHING: President Fournel Quay, 335 m. length, depth alongside 10.0 m.

East Quay, 190 m. length, depth alongside 10.0 m.

Minerve Quay, length 135 m., depth alongside 7 m.

La Seyne – Bregaillon: One Ro/Ro Berth, depth 10.0 m. Ore quay (2 berths), length 215 m., depth 10.0 m., 2×26 tonne cranes.

TANKERS: Tankers discharge at naval installations at Milhaud and Lazaret.

Total Terminal: 1 jetty berth for tankers up to 7.0 m. draft, and a buoy berth for vessels up to 15,000 tons displacement.

STEVEDORES: There is a permanent working force of 14 dockers which can be increased by casual labour to 60 men if required. Shifts are available for 4 hours, 8 hours or 9 hours with possibilities for overtime.

FUEL: Only available by tanker lorries.

REPAIRS: Serra Fres: Floating dock 1,700 tons, length 85 m.

All types of repairs can be carried out at the Naval Dockyard.

DRY DOCKS: Several dry docks available in the Naval Dockyard, of which 3 can accommodate vessels in excess of 250 m. length.

AIRPORT: Toulon-Hyeres, for internal flights, otherwise Marseille.

IDENTIFICATION CARDS: Crew men going ashore should carry passport or identity card.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year (1st January, no labour available); Easter Sunday (possibility of labour with overtime); Easter Monday (no labour available); Labour Day (1st May, no labour available); Ascension Day (possibility of labour with overtime); Whit Sunday (possibility of labour with overtime); Whit Monday (no labour available); National Day (14th July, no labour available); Assumption Day (15th August, no labour available); All Saints' Day (1st November, no labour available); Armistice Day (11th November, possibility of labour with overtime); Christmas Day (25th December, no labour available). N.B. Every Sunday and day marked "possibility of labour with overtime" can be worked at the rate of 100%.

AUTHORITY: Direction Departementale dè l'Equipment, Capitainerie du Port de Toulon, B.P. 1202, 83070 Toulon Cedex. *Tel:* 94.91.83.83, 94.03.27.60. *Telex:* Equip Toulon 400272. *Contact:* Harbour Master. Tel. 94.91.84.47.

TROUVILLE-DEAUVILLE: 49.23 N. 00.05 E. (See Plan)

The port situated on mouth of River Touques, is composed of 2 parts: Trouville for small fishing vessels, and Deauville including 2 docks for cargo ships and pleasure boats.

DOCUMENTS:

1 Crew List.
1 Passenger List.
Tonnage Certificate.
2 Cargo Manifests.
Bills of Lading.
1 Crew Manifest.

PILOTAGE: Pilotage on entry and leaving is carried out by the Seine Pilots. Request for a Pilot must be made 12 hours in advance by radio or telephone, either to the Port Captaincy of Trouville-Deauville or to the Pilotage Office for the Seine at Le Havre or at Rouen. Vessels bound for Trouville/Deauville anchor in the "Rouen Waiting Area" Roads at Carosse where they take on the Pilot.

It is recommended to anchor near the pilot boat of Rouen and contact her by VHF for instructions.

ANCHORAGE: The best one is Rade de la Carosse (Lat. 49° 27′ 30″ N., Long. 0° 01′ E.).

RESTRICTIONS: No restrictions at night time. Draft allowed 2.80 m. Neap tides, 4.0 m. Spring tides, Entrance is dangerous with wind from N.W. to N. over force 6.

Access channel has a depth of 2.80 m. and dries out (zero on French charts). Lock gates are opened about 2 hours before time of commencement of flood tide at Le Havre. Lock gates are closed 2.5 hours after time of commencement of flood tide at Le Havre. The fore port and river quays at Trouville are uncovered at low water. The Trouville fishing port is one where craft are beached.

MAX. SIZE: Length: 210 ft. (64 m. OA); breadth: 45 ft.

RADIO: Radio-Boulogne FFB.

TUGS: No tugs available.

STEVEDORES: Loading and discharge by shore crane.

MEDICAL: All hospital facilities available.

DENSITY: 1025.

FRESH WATER: Available from quay.

FUEL: Small quantity by tank-lorry on demand.

CONSULS: See "Caen" or "Le Havre".

REPAIRS: Small repairs only.

AIRPORT: Deauville St. Gaitien 3 miles away.

AUTHORITY: Commandant du Port, Capitainerie du Port, Boulevard Cornuge, 14800 Deauville. *Tel:* 31.88.28.71.

NOTES

Please also advise Shipping Guides Ltd.

Gabon

CAPE LOPEZ: 00.38 S. 08.43 E. (See Plan)

DOCUMENTS:
4 Crew Lists.
4 Passenger Lists.
4 Lists of Ports of Call.
4 Manifest of Ship's Stores.
Clearance from Previous Port.
4 Arms and Ammunition Lists.
4 Narcotics Lists.
4 Birds and Animals Lists.

PILOTAGE: No official radio station. Pilotage not necessary to approach Port Gentil Roads.

Pilotage to Cape Lopez Terminal is assumed by Elf-Gabon Pilots, while pilotage to Pointe Clairette Terminal depends on Port Gentil Harbour Authority.

For the private tanker ports at Pointe Clairette and Cape Lopez, pilotage is compulsory. On Cape Lopez Roads Pilot will board vessel 1.5 miles offshore on a line with Cape Lopez Lighthouse bearing 255° True, distance 2.4 miles in a launch carrying proper Pilot signals. The Mooring Master will stay on board throughout the vessel's time in port to assist in mooring, hose handling and loading operations.

ANCHORAGES: The waiting anchorage position is 2 nautical miles in a 075° direction from Cape Lopez Lighthouse. Depth of water 55 m.

It is necessary to guard against violent tornadoes occurring between December and May coming from the East or the North. These tornadoes occur very suddenly and are extremely strong.

MAX. SIZE: 250,000 d.w.t. and LOA 340 m. Max. draft 20.50 m. (67 ft.).

Minimum size of vessel: LOA: 215 m. (Approx. 35,000 d.w.t.).

If vessel arrives with a part cargo from another loading port the maximum arrival deadweight acceptable is 160,000 metric tons.

RESTRICTIONS: Berthing is effected day and night, however, certain vessels may be berthed in daylight only. Unberthing is effected by day or night. Vessels must arrive with sufficient ballast and correct trim in order to manoeuvre safely.

Ballast should not be less than 30% of deadweight. Fresh water and stores are not considered as ballast; draft on arrival should not be less than 50% of loaded draft. Elf Gabon reserve the right to leave vessels which do not comply with these regulations at anchor.

Berthing is not effected in rough weather. At the berth mooring lines must be in good condition and well tended. In case of storm or tornado loading operations must cease and vessel be prepared to leave the berth if so directed by the Terminal Superintendent or Pilot.

HEALTH: Formalities carried out on berthing by Police Forces. However, ships remaining at anchor may have Customs and health formalities carried out through their Agent.

RADIO: *Elf Gabon Terminal:* VHF watch on Channel 16 or 72. The working Channel of the terminal is Channel 72.

When a ship is expected, a permanent watch on VHF Channel 16 is kept by the terminal for short distance communications.

All ships must contact the terminal in advance of their arrival. Elf Gabon will inform the vessel whether berthing will take place on arrival or whether it should anchor.

Arrival Advice: Advise Agent 48 hours and 24 hours before arrival, also if any appreciable alteration thereafter.

VHF: Before vessel's arrival watch is kept on Channel 16. During loading and mooring, watch is kept on Channel 72.

TUGS: Compulsory. Owned by Elf-Gabon, can be contacted on VHF Channel 72. Ship tow lines are not required, 3 tugs are available up to 3,200 h.p. There are 2 launches for handling mooring lines.

BERTHING: Anchors are not required for mooring operations but must be ready for emergency case. Vessel berths port side alongside on 6 dolphins, heading 044° True. Depth of water along the berth is 25 m. Mooring ropes used as follows: fore and aft 3 head/sternlines, 3 breastlines, 2 springs. 2, 3, or 4 tugs are used for mooring operations, in accordance with the d.w.t. Vessel's engines must be ready for immediate operation all the time vessel is at the berth. 2 or 3 tugs will remain standing by. Ship's gangway is not required, an automatic one is supplied by Terminal.

Connecting Hoses: Connection and disconnection is carried out by Elf Gabon personnel with the assistance of the crew.

The vessel's cargo derricks are not used except in the case of absolute necessity or in the case of breakdown of the platform hoisting gear.

The 4 loading arms are 16 in. diameter, with hydraulic couplers for 16 in., 14 in. and 12 in. flanges. The arms are located on either side of the dolphins' centreline.

Reducers shall be provided by the ship for the other flange diameters.

Before connecting arms, the ship will be connected to the ship-shore bonding wire, and disconnected only after loading arm uncoupling.

Hose Handling: 5 arms. Crude: 4 × 16 in. arms. Loading rate: 12,000 cu.m./hr. Finished products (Diesel and Naphtha) are loaded by means of a 5th loading arm; 2 loading arms can be used for Fuel Oil.

Loading: Communication between ships and shore loading installations, in any case (loading, fire, etc.), will be effected on VHF Channel 72.

An Elf Gabon representative, responsible for loading and safety is on permanent watch at the berth. The Master must supply him with all relevant information and assistance required to ensure operations run smoothly.

The Master will be held entirely responsible for operating the valves and for safe loading on board his ship. If necessary, pumping speed can be reduced.

At least 10 minutes before loading is finished, the terminal should be notified of the moment pumping should be stopped.

When loading is completed, the tank ullages will be taken by a ship's officer in the presence of an Elf Gabon representative.

Average samples taken from each tank from which the crude was pumped will be furnished to the ship by the terminal.

These samples will be numbered, sealed and labelled showing the origin of the crude.

Notice of Readiness: To Elf Gabon.

BALLAST: Vessels must arrive with clean ballast only. There are no facilities for discharging dirty ballast at the terminal. In no circumstances should dirty ballast be pumped overboard.

MEDICAL: Doctors and hospital facilities available. All vaccinations can be arranged.

DENSITY: Varies between 1021 and 1025.

FRESH WATER: Fresh water supplies can be obtained within a few hours from a 120 ton barge. Apply to Port Gentil.

FUEL: 1,500 secs. and 3,500 secs. fuel can be supplied by barge, subject to 48 hours' notice. No barges allowed alongside during loading operations.

CUSTOMS ALLOWANCES: No restrictions for quantities tobacco and spirits held on board the ship. It is prohibited to allow dutiable articles to leave the ship.

CONSULS: France, German F.R. and United Kingdom.

REPAIRS: There are facilities for hull and engine repairs for barges and river craft. Slipway for vessels up to 300 tons.

AIRPORT: Can be reached in 15 minutes by road. Regular services to Europe every day.

TIME: GMT plus 1 hour all the year round.

HOLIDAYS: Holidays do not affect tanker working.

POLICE/FIRE/AMBULANCE: Police tel. 17; Fire tel. 18; Ambulance tel. 23-33.

REPATRIATION: Facilities available. Contact ship's Agent.

SHORE LEAVE: Crew members are allowed ashore. There is no regular immigration control but identification papers should be carried. Bathing alongside the ship and the berth is strictly prohibited.

GENERAL: *Ships spares:* Customs require originals of invoices for clearing spares. Copies are not acceptable.

SAFETY: During the whole time the ship remains at the loading berth, the Master shall:

Maintain on board sufficient number of crew members to carry out any manoeuvre without difficulty, and to enable first fire fighting measures to be taken; maintain engines ready for manoeuvring; ensure that mooring is satisfactory without undue wear on mooring lines.

Fire Precautions: It is forbidden: To smoke, use naked flame or tools likely to create sparks outside the zones generally authorised for tankers; to carry out repairs or handling operations on deck; to turn the propellers; to use in danger areas any equipment or tools not of a type approved by a competent organisation. Elf Gabon reserve the right to take any steps considered necessary in case of danger and, in particular, to suspend loading; loading of bunkers, supplies, water, etc., will be submitted for the approval of Elf Gabon.

During loading:

All hull valves should be shut, except for those required for water circulation; all scuppers of main deck should be sealed; two fire hoses will be connected and set up, one at the bow. the other at the stern of the ship. The fire main shall be maintained under pressure at all times; two long robust steel safety ropes should be placed on the starboard side of vessel, one at the bow and one at the stern. The eyes should be maintained at the right distance from the water so that tug boats can easily catch hold of them.

Movement Restrictions:

It is forbidden to enter the zone of Elf Gabon installations without due authorisation. Smoking or use of lighters or matches are strictly prohibited.

In case of fire on board a ship moored to the loading berth, the Shipmaster shall give the alarm by sounding a series of short blasts on the siren and advise Terminal on VHF Channel 72. He is responsible for organising fire fighting and ensuring the stability and safety of his vessel, taking all the necessary steps in this respect.

Elf Gabon may order any safety measures to be taken in the general interest of everyone.

If considered necessary, during a storm, the loading operator may suspend loading and disconnect the loading arm.

Safety Look-out:

Elf Gabon have a permanent look-out on the loading platform under the orders of the chief loading operator.

Equipment at disposal of ship:

Stand-by tugs (2×2,000 h.p. minimum); mooring launches 140 h.p.; equipment permanently available at berth (water screen, hoses, etc.).

A Kleber anti-pollution barrier 500 m. in length can be launched within a few minutes.

A "Vortex" device can be used to re-pump the crude oil spilt in the sea. This crude oil is then collected in plastic tanks.

When a ship pollutes the sea, the above action and use of these devices will be charged to the vessel.

WEATHER:

Meteorology: From June to September the prevailing wind comes from S.S.E. and can reach force 6. From October to end of May, and especially during February, March and April there is a risk of tornadoes. They can come from any direction and are always very dangerous.

Tide: Mean amplitude of Spring tide is 2.20 m.

Swell: The terminal is protected from ocean swell. Wave height created by tornadoes can reach 2.50 m.

Current: Generally less than 0.5 knots but can reach 1 knot. Average direction 040° and 215°.

SHIPMASTER'S REPORT: 1977. (Updated 1988).

This vessel is an OBO carrier of 159,250 d.w.t. and called for a part cargo of 85,000 tons of Mandji Crude.

Mandji Crude has an API of between 30.0 and 30.4 and was on this occasion loaded at 97°F.

It appears to be wax-free and has a slight suspended water content.

Vessel size: Accepts vessels from 35,000 d.w.t. to 250,000 d.w.t., max. sailing draft is 67 ft.

Berth: Berth face about 420 ft. long with connected mooring posts. "Floating" type fender piles. Pilots are cautious of impacts as berth is piled into very deep soft mud. Moorings on our visit were: Forward: 3 head lines, 3 breast ropes and 2 springs. Aft: 3 stern lines, 3 breast ropes, and 2 springs. (See "Plan").

The springs were sent ashore first, fore and aft.

All lines are run, 1 at a time, by mooring boat, and there is no problem running wire rope moorings.

There is a shore gangway mounted on a tower.

Load Rate: Total max. rate of 12,000 t.p.h. using 4 chicksan loading arms. The connections are 16 in. and hydraulically coupled.

Berthing: Straight forward operation, no significant currents, vessels tie up bow out, port side to jetty.

Berthing Operations: From end of passage to all secure was accomplished in just over 3 hours, from Pilot aboard to secure took 2 hours. Connection of the loading arms used by this vessel took 1 hour.

From commencement of singling up to Pilot away took 1.5 hours.

Tugs: There are 2 modern 3,000 h.p. Kort Nozzle tugs and 1 older tug of 2,000 h.p. stationed in the port. The larger tugs made fast fore and aft, and the smaller pushed midships. On sailing only one of the larger and the smaller tug were used. The tugs normally use their own lines and remain fast until mooring is completed.

Weather: Mild and pleasant apart from tornadoes which occur from October to May, but especially February, March and April.

These spring up without notice to very violent winds in minutes, and though it is understood loading may be suspended, the tugs are used to assist vessel to remain on the berth if required.

Bunkers: A bunker line is being installed on the jetty, a barge is used temporarily, but it is understood that delays can be expected in taking bunkers, and they must be ordered beforehand from Elf Paris.

Fresh Water: Said to be available by barge from Port Gentil.

Usage: According to the Pilot, about 12 ships a month use the berth.

Slop Reception: There are no facilities, vessels must arrive with clean pumps and clean lines.

Radio: Tugs and Pilot are on VHF 16/72 and Marine and Terminal Operations are on VHF 72.

Repairs: Doubtful if any repairs could be undertaken, possibly in emergency the refinery workshops would assist.

Communications: There are regular daily flights to Libreville, and connections from there worldwide with minimal delay. Flight time Cape Lopez to Paris is said to be 7 hours.

Crew Changes: Could be carried out easily from a point of transportation, Port Gentil only has 2 hotels (Novotel and Meridien) and 3 guest houses.

Medical Service: Could not be obtained because vessel berthed on Saturday. However, there is a hospital.

Chandler: The port has a chandler, but there is no local produce whatsoever, all vegetables, etc., being airlifted from France and prohibitively expensive.

Cargo: Mandji Crude at loading temperature 95° to 100°F., API 30.25, has slight percentage suspended water.

Shore Leave: Permitted, but walking through the installation is forbidden for security reasons, and transportation is apparently difficult to obtain.

General: I understood no clearing or formalities are completed until vessel is berthed.

Pilotage: Mooring Master now performs pilotage only and leaves after berthing.

Accommodation: No longer required to provide accommodation for shore people.

SHIPMASTER'S REPORT: November 1981.

Agency listens on VHF Channel 16 during normal working hours and they also listen at 0900 and 1500 LMT on frequency 2506. Cargo papers usually take 2 hours after completion of loading. There was no problem with crew going ashore.

SHIPMASTER'S REPORT: January 1988.

This vessel calls frequently at the port.

The updates from Shipmasters are generally correct, but Pilots state that they do not berth vessels during darkness. Usual hours for berthing are from about 0700 hrs. until about 1800 hrs. The decision whether or not to berth any particular vessel outside those times is made by the Pilot, depending upon vessel's size, weather conditions, etc. It is considered highly unlikely that they would berth a large vessel after dark.

In addition to the latest papers required, we have also been asked for one copy of List of Vaccination Dates and one copy of Crew Personal Effects Manifest.

Customs and other formalities are usually only effected alongside after berthing. Usually two officials and Agent board. No problems encountered.

Documentation on completion of loading usually takes about 4 hours.

Fresh provisions are available from chandler in Port Gentil, but as they are mostly imported, prices are about three times those in Europe. They are of good quality and variety, cost being the only problem.

We have always found that mail posted in this port reaches its destination properly, (7–10 days to Europe).

AUTHORITY: Elf Gabon, B.P. 525, Port Gentil, Gabon. *Tel:* (241) 75-60-00. *Telex:* 8210 – 8216 Go Elferap. *Contact:* J.M. Grouvel, Operations Manager.

Terminal: Cape Lopez Terminal, B.P. 524, Port Gentil, Gabon. *Tel:* 75.63.09. *Telex:* 8210, 8216. *Contact:* Mr. Panbou, Terminal Manager.

AGENT: Socopao-Gabon, BP 560, Port Gentil. Tel: 752491. Cables: "Freight Portgentil". Telex: 8223.

GAMBA: 02.50 S. 09.59 E. (See Plan)

SEA TERMINAL: SBM.

DOCUMENTS:

Last Port Clearance.
3 lists of Last Ports (during last 3 months).
3 Stores Lists.
4 Crew Lists.
3 Personnel Effects Lists.
3 Lists of Vaccinations.
1 Notice of Readiness.

APPROACHES: The approaches to the terminal are open deep water. Gamba sea terminal fairway buoy is located in position Lat. 2° 50.1′ S., Long. 9° 56.5′ E. Black buoy. Group Occ(2) 10 secs. Visibility 4 miles.

The single buoy mooring is located in position Lat. 2° 50.1′ S., Long. 9° 58.9′ E. and exhibits a white flashing light, visible for 5 miles.

Gamba Lighthouse: Lattice tower. Red and white. Height 47 m. White flash 2/10 secs. Visibility 21 miles. Position, Lat. 02° 47.0′ S., Long. 10° 01.4′ E.

READINESS: The Notice of Readiness will be received and accepted by the Berthing Master at the anchoring time if the ship is delayed on request of the Terminal (scheduled delays, awaiting cargo, awaiting orders, weather conditions, etc.) or at the time of mooring if the ship is berthed on arrival.

PILOTAGE: All tankers mooring at Gamba SBM must use the Shell Gabon Pilot who should also be used for unmooring.

Berthing Master boards tankers at the following position: Lat. 02° 50.0′ S., Long. 09° 57.0′ E.

The Berthing Master and his assistant will remain on board throughout loading. The Berthing Master also acts as ship's Agent and focal point for liaison with the shore; communications with the terminal by VHF (portable sets for ships not equipped with VHF are supplied).

The pilot boat/mooring launch which assist mooring/unmooring will stand by throughout loading. For this purpose a mooring rope will be provided aft, by the tanker.

ANCHORAGES: 2.0 miles N.W. from SBM in 60 ft. depth. Vessels anchor without assistance.

RESTRICTIONS: Heavy swell and tornadoes (October to May tornadoes can come from any direction and are always dangerous).

MAX. SIZE: Max. ship size 130,000 d.w.t., weather permitting. Max. distance bow to manifold – 465 ft. Max. draft 41 ft.

HEALTH: When advising ETA include in message whether any sickness on board. In case of emergency vessels should call before or after loading at Port Gentil for medical attendance or for crew changes. For this purpose send separate message to "Marine Gamba" and to Agency.

RADIO: Establish contact with Gamba Radio (call sign TRP 8) soon as possible (all open days or 4 days before nomination lifting date). ETA should be sent at least 4 days before arrival in Gamba to "Marine Gamba" via Gamba Radio. Thereafter keep close contact on VHF Channel 12 with Gamba Terminal.

Gamba Radio (TRP 8) Service:

Telegraphy A1	500 W On request by Gamba Marine.
Telegraphy A1	2 kW
13070 kHz	General call and TFC list at 0900 hrs. Listen on 12 MHz band from 0900 – 0930 hrs. and on 16 MHz band from 0930 – 1000 hrs. Range about 6,000 miles.
6510 kHz	General call and TFC list at 1300 hrs. Listen on 6 MHz band from 1300 – 1330 hrs. and on 8 MHz band from 1330 – 1400 hrs. Range about 1,000 miles.
VHF F3	50 W. Call sign "Marine Gamba". Watch on Channel 16/12. Working on Channel 12. Range about 30 miles.

24 hours' service in French language. Watch in English language during office hours (0600 – 1100 hrs. and 1300 – 1600 hrs.).

Pilot Launch Service	20 W Watch on Channel 12 (when at sea). Range about 20 miles.
Terminal Gamba	20 W Watch on Channel 12. Range about 20 miles, used only for loading operations.

Radio Beacon: Continuous airplane radio beacon call sign GZ, frequency 359 kHz. Position: Lat. 02° 46.8′ S. Long. 10° 02.3′ E.

N.B. All times in GMT.

BERTHING: Berthing takes place both by day and by night. If a Shipmaster refuses to berth by night, delays will be charged to his vessel.

Depth and draft: Depth at berth: 59 ft. From this figure must be deducted the height of the manifold which is 8 ft., thus leaving a controlling depth of 51 ft. A nominal underkeel clearance of 10 ft. is allowed to take account of ship movement caused by swell. This leaves an approved safe draft of 41 ft.

SBM Description: The buoy is 8 m. in diameter, 4 m. high. A double 16 in. manifold is provided on the turntable (one pipe is blanked) 90° clockwise from the tanker securing point. The SBM is moored by means of 8 chains which are secured to the seabed by 120 tons holding power anchors.

MOORING: Recommended that vessel should be trimmed max. 8 ft. by the stern on arrival.

Ships must have ready on the forecastle, and before approaching the SBM, four synthetic mooring lines lashed two by two each side. These mooring lines will be connected to the pickup wires by the mooring launch by means of shackles and heaved up until the triangular plates are on board and are in turn connected to the mooring wires by means of forelock shackles. If vessel is not fitted with central fairlead, the most forward fairleads on either side will be used.

Vessels moor with 2×10 in. nylon ropes (length 50 m.) from SBM secured on board ship by two 2.25 in. chain cables plus two 3.25 in. wires which provided by terminal. Berthing Master will advise in detail mooring procedure.

LOADING: A derrick should be rigged with double whip and topped on the port side for loading mooring equipment and hose lifting.

Shore Line System: SBM – 1×28 in. submarine pipe-line (total length to Terminal 7.3 km. (24,000 ft.)). Reduced to 16 in. for connection to ship's manifold (total length of floating hoses: 865 ft.).

Gamba Crude Characteristics:

Density at 15°C:	0.8663	Salinity:	20 to 35 mg./Kg.
API at 60°F:	31.75	Cloud point:	39°C
BSW:	0.005%	Wax:	18%

Connection/Disconnection: Connection and disconnection are carried out by ship's crew with advice from Berthing Master. The hose is connected amidship on portside and is ended by a 16 in. reducer having A.S.A.B. 165 flanges.

If there are no suitable reducers available on board, Gamba Terminal should be advised by radio giving size of ship's manifold and pitch of bolt holes.

Loading: During the loading the Berthing Master remains on board and acts as Loading Master. He is in permanent contact with terminal by VHF.

If necessary the pumping rate can be reduced at any moment. The Loading Master will be advised at least one hour before the completion of the loading. The average loading rate is 2,500 cu.m. per hour.

Papers: The Loading Master receives by VHF shore figures from the Terminal about one hour after the completion of the loading. All documents are completed before the departure of the ship. Two sets of documents are delivered to the Master: one for his own purpose and one for the Consignee.

Engines: Engine immobilisation is forbidden at the SBM. Engines should be kept ready for use at any time at the Berthing Master's request.

MEDICAL: No medical or dental facilities at Gamba (See "Health").

DENSITY: 1025.

FRESH WATER/FUEL: Not available.

REPAIRS: No facilities available.

BALLAST: There are no facilities for discharging ballast ashore. Vessels must arrive at the loading terminal with clean ballast only, apart from contents of the slop tank.

GANGWAY/DECK WATCHMEN: Not required.

CUSTOMS ALLOWANCES: No restrictions on Tobacco/Wine.

CONSULS: None, French consul in Port Gentil.

REPATRIATION: No facilities.

AIRPORT: Gamba airport is local airstrip and is connected to Port Gentil by daily service (Except Sunday). Port Gentil airport is connected to Libreville International airport by daily services. Mail reaches any European country within seven days.

TIME: GMT plus 1 hour throughout the year.

GENERAL: The use of Channel VHF 9 is forbidden.

Ship's Spares: Customs require originals of invoices for clearing spares. Copies are not acceptable.

SHORE LEAVE: Not allowed.

IDENTIFICATION CARDS: Not required.

AUTHORITY: Shell Gabon, Gamba Marine (GMA), B.P.146, Port Gentil, Republique du Gabon. *Tel:* 752662 (13 lines). *Telex:* 8206 Go. 8214 Go. 8249 Go. and 8260 Go. *Cables:* Shell Gabon Port Gentil. *Contact:* GMA Berthing Pilot, Gamba Marine.

AGENT: See "Port Gentil".

LIBREVILLE: 00.23 N. 09.26 E.

PORT LIMITS: The seaward boundaries of the port within which a vessel is considered to be an "arrived ship" and (subject to C/P terms) laytime will commence is 2 miles off shore at Libreville Harbour.

DOCUMENTS: See "Port Gentil".

PILOTAGE: None available.

ANCHORAGES: Bottom of roads in Libreville slopes very gently down towards open sea. The greater the vessel's draft, the further out it must moor. e.g., ship of 7 m. to 8 m. draft will be moored approx. 1,500 m. from Harbour Pier. Ship 5 m. – 6 m. draft will be able to approach the Harbour Pier as near as 500 m. to 600 m. For reasons of safety, forbidden to come nearer, particularly during tornado season – February to May and September to December.

RESTRICTIONS: No restriction imposed on entering or leaving the Estuary. Channel marked by 5 buoys provided with radar reflectors and flashing lights. Sixth buoy, called a "landing buoy" moored in roads, where vessels moor.

MAX. SIZE: *Shipmaster's Report:* March 1980. Max. draft 7.4 m.

HEALTH: If there is sickness on board, Health Service warned by Consignor of vessels. Health Service can go on board to check state of crew's health. Immigration Service can also board to check crew list and condition of passengers, if any.

RADIO: *Libreville Radio:* Radio-telephony from 0600 to 1800 hrs. GMT on 2182 kHz, Radio-telegraphy from 0600 to 1800 hrs. GMT on 500 kHz, call sign TRA 22; from 0800 to 0830 hrs.on 13101 kHz, call sign TRA 8; from 1630 to 1700 hrs. GMT on 8722 kHz, call sign TRA 8.

TUGS: Tugs intended only for towing lighters, horse power 150 to 250, unsuitable for any harbour towing.

BERTHING: Only for lighters and small coasters with a draft of less than 3 m. Crews working unloading or loading of vessels in roads supplied by Consignor of the ship. Harbour Services have no radio apparatus. Shipping companies all have radio-telephone extensions, which allows them to be in permanent contact with vessel moored in roads. Unloading or loading operations of goods carried out by lighters which, towed by small tugs, ensure rotation between vessel in operation and quay. All this equipment belongs to shipping companies dealing with consignment of vessels in the roads. Every vessel arriving in roads must have its consignor.

STEVEDORES: Available.

MEDICAL: Hospital available, and in case of necessity, patient or patients will be admitted.

FRESH WATER: Water supply real problem, as there is no tanker to transport it. Therefore strongly recommended that any ship touching Douala coming from the North or Pointe Noire coming from South, should fill up at one of these ports.

FUEL: There are fuel-tankers belonging to shipping companies. The tanker which provisions Libreville two or three times a week is brought alongside buoys in roads, (position: Lat. 0° 23′ 51″ N., Long. 9° 25′ 42″ E.); fuel is transhipped by sea-line to tank on shore.

FIRE PRECAUTIONS: No special precautions.

GANGWAY/DECK WATCHMEN: Carried out by crew.

OPENING/CLOSING HATCHES: This is done with the tacit agreement of the ship's Officer and the Consignor.

CARGO GEAR: Ship's own gear used.

CONSULS: None.

REPAIRS: Small repairs possible.

DRY DOCKS: None.

REPATRIATION: No facilities.

AIRPORT: 9 km. from the harbour. Links with French-speaking Africa, Switzerland, and France, also Johannesburg.

TIME: GMT plus 1 hour.

HOLIDAYS: 17th August, Independence of Gabon; 1st May, Labour Day – these are the only holidays in force.

SERVICES: None.

SHORE LEAVE: Allowed.

IDENTIFICATION CARDS: Required.

DELAYS: First come, first served method.

GENERAL: *Ship's Spares:* Customs require originals of invoices for clearing spares. Copies are not acceptable.

AUTHORITY: Capitainerie du Port.

AGENT: Socopao-Gabon, B.P.4., Libreville. Tel: 70.21.40 and 70.21.53. Telex: 5212. Cables: "Freight Libreville".

LUCINA MARINE TERMINAL: 03.40 S. 10.46 E.

(See Plan)

DOCUMENTS: See "Gamba".

APPROACHES: Navigation aids:

Platform LD 1: The flare installed on the Production platform LP 1 is very conspicuous.

Platforms: LD 2, LD 3, LD 4, LD 5, LWD 1: The beacons on these platforms consist of two white Morse code lights: Letter "U" 15 seconds.

SBM light: Position: Lat. 03° 39.6′ S., Long. 10° 46.2′ E. One flash 0.3 secs. each sec. Visibility 5 miles.

Storage tanker: The storage tanker is showing the lights of a ship at anchor and letter "U", 15 seconds. Fore and aft. During the hours of darkness all deck lights are switched on.

NOTICE OF READINESS: See "Gamba".

PILOTAGE: Berthing Master boards vessel in position Lat. 03° 39′ S., Long. 10° 44′ E. Also see "Gamba".

ANCHORAGES: Vessels must anchor without assistance. Recommended anchorage in 19 fathoms about 1.5 miles N.W. of storage tanker.

RESTRICTIONS: No draft restrictions. Depth of water can be assumed to be 114 ft.

MAX. SIZE: Max. ship size 130,000 d.w.t., weather permitting. Max. distance bow to manifold – 465 ft.

HEALTH: See "Gamba".

RADIO: All messages sent to "Marine Gamba" through Gamba Radio TRP 8 (see "Gamba").

ETA: Should be sent to "Marine Gamba" via Gamba Radio. First ETA should be sent at least 4 days before arrival.

VHF: Vessels should call Marine Gamba on Channel 16 or 12 during office hours when passing Gamba area. Permanent watch on Channel 12 or 16, on the storage tanker and the mooring launch.

BERTHING:

Description and Location: The development consists of oil producing wells, which are protected by 4 single four-pile platforms, LD 1 (Lat. 03° 41′ S., Long. 10° 44.3′ E.) – LD 2 (Lat. 03° 41.8′ S., Long. 10° 45′ E.) LD 3 (Lat. 03° 42′ 28″ S., Long. 10° 46′ 01″ E.) – LD 4 (Lat. 03° 40′ 56″ S., Long. 10° 44′ 37″ E.) – LD 5 (Lat. 03° 42′ 11″ S., Long. 10° 45′ 48″ E.) – LWD 1 (Lat. 03° 41′ 26″ S., Long. 10° 43′ 44″ E.). Production facilities are located on four-pile platform LP 1 which is connected by a bridge to the adjacent platform LD 1. An 85,000 d.w.t. "Banio", floating unit of storage is moored by means of 10 anchors in position Lat. 03° 40′ S., Long. 10° 45.8′ E. The FSU is connected with a SBM via a submarine line, length 1 km.

SBM description: The buoy is 8.5 m. in diameter and 4 m. high. Connections for submarine lines from the FSU are provided on the bottom of the centre swivel section which is free to rotate. (Other details same as Gamba).

Nylon moorings: Vessels moor with two 10 in. circ. nylon ropes from the SBM and are secured on board ship by two 56 mm. dia. stud link chains plus two 3.25 in. wires which are provided by the terminal. Both nylons are 50 m. long.

Floating hose and submarine line: 1×20 in. submarine pipe-line, length 1,100 m. from the FSU 1 floating line, length 865 ft., from SBM is reduced to 16 in. for connection to ship's manifold.

Mooring: See "Gamba".

LOADING: Lucina Crude Characteristics: Density at 15° C.=0.8258; API at 60° F.=39.8; B.S.W.=0.03%; Salinity=30 to 40 mg/kg; Cloud point=27°C.; Wax=14%.
Loading rate: Average loading rate 2,700 cu.m.p.h.
Connection/Disconnection: See "Gamba".
DEBALLASTING: See "Gamba".
FRESH WATER: Not available.
FUEL: Not available.
REPAIRS: No facilities. Engines not to be immobilised whilst at the SBM.
REPATRIATION: Not possible.
TIME: GMT plus 1 hour throughout the year.
SHORE LEAVE: Not allowed.
GENERAL: *Ship's Spares:* Customs require originals of invoices for clearing spares. Copies are not acceptable.
AUTHORITY: Shell Gabon, Gamba Marine (GMA), B.P. 146, Port Gentil, Republique du Gabon. *Tel:* 752662 (13 lines). *Telex:* 8206 Go, 8214 Go, 8249 Go and 8260 Go. *Cables:* Shell Gabon Port Gentil. *Contact:* GMA Berthing Pilot, Gamba Marine.

OGUENDJO TERMINAL: 01.27 S. 08.55 E. (See Plan)

LOCATION: Oguendjo Oil Terminal is located in the territorial waters of the Republic of Gabon and consists of:

1. Production Platform "B" located offshore in position Lat. 01° 26′ 44.5″ S., Long. 08° 57′ 15″ E. and Production Platform "C" located offshore in position Lat. 01° 28′ 13.5″ S., Long. 08° 54′ 00″ E.
2. An offshore loading berth composed primarily of a floating storage vessel, "Bon Bateau", permanently affixed by a "wishbone" rigid mooring arm to a single point mooring buoy.
3. A submarine pipe-line which runs from Production Platform "B" to the floating storage vessel, and a submarine pipe-line which runs from Production Platform "C" to the floating storage vessel.

The floating storage vessel is located S.W. of Port Gentil in approximately 90 ft. of water and is situated in open and unsheltered waters approximately 9.5 miles off the coast in position Lat. 01° 27′ 20.5″ S., Long. 08° 55′ 00″ E. (See "Plan".)

The Company's administrative offices are located in Port Gentil and Libreville. The Company's terminal offices, storage facilities and laboratory for testing stock are located onboard the floating storage vessel located at the loading berth.

DOCUMENTS: 4 copies each of the following documents are required when calling at Oguendjo Oil Terminal:

(a) Health Declaration and Vaccination Certificate for each crew member (vaccination against yellow fever is mandatory).
(b) Crew List.
(c) Derat Certificate/Derat Exemption.
(d) Crew Customs Declaration.
(e) Store List.
(f) Animal List.
(g) Passenger List.
(h) Narcotics List.
(i) Clearance from Last Port.
(j) Arms and Ammunition List.
(k) Manifest.

The vessel's registry and the up-to-date oil record book shall also be made available to the Mooring Master and appropriate governmental officials.

PILOTAGE: *Mooring Master:* Lifting vessels to be moored at the Loading berth will be boarded by a Mooring Master either at the customary anchorage or at the Mooring Master pick-up zone (see "Approaches"). The Mooring Master will be provided by the Company and will act as the Loading Master during loading operations. Lifting vessels will not be allowed to approach or depart from the loading berth without the assistance of the Company-designated Mooring Master. The Mooring Master will advise the lifting vessel personnel on the approaches to the loading berth; the operations of mooring and unmooring; the raising, connecting, disconnecting and lowering of the floating cargo hose, and in all other operations within the loading berth area. The Mooring Master will be in direct charge of the portable VHF radiotelephone and all the ship-to-tug and ship-to-launch communications will be by portable VHF radiotelephone. The lifting vessel's oil residue book shall be made available for inspection by the Mooring Master on his arrival at the lifting vessel. All manoeuvring of lifting vessels within the loading berth area shall be performed by the lifting vessel personnel as directed by the lifting vessel's officer in charge and in accordance with the procedure advised by the Mooring Master. the lifting vessel's Master or licensed deck officer must be on the bridge at all times while lifting vessels are manoeuvring.

Pilot Ladder: Lifting vessels are required to have a clean and efficient pilot ladder fitted with spreaders and manropes, safely and securely rigged, ready for the Mooring Master to embark and disembark on the port side of the lifting vessel and of sufficient length to reach the Mooring Master's launch. If at night, adequate lighting must be rigged overside for the Mooring Master to approach or depart from the port side of the lifting vessel and to use the pilot ladder safely. A lifebuoy with safety line and self-igniting light together with a rope messenger for the Mooring Master's bag shall also be available at the pilot ladder head. Lifting vessels shall afford a "Good Weather Lee" and shall reduce speed as directed by the Mooring Master in order to effect the safe embarking or disembarking of the Mooring Master.

Whenever, as in the case of large lifting vessels in light condition, the freeboard exceeds 30 ft., the accommodation ladder shall also be in use in conjunction with the pilot ladder and shall be lowered to about 12 ft. above the water with the pilot ladder rigged immediately adjacent to the bottom platform of the accommodation ladder. A mechanical hoist of an improved pattern shall be considered an acceptable alternative to a conventional pilot ladder for use in conjunction with the accommodation ladder, but a mechanical hoist whose operation relies upon a single wire shall not be considered of an approved pattern. The rigging of the pilot ladder for the embarkation and disembarkation of the Mooring Master shall be supervised by a licensed officer of the lifting vessel and shall be positioned so that the ladder is well clear of any overboard discharge and so that each step of the ladder rests securely against the lifting vessel's side. If, in the opinion of the Mooring Master, the pilot ladder is not safe, the Mooring Master may refuse to board the lifting vessel and any delay caused by such refusal shall be for the lifting vessel's account.

Lifting vessels shall provide food for the Mooring Master while on board the lifting vessel and shall accommodate the Mooring Master in the Pilot's cabin. Should the lifting vessel not be equipped with a pilot cabin, the Mooring Master shall be accommodated in a cabin equivalent to that required for an officer on the lifting vessel. The Mooring Master shall have access to the bridge and/or central area of the lifting vessel and such areas shall not be locked or otherwise arranged to prevent immediate entry at any time by the Mooring Master.

APPROACHES: *Approaches, Navigational Aids and Landmarks to Oguendjo Oil Terminal:* Vessels are referred to the appropriate Hydrographic Office publications, Admiralty publications and official charts for the approaches, navigational aids and landmarks to Oguendjo Oil Terminal. Caution, however, is required when navigating near the Terminal since oil installations and marine activities may be encountered and mariners are recommended to pass to seaward of all such areas and are advised not to anchor or fish in the vicinity of such oil installations or their pipe-lines. Mariners are specifically cautioned that an oil well area exists S.S.W. of Port Gentil and all navigation is restricted in the area within a line joining the following positions: Lat. 00° 44′ 30″ S., Long. 08° 45′ 00″ E.; Lat. 00° 46′ 40″ S., Long. 08° 38′ 26″ E.; Lat. 01° 09′ 22″ S., Long. 08° 28′ 36″ E.; Lat. 01° 35′ 54″ S., Long. 08° 38′ 03″ E.; Lat. 01° 35′ 54″ S., Long. 09° 12′ 35″ E. (See "Plan").
Approach to Terminal:
Anchorage Area: The customary anchorage area for vessels awaiting the loading berth at the Terminal is a rectangular area with the following co-ordinates: Lat. 01° 36′ S., Long. 08° 57′ E.; Lat. 01° 36′ S., Long. 09° 02′ E.; Lat. 01° 40′ S., Long. 08° 57′ E.; Lat. 01° 40′ S., Long. 09° 02′ E. and with its centre located about 14 miles S.S.E. of the loading berth in position: Lat. 01° 38′ S., Long. 08° 59.5′ E. (See "Plan"). Anchorage within the restricted area referred to in Section above is prohibited unless otherwise designated by the Company or the Mooring Master.
Access Lane: The access lane from the customary anchorage to the Terminal is an area approximately 1.7 miles in width and with axis which runs from the anchorage area for approximately 12 miles in a direction of 325° true to the Mooring Master's pick-up zone. (See "Plan").
Mooring Master Pick-up Zone: The Mooring Master pick-up zone is a N.W. aligned semi-circle with a radius of 2.2 miles and with a centre position at Lat. 01° 27.5′ S., Long. 08° 54″ E. Following receipt of instructions from the Company or the Mooring Master, a lifting vessel should proceed from the anchorage area through the access lane to the Mooring Master's pick-up zone where the lifting vessel will be boarded by the Mooring Master for berthing or where the lifting vessel may be requested by the Company or the Mooring Master to temporarily anchor to await permission to enter the loading berth. (See "Plan").
Terminal Safety Zone: Lifting vessels are prohibited from navigating within the safety zone at the Oil Terminal at any time unless the Mooring Master is on board. The safety zone is bounded by lines connecting the following points:

Point	*Latitude (South)*	*Longitude (East)*
(a)	01° 28.75′	08° 54.10′
(b)	01° 26.85′	08° 57.82′
(c)	01° 26.32′	08° 57.27′
(d)	01° 26.32′	08° 55.66′
(e)	01° 27.96′	08° 53.52′

ANCHORAGES: See "Approaches".
RESTRICTIONS: The Terminal is operated 24 hours a day, 7 days a week, weather and other circumstances permitting. Vessels are loaded and unmoored at any hour, weather and other circumstances permitting. Vessels are moored during daylight hours only, weather and other circumstances permitting.
MAX. SIZE: Max. draft 60 ft. Max. d.w.t. 170,000. Max. displacement 200,000 tons.

The Mooring Master may allow lifting vessels in excess of 170,000 d.w.t. to moor at the loading berth provided the lifting vessel first obtains the written permission of the Company to moor at the facility.

RADIO/VHF: *Initial Radio Communications:* The radio station at Libreville will handle the initial radio communications between lifting vessels and the Company. The station call sign is TRA, and, the station operates on 500 kHz from 0600 – 1800 hrs. (GMT) daily. The "Bon Bateau", call sign ELCT, is equipped with Mariset and maintains Mariset number 1241411.
Advice of Arrival: It is important that lifting vessels establish radio contact with the Company when 3 days' distance from Oguendjo Oil Terminal and maintain such contact until just prior to arrival at the Terminal. Lifting vessels should send an ETA message to the Company (Telex: 981-5569) not less than 72 hours prior to arrival at the Terminal, providing the following information:

1. The estimated time of arrival and name of local Agent.
2. The estimated draft, fore and aft, upon arrival.
3. The quality of crude oil to be loaded and the grade of such.
4. The estimated sailing draft.
5. The last port of call.
6. Whether the lifting vessel has a clean Bill of Health.
7. The distance from the bow to the centre of the lifting vessel's manifold.
8. Mooring equipment available on the bow of the lifting vessel (e.g.) Smit's bracket, chain stoppers).

9. Confirmation that hose handling gear and mooring equipment, navigation equipment, radars, steering gear, and engine propulsion are in good order and condition, that the lifting vessel can accept a 20 in. (reducing to 16 in.) diameter floating hose fitted with a 150 ASA camlock flange.
10. Whether the lifting vessel intends to load-on-top of existing slops and, if so, advise as to the quantity of slops in each tank on which cargo will be loaded-on-top.

This first ETA message should also include a definite statement of the details of any equipment required from the floating storage vessel for connecting the floating cargo hose to the lifting vessel's manifold. Further ETA messages should be sent to the Company when the vessel is 48 hours and 24 hours distance from Oguendjo Oil Terminal confirming or giving notice of any change in the 72 hour ETA and any other time after the 24 hour ETA message when a change by more than 2 hours occurs in the ETA. The 24 hour ETA message should include a positive statement regarding the lifting vessel's Readiness to Load on arrival and the number of hours that will be required by the lifting vessel to discharge clean ballast.

TUGS: The Company has a tug in the area equipped with fire fighting apparatus. Also see "Berthing – Mooring Operation".

BERTHING: *Loading Berth:* Lifting vessels are loaded by means of a floating cargo hose which runs from the floating storage vessel to the lifting vessel. The floating storage vessel is loaded by means of a submarine pipe-line which runs from Production Platform "B" and a submarine pipe-line which runs from Platform "C" to the single point mooring buoy to which the floating storage vessel is permanently affixed.

Mooring Facilities: The floating storage vessel is permanently affixed by a "wishbone" rigid mooring arm to the single point mooring buoy which has been secured to the seabed by 4 anchor legs. Lifting vessels are moored from their bow to the bow of the floating storage vessel by means of a terminal supplied 16 in. braided mooring hawser with a 20 ft. length of 3 in. chain attached to each end of the hawser. Upon completion of mooring, the mooring hawser will run from the bow of the floating storage vessel to the bow of the lifting vessel and will allow about 200 ft. of water to separate the bow of the two vessels. The loading berth will accept vessels up to 170,000 d.w.t. (also see "Max. Size"), with displacement not to exceed 200,000 tons. The floating storage vessel is equipped with anchorage lights and a red (360°) displayed on its top mast.

Mooring Operation: The Company will provide a mooring launch to assist tug to assist in the mooring and unmooring of the lifting vessel. The mooring launch and assisting tug will be based at the loading berth and will operate under the direct control of the Mooring Master. When the lifting vessel proceeds to within a reasonable distance from the loading berth and upon advice from the Mooring Master, the messenger line of the lifting vessel will be lowered to the mooring launch and will be carried by the launch to a floating buoy where the messenger line will be secured to an 8 in. circumference pick-up rope. The Mooring Master will advise the lifting vessel to heave in the ropes until the chafing chain located at the end of the pick-up rope comes aboard. This chafing chain will be secured to the lifting vessel's bitts or Smit bracket or chain stopper in such a manner that the Terminal-supplied 180 ft. long braided nylon hawser, which is affixed to the opposite end of the chafing chain, will remain outside the lifting vessel thereby allowing the chafing effect at the fairleads of the lifting vessel to be taken by the chafing chain. All mooring details in the sequence of movements shall be directed by the lifting vessel's officer in charge following consultation with the Mooring Master.

When the mooring operations have been completed, fire wires should be secured to the lifting vessel's bitts and one fire wire led out of the bow and one fire wire led out of the stern of the lifting vessel's port side. The fire wires should be of at least such a length that the eyes will be approximately 6 ft. above the surface of the water at all times so that they can be readily available to a tug in case of an emergency.

Vessel's Alertness: The loading berth is in open and unsheltered waters and the mooring is a flexible system; therefore, from the time the Mooring Master boards the lifting vessel until the lifting vessel has loaded her cargo and the Mooring Master has disembarked, full power must be available at all times on all deck winches and windlass and other gear of the lifting vessel. The lifting vessel's engines, steering machinery and other efficient manoeuvring equipment must likewise be maintained in constant readiness with full power for immediate use so as to allow the lifting vessel to manoeuvre in order to avoid a possible collision with the floating storage vessel or so as to allow the lifting vessel to depart from the loading berth at any time following a request by the Mooring Master or the Company to do so.

The lifting vessel's personnel should be at their stations and alert at all times during mooring, unmooring, hose handling and cargo loading operations. Where lifting vessels are equipped with an electric clutch control to the propeller shaft, such lifting vessels must disconnect the electrical clutch control and the manual clutch control so that there will be no possibility of the engine engaging the propeller shaft while the lifting vessel is moored. Where lifting vessels are turbine vessels are required to turn their propellers, such lifting vessel must turn such propellers in reverse motion. A constant watch in the engine room, control room, cargo control room and on the bridge shall be provided at all times aboard any lifting vessel while at/or in the vicinity of the loading berth.

Ship-to-Terminal Communications: The floating storage vessel is equipped with VHF radiotelephone using international frequencies and maintains a radio watch on the international VHF marine Channel 16. Not less than 12 hours prior to the lifting vessel's ETA at Oguendjo Oil Terminal, the lifting vessel is required to maintain a radio watch on R/T Frequency 2182 kHz and on VHF Channel 16. Masters are recommended to use this facility as soon as the lifting vessel is within range since such communications are the best means of avoiding delay in the mooring of the lifting vessel. While the Mooring Master is on board the lifting vessel, the Mooring Master will be in direct charge of the portable VHF ship-to-terminal radiotelephone and all ship-to-terminal, ship-to-tug and ship-to-launch communications will be by portable VHF radiotelephone. The Mooring Master will advise the Master and officers regarding the emergency whistle signals set up for use in the event the VHF radiotelephone units become inoperative. The use of the lifting vessel's radio station and/or battery charging equipment is prohibited during cargo loading operations.

Radio Watches: While at the anchorage awaiting the loading berth, lifting vessels should maintain a listening watch on R/T Frequency 2182 kHz and on VHF Channel 16 with the floating storage vessel.

LOADING: *Vessel's Gear:* Prior to the arrival of any lifting vessel at the loading berth, the derrick of the lifting vessel should be up and ready to lift the mooring and hose connection gear onboard the lifting vessel. The lifting vessel must be equipped on the forecastle head with all equipment recommended in the latest OCIMF publication on standards for equipment recommended for employment in the mooring of ships at single point moorings. The Smit bracket or chain stopper shall be free, open and greased and a large coil of messenger line with sledgehammer and other necessary tools for mooring must be available. In the event that the lifting vessel is not equipped with Smit brackets, snotter ropes shall be employed. The warping winches or windlass should be in good working order and condition at all times while at the loading berth and must be adequate to handle mooring lines under heavy strain and efficient stoppers must be readily available to "hang-off" the mooring lines and transfer same from the winch to the bitts.

On the starboard side opposite the lifting vessel's manifold, there must be equipment rated by an approved Classification Society and capable of lifting the floating cargo hose safely and efficiently (a 10 long ton lift) from the sea surface over the starboard rail to the lifting vessel's manifold. Lifting vessels must also have an adequate supply of nuts, bolts, gaskets and wrenches to connect the floating cargo hose. If, in the opinion of the Mooring Master, the lifting vessel is not equipped with adequate mooring or loading facilities or lines or gear, the Mooring Master must so inform the lifting vessel's Master and in such event the lifting vessel will not be bought into the loading berth until the facilities or lines or gear are deemed satisfactory by the Mooring Master.

Rate of Loading: The crude oil flow is by pump and the maximum crude oil loading rate for lifting vessels using 1×16 in. deck hose is approximately 30,000 bbls.p.h. or approximately 4,000 cu.m.p.h. In order to save vessel time and make the loading berth available for other lifting vessels, it is requested that clean ballast be pumped as fast as possible and that lifting vessels receive oil as fast as it can be delivered, with both operations having due regard for safety. It is also requested that any "Y" pieces, strainers or mud boxes restricting the flow of crude oil into the lifting vessel, be removed before the arrival of the lifting vessel at the loading berth.

Berthing: Tenders to load crude oil will normally be accepted and the loading berth will be assigned to a lifting vessel in the order of its arrival, provided the lifting vessel has a nomination for crude oil valid at the time and is in all respects equipped and ready to moor. In the event that mooring is delayed on account of weather, the lifting vessel will keep its position in line. Should the lifting vessel be required to leave the area on account of weather, the lifting vessel should keep in radio contact with the Terminal in order to make the lifting vessel available as soon as the weather moderates. The Company reserves the right to load lifting vessels "out of turn" following the return of good weather, to the extent that such loading "out of turn" does not materially delay the loading of other lifting vessels in line. For example, should weather make it necessary for a specific lifting vessel waiting at the loading berth or at the anchorage to vacate the area, the Company may load another lifting vessel which arrived at the anchorage after the specific lifting vessel but before the return of the specific lifting vessel which was waiting in line ahead of the other lifting vessel.

Connecting Hose: After the lifting vessel has been securely moored, the floating cargo hose will be hoisted to the lifting vessel's starboard side rail amidship by the lifting vessel's equipment. The floating cargo hose is a 20 in. (reducing to 16 in.) diameter floating hose, about 1,025 ft. in length, fitted with a 150 A.S.A. camlock flange for connection to the vessel's manifold. The lifting vessel should have adapters and fittings onboard so as to enable such floating cargo hose to be connected to the lifting vessel's manifold. The raising, connecting, disconnecting and lowering of the floating cargo hose will be performed by the lifting vessel's crew as directed by the lifting vessel's officer-in-charge who must be present at all times during such operation and in accordance with the procedure advised by the Mooring Master who will remain on board as Loading Master during the entire time the lifting vessel is at the loading berth. Particular care should be taken during all such hose operations to avoid damage to the floating cargo hose and its fittings.

Loading Readiness and Arrival Time: Upon the arrival of the lifting vessel at the customary anchorage for the loading berth, the Master or his agent shall give the Company notice by letter, telegraph, wireless, or telephone that the lifting vessel is ready to load. Laytime shall commence upon the expiration of 6 hours following the acceptance of such notice by the Company provided that the lifting vessel has been nominated to load cargo and the Terminal holds such cargo nomination and further provided that the Mooring Master has deemed the lifting vessel to be in all respects ready to moor and load. The Notice of Readiness will be accepted only between 0600 hrs. and 1800 hrs. but will not be accepted at any time when Oguendjo Oil Terminal is closed. If, however, the lifting vessel is moved to the loading berth without delay after having arrived at any time and the lifting vessel is in all respects ready to moor and load in the opinion of the Mooring Master, the Notice of Readiness will be accepted at the time the Mooring Master boards the lifting vessel. Laytime shall continue until the floating cargo hose has been disconnected from the lifting vessel's manifold.

Responsibility: Prior to the commencement of any cargo loading operation, the Mooring Master and the officer-in-charge of the loading operations for the lifting vessel shall engage in a pre-loading conference to formulate a loading plan and to ensure that the lifting vessel is in all respects ready to load. No cargo loading shall take place without the permission of the Mooring Master which permission shall not be given until the pre-loading conference and the Lifting Vessel Safety Check List, have been completed. The lifting vessel's Master shall remain responsible for the safety of the lifting vessel and all operations on board the lifting vessel at all times. The Mooring Master will advise the officer-in-charge of the loading operations for the lifting vessel with respect to the loading pressures and hazards but the Mooring Master will not direct any aspect of the loading expect as may be necessary to protect the loading berth and related facilities and equipment. The manipulation of the lifting vessel's valves is the direct responsibility of lifting vessel's personnel. The Mooring Master shall have the right to suspend cargo loading operations or to require the lifting vessel to unmoor and depart from the loading berth at any time when the mooring plan, pre-loading plan or the safety requirements and regulations set forth herein are not being followed by the lifting vessel or at any time the Mooring Master believes or becomes aware of the existence of any other reason which in his opinion shall require the suspension of the mooring or the loading of the lifting vessel.

Oil Valve Control: The incoming oil stream is controlled on the floating storage vessel and the lifting vessel's valves must not be closed against the incoming oil stream. Such a procedure creates an excessive pressure which may damage the hose or other terminal facilities and could result in a pollution incident. Lifting vessels will be held legally responsible for any damage resulting from the lifting vessel's failure to observe this precaution. Frequent checks of the cargo loading must be made by lifting vessel personnel during the loading operation so that a reduction in the loading rate, before topping-off the final tank or tanks, may be arranged through the Mooring Master by the officer-in-charge of the loading operations for the lifting vessel. A normal standby warning should be given about 20 minutes before the shutdown of the loading operations. Upon the request from a lifting vessel to shut down the loading operations, a minimum of 3 minutes will normally be required to stop the flow of crude oil. Lifting vessel's personnel shall be responsible for the call to stop the loading of the lifting vessel. When cargo has ceased to flow, the valves on the floating storage vessel will be closed and the lifting vessel's manifold valves may then be closed.

Emergency Signal: The emergency signal employed at Oguendjo Oil Terminal shall be the continuous blast on a vessel's whistle. Should normal ship-to-terminal communications fail, the emergency signal must be sounded by the lifting vessel. Steam or air should never be shut-off from the whistle of the lifting vessel during loading. Whenever the emergency whistle signal is used, the tug will be summoned to standby and all loading operations will be shut down until communications can be established with the vessel giving the signal. For this reason, it is requested that lifting vessels in the area refrain from using their whistles for other than essential purposes and that the use of the "continuous blast" whistle signal be reserved for emergency purposes only. All crew members who stand a deck watch during the transfer of crude oil are expected to know the emergency shutdown signal.

Code Flag: During all cargo loading operations, the International Code Flag "B" shall be displayed from a topmast signal halyard during daylight hours and a red light shall be displayed during the hours of darkness. The red light should be of a character as to be visible at a distance of at least 2 miles and show an unbroken light around the horizon.

Terminal Stops: Request for the terminal to stop the flow of crude oil at a predetermined tonnage must be made in writing to the Company and will be deemed to include the statement and understanding that the Company will not be responsible for (1) any errors, cost or claims arising from such request and (2) any crude oil loaded in excess of that requested will not be pumped back aboard the floating storage vessel. Some delays in stopping the flow of crude oil are always incurred when such a stop request is made.

BALLAST: *Precautions and Rules:* There are no facilities for the off-loading of dirty ballast but clean oil-free ballast may be discharged overboard from the lifting vessel. It is the responsibility of the Master of the lifting vessel to see that no oil (crude, bunker, diesel, bunker C, slops, residues, contaminated ballast water, or oily bilge water) is pumped or spilled overboard from the lifting vessel. All deck scuppers must be plugged tight and adequate drip pans with sand and sawdust must be provided where necessary on deck for use at all times, especially when disconnecting hoses, in order to prevent any such loss of oil overboard. The waters in and adjacent to the loading berth must not be polluted and only clean, oil-free, ballast may be discharged inside of a line running 50 miles from and parallel to the coastline of the Republic of Gabon.

The discharge of oil mixtures from lifting vessels while en route to Oguendjo Oil Terminal is prohibited except when the following conditions are all satisfied:

(1) The instantaneous rate of discharge of oil content of the oily mixture does not exceed 60 litres per mile.

(2) The total quantity of oil discharged on the ballast voyage does not exceed that quantity permitted by the International Convention for the Prevention of Pollution from ships 1973 as modified by the Protocol of 1978 related thereto, and

(3) The lifting vessel is more than 50 miles from the nearest point on the coastline of the Republic of Gabon.

Masters are warned that when disposing of dirty ballast or bilge water, (50 miles or more from the coastline of the Republic of Gabon), all pipe-lines, sea suctions, strainers and pumps which are later to used to discharged clean ballast, must be flushed clean, so that there will be no chance of even a small amount of pollution when the clean ballast is pumped overboard.

Lifting vessels must have sufficient ballast for safe manoeuvring and where practicable, should arrive at the loading berth with the propeller completely submerged amd properly trimmed. The Mooring Master may refuse to permit the mooring of any lifting vessel not in compliance with these requirements until the vessel takes on sufficient ballast and/or alters her trim to meet these requirements.

As soon as practicable after arrival, lifting vessel's tanks will be inspected for evidence of oil in ballast and during the discharge of ballast a similar inspection will take place. If evidence of oil appears at either of these inspections, the lifting vessel must vacate the loading berth and discharge such dirty ballast.

Any lifting vessel required to vacate the loading berth for the purpose of discharging dirty ballast, cleaning tanks or for any similar reason, automatically nullifies any Notice of Readiness already tendered and at the same time loses any priority held for loading. Lifting vessels must tender a new Notice of Readiness upon their return and lifting vessel will be entered for loading upon the Company's acceptance of the new Notice of Readiness.

Lifting vessels must keep a constant watch on the side of the lifting vessel from which clean ballast is being discharged for any indication of water discolouration or oil sheen. Discharge of ballast must be immediately suspended should there be any indication of discolouration or sheen and the Mooring Master shall be immediately informed of such. An investigation of any such discolouration or sheen shall be carried out by the lifting vessel and the findings reported to the Mooring Master. Discharging shall not resume without permission of the Mooring Master.

If, during any inspection or during the process of loading, it is revealed that a lifting vessel's tank is not oil-tight, the lifting vessel will be rejected by the Mooring Master and refused further loading until satisfactory evidence of effective repairs is submitted and the lifting vessel is duly certified by Lloyd's Register of Shipping, American Bureau of Shipping or another similarly recognised classification society.

In addition to the lights usually displayed, lifting vessels are required to illuminate the lifting vessel and the waters around the lifting vessel with all available and suitable searchlights and floodlights during the discharge of clean ballast and the loading of crude oil during the hours of darkness and restricted visibility. Such illumination must be to the satisfaction of the Mooring Master and must be undertaken so as to assist in the loading operations and in order that any oil on the surface of the sea may be readily detected and appropriate action taken. Lifting vessels unable to illuminate the sea satisfactorily may not discharge ballast or engage in the loading of crude oil during the hours of darkness and any such delay shall be for the account of the lifting vessel.

Loading and Deballasting Simultaneously: Lifting vessels equipped with a separate system of ballast tanks will be allowed to discharge clean ballast and load oil simultaneously, providing that the approval of the Mooring Master if first obtained.

MEDICAL: *Emergency Medical Assistance:* Lifting vessels requiring emergency assistance should contact Oguendjo Oil Terminal by VHF radio and supply the necessary pertinent information which will be passed on to the vessel's Agent. Neither medical nor hospital facilities are available at Oguendjo Oil Terminal, but private doctors and hospital facilities are available in the town of Port Gentil.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: Consular or diplomatic representatives for many nations maintain offices in the town of Port Gentil and Libreville.

REPAIRS: The Masters of lifting vessels loading at the loading berth are advised that the loading berth is located in open and unsheltered waters and under no circumstances may engines be shut down for repairs while the lifting vessel is at the loading berth or at the anchorage. There are no facilities for making repairs to a lifting vessel at the Terminal and no repairs will be allowed at the loading berth. However, arrangements can be made through the vessel's Agent to utilise the repair facilities at other ports.

SURVEYORS: *Marine Survey and Cargo Inspection Service:* No cargo inspectors or marine surveyors are based in the area, but inspectors and surveyors who reside at other ports can be arranged through the vessel's Agent.

REPATRIATION: No facilities available.

TIME: GMT plus 1 hour. Summer time not kept.

SHORE LEAVE: Lifting vessel personnel (other than medical emergency cases) are not allowed to embark or disembark from the lifting vessel at the loading berth.

WEATHER: *General:* The Company can advise of the following general environmental characteristics for the area off the coast of the Republic of Gabon, but the navigator is referred to the published sailing instructions and directions for the area for more detailed information on the climate, weather, wind, tide, current and sea.

Climate: The coast between Cape Lopez and the Congo River is dominated by the Basin of the Ogooue and is covered with a dense equatorial forest which is frequently subjected to heavy rainfall. The area exhibits a characteristic diurnal variation in cloudiness, and the climate along the coastline is heavily influenced by the heated continental interior, the extratropical storms, and the cool Benguela current. The average annual rainfall is 123 in. and ranges from a maximum of 19.9 in. in November to a minimum of 0.04 in. in July. Temperatures seldom exceed 95°F. and seldom fall below 65°F. and are moderately high throughout the year with an average yearly temperature of 79°F. and a mean maximum temperature of 86°F.

January is the stormiest month because thunder squalls (combined thunderstorms and squalls) are frequent. Summarised wind data does not indicate strong winds during this month, but gusty winds occur during the thunderstorms, these being brief and irregular. In February and March, the weather is unsettled with occasional rain. In April weather generally improves, becoming cooler and drier. In May the weather becomes fair, but by the end of the month it again becomes more settled and a breeze flows steadily from a Southeasterly direction. In June and July, the weather is very misty and gloomy, decreasing visibility significantly. In August, light breeze persist, generally cloudy and overcast conditions exists, by the end of the month, heavy mists clear away. In September, hotter weather and more Southwesterly wind develops with frequent light showers. Sea breezes become stronger to the end of the month, and thunder squalls moving from the S.E. occur. In October, the wind is still more Westerly with occasional small showers, and generally overcast skies till noon. In November and December, strong breezes move off the land sometimes with rain, thunder and lighting.

Average annual rainfall	123 in.
Average daily maximum air temperature	84°F.
Average daily minimum air temperature	74°F.
Extreme highest average monthly air temperature	99°F.
Extreme lowest average monthly air temperature	60°F.
Average relative humidity (0700 hrs.)	92%
Average relative humidity (1300 hrs.)	76%

Winds: The prevailing winds off the Republic of Gabon are characteristically light and Southerly the year around. Land and sea breezes dominate along the coast and generally blow between the S.W. and S.E. The highest offshore wind speeds occur during local thunder squalls (combined occurrences of thunderstorms and squalls) which may have brief wind gusts up to 60-70 knots. These thunder squalls may be violent, occur quickly and without warning, and are often accompanied by heavy winds, seas, swell, and rain which may reduce visibility substantially.

Tides: The tides can be predicted with reasonable accuracy, though use of the tide tables for Takoradi in Ghana, with the appropriate correction factor for Cape Lopez applied.

Currents: The Benguela current flows North along the West coast of Africa from the vicinity of the Cape of Good Hope to the Gulf of Guinea. The general direction of the current off the Republic of Gabon is parallel to the coast, although in the vicinity of Cape Lopez the main body takes a more Westerly course. The current is generally stronger during December and January when the current flows Southward at 10 to 20 miles off Cape Lopez, but during the remaining months of the year, the current generally sets in a Northwesterly direction and sometimes attains a velocity of about 2 knots. The current is usually more rapid close to the coast than it is farther offshore, but its velocity is variable because of the effect of the winds.

Seas: The coast is influenced by swells from the South and S.W., but most of the higher waves occur in association with thunder squalls. The highest collection of waves can be expected during March and April and during October and December, but waves of 6 ft. or more do not occur more than 2.5 per cent of the time.

GENERAL: *Flag:* Lifting vessels are required to fly the flag of the Republic of Gabon on the foremast during daylight hours while in the territorial waters of the Republic of Gabon. The territorial waters extend 12 nautical miles seaward from the coastline of the Republic of Gabon.

Government Officials: Governmental officials such as the Customs Officer, Quarantine Officer, Immigration Officer, Captain of the Port and the Police, are stationed in the town of Port Gentil. Should Customs guards be stationed on board the lifting vessel while at the loading berth, it is expected that the lifting vessel will provide food for these guards and other governmental officials. Lifting vessels calling at the loading berth must provide an accommodation ladder rigged on the port side for such governmental officals.

Quarantine Regulations: The rules governing the quarantine of lifting vessels are the same as those found in other parts of the world.

Supplies: Commissary supplies, steward stores, laundry services, fresh water, marine lubricants and bunkers are not available through the Company and may not be loaded at the loading berth. Any questions concerning the availability of such items from other sources and the loading of such items elsewhere should be handled through the vessel's Agent.

Agency: The Company does not perform any vessel agency functions. Lifting vessels calling at Oguendjo Oil Terminal must arrange for their own Agents.

Contraband: The Company prohibits unauthorised craft from coming alongside lifting vessels while at the loading berth without the permission of the Mooring Master. To avoid the possibility of undesirable elements getting aboard lifting vessels, it is recommended that Masters discourage any such craft from coming alongside while lifting vessels are at or in the vicinity of the loading berth.

Garbage: The dumping of garbage, sewage, and refuse overboard is prohibited and there are no facilities for receiving such at the Terminal.

Visitors: Vistors are not allowed to embark or disembark from the lifting vessel at the loading berth.

AUTHORITY: Amoco Gabon Exploration Company, B.P. 3867, Libreville, Republic of Gabon. *Tel:* 73-24-72 or 73-26-02. *Telex:* 981-5569. *Contact:* R. Gregory Rich, President/Director General.

OVENDO: 00.17 N. 09.30 E. **(See Plan)**

SHIPMASTER'S REPORT 1978:

Vessel, length 156 m., breadth 22.0 m. Draft at the time, 30 ft.

APPROACHES: The channel buoys showed very well on radar on the 3 and 6 miles ranges, even during heavy rain, but the lights on the red buoys are poor and all buoys occasionally unlit.

ANCHORAGES: Depths in the channel and river were found to be as stated during low water with a depth of 33 ft. over all the anchorage. Maximum draft allowed at this time was 30 ft.

The holding ground is good, 4 shackles were used for a total ship weight of 19,000 tons plus a small coaster alongside.

The tides are regular with only a very short slack water period, and run at between 4 and 6 knots.

PILOTAGE: There are 2 French Pilots who may be contacted on VHF Channel 16 when in range, they are ordered by the Agent to berth vessels only, although they will pass on advice to vessels regarding anchoring.

TUGS: There is 1 tug of approximately 1,000 h.p. which assists in berthing, either towing or pushing.

BERTHING: Well fendered modern concrete quay, 450 m. in length, laid out as per "Plan" in the "Guide". The normal practice is for there to be 2 ships of around 150 m. and one smaller ship alongside at one time. The inshore side of this quay is for small craft only.

Depths alongside Berth No. 1, 23 ft.; No. 2, 18 ft. and No. 3, 22 ft.

FRESH WATER: This is obtainable while alongside the quay but only in a dire emergency at the anchorage from the tug which can supply up to 8 tons.

REPAIRS: Only very small repairs are possible and it is suggested that a receipt is obtained for any parts sent ashore.

REPATRIATION: There are 2 flights a week from Libreville to Paris and approximately 12 flights weekly to Abidjan.

SHIPCHANDLER: There is no chandler for any form of stores, the only possibility being self-purchase at the local (Libreville) supermarket. All goods are imported and therefore very expensive.

HOLIDAYS: 12th March, Gabonese Independence.

MARINE CLUB: There is a marine club about 1 km. from Ovendo in the Libreville direction (swimming pool, etc.).

SHIPMASTER'S REPORT: February 1979.

DOCUMENTS: Ship's Papers (sighted), Crew Lists (5), Passenger Lists (5), Port of Call (4), Crew's Custom Declaration (1), Marine Health (1), Arms and Ammunition (1).

PILOTAGE: Pilot boards by tug which is compulsory for docking and undocking. Vessels berthed head out for sailing.

APPROACHES: Gambia Lighthouse range 20 miles is easy to pick up, channel is well marked by buoys with good radar reflectors. No Pilot is available for the channel. After last buoy proceed directly to anchorage.

Soundings taken throughout channel showed a least depth of 20 m.

ANCHORAGES: Waiting anchorage is 0.5 to 1 mile West of the wharf.

RADIO: Agent keeps watch on VHF Channel 16.

BERTHING: A new port has been built about 4 miles South of old lighter jetties at Libreville, consisting of 1 wharf at right angles to the shore in 15 m. of water, capable of docking 2 ocean-going vessels.

STEVEDORES: Slow but efficient, about 6 tons per gang man hour.

REPATRIATION: Airport 12 miles from port, 6 flights per week direct to Paris.

TRANSPORT: Available by bus or taxi to the town.

SHORE LEAVE: Allowed.

SEAMEN'S CLUB: Within 1 mile of port with bar and swimming pool.

SHIPMASTER'S REPORT: March 1980.

PILOTAGE: Pilot compulsory. Pilot boards 1 mile S.W. of Ovendo Pier and requires 24 hours' and 12 hours' notice.

ANCHORAGE: One mile S.W. of the pier.

RESTRICTIONS: Pilot advises that vessels can only berth on slack water as a 5 – 6 knot (approx.) ebb tide runs. Vessels able to sail at any time, however, it is not advisable to manoeuvre during darkness as buoys are frequently unlit. Vessels are able to proceed from sea to anchorage at any time.

MAX. SIZE: Max. draft at Ovendo is 9.2 m. Mean tidal range 1.5 m.

TUGS: One tug available.

VHF: Pilot and Port Authority on Channel 16. Agent on Channel 9.

BERTHING: The berth at Ovendo is 20 miles from the entrance. There is one jetty 450 m. in length. The mean tidal range at the berth is 1.5 m. and the bottom in the vicinity of the berth is mud. Container vessels use the port and discharge using ship's gear. There is ample handling and storage space for containers. "Delmas" container vessels use the port frequently and they take preference over most other vessels.

SERVICES: The following are available:

Fresh water (rate 25 tonnes p.h.), airport, doctor and hospital.

The following are not available:

Fresh provisions, repair facilities, dry dock facilities, machine shop, surveyors, laundry service, fuel, lubricating oils, groceries, meats and slop facilities.

GENERAL: Arriving from a S.W. direction no difficulties were encountered, Point Gonbe was visible 18 miles on the radar and later the Fairway Buoy was visible at 10 miles. All the channel buoys showed up at 6 to 8 miles on radar.

The Fairway Buoy is very large, similar to the type used on the American coast. Chart used 1877 (Estuaire du Gabon).

Conspicuous wreck marked in position Lat. 0° 24.4′ N., Long. 9° 17.2′ E. is no longer visible.

On entering inward I checked the buoys' positions against the land and found:

Fairway Buoy Gp. Fl.(2) 6 secs. In position. Unlit.
(Course 090°×3.2 M) Fl. G. 4 secs. In position. Lit.
(Course 115°×2.1 M) Gp. Occ(2) G. 6 secs. In position. Unlit.

(Course 115°×2.1 M) Between { Occ. R. 4 secs. In position. Unlit.
Fl. G 4 secs. In position. Unlit.
(Course 137°×3.0 M) Fl. R. 4 secs. Out of position. Unlit.
(Course 137°×6.1 M) Occ. 6 secs. In position. Lit.

After passing the Fl. R. 4 sec. buoy, vessel was about to set a course to the anchorage off the port of Libreville but was told that vessels carrying cars were to proceed to the new port of "Ovendo" some 8.5 miles further up the river.

On arrival I was told to anchor 1 mile S.W. of the new pier.

Quite a modern port as described in the "Guide".

Laying alongside the berth is not very comfortable when the ebb tide starts to flow, anything up to 6 knots within half an hour of HW, getting its force from three rivers, River Egoume, River Ikoy and the main river Komo.

Vessels always berth on slack water with the aid of a tug to push. Vessels can leave at any time. Port employs two French Pilots.

REPORT: 1982.

Ship Spares: Customs require originals of invoices G11 for clearing spares. Copies are not acceptable.

AGENT: See "Libreville".

PORT GENTIL: 00.43 S. 08.48 E. (See Plan)

LOCATION: The deep water port of Port Gentil is located between Point Clairette (Sogara Refinery) and the Alcyon Bank (CFG factory).

APPROACHES: Buoyed channel, lit at night. Minimum depth 15 m.

DOCUMENTS:

Cargo Manifest.
Store List.
Crew's Personal Effects List.
Crew List.
List of Ports of Call (not compulsory).
Health Certificate.
Ship's Official Papers.

PILOTAGE: Pilot service operates 24 hours a day. Vessels berth day and night except at Sogara Quay where berthing is daylight only.

ANCHORAGES: An anchorage area for timber vessels faces the old port. Access to the zone is by leaving to starboard a path 200 m. from the buoys of the Alcyon and Talisman Banks.

An anchorage area for waiting vessels intending to berth at the new port, or at the Sogara Refinery is to starboard of a line joining the Prince Buoy to the buoy of the Sogara route to the port.

RESTRICTIONS: See "Pilotage".

The water area in the port is clear with no obstructions apart from the Alcyon Bank running from the marker buoy to the CFG factory. Dredging carried out permits manoeuvring of vessels to Berth No. 2 of the Commercial Quay.

RADIO: Port Control on HF 2182 kHz and VHF Channel 16, Working Channel 12.

TUGS: Not required.

BERTHING: *Commercial Quay:* 350 m. of quay with 11 m. depth of water and 75 m. of quay with a depth of 2.5 m. which constitutes the barge quay. The quay bollards are spaced 30 m. apart. This quay is able to accommodate 3×20,000 tonne vessels.

Fish Quay: The fish quay runs at right angles to the Commercial Quay (107° – 287°). 80 m. with 8 m. depth of water; 197 m. with 7 m. depth of water.

This quay is reserved as a priority for fishing vessels, but can be partially used for berthing vessels of a commercial nature. The quay bollards are spaced 20 m. apart.

Storage: 6,000 sq.m. of covered storage, divided into 6 bays of 1,000 sq.m. each. 3 bays leased to COMACO (8 reefer points available). 3 bays leased to SOAEM (1 reefer point available). 1 Customs warehouse located in the SOAEM bay.

Open storage area: Current paved surfaces of open storage areas – 14,000 sq.m. One tarmac non-covered area of 10,000 sq.m. is in service. A second storage area of 10,000 sq.m. (approx.) will be brought into service at a later date.

STEVEDORES: Work in 3 shifts throughout 24 hours.

MEDICAL: The port infirmary is located in the Comaco Building.

TANKERS: To N.E. of Mole is a petroleum pipe-line unloading point for small tankers, tying up on buoys, max. length 70 m., draft 5 m.

Prince's Bay, point for unrefined petrol by sealine is available to North of Prince's Bay (see "Cape Lopez").

FRESH WATER: Available at commercial quay and fishing quay.

WATCHMEN: Available.

HATCHES: Opened and closed by crew.

CONSULS:

France	BP. 511	Tel: 20.86
Netherlands	BP. 792	Tel: 28.09
Sweden	BP. 518	Tel: 21.71
Switzerland		Tel: 20.19

REPAIRS/DRY DOCKS: Not available.

REPATRIATION: Obtainable on medical grounds. No facilities for crew changes.

AIRPORT: 4 km. distant. Regular services.

TIME: GMT plus 1 hour. No alterations.

HOLIDAYS: No work on Independence Day, 17th August.

SHORE LEAVE: Permitted.

GENERAL: *Ships' Spares:* Customs require original of invoices for clearing spares. Copies are not acceptable.

AUTHORITY: Direction du Port de Port Gentil, B.P. 43, Port Gentil, Gabon. *Tel:* 75-35-63. *Contact:* J. B. Pea, Le Directeur du Port.

AGENT: Socopao-Gabon, B.P. 560, Port Gentil. Tel: 752491 and 753085. Telex: 8223. Cables: "Freight Portgentil".

NOTES

Please also advise Shipping Guides Ltd.

Republic of Gambia

BANJUL: 13.27 N. 16.34 W. (See Plan)

DOCUMENTS:
7 Crew Lists.
7 Passenger Lists.
7 Ports of Call Lists.
Health Documents.
Derat (or Exemption) Certificate.
Yellow Fever Innoculation Certificates.
Customs Crew Declaration.
2 signed copies of Manifest.
Bills of Lading (may be sent in advance of vessel).

PILOTAGE: ETA and draft to be communicated to "Harbour Master Banjul" 48 hours before ETA and confirmed 12 hours before. Vessel arriving Monday ETA preferably not later than Saturday morning.

Pilot station situated in Harbour Master's Office has VHF station, calling Channel 16 (156.80 MHz) working Channels 12 (156.60 MHz) and 14 (156.70 MHz). Continuous listening watch kept 0800 – 1500 hrs. Monday – Thursday. 0800 – 1300 hrs. on Friday and Saturday. Listening watch at weekends if vessels are expected. Reception generally good within 100 nautical miles radius. Pilot boat has blue hull and white superstructure, exhibiting usual signals.

Pilotage from any point inwards from Fairway Buoy by request, but compulsory from No. 5 Buoy inwards.

ANCHORAGES: Good and spacious anchorages to the East and S.E. of Government Wharf in depths of 8 to 15 fathoms.

RESTRICTIONS: Vessels may enter and proceed to anchorage at all times and states of tides. Minimum depth in sea approach channel is 8.54 m. LWOST. Average rise of Spring tides 1.8 m., Neap tides 1.2 m.

HEALTH: Vessels exhibit the appropriate International Code signals. Port Health Officer usually boards the vessel at the harbour anchorage or alongside between 0800 and 1700 hrs. daily, at all times in case of emergency.

RADIO: No radio station.

RADAR/VHF: Port VHF. Radar station being constructed – See "Pilotage".

TUGS: One ocean-going tug of 1,000 h.p. with VHF keeps watch on Channel 16 throughout 24 hours.

BERTHING: Maximum permissible draft alongside Banjul Old Wharf 8.2 m. Mooring bollards on foreshore. Banjul Wharf berthing face 122 m., breadth 29 m. Mooring dolphin each end, set back from wharf face. Inner berth of length 102 m. suitable for small vessels up to 5.3 m. draft. Public Jetty berthing face 60 m., maximum draft 3.3 m.

New Banjul Wharf: Length 123 m., width 29 m., depth alongside 10 m. (outer side) and 6.0 m. (inner side). Wharf is flanked by 2 mooring dolphins at each end at distance of 24 m.

840 sq. m. of under covered cargo space. Paved area for outside storage of 8,000 sq. m. for containers and break bulk cargo.

Tankers can load ground nut oil at New Banjul Wharf.

BRIDGES: No bridges.

STEVEDORES: Normally 48 hours notice addressed to Agent. If arriving Monday preferable Agent notified requirements latest Friday. Normal working hours 0730 – 1900 hrs.

MEDICAL: Emergencies and cases requiring hospitalisation attended to at all times, giving as much advance notice and information as possible. Other cases attended to as convenient to ships after arrival. For certificates required see "Documents". Inoculation and vaccination for yellow fever given on request.

TANKERS: Tankers (discharging only) berth on Banjul Old Wharf. Maximum permissible draft 8.2 m. Discharge of residue and bilge prohibited. Ballasting by permission of Harbour Master. Ground nut oil can be loaded at New Banjul Wharf.

DENSITY: Normally salt water at Banjul, reducing to about 1020 ozs. per cu.ft. during River Gambia flood water period: August – February.

FRESH WATER: Fresh water available at Banjul wharves from hydrant. Notice of requirements should be sent with ETA. No water barge. Tug can supply up to 18 tons of fresh water to vessels at anchorage.

FUEL: Bunkering facilities available at Banjul Wharf by road tankers for reasonable quantities. Advance notification required for all bunkers.

FIRE PRECAUTIONS: For tankers and vessels carrying explosives Fire Brigade will be in attendance.

GANGWAY/DECK WATCHMEN: Recommended. By arrangement with Agent.

OPENING/CLOSING HATCHES: Usually done by stevedores.

CERTIFICATES: Registry, Articles of Agreement, Load Line, Safety, Safety Equipment Radio Licence/Certificate.

CUSTOMS ALLOWANCES: Reasonable allowance of wine/spirits and tobacco/cigarettes out of bond, as per Master's request.

CARGO GEAR: In accordance with UK Factories Act. Ship's lifting gear for loading and discharging, also 4×6 ton and 1×30 ton mobile cranes available. Adequate plant for handling 20 ton and 40 ton containers.

IDENTIFICATION CARDS: Needed.

CONSULS: In Banjul: Belgium, Denmark, France, Lebanon, Norway, Spain, Sweden. U.S.A. has resident charge d' Affairs and U.K. has High Commissioner. Senegal has resident Ambassador.

REPAIRS: Minor hull, deck and engine repairs and welding undertaken by G.P.A. dockyard.

DRY DOCK: A slipway of capacity of 500 tons displacement is included in the dockyard facilities.

REPATRIATION: Possible.

AIRPORT: Airport 14 miles from Banjul. Regular services.

TIME: GMT kept throughout the year.

HOLIDAYS: New Year's Day (1st January); Independence Day (18th February); Good Friday, Christmas Day, Boxing Day, Islamic Festivals of Eid-El-Fitr (Ramadan) and Eid-El-Kabir. No cargo work on Islamic Holidays.

TELEPHONE: Telephones installed on board at ship's/Agent's request.

SHORE LEAVE: No restriction on normal shore leave.

GENERAL: The Gambia River Transport Company operates a limited fleet of lighters, mainly for transporting groundnuts from river ports to Banjul. Ships stores: fresh vegetables, beef and fish, fruit (in season) and bonded stores are available.

Other Ports: River Ports: Kaur and Kuntaur at 118 and 150 miles upriver respectively from Banjul. River Pilots available at Banjul. Max. loaded draft 5.0 m.

DEVELOPMENTS: Area to be reclaimed for container handling and stacking terminal.

AUTHORITY: Gambia Ports Authority, Wellington Street, P.O.Box 617, Banjul, Republic of the Gambia. *Tel:* 27266 (Managing Director). 27267 and 27268 (Others). *Telex:* 2235 Gamport Gv. *Cables:* Gamports Banjul. *Contact:* M. Gaye, Managing Director.

AGENT: The Gambia Shipping Agencies Limited, 10 Cameron Street, P.O. Box 257, Banjul, Gambia. Tel: (220) 27518. Telex: 2202 Gamships GV. Cables: "Gamship Banjul".

NOTES

Please also advise Shipping Guides Ltd.

(Course 115°×2.1 M) Between { Occ. R. 4 secs. In position. Unlit.
{ Fl. G 4 secs. In position. Unlit.
(Course 137°×3.0 M) Fl. R. 4 secs. Out of position. Unlit.
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After passing the Fl. R. 4 sec. buoy, vessel was about to set a course to the anchorage off the port of Libreville but was told that vessels carrying cars were to proceed to the new port of "Ovendo" some 8.5 miles further up the river.

On arrival I was told to anchor 1 mile S.W. of the new pier.

Quite a modern port as described in the "Guide".

Laying alongside the berth is not very comfortable when the ebb tide starts to flow, anything up to 6 knots within half an hour of HW, getting its force from three rivers, River Egoume, River Ikoy and the main river Komo.

Vessels always berth on slack water with the aid of a tug to push. Vessels can leave at any time. Port employs two French Pilots.

REPORT: 1982.

Ship Spares: Customs require originals of invoices G11 for clearing spares. Copies are not acceptable.

AGENT: See "Libreville".

PORT GENTIL: 00.43 S. 08.48 E. (See Plan)

LOCATION: The deep water port of Port Gentil is located between Point Clairette (Sogara Refinery) and the Alcyon Bank (CFG factory).

APPROACHES: Buoyed channel, lit at night. Minimum depth 15 m.

DOCUMENTS:
- Cargo Manifest.
- Store List.
- Crew's Personal Effects List.
- Crew List.
- List of Ports of Call (not compulsory).
- Health Certificate.
- Ship's Official Papers.

PILOTAGE: Pilot service operates 24 hours a day. Vessels berth day and night except at Sogara Quay where berthing is daylight only.

ANCHORAGES: An anchorage area for timber vessels faces the old port. Access to the zone is by leaving to starboard a path 200 m. from the buoys of the Alcyon and Talisman Banks.

An anchorage area for waiting vessels intending to berth at the new port, or at the Sogara Refinery is to starboard of a line joining the Prince Buoy to the buoy of the Sogara route to the port.

RESTRICTIONS: See "Pilotage".

The water area in the port is clear with no obstructions apart from the Alcyon Bank running from the marker buoy to the CFG factory. Dredging carried out permits manoeuvring of vessels to Berth No. 2 of the Commercial Quay.

RADIO: Port Control on HF 2182 kHz and VHF Channel 16, Working Channel 12.

TUGS: Not required.

BERTHING: *Commercial Quay:* 350 m. of quay with 11 m. depth of water and 75 m. of quay with a depth of 2.5 m. which constitutes the barge quay. The quay bollards are spaced 30 m. apart. This quay is able to accommodate 3×20,000 tonne vessels.

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STEVEDORES: Work in 3 shifts throughout 24 hours.

MEDICAL: The port infirmary is located in the Comaco Building.

TANKERS: To N.E. of Mole is a petroleum pipe-line unloading point for small tankers, tying up on buoys, max. length 70 m., draft 5 m.

Prince's Bay, point for unrefined petrol by sealine is available to North of Prince's Bay (see "Cape Lopez").

FRESH WATER: Available at commercial quay and fishing quay.

WATCHMEN: Available.

HATCHES: Opened and closed by crew.

CONSULS:

France	BP. 511	Tel: 20.86
Netherlands	BP. 792	Tel: 28.09
Sweden	BP. 518	Tel: 21.71
Switzerland		Tel: 20.19

REPAIRS/DRY DOCKS: Not available.

REPATRIATION: Obtainable on medical grounds. No facilities for crew changes.

AIRPORT: 4 km. distant. Regular services.

TIME: GMT plus 1 hour. No alterations.

HOLIDAYS: No work on Independence Day, 17th August.

SHORE LEAVE: Permitted.

GENERAL: *Ships' Spares:* Customs require original of invoices for clearing spares. Copies are not acceptable.

AUTHORITY: Direction du Port de Port Gentil, B.P. 43, Port Gentil, Gabon. *Tel:* 75-35-63. *Contact:* J. B. Pea, Le Directeur du Port.

AGENT: Socopao-Gabon, B.P. 560, Port Gentil. Tel: 752491 and 753085. Telex: 8223. Cables: "Freight Portgentil".

NOTES

Please also advise Shipping Guides Ltd.

Republic of Gambia

BANJUL: 13.27 N. 16.34 W. (See Plan)

DOCUMENTS:
7 Crew Lists.
7 Passenger Lists.
7 Ports of Call Lists.
Health Documents.
Derat (or Exemption) Certificate.
Yellow Fever Innoculation Certificates.
Customs Crew Declaration.
2 signed copies of Manifest.
Bills of Lading (may be sent in advance of vessel).

PILOTAGE: ETA and draft to be communicated to "Harbour Master Banjul" 48 hours before ETA and confirmed 12 hours before. Vessel arriving Monday ETA preferably not later than Saturday morning.

Pilot station situated in Harbour Master's Office has VHF station, calling Channel 16 (156.80 MHz) working Channels 12 (156.60 MHz) and 14 (156.70 MHz). Continuous listening watch kept 0800 – 1500 hrs. Monday – Thursday. 0800 – 1300 hrs. on Friday and Saturday. Listening watch at weekends if vessels are expected. Reception generally good within 100 nautical miles radius. Pilot boat has blue hull and white superstructure, exhibiting usual signals.

Pilotage from any point inwards from Fairway Buoy by request, but compulsory from No. 5 Buoy inwards.

ANCHORAGES: Good and spacious anchorages to the East and S.E. of Government Wharf in depths of 8 to 15 fathoms.

RESTRICTIONS: Vessels may enter and proceed to anchorage at all times and states of tides. Minimum depth in sea approach channel is 8.54 m. LWOST. Average rise of Spring tides 1.8 m., Neap tides 1.2 m.

HEALTH: Vessels exhibit the appropriate International Code signals. Port Health Officer usually boards the vessel at the harbour anchorage or alongside between 0800 and 1700 hrs. daily, at all times in case of emergency.

RADIO: No radio station.

RADAR/VHF: Port VHF. Radar station being constructed – See "Pilotage".

TUGS: One ocean-going tug of 1,000 h.p. with VHF keeps watch on Channel 16 throughout 24 hours.

BERTHING: Maximum permissible draft alongside Banjul Old Wharf 8.2 m. Mooring bollards on foreshore. Banjul Wharf berthing face 122 m., breadth 29 m. Mooring dolphin each end, set back from wharf face. Inner berth of length 102 m. suitable for small vessels up to 5.3 m. draft. Public Jetty berthing face 60 m., maximum draft 3.3 m.

New Banjul Wharf: Length 123 m., width 29 m., depth alongside 10 m. (outer side) and 6.0 m. (inner side). Wharf is flanked by 2 mooring dolphins at each end at distance of 24 m.

840 sq. m. of under covered cargo space. Paved area for outside storage of 8,000 sq. m. for containers and break bulk cargo.

Tankers can load ground nut oil at New Banjul Wharf.

BRIDGES: No bridges.

STEVEDORES: Normally 48 hours notice addressed to Agent. If arriving Monday preferable Agent notified requirements latest Friday. Normal working hours 0730 – 1900 hrs.

MEDICAL: Emergencies and cases requiring hospitalisation attended to at all times, giving as much advance notice and information as possible. Other cases attended to as convenient to ships after arrival. For certificates required see "Documents". Inoculation and vaccination for yellow fever given on request.

TANKERS: Tankers (discharging only) berth on Banjul Old Wharf. Maximum permissible draft 8.2 m. Discharge of residue and bilge prohibited. Ballasting by permission of Harbour Master. Ground nut oil can be loaded at New Banjul Wharf.

DENSITY: Normally salt water at Banjul, reducing to about 1020 ozs. per cu.ft. during River Gambia flood water period: August – February.

FRESH WATER: Fresh water available at Banjul wharves from hydrant. Notice of requirements should be sent with ETA. No water barge. Tug can supply up to 18 tons of fresh water to vessels at anchorage.

FUEL: Bunkering facilities available at Banjul Wharf by road tankers for reasonable quantities. Advance notification required for all bunkers.

FIRE PRECAUTIONS: For tankers and vessels carrying explosives Fire Brigade will be in attendance.

GANGWAY/DECK WATCHMEN: Recommended. By arrangement with Agent.

OPENING/CLOSING HATCHES: Usually done by stevedores.

CERTIFICATES: Registry, Articles of Agreement, Load Line, Safety, Safety Equipment Radio Licence/Certificate.

CUSTOMS ALLOWANCES: Reasonable allowance of wine/spirits and tobacco/cigarettes out of bond, as per Master's request.

CARGO GEAR: In accordance with UK Factories Act. Ship's lifting gear for loading and discharging, also 4×6 ton and 1×30 ton mobile cranes available. Adequate plant for handling 20 ton and 40 ton containers.

IDENTIFICATION CARDS: Needed.

CONSULS: In Banjul: Belgium, Denmark, France, Lebanon, Norway, Spain, Sweden. U.S.A. has resident charge d' Affairs and U.K. has High Commissioner. Senegal has resident Ambassador.

REPAIRS: Minor hull, deck and engine repairs and welding undertaken by G.P.A. dockyard.

DRY DOCK: A slipway of capacity of 500 tons displacement is included in the dockyard facilities.

REPATRIATION: Possible.

AIRPORT: Airport 14 miles from Banjul. Regular services.

TIME: GMT kept throughout the year.

HOLIDAYS: New Year's Day (1st January); Independence Day (18th February); Good Friday, Christmas Day, Boxing Day, Islamic Festivals of Eid-El-Fitr (Ramadan) and Eid-El-Kabir. No cargo work on Islamic Holidays.

TELEPHONE: Telephones installed on board at ship's/Agent's request.

SHORE LEAVE: No restriction on normal shore leave.

GENERAL: The Gambia River Transport Company operates a limited fleet of lighters, mainly for transporting groundnuts from river ports to Banjul. Ships stores: fresh vegetables, beef and fish, fruit (in season) and bonded stores are available.

Other Ports: River Ports: Kaur and Kuntaur at 118 and 150 miles upriver respectively from Banjul. River Pilots available at Banjul. Max. loaded draft 5.0 m.

DEVELOPMENTS: Area to be reclaimed for container handling and stacking terminal.

AUTHORITY: Gambia Ports Authority, Wellington Street, P.O.Box 617, Banjul, Republic of the Gambia. *Tel:* 27266 (Managing Director). 27267 and 27268 (Others). *Telex:* 2235 Gamport Gv. *Cables:* Gamports Banjul. *Contact:* M. Gaye, Managing Director.

AGENT: The Gambia Shipping Agencies Limited, 10 Cameron Street, P.O. Box 257, Banjul, Gambia. Tel: (220) 27518. Telex: 2202 Gamships GV. Cables: "Gamship Banjul".

NOTES

Please also advise Shipping Guides Ltd.

German Democratic Republic

ROSTOCK: 54.09 N. 12.08 E. (See Plan)

DOCUMENTS:
Health Declaration.
6 Crew Lists.
2 Passenger Lists.
2 Currency Lists.
Stores List.
Cargo Documents.
Ship's Certificates.

PILOTAGE: Compulsory. Contact by VHF Channel 16, working Channel 12. Pilot boards at Warnemunde Light Buoy. International code signals used.

ANCHORAGES: In Warnemunde Roads, off port entrance, in depths of 48 ft.

RESTRICTIONS: Entrance channel from Warnemunde Light Buoy to Overseas Port at mouth of River Warnow, depth 13.0 m.

MAX. SIZE: For Overseas Port: length 230 m., beam 32 m., draft 11.58 m. (38 ft.). For City Docks: 142 m. length, 21 ft. draft. Also see "Tankers".

Berth No	*Max. Draft* (m.)	(ft. in.)	*Remarks*
03	9.45	31 0	Max. LOA 215 m.
04	11.58	38 0	(37 ft. for turbine vessels)
05	9.14	30 0	Max. LOA 215 m.
07	9.02	29 7	
12	10.36	34 0	Max. LOA 210 m.
16	10.36	34 0	Max. LOA 180 m.
17	11.28	37 0	
18	11.20	36 9	
21 – 23	10.06	33 0	
24	11.28	37 0	
31, 32, 36	9.75	32 0	
33	10.06	33 0	
34, 35, 37	9.45	31 0	
41 – 46	9.75	32 0	
50	9.14	30 0	
51 – 54	9.75	32 0	
63	7.62	25 0	(Ro-Ro)
64, 65	10.36	34 0	
66	9.45	31 0	
67, 68	10.36	34 0	

HEALTH: Pratique given on arrival. In case suspected disease or fever on board, radio details to Agent before arrival. Complete Declaration of Health required.

RADIO: Rugen Radio, call sign "Y5M".

TUGS: Available. Use of at least 1 tug is compulsory for vessels berthing and unberthing.

Sufficient number of tugs available, from 300 h.p. to 1,200 h.p. Tugs normally join vessel in front of the mole.

BERTHING: *Overseas Port:* Situated in Lower Warnow River about 3.8 miles from Warnemunde Sea Buoy.
Pier No. 1: 9 berths. General goods, depth 30 ft. to 34 ft.
Pier No. 2: 13 berths. General goods, depth 30 ft. to 33 ft.
Pier No. 3: 4 berths. Bulk cargoes, depth 30 ft. to 37 ft.
Pier No. 4: 3 berths. Grain, Feedstuffs, Fish Meal. Depth 34 ft., 1 berth Urea, Potash.
Oil Pier: 3 tanker berths, depth 30 ft. to 38 ft.

Chemical Port: 1 berth. Depth 29 ft. 7 in. Products Handled: Ammonia, Methanol and Butane.

City Docks: In Warnow River, about 6 miles from sea. Total quay length 1,600 m. depths alongside 21 ft. and 18 ft. Grain elevators shooting capacity 42 t.p.h., suction capacity 33 t.p.h.

Warnemunde: Port for passenger service. Quay length 180 m. Depth alongside 27 ft. 06 in.

Port Control to be contacted through VHF Channel 14.

Roll-on/Roll-off terminal with facilities for 20 ft. and 40 ft. containers. Max. draft 25 ft.

CRANES: *Overseas Port:* 73 cranes and 15 crane-bridges with capacities from 3.2 – 63 tons. A self-propelled floating crane "Goliath", for heavy lifts not exceeding 100 tons is available. Heavy Lifts weighing up to 300 tonnes may be handled by means of additional 100 ton yard cranes. Container facilities and container gantry crane available.

City Docks: Crane capacities 2 – 10 tons.

BULK HANDLING FACILITIES: 4 berths, length of quay 900 m. 6 bridges with 20 tons capacity and outreach of 40 m. 2 unloaders, 1×500 t.p.h. and 1×2,000 t.p.h. Storage area 13,200 cu.m. for 90,000 tons of bulk cargo.

TANKERS: 3 berths available. Max. size 50,000 d.w.t. Max. length 230 m., Max. draft 38 ft.
Berth No. 03, 31 ft. (max. LOA 215 m.)
Berth No. 04, 38 ft. (max. LOA 230 m.)
Berth No. 05, 30 ft. (max. LOA 215 m.)

Storage capacity of 120,000 cu.m. Max. discharge rate 2,900 cu.m.p.h.

MEDICAL: Doctors, hospitals available. Advance notice to Agent required if medical assistance necessary.

FRESH WATER: Available ex-shore hydrants.

FUEL: Available all grades fuel and gas oil by barge. Vessels calling for bunkers only, pay no harbour dues, and other fees are reduced.

REPAIRS: All repairs possible. Neptun Shipyard and other repair shops situated at City Docks. Warnow Shipyard and floating dock situated in Overseas Port.

Tank cleaning, boiler cleaning and repairs.

REPATRIATION: Can be arranged if identification papers in order.

TIME: GMT plus 1 hour. Summertime, GMT plus 2 hours (24th March – 29th September).

HOLIDAYS: New Year (1st January); Good Friday; Easter Sunday; 1st May; Whit Sunday; Whit Monday; 7th October; Christmas Day; 26th December.

AIRPORT: Berlin – Schonefeld.

TELEPHONES: Ship-to-shore connections available.

POLICE/AMBULANCE/FIRE: Ambulance 366-3500; Police 366-3333; Fire 366-2222.

SHORE LEAVE: Crew members permitted ashore.

DEVELOPMENTS: Plans to build a floating island in depth of 21 m. off Rostock to accommodate tankers up to 100,000 tons. Estimated discharge rates up to 3,000 t.p.h. into smaller vessels for transfer to existing oil terminal.

New container and Ro-Ro installation to be built in the Southern harbour.

Port basin to be dredged to 14.0 m.

SHIPMASTER'S REPORT: September 1980.

VHF: While the vessel is in port, telephone calls to anywhere inside or outside Germany can be made most conveniently through "Rostock Radio" on VHF Channel 16. The working Channel is 26.

Customs: The Customs only seal the cigarettes and coffee. Spirits are not sealed. Each crew member is allowed 200 cigarettes.

Immigration: Immigration are very strict. Shore passes are issued to all crew members. All supernumeraries (e.g. wives on board), have to obtain visas which cost DM5/– each, and have to be paid to the Immigration Authorities, directly by the Master. On completion of discharge the entire ship's company (with the exception of one deck watchkeeper and one engine watchkeeper) are required to remain in their cabins with Passports/Seaman's Books, until the vessel is thoroughly searched by the Authorities for stowaways.

Density: The density of the water at the berths varies from 1000 to 1010 ozs./cu.ft.

AUTHORITY: Veb Seehafen Rostock, DDR-2500 Rostock-Uberseehafen. *Tel:* 366-3200. *Telex:* 31264. *Contact:* Mr. Dieter Noll, Port Director. Port Captain *Tel:* 366-4255.

AGENT: VEB Schiffsmaklerei, Strandstr 86, Rostock. Telex: 31265 (Head Office). Port Office, City Docks. Telex: 31265. Tel: 37081 (Ext. 367). Agency Overseas Port. Telex: 31428. Tel: 366-51171.

STRALSUND: 54.18 N. 13.06 E. (See Plan)

DOCUMENTS:
Health Declaration.
3 Crew Lists.
2 Passenger Lists.
2 Currency Lists.
Stores List.
Cargo Documents.
Ship's Certificates.

PILOTAGE: Compulsory. Contact Pilot by VHF Channel 14. Pilot stations are at Barhoeft and Thiessow. Pilot boards vessel at Gellen (N.W. entrance) and Landtief (Eastern entrance).

Entry only possible from 1 hour before sunrise to 1 hour after sunset. (N.W. entrance only).

ANCHORAGES: In the roads clear of the fairway, depths 26 ft. to 30 ft.

RESTRICTIONS: Northern entrance between breakwaters is 9 ft. depth, used by smaller vessels only. Eastern entrance, depth 17 ft. MLW passing railway bridge, which is opened about every 3 hours.

MAX. SIZE: Vessels up to 17 ft. draft.

RADIO: Rugen Radio, call sign "Y5M".

HEALTH: Pratique given on arrival. In case suspected disease or fever on board radio details to Agent before arrival.

TUGS: Available and compulsory for vessels of over 1,000 g.r.t. berthing and unberthing.

BERTHING: Depth alongside quays up to 17 ft. maximum. Length of quays 1,100 m.

CRANES:

2 cranes	10 tons capacity, reach 32 m. (heavy lifts up to 20 tons, reach 16 m.)
2 cranes	10 tons capacity; reach 20 m.
2 cranes	3.2 tons capacity; reach 20 m.
1 crane	5 tons capacity; reach 22 m.
2 Elevators	capacity 25 t.p.h. each (for grain only).

Also a conveyor system for handling of salt with a capacity of 250 t.p.h.

FRESH WATER: Available from shore ex pipe-line.

FUEL: Gas oil and lub oil available by barge.

REPAIRS: All deck, hull and machinery repairs by local shipyards.

REPATRIATION: All facilities exist for changing crews.

AIRPORT: Berlin (Schonefeld).

MEDICAL: Doctors, hospitals available. Advance notice to Agent required if medical assistance necessary.

TIME: GMT plus 1 hour. Summertime, GMT plus 2 hours (Last Sunday in March – Last Sunday in September).

HOLIDAYS: New Year (1st January); Good Friday; Easter Sunday; 1st May; Whit Sunday; Whit Monday; 7th October; Christmas Day; 26th December.

SHORE LEAVE: Crew members permitted ashore.

AUTHORITY: VEB Seehafen Stralsund, Hafenstrasse 15, DDR-2300 Stralsund. *Tel:* 692360, 692361. *Telex:* 317350 Dtsh Dd. *Contact:* Heinz Happ, Port Director. Harbour Master, *Tel:* 692382.

AGENT: VEB Schiffsmaklerei Rostock, Agentur Stralsund, 23 Stralsund, Hafen – Ballastkiste. Tel: 692362. Telex: 317224/25.

WISMAR: 53.54 N. 11.27 E. (See Plan)

DOCUMENTS:
Health Declaration.
6 Crew Lists.
2 Passenger Lists.
2 Currency Lists.
Stores List.
Cargo Documents.
Ship's Certificates.

PILOTAGE: Compulsory from outer roads to harbour quays. Pilot boards at Wismar Sea Buoy (position: Lat. 54° 01.6′ N., Long. 11° 23.0′ E. (approx.)). International code signals used. Contact by VHF Channel 12.

ANCHORAGES: In outer roads between Hannibal Shoal and Poel Island in depths of up to 40 ft. Protected anchorage in inner roads, depths up to 30 ft.

RESTRICTIONS: Entrance to the port is through a buoyed channel 15 miles long, depth 27 ft. LW. Vessels over 125 m. LOA or 24 ft. draft enter in daylight only, turning basin 250 m. diameter.

MAX. SIZE: Length up to 170 m. Max. draft 27 ft. Vessels over 155 m. LOA, max. draft 26 ft.

HEALTH: Pratique given on arrival. In case suspected disease or fever on board radio details to Agent before arrival.

RADIO: Rugen Radio, call sign "Y5M".

TUGS: Available and compulsory for berthing and unberthing.
2 tugs of 800 h.p. Tugs join vessel according to the Pilot's instruction.

BERTHING:
Grain Quay: Max. draft 27 ft., quay length 160 m., 2 grain elevators, grain silos for 20,000 tons.
Potash Port: Max. draft 27 ft., mechanical potash loading plant, quay length 360 m., 3 loaders. Rate 600 t.p.h.
Oil Port: Max. draft 27 ft., max. length 160 m.
Timber Port: Max. draft 25 ft., quay length 400 m., 2 gantry cranes of 3.2 tons, 1 mobile crane (30 tons).
Old Port: Max. draft 16 ft., quay length 140 m., no handling operations, fishing port, waiting berths.
Seaport, Northern Quay: Max. draft 27 ft., quay length 420 m., 5 gantry cranes with a capacity from 3.2 to 12 tons. One mobile crane of 30 tons capacity and one floating crane of 100 tons capacity.
Seaport, Southern Quay: Max. draft 27 ft., quay length 500 m., 7 semi-gantry cranes with a capacity from 3.2 to 10 tons.

FRESH WATER: Available from shore hydrants at all berths.

FUEL: All grades fuel and gas oil obtainable. Vessels calling for bunkers only pay no harbour dues, and are allowed a reduction in pilotage and clearance fees. 7 days' notice required for bunkers.

REPAIRS: Repairs can be effected at Mathias-Thesen Shipyard. Floating crane available, capacity up to 100 tons.

MEDICAL: Doctors, hospitals available. Advance notice to Agent required if medical assistance necessary.

TIME: GMT plus 1 hour. Summertime GMT plus 2 hours. (24th March – 29th September).

HOLIDAYS: New Year (1st January); Good Friday; Easter Sunday; 1st May; Whit Sunday; Whit Monday; 7th October; Christmas Day; 26th December.

SHORE LEAVE: Crew members permitted ashore.

AIRPORT: Berlin, 270 km. from Wismar.

TELEPHONES: No ship to shore communications.

AUTHORITY: Veb Seehafen Wismar, DR-2400 Wismar. *Tel:* 45300. *Telex:* 318882 (Harbour Master – 318862). *Contact:* Mr. Boddin, Port Director. Harbour Master, Tel: 45552/2764.

AGENT: VEB Schiffsmaklerei Rostock, Agentur Wismar, 24 Wismar, Kopenhagener Strasse. Tel: 3308, 45230-32 Telex: 0318841.

NOTES

Please also advise Shipping Guides Ltd.

Federal Republic of Germany

GENERAL:

RIVER ELBE: **(See Plan)**

GENERAL INFORMATION ON ELBE PILOTAGE, DEEPSEA PILOTAGE, HELICOPTER AND RADAR SERVICE, ANCHORAGE ON THE RIVER ELBE.

Elbe Pilots for all ports on the River Elbe, Cuxhaven, Brunsbuttel, Butzfleth, Stadersand, HEW-Wedel and Hamburg.

Pilot Vessel: For inward bound vessels near Elbe 1 Light-vessel, a 2-masted pilot vessel with black hull and yellow funnel and "Lotse" painted in white letters on both sides of hull is stationed in approx. position Lat. 53° 59.5′ N., Long. 08° 09.0′ E. (1.5 miles E.S.E. of Elbe 1 Light-vessel).

In bad weather pilot vessels shift to East of Light-buoy "9". Such shifting is reported by Norddeich Radio in a navigational warning.

Pilot vessel can be contacted on VHF Channel 16 or 8, by showing flag "G", by sound or morse light signals.

During the night pilot vessels show the lights mandatory for pilot craft according to Rule 29 of the International Regulations for Preventing Collisions at Sea.

The vessel used for embarking Pilots will, in addition, show white flares for 30 seconds at 2-minute intervals according to Rule 36 of the International Regulations for Preventing Collisions at Sea.

Traffic Separation Scheme in the "Approaches to River Elbe": The separation zone of this traffic separation scheme also constitutes a safety zone around Elbe 1 Light-vessel. Ships are urged to give the Light-vessel a good berth when passing.

Masters are requested not to leave the traffic lane in question when taking a Pilot.

There is an anchorage lying 3 miles to the N.E. of the traffic separation scheme. Special care should be applied when approaching or leaving the anchorage. See "Anchorage".

Land-based radar contact can be requested through radar station "Elbe Approach Radar Radio", on VHF Channel 19 during bad weather conditions, e.g. when visibility drops below 3,000 m., when there are ice floes, when buoys have been removed from their respective positions or when pilot vessels are leaving their positions, for further particulars please see "Radar".

PILOTAGE: Vessels requiring Elbe Pilot must order same at least 12 hours prior to arrival at Elbe 1 Light-vessel by radiotelegram to "Elbelotse Brunsbuttel".

Cable address:	"Elbelotse Brunsbuttel" via Norddeich Radio, call-sign DAN
Telex:	28343 Ellots D
Telephone:	(04852) 87295

Vessels coming from nearby ports should make the request on departure or as soon as possible.

If the ETA alters, a correction should be transmitted.

Message must include:

1. Name of vessel,
2. g.r.t,
3. ETA Elbe 1 Light-vessel, date 2 figures and time of vessel's arrival 4 figures,
4. draft,
5. vessel's destination.

(For example: 1., Eleka, 2. 12854, 3. ETA 'Elbe 1 02 1030, 4. 24 ft. 04 in., 5. Kiel Canal).

1 hour before arrival at Elbe 1 Light-vessel Masters are advised to contact the pilot vessel by VHF Channel 16 or 8.

Compulsory District Pilotage: Pilotage is compulsory on the River Elbe to and from Elbe 1 Light-vessel for all sea-going vessels over 1,000 g.r.t., furthermore for all oil, gas and chemical tankers and, in addition, for all such tank-vessels over 10,000 g.r.t. on their way to and from Deutsche Bucht Light-vessel.

These tank-vessels over 10,000 g.r.t. have to use the Western Approach Traffic Separation Scheme Deutsche Bucht.

Pilots for these vessels will be embarked and disembarked only at the Deutsche Bucht Light-vessel by helicopter or pilot boat. See "Deutsche Bucht Pilot Service".

Furthermore, pilotage is compulsory for all bulk carriers of more than 35,000 g.r.t. and other vessels of more than 60,000 g.r.t. on the River Elbe and on their way to and from Deutsche Bucht Light-vessel; all these vessels can embark and disembark Pilots only at the Deutsche Bucht Light-vessel by helicopter or pilot boat, they have to use the Western Approach Traffic Separation Scheme Deutsche Bucht. See "Deutsche Bucht Pilot Service".

Compulsory pilotage exists for outward-bound sea-going vessels of more than 20,000 g.r.t. other than oil, gas, and chemical tankers as far as to the outer range of the pilot vessel position at Elbe 1 Light-vessel even when, under bad weather conditions, the pilot vessel has been moved up-river.

The disembarkation of Pilots can take place by helicopter at Elbe 1 Light-vessel, if ships of the last category (20,000 g.r.t. other than oil, gas, and chemical tankers) are equipped with a properly marked winching or landing area according to International Chamber of Shipping (ICS) Guide to Helicopter/Ship Operations.

See "Deck-markings and Dimensions Plan" in Plan Section.

The transfer of Pilot by helicopter can also take place on container vessels, if these ships are equipped with a special platform for winching manoeuvres.

Exemptions:

The compulsory district pilotage regulations do not apply to tankers of less than 300 g.r.t. and other sea-going vessels of less than 5,000 g.r.t., provided that:

- such vessels navigate a route which the Master of the vessel in question has navigated at least 6 times within the preceding 12 months in that same vessel;
- the Master of the vessel has an adequate knowledge of the German language;
- such vessels are equipped with an operational radar as well as with an operational VHF radiotelephone installation featuring the Channels specified for the pilotage district in question.

Nevertheless, it is most advisable for any vessel to take a Pilot not only because of his local navigational knowledge but also for his familiarity with the special provisions for the River Elbe, the quarantine and Customs regulations.

In principle all vessels have to take 1 Elbe Pilot.

Bulk carriers and tankers having a draft of more than 37 ft. in salt water (38 ft. in fresh water) - regardless of size – and all vessels exceeding 60,000 g.r.t. – regardless of draft – must take 2 Elbe Pilots.

Pilotage District divided into 3 areas:

1st District: From Elbe 1 Light-vessel to Brunsbuttel (entrance of Kiel Canal) 40 miles (from Deutsche Bucht Light-vessel to Brunsbuttel 68 miles) – operated by Elbe Pilots;

2nd District: From Brunsbuttel to Hamburg Seemannshoft (entrance to Port of Hamburg) 40 miles – operated by Elbe Pilots;

3rd District: Covers the whole area of the Port of Hamburg – operated by Port Pilots.

First change of Pilots takes place at Brunsbuttel for either a Kiel Canal Pilot or a second River Pilot, the Harbour Pilot for Hamburg will embark at Hamburg – Seemannshoft.

Vessels expecting Pilot may wait in vicinity of Elbe 1 Light-vessel or Deutsche Bucht Light-vessel.

Contact either the Elbe pilot vessel or the Heligoland Pilot Station on VHF Channel 8, 13 or 16.

No restriction imposed on night entry for any vessels on the River Elbe.

Current velocity 2-3 knots; mean tidal range at Outer Bar Light-buoy "9" 9 ft. 10 in.; Brunsbuttel 9 ft. 2 in. and Hamburg 10 ft. 4 in. nature of bottom, sand and mud.

River pilotage dues (Lotsabgaben) have to be paid by all vessels exceeding 300 g.r.t., irrespective of whether they have used a river Pilot or not.

Pilotage fee (Lotsgeld) will only be charged if a Pilot is employed.

Deutsche Bucht Pilot Service: A central pilot service has been established at Deutsche Bucht Light-vessel.

Elbe Pilots will be transferred: By helicopter stationed at Wilhelmshaven-Mariensiel and Brunsbuttel-St. Michaelisdonn or by pilot vessel operating from Heligoland. There is a pilot station on the island of Heligoland equipped with VHF operating on Channels 13 and 16 and which responds to calls addressed to "Heligoland Pilot".

Vessels expecting their Pilot at Deutsche Bucht Light-vessel should stand by on VHF Channel 13 or 16 on approaching the rendezvous position.

Vessels bound for the Jade or Weser ports and requesting the Weser Pilot at Deutsche Bucht Lightvessel should contact: By radio telegraph linked with the code word "ETA Deutsche Bucht Lightvessel" to the telegram address "Weser Pilot II Bremerhaven". Telex No. 0238605. Tel: 0471/42220. VHF Channel 16.

HELICOPTERS: Helicopter Pilot service is available for vessels exceeding 10,000 g.r.t. at Deutsche Bucht Light-vessel.

The service to embark or disembark Pilots onto or from ships "at anchor" or "underway" can be provided day and night.

A twin-turbine powered Bell 212 S and/or Sikorsky S-76 helicopter is available for this service. Only suitably equipped vessels may have a Pilot transferred by helicopter.

There must be a properly marked landing area or a marked winching area available according to International Chamber of Shipping (ICS) Guide to Helicopter/Ship Operation.

See "Deck-markings and Dimensions Plan" in Plan Section.

If such a marking is lacking, it will not be possible for the helicopter to touch down or drop a Pilot.

These vessels have to send aforementioned information together with their ETA.

(a) Pilots for the Elbe pilotage region are to be requested 24 hours prior to arrival at the helicopter rendezvous position in the vicinity of Deutsche Bucht Light-vessel by radiotelegram to "Elbelotse Brunsbuttel".

Cable address:	"Elblotse Brunsbuttel" via Norddeich Radio, call-sign DAN.
Telex:	28343 Ellots D
Telephone:	(04852) 87295

Vessels coming from nearby ports should make the request on departure or as soon as possible.

Message must include:

1. name of vessel,
2. g.r.t.,
3. ETA Deutsche Bucht Light-vessel with date 2 figures and time of vessel's arrival 4 figures,
4. draft,
5. vessel's destination,
6. whether a properly marked landing area or marked winching area is available,
7. if yes, whether to starboard or port and on which hatchway or which part of the ship.

(For example: 1. Terre, 2. 104468, 3. ETA Deutsche Bucht 11 1530, 4. 41 ft. 03 in., 5. Brunsbuttel Elbe-Terminal, 6. Landing area available, 7. on port side.)

(b) A corrected ETA should be sent to "Elblotse Brunsbuttel" 6 hours prior to the transfer operation at Deutsche Bucht Light-vessel.

(c) Send the exact time of arrival to "Elblotse Brunsbuttel" 2 hours before arrival at Deutsche Bucht Light-vessel.

In addition to this, vessels should keep watch on *VHF Channel 16, 30 minutes before arrival* so that the helicopter can contact the ship.

After radio contact is established (VHF Channel 9), the vessel shall advise the helicopter pilot of the vessel's position, heading, speed and the actual wind direction and speed over the deck.

It is essential that the vessel transmit direction finding signals on 410 kHz until the helicopter is over the ship. On request of the helicopter pilot an uninterrupted (locked key) transmission should be given.

When transferring the Pilot, vessels are restricted in their ability to manoeuvre according to Rule 3(g) (iii) and (iv) and may exhibit the lights and shapes as under rule 27(b) of the International Regulations for Preventing Collisions at Sea. In addition, they may inform shipping of their manoeuvres by VHF.

In cases of defect of helicopter, poor visibility, icing conditions, inadequacy of construction of ships, or no landing or winching area markings, the Pilot will have to be embarked or disembarked by the Pilot boat at the same position.

A sea-going Pilot boat is operating from Heligoland in up to Beaufort Sea Disturbance Nos. 4 – 5 for embarking and disembarking the Pilots, if the helicopter is not available, or if the ship's construction is inadequate for helicopter transfer, or if the helicopter landing or winching area of the ship has no proper marking according to International Chamber of Shipping (ICS) Guide to Helicopter/Ship Operation. See "Deck-markings and Dimension Plan" in Plan Section.

If due to incomplete or misleading ETA information it is found at the attempted Pilot transfer by helicopter that the vessel is not properly marked and/or fitted for such transfer and the helicopter consequently has to return to base, it will be necessary to send a Pilot by boat from Heligoland, which may involve considerable delay plus the cost of the futile flight.

General: If helicopter operation cannot take place, the ship will be informed of the fact by radio telegraph via Norddeich Radio (DAN). For that purpose a permanent radio watch should be kept on 500 kHz (512 kHz if distress traffic is in progress on 500 kHz) during the approach, starting 2 hours before reaching rendezvous position at Deutsche Bucht Light-vessel.

The Master will receive further instructions by radio message or via VHF on how to proceed, if Pilot transfer is not possible.

The Heligoland pilot station can be called on VHF Channel 16 or 13 and should be addressed "Heligoland Pilot".

Vessels expecting a Pilot at Deutsche Bucht Light-vessel will be called on 500 kHz (512 kHz during distress working) or on VHF Channel 16 or 13 for information on transfer details.

RADAR: A continuous and co-ordinated chain of radar stations has been established to cover the traffic flow along the estuary of the River Elbe from a point 4 miles before passing Elbe 1 Light-vessel as far as well into the port of Hamburg.

If visibility drops below 3,000 m. and/or if particular situations arise (e.g. ice floes, withdrawn buoys, pilot vessels leaving their positions, etc.). Masters of inward-bound vessels may request land-based radar monitoring assistance from a point *4 miles* before passing Elbe 1 Light-vessel until receiving a Pilot. This service will be rendered by Elbe Pilots and is available by contacting Elbe Approach Radar Radio, VHF Channel 19.

The same service is extended to outward-bound vessels as far as *4 miles* West of Elbe 1 Light-vessel.

Once the Elbe Pilot has come aboard he will be assisted by his land-based colleagues monitoring the shore-operated radar system.

Radar Stations along the River Elbe: Elbe Approach Radar Radio, VHF Channel 19; Neuwerk Radar Radio 1, VHF Channel 18; Neuwerk Radar Radio 2, VHF Channel 5; Cuxhaven Radar Radio, VHF Channel 21; Belum Radar Radio, VHF Channel 3; Brunsbuttel Radar Radio, VHF Channel 4; Freiburg Radar Radio 1, VHF Channel 18; Freiburg Radar Radio 2, VHF Channel 22; Steindeich Radar Radio, VHF Channel 5; Hetlingen Radar Radio, VHF Channel 21; Hamburg Radar Radio, VHF Channel 3 and 19.

Each station broadcasts periodical reports, in German and English, of visibility, ice, tide, alterations of seamarks, etc. See "Admiralty List of Radio Signals".

ANCHORAGE: A deep-water anchorage for deep-draft vessels, very large crude carriers (VLCC's), and ultra large crude carriers (ULCC's) is located South of "Deutsche Bucht" Light-vessel, approx. position Lat. 54° 05′ N., Long. 07° 27′ E. Depth of water from about 34 m. to 36 m.

In the vicinity of Elbe 1 Light-vessel (3 miles to the N.E.) for large and deep-draft vessels, North of estuary, approx. position Lat. 54° 03′ N., Long. 08° 09′ E., depth of water from about 14 m. to 19 m. below chart zero.

Neuwerk Roadstead, approx. position 53° 58′ N., 08° 30′ E., depth of water from about 8 m. to 17 m. below chart zero;

Medem Roadstead, approx. position 53° 51′ N., 08° 46.5′ E., depth of water from about 5 m. to 13 m. below chart zero;

Neufeld Roadstead, approx. position 53° 51.7′ N., 09° 00′ E., depth of water from about 8 m. to 10 m. below chart zero;

N.E. Roadstead, off Brunsbuttel, permission only for 1 tide, approx. position 53° 53′ N., 09° 12′ E., depth of water from about 13 m. to 14 m. below chart zero;

Freiburg Roadstead, approx. position 53° 50.6′ N., 09° 19.5′ E., depth of water about 13 m. below chart zero;

There are further anchorages for small vessels at Sudreede (South anchorage) off Brunsbuttel, Wischhafen, Krautsand, Grauerort – and Twielenfleth Roadstead.

The bottom at all these anchorages consists of sand and mud.

DEEPSEA PILOTAGE: Ships requiring the assistance of Deepsea Pilots in the North Sea, the English Channel, or the Skagerrak shall make use only of the service of Deepsea Pilots in possession of a Deepsea Pilot Card issued in accordance with the Rules and Regulations for the Good Government of Deepsea Pilotage in the North Sea.

Ships requiring the assistance of a Deepsea Pilot in the North Sea or the English Channel may request the assistance of pilots licensed by the Federal Republic of Germany from:

Verband der deutschen Uberseelotsen e.V.
Rosenburgring 25
D-2880 Brake
Telephone: 0 44 01-44 75
Cable: Germanpilot Brake

Radio messages to be forwarded preferably via Norddeich Radio (DAN).

Uberseelotsen Ostsee e.V.
Schleuseninsel 6
2300 Kiel 17
Telephone: 04 31-36 28 58
Cable: Balticpilots Kiel
Telex: 299 857 bwki d

"Praconor" Travemunde
Neuer Schlag 2
2400 Travemunde 1
Telephone: 0 45 02-52 00 or 0 47 44-56 49
Cable: Praconor Travemunde

Requests for Deepsea Pilots should be made for vessels berthed in

German North Sea ports	6–8 hours before ETD
Continental North Sea ports	24 hours before ETD
UK North Sea and Channel Ports	48 hours before ETD or before passing the local pilot station (as appropriate)

Vessels entering European waters through the English Channel usually take their pilots at Brixham 1.5 miles N.E. of Berry Head or at Cherbourg 1 mile North of CH 1 Buoy. Pilots of outward-bound vessels normally disembark at the same stations.

Deepsea Pilots (not authorised as dual capacity River Pilots) are not allowed to pilot any vessels (whether subject to compulsory pilotage or not) on the River Elbe from Deutsche Bucht Light-vessel as far as the Port of Hamburg, regardless of whether pilot vessels are on position or not during bad weather conditions or whether or not Pilots can be embarked or disembarked during bad weather at the normal transfer position.

Also see "Brixham"

Extra Service: Inward-bound vessels – especially container vessels – wishing to proceed without delay by gale or fog, etc., regardless of whether pilot vessels are in position or not during bad weather conditions, as may be caused when taking an Elbe Pilot at Elbe 1 Light-vessel or Deutsche Bucht Light-vessel, can request the Elbe Pilot to come aboard at the first Channel or North Sea port of call for approaching the river Elbe and non-stop onward upstream pilotage.

In order to avoid all the disadvantages caused by the forementioned situation – if foreseeable – it is urgently advised to request an Elbe Pilot in time.

Advantages: Assistance of nautical staff in the heavily congested area of the German Bight – especially of the approach of the River Elbe –, exact knowledge of local conditions, saving of time, reduced hazards.

Please observe these periods of notice:

Continental North Sea ports:	24 hours prior to ETD
UK North Sea and Channel ports:	48 hours prior to ETD or before passing local pilot station.

German state-licensed Deepsea Pilots for the *North Sea* can be requested from

German Deepsea Pilots Brake
Cable: "Germanpilots Brake"
or
Elbelotsen Brunsbuettel
Cable: "Elbelotse Brunsbuettel".

Coastal Pilotage: Coastal pilotage is available from a position near Lightvessel Borkumriff to the limits of the pilotage districts Ems, Weser II/Jade, and Elbe.

Telegrams: Emslotse Emden via Norddeich Radio/DAN
Telephone: 0492/24000
Telex: 27882 lotsen d

Baltic Pilot – Kiel: Ships requiring assistance of state-licensed Deepsea Pilots for the *Baltic Sea* to send their request to

German Deepsea Pilots Brake
Cable: "Germanpilots Brake"
or
Baltic Pilots Kiel
Cable: Balticpilots Kiel".

The Baltic Pilotage Authorities Commission Recommendation:

The Baltic Pilotage Authorities Commission, recognising that Deepsea pilotage helps to enhace safety of navigation and prevention of pollution of the marine environment, in particular to reduce the risks resulting from the high density of ships carrying dangerous or noxious cargoes and that the presence of a Deepsea Pilot on board would strengthen a vessel's navigational team and improve emergency measures in case of incidents and having considered the necessity to establish a certain order in Deepsea Pilotage in the Baltic Sea,

recommends

A. Masters of ships which are constrained by their draft and
B. Masters of ships other than registered in one of the Baltic states, infrequently sailing in the respective area

coming from or being bound for ports in the Baltic Sea to avail themselves of Deepsea Pilots, certified by a competent authority of a Baltic coastal state.

Notice to all Masters Entering the Baltic Sea concerning Deepsea Pilotage:

The IMO recommends that ships which wish to avail themselves of Deepsea Pilots in the area of the Baltic should only take Deepsea Pilots licensed by a Pilotage Authority of a Baltic coastal state, i.e. Denmark, Finland, the German Democratic Republic, the Federal Republic of Germany, the Polish People's Republic, Sweden and the Union of Soviet Socialist Republics (IMO-Resolution A.480 (XII).

Such licensed Deepsea pilots are in possession of a red identity card.

The Pilotage Authorities of the Baltic coastal states draw special attention to the following rule which came into force on 1st January, 1983:

Deepsea pilotage in the Baltic Sea Area shall be performed by Deepsea Pilots from the respective ports of departure of the Baltic coastal states only, including the Kiel-Holtenau Locks, the Sound and the Belts. A Deepsea Pilot shall disembark from a ship at the first port of call and shall return home as soon as possible.

If the ship wants further advice by a Deepsea Pilot it is the responsibility of the local Pilotage Authority of that port to supply such a Deepsea Pilot.

BRAKE: 53.20 N. 08.29 E. (See Plan)

PORT LIMITS: The government-owned piers are the commercial area of the port. A vessel is considered to be an "arrived ship" when she is moored alongside such piers, and the customs formalities are complete. Laytime will commence according to referring charter parties.

Port Authorities distribute the free berthing places in following the "Benutzungsordnung fur den Hafen Brake" which says briefly that a vessel will get a rank position in actual arriving times:

(a) for ships coming from sea: arrival "Weser Light-vessel" plus 5 hours.
(b) for ships coming from Bremerhaven North Roads and Blexen Roads: departure plus 2 hours.
(c) for ships coming from Bremen: departure plus 3 hours.

DOCUMENTS:
2 Lists Ship's Stores.
2 Crew Lists.
2 Passenger Lists.
Health Certificate (forms obtainable from Pilot).
Ship's Register.

DEEP SEA PILOTAGE: See "General" before first German port.

PILOTAGE: Carried out by Weser River Pilots. The river Pilots also act as docking Pilots. Also see "Bremen" and "Bremerhaven".

ANCHORAGES: No anchorage in vicinity of Harbour. Anchorage in "Blexen Roads". For further details see "Bremen".

RESTRICTIONS: Vessels proceeding to Brake with a draft in excess of 24 ft. will be restricted by the tide.

MAX. SIZE: Max. length 265 m. (869 ft.); no restriction on beam. Max. draft 37 ft. in fresh water.

PRATIQUE: Free Pratique is given by Health and Immigration Officer only. If a case of fever or disease is suspected on board radio the Agent with details before arrival.

RADIO: Cable Agent via Norddeich Radio (Call sign DAN) advising ETA and cash requirements.

RADAR/VHF: Stations from Weser Light-vessel to Bremerhaven. Radar service between Bremerhaven and Brake. Radar stations have day and night service. If no fog every odd hour radar stations give on VHF or Pilot walkie-talkie report of visibility, defective buoys, anchoring ships, obstructions to navigation, and special occurrences. Direct contact between port and ship is possible on VHF.

TUGS: Available day and night in sufficient number. No extra charge for using tug's lines.

BERTHING: New locks have been built at the inner harbour and are operating since August 1979. Dimensions: Length 95 m. (311 ft.), width 16 m. (52 ft.) Max. size of vessel to be handled will be a fully loaded vessel of 3,000 d.w.t. with a max. draft of 6.0 m.

Inner Harbour with tide-independent lock: Length of dock 1,070 m. (3,500 ft.), width 110 m. (360 ft.). Length of canal 228 m. (750 ft.), width of canal 46 m. (150 ft.), length of quay in canal 228 m. (750 ft.). Depth 4.3 m.

Riverside Berth: Total length 1,852 m. (6,075 ft.), depth at pier 13.6 m. at North end and 14.6 m. at South end at normal low water, tidal amplitude 11 ft. 6 in. Max. draft 37 ft. Max. length of ships not more than 265 m. (869 ft.).

This government-owned pier is divided into 2 areas. The Northern part is the crane-area with a length of 4,510 ft., the Southern part, 1,565 ft. long, is the grain-handling area.

Private Pier of the Fettraffinerie/Unimills has a length of 245 m. (804 ft.) depth 11.0 m.

SPECIALISED CARGO HANDLING FACILITIES:

Inner Harbour:
1 jib crane, capacity 32 ton. Working range 10 m. to 30 m.

South Pier:
3 grain elevators. Total discharging capacity 1,500 t.p.h.
4 lorry and railtruck unloading stations. Total capacity 1,000 t.p.h.
3 ship loading stations. Total loading capacity 1,800 t.p.h.
6 lorry and railtruck loading stations. Total loading capacity 2,600 t.p.h.

North and Middle Pier:
4 shore unloader and loading bridges of between 16 tons and 80 tons capacity, waterside reach 32 m. to 40 m.
4 luffing jib cranes – 14 tons to 25 tons capacity – max. reach 46 m.
Belt conveyor system: Length 1,280 m. Max. capacity 1,000 cu.m.p.h.
Wagon loading station: capacity 300 cu.m.p.h.
Combined ship loader: capacity 1,000 cu.m.p.h.

Fettraffinerie Quay: Loading/discharge points for vegetable and animal oils/grease, mineral oil, molasses and other liquid products.
Discharge capacity: 1,500 t.p.h.

Storage:
Silo installation and storage shed for grain: 360,000 tonnes.
Storage sheds: 55,500 sq.m.
Free storage areas: 105,000 sq.m.
Tank storage for grease, refinery and the S.S. "Elbe" 110,000 tonnes.

The government-owned pier is equipped for containers, but not for Roll-on/Roll-off traffic. The berth does not handle liquid chemicals.

STEVEDORES: ETA has to be reported to the Agent to arrange gangs. Stevedores are working 3 shifts around the clock on working days (Monday to Saturday); on Sundays and holidays 4 shifts are worked around the clock.

MEDICAL: One hospital and several doctors available at Brake. Advance notice to Agent required if medical assistance necessary.

TANKERS: Fettraffinerie Pier: Max. draft 33 ft. Discharging lines: molasses 6 in., fuel oil 8 in., diesel 10 in. and vegetable oil from 4 in. to 8 in.

DENSITY: Brake Port, Fresh water: salinity = 1002–1004.

FRESH WATER: Available both at Riverside Berth and Inner Harbour. Pumping capacity from 18 t.p.h. to 20 t.p.h.

FUEL: All grades available by bunker barges.

FIRE PRECAUTIONS: No smoking on deck. For tankers at Fettraffinerie Pier smoking only in saloon and/or messroom.

CONSULS: Consuls at Bremen.

REPAIRS: All normal ship and engine repairs can be carried out during laytime on board.

DRY DOCKS: One dry dock at Luehring Werft, Brake, for ships with a length not in excess of 85 m. (279 ft.), nor wider than 16 m. (52 ft. 6 in.), and a max. draft of (3.98 m./13 ft. 1 in.)

SURVEYORS: Classification Societies not represented but several surveyors available at Brake Port.

GANGWAY/DECK WATCHMEN: Crew's watchmen necessary – strong tides, current-speed 3 knots.

HATCHES: Depends on the different charter parties.

CUSTOMS ALLOWANCES: 200 cigarettes, 1 bottle of spirits and 2 bottles of wine.

CARGO GEAR: Load/discharge normally effected by shore-gear.

REPATRIATION: Any necessary repatriation and/or crew changes can be effected by Agents at Brake.

AIRPORT: International airport served by regular airlines at Bremen. Brake to Bremen, distance 57 km. (35 statute miles).

TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).

HOLIDAYS: New Year, Good Friday, Easter Sunday and Monday; 1st May, Ascension Day; Whitsunday and Monday, Penitentiary Day, 2 Christmas Days. Cargo work can be arranged on those days, except on New Year, Easter Sunday (1st Easter day), 1st May, Whitsunday, 1st Christmas Day, and on the days before such days till 1200 and/or 1400 hours.

POLICE/AMBULANCE/FIRE: Police 110; Ambulance 4060; Fire 112.

TELEPHONES: No arrangements to place telephones on board.

SHORE LEAVE: Shore passes are required according to customs regulations.

IDENTIFICATION CARDS: Crew members to have valid identity cards.

SEAMAN'S HOSTEL: Weserstr. 1A, tel. 4490.

DEVELOPMENTS: Weser fairway depth will be increased to 12 m. (39 ft. 6 in.).

AUTHORITY: Niedersachsisches Hafenamt Brake, Brommstrasse 2, D-2880 Brake. *Tel:* 04401/5061. *Contact:* Port Captain.

AGENT:

BREMEN (Including Farge): 53.07 N. 08.45 E. (See Plan)

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
Provision and Store Lists incl. fuel oil.
Dangerous Cargo Lists.
Health Declaration.
Ship's Register.
No Customs Papers if vessel laying in Freeports at Bremen.

DEEP SEA PILOTAGE: See "Brixham" or "Cherbourg" and "General" before first German port.

PILOTAGE: Compulsory for ships of more than 1,000 g.r.t. and tankers of more than 300 g.r.t. and for all ships with dangerous goods in bulk and nuclear ships, exemptions possible.

Distance from Weser Light-vessel to Bremerhaven 36 miles. Distance from Bremerhaven to Bremen 32 miles.

At least 12 hours before arrival at Weser Light-vessel Masters should cable messages to "Lotsenbruderschaft Weser zwei Bremerhaven" via Norddeich Radio. Message to include name and g.r.t. of vessel, place where Pilot required to board, day and hour of vessel's arrival, vessel's destination and fresh water draft in metres. Sea Pilots board at Weser seabouy to Bremerhaven. River Pilots board at Bremerhaven to pilot vessels to Bremen.

Pilot station near Weser Light-vessel 54° 05′ 16″ N., 07° 50′ 00″ E., black painted motor vessel, black topped funnel, white lettering "Lotse" on hull. In rough weather, pilot boat may be found inside near buoys 77 and 79. Pilots may be contacted by Norddeich Radio, 2182 or 2614 kHz. or by VHF Channel 16.

River Pilots boarding at Bremerhaven also act as harbour Pilots to all ports above Bremerhaven.

ANCHORAGES:
1. About 1 mile S.W. of Weser Light-vessel.
2. Hoheweg Road between buoys 17 and 19.
3. Tanker Road W. of buoys 27–31.
4. Blexen Roads (South Roads) only for smaller ships.

RESTRICTIONS: Vessels proceeding to Bremen, with a draft in excess of 25 ft. will be restricted by the tide.

MAX. SIZE: Bremen: length 190 m. with draft 10.7 m., longer ships with restricted draft.

Locks: At the entrance of the Industriehafen: Length 248 m., clear width 34.1 m.

Ships passing with max. length 230 m. and 33.5 m. breadth. According to tide, docking is possible up to 9.5 m. (31 ft. 03 in.).

HEALTH: Master has to fill and sign Maritime Declaration of Health which is handed to Health Officer on arrival at Bremerhaven and Bremen. In case suspected disease or fever on board radio details to Port Health Bremerhaven via Norddeich Radio before arrival.

RADIO: Cable Agent via Norddeich Radio, call sign DAN, advising ETA and cash requirements.

Bremen Port Radio VHF station on Channels 3 or 16 to be used for messages to all Port Authorities including Police and Fire Brigade and Port Health in case of emergency. Bremen Lock Radio on Channel 12.

RADAR/VHF: Stations from Weser Light-vessel to the mouth of River Hunte and at the port area of Bremen. Radar service between Hunte and Bremen is planned. If no fog, every odd hour radar station gives by VHF or Pilot walkie-talkie, report of visibility, defective buoys, anchoring ships, obstructions to navigation and special occurrences.

Ships ordered for Bremen Industriehafen should contact "Oslebshausen Lock" via Channel 12 VHF after passing Bremerhaven.

TUGS: Tugs available at all stations according to ships request. Tugs' lines used (only) without charge.

BERTHING: Berthing at Bremen: The following harbours can be reached:

Harbour name:	*Quay Length* (m.)	*Depth (above chart datum)* (m.)
Europahafen	2,730	3.20 – 8.60
Uberseehafen	2,960	3.20 – 10.20
Werfhafen	700	3.20 – 7.20
Holz–und Fabrikenhafen	2,600	4.20 – 8.50
Getreidehafen	570	4.00 – 11.50
Neustadter Hafen	2,700	4.00 – 11.50
Kap Horn Hafen	725	9.00
Industriehafen	3,060	3.20 – 6.20 (plus harbour water, about 3.80 m., only Industriehafen)

Max. draft is dependent on the prevailing winds

SPECIAL CARGO HANDLING FACILITIES:

Freeports: Neustadter Hafen, Uberseehafen and Europahafen, mainly general cargo.

Quay length: 7,560 m.
Max. draft: 11.50 m.
Shed storage: 532,000 sq.m.
Porterage company: Bremer Lagerhaus-Gesellschaft.

Facilities: Air-conditioned fruit storage, refrigerated storage, consolidated cargo centre, packing centres, Ro/Ro terminals, logistics and information processing on industrial plant transports and grain handling centre.

Container Handling Facilities: Neustadter Hafen Shed 24 is equipped with 3 container cranes, suitable for 40 ft. containers. Max. lifting capacity is 45 tons. The terminal has 116 connections for reefer containers.

Shed 21 is equipped with 2 container cranes, suitable for 40 ft. containers. Max. lifting capacity is 80 tons.

Roll-on/Roll-off terminal: At the head of the Europahafen, 1 berth. Max. carrying capacity 60 tons, width 8 m. Max. draft 28 ft.

At the end of shed 24 Neustadter Hafen, 1 berth. Max. carrying capacity 60 tons, width 30 m., draft 32 ft.

LASH Terminal: At Bremerhaven. Lash-lighter places: Lankenauer Hoft and Europahaven.

Bulk handling facilities (Industriehafen):

Bulk cargoes such as steel, and steelware, coal, coke and coke breeze, timber, ore, oil, molasses, sand, stones, phosphate and further fertiliser and chemicals are handled by companies under private management.

For entering Industriehafen see "Max. Size – Locks".

Huttenhafen: Klockner-Hutte mainly handles ore, scrap, coke and coke breeze, sand, steel and steelware as slabs and coils of Klockner Iron Mill.

Quay length: 520 m.
3 gantry cranes: 12.5, 15 and 55 tons.
Storage area: 80,000 sq.m.
Discharging capacity ore: 8,000 tons per 24 hours.
Loading capacity coils: 5,000 tons per 24 hours.
Loading capacity slabs: 6,000 tons per 24 hours.

Rhenus WTAG: Mainly handles provender, coal, coke, minerals, wood products, stones, etc.

Quay length: 450 m.
4 cranes: 25 – 56 tons.
Storage area: 21,000 sq.m.
Loading capacity coils: 6,000 tons per 24 hours.
Loading capacity plates: 5,000 tons per 24 hours.
Loading capacity coal: 6,000 tons per 24 hours.
Quarrier and riddler: 500 tons per 24 hours.

Olhafen: Oil farm for about 100,000 tons. One tank for molasses 11,000 tons.

Kohlenhafen: Gebr. Rochling mainly handles coal, coke, ore, phosphate and logs. West Africa Terminal specialises in all kinds of general cargo and container handling.

Quay length: 750 m.
7 cranes: 5 – 50 tons.
1 coal-loader: 60 tons.
Storage area: 30,000 sq.m.
Loading capacity coal: 9,000 tons per 24 hours.
Loading capacity coke: 6,000 tons per 24 hours.
Discharging logs: 1,555 tons per 24 hours (approx.).

Kraftwerk Hafen (Power Station): At this berth only coal cargoes for use by the power station are handled. Discharging rate (2 cranes) 1,250 tons per shift.

Kalihafen: Anker-Schiffahrt handles all kinds of cargo and is specialised in packing, decantation and sacking of chemical products.

Quay length: 500 m.
2 gantry cranes: 24 tons
4 special loaders
1 bridge for liquids
Storage area: 40,000 sq.m.

Tankfarm Defrol: Storage capacity 48,000 tons fuel.

Hafen E: Hansakai (Klembt) handles all kinds of cargoes and is specialised in coils, pipes, construction parts, heavy lifts, ore and containers.

Quay length: 285 m.
1 gantry crane: 15 tons.
4 cranes: up to 45 tons.
Storage area: 11,000 sq.m.

Wandel & Co: 60,000 sq..m. shed storage for grain and general cargo.

Hafen A: H. Menke & Co.: Quay length: 250 m. 1 tank for molasses 15,000 tons. Specialises in wine import with storage area for 20 million litres.

Bremer Lagerhaus-Gesellschaft:
Quay length: 300 m.
Storage area: 90,000 sq.m.

Other bulk handling facilities:

Granary (Getreidehafen) *near the Uberseehafen*
No locks, max. draft 35 ft. Lighterage is possible.
Berth "A" 3 elevators with a capacity of 400 t.p.h. max. length 275 m.
Silo capacity 150,000 tons.

Kraftwerk Farge (Power Station)
Location: 10 miles downstream from Bremen. Only coal cargoes for the power station are handled.

Max. draft 29 ft. 6 in.
Max. length 200 m. = 656 ft.
Max. beam 25 m. = 82 ft.

3 cranes, total discharging capacity 200 t.p.h.

Rolandmuhle: tidal basin Holz- und Fabrikenhafen. Grain facility with:

Max. draft 22ft. at low water.
Max. length 180 m. (591 ft.).
2 stationary elevators 3,000 tons per day
1 conveyor for loading bags only.

J.H. Bachmann/J. Muller/Karl Gross (Holz- und Fabrikenhafen)
Facility for grain and occasionally, general cargo handling.

Max. draft up to 23 ft. at normal low water.
Quay length 710 m. (2,330 ft.).
Cranes 13 Grain/General cargo
Elevators 4×250 t.p.h. each

General cargo loading installations (Kap Horn) with 2 quays, 1×320 m. long inside Industriehafen and the other 800 m. long (at the riverside). The storage area of 100,000 sq.m. is equipped with gantry crane for handling pipes, construction parts and general.

STEVEDORES: Ordered by Agent; no ETA advice to stevedores necessary.

Working hours:

Regular period: 0630–1430 resp.	on Sundays: (overtime)
0600–1400	1st shift: 0600–1200
Free Port	2nd shift: 1200–1800
1st shift: 0600–1400	3rd shift: 1800–2400
2nd shift: 1430–2230	4th shift: 2400–0600
3rd shift: 2300–0600 (overtime)	
Industriehafen/Grain Pier	Industriehafen/Grain Pier
0630–1430	0630–1230
1430–2230 (overtime grain pier)	1230–1830
2230–0630 (overtime)	1830–2430
	0030–0630

On Saturdays:
Free Port
1st shift: 0600–1400
2nd shift: 1430–2030 (overtime)
3rd shift: 2100–0300 (overtime)
Industriehafen/Grain Pier
0630–1430
1430–2030 (overtime)
2030–0230 (overtime)

CRANES: All piers are fitted with cranes 3/7 tons. Floating cranes up to 200 tons available.

MEDICAL: All medical facilities available. Advance notice to Agent required if medical assistance necessary.

TANKERS: Draft in fresh water.

Holzhafen	one berth, max. draft 28 ft. at LW
Osterort I	one berth, max. draft 34 ft. 6 in. at LW
Osterort IV	four berths, max. draft 37 ft. 8 in. at LW
Farge	two berths, max. draft 29 ft. 11 in. at LW

For the following tanker berths see restrictions of the entrance lock Industriehafen

Oelhafen:	one berth, max. draft 37 ft. 03 in.
Huttenhafen:	three berths, max. draft 20 ft. to 24 ft.
Becken A	one berth, max. 22 ft.
Kalihafen	one berth, max. 31 ft. 3 in.

Fina Oil, Einswarden. Max. draft 36 ft. 6 in. Discharging lines crude oil 12 in., fuel oil 10 in., diesel 8 in.

Frisia (Gulf Oil), Einswarden. Berth for tankers up to 250 m. length, max. draft 36 ft. fresh water.

DENSITY: Fresh water.

FRESH WATER: Available by hose and barge.

FUEL: All Grades available.

FIRE PRECAUTIONS: Smoking or use of open fire not allowed all over the Port area. No smoking on deck. Tankers, smoking in saloon or messroom only.

CONSULS:	*Tel:*		*Tel:*
Austria	360 6221	Indonesia	3320
Bangladesh	1760 244	Irish Rep.	32 13 73
Barbados	0471 49388	Iceland	0471 71055
Belgium	590 7134	Italy	702 030
Benin	17 630	Liberia	66 03 1
Bolivia	66 12 30	Netherlands	32 37 26
Brazil	66 38 16	Norway	12 015
Chile	32 37 31	Pakistan	323610
Colombia	15 707	Panama	3630014
Costa Rica	15 549	Paraguay	32 10 01
Denmark	17 680	Peru	15 629
Ecuador	34 20 75	Senegal	0471 73 041
El Salvador	38 95 349	Sweden	3592134
Finland	39 81	South Africa	4677081
France	30 53 115	Spain	34 40 90
Gambia	30 76 215	Togo	17 640
Ghana	36 5201	Turkey	17 10 26
Guatemala	30 21 07	United Kingdom	5909-0
Haiti	25 95 88	Uruguay	32 70 00
Honduras	3092560	Zaire	15820

REPAIRS: All repairs possible.

DRY DOCKS: Vulkan-Gravity Dock up to 240,000 d.w.t.
and one floating Dock up to 8,500 d.w.t.

SURVEYORS: All types of surveys possible.

GANGWAY/DECK WATCHMEN: Not considered necessary. But available when ordered.
HATCHES: Opening and closing normally by crew with stevedores assisting.
CUSTOMS ALLOWANCES: Outside freeports: 200 cigarettes for 3 days or 50 grams tobacco and 1 bottle spirits. After 3 days further same quantities. Wine not restricted. Freeports in Bremen only Europahafen, Uberseehafen and Neustadter Hafen.
CARGO GEAR: No additional requirements. Preventers necessary.
REPATRIATION: Any time.
AIRPORT: Regular national and international flights.
HOLIDAYS: New Year's Day (no work performed); Good Friday; Easter Sunday (no work performed); Easter Monday; Labour Day (no work performed); Ascension Day; Whit Sunday (no work performed); Whit Monday; 17th June; Prayer Day; Christmas Day (no work performed); Boxing Day.
POLICE/AMBULANCE/FIRE: Police help 110; Fire, First aid 112. Pilot Station Bremerhaven: Sea Pilots 4–22–20; River Pilots 4–22–89.
Pilot Station Bremen: 39–40–44.
Port Administration Bremen: 397-1.
Waterway Police: 38–20–31.
Port Medical Services: 38–34–16.
Immigration: Call Water Police.
Foreign Calls: 0010.
TELEPHONES: It is possible to rent a telephone box from Mooring Company.
REGULATIONS: Usual Port Regulations. Special Regulations for dangerous goods and Tankers.
AUTHORITY: Hafenamt Bremen, Hafenhaus Uberseehafen, 2800 Bremen 1. *Tel:* (0421) 385250. *Telex:* 246089 (HABRE D). *Contact:* Harbour Master on duty.

AGENT: Fisser & V. Doornum, Martinstrasse 1, D-2800 Bremen 1, Federal Republic of Germany. Tel: (421) 32 55 40. Telex: 244 864. Cables: Fissership. Fax: (421) 366 12 54.

BREMERHAVEN: 53.33 N. 08.35 E. (See Plan)

DOCUMENTS:
4 Crew Lists.
4 Passenger Lists.
3 Provision and Store List incl. fuel oil.
3 Dangerous Cargo List.
Maritime Declaration of Health.
Derat Certificate
Ship's Register.
No Customs Papers if vessel laying in Freeport at Bremerhaven.
DEEP SEA PILOTAGE: See "Brixham" or "Cherbourg" and "General" before first German Port.
PILOTAGE: See "Bremen".
Docking Pilots join vessels between Buoys 49 and 51A if bound for Uberseehafen or near entrance of Geeste River if bound for Fischereihafen. Call sign is International Code flags PT with pennant below. Sound and flash signals are 3 long and 5 short. Docking Pilots can be requested via Bremerhaven Port Radio on VHF Channel 12.
ANCHORAGE: See "Bremen".
RESTRICTIONS: Vessels proceeding to Bremerhaven with draft in excess of 35 ft. will be restricted by tide.
MAX. SIZE: Length 340 m., draft 41 ft. in fresh water. Draft 42 ft. 8 in. in fresh water, special permission required.
HEALTH: See "Bremen".
RADIO: See "Bremen".
RADAR: See "Bremen".
VHF: "Bremerhaven Port Radio" on Channel 12.
TUGS: Tugs join vessel with docking Pilots. Tug's lines used at no extra charge.
BERTHING: There are two harbour-groups, Uberseehafen North of Geeste River and Fischereihafen South of it.
Uberseehafen:

Along Weser River:	*Depth below Chart Datum*
Columbus Quay	32 ft. – 38 ft. 08 in.
Stromkaje	40 ft. 04 in.

Dock Basins:	*Depth at LW*
Neuer Hafen	21 ft.
Kaiserhafen I	29 ft. – 36 ft.
Kaiserhafen II	36 ft.
Kaiserhafen III	36 ft.
Verbindungshafen	36 ft.
Nordhafen	42 ft. 09 in.
Osthafen	46 ft.

The dock basins can be reached through 2 locks:
Kaiserschleuse: length 732 ft., gate width 87 ft. 09 in. without fenders; including fenders 83 ft. 7 in.
Depth 23 ft. at LW.
Nordschleuse: length 1,220 ft., gate width 147 ft. without fenders; including fenders 138 ft.
Depth 35 ft. 03 in. at LW. Max. size of vessel. length 265 m., beam 38 m. (124 ft. 07in.). Draft 42 ft. 08 in.

Fischereihafen:

Dock basins:	*Depth at LW*
Fischereihafen I	25 ft.
Fischereihafen II	25 ft.
Handelshafen	23 ft.

Locks:
Fischereihafen-Doppelschleuse
Small lock: Length 349 ft., gate width 39 ft. without fenders; including fenders 34 ft. 06 in.
Depth 20 ft. 06 in. at LW.
Large lock: length 328 ft., gate width 98 ft. without fenders; including fenders 94 ft.
Depth 20 ft. at LW.

SPECIAL CARGO HANDLING FACILITIES: All sheds are equipped with electric cranes.

With special permission of the port authorities the following maximum FW drafts are allowed.

42 ft. 8 in. = 13.0 m. – max. beam 38 m.
42 ft. = 12.8 m. – max. beam 39 m.
40 ft. = 12.5 m. – max. beam 40 m.
38 ft. = 11.58 m. – max. beam 41 m.

The port is equipped with modern bulk, container, Ro/Ro and general cargo facilities.

4 floating cranes having lifting capacities of 100 tons – 500 tons.
Weserport (Osthafen) Ore transhipment installation, quay length 325 m. Depth 14.0 m. 2 unloaders. Max. outreach 22.5 m. Total discharge capacity 2,000 t.p.h. Average rate 900 t.p.h.
Columbus Quay Passenger and general cargo facilities.
Quay length 1,020 m. Depth 32 ft. – 38 ft. One shed of 33,000 sq.m. 9 cranes – 8 tons and one heavy lift bridge of 38 tons.
Car loading installations
A car loading installation is situated in the Nordhafen. Quay length 875 m. Storage area 40,000 sq.m. for about 3,500 cars. The loading is done by ships' ramp.
The Car Terminal Bremerhaven, situated in the Kaiserhafen II, has a quay length of 700 m. and a storage area of about 526,000 sq.m.
The Car Terminal Bremerhaven, situated in the Kaiserhafen III, has a quay length of 700 m. and a storage area of 35,000 sq.m.
Container Terminals
2 container terminals, 1 at Stromkaje and 1 in the Nordhafen, are equipped with 17 container cranes, capacity 41 tons – 68 tons.
Depth alongside in river 47 ft. at LW. Depth at Nordhafen 40 ft. 4 in.
Kaiserhafen/Verbindungshafen offers 4 basins for general cargo handling. Quay length: 3,574 m. Storage capacity in modern sheds: about 38,000 sq.ft. 37 cranes with capacities from 3–8 tons. Five banana discharging installations have a capacity of over 500,000 tons per year.
LASH Carriers: Special facilities are available.

MEDICAL: Hospital facilities at all Weser ports. No vaccination normally required.

STEVEDORES: Ordered by Agent; no ETA advice to stevedores necessary.
Working hours: 1st shift: 0600–1400
2nd shift: 1400–2200
3rd shift: 2200–0500 (overtime)
on Saturdays:
1st shift: 0600–1400
2nd shift: 1400–2000 (overtime)
3rd shift: 2000–0200 (overtime)
on Sundays:
as Bremen Freeport.

TANKERS: Bominflot KG., Esso Kaje, Verbindungshafen. Max. draft 32 ft. 06 in.
There are several tank-cleaning boats available to receive slops at Bremerhaven.

DENSITY: 1008 – 1010.

FRESH WATER: Available by pipe-line at all berths.
FUEL: All grades available.
FIRE PRECAUTIONS: No smoking on deck. Tankers smoking only saloon or messroom.
GANGWAY/DECK WATCHMEN: Not considered necessary.
OPENING/CLOSING HATCHES: Normally by crew with stevedores assistance.
CUSTOMS ALLOWANCES: Outside freeports: 200 cigarettes for 3 days or 50 grams tobacco and 1 bottle spirits. After 3 days, further same quantities. Wine not restricted. Freeports only at Bremen (Europa and Uberseehafen), and at Bremerhaven (Kaiserhafen, Columbus Kaje and Weserport).
CARGO GEAR: No additional requirements. Preventers necessary.
IDENTIFICATION CARDS: Not required.
CONSULS: Barbados, Iceland, Sweden, Senegal, United Kingdom.
REPAIRS: All repairs possible.
DRY DOCKS: There are 2 graving docks and 10 floating docks with max. capacity 75,000 tons.
SURVEYORS: (1) Caleb Brett: In Hamburg. Neustadter Weg 6, 2000 Hamburg 11. Tel: (040) 366286.
(2) Lloyd's Register of Shipping: Am Wall 102, 2800 Bremen. Tel: (0421) 310611. Also at Buckingstrasse 10, 2850 Bremerhaven. Tel: (0471) 45006.
American Bureau of Shipping: Steubenstrasse, Fahrgastanlage, 2850 Bremerhaven. Tel: (0471) 46906 daytime and (04743) 276 night time.
Bureau Veritas, District Hamburg: Spaldingsstrasse 1, 2000 Hamburg 1. Tel: (040) 230801. Telex: 02 154 26.
REPATRIATION: Any time.
AIRPORT: About 4 miles from Bremen. Regular airlines.
BANKS: (In Hamburg): Bank of America, Barclays Bank, Citibank, Lloyds Bank, Bankers Trust.

HOLIDAYS: New Year's Day (no work performed); Good Friday, Easter Sunday (no work performed), Easter Monday; Labour Day (no work performed); Ascension Day; Whit Sunday (no work performed); Whit Monday; 17th June; Prayer Day; Christmas Day (no work performed); Boxing Day.

TELEPHONE: Accidents, Police 110; Fire 112; Sea Pilots 42220; River Pilots 42289; Waterway Police 47011; Port Medical Service 40031.

EMERGENCY CO-ORDINATION CENTRE: Flottenkommando SAR Leitstelle, Meyerweg, 2392 Glucksburg. Tel: (04631) 8625-511 (Ext. 575/6).

Deutsche Gesellschaft zur Rettung Schiffbruchiger, Seenotleitung, Werderstrasse 2, 2800 Bremen 1. Tel: (0421) 504393. Telex: 0244754.

STORING: See "Prelims".
(1) Yes
(2) Yes
(3) Yes, jetties fitted with cranes, distance to remain approx. 20 ft.
(4) Yes
(5) Equal to European Community Regulations.
(6) Yes.

AUTHORITY: Hansestadt Bremisches Amt Bremerhaven, Der Hafenkapitan, P.O.Box 100469, Columbusbahnhof, Steubenstrasse 7 A, 2850 Bremerhaven 1, West Germany. *Tel:* (0471) 481 260/1 Port Captain; (0471) 481 263/4 Harbour Master. *Telex:* 238564 Hba Hk D. *FAX:* 481501.

AGENT: See "Bremen".

BRUNSBUTTEL 53.53 N. 09.09 E. (See Plan)

(a) General/Elbehafen/Canal Berth; (b) Elbe Terminal; (c) Brunsbuttel Oil Port; (d) Ostermoor.

(a) GENERAL/ELBEHAFEN/CANAL BERTH.

DOCUMENTS:
Health Certificate forms obtainable from River Pilot.
3 Crew Lists.
3 Personal Effects Lists.
3 Stores Lists.
Bill of Lading.
Ship's Register.

For ships entering locks of Brunsbuttel for transit traffic through Kiel Canal, only ship's register required.

DEEP SEA PILOTAGE: See "General" before first German port.

PILOTAGE: *Anchorage River Elbe:* See "General" before first German port.

Pilotage Kiel Canal: Pilotage generally compulsory, vessels over 2,500 g.r.t. must employ a wheelman.

Pilot station, Tel: 04852/8088, VHF Channel 9, ETA 6 hours prior arrival Brunsbuttel Roads by cable to "Kanallotse Brunsbuttel" via Norddeich Radio (DAN), requiring Canal or Harbour Pilot at Brunsbuttel, (for example: Brigitte 1249 ETA Brunsbuttel 29 1800 3.5 m.). Pilot will board ships off the entrance to Kiel Canal.

Pilot boats are painted black with "LOTSE" in white letters on hull. Signal for Pilots is flag "G" over numeral pennant 1, sound or morse signal, VHF Channel 9.

ANCHORAGES: Vessels waiting for entrance to the Canal may anchor in N.E. anchorage, South anchorage, or Neufeld anchorage.

RESTRICTIONS: No restrictions imposed on night entry. If draft above 31 ft. 2 in. fresh water, vessels will be piloted to Brunsbuttel with flood-tide.

Dimensions of lock: Length 310 m., beam 40 m.

The Canal can be navigated by vessels up to 235 m. LOA and 32.5 m. beam and draft in accordance with table below.

Length	*Beam in metres*													
(m.)	*20*	*21*	*22*	*23*	*24*	*25*	*26*	*27*	*28*	*29*	*30*	*31*	*32*	*32.5*
						Draft in (m.)								
160	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.4	9.3	9.2	9.1	8.9	8.9
163	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.4	9.3	9.2	9.1	9.0	8.9	8.9
166	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.4	9.3	9.1	9.0	8.9	8.8	8.7
169	9.5	9.5	9.5	9.5	9.5	9.5	9.4	9.3	9.2	9.0	8.9	8.8	8.7	8.6
172	9.5	9.5	9.5	9.5	9.5	9.4	9.3	9.2	9.1	9.0	8.8	8.7	8.6	8.5
175	9.5	9.5	9.5	9.5	9.5	9.4	9.3	9.1	9.0	8.9	8.8	8.6	8.5	8.4
178	9.5	9.5	9.5	9.5	9.4	9.3	9.2	9.0	8.9	8.8	8.7	8.5	8.4	8.3
181	9.5	9.5	9.5	9.4	9.3	9.2	9.1	9.0	8.8	8.7	8.6	8.5	8.3	8.3
184	9.5	9.5	9.5	9.3	9.2	9.1	9.0	8.9	8.7	8.6	8.5	8.4	8.3	8.2
187	9.5	9.5	9.4	9.3	9.1	9.0	8.9	8.8	8.6	8.5	8.4	8.3	8.2	8.1
190	9.5	9.4	9.3	9.2	9.1	8.9	8.8	8.7	8.6	8.1	8.3	8.2	8.1	8.0
193	9.5	9.3	9.2	9.1	9.0	8.9	8.7	8.6	8.5	8.4	8.3	8.1	8.0	7.9
196	9.4	9.3	9.1	9.0	8.9	8.8	8.6	8.5	8.4	8.3	8.2	8.0	7.9	7.8
199	9.3	9.1	9.0	8.9	8.8	8.7	8.5	8.4	8.3	8.2	8.1	7.9	7.8	7.8
202	9.2	9.1	9.0	8.9	8.7	8.6	8.5	8.4	8.2	8.1	8.0	7.9	7.7	7.7
205	9.1	9.0	8.9	8.8	8.6	8.5	8.4	8.3	8.2	8.0	7.9	7.8	7.7	7.6
208	9.0	8.9	8.8	8.7	8.5	8.4	8.3	8.2	8.1	8.0	7.8	7.7	7.6	7.5
210	9.0	8.9	8.7	8.6	8.5	8.4	8.3	8.2	8.1	8.0	7.8	7.7	7.6	7.5
214	8.9	8.8	8.6	8.5	8.4	8.3	8.2	8.0	7.9	7.8	7.6	7.5	7.4	7.4
217	8.8	8.7	8.5	8.4	8.3	8.2	8.0	7.9	7.8	7.7	7.5	7.4	7.4	7.3
220	8.7	8.6	8.4	8.3	8.2	8.1	8.0	7.8	7.7	7.6	7.5	7.4	7.3	7.3
223	8.6	8.5	8.4	8.3	8.1	8.0	7.9	7.7	7.6	7.5	7.4	7.3	7.2	7.2
226	8.5	8.4	8.3	8.2	8.0	7.9	7.8	7.7	7.5	7.4	7.4	7.3	7.2	7.1
229	8.4	8.3	8.2	8.1	7.9	7.8	7.7	7.6	7.4	7.4	7.3	7.2	7.1	7.1
232	8.4	8.3	8.1	8.0	7.9	7.7	7.6	7.5	7.4	7.3	7.2	7.2	7.1	7.0
235	8.3	8.1	8.0	7.9	7.8	7.6	7.5	7.4	7.3	7.3	7.2	7.1	7.0	7.0

Height above water-line transiting Canal must not exceed 40 m.

For Binnenhafen, as far as km. 6.00, vessels not requiring to transit Canal may enter with draft up to 10.40 m.

HEALTH: Pratique automatic for vessels entering harbour for loading or discharging, and ships passing through Canal if required and if Health Certificate form does not show any infectious diseases.

RADIO: All messages to Agents and Pilots etc., through Norddeich Radio, call sign "DAN". Closer to port Elbe-Weser Radio can be contacted by VHF Channel 16.

Ships reporting station is on permanent duty at Brunsbuttel, VHF Channel 14, safety and calling Channel 16.

RADAR: Radar Service from Elbe 1 to Hamburg see "General" before first German port, but no special Port Radar Service for Brunsbuttel. Radar Service in the area of Brunsbuttel available, can be contacted through VHF Channel 4, "Brunsbuttel Radar Radio".

TUGS: 6 tugs available at Brunsbuttel. Vessel's lines used. Tugs normally join vessels bound for the Elbe Harbour on river in vicinity of Canal locks.

From the approach limit up to entry into the lock, tug assistance is mandatory for vessels in Group 6 and also such vessels which manoeuvre only with difficulty. Tugs assisting ships entering locks join vessels on canal-roads.

BERTHING: Ships lying at terminals situated on Canal bank in Inner Harbour should take into consideration that vessels must moor safely, as suction of passing ships may cause breaking of lines.

Binnenhafen: Comprises the area between lock entrance and km. 5.27.

BRIDGES: Ships transiting canal must have bridge clearance of 40 m. Otherwise no obstructions.

STEVEDORES: Ordered by Agents, no ETA to stevedores necessary.

MEDICAL: Port Medical Service by Harbour Doctors. Day and night service. Inoculations have to be ordered 24 hours prior arrival. Hospital available at Brunsbuttel.

TANKERS: Elbehafen – Oil Section:

Location: At the Elbe-River bank, about 0.5 nautical miles upstream from Brunsbuttel Canal Locks.

Depth of Water: Within the approaches, 13.50 m., alongside berth 14.70 m.

Max. Ships Dimension Acceptable: Length about 400 m. Beam unlimited. Draft 12.95 m. (Sea Water).

Dirty Ballast/Slop Disposal: By barges or tank truck.

Max. Slop Quantity Acceptable: Contact Agent.

Elbehafen for VLCC's: The safe mooring of vessels up to 250,000 d.w.t. has been proved and has become a matter of routine. Harbour Authorities have no objections to accept larger vessels but investigations have to be made with regard to safe mooring facilities ashore. Tankers with more than 37 ft. draft must arrive 2 hours prior to highwater at L/V. "ELBE I", in order to dock at Elbe Harbour with slack water or first ebb-tide. Vessels with draft not exceeding 37 ft. may dock during whole ebb-tide. Pilot vessels to be contacted via VHF radio Channels 13 and 16.

Canal Berth:

Location: Inside Kiel Canal Lock at South bank of the Inner Harbour of Brunsbuttel.

Depth of Water: Within the approaches 11.00 m. Alongside berth 8.20 m.

Max. Ships Dimension Acceptable: Length 150 m. Beam unlimited. Draft 8.00 m.

BALLAST:

Dirty Ballast Disposal: By barges or tank truck. Contact Agent.

DENSITY: Brackish at Elbe Harbour and inside locks. Average density 1003.

FRESH WATER: Most berths supply by shore installations.

FUEL: All grades available.

Bunker stations on South side of Canal are:

Shell	– 2 berths, gas oil only.
BP	– 3 berths.
Elf	– 4 berths.

and on the North side of Canal:
KuBi – Bunker Station – 1 berth, gas oil only.
Brunsbuttel Bunker Service – 3 berths.

FIRE PRECAUTIONS: No specific precautions except in Kiel Canal.

GANGWAY/DECK WATCHMEN: Services of watchmen not necessary but available day and night if required.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: Ships entering canal and using terminals must have international ship's register. All other certificates should be valid.

CUSTOMS ALLOWANCES: Tobacco, each crew member 200 cigarettes or 50 cigars or 250 grams of tobacco. Surplus will be sealed up by Customs. Wine and/or spirits 1 bottle of spirits and 1 bottle of wine permitted for each crew member. Beer unlimited. Ships transiting canal are not affected.

IDENTIFICATION CARDS: Normally not needed. If necessary in special cases Identification Cards will be issued by Immigration.

CONSULS: All consulates available at Hamburg. Swedish Vice-Consul at Brunsbuttel.

REPAIRS: Only minor repairs can be effected. Big yards and dry docks available at Hamburg.

REPATRIATION: Crew changes can be arranged in connection with local Immigration Office.

AIRPORT: Nearest airport Hamburg. 90 km. away.

TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).

HOLIDAYS: Cargo work can be arranged on every day.

POLICE/AMBULANCE/FIRE: Police Tel: 110 and 3041. Waterway Guard Police Tel: 1012. Passport Control Tel: 87.262. Customs Tel: 8555. Hospital Tel: 3901. Fire Tel: 112.

TELEPHONES: No facilities for placing telephone on board in Kiel Canal.

DANGEROUS CARGO: Ships with dangerous cargo or tankers not gas free have to be reported to the Port Authority 48 hrs. before arrival.

AUTHORITY: Kiel Canal Authority – Wasser-und Schiffahrtsamt Brunsbuttel, 2212 Brunsbuttel 1. *Tel:* (04852) 8011 – 8016.

Harbour Authority: Hafenbehorde Brunsbuttel, Elbehafen, 2212 Brunsbuttel. *Tel:* (04852) 87044. *Contact:* Captain Dietze, Port Captain.

(b) ELBE TERMINAL

LOCATION: Elbe Terminal situated outside of locks, quay length 1,100 m.

PILOTAGE: Elbe Pilots also act as docking Pilots at Elbe Terminal.

RESTRICTIONS: For vessels bound for Elbe Terminal, Brunsbuttel, there are no restrictions with regard to length, breadth and height or with regard to day or night entry. Vessels may berth and unberth day or night.

MAX. SIZE: As the fairway of the River Elbe is being dredged, it is not possible to publish any long-term draft values. The max. admissible drafts of the various sizes of vessels intending to navigate on the River Elbe must be enquired of the authorities. The Elbe Pilots will have updated information on the latest depth and draft values.

Depth of water: Oil section: 14.70 m. below chart zero; dry cargo section: 13.70 m. below chart zero. Minimum keel clearance of 3 ft. required. East Basin 4.70 m. below chart zero.

BERTHING: *Dry cargo section:* One gantry crane for handling of bulk cargoes with a capacity of 25 tons and outreach of 45 m.

3 level-luffing cranes for handling of bulk and general cargoes as well as containers. By means of syncronising 2 cranes, heavy pieces up to 45 tons can be handled.

Capacity of these cranes 12/24 tons with an outreach of 40/20 m.

2 level-luffing cranes for handling general cargo only with a capacity of 6/10 tons with an outreach of 32/20 m.

1 mobile crane with a capacity of 20 tons for handling of general cargo.

4 warehouses with a total floor space of 11,800 sq.m. available.

TANKERS: 2 Mannesmann marine loading and discharging units 12 in. diameter, each with a capacity of 1,500 t.p.h.

2 Mannesmann marine loading and discharging units 20 in. diameter with a capacity of 10,000 t.p.h.

The units are driven hydraulically. Connection to the tanker manifolds by hydraulically operated clamps.

One 30 in. pipeline to Texaco Tank Storage. Pressure admissibility of the units up to 19 Atu and a temperature up to max. +50°C (Crude oil).

Liquified Gases (Propane): 1 loading/discharging arm 250 mm. diameter, 25 bar, −50°C. 1 vapour return line 100 mm. diameter.

Also see "Regulations".

Mooring:

1. Tankers must be moored with particular care on account of the current, as handling equipment will be engaged for discharging and loading operations and therefore vessels must be moored safely. All lines must be heaved tight and secured to ensure that vessels will be firmly secured at the pier at all times.

2. Tankers exceeding 35,000 g.r.t. must be moored as shown in *Mooring Plan* (See "Plan") it being understood that these are minimum requirements for normal weather conditions.

3. The cross lines (wire ropes with a breaking strength of 120 tonnes) will be provided from the shore and should be belayed on bollards.

4. If at all possible, an additional two cross lines should be provided by the vessel.

5. All lines must be in perfect condition.

6. The winches to be used must be in perfect working order and capable of holding the tensile forces for which they are rated.

7. The crew must be large enough for efficient handling of the lines according to the standards of good seamanship.

8. The Port Authority may insist on calling in additional personnel for vessels not having a large enough crew to handle lines safely and quickly.

9. The Mooring Plan is based on all line systems. If no cross lines are provided from the shore, at least 1 wire rope each must be provided fore and aft by the vessel.

Fire Warp: Once the mooring operations are completed, a sufficiently strong tow-line (wire rope) must be lowered from bow and stern on the offshore side as far down as to the water surface.

Berthing/Unberthing: (a) Tankers may be berthed and unberthed only if the wind does not exceed Force 7 Beaufort scale.

(b) If the visibility is at least 1 nautical mile.

Tide: The mean range of the tide at the pier is about 2.66 m. (8 ft.). The max. ebb current is 1.75 m. per second, the max. flood current is 1.5 m. per second.

Important:

1. The shore-side loading/discharge swivel arms are equipped with an automatic drift alarms. Should the vessel drift beyond the safety limit, a loud signal will be sounded and all ship-side pumps must be stopped and the lines must be checked.

2. In case of fire the Ship Fire Alarm is as follows:

1 or more whistle blasts, each to be sounded for at least 10 seconds, in addition to sounding the General Alarm. All safety drills and precautions must be observed.

REGULATIONS: *Special Regulations for Gas Tankers:*

1. Gas must only be imported in bulk in tankers, which are suitable for such traffic from the aspects of type of construction, equipment and operation. Gas tankers must conform at least to the stipulations of the Code for the Construction and Equipment of Vessels for carrying liquid gas in bulk (IMO-Res.A.328 (IX)) in the currently valid manner.

2. Gas tankers must carry a certificate issued by their national Ship Safety Authorities or a recognised classification society in which it must be stated that the vessel conforms to the stipulations in point (1) above. This certificate must be presented to the Port Authorities, if requested.

3. For import and discharge of liquid gas, only sea-going tankers are permitted. In this connection, the following quantity limitations per vessel and per individual tank must be respected:

(a) Gas tanker with deep frozen liquid cargo
(atmospheric tanker)
and
(b) Gas tanker with semi-frozen cargo
(semi-pressure tanker)
Max. load per ship = 15,000 cu. m.
Max. load per individual tank = 6,000 cu. m.

(c) Gas tanker with liquid cargo under pressure
(full pressure tanker)
Max. load per ship = 6,000 cu. m.
Max. load per individual tank = 1,000 cu. m.

4. The quantity limitations quoted in point (3) include amounts to be carried onwards for discharge at further ports. If the cargo volume of the vessel or of a loaded individual tank permits an amount of cargo to be carried which is greater than that stipulated in point (3), the port authority must be presented with a written declaration issued by an independent, sworn competent person of authority to the effect that the stipulation quantity limitations have been upheld.

5. The release of cargo vapours for the purpose of reducing pressures and/or temperature adjustment – except in emergency cases – is forbidden.

6. Whilst gas tankers are on the River Elbe no materials like alkine (acetylene), polyine (polyacetylene), allene, kumulene, MAPP gases, may be carried on board as cargo. ("Rules for the Protection of Nuclear Power Stations against Pressure Waves Resulting from Chemical Reactions" dated 1st August, 1976).

7. Vessels to dock against ebb tide with port side to. In case this requirement cannot be fulfilled due to an eventual delay during the river passage or any other unforeseeable reasons, a turning manoeuvre in a position East of the berth must be prevented (i.e. acceptance of additional tugs).

8. A wireless telephone connection is to be established between the security vessel and the personnel on the jetty, and the fire-fighting centre and the vessel. The wireless telephone connection must secure a duplex communication. Furthermore a wireless telephone communication must be established in good time prior to vessel's berthing.

9. Sufficient and suitable mooring personnel must be arranged for mooring and unmooring. The number of crew must be large enough to secure a quick and safe mooring manoeuvre. The local Harbour Authorities can order the acceptance of additional suitable personnel for this purpose.

10. The vessel must be tied up at the Elbe Harbour in such a way that a parting of the moorings (breaking, melting, burning) may not occur. At least 3 head lines, 3 stern lines, 1 fore spring and 1 after spring are to be made fast. At least 1 head line, 1 stern line and 1 spring MUST be of steel wire construction.

11. For berthing and unberthing at the Elbe Harbour Quay in way of the fire-fighting monitors at least two tugs must be accepted. The engine capacity of the tugs must be sufficient to assist the vessel in all wind, current and ice-conditions. The engine capacity of each tug must be at least 1,600 h.p. Vessels of less than 3,000 g.r.t., equipped with a working bow thruster may unberth with one tug less, weather permitting.

12. While discharging, the passing traffic is to be observed. In case a vessel comes too close, gas discharging/loading is to be stopped.

13. While handling gases, bunkering is not permitted.

14. LPG/Carriers may not be berthed at the Elbe Harbour together with laden or non-gas-free, non-inerted tankers, whose last cargo had a flash-point of below 61°C.

15. No vessels may make fast alongside a gas tanker while handling cargo.

16. During extreme meteorological circumstances (thunderstorms, hurricanes) the handling of liquid gas is to be stopped.

17. The vessel has to leave the berth immediately upon completion of cargo operations.

BALLAST: Ballasting of oil tankers during or after discharging into non-gas-free tanks is allowed only up to a volume of 50% of each tank concerned. This does not apply for inerted tanks.

DENSITY: 1003, brackish water.

FRESH WATER: Available at all berths.

GANGWAYS: Shore gangways available; special gangway at hand for VLCCs.

FUEL: By barges. All grades available.

MINIMUM STAFF: During crude oil transfer a minimum staff shall be assigned for safe handling of cargo transfer. For tankers of 3,000 g.r.t. and more, the minimum staff shall be assigned as follows:

1 Deck Officer, 1 Engineering Officer (both familiar with cargo handling).

2 deckhands.

For tankers of 70,000 g.r.t. and more, 2 additional deckhands are required.

TELEPHONE: Ship telephone connections are available at all berths.

AUTHORITY: *Port Operator:* Hafengesellschaft Brunsbuttel GmbH, 2212 Brunsbuttel, Elbehafen. *Tel:* 8840. *Telex:* 28347 eport d.

Port Authority: Hafenbehorde Brunsbuttel, 2212 Brunsbuttel, Elbehafen. *Tel:* 87044.

(c) BRUNSBUTTEL – Oil Port

LOCATION: Oil Port situated on North side of Kiel Canal at km. 3.5.

PILOTAGE: See Section (a) Canal Pilots also act as Docking Pilots.

ANCHORAGE: Anchoring near the compressed-air barrier is prohibited. The location of the barrier is indicated by rings with the inscription "Preßluftsperre".

MAX. SIZE: Max. allowed dimensions of vessel between the figure values (draft and beam) can be interpolated.

Max. Draft	*Max. Beam*
10.40 m. (34 ft. 2 in.)	27.00 m. (88 ft. 7 in.)
9.50 m. (31 ft. 2 in.)	29.00 m. (95 ft. 2 in.)
8.00 m. (26 ft. 3 in.)	32.50 m. (106 ft. 7 in.)

Max. LOA 235 m. (771 ft.)

Ships passing Kiel Canal: See "Restrictions" Kiel Canal.

BERTHING:

Berths: 3 berths (Nos. 6, 7 and 8) for tankers up to 10.40 m. (fresh water) draft.

2 berths (Nos. 4 and 5) for tankers up to 6 m. (fresh water) draft.

Oil Handling Facilties: Hoses of 6 in., 8 in. and 10 in. for handling of crude oil, diesel oil, gas oil, gasoline, tuluol, xylol and lub oil.

Mooring: Tankers are required to be moored at least by 1 steel wire fore and aft. The steel wire may be covered.

Restrictions: During loading and ballasting operations, it shall be ensured that a vapour/air mixture pressed out of the tanks is no longer flammable or toxic outside the port area. In order to achieve this without continuous checking, the pumping rate is fixed at 800 cu.m./hour maximum.

Minimum Staff: During cargo transfer a minimum staff shall be assigned for safe handling of cargo transfer. For tankers of 3,000 g.r.t. and more, the minimum staff shall be assigned as follows:

1 deck officer familiar with cargo handling.
1 engineer officer familar with cargo handling.
2 deck hands.

Fire Precautions: Fire hoses must be laid out and connected to fire line, which has to be under pressure during all cargo operations.

Fire wires must be paid out to the water level fore and aft.

1 lifeboat must be swung out into an embarkation position in order to provide an additional emergency escape.

Dirty Ballast Disposal: By barges or tank truck.

DENSITY: 1003.

FRESH WATER: Available at all berths.

FUEL: By barges. All grades available.

GANGWAYS: Shore gangways available.

AUTHORITY: Operator of cargo handling facilities:

Deutsche Texaco AG, Ostermoorer Str., 2212 Brunsbuttel. *Tel:* 2011. *Telex:* 028314.

Port Operator: Hafengesellschaft Brunsbuttel GmbH, Elbehafen, 2212 Brunsbuttel. *Tel:* 8840. *Telex:* 028347 eport d.

Port Authority: Hafenbehorde Brunsbuttel, Elbehafen, 2212 Brunsbuttel. *Tel:* 87044.

(d) OSTERMOOR.

LOCATION: Kiel Canal Km. 5.66 (South Side).

PILOTAGE: See Section (a). Canal Pilots also act as Docking Pilots.

RESTRICTIONS: If passing through Kiel Canal, see "Restrictions" in Section (a).

MAX. SIZE: LOA 235 m. (771 ft.).

Max. draft	*Max. beam*
10.40 m. (32 ft. 02 in.)	27.00 m. (88 ft. 07 in.)
9.50 m. (31 ft. 02 in.)	29.00 m. (95 ft. 02 in.)
8.00 m. (26 ft. 03 in.)	32.50 m. (106 ft. 07 in.)

BERTHING: Berth Nos. 1, 2 and 4:

Port Operator: Hafengesellschaft Brunsbuttel (PO).

Operator of Cargo Handling: AMH-Chemie GmbH (AMH).

Immigration Clearance: Will be carried out on board.

Customs Clearance: No freeport. Customs clearance will be carried out on board.

Tug Assistance: According to assignment of Port Authority.

Mooring: The use of constant tension winches is prohibited (Berth Nos. 2 and 4 only). Port Authority will allocate berth where the exact position alongside berth will be advised by AMH. The Master is responsible for safe mooring. Additional mooring may be requested by Port Authority responsible (AMH). Bow of vessel at berth in direction Kiel Canal. Exception regulation by Port Authority.

Drinking Water: Available at Berth Nos. 1, 2 and 4 against payment (PO).

Steam and Nitrogen: Steam at No. 2 Berth and nitrogen at No. 4 Berth available from ashore.

Bunker Supply: By barges only. The Port safety regulation must be observed (Northern Basin).

Ship Repairs: Permission of AMH required.

Electricity Supply: No connections available.

Garbage Disposal: Available (PO).

Dirty Ballast Disposal: By barges or tank truck.

Navigating into the North Basin: (Direction by AMH) – only after stop of cargo operations at Berth No. 4.

Gangways: At Berth Nos. 2 and 4 gangways are at hand (AMH). At Berth No. 4 and at waiting place a lifeboat has to be ready at the accommodation ladder on the offside during cargo operations.

Stop of Cargo Operations in Case of Emergency: At the sound of the signal "stay away" (. –) and fire (– – –) by loudspeaker; at the instructions given by telephone or loudspeaker; when the flashing light is in operation; at the release of the disconnection couplings; in case of fire on board.

Fire on board: The Port Supervisor of AMH has to be informed immediately. Cargo operations have to be stopped immediately. Ship has to give usual whistle – Fire signal ("F").

Cargo Stop in Case of Bad Weather: Berth No. 1: rainfall, windspeed greater than 22 m./sec.; Berth Nos. 2 and 4: windspeed greater than 26 m./sec. Disconnection at windspeed greater than 22 m./sec.

ETA Messages: 72 hours prior to arrival to AMH via Agent with the following information: (1) Ship's name and call sign; (2) Arrival time; (3) Cargo (product and quantity); (4) Tankers: number and diameter of cargo manifold connections; (5) Any damage to hull, tanks or overboard valves. Vessels are dispatched according to accepted ETA. In any case ETA has to be repeated 48 hours and 24 hours before arrival.

Dangerous Cargoes: Ships with dangerous cargoes or tankers which are not gas-free must be reported to the Port Authority 48 hrs. before arrival.

Ships requested to accomplish the Oil Liability Agreement (more than 2,000 tons oil onboard) must be in possession of a valid Oil Liability Certificate.

Regulation Covering the Transport of Ammonia through the Kiel Canal:

In the North Sea – Baltic Canal, liquid ammonia (U.N.No. 1005) may be transported in such vehicles as fulfil the following maritime police stipulations:

1. For the vehicle, an IMO suitability certificate for the transport of ammonia must be issued in accordance with the IMO Code, Resolution 328-IX (new vessels), Resolution 329-IX or for existing vessels.

2. The loading system must be so dimensioned that at an outside air temperature of +25° Celsius and 20° Celsius for water the load can be maintained for an undetermined duration without ammonia vapour being blown out via the safety valves.

3. The re-liquefication plant of the vehicle must have available a reserve capacity of at least 50 per cent of the power normally required for ship's operation, in the event that ammonia is being transported, so that in the event of an accident, including damage to the insulation, heavily vapourised contents of a tank can be safely re-liquefied.

4. On vessels with tank insulation which is not of the water repellant kind (e.g. glass or mineral wool), watertight longitudinal bulkheads must be available at a distance of 760 mm. from the outer skin.

	Berth/Products		
Brunsbuttel-Ostermoor Loading and Discharging installations	*Berth No. 1 Urea bulk-bagged*	*Berth No. 2 Heavy Fuel Oil*	*Berth No. 4 Anhydrous Ammonia*
Loading/discharge rate with vapour return line (max.)	—	—	*800 t/h (at −33°C) 250 t/h (at ambient temp.)
Loading/discharge rate without vapour return line (max.)		800 t/h (‡)	*500 t/h (at −33°C) † (at ambient temp.)
Loading rate with ship loader	1,200 – 1,500 t/d, 3000 t/d (bagged) (bulk)	—	—
Loading arm flange (Number and size) (Loose flange with collar acc. DIN 2656, ND40)	—	1×200 mm.	1×200 mm. (Product) 1×100 mm. (Vapour)
Storage capacity	85,000 tons	3×20,000 cu.m., 1×10,000 cu.m. 1× 1,000 cu.m.	2×30,000 cu.m. (−33°C) 1× 3,000 m. (ambient temp.)
Working range of ship Height refers to normal water level upwards	−10.4 to +9.5 m. (bagged) −10.4 to +7.5 m. (bulk)	+0.2 to +16.0 m.	0.0 to +21.0 m.
Loader/unloader Outreach refers from dolphin vanishing line towards ship's offside.	1.0 to 26.0 m.	1.0 to 11.0 m.	1.0 to 11.0 m.
Further equipment at berths: Service limits of installed own gangways (Height refers to normal water level/top edge deck)	—	+1.0 to +12.5 m.	+1.5 to +14.5 m.
Public telephone connection against payment/number	§compulsory/87211	§compulsory/87212	§compulsory/87213
Public telephone of harbour: 8066, 8067, 8068, 8069 (PO)			
Branch line of AMH telephone system (free of charge)/telephone number of ship. Telephone No. Portmaster 2171.	—	compulsory/2180	compulsory/2181
Delivery of goods from ashore	by ship's gear	by ship's gear	with jetty-crane against payment

Remarks: *reduced discharge rate at higher cargo temperature; †only possible in exceptional cases (discharge); ‡at following conditions: P min=3 bar, T min=+55°C. Viscosity max.=35° E/+55°C; §Compulsory during loading/discharging at Berth No. 4

5. The loading tanks of available ships must have a clearance of at least 760 mm. from the outer skin side.

6. Vessels with a loading capacity of up to 12,000 cu.m. must be equipped in addition to the requirements of section 1 with ndependent loading tanks of type B or C (spherical or cylindrical). The adjustment pressure of the safety valves (MARVS) must amount to at least 0.7 bars over pressure.

7. The fulfilment of the stipulations set out in Section 1, numbers 2 to 5 and in Section 2, in so far as they are necessary, must be supported by a certificate issued by a recognised Classification Society.

8. The IMO – suitability indication in accordance with Section 1 and the certificate as per Section 7 must be kept on board the vessel.

Oil tankers of more than 2,000 d.w.t. must be in possession of a valid Oil Liability Certificate.

Cargo Handling at Berth Nos. 2 and 4: Before starting cargo operations following measures are to be taken:

Confirmation of Checklist by vessel's command.
Cargo tank inspection by AMH.
Referring to "Operation plan" by AMH.
Connection of ground-wire.
Emergency towing wires (steel) must be provided at water level (Berth No. 4 only).
Installation of telephones.
Gas detectors handed on board (Berth No. 4 only).
Fire hoses must be laid out and connected to fireline, which has to be under pressure during all cargo operations (Berth No. 4 only).
Connection and disconnection of loading arms will be done by AMH personnel.

Watchmen: During cargo operations a watchman has to be on stand-by at manifold. In case of an emergency, vessel's pumps and stop valves must be able to be shut down immediately.

Minimum Crew during Cargo Transfer Operation at Berth No. 4:

1 Deck Officer } fully qualified in
1 Ass. Eng. Officer } cargo transfer operations
2 Deckhands
1 Watch Officer for duties other than cargo transfer.

Berth No. 5: *Berth Operator:* Bayer AG.

New berth under construction, completion expected late 1988. Berth to be used for discharge of chemicals in bulk. Depth alongside 8.00 m.

Berth No. 6:

Berth Operator: ELF-Bitumen-Werke GmbH & Co., 2212 Brunsbuttel-Ostermoor. Tel: (4852) 8880, Telex: 28313 elfbrb d.

ETA Messages: 72 hours prior to arrival to ELF via Agent with the following informations:

1. Ship's name and call sign.
2. Time of arrival.
3. Cargo (product and quantity).
4. Number and diameter of cargo manifold connections.
5. Any damage to hull, tanks or overboard valves.
6. Distance of manifold connections to bow and stern.

Vessels are dispatched according to accepted ETA.

ETA has to be repeated 48 hours and 24 hours before arrival.

Report: Ships with dangerous cargoes or tankers which are not gas free have to be reported to the Port Authority according to paragraph 8 and 9 of Port Safety Code (HSVO), 48 hours before arrival.

Certificates: Ships requested to accomplish the Oil Liability Agreement (more than 2,000 tons oil onboard) must be in possession of a valid Oil Liability Certificate.

Loading and Discharging Installations:	*Product*	*Crude*
Discharging Rate	—	2,000 cu.m./h. 16 bar
Loading Rate	400 cu.m./h. 16 bar	—
Loading Arm Flange (No. and size) (Loose flange with collar acc. DIN 2656/PN40)	1 hose DN 200/PN25	1 loading arm 3 hoses DN300/250/200 DN200/PN25 DN150/PN25
Working Range of Shiploader/Unloader (Height refers to normal water level upwards)	—	+00.30 m. to +17.00 m.
(Outreach refers from dolphin vanishing line towards ship's offside)	—	00.00 m. to 09.00 m.
Further Equipment at Berth: Service limits of installed gangways (Height refers to normal water level/top edge deck)	12 m. gangway	
Public telephone connection against payment	Public telephone No. (4852) 888 186	
Public telephone No. of harbour 884-0 (PO)		
Delivery of goods from shore possible after request to ELF	By ship's gear	

Depth: Depth alongside Berth No. 6 – 12.0 m.

Cargo handling: Before starting cargo operations following measures are to be taken:

Installation of telephone.
Confirmation of Check list by vessel's command.
Tank and cargo inspection by ELF.
Referring to "Operations plan" by ELF.
Connection of ground wire.
Emergency towing wires (steel) must be provided at water level.
Fire hoses must be laid out and connected to fireline, which has to be under pressure during all cargo operations.

Connecting: Connection and disconnection of leading arm/hoses will be done by ELF personnel.

Watchman: During cargo operations a watchman has to be on stand-by at manifold. In case of emergency vessel's pumps and stop-valves must be ready for immediate shut down sufficient crew for warding off emergency must be onboard at all times.

Minimum Crew during Cargo Transfer Operation (Tankers 3,000 g.r.t.):

1 Deck Officer } fully qualified in
1 Ass. Eng. Officer } cargo transfer operations
2 Deckhands
1 Watch Officer for duties other than cargo transfer.

Gangways: Available. Supervision on behalf of Master. A lifeboat has to be ready at the accommodation ladder on the offshore side.

Stop of Cargo Operations in Case of Emergency: At the sound of the "emergency-stop" horn. At the instructions given by berth watchman. In case of fire onboard.

Fire Onboard: The berth watchman of ELF has to be informed immediately. Cargo operations have to be stopped immediately. Ship has to give usual whistle – Fire signal ("F").

Cargo stop in case of bad weather: Windspeed greater than 26 m./sec. (Connection and disconnection at windspeed greater than 22 m./sec.

AUTHORITY: Port Authority (PA): Hafenbehorde Brunsbuttel, 2212 Brunsbuttel, Elbehafen. *Tel:* 87044 – Area Code 4852.

Port Operator (PO): Hafengesellschaft Brunsbuttel mbH, 2212 Brunsbuttel, Elbehafen. *Tel:* 8840 – Area Code 4852. *Telex:* 28347 Eport D.

Operator of the Cargo Handling Facilities (AMH): AMH-Chemie GmbH, 2212 Brunsbuttel P.O.B. 1268. *Tel:* 82-1 – Area Code 4852. *Telex:* 28360 Amh D.

BUTZFLETH: 53.39 N. 09.31 E. (See Plan)

DOCUMENTS:

3 Crew Lists.
3 Bonded Stores Lists.
3 Crew Manifests.
Maritime Health Declaration.
Ship's Register.
Discharge Books.
Passports of Crew.
Gas Free Certificate (OBO-Carriers)

Butzfleth is not a free-port. Customs, Immigration and River Police board on arrival at berth.

DEEP SEA PILOTAGE: See "General" before first German Port.

PILOTAGE – ANCHORAGE RIVER ELBE: See "General" before first German Port.

Pilotage River Terminal: Elbe Pilots also act as docking Pilots.

ANCHORAGE: Freiburg Anchorage, approx. position Lat. 53° 50.6′ N., Long. 09° 19.5′ E., depth of water up to 13 m. below chart zero; there are further anchorages for small vessels at Krautsand – and Twielenfleth Roads. (see "General" before first German Port.)

MAX. SIZE: Berth No. 1 (Inner): LOA 155 m. Max. draft 9.0 m.
Berth No. 1 (Outer): LOA 270 m. Max. draft 14.0 m.
Berth No. 3: LOA 160 m. Max. draft 9.0 m.
Also see "Berthing".

RADAR: River Radar Service from Elbe 1 to Hamburg, see "General" before first German port, but no special Port Radar Service for Butzfleth. Radar Service in the area of Butzfleth available, can be contacted through VHF Channel 21, "Hetlingen Radar Radio" and/or VHF Channel 5, "Steindeich Radar Radio".

RADIO/VHF: All messages to Agents and Pilots, etc., through Norddeich Radio, call sign DAN. Closer to port Elbe-Weser Radio can be contacted by VHF Channel 16.

Ships' reporting station is on permanent duty at Stadersand, VHF Channel 11, safety and calling Channel 16.

Pilot boat at "Elbe-1" can be contacted on VHF Channels 13 and 16.

TUGS: 4 tugs compulsory for mooring and unmooring. To be ordered from Hamburg and Brunsbuttel through Agent.

A fire fighting tug (1,760 hp) is available 24 hours and can be reached via VHF Channel 16, also available for assistance to vessels.

BERTHING:

Aluminium Oxid Stade GmbH. (AOS): This bauxite/oxide plant, situated on the Westbank of the River Elbe, can be reached by vessels with max. drafts of 46 ft. 06 in. FW.

Quay length		*Depth at normal Low water*
Quay outside in total	325 m.	15 m. (49 ft.)
Within reach of crane	205 m.	
Quay inside	200 m.	7 m. (23 ft.)

The oxide produced at this plant, apart from being exported, is used for the mills of V.A.W. Elbewerk GmbH., Stade-Butzfleth and of Hamburger Aluminium Werk GmbH., Hamburg Finkenwerder.

Average discharging/loading rate	
West African bauxite	550–600 m.t.p.h.
Brazilian bauxite	600 m.t.p.h.
Australian bauxite:	
from Gove	550–600 m.t.p.h.
from Weipa	750 m.t.p.h.
Petcoke	100–400 m.t.p.h.
Oxide ("Spout" loading)	500 m.t.p.h.

Ship's telephone connection (4146-1453) at AOS pier.

Dow Chemicals GmbH: This industry, situated close to the AOS plant, offers 2 berths for gas and chemical tankers. The water depth at the outside quay is: 15 m. (49 ft.) and at the inside quay: 9 m. (29 ft. 6 in.), both at MLW.

Restrictions for ships	*Products*	
	Inflammable	*Non Inflammable*
Length at quay outside	270 m.	300 m.
Length at quay inside	145 m.	145 m.
Draft at quay outside (FW)	13.71 m. (45 ft.)	13.71 m. (45 ft.)
Draft at quay inside (FW)	8.0 m.	8.0 m.
Beam at quay inside	22.50 m.	22.50 m.

No bunkering permitted at the DOW-berths.

Discharging rate liquid gas	approx 200 t.p.h.
Loading rate chemical products	100–800 t.p.h.

Max. Size: Vessels loading/discharging inflammable products: Max. length 270 m. Max. draft 14 m. Also see "Max. size".

Vessels loading/discharging non-flammable products: Length unlimited. Max. draft 14 m.

Vessels with liquid gas and flammable products: Max. length 145 m. Max. draft 8 m. Max breadth 22 m.

Restriction: Mooring prohibited for vessels having IMO Class 2 products (liquid and/or gaseous) on board.

Simultaneous handling of gases inside and flammable products outside not permissible.

Manifolds: Upriver to downriver.

Inside		Outside
Berth I	Berth III	Berth I
Methanol Telon/Vidden P.D.C. P.O. Propylene Ethylene	NAOH	P.O. Per P.G.I. Tet Chlorothene VG/NU EDC NAOH Methylene Chloride Tricholoroethane Chloroform/ Methanol

Supplies: Nitrogen and potable water.

Technical requirements on ships discharging C2/C3.

Ethylene: For loading arm horizontal clearance ships manifold to the nearest structure 2.10 m., vertical clearance from centre of manifold up 0.50 m. and down 0.60 m., flange 6 in. (300 ASA) discharge-temperature of Ethylene minimum −103°C.

Propylene: For loading arm horizontal clearance 2.20 m., vertical up 0.50 m. and down 0.50 m., flange 6 in. (300 ASA), discharge-temperature of Propylene maximum −20°C.

Further on Propylene, vessels to be guaranteed, that the vessels in Summertime are suitable for pump against a back pressure of minimum 13 kg. but preferably it should be 15 kg./16 kg.

MEDICAL: Hospital and doctor available.

FRESH WATER: Available.

FUEL: Supplied by barge from Hamburg or local supplier.

GENERAL: *Dirty Ballast:* No facilities.

REPAIRS: Minor repairs can be carried out.

SERVICES: Stevedores, hold cleaning, boatmen, mooring gangs, inspectors, fitters and launches.

DEVELOPMENTS: In the northern part of the port, a new pier is currently under construction (due to be completed in 1988), and which is planned to handle general and bulk cargo. It will have a free area of approximately 20,000 sq.m.

In the southern harbour, a further discharge head platform is in operation. Maximum vessel length 160 m., beam 28.0 m. and 7.50 m. depth of water.

Apart from a floating crane of 20 tons and a mobile crane of 10 tons which are currently in use in the port, two jib cranes will also be installed each with 20 ton lifting capacity, for use with grabs or hooks.

AUTHORITY: Niedersachsisches Hafenamt Cuxhafen, Aubenstelle, Butzfleth, D – 2160 Stade 5. *Tel:* (04146) 1436. *Telex:* via 218158 clear d. *Cables:* NHC – A. Butzfleth. *Contact:* F. W. Bork, Manager. Captain W. Schroeder, Harbour Master.

AGENT: See "Hamburg".

CUXHAVEN: 53.52 N. 08.42 E. (See Plan)

DOCUMENTS:

Stores List.
Crew List.
Customs Manifest.
Derat Certificate.

Amerikahafen is a Customs free port.

DEEP SEA PILOTAGE: See "General" before first German Port.

PILOTAGE – ANCHORAGE RIVER ELBE: See "General" before first German Port.

PILOTAGE: Pilot station situated in Old Harbour (Alten Hafen). To obtain Pilot call "Cuxhaven Port", VHF Channel 12. Pilot signal is flag "G" of International Code, or sound signal – 2 long and 1 short blasts.

ANCHORAGE: Available off Cuxhaven Medem Roads, approx. position Lat. 53° 51.5′ N., Long. 08° 46.5′ E., depth of water about 6 m. – 12 m. below chart zero; further anchorages see "General" before first German Port.

RESTRICTIONS: Vessels can enter by day or night. No tidal restrictions. *Depths:* Max. depth of water: 13.5 m. (45 ft.). Mean tide HW: NN+1.40 m. Mean tide LW: NN−1.50 m. Tide range is 3.20 m. (from +1.55 m. to —1.65 m.) (NN = approx. mean sea level).

Water depth in the basins up to 8.5 m. below MTLW. Water depth at the river quays 12 m. and 8 m. below MTLW.

HEALTH: Quarantine clearance effected at Cuxhaven. Only vessels with suspected infectious disease on board are detained.

RADAR: River Radar Service from Elbe 1 to Hamburg see "General" before first German port, but no special Port Radar Service for Cuxhaven. Radar Service in the area of Cuxhaven available, can be contacted through VHF Channel 21, "Cuxhaven Radar Radio".

RADIO: For ETA, etc., use Norddeich Radio, call sign DAN. Closer to port Elbe–Weser Radio can be contacted by VHF Channel 16.

Ships reporting station is on permanent duty at Cuxhaven, VHF Channel 12, safety and calling Channel 16.

TUGS: Tugs available and used depending on ship size and weather conditions. Cost of tugs is Hamburg Tariff plus 20%.

BERTHING:

Fahrhafen and Neue Seebaderbrucke: Modern multi-purpose Ro/Ro terminal for passengers and for handling of motor vehicles and cargo direct at the Elbe River, 300 m. quay with 8 m. depth below MTLW.

Starting point of ferries for the North Sea and the Baltic Sea, for passenger ships to Helgoland.

Ro/Ro linkspans (one of them for axle-loads up to 50 tons and for stern-door width up to 18 m.). Hard-standing and storage area of approx. 60,000 sq.m.

Alter Hafen: Multi-purpose harbour for shipyards and for boats to the seaside resorts and islands.

Alter Fischereihafen: Multi-purpose harbour with transhipment and outfitting quays for fishing cutters, offshore base and emergency port. Fish auction and fish handling sheds, fish industry, equipment firms, deep freeze house for 5,000 tons of goods.

Neuer Fischereihafen: Multi-purpose harbour with transhipment and equipment quays for trawlers and luggers, offshore suppliers, Ro/Ro ships, for ships carrying general cargo and for minor bulk cargo ships. Fish auction and handling sheds, fish industry, equipment firms, deep freeze house for 25,000 tons, ice production, open storage space.

Entrance and exit any time by the sea-lock. Length of lock 190 m., width of lock 24 m. and depth of lock is 9 m. below MTLW.

Amerikahafen: Multi-purpose harbour with transhipment and equipment quays for ships carrying general cargo and for minor ships carrying bulk cargo, emergency port, floating docks, transit shed, deep freeze house, open storage spaces.

Steubenhoft: Multi-purpose facility for big ocean vessels with 400 m. long quay and 14 m. water depth below MTLW. Usable for cargo, repair, trial trip and passenger ships of all sizes.

CRANES:

8 portal cranes	1.5 – 10 tons capacity
1 loading bridge	8 tons capacity
1 crane for heavy loads	50 tons capacity
Various mobile cranes up to	20 tons capacity

Equipment also available to handle containers and Ro/Ro traffic.

MEDICAL: Doctors and hospitals obtainable day and night.

FRESH WATER: Available from shore pipe-line up to 50 t.p.h. Small quantities up to 15 tons may be obtained in Roads from bunker barge. There are no water barges.

FUEL: Bunker and gas oil available. Small quantities, up to 150 tons, may be obtained anytime. Otherwise according to conditions of supplying oil company.

FIRE PRECAUTIONS: No special restrictions. Ships with explosive cargo and liquid cargoes of danger class K1 and K2 not allowed in Cuxhaven Harbour.

CARGO HANDLING: A harbour for overseas ferries up to 150 m. length with Ro/Ro and container equipment.

GANGWAY/DECK WATCHMEN: Not obligatory, at Master's discretion.

OPENING/CLOSING HATCHES: Normally performed by crew. Stevedores must be paid if required to do this work.

CUSTOMS ALLOWANCES: 40 cigarettes, 1 bottle spirits and 2 bottles wine.

IDENTIFICATION CARDS: If no passport, shore pass required.

CONSULS:

Denmark, Tel: 38021.
Iceland, Tel: 36036/37.
Others at Hamburg/Bremen.

REPAIRS: All deck and engine repairs possible.

DRY DOCKS: Floating dock for vessels up to 140 m. length.

REPATRIATION: All facilities available.

AIRPORT: Hamburg-Fuhlsbuttel, 130 km. away; Bremen, 110 km. away.

TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).

HOLIDAYS: New Year's Day, Good Friday, Easter Sunday, Easter Monday, 1st May, Ascension Day, Whit Sunday, Whit Monday, 17th June, Atonement Day, Christmas Day, Boxing Day. Loading/unloading can be arranged on these holidays.

POLICE/FIRE/AMBULANCE: Police, Tel: 110; Harbour Police, Tel: 22072; Ambulance, tel 23125; Fire, Tel: 112.

TELEPHONES: At Steubenhoft and in the ferry harbour, telephones can be put on board.

SERVICES: Compass adjusting and radio repairs.

SHORE LEAVE: Allowed.

AUTHORITY: Niedersachsisches Hafenamt Cuxhaven, Am Schleusenpriel 2, P.O.Box 526, 2190 Cuxhaven. *Tel:* (04721) 5014–0. *Telex:* 232167 Hacux d.

AGENT: Fisser & V. Doornum, Leuchtturmweg 5, D-2190 Cuxhaven, Federal Republic of Germany. Tel: (4721) 3 60 36. Telex: 232 139. Cables: Fissership. Fax: (4721) 3 77 65.

DUISBURG-RUHRORT: 51.25 N. 06.46 E. (See Plan)

LOCATION: Duisburg-Ruhrort port area, together with Hochfeld, covers a total surface of 870 hectares on the right bank of the river between the Rhine km. 774 and 781, the Ruhr channel – 1 km., and the Rhine-Herne canal km. 1 to 2.

MAX. SIZE: Dimensions of vessels able to use the German inland waterways:

Type	*Length (m.)*	*Beam (m.)*	*Draft (m.)*	*Capacity (tons)*	*Horse Power*
Motor dry cargo vessel	38.5 – 110	5 – 11.4	2 – 3.5	300 – 2,500	100 – 2,000
Tanker	50 – 110	6.6 – 11.4	2.2 – 3.5	400 – 3,200	250 – 2,000
Train (Pushing motor vessel and barge)	150 – 186.5	9.5 – 11.4	2.5 – 3	2,530 – 4,400	800 – 2,000
Pusher tug	10 – 35	7.6 – 13.2	1.4 – 2.2		1,000 – 6,000
Dumb barge for pushing	70 – 76.5	9.5 – 11.4	2.5 – 3.7	1,240 – 2,600	

The largest pusher tugs push six barges = 15,600 tons.

RADIO: Duisburg Port Radio, VHF Channel 13.

BERTHING:

Docks	*Theoretical Depth respectively zero level above normal zero*	*Loading Depths (approx. value) Actual water level at Ruhrort water gauge*
(a) Ruhrort. Water gauge zero.	16.09 m.	
Port Entrance, Vincke Canal, Bunker Dock, North Dock, South Dock, Kaiser Dock, Port Canal, Dock A, Dock B, Dock C and Railway Dock	15.40 m.	+ 40 cm.
Werft Dock	17.05 m.	–120 cm.
(b) Duisburg. Water gauge zero.	17.00 m.	
Parallel Dock, Outer Dock, Wood Dock and Inner Dock at Marientor up to km. 3.5	16.10 m.	+ 40 cm.
Inner Dock Eastwards km. 3.5	16.50 m.	± 0 cm.
(c) Hochfeld. Water gauge zero.	17.42 m.	
South and Kultus Dock.	16.45 m.	+ 40 cm.
(d) Canal Dock Meiderich		Loading depths as per inland waterways traffic regulations
Ruhr Dock Neuenkamp		

CRANES: 84 cranes and travelling bridges of up to 40 tonnes lifting capacity for bulk goods and general cargo, as well as for containers. 1 heavy lift crane with 60 tonnes capacity and floating crane with 400 tons capacity.

BULK CARGO FACILITIES: 1 coal mixing and discharging plant with 2 car dumpers and 3 ship loaders, daily capacity up to 26,000 tonnes.

Grain warehouses and silos with approx. 130,000 tonnes capacity, 4 conveyor belts, and 22 discharging plants.

Tank storage 1,244,645 cu.m. Liquid gas tank storage 20,000 cu.m.

SPECIALISED CARGO HANDLING FACILITIES: 2 Container terminals with facilities for all means of transport Roll-on/Roll-off installation. 66 points for handling liquid gas.

STEVEDORES: Working hours: 0730 – 1600 hrs., Monday to Friday.

BRIDGES:

Bridge	*Lowest Point of Upper Structure Respectively Zero Level above Normal Zero*	*Correction Value for Calculation of Passage Height**
(a) Ruhrort. Water gauge zero	16.09 m.	—
Bridge over Railway Dock	36.10 m.	19.70 m.
Bridge over Port Entrance	34.20 m.	17.80 m.
Vincke Canal Bridge	33.10 m.	16.70 m.
Kaiser Dock Bridge	32.60 m.	16.20 m.
Port Canal Bridge	33.80 m.	17.40 m.
Bridge over Dock C	38.20 m.	21.80 m.
(b) Duisburg. Water gauge zero	17.00 m.	
Cable Bridge over Outer Dock	37.80 m.	20.90 m.
Road Bridge over Outer Dock	37.00 m.	20.10 m.
Marientorbrudge (clearance between bridge counter bearings 15.80 m.):		
at rest	29.60 m.	12.70 m.
folded	Up to 33.9 m. height	Clear width 15.8 m.
	Over 33.9 m. height	Clear width 13.8 m.
Schwanentor Bridge (clearance between bridge counter bearings 17.90 m.):		
at rest	26.80 m.	9.90 m.
lifted	34.90 m.	18.00 m.

*From the following values, the actual water level at the Ruhrort water gauge is to be deducted.

With water levels over 8.40 m. at the Ruhrort water gauge, the stop gate at the Marientor Lock is drawn in and therefore through passage to the Duisburg inner port/wood harbour is no longer possible.

AIRPORT: Dusseldorf (20 km.).

AUTHORITY: Duisburg Ruhrorter Hafen A.G., Alte Ruhrorterstrasse 42-52, Postfach (Postbox) 13 02 60, D – 4100 Duisburg 13. *Tel:* (0203) 8031. *Telex:* 855306 hafag d. *FAX:* (0203) 803232. *Cables:* Hafag. *Contact:* Y. Klaus van Lith or Dr.-Ing. Jochen Muller, Directors.

ECKERNFORDE: 54.29 N. 09.51 E. (See Plan)

DOCUMENTS:

Stores List.
Customs Documents.
Cargo Documents.
Crew List.

PILOTAGE: No pilot station. No tide. In East winds, water level can increase to 1.50 m. above normal.

ANCHORAGE: Good anchorage in the Roads between N.W. to N.W. by W. bearing from the port, distance 1 to 1.5 miles. Depths 18 m. – 21 m. Anchorage not allowed in harbour area.

CLEARANCE: Customs clearance at any time subject prior notice given. If suspected diseases on board inform Health Authorities.

MAX. SIZE. In Outer Harbour, up to 5 m. draft; in Inner Harbour up to 3 m. draft.

RADIO: Radio Kiel, call sign DAO, Tel: 39491.

TUGS: No tugs.

BRIDGES: Outer and Inner Harbours separated by bascule bridge, opening to 10.7 m. width at top of bridge.

MEDICAL: Doctors and hospitals available.

FRESH WATER: Available.

FUEL: Diesel oil available. No coal.

WATCHMEN: Not available.

OPENING/CLOSING HATCHES: By ship's crew.

IDENTIFICATION CARDS: Required, if no passport.

REPAIRS: Available for fishing boats or coasters. Slipway for vessels up to 200 tons.

TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).

HOLIDAYS: Work allowed on Sundays and official holidays subject to Harbour Master's permission.

POLICE/FIRE/AMBULANCE: Police Tel: 110. Hospital Tel: 9011. Fire Tel: 112.

TELEPHONES: Public telephones in harbour area. No installation on board.

SERVICES: Other services available from Kiel.

SHORE LEAVE: Permitted.

AUTHORITY: Stadtwerke Eckernforde GmbH, Bornbrook 1, 2330 Eckernforde. *Tel:* (04351) 9050. *Contact:* Mr. Wegner, Harbour Master. Mr. Poetzsch, General Manager.

ELSFLETH: 53.14 N. 08.28 E.

PORT LIMITS: The seaward boundary of the port is the entrance of River Hunte, vessels are considered to be arrived when alongside the berth or waiting berth, and Customs formalities are completed.

DOCUMENTS:

2 Crew Lists.
2 Passenger Lists.
1 Health Certificate.
2 Provision and Store Lists.
1 Ship's Certificate.

DEEP SEA PILOTAGE: See "General" before first German port.

PILOTAGE: Pilotage is carried out by Weser River Pilots, no Harbour Pilot available.

ANCHORAGE: No anchorage in vicinity of the harbour, see Blexen Roads.

RESTRICTIONS: Max. draft in the entrance at LW is 3.20 m.

MAX. SIZE: Max. size in daytime, length 80 m. Max. size at night-time, length 60 m., draft depends on the tide.

PRATIQUE: Pratique is given on arrival by the Health Officer. If disease or fever is suspected on board it has to be reported to the Agent.

RADIO: Cable Norddeich (call sign DAN) advising ETA and cash requirements.

RADAR/VHF: No port radar service but river radar can be used for approaching port from Weser Lightvessel to Bremerhaven. VHF Channel 21 from Bremerhaven to Elsfleth. Channel 19 from Bremen to Elsfleth.

River radar can be used for approaching port from Bremerhaven to Elsfleth (entrance of River Hunte).

Bremen Port Radar Channel 12.

VHF Channel 10 from Elsfleth to Oldenburg.

The 2 railroad bridges over the River Hunte can be called on VHF Channel 19.

TUGS: Tugs have to be ordered from Bremen or Brake, they join the vessel at River Hunte Estuary. If tug lines are used there are no extra charges.

BERTHING: 1 quay with a length of 260 m., depth alongside 5 m. for 150 m. and 4 m. for 110 m. 1 waiting berth for small vessel 3 m., 1 private berth (Omni-Pac).

2 waiting berths for vessels in inland trade. 9 vessels with length from 80 m. can use these berths. One waiting berth is by the naval college (3 berths) and the other at km. 23 on the River Hunte.

SPECIALISED CARGO-HANDLING FACILITIES: 1 crane with 6.5 tons, 1 crane with 10.5 tons and 1 crane with 32 tons capacity. Bulk cargo can be handled with grabs, no other special facilities.

BRIDGES: No bridges to reach the port, but all ships bound for Oldenburg are waiting at Elsfleth for opening bridges.

A flood prevention barrier has to be passed to reach the harbour.

STEVEDORES: ETA has to be cabled to the Agents to arrange gangs. Port works 3 shifts around the clock, including Sunday and holidays.

MEDICAL: Medical service is available day and night. Hospital is available at Brake.

TANKERS: No tanker berth.

DENSITY: Fresh water.

FRESH WATER: Delivered from the quay by hose.

FUEL: Fuel is delivered by bunker barges stationed in port.
FIRE PRECAUTIONS: No fire precautions.
CONSUL: None.
REPAIRS: 1 dockyard, all ship and engine repairs can be carried out.
DRY DOCKS: 2 slipways can be used.
SURVEYORS: Classification Societies have to be ordered from Bremen, surveyors available at Elsfleth.
GANGWAY/DECK WATCHMEN: A crew watchman is necessary because of strong tidal streams, 2 – 3 knots.
HATCHES: Hatch-opening/closing to be carried out by crew.
CUSTOMS ALLOWANCES: Quantity permitted for each crew member: 100 cigarettes, 1 bottle of spirits.
CARGO GEAR: Loading/discharging is carried out by shore cranes.
REPATRIATION: Any time. Inform Agent.
AIRPORT: Airport at Bremen (50 km). Regular airlines.
TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).
HOLIDAYS: Cargo work can be arranged on those days.
POLICE/AMBULANCE/FIRE: Police: Station 2263, River 2377. Ambulance: Brake Hospital 04401 – 4060. Fire 2333.
TELEPHONES: No ship-to-shore communications.
SHORE LEAVE: Crew members are allowed ashore with valid passports.
IDENTIFICATION CARDS: No shore pass issued.
REGULATIONS: No unusual regulations for the port.
GENERAL: All ships bound for Oldenburg have to do clearance in port.
DEVELOPMENTS: A new private berth has been completed for the distillery "Pabst & Richards".
AUTHORITY: Niedersachsisches Hafenamt Brake – Hafenmeister Elsfleth, An der Straats Kaje 2887, Elsfleth. *Tel:* 04404-2202. *Contact:* H. Plaster, Harbour Master.

EMDEN: 53.23 N. 07.13 E. (See Plan)

PORT LIMITS: The vessel is to be considered an "arrived ship" upon having berthed at the designated waiting/loading/discharging berth, depending upon Charter-Party.
DOCUMENTS: Health Declaration (form from Sea-Pilot), Derat Exemption Certificate, Bill of Lading, Cargo Manifest, Certificate of Origin (for gas-tankers only), Certificate of Quality (for gas-tankers only), Certificate of Registry, 5 Crew Lists, 2 Crew Personal Effects Lists, 4 Slop-Chest Lists, Passports/Seamen's Books, 2 German Tanker Check Lists (for tankers and gas-tankers only).
DEEP SEA PILOTAGE: See "General" before first German Port.
PILOTAGE: Compulsory. At least 12 hours prior arrival at Pilot Station, vessel to radio "Emslotse Emden" indicating vessel's name, ETA, destination and draft. Contact pilot vessel on VHF Channel 16 or MW 500 kHz or LW 2023 kHz (daytime) and 2182 kHz (night-time).

Pilot vessel located near Wester Ems Light Buoy in approx. position Lat. 53° 37′ N., Long. 06° 24′ E.

Tankers and gas-tankers above 10,000 g.r.t. with dangerous cargo have to pick up the Pilot at the TW/DB Buoy in position: 53° 59′ 18″ N., 06° 21′ 26″ E.

During bad weather periods pilot boat is withdrawn and stationed in sheltered area near the Isle of Borkum.
ANCHORAGE: Vessels may anchor in vicinity of pilot vessel in depth of 9.5 fathoms. Sandy bottom.

Further anchorage possibilities in the Ems fairway half way up to Emden at "Moevensteert", 45 ft. salt water at HW.
RESTRICTIONS: Vessels drawing in excess of 26 ft. salt water have to wait for high tide to proceed to Emden proper. Tide rise about 10 ft.

Vessels with LOA/beam over 255 m./35.5 m. respectively enter and leave in daylight only.
The "Great Sea Lock": The "Great Sea Lock" has a length of 260 m. (853 ft.) and a width of 40 m. (131 ft.) restricting vessels' size to 255 m. LOA and 35.5 m. beam, but upon special permission at about 256 m. LOA and 36.5 m. beam. Depending upon vessels' constructural shape even longer ships have been accepted in the past upon special application.
MAX. SIZE: Under normal tide conditions, vessels drawing 36 ft. can enter Emden directly. Vessel drawing up to 45 ft. salt water can be lightened in river inside Isle of Borkum at the unloading berth "Moevensteert" by floating cranes until appropriate draft achieved. Capacity of floating crane 1,000 t.p.h., 2 cranes available.

Length and beam restrictions imposed by locks at Emden: max. 255 m. length and 35.50 m. width. Vessels exceeding these dimensions require prior permission.
HEALTH: Pratique granted immediately on arrival at locks by Doctor or Health Official.
RADIO: Cables should be despatched via Norddeich Radio (DAN).
Gas Tankers: Entry Permission: For each gas–tanker the agent – on behalf of vessel – has to apply for an entry permission with the Lower Saxony harbour office.
Following advanced information required: 1) GRT, 2) Volume cu.m. 3) LOA, 4) Beam, 5) Year of build, 6) ETA, 7) Draft, 8) Port of Departure, 9) Cargo Grade, Quantity, Temperature, 10) Possible Deficiencies of Ship and/or Cargo, 11) Confirmation vessel in accordance with IMO Rules A328 (9) or A 329 (9).
ETA–Notices: Master to keep agents closely advised about vessels ETA at either approach buoy and any change thereof. A 7–days 96–, 48–, 24–, 12–hours notice would facilitate preparational matters with authorities, receivers etc.
VHF: Norddeich Radio (DAN): VHF Channel 16 and all known communication facilities including ship/shore telex.
Knock Radar Control Centre: VHF Channel 18.
Emden Pilot: VHF Channel 16.
RADAR: Radar service on the river "Ems" from approx. position: Lat. 53° 37.5′ N., Long. 06° 23′ E. (Westerems) or Lat. 53° 35′ N., Long. 06° 23′ E. (Hubertgat) up to port entrance. The other range (Borkumradar) works on VHF Channel 18. Further information on this Channel.
TUGS: Sufficient tugs available, stationed at Emden Locks, ranging from 790 h.p. to 3,900 h.p. Usually tugs lines used.
BERTHING: *Outer Harbour:* Quay length 1,539 m. – tidal harbour. Also see "Developments".
New Inner Harbour: Accessible through Sea Lock (260 m. × 40 m.) and Nesserlander Sea Lock only for vessels up to 111 m. in length and 14.50 m. width.

INNER HARBOUR:
South Quay:
Commodity: Iron ore, coal, coke, bauxite, fertilizers and other dry-bulk cargoes, also wood, steel, general cargo, containers, etc.
Pier Length: 932 m.
Depth Alongside: 12 m. permanent (salinity about 1.005).
Draft Allowed: 35 ft. inbound, 34 ft. outbound.
Number of Cranes: 8, 1 cokeloader.
Lifting Capacity: 1×7 tons, 4×15 tons, 2×25 tons, 1×40 tons. 4,000 tons/day.
Daily Capacity: Discharging iron ore, about 30,000 tons. Discharging coal, about 24,000 tons. Loading coal about 10,000 tons.
Outreach of Grabs: 35.5 m. (cranes), 12.5 m. (cokeloader).
Distance Waterline/Lower Edge Grab: 14 m. (cranes), 13 m. (cokeloader).
Conveyor Belt: Double belt system.
Storage Area: About 25,000 sq.m. concrete paved. About 76,000 sq.m. for bulk cargoes. About 4,000 sq.m. of covered storage for general and bulk cargoes.
Loading/Discharging: Ex vessel onto rail cars, trucks, barges.
Working Period: Monday 0600 hrs. – Saturday 2200 hrs., overtime possible.

North Quay:
Commodity: Iron ore, coal, coke, bauxite, fertilizers and other dry-bulk cargoes, also wood, steel, etc., and general cargo.
Pier Length: 520 m.
Depth Alongside: 12 m. permanent (salinity 1.005).
Draft Allowed: 35 ft. inbound, 34 ft. outbound.
Number of Cranes: 4.
Lifting Capacity: 15 tons each.
Daily Capacity: Discharging iron ore, about 30,000 tons. Discharging coal, about 20,000 tons. Loading coal, about 10,000 tons.
Outreach of Grabs: 35.5 m.
Distance Waterline/Lower Edge Grab: 14 m.
Conveyor Belt: Available.
Storage Area: About 13,000 sq.m. concrete paved. About 32,000 sq.m. for bulk cargoes.
Loading/Discharging: Ex vessel onto rail cars, trucks, barges.
Working Period: Monday 0600 hrs. – Saturday 2200 hrs., overtime possible.

Industrial Harbour:
Commodity: All kinds of dry-bulk commodities in smaller lots, iron and steel, and all kinds of general cargo.
Pier Length: Total about 1,000 m.
Number of Berths: 3.
Draft: Between 23 ft. – 24 ft. permanent (salinity 1.005) depending on berth.
Number of Cranes: 4, and 1 mobile crane.
Lifting Capacity: 1×5 ton, 1×10 ton, 1×10-20 ton, 1×30 ton, 1×mobile crane 30 ton.
Outreach of Cranes: 16 m. – 40 m. depending upon weight of load to be handled.
Distance Waterline/Lower Edge Grab: 18 m. – 20 m.
Storage: About 5,500 sq.m. covered storage space. About 50,000 sq.m. open storage space.
Loading/Discharging: Ex vessel onto rail cars, trucks, barges.
Working Period: Monday 0600 hrs. – Saturday 2200 hrs., overtime possible.

Ro-Ro Berths I and II:
Commodity: Automobiles, paper and other Ro-Ro commodities.

	Terminal I	Terminal II
Berthing Length:	325 m.	300 m.
Draft Allowed:	Max. 23 ft. permanent (salinity 1.005).	Max. 23 ft. permanent (salinity 1.005).
Number of Ramps:	1 stern ramp. 1 stern or side ramp.	1 stern ramp.
Storage:	About 43,000 sq.m. storage space.	About 31,000 sq.m. storage space

Loading/Discharging: Ex vessel onto rail cars, trucks.
Working Period: Monday 0600 hrs. – Saturday 1400 hrs., overtime possible.

OUTER HARBOUR: This port basin has direct connection to the Ems Fairway, i.e. it is a tidal port area. There are no restrictions as to length or beam.
VW Berth:
Commodity: Mainly used for handling Volkswagen automobiles.
Berthing Length: About 245 m.
Depth Alongside: 8.3 m. at low water (salinity about 1.007).
Draft Allowed: 26 ft. LW.
Tidal Range: About 10 ft.
Number of Cranes: None.
Cargo Handling: Side door Roll-on/Roll-off or ship's own gear, ex vessel onto storage, rail, truck.
Loading Rate: 1,000 – 1,500 cars/day.

Granary I and II:
Commodity: All kinds of grain products, feed stuff, etc.
Berthing Length: 450 m.
Depth Alongside: 8.3 m. at LW (salinity about 1.007).
Draft Allowed: 26 ft. fresh water at LW.
Tidal Range: About 10 ft.
Number of Elevators: 3 shore elevators, 2 floating elevators.
Outreach from Fenderline: 18 m.
Distance Waterline/Hatchcoaming: 11.5 m.
Daily Capacity: About 12,000 tons heavy grain. About 6,000 tons soya meals.
Storage Capacity: About 150,000 tons.
Working Period: Monday 0700 hrs. – Saturday 2200 hrs., overtime possible.

Ems Quay:
Commodity: General, wood, logs, containers, etc.
Pier Length: 271.7 m.
Draft Allowed: 35 ft. salt water at HW.
Tidal Range: About 10 ft.
Number of Cranes: None.
Number of Ramps: 1 quarter ramp, 1 stern ramp.
Storage Capacity: About 6,000 sq.m. of covered storage space and 25,000 sq.m. of concrete paved open storage space.

Lightening/Topping-Off of Dry-Bulk Cargoes at Emden-"Dukegat":
General: Vessels exceeding a draft of 35 ft. salt water have the possibility to lighten/top-off at the "Dukegat" anchorage free of expense to the vessel, provided the balance of the cargo is being handled at Emden proper. On occasions also just lightening of vessels destined for other ports than Emden is performed at costs to be specifically agreed upon.
Commodity: Iron ore, coal, bauxite, etc.
Location of Anchorage/Lightening-Place (Dukegat): About 20 sea miles up-river from pilot vessel between Buoys "A12" and "A14" near the Isle of Borkum.
Dimensions of Anchorage/Lightening-Place (Dukegat): About 2,750 m. long and about 700 m. wide.
Draft: Maximum allowable arrival/sailing draft 45 ft. salt water.
Number of Cranes: 2 self-propelled floating cranes equipped with 25 ton grabs and hoppers connected with conveyor-belt.
Outreach from Fenderline: Max. 25.5 m.
Distance Waterline/Lower Edge of Grab: Max. 21 m.
Capacity: Iron ore, about 1,000 t.p.h. Coal, about 750 t.p.h. (lightening), about 500 t.p.h. (topping-off).

BRIDGES: None.
STEVEDORES: Since main commodities consist of bulk cargoes, such as iron-ore, coal, coke, bauxite, no specific requirements.
MEDICAL: Advance notice only required in urgent cases; hospital available.
DENSITY: Average density in port 1005 – 1010.
FRESH WATER: Available, supplied by barge.
FUEL: All grades available, delivered by barge by major oil companies and others.
BULK HANDLING FACILITIES: See "Berthing".
TANKERS: Olhafen situated in Inner Harbour. Tankers up to 34 ft. 6 in. draft discharge to Frisia Refinery, distance about 4.5 km.

Slops may only be discharged at the Tank Cleaning installation of Thyssen Nordseewerke GmbH.

Oil Harbour:
Commodity: Crude oil, naphtha, condensates, fuel oil, gas oil.
Number of Berths: 4 (2 large and 2 smaller berths).

	No. 1	No. 4
Docking Length:	255 m.	200 m.
Draft Permanent:	34 ft. 6 in. (salinity about 1.005)	34 ft. 6 in. (salinity about 1.005)
Loading Rate:	500 t.p.h. light fuel 750 t.p.h. heavy fuel	500 t.p.h. light fuel 750 t.p.h. heavy fuel
Discharging Rate:	2,500 t.p.h. crude oil	1,500 t.p.h. crude oil
Connections:	2×12 in. max.	1×8 in. max.

Working Period: Around the clock, SHinc.

LPG Terminal:
Commodity: Butane, propane and its mixtures.
Location: Emden oil harbour in the "Inner Harbour" separated from the Ems Fairway by the "Great Sea Lock"
Type of Berth: Concrete finger-pier with platform and with 5 dolphins abreast and sufficient mooring bollards ashore. Max. pull 100 tons.
Depth/Tidal Range: 10.50 m. brackish water (approx. 1007). No tidal range.
Restrictions:

LOA : 255.00 m.
Beam : 35.50 m.
Draft : 34 ft. 6 in. (dock density)
Distance waterline/manifold : 19.00 m. max.
Distance ship's rail/manifold : 5.50 m. max.
Free space to forward of manifold connection : 1.40 m. min.

Berthing: Vessels berthing with port-side to. Ships being towed backwards into basin. Day and night mooring/unmooring.
Cargo Handling Facilities for Ref. + Semi-Ref. Cargo: 1 free floating discharging-arm, type Wiese 4/350, with one 8 in. 300 ASA liquid connection and one 3 in. 300 ASA flexible vapour return line.
Shore Heat-Exchangers/Shore Booster Pumps: 2 heat-exchangers – able to heat-up from -42°C to minimum of 0°C.
3 booster pumps – max. liquid delivery head 445 m.
Discharging/Loading Rate: Max. 500 cu.m/hr. max. about 200 cu.m/hr.
Distance Berth/Tank Farm: About 4.5 km.
Size of Cargo Line: Average diameter 8 in.
Storage Facilities: 2 buffer tanks at berth – 4,000 cu.m. net. 9 storage tanks at tank farm – 23,000 cu.m. net.
Working Period: Around the clock SHinc.

Special Vessel's Requirements:
a) All gas-tankers have to be equipped with 2 VHF wireless stations at the bridge.
b) All gas-tankers above 30,000 cu.m. cargo tank capacity have to be equipped additionally with:
  2 Radar units
  1 Decca navigator
  1 Electronic speed-recorder
  1 Rate of turn indicator

Required Valid Certificates:
a) IMO-Certificate of Fitness according IMO-Resolution A 328 (9) or A 329 (9)/Certificate of Compliance.
b) Cargo Ship Safety Construction Certificate.
c) Cargo Ship Safety Equipment Certificate.
d) Cargo Ship Safety Radiotelegraphy Certificate.
e) Ship Safety Radiotelephony Certificate.
f) Load Line Certificate.
g) Classification Certificate.
h) Oil Liability Certificate.
i) Oil Record Book filled–in.
j) Letter of Compliance where available.
k) Ship's Loading and Stability Manual.
l) Damage and Survival Stability–information.
m) Certificate of Safe Manning according IMO A 481 (XII).
n) Test Certificates for:
  Safety Relief Valves.
  Cargo Tanks.
  Cargo Pipe-lines.
  Instrument Calibration.

Documents for Clearing Purposes: The following documents are also required for clearing purposes:
a) Health Declaration (form from Sea Pilot).
b) Derat Exemption Certificate.
c) Bill of Lading.
d) Cargo Manifest.
e) Certificate of Origin.
f) Certificate of Quality.
g) Certificate of Registry.
h) 5 Crew Lists.
i) 2 Crew's Personal Effects Lists.
j) 4 Slopchest Lists.
k) Passport/Seaman's Book.
l) 2 German Tanker Check Lists

Supplies/Services:

a) Purging/Gas Freeing	Not allowed within the port area
b) Coolants (Propane)	Available (pressurised)
c) Nitrogen, Oxygen, Freon	Available from local Unitor in Bottles/ Cylinders
d) Bunkers	All grades available from majors and some outsiders ex-barge prior to or after cargo operations

Lightening of Tankers: There is also a tanker lightening/anchoring place at the "Dukegat" anchorage at the location of Buoys "A10" – "A12" with an allowable draft of 41 ft. SW, dimensions 1,200 m. long and 800 m. wide.

However, lightening of tankers is not customary and has not been performed recently.

FIRE PRECAUTIONS: All common fire precautions to be obeyed.
GANGWAY/DECK WATCHMEN: Not compulsory.
OPENING/CLOSING HATCHES: To be performed by crew.
CUSTOMS ALLOWANCES: 40 cigarettes per day/person, 0.25 litre spirits per day/person (at "Outer Harbour" and "Old Inner Harbour").
REPATRIATION: Nearest airport to Emden is Bremen (about 150 km.). There are good train connections to and from Emden. Car transportation can also be arranged upon request to Agent. A small airport is available at Emden for domestic flights and charter flights.
CONSULS: Finland (Vice-Consul), Tel: 28800, Norway, Tel: 20118, Sweden, Tel: 21904, Netherlands, Tel: 21404.
REPAIRS: All kinds of repairs possible.
DRY DOCKS: 1 dry dock 218 m. × 30 m., 1 floating dock 176 m. × 27 m., 1 floating dock 138 m. × 16.8 m., 2 floating docks 92 m. × 16.2 m.
SURVEYORS: German Lloyd, Lloyd's Register, Norske Veritas, Bureau Veritas, Panama Bureau of Shipping Inc.
AIRPORT: Nearest airports Bremen and Hamburg, about 2 – 3 hours drive from Emden. World-wide connections. Flight Emden to Bremen or Hamburg possible by air-taxi.
TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).
HOLIDAYS: New Year's Day; Good Friday; Easter Monday; Labour Day (May 1st); Ascension Day; Whit Monday; June 17th; Prayer Day; Christmas Day; Second Christmas Day (December 26th). No work on New Year's Day, Easter Sunday, Whit Sunday, May 1st and Christmas Day.
POLICE/AMBULANCE/FIRE: Police 110; Ambulance 22222; Fire 112.
TELEPHONES: Telephones can be placed on board if vessel berthed Northquay, Southquay or Thyssen Nordseewerke shipyard. Public telephone boxes are available close to the berths.
SERVICES: Tank cleaning installation for slop disposal available. Oil pollution service available.
SHORE LEAVE: Shore leave possible.
IDENTIFICATION CARDS: Normally, Seamen's Book sufficient. In certain cases shore leave passes issued.
REGULATIONS: None unusual, but tankers and especially gas tankers have to apply for a special entry permission through the Agents.
DELAYS: Normally, none.
BANKS: German banks, such as Deutsche Bank, Commerzbank.
EMERGENCY CO-ORDINATION CENTRE: Local Water Police, Tel: 04921-27169/51681.

STORING: See "Prelims".

1. Yes.
2. Throughout loading operations, except for gas tankers.
3. Mainly yes.
4. Mainly yes.
5. Stores have to be cleared through Customs.
6. Yes.

DEVELOPMENTS:
New Port Development (Dollarthafen): A construction programme has been developed to build a new port basin, including a new lock (380 m. × 62 m.), on the River Ems, called the "Dollarthafen-Projekt". With such a new port basin and entrance it is aimed to take fully laden vessels of 80,000/90,000 d.w.t. with a draft of 45 ft. without lightening. Sizewise, ships of about 250,000 d.w.t. could be accommodated. Building of the project started in 1985 – construction period about 10 years. This port expansion will create entire new industrial areas of more than 500 Hectares.
AUTHORITY: Niedersachsisches Hafenamt Emden, Friedrich-Naumann Str. 7–9, 2970 Emden, West Germany. *Tel:* (04921) 897–0. *Telex:* 27966 NHA–E–D.. *Contact:* Captain W. Kuhn, Tel: 897–140 or Captain A. Brinkmann, Tel: 897141.

AGENT: Johs. Fritzen & Sohn-GmbH, Neptunhaus, PO Box 1552, 2970 Emden, West Germany. Tel: 04921 20011 (day and night). Telex: 27821 Frizn d. FAX: (04921) 20013. Cables: Fritzenagent Emden.

FLENSBURG: 54.48 N. 09.26 E. (See Plan)

PORT LIMITS: The seaward boundary is the line between two special boundary-stones on the West and East side of the port entrance.
DOCUMENTS: 2 Crew Lists, 2 Passenger Lists, 2 Stores Lists (bonded stores), Cargo Lists, Bills of Lading, General Declaration, Ship's Certificates.
PILOTAGE: Pilot Station Flensburg, Schiffbrucke 12, D-2390 Flensburg, Tel: (0461) 25150. Advance notice 5 hours before arriving Buoy "Flensburger Foerde" by Kiel Radio or Agent (3 hours before leaving port). Pilot boards at Buoy "Flensburger Foerde". Pilot will board in all weather if possible, otherwise pilot-boat will lead vessel to that position where Pilot can board. Not necessary to anchor. Pilot-boat is a fishing-boat with "Lotse" written in white letters on both sides. Boat will show lights prescribed by international regulations and is fitted out with VHF Channels 6, 10, 16, 25, 26, 27.
ANCHORAGES: Just outside harbour entrance, N.E. of Mittelgrund and West of Kielseng leading lights. Depths of water between 12 m. and 19 m. muddy ground; same position for Quarantine Anchorage.
The other anchorage is at Buoy "Flensburger Foerde", depth of water between 20 m. and 27 m. Bottom is mud and sand.
RESTRICTIONS: No specific restrictions; no tide, water-level variations depending only on the wind.
MAX. SIZE: Max. draft up to 7.0 m. at normal water-level.
HEALTH: Generally Free Pratique for ships in the North Sea and Baltic Sea trade, ships coming from overseas ports pratique granted on arrival. Inform Pilot if any suspected diseases on board. He will make necessary arrangements. A valid Derat Exemption Certificate has to be on board.
RADIO: Kiel Radio, call sign DAO.
VHF: None in Flensburg Port.
RADAR: There is no Port Radar Service.
TUGS: Harbour tugs are not available. If required, Flensburger Schiffbau-Gesellschaft can supply one tug 470 h.p., provided at least 3 hours notice given, ship's lines are used.
BERTHING: Powerstation-Quay length 180 m. depth of water 7.30 m. Harnis Quay length 460 m. depth of water 6.00 m. Harnis Quay length 240 m., depth of water 7.0 m. Schiffbrucke Quay length 210 m. depth of water 6.50 m. Schiffbrucke Quay length 130 m., depth of water 5.0 m. Depths of water refer to normal water-level.
CRANES: Powerstation Quay 1 crane 5 tons and 1 crane 10 tons lifting capacity; Harnis Quay 4 cranes 3 – 5 tons lifting capacity; all cranes are usable for general and bulk cargo.
BULK CARGO FACILITIES: 3 elevators for feedstuff.
SPECIALISED CARGO-HANDLING FACILITIES: Not available.
BRIDGES: There are no bridges at Flensburg Port.
STEVEDORES: Agents make all arrangements. Unloading rates depend on type of cargo. Bulk cargo discharge up to 160 t.p.h. per gang.
MEDICAL: Doctors, hospitals, ambulances available day and night.
TANKERS: 2 berths for tankers up to 1,000 g.r.t. with depths of water 5.70 m. and 5.00 m.; diameter of discharge lines are NW 200; average discharge of fuel and gasoil 300 cu.m. per hour.
DENSITY: Winter-time 1015; Summer-time 1012.
FRESH WATER: Available at all berths, delivery rate about 20 cu.m./hr. from shore hydrants.
FUEL: Diesel available in any quantity. Fuel oil subject to 5 hours advance notice from tank lorries.
FIRE PRECAUTIONS: No specific precautions.
CONSULS: Denmark, Nordergraben 19; others at Hamburg.
REPAIRS: Neue Flensburger Schiffbau-Gesellschaft Shipyard for new buildings, ships repairs, ship conversions; outfitting section equipped with 1 × 42 ton crane and 1 × 60 ton (lifting capacity).
DRY DOCKS: Two floating docks with 7,500 and 1,500 tons lifting capacity.
SURVEYORS: All main Classification Societies are present at Hamburg.
GANGWAY/DECK WATCHMEN: No watchman service available.
HATCHES: Opening/closing normally done by crew. Stevedores will perform this for additional payment.
CUSTOMS ALLOWANCES: For consumption on board merchant vessels for each crew member per day 40 cigarettes or 20 whiffs or 10 cigars or 50 grams tobacco *and* 0.25 litre spirits *and* 3 litres wine are duty-free. If the ship stays for 3 days or longer it is usual to allow three-fold of the mentioned quantity. For shore leave 20 cigarettes are permitted for each person only. If a crew member leaves the ship for at least 3 days the regulations for tourists are applicable.
CARGO GEAR: All loading and discharging done by shore cranes, except elevator-work.
REPATRIATION: Possible at any time without difficulties.
AIRPORT: Hamburg-Fuhlsbuttel, 175 km. distant; 2.5 hours by train.
TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).
HOLIDAYS: See "Hamburg". No work on official holidays.
POLICE/AMBULANCE/FIRE: Police Tel: 110, Fire/Ambulance Tel: 112.
TELEPHONES: Installation on board ships possible at Harnis Quay.
SERVICES: Tank cleaning and slop disposal services available. Compass adjusting possible, advance notice necessary.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Not required.
REGULATIONS: No particular or unusual regulations.
DELAYS: Normally no delays.
AUTHORITY: Stadtwerke Flensburg GmbH, P.O.Box 2751, Batteriestrasse 48, D-2390 Flensburg. *Tel:* (0461) 487301. *Telex:* 22653 Stawfl. *FAX:* 49-461-46892. *Contact:* T. Lauritzen, Harbour Master.

GLUCKSTADT: 53.45 N. 09.25 W.

PORT LIMITS: Line drawn between seaward ends of North and South moles.
DOCUMENTS:
Ship's Papers.
Cargo Papers.
Despatching Papers.
Crew Lists.
PILOTAGE: Pilot to be ordered via Agent.
MAX. SIZE: Vessels up to 4.5 m. draft can pass through lock to Inner Harbour.
BERTHING: Outer Harbour: 400 m. quayage, depth 6 m. at HW.
Inner Harbour: 300 m. quayage, depth 4.5 m. at HW.
Dimensions of lock between Outer and Inner Harbours are: Max. depth 5.76 m. HW, width 13.85 m., usable width 12.85 m.
CRANES: 1×14 ton jib crane, 1×18 ton mobile crane, 1×14 ton caterpillar crane, 1×28 ton jib crane (privately owned).
STEVEDORES: Working Hours: Monday to Thursday 0700 – 1200 hrs., 1230 – 1600 hrs. Friday 0700 – 1300 hrs. Overtime to be agreed.
DRYDOCKS: One slipway for inland waterway vessels up to 500 d.w.t.
AIRPORT: Hamburg.
AUTHORITY: Amt fur Land-und Wasser Wirtschaft Itzehoe, Breitenburger Strasse 25, 2210 Itzehoe. *Tel:* 04821-660 662138. *Telex:* 28226 Alwitzd. *Contact:* Harbour Master, Hafenamt Gluckstadt, 2208 Gluckstadt. Tel: 04124-2087.

HAMBURG: 53.33 N. 09.59 E. (including Altona, Harburg and Wilhelmsburg) (See Plan)

DOCUMENTS:
6 Crew Lists
6 Passenger Lists.
2 Provisions and Stores Lists including Fuel Oil.
3 Dangerous Cargo Lists.
Health Certificates (forms obtainable from Pilot).
General Cargo Declaration.
Ship's Register.
Oil Liability Certificate for more than 2,000 tons of oil.
DEEP SEA PILOTAGE: See "Brixham" or "Cherbourg" and "General" before first German port.
PILOTAGE:
Pilotage-Anchorage River Elbe: See "General" before first German port.
Pilotage Port of Hamburg: Harbour Pilots board the ships close to the Seemannshoft Station. Harbour Pilots can be called by VHF, Channel 9, call "Hamburg Pilot", morse or sound signal "G" (2 long and 1 short) or flag "G". Pilotage is compulsory for vessels with dangerous cargo and over 1,000 g.r.t.
Exceptions: Pilotage is not compulsory for vessels with dangerous cargo up to 300 g.r.t. and vessels up to 5,000 g.r.t., if: (1) the Master has called at the Port of Hamburg with his ship 6 times within the last 12 months, and (2) he speaks German fluently. Advisable to use Pilots in port.
ANCHORAGE: Available at several places between Elbe 1 and Hamburg. See "General" before first German port.
RESTRICTIONS: No restrictions imposed on night entry for any vessels.
MAX. SIZE: *Inward Bound:* Vessels allowed max. draft of 46 ft. in salt water on arrival Elbe 1 Lightvessel, may enter only on rising tide under normal weather and tide conditions.
Container ships exceeding 37 ft. draft in salt water on arrival Elbe 1 Lightvessel may enter only on rising tide.
Outward Bound: Vessels up to 38 ft. draft in fresh water on departure from Hamburg may leave at any time.
Vessels exceeding 35 ft. draft in fresh water and up to 38 ft. on departure from Hamburg-Finkerwerder Port Pilot Station may leave 1 hour after LW until 2 hours before next following HW.

Container ships and LASH carriers up to 39 ft. draft in fresh water on departure from Hamburg may leave at any time.

Container ships exceeding 39 ft. draft in fresh water and up to 41 ft. on departure from Hamburg-Finkerwerder Port Pilot Station may leave 1 hour to 2 hours after LW but required to anchor at Brunsbuttel N.E. Anchorage depending on tide.

Inward Bound: Vessels exceeding 300 m. length or 45 m. breadth allowed max. draft to 41 ft. in salt water on arrival Elbe 1 Lightvessel, may enter only on rising tide.

Outward Bound: Vessels allowed draft to max. 35 ft. in fresh water on departure from Hamburg-Finkerwerder Port Pilot Station may leave 1 hour after LW until 2 hours before next following HW. Underkeel clearance of 10% of draft required.

Vessels demanding the rising tide will proceed according to tidal conditions in order to reach Finkerwerder Pilot Station 1 – 1.5 hours before HW.

The following Harbours can be reached:

Harbour Name	**Max. draft subject to tide and berth* (ft.)	*At any time up to* (ft.)
Dradenau Hafen	37	27
Petroleum Hafen	34 – 37	28
Griesenwerder Hafen	37	27
Waltershofer Hafen	45	36
Kuhwerder Hafen	38	30
Oderhafen	32 – 38	25 – 29
Rethe Neuhof NHG	46	38
Kattwyk Hafen	46	37
Neuhofer Hafen	39	36
Rethe Hansamatex	40 – 44	31 – 33
Rethe Kruse	42	33
Rethe Mackprang	42	33
Rethe Stroh	42	32
Schluisgrove Hafen	38	29
Hansaport	47	38
Harburg Seehafen 4	34 – 38	29
Harburg Seehafen 3	34	24
Harburg Seehafen 2	30 – 38	29
Harburg Seehafen 1	28 – 31	20 – 22
Kraftwerk Wedel	32 – 42.5	32
Blumensandhafen	46	37

*Max. draft with 10% underkeel clearance.

The max. draft is dependent on the prevailing Easterly or Westerly winds.

Also see "Shipmaster's Report".

Report: October 1984.
The following salt water drafts are permitted:

46 ft. 00 in. S.W., for vessels up to 300 m. LOA and/or 45 m. beam.
44 ft. 06 in. S.W., for vessels up to 315 m. LOA and/or 47 m. beam.
43 ft. 06 in. S.W., for vessels up to 330 m. LOA and/or 49 m. beam.
42 ft. 06 in. S.W., for vessels up to 345 m. LOA and/or 54 m. beam.
41 ft. 06 in. S.W., for vessels up to 360 m. LOA and/or 63 m. beam.

RADAR: River Radar Service from Elbe 1 to Hamburg, see "General" before first German port.

Hamburg Radar Service "Hamburg Radar Radio", VHF Channels 3 and 19 at the lower end of Seemannshoeft, VHF Channels 80 and 7 at the Western and Southern part of harbour, VHF Channels 63 and 5 at upper part East of Koehlbrand.

TUGS: Normally join incoming vessels at Harbour pilot station at Finkerwerder. Tugs lines used at no extra charge.

HEALTH: Master required complete health certificate when Pilot boards. Only vessels with infectious diseases are subject to detention.

RADIO: All messages to Agents, etc., through Norddeich Radio, call sign "DAN". Closer to port Elbe-Weser Radio can be contacted by VHF Channel 16.

Ships reporting stations are on permanent duty:

Cuxhaven: Call "Cuxhaven Elbe Port Radio" on VHF Channel 12, safety and calling Channel 16.

Brunsbuttel: Call "Brunsbuttel Elbe Port Radio" on VHF Channel 14, safety and calling Channel 16.

Stadersand: Call "Stadersand Elbe Port Radio" on VHF Channel 11, safety and calling Channel 16.

Hamburg: Call "Hamburg Elbe Port Radio" on VHF Channel 12, safety and calling Channel 16.

Hamburg Port Radio (Port Authority): VHF Channel 14 and 16.

ETA: Master's telegrams via Norddeich Radio, call sign DAN, are passed on to Agent 24 hours a day, week-ends and holidays inclusive. For this reason it is advisable that Masters communicate with Agent via Norddeich Radio.

In order to avoid delay and extra charges Masters should cable their ETA at least 12 hours prior to arrival at pilot station Elbe 1 to "Elbelotse Brunsbutelkoog" via Norddeich Radio, stating the following details:

1. Name of vessel.
2. Gross register tons.
3. Date (2 figures).
4. Time (4 figures).
5. Place where Pilot is required.
6. Place of destination.
7. Draft in metres (4 figures).

For example:

Eta Fjordaas	41079	12	1600	Elbeone	Hamburg	1214
(1)	(2)	(3)	(4)	(5)	(6)	(7)

1 hour before arrival at Elbe 1 Lightvessel Masters are advised to contact the pilot cutter by VHF Channel 13 or 16.

BRIDGES: To be passed by vessels bound for basins South of Kohlbrand.

Bridge	*Situated*	*Max. breadth* (ft.)	*Height above normal H.T.* (ft.)	*Depth at normal H.T.* (ft. in.)
Kohlbrand Brucke (a high-bridge)	across the Kohlbrand near Neuhof	558	167	55 04
Kattwyk Brucke (a drawbridge)	across the Suder Elbe, before Harburg	328	167	48 05
Rethe Brucke (a drawbridge)	across the Rethe, near Reiherstieg	164	167	50 03

STEVEDORES: Ordered by Agents, no additional ETA's required.

Working hours

Monday to Friday	First shift 0650 to 1500 hrs. Second shift 1500 to 2310 hrs. Third shift 2310 to 0650 hrs.
Saturdays, Sundays and holidays	First shift 0700 to 1300 hrs. Second shift 1300 to 1900 hrs. Third shift 1900 to 0100 hrs. Fourth shift 0100 to 0700 hrs.

Work performed after 1500 hrs. Monday to Friday, on Saturdays after 1300 hrs., on Sundays and holidays is at overtime rates.

CONTAINER HANDLING FACILITIES:

	Burchardkai	*Tollerort Terminal (SHED 90/91)*	*Africa Terminal*	*Euro-Kai KG aA Griesenw. Damm*	*Unikai (SHED 73)*	*Unikai (SHED 75 and 77)*
Length (m.)	2,500	1,266	1,480	890	438	613
Number of Berths	8 (2 Ro/Ro)	7	7	3 – 5	3	3
Depth (m.)	9.6 – 11.8	9.4 – 12.1	11	11 – 13	12	
Open Storage Area (sq.m.)	1,350,000	200,000	80,000	470,000	38,600	
Shed Area (sq.m.)	143,000	30,000	45,000	23,000	26,800	
Cranes (Lifting capacities each)	4 bridges 53 tons 2 cranes 45 tons 5 bridges 43 tons 1 bridge 38 tons 2 cranes 25 tons 6 cranes 3 tons 2 mobile cranes 36 tons 2 mobile cranes 38 tons	3 bridges 48 tons 2 cargo-tainer twin-cranes up to 50 tons 6 cranes 15 tons 4 cranes 3 – 5 tons crane 45 tons	1 bridge 55 tons 7 cranes 33 tons 1 crane 10 tons 2 cranes 8 tons 2 cranes 5 tons 1 crane 3 tons 1 mobile crane 20 tons	4 bridges 45 – 53 tons 2 mobile cranes 15 tons 3 constackers	3 bridges 50 tons 8 cranes 3 tons 1 mobile crane 30 tons 2 floating cranes 25 – 30 tons 2 grabs 8 – 12 tons	3 cranes 50 tons
Other Facilities	3 railway transtainers 30 tons 2 transtainers 45 tons for bulk general 44 van-carriers 42 trucks 223 forklifts (1.5 – 18 tons) 302 junctions for cooltainers 3 weighing-machines 5 workshops for repairs computer (DEC 11/70 with online system)	11 van carriers 8 tugmasters 2 transtainers of 35 tons each 106 forklifts max. 15 tons	78 forklifts 18 trailers, 10 – 35 tons 3 tugmasters	8 van carriers 30 – 40 tons 70 forklifts max. 30 tons 25 trailers 2 container-top-spreader carriers	forklift trucks six 20 ft. – 40 ft. container-toplifters 40 tons	4 transtainers 44 tons 2 straddle carriers, 30.5 tons. 3 forklifts, 40 tons.

BULK HANDLING FACILITIES:

Grain

	Draft	*Maximum Length*	*Number of elevators*	*Capacity total/hour*
Hamburg-Kuhwerder Hafen	38 ft.	656 ft.	4	750 tons
Hamburg-Rethe/Stroh	42 ft.	943 ft.	3	1,000 tons
Hamburg-Rethe/Kruse	42 ft.	891 ft.	3	770 tons
Hamburg-Rethe/Makprang	42 ft.	952 ft.	11	1,200 tons
Hamburg-Neuhof	46 ft.	902 ft.	4	1,300 tons

There are 6 floating elevators with a capacity of 350/450 t.p.h.

	Quay length (ft.)	*Max. safe draft (F.W.)*	*Max. height discharging gear above high water level (ft.)*
Coal and Minerals:			
Hamburg-Harburg II	1,720	38 ft.	66
Elbehafen Brunsbuttelkoog Gmbh	1,968	37 ft.	98
Coal:			
Hamburg-Strand Quay	560	37 ft	No restriction
Hamburg-Wedel	1,050	42 ft. 6 in.	No restriction
Fertilisers:			
Neuhof-Kalikai	1,215	43 ft.	60
Minerals:			
Hamburger-Stahlwerke	1,340	41 ft.	82
Hansaport	1,850	47 ft.	No restriction
Petcoke/Oxide:			
Hamburger Aluminium Werk Gmbh	600	37 ft.	No restriction
Bauxite/Oxide:			
Aluminium Oxid Stad Gmbh (AOS)	1,080	43 ft.	62

TANKERS:

	No. of berths	*Max. Draft (FW)*
Kohlfleethafen (Esso/B.P.)	2	41 ft.
Petroleumhafen (B.P.)	10	37 ft.
Kattwyk Hafen (Shell)	2	46 ft.
Kattwyk Hafen	1	45 ft.
Blumensandshafen	1	43 ft.
Neuhof (Hansamatex)	4	40–42 ft.
Neuhof (Schindler)	1	39 ft.
Harburg Seehafen 4 (Esso)	3	38 ft.
Tankerlager Moorburg	1	40 ft.
Stadersand (Lower Elbe)	1	35 ft.

Tanker cleaning and gas freeing facilities at Neuhof Hansamatex, Kattwyk Hafen (Shell) and some dolphin berths by boats.

Koehlfleethafen Terminal: Cautionary Advice: Ships approach the berth at HW or shortly thereafter with the ebb current just starting. At any other time, it is very difficult to enter the harbour due to the current conditions at the entrance. The ship's speed at the entrance should be as low as possible.

Berthing Procedure: Tankers for the North Berth are berthed starboard side to and at the South Berth port side to. The ship's approach on a heading parallel to the berth. Usually the spring lines are run out first. An anchor may be used when approaching the berth.

Moorings: All lines are secured on quick release hooks. Average tidal range at berth is about 8 ft.

Harburg, Seehafen IV, Berths 2 and 6: Cautionary Advice – Approaches: All ships approaching or leaving Harburg IV have to transit the narrow Kohlbrand Fairway. The ship should manoeuvre at reduced speed. A good helmsman and quick response of the engine are important.

Cautionary Advice – Manifold Connections: Due to the design of the loading arms, care must be taken that the ship's lines are tight and the ship is not allowed to make any movements alongside the berth during cargo handling operations.

Restrictions: There is a lifting bridge crossing the Kohlbrand. This bridge will open for every ship which is tide bound. Other ships and all ships sailing from Harburg IV have to pass the bridge on scheduled opening times at all even hours from 0600 hrs. – 2200 hrs. and at 0530 hrs.

There are numerous berths at the banks which have to be passed at slow speed.

Tugs: 4 tugs will normally make fast after the Pilot has boarded. The tugs should be fast before entering into the Kohlbrand. They tow "on the hook." It is recommended to use tugs lines at no extra charge.

Berthing: Deep-drafted vessels berth at HW only. Caution should be exercised when turning from Kohlbrand into the Seehafen IV Basin.

Berth No. 6 is the first T-head jetty on the starborad side when entering Seehafen IV, and Berth No. 2 is the innermost T-head jetty on the same side. Vessels are always starboard side alongside and port anchor may be used to control vessel's movement in approaching the berths. When close to the berth, the 2 tugs on the starboard side will let go and push on the port side.

Both berths have wooden breasting dolphins and care should be taken to land parallel to the fender face with minimum approach speed.

Kattwykhafen, Shell Terminal: Cautionary Advice – Approaches: All ships approaching or leaving Kattwykhafen transit the narrow Kohlbrand Fairway and have to pass through the Rethe Harbour. Ships should proceed with reduced speed. A good helmsman and quick engine response are of importance.

Restrictions: There are numerous berths in the Rethe Harbour which have to be passed at slow speed.

Tugs: 4 tugs will normally be made fast after Pilot has boarded. The tugs should be fast before entering into the Kohlbrand. The tugs, 2 forward and 2 aft are made fast "on the hook." It is recommended to use tugs lines at no extra cost.

Berthing: Deep-drafted vessels berth at HW only. Vessels should be almost stopped in the water when swinging into Kattwykhafen. Tugs will assist in controlling vessel's speed and swing.

When close to and parallel to the berth, the 2 inside tugs will let go and push on the outside until vessel is alongside. Maximum approach speed at impact is 10 cm./sec. for a 100,000 d.w.t. vessel landing on both breasting dolphins.

Moorings: The mooring lines are taken ashore by 2 mooring boats and lifted to the dolphins by hand. Only 2 head lines are secured on quick-release-hooks.

Hansamatex, Berth Nos. 1, 2, 3 and 4: Cautionary Advice – Approaches: Ships approaching or leaving the Hansamatex Berths have to transit Kohlbrand Fairway and have to pass through the Rethe Harbour. Ships should proceed at reduced speed. A good helmsman and quick engine response are of importance.

There are numerous berths in the Rethe Harbour which have to be passed at slow speeds.

Tugs: The number of tugs used is according to the Master's request and Pilot's advice. The tugs should be fast before entering into the Kohlbrand. The tugs will be made fast "on the hook." It is recommended to use tugs lines at no extra charge.

3 tugs are normally used for vessels of less than 20,000 d.w.t., and 4 for all other vessel's except VLCCs.

Berthing: Berth No. 1 is located on the North bank of the Rethe. Ships are towed stern first into the berth. The spring lines will be run out first. Maximum draft ships should arrive with HW. Due to the narrow manoeuvring area at Berth No. 1, the approach speed of the ship should be minimal.

Berth No. 2 is located on the North bank of the Rethe. The ships are manoeuvred close to the berth, and the spring lines will be run out first. Max. draft ships should arrive with HW.

Berth No. 3 is located on the North bank of the Rethe. Ships up to 250,000 d.w.t. are berthed for tank cleaning purposes. The draft should be confirmed by the Pilots before arrival at the Sea Buoy. The ship manoeuvres close to the berth, and the spring lines will be run out first. Max. draft vessels should arrive with HW.

Berth No. 4 is located on the East side of the Neuhofer Harbour. Ships of up to 100,000 d.w.t. may berth with part cargo or for tank cleaning. Ships arriving for this berth will turn in the Rethe heading to the South and will then be towed stern first into the berth. Spring lines will be run out first. Max. draft vessels should arrive with HW.

DENSITY: Fresh water.

FRESH WATER: Available from shore at most berths. Also supplied by barge.

FUEL: All grades available from oil berths, or supplied by barge.

WATCHMEN: Can be hired for all purposes. Normally arranged by Agent.

OPENING/CLOSING HATCHES: Normally by crew with the assistance of stevedores; otherwise, according to charter party.

CUSTOMS ALLOWANCES: No restrictions in the freeport area on board a ship. While not on board the ship in the freeport area or outside the freeport during shore leave or temporary leaving the ship up to 3 days, each Crew member allowed 20 cigarettes, 5 cigars and 50 grams tobacco. These quantities change when paying off – up to 200 cigarettes or 50 cigars or 250 grams tobacco.

CONSULS:

Consuls:

	Tel:		Tel:
Botswana	43 17 70	Mauritania	24 52 64
Iran	410 30 74	Monaco	3 49 61
Iceland	333 52 13	Morocco	367 00 31
Ivory Coast	33 09 09	Niger	77 11 41
Jamaica	3 00 11	Nigeria	410 30 15
Lebanon	44 98 28	Senegal	31 10 11
Luxemburg	82 69 94	Somalia	36 70 92
Madagascar	220 10 18	Tunisia	220 17 56
Malaysia	82 43 43	Uruguay	47 90 62
Malta	33 15 97	Western Samoa	237 31 208

Consul Generals:

Argentina	34 20 51	Italy	44 61 51
Austria	44 60 04	Japan	44 13 96
Bangladesh	3 60 81	Korea	410 20 31
Belgium	41 70 75	Liberia	24 45 74
Bolivia	47 20 02	Malawi	24 71 73
Brazil	44 06 51	Mali	45 50 34
Canada	35 18 05	Mexico	44 87 74
Chile	45 75 85	Netherlands	32 44 11
Colombia	45 28 12	Nicaragua	45 11 00
Congo	220 11 41	Norway	34 34 55
Costa Rica	279 65 36	Panama	34 02 18
Cyprus	410 39 11	Paraguay	47 47 41
Denmark	44 70 57	Peru	47 67 45
Dominican Rep.	47 40 84	Philippines	44 29 52
Ecuador	44 31 35	Portugal	34 34 78
Egypt	410 10 31	Sweden	44 84 53
El Salvador	3 70 01	Switzerland	44 06 46
Finland	35 15 11	Sierra Leone	280 24 28
France	44 14 07	Spain	44 36 20
Gabon	36 14 41	Sri Lanka	36 71 40
Ghana	32 25 81	South Africa	41 29 61
Greece	44 07 72	Thailand	220 63 56
Guatemala	250 54 34	U.S.S.R.	229 52 01
Haiti	46 40 11	United Kingdom	44 60 71
Honduras	24 27 21	U.S.A.	44 10 6
India	33 80 36	Venezuala	410 12 41
Indonesia	22 10 99	Yugoslavia	44 45 04
Ireland	48 92 50		

REPAIRS: All deck, hull and machinery repairs can be carried out by local shipyards at Hamburg. Underwater repairs and cleaning can be effected by divers with special equipment.

DRY DOCKS: *Blohm and Voss,* tel. 3061: 4 floating docks with lifting capacities up to 50,000 tons. Graving dock, capacity up to 320,000 d.w.t. *Ross-Industrie,* tel. 7411: 9 floating docks, with lifting capacities up to 53,000 tons, due to close late 1989.

Norderweft, tel. 311001: 2 docks, for vessels up to 4,000 tons d.w.t. and slipway for vessels up to 60 m. length.

There are other shipyards providing floating docks with lifting capacities of up to 5,000 tons.

SURVEYORS: Cargo inspectors available, contact Agent.

Lloyd's Register, American Bureau, Bureau Veritas and Salvage Association are represented.

REPATRIATION: Crew changes and repatriation can be carried out without difficulty.

AIRPORT: Distance 15 km., served by Lufthansa with flights worldwide.

TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).

HOLIDAYS: New Year's Day; Good Friday; Easter Monday; Labour Day (May 1st); Ascension Day; Whit Monday; National Day (June 17th); Prayer Day; Christmas Day; Boxing Day. No work on New Year's Day, Easter Sunday, May 1st, Whit Sunday and Christmas Day.

POLICE/FIRE/AMBULANCE: Police 110; Fire 112; Ambulance 110; Port Medical Service 321021 (or call Hamburg Port Radio on VHF Channel 14).

TELEPHONES: Telephones can be placed onboard at all berths. No telephone connections for vessels at dolphins.

EMERGENCY CO-ORDINATION: Call Police (Tel: 110) or Hamburg Port Radio on VHF Channel 14.

BANKS: Deutsche Bank, Adolphsplatz 7, 2000 Hamburg 11. Tel: 040-3771. Telegraphic Address: Deutbank Hamburg. Telex: 212535.

Commerz-Bank AG, Ness 7, 2000 Hamburg 7. Tel: 040-361311. Telegraphic Address: Commerzbank Hamburg. Telex: 212391.

Dresdner Bank AG, Jungfernstieg 22, 2000 Hamburg 36. Tel: 040-3581. Telegraphic Address: Dreba Hamburg. Telex: 212098.

And others.

STORING: See "Prelims".

1. Vessels can be stored by barge or truck.
2. Vessels can store from barge during loading or discharging, except on tanker berths.
3. The truck can proceed alongside at the berths.
4. Fork lift trucks can be used for handling stores.
5. No Customs regulations in the Freeport area, outside the Freeport arranged by Agent.
6. Local riggers can be employed, arranged by Agent or ship chandler.

SHORE LEAVE: No restriction.

IDENTIFICATION CARDS: No shore passes issued. Seaman's Book or Passport is sufficient.

DEVELOPMENTS: Silo capacity for bulk cargo handled by pneumatic elevators is increased up to 500,000 tons. Capacity of further 500,000 tons is available.

Dredging of the Lower Elbe to 13.5 m. at mean low tide completed.

Port Extension Area. An industrial port area of 4,600 ha. with access for large sea-going vessels up to 120,000 d.w.t. is under development.

Hansaport: The new ore/coal terminal at Sandauhafen (operational from 1977) has a capacity of 16 million tons p.a. Length of the two berths: 560 m; depth of water: 15 m. (MLW). Vessels up to 270,000 d.w.t. (partially lightened) will be able to berth.

SHIPMASTER'S REPORT: 1978.

Vessel called at Hamburg to load a full load of steel beams for Iran under Time Charter. Originally charterers had asked me to calculate the full load with maximum S.W. draft of 38 ft. 00.875 in. with 10.5 in. F.W.A. and the weight came to more than 39,000 long tons. But later when we arrived at Hamburg, while checking with Port Authorities it was learnt that though vessels are allowed to come in with 42 ft. – 43 ft. drafts fresh water, no vessels excepting, at times fast container vessels are allowed draft more than 36 ft. fresh water. This is generally not known to many operators even in Hamburg.

AUTHORITY: Freie und Hansestadt Hamburg, Behorde fur Wirtschaft, Verkehr und Landwirtschaft.

Amt fur Hafen, Schiffahrt und Verkehr Hafendirektion – Oberhafenamt – Baumwall 7, 2000 Hamburg 11. *Tel:* 34 912 326 (office hours), and 740 3151 (day and night). *Telex:* 0213606 OHHH D and 02174999 OHHH D. *Cables:* Mercur Behoerde Hamburg. *Contact:* Captain E. Paschburg, Harbour Master.

AGENT: Fisser & V. Doornum, Feldbrunnenstrasse 43, D-2000 Hamburg 13, Federal Republic of Germany. Tel: (40) 44 18 60. Telex: 21 37 47/21 42 22. Cables: Fissership. Fax: (40) 44 186 211.

HOLTENAU, Kiel Canal: 54.22 N. 10.09 E. (See Plan)

For entrance from Baltic, refer to "Kiel".

For entrance from Elbe, refer to "Brunsbuttel".

LOCATION: Holtenau is a part of the town of Kiel, it is located on the Northern side of the entrance to the Kiel Canal.

BERTHING: The outer harbour of Kiel-Holtenau (Lat. 54° 22.2′ N. Long. 10° 09.2′ E.) in the N.E. part of the old lock fore port, with water depths of 3.5 to 4.5 m. and 280 m. long quay location serves vessels up to 3.5 m. draft, 85 m. long and 13 m. beam as a berthing point. At the quay not more than 3 ships with a total beam of 28 m. can lie next to each other. To the West of this, is a 125 m. long berthing pier, known as Kumobrucke, with 4.5 m. draft alongside for vessels up to 3 m. draft, 40 m. long and 8.5 m. beam. No more than 2 vessels may lie alongside each other.

Between this pier and the shore is a yacht harbour for pleasure craft.

The inner harbour, to the East of the Holtenau Road-bridge, can only be reached through the lock of the Kiel Canal. From the berths in the inner harbour, vessels may not enter the locks without a Pilot if they are obliged to take on a Pilot for the Kiel Canal.

The Gasworks quay, just to the West of the New Locks, has a length of approx. 210 m. and a nominal depth of 10.4 m. The quay has cranes with a lifting capacity up to 8.5 tons. Vessels up to 160 m. in length and up to 9.7 m. draft can tie up at the Gasworks quay. To the West of it, is an approx. 94 m. long quay with piers for Wik-Holtenau passenger ferries.

To the East of the Holtenau Road-bridge is an approx. 536 m. long quay belonging to Zerssen and Co. This location is used mainly for fitting out and bunkering of vessels. On the North side of the inner harbour ships with dimensions permissible for the Kiel Canal can tie up at the dolphins but only with special permission of the Kiel Canal Authority.

SERVICES: In Holtenau are a Service Station of the German Hydrographic Institute, a pilot station, a border police station, a water police station, Customs control, Port Doctor, Sailors' Central Control, Sailors' engagement office, and a sailors' hostel.

An office for marine charts and nautical publications is located at the lock; good facilities exist for the quick supply of ships' equipment, victuals and fuels. Repairs to machinery installations, radar and wireless apparatus, supply of spare parts, and also the exchange of crews can be arranged without long voyage delay virtually whilst a vessel is passing through the canal. Shipbrokers' services are available.

AUTHORITY: Wasser-und Schiffahrtsamt Kiel-Holtenau, Schleuseninsel 2, P.O.Box 8068, 2300 Kiel 17. *Tel:* (0431) 385-1. *Telex:* 02-92836.

ITZEHOE: 53.56 N. 09.33 E. (See Plan)

DOCUMENTS:

2 Bonded Stores Lists
2 Crew Manifests
2 Crew Lists

PILOTAGE: Pilot available. Pilot boards at the entrance to the River Stor.

RESTRICTIONS: Entering River Stor at HW only. Proceeding to Itzehoe during daylight only, or up to Pilot. Departure from Itzehoe about 1 hour prior to HW.

MAX. SIZE: Length: 80 m. due to bends in river. Beam 12 m. Airdraft 18.50 m. due to height of Stor bridges. Draft 3.80 m. – 4.0 m.

RADIO/VHF: Elbe-Weser Radio on VHF Channel 16.

RADAR: *Radar Chain River Elbe:*

From "Elbe 1" Light-vessel to entrance River Stor:
Elbe – Ansteuerung-Radar VHF Channel 19
Neuwerk – 1-Radar VHF Channel 18
Neuwerk – 2-Radar VHF Channel 5
Cuxhaven – Radar VHF Channel 21
Belum – Radar VHF Channel 3
Brunsbuttel – Radar VHF Channel 4
Freiburg – 1-Radar VHF Channel 18
Freiburg – 2-Radar VHF Channel 22

Also see "General" before first port.

BERTHING: Total length: 450 m.

Depth alongside: At HW 4m.; at LW 1.90 m. (tidal range 2.20 m.). Bottom consists of soft mud.

CRANES: 2×3.5 tons lifting capacity and about 13 m. outreach and 1×5 tons lifting capacity and 12.5 m. outreach are available.

BULK HANDLING FACILITIES: *Grain:*

Loading: By conveyor-belt about 40 – 50 t.p.h. for heavy grain.

Discharging: By suction with 1 elevator pipe about 35 – 40 t.p.h. heavy grain. By grab/conveyor-belt 50 – 60 t.p.h. heavy grain.

Grain silos of 35,000 tons capacity.

STEVEDORES: Cargo service, 2212 Brunsbuttel. Tel: 04852-87077. Telex: 28383 HTKB D.

Ahlmann – Transport GmbH, 2370 Rendsburg. Tel: 04331 – 4033. Telex: 29447. Cables: Ahltraship.

MEDICAL: Medical, hospital and dental facilities available.

DENSITY: Fresh water.

FRESH WATER: Available.

FUEL: All grades available by road tanker.

REPAIRS: Radio, radar, nautical equipment, engine, electrical and minor hull repairs possible.

SURVEYORS: Caleb Brett and SGS available from Hamburg.

Independent Marine Surveyors available at Brunsbuttel and Hamburg.

CUSTOMS ALLOWANCES: Customs allow each crew member 200 cigarettes and 1 bottle of spirits for consumption onboard.

OPENING/CLOSING HATCHES: Usually by crew.

REPATRIATION: Possible.

AIRPORT: Nearest airport at Hamburg.

TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).

HOLIDAYS: 1st January, Good Friday, Easter Monday, 1st May, Ascension Day, Whit Monday, 17th June, Prayers Day, 25/26th December.

POLICE/AMBULANCE/FIRE: Police Tel: 110. Fire and Ambulance Tel: 112.

SERVICES: Provisions, stores, nautical publications and charts available.

AUTHORITY: Stadthafen Itzehoe, Gasstr. 18, D-2210 Itzehoe, West Germany. *Tel:* 04821-774-151. *Telex:* 28107 SWIZ D. *Contact:* Mr. Besel.

AGENT: Sartori & Berger, P.O.Box 1140, 2212 Brunsbuttel. Tel: (04852) 8091. Cables: Sartoriberg Brunsbuttel. Telex: 028324.

KAPPELN: 54.40 N. 09.56 E.

PILOTAGE: Pilot station at Kiel Lighthouse.
RESTRICTIONS: Depth of water between Schleimunde and Kappeln from 4.5 m. to 14 m. at normal water level. Distance from Schleimunde to Kappeln about 3.5 nautical miles.

Passage width of the swing bridge is 22.5 m.
MAX. SIZE: *North Harbour:* Max. LOA 130 m., max. beam 18 m., max draft 5 m.
South Harbour: Max. LOA 150 m., max. beam 18 m., max. draft 5 m.
BERTHING: *North Harbour:* There is 1 grain silo available with a storage capacity of 4,500 tons. The loading/discharging rate is 40 t.p.h. 1 quay for discharging/loading cargo.
South Harbour: One grain silo available with a storage capacity of 4,000 tons. Loading/discharging rate 40 t.p.h. one quay for loading/discharging cargo.
CRANES: *North Harbour:* Two hydraulic mobile cranes available, 1×3.5 tons and 1×5 tons capacity.
South Harbour: Two hydraulic mobile cranes available 1×3.5 tons and 1×5 tons maximum capacity.
STEVEDORES: *Working Hours:* Monday to Friday 0700 – 1800 hrs. Saturday 0700 – 1200 hrs.
BULK HANDLING FACILITIES: See "Berthing" and "Cranes".
FRESH WATER: Available.
FUEL: Not available.
REPAIRS: Possible. Contact Alfred Eberhardt, Langestr. 2341 Arnis.
AUTHORITY: Shipbroker Artur Koch, Dehnthof 21, P.O.Box 1131, 2340 Kappeln. *Tel:* (04642) 2354 and 4154. *Telex:* 22681 Koch D. *Cables:* Arturkoch Kappeln. *Contact:* H. A. Koch, Harbour Master.

KIEL: 54.19 N. 10.10 E. (See Plan)

DOCUMENTS:
- Stores List.
- Bills of Lading.
- Manifest.
- Crew List.
- Health Declaration.
- Derat Certificate.
- If loading/unloading cargo, following also required:
- Ship's Stores List.
- Crew Possessions List.
- Cargo Manifest.
- Bills of Lading.
- Customs Declaration.

Local Agents will advise Master on board regarding these Clearance Documents.
PILOTAGE: For Kieler Forde, vessels over 1,000 g.r.t. and oil, gas and chemical tankers must take a Pilot.

Vessels proceeding in the approach area or through the Kiel Canal are obliged to take on a Pilot.

Vessels and push-type trains, as well as tug trains, having the greatest possible max. draft of 3.1 m. and belonging to traffic group 1 are exempted from the obligatory pilot service. Vessels with a breadth in excess of 15 m. or with a gross tonnage of over 2,500 tons (maximum tonnage) must take on recognised helmsmen (canal helmsmen) for the canal passage. Pilot station, tel. 362858. ETA required in advance. Pilot boat can be found near Kiel Lighthouse and also off the entrance to Kiel Canal. Pilot boats are white with red superstructure with "Lotse" painted on both sides. Signal for Pilot is flag "G" over numeral pennant 1. Pilots for Kiel Harbour also available and recommended if port is not familiar. Also see "Shipmaster's Report".
ANCHORAGE: Safe anchorages at Holtenau-Reede and at Heikendorf-Reede for vessels up to 9.7 m. draft.
RESTRICTIONS: Non gas-free tankers must give advance notice of arrival and will require chemist's certificate before entering harbour area.

Speed limit 10 knots South of line Bulk/Ehrenmal Laboe. Also see "Shipmaster's Report".
BERTHING: No particular restrictions except for vessels in distress, or carrying explosives or tankers not gas-free. In these cases special permission of Harbour Authorities required for berthing.
Commercial Harbour:
Depth of water up to 11.0 m.; quay lengths 4,143 m.; open storage areas of 176,950 sq.m.; covered shed space of 54,530 sq.m.; silos of 270,000 tons overall capacity; fuel depots; 14 cranes up to 45 tons lifting capacity; siding tracks; 11 Ro/Ro piers.
Binnenhafen Ports:
Oslo-Kai: The terminal is for the exclusive use of passenger and car ferries. Depth of water 7.5 m. Quay length 500 m. Ro/Ro Piers No. 3-6.
Sartorikai: Depth of water 7.0 m.; quay length 200 m.; open storage areas of 1,000 sq.m.; covered shed space of 15,000 sq.m.; silo 16,000 tons; 2 cranes of up to 10 tons lifting capacity.
Schweden-Kai: The terminal is for exclusive use of passenger and car ferries. Depth of water 10.0 m.; quay length 180 m.; Ro/Ro Pier No. 7.
Bollhornkai Nord: Depth of water 10.0 m.; quay length 270 m.; open storage areas of 3,700 sq.m.; 2 cranes of up to 24 tons lifting capacity; Ro/Ro Piers No. 8 and 9.
Bollhornkai Sud: Depth of water 10.0 m.; quay length 300 m.; open storage areas of 7,750 sq.m.; mobile crane of up to 45 tons lifting capacity; Ro/Ro Pier No. 10
Bahnhofskai: Depth of water 6.0 m.; quay length 400 m.; open storage areas of 1,000 sq.m.
Scheerhafen: Depth of water 10.3 m.; quay length 300 m.; open storage areas of 8,000 sq.m.; covered shed space of 1,000 sq.m.; private fuel depots of 36,000 cu.m; private tanker discharging bridge and facilities for receiving dirty ballast; 2 cranes of 10 tons lifting capacity.
Nordhafen: Situated in the Kiel Canal. Depth of water 11.0 m.; max. draft 9.5 m.; quay length 1,068 m.; open storage areas of 15,550 sq.m.; covered shed space of 28,530 sq.m.; 77,000 ton silo with elevator of 200 t.p.h. loading/unloading performance; 6 cranes of 25 tons lifting capacity; 1 mobile crane of 40 tons capacity; Ro/Ro Pier No. 1.
Ostuferhafen: Facility under construction. Depth of water up to 10.0 m.; quay length 925 m.; open storage areas of 150,000 sq.m.; covered shed space of 10,000 sq.m.; 177,000 ton silos; crane of 40 tons lifting capacity; Ro/Ro Pier No. 11.
MAX. SIZE: For Nordhafen and ships passing Canal, 235 m. length, 32.5 m. beam and 40 m. above the water level. For vessels up to 160 m. in length, the max. permitted draft is 9.5 m. In the case of vessels with length in excess of 160 m. and over 20 m. breadth, the max. permissible draft are shown in the following table (draft data in dm.).

Vessel Length (m.)	*Vessel's Breadth (m.)* 20	21	22	23	24	25	26	27	28	29	30	31	32	32.5
	Max. permissible draft (dm)													
160	95	95	95	95	95	95	95	95	94	93	92	91	89	89
163	95	95	95	95	95	95	95	94	93	92	91	90	89	88
166	95	95	95	95	95	95	95	94	93	92	91	90	89	88
169	95	95	95	95	95	95	94	93	92	90	89	88	87	86
172	95	95	95	95	95	94	93	92	91	90	88	87	86	85
175	95	95	95	95	95	94	93	91	90	89	88	86	85	84
178	95	95	95	95	94	93	92	90	89	88	87	85	84	83
181	95	95	95	94	93	92	91	99	88	87	86	85	83	83
184	95	95	95	93	92	91	90	89	87	86	85	84	83	82
187	95	95	94	93	91	90	89	88	86	85	84	83	82	81
190	95	94	93	92	91	89	88	87	86	84	83	82	81	80
193	95	93	92	91	90	89	87	86	85	84	83	81	80	79
196	94	93	91	90	89	88	86	85	84	83	82	80	79	78
199	93	91	90	89	88	87	85	84	83	82	81	79	78	78
202	92	91	90	89	87	86	85	84	82	81	80	79	77	77
205	91	90	89	88	86	85	84	83	82	80	79	78	77	76
208	90	89	88	87	85	84	83	82	81	80	78	77	76	75
210	90	89	87	86	85	84	83	81	80	79	77	76	75	74
214	89	88	86	85	84	83	82	80	79	78	76	75	74	74
217	88	87	85	84	83	82	80	79	78	77	75	74	74	73
220	87	86	84	83	82	81	80	78	77	76	75	74	73	73
223	86	85	84	83	81	80	79	77	76	75	74	73	72	72
226	85	84	83	82	80	79	78	77	75	74	74	73	72	71
229	84	83	82	81	79	78	77	76	74	74	73	72	71	71
232	84	83	81	80	79	77	76	75	74	73	72	72	71	70
235	83	81	80	79	78	76	75	74	73	73	72	71	70	70

Depth at harbour quays: Binnenhafen 10 m.; Scheerhafen, 10.30 m. Bulk carrier of 35,000 d.w.t. draft 35 ft. has discharged at Scheerhafen.
HEALTH: If suspected infectious disease on board, inform harbour authorities by radio in advance.
RADIO: Kiel Radio, call sign DAO. Tel. 39011.
VHF: Kiel Port radio on continuous watch during office hours on Channel 16, working on Channel 11.
TUGS: If required tugs normally join vessel just off berth. Can be ordered by Kiel Radio or through Agents.
MEDICAL: Doctors, hospitals, ambulances available. Advance notice to Agents recommended if medical assistance required. Vessels coming from European ports need Derat Certificate. Vessels from other ports need in addition International Vaccination Certificates.

For all cases of poisoning needing special and urgent treatment telephone 597 3268, Medical University Clinic, Schittenhelmstrasse.
TANKERS: Unloading/Loading/Bunkering berths operated by private companies; slop discharge facilities available.
FRESH WATER: Available at all quays and in Holtenau Locks.
FUEL: All grades available. Preferable to order in advance through Agents.
FIRE PRECAUTIONS: Tankers should be prepared to leave port at any time. To be berthed with bow heading seaward. A valid Gas-free Certificate given by chemist in Kiel district is required before entering harbour area.
GANGWAY/DECK WATCHMEN: Not required.
OPENING/CLOSING HATCHES: Normally by ship's crew. Can be arranged by stevedores if required.
CUSTOMS ALLOWANCES: 20 cigarettes per man per day. No alcohol.
IDENTIFICATION CARDS: Not required.
CONSULS:

Belgium	tel. 75079	Netherlands	tel. 3017235
Chile	tel. 30932	Norway	tel. 706600
Finland	tel. 3011601	Panama	tel. 51296
Liberia	tel. 63060	Sweden	tel. 3017/235

REPAIRS: All types of repairs possible.
DRY DOCKS: Floating Docks. No. 1, 1,500 tons; No. 2, 22,500 tons; No. 4, 6,000 tons; No. 9, 6,000 tons; No. 20, 1,700 tons.

Dry Docks: No. 5, 794 ft. long, 95 ft. wide; No. 6, 661 ft. long, 95 ft. wide; No. 7, 1,018 ft. long, 164 ft. wide; No. 8, 951 ft. long, 144 ft. wide. No. 8A, 1,395 ft. long, 292 ft. wide.
REPATRIATION: No restrictions. Can also be arranged in the locks of Kiel Canal by local Agents. Valid passports required.

Bus and coash station: At Kiel, near Bollhornkai. Coaches to Hamburg Airport and other destinations.

Railway Station: Near bus and coach station. Trains to Hamburg, Lubeck, Berlin, Bremen, Hannover and other destinations.
AIRPORT: At Kiel, local flights to Berlin and Frankfurt. Nearest international airport at Hamburg, about 100 km. away.
TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).
HOLIDAYS: New Year's Day, Good Friday, Easter (2 days), Ascension Day, Whitsun (2 days), 17th June, Atonement Day, Christmas (2 days). Work can be arranged on above holidays except Good Friday and Christmas Eve.

POLICE/FIRE/AMBULANCE: Police, tel. 110, alternatively 51171; Ambulance, tel. 44112, alternatively 61036; Fire, tel. 112.
TELEPHONES: Installed on wharves and Oslo quay (ferries to Scandinavia). Public phones near quays.
SERVICES: All services available.
SHORE LEAVE: Allowed.
GENERAL: *Garbage/Sewage Removal:* Container for discharging of garbage must be taken. Barges for discharging of sewage/slops and bilge water are available.
DEVELOPMENTS: Ro-Ro facility to be built in the Eastern part of the port. (See "Berthing" – "Ostuferhafen").

SHIPMASTER'S REPORT: 1980.
"KIEL PILOTS" can be contacted on VHF Channel 16 and Channel 14, 2 hours before arriving at Kiel Lighthouse, for a Pilot for Kiel Harbour.

For vessels intending to transit the canal, send a message at least 3 hours in advance to "FORDE LOTSE – KIEL" by radio giving ETA, draft, g.r.t. and destination. Any request to arrange a Pilot at the other end of the canal may also be included in the message.

The maximum air draft allowed in the canal is 40 m. (from water line to highest point of the ship).

AUTHORITY: Hafen und Seemannsamt der Landeshauptstadt Kiel, Bollhornkai I, P.O. Box 2367, D 2300 Kiel 1. *Tel:* (0431) 901 1073. *Telex:* 292511 Hvbki d. *FAX:* (0431) 970220. *Contact:* Captain J. Morgen Roth, Harbour Master.

Wasser-und Schiffahrtsamt Kiel-Holtenau, P.O.Box 8068, 2300 Kiel 17. *Tel:* (0431) 385-1. *Telex:* 02-92836.

KIEL CANAL: (See Plan)

For entrance from Baltic, refer to "Kiel".
For entrance from Elbe, refer to "Brunsbuttel".
DEEP SEA PILOTAGE: Baltic Pilots Kiel ("Uberseelotsen Ostsee Kiel-Holtenau e.V.") is the address for ships entering the Baltic Sea via Kiel-Canal or from ports of the Federal Republic of Germany which require a Deep Sea Pilot for the Baltic Sea

The Baltic Pilots Kiel have 48 members. All members carry the "Red Licence" of BPAC which is the only licence acknowledged by all Baltic Governments.

Baltic Pilots Kiel: Tel: 0431-36 28 58 (24 hours a day). 0431-3 68 68 (office hours). Cables: Balticpilots Kiel. Telex: 299 857 bwki d. Postal Address: Uberseelotsen Ostee e.V. Schleuseninsel 6 D-2300 Kiel 17.

Also see "General-Deep Sea Pilotage" before first port.
RADIO: Advise ETA at Elbe I Lightvessel (or Kiel Lighthouse). Confirm ETA 12 hours before arrival at Pilot Station.
VHF: Approaching from the Baltic Sea, Kiel Radio listens on Channel 16 VHF and will notify the Kiel Pilot.
GENERAL:
Additional information required prior to Kiel Canal transit: As a result of security regulations which became effective in 1978, the following regulations issued by the competent Authorities must be complied with when transiting the Kiel Canal.

Vessels which are potentially dangerous, which include pushing and towing units, carrying material listed in the special material list in bulk (see "Wilhelmshaven"), or after discharging mineral oil or petroleum products with a flash point below 35°C and still not gas free or inert, including Reactor vessels, must report as follows:

1. Coming from the North Sea or from a port within the River Elbe District.
   24 hours before entering the River Elbe, in writing, at the latest after clearing the last port:
   (a) to the Wasser-und Schiffahrtsamt (Cuxhaven), Deichstrasse, 2190 Cuxhaven. Telex: 233154.
   And additionally when transiting the Kiel Canal:
   (b) to the Wasser-und Schiffahrtsamt Kiel-Holtenau, Schleuseninsel, 2300 Kiel 17. Telex: 292836.
   With the following information:
   1. Name and Call Sign of vessel. Estimated arrival time at first reporting position (day, date, local time).
   2. Nationality of vessel.
   3. Overall length and draft of vessel.
   4. Port of departure and destination port.
   5. Details and quantity of cargo with particulars of the stated dangerous cargo according to the special material list.
   6. If chemicals are carried, a declaration that the vessel is in possession of a certificate as required by the IMO code for Chemical Tankers as "New Ship".
   7. A declaration of any known defect in the vessel or its cargo.
   8. Name of the Owners of the vessel.
2. Coming from the Baltic Sea
   24 hours before entering Kiel Bay, in writing, at the latest after clearing the last port:
   To the Wasser-und Schiffahrtsamt Kiel-Holtenau, Schleuseninsel, 2300 Kiel 17 – Telex 292836
   giving the same information as required in 1. above for vessels entering the River Elbe.
3. Coming from a port within the Kiel Canal Range
   Reports as per 1. and 2. have to be given.

To conform with the pilotage regulations for Kiel Bay and the River Elbe, the above mentioned vessels which are potentially dangerous are obliged to engage the services of a Pilot.

Further instructions are in force for above mentioned vessels when navigating within the River Elbe and Kiel Bay, as well as when transiting the Kiel Canal, or passing certain points. Pilots will advise the Masters of vessels of the relevant regulations and assist.

Potentially dangerous sea-going vessels of up to 300 g.r.t. and inland water-craft will be exempted from the requirement to take a Pilot if:
(a) they are fitted with an operational radar set ready for use in addition to VHF radio with Channels 12, 14, 15 and 22.
(b) the Master on board has made at least 6 voyages within the last 12 months through the pilotage district.

AUTHORITY: Wasser-und Schiffahrtsamt Kiel-Holtenau, Schleuse, 2300 Kiel 17. *Tel:* (0431) 385-1. *Telex:* 02-92836.

LUBECK (including Travemunde): 53.52 N. 10.40 E. (See Plan)

DOCUMENTS:
2 Crew Lists.
1 General Declaration for Arrival and Departure.
1 Health Declaration.
2 Cargo Manifests.
2 Stores Lists.
1 Ship's Particulars form.
Crew Manifest.
Bills of Lading.
Customs Declaration.
Derat Certificate.
PILOTAGE: Compulsory for vessels over 300 g.r.t. Pilot station situated at Travemunde, near foot of Nordermole. Pilots board vessels in anchorage area. International signals used by Pilots and by vessels requiring a Pilot. Contact by VHF Channel 13 and 20.
RESTRICTIONS: Channel from Lubeck "A" buoy to Stadthafen is well lit and navigable by vessels fitted with radar in all weathers.

Depths: from "A" buoy to Travemunde (Nordermole) 10.5 m.; from Nordermole to Siechenbucht, 10 m.; channel to NWK power station, 9.5 m.; channel to Stadthafen 9.5 m. The river Trave narrows from 130 m. at seaward end to 80 m. at Stadthafen.
MAX. SIZE: Dependent on berth depth and approaches. Vessels up to 15,000 d.w.t. can reach Stadthafen. Also see "Restrictions".
HEALTH: Radio Pratique possible. Pilot will ask Master to complete Health Declaration.
RADIO: Lubeck Radio, VHF Channel 27. Harbour Radio service used by Pilots, tugs, and other vessels.
TUGS: At Stadthafen vessels over 1,600 g.r.t. require 1 tug and vessels over 2,500 g.r.t. require 2 tugs.
BERTHING:
Travemunde: Passenger ferry harbour. North side river berths I and II, 7.5 m. depth; Kaiserbrucke, 100 m. length, 9.0 m. depth; Ostpreussenkai, 190 m. length, 7.0 m. depth; Priwall (South side), 180 m. length, 5 m. depth. 7 berths for Roll-on/Roll-off and passenger traffic each 140 m. – 220 m. length, 7 m. – 9.5 m. depth.

2 berths with railway connection, (Berths No. 6 and 7).
Industriehafen: Depth alongside, 7.8 m.
N.W.K. Power Station: Depth alongside, 9.5 m.
Stadthafen: 27 km. from sea. Total length of quays 7.6 km. The harbour depth is 6 m. – 9.5 m.
Elbe Lubeck Canal: Navigable by barges up to 1,200 tons.
CRANES: 1 – 200 ton floating crane, 1 – 25 ton, 1 – 12 ton, also 3 ton cranes.
BRIDGE: Herrenbrucke is 56 m. wide and 22 m. above water level. Can be opened for vessels requiring higher clearance.
MEDICAL: All facilities available. Hospital near docks at Travemunde, and at Lubeck (Medical University).
TANKERS: Two berths, length 150 m. Max. draft 8 m. and 8.5 m.
FRESH WATER: Available by barge at any location.
FUEL: Fuel available at berth at Scandinavia Kai in Travemunde and by barge from Hamburg.
CONSULS: Denmark, Norway, Austria, Sweden, Iceland and Finland.
REPAIRS: Several shipyards available for deck and engine repairs.
DRY DOCKS: Floating docks for vessels up to 13,500 tons (45,000 tonnes d.w.t.).
SURVEYORS: Addresses of inspectors and classification society representatives can be obtained from the Chamber of Commerce and Industry at Breite Strasse 6 – 8, Lubeck.

Germanischer Lloyd, Schwartauer Allee 84a.
OPENING/CLOSING HATCHES: By crew.
REPATRIATION: All facilities available.
AIRPORT: Hamburg, 1.5 hours by bus or train.
TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).
HOLIDAYS: 1st January, Good Friday, Easter Sunday, Easter Monday, 1st May, Ascension Day, Whit Sunday, Whit Monday, 17th June, Atonement Day, Christmas Day, Boxing Day.
POLICE: Lubeck River Police, tel. 3 34 40; Travemunde River Police, tel. 74141.
BANKS: *Lubeck:* Commerzbank, Breite Strasse 52/54. Dresdner Bank, Breite Strasse 83/87. Handelsbank in Lubeck, Kohlmarkt 7 – 15. Deutsche Bank, Sandstrasse 11 – 15.

Lubeck-Travemunde: Commerzbank, Vorderreihe 50. Deutsche Bank, Vorderreihe 35. Handelsbank in Lubeck, Vorderreihe 62.
STORING: See "Prelims".
1. Vessels can be provisioned by lighters and lorries at all berths.
2. No limitation of time for provisioning.
3. Lorries can go right alongside vessels, provided the loading and unloading operations permit.
4. At virtually all berths (with exception of the Wood Pier at Lubeck-Travemunde) fork lifts can be used.
5. Customs procedure as in all German ports.
6. There is always the possibility of obtaining riggers.

TELEPHONES: Ship telephone connections at Ro/Ro berths.
SHORE LEAVE: Allowed.
AUTHORITY: Hafen und Seemannsamt, Hafenkapitan, (Port Captain), An der Untertrave 107, 2400 Lubeck 1. *Tel:* 0451 – 12 – 23600. *Telex:* 26894 hshl d.

AGENT: Fisser & V. Doornum, An der Untertrave 25, D-2400 Lubeck, Federal Republic of Germany. Tel: (451) 7 15 25. Telex: 26811. Cables: Fissership. Fax: (451) 70 47 17.

NORDENHAM: 53.29 N. 08.29 E. (See also Bremen and Bremerhaven) (See Plan)

DOCUMENTS:
Cargo Papers & Ship's Certificates.
1 Stores List.
3 Crew Lists.
2 Personal Manifests.
Derat Certificate.

DEEP SEA PILOTAGE: See "General" before first German port.
PILOTAGE: Pilot boards off the Weser Light Vessel. Docking Pilot will board off Bremerhaven.
ANCHORAGE: Sea anchorage off Weser Lightvessel or the Hoheweg Light for all types of vessels. River anchorage off Blexen, 1 mile above Bremerhaven for vessels up to 100 m. LOA.
RESTRICTIONS: No restriction except vessels with a length exceeding 260 m. and a draft of 38 ft. Vessels with a draft exceeding 30 ft. will be controlled by tidal conditions. Controlling depth in channel 11 m. MLW. In the port 9 m. to 12 m. at MLW (Midgard Pier).
MAX. SIZE: (The max. drafts are estimated).
Midgard Pier: (a) Bulk cargo berth, total length 1,068 m. Max. LOA 270 m. max. draft 42 ft. 08 in. (FW).
(b) Oil Berth No. 1 (combined with Southern part of 'a'), max. length 850 ft., beam 120 ft., draft 42 ft. 08 in.
(c) Oil Berth No. 2, max. draft 42 ft. 08 in. (FW).
(d) Granary, quay length 188 m., draft 38 ft. – 40 ft. (FW) weather permitting.
Midgard Terminal (Blexen): Max. length 820 ft. (250 m.) up to a draft of 38 ft. 06 in. (FW).
Guanowerk, max. length 550 ft., max. draft 30 ft. (FW) (approx.).
Preussag, max. length 550 ft., draft 27 ft.
Also see "Tankers".
HEALTH: Pratique granted immediately on arrival in port by Health Official.
RADIO: Norddeich Radio (DAN) or Elbe-Weser Radio (VHF Channel 16).
RADAR: No port radar available. Radar for entrance see "Bremerhaven".
TUGS: Ample available from Bremerhaven. Tug's lines used.
BERTHING: The following industrial works and companies within the port area of Nordenham possess a berth each for sea-going vessels which serve only their private supplies and requirements. These berths are situated North of Midgard Pier.

1. Norddeutsche Seekabelwerke Aktiengesellschaft, (production of cables).
2. Felten & Guilleaume Schatanlagen GmbH (production of electric appliances, motors, etc.).
3. Preussag Boliden. Length of quay 230 m., depth of water 32 ft. 10 in. (approx.) 2 cranes of 10 and 5 tons. Capacity 200 and 90 t.p.h. respectively. Storage capacity, 50,000 tons (coal or ore). 10,000 tons (metal blocks), 5,000 cu.m. (sulphuric acid).
4. Guano-Werke Aktiengesellschaft (s.a.) (phosphates and fertilisers). Length of quay 165 m. 1 gantry crane and 1 mechanical unloader for bulk cargo.
5. Erdolwerke Frisia Aktiengesellschaft (tanks for the storage of mineral oils).
6. MBB (production of airplanes).
7. Weser Tanklager Gesellschaft GmbH (storage of mineral oils, bunker oil station of BP).
   Connections: Gas oil 2×8 in., fuel 1×8 in.
8. Titangesellschaft GmbH (production of titandioxide).

SPECIAL CARGO HANDLING FACILITIES:
Midgard Pier:
No. 1. Bulk cargo berth for discharging and loading. Length of quay 710 m. Depth 12 m. Four bridges with a lifting capacity up to 22 tons. Max. outreach 27 m. One jib crane up to 65 tons capacity, max. outreach 48 m. Capacity: 30,000 tons ore per 24 hours. 25,000 tons of coal per 24 hours. Connections for mineral oil and molasses.
No. 2. Oil berth. Length of quay 170 m. Depth 9.5 m. Three pipelines 10 in. to 12 in. diameter for fuel oil, diesel oil and gas oil. No shore steam or facilities for dirty ballast available.
No. 3. Granary. Length of quay 188 m. Depth 12 m. Two elevators with a total discharge capacity of 700 t.p.h. Loading rate to vessels 300 t.p.h. Storage capacity of 46,000 tons.
No. 4. Midgard Terminal (Blexen): Length 210 m. Extra mooring dolphins North and South of wharf 50 m. from each end of wharf. Depth alongside 12.5 m. at MLW. 2 mechanical unloaders for discharge. Special storage facilities for bulk cargoes. The berth can accept vessels up to 80,000 d.w.t. fully laden or up to 125,000 d.w.t. with a part cargo.

STEVEDORES: 24 hours' notice required. Notice required Friday morning for week-end work.
1st shift: 0600 – 1400 hrs.
2nd shift: 1400 – 2200 hrs.
3rd shift: 2200 – 0600 hrs. (overtime).
On Saturdays:
1st shift: 0600 – 1400 hrs.
2nd shift: 1400 – 2200 hrs. (overtime).
3rd shift: 2200 – 0600 hrs. (overtime).
On Sundays:
1st shift: 0600 – 1200 hrs. (overtime).
2nd shift: 1200 – 1800 hrs. (overtime).
3rd shift: 1800 – 2400 hrs. (overtime).
4th shift: 2400 – 0600 hrs. (overtime).
MEDICAL: Hospital available; advance notice only required if urgent cases.
TANKERS: Diameter of lines 8 in.
Shell Berth: Max. draft 34 ft.
Weser Tankerlager: Max. size 200 m., length 32 ft. draft at LW.
T-shaped mooring lines attached to pontoons fore and aft, middle lines are attached to the shore. Length of lines 100 m.
Also see "Special Cargo Handling Facilities".
DENSITY: Average density of water 1005 – 1012.
FRESH WATER: Fresh water available at a rate of 15 t.p.h. per hose price DM 5.40 per ton.
FUEL: All grades available; delivery by barge; 2 days' notice required.
FIRE PRECAUTIONS: Special regulations for vessels loading or discharging explosives.
CONSULS: See "Bremerhaven".
REPAIRS: Minor repairs can be carried out. Ample facilities for major repairs at Bremerhaven.
DRY DOCKS/SURVEYORS: See "Bremerhaven" or "Bremen".
WATCHMEN: Not necessary but available if required by Master.
OPENING/CLOSING HATCHES: Normally by crew but if by stevedores extra charges will apply.
CUSTOMS ALLOWANCES: Each crew member 200 cigarettes or 30 cigars or 30 grammes of tobacco and 1 bottle of spirits for a running period of 3 days.
CARGO GEAR: In most cases loading and discharging is effected with shore gear. Special equipment can be ordered from Bremerhaven.
REPATRIATION: Possible by air via Bremen or Hamburg.
AIRPORT: Bremen, distance 70 km., 1 hour by car. Hamburg, 200 km., 2 hours by car.
POLICE/AMBULANCE/FIRE: Police 110; Ambulance 2052; Fire 112.
TELEPHONES: Available on request.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Not issued.
REGULATIONS: Port regulations for the Midgard Pier including special regulations for handling of explosives.
DELAYS: None except waiting for high tide (see "Restrictions").
AUTHORITY: "Midgard" DSAG, Midgardstr. 50, P.O.Box 98, D-2890 Nordenham. *Tel:* 4731/810. *Telex:* 238317. *FAX:* 88564. *Cables:* Midgard Nordenham. *Contact:* Mr. Werner, Board Member. Mr. Gocht, Pier Inspector.

PAPENBURG: 53.06 N. 07.23 E. (See Plan)

LOCATION: Papenburg is 20 nautical miles above Emden on the Ems seaway at km. 0.0 and on the inland waterway Dortmund – Ems canal at km. 225.82.
PILOTAGE: The Sea Pilot is taken on board from the pilot cutter at Westerems and the district and Port Pilot at the Emden Pilot Station. All vessels over 1,000 g.r.t. (sea-going), and all oil, gas and chemical tankers require a Pilot.
RESTRICTIONS: *Lock operating times:* From 1st March to 30th September, Monday to Saturday, from 0600 to 2000 hrs.
From 1st October to 28th February, Monday to Saturday, from 0700 to 1800 hrs.
Lockings outside operating times, and on Sundays and Holidays must be promptly reported, at the latest half an hour prior to normal lock operating times, by telephone 04961/2640 or via VHF Channel 13.
Also see "Bridges".
MAX. SIZE: Vessels with a max. draft of 5.5 m. can reach the port during MHWST. Vessels with a greater draft must discharge at Leerort.
VHF: Communications with the lock-keeper are on Channel 13. Bridges are on Channel 15.
BERTHING: The port is connected to the Ems by a lock 26 m. wide and 152 m. long. Ships with a beam greater than 26 m. can reach the port by a lock 40 m. wide. The port has a foreport (300 m. long and 80 m. wide), the sluice canal (1,900 m. long and 65 – 90 m. wide), the Southern Industrial Port (500 m. long and 100 m. wide), the Dever Port (450 m. long and 80 m. wide), the railway dock (300 m. long and 50 m. wide), the Werft Port 200 m. long and 100 m. wide), the Turm Canal (300 m. long and 35 m. – 60 m. wide, which can be reached through a 17.6 m. wide railway bridge), and the yacht marina. Depths vary from 3.5 m. to 6 m.
Of the 3,700 m. of the Spundwand Quay, 2,500 m. are devoted to cargo handling.1,200 m. of this is provided with railway lines. The total length of the port railway facility is 6,700 m. 40,000 cu.m. of open free storage space can be used for bulk cargo accommodation. Further open and covered storage areas, together with silo facilities, for approx. 11,000 tonnes cargo are available through companies operating within the port.

CRANES: In the port area there are 2 heavy lift cranes up to 120 tons (a total 230 ton capacity), 1 heavy lift crane 140 tons, 1 heavy lift crane 50 tons, 7 jib cranes 3 – 15 tons, 1 gantry crane 6 tons with a 52 m. long traverse, 1 crane 6.5 tons, 1 crane 5 tons, 2 cranes 1 ton, 2 mobile cranes 11 tons and 40 tons, 1 floating crane 6 tons, 1 mobile conveyor belt 100 t.p.h., 2 grain handlers 30 t.p.h. and 40 t.p.h.

BRIDGES: At Ems km.15.02 the Leerort road rotary bridge has to be passed; West opening 29 m. and East opening 31 m. passage width. Opening times from sunrise to sunset and after prior report by telephone 0491/2992 and VHF Channel 15.

At Ems km.6.9, the railway folding bridge has to be passed (Weener). The passage width is 24 m. Opening times are as per the current traffic plan. The bridge is manned daily, also Sundays and holidays, from 0400 to 2200 hrs. Telephone 04951/2065 and VHF Channel 15.

Both bridges have a passage height when closed of 3.50 m. at MHWST.

FRESH WATER: Available.

FUEL: Available.

REPAIRS: Vessels up to 30,000 tons, length 250 m. and width 35 m. can be repaired at the local shipyards.

DRY DOCKS: A drydock of 250 m. length and 36 m. width is available.

POLICE/AMBULANCE/FIRE: Water Police Tel: 04961/4144 or 04961/72982 (After hours).

DEVELOPMENTS: The port installations are currently being extended by the Industry Port – North which will be approximately 1,000 m. long (300 m. finished) and 100 m. wide.

AUTHORITY: Hafenamt Papenburg-Ems, P.O.Box 14 40, - 2990 Papenburg 1, West Germany. *Tel:* 04961 821.

Hafenamt Papenburg, An der Seeschleuse, 2990 Papenburg 1, West Germany. *Tel:* 04961/2640. *Contact:* Captain W. Hermanns, Harbour Master. (A.O.H. *Tel:* 04961-3169).

AGENT: Fisser & V. Doornum, Ringstrasse 43, D-2970 Emden, Federal Republic of Germany. Tel: (4921) 80 31. Telex: 27817. Cables: Fissership Emden. Fax: (4921) 22 829.

RENDSBERG: 54.18 N. 09.40 E. (See Plan)

SHIPMASTER'S REPORT: June 1988.

DOCUMENTS:
- 2 copies Crew List.
- 1 copy Stores List (including tea, coffee, tobacco, spirits, cigarettes, wine).
- 1 copy Crew Personal Effects List (to be completed on special Customs form supplied by the Agent).

PILOTAGE: When coming from the Baltic, vessel takes a Lock Pilot and a Docking Pilot. If arriving from Brunsbuttel, Docking Pilot boards the vessel at Nubbel, a few miles from Kreishafen.

RESTRICTIONS: Maximum draft 9.5 m., air draft 40 m. The maximum draft is also controlled by Navigation Rules of the Kiel Canal and varies according to vessel's LOA and breadth.

There is no restriction on beam except when discharging into barges overside, when the maximum beam permitted is 15.0 m.

TUGS: 2×300 h.p. and 1×700 h.p.

BERTHING: The total length of Kreishafen Wharf is 750 m. The berth was rebuilt and dredged to 10.0 m. in 1986.

CARGO HANDLING FACILITIES: Daily discharge rate for fertiliser 700 tonnes – 2,500 tonnes, depending on quality of fertiliser.

Four bulldozers of 3 tons each are available to assist when discharging.

CRANES: 7×2 tons – 18 tons. Four of the cranes are suitable for grab discharge.

DENSITY: Brakish water.

STEVEDORES: ETA notice to stevedores should be sent through the vessel's Agent. Stevedores require 14 days, 10 days, 7 days, 5 days, 4 days, 2 days and 1 days notice.

Working hours are from 0600 hrs. – 1800 hrs. on Mondays to Fridays. Work carried out after 1800 hrs. weekdays and all weekend work is on overtime rates.

MEDICAL: There is a hospital available. Specialist doctors also available.

TANKERS: Esso Berth for handling chemicals, length 70 m., depth alongside 6.0 m. BP Berth for bunkering, length 80 m., depth alongside 8.0 m.

FRESH WATER: Available at the berth.

FUEL: Not easy to obtain and only available in small quantities by truck. Fuel is very expensive.

CONSULS: Nearest Consuls at Kiel and Hamburg.

REPAIRS: Facilities available.

DRY DOCKS: 2 dry docks available, Dry Dock No. 1: 155 m.×22.7 m.×5.80 m. Dry Dock No. 2: 193 m.×32 m.×6.3 m.

There is a floating dock with capacity 4,400 tons, length 120 m., breadth 22.0 m., maximum draft 5.5 m. (forward) and 5.8 m. (aft). The floating dock has one crane with capacity 10 tons.

SURVEYORS: Germanischer Lloyd based at Kiel. Lloyd's and ABS based at Hamburg.

GANGWAY/DECK WATCHMEN: Ship's crew are required to attend moorings as passing traffic sometimes not proceeding at low speed. Moorings should consist of 3 head and stern lines and 3 spring lines fore and aft.

OPENING/CLOSING HATCHES: Ship's crew open and close hatches.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottles of spirit allowed every 4 days.

REPATRIATION: Possible via Hamburg.

TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).

HOLIDAYS: All normal Federal Republic of Germany holidays.

POLICE/AMBULANCE/FIRE: 110, 110 and 112 respectively.

STADERSAND: 53.37 N. 09.32 E.

Oil Terminal in Elbe River operated by PreussenElektra Aktiengesellschaft.

DOCUMENTS:
- 3 Crew Lists.
- 2 Personal Effects Lists.
- 1 Stores List.
- 1 Tobacco List.
- Cargo Documents.
- Ship's Register.

DEEP SEA PILOTAGE: See "General" before first German port.

PILOTAGE: See "General" before first German Port.

RESTRICTIONS: Draft calculated by adding 31 ft. to height of tide and allowing 3 ft. underkeel clearance.

MAX. SIZE: Max. LOA 230 m. Max. beam 32 m. Max. draft (M.H.W.) 11.50 m. Max. size 60,000 d.w.t.

HEALTH: Health Certificate brought on board by River Pilot for Master to complete.

RADIO: All messages to Agents, etc., through Norddeich Radio, call sign DAN. Closer to port Elbe-Weser Radio can be contacted by VHF Channel 16.

Ships' reporting station is on permanent duty at Stadersand, VHF Channel 11, safety and calling Channel 16.

RADAR: River Radar Service from Elbe 1 to Hamburg see "General" before first German Port, but no special Port Radar Service for Stadersand. Radar Service in the area of Stadersand available, can be contacted through VHF Channel 21, "Hetlingen Radar Radio".

TUGS: Available. Meets vessel off the berth.

BERTHING: 1 tanker berth at T-head jetty. 1 pipe-line × 300 mm. diameter, 2 hoses × 200 mm. diameter, permissible pressure 12 bars. Max. discharge rate 1,200 t.p.h.

DENSITY: Brackish.

FRESH WATER: Only obtainable by barge from Hamburg. Minimum quantity supplied is 200 tons.

FUEL: Only obtainable by barge.

CUSTOMS ALLOWANCES: 100 cigarettes and 1 bottle wine/spirits per man.

CONSULS AND GENERAL INFORMATION: Refer to "Hamburg".

AUTHORITY: *Operator:* PreussenElektra Aktiengesellschaft, Tanklager Stadersand, P.O.Box 1780, 2160 Stade. *Tel:* 04141/7990. *Telex:* 218140. *Cables:* Fiatlux Stade. *Contact:* Mr. Schild.

AGENT: See "Hamburg".

WILHELMSHAVEN: 53.31 N. 08.10 E. (See Plan)

DOCUMENTS: Tanker check list with statement of vessel's deficiencies to be provided and delivered to the Sea Pilot before commencing pilotage.

Oil Port	2 Crew Lists. 1 Health Declaration (Form supplied by Pilot). Derat Exemption Certificate. Passports/Seamen's Books. Vaccination List. Tanker Check List
Harbour Docks	2 Crew Lists. 1 Health Declaration. 2 Cargo Manifests. 2 Stores Lists.

DEEP SEA PILOTAGE: See "General" before first German port.

PILOTAGE: There is a central pilot station near "Deutsche Bucht" Light vessel, where certain ships (see below) embark or disembark Jade, Weser and Elbe Pilots from/to helicopter or, weather permitting, boat. Jade (and Weser) Pilots are on board a 2-masted pilot vessel with yellow funnel with black top and white letters "LOTSE" (=Pilot) on black hull, flying the flag "H" of International Code.

Pilot vessel is usually stationed near unmanned "Weser" Light vessel.

To call Jade Pilot, following signals are to be used:
- By day: flag "1" below flag "G" of International Code;
- By night: the foregoing signals, given by morse lamp and/or whistle;
- In bad visibility signals by whistle;
- In all cases advance VHF contact is recommended.

When pilot boat operations are impracticable due to bad weather, pilot vessels will move inward to a position between Weser lightbuoys 17-H/Reede and 19-H/Reede.

Vessels with a draft of less than 16 m. or with gross tonnage of less than 50,000 g.r.t. can enter the Jade by Radar (advise on VHF Channel 63) and take the Pilot South of Buoys 19/20 on River Jade.

Inward bound vessels with draft exceeding 16 m. or with gross tonnage exceeding 60,000 g.r.t. may take the Harbour Pilot only seaward of Jade lightbuoys 28 and 31.

ETA required 12 hours prior arrival at pilot station at "Weser" Light vessel (unmanned) and 24 hours prior arrival pilot station at "Deutsche Bucht" Light vessel. Pilot vessel transmits and receives on VHF Channel 16.

Pilots for *Outward* bound vessels are to be ordered as follows:
1. At least 2 hours prior to ETD.
2. For departures between 1900 hrs. and 0800 hrs. the Pilot has to be ordered by 1700 hrs.

Pilotage is compulsory as follows:
1. On navigation stretches inward of the respective outer position of pilot vessel, Wilhelmshaven Roads excluded for:
   (a) oil, gas and chemical tankers
   (b) other vessels exceeding 1,000 g.r.t.
2. On navigation stretches between pilot station at "Deutsche Bucht" Light vessel and the respective outer position of pilot vessel for:
   (a) oil, gas and chemical tankers exceeding 10,000 g.r.t.
   (b) other seagoing vessels exceeding 60,000 g.r.t.

3. On navigation stretches between the position of the pilot vessel shifted up the Weser due to bad weather and "Weser" Light vessel for:
(a) Vessels exceeding 20,000 g.r.t.; oil, gas and chemical tankers excluded.
(b) Car carriers and Ro-Ro vessels exceeding 10,000 g.r.t.

4. Federal Government vessels and Federal navy ships are exempted.

Ships up to 5,000 g.r.t. and tankers not exceeding 300 g.r.t. are exempted from compulsory pilotage if:
- the Master and his ship have performed 6 voyages on the river within the last 12 months;
- the ship is equipped with radar and VHF (including all river working Channels);
- the Master has sufficient knowledge of the German language.

The Waterway and Shipping Authority may exempt ships, tankers excluded, exceeding 5,000 g.r.t. from compulsory pilotage on application for 12 months if ;
- the Master and his ship have performed 36 voyages on the river within the last 12 months and
- the other foregoing requirements are fulfilled.

The same Authority may give exemption from compulsory pilotage only in special cases (e.g. distress situation etc.).

Vessels exempted from compulsory pilotage have to order shore based radar assistance at visibilities less than 3,000 m. from the radio station of the Wilhelmshaven Radar and Information Centre (Revierzentrale) when navigating the stretches between "Weser" Light vessel (unmanned) and Wilhelmshaven. This station is to be called "Jade-Radar" on VHF Channels 16/63/20.

Shore based radar assistance will be given:
- when the visibility is less than 3,000 m. between "Weser" Light vessel (unmanned) and Wilhelmshaven or;
- when the pilot vessel is moved up the River Weser due to bad weather or;
- when the lightbuoys are withdrawn during heavy ice drift periods or;
- when required by ship's command or;
- when made obligatory by instruction of Shipping Authority.

Vessels confined to the dredged channel due to their draft and/or exceeding 60,000 g.r.t. take 2 Sea Pilots at "Deutsche Bucht" Light vessel.

Helicopter pilot service is available for vessels above 50,000 g.r.t. at "Deutsche Bucht" Light vessel.

ANCHORAGE:

1. Deep water Roads for large tankers South of "Deutsche Bucht" Light vessel.
2. Roads for large and deep-draft vessels S.E. of unmanned "Weser" Light vessel.
3. Tanker Road Schillig for tankers not exceeding 250,000 d.w.t. and/or 13.5 m. draft.
4. Schillig Roads for all vessels – tankers exempted – not exceeding 13.5 m. draft.
5. Quarantine anchorage for vessels under quarantine S.W. of Lightbuoy 27. Max. draft 13.5 m.
6. Explosives anchorage for vessels carrying explosives or ammunition S.W. of Buoy 29/Reede-Meile-N. Max. draft 13.5 m.
7. Tanker Roads–North, S.E. of Lightbuoy 43 for tankers which are loaded or waiting for berth. A safety distance of at least 300 m. between vessels at anchor has to be maintained. Max. draft 13.5 m.
8. Tanker Roads–South, South of Lightbuoy 52/A1/Reede 2 for tankers being unloaded and not yet gas free and not exceeding 280 m. length. Max. draft 13.5 m. When anchored vessels are turning with the tide, measures like tug assistance against covering the Arngast light sector or drifting to the West side of the fairway to diminish time and circle of turning.
9. Wilhelmshaven Roads, usually for smaller vessels waiting for sea lock passage.
10. Road for small vessels up to 20 m. in length.
11. Actual sounding plans are to be observed because changes of depths are possible.

Transhipment of goods according to IMDG Code Nos. 1 (explosives), 2 (gases) and 3 (inflammable liquids) is prohibited on the Jade including Roads.

Request for bunkering permit is to be addressed to "Wasser- und Schiffahrtsamt Wilhelmshaven" via radio station "Jade-Revier-Radio" on VHF Channels 16, 63 and 20.

RESTRICTIONS: No restrictions on night entry. Unless notified by waterway and shipping authority. Vessels draft exceeding 55 ft., will be controlled by tidal conditions and vessels navigate according to specified schedule.

Also see "General".

Traffic Safety Measures for Large Vessels:

Vessels with draft exceeding 17 m. will be guided by police vessels showing quick flashing blue light when navigating the Precautionary Area between lightbuoys DB 18/Jade and DB 19/Jade. All other vessels are requested to give way to these vessels restricted by their draft.

During the navigation of vessels exceeding 200 m. in length in the Precautionary Area, the radio station "Deutsche Bucht-Revier-Radio" transmits navigational warnings every 15 minutes on VHF Channel 80 in German and English language. Warnings will be announced on VHF Channel 16.

Obligatory ships reporting system scheme in operation. See "Notices to Mariners", "Sailing Directions" and "Admiralty List of Radio Signals" part 6 and 6A.

Shipping Regulations and Restrictions:

1. Vessels, including those being towed or pushed, carrying dangerous goods in accordance with the Annex No. 1 (list of substances – see Annex No. 1 before "Authority") to the traffic regulations for waterways navigable by seagoing vessels in the Federal Republic of Germany or being not de-gassed or not inerted and vessels with nuclear propulsion must report 24 hours before navigating the Jade, however not later than departure from last port of call, to "Wasser- und Schiffahrtsamt" Wilhelmshaven.

Report must contain following statements:
(a) Name and call sign of vessel.
(b) ETA at lightbuoy "TW 9" or "3" (Jade).
(c) Nationality.
(d) Length and draft.
(e) Last port of call and destination.
(f) Type, quantity and IMDG Code No. (see Annex I).
(g) When carrying chemicals or liquefied gases, indication whether a valid certificate according to IMO Code for chemical tankers or gas tankers is existing on board.
(h) Declaration about deficiencies of ship or cargo.
(i) Ship's owner or authorised Agent.

This report must be given in written form to Wasser- und Schiffahrtsamt Wilhelmshaven.

Conditions, stipulations and restrictions for the navigation of:
(a) Tankers carrying cargoes in bulk according to Annex 1 (list of substances), i.e. gases, dangerous chemicals, mineral oil and mineral oil products;
(b) empty tankers after discharging of mineral oil or mineral oil products, if the flash point of the last cargo was below 35° C, remaining slop excluded, whose tanks are not cleaned, gas freed or inerted;
(c) empty tankers of above named type, if the flash point of the last cargo was above 35° C., and before that a cargo with a lower flash point was carried, whose tanks are not cleaned, gas freed or inerted;
(d) Nuclear powered vessels:
1. Visibility must exceed 500 m.
2. Continuous radio contact with radio station "Jade Revier Radio" on VHF Channels 16/63/20 must be made safe, also when communicating with other stations;
3. A faultless working radar device has to be in operation and must be under permanent observation by an experienced person at reduced visibilities;
4. Use of automatic steering gear is only allowed under conditions published by Waterway and Shipping Authority;
5. Tank covers must be kept closed.
6. Further prohibitions and restrictions:
(1.) At least one VHF device must be operable from wheelhouse.
(2.) Tankers exceeding 12,000 d.w.t. which carry substances as per No. 1 of Annex 1 (list of substances) – i.e. gases, ethylene, dichloride or vinyl chloride monomer may not navigate on the Jade;
(2.1) These vessels must comply with following additional stipulations:
a) existing or valid IMO Code Certificate on board – if carrying liquid gases according IMO Resolution 328-IX or 329-IX, – if carrying chemicals according IMO Resolution A 212-VII.
b) A faultless working gyro compass to be kept in operation.
c) At wind forces which do not allow safe manoeuvring navigation on the Jade is not permitted, this does not apply for passage to next admitted roads.

2. All vessels specified exceeding 50 m. in length have to report to radio station "Jade-Revier-Radio" on VHF Channel 16/63/20 when passing the following positions:
a) Light buoy 3,
b) before entering and when leaving the waterway Jade inward Light buoy 3,
c) on arrival or departure from anchorage or jetty and when entering or leaving a harbour area.

Reports must contain ship's name, position, speed and passing time.

Lock Restrictions:

The sea lock opening times for No. 4 Dock are announced in daily maritime bulletins. Coastal radio station "Wilhelmshaven Lock Radio" working on Channel 13 VHF during official service hours.

Dimensions of lock: 390 m. long, 57 m. wide and depth of 11.47 m. MLW. However, only smaller vessels use dock harbour as bollards for mooring larger ships not yet available.

See "Annex No. 2" before "Authority".

HEALTH: Radio Pratique possible. Sea Pilot will hand Health Declaration to Master. If one of the questions is answered "Yes", Pilot will advise Port Health Officer. A valid Derat Exemption must be produced.

RADIO: Norddeich Radio, call sign DAN. Elbe-Weser Radio can be contacted by VHF Channel 16.

Radio advice prior to arrival: Advise Agent 7 days before arrival:
1. Ship's name and call sign, ETA in GMT.
2. Nationality.
3. Draft forward and aft.
4. Cargo on board and slop information.
*5. Number and diameter of cargo manifold connections.
6. Discharge rate per hour.
7. Loading rate per hour.
8. Quantity of ballast on board.
9. Ballasting rate per hour.
*10. Leaks in the hull or overboard valves, if any.
*11. Inert or non inert gas report.
*12. Request for crude wash.
*13. Request for repairs.
14. Valid oil liability certificate.
15. Heli-landing/winching area.
16. VHF Channel 20 in good working order.

*Details must be with Agent at least 48 hours before arrival.

ETA to be confirmed 72 hours before arrival, and whenever ETA changed by more than 30 minutes.

Notify Agents of tug requirements.

MAX. SIZE: Max. size fixed for navigating the Jade:
(a) Draft, entering: 20 m. (65 ft. 07 in.)
leaving 19 m. (62 ft. 04 in.)
(b) Length: 350 m.
(c) Beam: 52 m.

Vessel exceeding these dimensions must apply for a permit of navigation to "Wasser- und Schiffahrtsamt Wilhelmshaven".

See "Annex No. 3" before "Authority".

Keel clearance of at least 8.5% (see "Annex No. 3") of draft required. Also see "Tankers".

RADAR: *Jade Radar, Wilhelmshaven Radar and Information Centre (Revierzentrale Wilhelmshaven):*

Jade Radar Chain extends from lightbuoy DB 19/Jade to lightbuoy 58. Radar information and shore based radar assistance is available to all ships. The Wilhelmshaven Radar and Information Centre is continuously in service and to be called "Jade-Radar" concerning radar services or "Jade-Revier-Radio" in all other cases on VHF Channels 16/63/20. This area station performs radar control and observations and is executing traffic regulations and all other traffic affairs on the navigable waters of the Jade. Information about traffic movements, dredging activities, disturbances, tidal and weather conditions will be given on request and is transmitted as situation report every even hour (H + 11 minutes) in German language on VHF Channel 63/20. The orders issued by this station are to be observed.

TUGS: Compulsory. Tankers normally require at least 4 tugs of minimum 1,500 h.p. for berthing. Tugs meet tankers at anchorage near Buoy "43". Only tug lines are used, charge inclusive. Tugs join vessels at Buoy "35" when proceeding to Mobil Oil Terminal.

VLCCs meet the tugs at Buoy "33" (Mobil Oil) or at Buoy "39", when they are bound for NWO.

BERTHING: *Wilhelmshaven Dock Harbour:*

The following dock harbours can be reached:

Harbour Name	*Max. draft*		*Quay length*
Handelshafen	16 ft. 05 in.		600 m.
Grosser Hafen	20 ft. – 26 ft.	Bontekai about	500 m.
Verbindungshafen	18 ft.	Sudwestkai about	200 m.
Nordhafen			
Hannoverkai	38 ft. (11.6 m.)		312 m.
Luneburgkai	26 ft. (7.9 m.)		205 m.
Lay-up Berth (Dolphins)	41 ft. (12.5 m.)		350 m.
Ausrustungshaven (Lay-up berth)	19 ft.		140 m.

2 lay-up berths (dolphins) for vessels up to 30,000 d.w.t.

SPECIAL CARGO HANDLING FACILITIES: There is no Container or Roll-on/Roll-off-traffic at Wilhelmshaven. There is however one heavy Ro/Ro ramp under construction.

BULK HANDLING FACILITIES: Figdor is the operator of cargo handling in the Handelshafen with its connection to railway, road and canal-system.

Equipment: One modern gantry crane of 8 – 15 tons and efficient mobile cranes. Storage facilities for bulk cargo to an amount of 70,000 tons, 1 silo with a capacity of 720 cu.m. and 2,000 sq.m. storage sheds for bulk and general cargo.

Also see "Tankers" – Niedersachsenbrucke.

CRANES: Bontekai and Sudwestkai without shore cranes, but mobile cranes available. One floating crane for heavy lifts up to 100 tons is also available.

Lueneburgkai has 2 portal cranes with capacity 15 tons – 18 tons.

TANKERS: *Nord-West Oelleitung Terminal:* Position Lat. 53° 33′ N., Long. 08° 08′ E. Distance from "Weser" Light vessel, 24 miles. Type of Berth, Finger Pier "T" head. Density 1025. Current velocity, 3-4 knots. Mean tidal range, 12 ft. 08 in. Nature of bottom, sand and mud. Vessels may berth and unberth day or night. Vessels exceeding 55 ft. draft enter only on rising tide. Fresh water available, Diesel and Fuel "C" available. When discharging, full capacity of ship's pumps required. Normal residues and sediments are acceptable without any water. Shore gangway available. Vessels berth port or starboard side alongside.

Minimum length of parallel ship's side – 40 m. No limit on beam.

Max. draft, Berth No. 1 and No. 2 – 52 ft. 06 in. Berth No. 4 – 65 ft. 04 in.

Berth Number	*Grades Handled*	*Pipe-lines No/Dia.* (in.)	*Length* (ft.)	*Load – Discharge Rate* (t.p.h.)	*Maximum Pressure* (lbs.)	*Hoses* (in.)
No. 1	Crude Oil	1×28	4920	8000	220	4×12
No. 2	Crude Oil	1×28	4595	8000	220	4×12
No. 4	Crude Oil	1×40	5500	16000	375	4×16
No. 1	Fuel Oil MDO	2×6 (hoses)	5920	250/300	110	2× 6
No. 2	Fuel Oil MDO	2×6 (hoses)	5575	250/300	110	1× 6
No. 4	Fuel Oil MDO	2×10 (hoses)	5500	300/600	110	2×10 (connections 8 in.)

Use of berths is only allowed for transhipment of inflammable liquids of subclasses 3.1, 3.2 and 3.3 with low (< −18° C), medium (−18° to +22.9° C) and high (+23° to +61° C) flash point.

Mobil Oil Terminal: Mobil Oil Terminal is closed, re-opening uncertain.

Latest soundings are showing suspicious differences between present and charted depth.

Berth Nos. 1 and 1A. Position Lat. 53° 37′ 28″ N., Long. 08° 08′ 30″ E. Distance from "Weser" Light vessel, 20 miles. Type of berth, Sea Island. Density, 1025. Current Velocity, 3-4 knots. Mean tidal range 10 ft. 6 in. Nature of bottom, sand and mud. Least depth of water from port entrance to berth, 18.5 m. (60 ft. 09 in.) at MLW. Vessels may berth or unberth day or night. Vessels exceeding 55 ft. draft enter only on rising tide. Fresh water available by barge. Fuel "C" and Diesel available. Dirty ballast facilities available, capacity 29,000 cu.m. seawater, 17,900 cu.m. fresh/brackish water, discharge rate 2,400 cu.m./hr. Vessels berth port or starboard side alongside. All ballast, including clean ballast, to be discharged ashore. Shore gangway available. An under keel clearance of 1 m. is required at Berth No. 1A at MLW.

Berth No. 1. Max. LOA, 1,150 ft. Min. length, 800 ft. Max. draft, 65 ft. Depth at MLW 68 ft. 11 in.

Berth No. 1A. Max. LOA, 650 ft. Min. length, 500 ft. Max. draft at HW, 48 ft. 2 in. Depth at MLW 41 ft.

Berth Number	*Grades Handled*	*Pipe-lines No/Dia.* (in.)	*Length* (m.)	*Load – Discharge Rate* (cu.m./h.)	*Hoses* (in.)
No. 1	Crude Oil	1×44	5000	17500	4×16
	Heavy Fuel Oil	1×30	3000	3200	2×16
No. 1A	Heavy Fuel Oil	1×30	3000	3200	3×12
	Light Fuel Oil	1×20	3000	3200	2×12
	Gasoline	1×12	3000	950	1×10

Use of Island Jetty (berth 1/1A) is only allowed for transhipment of inflammable liquids of subclasses 3.1 and 3.3 with low (less than −18°C) and high (+23° to +61°C) flash point.

Berth Nos. 2 and 3. (Also see "Shipmaster's Report").Position Lat. 53° 37′ 12″ N., Long. 08° 07′ 36″ E. Distance from Weser large sea buoy, 20 miles. Type of berth, "L"-head jetty. Density, 1025. Current velocity, 3 – 4 knots. Mean tidal range, 10 ft. 6 in. Nature of bottom, sand and mud. Least depth of water from port entrance to berth 7.5 m. (24 ft. 7 in.) at MLW. Vessels may berth or unberth day or night. Vessels up to 21 ft. 4 in. may berth and unberth any time. Fresh water by barge. Diesel ahd Fuel "C" available. Dirty ballast facilities same as Berth Nos. 1 and 1A. Max. deballasting rates, Berth No. 2, 2×10 in. 1,800 cu.m./hr. Berth No. 3, 2×8 in. 500 cu.m./hr.

All ballast, including clean ballast, to be discharged ashore. Min. distance ship's side to manifold, 1.5 m. If reducer required to match shore flanges, at least 1.8 m. Shore gangway available. A keel clearance of 1 m. is required at MLW until silting developments after dredging can be firmly assessed. Vessels berth port or starboard side alongside.

Max. LOA, 400 ft., min. LOA, 263 ft. will be reduced to 180 ft. Beam, no limit. Max. draft, 31 ft. 8 in. (at HW). Depth of water at MLW 24 ft. 7 in.

Berth Number	*Grades Handled*	*Pipe-lines No/Dia* (in.)	*Length* (m.)	*Load – Discharge Rate* (cu.m./h.)	*Hoses* (in.)
No. 2	Heavy Fuel Oil	1×20	2000	2600	2×10
	Light Heating Oil	1×20	2000	2400	2×10
No. 3	Heavy Fuel Oil	1×16	2000	475	1× 8
	Light Heating Oil	1×20	2000	550	1× 8
	Gasoil	1×10	2000	550	1× 8
	Gasoline	1×12/1×10	2000	950/550	2×10/8
	LPG	1×8	2000	400	1× 6

Use of berth No. 2 is only allowed for transhipment of inflammable liquids of class 3 with flash point < −18° to +61°C.

Use of berth No. 3 is only allowed for transhipment gases (class 2) and inflammable liquids of subclasses 3.1, 3.2 and 3.3 —flash point see above under Nord-West Oelleitung Terminal).

Voslapper Groden Jetty (ICI-Jetty):

Position: Lat. 53° 37′ 59″ N., Long. 08° 05′ 46″ E.

Traffic Bridge of 1,346 m. length ends in L-shaped cargo handling pier of 675 m. length. Traffic bridge is fitted with two tracks of 5.5 m. and 3.5 m. width, all cables and pipes are led lengthwise upon the bridge to the pier connections.

Berth No. 1 at the seaward end is provided for 1 tanker of 20,000 d.w.t. – 60,000 d.w.t., but not yet in operation. Berths No. 2 and 3 (inner side) are provided for tankers of 400 d.w.t. – 12,000 d.w.t., limited by a maximum depth of 8.5 m. at MLW.

Use of Berth No. 2 is only allowed for transhipment of ethylene (class 2, UN No. 1038).

Use of Berth No. 3 is only allowed for transhipment of vinyl chloride monomer (class 2, UN No. 1068) and its residue LE and HE or ethylene dichloride (subclass 3.2, UN No. 1184).

Under following conditions Berths No. 2 and 3 can be used by ships from 7,000 - 12,000 d.w.t.:

Ship's length not more than 130 m.

Single tank size of ship:

a.) with Ethylene dichloride cargo not more than 3,100 cu. m.

b.) with vinyl chloride monomer cargo and ethylene not more than 2,900 cu. m.

Ships of more than 120 m. length must be berthed with 1 additional Atlas-spring line fore and aft. The lines are available from shore, if the ship does not have her own.

Berths may only be used by gas and chemical tankers which conform with IMO recommendations and which have a valid certificate to that effect as follows:

1. Resolution A 328 (IX) Code for the Construction and Equipment of Ships carrying liquefied Gases in Bulk,
2. Resolution A 329 (IX) Recommendations concerning Ships not covered by the Resolution 328 (IX),
3. Resolution A 212 (VII) Code for the Construction and Equipment of Ships carrying dangerous chemicals in Bulk.

All stores, fresh water exempted, must be taken onboard from seaward side. These activities are prohibited during cargo handling or taking ballast.

Also see under "General".

Harbour areas (NWO, Mobil Oil and ICI) may be exceptionally navigated by auxiliary and supply vessels if this is absolutely necessary for the transhipment or ship operations according to Port Regulations, providing these vessels comply with the safety requirements. All other vessels are excluded.

Niedersachsenbrucke: (Lower Saxony Bridge) The "Nieder- sachsen Bridge" which belongs to the State of Lower Saxony is equipped with a fuel oil discharge unit for supplying a large nearby plant. The land-side berth of the loading pontoon running parallel to the Ufer has about 12 m. depth, so that loaded tankers up to a size of 35,000 d.w.t. can come alongside this pontoon. Furthermore, on this pontoon a loading installation for caustic soda is available on the sea-side berth. A bulk discharger unit with a hourly capacity of 1,200 tons serves coal to a large nearby plant. Vessels of 150,000 d.w.t. and a draft up to 47 ft. can be accommodated.

Drinking water in adequate quantities is available at all shipment pontoons in the Jade.

Bunker and diesel oil is available in adequate quantities from Nord-West Ollleitung. At the "Niedersachsen Bridge" it is necessary to order a bunker vessel in advance.

Also see "Developments".

Report: *Berth Approaches:* The main affect on ships approaching the berth results from the flood or ebb current setting South or North nearly parallel to the berth.

Handling of Ships: Berths No. 1 and No. 2 can accept vessel up to 43 ft. draft at any time and over 43 ft. at slack water. Berth No. 4 can accept vessels under 40 ft. at any time, vessels between 40 ft. and 55 ft. at slack water and vessels over 55 ft. at peak high water.

It is of extreme importance that a ship which has to turn before berthing reduces speed in ample time and does not commence turning until its speed over the ground is reduced to zero. Ships scheduled to berth port side to NWO Berth No. 4 should start the turning manoeuvre in the fairway about 800 m. North of the berth.

NWO-Terminal (Nordwest-Olleitung): Cautionary Advice: Due to the strong current at the berths of up to 4 knots, extreme care should always be taken to keep the ship moored safely alongside the berth with all mooring lines tight. Especially during off-setting strong winds and with the tide changing, the moorings must be watched carefully. Shore wires are available.

Berthing Procedures: Berth No. 1: The ship may be berthed with port or starboard side alongside depending on the direction of the current. The ship is always moored with the head into the current. Max. draft ships will be moored only during nearly slack water at high tide. If necessary, the ships will be turned off the jetty.

Berth No. 2: Same procedure is followed as at Berth No. 1.

Berth No. 4: All max. sized ships planned for this berth will run on a time schedule without anchoring from German Bight Light vessel to the berth. Ships are normally scheduled to arrive at the turning position about 800 m. North of the berth 2 hours/30 minutes before Slack High Water, then turned if flood tide manoeuvre, then turned and backed up to the berth mooring port side to. It is emphasised that the ship should be stopped over the ground before commencing the turn and ships must not be turned off the berth itself. If the ship is behind schedule and the ebb current has started to run, the ship will then berth without turning and moor starboard side to.

Berthing Speeds/Angles: On Berths No. 1 and 2, the max. berthing speed for 100,000/140,000 d.w.t. tankers is 12.0 cm./sec.

On Berth No. 4, the max. berthing speed for a 250,000 d.w.t. tanker is 12.0 cm./sec. The bending way of the dolphins is recorded on a chart. Signal lamps on the pier of Berths No. 2 and 4 indicate, during berthing approach, speed of the vessel as follows:

red for more than 8 cm./sec.,
yellow for up to 8 cm./sec.,
green for less than 6 cm./sec.

The angle of approach should be as small as possible.

DENSITY: Brackish water.

BRIDGES: 3 swing bridges affect entering dock harbour; these are opened to coincide with lock opening times.

STEVEDORES: 24 hours' notice required. Bulk cargo discharge rate about 150 t.p.h.

MEDICAL: All medical facilities available.

FRESH WATER: Available by pipe-line.

FUEL: All grades available. 2 days' notice required.

REPAIRS: Jadewerft Wilhelmshaven Dockyard (Handelshafen) for small repairs and a floating dock with a capacity of 1,100 tons.

GANGWAY/DECK WATCHMEN: Shore watchman recommended to attend telephone.

OPENING/CLOSING HATCHES: Usually by ship's crew.

CUSTOMS ALLOWANCES: Oil port is Customs free port. In dock harbour each man allowed 5 cigars or 40 cigarettes, or 50 grams tobacco and 50 pieces of cigarette paper; 1 unopened bottle wine/spirits.

IDENTIFICATION CARDS: Required in oil port.

CONSULS: Denmark Tel: 41061. Sweden Tel: 26266. Finland Tel: 8021.

REPAIRS: Facilities available for all deck and engine repairs. Repairs affecting main engine or steering gear intended to be carried out at the berths or at Wilhelmshaven Anchorage, must be authorised by NWO, Mobil Oil A.G. and Port Authorities, when sufficient security tugs will be ordered to stand by. No additional charge for tugs if ordered before arrival. Permission for repairs depends on prevailing weather conditions and should be requested before arrival.

DRY DOCKS: Floating docks for vessels of 8,000 and 1,000 tons respectively. 1 small dry dock 50 m. by 10 m. by 2.8 m.

REPATRIATION: All facilities available.

AIRPORT: Local airport at Wilhelmshaven-Mariensiel, available for helicopters and small aircrafts. Nearest international airport at Bremen, distance 102 km.

TIME: GMT plus 1 hour. GMT plus 2 hours (last weekend in March to last weekend in September).

HOLIDAYS: 1st January; Good Friday; Easter Sunday; Easter Monday; 1st May; Ascension Day; Whit Sunday; Whit Monday; 17th June; Atonement Day; Christmas Day; Boxing Day. Work may be arranged on Easter Monday, Ascension Day, Whit Monday and Boxing Day.

Not observed in oil ports.

POLICE/AMBULANCE/FIRE:

Police: Tel: 110.
NWO Oil Port: Fire/Ambulance Tel: 621.
ICI: Jetty Operator Tel: 882 460.
Fire/Ambulance Tel: 882 310.
Niedersachsen Bridge: Fire/Ambulance Tel: 50308 or 26121.
Dock Harbour: Tel: 112 or 26121.

TELEPHONES: May be placed on board all tankers in oil port. At some locations in dock harbour, installation by Post Office, who require 2 days' notice.

SERVICES: All services available including tank-cleaning, diving, compass adjusting, etc.

SHORE LEAVE: Allowed.

GENERAL: *Federal Republic of Germany. Jade. Measures to direct traffic during the passage of LPG:* On the River Jade from the sea to Wilhelmshaven all vessels are to observe, with effect from February 19th, 1981, the following regulations during the passage of LPG and chemical tankers.

Prohibition of head-on passage and overtaking; navigation distances, right of way:

1. Absolute prohibition of head-on passage for vessels confined to the dredged channel with each other.
2. Local prohibition of head-on passage for vessels amongst themselves with
   a) draft exceeding 13.5 m.,
   b) length exceeding 250 m.,
   c) extraordinary pushing and towing units
   within following fairway areas:
   - between buoy pairs 15/16 and 19/20 (circumnavigation Minsener Oog)
   - course change areas at buoy pairs 3/4 (channel entrance), 33/34 and 45/46.
3. Vessels confined to the dredged channel may navigate with the same tide phase only when keeping a longitudinal distance of 5 nautical miles amongst each other within the channel.
4. Prohibition of head-on passing and over-taking for tankers carrying cargoes as per No. 1 of Annex 1 (list of subtances) i.e. gases, ethylene dichloride or vinyl chloride monomer with each other and with all other vessels exceeding 3,000 d.w.t. within following navigation stretches:– between buoy pairs 15/16 and 19/20.

4.1. Vessels confined to the dredged channel, i.e. constrained by their draft, have right of way on the above mentioned stretches.

5. The observance of these directions will be controlled and, if necessary, regulated by the above-mentioned VHF radio station, whose instructions are to be followed.

Urgent shipping police measures may also be executed by Water Police (operating with blue hulled vessels with inscription "WASSERSCHUTZPOLIZEI" within the Territorial waters of the Federal Republic of Germany).

6. Continuous radio contact with radio station "Jade Revier Radio" must be made
   - between buoy 1a or river entrance inward and buoy pairs 33/34 on VHF Channel 63;
   - between buoy pairs 33/34 and all waterway areas inward of this position on VHF Channel 20.
   Remark: Shore based radar assistance will be given on the respective VHF channels.
7. When vessels are meeting on reciprocal or nearly reciprocal courses each shall alter her course to starboard.
   During the passage of vessels carrying cargoes as per No. 1 of Annex 1 (list of substances) with each other or with other vessels the greatest possible lateral distance has to be kept.
8. Vessels proceeding within the fairway have right of way against vessels which
   a) enter the fairway,
   b) cross the fairway,
   c) turn within the fairway,
   d) leave their anchorages.
9. Particular attention is drawn to the observance of the obligation to the shipping authorities prescribed as per Section A, Part II, No. 3 of the additional regulations to the traffic regulations for waterways navigable by seagoing vessels in the Federal Republic of Germany of the Wasser- und Schiffahrtsdirektion Nordwest in the version of 1st July, 1987.

Regulations Within the Entrance to the Sea Lock – New Outer Harbour – (Neuer Vorhafen) and the Sea Lock in Wilhelmshaven (extract of rules):

1. Areas within the Outer Harbour and the Sea Lock belong to the safety zone of Naval Base.
2. Port Authority within these areas is the Naval Port Captain.
3. Traffic direction inward and outward Sea Locks is performed by Wasser- und Schiffahrtsamt Officials.
4. Use of port facilities may be restricted or refused in consequence of certain reasons if deemed necessary by Port Authorities.
5. Vessels with dangerous cargoes have to obtain special authorisation issued by Port Authorities and civil permission before entering.
6. Vessels exceeding 150 g.r.t. may be obliged to take a Harbour Pilot.
7. Vessels are obliged to give notice to the radio station "Wilhelmshaven-Lock" on VHF Channels 16/13 before entering. Naval radio station is operating on VHF Channels 16/11.
8. Lock signals and preliminary lock signals are to be observed. This applies also to signals given by Naval Authorities.
9. Military safety zones must be passed at reduced speed but without delays. Bow anchors must be kept ready to drop.
10. Sailing vessels may not hamper other vessels.
11. Only in cases of distress is it allowed to go alongside within the Outer Harbour.
12. Photographing, fishing, bathing, diving, use of pyrotechnics and operation of position-finding devices and ship's wireless station – exempt for navigational use – is not allowed.
13. Pollution of water within harbour areas is prohibited.

DEVELOPMENTS: *Liquid Gas Berth:* To the North of Mobil Oil A.G.

The existing ICI Terminal (see "Tankers") is planned to be extended for transhipment of L.N.G.

"Lower Saxony Bridge" (Niedersachsen Bridge): The "Niedersachsen Bridge" is to be extended. It is planned to provide facilities for the loading and discharge of large vessels up to 250,000 d.w.t. with dry and liquid bulk cargoes.

Dredging: Maintenance dredging in progress.

ANNEX NO. 1:

(List of dangerous substances which have to be reported) Annex III to the traffic regulations for waterways navigable by seagoing vessels in the Federal Republic of Germany:

1. Liquefied Gases	*IMDG Code No.*
Acetaldehyde	1089
Ammonia, anhydrous	1005
Anhydrous-hydrogen-chloride	1050*
Anhydrous-hydrogen-fluoride	1052*
Butadiene	1010
Butane	1011
Butane/propane mixtures	1011 or 1978
Butylenes	1012
Chlorine	1017
Dimethylamine	1032
Ethyl chloride	1037
Ethane	1961
Ethylamine (monoethylamine)	1036
Ethylene	1038
Ethylene oxide	1040
Methane (LNG) 2043	1972
Methyl acethylene propadiene mixture	1060
Methyl bromide	1062
Methyl chloride	1063
Propane	1978
Propylene	1077
Sulphur dioxide	1079
Vinyl chloride monomer	1086

2. Chemicals	*UN-No.*
Acetic acid	1842 or 2789
Acetic anhydride	1715
Acetone cyanohydrin	1541
Acetonitrile	1648
Acrylic acid	2218
Acrylonitrile	1093
Adiponitrile	2205
Allyl alcohol	1098
Allyl chloride	1100
Aniline	1547
Benzene	1114
Benzyl chloride	1738
Isobutyl acrylate	2527
n-Butyl acrylate	2348
n-Butyl ether	1149
Buthyl methacrylate	2227
Isobutyraldehyde	2045
n-Buthyraldehyde	1129
Camphor oil	1130
Carbolic oil	—
Carbon disulphide	1131
Carbon tetrachloride	1846
2-Chlorethanol (ethylene chlorohydin)	1135*
Chlorobenzene	1134
Chloroform	1888
Chlorohydrines, crude	—
Chloroprene	1991
Chlorosulfonic acid	1754
Coal tar naphtha	2553 or 1138
Cresols (mixed isomers)	2076
Crotonaldehyde	1143
Cyclohexanone	1915
Cyclohexylamine	2357
Dibutylamine	2248
1.1-Dichloroethane	2362
Ethylene dichloride	1184
Dichloroethylether	1916
1.1-Dichloropropane	*
1.2-Dichloropropane	1279
1.3-Dichloropropane	*
Diethylamine	1154
Dimethylamine (≤40% Aq)	1160
Dimethyl ethanolamine	2051
Dimethylformamide	2265
1.4-Dioxane	1165
Diisopropylamine	1158
Epichlorohydrin	2023
Ethyl acrylate	1917
Ethyl ether	1155
Ethyl methacrylate	2277
Ethylene cyanohydrin	—
Ethylene diamine	1604
Ethylene dibromide	1605
Formaldehyde 37% aqueous solution	1198
Formic acid	1779
Furfural	1199
Isoprene	1218
Isopropylamine	1221
Mesityl oxide	1229
Mesityloxid	1919
Methylacrylate	1230*
Methyl isocyanate	2480*
Methyl methacrylat	1247
& Methylstyrene	2303
Monoethylamine solutions (72% or/less)	2270
Mononitrobenzene	1662
Morpholine	2054
Motor fuel anti-knock compounds	1649
Nitric acid, 70% and over	2031
2-Nitropropane	2608
o- and *p*-Nitrotoluene	1664
Oleum	1831
Paraldehyde	1264
Pentacholorethane	1669
Phenol	2312
Phenylisocyanate	2487*
Phosphorusoxychloride	1810*
Phosphorustrichloride	1809*
Phosphorus (yellow or white)	2447
Propionic acid	1848
Isopropylamine	1221
n-Propylamine	1277
Propylene oxide	1280
Prydine	1282
Styrene monomer	2055
Tetrachloroethane	1702
Tetrahydrofuran	2056
Toluene diisocyanate	2078
Triethylamine	1296
n- and *iso*-Valeraldehyde	2058
Vinyl acetate	1301
Vinyl ethyl ether	1167*
Vinylidene chloride	1303
Vinyl toluene	2618

3. *Mineral (crude) oil and mineral oil products*

4. *Remark:*

4.1 Substances not covered by IMDG*.

ANNEX NO. 2: *Data of Wilhelmshaven Sea Lock:*

Operation hours of Wilhelmshaven Sea Lock:

Monday-Friday	0600 – 1830 hrs.
Saturdays	0630 – 1600 hrs.
Sundays and holidays	0800 – 1600 hrs.

Beyond these hours the lock will be operated when service is ordered well in advance to the Lock Master.

VHF Channel 16/13 or Tel: 30 40 84/26 311) as follows:

Monday-Friday		0500 – 0600 hrs.
	and	1830 – 2200 hrs.
Saturdays		0500 – 0630 hrs.
	and	1600 – 2200 hrs.
Sundays and holidays		0600 – 0800 hrs.
	and	1600 – 2000 hrs.

Dimensions of Wilhelmshaven Sea Lock:

Length between gates	390 m.
Length usable	360 m.
Breadth between lock-basin walls	60 m.
Breadth between fenders	57 m.
Depth (above mean high tide)	14.75 m.

(Vessels in ballast up to 250,000 d.w.t. have passed without difficulties.)

In case of doubt, German text of lock regulations is authoritative.

ANNEX NO. 3

Wasser- und Schiffahrtsamt
Wilhelmshaven   Wilhelmshaven, the ......of ......19...
3-332.3/4   /...

Official Permit of Navigation
No. /19...

The Master of the tanker " .... " has been granted official permission to navigate the Jade shipping channel on the grounds of the application made by the Agency ...., dated the ....of ....19 .....and in accordance with the stipulations contained in §57 subparagraph 1, No. 1 of the National Maritime Shipping Routes Regulations (Seeschiffahrtsstrassen-Ordnung) of the 15th April 1987 (Federal Gazette Bulletin 1, pages 1266-1286). The transfer of this permit is forbidden unless authorised by the Waterway Authority (Wasser- und Schiffahrtsamt) Wilhelmshaven.

The validity of this permit expires on the ....of ....19...... and applies to a single passage of the shipping channel in both directions. Such permission does not authorise the holder to encroach on or to prejudice the rights of third parties or to encroach on or to take into use objects being in possession of others neither does it supercede any necessary administrative measures in connection with any other lawful regulation or any agreements of a private and legal nature which may be, if occasion arises, concluded with the Government of the Federal Republic of Germany.

The above permit has been granted in accordance with the instructions laid down in the following documents:

(a) The application submitted by the Agency ....
dated the ....of ....19 .....

(b) The National Maritime Shipping Routes Regulation of 15th April 1987 (Federal Gazette Bulletin 1, pages 1266-1286).

(c) The proclamation of the Waterway and Shipping Directorate (Wasser- und Schiffahrtsdirektion Nordwest) in the version of the 1st of July 1987 (official gazette No. 163 of the 3rd of September 1987).

(d) The common proclamation of the Waterway and Shipping Directorates Nord and Nordwest (Wasser- und Schiffahrtsdirektionen Nord und Nordwest) in the version of the 14th of February (official gazette No. 42 of the 1st of March 1985.)

(e) The International Regulations for Preventing Collisions at Sea 1972 (SeeStrO), (Federal Gazette Bulletin 1 1977, page 813) in the version of the 2.5.1983 (FGB 1 page 521-524).

(f) The Schedule of Costs of the Federal Maritime Authorities dated the 13.2.1985 (Federal Gazette Bulletin 1, pages 376-381.)

(g) The Pilot Ordinance Weser/Jade dated the 17th of December 1985 (official gazette No. 241 of the 31.12.1985) in force since 1st of January 1986.

This permit is issued subject to the following conditions and stipulations:

1. Shore based radar assistance has to be ordered well in time before commencement of river passage at the Wilhelmshaven Radar and Information Centre (Revierzentrale) via "Jade-Revier-Radio" (VHF Channel 16/20/63).
2. In case of a visibility of less than..............the entrance into the Jade shipping channel or the departure from a berth or anchorage is not permitted.
3. In case of wind in gale force (Beaufort 8-9) or more, the commencement of river passage is not permitted.
4. The relative speed of 10 knots laid down in the tidal navigation schedule for the Jade up to the light-buoy ".............." must be complied with, taking into account the maritime traffic in the channel.
5. Before commencement of the passage in the channel, tidal gauge must be obtained sufficiently well in advance to ensure that the tide will permit an underkeel clearance, expressed as percentage of the maximum draft of the ship during the passage until vessel is taken over by the tugs, as follows:
   (a) Inward bound:
   from sea to buoy No. 23: 10%
   from buoy No. 23 to jetties: 8.5%
   (b) Outward bound: 15%
6. Before commencement of the passage, it is essential to ensure that the complete propulsion and steering equipment as well as all other manoeuvre and anchor devices are capable to operate without any restrictions, even when subjected to the increased stresses resulting from extreme manoeuvring conditions. Should, for any reason whatsoever, the passage in the channel need to be interrupted, the immedate assistance of sufficient tugs must be requested in order to maintain the ship on its course in the shipping channel, or if necessary, to allow the ship to be turned within the channel, taking the draft into account.
7. The turning or mooring manoeuvre must be carried out with adequate assistance of tugs in the manner mandatory in the harbour of Wilhelmshaven. Up to fresh breeze (5 Beaufort) total pulling force of at least................tons is necessary.
   With strong breeze (6–7 Beaufort) a pulling force of at least ....tons is necessary.
   When mooring at low tide (to be considered only at a draft of 13.0 m. to 16 m.) the total pulling force has to be increased respectively at least for another................tons additionally.
   The total pulling force must be distributed among at least 6 tugs.
8. The stipulations contained in the above paragraphs 1–7 apply also to the casting-off manoeuvre and to the subsequent return seaward passage. For the casting-off manoeuvre, depending on wind conditions and with agreement of the pilots, the number of tugs and total pulling force may be reduced, as long as the safe execution of the manoeuvres is ensured.

This permit is issued subject to the following stipulations and instructions.

The right to issue any future necessary additions, amendments or supplements to the above instructions, or the right to cancel the permit are reserved, should this be deemed necessary to ensure the safety and the easy flow of shipping traffic or the prevention of dangers caused by shipping operations.

This permit can be cancelled immediately when one of the above specified conditions and for stipulations is not observed.

Charges:

In connection with the issue of this permit and in accordance with the scale of charges (No. 2) of the Schedule of Costs of the Federal Maritime Authorities dated the 13.2.1985 (Federal Gazette Bulletin I, pages 376-381) finally amended 23rd December 1982 (FGB I page 2092)

a fee of ....DM

has been laid down.

In addition and in accordance with §2 (2)

of the above schedule, expenses of ....DM

The total sum due is ....DM

These charges should be made payable to account number 290 010 11 of the Bundeskasse Bremen with the Landeszentralbank Bremen, quoting the following cash remark "1203 – 111 01 WSA Wilhelmshaven", free of charge to the recipient, not later than the ....

Payments to any account other than that quoted will be disregarded.

Advice in respect of judicial right:

An appeal against this decree can be lodged with the local maritime authorities, Wasser- und Schiffahrtsamt Wilhemshaven, Mozartstrasse 32, within one calendar month, either in writing, or by appearing in person to register an appeal.

In cases of doubt, the German issue of this permit is authoritative.

Der Vorstand
des Wasser- und Schiffahrtsamtes
Wilhelmshaven
Im Auftrage
Stockhorst
Seeoberkapitan

SHIPMASTER'S REPORT: Mobil Sea Island (Platform):

Position: Between Jade River Buoy Nos. 18 and 19.

Pilotage: Sea Pilots (2) board/leave at Deutsch Bucht Light Vessel by helicopter.

Berthing Pilots (2) board/leave about 2 to 3 miles North of Sea Island by launch.

Pilotage straightforward to Weser Light Vessel where river passage begins.

Two bad bends here make strict attention to steering and helmsman necessary.

Passage Time:

Inward (VLCC – half cargo)	
Sea Pilotage	3 hours 50 minutes
Berth Pilotage	54 minutes
Mooring	57 minutes
Pilotage distance	41 miles
Outward (VLCC – Ballast)	
Berthing Pilotage	39 minutes
Sea Pilotage (to 8 miles South of Light Vessel)	2 hours 24 minutes
Pilotage distance	31 miles

Helicopters: Base for the 3 German rivers at Wilhelmshaven.

First contact 1 to 2 hours before arrival at Deutsch Bucht Light Vessel via Norddeich Radio Channel 16-27 when ETA confirmed and that vessel is familiar with helicopter procedures.

Thereafter continuous watch on Channel 16 VHF until helicopter contact will require continuous calling on 410 kHz and listening out on Channel 9 VHF until operation completed.

Berthing/Unberthing: Carried out at slack water only. Deep laden VLCCs on HW only. Ballast or half-loaded VLCCs on either slack water. Deep laden VLCCs can only proceed inward on flood tide.

River passage at Buoy No. 3 begins about 4 hours before local HW at Wilhelmshaven and is proceeding according to fixed tide schedule.

Minimum underkeel clearances to be observed:

1. Inward bound:
   (a) from sea to Buoy No. 25: 10%.
   (b) Buoy No. 25 to jetties: 8.5%.
2. Outward bound:
   jetties to sea: 15%.

Tugs: Six tugs used for any VLCC movement, 1 forward, 1 aft and 4 "pushers". Additional tugs have to be ordered well in advance.

Moorings: Standard VLCC mooring arrangement. Springs run out first.

Cargo: 4×16 in. Chicksan booms available. Discharge rates compatible with modern VLCC facility. Official outturn figures average 1.5% less than ship figures.

Crude Oil Washing: Subject prior permission this is allowed.

Air Pollution: Monitoring of gas emission from tank venting system carried out during ballasting. If readings high, ballasting rate must be adjusted to keep readings within set parameters (parameters not known).

Documentation: As per "Guide". *Important that Certificate of Financial Responsibility is on board otherwise vessel fined (up to a maximum of D.M. 10,000).*

Shore Leave: Permitted. Ferry is on call when required from Island to mainland berth. Refinery jeep is then on call from Gate House. It is forbidden to walk in Refinery area. Taxis can be called from Gatehouse.

General: The Sea Island is in the "free port" area, therefore, no personal effects lists or other customs problems. Authorities inflexible if certification problems arise (Certificate of Financial Responsibility).

SHIPMASTER'S REPORT: April 1988.

Chart: B.A. Chart No. 3669.

Pilotage: Pilot boards by motor boat from the seagoing Jade/Weser Pilot Cutter which is stationed about one mile S.E. of Weser Light Vessel. On boarding, the Pilot requires the Tanker Check List.

Pilots change just North of the berth on entering and leaving. Time from pilot vessel to ICI Berth is about 2 hours.

Tugs: Tugs are not used by small vessels but standby astern whilst vessel alongside.

Berth: The ICI Berth is 5 miles North of Wilhelmshaven and extends for approximately 0.75 miles. There are 3 berths (Nos. 1, 2 and 3), but only Berths No. 2 and No. 3 are used and these are inside of the 'L' shaped section. Maximum depth at Chart Datum on Berths No. 2 and No. 3 is 8.5 m.

Berth No. 2 (North) is for Ethylene and Berth No. 3 is for VCM and EDC. Vessels normally berth port side to heading South.

Mooring at each end consists of 7 lines (3 head/stern lines, 2 breast lines and 2 springs). Mooring and unmooring is carried out quickly with the use of a mooring boat.

Fire wires must be tended at all times and must be between 1.0 m. and 2.0 m. above the water.

Cargo: Berth No. 2 (Ethylene): Liquid and vapour return are 6 in. Chicksans. Vapour line not normally connected during discharge. Normally warmest temperature accepted is −101° C. Shore can accept vessels maximum pumping rate in the daytime but is reduced at night. We averaged 149 t.p.h. with the maximum being 175 t.p.h.

On completion the arms are cleared with ship's hot gas for about 20 minutes.

Berth No. 3 (VCM and EDC): Separate lines are provided for each product. The liquid loading line is 8 in. and the vapour return line is 4 in.

Due to shore power difficulties the pumping rate is reduced after dark when the shore lighting is on. This is due to Grid distribution which entails the shore booster pump being shut down. This in turn reduces the pumping rate by half. On occasions ships are not berthed at night as it is not worth accepting the low pumping rate.

In Winter discharge can be prolonged to 36 hours whereas in Summer it is normally 12 hours.

The surveyor handles most of the paper work, except Notice of Readiness, which is accepted by the Loading Master.

Documentation: The berth is within a free trade area, therefore no Crew Declaration or Stores Lists required. The Immigration Officer boards on arrival and on departure in order to check all non-EEC passport holders. Shore passes are issued to non-EEC passport holders and must be handed in prior to departure.

Facilities: Fresh water is available from the pier and is metered.

There is a telephone at the control pier which is metered.

Lorries delivering stores are permitted to within 100 m. of the ship's side. Berth crane available.

A shore gangway is available and is landed on the forecastle on small ships.

No bargages allowed alongside during cargo operations.

The Water Police board the vessel on arrival and check all certificates and the Oil Record Book. The Oil Record Book must be completely up-to-date and carefully compiled and signed by both the Master and the Chief Engineer. For gas vessels Cargo Oil Record Book not required. The Water Police required a copy of the Tanker Check List.

AUTHORITY:

1. Shipping Authority: (Competent for nautical affairs and concerns of waterway maintenance, accidents, pilotage, traffic directions and police, radar etc. within or with effect to Federal Waterways.) Wasser- und Schiffahrtsamt (Waterway and Shipping Office) Wilhelmshaven, Mozartstrasse 32, 2940 Wilhelmshaven. *Tel:* (04421) 26311 or (after office hours) (04421) 41287. *Telex:* 253407 Wsawr. *Contact:* Captain Diethoff or Captain Hanken.

2. Port Authority: (Competent for harbour affairs within harbour limits, exempt municipal and military areas). Niedersachsisches Hafenamt (Lower Saxony Port Office), Wilhelmshaven, Kieler Strasse 31, 2940 Wilhelmshaven. *Tel:* (04421) 26247 Port Captain. *FAX:* 2627-4421435 NHW. *Contact:* Captain Boege or Captain Pape.

3. Municipal Port Authority: (Competent for harbour affairs within municipal harbour limits) Stadt Wilhelmshaven, Rathausplatz, 2940 Wilhelmshaven. *Tel:* (04421) 297786. *Contact:* Captain Muehlinghaus.

AGENT: Fisser & V. Doornum, Luisenstrasse 5, D-2940 Wilhelmshaven, Federal Republic of Germany. Tel: (4421) 20 03 20. Telex: 27817. Cables: Fissership Emden. Fax: (4921) 22 829.

NOTES

Please also advise Shipping Guides Ltd.

Ghana

GENERAL:

HEALTH: *Pratique Procedure:*

1. The Port Health Officer or authorised officer shall grant Pratique to a ship as soon as the following conditions shall have been properly complied with:

(a) The Master shall complete accurately to the best of his knowledge and belief a Maritime Declaration of Health Form.

The Declaration shall be countersigned by a ship's surgeon if one is carried and shall be delivered to the Port Health Officer or authorised officer.

(b) The answers to the questions in the Declaration shall clearly indicate the absence of any infectious disease on board during the voyage or on arrival of the ship, and that the ship has not called at any infected area or had direct contact during the voyage with any ship from any infected area or having on board any case of infectious disease, and shall satisfy that Port Health Officer or authorised officer that the granting of Pratique shall not be attended by any danger.

(c) The Master or any other person on board including a ship's surgeon, if one is carried, shall accurately and, completely answer any other questions put to him by the Port Health Officer or authorised officer in regard to the sanitary condition of the ship, the health of the passengers and crew or of any ship with which there has been direct contact during the voyage, and shall furnish any such officer with all such information and assistance as he may reasonably require.

2. In the event of any suspected disease or fever on board a ship before arrival at the port and any other circumstances requiring the attention of the Port Health Officer, the Master shall:

(a) If the ship is equipped with a suitable radio transmitting apparatus and is due to arrive at a radio receiving port, send before arrival, either directly to the Port Health Officer or through an Agent approved by him, a radio message to that effect.

(b) If the ship is not so equipped or is due to arrive elsewhere than at a radio receiving port, notify the Port Health Officer immediately on arrival of the presence on board of such infectious disease, or suspected conditions.

Any radio message sent shall:

(a) embody such of the items of information as are applicable;

(b) be sent so as to reach the Port Health Officer not more than 12 hours, and not less than 4 hours, before the expected arrival of the ship;

(c) if it is in code, conform with the section relating to standard quarantine messages of the International Code of Signals.

3. Any ship arriving at its first port of call in Ghana from a foreign port shall be deemed to have come from an infected local area, and shall be required to comply with the provisions as to flags and signal lights as prescribed until granted Free Pratique by the Port Health Officer or authorised officer.

The following signals are to be shown on arrival within 3 miles of land, by vessels requiring or required to show their state of health:

(a) in the daytime i.e. during the whole of the time between sunrise and sunset.

(i) "Q" flag signifying "my ship is 'healthy' and I request free Pratique" or;

(ii) "Q" flag over first substitute ("QQ") signifying "my ship is 'suspect', i.e. I have had a case or cases of infectious disease more than 5 days ago, or there has been unusual mortality among the rodents on board my ship" or;

(iii) "Q" flag over "L" flag ("QL") signifying "my ship is infected" i.e. I have had a case or cases of infectious disease less than 5 days ago.

(b) by night i.e. during the whole of the time between sunset and sunrise, a red light over a white light, the lights being not more than 6 ft. apart shown at the peak or where the signal can best be seen from the shore, and exhibited only when the ship is within the presence of a port signifying "I have not received Free Pratique".

(c) Any ship displaying the appropriate signal in accordance with the provisions of paragraph (3) above shall, as soon as practicable, be visited by the Port Health Officer or authorised officer, who shall grant Pratique or take such other steps as may be necessary before granting Pratique.

4. A ship which has been granted Free Pratique at its first port of call in Ghana which has not been declared an infected area shall not be required to obtain further Pratique at another port in Ghana.

Vaccination requirements in respect of persons arriving in Ghana

All officers, crew and passengers of every ship arriving at any port in Ghana shall be in possession of valid Certificates of vaccinations against yellow fever and cholera.

Where a person arrives at any port in Ghana and is unable to produce a valid Certificate as required, the Port Health Officer or the authorised officer shall require such person to be vaccinated on the spot or to present himself at a place or places for the purposes of being vaccinated.

Under no circumstances should any officer, crew or passenger disembark if he is not in possession of any valid Certificate against yellow fever and cholera.

CUSTOMS REGULATIONS: *Pre-Entry System:*

Customs Authorities have introduced a 'Pre-Entry System' whereby importers are expected to process their Customs Bills of Entry in advance, at least 7 clear days prior to vessel's arrival, failing which a penalty is imposed by Customs on importer/consignee. To avoid a situation where importers will hold Agent/Owners responsible for refund of penalties for late submission of Manifest with Customs, it is essential that shipowners are requested to let Agent receive all cargo manifests at least 10 days prior to vessel's arrival in order for Agent to lodge with Customs Authorities advance manifest for the benefit of importers. Recently, most cargo documents have been received late and in some cases manifests have been received when vessel is in port. It is suggested that manifests are airfreighted to ensure early receipt.

SALTPOND (Bonsu): 05.05 N. 01.00 W.

LOCATION: 9 km. South of Saltpond village in position Lat. 05° 04′ 47″ N., Long. 01° 00′ 25″ W.
TUGS: One tug available to assist with berthing and connecting hoses.
BERTHING: Ship to ship transfer through 1,200 ft. floating hose. Depth of water 85 ft.

The platform "Agpi" is permanently moored. The storage vessel is named "Farmer". Loading time for 20,000 tons is 24 hours. Product is named "Saltpond Crude" or "Bonsu Crude".
OPERATOR: Agripetco Ghana Inc.

TAKORADI: 04.53 N. 01.45 W. (See Plan)

PORT LIMITS: Are shown on Admiralty Chart 3102 and covers an area of about 1.5 miles to 2 miles outside harbour entrance.
DOCUMENTS:
Customs:

2 Stores Lists.
2 Lists Crew Personal Effects.
1 Bill of Health.
6 Crew Lists with dates of yellow fever inoculations (use Ghanian Form No. 62 which is supplied by Agent).
6 Passengers Lists or 'Negative'.
6 Vessel's Itinerary Lists.
1 Freighted Cargo List.
1 Unfreighted Cargo List.
1 Set Bills of Lading.
1 Clearance from last Port.
1 List of Narcotics.
1 List of Stowaways (state 'nil' if so).
1 List of Arms and Ammunition (state 'nil' if so).
1 List of Mail (state 'nil' if so).
1 List of Animals on board (state 'nil' if so).

Immigration Officer:

1 Crew List (Ghanian Form No. 62).
1 List Ports of Call.
1 List of Passengers, if any.
All crew and Passengers' Passports.
Advice to Immigration of any stowaway.

PILOTAGE: Pilotage compulsory. Pilot boards within port limits. International code signals used. Vessels to call "Takoradi Port Control" on VHF Channel 14 when about 30 miles off, to confirm ETA.
ANCHORAGES: Vessels may anchor outside the harbour without Pilot. Depth at moorings 22 ft. to 35 ft.
RESTRICTIONS: Depth at harbour entrance 35 ft. MLW.
MAX. SIZE: Up to 28 ft. draft for berthing alongside. Up to 33 ft. at buoys. Also see "Tankers".
HEALTH: See "General" before first Ghana port.
RADIO: Radio Takoradi. The station is a Coast Station and only operates on HF and MF equipment. The call sign for this station is 9GA.
VHF: Signal station Channel 14. 24 hour service for all information with regard to Pilots, berthing, etc.
RADAR: No radar services available.
TUGS: Tugs usually join the vessel outside port entrance. Tugs' assistance is compulsory. Two tugs 1,350 h.p. available. Usually one tug is assigned to vessels with a bow thruster.
BERTHING:

Berth	*Max. Length Vessel*	*Max. Draft*
Manganese	520 ft.	28 ft. 0 in.
2 Wharf	550 ft.	26 ft. 0 in.
3 Wharf	500 ft.	28 ft. 6 in.
4 Wharf	600 ft.	28 ft. 0 in.
5 Wharf	270 ft.	28 ft. 0 in.
6 Wharf	500 ft	29 ft. 0 in.
Bauxite	505 ft.	32 ft. 0 in.
Coal Wharf	250 ft.	14 ft. 0 in.
Oil Wharf	600 ft.	29 ft. 3 in.
1 Buoys	550 ft.	F.34 ft. 0 in. A.36 ft. 0 in.
3 Buoys	570 ft.	27 ft. 0 in.
4 Buoys	520 ft.	F.27 ft. 0 in. A.30 ft. 0 in.
5 Buoys	510 ft.	F.24 ft. 0 in. A.27 ft. 0 in.
6 Buoys	480 ft.	F.24 ft. 0 in. A.26 ft. 0 in.
7 Buoys	450 ft.	F.23 ft. 0 in. A.25 ft. 0 in.
8 Buoys	400 ft.	F.21 ft. 0 in. A.22 ft. 0 in.
9 Buoys	340 ft.	18 ft. 0 in.

CRANES: There are 35 Portal Cranes at the Port. Of these 15 cranes of 3 tons each and 1 crane of 15 tons lifting capacity are at the wharf berths for loading and discharging vessels, but most are out of order. The remaining 19 cranes – 6 of 10 tons, 1 of 7 tons, 1 Butters crane of 15 tons and 9 of 3 tons are placed at the West Wharf to cater for the loading and discharging of logs and other commodities. Two of 5 tons are at the Cargo Platform to load and discharge other commodities. In addition there are 20 gantries for loading and discharging sawn timber.

There are no cranes at the buoy berths and ships are expected to use their own gear. Also, there are no floating cranes at this Port.

BULK CARGO FACILITIES: There are 2 berths for the loading of dry-bulk cargo – manganese ore and bauxite. In the case of grain, coal, fertilisers, sulphurs, copra, etc., discharge can be done at any of the wharf berths. The loading rate of manganese ore is approximately 333 long tons per hour; and the loading rate of bauxite is 330 long tons per hour.

SPECIALISED CARGO HANDLING FACILITIES: Vessels usually use their own derricks for loading and discharging containers. The Port's Mafi trailers handle the containers on the quay.

Ro/Ro vessels with their own specialised cargo gear are handled.

BRIDGES: There are no bridges at the port.

STEVEDORES: Berthing meetings are held daily between the Port Authority and all Port Operators with the view to determining ETA and ETD of vessels to enable the stevedoring companies to arrange for gangs and determine the relevant rates and charges.

Normal working hours: weekdays 0700 hrs. to 1200 hrs. and 1400 hrs. to 1700 hrs. Saturdays 0700 hrs. to 1200 hrs.

Gangs required for Sunday work should be ordered before 1130 hrs. previous day. For weekday work, gangs should be ordered before 1500 hrs. previous day.

MEDICAL: It is absolutely necessary for the Agents to be notified in advance of the required medical attention so that necessary arrangements for medical exercise be carried out immediately on the vessel's arrival. Also see "General – Health".

TANKERS: Oil tankers moor on the North side of Lee breakwater. 1 berth suitable for ships of 600 ft. length, draft 29 ft.

Pipe-line: 805 m. long, pipe size 8 in. for all grades of petroleum and Bitumen.

Discharge Rate:

Petroleum –	Premium Mogas	150 t.p.h.
	Regular Mogas	150 t.p.h.
	A.G.O.	200 t.p.h.
	Kerosene	200 t.p.h.
Bitumen –	80/110–142 cu.m./hr.	
	60/70 –154 cu.m./hr.	
	12/18 –337 cu.m./hr.	

DENSITY: Salt water.

FRESH WATER: Delivery at berths and buoys is by means of water barge of 448,000 gallons capacity. The rate of delivery is 11,000 g.p.h.

FUEL: 2 grades available, fuel and gas oil. Advance notice is necessary.

Fuel – supplied through pipe-lines.
Gas Oil – supplied by mobile tanker.

FIRE PRECAUTIONS: 6 firemen ordered to standby with fire engine. "No Smoking" notices are posted at considerable distances from the tankers.

CONSULS: Italian Consul only. High Commissioners and Ambassadors are in Accra.

REPAIRS: Minor repairs can be effected, slipway for vessels up to 500 tons. Small dry dock for vessels up to 100 ft. length.

DRY DOCK: There is no large dry dock in this port but there is 1 small dry dock capable of accommodating vessel of 100 ft. long, 25 ft. wide and 8.5 ft. draft.

SURVEYOR: Lloyd's, ABS, GL, BV, Panama Bureau of Shipping and Bureau of Maritime Affairs (Liberia) represented by Wiltex Ltd. (consulting engineers and marine surveyors).

GANGWAY/DECK WATCHMEN: Provision of Gangway, Deck and Hatch Watchmen is absolutely necessary to prevent stealing, pilferage and smuggling on board ships.

HATCHES: Hatches are normally opened and closed by the stevedoring gangs or, at times, by the ship's crew.

CUSTOMS ALLOWANCES: Quantity permitted for each member of the crew to be held Out of Bond is as follows: Tobacco 100 grammes; Spirits 0.75 litres; Wine 0.75 litres.

CARGO GEAR: Load/discharge is affected by the Port Authority's shore gear. There is 1 heavy lift crane of 15 tons capacity which is used for heavy lifts. Where the cargo exceeds the lifting capacity of the shore crane, the ship's jumbo derrick is sometimes used.

REPATRIATION: The Immigration Department is responsible for signing on and off on the advice of the shipping company.

AIRPORT: The airport, approximately 5 km. from the Port, is now exclusively used by Ghana Air Force. The commercial airport is located at the Capital city of Accra – some 232 km. from Takoradi.

TIME: The Greenwich Meridian Time is applied to this Port as the Greenwich Meridian passes through this country.

HOLIDAYS: The holidays at the Port are as follows; New Year's Day (1st January); Redemption Day (13th January); Independence Day (6th March); Good Friday (non-working day); Holy Saturday; Easter Monday; Republic Day (1st July); Christmas Day (25th December) (non-working day); Boxing Day (26th December).

POLICE/AMBULANCE/FIRE: Telephone 999 for all 3 services.

TELEPHONES: Presently no arrangements exist for installing telephone on board ships.

SERVICES: There is no special service for tank cleaning, tank-washing or compass adjustment.

SHORE LEAVE: Every member of the crew is free to go ashore at any time of the day or night after the Immigration Officer has issued shore passes.

IDENTIFICATION CARDS: Seamen's Book or Passport is sufficient to identify any seaman. Also see "Shore Leave".

REGULATIONS: Ship's are not allowed to discharge on board explosives or petroleum without prior approval of the Port Manager. Ships are not allowed to berth after 1800 hrs.

DELAYS: None.

DEVELOPMENTS: Rehabilitation work which is underway includes paving, fender replacement, refurbishment of jetties and quayside buildings. Electrical systems are being brought up to date to allow for the installation of new port equipment, which includes a 35 tonne multi-purpose crane, a 15 tonne general cargo crane and a 15 tonne crane for log handling.

AUTHORITY: Ghana Ports and Harbours Authority, P.O.Box 1, Takoradi, Ghana. *Tel:* 3220. *Cables:* Harbours Takoradi. *Contact:* Captain J. E. Quansah, Harbour Master.

AGENT: Scanship (Ghana) Limited, P.O. Box 329, Takoradi. Tel: 35.31, 36.50, 35.33. Telex: 2181 and 2182 Scanship Takoradi. Cables: "Scanship Takoradi".

Radio: Contact possible after leaving Tema on R/T 6,500 kHz and VHF Channel 9.

TEMA: 05.38 N. 00.01 E. (See Plan)

PORT LIMITS: A vessel is considered "arrived" when it is within 1.5 miles distance of the port.

DOCUMENTS:

Port Health:
Maritime Declaration of Health.
Valid Certificates for cholera and yellow fever.
Derat Certificate.
1 copy Crew List.
1 copy Ports of Call List.
1 copy Passenger List.

Immigration:
1 copy Passenger List.
1 copy Crew List.
1 copy Ports of Call List.

Customs:
2 copies Manifest.
Dangerous Cargo List.
1 copy Crew List.
1 copy Ports of Call List.
1 copy Passenger List.
Port Clearance, visaed by Customs at last port of call.

PILOTAGE: For Main Harbour, pilotage is compulsory for all vessels of more than 60 net tonnage, when arriving or leaving harbour, or shifting berth, but for both Fishing Harbours obtainable on request.

Time of pilotage as follows for Main Harbour:

(a) Dry cargo vessels: Arrivals 0600 – 1800 hrs. (up to 2000 hrs. on special request); departure 0600 – 2300 hrs.
(b) Tankers: Arrivals daylight only; sailings 0600 – 2300 hrs.
(c) Valco-carriers: All handling, during daylight only.

Vessels arriving or wishing to enter harbour must await Pilot between E. and S.W. off Fairway Buoy, up to 1.5 miles distance. Ships embarked by Pilots from 0600 hrs., according to time of arrival Quarantine Anchorage.

ANCHORAGES: Safe anchorage, three-quarters to two miles from E.N.E. to S.W. off main entrance with depth 30 ft. to 60 ft., with good holding ground. Eastern area of anchorage is more comfortable, without additional swell reflected from main breakwater.

RESTRICTIONS: Entrance to main harbour is 800 ft. wide. Approaches have a minimal depth of 35 ft. Ships entering harbour may roll heavily, up to 8°, during some seasons when 2-3 cables before entrance.

Ships deeper than 30 ft. enter only during high tide with maximum possible draft limit of 32 ft. during neap tides.

Bottom of harbour consists of sand and mud with frequent hard rocky ground. Depth increases in direction of main breakwater.

Inside harbour alongside breakwater is an old wharf for tankers with depth of 34 ft.

MAX. SIZE: Restricted to 650 ft. length, 32 ft. draft and 60,000 tonnes.

HEALTH: All crew require valid certificates of vaccination against yellow fever which are inspected by Port Health Authorities. In case of any suspected disease or fever on board. Agent of the vessel should be notified in advance by radio. Also see "General" before first Ghana Port.

VHF: The port is equipped with VHF radio Channels 14 and 16. Channel 16 is the international listening channel and Channel 14 is the port working channel. Signal station request LOA and draft in feet and last port of call.

Under certain conditions, vessels are able to contact the Signal Station at 200 miles.

TUGS: 5 tugs available with capacity 1,300 h.p. – 2,200 h.p. Minimum of 2 tugs for berthing and unberthing. Tugs join vessels at entrance of harbour when berthing and join vessel alongside when leaving. Usual for ships' lines to be used. Charge for use of tugs' lines is 120 dollars per tug per day.

BERTHING:

Berth No.	*Length* (m.)	*Depth at LW* (m.)
1	183	9.6
2	183	8.6
3	183	7.6
4	183	7.8
5	183	7.7
6	183	7.4
7	183	7.9
8	183	7.6
9	183	7.6
10	183	7.6
11	183	7.6
12	183	7.6
Valco	175 (Max. LOA)	9.6
Oil	244	9.8

Usually ships moor starboard side to Berths No. 1, 2, 6–9 and portside to Berths No. 3, 4, 5, 10–12.

CRANES: 1×10 tonne portal crane at Quay No. 1 and 1×10 tonne portal crane at Quay No. 2.

SPECIALISED CARGO HANDLING FACILITIES: Valco Berth for handling bulk cargoes such as alumina, pitch/coke and aluminium fluoride. It is also equipped with 2 elevators for sucking/discharging.

Conveyor System: 4 Outloaders, each 30-35 t.p.h.
or : 2 Outloaders on high speed = 70 t.p.h.

STEVEDORES: Available. Dry cargo is handled from 0730 hrs. to 1230 hrs. and from 1400 hrs. to 1700 hrs. on normal working hours, and overtime after 1700 hrs. to 2000 hrs. (for finishing ships 2030 hrs.) and on Saturdays p.m., Sundays and holidays. Oil Wharf and Valco Berth are working around the clock.

Gangs required for Sunday work should be arranged before 1130 hrs. previous day. For weekday work, gangs should be arranged before 1500 hrs. previous day.

MEDICAL: No advance notice except in cases of serious illness. Advice should be sent with arrival cable. Ample hospital facilities available.

TANKERS: Tankers always moored starboard side to dolphins, and ropes to breakwater and bow-buoys. Crude oil pumped to refinery, by ship's pumps, a distance of 18,000 ft.

	Pipeline Size (in.)	*Capacity* (cu.m.)	*Pumping Rate* (t.p.h.)
Crude oil	24 – 16	1,567,130	1,000
Fuel oil	14	51,400	600

FRESH WATER: Available. Rate 50 t.p.h.

At times a limited supply is available.

FUEL: Fuel and diesel-oil available by tanker-trucks only. No coal-bunkers available.

DENSITY: 1025.

FIRE PRECAUTIONS: Oil tankers when moored alongside must have "Fire Wires" hanging over the bow and stern on the outboard side of the vessel. These must be lowered to the water's edge and securely made fast on board so that they can be used to tow the ship away if necessary in an emergency. Two large fire fighting pumps and "snorkels" are mounted at the oil wharf. A floating boom to prevent the spread of oil spillage must be put in position around tankers loading and discharging. The Master of the ship should be warned to lower the guy ropes securing the boom to the ship, so that the boom is afloat at all times and not lifted up as the vessel's draft changes.

REPAIRS: Marine workshop for deck and engine repairs.

DRY DOCKS: There are 2 drydocks.

Drydock No. 1: Serviced by 60 tonnes and 20 tonnes travelling cranes. Capacity: 100,000 d.w.t. Length: 910 ft. (277.4 m.). Width (entrance): 149 ft. (45.4 m.) Width (inside wall): 155 ft. (47.2 m.). 8.2 m. on the sill. Flooding time empty dock: 2 hours (approx.). Dewatering time: 4 hours (approx.). Vessels with 6.5 m. draft can enter at HW.

Drydock No. 2: Serviced by 45 tonnes and 25 tonnes mobile cranes. Length: 350 ft. (106.7 m.). Width: 44 ft. (13.4 m.). Draft (entrance): 18 ft. (5.5 m.). Flooding time of empty dock: 4 hrs. (approx.). Dewatering time: 4 hrs. (approx.).

Fitting out quay: 600 ft. (182.9 m.). Draft: 14 ft. (4.3 m.) to be deepened. Crane: 15 ton travelling crane.

SURVEYORS: Lloyd's, NKK and Bureau Veritas are represented at the port.

GANGWAY/DECK WATCHMEN: Services of watchmen necessary and compulsory.

HATCHES: Opening/closing of hatches is normally carried out by stevedores or crew.

CUSTOMS ALLOWANCES: 200 cigarettes, 1 bottle of spirits and wine and beer in reasonable quantities.

REPATRIATION: Facilities exist for effecting crew changes through the Shipping Master's Office and the Ministry of Transport and Communications.

AIRPORT: Situated 18 miles from the port.

TIME: GMT. No alterations during the year.

HOLIDAYS: New Year's Day (January 1st); Independence Day (March 6th); Good Friday; Holy Saturday; Easter Monday; Labour Day (May 1st); PNDC Government (June 4th); Republic Day (July 1st); Christmas Day (December 25th); Boxing Day (December 26th). Cargo work can be arranged, except for Christmas Day.

SHORE LEAVE: Every member of the crew is free to go ashore at any time of the day or night after the Immigration Officer has issued shore passes.

IDENTIFICATION CARDS: Shore passes issued are sufficient.

REGULATIONS: No refuse or waste material of any description allowed to be pumped or thrown overboard from vessel into the sea.

No person shall load or discharge explosives without the consent of the Port Operations Manager.

It is strictly forbidden to undertake main engine work without prior permission of the Port Operations Manager.

POLICE/AMBULANCE/FIRE: Telephone Nos: Police: 2936; Fire: 2822-12.

GENERAL: Recommended to send ETA message as early as possible advance. Essential that ETA message reaches Agent's office before 1430 hrs. Monday-Thursday or before 1000 hrs. Friday for weekends because of booking of gangs. Ships from Abidjan should also send 48 hours ETA message.

Tides: Maximum tides rise 6 ft. 2 in., minimum tides rise 3 ft.

Prevailing Winds: Light to fresh breeze from W. and S.W. during all year, except December to February when N.E. Harmathan is dominating with poor visibility. Dangerous winds are tornadoes from East, May to July, but occasionally isolated tornadoes are to be expected from January to December. There is a swell in harbour, especially after tornadoes, when lying alongside the berths.

DELAYS: Delays not expected for berthing, loading or discharging, except for natural occurrences such as heavy storm or heavy downpour of rain.

AUTHORITY: The Director General, Ghana Ports and Harbour Authority, P.O.Box 150, Tema, Ghana. *Tel:* 2631–9. *Cables:* "Harbours". *Contact:* Gp. Captain E. A. Awuvri, Port Director. Captain E. D. Ziem, Harbour Master.

AGENT: Scanship (Ghana) Ltd., P.O.Box 64 Tema. Tel: 26.51 and 25.71. Cables: "Scanship Tema". Telex: 2374 Scanship Tema.

NOTES

Please also advise Shipping Guides Ltd.

Gibraltar

GIBRALTAR: 36.08 N. 05.21 W. (See Plan)

DOCUMENTS:
5 Crew Lists.
5 Passenger Lists.
Arrival Report, to be completed when receiving Pratique.
International Maritime Declaration of Health.
Ship's Register.
Load Line Certificate.
Derat Certificate.
Ship's Articles.
Certificate of Insurance in respect of Civil Liability for Oil Pollution Damage.
Stowaway Report.

PILOTAGE: Pilotage compulsory for all navigation (except direct *departure* from anchorage). Give notice of arrival through Agents 24 hours in advance furnishing maximum draft. Ships approach off Rosia Bay where Pilot (available day and night) boards vessel. Pilot boat painted black and flies international Pilot flag. To call Pilot: sound, and fly flag "G" or call Gibraltar Port on VHF Channel 16 and pass message on Channel 12.

ANCHORAGES: In open bay, good safe anchorage, depths vary from 5 to 40 fathoms. Vessels normally anchor in area West of Harbour Moles.

RESTRICTIONS: *Note:* British waters in the Bay of Gibraltar extend to the Median Line drawn in accordance with the 1958 Geneva Convention on the Territorial Sea and Contiguous Zone (see Admiralty Chart D 1448). However, part of those waters, lying North of 2 Qk. Fl. buoys, are considered by the Spanish Authorities to be within the limits of the Port of Algeciras/La Linea (Spanish Notice to Mariners 49/1563/67 of 9 December 1967), and the Spanish Authorities have claimed Spanish port dues in respect of vessels anchoring between the Median Line and the line of buoys.

The waters in dispute form only a small part of the anchorages available to shipping calling at Gibraltar.

MAX. SIZE: If anchoring in bay, any size. Max. draft alongside, 31 ft. 6 in.

HEALTH: Vessels are usually boarded by Port Authorities off the Southern end of the Detached Mole: if everything found satisfactory Pratique is granted immediately. Masters should advise Agents by radio before arrival of any illness on board so that Port Doctor may board vessel with Port Authorities.

RADIO: Gibraltar Radio, call sign ZDK.

VHF: Communicate with Port Authorities by VHF international calling Channel 16, pass message on Channel 12, many other channels available (24 hour service).

TUGS: 6 tugs, 500 h.p. – 2,600 h.p. When required for berthing alongside, tugs meet vessels off Mole. Ship's ropes sometimes used.

BERTHING: Cruise Liners and vessels calling for bunkers or water can be berthed on both sides of Western Arm. Outer side is 490 m. long with draft up to 9.60 m. The inner side is 450 m. long and max. draft is 8.53 m. Ships of deeper draft can be accommodated on half tide basis according to tide. Vessels calling for repairs or lay up can be berthed at the Detached Mole. There are also 5 berths of 100 m. in length available to vessels discharging general and bulk cargoes.

Masters required to advise ship's draft when giving ETA. Cruise ships are only charged 13.3% of normal berthing charge.

Ships calling for bunkers and/or fresh water and not conducting operations involving passengers or cargo are only required to pay 6.6% of the normal berthing charges. Such vessels may, at the discretion of the Captain of the Port, be allowed to be berthed for a period not exceeding 8 hours whilst such vessel is not bunkering or taking on supplies or fresh water.

Vessels coming in solely for bunkers are exempted from tonnage dues.

CARGO HANDLING: Container berth at No. 2 Jetty available for vessels up to 350 ft. in length, max. draft 26 ft. Containers are also discharged at No. 1 Jetty.

STEVEDORES: Agents automatically advise stevedoring company on receipt of ETA from ship.

MEDICAL: Masters should advise Agents when giving ETA if medical attention is required on board. Adequate hospital facilities available.

TANKERS: Max. draft at discharging berths 31 ft. 06 in. Diameter of discharging lines 14 in. fuel oil, 10 in. diesel oil and gas oil.

DENSITY: 1025.

FRESH WATER: Available at Mole from pipe-lines, delivery rate 60/80 t.p.h. Water can also be delivered at anchorage from barge, delivery rate 40/50 t.p.h.

FUEL: A quick and efficient bunkering service is provided on a 24-hour basis at alongside and anchorage berths. Ships arriving at night are required to give prior notice before 1600 hrs. on the day of arrival. The requirement is the same on Sunday and weekdays.

Fuel of various grades is supplied to shipping throughout the year from piped installations at all alongside berths (with the exception of the Detached Mole) using the latest metered bunkering techniques. The grades include marine fuel, thin, fuel, marine diesel fuel and gas-oil. Ships at the Detached Mole and in the Commercial Anchorage are serviced by lighters. This supply to ships is handled as a joint venture by the Shell International, Mobil, Chevron, Texaco and B.P. oil companies and is managed by the Shell Company of Gibraltar Limited, who own the main share of the installations.

The bunkering installation at Gibraltar, which was the first in the world to provide metered deliveries at shipside, includes 2 Fisher-in-Line blending units to ensure rapid delivery of fuel oils of any viscosity. Oil bunkers are normally delivered at 200 – 250 t.p.h. per connection subject to the ship's acceptance capacity. Similar rapid bunkering is provided in the anchorage by a lighter of 880 tons fuel capacity and a total capacity of 1,000 tons including bulk lubricants.

GANGWAY/DECK WATCHMAN: Not necessary but available if required.

OPENING/CLOSING HATCHES: Normally effected by stevedores.

CUSTOMS ALLOWANCES: No restriction whilst on board. Crew members may bring ashore small quantity for their immediate personal use.

IDENTIFICATION CARDS: Not required.

CONSULS:

Belgium	Tel: 78353	Liberia	Tel: 78318
Denmark	" 77151	Netherlands	" 75968
Finland	" 74813	Norway	" 78352
France	" 78830	Portugal	" 75330
Greece	" 77956	Sweden	" 77151
Italy	" 78123	Thailand	" 78301
Israel	" 75955		

International Direct Dialling (I.D.D.) in operation.

REPAIRS: Deck and engine repairs possible. Underwater operations including repairs and cleaning of vessel's hull.

DRY DOCKS: 3 dry docks available. Largest 871 ft. × 125 ft. Max. vessel size 245 m. × 36 m. Dry docks operated by Gibraltar Shiprepair Ltd.

REPATRIATION: Facilities exist for repatriating Crew members.

AIRPORT: Regular flights to London (Gatwick). Distance to airport about half mile.

TIME: GMT plus 1 hour in Winter, plus 2 hours in Summer.

HOLIDAYS: New Year's Day; Good Friday; Easter Monday; May Day; Commonwealth Day (24th May); Spring Bank Holiday; Summer Bank Holiday; Queen's Birthday; Christmas Day; Boxing Day. Cargo work can be effected at overtime rates on these holidays except on Good Friday and Christmas Day when no cargo work is carried out. Bunkering is effected on any of these holidays except on Good Friday and Christmas Day.

POLICE/AMBULANCE/FIRE: Police and Ambulance 199; Fire 190.

TELEPHONES: Telephone can be placed onboard at cruise ship berth. Telephones can also be placed on vessels under repair at the Detached Mole, through Admiralty Telephone Exchange, cost about £10.

GENERAL: Advisable that vessels calling for bunkers and only stopping in port for few hours should radio their requirements prior to arrival to ensure avoiding delay.

SHIPMASTER'S REPORT: Offport Call. (Updated 1988).

VHF: Lloyd's on Channels 16 and 14. Port and Pilots on Channels 16 and 12.

Pratique: Cable for Free Pratique 18 hours ahead. Standard message. Do not expect reply.

Pilot: Boards from small black hulled motor boat off Rosia Bay. Good lee required. Contact when South of Europa Point.

Anchoring: Not necessary for offport call with under 1 hour's wait. One anchor required ready with forecastle party on stand-by.

Agent/Quarantine Officer: Board off South end of Detached Mole.

Procedure: Require 5 Crew Lists and 1 Health Declaration. They also look at Ship's Papers, Register and Derat Certificate.

For British crew joining and leaving ALC3 and ALC5 are required to be filled in, so joining members must sign on immediately.

Time: Depends on numbers and ranks joining and leaving, but in October 1980, 9 officers left and 6 joined, procedure took 30 minutes with total off hire of 1 hour and 32 minutes.

General: Money: Sterling easily available in all denominations but make sure you cable in for Agent to arrange during bank hours.

Films: Walport from 'Restano' films and Vidpak – 48 hours' notice.

Agent: Very efficient, on prior request supplied British newspapers and up-to-date Lloyd's Index.

Anchorage: Northern limit of tanker anchorage – East to West line 1 cable South of North End Detached Mole (Qk. Fl. G.), ("C" Head) – good anchorage 3–5 cables off mole – single anchor good holding.

For ships awaiting repairs or orders, North limit – East to West line North End South Mole (Fl. 2 sec.) – "A" Head.

Current: (From Pilot). Strong Southerly setting current up to 4 knots, with East wind, off moles.

Lloyd's signal station: Approaching Gibraltar, will pass all messages to Pilots and Agent.

Port expenses: Agent quoted total off port (including Pilot) £650.

AUTHORITY: Captain of the Port, Port Office, North Mole, Gibraltar. *Tel:* 77254/78134. *Telex:* 2130 Gibpor Gk. *Cables:* Gibport. *Contact:* Captain F. J. Hayward, Captain of the Port.

AGENT: Lambert Brothers (Gibraltar) Ltd., 47 Irish Town. Cables: "Lambert-Gibraltar". Tel. 72685. Telex 2222. Fax: 75959. Ship's Agents, Insurance Agents, Travel Agents.

Greece

ACHLADI: 38.53 N. 22.50 E.

DOCUMENTS: See "Stylis".
PILOTAGE: Compulsory. Pilot station is in Achladi Village port about 2 miles from the factory. Pilot is a practical seaman who has experience and knowledge of local waters. There is a pilot boat, painted white, flying the International Pilot flag "H". VHF is installed, working frequency Channel 12. Pilot also serves Stylis port and Agia Marina.
ANCHORAGES: The waters which surround the port are free from dangers. Good holding ground with depths from 25 to 30 fathoms.
MAX. SIZE: Max. draft alongside is 60 ft.
VHF: Port Authority on Channels 7 and 12.
TUGS: For large vessels, tugs must be ordered from Volos.
BERTHING: Achladi port is a new construction belonging to the factory of Agroinvest S.A. It is a private berth about 200 m. in length standing about 2 m. above sea level and is well protected by rubber fenders. It was constructed in order to serve factory for loading and/or discharging their products, such as animal food, flour, wheat, maize, etc. Maximum permissible draft along the pier is 60 ft.

The factory is visible just after passing Akra Tapia. It is a conspicuous building due to the height of silos and warehouses. Two fixed green lights show the ends of the berth.
CRANES: Loading/discharging by ship's gear. Mobile cranes may be hired by arrangement with local Agent.
STEVEDORES: Working hours for unloading 0700 hrs. – 1430 hrs. and 1700 hrs. – 2300 hrs. Loading carried out 24 hours.

Loading rate for grain 100 t.p.h. Unloading rate up to 280 t.p.h.
FRESH WATER: Available but quite expensive. Vessel will be supplied by truck/barge only.
FUEL: Not available.
REPAIRS: Minor repairs can be carried out in Stylis or Lamia.
GENERAL: No stores or provisions available.
DEVELOPMENTS: A silo for grain is under construction on the pier.
AUTHORITY: Stylis Harbour Authority, Stylis, Greece. *Tel:* (0238) 22329.

AGHIOS NIKOLAOS (St. Nikolo-St. Nicholas), Crete: 35.12 N. 25.43 E.

DOCUMENTS:
- 4 Crew Lists.
- 2 Passenger Lists.
- 1 Cargo Manifest.
- 1 Spares List.
- 1 Stores List.
- 1 List Crew Personal Effects.
- Maritime Health Declaration.
- 1 Provisions List.

PILOTAGE: Not compulsory. No Pilot station. Private Pilot who can be used if needed. However, not always available. Area of Pilot's boarding is N.E. or S.E. of Aghioi Pandes Islet, depending weather conditions. Anchorage waiting place in same area. Call Pilot with signal "G". Small fishing vessels (length 13.0 m.) fitted with VHF can indicate position of anchorage if advised by Agent.
ANCHORAGES: (a) Harbour of Aghios Nikolaos, depth 3 – 5 fathoms. (b) Usual anchorage for vessels over 500 tons gross, South or S.E. of Nikolo Islet (Admiralty Chart No. 2536 B) and at a distance of 0.5 – 1.0 miles from the mainland, depth 10 – 40 fathoms respectively. (c) Poros Bay for small and large vessels, only when North and N.W. fresh gales, depth 16 – 27 fathoms.
RESTRICTIONS: Care to be taken off North entrance to port owing to rocky shoals, depth 5 m. Entrance from the S.W. is free of obstructions.
MAX. SIZE: Vessels of up to 100 m. length and 9.0 m. draft can enter the port. At oil bunkering installation outside the port, vessels of any size can be accommodated.
HEALTH: If from another Greek port free pratique is automatic and access to and from vessel granted on permission of Port Authorities. Port doctor visits all other vessels.
RADIO: No local radio station. Cables to Agent or Port Authority through "Athinai Radio", "Heraklion Radio" or "Rhodes Radio".
TUGS: One tug available.
BERTHING: Berthing position designated by Port Authority.
STEVEDORES: 10 permanent port stevedores available, but further 5 men can be engaged. Cargo worked by vessel's own gear.
MEDICAL: No advance notice of medical attendance required. Medical attention by town doctors available. Government hospital with all facilities.
TANKERS: No tanker berths. Vessels moor to buoys. Oil line 6 in. diameter.
DENSITY: 1025.
FRESH WATER: At new pier 3 hydrants, hose diameter 2.5 in. for supplying water. At the bunkering installation at Katsini Bay there is water storage tank capacity 500 cu. m. for supply to deep-sea vessels. Loading rate about 49 t.p.h. Delivery by flexible hose connection from the mooring buoys. Fresh water not available at the present time at the bunkering installation as they have ceased operating.
FUEL: Small quantities transported by tank truck are available from the pier.
HATCHES: Opened/closed by stevedores.
CUSTOMS ALLOWANCES: 2 packets cigarettes per crew member per day.
CARGO GEAR: No shore facilities. All cargo worked with ship's own gear.
CONSULS: None.
REPAIRS: Only minor repairs.
SURVEYORS: None.
REPATRIATION: Crew replacement and repatriation available.
AIRPORT: At Iraklion distance 66 km. 2 or 3 flights per day to Athens.
TIME: GMT plus 2 hours. GMT plus 3 hours late March to late September.
HOLIDAYS: In addition to standard Greek holidays, local holidays are Ascension Day (date not fixed), and St. Nicholas Day (6th December).
POLICE/AMBULANCE/FIRE: St. Nicholas Police tel. 100. State Hospital, tel. 22369. Fire tel. 22674 or 28905. Port Police tel. 22312. Area code for St. Nicholas 0841.
TELEPHONES: Available for yachts only.
SERVICES: Tank cleaning and hold cleaning.
SHORE LEAVE: Permitted with Port Authority pass.
STORING: Possible by truck or barge. Trucks may proceed alongside. No fork lift trucks available. Riggers available.
REGULATIONS: *(a)* Vessels are not allowed to approach Aghioi Pandes (goat reserve). *(b)* No refuse or other waste matter of any description allowed to be thrown overboard from vessel. *(c)* No visitors permitted without Port Authority permission.
DEVELOPMENTS: During next 5 years *(a)* deepening of Port Basin, *(b)* Provision of 1 shore crane, *(c)* construction of breakwater — length 200 m.
AUTHORITY: Port Authority of Agios Nikolaos, Akti Coundourou, Agios Nikolaos, Crete, P.N. 72.100 Greece. *Tel:* 0841-22312. *Telex:* 026103. *Contact:* Ioannis Papadomichelakis, (Lieut-Commander), Harbour Master.

AGIA MARINA: 38.54 N. 22.36 E.

DOCUMENTS: See "Stylis".
PILOTAGE: Compulsory. Pilot can be boarded at Stylis Anchorage or Agia Marina. Pilot and pilot boat is the same as for the port of Stylis.
VHF: Stylis Port Authority on Channels 7 and 12.
TUGS: See "Stylis".
BERTHING: Agia Marina Port is an open port on the North side of Maliakos Kolpos. It is a private port belonging to Metalia Voxitou Elefsinos A.E. (Skalistiris Enterpr. S.A.).

The Port of Agia Marina is visible just after passing Akra Drepanon and is 2 miles West of the main port of Stylis. A red fixed light shows the head of the elevator.

The berth, consisting of poles only, can accommodate cargo vessels up to 30 ft. draft for loading bauxite and/or chrome ore in bulk, cargoes come from the mines of Mount Parnassos and Mount Iti. Vessels calling at Agia Marina have to make fast to poles and are secured alongside the poles. Communication with the shore is effected only by motor boat which can be hired through local Agents. The loading takes place using an electric elevator and the rate is about 1,000 tons daily.

The port is lee to the wind and it has been reported that even with a Force 8-9 wind, vessels can stay in position without any difficulty. The vessel has to drop anchor in order to facilitate shifting(s) as elevator is immovable, also for better securing. The waters around are clear, with good holding bottom, the depth of which varies from 7 to 13 fathoms.
STEVEDORES: Working hours – 24 hours daily.
FRESH WATER: Not available. Can be obtained at Stylis, where max. draft allowed is 18 ft. 6 in.
FUEL: Not available. See "Stylis".
REPAIRS: Minor repairs can be carried out at Stylis or Lamia.
GENERAL: Stores and provisions available in limited quantities.
AUTHORITY: Stylis Harbour Authority, Stylis, Greece. *Tel:* (0238) 22329.

AGIOI THEODOROI: 37.55 N. 23.05 E. (See Plan)

DOCUMENTS:
- 7 copies Crew Lists (European and Asian).
- 2 copies Dates of Vaccinations/Inoculations.
- 1 copy Cargo Manifest.
- 2 copies List of Provisions and Stores (these are supplied on forms issued by Agent printed in Greek/English).
- 2 copies Officers'/Crews' personal declaration, on forms supplied by Agent in Greek/English, covering all high duty items, radios cameras, etc.
- 1 copy Declaration of ships' cash on board, form supplied by Agent in Greek but made out in front of Master.
- 2 copies of Masters' Declaration that all high duty goods have not been put under seal, and that he is responsible for any loss or landing of same without proper authority.

All passports and/or Seamen's Books to be produced *if* requested by Immigration.

On completion of loading, documentation takes about 2 hours.
PILOTAGE: Compulsory. Pilot boards S.S.E. of port, about 1 mile off the outer jetty. No pilot boat as such; uses either a tug or mooring boat. Pilot is arranged by Agents who are based in Piraeus (1 hour by car). No means of radio contact between vessel and Pilot station.

ANCHORAGES: A reasonably safe anchorage can be obtained in position 0.5 mile off the outer jetty in a depth of 20 to 25 fathoms with a sandy bottom.
MAX. SIZE: Max. draft 70 ft.
TUGS: 2 tugs used for berthing, and 1 on sailing.
BERTHS: There are 3 main berths with 2 smaller berths for coastal vessels. The largest and outermost berth can accommodate vessels of 250,000 tons fully loaded, maximum discharge/loading rate at this berth being 5,000 t.p.h. The other berths can accommodate vessels of up to 50,000 tons fully loaded with maximum discharge/loading rate of 3,000 t.p.h. All berths are equipped with 4 × 10 in. Chicksans. They are situated in an open position for winds from the South and West but provided ample moorings are put out, there should be no cause for concern.

Vessels can berth at any time day or night.
MOORINGS: Standard moorings on to dolphins which are well fendered and hold the vessel about 4 feet clear of the manifold complex. Vessels require their gangway but no derricks are required. 1 or 2 anchors are used depending on the berth used.
FRESH WATER: Fresh water for other than drinking purposes is available from the jetty, but drinking water has to come by barge from Piraeus for which 2 days' notice is required.
FUEL: Available alongside. Rate 3,500 cu.m./hr. for fuel oil and 600 cu.m./hr. for diesel.
REPAIRS: No facilities. Nearest port for repairs is Piraeus.
CUSTOMS: Bonded locker is sealed. Allowance 200 cigarettes or equivalent in tobacco or cigars per man (7 days) and a part bottle of wine and spirits is permitted per man (7 days). All Tobacco/cigars/ cigarettes placed under seal. Crew excess must be declared on provision list in separate column for same.
SHORE LEAVE: Shore leave is allowed, passes being issued on arrival which must be handed in prior to sailing.

SHIPMASTER'S REPORT: December 1984.
Documents: Crew Lists must be IMO standard forms.
Pilotage: Oil Company has its own private Pilots. There are 4 Pilots stationed here, of which 2 are on call. Pilotage is compulsory. Pilot comes out by tug.
VHF: About 4 miles from the jetty, start calling "Pier Master Theodoroi", on Channel 14 VHF. He will give information about berthing and/or anchoring.
Anchorage: Reasonable safe anchorage Westward of jetty, about 3.5 cables from shore, in 20 – 25 fathoms of water.
Tugs: 4 tugs available.
Berthing: See "Plan". Ships always moor heading West, so only Berth "B" Inner is moored portside to. Each berth has 4 Chicksans. Connections ranging from 8 in. to 12 in. Connecting and disconnecting is done by shore crew.
Fresh Water: Drinking water is also laid on to the jetty.
Provisions: Are available. Are brought alongside by tug for which a separate bill has to be signed.

AUTHORITY: Motor Oil (Hellas) Refineries.

ALEXANDROUPOLIS: 40.51 N. 25.54 E.

DOCUMENTS:
Port Authority:
2 Crew Lists.
1 Passenger List (if any).
If from abroad Maritime Declaration of Health.
If Greek flag, articles and log book, and declaration of foreign exchange.
Customs:
3 Lists of Stores and Provisions.
1 Crew List.
Master's personal declaration that all stores not held in bond will remain on board.

PILOTAGE: No pilot service. If Master requires pilotage assistance an experienced local boatman is available, but Agent must be advised of ETA in advance order to arrange for this Pilot to await vessel about 1 mile outside port.
ANCHORAGES: Depth inside port 18 ft. 06 in., mud bottom. Depth increases outside port to about 10 m. at distance of 1 nautical mile.

Area around port subject to strong S.E./S. winds especially during Winter. During strong winds vessels can seek shelter off Samothraki Island. In strong winds port is considered safe but because of occasional large waves loading is stopped. Winds from other directions do not affect port work.
MAX. SIZE: Vessels with draft not exceeding 18 ft. can enter safely.
HEALTH: Vessels from foreign countries can enter harbour and obtain Free Pratique during the period from sunrise until 2200 hrs. Vessels having suspected contagious disease on board should remain outside harbour until visit of medical officer, and await further instructions.
TUGS: None.
BERTHING: At least 24 hours notice of ETA to be passed to Agent in order to obtain allocation of berth from Port Authority.
STEVEDORES: Prior notice to be passed to Agent order arrange gangs. Rate of cargo working: General cargo about 100 tons per gang every 8 hours. Bagged cargo about 100 tons per gang every 8 hours. Coal about 80 tons per gang every 8 hours. Timber about 120 cu.m. per gang every 8 hours. Vessels must use own gear for loading/discharging.
MEDICAL: No advance notice required. 1 Government General Hospital, 3 clinics. Doctors' services readily available.
TANKERS: There is a floating pipe-line. Tankers with a draft of 18 ft. can discharge diesel oil and gasoline.
FRESH WATER: 10 hydrants available. Delivery rate about 5 t.p.h. (each), but delivery rate reduced when 2 or more hydrants in use.
FUEL: No Bunker C fuel available. Supplies of diesel oil possible from road tankers.
FIRE PRECAUTIONS: No port fire brigade. In emergency fire brigades must be called from Alexandroupolis.
WATCHMEN: Not available, and if required must be supplied by vessel.
HATCHES: Opened and closed by crew.
CUSTOMS ALLOWANCES: 1 packet cigarettes allowed out of bond for each crew member, for each day in port. Wine/beer no restrictions. Spirits, Master allowed 1 bottle.
CARGO GEAR: Load/discharge by ship's own gear.
IDENTIFICATION CARDS: Shore pass issued against Crew List and Seaman's Book. Passes obtainable from Port Authorities.
CONSULS: Consul-Agent of France Tel. 26–720. Consul-Agent of Italy Tel: 28–384.
REPAIRS: Only minor repairs available.
REPATRIATION: Facilities for crew changes and repatriation.
AIRPORT: 5 km. distant. 2 daily flights to and from Athens.
TIME: GMT plus 2 hours. Summertime GMT plus 3 hours.
HOLIDAYS: 1st January; 6th January; Whit Monday; 25th March; Good Friday; Easter Monday; 1st May; 14th May (local); 15th August; 28th October; 6th December; 25th December; 26th December, and all Sundays. Cargo work can be arranged on these days, subject to payment of additional charges.
POLICE/AMBULANCE/FIRE: Police station, 26352; Security Police, 26220; Ambulance, 25272; Fire, 26222. Port Police, 26468 (VHF 12).
TELEPHONES: No facilities for telephones on board.
SHORE LEAVE: Permitted.
DEVELOPMENTS: (a) Supplementary works are being performed outside along the West breakwater.

(b) Dredging works has begun inside the port.
AUTHORITY: Port Authority of Alexandroupolis. *Tel:* 26468 (VHF Channel 12). *Contact:* G. Tsironis (Lieut-Commander), Harbour Master.

ARGOSTOLI, Cephalonia: 38.12 N. 20.29 E.

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
Customs Clearance.
2 Cargo Manifests.
Bills of Lading (copy).
4 Ship's Stores List.
4 Lists of Crew's Personal Effects.
Ship's Papers.
Crew Vaccination List.

PILOTAGE: No Pilot station.
ANCHORAGES: Vessels anchor in roads 0.5 miles N.N.W. from Entrance light. Max. channel draft 19 ft.
MAX. SIZE: Up to 19 ft. draft.
HEALTH: Free Pratique given by Port Health doctor.
RADIO: Patras Radio. No VHF.
TUGS: None available.
MEDICAL: Advance notice not required except in urgent cases. For vessels arriving from foreign countries crew require vaccination certificates.
TANKERS: Small tankers discharge at DEH Power Terminal.
FRESH WATER: Can be supplied from the pier using ship's hoses.
FUEL: Small quantities available, but only for yachts.
OPENING/CLOSING HATCHES: Performed by ship's crew.
CUSTOMS ALLOWANCES: 50 cigarettes allowed for each crew member.
CONSULS: No local representation.
REPAIRS: Only minor machinery repairs can be carried out.
REPATRIATION: By air to Athens (once daily) or by ferry-boat.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summertime.
HOLIDAYS: Local holidays are 21st May, 16th August and 20th October, in addition to national holidays. Work may be arranged at double rates.
POLICE/FIRE/AMBULANCE: Police 22200; Ambulance 22515; Fire service available.
TELEPHONES: Can be connected on board vessels without charge.
SHORE LEAVE: Allowed.
AUTHORITY: Cephalonia Harbour Office.

ASPROPYRGOS: 38.02 N. 23.36 E. **(See Plan)**

DOCUMENTS: All usual certificates including Registry, Safety, Cargo Gear, Radio, Derat, Last Port Clearance and:
9 Crew Lists
2 Vaccination Certificates
Cargo Manifest
List of Spares
Maritime Declaration of Health
1 Vaccination List
4 Crew Effects Declaration
Passenger List
Cargo Documents
2 Special Customs Forms in triplicate
2 Store Lists

PILOTAGE: Cable Agent 72, 48, 24 hours in advance advising ETA. Agent informs Pilot Office of vessel's arrival time. Piraeus Pilots can be contacted on VHF Channel 12 for calling. Pilot boards vessel 0.5 miles S.E. of Piraeus Breakwater.
ANCHORAGES: See "Eleusis" and "Piraeus".
RESTRICTIONS: Max. 60,000 d.w.t., max. permissible draft to enter Eleusis Bay is 35 ft. 9 in.
HEALTH: Pratique is in accordance with International Regulations. Pratique automatic if arriving from another Greek port.
RADIO: Athens (SVA).
VHF: Operative throughout 24 hours on Channels 16, 12, 7 for Pilots and 16, 12, 7, 19 for Eleusis Coastguard. Aspropyrgos Refinery on Channel 8.
RADAR: None.
TUGS: Usually join vessel at the entrance of the channel, ship's lines always used.
BERTHING: Position of berth: Lat. 38° 01′ 34″ N., Long. 23° 35′ 36″ E. Pilot will advise Master of berthing place in accordance with Port Authority instructions. Usually berthing with port side to at crude oil berth; with starboard side to at oil products berth and with the stern to at LPG berth.

According to the Pilot it is preferable to use ropes for mooring.

Also see "Tankers".
MEDICAL: Advance notice not required; clinic available in town of Eleusis if required.
TANKERS: One berth, depth 38 ft. 9 in., with 3 unloading arms (8 in. diameter each) for discharging crude oil. The max. acceptable pressure at the unloading arms is 9 kg./sq.m.

One berth, depth 38 ft. 9 in., with 3 loading arms (8 in. diameter each) for oil products.

One berth, depth 23 ft. 8 in., for loading LPG and oil products with flexible hoses, 6 in. diameter each.

There is one pier for small tankers (coasters) with max. depth 26 ft.
DENSITY: 1025.
FRESH WATER: Can be supplied from the piers (up to a maximum quantity of 300 cu.m. per vessel).
FUEL: Not available at present.
FIRE PRECAUTIONS: Fire wires rigged fore and aft on outboard side of vessel. Deck scuppers plugged. Spark arresters to be fitted on tank openings. Earth connections made. Patrols made by Port Officers.

In the case of a storm, the Dock Master can stop discharge of vessels. The refinery fire fighting procedure is followed.
CONSULS: None.
REPAIRS: While alongside, maintenance of any kind on board is strictly prohibited. In case of an emergency, the issuing of a special written "cold or hot work" permit is necessary.
DRY DOCKS: See "Eleusis".
GANGWAY/DECK WATCHMEN: Not required.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 open bottle of wine/spirit allowed per crew member.
REPATRIATION: All facilities available for crew changes and repatriation.
AIRPORT: Direct overseas flights available via Athens airport at Hellinicon.
TIME: GMT plus 2 hours; Summertime (March to September) GMT plus 3 hours.
POLICE/AMBULANCE/FIRE: All emergency services are available through the terminal office. Fire alarms are installed throughout the jetty. Fire tel: 300. Ambulance tel: 311, Police tel: 353.
SERVICES: Compass adjusting. Electronic equipment services.
SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Shore passes issued by Port Authority.
AUTHORITY: *Operators:* Hellenic Aspropyrgos Refinery, 18 Hermou St., P.O.B.3649, 10563 Athens, Greece. *Tel:* 5573252-6, 5573483. *Telex:* 21.5442, 21.5443 (Ref Gr). *Cables:* Refaspr. *Contact:* George Dimogerontas.

Aspropyrgos Refinery: *Tel:* 5573491-4, 5573226. *Telex:* 21.5489 A/B (Ref Gr.)

CHALKIS: 38.27 N. 23.36 E.

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
2 Cargo Manifests.
2 Stores and Spares Lists.
2 Crew Personal Effects Lists.
Health Certificate.

PILOTAGE: Pilotage is compulsory.

Application for Pilot to be made by radio through Agent to Chalkis Port Authority. ETA required at least 8 hours before arrival.

Apply for Pilot through VHF Channel 12, or through radio/telephone on 2364 kHz calling Harbour Master, Chalkis.

Pilot boards from black motor-boat with white horizontal stripes, about 10 m. length, in a position about 1 mile – 1.5 miles North of the light buoys of the Northern Port.

The pilotage area extends from 1 mile North of red and green light buoys, North of Evripos Bridge, and to the South of Euboea, 2.5 miles from Bourtzi Point.

The anchorage for vessels coming from the North of Euboea and awaiting Pilot is at the centre of the Euboean coast off Lighthouse Kakokefali, North of the 2 light buoys and outside the bearing 020°/200° which is the axis of vessels passing in and out of Evripos Strait.

Safe anchorage for vessels coming from South of Euboea and awaiting Pilot is 1 nautical mile South of Bourtzi Point.
ANCHORAGES: *(a)* In the basin of South Port clear of vessels passing in the Straits. Depths over 21 ft.

(b) In North Port between the light buoys and Kakokefalis lighthouse and outside the axis of course 020°/200°. In depths of 10–15 fathoms.

(c) Anchorage mentioned in "Pilotage" above, depths of 10 fathoms.
RESTRICTIONS: Entry restricted only by depth. Max. draft 21 ft. For vessels intending to pass Evripos Strait having draft 19 ft., passage possible only at slack tide or with following tide. Full details in Evripos Straits Operations Regulations.

There is also a restriction in Steno Straits where there is an overhead cable 38 m. above sea-level.
MAX. SIZE: Max. draft 21 ft. in daytime and 19 ft. at night for vessels entering port. For vessels navigating Evripos Strait max. length 110 m., max. draft 19 ft., breadth 20 m. and subject to local regulations.
HEALTH: Pratique not required if coming from another Greek port. Otherwise International Pratique regulations are applied.
RADIO: No local radio, all messages should be passed through Athinai Radio.
TUGS: 1 tug available, joins vessel off the berth. Ship's tow lines used. Tug is compulsory for vessels over 1,000 g.r.t. Tug used only for berthing and unberthing.
BERTHING: Berthing in both the North Port and the South Port can only be effected at slack water subject to available tide.
BRIDGES: Passage above Evripos Bridge can only be effected at slack water or with following tide.
STEVEDORES: Loading, discharging, carried out with ship's gear. Notice must be given by Agent to stevedores not less than 6 hours before vessel's arrival.

Cargo working rates: General cargo 80 tons – 100 tons every 8 hours. Bagged cargo 100 tons – 150 tons every 8 hours. Timber 70 cu.m. – 90 cu.m. every 8 hours.
MEDICAL: Agent should be advised beforehand if medical assistance required on arrival. Clinic facilities available. Vaccination certificates required.
DENSITY: Average 1025.
FRESH WATER: Drinking water can only be supplied in small quantities by tanker lorry.
FUEL: Can be supplied in small quantities by tanker lorry.
WATCHMEN: Not required.
HATCHES: Opening and closing hatches can be effected by ship's crew or by workers if requested.
CUSTOMS ALLOWANCES: Crew members each allowed 1 packet of cigarettes per day. Only the Master is allowed 1 or 2 bottles of alcohol while vessel in port.
IDENTIFICATION CARDS: Shore passes are issued by Port Authorities.
CONSUL: France, Tel: 2574.
DRY DOCKS/REPAIRS: Chalkis Shipyards S.A., P.O.Box 18, Chalkis, Greece. Tel: (0221) 31502, 31512. Telex: 272143, 272180.

Shipyard has 3 floating docks (max. size 48,000 d.w.t.) and a lay-by berth for major repairs.
REPATRIATION: No difficulties as there are excellent communications with Piraeus. Also see "Shipmaster's Report".
AIRPORT: Nearest is Athens International Airport.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: 1st January; 6th January; 25th March; 21st April; Good Friday; Easter Monday; Easter Sunday; 21st May; 15th August; 28th October; 6th December; 25th and 26th December. Local holiday 26th July.
POLICE/FIRE/AMBULANCE: Port police 22580; Fire 23333; Ambulance 22282.
TELEPHONES: Cannot be connected on board.
SHORE LEAVE: Allowed.
DELAYS: Only waiting for suitable tides.
DEVELOPMENT: A pier 240 m. is under construction at Vourkos in the South Port; depth alongside 26 ft.

SHIPMASTER'S REPORT: June 1981.

The name appears to be pronounced Halkis but according to local people the spelling can be Chalkis, Khalkis, Halkis or Kalkis.

To repatriate Indian crew Agent requires names of those persons leaving at least 48 hours in advance. Crew usually cleared through Immigration 48 hours beforehand and through Customs when they leave the vessel. Immigration office closes at 1300 hrs. and all day Sunday. For British personnel, Immigration can be arranged 24 hours beforehand. All personnel must ensure that anything declared on the manifest such as cameras, radios, etc., are crossed off on being taken ashore otherwise vessel will be fined if these items not sighted by Customs when vessel sails.

The bridge lowers and retracts under the road on the South side.

According to the Pilot the maximum tidal rate is 4 knots although it does appear faster at times.

AUTHORITY: Chalkis Port Authority.

CORFU (including Kalifoka and Kefalomandouko): 39.37 N. 19.56 E.

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
Maritime Declaration of Health.
3 Stores Lists.
3 Spares Lists.

PILOTAGE: At least 24 hours before arrival ETA should be passed to Port Authority on 2182 kHz, answering on 2830 kHz also VHF Channels 7 or 12 and Telex No. 33111. Vessels requiring Pilot during daytime should hoist letter "G" of international code, and sound letter "G" in the morse code on ship's whistle at intervals. Vessels should await Pilot in position Lat. 39° 38' N., Long. 19° 57' E. nearest to the coast of Ptychia Island (Vido) and Corfu, depending on weather conditions.

ANCHORAGES: Safe anchorages in the area between Vido Island and coasts of Corfu, depth about 30 m. During strong N.W. winds there is safe anchorage in the roadstead at Garitsa Bay at a distance of 0.5 miles from the shore where depth in excess of 20 m.

RESTRICTIONS: Only during unfavourable weather conditions or lack of berthing space.

MAX. SIZE: Draft 7.0 m.

HEALTH: Port Health Officer boards vessel on arrival and examines health declaration. In cases of suspected disease or fever on board the Health Officer will examine entire crew and passengers.

RADIO: Radio Kerkyra. 2182 and 2830 kHz.

VHF: Radio Kerkyra on Channel 26. Port Authority on Channels 7 and 12.

TUGS: One tug – "Hermes".

BERTHING: Vessels should prepare fenders prior going alongside berth.

STEVEDORES: At least 24 hours advance notice of ETA required order arrange gangs. There are 2 silos for the discharge of bulk grain at Mandouki.

MEDICAL: Agent should be advised in advance of any medical requirements. Medical clinics available.

DENSITY: 1025.

FRESH WATER: Available through 2 in. hoses.

FUEL: For yachts in the new harbour there is a diesel-oil tank, capacity 10 tons. Also available from road tanker for all vessels alongside.

FIRE PRECAUTIONS: Loading/discharging of inflammable liquids and explosives generally forbidden without permission of Port Police. The anchorage for vessels carrying inflammable liquids or explosives is between Lazareto Islet and N.W. of breakwater point.

WATCHMEN: Required.

HATCHES: Opened and closed by stevedores. Hold cleaning service available.

CUSTOMS ALLOWANCES: Crew of Greek vessels are not allowed more than immediate requirements out of bond. Seamen signing off and passengers leaving the vessel are allowed 200 cigarettes.

IDENTIFICATION CARDS: Required.

CONSULS:

Belgium: S. Savanis, 44 Alexandras Av. Tel: 33788.
Brazil: K. Palatianos, 124 Kapodistriou St. Tel: 30767.
Denmark: V. Patras, 140 Xen. Stratigou St. Tel: 38712.
France: M. Paipetis, 22 Iak. Polyla St. Tel: 26312.
Germany F.R.: D. Zervos, 11 Alexandras Av. Tel. 31453, 32027.
Italy: Mic. Viegio, 10 Alexandras Av. Tel: 37351.
Netherlands: Aris Bogdanos, 2 Dimarchoy Manesi St. Tel: 38870.
Norway: K. Kondis, 5 Donzelot St. Tel: 32423.
Spain: Spiridon Pogiagos, Eygeniou Voulgareos St. Tel: 39620.
Sweden: Adam Bogdanos, 5 Donzelot St. Tel: 29469.
United Kingdom: I. Karidi-Patrikioy, 11 Alexandras Av. Tel: 30055.

REPAIRS: Facilities for minor repairs only.

DRY DOCK: Largest dry dock 20 m. length, 2 m. depth.

REPATRIATION: Facilities for crew changes and repatriation available.

AIRPORT: 2 km. from port. During Winter 2 flights daily to Athens. During Summer frequent daily flights to Athens, Thessalonika and abroad.

TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.

HOLIDAYS: Local holidays are 21st May, 11th August and 12th December. In addition Corfu observes standard Greek holidays.

POLICE/AMBULANCE/FIRE: Port Police, tel: 32655, 30481; Police, tel: 38661; Ambulance, tel: 39403, 30033, 30562; Fire, tel: 39533.

TELEPHONES: Telephones only available for placing onboard for special cases.

GENERAL: Prevailing wind is from the N.W. Anchorage in the new harbour unsatisfactory due to mud bottom.

SHORE LEAVE: Allowed.

REGULATIONS: Forbidden to approach Lazareto Islet.

AUTHORITY: Port Authority of Corfu, Xenofontos Stratigoy 2, GR 491 00 Corfu, Greece. *Tel:* 32655, 39513, 30481. *Telex:* 33111. *Contact:* Harbour Master.

ELEUSIS (including Skaramanga): 38.02 N. 23.33 E.

(See Plan)

DOCUMENTS:

4 Crew Lists.
4 Passenger Lists.
Bill of Lading.
2 Lists of Stores and Provisions.

PILOTAGE: Piraeus Pilot Station regulations are operative.

ANCHORAGES: Port offers safe anchorage. Bottom mud and sand.

RESTRICTIONS: After sunset and for vessels intending to enter Eleusis port through Salamis Channel, it is imperative to give 6 hours notice of expected time of arrival to Port Authorities of Eleusis, in order to obtain special permission from the naval yard of Salamis.

MAX. SIZE: No limitations to length and breadth at the installations or at the main port. Max. permissible draft of vessel entering Eleusis Bay is 35 ft. Max. draft at berths is 33 ft. Also see "Tankers".

HEALTH: For vessels arriving from other Greek ports, Pratique is automatic. Vessels arriving from foreign ports boarded by Health Officer who grants Free Pratique.

RADIO: Athinai, 2182 kHz.

TUGS: Join vessel outside Piraeus Harbour and formalities much same as Piraeus.

BERTHING: Overall length of jetties and quay at Eleusis 715 m. Max. depth over 80 m. of jetty length is 33 ft. with depths of 26 ft. elsewhere.

SPECIALISED CARGO-HANDLING: Loading/discharging of iron ore is carried out by *(a)* Holivourgiki Co., (See "Shipmaster's Report" - August 1985) which owns a pier of 180 m. long and from 26 ft. to 36 ft. depth, equipped with 4 cranes with average discharge rate of 6,000 t.p.h., and *(b)* by Metallia Voxitou Elefsinos Co., which offer a special anchorage with buoys. Loading is effected by means of silo.

Loading/discharging of fluid chemicals or liquid gas are carried out by Petrogas Co. to their private pier of 35 m. long and 15 ft. depth.

MEDICAL: Advance notice not required. Clinic available in town of Eleusis if required.

TANKERS: Operating companies supply reducing pieces. No facilities for residue discharge. *(a)* Esso Pappas: length 160 m.; breadth 30 m.; depth at pier 30 ft. *(b)* Greek Refineries: length 93 m.; breadth 12.70 m.; depth 7 m. *(c)* Texaco: length 80 m.; breadth 6 m.; draft 4.50 m. *(d)* Mamidakis: length 40 m.; breadth 5 m.; draft 27 ft.

Shipmaster's Report: June, 1981.

Petrola petroleum harbour just West of Elefsis town.

Petrola is owned by John Latsis Co. The terminal has their own VHF Channel 66 Alpha, also use Channel 12 but this usually congested.

Moorings: Normally 3, 2, 1. Normally 2 tugs. Pilots employed by Petrola and come on board after Sea Pilot has taken vessel through the Bay. Fresh water available from jetty.

FRESH WATER: Barge delivery available.

FUEL: Available ex-wharf at tanker installations subject advance notice. Can be supplied by barge at other locations.

FIRE PRECAUTIONS: The usual precautions applicable to oil installations. During operations of white liquid (petrol, spirits, etc.) regulations require a tug to be standing by.

HATCHES: Usually opened and closed by crew and subject additional payment by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle wine/spirits allowed per Crew member out of bond.

CONSULS: None.

REPAIRS: All grades of repairs can be carried out at Eleusis Shipyard, and also at Skaramanga (see "Dry Docks").

DRY DOCKS:

Hellenic Shipyards Co.

Skaramanga Shipyard: Situated on the coast between the Port of Piraeus and Eleusis Bay. Shipyard is 8 miles by road from Athens and 7 miles from Piraeus; driving time 25 and 20 minutes respectively.

Mailing address: Hellenic Shipyards Co. Athens: 4 Academias St. Tel: 36.11.142. Cables: Shipyard, Athens. Telex: 215123.

Skaramanga: Tel: 55.73.351, 55.73.471. Cables: Shipyard, Athens. Telex: 215293, 215396.

Office hours at Skaramanga: 0815 hrs. to 1715 hrs. (weekdays), 0815 hrs. to 1345 hrs. (Saturdays).

Floating Docks

Main Particulars	*Dock No. 1*	*Dock No. 2*	*Dock No. 3*
Lifting capacity	30,000 tons	22,000 tons	25,500 tons
Docking capacity (d.w.t.)	72,000 tons	37,000 tons	60,000 tons
Length overall	826 ft.	673 ft.	760 ft.
Length on keel blocks	760 ft.	605 ft.	693 ft.
Breadth inside banks	121 ft.	105 ft.	111 ft.
Breadth outside banks	147 ft.	129 ft.	136 ft.
Ht. of WL above keel blocks	28 ft.	28 ft.	28 ft.
Pumping time (Minutes)	120 ft.	80 ft.	100 ft.

Skaramanga Yard's 3 floating docks have been designed in such a way as to eliminate delays of any kind in the raising of large vessels and to ensure that the work is carried out in minimum time and with the least possible inconvenience to the crew living on board.

The basic equipment of the docks is the following; 2×5 ton cranes, 2 fire extinguishing pumps 120 cu.m. per hour at 90 m. WC, DC current supply to ships 1200 A 220 V, AC current supply to ships 600 A 440 V 60 cycles, multipoint welding rectifier 2500 A, 2 oil pumps for supply of fuel oil from the dock to the vessel 60 cu.m. per hour at 50 m., 2 compressors 17 cu.m. per minute at 7 atu, emergency diesel generator set 200 KVA, foam fire extinguishing system, steam boiler and water distilling plants.

Shipmaster's Report: 1978.

Tankers may discharge residue at the deballasting station of Hellenic Shipyards, max. output 500 cu.m./hour.

Graving Docks

1. Capacity 500,000 tons. Length 420 m., breadth 75 m., depth 9.5 m.
2. Capacity 250,000 tons. Length 327 m., breadth 53.6 m., depth 9.25 m.

Ships are manoeuvred at the dock entrance with the assistance of 2×5-ton capstans situated on each side of the entrance gate. They are then shifted inside the docks by 2×15 ton auto-tensioning winches and hauling-in trolleys (mules) running on tracks on each side along the dock subway.

The dock floor is fitted with specially designed keel blocks for easy fitting and removal and with electrically operated side blocks.

The Graving Dock is served by 2×100 ton cranes, 1×50 ton crane and a small 5 ton crane.

A fleet of 5 powerful tugs is on hand at Skaramanga Yard to assist docking and undocking operations of all vessels calling at the yard.

Eleusis Shipyards S.A. is located 27 km. outside Athens. The site was chosen on account of the several advantages it presents. The bay is well protected from strong winds, sources of raw materials are available in the vicinity of the yard, and adequate transportation, power, and telecommunication facilities can service the needs of yard.

Athens Office: 67 Athinas Street, Athens 112. Tel. 349 053. Cables "Helnafel Athinia". Telex 215215 Esc Gr.

Yard: Eleusinia, Eleusis. Tel. (01) 5535111. Cables "Helnafel Eleusis". Telex 215684 Yard Gr and 215690 Yard Gr.

Floating Docks: Three floating docks are available with the following specifications:

	No. 1	*No. 2*	*No. 3*
Length	162 m.	227.5 m.	252 m.
Breadth at entrance	23 m.	33 m.	41 m.
Draft over keel blocks	6.30 m.	8 m.	9.40 m.
Lifting capacity	11,500 m. tons (20,000 d.w.t)	20,000 m. tons (60,000 d.w.t.)	30,000 m. tons (115,000 d.w.t)
Cranage	5 t at 15 m.	12 t at 20.6 m.	12 t at 20 m.

Quay Wall: The 640 m. long quay wall is equipped with 40 and 15 ton cranes, range 30 m.; power 220 volts DC 100 amp. – 42 volts DC 25 amp. – 280 volts AC 630 amp. Floating crane, 50 tons capacity.

Tugs: Available for manoeuvring purposes at all times.

AIRPORT: Athens Airport. Regular international flights.

HOLIDAYS: Cargo operations can be effected during usual Greek holidays, following submission of application to Harbour Workers' Union and subject cost increase of 75% above normal.

POLICE/AMBULANCE/FIRE: Eleusis Police Station 46674; Ambulance 46503; Fire Brigade 0199.

SPECIAL PRECAUTIONS: See "Piraeus".

SHIPMASTER'S REPORT: August 1985.

Berth of Chalivourgiki S.A.

Vessel: 20,500 d.w.t.

Max. Size: LOA 165 m. max. draft 39 ft.

Products Handled: Steel.

Anchorage: Eleusis Roads.

Pilotage: Pilot boards and disembarks at Piraeus.

Tugs: From Piraeus only.

Cranes: 2×20 tons.

Fresh Water: Available alongside.

SHIPMASTER'S REPORT: October 1987.

Documents:

9 copies Crew List.
2 copies Crew Declaration (to include radios, cameras,cassettes etc.).
2 copies Manifest (including ship's stores, bond, ship's fixtures, etc.).
1 copy Health Declaration.
2 copies Drugs List.
6 copies Cargo Manifest.

Pilotage: The Pilot for Eleusis boards from a black and white launch off Piraeus Breakwater (Molos Themistokleous). There is deep water close in to the breakwater.

The Pilot can be contacted by telex No. 00601-212187, answerback OLPGR.

Pilots should be contacted on VHF Channel 12, 2 hours before arrival off the breakwater and again when 3 miles from the breakwater.

When berthing at Eleusis oil piers or quays, the Refinery Pilot boards and departs off the pier.

Normally only daylight transit and berthing and unberthing for tankers proceeding through Ormos Keratsiniou and Stenon Navstathmou Straits which lead to Kolopos Eleusinas Bay.

Under special circumstances and by prior arrangement with the Agent and authorities, transit is possible at night.

At the Western end of Eleusinas Bay, Prosmegaron Channel can be transitted without Pilot by prior arrangement through the Agent. If required, a pilot will board/depart from vessel South of Makronisos Island. At least 6 hours notice of arrival is required by the Agent and Piraeus pilot station by telex.

Passage: The channel into Eleusinas Bay from Piraeus is very crowded with repair yards, naval base, laid-up vessels and small craft.

The Pilot advised that the maximum draft allowed through Yeoryios Channel is 39 ft. 6 in. (BA. Chart No. 894 indicates 36 ft.). On the North and South bound transits using echo soundings, we found a depth of 38 ft. 6 in. This should therefore be closely checked beforehand if transitting in a deep draft vessel.

The Pilot advised that the maximum draft allowed through West passage of Prosmegaraon was 26 ft.

Anchorage: The vessel used Piraeus Anchorage Area No.1 (BA. Chart No. 894 and 1520) to the West of the line 232° from AK. Aminiou lighthouse. This is a slightly different anchorage area than that shown on BA. Charts.

The anchorage is often very crowded. No Pilot required.

Anchorage is also possible in Eleusinas Bay under Pilot's direction. This bay can also be very crowded with laid-up vessels.

Tugs: There are very many tugs available in the area. The refinery has special tugs of up to 5,000 h.p. available.

It is compulsory for small vessels to use at least 1 tug when berthing. Tugs secure alongside when berthing and unberthing.

Max. Size: Maximum size of the vessel is restricted by the size that can pass through Keratsiniou Passage.

Tanker Berths: 3 piers and 1 quay are used by the refinery.

The long pier in position 38° 09.95' N.,23° 30.55' E. (See BA. Chart No. 1513) is used by crude carriers on the East side and by chemical carriers on the West side (Chicksan arms).

LPG is loaded at quay (38° 02.2' N., 23° 30.56' E.) to the East of the long pier. A depth of 38 ft. was found alongside the quay. Other products are also handled. The vessel moored with 2 head/stern lines, 2 breast lines and 1 spring forward and aft. Vessels can berth either side to at the LPG quay, depending on ship's requirements. Maximum length allowed at the LPG quay is 150 m.

Cargo: LPG storage at ambient temperature (very hot in Summer) in 4 spheres, 2 with capacity of 3,000 cu.m. and 2 with capacity of 4,000 cu.m. These spheres are situated close to the quay. A Butane and LPG mix is handled. The liquid Chicksan is 6 in. 300 ASA and the vapour return line which is attached to the liquid arm is 2 in. 300 ASA.

The maximum Butane loading rate is 250 cu.m.p.h. In October 1987 the average rate was 180 cu.m.p.h. at +30°C. The surveyor strongly advised us not to use the vapour return line due to the large difference between ship and shore figures in the past (vapour does not go back to the same tank).

There is no facility to flare cargo return vapours, or vent inert gas.

Butane density 0.582 at 15°C. Apparently maximum oxygen level allowed in ship's tanks is 1%, this was not checked.

The shore tank figures were used for Bill of Lading.

Fresh water supplied through shore hydrant and meter at a cost of US $3.00 per cu.m. The ship's hoses were used and the rate of delivery was high. There is waterman available.

General: It is very difficult to take any stores or supplies over the quay through the terminal due to numerous Customs and Port Regulations. If possible it is best to take stores at Piraeus anchorage or before the Pilot boards. The charge for launch service at Eleusis is £100 per trip and at Piraeus £20 per trip.

For personnel leaving vessel, luggage is in bond until it reaches the airport.

Pilot advised that there is a large tanker sea-buoy discharge terminal at N. Revithousa Island in position 37° 57.8' N., 23° 23' E. (BA. Chart No. 1513).

Public correspondence is through Hellas Radio but due to the amount of traffic the quality of the service/reception was poor.

AUTHORITY: Eleusis Port Authority.

IRAKLION (Heraklion), Crete: 35.20 N. 25.10 E.

(See Plan)

DOCUMENTS:

4 Cargo Manifests.
4 Crew Lists.
4 Passenger Lists.
Declaration of Crew's Personal Effects.
List of Stores and Provisions.
Maritime Declaration of Health.
Vaccination Certificates.

PILOTAGE: Pilotage area extends 0.5 to 1 mile N.E. of breakwater. Advance notice of ETA should be passed to Agents order arrange Pilot. Contact may be made with Pilot station on VHF Channel 12 during daylight, also when within distance of 3–12 miles, and subject prior agreement of calling time, communication can be effected by radio–telephone via Radio Iraklion – Pilot station telephone 286133. International pilotage signals apply. Pilot boat is wooden boat 12 m. length, hull colour black, with white deckhouse, carrying black board with word "Pilot" in white letters. In bad weather vessels should proceed close to entrance of port for Pilots boarding.

A cement pillar has been installed on the end of the extension of the North breakwater. Fl. G. every 3 seconds, visible 9 miles. The pilot boat is equipped with VHF, range 50 miles.

ANCHORAGES: Anchorage East of port entrance is forbidden owing to numerous underwater cables. In good weather conditions anchorage to be found 0.75 mile Northwards of North breakwater with Enetic Castle bearing 180°. In bad weather conditions, best anchorage is at a distance of about 5 nautical miles to the W. of the North breakwater and at a distance of 3 miles from the coast (Ellinoperamaton Haven); depth of water requires a big scope of anchor chain.

MAX. SIZE: Max. length 250 m., draft 29 ft. – 29 ft. 6 in. Usual rise and fall of tide 1 ft. but increasing with South winds and decreasing with North winds.

HEALTH: International regulations apply for obtaining Free Pratique. In the event of suspected disease vessel will remain under quarantine until cleared. Pratique is automatic if arriving from another Greek port.

RADIO: Radio Iraklion – SUH 2128 kHz.

TUGS: Tug of 1,300 h.p. operated by Nicolas E. Vernicos. Telephone Piraeus 4527812-4522337 (24 hours).

BERTHING: Pilot will advise Master of berthing position.

CRANES: 1 × 40 tonnes for containers, 2 × 12.5 tonnes and 4 × 6.5 tonnes.

STEVEDORES: Cargo operations usually conducted by use of ship's own gear. Discharge rates per gang in 8 hours: bulk cargo 100 tons, bagged cargo 140 tons, liquid cargo subject ship's equipment – transportation by barges, timber 100 cu. m.

MEDICAL: Advance notice should be passed to Agents if requiring medical attention. Clinics and medical treatment available.

TANKERS: Only very small tankers discharge in Iraklion Port and Ellinoperamaton Haven. At Iraklion, tankers discharging liquid fuel are required to berth at East breakwater (fuel pier). Attendance of fire brigade and 1 tug standing by is compulsory.

DENSITY: 1020.

FRESH WATER: Available ex-berth or ex-barge. Rate of delivery ex-berth about 500 tons per 24 hours.

HATCHES: Opened and closed by crew.

CUSTOMS ALLOWANCES: 2 packets of cigarettes per day per crew member allowed out of bond, and one 500 ml. bottle wine/spirits for whole time of vessel's stay in port.

IDENTIFICATION CARDS: Shore passes issued by Port Authorities.

CONSULS:

Belgium	tel. 282520 and 282296
Denmark	tel. 282253
Finland	tel. 284860 and 283860
France	tel. 282347
Germany F.R.	tel. 282266 and 285400
Netherlands	tel. 282615
Norway	tel. 282667
Sweden	tel. 282476 and 285859

REPAIRS: Minor repairs available by machine shops in town of Iraklion. No facilities for deck repairs.

AIRPORT: Distance 5 km. Now an international airport with numerous flights.

TIME: GMT plus 2 hours, GMT plus 3 hours end March – end September.
HOLIDAYS: Usual Greek holidays plus local holidays of 25th August and 11th November. Cargo work can be arranged on holidays subject additional costs.
POLICE/AMBULANCE/FIRE: Police, tel. 282241, 282430, 282316; Ambulance, tel. 282894, 282638; Fire, tel. 283555, 282333.
DEVELOPMENTS: Dredging of some berths to 12.5 m. expected, from present depth of 10.0 m.

A jetty with length 800 m. and depth of 13.5 m. is to be constructed.
AUTHORITY: Port Fund of Iraklion.

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ISTHMIA, Corinth Canal (including Sousakion and Corinth): 37.55 N. 23.00 E. (See Plan)

DOCUMENTS: (For Sousakion only).
Port Authorities
Crew List.
Passenger List.
Ship's Certificates.
Health Certificates.
Certificate of Anchorage Dues.
Customs
Customs papers and declarations.
Cargo Papers.
List of Stores and Provisions.
List of Crew's Personal Effects.
PILOTAGE: There are 16 Pilots for the Corinth Canal. Cables: "Corinth Canal", tel: 0741-24452, telex: 232164 Dico Gr. Master of vessel must give at least 4 hours' notice of ETA in order to avoid delay. For Pilot signals, etc., see article 7 of the New Company of the Corinth Canal "Regulation of Navigation and Tonnage".
ANCHORAGES: Open anchorage in Isthmia Bay.
RESTRICTIONS: Corinth Canal closed every Tuesday from 0600 hrs. to 2000 hrs. in order for maintenance work to be effected.
MAX. SIZE: The max. draft of ships negotiating the Canal, in relation to their width, is defined as below, assuming normal water level and normal weather conditions.

Width	*Maximum draft*
16.0 to 16.5 m.	6.2 m.
15.5 to 16.0 m.	6.2 m.
15.0 to 15.5 m.	6.6 m.
14.5 to 15.0 m.	6.8 m.
14.0 to 14.5 m.	7.0 m.

The max. draft for vessels of less than 14.0 m. width is 7.2 m. The max. width must not exceed 18.3 m. (60 ft.).

Special instances will be examined by the Master and the Canal Service in collaboration.
HEALTH: (For Sousakion only). Pratique effected by health department of the Port Authority assisted by temporarily engaged doctor. In cases of suspected contagious disease vessel will be held under quarantine and if necessary fumigation will be conducted at Piraeus.
VHF: Corinth Canal Pilots on VHF Channel 11. Harbour Master at Isthmia on Channel 19. Harbour Master at Corinth on Channels 19 and 12.
TUGS: Join vessel near Canal entrance at Isthmia and Possidonia. Ship's lines always used.
BERTHING: In Sousakion at private factory pier. No berths at Isthmia.
MEDICAL: Agent should be advised in advance of number of crew needing medical assistance, also information of any vaccination required.
FRESH WATER: Not available either at Sousakion or in the Canal.
FUEL: No fuel available at Corinth.
CUSTOMS ALLOWANCES: Each crew member allowed 200 cigarettes out of bond and 1 bottle wine/spirits.
CARGO GEAR: Loading/discharging by ship's gear.
AIRPORT: 100 km. distance.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
POLICE/FIRE/AMBULANCE: Telephone Harbour Master of Isthmia No. 22129.
DELAYS: Possible delay up to 1.5 hours in transiting Canal if another vessel already transiting canal from opposite direction.
GENERAL: Passage via the Corinth Canal is a *Transit*.

SHIPMASTER'S REPORT: (Corinth) 1977.
Vessel: 5,700 g.r.t., 9,200 d.w.t., Summer draft 24 ft. 07 in., LOA 409 ft. 05 in.
Documents: No special entry papers required and if anchoring to await the berth Customs and Immigration will usually board at anchorage.
Port of Corinth: The port has no VHF communications but messages can be passed through the Corinth Canal Pilot Station on Channel 11. Pilot will then telephone Agents.

Anchoring off the port in the case of delay is possible but cannot be described as safe due to the close proximity of land or shoal water. Holding ground, however, is good. This vessel anchored with Corinth Breakwater light bearing 248° in about 16 fathoms of water using 6 shackles of cable. Vessel rode out a force 7/8 gale from the North without dragging but with the cable fully stretched the bridge was only 2.3 cables from the breakwater and too close for comfort. A second anchorage was used with the breakwater light bearing 232° and the ship's bridge 5.6 cables from the breakwater in about 18 fathoms of water. Again with the cable fully stretched this gave a clearance off the nearest shoal water of 3 cables, 6 shackles of cable being used. This is a slightly more comfortable position and again gale force winds were experienced without dragging. The vessel did drag in this position but not until winds were gusting to Force 9 as a prelude to very severe storm conditions in which no anchorage of this nature would have been satisfactory. The bottom is stiff grey mud and care must be taken when anchoring not to impede the traffic approaching the canal entrance. Anchoring further to the Westward in order to increase the clearance from shoal water, etc., is not recommended as in addition to the much greater depth of water the holding ground deteriorates, becoming crumbly mud.

A boat can be provided by the Agents for use as a liberty boat when at anchor and there is no objection on the part of the Authorities to using the ship's boats for runs ashore.

A first examination of the chart (B.A. Chart No. 1600) will not indicate anywhere to berth a vessel of this size. However, dredging work has been carried out and the berth is on the S.E. side of the breakwater where there is room for a vessel of this size and for one small coaster in addition. The breakwater itself is slightly different in shape from that shown on the chart and building and dredging work are still in progress at its seaward end. The green flashing buoy shown on the chart is no longer in position but a light of similar characteristics is now shown from a structure on the breakwater end.

Maximum draft for berthing is 6.7 m. (22 ft.) and on this vessel's first call soundings between ship and quay when alongside indicated depths of between 24 ft. and 26 ft., depths outside the ship being some 5 ft. greater.

A Pilot is available, and is of great assistance. He is an experienced shipmaster and has very good local knowledge. A small tug is presently employed shifting barges and cranes employed in harbour works and it is sometimes possible to use his services. This is dependent upon the tugmaster. He is particularly useful when undocking to hold the stern off the quay.

Initial approach to the berth is bow on until the starboard anchor has been let go which should be done at such a distance from the berth so as to allow 4 shackles of cable in the water when the vessel is alongside. Vessel is gradually swung on the anchor, long head and stern ropes are run by boat, and vessel is so brought alongside port side to.

The undocking operation is straightforward, the bow being pulled off the quay by means of the anchor. The only danger is that of the propeller coming into contact with the quay and here the services of the tug are valuable.

Docking and undocking in strong winds from any direction would be hazardous and in many cases impossible. Docking is always done in daylight and I do not recommend undocking at night either although this would be possible under calm conditions. An added disadvantage of undocking in evening time would be that the vessel would arrive at the Narrows ferry crossing in the dark.

The Pilot agrees with this appraisal of the situation.

The quay itself is smooth concrete usually well fendered with rubber tyres and with good mooring posts. Vessel should be well secured as strong winds from a Northerly direction are experienced particularly in Winter.

There is a concrete apron some 3 metres wide alongside the ship and clear of this a considerable unsurfaced area on to which cargo is discharged. This area is very wet and dirty during rain.

Fresh water is available but 7 lengths of ship's hose are necessary to reach the outlet. A permanent water main is in the process of being laid alongside the ship.
Cargo operation: This is controlled by the 'Carton Pack' plant manager, there being no stevedore as such. Ship's gear is used and normally 3 gangs of stevedores.

The working day is from 0800 to 1700 hrs., evening overtime being unusual. Seven day working is possible but all overtime is subject to the plant working to receive the cargo.

Stevedores can discharge rapidly from the ship lifting 2 rolls of linerboard at a time but there are frequent stoppages due to congestion on the quay which reduces the overall discharge rate to about 25–27 rolls per gang hour. Although head and end clamps are provided by Charterers (carried on board) stevedores refuse to use these and all discharge is by rope sling. Rolls are landed on wooden platforms (timber supplied by Charterers) and then rolled by hand clear of the concrete apron. Two or possibly 3 fork lifts are used to load rolls from here onto lorries for transportation to the plant a short distance away.

Damage rate is high due to rolls becoming wet and dirty on the unsurfaced quay with bands being broken and outer layers torn. Further damage is caused by the fork lifts when loading the lorries.

No improvement in discharging conditions can be seen unless the quay is surfaced with proper drainage and unless Charterers are prepared to provide clamp machines for handling the rolls on the quay. Care should be taken when signing final outturn report as of course damages are written up to make it appear that they took place before discharge.

Weyerhaeuser are fully conversant with the situation.
Agents: Situated in Piraeus which is some 90 km. away. They use sub-Agents in Corinth.

The sub-Agents are not geared for handling a foreign-going ship. To obtain action on major items it is best to telephone Agent in Piraeus direct.
Bunkers: Basically not available but diesel oil has been taken, having been brought from Piraeus by road tanker and with ten days ordering notice.
Repairs: These cannot be carried out except by bringing repairers from Piraeus at very high cost.

Lloyds' surveyor is obtainable from Piraeus, this being best arranged directly by the ship.
Provisions: These can be obtained locally and are of acceptable quality. There is no ship chandler as such and the system is for the Catering Officer to visit various suppliers with the Agents, pick his purchases and then leave Agents to collect and deliver to the ship.
Shore Leave: Passes are required and are renewed each visit. They should be available for return to Immigration on departure.
Corinth Canal: This vessel passed through the canal on the 4th November, 1977 on a draft of 3.6 m. forward and 4.74 m. aft.

Application should be made in advance to the Canal Authority quoting the minimum draft obtainable.

The transit presented no difficulties.

SHIPMASTER'S REPORT: (Corinth) December 1984.
Pilotage: One private Pilot.
Restrictions: Berthing daytime only. Unberthing anytime day or night.
Loading/Discharging: Vessel loaded iron pipes, rate 600 tons to 700 tons per gang, per 8 hour shift by ship's gear. Working only during daytime (never night-time).

Vessel discharged iron plate in coils, rate 600 tons per gang, per 8 hour shift by shore crane.
Cargo Handled: Vessel loaded iron pipes, porcelain in powder and fruit in boxes. Vessel discharged iron plate in coils and paper for boxes in rolls.

AUTHORITY: Port Authority of Isthmia, *Tel:* (0741) 22129 (Harbour Master).

Harbour Master at Corinth *Tel:* (0741) 24574.

Corinth Canal Co. S.A., Ippocratous 88, Athens. *Tel:* 36.32. 185/6/7. *Telex:* 210721. *Cables:* Didriko Athens.

Isthmia Office: *Tel:* (0741) 24452. *Telex:* 0232 164 Dico Gr. *Cables:* Didriko Corinth. *Contact:* Dim. Benardos, Director.

ITEA: 38.26 N. 22.25 E.

DOCUMENTS:
6 Crew Lists.
4 Passenger Lists.
Cargo Manifest.
Bills of Lading.
2 Lists of Ship's Stores and Spares.
Health Declaration.
Ship's Certificates.

PILOTAGE: Vessel should advise ETA at least 24 hours before arrival through the telegraphic office of Itea. Pilots are called with the assistance of the Port Authority on VHF Channel 12.

Pilot boards 1 mile S.E. jetty lighthouse. Pilot boat painted black with white deckhouse, the word "Pilot" is painted in white letters on both sides. On the bow is painted "PY21".

In bad weather vessel should enter harbour without Pilot and anchor using both anchors.

ANCHORAGES: Available inside the harbour and in Aggolis Gulf. Safe anchorage in the vicinity of the jetty head in depths of 8 m. – 10 m.
RESTRICTIONS: Vessel may enter harbour day or night. Harbour anchorage suitable for vessels up to 60 ft. draft.
MAX. SIZE: Max. LOA 130 m., Max. draft 6.0 m. Also see "Berthing."
HEALTH: Pratique is given on arrival by the port medical officer.
RADIO: Contact possible through Hellas Coastal Radio.
VHF: Contact with Port Authority and Pilot made on Channel 12.
TUGS: None available.
BERTHING: One pier. East side can accommodate one vessel with max. LOA 83 m. and draft 6.0 m. West side can accommodate one vessel max. LOA 130 m. and draft 6.0 m.
Parnassos: Bauxite loading facility. Max. size 30,000 d.w.t. Loading by conveyor.
Elefsinos: Bauxite loading facility. Max. size 10,000 d.w.t. with tide of 25 cm. – 60 cm. Loading by conveyor.
STEVEDORES: Gangs should be ordered in advance by Agents on basis of Master's ETA. Loading and discharging is effected by ship's gear.
MEDICAL: 24 hours' notice preferred if any medical requirements. Vaccination can be arranged within 24 hours. Hospital in Amfissa, 13 km. from the port.
TANKERS: There are no special installations for loading/discharging tankers.
FIRE PRECAUTIONS: There are no specific precautions.
GANGWAY/DECK WATCHMEN: Required, Master to appoint crew member.
CARGO GEAR: Loading/unloading by ship's gear.
AIRPORT: Nearest airport at Athens, distance approximately 210 km.
DENSITY: 1025.
FRESH WATER: Not available.
FUEL: Not available.
HATCHES: Hatches are opened and closed by ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 opened bottle of alcohol is allowed each man.
IDENTIFICATION CARDS: Needed for crew men going ashore.
CONSULS: No local representation.
REPAIRS: No facilities for repairs.
REPATRIATION: Can be arranged.
TIME: GMT plus 2 hours. End March to end September GMT plus 3 hours.
HOLIDAYS: Cargo work can be effected on all holidays on payment of overtime.
Official Holidays: January 1st; January 6th; Holy Monday; First Monday of Lent; Good Friday; Easter Sunday; Monday after Easter; 25th March; 1st May; Ascension Day; 6th August; (Local Holy Day); 15th August; 28th October; 6th December; 25th December; 26th December.
POLICE/AMBULANCE/FIRE: Police: Tel. 32222; Ambulance: Tel. 28400; Fire: Tel. 28199.
TELEPHONES: Not available.
REGULATIONS: There are general and specific regulations for the Port of Itea.
DELAYS: Delays in loading can seldom be expected.
DEVELOPMENTS: Extension and widening of the existing breakwater and the construction of a second breakwater.
AUTHORITY: Port Authority of Itea.

KALAMAKI: 37.52 N. 23.01 E. (See Plan)

SHIPMASTER'S REPORT:

DOCUMENTS: See "Piraeus".
PILOTAGE: Arranged by Agent.
MAX. SIZE: Max. draft 38 ft. (Additional 1 ft. of draft by arrangement).
TUGS: Berthed without tug. Agent can arrange small tug from Corinth Canal.
BERTHING: Berth for discharging soya beans at Kalamaki Soya Mills (Refinery).
Bulk Handling facility: Fixed steel tower with 2 suction pipes capable of a total of 250 tonnes/p.h. but generally slower. Vessel to shift from hatch to hatch. Outreach of arms about 16 m.

The berth is not marked on the chart – B.A. 1600 and U.S. D.M.A. 54289. It is situated on the North shore of the Sarnikos Kolpos near the Eastern entrance to the Corinth Canal (Dhiorix Korinthou). When alongside, the Canal Breakwater Lt. Ho. was bearing 253°×0.64 miles and Akra Sofia 195°×1.14 miles. Starboard side to.

Mooring bollards are adequate, there being 4 suitable for backsprings on the short face (about 64 m.) of the 'T' jetty and 1 on shore for the headlines. At the Eastern side of the berth there is a new berth set in from the line of the jetty consisting of 4 concrete dolphins each with a bollard and 3 of our sternlines were made fast to these. Between this new berth, which is for discharging logs, and the leg of the 'T' jetty there is a facility for loading the products of the Soya Oil refinery into coasters. Tyre fenders on the 'T' jetty are few.

On approaching the berth from Eastwards it is recognisable by the dark grey ribbed metal silos and the lattice steel tower of the discharging unit.

FRESH WATER: Obtainable by truck 15 tonne capacity or by barge from Piraeus. Pipe for loading water from trucks will have to be extended by ship's hoses particularly if working cargo in forward hatches. Cost per truck about 3,000.00 Drachmas. Agent says price for barge supply is comparable to truck if a large quantity is required.
STEVEDORES: *Working Hours:* Continuous – Workers supplied by plant.
AGENT: *Sub-Agents:* G. Karagiorgis of Corinth. Cables: "Kaskoutas Corinth".

SHIPMASTER'S REPORT: April 1988.

The Kalamaki Private Pier is 2 miles E.N.E. of Corinth Canal. This dock belongs to the Murikis Wood Factory which is 500 m. from the Dock. The Berth is used for small vessels of 2,000 d.w.t. loading plywood from the Murikis factory. Loading is by ship's gear or mobile cranes. Every sling of wood is from 800 kg. – 1,100 kg. Cargo is loaded by factory personnel. Small vessels lie alongside the pier where the depth is 16 ft. – 18 ft. Overall length 120 m.

Large vessels lie alongside blocks with depth of 30 ft. – 32 ft. Overall length 160 m. Discharging of logs is by ship's gear into the sea on the offside.

Repatriation is possible via Athens which is 80 km. away.

Berthing only possible during daylight hours. On arrival, contact the Isthmia Harbour Master or Corinth Canal on VHF Channel 16.

KALAMATA: 37.02 N. 22.07 E. (See Plan)

PORT LIMITS: The seaward boundaries of the port within which a vessel is considered to be an "arrived vessel" and (subject to Charter-Party Terms) laytime commences to count is 0.5 mile from the breakwater red light, where Pilot boards.
DOCUMENTS:
3 Crew Lists, plus 3 additional for passenger vessels.
3 Crew personal effects lists, plus 3 additional for passenger vessels.
3 Deck, Engine and Steward department Store Lists.
1 Cargo Manifest.
All ship's official documents.
2 Crew Vaccination Lists, plus 2 additional for passenger vessels.
1 Health declaration.

The above are not necessary for incoming vessels from Greek ports.

PILOTAGE: Notice of ETA required 48 hours before arrival. There is VHF listening and transmitting on Channel 12 on continuous basis. Range 30 miles.

Pilot boards 0.5 miles East of the breakwater red light, weather permitting.

ANCHORAGES: Vessels awaiting Pilot may anchor 0.75 miles East of the breakwater red light.
MAX. SIZE: Vessels up to 30 ft. draft may enter harbour, for berthing alongside.
HEALTH: Port Health doctor boards vessel on arrival or alongside the berth. Master required to produce Fumigation Certificate, vaccination list and Declaration of Health. Health visit not necessary for vessels coming from a Greek port or West European ports.
RADIO: Athens Radio, call sign SVA, on R/T which covers the Kalamata region also R/T stations of Patra Kerkyra and Hiraklion.
TUGS: No tugs available.
BERTHING: Agents require details of vessel's draft in advance to get berthing permission from Harbour Authorities. Total length of piers – 1,200 m. Covered storage: 3,500 sq.m. Open storage: 22,000 sq.m.
SPECIALISED CARGO-HANDLING FACILITIES: There is a silo for grain. 2 electric pumps for liquids; 2 mobile cranes, lifting capacity 40 tons and 200 tons; 2 forklifts.
STEVEDORES: Number of gangs required to be advised Agent in good time.

MEDICAL: Doctors and medical assistance available. Also private and public hospitals.
FRESH WATER: Available in any quantity at berths. No barges.
FUEL: Can only be supplied by road tankers – subject to advance notice.
DENSITY: 1018.
WATCHMEN: If required can be arranged from shore.
HATCHES: Can be opened and closed either by crew or by stevedores subject to regulation payments for this work.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits per man.
CONSULS: France, Finland and Sweden.
REPAIRS: Minor repairs can be effected in shore machine shops. No dry docks.
REPATRIATION: Can be arranged by car, train or air.
AIRPORT: Situated 6 miles away. Flights to Athens 1/2 times a day.
TIME: GMT plus 2 hours in Winter. GMT plus 3 hours in Summer (end March – end September).
HOLIDAYS: Additional local holidays are Ascension Day and St. Dionysio's Day.
POLICE/FIRE/AMBULANCE: Police tel. 22218 and 24720; Fire tel. 28273/4; Ambulance tel. 25555/27420; Tourist Police tel. 23187. District Code Number 0721.
SHORE LEAVE: Allowed. Shore passes issued by Harbour Authorities.
DEVELOPMENTS: In the near future a Free Zone will exist.
Additional open storage to be available.
AUTHORITY: Kalamata Port Office, 24101 Kalamata. *Tel:* 0721/22-218. *Telex:* 252211 Lcal Gr. *Cables:* "Kalamata Port Authority". *Contact:* Commander Aggelopulos, Harbour Master.

KALI LIMENES, Crete: 34.56 N. 24.49 E.

DOCUMENTS: Vessels may arrive for bunkering without obtaining free pratique. However, if pratique is effected, vessels should have ship's papers ready for inspection, also 4 Crew Lists, 4 Passenger Lists, Cargo Manifest and a List of Stores and Provisions.
PILOTAGE: 1 private Pilot employed by the bunkering company SEKA who undertakes pilotage for vessels calling for bunkers. Pilot boat is a small boat equipped with signal lamp. Pilot boards about 1 to 2 miles S.S.E. of Aghios Pavlos (St. Paul) Islet. Vessels awaiting Pilot may anchor 1.5 miles East of Aghios Pavlos Islet.
ANCHORAGES: (See "Pilotage") Vessels may anchor in area between Aghios Pavlos Islet and Mavronissi, which is a safe anchorage.
MAX. SIZE: Vessels in ballast of up to 280,000 d.w.t. and max. draft 14 m. can enter port.
HEALTH: Vessels arriving from foreign ports wishing to obtain free pratique should cable Agents to arrange for boarding of Health Inspector. Free pratique automatic if arriving from another Greek port.
TUGS: There is 1 tug, but it is seldom used.
MEDICAL: Agent should be advised well in advance if medical assistance required. There are no hospitals or other local facilities and doctor has to be called from nearest town. Hospitals at Iraklion, 75 km. distant.
TANKERS: 3 berths North of Aghios Pavlos Islet (position Lat. 34° 55′ 45″ N., Long. 24° 48′ 30″ E.), max. draft 14 m.
FRESH WATER: Unlimited supplies available.
FUEL: Unlimited supplies, all grades of fuel (1,000 cu.m.p.h.), diesel (200 cu.m.p.h.) and luboils available subject adequate advance notice. Supplied by Seka S.A. Telegraphic address: Seka Kalilimenes. Telex: 0262180 Vila GR.
Piraeus Address: Seka S.A., 53–55 Akti Miaouli, 18536 Piraeus, Greece. Tel: 4522911. Telex: 212172, 241717. Contact: Costas Zacharopoulos.
FIRE PRECAUTIONS: Portable foam fire extinguishers.
CUSTOMS ALLOWANCES: 200 cigarettes permitted to each crew member to be held out of bond, and 1 bottle of wine/spirits.
CONSULS: None.
REPAIRS: None.
AIRPORT: At Iraklion, 75 km. distant.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
SHORE LEAVE: Permitted if Free Pratique requested and granted.

SHIPMASTER'S REPORT: 1976. (Updated 1984).
Pilotage: Pilot boards about 1 mile South of Aghios Pavlos.
Anchorage: Half a mile E.N.E. of Mavronissi, depth of water 30 ft.
Max. Size: According to Pilot; 300,000 d.w.t. in ballast and max. draft 44 ft.
Pumping Rate: Fuel – 1,000 t.p.h., diesel – 200 t.p.h.
ETA: Send ETA 48 hours in advance through Radio Athens. The bunker station can be reached direct on VHF Channels 16 – 14.

KATAKOLON: 37.39 N. 21.20 E. (See Plan)

DOCUMENTS:
Maritime Health Declaration.
Usual Ship's Certificates.
3 Crew Lists.
3 Passenger Lists.
2 Lists of Stores and Provisions.
2 Lists of Crew's Personal Effects.
PILOTAGE: Not compulsory. Port has 1 private Pilot whom vessel may use provided sufficient advance notice passed through Agent.
ANCHORAGES: Vessels can anchor at a distance of 2 cables from the head of the breakwater (bearing 300°). Safe anchorage for vessels of up to 30 ft. draft between positions Lat. 37° 40′ N., Long. 21° 19′ E. and Lat. 37° 40′ N., Long. 21° 20′ E.
MAX. SIZE: Max. safe draft 24 ft.
BERTHING: One pier. Length 204 m. Depth alongside 26 ft. Berthing possible on both sides of the pier.
STEVEDORES: No advance notice required. No shore facilities. Vessels load/discharge with own gear.
MEDICAL: No medical assistance in Katakolon, but facilities exist at the town of Pyrgos 13 km. distant.
FUEL: Not available ex-berth, but can be delivered by tank truck from Patras or Kalamata.
FRESH WATER: Available. Capacity 20 cu.m./hr.
HATCHES: Usually opened and closed by crew but this work can be carried out by stevedores subject consent of Port Authority. Cost as agreed between Master and stevedores.
IDENTIFICATION CARDS: Passes issued by Port Authority.
CONSULS: None.
REPAIRS: Not available in Katakolon. Small quantities of engine spares available in Pyrgos.
AIRPORT: Andravis Airport 26 km. distant. Flights to Athens twice weekly.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: Usual Greek holidays plus local holidays of 6th December and 17th December.
POLICE/AMBULANCE/FIRE: Police and Immigration, Tel: 41202; Fire Brigade (Pyrgos), Tel: 22633; Ambulance (Pyrgos), Tel: 22344.
TELEPHONES: No facilities for placing on board.
SHORE LEAVE: Permitted.
AUTHORITY: Port Authority of Katakolon.

KAVALLA: 40.55 N. 24.25 E.

DOCUMENTS:
5 Crew Lists.
2 Lists of Foreign Exchange.
4 Passenger Lists.
2 Cargo Manifests.
2 Lists of Crew Personal Effects.
Copies of Bills of Lading and usual Ship's Certificates.
PILOTAGE: Compulsory. 24 hours' notice of ETA to be passed to Agents or direct to Port Authorities. Vessels requiring Pilot should contact Harbour Master/Pilot on VHF Channel 12 (24 hour service). Pilot usually boards about 0.5 mile from breakwater light from new 14 m. length pilot boat. If strong South or S.W. winds prevailing, vessels recommended take refuge Eleftheron Bay. Vessels awaiting a Pilot may anchor 0.5 mile South of Kavalla Lighthouse and stand-by on VHF Channel 12.
ANCHORAGES: 0.5 to 2 miles South of Kavalla Lighthouse, depth 30 m. to 40 m. Bottom sand and mud.
RESTRICTIONS: Berthing during daytime. Unberthing possible anytime.
MAX. SIZE: Max. length 200 m. with proportionate breadth. Max. draft 27 ft. 06 in. Tidal range 2 ft.
HEALTH: Doctor boards vessel with Port Officer. Maritime Declaration of Health and Derat Certificate required. In case suspected disease or fever on board, Master should radio Port Authorities in advance. Pratique is automatic if arriving from another Greek port.
RADIO: No local radio station. Cables may be routed through Athinai Radio.
VHF: Harbour Master's office equipped with VHF Channel 12 and 16 (24 hour service).
MEDICAL: Advance notice of medical requirements necessary. General hospital in Kavalla and numerous private clinics.
TANKERS: See "Prinos".
DENSITY: 1025.
FRESH WATER: Available at berth.
FUEL: Small quantities available by truck.
HATCHES: Opened and closed by crew.
CARGO GEAR: Vessel should have cargo gear ready on arrival in order to avoid delay.
CONSULS:

France	Tel: 3163	Netherlands	Tel: 3265
Finland	Tel: 3467	Sweden	Tel: 3669

REPAIRS: Minor repairs available.
AIRPORT: Distance 30 km. One or two flights daily to Athens.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: Standard Greek holidays. Local holiday 29th June.
POLICE/FIRE: Police, Tel: 3291; Fire, Tel: 1999.
AUTHORITY: Kavalla Port Authority, Kavalla, Greece. *Tel:* 051-223716. *Telex:* 045 2140 LIKA. *Contact:* P. Zachariou, Harbour Master.

KYMASSI: 38.49 N. 23.32 E. (See Plan)

LOCATION: Lat. 38° 48.6′ N., Long. 23° 31.5′ E.
The port is on the Northern part of Nissos Evvoia. Vessels load magnesite in bulk, and firebricks on pallets.
DOCUMENTS: Crew list and usual documents for Greece.
PILOTAGE: Pilot boards about 5 cables off the berth.
APPROACHES: See "Shipmaster's Report"

RESTRICTIONS: No berthing during night-time.
RADIO: ETA and other relevant information sent by radio to the Sub-Charterer's Agents, Financial Mining Industrial and Shipping Corp., in Athens. Cable Address: "Epichiris, Athens".
VHF: Approaching Kymassi VHF contact only with Harbour Master's Office on Channel 12 during working hours (and Channels 14 – 16).
TUGS: There are no tugs in the area, except pilot boat.
BERTHING: Safe draft alongside is 26 ft. 6 in., salt water. Ship berths alongside 2 dolphins which are very well fendered with numerous rubber tyres. On approach the port anchor is let go and as the ship snubs round to port an off-shore mooring line is run by the pilot boat aft to the off-shore mooring buoy, to which the ship's line is made fast. The next line is run to inshore mooring buoy the same way. Then vessel is made fast to strong bollards.
LOADING: Carried out via a sophisticated conveyor system, the main tower of which is on curved track, thus allowing flexibility in loading either forward or aft for all the length of the vessel without any shifting, this is necessary only when loading palletised cargo. Also see "Shipmaster's Report".
BANKS: National Bank of Greece in Mandoudi. Foreign banks in Chalkis.
EMERGENCY CO-ORDINATION CENTRE: Nearest at Chalkis 60 km.
STORING: See "Prelims".

1. Yes.
2. Yes, vessel can store from barges during loading.
3. Trucks can proceed alongside.
4. Yes.
5. Declaration to Customs.
6. No.

SURVEYORS: Cargo inspectors and surveyors come from Piraeus.

SHIPMASTER'S REPORT: March 1979.
The port is on the Island of Nissos Evvoia. Vessel loaded a cargo of bulk magnesite ore (deadburned).
Documents: Crew List. Usual documents for Greece. However, as the ship had already cleared into Greece at Corinth, the Bond had to remain sealed from that port to Kymassi. Leaving Corinth a photo-stat copy of all papers handed in at that port was placed on board duly stamped by Customs for production at Kymassi. Register and usual certificates were taken by Agent to authorities and returned with Pilot plus clearance before sailing.
Pilotage: Pilot boards about 5 cables off the berth. He gave advance advice about the time the other ship was to sail and when he expected to board.
Approaches: Although no large scale British Admiralty Chart of the area or port on board, the approach was made without any difficulty. The 100 fathom line runs approximately 1 to 1.5 miles off the land. The ore loading berth is on the South side of the Bay with fairly steep to land on the Northern side. As ship has to swing to lie head out to sea, it is better according to the Pilot to approach keeping towards the North side of the Bay. Anchoring is not advised unless very good weather due to depth of water and poor holding ground. The Pilot, via VHF, advised us to lie off as the berth was occupied when we arrived. The ship berthed was due to sail around 1200 hrs., we arrived at 0900 hrs.
Radio: ETA and other relevant information was sent by radio to the Sub-Charterer's Agents, Financial Mining & Industrial Corp., in Athens. Cable address 'Epichiris – Athens'. There were no problems clearing messages.

Approaching Kymassi there was no response on VHF until the ship was within 4 miles of the port, when the Pilot answered on Channel 16 and we worked on Channel 12.
Berthing: Ship heads towards the loading jetty, a high concrete structure of "Y" shape with the ship berthing against the two arms. Both these are well fendered with numerous rubber tyres. On approach the port anchor is let go and as the ship snubs round to port an off-shore mooring line is run by the boat aft to the off-shore mooring buoy. This buoy has a slip toggle arrangement to which the ship's line is made fast. The next line run is the inshore after line which is taken to a mooring buoy inside the line of the berth. A head rope was then run to the pier and to a strong bollard.

The anchor cable was slacked and ship hove alongside by the head and stern ropes, the offshore stern rope being slacked as required. Back-spring was led to a bollard on the jetty as was the spring from aft. A further headrope was run to the bollard on the pier and aft a second rope to the inshore buoy plus a bight to a bollard on the pier.
Loading: Carried out via a sophisticated conveyor system, the main tower of which is on a curved track, thus allowing flexibility in loading either forward of aft in a hatch. It is necessary to shift ship to load each hatch.

Two grades of magnesite were loaded. One grade in No. 2 hatch, (first loaded), then the other grade between No. 1 and No. 3 hatches. When No. 2 was completed it was necessary to warp the ship astern to load No. 1 and later warp ahead to load No. 3 hatch.

Loading commenced at 1540 hrs. on the 17th and was completed at 0650 hrs. on the 18th. Allowing for shift ship plus change of gangs ashore it averaged out at a loading rate of 556 tonnes per hour.

The loader has an adjustable spout which ensures that the cargo can be readily trimmed to ensure a good flat stow on completion of space without any need for trimmers. The loader is operated with regard to the spout and slewing from a control box situated on the draw-bridge section of the loader. A very dusty cargo.
General: Whilst the vessel was alongside a small ship berthed using a Mediterranean moor, two anchors down and stern moored to a buoy. This berth is further inside the Bay. The vessel loaded her cargo from lighters.
Agents: The Agent from the Financial, Mining and Industrial Corp. was most helpful and attentive to his duties. He appears to work long hours as he also supervises the loading and works continuously. He also attends to advising when it is necessary to shift ship.

AUTHORITY: Harbour Master of Kymassi, Mandoudi, Evia Island, Greece. *Tel:* 0227-22020. Also VHF Channels 12, 14 and 16. *Contact:* George Sakalis, Harbour Master.

LAVRION: 37.42 N. 24.04 E. (See Plan)

DOCUMENTS:
Maritime Declaration of Health with Crew's Vaccination Cards.
Cargo Manifests.
4 Crew Lists.
PILOTAGE: Address of pilot station, Port Authority of Lavrion. Pilot boat is a motor launch 8 m. long, black hull with white stripe flying code flag "H". Vessels requiring Pilot should flash or sound letter "G". Pilot boards about 0.5 miles from Green Light (Ak. Ergastiria). In event of bad weather, boarding position is inside the buoy. Vessels awaiting Pilot should anchor close to the Green Light depending on vessel's size.
ANCHORAGES: See "Pilotage".
MAX. SIZE: Max. length 130 m. (approx.), max. draft 21 ft.
HEALTH: Health Officer and Port Officer board vessel on arrival. Maritime Declaration of Health should be submitted to Health Officer who examines any sick crew. Free Pratique is not automatic.
VHF: Pilot boat equipped with VHF.
BERTHING: Harbour open to S.E. winds, but otherwise sheltered and safe. There are two quays: one 330 ft. length, depth alongside 20 ft., and one of 260 ft. length, depth alongside 13 ft.

Mining company owns bridge elevator with capacity of 700 tons per day.
STEVEDORES: Advance notice required in order to arrange gangs. No shore cargo equipment, and cargo operations effected by ship's gear.
MEDICAL: Medical assistance available.
FRESH WATER: Can be supplied to vessels alongside berth from tanker trucks.
FUEL: Only small quantities available as existing fuel tank only 10 tons capacity. Can be supplied by tank trucks from Piraeus.
HATCHES: Opened and closed by crew.
CUSTOMS ALLOWANCES: 200 cigarettes per crew member allowed out of bond.
REPAIRS: Minor repairs only.
AIRPORT: Athens Airport, distance 45 km.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
POLICE/AMBULANCE/FIRE: Police, Tel: 25218; Ambulance, Tel: 25340; Fire, Tel: 25249.
HOLIDAYS: Local holiday 26th July.
AUTHORITY: Port Authority of Lavrion.

MEGARA (Agia Trias): 37.58 N. 23.24 E. (See Plan)

BERTHING: Pier owned by Hellenic Aspropyrgos Refinery S.A. in position Lat. 37° 58′ 11″ N., Long. 23° 24′ 17″ E. (working 24 hours.)

Pier projecting 205 m. from shore with berthing head 63 m. long. Single berth with depth of 42 ft. 6 in. at S.W. end. 44 ft. at N.E. end. 46 – 50 ft. available at 1 m. from the berth.

With suitable fendering berth can accommodate vessels up to 65,000 d.w.t.

Tankers discharge cargoes by 3 flexible hoses of 8 in. diameter each. The maximum acceptable pressure at the unloading hoses is 8 – 9 kg./sq.cm.
FRESH WATER: Not available.
FUEL: Not available.

For additional information see "Pachi Oil Terminal".
AUTHORITY: *Operator:* Hellenic Aspropyrgos Refinery S.A., 18 Hermou Street, P.O.Box 3649, 10563 Athens, Greece. *Tel:* 5573252-6, 5573483. *Cables:* Refaspr. *Telex:* 215442, 215443, Ref Gr. *Contact:* George Dimogerontas.

MILAKI (Aliveri Bay): 38.22 N. 24.04 E. (See Plan)

SHIP'S OFFICER'S REPORT: December 1985.
LOCATION: Aliveri Bay is about 2 km. N.N.E. of Karavos in position Lat. 38° 22′ 30″ N., Long. 24° 04′ 10″ E. Milaki is the name of the berthing facility.
PILOTAGE: Pilot boards 1 nautical mile S.W. of the berth. Pilot boat painted white. Call "Katerina" on VHF Channel 14 to make contact, also works on Channel 12.
ANCHORAGE: Vessels may anchor in Aliveri Bay.
MAX. SIZE: Vessels up to 120,000 d.w.t. and 240 m. LOA handled.
VHF: See "Pilotage".
TUGS: One tug "Achileus", 1,200 h.p. Additional tugs available from Khalkis (Chalkis).
BERTHING: Berthing instructions obtainable from "Katerina" on VHF Channels 14 or 12.

One pier, length 300 m. and width approximately 50 m.

Depths alongside: North side: 18 m. at seaward end and 14.9 m. at inner end.

South side: 23 m. at seaward end and 13 m. at inner end.

The North side is for unloading coal and slag and the South side for loading coal and cement.

Cargo discharged by grab (gantry) and loaded by pipe.
MEDICAL: There is a small hospital in Aliveri.
FRESH WATER: Available by truck.
REPAIRS: Facilities available at Khalkis.
AIRPORT: Athens International Airport.
GENERAL: *Publications and Charts:* B.A. Mediterranean Pilot Volume 4 and B.A. Chart No. 1597.
Note: The pier and light on N.W. corner (OQ(R)) of pier not marked on Chart No. 1597 edition 1983, with corrections done for 1983 and 1985.

SHIPMASTER'S REPORT: April 1987.

LOCATION: In Aliveri Bay, on the Western shore of the Island of Evia (Euboia).

DOCUMENTS:
- 2 copies Crew Effects Declaration.
- 2 copies Ship's Stores, including Narcotics.
- 2 copies Stores not Sealed in Bond (Master's Responsibility).
- 4 copies Crew List.
- 1 copy Maritime Declaration of Health.
- 2 copies Vaccination List.

PILOTAGE: Sea Pilot can be arranged by prior notice to Agents. Boarding position is off Dipsa Rock.

Harbour Pilot boards at the anchorage or close to the jetty.

ANCHORAGE: In position Lat. 38° 22′ N., Long. 24° 02′ E., about 1 mile West of the Jetty head in over 28 fathoms of water.

HEALTH: Radio Pratique not available.

Maritime Declaration of Health required. Pratique is granted after berthing.

VHF: Terminal Heracles II and agent maintain watch on Channel 14.

TUGS: 3 tugs available from Chalkis.

BERTHING: *Coal Discharging Berth Heracles II:* Berth is located on the Northern side of a Jetty extending about 300 m. out in a 280° direction from the coast. The Jetty head is in position Lat. 38° 22.5′ N., Long. 24° 03.1′ E., about 5 cables South of Southern Breakwater light of Karavos Port.

The terminal is controlled by the cement factory, which is situated just across the road from the Jetty. The reported depths of water in this berth (see "Plan") were prepared by Gold Divers Underwater Services Co. of Piraeus in April 1986.

One travelling bridge crane serves the ships. The discharging rate is between 500 t.p.h. and 600 t.p.h. Permissible airdraft is 19.00 m. maximum. Recommended arrival draft is 15.20 m. forward and 17.70 m. aft.

With the above recommended draft the vessel can tie up starboard side alongside using about 200 m. length of the jetty with the remaining length of the vessel overhanging. All the after mooring ropes lead forward to the knuckle. Vessel can however, be warped ahead after lightening from forward holds.

MEDICAL: Facilities available at Aliveri.

DENSITY: 1028 – 1029.

REPATRIATION: Possible, but with difficulty.

AIRPORT: Nearest airport at Athens, 3 hours by road.

GENERAL: *Customs:* For issue of bonded stores contact Karavos.

For clearance of stores and spares contact Chalkis.

Immigration: At Chalkis.

Supplies: Provisions and stores are ordered from Piraeus/Athens.

AUTHORITY: Port Authority of Karavos. *Tel:* 0223-22318.

MILOS ISLAND (Adamas, Voudia Bay): **(See Plan)**

LOCATION: Adamas Harbour: Lat. 36° 42.5′ N., Long. 24° 26.5′ E.

Voudia Bay: Lat. 36° 44.6′ N., Long. 24° 32.8′ E. (on the N.E. side of Milos Island).

A vessel is considered to be an "arrived ship", when at and/or anchored close to the above positions.

DOCUMENTS:
- 4 Crew Lists.
- 3 Passenger Lists.
- 3 Provisions Lists.
- 4 Personal Effects Declarations.
- 2 Cargo Manifests.
- Ship's Gear Book.
- Vaccination Certificates.
- Derat Certificate.
- Certificate of Registry.
- Load-line Certificate.
- Safety Equipment Certificate.
- Radio-telegraphy Certificate.
- Certificate of Measurement.

PILOTAGE: No pilot station. Vessels requiring a Pilot should make contact with Adamas Harbour Control by VHF Channel 12. Vessels calling at Voudia Bay can make contact on Channel 8 VHF during office hours (0700 – 1500 hrs.local time) for general information and Pilot arrangements. Pilot arrangements are generally done through Agent's who may contact Pilot in advance by telephone. Pilot boards from a small motor-boat.

ANCHORAGES: Safe anchorage in all parts of Milos Bay, where Adamas port is situated. Main anchorage in Milos Bay is on E.S.E. side of Bombarda Cape, which has a lighthouse showing a Fl. R. 4.5 secs. light.

The Voudia Bay Anchorage is located 6 cables S.E. of Voudia Light within a circle of 3 cables radius. Ship's calling to Voudia Bay should use this anchorage.

MAX. SIZE: Any size vessel may enter Adamas Port, but berthing alongside the Ore Loading Berth at Kanaba or the private Ore Loading Berth of Mycobar Ore Mining Co. is restricted for vessels of more than 26 ft. draft.

Ore loading berth at Voudia Bay (Privately owned by Messrs. Silver and Baryte Ore Mining Co.) is able to facilitate berthing of vessels of up to 185 m. long (610 ft.) and max. draft 33 ft. Restriction exists for this berth, also for the height of vessel's freeboard. (The highest point of the vessel's side along the deck including rails or any other fixed constructions, must not exceed the 10.9 m. (36 ft.) from the sea level).

Loading-discharging dock at Voudia Bay with installations for mechanical loading of cargo in bags. This dock has a length of approximately 75 m. and the max. draft of the vessel alongside cannot exceed more than 6 m. (20 ft.).

No facilities for tankers.

HEALTH: Authorities require 24 hours' notice of arrival in order to grant Free Pratique to vessels arriving from a non-infectious country. Free Pratique cannot be granted at Milos to vessels having disease on board nor to those arriving from an infected area. Such vessels are required to proceed to a main Greek port (Piraeus, Syros, etc.) to obtain health clearance.

RADIO: Athens Radio and Heraklion Radio.

TUGS: Not available.

STEVEDORES: Loading/discharging at Adamas Port (Kanaba) is by means of ship's gear, reaching a loading rate of 1,000 – 1,300 tonnes per working day. At the private berths of Mycobar Ore Co. in Adamas and Silver and Baryte Ore Co. at Voudia Bay the bulk ore is loaded by means of a conveyor belt at a rate of 500 tonnes p.h. maximum.

MEDICAL: One small public hospital. There are 3 doctors and 2 dentists resident on the Island. There is an airport on the Island with daily services to Athens. Also in case of illness, the possibility of an emergency service.

FRESH WATER: Available to vessels alongside using ship's hoses. Delivery alongside up to 30 cu.m. in 12 hours.

FUEL: Small quantities of lubricants available.

OPENING/CLOSING HATCHES: Opened and closed by crew.

CUSTOMS ALLOWANCES: Customs Office at Adamas Harbour. Tel: 0287-22.282.

(a) Vessel arriving from European Common Market Ports: 300 cigarettes, or 150 small cigars, or 75 big cigars, or 400 gm. tobacco. 1.5 litres of spirits of 22° vol. or more, or 4 litres of wines of less than 22° vol. Perfumes 75 gm.

(b) Vessel arriving from any other port: 200 cigarettes, or 100 small cigars, or 50 big cigars, or 250 gm. of tobacco. 1 litre of spirit of 22° vol. or more, or 2 litres of wines of less than 22° vol.

REPAIRS: Minor oxy-acetylene repairs possible.

TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.

HOLIDAYS: Sundays and customary holidays. Cargo work can be arranged on these days at 75% increase on tariff rates.

TELEPHONES: Police: 0287-21.204. Port Authority: 0287-22.100. Agent of Silver and Baryte Ores Co.: 0287-41.277. Pilot: 0287-22.265 or 22.086.

SHORE LEAVE: Permitted.

DELAYS: Strong Southerly winds may delay berthing, or force vessel to leave loading berth at Voudia Bay.

DEVELOPMENTS: Intentions to construct a conveyor belt for ore cargo loading on the Kanaba Dock (Adamas).

SHIPMASTER'S REPORT No. 1: *Voudia Bay:* Fresh water is available using vessel's own hoses. Limited quantity of provisions are available. Hire of polypropylene ropes of 150 m. length is possible.

It is advisable to close ventilators before loading due to excessive dust.

Pilot remains on board during loading.

Cargo: Perlite.

Loading rate for bulk: 250 t.p.h.

Loading rate for bags: 18–20 t.p.h.

SHIPMASTER'S REPORT No. 2: *Voudia Bay and Milos Island:* Situated on the N.E. corner of the island of Milos. When approaching from the S.E. the most prominent features are the scarred terrain, the factory building and the silo which is situated just above the berth. The loading gantry has both fixed red and white lights on it and is conspicuous.

Anchorage: The vessel anchored in a position with the loader bearing 302° T. distance 7.5 cables in 48.5 m. of water using 5 shackles of cable, the holding appeared to be good. The recommended anchorage is in a position with the loader bearing 328° distance 5 cables where holding is reported to be good. There was another vessel in that position at the time.

Caution: This anchorage is not recommended in strong South to S.E. winds due to the seas that build up in the Bay. Vessels are recommended to go to the North of Pilonisi Island and anchor in a position N.W. of the North West point, a distance of not less than 3 cables. This island is now joined to the main island by rubble from the factory, this is not shown on the Chart (1832).

Method of Berthing: (See "Plans"). Approach to the berth is made heading in a N.W.'ly direction, keeping the Northernmost buoy (A) close to the starboard side and when the bow is passed about a third of the ship's length, the starboard anchor is let go and let run until about 4 shackles on deck, then it is checked, in the meantime a boat will take a breast rope from for'd, run from the port shoulder lead (1). Once this is ashore and the vessel begins to cant to starboard, the bow is worked into position by heaving on the breast rope and slacking the cable until there is about 6 shackles on the latter. Meanwhile, a line is run from the starboard quarter (2) to buoy (B). A word of caution here, the berth is designed to take vessels up to 23,000 tons, so for a small vessel it will be necessary to have 2 ropes joined together for moorings (2), (4) and (5). The next line sent away is one from the Port Quarter to ashore as a breast rope (3), the stern is then brought into position in a similar manner to the bow. As the prevailing wind is from ahead usually, the next rope sent away is the head line (4) and finally the stern line (5). The latter two are used for shifting the vessel under the loader. Directly under the loading gantry, there is a dolphin arrangement to keep the vessel off the cliff, but on completion of mooring, the vessel should end up about 6 ft. to 10 ft. off this.

Caution: In strong South to S.E. winds, the berth becomes dangerous and vessels have to leave and go to anchor and it is often necessary to leave the ropes on the buoys etc. as it is not possible to let them go. It is also advisable to retain some ballast on board for berthing.

There are 2 Pilots, both speaking English, the younger, an ex-Chief Officer has the better command of English and was the source of a lot of this information.

On leaving the berth, the last rope to be let go is (2) and with a smaller vessel, this can safely let go while weighing anchor. Vessel will then proceed to another anchorage close to, to secure, obtain clearance and clean up.

Loading Procedure: Loading is done by a chute and at an approximate rate of 300 tonnes per hour. The cargo is very dusty and everything should be securely battened down and it is strongly advisable to wear goggles and protective masks on deck as the dust is choking and if it gets in the eyes, they should not be rubbed as it is abrasive and can cause permanent damage. Eyes should be washed out. The ship will advise what weight she can take, and as the weighing procedure ashore is liable to break down after the first 500 tonnes, vessel is loaded according to draft, which has to be carefully checked, as when stipulating amounts required per hatch, they will not necessarily keep to this unless told. A boat is available for checking the draft, 1 blast on the whistle will summon it. Only method of getting ashore is by boat, so it is necessary to have the starboard gangway down. Both foreman and boatman have a fair knowledge of English, but foreman does not come aboard but stays on the loader, so it is necessary to shout instructions etc. The foreman will advise on shifting for position required, this is done with the aid of frequent blasts on a pocket whistle. Only one man comes aboard and that is to tend the chute.

There appears to be a continual short swell which makes draft reading a little difficult.

Entry and Clearance: Agent, Doctor, Customs and Harbour Master boarded the vessel at anchor and entered her there. Forms on board were not acceptable, but they transferred them to their own. I understand that the only acceptable forms are the standard IMO forms, and if there are any of these on board they should be used.

Forms required:
- 2 Crew Declarations.
- 3 Crew Lists.
- 2 Bonded Stores List.
- 2 Stores Lists.
- 1 Vaccination list (Including Cholera).

There are various other forms to sign, but these are prepared by the Agent. The Health Declaration is made out by the doctor in his book. The Agent, who is from the Mining Company, spoke very good English.

Weather: Northerly winds predominate during the Summer and can become quite strong during September, mainly from midnight to noon.

AUTHORITY: Port Authority of Milos, Adamas Harbour, Milos Island, Greece. *Tel:* 0287-22.100.

Silver & Baryte Ores Mining Co., 21a Amerikis Street, Athens 135, Greece. *Tel:* 3628.432 or 3626.064.

Local: Silver & Baryte Ores Mining Co., Voudia Bay, Cyclades, Milos 84800, Greece.

MITILENE (incl. Geras Bay and Pamfyllon): 39.06 N. 26.35 E. (See Plan)

PORT LIMITS: A vessel is considered to be an "arrived ship" and laytime will commence at the working hours that follow the delivery of the Master's Notice of Readiness.

DOCUMENTS:

Quarantine:
- Maritime Declaration of Health.
- Valid Derat Certificate.
- International Vaccination Certificates.

Customs:
- 2 Crew's Effects Declarations.
- 2 Ship's Stores Declarations.
- 2 Bonded Goods Declarations.
- 2 Crew Lists.

Immigration:
- 1 Crew List.

Port Authority:
- 1 Crew List.
- 1 Passenger List.
- Ship's Certificates or Memorandum.
- Ship's Papers.

PILOTAGE: It is not compulsory, but, if required, the services of experienced Mercantile Marine officers, having knowledge of the port, can be obtained.

ANCHORAGES: Off the Outer Port, in depths of about 18 m.; extreme end East of Kastro Peninsula (or Fokiotrypa) light, bearing due North.

RESTRICTIONS: Entry is not allowed after sunset.

MAX. SIZE: Length 120 m. – draft 17 ft. at Inner Port; length 160 m. – draft 28 ft at Outer Port.

HEALTH: The Authorities must receive a 24 hour advance notice for the ETA of the vessel with information about the port of origin, the cargo, the number of crew and passengers and the port of destination; details of any suspected disease or fever on board must be included in that notice. Pratique is automatic only for vessels entering after calling at another Greek port.

RADIO: "Athinai (Athens) Radio", "Limnos Radio", "Chios Radio". call signs SVA, SVL, SVX respectively.

VHF: Port Authority's VHF radiocommunication; Channel 12 for calling.

BERTHING: See "Plan". For drafts see "Max. Size".

STEVEDORES: At least 8 hours' advance notice for the number of stevedores required.

MEDICAL: In case of illness on board the Master should cable details prior to arrival. Hospital and dental facilities are available. Vaccination cards required.

TANKERS: At Geras Bay (Mamidakis) and Pamfila (Purfina).

FRESH WATER: Available from the quay through pipes. Cost per ton about 200 Drs.

FUEL: Supplied by tanker trucks only; advance notice required.

FIRE PRECAUTIONS: No more than the usual ones.

CONSULS:

Belgium	Tel. 28494	Netherlands	Tel. 28760
France	Tel. 28151	Sweden	Tel. 28494

REPAIRS: Local machine shops undertake very minor repairs.

SURVEYORS: Lloyd's Register.

HATCHES: Opening and closing is normally carried out by crew.

CUSTOMS ALLOWANCES: For each member of the crew: tobacco, 50 grams; cigarettes, 40 pieces; small cigars, 20 pieces. Wines, 2 litres. Spirits, 0.75 litre.

CARGO GEAR: Load/discharge effected by ship's own gear.

REPATRIATION: There are facilities for effecting crew changes and arranging any necessary repatriation.

AIRPORT: Distance 8 km. It is regularly served by "Olympic". Flights to Athens and Thessaloniki.

TIME: GMT plus 2 hours. GMT plus 3 hours during Summertime from April to September.

HOLIDAYS: January 1st, New Year's Day; January 6th, Epiphany; Ash Monday; March 25th, National Holiday; Good Friday; Easter Monday; May 1st, Labour Day; Whit Monday; August 15th, Assumption; October 28th, National Holiday; December 25th, Christmas Day; December 26th, Boxing Day.

Cargo work can be arranged on these days after consultation with the union of stevedores.

POLICE/AMBULANCE/FIRE: Police, Tel. 100 and 22021; Hospital, Tel. 28412 and 22005; Fire Brigade, Tel. 199 and 22055.

EMERGENCY CO-ORDINATION CENTRE: Hellenic Coast Guard Emergency Co-ordination Centre (S.A.R. Chamber) in Piraeus. Telephones: 4112500 and 4173238. Telex: (021) 2022, 2273 and 2239 Yen Gr.

BANKS:

Bank of Greece, Prokymaia Telex: 297110 Bngr Gr.
National Bank of Greece, Prokymaia. Telex: 297106 Nbg Gr.
General Hellenic Bank, Prokymaia.
Commercial Bank of Greece, Prokymaia. Telex: 297103 Cbmy Gr.
Ionian & Popular Bank of Greece, P. Kountouriotou & Alkaiou. Telex: 297109 IPMY GR.
Agricultural Bank of Greece, Vournazon 2. Telex: 297108 Ate Gr.
Credit Bank, P. Kountouriotou 33. Telex: 297151 Ccb Gr.

STORING: Vessel can be stored by truck only. Trucks can proceed alongside at the berth.

SHORE LEAVE: No restrictions.

IDENTIFICATION CARDS: Shore passes are issued.

DELAYS: Normally there are no delays.

SHIP SUPPLY SERVICE: Ant. Picoulos Shipping Agency, Prokymaia, Mitilene. Office Tel: 23720, 27000, 24933. Home Tel: 22341. Telex: 297120.

A launch of 11 m. length available for ship to shore transport of personnel and/or essential stores and/or sick crew members if allowed.

AUTHORITY: Hellenic Coast Guard, Island of Lesbos Port Authority, Mitilene Port Authority, Prokymaia, Mitilene 81100, Greece. *Tel:* 28827, 28647, 24115. *Telex:* 290142 LXM GR. *Cables:* Limenarchio, Mytilene. *Contact:* Commander B. Ch. Antypas.

MYKONOS: 37.26 N. 25.25 E.

Vessels in excess of 22,000 d.w.t. have been accommodated. Loading of Barytes ore at rates up to 5,000 tons per day. In Winter when North winds prevail conditions are satisfactory for loading: however, loading position considered unsafe when S.W. or West winds prevailing. When sufficient cargo is available vessels can load in 2 days.

PACHI: 37.58 N. 23.23 E. (See Plan)

DOCUMENTS: All usual certificates including Registry, Safety, Cargo Gear, Radio, Derat, Last Port of Clearance and:
- 9 copies Crew Lists.
- 2 copies Vaccination Certificates.
- 1 copy Cargo Manifest.
- 1 copy List of Spares.
- 1 copy Maritime Declaration of Health.
- 1 copy Vaccination List.
- 4 copies Crew Effects Declaration.
- 1 copy Passenger List.
- 1 copy Cargo Documents.
- 2 Special Customs Forms in triplicate.
- 2 copies Stores Lists.

PILOTAGE: Cable Agent 72, 48, 24 hours in advance advising ETA. Agent informs Pilot Office of vessel's arrival time. Piraeus Pilots can be contacted on VHF Channels 7 and 12. Pilot boards vessel North of Kanaria Islands.

ANCHORAGES: See "Piraeus".

RESTRICTIONS: None.
MAX. SIZE: Pachi Oil Terminal is able to accept vessels for discharging crude oil from 20,000 d.w.t. to 600,000 d.w.t., max. draft 29 m. The depth at the head of the pier is 31 m.
HEALTH: Pratique is in accordance with International Regulations. Pratique automatic if arriving from another Greek port.
RADIO: Athens (SVA).
VHF: Piraeus Pilots and Eleusis Coastguard operate a 24 hour service on Channels 16, 12 and 7. Hellenic Refinery operates on Channel 16.
RADAR: None.
TUGS: Usually join vessel near to the berth. Ship's lines always used.
BERTHING:

Location of berth: Lat. 37° 58′ 25″ N., Long. 23° 22′ 50″ E.

Pilot will advise Master of berthing place in accordance with Port Authority instructions. Usually berthing with starboard side alongside with 3 head lines, 4 breasts, 2 springs, 3 stern lines, 4 breasts and 2 springs depending on the size of the vessel. According to the Pilot, it is preferable to use ropes for head and stern lines.
MEDICAL: Advance notice not required; clinic available in town of Eleusis if required.
TANKERS: There is one berth with 4 unloading arms 16 in. diameter each. The maximum and minimum height of the manifolds to the ship is 35.5 m and 2 m. respectively above sea level.

The maximum accepted pressure at the unloading arms and of the crude oil system is 11 bars (150 p.s.i.) and the maximum accepted flow rate through each unloading arm is 4,000 cu.m./.hr. (Total for all four unloading arms 16,000 cu.m./.hr.).
DENSITY: 1025.
FRESH WATER: Not available at present.
FUEL: Not available at present.
FIRE PRECAUTIONS: Fire wires rigged fore and aft on outboard side of vessel. Deck scuppers plugged. Spark arresters to be fitted on tank openings. Earth connections made. Patrols made by Port Officers.

In the case of a storm, the Dock Master can stop discharge of vessels. The refinery fire fighting procedure is followed.
CONSULS: None locally. Consuls at Athens and Piraeus.
REPAIRS: While alongside, maintenance of any kind on board is strictly prohibited. In case of an emergency, the issuing of a special written "cold or hot work" permit is necessary.
DRY DOCKS: See "Eleusis".
GANGWAY/DECK WATCHMEN: Not required.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 open bottle of wine/spirit allowed per crew member.
REPATRIATION: All facilities available for crew changes and repatriation.
AIRPORT: Direct overseas flights available via Athens airport at Hellinicon.
TIME: GMT plus 2 hours. Summertime (March to September) GMT plus 3 hours.
HOLIDAYS: None affecting cargo operations.
POLICE/AMBULANCE/FIRE: All emergency services are available through the Terminal Office. Tel: 26480 – 26580. Fire alarms are installed throughout the jetty. Eleusis Coastguard (01) 5543504.
TELEPHONES: This service is available aboard ship by prior arrangement through the Agents. Standard rates apply.
SERVICES: Compass adjusting. Electronic equipment services.
SHORE LEAVE: Allowed.
IDENTIFICATION CARDS: Shore passes issued by Port Authority.
AUTHORITY: *Operators:* Hellenic Aspropyrgos Refinery, S.A. 18 Hermou St., P.O.Box 3649, 10563 Athens, Greece. *Tel:* 5573252-6, 5573483 . *Telex:* 215442, 215443. *Cables:* Refaspr. *Contact:* George Dimogerontas.

Eleusis Port Police.

PATRAS (including Rio): 38.14 N. 21.45 E. (See Plan)

DOCUMENTS: Port Authorities: 2 Crew Lists, Customs: Declaration of Cargo and Passengers.
PILOTAGE: Compulsory. Advance notice of ETA to be passed to Agents who arrange Pilot. Vessels without Agents should advise authority of ETA through Athens Radio, or on arrival outside harbour make International Code sounds and signals for vessels requiring a Pilot. Pilot boat is small boat carrying pilot flag. Pilot usually boards less than 1 mile outside harbour entrance. VHF contact possible with Port Authority and Pilot on Channel 12.
ANCHORAGES: Patras Roads are usually safe; when very strong W./N.W. winds blow, vessels may anchor at Nafpaktos Roads.
RESTRICTIONS: Port entrance has depth of 34 ft. At main harbour vessels having draft in excess of 28 ft. cannot berth. The limit at the new berth is 34 ft. draft. There are 2 red buoys at the entrance to the port.
MAX. SIZE: Vessels of less than 34 ft. draft. No restrictions on length or breadth. Height of tide, max. 0.55 m., does not affect size of vessel.
HEALTH: Pratique in accordance with International Regulations.
RADIO: Athens Radio.
TUGS: Two tugs, 900 h.p. and 1,200 h.p. Use of tug compulsory for all vessels over 1,000 tons gross. Joins vessel at entrance to harbour. Ship's lines used.

Tugs also available on request to Nicolas E. Vernicos. Tel: Piraeus 4527812-4522337 (24 hours).
BERTHING: In accordance with allocation given by Port Authority. See "Plan" for lengths and depths.
STEVEDORES: Advance notice of ETA required in order to arrange berth and order number of gangs to commence work immediately. General cargo rate about 80 – 100 t.p.h./gang, bulk cargoes 75 – 90 tons. 7 mobile cranes, capacity up to 25 tons available. One mobile crane capacity 118 tonnes with container handling facilities.
TANKERS: No facilities at Patras, but Texaco-Restis Berth at Rio for vessels up to 18 ft. and 2,500 tons alongside. No residue discharge facilities.
FRESH WATER: Supply line connected to all berths. Rate 30 t.p.h.
FUEL: Deliveries by tank trucks at Patras. Available at Texaco-Restis Berth at Rio.
FIRE PRECAUTIONS: Vessels refuelling or discharging explosives or flammable materials must apply to Port Fire Brigade to stand by.
WATCHMEN: Advisable to employ night-watchmen on large vessels.
HATCHES: Usually opened and closed by crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle wine/spirits allowed out of bond for each Crew member.
IDENTIFICATION CARDS: Crew are supplied with passes by Port Authority.
CONSULS:

Belgium
Denmark
Finland
France
Germany F.R.
Italy
Netherlands
Sweden
Switzerland

REPAIRS: Very minor repairs only.
REPATRIATION: All facilities for crew changes and repatriation.
AIRPORT: None.
TIME: Summertime GMT plus 3 hours end March to end September, otherwise GMT plus 2 hours.
HOLIDAYS: In addition to general Greek holidays and Sundays, local holidays are 8th September, 30th November. Work can be arranged on these days subject to payment of additional charges.
POLICE/AMBULANCE/FIRE: Port Police, tel. 277–622; Patras Police Station, tel. 277–261; Ambulance, tel. 274–444; Fire Brigade, tel. 199. The port has a fireboat.
TELEPHONES: Facilities for connecting on board.
SHORE LEAVE: Permitted.
DEVELOPMENTS: *(a)* Outer breakwater has been extended by 90 m. at South end.

(b) New quay with length of 220 m. to the North of the main installation to be constructed.
AUTHORITY: Port Authority of Patras, St. Othonos Amalias 85, Patras, Greece. *Tel:* 061-341002. *Contact:* P. Bousbouras, Technical Manager.

PIRAEUS: 37.57 N. 23.38 E. (See Plan)

(Including AGHIOS GEORGIOS 37.57 N. 23.36 E.; DRAPETZONA 37.56 N. 23.37 E.; and PERAMA 37.58 N. 23.35 E.)

DOCUMENTS: All usual certificates including Registry, Measurement, Inspection, Load-line, Fumigation, Passenger Safety, Cargo Gear, and Radio.

9 Crew Lists.
2 Vaccination Certificates.
Cargo Manifest.
List of Provisions and Stores.
List of Spares.
Maritime Declaration of Health.
1 List of Vaccination Dates.
1 Crew Effects Declaration.

Customs:

2 Special Forms in Triplicate.
1 Stores List.
Master's Declaration of typewriters and adding machines, etc.
Crew Passports, or Seamen's Books.
Passenger Passports.

PILOTAGE: Cable Agent well in advance advising ETA. Agent informs pilot office of vessel's arrival time.

Pilots can be contacted on VHF Channel 16 for calling, Channels 7 and 12 for communication. Pilot boat is a wooden vessel about 10 m. length with black-painted hull, word "Pilot" painted in white.

Vessels requiring Pilot should signal letter "G" by morse light or by ship's whistle. Pilot boards vessel about 1.5 miles off entrance to harbour, except when very strong South winds prevailing, in which case vessel advised by VHF or by signal light that conditions impossible for Pilot boarding, and whether vessel permitted enter harbour at Master's risk.

If awaiting Pilot, anchorage is possible inside pilotage area of Piraeus – Aghios Kosmas – Piraeus Anchorage – Perama Anchorage – Megara Anchorage (Pachi).
ANCHORAGES: As above. Depths between 9 and 35 fathoms.
RESTRICTIONS: No restrictions for Aghios Georgios Harbour or Drapetzona excepting draft. Harbours open throughout 24 hours for entry and departure subject prevailing weather conditions. No tidal restrictions.
MAX. SIZE: (also see "Tankers") Aghios Georgios max. draft 32 ft. Drapetzona max. draft 38 ft. Piraeus max. draft 36 ft.
RADIO: Athinai Radio – SVA.
TUGS: Use of tugs compulsory for vessels over 1,000 g.r.t. Usually join vessel outside harbour, always using ship's lines. Over 30 tugs available. 10 of less than 1,000 h.p. and remainder over 1,000 h.p.

Nicolas E. Vernicos Shipping Co. Ltd., operate 10 tugs, 500 – 4,000 h.p. Available for towage and salvage. Tel: 4527812, 4522337 (24 hours). Telex: 212450 Vern Gr. VHF Channel 6.
BERTHING: Agent must advise Piraeus Harbour Authorities in order to secure berth allocation. 20,000 m. of quay space. 9 Ro/Ro ramps available.
CRANES: 3 container cranes, lifting capacity 41 tons.

56 electric wharf cranes with capacities of 2 to 27 tons installed along the wharf of the main port and at the dry and floating docks.

51 mobile cranes with capacities of 3 to 20 tons.

19 Straddle-carriers for containers, capacity 30 tons each.

4 floating cranes with capacities of 15, 30 and 2×100 tons.

BULK HANDLING FACILITIES: Silo suction-duct installations capable of moving grain at up to 130 t.p.h. and storage facility for 40,800 tons, as well as 2 mobile suction-duct units for bulk grain-cargoes.

One gantry crane lifting capacity 10 tons, used for coal and bulk cargoes installed at Hercules Port. Pier length 200 m., max. LOA 160 m., max. beam 17 m., max. draft 10 m. Average daily rate for coal 1,000 – 1,200 tonnes.

STEVEDORES: Agent must submit letter of application to Piraeus Port Authorities for number of gangs required also time required to commence cargo work. Discharge usually effected with ship's own gear.

Normal work on loading/discharge of goods in the port is carried out by 2 regular shifts, the morning shift (0800 – 1400 hrs.) and the afternoon shift (1500 – 2100 hrs.). Likewise, upon application of the interested parties (ship-owners, Agents, consignees, shippers, etc.), and provided approval of the competent P.P.A. Service is obtained, a third, night shift can be assigned to the job if the necessary workers and operators are available. This shift is again of 7 hour duration, from 2100 – 0330 hrs. or can be extended to the morning hours if necessary. Exceptionally in the case of work on refrigerator vessels, on which work during the Summer period is limited to the afternoon hours, the Service can assign workers and operators of loading/discharge machinery, starting from 1630 hrs., for a 7 hour period which can be extended, if conditions warrant, to the morning of the next day. Loading/discharge work may also be undertaken on Sundays and other non-working days (holidays) such work being considered as totally extra, being burdened with extra charges accordingly.

MEDICAL: All medical and hospital facilities available. No advance notice required except in special cases.

TANKERS: Discharging effected at private installations.

Shell	max. draft 32 ft.	Petrolles	max. draft 29 ft.
B.P.	max. draft 36 ft.	Fina	max. draft 28 ft.
Elvyn	max. draft 26 ft.	Mobil	max. draft 48 ft.

D.E.H. max. draft 36 ft. (outside steam generator factory, no facilities for going alongside).

DENSITY: 1025.

FRESH WATER: Available alongside berths. For vessels at anchor, water can be delivered by barges (capacity 150 – 240 tons) belonging to Piraeus Harbour Authority at 50% additional cost.

FUEL: Gas oil, fuel oil and mixtures of both to a certain viscosity available. Advance notice of requirements should be sent to Agent order complete customer's requirements.

WATCHMEN: Required.

HATCHES: Opened and closed by stevedores.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes per crew member allowed out of bond. Wine/spirits, 1 bottle.

CARGO GEAR: Before commencement of loading or discharge, cargo gear is examined by Piraeus Harbour Authorities.

IDENTIFICATION CARDS: Passes required for seamen going ashore.

CONSULS:

Belgium
Costa Rica
Cyprus
Denmark
Ecuador
Finland
Iceland
Italy
Liberia
Netherlands
Norway
Panama
Philippines
Senegal
Somalia
South Africa
Spain
Sweden

REPAIRS: Facilities available for all kinds of deck and engine repairs.

DRY DOCKS: (A) Two permanent dry docks at Piraeus (i) Length 136.4 m., depth 9.27 m.; (ii) Length 93.3 m., depth 8.0 m.

(B) Two floating docks at Perama. (i) Length 202 m., depth 40 m., capacity 15,000 tons. (ii) Length 113.8 m., depth 28 m., capacity 4,000 tons.

Also see Eleusis and Syros.

SURVEYORS: American Bureau of Shipping, Filellinon 1-3, Piraeus. Tel: 4527611/4.

Bureau Veritas, 85 Akti Miaouli, Piraeus. Tel: 4173270, 4517124, 4120673.

Det Norske Veritas, 5-7 Filellinon Street, Piraeus. Tel: 4525333/4.

Germanischer Lloyd, Kanari 8 & Hatzikiriakou Street, Piraeus. Tel: 4513123.

Lloyd's Register of Shipping, 87 Akti Miaouli, Piraeus. Tel: 4523529, 4523942.

Nippon Kaiji Kyokai, 117 Notara Street, Piraeus. Tel: 4523529, 4525777.

Registro Italiano Navale, 35-39 Akti Miaouli, Piraeus. Tel: 4520011.

Panama Bureau of Shipping, 23 Akti Miaouli, Piraeus. Tel: 4110807.

Hellenic Register of Shipping, 23 Akti Miaouli, Piraeus. Tel: 4177632.

REPATRIATION: All facilities for crew changes and repatriation.

AIRPORT: Athens Airport 14 km. distant from main harbour. Regular international flights.

POLICE/AMBULANCE/FIRE: In emergency telephone Harbour Office 188 or 4511-183. Subsidiary Harbour Department Tel: 4612-876. Harbour Guard Aghios Georgios Tel: 4612-876. Harbour Guard Drapetzona Tel: 4511-183. Police Tel: 100. Fire Service Tel: 199.

TELEPHONES: Telephone connection on board can be made.

BANKS: *Greek Banks in Piraeus:*

Bank of Attica S.A. Tel: 4124659.
Bank of Crete. Tel: 4522633.
Bank of Greece. Tel: 4121484.
Commercial Bank of Greece. Tel: 4174721.
Commercial Bank of Greece (Shipping Dept.). Tel: 4520370
Credit Bank of Greece. Tel: 4174392.
Ergobank S.A. Tel: 4130234. Shipping Branch Tel: 4115626.
Ionian & Popular Bank. Tel: 4174101. Shipping Branch Tel: 4522367.
National Bank of Greece. Tel: 4174101. Shipping Branch Tel: 4522611.
Piraeus Bank S.A. Tel: 4122648.

Foreign Banks:

Algemene Bank Nederland NV. Tel: Piraeus 4522305.
American Express. Tel: Piraeus 4121665.
Arab Bank Ltd. Tel: Athens 3230818.
Arab Hellenic Bank. Tel: Athens 3250820.
Banca Commerciale Italiana. Tel: Athens 3246014.
Bank of America. Tel: Piraeus 4527251.
Bank of Nova Scotia. Tel: Piraeus 4118711.
Bank Saderat Iran. Tel: Athens 3249531.
*Bankers Trust Company. Tel: Athens 3229835.
Banque de Paris et des Pays Bas. Tel: Piraeus 4137202.
Barclays Bank International Ltd. Tel: Piraeus 4510207.
*Bayerische Vereinsbank. Tel: Athens 3639315.
Citibank NA. Tel: Piraeus 4523511.
Continental Bank. Tel: Piraeus 4112711.
Grindlays Bank Ltd. Tel: Piraeus 4111753.
*Hambros Bank Ltd. Tel: Athens 3227243.
Marine Midland Bank. Tel: Piraeus 4520350.
Midland Bank plc. Tel: Piraeus 4136403.
*Morgan Grenfell Co. Ltd. Tel: Athens 3606456.
National Westminster Bank Ltd. Tel: Piraeus 4529215.
*Nederlandse Scheepshypotheekbank. Tel: Piraeus 4523946.
*Schiffshypothekenbank zu Lubeck Aktiengesellsch. Tel: Piraeus 4523657.
Societe Generale. Tel: Athens 3255001.
The Chase Manhattan Bank. Tel: Piraeus 4113711.
The First National Bank of Chicago. Tel: Athens 3602311.
Williams & Glyn's Bank. Tel: Piraeus 4527483.
*Representative.

TIME: GMT plus 2 hours. GMT plus 3 hours – end March to end September.

HOLIDAYS: In addition to Sundays, local holidays are: 1st January; Epiphany; Whit Monday; 25th March; Good Friday; Easter Monday; 1st May; Holy Trinity; 15th August; 28th October; 12th December; 25th December; Boxing Day.

Cargo work can be arranged on these days subject extra payment of 75%.

SERVICES: Compass adjusting, tank cleaning. No facilities for discharge of tank residues.

SHORE LEAVE: Permitted.

SPECIAL PRECAUTIONS:

Ship's Speed in Port: Incoming or outgoing vessels must keep speed steady, provided weather conditions and vessel's manoeuvrability allow to do so, but never to exceed 5 knots.

Pollution in the Harbour: Throwing overboard of ballast, objects of any kind, oil, food rejects, and dirt in general is strictly prohibited. All such rejects can be jettisoned after ship's exit from the harbour and at a distance not less than 16 miles from the nearest coast. Alternatively, all such rubbish can be thrown in a special rubbish-collecting vessel in the port.

Sea Pollution by Bunker Oil or Sediments: The jettisoning of oil products generally in any port or roadsteads less than 50 miles from the coast is strictly prohibited. Similarly prohibited is the pollution of the sea by jettisoning of oil-sediments during dry-docking or repairs of vessels.

Pollution of the Air: Strictly forbidden is the de-sooting of boilers of all vessels at Greek ports. Similarly prohibited is the exit of gases in the form of smoke, which poisons the atmosphere and endangers public health.

Overloading: If upon arrival or sailing the Port Authorities ascertain overloading of the vessel, heavy fines are imposed.

DEVELOPMENTS: Hercules Port Container Terminal under construction. Length 1,100 m. in 1st phase and on completion 2,300 m., depth 14 m. First phase to be operational 1st January 1989.

AUTHORITY: Port of Piraeus Authority, 2, II Merarchias Street, 185-35 Piraeus. *Tel:* 4520-910/919. *Telex:* 212187 Olp Gr. *FAX:* 4520-852. *Cables:* Olp – Piraeus. *Contacts:* George Prassianakis, Chairman; George Klavdianos, General Manager, Tel: 4520-944; Kyriakos Perimenis, Labour and Coordination Division; Emmanuel Peloponissios, Harbour Master.

PRINOS: 40.56 N. 24.31 E.

SHIPMASTER'S REPORT: May 1984.

ANCHORAGE/PILOTAGE: Tankers using this terminal are required to anchor approximately 0.5 miles South of the breakwater at Kavalla town if a waiting period is involved but other than that vessels pick up the Pilot and Loading Master in the vicinity of the berth. Vessels which have had to anchor off Kavalla pick up the Pilot and Loading Master from Kavalla and proceed to the berth with them.

TUGS: Two tugs are available to assist with mooring operations.

BERTHING: B.A. chart No. 1086 shows a tanker mooring of superbuoy size which is incorrect. Actual berthing arrangement is an open sea moor using both anchors forward run out to about 9 shackles on each anchor and aft making fast to 3 buoys using 3 lines to each buoy. The buoys are orange in colour exhibiting an orange light flashing every 5 seconds.

LOADING: Product is stabilised crude. API 31.12. Average temperature 72°F. Loading rate approx. 1,700 t.p.h. Manifold connection 1×10 in. hose. There are no dirty ballast facilities. At the end of loading there may be a delay of up to 3 hours whilst waiting for cargo papers.

PROTI ISLAND: 37.05 N. 21.32 E.

SHIPMASTER'S REPORT: July 1981

LPG Transfer Anchorage:
CHART: B.A. 719.
LOCATION: About 12 miles North of Pilos. Ship has to go to Pilos inwards and generally outwards to clear Customs and Immigration.
ANCHORAGES: For ship-to-ship transfers, only two anchorages are allowed – to West and North of Proti Island, both in deep water of 60 fathoms.

The Western anchorage is safe in Northerly or Easterly winds, very unsafe in Westerly or Southerly winds. Northern anchorage used in West or Southerly winds. Prevailing winds in Summer are from the North. Generally reasonably good position can be found 0.5 miles off the coast in both cases.

In bad weather vessels are allowed to shelter to the East of the Island, which is an excellent anchorage in all winds with little to no swell and good holding ground. Unfortunately the local population do not like ships in the area and exert pressure on the local authorities to move the vessel if it can be seen, as it can, when anchored to the East of Proti Island.
VHF: Pylos Port Authority on Channel 12.
CURRENT: Generally sets at 0.5 knots, but can be variable.
FENDERS/HOSES: Stored at Marathos, the local fishing village, during the Summer season.
PERIOD: The area is used for LPG transfers from May to December. Between December to May, Karamata Bay is used.
SERVICES: Agents: J. Vrettakos and J. Giannopoulos have office in Marathos manned when a ship is working at Proti Island.

Stores: Small quantities can be brought out by the local fishing boats. Large quantities have to come up from Pilos by tug. Stores can be warehoused at Pilos, until required.

Doctor: For Cholera injections, comes from Kalamata, charge $34.00 plus $4.50 per person. Doctor will come out to ship in calm weather otherwise injections done in Agent's office. Yellow Fever can only be done in Athens. For general medical attention, there is a doctor in the village, or hospital at Karamata one hour away.

Water: Fresh water can be brought from Pilos at $10.00 per tonne, minimum 200 tonnes. The sea water is so clean that ship's plant can make fresh water.

Money: Customs rule, no Greek Drachmas to overseas seamen, they must use their own currency and exchange.

Reliefs/Crew Exchange: For large scale crew changes this has to be planned well in advance with permission from Athens. This is because the local population do not like a lot of foreign seamen moving about, Marathos is not an immigration landing point (Comes under Karamata) but the ship clears inwards and outwards at Pilos, a different district. A few officer changes present no problems.

The total number of joining/leaving with their documents numbers, nationality, flight numbers (arrival and departure), must be telexed by Owner to Agent at least four days in advance of movement.

Customs Allowance: Very strict (every 10 days), advisable to take full crew issue to cut costs of visits.

Lloyd's Surveyor: From Piraeus, minimum 2 days, charge US $1,500.00 per 2 days.

Cargo Surveyor: Redwood from Kalamata. Surveyor checks inward and outward for quantity transhipped (not individual shipments). Cost $340.

Boat Service: Standard charge $82.00, basis 4 round trips per day to Marathos. Local boatmen use fishing boats who are generally very good. Last boat back 2300 hrs.

Local Facilities: Marathos is a quiet fishing village with a few tourists in Summer. The local population do not like any trouble from ships' crews and will get the authorities to stop shore leave at the slightest sign of trouble.

Storing Costs:		
	Tug from Pilos on small amount basis	$800.00
	Tug from Pilos on 40 tonne basis	$2,500.00
	Riggers at Pilos per tonne	$25.00
	Customs at Pilos	$83.00
	Barge Pilos Bay per tonne	$33.00
	Crane Hire Pilos – straight charge	$333.00
	Pilot at Pilos in and out	$250.00

Generally most facilities and items are obtainable in this area as long as sufficient notice given.

Cargo Transhipment: 'Naftomar' the Greek company have sole rights to transhipment in the area. Their representative (a former LPG Master and Mate) stays in Marathos when a ship is working off Proti Island. He
11 does all the co-ordinating. Contact can be made on VHF Channel II call sign "Nestor".

The representative is very helpful. Usually about a day's notice is given for a ship and as they all have to call at Pilos before coming to Proti Island a further 4 hours' notice is given.

NO coming alongside at night. Vessels leave at night with complete safety.

All the vessels are around 3,000 cu.m. (semi-pressure vessel type). Propane can be taken at about 150 m.t.p.h. and Butane at 250 m.t.p.h.

Various ships are used – generally Greek under 'Naftomar' flag but Panamanian, Norwegian and Japanese. Generally co-operation good.

We obtained a receipt for each shipment signed by 'Naftomar' representative. A local fishing boat transfers lines on coming alongside.

Hose connection/disconnection done by ship's crew. The hoses we had were new 'British Compoflex' like our own and no trouble. They also gave us some old hoses as vapour return which we did not use.

Fenders: 3×2 m. Yokohama type as primary and old truck tyres as secondary. We kept the fenders at all times except when weather bad with ship alongside when she took them with her to get away and fishing boats brought them back to us.
AUTHORITY: Port Authority of Pylos, Pylos Messinias, Greece. *Tel:* 0721-22225. *Telex:* 252101. *Cables:* Limenarchon-Pylos. *Contact:* Harbour Master.

PYLOS (including Sfaktiria and Navarino Bay): 36.55 N. 21.42 E.

DOCUMENTS:
For Port Authorities
1. For ships under the Greek flag and foreign flag vessels of Greek ownership.
Inspection of all Ship's Papers.
7 Crew Lists with full details of crew members' home addresses.
For passenger vessels – 6 Passenger Lists including passport details, that is, number, date of issue and nationality.
2. Foreign Flag Vessels.
Inspection of all Ship's Papers.
3 Crew Lists.
For Customs
Crew Personal Effects List.
1 Crew List.
Passenger List.
Lists of goods or effects to be sent ashore.
3 Lists of Stores and Spares.
Bills of Lading.
Cargo Manifest.
PILOTAGE: No pilot station. There is a private Pilot employed by the bunkering company named G. Mamidakis Limited. Agent and/or bunkering company should be advised in advance of vessel's ETA order arrange Pilot to meet vessel at entrance of Navarino Bay and take vessel to oil installations at Sfaktiria Bay.

ETA should be passed by radio telephone at least 48 hours before arrival and thereafter confirming ETA within 24 hours of arrival. If ETA has not been passed by radio, vessel should wait at entrance to Navarino Bay, and request Pilot by signalling letter "G" by flashing light or ship's whistle.
ANCHORAGES: Safe anchorage may be made in all areas of Navarino Bay except within red sector of Helonaki Islet light.
MAX. SIZE: Any size vessel can enter and anchor in Navarino Bay. The small harbour of Pylos is only suitable for small vessels.
HEALTH: Doctor visits vessels that require Free Pratique, and those coming from infected ports. Master and Health Officer together sign Maritime Declaration of Health. Free Pratique continues when vessel arrives from another Greek port. A vessel in transit must have Free Pratique if remaining in port more than 24 hours. Infected vessels or suspected vessels remain under quarantine in accordance with existing health regulations.
RADIO: Athinai Radio.
TUGS: No tugs available.
STEVEDORES: Labour requirements passed by radio at least 24 hours prior arrival. No shore loading/discharging facilities and this work effected by ship's gear. Average rate load/discharge 100 tons per gang every 8 hours.
MEDICAL: Agent should be advised by cable prior arrival of medical and medicant requirements. There are two chemists and a Red Cross hospital. Yellow-fever and cholera vaccination certificates required.
TANKERS: Sfaktiria Island Installation (ESAPP. G. Mamidakis Limited). 2 flexible hoses diameter 6 in. and 1 gas oil hose diameter 2.5 in. No facilities for residue discharge. At Pylos small harbour there is a jetty 100 m. length, the head of which is reserved for small tankers carrying wine and spirits, which moor stern to quay. At head of pier, depth of water about 4 m., but within short distance from pier, depth increases to 10 m. Only 1 vessel of 12 ft. to 15 ft., draft can moor stern to quay at any time. Loading/discharging is effected through flexible and portable pipe-lines belonging to Gialovi Wine Factory at Pylos, and cargo is transported by special tank trucks.
DENSITY: 1023 in harbour basin and whole of Navarino Bay.
FRESH WATER: Master or Agent must apply in writing to Customs Authority, and application is to include notice from water supplier giving quantity to be supplied and cost of supply. Water barge capacity 200 tons. Rate of supply 160 t.p.h. by canvas hoses. Barge belongs to Maritime Agency I. Vrettakos, Pylos. Water also available alongside Pylos harbour quay.
FUEL: Mamidakis Fuel Installations at Sfaktiria Island. Vessels should give 48 hours' notice to Mamidakis (Athens Office, address: Eleftheriou Venizelou 56; Tel. 622543) Pylos Tel. 22282.
FIRE PRECAUTIONS: No unusual fire precautions at Sfaktiria Installations, but at main port of Pylos authorities do not allow loading/discharging of 2 vessels at same time, as the only 2 berths available are very close to each other.
WATCHMEN: Usually not necessary to employ watchmen, but if required, available.
HATCHES: Usually opened and closed by crew.
CUSTOMS ALLOWANCES: 2 packets of cigarettes per crew member/day allowed out of bond according to duration in port and this quantity to be declared on Stores List. Store orders for supply of additional quantities are allowed on the basis of the number of crew and the length of voyage, basis 2 packets per day per crew member. 1 opened bottle wine/spirits allowed out of bond.
IDENTIFICATION CARDS: Shore passes issued against submission of seamen's books.
REPAIRS: 3 workshops for minor repairs.
REPATRIATION: Crew changes and repatriation facilities available.
AIRPORT: Kalamata Airport, 40 km. from Pylos. Kalamata/Athens flights every day at 17.50 hrs. Athens/Kalamata every day flights at 19.10 hrs.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: *(a)* Standard Government Holidays; *(b)* Local holidays: 9th May (St. Nicholas) holiday for port workers; 24th September; 20th October (Anniversary of Battle of Navarino). During these holidays, cargo work can be arranged subject overtime payment.
POLICE/AMBULANCE/FIRE: Police (Pylos) 223-16; Greek Red Cross Hospital Pylos 223-15; Kalamata Fire Brigade 28373.

TELEPHONES: No facilities for placing on board.
GENERAL: Very severe fines imposed on oil pollution.
SHORE LEAVE: Allowed.
DEVELOPMENTS: Work in progress to extend existing Pylos harbour pier to 215 m. length, 20 m. width, and 15 m. depth at head of pier. Depth inside pier to be 10 m.

SHIPMASTER'S REPORT: July 1981.
Time: GMT plus 2 hours Winter, plus 3 hours Summer as per A.L.R.S. Vol. No. 5.
Chart: Pilos/Navarine Bay – BA 211.
General: Pilos: A fairly busy port for ships taking stores and water and changing personnel.

Navarine Bay is well sheltered and generally deep.

Bay can be entered and left with safety as long as vessels keep well up to Pilos Island (Baba Island) off Cape Kypri, shoals exist on the Southern shore.
Pilot: Advise Agent 24 hours in advance. Pilot boards about 1 mile outside heads in calm weather, otherwise inside, from slow motorboat.

Pilot speaks little English, uses mostly sign language but seems competent.
VHF: Pilos Port Authority and Pilot on Channel 12 when expecting vessels. Agents work Channel 11, Call Sign "Nestor" when expecting vessels (unofficial).
Anchorage: In area 8.5 cables N.W. of Pilos Jetty (5 shackles).
Bay: Navarine Bay is good and sheltered. An 8 fathom patch in centre as per BA Chart 211.

Agent says 300,000 d.w.t. tankers drawing up to 15 m. draft have anchored in Bay.

New jetty for small craft at Pilos.
Current: Outside Heads generally South going at rate of 0.5 knots.
Tug: 1 tug (1,000 h.p.) owned by principal Agency, called "Nestor", sometimes not at Pilos but at Karamata.
Agents: Principal Agents: J. Vrettako and J. Giannopoulos with offices in Athens, Karamata, Pilos and Marathos.

Pilos office: Telex: 252152 Vret GR. Tel: 0723-22-255/22-219. Cables: "Tainaron".

Very good and helpful.
Services/Supplies: Pilos: A 20 tonne crane on jetty owned by Agents.

Water: Fresh Water is plentiful at $4.00 per tonne minimum 20 tonnes in Navarine Bay.

Supplies: Generally good, although advance notice required. If frozen provisions required this must be stipulated.
Unitor Gas: Limited range held by Agents. Oxygen/acetylene, R22/12 has to come from Athens area (2 days' notice).
International Paint: From Piraeus full range (2 days' notice).
Lub Oil: Most brands including Chevron from Piraeus in drums (2 days' notice).
Repairs: Very limited at Karamata about one hour away, otherwise full range at Piraeus. Parts for repair can be sent by truck to Piraeus and return the next day if an emergency, but generally allow three days.
Fuel: Very limited supply H.O. and D.O. in Pilos but negotiations under way to expand local facility.
Walport Films: By arrangement with Agency in Skaramanga (2 days' notice).
Airport: At Karamata – local airport one hour away. Olympic Airways daily flight from and to Athens. Arrives at 1800 hrs. and leaves at 1900 hrs. (40 minute flight).

International flights from Athens. To catch internal flight to Karamata you must land in Athens not later than 1600 hours.
Communications: Roads poor, takes 6 hours to get to Athens. Telephone services – internal reasonable, overseas poor.
Boat Service: From anchorage to town in Navarine Bay easily arranged at $5.00 per ship per trip.
Customs/Immigration: Customs very strict. Basic issue only allowed but best take out for all crew members. Immigration check all crew books inward and outward. Greek shore passes required with crew members photo attached. Forms: All on Greek Papers.

1 copy Ship's Particulars.
2 copies General Stores Declaration.
2 copies Bond Store Declaration.
1 copy Crew Declaration.
6 copies Crew List (U.S.A. style).

AUTHORITY: Port Authority of Pylos.

RHODES (including Akantias): 36.25 N. 28.17 E.

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
1 Cargo Manifest.
1 Stores and Provisions List.
Usual Ship's Documents.
PILOTAGE: 24 hours' notice required by Rhodes Port Authority. Pilot boards 1 mile from port.
ANCHORAGES: Suitable anchorage up to a distance of 300 m. from the port East of the pier extension.
RESTRICTIONS: Port entry can be difficult and sometimes impossible with strong North or N.E. winds.
MAX. SIZE: Up to 24 ft. draft.
RADIO: Rodos Radio, 2182 kHz.
BERTHING: Pilot will advise Master of berthing place in accordance with Port Authority instructions.

2 diesel motor-driven cranes capacity 2 tons and 3 tons available for discharging. No facilities for containers.
STEVEDORES: 24 hours advance notice required in order to arrange gangs.
MEDICAL: General hospital and private clinics available.
FRESH WATER: Available – supplied by canvas hoses.
FUEL: Deliveries only by tank trucks.
HATCHES: Opened and closed by crew.
CUSTOMS ALLOWANCES: 60 cigarettes per day per crew member and 1 bottle wine/spirits per crew member allowed out of bond.
CONSULS:

France	Tel. 2318	Sweden	Tel. 3379
Germany	,, 7479	Turkey	,, 3362
Italy	,, 7432		

REPAIRS: Minor repairs only.
AIRPORT: Distance 15 km. During Winter, flights twice daily to Athens, and during Summer, flights 5 times daily.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
HOLIDAYS: 1st January, 6th January, 7th March, 25th March, Good Friday, Easter Monday, 21st May, 15th August, 28th October, 8th November, Christmas Day, Boxing Day.
POLICE/AMBULANCE/FIRE: Police, tel. 7690 or 2220; Ambulance, tel. 2555; Fire Brigade, tel. 3333.
DELAYS: Sometimes necessary to remain outside harbour up to 3 hours to allow coastal passenger vessels to berth if other berths are full.
DEVELOPMENTS: Extension of the Merchant Port Pier by 110 m. to North and 140 m. to S.E. Also an extension of the new harbour (Akantias) pier, to the East of the Marine Harbour. Length to be 480 m. with a depth of 6.5 m. alongside.
AUTHORITY: Central Port Authority of Rhodes.

STYLIS: 38.55 N. 22.37 E.

DOCUMENTS: The usual Documents for all Greek Ports are required i.e. Cargo Manifest, Crew List, Store Lists, Personal Effects, Ship's Certificates, Oil Book, Cargo Gear Book, Exchange Declaration.
PILOTAGE: Compulsory. Pilot can be boarded at Stylis anchorage which is half a mile South of the Island of Kaloyiros. Pilot is a practical seaman who has experience and knowledge of local waters.

Vessels entering Stylis port must pass through the channel of 2 flashing green and 2 flashing red sea buoys and be in the line with the main light situated on the pier, flashing orange.

There is a pilot boat painted white flying the international Pilot's letter "H". VHF is installed and the working frequency is Channel 12.

There are 4 white launches available for hire (capacity 10 – 20 passengers). VHF is installed and the working frequency is Channel 10. These are for Pilots and Crew Members of anchored vessels.
ANCHORAGES: See "Pilotage".

The Gulf of Maliakos is a safe anchorage for laid up vessels. Position should be given upon request to the Ministry of Merchant Marine, Piraeus.
MAX. SIZE: Max. draft 18 ft. 6 in.
VHF: Port Authority on Channels 7 and 12.
TUGS: No tugs are available. For large vessels being laid up at Maliakos Kolpos tugs and Pilot must be ordered from Volos.
BERTHING: Stylis port is an open port on the North side of Maliakos Kolpos and consists of berths on the North side and of shallow waters on the South side which break at low tide. The berths total about 450 m. in length, forming the Greek letter π. The draft varies along the 3 berths with a max. of 18 ft. 6 in. at HW and 17 ft. at LW.
CRANES: No crane railway system is installed. Loading and/or discharging operations take place only by ship's gear or by mobile cranes which can be hired through the local Agents from Stylis/Lamia and/or Volos.
STEVEDORES: Working hours: 0800 hrs. – 1700 hrs. daily.
FRESH WATER: Fresh water available 24 hours. Rate 30 cu.m.p.h. Vessels must use their own hoses.
FUEL: No bunkers available. Vessels can be supplied only by barge and/or trucks ordered from Volos/Athens/Salonica.
REPAIRS: Minor repairs can be carried out.
STORING: A limited quantity of stores and provisions are available in Stylis. Transit stores are not available.
HOLIDAYS: Aghios Athanassios on January 18th, Aghios Nikolaos on December 6th.
GENERAL: No warehouses are available on the docks.

The main exported goods are olives and olive oil in tins/drums, reels of cables, cotton, etc. The imported goods are timber, machinery, paper, etc.
DEVELOPMENTS: A dredger is widening the channel and deepening the Harbour in order to accommodate vessels up to 20 ft. draft.
AUTHORITY: Stylis Harbour Authority, Stylis, Greece. *Tel:* (0238) 22329. *Contact:* Lieutenant Commander John Kioupis, Harbour Master.

SUDA BAY, Crete: 35.29 N. 24.09 E.

PORT LIMITS: Suda Bay.
DOCUMENTS:
3 copies Crew List.
Cargo Manifest.
Agency Manifest.
Transit Manifest.
Ship's Store or Instruments Manifest.
Clearance from the last Port of Call.
All the necessary certificates according to International Laws and Conventions.

PILOTAGE: Not compulsory – pilotage service is non existent.
ANCHORAGES: Safe anchorage area in the Port of Suda according to the Port Authority instructions.
RESTRICTIONS: Permission for departure or arrival after sunset is given by the Suda Navy Base.
MAX. SIZE: Permissible length 200 m., breadth 10 m.
HEALTH: Pratique is compulsory for all ships coming from ports outside Greece.
VHF: Helles Radio VHF Channel 16.
TUGS: None.
BERTHING: Cargo pier, depth up to 32 ft. Grain silo with similar depth alongside.
CRANES: None.
BULK CARGO FACILITIES: Bulk cargo discharging gear available.
SPECIALISED CARGO-HANDLING FACILITIES: Fork lift trucks available.
BRIDGES: None.
STEVEDORES: Available.
MEDICAL: Hospital facilities available.
TANKERS: There are no oil discharging installations or facilities for tankers.
FRESH WATER: Installations for the supply of fresh water available.
FUEL: Available in limited quantities.
FIRE PRECAUTIONS: Fire brigade service at Chania.
CONSULS: Germany F.R. and France.
REPAIRS: Limited facilities.
DRY DOCKS: None.
SURVEYORS: None.
WATCHMEN: Services of watchmen are not necessary and are non existent.
CUSTOMS ALLOWANCES: 200 cigarettes, 1 bottle of spirits.
CARGO GEAR: Only with ship's gear.
REPATRIATION: Two flights and one passenger ship daily for Athens.
AIRPORT: Airport 15 km. from Suda Bay. Regular air service, two flights per day.
TIME: In Winter GMT plus 2 hours, in Summer GMT plus 3 hours.
POLICE/AMBULANCE/FIRE: Police 89271, Ambulance 22550, Fire 22432.
TELEPHONES: Arrangements do not exist for placing telephones on board.
SHORE LEAVE: Crew members are allowed ashore.
IDENTIFICATION CARDS: Shore passes are required.
REGULATIONS: Taking photographs of Suda Bay is strictly prohibited.
EMERGENCY CO-ORDINATION CENTRE: The Port Authority of Chania.
STORING: See "Prelims".

1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. —
6. Yes.

DELAYS: Short delays only.
DEVELOPMENTS: No plans for new installations.
AUTHORITY: Port Authority of Chania, Chania, Crete, Greece.
Contact: F. Psaras, Harbour Master.

SYROS: 37.26 N. 24.56 E.

DOCUMENTS: *Ships under the Greek flag* – documents required are:
Ship's Register.
Seaworthiness Certificate.
Log Books and Ship's Papers.
Load-line Certificate.
Radio Station Licence.
Fumigation Certificate.
4 Crew Lists.
2 Passenger Lists.
Ships under foreign flag, Greek owned – documents required are:
Ship's Articles.
Load-line Certificate.
Seaworthiness Certificate.
Ship's Papers.
Radio Station Licence.
Fumigation Certificate.
4 Crew Lists.
1 Passenger List.
Ships under foreign flag – documents required are:
Seaworthiness Certificate.
Fumigation Certificate.
Load-line Certificate.
Radio Station Licence.
2 Crew Lists.
1 Passenger List.
PILOTAGE: Pilot to be ordered by ship's Agent at least 24 hours before arrival notifying approximate ETA. Pilot boards from private motor launch, about 0.5 miles off the port, weather permitting. In bad weather Pilot boards in harbour entrance.
ANCHORAGES: Vessels awaiting Pilot anchor outside the harbour South of a line between the green breakwater light and the North end of Gaidaros Island. Anchorage in the Southern part of the harbour in depths of 20 m. – 30 m.
MAX. SIZE: Length 200 m. Vessels of shallow draft may go alongside the Neorion Pier or moor stern to the pier. Deeper-draft vessels remain at anchor in the harbour.
HEALTH: Free Pratique is given when ship's declaration of health has been endorsed by a Health Officer.
RADIO: Loutsa Radio.
TUGS: 2 tugs available. Tugs usually join vessel 1 mile from harbour entrance. Payment for use of tug's line is obligatory.
STEVEDORES: At least 1 day's notice required to arrange gangs.
MEDICAL: No advance notice required if medical assistance needed. Hospital and general clinic available.
TANKERS: Discharge alongside terminal of A. E. Seica at Lazareta, near the entrance to the harbour.
DENSITY: 1026.
FRESH WATER: Limited quantity can be supplied by private company. Delivered by barge.
FUEL: Can be supplied by A. E. Seica, by barge or pipe-line.
WATCHMEN: Not required.
HATCHES: Opened and closed by ship's crew.
CUSTOMS ALLOWANCES: Each man allowed 40 cigarettes per day for period not exceeding 5 days. Each man allowed 1 opened bottle of spirits. No restrictions for wine.
IDENTIFICATION CARDS: Shore passes are issued on production of Seamen's Books or passports.
CONSULS: France – Tel: 3–62. Netherlands – Tel: 7–20.
REPAIRS/DRY DOCKS: Neorion Syros Shipyards can undertake any kind of engine and hull repairs and alterations. Holds LTC licence for piston reconditioning.

	Floating Dock 1	*Floating Dock 2*
Capacity	75,000 d.w.t.	40,000 d.w.t.
Lifting Capacity	25,000 tons	15,000 tons
Length Overall	230 m.	195 m.
Width between sidewalls	35 m.	33.5 m.
Pumping Time	160 minutes	100 minutes
Cranes	2×10 tons	1×15 tons 1×10 tons
Quay Space	1,800 m.	
Floating Cranes	1×70 tons capacity and 1×200 tons capacity	
Travelling Cranes	Up to 40 tons capacity	

Tank cleaning station with storage capacity of 7,000 tons and separator capacity of 3,000 tons of dirty ballast and slops per hour.

4 tugs of which one is an ocean going salvage tug.

Machine shop, plate shop, foundry containing the most modern equipment.

Gritblasting.

Service Agency for Sulzer Bros. Ltd., Lister Ltd., B+W, Caterpillar SA, SKL Ltd., MWM, MAN.

Resident Classification Surveyors: Lloyd's Register of Shipping, American Bureau of Shipping.

Neorion Shipyards Syros Ltd., Syros, Greece. Telex: 0293123 Neorion Syros. Tel: 010-281 22001.
REPATRIATION: Can be arranged.
TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.
REGULATIONS: Port Captain should be contacted for any queries not covered by lists of regulations provided on arrival.
HOLIDAYS: Work may be arranged on all holidays on payment of 75% additional to tariff.
POLICE/FIRE/AMBULANCE: Police 6-10; Fire 3-33; Ambulance 5-55.
TELEPHONES: Cannot be connected on board.
SHORE LEAVE: Crew may go ashore after pratique is given, carrying shore leave passes issued by Port Authority.
DEVELOPMENTS: Port being dredged to permit entry of larger vessels. Shipyard installing facilities for building vessels up to 15,000 tons.

SHIPMASTER'S REPORT: February 1983.

Vessel called for bunkers only.
Documents: Not required for bunker call.
Pilotage: Recommended, not known whether compulsory or not. Vessel could undock without Pilot, however, Pilot necessary for docking.

Pilot boards 1 mile East of harbour entrance.
Chart: B.A.1833 – Plans in the Kirkladhes.
Restrictions: No restrictions on night berthing at bunker dolphin. No tidal restrictions.
Radio: Limnos and Athens. Cable address "Sekavin Syros" for bunkers.
VHF: Pilot and Bunker Agent operate on Channel 12.
Tugs: One medium size tug used aft for mooring and unmooring. Vessel cannot moor/unmoor without aid of tugs.
Berthing: 'Seka' bunker dolphin 214°T×3 cables from Fl.G. 3s. breakwater light. Berth is 2.5 cables from harbour entrance.

Vessel berthed head 040°T, with 7 shackles out on each anchor. Bunker dolphin just forward of bridge, starboard side. 4 mooring lines run from main deck and 1 spring from poop. All short nips from main deck.

Berth appears unsafe but we found that vessel remained alongside in strong winds.

Soundings taken at stern when moored gave 13 m. of water.

Vessel is restricted by draft, and distance from manifolds to dolphin.
Density: 1025.
Fuel: Bunker fuel oil and diesel available. Rate 200 t.p.h.

Shore installation used 6 lengths of hose (6 in. diameter) which were lifted aboard by shore derrick from bunker dolphin. The hoses were manhandled forward to the vessel's midship manifold. Same hoses used for both products.

No lighters available for bunkering.
Repairs: Facilities available.
Dry Docks: Available.
Airport: No local airport.
Authority: No authorities boarded.
Agent: No Agent in attendance for bunker call.

AUTHORITY: The Harbour Office of Syros.

THESSALONIKI (Salonica): 40.37 N. 22.57 E.

(See Plan)

PORT LIMITS: A vessel is considered as an "arrived vessel", when she has passed the line connecting the Small Kara Point and Paliomanna light buoy.

DOCUMENTS: For Greek flag and Greek-owned vessels:
List of Foreign Exchange.
Crew list (additional copy for Port Authority).
All vessels:
4 Crew Lists (Port Authority, Customs, Immigration and Health).
1 List of Stores.
1 List of Personal Effects.
Copies of Bills of Lading and Cargo Manifest.

PILOTAGE: Apply for Pilot through VHF Channel 12 or by international code signals. Pilot meets vessel about 1,000 m. S.E. of breakwater light (white). Pilot boat is small motor-boat carrying pilot flag.

ANCHORAGES: Area from 500 m. to 1,000 m. S.E. of port offers safe anchorage.

MAX. SIZE: See "Berthing".

HEALTH: Health Officer boards vessels from foreign ports to grant Free Pratique.

RADIO: Radio Thessalonika. 24 hours' notice of ETA required to obtain berth and stevedores.

VHF: Operative throughout 24 hours on Channel 12, Central Port Authority. Tugs on Channel 8. Pilots on Channels 12 and 7.

TUGS: 9 tugs from 500 h.p. – 3,000 h.p., owned by N. Vernicos, Gigilinis and Zouros, also available for salvage and towage contracts.

BERTHING:

Pier No.	*Length (m.)*	*Depth (m.)*	*Remarks*
1	1,010	5.5–8.0	5.5 m. for 120 m. 8.0 m. for 890 m.
2	800	8.0–10.45	8.0 m. for 230 m. 10.45 m. for 570 m.
3	845	10.45	
4	1,020	10.45–12.0	10.45 m. for 825 m. 12.0 m. for 195 m.
5	1,115	10.45–12.0	10.45 m. for 925 m. 12.00 m. for 190 m.
6	1,357	12.0	

CRANES:
Electric cranes: 2 × 20/32 tons
3 × 16/25 tons
2 × 16/27 tons
2 × 15 tons
5 × 10 tons
10 × 6 tons
16 × 3 tons
Floating cranes: 1 × 70 tons capacity.

BULK CARGO FACILITIES: Grain Silos of capacity 20,000 tons. Loading – Unloading capacity 150 t.p.h.

AGET Installation: 1 berth for discharging cement in bulk by specially constructed ships equipped with automatic discharging gear. Max. draft 30 ft.

SPECIALISED CARGO – HANDLING FACILITIES: Berth of 500 m. length and 12.0 m. depth with 1 container bridge-crane of 40 tonnes lifting capacity under spreader, 5 straddle-carriers of 35 tons capacity, 2 fork lifts with 34 tons capacity under spreader, 3 fork lifts for empty containers, 4 tractors and 20 trailers.

All the above equipment should be in operation after 1988.

BRIDGES: No bridges.

MEDICAL: Advance notice not required. All facilities available.

TANKERS: *E.K.O. installations:* (a) Sea Island berth capable of accommodating 2 vessels of 24,000 tons and 14,000 tons respectively. Max. draft 32 ft.; 8 lines, 1 × 16 in., 3 × 10 in., 3 × 4 in. and 1 × 6 in.

(b) 7 buoy mooring for vessels of up to 80,000 tons. Max. draft 44 ft. Submarine pipeline of 34 in. for crude oil discharge, 2 flexible discharge lines of 10 in. diameter. Also see "Shipmaster's Report".

Manidakis installation: Stern discharge berth. Max. draft 32 ft. 2 submarine lines enable 2 grades of cargo to be discharged through 8 in. line at 200 t.p.h. and 6 in. line at 160 t.p.h.

DENSITY: 1025.

FRESH WATER: Unlimited supplies available alongside berths. 2 water barges also available.

FUEL: Unlimited quantities available. Usual notice required. Suppliers B.P., Shell, E.K.O. and Mamidakis.

FIRE PRECAUTIONS: One firefighting launch of 2 × 480 h.p. and one fire fighting station.

WATCHMEN: If required, cost by private negotiation.

HATCHES: Opened/closed by crew.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle spirits allowed out of bond for each crew member.

CARGO GEAR: Adequate shore gear available.

IDENTIFICATION CARDS: Passes issued to crew members of foreign vessels.

CONSULS:
Austria
Belgium
Bulgaria
Chile
Denmark
Finland
France
Germany F.R.
Italy
Japan
Mexico
Netherlands
Norway
Peru
South Africa
Spain
Sweden
Switzerland
Turkey
U.K.
U.S.A.
Yugoslavia

REPAIRS: Only minor repairs.

DRY DOCKS: None.

SURVEYORS: Lloyd's Register, A.B.S., B.V., etc.

REPATRIATION: Facilities for crew changes and repatriation available.

AIRPORT: Distant 12 km. S.E. of town. 6 flights daily to Athens.

TIME: GMT plus 2 hours. GMT plus 3 hours in Summer.

HOLIDAYS: (National): 1st January, 6th January, 25th March, Good Friday, Easter Monday, 1st May, 15th August, 28th October, Christmas Day, Boxing Day. (Local): 26th October. Work may be arranged on holidays at double costs.

POLICE/AMBULANCE/FIRE: Port Police, tel. 531-502; Ambulance, tel. 531-531; Fire, tel. 111.

TELEPHONES: Facilities available for placing on board.

BANKS: National Bank of Greece, Bank Macedonia – Thraces, Citibank, etc.

SHORE LEAVE: Permitted without restriction. For tankers, the Master should arrange transport with Agent for seamen to the landing pier in Thessaloniki Harbour. Seamen will not be permitted to pass through refinery area.

IDENTIFICATION CARDS: Passes issued to crew members of foreign vessels.

DEVELOPMENTS: 6th Pier under construction. In 1988 an area of 910,000 sq.m. will be available with quay length of 1,860 m. and depth 12.0 m. A gantry crane of 40 tons will also be available.

SHIPMASTER'S REPORT: August 1987.
Berth: Sea Island
Documents:
8 Copies Crew List.
2 Copies Crew Declaration.
3 Copies Manifest (including ship's stores, bond, ship's fixtures, etc.).
1 Copies Health Declaration.
2 Copies Currency List.
1 Copy Arms & Ammunition List.
1 Copy Drugs List.
1 Copy Passenger List.
3 Copies Cargo Manifest.
Shore passes issued. They have to be returned before departure.
Ship's papers and Oil Record Book taken ashore for inspection.
List of Ship's fixtures – Radios, Computer, Photocopier, etc. is required.

Anchorages: The anchorage is 0.75 miles South of the East end of the breakwater in a depth of 8.5 fathoms.

Pilotage: The Pilot boards at the anchorage or 1 mile from the Sea Island. VHF Channel 12 is used for communications.

On departure we left without tugs and pilot, with the Terminal's approval, as the pilots were engaged elsewhere.

Restrictions: Berthing and unberthing is carried out in daylight hours only between 0700 hrs. and 2030 hrs. in Summer and between 0700 hrs. and 1800 hrs. in Winter.

Tugs: The use of 2 tugs is compulsory for berthing and unberthing. Ship's lines are used.

Berthing: Vinyl Chloride Monomer (VCM) is discharged at the Sea Island (Lat. 40° 38.1′ N., Long. 22° 53.3′ E.). Vessel berthed on the shore side of the Sea Island platform, port side to.

The platform handles vessels up to 20,000 d.w.t. Depth alongside 10.0 m.

Products are handled on the North side and crude oil is handled on the South side.

The platform used to be owned by Esso but Esso is now nationalised and the platform is falling into disrepair. However the fendering on the berth is good.

Pilots advise that great care should be taken when berthing and unberthing in order to avoid damage claims.

Moorings at the berth were 2 head/stern lines, 1 breast line and 2 springs fore and aft. It is advisable to have a good spread of moorings as the vessel overhangs the flat fendering aft at about half length.

Cargo is not worked if the wind speed is over 30 knots.

The pipelines from the shore are not buried, they lay on the seabed.

Ship's gangway used.

Cargo: The rate of discharge is about 140 t.p.h. with 10 Bar back pressure. The maximum line pressure allowed is 12 Bar.

The discharge temperature is usually 0°C. A heater may be required.

Time for sampling is about 3 hours.

The vessel used an 8 in. Chicksan (the most northerly one on the Sea Island).

Hot gas is blown through the cargo lines upon completion.

Shore personnel connect and disconnect lines.

General: No fresh water available on pier. By barge the cost is 260 Drachmas per ton for 50 tons. The quality of the water is good.

Stores are only available by launch.

There is a launch service to the city between 0800 hrs. and 2300 hrs. The cost of this service is 2,500 Drachmas on weekdays and 3,500 Drachmas on weekends. The Agent or the terminal can arrange this service.

The Customs Officers in the freight section at the airport work between 0800 hrs. and 1600 hrs. on Monday to Thursday and between 0800 hrs. and 1400 hrs. on Friday. There is no Saturday or Sunday work. Outside these hours no spares can be cleared.

The airport at Thessaloniki is about 30 minutes South of the city.

During late Summer and Autumn violent wind shifts and squalls suddenly occur and sometimes reach 60 knots. The squalls are generally from the North, funnelling down the mountains. If there is thunderstorm activity take great care.

Mount Oros Khortiatis is 8 miles East of the city and is very conspicuous with radar domes on top.

AUTHORITY: Port Authority of Thessaloniki, Thessaloniki 10467-54110, Greece. *Tel:* 031-526221. *Telex:* 412-536 Thpa Gr. *Contact:* Panos Mamalis, General Manager. D. Papadopoulos, Director of Technical Service. P. Andriotis, Director of Development.

VOLOS: 39.21 N. 22.56 E. (See Plan)

DOCUMENTS:
Nationality Certificate.
Measurement Certificate.
Crew Lists (5 copies).
Derat Certificate.
Health Documents of Crew.
Cargo Gear Book.
Safety: (a) Passenger Ship Safety Certificate.
(b) Cargo Ship Safety Construction Certificate.
(c) Cargo Ship Safety Equipment Certificate.
(d) Cargo Ship Radiotelegraphy or Radiotelephony Certificate.
(e) Exemption Certificate.
(f) Nuclear Passenger Ship Safety Certificate.
(g) Nuclear Cargo Ship Safety Certificate.
International Load Line Certificate (1966).
Certificate for Inspection of Life Raft.
Oil Book and International Sewage Pollution Prevention Certificate (1973).

PILOTAGE: Compulsory. Pilot boards about 1 mile outside port. Pilot boat is small launch coloured grey and black.
ANCHORAGES: Suitable anchorage situated 1–2 miles outside harbour in depths of 14 m. to 20 m.
RESTRICTIONS: Vessels in excess of 10,000 tons unable enter at night.
MAX. SIZE: Max. draft 30 ft., no limitation on length or breadth.
HEALTH: Port Officer acts as Health Officer and Pratique effected on doctor's advice. If arriving from another Greek port, Pratique automatic.
VHF: Port Authority on Channel 12.
TUGS: Join vessel at entrance to harbour. 7 tugs, 280 h.p., 380 h.p., 465 h.p., 480 h.p., 640 h.p., 860 h.p. and 1,080 h.p.
BERTHING: Ro/Ro facilities available.

Dock	*Length*	*Depth*
K	600 m.	8.0 m.
1	1,000 m.	9.7 m.
11	980 m.	9.7 m. (under construction)
R	270 m.	7.0 m. (under construction)

CRANES:

1	Mobile crane (For containers)	— Capacity 35 tons
1	Mobile crane	— Capacity 35 tons
3	Mobile cranes	— Capacity 10 tons
3	Crawler cranes	— Capacity 4 tons
1	Rail mounted crane at Dock 1	— Capacity 27 tons at 17 m. and 16 tons at 30 m.

Cranes under construction:

Dock 1	4 cranes	— Capacity 8 tons at 20 m. and 6 tons at 25 m.
Dock 11	2 cranes	— Same capacity as Dock 1

BULK HANDLING FACILITIES: 2 silos, capacity 15,000 tons, loading ability 370 t.p.h. Discharging ability 250 t.p.h.
STEVEDORES: Advance notice required order arrange gangs. Cargo operations handled with ship's gear and with 14 shore cranes.
MEDICAL: Advance notice of required medical attention is necessary. Hospital and medical facilities available.
TANKERS: One berth, depth alongside 27 ft.
DENSITY: 1025.
FRESH WATER: Available at all the piers of the harbour. Also available from special barge (capacity 300 tons).
FUEL: Order through Agent. Oil delivered by small tanker "KEA" at all berths capacity 182 tons fuel.
GANGWAY/DECK WATCHMEN: Ship's gangway used. Usually ship's crew.
HATCHES: Usually opened and closed by crew, but if by stevedores, additional costs apply.
CUSTOMS ALLOWANCES: 1 to 2 packets cigarettes allowed per crew member per day. 1 bottle wine/spirits allowed out of bond.
CONSULS: Germany F.R., Tel: 25379, France, Tel: 25870, Sweden, Tel: 22611, Italy Tel: 26048, Belgium Tel: 23318, Netherlands Tel: 23494.
REPAIRS: Minor repairs can be effected.
SURVEYORS: Cargo inspector: Hellenic Register of Shipping.
REPATRIATION: Crew changes and repatriation can be carried out.
AIRPORT: No airport locally.
TIME: GMT plus 2 hours, Winter. GMT plus 3 hours in Summer.
HOLIDAYS: Usual Greek holidays. Local holiday 6th December; cargo work can be arranged subject to additional cost with the exception of 6th December.
POLICE/AMBULANCE/FIRE: Police, Tel: 23652; Ambulance, Tel: 27531; Fire, Tel: 33191.
EMERGENCY CO-ORDINATION CENTRE: Ministry of Mercantile Marine (Piraeus) Tel: 1/4112500-4173238.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Shore passes are required.
SERVICES: Divers available for surveys and underwater repairs.
DEVELOPMENTS: Construction of a new dock at the grain silo.

SHIPMASTER'S REPORT: 1977. (Updated 1984).
Restrictions: Draft restrictions on new quays subject to maximum depth of water of 32 ft. and on the original town quays a maximum depth of water of 28 ft. East side, 26 ft. West side, 26 ft. Head. (Thus draft will have to be about 2 ft. less than depth.)
Stevedores: Working hours 0730 – 1400 hrs. and 1400 – 2100 hrs. on overtime.
Berths: Town quay (K) with approx. 800 ft. frontage on each side and cross berth approx. 385 ft. on end. No. 1 quay – "L" shaped berths with base to the shore with frontages approx. 600 ft. on North side, 1,570 ft. on East side, 505 ft. on head and 1,210 ft. on West side.
No. 2 quay – "L" shaped berths with base to the shore with frontages approx. 500 ft. on North side, 1,385 ft. on East side, 330 ft. of head and 1,520 ft. on West side (Not yet finished, see plan).
Pollution: Port regulations prohibit the scraping and scaling of ships side and the pollution of sea or port area by painting.

AUTHORITY: Volos Central Port Authority, 380 00 Volos, Greece. *Contact:* Lieutenant E. Kalabalikis, Harbour Master. *Tel:* 421-24179. Vice Harbour Master, *Tel:* 421-20115. Port Police Office, *Tel:* 421-24179. Safety Navigation Office, *Tel:* 421-24758. *Telex:* 282170.

YALI ISLAND: 36.40 N. 27.08 E. (See Plan)

DOCUMENTS:
5 Crew Lists.
2 Passenger Lists.
Cargo Manifest.
Bills of Lading.
List of Ship's Stores and Spares.
Health Declaration.
Ship's Certificates.

PILOTAGE: A Mooring Master is available from Piraeus. Mooring Master boards at the anchorage.
ANCHORAGES: Safe anchorage in the roads (36° 39′ N., 27° 09′ 30″ E.) except in strong Southerly winds.
MAX. SIZE: Max. LOA 200 m., max. beam 24 m., max. draft 11 m.
HEALTH: Port Authorities will board by launch from Nissyros to arrange Free Pratique. Any sick crew members will be disembarked to Nissyros by the same launch.
VHF: Contact Yali Quarry on Channel 8 and Harbour Master's office on Channel 12.
TUGS: Available.
BERTHING: The vessel is moored at loading berth on 8 buoys in addition to port anchor. During loading operations vessels have to be shifted from hatch to hatch.
BULK CARGO FACILITIES: Loading Berth is located at the end of the conveyor belt shiploader. The shiploader is on a cement construction, about 500 m. offshore. The cargo is carried by conveyor belt to the spout. The raising and slewing of the spout is controlled by the operator from the control desk to allow trimming of the cargo.
STEVEDORES: Workers are employed by Lava Mining and Quarrying Co.
MEDICAL: Nearest medical and hospital facilities are at the island of Kos, 7 miles North of Yali.
DENSITY: 1028 – 1030.
FRESH WATER: None available.
FUEL: Not available.
HATCHES: Opened and closed by ship's crew.
CUSTOMS ALLOWANCES: 200 cigarettes and 1 opened bottle of spirits are allowed for each man.
CONSULS: No local representation.
REPAIRS: No facilities exist.
AIRPORT: Nearest at Kos with 2-3 flights daily to Athens during the Summer and a daily flight in Winter.
HOLIDAYS: Sundays and Public Holidays.
SHORE LEAVE: Allowed.
GENERAL: *Pilots Recommendations for Mooring:*
1. Pilot's motorboat at position P1 (see "Plan").
2. Vessels are always berthed with starboard side towards the loading station.
3. Have ready following moorings:
(a) Fore – Portside 1 × 200 fathoms manila or nylon ropes – Starboard side 2 × 200 fathoms manila or nylon rope and
(b) Aft – Portside 2 manila or nylon ropes (should be 200 fathoms long) – Starboard side 2 × 200 fathoms manila or nylon rope.
Note: The 200 fathoms aft starboard side ropes are required only in the initial stage of mooring to bring the ship in her final position.
4. Secure lines as follows:
(a) Manila or nylon ropes to each of Buoy Nos. 3, 4, 5, 6, 7, 8.
(b) Manila or nylon rope(s) to either Buoy No. 1 or No. 2 according to ship's size.
5. Vessel to have portside anchor chain lowered (1.5 shackles) when vessel is about 400 yards away from anchoring point.
6. On arrival have portside gangway ready for immediate use.
Expedite Loading:
1. As a rule loading commences from midship holds. Vessel to be ready to shift back and forth at all hours of day and night for loading of other holds on 30 minutes' notice.
2. Have all hatches open.
3. Broom swept and washed clean holds, hold ladders and supporting beams.
4. Arrive at Yali fully ballasted.
5. If arriving at Yali 4-5 hours before sunset loading may commence before dark.
6. Shipper intends to work around the clock.
7. In case of tween decker, before arrival, remove all tweendeck hatch beams also 2 or 3 adjacent beams from the centre of Nos. 2, 3 and 4 main deck hatches.

AGENCY: *Main Agent:* Petros M. Nomikos Ltd., 17-19 Akti Miaouli, Tanpy Building, Piraeus 185 35, Greece. Tel: 4170895/9. Telex: 212397. FAX: 4171777. Contact: Mr. Michael Vazeos, Director.
AUTHORITY: Harbour Master at Mandraki, Port of Nissyros, Nissyros Island, Dodekanissa (Dodecanese), Greece. *Tel:* (0242) 31222. *Telex:* (21) 5168-9. *Cables:* Limenarchion, Nissyros, Greece. *Contact:* Mr. Stergios Remopoulos, Harbour Master.
OPERATOR: Lava Mining & Quarrying Co., 49-51 Sof., Venizelou St., Lycovrissis, Attica, Greece. Tel: (01) 2898530, 2898465, 2898462. Telex: (21) 5168-9. Contact: Mr. El. Fedros, General Manager or Mr. C. Cavafakis, Commercial Department.

Quarry: Yali Island, Nisyros Dodecanese. Tel: (0242) 31280 and 31426. Telex: (29) 2195. Contact: Mr. E. Fedros.

NOTES

Please also advise Shipping Guides Ltd.

Greenland

GENERAL:

CUSTOMS: The Master is not allowed to distribute tax-free cigarettes or other tax-free tobacco in a Greenland port.
DOCUMENTS: Following documents must be on board:

Speed Certificate.
Crew List.
Radio Station Certificate.
Safety Equipment Certificate.
Clearance Certificate.
Health Declaration.
Tonnage Certificate.
Certificate of Registry.
Derat Certificate.
Sailing Orders.

RESTRICTIONS: Foreign-flag vessels have access to Greenland ports. The crew may go ashore subject approval of Port Authorities.

All vessels arriving at ports must give a 24 hour ETA to Port Authority and Master should immediately after arrival make a presentation of Health Certificate and allow a medical check on board.

All ships have to pay harbour dues.

ICE INFORMATION: Ice Centre Narssarssuaq transmits daily at 1200 hrs. 1400 hrs. and 2200 hrs. GMT the latest information of the ice in Southern Greenland Waters. Information is transmitted in Facsimile (Mufax) on frequency 125.00 kHz, drum speed 120. Ships can, free of charge, request telegraphic ice information from following coastal radio stations:

OZL—Ammassalik
OXF—Qaqortoq

Ice information also transmitted in Facsimile (Mufax) on frequency/time (GMT) as follows:

9,360 kHz	0003-0025 GMT.
5,850 kHz	0028-0050 GMT.
5,850 kHz	0943-1005 GMT.
9,360 kHz	1008-1030 GMT.
13,855 kHz	1218-1240 GMT.
9,360 kHz	1243-1305 GMT.
13,855 kHz	1308-1330 GMT.
17,510 kHz	1333-1335 GMT.
13,855 kHz	1803-1825 GMT.
9,360 kHz	1828-1850 GMT.

WATCHMEN: Ship is required to appoint a crew member as ship's guard on board.
TIME: GMT minus 3 hours. Permanent. Except at Thule Air Base and N.E. Greenland.
HOLIDAYS: As applicable to Denmark.
CONSULS: None.
WORKING HOURS: Normally from 0600 hrs. to 1800 hrs. with 2 meal breaks.
RADIO: In ports where there is a local radio station, vessels are prohibited from using ship's station for sending messages.
HEALTH: Before commencing voyage to Greenland, at the port of departure, Master is required to obtain a Health Certificate from an authorised medical practitioner, stating that there are no dangerous or contagious diseases on board, such as pest, cholera, yellow-fever or typhus. The crew list is to be included in this certificate stating that there are no venereal or other contagious diseases amongst the crew members. The Health Certificate is only valid if it has the stamp and signature of the Royal Danish Consul or Vice-Consul of the district in which the port of departure is situated. On arrival at the first Greenland port, the Master is to present the Health Certificate to the Port Authorities. Health Certificate may also be issued by a doctor in the first Greenland port of call.
REPORT: Immediately upon arrival of a vessel in Greenland, the Master must report to the Port Authorities.
WASTE DISPOSAL: It is forbidden to throw waste material of any description overboard into port waters.
AUTHORITY: Kalaallit Nierfiat, Post Box 1008, 3900 Nuuk, Greenland. *Tel:* 21111. *Telex:* 90627. *Cables:* Handel Nuuk/Godthaab. *Contact:* Trafikvirkom Heden.

AASIAAT (Egedesminde): 68.43 N. 52.53 W.

(Also see "General Information" at beginning of Greenland Section)
DESCRIPTION: Roadstead, Inner Port (inside Bay), Anchorage, Boat Port, and Atlantic Quay.
DAYLIGHT: Polar darkness from 2nd December to 11th January, and midnight sun from 22nd May to 23rd July.
CONDITIONS: (a) Current: flows Eastwards between the islands at Aasiaat from 3 hours before, to 3 hours after high water, following which, current flows Westwards for 6 hours. *(b)* Ice: Winter ice normally occurs from mid-December to early May, but can occur earlier, in November. New ice in the port can be up to 60 cm. thick; 1st January covering ice up to 30 cm and by 1st February about 45 cm. Icebergs sometimes enter port area and stop all shipping movement. *(c)* Tide: high tide height 2.6 m. (max. 3.1 m.). Low tide height 1.5 m. Direct West wind causes 0.3 m. rise above tidal height, and South or S.E. wind about 0.5 m. below.
PILOTAGE: No official port Pilot, but assistance arriving and sailing may be obtained from a local seafarer having good knowledge of the area. This local assistance should be ordered if required in ETA cable to Port Authority at least 24 hours prior arrival. The Port Manager usually acts as local expert as part of his normal duties.

There is VHF radio installation in office of Port Authority and it is usually possible to obtain VHF contact within 30 miles of Aasiaat.

Local area expert will board vessel from port boat at meeting place usually arranged just outside entrance to port.

No special pilotage regulations and no Outer Anchorage where Pilot may be taken on board. However, in waters North and N.E. of port entrance vessels may stop or proceed at very slow speed in order to embark local expert.
ANCHORAGES: No special anchorages, and vessel is only allowed to anchor for a short period at the entrance to port subject permission of Port Authority.
MAX. SIZE: Largest vessel to berth alongside Atlantic Quay was length 136 m., breadth 20 m., draft 7.5 m.
ENTRY: Day or night.
TUGS: None. 1 port boat to take lines and assist mooring.
RADIO: Local radio station "OYR". RDF station beacon East of the town. Radio link between Aasiaat and Transitoen, and between Transitoen and Roeveo.
BERTHING: Atlantic Quay: Length 70 m., depth alongside 8.1 m., at medium low tide and 10.7 m., at medium high tide. Height of quay at medium tide about 1.5 m., above w/l. 2 × 10 ton mobile cranes and fork-lift trucks used in discharging.
MEDICAL: Hospital, doctor and dentist available.
FRESH WATER: Available at Atlantic Quay and at tank-station.
FUEL: Only gas-oil available for local fishing vessels from the tank-station.
REPAIRS: Shipyard for repairs to wooden fishing vessels. Machine shop also available. Slip for small vessels (250 tons).
AIRPORT: Heliport.
SALVAGE: Salvage-station in the area.
AUTHORITY: Kalaallit Niuerfiat, Niels Egedes Plads, 3950 Aasiaat, Greenland. *Tel:* 42244, 42147. *Telex:* 91000. *Cables:* Handelchefen Aasiaat. *Contact:* Handelchefen.

FAERINGEHAVN (Polaroil): 63.41 N. 51.34 W.

(Also see "General Information" at beginning of Greenland Section).
DOCUMENTS: Bill of Health: Doctor's Certificate mentioning each member of crew by name to be free of contagious diseases. This document to be signed by Consulate in the port of delivery to be prepared by competent authority, passengers excluded. One Manifest with Bill of Lading. Ordinary Ship's Papers.
PILOTAGE: As a rule Pilot can be ordered in the months May-October, 12 hours' notice before arrival is required.
ANCHORAGE: Inside fjord area.
RESTRICTIONS: None.
MAX. SIZE: Oil-carriers about 26,000 d.w.t., draft 40 ft. General cargo-ships 20 ft.
HEALTH: Master to apply with documents at harbour office for Free Pratique.
RADIO: Nuuk Radio: OXI, connected Faeringehavn by Telex and Telephone.
VHF: Oil company and fishing company are listening on VHF during working hours.
TUGS: None. 1 harbour boat for assisting with mooring and taking lines.
BERTHING: Natural port, anchorage for the largest vessels. Wharf, 225 m. with 5 m. at L.W.
STEVEDORES: None, but fishing and service company "Nordafar" may act as stevedores.
MEDICAL: For medical service, apply to Nuuk.
TANKERS: Load/discharge lines 6 in. and 8 in. Smaller diameters for bunkering when necessary.
FRESH WATER: Only available May to November.
FUEL: Available. Light fuel, gas oil, aviation turbine fuel A1, gas oil, oct. 97. But only with permission of Kalaallit Niuerfiat at Nuuk.
GANGWAY/DECK WATCHMEN: Not required (ship's crew).
OPENING/CLOSING HATCHES: Must be carried out by ship's crew.
IDENTIFICATION CARDS: Not required.
CONSULS: None.
REPAIRS: Small repairs only.
REPATRIATION: Available, via Nuuk by air to Copenhagen.
AIRPORT: Nearest airport is Nuuk distance 35 miles regular airlines.
TIME: GMT minus 3 hours.
HOLIDAYS: Danish holidays and Greenland holidays.
POLICE/AMBULANCE/FIRE: Police tel. Nuuk 21448.
TELEPHONES: Not available on board.
GENERAL: Bunker station open all year; during Winter-time sometimes difficulties caused by ice.
SHORE LEAVE: Allowed.
DELAYS: Bunker station closes for arrivals between 2200 hrs. and 0600 hrs. local time.
AUTHORITY: Kalaallit Niuerfiat, Polaroil, 3900 Nuuk, Greenland. *Tel:* 22527. *Cables:* Polaroil. *Contact:* Kalaallit Niuerfiat, Nuuk.

ILULISSAT (Jakobshavn): 69.13 N. 51.06 W.

(Also see "General Information" at beginning of Greenland Section)
DESCRIPTION: Port is a narrow open bay, entrance to the N.W., having outer port and inner port. In outer port is Atlantic Quay and bunkering station, and inner port has another quay and a fishing harbour.
CONDITIONS: *(a)* Tide: height of average high tide 2.8 m. (max. 3.3 m.) low tide 1.6 m.
(b) Wind: usually East to N.E. In Autumn winds are strong especially in the morning.
(c) Ice: impression can be gained when approaching port that port is closed due to icebergs. On closer approach channels between icebergs will be found but if these openings appear too narrow a wider passage should always be found to the North.
(d) "Kanele": a natural phenomenon that occurs at this port causing regular and heavy swell, height up to 2 m. Wave characteristic, long and flat, frequency about 6 minutes. Pilot should be consulted for full information.
ENTRY: Port usually open day and night, from mid May to end November.
DAYLIGHT: Polar darkness between 1st December and 12th January and midnight sun between 21st May and 24th July.
PILOTAGE: A local Pilot (Kendtmand) should always be used by larger vessels and request made to Port Authority in ETA cable. Pilot boarding place to be agreed with Authority.
MAX. SIZE: Largest vessel to berth at Atlantic Quay was length 93 m., draft 6.8 m.
RADIO: Aasiaat Radio.
TUGS: None. Port boats take lines and assist mooring.
BERTHING: Outer port depth 6.5/7 m., inner port 5.5/6 m. Atlantic Quay length 40 m. Depth alongside Atlantic Quay 7 m. at average low tide. Height of quay about 1.1 m. above w/l. Permission to enter port should be obtained prior arrival from Port Authority. Mobile crane capacity 10 tons, also fork-lift trucks.
MEDICAL: Hospital, doctors and dentists available.
FRESH WATER: Obtainable alongside Atlantic Quay.
AIRPORT: STOL airstrip available for internal flights.
REPAIRS: Machine workshop. Crane for lifting small vessels, capacity 50 tons.
GENERAL: Police, Fire Brigade, Port and cable office.
AUTHORITY: Kalaallit Niuerfiat, Noah Molgaardsvey, 3952 Ilulissat, Greenland. *Tel:* 43244. *Telex:* 91204. *Cables:* Handelchefen Ilulissat. *Contact:* Handelchefen.

IVIGTUT: 61.12 N. 48.10 W.

(Also see "General Information" at beginning of Greenland Section)
CONDITIONS: *(a)* Current: strongest about 3 hours before and 3 hours after high water, and vessels arriving and sailing should take this into consideration. *(b)* Tide: height of average high tide 3 m. (max. 3.4 m.), low tide 1.6 m. *(c)* Wind: calm for about half the year otherwise winds are usually from South or S.E. The dangerous winds for moored ships are the infrequent storms from North or N.E.; these storms seldom occur but if they do occur they do so in the Autumn. *(d)* Ice: Winter ice usually occurs from December onwards in the fjord outside Ivigtut and disappears in the beginning of April. Outside Ivigtut Winter ice always occurs, sometimes reaching a thickness of about 1 m. Information concerning ice conditions always obtainable on telegraphic request to GLK.
ENTRY: Day and night and usually all year round.
PILOTAGE: No official Pilot but an acting Pilot can be arranged through connection with Port Authority at least 24 hours prior arrival.
MAX. SIZE: Largest vessel to have berthed at Pier was length 102 m., breadth 14 m., draft 6.2 m.
RADIO: Qaqortoq Radio "OXF" or Gronnedal Radio "OVC".
VHF: Gronnedal Radio listens on VHF 24 hours.
TUGS: None. Motor-boat will assist mooring.
BERTHING: Depth alongside about 7 m. height of pier about 2 m. above w/l. Berthing during daylight only. Kryolit not exported from mid-December to end March. Crane capacity 3 tons.
Note: Kryolitselskabet Oresund A/S ceased operating at the port in December 1987.
FRESH WATER: Available.
FUEL: Deliveries of small quantities of gas-oil for local vessels only.
REPAIRS: No facilities.
MEDICAL: Hospital in Ivigtut, but doctors and dentists are in Gronnedal.
AUTHORITY: Hjemmestyret for Gronland, P.O.Box 1015, 3900 Nuuk, Greenland.

KANGERLUSSUAQ (Sondre Stromfjord): 66.58 N. 50.57 W.

(Also see "General Information" at beginning of Greenland Section)
DESCRIPTION: Port is used for the supply of an American base and for air communication to Copenhagen. Port has a quay and a sea terminal for tankers.
DAYLIGHT: Camp Lloyd is situated South of the border for polar darkness but has a midnight sun from 15th June to 1st July.
CONDITIONS: *(a)* Current: the current at entrance and at the West of Sondre Stromfjord is N.E. at flood tide, and S.W. at ebb tide, and can reach a speed of 7 knots. *(b)* Tide: high water at Camp Lloyd is about 3 hours later than at the entrance of Sondre Stromfjord. Height of average high tide 3 m. (max. 3.6 m.). Low tide 1.6 m. *(c)* Ice: Sondre Stromfjord is frozen during winter throughout whole of inner harbour, but about 55 miles from Camp Lloyd, ice thickness varies from 5 cm. to 90 cm. *(d)* Winds: strong winds can occur from East and S.E.
ENTRY: On account of ice, the fjord is closed from beginning of December to end-June, but can be used day or night from beginning of July to end-October.
PILOTAGE: No authorised Pilot, but Harbour Master will assist berthing.
ANCHORAGES: Good anchorages about 2 miles S.E. of Emmons Pynt in depth of about 40 m. Great care should be taken in anchoring, since sea bottom is shelving.
RADIO: ETA should be given well in advance of arrival to the Royal Greenlandic Commercial Representative and also to the Port Authority. The arrival should be reported at least 24 hours in advance through GLK. The Harbour Master can be contacted on 2716 kHz and this contact should be established at least 1 hour before vessels arrival.
BERTHING: *(a)* A quay which is located North of Emmons Pynt, depth alongside only 3 m. *(b)* Tanker sea terminal about 700 m. S.S.E. of Emmons Pynt where there is mooring with discharge lines. Depth of water 24 m. – 26 m. on the South side of the mooring position; 15 m. at the mooring, and 10 m. on Northern side of mooring with rapid shelving to the North.

The Port Authorities should be contacted before mooring at the sea terminal. There are mobile cranes with lifting capacity up to 5 tons, and fork-lift trucks.
MEDICAL: Hospital, doctor and dentist available.
REGULATIONS: Camp Lloyd is an American Defence Area and entry is restricted. American supply ships have preference in mooring at all installations.
AIRPORT: Heliport and airstrip.
AUTHORITY: U.S. Air Force, 3910 Kangerlussuaq, Greenland. *Tel:* 11153.

MANIITSOQ (Sukkertoppen): 65.25 N. 52.54 W.

(Also see "General Information" at beginning of Greenland Section)
LOCATION: Harbour situated on S.E. side of Maniitsoq Island, and has Atlantic Quay.
CONDITIONS: *(a)* Tide: height of average high water 4.2 m. (max. 4.8 m.), low water 2 m. *(b)* Ice: Winter ice occurs from December to April. *(c)* Wind: advisable not to enter harbour area if winds are strong. Most obstructive winds are storms from South or S.W.
ENTRY: Port open day and night, normally all year round.
PILOTAGE: Pilot is arranged by cable to Nuuk Radio when giving ETA, which should be sent well in advance. Pilot will meet vessel as arranged outside the harbour, or at Faltings Skoer.
RADIO: Extended from Nuuk "OXI".
TUGS: None. Port motor-boats assist mooring.
MAX. SIZE: Largest vessel that can berth at Atlantic Quay is length 100 m., draft 6 m. Vessels up to 4,000 tons have used the port.
BERTHING: Depth in harbour is about 27 m. and alongside Atlantic Quay. Length 60 m. with depth of about 8.2 m. Height of quay is about 2 m. above w/l. Cranes up to 5 tons capacity and fork-lift trucks.
FRESH WATER: Available at quay.
REPAIRS: Repair workshop for repairs to wooden fishing vessels. Machine shop available. Slip for small vessels (225 tons).
MEDICAL: Hospitals, doctors and dentist available.
AIRPORT: Heliport.
GENERAL: Telex, telephones, Police, Fire Brigade.
AUTHORITY: Kalaallit Niuerfiat, A. W. Nielsensvej, 3912 Maniitsoq, Greenland. *Tel:* 13244. *Telex:* 90701. *Cables:* Handelchefen Maniitsoq. *Contact:* Handelchefen.

MARMORILIK: 71.07 N. 51.17 W. (See Plan)

DOCUMENTS:
International Load Line Certificate.
Safety Raid Certificate.
PILOTAGE: Optional for coastal vessels entering Davis Strait. Agents are to make arrangements if Pilot required.
GENERAL DESCRIPTION: The berth is located at the North end of the West side of Agfardlikavsa Fjord.

Agfardlikavsa Fjord, West Greenland, (entrance approximately Lat. 71° 08′ N., Long. 51° 18′ W.) is located at the end of the larger Qaumarujuk Fjord.

Qaumarujuk Fjord, the Northeastern arm of Ingnerit, has its entrance between Qegertanguit and the Western extremity of Akuliarusikavsak, a mainland projection about 2.5 nautical miles S.E. Ingnerit. It is one of the largest of the branch fjords and flows into Umanak Fjord. It is entered between Tuperssuatsiait, the S.E. extremity of the Alfred Wegener Peninsula, and Akuliaruseq, a point about 4 miles S.S.E. The waters of the Umanak Fjord flow into the Nordost Bay.

The Agfardlikavsa Fjord is separated from the Qaumarujuk Fjord by a shallow, narrow bar. Depth at the centre of the sill is approximately 30 m.

There is a considerable surface water run-off along the Fjord walls including occasional rock slides. The bottom of the Fjord is filled with 6 ft. to 8 ft. of fine silty material.

Marmorilik (Lat. 71° 08′ N., Long. 51° 18′ W.) lies on the S.E. side of the Qaumarujuk Fjord at the Western entrance point of the Agfardlikavsa Fjord.

The larger fjords and Nordost Bay are encumbered with islets and rocks requiring extreme care in navigation. In particular, a shoal is known to exist some 350 m. N.W. of Marmorilik Point and extra care is required in this vicinity.

In 1984 an upstanding rock, 4.0 m. below sea level, was discovered in position 71° 07′ 44″ N., 51° 16′ 40″ W.
ANCHORAGE: There is an anchorage at Agfordlikowsa in depths of 20 m. to 35 m. Tankers can anchor near the berth in depths of 24 m. to 50 m., but must be aware of an unmarked 6 m. shoal about 300° True, and 375 m. (approx.) from the discharge point.

MAX. SIZE: Max. d.w.t. 65,000 (Panamax). Min. depth alongside ore terminal is 12.5 m. at LW.
RADIO: Egedesminde Radio.
VHF: Ship-to-shore communications will be maintained using VHF Channel 16.

Information on ice conditions in the fjord can be obtained from shore personnel. During loading operations, Greenex will supply the vessel with 2 portable radio transceivers for communications between the carrier and the loading control station.
TUGS: 1 tug available, 3,700 h.p. The tug will assist with berthing and unberthing if required, and will break up any thin ice in the vicinity of the berth and entrance to the fjord.
BERTHING: The Marine Terminal is used for loading ore carriers up to 65,000 d.w.t. The berth consists of 4 breasting dolphins with bollards for springs and breast-lines. On the shore are 7 bollards for head and stern lines spread over a distance of 366 m. The min. depth of water alongside is 12.5 m. at LW.

Vessels normally berth port-side alongside and use the starboard anchor to assist in berthing. No. 1 hatch is lined up under the loader as it is the first hatch to be loaded.

Initially the headlines go to the Northernmost dolphin and stern lines to the Southernmost bollard on the shore.

Loading: Zinc and lead are loaded with a luffing and slewing ship-loader. The ship-loader is fitted with a 20 ft. conveyor to distribute the cargo in the hold. Communication is maintained between the vessel and control room by portable radios. The average loading rate is 500 metric t.p.h.

Notice of Readiness will not be accepted at time of arrival at the dock unless the vessel is ready in all respects ready to load.

General Cargo: Unloaded into barges with vessel's gear and towed ashore to a separate lightering dock located about 500 m. N.E. of the ore terminal.
MEDICAL: Emergency medical and dental treatment can be arranged and should, when possible, be requested by the vessel's Master in his ETA message to the mine site office.
TANKERS: Diesel fuel oil and turbo-fuel are stored in a tank farm located on-shore about 500 m. West of the point at Marmorilik on Qaumarujuk Fjord, at an elevation of 50 m.

Vessels usually berth using both anchors, 5 shackles on the port anchor, and about 4.5 shackles on the starboard anchor, using a heavy chain from the stern to the S.E. point of the oil installation. The chain is available from the shore. Tankers can also moor to the N.N.W. of the oil installation, but must remain outside the 6 m. line.

The tanker hoses are connected to an 8 in. flange connection for diesel oil or a 4 in. hose adaptor with dust-cap for turbo-fuel. The static head on the lines is about 70 m. when the tanks are full. An anti-static cable is provided.

On the shore, there are 2×50 ton bollards and 1×20 ton stock. No breasting or mooring dolphins are provided.
FRESH WATER: Not available.
FUEL: Not available.
REPAIRS: No facilities.
TIME: Standard time is GMT minus 3 hours.
GENERAL: Repairs: While alongside the dock, no repairs are to be undertaken that will prevent the main propulsion machinery from being activated at very short notice.
Vessel's Whistle: The vessel's whistle shall be operational during operations. One long blast on the whistle means "Emergency – stop operations".
AUTHORITY: Greenex A/S, 3963 Marmorilik, Greenland. *Tel:* 009-299-48311/48360. *Telex:* 91500 Gxmar GD. *FAX:* 009-299-48385. *Contact:* Benny Gregersen, Service Manager.

NARSSARSSUAQ (Isrecognosceringsstation): 61.08 N. 45.26 W.

(Also see "General Information" at beginning of Greenland Section)
DESCRIPTION: Ice outlook station, with quay.
CONDITIONS: *(a)* Current: occasional strong N.W. current.
(b) Tide: average height of HW 3 m. (max. 3.6 m.) LW 1.6 m.
(c) Wind: S.E. wind sometimes reaches typhoon strength.
(d) Ice: in Winter ice thickness sometimes reaches 1 m. Ice breaker not available.
PILOTAGE: Not available. Base representative should be advised of ETA well in advance of arrival.
TUGS: None.
MAX. SIZE: Largest vessel to berth at quay was length 130 m., draft 8 m.
ENTRY: Open season from mid-May to mid-October. During season, port open day and night.
RADIO: Qaqortoq Radio "OXF".
VHF: Extended from Qaqortoq.
BERTHING: Quay length 140 m., depth alongside (West) 6 m. – 11 m. (East) 5 m. – 8 m. Height of pier 2 m. above w/l. 2 vessels may berth, 1 on either side of quay. Heavy mooring equipment on the quay, and should be used by larger vessels. Mobile cranes capacity up to 4 tons, and fork-lift trucks.
FRESH WATER: Obtainable at quay, about 80 tons per single off-take.
AIRPORT: Landing-strip for aircraft. Ice station usually uses Twin Otter aircraft and S61 Helicopter.
AUTHORITY: Gronlands Tekniske Organisation, Direktoratet, Hauser Plads 20, 1127 Copenhagen K, Denmark. *Tel:* (01) 13 84 72. *Telex:* 22979. *Cables:* Gronlandteknik.

Station Manager, 3926 Narssarssuaq, Greenland. *Tel:* 35266.

NORTH STAR BUGT (Thule Air Force Base): 76.36 N. 68.52 W.

(Also see "General Information" at beginning of Greenland Section)
DESCRIPTION: Supply port for the Thule Air Force Base. Port is operated by and belongs to the U.S. Air Force.
DAYLIGHT: Polar darkness from 1st November to 10th February and midnight sun from 23rd April to 20th August.
CONDITIONS: *(a)* Ice: port is frozen over from end October to beginning July. From beginning of November, large areas of compact ice appear, and these can sometimes be up to 20 miles wide. During May, compact ice areas commence breaking up; however, large quantities of drift ice remain along the coast until end July. Winter ice is normally about 180 cm. thick. *(b)* Temperature: in January and February average temperature is 29° below zero. In June, July and August, average temperature is usually above freezing-point, but for the rest of the year it is below freezing. *(c)* Tide: mean Spring tide is 3 m. (max. 3.4 m.). Mean neaptide 1.7 m.
ENTRY: Normally, port is open early July depending upon ice situation.
PILOTAGE: No authorised Pilot, but American Port Authority assists in mooring and should be advised of ETA well in advance.
ANCHORAGE: Good holding ground in depth between 20 m. and 40 m., but anchoring should only be carried out following advice of Port Authority.
MAX. SIZE: Largest vessel to berth alongside quay was length 130 m., and draft 7 m.
TUGS: None. Port boats assist mooring.
BERTHING: 2 vessels may berth at the quay. Depth alongside about 7 m. Height of pier about 2 m. above MHW. Mobile cranes and forklift trucks; however, equipment varies from year to year and Port Authorities should be contacted well in advance. 3 amphibious craft for vessels discharging in the roadstead.
FRESH WATER: Available alongside quay.
AIRPORT: Two rescue helicopters stationed at this base.
REGULATIONS: The area is a Military Defence area and special permission is necessary to enter the port. Shore leave is prohibited.
MEDICAL: Hospital, doctor and dentist available.
AUTHORITY: U.S. Air Force, North Star Bugt, Greenland. *Tel:* 50091.

NUUK (Godthab): 64.10 N. 51.44 W.

(Also see "General Information" at beginning of Greenland Section)
DESCRIPTION: Narrow entry to port, but well protected, with good modern berths and anchorages.
CONDITIONS: *(a)* Current: sometimes strong between anchorage and the berths. *(b)* Ice: only very occasional large quantities of ice reach the port and into the fjord. If ice in area South of Nuuk, S.W. storms force drift ice into the fjord. In recent years the port has begun to freeze over in Winter, and small vessels have at times become icebound. *(c)* Wind: S. and S.W. storms spring up suddenly but only last for brief periods. *(d)* Tide: height of high water 4.4 m. (max. 5.1 m.); low water 2.1 m.
ENTRY: Port open day and night all year round.
DAYLIGHT: Nuuk situated South of the border for midnight sun and Polar darkness.
PILOTAGE: Port Manager normally acts as Pilot for ships, but is not an authorised Pilot. Pilotage may be arranged by VHF contact with Authority during normal working hours with 24 hours notice.
ANCHORAGES: Good anchorages available inside fjord. Larger vessels should anchor close to Rypeo and in Malene Bugt.
MAX. SIZE: Largest vessel to berth at Atlantic Quay was length 135 m., breadth 17 m., and draft 7 m.
TUGS: 2 tugs available. 1 port boat to take lines and assist mooring.
RADIO: Local radio station "OXI". 24 hours notice of ETA should be passed to Authority, cable address "Handelschefen Nuuk". Radio beacon at Kookoerne.
BERTHING: Larger vessels should contact Port Authority before approaching port at night-time. Atlantic Quay, length 170 m., has a depth alongside 7 m., approx. for the most Northerly 120 m., and between 4.5 m. – 5 m. at MLWS for the most Southerly 50 m.

Vessels normally berth port side alongside. Mobile cranes capacity 30 tons.

Schooner Quay is 50 m. long, with a depth of 4.0 m., approx. Vessels normally berth bow Westward.

On the Coastal Passenger Quay length 40 m., depth 5.4 m., vessels usually berth with bow to the North.

There are several other small quays for the use of trawlers, and cutters, and a sand discharging berth length 30 m., depth 5 m.
TANKERS: Tankers can anchor and stern moor out from the gas installations, using an oil pipe-line connection. A mooring arrangement has been established for tankers of 25,000 – 30,000 d.w.t. below the tank and gas farm on the hillside.
MEDICAL: Hospital, doctors and dentists available.
FRESH WATER: Available at all berths.
FUEL: Small quantities gas-oil available at Atlantic Quay after receiving permission from Port Authority.
REPAIRS: Slip for small vessels (40 tons) and minor repairs. Slip for vessels up to 1,860 tons, repairs possible for steel and wooden ships.
AIRPORT: Runway 950 m. × 30 m.
GENERAL: Police, Fire Brigade, radar and radio technicians, radio station post, and cable office.
AUTHORITY: Kalaallit Niuerfiat, Skibshavnen, Post Box 160, 3900 Nuuk, Greenland. *Tel:* 23615, 25211. *Telex:* 90627. *FAX:* 24382. *Cables:* Handelchefen Nuuk. *Contact:* J. Fossheim, Harbour Master.

PAAMIUT (Frederikshab): 61.59.7 N. 49.40.8 W.

(Also see "General Information" at beginning of Greenland Section)
LOCATION: The port is in the inner part of a small bay.
DESCRIPTION: Atlantic Quay; fishing quay; anchorage.
CONDITIONS: (a) Current: none. *(b)* Ice: big ice reaches to the North of the port; smaller ice reaches the port especially to the North, but South of the port it is usually ice-free. The best period of finding the port ice-free is between March/April and the end of August. *(c)* Tide: height of average high water is 3.8 m., low water 2.0 m. (max. 2.4 m).
PILOTAGE: Pilot should be requested in ETA cable via Nuuk Radio. Pilot will meet vessel at Satuarssugssuaq (Fyroen).
ANCHORAGE: S.E. of Skarvo. Holding ground is not good and anchoring should be carried out at very slow speed and only in good weather conditions.
MAX. SIZE: Length 100 m., draft about 6 m.
ENTRY: Day or night.
TUGS: None. Port boats assist in mooring.
RADIO: Radio station Nuuk "OXI". RDF station beacon East of the town.
BERTHING: Atlantic Quay. Length 90 m., depth alongside at average low tide, 7 m., depth in harbour about 10 m. Cranes up to 5 tons capacity and fork-lifts trucks used in discharging.
MEDICAL: Hospital, doctor and dentist available.
FRESH WATER: Available alongside Atlantic Quay.
FUEL: Refuelling quay, depth about 5 m., Gas-oil and diesel oil available for small vessels.
AIRPORT: Heliport.
REPAIRS: Workshop for repairs to wooden fishing vessels. Machine shop available. Slip for small vessels (250 tons).
GENERAL: Police Station, Fire Brigade.
AUTHORITY: Kalaallit Niuerfiat, Poul Ibsensvej 1, P.O.Box 222, DK3940 Paamiut, Greenland. *Tel:* 17244. *Telex:* 90503. *Cables:* Handelchefen Paamiut. *Contact:* Handelchefen.

QAQORTOQ (Julianehab): 60.43 N. 46.02 W.

(Also see "General Information" at beginning of Greenland Section)
DESCRIPTION: Port is an open bay, facing South with Atlantic Quay.
CONDITIONS: *(a)* Current: flows N.W., but in Southern part of port from little current effect. *(b)* Tide: average height of high tide 2.8 m. (max. 3.2 m.); low tide 1.4 m. *(c)* Ice: drift ice between January and July occasionally fills whole port. *(d)* Wind: the most frequent wind is from East or N.E., normally occurring as storms during Winter months and as strong winds in Summer. Winds can be violent and cause rapid rise in temperature. Very secure moorings are advisable.
PILOTAGE: Port office is equipped with VHF which should always be used to contact Port Authorities before arrival, and to arrange Pilot's boarding position.
MAX. SIZE: Largest vessel to berth at Atlantic Quay was length 110 m. and draft 7 m.
ENTRY: Port open day and night normally throughout year, but from 1st January to 1st August, only available to specially constructed tonnage.
TUGS: None. Port boats take lines and assist mooring.
RADIO: Local radio station. Radio beacon station at Simiutaq about 10 miles West of entrance to Julianehab Fjord.
BERTHING: Atlantic Quay – length 60 m., depth alongside between 7/9 m. on average high tide and 1 quay, length 60 m., depth alongside 4.8 – 7.2 m. for small vessels. Height of quay is 1.3 m. above w/l. Mobile cranes, lifting capacity up to 5 tons.
MEDICAL: Hospital, doctor and dentist available.
FRESH WATER: Available from Atlantic Quay during Summer months.
FUEL: Gas-oil available at Atlantic Quay.
REPAIRS: At repair quay there is a stationary crane lifting capacity 35 tons. Slip for small vessels (250 tons) and minor repairs. Machine shop available.
AIRPORT: Heliport.
AUTHORITY: Kalaallit Niuerfiat, Torvevej, Qaqortoq, Greenland. *Tel:* 38244. *Telex:* 90202. *Cables:* Handelchefen Qaqortoq. *Contact:* Handelchefen.

QEQERTARSUAQ (Godhavn): 69.14 N. 53.32 W.

(Also see "General Information" at beginning of Greenland Section)
DESCRIPTION: Port consists of a mooring inside a bay and a 12 m. quay with depth 4 m.
DAYLIGHT: Polar darkness from 25th November to 15th January, and midnight sun between 19th May and 26th July.
CONDITIONS: Ice: Winter ice is fast from November–December until end May or beginning of June. Thickest observed Winter ice is about 100 cm.
ENTRY: Day or night. Port is open from May to November. Between mid-April until May the port can only be used by specialised tonnage.
PILOTAGE: Boarding point arranged with Port Authority in ETA advices.
ANCHORAGE: Good anchorage in the bay – outer port.
MAX. SIZE: Largest vessel to date length 100 m., draft 6.5 m. at quay with length 60 m. and depth 4 m.
TUGS: None. Port boats assist with mooring.
RADIO: Extended from Aasiaat "OYR". RDF Station beacon.
BERTHING: Quay length 12 m. depth alongside 4.0 m. at MLWS. Vessel moors to 2 anchors and stern-lines to the shore. Mobile cranes on shore capacity up to 5 tons. Depths in bay about 6.82 m.
MEDICAL: Hospital. Doctors and dentist available.
GENERAL: Arctic Scientific Station, Fire Brigade, Cable Office.
AUTHORITY: Kalaallit Niuerfiat, Holten Mollersvej 3, B 3953 Qeqertarsuaq, Greenland. *Tel:* 47244. *Telex:* 91401. *Cables:* Handelchefen Qeqertarsuaq. *Contact:* Handelchefen.

SISIMIUT (Holsteinsborg): 66.56 N. 53.40 W.

(Also see "General Information" at beginning of Greenland Section)
LOCATION: Harbour is situated on Northern side of Tommermandsoen.
CONDITIONS: *(a)* Tide: average height of high tide 3.5 m. (max. 4.4 m.) low tide 2 m. *(b)* Ice: Winter ice up to 1 m. thick. Ice normally occurs from December to March or April.
ENTRY: Port open day and night, and normally all year round.
PILOTAGE: Arrange with Authority through Aasiaat Radio, cable address "Director of Commerce Sisimiut". Pilot meets vessel at Jakobs Skaer, 2 miles S.W. of Mollersoe.
ANCHORAGE: Large vessels can anchor outside port and discharge into barges.
MAX. SIZE: Largest vessel that can berth alongside Atlantic Quay, length 136 m., breadth 20 m., draft 7.2 m.
TUGS: None. Port boats take lines and assist mooring.
RADIO/VHF: Radio station extended from Aasiaat "OYR". VHF connection in Port Director's office. Radio technicians available, cable address "Polar Radio".
BERTHING: Atlantic Quay, length 60 m., depth alongside 7.8 m., at average low water. Height of quay 2 m., above w/l. If berth occupied, loading/discharging of larger vessels at anchorage with barges. At Atlantic Quay there is a mobile crane with capacity of 10 tons and forklift trucks. Belt conveyor for coal.
Offshore Quay: Length 20 m. with depth of 6 m. at LW.
MEDICAL: Hospital, doctors and dentists available.
FRESH WATER: Obtainable at Atlantic Quay.
REPAIRS: Slip for small vessels (250 tons). Repairs possible to wooden ships. Machine shop available.
AIRPORT: Heliport.
GENERAL: Post and cable offices. Telephones not normally available for connection on board, but vessels at anchor can call Port Director's office on VHF during daytime.
AUTHORITY: Kalaallit Niuerfiat, Frederiks Den 9 Plads, 3911 Sisimiut, Greenland. *Tel:* 14055, 14044. *Telex:* 90805. *Cables:* Handelchefen Sisimiut. *Contact:* Handelchefen.

NOTES

Please also advise Shipping Guides Ltd.

Grenada

ST. GEORGE'S: 12.02 N. 61.46 W. (See Plan)

DOCUMENTS:
Port Authority: Arrival Report (Ship's Particulars).
Health Authority: Health Declaration, 1 Crew List.
Customs: Passenger List, Clearance from last port.
Immigration: 2 Crew Lists, 2 Passenger Lists.

PILOTAGE: Compulsory for anchoring and berthing for vessels over 200 g.r.t. Notice must be given before 1500 hrs. for vessels requiring berthing between 1600 hrs. and 0800 hrs. the following day.

Pilot boards at Pilot Station 0.5 miles N.W. of the red flashing buoy.

ANCHORAGE: Vessels anchor in position 12° 03.3′ N., 61° 46′ W. or as designated by the Pilot/Port Authority.

RESTRICTIONS: Vessels are berthed between 0500 hrs. and 2300 hrs. Unberthing may be done in certain circumstances outside of the above hours.

MAX. SIZE: Single screw vessels up to 600 ft. LOA, approximately, depending on type and machinery equipment of the vessel, this size may be increased. Max. draft 28 ft.

VHF: 25 Watt base station – Grenada Ports Control (J3YA) Channels 6, 11, 12, 13, 16, 22A, 26, 68. Hours: 0800 – 1600 hrs., Monday to Friday.

Mobile station(J3YA) 5 Watt, Channels 6, 11, 12, 16, 22A. Hours flexible but mainly limited from 0600 to 2200 hrs. Monitors Channel 16.

St. Georges Pilot (J3YB) Channels 6, 11, 12, 13, 16 and 22.

TUGS: Not available.

BERTHING: Length of berth 800 ft. Depth alongside 30 ft. (minimum). Berth owned by the Grenada Port Authority.

Berthing in hours of darkness is carried out if advice received before 1500 hrs. Palletised and container cargoes are loaded and unloaded by ship's gear.

MEDICAL: Doctor and general hospital available.

STEVEDORES: Available.

TANKERS: A tanker berth exists at the bulk storage terminal at Grand Mal, approximately 1.5 miles North of St. George's. Another terminal, Queens Park Terminal, exists 100 yards South of Green Bridge at the Northern limit of the town of St. George's. A minimum depth of 26 ft. exists between the mooring buoys at this Terminal.

Due to shallows, manoeuvring in the area of the Grand Mal Terminal is difficult and is not carried out during the hours of darkness. It is also not recommended to attempt berthing at the Queens Park Terminal during the hours of darkness due to lack of navigation ranges.

FRESH WATER: Available at an approximate cost of U.S.$5.0 per ton. Rate 10 t.p.h. (approx.).

FUEL: This can be arranged with sufficient notice (not less than 24 hours). Grade – Gas Oil 45 Cetane. Minimum supply 300 gallons.

SURVEYORS: Michael Forshaw and Alan C. Hoaber, Windward Island Surveys, Tel: 440-2881 and 440-2444 respectively. Both act for Panama Bureau of Shipping.

AIRPORT: Air services provided by Leeward Island Air Transport (LIAT), British West Indian Airways (BWIA) and British Airways(BA). Daily flights by LIAT and BWIA and once per week by BA.

HOLIDAYS: New Year's Day, Corpus Christi, Independence Day (February 7th), Good Friday, Easter Monday, Labour Day (May 1st), Whit Monday, August Bank Holiday (Monday and Tuesday), Christmas Day, Boxing Day.

TELEPHONES: Dock side telephone available on request from Grenada Telephone Company.

GENERAL: *Charts:* B.A. Chart No. 2830.

AUTHORITY: Grenada Ports Authority, Burns Point, St. Georges, Grenada, West Indies. *Tel:* 440-3439 (PBX), 440-3693 (General Manager). *Telex:* 3418 Min. *Cables:* Grenada Port Authority. *Contact:* Michael T. Forshaw, General Manager.

NOTES

Please also advise Shipping Guides Ltd.

Guadeloupe

BASSE TERRE: 15.59 N. 61.44 W. (See Plan)

DOCUMENTS:
6 Crew Lists.
6 Manifests.
Health Declaration Form.
6 Lists of Stores on board.
Passenger List.
Clearance from Last Port.

PILOTAGE: Not available.

ANCHORAGE: On an 18 fathom bank North of the pier, 2 cables from the shore.

RESTRICTIONS: Vessel can berth and unberth at any stage of the tide, but if vessel's first call, recommend berthing during daylight only.

MAX. SIZE: Max. LOA 300 m. Max. beam 30 m. There is 32 ft. – 36 ft. alongside but an allowance should be made for a 3 ft. swell, therefore would suggest max. draft approx. 29 ft.

HEALTH: Authorities require 24 hours notice of the vessel's arrival.

RADIO: Fort-de-France, call sign "FFP" (high frequency) and Destrellan, call sign "FFQ" for medium wave.

VHF: Port Authority on Channel 16.

TUGS: Not available, however a small boat will assist in running lines if the Port Authority is advised in sufficient time on VHF Channel 16.

BERTHING: The extension is in operation. The old S.E. arm of the quay and 3 remaining banana elevators were so badly damaged in a hurricane of 1979 that they are to be removed. The new quay is solid-filled and extends to a reclaimed shore thus providing considerable container stacking area. The berth is approximately 300 m. long and is well fendered with rubber fenders.

CRANES: 30 ton mobile crane available.

STEVEDORES: Working hours: 0700 – 1100 hrs. and 1300 – 1700 hrs. Extension possible.

FRESH WATER: Available.

MEDICAL: Doctors and hospital available.

DENSITY: 1025.

CONSUL: None, nearest consuls at Pointe-a-Pitre.

SERVICES: Fresh provisions, groceries and meats available. The following are not available: repair facilities, dry dock, machine shop, airport, surveyors, laundry services, bunker fuel oil, diesel oil, lubricating oil and slop tanks.

WEATHER: The swell is between 3 ft. and 4 ft. from a S.E. direction. The wind is mainly from an Easterly direction.

AUTHORITY: Guadeloupe Port Authority, Place Cours Nolivos, 97100 Basse-Terre, Guadeloupe. *Tel:* 81-09-15 and 81.11.21. *Telex:* 919710 GL. *Contact:* Mr. Claude Julienne, Port Director.

POINTE-A-PITRE: 16.13 N. 61.32 W. (See Plan)

DOCUMENTS:
6 Manifests. See (a).
6 Crew Lists.
3 Stores Lists.
3 Crew Declaration. See (b).
6 Passenger Lists.
4 Declaration of Health.
2 Bills of Lading.
1 Clearance from Last Port.
6 Entrance Declaration.

(a) In addition, 2 sets of Manifests must be airmailed to arrive 72 hours before arrival in Pointe-a-Pitre.

(b) This Declaration must indicate all new and used personal effects.

PILOTAGE: Pilot meets vessels at "Mouchoir Carre" buoys. Advance notice of ETA to be passed 24 hours, and VHF Channel 16, 1 hour before arrival.

ANCHORAGE: Consult charts.

RESTRICTIONS: Max. length 230 m. Max. draft 10.0 m.

MAX. SIZE: See "Restrictions".

HEALTH: Port Health board on arrival.

RADIO: Destrellan Radio, also on VHF.

TUGS: None available.

BERTHING: 9 berths available, 8 additional for petroleum, sugar, cement, flour mill, bananas, Ro/Ro and containers.

Tourist Port:
Quay No. 1: Length 150 m., depth 7.80 m.
Quay No. 2: Length 177 m., depth 9.20 m.
Quay No. 3:
Quay No. 4: Length 283 m. Depth 9.20 m.

Commercial Port:
Quay No. 5:
Quay No. 6: Length 320 m., depth 7.10 m. Ro-Ro, General Cargo
Quay No. 7: Length 306 m., No. 7 depth 7.40 m. No. 8 depth
Quay No. 8: 8.20 m. General cargo.

Industrial Port:
Quay No. 9: Length 180 m., depth 7.60 m. Mineral Berth.
Quay No. 10: Length 110 m., depth 7.20 m. Storage capacity 30,000 cu.m.
Quay No. 11: Length 100 m., depth 8.0 m. Sugar Berth. Storage capacity 70,000 cu.m. Loading rate 750 t.p.h.
Quay No. 11/12: Length 105 m., depth 8.20 m. Grain vessels, flour and feed, general cargo.
Quay 12 Bis: Length 45 m., depth 5.60 m. Ro-Ro.
Quay No. 13: Length 160 m., depth 10.0 m. General cargo, Containers.
Quay No. 14: See "Container Terminal".

Industrial Area: The industrial area of Jarry offers 40 hectares of open storage at the water's edge.

Container Terminal:
Quay No. 14: Length 787 ft., depth 36 ft.
The container terminal is equipped with 2 × 40 ton Paceco-ACB cranes.

STEVEDORES: 24 hours advance notice of ETA required (72 hours if vessel arrives on Monday). Working hours 0700–1030 and 1315–1645. At container terminal hours are 0630–1300 and 1400–2030.

MEDICAL: Clinics and Hospital facilities available. Hospital Tel: 82.88.88, 82.98.80.

TANKERS: Only tankers having less than 7.2 m. draft can enter the harbour.

FRESH WATER: Available day and night if requested in advance.

FUEL: Available F.O. 350 seconds Redwood, D.O. for gas oil. Delivered by road tankers.

CONSULS:
Belgium
Denmark
Ecuador
Haiti
Italy
Lebanon
Netherland
Norway
Spain
Sweden
United Kingdom
Venezuela

REPAIRS: Workshops available.

GANGWAY/DECK WATCHMEN: Available on request.

HATCHES: Usually opened and closed by crew. Stevedores will at Master's request but at ship's expense.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle per man.

CARGO GEAR: Ship's gear used.

REPATRIATION: All facilities available.

AIRPORT: 3 miles from the harbour with daily flights to Paris, Miami and New York.

TIME: GMT minus 4 hours. No alterations during the year.

HOLIDAYS: New Year's Day; Shrove Tuesday; Ash Wednesday; Carnival; Good Friday; Easter Monday; Labour Day (1st May); Ascension Day; Whit Monday; National Day (14th July); Souls' Day; Armistice; Christmas Day.

POLICE/AMBULANCE/FIRE: Police: 82.00.05 or 82.13.17 or 17; Ambulance and/or Fire Department: 83.00.28 or 17.

SHORE LEAVE: Permitted.

IDENTIFICATION CARDS: I/D or passport required.

REGULATIONS: No particular regulations.

DEVELOPMENTS: Berth Nos. 11 and 12 to be connected. Berth No. 13 to be strengthened to take Paceco ACB cranes. Infilling to provide 10 hectares of Foreign Trade Zone underway.

AUTHORITY: Guadeloupe Port Authority, Quai Lardenoy, (P.O.Box 485), Pointe-a-Pitre 97165, Guadeloupe, F.W.I. *Tel:* (590) 916313. *Telex:* 919710 GL. *Contact:* Captain Desitter, Harbour Master. J. C. Cren, General Manager. C. Georgelin, Operations Manager.

NOTES

Please also advise Shipping Guides Ltd.

Guam

GUAM (Apra Harbour): 13.26 N. 144.39 E. (See Plan)

DOCUMENTS: Guam is a United States Territory in the Western Pacific and official documentation is as for mainland U.S. ports, including visaed Crew List completed at port of departure prior to Guam. Vessels should have a stock of American Crew Lists Form I-148 and Form I-95A. The American Alien Crewman Landing Permit is acceptable and preferred. This is the plastic identification card previously issued on the U.S. coast. Required on arrival:

Vaccination Cards.
Visaed Immigration Crew List.
4 Crew Lists.
4 Passenger Lists.
1 Store List.
Clearance from last port.
Cargo Papers.

Have ready Immigration Form I-94 for each passenger and Form I-95 for each alien unless they have I-184 plastic Identification Card. Shore Passes not required. Crew Customs Declaration not required.

PILOTAGE: It is advisable to have on board U.S. charts for Guam: C & GS 4197 Apra Harbour. 4196 Guam Approaches.

Pilot available 24 hours a day. Weather permitting, Pilot will board outside breakwater upon Master's request.

APPROACHES: Make for the unmarked approach point designated "AH" (Alpha Hotel) 2 miles from entrance at 13° 26′ 8″ N., 144° 34′ 09″ E. where Pilot boards, weather permitting. From position AH, the entrance range line is 084° with the leading marks in line. Because of depths, anchoring outside the harbour is impossible. If vessel must wait for the Pilot cruise back and forth in this area.

Port entry: On occasions, weather and sea conditions are considered unsuitable for Pilots to board outside. Under such circumstances vessel may be requested to proceed inwards and pick up the Pilot in the harbour area. The Harbour Master's permission for vessel to enter is mainly based on the traffic situation and does not necessarily take into account whether it is actually safe for vessel to enter under such conditions. It is not advisable to enter without a Pilot due to strong cross currents.

Pilots are very willing to assist arriving tankers and whenever the weather situation at point AH is prohibitive for boarding, they may request the Master to proceed Southwards in Agat Bay to look for a more sheltered boarding ground.

Before entering, the Harbour Master and the Pilot should be consulted to ensure that no outgoing traffic will be encountered in the harbour entrance. It is also advisable to obtain from the Harbour Master the positions of vessels which may be anchored in the harbour area.

Under the influence of N.E. Trades the prevalent set of the current (reaching 3 knots) off the entrance is to the South or S.W. regardless of the tidal currents. During the summer months, when Westerly winds prevail occasionally, a Northerly set may be experienced (reaching 1.5 knots). The current velocity fluctuates during a daily period under the influence of tidal currents. Entry should be made during periods when cross currents are expected to be at a minimum. The Pilot should be consulted on this matter.

Strong cross currents may require an approach speed of up to 8 knots. In view of the relatively short distance from the entrance to the berth, the speed must be substantially reduced as soon as the influence of the cross current has subsided. In relation to this, the manoeuvring characteristics of vessel should be carefully taken into consideration.

Notice:

Issued by: Commander, U.S.C.G., Marianas Section.
Dated: 17th October, 1986.
Subject: SECURITY ZONE.

The Coast Guard has directed Naval Prepositioning Ships mooring in Apra Harbour to use Buoy 702* in Outer Apra Harbour and is establishing a security zone around this buoy and Naval Prepositioning Vessels moored thereto effective 17th October, 1986.

A 100 yard security zone has been established in all directions around Buoy 702 and Naval vessels moored there. When no vessels are moored to Buoy 702, a 50 yard security zone will remain in effect around the buoy itself.

The zone is established to safeguard Naval Maritime Preposition Ships against any possible destruction from sabotage or other similar causes.

Entry into the security zone is prohibited unless authorised by the Captain of the Port. Any person or vessel that enters the security zone without the permission of the Captain of the Port is subject to boarding search and removal from the area. Criminal penalties can be pursued against those on board.

*Buoy 702 is approximately 3.3 cables N.E. of the General Anchorage.

ANCHORAGE: Harbour – range 084° True, 2 green lights. Strong set across harbour entrance, Navy recommends 10 knots entering. Quarantine Anchorage at Middle Ground, Outer Harbour, depth 45 ft.

Inner Anchorage: Tidal range in the harbour is about 2 ft. Currents are weak. Deep drafted vessels should exercise caution as to the patch indicated as "Middle Ground" and the 42 ft. patch situated Westward of "Middle Ground". On rare occasions vessels may be requested to anchor. In these instances, deep drafted vessels may use the Naval Anchorage between and to the North of buoys 951 and 704. Officially, this anchorage is reserved for Navy vessels, however, the Navy has not objected to commercial vessels using this anchorage occasionally. Smaller vessels should have no difficulties in finding anchorage. In each case, anchorage location is determined by the Harbour Master in consultation with the Pilots. The bottom is mainly coral and is not a good holding ground.

MAX. SIZE: Max. LOA 230 m. (Berths "F4", "F5" and "F6"). Depth alongside Berth "F5" – 10.97 m. at HW.

Berth "F3". Max. LOA 182.80 m. Depth 9.75 m. at HW.

Max. beam for container vessels is 33.55 m.

RESTRICTIONS: The Harbour Master of the Port Authority of Guam, is in complete control of the approaches to Guam and it is essential to obtain clearance and permission to enter Guam from "Harbour Master" Port Authority, call sign KUF-810 at least 24 hours prior to arrival. Permission is readily granted with the condition to request permission again 2 hours prior to arrival at Guam. This time from Guam Control, call sign KUF-810 and NRV (USCG).

HEALTH: If from suspect port, Inspector boards at anchorage or at pier for thorough check. Inspector grants Pratique.

RADIO: Harbour Master Radio Station, call sign KUF-810 ship/shore watching 24 hours. Use of USCG Station "NRV" for best service if unable to reach KUF-810 due to limitation of range.

Notice to Ship's Agents: (20th August, 1980)

The Harbour Master's Control Tower is operating on a 24 hour basis. The following VHF frequencies are guarded and monitored:

156.8 MHz – Channel 16
156.6 MHz – Channel 12
156.65 MHz – Channel 13

In addition, Control Tower personnel will be monitoring S.S.B. with the following procedure:

2182.0 kHz continually.

4143.6 kHz – (4B). Every hour on the half hour for a period of 5 minutes.

8291.1 kHz – (8A). Every hour at 35 minutes after the hour for a period of 5 minutes.

12432.3 kHz – (12B). Every hour at 40 minutes past the hour for a period of 5 minutes.

The Port Authority solicits your co-operation in the matter of keeping the Harbour Master advised of all arrivals, departures, and other pertinent information whereby we may best serve the maritime industry.

VHF: Masters of vessels approaching should keep watch on Channels 12, 13 and 16.

TUGS: 3 tugs (1,200 h.p.) available throughout 24 hours. Tugs can be contacted direct on VHF Channels 16, 13 and 19.

BERTHING: Vessels may berth Port or Starboard side upon request of the Master or Agent at "F3", "F4", "F5" except "F6" port side to, 1 large tug and 1 small tug normally used. Ship's gangway is required. Local information from Pilots states that after completion of Berth F-1 (Gorco Oil Berth), a submerged wreck was discovered, said to be a 500 ft. long cargo vessel, and lies across and below the vessel in this berth, on the Eastern side of the jetty. It is advisable not to drop anchors – should they have to be used – until vessel has passed over the wreck. There have been instances of forward springs or breastlines becoming fouled in this wreck during operations.

TANKERS: *Mobil Pier:* Berth "G". Depth alongside 39 ft.

The terminal consists of a T-head pier, with 2 breasting dolphins. Head and stern lines are secured to shore-based bitts. No breast lines can be used. Therefore, caution should be exercised when off-berth winds occur.

The pier is within the blast zone of the Navy ammunition pier. When a vessel is working ammunition, or when ammunition is on that dock, U.S. Coast Guard will not ordinarily permit a vessel to lie at the Mobil Pier. If U.S. Coast Guard does give permission, U.S. Navy authorities require a "Hold Harmless" agreement before permitting vessel to berth at the Mobil Pier. To this effect the Agent assists and offers guidance.

Berthing: Vessels usually berth on port side. There are no particular difficulties with berthing a vessel but approach speed and impact on the dolphins should be kept to a minimum. 2 mooring launches are utilised. There are no capstans for hauling mooring lines.

Beam winds may affect vessels when alongside. Because of the lack of breasting lines, Northerly winds tend to push the vessel off the berth. Southerly winds cause excessive pressure on breasting dolphins when the vessel is in a light condition. Ballasting while discharging should be considered and Terminal operators will advise the Master on this. In case ballasting is necessary prior to completion of discharge, U.S. Coast Guard permission must be obtained.

Cargo Handling: Only refined petroleum products are handled at this pier.

Flexible rubber cargo hoses are used. No shore crane is available. Ship's manifold is to be ready with blanks removed and reducers rigged if necessary. Cargo booms should be operational prior to arrival, in order to lower the ship's gangway as soon as the vessel is secured to the pier. Different grades can be discharged simultaneously.

Gorco Berth: Berth "F1". Depth alongside 55 ft.

The terminal consists of a T-head pier with 2 breasting dolphins at each end and 2 mooring dolphins on the West side.

On the East side there are quick-release hooks along the shore line. All mooring points are provided with quick-release hooks and capstans for hauling the mooring lines.

Berthing: Ships always berth port side to. Vessel is to proceed at slow speed towards the berth passing North of buoy No. 2 (on some charts designated as buoy RB "A") and East of the patch of 57 ft. reported in 1970. Tugs are in attendance. 2 mooring boats strong enough to handle (100,000 d.w.t.) wire ropes are available. Some difficulties have been reported when running lines ashore at the Eastern side since the mooring launch, because of shallow water, cannot get close to shore and rope pick-up winches at times are malfunctioning. Additional messenger lines are normally required from the vessel. The use of wires as headlines should be avoided.

Cargo Handling: Both crude oil and petroleum products are handled at this pier. For crude discharge 4×10 in. ASA hoses are used. Distance to tanks 7 miles. Ship's port side manifold to be ready with blanks removed and adaptors fitted if necessary.

Ballast/slop facilities are available and consists of 1×12 in. line of about 1,000 ft. long with a tank capacity of 80,000 bbls. The maximum acceptable quantity, however, is restricted to 50,000 bbls.

CRANES: 1 (Manitowoc) × 140 ton, 1 (P&H) × 40 ton and 1 × 35 ton.

2 Paceco rail mounted container gantry cranes for handling 20 ft., 27 ft. or 40 ft. containers. 30 fork lifts, capacity 3 – 20 tons, including a Hystainer with special spreader for handling containers.

IMMIGRATION:

1. *Prior to Departure for Guam:*
   - A. Visaed Crew List: Prepare 1 Crew List on U.S. Form I-418 and have it visaed by a U.S. Consulate at a port prior to Guam. Without this, crew shore leave may be denied.
   - B. Passengers must have a valid passport and also must have an appropriate U.S. Visa whether landing or not on Guam.
   - C. Intransit passengers do not need U.S. visa if the Owners of the vessel have signed a contract called "Immediate and Continuous Transit Agreement" with the Commissioner of Immigration at Washington, D.C.
2. *Prior to Arrival at Guam:*
   - A. Passenger List, Form I-418 prepare 3 copies of Passenger List on U.S. Form I-418 (for Immigration, Customs and Agent).
   - B. Passenger Landing Card: Form I-94. Prepare or have on hand, 1 U.S. Form I-95A for each alien crew member. Not required if crew member is a permanent resident with U.S. I-184 laminated "Crewman's Landing Card". Not required of U.S.A. Citizens. Please present form I-95A in appropriate Seaman's passport or identification book. Form I-95A can be used repeatedly for future arrivals of same crewman on same ship at any United States Port.
3. *Upon Arrival at Guam:*
   - A. U.S. Federal Immigration Inspector boards upon arrival at pier, must see all passengers with their passport and Form I-94 and all crew members with their passport or identification books and Form I-94A or Form I-184.
   - B. Passengers and crew are required to be ready for inspection immediately upon docking at Guam.
   - C. No shore leave and no visitors or stevedores may board until this Immigration inspection is complete. The Inspector will advise Master when he has completed his inspection of passengers and of crew.
4. *Prior to Departure from Guam:*
   - A. Intransit Passengers: Pick up from intransit passengers the Form I-94 and hand to Agent before departing from Guam. These must be returned by Agent to U.S. Immigration as passenger departure records.
   - B. Alien crew member joining at Guam: Pick up from them the Form I-94 which they used to enter the U.S.A. These must be returned to U.S. Immigration by Agent as permanent records.

SECURITY: Guam Government Official usually boards at pier, examines vaccination cards and inspects Steward's stores and slop chest. Also represents U.S. Customs. Requires 1 Crew List, 1 Passenger List, 1 Store List, Clearance from last port, later issues new clearance from Guam which Agents bring to ship. Normally does not seal stores or slop chest.

MARINE GUARD: Required when docked at Ammunition Pier, requires 1 Crew List.

FUEL: Marine Diesel Oil available by truck at any pier and by pipe-line at Berth "F3". Black oil available by pipe-line at Berth "F6". Both products also available by pipe-line at Berth "F1" (Gorco Pier) and the Mobil Pier. The distribution companies are Exxon, Gorco and Mobil. Infrequent fuel delivery restriction occurs when ammunition vessel working.

FRESH WATER: Very good, available any quantity, meter service.

STORES: Available but considered expensive. Produce from U.S.A.; meats from U.S.A. and N.Z.; milk is recombined in quart cartons, white, chocolate or buttermilk. Order milk day prior to delivery; tropical fruits seldom available; ice in blocks or cubes. Prices wholesale, except under 1 case lots when at retail. Delivered to ship's gangway or hook.

LAUNDRY: Also dry-cleaning available 3 days service at U.S.A. prices. 1-day service extra. Delivered to ship's gangway or hook.

MEDICAL: Foreign ships use Guam Memorial Hospital or other clinics in town. American ships use U.S. Naval Dispensary in Harbour area, or in emergency U.S. Naval Hospital near Agana, 10 miles distant. Certificates required signed by Master. Patient returns to vessel by taxi at vessel's expense. Dispensary hours for merchant seamen Monday to Friday 0800 – 1200 and 1300 – 1600 hrs. At other times, if emergency, use the U.S. Navy Hospital. Doctors will not normally visit ships.

Dentists: Private dentists only. Usual hours 0900 – 1700 hrs., Saturday to 1200 hrs.

REPAIRS: Commercial Yard and Casamar Yard available. Navy Yard, repairs by U.S. Naval Ship Repair Facility (SRF), subject to prior Navy commitments, and requires cash deposit in advance. Payment to be made for work done successfully or not. "No Cure No Pay" does not apply.

TIME: GMT plus 10 hours.

POLICE/FIRE/AMBULANCE: Ambulance U.S. Naval Dispensary, Harbour Area, Tel: 339-4224/4227. Fire Tel: 22222. Police – Naval Station Security, Harbour Area Tel: 333-2988. Police – Guam Civilian Police, Tel: Agana 777-9811

BANKS: Bank of America, Bank of Guam, Bank of Hawaii, Chase Manhattan Bank, Citibank, First Hawaiian Bank, Hong Kong and Shanghai Banking Corp.

WEATHER: *Tropical Typhoons:* The Navy Fleet Weather Centre of Guam broadcasts typhoon warnings. Weather forecasts are good and reliable; however, due to the particular geographical position of Guam it is impossible to definitely determine the track of approaching turbulence. These turbulences usually generate a few hundred miles South or S.E. and may easily divert when passing near Guam. There are four typhoon warning conditions.

Condition 4:
Typhoon winds possible within 72 hours;
Condition 3:
Typhoon winds possible within 48 hours;
Condition 2:
Typhoon winds possible within 24 hours;
Condition 1:
Typhoon winds possible within 12 hours.

During the typhoon season months of August through December condition 4 exists at all times.

In case of a typhoon warning, (condition 2) the U.S. Navy invites all Masters for a meeting to discuss the action plan for evacuating the port.

It is considered very dangerous to remain alongside or anchored within the port when a typhoon is approaching Guam.

SHIPMASTER'S REPORT: April 1987.

I was advised that Agents can obtain permission to enter Guam on behalf of the Master. If a ship is fitted with telex this saves time and money over the U.S.C.G. Station NRV.

On this occasion, the vessel was unable to raise KUF-810 until within VHF range. It was also noted that the Agency offices are in the same building as the Harbour Master. This Port Services Building also houses the U.S.C.G. and the Customs.

I was also advised that Daylight Saving Time is not being used by the present Administration, however the situation may change when a new Governor is appointed.

The 3 tugs in use are diesel electric, built in 1944 and estimated to be about 800 h.p. maximum. A tug of 1,700 h.p. is being sought at present.

This vessel used all 3 tugs when laden on a draft of 11.02 m. at the Mobil Pier - Berth "G". This pier is being renewed. At present the berth consists of 2 breasting dolphins only. The vessel used 3 × 6 in. floating hoses to discharge. No crew boats were available and a ship's lifeboat was used as a liberty boat. The new jetty should be in use in June 1987 according to the U.S.C.G.

Agent's name & address: Ambyth Shipping & Trading Inc., 1026 Cabras Highway, Suite 205, Piti, Guam 96925, USA. Telex: (721)6405 AMBYTH GM. Fax: (671) 472 1264.

AUTHORITY: Port Authority of Guam, Government of Guam, 1026 Cabras Highway, Suite 201, Piti, Guam 96925. *Tel:* 477-9931/32/33/34. *Telex:* 7431687. *Contact:* Frank R. Perez, General Manager. Frank G. Santos, Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

Guatemala

GENERAL

DOCUMENTS:

Consular Documents:

Masters are required to:

1. Obtain a health and clearance permit, issued by the competent authority at the last port of call, and certified by the Guatemalan Consul, and;
2. Submit 5 copies of a general manifest of articles carried to each port of the country, approved by the Guatemalan Consul at the port of loading, and also, separate copies of the manifest for in-transit articles unloaded.

If no articles bound for the country are carried, a ballast manifest should be submitted.

Prior to Arrival:

Arrival Notice:

There is no minimum period for advance notice of the vessel's arrival, because Authorities exercise a degree of flexibility. However, it is recommended that notice be submitted in writing to the following sometime in advance: The Captain of the Port, Customs Administration and Customs Supervision of Unloading, Migration Delegate, Maritime Health, Plant Health Delegate and Port Watch. Notification must also be sent to the following agencies of the Port Authority: Port Administrator, Office of the Chief of Operations, Office of the Chief of Docks, Import Division, Export Division, Invoicing Division, Container Section (if any) and Pilots Division.

Information on Cargo for the Port:

If the vessel carries cargo to be discharged at the port, the following information will be submitted to the Port Authority:

Stowage Plan.

Cargo Distribution List.

Heavy Cargo List.

Amount of Exports.

If containers are carried to the port, 8 copies of the list of container contents and 8 copies of the list of complete shipments and of mixed shipments (for more than one consignee) are to be submitted to the Container Section.

This information may be submitted upon the vessel's arrival, so that no delays in the work will be experienced for that reason.

On Arrival:

Type of Documents	*Number and Distribution of Documents*						
Basic Forms	*Captain of Port*	*Customs*	*Security*	*Maritime Health*	*Immigration*	*Plant Health*	*Port Authority*
General Declaration	1	1	1	1	–	1	1
Cargo Manifests	1	7	–			1	12
Crew List	1	1	2	1	1	1	1
Passenger List	1	1	2	1	1	1	1
Ship's Stores List	1	1	1			1	1
Crew Effects Declaration	1	1	1	–	–	–	–
Maritime Declaration of Health	–	–	–	1	–	–	–
Mail List(a)	–	–	–	–	–	–	–
Additional Documents:							
Clearance from Last Port	1	–	–	–	–	–	–
Consular Manifests	–	1	–	–	–	–	–
Consular Manifests from each Port of Loading	–	1	–	–	–	–	–
Sets of Bills of Lading	–	–	–	–	–	–	2
"No Passengers" Declaration	1	1	2	1	1	1	1
List of In-Transit or "No In-Transit Passengers" Declaration	1	1	2	1	1	1	1
Tally Books	–	3(b)	–	–	–	–	3(b)

(a) Delivered to Post Office.

(b) According to the number of stevedores requested, more than 2 copies.

Other Requirements:

Requests for permission to load and unload are submitted to Customs, each on stamped paper and also, when appropriate, a request for overtime work.

Prior to Departure: The clearance permit is requested from the Captain of the Port 4 hours in advance, after obtaining clearance from Customs, on a clearance permit application, which is submitted on stamped paper.

UNIFORMS: Vessels have been fined when officers have not been wearing uniforms when boarded by officials for clearance inward.

CHAMPERICO: 14.17 N. 91.55 W.

DOCUMENTS:

Clearance from Last Port.

Travel Memorandum (original and 4 copies).

Declaration of Maritime Health.

Derat Exemption Certificate.

5 Crew Lists.

5 Passenger Lists or "no passengers" Declaration.

5 Provision Lists.

5 Dangerous Cargo, inflammable or explosives declaration.

5 Mail Lists or "No Mail" Declaration.

Manifests of Cargo from each port (original and 11 copies).

Bills of Lading from each port.

Vaccination Certificates for whole crew.

12 Ballast Manifests, if no cargo on board.

PILOTAGE: None.

ANCHORAGES: Without limit but recommended *not to anchor* less than 1 km. from beach.

MAX. SIZE: Vessels work cargo at anchorage in depth consistent with vessel's draft.

HEALTH: Give notice of any suspicious illness or fever on board when the doctor comes for official visit.

RADIO: ETA cables through Cristobal (Panama).

VHF: Channel 16.

TUGS: No tugs required.

STEVEDORES: No advance notice necessary. Possible to arrange gangs within an hour.

MEDICAL: Adequate advance notice required depending on gravity of case. Hospital 30 minutes away and possible to arrange transport for patient, also to arrange for doctor on board. Crew must have current International Vaccination Certificates.

TANKERS: No facilities for tankers.

DENSITY: Changes from 1022 in October to 1027 in April.

FRESH WATER: Free within port limits.

FUEL: No facilities.

GANGWAY/DECK WATCHMEN: Available upon request.

OPENING/CLOSING HATCHES: Either by crew or by stevedores.

CUSTOMS ALLOWANCES: Without limit on board. Prohibited to take tobacco, wine or spirits ashore.

CARGO GEAR: Ship's gear used for loading/discharging.

IDENTIFICATION CARDS: Not needed.

CONSULS: None.

REPAIRS: Minor repairs only.

REPATRIATION: All facilities available.

AIRPORT: International airport 3 hours distant with regular flights all over world.

TIME: GMT minus 6 hours. No alterations to clock during year.

HOLIDAYS: No work on 1st January, Maundy Thursday and Good Friday, 1st May and 25th December. The rest of the year work day and night.

POLICE/AMBULANCE/FIRE: All available.

TELEPHONES: Cannot be placed on the vessels.

GENERAL: Possible to supply provisions, especially vegetables and shell-fish at good prices.

SHORE LEAVE: No restrictions.

DELAYS: Some days in April and October the surge is very strong and work has to be suspended.

DEVELOPMENTS: Project to build a modern port with an entrance channel, artificial bay and capacity for 8 merchant vessels and facilities for fishing ships and tourist ships.

AUTHORITY: Empresa Portuaria Nacional de Champerico, 10A Calle 3-31, Zona 1, Guatemala City, Guatemala. *Tel:* 25-4-47, 85-2-16, 53-54-57. *Cables:* Epnac. *Contact:* Cnel. Antonio Batres Barreda, President. Gregorio Cifuentes, Administrator.

PUERTO BARRIOS: 15.44 N. 88.36 W.

DOCUMENTS:

Clearance from Last Port.

Crew List, 1 legalised and 9 copies.

Passenger List, 1 legalised and 7 copies or negatives.

Cargo Manifest, 1 legalised and 21 copies.

Stores/Provisions List, 3 copies.

Voyage Memorandum, 4 copies.

Bills of Lading, 2 sets.

Declaration of Health.

PILOTAGE: Pilot boards 2 miles off Puerto Barrios, from small unmarked launch. If awaiting Pilot, vessel may anchor about 3 miles North of Puerto Barrios, keeping port entrance clear. No VHF.

ANCHORAGE: In Santo Tomas Bay, depths up to 6 fathoms.

MAX. SIZE: Length 600 ft., draft 30 ft.

HEALTH: Advise Agent in advance if any fever or contagious disease suspected on board. Otherwise Pratique granted on arrival. Officials board only between 0600 hrs. and 1800 hrs.

RADIO: Coastal radio in Costa Rica, call sign TIM operating on 8485 kHz.

TUGS: No tugs available.

BERTHING: One pier owned by International Railway used to discharge fuel oil. 1,000 ft. berthing length on each side. A flag is shown on the pier to indicate where vessel will berth. Berthing recommended during daylight hours only. Tankers discharge on South side of the pier.

See "Shipmaster's Report" at Santo Tomas de Castilla.

FRESH WATER: Available at the pier.

FUEL: Not available.

MEDICAL: Doctor available. All crew require International Vaccination Certificates.

CUSTOMS ALLOWANCES: Normal daily consumption on board. No tobacco, wine or spirits to be taken ashore.

IDENTIFICATION CARDS: Required.

TIME: GMT minus 6 hours; no alterations during the year.

SHORE LEAVE: Allowed.

AUTHORITY: Commandante del Puerto.

PUERTO QUETZAL: 13.55 N. 90.47 W. (See Plan)

PILOTAGE: Pilotage is compulsory for all vessels berthing and sailing, but not for shifting.

DOCUMENTS: See "Regulations."

ANCHORAGE: A vessel approaching from sea is permitted to anchor in front of the harbour not closer than 1 nautical mile without using a Pilot.

RESTRICTIONS: *Safe draft over the bar and channel:*

Maximum safe draft is 11 m. (36 ft.), the width of the channel is 210 m. (689 ft.).

Depth in channel and turning basin is 39 ft.

Docking of vessel at any time of the day: Docking is permitted by the Port Authority when the required documents have been presented and provided the vessel is to commence work. Vessels may dock at any time, but such movements are normally scheduled to fit in with time of granting of Free Pratique and of commencement of work.

Clearance of a vessel outward: This is normally signed by the Port Captain during hours prior to completion of work.

Restriction on sailing time: No restriction.

MAX. SIZE: LOA 210 m. Beam 32 m. Max. draft 10.5 m.

HEALTH: Free Pratique is normally granted all day, including Sundays and holidays.

Free Pratique at anchorage or at the wharf: Free Pratique is given either at the anchorage or after berthing. Where wharf space is available and vessels' documents have been presented, she would normally dock on arrival or at scheduled time for clearance, and receive Free Pratique at the wharf.

Free Pratique in Puerto Quetzal is granted when the party of officials visit the vessel to clear her inwards. These officials represent:

Port Captain
Customs Administrator
Port Health Authority
Quarantine Officer
Port Authority
Customs Guard (Guarda Hacienda).

A representative of the vessel's Agent is present and the offer of refreshments or soft drinks assists things along.

Where a vessel is cleared at anchorage, every effort should be made to lower a gangway, rather than expect the officials to use a pilot ladder.

In case the vessel does not have a Guatemala national flag aboard, a vessel would be well advised to cable his Agent to bring one to the vessel on arrival.

TUGS: Tugs are compulsory for berthing and sailing, but not when shifting without engine.

BERTHING: Berthing facilities in Puerto Quetzal consist of one wharf of 800 m. (2,624 ft.) of length, 56 m. (184 ft.) width including a ramp of 30 m. (98 ft.) length and 25.5 m. (84 ft.) width for Ro-Ro vessels. Depth alongside 11 m.

Fenders: The 800 m. wharf has rubber fenders with approximately 2×1.2 m. (4 ft.) diameter, spaced at 20 m. (66 ft.)

CARGO OPERATIONS: Average outturn per hour based on modern type vessels with large hatches, good winches/cranes:

Containers 20 ft. or 40 ft.	8 units/hr.
Iron & Steel products	50 tonnes
Iron & Steel products pre-slug	60 tonnes
Bagged cargo	30 tonnes
Drums	20 tonnes
General cargo	16 tonnes

These figures are subject to many variables, e.g. size of parcel, stowage, separation of marks, etc. Also when working iron and steel products pre-slinging would do much to assist.

Gear supply for handling cargo: The stevedore firms supply all necessary gear such as rope and wire slings, nets, forklifts of different sizes. Presently following forklifts in good condition exist: 1×36 ton unit, 1×15 ton, 3×7 ton, 3×4 ton, 3×3 ton and 2×2 ton units all owned by the stevedoring firms.

STEVEDORES: Normal working hours 0600 – 1700.

Labour: Presently there are about 1,200 stevedores in the City of San Jose which is always sufficient.

The average gang has the following personnel:

General Cargo:	14 stevedores	Containers:	8 stevedores
	1 hatchman		1 hatchman
	1 winchman		1 winchman
	1 foreman		1 foreman

Change of gangs: The first shift of labour works from 0700 hrs. to 1430 hrs., the second shift from 1430 hrs. to 2130 hrs. and the third shift from 2130 hrs. to 0700 hrs. At midnight there is a break of 30 minutes for meals.

Advance notice to call a gang for commencement of work:

1. For the morning shift – Recommended to advise the night before, latest 2000 hrs.
2. During the day – 3 hours advance notice.
3. At night – Advise before 1700 hrs.

MEDICAL: Hospital facilities in Esquintla (54 km.) and Guatemala City (100 km.).

FRESH WATER: Available.

FUEL: Fuel oil, kerosine, diesel oil and gas oil available by road tanker.

REPAIRS: Minor repairs possible.

DRY DOCKS: None.

AIRPORT: Distance to airport 8 km.

SURVEYORS: Lloyd's Register: Franklin Ltda. 12 Calle "A" 2-34, Zona 1, Guatemala City. Tel: 8-32-33, 53-68-26.

General Superintendence Co.: Centrans S.A. 6a. Ave 20-25, Zona 9. Attention: Mr. H. Preuss. Tel: 370134/35.

P & I Club's Representation: Ing. Jack Sigal, Torre Professional No. 1, Guatemala City. Tel: 531452.

GANGWAY/DECK WATCHMEN: Private watchmen are available but are not compulsory for either on board or ashore.

Uniformed guards of the Customs Police (Policia de Hacienda) are stationed at the gangway free of charge.

However, it is recommended to keep vigilance to prevent cabins and storerooms, etc., being entered.

Vessels at anchor (however, presently there is no port congestion nor is any expected in the near future) should also keep a strict watch for boarders.

No meals are required to be supplied by vessels in Puerto Quetzal to Customs, guards or any other persons.

HOLIDAYS: *Legal and Local Holidays:*

December 31st 1800 hours until January 2nd 0600 hours	New Year's Day
March 19th 0000 hours until March 20th 0600 hours	Local Holiday
Wednesday 1200 hours until Saturday 0600 hours	Easter
May 1st 0000 hours until May 2nd 0600 hours	Labour Day
June 30th 0000 hours until July 1st 0600 hours	Revolution 1871
September 15th 0000 hours until September 16th 0600 hours	Independence Day
October 20th 0000 hours until October 21st 0600 hours	Revolution 1944
November 1st 0000 hours until November 2nd 0600 hours	All Saints Day
December 24th 1800 hours until December 26th 0600 hours	Christmas Day

Due to the present situation (being a new harbour) the port works 365 days per year, however this could change later.

GENERAL: *Authorisation of lowering boat:* Lowering of boats requires permission which is normally granted by the Port Captain.

Regulations regarding explosives and ammunition at Puerto Quetzal:

Explosives and ammunition are only allowed to be discharged on a scheme whereby they leave the port area immediately and a notice of 24 hours should be given prior to arrival.

Cargoes remaining on board are not covered by any particular regulations.

Local guidance on stores and availability of items:

Deck Stores: The few available items are expensive.

Engine Room spare parts: Even well-known makes are almost non-available.

Lubricating Oils: The commonly used ones are available in small quantities, but special ones are not obtainable.

Stewards Department: Most dry stores are expensive with few exceptions and quantities are limited.

Fresh fruits, vegetables, seasonally available in moderate quantities, at reasonable prices, likewise fish, poultry, fresh beef and pork. (Beef bought in Guatemala is accepted as safe in the USA, but not so the pork – confirm with respective Authorities.)

Laundry service: Available at a reasonable cost.

Radio/Navigational Aids: Spares are not generally available and service of a very limited nature only. Better service can be obtained in Guatemala City. (Each case should be investigated by Agent.)

Important: Ship's spare parts can be sent to a vessel calling at Puerto Quetzal by air – or by sea freight but care must be exercised in their addressing and marking, as otherwise local import duties may be imposed. All such items should be clearly addressed to the vessel, in care of the vessel's Agent, and must say the Spanish for "in transit", the phrase "EN TRANSITO". This ensures that the goods can be treated and may be exported on the receiving ship without problems.

Any such movement should always be co-ordinated with the local Agents, who should be kept fully advised of same.

REGULATIONS: The following is a translation from Spanish.

Operation Regulations for the Provision of Services in the Port of Quetzal:

Article 4: Programming Arrivals:

Eight (8) days prior to the end of the month, Ships' Agents must present in writing or by telex to the Commercial Department a programme with the approximate date of arrival of vessels for the coming month, and keep this programme up to date.

Article 5: Request for Guarantee Deposit:

Ships' Agents must request the Commercial Department for the amount of the guarantee deposit as established by Article 5 of the Government Agreement 825 – 83.

Article 6: Guarantee Deposit:

In exceptional cases, the guarantee deposit can be lodged at the Fiscal Treasury Office of the Port Services Division in Puerto Quetzal.

Article 7: Request for Services:

Ships' Agents must present to the Port Services Division the request for services 24 hours in advance of the arrival of the vessel, when she is coming from Acajutla or Champerico. When the vessel is coming from other ports, the Agent must comply with Article 6 of the Government Agreement 825-83, by means of the General Request for Services form. In both cases, Authority must be requested to contract a specific stevedoring concern.

Article 8: Authorisation of Request for Services:

The Request for Services will be authorised after it has been verified that the corresponding regulations have been complied with.

Article 9: Confirmation of Arrival:

Ships' Agents must submit in writing to the Port Services Division confirmation of arrival of their vessels 12 hours in advance, with the exception of vessels coming from Acajutla or Champerico, in respect of which confirmation may be given 6 hours in advance.

Article 10: Documents required prior to the provision of services:

Ships' Agents must provide in advance to the Port Services Division the following documents in an accurate and legible form:

(a) For imports of general cargo:
- 2 stevedoring stowage plans
- 2 sets of bills of lading
- 2 tally books for each hold of the vessel to be worked and 2 for the office
- 5 sets of cargo manifests, 4 lists of direct cargo.

(b) For imports of solid bulk cargo:
- 2 sets of bills of lading
- 5 sets of cargo manifests, 1 stevedoring plan, 2 sets of tally books per hold.

(c) For imports of containers and lorries:
- 2 stowage plans
- 2 sets of bills of lading
- 4 container listings (sequency lists)
- 1 packing list per container
- 5 sets of cargo manifests

(d) Imports of Vehicles:
- 2 stowage plans
- 2 sets of bills of lading
- 4 tally books
- 5 sets of cargo manifests

(e) For exports:
- Complete shipping lists authorised by the Customs, 1 set per hold and 3 additional sets
- 4 sets of export manifests
- Container lists – 1 set per hold and 3 additional sets.
- 1 packing list per container.

Article 11: Period for delivery of documents:

Import documentation must be presented at least 3 days prior to the arrival of the vessel, the order for shipment and the list of containers to be loaded 12 hours prior to commencement of the operation, and the export manifest within 12 hours after sailing.

Article 12: Goods not covered by the manifest:

Discharge of goods which are not on the manifest is not permitted without due written authorisation from Customs. Once discharge operations have been completed and not later than 12 hours afterwards, the Ship's Agent must present the corresponding additional manifest to the Port Services Division.

Article 13: Letter of Correction:

Where there are discrepancies between the bill of lading and the cargo manifests, the Ship's Agent must present to the Port Services Division a letter of correction within a period not longer than 24 hours after delivery of the documentation indicated in Article 10 of these regulations.

SHIPMASTER'S REPORT: December 1984.

Limited operations commenced on 18th March, 1983.

Currently, services are provided with the following minimum organisation:

Port operations.

Maritime and Communication operations.

Financial and Administrative Services, and the additional personnel to provide other support services.

These offices operate in module buildings constructed for this purpose in the port area.

Services to Vessels:
- Right to berth.
- Aids to navigation.
- Service of pilot launch.
- Pilotage.
- Mooring, berthing, and vice versa.
- Stay in port.
- Anchorage.

Protection Works: The sheltered area is formed by a major (West) breakwater 1,140 m. long, the minor (East) breakwater 307 m. long, and a secondary North Dock with a length of 367.54 m. These works ensure a minimum of rough water inside the port and maximum safety for vessels.

Access Channel: The access channel to the dock provides safety and facilitates entry and leaving of vessels to and from the sheltered area. It has a minimum width of 210 m. and a depth of 12 m. at the lowest tide.

Manoeuvring Basin: This offers safety and facilitates manoeuvring of vessels. It is circular with a diameter of 400 m., and a depth of 12 m. at the lowest tide.

Berthing: The main quay, situated in the Eastern part, was planned as a multi-purpose terminal. It has a length of 800 m., and a free platform of 56 m. width. It includes a ramp 30 m. long and 25.5 m. wide, provided with two mooring devices at the sides with capacity of 100 tonnes, and with a predominant slope of one in ten for serving Ro/Ro vessels. It is located at the Northern extremity.

The whole quay is provided with rubber defences and bitts for mooring vessels. Its crown dimension is +4.5 m., and a depth of −11 m., giving a total of 15.5 m.

The South Quay has a length of 170 m., for berthing smaller ships. Its crown dimension is +4.5 m. and its depth is −5 m., giving a total of 9.5 m.

The Service Quay is 50 m. long and is for servicing small craft. Its crown dimension is +4.5 m. and its depth is −5 m.

Types of vessels handled:
- General cargo.
- Solid bulk cargo.
- Containers.
- Ro/Ro.
- Barges.
- Tourist passenger vessels.

Stevedores: Cargo handling services are provided by private concerns duly authorised by the Port Authority.

Ship's Agents and brokers arrange cargo handling with the stevedoring companies who in turn are authorised to provide such services.

The following services and direct cargo handling are available:
- Receipt and clearance.
- Loading and unloading.
- Handling on quay.
- Storage in the open.

Storage: It has been planned to place at the disposal of users a multiple use warehouse 90 m. long and 80 m. wide. This warehouse will have an area covered by metal structures and concrete walls, and fitted with fire-fighting equipment.

Attached to the warehouse will be a module housing the warehouse guard, Customs inspection, port checkers and wharfingers.

Airport: There is an airport with capacity to receive any type of commercial aircraft 8 km. away.

There is also the runway of the Aeroclub de Guatemala and the installations of the Tourist Complex of Likin.

General: Puerto Quetzal is a terminal of the system of inter-ocean communication with the ports of the Atlantic, which are 406 km. distant by road and 443 km. by rail.

The new port is reached by land via the asphalted highway CA9 at a distance of 110 km. from the capital. There is also rail connection, and both means of communication connect with the country's network of roads and railways. The motorway from Escuinta to Puerto San Jose has yet to be built.

SHIPMASTER'S REPORT: January 1985.

Fresh Water: Said to be possible, ex road tankers. Very expensive.

Painting: No painting and/or scraping either on board or on hull can be done. Granting of permission takes at least 2 days.

AUTHORITY: Empresa Portuaria Quetzal, 7A Avenida 3-74, Zona 9 (6o. Nivel), Ap. Postal 206-A Guatemala City, Guatemala, C.A. *Tel:* 319101, 319133 and 319152. *Telex:* UNECPU-GU 6134 Cuidad Guatemala. UNECPU-GU 6315 San Jose, Escuintla.

Contact: Francisco Motta Lemus, General Manager.

AGENT: Agencias Intermodal S.A., Avenida Reforma 3-48, Zona 9 (Apartado Postal 455-A), Guatemala City, Guatemala. Tel: 318780. Telex: 5676 Anstel Gu.

SAN JOSE: 13.55 N. 90.50 W. (See Plan)

NOTE: Very little cargo handled. Vessels now proceeding to Puerto Quetzal.

DOCUMENTS:
- Clearance from Last Port.
- Crew List, 1 legalised and 4 copies.
- Passenger List, 1 legalised and 7 copies.
- Passengers in Transit List, 4 copies.
- Cargo Manifest, 1 legalised and 19 copies.
- Stores/Provisions List, 3 copies.
- Voyage Memorandum, 4 copies.
- Cargo Check Lists, 18 copies.
- Mail List, 7 copies.
- Bills of Lading, 2 sets.
- Baggage Declaration, per passenger, 4 copies.
- Declaration of Health.

PILOTAGE: Not required and no resident Pilots available, except for Tankers where services of a Pilot could be made available upon request.

ANCHORAGE: San Jose is a lighter port (open roadstead). Vessels anchor about 0.25 mile from pierhead in 8–9 fathoms of water.

RESTRICTIONS: Normally no pratique granted after 1900 hrs., although in some instances and if prior arrangements made, vessels could be received by Port Authorities up to 2300 hrs. Tankers moor in daylight only.

MAX. SIZE: Size immaterial since no docking facilities. Cargo transported from vessel to pier and vice-versa by means of steel lighters or barges of 35 tons capacity each. This applies to dry cargo only. Bulk, liquid cargo at respective terminals (oil and oil by-products, imports, and molasses export), where vessels proceed after pratique.

HEALTH: Pratique automatic (0700 hrs. to 1900 hrs.), irrespective of previous port of call. Master's obligation to notify Authorities on arrival of any suspected disease and/or fever on board, in order that adequate precautions taken.

RADIO: Messages should be routed via Guatel.

TUGS: None available or required for manoeuvring vessels.

BERTHING: New port 2 miles East of San Jose Pier (See "Puerto Quetzal.")

STEVEDORES: No gangs available after 2100 hrs., unless another vessel is working in port. Rate of discharge/loading: dry cargo: 15–20 tons per gang hour. Max. gangs available: 3. Bulk cargo handled ten times faster.

MEDICAL: Hospital available. No vaccination/fever certificates required.

TANKERS: 2 buoy berths for tankers. Discharging lines 8 in. diameter. Esso Terminal: Mooring Master assists berthing. IRCA Terminal: Stern discharge.

FRESH WATER: None available.

FUEL: None available.

GANGWAY/DECK WATCHMEN: None required or necessary.

OPENING/CLOSING HATCHES: By stevedores.

CUSTOMS ALLOWANCES: On board, no restrictions; no crew member allowed to bring ashore more than amount required for personal use.

CARGO GEAR: Ship's gear used for loading and discharging dry cargo. Vessels must bring own lines to tie lighters alongside.

IDENTIFICATION CARDS: Necessary for those on shore leave.

CONSULS: All Consulates located in Guatemala City, where vessels' Agents, when and if required, have special documents legalised. Normally, however, Agents can take care of regular certifications required, through port officials, who are authorised to certify documents in absence of a consul of a particular nation.

REPAIRS: No facilities available.

REPATRIATION: Possible. Usually arranged by Agents in cooperation with vessel's Agent in Guatemala City.

AIRPORT: Nearest airport Guatemala City, 108 km. due North of San Jose. Daily flights to and from all parts of world.

TIME: Central Standard Time, GMT minus 6 hours. No changes during year.

HOLIDAYS: January 1st; Holy Thursday; Good Friday; Easter Saturday; March 19th; May 1st; June 30th; July 25th; September 15th; October 20th; November 1st; December 24th; December 25th; December 31st.

POLICE/AMBULANCE/FIRE: These can be contacted through Agent at San Jose and/or Guatemala City.

TELEPHONES: No facilities for placing telephones on board.

SHORE LEAVE: Allowed.

DELAYS: Only 2 dry-cargo vessels can work simultaneously. A third vessel must await departure of 1 of the first 2. Only 1 tanker can work at each bulk liquid cargo terminal.

SHIPMASTER'S REPORT: September, 1978.
Approach was direct from the Pacific. A good landfall was made. San Jose main Light was observed to be Isophase, rather than Occulting, every 20 seconds.

Anchorage: Vessel anchored in a position with the head of the Iron Wharf bearing 011°(T) – 8 cables. We lay to 4 shackles of cable on the starboard anchor, in 13 fathoms of water. Despite a considerable swell at times, the vessel did not drag her anchor. If anchoring, vessels do not take a Pilot.

Berthing: Ocean-going vessels and at times, due to the swell, almost any vessel, cannot berth alongside the wharf. While we were at San Jose a tanker of about 20,000 d.w.t. berthed stern-on with both anchors down, to load molasses.

I understand that, if no tanker is expected, general cargo ships are sometimes berthed in this manner. The tanker employed a Pilot.

Communications; If at anchor, it is best to keep radio watches and maintain long-range communications in this way. When working cargo, the Supervisor is in VHF communication with the Agents, but this facility is not available outside of working days.

Documents: As per "Guide to Port Entry". It was not possible to get any documents legalised prior to arrival, but this was arranged by Agents, as also was legalisation of documents for subsequent Central American ports.

Cargo Work: Continuous, weather and the supply of lighters permitting. There are only 3 general cargo gangs in the port and only 2 ships can be worked at a time. The first ship gets 2 gangs, the second ship 1 gang.

Many delays were experienced waiting for lighters, and 2 full days discharging time were lost due to the size of the swell.

This is not a very serious problem alongside the ship, but makes discharge of the lighters at the wharf impossible.

Rate of discharge of coiled steel rods was 55 tons per gang-hour, net of delays awaiting barges.

Pratique: Granted on arrival.

Provisions: Not purchased.

Fresh Water: Unobtainable at the anchorage.

Shore Leave: Permitted, but one has to take one's chances of getting a ride to and fro on the lighters. Not many people went ashore and fortunately none were stranded when work was suspended.

SANTO TOMAS DE CASTILLA: 15.42 N. 88.37 W.

(See Plan)

DOCUMENTS:
The following are the documents required from each port at which cargo is loaded for discharge in Guatemala, all to be in the Spanish language.

	In Advance	*On Board*	*Consularised*
Consular Clearance	—	—	—
Cargo Manifests, copy	—	35	1
Cargo Manifests, freighted	—	1	—
Copy Bills of Lading (not freighted)	—	3	—
Cargo Plans	—	3	—
Hatch List	—	3	—
Crew List	—	8	1
Stores Lists	—	8	1
Passenger Declaration*	—	8	1
Arms Declaration*	—	8	1
Mail Declaration*	—	8	1
Clearance from Last Port	—	1	—
Maritime Declaration of Health	—	1	—
Crews Personal Effects Lists	—	4	—

* Where these are negative, may be combined in one form.

Consularised documents may be put aboard the vessel, or sent with advanced documents. Above requirements do not include the Agents need such as distribution of Bills of Lading to customers and his own needs for accounting and files purposes. *Consularised documents are not necessary as the fine imposed locally consists of maximum quezales 40.00 per port,* as Guatemalen Consulates may not be at a specific port of loading or their offices are closed.

PILOTAGE: Compulsory for all vessels arriving, leaving and manoeuvring within the port limits and available 24 hours a day. Pilot is taken on board 3 miles off the quay.

The pilot station and the Control Office of Maritime Traffic of the Navy maintains listening on R.T. frequencies 2738 kHz, and Channel 16 VHF.

The pilot craft are painted white, flying a red and white flag by day, and red and white lights by night, they have VHF radio, but no radar.

The pilot craft base is the Santo Tomas de Castilla Quay, as well as the pilot station, and they will proceed to provide service once requested by the Ship's Agents.

The ladder for the Pilot to board must be positioned on the lee side of the vessel 1 m. above the water, but any alternative may be agreed between the Pilot and the Master of the vessel.

ANCHORAGE: Vessels with a draft up to 24 ft. can anchor about 1 mile to the North of Villedo Lighthouse, leaving the main channel free, but vessels drawing more water should anchor a little further away from the lighthouse.

The Pilots will anchor vessels with less than 24 ft. draft in the inner bay, i.e. nearer to the port, depending on the position of vessels anchored.

APPROACHES: As aids to navigation, there is a lighthouse at Cabo Tres Puntas, Ox-Tongue Lighthouse, Heredia Lighthouse, Villedo Lighthouse, the access channel together with the manoeuvring basin being marked by light buoys, driven by batteries recharged by solar energy.

Note: The channel buoys have been changed to the International Rules (Inbound starboard - green) with radar-reflectors placed on them (7 buoys).

Lighthouse: A radio-tower is located in Pto. Barrios with a visibility of approximately 20 miles (Fl. 10 sec.), well marked on the chart.

Chart: Approach to Santo Tomas de Castilla – U.S. chart GUA 03 28165. 1st Ed. Jan. 84.

RESTRICTIONS: The channel has a depth of 30 ft., at the marginal quay there is a depth of 33 ft.

Docking/Undocking: Docking is permitted by the Port Authority when the required documents have been presented and provided the vessel is to commence work. Vessel may dock at any time, but such movements are normally scheduled to fit in with time of granting of Free Pratique and of commencement of work.

Once docked a vessel can stay at the wharf waiting for cargo during a longer period of time, for example overnight. However if space is needed to work another vessel with cargo available then the vessel losses its dock space.

There is no restriction on time of sailing.

Clearance is normally signed by the Port Captain during hours prior to completion of work.

MAX. SIZE: Max. draft 27 ft. – 30 ft. Max. LOA 750 ft.

HEALTH: Free Pratique is normally granted all day, including Sundays and Holidays.

Free Pratique is given either at the anchorage or after berthing. Where wharf space is available and vessels' documents have been presented, she would normally dock on arrival or at scheduled time for clearance and receive Free Pratique at the wharf.

Free Pratique in Santo Tomas is granted when the party of officials visit the vessel to clear her inwards. These officials represent:

Port Captain
Customs Administrator
Port Health Authority
Quarantine Officer
Port Authority
Customs Guard (Guardia Hacienda)

A representative of the vessel's agent is present and the offer of refreshments or soft drinks assist things along.

Where a vessel is cleared at anchorage, every effort should be made to lower a gangway, rather than expect the officials to use a pilot ladder.

In case the vessel does not have a Guatemala national flag aboard, a vessel would be well advised to ask his Agent to bring one to the vessel on arrival.

RADIO: ETA cables to Agent and Receiver made through Lantana Radio, Florida (WDE) in the U.S.A.

VHF: The distance at which VHF communication can be established with the Santo Tomas de Castilla pilot station is 16 nautical miles, i.e. the distance at which Cabo Tres Puntas (Three Points Cape) is from the port.

When the Pilot is manoeuvring, communication with the tugs is via Channel 12 VHF.

TUGS: It is compulsory to use at least 1 tug for any type of manoeuvre; depending on the size, structure, location where the manoeuvre is being executed, and the state of the weather, the Pilot will decide upon the use of a second tug. The port currently has available 3 tugs - 1×1,200 h.p., 1×1,100 h.p. and 1×700 h.p.

BERTHING: The quay is marginal with a length of 914.51 m., being divided into 6 berths of 152.40 m. (approx.) each. The depth of water alongside the quay is 33 ft., the water is saline, and for discharge and loading of goods, facilities are available for day and night work. The vessel's own gear and equipment is used, and in special cases shore equipment. It is necessary that prior to the arrival of the vessel's relevant and general information be provided regarding the cargo carried by the vessel, so as to allocate the corresponding berth, as well as equipment and storage warehouses.

CRANES: The port currently has 3 mechanical scoops (type P&H), 2 with a lifting capacity of 35 tons and 1 with a capacity of 7.5 tons. A mobile jib crane on rails capable of covering a distance of 400 m. approx., and with a lifting capacity of 30 tons. There is also a fixed crane with a lifting capacity of 50 tons. The Authority has no floating cranes.

The port can work conventional vessels, container and Ro/Ro ships, solid and liquid bulk carriers, and for operating solid bulk carriers, the Authority has a Buhler unit with a capacity of 100 t.p.h. discharge and mechanical scoops with grabs. Liquid bulk carriers visiting the port discharge and load products via tubes and hoses, conveniently installed along the quay.

SPECIALISED CARGO HANDLING FACILITIES: There are 4 berths for Ro/Ro vessels operation.

For handling container ships there is 2 Straddler carriers with a lifting capacity of 40 tons and stowage at 3 high, 2 Raygo-Wagner fork-lifts with 40 tons lifting capacity and stacking height to 3 high, 2 spreaders, 1 for 40 ft. and 1 for 20 ft. containers, 9 winches and 8×40 ft. platforms.

79 forklift trucks up to 8,000 lb. capacity. 15 reefer points available.

STEVEDORES: The Port Authority provides the stevedoring service in accordance with the applications for service submitted by port agents.

Labour:

(a) Amount of gangs available to work:
Presently there are about 2,000 stevedores in the City of Puerto Barrios (5 km. from Santo Tomas) which is always sufficient.

(b) Amount of stevedores employed in a ship's gang:

General Cargo:	14	stevedores
	1	hatchman
	2	winchman (even if only one is required)
	1	foreman

Container and Trailer vessels:
Same amount of men per gang, which can be used for different cranes/hatches at the same time.

(c) Change of gangs:
The first shift of labour works from 0700 to 1700 hours, the second shift from 1800 until 0600 hours.
Breaks for meals are as follow:

Breakfast	0600 - 0700 hrs.
Lunch	1200 - 1400 hrs.
Supper	1700 - 1800 hrs.
Break	0000 - 0100 hrs.

(d) Advance notice to call a gang for commencement of work:
1. For the morning shift - the day before lastest 1700 hrs.
2. During the day - 3 hours advance notice
3. At night - advise before 1530 hrs.

(e) Average outturn per hour based on modern type vessels with large hatches, good winches/cranes:

Containers 20 ft. or 40 ft.	8 units/hr.
Iron & Steel products	25-30 tonnes/p.h.
Iron & Steel Products pre-sling	60 tonnes/p.h.
Bagged cargo	20-25 tonnes/p.h.
Drums	20-25 tonnes/p.h.
General cargo	15 tonnes/p.h.

These figures are subject to many variables, e.g. size of parcel, stowage, separation of marks, etc. Also when working iron and steel products pre-slinging would assist.

MEDICAL: No advance notice necessary. Hospital facilities and ambulance service available. International vaccination certificate required.

TANKERS: Diameter of pipe-lines 16 in. and load/discharge lines 14 in. No slop discharge facilities. Only 1 mooring berth for tankers and max. draft permitted 30 ft. Also see "Shipmaster's Report".

DENSITY: 1015.

FRESH WATER: Pipe-lines alongside quay. Delivered by hoses belonging to port. Rate 15 t.p.h.

FUEL: Available by lorry no advance notice required. Products available: Fuel oil, kerosene, diesel and gas oil.

FIRE PRECAUTIONS: No specific precautions for tankers. Hydrants and fire brigade available to combat fires, besides tug's services and Coast Guard ships of Navy. Dangerous areas to be clearly signposted.

GANGWAY/DECK WATCHMEN: Private watchmen are available but are not compulsory. The cost is approximately Quetz. 1.50/hr. during the day and Quetz. 2.25/hr. at night.

Uniformed guards of the Customs Police (Policia de Hacienda) are stationed at the gangway free of charge.

However it is recommended to keep vigilance to prevent cabins and storerooms etc. being entered.

Vessels at anchor should also keep a strict watch for boarders.

No meals are required to be supplied by vessels in Santo Tomas for Customs, guards or any other persons.

OPENING/CLOSING HATCHES: Normally by crew.

CUSTOMS ALLOWANCES: Tobacco, Wine and/or Spirits: No definite quantity and usually regulated by the Master.

IDENTIFICATION CARDS: Passes issued to each crew member.

CONSULS: El Salvador, Germany F.R., Honduras, Italy, Mexico, Netherlands and Sweden.

REPAIRS: Only minor deck and engine repairs.

SURVEYORS: Lloyd's Register in Guatemala City. Tel: 8-32-33, 53-68-26.
General Superintendence Co. Tel: 370134/35.
Jack Sigal (P&I Representative) Tel: 531452 in Guatemala City.

REPATRIATION: Possible.

AIRPORT: In Puerto Santo Tomas de Castilla there is no airport. There is an airport at Puerto Barrios 8 km. away, and flying time from there to the capital, Guatemala City, is 45 minutes. There is no regular airline, but it is possible to hire air taxis.

TIME: GMT minus 6 hours.

HOLIDAYS: *Legal and local holidays:*
December 31st 1800 hrs. until January 2nd 0700 hrs. (New Year's Day); March 23rd 0000 hrs. until March 24th 0700 hrs. (Dignidad Nacional); Wednesday 1200 hrs. until Saturday 0600 hrs. (Easter); May 1st 0000 hrs. until May 2nd 0700 hrs. (Labour Day); June 30th 0000 hrs. until July 1st 0700 hrs. (Revolution 1871); September 15th 0000 hrs. until September 16th 0700 hrs. (Independence Day); October 20th 0000 hrs. until October 21st 0700 hrs. (Revolution 1944); November 1st 0000 hrs. until November 2nd 0700 hrs. (Saints Day); December 24th 1200 hrs. until December 26th 0700 hrs. (Christmas).

No work on Good Friday from 0600 hrs. until Saturday 0700 hrs. and December 24th from 1200 hrs. until December 26th 0700 hrs. with exception of perishible goods when the port can work on December 24th until 1800 hrs.

On all other holidays work can usually be arranged, with advance notice, and at overtime rates.

TELEPHONES: No facilities for placing telephones on board.

BANKS: Central Bank of Guatemala.

SHORE LEAVE: Possible.

DELAYS: Maximum delays 3-4 days could occur at most 5 times during a year. Container vessels and reefer vessels have preference if they carry perishible cargo, same as vessels which carry coffee or load coffee with limitations in their sales-terms (L/C) such as 15th and end of a month.

GENERAL: *Dunnage Wood:* Dunnage wood is not available in the port however with enough advance notice it can be brought from Zacapa, approximately 150 km. (94 miles).

Local guidance on stores and availability of items:

Deck stores: The few available items are expensive.

Engine room spare parts: Even well-known makes are almost non-available.

Lubricating oils: The commonly used ones are available in small quantities, but special ones are not obtainable.

Stewards department: Most dry stores are expensive with few exceptions and quantities are limited.

Fresh fruits, vegetables: Seasonally available in moderate quantities, at reasonable prices, likewise fish, poultry, fresh beef and pork. (Beef bought in Guatemala is accepted as safe in the USA, but not so the pork – confirm with respective authorities).

Laundry service: Available at a reasonable cost.

Radio/Navigational aids: Spares are not generally available and service of a very limited nature only. Better service can be obtained in Guatemala-City. (Each case should be investigated first by Agent).

IMPORTANT: Ships spare parts can be sent to a vessel calling at Santo Tomas de Castilla by air or sea freight but care must be exercised in their addressing and marking, as otherwise local import duties may be imposed. All such items should be clearly addressed to the vessel, in care of the vessel's Agent, and important to state the Spanish for "in transit" the phrase "EN TRANSITO" This ensures that the goods can be treated and may be exported on the receiving ship without problems.

Any such movement should always be co-ordinated with the local Agents, who should be kept fully advised on same.

Regulations ruling explosives and ammunition at port:

Explosives and ammunition are only allowed to be discharged on a scheme whereby they leave the port area immediately and a notice of 48 hours should be given prior to arrival.

Cargoes remaining on board are not covered by any particular regulations.

Before working a vessel the Port Authority requests a deposit from the Agent, based on a Proforma. This is calculated by the manifest of inbound cargo and the expected exports. Without this deposit the vessel is not allowed to work.

SHIPMASTER'S REPORT: 1976

Approaches: No difficulty once position is ascertained approaching the Gulf of Honduras. The Pilot boarded 3 miles North of the Villedo Shoal Beacon. Pilots have VHF Channel 16 call Porto Barrios Pilots. Only 1 pilot speaks English so if he is on duty there is no difficulty in communications.

The lights on the approach beacons are said to be unreliable but all were found to be good radar targets.

At the present time a dredger is working on a new approach channel to give a 32 ft. buoyed channel past Puerto Barrios up to Santo Tomas de Castilla.

General: The area is still recovering from the severe earthquake some 8 months ago in which the finger pier at Puerto Barrios was destroyed. This now constitutes a submerged hazard while in the channel on the approaches to Santo Tomas de Castilla. The channel is poorly marked and at present there are numerous survey buoys which can be confusing.

The berth is stern to at the Eastern end of the cargo jetty at Santo Tomas using 2 anchors and backing up to 10 ft. off the jetty from where the hose is passed up to the stern line by a mobile crane. The connection is made by the ship's crew. There is a 1 × 8 in. hose for all grades into a 10 in. shore line which is approximately 5 km. long. The requested back pressure of 8.5 kg. was easily maintained using 2 pumps.

AUTHORITY: Empresa Portuaria Nacional – Santo Tomas de Castilla. *Tel:* 0480060, 0480611, 0480588, 539098. *Telex:* Stomas GU 719. *Contact:* Dollfus O. Sagastume, Director – Port Administration.

AGENT: See "Puerto Quetzal".

Republic of Guinea

CONAKRY: 09.31 N. 13.43 W. (See Plan)

DOCUMENTS:

6 Crew Lists.
6 Passenger Lists.
2 Stores Lists.
2 copies List of Medicines and Drugs.
2 Lists Crew Declaration (personal effects).
7 Manifests of Cargo (if any).
Port Clearance from last port of call.
2 Lists of Dangerous Cargoes (if any).
3 copies of Bills of Lading for LCL-Containers (if any).
2 copies of Loading Plan.
1 Derat Certificate.
3 Lists of Weapons and Ammunition (if any).

Documents to be presented on request:

Log Book
International Health Certificate of Crew Members.
Seamens Books.

PILOTAGE: Pilot meets vessels N.E. of Sea Buoy Tonnelier in position Lat. 9° 27.3′ N., Long. 13° 44.05′ W.

Advise Captain of the Port of ETA by Telex No. 22276 PAC GE.

ANCHORAGE: Safe deep anchorage.

RESTRICTIONS: No entry at night. Channel depth 8.5 m. LLW.

The shore and harbour lights are not in operation but are scheduled to be set in operation within 1988/89.

MAX. SIZE:

Bulk carriers for alumina:	518 ft. length; 32 ft. draft at HW.
Bulk carriers for bauxite:	655 ft. length; 33 ft. draft at HW.
Tanker for crude oil:	655 ft. length; 33 ft. draft at HW.
Tankers for light fuel:	518 ft. length; 32 ft. draft at HW.
Other vessels (Ro/Ro, Container, Conventional, etc.):	655 ft. length; 32 ft. draft at HW.

HEALTH: Valid yellow fever inoculation certificates.

RADIO: Conakry Radio 2182-2586 kHz.

TUGS: 2 new tugs, 27 tons bollard pull. Tugs normally connect to starboard side. Ship's lines used.

BERTHING: All tankers berth according to HW. No berthing at night, except by special authorisation of Harbour Master on request. Normal berthing time 0700 hrs. to 1900 hrs. 10 berths available. Max. depth 11.0 m.

Berth No.	*Length* (m.)	*Depth* (m.)
0–1	346	10.0
2–5	483	8.0 – 8.5
6	155	7.0
6A–6B	180	2.0 – 4.0
6C	130	4.0
7	160	8.0
8–9	296	11.0

Notes: Depth of water is Port Zero (lowest low water).

Berths No. 6B and 6C for fishing boats and service vessels only.

STEVEDORES: Vessels to send ETA to ship's Agent.

Working Hours:

	Monday to Thursday and Saturday	Friday	Sundays and Holidays
Normal Working Hours	0730 –1500	0730 – 1300	—
Overtime Charges			
15%	1500 – 1800	1300 – 1800	—
25%	1800 – 2200	1800 – 2200	—
35%	2200 – 2400	2200 – 2400	—
50%	2400 – 0730	2400 – 0730	0730 – 1300
100%	—	—	1300 – 0730

MEDICAL: Advance notice required for medical service, hospital facilities available.

TANKERS: Pipe-line 5,280 ft. long, 10 in. diameter. 2 tanker berths, 33 ft./32 ft. high-water max. draft at these berths.

DENSITY: 1016 in the port with particular relation to state of tide.

FRESH WATER: Available by connection from pier.

FUEL: Available. Advise Agent.

FIRE PRECAUTIONS: Special fire service for tankers and ships carrying IMDG – goods.

GANGWAY/DECK WATCHMEN: Compulsory. Arranged by Agent.

Piracy: Large gangs of thieves have boarded vessels in daylight in the port and have stolen cargo from containers and holds.

OPENING/CLOSING HATCHES: Normally by crew. Stevedores if requested by Master.

CERTIFICATES: Derat Certificate, Log Book, International Health Certificates of Crew.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes out of bond. Wine and/or Spirit, 1 litre of spirit and 1 litre of wine per day out of bond.

IDENTIFICATION CARDS: Seaman's Book necessary.

CONSULS: All major maritime nations.

REPAIRS: Minor repairs possible, no shipyard.

REPATRIATION: All facilities exist for effecting crew changes and arranging repatriation to Europe and other places.

AIRPORT: International airport Gbessia 14 km. served by regular airlines.

TIME: GMT plus 1 hour.

HOLIDAYS: New Year's Day (1st January); Labour Day (1st May); Anniversary of 2nd Republic (3rd April); Assumption (15th August); 1958 Referendum Day (28th September); Independence Day (2nd October); All Saint's Day and Guinea Army's Day (1st November); Christmas (25th December).

Varying holidays which depend on the position of moon: Ramadan – End of fasting; Tabaski – Pilgrimage Day at Mecca; Mahouloud – Day after Prophet Mahomed's Birthday.

Work available during holidays, except Labour Day, Independence Day, Ramadan, Tabaski and Mahouloud.

POLICE/AMBULANCE/FIRE: Contact Harbour Master.

TELEPHONES: Not possible to place telephones on board except at Berth No. 9.

SERVICES: None.

SHORE LEAVE: Crew allowed ashore.

DEVELOPMENTS: The Access Channel is to be dredged to 9.5 m. between 1988 and 1991.

AUTHORITY: Port Autonome de Conakry, B.P. 805, Conakry, Republic of Guinea. *Tel:* 44.27.37. *Telex:* 22276 PAC GE. *Contact:* Bangaly Camara, Director General.

AGENT: Socopao Guinee, Immeuble Nafaya, B.P. 3339, Conakry 1, Guinea. Tel: 444233, 443731. Telex: 22131.

PORT KAMSAR: 10.39 N. 14.37 W. (See Plan)

DOCUMENTS:

1 Vaccination List.
1 Maritime Declaration of Health.
6 Crew Lists.
6 Passenger Lists (If any passengers onboard).
1 Crew Declaration (Personal effects) List.
1 Stores List.
6 Last Ports of Call Lists.
12 Manifests of Cargo (General cargoes only).
2 Copies Bills of Lading (General cargoes only).

To ensure the best possible turn-round for general cargo vessels complete sets of the required cargo documents should be made available to the authorities by hand of the Master. Delays have been occasioned by the late arrival of documents sent by post. It would be of help for the Master to send hatch distribution and the amount of refrigerated cargo, if any, at the same time as ETA.

Quarantine, Immigration and Customs: Representatives of the departments board after the vessel has been made fast alongside. The Quarantine Flag "Q" should be flown by arriving vessels.

ARRIVAL ADVICE: Masters are required to send ships ETA, addressed to OFAB Shipping Agency and/or to Harbour Master and/or Shipping Superintendent C.B.G., through Port Kamsar Radio Station, 7 days, 5 days, 3 days and 1 day before arrival at Port Kamsar.

APPROACHES:

Approaches to Rio Nunez: Port Kamsar formerly known as Kakande is located on the East bank of the Rio Nunez river and is approximately 17 km. from the sea.

Vessels bound for Port Kamsar will find there are few natural features to aid a landfall. The most prominent feature is Cape Verga situated to the Eastward of the Rio Nunez entrance. This cape can be observed by radar at a distance of approximately thirty miles. At present the light on Cape Verga is extinguished.

To the Westward of the Rio Nunez entrance are the Compony Shoals and Conflict Reef. These are screened by a series of light buoys and vessels approaching from the West should keep them well on the port hand. (See "Buoyage System" below).

Another prominent feature is Gonzales Rock on the starboard side close to the entrance to Rio Nunez. During daylight the hull and superstructure of a wreck stranded 765 ft. bearing 049.75° from the old Gonzales light structure is visible and may be picked up by radar at a distance of between ten and fifteen miles. A light buoy is positioned screening the rocks and is identified as buoy No. VII. The true position of the wreck is: 10° 24′ 24″ N., 14° 41′ 18″ W.

Vessels proceeding to Port Kamsar should anchor and await the arrival of the Pilot in the area bounded by Latitudes 10° 26′ N. and 10° 28′ N. and Longitudes 14° 44′ W. and 14° 46′ W.

Kamsar Buoyage System: Approaches to Rio Nunez – Sea Buoys

No.	*Shape–Colour*	*Position* *N.*	*W.*	*Characteristic*	*Visibility (miles)*
II	Red cylindrical	10° 12.3′	15° 25.5′	FL. 10 secs	5
III	Red cylindrical	10° 09.4′	15° 12.1′	GP. FL 4 Ev. 15 secs	11
3	Red square	Kamsar (Racon)		3 Fl. (S) Ev. 75 secs	—
IV	Red cylindrical	10° 13.5′	15° 01.5′	GP. FL. 2 Ev. 10 secs	5
V	Red cylindrical	10° 19.2′	14° 52.5′	GP. FL. 3 Ev. 10 secs	5
VI	Red cylindrical	10° 25.5′	14° 47.5′	FL. 5 secs	5
VII	Black conical	10° 23.5′	14° 44.5′	GP. FL. G 4 Ev. 10 secs	2.6
VIII	Red cylindrical	10° 29.5′	14° 43.9′	FL. 10 secs	5

Charts of the area are as follows:

British Admiralty:
600 Cacheo River to Iles de los.
1562 Rio Nunez and Riviere Compony.

United States Naval Oceanic Office:
51580 Ponta Caio to Cap Verga.

Service Hydrographique de la Marine (These charts are recommended by the Port Captain):
6148 Embouchure du Rio Nunez.
6228 Acces au Rio Nunez.
6288 Abords du Port Kakande.

Rio Nunez Transit: The channel from the mouth of Rio Nunez to the bauxite loading wharf at Port Kamsar is 17 km. in length and 120 m. wide and is well marked by 21 light buoys. The channel is subdivided into an inner and outer channel, the bottom of which consists of mud and sand.

The inner channel extends from the bauxite wharf to point "F" and is dredged to between 8.25 m. and 8.50 m. below Reference Datum Level (R.D.L.) which is defined at +0.15 m. above the lowest water registered (British Admiralty Tide Tables LLWS = 0.00).

The outer channel extending from point "F" seaward is dredged to a depth of 9.00 m. below R.D.L. increasing to a depth of – 12.00 m. from km. 15.3 to the sea.

The turning, waiting basin for inbound vessels is dredged to −7.75 m. below R.D.L. the bottom of which is mainly mud and it is good holding ground.

PILOTAGE: Pilotage service is compulsory for all vessels over 150 ft. LOA. Vessels under 150 ft. LOA will also be required to have a Pilot aboard on their first calls, but may be exempt thereafter by consent of the Harbour Master and approval of the Port Director.

Pilots are supplied from the Director's Office. Pilots board vessels in the designated waiting area at Sea Buoy No. 8. When conditions are too unfavourable for a Pilot to board the vessel at the designated area the Pilot will pass instructions by VHF radio, Aldis lamp or loud hailer from the pilot boat, and the vessel will follow the pilot boat in until conditions are suitable for boarding.

Pilot boats are fitted with VHF radio can be contacted on Channel 16 or 12.

ANCHORAGE: See "Approaches".

RESTRICTIONS: Pilots are now berthing ore carriers of any size (up to 229 m. LOA, which is the largest size of ship calling at Port Kamsar) at any stage of tide, including with the half ebbing current of Spring tides during the dry season. However, this performance can be limited during Spring tides in the rainy season.

MAX. SIZE: Max. LOA 229 m. Shipmaster reported max. draft at LW 42 ft. 8 in.

HEALTH: Authorities board when vessel is alongside the berth. Yellow fever and Cholera vaccination certificates required.

RADIO: The Port Radio Station is operated by the Post, Telegraph and Telecommunications Department. The equipment includes a 5 kW. transmitter (both voice and telegraph) with the following frequencies.

A.	*Frequency*	*Power*	*Mode*	*Call Letters*
	6383 kHz	5,000 Watts	A 1	3X0 27
	8702 kHz	5,000 Watts	A 3	3X0 28
	12885 kHz	5,000 Watts	A 3	3X0 29
	484 kHz	1,000 Watts	A 1	3X0 30
	500 kHz	1,000 Watts	A 1	3X0

NOTE: *Watchhours are at the GMT times shown below:*

0800 – 0850	500 kHz
0850 – 0950	6383 kHz
0950 – 1100	500 kHz
1100 – 1200	6383 kHz
1600 – 1700	500 kHz
1700 – 1800	6383 kHz
2000 – 2100	500 kHz
2100 – 2200	6383 kHz

B. *Port Operations:*

(1) A new SSB radio telephone set has been installed and is operating on the following frequencies and watchkeeping hours:

Frequency	*Power*	*Mode*	*Call Letters*	*Watch Hours*
2182 kHz	150 Watts	A3H	3X04	8000–1200,
8702 kHz	150 Watts	A3J	3X028	1330–1730
12885 kHz	150 Watts	A3J	3X029	and as required

(2) VHF Channels 16 and 12. Watchkeeping hours: 0800 – 1200; 1330 – 1730 and as required.

C. A Radio Direction Finder has been installed and is operating with the following characteristics:

Position:	10° 39′ 41″ North 14° 36′ 25″ West
Frequency:	308 kHz
Signal:	KAM – · – · – – –
Power:	100 Watts
Range:	150 miles (approx.)
Operating Time:	Continuous

D. A further means of communication is through Port Kamsar Post Office through which international connections may be made.

Telegraphic address: BCTR KAMSAR.
Telex : Kamsar.

TUGS: Two tugs in service (1×825 h.p., 1×2,800 h.p.).

BERTHING: Located 17 km. from the channel entrance is the bauxite wharf.

The area alongside the wharf has been dredged to a depth of 13.5 m. below R.D.L. Fendering is separate from the wharf proper, and consists of 12 flexible steel dolphins spaced 21.6 m. apart and protruding 4 m. from the face of the wharf.

A vessel proceeding to the bauxite wharf will normally swing off the berth and make fast port side to, heading seaward, during the flood tide. If the berth is occupied the vessel will be anchored in the turning basin to await the berth.

There is a single loading berth at the wharf. The longest vessel berthed had a LOA of 229 m., which is considered to be the maximum length permissible.

The mobile shiploader has a travel of 165 m., and an outreach of 21 m. from the outside face of the fendering. It is rated at about 4,000 tonnes/hour.

A vessel's air draft, i.e. distance from the waterline to the top of the hatch coaming, must not exceed 13.72 m. (45 ft.) at Highest High Water.

Weight of bauxite loaded is determined by a formula using deadweight survey and weightometer. The weightometer is used for loading runs.

Stowage factor of the dried bauxite is 28 cu.ft./long ton.

Bauxite vessels sail from Port Kamsar during the flood tide. Maximum departure draft is regulated according to tidal conditions.

Facilities for the discharge of petroleum products are also available on the bauxite wharf. Attached to the shiploader is a chicksan arm with an 8 in. connection. This feeds 2 main lines, 1×16 in. line for Bunker "C", and 1×8 in. line for Diesel. Discharge rates average about 450 tonnes/hour at 100 lbs. per sq. in. back pressure at the ships pumps.

Storage facilities are three 10,000 tons Bunker "C" tanks, and two 3,000 tons diesel tanks.

At the same wharf there is a 6 in. line for the discharge of petrol (gasoline) by the same tankers bringing diesel oil. Discharge rates average 60 cu.m.p.h. The storage facilities are two 1,400 cu.m. tanks.

There are 2 small general cargo wharves located at the entrance to the Dougoufissa Creek, where vessels of up to 100 m. LOA with a maximum draft of 6 m., may berth. As there is only 3.5 m. at Lowest Low Water, these vessels will be aground at low water periods.

One of these wharves is equipped with a heavy lift crane – derrick with a maximum S.W.L. of 110 tons. Safe Working Loads are as follows:–

Radius of derrick (metres)	*Lifting capacity* (tons)	*Height under hook* (metres)
16.5	110	29
26	75	23
32 (max.)	45	11

The derrick is also equipped with a secondary hook with a capacity of 20 tons.

Two 400 tons and two 200 tons barges are available for loading and discharging midstream.

WIND/WEATHER/TIDE: In the Rio Nunez approach area waves up to 4 m. can be encountered. At the entrance to the fairway or channel they are generally less than 1 m. high during the rainy season, and less than 0.5 m. high in the dry season. Waves and swell in the inner channel and harbour area are generally very moderate.

The tide, in the the proximity of the buoyed channel, runs N.N.E. and S.S.W. at 2.5 knots under normal conditions, but can reach 4.5 knots during Spring tides in the rainy season.

The flood tide runs parallel with the line of the bauxite loading wharf at a speed of up to 4 knots. The ebb tide, augmented by water coming out of the Dougoufissa Creek, runs through the bauxite wharf at an angle of approximately 20° at a speed of up to 4.5 knots on spring tides in the rainy season, tending to set the vessel off the wharf. It is therefore absolutely essential to tend moorings continuously, particularly on the stern of a loading vessel.

The density of the Rio Nunez at the bauxite loading wharf varies between 1013 (rainy season) and 1028 (dry season) at high water.

Port Kamsar has a typical tropical climate, which is characterised by two separate seasons.

Rainy season from June to October

Maximum rainfall	is during July and August mainly at night.
Relative humidity	is 70% to 80% during the day and 90% to 95% at night.
Temperatures	range from 17°C to 38°C, with an average of between 22°C to 28°C.
Wind conditions	Variable from between South and West, Force 3 to 6 Beaufort Scale. Possible tornadoes from between North and N.E. with wind reaching force 10 Beaufort Scale for short periods.

Dry season from November to May

Little rainfall.

Relative humidity	is 30% to 50% during the day, and 80% to 90% at night. There is often coastal fog in the mornings.
Temperatures	range from 15°C to 42°C, with an average of between 20°C to 35°C.
Wind conditions	Light breezes from the Southwest to West, force 1 to 3 Beaufort Scale.

MEDICAL: Hospital facilities at Port Kamsar are available only on an emergency basis.

TANKERS: See "Berthing".

FRESH WATER: Available in limited quantity on an emergency basis.

TIME: GMT.

HOLIDAYS: New Year's Day (1st January); Second Republic Day (3rd April); Labour Day (1st May); Independence Day (2nd October); Christmas Day (25th December); Tabaski (variable date); Ramadan (Id il Fitri) (variable date); Maouloud (variable date).

All Sundays are also declared Public Holidays. The President may also, at his discretion, declare any other day to be a Public Holiday.

The loading of bauxite is generally continued without stoppage for Public Holidays.

General cargo will not, except in special circumstances, be worked on above named Public Holidays. All other Public Holidays are normally worked.

SHORE LEAVE: Crew members are granted shore leave. Shore leave passes are issued by Immigration Officer at ship's gangway.

PIRACY: Acts of piracy have taken place at Conakry.

GENERAL: Stores: Provisions are scarce and therefore not available to calling vessels.

Gangways: Vessels must provide and attend their own gangways.

A vessel berthing at the bauxite wharf should have its gangway swung out and ready to lower.

Normal practice of the port is for the foot of the gangway to be heaved out and landed on the wharf after the vessel is fast alongside.

Port Director's Office: The office of the Port Director is solely responsible for the operation of Port Kamsar, which includes the provision of Pilotage, tugs and launches.

The Office acts as sole Agent for all vessels calling at Port Kamsar, including the normal ships business functions performed by ships Agents.

SHIPMASTER'S REPORT: 1974 – Updated 1986.

Density: Varies from 1013–1028 according to season.

Fresh Water: Available, rate 20 t.p.h.

Repairs: Small repairs can be carried out in an emergency.

Airport: Nearest airport is Conakry which is 8 hours away by car.

SHIPMASTER'S REPORT: August 1983 (Updated 1986).

Documents:

1 Vaccination List.
1 Maritime Declaration of Health.
6 Crew Lists.
1 Crew Declaration.
6 Passenger Lists (If any onboard).
6 Ports of Call Lists.
12 Manifests of Cargo (Cargo ships only).
2 copies Bills of Lading (Cargo ships only).
1 Stores List.

Agent, Doctor, Customs, Immigration, Navy Officer and Shipper's Representative board on arrival alongside to clear vessel. Later during office hours a gentleman from the Maritime Inspection Department will board to inspect vessel's certificates etc. On ship's first visit he will issue a numbered chit which should be *retained* for future visits. A shippers' representative will board on arrival to carry out a deadweight survey. He usually accepts Chief Officer's figures for ballast, bunkers, fresh water, etc., which he should have ready. 2 Immigration and 1 Customs Officer live on board for the duration of vessel's stay alongside.

Approaches: Are fairly straightforward following the pecked line route on Charts B.A. 600 and 1560, however this with the benefit of a 'Satnav'. Currents in that area were found over several voyages to be unpredictable and at times quite strong. No. III Buoy is equipped with a Racon which can be detected at distances of between 13 and 18 miles and should be passed keeping it to the South, thence inwards keeping to the South likewise of Nos. IV and V Buoys (also pecked line route) proceeding to the anchorage after passing Buoy V, or if entering port directly from sea to the pilot station usually about 1 mile South of No. 8 Buoy. Here the pecked line (Charts B.A. 1560 & 1562) should be adhered to in order to avoid the shoal patch S.S.W. of No. 8 Buoy.

Buoy III appears to be about 3 miles South of charted position and Buoy IV even further out of position. At the time of writing the light on Buoy III is extinguished, however the Racon is working well. Ile Binari and Ile Gonzales show up well on the radar. Rocher Gonzales upon which lies a conspicuous wreck, shows on the radar as a double blip and has been found most useful for obtaining fixes. Unfortunately neither the light or Racon on the reef work. Most of the buoys show up well on the radar and are visible for about 6 miles (conditions allowing). Off the river mouth flood tide sets Northeasterly and the ebb Southwesterly.

Pilotage: 3 pilots available. Pilots should be called on VHF Channel 16 about one and a half hours before arrival, they are supposed to keep a 24 hour watch, however if many vessels are waiting at anchor this is not always the case.

If berth is unoccupied, Pilot will meet vessel 1 mile South of No. 8 Buoy and conduct vessel through an 8.25 mile channel, well buoyed, 120 m. in width with a least depth of 8.25 m. to the inner anchorage and turning basin dredged to 10.0 m. Both anchors should be run out ready and a man standing by them for the channel passage. If entering on the flood tide (on which vessels must berth) immediately on entering the basin, vessel is swung to port and port anchor let go to one shackle (in water) until vessel has swung to flood, she is then dredged astern to a position N.W. of and handy to the berth, when anchor is weighed and vessel proceeds to berth. An adequately powerful tug assists in the operation. On weighing port anchor the starboard anchor must be ready in case of need on berthing.

If berth is occupied but no other ships waiting, vessel will enter as above, but when in position pay out cable and come to anchor. Holding ground is reputed good. As vessels of or near this size must sail one hour before high water Pilot rejoins about 1.5 hours before high water, cable is shortened and vessel dredged astern as above to await the sailing of berthed ship.

Anchorages: As will be seen on the charts the anchorage and pilot station area indicated is close to shoal water. I therefore found it preferable to anchor about 5 miles West of Rocher Gonzales. The holding ground is reputed to be good though I have never had opportunity to put this to the test.

Radio: Early ETAs have to be sent via Portishead Radio, however as these have to pass through Conakry and overland communications are poor, it is not unusual for these to be lost or badly delayed. It is therefore important to establish communication via Kamsar Radio as early as possible. Our earliest has been about 3 days from the port, when I have considered it worthwhile to repeat the 3 day ETA direct. The evening watch hours seem to be the best. Agents do not reply to requests for 'prospects'. First advice therefore is from the Pilots.

VHF: See "Pilotage".

Tugs: See "Berthing".

Berthing: If more than one vessel, waiting turn, order is: Vessel berthed, next on turn at inner anchorage, the rest anchored outside awaiting turn. Turns are not necessarily in order of arrival. If a ship is without laydays she must wait until laydays are allotted or until ships within laydays have loaded even though may have arrived later.

Bauxite Berth: An L shaped jetty extending about 6.25 cables from shore, it is well fendered with modern sprung fenders, depth alongside 13 m. Vessel berths port side to the quay head to flood. Tie up, forward 6 head ropes and 2 springs, aft 6 stern/breast ropes and 2 springs. On Spring tides and particularly during the rainy season, a very strong ebb sets at an angle across vessel's stern setting it off the quay. If need be the tug 'Dougoufissa' can be called on VHF Channel 16, either direct or via Pilots (depending on one's French) to stand by and/or assist by pushing vessel to quay.

There is no shore gangway. Ship's gantry must be landed on quay. As usual the space for it to run is restricted and it must be carefully kept out of the way of the loader.

Berth is equipped with a travelling loader with an outreach of 21 m. Max. airdraft to coamings (hatchcovers for siderollers) is 45 ft. Loading rate is up to 60,000 tons per day working around the clock. However during the rainy season and particularly if there is a run of ships, loading rate is limited by the capacity of the driers, about 1,500 t.p.h. for ships loading dry ore.

Max. sailing draft varies with height of tide and river, and will be calculated by the Pilot before he leaves the ship on berthing.

On sailing, Pilot will board 1.5 hours before high water (day or night) at which time vessel should be ready to single up as she must leave the berth promptly 1 hour before high water.

Fresh Water: Available in limited quantities and on an emergency basis only.

Repairs: No facilities for repairs.

Shore Leave: Permitted.

Crew Mail: Mail left with Agents is forwarded to Brussels direct by air every Monday.

AUTHORITY: Direction du Port, OFAB, Port Kamsar, Guinea. *Contact:* Captain M.L. Cisse, Port Director.

NOTES

Please also advise Shipping Guides Ltd.

Republic of Guinea Bissau

BISSAU: 11.51 N. 15.34 W.

DOCUMENTS:
Entrance Declaration.
Clearance from the last Port of Call.
List of all Passengers on Board, either in transit or disembarking in Bissau.
Provisions List.
List of the Crew Members' Effects.
2 Lists of Passengers' Baggage.
List of Cargo to disembark in Bissau, Baldeade (Bolama) or otherwise in transit to be disembarked in another port.
List of Cargo (inside sealed envelope).

PILOTAGE: Pilot's base and radio beacon located at Caio Point, (small island at the entrance of Geba's Channel). To call the Pilots and/or the radio beacon, send telegram to Servicosmarguine, informing of the ETA at Caio; pilotage is compulsory.

ANCHORAGE: Between Bissau and the Ilheu do Rei.

MAX. SIZE: Draft 26 ft.

HEALTH: Visit of Port Doctor compulsory if ship has no doctor, or if permission for exemption has not been requested; permission can be requested by radio. When needed, the health services in Bissau can be used by passengers or crew members. Yellow fever vaccinations required.

RADIO: Station call sign CQF weekdays on at 0900, 1300, 1600, 1800 hrs. GMT. Sundays 0900 and 1100 hrs. GMT. Frequency 500 kHz, CW.

TUGS: 1 tug of 320 h.p. and 1 of 800 h.p. available.

BERTHING: Ponte, Cais de Bissau, length 131 m., width 25 m., depth 8 m.
Equipment: 4×6 ton cranes; 2×12 ton stacker trucks; 2×4 ton stacker trucks; 4×2 ton stacker trucks; 2×6 ton towing tractors 16×6 ton trucks; 1×35 ton towing tractor; 1×25 ton platform; 1×50 ton towing tractor; 1×50 ton platform; 2 suction machines for 80 t.p.h.; 2×35 m. conveyor belts; 1×40 m. conveyor belt.

STEVEDORES: 1,500 stevedores available for loading and unloading cargo.

FRESH WATER: Available; pumping rate, 10 t.p.h.

FUEL: Diesel available; pumping rate, 6 t.p.h.

CONSULS: Algeria, Brazil, China, Cuba, Egypt, France, Germany F.R., Democratic Republic of Korea, Lebanon, Libya, Netherlands, Nigeria, Portugal, Sweden, U.S.A., U.S.S.R.

REPAIRS: Small repairing work can be done on machinery or ship's hull.

AIRPORT: 7 km. from Bissau; 2 flights to Lisbon per week, 1 flight per week to Moscow, 1 flight per week to Algiers and 4 flights per week to Conakry.

TIME: GMT minus 1 hour all year round.

HOLIDAYS: *National Holidays:* 1st January; 20th January; 8th March; 1st May; 3rd August; 24th September; 14th November; 25th December, Days of Ramadan and Tabasky.

POLICE/AMBULANCE/FIRE: Police, tel. 213957; Fire, tel. 118.

TELEPHONES: Line connection land-ship, if requested to the Post Office Authorities.

DEVELOPMENTS: "T" shaped general cargo pier length 290 m. with head length 260 m. under construction.

SHIPMASTER'S REPORT: November 1979.
Vessel from Dakar; bound for Bissau. Speed 14 knots, draft 6.10 m.
Report on the River Entrance to Bissau:
The vessel was proceeding on course 172° (T) and positions taken at various intervals as follows:
0920 hrs.: Cabo Roxo Lt. Ho. Brg. 054° (T) × 20.5 miles
0930 hrs.: Cabo Roxo Lt. Ho. Brg. 047° (T) × 22.0 miles

At 0920 hrs. minimum sounding was taken at 4.0 m. under the keel and Westerly set was applied.

At 0930 hrs. the vessel altered course to 137° (T).
1025 hrs.: Pta. Cabaceira Pt. Brg. 081° (T) × 31 miles
1145 hrs.: Pta. Cabaceira Pt. Brg. 057° (T) × 26.1 miles
1210 hrs.: Pta. Cabaceira Pt. Brg. 048° (T) × 21.5 miles

From 0930 hrs. onwards, poor fixes due to poor radar targets of land points.

From 1020 hrs. the vessel steered various courses to the Fairway Buoy at Lat. 11° 47.3′ N., Long. 16° 41.8′ W., due to strong currents.

At 1145 hrs. Fairway Buoy was found not in position and the vessel altered course and steered heading for pilot station at Caio Island. Caio Island Western Point was picked up on radar at about 16 nautical miles.

Visibility throughout was hazy and poor, about 3-4 nautical miles due to sand dust. Radio beacon at Caio Island was not working. Aero Radio Beacon at Bissau appeared to be unreliable.

1345 hrs.: Vessel anchored South of Caio Island awaiting Pilot.
1415 hrs.: Pilot onboard.

Pilot station at Caio Island had no VHF or other possible means for communication with the vessel. Vessel had to anchor and await Pilot. The Pilot boat is small with a weak engine and at times not working. The Pilot may have to be picked up by own lifeboat. The River Pilot did not speak any English, only Portuguese and was unable to give proper orders to the helmsman. Navigation in River Geba to Bissau was mostly done by the vessel's officers. Entrance and departure from Bissau cannot be done during the night, as most lights and buoys are unlit. On arrival at Bissau the vessel has to anchor 4 cables N.E. of the jetty and await Harbour Pilot.

1808 hrs.: Vessel anchored at Bissau, 4 cables N.E. of jetty.
1900 hrs.: Vessel berthed at Bissau, starboard side alongside the jetty.

The Harbour Pilot was able to communicate in English. Berthing and unberthing is preferred on flood tide. Current alongside berth up to 3.5 knots. Maximum depth alongside at low water was 20 ft. 3 soundings were taken at low water alongside the wharf: West end: 7.40 m., middle: 6.10 m., East end: 9.30 m., length of wharf 131 m.

Discharging was slow. The vessel stayed 4 days in port to discharge 1,364 tonnes flour in bags of 50 kg. Cargo worked from 0800 hrs. to 2300 hrs. daily. No cargo work at night due to heavy pilferage from the cargoes, ship's watchmen were kept in all hatches during discharging.

Day of Departure:
0715 hrs.: Vessel left berth.
1210 hrs.: Vessel anchored at Caio Island.
1220 hrs.: Pilot disembarked by ship's lifeboat.
1305 hrs.: Vessel continued voyage.

On departure the pilot boat at Caio Island was not working and the vessel had to use her own lifeboat to disembark the Pilot.

Max. Size: LOA 131 m.

Anchorage: Good anchorage 4 cables N.E. of the wharf. Depth 6 – 7 fathoms, holding ground was good.

Pilotage: Pilot station on Caio Island which is 50 nautical miles West of Bissau. Request for pilotage is compulsory, via Agent.

Restrictions: Entry by night is difficult as most lights are unlit and the current rises at up to 3.5 knots on the flood and ebb tides, also the navigation aids are poor.

Tugs: Not available.

Berthing: Length of wharf 131 m., depth alongside at LW 20 ft. (FW).

Cargo Handling Facilities: General cargo only handled, there are no lighters, container or Ro/Ro facilities.

Cranes: 2 mobile cranes, maximum capacity 15 tonnes.

Repairs: Not possible.

Fuel: Not available.

Fresh Water: Supply to the wharf is unreliable.

General: Provisions not available.

Medical: No services available.

Airport: There is a twice weekly air service from Bissau to Europe. Distance to airport 7 km.

AUTHORITY: Junta Autonoma dos Portos da Guine-Bissau, P.O.Box 382, Bissau, Guinea-Bissau. *Tel:* 2797 (Administrator's Office), 2783 (Secretariat). *Cables:* Porto, Bissau. *Contact:* Port Director.

Secretario de Estade dos Transportes, C.P. 306, Bissau, Guinea Bissau. *Tel:* 212583. *Telex:* 263 MTT BI.

NOTES

Please also advise Shipping Guides Ltd.

Guyana

ESSEQUIBO RIVER (Bartica): 06.24 N. 58.37 W.

DOCUMENTS: See "Georgetown".
PILOTAGE: Pilots are stationed at Georgetown. ETA to be given 24 hours in advance to pilot station. Pilotage compulsory. Pilot boards from black cutter 5 cables N.W. of the Outer Georgetown Light.

Essequibo Light (steel framework tower with red and white horizontal bands) marks seaward end of Essequibo Main Ship Channel. Vessels in vicinity of Demerara Pilot Station should listen for pilot boat on VHF Channel 16.
RESTRICTIONS: The Essequibo Bar is composed of hard mud and sand. The least depth of water is 3 ft. less than for Demerara Bar. Vessels should not attempt to cross the Essequibo Bar drawing more than 3 ft. less than that predicted for the Demerara Bar.
MAX. SIZE: Controlled by Bar draft predictions.
HEALTH: Pratique given at Georgetown when Pilot boards. If vessel is suspect or infected, Master to advise Harbour Authority by radio before arrival.
RADIO: Demerara Radio call sign 8RB operating on 2182 kHz. Georgetown Lighthouse operates VHF Channel 16 and HF 2738 kHz 24 hours a day. Also SSB 8281.2 kHz.
TUGS: Not available.
MEDICAL: Hospital at Georgetown and Bartica.
DENSITY: 1000, fresh water.
FRESH WATER: Not available.
FUEL: Not available.
OPENING/CLOSING HATCHES: By ship's crew.
CUSTOMS ALLOWANCES: Up to 200 cigarettes and 1 bottle wine or spirits per man. Only 40 cigarettes may be taken ashore at any time.
CONSULS: At Georgetown.
REPAIRS: Government dry dock situated at Mazaruni, approximately 40 miles up river at junction of Essequibo and Mazaruni Rivers. Extreme dimensions: 160 ft. by 35 ft.
AUTHORITY: Transport and Harbours Department, Water Street, Stabroek, Georgetown, Guyana. Tel: 02-67842. Cables: Transport Guyana. Contact: Captain A. Haynes, Harbour Master.

GEORGETOWN: 06.49 N. 58.10 W. (See Plan)

PORT LIMITS: Seaward by an arc of a circle with radius 1 nautical mile, with the Georgetown Lighthouse as centre.
DOCUMENTS:
Certificate of Registry.
8 Crew Lists.
8 Provisions and Stores Lists.
4 Passenger Lists.
Customs Documents:
2 Reports of Ship's Stores (Form C1).
2 Lists of Crew Personal Effects (Form C2).
1 List of Unmanifested Cargo (Form C3).
12 Health Declaration Forms (W.H.O.2)
Health Documents for Crew (1 copy for each crew member).
5 Cargo Manifests.
5 Bills of Lading.

PILOTAGE: Vessels apply for Pilots through local Agents or direct to Chief Pilot, Georgetown, through "Demerara Radio, 8 Romeo Bravo", 12 hours in advance of ETA at pilot station when vessel is proceeding in to Georgetown Harbour. Pilot boarding ground is in Northwestern quadrant of circle with radius 5 cables and centre the Outer Georgetown Light. Normal international day or night signals for "I require a Pilot" are used. All pilot cutters are painted black (hull) and white (superstructure) with the word "Pilot" painted in white on black ground. Cutters are approximately 60 ft. in length.
ANCHORAGES: There are 5 with a least depth of approximately 20 ft. MLWS named A to E from North to South. Vessels are safely anchored at any of the above anchorages 1.5 cables to 2 cables from Georgetown park line. Bottom is soft mud and provides good holding ground.
RESTRICTIONS: No entry restrictions except those on draft imposed by the bar at estuaries.
MAX. SIZE: Draft 20 ft. 6 in. See "Developments".
HEALTH: Radio Pratique is not given, and Pratique is only given at Georgetown. This normally involves a visit from the Health Authorities if the vessel is clear. If a vessel is "suspect" or "infected", Master should advise Harbour Authority by special message through Demerara Radio or Georgetown Lighthouse and await advice of Port Health Officers; meanwhile, if in the vicinity of Georgetown, vessel may anchor at the specified quarantine anchorage near the Outer Georgetown Buoy as entry into the limits of the port without the authority of the Ministry of Health is prohibited if the vessel is suspect or infected.
RADIO: Name of radio station "Demerara Radio", call sign "8RB", always standing by on 2182 kHz., will give latest weather report or RDF bearings on request. Georgetown Lighthouse operates VHF Channel 16, HF 2738 and SSB 8281.2 kHz.
RADAR: No service available.
TUGS: At present, vessels dock stem on to the tide without aid of tugs. However, tugs could be provided if urgently required.
BERTHING: There are 6 main wharves privately and government owned, situated along the river frontage at Georgetown and varying in length from 210 ft. to 730 ft. Depths alongside range from 16 ft. to 20 ft. at LWS, but as the bottom is soft mud vessels may safely lie aground alongside. Ships work cargo with their own appliances.
BULK HANDLING FACILITIES: The sugar berth is 416 ft. in length with least depth alongside of 18 ft. MLWS and can accommodate vessels up to 530 ft. in length. Loading rate is 500 t.p.h. using 2 chutes. Vessels should not be more than 63 ft. beam.
CRANES: No heavy lift cranes available. Ship's gear has to be used. No floating cranes.
BRIDGES: Demerara Harbour Bridge: Floating bridge with retractor span situated 4.2 miles from mouth of river. Arrangements for passing are made by Agents. Bridge operators keep radio watch on VHF Channel 16.
STEVEDORES: Ship's Agent normally arranges for gangs in accordance with cargo plans or Master's cable advice. Gangs are unionised. Stevedores work around the clock every day of the week though they are paid overtime between hours of 1600 and 1900 according they earn time-and-a-half or double time on public holidays according to which one of the 12 public holidays they work.
MEDICAL: No special advance notice of required medical attention is necessary, and hospital facilities are always available.
TANKERS: There are no residue discharge facilities at this port. There are 4 tanker berths in the Georgetown area.
Rome Terminal (Shell) – depth alongside is 11 ft.
Ramsburg Terminal (Esso) – depth alongside 16 ft.
Ramsburg Terminal (Texaco) – depth alongside 11 ft.
Providence (Guyoil) – depth alongside 8.5 ft.
Size of pipe-lines: 6 in.

DENSITY: Average density in port is 1015, though during the rainy season (March-May; October-December) density of water may be as low as 1000 at LW in the harbour.
FRESH WATER: Fresh water is available, and is delivered alongside. The ship is required to pay for labour, overtime, etc., involved in the delivery.
FUEL: In case of emergency, providing advance notice is given by Master, vessels may be partially bunkered at any of Shell, Texaco or Esso installations. Vessels may be required to go alongside 2 hours before HW and leave not later than 1 hour after HW at the above-mentioned installations. Grades of fuel available are "Bunker C" and diesel fuel.
CONSULS: (and Embassies)
Belgium
Brazil
Canada
China
Colombia
Costa Rica
Cuba
Denmark
Egypt
France
Germany D.R.
India
Italy
Jamaica
Japan
Korea
Libya
Mexico
Netherlands
Norway
Panama
Sweden
Trinidad & Tobago
United Kingdom
U.S.A.
Venezuela
Yugoslavia

FIRE PRECAUTIONS: There are no stated precautions other than regulations against pumping out residual heavy oil (e.g. "Bunker C"). Ships having cargoes of ammunition, high explosives, dynamite, etc., are required by Harbour Regulations to anchor North of Georgetown Lighthouse prior to proceeding alongside wharf to unload and/or proceeding up river.
GANGWAY/DECK WATCHMEN: Services of watchmen are compulsory and are obtained through a watchman's pool by ships' Agent.
Piracy: Armed gangs of robbers have boarded vessels from shore and from canoes and stolen quantities of ship's stores. ITAL
OPENING/CLOSING HATCHES: Normally carried out by ship's crew.
CUSTOMS ALLOWANCES: Each crew member is permitted up to 200 cigarettes aboard held out of bond, but is only allowed to take ashore 40 at any time. Only on a final discharge would a member of crew be permitted a tobacco allowance of half-a-pound. Each crew member is allowed to keep out of Bond, 1 (one) bottle of wine or spirits, but is prohibited from taking any of it ashore. Each member of crew is allowed tax-free only one-sixth gallon wine and one-sixth gallon spirits when he is finally discharged.
CARGO GEAR: Ship's gear.
IDENTIFICATION CARDS: Not required.
REPAIRS: Every type of deck or engine repair is undertaken at Guyana National Engineering Corporation (GNEC) Dry Dock. Above waterline and engine-room repairs of any type are undertaken on vessels exceeding the dimensions mentioned below while vessel is anchored in the stream. Also see "Dry Docks".
SURVEYORS: Lloyds and Bureau Veritas. No cargo inspectors available.
DRY DOCKS: GNEC Dry Dock: A graving dock 210 ft. 3 37 ft. 9 in. at entrance situated South of GNEC No. 2 Wharf, which is State owned and operated on normal commercial lines. 198 ft. length of dry dock is on blocks. Breadth: top 46 ft. 4 in., bottom 40 ft. 9 in., depth on sill at HWOST 92 ft. x

Government Dry Dock: Situated at Mazaruni approx. 40 miles upriver at junction of Essequibo and Mazaruni rivers is a graving dock and has extreme dimensions of approx. 160 ft. 3 35 ft. x
REPATRIATION: Arrangements normally made through ship's Agents.
AIRPORT: Timehri International Airport is situated approx. 30 miles South of Georgetown with highway connection and is served by many intercontinental airlines.
TIME: 3 hours behind GMT. No alterations made to clocks during the year.
HOLIDAYS: New Year (January 1st); *Eid-ul-Ahza; *Phagwah; Republic Day (February 23rd); Good Friday; Easter Monday; Labour Day (May 1st); *Youman Naubi; Caribbean Day (July 5th); Commonwealth Day (First Monday in August); *Deepavali; Christmas Day (December 25th); Boxing Day (December 26th). *Religious holidays are variable.
POLICE/AMBULANCE/FIRE: Tel. 999. There are Police/Ambulance/Fire Stations on the waterfront.
TELEPHONES: Could be arranged through Coast Station 8RB.
STORING: See "Prelims".
(1) Yes. (2) Yes. (3) Yes. (4) Yes. (5) Yes. (6) Yes.

correct as file!

BANKS: Chase Manhattan Bank N.A., Bank of Guyana Building, Church Street, Georgetown, P.O.Box 101080, Telex: Chase Bk, GY 2222.

Barclays Bank Int. Ltd., 48 Water Street, Georgetown, Telex: Barclay GY 2248.

SHORE LEAVE: Granted by Immigration Boarding Officer.
DELAYS: Only when berths are occupied.
DEVELOPMENTS: Dredging to 20 ft. 08 in. chart datum in progress. — Snk.
AUTHORITY: Transport and Harbours Department, Water Street, Stabroek, Georgetown. *Tel:* 02-67842. *Cables:* Transport – Guyana. *Contact:* Captain A. Haynes, Harbour Master.

LINDEN: 06.00 N. 58.17 W.

DOCUMENTS: See "Georgetown".
PILOTAGE: Pilotage compulsory. Pilots are stationed at Georgetown. ETA to be given 12 hours in advance to pilot station. Pilot boards from black cutter 5 cables N.W. of the Outer Georgetown Light.

From Georgetown to Linden and Linden to Georgetown, pilotage not compulsory, but advisable to use G.N.E.C. Pilots.

RESTRICTIONS: Governed by depth of water at Demerara River Bar. Entrance normally at HW. Max. speed limit on the river is 10 knots.
ANCHORAGES: Vessels proceeding to Linden in ballast and drawing less than 15 ft. may anchor beyond Southern limit of Georgetown. Depths 16 ft. – 18 ft. MLWS.
MAX. SIZE: Draft 21 ft. 6 in.
HEALTH: Pratique given at Georgetown by Health Authorities. If vessel is suspect or infected, Master to advise Harbour Authority by radio before arrival.
RADIO: Demerara Radio call sign 8RB operating on 2182 kHz. Georgetown Lighthouse operates VHF Channel 16 and HF 2738 kHz, 24 hours a day. Also SSB 8281.2 kHz.
TUGS: Not available.
BERTHING: There are 2 bauxite berths accommodating vessels of up to 570 ft. One loader for metal grades has an airdraft of 29 ft. 8 in. and a loading rate of 800 t.p.h. The second loader for calcined bauxite has an airdraft of 34 ft. and a loading rate of 350 t.p.h.

The Alumina berth has a travelling tower with an airdraft of 64 ft. and a loading rate of 400 t.p.h. Max. beam of vessel 85 ft.

MEDICAL: Hospital at Georgetown.
DENSITY: 1000, fresh water.
FRESH WATER: Can be supplied.
FUEL: Can be supplied.
OPENING/CLOSING HATCHES: By ship's crew.
CUSTOMS ALLOWANCES: Up to 200 cigarettes and 1 bottle wine or spirits per man. Only 40 cigarettes may be taken ashore at any time.
CONSULS/REPAIRS: At Georgetown.
AUTHORITY: Transport and Harbours Department, Water Street, Stabroek, Georgetown. *Tel:* 02 – 67842. *Cables:* Transport Guyana. *Contact:* Captain A. Haynes, Harbour Master.

NEW AMSTERDAM (Everton, Berbice): 06.14 N. 57.31 W.

DOCUMENTS: See "Georgetown".
PILOTAGE: Pilots are stationed at Georgetown. ETA to be given 24 hours in advance to pilot station. Pilotage compulsory. Pilot boards from black cutter 5 cables N.W. of the Outer Georgetown Light.
RESTRICTIONS: The Berbice Bar is composed of fairly hard mud. Vessels may cross the Berbice Bar on even keel (reported to be dredged to 14.8 ft.)
MAX. SIZE: Controlled by Bar draft predictions.
HEALTH: Pratique given at Berbice by Health Authorities. If vessel is suspect or infected, Master to advise Harbour Authority by radio before arrival.
RADIO: Demerara Radio call sign 8RB operating on 2182 kHz. Georgetown Lighthouse operates VHF Channel 16 and HF 2738 kHz, 24 hours a day. Also SSB 8281.2 kHz.
TUGS: Not available.
BERTHING: The Bauxite Berth is about 1,500 ft. long, and has a fixed loading arm with an average loading rate of 500 t.p.h. The airdraft is 36 ft.

There is a strong ebb current of about 4–5 knots, although the flood runs at about 3 knots.

MEDICAL: Hospital at Georgetown.
DENSITY: 1000, fresh water.
FRESH WATER: Can be supplied.
FUEL: Can be supplied.
OPENING/CLOSING HATCHES: By ship's crew.
CUSTOMS ALLOWANCES: Up to 200 cigarettes and 1 bottle wine or spirits per man. Only 40 cigarettes may be taken ashore at any time.
CONSULS/REPAIRS: At Georgetown.
AUTHORITY: Transport and Harbours Department, Water Street, Stabroek, Georgetown. *Tel:* 02-67842. *Cables:* Transport Guyana. *Contact:* Captain A. Haynes, Harbour Master.

NOTES

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NOTES

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Guyane (French Guyana)

DEGRAD-DES-CANNES (Main Port): 04.51 N. 52.16 W.
LE LARIVOT (Secondary Port): 04.54 N. 52.22 W.
CAYENNE (Secondary Port): 04.56 N. 52.20 W.
KOUROU (Secondary Port): 05.09 N. 52.40 W.
SAINT LAURENT-DU-MARONI (Secondary Port): 05.30 N. 54.02 W.

LOCATION: Degrad-des-Cannes – 15 km. from Cayenne.
Le Larivot – 10 km. from Cayenne.
Kourou – 60 km. from Cayenne.
Saint-Laurent-du-Maroni – 250 km. from Cayenne.

PILOTAGE: Notice of ETA and request for a Pilot no less than 24 hours before ETA at Degrad-des-Cannes Channel Buoy and 48 hours for Saint-Laurent and Kourou.

Station de Pilotage de Guyane, Port du Degrad-des-Cannes, 97300 – Remire. Tel: 31.37.23.

ANCHORAGES:

1. At Sea Buoy at Cayenne.
2. At Sea Buoy at Degrad-des-Cannes.
3. At Salut Island (Iles du Salut).

RESTRICTIONS: Permanent dredging underway. Recommended that vessels approach at high tide.

Depth of water in channels:
Cayenne-Larivot (10 km.): 0.90 m. + height of tide.
Degrad-des-Cannes (15 km.): 2.50 m. + height of tide.

HEALTH: French Regulations apply.

RADIO: Cayenne Radio.

VHF: Harbour Master and Pilot Station on Channel 16.

BERTHING: Berth at Degrad-des-Cannes on the Mahury River, length of concrete wharf is 300 m., max. LOA 160 m. Roll-on/Roll-off facilities available. Discharge of general cargo and containers by ship's gear.

TANKERS: *Degrad-des-Cannes:* Steel wharf with dolphins. Min. LOA 80 m. Max. LOA 130 m.
Le Larivot: Concrete wharf. Max. LOA 100 m. Depth 4.9 m.

FRESH WATER: Available.

FUEL: By road tanker.

REPAIRS: Limited facilities available.

REPATRIATION: Rochambeau Airport. Connecting flights to France, Suriname and Brazil.

TIME: GMT minus 3 hours.

POLICE/AMBULANCE/FIRE: Contact Harbour Office at Degrad-des-Cannes.

GENERAL: Customs and Frontier Police at Degrad-des-Cannes.

DEVELOPMENTS: New berth under construction at Degrad-des-Cannes (length 130 m.).

AUTHORITY: *Port Director:* M. le Directeur, Departemental de l'Equipement, 40 Avenue Leopold Heder, B.P. 338, 97305 – Cayenne, Cedex.

Port Manager: M. l'Ingenieur Subdivisionnaire du Service Maritime, Port du Degrad-des-Cannes, B.P. 1106, 97305 – Cayenne, Cedex. *Tel:* 31.41.11. *Telex:* 910346 FG. *Contact:* M. de Thoisy, Port Manager.

Harbour Master: M. le Commandant des Ports de Guyane, Port du Degrad-des-Cannes, B.P. 1106, 97305 – Cayenne, Cedex. *Tel:* 31.41.11. *Telex:* 910346 FG.

Haiti

GENERAL

DOCUMENTARY REQUIREMENTS PRIOR TO ARRIVAL:
Advice of Arrival: The arrival of the vessel must be announced 48 hours in advance, and in writing, to the Port Captaincy and to the Port Authority, with indication of the vessel's characteristics, the cargo which will be discharged and loaded, and requirements concerning supply of water, etc.
Information Concerning Cargo Intended for the Port: The Agency must receive in good time by air mail 6 copies of the Cargo Manifest and 2 copies of the Bills of Lading. In the event that it is not possible to supply these documents by mail, the information must be provided by telex to the Agency so that the latter may draw them up.

The Cargo Manifests are distributed to the Port Authority, the Haiti Terminal (private concern handling cargo consolidation), to the Ministry of Commerce, the Ministry of Finances and to the Agency.

REQUIREMENTS RELATING TO THE RECEIPT OF THE VESSEL:
Reception Commission: The vessel is received by representatives of the Port Health, Immigration, Customs, International Police, National Port Authority and the Agency.
Documentation Required: On the arrival of the vessel, the following documents are required, OEA/ALALC, IMO and certain other documents being acceptable.

	No of Copies and Distribution					
Type of Document	*Health*	*Immigration*	*Customs*	*Police*	*NPA*	*Agency (a)*
General Declaration	–	–	1	–	1	1
Cargo Manifest (b)	–	–	–	–	1	–
Crew List	1	1	3	1	–	1
List of Passengers	–	1	2	–	–	–
List of Stores	–	–	2	–	–	–
Declaration of Crew Effects	–	–	2	–	–	–
Maritime Health Declaration	1	–	–	–	–	–
Mail List	–	–	–	–	–	1
Arms and Ammunition Manifest	–	–	1	1	–	1

(a) The Agency requires additional copies of the Crew List, the Passenger List, the Stores List, the Arms and Ammunition Manifest, etc., dependent upon the destination of the vessel, in accordance with the requirements of Consular Clearance.

(b) Required in the event that the manifest has been received, or information regarding the cargo, in advance of the arrival of the vessel; if not, the agency requires 4 or 6 copies for distribution amongst the different authorities.

REQUIREMENTS CONCERNING DOCUMENTATION ON SAILING:
Documentation on Sailing: At the request of the Agency, the Customs issue a clearance with which permission to sail is applied for from the Port Captaincy. The latter's permit is used for requesting the services of the Pilot from the National Port Administration.

An Outgoing Manifest is presented to Customs which also contains a sworn statement (sworn statement of the Master of a vessel with cargo, or sworn statement of the Master of a vessel in ballast), and the List of Passengers. If the vessel is sailing with cargo, it is presented in 6 copies; if in ballast, in 4 copies.

CONSULAR INTERVENTION:
Consular Documentation: In accordance with the 1963 Customs Code, Article 119, the Master of a vessel loading cargo for Haiti, or his representative, must sign before the Consul a Declaration sworn as to the truthfulness of the manifest. This article is transcribed as follows:
Quote:

Article 119, *Oath.* Masters of vessels or their representative, at the time of having their manifests visaed, shall give the following oath which shall be transcribed by the Consul at the bottom of the manifest: I swear that this manifest contains exactly the packages shipped on board my vessel, that the quantities are in agreement with those shown on the Bills of Lading. I declare that I will accept all penalties which I may incur for offence against the Customs Law. I give my hand hereto.
Unquote.

In general, Consular Clearance has to be obtained at each port from the first at which cargo is loaded for Haiti. For this purpose, the Consul requires 6 copies of each of the following documents:
General Declaration.
Cargo Manifests or In Ballast.
Crew List.
List of Passengers or Negative.
Stores List.

The Consul returns 3 copies of the documents, which must go with the vessel, and 6 envelopes, i.e. 1 for each of the following Authorities:
General Customs Administration.
Director of Customs.
Department of Commerce.
Fiscal Department.
Finance Department.
Customs Collector.

The 6 envelopes are not always received, and at times only 2 copies of the visaed documents are given back. The Authorities apply a certain tolerance when it is established that the Consular Fees have been paid at the Consulate or at destination.

CAP HAITIEN: 19.46 N. 72.12 W. (See Plan)

GENERAL: For all general information refer to "Port-au-Prince".
APPROACHES: The current is about 3 knots in the entrance to the port when the river is in flood.
ANCHORAGE: Vessels which are unable to moor alongside because of deeper draft are anchored off the wharf.
BERTHING: The wharf at Cap Haitien was constructed by the Compania Industrial Maritima. The construction is in reinforced concrete. It extends for a length of 900 ft. in an Easterly direction and comprises 3 sections. The most important section is 600 ft. long and has berths for deep sea vessels on the South side in depths of 30 ft. The Western section, nearest the shore, is 300 ft. long with variable depths of 7 ft. to 9 ft. alongside, with berths for motor vessels of small tonnage and sailing ships. The central section accommodates the Customs offices. 2 metal warehouses border the East and West ends of the wharf. Between the warehouses is 1 fixed crane of 30 tons capacity.
FRESH WATER: Fresh water is available at Cap Haitien.
FUEL: Available, only in drums.
DEVELOPMENTS: Ro/Ro Berth length 100 m., under construction. Main pier length 250 m., under construction. Cruise ship pier length 170 m., to be constructed.

REPORT: December 1984.
Documents: See "Port-au-Prince".
Approaches: New lighthouse on Pte. Pinolet seen at 30 miles.
Pilotage: Pilots boarded in Lat. 19° 48.8′ N., Long. 72° 10.9′ W. Pilots board from small launch, approx. 5 m. long, with grey hull and yellow decking. The words "Pilote No. 1" painted in black on either side of white housing.

2 Pilots boarded – Senior Pilot/Port Captain: Eugene Magloire.
Restrictions: Channel very well marked – new beacons in positions as shown on "Plan". Least depth encountered in channel 10 m.
Radio: ETA telex sent via satellite to Agents. No radio station available.
VHF: Called pilot station on VHF Channel 16, 2 hours and 1 hour prior to arrival, but received no reply. Shortly before arrival at pilot boarding point, pilot station advised, on Channel 16, that pilot boat was coming out to our vessel.
Tugs: None. Small mooring boat takes heaving lines only ashore.
Berthing: Our vessel, 200 m. long, berthed at the Passenger Berth after swinging to starboard in the basin off the berth (depth 11 m.).

The berth is well fendered (Kleber fenders). Apart from main access to berth, there is also a footbridge for passengers.

Port has recently been reconstructed with modern berthing facilities, adequate mooring points, lighting, warehousing, open storage, etc.
Cargo Handling Equipment: Observed 1 conveyor, no cranes in evidence.
Regulations: Not permitted to take fruit ashore.
Authority: Autorite Portuaire National.

MIRAGOANE: 18.25 N. 73.04 W. (See Plan)

GENERAL: For all general information refer to "Port-au-Prince".
BERTHING: The facilities at Miragoane are 1 small jetty for loading and discharging general cargo with a max. depth alongside of 18 ft.

There is a wharf for loading bauxite, belonging to the Reynolds Company, with a depth alongside of 34 ft. Total annual export about 350,000 tons.

PORT-AU-PRINCE: 18.33 N. 72.21 W. (See Plan)

Also see "General" before first port.
DOCUMENTS:
Shipmasters Report: October 1982.
Clearance from Last Port.
6 Crew Lists.
3 Nil Passenger Lists.
3 Provisions/Stores Lists.
3 Crew Personnel Effects Lists.
2 Ports of Call Lists.
1 Vaccination/Inoculation List.
PILOTAGE: Pilotage is compulsory for all movements of ships in the port. The Pilot boards to the West of the Fairway Buoy and is accompanied by port officials, i.e. Port Doctor and Representatives of Immigration, Police and Customs. These officials insist on using the accommodation ladder to board the vessel. Masters must arrange with their respective Agents the time which they will require a Pilot to leave the port. If they are ready to depart before the hour arranged they may call the Pilot by 3 blasts of the ship's whistle.

Berthing from 0530 hrs. – 2100 hrs. except Sundays and holidays.
APPROACHES: The Port of Port-au-Prince is situated at the extreme S.E. of the bay. It can be approached from the North and from the South by 2 channels.

One may approach from the N.E. by the Saint-Marc channel or from the West by the Gonave channel, between Trou-Forban Point and the village of Ca-Ira. The bay extends between Trou-Forban Point in the North and the village of Ca-Ira about 20 miles to the South. The position of Ca-Ira is 18° 32′ N., 72° 39′ W. From Ca-Ira the South coast of the bay extends about 2 miles N.E. and about 12 miles East to Pointe Lamentin.

ANCHORAGE: Vessels must anchor to the West of the large red buoy No. 29 or at the quarantine buoy, situated about 1.5 mile N.N.W. of buoy No. 29. A bottom of sand over coral is to be found all over this region in depths of 10 to 18 fathoms.

Vessels may anchor or depart at any hour of the day or night.

In order to facilitate the rapid movement of vessels, these are normally anchored in order of arrival.

WEATHER: The Bay of Port-au-Prince is nearly always calm except at certain times of the year; for example, during the months from May to November, occasional strong winds may interrupt normal loading and discharging movements.

A light breeze from the East or N.E. blows after dawn, but in the afternoon a breeze 3 times stronger blows in the opposite direction.

The height of the tide is only 1.5 ft. Currents in the port are almost negligible, except that, when mooring or unmooring a vessel, one should pay attention to a Northerly current of about a quarter of a knot.

RADIO: All deep-sea vessels which enter the territorial waters of Haiti are obliged to advise the Port Radio Station.

The radio station is situated at the Bureau de Port. It is in operation 24 hours a day.

Visual light signalling may also be carried out as far as it is possible to do this.

The following apparatus is used at the radio station:

1. VHF Radio – Channels 6, 12, 16 and 18.
2. Medium frequency, SSB compatible frequencies 2182 kHz, 2738 kHz. Power 150 watts, range about 250 miles.

In addition to the VHF Channels, the Pilots may use radio-telephone on the following frequencies: 2182 and 2738 kHz.

The general call and distress frequency 2182 kHz is monitored continuously.

All messages addressed to the Port Authorities and messages concerning pilotage must be handled at this radio station.

Masters are particularly required to give the radio station, as soon as they arrive, the following information:

Vessel's draft and net tonnage, amount of cargo for discharge by hatch, number of gangs required.

The telephone number of the radio station is 2 – 3235.

48 hour ETA message to APN also to include details of the vessel, expected time of departure, quantity and nature of cargo to be handled.

TUGS: The port has at present a tug of 2,000 h.p. available at all times. The tug is compulsory for ships from 1,000 tons gross and upwards. At all times 2 aluminium launches, each 30 ft. long, are available for Pilot's use.

BERTHING: The New Port facilities are presently in service, located 600 ft. North of and parallel to the existing pier.

Prime features of new facilities are:

Length of berthing space: 1,400 ft.
Width of apron 93 ft.
Container crane on rails on the apron with 30 tons capacity equipped to handle 20 ft., 35 ft. and 40 ft. containers.
Ro/Ro platform.
Depth alongside 32 ft. MLW.

Finger Pier: Length 1,250 ft., width 60 ft. Ro/Ro platform on North side. On the South side there is 1,250 ft. of berthing space, depth 25 ft. – 30 ft. On the North side there is 540 ft. of berthing space, depth 32 ft.

At the outer end of the finger pier there is a dolphin berth for passenger vessel. Length 888 ft., depth alongside 32 ft. Vessels may berth on both sides.

There is an angular portion of 100 ft. between Quays No. 1 and 2 which may not be used for mooring, but which the bow of the ship may overhang. Vessels must be secured by at least 2 mooring cables at the bow and at the stern.

The Port Authorities require for vessels manoeuvring in the port a minimum of 2 ft. of water under the keel. This regulation may be modified by special authorisation of the Chef de Port.

In addition to the public pier, there are 5 jetties belonging to private companies used for handling products in bulk. These jetties belong to the following companies:

A. La Hasco, sugar refinery established at Port-au-Prince.
B. La Minoterie, flour mill situated at Laffiteau.
C. Le Ciment d'Haiti SA, cement factory situated at Fonds Mombin.
D. Jean Ackmed, fuel installation situated at Simonette.

The above jetties are established on the North side of the bay.

E. Installations of Shell Company and Tropigas on the South side of the bay, equipped with their own mooring buoys for tankers.

CARGO HANDLING: For vessels loading and discharging at the public pier, cargo is transported on railway trucks of 25 tons max. capacity.

1 quay is equipped for container ships. 1 quay is equipped to handle Roll-on/Roll-off traffic.

STEVEDORES: Loading and discharging of ships is carried out by gangs of private workers who are engaged by the ship's Agents under the supervision of a chief stevedore. The working gangs use the ship's own equipment for loading and discharge.

Handling rates are normally about 15 t.p.h. for general cargo, or about 25 t.p.h. for heavy articles, such as drums, planks, bundles of steel rods, etc.

Normal working hours in the port are from 0700 hrs. to 1900 hrs. from Monday through Saturday. Overtime is payable for work required at other than these hours and also for work required on Sundays and holidays.

FRESH WATER: Drinking water is available alongside; however, the ship must provide its own connections. Rate of loading varies from 4 t.p.h. to 10 t.p.h.

FUEL: Fuel oil may be supplied by tanker truck.

REPAIRS: There are no proper facilities for ship's repairs although minor repairs may be effected by small private workshops ashore.

MEDICAL: There are adequate medical facilities, pharmacies and hospitals.

AIRPORT: An international airport for jet planes connects Haiti with principle U.S. and Caribbean points. A local air service connects Port-au-Prince with principal towns of the Republic.

FIRE-FIGHTING EQUIPMENT: The Port Authority has a fire fighting squad equipped for early assistance. There is a town fire service organised by the Army and working in close cooperation with the Port.

HOLIDAYS: *Legal Holidays:*

Independence Day (1st and 2nd January); Labour Day (1st May); Flag Day (18th May); Ascension Day; Assumption (15th August); All Saints (1st November); Commemoration Day (13th November); Discovery of Haiti (5th December).

Authorised Holidays:

Lundi-Gras (half-day); Mardi-Gras; Good Thursday; Good Friday; Pan-American Day (14th April); President's Day (22nd June); Dessaline's Anniversary (17th October); United Nations Day (24th October); Fete des Morts (2nd November).

SERVICES: Fresh provisions are obtainable locally.

There are no facilities for refuse collection, but nevertheless it is forbidden to throw refuse, cinders or any other polluting material overboard.

Launches used for the transport of tourists are available at Port-au-Prince and these are operated by private companies. The Port Authority does not take an active part in the traffic of tourist passengers. Those who disembark on the wharf from cargo vessels or cruising liners must make their way on foot to the taxi station to take part in excursion tours. However, the majority of tourists coming on passenger liners anchored in the roads disembark by launches belonging to the Department of Tourism. They disembark at the Quai Colomb, which is under the authority of the Department of Tourism.

SHIPMASTER'S REPORT: 1975.

Documents:

Clearance from last port.
4 Crew Lists.
4 Passenger Lists.
2 Cargo Manifests.
18 Cargo Check lists.
International Declaration of Health.
Vaccination/Inoculation List (1) with valid dates.
International Vaccination Cards, these may be examined by Port Health.

Pilotage: Compulsory, 24 hour service arriving/departing. Require ETA to Agent 24 hours in advance. Pilot Station may be contacted on voice radio 2182 kHz, 2738 kHz and VHF Channels 16 and 12. Pilots board at quarantine anchorage buoy. Pilot boat has yellow hull and superstructure, 2 ft. freeboard. "Pilot" clearly painted on hull.

Anchorages: The harbour affords good anchorage in depths of 5 to 14 fathoms, clear of the entrance ranges southward. The Quarantine Anchorage is located about 2.5 miles East-northeastward of Pointe Lamintin.

Restrictions: See Sailing Directions for Prohibited Anchorages.

Max. Size: This ship is 495 ft. in length, with 69 ft. beam, we were accommodated easily. Passengers ships of 620 ft. in length are regular callers at the port. Maximum depths at the pier is 30 ft. Mean High Water Interval at the port is 8 hours 23 minutes. Spring tides rise 1.5 ft. Currents in the approach set East in the Canal de la Gonave, and Northwest in the Canal de Saint Marc. All buoys, lights, and navigation aids are unreliable.

Health: Pratique is now granted at the dock. Ship displays "Q" flag until cleared.

Radio: ETAs to Agents/receivers are best sent through WNU (Tropical Radio) at New Orleans, Louisiana or ITT station at Lantana, Florida, these stations then telex direct. Port Pilots will relay messages to Agents on voice radio 2738 kHz. Short range reception on voice radio has been experienced.

Berthing: Main pier, has 1,700 ft. of berthing space on its Southern side with depths of 18 ft. to 29.5 ft. Ship's always berth port side to, using the starboard anchor to assist in docking and undocking. A T-head pier with a pipe-line is located 2 miles Westward of the city. Mooring buoys lie off the end of this pier. It has been reported, (unverified) that this pier accommodated a tanker 560 ft. long, with a draft of 31.5 ft. in 1957.

Stevedores: Advise Agent tons per hatch at least 24 hours prior to arrival. Maximum amount of labour is available. Rate of discharging/loading is approximately 18 to 30 tons per gang hour on sacks, bales, cases, general cargo. Work after midnight is overtime with charges quite high.

Medical: Give Agent prior notice for any required medical attention. 3 hospitals available. Minor dental work can be accomplished. International Certificates with Cholera are required.

Density: 1025 as per this ship's test.

Fresh Water: None available at this time.

Fuel: None available at this time.

Developments: A 25 million dollar port expansion and construction project commenced October 1975. This new area is located 800 ft. North of the general cargo pier. From the shore in a Westerly direction the new pier shall extend 1,685 ft. in length, 469 ft. in width, with a working apron on the South side 81 ft. from the end of the ship's side. The pier will contain 2 warehouses; one 207 ft. by 1,101 ft., and the other 180 ft. by 447 ft. The Eastern end shall have 2 separate Roll-on/Roll-off sections. A container crane on rails shall traverse the entire South side working apron, capable of loads not to exceed 30 long tons. Dredging and filling has commenced and they are working towards a 30 ft. maximum depth at completion.

Gangway/Deck Watchmen: Cost unknown, supplied by Agent. Gangway watchman is recommended. If transit cargo is pilferable, I recommend using crew members for cargo hold security.

Hatches: (Automatic hatches) opening/closing normally carried out by stevedores with crew member supervision.

Customs Allowances: Bonded stores were not sealed, store lists were not required. Ship allowed each crew member 200 cigarettes. Local Customs Officials make no special requirements.

Cargo Gear: All loading/discharging by ship's gear. Fork lifts are available. There is a shortage of pallets and railroad flat cars which are used to accept cargo direct from the ship's gear on the dock. Warehouse space is limited.
Identification Cards: Shore passes not required, none issued by local authorities.
Consuls: United States of America; Panama; Lebanon; Taiwan; France.
Repairs: No facilities available.
Dry Docks: None available.
Repatriation: Possible.
Airport: 1 major airport. Located 40 minutes from the port area. Daily flights to North America. (Miami and New York)
Time: GMT plus 5 hours. No alterations to clocks during the year.
Holidays: December 5th (Columbus Exploration Day), Christmas, New Year's Eve, New Year's Day. Cargo work can be arranged on most holidays at overtime rates.
Police/Ambulance/Fire: Utilise Agent for emergencies of this type, or have watchman make use of telephone from dock. "Fire". There are no international hose fittings on the dock, and limited means of handling shipboard fires from ashore.
Telephones: None available for placement on board the ship.
Services: Special services non-existent.
Shore Leave: Crew members are allowed ashore. No curfews, no passes required.
Port Regulations: Nothing unusual or out of the ordinary.
Delays: Possible berthing delays exist due to ship congestion. Delays in discharging may occur due to lack of warehouse space, pallets, or rail cars.
Agents: Agents and most officials including watchmen and stevedore supervisors speak English. All official documents and ship's clearance papers are written in French. The language spoken is predominately French (patois) with inflections that are easy on the ears, but difficult to utilise operationally.

AUTHORITY: Autorite Portuaire Nationale, Port de Port-au-Prince, B.P. 616, Port-au-Prince, Haiti.

NOTES

Please also advise Shipping Guides Ltd.

Honduras

GENERAL

DOCUMENTS:
Consular Documents:

Masters shall submit for certification to the Honduran Consul or Consular Agent residing in the port of loading 4 copies of the general manifest of goods carried for the Honduran port to which it is bound. 3 copies are to be left with the Consul or Agent, and 1 copy, with the certification and receipt to be provided by the Honduran official, is to be retained. The Consul will retain 1 copy in his files, the other 2 shall be sent by the earliest mail to the Secretariat of the Treasury and the Customs Administrator.

Prior to arrival:

Arrival notice:

The Chief of Operations of the National Port Authority (ENP) must be notified in writing no more than 24 hours and no less than 8 hours in advance, of the time and date of the vessel's arrival. This notice is received on working days up to 1600 hrs., but for holidays, the request must be submitted the day before up to 1100 hrs.

The Captain of the Port, Customs, Migration and Maritime Health must be notified of the arrival within the same period indicated above.

Information on cargo for the port:

If available, the following documents must be submitted: 4 copies of the cargo manifest, a set of bills of lading, 3 copies of the cargo list, 3 copies of the container contents list, and information on the cargo to be loaded. In addition, the following copies of the cargo index must be provided, according to the type of goods: 4 to 6 for Customs, 14 to 18 for the National Port Authority; 1 for each depot of the agency to take part, and 1 for general control.

The ENP also allows this information to be submitted after the official visit (boarding party).

Port services request:

The arrival notice submitted to the ENP also serves as a request for pilotage, docking and port services.

On arrival:

Type of Documents	*Number and Distribution of Documents*					
Basic Forms	*Port Captain*	*Customs*	*Migration*	*Maritime Health*	*Agriculture Inspection*	*Total*
General Declaration	1	1	–	–	1	3
Cargo Manifest	–	5	–	–	1	6
Crew List	–	3	1	–	1	5
Passenger List	1	2	1	–	1	5
Ship's Store List	1	1	–	1	1	4
Crew Effects Declaration	–	–	–	–	–	–
Maritime Declaration of Health	–	–	–	1	–	1
Mail List	–	–	–	–	1	1(a)
Additional Documents						
Clearance from Last Port	1	–	–	–	–	1
Visaed Clearance from Last Port	–	1	–	–	–	1
"No Passengers" Declaration	1	2	1	–	1	5
List of Passengers In-Transit or "No In-Transit Passengers" Declaration	1	2	1	–	1	5
Cargo Manifest (b)	–	1	–	–	–	1
Crew List (b)	–	1	–	–	–	1
Passenger List (b)	–	1	–	–	–	1
Ship's Stores List (b)	–	1	–	–	–	1

a. Submitted to the shipping Agent.
b. With Consular visa.

Prior to departure:

Clearance must be requested from the Captain of the Port, on a special form at least 2 hours before the vessel's estimated time of departure. The form must be cleared by the Customs Chief of Exports and the Customs Administrator, therefore copies of the export cargo manifest must be submitted to Customs.

In the case of the terminals of Puerto Cortes, 30 copies of all documents are prepared, of which the vessel carries (aside from the original Sailing Permit and the Maritime Health Declaration) an original and 24 copies of the Cargo Manifest (or Ballast Manifest), the Crew List, Passenger List, the Mail and Firearms List, the Ship's Stores List, and 2 sets of the Bills of Lading.

In addition, when the ship sets sail, 3 Freighted Cargo Manifests, 2 sets of the Bills of Lading, a Crew List, a Passenger List, a Mail and Firearms List, and a Ship's Stores List must be submitted to the Chief of Docks. A copy of each of the following documents must be submitted to the Maritime Guard: Sailing Permit, Cargo Manifest, Crew List, Mail and Firearms List, and Ship's Stores List.

When the ship leaves for Guatemala, it should have 34 copies of all documents, because 4 copies are submitted to the Consul.

For ships leaving for the United States, the clearance document is in Spanish, with 6 copies to be distributed locally, plus 18 copies of the Cargo Manifest, in English, of which 16 are carried on board ship, 1 copy is sent to San Pedro Sula and the other remains in possession of the shipping agency.

Request for pilotage:

Requests for pilotage and unberthing of the vessel are submitted to the National Port Authority at least 2 hours before clearance.

AMAPALA: 13.18 N. 87.39 W.

PORT NO LONGER IN OPERATION.
COMMERCIAL OPERATIONS AT THIS PORT HAVE BEEN TRANSFERRED TO THE NEW PORT OF SAN LORENZO

LA CEIBA: 15.46 N. 86.50 W.

SHIPMASTER'S REPORT: 1979.

DOCUMENTS:

10 copies of Crew List
6 copies of Store List
6 copies of Bonded Stores List
4 copies of Vaccination List
Mail Report
Passenger Report
1 Copy of Derat Certificate.
Zarpe/Clearance from previous port.
14 Copies Cargo Manifest/Ballast Manifest.
3 Copies Bills of Lading.

All the original documents must be legalised by Honduran Consul at the port before calling at Honduras, and should be in Spanish language. If no Consul available, documents should be legalised by Consul of friendly nation or by Chamber of Commerce, stating the facts.

PILOTAGE: Compulsory. Pilot boards 0.5 miles from the pier. 2 hours notice required.

ANCHORAGE: Good anchorage 5 cables, 129° from pier, depth of water 40 ft.

RESTRICTIONS: Vessels able to berth and unberth at any stage of the tide day or night. Limiting factors are length and forward draft of vessel.

MAX. SIZE: Max. LOA 600 ft. However, the after end of the vessel would overhang end of berth (This vessel loaded to 23 ft. draft).

HEALTH: Quarantine Officials operate between 0600 hrs. and 1800 hrs. 2 hours notice of arrival required.

RADIO: HRW – Standard Fruit operate from their own radio station. They handle vessel's traffic on 6350.5, 8560 and 12750 kHz. They also listen on 500 kHz and 8 MHz.

Hours of Operation: (GMT) 1355 – 1410, 1455 – 1510, 1555 – 1610, 1955 – 2010, 2055 – 2110 and 2355 – 0010.

VHF: The Agent is on Channel 16.

TUGS: Not available. Vessel is able to dock and undock without assistance of tugs.

BERTHING: Berth available both sides of finger type pier, South side berth for side-door loading; North side for unrestricted operations. Nature of the bottom of the berth is sand.

Mooring gang (6 men) come aboard with the Pilot to assist. The bananas are loaded direct from the rail cars using spiral elevators. It is usual to load all decks at the same time.

There are no facilities for handling bulk cargoes or Ro/Ro vessels. There are no shore cranes or floating cranes. There is no storage space for breakbulk cargo or palletised cargo.

Fendering: Pier fendered with the usual Standard Fruit type fendering, vertical uprights on a horizontal "V" bellows on horizontal girders.

CHARTS: B.A. Chart No. 513 (Isla Roatan to Puerto Cortes) and U.S.G. 5393 (positions on this chart are 2.5 miles W.S.W. of B.A. chart).

CONSULS: None, however, American Consulate and those of other nations in Tegucigalpa, about 250 miles by road.

SURVEYORS: Lloyd's Agency in Puerto Cortes.

AIRPORT: International Airport "Goloson" with service daily to New Orleans and Miami, served by regular airlines.

SERVICES: Fresh water, fresh provisions, airport, telex, doctor, hospital, groceries and meats all available.

Labour: Shore labour is available for contract work such as scavenge cleaning, hull painting, etc. The work carried out during our stay was satisfactory and the rate for the foreman was US $1.50 per hour and workmen US $1.00 per hour.

AUTHORITY: Empresa Nacional Portuaria, Apartado Postal No. 215, La Ceiba, Honduras, Central America. *Tel:* 42-2712 (Superintendent), 42-0297, 42-0394, 42-0397, 42-2044. *Telex:* 8007 Enaporto Ho. *Cables:* Enportuaria. *Contact:* Roberto Dip H., Port Superintendent.

AGENT: Hondutours, Maritima y Transportes, Honduras, S.A., Edificio Comercial Maya, Tegucigalpa, Honduras. Tel: 32-16-57, 32-89-26, 32-89-30. Telex: 1251 Marhond Ho. Cables: Matra, Tegucigalpa.

Mailing Address: P.O.Box T-134, Tegucigalpa, Honduras.

PUERTO CASTILLA: 16.00 N. 85.58 W. (See Plan)

DOCUMENTS:

2 copies Health Declaration.
Zarpe or Clearance from Last Port.
14 copies General Cargo Manifest of all cargo to be discharged in Puerto Castilla or Ballast Manifest.
10 copies Crew List.
10 copies Passenger/Negative Passenger List.
Derat Certificate, only if first call.
10 copies Stores List.
Mail Declaration (negative or positive).
3 complete sets Bills of Lading.
5 copies Hatch List.
15 copies Tally Books (prepared generally by Agent).

All original documents must be legalised by Honduras Consul at port before calling at Honduras, and must be in Spanish language.

If no Consul of Honduras available within 50 miles radius of port, documents can be legalised by statement from local Chamber of Commerce, stating the facts.

PILOTAGE: Not available, but vessel able to dock without such assistance.

ANCHORAGES: Once the vessel enters the bay, if no berth is available, she should anchor at a distance of between 0.5 mile – 1 mile from pier, and await boarding party in order to be granted Free Pratique.

RESTRICTIONS: Vessels may enter the port day or night, but are generally not visited by Authorities between 2000 hrs. and 0600 hrs., except in very special cases. Owing to remoteness of the port, Authorities have to be collected by Agent from villages within 30 miles radius of port.

MAX. SIZE: Vessels with draft up to 36 ft. can safely enter port and moor alongside pier.

HEALTH: Pratique granted after Port Authorities (including doctor) board vessel, between 0600 hrs. and 2000 hrs. Pratique granted if no contagious illnesses on board, otherwise quarantine restrictions imposed. No automatic Pratique when arriving from another Honduran port.

RADIO: Lantana Radio WOE, New Orleans Radio WNU, Limon Radio TIM, Balboa Radio NBA, Miami Radio WAX, messages routed via telegraph station Hondutel in nearby Trujillo, but not considered reliable.

Ship's radio not to be used in port except for communications with Port Authority. Vessel is fined if there is a violation.

VHF: Use Puerto Cortes Radio: Call Sign 'Cortes Radio', Channel 16, if Castilla Radio does not respond (Hours see "Puerto Cortes").

TUGS: None, not required.

BERTHING: The Agent and/or Port Authority to supply information as to berth, and time of docking. Departure should be effected when the despatch documents are on board and operations finished.

Pier: Made of concrete 150 m. long, width 38 m., depth 38 ft., used for all operations. Rubber/wooden fenders.

Directly adjacent to a paved area 300 m.×200 m.

Equipped with 2 open sided warehouses, each 3,000 sq.m.

Electric connections for 190 reefer containers.

CRANES: One each of 40, 50 and 70 tonnes capacity, mobile, on tyres.

TANKERS: Pipe-line for loading of African Palm Oil. A connection of 16 in. exterior diameter, 14 in. interior diameter, reducers available. Pumping rate 200 t.p.h. Storage capacity 20,000 bbls.

DENSITY: 1028/1030.

FRESH WATER: Water available at wharf, and of excellent quality, rate approximately 15 t.p.h.

FUEL: Only Diesel and Bunker "C" fuel available, 24 hours' notice required.

CONSULS: None in port. American Consulate and others in Tegucigalpa, 320 miles by road.

REPAIRS: No facilities.

SURVEYORS: Lloyd's Agency available locally.

GANGWAY/DECK WATCHMEN: Shore watchmen not usually required, and service left to the discretion of the Master.

HATCHES: On liners normally by crew with assistance of stevedores, otherwise according to C/P.

CUSTOMS ALLOWANCES: No restrictions, free use on board. Customs Officials check no sales to shore.

REPATRIATION: Facilities available for effecting repatriation in La Ceiba, by air.

AIRPORT: International airport "Goloson" in La Ceiba, 122 miles from port. Local airport connecting with La Ceiba daily, except Sundays and holidays, located in Trujillo, across the bay.

TIME: GMT minus 6 hours throughout year.

HOLIDAYS: 1st January; 14th April; 1st May; Maundy Thursday; Good Friday; Saturday at Easter; 15th September; 3rd, 12th, 21st October; 25th December. Cargo work can be arranged on those days, except Good Friday, and 1st May.

TELEPHONES: No telephones available in the area. Cable service available in Hondutel office.

SHORE LEAVE: Permitted without restrictions.

IDENTIFICATION CARDS: Must be shown to gate watchmen, when crew members come back on board, and are supplied by Agents.

CERTIFICATES: On first call, Registered Tonnage Certificate.

AUTHORITY: Empresa Nacional Portuaria (E.N.P.), Puerto Castilla, c/o Empresa Nacional Portuaria, Puerto Cortes, Honduras. *Tel:* 55-0130. *Telex:* 8007 Enporto Ho. *Cables:* ENP, Porto Cortes, Honduras. *Contact:* Jorge Bueso, Port Superintendent.

AGENT: Maritima Y Transportes, S.A./Intermodal, S.A., Edificio Banco Atlantida, Suite No. 1101 – 1103, Apartado 991, San Pedro Sula, Honduras. Tel: 53-5100, 53-1773. Telex: 5634 Marhond Ho. FAX: 53-5101. Cables: Matra, San Pedro Sula.

PUERTO CORTES: 15.50 N. 87.55 W. (See Plan)

DOCUMENTS:

Health Declaration, 2 copies.
Zarpe or Clearance Permit from the Last Port.
General Cargo Manifest (in ballast if that is the case) of all the cargo to be discharged in Puerto Cortes, 14 copies.
Crew List, 10 copies.
Passengers in transit, or no passenger declaration, 10 copies.
Derat Certificate, only if first on board call.
Stores List, 8 copies.
Mail Sacks Declaration (negative or positive).
Bills of Lading, 3 complete sets.
Hatch List, 5 copies.
Tally Books, 15 copies.

All the original documents must be signed and stamped by the Honduran Consul at the port before calling Honduras and should be made out in Spanish. Documents for cargo destined to any Honduras Free Zones need not be signed by Honduras Consul.

If no consul of Honduras available, documents to be legalised by consul of a friendly nation or by the Chamber of Commerce, stating the facts.

PILOTAGE: Compulsory for vessels over 300 g.r.t. ETA to the Agent, 72, 48 and 24 hours ahead of arrival required. Pilot on VHF Channels 16 and 6.

ANCHORAGES: Once the ship enters the bay, *if no berth space has been notified to the Master,* she should anchor at a distance beyond 0.5 miles from the nearest pier, and wait for the boarding of the official party in order to be granted Free Pratique.

APPROACHES: *Shipowner's Report:* 1983.

Tankers should make their arrival at a position near Lat. 15° 55′ N. and Long. 87° 58′ W., 4 miles North of Punta Caballos and well offshore of the shoal patches near the point. From this position true course 180° takes the ship into the bay in a minimum depth of 10.6 m. (35 ft.) West of the tanker dock and between 2 shallow patches of 8.1 m. (27 ft.) 700 yards and 450 yards W.S.W. of the tanker dock. There are 2 sets of daymarks and 2 buoys marking this approach.

Vessels may also enter the bay about 2 miles off the coast of Punta Omoa. Steer E.N.E. in the natural channel which has a minimum depth of 10.9 m. (36 ft.). 3 buoys mark this channel.

Caution: The above mentioned navigational aids are not all indicated on the charts, and are not reliable. No attempt should be made to enter the bay without a Pilot.

Work is in progress; buoyage and the shape of the coast may have changed. The West entrance will become the main deep water channel when dredging is complete and when leading lights, buoys, and beacons have been installed. An extensive reclaimed land area extends to the North from the mouth of the Rio Medina. The city wharves are being extended West.

The distance from the sea buoy to the Texaco dock is about 4.5 miles. The city wharves are 0.5 miles further to the East. The Texaco refinery tanks, the water tank near Pier 4, the railroad shop, and the Coast Guard Pier are conspicuous in daytime.

The molasses berth of wooden construction throughout, is made of a trestle walkway/pipe run ending in a small hose handling platform. 2 breasting dolphins, spaced about 250 ft. are fendered with truck tyres. Mooring ropes are sent to pipe bollards on the beach and to a mooring dolphin adjacent to the Texaco berth. The spring lines go to the breasting dolphins. 1 tug is normally used for berthing.

RESTRICTIONS: Vessels may enter the port day or night but are not visited by Port Authorities between 2000 hrs. to 0600 hrs., except in special cases.

MAX. SIZE: Dry cargo vessels up to 30 ft. draft. Tankers up to 30 ft. draft.

HEALTH: Pratique granted after Port Authorities (including doctor) board vessel, between 0600 hrs. – 2000 hrs. Pratique granted if no contagious illnesses aboard, otherwise quarantine restrictions imposed. No automatic Free Pratique when arriving from another port in Honduras.

All crew members to be vaccinated against yellow fever. Vaccinations not available in Honduras.

RADIO: Port Authority operates a station HQSU, monitoring 2738 kHz, but by arrangement can reply on other frequencies. Telegrams to be routed via Hondutel, Lantana WOE, New Orleans WNU, Limon TIM, Balbao NBA and Miami WAX.

Ship's radio not to be used in port except for communication with the port authority. Vessel is fined if there is a violation. Also see "VHF".

VHF: Puerto Cortes Radio: Call sign "Cortes Radio". Channel 16.

Hours: Weekdays 0600–2200; Saturdays 0800–1200 and Sundays 0600 – 1200, 1300, 1700, 1800, 2200, every week except January 1st, Good Friday, May 1st and December 25th.

BERTHING: The Agent to supply information as to berth, and time of docking. Pilot will board the vessel and berth it, assisted by a launch to pass ropes. Departure should be effected when the despatch documents are on board and operations finished.

Pier No. 1 (Texaco Pier), for tankers or ships loading diesel or lub-oil; max. draft 30 ft.

Pier 1-A (molasses and bulk liquids), max. depth 32 ft. at rebuilt wooden T-Pier, in front of white and red painted tanks, between Texaco Pier and Banana Pier.

Pier No. 2 (Banana Pier) length 810 ft., depth 24 ft.

Pier No. 3 (General Cargo and Ro/Ro Pier) Length 630 ft., depth 30 ft.

Pier No. 4 (General Cargo and Ro/Ro Pier) Length 1,112 ft., depth 30 ft.

Pier No. 5 (Container Terminal, it also handles dry bulk cargo) length 1,127 ft., depth 33 ft.

CRANES: One P & H 125 ton capacity crane, one Paceco Container Crane 45 ton capacity at No. 5 pier and eight cranes of varying capacities.

BULK CARGO FACILITIES: Pier No. 5 (Container Terminal) is used as a multi-function pier, it is used to handle grain, ores, fertilisers and bulk sugar. It is large enough to be able to handle both operations simultaneously.

STEVEDORES: Vessels must give accurate ETA at least 24 hours in advance to enable Agents order necessary gangs. Gangs ordered 0700 and 2100 hrs. working 12 hours (daytime) and 9 hours (night-time) excluding the meal hours (0600–0700; 1200–1300; 1700–1800 and 2300–2330). No work on Holy Friday, May 1st (Labour Day), on other holidays work is possible with double payment.

MEDICAL: No advance notice necessary for medical attention, except in very urgent cases. At San Pedro Sula (35 miles by road) very good medical service can be obtained but several medical clinics are serving this Port. No inoculations required but Master should possess International Health Cards for each member of crew.

TANKERS: *Terminal:* The Texaco Oil Refinery dock is in the S.E. corner of the peninsula. A pipe trestle/roadway of about 100 yards leads S.S.W. to the hose platform and breasting dolphins. The mooring dolphins are about 100 ft. inshore of the hose platform. The tidal range is 0.5 ft. The current in the manoeuvring area is unpredictable. Most of the time it runs parallel to the berth (110° and 290°). The breasting dolphins have been damaged several times, reportedly due to sudden changes in current.

Berthing: Tankers are moored and unmoored during the daylight hours only. The ship may be turned anywhere South of the refinery berth, then it proceeds to the dock heading either W.N.W. when mooring starboard side to, or E.S.E. when mooring port side to. The ship is stopped, stemming the current, about 100 ft. off the dock for a parallel mooring. A launch runs the head and stern ropes to the mooring dolphins. The spring ropes are either taken to the breasting dolphins by the launch or later by hand. Anchors should be ready. When mooring starboard side to, an anchor may be used to hold the ship against an inshore set. The 1,100 h.p. tug works forward alongside on his own rope. It shifts to amidships, if needed, to push the ship in or to hold her off. Sometimes the tug works the ship's rope on the hook. Pilot and tug use VHF radio (Channels 16 and 6).

Only 5 pile bollards are available for the ship's moorings, of which 3 are for the spring lines. The breast lines may have too much angle. It is recommended that segregated ballast tanks be used to keep the tanker low in the water. It is advisable not to remain alongside during strong Northers.

Facilities: There are no set emergency shutdown procedures. Each breasting dolphin is fendered by steel beams with wooden protection and 4 rubber shock absorbers. 2×8 in. hoses are used for crude oil discharge into an 18 in. pipe-line about 1,500 ft. long to the 360,000 barrels storage tanks. The transfer rate is about 7,000 bbls.p.h. 1×8 in. hose is used for loading fuel oil via a 10 in. pipe-line at a rate of about 3,000 bbls.p.h. Ballast and slop facilities are not available. 1 floating oil spill containment boom is kept in storage at the refinery.

Security: The port area and the Texaco Pier are fenced in and guarded; crewmen must have identification cards.

Services: No. 6 fuel is available at 3,000 bbls.p.h. and light diesel oil at 1,000 bbls.p.h. Fresh water is available at 10 t.p.h. Local machine shops can perform very minor repairs. Divers are available. Hospital, medical, and dental services are available at Puerto Cortes, or at San Pedro Sula.

Crew changes can be made. Small quantities of provisions are available.

Departure: Tankers leave the Texaco Refinery berth during daylight hours. Tug assistance is seldom necessary. Usually the tanker is unberthed either holding the spring ropes forward or aft to ease the vessel off the dolphins.

The Master should consult with the Pilot as to the sailing draft.

Also see "Shipmaster's Report" – June 1981.

DENSITY: 1028/1030.

FRESH WATER: Water available at wharf face at 100 ft. intervals. Rate approximately 8 t.p.h. – 10 t.p.h.

FUEL: Only Diesel fuel and bunker "C" available, 24 hours' notice required for good service.

GANGWAY/DECK WATCHMEN: Shore watchmen not usually required and this service left to discretion of the Master.

OPENING/CLOSING HATCHES: On liners normally by crew with assistance of stevedores, otherwise according Charter Party.

CERTIFICATES: On first call, Registered Tonnage Certificate; thereafter not required unless gross/net tonnage be changed.

CUSTOMS ALLOWANCES: No restrictions, free use on board. Customs officials check no sales ashore.

IDENTIFICATION CARDS: Identification card must be shown to gate watchman when crew members come back aboard.

CONSULS: None in the port. American Consulate and others at Tegucigalpa, 200 miles by road.

REPAIRS: Local marine repair companies can undertake limited repairs of general nature; pre-advice recommended.

SURVEYORS: Lloyd's Agency available locally.

REPATRIATION: All facilities available for effecting crew changes and repatriation by sea or air.

AIRPORT: International Airport Ramon Villeda Morales at San Pedro Sula served by regular airlines. 35 miles by road.

TIME: GMT minus 6 hours, no changes during year.

HOLIDAYS: January 1st; April 14th; May 1st; Thursday, Friday and Saturday in Easter week; August 15th; September 15th; October 3rd, 12th and 21st; and December 25th. Cargo work can be arranged on those days, except on Good Friday, and May 1st (Labour Day).

TELEPHONES: Connections to all countries of the world from the Empresa Hondurena de Comunicaciones, located just outside main port gate, cable services also available.

SHORE LEAVE: Permitted without restrictions.

GENERAL: It appears that many of the stowaways discovered recently, are seafarers with a good knowledge of where to conceal themselves.

Local authorities are taking steps to restrict access to vessels by unauthorised persons, but Masters should take special precautions in this respect.

SHIPMASTER'S REPORT: September 1978.

Pilotage: Pilotage compulsory. Pilot boards 2–4 cables off the berth, advance notice of 72, 48, and 24 hours required.

Restrictions: Vessels can enter and leave at any stage of the tide day and night. Vessels are able to leave the berth in an emergency without use of Pilot if a tug available. Least depth of water in channel from sea to berth about 35 ft.

Max. Size: LOA 600 ft. Depth of water at banana berth is 33 ft. forward and 38 ft. aft. Max. draft 30 ft. There is a shoal patch about 150 ft. ahead of the berth.

Health: Authorities require 72, 48 and 24 hours notice of arrival.

Radio: Radio stations used when approaching the port were "WNU" and "TIM".

VHF: Port Authority, Pilot and Agent on Channel 16. Channel 14 also available.

Tugs: There are 2 tugs available, each 1,250 h.p. Vessels are able to dock and undock without the use of tugs.

Berthing: Banana Pier – Position 15° 50.05′ N., 87° 57.35′ W. Distance from berth to entrance 2 miles. The nature of bottom at the berth is coral, mud and sand. Prior to arrival it is an advantage to have all derricks up as various equipment has to be brought on board.

Always starboard side alongside, starboard side banana lids can be opened on all decks prior to arrival.

The banana elevators are extremely close to the quay side and usually moved to the East end of the berth for docking purposes, but as vessel is making fast they are moved into position. Leave starboard gangway turned in until alongside and elevators moved. It is a good idea to turn in overside light fittings and on no account have a starboard list. The bollards are situated on the edge of the quay. The quay is concrete with wooden face, only about 1.5 ft. above the water.

Fresh water was limited due to recent hurricane and repairs to the water line, however 100 tons was obtained.

Four elevators used for loading. Work carried out around the clock, best hatch rate 48 t.p.h.

Ro-Ro facilities available, vessel moors with 2 anchors and stern to the quay. There are facilities for handling containers. Presently the container area is being expanded.

Currency: Lempiras. Two to the U.S. Dollar. If cable sent in advance U.S. Dollars can be obtained.

Diversion: Agents request, if diverted to a Honduran port, a diversion cable must be sent to the Agents of that port giving time/date/nationality/port of departure/and ETA. (This helps Agents with the documentation).

Medical: Doctor and hospital available.

Tankers: The Texaco Pier accepts tankers with a draft of 30 ft.

Fresh Water: Available.

Fuel: Bunker fuel, diesel oil and lubrication oils available.

Density: 1025.

Repairs: Facilities available for small repairs.

Surveyors: Available.

Services: Fresh provisions, groceries, meats and laundry services available. Contract work such as deck and engine room cleaning and painting can be undertaken, however, prices of contractors should be compared.

SHIPMASTER'S REPORT: June 1981.

Berth: Texaco Refinery.

Arrival Draft: Forward 33 ft. 01 in., Aft 33 ft. 01 in.

Density: 1025.

Hoses: 1×6 in. and 2×8 in. clean products; 3×8 in. dirty products.

Pumping Distance: 4,000 ft.

No. of Berths: One.

Tidal Restrictions: None.

Bunker: Bunker "C" and diesel oil.

Bunkering Rate: 2,000 b.p.h.

Depths at LW: Bow, 33 ft.; stern, 40 ft. (by sounding).

Max. Size: LOA 700 ft., beam 90 ft., draft 33 ft.

Products Handled: Crude oil, fuel oil, diesel, kerosene.

Loading/Discharging Rate: 18,000 b.p.h.

Fresh Water: Limited supplies.

Ballast Facilities: None.

Distance from Sea to Berth: 2 miles.

Channel: Width 2,000 ft., minimum depth 35 ft.

Current: Variable/strong.

Docking/Undocking: Any time.

Tug: One required docking and undocking.

Depth Alongside: Minimum 37 ft.

Silting: Rapid.

Bottom: Sand.

Total Length of Dock: 250 ft. Condition: Good/moderate.

Chart: DMA 28000, 28160, 28162, 28163 or HON. 002 – 003.

SHIPMASTER'S REPORT: August 1981.

Entrance recommended via buoyed channel close to Punta Cabballos light which is normally unlit and has NO radio beacon. Pilot will board one mile North of channel if requested via VHF Channel 16. Large vessels are instructed by Port Authorities to anchor at least 0.75 miles from piers. One tug only is available – 900 h.p. approx.

Fresh water at banana pier strictly limited to 50 tons per vessel. Launch service available to vessels at anchor.

AUTHORITY: Empresa Nacional Portuaria, P.O.Box 18, Puerto Cortes, Honduras C.A. *Tel:* 55-0326. *Telex:* 8007 Enaporto Ho. *Cables:* Enportuaria. *Contact:* Enrique Vitanza F., General Manager.

AGENT: Intermodal, S.A., 2a Calle, 1a. y 2a. Avenida, Puerto Cortes, Honduras. Tel: 55-03-90, 55-03-96. Telex: 8006 Inmodal Ho. Cables: Intermodal, Pto. Cortes.

Mailing address: P.O.Box 1535, San Pedro Sula, Honduras.

SAN LORENZO: 13.25 N. 87.27 W. (See Plan)

LOCATION: On the mainland of the Pacific Coast of Honduras near to the city of San Lorenzo, Valle.

PORT LIMITS: *Port Jurisdiction:* Lat. 13° 21′ 51″ N., Long. 87° 26′ 15″ W. Lat. 13° 24′ 51″ N., Long. 87° 25′ 13″ W.

Laytime: In the opinion of the Agent laytime will commence when vessel received by Port Authorities and Pratique granted. Vessel will be received when docked or at anchorage in the port (but not at pilot station).

DOCUMENTS: List of documents requested on arrival of vessels at the Port of San Lorenzo (all documents must be written in Spanish and without these documents serious delay of starting operations on board vessel are foreseen).

	Port Doctor	*Port Captain*	*Port Authorities*	*Customs*	*Food Inspector*	*Immigration*	*Agency*	*Agency by Mail*
1. Sanitary Declarations	1	—	—	—	—	—	—	—
2. Vaccination List	1	—	—	—	—	—	—	—
3. Clearance Last Port	—	1	—	—	—	—	—	—
4. Voyage Memorandum	—	1	—	1	1	—	2	—
5. Crew List	—	1 Leg.*	—	2 Leg.*	—	1	1	—
6. Store List	—	1 Leg.*	—	2 Leg.*	1	—	1	—
7. Passenger List	—	1 Leg.*	—	2 Leg.*	—	1	1	—
8. Transit Passenger List	—	1 Leg.*	—	2 Leg.*	—	1	1	—
9. Cargo Manifest	—	1 Leg.*	—	1 Leg.*				
				4 copies	1	—	10	2
10. Freight Manifest	—	—	2	—	—	—	2	—
11. Tally Books	—	—	15	5	—	—	10 on board	—
12. Mail List	—	—	—	2	—	—	2	—
13. Copies B/L	—	—	—	—	—	—	2	2
14. Stowage Plan	—	—	—	1	—	—	2	2
Hatch Lists	—	—	—	—	—	—	1	—
Ballast Manifest	—	1 Leg.*	—	2 Leg.*	—	—	1	—

Documents 1/2/3/4 – only from last port.

Documents 5/6/7/8/9/10/11/12/13/14 – from all ports where cargo has been loaded.

If the vessel will arrive without cargo for the port of Amapala/San Lorenzo documents as stated Ballast and Manifest (Manifiesto on Lastre) from the last port only before arrival are requested.

Leg.* = Legalised by Honduras Consul – or by consul of a friendly nation.

If there is no consul of any friendly nation, by Port Captain, BUT in this case one copy of each manifest should be sent to: Secretaria de Economia y Hacienda, Tegucigalpa, D.C. Honduras CA and to Administracion de Aduanas, Amapala, Honduras C.A. by airmail and certified.

PILOTAGE: Compulsory. Distance from sea buoy to berth 16 nautical miles.

Pilot station for San Lorenzo is at last buoys painted black/white in position: Lat. 13° 12′ 03″ N., Long. 87° 35′ 15″ W. Pilot will board the vessel about 1.0 miles – 1.5 miles South of the Sea Buoy, after coming down the Bay from San Lorenzo for about 2 hours' cruise by pilot boat.

Pilot recommends the best arrival time at Sea Buoy to be 3 hours prior to HW.

Two hours before arrival pilot station vessel must call Agent's office at San Lorenzo via VHF Channel 10 in order to send Pilot.

Pilot boat has white and green upper works, black hull with the word "San Lorenzo" on poop. Pilot boat on VHF Channel 16.

ANCHORAGE: Buoy in position: Lat. 13° 12′ 03″ N., Long. 87° 35′ 15″ W.

RESTRICTIONS: All incoming vessels must wait at the Sea Buoy located at the entrance of the access channel, where vessels will be boarded by the Pilot.

The access channel to the Port of San Lorenzo is being provided with light buoys however, vessels may only berth/unberth during daylight hours. This is due to the tide variation and the prevailing fog in the channel at night. The seaward buoy is the pilot station. Depth of access channel at LW is 30 ft., width 122 m., and length 30 km.

MAX. SIZE: Depth alongside 32 ft. at LW. Vessels with draft 23 ft. may enter/sail at any time and vessels with draft 30 ft. – 31 ft. at HW.

HEALTH: If no disease on board reported by Master, no special procedure necessary.

The local authorities require all Crew members of vessels visiting Honduras to have valid vaccination certificates against yellow fever and cholera. Such vaccinations are not available in Honduras and Crew members should be vaccinated at a convenient port prior to calling at Honduras.

RADIO: No radio station at San Lorenzo.

VHF: A continuous watch is maintained in office hours on Channel 16, after hours and on holidays, the watch is intermittent.

All calling should be on Channel 16. Tug works on Channel 12. Intership working is on Channel 6. Agents on Channel 10.

TUGS: One tug available. Tug normally join the ship about half mile from the berth. Use of tug compulsory.

BERTHING: "T" shaped pier with 4 berthing places.

Berth No. 1: 157 m. long. Depth alongside 10.67 m.
Berth No. 2: 139 m. long. Depth alongside 10.67 m.
Berth No. 3: 116.43 m. long. Depth alongside 6.70 m. (Inner).
Berth No. 4: 134 m. long. Depth alongside 6.70 m. (Inner).

Equipment: 2 cranes capacity 30 tons and 25 tons. One additional 140 tonnes crane is planned. 10 fork lifts, 6 × 6,000 lbs.; 4 × 15,000 lbs. 4 yard trucks.

Facilities: General Cargo Warehouse: 2,408 sq.m.; Lumber Shed: 1,204 sq.m.; Piling Sugar Warehouse: 3,072 sq.m. (10 tons capacity); Open Side Warehouse, for cotton: 1,806 sq.m.; 2 molasses tanks, capacity 1 million gallons; open storage 32,913 sq.m.

STEVEDORES: Arranged by Agents, working around the clock with breaks for meals.

Shifts: 0700 – 1200, 1300 – 1700, 1800 – 2300 and 2400 – 0600 hrs.

Cargo Handling Rates:

Resin:	15 tonnes per gang/hour.
Coffee:	30 tonnes per gang/hour.
Lumber:	20 tonnes per gang/hour.
Timber:	25 tonnes per gang/hour.
Cotton:	15/20 tonnes per gang/hour (100 bales).
Molasses:	145 tonnes per hour.
Sugar:	50 tonnes per gang/hour (2 gangs).
Meat:	10 tonnes per gang/hour.
Cars:	15/20 per hour.
General cargo:	8/10 tonnes per gang/hour.
Cement:	30 tonnes per gang/hour (in bags).
Wire/iron bars:	40 tonnes per gang/hour.

MEDICAL: Nearest hospital in Choluteca City, 30 minutes by car. Minor cases can be attended by doctor at San Lorenzo.

TANKERS: No facilities.

FRESH WATER: Good quality potable water available in unlimited quantities.

FUEL: Only if required, and if sufficient notice given to the Ship's Agency.

CONSULS: Consulates exist for the following countries:

Nicaragua, El Salvador in Choluteca City, 30 minutes by car from San Lorenzo.

Consulates for other countries in Tegucigalpa, the capital, (90 km.) 2 hours by car from San Lorenzo.

REPAIRS: Not available.

DRY DOCKS: None available.

GANGWAY/DECK WATCHMEN: Not recommended and not necessary.

HATCHES: By stevedores.

CUSTOMS ALLOWANCES: Tobacco/Wine; spirits are not allowed to be held out of bond.

REPATRIATION: Immigration Offices in town and in Tegucigalpa. Flights leave daily from Tegucigalpa. (90 km. from San Lorenzo).

AIRPORT: In Tegucigalpa, 90 km., 2 hours by car. Connections to Miami/New Orleans/Houston/Panama/Mexico and all Central American countries.

HOLIDAYS: January 1st, April 14th, May 1st, August 10th, September 15th, October 3rd, 12th and 21st, December 25th and Thursday, Friday and Saturday of the Easter week.

Work can be arranged excepting May 1st, September 15th and Holy Friday during Easter week.

SHORE LEAVE: Allowed. Restrictions placed on crew from some countries. Crew members to shore passes.

TIME: GMT minus 6 hours, no alteration during year.

TELEPHONES: None.

STORING: See "Prelims".

1. Vessels are stored by truck.
2. Trucks can proceed alongside the berth.

3/4. Fork lift trucks can be used on the jetty to handle stores. Truck must be hired.

5. There is no Custom Regulation in force regarding storing.
6. Local riggers can be employed to assist with storing.

SURVEYORS: Not locally available but can be called through Agency. Lloyd's Sub-Agency San Lorenzo, c/o Servicios Portuarios SA, San Lorenzo, Honduras, C.A.

EMERGENCY CO-ORDINATION CENTRE: Firstly Port Superintendent must be called using VHF Channel 16. Also Honduran Coast Guard can be called on the same Channel.

BANKS: At Tegucigalpa: Bank of America, Bank of London & Montreal, Banco Atlantida and Banco Ahorro Hondureno.

GENERAL:

Chart: Honduras Chart No. 004.

Tidal Variation: 2.5 m. – 4.0 m.

Prevailing Winds: From South and East.

Flags: Flags required:

1. The country's flag where the ship is registered.
2. The Honduran flag.
3. The yellow (Quarantine) flag (if necessary).
4. The red flag (if necessary).

AUTHORITY: Empresa Nacional Portuaria (E.N.P.), San Lorenzo, Valle, Honduras. *Tel:* 92. *Telex:* To be installed. *Contact:* A. Andres Casco, Port Superintendent.

AGENT: Servicios Portuarios, S.A. (SEPOSA) POB 35 Tegucigalpa, D.C., Honduras. Telex 1183 Uhler Ht or 4003 Seposa Ho. Tel: 22-8000, 22-5409.

TELA: 15.47 N. 87.30 W. (See Plan)

DOCUMENTS:

1 original Clearance
1 original Health Certificate.
1 original 12 copies Manifest.
1 original 11 copies Cargo Book.
1 original 8 copies Store List.
1 original 8 copies Crew List.
1 original 8 copies Passenger List.
1 original Baggage.
1 original Voyage Memorandum.

All documents must be in Spanish; Cargo Book should be in alphabetical order.

PILOTAGE: Permanent Pilot not available but can be supplied upon request. There is a small boat that assists docking by handling mooring lines from vessel to wharf. 48 hours advance notice of ETA required.

ANCHORAGES: 1 mile out from wharf, 100 ft. or more; no boundaries.

MAX. SIZE: Max. permissible length 485 ft., breadth no restrictions, draft 30 ft.

Shipmaster's Report: August 1981.

Max. length possible 569 ft. on draft of 25 ft. 6 in.

HEALTH: Agents arrange Pratique; in case of disease or fever aboard, the vessel will be placed in quarantine for a minimum of 5 days.

Valid Vaccination Certificates against yellow fever and cholera required. These vaccinations are not available in Honduras.

RADIO: WNU New Orleans and TIM Puerto Limon via Tropical Radio.

VHF: Base Station call sign "Telarailco Tela". A continuous watch is maintained from 2 hours prior to vessel's arrival. All calling should be on Channel 16.

TUGS: No tug available.

BERTHING: Time for berthing is from 0600 hrs. to 2000 hrs.
General Cargo Berth: East side of pier, starboard side alongside.
Banana Berth: West side of pier, port or starboard side alongside, depending on which side elevator space is required (See "Shipmaster's Report" – 1979). 4 elevators available, type camel back. Rate per elevator 3,500 boxes per hour.
Depths: West side has 35 ft. depth at the Northern Point, 32 ft. in the middle and 27 ft. 6 in. at its Southern end, while the East side has 35 ft. depth at its Northern point, 33 ft. at the middle and 30 ft. at its Southern end.
STEVEDORES: ETA advice should be given 48 hours prior to arrival in order to arrange gangs. Labour rates are subject to surcharge of 25%, 50%, 75% and 100% to cover overtime, depending on hour or day worked.

Gangs: For bananas: 180 men, 3 gangs. General cargo: No restrictions.
MEDICAL: Hospital facilities available.
TANKERS: Discharging lines only, crude 12 in., diesel 6 in., spray oil 6 in. Berth available for 1 tanker, max. permitted draft 30 ft.
DENSITY: Average density in port is 1029.
FRESH WATER: Delivered by hoses at rate of 100 gallons per minute.
FUEL: Available, rate 250 t.p.h.
FIRE PRECAUTIONS: Extinguishers and water hoses available.
GANGWAY/DECK WATCHMEN: Watchmen can be obtained at daytime rates plus 25%, 50%, 75% and 100% to cover overtime, depending on the hour or day worked.
OPENING/CLOSING HATCHES: Work done by stevedores.
CERTIFICATES: Health and Derat certificates needed.
CUSTOMS ALLOWANCES: 1 carton cigarettes and 1 bottle wine or spirits for each man.
CARGO GEAR: Must have current valid certificate for ship's gear.
IDENTIFICATION CARDS: Required.
CONSULS: None.
REPAIRS: Only minor repairs.
REPATRIATION: Repatriation can be made on request by Master.
AIRPORT: Distance from wharf to airport is about 80 km. served by regular airlines; 4 flights per day which connect with Pan Am every day.
TIME: GMT minus 6 hours.
HOLIDAYS: January 1st, work possible; April 14th, work possible; May 1st, not possible; September 15th, work possible; October 3rd, work possible; October 12th, work possible; October 21st, work possible; December 25th, work possible. Thursday, Friday and Saturday of Holy Week – work possible except Friday.
POLICE/AMBULANCE/FIRE: Contact telephone operator.
TELEPHONES: No facilities for placing telephones on board.
SERVICES: Ship chandler and launch service available.
GENERAL: Ships must have Honduran flag on board.
SHORE LEAVE: Crew members allowed ashore, providing they do not have any diseases.
DELAYS: Delays can be expected any time there are 2 ships docked.

SHIPMASTER'S REPORT: February 1979.
Contrary to the previous information on this Port, "Vessel" berthed starboard side alongside.
Pilots: None available at present.
Berthing: Used port anchor, head out. The mooring boat meets vessel at the end of the jetty. It is a white painted boat with a small cabin. Very helpful in assisting with the lines, going from forward to aft as required. It is of great advantage to have a mooring rope on the fore deck starboard side, ready to lead forward as due to the Northerly wind and swell, vessel soon drops astern.

The beach shelves fairly fast, and with a ship of this length (575 ft.) a good guide is not to let the bow pass the end of the jetty. A depth of 24 ft. was recorded when sounding round when alongside, only 30 ft. astern of the ship.

The jetty itself has a sprung centre of about 350 ft. long with rubber tyres along same, unfortunately secured by chains which ruins the overside paintwork when the ship surges in the swell.
Additional moorings: The Tela Rail Co. is at present renewing the coir springs on the berth. The shore labour assisted at all times with the moorings as the ship was loaded, also when shifting ship at midnight.
Cargo Gear: The shore side derricks have to be "Doubled up". The existing runners doubled back and shackled to the preventer lug and a snatch block used. It is one straight lift and pulled on board by the single runner on the off-side derrick. The "Hallen" was used at No. 4 hatch but the preference was to use "Double Gear" at No. 3. The "Lift aboard" elevators are 3.7 tonnes, but at the jetty end they run on a steel roller, which is placed on a large steel plate.
Loading: Vessel loaded all hatches, No. 5 being through the side doors and later when No. 1 had finished vessel shifted ahead to give more depth of water aft. Due to a labour shortage we only loaded any three hatches at one time.

Cargo is brought onto the pier by train with several small shunts a shift, very little time lost during shunts.
Fresh Water: Available at slightly differing pressures, rate varies between 5 and 7 tonnes per hour.
Labour: All key personnel speak very good English and are extremely helpful. It is not necessary to keep crew on "Captive Time" for shifting ship during the night, Foreman and labour are only too pleased to assist.

SHIPMASTER'S REPORT: August 1981.

Engines should be kept at immediate notice while alongside, especially from December till May as swell may increase with little warning.

Shore labour for deck/engine room cleaning and painting are readily available.

Two mooring buoys shown on U.S. and B.A. charts to West of piers DO NOT EXIST.

AUTHORITY: Tela Railroad Company, Exportation Department, Tela, Honduras. *Tel:* (504) 48-2108. *Telex:* 448706 TrrexPth Ho.
Contact: F. A. Betancourt, Port Superintendent.

Head Office: Apartado Postal No. 30, San Pedro Sula, Cortes, Honduras, C.A. *Telex:* 5532 Trailco Ht.

NOTES

Please also advise Shipping Guides Ltd.

Hong Kong

HONG KONG: 22.18 N. 114.10 E. (See Plan)

HARBOUR LIMITS: (Approximately): Western Entrance – the N.S. line between S.E. extremity of Tsing Yi Island and the flashing light at S.W. corner of Green Island. Eastern Entrance – the N.E./S.W. line between the on-shore Fl. W. and the Fl. R. lights either side of the Lei Yue Mun Pass.

DOCUMENTS:

Marine Department (Arrival):

Marine Department Shipping Report (Form MO. 618).
Certificate of Registry and/or Tonnage Certificate.
Certificate of Fitness (all vessels carrying chemicals in bulk if applicable).
Passenger ship: Safety Certificate.
Passenger or cargo ship: Load Line Certificate.
Cargo ship: Radio Certificate.
Cargo ship: Safety Equipment Certificate.
Cargo ship: Safety Construction Certificate.
Ship's Articles of Agreement with the crew (if the ship is British, or is a foreign ship belonging to a nation not represented by a Consul in Hong Kong).
1 copy Safety Manning Declaration.
Derat Certificate or Derat Exemption Certificate.
1 copy of the ship's Passenger List (if specifically requested).
Clearance Certificate from the Last Port.
1 copy of the Import Cargo Manifest (if specifically requested).
2 copies of the Dangerous Goods Manifest (if applicable).
4 copies of the Radioactive Substance Manifest (if applicable).
Compulsory Insurance Certificate (if carrying more than 2,000 tons of persistent oil in bulk as cargo).

Note: The ship's Articles of Agreement to be submitted to the Mercantile Marine Office, all others must be submitted to the Entry and Clearance Office of Marine Department within 24 hours of a ship's arrival with the exception of the Dangerous Goods Manifests (2) which should be submitted at least 48 hours prior to the vessel's arrival.

In addition to the above, certain types of vessels are required to give notification to the Director of Marine prior to arrival as follows:

(i) The Master of every vessel over 300 g.r.t., address to 'MARDEP' using:
  (a) W/T communications via Hong Kong Radio (VPS); or
  (b) Telex: 63607 Mdpcc HX; or
  (c) VHF R/T on Channel 12 (156.6 MHz).
  An initial notification of not less than 12 hours before the vessel is expected to enter the waters of Hong Kong, also a confirmatory notification of not less than 4 hours before the vessel is expected to enter the waters of Hong Kong.
(ii) The Master, Owner or Agents of every oil tanker (if carrying more than 2,000 tons of persistent oil bulk), gas tanker and chemical tanker, address to 'MARDEP' by Telex: 63607 Mdpcc HX, not less than 48 hours before the vessel is expected to enter the waters of Hong Kong, a tanker arrival notice.

Marine Department (Departure):

Application for Port Clearance (MO 618), 2 copies of Ship's Export Dangerous Goods Manifest.
1 copy of Ship's Export Cargo Manifest (if specifically requested), all relevant documents and trading certificates are same required for the Report of Arrival.

Port Health Officer (Arrival Only):

Maritime Declaration of Health.
1 copy of the ship's Passenger List.
1 copy of the Crew List.
Derat Certificate or Derat Exemption Certificate (whichever is applicable).

Note: The above documents/forms must be produced for the inspection of the Port Health Officer on boarding at the Quarantine Anchorage.

Department of Trade, Industry and Customs (Arrival and Departure):

2 copies of the ship's Import/Export Cargo Manifest. 1 copy for Manifest Check Section, Trade Licensing Branch, 14th Floor, Ocean Centre and the other 1 copy for Manifest Section, Industry and Economic Division, Census and Statistics Department, 20th Floor, Kai Tak Commercial Building.
1 copy of Import/Export Statement in respect of dutiable goods (Forms TIC 309 and TIC 309A).
2 copies of the declaration in respect of dutiable stores required during a vessel's stay in port (Form TIC 303).

Immigration Officer (Arrival):

2 Transit-Passenger Lists.
2 Landing-Passenger Lists.
3 Crew Lists.

Note: The above forms must be produced for the inspection of the Immigration Officer on boarding after the ship has been 'cleared' by the Port Health Officer.

Immigration Officer (Departure):

2 Lists Passengers boarding.
2 Lists Transit Passengers.
2 Crew Lists.

Post Office (Arrival Only):

1 copy of the Ship's Mail Manifest.

Hong Kong Police:

1 copy of The List of Arms and Ammunition on board (Nil return required) to be handed in at the Entry and Clearance Office with Marine Department papers.

ARRIVAL ADVICE: It is mandatory for Shipmasters to cable MARDEP Hong Kong 12 hours (see "Notices" – No. 89/1985) before arrival requesting permission to enter Hong Kong waters and advising ship's name, nationality, type of vessel, total number of persons on board, ETA abeam of Waglan Island and reason for call. It is not permitted to enter Hong Kong waters until permission has been granted. It is mandatory for all vessels over 300 tons gross to carry VHF radiotelephone capable of operating on Hague Plan frequencies and to make contact with the Port Communications Centre on Channel 12 before entering Hong Kong waters and thereafter at specified calling points. They should report their position, ETA at pilot station, final berth, and intended route inwards, East or West. If entering from the East then the vessels mast height above the water should also be reported. (This is needed for information to the airport where the runway extends close North of the Hung Hom Fairway). Shipmasters are also asked to report any other relevant information such as dangerous (including radioactive) goods on board. If the vessel is taking a Pilot, reference should be made to the 'Sailing Directions' in the China Sea Pilot Vol. I, with regard to the positions of the pilot stations, and Pilots should only be embarked or disembarked at these points. Additional radio reports to MARDEP during the vessels inward or outward passage aid in the safe movement of all vessels in the port and approaches.

APPROACHES: A. (Dry-cargo and container vessels): The approaches are reasonably free from hazards and are well marked by day and night. Vessels working at buoys with drafts up to 11.2 m. are requested to enter port via the Western Entrance. Other vessels with drafts up to 10.9 m. may enter via Lei Yue Mun entrance.

B. (Tankers): Tankers without a gas-free certificate are prohibited from transit through Victoria Harbour. Tankers which berth at Tsing Yi Island, Lamma Island, Ap Lei Chau, Tsuen Wan and Tap Shek Kok are requested to use the Western approaches and tankers with drafts up to 10.6 m. for Kwun Tong are requested to use the Eastern approaches. A channel has been dredged at Hongkong Electric Company Wharf at West Lamma Island for the purpose of accommodating vessels at 13.8 m. draft.

C. Buoyage. The system of buoyage used in Hong Kong has been changed from the Uniform to the IALA System.

Compulsory traffic separation lanes are in force for both the East and West approaches. Up-to-date Admiralty charts should be consulted for details.

PILOTAGE: Pilotage is compulsory in the port for certain categories of ships, as described in the Pilotage (Amendment) Ordinance 1987, which came into effect on 1st August, 1987. Pilots are licensed by the Pilotage Authority (Cables: Pilot Hong Kong. Telex: 62062) and are available to board ships at the 4 pilot boarding stations described in the Second Schedule of the above mentioned Ordinance.

The Hong Kong Pilots Association provides pilotage services. Pilots generally board inbound ships using the Eastern Entrance in the vicinity of the Lei Yue Mun 'TC54' Buoy (Lat. 22° 16′ 00″ N., Long. 114° 15′ 40″ E.) and disembark at the same point from outward-bound ships. At the Western entrance, Pilots embark and disembark to the S.W. of Green Island (Lat. 22° 16′ 00″ N., Long. 114° 06′ 36″ E.). It is a contravention of Regulation 21(1) of the Shipping and Port Control Regulations, 1978, for any vessel to pick up or discharge a Pilot within a distance of 1 nautical mile from the centre of either the Lei Yue Mun Pass or the Sulphur Channel. Maximum speed inside Harbour is 8 knots.

Also see "Notices" – No. 53/1985 and No. 121/1987.

ANCHORAGES: Examination anchorages (quarantine and immigration) for clearance inwards are situated within the harbour limits to cover the entry of shipping from East and West. The principal dangerous goods anchorages are situated at the Western end of the harbour and at Pun Shan Sek (tankers), whilst there are others at Junk Bay, Tsuen Wan and Rocky Harbour.

An anchorage for the discharge of logs has been designated. This was necessary because logs, which were being discharged and stored within harbour limits were endangering small craft, waterside installations and navigation.

The Western examination anchorage works 24 hours a day whereas the Eastern examination anchorage works from 0800 – 1800 hrs. Only on request. Ships requiring service in the Eastern Quarantine Anchorage should advise MARDEP on VHF radio Channel 12 when establishing contact prior to arrival.

MAX. SIZE: Largest vessels calling regularly have been, dry-cargo container vessels, length over 292 m., with drafts up to 11.6 m.; tankers length over 274 m., draft 14.6 m. Maximum size governed by draft of vessel. No limit as to length and beam. Draft in harbour: "A" class mooring buoys 6.7 m. to 11.2 m. "B" class mooring buoys 5.3 m. to 8.8 m.

PRATIQUE: *Conditions under which a Vessel may be Granted Radio Pratique:*

(a) The vessel must not have called at a plague infected port within 6 days prior to arrival at Hong Kong.

(b) If the vessel has called at a cholera infected port within 5 days prior to arrival at Hong Kong, the Chief Port Health Officer or his delegated officer has full discretion in the granting of Radio Pratique.

(c) There are not more than 24 passengers on board at the time of arrival.

(d) A vessel carrying more than 24 passengers may be granted Radio Pratique if there is a ship's surgeon on board.

(e) The Master must furnish, through his shipping company or Agent, the following cabled information to the Port Health Office not more than 30 hours and not less than 8 hours before his expected time of arrival at Hong Kong:

(i) Ports of call with dates of departures during the 14 days prior to arrival.
(ii) Numbers of passengers and crew members on board.
(iii) A statement that all persons on board are healthy and in possession of valid International Certificates of Vaccination.
(iv) A statement indicating whether any case of infectious disease has occurred on board during the voyage.
(v) Whether any person on board is sick.
(vi) The date of issue of the Derat or Derat Exemption Certificate.
(vii) Whether the ship is an oil tanker, a cargo ship, a container ship or a LASH ship.

(viii) Whether foodstuffs are carried as cargo on board ship, and if so, type of foodstuff and country of origin.

Notes:

1. Applications for Radio Pratique must be made by shipping companies or Agents. Application forms should be sent to Port Health Office, Centre Point, 3/F, 181-185 Gloucester Road, Wanchai, during normal office hours (0900 – 1700 hrs. on Mondays to Fridays and 0900 – 1300 hrs. on Saturdays).

2. For urgent cases outside normal office hours, shipping companies or Agents may apply for Radio Pratique by telephone to the Port Health Office, Hong Kong Airport (Tel: 3-829284) during the following hours:

Mondays to Fridays	1700 to 2300 hrs.
Saturdays	1300 to 2300 hrs.
Sundays and Public Holidays	0900 to 2300 hrs.

All necessary information together with supporting documents must be submitted later in writing to Port Health Office, Centre Point.

3. No Radio Pratique will be granted between 2300 and 0900 hrs.

4. When Radio Pratique is granted, shipping companies or Agents will be responsible for notifying the Master concerned.

5. The granted Radio Pratique will automatically expire 24 hours after the stated expected time of arrival at Hong Kong.

6. The granted Radio Pratique will no longer be valid if there is any change in the health status on board the vessel concerned during the period from the submission of the application to the actual time of arrival of the vessel at Hong Kong. This means that the Master of the vessel concerned will have either to re-apply through his shipping company or Agent, giving the additional information, or to display the appropriate signal when approaching the Quarantine Anchorages:

Day: International Code flag "Q".

Night: A red light over a white light in a vertical line, 2.0 m. apart.

7. Ships granted Radio Pratique will be required to display the following signal when entering Hong Kong waters:

Day: International Code flag "TO."

Night: 3 white lights in a vertical line, 2.0 m. apart.

8. Maritime Declaration of Health and Passengers and Crew List will have to be collected by the shipping companies or Agents and delivered during office hours to the Port Health Office, Centre Point within 24 hours of the ship's arrival.

Also see "Notices".

IMMIGRATION: Immigration formalities take place at the Eastern or Western Examination Anchorages after clearance by the Port Health Authorities. Immigration launches are on duty 24 hours a day in the Western Anchorage and from 0630 hrs. to 1800 hrs. in the Eastern Anchorage throughout the year.

RADIO: Cable Agent via Radio Hong Kong call sign "VPS".

Signal Stations. 3 signal stations operated by the Marine Department are situated in the Eastern and Western Approaches to, or within, the harbour limits as follows:

Eastern Approaches: Waglan Island, (Lat. 22° 11′ N., Long. 114° 18.1′ E.). Western Approaches: Green Island (Lat. 22° 17.2′ N., Long. 114° 06.6′ E.).

Marine Department Port Communications Centre, Lat. 22° 17.4′ N., Long. 114° 9.0′ E.

The Marine Department Port Communications Centre can be contacted by telex, by cable and by VHF radio-telephone on Hague Plan Channel 12. Additionally, the above stations are manned 24 hours a day throughout the year and contact can be made by means of international code flags, or by signal lamp. Communication between the stations is provided by teleprinter circuit, land-line telephone and by radio. Telex: Marine Department Port Communications Centre is equipped with telex No. 63607. Answerback: MDPCC HX.

It is mandatory for the Master of every ship arriving within signalling distance of any of the above signal stations to hoist the national colours and (if one shall exist) the house flag and the signal letters of the ship, and to identify the vessel to the signal station by visual signals if requested. On recognition of a ship in the approaches to Hong Kong, the name is immediately relayed by teleprinter to the Port Communications Centre of the Marine Department, and the ship's Owners or Agents can be notified on request.

Wireless Telegraphy: Radio communication apparatus on board a merchant vessel is not permitted to be used while the vessel is within Hong Kong territorial waters except in the following circumstances:

When a vessel is proceeding through Hong Kong territorial waters such apparatus may be used to communicate on minimum power with the nearest coast station or, if communication with the nearest coast station is impracticable and the safe navigation of the vessel so requires, with a more distant coast station or another vessel;

For the purpose of summoning assistance on an occasion of danger to the life of any person or to the vessel;

For the purpose of carrying out experimental tests for which permission in writing must first be obtained.

During the period when tropical cyclone signals 8, 9 or 10 are in force, radio and television stations will extend their hours of operation around the clock, and will undertake broadcasting of tropical cyclone warnings in English and Chinese, at two minutes to the hour and half past the hour. Should the expected local conditions so warrant, warnings will be broadcast at quarter to and quarter past the hour. Warnings in English will be broadcast by individual announcers at each station. Radio Television Hong Kong and Commercial Radio will provide a Chinese announcer to broadcast warnings in Chinese from the broadcasting studio at the Royal Observatory.

If conditions are expected to worsen, tropical cyclone warnings may continue after the normal close down time of the stations, or commence before the usual starting time in the morning even though only the No. 1 signal is in force at that time. After consulting the Director, Royal Observatory, the Director of Broadcasting will decide whether or not to adopt either of these courses. He will inform Commercial Radio, HK-TVB, ATV of his intentions as early as possible.

Frequencies: Radio Television Hong Kong – Radio 1 (Chinese) 640 kHz: Radio 2 (Chinese) 94 MHz, 103.5 MHz, 103.1 MHz; Radio 3 (English) 545 kHz; Radio 4 (English) 91 MHz, 100.5 MHz, 100.9 MHz; Radio 5 (English) 96 MHz, 105.5 MHz. Commercial Radio – English Service 1050 kHz; Chinese Services Channel 1, 850 kHz, Channel 2, 610 kHz.

All ships bound for Hong Kong must obtain permission from MARDEP before entering the waters of Hong Kong. A contravention of this direction will render offending Masters liable to a fine of twenty thousand dollars and to imprisonment of 1 year. When applying for permission to enter the waters of Hong Kong Masters must provide the information required as contained in Marine Department Notices to Mariners No. 39 of 1983 and No. 89 of 1985 (see "Notices"). You are required to answer all signals including those passed from Royal Navy vessels patrolling the approaches to H.K. when approaching Hong Kong – Mardep Hong Kong.

VHF: Port Communications Centre, Marine Department Hong Kong Port Radio call sign "MARDEP" Channel 12, 24 hours listening watch. Range up to 35 miles.

Maritime VHF Radio-telephone Service (Hague Plan): This service operates in Hong Kong on 3 international channels, Nos. 16, 26 and 27. Channel 16 (156.8 MHz) is the simplex distress and calling frequency on which contact is made between shore and ship before changing over to either of the public correspondence channels, No. 26 or 27. The latter are duplex channels and Hong Kong transmits on 161.9 MHz and receives from ships on 157.3 MHz for Channel 26; transmits 161.95 MHz, receives 157.35 MHz for Channel No. 27.

Local connection to the service is *via* the Hong Kong Telephone Company and is made in the same way as for overseas radio-telephone calls by dialling "011". The local operator should then be informed that a telephone call is required on "the Maritime VHF Hague Plan Service". The operator will ask for details of the call, such as the name of the ship and the person required, and will then connect the call *via* Cable and Wireless. Calls can also be sent from ship to shore. The range is about 50 miles and the service is available at all times of the day and night.

Harbour telephones: Service is provided by any one of 3 companies – Hutchinson Tel. Co., Tel: 5-66113, Ext. 120 – China Telecom System, Tel: 0-242666, Ext. 109 – Communication Services Ltd., Tel: 5-8288228. Calls may be made between any two ships so equipped and between a ship and any telephone number on the Hong Kong Telephone Company network.

Ship to Shore service: Hong Kong Telephone Company will also provide ship to shore telephone service by means of land lines at selected wharf locations. For service at the Container Port call 0-208800.

Also see "Notices".

WHARVES: *China Merchants S.N. Co. Limited:* Berths suitable for coastal shipping:

		Length (ft.)	*Depth (ft.)*
West Point	Berth No. (1) E.	320	35
	Berth No. (2) W.	320	35
H. K. and Kowloon Wharf Co.			
	Ocean Terminal	1,250	35
	Pier No. (3) S.	600	32
	Pier No. (3) N.	600	34
	Pier No. (4) S.	700	32
	Pier No. (4) N.	700	33
	Pier No. (5) S.	800	34
	Pier No. (5) N.	800	36
Kwai Chung Container Terminal			
5 Terminals	(Sealand – 1 Terminal, Modern Terminals – 1 Terminal, HIT – 3 Terminals)	7,500	40

Also see "Developments".

CONTAINER CRANES: Modern Terminals Ltd. – 7 cranes.

Hong Kong International Terminals – 10 container gantry cranes.

BERTHING: Berthing of dry cargo vessels alongside wharf can be performed any time during day and night. Berthing at tanker wharf not permissible after sunset, depending on size of vessel or other special circumstances. Ships carrying explosives must obtain permission from the Marine Department before berthing is allotted.

Boatmen: Labour to handle ships' mooring lines when berthing and unberthing at any of the wharves in Hong Kong waters is supplied by the owners of the wharf concerned, the cost being included in the berthing fee. For berthing at a Marine Department mooring buoy it is usual for the ship's Agent to arrange for boatmen to handle the ship's slip wire and anchor cable, unless the ship's crew undertake this task. The services of boatmen are generally obtained through the Hong Kong Pilots Association.

Mooring Buoys: See "Max. Size" All ships are required to secure to Marine Department mooring buoys by their chain cable (vessel to supply shackle). The maximum length of a ship permitted to berth at an "A" class mooring is 183 m., the swing circle encompassing each buoy having a radius of 213 m. The maximum length of a ship permitted to berth at a "B" class mooring is 137 m., the radius of swing circle around such buoys being 167 m. It is therefore within the limits of safety for a vessel, when secured to a Marine Department mooring, to slack out to "1 shackle on the windlass" and still clear ships berthed at adjacent buoys, except in exceptional circumstances. As all Marine Department moorings are of the 1-legged type, it is permissible, should circumstances make it necessary, for a ship, when attempting to secure to a mooring, to drop an anchor at not less than 15 m. from the buoy without fouling the mooring chain. It should be noted, however, that 3 moorings sited within the Naval Mooring Area are either of the 2 or 3-legged type, and it is therefore not permissible to use an anchor when berthing.

44 "A" class mooring buoys and 27 "B" class mooring buoys for ocean going vessels. One "B" class mooring buoy is available at Yam O Bay, Lantan Island, for vessels with cargoes of logs.

TUGS: Available for berthing and unberthing. Advance booking is required.

Company	*Tug*	*Power (BHP)*	*Bollard Pull (tons)*	*Propulsion*
Hongkong Towage & Salvage Company Ltd.	*Hung Hom*	3,000	40	Twin Var. Pitch/ Kort Rudders
	Kwai Chung	3,400	40	Twin Var. Pitch/ Kort Rudders
	Sung Kong	3,400	40	Twin Var. Pitch/ Kort Rudders
	Heung Kong	3,000	40	Twin Var. Pitch/ Kort Rudders
	Kau Lung	2,100	39	Single Var. Pitch/ Kort Rudder
	Lamma	2,600	36	Twin Duck-Pellers/ Kort Rudders
	Tai Tam	2,600	36	Twin Var. Pitch/ Kort Rudders
	Ngan Chau	2,400	35	Twin Var. Pitch/ Kort Rudders
	Peng Chau	2,200	30	Twin Var. Pitch/ Kort Rudders
	Lai Mun	1,860	30	Twin Var. Pitch/ Kort Rudders
	Waglan	1,700	25	Twin Var. Pitch/ Kort Rudders

Company	*Vessel*	*Power (BHP)*	*Bollard Pull (tons)*	*Propulsion*
The Far East Towage Co. Ltd.	*Shek O*	1,000	10	Steam/Single Screw/F.P.
	Tsing Yi	440	5	Diesel/Single Screw/F.P.
	Tolo	410	2	Diesel/Single Screw/F.P.
	Tathong	270	2	Diesel/Single Screw/F.P.
	Far East No. 1	2,000	25	Diesel/Twin Screw/Kort Rudders
Victoria Harbour Tug Co. Ltd.	*Howa*	3,200	45	Diesel/Twin Screw/Kort Rudders
	Kowa	3,200	45	Diesel/Twin Screw/Kort Rudders
	Lewa	2,400	34	Diesel/Twin Screw/Kort Rudders
South China Towing Co. Ltd.	Tel: 5-485 2057			

Company	*Vessel*	*Type*	*B.H.P.*	*Notes*
H.K. & Kowloon Wharf & Godown Co. Ltd.	*Snipe*	motor tug	140	All the tugs listed here are suitable for towing lighters in the harbour.
	Heron		205	

BULK HANDLING FACILITIES: *China Light & Power:*
Location: Castle Peak.
Berth: Length 545 m. Depth 20 m. Max. draft 12.9 m. (limited by channel depth 13.7 m.). Max. Beam 42 m. LOA no restrictions.
Cargo: Discharge rate for coal 15,000 tons per day. Also see "Developments".
Hong Kong Electric Co. Ltd.:
Location: Lamma Island.
Berth: Depth 15.8 m. Max. draft 13.8 m. Max. LOA 270 m. Max. beam 40 m.
Cargo: 2 unloaders for coal, rate 15,000 tons per day.

CRANES: Available up to 700 tons.

STEVEDORES: The following table shows the average handling rates per gang hour:

Cargo	*Place*	*Load tons per gang hour*	*Discharge tons per gang hour*
General	Wharf	12	15
General	Stream	10	12
Bale or bag	Wharf	20	25
Bale or bag	Stream	15	20

Stevedores work 24 hours per day except Mid-Autumn Festival and Chinese New Year Holidays.

FIRE PRECAUTIONS: The Fire Services Department operates six fire boats, the largest being the 350 ton "Alexander Grantham". It has an output capacity of 45,000 litres of water and 32,850 litres of foam a minute through a battery of monitors. This vessel is equipped to deal with any type of fire on any size vessel, and is designed to operate both in port and at sea.

GANGWAY/DECK WATCHMEN: Not compulsory but recommended.

OPENING/CLOSING HATCHES: Usually performed by ship's crew.

CERTIFICATES: See "Documents".

CARGO GEAR: Normal routine gear, wire and rope slings, nets, grabs, and floating cranes up to 100 tons available.

Vessel's cargo gear must be used for working cargo at all alongside berths.

IDENTIFICATION CARDS: No identification card is required for crew or passengers going ashore. When the vessel has exceeded a stay of 14 days in port, all crew members must deliver to the Harbour Control Office, Immigration Department through the agents a signed copy of the "Immigration Arrival Card".

DENSITY: 1017.

TANKERS: Any leaking of oil to water will be subjected to heavy fines. If not gas-freed, not allowed through harbour. Also see Table A – Oil Installations.

Esso: The Esso Tsing Yi Terminal is situated on the Southern part of Tsing Yi Island in position Lat. 22° 19.7′ N., Long. 114° 06′ E. The facilities are owned by Exxon Storage & Wharfage Company Ltd., and used by Esso Standard Oil Hong Kong Ltd., and are used for discharging dirty and clean products, chemicals and LPG.

Pilots: At the Western entrance, Pilots generally embark and disembark to the West of Green Island (Tsing Chau). By pre-arrangement Pilots can be picked up off Ngan Chau and all tankers are recommended to make use of this service and request the Agent to notify the Pilot Association accordingly.

The Pilots maintain a listening watch on VHF Channel 11. Senior Pilots will usually be assigned to larger tankers.

Pilot launches display the international signals by day and by night and during poor visibility sound the international signals. In addition they may sound an identity signal of 4 short blasts.

Esso Tsing Yi Terminal: The berth consists of a T-head pier having 3 separated areas for handling barges and tankers ranging from 500 – 120,000 d.w.t.

The main loading area is designated Berth No. 1 and consists of a fendered loading platform, 2 fendered breasting dolphins, 4 mooring dolphins and associated equipment such as capstans, quick release mooring hooks for 120,000 d.w.t. tanker, etc. Berth No. 2 is provided by fendering the onshore face of one of Berth No. 1 Eastern mooring dolphins and adding an adjacent breasting dolphin suitable for vessels up to 2,500 d.w.t. Berth No. 3 is a small berth for vessels up to 500 d.w.t. and is located adjacent to the Eastern side of the trestle/access way. In addition there is a small jetty from the shore, inside of the Western side of the T-head, used at the present time by small tankers up to 2,000 d.w.t. and barges loading/discharging FO, ADO and LPG.

Berthing Procedure: At the present time the berthing of tankers exceeding 570 ft. LOA and up to 42 ft. draft is carried out during daylight hours and on flood tide only. Above 42 ft. draft, berthing is carried out at HW slack only and during daylight hours only and on a trial basis, HW neap during daylight hours when no HW slack exist for that day. Tankers not exceeding 570 ft. LOA, draft under 36 ft. can be berthed day and night, but on flood tide. Currents near the berth, up to a distance of approximately 400 ft. off, run parallel to the berthing face. Further out, the ebb tide sets out and the flood tide in towards the North. Vessels always berth port side to. (Maximum tidal current is generally below 1 knot). In addition to the 2 escort tugs used for larger vessels for the passage through the channel from Green Island, usually 2 more tugs are in attendance for berthing larger vessels. Tugs are normally employed in the alongside manner and use their own wire. Pilots bring vessel parallel to the berth, and about 200 ft. off, and then ease her alongside with the aid of attending tugs and mooring lines.

Nearby, approximately 500 ft. Eastward is a new berth owned and operated by China Resources Oil Company. This berth projects further offshore than the Esso Pier. *Caution has to be exercised not to overshoot the Esso Berth.*

Two mooring launches strong enough to handle 120,000 d.w.t. vessel's wire ropes are in attendance. All 4 mooring dolphins are fitted with triple quick release hooks and capstan. The 2 breasting dolphins and 2 corners of the loading platform are fitted with double quick release hooks and capstan. The terminal requires that larger vessels use a minimum of 2 headlines, 2 forward breastlines, 2 forward backsprings, 2 aft backsprings, 2 aft breastlines and 2 sternlines.

Products	*No. and Size of Loading Arm*	*Shoreline* (in.)	*Maximum Pressure* (p.s.i.)	*Average Discharging Rate* (bbls.p.h)
Dark Product	4×10 in.	12/20/24	100	11,000 per load arm
DPK	1× 8 in.	10	100	8,000
DPK and other clean products/ lubes	2× 6 in.	6 and 8	100	2,500/4,000
LPG	Liquid 6 in.	6	350	800
	Vapour 4 in.	4		
Chemical	1× 6 in.	6	100	2,500

Tolo Harbour Terminal:

Shipmaster's Report: July 1987.

The vessel called at Tolo Harbour to discharge a parcel of Light Virgin Naphtha.

On account of the terminal having only been opened recently, the following information should be of some use to vessels having to call at Tolo Harbour in the future.

Position:	Lat. 22° 26.8′ N., Long. 114° 14.5′ E.
Operators:	China and Hong Kong Gas Co. Ltd.
Products handled:	Light Virgin Naphtha.
Cargo connections:	2 × 10 in.
Shore Tanks:	6 km. away. Submarine pipeline 24 in.
Pilotage:	Daylight movements only.
Tugs & mooring launches:	Come around from Hong Kong harbour.
Vessel:	LOA 174 m. Beam 32 m. Draft 10.92 m.

See "Plan".

Also see "Notices" – No. 52 of 1986.

Table A. OIL INSTALLATIONS

Company	*Location*	*Length of berth*	*Depth alongside (Chart Datum)*	*Grade of oil*	*Capacity (water tons)*	*Delivery rate*	*Hose connection*
(i) Shell Co. (H.K.) Ltd.	Kwun Tong	670′	34′	Boiler fuel	4,500	120	6″
				Marine diesel fuel	4,200	140	6″
	Tai Kok Tsui	180′	10′	Boiler fuel	610	20	2″
				Marine diesel fuel	220	25	2″
	North Point	140′	10′	Gas oil	1,740	27	2″
	Ap Lei Chau	900′	60′	Boiler fuel	143,000	400	10″
				Marine diesel	18,000	400	10″
				Gas oil	25,600	450	8″
(ii) Caltex Oil Hong Kong Ltd.	Tsuen Wan	700′	35′	Boiler fuel	47,820	350	10″
				Gas oil	13,600	200	6″–8″
(iii) Mobil Oil Hong Kong Ltd.	Tsing Yi	700′	38′	Boiler fuel	39,000	500	10″
				Marine diesel	26,000	300	8″
				Kerosene	17,000	300	8″
(iv) H.K. Oil Co. (Gulf Products)	Tsuen Wan	292′	28′	Boiler fuel	22,589	300	8″
				Marine diesel fuel	2,794	200	6″
	Tsing Yi	700′	40′	Boiler fuel	39,000	500	10″
				Marine diesel fuel	26,000	300	8″
Tankers use the Mobil Oil Terminal under a joint users agreement with Mobil Oil Hong Kong Ltd.							
(v) Esso Standard Oil (H.K.) Ltd.	Tsing Yi	920′	52′	See "Tankers."			
	North Point	150′	10′				
(vi) Peninsular Petroleum Co.	Tsing Yi	700′	45′	Kerosene, Marine diesel	58,000	300	10″
				LPG – Gas Oil	50,000	600/700	
(vii) China Resources Ltd	Ngan Ying Chau	820′	40′	Boiler Fuel	232,900	820	12″
				Marine Diesel			
				White oil			
(viii) China Resources Ltd	Tsing Yi	640′	40′	Boiler Oil	20,000	—	12″
				Marine Diesel			

(i) 1 tug is normally required for ships berthing and unberthing. A shore telephone is available at the berth. Shore electrical supply is not available. Fresh water available from shore and by lighter. Berthing facilities available only for small coasters, ferries and harbour craft.

(ii) 1 tug is normally required for ships berthing and unberthing. A shore telephone is available at the berth. Shore electrical supply is not available. Fresh water available by lighter only.

(iii) and (iv) 2 tugs are normally required for berthing and unberthing. A shore telephone is available at the berth. Shore electrical supply is not available. Fresh water available by lighter only.

(v) 2 tugs are normally required for ships berthing and unberthing. A shore telephone is available at the berth. Shore electrical supply is not available. Fresh water available by lighter only.

(vi) 1 tug is normally required for ships berthing and unberthing. A shore telephone is available. Shore electricity supply is not available. Fresh water available by lighter only.

(vii) 1 tug is normally required for ships berthing and unberthing. A shore telephone is available at berth. Shore electrical supply is not available. Fresh water available by lighter only.

(viii) 1 tug is normally required for berthing and unberthing. Bunker facilities available.

Table B. PORT OILERS.

Company	*Vessel*	*Grade of oil*	*Capacity-product long tons*	*Delivery rate per hour in water tons*
Shell Co. (H.K.) Ltd.	Fu Yung Shan	Boiler fuel or Marine diesel	750	450
	Shih Tou Shan	Boiler fuel or Marine diesel or White oil	750	450
	Shell Wor Fung	White oil	260	80
	Shell Shun Fung	Boiler fuel or Marine diesel	1,500	900
Caltex Oil Hong Kong Ltd.	Caltex 54	Boiler fuel or Marine diesel	400	120
	Caltex Tsuen Wan HK. 2	Boiler fuel or Marine diesel	800	280
	Caltex 111	Gas oil	40	60
	Caltex 133	Gas oil	250	100
Mobil Oil Hong Kong Ltd.	M.V. Mobil Meishan	Boiler fuel or Marine diesel	900	250
	M.V. Mobil Mei Ping	Light oil	150	50
	M.V. Mobil Mei An	Light oil	150	50
H.K. Oil Co.	Barge 101	Boiler fuel	750	350
	Barge 102	Marine diesel/Boiler fuel	500	150
	Barge 103	Gas oil	1,000	150
Esso Standard Oil (H.K.) Ltd.	M.V. Esso Tsuen Wan II	White oil	270	46
	M.V. Esso Tsing Yi	Boiler fuel or Marine diesel	1,600	500
	M.V. Esso Hok Un	Boiler fuel or Marine diesel	1,600	500

FRESH WATER: Available but the supply is sometimes limited, depending on the storage levels in Hong Kong's reservoirs. The supply to ships is made at commercial wharves and from water boats.
WATER BOATS.

Company	*Vessel*	*Capacity*	*Delivery (Approx.)*
Leung Tai Kee Waterboat Co. Ltd.	Taikee No. 1	150 long tons	150-180 t.p.h.
	Taikee No. 2	120 long tons	150-180 t.p.h.
	Taikee No. 3	320 long tons	150-180 t.p.h.
	Taikee No. 5	250 long tons	150-180 t.p.h.
	Taikee No. 6	320 long tons	150-180 t.p.h.
	Taikee No. 7	130 long tons	150-180 t.p.h.
Union Waterboat Co. Ltd.	Tai Yat No. 1	270 tons	150 t.p.h.
	Tai Yee No. 2	290 tons	150 t.p.h.
	Tai Sam No. 3	300 tons	150 t.p.h.
	New No. 4	340 tons	170 t.p.h.
	Tai Ng No. 5	295 tons	150 t.p.h.
	Pier services to ocean terminal		1,500 tons/day

FUEL: Excellent facilities exist for bunkering vessels with fuel oil and coal. Fuel oil can be obtained either at the wharves adjacent to the oil installation, or from harbour oilers owned and operated by the oil companies. Fuel oil from these vessels can be pumped on board without impeding cargo operations. Adequate stocks of good quality bunker coal suitable for coal-fired marine boilers are maintained in the port. Fuel oil available with viscosity up to 1,000 sec. Redwood. 24 hours' notice for supply is required. Also gas oil and marine diesel available. Also see Table B – "Port Oilers".

REPAIRS: In addition to ship and engine maintenance and repair work, the dockyards have facilities for many miscellaneous services such as are provided by modern dockyards. These include physical tests on materials such as anchors and cables, for which test certificates can be supplied, chemical analysis, drawing office requirements, chemical cleaning of engines and boilers, shot and sand blasting, zinc spraying to name but a few.

DRY DOCKS:
Hong Kong United Dockyards Ltd. (Tsing Yi): Two floating docks, the largest of which has a lifting capacity of 33,000 tonnes. Length 260 m. Width 38 m. Depth over blocks 8.0 m.
Euro Asia Dockyards Ltd. (Tsing Yi): One floating dock, the lifting capacity of which is 100,000 tonnes.
Yau Lian Dockyard (Tsing Yi): One floating dock and a further floating dock (188 m. × 40 m.) in Tsuen Wan Bay.

SEAMEN: All formalities connected with engagement and discharge on board British ships, and on foreign ships whose flag is not represented by a Consular Officer resident in Hong Kong, are required by law to be conducted at the Mercantile Marine Office of the Crews Branch. Hong Kong continues to be one of the main recruitment centres of Asian seamen and a Seamen's Registry Office, which is an adjunct to the Seaman's Recruiting Office, under the same branch, maintains records of all Hong Kong seamen. The Seamen's Recruiting Office monitors the recruitment, selection and supply of Hong Kong Registered seamen to ships requiring them, and is situated at the Harbour Building, 3/F, 38 Pier Road, Hong Kong.

Seamen's Travel Documents: The Hong Kong Government Seaman's Service Record Book (Seaman's Discharge Book) is issued by the Marine Department and is a record of employment. The Hong Kong Government Seaman's Identity Book is issued by the Immigration Department and enables the holder to return to Hong Kong without a visa during the validity of the book (initially 5 years, with 5 year renewals), and also within 12 months after the expiry of the validity of the book.

A Seaman's Certificate of Nationality and Identity is issued at the Immigration Department only to seamen of British nationality, whereas the Seaman's Discharge Book and the Seaman's Identity Book may also be issued to seamen resident in Hong Kong and no visa is required for return to Hong Kong.

All Crew members signing-off for repatriation must first obtain permission from the Director of Immigration. All crew arriving to join a vessel must produce a guarantee letter through the Agents responsible for all maintenances and other eventual expenses.

CONSULS: The following countries maintain consular offices in Hong Kong:

Australia
Austria
Bangladesh
Belgium
Bolivia
Brazil
Burma
Canada
Chile
China (People's Republic of)
Colombia
Cuba
Cyprus
Denmark
Dominican Republic
Ecuador
Egypt
Finland
France
Gabon
Germany F.R.
Greece
Guatemala
Iceland
India
Indonesia
Iran
Irish Republic
Israel
Italy
Japan
Jordan
Korea
Lebanon
Luxemburg
Malaysia
Mauritius
Mexico
Monaco
Nauru
Nepal
Netherlands
New Zealand
Nicaragua
Nigeria
Norway
Pakistan
Panama
Paraguay
Peru
Philippines
Portugal
Seychelles
Singapore
South Africa
Spain
Sri Lanka
Sweden
Switzerland
Taiwan
Thailand
Tongo
Turkey
Tuvalu
United Kingdom
U.S.A.
Uruguay
Venezuela

AIRPORT: Regular International flights. Airstrip is capable of handling any size of jet planes. Transportation from port to airport terminal about 40 minutes bus drive.

Shipmaster's Report: July 1987.

Personnel joining vessels at Hong Kong: The vessel's Agent must give a letter to the Airport Immigration advising them of incoming air passengers who are joining vessels at Hong Kong. Personnel will be detained by Kai Tak Airport Immigration pending the letter's arrival.

TELEPHONES: Available at all alongside berths for connection on board ship.

TIME: Standard time kept in the colony is 8 hours in advance of GMT.

HOLIDAYS: Public holidays in Hong Kong occur mainly on festivals whose date is governed by the lunar calendar.
Every Sunday; First week-day in January; Chinese New Year's Day; Second day of Chinese New Year; Third day of Chinese New Year; General holiday in lieu of that for the Ching Ming Festival; Good Friday; Day following Good Friday (Ching Ming Festival); Easter Monday; Birthday of Her Majesty the Queen; Tuen Ng Festival; First week-day in July; First Monday in August; Last Monday in August, which shall be Liberation Day; Day following Chinese Mid-Autumn Festival Day; Day following Chung Yeung Festival; Christmas Day; First week-day after Christmas Day.

POLICE/AMBULANCE/FIRE: When the services of the fire brigade, immigration, port health or police are required, appropriate signals should be made in accordance with the list of "Hong Kong Port Signals". The Marine Division of the Police is responsible for internal port security. Its fleet of launches maintain constant patrols in Hong Kong's territorial waters.

GENERAL: No waste to be thrown into harbour. A free refuse disposal service is available for domestic refuse. Ship's agents can arrange this through Marine Department. Chain required for mooring to buoy. Unnecessary use of ship's sirens prohibited.

SERVICES: Services available including tank cleaning, painting, washing, compass adjusting, calibration of direction finder, radar repairs, 24 hours' service laundry, supply of stores and provisions, motor-boats service between ship and shore.

SHORE LEAVE: Crew members are usually allowed ashore.

CLASSIFICATION SOCIETIES: American Bureau of Shipping, Rooms 1203-4, Wah Kwong Building, 48-66 Hennessy Road, Hong Kong. Tel: 5-278478.

Bureau Veritas, International Register for The Classification of Ships & Aircraft, Room 2107, International Building, G.P.O.Box 5046, Hong Kong. Tel: 5-455847/8. Telex: 74336 HX.

Det Norske Veritas (Oslo), Room 3407, Gammon House, 12 Harcour Road, Central, Hong Kong. Tel: 5-242251. Telex: 73690.

Germanischer Lloyd, Jebsen & Co., Ice House Street, Prince's Building, P.O.Box 97, Hong Kong. Tel: 5-225111.

Lloyd's Register of Shipping, P.O.Box 463, 1908 Hutchison House, 10 Harcourt Road, Central, Hong Kong. Tel: 5-265317. Telex: 74747.

Nippon Kaiji Kyokai, Hong Kong Branch, Room 1703, New World Tower, 16-18 Queen's Road, Central, Hong Kong. Tel: 5-250389/0. Telex: 75213 Clasnk HX.

BANKS: Bank of America National Trust and Savings Association, St. George's Building, 2 Ice House Street, Hong Kong. Tel: 5-2675333.

Bank of Tokyo Limited, Sutherland House, 3 Chater Road, Hong Kong. Tel: 5-230091.

Banque Nationale de Paris, 23 Queen's Road, Central, Hong Kong. Tel: 5-246081.

Chartered Bank, 4-4A Des Voeux Road, Central, Hong Kong. Tel: 5-22401.

Chase Manhattan Bank N.A., 280 Gloucester Road, The World Trade Centre, Hong Kong. Tel: 5-7905005.

Citibank, N.A., 8 Queen's Road, Central, Hong Kong. Tel: 5-8218211.

Hang Seng Bank Limited, Hang Seng Bank Building, 77 Des Voeux Road, Central, Hong Kong. Tel: 5-8255111.

Hongkong and Shanghai Banking Corporation, China Building, 29 Queen's Road, Central, Hong Kong. Tel: 5-2677111.

Manufacturers Hanover Trust Company, Alexandra House, 27th Floor, 16-20 Chater Road, Hong Kong. Tel: 5-253101.

National Westminster Bank Limited, 6th Floor, St. George's Building, 2 Ice House Street, Hong Kong. Tel: 5-247071.

Royal Bank of Canada, 18th Floor, Gloucester Tower, The Landmark, 11 Pedder Street, Hong Kong. Tel: 5-214261.

WEATHER: 1st May to 31st October usually considered as typhoon season. No operation of cargo when typhoon signal No. 3 or upward is hoisted. Also see "Radio".

NOTICES: Marine Department Notice No. 42 of 1985 (Dated 4th March 1985).

Quarantine Inspection – Eastern Quarantine Anchorage:

1. Masters, Owners and Agents of ships are advised that with effect from 1st April, 1985, a Quarantine Service will be available in the Eastern Quarantine Anchorage between the hours of 0800 and 1800 daily upon request. Ships requiring this service should make a request to the Port Communications Centre when establishing contact on VHF Radio Channel 12 prior to arrival.

2. The existing continuous Quarantine Service in the Western Quarantine Anchorage remains unchanged.

3. Marine Department Notice No. 186 of 1984, concerning arrangements for obtaining the services of the Port Health Doctor at the Eastern Quarantine Anchorage will be superseded with effect from that date.

4. Copies of the Notice may be obtained free of charge from the Entry and Clearance Office, Marine Department, 3/F, Harbour Building, 38 Pier Road, Hong Kong.

Signed: Director of Marine.

Marine Department Notice No. 152 of 1984 (Dated 8th August 1984)
Notice to Owners, Agents and Masters of vessels of over 300 gross registered tons calling at Hong Kong:

Owners, Agents and Shipmasters are reminded that Vessels of more than 300 gross registered tons are required to have on board, whilst in the waters of Hong Kong, very high frequency (VHF) radiotelephone equipment. Such vessels are required to make contact with the Port Communications Centre on Channel 12 or 14 of the VHF radiotelephone before they enter the waters of Hong Kong and thereafter to make reports as specified in the Shipping and Port Control Regulations. In addition, a continuous listening watch must be maintained on the radiotelephone, on the specified channels. Failure to comply with these requirements renders the Master liable to prosecution.

Accordingly, Owners and Agents are requested to advise the Masters of vessels enroute to Hong Kong of the foregoing requirements.

The booklet, Hong Kong Shipping and Port Control Laws giving further details is available from the Marine Department Headquarters, Harbour Building, 38 Pier Road, Hong Kong, price $5. You should obtain a copy of this booklet if you are in any doubt as to the laws applicable in Hong Kong.

Please note that the requirement to comply with these VHF reporting procedures does not apply to any vessel to which Part IV of the Shipping and Port Control Ordinance applies.

Signed: Director of Marine.

Notice to Mariners No. 39 of 1983: *Hong Kong Waters, Approaches to Hong Kong – Permission to Enter Hong Kong Waters:*

1. Agents and Masters are reminded that it is mandatory for ships to obtain permission to enter Hong Kong waters from the Director of Marine. It is in their best interests to give as much prior notice as possible before arrival. Permission to enter is conditional upon the following information being supplied to the Director:
   (a) Name and nationality of vessel.
   (b) Number of persons on board.
   (c) Type of vessel.
   (d) Reason for call at Hong Kong.
   (e) ETA off Waglan Island.

2. The Director of Marine can be contacted through the Port Control Centre ("MARDEP") in any of the following ways:
   (a) By W/T or R/T (HF) via Hong Kong Radio (VPS).
   (b) By R/T on VHF Channel 12 (156.60 MHz).
   (c) By Telex: 63607 Mdpcc Hx.

Signed: Director of Marine.

Notice to Mariners No. 53 of 1985

Hong Kong Waters, Approaches to Hong Kong – Establishment of Pilot Boarding Stations:

Date: With effect from 1st August, 1985.

Position:

1. *East Lamma Channel*
   Lat. 22° 16′ 00″ N., Long. 114° 06′ 36″ E.
2. *Tathong Channel*
   Lat. 22° 16′ 00″ N., Long. 114° 15′ 40″ E.
3. *Urmston Road*
   Lat. 22° 23′ 30″ N., Long. 113° 53′ 30″ E.

Areas: N.W., West and S.E. Approaches to Hong Kong.

Details: 3 Pilot Boarding Stations have been established:

(1) Area at the Northern end of the traffic separation scheme in the East Lamma Channel.
(2) Area off the Turning Buoy in the Tathong Channel.
(3) Area off Lan Kok Tsui (Black Point) in Urmston Road.

Remarks: Providing its Master has reported to the Authority in accordance with Section 10E of the Pilotage (Amendment) Ordinance 1985, a ship required to be under Compulsory Pilotage may navigate in the Pilotage Area without a licensed Pilot, if it is on its inward voyage from the time it enters the Pilotage Area to the time it arrives at a Pilot Boarding Station, so long as it is directly proceeding to a Pilot Boarding Station and if it is on its outward voyage under the pilotage of a licensed Pilot, from the time the licensed Pilot disembarks to the time it leaves the Pilotage Area, so long as it is directly leaving the Pilotage Area.

Charts affected: B.A. 342, 938, 1917, 1918.

Signed: Director of Marine.

Notice to Mariners No. 52 of 1986

Hong Kong Waters, Approaches to Tolo Harbour – Establishment of Pilot Boarding Station

Date:	With effect from 1st September 1986.
Positions:	Latitude 22° 29′ 36″ N. Longitude 114° 19′ 42″ E.
Area:	Tolo Channel.
Details:	A pilot boarding station has been established in the above position.
Remarks:	Providing its Master has reported to the Authority in accordance with Section 10E of the Pilotage (Amendment) Ordinance 1985, a ship required to be under Compulsory Pilotage may navigate in the pilotage area without a licensed pilot, if it is on its inward voyage from the time it enters the pilotage area to the time it arrives at a pilot boarding station, so long as it is directly proceeding to a pilot boarding station and if it is on its outward voyage under the pilotage of a licensed pilot, from the time the licensed pilot disembarks to the time it leaves the pilotage area, so long as it is directly leaving the pilotage area.

Charts Affected: BA 939, 3386.

Signed: Director of Marine.

Notice to Mariners No. 89 of 1985

Hong Kong Waters, Approaches to Hong Kong – Notification to be made to the Director of Marine by Ships Intending to Enter the Waters of Hong Kong:

1. With effect from 1st January, 1986, and with the intention of simplifying communication procedures, the Master of every vessel over 300 g.r.t. who intends to enter the waters of Hong Kong is required to make the following notification to the Director of Marine.

1.1 Not less than 12 hours before the vessel is expected to enter the waters of Hong Kong, an initial notification providing the information specified in *Annex 1* hereto.

1.2 Not less than 4 hours before the vessel is expected to enter the water of Hong Kong, a confirmatory notification providing the information specified in *Annex 2* hereto.

2. The notification specified should be addressed to "MARDEP" and transmitted directly to "MARDEP", using:

2.1 W/T Communication via Hong Kong Radio (VPS); or

2.2 Telex: 63607 Mdpcc Hx; or

2.3 VHF R/T on Channel 12 (156.60 MHz), calling channel (4 hours notice only).

3. Compliance with the foregoing requirement by Masters of vessels over 300 g.r.t. will be considered by the Director of Marine as satisfying all his requirements for routine communication in advance of a vessel's entry into Hong Kong waters in accordance with:

3.1 The Shipping and Port Control Regulations, Regulation 7 (Shipping and Port Control Ordinance, Cap. 313).

3.2 The Pilotage Ordinance (Cap. 84), section 10E(1).

3.3 Notice to Mariners No. 39 of 1983, permission to enter Hong Kong waters, dated 6th July, 1983.

4. Agents and Masters of ships of 300 g.r.t. or under are reminded that they should continue to apply for permission to enter Hong Kong waters in accordance with Notice to Mariners No. 39 of 1983.

5. This notice updates and supersedes Notice to Mariners No. 60 of 1985 which is hereby cancelled.

Annex 1:

No.	*Required Notification*	*Sample Message*
1.	Name of vessel and call sign	Hardship/GABC
2.	Flag	British
3.	Type (Bulk/Tanker/General Cargo/ Container)	Bulker
4.	Gross tonnage (as per register)	24123
5.	Length overall (as per register)	168 m.
6.	Total number of persons on board	22
7.	Reason for call	Disch/Change Crew
8.	Estimated maximum arrival draft	9.7 m.
9.	Any defects affecting manoeuvrability or seaworthiness?	Nil
10.	Any Dangerous Goods of IMO Class 1, 2, 3 (Yes/No and Quantity)	Yes. 14 tonnes, Class 3
11.	Local Agent	Silver Lining
12.	Are you taking a Pilot?	Yes
13.	ETA indicated Pilot Boarding Station	091400 Tathong Ch
14.	Last Port	Keelung

Annex 2

No.	*Required Notification*	*Sample Message*
1.	Name of vessel/call sign	Hardship/GABC
2.	ETA Pilot Boarding Station	091515 Tathong Ch
3.	Any changes to Annex 1?	Nil

Signed: Director of Marine.

Marine Department Notice No. 121 of 1987

Compulsory Pilotage:

1. Notice is hereby given that the Pilotage (Amendment of First Schedule) Order 1987 will come into effect on 1st August, 1987. The Order will extend the requirement for compulsory pilotage generally to ships of 5,000 gross registered tonnage, or over, as specified in the First Schedule. The amended First Schedule will specify the following vessels:

(1) A ship of 5,000 gross registered tonnage or over.
(2) A ship of 1,000 gross registered tonnage or over, but under 5,000 gross registered tonnage, proceeding to or from any wharf specified in Part I of the First Schedule, and any container terminal specified in the Third Schedule, to the Dangerous Goods (Shipping) Regulations.
(3) A ship of 1,000 gross registered tonnage or over carrying dangerous goods specified in Categories 1, 2 and 5 in the Schedule to the Dangerous Goods (Classification) Regulations.
(4) A ship of 1,000 gross registered tonnage or over, but under 5,000 gross registered tonnage, proceeding to or from a Government mooring buoy.
(5) A ship of 300 gross registered tonnage or over which –
  (a) is for any reason, unable to proceed under its own power, manoeuvre with its own steering gear, or work with its own anchors;
  (b) has any part of the hull structure removed, or under repair, which may affect the watertight integrity of the ship; or
  (c) is at risk of causing injury to persons or damage to property, any other ship or the environment by virtue of the condition of the ship or the nature or condition of its cargo.

2. Copies of the Pilotage (Amendment of First Schedule) Order 1987 (Gazette Legal Notice No. 163 of 1987) may be obtained from the Government Publications Sales Centre, Ground Floor, General Post Office Building, Connaught Place, Central, Hong Kong.

Signed: Director of Marine.

DEVELOPMENTS: The central fairway has been dredged to – 36 ft. Reclamation continues in various areas within the harbour. Additional 'Public Cargo Working Areas' are near completion and others planned.

2 × 1,100 t.p.h. ship unloaders under construction at Castle Peak (finger pier) for China Light and Power.

15 hectares of additional container marshalling area to be reclaimed at Hong Kong International Terminals (HIT).

Terminal 6 (3 berths) to be built at Hong Kong International Terminal (HIT). Terminal to be operational October 1988 and completed in mid-1989. 14 gantry cranes will be provided.

Construction of Terminal 7 will commence late 1988, adjacent to Terminal 6.

SHIPMASTER'S REPORT: October 1984.

Immigration: Notice to Master – Immigration Clearance on Arrival in Hong Kong (Form 1D 245A)

1. (Text) Being the Master of a vessel, you are required, on arrival of the vessel in Hong Kong, to anchor or moor the vessel at an approved Immigration Anchorage (as illustrated on the back page) for as long as may be necessary for Immigration examination, and hoist the Immigration Examination Signal until an Immigration Officer permits you to lower it. The Immigration Examination signal should be, by day, the letters H. N. N. shown by means of signal flags and, by night, 3 lights coloured WHITE in a vertical line one over the other, equally spaced at a distance of not less than 1 m. and visible from any direction at a distance of at least 1 nautical mile. Failure to comply with this requirement is an offence under the Immigration Ordinance, Cap. 115, Laws of Hong Kong and is punishable with a maximum fine of $20,000.

2. This opportunity is also taken to remind you that it is your duty to ensure that no persons leaves or boards your vessel (except a Port Health Officer or a Pilot in the course of his duty) and nothing shall be removed from or taken or placed on board your vessel before Immigration Examination.

Master's Remark: Approaching the Western Quarantine Anchorage without a Pilot was difficult, because of an enormous quantity of Chinese and local junks occupying the very narrow roads, waiting for their turn to be cleared. Vessel dropped anchor at 0900 hrs. local time and first persons to board were 2 Customs Officers who came on board by means of lowered accommodation ladder. They were followed half an hour later by the doctor and thereafter by the ship's Agent and shipchandler. As soon as the yellow flag was lowered bumboat people rushed to the ship displaying their merchandise on the aft part of the ship's deck. When Immigration Officers boarded almost 3 hours later they seemed to be very upset and asked me immediately to remove all persons not belonging to the ship's crew and furthermore to write a letter to their office explaining why I let anybody board before Immigration had cleared the ship. Fortunately I had hoisted the signal H. N. N. as per Agent's advice. With few words, they cleared the vessel at 1400 hrs. and I did not have to pay a penalty. They warned me again and told me on my request, after giving me their Circular 1D 245A that nobody including Customs Officers shall board the vessel except Pilot or doctor before them and whenever the Customs Officers want to board before (which is the usual case) the Master is to contact MARDEP on Channel 12

VHF, asking to contact Immigration Office to get Immigration's confirmation for the Customs to board the vessel before Immigration have cleared her. They told me furthermore not to lower the accommodation ladder and to repulse any person who tries to board.

No vessel can obtain Pre-arrival Clearance if they have one person among the crew coming from a Communist country.

Sailing without a Pilot was also not very easy and I strongly recommend Masters to take Pilots whenever entering or leaving the port of Hong Kong due to the great amount of traffic in this port.

MARDEP – Reporting Points: Vessels entering Hong Kong must report their passing to MARDEP on Channel 12 VHF at the following points:

Through East Lamma Channel	*Through West Lamma Channel*
Wang Lan Island	Wang Lan Island
Potoi Island	Potoi Island
LCS 1 Lamma Channel Buoy	
Lamma Patch Channel Buoy	Cheung Chau Island
LCS 2 Lamma Channel Buoy	
Green Island	Green Island

Through Tathong Channel
Wan Lan Island
Tathong Point
Hak Kok Tau (Cape Collinson)
Lei Yue Mun

AUTHORITY: Marine Department, Harbour Building, 38 Pier Road, G.P.O.Box 4155, Hong Kong. *Tel:* 5-8523001. *Telex:* 64553 Marhq Hx (Headquarters). 63607 Mdpcc Hx (Shipping Control). *Cables:* Mardep Hong Kong. *Contact:* Director of Marine.

AGENT: Jardine Shipping Agencies (Hong Kong) Ltd., Room 3810, Connaught Centre, G.P.O. Box 70, Central, Hong Kong. Tel: (5) 8439239. Telex: 74145 JMSHA HX. Cable: "JAROCEAN". Fax: (5) 8452018.

Associated with Jardine Shipping Agencies.

NOTES

Please also advise Shipping Guides Ltd.

Iceland

AKUREYRI: 65.41 N. 18.03 W. (See Plan)

DOCUMENTS: See "Reykjavik".
PILOTAGE: Not compulsory but available by arrangement with Harbour Master.
APPROACHES: Natural well protected harbour formed by Oddeyri peninsula and the end of the fjord. Entrance to harbour (Pollurinn) has a width of 800 m. and depth of 47 m.
TUGS: One tug available (Damen "Push-Cat 42", 242 h.p.)
BERTHING:

Berth	*Berth Length* (m.)	*Depth at LW* (m.)	*Remarks*
Krossanes	50	6.0	Oil, fish-oil, meat, cement
Drattarbraut			Slipway
Slippkantur	240	6.0	Ship repairs, asphalt tank
Togarabryggja 1	110	6.5	General cargo
Togarabryggja 2	67	6.5	General cargo
Londunarkantur 1	75	6.0	Fish landing
Londunarkantur 2	65	5.5	Fish landing
KEA-bryggja			Oil
Tangabryggja	65	5.5	Cattle feed
Oddeyrarbryggja	140	7.5	General cargo
Torfunefsbryggja	100	5.5	Passenger

STEVEDORES: Working hours: 0800 – 1200, 1300 – 1700.
MEDICAL: Full hospital facilities available without prior notice.
TANKERS: At Oddeyri (KEA-bryggja) and Krossanes, there are oil berths with depths alongside of 5.0 m. – 6.0 m.
FUEL: Coal and fuel by arrangement.
REPAIRS/DRY DOCKS: Two patent slips, one for vessels up to 200 g.r.t and the other for vessels up to 2,000 g.r.t. Ordinary repairs can be effected. Shipyard has a quay 230 m. long with a depth of 7.5 m. Divers available.
AIRPORT: At Akureyri, 2 km. from the port.
AUTHORITY: Akureyrarhofn, Hafnarstjorinn, Strandgata 25, P.O.Box 407, 602 Akureyri, Iceland. *Tel:* 96-23305 and 96-22346. *Contact:* Baldvin Thorsteinsson, Harbour Master. *Tel:* 96-24391 and 96-23664 Guomundur Sigurbjornsson, Harbour Director.

HAFNARFJORDUR: 64.04 N. 21.58 W. (See Plan)

PORT LIMITS: The seaward boundary is drawn as follows:
Line 1: 020°, from Lat. 64° 02.4′ N., Long. 22° 08.0′ W. ("Hraunsnes").
Line 2: 272°, from Lat. 64° 04.7′ N., Long. 21° 59.2′ W. ("Balaklettur").
These lines cross at Lat. 64° 04.9′ N., Long. 22° 05.9′ W.
DOCUMENTS: Documents required for Customs clearance:
3 copies of Cargo Manifest
2 copies of Crew List and Passenger List
1 copy of Crew Declaration to the Customs
1 copy of Store List
Customs Clearance from Last Port.
PILOTAGE: Pilotage is compulsory for all foreign vessels. The Pilot usually boards the vessel 0.5 miles S.E. of the Outer Buoy (Valhusagrunn, red). Smaller vessels and Masters familiar with the port are invited to proceed to the Inner Buoy (Helgasker, green). The Buoyage is IALA "System A". VHF communication with the Pilot on Channel 14.
APPROACHES: Vessels, with a draft of 7.0 m. or greater, are warned that shoals exist at Lat. 64° 04.7′ N., Long. 22° 08.8′ W. (1.5 miles×260° from Valhusagrunn Buoy).
ANCHORAGES: For vessels awaiting the Pilot, a good anchorage is to be found 1 mile S.S.E. of the Outer Buoy (Lat. 64° 04′ N., Long. 22° 04′ W.). Smaller vessels may anchor 0.4 miles North of Hvaleyrarhofdi (Lat. 64° 03.9′ N., Long. 21° 59.9′ W.).
VHF: Pilot on Channel 14.
TUGS: Hafnarfjordur Pilot and tugboat 360 h.p. is available. Further tugs can be ordered from Reykjavik.
BERTHING: The inner harbour is enclosed by 2 breakwaters. The Northern one is 200 m. long and the Southern one 450 m. Entrance channel is 150 m. wide, 9.0 m. deep, bottom soft clay.
North Quay: 255 m. long, depth 5.5 m. to 6.5 m., bottom soft clay. For general cargo and unloading fish.
Oseyrar Pier: 130 m. long and 25 m. wide, depth 2.5 m. to 4.0 m. at Southern side and 5.5 m. to 6.0 m. at Northern, bottom clay. Mainly used for fishing vessels.
South Quay: 240 m. long, depth 6.0 m. to 7.5 m. bottom clay. For bulk and general cargo vessels.
Finger Pier: 70 m. long, 10 m. wide, depth 5.5 m. to 6.5 m., bottom clay.
CRANES: Mobile cranes of various capacities are available.
STEVEDORES: Working hours are 0800 – 1700, Monday to Friday. Overtime can be arranged.
TANKERS: *Oil Pier:* Inside the head of the Southern Breakwater is a berth for oil tankers. Depth 8.0 m., bottom soft clay. Max. draft for arriving tankers is 9.5 m.
Berthing and Mooring: Vessels approach the harbour entrance at slow speed heading 098° in the line of 2 red lights. When off the harbour entrance, the vessel is swung assisted by tug, the port anchor is let go and the vessel comes astern inside the breakwater and is moored port side alongside.
Tidal Variation: Up to 4.5 m. Spring tide average 3.9 m. and Neap tide 1.5 m.
DENSITY: 1025.
TIDAL VARIATION: Up to 4.5 m.
FRESH WATER: Available at all quays.
FUEL: Available at all quays.
CONSULS: Available at Reykjavik (10 km.).
REPAIRS: Minor repairs can be undertaken.
DRY DOCKS: None. Slipway for vessels up to 300 tons.
SURVEYORS: Lloyd's Agents and representatives for other Classification Societies are available in Reykjavik and Hafnarfjordur.
Cargo Surveyors: Konnun hf., Ingolfsstraeti 3, 101 Reykjavik. Tel: 91-28422.
CUSTOMS ALLOWANCES: 1 bottle of spirits (0.75 litres); 200 cigarettes or equivalent; 24 bottles of beer or 1 bottle of wine.
AIRPORT: Domestic airport at Reykjavik 10 km. International airport at Keflavik 35 km.
TIME: GMT throughout year.
DEVELOPMENTS: New Quays: South Quay, length 180 m., depth 7.5 m. – 8.0 m. Oseyrar Quay, length 140 m. depth 6.0 m. – 7.0 m. To be constructed from 1990 to 1992.
AUTHORITY: Captain of the Port, Strandgata 4, 220 Hafnarfjordur. *Tel:* 91-50492, 91-652300. *Contact:* S. Hallgrimsson, Captain of the Port.
Board of Direction, Hafnarstjorn Hafnarfjardar, Strandgotu 6, 220 Hafnarfjordur, Iceland.

ISAFJORD: 66.05 N. 23.06 W.

DOCUMENTS: As for "Reykjavik".
PILOTAGE: TFZ Isafjord Radio 2182 kHz. To call Pilot use VHF Channels 16 and 12 or morse lamps or whistle "G".
ANCHORAGE: In Fjord, depth of 6 fathoms.
MAX. SIZE: Dry cargo vessels up to 4,000 g.r.t. Tankers up to 30 ft. draft.
HEALTH: Inform Agent.
RADIO: TFZ 2182 kHz and VHF Channel 16.
TUGS: Not required.
MEDICAL: Inform Agent 1 hour in advance. Hospital available.
FRESH WATER: Always available through hose-pipes.
FUEL: All grades available advance notice required is 2 hours.
GANGWAY/DECK WATCHMEN: Necessary. Carried out by crew.
OPENING/CLOSING HATCHES: Performed by crew.
CERTIFICATES: All relevant certificates required.
CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes each crew member, 400 for Master.
Wine/Spirits: 1 bottle for each crew member, 2 bottles for Master.
Beer: 24 bottles for each crew member. 48 bottles for Master.
IDENTIFICATION CARDS: Not required.
CONSULS: British, German F.R., Norwegian, Swedish, Danish.
REPAIRS: All types of repairs possible.
DRY DOCKS: 1 small dry dock available.
REPATRIATION: No facilities exist.
AIRPORT: Distance from port 2 miles, regular flights.
TIME: GMT. No change.
HOLIDAYS: Work carried out every day.
POLICE/AMBULANCE/FIRE: Police: 3258 and 4222. Fire/Ambulance: 3300 and 3333.
TELEPHONES: None available.
SERVICES: Compass adjusting, radar, echomaster, specialists.
SHORE LEAVE: Allowed.
AUTHORITY: Isafjardarhofn, Box 183, Isafjordur, Iceland. *Tel:* 94-3295.

KEFLAVIK-NJAROVIK: 64.00 N. 22.33 W.

DOCUMENTS: As for "Reykjavik".
PILOTAGE: Pilotage is compulsory for vessels over 100 tons net. Pilot is available for all vessels 24 hours per day and is reached via Reykjavik Radio. Pilot boards vessel 1 mile outside Vatnsnes.
ANCHORAGE: Outside the harbour in depths of 27 m. with good holding ground.
TUGS: Use of tug is not necessary.
BERTHING: Port has concrete pier which will be extended for a length of 110 m., and a wooden quay 45 m. in length. Depth of water in harbour and alongside wharves is 20 ft. to 45 ft. Entrance is easy for access.
STEVEDORES: Working hours: 8 hours per day 0800 to 1700 hrs.
FRESH WATER: Available through hose connection on the quay.
FUEL: Available.
REPAIRS: 2 shipyards available.
AIRPORT: Keflavik International Airport is only 4 km. away.
TIME: GMT. No change.
POLICE/AMBULANCE/FIRE: All Tel: 2222.
TELEPHONES: None available on board.
SHORE LEAVE: Allowed.
AUTHORITY: Harbour Master.

NESKAUPSTADUR, Nordfjordur: 65.09 N. 13.41 W.

DOCUMENTS:

- Crew List.
- Passenger List.
- Customs Documents.
- Provision List.
- Manifests and Ship's Papers.

PILOTAGE: No Pilots. Road clear, keep in middle of fjord.
ANCHORAGES: Depending wind. With North or N.W. winds anchor towards South coast and well in the fjord. When N.E. off town towards North coast, but keep clear of small boat moorings.
MAX. SIZE: Length/breadth no restriction. Main quay is 70 m. long and it is built right out to the steep bank at the coast. Depth close to jetty 7 m. but increases quickly.
HEALTH: Free Pratique automatic from Customs Officer. Radio for doctor if illness on board.
RADIO: Neskaupstadur Radio 2182 kHz (TFM) 24 hour watch. VHF, Channels 16 and 26. Range approximately 40 miles.
TUGS: No tugs but large motor-boats are normally obtainable if necessary.
BERTHING: No specific requirements unless over 7 m. draft, when fendering required.
STEVEDORES: If possible 24 hours ETA. Preferably before 1600 hrs. for commencing next morning. Load or discharge rates according to goods.
MEDICAL: Always send advance notice of required medical attention. Hospital available, also 3 doctors and dentist.
TANKERS: Diameters of lines 4 in. and 6 in. Oil companies B.P. and Shell have their own small quays. The third company Esso uses B.P. jetty.
DENSITY: Normal.
FRESH WATER: Shore line on jetty. No barge.
FUEL: Diesel oil only.
GANGWAY/DECK WATCHMEN: Available but not compulsory.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CERTIFICATES: Ship's Register.
CUSTOMS ALLOWANCES: 200 cigarettes a week while in Iceland. Only 1 allowance of spirit, i.e. on arrival 1 to 3 bottles according to occupation.
IDENTIFICATION CARDS: Not required.
CONSULS: Denmark Tel: 7299, 7430. France Tel: 7119, 7114.
REPAIRS: Limited repairs to engines, hull and deck. Good repairs to radars, sounders, tiller pilots, etc.
DRY DOCKS: None. 1 slipway, 450 tons.
REPATRIATION: Winter flights twice a week or more. Summer every day.
AIRPORT: Distance 3 km.
TIME: GMT, no alterations.
HOLIDAYS: Last Thursday April; 17th June; 1st May; 25th and 26th December; New Year, etc. If work is carried out 31st December, 24th December, Saturday before Easter and Whitsun double pay is claimed.
POLICE/AMBULANCE/FIRE: Telephone office at shore end jetty.
TELEPHONES: No arrangement to place telephones on board.
SERVICES: No tank-cleaning equipment. No discharge of tank-washings. Compass adjusting available.
SHORE LEAVE: Allowed.
DELAYS: None except if berth not available.
DEVELOPMENTS: No expected draft increases. New berths are under construction but will take unforeseen time.

PATREKSFJORDUR: 65.35 N. 23.59 W.

DOCUMENTS: 8 Crew Lists, Passenger Lists, Custom Documents, Health Documents, Manifests, Bills of Lading, Ship's Papers.
PILOTAGE: Pilotage not compulsory, but if needed then contact Radio Patreksfjordur on 2182 M/F.
ANCHORAGE: Anchorage is sheltered by the peninsula.
MAX. SIZE: See "Berthing".
RADIO: Radio Patreksfjordur on 2182 M/F.
TUGS: Available.
BERTHING: The entrance has a depth of 4.7 m. to 4.9 m. (15.5 ft. to 16 ft.) at LLWST. The harbour has a depth of 6.4 m. (21 ft.) at LW, and 10 m. (33 ft.) at HW. 320 m. of quayage with depths from 5.5 m. to 5.8 m. (18 ft. to 19 ft.) alongside. The harbour can be entered by day and night.
STEVEDORES: Working hours 0800 hrs. to 1900 hrs.
MEDICAL: Hospital available, contact through radio.
FRESH WATER: Available. No notice required.
FUEL: Available. No advance notice required.
REPAIRS: Machine-shop. General repairs can be effected. Diver obtainable.
AIRPORT: About 26 km. distance from harbour. Regular service, by airlines.
TIME: GMT. No change.
SHORE LEAVE: Allowed.
AUTHORITY: Patrekshofn, Patreksfiroi.

REYKJAVIK: 64.09 N. 21.56 W. (See Plan)

DOCUMENTS:
For the Immigration Office

- 1 Crew List.
- 1 Passenger List.

For Customs Authority

- Master's Report on vessel's arrival from abroad.
- Master's Certificate with Manifests of all goods.
- Master's Certificate with Manifests of goods to each port of discharge.
- Health Declaration.
- List of Provisions and other Stores in ship.

Ordinary procedure at least 5 copies of each manifest (3 for Customs).
PILOTAGE: Pilotage compulsory. Telegraphic address: Harbour Master, Harbour Office, Reykjavik. Desirable advance notice of ETA 24 hours and again notice 3 hours before expected time of arrival. VHF working Channels 12 and 14 at pilot station and pilot boats. 24 hour watch maintained.

Pilot boat: Grey hull with red and white deckhouse. International signals used if necessary. Pilot boat leaves harbour on request and meets vessel up to 1 nautical mile off Grotta (East of Buoy No. 6). Most frequent boarding place is Buoy 7 Kollafjordur.
ANCHORAGES: Good anchorage at Kollafjordur in 30 to 35 m. water 1.5 miles North of Engey Lighthouse. Anchorage prohibited in neighbourhood of harbour entrance.
RESTRICTIONS: All day service. Draft in old harbour restricted at MLWST to 18 ft. In Sundahofn to 26 ft. No other restriction.
MAX. SIZE: Longest straight quay 280 m. Breadth unrestricted. Depth 26 ft. at MLWST (29 ft. at MLWNT). At present 3 installations for oil carriers to discharge through submerged pipe-lines. Moorings for about 20,000 d.w.t. ships and draft restriction to 21 ft. in the approach to one of these installations.
HEALTH: Pratique obtained through Customs Authorities. In case of suspected disease notify port office or Agent in advance.
RADIO: Reykjavik Radio TFA.
RADAR/VHF: No harbour radar. Pilot office can be contacted by VHF Channel 16. Working Channels 12 and 14.
TUGS: Tugs meet vessels on roadstead. Ship's lines used. One ocean-going tug 1,000 h.p. and 2 smaller tugs available.
BERTHING: Larger vessels preferably handled at high water.
Old Harbour: The Old Harbour is protected by two moles leaving a 100 m. wide entrance. It is divided into the Fishing Harbour (West Harbour) and General Cargo Harbour (East Harbour) where coastal passenger traffic is also served.

In the Old Harbour there are several areas for ship maintenance, the main slipways and a great number of firms specialised in services for the fleet.

Quayage is about 3,300 m. of which there are 600 m. only for smaller fishing craft. Draft at the entrance is 7.0 m. (23 ft.) at MLWST, and depth at quays 5.5 m. to 6.5 m. (18 ft. to 21 ft.). bottom is sand and mud.
Sunda Harbour – Vioeyjarsund: The new harbour area in Vioeyjarsund was opened in 1968. Since then a growing part of the general cargo has been moved through this area with a special quay for grain and a container terminal with Lo-Lo and Ro-Ro facilities. The entrance to the area is not restricted and water depth is more than 8.0 m. (26 ft.) at MLWST. Length of quays is 630 m. with a water depth of 8.0 m. (26 ft.) at MLWST. Bottom is sand and mud.
Sunda Harbour – Kleppsvik: A new harbour area for general cargo is under development in Kleppsvik. The entrance will be a 50 m. wide channel dredged to 7.0 m. (23 ft.) at MLWST. The water depth at the quay will also be 7.0 m. (23 ft.). Length of quay 200 m. 1×32 ton Paceco Portainer with outreach 31 m. available. Ro-Ro Ramp available.
Sunda Harbour – Grafarvogur: The harbour area in Grafarvogur was opened in 1968. This area is used for discharging and storing of cement, gravel and asphalt for industries in the vicinity. Further development is planned for industries with special requirements. An approach channel has been dredged to 4.0 m. (13 ft.) at MLWST and water depth at the quay is 4.5 m. (14 ft.).
Eiosvik: In Eiosvik there is a quay for the State Fertiliser Plant. The entrance is unrestricted with deep water to the quay. Eiosvik offers the best natural site for large ships in the Port of Reykjavik.
STEVEDORES: Stevedoring must be arranged in advance preferably by Agent. Working Hours: 0800 – 1700 hrs. With labour unions permission, work may be carried out until 2200 hrs. and on Saturdays.
MEDICAL: Medical attention available without notice. For hospital stay or surgical operation advance notice desirable, either through Agent or port office.
TANKERS: Submarine pipe-lines diameter for discharging are 8 in. 3 terminals handling vessels of 7,000 – 15,000 g.r.t. Vessels moor to buoys.
DENSITY: Salinity varies from 33.6% to 35.0% giving sea water density about 1027 in average.
FRESH WATER: Water delivered from taps at quay at rate of 20 – 30 t.p.h, on the roadstead delivered by tug with 50 cu. m. water-tank.
FUEL: Grade of fuel oil 200 – 400 sec. Supplied by oil-pipe or by barge. If supplied by barge then 1 day's notice required.
FIRE PRECAUTIONS: Ordinary precautions for handling of dangerous goods applied.
GANGWAY/DECK WATCHMEN: Ship's gangway to be used. Watchmen services from ashore not necessary but can be arranged if asked for.
OPENING/CLOSING HATCHES: Carried out by stevedores.
CUSTOMS ALLOWANCES: 200 cigarettes or equivalent. 0.75 litre beverage, 24 bottles beer.
IDENTIFICATION CARDS: Identification card must be carried.
SURVEYORS: Lloyd's Register, Norske Veritas, Germanischer Lloyd and Bureau Veritas.
DRY DOCKS: Only slipways available up to 2,000 metric tons weight. Dimensions: Length 85 m., breadth 13.6 m.

CERTIFICATES:

1. Certificate of Nationality.
2. International Tonnage Certificate.
3. Certificate of Seaworthiness.
4. Cargo Ship Safety Construction Certificate.
5. Cargo Ship Safety Equipment Certificate.
6. Cargo Ship Safety Radiotelegraphy Certificate or Cargo Ship Safety Radiotelephony Certificate.
7. International Load Line Certificate.

Passenger ships must have certificates No. 1, 2, 3, 7 and in addition Passenger Ship Safety Certificate.

CONSULS:

Belgium	Consul General	Tel. 20000
Brazil	Consul	" 11500
Canada	Consul General	" 25355
Chile	Consul	" 38640
Czechoslovakia	Commercial Attache	" 19823
Denmark	Embassy	" 13747
Finland	Embassy	" 82040
France	Embassy	" 17621
Germany F.R.	Embassy	" 19535
Greece	Consul	" 24303
Israel	Consul General	" 85300
Italy	Consul General	" 11055
Japan	Consul	" 82800
Mexico	Consul	" 25430
Netherlands	Consul General	" 11358
Norway	Embassy	" 13065
Poland	Commercial Attache	" 18759
Portugal	Consul	" 86166
Spain	Vice-Consul	" 21240
Sweden	Embassy	" 82022
Switzerland	Consul	" 24209
Turkey	Consul General	" 16666
U.S.S.R.	Embassy	" 15156
United Kingdom	Embassy	" 15884
U.S.A.	Embassy	" 29100
Uruguay	Consul	" 12720

REPAIRS: All kinds of ship repair possible.
REPATRIATION: Can be arranged.
AIRPORTS: Reykjavik Airport within 10 minutes drive. Mostly for local routes. Keflavik Airport 50 km. distance, served regularly by airlines both to Europe and America.
TIME: Icelandic Summertime used all year round and is same as GMT.
HOLIDAYS: January 1st (New Year's Day); Maundy Thursday; Good Friday; Easter Monday; May 1st; Ascension Day; Whit Monday; June 17th (National Day); First Monday in August (Bank Holiday); Christmas Day and Second Christmas Day. On Christmas Eve and New Year's Eve work stops at noon. Dock work goes on on Bank Holiday and by Labour Union permission work may be carried out on Saturday against overtime payment and exceptionally at night until 2200 hrs.
POLICE/AMBULANCE/FIRE: Police (Main station) 11166; Police (Harbour Station) 10145; Ambulance 11100; Fire 11100.
TELEPHONES: Telephone connection can be arranged at some berths in the old harbour and in Sundahofn telephone connections will be at the quay.
GENERAL: Engines may not be run while ship is berthed.
SERVICES: Compass adjusting carried out by private firm as well as tank cleaning.
SHORE LEAVE: Crew members are allowed ashore.
DELAYS: Normally no delay is to be expected beyond that caused by normal customs clearance.
DEVELOPMENTS: Extension of terminal facilities at Sundahofn under preparation.
AUTHORITY: Port of Reykjavik, Box 382, 121 Reykjavik, Iceland. *Tel:* 354-1-28211. *Telex:* (Via Easylink – London) 051-946240. Ref. 19022255. *Contact:* The General Manager.

SIGLUFJORD: 66.10 N. 18.50 W. (See Plan)

DOCUMENTS: As for "Reykjavik".
PILOTAGE: Compulsory. Pilot meets vessel about 400 m. from harbour entrance.
ANCHORAGE: East of harbour in depths according to draft. Depth 25 m. to 30 m. good holding ground. Gales from North set heavy sea, vessels then seek anchorage in small bay S.W. of Siglunes.
RADIO: Siglufjordur Radio TFX 2182 kHz.
VHF: Channels 16, 24, 26 and 27.
TUGS: None available.
BERTHING: There are several piers and wharves inside the North Mole, 4 quays used by larger vessels have depths up to 23 ft. at LW. The quays have lengths from 50 m. to 125 m.
STEVEDORES: Available. Working hours 0700 to 1200 and 1300 to 1700.
MEDICAL: All facilities available.
FRESH WATER: Available.
FUEL: Available in general grades only.
GANGWAY/DECK WATCHMEN: Necessary.
OPENING/CLOSING HATCHES: Stevedores normally perform this work.
CARGO GEAR: Ship's own gear (no cranes).
IDENTIFICATION CARDS: Not required.
CONSULS: Denmark Tel. 71672 Sweden Tel. 71440
REPAIRS: Repairs to moderate size vessels can be obtained. Diver available.
TIME: GMT. No change.
POLICE/AMBULANCE/FIRE: All tel. 71170.
SHORE LEAVE: Allowed.
AUTHORITY: Siglufjardarkaupstadur, Granugotu 28, 580 Siglufjordur, Iceland. *Tel:* 71237, 71433. *Contact:* K. Rognvaldsson, Captain of the Port.

SKAGASTROND: 65.50 N. 20.20 W.

DOCUMENTS: As for "Reykjavik".
PILOTAGE: Pilots are available. When approaching port, order Pilot through Agent if required.
MAX. SIZE: Max. draft 19 ft.
MEDICAL: Doctor available but located in Blonduos 20 km. away, doctor visits Skagastrond 3 days a week.
FRESH WATER: Available.
FUEL: Available.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Normally carried out by stevedores.
REPAIRS: Small repairs available.
AIRPORT: Nearest 20 km. away in Blonduos.
TIME: GMT. No change.
POLICE/AMBULANCE/FIRE: Police Station and Firemen in the port.
TELEPHONES: Available.
SHORE LEAVE: Allowed.
AUTHORITY: Arnason Berger, Straumnes, 545 Skagastrond, Iceland. *Tel:* 95-4614.

STRAUMSVIK: 64.03 N. 22.03 W. (See Plan)

PORT LIMITS See "Hafnarfjordur".
DOCUMENTS: See "Hafnarfjordur".
PILOTAGE: See "Hafnarfjordur".
APPROACHES: See "Hafnarfjordur".
ANCHORAGE: See "Hafnarfjordur".
TUGS: See "Hafnarfjordur".
BERTHING: This harbour is operated by Hafnarfjordur. Inside the breakwater is a berth, 220 m. long and depth 12.0 m. The entrance channel is 160 m. wide with a depth of 10.0 m.
CRANES: Two 8 ton harbour cranes for handling general cargo.
BULK CARGO FACILITIES: There is a suction unloader for discharging alumina.
DENSITY: Mixed salt and fresh water.
TIDAL VARIATION: Up to 4.5 m.
FRESH WATER: Available.
FUEL: Available.
CONSULS: Available at Reykjavik (10 km.).
REPAIRS: See "Hafnarfjordur".
DRY DOCKS: See "Hafnarfjordur".
SURVEYORS: See "Hafnarfjordur".
Cargo Surveyors: Konnun hf., Ingolfsstraeti 3, 101 Reykjavik. Tel: 91-28422.
CUSTOMS ALLOWANCES: 1 bottle of spirits (0.75 litres); 200 cigarettes or equivalent; 24 bottles of beer or 1 bottle of wine.
AIRPORT: Domestic airport at Reykjavik 10 km. International airport at Keflavik 35 km.
TIME: GMT throughout year.

SHIPMASTER'S REPORT: June 1985.
Documents: Immigration: 1 Crew List and 1 Passenger List.
Customs: Form 1. Master's Report on vessel's arrival.
Form 2. A combined form listing alcoholic beverages, other beverages, tobacco, playing cards, arms, radios, typewriters, etc. victuals and ship's equipment (fuel, lubes, paints, wire and rope etc.).
Form 3. Crew Personal Effects Declaration.
Form 5. Health Declaration.
Form 9. Certificate regarding un-manifested cargo.
Form 10. Certificate of Manifested cargo.
Pilotage: This is a satellite port under the jurisdiction of Hafnarfjordur Harbour Authority, who supply Pilots. Prior notice via Agents. Confirm by VHF to "Hafnarfjordur Pilots", but will also answer to "Straumsvik Pilots". Pilot boards 1 – 1.5 miles outside harbour.
Anchorage: A short term anchorage available close off the port, but poor holding. Good holding found 5.5 miles to N.W., in depth of 22 fathoms, 2.5 miles North of Keillinses.
Restrictions: Large ships berthed and unberthed in daylight only.
Max. Size: Normal max. length 210 m. O.A. Beam unlimited. Depth 12 m., and max. draft guaranteed by charterers 37 ft. (11.28 m.).
Berthing: This port is very small, with one berth only on the inner side of the breakwater. Ships handled comprise about 4 vessels a year of up to 60,000 d.w.t. importing Alumina from Australia for the Icelandic Aluminium Company smelter. Also about 65 vessels a year, of less than 3,000 tons load Aluminium ingots for export.
Tugs: On berthing a tug with bollard pull of 10 to 12 tons, which travels from Reyjavik, is used forward, and the pilot boat, with bollard pull of 3 tons is used aft. In the case of large vessels ships berth head in/port side to.

Cargo Operations: One suction unloader discharges Alumina at about 250-300 t.p.h. For 38,000 tons allow 6 days in port. No public holidays are observed while discharging Alumina. Two travelling cranes also available for loading ingots (8 tons at 20.8 m. radius).
Density: Salt water.
Fuel: Not available.
Fresh Water: Available at about 16 t.p.h.
Provisions: Available at high cost from Hafnarfjordur or Reykjavik.
Other Facilities: None. All minor repairs, medical, Agents, etc., will travel from Reykjavik. There is no permanent population at Straumsvik.
Directions: A group of three conspicuous silos, painted red and white, and about 35 m. in height, are located close to the root of the breakwater and are visible from many miles away.

AUTHORITY: Captain of the Port, Strandgata 4, 220 Hafnarfjordur. *Tel:* 91-50492, 91-53444. *Contact:* S. Hallgrimsson, Captain of the Port.
Board of Direction, Hafnarstjorn Hafnarfjardar, Strandgotu 6, 220 Hafnarfjordur, Iceland.

VESTMANNAEYJAR: 63.30 N. 20.14 W. (See Plan)

DOCUMENTS:
- Health Certificate.
- Crew List.
- Passenger List.
- Manifest.
- Ship's Register.

PILOTAGE: Pilotage compulsory, day and night service. Ship to advise over Vestmannaeyjar Radio ETA. Pilot always available but 1 hour's advance ETA is required.
ANCHORAGE: There are anchorages with depths from 24 m. to 34 m., good holding ground about 0.5 miles North of harbour and on North side of peninsula in depths of 28 m. to 34 m.; this anchorage is exposed to winds between West and North.
RESTRICTIONS: No restrictions except for largest vessels. They must enter at high tide.
MAX. SIZE: 5,000 g.r.t.
RADIO: Vestmannaeyjar Radio. VHF available.
TUGS: Normally join in-coming vessels at anchorage. The use of tug is optional. 1 Tug, 500 h.p.
STEVEDORES: Available. Ordered by Agent. Working hours: 0800-1700 hrs., Monday-Friday.
CRANES: 2 mobile cranes, capacity up to 15 tons.
MEDICAL: Not necessary to receive advance notice. Hospital facilities and doctors available.
TANKERS: Discharge lines, 7 in. No deballasting facilities available.
FRESH WATER: Shore installations on every berth.
FUEL: All grades available.
GANGWAY/DECK WATCHMEN: Available.
OPENING/CLOSING HATCHES: Stevedores.
CUSTOMS ALLOWANCES: For each crew member; 100 cigarettes or 20 cigars or 100 grm. tobacco, and 1 bottle spirits.
IDENTIFICATION CARDS: Not required.
CONSULS: Denmark, Germany F.R., Norway, Sweden and United Kingdom. To be called through Vestmannaeyjar Radio.
REPAIRS: All repairs possible.
AIRPORT: Local airport. Daily connection to Reykjavik.
TIME: Local time GMT.
HOLIDAYS: New Year's Day; Good Friday; Easter Monday; Labour Day (1 May); Ascension Day; Whit Monday; National Festival Day (17 June); Prayer Day; Christmas Day (25 December). No work on New Year's Day, Good Friday, Easter Sunday, Whit Sunday, 17 June, Christmas Day.
POLICE/AMBULANCE/FIRE: All tel. 1666.
SERVICES: Radio, radar services etc. Divers available.
SHORE LEAVE: Allowed.
DEVELOPMENTS: Depth of entrance to harbour to be increased to 6.5 m. New Quays on North Side of harbour to be built in the near future.

SHIPMASTER'S REPORT: August. 1985.
Vessel: Research vessel, length 55 m.
Approaches and Pilotage: Heimaey is the harbour on the largest island in the Vestmannaeyjar Group; off the S.W. corner of Iceland. It is principally a Fishing Port, and is one of the few places providing shelter on the South Coast of Iceland.

ETAs are sent to Vestmannaeyjar Radio.

The Pilot normally boards from a white and red tug, between Heimaey and Bjarnarey Islands, but in S.E. gales a vessel should go to the North side of Heimaey.

A narrow, tortuous channel, with high cliffs on the North side, and a recent (1973) lava flow on the South, leads into an old Volcano crater where a port has been built.
Berths: The quays are modern, and well fendered. We found the harbour full of Fishing Boats, but space is kept for visiting vessels. Turning room is restricted, and high winds could make it difficult. The Pilot Tug assists as required.
Officials/Documents: Icelandic Officials can be very strict.

I prepared: 2 Crew Lists, 2 Ship Store Declarations (British Form C14 was accepted, as this was similar to the Icelandic Form). 2 Lists of Items in Bond – including Beer. 2 Personnel Declarations. 2 Ship's Bar Declarations (Including Beer).
Services: A courteous and efficient service was provided.

Water Supplied ex-quay at 10 t.p.h.

Fuel Delivered by Road Wagon, 5 tons at a time. Both IFO 30 and Gas Oil were available. We were able to alter the stem without any bother.
Provisions: Small quantities available through the Agent on Wednesdays.
Repairs: There are several Slips for fishing vessels.
Cranes: Mobile cranes are easily available.
Communications: Flights are frequent to Reykjavik, and there is a ferry to the Mainland.
Recreational Facilities: The main Tourist Attraction is the Volcano, still smoking from the 1973 eruption.

Good views of the spectacular Harbour and Entrance can be had by climbing up into the surrounding hills. The commercial area, near the Docks, is mainly taken up by the Fishing Industry. There are a few shops, a Bank and a Post Office. Prices are reported to be high.

There are some Snack Type Bars. Beer is Banned! Spirits are available – at a price.

AUTHORITY: Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

India

GENERAL (See Plan)

SHIP REPORTING SYSTEMS:

Description:

The Indian Ship Position and Information Reporting System (INSPIRES) is mandatory for all Indian merchant vessels including coastal and fishing vessels of more than 300 g.r.t. Other vessels within the reporting area are invited to participate in the system. The purpose of the system is to provide date for SAR operations, vessel traffic management, weather forecasting and the prevention and containment of marine pollution. Vessels participating in the system send regular reports through selected radio stations (see "Transmission of Messages").

Reporting Area:

The sea area within the limits defined by the following:

(a) The India-Pakistan border at the coast.
(b) 12° N., 63° E.
(c) African coast at 12° N.
(d) African coast at 10° 30′ S.
(e) 10° 30′ S., 55° E.
(f) 30° S., 55° E.
(g) 30° S., 95° E. and Northwards to the coast.

Requirement for Messages:

There are four types of messages, each containing a selection of the items listed in the *Form of Message* below:

1) The *Sailing Plan (SP)* should be sent just prior to sailing or as soon as possible after sailing from a port within the reporting area, or when the vessel enters the area.
2) A *Position Report (PR)* should be sent every day according to the schedule below:
   (a) West of 80° E.

Latitude of vessel	0°–10° N.	0400–0455 GMT.
	10° N.–20° N.	0500–0555 GMT.
	20° N.–30° N.	0700–0755 GMT.
	0°–30° S.	0400–0455 GMT.

   (b) East of 80° E.

Latitude of vessel	0°–10° N.	0300–0355 GMT.
	10° N.–20° N.	0500–0555 GMT.
	North of 20° N.	0600–0655 GMT.
	0°–30° S.	0400–0455 GMT.

3) A *Deviation Report (DR)* should be sent when the ship's position varies significantly from the position that would have been predicted from previous reports, when changing the reported route or as decided by the Master.
4) A *Final Report (FR)* should be sent on arrival at destination or when leaving the INSPIRES area.
   Brief reports on cyclones, deep depressions, defect and damage to the participating vessel and marine pollution may be sent at the discretion of the Master.

Form of Messages:

The first line of every message is always INSPIRES/message type (SP, PR, DR, FR or title in full for other reports). Subsequent lines start with the line identifier; the line identifier and other data items on a line should be separated by /. Lines are terminated by //.

Key to line identifiers:

A / Vessel name / Call Sign //
B / Time (GMT) // – (date and time of report 6 digits, day of month (2), hour and minutes (4)).
C / Latitude / Longitude // – (latitude 4 digit group in degrees and minutes with N. or S.; longitude 4 digit group in degrees and minutes E.
D / Position // (True bearing (3 digits) and distance in n. miles (2 digits) from clearly identified landmark (state landmark)).
E / Course // – (true heading, 3 digit group).
F / Speed // – (in knots and tenths of knots e.g. 155=15.5).
G / Port of departure // (name of last port of call).
H / Time / position / of entry into the system // – (Time as B, Position as C or D).
I / Destination / ETA // – (name of port and ETA as B).
J / Pilot carried // – (state whether deep sea or local pilot is on board).
K / Time / point of exit from the system – (time as B, position as C or D).
L / Route // – (Position of each turn point should be given as in C, together with type of intended track between e.g. RL–Rhumb line, GC–Great circle or Coast (in this case ETA of passing significant points expressed as in B should be given)).
M / Radio communications // – (state full name of stations and frequencies guarded).
N / Time of next report // – (as for B).
O / Draft // – (in metres and centimetres – 4 digits).
P / Cargo // – (brief details of any dangerous cargoes).
Q / Defects or damage // –(Brief details of any defects, damage or other limitations.)
R / Pollution // – (brief details of type of pollution and position as C or D).
S / Weather // – (brief details of cyclonic conditions only).
T / Ship's Agent // –(name and particulars).
U / Ship's size/type // –(length, breadth in metres, gross tonnage and type).
Y / Medical personnel // –(doctor, physician's assistant, nurse or no medic).
W / Number of persons on board//
X / Remarks // –(any other information – brief details).

Sailing Plan (SP)	consists of items A, B, E, F, G, I, L, M, N, O, P, V, W; items C or D and H should be added on entering the area.
Position Report (PR)	consists of items A, B, C or D, E, F, N.
Deviation Report (DR)	consists of items A, B, C or D, E, F, L, N and Q if appropriate.
Final Report (FR)	consists of items A, B, C or D; items E, F, K and L should be added when leaving the area.

The International Code of Signals should be used to send signals where language problems exist. Items T and U must be included by all Indian vessels; other vessels can include these items in the Sailing Plan (SP) at their discretion.

Transmission of Messages:

INSPIRES messages will be accepted free of charge by Indian Naval Communications Centres (COMCEN) Bombay (VTF) and Vizag (Vishakhapatnam) (VTO). Reports sent through Bombay Radio (VWB) and Madras Radio (VWM) are chargeable at present but likely to be made free in the near future. Ships are advised to use telex through their agent for the SP report. Vessels fitted with WT are requested to assist vessels fitted with RT only to relay Position Reports (PR).

COURTESY FLAG: Correct flag to be flown by foreign ships visiting Indian ports is Indian Merchant Navy Ensign (a red flag with a length of one and one half times the width and with National Flag of India superimposed in top quarter next to staff) and not Indian National flag.

SHIP'S OFFICER'S REPORT: Apart from the various forms and Crew Lists, etc., the Customs Boarding Officer also requires a List of Private Property in possession of the Master, officers and crew on Form No. IV in duplicate and the local Agents need 2 more copies of the same for clearing the vessel inward. This procedure is followed when a vessel arrives from abroad or even when she is arriving from an Indian Port. It is common in both the cases.

ALLEPPEY: 09.29 N. 76.23 E.

PORT LIMITS: On the North by a line drawn from the North boundary pillar (white masonry structure) to 7 fathoms of water. On the South by a line drawn from the South boundary pillar, S.W. to 5 fathoms of water and thereon West to 7 fathoms of water. On the West by a line running North to South joining the Northern and Southern boundary lines. On the East by the beach road from the North boundary pillar to a stone on the beach road 220 ft. East of South boundary pillar.

DOCUMENTS:

(a) For Port Office:
Last Port Clearance (original for verification and return). Ship's Registry (original for verification and return). Load Line Certificate (for perusal and return). Safety Radio Telegraphy Certificate (for perusal and return). Safety Equipment Certificate (for perusal and return). Passenger List (1). Crew List (1). Deck Cargo Certificate (1).

(b) For Customs:
Application for Entry Inwards. Last Port Clearance. Port Office Entry Certificate. Arrival Report. Particulars required by Customs in approved form. Favour Parcel Certificate. Gift Parcel Certificate. Health Report. Opium Certificate. Arms and Ammunition Certificate. Import Manifest. Passengers List. Stores List, Crew List, and Private Property Declaration. Ship's Currency Declaration. ILH Receipt.

PILOTAGE: None. Open roadstead port.
ANCHORAGES: Approach to port free from navigational dangers. The anchorage, 3 miles offshore, provides good holding ground.
MAX. SIZE: Being open roadstead, vessels of any size can anchor according to draft.
HEALTH: Port Health Officer may be contacted by telegram addressed "Cyclone Alleppey" for issue of Pratique certificate. Procedure to be followed in Indian Port Health Rules.
RADIO: Morse system of signalling by light and signalling by International Code flags alone are available. Vessels code can be used as call sign.
TUGS: 2 tugs owned by Port Department render services per requisitions from Agents. Tugs usually approach vessels after anchoring.
BERTHING: No Berths. Electric cranes on the pier.
MEDICAL: Government hospitals available.
DENSITY: 1025.
FRESH WATER: Only available in very small quantities.
FUEL: ~~None~~ available. NOT
GANGWAY/DECK WATCHMEN: Available.
OPENING/CLOSING HATCHES: By stevedores.
IDENTIFICATION CARDS: Necessary only when crew land ashore.
CONSULS: Nil.
REPAIRS/DRY DOCKS: None.
REPATRIATION: Crew changes are effected subject undertaking by Owners through Agents.
AIRPORT: Cochin, 62 km. North of Alleppey. Internal flights only.
TIME: GMT plus 5.5 hours.
HOLIDAYS: For work on approved closed port holidays and national holidays labourers have to be paid extra in addition to wages.
POLICE/AMBULANCE/FIRE: Emergency (Fire and Police) 100 Alleppey Exchange.
SHORE LEAVE: Crew allowed to land. Foreigners required obtain prior permission of Police authority through Agents.
AUTHORITY: Senior Port Conservator.

BEDI BUNDER: 22.31 N. 70.02 E.

DOCUMENTS:

1 Maritime Declaration of Health.
1 Last Port Clearance.
6 Crew Lists.
6 Passenger Lists.
4 Stores Lists.
4 Private Property List of crew and officers.
4 Certificates of Currency, Arms and Ammunition and Deck Cargo.
1 Same Bottom cargo list.
1 Hazardous Cargo List with categories.

PILOTAGE: Vessels anchor at roads as pilotage not compulsory; however, if requested in advance by Master to "Portal Bedi", ship may be piloted from Pirotan Lighthouse to Rozi Anchorage about 7 miles from port by local Pilot Guide. Pilot boards vessel off Pirotan Island Light (Lat. 22° 36′ N., Long. 69° 57′ E.).

ANCHORAGE: Lighterage port. Vessels anchor at Rozi Anchorage about 7 miles from port, where good anchorage up to 7 fathoms at LW.

HEALTH: Pratique granted on delivering Maritime Declaration of Health to Customs Officer on boarding. Vessels having touched yellow fever area prior to arrival granted Free Pratique by Mosquito Party to be deputed from Kandla, which can only be arranged by prior notice failing which vessel has to proceed either Kandla or Bombay for Free Pratique.

RADIO: Call sign VUK5. Working hours:

0930 – 1130 hrs.   1730 – 1930 hrs.
1330 – 1530 hrs.   2130 – 2330 hrs.

Frequency 600 m. or 500 kHz, working at 429 m. and calling at 500 m.

TUGS: Port tug available for use at anchorage.

BERTHING: No berths.

STEVEDORES: Agents and stevedores require advance ETA of 24 hours for preparing labour gangs. Daily loading is 400/500 tons for bagged cargo.

MEDICAL: 24 hours notice required for medical service. Government hospital at Jamnagar where vaccination/fever injection services available.

DENSITY: 1025.

FRESH WATER: Supplies by barge capacity 50 tons. Possible supply about 50 tons every alternate tide subject adequate supply of water in port area.

FUEL: None.

GANGWAY/DECK WATCHMEN: The services of watchmen are recommended.

OPENING/CLOSING HATCHES: By ship's crew.

CERTIFICATES:

Ship's Register.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Derat Exemption Certificate.
Cargo Gear Certificate.

CONSULS: None.

REPAIRS: No facilities for repairs to ships.

DRY DOCKS: None.

AIRPORT: Jamnagar – 7 miles from city. Daily flight Jamnagar-Bombay.

TIME: GMT plus 5.5 hours.

HOLIDAYS: Non-working days and work not permitted even on payment of overtime charges: Indian Republic Day; Bakri-Id; Holi; Muharram; Gokulastami; Dasehra; Diwali; Ramzan-Id.

POLICE/AMBULANCE/FIRE: District Superintendent of Police 100 and 3795; Ambulance/Casualty Department 4444; Fire 101.

SHORE LEAVE: Crew members allowed ashore in emergency or for medical treatment. Necessary police permits take 48 hours.

REGULATIONS: No launch services available for crew. Only 5 ships allowed to work at time at anchorage. Further arrivals wait turn.

DELAYS: Delay expected for loading and discharging in monsoon due to limited number of barges available.

GENERAL: Tidal port and barges loaded and sent out to ship during tide time only. Loading of barges carried out manually.

DEVELOPMENTS: The scheme of creating additional facilities, road connection, transit godowns, electrification and water supply and cranes, etc. near mouth of creek. This newly developed area is completed and connected by good all weather road with City of Jamnagar.

AUTHORITY: Port Officer.

BELEKERI: 14.43 N. 74.15 E. (See Plan)

PORT LIMITS: *North:* A line drawn due West from Kawada Guda Peak into the sea up to 7 fathoms of water starting from a point 50 yards above high-water mark of the shore.
East: Seashore of Belekeri Bay 50 yards above high-water mark from North Boundary Mark to rocky promontory in Lat. 14° 40′ N. including the Belekeri Creek and all branches thereof, as far as navigable and the shores and banks within 50 yards of high-water mark Spring tides including Islands. All patta lands and other private sites excluded.
South: A line drawn due West from a point 50 yards above high-water mark of rocky promontory in Lat. 14° 40′ N. into the sea up to 7 fathoms of water.
West: A line joining the two 7 fathom points in the sea.

DOCUMENTS:

8 Crew Lists.
2 Manifests of Stores.
2 Private Property Declarations.
2 Currency Lists.
1 Maritime Declaration of Health.
3 Passenger Lists.
4 Import Manifests.
Last Port Clearance.

PILOTAGE: Not necessary. Vessels anchor in stream and in open sea. Ships can be manoeuvred under guidance of Port Officer.

ANCHORAGE: The anchorage for shallow draft vessels in open roadstead is with Kukra Island bearing 080°(T) distance about 1.5 miles in depth of 27 ft. to 29 ft. Anchorage for deep drafted vessels is with Kukra Island bearing 080°(T) distance about 2.5 miles in depth 34 ft. to 37 ft.

HEALTH: Medical Officer, Ankola acts as Port Health Officer. Free Pratique to incoming vessels granted by radio. All vessels calling from foreign destination must send radio message addressed "Medical Officer, Ankola", at least 48 hours before entering, giving last port of call, number of crew, health conditions, ETA and requesting Pratique; same message must be repeated to Agents also, on which Pratique granted on shore. Anchoring time is Pratique time. For vessels from Indian ports Pratique not required. Vessels which have taken on board passengers or crew from yellow fever areas within 30 days of departure from such ports will be under quarantine. Free Pratique will not be granted until Mosquito Search Party, from nearest major port (i.e. Cochin, Goa or Bombay) has inspected, disinfected and certified that ship fit for granting Pratique. Master to inform Agent well in advance if arriving from yellow fever area to enable arrange Mosquito Search Party for quick Pratique.

RADIO: Recommended to give ETA or Pratique messages via Goa or Bombay Radio.

BERTHING: No berths.

STEVEDORES: ETA required at least 48 hours prior arrival order Agents advise Shippers and stevedores.

MEDICAL: No hospital but good medical aid given at Karwar, 20 miles distant. In case of inoculations and vaccination at least 2 days advance notice to be given for vaccines to be brought from Hubli or Bombay, distance 100 and 150 miles respectively.

DENSITY: 1025.

FRESH WATER: Can be supplied from Karwar by water barge.

FUEL: None.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Generally done by ship's crew.

CERTIFICATES:

Ship's Register.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Derat Certificate.
Vaccination and Inoculation Certificates.

CUSTOMS ALLOWANCES: 200 cigarettes allowed per crew member. Wine and/or Spirit: 1 bottle of light spirit and 1 bottle of hard spirit per crew member.

CARGO GEAR: Valid International Cargo Gear Certificate not more than 12 months old. Validity shall cover whole period of loading and discharging.

IDENTIFICATION CARDS: Not required.

CONSULS/REPAIRS/DRY DOCKS: None.

REPATRIATION: Arranged from Goa or Bombay.

AIRPORT: Nearest airports Goa or Bombay.

TIME: GMT plus 5.5 hours.

HOLIDAYS: Observed as declared by Port Authorities. Non-working days when work not permitted even on payment of overtime: Republic Day (26th January) and Gandhi Jayanti (2nd October).

POLICE: Tel: 49.

SHORE LEAVE: Permission may be obtained (Chinese personnel not allowed to land on shore).

AUTHORITY: Port Conservator, Belekeri, Ankola, Uttar Kannada District, Karnataka State, India. *Tel:* Belekeri 22.

BHAVNAGAR: 21.47 N. 72.08 E.

DOCUMENTS:

Ship's Register.
Load Line Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Last Port Certificate.
Manifest on prescribed form (3 copies).
Declaration of private and personal property.
2 Copies of Crew List.
Customs circulation copy issued by Boarding Officer of last Indian Port of call.
Place and date of Derat Certificate.

PILOTAGE: Pilotage should be arranged in advance through ship's local Agent who may be contacted via the port radio, call-sign VUJ-9. An ETA should be sent at least 48 hours in advance in order to arrange Pilot. Pilotage is compulsory. Pilot boat is normally a tug boat which can be contacted by VHF. Pilot station is 4.5 miles N.N.E. of Piram Island Lighthouse and pilot boat will only be on station when the vessel is scheduled to arrive. Vessels should arrive at pilot station about 2 hours prior to time of HW and are advised not to anchor awaiting a Pilot but to make a reciprocal course until arrival of the pilot boat.

ANCHORAGE: Vessels up to 35 ft. draft are anchored about 3 miles Eastward of Perigee Light Vessel (increased from 31 ft. on a trial basis). All vessels at anchorage are loaded and discharged by means of lighters.

Precautionary guidance to the Master of the Ship arriving at Bhavnagar Anchorage:

1. Proper anchorage watch to be kept throughout the period at the anchorage.
2. Engine should be kept on stand-by so as to be made available within 20 minutes in case of an emergency when Spring tides are running.
3. To prevent yawing during Spring tides a second anchor is to be used with about 2 shackles and must be heaved up and dropped well in advance of every turn of the tide, (about 1.5 hours before and after tide change) so as not to foul the anchor.

Suggested routine is as follows:

(a) Heave up the riding anchor to one shackle.
(b) Steer well clear, about 35° to 40° from the leading anchor.
(c) Let go second anchor.
(d) Walk back to get good lead on second anchor.
(e) Let go second anchor 1.5 hours after HW.
(f) Heave up second anchor 1.5 hours before LW.
(g) Let go second anchor 1.5 hours after LW.
(h) Heave up second anchor 1.5 hours before HW.
(i) Never clear the fouled anchors during the middle of the tide, it should be done at slack water, i.e. about 1.5 hours before relevant end of the tide.
(j) In case of violent shearing the steering may be used. Auto-pilot can be made use of to steer a course in between yaw.

MAX. SIZE: Up to 500 ft. length, and up to 65 ft. breadth may berth alongside.

Permissible draft for a particular tide is arrived at by subtracting 17 ft. from predicted height of HW for that particular tide.

HEALTH: Healthy ships are granted Pratique by the Pilot. If the Vessel is coming from a Yellow Fever area or a jigger infected port within the last 30 days then Pratique is granted by the Port Health Officer at Kandla.

RADIO: Bhavnagar Port Radio, call sign VUJ-9 should be used for routing ETA messages, and is also used by Agents in cables to shipping.

Time of operation: 0200 – 0700 hrs.
0800 – 1300 hrs.
1400 – 1800 hrs.
Range: 250 miles.
Calling Frequency: 500 kHz and VHF Channel 16.
Working Frequency: 418 kHz and VHF.

VHF: Port Control available 1100 hrs. to 1800 hrs. on Monday to Friday and 1st and 3rd Saturday of each month.

TUGS: Tug assistance is available for berthing and unberthing vessels in inner harbour. Position where tugs join the vessel is dependent upon prevailing weather conditions. Usually ship's lines are used in connections to tug.

BERTHING: Berthings are as per tides and according to permissible drafts. Port equipped with 3 berths having 6 cranes with 3 tonnes capacity. Cranes available for loading or discharging ship cargo. 3 mobile cranes with capacity up to 18 tons and 1 fork lift also available.

Storage: Concrete Jetty: 16 transit sheds with floor area of 21,205 sq.m.

Steel Jetty: 3 transit sheds with floor area of 4,753 sq.m.

Godowns: Steel Jetty: 51 godowns with 50 partitions. Total floor area of 59,710 sq.m.

In City: 3 godowns with floor area of 2,230 sq.m.

Ample open storage space is available.

Notice for the attention of all Masters and Officers:

A lock gate has been installed at the port. You are perhaps, not aware that, this is not the conventional type of lock gate provided in the vicinity of artificial dock basins.

The Bhavnagar lock gate is a single tension gate, which is lifted vertically above the dock platforms and then slewed to 90° on the dock platforms. In this way the dock entrance is cleared for ship movements. With this arrangement the function of the gate is limited to water impounding and to an extent silt reducing.

The tidal conditions at the port are such that HW heights on successive flood tides vary by as much as 6 ft. 6 in. during Springs. Therefore, at the time of opening the gate water, level on both sides will not be equal. Due to this there is a necessity to slightly lift the gate and flush the channel to equalise the water levels before the gate is finally lifted up. During this period, vessels lying alongside the jetty will have a tendency to surge. Instances have come to the notice of this office where vessels have broken their moorings. Such surgings are by no means violent and with a little care breaking of moorings can be avoided.

All Shipmasters are, therefore, requested to bring this to the notice of their duty Officers. As the flushing may take place any time between 2.5 hours to half an hour before HW. Care should be taken within this period to tend the moorings and to maintain a gangway watch. There is, however, no necessity to remove the gangway. Permissible draft may vary due to siltation.

STEVEDORES: The stevedoring gangs are arranged directly by Agents through approved stevedores.

Working Hours: Day: 0800 hrs. to 1200 hrs. and 1300 hrs. to 1700 hrs.

Overtime: 1800 hrs. to 2200 hrs. and 2300 hrs. to 0300 hrs.

Recess: 0300 hrs. to 0800 hrs. and 1200 hrs. to 1300 hrs. 1700 hrs. to 1800 hrs. and 2200 hrs. to 2300 hrs.

MEDICAL: Medical facilities can be arranged by Master through Agent. Hospital facilities available in city of Bhavnagar which is 13 km. from port.

FRESH WATER: Fresh water supplied alongside jetty as well as at anchorage.

Shipmaster's Report: Water is often in short supply, and ships may be unable to obtain any at all at the anchorage. Ships should not rely upon an evaporator to make water at the anchorage, due to the high mud content of the sea water.

FUEL: Oil bunkering available in limited quantity.

FIRE PRECAUTIONS: Alongside jetty fire-fighting facilities available. At anchorage fire-fighting facility is provided by the tug.

Usual fire precautions applicable.

GANGWAY/DECK WATCHMAN: Gangway and deck watchman are recommended.

OPENING/CLOSING HATCHES: As arranged between the Master and stevedores.

SHIP'S CERTIFICATES: Registration; Safety Equipment; Safety Radio and Telegraphy; International Load Line.

CUSTOMS ALLOWANCES: As per Customs regulations in force from time to time at Indian ports.

CARGO GEAR: Ships should possess valid Cargo Gear Certificate.

CREW IDENTIFICATION CARD: Valid international passport or identification card necessary.

CONSULS: No consulates at port. Nearest consulates are at Bombay.

REPAIRS: No repair facilities exist for the ship except repairs of minor nature which could be undertaken by private repair firms.

DRY DOCKS: Small dry dock available for repairs of vessel of up to 200 ft. length.

SURVEYORS: Surveyors should be arranged in advance with Agent. Surveyors come from Bombay.

REPATRIATION: Possible.

AIRPORT: Bhavnagar City is served by an airport situated about 7 km. from the Port. Regular flights to Bombay are available daily and to Surat on Monday, Wednesday and Friday.

TIME: GMT plus 5.5 hours.

HOLIDAYS: 8 holidays a year declared by Port Authorities on which working of the ship can be attended at the option of the port.

POLICE/AMBULANCE/FIRE: Police force and ambulance and fire facility available from Bhavnagar City. Limited fire-fighting facility available at port.

TELEPHONES: No facility is available for providing telephones on board the ships.

SHORE LEAVE: Citizens of The People's Republic of China and Pakistan not allowed ashore. All other nationals are allowed to go to Bhavnagar City which is 13 km. from port for which shore passes are issued by Customs Dept.

REGULATIONS: Photography in port prohibited. No crew member allowed to take liquor ashore.

DELAYS: Delays in berthing depend upon number of ships working on berth and awaiting if any. At anchorage generally not more than 2 ships are worked at a time.

DEVELOPMENTS: Intensified dredging operations are proposed to be undertaken for increase in drafts of the vessels berthing.

SHIPMASTER'S REPORT: April 1981.

Bhavnagar discharging anchorage is a dangerous anchorage due to strong currents and an abnormal bottom.

All Shipmasters must make contact by cable 24 hours before arrival and await appointment from Port Authorities and pilot station. VHF not available and radio station working only during daytime.

All ships must arrive at pilot station, maximum 2 hours before HW and only during daytime and in good visibility, otherwise Pilot cannot board.

For many years anchorage was used for discharging, but now closed as about 300 anchor-chains remaining on bottom. In 1981, another anchorage opened, near to the port, and up till April, 4 ships lost anchors due to strong currents and irregular bottom. Contact with shore is very difficult and at night time impossible.

Our vessel was there for discharging and from 0300 hrs. when port anchor broke with 7 shackles of chain, up till 0700 hrs. we were waiting for tugboat from shore to pick up 100 stevedores, but was impossible. At 0700 hrs. we took ship out of dangerous area without Pilot and without any assistance, with 100 stevedores onboard.

To enter Bhavnagar Port, draft no more than 17 ft. and breadth no more than 65 ft., to pass the locks.

AUTHORITY: Port Officer, Gujarat Maritime Board, New Port Bhavnagar, Bhavnagar (Gujarat), India. Pin Code No. 364005. *Tel:* 24302 (office), 26985 (residence). *Telex:* 0162-224 GMB IN. *Cables:* Portal Bhavnagar. *Contact:* Captain S.K. Singh.

BOMBAY: 18.56 N. 72.49 E. (See Plan)

PORT LIMITS: Vessel is considered to have "arrived" when Pilot is embarked and/or when vessel is required to anchor outside pilotage area awaiting a suitable tide, as in the case of large tankers.

DOCUMENTS: See "Calcutta".

Agents to submit berthing application 15 days prior to vessel's arrival together with cargo documents.

PILOTAGE: Motor pilot vessel *"Venu"* stationed Lat. 18° 51′ N., Long. 72° 49.5′ E. White, buff-coloured funnel, "Pilot" painted black capitals, exhibiting International Signals by day/night. Call sign "ATDZ".

Minimum advance notice 24 hours to Agents and Harbour Master through Bombay Radio (VWB) and 12 hours to pilot vessel on WT. Pilot vessel contacted VHF Channels 12, 14 and 16. In case pilot vessel not on station, vessels advised anchor at pilot station, draft permitting, and wait instructions.

Vessels must not proceed beyond Sunk Rock inwards without a Pilot. Pilot normally boards/disembarks 1 mile E.S.E. of Prongs Reef Buoy. Whenever draft restrictions apply or a berth or anchorage is not available the Harbour Master will advise the correct time at which to approach the pilot station and vessels should stand off until such time. Deep draft vessels normally enter 2 hours before HW.

ANCHORAGES: More than 60 anchorage berths radius 1,000 ft. with depths from 38 ft. to 14 ft.; of these two 38 ft.; 30 between 30 ft. and 35 ft.; 22 between 20 and 30 ft.; remainder below 20 ft. All anchorages safe.

In case of firing practice from Colaba Point, vessels to shift to new anchorage "A" with following co-ordinates:

(1) Lat. 18° 08.2′ N., Long. 72° 28.6′ E.
(2) Lat. 18° 08.2′ N., Long. 72° 33.2′ E.
(3) Lat. 18° 02.0′ N., Long. 72° 34.8′ E.
(4) Lat. 18° 02.0′ N., Long. 72° 31.1′ E.

when so instructed by Port Authorities.

RESTRICTIONS: According to state of tide and draft.

MAX. SIZE: Drafts are subject to dredging, rise of tides. Drafts every month are declared by Deputy Conservator.

Name of Dock		*Max. Normal Dimensions (ft.)*	*Max. Oversize Dimensions (ft.)*	*Remarks*
Indira Dock Basin Berths	LOA	625		
	Beam	85		
	Draft	29 to 30		
Ballard Pier Extension Passenger Terminal	LOA	750		Passenger vessels including 'Queen Elizabeth II'
	Beam	95		
	Draft	30		
Ballard Pier Mole Station	LOA	600	650	
	Beam	85	90	
	Draft	29		
Harbour Wall Berths	LOA	550		
	Beam	70		
	Draft	19/20		
Victoria Dock	LOA			
	By Day	460	460	
	By Night	400	400	
	Beam	62	65 Day only	
	Draft	19	19	
Prince's Dock	LOA			
	By Day	500	500	
	By Night	460	460	
	Beam	61.03	61.03 Day only	
	Draft	17		
Prince's Dock Harbour Wall New Ferry Wharf Berths	LOA	250		
	Beam	45		
	Draft	15		
Butcher Island Marine Oil Terminal	LOA	740	780	World Bank tanker size with certain conditions
	Beam	95	130	
	Draft	33.5 to 37 depending on tides and berths	31 to 32	
	Displacement	Max. 70,000 tons	70,000 tons Day time only	
Butcher Island Berth No. 4	LOA	984		
	Beam	85		
	Draft	42		Depending on tide
	Displacement	125,000		
Pir Pau Pier Berth	LOA	560 day light	*585	*Vessel to be equipped with bow thruster and be able to pump over tide
	Beam	85	*95	
	Draft	21		

Also see "Tankers".

PRATIQUE: The Master of every vessel calling Bombay from a foreign port must send the following particulars by cable to "Quarantine Bombay" 24 hours prior to arrival and request for radio pratique:

AAA ports of loading BBB last port of call CCC date of departure DDD ETA discharging port EEE vessel's Maritime Declaration of Health is negative and total number of crew on board all healthy FFF vessel has not called at any port in East Africa between Northernmost point of Eritrea and Southernmost point of Tanzania including Zanzibar or any other yellow fever infected area within last 30 days GGG no unusual mortality of rats on board HHH no monkeys III no persons embarked at Aden or Djibouti.

If the vessel is coming from a yellow fever area, then the Port Health Officer boards the vessel for inspection before granting Free Pratique.

RADIO: Bombay Coastal Station, call sign VWB.

Information regarding weather will be broadcast at 0630 hrs. and 1030 hrs. local time on 2,000 metres.

Tankers: Radio Advice: Radio Agents 96 hours before arrival giving Master's name, ETA, draft, ports visited last 30 days, vessel's gross and net tonnage, present loaded displacement, distance manifold from amidships, cargo quantities on board gradewise, and, if Bombay last discharge port, "Load-on-top" data, vaccinations required, men for doctor and dentist, supplies and cash requirements. *Failure to comply with foregoing could incur berthing delays.* Confirm ETA 48 hours before arrival. Any subsequent changes to be notified to Agents.

Note: Agents Offices are closed from Friday 1730 hrs. IST to Monday 0930 hrs. IST. Week-end messages to be in by Friday afternoon.

If wheat, flour, rice or tea required, advise quantity required and balance remaining on board, as these are restricted items in India and notice is required to release them. Radio "Quarantine Bombay" 12 hours before arrival using Standard Quarantine Messages from International Code of Signals, if vessel has called at a Yellow Fever area port within the last 30 days, whether all on board have valid Yellow Fever Vaccination Certificates or if any contagious disease is suspected.

Radio Pilot as soon as possible giving ETA, draft and any subsequent changes in ETA to the pilot vessel; call sign ATDZ Frequency: 500 kHz, working range: 800 miles, watch keeping 0400 – 0600 hrs., 0800 – 1000 hrs., 1200 – 1400 hrs., 1600 – 1800 hrs. GMT on weekdays only. These messages are free of charge.

Bombay Port Trust operates a VHF Service on Channels 12, 14 and 16. Call Sign – "Harbour Control" on a 24 hour basis for berthing control purposes.

Agents can be contacted by Bombay Radio VHF Channel 26, and thence public telephone system.

Where for any reason such as adverse weather, a vessel does not anchor on arrival the Master should ensure that the Port Authority is advised of his arrival as vessels are handled on a first-come-first-served basis.

N.B.: A Naval Signal Station is situated on the extreme south end of Bombay Is. at Colaba Pt. and all ships entering or leaving port are liable to be called up by signal lamp. Masters are required to answer such signals by lamp should their ship be called up.

Also see "VHF".

RADAR/VHF: No port radar service. Shipmaster contacts pilot vessel by ship's radio or VHF on international frequencies. Channels No. 12 and 14 also available on VHF.

TUGS: 9 tugs, 900 h.p. – 3,000 h.p. Tugs join vessel when close dock entrance and assist undocking. Ship's and tug's lines used.

BERTHING: *Indira Dock:* 21 berths, able to handle cargo vessels up to 20,000 d.w.t. Average length of berth 150 m. Most berths are equipped with 1×6 ton crane and 4×3 ton cranes.

Victoria Dock: 15 berths, able to handle vessels up to 5,000 d.w.t. Average length of berth 110 m. Most berths are equipped with 1.75 ton and 1.5 ton cranes.

Prince's Dock: Length 1,560 m. of which 1,200 m. is available for handling cargo. There are 8 berths able to handle vessels up to 5,000 d.w.t.

Ballard Pier: Length 244 m., width 110 m., has been converted into a container berth with large back-up area for stacking containers. 2 gantry cranes (35 tonnes each) and 2 transtainers on rubber tyres (35 tonnes each) have been provided.

The extension at Ballard Pier is the new passenger terminal and receives passenger vessels up to 30,000 g.r.t. at any stage of the tide, commensurate with draft.

CONTAINER HANDLING FACILITIES: New container terminal at Indira Dock No. 1 and 12B and Ballard Pier. Total area 12 acres. 2×35 tonnes rubber tyred gantry cranes provided at Indira No. 1 Dock.

CRANES: *Quay side:* Electric and Hydraulic cranes available at Indira, Prince's and Victoria Docks.

Mobile Cranes: 56 mobile cranes with capacities up to 43 tons available.

Heavy Lift: Electric crane of 60 tons and steam crane of 20 ton capacity.

Floating Cranes: 2 available, 60 ton and 125 ton capacity.

STEVEDORES: Supplied by Dock Labour Board. Port Trust supplies shore labour for handling cargo, including stacking in sheds.

MEDICAL: Hospital facilities available. Notice in sufficient time, depending on seriousness of case, to arrange for transport, hospitalisation, etc.

TANKERS: Reducing pipe connections available at jetty. Dirty ballast tank available at Marine Oil Terminal. Four berths at Butcher Island and one berth at Pir Pau exclusive to tankers. For draft details see "Max. size".

Pir Pau can handle tankers up to 16,000 d.w.t. and the Marine Oil Terminal at Butcher Island can handle tankers up to 125,000 d.w.t. at one berth, up to 54,000 d.w.t. at two berths and 36,000 d.w.t. at the other berth.

Tugs/Mooring: 2 tugs required for berthing. Conditions at Pir Pau during S.W. monsoon necessitate the use of heavy wire springs which are supplied by the Bombay Port Trust.

Double back springs are required at Butchers Island on account of the Strong Ebb stream experienced there. Prior to the start of the Ebb it must be ensured that both back springs and breast lines are taut.

Normal mooring lay out includes in addition 3 head/stern ropes and 2 breast ropes fore and aft. Moorings must be tended regularly in view of strong currents and unsettled weather and fairly large range during Spring tides.

Loading: Crude oil and refined products handled through 8 in. hoses.

In order to minimise connecting up time on crude oil carriers reducing pieces suitable to receive 10 in. hoses (maximum 4 hoses available) should be fitted to the manifold prior to arrival alongside. The Pilot on request will inform vessel which side to the ship will be berthed.

The shore will accept ship's arrival ullage figures taken without their representatives present if this is necessary in order to avoid delay in commencing discharge.

Loading white oil tankers involves considerable line-clearing.

Handling of packed cargo not permitted during the discharge of Low Flash bulk cargo.

Fuel: Fuel Oil, Diesel Oil and Gasoil available ex-wharf. Lubricants available.

Fresh Water: Unlimited quantity of drinking and boiler water available ex-wharf and by waterboat, loaded concurrently with cargo operations.

	Delivery Rate:
Butcher Island	30 – 35 t.p.h.
Pir Pau	5 – 6 t.p.h.
Alexandra Dock	12 – 15 t.p.h.
Port Trust waterboat (250 tons)	25 t.p.h.
4 Privately owned waterboats (150 tons each)	25 t.p.h.

Tank Cleaning/Dirty Ballast: Butcher Island Berth No. 2: Line 16 in. Max. quantity acceptable 4,500 tons. Rate 1,000 t.p.h. Clean ballast may be pumped overboard.

General: During the early part of the S.W. monsoon, when the wind is South of S.W. the sea runs from the South and Masters are advised to keep their ships heading East when making a lee for the Pilot.

Crude oil vessels discharging at Butchers Island are often required to "pump over tide" to reduce their draft before the first Low Water after berthing hence vessel should be in all respects ready to commence discharge once mooring and connecting up are completed. Discharge over the first 4 hours should be planned to reduce vessels draft bodily.

Crew landing passes are issued, and these are to be returned before sailing.

Also see "Report".

Offshore Lightering: Transhipment of petroleum products is carried out from large storage tankers moored in the vicinity of position Lat. 18° 53′ N., Long. 72° 26′ E. to tankers berthed alongside.

Ship Operator's Report: January 1987 (Updated 1988).

Location: The Port of Bombay is situated almost mid-way on the Western coast of India and is a natural deep water harbour protected by the mainland on its East and the island of Bombay on its West. It is the largest Indian port for dry cargoes in bulk and container trade. The oil terminals are located at Butcher Island and at Trombay, where also refineries of Bharat Petroleum, Hindustan Petroleum and Indian Oil are located.

The lube and non-flammable specialities are also handled at some wharves of the Indira Dock and Victoria Dock.

Communications: All vessels bound for Bombay should listen to Bombay Radio (Call Sign — VWB) which is located at Lat. 18° 36′ N., Long. 72° 50′ E. and send their initial ETA as soon as possible.

Laden tankers should include in their initial ETA message: deepest draft, actual displacement, cargo quantities, Shipper(s), Consignee(s), Bills of Lading particulars and all requirements/services needed.

Tankers arriving in ballast should notify: ETA, amount of slop and dirty ballast to be discharged ashore, deballasting time, proposed loading sequence and quantity of each grade, displacement on completion of loading and alll requirements/services needed.

The initial ETA should be subsequently confirmed or revised, 72, 48 and 24 hours prior to arrival.

The Port Control Station located at Ballard Pier is equipped with radio telephone and VHF. It keeps a continuous communication watch with Kennery and Prongs Lighthouses and the pilot vessel.

There is also a network of VHF sets in operation in the port and used extensively in co-ordinating the various marine movements in the port.

The pilot vessel 'Veno' is also equipped with VHF, radio telephone and W/T sets. She must be informed of ETA at least 24 hours before arrival.

A Naval Signal Station at Colaba Point, 1 mile N.N.E. of Prongs Reef, may call up vessels by signal lamp, when they are required to answer by the same system.

Radio Pratique is permitted and the following information should be cabled to "Quarantine Bombay" maximum 18 hours and minimum 8 hours prior to arrival:

AAA — Name of vessel and call sign
BBB — ETA (Local Time).
CCC — Ports called and departure dates within last 30 days.
DDD — Maritime Declaration of Health has negative answers to the 6 health questions (Code Signal ZT should be used).
EEE — No monkeys on board.
FFF — No abnormal mortality of rats on board.
GGG — No person embarked aboard from East Coast of Africa between Port of Sudan and Durban, both ports included.
HHH — Ship healthy. Request Pratique.

Approaches: Decca 7 BV chain covering the area is reported unreliable and transmitting intermittently. However, it is reported that it gives satisfactory daylight performance up to 200 miles offshore between Latitudes 16° N. and 24° N.

The approaches outside the 10 fathom contour are free of dangers. The vessel may approach Bombay from North to South through West, but attention must be paid to areas in which fishing stakes may be encountered as indicated on the chart. The dangerous wrecks and fouled ground exist within the area bounded by parallels Lat. 18° 48.5′ N. — Lat. 18° 50′ N. and meridians Long. 72° 42.5′ E. — Long. 72° 44.5′ E. Masts of sunken ships are sometimes visible during the periods of the LLW tides. Under no circumstances should the vessel of any draft, attempt to cross this area.

The harbour entrance lined between light buoys moored north of Thal Shoal, S.E. of Prongs Reef and 2.5 miles N.W. of the Shoal.

When approaching Bombay, care should be taken to avoid the obstruction 1.75 miles N.W. of Bombay light vessel and 11 m. Shoal reported 2.5 miles further West, also a wreck with a depth of 11 m. over it — 2.75 miles South of the light vessel.

Pilotage: It is compulsory for all power driven merchant vessels of over 200 tons North of a line drawn East and West through Prongs Reef lighthouse. Such vessels may not enter, leave or shift berths in the area North of this line without a Pilot or Harbour Official on board.

Licensed Pilot may be obtained from the pilot vessel, which has a yellow funnel and is painted white with the word 'Pilot' in block letters on the sides. It cruises in approximate position Lat. 18° 51′ N. Long. 72° 50′ E. Selected Pilots are used for larger vessels.

On arrival, contact with pilot vessel should be established on VHF, on Channels 16 and 12, seeking berthing information. Pilots are transferred to and from vessels by means of a launch. During the S.W. monsoon season, a long swell prevails at the port entrance and it is imperative that vessels should give a proper lee, as the pilot launch may experience difficulties in coming alongside.

Outer Anchorage: When not berthing on arrival, deep drafted vessels should anchor about 7 miles West of Prongs Reef lighthouse outside the 20 m. contour line paying attention to stay clear of the submarine gas pipe-lines and the crossing submarine cables. The mud and shingle bottom is reported to be good holding ground. Pilots do not assist in outer anchorage. It is entirely up to Master's choice to find a suitable anchorage.

A long swell is present during the S.W. monsoon in the outer anchorage and at the entrance to the harbour. Visibility is often reduced by heavy rains during S.W. monsoon and by smoke haze which frequently prevails in the area from November to March.

Inner Anchorage: There are several anchorages available inside the harbour. The permissible draft at the anchorage varies from 15 ft. to 31.5 ft. Light draft vessel, depending upon the room availability, may be allowed by the Port Authority to proceed in to the port directly with the assistance of a Pilot to the assigned anchorage. The usual inner anchorage for merchant vessels is on the West side of the harbour, abreast of the city of Bombay. An area North of Sunk Rock is reserved for Naval vessels.

A vessel subject to quarantine will be instructed to anchor as convenient for boarding by the Port Health Officer.

Permissible Draft: There are no night restrictions, except at Oil and Chemical Jetty – Pir Pau. The minimum depth in the entrance channel to the harbour is 32 ft. below chart datum. The shallowest bar extends from a beam of the buoys at the entrance to abeam of Middle Ground Islet.

Deep draft laden tankers should enter at HW after having received instructions from Port Control (VHF Channels 16 and 12).

It is advisable to start heaving anchor 2 hours before HW and to make approach to the port entrance passing at about 1 mile North of Bombay Light Vessel. Then vessel should head towards the middle of the 2 entry buoys passing at about 8 cables South of S.W. Prongs Light Buoy.

Draft at Indira Dock and Ballard Pier Extension is subjected to dredging, soundings and rise of the tide. These drafts are declared by the Deputy Conservator of Bombay Port every month in the daily shipping list.

Permissible Lengths of Vessels:

Ballard Pier Extension: Up to 750 ft. length × 95 ft. beam.
Ballard Pier: Up to 650 ft. length × 90 ft. beam.
Victoria Dock: Up to 460 ft. length × 62 ft. beam. (Beam over 62 ft. may also be permitted on the merits of the case).
Princes Dock: Up to 500 ft. length × 61 ft. 3 in. beam.
Butcher Island Oil Terminal:
Nos. 1 and 3 Berths: Up to 740 ft. length × 95 ft. beam. (Beams above 95 ft. are accommodated at present).
No. 2: Up to 560 ft. length × N.A.
No. 4 Berth: Up to 984 ft. length × N.A.
Pir Pau Jetty: Up to 560 ft. length × 85 ft. beam. (LOA up to 580 ft. permitted with special permission).

Butcher Island: General: The terminal facilities are located on the Eastern side of Butcher Island and consist of a concrete jetty about 1,700 ft. long, having 3 pier heads, with dolphins at either end of pier head. The jetty carries a roadway and pipe-line and has berths for 3 vessels of various sizes. The berths are numbered from North to South as No. 1, 2 and 3. Each berth is provided with breasting dolphins. Each berth is further provided with mooring dolphins. A fourth oil berth South of Butcher Island has been constructed near the approach channel and is in operation. The oil terminal is administered by a Senior Dock Master, who works 24 hours on – 24 hours off.

Approach to Berth: From the port entrance, the vessel proceeds towards Butcher Island at slow speed (under the direction of Harbour Pilot) to avoid squat and maintain variable revolutions so as to reach Butcher Beacon at approximately slack water.

During the approach to Butcher Island, the vessel has to pass through inner harbour, where other vessels are anchored. Although these vessels are anchored at a designated anchorage under the supervision of Harbour Pilots to keep fairway channel to Butcher Island clear, the vessels are sometimes found to be outside the assigned anchorage, thereby restricting the size of the channel. Furthermore, caution should be exercised for vessels crossing the fairway channel and for the presence of numerous fishermen. Above Butcher Beacon, engines should be stopped and tried astern. This trial is compulsory before berthing at oil terminal jetty.

Light tankers are allowed to anchor at tanker anchorage awaiting berth or suitable tide. This anchorage is located 9 cables and 13 cables S.W. of Butcher Beacon. An emergency anchorage is established 4.5 cables N.E. of Butcher Beacon. Anchoring is prohibited in the area indicated on the B.A. Chart between Trombay Island and Butcher Island.

Tidal stream directions are not in line with the jetty. Ebb stream is at an angle of 15° facing Berths No. 2 and 3 and 20° with Berth No. 1. Berths No. 1 and 2 are quite protected from the flood stream effects by the surrounding shore. Berth No. 3 is quite exposed and the flood stream tends to push the vessel off the berth. Although the new berth No. 4 lies in the direction of tidal stream, which runs about N.E. – S.W. it does experience some strong tidal stream, pushing the vessel away from the berth and this has resulted in moorings breaking.

Deep Draft laden tankers moor at Slack/beginning of Ebb, always port side alongside. Light vessels may berth with either side alongside. There is room for swinging in front and North of berths.

Berth Limitation and Facilities:

Berths	*LOA* (ft.)	*Beam* (ft.)	*Displacement* (tons)	*Draft* *Up to 600 ft.* *LOA* (ft.)	*Draft* *Over 600 ft.* *LOA* (ft.)
No. 1	740	95	70,000	33.4	32.1
No. 2*	560	NA	48,000	33.4	Nil
No. 3	740	95	70,000	35.1	33.1
No. 4*	984	NA	85,000	47.0 (for all vessels)	

*Note: Berth No. 2 is designed for vessels up to 740 ft. LOA with displacement of 48,000 tons as there are longer ships at No. 1 and No. 3 Butcher Island berths. Normally ships of 600 ft. LOA are permitted to berth at No. 2.

Berth No. 4 was designed for vessels with displacement up to 150,000 tons, but due to some problems with tidal streams, it has been downgraded to 50,000 d.w.t. and max. draft of 42 ft. This is a temporary restriction. Therefore the vessel with displacement over 70,000 tons or draft over 42 ft. loading for Bombay should check latest information on Berth No. 4.

Mooring and Unmooring Operations: The usual mooring arrangement consists of 3 head, 3 stern, 2 breasts, and double springs. An offshore anchor is sometimes used. A large mooring gang is provided and 2 mooring launches assist.

With the exception of the spring lines, tankers are required to use fibre ropes. Since no capstan is provided for the springs, it is recommended to have them paid out and stored along the vessel's sheer strake in order to minimise the slack and to facilitate an easier operation for the mooring gang.

Mooring and unmooring times and conditions are decided by the Butcher Island Mooring Master. Usually no long delays are experienced.

Usually 2 tugs of sufficient power assist with mooring and unmooring operations. At times, there is difficulty in communication between tugs and Pilots. When berthing, tugs come alongside a beam of S.W. Elephanta.

Gangways: No shore gangways are provided so vessels' gangway should be used. Laden tankers should have a gangway on portside, some 20 ft. beyond the cargo manifold, ready to be put ashore as soon as the vessel has made fast. Hose gangs come aboard via the gangway; therefore, it is important to have the gangway placed promptly.

Pumping Over-the-Tide: There is 35 ft. depth (chart datum) alongside Butcher Island's berths. (Berth siltation takes place rapidly, therefore depths at the berths vary from time to time which could be checked from the monthly bulletins issued by the port.) The tidal ranges above the chart datum, are from 3 ft. – 14 ft. during Spring tides and from 6 ft. – 11 ft. during Neap tides.

Pumping over the tide is a routine practice by the local oil industries which is only reluctantly accepted by Bombay Port Trust as owners and operators of all berths. However, this practice should not be considered by our controlled tonnage. Masters should load consistent with the height of the LW available at the time of the vessel's arrival at Bombay. At least 1 ft. UKC is required throughout the vessel's stay alongside.

Cargo Operations:

Crude Vessels: Vessels of 740 ft. LOA are routinely accepted. Spot approvals for vessels up to 780 ft. LOA may be granted with the provision that the adjacent berths are being left vacant.

4×10 in. ASA hoses are used on crude vessels. Vessels are allowed to arrive with blanks off and reducers in place. However, company controlled tonnage should not comply with this requirement as it is against a common safety rule. A shore crane is used, therefore the vessel's derrick is not required. Connecting hoses is carried out by a large and experienced gang. Product carriers usually load and discharge through 8 in. diameter ASA flange hoses.

1 or 2×24 in. shorelines may be made available. A pressure of 120 p.s.i. is allowable. Non-return valves are not provided at the shore manifold. Due to the length of lines, back pressures are commonly up to the maximum permissible of 120 p.s.i. It is advisable that cargo pumps are operated carefully, in view of the shore lines and submarine lines condition.

The terminal usually receives the parcel of crude loaded on top of residues, in a separate tank. Vessels may therefore, be requested to reduce the pumping speed, during the discharge of this parcel, on account of tank vent limitations.

In order to be flexible and not to interfere with the refinery discharge plan, it is advisable that vessels loading for Bombay allocate, for the slop contaminated parcel, a tank which can be discharged any time during the discharge, at refinery's request.

Product Vessels: Vessels arriving alongside for loading, should have clean ballast only, with all tanks washed and ready to load any product. Since changes in the cargo pattern occur very frequently, it is essential that vessels observe this requirement. No tank cleaning is allowed alongside.

For clean products, 3 lines are available at each dock: 1×16 in. for HSADO, 1×16 in. for kerosene and 1×12 in. for other clean products such as JBO, ATF 1A, Mogas, Avgas, solvents, etc. This line is always being kept full of water. Products are separated in this line by interface, if quality so permits, or by water plugs.

In the process of flushing, a small amount of water may be loaded on board the vessel. This amount of water has to be checked, calculated and included in deadfreight calculations.

The Shore Representative inspects the tanks, prior to loading, and seals the sea chests. He remains on board throughout the stay of the vessel, maintains communication and co-ordinates the activities with the shore. He should be provided with a cabin.

Early Departure Procedure is being practiced and Bills of Lading quantities are communicated to the vessel after sailing.

Discrepancies, if any, between ship and shore are to be protested by cable.

Fuel oil movements utilise a 24 in. diameter line which serves all 3 berths. The loading rate is about 500 t.p.h.

Tankers, loading fuels, have to arrive with clean ballast only, which is to be discharged overboard. Their slops and washings will be discharged ashore into a 22,000 bbl. tank through a 12 in. line. Ample notice and information of quantities of slops/washings is required.

Pollution and Safety: No facilities or equipment are available for combating an oil spill.

Several firemen of Bombay Port Trust are in attendance at the berth whenever a tanker is alongside. A fire line serves the 3 jetties. Each jetty is provided with 2 towers fitted with fire hydrants. A fire truck provided with a trailer pump is stationed at Butcher Island and can be directed to the jetties.

Fire wires must be hanging over the side on the off-side bow and quarter while alongside to enable tugs to connect readily in an emergency situation. The towing eyes should be maintained at water level.

Strict security is maintained on Butcher Island. Access to the oil jetty is from a small pier close Northward of the island where launches land and where a police check post is located. No boats are allowed alongside. All crew members are provided with a pass. Usually many dealers and salesmen visit vessels on business. However, all of them are in possession of a valid pass as the police authorise their shipboard trading.

Pir Pau Pier:

General: Pir Pau Pier is situated at the Northern end of Bombay Harbour in a locality called Trombay. Trombay is the area of the refineries of Bharat Oil Corp. and Hindustan Oil Corp.

Approach to Berth: The approach to Pir Pau Pier is made through the channel between Butcher Island and Elephant Island, thence through the Pir Pau dredged channel which is marked by buoys. Only daytime berthing/unberthing during HW is allowed. Caution should be exercised, while negotiating the sharp bend to enter Pir Pau dredged channel as cross currents prevail.

Mooring – Cargo Operations: A number of bollards laid throughout the length of the pier provide a suitable mooring layout for any size vessels up to 560 ft. LOA.

The fendering system, consisting of floating wooden rafts tied alongside, is rather poor. Occasionally some of these rafts are missing without notice. Vessels calling at Pir Pau Pier should have on deck some portable fenders, readily available as back up in such an event.

Pipe-lines' sizes vary from 6 in. to 12 in. and their condition is rather questionable. A loading/discharging rate of 150 t.p.h. for all products is considered good.

Lube Terminals at Commercial Docks:

General: There are 3 locations, within the commercial docks area, where lubes, vegetables oils and fats are discharged either through a pipe-line or into tank trucks: Ballard Pier Extension, Indira Dock Jetty End and Indira Dock Wharves 12A – 12B.

Approach: The approach to Ballard Pier and Indira Dock is made through a dredged channel crossing the shallows North of Middle Ground Islet. The current depth of this channel is 23 ft. below chart datum.

There is no night restriction for berthing/unberthing at Ballard Pier Extension, however, larger vessels' movements within the docks are during daylight hours only.

Ballard Pier Extension: This berth is ordinarily reserved for passenger vessels and container vessels. However, when it is lying vacant it can be used for lube discharge. Berthing/unberthing is allowed during day and night and at High Water Slack. The berth is a continuous solid concrete pier, fitted with rubber fenders.

No pipe-line is provided, therefore lubes are discharged into tank trucks at an average rate of 40 t.p.h.

Indira Dock: Berthing/unberthing is allowed during day and night and at any stage of the tide depending upon vessel's actual draft for the safe transit of the access channel. The Harbour Pilot brings the vessel up to the lock gate (outside Indira Dock), then Berthing Master takes over from Harbour Pilot who berths the vessel in the dock.

A 10 in. pipe-line is branched off to both locations, the Jetty End and Wharf 12A – 12B, which stretch out for about 10 km. to a tank farm. Depending upon the grades and consignees, lubes are also discharged into tank trucks.

The berths are continuous solid concrete and granite piers. Fendering consists of floating wooden rafts alongside Jetty End and wooden pads with rubber lining at Wharf 12A – 12B.

Berth Limitations:

Berths	*LOA*	*Beam*	*Channel Draft*	*Berth Draft*
Ballard Pier (Extension)	750 ft.	95 ft.	23 ft. + Tide	30 ft.
Indira Dock (Jetty End)	525 ft.	85 ft.	23 ft. + Tide	27 ft.
Indira Dock (No. 12A – 12B)	575 ft.	85 ft.	23 ft. + Tide	30 ft.

Ships of greater length could be accommodated on the merits of the case.

Services:

Bunkers: Diesel and Fuel bunkers are available at the 3 Butcher Island's berths, however, they are loaded by gravity, with a slow loading rate. If the vessel is in light condition, the gravity flow may not work due to the high freeboard. No bunkers are available at Pir Pau Pier. At the commercial docks only diesel bunker is available and is supplied by tank trucks.

Bunkering barges are available, however, much delay can be expected.

Bunker requirements should always be included in the first ETA message to minimise delays.

Fresh Water: Normally available in unlimited quantities, by pipe-line and at all berths, but at very low loading rates, ranging from 5 t.p.h. – 25 t.p.h. At least 24 hours' notice is advisable.

Repairs: Major repairs may be carried out afloat and in dry docks. There are several private and public ship repairers to do this work. The vessel can also be dry docked at Hughes Dry Dock, owned by the Port Authority. The maximum length of the dry dock without caisson is 304 m. with a beam of 30.48 m. The entry to the dry dock is from Indira Dock.

DENSITY: The Port of Bombay is essentially a salt water port and major fluctuations in the density occur on account of tide. Density varies mostly in monsoon period June to September.

FRESH WATER: Available all berths. By water-boat in stream, by water-mains in docks.

Ship Officer's Report: Vessel berthed at Ballard Pier, East side. Fresh water availability on pier dependent on capacity of storage tank at the time of call. The water was not available continuously and we had to wait for the tank to be refilled.

FUEL: Arranged by oil companies through Agents. Facilities at berths in docks and Butcher Island berths. No bunker facilities for vessels at anchor.

FIRE PRECAUTIONS: All regulations of Petroleum Rules (chapter 1/50 of BPT Port Rules). Port maintains fire stations, 24 hours per day, both at docks and at Butcher Island Oil Terminal. Special precautions taken for tankers at Marine Oil Terminal at Butcher Island.

GANGWAY/DECK WATCHMEN: No deck watchman supplied. BPT gangways generally available all berths except Butcher Island and Pir Pau.

CERTIFICATES:

International Safety Equipment Certificate.
International Safety Radio Telegraphy Certificate.
International Safety Radio Telephony Certificate.
International Exemption Certificate (Derat).
International Load Line Certificate.

CARGO GEAR: Compliance BPT Port Rules and Docks By-laws essential. Hydraulic Quay Cranes, Electric and Heavy Lift Cranes, Floating, Mobile and Crawler Cranes all available.

IDENTIFICATION CARDS: Necessary for Police/Customs Authorities.
REPAIRS: All repairs possible.
DRY DOCKS: Two: "Merewether" 525 ft. long, 65 ft. 6 in. wide. "Hughes" 1,000 ft. long, 100 ft. wide.
REPATRIATION: Can be arranged, also crew changes.
AIRPORT: International Airport Santacruz, 15 miles from Bombay Harbour.
TIME: Indian Standard Time ahead of GMT by 5 hours and 30 minutes. No alterations to clocks are made any time.
HOLIDAYS: Holidays for the docks (when cargo handling is closed) are fixed every year. Republic Day (January); Bakri-Id (February); Holi (2nd day) (March); Muharram (March); Maharashtra Day (May Day); Buddha Jayanti (follows May Day); Independence Day (August); Ganesh Chaturthi (September); Mahatma Gandhi Jayanti (October); Dasara (October); Diwali (November); Ramzan-Id (December); Christmas Day.
POLICE/AMBULANCE/FIRE: Police 100; Ambulance 102; Fire 101.
TELEPHONES: Arrangements for placing a telephone on board ship exist at all transit sheds in Docks.
SERVICES: Tank cleaning equipment is not available. Dirty ballast accepted in tank at jetty at Marine Oil Terminal.
REGULATIONS: Stringent Port Rules and Docks By-laws detailed in "Bombay Port Rules".
DEVELOPMENTS: Satellite port in Nhava/Sheva area under construction (port to handle vessels up to 70,000 d.w.t., container and bulk cargoes). Depth of water 12.0 m – 14.0 m. The port is expected to be operational in mid-1989. 3×35 tonne container gantry cranes under construction.

Linkspan installed at the Ferry Berth.

SHIPMASTER'S REPORT: September, 1979. (Updated 1986).
Anchorage: If inner anchorage berths occupied then pilot station will inform of same and vessels to anchor in Anchorage "A" or "B" West of Prongs Reef Lighthouse (see "Anchorage" in main text). The prohibited anchorage area between the zones is due to pipes and cables of the Bombay High Oilfield. Patrol vessels "Sagarika I" and "Sagarika II" inform vessels if they are beyond anchorage limits and vessels should adhere to their instructions.
Radio: Call sign "VWB". 24 hours watch. HF & MF. Vessels with good transmitter can contact Bombay directly from Port Said or Cape Town or Singapore.
Radar/VHF: VHF Channel 16 for contact with Pilots and listening watch. Call Bombay Pilots or Bombay Harbour Control. Channel 12 is port frequency for berthing or shifting.
Hatches: Opening and closing of hatches, beams, hatch covers by Stevedores. All mechanically operated hatches opened and closed by ship's crew. Rigging gangs at Owners expense may be employed for these jobs.
Stevedores: 1st shift (0800 – 1700 hrs.), 2nd shift (1700 – 2300 hrs.), 3rd shift (2300 – 0500 hrs.).
Consuls: U.S.A., Australia, Belgium, A.R.E., France, Greece, Germany F.R., Japan, Liberia, Norway, Sweden, U.K., U.S.S.R. and others.
Medical: Excellent medical facilities and hospitals.
Customs: Weekly allowance of 1 bottle spirit (700 ml.) and 200 cigarettes.
Specialised Cargo Handling Facilities: Ballard Pier Berth specially reserved for container and Ro/Ro vessels. Another container berth and container yard being formed at Berth No. 23 I.D. As Bombay Port not full geared for mechanical handling of cargo, advance information and notice will aid Agents in arranging for specialised services and fork-lifts. Good facilities for LASH system of cargo.
Surveyors: All surveyors available. Standard marine and general surveyors.

REPORT: Pir Pau Jetty (LPG), June 1984.
Pir Pau Jetty: Datum draft 19 ft. 4 in. for Max. LOA 525 ft. Pir Pau Channel datum 13 ft. 1 in. Max. rise of tide approximately 15 ft. No berthing/unberthing between sunset and sunrise.
Pipeline/discharging facilities:

1. Refrigerated cargoes acceptable, but due design limitation of pipeline/tank volume cargo to be heated to −10°C. before discharge. Sea water temperature at Bombay during year 18° minimum to 23° maximum.
2. Pipe-line length 5 km. diameter 8 in. ASA 300 psi, no vapour return line available.
3. Max. discharge rate 120 tonnes/p.h. at back pressure 14.5 kg/cm. (abs).
4. Vessel to carry suitable hoses making length of 75 ft. for discharge keeping in view items (2) and (3) above and to be equipped with derrick.

AUTHORITY: Bombay Port Trust, Administrative Offices Building, Shoorji Vallabhdas Marg, Bombay-400 038. *Tel:* 268011. *Telex:* 011-73345. *Cables:* Portrust Bombay. *Contact:* The Secretary.

CALCUTTA: 22.32 N. 88.22 E. (See Plan)

DOCUMENTS:
Ship's Register.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Derat Certificate.
Port Clearance from Last Port.
Indian Coast Light Dues Receipt (if any).
4 copies of Crew List.
4 copies of Passenger List.
1 copy of Through Cargo Manifest.
4 copies of Stores List.
1 copy of Cargo Manifest with B/Lading for the same.
4 copies of Opium and Dangerous Drugs Certificate.
Cargo Plan.
Cargo on Deck Declaration.
4 copies of Certificate of Foreign Currency.
4 copies of Certificate of Arms and Ammunition.
Letter to Assistant Collector of Customs regarding Local Agency.
Letter to Assistant Collector of Customs regarding duty on ships stores.
Application to the Inspector of Police.
3 copies of Arrival Report.
4 copies of Watches and Clock List possessed by each member of the crew.
6 copies Hazardous Cargo, if any.

PILOTAGE: Telegraphic address of Pilot station: VWST "Pilots Sandheads". Radio message should be sent 48 hours prior arrival giving (a) ETA Eastern Channel Lt. Vs.; (b) from . . . to . . . (either Haldia, Budge Budge, or Calcutta); (c) deepest *fresh* water draft; (d) length overall; (e) d.w.t.; (f) whether VHF is or is not on board.

Pilot boards vessel at Sandheads from pilot vessel fitted with W/T, DF, VHF, radar, echo sounder and other navigational equipment, maintains continuous watch on 500 kHz and receives ETA messages of incoming vessels.

As an aid to navigation, navigable channel in river is marked with lights and channel buoys. There is a lighthouse at Sagar and downstream from this point, 2 unattended Light Vessels are stationed at Upper Gasper and Lower Gasper and 2 attended Light Vessels at Intermediate and Eastern Channel Stations. Navigable channel leading to Haldia Port from sea is 63 nautical miles and to Calcutta about 123 nautical miles. There are 15 bars in different reaches of the river, 4 of these are downstream of Haldia and the remaining 11 between Haldia and Calcutta. Since these bars are subject to fluctuations, the river is regularly surveyed and dredged as required. Owing to sharp bends, narrow channel and difficult tidal conditions the navigation of ships between ports and sea requires service of trained Pilots employed by The Port Trust. River Pilots take charge of vessels at Sandheads, navigate to Haldia/Garden Reach as the case may be and then hand over to Harbour Pilots who manoeuvre vessels to Haldia Dock or riverside jetties, moorings, or dock entrance lock at Calcutta. Movement of ships inside docks is guided by Berthing Master.
Shipmaster's Report: December 1983.

Procedure for sending ETA Sandheads Calcutta: Vessels calling at Calcutta should, along with their ETA messages to the Commander Pilot Vessel, Sandheads, also indicate the Owner's/Agent's name and only then will Master's ETA message be recorded, otherwise vessel will not be treated by Calcutta Port Trust on arrival at Sandheads for further coming up river to the port.

ANCHORAGES: Anchorage in River Hooghly at Saugor Roads, Haldia Kalpi, Diamond Harbour, Royapur, Ulubaria and Garden Reach of which Royapur, Ulubaria and Garden Reach utilised only by ships on passage to and from the port in emergency. Depths of anchorages vary on day to day basis according to River Draft Forecast but on average 30 ft. deep.
RESTRICTIONS: Navigation on River Hooghly is carried out only with Pilot on board and according to tide. Speed of vessel important factor and must be declared to Pilot on board, preferably telegraphed 48 hours in advance to Pilot vessel.
MAX. SIZE: Maximum LOA 565 ft. with beam of 80 ft. for Netaji Subhas Docks and 515 ft. LOA with beam of 70 ft. for Kidderpore Docks. A vessel of 535 ft. and over can sail out as "Tide Time Sailing" only and this restricts her draft from Calcutta.

Maximum LOA of tankers for tanker terminal at Budge Budge is 620 ft. Restriction of beam for vessels berthed at Budge Budge is 85 ft. Deepest draft alongside dock berths in Netaji Subhas and Kidderpore Docks 8.70 m. At Budge Budge deepest draft at any berth 9.00 m. Berthing of vessels, depends on prevailing draft of day published in Draft Forecast for month.
PRATIQUE: Procedure for obtaining Pratique: To obtain Radio Pratique incoming vessels communicate by wireless to Port Health Officer, Calcutta, Cable address: "Quarantine Calcutta":

(a) No sickness or death from sickness on board within last 15 days.
(b) No sand, earth, pigs, poultry, crew or passenger taken aboard from E. Coast of Africa between Port Sudan and Durban, both ports included.
(c) Ship not touched within last 30 days any port in E. Africa between Northernmost point of Eritrea and Southernmost point of Tanzania, including Island of Zanzibar or any other yellow fever infected area.
(d) No abnormal mortality of rats or mice on board.
(e) No monkey on board.

(Item *(a)* to be sent in code under usual standard quarantine messages required by ships; rest in plain language through local wireless station.)

In case of any suspected disease or fever on board, local Agents may be contacted by cable who arrange for doctor to be sent or for removal of a patient if necessary. Vessels calling at another port in same country are exempted from obtaining Pratique.

RADIO: Calcutta Radio, call sign VWC. R/T. and VHF.

Information regarding weather distributed at 1030 and 0630 hrs. local time on 2000 metres.

Also see "Pilotage".

TUGS: 15 tugs, 550 hp. – 2,200 hp. Tugs used for vessels after passing lock entrances at Netaji Subhas and Kidderpore Docks. Tugs used for vessels to turn. Vessels own lines. At Garden Reach sailing on ebb tide for "Tide Time Sailings".

BERTHING: Vessels brought in for berthing according to tide. Movements from one berth to another inside dock not dependent on tide, but according to convenience of port. Vessels berthed at riverside jetties or river moorings required to have starboard anchor unshackled in order that starboard chain could be tied to buoy on arrival. After first chain is shackled on, port anchor is unshackled and 2 pieces of chain, each 30 fathoms long are removed from port cable and sent aft by boat and made fast to buoys, etc., and tied to stern of ship. The remaining port cable is tied up to another buoy forward. Vessels at river jetties and river moorings if left during Bore Tide are to comply with following:

Half an hour before low water:

(a) Gangway to be hoisted up, if ashore.
(b) Pipe-lines disconnected and triced up (for vessels at Budge Budge Jetty).
(c) Heave tight on forward chains to keep vessel about 6 ft. off jetty or pontoon. Make sure weight is on bore springs and not on chains aft.
(d) Tighten all buoy ropes.
(e) When bores expected, all vessels in stream shall have steam on main engines, windlasses and winches and a sufficient number of officers and crew on board to tend vessel in case of emergency.

After bore made, and vessel stopped ranging, slack forward chains to old mark. Bore springs can be had through Agents from local suppliers.

Budge Budge (oil terminal) on banks of River Hooghly has river jetties, hence above instructions also apply to vessels berthed at Budge Budge Jetties.

At Budge Budge two lengths of chain provided by Port Trust for stern moorings.

Kidderpore Dock: Lock entrance: 580 ft.×80 ft. 19 general cargo berths. 2 coal berths, of which one is fully mechanised. Peak loading rate 400 m.t.p.h.

Netaji Subhas Dock: Lock entrance: 700 ft.×90 ft. 8 general cargo berths, No. 1 Berth equipped with 200 ton heavy lift crane. One oil berth, Berth "C", used for unloading petroleum products. 6 additional berths available.

Garden Reach Jetties: 2 alongside berths for overside cargo work only.

Budge Budge: Also see "Tankers". 5 jetties which can accommodate vessels up to 625 ft. (190.50 m.) LOA.

Jetties were previously used mainly for petroleum products for which large storage tanks are available. With the commissioning of the Indian Oil Refinery at Haldia, movement of products by large tankers has been transferred.

These jetties are presently available for handling bulk liquids like edible oil, vegetable oil, soya bean oil, etc., for which separate storage of 59,000 tonnes capacity is under control of the State Trading Corporation.

BRIDGES: 2 bridges, 1 collapsible, 1 swing, situated inside Kidderpore Dock are open for navigation to suit convenience of port.

STEVEDORES: 48 hours notice of arrival at pilot station required by Agent.

MEDICAL: Masters in need of medical services required cable Agents. Hospital facilities. Ships leaving for foreign port or minor Indian port (where no Port Health Officer) required to ensure officers and crew have valid health certificates (for cholera and yellow fever if proceeding to a yellow fever area).

TANKERS: Not permitted discharge residue into dock (at C berth Netaji Subhas Dock).

S.G.	A.P.I. of local types of oil
0.91 and 0.94	0.9430 varying to 0.9550.

Tanker terminal at Budge Budge 13 nautical miles from Calcutta by river.

BB Jetty No. 1 for accommodating vessels of LOA 620 ft.
BB Jetty No. 2 for accommodating vessels of LOA 430 ft.
BB Jetty No. 3 for accommodating vessels of LOA 230 ft.
BB Jetty No. 5 for accommodating vessels of LOA 620 ft.
BB Jetty No. 6 out of commission.
BB Jetty No. 7 out of commission.
BB Jetty No. 8 for accommodating vessels of LOA 620 ft.

Deepest draft alongside jetty berths 9.0 m., but vessels brought up according to prevailing draft as per forecast.

Berthing: Vessel is moored starboard side to at Budge Budge as follows: Port Anchor to about 6 shackles on the Port bow with the ship's starboard cable shackled to the shore cable on the starboard bow. 2 shore cables made fast round the bitts are used aft. These cables are crossed. An experienced shore mooring gang boards vessels to assist in berthing, and these men require very little help from the Ship's Crew. The operation generally takes about 1.5 to 2 hours.

The sequence is as follows: The Port anchor is dropped well off and up-stream of, the Pontoon, on the first of the Ebb tide. The vessel's bow is then swung into the forward in-shore mooring buoy by a mooring rope. This buoy is then brought close under the bow whilst the starboard ship's cable is made fast to the shore cable. For this purpose, the Shore mooring gang, will, on first boarding, hang off the starboard anchor, through the hawse pipe, leaving the first 15 fathoms of cable flaked on deck. Ship's wire rope (100 mm.), should be available for hanging off, together with 75 mm. rope, quantities will be advised by the Berthing Master for lashing the cable.

When the forward cable is fast, the stern is swung, again using mooring and are made fast round the two bitts. 75 mm. (3 in.) rope lashings will also be used here. On completion of making fast the after cables, the vessel is hove into position by the windlass. The mooring ropes are made fast to the two quarter and two bow mooring buoys and are again used when the shore Gang board to break moorings prior departure. To avoid any chance of delay in mooring, the vessel should ensure that the first shackle of her Starboard cable is free prior to arrival, and should have three joining shackles ready for use in case these are required. One ship's wire will be required forward, for hanging off the anchor, and two aft, for heaving on board the ends of the shore cables. Although the shore mooring gang have their own shackles, etc., at Budge Budge, it is necessary for the ship to provide a drift punch and heavy hammer for breaking the cable.

It should be noted that at Calcutta itself there are not enough shore chains to provide moorings to all vessels using the port, and in these cases vessel's Port anchor cable will be broken to provide the after moorings. All the Budge Budge Berths, however, are supplied with sufficient cables. These latter cables are anchored to swamped moorings at each berth.

During the period of Bore Tides, the above moorings may have to be supplemented by coir ropes supplied by Burmah-Shell. In such cases, and in the event of the cable moorings requiring attention during the vessel's stay at Budge Budge, the local Harbour Master, or his assistants will advise the vessel.

Shore Lines: All products handled through 150 mm. (6 in.) or 200 mm. (8 in.) hoses.

Restrictions: Handling of packed cargo not permitted during the discharge of Low Flash bulk cargo.

Fuel: Fuel oil, diesel oil and gas oil available ex-wharf at Budge Budge and by lighter. Lubricants available.

Fresh Water: Not available.

Tank Cleaning/Dirty Ballast Facilities: Line 100 mm. – 250 mm. (4 in. – 10 in.). Max. quantity acceptable 130 – 170 tonnes. Rate 60 – 100 t.p.h. Limited facilities for various grades. Clean ballast may be pumped overboard.

General: A continuous and strict watch, especially during the hours of darkness, should be kept on the vessel, both when anchored or in the berth, in order to prevent unauthorised persons boarding the vessel.

DENSITY: Average density in port is about 1000.

FRESH WATER: Fresh water on application from Masters or Agents and preferable if at least 48 hours' notice given. Supplies through barges and direct from quay line.

FUEL: Redwood 600 – 700 sec. supplied at Calcutta and require at least week's notice for supplying vessels lying inside dock. Fuel also supplied at Budge Budge Terminal, 3 days notice to suppliers and Port Authorities.

FIRE PRECAUTIONS: Usual non-smoking precautions and Master, Owners, Charterers or their Agents of vessels carrying import cargo or intending to load export cargo of hazardous or inflammable nature, furnish 6 copies of list of cargo involved to Traffic Manager in prescribed form, at least 10 days before vessels intend to land or ship cargo. Traffic Manager on receipt of list, categorise items enumerated in list and landing delivery and storage of such cargo be done strictly in accordance with instructions.

GANGWAY/DECK WATCHMEN: Necessary and recommended by Agents at rate of 3 watchmen per shift of 8 hours.

OPENING/CLOSING HATCHES: Normally undertaken by stevedores, unless specifically mentioned that same will be attended to by crew.

CUSTOMS ALLOWANCES: 0.25 lb. tobacco and 200 cigarettes. Wine and/or Spirit: 1 bottle of wine or spirit per head for consumption on board.

CONTRABAND: Regulations provide that a vessel shall be liable to confiscation which is or has been in Indian Customs' waters where constructed, adapted, altered or fitted in any manner for the purpose of concealing goods.

The act also provides for a fine in lieu of confiscation which could in theory be up to the value of the vessel.

Indian Customs Authorities regard vessels as subject to the regulations if they have any alterations to the normal structure of the vessel or its fittings which is not of operational value, e.g. holes cut in panelling (over bulkheads) which are frequently found concealed from view behind cabin furniture such as settees, bunks, desks, wardrobes, etc. Customs invariably impose fines for such cavities even though empty of about Rs. 5,000/- for 1 or 2 cavities and increasing if more cavities are found. Fines would be substantially higher if cavities in fact contained contraband.

To minimise fines it is essential that Shipowners should instruct their Masters to organise periodic anti-smuggling searches of all accommodation and other places in the vessel by ship's officers with a view to locating any cavities or contraband and such searches, and results thereof, should be logged. Furthermore, the Customs Authorities invariably obtain a statement from the occupant of the cabin whether instructions had been issued by the Owners or Master for each officer crew member to search his own cabin for cavities or hiding places or other unusual or irregular tampering with the normal structure of the cabin and to report to the Master any such cavities, hiding-places or such other unusual tampering found at any time whilst serving on the vessel.

If no such instructions have been issued, the Customs generally regard the Owners/Master as failing to take proper anti-smuggling precautions and the risk of increased Customs fines arises.

It is suggested that appropriate instructions should accordingly be issued without delay by all Masters to their officers and crews and that each officer or crew member should acknowledge receipt in writing of such instructions. It is also emphasised that such instructions should also be notified to any officer or crew member who joins the vessel after first issue of the instructions to the existing officers and crew.

CARGO GEAR: Proof of cargo gear tested by a competent authority required.

IDENTIFICATION CARDS: Not necessary if holding Seamen's Books or passport.

CONSULS: (Telephone Numbers)

Australia	22-1554	Nepal	45-2024
Belgium	44-3886	Netherlands	23-4442
Bolivia	23-5615	Nicaragua	44-1329
Brazil	45-2120	Norway	22-4094
Burma	22-7071	Pakistan	44-5208
Czechoslovakia	46-4542	Panama	47-6765
Denmark	23-4069	Peru	23-2331
Dominican Republic	55-5067	Philippines	22-0514
		Poland	44-7144
Egypt	45-4168 and 45-2507	Spain	23-5539
		Sweden	23-2243
El Salvador	55-7392	Switzerland	44-8039
Finland	22-4602	Thailand	46-0837
France	23-2958	Turkey	34-2770
Greece	23-5615	USSR	44-2006
Haiti	34-2673	UK	44-5171
Italy	45-1411	USA	44-3611
Japan	44-5455	Venezuela	23-5615
Liberia	46-1164	Yugoslavia	44-6881

REPAIRS: All types of deck and engine repairs undertaken.

DRY DOCKS: 5 dry docks owned by Port Trust available. 3 in Kidderpore Docks and 2 in Netaji Subhas Docks, dimensions as follows:

Dry Dock (Kidderpore) (1) 547 ft.×69 ft.×25 ft. (2) 497 ft.×69 ft.×27 ft. (3) 350 ft.×60 ft.×23 ft. (max. length/beam of vessel allowed. No. 1: 515 ft.×64 ft. No. 2: 500 ft.×64 ft. No. 3: 335 ft.×48 ft.)

Dry Dock (Netaji Subhas) (1) 581 ft.×80 ft.×22 ft. (2) 596 ft.×80 ft. ×22 ft. (max. length/beam of vessel allowed. No. 1: 565 ft.×75 ft. No. 2: 565 ft.×75 ft.)

Netaji Subhas Dry Docks arranged in tandem and used as one dock. Power supply, compressed air and fresh and unfiltered water supply, hydraulic capstans for propeller work and cranage service including heavy-lift available all dry docks. Each dock provided with automatic telephones for use on board ships.

REPATRIATION: Facilities exist for effecting crew changes and arranging any necessary repatriation.

AIRPORT: 12 miles; served by regular international airlines with minimum 1 flight per day.

TIME: GMT plus 5.5 hours.

HOLIDAYS: Closed Holidays (when no work is permissible): Independence Day, Republic Day, Gandhi's Birthday, Vijaya Dashami and Kali Puja.

Holidays when double wages payable: Saraswathi Puja, Netaji's Birthday; Idul Fitr, Dholjatra, Muharram, Bengali New Year, May Day, Fateh Duaz Dahan, Durgapuja, Guru Nanak's Birthday, Id and Christmas Day.

POLICE/AMBULANCE/FIRE: Police (port) Tel: 45-1701 and ask Port Police or dial 100; Ambulance dial 102 or 45–4163; Fire dial 101 or 45-1701 and ask Fire Fighting Service.

TELEPHONES: No arrangements for installing telephones on board, but use of telephones from Port Trust's/Superintendent's Office on each dock.

GENERAL: *Important:* Masters of vessels in port should ensure that vessel's engines are not immobilised without prior permission of the Harbour Master.

SERVICES: Tank-cleaning equipment with minimum notice of at least 7 days. Discharge of tank-washings not permitted while vessels lying in dock. Compass and radar technicians available.

SHORE LEAVE: Seamen permitted to go ashore after cleared by Immigration Officer boarding vessel on arrival. In case of Chinese, special permission to be obtained from Immigration Authorities, through vessel's Agents.

REGULATIONS: Booklet "Dock and Jetty Handbook" supplied free by Port Trust to incoming vessels.

DELAYS: Delays occur during monsoon.

DEVELOPMENTS:

1. Construction of container terminal (Netaji Subhas Dock) with related facilities has commenced and will take about 3 years to complete. Annual capacity will be 100,000 TEU's as compared with the present 45,000 TEU's.
2. 11 new cranes and 16 fork lifts have been purchased.
3. Dredging (maintainance – deepening) of river to allow deeper draft vessels into Calcutta and Haldia.

SHIPMASTER'S REPORT: September, 1979. (Updated 1986).

Approaches: When approaching Calcutta from South Sri Lanka it would be advisable to pick up False Point Light and then proceed to Eastern Channel Light Float at Sandheads for Pilot. During the S.W. monsoon vessels encounter long spells of overcast skies and rain hence vessels should pick up Dolphin Nose Light at Vishakhapatnam then coast up to False Point Light before branching off to Eastern Channel Light Vessel.

Pilotage: Pilots board at the Sandheads. For picking up Pilots from the pilot vessel, vessels will have to approach close to the pilot vessel's stern with M.M.D. approved type pilot ladder rigged over side. Separate accommodation has to be provided for Pilot.

Restrictions: None for vessels below 22 ft. draft. Those between 22 ft. and 24 ft. 6 in. may have to wait for Spring tide for entrance and departure. However, Hooghly River Authority publishes a booklet every month stating the draft restrictions for entry into Calcutta.

Berthing: Whilst entering locks, passing through cuttings and berthing, vessels should have good fenders rigged 2 ft. above the water to prevent dents and scrapes to the hull. The Port is not equipped with fenders. The coal berths at Kidderpore Docks are old. Masters should exercise caution when coming alongside these berths for waiting or loading. For tying up to riverside moorings both anchors have to be unshackled. Starboard cable lead to port buoy and port cable to starboard buoy in a cross fashion. At the stern vessels with stern cables will have to follow the same as forward. Over and above, ropes and tackles will have to be rigged for taking the initial stress of the bores before strain comes on the cable.

Tying up the vessel to the buoys at the riverside moorings can be aided by experienced shore mooring gangs at Owner's expense.

Radar/VHF: No Radar. VHF Channel 16 for contact with pilot boat or by W/T.

Customs: Very stringent about cargo particulars.

Cranes: One heavy lift quay side crane of 200 tonnes. Berths No. 2, 3, 4 and A at NS Dock fitted with 2 tonne cranes. Berth B and D of NS Dock are fitted with 3 tonne electric cranes. Berths No. 27, 28 and 29 at K-P Docks are fitted with new 3 tonne electric cranes.

Hatches: Wooden hatch boards and beams by stevedores. Mechanically operated or other hatches by ship's crew. Rigging gangs may be employed at Owners' expense.

Stevedores: 1st shift (0630 – 1530 hrs.). 2nd shift (1530 – 2230 hrs.). 3rd shift (2230 – 0530 hrs.).

Medical: Very good hospitals and nursing homes.

Specialised Cargo Handling Facilities: Containers can be loaded and stuffed aboard. No Roll-on/Roll-off facility.

Surveyors: A.B.S., I.R.S., L.R.S., G.L., N.V. and others. Standard marine, cargo surveyors and general surveyors also available.

General: Vessels navigating the Hooghly River should be very careful about river thieves who will board the vessel whether stopped or at anchor or making way at full speed.

SHIPMASTER'S REPORT: November 1984.

Pilotage: Accommodation is sometimes required for up to 3 Pilots transferring from Sandheads to Haldia/Calcutta or vice versa.

Radio Officer is required on standby during pilotage to send W/T messages as required by the Pilot.

Silting problems at Auckland Bar required a 0.4 m. reduction on published drafts November 1984. Situation not expected to improve.

Radio: Information on weather on 2000 m. not heard.

SHIP OPERATOR'S REPORT: January 1987

Location: The port is located on the left bank of the River Hugli about 129 km. above the river entrance off Sagar Island in the Bay of Bengal.

Pilotage: Pilotage is compulsory for all vessels over 100 gross tons. River pilotage which extends from Sandheads, 72 km. below Sagar Island, covers a total distance of 201 km. The River Pilot boards the vessel at Sandheads (Lat. 20° 59′ N., Long. 88° 14′ E.) and a Harbour Pilot boards the vessel at Garden Reach (Lat. 22° 33.5′ N., Long. 88° 17.5′ E.) for mooring vessels in the river or berthing in the docks. The movement of ships inside the docks is controlled by the Berthing Master.

Approach Channel: The Approach Channel to the main port requires considerable navigation skill. There are several sand bars and crossings of which Balary Bar is the most treacherous, as well as sharp bends in the river which the ships have to negotiate. These bars are subject to seasonal and, at times, sudden fluctuations both in depth and alignment of the channel, necessitating dredging on the shallow reaches. The channel is well marked with numerous navigational aids which consist of lighthouses, lightvessels and channel buoys, automatic tide gauges and signals and river marks; thus facilitating navigation both by day and night. Surveying and charting of the river is continuous and depths over the river bars are forecast daily. Besides navigation aids, a fleet of dredgers, barges, a river survey vessel and hydraulic research vessel are employed to provide safe navigation to shipping.

Permissible Draft: Drafts are subject to fluctuations according to the rise of tide and the condition of controlling bars. The port of Calcutta publishes a monthly draft forecast about 6 weeks in advance, copies of which are available from the Harbour Master's Office (River) in Calcutta. The River Hugli can generally be navigated as far as Calcutta during the period:

(a) June to October
At HW Springs by vessels drawing 8.7 m.
At HW Neaps by vessels drawing 8 m.
(b) October to June
By vessels drawing between 6.7 m. to 8.2 m.

However, there are times during the above period, when the permissible draft could decrease to as low as 5.5 m. before increasing again. Therefore it is strongly recommended that Masters of vessels loading for Calcutta should consult the monthly fresh water draft forecast of River Hugli, issued by Calcutta Port, and should load accordingly in order to avoid unplanned delays outside the river at Sandheads.

Communication:

Radio: There are W/T stations at Ram Nagar, Hugli Point and Haldia. Long range and short range W/T service for navigational messages is available for ships at sea within the range of 850 km. and 24 km. respectively.

VHF: There is a VHF network in operation in the port as an essential means of communication. Apart from Ram Nagar, Hugli Point and Haldia, VHF communication facilities are also available on the pilot vessel, survey vessel, dredgers and other vessels of the port.

The port has 2 pilot vessels fitted with W/T and VHF. These vessels maintain a continuous watch on 500 kHz and receive ETA messages from incoming vessels. At Sandheads, vessels in the vicinity may communicate with the pilot vessels on VHF Channel 12.

Calcutta Port issues time of embarking Pilot at Sandheads to meet required fresh water drafts for a particular day. Therefore Masters of all incoming vessels should take note of time for embarking Pilot and should radio their ETA Sandheads with names of local Agents, destination, deepest FW draft, LOA and speed of the vessel to the local Agents and to Sandheads (Call sign: "VWST") as soon as possible. There is slight reductions in FW draft of vessels, whose speed is below 12 knots.

Traffic Control: It is established and co-ordinated by the Harbour Master. Traffic information and navigational warnings are given on 500 kHz. The general rules governing traffic in the river are as follows:

All vessels going with the tide will have the right of way. Navigation in the river is carried out exclusively on Pilot's advice at times and tidal conditions established by the Port Authority. Night navigation is permitted. Since the depths at numerous locations change continuously, the River Pilots are notified of depth changes and traffic movements through a system of visual signals and via ship's radio on 500 kHz.

Special Feature: Calcutta being a river port is subjected to a "Bore Tide" condition. Vessels at river moorings or jetties are subjected to sudden surges on their moorings during flood tide. The "Bore" takes place only during certain periods, which are predicted a year in advance and last for 1 day to 5 days.

During the "Bore", no vessel over 152 m. in length in Calcutta and over 160 m. in length in Buj Buj will remain in the moorings/jetties. The max. draft of vessels in the river moorings/jetties will also be restricted to 5.5 m. at Calcutta and 6.1 m. at Buj Buj. Vessels which cannot remain in the river moorings/jetties are taken inside the docks where ships are not influenced by "Bore" tidal conditions. Those vessels which remain in the river are provided with extra shore mooring ropes and tackles.

Bunkers/Fresh Water: Adequate facilities exist in the port for the supply of drinking water to ships in the river moorings and at Buj Buj jetties but not at "C" Berth in N.S. Docks.

Oil bunkers can be supplied by pipe-line or barge at Buj Buj and N.S. Docks. Only 1 grade of intermediate fuel oil and diesel oil are available.

Repairs: The existing facilities comprise 5 dry docks for all major surveys and underwater repairs. Of the 5 dry docks, there are 3 docks up to max. 515 ft.×64 ft. in Kidderpore Docks and the remaining docks of max. 516 ft. and 75 ft. are in N.S. Dock. The entry into docks is from the unpounded dock basins and not directly from the river.

N.S. Dock Oil Terminal (previously known as Paharpur): The terminal is located at "C" Berth in N.S. Docks; which is in line with "B" Berth used for general cargo. Therefore the max. length of a vessel which can berth at "C" Berth depends upon the size of the vessel at "B" Berth up to a max. of 172 m. The shore facilities are owned by the government and used by various oil companies for lube products only.

The access to cargo manifold platform is by steel walkway fitted with wooden covering, some of which is missing or in poor condition. The berth structure consists of the cargo manifold area and 2 mooring dolphins, 1 at each end of the manifold area, which are made of concrete and filled with wooden beams to avoid metal to concrete contact. The manifold size is 8 in. and 1 length of 60 ft. hose sufficient for ship/shore connection is provided.

There are a few fire hydrants located near by but no oil spill control equipment is available at the berth.

Buj Buj Oil Terminal (also known as Budge Budge): The terminal is located about 28 km. downstream from N.S. Docks. There are now 5 out of 8 oil berths in operation. This is the major oil terminal for the port of Calcutta and handles all grades of petroleum products, except crude and LPG.

The oil berths are located in the river and have floating pontoons. The moorings consist of 4 mooring buoys of old construction. 8 ship's lines are sent to 2 buoys and 2 shore mooring chains to the remaining 2 buoys. The buoys are provided with a ring on top, through which the ship's lines are passed and secured. The mooring chains are made fast under the buoy to the buoy pendants and divers carry out these operations. 1 or 2 floating pontoons are provided at each berth. The pipe-line is carried on a steel walkway fitted with wooden steps which also acts as an access to the pontoon. The pipe-lines end on the pontoon where the manifold is located. The shore manifold is connected to the ship's manifold by hoses of 6 in., 8 in. and 12 in.

It is essential that vessels ensure prior to arrival that the detachable link of the first shackle can be easily opened. Inability to send the cable to the buoy may cause serious delays.

Berth Limitation and Facilities:

Berth	*Length* Min. – Max. (ft.)	*Beam* Max. (ft.)	*Product Handled*
1	455 – 620	85	Fuel oil, diesel, lube
2	280 – 380	85	Lube
3	350 – 460	85	Bunkers
5	435 – 620	85	Clean products only
8	425 – 620	85	Clean products, solvents and petro-chemicals

Facilities Available:

Slops: No facilities available at the terminals.

Pollution: No oil spill control equipment available at the terminals. In case of oil pollution, private contractors are engaged to clean up the area with the assistance of the fire brigade.

Security: Terminals and berths are considered restricted areas. The whole area is fenced and the gates are guarded. Watchmen are available and are considered essential by local Agents.

Safety: Fire fighting truck/boats are available. There is no safety check list provided. Safety is left entirely to the ship's personnel.

AUTHORITY: Calcutta Port Trust, 15 Strand Road, Calcutta – 700001, India. *Tel:* 223451 (16 lines). *Telex:* 21-7336 Calp In. 21-7423 Port In. *Cables:* Calpotrust. *Contact:* Director, Marine Department.

CALICUT: 11.15 N. 75.46 E.

PORT LIMITS: The seaward (Westward) limit of the port is the 9 fathom line.

DOCUMENTS:

Register.

Articles of agreement in the case of foreign-going vessels staying in port for more than 48 hours.

Nominal list of crew and passengers and the A & B Certificates.

Bill of Health in the case of a vessel arriving from an infected port.

Clearance from last port.

Port and Light dues receipts.

Vessel's manifest and any other document, which may be necessary.

PILOTAGE: No pilotage available.

ANCHORAGE: Anchorage is about 3 miles offshore. Mud – good holding ground.

HEALTH: In the case of all infected vessels Health Officer proceeds aboard, and in the case of all other vessels Health Officer may proceed on board and examine vessel. Master shall give every facility for examination of passengers, crew, personal effects, cargo, provisions, water-supply and any part of vessel Health Officer considers necessary to examine. Health Officer may require written declaration from Medical Officer (if any) of vessel or from Master (or from both) stating whether any death or sickness from an unknown or suspicious cause or any case of any disease occurred on board either during voyage or before departure, and whether any unusual mortality has been observed among rats on vessel. If Health Officer satisfied that such deaths or cases of sickness as may have occurred were not due to any of diseases specified he shall permit vessel to proceed to usual place of anchorage or berth in harbour and to discharge passengers and cargo without further restriction. Inspection by Health Officer not between sunset and sunrise except in unusual circumstances.

RADIO: Messages through Cochin Radio or Mangalore Radio.

SIGNALLING: The signal station is situated close North of the lighthouse. The station is manned 24 hours a day.

TUGS: 4 motor tugs for towing lighters.

BERTHING: No berths.

CRANES: Fixed wharf cranes with capacity of 3 tons – 10 tons on the piers.

STEVEDORES: Arranged through Agents and stevedore contractors.

MEDICAL: General Hospital and Medical College Hospital situated about 1 mile and 5 miles away respectively.

DENSITY: Sea water – 1025.

FRESH WATER: Can be supplied by port tug, max. 15 tons per day.

FUEL: Available. Small quantity of 30 tons can be provided, 48 hours notice required.

CERTIFICATES:

Registry.

Radio Telegraphy.

Safety Equipment.

Load Line Certificate.

Certificates of Competency of Master and other officers.

IDENTIFICATION CARDS: Necessary.

CONSULS: Nil.

REPAIRS: No facilities.

DRY DOCKS: Small slipway at Beypore.

SURVEYORS: The Port Officer at Calicut undertakes private surveys.

AIRPORT: Construction of airport at Calicut is under consideration by the Government. Nearest airport at Cochin, 150 km. South of the port.

TIME: GMT plus 5.5 hours.

HOLIDAYS: Holidays declared by the State Government are holidays for the port. Cargo work can be arranged on holidays.

FIRE/AMBULANCE/POLICE: Police 100; Ambulance 100; Fire 100.

GENERAL: Ship-to-shore signalling is normally by morse light.

SHORE LEAVE: Permitted.

DEVELOPMENTS: Dredging commenced at Beypore and expected to be completed within a year or two and then ships of 18 ft. draft can be berthed alongside. Breakwater under construction and additional wharf under consideration at Beypore.

AUTHORITY: Port Officer, Calicut.

COCHIN: 09.58 N. 76.15 E.

PORT LIMITS: *Seaward Limits:* 9 nautical miles Westwards between the following 2 positions:

(a) Lat. 10° 02′ N., Long. 76° 03′ 27″ E.
(b) Lat. 9° 55′ N., Long. 76° 06′ 00″ E.

DOCUMENTS:

7 Crew Lists.
7 Passenger Lists.
1 Last Port Clearance.
4 Store Lists, including List of arms and ammunition.
5 Passengers' and Crew Personal Effects Declarations.
4 Cargo Manifests.
3 Cargo Certificates.
3 Deck Cargo Certificates.
3 Opium Certificates.
3 Currency Declarations.

PILOTAGE: Berthing arrangements, booking of Pilot, etc., normally done by Agent. Advisable send ETA messages at least 48 hours in advance to Agent. Amendments to ETA messages must be sent at least 12 hours in advance. ETA messages may also be sent to Harbour Master, Cochin Port Trust. Messages should contain time and date of arrival at Outer Roads in IST and also draft fore and aft (in salt water). 30 minutes before arrival at Fairway Buoy the Port Control to be contacted on VHF for instructions.

No Pilot vessel on station in Outer Roads. A pilot boat with red hull and white superstructure exhibiting the normal International Pilot Signal comes out to Outer Roads for embarking and disembarking Pilots. No special light or sound signal need be made for Pilots. All ships awaiting Pilot in Outer Roads must have engines ready at all times to enter harbour (unless instructed otherwise). Masters should ensure that a good pilot ladder with 2 manropes is lowered about 2 ft. above water for embarking Pilots. Also while embarking Pilot, lifebuoy must be kept handy, and a good lee given. Pilots must be escorted from and to the bridge, to the embarkation deck. Also see "Restrictions".

ANCHORAGE: Cochin Roads is open anchorage with good holding ground of oily mud. Masters are required to anchor vessels in Westerly area from North to South of Fairway Buoy within radius of 0.5 miles. Deep-drafted vessels may anchor in a Westerly direction from Fairway Buoy within a distance of 0.5 to 1 mile. To facilitate entry and departure of deep-drafted ships, Masters not to anchor in line with direction of main channel, Westward of Fairway Buoy.

RESTRICTIONS: Unless otherwise specifically instructed, vessels not to enter main channel at any time without Pilot on board. Pilotage compulsory for all vessels over 100 tons gross. No night entry for crude oil tankers.

MAX. SIZE: Maximum size of general cargo ships presently handled is 700 ft. LOA with max. draft 30 ft. *salt water.* Such ships taken in only during slack ebb. Tidal Conditions: In Cochin Port ebb and flood begins to run 2 to 2.5 hours after HW and LW. During monsoons, freshets are encountered and there may not be any flood for several days.

New Tanker Berth: Max. size 115,000 d.w.t. with part cargo. Max. draft 35 ft.

PRATIQUE: When a ship arrives at an Indian port, the Pilot who boards to bring vessel into harbour is authorised to give Free Pratique to healthy ships. The only exception to this procedure is if a vessel is arriving in India within 30 days of calling at 'Yellow Fever port' the vessel is put in quarantine and she is granted Free Pratique *only* after the Port Health Officer has boarded and satisfied himself that all persons on board are in possession of valid certificates against Yellow Fever and after conducting Mosquito Survey.

Once a ship has been granted Free Pratique at an Indian port, it is not necessary to apply for Pratique at any subsequent Indian port she may proceed to which is automatic Pratique.

Part I. The complete message comprises two parts. The first part embodying the code group on page 126 (Radio Quarantine Reports) from ships at sea e.g. ZS, ZT, ZU, ZV, etc.

Part II. The second part is in plain language and the following information must be given:

A. (i) Expected time and date of arrival in the port.

(ii) List of ports of call with dates of departure within 30 days period prior to arrival at the Indian port.

OR

'Called at' 'not called at' any port in West Coast of Africa from Senegal to Angola and Ethiopia, Somalia, Kenya or Tanzania, Brazil, Peru and any other countries North of these in South America including Trinidad, Tobago, Venezuela, Panama, Surinam, Guyane, Guatemala, Bolivia, Belize, Colombia, Costa Rica, Ecuador, Guinea, Nicaragua, etc. within 30 days.

(iii) Whether any monkeys on board.

(iv) Whether any person/crew taken aboard at Djibouti or Aden (if the ship has touched either of these ports).

(v) Number of crew and vaccination status.

(vi) Maritime Declaration of Health Questions. Whether negative 'ZT' or positive (indicated by compliments – 'ZU') as the case may be.

(vii) The message must finally embody the phrase 'Request Radio Pratique'.

B. Additional information: Name of Agent. Request for 'Radio Pratique' must also include the name of the ship's Agent in the quarantine message. The message should be sent when the vessel is not more than 12 hours and not less than 4 hours from the Indian port. If the expression 'Request Radio Pratique' is not used but the complete message outlined above has been sent in that specific form Free Pratique will be granted by the Pilot provided that 'all is well' aboard. The message should be complete, timely and specific otherwise Radio Pratique cannot be granted.

In addition to the quarantine message the Maritime Declaration of Health must always be completed and presented to the Pilot, Port Health Officer or other authorised person immediately on arrival. On verification of Maritime Declaration of Health if it is found that quarantine message sent by the Master of ship is defective then Port Health Officer has the right to cancel the Radio Pratique granted earlier.

Port Health Officer usually inspects all incoming ships coming from foreign ports to Indian ports and also carries out health and sanitary inspection and if satisfied gives Free Pratique on board the ship and certificate of clearance to sail out from Cochin port.

Note: Masters are requested to check this information with the Agents in individual Indian ports and advise us without delay, if these instructions are at variance with local requirements.

Special Reservations for India:

1. Ships having other infectious diseases besides diseases subject to the regulations, e.g., Chickenpox, Measles, Mumps (Epidemic Pariotitis), Cerebrospinal Meningitis, Whooping Cough, Malaria, Paralytic Poliomyelitis, Influenzal Pneumonia or any crew/passenger having temperature of 100°F or more for more than 2 days which is accompanied by rash, jaundice, glandular swelling or diarrhoea severe enough to interfere with normal activities should inform 'Quarantine' Cochin by message and to be brought in under QQ flag in day time and red and white light at night. Port Health Officer will board such ships and grant Free Pratique after observing health formalities.

2. Ships having passenger/crew originating from or embarking at ports of Djibouti, Massawa, Aden or Yemen and arriving within 14 days of departure from the said ports should inform 'Quarantine' Cochin and the ship to be brought in under QQ flag. Port Health Officer will board such ships and grant Free Pratique after observing all health formalities.

3. Healthy ships touching Aden or Djibouti and coming to Indian ports within 6 days without any passenger or crew embarking at Aden or Djibouti, should hoist 'Q' flag on approaching the port limit. The boarding Pilot in such cases shall grant Free Pratique to the ship.

If passengers or crew embarked on a ship either at Aden or Djibouti and the ship arrives at Indian ports within 6 days, such ship is required to hoist 'QQ' flag and Port Health Officer is to board the ship to eliminate the risk of Yellow Fever and grant the ship Free Pratique. Master of such ships should send quarantine message to the Port Health Officer before arrival at the port. This message should be sent not more than 12 hours and less than 4 hours before arrival.

4. Ships carrying monkeys from Yellow Fever area and coming to Indian ports within 31 days to be brought in under 'QQ' flag and Master should send quarantine message positively. Port Health Officer will board such ships and grant Pratique after observing health formalities.

5. Any ship carrying dead body, Master should send cable. Port Health Officer will board the ship to investigate the cause of death whether due to any diseases subject to the Regulations.

RADIO: Cochin Radio operates 24 hours daily, call sign VWN, however its range is limited to about 300 miles only. ETA messages may be routed through Bombay or Madras Radio which stations are directly linked with Cochin telegraphically.

VHF: VHF sets are installed in all port pilot launches, tugs, dredgers and at the Port Control Station in Harbourmaster's Office. Channel 16 is used for calling and Channels 14, 13, 12, 10 and 6 are available for communication. Ships awaiting berthing should maintain listening watch on Channel 16 at all times. Information regarding berthing would be generally available from Port Control at 0600 hrs., 1330 hrs. and 1800 hrs. daily. Cochin Radio maintains a VHF service which can be linked to shore telephones anywhere in India. This facility is available only between 0200 and 1400 hrs. GMT. Contact made on Channel 16 and then Channel 26 for conversation.

TUGS: Presently 3 tugs; one of 1,500 h.p., one of 1,400 h.p. and one of 1,000 h.p. An additional high powered tug, 30 tonnes bollard pull is also available. Tug's wire or ship's rope may be used at the discretion of the Pilot.

BERTHING: If particular ship required arrive at certain time, Agent informed in advance.

CARGO HANDLING: Modern systems of cargo handling such as pre-slinging, palletisation and containerisation are commonly used. The port has at present 24 wharf cranes with capacity varying from 3 tonnes to 10 tonnes, 12 mobile cranes of 10 to 40 tonnes capacity, 49 forklift trucks of 2 to 2.7 tonnes capacity and 1 floating crane of 120 tonnes capacity, 3 high powered tractors each of 180 h.p., 19 semi-trailer chassis, (10 with payload of 40 tons, 9 with payload of 20 tons), 2 heavy duty fork lift trucks with side lift attachment for handling empty containers and 5 ordinary tractors and 11 trailers for cargo handling operations.

There are 8 general cargo wharf berths, 2 coal berths, 1 boat train pier jetty, 3 tanker berths, 1 open berth and 2 low wharves and 11 stream moorings. Interim facilities are also provided for handling fertiliser raw materials pending construction of a mechanised berth. Ro-Ro ships and container ships are also handled. Quay 9 open berth is being converted into a full-fledged container berth with sufficient back up area, power plug points for reefer containers, freight station etc. At present container ships use their own derricks.

STEVEDORES: Booking of gangs undertaken by Agent on receipt of ETA message.

MEDICAL: Medical attention easily available in Cochin. If medical attention required immediately on arrival, Agent to be informed when sending ETA. Valid inoculation and vaccination certificates against Cholera and Yellow Fever are essential.

Medical advices if required on high seas to be communicated to 'Quarantine' Cochin. Harbour Master/Deputy Conservator/Agents of shipping company usually arrange evacuation of serious cases for hospitalisation from anchorage.

TANKERS: LOA limited to 700 ft. at North tanker berth and 560 ft. LOA at South tanker berth. Max. draft 30 ft.

The new oil terminal can accommodate tankers up to 115,000 d.w.t. with part cargo. Max. draft 35 ft. Products Handled: 1×750 mm. line for crude. 2×400 mm. lines for furnace oil and white oils; 4×300 mm. discharge arms. Discharge rate 4,000 tonnes/p.h.

Deep draft tankers berth only on ebb tide and during daylight hours. Ballasted or loaded tankers can sail any time.

All tankers must have fire wire fast and ready fore and aft on side facing channel.

DENSITY: Varies from 1000 to 1020 depending on tidal and weather conditions.

FRESH WATER: Supplied by shore hydrants at Rs. 15/Mt. and Rs. 24/Mt. respectively for coasting and foreign vessels. Rates for supplying through barges range between Rs. 45/Mt. to Rs. 130/Mt. and Rs. 20/Mt. to Rs. 210/Mt. respectively to coasting and foreign vessels according to the position of the vessel and the time of supply.

FUEL: All grades fuel oils normally available. Essential give advance notice to Agent to make necessary arrangements.

GANGWAY/DECK WATCHMEN: Watchmen available at nominal cost. Recommended employ watchmen at gangway, on deck and in holds.

OPENING/CLOSING HATCHES: Opening hatches normally done by stevedores. Topping derricks and removing locking arrangements on hatches must be done by ship's personnel.

CARGO GEAR: All cargo gear must have valid test certificates and all other factory act requirements must be complied with.

IDENTIFICATION CARDS: Shore passes (temporary landing permits) are being issued. Seaman's Books cannot be used by foreigners unless with Immigration stamp.

CONSULS: United Kingdom, Norway, Italy and France have consuls at Cochin.

REPAIRS: The Cochin Shipyard now undertakes all types of deck and engine repairs.

In addition there are various other workshops who undertake engine and deck repairs. Exclusive surveyors to Lloyd's and non-exclusive surveyors to other classification societies are also available for hull/engine surveys. Repairs to radio, radar and other electronic equipment can also be arranged.

DRY DOCKS: Port dry dock can handle ships of up to 217 ft. LOA. However, not normally available for foreign craft.

The Cochin Shipyard dry dock can accommodate ships of up to 100,000 d.w.t. with max. size of ship up to 257 m. length and 38.5 m. beam. The dry dock entry draft permitted is 6.5 m.

REPATRIATION: Crew changes are carried out in this port. The Agents execute a bond before the Shipping Master before disembarkation. Repatriation undertaken by the Agents as mentioned in the said bond as well as general bond executed by them in Port Registration Office. Permission to enter India, travelling within India to the International airport through which they are leaving India and permission to leave India through Cochin port are being given by the Port Registration Office.
AIRPORT: Airport about 2 miles from harbour area. Cochin Airport handles internal flights only.
TIME: GMT plus 5.5 hours.
HOLIDAYS: Closed holidays: Republic Day (26th January); Independence Day (15th August); Gandhi Jayanti (2nd October); 1st May and 25th December.
FIRE/AMBULANCE/POLICE: Willingdon Island Fire Station 6555; Willingdon Island Police 6005.
TELEPHONES: Arrangements can be made for telephone connections on board ships on wharf berths only.
GENERAL: Floating crane 120 tons, fire float.
SHORE LEAVE: Temporary landing permits are issued to foreign crew, subject to restrictions as per Government orders, if any.
SHIP SUPPLY SERVICE: "Ship Supply Service" is functioning at Cochin port. The Agents of the vessel arrange ship-to-shore transport of personnel and/or essential stores and/or sick crew members, etc., whenever such services are required. Usually, vessel's Agent gets this work after securing necessary clearance from the concerned Authorities and these are arranged through their ship chandlers or other contractors as the case may be. In cases of such emergencies, helicopter services are arranged by the local Agents with the Naval Authorities in Cochin with the assistance of the Port Health Officer stationed in the area.
DEVELOPMENTS: One of the existing berths (Q-9, length 414 m.) is being converted into a fully fledged container berth. Necessary infrastructure facilities like hard-surfaced area, lighting, power plug points, container freight station, etc. have been provided. Tractor-chassis, trailers, heavy duty fork lift trucks, etc. to handle 40 ft. and 20 ft. containers have also been provided. Two transfer cranes have been installed in the stacking yard. Steps have already been taken to provide quayside gantry cranes at the wharf in order to provide fully fledged container terminal facilities for handling cellular container ships at the port in view of the rapid increase of container traffic. Completion of the terminal is expected in 1990.

Fertiliser berth to handle raw materials under construction for ships up to 230 m. in length drawing 35 ft. will be commission shortly.

SHIPMASTER'S REPORT: August 1979.
Hatches: Beams and hatchboards by stevedores and the remainder by ship's crew.
Stevedores: 1st shift 0800 – 1700 hrs., 2nd shift 1800 – 0300 hrs.

AUTHORITY: Cochin Port Trust, Willingdon Island, Cochin 682009. *Tel:* 6871. *Telex:* CN-203. *Cables:* Portrust.

Contact:	*Tel. No. Office*	*Tel. No. Residence*
Chairman	6286	6400
Deputy Chairman	6592	6420
Deputy Conservator	6417	6002
Harbour Master	6410	6859

AGENT: G.A.C. Shipping (India) Pvt. Ltd., P.O.B. 515, Cochin 682003, Kerala, India. Tel: 69066, 69078. Telex: 8856537 GAC IN. Cables: "Confidence", Cochin.

COONDAPUR: 13.37 N. 74.40 E.

DOCUMENTS:
Inward Report.
Valid Certificate of Safety.
Radio Telegraphy.
Safety Equipment.
Safety Construction.
Crew List.
PILOTAGE: Optional. Vessels call at this Port for carrying ore cargo and anchor at open roadstead at a distance of about 1.25 miles to 5 miles depending upon their draft in a holding ground of sand and mud. The Agent of the ship bound for this port reports the vessel's ETA in advance. In the ETA message the name of the vessel, date and time of arrival are included.
ANCHORAGES: Good anchorage in depth over 8 fathoms at a distance approximately 5 miles from the channel bar.

Tippu Sultan Gudda Light bearing 053.5°(T) and Kodi Light bearing 080.5°(T). The Northern approaches to the Port area is rocky and the safest approach to the anchorage is from the South. Tidal range is 5 ft. Depth at bar 7 ft. at LWOST. 8 ft. – 10.5 ft. during HW.
RESTRICTIONS: No restrictions except that vessels calling at the port anchor at open roadstead.
MAX. SIZE: Vessels of smaller draft can anchor in 9 fathoms of water.
HEALTH: The Assistant Surgeon, Government Hospital, Coondapur is the Port Health Officer at the port.
RADIO: There is no radio station at the port. The nearest wireless station is at Mangalore and its call sign is "VWL".
VHF: Not available.
TUGS: There are 2 tugs/launches for towage service of sailing vessels and for special trips.
BERTHING: No berthing facilities available for ships.

1 wharf of 300 ft. in length with small stocking area.

1 RCC sheet piled wharf of 700 ft. length with vast stocking area duly electrified and a stocking platform of 180 ft. length are the only shore facilities at this port.
CRANES: None.
BULK CARGO FACILITIES: None.
STEVEDORES: Advise well in advance of ETA to shippers in order to arrange shore loading. Main cargo – ore.
MEDICAL: No advance notice except in case of serious illness to be included in arrival message. Hospital facilities available at Coondapur.
TANKERS: No facilities.
FRESH WATER: No facilities for supplying water to vessels are available. Sailing vessels crew draw their requirements of fresh water from nearby wells.
FUEL: For ocean going vessels, there is no bunkering facility. There are oil depots at Ganguli, Coondapur from where High Speed Oil can be supplied to small vessels in drums.
CONSULS: None.
REPAIRS: Small workshops where repair work for fishing launches, barge, etc., are undertaken.
DRY DOCKS: None.
SURVEYORS: Ship surveyors of Mercantile Marine Department at Goa and Cochin are available. Private Surveyors are available at Mangalore and Goa.
OPENING/CLOSING HATCHES: Usually by ship's crew.
CARGO GEAR: No shore facilities. Ships anchor at open roadstead and load cargo by ship's gear.
REPATRIATION: No facilities.
AIRPORT: Nearest airport is at Bajpe which is situated 73 miles South of the port.
TIME: GMT plus 5.5 hours.
HOLIDAYS: Holidays declared by the Collector of Customs, Bangalore are followed at the port.
POLICE/AMBULANCE/FIRE: Pilot station is located at nearby Coondapur Town, Tel: 338. Ambulance facilities available at Government Hospital and Private Hospitals at Coondapur. Fire station available at Udipi 37 miles South of this port. Tel: 8333.
TELEPHONES: No arrangements exist for placing telephones on board the ship.
SERVICES: No facilities for ocean going vessels.
BANKS: Syndicate Bank and Canara Bank, Ganguli, Coondapur Taluk, South Kanara Dt., S. India. No telex facilities.
SHORE LEAVE: Crew members are allowed ashore subject to Customs formalities.
IDENTIFICATION CARD: Seaman's Book is sufficient and shore passes are issued by Customs.
DELAYS: Delays in loading can normally be expected during bad weather.
GENERAL: The Port of Coondapur is a riverine port which is seasonal. Open for traffic from 15th September to 15th May every year. Port is situated at the confluence of the Hadi and Chakianadi rivers at Ganguli village. The Port is 60 miles North of Mangalore which is the nearest railway head.

Charts: B.A. Chart No. 745. Indian No. 2019.
AUTHORITY: Port Officer, Coondapur, Ganguli P.O. Pin Code 576216, Karnataka, India. *Tel:* 72 Ganguli. *Contact:* Captain Mohan Chandy, Port Officer.

CUDDALORE: 11.43 N. 79.46 E.

DOCUMENTS:
8 Crew Lists.
8 Passengers Lists.
3 Forms of Import Manifest of Stores.
3 Lists of articles in slop chest.
3 Private Property Declaration of Crew.
3 Manifests.
3 Bills of Lading.
PILOTAGE: No pilotage. Open roadstead port.
ANCHORAGE: Vessels anchor in 5 to 7 fathoms with Cuddalore Lighthouse bearing 295° to 315°, which is most convenient anchorage for communicating with shore at all seasons of year. Nature of bottom, sand.
RESTRICTIONS: No restrictions regarding entry of vessels during day or night.
MAX. SIZE: Any size of vessel handled.
HEALTH: On arrival, Master to signal Port Health Officer stating all crew well and requesting Free Pratique. In event of any crew member suffering from suspected infectious disease, Master to advise Agents sufficiently in advance to enable Port Health Officer to board vessel on arrival. No Free Pratique necessary whenever vessels call from another Indian port.
RADIO: No radio station. Cables routed through Madras Radio (call sign VWM).
VHF: Cuddalore Port on Channels 16 and 11 from 0600 hrs. – 1000 hrs. and 1500 hrs. – 1900 hrs., except on Sundays and Government Holidays.
TUGS: There is a tug available. It is utilised for towing the lighters between ship to shore and vice-versa.
BERTHING: No berths.

Lighters: About 150 lighters owned by private individuals are operating for transporting cargo between ship and shore and vice-versa and handle 2,000 tonnes in total for a round trip.

Barges: 1 steel barge of 50 tons capacity available for lighterage purposes.

STEVEDORES: ETA advice required 72 hours in advance to enable stevedores to make adequate arrangements for handling cargo.
MEDICAL: No advance notice required unless vessel arrives with crew member requiring immediate medical attention. Seamen can be treated at Municipal Dispensary at Old Town near port and also at Government headquarters hospital in charge of District Medical Officer at New Town about 6.5 km. from port.
DENSITY: Density of water 1024 – 1025. State of tide does not affect density.
FRESH WATER: 1 steel water barge of 50 tonnes capacity is available for supplying fresh water to vessels in the Roads.
FUEL: None.
CRANES: 1 'Coles' 10 ton capacity mobile crane has been purchased for handling cargo in this port. This is a diesel electric crane.
GANGWAY/DECK WATCHMEN: Services of watchmen recommended in interest of ship to avoid pilferage. 3 watchmen night and day per shift of 8 hours.
OPENING/CLOSING HATCHES: By stevedores.
CERTIFICATES:

Ship's Register.
Load Line Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Derat Certificate.
Last Port Bill of Health.
Last Port Clearance.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes permitted for each crew member to be held out of bond. Wine/Spirit, 1 open quart bottle per crew member permitted to be held out of bond.
CARGO GEAR: Register of cargo gear and machinery to be maintained up to date and to be attested by competent authority.
IDENTIFICATION CARDS: Needed.
CONSULS: None.
REPAIRS: Minor repair facilities available.
REPATRIATION: Facilities exist for effecting crew changes and arranging necessary repatriations.
AIRPORT: Nearest airport at Madras, distance 118 miles.
TIME: GMT plus 5.5 hours.
HOLIDAYS: Cargo work arranged on all holidays except Republic Day, Gandhi's Birthday, Pongal Karinal, Masimagam, Pennayar Festival, Independence Day and Deepavali, on payment of overtime.
POLICE/AMBULANCE/FIRE: Tel: Police 2024; Fire and Ambulance 99.
SERVICES: Cleaning of hatches after discharging cargo available.
SHORE LEAVE: Crew members permitted to go ashore within municipal limits.
DELAYS: No delay of anchoring of vessels. Cargo work carried out during day. No night work.
GENERAL: Private launches arranged for purposes of crew going ashore. Such launches ply between 0600 hrs. and 1700 hrs. Laundry, provisions, etc., can be arranged.
AUTHORITY: Government of Tamil Nadu, Tamil Nadu Port Department, 56 Chamiers Road, P.O.Box No. 2179, Raja Annamalai Puram, Madras 600-028. *Contact:* Captain D. T. Ramachandran, State Port Officer. Tel: 457994 (office), 459588 (home).

DAHEJ: 20.43 N. 72.35 E.

SHIPMASTER'S REPORT: March 1987.

DOCUMENTS:

Clearance from Last Port.
2 copies Ship's Store List.
2 copies Crew Personal Effects List.
6 copies Crew Lists.
Cargo Manifest.

PILOTAGE: Optional. The Assistant Port Officer acts as Pilot. Masters are advised to approach/anchor during daylight hours.
ANCHORAGE: Vessel anchors with Luhara Point Lt. (21° 39.5′ N., 72° 33′ E.) bearing 137° T, 5.3 miles off. Anchorage marked on chart. Cable "APO DAHEJ" via Bombay Radio at least 24 hours prior arrival for pilotage if required. Vessels should approach the anchorage during slack water (20 minutes after Bhavanagar) and bring up the vessel on port anchor with about 6 shackles in water. Holding ground is good. Vessel may drop starboard anchor underfoot. Depth about 16 m. at chart datum. This is a tidal port and currents are up to 5 knots during Springs.
MAX. SIZE: No restrictions.
HEALTH: Cable "APO DAHEJ" and "PORTAL BHARUCH" via Bombay Radio for Free Pratique. Pratique normally granted on anchoring.
RADIO: Bombay Radio (VWB) or Bhavanagar Radio (VUJ9).
VHF: Vessels should contact Bhavanagar Port Control and Dahej Port on Channel 16 for anchoring instructions at least 2 hours prior to arrival. Dahej Port maintains a listening watch on Channel 16 from 0930 hrs. – 1230 hrs. and 1530 hrs. – 1900 hrs. (local time).
BERTHING: *Discharging:* The port is solely used for unloading bulk fertilisers. At present there are 3 self-propelled barges, each of about 550 tonnes capacity. These barges come alongside during high water and leave at the next high water.

Discharging done manually using ship's gear and a rate of about 1,300 tonnes per day can be obtained on the basis of 4 working hooks during Springs.

The Receivers of the cargo are Gujarat Narmada Valley Fertiliser Corporation, Bharuch.

STEVEDORES: Only one stevedoring company available, M/s Ocean Shipping Services, Bharuch (Cable: "Oceanship Bharuch"). Only one vessel at a time permitted to work in this port. The port does not handle any discharging from April to September. The shore labour which boards the vessel stays on board until completion.
MEDICAL: No facilities. Under exceptional circumstances, emergencies may be arranged from Bharuch through the Agent. Advisable to inform the Agent well in advance.
DENSITY: 1024 (approx.).
FRESH WATER: Extremely difficult to obtain. Small quantities (10 tonnes – 15 tonnes) may be obtained after arrangements made with the stevedores who are the owners of the self-propelled barges. Vessels are strongly advised to arrive with sufficient fresh water for their stay.
FUEL: Not available.
CONSULS: None locally.
REPAIRS: No facilities at present time.
SURVEYORS: None locally. May be arranged from Bombay.
GANGWAY/DECK WATCHMEN: Not required.
HATCHES: Opening/closing by ship's crew.
CUSTOMS ALLOWANCE: Standard allowance for Indian ports.
REPATRIATION: Not possible at present. Under consideration by the authorities.
AIRPORT: Nearest is Vadodara (formerly Baroda), which is about 90 km. distant. Daily flights to Bombay.
TIME: Indian Standard Time (GMT plus 5.5 hours).
HOLIDAYS: In accordance with other Indian ports but work can be arranged during holidays.
SHORE LEAVE: Not permitted under normal circumstances, this also includes Indian nationals.
GENERAL: Provisions are expensive and difficult to obtain.
AUTHORITY: The Assistant Port Officer, Gujarat Maritime Board, Dahej Port.

HALDIA: 22.00 N. 88.05 E. (See Plan)

Subsidiary deep water modern dock of Calcutta, situated on West bank of Hooghly River and 56 miles downstream of Calcutta.
DOCUMENTS, PRATIQUE: All general information; refer to "Calcutta".
RESTRICTIONS: The lock entrance lead-in jetty – 1,010 ft. (307.84 m.).

Lock: 985.5 ft. (300.38 m.) long and 130 ft. (39.62 m.) wide. Ships up to lengths of 885 ft. (269.75 m.) can be safely accommodated at Haldia Dock.

MAX. SIZE: Capital dredging in shipping channel is in progress and the results being constantly reviewed. Currently actual drafts as per draft of the day. Draft forecasts are issued 6 weeks in advance.
TUGS: 5 tugs available.
BERTHING:

1. An Oil Jetty – to provide berthing accommodation for super-tankers with LOA of approximately 780 ft. and draft up to 35 ft.
See "Tankers".

2. A Finger Jetty – equipped with grab-bridge crane capable of transferring salt, rock phosphate and other bulk cargo from ship to barge, or vice versa at an average rate 5,000 tons per day.

3. A Coal Berth length 270 m. with depth alongside of 45 ft. is capable of loading bulk carriers of the 60,000 d.w.t. class. Mechanical plant capable of loading conventional ships and bulk carriers at a designed rate of 2,000 tonnes/p.h. 2 wagon tipplers, capacity 1,500 tonnes/p.h.; 1 conveyor belt; 2 stacker-cum-reclaimers – stacking capacity 1,500 tonnes/p.h. Reclaiming capacity 1,000 tonnes; 2 Shiploaders, capacity 1,500 tonnes/p.h. per loader.

4. An Ore Berth – rate of loading 5,000 t.p.h. and with provision for increasing to 8,000 t.p.h. Accommodation for carriers up to 80,000 d.w.t. 2×1,500 ton wagon tipplers, 4 stacker-reclaimers with capacity 1,500 tonnes/p.h.; 2 shiploaders, capacity 3,000 tonnes/p.h. This berth can also handle tankers.

5. A Fertiliser Berth – for ships up to 50,000 d.w.t. class.
Mechanical plant for rapid mechanical discharge of finished fertiliser, rock phosphate, sulphur, etc., from bulk carriers and conventional ships at a designed rate of 1,400 t.p.h.; 1 conveyor belt, capacity 1,300 tonnes/p.h. Can be extended up to the Fertiliser Factory; 2 ship unloaders, capacity 700 tonnes/p.h.; covered storage for 30,000 tonnes (with provision for increase to 60,000 tonnes in future) and open storage for 15,000 tonnes, (with provision for increase to 30,000 tonnes in future).

6. Two general Cargo Berths – each with a quay of 720 ft. and 120 ft. wide and back-up area of 18 acres. Both will have adequate cranage, latest in cargo handling machinery and direct rail-road facilities. One berth will have a modern 100,000 sq.ft. transit shed and a 30 ton payload Portainer Crane for handling containers.

7. Container Terminal: The first fully-fledged Container Terminal in India with Portainer Crane for handling containers into or from ships. Back-up area 180,000 sq.ft. (16,722 sq.m.) providing storage space for over 1,000 containers at a time. Equipped with one high-speed transtainer crane capable of serving both rail and road vehicles.

TANKERS: Haldia Oil Jetty extends 180 m. into the deep water channel. The maximum velocity of current during ebb tide is 6 knots. During period March to June, Northwesterly squalls frequently blow up on inshore side of tankers moored at Haldia Oil Jetty, with reported wind speeds of up to 90 km./hr.

Vessels are programmed to berth on HW (daylight only) and port anchor is used to swing vessel for starboard side berthing. The flood stream continues to run 1.5 hours after HW and this provides sufficient time for safe mooring operations. 1 tug is in attendance when mooring. Although there is a hose handling gantry, it is not used during discharge as the hoses are reported to kink when excessive ranging occurs.

In view of the jetty being located in an area where strong tides are experienced, vessels are required to have the following moorings:

Forward	– 5 head ropes	Aft	– 5 stern ropes
	– 3 breast ropes		– 3 breast ropes
	– 3 back springs		– 3 back springs

This gives a total of 22 moorings. Doubling up of mooring ropes is acceptable to provide the above requirement provided all ropes are in good condition and of sufficient length to reach the shore bollards. After the vessel has been securely moored, ropes are turned over and the opposite eye is sent ashore. Mooring wires may be used as back springs.

In the final mooring position, the drift (distance fairlead to shore bollards/hooks) for the various moorings is as a follows:

Head and Sternlines:	Approx. 240 ft. (73 m.)
Breastlines F & A:	Approx. 125 ft. (38 m.)
Springs F & A:	Less than breastlines.

Above drifts apply to a ship with LOA 560 ft. (170.7 m.)

Hose Connections: Midships.

Shore Line System: Handles white oils, fuel oil and crude oil. 30 in. crude line with 3×12 in. connections on jetty. White oil line: 200 mm. (8 in.) to 300 mm. (12 in.) Shore lines: 1.5 km. long. Max. back pressure 7 bar (105 p.s.i.) Average rate 600 tonnes/p.h. (product).

Shore Steam: No facilities.

Bunkers/Lubricants: Not available.

Fresh Water: Available from shore in small quantities.

Tank Cleaning/Dirty Ballast Facilities: No facilities. Clean ballast may be pumped overboard.

General: Continuous and strict watch to be kept on vessel when anchored or in the berth to prevent unauthorised persons boarding.

Due to the remoteness of Haldia it is extremely difficult to arrange the formalities associated with crew members joining or leaving the ship.

In view of current and wind conditions it is recommended that a continuous watch is maintained to ensure that moorings are well tended at all times.

DEVELOPMENTS: A second oil berth is to be built. 2 tugs to be purchased.

SHIPMASTER'S REPORT: November 1984.

Pilotage: Ensure a boat rope is rigged; of good length and well down to the water and Pilot comes out in a small open boat, requiring a good lee and about 4 knots headway.

Also see "Calcutta".

Radio: See "Calcutta".

Tugs: Berthing at Haldia is critical in windy conditions. Tugs are under powered and have high freeboards. New tugs have been ordered. Present set up requires clear understanding on Pilot's side of controllable pitch ships where engines run continuously. Tugs slip wires unexpectedly on occasions.

Tankers: Tankers are sometimes berthed on the Iron Ore Berth inside the locked – in dock (11 m. alongside). Good pumping rates, up to 1,600 cu.m.p.h. Hose size 10 in., up to 4 connections. No night movements. If dealing with the India Oil Corporation, be ready for draft survey, independent quantity surveyor and a "standard" letter or protest. Also keep to hand all bunker/water information for arrival at previous port through to departure from present port, for end of passage and full away on passage plus port consumption/liftings.

AUTHORITY: Calcutta Port Trust, Haldia Dock Complex, Chiranjibpur, Haldia, West Bengal.

HONAVAR: 14.16 N. 74.27 E.

DOCUMENTS:

Crew Lists.
Passenger Lists.
Customs Documents.
Health Documents.
Manifests.
Bills of Lading.
Ship's Papers.

PILOTAGE: Open roadstead port. No system of pilotage. Pilot is however available, on requisition by Master or Agent.

ANCHORAGE: Distance off 3 miles, depth of 5.5 fathoms.

MAX. SIZE: No restrictions on length and breadth. Generally up to 34 ft. draft vessels can anchor within 2 miles to 3 miles from entrance.

HEALTH: Port Health Officer grants Pratique as and when necessary, on requisition.

RADIO: Wireless station at Mangalore.

BERTHING: No berthing facilities. Ships anchor on open roadstead.

MEDICAL: Proper hospital facilities available only at Karwar about 60 miles North. At least 24 hours advance notice ETA to be communicated to Agents.

DENSITY: Varies 1020/1025.

FRESH WATER: Very small quantities available. No arrangements for delivery to ships.

FUEL: None.

OPENING/CLOSING HATCHES: By crew.

CERTIFICATES: All ship's papers such as Certificate of Registry, W/T Certificate, Safety Equipment Load Line, etc., to be on board for verification.

CARGO GEAR: Cargo gear Test Certificates, etc., to be produced.

IDENTIFICATION CARDS: Needed, if going ashore.

CONSULS: Nil.

REPAIRS: Nearest workshops undertaking repairs available at New Mormugao. Minor repairs may be carried out at Karwar.

DRY DOCKS: None.

REPATRIATION: Facilities available.

AIRPORT: Belgaum, about 178 miles.

TIME: GMT plus 5.5 hours.

HOLIDAYS: Charter Party Holidays observed. Cargo work can be arranged on holidays. Dates of holidays vary from year to year.

POLICE/AMBULANCE/FIRE: Police 48; Ambulance 32; Fire Kumta 20.

SHORE LEAVE: Crew members are allowed ashore.

DELAYS: Generally no delays are expected.

AUTHORITY: Port Officer – Honavar, Port Office, Honavar, India 581395. *Tel:* Honavar 43. *Contact:* The Port Officer.

JAKHAU: 23.15 N. 68.37 E.

LOCATION: In Gulf of Kutch, on Godia Creek about 5 miles inside Arabian Sea. Port is about 7 miles West of Jakhau. Small sub-port exporting salt utilised by foreign-going and coastal traffic. Vessels calling Jakhau anchor in open roadstead about 6 miles offshore. Highest tidal range 14 ft. Current parallel to coast running about 4 knots.

AUTHORITY: Assistant Conservator Jakhau-Kutch.

KAKINADA: 16.56 N. 82.15 E.

DOCUMENTS: *(a)* To be supplied by Master on arrival:

Ship's Register.
Safety Equipment Certificate.
International Load Line Certificate.
Derat Certificate.
Last Port Clearance.
ILH Dues Receipt, if coming from an Indian Port.
Crew List: 6 copies to Agents, 2 copies to Immigration Dept., 2 copies to Customs.
Customs Circulating Copy, if coming from another Indian Port.
Import Manifest of Stores (Store List).
Private Property Statement of crew and officers.

(b) Master to sign following certificates, in prescribed forms, presented by Agents, on arrival:

Port Entry.
Port Clearance.
Customs Entry.
Customs Clearance.
Departure.
Health.

PILOTAGE: No pilotage.

ANCHORAGE: *Allotment of Anchor Berths:*

Masters of vessels calling at the Port of Kakinada should cable the following information to the Port Officer directly, 24 hours before their arrival off the Port:—

(a) ETA (Indian Standard Time)
(b) Total cargo for loading/discharging at Kakinada and nature of cargo.
(c) Hatchwise distribution.
(d) Declaration of hazardous, inflammable and explosive cargo.
(e) Declaration of vessels winches in good working condition.
(f) Draft Fore and Aft.

A specimen cable covering the above is quoted below:

"Port Officer Kakinada STOP Vessel XXX ETA Kakinada 22/10 0900 Local Time quantity loading 9,500 tonnes rice bran extractions hatch one 1,000 hatch two 2,000 hatch three 3,000 hatch four 3,000 hatch five 500 no hazardous inflammable explosives STOP All winches derricks good working condition draft fore 8 m. aft 9 m."

The above cable sent to the Port Officer (in addition to the cable sent to their Agents as per normal practice) will facilitate proper anchoring instructions from Port Authorities to the Master and avoid difficulties in Port operations.

Masters should also keep watch on VHF Channel 16 to receive instructions from Port Control and contact Port Control on arrival at the approaches to the Port.

Specific instructions will be given by the Port Officer on VHF through Port Control in respect of anchorage positions. When once anchored as above, Masters should not shift their position without specific reanchorage position given by the Port Officer, unless in case of emergency in regard to the safety of the vessel.

Masters of vessels calling at this port are advised to be in possession of the latest navigation chart corrected up to-date. The Indian edition available is 3009 "Approaches to Kakinada Port" with an inset of Kakinada Bay.

Main engines should not be immobilised without specific permission from Port Authorities.

The Godavari Point (sand spit) is extending Northwestwards at a rate of about 170 ft. per annum and a port hand buoy (flashing red) 5 secs. is installed at the tip of the spit.

The holding ground anywhere in the anchorage is considered excellent (soft mud and sand).

MAX. SIZE: No restriction. Vessels any size can enter the port.

HEALTH: Masters have to send standard quarantine message not more than 12 hours and not less than 4 hours before arrival. Pratique will be granted by Port Health Officer basing on the quarantine message, which will be instructed to the Agents. Health inspection of the vessel will be carried out by the Port Health Officer at the earliest convenience. Vessels that have touched ports in the yellow fever endemic area within the last 30 days, should send the quarantine message at least 48 hours before the expected time of arrival.

RADIO: Radio stations are Visakhapatnam and Madras.

VHF: VHF radio station is in the Port Office (Port Control) on International frequency, Channels 16 and 12, communication from ship/Port control and vice versa. If ship requires communication on Channel 12, it should be advised in advance to prepare machine accordingly.

The Port control VHF functions round the clock at the following specified times:–

0045 to 0100 hrs.	1245 to 1315 hrs.
0345 to 0415 hrs.	1445 to 1515 hrs.
0545 to 0615 hrs.	1745 to 1815 hrs.
0745 to 0815 hrs.	1945 to 2015 hrs.
1045 to 1115 hrs.	2245 to 2315 hrs.

All times Indian Standard Time.

TUGS: There are 5 small tugs and 6 Pablo Boats for towing cargo lighters.

BERTHING: 1 wharf, length 300 m. 1 floating crane, capacity 50 tons.

CARGO LIGHTERS: There are 110 cargo boats with total capacity of 9,600 d.w.t. In addition 5 self-propelled mechanised barges each of 250 d.w.t. owned by the Port Authorities.

There are also available 6 mechanised barges each 240 d.w.t. owned by Central Island Water Transport Corporation Ltd., Calcutta.

STEVEDORES: Gangs engaged by party doing stevedoring work. In case of liners, Agents attend. In case of chartered vessels, consignees/shippers attend. Master to give ETA with number of hatches to be worked on arrival. Revised ETA to be sent whenever there is change.

MEDICAL: Government general hospital available with specialists. Private nursing homes also available with efficient physicians and surgeons. Agents arrange medical aid on advance advice. Being roadstead port, launches have to be arranged, hence advance notice of 6 hours necessary through signal station while in port.

DENSITY: Ranging from 1010 to 1025.

FRESH WATER: Of the 5 mechanised barges owned by the Port Authorities, 1 mechanised barge is used for supply of fresh water up to 200 tons. Privately owned self-propelled barge is also available for supply up to 100 tons. Prior arrangements to be made through Agents of vessels 24 hours in advance.

FUEL: No fuel suppliers. In case of emergency small quantities of 10/15 tons, in 205 litre drums, can be arranged from Visakhapatnam, duty paid.

GANGWAY/DECK WATCHMEN: Arranged by stevedores.

OPENING/CLOSING HATCHES: By ship's crew only.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes per head per week. Wine and Spirits: 16 oz. per head per week for those who are eligible for supply by ship.

IDENTIFICATION CARDS: Required.

CONSULS: None.

REPAIRS: No facilities. Only minor repairs to winches, welding work, casting and repairing spare parts.

REPATRIATION: Can be arranged.

AIRPORT: Visakhapatnam 105 miles, Madras 350 miles.

TIME: GMT plus 5.5 hours = IST.

HOLIDAYS: Charter Party holidays are observed. Work is done day and night. Port and Customs also work on holidays and out of office hours on payment of overtime. No work even on overtime payment on following days: Bhogi, Pongal, Kanumu. Optional holidays to labour on Chollangi Amavasya, in January.

POLICE/AMBULANCE/FIRE: Police 3052; Fire 101; Ambulance 3311.

SHORE LEAVE: Shore permits given by Port Registration Officer (Immigration).

SERVICES: Fresh and dry provisions available.

NOTARY: Available for noting protest.

DEVELOPMENTS: Development programmes include canal protection, transport facilities, navigational aids, power supply to loading/discharging points and stacking yards at shore and providing breakwater of 880 m. in length (sea wall) and mooring circle on the West side of the sand-spit known as Hope Island. The breakwater can be extended a further 3.2 km. Eastward for direct berthing of ships to serve long term needs of the port.

AUTHORITY: Port Officer.

KANDLA: 23.00 N. 70.12 E. (See Plan)

DOCUMENTS: To be submitted by Masters on arrival:

Customs: Crew List (3 copies).
Crew Private Property List – this should indicate all items they possess (3 copies).
Ship's Stores List (3 copies).
All valid documents of ship in English for verification of Customs Boarding Officer.

Port Health: Maritime Declaration in duplicate.
Valid crew health cards and Derat Certificate.

Agents: Stowage Plan, Cargo Manifest and Bills of Lading.

Boarding Pilot collects following documents:
4 copies Arrival Report.
4 copies Pilotage Certificate.
2 copies Crew List.

PILOTAGE: Compulsory. Pilot station situated Lat. 22° 49.5′ N., Long. 70° 07′ E. Loaded vessels can cross bar only during high water. Vessel to report at pilot station 2.5 hours before high water. Masters to keep Agents closely advised of ETA and anchoring time. 12 hours advance notice to be given by Agents for Pilot. No pilot ship or telegraphic address for pilot station (Outer Tuna buoy). Vessels can contact Kandla Tower through VHF Channel 16. Pilot station 16 miles away from port. During all weathers vessels have to anchor at above position and await Pilot.

Chart: Indian No. 2059 and 203.

Shipmaster's Report: On calling at Kandla, the Pilot advised that anchorage outside a 2 mile range from the Outer Tuna Buoy and the Pilot having to board there, increases the pilotage dues by 100 per cent.

ANCHORAGE: Vessels can anchor 1 mile S.W. of above anchoring position. Inside harbour, anchorages allotted by Port Authorities, and Pilots anchor vessels at suitable positions.

Vessels can however anchor more than 2 miles from Fairway Buoy but must pick-up Pilot within 2 miles of Outer Tuna Buoy.

RESTRICTIONS: Being a tidal port, entering and leaving of loaded vessels depends on tide, and loaded vessels can cross bar at entrance of channel only during high water. Night navigation has been introduced and is restricted to vessels up to 189 m. LOA and up to 8.23 m. draft.

Tankers bound for oil jetties are only handled during daylight hours.

Ships having speed of less than 9 knots through the water will not be moved in and out of the port of Kandla during hours of darkness.

Berthing and unberthing of ships at the moorings will be restricted to daylight only. Daily draft forecast for crossing Kandla Bar published at intervals by the Kandla Port Trust.

REGISTRATION: Report: August 1985.

On account of congestion a registration system has been introduced. When vessel has arrived at the Outer Tuna Buoy and registered with the signal station she will be allowed to proceed to other ports.

It will be up to the vessel to ensure that she is at the Outer Tuna Buoy when her turn comes up.

MAX. SIZE: Max. overall length 740 ft. No breadth restrictions.

For oil tankers max. permissible overall length is 700 ft.

Draft according to water on the bar varies from 30 ft. year round, to 31 ft. (frequently), to 32 ft. (occasionally) and 33 ft. – 34 ft. (very occasionally).

Sogal Channel (Mid Channel) was commissioned in 1984 which has given additional draft of 3 ft. i.e. 14 ft. at Chart Datum.

PRATIQUE: The Masters of all ships arriving at Kandla are required to send the Port Health Officer, Kandla (cable address "Sandgrodh") a wireless message embodying all applicable terms of information set out in the Standard Quarantine message of the International Code of Signals. In addition to the International Code message, Masters are also required to give the following information in plain language:

(a) Whether there is any abnormal mortality of rats or mice.
(b) Whether there is any monkey on board.
(d) Whether touched or embarked at Aden or Djibouti any person.
Names of all ports touched en-route within preceding 30 days,
(e) with dates of departure.
Request for Radio Pratique.

Upon anchoring at pilot station, cable again "Sandgrodh" stating time anchored and requesting Radio Pratique.

In cases where the vessel has touched any yellow fever area within preceding 30 days it is necessary for Master to certify that all officers and crew/passengers on board possess valid yellow-fever certificates.

Present practice for granting Pratique is by radio or by Port Health Officer boarding vessels inside harbour.

If the Maritime Declaration is not in order, the Pilot refers the Master to the Port Health Officer who then boards the vessel and grants Free Pratique after his inspection of the vessel.

RADIO: Within a range of 800 km. off Kandla, vessels can contact Kandla Radio on call sign VVK. Before 800 km. off, Kandla can be contacted through Bombay Radio only.

TUGS: 5 tugs. Port tugs join ships inside harbour off berth. Ship's wires used.

BERTHING: The cargo jetty provides 6 alongside-berths with total quayage of 4,725 ft. which can accommodate ships drawing up to 32 ft. loaded draft. The cargo jetty is served with 26 electric level luffing cranes, 20 of 3 tonnes, 5 of 6 tonnes and 1 of 10 tonnes capacity for handling cargo from ships.

3 mooring berths are available near the cargo jetty for vessels up to 600 ft. LOA and 25 ft. draft and vessels up to 500 ft. LOA and 24 ft.-26 ft. draft. In addition, there are separate moorings for *(a)* ships loading salt, max. LOA 600 ft. and max. draft 30 ft.,((b) deep draft mooring for ships up to 35 ft. draft and 740 ft. LOA.

The Bunder basin has 3 wharves, two wharves with transit sheds. The South wharf is served with 4 quay electric level-luffing cranes of 3 tons to 10 tons capacity for handling cargo from lighters. The North Wharf is for country craft. The West wharf is provided with a 60 tons capacity electric gantry crane.

Marine unloader with rated capacity of 350 tonnes per hour for discharging bulk fertiliser and its raw materials has been commissioned.

There is a back-up storage area of 30,000 tonnes. Automatic bagging and stitching machines are also available.

CRANES: 3 mobile cranes with capacity 3 tons – 20 tons.

Also see "Berthing".

STEVEDORES: Minimum 24 hours notice required for arranging stevedoring labour and gangs. Bulk fertiliser – average 650 tonnes per berth/day by conventional method. Grain – 850 tons. General cargo 250 tons per hook, subject congestion prevailing in sheds, wharves, warehouses and clearance, and on number of vessels working at particular period.

Cargo Operations:

1. At this port the unloaded/loaded LASH barges are towed by tugs which are subsequently discharged/picked up by LASH ships (operation suspended at present).

2. Regulations concerning the handling of dry-cargo are applicable to handling of cargo in barges.

3. Trucks can proceed alongside the berth and can park within the reach of the shore cranes. Cargo is loaded/unloaded from trucks directly on the wharf for shipment per vessel.

4. Forklift trucks are used to transport the cargo from the place of unloading to the stacking area and vice-versa.

5. Cargo on board the vessel is handled by Kandla Dock Labour Board workers. Packaged cargo on shore is handled by labour engaged by respective importers/exporters which are drawn from local market. Bulk cargo viz. fertiliser and wheat is handled on shore by departmental labour of Food Corporation of India

MEDICAL: Private Doctors' services available for vessels at berth. For vessels at pilot station or inner anchorages minimum advance notice of 12 hours and 6 hours respectively required. Very limited facilities of private practitioners. No hospital facilities. Inoculation and vaccination carried out by Port Health Officer (a Government body) – minimum 48 hours' notice required.

TANKERS: (Also see "Port of Vadinar"). Tankers with max. overall length of 700 ft., 40,000 tons displacement and 34 ft. draft permitted to berth. 3 main pipe-lines connected to tanks situated about 10 km. from berth, 2 generally used for white oils and one for black oil. White-oil pipe-lines diameter 12 in. and black-oil pipe-line diameter of 16 in. In addition, one 8 in. diameter pipe-line for soyabean oil, one 3 in. diameter pipe-line for acetone and one 4 in. diameter pipe-line for formaldehyde and one 12 in. diameter pipe-line for Phosphoric Acid imported by Indian Farmers Fertiliser Co-operative Ltd.

Berthing of Ammonia Tankers at Tanker Berth No. 1 with loading/unloading arm but restriction depending on the position of manifold.

Shipmaster's Report: Tankers will sometimes be brought in to the port even though a berth may not be available at that time. Such vessel will then be moored to a mooring buoy close to the jetty, awaiting her berth at the tanker pier. Mooring to this buoy is effected by use of the vessel's starboard anchor chain, so that the anchor has to be disconnected from the chain before entering.

In securing alongside the oil-pier, tankers are required to utilise 1 insurance wire fore and aft (not supplied from shore). In addition vessel is required to use all her available ropes and wires owing to strong currents – 4 head-ropes, 2 breast-ropes, 2 springs.

DENSITY: Varies from 1020–1030.

FRESH WATER: Can be supplied through shore pipe alongside and by barges in the stream.

Shipmaster's Report: Water is very scarce and should be ordered at least 3 days prior arrival.

FUEL: Furnace oil (heavy oil) and light diesel oil can be supplied. Usually 12 hours advance notice required for bunkering. In event of oil tanker discharging at berth, bunker supply can only be commenced 18 hours after completion of discharge by tanker. Quantities up to 500 tons supplied by tank trucks, above 500 tons supplied through pipe-lines if berth vacant. However, any quantity can be supplied by tank trucks.

FIRE PRECAUTIONS: 3 sea water fire fighting pumps installed at oil jetty. These pumps are under charge of fire brigade officers and have adequate fire fighting equipment. A tug fully manned with fire fighting arrangements also available at short notice.

GANGWAY/DECK WATCHMEN: All ships engage 2 watchmen round the clock at gangway. To look after mooring lines, 8 mooring men (4 each at fore and aft) are engaged round the clock.

OPENING/CLOSING HATCHES: Unless specified in relative Charter Party to contrary, ship's crew to accomplish this work.

SHIP CERTIFICATES:

Registration.
Safety Equipment.
Safety Radio and Telegraphy.
International Load Line.

CUSTOMS ALLOWANCES: 200 cigarettes per week per person. Wine and/or Spirit: 2 pegs of spirit per person per day or 4 pints beer.

Shipmaster's Report: Very strict Customs supervision, particularly in regard to declaration of foreign currency.

CARGO GEAR: Ships should possess valid Cargo Gear Certificates.

IDENTIFICATION CARDS: Required. See "Shore Leave".

CONSULS: None.

REPAIRS: Minor repairs carried out. Chipping and painting work also carried out.

DRY DOCKS: A floating dry dock with lifting capacity of 2,700 d.w.t. to accommodate small craft up to 100 m. in length and 5.0 m. draft.

SURVEYORS:

G. P. Dave & Sons, Tel: 20288.
J. B. BodaMarine, & General Survey Agents Pvt. Ltd., Tel: 21693, 21946.
Metcalfe & Hodgkinson Pvt. Ltd., Tel: 21740, 20940.
Navark & Mareng, Mohan Bhuvan, Tel: 21123.
Seascan Services Pvt. Ltd., Tel: 20288.
S.G.S. Ltd., Tel: 21857.

REPATRIATION: Adequate facilities available.

AIRPORT: Kandla Airport 20 km. from the port and an additional airport about 70 km. from port.

TIME: GMT plus 5.5 hours.

HOLIDAYS:

	Approximate Date
Republic Day	January 26th
Holi (Second Day)	March 10th
Chetichand	March 26th
Good Friday	April 9th
May Day	May 1st
Id-Ul-Fitr	July 23rd
Janmashtami	August 12th
Independence Day	August 15th
id-Ul-Azha (Bakrid)	September 28th
Mahatma Gandhi's Birthday	October 2nd
Dussehra	October 27th
Muhurram	October 28th
Diwali	November 15th
Diwali (New Year Day)	November 16th
Guru Nanak's Birthday	November 30th
Christmas Day	December 25th

TELEPHONES: Available for tankers and cargo vessels.

SHORE LEAVE: Possible.

Regulations: Photography in port area prohibited. No crew members allowed to take with them liquor of any kind ashore and not permitted to drink liquor outside port limit.

GENERAL: Port equipped with 21 electric level luffing shore cranes of 3 tons to 10 tons capacity used for discharging all ships alongside cargo jetty. For discharging tankers with bulk grain port's vacuvators belonging to Food Corporation of India used.

Kandla port is a prohibited area where entry and exit are restricted to those persons having bona fide work only. Masters are requested to exercise a strict check at the gangway in order to ensure that only those persons with bona fide business to transact are allowed aboard. In the event that any unauthorised person is found to be aboard the vessel, the matter should be reported to port officials and the police on duty.

Masters are requested to advise their crew in advance of arrival at Kandla that photography within the port area is strictly prohibited, and it is suggested that all cameras should be left in the safe custody of the Master in order that crew members may not violate this regulation inadvertently and become involved in legal proceedings.

SERVICES: Tank cleaning by shore labourers. Tank washings and residue not allowed to be discharged in port area.

DEVELOPMENTS: Berths and bar continuously under dredging.

An additional berth (343 m.) to be constructed by 1990. It will have a container freight station, storage yard and container handling facilities.

SHIPMASTER'S REPORT: May 1988.

1. Vessels can anchor any distance from the Outer Tuna Buoy but must rendezvous with the pilot vessel about 2 cables North of the buoy to take pilot.

   Arriving vessels picking up pilot must pass the Outer Tuna Buoy to starboard, then swing to port to give the pilot boat a good lee. (Pilot ladder rigged starboard side, 1 metre from the water.)
2. Communication through Kandla Tower for berthing instructions and pilot boat works on Channel 8. Kandla Tower calls on Channel 16, works on Channels 10 and 8.
3. No night berthing for loaded tankers.
4. Vessel anchored 2.7 miles from Outer Tuna Buoy with 5 shackles in water, good holding ground in sand/mud in very strong tides.
5. Vessel berthed at Oil Jetty No. 3, pilot reported that there is 32 ft. of water at low water.
6. Pilot reported that it was very rare for a tanker to be moored at a buoy in the river using anchor cable to buoy, but common for cargo ships awaiting berth or cargo.
7. Vessel used port anchor in river just after passing berth to swing (1 shackle in water) then, when turned, anchor is weighed to clear of the water.

   On approaching berth, port anchor is again used to control movement towards jetty. One tug assists, usually just pushing.
8. Normal moorings only required at this berth, 3 head/stern lines, 2 breast lines and 2 springs, one mooring boat employed.

   Special wires from either the ship or the shore not required.
9. At Oil Jetty No. 3 we used 2×8 in. flexible cargo hoses, max. pressure of 10.5 Bar, which gave a rate of 1,200 – 1,300 cu.m.p.h.

   Fresh water available ex-jetty, we gave Agent 3 days' notice and 100 tonnes was no problem, but we were told that this was the maximum at this time of year.
10. Tank washing for clean ballast possible alongside, but best to get written permission from the Harbour Master via the agent.
11. Officials required 5 copies of all usual documents.
12. Shore passes must be issued to all persons wishing to go ashore. No other identification required. Those going ashore must return to the vessel by 2230 hrs.

    Customs suggest all cameras locked away by Master as a precaution against possible illegal use.

    Town is 16 km. away, taxis and a bus (every 30 minutes) available at head of jetty.

    Foreign currency can be changed ashore at official places but a receipt must be obtained.

    Agent recommended that no watchmen be employed on board.
13. Unberthing at night costs more than normal daylight rate, also on the tanker berths a loaded tanker is unable to berth at night, so better to unberth during daylight.
14. One tug used unberthing, it does not make fast, normal unmooring using engine and heaving on anchor cable.
15. All Kandla buoyage in position, but lights not checked due to daylight movements only by this vessel.

    Pilot left vessel 1-1.5 miles North of the Outer Tuna Buoy, swinging to starboard to give lee for pilot ladder on the starboard side.
16. On leaving Kandla this vessel had to stop at sea (120 miles off) to clean lub oil coolers as they had become blocked quite badly due to sand and mud picked up in the Kandla River/creek.

Other details of vessel/cargo: Vessel in port 5 days. Cargo discharged: 24,431 tonnes diesel oil. Arrival draft 9.55 m. LOA 171.45 m.

AUTHORITY: Kandla Port Trust, Administrative Building, P.O.Box 50, Gandhidham-Kutch, India. *Tel:* (02836) 20001, 20021, 87201. *Telex:* 105-208. *Cables:* Port Trust Kandla. *Contact:* Harbour Master or Deputy Port Conservator.

KARWAR: 14.48 N. 74.06 E. (See Plan)

PORT LIMITS: *North:* A line drawn from Dayamada Point to Parker Rock.

East: Seashore of Karwar Bay from Dayamada Point to Badchidar Point 50 yards above high-water mark including Baithkol Cove, Kalinady and all branches thereof as far as navigable and the shores and banks within 50 yards of high-water mark Spring tides including all islands and thence to Mogera Guda Island (including Mogera Guda Island). All patta lands and other private sites excluded.

South West: A line drawn from Mogera Guda Island through Gudsav Sunv, Westernmost point of Mandal Island to Parker Rock.

DOCUMENTS:

8 Crew Lists.
2 Manifests of Stores.
2 Private Property Declarations.
2 Currency Lists.
1 Maritime Declaration of Health.
3 Passenger Lists (if any).
4 Import Manifests.
Last Port Clearance.

PILOTAGE: The approach from Northward is between Oyster Rock Lighthouse and 2 front and rear leading lights on Simshigudda and Kurmagad Islands, respectively, in positions Lat. 14° 50′ 11″ N., Long. 74° 05′ 43″ E. and Lat. 14° 50′ 33″ N., Long. 74° 05′ 59″ E. Vessels approaching from Southward may enter between Oyster Rock Light and Karwar Head. Currents in bay are negligible. Ocean-going vessels are piloted by Departmental Port Officer who is a licensed Pilot. No pilotage charges at present.

ANCHORAGE: Anchorage for shallow draft vessels is with the Port Signal Station, bearing 120° (T), distance 1 to 2 miles, or Oyster Rock Lighthouse, bearing 278° (T), distance 2.5 miles in about 24 ft. to 28 ft. of water. Anchorage for deep drafted vessels is with the signal station, bearing 099° (T), distance 3 to 3.5 miles in depths of 38 ft. to 42 ft.

RESTRICTIONS: No entry restrictions. Karwar Bay may be entered on either side of Sunghiri Island, according to draft and anchorage taken as required. A vessel can enter Karwar either by day or night after having made lighthouse on Devghad Island.

MAX. SIZE: Any size of vessel can be worked as loading and unloading operation done in open sea. Depth at Outer Roads over 7 fathoms increasing accordance distance from land.

HEALTH: District Civil Surgeon acts as Port Health Officer. Free Pratique to incoming vessels from foreign ports granted by radio. All vessels calling from foreign destination must give radio message addressed "Civil Surgeon Karwar" at least 48 hours prior entering port giving last port of call, number of crew, health conditions, approximate time of arrival and requesting Pratique, same message must be repeated to Agents who obtain Pratique on shore. Anchoring time is Pratique time. For vessels calling from an Indian port, Pratique not required.

Vessels which have taken on board passengers or crew from yellow fever areas, within 30 days of departure from such ports will be under quarantine. Free Pratique will not be granted until such time as a mosquito search party, from nearest major port (e.g. Cochin, Goa or Bombay) has inspected, disinfected and certified that ship is fit for granting Pratique.

Necessary for Owners or Masters to inform Agents well in advance in case of vessel arriving from yellow fever area to enable arranging of mosquito search party and quick Pratique.

RADIO: ETA and Pratique messages should be sent via Goa or Bombay Radio as Karwar Radio has been shut down.

TUGS: No tugs necessary as vessels work in stream.

BERTHING: No berth, vessels work in open sea. Baithkol Cove is safe berthing place for lighters. Alongside wharves 10 to 12 smaller vessels can obtain safe berth with depth of 6 ft. to 8 ft.

Also see "Developments".

STEVEDORES: 48 hours notice ETA required order enable Agents advise shippers and stevedores to keep cargo and labourers ready. Main commodity export of ore. Mechanised barge loading operations in port. Ore loading rate up to 4,000 tons per day. General cargo 1,000/1,300 tons per day.

MEDICAL: Good hospital facilities exist. 2 hospitals about 1.5 miles from port. In case of inoculations and vaccination at least 2 days advance notice to be given enabling bring vaccine from nearby town (Hubli or Belgaum) distance 100 miles and 150 miles respectively.

TANKERS: No facilities for tankers.

DENSITY: 1025.

FRESH WATER: Dumb water barge for supply to vessels anchored in open Roadstead.

FUEL: No bunkering facilities for ocean-going vessels. Diesel and petrol storage depots within port for supply to small vessels.

OPENING/CLOSING HATCHES: Generally carried out by ship's crew.

CERTIFICATES:

Ship's Register.
Cargo Gear Certificates.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Derat Certificate.
Vaccination and Inoculation Certificates.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle spirits.

CARGO GEAR: Before commencement of loading, Master to present shippers or their Agents with valid International Cargo Gear Certificate, which shall not be more than 12 months old. Validity of said certificate to cover whole period for loading and discharging. Fourth five-year plan includes proposals for mechanical front-end loaders, tipping trucks, mobile cranes and forklift trucks.

A 10 ton mobile crane is available.

CONSULS: None.

REPAIRS: Moderate-sized workshop in town able carry out minor deck and engine repairs.

REPATRIATION: Shipping Master arranges crew changes and necessary repatriation. Crew signing off repatriated via Goa or Bombay.

AIRPORT: No airport, or rail connections. Nearest airports Goa or Belgaum, 60 miles and 150 miles distant respectively. 2 flights per day to Bombay from Goa.

TIME: GMT plus 5.5 hours. Permanent.

HOLIDAYS: Charter party holidays declared and published every year by Honorary Secretary of the Karnataka Chamber of Commerce and Industry, Jaya Chamaraj Nagar, Hubli-20.

Non-working days when work not permitted even on payment of overtime: Republic Day (26th January) and Gandhi Jayanti (2nd October).

POLICE/AMBULANCE/FIRE: Circle Police Inspector 116; City Police Station 33; District Superintendent of Police 7; Reserve Police Headquarters 18; Ambulance 19.

SHORE LEAVE: Crew members are allowed ashore provided not of Chinese nationality.

DEVELOPMENTS: Proposed to develop Port of Karwar into all-weather intermediate port, with 2 berths (the jetty 375 m. long) and 1 mechanical berth (ore berth, for vessels 40,000 d.w.t.), an approach channel and turning basin. Intended arrangements include ability accommodate up to 60,000 d.w.t. ore carriers, loading up to 8 million tons ore and 1.25 million tons other cargo per year. Also intended develop fishing harbour with facilities accommodate large-scale deep-sea fishing industry for 1 million tons fish per year. Also see "Cargo Gear".

Provision of Channel Marks:

1 Fairway Buoy.
10 channel marking buoys.
Provision of a mooring boat with equipment for maintenance of buoys.
Experimental dredging.
Dredging approach channel and turning basin.
Land acquisition for future expansion.
Diversion of present main road alongside port wharf.
Improvement of Binga/Karwar Road.
Provision of 2 berths and 1 mechanical berth for ocean-going vessels.
Main berth length 172 m., depth 9.75 m. and secondary berth length 122 m., depth 7.5 m. will be ready 1987.

AUTHORITY: Port Officer – Karwar, Port Office, Karwar, Uttar Kannada District, Karnataka State, India. *Tel:* Karwar 342: *Contact:* Port Officer, Karwar.

MADRAS: 13.06 N. 80.18 E. (See Plan)

PORT LIMITS: The seaward boundaries of the Port are lines joining the following points:

A.	13° 07′ 58.8″ N.,	80° 17′ 57.9″ E.
B.	13° 09′ N.,	80° 20′ E.
C.	13° 09′ N.,	80° 22′ E.
D.	13° 03′ N.,	80° 22′ E.
E.	13° 03′ N.,	80° 20′ E.
F.	13° 13′ 54″ N.,	80° 17′ 15″ E.

DOCUMENTS:

3 Private Property Lists.
3 Stores Lists (Bonded Stores).
3 Crew Lists.
Last Port Clearance.
1 Valid Derat Exemption Certificate.
1 Bill of Health (only if vessel has touched yellow fever areas).
3 Slop Chest Declarations.
3 Currency Declaration.
Passenger List (if applicable).

Ship's Papers:

Ship's Register.
Load Line Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Safety Construction Certificate.
Ship's articles (if vessel is Indian or Commonwealth flag).
Ship's papers to be handed over to Agent's Representative for final entry of vessel in Customs House. Same returned to Master.

PILOTAGE: Pilotage compulsory, both inward and outward, also for purpose of shifting inside harbour. Master required to advise ETA at least 24 hours before arrival, when local Agents contact Port Authorities for arranging berthing. If any berthing delay, vessel has to anchor at Outer Anchorage. Vessels requiring Pilot fly "G" flag by day and 1 white light exhibited on a conspicuous point on ship by night. For departure from berth, vessel must call for Pilot 30 minutes before readiness to sail.

ANCHORAGE: Vessels should anchor South of Latitude 13° 06′ N.

Also see "Notice" – "Instructions to Ship Masters".

Wreck: M.V. "Decan Pioneer" sank on 11th November 1985 in position 13° 05′ 52″ N., 80° 19′ 11″ E. (Masts are visible).

RESTRICTIONS: No restrictions of entry, both day and night. In Bharathi Dock berthing of tankers more than 50,000 d.w.t. while in a loaded condition is undertaken only during daylight hours, unberthing of ships of all sizes whether loaded or light is undertaken at all times.

Also see "Notice".

RADIO: Coast Station Madras Radio, call sign VWM. VWM operates throughout 24 hrs. Vessels with powerful transmitters can contact VWM on HF from Singapore, Mauritius or Aden. Information regarding weather distributed twice daily. VHF communication with pilot station available around the clock to transmit and receive berthing and other operational messages. Calling frequency Channel 16 and operating frequencies Channels 14, 12 and 10. Channel 12 is the port's working channel.

Weather Radar is installed on top of the new Madras Port Trust Administrative Office Buildings.

Also see "Notice" – "Instructions to Ship Masters".

RADAR/VHF: VHF communication available, see "Radio".

MAX. SIZE: *Maximum Permissable LOA:*
North Quay – 540 ft. (164.6 m.)
West Quays – No restriction.
South Quay 1 – 710 ft. (216.4 m.)
South Quay 2 – 500 ft. (152 m.)
South Quay 3 – 518 ft. (158 m.)
South Quay 4 – 500 ft. (152 m.)
South Quay 5 – 450 ft. (137 m.)
East Quay – 540 ft. (164.6 m.)
Moorings 1 and 2 – 700 ft. (214 m.)
Mooring 3 – 560 ft. (170.7 m.)
Outer Petroleum Berth: – 900 ft. (274.31 m.)

Jawahar Dock: Total available length 2,150 ft. (654 m.) on the East and West sides respectively with drafts up to 11 m. Breadth of Jawahar Dock entrance is 110 ft. (33.49 m.). It can accommodate vessel up to LOA 750 ft. (228.59 m.) and breadth 105 ft. (32.0 m.).

Bharathi Dock: Max. length 900 ft. (274.31 m.) and draft of 48 ft. (14.60 m.) for oil tankers using Bharathi Dock is in force. A second oil berth in the above dock is functioning since March 1986. Ore berth accepts vessels with draft up to 53 ft. (16.20 m.)

Container Berth: Max. LOA 900 ft. Max. draft 42 ft.

Moorings: No. 1 – max. draft 30 ft.
No. 2 – max. draft 30 ft.
No. 3 – max. draft 35 ft.

Max. draft in the enclosed harbour varies from 26 ft. (7.92 m.) to 35 ft. (10.67 m.).

Details may be obtained from the Deputy Port Conservator, Madras Port Trust, Madras – 600 001.

HEALTH: All vessels arriving from foreign ports have to apply for Pratique through their radio – not earlier than 12 hours and not later than 4 hours before arrival. Pratique message to be addressed "Quarantine Madras" and worded as required by Port Health Authorities.

The Pilot boarding the vessel grants Free Pratique if the vessel is healthy in all respects – answer to all health questions being negative.

In all other cases or if vessel is coming from yellow fever infected area within 30 days of departure or in case of any infectious disease on board, Port Health Officer boards vessel and after due inspection grants Pratique.

Telegrams should take the following form: Name of vessel; ETA, in hours and date. No monkeys on board; answer to all health questions, (ports touched in last 30 days with departure dates). Request Radio Pratique.

Port Health require to sight Derat and Vaccination Certificates when vessel due to leave before issuing clearance for Pilot and Customs who then issue Port Clearance.

TUGS: Join vessel just inside breakwater. Vessels usually use own lines. Tugs' lines are also used if required by Pilot.

BERTHING: Vessels berth at all times.

There are in all 18 general cargo/bulk cargo berths and 3 moorings. Drafts of these berths/moorings vary from 26 ft. (7.92 m.) to 35 ft. (10.67 m.).

BULK HANDLING FACILITIES: There are 4 berths, 3 in the Jawahar Dock and 1 in South Quay. Handling of iron ore has been discontinued in Jawahar Dock due to the operation of mechanised iron ore plant at the Bharathi Dock. Instead bulk cargo like barytes is handled.

An iron ore berth with modern mechanical loading facilities is in operation at Bharathi Dock with an air draft of 17 m. and rated capacity of 8,000 t.p.h. The berth can accommodate vessels of 130,000 d.w.t. with a max. draft of 53 ft.

The Bharathi Dock has the potential for accommodating 2 more berths one of which can be converted into a container berth.

A breakwater has been constructed extending Northwards from the North end of the old breakwater to ensure tranquil sea conditions in turning circle of Bharathi Dock.

CONTAINER HANDLING FACILITIES: There are 2 container berths with a quay length of 380 m. and max. draft of 12.8 m. Two heavy duty gantry cranes of 35.5 tons capacity under spreader have been provided.

The container parking yard has a capacity for stacking 5,200 containers and is served by 4 rubber-tyred transfer cranes of 35.5 tons capacity under spreader.

5 top lift trucks for 20 ft. and 40 ft. containers.

The container freight station with an area of 6,300 sq. m. has been provided for stuffing and unstuffing operations.

40 reefer plug points for refrigerated containers are available with a standby generator for giving continuous power supply to reefer containers.

RATE OF DISCHARGE/LOADING:
Grains, by hooks/derricks:
Bulk: 300 tons per day per hook.
Bagged: 300 tons per day per hook.
By Vacs: 250 tons per Vac. per day.
Fertiliser: By hooks/derricks.
Bulk: 200 tons per day per hook.
Bagged: 300 tons per day per hook.
General Cargo: 150 tons per day per hook.
Liquid Cargo: About 150 t.p.h.

CRANES:
North Quay: 1×3 tons and 1×5 tons.
West Quay: 3×3 tons, 3×10 tons and 2×5 tons.
South Quay 1: 1×50 tons and 1×10 tons.
South Quay 2: 1×3 tons, 1×5 tons and 1×10 tons.
South Quay 3: 2×8 tons and 1×10 tons.
South Quay 4: 1×5 tons, 1×8 tons and 1×10 tons.
Jawahar Dock West: 7×3 tons, 1×5 tons and 4×10 tons.
Jawahar Dock East: 3×10 tons and 7×13 tons.
Jawahar Dock South wall: 3×3 tons.
One heavy duty floating crane of 120 tons available.

BRIDGES: There are 2 bridges for pedestrian traffic only. 1 swing bridge at the entrance of Jawahar Dock and another Bascule bridge at the entrance of boat basin.

STEVEDORES: A copy of Manifest for stevedores' required on board.

Working hours: 1st shift, 0600 – 1400 hrs. (Recess 1100 – 1130 hrs); 2nd shift, 1400 – 2200 hrs. (Recess 1900 – 1930 hrs.); 3rd shift, 2200 – 0600 hrs. (Recess 0200 – 0230 hrs.).

MEDICAL: Advance notice for medical aid useful if vessel anchored/anchoring outside and not coming alongside, as it takes time to arrange for launch, etc. Medical assistance arranged easily if vessel alongside. Various hospitals and private nursing homes with modern equipment available. All crew members to be in possession of valid health cards in respect of inoculations/vaccinations against cholera, etc. Facilities for renewal available.

TANKERS: *Bharathi Dock – I:* B.D.I is equipped for handling crude, products and furnace oil. There are 5 marine loading arms of 12 in. diameter each. The rated discharge of each arm is 1,500 tonnes per hour. Three of these arms are earmarked for handling crude oil and all the three arms are connected to a 30 in. diameter pipeline. Two of the crude arms are also connected to the furnace oil pipeline having a diameter of 14 in.

The two product arms could be connected to either 14 in. diameter pipeline or to 20 in. diameter pipeline.

The present maximum permissible draft at the berth is 48 ft.

The berth is provided with fire fighting facilities consisting of remote control tower monitors, water curtains and fire hydrants, etc.

Bharathi Dock – III: There are 5 marine loading arms, out of which 3 are of 16 in. diameter and 2 of 12 in. diameter. The rated capacity of 16 in. is 2,500 tonnes per hour and that of 12 in. is 1,500 tonnes per hour. The distribution of the arms for handling crude, product and furnace oil are same as in B.D.I. These marine loading arms are fitted with hydraulic remote control quick connect and disconnect (QCDC) couplings.

The berth is provided with fire fighting facilities consisting of remote control tower monitors, water curtains and fire hydrants, etc.

B.D.III is equipped with quick release mooring hooks to facilitate casting off the mooring ropes by remote control,

The present maximum permissible draft at the berth is 48 ft.

Both berths are equipped with efficient communication system with main harbour.

Also see "Ship Operator's Report".

DENSITY: Varies from 1019 to 1025 according to season. No variation due to state of tide.

FRESH WATER: Available and can be supplied to vessels either through shore connections or by water barges (rate 40 t.p.h.). During Summer months due to scarcity of water, full requirements of vessel may not be possible.

FUEL: Heavy Oil, Marine Diesel Oil, High Flash High Speed Diesel Oil, conforming to the following specification limits are available from the Indian Oil Corporation Limited with 48 hours notice.

1) Furnace Oil (Heavy Oil)	Viscosity 100° F	1500 seconds Redwood I
	or	180 C.St. at 50°C.
	Sulphur % by Wt.	4.5 maximum
	Flash point	66°C minimum
2) Light Diesel Oil (Marine Diesel Oil)	Viscosity 100° F	2.5 to 17.0 C. St. (typical at 15°C. St.)
	Flash point	66°C minimum
	Sulphur % by Wt.	1.8
3) High Flash High Speed Diesel Oil	Kinematic Viscosity	2 to 7.5 C.St.
	Flash point	66° C
	Sulphur % by Wt.	1

Lubricants – All the grades are available.

Note: Mode of Delivery – Heavy Oil by pipelines
Marine Diesel Oil/High Flash High Speed Diesel Oil by trucks.
No barge supplies.

GANGWAY/DECK WATCHMEN: Services of watchmen are compulsory and they can be engaged from Dock Labour Board.

OPENING/CLOSING HATCHES: Work of opening/closing of hatches usually depends on what Charter Party says and also type of hatches of vessel. Liner Term Vessels:- "MacGregor Type" – These types of hatches are opened/closed by the crew; but, if Owners/Master desires, rigging gangs may be hired for this work at Owner's expense. Ordinary – beams & hatch boards or pontoon type-opening/closing of this type of hatches is done by stevedores.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes and half-ounce tobacco per week can be held by each crew member. Wine/Spirit: 1 open bottle of spirit or wine per week can be held by each crew member.

CARGO GEAR: Vessel should be in possession of valid cargo gear certificate issued by competent authority. Port Dock Safety Inspector may inspect cargo gear before or during loading/discharging in spite of vessel being in possession of a valid certificate.

IDENTIFICATION CARDS: All crew members should be in possession of their respective CDC's/Z. Cards/Passports.

CONSULS:

Sri Lanka	Tel. 476751	United Kingdom	Tel. 473136
France	Tel. 472131	U.S.A.	Tel. 473040/478912
Germany F.R.	Tel. 473593/471747	U.S.S.R.	Tel. 71112
Japan	Tel. 665594		

REPAIRS: All types of deck/engine repairs possible. Experienced and established marine workshops available.

DRY DOCKS: None.

SURVEYORS: Lloyd's Register, Indian Register and ABS. Standard cargo and marine survey services available.

REPATRIATION: All facilities for effecting crew changes and arranging repatriation exist.

AIRPORT: The Madras Airport (Meenambakkam) about 15 miles from harbour and served by regular airlines.

TIME: GMT plus 5.5 hours.

HOLIDAYS: Declared by authorities are observed, but work completely closed on: Pongul, Republic Day, May Day, Independence Day, Mahatma Gandhi's Birthday and Deepavali.

POLICE/AMBULANCE/FIRE: Police 100; Ambulance 102; Fire 101.

TELEPHONES: Can be placed on board, but only on vessels at certain berths. All berths on West Quay, i.e. WQ 1, WQ 2, Centre Berth, WQ 3 and WQ 4, North Quay berth and berths on Jawahar docks (West) only, i.e. JD 1, JD 3 and JD 5.

SERVICES: All services available.

SHORE LEAVE: Crew members allowed ashore after securing shore passes issued by Port Security Officer. However, they must restrict themselves to city limits.

PORT REGULATIONS: Normal Port Regulations. No photography allowed in harbour except with Chairman of Port Trust's permission.

DELAYS: When there is heavy arrival of bulk grain and fertiliser, vessels may expect a delay of about a week or so.

SHIP SUPPLY SERVICE: Madras Port does not operate off-shore ship supply services either by the Port Authority or by private parties. However, certain private firms and individuals have been granted permits to ply their launches within the Port limits for the purpose of transporting ship's personnel, supply of provisions and stores for ships waiting at Outer Anchorage or for transporting sick crew members of ships.

DEVELOPMENTS: The Madras Port Trust have definite plans for the following schemes:

a) Extension of the present container berth Northwards by another 220 m., making a total container berth length of 600 m. Additionally, 2 shore gantry cranes and 4 tyre mounted transfer cranes will be provided. The capacity of gantry cranes and transfer cranes will be 40 tonnes under the spreader. This extension is likely to be completed by the end of 1989.

b) Madras Port is planning a satellite port at Ennore, about 12 km. North of the present Port, mainly for import of about 8 million tonnes of coal per annum for the North Madras Thermal Power Station. This satellite port is likely to be completed by 1994.

NOTICE:

Instructions to Ship Masters:

1) No ship is allowed to enter the following area without a Pilot on board. This area is bounded by the following points:

a) Lat. 13° 06.4′ N.	Long. 80° 18.7′ E.
b) Lat. 13° 07.0′ N.	Long. 80° 19.7′ E.
c) Lat. 13° 07.4′ N.	Long. 80° 21.7′ E.
d) Lat. 13° 08.2′ N.	Long. 80° 21.7′ E.
e) Lat. 13° 07.5′ N.	Long. 80° 18.5′ E.

2) Pilot Boarding Area No. 1 for ships less than 230 m. in length is marked by the following points:

k) Lat. 13° 06.5′ N.	Long. 80° 19.6′ E.
l) Lat. 13° 06.3′ N.	Long. 80° 19.6′ E.
m) Lat. 13° 06.3′ N.	Long. 80° 19.9′ E.
n) Lat. 13° 06.5′ N.	Long. 80° 19.9′ E.

3) Pilot Boarding Area No. 2 for ships of 230 m. in length or more is marked by the following points:

p) Lat. 13° 07.2′ N.	Long. 80° 21.6′ E.
q) Lat. 13° 06.8′ N.	Long. 80° 21.6′ E.
r) Lat. 13° 06.8′ N.	Long. 80° 22.0′ E.
s) Lat. 13° 07.2′ N.	Long. 80° 22.0′ E.

4) No ship is allowed to anchor within the Pilot Boarding Areas No. 1 and No. 2 without express permission from Port Control.

5) Ships that are not berthing on arrival, should anchor South of Latitude 13° 06′ N.

Instructions to Ships Approaching Madras Harbour:

6) Ships entering the harbour should have enough stern power to check their headway within their own length.

7) Ships embarking Pilot outside the harbour should have the pilot ladder rigged on the land side, irrespective of the direction of the wind.

8) All ships entering, leaving or shifting in the harbour are required to have the following minimum ballasted draft:

LOA (ft.)	*Draft Forward* (ft.)	*Draft Aft* (ft.)
500	10	15
600	15	20
700	20	25
800	25	30
900	30	35

9) Ships bound for Madras should contact Port's Signal Station on VHF Channel 16 as soon as possible and give the following particulars:

a) Ship's name
b) Nationality
c) Name of Master
d) Last Port
e) Local Agents
f) LOA
g) Draft, Forward and Aft
h) Summer Deadweight
i) GRT
j) NRT
k) Nature of Cargo

10) *Instructions to Masters during bad weather at Madras Port:* Whenever a depression/cyclone is formed in the Bay of Bengal, the Meteorological Office sends out weather bulletins and the Madras Port Trust hoists storm signals at her Signal Station in accordance with these weather bulletins. During such conditions, Masters of ships inside the harbour are advised to contact the Port Signal Station on VHF Channel 16 for receiving the latest weather bulletins and any further guidance in this regard. They are also advised to immediately put out extra mooring lines. In addition to this, if they experience any ranging of their ships at their respective berths, they should contact the Port Signal Station immediately and have the ship's main engine ready. If the prevailing weather conditions so demand, the ships that are affected due to ranging at the berths would be taken out of the harbour.

Information regarding functioning of Madras Radio:

11) i) Calling/Watch keeping: VHF 24 hours on Channel 16 (156.8 MHz)
ii) Passing messages by Madras Radio Ch. 26
Transmission: 161.9 MHz
Reception: 157.3 MHz
iii) On W/T Watch keeping: 500 kHz.
Transmission on 485 kHz.
Reception as per Ship's working channel.

SHIP OPERATOR'S REPORT: January 1987.

General: Madras is an artificial harbour on the coast of Tamilnadu State. Protected from sea and swell by 2 breakwaters, but is vulnerable to cyclonic weather. The oil berth is located in Bharathi Dock. The Madras Refinery receives crude from Bharathi Dock Oil Terminal.

Lube and non-flammable liquid cargo are also handled at West Quay No. 1/North Quay – which is also a general cargo berth.

All terminals and berths within the port limits are owned and operated by Madras Port Trust.

Communications: All traffic by W/T via Madras Radio (call sign: "VWN"). When within VHF range, communication with Madras Pilot can be established on VHF (Channels 16 and 14), which is located at the Port Signal Station.

Laden tankers should include in their initial ETA message: Deepest draft, actual displacement, cargo quantities, Shipper(s), Consignee(s) and name of local Agent.

The above information should be copied to:

1. Agent Madras.
2. Indian Oil Madras. Telex: 041-7168 for SR S & D Manager.
3. Indlub, Madras. Telex: 041-6345.
4. Indian Oil Bombay. Telex: 011-71656 for SR Shipping Manager.

ETA should be subsequently confirmed (or revised) 3 days, 2 days and 1 day prior to arrival.

Radio Pratique is permitted and the following information should be cabled to "Quarantine Madras", maximum 12 hours and minimum 4 hours prior arrival:

AAA	Name of vessel and call sign.
BBB	ETA Madras – local time.
CCC	Maritime Declaration of Health has negative answers to all questions.
DDD	No monkeys on board.
EEE	Names and dates of ports visited within last 30 days.
FFF	Ship healthy – request Free Pratique.

Approaches: When within VHF range, call "Madras Pilot" on Channel 16 stating ship's name, ETA and deepest draft. There are 2 waiting areas for Pilot which are clearly marked on the chart. The first waiting area is for ships over 11 m. draft and the second is for ships under 11 m. draft. If it becomes necessary to anchor, Madras Pilot will advise the anchorage position. The anchorage has good holding ground but is exposed to sea and swell.

Prior to the Pilot boarding, the pilot office will advise the vessel by VHF, at short notice, to proceed to the waiting area where the Pilot will board the vessel. Pilotage is compulsory. The pilot boarding area is about 1 km. to 1.5 km. seaward of Fairway Buoy.

The depth of water in the Approach Channels is as follows:

Outer Channel	= 19.5 m.
Inner Channel	= 18.9 m.
Turning Channel	= 18.3 m.
Approach to Berth in Bharathi Dock	= 17.7 m.

Permissible Draft and Length of Vessels: Oil tankers carrying crude and/or refined petroleum products normally berth at Bharathi Docks Berths I, II and North Groyne Mooring, while tankers carrying lube oil berth at West Quay I.

Oil tankers may berth at Bharathi Dock II, which is meant for loading of iron ore, if there is no vessel loading ore. Similarly, vacant container terminal berths can be used by tankers, but only for transhipment from mother vessel to daughter vessel and shore discharge for all products with flashpoint above 40°C.

The berth parameters and products handled are as follows:

Name of Berth	*Maximum size of vessel that can safely berth*			*Products handled*
	Length (m.)	*Beam* (m.)	*Draft* (m.)	
Bharathi Docks I (Exclusive Oil Jetty)	345	No restriction	14.6	Crude, fuel oil, MDO, naphtha, motor
Bharathi Docks II (Iron Ore Jetty) Oil tankers are handled at this berth when there is no iron ore vessel	345	No restriction	15.0	Regular and premium gasoline, kerosene Aviation turbine fuel, high speed diesel
Mooring (North Groyne)	210	No restriction	9.1	Fuel oil, MDO, premium gasoline, kerosene, aviation turbine fuel, high speed diesel
West Quay I/ North Quay	152.4	No restriction	7.9	Lube oil
Container Terminal Berth	330	No restriction	13.4	Lube oil

Bharathi Dock Oil Terminal: Bharathi Dock is an extension of old Madras Harbour, built mainly for the export of iron ore and import of crude oil. Berth I is located along the inside of breakwater in the form of "T" head jetty with 2 mooring dolphins each side of the berth. There are 2 berths – Bharathi I – exclusively for oil tankers and Bharathi II – designed for ore vessels but can be used by oil tankers, when the berth is vacant.

There is also a mooring berth for oil tankers inside the main harbour where vessels are secured with 2 anchors, and stern to the harbour wall/North Quay Breakwater.

Bharathi Dock I is also used for ship-to-ship transfer as well as for ship-to-shore transfer. Both operations are performed while alongside the dock.

General Cargo Berth Tanker Handling: The West Quay I/North Quay share a common facility which is connected to tanker with a 6 in. hose to receive lube.

AUTHORITY: Madras Port Trust, Rajaji Salai, Madras – 600 001. *Tel:* 560161 and 562201 (24 hours). *Telex:* 041-331. *Cables:* Porttrust, Madras. *Contact:* Deputy Port Conservator.

MALPE: 13.20 N. 74.42 E.

ANCHORAGE: The port is an open roadstead. Anchorage can be obtained at a distance of 0.81 km. N.W. of Daria Bahadur Ghur Island. Depth at Anchorage – 4.5 fathoms.

BERTHING: With the construction of two breakwaters, the channel in between is maintained at about 4.50 m. at LWOST. The maximum tidal range is 1.52m.

Length of Jetties: 1st 33.53 m. 3rd 10.10 m.
2nd 15.24 m. 4th 5.79 m.

FRESH WATER: Not available.

FUEL: There are oil storage depots in the Port area where HSD oil can be supplied to small vessels. For ocean going vessels there is no bunkering facility.

AIRPORT: Nearest at Bajpe (Mangalore).

TIME: GMT plus 5.5 hours.

HOLIDAYS: Holidays declared by the Collector of Customs, Bangalore.

POLICE/AMBULANCE/FIRE: Udipi – Police: Town Police Station Tel: 8444. Fire Tel: 8333.

BANKS: Syndicate Bank and Corporation Bank, Malpe P.O., Via Udipi, South Kanara Dt., South India.

GENERAL: There is a small shed for storage of cargo. Storm warning signals are hoisted on the flagstaff.

AUTHORITY: Port Office, Malpe, South Kanara Dt., South India. *Contact:* Mr. A. Jayakumar, Deputy Port Conservator, *Tel:* 8592 (Udipi)

MANDVI: 22.49 N. 69.21 E.

DOCUMENTS: Arrival: Arrival Report with ship's details, Voyage Memorandum, Crew Lists, Stores Lists.

Departure: Departure Report with ship's details, Export General Manifest, Certificate of Cargo Tonnage Loaded.

PILOTAGE: None. All vessels anchor in stream.

RESTRICTIONS: Vessels anchor in open roadstead in 3 – 5 fathoms, 2 – 2.5 miles from shore. Vessels of 9 ft. draft can reach wharves at HW and vessels drawing 12 ft. can reach Albert Edward Breakwater. Vessels having 750 tons cargo only can enter port during high tide. Highest tidal range 14 ft., average range 10 ft. Current 2 knots during fair season.

HEALTH: Government Medical Officer attends as Health Officer.

RADIO: No radio. All messages delivered through Kandla. Ship to shore radio messages delivered through VHF at stipulated times.

TUGS: Services optional. 3 tugs and 1 launch. Charges based on time and BHP.

STEVEDORING: Arranged by Agent with Port Authority.

MEDICAL: 24 hours notice required of any medical requirements.

FIRE PRECAUTIONS: Fire extinguishers are available at the port. Fire fighter is available at the Port workshops. Smoking strictly prohibited in port area.

WATCHMEN: Arranged through Agents.

HATCHES: Opened and closed by crew.

CERTIFICATES: Non-carriage of dangerous cargo, Cargo Gear Certificates, Statement that no passengers carried.

CUSTOMS ALLOWANCES: No restrictions for crew of coastal vessels. Stocks of tobacco, wine and spirits to be declared to Customs. Wines and spirits prohibited in Gujarat States but Master permitted daily quota by Customs Authorities.

REPATRIATION: No facilities.

TIME: GMT plus 5.5 hours.

HOLIDAYS: Usually possible to arrange work on holidays.

POLICE/AMBULANCE/FIRE: Police 8; Ambulance 32; Fire 10.

SHORE LEAVE: Crew of coastal vessels only allowed ashore subject prior permission from Captain of the Port.

DELAYS: Delays to be expected in supply of cargo at times of lowest water.

GENERAL: Gulf of Kutch Ports, viz. Mandvi, Mundra, Jakhau and Koteswar administered by Chief Executive Officer and Vice-Chairman, Gujarat Maritime Board, Ahmedabad. Mandvi located on Southern coast Gulf of Kutch at mouth of River Bukmavati, seasonable, tidal and intermediate ports.

AUTHORITY: Office of the Deputy Executive Engineer (Civil) and Port Office, Mandvi-Kutch, Gujarat Maritime Board, Mandvi-Kutch, India 320455. *Tel:* 33 (Office), 40 (Residence). *Cables:* Portal Mandvi-Kutch. *Contact:* Port Officer, Mandvi-Kutch.

MANGALORE (Minor Port): 12.55 N. 74.52 E.

PORT LIMITS:

North: A line drawn due West from the Northern boundary pillar on the seashore about 740 yards from Sultan's Battery to 9 fathoms of water.

South: The line drawn due West from the Southern boundary pillar to the seashore, about 1,000 yards below the marine yard to 9 fathoms of water.

West: The 9 fathom line between its intersections with the lines above defined as the Northern and Southern limits.

DOCUMENTS:

Crew Lists (6 copies).
Crew's Declarations for Customs (4 copies).
Store Lists (4 copies).
Currency Declaration (2 copies).
Import Manifest inclusive of Deck Cargo and bottom cargo (3 copies).
Bill of Lading (1 copy).
Ship's particulars inclusive of service stand (2 copies).
Declaration of opium, dangerous drugs, gold, arms, ammunitions and explosives, monkeys on board, last and next port of call (2 copies).
Valid Safety Equipment Certificate.
Valid Construction Certificate.
Valid Radio/Tele. Certificate.
Valid Certificate of Registry.
Derat Certificate.
Vaccination Certificates.
Declaration of Health.
Arrival report and Port and Light dues receipts (2 copies).

PILOTAGE: Compulsory. ETA must be informed at least 48 hours ahead of arrival. In the message of ETA the following information must be included:

(a) Name.
(b) Nationality.
(c) Call sign of the vessel.
(c) LOA (draft, forward and aft), g.r.t. and n.r.t. of the vessel.

ANCHORAGES: Open roadstead. Vessels anchor in 7.32 m. to 10.98 m. due West of entrance and are loaded and discharged by lighters. Bar situated due West of entrance. Depth of bar 2.13 m. LWST.

RESTRICTIONS: No night pilotage.

HEALTH: Vessel arriving from foreign country sends radio message in code or otherwise to respective Agents who contact Port Health Officer accordingly. If vessel from yellow fever area Master should give prior notice to Agent to arrange for Mosquito Party from Cochin to come to Mangalore and board ship on arrival. If suspected or infected, vessel should anchor not less than 0.5 miles from all other vessels and notify Port Authorities of situation either by radio or through signal station.

RADIO: Call sign VWL on 500 kHz and 438 kHz working frequency. Tel: 24300.

TUGS: 1 Port Trust tug (210 h.p.) and 1 launch and 2 private tugs capable of towing over 600 tons each are available.

CRANES: 1×1 ton and 1×5 tons.

STEVEDORES: Stevedores available. Average loading/discharging rates per day:

(a) Iron ore 400 tons per hook (weather permitting).
(b) Fertiliser or wheat bags 200 tons per hook (weather permitting).
(c) General cargo bagged 200 tons per hook (weather permitting).

MEDICAL: 24 hours notice necessary to arrange for a doctor on board. Government Hospital and Nursing Homes available.

DENSITY: Density of 1022/3 throughout year except in September (immediately after Monsoon at beginning of shipping season) when density about 1016.

FRESH WATER: Supplied by water barge at rate of 110 tons per trip with 48 hours prior notice. Cost of supply inclusive of all charges except crew overtime on holidays. Minimum order 35 tons.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Available.

OPENING/CLOSING HATCHES: Stevedores or ship's crew, whichever to ship's advantage.

CARGO GEAR: Derricks and boat devices to be hoisted in when not required to prevent contact with masts and sailyards of lighters alongside. Advisable that lifeboats be lowered only on non-working side.

IDENTIFICATION CARDS: Shore passes are issued.

CERTIFICATES:
Ship's Registry.
Derat Certificate.
Articles of Agreement.
Dock Safety Register (cargo gear).
Radio Telegraphy Certificate.
Load Line Certificate.
Port Clearance from last port.
Bill of Health.
Safety Equipment Certificate.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes or 50 grams tobacco per week. Wine and spirits: 950 ml. per week.

CONSULS: None.

REPAIRS: Minor repairs to engines and gear carried out by auto-workshops.

DRY DOCKS: Small dry dock, maximum capacity 450 d.w.t. Dimensions, 110 ft.×30 ft. Depth on sill 8 ft. at MHWS. For minor repairs only.

SURVEYORS: Qualified Cargo Survey Agencies are available.

Surveyors available for Lloyd's Register, American Bureau, Bureau Veritas, etc.

REPATRIATION: Can be arranged by ship's agents or at shipping office for Indian crew.

AIRPORT: Bajpe – 20 km. away. Daily air service available to Bombay to connect with international flights.

TIME: GMT plus 5.5 hours.

HOLIDAYS: 26th January, Republic Day; 15th August, Independence Day; 2nd October, Gandhi Jayanthi; and other local holidays declared by Kanara Chamber of Commerce and Industry.

POLICE/AMBULANCE/FIRE: Tel: 100/102/101.

TELEPHONE: No arrangement for placing telephone on board.

SHORE LEAVE: No restrictions.

DELAYS: Adverse bar conditions necessitate stopping work for bad weather.

EMERGENCY CO-ORDINATION CENTRE: Relay information to Port's Signal Station through New Mangalore Port.

BANKS: State Bank of India, Main Branch, Mangalore 575 001.

GENERAL: *Weather:* During monsoon, mid-May to mid-September no communication with shore and port is officially closed. There is an All Weather Major Port at Panambur (New Mangalore Port) 9 km. North of roadstead.

Tides: Range of tide 1.22 m. to 1.52 m.

Lighters: Approximately 25 lighters are available with average capacity of 45 tons each and 3 motor launches. Depth at quay 2.44 m. LW.

AUTHORITY: Captain A. J. Lobo, Port Officer, Old Mangalore Port, Mangalore 575 001. *Tel:* 26174 (personal), 25031 (residence).

Shri K. S. Shetty, Port Engineer, Old Mangalore Port, Mangalore 575 001. *Tel:* 24814 (personal), 24815 (residence).

MORMUGAO: 15.25 N. 73.47 E. (See Plan)

PORT LIMITS: Roughly up to 10 fathom line running North and South from Cabo to Grand Island. Vessel is considered "arrived vessel" when she comes under direction of Signal Station.

DOCUMENTS:
10 Crew Lists.
10 Passenger Lists, if any.
3 Copies of Manifest.
Last Port Clearance.
1 Bill of Lading in case of imports.
3 Stores Lists.
3 Personal Property Lists.
1 Letter of Authority to Agents addressed to Asst. Collector of Customs (prepared on arrival).
1 Arrival Report to Immigration Officer.
1 Customs Declaration.
1 Inward Clearance Certificate.
1 List of Particulars.
1 Deck Cargo Certificate.
1 Arrival Report.

Last 7 items to be signed by Master in port after arrival.

Ship's papers: Documents placed at disposal of port:
Ship's Registry.
Derat Certificate.
Safety Equipment.
Load Line.
Radio Telegraphy.
Indian Light Dues.
Annual Cargo Gear Certificate.
Safety Construction Certificate.

PILOTAGE: Compulsory. ETA required at least 48 hours before arrival to order Pilot. Call Pilot by international code signals on arrival at signal station or contact by VHF Channel 16.

Pilot launch is white launch showing Pilot flag. In fair weather Pilots board West of Fairway Buoys. In bad weather, Pilots guide vessel from launch until boarding possible. Pilot launch leaves from Inner Harbour with Pilot and is not stationed at any particular position. International Regulations for Pilots' ladders applicable. Vessels awaiting Pilot may anchor 2 miles West of Channel Buoy No. 6.

BERTHING: Deep loaded incoming vessels berthed 2 hours before HW. Vessels also use anchor and quarter line to mooring buoy to keep off berth.

Berth No. 10: New multi-purpose general cargo berth. Length 250 m. Depth alongside 11.0 m.

RESTRICTIONS/MAX. SIZE: Pilotage around the clock during the fair weather season (October – May). Draft restricted. Deep-laden vessels await high tide. Max. draft permissible 12.0 m.

Draft particulars for incoming ships to berths as detailed below.

Berth No.	*Max. Draft* (m.)	*Max. Length* (m.)
3	7.00	
4	8.23	168
5	8.23	
6	8.23	220
8	12.00	248
9	12.80	305
10	10.00	250

Vessels loading West of breakwater in fair weather: no restriction on size or draft.

HEALTH: International Regulations apply. Pratique automatic when calling from another Indian port. Pratique granted by Port Health Officer by radio. Telegraphic Pratique can also be obtained from Port Health Officer cable address "Quarantine Mormugao".

Master should send quarantine message not less than 4 hours and not more than 12 hours prior to arrival indicating:

1. Name of ship.
2. Expected date and time of arrival.
3. My Maritime Declaration of Health has negative answers to all 6 Health Questions or ZT or My Maritime Declaration of Health has a positive answer to question (indicated by complements) or ZU (indicated by complements 1 – 6).
4. List of ports of call with dates of departure during last 30 days.
5. Have or have not monkey on board.
6. Have or have not any person on board embarking at Aden, Djibouti or Yemen.

Request Radio Pratique.

RADIO: Goa Radio, call sign VWG. Operating continuously on 500 kHz, 417 kHz, and 2182 kHz. Communication range 100 miles.

VHF radio telephone station at headland signal station, call sign Goa Port, calling Channel 16, working Channel 12.

Ships desiring to contact port on VHF should establish contact by means of *(a)* light signals, *(b)* hoisting "Z" flag, *(c)* blowing "Z" on whistle or siren.

Port VHF station attracts attention of desired ship by hoisting "Z" flag with call letters of ship or by light signalling.

VHF service restricted for port operation, ship's emergencies and movements. All messages to be addressed to Harbour Master. Third party communication not allowed.

TUGS: 5 tugs available. 3 × 30 ton, 1 × 20 ton and 1 × 12 ton bollard pull. Tugs usually used inside breakwater. Normally push, but when towing, use ship's lines.

BULK HANDLING FACILITIES: *Ore Berth (Berth No. 9):* Provided with a mechanical loading plant of a rated capacity of 8,000 tonnes/p.h. The facility, presently capable of fully loading 60,000 d.w.t. vessels is designed to cater for 100,000 d.w.t. vessels after further dredging of entrance channel, turning circle and berth. The channel is presently dredged to −13.7 m. and berthing basin to −13.1 m. Synthetic ropes only to be used for mooring.

Berth No. 6: Equipped for mechanical handling of iron ore. Loading rate about 750 t.p.h. At present vessels of 30,000 d.w.t. with a draft of 8.23 m. can be accommodated.

Ore Transfer in Stream: Carried out between October and May (fair weather). Vessels are loaded or topped-off to a draft of 20 m. Four floating storage vessels available, capacity 150,000 tons – 200,000 tons, rates 950 t.p.h. – 3,000 t.p.h.

STEVEDORES: Original ETA of 48 hours and a definite ETA of 24 hours required and Master should indicate stowage and gangs required before arrival, also how derrick booms must be arranged so as to enable stevedores to arrange same on arrival.

MEDICAL: Hospital facilities for any serious sickness and port ambulance is available around the clock.

TANKERS: Discharge line 35 cm. No loading facilities. Permissible draft in fair weather 12.0 m. at Oil Berth No. 8. Max. LOA 248 m. Discharge facilities at Berths No. 4 and No. 5 for MEG and caustic soda lye and loading facilities for molasses. Depth 8.5 m.

DENSITY: Salt water 1025 – slightly fresh during monsoon season.

FRESH WATER: Available alongside berths also from 200 tons capacity barge. Pumped by hose at 20 t.p.h. at berth, and 30 t.p.h. from barge. Sometimes restricted to 50 tons maximum if supply is limited.

FUEL:

Grades	*Viscosities*
High speed diesel oil	Less than 45 Redwood
Light diesel oil	41 ,,
Furnace oil (also known as light fuel oil)	of 623 ,,

48 hours advance notice required.

FIRE PRECAUTIONS: During discharge of oil tanker, great care taken that no naked lights are visible nearby. Movements of unauthorised persons at point of discharge strictly restricted. Ships alongside or up to a distance of 100 ft. are advised not to emit smoke through funnel. Round the clock standby duty carried out by Fire Service, around tanker, till completion of cargo discharge.

GANGWAY/DECK WATCHMEN: Necessary to have watchmen in case of loading general cargo to protect goods. In case of loading iron ore no watchman required.

OPENING/CLOSING HATCHES: Usually by crew, unless contrary to Charter Party.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes per crew member per week. Wine and/or Spirit: 4/5ths of bottle per week for each member of European crew. 2/5ths of bottle per week for each member of Asian crew as per practice.

IDENTIFICATION CARDS: Not essential but according to Immigration Rule temporary Police landing pass issued to each crew member going on shore, valid for municipal area of Vasco town; if valid passport is possessed.
REPAIRS: No major repairs. Minor repairs only and no underwater welding facilities.
DRY DOCKS: None.
REPATRIATION: Facilities exist for changing and repatriating crew.
AIRPORT: Approx. 7 km. from harbour. One local flight daily to Bombay. No international flights from Goa and all outgoing foreign passengers have to be repatriated via Bombay.
CARGO GEAR: Certificates to be valid.
TIME: GMT plus 5.5 hours.
HOLIDAYS: New Year's Day, Republic Day, Gudi Padva, Good Friday, May Day, Id-Ul-Fitr, Independence Day, Ganesh Chaturthi, Mahatma Gandhi's Birthday, Idu's Zuha, Diwali, Muharram, Feast of St. Francis Xavier, Goa Liberation Day and Christmas Day.
POLICE/AMBULANCE/FIRE: Police 2234 through Postal Exchange; Ambulance (Health Centre) 2454 through Postal Exchange; Fire 222 or 223 through Port Exchange and 2300 through Postal Exchange.
TELEPHONES: No arrangements for installation of telephones on board.
SHORE LEAVE: Crew members allowed to go on shore with Police landing pass.
AUTHORITY: Mormugao Port Trust, Mormugao Harbour, Goa, (India) 403803. *Tel:* 2911-2916. *Telex:* 0191-219. *Cables:* Harbadmin. *Contact:* Captain V. S. Gopinath, Harbour Master.

MUNDRA: 22.54 N. 69.42 E.

LOCATION: In Gulf of Kutch near Navimal Lighthouse, about 2 miles inside Bocha Creek. Port is about 6 miles West of Mundra town. Salt exporting port open for deep sea and coastal traffic. Vessels calling Mundra anchor in open roadstead 2 miles from shore. Vessels of 8 ft. draft can berth alongside jetty. Highest tidal range 17 ft. Current parallel to coastline running about 3 knots.
AUTHORITY: Assistant Conservator.

NAGAPATTINAM: 10.45 N. 79.50 E. (See Plan)

DOCUMENTS: To be completed by Masters of vessels on arrival:
8 Crew Lists.
8 Passenger Lists.
3 Form of Import Manifests of Stores.
3 Lists of articles in slop chest.
3 Private Property Declaration of the Crew.
3 Manifests.
3 Bills of Lading.
To be handed to Agents:
Ship's Register.
Load Line Certificate.
Safety Equipment Certificate.
Safety Construction Certificate.
Safety Radio Certificate.
Last Port Bill of Health.
Last Port Clearance.
PILOTAGE: No pilot station, being open roadstead port. Vessels not piloted to anchorage.
ANCHORAGE: Vessels anchor according draft and prevailing weather conditions. In fine weather, good anchorage in depths of 3.75 to 6 fathoms with lighthouse bearing 281° to 255°. Holding ground, sand and mud, good. Agents, in consultation with Port Authorities, signal Master on arrival of vessel, anchorage position for guidance.
MAX. SIZE: No restrictions. Vessels choose anchorage according to draft.
HEALTH: On arrival Master to signal local signal station, addressed Port Health Officer stating vessel arrived and no sick person on board. Agents then obtain Free Pratique from Port Health Authorities. In event any person having chicken-pox on board, advisable that Master informs Agents sufficiently in advance to enable them make necessary arrangements for Port Health Officer to board vessel on arrival and obtain Free Pratique after Port Health Officer is satisfied that isolation arrangement on board adequate.
RADIO: Madras Radio or Colombo Radio. No radio station locally.
TUGS: 1 tug of 45 h.p. and 1 motor launch of 30 h.p. belonging to the Port Department are available, for towing lighters. Launches owned by private owners are also available for towing lighters.
BERTHING: Open roadstead port. No berths. A mobile crane of 4 tons capacity is available in the port for handling heavy cargoes.
STEVEDORES: Port usually handles fertiliser imported on Government of India account and rate of discharge per day about 750 to 1,200 tons. Advisable that ETA of vessel is passed to Agents at least 2 days in advance to enable them to advise receivers to arrange necessary gangs.
MEDICAL: No advance notice required unless sickness of serious nature when Medical Officer boards vessel on arrival. In case of sickness to officers or crew, Medical Officer boards vessel or if in condition to go ashore, necessary arrangements made to take sick crew to Doctor. District Headquarters Hospital with all medical facilities available. Special wards available for sick members of crew. Vaccination, inoculation against yellow fever, cholera, plague, etc., can be arranged.
DENSITY: 1025.
FRESH WATER: Available in limited quantities and dependent upon port getting continuous supply from municipality. 2 tanks of 14.5 tons capacity placed in lighter are sent alongside vessel and a petrol-driven pump is used to pump up water from tanks into vessel.
FUEL: Diesel oil available in a limited quantity.
GANGWAY/DECK WATCHMEN: In the interest of vessel, 2 gangway and deck watchmen daytime and at night to be employed to avoid pilferage.
OPENING/CLOSING HATCHES: Opening and closing of hatches on arrival of vessel before commencement of discharge and on completion carried out by stevedores. Time used for opening and closing of hatches not counted.
CUSTOMS ALLOWANCES: Tobacco, 1 carton per week per crew member. Wine and Spirit, Whisky or brandy 1 quart each member for a week. No restriction for beer as the issue is based on weather, etc.
IDENTIFICATION CARDS: Needed.
CONSULS: None.
REPAIRS: Minor repairs in engine room and on deck can be effected. Chipping and painting can also be arranged.
DRY DOCKS: None.
REPATRIATION: Facilities available for effecting crew changes and arrangements can be made for repatriation.
AIRPORT: Nearest airport Madras, served by regular airlines.
TIME: GMT plus 5.5 hours.
HOLIDAYS: Observed as declared by Authorities. Vessels work on Charter Party and Government holidays but time not counted. No closed holidays but overtime charged for any work done on Government holidays and on Sundays.
POLICE/AMBULANCE/FIRE: Police 267; Ambulance 299; Fire 299. The Police and Customs Departments maintain their own W/T stations which can be contacted or utilised at times of emergency.
SERVICES: Hatch cleaning after discharge of cargo can be carried out.
BANKS: American and European banks are not available at Nagapattinam town, but are available in Madras.
EMERGENCY CO-ORDINATION CENTRE: The information should be passed on in case of a vessel in distress to the Maritime Operations Room/Sector Search and Rescue Co-ordination Centre as "Life-Saving Call" to Madras Radio for this area.

Call Sign:	VWM MADRAS RADIO
Frequency:	500 kHz 2182 kHz
Time:	Continuous.

STORING: See "Prelims".
1. Ship's stores to be sent to vessels are loaded into lighters from port wharves, as Nagapattinam is an open roadstead port, having no berths for mooring vessels.
2. Stores can be taken from lighters both during loading and discharging.
3. Trucks can proceed only up to the wharves of the port. The approximate distance from wharves to the ship depends upon the place of anchoring of the vessel. It will be about 2 to 3 nautical miles.
4. Fork-lifts are not available.
5. Necessary shipping bills are to be filed with the Port and Customs Offices before taking in stores from the shore to the vessel.
6. Local riggers may be employed.

SURVEYORS:
1. Cargo inspectors not available.
2. Lloyd's Register and American Bureau are in Madras. Salvage Association not available.

SHORE LEAVE: Officers and members of crew allowed to go ashore and necessary passes obtained by Agents.
DELAYS: Usually no delay in anchoring vessels and generally all formalities including survey carried out on vessel's arrival. If vessel arrives between 0600 and 1400 hrs., she commences discharge same day.
GENERAL: No regular launch service between ship and shore. Agents hire out private launch and obtain permission from port office to ply launch between ship and shore, to facilitate officers and crew to go ashore and for Doctor, Agent and Port Health Officer. Port Authorities do not permit plying of launch after 1800 hrs. 3 trips arranged for launch to go to vessel and back from 0600 to 1800 hrs. every day weather permitting.
AUTHORITY: Port Officer and Harbour Master, Port Office, P.O. Box No. 6, Nagapattinam, PIN 611001, Tamil Nadu State, India. *Tel:* 255 (office), 363 (personal), 285 (residence). *Cables:* Port Officer, Nagapattinam. *Contact:* Port Office and Harbour Master.

NAVLAKHI: 22.57 N. 70.27 E.

DOCUMENTS:
Arrival:
Last Port Clearance.
Bill of Health/Maritime Declaration of Health.
Customs Arrival Report.
Port Arrival Report.
Agent's Arrival Report.
List of Same Bottom Cargo.
Crew List (6 copies).
Import General Manifest.
Light Dues Receipts (in case the last port of call being Indian port).
Store List & Private Property List (8 copies each).
Misc. Declaration.
Departure:
Port Clearance (handed over by Customs).
Bill of Health.
Port Departure Report.
Agent's Departure Report.
Income Tax Clearance Certificate (in case of export cargo).

PILOTAGE: Not compulsory. If required an experienced local guide provided by Port Authorities. In such cases Pilot meets vessel at Tuna Buoy station about 19.5 miles from port.
ANCHORAGE: Open roadstead port. Vessels work in stream. 2 vessels can be brought to inner anchorage and work conveniently in good weather. In case a third vessel arrives, it has to anchor at Buoy No. 5 until one of the vessels sails from inner anchorage. During non-monsoon times vessels can be moored at Buoy (Navlakhi) No. 5. Chart of the approaches is No. 2017.
RESTRICTIONS: Night navigation not provided. Generally vessels' movements during daytime high water period. Vessels should arrive Tuna Buoy 3 hours before high water in daytime.
HEALTH: Port Health Officer available at Mahendrasinghji Hospital, Morbi.
RADIO: Radio messages intended for this port should be addressed either through Kandla or Bombay Radio Stations.
VHF: To be installed in the near future.
TUGS: Four tugs available, 150 h.p., 370 h.p., 350 h.p., and 240 h.p.
CARGO HANDLING: Ships lie at anchor in the stream about 2.0 km. from shore and cargo is shipped/landed through lighters. There are 17 barges of 100 tons capacity each. There are 17 godowns of 17,000 sq. m. floor area to store the cargo passing through ports. There are four 3 tonnes capacity cranes two of 5 tonnes capacity, and one of 12.5 tonnes capacity.
STEVEDORES: At least 24 hours notice to arrange gangs. Rate of loading and discharging for grains and fertilisers about 1,600 tonnes a day if 1 ship working; in case 2 vessels working simultaneously, combined average of about 1,600 tons can be maintained in fair weather days.
MEDICAL: Small dispensary exists under control of Medical Officer. Qualified extensive medical facilities available at Morbi which is 44 km. away or Rajkot about 109 km. Health Officer comes from Morbi to attend vessels, if required.
DENSITY: 1025.
NOT
FRESH WATER: Supplied only in small quantities. 1 barge with carrying capacity of about 49 tons a trip. Due to very low pressure in pipe-lines, minimum 12 hours to fill barge.
FUEL: None available. Can be arranged by Agents.
GANGWAY/DECK WATCHMEN: Necessary to appoint watchmen on board to avoid possible thefts.
OPENING/CLOSING HATCHES: Depends upon terms of working. Local stevedores generally attend to this operation but charge to vessel (Owners) in case these operations are vessel's account.
CERTIFICATES:
- Load Line Certificate.
- Safety Equipment Certificate.
- Safety Radio Certificate.
- Ship's Register.
- Derat Certificate.

IDENTIFICATION CARDS: Customs examine and issue pass to land. But if crew go to suburbs (beyond Morbi which is 30 miles away), identity cards should be carried.
CONSULS: None.
REPAIRS: Workshop for repairs to port equipment and urgent repairs of minor nature can be carried out.
DRY DOCKS: Dry dock for repairs to port service units is under construction.
REPATRIATION: Crew being repatriated from this port would be sent to Jamnagar or Rajkot (after Customs examination) where facilities are available.
AIRPORT: Navlakhi not connected by air. In case of emergency, Jamnagar or Rajkot nearest airports.
TIME: GMT plus 5.5 hours.
HOLIDAYS: The port holidays are taken as office holidays and non-working days as Charter Party Holidays. Except for non-working days, overtime work will be carried out on payment of overtime.
POLICE/AMBULANCE/FIRE: Checkpost Police Station without telephone.
TELEPHONES: Few important offices are connected with telephones, and no telephone service can be provided on board vessel.
SHORE LEAVE: The crew members are allowed ashore on showing Identification Cards to Customs and Ports.
DEVELOPMENTS: A new lighter-wharf measuring 102 m. × 8 m. with three approaches in Sue-Side creek is under construction so as to work lighters all round the clock.
AUTHORITY: Port Officer, Port Officer's Office, Navlakhi Port.

NEENDAKARA: 08.56 N. 76.33 E.

SHIPMASTER'S REPORT: July 1985.

Neendakara is a seasonal port and operates only from mid-November to mid-April. About 5 to 6 deep sea vessels load per year. Only export cargo of Mineral Sands is loaded i.e. (Silliminite, Illuminite and Zircon). The shippers are Indian Rare Earths Limited which is a Government of India undertaking.
PORT LIMITS: There is no defined port limit as such. For the purpose of Charter Party a vessel is considered as an "arrived ship" from the time of dropping anchor.
DOCUMENTS: See "Cochin".
PILOTAGE: Neendakara is an anchorage port hence no Pilots available.
ANCHORAGE: There is no defined anchorage. We anchored 2.5 miles due West of the breakwater in a depth of 15 m. Holding ground is good. Care should be taken to anchor the vessel in such a position so as to have at least 5 m. under the keel on expected maximum departure draft as sometimes heavy swell can be experienced. Agents, Customs and Port Officer usually board vessel during daylight hours for clearing vessel. Port Officer usually does the draft survey and also hold inspection prior to loading.
RESTRICTIONS: There are no restrictions on arrival/sailing at night, tide or draft.
MAX. SIZE: No limit.
HEALTH: Radio Pratique not possible. A doctor from local Government hospital is empowered to grant Pratique. The doctor does not come on board vessel. Completed Health Declaration and Vaccination List is taken by the Agents to obtain Pratique. Pratique is automatic if coming from another Indian port.
RADIO: It is best to send ETA messages via Bombay Radio or Madras Radio and Agents kept well informed.
VHF: VHF is installed in the Port Office and watch is usually kept from 0800 hrs. to 2200 hrs. when a ship is loading at anchorage. Also one of 6 harbour tugs is equipped with a VHF set. Port Office keeps watch on Channel 16.
RADAR: No Port Radar.
TUGS: Port has 6 small tugs for towing barges during loading operation of deep sea vessels at anchorage. The tugs are old and some of them are under repair at any one time.
BERTHING: No berths available.
BULK CARGO FACILITIES: Cargo is loaded in bulk and/or bags. It is brought to the ship in bags by barges. The bags are brought on board and emptied into ship's holds. The bags are mostly torn and a lot of cargo is lost overboard or left behind in barges. On completion of loading vessel will usually receive about 6% to 8% less than the shore figures. Hence Master must ask for more cargo.
STEVEDORES: About 100 labourers boarded the vessel and stayed on board throughout the loading except from 2000 hrs. on Saturday to 0800 hrs. on Monday. No work on Sundays. Average rate of loading was about 800 – 1000 tonnes per day. First barge comes alongside the ship at about 0900 hrs. and last barge leaves shore at about 1700 hrs. Loading stops around 2200 hrs. after cargo from last barge has been loaded. Strict watch should be kept on number of bags per sling as the labour tends to overload the slings. Repeated warnings by Ship's Officers made no impact so it became necessary to switch off deck power for about half an hour and only then did they reduce the load per sling.

Vessel must arrive with maximum fresh water and maintain strict rationing during stay at anchorage. Usually overtime work is not possible but to finish the ship they may speed up the loading. While we were loading, there was possibility of strike from a certain date and hence need to complete loading before that date, more labour was placed on board and loading rate went up to about 1,300 tonnes to 1,400 tonnes per day.
MEDICAL: All cases of illness are referred to Benziger Hospital in Quilon. It is preferable to give advance notice to Agents. Dental facilities also available. Cholera inoculations can be arranged.
DENSITY: Salt water.
FRESH WATER: Advance notice to be given to Agents. It is expensive to take fresh water as it is supplied by tugs at the rate of 15 tonnes per trip. There is no water barge available. Approximate cost Rs.100 per tonne.
FUEL: Not available. Nearest port for bunkers is Cochin.
CONSULS: None available.
REPAIRS: No repairs possible.
DRY DOCKS: None.
SURVEYORS: Have to be called from Cochin.
GANGWAY/DECK WATCHMEN: Ship's crew must keep a constant vigil on deck. Keep all stores, accommodation entrances and cabins locked. Try to keep lifeboat gear and fire equipment under lock and key.
OPENING/CLOSING HATCHES: By ship's crew.
CUSTOMS ALLOWANCES: 1 bottle spirits and 200 cigarettes per crew member per week.
CARGO GEAR: Loading by ship's gear only. Ensure that a few gin fall wires and cargo blocks kept ready as same may require changing due to rough handling of cargo gear.
REPATRIATION: Possible. Advance notice should be given to Agents.
AIRPORT: Nearest airports are Trivandrum and Cochin from where domestic flights will connect to Bombay/Madras for international flights.
TIME: Always GMT plus 5 hours 30 minutes.
HOLIDAYS: Same as "Cochin".
BANKS: Branches of most Indian Banks in Quilon.
STORING: Should be avoided as labour charge too much to transfer stores from truck into tug and then from tug to vessel at anchorage. Labour does not permit stores to be handled by ship's crew when they are working cargo even if one hook idle or even if vessel has special stores derrick. Thus, it is best to get stores alongside at night when labour has completed loading for the day.

No forklift truck available ashore, but truck can go up to about 75 ft. from the barge. At times the tug allocated for stores may not be able to come alongside jetty but may tie up alongside a barge in which case it is extremely difficult to handle heavy packages as there is no crane available and every item must be carried by hand. Even tug's crew and Port Office personnel expect "complementaries" from the vessel and Agents for allowing use of tug for stores. On shore stores are handled by labour only. No attempt should be made to employ cheap labour from outside by any other means as it will lead to stoppage of cargo loading both on vessel as well as ashore. Provisions are supplied to vessel by 0ship chandler from Quilon. He has his own launch and will bring provisions onboard after midnight.
SHORE LEAVE: No restriction on shore leave.
IDENTIFICATION CARDS: Not issued. However, every crew member landing ashore must sign a register in the Port Office, giving his particulars and time landed. On returning from shore he must also sign and put down time of return.
DELAYS: No delays. Usually only one deep sea vessel is loaded per month.

NEW MANGALORE: 12.57 N. 74.48 E. (See Plan)

LOCATION: New Mangalore port is situated at 9 km. North of the existing minor port of Mangalore.

PORT LIMITS: *Westward Points:*

(a)	Latitude: 12° 53.6′ N.	Longitude: 74° 44.4′ E.
(b)	Latitude: 13° 00.2′ N.	Longitude: 73° 43.1′ E.

DOCUMENTS: *Quarantine:*

Declaration of Health.
Derat Certificate.
Vaccination Certificate.

Customs:

General Particulars of the vessel.
Declaration of Deck Cargo and same bottom cargo.
*Crew List – (8 copies).
Arrival Report – (2 copies).
Departure Report (2 copies).
General Declaration in Form No. 1 – (3 copies).
Maritime Declaration of Health – (5 copies).
*Cargo Declaration in Form No. H – i.e. Cargo for Discharge – (3 copies).
*Vessel's Stores List in Form No. III – (5 copies).
List of Private Property (Property in possession of Master, Officers and crew of vessel) in Form No. IV – (5 copies).

*These items should be prepared in advance before arrival of the vessel. The other documents can be filled in after arrival.

Port Requirements:

General Particulars of the vessel.
Declaration of Deck Cargo and same bottom cargo.
Arrival and Departure Report on Port's Form – (in duplicate).
Declaration to comply with the Regulations of the Port for granting Certificate.

Immigration:

Crew List – (2 copies).
Passports for scrutinisation.

PILOTAGE: Compulsory. ETA must be informed at least 48 hours ahead of arrival. In the message of ETA the following information must be included:

(a) Name.
(b) Nationality.
(c) Call sign of the vessel.
(d) LOA, (Draft fore and aft), g.r.t. and n.r.t. of the vessel.

Telegraphic Address of the Pilot Station: New Mangalore Port Control. Tel: 7341/7428.

Pilot Boarding Station:
Latitude: 12° 54′ 55″ N. Longitude: 74° 45′ 24″ E.

VHF Channel or frequency to be used: Channel 16.

Channel or frequency to be used to contact Pilot Boat: Channel 12.

Description of Pilot Boat: Coloured in red hull and white superstructure.

Berthing and Unberthing:

(a) Berths arranged by the Committee of the Port Trust in advance.
(b) Two tugs available for berthing and unberthing.
(c) Linesmen and boatmen are arranged through Port Trust.
(d) ETD requires minimum 2 hours advance notice to Port Control/ Harbour Master's Office.

ANCHORAGE: Vessels are advised to anchor North of the Fairway Buoy and distances depending on draft of the vessel. Entry into the channel with Pilot is made with 2 transit towers with lights.

NAVIGATION AIDS: Include Fairway Buoy, front and rear leading lights and channel marking buoys.

APPROACHES: The port has been created by carving out of the mainland a 200-acre lagoon 13.0 m. deep. The lagoon is connected to the sea by an approach channel, 5,400 m. long, 245 m. wide, 13.5 m. deep and protected by 2 breakwaters each 570 m. long, constructed one on either side of the channel and extends to the 5 m. contour.

RESTRICTIONS: No restrictions. Night pilotage available.

MAX. SIZE: No restrictions on length and beam. Also see "Berthing".

HEALTH: The following radio advice is required:

(a) Name of the vessel and ETA with date.
(b) Request for Radio Pratique.
(c) International Code (ZT).
(d) International Code (ZU).
(e) List of Ports of Call with dates in last 30 days.
(f) Have/Have no monkeys on board.
(g) Have/Have no persons embarked at Aden/Djibouti.
(h) Condition of health of all on board with details of any sickness and whether all vaccinated.

RADIO: Mangalore Radio: Call sign VWL on 500 kHz., 438 kHz. Tel: 24300.

VHF: Communication facilities with Port Control on Channel 16. For Port Operations Channel 12 can be used. On arrival of the vessel general information will be given.

RADAR: No Port Radar Service.

TUGS: 2 × 30 ton (bollard pull) tugs available for berthing and unberthing. Normally tug joins the vessel on base line on entrance to lagoon.

BERTHING: New Mangalore Port provides alongside berths to cater to (1) raw materials import for fertiliser factory, (2) chrome ore and manganese ores, (3) general cargo, (4) one shallow draft berth for smaller vessels, (5) an oil jetty for handling of naphtha and other petroleum products, (6) mechanised iron-ore berth to load concentrates and pellets and handle 60,000 d.w.t. ships, (7) additional general cargo berth.

(a) 1 straight wharf of 594 m. in length consisting of 3 berths with a draft of 33 ft., 31ft. and 31 ft., respectively.
(b) 1 shallow draft berth of 22 ft. draft and 115 m. in length.
(c) 1 additional berth of 250 m. in length and a draft of 30 ft. (will be increased to 35 ft. shortly).
(d) 1 iron ore berth of length 290 m., draft 41 ft.
(e) Tanker Berth: – See "Tankers".

CRANES: The following electric level luffing wharf cranes are positioned at the Straight Wharf: 1×6 ton, 3×3 ton and 4×10 ton.

One iron ore loader situated at the Ore Berth for loading iron ore, cement, etc., directly to vessels through chutes.

No cranes available in other berths.

Ship has to use her own gear in those berths.

Three tyre-mounted mobile cranes available for shore operations with capacity up to 30 tons. Similar cranes of lesser (5 ton) capacity available from private parties.

BULK CARGO FACILITIES: The Straight Wharf Berths (No. 1 Berth) is reserved for Bulk Cargo Handling. Normally grains, fertilisers, cement, etc., are handled at this berth.

SPECIALISED CARGO HANDLING FACILITIES: This port is not specially equipped for handling containers. But containers are handled by ship's gear and with the limited mobile equipment of the Port. Agents are allowed to use private handling equipment inside port.

At Oil Jetty liquid chemicals/oils/molasses, etc., can be handled. No facility at the moment for LPG carriers.

STEVEDORES: Advise before 0500 hrs. for commencing 0800 hrs. gangs and 1500 hrs. for commencing 1800 hrs. gangs.

Main commodities loaded:

Coffee – average load rate per gang per shift – 120 tonnes.

Granite stones – average load rate per gang per shift 250 tonnes.

Fruit products and cashew kernels – average load rate per gang per shift – 3,500/4,000 cartons.

Reefer Cargo – average load rate per gang per shift – 3,500/4,000 cases.

Heavy Machinery – average load rate per gang per shift – 120 tonnes.

Iron ore concentrate and pellets through mechanised ship loader – 3,000/4,000 tonnes/hr.

Main Commodities Discharged:

Fertilisers – average discharge rate per gang per shift – 120 tonnes.

Tanker Oil – 400/500 tonnes/hr.

MEDICAL: No advance notice except in cases of serious illness to be included in arrival cable. Ample hospital facilities for treatment are available.

TANKERS: The oil jetty is located in the S.W. portion of the lagoon very near to the approach channel. The draft available at the oil jetty is 33 ft., which affords berthing facilities for 30,000 d.w.t. (length 600 ft.) product carriers, molasses and edible oil tankers.

DENSITY: 1025. During S.W. Monsoon density varies, may fall to 1010.

FRESH WATER: Available at all berths. Direct delivery from shore to vessel.

Cost: Rs.24/– per ton subject to a minimum of Rs.510/– in respect of vessels other than coasting.

FUEL: Oil delivered by Indian Oil Corporation (a Government of India undertaking) by tank trucks in all berths. Major grades bunker fuel/diesel/ marine lubricants can be obtained from them. Pipeline supply of fuel oil at Iron Ore Berth and Oil Jetty.

FIRE PRECAUTIONS: Only normal precautions against fire at berths.

CONSULS: No countries have Consuls at the port.

REPAIRS: Most deck and engine repairs are carried out.

DRY DOCKS: No dry docking facilities at the port.

SURVEYORS:

(a) Qualified Cargo Surveying Agencies are available.
(b) Surveyors available for Lloyd's Register, American Bureau, B.V., etc.

GANGWAY/DECK WATCHMEN: Services are available at port and compulsory. Charges are at Rs.35/– per shift per watchman.

OPENING/CLOSING HATCHES: Stevedores or ship's crew, whichever to ship's advantage.

CUSTOMS ALLOWANCES: 50 grams of tobacco or 200 cigarettes and 950 ml. wine/spirits per person per week.

CARGO GEAR: Cargo can be handled either by ship's gear or shore cranes. Shore cranes are available up to 10 tonnes capacity.

REPATRIATION: Crew changes and repatriation can be carried out.

AIRPORT: 15 km. from the harbour and 21 km. away from Mangalore City. Daily air services available to Bombay to connect with international flights.

TIME: Local time is 5 hours 30 minutes ahead of GMT.

HOLIDAYS: 26th January – Republic Day; 15th August – Independence Day; 2nd October – Gandhi Jayanthi.

No work on these days.

POLICE/AMBULANCE/FIRE: Tel: 100/102/101 respectively.

EMERGENCY CO-ORDINATION CENTRE: Relay information to Port Signal Station.

TELEPHONES: No facilities on berths but available in sheds.

SERVICES: Services available for tank cleaning, compass adjusting, radio/radar repairs, etc., with prior arrangements.

BANKS: Branches of all nationalised banks.

STORING: See "Prelims".

(a) By truck.
(b) Barges are normally not used for storing.
(c) Trucks can proceed alongside berth.
(d) Forklifts also used on the jetty while handling palletised or heavy stores.
(e) Customs documentation and regulations are in force.
(f) Private labour is to be engaged for loading stores.

SHORE LEAVE: No restrictions – crew members are allowed to go ashore.

IDENTIFICATION CARDS: Shore passes are issued.

REGULATIONS: No regulations.

DELAYS: Priority berthing for 24 hours port stay are generally allowable for export and import general cargo ships. Otherwise berths are offered according to priority of arrival for long-duration ships.

DEVELOPMENTS: Existing dock arm to be completed mid-1989 and will provide 2 additional berths. There is a proposal afoot to establish a 3 million ton capacity oil refinery and facilities to be provided for berthing 100,000 d.w.t. tankers in 5 years time.

SHIPMASTER'S REPORT: Updated 1987.
Documents: Same as other major Indian ports.
Pilotage: Pilot boards in vicinity of Fairway Buoy. Pilot boat has pilot flag atop its mast.
Restrictions: Regular night pilotage is provided.
Anchorage: North of Fairway Buoy as South of buoy being used as dumping ground for dredgers.
VHF: Channel 16 for calling and listening. Pilots operate on 12 and 16.
Radar: None.
Hospital: Hospital facilities good.
Hatches: Opening/closing by ship's crew.
Drydocks: None.

AUTHORITY: New Mangalore Port Trust, Panambur, Mangalore 575010, South India. *Tel:* 7300, 7341 PABX. *Telex:* 0842-220 Ponm In. *Cables:* Harbojet. *Contact:* The Chairman.

AGENT: Peirce Leslie India Ltd., Shipping Division, P.O.Box 239, Bunder, Mangalore 575 001, South India. Tel: 23381, 23231-3. Telex: 0842-205 PLI IN. Cables: Peirceship.

OKHA: 22.28 N. 69.05 E.

DOCUMENTS: 5 copies each of Import Manifest, Crew List. Passenger List, Ship's Stores Manifest, Crew Property List.
PILOTAGE: Compulsory. Pilot station Lat. 22° 30.5′ N., Long. 69° 04.6′ E.; 1.35 miles N.W. of Samiani Light Tower.
ANCHORAGE: Roadstead anchorage near pilot station.
MAX. SIZE: 525 ft. LOA during N.E. monsoon and 540 ft. LOA during S.W. monsoon. Max. draft variable, 22 ft. – 27 ft. depending on daily tide.
PRATIQUE: The Master should cable the Port Health Officer (Quarantine Okha) in International Health Code, requesting Free Pratique. If Radio Pratique is not effected, then Masters should present Maritime Declaration to the Customs Boarding Officer who is authorised to grant Free Pratique. If the vessel is arriving from yellow-fever area, the mosquito control team is arranged from Kandla, where the cable address of the Port Health Officer is "Sangrodh Kandla".
RADIO: Post and Telegraph Department Wireless station call sign VWO can be contacted from 0800 to 2000 hrs. I.S.T. for communication to and from Local Agents.
TUGS: Port-owned tugs join vessel while entering port channel and/or vacating it at time of berthing and/or unberthing.
BERTHING: Only daylight hours. Vessels should be ready in all respects to move berth 1.5 hours before high water at pilot station.
Sayaji Pier – East side 27 ft. draft; West side 20 ft. draft.
Dry cargo berth – 25 ft. draft.
CRANES: Vessels use own derricks for heavy lifts. There are 2 electric cranes at the Dry cargo berth each 1.5 – 2.0 tons capacity.
BRIDGES: None.
STEVEDORES: Firm ETA including requirements order avoid delay. *(a) Exports:* Mainly cement, bauxite and chemicals and general merchandise, rate 100/125 tons per shift per hook. *(b) Imports:* Mineral oils average rate about 300 to 500 t.p.h. according to ship's pumping capacity; general cargo same rate as export.
MEDICAL: Port Health Officer always available. Well-equipped hospital at Mithapur under Tata Chemicals at a distance of about 7 miles from port. Medical aid available throughout day and night.
TANKERS: All dry cargo vessels regulations apply for tankers, particularly size, etc. 1 berth, draft 27 ft. No slop facilities.
DENSITY: 1025.
FRESH WATER: Limited. Port supplying water by barge and shore pipeline. In normal cases 25 tons water supplied per day. In cases of emergency 40 tons water can be supplied per day.
FUEL: Available but arrangement should be made through Indian Oil Corporation; head offices at Bombay.
FIRE PRECAUTIONS: Port Department maintains a small fire station.
GANGWAY/DECK WATCHMEN: Vessel to provide own gangway watchmen. Shore-watchman available for employment on shift basis (8 hour shifts).
OPENING/CLOSING HATCHES: To be attended to by ship's crew, if not contracted with stevedores which may cost extra.
CERTIFICATES: Ship's Register, Load Line Certificate, Safety Equipment, Safety Gear, Radio.
CUSTOMS ALLOWANCES: At Customs Preventive Squad's discretion.
CARGO GEAR: Normal gear supplied by stevedores for hire.
IDENTIFICATION CARDS: Necessary.
CONSULS: None.
REPAIRS: Only minor repairs.
DRY DOCKS: None.
REPATRIATION: Necessary formalities to be completed at District Headquarters situated at Jamnagar, a distance of about 110 miles: such as Police, Health (whereas Customs formality can be completed locally).
AIRPORT: Nearest airport Jamnagar about 110 miles connected with Okha by rail and road. Only local service to Bombay daily operated.
TIME: GMT plus 5.5 hours. (I.S.T.)
HOLIDAYS: As declared by Port Authorities, cargo work can be arranged by paying usual scheduled overtime but labour's observed holidays (about 8 days in a year) completely closed.
TELEPHONES: Only for tankers by respective oil installation.
SERVICE: Tank cleaning by manual labour.
SHORE LEAVE: Crew allowed ashore after vessel cleared by immigration officer who boards vessel on arrival.
DELAYS: Delay only encountered if berth or moorings are occupied.
SHIP SUPPLY SERVICE: Off-shore ship supply service operated by J. M. Baxi and Co., Bombay.
GENERAL: Port governed by Gujarat State and all rules and regulations laid down by them in addition to Central Government rules applicable to this port. Port connected with hinterland by rail, motor transport, 300 miles by sea from Bombay, 2 tides in 24 hours, mean high water spring rise about 11.5 ft. and mean low water neap rise 9.5 ft.; current in neap tide is 2 to 3.5 knots. Wind force/direction during April/September S.W. 3/5 and in October/March N.W. to N.E. from 2/4.
AUTHORITY: Port Officer – Okha Port and Superintendent of Customs, Okha (Ahmedabad Collectorate).

PARADIP: 20.14 N. 86.42 E. (See Plan)

PORT LIMITS: When vessel arrives in the Roads, 1 mile S.E. of Fairway Buoy.
DOCUMENTS:
8 copies Crew List.
3 copies Ship's Store List (Form No. III).
Crew Private Property List (Form. IV) including Foreign Currency Declaration.
3 copies Currency Declaration.
3 copies Passenger List, if any.
3 copies Cargo Manifest.
3 copies Survey Bottom Cargo Manifest, if any.
3 copies Deck Cargo Certificate.
3 copies Hazardous Cargo Certificate.
3 copies "No Opium" Certificate.
3 copies Arrival Pets Abroad.
3 copies Declaration for "No Monkeys on Board".
3 copies Any other Declaration.

The Master of the vessel should deposit the following documents with the Port Authorities through their Agents.
Ship Registration.
International Load Line Certificate.
Safety Radio Certificate.
Light Dues Certificate.
Safety Equipment Certificate.
Last Port Clearance.
International Health Certificate.
Derat Certificate.
Last 3 Ports Certificate.
Cavities Certificate.
Ballast Certificate.
Vaccination/Inoculation Certificate.
Arms and Ammunitions Certificate.

The Agents will return the documents to the Master before sailing of the vessel along with the Port Clearance.
PILOTAGE: Notice of ETA must be intimated to the Harbour Master by Master or Ship's Agent not less than 24 hours before arrival of vessel in the Roads. Telegraphic Address: Harbourmaster, Portrust, Paradip. Telex: 0674-211. Channel 16 VHF is continuously watched. The pilot boat is white and flies Pilot's flag on the mast whenever Pilot is on board. Pilot boards the vessel S.E. of the Fairway Buoy. Vessels required to hoist call letters for identification. A vessel requiring a Pilot for sailing out is required to give minimum 2 hours' notice to Port Control on VHF Channel 16 and hoist "G" Flag one hour in advance.
ANCHORAGE: Vessels can anchor, depending on draft, 2 miles S.E. of Southern Breakwater in the recommended anchorage.
RESTRICTIONS: Pilotage is carried out from 0500 hrs. to 2100 hrs. 24 hours pilotage is under consideration.
MAX. SIZE: Maximum permitted LOA 260 m. and max. draft 11.9 m. Vessels loading iron ore are permitted to sail with 12.8 m. draft in fair weather period. LASH vessels are also entertained as a special case.
HEALTH: Send quarantine message to "Quarantine Paradipport" 24 hours before arrival for Radio Pratique. Pilot gives Free Pratique on boarding vessel subject to no sick person on board. In case of suspected disease or fever on board, Port Medical Officer visits ship at anchorage/berth and cases of contagious disease are isolated and sent to nursing home.
RADIO/VHF: Continuous VHF watch is maintained on Channel 16 at Port Signal Station. Working period 24 hours. Working Channels are 12, 9 and 6.

Vessels are requested to establish contact with the Port Signal Station when within VHF range (approx. 40 to 60 miles) and before entering, moving in or sailing from the port.

When within VHF range, ships are requested to give the following information:
(1) Name of ship.
(2) Last port of call.
(3) ETA.
(4) Vessels gross tonnage, LOA, breadth, draft, d.w.t. and speed.
(5) Number of cases of dangerous and contagious diseases on board.
(6) Type and quantity of cargo.
(7) Name of Agents and requirements.

TUGS: Two tugs of 18 tons bollard pull and 1 tug of 30 tons bollard pull are available. Port will be acquiring a 30 ton bollard pull Schottel propelled tug during 1988. Tugs join vessel inside breakwater. Ship's lines only used.
BERTHING: Vessels must have maximum ballast for berthing and unberthing.

Iron Ore Berth:	Length from dolphin to dolphin 320 m. Capable of berthing ships of 260 m. LOA with 12.8 m. draft, beam limited to 40 m. for Ore Handling Plant.
General Cargo Berth:	Designed depth 11.5 m. Total quay length 686.65 m. Shore cranes available for loading and unloading.

South Quay: Total quay length 215 m. Designed depth 11.5 m. No shore cranes available. Vessel to work with her own gear.
Mooring Berth: Length 260 m. Designed depth 12.5 m.
Fertiliser Berth: (Captive berth for Paradip Phosphates Limited) Quay length 252 m. Designed depth 12.5 m.
North Quay: Length 118 m. Designed depth 6 m.

CRANES:

Type of Crane	*No.*	*Capacity*
Wharf Cranes	4	13 ton
Mobile Cranes	5	12.5 ton
Mobile Cranes	1	31.75 ton
Cargo Handling Equipment:		
Forklift Trucks	14	3 ton
Front End Loaders	4	2.3 cu.m. to 4 cu.m.
Tractor Trailer	1	5 ton
Shovels	2	3.5 cu.yd.
Bulldozer	1	180 h.p.
Track Shovel	1	1.3 cu.m.

BULK HANDLING FACILITIES: 1 iron ore berth with mechanical loading plants of rated capacity 2,500 t.p.h. Average loading rate 20,000 – 25,000 tons per day.

SPECIALISED CARGO HANDLING FACILITIES: Semi-mechanised handling facilities for coal, chrome and other bulk cargoes are available.

At the Fertiliser Berth facilities exist for fully mechanised unloading of bulk rock phosphate, phosphoric acid and ammonia.

Warehouses and Transit Sheds: 4 warehouses are available, having capacity of storage of 22,515 tonnes and Transit Sheds having a space for storage of 48,450 tonnes. There are also a number of private warehouses belonging to Central Warehousing Corporation with a total storage capacity of 20,000 tonnes. At present, 220,300 sq.m. of open stacking area is available inside the Port area for storage of more than 3 million tonnes of different cargoes. These stockyards are connected with rail and road.

Port Railway: Port has its own railway system.

STEVEDORES: Stevedores required for loading/unloading of cargoes at General Cargo Berth and Mooring Berth. A number of stevedoring companies are available in the Port. The Port Trust also undertakes stevedoring. Average loading rates achieved for different cargoes as follows:

Cargo	*Tonnes per day*
Chrome-ore	3,000
Coal	5,000
Iron & Steel	3,000
Foodgrains	1,000
Fertilisers	1,000
Other General Cargo	800
Phosphoric Acid	15,000
Ammonia (Liquid)	8,000

TANKERS: Tankers will be handled in the near future.

MEDICAL: A 50 bed port hospital is available at the port. The crew can also be treated at the Government hospitals at Cuttack and Bhubaneswar which are 98/120 km. respectively from Paradip.

DENSITY: Varies from 1018 to 1024 with average of 1021. Density as low as 1009 is also reported during Winter months.

FRESH WATER: Water supply is available alongside berths and through water barges at the moorings. Water supply is possible in the Roads in fine weather.

FUEL: HSD and furnace oil can only be procured from Cuttack on duty paid oils only. Arrangements will have to be made well in advance. Oil is transported by small road tankers of capacity 11 tons to 12 tons. Port provides berthing facilities for taking bunkers.

FIRE PRECAUTIONS: There is a fire station situated inside the Port area equipped with one water tender, 4,500 litres capacity and 2 trailer pumps (capacity: 1,000 and 600 litres). One foam tender is being procured during 1988. All tugs are equipped with external fire fighting equipment which is available for use in the event of fire.

GANGWAY/DECK WATCHMEN: Necessary.

OPENING/CLOSING HATCHES: Undertaken by crew only.

CERTIFICATES:
Ship's Register.
Load Line Certificate.
Safety Radio Certificate.
Safety Equipment Certificate.
Last Port of Clearance.
Derat Certificate.

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes per head per week. Wine and/or Spirit: 1 bottle of 24 ounces per head per week.

CARGO GEAR: Valid cargo gear certificate required. Dock Safety Inspector inspects the cargo gear.

IDENTIFICATION CARDS: Authorities issue landing pass.

CONSULS: Nearest consuls located at Calcutta.

REPAIRS: Minor repairs can be undertaken.

DRY DOCKS: A 500-ton slipway available for repairs to port craft. No dry dock available.

REPATRIATION: Repatriation of foreign personnel is permitted.

AIRPORT: Nearest airport at Bhubaneswar 120 km. Direct flights available to Delhi, Calcutta, Bombay and Hyderabad.

TIME: Local time GMT plus 5.5 hours.

HOLIDAYS: Charter Party holidays. Normally work carried out on all days.

POLICE/AMBULANCE/FIRE: Police 2027; Ambulance 2041; Fire Station 2385. Also contact Port Signal Station on VHF Channel 16.

TELEPHONE: No facilities for telephones on board.

SERVICES: Available.

SHORE LEAVE: Immigration Authority issue shore passes to all foreign nationals and with shore passes crew allowed ashore.

DELAYS: Generally no delays. Vessels are allotted berths on "first come first served" basis. Iron ore vessels are given priority.

DEVELOPMENTS: Handlings of 170,000 d.w.t. dust ore carriers and 100,000 d.w.t. oil tankers are under active consideration.

AUTHORITY: Paradip Port Trust, Paradip Port, District Cuttack, Orissa, India. *Tel:* Paradip 2046, 2127. *Telex:* 0674-211. *Cables:* Portrust, Paradip. *Contact:* Private Secretary to Chairman, Paradip Port Trust.

PONDICHERRY: 11.56 N. 79.50 E.

DOCUMENTS:
Ship's Register.
Load Line Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Last Port Bill of Health.
Last Port Clearance.
Store List with Private Property Declaration in Triplicate.
Crew List (8 copies).
Light Dues Receipt.
Manifest (Import or Export).
Bill of Lading.

PILOTAGE: Not necessary as open roadstead anchorage.

ANCHORAGES: Proper anchorage in line with New Pier. 2 chimneys in line (276°) will provide good transit in day time and at night green/red light in transit with red pier light can be taken.

MAX. SIZE: Anchorage is 7 fathoms within 1 mile from New Pier.

HEALTH: Free Pratique obtained on arrival and Master expected to address message to Port Health Officer, advising that all are well on board. Free Pratique automatic for vessels calling from any Indian ports.

RADIO: Cables routed through Madras Radio (call sign VWM).

TUGS: Tug kept ready at New Pier for towing barges.

BERTHING: Berthing facilities for vessels up to 500 d.w.t.

STEVEDORES: 48 hours notice prior to arrival. Rate of discharge of bagged cargo 800 to 1,000 tons per day.

MEDICAL: No advance notice necessary. General Hospital and Jipmer Hospital available.

TANKERS: Transfer operations are carried out at anchorage 1.5 miles – 2.5 miles offshore.

DENSITY: 1025.

FRESH WATER: Available. Rate 50-60 tonnes per day.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Services not compulsory, but recommended to avoid pilferage. 3 watchmen day/night.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes permitted for each Crew member to be held out of bond. Wine and/or Spirit, 1 open quart bottle per Crew member permitted to be held out of bond.

IDENTIFICATION CARDS: Not needed if furnished with Crew List.

CONSULS: Only French Consulate General. Tel. 4058.

REPAIRS: Deck and Engine repairs not attended. Special arrangements can be made from Madras. Minor repairs carried out privately.

DRY DOCKS: None.

REPATRIATION: Facilities exist for effecting crew changes and arranging necessary repatriation.

AIRPORT: Nearest airport is Meenambakam Airport, Madras, (160 km.).

TIME: GMT plus 5.5 hours.

HOLIDAYS: Observed as declared by Authorities but cargo work arranged on all holidays on payment of overtime, except on Republic Day, Gandhi's Birthday, May Day and Independence Day.

POLICE/AMBULANCE/FIRE: Police 100; Fire 101; Ambulance arranged through hospital doctor on duty, Tel: 6008.

TELEPHONES: No facilities to place on board.

SERVICES: Ship chandling and supply of stores available.

SHORE LEAVE: Crew members permitted ashore but have to remain within town limit.

DELAYS: Delays occur only under unavoidable circumstances such as Surf Declaration, Cyclone, etc. Vessels arriving at night, commence discharge operations next morning.

GENERAL: For purposes of crew going ashore, launches arranged between 0600 hrs. and 1800 hrs. weather permitting, hired from private parties. Laundry facilities, supply of fresh vegetables and provisions arranged.

AUTHORITY: Government of Pondicherry, Port Department, Pondicherry. *Contact:* Captain N. Selvaraje, Port Director.

PORBANDAR: 21.38 N. 69.36 E.

DOCUMENTS:
Crew Lists (6 copies).
Passenger Lists (6 copies).
Customs Documents to be prepared by Agents and signed by Master (4 copies).
Arms and Ammunition Certificate 4 copies duly signed by Master.
Health Documents: All yellow fever and cholera books should be valid on arrival as well as on departure, if they are not valid on departure Port Health Officer should visit ship and give required injection to persons for completing health books before obtaining Bill of Health.
Port Clearance: Port Clearance of last port to be submitted to Boarding Officer of Customs.
Private Property List (6 copies duly signed by Master).
Stores List (4 copies duly prepared by ship's officer).
Currency Declaration (4 copies).
Bills of Lading: Bills of Lading for export cargo generally to be prepared and signed by Agents.

PILOTAGE: Compulsory for inward/outward movements for all vessels and for shifting to and from berths.

ANCHORAGE: Anchor in stream about 1.5 miles off shore. 6 fathoms at low water, with good holding ground.

Outer anchorage is with Rajah's Old Palace, about 1.5 miles Southeastward of lighthouse, bearing 085° and lighthouse bearing 026°, 4.5 fathoms to 5 fathoms sand and rock (or further out as required).

MAX. SIZE: Any size vessel at anchorage. Alongside berth – Max. LOA of vessels up to 177 m. Max. permissible draft 9.00 m. No beam restrictions.

1 mooring buoy – max. draft 7 m.

For roadstead, no restrictions on length or breadth.

HEALTH: If arriving from yellow fever area within 30 days a grant of Free Pratique is necessary. Mosquito Party to be deputed from Kandla, which can only be arranged by prior intimation, failing which vessel would have to proceed to either Kandla or Bombay for Free Pratique.

RADIO: Porbandar call sign VWY, working frequency 462 kHz and watch keeping on 500 kHz.

TUGS: Will join ships for assisting berthing/unberthing.

BERTHING: 1 alongside berth and 1 mooring buoy.

STEVEDORES: 24 hours notice required for Agents to arrange gangs.

Average rate of working – 380 to 400 tons per gang per day for general cargo.

For vessels loading bulk ores 3,000 to 4,000 tons per day with ship's gear.

Export Commodities: G.N. Extraction in bags, bulk ground nut HPS, cotton bales, frozen fish, lime and lime stone, lime powder, abrasive powder, bauxite, white clay, fruits, onion, etc.

MEDICAL: Government hospital available. There are also private hospitals.

TANKERS: Presently no facility for discharging oil.

FRESH WATER: Vessels alongside can be supplied by pipe-line and water tanker. Vessels at anchorage supplied by water barge.

FUEL: Fuel can be supplied by road tankers at berth through Indian Oil Corporation at Okha and Rajkot.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Charter Party terms.

CERTIFICATES: *(a)* Load Line Certificate. *(b)* Safety Equipment Certificate. *(c)* Safety Radio Certificate, all certificates must be valid before departure of vessel

CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes permitted for use of each crew member from bonded stores of ship.

Wine and/or Spirit: Customs Officer remains on board from arrival till departure and issues required quantity of wine and spirit from bonded stores. Quota is issued every week.

CARGO GEAR: Tested cargo gear should be used for loading and discharging operations.

IDENTIFICATION CARDS: Necessary.

CONSULS: None.

REPAIRS/DRY DOCKS: A dry dock of 150 ft.×55 ft. for repairs to port crafts. Also port workshop for repairs to shore and marine equipment.

AIRPORT: 3 miles from town, daily flight to Bombay.

TIME: GMT plus 5.5 hours.

HOLIDAYS: Observed as declared by Government of Gujarat and can be worked on payment of overtime charges, but work on non-working days like Indian Republic Day, Independence Day, Holi (2nd Day), Ramnavami, Muhurram, Gokul Ashthami, Dessera, Diwali (New Year) and Ramzan-Id not possible.

POLICE/AMBULANCE/FIRE: Police Station 114; Ambulance/Fire Brigade 244.

SHORE LEAVE: Police, port and Customs permission required before landing.

GENERAL: The port is an "all weather port".

AUTHORITY: Office of the Chief Executive Officer and Vice Chairman, Gujarat Maritime Board, New Mental Hospital Building, Block No. 0/20, Ahmedabad - 380 016. *Tel:* 66610, 45116, 66270. *Cables:* Princport. *Contact:* The Chief Executive Officer and Vice Chairman, Gujarat Maritime Board, Ahmedabad-16.

The Port Officer, Gujarat Maritime Board, Porbandar – 360 575, Gujarut State, India.

PORT REDI: 15.44 N. 73.39 E.

DOCUMENTS:

Arrival:

- Maritime Declaration of Health Form (in duplicate).
- Port Clearance from last port of call.
- Ship's Stores List (in triplicate).
- Crew Private Property List (in triplicate), containing full details of every article such as: cameras, radios/transistors, record players, records, watches, all types of currency, other valuable articles, souvenirs, spirits, etc.
- Crew Lists (6 copies).
- Ship's Currency List (in triplicate).
- Arms and Ammunition Declaration.
- Passenger List – if any.
- Through Cargo Manifests.

Departure:

- Medical Inspection or Examination Certificate (Bill of Health).
- Port Clearance.
- Consumed stores list in duplicate (a list of stores consumed during the stay of the vessel at port).

PILOTAGE: Compulsory. Port Officer acts as Pilot. Cable via Bombay Radio to Port Officer, Redi, Cable Address: Port Officer Vengurla, ETA of vessel 48 hours prior arrival (cable should reach Port Officer before 24 hours prior arrival). Anchor off Rairi Point – West of Rairi Point – about 1 to 1.5 miles where Port Officer boards ship to pilot to proper loading anchorage. Pilotage restricted to daylight hours only. Shifting without Pilot not permitted.

On arrival keep gangway or complete pilot ladder with manropes and step-down, ready for Pilot.

No fixed anchorage marked at Pilot station; however, vessel should not proceed beyond 1 mile from Rairi Point (for safety of vessel). Keep engine ready till Pilot boards. If vessel arrives during night hours be ready for shifting next morning.

ANCHORAGE: Anchorage Rairi Point or Redi Point (Lat. 15° 44′ N., Long. 73° 39′ E.) is a flat rocky projection, Western extremity of which is 50 ft. (15.2 m.) high. Foul ground and shoal water extend about 0.75 miles S.S.W. and about 0.5 miles Westward of this point; at Southern side of foul area is Rairi (Redi) Rock which is 36 ft. (11 m.) high and steep. Vessel should not proceed into depths of less than 6 fathoms or within 1 mile Westward in vicinity of this point without Pilot.

Loading anchorages are on both sides of Rairi Point (known as Jetty One anchorage and Jetty Two anchorage).

MAX. SIZE: No restrictions on size. This is a minor port exporting only iron ore, and vessels up to 34 ft. draft load at safe anchorage.

HEALTH: On arrival, Customs Authorities board and grant Free Pratique to ships arriving under normal conditions and on completion of Maritime Declaration of Health Form. Medical Officer, Candy Dispensary, Vengurla, acts as Port Health Officer (Quarantine Officer) for this port, and boards vessel at his convenience before sailing to conduct Medical Examination and grants Medical Examination Certificate (Bill of Health) on day of sailing. Certificate to be collected from Vengurla Office. No facilities for Radio Pratique.

If coming from yellow fever or jigger infected regions within 30 days Port Health Officer grants Pratique after boarding vessel with Mosquito Party deputed from Bombay at Owners' cost. Mosquito Party can only be arranged on advance information failing which, vessel would have to proceed to either Bombay and/or Mormugao for Free Pratique. Master and/or Owners to give Agents prior notice to avoid delay in arranging Pratique. Vessels transiting through above infected areas for bunkers or water only do not require Mosquito Party for obtaining Pratique.

Advisable inform Agents prior to arrival of last port of call, crew, and nationality, and if arriving from yellow fever and/or jigger infected regions, whether called only for bunkers or water, or purpose of call and vessel's health condition.

RADIO: Bombay Radio.

BERTHING: No berths. Open roadstead port.

LOADING: Port only exporting iron ore in bulk and suppliers. The Minerals & Metals Trading Corporation of India Ltd., make own arrangements to load cargo on FOB terms. Rate between 3,000 to 4,500 tons per day per vessel if 3 vessels are working and 4,000 to 6,000 tons per day if 1 vessel is working. This rate is being achieved due to increased fleet and improvement of shore loading facilities.

MEDICAL: Preliminary medical aid available at Port Redi/Shiroda. Well-equipped hospitals situated at Savantwadi and Vengurla about 25 and 45 miles away respectively by road. Cholera inoculations done through Port Health Officer and if required this information may be passed on to Agents for arranging with Port Health Officer.

DENSITY: Average 1025.

FRESH WATER/FUEL: ~~None.~~ NOT AVAILABLE

GANGWAY/DECK WATCHMAN: Not necessary.

OPENING/CLOSING HATCHES: As per Charter Party. However, opening done by stevedores to save their time and commence loading earliest during free time.

CERTIFICATES: All certificates, particularly Cargo Gear Certificate to be in order and valid.

CUSTOMS ALLOWANCES: 200 cigarettes per week of 7 day per crew. Wine and/or Spirit, 1 bottle each per crew of spirit or beer as required.

IDENTIFICATION CARDS: Necessary.

CONSULS: None.

REPAIRS/DRY DOCKS: None.

REPATRIATION: Facilities for crew changes. 4 days advance notice required with full particulars of crew.

AIRPORT: Belgaum and/or Vascodagama 90 miles distant.

TIME: Indian Standard Time GMT plus 5.5 hours.

HOLIDAYS: Cargo work can be arranged on overtime on all holidays except 26th January, Republic Day; 2nd October, Mahatma Gandhi Birthday; 15th August, Independence Day. On these holidays work not permitted even on overtime.

SHORE LEAVE: Crew of Chinese and Pakistani nationality not allowed land on shore. Other crew permitted land only after obtaining requisite permission from Police Authorities from Ratnagiri, distant about 160 miles and thereafter from Customs Authorities. On arrival, Crew List and guarantee duly signed by Master, are furnished to Police Authorities at port and telegram sent to Ratnagiri requesting landing permission from District Superintendent of Police.

Obtaining landing permission takes 3 days; and therefore, Masters requested not to allow crew members to land on shore unless written landing permission sent on board. Crew members not allowed beyond Port Redi limits, without permission obtained from Police Authorities, Ratnagiri.

REGULATIONS: Port Officer conducts Final Draft Survey on completion of loading in consultation with Master. Master's refusal to allow shifting creates complications. Master should not shift vessel without Pilot on board or permission from Port Officer; this does not apply in case of emergency.

DELAYS: Only 3 vessels (i.e. 1 at each jetty) can work at a time on a first come first served basis. Overlapping vessels have to wait turn. Waiting time about 4/5 days.

GENERAL: Regular Post and Telegraph Office about 2.5 miles from jetty.

Vessels on arrival and at departure thoroughly examined by Customs, and Masters therefore requested to ensure that crew private property list is correctly presented to Customs Authorities and its accuracy maintained throughout stay of vessel.

Ship's wireless station not to be used for despatching cables during the vessel's stay.

Discharge of bilge water and/or dirty waste oil or cargo prohibited.

Fresh vegetables, etc., supplied in limited quantity from 90 miles distance.

AUTHORITY: Port Officer.

SIKKA: 22.34 N. 69.42 E.

SHIPMASTER'S REPORT: June 1982.

DOCUMENTS: 8 Crew Lists, 6 each Personal Effects and Stores Lists, 4 Vaccination Lists, 5 Currency Lists, (Customs do like all paperwork properly prepared).

On departure 3 Crew Lists if any changes and 3 Personal Effects Lists for those who remained on board.

For personnel leaving, Customs require Currency Form (Foreign Exchange Act 1947) in duplicate (Indian Form) and International Crew Baggage Declaration (Local Form) in duplicate.

Clearance from Last Port, Register, Load Line, Derat, Safcon, Safequip and Safradio all sighted by Agent but not taken from vessel.

All personal belongings to be recorded with makes, models and numbers.

PILOTAGE: Pilot boards vessel at anchor from tug boat using ship's derrick and tug's basket if weather is rough.

ANCHORAGE: Plenty of room for anchoring with good holding ground. Contact Mother Tanker for anchor position. We, berthing on flood tide, were requested to anchor 2 miles – 069° True from Mother Tanker.

Locally the storage vessel is referred to as the Mother Tanker (MT) and own ship (OS).

RESTRICTIONS: Apparently none, plenty of water. Larger vessels (this vessel 149,000 d.w.t.) are loaded from daughter tankers which go alongside OS.

HEALTH: Free Pratique is granted by Customs Officer.

RADIO: To local Agent at Jamnagar via Bedi Radio VUK5. The MT (which was m.t. "Koyali") keeps an R/T watch. Would suggest contacting the MT for any advance information as nobody else would give any.

VHF: Call MT on Channel 16. While anchored/approaching Channel 11 is used after initial contact. While double banked Channel 13 is used between MT and OS. Cargo operations are conducted on UHF using MT walkie-talkies. Contact Shipindia Channel 13, who pass messages to and from Agent.

TUGS: One tug available but not used. Tug used by Pilot and runs lines from OS to MT.

BERTHING: Position off Sikka for cargo operations approximately Lat. 22° 34′ N., Long. 69° 42′ E. Apparently 140,000 d.w.t tankers are the ideal size. They berth alongside MT and can take up to a full cargo without the MT having to top up from a daughter tanker. Operations off Sikka are temporary and from 1st May to end of monsoon. Consult with Pilot about berthing and obtain all details. Vessels berth alongside when tide is running in daylight hours. Usual Yokohama fenders used, 4 for vessels less than 750 ft. LOA and 6 for vessels over 750 ft. LOA. Fenders are made fast on MT. First 2 floatable headlines from OS to MT at least 220 m. long and may require longer. They do not like using '1st ropes ashore' off reels. In our opinion '1st ropes ashore' would be quite adequate and fast enough. Then 2 floatable stern lines from OS to MT. Final moorings were from OS to MT 3 and 2 each end with no breastlines. From MT to OS 2 headlines leading aft, 2 stern lines leading forward, forward 2 springs leading from forward to aft and 2 springs aft leading from aft to forward.

TANKERS: Loading by 2×10 in. ID hoses of ASA 150 standard, 23 m. long.Their discharge rate is quoted as 12,000 t.p.h and OS receives a letter to this effect with a request for OS loading rate. However, hoses restrict rate to about 2,700 t.p.h. overall. Hoses provided by MT, reducers supplied by OS. Only ropes or wires with rope tails used for mooring. Entire operation is guided by the ICS, OCIMF, ISGOTT. Tankers being loaded by daughter tankers should anchor with port anchor and daughter tanker berths starboard side. OS port side derrick and manifolds used alongside MT. Ballast is pumped overside. Ballast draft on arrival to be such that distance from manifold to water line does not exceed 15 m. Ballast trim not to exceed 3 per cent of LOA at any time. Distance of manifold to water line must never exceed 15 m. EDP is used. Samples are taken to Bombay for analysis before B/L figures are given together with cargo quality details. API, loading temperature and pourpoint are given prior to loading. Our API was 39.48 at 60°F and loading temperature will normally be around the same as sea temperature of about 86°F (as during 1st week in June). Cargo was Indian High crude, very thin and apparently quite clean. A Loading Master boards to assist with berthing but does not live aboard. Accommodation and victuals required for Pilot, 2 Cargo Surveyors and 1 Indian Oil Representative. MT normally has 9.5 shackles of cable out. MT does COW but not usual with OS of 140,000 d.w.t. tanker.

WATCHMEN: Not necessary. The only boats allowed alongside were official boats and no other small boats were observed in the vicinity. There is no gangway between MT and OS.

CUSTOMS ALLOWANCES: 200 cigarettes. The State of Gujarat is 'dry' and no alcohol allowed ashore, except foreigners being repatriated may take one bottle.

SHORE LEAVE: Possible, but due to length of journey and tidal restrictions it is not recommended.

REPATRIATION: Possible. Airport at Jamnagar. The boat journey ashore is about 2 hours but boat can only get to or leave jetty about 2 hours either side of high water. Foreigners require a visa otherwise they may travel in India but are not allowed to stay at hotels. This applies to departing and arriving personnel. Indian crew are not allowed Rupee notes of greater denomination than 20 Rupees.

AIRPORT: About 1.5 hours drive by car.

GENERAL: In June 1982 "VQ" Buoy Kachchh was missing, shore authorities were advised. A night approach is better than a daytime approach as the buoys are not easy to sight against the discoloured water (on flood tide) although the buoys and Racons show very well on radar.

DEVELOPMENTS: After the end of the SW Monsoon (1982) work will resume on the oil and gas lines to Bombay from the offshore oil-field. An SPM will probably be positioned off Bombay and this will be used during the SW Monsoon when vessels cannot load at the oil-field.

OPERATOR: Shipping Corporation of India Limited, NBCL Building, 2nd Floor, 250 Sudam Kalo Ahire Marg, Bombay 400 025, India.

TUTICORIN: 08.45 N. 78.13 E.

PORT LIMITS: *On the North:* A line drawn due East from the boundary pillar erected to the North at Arasadi along the parallel of Lat. 08° 50′ N., to a position in Lat. 08° 50′ N., Long. 78° 22′ E.

On the East: A line joining a position in Lat. 08° 50′ N., Long. 78° 22′ E. to a position in Lat. 08° 41′ 40″ N., Long. 78° 20′ 20″ E.

On the South: A line due West from a position in Lat. 08° 41′ 40″ N., Long. 78° 20′ 20″ E. to where it meets the point 45.72 m. from the HW mark on the shore.

DOCUMENTS: Required on arrival:

4 Manifests.
2 Bills of Lading.
5 Crew Lists.
5 Passenger Lists.
4 Crew Personal Property Declaration.
4 Crew Currency Declaration.
4 Import Manifest of Stores List.
2 Health Report Form.

All statutory certificates in respect of vessels in Marine, Traffic, Customs and Immigration.

PILOTAGE: Compulsory within the pilotage zone. At present pilotage is restricted from 0600 hrs. to 1800 hrs. There is no night pilotage. To avoid a delay in obtaining a Pilot, the Owner, Master or Agent of a ship bound for Tuticorin must report ETA via their Agents at least 72 hours in advance, and again 24 hours in advance of arrival. The ETA must be confirmed or amended not less that 6 hours prior to arrival. Time can be either in GMT or IST. The vessels must contact Port Signal Station on VHF Channels 16/12. In message of ETA, the following information must be included:

1. Name/call sign of the vessel.
2. Nationality.
3. Length, draft and g.r.t.
4. Last port and cargo.

Pilot Boarding Station: Vessels are required to approach the Fairway Buoy and the Pilot will board the vessel about 0.5 nautical miles East of Fairway Buoy while underway. The position is approximately 2.5 km. to 3.0 km. away from the entrance to the port basin.

ANCHORAGE: *Zone A:* There is an Explosives anchorage in position Lat. 8° 44′ 48″ N., Long. 78° 14′ 22″ E, in a sector with the Fairway Buoy as centre circumscribed over an arc of 171° from 009° (T) to 180° (T) at a distance of 0.5 miles to 1.0 miles.

Zone B: There is an open roadstead available at Zone 'B'. Vessels of any size and draft can be handled at the open roadstead. The loading and unloading operations are carried out by lighters at the open roadstead throughout the year.

MAX. SIZE: See "Berthing".

HEALTH: Free Pratique is issued in normal cases by the Municipal Health Officer, Tuticorin, but in the case of vessels coming from yellow fever area and jigger infection ports with 30 days it is to be issued by the Port Health Officer, Mandapam Camp.

RADIO: When vessel within 24 hours' distance Tuticorin Radio could be used call sign VWT. Otherwise according to route followed, vessels use Madras or Bombay Radio.

VHF: Signal station stands-by throughout 24 hours on Channels 12 and 16.

TUGS: Three tugs (bollard pull 30 tons) available for berthing and unberthing inside the harbour. However, if services are required for any special service, arrangements have to be made. Ships usually anchor in open roads and enter and sail without tug assistance.

BERTHING: In Zone 'A' there are at present 6 alongside berths available to handle break-bulk and dry-bulk cargoes. Berths No. 1, 2, 5 and 6 are designed for ships of 168 m. length and 9.14 m. draft and Berths No. 3 and 4 for ships of 192 m. length and 10.67 m. draft. One coal jetty is available at North Breakwater which has been designed for ships of 235 m. length and 10.67 m. draft. Pending completion of dredging in the approach channel, ships with 8.23 m. draft can enter the port at all times. Draft of 9.14 m. will be available on completion of the first phase of dredging work, which is in progress.

The berths are connected with metre gauge railway tracks and roads which are in turn connected with road and railway system to hinterland.

Floating Craft: Sufficient number of tugs and other floating craft are available for pilotage and other operations.

Cargo Handling Facilities:
3×3 ton wharf cranes.
2×6 ton wharf cranes.
4×10/4 ton grab wharf cranes.
1×10 ton hook wharf crane.
7 mobile cranes of 10 tons to 75 tons.
1×36 ton port tower crane.
18×3 ton diesel forklift trucks.
2×2.3 cu.m. capacity bucket front end loaders.
2×500 ton and 2×1,500 ton diesel locomotives.
1×40.0 TR-35.0 CH top lift truck.
2×600 t.p.h. marine unloading arms.

Storage:
2 Transit sheds 150 m.×36 m. each.
3 Warehouses 150 m×36 m. each.
1 Dangerous cargo shed 36.23 m.×20.23 m.
1 Fumigatorium 40.50 m.×18.24 m.

15 Covered transit sheds including combustible cargo shed and dutiable cargo shed with a storage capacity of 25,370 tonnes. (In Zone 'B'.)

One open platform for storage of cargo with a capacity of 61,500 tonnes. (In Zone 'B'.)

Reefer Cargo Handling Facilities: 12 plugs (6×220 volts and 6×440 volts) points. Standby generators provided.

STEVEDORES: Agents require 24 hours notice of ETA for arranging gangs, and receivers for lighters. General cargo, average rate load or discharge about 1,000/1,200 tons per weather working day.

Working hours:

(i) In respect of working of vessels in the Port, period between 0600 hours to 1400 hours on working day is treated as free time, for levy of night and holiday charges. For periods outside these hours, night and holiday charges are leviable.

(ii) In respect of delivery of import cargo and admission of cargo for shipment, period between 1000 hours to 1800 hours is treated as free time for levy of night and holiday charges. For periods outside these hours on working days, night and holiday charges are levied.

(iii) On holidays no free time is permissible either for working of vessels or for delivery/admission of cargo for purpose of levy of night and holiday charges.

MEDICAL: For doctor's visit on board early advice helps to arrange for tug or launch to take doctor from shore. In cases of emergency, medical attention can be arranged but there may be some delay. Hospital facilities available. Personnel should have valid inoculation and vaccination certificates. If certificates expired, arrangements made for re-vaccination/re-inoculation and renewal of certificates.

TANKERS: One permanent oil jetty to accommodate vessels of lengths from 150 m. to 228 m. and 9.14 m. draft is available for handling petroleum products.

Pipe-lines of 457 mm. diameter for furnace oil and 356 mm. diameter for naphtha.

Pending completion of the dredging of the approach channel, only tankers with 8.24 m. draft can enter port.

FRESH WATER: Available from hydrants alongside and by barges at the anchorage when no scarcity of water.

FUEL: Supplied by road tanker.

GANGWAY/DECK WATCHMEN: Engaging watchmen always done at the discretion of Masters. In case required could be engaged.

OPENING/CLOSING HATCHES: By ship's crew. If done by stevedores charges extra.

CERTIFICATES:
Ship's Register.
Safety Construction Certificate.
Load Line Certificate.
Safety Equipment Certificate.
Safety Radio & Telegraphy Certificate.
Derat Certificate.
Cargo-gear Stability Certificate.

IDENTIFICATION CARDS: Identification cards or Seaman's Book required to be presented to Police and Immigration authorities while coming on shore.

CONSUL: None.

REPAIRS: Minor repairs possible.

DRY DOCKS: A small dry dock with workshop facilities has been constructed at the Port for docking and attending to repairs of port's own small vessels.

REPATRIATION: Could be arranged via Madras.

AIRPORT: Nearest airport is Madurai, distance 100 miles, which could connect Madras.

TIME: GMT plus 5.5 hours.

HOLIDAYS: New Year's Day, Pongal, Mattu Pongal, Republic Day, Tamil New Year's Day, Good Friday, May Day, Ramzan, Bakrid, Independence Day, Gandhi Jayanthi, Dussehra (2 days), Moharrum, Deepavali, Christmas.

SHORE LEAVE: Crew allowed shore leave but movements limited to municipal limits. Must obtain shore permits from police.

REGULATIONS: Usual regulations. All crew members coming onto shore and returning to ship must report to Customs and Port Police on every trip.

SERVICES: Fish, meat and all kinds of provisions and stores are generally available.

AUTHORITY: Tuticorin Port Trust, Administrative Office, Tuticorin 628 004, India. *Tel:* 85-2290 and 85-2299. *Telex:* 0434-243. *Cables:* Portrust. *Contact:* The Chairman.

VADINAR: 22.31 N. 69.42 E.

LOCATION: Vadinar is in the Gulf of Kachchh about 40 miles S.W. of Kandla Port. The port has 1 Single Buoy Mooring (SBM) for crude oil tankers.

Position of SBM: Lat. 22° 30′ 34.48″ N., Long. 69° 42′ 4.07″ E.

The deep water channel from Dwarka to SBM is marked by 9 deep sea lighted marker buoys (refer Chart No. 203).

PILOTAGE: Pilotage is compulsory and the Pilots board the tankers at anchorage (Lat. 22° 33′ N., Long. 69° 38′ E.). Tanker should communicate ETA Vadinar to Harbour Master Kandla Port and local Agents, Jamnagar 72, 24 and 12 hours in advance.

VHF: Vadinar Control Tower can be contacted on VHF Channel 12 and 16.

TUGS: Port tugs and the launch join ships at the approach to SBM.

RESTRICTIONS/MAX. SIZE: VLCC's of max. 300,000 d.w.t. can be moored at the SBM. At present berthing of tankers is only in daylight hours but night berthing may start soon. Unberthing can be done during hours of darkness.

FRESH WATER: Fresh water can be supplied only by water barge.

DEVELOPMENTS: Deep water berth planned.

AUTHORITY: The Chairman, Kandla Port Trust, A.O. Building, P.O.Box No. 50, Gandhidham (Kachchh), India. *Tel:* 2001. *Telex:* 001-105-208. *Cables:* Portrust. *Contact:* Harbour Master.

VERAVAL: 20.54 N. 70.22 E.

DOCUMENTS:
Last Port Clearance.
Ship's Stores Manifest (3 copies).
Crew List (5 copies).
Private Property List of Crew (3 copies).
Same Bottom Cargo (3 copies).
Ship and Crew Currency List (3 copies).
Indian Coast Light Dues Receipt (if vessel arriving from Indian port).
Maritime Declaration of Health.
Customs Arrival Report.
Customs Declaration for arms, ammunition, etc.
Port Arrival Report.

PILOTAGE: Not required. Vessels anchor midstream.

ANCHORAGES: Veraval Light exhibited on coast near Political Residency (occ. 15 sec. 110 ft.). Known as New Lighthouse. Breakwater near harbour under 3 fathoms (5.5 m.). No perceptible tide streams in roadstead. During night/neap tide with low water ships suffer cargo feeding for about 5 hours, 4 to 5 days in month.

Anchorage depth 48 ft. to 60 ft. opposite Bhiria Temple. Good anchorage obtained with Veraval Lighthouse Bearing 317°, breakwater end. True Bearing 336.5°, Bhiria Beacon 27°.

However to avoid shifting after anchoring, for a working turn, new working anchorage zone has been suggested as hereunder. Only 3 ships can work at a time and others have to wait for a turn.

No.	*Point*	*Position Lat. Long.*	*Anchor-age No.*	*Depth approx.*	*Suggested for a vessel having draft up to*
(i)	A	20° 53′ 27″ North 70° 22′ 40″ East	1	11.50 m.	8.75 m. (28 ft. 00 in.)
(ii)	B	20° 53′ 20″ North 70° 22′ 20″ East	2	12.00 m.	9.25 m. (30 ft. 00 in.)
(iii)	C	20° 53′ 03″ North 70° 22′ 33″ East	3	12.80 m.	10.00 m. (32 ft. 00 in.)
(iv)	D	20° 53′ 14″ North 70° 22′ 48″ East	4	11.00 m	8.25 m. (26 ft. 00 in.)
(v)	E	20° 53′ 16″ North 70° 22′ 33″ East	5	13.00 m.	10.25 m. (33 ft. 00 in.)

Point No.	*Veraval Lighthouse*	*Bhiria Beacon*	*Somnath Temple*
A	311°	036.5°	101°
B	321°	048°	094.5°
C	321.5°	027°	083.5°
D	312.5°	015.5°	088°
E	317.5°	034.5°	092°

RESTRICTIONS: None, day or night anchorage possible.

MAX. SIZE: No restriction.

HEALTH: (a) Bill of Health is being granted by the Resident Medical Officer of the local Hospital.

(b) Free Pratique is granted by the Customs Boarding Officer, on presentation to him of "International Maritime Declaration of Health" by Master.

RADIO: Messages via Bombay Radio or Kandla Radio.

TUGS: 4 tugs, 1×340 h.p., 2×240 h.p. and 1×190 h.p.

VHF: No VHF.

BERTHING: No berths.

There are 4 lighter wharves for vessels working which can provide loading/unloading points, of which 4 have cranage facilities, crane capacity from 1.5 ton to 20 ton for heavy lifts.

Barges: There are 15 barges with 100 tons capacity each and one water/cargo barge with capacity 120 tons.

Storage Facilities:
4 transit godowns – 1,600 tons capacity.
4 platforms – 4,000 tons capacity.
53 storage godowns – 50,000 tons capacity.

STEVEDORING: Particulars of ETA and labour gangs required well in advance. Average loading/discharging:

Loading bagged cargo oilcake, etc.	225/250 tons per hook per day
Loading GN oil in drums	150/175 tons per hook per day
Discharging fertiliser (bagged)	150/200 tons per hook per day
General cargo loading/discharging	150/200 tons per hook per day

Working Hours: Port working hours: 0800 – 1200 hrs. and 1300 – 1700 hrs.

Vessel working hours: Vessels are allowed to work during recess hours and during nights which are 1200 – 1300 hrs. (recess), 1700 – 1800 hrs. (recess), 1800 – 2200 hrs. (night – 1st half), 2300 – 0300 hrs. (night – 2nd half) and 0300 – 0800 hrs. (recess).

MEDICAL: Qualified doctors and hospital facilities.

TANKERS: No tanker berths.

FRESH WATER: Water is required to be obtained from private well and is transported by port tank truck and being supplied by water barge or by tug to vessel on payment of transportation charges from private well to shore and from shore to anchorage excluding cost of water.

FUEL: None available.

GANGWAY/DECK WATCHMEN: Not necessary unless required. Can be arranged through Agents.

OPENING/CLOSING HATCHES: Carried out by stevedores. Ships' derricks worked by crew.

CERTIFICATES:

Safety Equipment Certificate.
Load Line Certificate.
Safety Radio-Telegraphy Certificate.
Derat Certificate.
Ship's Registration Certificate.

CONSULS: None.

REPAIRS: Port is equipped with workshop and dry dock for minor repairs to tugs and barges. Minor repairs are carried out in town.

REPATRIATION: Can be arranged.

AIRPORT: Nearest airport Keshod, 30 miles from Veraval, but motor transport not easily available and advance arrangements have to be made.

TIME: Local Time GMT plus 5.5 hours.

HOLIDAYS: On which work not allowed for loading/discharging: Indian Republic Day, Holi (Second Day), Ramnavami, Mohurram (Ashura or 10th day), Gokulashtami, Dussera Diwali (New Year's Day), Ramzan-Id (Id-ul-Fitr).

POLICE/AMBULANCE/FIRE: Police 3; Ambulance 5; Fire 5.

TELEPHONES: No arrangements for placing telephones on board the ship.

SHORE LEAVE: Crews permitted ashore with permission from Customs and Port Authorities. While coming ashore and returning to ship crew should pass through Customs.

DELAYS: 3 ships can work and fourth vessel if for lifting frozen fish can work during night hours only. Fourth vessel other than frozen fish cargo wait in turn.

GENERAL: Closed for traffic between 15th May to 15th September every year due to monsoon season.

Charts: Plans of Kathinwar – Gulf of Kutch to Vijaydurg 2736. Plans of Veraval Port Roads No. 1321 and 2054.

DEVELOPMENTS: Veraval is being developed as an all weather fishery harbour working under the World Bank Project. There will be extensive facilities available at the Port. The existing breakwater is being extended by about 334 m. and another would be erected in opposite direction for about 3,200 ft. A minimum depth of water in the inner breakwater would be 17 ft. 6 in.

AUTHORITY: Office of the Port Officer, Veraval, Junagadh District, Pin. 362265. *Tel:* No. 1 (office). 256 (residence). *Contact:* Port Officer.

VISAKHAPATNAM: 17.41 N. 83.18 E. (See Plan)

PORT LIMITS: 3 nautical miles East of and parallel to 10 fathoms line of soundings may be taken as the seaward boundary of the port within which a vessel is considered to be an "arrived vessel".

DOCUMENTS:

12 copies of Crew List.
3 copies of Store List.
3 copies of Private Property List.
3 copies of Currency Declaration.
3 copies of watch lists, giving details of make and value, etc.

The vessel must possess following valid certificates:

Ship's Register.
Load Line Certificate.
Safety Equipment Certificate.
Safety Construction Certificate.
Safety Radio Telegraphy and Telephony Certificates.
Cargo Gear Test Certificate.
Safety and Survey Certificate.
Derat Certificate.
Last Port Clearance.

Also see "Shipmaster's Report" – June 1988.

PILOTAGE: Vessels generally anchor at roadstead where Pilots board. Signal station contacts all vessels arriving and advises all information about Pilot's arrival, etc. A minimum notice of 48 hours of vessel's ETA required. Pilot ladder to be rigged on the Starboard side.

ANCHORAGE: Anchorage position to be marked with Dolphin's Nose Lighthouse bearing 270° (T) at a distance of 1.5 nautical miles.

RESTRICTIONS: *Inner Harbour:* The Inner Harbour is open to ships of 193.55 m. LOA, 9.14 m. draft and 30.48 m. beam at all stages of tide and ships of 193.55 m. LOA with a max. draft of 10.05 m. on a minimum rising tide of 0.91 m. for arrival and draft of 10.21 m. for sailing. Vessels of LOA 175.26 m. and above with draft of 9.14 m. and above can enter during daylight hours only. There are no restrictions on account of night navigation for sailing of vessels from Inner Harbour.

Outer Harbour: Vessels with 270 m. LOA, 42 m. beam, 15.3 m. draft, can sail from the Outer Harbour "OB–1" and "OB–2" berths at all times. The draft for ships entering the Outer Harbour in loaded condition is 14.3 m. No tidal restrictions. The max. permissible draft at oil mooring is 14.3 m., and LOA 260 m.

Vessels of 60,000 d.w.t. and above can enter during daylight hours only. There are no restrictions on account of night navigation for sailing of vessels from ore berths No.'s I and II.

Mooring and unmooring of vessels at Oil Mooring is restricted to daylight hours only.

MAX. SIZE:

Inner Harbour:	
Max. permissible LOA	193.55 m.
Max. permissible breadth	30.48 m.
Max. permissible draft	10.21 m.
Outer Harbour:	
Max. permissible LOA	270 m.
Max. permissible breadth	42 m.
Max. permissible draft	15.3 m.

PRATIQUE: A separate radio Free Pratique message addressed "Quarantine Visakhapatnam" must be transmitted by all vessels arriving from foreign port not less than 4 hours and not more than 12 hours prior ETA.

On information furnished therein Port Health Officer grants Free Pratique. Pilot boarding the ship for bringing her into the harbour has superseding power to cancel radio Free Pratique already granted. However based on information contained in Maritime Declaration Pilot also grants Free Pratique. In case of doubt or in case of inspection, if necessary, Quarantine Officer boards ship for granting clearance. No necessity for vessel to obtain Free Pratique when the vessel arrives directly from another Indian Port.

RADIO: Radio station call sign VWV. Working round clock. Range about 600 miles during daytime and 1,000 miles during night. Better to use Madras Radio Station for all communications in respect of vessels arriving from Madras side. Vessels arriving from Calcutta side, use Calcutta Radio Station. Generally Visakhapatnam Radio station is used for vessels anchored at roadstead. VHF Channel 16.

TUGS: Tugs are available. For ships entering the port, the tugs wait in the lee of the breakwater. Ship's lines and/or tug's lines are used, depending upon the mode of making fast.

BERTHING: The Inner Harbour has 15 berths of which 11 are quay berths, 3 jetty berths and 1 mooring berth, while in the Outer Harbour, there are 2 ore berths and an oil mooring berth. No specific requirements of arrival times for berthing.

CONTAINER HANDLING FACILITIES: Container handling facilities are provided at Visakhapatnam Port.

These facilities include:

Priority berthing;
An earmarked regular quay berth with a draft of 10.06 m. and LOA 168 m.;
50,000 sq. m. open storage space;
3,000 sq. m. of covered storage area;
A 150 tonne floating crane with two 150 tonne flat top pontoons for overside operations;
A 50 tonne gantry crane in the container park;
Two 50 tonne crawler mounted mobile cranes;
Four 25 ton mobile cranes;
Fleet of forklift trucks with extended forks up to a capacity of 8 tons and Truck-trailer units.

CRANES: The Port has 6×10 tonne cranes, 6×6 tonne and 18×3 tonne quay cranes, one 30 tonne stationary electric crane and 1×150 tonne self-propelled floating crane in addition to various mobile equipment such as mobile cranes, forklifts, tractors and trailers and front end loaders.

BULK CARGO FACILITIES: Iron ore is loaded through a mechanical ore handling plant having a rated capacity of 8,000 tonnes per hour into ore carriers of 100,000 d.w.t., at the finger type ore jetty (OB-1, OB-2) in the Outer Harbour.

Fertiliser raw materials (i.e.) rock phosphate and sulphur on account of Coromandal Fertilisers are handled at the fertiliser berth in the bulk form by means of grabs and conveyors into a silo.

Grabs are also used for unloading fertilisers and other bulk cargoes at the Port.

SPECIALISED CARGO HANDLING FACILITIES:

Inner Harbour: *Fertiliser berth:* For the import of fertiliser raw materials vis. sulphur and rock phosphate by grab unloading on to a conveyor belt.

OR-1 and OR-2 Berths: For the handling of P.O.L.

EQ-1 and EQ-2 Berths: For the export of Manganese ore and other ores by semi-mechanical means. Portable flat belt conveyor system for handling bag cargoes.

Use of grabs for unloading bulk cargoes. Poclain Hydraulic excavator and front end loaders for handling bulk cargoes.

Outer Harbour: *OB-1 and OB-2 Berths:* For loading iron ore through a mechanical ore handling plant at a rated capacity of 8,000 tonnes per hour.

STEVEDORES: Agents must give proper notice of vessel's arrival to the stevedores not less than 48 hours to make necessary arrangements for working vessel and also to order sufficient gangs, etc.

MEDICAL: All crew and officers must possess individual international vaccination certificates against cholera before leaving this port for any foreign port. Cholera inoculation facilities available with 24 hours notice. Well-equipped hospital facilities available round the clock.

TANKERS: There are 2 berths in the Inner Harbour for discharging and loading oil. The max. permissible draft at these berths is 10.06 m. at HW. In the Outer Harbour, an oil mooring berth is available to accommodate tankers of up to 100,000 d.w.t. with a draft of not exceeding 14.3 m.

DENSITY: Fluctuates from day to day between 1020 and 1023.

FRESH WATER: Normal quantities available and delivery made by Port Trust both from shore and barges.
FUEL: Indian Oil Corporation and Hindustan Petroleum Corporation supply on request either through pipe-line in some cases or by barges in other cases.
FIRE PRECAUTIONS: Fire precautions are to be observed in the port area. The Port has fire fighting equipment consisting of a fire float capable of combating fires afloat as well as ashore and 3 shore fire fighting units.
GANGWAY/DECK WATCHMEN: Necessary according to demands of local labour unions.
OPENING/CLOSING HATCHES: Stevedores.
CONSULS: None.
CUSTOMS ALLOWANCES: Tobacco: 200 cigarettes per head per week. Wine and/or spirit: Asian Crew 2/5 units per 3 days. Non-Asian crew 4/5 units per 3 days. Bottle of liquor equals unit.
CARGO GEAR: Valid cargo gear test certificate must be on board all vessels using ships' gear for loading or discharging.
IDENTIFICATION CARDS: Not needed if have valid Seaman's Books.
CONSULS: None.
REPAIRS: All types of deck and engine repairs possible.
DRY DOCKS: The Port has a dry dock which is 137.2 m. long and 18.4 m. wide for port craft and small ships. It has a depth of 5.6 m. below the low water.

Hindustan Shipyard Limited's services available generally for major ship repairs. It has a dry dock which is 244 m. long and 38 m. wide. It can take in ships of 70,000 d.w.t.
REPATRIATION: Facilities exist to foreign countries via Madras, Calcutta or Bombay. About 3 days delay to obtain travel permit.
AIRPORT: Distance 14 km. Regular daily flights to Calcutta and Hyderabad by Indian Airlines Corporation.
SURVEYORS: Available.
TIME: Indian Standard Time GMT plus 5.5 hours.
HOLIDAYS: Port's closed holidays are: Pongal, Kanumu, Republic Day, Kotha-Amavasya, Vijayadasimi, Independence Day, Gandhi's Birthday and Nagulachaviti, when work not possible even on payment of overtime.
POLICE/AMBULANCE/FIRE: Police Station 62140; Fire Station 64841 – Ext 239; Ambulance 64841 – Ext 213 (Port Hospital), Ext 275 (Ambulance).
TELEPHONES: Arrangements exist for placing telephone on board.
SERVICES: Tank cleaning facilities available.
SHORE LEAVE: Crew members allowed ashore after receiving immigration permits.
DEVELOPMENTS: A Fishing Harbour was constructed in a 24 hectare area as a by-product of the Outer Harbour. The first stage of the Fishing Harbour provides accommodation to 15 trawlers and 150 mechanised boats. The second stage of the Fishing Harbour can accommodate 56 trawlers and 300 mechanised boats.

A slipway facilitating 6 trawlers or 12 boats at a time for repairs is also constructed at the Fishing Harbour.

Construction of an oil berth to accommodate tankers of 150,000 d.w.t. in the Outer Harbour, provision of facilities for handling of import of coal, provision of facilities for export of Alumina and import of caustic soda, construction of a general/bulk cargo berth in the Outer Harbour to accommodate 60,000 d.w.t. vessels, construction of 2 warehouses of a total capacity of 30,000 tonnes, provision of third wagon tippler for the iron ore handling complex, addition of tugs and other floating craft and cranes and other cargo handling equipment are some of the principal developments.

SHIPMASTER'S REPORT: September 1983.
Documents: On boarding, Pilot hands Master Arrival Report (in duplicate) with 24 questions to be completed and handed back to Pilot before passing Dutch Battery. The questions relate to the vessel, certificates, cargo and voyage just undertaken and it is quite a lengthy document. Recommend copy should be obtained at previous port to have all completed for arrival.

For security reasons, all cameras must be collected prior to arrival and kept in the safe custody of the Master. Pilot gives Master a Declaration to sign that no photographs will be taken of the Port Area on arrival, whilst berthed, or on departure.

The Indian Authorities are presently having meetings to come up with a single Arrival Form for vessels, to end the present duplication of information between Port Authorities, Customs, Immigration, etc.
Pilotage: On departure, Agents make tentative booking of Pilot with Port Trust, vessel then to hoist International Code Flag 'G' 1 hour before departure.
Radio: Visakhapatnam Radio/VWV workable about 1 day out.
Health: Send Free Pratique message stating no persons embarked at Aden or Djibouti and that there are no monkeys on board. Pilot initially grants Pratique with stamp in Deck Log Book.
Tugs: Four tugs of 32 ton bollard pull available; for deeply laden large vessels passing into Inner Harbour, 2 are required, 1 made fast right ahead, the other made fast starboard shoulder. They are necessary for vessels to negotiate the bends in the Cutting. Tugs join in the Outer Harbour and there is little time to make them fast. Therefore, Pilot asks for Aft Mooring Gang to make one of these tugs fast, as they are not required aft until vessel is in the Turning Basin.
Medical: It is recommended that personnel have Cholera and Typhoid inoculations before arrival. Stocks of these vaccinations are not usually held locally unless there is an outbreak of the disease.
Density: Varies from 1018 to 1023 depending on season and recent rainfall.
Fresh Water: Delivered by barge, hoist International Code Flags 'Y' over 'J' 2 days before required.
Repairs: Below average standard of metal work/welding. Very little assistance and spares available in electronic area.
Opening/Closing Hatches: Automatic/hydraulic type are operated by ship's crew.
Surveyors: Lloyd's (exclusive), ABS, GL, NKK, Korean Register, Int. Cargo Gear Bureau NY (non-exclusive), also Nautical Inspector for Governments of Liberia, The Bahamas and Republic of Panama.
Telephones: No shore telephone was placed on board.
Services: Very few services available.
Shore Leave: Immigration permits/shore passes to be carried at all times, issued for limited period initially.

Indian currency in notes of greater value than Rs 10/- (about US$1) not permitted inside Dock Area.
Security: Local Watchmen not particularly effective and pilfering is rife. Make the accommodation block secure with only one controlled entry/exit. Keep a strict watch over any items which cannot be removed/secured.

SHIPMASTER'S REPORT: November 1984.
We presented Crew List (See Note 1), Passenger List, Stores List (Form 3), a Bonded Stores List (See Note 4), Drugs List (Morphine, etc.), Arms and Ammunitions List, comprehensive Customs List Form IV (See Notes 2, 3, and 5 below), Hidden Cavities Declaration List and Vaccination List.

Note 1: The Crew Lists must show passport or discharge book numbers. Not interested in dates of birth. The Immigration Officials issue passes for all on board who wish to go ashore (or just a few blanks, if only 4 or 5 people want to go ashore). These must be returned to Agent before sailing.

Note 2: Endeavour to obtain correct forms prior departing for first Indian port. A complete set of 4 is required for all subsequent Indian ports visited. Ensure that *all* paper money is declared, whatever the amount. (Undeclared currency, cigarettes, gifts, etc. confiscated). Rummage squads are thorough. Also ensure that the term "Dress materials and personal effects" is entered in Column 12 with other listed items.

Note 3: Currency – it is a fine-carrying offence to take high denomination notes ie. Rupees 20, 50, 100 and above, out of the country. Agents usually supply cash in 10 Rupee notes** or less.

Note 4: It is advisable to carry minimum sufficient bonded and slop chest items.

Note 5: Ensure that vessel sails with "travelling copy" handed to Master prior sailing first port for second port and so on for multi-Indian-port calls.

** Where foreign currency is changed ashore, a proper 'encashment certificate' with serial number must be obtained and details of passport given at time of exchange. The jetty duty Customs Official must be informed on return to ship and a supplementary currency declaration form C.B.R. CUS419 filled out showing amount exchanged and new balance of foreign currency in your possession. Both forms must be retained by exchanging person.

Also on arrival, the Health Officials carry out a "Marpol" inspection. There are many arrival and departure forms to be completed, including comprehensive pilot information forms. Have some detailed prior arrival to complete same as they are time consuming. Obtain blank sets if trading regularly.

Marpol Inspection:

Government of India
Port Health Organisation
Visakhapatnam

Sanitary Inspection of the Ship under Rule 83(i) of the Indian Port Health Rules, 1955.

Date of inspection:	Nationality:	
Name of the ship:	No. of crew:	/Passengers:
1. Yellow Fever Vaccination Certificate	Valid/Not Valid	
2. Derat/Exemption Certificate	Date:	Place:
3. Medical Chest Inspection	Date:	Place:
4. Rat guards affixed	Yes/No	
5. Probable date of departure	Date:	Place:
6. Anybody sick/hospitalised	Yes/No	
7. Nature of sickness	Fever/Skin Rash/Diarrhoea	
8. Any Provisions taken or likely to be taken from this Port	Yes/No	
9. Date of last cleaning of Water Tank	Date:	
10. Last Ports of Call within 30 days		
1. Date:	4.	Date:
2. Date:	5.	Date:
3. Date:	6.	Date:
11. General Sanitation:		
Pantry	Stores	
Galley	Crew Accommodation	
Linen Room	Lavatories and bath	
Sick Bay		

Vermin: Mosquitoes/House Fly/Rodents/Cockroaches
Garbage Disposal: On high seas:
Shore Disposal:
Sullage/Sewage and liquid waste disposal (S.W. system)

Holding Tank:	Size: Numbers:
Treatment Plant (make and capacity):	
Final disposal of Sewage	High seas/On shore disposal
Liquid Wastes/Oily Bilge	
Dirty Ballast Water	C.B.T./S.B.T. disposal
Mode of disposal	High seas/On shore
Oil Water Separators (details):	
Potable Water (F.W. system) (Fresh Water)	Date: Quantity: Chlorination on board done/not done
Fresh Water Generator (Desalinisation Plant):	Make: Capacity:
End Point Chlorination:	Results:
Temperatures:	Freeze room: Dish washing water:
Remarks:	
	Signature of the Master:

Health Officer
Visakhapatnam.

Regulations: The taking of photographs in the harbour is not permitted. The placing of all cameras in the bond is advised, or a written notice posted.

SHIPMASTER'S REPORT: June 1988.

The Dock Safety Authorities inspect the certificates of each wire rope belonging to the ship's gear, regardless of the validity of the four yearly and one yearly Cargo Gear Inspection Certificates.

The above demand is valid at all Indian ports and if the certificates are not available on board, severe delays may arise with loading and discharging operations.

We also experienced very strict customs regulations. Using US Customs Form 1301 for Ship's Stores Declaration, we had declared all listed items and ship's radios, tape recorders, T.V., video and adding machines.

We did not declare the ship's 4 washing machines and one of them was seized as it was still in its original packing and had not yet been installed in place of the damaged machine. After three days, we managed to obtain release of the machine.

In the past, sextants, binoculars, stop watches, etc., have been seized when they have not been declared.

AUTHORITY: Visakhapatnam Port Trust, Visakhapatnam 530035. Andhra Pradesh, India. *Tel:* 4841. *Telex:* 0495/235. *Cables:* Portrust. *Contact:* Harbour Master.

NOTES

Please also advise Shipping Guides Ltd.

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Indonesia

GENERAL – TANKERS

INTRODUCTION:

Situation:

The Republic of Indonesia comprises the islands of:

Sumatra : including Riau, Bangka, Belitung, Nias, Mentawai, etc.
Java and Madura
Kalimantan (Borneo) : including Tarakan, Bunyu, Laut, etc.
Sulawesi : including Kabaena, Muna, Buton, Peleng, Banggai, etc.
Maluku : consisting of Halmahera, Bacan, etc.
Bali
West Nusatenggara : consisting of Lombok, Sumbawa, Tanimbar, Buru, Seram, Kai, Aru, Babar, Wetar, etc.
East Nusatenggara : consisting of Sumba, Flores, Solor, Alor, Timor, etc.
Timor Timur
Irian Jaya : including Waigeo, Misool, Salawati, Biak, etc.

Laws:

The Laws of Republic of Indonesia are in force and all personnel, for their own protection, are urged to abide by them.

Languages:

The main language is Indonesian and the second language is English.

Territorial Waters:

The breadth of the sea claimed as territorial waters is 12 miles. Indonesia also claims sovereignty over all waters within the archipelago. Fishing jurisdiction is claimed to extend 200 miles from the base line.

Authority:

All harbours in Indonesia are under supervision of responsibility of the Government, i.e. Directorate General of Sea Communication, and to a great extent established as commercial harbours. Pertamina operate the dedicated oil and gas harbours/terminals on behalf of the Directorate General of Sea Communication under the Mutual Agreement Letter between the Director General of Sea Communication and the President Director of Pertamina.

Currency:

The monetary unit is the Rupiah (Rp) which is divided into 100 sens. Notes are issued in denominations from Rp.100.- to Rp.10,000.- and there are coins of 5, 10, 25, 50 and 100 Rupiahs.

Sailing Directions:

Refer to the "Eastern Archipelago Pilot Book".

Tidal Streams and Current:

The tidal streams and current can be found in "Tidal Stream Tables". These are published annually by the Indonesian Naval Hydro-Oceanographic Office (Jawatan Hidro-oceanografi Angkatan Laut Indonesia), Jl. Gunung Sahari No. 87, Jakarta, Indonesia.

Port Charges:

Company charges and Government charges such as service charges, light and harbour dues, agency fees, also berthing fees, pilotage fees, towage fees, etc., on application and are standard throughout Indonesian harbours.

Advance Payment:

The tanker Owner or Charterer must comply with the "Procedure for Appointing Agent". Pertamina Directorate for Shipping and Telecommunication will acknowledge receipt of cable appointment, and will request an advance deposit, depending on the size of vessel, to cover the Port Charges, not including Corporate Tax. In addition a sum of US$5,000 to US$10,000 is to be paid as advance payment for freight tax.

Advance payment should be made payable to:

"Pertamina Agency",
Account No. 11.51.006.000.0005,
Bank Negara Indonesia 1946, Cabang Gambir,
Jl. Kebon Sirih No. 77A,
Jakarta, Indonesia.

To facilitate handling preparation, Owners/Charterers are required to telex "Pertamina Directorate for Shipping and Telecommunication" advising Telegram Transfer (T.T.) Number, the name of vessel and the port(s) of call.

In those instances where payment exceeds the actual port charges, the balance will be credited to the Owners/Charterers account or remitted by the Agent.

Neither the Agent nor the Company will be responsible for demurrage or other charges resulting from failure to pre-arrange obligations in this manner. All cash advances required by crew and vessel at arriving port(s) such as ready cash for Master, expenses for repairs, provisions and repatriation will be covered by advance deposit of Owners/Charterers. These advance deposits are the pre-requisite for handling a vessel and should be forwarded to "Pertamina Agency" Account No. 31174, Bank Exim, Jl. Enggano No. 100, Tanjung Priok, Jakarta, Indonesia.

Safety and Fire Regulations:

Safety and Fire Regulations will be strictly adhered to. The Notice "Instructions in Case of Fire" and the Notice "Safety and Fire Regulations" must be posted in prominent positions onboard the vessel by the Master, or by his designated alternate.

Safety Check List:

The purpose of Safety Check List is to emphasise the safety requirements necessary to protect both ship and shore and the personnel involved in cargo operations during the time when the vessel is alongside the waterfront.

To assist all personnel in understanding the total requirement for each item in the Check List, extracts have been taken from the ISGOTT (International Safety Guide for Oil Tankers and Terminals) and the "Safety Guide for Terminal Handling Ships Carrying Liquefied Gases in Bulk" issued by OCIMF. It should be understood that before cargo operations commence, this Safety Check List is jointly checked by ship and shore/terminal personnel. It will nevertheless be necessary to carry out "follow-up inspections" during the vessel's stay alongside. This action is essential to ensure that acceptable safety standards are being maintained.

Prevention of Pollution of the Sea:

Owners, Masters, Agents and the operators of harbours/terminals are responsible to observe International Convention Laws of Indonesian Government Regulations concerning pollution of sea waters.

It is not permitted to pump dirty ballast into the water.

No oil or mixture containing oil shall be discharged into Indonesian waters from any vessel.

No refuse, garbage, waste matter, carcasses, substance of dangerous or obnoxious nature or trade effluent is to be discharged from any vessel into Indonesian waters.

Any fines imposed by governmental authority for pollution shall be for the vessel's account.

Removal of Wrecks:

Should any vessel or craft sink, or become an obstruction in any part of the Port, or approaches or the area of the submarine pipeline thereto, the Company shall be empowered and shall have the right to take steps it may deem necessary to remove the obstruction, without notice to the owners. All expenses of such removal shall be borne by the Owners of the vessel or craft, causing the obstruction, and the Company shall be entitled to reimbursement by them for any such expenses which it may incur.

General Holidays:

New Year's Day
Nyepi Saka Day
Good Friday
Ascension Day of Prophet Muhammad S.A.W.
Buddhist New Year (Waisak)
Ascension Day of Jesus Christ
Idul Fitri
Idul Adha
Independence Day (August 17th)
Islamic New Year (1 Muharram)
Birthday of the Prophet Muhammad S.A.W. (Isra'Mi'raj)
Christmas Day

APPOINTMENT OF AGENT:

General Agent:

Pertamina Direktorat Perkapalan dan Telekomunikasi
(Pertamina Directorate for Shipping and Telecommunication),
Jalan Yos Sudarso 32-34, Tanjung Priok,
Jakarta Utara, Indonesia.

Attention : Biro Operasi Tanker – Sub Dit. PKP,
Jl. Merdeka Timur No. 1A,
Pertamina Building, 19th Floor,
Jakarta Pusat, Indonesia.

Mailing address : P.O. Box 327.
Cable address : Pertaminaship – Jakarta.
Telex number : 44450 – 45348.
Telephone number : 343806 – 343781.
Facsimile : 343781.

Procedure for Appointing Agent:

Owners should appoint "Pertaminaship – Jakarta" as General Agent by cable or telex 2 weeks prior to attending the vessel at the oil harbour/terminal, (hereinafter referred to as "Shipping Company").

The Agent/Shipping Company will notify the Port Authorities one week prior to vessel's arrival.

Details of Cable/Telex:

The following information should also be given in the cable or telex to obtain Agency Permit for Flag Dispensation from the Directorate General of Sea Communication.

- Name and address of owners.
- Name of vessel and radio call sign.
- Flag.
- Port of Registry.
- DWT, GRT, NRT, LOA of vessel.
- Name of Master.
- Number of Crew.
- Last Port of Call and ETD.
- Quantity and grade to be loaded/discharged.
- Consignee.
- Estimated Time of Arrival (ETA in local standard time).
- Destination(s) after loading/discharging.
- Indonesian Ports of Call.

ARRIVAL PROCEDURE:

Flag Dispensation/Agency Permit:

Each foreign vessel entering Indonesian Ports must have requested and been granted Flag Dispensation/Security Clearance prior to its arrival.

General Agency Certificate:

The General Agency Certificate (Surat Keagenan Umum/S.K.U.) is a document issued by the Directorate General of Sea Communication stating that a certain authorised company in Indonesia has been appointed as the Ship's Agent (as a guarantor) and therefore this document is essential.

Health and Medical:

Vessels destined for an Indonesian port must send application for Provisional Free Pratique to the Quarantine Section, Department of Health, Jakarta, well in advance.

Vessels arriving at an Indonesian port without prior advice must first call at a first class Port of Entry for obtaining Free Pratique. The first class ports are: Belawan (Medan), Tanjung Priok (Jakarta), Tanjung Perak (Surabaya) and Ujung Pandang (Makasar).

Port Health Clearance is issued after vessel's arrival and is also valid for Departure Clearance. If Provisional Pratique is not granted a Port Health Officer will be provided.

Flags and Signals:

In accordance with practice in Indonesian Ports, by day, the Indonesian and the vessel's national flags must be flown as long as the vessel stays in port.

Display of Quarantine, Pilot, Immigration, Call Sign flags and other signals according to the International Code Signal Agreement on approach to the port must be maintained until Pratique is granted.

These signals are as follows:

Quarantine	Flag "Q" (sunrise to sunset). Signal lights red over white (sunset to sunrise). It is to be substituted by flag "QL/QQ" when the Port Health Officer has declared infected or suspected with a quarantinable disease.
Pilot	: Flag "G". It is to be substituted by flag "H" when the Pilot/Mooring Master boards your vessel.
Immigration:	: Flag "N" should be flown until the Immigration Officer boards your vessel.
Call Sign	: To be flown until berthed and again when sailing.
During loading/ discharging	: During loading/discharging of oil, flag "B" must be displayed (at night, red signal light).

Notice of Readiness:

A tanker will be considered as "arrived" and Notice of Readiness will be accepted provided she is in all respects ready to commence loading/discharging.

Viz:

(a) from the time the Pilot/Mooring Master has boarded the vessel, or
(b) from the time of anchoring, when the vessel has anchored in the designated anchorage and has advised the oil harbour/terminal of the time of anchoring, or
(c) from the time a tanker within the anchorage area, awaiting the Pilot/Mooring Master's arrival, is required "not" to anchor.

Documentation:

Two days before arrival of vessel the ship's agent has to inform Port Authorities by completing appropriate forms. Copies of completed forms must also be submitted to the Port Administration, Harbour Master, Customs, Immigration and Port Health Service for preparation of services.

The Pilot/Mooring Master may berth the vessel on request of the ship's agent only after obtaining clearance from the above Port Officials.

Health Documents:

Maritime Declaration of Health Certificate.
Deratting or Exemption Certificate.
Vaccination Certificates (Cholera).
Health Book or Bill of Health.

Ship's Documents:

If arriving from a foreign port, the following documents may be required for granting Pratique. These documents are:

Certificate of Nationality.
Certificate of Measurement.
Certificate of Registry.
Certificate of Appliances (Cargo Gear Certificate).
Load Line Certificate.
Safety Equipment Certificate.
Ship's Construction Certificate.
Safety Radio/Telegraph Certificate.
Approved Letter of Compliance (International).
Oil Record Book and Certificate of Fitness (in case of gas and chemical carriers).

Harbour Master:

The ship's documents are then delivered to the Harbour Master with the following documents attached: Last Port Clearance, Crew List approved by the Immigration Officer and Light Dues Receipt if arriving from another Indonesian port. The Harbour Master submits a Harbour Report Form for the Master to complete.

The Harbour Master issues a Port Clearance at departure, provided clearance is also granted by the other governmental authorities. A Panamanian Port Clearance for Panamanian Flag vessels is not required at oil harbours/terminals.

Immigration:

The Immigration Officer requires copies of the Crew List and Passenger List (if any) and will check the Ship's Articles and the Passports of the crew.

Each crew member should be in possession of a Passport and Seaman's Book. Crew members having no Passport are required to carry a Seaman Identification Card (S.I.C.).

A re-entry permit from the country concerned is sufficient, if there is no Passport available.

Customs:

Vessels loading/discharging cargo have to get a Customs Permit. Copies of Bill of Lading, Cargo Manifest, Ship's Stores List, Personal Effects List and Crew List should be delivered to Customs and Port Administration.

It is most important that the lists concerning personal effects, stores and crew are completed with great care as the Port Authorities are liable to carry out a detailed check and any discrepancies can lead to heavy fines.

After the vessel is all secure, the Customs Officer will seal the stores. If arriving from a foreign Port, the Agent will prepare the General Cargo Declaration Form stating the cargo onboard the tanker and attaching appropriate Shipping Documents. If arriving from an Indonesian Port, the Form 5-B issued at the last Indonesian Port will be retained by the Customs and the Arrival Clearance is granted.

Ship's bonded stores will be sealed by the Customs Officials on arrival and will remain sealed until the vessel leaves Indonesian waters.

1. Ship's Stores:

Cigarettes, cigars, tobacco, matches, spirits, wine, beer, perfume, firearms, ammunition and possibly some other items have to be locked up under Customs Seal from time of arrival of vessel in Port until time of leaving territorial waters. Each person is allowed to bring in 200 cigarettes or the equivalent in grams of tobacco or cigars ashore without paying import duty. Special allowances are made for the Master under special circumstances.

2. Contraband:

The attention of Masters is called to the strict enforcement of Indonesian Regulations against smuggling and trading. Illegal possession of such items as narcotics, liquor, ammunition and similar weapons or other articles of contraband is subject to severe penalty and may result in prolonged delay of the vessel concerned if action is taken by the authorities. All precautions must be taken to prevent the violation of contraband laws. Masters are requested to inform the Ship's Officers and crews of the foregoing regulations pertaining to contraband, shore liberty, etc., and to be assured that all personnel completely understand.

COMMUNICATIONS:

Advice of Arrival:

It is important that all incoming tankers advise the oil harbour/terminal 72 hours and 48 hours before estimated time of arrival, giving the best estimate of ship's arrival at the oil harbour/terminal via cable and or telex. Changes in ETA must be notified thereafter.

Further ETA messages should be sent to the oil harbour/terminal when the tanker is 24 hours and 6 hours distant from the oil harbour/terminal and any other time, if any appreciable change occurs in the original ETA or those subsequent thereto.

Communication for Contacting Agent:

1. Tankers approaching the oil harbour/terminal should make initial contact on VHF Channel 16.

Masters are recommended to use this system on coming within radio range of Port Control, particularly when approaching the port, as if poor visibility exists the tanker's approach may not be observed. Attention to VHF communications may be the means of avoiding delay in berthing.

During berthing, the ship's radio will be under the sole control of the Master, and the terminal radios will be under the sole control of the Terminal Superintendent or his assistant.

Masters are reminded that if tankers are requested to anchor to await berthing, it is their responsibility to maintain constant listening watch on VHF Channel 16 to receive Terminal instructions. Any delay due to failure to maintain a constant listening watch on Channel 16 will be for the ship's account, and will not be included in Lay Time calculation.

For subsequent inter-ship communications within the oil harbour/terminal a "walkie-talkie" UHF Radio on Frequency 157.725 MHz will be used by the Pilot/Mooring Master. This frequency will not be used for general purposes, unless clearance is obtained by the oil harbour/terminal. This is required for safety reasons.

Should all radios on the tanker become inoperative, the emergency signal, i.e. continuous blasts on the ship's whistle will be sounded to notify the oil harbour/terminal of the radio failures. Upon hearing this signal from a tanker, the terminal will immediately stop loading/discharging until communications have again been re-established.

2. In the event incoming tankers are not able to contact the oil harbour/terminal on the foregoing VHF/FM Frequencies, or by HF/SSB, Pertamina maintains coastal radio stations located in Jakarta.

Pertamina Jakarta Radio, Call Sign PKI-2, may be contacted on HF/SSB on the following frequencies and during the following service hours:

Frequency (kHz)	*Hours* (GMT)	*Keep Watching* (kHz)
452	H24	500
8626	0200-0400/1000-1200 0500-0600/1400-1600 0700-0800/1700-2000	8363.2-8364.8 8372.8-8373.6
12980	0100-0200/1200-1400 0400-0500/1600-1700 0800-1000/2000-2200	12544.8-12547.2 12559.2-12560.4
4419.4	0500-0600/0800-0900	4125.0
4425.6	1600-1800/2200-2400	4131.2
6512.6	0000-0100/1200-1400 0300-0400/1800-2000 0600-0700	6206.2
8759.2	0100-0300/1100-1200 0400-0500/1500-1600 0700-0800	8235.3
VHF Channel 9, 16, 19	H24	Channel 16

Details of Cables:

The following information should be included in the cable:

Name of vessel and Radio Call Sign.
Cargo requirements.
Quantity of ballast loaded on passage/arrival.
Quantity of segregated/dirty ballast on arrival.
Draft on arrival (forward and aft).
Last Port of call.
Flange dimensions of vessel's manifold connection, if not to ASA series 150 or equivalent.
Maximum loading rate and approximate topping-off rate.
If there is any sickness aboard, give whatever information is available as to the possible type of sickness.
Confirm that vessel has clean Bill of Health.

Any hull, bulkhead, valve or pipeline leaks on vessel which could affect loading/discharging or cause pollution.

Special conditions, difficulties, defective equipment or gear which could present special hazards or difficulties when mooring/unmooring or during operations.

Distance in feet/metres from the bow to vessel's loading manifold.

The following information should be included in the cable by LPG tankers:

Total cargo capacity in cubic metres.

Have any cargoes other than LPG been carried during last 3 loaded voyages.

Gauge pressure, top, bottom and mean temperatures of each cargo tank.

Maximum allowable relief valve settings for all cargo tanks.

Maximum Oxygen content by volume per cent of each inerted cargo system.

If tank purging required specify whether:

(a) Parallel or in Series.
(b) Liquid from shore direct to cargo tanks.
(c) Liquid from shore to deck tank to vaporisers to cargo tanks. State capacity of ship's vaporisers in tons of LPG per hour throughput.

If cooling down tanks is required, specify maximum cooling rate in terms of temperature reduction per hour and maximum temperature differential permitted between any 2 points in cargo tanks.

Available total capacity of ship's reliquefaction plant for each nominated cargo product.

Grade and quantities of any part cargoes or cargo residues and where loaded.

Are part cargoes to be commingled with refinery loadings.

Quantity of purge product required in addition to cargo requirements.

Type of ship's reliquefaction system, i.e. direct, cascade or other.

Capacity of ship's gas blowers to shore vapour return line in volume per hour at reference temperature.

For further information contact Pertamina Direktorat Perkapalan dan Telekomunikasi, 32-34 Jalan Yos Sudarso, Tanjung Priok, Jakarta, Indonesia. Attention: Biro Pelabuhan Sub Dit. PMK. Telephone: (Hunting lines): 494309 Ext. 217, 362, 363, 365. (Direct lines): 495402, 490323.

AMBON: 03.41 S. 128.10 E.

DOCUMENTS:

14 Passenger Lists.
7 Crew Lists.
2 Customs Documents.
2 Health Documents.
7 Cargo Manifests.
7 Bills of Lading.
5 Ship's Papers.
Sailing Permit.

PILOTAGE: Compulsory. Apply for pilot boat by calling Ambon Coast Station (Ambon Radio) or fly "G" Flag. Pilot boat located at Ambon Bay. Entrance in all seasons and weathers. All parts of Ambon Bay suitable for anchorage to await Pilot.

ANCHORAGE: 03° 40′ 04″ S. 128° 10′ 02″ E. or 03° 40′ 56″ S. 128° 10′ 48″ E. Areas of anchorage can take all sizes of vessel.

RESTRICTIONS: Open 24 hours. Tides do not affect entry. But when entering at night ship must anchor and await orders.

MAX. SIZE: Max. draft 11.0 m.

HEALTH: Port Health Officer boards vessel together with Pilot.

RADIO: Ambon Coast Radio, call sign PKE. Operating 24 hours. Frequencies 500–470 kHz, 8473 and 8472-8799 kHz and 13101 kHz. VHF all Channels used.

TUGS: Normally tugs do not join vessel but when necessary to use tugs call PT "Dock Waijame".

BERTHING: Joos Soedarso Pier: length 187 m., breadth 35 m., depth 12 m. Wainitu Pier: length 100 m., breadth 20 m., depth 8 m. Halong Navy Pier: Length 153 m., depth 11.0 m.

CRANES: Mobile cranes, capacity 5 tons – 40 tons.

STEVEDORES: Agent arranges. 3 stevedore companies: PT. "Gotong Rojong", PT. "Mastra" and PN. "Varuna Tirta Prakarsa".

MEDICAL: Hospital facilities available. No advance notice required.

TANKERS: Berth at Wainitu Pier. Type of pipe, 6 in. and 8 in. Discharging capacity, 125 t.p.h.

FRESH WATER: Available only at Joos Soedarso Pier. Loaded by pipe-line with 25 t.p.h. capacity.

FUEL: Only diesel and marine fuel.

GANGWAY/DECK WATCHMEN: Deck watchmen needed, particularly for tankers.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: Cannot be held out of bond.

IDENTIFICATION CARDS: Needed by Immigration (landing permit).

CONSULS: No consuls available locally.

REPAIRS: Deck and engine repairs available. Floating dock, lifting capacity for 2,000 d.w.t.

REPATRIATION: Possible. Dealt with by Immigration through Jakarta.

AIRPORT: Distance from airport about 7 miles. Regular airline "Garuda Indonesian Airways" (GIA). 4 flights per week from Ambon to Jakarta.

TIME: Local time GMT plus 10 hours.

HOLIDAYS: Port open for 24 hours even in holidays.

POLICE/AMBULANCE/FIRE: Police and Port Health at Port. But when necessary to use fire brigade call by connecting to "Burgomaster".

SHORE LEAVE: All crew members allowed ashore with permission of Immigration.

DEVELOPMENTS: Plans for future developments dependent on Government expenditure.

AUTHORITY: Ambon Port Administration.

ARDJUNA: 05.54 S. 107.44 E. (See Plan)

LOCATION: Ardjuna Marine Terminal is an open, unsheltered mooring in the Java Sea, about 18.5 miles from the nearest point on the North Coast of Java.

The Terminal is approximately North 72° East distant 59 nautical miles from Jakarta.

There are 5 standard type single buoy moorings and 1 rigid arm single buoy mooring situated as follows:

1. A chartered crude oil storage tanker SBM (Buoy No. 1).
   Lat. 5° 54′ 15″ S., Long. 107° 44′ 22″ E.
2. Crude oil export SBM for tankers loading from "Arco Ardjuna" or chartered crude oil storage tanker (Buoy No. 2).
   Lat. 5° 53′ 19″ S., Long. 107° 45′ 18″ E.
3. Crude oil Storage Barge "Cempaku Nusantara" SBM (Buoy No. 3).
   Lat. 5° 54′ 10.6″ S., Long. 107° 43′ 45″ E.
4. Crude oil export SBM for loading from "Arco Ardjuna" or chartered crude oil storage tanker (Buoy No. 4).
   Lat. 5° 53′ 29″ S., Long. 107° 43′ 20″ E.
5. Liquefied Petroleum Gas Storage Barge "Ardjuna Sakti" rigid-arm type SBM. (Buoy No. 5).
   Lat. 5° 53′ 10″ S., Long. 107° 44′ 13″ E.
6. Butane SBM for butane export tankers (Buoy No. 6).
   Lat. 5° 52′ 19″ S., Long. 107° 45′ 18″ E.

THE FOLLOWING ITEMS ARE OF PARTICULAR IMPORTANCE:

1. No dirty ballast.
   Tankers with dirty ballast will be rejected and will have to tender a new Notice of Readiness upon second arrival.
2. No shore leave.
3. No crew changes.
   If emergency conditions prevail, for humanitarian reasons, exceptions to the foregoing may be permitted. All expenses incurred will be for ship's account.
4. No stores available.
5. No clinic is available.
6. The laws of Indonesia govern this Terminal and all personnel are urged to abide by them.
7. During daylight hours the Indonesian flag must be flown throughout the vessel's stay in port.
8. Ardjuna time is GMT plus 7 hours throughout the year.
9. No bunkers are available.
10. Pertamina Directorate of Shipping and Telecommunications Jakarta, handles all Agency matters for tankers.
11. The Unit of Currency is the Indonesian Rupiah.
    The rate of exchange varies from time to time. The Master can obtain the current exchange rate from the Agent.
12. There are no Consulates available at Ardjuna Marine Terminal. However, there are many Embassies and Consulates represented in Jakarta 59 nautical miles S.W. of the Terminal.
13. Language of the port is English and Indonesian.
14. Only authorised personnel or visitors are permitted on the Storage Barges and/or Export Tanker.
15. No fresh water is available.
16. No slop tanks are available.
17. The Crude Oil testing laboratory is equipped to perform the following tests:
    API Gravity, B.S. & W., Pour Point and R.V.P.
    Any additional tests that may be required will be performed in Jakarta.
18. For convenience, mail for personnel on incoming tankers may be sent to the Jakarta Office of THE COMPANY for delivery to the tanker when it arrives at Ardjuna Marine Terminal. Except on an emergency basis, spare parts or other material will not be accepted for delivery to incoming tankers.

DOCUMENTS:

8 copies Crew List.
8 copies Passenger List.
3 copies Ships Stores List.
3 copies Crew Personal Effects List.
Last Port Clearance.
Health Declaration.
Ship's Certificates.

The Harbour Master submits a Harbour Report Form for the Master to complete.

The Agent prepares the ship's documents check list form to check the validity of each document. These documents are: Certificate of Registry, Ship's Construction Certificate, Load Line Certificate, Life Safety Equipment Certificate, Safety Radio/Telephone/Telegraph Certificate; Cargo Gear Certificate; Derat Certificate or Exemption Certificate. This list is then delivered to the Harbour Master with the following documents attached: Last Port Clearance, Crew List approved by the Immigration Officer and light dues receipt if arriving from another Indonesian port. The Harbour Master issues a port clearance at departure provided clearance is also granted by the other governmental authorities. A Panamanian port clearance for Panamanian flag vessels is not required at Ardjuna.

The Immigration Officer requires 2 copies of the Crew List and will check the Ship's Articles and the passports of the crew. When these documents are found to be in order, an arrival clearance will be marked on the Crew List.

If arriving from another Indonesian port the Agent will sign a guarantee if the vessel cannot prove that light dues have been paid.

Cargo Documentation: Documents such as Bills of Lading, Quality Certificate, Quantity Certificate, Dry Certificate, Ullage Certificate, Time Loading Report, Certificate of Origin, Cargo Manifest and Master's Receipt for Documents/Samples are prepared at Ardjuna Marine Terminal. When the tanker has been loaded, the documents shall be completed and be taken aboard the tanker for the Master's signature.

Signing of these Documents by the Master will take place at the same time final departure clearance formalities are being carried out.

Notes of Protest, if any, should be handed to the Mooring Master for further delivery to Atlantic Richfield Indonesia Inc., Jakarta. Please note that the Mooring Master will acknowledge receipt of the Note of Protest only and is not authorized to accept such letters.

Departure Procedure:

Prior to the vessel's departure, the Immigration Official requires 6 copies of the Crew List to be marked for *"Departure Immigration Clearance"*, and duly signed, it will be distributed as follows:

Master of the vessel	1 copy
Harbour Master	1 copy
Customs	1 copy
Pertamina Agent	1 copy
Immigration	2 copies
Total	6 copies

The Customs Official on duty will issue the Customs 5-B Form which serves as Customs Departure Clearance.

Upon presentation of the Crew List which is signed and marked for Departure Immigration Clearance and Customs Clearance, the Harbour Master will issue the *Port Clearance*.

Final Clearance formalities will be carried out aboard the tanker, either at the Export SBM or alongside the storage barge "Ardjuna Sakti" or in the Anchorage Area, as circumstances dictate.

Before leaving the Terminal Area, the Master should advise the Terminal, the vessel's ETA at destination through the Mooring Master.

PILOTAGE: Under normal conditions, if a tanker is scheduled to berth upon arrival, the Mooring Master will board such tanker in the vicinity of the mooring area.

Tankers waiting to load shall wait their turn in the recommended anchorage area, and shall maintain radio-telephone contact with the Terminal using the International Marine Calling & Safety Channel 16 for Terminal instructions.

The Mooring Master will act on behalf of the company to sign acknowledgement of tankers' Notice of Readiness. Such notice will not be accepted for a time earlier than:

(a) the Master has received the Mooring Master onboard or

(b) the tanker shall have dropped anchor within the recommended anchorage area, and has advised the Terminal the time of anchoring.

Exception to (a) and (b) will be if the tanker is within the anchorage area awaiting arrival of the Mooring Master and has been requested by the Terminal not to anchor.

In this case N.O.R. will be accepted from the time the Terminal requested the ship not to anchor.

The company reserves the right to decline to berth a specific tanker if its condition or facilities are unsafe for berthing or loading, even though the berth may be open to other tankers.

The decision of the Atlantic Richfield Indonesia Terminal Superintendent or his designated alternate to berth or not to berth a vessel shall be final.

ANCHORAGE: For tankers requested to anchor, the recommended anchorage area is an area Northwestward from the Single Buoy Moorings enclosed by a line drawn through the following positions.

"A"	Lat. 5° 52′ 36″ S.,	Long. 107° 41′ 36″ E.
"B"	Lat. 5° 50′ 57″ S.,	Long. 107° 40′ 57″ E.
"C"	Lat. 5° 50′ 06″ S.,	Long. 107° 42′ 40″ E.
"D"	Lat. 5° 51′ 24″ S.,	Long. 107° 43′ 19.5″ E.

Prior to their arrival Masters of tankers should contact the Terminal for instructions concerning anchorage positions.

Under no circumstances should the export tanker enter the Restricted Area around the structures without a Mooring Master aboard.

The attention of Masters is drawn to the existence of underwater pipelines in the Restricted Area (see "Plan").

NAVIGATION AIDS:

Approaches: Approach information can be obtained by radio from the terminal. Under normal weather conditions, if a tanker is scheduled to berth upon arrival, the Mooring Master will board such tanker in the close vicinity of the mooring area.

In addition to the single buoy mooring points for export tankers and the storage barges, various oil wells and production structures are located in the immediate vicinity and the areas extending East, South and Westerly from the storage barges which constitute a hazard to navigation for mariners.

SBMs, storage barges and structures within Ardjuna Marine Terminal area display the following visual characteristics:

Export Single Buoy Moorings (Buoy No. 2, No. 4 and No. 6): A white light flashing every second, visibility 5 miles, mounted on the rotating deck of each SBM. Buoy No. 4 and No. 6 are fitted with radar reflectors.

Storage Barges "Cempaka Nusantara" and "Ardjuna Sakti" and Chartered Vessel: By day, the black ball as required by the Regulations for Preventing Collisions at Sea. The 2 storage barges at night display the lights for tankers at anchor as required by the Regulations for Preventing Collisions at Sea and are equipped with automatic fog signals at the bow and at the stern.

Each barge has a bell forward as required by the Collision Regulations and gong aft, under the same rules. When visibility is restricted the Fog Signals are continuously sounded. The SBM to which the "Cempaka Nusantara" is moored, is fitted with a radar reflector and a white light flashing every second visibility 5 miles. The chartered storage tanker SBM (SBM No. 1) shows a white light flashing every second visibility 5 miles.

The SBM to which "Ardjuna Sakti" is moored, shows a white light flashing alternately for a 3-second period and a 1-second period every 12 seconds, visibility 5 miles.

Crude Oil Production Platforms and Natural Gas Liquids Processing Facilities: There are 5 crude oil production platforms, 16 well platforms, 1 junction platform, 1 natural gas processing facility platform and 1 quarters platform for the natural gas facility within the Ardjuna Marine Terminal area.

"B" (Bravo) Flow Station, situated approximately 0.5 nautical miles South of the "Cempaka Nusantara" Barge. Indicated as BB.

"E" (Echo) Flow Station, situated 12 nautical miles Eastward of Bravo. Indicated as platform EA.

"K" (Kilo) Flow Station, located 8 nautical miles S.S.W. of Bravo. Indicated as platform KA.

"L" (Lima) Flow Station, situated 15 nautical miles West of Bravo. Indicated as platform LA.

"U" (Uniform) Flow Station, located 13 nautical miles S.S.E. of Bravo. Indicated as platform UB.

"M" (Mike) Flow Station, located 33 nautical miles West of Bravo. Indicated as platform MX.

"F" (Foxtrot) Flow Station, located 28 nautical miles E.S.E. of Bravo. Indicated as platform FC.

"NGL" The natural gas facility and quarters platforms are joined by a bridge. Their position is:

Lat. 5° 54′ 36″ S., Long. 107° 44′ 01″ E.

In addition to the above specified obstructions and navigational aids, all platforms display interrupted quick flashing white lights. The storage barges, flow stations, LNG facility and quarters platforms will brightly illuminate the areas around them at night through the use of lights for normal working purposes.

MAX. SIZE: SBMs No. 2 and No. 4 up to 100,000 d.w.t. and 200,000 d.w.t. respectively (for crude oil). Max. draft 30.20 m.

SBM No. 6 up to 50,000 d.w.t. (for butane liquids). Depth of water approximately 135 ft. below mean sea level.

RADIO: *Advice of Arrival by Cable or Telex:* It is important that incoming tankers advise Ardjuna Marine Terminal 72 hours and 48 hours before estimated time of arrival, giving the best estimate of ship's arrival at the Terminal, via:

Cable address: ARDJAK, Terminal Section, Jakarta

Telex number: 011 – 47390, Jakarta.

Time to be used for ETA is "GOLF" Time Zone of GMT plus 7 hours throughout the year.

The first message should also include the following information:

1. Name of tanker and Radio Call Sign.
2. Cargo requirements.
3. De-ballast time. (Note: If a separate/permanent ballast system is fitted on board, ability of ship to load crude oil and discharge ballast simultaneously must be stated.)
4. Maximum loading rate.
5. Arrival draft, forward and aft.
6. Last Port of Call.
7. Confirm that vessel has clean Bill of Health.
8. If there is any sickness aboard, give whatever information is available as to the possible type of sickness.
9. If cholera inoculation required. If so, number required.
10. Distance in feet from the bow to tanker's loading manifold.

Further ETA messages should be sent to Ardjuna Marine Terminal via above cable address and Telex Number when the tanker is 24 hours and 12 hours distant from the Terminal and any other time, if any appreciable change occurs in the original ETA or those subsequent thereto.

RADIO COMMUNICATIONS:

(1) VHF/FM Radio Telephone: (International Marine Calling & Safety Channel 16, Freq. 156.800 MHz).

Masters are recommended to use this system when they arrive within radio range of the Ardjuna Marine Terminal, particularly when approaching the port. If poor visibility exists the tanker's approach may not be observed. Attention to VHF communications may be the means of avoiding delay in berthing.

During berthing the ship's radio will be under the sole control of the Master, and the storage barge radios will be under the sole control of the Terminal Marine Superintendent or his assistant.

Masters are reminded that if tankers are requested to anchor to await berthing, it is their responsibility to maintain constant listening watch on VHF Channel 16 to receive Terminal instructions.

Any delay due to failure to maintain a constant listening watch on Channel 16 will be for the ship's account, and will not be included in Lay Time calculation.

The Ardjuna Marine Terminal is equipped with VHF/FM Radio Telephone Sets and continuous watch is maintained on Channel 16 (Freq. 156.800 MHz) and Frequency 157.725 MHz.

Tankers approaching the Terminal should make initial contact on Channel 16. For subsequent inter-ship communications within the Terminal a "Handie Talkie" UHF Radio Freq. 157.725 MHz will be used by the Mooring Master.

This frequency will not be used for general purpose, unless clearance is obtained by the Terminal. This is required for safety reasons.

Should all radios on the tanker become inoperative, the emergency signal i.e. continuous blasts on the ship's whistle will be sounded to notify the Terminal of the radio failures. Upon hearing this signal from a loading tanker the storage barges will immediately stop loading to the Export Tanker until communications have again been established.

(2) High Frequency Single Side Band Radio Telephone: A voice message from incoming tankers may be relayed by HF/SSB. Atlantic Richfield Indonesia Inc., located in Jakarta, Indonesia, is inter-connected to the Ardjuna Marine Terminal via local communications system and maintain a continuous watch on HF Frequency 7320 kHz (Upper Side Band A3J Mode, 100 Watts, Vertical Whip Antenna, Call Sign 8GJ9).

(3) Pertamina Control Radio Stations – HF/SSB: In the event incoming tankers are not able to contact the Ardjuna Marine Terminal on the foregoing VHF/FM Frequencies, or by HF/SSB, Pertamina maintains coastal radio stations located in Jakarta and Merak.

Pertamina Jakarta Radio, Call Sign PKI 2 may be contacted on HF/SSB per following frequencies and during the following service hours:

Frequency/kHz	*Hours/GMT*	*Keep Watch/kHz*
452	0000–2400	500
8626	0200–0400, 0500–0600, 0700–0800, 1000–1200, 1400–1500, 1700–2000,	8363.2–8364.8
12980	0000–0200, 0400–0500, 0800–1000, 1200–1400, 1600–1700, 2000–2200,	12544.8–12547.2 12559.2–12560.4
4419.4 4425.6	0100–0400, 0700–0900, 1000–1100, 1300–1500, 1800–2000	4125.0 & 4131.2
6512.6 6521.9	0000–0100, 0300–0400, 0600–0700, 1200–1400, 1800–2000	6215.5 & 6202.2
8759.2	0100–0300, 0400–0500, 0700–0800, 1100–1200, 1500–1600	
VHF Ch. 9/16/19	0000–2400	Channel 16

Pertamina Merak Radio, Call Sign PKQ may be contacted on HF/SSB per following frequencies and during the following service hours:

Frequency/kHz	*Hours/GMT*	*Keep Watch/kHz*
452/500	0000–1600	500
8626	0100–0200, 0900–1000, 1500–1600	8363.2–8364.8 8372.8–8373.6
4419.4, 4425.6	0000–0100, 1200–1400	4125.0, 4131.2
6512.6, 6521.9	0200–0300, 0400–0500, 0800–0900,	6206.2, 6215.5
VHF Ch. 9/16/19	0000–2400	Channel 16

Masters should request the Pertamina Coastal Radio Station to relay the necessary information to Atlantic Richfield Indonesia Inc., Jakarta attention "Terminal Section" by telephone number: 737474 (18 lines) or by Pertamina Internal Telex System number 18 which is the designated number of Atlantic Richfield Indonesia Inc., Jakarta.

Also see "General" before first port.

HEALTH/IMMIGRATION/CUSTOMS: In accordance with practice in Indonesian ports, quarantine, immigration, pilot and call sign flags must be displayed by all vessels approaching Ardjuna. These signals shall be displayed continuously until clearance is granted. The signals are as follows: Sunrise to sunset: quarantine flag "Q". Sunset to sunrise: signal lights (red over white).

The "N" flag should be flown until the Immigration Officer boards the ship. The "G" flag (request for Pilot) should be flown until the Mooring Master boards. The vessel should also fly its call sign. As soon as the Mooring Master boards, the "G" flag should be replaced by the "H" flag which signifies that the Pilot is aboard. The tanker may fly the "P" flag if it is going to sail within 24 hours.

Indonesian Immigration, Customs and Harbour Master Officials will board the vessel after arrival to grant clearance.

Each tanker entering the port of Ardjuna must have requested and been granted Flag Dispensation prior to its arrival. At the same time, application is made for Provisional Pratique through the Directorate of Quarantine and, if granted, a cable advice is sent to the Harbour Authorities.

Port Health Clearance is issued prior to the tanker's arrival and is also valid for departure clearance.

If Provisional Pratique is not granted a Port Health Officer will be provided. All of the foregoing is arranged through and by the Agent.

Each Crew member should be in possession of an International Vaccination Card.

After the tanker is all secured, the Customs Officer will seal the stores. If arriving from a foreign port, the Agent will prepare the General Cargo Declaration Form stating the cargo onboard the tanker and attaching appropriate shipping documents. If the tanker is arriving from an Indonesian port, the 5-B Form issued at the last Indonesian port will be retained by Customs and the arrival clearance at Ardjuna is granted.

TUGS: There is 1 tug available to assist mooring/unmooring. When berthing at an SBM 1 mooring launch will be used to pass the line to the tanker.

The following mooring Launches will be available for running lines as required, also for transporting Government Officials, Agents and other authorised personnel to and from the export tanker.

Name and description	*Length*	*Rated HP*
(1) *Arco Ardjuna III*	40 ft.	260
(2) *Arco Ardjuna IV*	40 ft.	260
(3) *Arco Ardjuna V*	40 ft.	275

TERMINAL FACILITIES: For Crude Oil Tankers:

Export SBMs No. 2 and No. 4 are designed, during reasonable weather conditions, to handle tankers up to 100,000 d.w.t. and 200,000 d.w.t. respectively; each SBM is equipped with dual 160 ft./15 in. circumference floating braidline mooring ropes with 22 ft. long anti-chafe chains fitted, so arranged as to avoid chafe to the mooring ropes while tankers are at the buoy.

The crude oil loading hoses are connected to the ship's manifold on the port side of the Export Tanker. Tankers arriving are requested to have the derrick on the port side raised and rigged, ready to lift aboard the Terminal equipment.

Crude oil tankers are loaded through 2 strings of 16 in. I.D. floating hoses extending from the Export SBMs No. 2 and No. 4, connected to the tanker's port side manifold at the ends by means of the rail hoses of 12 in. I.D. All crude oil tankers not having 12 in. hose connection should provide their own reducers in such a way as not to cause any delay in the hose connecting operation. On SBMs No. 2 and No. 4 the length of the hose strings is 795 ft.

For crude oil tankers intending to load in the Ardjuna Marine Terminal, the distance from the bow to the loading manifold should not exceed 450 ft.

The minimum loading rate at the Ardjuna Marine Terminal for crude oil tankers is 15,000 bbls./p.h.. Any tanker arriving unable to receive crude oil at the above rate may be rejected. Tankers loading crude oil at the SBMs No. 2 and No. 4 can accomplish a maximum loading rate of approximately 30,000 bbls./p.h. and 35,000 bbls/p.h. respectively.

In order to save time as well as to make the berth available for others, it is requested that ships receive crude oil as fast as it can be delivered, with due regard for safety.

Masters are reminded that for safety reasons, it is advisable to have the ship half loaded as quickly as possible. Rate can be reduced for topping off tanks. When requested by the ship to stop, cessation of crude oil flow is almost immediate.

Storage Barge "Cempaka Nusantara": The company marine administrative offices, storage and laboratory for testing crude oil stock are located on board storage barge "Cempaka Nusantara".

Overall length of the barge is 467 ft. 10 in. Total crude oil capacity is 1,022,000 gross barrels, for the "Cempaka Nusantara" plus approximately 2,000,000 gross barrels for the chartered crude oil storage tanker.

Loading of crude oil from the storage barge to the tankers will be through A.O. Smith Positive Displacement Meters, of which there are four, each having a maximum capacity of 12,500 bbls./p.h.. "Cempaka Nusantara" barge is moored on the SBM No. 3, Lat. 5° 54′ 10.6″ S., Long. 107° 43′ 45″ E.

Chartered Crude Oil Storage Tanker: The storage tanker is located at mooring SBM No. 1, the position of which is Lat. 5° 54′ 15″ S., Long. 107° 44′ 22″ E.

Ardjuna crude oil is available from the above storage tanker, by transfer through the "Cempaka Nusantara" metering system.

Ardjuna Crude Specifications:

API gravity at 60° F	:	37.0 – 35.0
Reid Vapour Pressure	:	6.0 – 10.0 p.s.i.g.
Sulphur, % Wt.	:	0.06 – 0.10
Kinematic, Viscosity at 100°F	:	1.20 – 4.00 cST
Pour Point, °F	:	75+
Carbon Residue, % Wt.	:	0.50 – 1.45
B.S. & W, % Vol.	:	0.05 – 0.15
Flash (TCC), °F	:	Below 50

For LPG Refrigerated Vessels:

Storage Barge "Ardjuna Sakti":

1. The LPG storage facility is a prestressed concrete barge, measuring 461 ft. in length, 136 ft. in width and having a depth of 56.4 ft. The barge carries 12 tanks each of which has a capacity of 31,528 barrels giving a total of 378,336 barrels.
   An average pumping rate of 3,180 cu.m.p.h. (loading) can be achieved. The following operating rules have been adopted which shall apply to the lifting of products from the "Ardjuna Sakti".
2. Refrigerated LPG vessels *will not be considered ready for loading* at Ardjuna Marine Terminal *unless and until all LPG tanks contain LPG vapours and are cooled down sufficiently* to permit loading of products nominated.
3. Vessels receiving fully refrigerated products will only be acceptable for loading provided they are capable of receiving the products at their boiling points at 0.5-2.5 p.s.i.g. Such vessels must have a refrigeration system capable of liquefying all vapours coming from vessels tanks resulting from loading at an average rate of 3,180 cu.m.p.h., and including those vapours formed as a result of heat gained by the vessel's tanks.
4. The "Ardjuna Sakti" is equipped with a vapour compressor and condensing facilities for liquefying vapours, however, no liability of any kind whatsoever, to provide the compressor and or condensing facilities for vessels use is accepted.
5. Provided a vessel has the capabilities described in paragraph (3), at the sole discretion of the Terminal Superintendent or his designated representative, in the event the vessel has difficulties with her refrigeration system, the facilities available on the "Ardjuna Sakti" may be made available to assist the vessel, provided they are operational. There is *no obligation* implied or accepted to continue to assist the vessel with chill down, even if assistance is commenced. In the event that assistance is requested and is provided all charges and expenses incurred shall be paid for by the consignee. Such charges shall include any amount payable in demurrage for all the time that chill down operations causes the vessel to exceed the allowed laytime. The conditions set out in this paragraph (5) for assisting in chill down operations shall apply to purging operations.
6. Ardjuna Marine Terminal has no facilities for inerting arriving LPG tankers. It is imperative that arriving vessels do not arrive with tanks designated to receive product "in air". Vessels arriving to load LPG will not be accepted for loading product if the oxygen in the tanks exceeds 8.0 mole per cent.
7. Loading lines and vapour return lines at the Ardjuna Marine Terminal are fitted with quick release Camlock flanges which are 12 in. ASA 150. Arriving vessels must be able to connect to these flanges. The terminal will have a limited number of spool pieces and reducers available but will accept no obligation or liability to provide them. It is the vessel's responsibility to provide a connection suitable to connect with the Camlock flanges described above. Failure of the loading vessel to present the required 12 in. ASA 150 flange for connection will result in rejection of the vessel for loading and cancellation of her Notice of Readiness. All costs, charges and expenses incurred due to rejection will be for vessel's account.
   Should it be necessary to assist a ship with the use of the terminal ship vapour compressor a charge of US$250 will be made for each hour or part of an hour that the terminal ship vapour pressure is used by the ship.
8. Venting of product while the vessel is within the Ardjuna Marine Terminal is not allowed. Failure to comply with this requirement may result in delay or cessation of loading and all costs, expenses or losses due to loss of production caused by such failure to comply will be for the account of the buyer.

For Butane Tankers:

1. Vessels arriving in the Ardjuna Marine Terminal to load Butane Plus will be berthed at the SBM No. 6 which is designed, weather permitting, to handle tankers up to to 50,000 d.w.t.

2. Butane Plus tankers are loaded through a 722 ft. long string of 6 in. I.D. floating hose extending from the SBM and connected to the tanker's portside manifold. The floating hose is equipped with a 6 in. ANSI 150, quick release Camlock flange. Tankers not having a 6 in. manifold connection must provide their own reducer to permit the loading. Failure to carry out this obligation may result in rejection of the vessel for loading and nullification of her Notice of Readiness. All costs, charges and expenses incurred therefrom will be for the ship's account.

On arrival at the terminal area, butane tankers are required to have the port derrick ready to lift the equipment necessary for berthing and loading. The weight of the loading hose to be lifted is approximately 1,500 lbs.

3. The quantity of Butane Plus delivered will be determined by the metering system consisting of 2×3 in. A.O. Smith Positive Displacement Meters. These meters are located on the NGL Plant situated approximately 3 miles S.W. of the SBM No. 6.

4. An arriving Butane Plus tanker will not be accepted for loading product if:
   a. Oxygen in the tanks exceeds 8.0 mole per cent.
   b. Vessel is not adequately equipped with boil-off liquefaction unit capable of liquefying all vapours coming from vessels tanks resulting from loading at the maximum rate of 115 cu.m./hr.

There is no facility for inerting butane tankers on SBM No. 6, nor is there a ship's vapour return line facility.

Masters of vessels are strongly reminded to ensure that ship's vapour compressors are in good running condition.

Failure to observe such requirement may result in cessation of the loading and any delay so caused will be for the ship's account.

5. Butane Plus tankers intending to load at SBM No. 6 will not be accepted if the bow-to-manifold distance exceeds 400 ft.

6. During the extended loading period of the Butane Plus tanker at the SBM No. 6 it is the responsibility of the vessel to ensure that all mooring lines and loading hoses are properly tended.

The Terminal Mooring Masters may at any time request the ship's securing lines to be tightened or slacked under the direction of a responsible ship's officer. This may be necessary to avoid the ship overriding the buoy. Failure to comply with such a request may result in cessation of loading and all costs, expenses or losses due to loss of production caused by such failure to comply, will be for the account of the buyer. See also "Mooring/Unmooring".

7. Masters of butane tankers are advised that raising, lowering connecting and disconnecting of butane loading hoses as well as other labours and duties on shipboard connected with the loading of cargo or maintaining mooring lines in a correct manner will be performed BY THE SHIP'S CREW DIRECTED BY A RESPONSIBLE OFFICER as required by the Mooring Master. Loading of a butane tanker is through one string of 6 in. I.D. loading hose with 150 ASA flange rating. The weight of the hose is approximately 2.5 tons. All tankers loading butane at SBM No. 6 Ardjuna Terminal must be able to connect their manifolds to the 6 in. hose. Masters are strongly reminded, that it is the ship's responsibility to provide reducers to make the connection, if the ship's manifold is not 6 in.

8. Venting of product while the vessel is within the Ardjuna Marine Terminal is not allowed. Failure to comply with this requirement may result in delay or cessation of loading and all costs, expenses or losses due to loss of production caused by such failure to comply will be for the account of the buyer.

MOORING/LOADING/UNMOORING: The Ardjuna Marine Terminal will operate 24 hours a day, 7 days a week. Tankers will normally be berthed during daylight hours, weather and other circumstances permitting. In special circumstances at the sole discretion of the Company Terminal Superintendent night berthing may be allowed if all conditions are favourable. Unmooring will be carried out at any hour.

Tankers to be moored or manoeuvred at the Ardjuna Marine Terminal will be boarded by the Company Mooring Master within the anchorage area.

Under normal weather conditions if a tanker is scheduled to berth on arrival, the Mooring Master will board such vessel in the close vicinity of the mooring area.

All such manoeuvring of ships shall be done only in accordance with the advice of the Mooring Master, subject to the understanding that in all cases and circumstances the Master of the tanker being manoeuvred shall remain solely responsible on behalf of his vessel's owners for the safety and proper manoeuvring of his vessel.

The ship's Master, or one of his *designated and qualified deck officers, must* be on the navigating bridge at all times while the vessel is being manoeuvred.

The Mooring Master will report unsatisfactory conditions to the company Terminal Superintendent who may in turn, reject the tanker until corrections are fully made. All costs accruing therefrom will be for the vessel's account. The services of the Mooring Master are provided upon the express understanding and conditions that when any Mooring Master provided goes on board a vessel for the purpose of assisting such vessel, he becomes for such purpose the servant of the owners of the vessel and the company shall not be liable for any damage, or injury resulting from any advice, or assistance, or actions directed, or made, by such Mooring Master while on, or in the vicinity of the assisted vessel.

The tanker's cargo tanks are to be inspected by the Terminal Representative, and if suitable for loading crude oil, a signed notation to this effect will be made on the company Dry Certificate.

The Company Terminal Superintendent, or his designated alternate, shall be the sole authority to decide when the port is closed due to unsuitable weather conditions preventing normal working operations.

Various combinations of wind, sea, and tidal conditions also the size, length, ballasted trim, and handling qualities of a vessel can affect the decision to berth a vessel at Ardjuna Marine Terminal. All these factors have to be evaluated before a final berthing decision is made.

Delays to vessels using Ardjuna Marine Terminal due to the port being closed because of bad weather conditions shall not be computed as used lay time when compiling vessel's turn around time.

Request for the terminal to stop the flow of oil at a predetermined tonnage must be in writing. The request must include the statement by the ship's Master, that the company will not be held responsible for any error and that in case of the vessel being overloaded the excess cargo cannot be pumped back to the storage barge. The ship's Master will also be held responsible for any oil spills caused by this request.

The ship's Master is responsible to ensure that no communication by radio is allowed within the terminal area.

Unauthorised radio communications will be cause for cessation of all operations, except clearing of the berth, and the vessel's Notice of Readiness will be immediately nullified.

The Master of each tanker will be given a copy of the Conditions of Use of Port of Ardjuna Marine Terminal which he will be required to sign before the vessel proceeds to berth.

The vessel's personnel are responsible for the safety of the vessel and must take all necessary precautions, whether or not so advised by the Mooring Master, having in mind the hazards of the operation because of the products being handled, weather conditions and any other circumstances requiring special care or caution.

Ships are requested to have a pilot ladder safely and securely rigged, ready for immediate use, and long enough to reach the Mooring Master's launch.

A combination of pilot ladder and ship's accommodation ladder, so arranged that the personnel can first use the pilot ladder until part way up the vessel's side, and then transfer to the accommodation ladder is recommended, especially on very large tankers. A light line should be ready to take aboard the Mooring Master's equipment.

Tankers will provide a broad lee for the Mooring Master both when boarding and leaving the ship. Adequate explosion proof lighting at night must be provided near the pilot ladder, and manifold connection area. During loading overside lighting must be provided in the vicinity of sea valves and floating hoses.

During a tanker's stay at the Export SBM, emergency towing wires shall at all times be hung over the ship's stern on each quarter of the vessel. These wires shall be secured on the bollards inboard to enable the vessel to be towed away should the need arise. They must be tended throughout to keep the eye of the wire not more than 2 ft. above the water.

Before any crude is loaded all ship's scuppers on main decks must be plugged and cemented oil tight. Approved mechanical means of closing scuppers may be accepted.

It is absolutely essential that extremely careful supervision be exercised by officers of all tankers while loading operations are in progress. A responsible ship's officer is required to be on duty continuously while the tanker is being loaded. He will be assisted by an adequate number of ship's personnel in these operations.

It is the responsibility of the vessel to ensure that all mooring lines are properly tended on loading tankers. The Mooring Master at any time, may direct an additional ship's line to be secured to the buoy and this line to be hove up or slackened off under the supervision of a responsible ship's officer so as to prevent the vessel overriding the buoy. *At all times sufficient crew must be available* to carry out under the supervision of a responsible officer, instructions given by the Mooring Master.

Masters of loading tankers are advised that raising, lowering, connecting and disconnecting of oil loading hoses as well as other labours and duties on shipboard connected with the loading of cargo or maintaining mooring lines in a correct manner will be performed *by the ship's crew directed by a responsible officer* as required by the Mooring Master. Loading of crude oil tankers is through 2×12 in. I.D. hoses with 150 ASA flange rating. The weight of each hose is approximately 2.5 tons. All tankers loading crude oil at Ardjuna Marine Terminal must be able to connect their manifolds to the 12 in. hoses. Masters are strongly reminded, it is the ship's responsibility to provide reducers to make the connection, if the ship's manifold is not 12 in.

Preparations for mooring will be advised by the terminal through VHF communication prior to tanker's arrival or by the Mooring Master before the mooring operation commences.

Crude oil tankers are required to have ready:

1. On the portside: a derrick of at least 5 tons safe working load, rigged, and ready to pick up the mooring and hose connecting gear from the Mooring Master's launch.
   This derrick subsequently will be used for raising, connecting, disconnecting and lowering loading hoses and eventually to transfer the mooring and hose connecting gear back to the launch before the tanker sails.
2. On the forecastle: at least 6 good ship's mooring lines shall be required. Two of them will be used as messenger lines for bringing aboard both terminal mooring lines from the SBM.
   The 4 remaining ship's lines will be laid out 2 and 2 on either side of the foc'sle deck, eyes about 3.5 m distant from the fairleads as advised by the Mooring Master. When the terminal mooring lines have been hove up and anti-chafe chains have been hove about halfway inboard through the fairleads, the eyes of the ship's lines will be shackled onto the end links of the chain, so arranged that in the final position of mooring, the tanker is tied to the SBM using the terminal mooring lines/chains and made fast to the ship's bollards by means of the ship's own lines. This will be backed up by 2 lengths of wire strops each 30 ft. in length and 2 in. diameter. These wires will be provided by the terminal to be used as preventer wires. These 2 wire strops will not be used as the permanent mooring system.
   Their purpose is to hold the ship safely moored in the event one or more of the ship's lines part until the crew can replace such lines.

3. Tanker loading Butane Plus at SBM No. 6 will moor in the same manner as crude oil tankers referred to in para. 2 above.

Refrigerated LPG tankers will berth alongside the starboard side of the LPG storage barge "Ardjuna Sakti". The "Ardjuna Sakti" is secured to a rigid arm single buoy mooring system which allows the storage barge to rotate according to direction of wind and tide. There are 5 large Yokohama type rubber fenders aboard the storage barge 4 of which are supported on davits. The fenders are lowered to the water prior to the berthing operation. Each fender is 6.5 m. in length the diameter of the fenders is 3.3 m. Line running launches are available to pass the mooring lines between the barge and the ship.

When secured in position the moorings will be as follows:

5 lines on the forecastle.
4 lines on the poop.
2 springs on the maindeck forward leading aft.
2 springs on the maindeck aft leading forward.

Each LPG tanker loading at Ardjuna Marine Terminal will be required to provide the above ropes. Where tension winches are available they will only be used if they can be locked in a fixed position.

EQUIPMENT: A ship may be rejected if, upon inspection, it is not properly equipped, or if it is not suitably manned, or tanks unsuitable for the cargo, or if in the case of crude oil tankers the ballast is dirty.

A vessel is suitably manned if it has a full complement of qualified officers and a crew all of whom are in a sober condition, competent and willing to carry out their duties and orders.

A ship must be equipped with a good working propulsion unit as passed by the appropriate survey society. Inoperative ships or partly inoperative ships will be rejected. Should a ship become inoperative or partly inoperative while berthed alongside the storage barge "Ardjuna Sakti" or while secured to a crude oil export single buoy mooring, it will be removed at the ship's expense.

No repairs to main engines or other essential equipment or machinery while alongside the storage barge "Ardjuna Sakti" or while secured to an export SBM may be carried out, unless with the permission of the Terminal Superintendent or his designated alternate.

Crude oil and butane tankers must lift the export hoses from the water to connect with the ship's manifold by means of its *own derricks and using its own crew.*

A vessel must have both bow anchors in good working condition. Both bow anchors and anchor cable must be of a size and standard to meet either "Lloyds" or "A.B.S." requirements, even though they may in fact, be classified by other societies.

All vessels must have ready on deck suitable stoppers for manila, synthetic lines and wires used for mooring purposes.

All vessels must have suitable winches or capstans in good working order.

Such winches or capstans must have sufficient power to heave the ship to the position required by the Terminal Mooring Master. Tankers must have the capacity to heave on the 12 in. and 15 in. braid lines used to secure them to the export SBMs. Power supply to all deck machinery must be maintained throughout the period the ship is secured alongside the storage barge "Ardjuna Sakti" or to the export SBM. Failure to comply with this requirement will result in cessation of loading and delay, and expense so caused will be for the ship's account.

To assist in vessel's turn around, ships should have all necessary gear ready on arrival. Crude oil and butane tankers must have the cargo boom on the port side raised with the cargo gear rigged and ready before the ship is boarded by the Mooring Master.

Vessels which may consider the lifting capacity of their gear to be marginal should strengthen their gear accordingly. A common way to do so is to rig a second topping lift on the boom.

Masters of crude oil tankers are reminded that the hose connecting operation will normally be carried out while the ship is deballasting.

The cargo derrick required to raise the hose from the water, must have a sufficient length of strong lifting wire rope on the winch drum to enable the cargo hook to reach the water and still have adequate turns of wire left on the drum to ensure safety.

BALLAST: Owners and Masters are responsible for observance of International Convention Laws and Indonesia Government Regulations concerning pollution of the sea, having particular regard for this area of the Java Sea.

No facilities are available for disposal of dirty ballast. It is the responsibility of the ship's Master to see that no oil of any kind is pumped or spilled overboard from his ship.

The categories of pollution include oily water from bilges, crude residual from previous voyages, or any other matter that may result in pollution of the sea. Any fines imposed shall be for ship's account.

As soon as practical after arrival, all tankers will be inspected by an Ardjuna Marine Terminal Official for dirty ballast. During discharge of ballast, similar inspections will continue.

If evidence of oil appears at any of these inspections, the ship will be rejected, and will not be accepted again until satisfactory evidence is produced that such ballast was disposed of in a proper manner. If, during inspection, or during progress of loading, it is revealed that the ship's tanks are not tight, or that oil is leaking from the ship, the ship may be rejected or refused further loading.

If the ship's tanks are found to be leaking, it will not be accepted for loading unless satisfactory evidence of repair duly certified by Lloyd's or A.B.S. Surveyors, or other recognised Surveyors is submitted. It is the responsibility of the ship's Master to see that no oil of any kind is pumped or spilled overboard from his ship. Drip pans, sand, dispersant etc. should be used at all times especially when disconnecting hoses in order to avoid any spillage of oil overboard.

Any tanker rejected because of dirty ballast or sea pollution will automatically nullify his Notice of Readiness and will lose any priority of position for loading.

A tanker must have sufficient ballast for safe handling having due regard to existing weather and sea conditions. Through a careful watch of the weather and sea conditions, frequent exchange of information between ship and terminal, and by a knowledge of the behaviour of his own ship, a ship's Master may come to the terminal with a minimum safe ballast and thus lessen any possibility of infringement of sea pollution regulations.

In addition to the lights usually displayed, vessels in the moorings discharging ballast or loading cargo during darkness will brilliantly illuminate the sea around the ship, so that any pollution will be noticeable.

Tankers equipped with a separate system of ballast tanks will be allowed to discharge ballast, and load oil simultaneously, providing approval is first obtained from the company Terminal Superintendent or his alternate.

Most responsible ship owners have adopted a system of tank cleaning using circulatory methods of transfer of tank washings on shipboard and treating these washings with chemicals.

The result is that no oil is discharged into the sea and the oil separated is collected in a slop tank. With the written permission of lifting companies, the terminal will load on top of such slops. This system is highly recommended to avoid pollution of the Java Sea.

Masters are required to certify in writing the quantity of slops remaining on board (if any). If they intend to load crude oil on top of the slops, it must be clearly stated. The Mooring Master will confirm the amount stated in writing by ullaging and calculating the slops to ensure the amount declared is correct.

Provided agreement is reached on the amount of slops the Mooring Master will confirm the amount of slops on the Dry Certificate.

Note: Separate "Slop Certificate" signed by Chief Officer and witnessed by the Mooring Master is required to substantiate calculation.

Masters are warned that inspection of ballast is strict.

If, at any time an overflow of crude oil occurs, loading will be suspended immediately and not be resumed until the oil is cleaned up and removed from the decks of the vessel and/or from the surface of the sea, and any damage is repaired and no further danger exists. It is stressed that during loading operations, the Ardjuna Cargo Controller will immediately slow down the loading rate on receipt of a request for same from the ship's deck officer – in charge of loading.

All spillages of oil must be reported immediately to the Ardjuna Terminal Superintendent, or his alternate, and subsequently a detailed report in writing submitted by the Master of the vessel concerned giving all relevant details.

FRESH WATER: No fresh water is available.

FUEL: No bunkers are available.

MEDICAL: First aid is available.

CONSULS: There are no consulates available at Ardjuna Terminal. However, there are many embassies and consulates represented in Jakarta about 59 miles S.W. of the Terminal.

CUSTOMS ALLOWANCES: Cigarettes, cigars, tobacco, matches, spirits, wines, beers, perfume, arms, ammunition and possibly other items have to be locked up under Customs' seal from time of arrival of ship in port until time of leaving territorial waters. Each person is allowed to bring in 200 cigarettes or the equivalent in grams of tobacco or cigars.

Special allowances are made for the Master under special circumstances.

REPATRIATION: No crew changes. If emergency conditions prevail, for humanitarian reasons exceptions to the foregoing may be permitted. All expenses incurred will be for ship's account.

AIRPORT: Nearest airport at Jakarta.

TIME: Ardjuna time is GMT plus 7 hours throughout the year.

SHORE LEAVE: Not allowed.

SAFETY/FIRE REGULATIONS: Safety and Fire Regulations will be strictly adhered to.

The notice "Instructions In Case Of Fire", and the notice "Safety And Fire Regulations" must be posted in prominent positions on board the export tanker by the Master, or by his designated alternate.

The Safety Check List must be jointly completed by a ship's officer designated by the Master, together with the Terminal Marine Supervisor/Mooring Master. After completing and signing the Check List both the ship's officer and Marine Supervisor/Mooring Master will retain copies.

Terminal Safety and Fire Inspections: It is the duty of the Mooring Master to make periodical inspections on board vessels in respect of any breach of the Terminal Safety and Fire Regulations.

For this purpose he must be allowed free access to all parts of the vessel at all times and must be accompanied by a responsible ship's officer to assist him in carrying out such inspections. The Mooring Master will advise the ship's Master when he wishes to make a safety inspection. It is the responsibility of the ship's Master to ensure that the Mooring Master is given every assistance to carry out this duty.

AGENCY: See "General" before first port.

OPERATOR: Atlantic Richfield Indonesia Inc.

Principal Offices:

Pertamina Head Office: Jalan Medan Merdeka Timur No. 1A, Jakarta, Indonesia.

Atlantic Richfield Indonesia Inc.: Panin Bank Building, 7th Floor, Jalan Jenderal Soedirman, P.O.Box 63/JKT, Jakarta, Indonesia. Tel: 737474. Telex: 47390 Arco Ia, 44379 Arco Ia.

Atlantic Richfield International Oil and Gas Co., 444 South Flower Street, Los Angeles, California 90017, U.S.A.

Reading & Bates, Offshore Drilling Company, 3800, First Place, Tulsa, Oklahoma 74103.

Natomas International Corporation, Jalan Letjen. M.T. Haryono 58, PO Box 2759/JKT, Jakarta, Indonesia.

Independent Indonesian American Petroleum Company: Division of Natomas International Corporation, 601 California Street, San Francisco, California 94108.

Tidewater N.W. Java, Inc.: 1440 Canal Street, Suite 2100, New Orleans, La. 70112, U.S.A.

Warrior Minyak Inc.: 1776 Lincoln St., Suite 80, Denver, Colorado 80203, U.S.A.

Nominations: Tanker nominations for liftings of either Ardjuna Crude Oil or liquefied natural gas are co-ordinated through Atlantic Richfield Company, Los Angeles, California and Atlantic Richfield Indonesia Inc., Jakarta.

All crude oil and liquefied petroleum gas sales, also tanker chartering are arranged by the following parties in each of their respective locations. Pertamina, Atlantic Richfield Company, Reading and Bates International Petroleum Company, Natomas Company, Tide Water N.W. Java Inc. and Warrior Minyak Inc.

Tanker scheduling is co-ordinated for all of the partners through Atlantic Richfield Company, Los Angeles, California and arranged through Atlantic Richfield Indonesia Inc., Jakarta.

AUTHORITY: Chief Harbour Master/Port Captain – Tanjong Priok, No. 1. Jl. Syahbandar, Tanjong Priok. *Tel:* 021-494381. *Contact:* Captain Leo B. Siahaan, Harbour Master.

BALIKPAPAN: 01.16 S. 116.48 E.

DOCUMENTS: Upon arrival vessels have to produce the following Certificates and Documents, which will remain in the Harbour Master's custody until cleared:

- Nationality (Registry) Certificate.
- Seaworthiness Certificate.
- Measurement (Tonnage) Certificate.
- Derat (Exemption) Certificate.
- International Loading Line Certificate and SOLAS Classification (Hull and Machinery).
- Safety Construction Certificate.
- Safety Certificate (passengers ships).
- Safety Equipment Certificate (cargo ships).
- Safety Radio and Radiotelephony Certificate (cargo ships).
- Certificate of Approval (ship's radio station).
- Civil Liability Convention Certificate.
- International Oil Pollution Prevention Certificate.
- Health Book or Bill of Health.
- Last Port Clearance.
- 10 Crew Lists and Passenger's Lists.
- 2 Stores Lists.

PILOTAGE: Compulsory pilotage. Application for Pilots can be made via Balikpapan pilot station or Radio Station. Vessels arriving by night should anchor off the Outer Buoy and give their call sign to the Pilot Radio Station (VHF Channel 12). Pilot boards in position Lat. 01° 21′ 20″ S., Long. 116° 55′ 00″ E. Vessels should order a Pilot at least 6 hours prior to arrival and when leaving 3 hours before departure or if leaving between 0600 hrs. and 1200 hrs. Pilot should be ordered before 2000 hrs. on the preceding day.

APPROACH: The surrounding land is in general low with few conspicuous hill rows as background. Only the high spit on which Balikpapan is built can be used as a landmark with the regular cone-shaped hill Tokong.

RESTRICTIONS: Vessels with a draft over 11.5 m. only handled during daytime. Vessels with draft of less than 11.5 m. are handled at anytime, weather permitting.

Bar Channel: Length (Buoy No. 1 to Buoy No. 12) 9 miles. Width 150 m. Depth 13.0 m. at LW.

MAX. SIZE: *Tankers:* Shell normally permit max. LOA of 215 m., draft 12.0 m. and max. d.w.t. 35,000 tons. Drafts are restricted by the bar where the depth below chart datum is 25 ft. 3 in. Minimum keel clearance required is 1 ft. 3 in. Sailing drafts depending on rise of tide up to a max. of 33 ft. salt water.

HEALTH: Vessels arriving from abroad have to apply well in advance from the Department of Health (Quarantine Section) for provisional Free Pratique, as said Pratique has to be cabled to the port concerned. The provisional Free Pratique is only valid for the port concerned, the next port of call must be a First Class Port as no further provisional Free Pratique will be issued, unless the vessel sails directly abroad.

RADIO/VHF: Balikpapan Radio. Call sign "PKN-2" on 500, 448 and 8437 kHz. and VHF Channel 16.

TUGS: 3 tugs. 870 h.p., 1,700 h.p and 2,400 h.p.

BERTHING:

Jetty No. 0: Length 269 m. Width 21 m. Depth alongside 9.0 m.
Jetty No. 6: Length 185 m. Width 12 m. Depth alongside 12.0 m.
Jetty No. 7: Length 235 m. Width 28 m. Depth alongside 12.0 m.
Jetty No. 7A: Length 175 m. Width 15 m. Depth alongside 10.0 m.
Also see "Tankers".

CRANES: 4×15 tons-25 tons.

MEDICAL: Hospital facilities available.

TANKERS:

Berth	*Depth at L.W.S. (m.)*	*Max. Size L.O.A. (m.)*	*Max. Size D.W.T.*
Wharf No. 1	9.0	190	35,000
Wharf No. 2	12.0	190	35,000
Wharf No. 3	12.0	165	35,000
Jetty No. 4	12.0	190	35,000
Jetty No. 5	12.0	190	35,000
Jetty No. 5A (Inner)	5.0	110	5,000
Jetty No. 5B (Outer)	13.0	190	35,000
Jetty No. 5C (Outer)	12.6	190	35,000
Jetty No. 6/7	12.0-10.0	213	35,000
Jetty No. 7A	10.0	120	35,000

Storage Capacity: Tons unless stated.

Crude	27,000	IDO	4,900
Naphtha	14,800	HSD	12,870 k/l
Premium	8,100	MDF	6,045 k/l
Avtur	7,500	MFO	2,200 k/l
Kerosene	17,000	Slops	37,400 k/l
ADO	1,700	Fresh water	4,000

Loading Rates:

Crude	1,000 t.p.h.
LSRW	1,200 t.p.h.
HSD	400-800 t.p.h.
MDF	500 t.p.h.
MFO	250 t.p.h.
Avtur	300-500 t.p.h.
Kerosene	500-800 t.p.h.
Premium	300-500 t.p.h.
Naphtha	1,500 k/l.p.h.

Loading Arms: 8 in. – 10 in. diameter.
Hoses: 6 in. – 10 in. diameter.

STEVEDORES: Working hours: 0700 – 2000 hrs. Monday to Friday. 0700 – 1500 hrs. Saturdays. Sundays work possible at overtime rates.

DENSITY: 1012 – 1020.

FRESH WATER: Available in limited quantity. Rate 10 t.p.h. – 15 t.p.h.

FUEL: Fuel oil and diesel oil available at Berth No. 1 to No. 5C (except No. 5A). Pumping rate 150 t.p.h. – 650 t.p.h.

PORT SECURITY: Maintained by Port Security Unit (KPLP) and Police (KP.3). Crew members should be in possession of a shore-pass issued by the Port Authority, accompanied by an identification card when leaving or entering the guarded gates of the Port Area. Shore passes can be obtained via the Agencies.

CUSTOMS ALLOWANCES: Indonesian currency from vessels arriving from overseas must be inspected. Foreign currency may be taken ashore. It is recommended that Masters consult the Agents with the local prevailing Customs Laws with regard to currency, cigarettes, spirits, etc., to prevent unnecessary difficulties and eventually fines.

AIRPORT: Sepinggan Airport, distance 8 km.

GENERAL:

Provisions: Available.
Current: Flows North/South at up to 3 knots.
Nature of Bottom: Mud and sand.
Telephone Numbers:

Port Administration	22872
Harbour Master (Secretary)	22096
Pilot Station	21774
Perum Pelabuhan	22246
Port Health Office	21740
Manager Shipping and Telecommunication Pertamina	21953

AUTHORITY: Balikpapan Port Administration, Jl. Raya Pelabuhan No. 1, P.O.Box 35, Balikpapan, East Kalimantan, Indonesia. *Tel:* 22872. *Telex:* 37105. *Cables:* Adpel Balikpapan. *Contact:* Mr. A. Hamid Rai, Port Administrator.

BALONGAN: 06.21 S. 108.23 E.

PILOTAGE: The Mooring Master boards in the vicinity of the SBMs.

RESTRICTIONS: Berthing and unberthing in daylight hours only.

MAX. SIZE: 150,000 d.w.t. Max. LOA 290 m.
Also see "Berthing".

RADIO/VHF: Balongan Coastal Radio Station, call sign PKQ-2, on VHF.

BERTHING:

Location/Berth	*Position*	*Depth at LWS (m.)*	*Size Restriction Max. d.w.t.*	*Size Restriction Max. LOA (m.)*
Offshore				
SBM	Lat. 06°16′17.8″S. Long. 108°27′47.2″E.	22.0	150,000	290
CBM (4 MB System)	Lat. 06°18′58.7″S. Long. 108°24′26.8″E.	9.0	6,500	130
SBM	Lat. 06°17′19.0″S. Long. 108°25′20.0″E.	14.5	36,500	200
Inshore				
Jetty	Lat. 06°21′39.5″S. Long. 108°23′26.0″E.	4.0	600	55
Jetty	Lat. 06°21′35.7″S. Long. 108°23′23.6″E.	3.8	300 g.r.t.	60

Shore Storage Tanks:

Oil Products	Total Safe Capacity
Jatibarang Crude Oil	920,000 Bbls.
Arimbi Crude Oil	530,000 Bbls.
Premium	14,290 k/l.
LPG	3,000 cu.m.
Kerosene	40,075 k/l.
HSD	16,110 k/l.
IDO	21,075 k/l.
Slop Oil	1,000 k/l.

Loading/Discharging Rates:

		Average Rates		Hoses	
Berth	Cargo Handled	Loading (tons)	Discharging k/l.p.h.	No.	Size (in.)
Offshore					
SBM	Crude Oil	1,500	–	2	12
CBM (4 MB System)	IDO	–	75	1	8
SBM	Premium/ Kerosene	–	600	1	12
Inshore					
Jetty	LPG	–	70	2	4/6
Jetty	General Cargo	–	–	–	–

Vessels take hose on the port side at the offshore berths.

Vessels may berth either side alongside at the inshore berths.

MEDICAL: Hospital and clinic available.
FRESH WATER: Available.
CONSULS: None.
AIRPORT: Penggung Airport at Cirebon.
TIME: GMT plus 7 hours.
AGENCY: See "General" before first port.
AUTHORITY: *Operator:* Pertamina, Pertamina P&T UEP-111, Jl. Patra Raya, Klayan, P.O.Box 15, Cirebon, Indonesia. *Tel:* (0231) 4629, 5051, 5054. *Telex:* 44451 Pert-Crb.

BANJARMASIN: 03.18 S. 114.35 E.

PILOTAGE: Compulsory. Sea pilot boards the vessel in the anchorage area.
ANCHORAGE: Vessels anchor in position 03° 38.5′ S., 114° 30′ E.
RESTRICTIONS: The bar is silting excessively and continuous dredging is necessary to keep the shallowest part at 5.5 m. depth.

Vessels will proceed when the height of tide enables the vessel to pass through the channel. The channel is approximately 20 miles long and has a depth of 6.0 m. – 8.0 m.

RADIO: Banjarmasin Radio, call sign "PKG"
Frequencies: 456 kHz.
2,080 kHz.
8,457 kHz.

VHF: Banjarmasin Radio on VHF Channel 16.
TUGS: One mooring boat available to assist with berthing.
BERTHING: The inner harbour is located in position Lat. 03° 20′ S., Long. 114° 30′ E.

There is one quay with a length of 200 m. and the depth alongside is 8.0 m. at LWS.

Storage: There is a godown with an area of 7,500 sq.m. and open storage area of 11,500 sq.m.
CRANES: 1×25 ton mobile crane. 9 forklifts with capacity 2.5 tons – 7.5 tons.
MEDICAL: Medical and hospital facilities available.
STEVEDORES: Available from the labour pool (U.K.A.).
FRESH WATER: Fresh water is available alongside the quay.
FUEL: Not available.
REPAIRS: No repair facilities available.

BANYUWANGI: 08.13 S. 114.23 E.

OLD PORT NOW PRACTICALLY CLOSED FOR SHIPS.
(OPENED FOR BOATS AND FISHING BOATS ONLY).

DOCUMENTS: Customs and Harbour Master requires:
Crew List.
Passenger List.
Customs Documents.
Health Certificate.
Port Clearance.
Harbour Report.
Derat Certificate.
Radio Certificate.
Certificate of Registry.

PILOTAGE: Not necessary because anchorage open.
ANCHORAGE: Position: Lat. 8° 12′ S., Long. 114° 23′ 16″ E. Depth 25 m. – 30 m.
MAX. SIZE: No restrictions, vessels must be anchored outside harbour.
HEALTH: All vessels boarded by Harbour Quarantine on arrival.
RADIO: None, moved to Meneng Port.
TUGS: 2 tug boats belong to P.T. Jakarta Lloyd, Banyuwangi Branch.
BERTHING: Distance 500 m. to 750 m. from lighthouse. Anchorage berths only.
STEVEDORES: 6 gangs available. P.T. Jakarta Lloyd, Banyuwangi Branch. 1 gang consists of 13 labourers, 1 gang boss, 1 tallyman, 2 winch drivers and 1 commander.
MEDICAL: Arranged by Department of Health.
FRESH WATER: None available.
FUEL: None available.
GANGWAY/DECK WATCHMEN: None available from shore.
OPENING/CLOSING HATCHES: Arranged by stevedores.
CUSTOMS ALLOWANCES: 50 cigarettes each crew member. Packs or tins of tobacco must be open before going ashore. Wine and/or spirits: Enough for own use, if more required must pay import duties.
CARGO GEAR: Ship's gear used. Cargo loading on board by lighter.
IDENTIFICATION CARDS: Required.
CONSULS: No local representation.
REPAIRS: No facilities.
REPATRIATION: Not possible.
TIME: GMT plus 7 hours.
HOLIDAYS: On Sundays and holidays no work carried out, but if necessary, can be arranged. No work when raining.
POLICE/FIRE/AMBULANCE: Police and ambulance available. Fire brigades belong to District and Paper Mill. Phone Nos. 352, 653, 353 and 503.
TELEPHONES: No facilities for placing telephones on board.
SHORE LEAVE: Allowed.
DELAYS: Possible during loading if it rains.
AUTHORITY: Kepala Pelabuhan (Port Administration).

BANYUWANGI (Port Meneng): 08.07 S. 114.23 E.

(See Plan)

NEW PORT FOR LARGE VESSELS

DOCUMENTS: Customs and Harbour Master require:
Crew List.
Passenger List.
Customs Documents.
Health Certificate.
Port Clearance.
Harbour Report.
Derat Certificate.
Radio Certificate.
Certificate of Registry.
Perfection Certificate.

PILOTAGE: Compulsory pilotage for vessels over 80 g.r.t. Pilots must be ordered by respective Agent at least 48 hours in advance of the time their service is required.
ANCHORAGE: Lat. 8° 12′ 30″ S., Long. 114° 23′ 15″ E.
RESTRICTIONS: Mooring and unmooring is restricted to daylight hours only for cargo vessels and tankers.
MAX. SIZE: Draft alongside quay max. 40 ft. Present quay permits max. LOA of 500 ft. Bar 200 m. East of quay, depth below chart datum is 27 ft.
HEALTH: All vessels boarded by Harbour Quarantine on arrival.
RADIO: Name: Meneng Coastal Radio Station. Call sign: 8 AD 22 with freq. 8110 kHz, receiver SSB 5316 kHz. (used by Department of Sea Communication).
VHF: Call sign: Meneng Radio, freq. Channel 16, 14, 13, 12, used shore to ship and can be contacted about 25 miles before arriving at Meneng Port.
TUGS: 1 tug × 1,400 h.p. owned by Perumpel III Meneng. 2 tugs × 850 h.p. owned by Pertamina.
BERTHING: Present berth length 260 m. Depth alongside 40 ft.
Pusri: New port located about 0.5 miles South of the Port of Meneng. Operated under Pertamina management for oil off-loading purposes. The open roadstead harbour has a 150 m. long wharf with a 10–12 m. depth. Location of the port which is especially for domestic shipping is Lat.: 8° 08′ 09″ S., Long.: 144° 24′ 03″ E. New jetty owned by PT Pusri. Max. LOA 140 m.
Note:
Max. safe capacity for the jetty:
Cargo jetty No. I max. capacity 5 tons.
Cargo jetty No. II max. capacity 10 tons.
Cargo jetty No. III max. capacity 10 tons.

STEVEDORES: 12 gangs available.

One gang consists of 1 gang boss, 2 winch drivers, 1 Pilot and 13 labourers.

Working Hours: 0800–1600, 1600–2400 and 2400–0800.

Rest Time: 1200–1300, 1800–1900 and 0300–0400.

FACILITIES: *Godowns:* Two transit godowns (20 m.×50 m.) available, owned by Perumpel III. Two godowns max. capacity 10,000 tons, available, owned by PT Djakarta-Lloyd Banyuwangi Branch.
Equipment: 1 mobile crane of 15 tons capacity. 2 forklifts of 3 tons capacity. 3 forklifts of 2 tons capacity.
MEDICAL: Arranged by Department of Health.
TANKERS: One berth operated by Pertamina. Max. LOA 80 m. Max. draft 8.00 m. Max. d.w.t. 15,000.
FRESH WATER: Available. Handled by Harbour Board, with a loading capacity of about 300 tons per day (10 t.p.h.).
FUEL: Not available, but expected to be available in near future.
GANGWAY/DECK WATCHMEN: Available.
OPENING/CLOSING HATCHES: Normally by stevedores.
CUSTOMS ALLOWANCES: 50 cigarettes each Crew member. Packs or tins of tobacco must be open before going ashore. Wines and/or spirits enough for own use. If more required must pay import duties.
CARGO GEAR: Ship's gear used.
IDENTIFICATION CARDS: Required.
CONSULS: No local representation.
REPAIRS: No facilities.
REPATRIATION: Foreign crew members must go to Immigration Office at Jember City for clearance. Facilities will be available at Banyuwangi in near future.
TIME: GMT plus 7 hours.
AIRPORT: Ngurah Rai Airport 60 miles. Juanda Airport (Surabaya) 125 miles.

HOLIDAYS: On Sunday and holidays no workers available, but if necessary work can be arranged, except Independence Day (17th August) and 1st Sjawal (Idul Fitri/Moslem Holiday).
POLICE/FIRE/AMBULANCE: Police and Ambulance available. Fire Brigade owned by District and Paper Mills.
Police: 110 or 2110. Fire: 113. Ambulance: 118 or 2118.
TELEPHONES: No facilities for placing telephones on board.
SHORE LEAVE: Allowed, shore pass required from Perumpel III. Tel: (0333) 21638 – 41636.
DELAYS: Possible during loading if it rains.
AUTHORITY: Perusahaan Umum Pelabuhan III, Port Meneng Branch, Jl. Raya Situbondo-Banyuwangi, Banyuwangi, Indonesia. *Tel:* 41636, 21638. *Contact:* Sidi Makmur, Port Manager.

BATU AMPAR: 01.10 N. 104.00 E.

PILOTAGE: No pilot available.
RESTRICTIONS: Entrance channel has a width of 80.0 m. and a depth of 6.0 m. – 8.0 m.
RADIO: Sekupang Radio. Call sign PKJ 20. Frequencies 500/452 kHz.
VHF: Sekupang Radio on VHF Channels 16, 9 and 19.
TUGS: There are 5 tugs and 1 mooring boat available.
BERTHING: New concrete wharf, length 1,000 m., depth alongside 6.0 m. at LWS.
Storage: There is a shed of 9,000 sq.m. and open storage area of 27,000 sq.m.
Fork Lifts: There are 8 fork lifts with capacity 2 tons – 5 tons.
CRANES: 6×10 tons – 25 tons mobile cranes and 1×150 tons capacity mobile crane.
STEVEDORES: Local labour available.
FRESH WATER: Available.
FUEL: Not available.
GENERAL: *Barges:* 5 barges available, each with capacity 400 tons.

BELAWAN: 03.47 N. 98.41 E. (See Plan)

DOCUMENTS: Upon arrival ships have to fill in the following Forms:
Harbour Report obtainable from the boarding Pilot, or from the Harbour Master.
Pilot's Certificate.
Upon arrival vessels have to produce the following Certificates and Documents, which will remain in the Harbour Master's custody until cleared:
Nationality (Registry) Certificate.
Seaworthiness Certificate.
Measurement (Tonnage) Certificate.
Derat (Exemption) Certificate.
International Load Line Certificate.
Safety Certificate (passenger ships).
Safety Equipment Certificate (cargo ships).
Safety Radio and Radiotelephony Certificate (cargo ships).
Certificate of Approval (ship's radio station).
Health Book or Bill of Health.
Last Port Clearance.
Subscription of Light and Harbour Dues and wharfage if any.
Crew Lists and Passenger's Lists.
Ship's Articles.
Other certificates and documents as required.
2 Stores Lists.
PILOTAGE: Pilotage for vessels over 500 cu.m. gross is compulsory. Location of anchorage for vessels awaiting a Pilot is Lat. 03° 54′ 50″ N., Long. 98° 45′ 50″ E., near Light Buoy No. 0 (Lat. 03° 54′ 14″ N., Long. 98° 44′ 40″ E.).

The new lighthouse at Tg. Nipa Larangan (Lat. 03° 54′ 12″ N., Long. 98° 40′ 20″ E.) with characteristic Gp. Fl (3) 20 sec. 17M 40m, will assist Masters to approach the anchorage. Before arrival Masters have to contact their Agents via Belawan Radio (PKB) and give Information about: ETA, cargo, LOA, draft etc.

To receive information, Masters may use the VHF radio on Channel 12 calling "Belawan Pilot" or "Pilot Boat".

Pilot's service available 24 hours a day.

Pilot must be ordered by the Agent at least 8 hours in advance of the time their service is required.

A Sea Pilot and Harbour Pilot embark at anchorage when berth has been allotted.

Vessels will proceed when the draft enables vessels to pass through the channel.

The channel is approximately 9 miles in length, 100 m. width and 8.5 m. depth at LWS with a tidal range about 2 m. and is provided with 7 light buoys and 5 light beacons.

Basin 1,350 m. length. 220 m. width.

Pilot boat is located in the harbour.

When the Pilot is on pilot vessel, "H" flag will be flown in daylight and quick flashing white light at night.
RESTRICTIONS: Bar is silting excessively and continuous dredging is necessary to keep the shallowest part at 8 m. at LWS. Narrowest part of channel is 50 m. wide. Also see "Developments".

Outer Roads about 600 m. square marked by light buoy. No pilot light vessel. This roadstead is approx. 600 m. wide, the centre of which is the range-line of the swept channel. This channel is provided with buoys and beacons.

RADIO: Coastal Radio Station: Call sign PKT; Class A1, Frequency 8714, A2, Frequency 8754.4.
TUGS: 2×800 h.p., 2×1,700 h.p. and 2×2,400 h.p. Join the vessels at Buoy No. 9 about 2 miles from harbour. Ship's line to be used for towing line.
Port Authority Regulation:
a. Vessels with LOA less than 70 m., tug assistance not required.
b. Vessels with LOA from 71 m. up to 100 m., assisted by minimum 1 tug with total power 600 h.p. up to 1,200 h.p.
c. Vessels with LOA over 101 m. up to 150 m., assisted by minimum 2 tugs with total power 1,700 h.p. up to 3,400 h.p.
d. Vessels with LOA 151 m. up to 200 m., assisted by minimum 2 tugs with total power 3,400 h.p. up to 5,000 h.p.
e. Vessels with LOA 201 m. up to 300 m., assisted by minimum 3 tugs with total power 5,000 h.p. up to 10,000 h.p.
f. Vessels 301 m. or more, assisted by minimum 4 tugs with total power not less than 10,000 h.p.
BERTHING:

Dock or Quay	*Berth No.*	*Nominal Depth below Chart Datum* (m.)	(ft.)	*Length of Quay* (m.)
Container Quay	101	11.00	–	500
Conventional Wharf	102	10.00	–	350
	103			
Ocean going Ujung Baru	105	9	30	1,557
Citra Ujung Baru	201	7	23	625
	202			
	203			
Industri Kimia Dasar (IKD)	–	7	23	150
Pelabuhan Lama	001	6	20	567
	002			
	003			
	006			
	007			
	008			
Oil Jetty	Pertamina	9	30	60
Mooring Buoys	Pelb.Lama	6	20	

STEVEDORES: Working hours: Monday-Thursday 0800 – 1200 hrs., 1300 – 1600 hrs. Friday 0800 – 1100 hrs., 1300 – 1600 hrs. Saturday 0800 – 1200 hrs., 1300 – 1500 hrs. Overtime to be applied for from authorities concerned and is usually granted: on working-days during meal-hours, from 1600 – 2000 hrs. and occasionally till 2200 hrs.; on Sundays and holidays, except Independence Day, 1st Ramadhan, Christmas and 1st January.

CRANES: Mobile cranes, 2×15 ton capacity and 3×25 tons capacity. Floating crane 40 tons capacity. 5 shore cranes with 3 – 5 tons capacity. 4 transtainers, 4 straddle carriers and 5 front lifters.

MEDICAL: Hospital facilities available.

FRESH WATER: Handled by the Harbour Board. Artesian wells all along the Ocean Quay with a loading capacity of about 10 t.p.h. The water is regularly laboratory checked and declared drinkable but boiling before use remains recommended. Barge with 200 tons capacity also available.

FUEL: MFO and MDO available from Pertamina, advance notice required. Pumping capacity about 60 t.p.h. Barge with 200 tons capacity also available.

REPAIRS: Slipways available for small craft only. Machine-shops available for minor repairs. Radio repairs available, viz. the Post Telegraph and Telephone Office. Electronic repairs not available.

PORT SECURITY: Maintained by members of the Indonesian Armed Services, usually, Police, Navy or Marine and Army. Crew members should be in possession of a shore pass issued by the Port Authority, accompanied by an identification card when leaving or entering the guarded gates of the Port Area. Shore passes can be obtained via the Agencies.

CUSTOMS: It is strictly prohibited take undeclared foreign currency ashore. Local currency restrictions may apply to shore-going crew members. It is recommended that Masters consult the Agents for the local prevailing Customs Regulations with regard to currency, cigarettes, spirits, etc., to prevent unnecessary difficulties and eventually fines.

DEVELOPMENTS: New Quay, length 851 m. and width 25 m. has been completed (See "Berthing"). 2 container cranes with capacity of 40 tons, outreach 36 m. and backreach 15 m. will be available late 1988. The berths will handle vessels up to 35,000 d.w.t.

To be constructed: 1 wharf, 175 m. long and 11.5 m. depth. 1 wharf, 490 m. long and depth 8.0 m. 1 wharf, 500 m. long (extension) and depth 8.0 m. 1 Fuel Oil Terminal.

Dredging: The Belawan Harbour Master has issued the following guidelines in connection with dredging work being carried out:

Commencing as of September 24th, 1984, the sailing channel of the Belawan Harbour shall be dredged for the length of about 14,000 m. with a depth of 10 m. LWS. The dredger to be used is the mud sucker 'Irian Jaya'. The location of the mud to be deposited 03° 55′ 14″ N., 98° 44′ 48″ E.

All ships passing by the dredger are requested to observe all signals shown.

At the time of passing each other, the manoeuvre should be carefully conducted or it should be avoided passing each other in the middle of the channel.

Please be guided accordingly.

Also see "Shipmaster's Reports" dated October 1985 and December 1985.

SHIPMASTER'S REPORT: 1976: I would inform you that all vessels are now berthed or unberthed on a round-the-clock basis, within the draft limits imposed by the dredged channel, which at present is 8 m. LWS with a tidal range of about 2 m. The Chief Pilot stated that they would berth vessels up to 10 m. draft at HW.

The pilot station is now equipped with VHF and works on Channel 12: they pass berthing information on this Channel to vessels at anchor. They use Channel 12 as a calling-up and working Channel.

SHIPMASTER'S REPORT: October 1985 (Updated 1988).
During my recent visit to the port, I noticed the following:

Phase 1 construction of port extension at Gabion (3 km. from Ujung Baru):

351 m. of conventional berth with alongside depth of 10 m., wharf apron 22 m. width already completed. 2 transit sheds (total space 12,000 sq.m.) completed.

500 m. of multi-purpose/container berth (depth alongside 11 m.), wharf apron 25 m. already completed. 2 C.F.S. (total space 10,700 sq.m.), administration buildings, roads and services have also been completed. 2 container quay cranes expected to be installed end 1988. Presently, self-sustained contained feeder vessels have been working at Ujung Baru.

Gabion berth in operation since 1987.

SHIPMASTER'S REPORT: December 1985 (Updated 1988).
Channel: Pilot advised controlling section now reduced to 40 m. wide and 8.0 m. depth at zero tide or chart datum. Constant silting taking place. Underkeel clearance 1.0 m. required.

One vessel per tide can pass at 7.0 m. plus the predicted height of tide. Imperative to obtain information from Pilot inward, as simply not available from Agents, Port Radio, etc.
Gabion Wharf: This new project has been completed. The Northern portion will be for containers, and the Southern end for general or direct delivery cargoes. However, this wharf appears to be already suffering from silting, and the S.W. berth was found to have a minimum of 7.1 m., increasing to 9.3 m. and 9.1 m. to the N.E. (Any ship visiting an Indonesian port must take soundings immediately on berthing to establish the safety of the berth, and not immobilise until this is done). This wharf extends S.W. from beacon (F.1364) Fl. Y. 3 secs.
Density: 1015 on flood tide, 1012 on ebb tide.
Entry Formalities: The vessel used:

7 Crew Lists, (checked in detail against I.D. Cards).
1 Manifest "nil" cargo.
5 Bonded Stores Lists.
5 Personal Effects Lists.
5 Deck, Engine, Bond, Provisions Stores Lists.
5 Animals Lists.
5 Parcel Lists.
5 Arms and Ammunition Lists.
5 Ports of Call Last Voyage.

Inspection Team: (1) 2 Immigration Officers, 1 Port Health Officer, 1 Harbour Master, (all conveyed by Agent's minibus).
(2) 5 Customs Officers arrived separately.

Departure inspection may be similar. Agent attends with both inspection teams.
Thefts: Forecastle store broken into twice while alongside, padlocks being no deterrent. 2 shore watchmen employed throughout. Shackles stolen from hatch operating gear.
Transport: Normal mode is to ride pillion on a small motorcycle! 4.5 km. to shopping street.
Postage: A letter from Medan post office to Hong Kong reported to take 3 weeks.
Telex: Communications are poor.

AUTHORITY: Departemen Perhubungan, Perusahaan Umum Pelabuhan 1, Jalan Pelabuhan II No. 1, P.O.Box 5, Belawan - 20413. *Tel:* (0619) 41876, 41753. *Telex:* 51992 PPI IA Mdn.

BENGKULU (Pulau Baai): 03.46 S. 102.16 E. (See Plan)

LOCATION: The Port of Pulau Baai is located approximately 20 km. South of Bengkulu.
PILOTAGE: Compulsory.
ANCHORAGE: Vessels anchor in position 03° 47.5′ S., 102° 11.5′ E.
RESTRICTIONS: The fairway is 800 m. in length and 400 m. wide. Depth of fairway 10.0 m. at LWS.
MAX. SIZE: 10,000 d.w.t. Max. draft 9.0 m.
RADIO: There is no coastal radio station.
VHF: The port is on Channels 16 and 12.
TUGS: 1×250 h.p. tug.
BERTHING: There is a concrete wharf for ocean going vessels. Length of wharf 165 m. Depth alongside 10.0 m. at LWS.

There is a domestic wharf for small vessels. Length of wharf 124 m. Depth alongside 4.0 m. at LWS.
Storage: There is a godown at the ocean going wharf of 2,450 sq.m. and a godown at the domestic wharf of 1,750 sq.m. There is also an open storage area of 5,413 sq.m.
CRANES: 2×4 – 25 tons mobile cranes. 5×3 tons fork lifts.
STEVEDORES: Available from the labour pool (YUCA).
FRESH WATER: Fresh water is available in limited quantities.
REPAIRS: No facilities for repairs.
GENERAL: There is a barge with capacity 150 tons.
AUTHORITY: Harbour Master. *Tel:* 31344/31409.

BENOA: 08.45 S. 115.13 E. (See Plan)

PILOTAGE: Compulsory. Pilot boards at the anchorage and during daylight only.
ANCHORAGE: Vessels anchor in position 08° 46′ 20″ S., 115° 14′ 30″ E. Depth of water in the anchorage 12.0 m.
RADIO: Benoa Coastal Radio Station. Call sign PKD-5.
Frequencies: 6,945 kHz. and 500/487.5 kHz.
Class emission: A1 – 0.05 Kw.
TUGS: There are 2 tugs available but they are used for cargo operations only.
BERTHING: There is one pier with a length of 206 m. and a depth of 6.0 m. at LWS. There is also a wooden pier with a length of 22.5 m. and a depth of 6.0 m. at LWS.
Storage: There is a godown with an area of 1,128 sq.m.
Fork Lifts: 2×3 ton capacity fork lifts available.
STEVEDORES: Stevedores are available from the labour pool.
MEDICAL: Hospital facilities available.
TANKERS: Tankers for Pertamina berth at the wooden pier.
FRESH WATER: Available.
FUEL: High speed diesel available in limited quantities.
REPAIRS: There are no facilities available for repairs.
GENERAL: No barges available locally.

BIAK: 01.10 S. 136.05 E. (See Plan)

PILOTAGE: Compulsory. Pilot boards vessel at the anchorage.
ANCHORAGE: Vessels anchor in position 01° 12′ 12″ S., 136° 05′ E.
RADIO: Biak Coastal Radio Station. Call sign: PKY2.
Frequencies: 2,182 kHz and 6,215 kHz (J3E) and 8,366 kHz (A1).
TUGS: There are no tugs or mooring boats available.
BERTHING: There is a concrete wharf, length 142.0 m., breadth 15.0 m. and depth alongside 12.0 m. at LWS. There are mooring buoys off the East end of the wharf.
Storage: There is a godown of 3,800 sq.m. and open storage area of 2,625 sq.m.
Fork Lifts: 3 fork lifts with capacity 1.5 tons – 3.5 tons.
CRANES: 1×12 ton mobile crane.
STEVEDORES: Stevedores are available from labour pool U.K.A., this is arranged by Agent.
MEDICAL: Hospital facilities available.
FRESH WATER: Fresh water available alongside the wharf. Pumping rate 4 t.p.h.
FUEL: Limited supplies of high speed diesel available.
REPAIRS: There are no facilities for repairs.

BIMA: 08.25 S. 118.42 E. (See Plan)

DOCUMENTS:
6 Crew Lists.
6 Vaccination Lists.
6 Stores Lists.
6 Passenger Lists.
PILOTAGE: None available.
ANCHORAGE: 300 m. off the quay in depth of 16 m.
RESTRICTIONS: None, vessel may enter harbour day or night.
MAX. SIZE: Not limited at anchorage.
RADIO: Coastal Radio Station, cable address "Pelni Bima" by Post Office.
TUGS: No tugs available.
BERTHING: Entering and sailing allowed after dark. No berthing facilities except for very small ships.
STEVEDORES: Ordered by Agent. No work allowed on Muslim holidays, New Year and 17th August.
MEDICAL: 1 government hospital available.
FRESH WATER: ~~No~~ne available.
FUEL: ~~No~~ne available.

NOT
NOT

GANGWAY/DECK WATCHMEN: None available, Police and Customs officers posted on board.
OPENING/CLOSING HATCHES: Carried out by stevedores.
AIRPORT: Flights from Bima to Sumbawa, Ampenan and Bali by AOA Zamrud (Dakota) every Sunday, Tuesday, Thursday and Saturday.
TIME: GMT plus 8 hours.
HOLIDAYS: Muslim holidays, New Year, 17th August.
TELEPHONES: No phone connections between ship and shore available.
SHORE LEAVE: Crew members are allowed to go ashore and arranged by Agents.
GENERAL: 1 motor-boat, 4 lighters each of 15 tons and 1 lighter of 25 tons. Loading general cargo, live buffaloes and fodder. For heavy cargo max. 7 tons each lift can be handled through lighters.

BIMA MARINE TERMINAL: 05.46 S. 107.04 E. (See Plan)

LOCATION: Bima Marine Terminal is an open, unsheltered mooring in the Java Sea, located approximately 020°×24 nautical miles from Jakarta.

There are 3 standard type Single Buoy Moorings situated as follows:

1. "Citra Ayu" SBM (Buoy No. 7, Storage Tanker Buoy).
   Lat. 05° 46′ 02″ S., Long. 107° 04′ 14″ E.
2. Storage/Export SBM (Buoy No. 8, as standby SBM).
   Lat. 05° 45′ 25″ S., Long. 107° 04′ 52″ E.

This SBM can be used either as a storage tanker buoy or as the export tanker buoy whenever required.

3. Export SBM for tankers loading from "Citra Ayu" (Buoy No. 9).
   Lat. 05° 44′ 49″ S., Long. 107° 05′ 29″ E.

"Citra Ayu" is a chartered storage tanker used as the main floating storage and export facility at Bima Terminal.

THE FOLLOWING ITEMS ARE OF PARTICULAR IMPORTANCE:

1. No dirty ballast.
   Tankers with dirty ballast will be rejected and will have to tender a new Notice of Readiness upon second arrival.
2. No shore leave.
3. No crew changes. If emergency conditions prevail, for humanitarian reasons, exception to the foregoing may be permitted. All expenses incurred will be for ship's account.
4. No stores available.
5. No clinic available.
6. The laws of Indonesia govern this terminal and all personnel are urged to abide by them.
7. During daylight hours the Indonesian Flag must be flown throughout the vessel's stay in port.
8. Bima Terminal time is GMT plus 7 hours throughout the year.
9. *No bunkers are available.*
10. Pertamina Directorate of Shipping and Telecommunications Jakarta handles all Agency matters for tankers.
11. The unit of currency is the Indonesian Rupiah.
    The rate of exchange varies from time to time. The Master can obtain the current exchange rate from the Agent.
12. There are no Consulates available at Bima Marine Terminal. However, there are many Embassies and Consulates represented in Jakarata.
13. Language of the port is English and Indonesian.
14. Only authorised personnel or visitors are permitted on the storage barge and/or export tanker.
15. No fresh water is available.
16. No slop tanks are available.
17. The crude oil testing laboratory is equipped to perform the following tests: API Gravity, B.S. & W, Pour Point and RVP. Any additional tests that may be required will be performed in Jakarta.
18. For convenience, mail for personnel on incoming tankers may be sent to the Pertamina Agency Jakarta Office for delivery to the tanker when it arrives at the Bima Marine Terminal. Except on an emergency basis, spare parts or other material will not be accepted for delivery to incoming tankers.

DOCUMENTS: The Agent prepares the Ship's Documents Check List Form to check the validity of each document.

These documents are: Certificate of Registry, Ship's Construction Certificate, Load Line Certificate, Safety Equipment Certificate, Safety Radio/Telegraphy Certificate, Cargo Gear Certificate and Derat Certificate or Derat Exemption Certificate. This List is then delivered to the Harbour Master with the following documents attached: Last Port Clearance, Crew List approved by the Immigration Officer and Light Dues Receipt if arriving from another Indonesian port.

The Harbour Master issues a Port Clearance at departure provided clearance is also granted by the other governmental authorities. A Panamanian Port Clearance for Panamanian Flag vessels is not required at Bima Terminal.

The Immigration Officer requires 2 copies of the Crew List and will check the ship's articles and the passports of the crew. When these documents are found to be in order, an Arrival Clearance will be marked on the Crew List.

Cargo Documentation: Documents such as Bills of Lading, Certificate of Quality, Certificate of Quantity, Dry Certificate, Ullage Certificate, Loading Time Report, Certificate of Origin, Cargo Manifest and Master's Receipt of Documents/Samples, etc., are prepared at the Terminal.

When the tanker has been loaded, the documents shall be completed and be taken aboard the tanker for the Master's signature.

Signing of these Documents by the Master will take place at the same time final departure clearance formalities are being carried out.

Notes of Protest, if any, should be handed to the Mooring Master for further delivery to Atlantic Richfield Indonesia Inc., Jakarta.

Please note that the Mooring Master will *acknowledge receipt of the Note of Protest only and is not authorised to accept such letters.*

Departure Procedure: Prior to the vessel's departure, the Immigration Officials require 6 copies of the Crew List to be marked for "Departure Immigration Clearance", and duly signed, it will be distributed as follows:

Master of the vessel	1 copy
Harbour Master	1 copy
Customs	1 copy
Pertamina Agent	1 copy
Immigration	2 copies

Upon presentation of the Crew List which is signed and marked for Departure Immigration Clearance the Harbour Master will issue the Port Clearance.

Final clearance formalities will be carried out aboard the tanker after completion of loading.

Before leaving the terminal area the Master should advise the terminal the vessel's ETA at destination through the Mooring Master.

PILOTAGE: Tankers waiting to load shall wait their turn in the recommended anchorage area, and shall maintain radio-telephone contact with the terminal using the International Marine Calling and Safety Channel 16 (156.8 MHz) for terminal instructions.

The Mooring Master will act on behalf of the company to acknowledge receipt of tanker's Notice of Readiness.

Masters of tankers are reminded that due to operational reasons, ship's Notice of Readiness (N.O.R.) will not be accepted between the hours of 1630 and 0530 unless the company, in order to accelerate ship's turn-around time, is willing to accept same. In any case, N.O.R. will not be accepted for a time earlier than when;

(a) The Master has received the Mooring Master onboard.
or
(b) The tanker has anchored within the recommended anchorage area, and has advised the terminal the time of anchoring.

Exception to (a) and (b) above will be if the tanker is within the anchorage area awaiting arrival of the Mooring Master and has been requested by the terminal not to anchor. In this case N.O.R. will be accepted from the time the terminal requested the ship not to anchor.

In order to meet safe and efficient marine operations, tankers are recommended to arrive during daylight hours. However, if on ship's arrival the required Loading Clearance is not yet received at Bima Marine Terminal then, in this case, the acceptance of N.O.R. will be the time when such clearance is received on the storage tanker "Citra Ayu" or whenever the tanker is secured.

The Company reserves the right to decline to berth a specific tanker if its condition or facilities are unsafe for berthing or loading even though the berth may be open to other tankers.

The decision of Atlantic Richfield Indonesia Inc.'s Terminal Section Manager or his designated assistant to berth or not to berth a tanker shall be final.

ANCHORAGE: For tankers requested to anchor, the recommended anchorage area is an area Northeastward from the single point mooring buoys enclosed by a line drawn through the following positions:

A. Lat. 05° 43′ 00″ S., Long. 107° 06′ 00″ E.
B. Lat. 05° 41′ 30″ S., Long. 107° 07′ 10″ E.
C. Lat. 05° 42′ 50″ S., Long. 107° 08′ 37″ E.
D. Lat. 05° 44′ 20″ S., Long. 107° 07′ 28″ E.

Prior to arrival Masters of tankers should contact the terminal for instructions concerning anchorage positions.

Refer to "Radio" for further instructions.

Under no circumstances should an export tanker enter the Restricted Area without a company Mooring Master aboard.

The attention of Masters is drawn to the existence of underwater pipelines in the Restricted Area.

APPROACHES: Approach information can be obtained by radio from the terminal. Under normal weather conditions, if a tanker is scheduled to berth upon arrival, the Mooring Master will board such tanker in close vicinity of the mooring area.

In addition to the 3 single point mooring buoys for export tankers and the storage tanker, oil wells and production structures are located South from the storage barge which constitute a hazard to navigation for mariners.

SBMs, Storage Barge and Structures within Bima Marine Terminal area display the following characteristics:

(1) *Storage: "Citra Ayu" and SBM (Buoy No. 7):*
By day, the black ball as required by Rule 30, paragraph A of the Regulations for Preventing Collisions at Sea. Storage barge at night displays the lights for a tanker at anchor as required by the Regulations for Preventing Collisions at Sea and is equipped with automatic fog signals at the bow and at the stern.
The "Citra Ayu" SBM (Buoy No. 7) shows a white light flashing every second, visibility 5 miles.

(2) *Standby Storage/Export SBM and Export SBM (Buoy Nos. 8 and 9):*
(a) A white light flashing every second, visibility 5 miles, mounted on the rotating deck of each SBM. All Export SBMs are fitted with radar reflectors.
(b) 1 yellow coloured light buoy marked with yellow cross on top and yellow coloured light flashing period 2 seconds (0.5 second flash + 1.5 dark), 4 miles visibility equipped with radar reflector.
Position of the light buoy: Lat. 05° 41′ 10″ S., Long. 107° 07′ 20″ E.

(3) *Crude Oil Production Platforms Facilities:*
There are 5 crude oil production platforms, 32 wells, 1 processing platform and 1 quarters platform within the Bima Marine Terminal Area.

P.A. Lat. 05° 47′ 15.0″ S., Long. 107° 04′ 00.0″ E.
P.B. Lat. 05° 47′ 42.5″ S., Long. 107° 02′ 28.0″ E.
P.D. Lat. 05° 46′ 39.8″ S., Long. 107° 02′ 12.5″ E.
P.E. Lat. 05° 47′ 16.0″ S., Long. 107° 02′ 04.0″ E.
P.F. Lat. 05° 48′ 07.0″ S., Long. 107° 01′ 48.0″ E.
PCP (Process Platform)
Lat. 05° 47′ 17.0″ S., Long. 107° 03′ 02.0″ E.
PCS (Quarters Platform)
Lat. 05° 47′ 19.0″ S., Long. 107° 03′ 04.0″ E.

In addition to the above specified obstructions and navigational aids, all platforms display interrupted quick flashing white lights.

The storage barge, flow stations, and quarters platform will brightly illuminate the areas around them at night through the use of normal working lights.

RESTRICTIONS: Berthing during daylight hours only. Maximum distance bow to manifold is 500 ft.

MAX. SIZE: 250,000 d.w.t. Depth of water in approaches and at buoys is 110 ft.

HEALTH/IMMIGRATION/CUSTOMS: See "General" before first port.

RADIO: *Advice of Arrival by Cable or Telex:* It is important that all incoming tankers advise Bima Marine Terminal 72 hours and 48 hours before ETA, giving the best estimate of ship's arrival at the terminal, via:

Cable Address: Ardjak, Terminal Section, Jakarta
Telex: 011-47390 Jakarta.

Time to be used for ETA is "Golf" (local) Time Zone of GMT plus 7 hours throughout the year. The first message should also include the following information:

1. Name of tanker and Radio Call Sign.
2. Cargo requirements.
3. De-ballast time. (Note: if a separate/permanent ballast system is fitted, ability of ship to load crude oil and discharge ballast simultaneously must be stated.
4. Maximum loading rate.
5. Arrival draft, forward and aft.
6. Last Port of Call.
7. Confirm that vessel has clean Bill of Health.
8. If there is any sickness aboard, give whatever information is available as to the possible type of sickness.
9. If cholera inoculation required, advise number required.
10. Distance in feet from the bow to tanker's loading manifold.

Further ETA messages should be sent to Bima Marine Terminal via the above cable address or telex number when the tanker is 24 hours and 12 hours distant from the terminal and any other time, if any appreciable change occurs in the original ETA or subsequent ETA's.

RADIO COMMUNICATIONS:

(1) VHF/FM Radio Telephone: (International Marine Calling and Safety Channel 16. Frequency 156.8 MHz).

Masters are recommended to use this system when they arrive within radio range of Bima Marine Terminal, particularly when approaching the port, if poor visibility exists the tanker's approach may not be observed. Attention to VHF communications may be the only means of avoiding delay in berthing.

During berthing, the ship's radio will be under the sole control of the Master, and the storage barge radio will be under the sole control of the Terminal Superintendent or his assistant. Masters are reminded that if tankers are requested to anchor to await berthing, *it is their responsibility to maintain constant listening watch on VHF Channel 16* to receive terminal instructions.

Any delay due to failure to maintain a constant watch on Channel 16 will be for the ship's account, and will not be included in Calculation of Lay Time.

Bima Marine Terminal is equipped with VHF/FM Radio- telephone sets and continuous watch is maintained on Channel 16 (156.8 MHz) and frequency 157.725 MHz.

Tankers approaching the terminal should make initial contact on Channel 16. For subsequent inter-ship communication within the terminal a "Handie Talkie" VHF radio frequency 157.725 MHz will be used by the Mooring Master. This frequency will not be for general purpose use, unless clearance is obtained by the terminal. This is required for safety reasons.

Should all radios on the tanker become inoperative, the emergency signal i.e. continuous blasts on the ship's whistle will be sounded to notify the terminal of the radio failures. Upon hearing this signal from a loading tanker, the storage barge will immediately stop loading to the Export Tanker until communications have again been established.

(2) High Frequency Single Side Band Radio Telephone: A voice message from incoming tankers may be relayed by HF/SSB. Atlantic Richfield Indonesia Inc., located in Jakarta, Indonesia, is inter-connected to Bima Marine Terminal via local communications system and maintains a continuous watch on HF frequency 7320 kHz (upper side band A3J mode. 100 watts, vertical whip antenna, call sign "8GJ9").

(3) Pertamina Control Radio Stations – HF/SSB: In the event incoming tankers are not able to contact Bima Marine Terminal on the foregoing VHF/FM frequencies or by HF/SSB, Pertamina maintains coastal radio stations located in Jakarta and Merak.

Pertamina Jakarta Radio, call sign "PKI 2" may be contacted on HF/SSB using the following frequencies and during the following service hours:

Frequency (kHz)	*Hours (GMT)*	*Keep Watch (kHz)*
452	0000 – 2400	500
8626	0200 – 0400, 0500 – 0600, 0700 – 0800, 1000 – 1200, 1400 – 1500, 1700 – 2000	8363.2 – 8364.8
12980	0000 – 0200, 0400 – 0500, 0800 – 1000, 1200 – 1400, 1600 – 1700, 2000 – 2200	12544.8 – 12547.2 12559.2 – 12560.4
4419.4 4425.6	0100 – 0400, 0700 – 0900, 1000 – 1100, 1300 – 1500, 1800 – 2000	4125.0 and 4131.2
6512.6 6521.9	0000 – 0100, 0300 – 0400, 0600 – 0700, 1200 – 1400, 1800 – 2000	6215.5 and 6202.2
8759.2	0100 – 0300, 0400 – 0500, 0700 – 0800, 1100 – 1200, 1500 – 1600	
VHF Channels 9, 16, 19	0000 – 2400	Channel 16

Pertamina Merak Radio, call sign "PKQ" may be contacted on HF/SSB per the following frequencies and during the following service hours:

Frequency (kHz)	*Hours (GMT)*	*Keep Watch (kHz)*
452, 500	0000 – 1600	500
8626	0100 – 0200, 0900 – 1000, 1500 – 1600	8363.2 – 8364.8 8372.8 – 8373.6
4419.4, 4425.6	0000 – 0100, 1200 – 1400	4125.0, 4131.2
6512.6, 6521.9	0200 – 0300, 0400 – 0500, 0800 – 0900	6206.2, 6215.5
VHF Channels 9, 16, 19	0000 – 2400	Channel 16

Masters should request the Pertamina Coastal Radio Station to relay the necessary information to Atlantic Richfield Indonesia Inc., Jakarta c/o Terminal Section during office hours and radio operator after office hours, by Tel: 737474 (18 lines), or by Pertamina internal telex system number 18 which is the designated number for Atlantic Richfield Indonesia Inc.

Also see "General" before first port.

TUGS: *Mooring Launches:* For running lines as required, also for transporting Government Officials, Agents and other authorised personnel to and from the export tanker, 1 suitable mooring launch will be available.

There is also 1 tug available to assist mooring/unmooring and to transport Government Officials to and from the export tanker as required.

BERTHING FACILITIES: *Single Buoy Mooring for Export of Crude Oil:* SBM No. 8 is designed with double function capability i.e. as a storage SBM and an Export SBM. SBM No. 8 is designed, during reasonable weather conditions, to handle export tankers up to 250,000 d.w.t. Export SBM No. 9 is designed to handle tankers up to 250,000 d.w.t., weather permitting. Each of the above loading buoys is equipped with a dual 24 in. circumference floating braidline mooring rope together with anti-chafe chains (length 26 ft.), so arranged as to avoid chafe to the mooring ropes while tankers are at the buoy.

The crude oil loading hoses are to be connected to the ship's manifold on the port side of the export tanker. Tankers arriving are requested to have the derrick on the port side raised and rigged, ready to lift aboard the terminal equipment.

Crude oil tankers are loaded through 2 strings of 20 in. I.D. floating hoses extending from each Export SBM, connected to the tanker's manifolds by rail hoses of 16 in. I.D. All crude oil tankers not having 16 in. hose connections should provide their own reducers in such a way as not to cause any delay in the hose connecting operation. On Export SBM's No. 8 and No. 9 the length of the hose strings is 900 ft.

For crude oil tankers intending to load at Bima Marine Terminal, the distance from the bow to the loading manifold should not exceed 500 ft.

The minimum loading rate at Bima Marine Terminal for crude oil tanker is 15,000 bbls.p.h. Any tanker arriving unable to receive crude oil at the above rate may be rejected. The storage barge loading to tankers on SBM No. 8 or No. 9 can accomplish a maximum loading rate of approximately 35,000 bbls.p.h. through meters.

In order to save time as well as to make the berth available for others, it is requested that ships receive crude oil as fast as it can be delivered, with due regard for safety.

Masters are reminded that for safety reasons, it is advisable to have the ship half loaded as soon as possible. Rate can be reduced for topping off tanks. When requested by the ship to stop, cessation of crude oil flow is almost immediate.

Masters are also advised that the minimum quantity tankers can load at Bima Marine Terminal is 100,000 bbls. and the maximum is 1,200,000 bbls. At the sole discretion of the Terminal Manager or his designated assistants and based on written request from the Master/Offtakers, tankers may be allowed to load up to 1,500,000 bbls. 45%. However, if the quantity to be loaded exceeds 1,200,000 bbls., Offtaker/Shipowner(s) will be required to state that they waive any demurrage incurred due to waiting on cargo and/or berth for loading.

Storage Tanker "Citra Ayu": The Company's Main Offshore Terminal Administrative Office, Storage and Laboratory for testing crude oil stock at Bima Terminal is a 236,000 d.w.t. storage tanker named "Citra Ayu" of Bahamian registry.

Overall length of the barge is 1,067 ft., and total crude oil capacity 1,608,000 gross barrels.

Crude oil from the "Citra Ayu" is delivered to tankers through Positive Displacement Meters, of which there are 4, each having a maximum capacity of 12,500 bbls.p.h.

The "Citra Ayu" is moored to SBM No. 7 in position Lat. 05° 46′ 02″ S., Long. 107° 04′ 14″ E.

Export tanker loading crude oil from "Citra Ayu" will be moored to SBM No. 9 or SBM No. 8.

Position of SBM No. 9: Lat. 05° 44′ 49″ S., Long. 107° 05′ 29″ E.
Position of SBM No. 8: Lat. 05° 45′ 25″ S., Long. 107° 04′ 52″ E.

Zu-Bima Crude Specifications:

API Gravity at 60°F: 20.4 – 18.5
Reid Vapor Pressure: 0.7 – 0.9
Sulphur, % Wt.: 0.10 – 0.14
Kinematic, Viscosity at 100°F: 218.7 – 692.1
Pour Point: 30°F – 50°F
Carbon Residue, % Wt.: 4.75 – 8.29
B.S. & W, % Vol.: 0.10 – 0.60
Flash (TCC): 12.6°F – 144°F

MOORING/LOADING/UNMOORING: Bima Marine Terminal will operate 24 hours a day, 7 days a week. Tankers will normally be berthed during daylight hours, weather and other circumstances permitting. In special circumstances at the sole discretion of the Company Terminal Superintendent, night berthing may be allowed if all conditions are favourable.

Unmooring will be carried out at any hour.

Tankers to be moored or manoeuvred at Bima Marine Terminal will be boarded within the anchorage area by the Company Mooring Master. Under normal weather conditions if a tanker is scheduled to berth on arrival, the Mooring Master will board such vessel in close vicinity of the mooring area.

All such manoeuvring of ships shall be done only in accordance with the advice of the Mooring Master, subject to the understanding that in all cases and circumstances the Master of the tanker being manoeuvred shall remain solely responsible on behalf of his vessel's owners for the safe and proper manoeuvring of his vessel.

The ship's Master or one of his designated and qualified deck officers, must be on the navigating bridge at all times while the vessel is being manoeuvred.

The Mooring Master will report unsatisfactory conditions to the Company Terminal Superintendent who may in turn, reject the tanker until corrections are fully made. All costs accruing therefrom will be for the vessel's account.

Before loading, the tanker's cargo tanks are to be inspected and if suitable for loading crude oil, a notation signed by both the Terminal Representative and Vessel's Master to this effect will be made on the Company Dry Certificate.

The Company Terminal Superintendent or his designated assistant, shall be the sole authority to decide when the port is closed due to unsuitable weather conditions.

Various combinations of wind, sea and tidal conditions also the size, length, ballasted trim and handling qualities of a vessel can affect the decision to berth a vessel at Bima Marine Terminal. All these factors have to be evaluated before a final berthing decision is made.

Delays to vessels using Bima Marine Terminal due to the port being closed because of bad weather conditions shall not be computed as used Lay Time when compiling vessel's turn around time.

Request for the terminal to stop the flow of cargo at a predetermined tonnage must be in writing. The request must include the statement by the ship's Master that the Company will not be held responsible for any error and that in case of the vessel being overloaded the excess cargo cannot be pumped back to the storage barge. The ship's Master will also be held responsible for any spills caused by this request.

The ship's Master is responsible to ensure that no communication by radio is allowed within the terminal area.

Unauthorised radio communications will cause cessation of all operations except clearing of the berth, and the vessel's Notice of Readiness will be immediately nullified.

The Master of each tanker will be given a copy of the *Conditions of Port Use of Bima Marine Terminal* which he will be required to sign before the vessel proceeds to berth.

The vessel's personnel are responsible for the safety of the vessel and must take all necessary precautions, whether or not so advised by the Mooring Master, having in mind the hazards of the operation because of the products being handled, weather conditions and any other circumstances requiring special care or caution.

Ships are requested to have a pilot ladder safely and securely rigged ready for immediate use and long enough to reach the Mooring Master's launch.

A combination of pilot ladder and ship's accommodation ladder, so arranged that personnel, boarding the vessel can first use the pilot ladder until part way up the vessel's side, and then transfer to the accommodation ladder is recommended, especially on very large tankers.

A light line should be ready to take aboard the Mooring Master's equipment.

Tanker will provide a broad lee for the Mooring Master both when boarding and leaving the ship. Adequate explosion proof lighting at night must be provided near the pilot ladder and manifold connection area. During loading, overside lighting must be provided in the vicinity of sea valves and floating hoses.

During a tanker's stay at the Export SBM, emergency towing wires shall at all times be hung over the ship's stern on each quarter of the vessel. These wires shall be secured on the inboard bitts to enable the vessel to be towed away should the need arise. They must be tended throughout to keep the eye of the wire not more than 2 ft. above the water.

Before any crude is loaded all ship's scuppers on main decks must be plugged and cemented oil tight. Approved mechanical means of closing scuppers may be accepted.

It is absolutely essential that extremely careful supervision be exercised by officers of all tankers while loading operations are in progress.

A responsible ship's officer is required to be on duty continuously while the tanker is being loaded. He will be assisted by an adequate number of ship's personnel in these operations.

It is the responsibility of the vessel to ensure that all mooring lines are properly tended on loading tankers. The Mooring Master at any time, may direct an additional ship's line to be secured to the buoy and this line to be hove up or slackened off under the supervision of a responsible ship's officer so as to prevent the vessel overriding the buoy. *At all times sufficient crew must be available* to carry out under the supervision of a responsible officer instructions given by the Mooring Master.

Masters of loading tankers are advised that raising, lowering, connecting and disconnecting of oil loading hoses as well as other labours and duties on board connected with the loading of cargo or maintaining mooring lines in a correct manner will be performed *by the ship's crew directed by a responsible officer* as required by the Mooring Master. Loading of crude oil tankers is through 2×20 in. I.D. hoses with 150 A.S.A. flange rating. The weight of each hose is approximately 4 tons.

All tankers loading crude oil at Bima Marine Terminal must be able to connect the 16 in. hoses to their manifolds. Masters are strongly reminded, that it is the ship's responsibility to provide reducers to make the connection, if the ship's manifold is not 16 in.

Preparations for mooring will be advised by the terminal through VHF communication prior to tanker's arrival or by the Mooring Master before the mooring operation commences.

Crude oil tankers are required to have ready:

1. On the port side: a derrick of a least 10 tons safe working load, rigged with a second topping lift ready to pick up the mooring and hose connecting gear from the Mooring Master's launch. This derrick will be subsequently used for raising, connecting, disconnecting and lowering loading hoses and eventually to transfer the mooring and hose connecting gear back to the launch before the tanker sails.

2. On the forecastle: at least 6 good ship's mooring lines shall be required. 2 of them will be used as messenger lines for bringing aboard both terminal mooring lines from the SBM. The 4 remaining ship's lines will be laid out 2 on either side of the foc'sle deck, eyes about 3.5 m. distant from the fairleads as advised by the Mooring Master. When the terminal mooring lines have been hove up and anti-chafe chains are about halfway through the fairleads, the eyes of the ship's lines will be shackled onto the end links of the chain so that in the final position of mooring, the tanker is tied to the SBM using the terminal mooring lines/chains made fast to the ship's bitts by means of the ship's own lines. This will be backed up by 2 wire strops each 30 ft. in length and 2 in. diameter.

These wires will be provided by the terminal to be used as preventer wires. These two wire strops will not be used as the permanent mooring system.

Their purpose is to hold the ship safely moored in the event one or more of the ship's lines parting until the crew can replace such lines.

EQUIPMENT: *Export Tanker Gear and Equipment:* A ship may be rejected, if upon inspection, it is not properly equipped, or if it is not suitably manned, or if its tanks are not suitable for the cargo, or if in the case of crude oil tankers the ballast is dirty.

A vessel is suitably manned if it has a full complement of qualified officers and crew all of whom are sober, competent and willing to carry out their duties and orders.

A ship must be equipped with a good working propulsion unit as passed by the appropriate survey society. Inoperative ships or partly inoperative ships will be rejected. Should a ship become inoperative or partly inoperative while secured to a single point mooring buoy, it will be removed at the ship's expense.

No repairs to main engines or other essential equipment or machinery while secured to an Export SBM may be carried out, unless with the permission of the Terminal Superintendent or his designated assistant.

Crude oil tankers must lift the export hoses from the water to connect with the ships manifold by means of their own derricks and using their own crew.

A vessel must have both bow anchors in good working condition. Both bow anchors and anchor cable must be of a size and standard to meet either "Lloyds" or "A.B.S." requirements, even though they may in fact, be classified by other societies.

All vessels must have ready on deck suitable stoppers for, manila, synthetic lines and wires used for mooring purposes.

All vessels must have suitable winches or capstans in good working order.

Such winches or capstans must have sufficient power to heave in the 18 in. terminal mooring lines as required by the Terminal Mooring Master. Tankers must have the capacity to heave up the 24 in. braid lines used to secure them to the Export SBM's. Power supply to all deck machinery must be maintained throughout the period the ship is secured to the Export SBM. Failure to comply with this requirement will result in cessation of loading and delay and expense so caused will be for the ship's account. To assist in vessel's turn around, ships should have all necessary gear ready on arrival. Crude oil tankers must have the cargo derrick on the port side raised with cargo gear rigged and ready before the ship is boarded by the Mooring Master.

Vessels which may consider the lifting capacity of their gear to be marginal should strengthen their gear accordingly. A common way to do so is to rig a second topping lift on the boom. Masters of crude oil tankers are reminded that the hose connecting operation will normally be carried out while the ship is deballasting.

The cargo derrick required to raise the hose from the water, must have sufficient length of strong lifting wire runner on the winch drum to enable the cargo hook to reach the water and still have adequate turns of wire left on the drum.

BALLAST: *Disposal of Ballast:* Owners and Masters are responsible to observe International Convention Laws and Indonesian Government Regulations concerning pollution of the sea, having particular regard for this area of the Java Sea.

No facilities are available for disposal of dirty ballast.

It is the responsibility of the ship's Master to see that no oil of any kind is pumped or spilled overboard from his ship.

The categories of pollution include oily water from bilges, crude residue from previous voyages or any other matter that may result in pollution of the sea. Any fines imposed shall be for ship's account.

As soon as practical after arrival, all tankers will be inspected by a Bima Marine Terminal Official for dirty ballast. During discharge of ballast, similar inspections will continue.

If evidence of oil appears at any of these inspections, the ship will be rejected and will not be accepted again until satisfactory evidence is produced that such ballast was disposed of in a proper manner. If, during inspection or during loading it is found that the ship's tanks are not tight or that oil is leaking from the ship, the ship may be rejected or refused further loading.

If the ship's tanks are found to be leaking it will not be accepted for loading unless satisfactory evidence of repair, duly certified by Lloyd's or A.B.S. Surveyors or other recognised Surveyors, is submitted. It is the responsibility of the ship's Master to see that no oil of any kind is pumped or spilled overboard from ship. Drip pans, sawdust, dispersent, etc., should be ready for use at all times especially when disconnecting hoses in order to avoid any spillage of oil overboard.

Notice of Readiness will automatically be nullified for any tanker rejected because of dirty ballast or sea pollution and such tanker will lose priority of position for loading.

A tanker must have sufficient ballast for safe handling having due regard to existing weather and sea conditions. Through a careful watch of the weather and sea conditions, frequent exchange of information between ship and terminal and by a knowledge of the behaviour of his own ship, a Master may come to the terminal with minimum safe ballast and thus lessen any possibility of infringement of sea pollution regulations.

In addition to the lights usually displayed, vessels in the moorings discharging ballast or loading cargo during darkness will brilliantly illuminate the sea around the ship, so that any pollution will be noticeable.

Tankers equipped with a separate system of ballast tanks will be allowed to discharge ballast, and load oil simultaneously, providing approval is first obtained from the Company Terminal Superintendent or his assistant.

Most responsible ship owners have adopted a system of tank cleaning using circulatory methods of transfer of tank washings on board and treating these washings with chemicals.

The result is that no oil is discharged into the sea and the separated oil is collected in a slop tank. With the written permission of lifting companies, the terminal will load on top of such slops. This system is highly recommended to avoid pollution of the Java Sea. Masters are required to certify in writing the quantity of slops remaining on board (if any). If they intend to load crude oil on top of the slops, it must be clearly stated. The Mooring Master will confirm the amount stated in writing by ullaging and calculating the slops to ensure the amount declared is correct.

Provided agreement is reached on the amount of slops the Mooring Master will confirm the amount of slops on the Dry Certificate.

Note: Separate "Slop Certificate" signed by Chief Officer witnessed by the Mooring Master is required to substantiate calculation.

Masters are warned that inspection of ballast is strict.

If, at any time an overflow of crude oil occurs, loading will be immediately suspended and will not be resumed until the oil is cleaned up and removed from the decks of the vessels and/or from the surface of the sea and any damage is repaired and no further danger exists. It is stressed that during loading operations, the Bima Cargo Controller will immediately slow down the loading rate on receipt of a request for same from the ship's deck officer in charge of loading.

All spillages of oil must be reported immediately to the Bima Terminal Superintendent or his assistant and subsequently a detailed report in writing submitted by the Master of the vessel concerned giving all relevant details.

MEDICAL: No facilities available.

FRESH WATER: Not available.

FUEL: Not available.

TIME: GMT plus 7 hours.

REPATRIATION: Not possible.

SHORE LEAVE: Not Possible.

GENERAL: *Wind and Tides:* Refer to Eastern Archipelago Pilot Vol. II. Water depth approximately 110 ft. below mean sea level.

Charts: Admiralty Chart No. 1653A. Java – Western portion including Straat Sunda.

Sailing Directions: Eastern Archipelago Pilot Vol. II.

AGENCY: See "General" before first port.

OPERATOR: Atlantic Richfield Indonesia Inc.

Principal Offices:

Pertamina, Jalan Medan Merdeka Timur No. 1 A, Jakarta, Indonesia.

Atlantic Richfield Indonesia Inc., Panin Bank Building, Jalan Jenderal Sudirman, P.O.Box 63/JKT, Jakarta, Indonesia. Tel: 737474. Telex: 47390, 44379.

Arco International Oil and Gas Company, Division of Atlantic Richfield Company, Wells Fargo Building, 444 South Flower Street, Los Angeles, California 90017, U.S.A.

Iiapco, Inc., Jalan Let. Jen. M.T. Haryono 58, P.O.Box 2759/JKT,Jakarta, Indonesia.

Iiapco, Inc., c/o Natomas Trading Co., 601 California Street, San Francisco, California 94108, U.S.A.

Inpex Java Ltd., 10th Floor, Toranomon 37 Mori Building, No. 5-1 Toranomon 3-Chome, Minato-Ku, Tokyo 105, Japan.

Tidewater N.W. Java, Inc., 1440 Canal Street, Suite 2100, New Orleans, Louisiana 70112, U.S.A.

Warrior Minyak Inc., 750 N. St. Paul, Suite 1530, Dallas, Texas 75201, U.S.A.

C. Itoh Energy Development Co. Ltd., C. Itoh Building, 5-1 Kita-Aoyama 2-Chome, Minato-Ku, Tokyo 107, Japan.

Deminex Java Oel GmbH, Setiabudi Building, 2nd Floor, Jalan H. Rasuna Said 62, Jakarta.

Deminex Java Oel GmbH, Attn: P4, P.O.Box 10 09 44, Dorotheenstr. 1, 4300 Essen 1, Federal Republic of Germany.

Nominations: Tanker nominations for lifting of Bima Crude Oil are co-ordinated through Arco International Oil and Gas Company, Los Angeles, California and Atlantic Richfield Indonesia Inc., Jakarta.

All crude oil sales, also tanker chartering are arranged by the following parties in each of their respective locations:

Pertamina,
Arco International Oil and Gas Company,
Iiapco, Inc., c/o Natomas Trading Co.,
Inpex Java, Ltd.,
Tidewater N.W. Java Inc.,
Warrior Minyak Inc.,
Deminex Java Oel GmbH,
C. Itoh Energy Development Co. Ltd.

Tanker scheduling is co-ordinated for all of the partners through Arco International Oil and Gas Company, Los Angeles, California, and arranged through Atlantic Richfield Indonesia Inc., Jakarta.

BIRINGKASI: 04.49 S. 119.29 E.

LOCATION: The Port of Biringkasi is 28 miles from Ujung Pandang.

PILOTAGE: Pilotage is not compulsory. However, vessels that are not familiar with the port may request pilotage assistance from Ujung Pandang/Macassar.

ANCHORAGE: Depth of water in anchorage 10.0 m.

RADIO: All communications are via Ujung Pandang Coastal Radio Station.

TUGS: There is 1 tug of 500 h.p. and 1 mooring boat of 75 h.p.

BERTHING: Concrete Pier No. 1: Length 209 m., breadth 27 m. and depth alongside 7.0 m.

Concrete Pier No. 2: Length 20 m., breadth 40 m., depth alongside 2.4 m.

This port is a private port with a cement factory operated by P.T. Semen Tonasa. The port is equipped with a conveyor/shiploader for loading cement in bags.

Storage: Storage facilities available.

CRANES: 4×5 ton – 40 ton mobile cranes.

MEDICAL: Hospital facilities available.

STEVEDORES: Labour available from the cement factory.

FRESH WATER: Fresh water available in limited quantities.

FUEL: Not available.

REPAIRS: No facilities for undertaking repairs.

GENERAL: *Barges:* 4 barges available with capacity of 700 – 900 tons each.

Clearance: Biringkasi is an outport and therefore all vessels entering this port have to clear inward and outward at Ujung Pandang.

BITUNG: 01.26 N. 125.12 E. (See Plan)

DOCUMENTS:

4 Crew Lists.
4 Lists Passengers in Transit.
4 Lists Passengers Disembarking.
3 Cargo Lists.
3 Provisions Lists.

List of Articles new and Customs-barred in possession of each crew member – cameras, binoculars, radios, cigarettes, tobacco, etc.

Ship's Register.
International Vaccination Certificate for Crew and Passengers.
(Especially for International Travellers.)
Health Book/Maritime Declaration of Health.
Derat Exemption Certificate.

PILOTAGE: Contact Coastal Radio Station Bitung (call sign PKM), telegram address: Bitung Port Administration; advance notice of ETA 24 hours. Pilot boats: 100 h.p. and 350 h.p. light grey. Requiring a Pilot: flag, sound and Morse Signal: "G".

Anchorage for vessel awaiting a Pilot: the area between Southern part of the Lembeh Street at: Lat. 1° 25′ 00″ N., and Lat. 1° 30′ 35″ N. at the Northern part of the street.

Ships have to anchor outside the mentioned Latitude above.

ANCHORAGE: The area between coast of Lembeh Island and coast of Sulawesi: Lat. 01° 27′ N., Long. 125° 12.3′ E.; Lat. 01° 26.2′ N., Long. 125° 13.5′ E. and Lat. 01° 26.3′ N., Long. 125° 10′ E.; Lat. 01° 25′ N., Long. 125° 10.8′ E. Depths: 42 ft. to 114 ft.

RESTRICTIONS: No restrictions on night entry.

Shipmaster's Report: Numerous fishing boats at the port entrance especially at night-time, also fishing sticks, and small fishermen's houses on bamboo sticks built at sea, without lights, dangerous to navigation. Approaching or sailing from port at night-time should not be attempted.

MAX. SIZE: Draft alongside pier, max. 32 ft. L.O.A. 760 ft. or 100,000 B.R.T. (60,000 d.w.t.).

HEALTH: Vessels coming direct from other countries or coming from infected port: "Q" flag to be flown. Pratique procedure and action necessary to obtain Pratique according to the International Sanitary Regulations.

RADIO: Bitung Radio (Call sign P.K.M.) for vessels to route ETA cables to Agents, Receivers, etc.

(MF–Working frequency 438 and 500 kHz, listening frequency 500 kHz, emission A.1., A.2.).

Time Schedule: 0000—0100
0400—0500 } G.M.T.
0800—0900

VHF: Bitung Radio on Channels 16 and 26.

TUGS: 1 tug, 1,160 h.p. also 2 motor launches of 115 h.p.

BERTHING: For ocean-going vessels: 16 ft. – 35 ft. at wharf of 909 m. length.

For inter-island vessels: 17 ft. at wharf of 455 m. length.

CRANES: 3×15-35 tons mobile cranes.

STEVEDORES: Arranged by handling Agent.

Handling Rates:

Bulk cargo: 13–18 tons/gang/hour.
Bagged Cargo: 20–35 tons/gang/hour.
General Cargo: 12–15 tons/gang/hour.

MEDICAL: Hospital facilities available. Masters to advise by radio prior to arrival if medical attendance required aboard. Vaccination/fever certificates required, 3 copies.

TANKERS: 1 oil jetty for domestic tankers (not general use). With 7 bunkering points alongside the 582 m. Ocean Going wharf, of which 3 are presently used. Bunker fuel is supplied directly by P.N. Pertamina (state oil company).

DENSITY: About 1030.

FRESH WATER: Available from hose connections on the pier, at a rate of 30 t.p.h., also 1 fresh water barge with the capacity of 200 tons.

FUEL: Not all grades fuel available. Diesel and marine lubricants can be supplied. 48 hours notice required. Rate 50–150 t.p.h.

REPAIRS: Some deck and minor engine repairs are possible at Bitung dockyard. Radar and electronic repair available, but not for big repairs.

DOCKYARD: P.T. IKI and P.T. Dock Surya.

GANGWAY/DECK WATCHMEN: Not needed.

OPENING/CLOSING HATCHES: Normally by crew/stevedores, otherwise according charter party.

SHIP'S CERTIFICATES: Registered Tonnage Certificate and all certificates normally required to be on board.

CUSTOMS ALLOWANCES: 100 cigarettes or 20 cigars or 100 gram. tobacco each crew member; 1 bottle wine or spirits for each crew member.
Passengers: Articles to the value of US$25 per person or US$100 per family.
CARGO GEAR: Loading and discharging by ship's own derricks. Shore crane capacity up to 15 tons.
IDENTIFICATION CARDS: Shore pass issued by the Immigration Office for crew members at Agent's request.
CONSULS: Philippines only.
REPATRIATION: Facilities available.
AIRPORT: About 50 km. from port of Bitung. Regular airlines: Garuda Indonesian Airways (G.I.A.), Bouraq, Merpati and Mandala. All have daily flights to Makassar and Jakarta.
TIME: GMT plus 9 hours, permanent.
HOLIDAYS: New Year's Day; Idul Adha, 1st Muharam; Ascension Day; Birthday of Prophet Mohammad S.A.W.; Good Friday; Proclamation Day (August 17th); Idul Fitri, Waisak and Christmas Day.
POLICE/AMBULANCE/FIRE: Dial 111, 27, 60, 106 and 108.
SHORE LEAVE: Crew members are allowed ashore with a shore pass issued by the Immigration Office.

SHIPMASTER'S REPORT: February 1980.
There is a 300 m. concrete wharf in approx. position Lat. 01° 26.2′ N., Long. 125° 11.6′ E and a naval wharf in approximate position Lat. 01° 26.5′ N., Long. 125° 12.1′ E. Fuel by road tanker is available.

AUTHORITY: Port Administrator of Bitung, Jalan Makassar, Bitung, Indonesia. *Tel:* 60, 106, 27, 105, 108, 56 and 111. *Contact:* Iljas Sudikto, Port Administrator.

BONTANG (Loktuan): 00.11 N. 117.12 E.

PILOTAGE: Pilotage compulsory for all vessels entering the inner harbour at Loktuan. Pilot boards at Bontang LNG pilot station. Contact should be made prior to arrival with Bontang Radio on VHF Channel 16.
ANCHORAGE: Vessels anchor in position 00° 08′ 30″ N., 117° 34′ 50″ E. The holding ground in the anchorage is good. Depth of water 13.0 m.
RESTRICTIONS: Depth of water in channel is 13.0 m. – 20.0 m. The turning circle off the terminal has a diameter of 750 m. and depth of 14.0 m.
RADIO: Samarinda Coastal Radio Station – Call sign PKN 6.
TUGS: 1 tug available.
BERTHING: Concrete wharf with length 152 m., breadth 32 m. and depth 13.0 m. The berth can accept vessels up to 20,000 d.w.t.
Fork Lifts: Fork lifts with capacity 2.5 tons – 8 tons available.
CRANES: 2×150 tons mobile cranes.
STEVEDORES: Available from Samarinda labour pool and arranged by Agent.
TANKERS: LNG Facilities.
Operator: Pt. Badak NGL Co., Jl. M.H. Thamrin 59, Jakarta. Telex: 44261.
P.O.Box 216, Balikpapan. Telex: 37211.
Location: Lat. 00° 05′ 51″ N., Long. 117° 28′ 47″ E.
Max. Size: 125,000 cu.m. LOA 300 m.
Depths at L.W.: Alongside: 13.5 m. Outer bar: 49 m. Entrance: 25 m. Inner bar: 15.0 m.
Anchorage: Awaiting Pilot: Lat. 00° 02′ 05″ N., Long. 117° 34′ 00″ E. Awaiting berth: Lat. 00° 01′ 00″ N., Long. 117° 35′ 30″ E.
Radio: Bontang Radio – "PKN-7" or Balikpapan Radio "PKN-2".
Pilot: Compulsory. Request Pilot 6 hours prior to arrival and 3 hours prior to departure.
Documents: Health Declaration, Last Port Clearance, 10 copies Crew List, 10 copies Passenger List, 5 copies Cargo Manifest, 5 copies Ship's Stores List, 3 copies Crew Effects List.
Cargo: LNG loading rate: 10,000 cu.m.p.h.
Loading lines: 5 loading lines with 16 in. loading arms.
Vapour return: 1 line with 16 in. arm.
Storage capacity: 487,000 cu.m.
Liquid nitrogen facility: Max. quantity: 50 cu.m. Line size: 2 in. I.D. Pressure at ship's rail: 112 p.s.i.

LNG characteristics:
Explosion limits: 5.3 – 14.0 % Vol.
Flammable: Yes
Boiling Point: −161°C.
Flash Point: −175°C.
Critical Pressure: 45.6 kg./sq.cm.
Critical Temperature: −82.5°C.
Reactive with: Steel, Polythene.
Chemical compatibility: Chlorine (dry).
Condensing ratio: 0.8023 dm^3

FRESH WATER: Not available.
FUEL: Not available.
CONSULS: None.
REPAIRS: No repair facilities at the port.
AIRPORT: Samarinda Airport.
GENERAL: This port has been constructed to serve the fertiliser factory of P.T. Pupuk Kalimantan Timur.
Barges: There are 2 flat top barges. Each with a capacity of 1,000 tons.
DEVELOPMENTS: The LPG facility and the second loading terminal for LPG and LNG carriers in Pertamina's LNG complex at Bontang is well under way and due for completion at the end of 1988. A gas carrier of 136,400 cu.m. is under construction. When completed it will carry gas to Hsin Ta in Taiwan.
Also see "Tankers".
AGENT: See "Jakarta".

BUATAN: 00.45 N. 101.50 E.

PILOTAGE: Compulsory. Pilot requires 6 hours notice of arrival and 3 hours notice of departure.
ANCHORAGE: The anchorage whilst awaiting sea pilot is in Morong Strait in position Lat. 01° 56′ 30″ N., Long. 101° 50′ 30″ E.
The anchorage whilst awaiting the harbour pilot is in Siak Sri Indrapura in position Lat. 01° 23′ 00″ N., Long. 102° 10′ 00″ E.
RESTRICTIONS: Berthing and unberthing during daylight hours only.
Approach Channels: Depths at LWS.

Outer bar	4.2 m.
Entrance	4.8 m.
Inner bar	13.0 m.
Harbour/Turning Basin	6.5 m.

MAX. SIZE: 5,000 d.w.t. Max. LOA 110 m.
VHF: Sungai Pakning Coastal Radio Station operated by Pertamina, call sign PKP-5.
BERTHING: The jetty is located in position Lat. 00° 44′ 50″ N., Long. 101° 49′ 35″ E. Depth at LWS 6.5 m.
Crude oil is loaded at a rate of 6,000 bbls.p.h. through 3×8 in. hoses.
Shore Storage Tanks:

Oil Products	Total Safe Capacity
Crude Oil	285,000 bbls.
Slop Oil	10,000 bbls.

Physical Characteristics of Crude Oil:
API Gravity at 60°F. : 35
B.S. & W. : 0.2 % vol.
Pour Point : 110°F.

MEDICAL: Clinic available.
DENSITY: 1000-1010.
FRESH WATER: Not available.
FUEL: Not available.
CONSULS: None.
AIRPORT: Simpang Tiga Airport at Pekanbaru.
TIME: GMT plus 7 hours.
GENERAL: The water in the vicinity of the berth is shallow and the channels are liable to shift.
A good look-out should be kept for fish traps, nets, logs and floating debris.
Charts: Indonesian Charts No. 14, 14A and 24. British Admiralty Charts No. 3933 and 3947.
AGENCY: See "General" before first port.
AUTHORITY: *Operator:* Pertamina U.EP-II, Lirik.

BUNYU (Banyu): 03.28 N. 117.50 E.

PILOTAGE: Mooring Master boards at the anchorage.
ANCHORAGE: Vessels awaiting berth anchor in position Lat. 03° 25′ 30″ N., Long. 117° 51′ 45″ E.
RESTRICTIONS: Daylight berthing and unberthing only.
MAX. SIZE: *CBM:* 21,000 d.w.t. Max. LOA 175 m.
Platform: 30,000 d.w.t. Max. LOA 185 m.
Also see "Berthing".
VHF: Bunyu Coastal Radio Station, call sign PKO-3, operated by Pertamina.
BERTHING: *CBM:* Vessel moors to 4 buoys in position Lat. 03° 26′ 12″ N., Long. 117° 50′ 50″ E. Depth of water 15.3 m. at LWS. Hose connects on starboard side. Crude oil loaded at rate of 2,500 t.p.h. through 1×8 in. hose.
Jetty: There is a jetty for small vessels in position Lat. 03° 27′ 30″ N., Long. 117° 50′ 03″ E. Depth alongside 5.0 m. at LWS. Max. size 1,000 d.w.t. Max. LOA 60 m. Vessels berth starboard side to. General cargo handled at this berth.
Platform (Methanol): A platform for handling of methanol is located in position Lat. 03° 27′ 24.8″ N., Long. 117° 50′ 39.7″ E. Depth of water 14.5 m. at LWS. Max. size 30,000 d.w.t. Max. LOA 185 m. Methanol is loaded at a rate of 375 cu.m.p.h. through 1×10 in. arm.
Barge Platform: There is a platform for barges in position Lat. 03° 27′ 27″ N., Long. 117° 50′ 09″ E. with a depth alongside 6.0 m. at LWS. Max. size 3,500 d.w.t. Max. LOA 90 m. Premium gas is handled at this platform with 1×8 in. hose.
Shore Storage Tanks:

Oil Products	Total Safe Capacity
Crude Oil	309,068 bbls.
Methanol	45,000 cu.m.

Physical Characteristics of Crude Oil:
API Gravity at 60°F. : 32.2 – 31.1
Sulphur Content : 0.09% wt.
B.S. & W. : 0.10 – 0.15 % vol.
Flash Point (PMCC) : Below 66°F.
Pour Point : 45 – 50°F.

DENSITY: 1020-1025.
FRESH WATER: Not available.
FUEL: Not available.
CONSULS: None.
AIRPORT: Tarakan Airport.
TIME: GMT plus 8 hours.
AGENCY: See 'General' before first port.
AUTHORITY: *Operator:* Atlantic Richfield Indonesia Inc., Panin Bank Building, 7th Floor, Jl. Jend. Sudirman, P.O.Box 63, Jakarta, Indonesia. *Tel:* 737474. *Telex:* 47390 Arco-Ia, 47379 Arco-Ia.

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CIGADING: 06.00 S. 105.57 E.

SHIPMASTER'S REPORT: January 1986.

LOCATION: The Port of Cigading is situated in position: Lat. 06° 00.3′ S., Long. 105° 57.5′ E. and about 45 nautical miles N.E. of the entrance to Sunda Strait. The port is under the control of Port Merak, which is approximately 15 km. – 18 km. N.E. of Port Cigading.

DOCUMENTS: Crew Personal Effects Declaration, Provisions List, Bonded Stores List, Crew List, Currency List, Seaman's Books, Passports.

PILOTAGE: Pilot station located at Merak. Pilot station on VHF Channel 12. Callsign "Kilo Bravo". Station also guards Channel 16. Pilot boat guards Channel 12.

Ports attended by Pilot at Banten area:

1. Brown & Roots Terminal.
2. Port of Banten.
3. Cigading Terminal.
4. Unggul Indan Corp. Jetty.
5. Dover Chemical Jetty.
6. Prointal Chemical Jetty.
7. Depot Pertamina Terminal.
8. Merak/Ferry Terminal.
9. I.P.I/Tg. Serong Terminal.
10. Suralaya PLTU Coal/Oil Jetty.
11. Polychem Lindon Jetty.

Also see "Radio".

APPROACHES: Vessels can approach this port any time during day or night. But no berthing possible after sunset.

ANCHORAGES: Vessels awaiting berth can safely anchor 4 cables N.E. of the berth in a depth of 22 m. – 24 m. The currents are very strong in this area. The vessel experienced 3–4 knots of current from Northeasterly and Southwesterly directions, changing every 12 hours, depending upon the tide. Vessels are advised to pay out substantial amounts of cable in order to retain the anchor position.

HEALTH: The Health Authorities board the vessel for Pratique. All international health regulations are followed. The officer checks all the vaccination books for inoculations. Ships arriving from African or South American ports are required to have yellow fever certificates. Pratique is granted only after the officials check all the papers and complete formalities.

RADIO: Radio Jakarta 500 kHz. Call sign JKI.

Arrival Advice: 48 hours before arrival at Cigading, it is essential to cable the local Agents, the full details of the vessel and ETA, including the requirements of pilot service for berthing the vessel. The Pilot is stationed at Merak, as and when any vessel calls at Cigading, the Pilot is arranged from Merak. There is only one Pilot supplied from Jakarta for Merak, Cigading and other minor ports. Pilotage is maintained by the pilotage division of the port of Banten.

Chief Pilot/Harbour Pilot: Sukendear Hadi Utomo. Office: 105 Pulorida Street, Merak-West of Java, Indonesia. Tel: 367808/367594, ext. 194 via P&T. Residence: Jl Raya Anyer No. 03, Komplek B.P.P., Tegal Ratu Cigading, West of Java, Indonesia.

24 hour service is available. Masters or Agents are requested to advise the Pilot whenever there is a change in an ETA.

TUGS: There are 4 small tugs, stationed at Cigading, each approximately 800 b.h.p. These tugs are generally used for towing barges and also utilised for ships berthing at Cigading. Vessels are unberthed at any time during day or night.

BERTHING: There is only 1 long berth extending well into the sea, running in a N.E./S.W. direction. The length of the berth is 550 m. and the breadth approximately 55 m. The outer portion of the berth is utilised for discharging iron ore and has 2 unloading arms. It is mobile and rail mounted. Maximum outreach of unloader from fender face is 24 m. The unloader has grabs, each with capacity of 10 tons. Minimum air-draft to be be maintained at berth, 15.9 m. during maximum high tide in ballast condition. The S.W. portion of the berth is utilised for loading sponge iron, and has one loader. During our stay the loader was not operational. Ships were loaded by truck loads. 2 small vessels of 4,000–5,000 d.w.t. capacity can be berthed alongside simultaneously. The inner portion of the berth, particularly the Northeasterly portion, is utilised by general cargo ships of lesser draft and length. The depth of water at the inner berth is said to be 11 m. plus tide. The depth of water at the outer berth is about 14.5 m. plus rise of tide. The inner portion of the berth is angled in the mid-section. The closed conveyor belts and necessary installations running overhead, almost in a Southeasterly direction. A wide road runs below.

The iron ore discharge from the vessel is fed solely through the conveyor to the steel plant. The steel plant is directly connected by the said conveyor. The "Karakatu Steel Plant" or works, (government owned) is situated approximately 7 km. N.E. of the berth.

The discharging rate at the berth is 700 tonnes/h., allowing for the breakdown of the conveyor at times.

Our vessel: LOA 245 m. Beam 32 m. Max. arrival draft 13.70 m. D.wt.: 76,900 tonnes. Discharged 71,500 tonnes of iron ore pellets from Brazil in 6 days.

MEDICAL: Hospital, doctor and inoculations are available at Cilegon and Merak. Serious cases to be attended to at Jakarta.

DENSITY: 1022.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: None.

REPAIRS: No facilities available.

GANGWAY/DECK WATCHMEN: Not compulsory.

CUSTOMS ALLOWANCES: Allowances are as per Jakarta requirements. Personal declaration forms are essential. All electronic goods and currency must be declared on the personal property declaration. Beside this, Provisions List and Bond Statement is also essential (1 copy each), along with the Crew List (1 copy).

REPATRIATION: Possible. During repatriation crew baggage is thoroughly checked by the Customs. Any electronic goods in possession of crew are entered in the individual passports.

AIRPORT: Jakarta, 3 hours by road.

BANKS: Banking facilities available at Cilegon. Several Indonesian National Banks have branches at Cilegon. Travellers' cheques are honoured in the shopping complexes.

SHORE LEAVE: No restrictions.

Immigration authorities take away all Seamen's Books/Passports into their custody. Identity Cards are issued to each crew member. Seamen's Books/Passports are returned to the vessel prior departure.

Shore leave passes to be carried by the crew member when going ashore.

GENERAL:

Provisions: Available.

Currency: US$1.00 = 1135 Rs. (January 1986).

Agency: Karana Line are the recommended Agents at Cigading. They have an office situated at nearest town – Cilegon. Karana Line have long-term contracts with the Indonesian Government for supply of iron ore to the existing steel works near Cigading.

Head Office: Address. Jl. Kali Besar Timur 30 Jkt. Tel: 679103 (5 lines). Telex: (011) 42727, 42895. Cable Address: Karana Line. P.O.Box 81. Office: Jl. Raya Cilegon No. 31. Tel: 157-7.6378 (K S) Cilegon.

Karana Line have representation on board throughout the ship's stay. Hence communication was excellent and smooth. All other appointed Agents have to come from Jakarta, which is about 130 km. from Cigading. No other Agency has an office near the port.

SHIPMASTER'S REPORT: June 1988.

DOCUMENTS:

8 copies Crew List.
2 copies Stores List.
2 copies Crew Declaration.

The following documents are taken ashore and returned with the clearance outward:

Certificate of Register.
Load Line Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Derat Exemption Certificate.
Health Book.
Last Port Clearance.

PILOTAGE: Pilot boards from a launch which is equipped with VHF. I was advised that pilotage was only available during daylight hours.

ANCHORAGE: The anchorage is about 4 cables N.W. of the Northern end of the jetty, in position 6° 00.4′ N., 105° 57.2′ E. Depth of water is about 20 m.

RADIO: Communications were via Agent in Jakarta as the port is not equipped with facilities. The Agent should be given 10 days, 5 days, 3 days, 2 days and 1 days Notice of Arrival.

TUGS: 2 × 3,000 h.p. tugs available.

BERTHING: There are 4 berths available with a depth alongside of 14.0 m. In addition, 2 cargo wharves and a timber terminal are being developed nearby.

The vessel loaded a cargo of steel products and the approximate loading rate is 6,000 tonnes per day, but this is subject to supply of trucks and reliability of fork lifts.

There is no shore gear for working general cargo. There are two unloaders for ore and coal imports and a bulk loader which is used for turnings and other mill waste.

STEVEDORES: Work throughout 24 hours.

MEDICAL: Facilities available.

FRESH WATER: Available at jetty.

CONSULS: At Jakarta.

REPAIRS: No facilities available.

SURVEYORS: Based in Jakarta.

REPATRIATION: Can be arranged via Jakarta.

GENERAL: *Stores:* Provisions and some stores can be obtained.

Communications: Communications are poor as Agent has no telephone or telex links. Krakatau Steel Company will allow use of their telephone and telex. Vessel was permitted to use her radio to send daily cargo reports.

Travel/Accommodation: Jakarta is about 110 km. by road. The Merak Beach Hotel is about 16 km. from the berth.

Shippers: P.T. Krakatau Steel and P.T. Cold Rolling Mill Indonesia Utama.

Agent: Vessel's Agent based at Cilegon.

Chart: B.A. Chart No. 918.

CILACAP✓ (Tjilatjap): 07.44 S 109.00 E (See Plan)

(a) CILACAP PORT.
(b) CILACAP – IRON SAND PORT.

(a) CILACAP PORT.

DOCUMENTS: Upon arrival vessels have to produce the following Certificates and Documents, which will remain in the Harbour Master's custody until cleared:

Nationality (Registry) Certificate.
Seaworthiness Certificate.
Measurement (Tonnage) Certificate.
Derat (Exemption) Certificate.
International Load Line Certificate.
Safety Certificate (passenger ships).
Safety Equipment Certificate (cargo ships).
Safety Radio and Radiotelephony Certificate (cargo ships).
Certificate of Approval (ship's radio station).
Health Book or Bill of Health.
Last Port Clearance.
Subscription of Light and Harbour Dues and wharfage if any.
Crew Lists and Passenger's Lists.
Ship's Articles.
Other certificates and documents as required.
Ship's Stores List.

PILOTAGE: Compulsory. 8 Harbour Pilots available. 6 hours notice required for berthing and 3 hours notice required for unberthing. Pilot available 24 hours for vessels up to 150 m. LOA and daytime only up to 1800 hrs. for vessels over 150 m. LOA.

Pilot station on VHF Channels 12, 14 and 16.
Pilot station position: Lat. 07° 44′ 30″ S. Long. 108° 59′ 46″ E.

APPROACHES: Minimum breadth of new channel 198 m. from Outer Bar to CIB* Jetty. Inner Channel width is 80 m.

Depths: Outer Bar to CIB Jetty . . . 14.5 m. LWS.
CIB Jetty to Area 70 (including Iron Sand Jetty) . . . 12.1 m. LWS.
Area 70 to Cargo Wharf . . . 8.0 m. LWS.
Cargo Wharf to Area 60 . . . 5.7 m. LWS.

*Crude Island Berth.

ANCHORAGES:

Cargo Ships:	07° 45′ 25.0″ S. 109° 02′ 50.0″ E.	and	07° 46′ 26.8″ S. 109° 03′ 07.0″ E.
		To	
	07° 45′ 34.0″ S. 109° 03′ 12.2″ E.	and	07° 46′ 22.5″ S. 109° 03′ 37.0″ E.
Tankers:	07° 45′ 38.0″ S. 109° 03′ 12.2″ E.	and	07° 46′ 22.5″ S. 109° 04′ 28.5″ E.
		To	
	07° 45′ 38.0″ S. 109° 03′ 48.5″ E.	and	07° 46′ 10.0″ S. 109° 04′ 28.5″ E.

RESTRICTIONS: Least depths at the bar and in the channel are 70 dm. at LWS.

Current: Semi-diurnal. By the influence of the Donan River, especially during the rainy season, the duration of the outgoing current is longer than that of the ingoing. In the rainy season the outgoing current can reach 5 knots.

MAX. SIZE:
Cargo Vessels: Max. LOA 186 m. Max. draft at HW 9.5 m.
Tankers: Max. d.w.t. 85,000. Max. LOA 250 m. Max draft 12.0 m.
Also see "Tankers".

HEALTH: Vessels arriving from abroad direct have to apply well in advance to the Department of Health (Quarantine Section) for a Provisional Free Pratique, as said Pratique has to be cabled to the port concerned. The Provisional Free Pratique is only valid for the port concerned, the next port of call must be a First Class Port as no further Provisional Free Pratique will be issued, unless the vessel sails directly abroad.

RADIO: Cilacap Coastal Radio Station. Call sign PKR-3. Frequencies: 500, 474 and 8714 kHz. Station also on VHF Channel 16.

VHF: Pilot on Channels 16 and 20.

TUGS: 1×870 h.p., 1×1,700 h.p. (twin-screw).
Pertamina: 4 tugs. 2×3,200 h.p. ("Z" peller), 1×4,060 h.p. (twin-screw) and 1×1,740 h.p. (twin-screw).

BERTHING: Outer Roads while waiting for the Pilot during the West monsoon a safe anchorage in 12 m. water. During the S.E. monsoon not a safe anchorage. Inner Roads, under all circumstances a safe anchorage in 9 m. water in the vicinity of Nusa Kambangan opposite the quays for small crafts and East of Tg. Sodong. Vessels over 80 m. length have to moor due to limited swinging space, current and winds.

Name	*Length* (m.)	*Depth at LWS* (m.)	*Remarks*
Wharf No. 1	120	7.5	—
Wharf No. 2	134	8.5	—
Wharf No. 3	142	8.5	—
Wharf No. 4	130	6.0	—
Pusri Jetty	Under Construction		Fertiliser
Aneka Tambang Jetty	156	11.0	See "Section B"
Semen Nusantara Jetty	70	5.5	Cement

TANKERS: *Berth Particulars:*

Location	Berth	Depth at LWS (m.)	Max. Draft (m.)	Size Restriction DWT min.	DWT max.	LOA min. (m.)	LOA max. (m.)
Crude Island Berth (CIB)							
	Platform "A"	17.0	12.0	35,000	85,000	170	250
	Platform "B"	17.0	12.0	35,000	85,000	170	250
Area 70							
	Jetty B-I	13.5	11.0	3,000	35,000	87	200
	Jetty B-II	13.5	11.0	3,000	35,000	87	200
	Jetty B-III	13.5	11.0	3,000	17,000	87	165
Area 60							
	Jetty Donan-I	8.0	6.5	400	3,000	50	85
	Jetty Donan-II	8.0	6.5	3,000	5,000	85	105
	Jetty Donan-III	8.0	6.5	466	3,000	51	105
PDN							
	Wharf	6.5		700	10,500	60	135

Vessels berth starboard side to at the Crude Island Berths and port side to at all other berths.

Shore Storage Tanks:

Oil Products		Total Safe Capacity
Crude Oil		800,000 k/l
Slop Oil	Area 70	15,000 k/l
	Area 60	3,580 k/l

Products/Loading Rates:

Berth	Cargo Handled	Average Rate Loading k/l.p.h.	Average Rate Disch. (t.p.h.)	Connections No.	Connections Hose (in.)	Connections Arm (in.)
CIB-I	Crude Oil	–	3,000	4	–	12
	MDF/MFO	200	–	1	4	–
	Fresh Water	40/20	–	1	4/2	–
CIB-II	Crude Oil	–	3,000	4	–	12
	MDF/MFO	200	–	1	4	–
	Fresh Water	40/20	–	1	4/2	–
B-I	Crude Oil	–	2,000	2	–	10
	IDF	1,200	–			
	IFO	1,200	–			
	Ballast	–	1,000			
	Kerosene	1,500	–	2	–	10
	Premium	1,500	–			
	HSD	1,500	–			
	Naphtha	1,500	–			
	HOMC	1,500	–			
	Ballast	–	1,000			
	MDF/MFO	200	–	2	4	–
	Fresh Water	20	–	1	2	–
B-II	Crude Oil	–	2,000	2	–	10
	IDF	1,200	–			
	IFO	1,200	–			
	Ballast	–	1,000			
	Kerosene	1,500	–	2	–	10
	Premium	1,500	–			
	HSD	1,500	–			
	Naphtha	1,500	–			
	HOMC	1,500	–			
	Ballast	–	1,000			
	MDF/MFO	200	–	2	4	–
	Fresh Water	20	–	1	2	–
B-III	IDF/IFO	1,200	–	2	–	10
	Ballast	–	1,000			
	Kerosene	1,500	–	2	–	10
	Premium	1,500	–			
	HSD	1,500	–			
	Naphtha	1,500	–			
	HOMC	1,500	–			
	Ballast	–	1,000			
	MDF/MFO	200	–	2	4	–
	Fresh Water	20	–	1	2	–
D-I	BFS	200	–	1	–	6
	Lub Oil	200	–	1	–	6
	Avtur	200	–	1	4	–
	MDF	50	–	1	3	–
	Fresh Water	20	–	1	2	–
	Ballast	–	250	1	4	–
D-II	BFS	200	–	1	–	6
	Asphalt	200	–			
	Lub Oil	200	–	1	–	6
	Avtur	300	–	1	–	6
	MDF	50	–	1	3	–
	Fresh Water	20	–	1	2	–
	Ballast	–	250	1	4	–
D-III	LPG	300	–	1	–	6
	Avtur	300	–	1	4	–
	MDF	50	–	1	3	–
	Fresh Water	20	–	1	2	–
	Ballast	–	250	1	4	–
PDN	MDF	50	–	2	6	–
	MFO					
	ADO					

Authority: Pertamina P&T UP – IV, Jl. M.T. Haryono, Lomanis, Cilacap, Indonesia. Tel: (0282) 22276. Telex: 22380 PKKC.CP. FAX: (0282) 22853, 21710.

Also see "Shipmaster's Report".

STEVEDORES: Working hours Monday–Thursday 0730 – 1200 hrs. and 1300 – 1530 hrs. and Saturday. Overtime Friday 0730 – 1130 hrs. and 1300 – 1530 hrs.; Sunday-holidays 0730 – 1200 hrs. and 1300 – 1530 hrs.; Night shift 1700 – 2300 hrs. Gang's capacity: Loading general cargo 12 t.p.h.; bagged cargo 20 t.p.h.; iron sand by conveyor 400 t.p.h. – 500 t.p.h.; bulk cargo 17 t.p.h.

MEDICAL: Pertamina Hospital Service and Public Health Service.

PORT EQUIPMENT:

Cranes: 1 mobile crane with lifting capacity of 15 tons.

Forklifts: 1×10 ton, 1×7.5 ton, 2×5 ton, 2×3.5 ton, 4×3 ton and 3×2 ton.

DENSITY: 1012 – 1020.

FRESH WATER: Water is supplied through pipe-lines to the wharves, capacity 10 t.p.h. – 15 t.p.h.

FUEL: Bunkers (M.D.F., M.F.O., H.S.D.) available alongside by pipe-line. Supplier is State Corporation Pertamina. Rate 60 t.p.h.

CONSULS: None.

AIRPORT: Tunggul Wulung Airport. Distance from port 14 km. Served by Merpati Nusantara Airline with daily flights to and from Jakarta.

TIME: GMT plus 7 hours.

PORT SECURITY: Maintained by members of the Indonesian Armed Services, usually, Police, Navy or Marine and Army. Crew members should be in possession of a shore pass issued by the Port Authority, accompanied by an identification card when leaving or entering the guarded gates of the Port Area. Shore passes can be obtained via the Agencies.

CUSTOMS: It is strictly prohibited to take undeclared foreign currency ashore. It is recommended that Masters consult the Agents about the local prevailing Customs Regulations with regard to currency, cigarettes, spirits, etc., to prevent unnecessary difficulties and eventually fines.

Ship's Inspection Team: Consisting of members of the Port Authority. This team will search the vessel, after the ship is cleared by the Port Medical Officer. Prior to mentioned search no Cargo handling is allowed. This Team will search the Store Rooms and Cargo hatches, and subsequently seals the Bonded Stores and Radio Transmitter. Careful attention should be given in making up the Store Lists, as any difference found in the items declared and discovered during the search may lead to difficulties.

SHORE LEAVE: When leaving and entering the Custom's Area the crew is checked on the basis of the Crew List and Identification Cards and searched.

DEVELOPMENTS: Dockyard for ship repairs under construction.

Pusri Jetty for fertiliser under construction.

SHIPMASTER'S REPORT: August 1985.

Vessel (31,000 d.w.t.) entered Cilacap to load a cargo of gas oil for discharge at Bukom (Singapore). Unfamiliarity together with no chart for the port onboard created some difficulties, but in fact, it is quite an open approach to the port. However, entry into the dredged channel should not be attempted without guidance if the Pilot cannot board the vessel due to strong Southeasterly winds and heavy swell.

Port Limits: Not clearly defined, but assumed to start in area of the Channel Entrance Buoy.

Documents: All officials board after berthing.

Customs were satisfied with 3 detailed copies of Personal Effects and Currency Declarations, plus 3 copies of Bonded and Ship's Provisions Stores.

Immigration require 3 Crew Lists, Agents 2 copies and Customs 2 copies. Port Health also require 2 copies. Immigration also require all Passports (or Discharge Books where Passport not available) to stamp entry and issue Shore Passes. Passports are re-stamped with exit stamp prior to departure and Shore Passes must be returned, before sailing.

2 Officials board from Port Health and require Master to complete and sign Health Declaration and they check Yellow Fever/Cholera Vaccination Certificates (all up to date). If onboard, they also require the Indonesian Health Book.

For the Harbour Master, the Agent will collect the following documents for sighting ashore on signed receipt: Last Port Clearance, Certificate of Registry, Load Line Certificate, Safety Construction Certificate, Safety Equipment Certificate, Radio Safety Certificate, Derat Certificate, Tonnage Certificate, Certificates of Class, Hull and Machinery (both new building and completion of Survey Cycle), I.O.P.P., TOVALOP and Safe Manning Certificate.

Agent also presents cargo manifests for signing for Customs. Bills of Lading for petroleum cargoes are issued on Pertamina Bills of Lading and others cannot be used or Pertamina's endorsed. Issue usual protests as per Charter Party instructions.

Radio/VHF: W/T as per Vol. 6. Station PKR6, very helpful, with good English will contact Agent for vessel – no charges for service. Closer to port, Pilots work Channel 12 and Agents (Pertamina Agency) works on Channel 19.

Pilotage: Refer Pilot Book 34 Vol. II, page 50, Chapter 3.25 – the details re. Tg. Cimiring Lighthouse not applicable to deep draft vessels as too far offshore to see any signals (6 – 8 miles). The lighthouse is also very difficult to spot during the day due to trees. Call on VHF Channels 19/12 as indicated above. Chart coverage of the area is very poor. Tg. Cimiring should not be approached closer than 5 – 6 miles and the headland rounded at this distance, unless local knowledge available. Good depths of water available if Pilot Book directions followed to Channel Entance Buoy shown on B.A. Chart 912. However, B.A. Chart 912 (issued March 1985) is full of inaccuracies. Namely:

1. The buoyed channel has a dredged depth of approximately 11 m. which is not indicated.
2. Some leading line beacon lights are in the incorrect position on the chart, or if correctly charted, do not show the present correct direction of approach.
3. Existing leading beacons bear no relationship to present channel.
4. Several buoys are not shown or position is doubtful. Characteristics, shape and topmarks also vary to those shown on B.A. Chart 912. However, the Approach Channel is reasonably well marked and vessels should experience no difficulties as channel buoys follow IALA system.

Comments in the Pilot Book Chapter 3.26 concerning a black No. 1 Buoy (1.60) and the light beacons (L36-50) should be disregarded. However, the caution re. tidal streams heeded. (L36-50). Our vessel experienced a strong Southeasterly set onto the Channel Entrance Buoy at half ebb despite Southeasterly winds Force 4 – 5. Considerable wallowing in the swell was experienced and a good underkeel clearance should be maintained at all times.

Comments in the Pilot Book re. Pilots boarding in the S.E. monsoon season are correct (R23-28). During the Southeasterly monsoon, the combined wind and seas/swell make boarding in the Outer Roads hazardous and transit via the dredged channel to more sheltered waters between Buoy Nos. 5 and 7 (abeam of Kg. Rempak) is required. However, Shipmasters with little or no local knowledge should request the tug to meet them at the Entrance Buoy and then act as lead boat along the channel (imperative if no local chart onboard). Local Pilots and tugs very competent as Cilacap is quite a busy oil port. The Outer Buoy referred to in Chaper 3.28 on page 51 (lines L27-29) does not exist, but directions given are sound.

Anchorages: Covered in Appendix of 34, Volume II. Several tankers observed at anchor in S.E. Force 5 – 6 winds with swells of 2 m. – 3 m. – no shelter afforded in Southeasterly monsoon weather, but reported as secure anchorage. Mined areas still exist.

Restrictions: Max. permissible draft is 10.5 m. (SW). However, always check. No written information re. depths was available to the Master or table of Tidal Predictions (appeared to have been produced locally) offered, although latter printed. Shipmasters should insist on a copy being placed onboard. Caution is also required on receiving sailing times. We refused to sail on falling tide when instructed and chose to depart at 1 hour before HW. Echo sounder trace indicated a minimum depth average of 4 m. recorded throughout passage to channel, except for one shoal patch abeam of the Ore Jetty, showing 0.3 – 0.6 m. UKC. The predicted tidal range at the times in question was approximately 1.3 m. So on LW, likely UKC would have been 2.5 m. However, the Pilot indicated that the actual depths of water available on the West side of the river are not really known and as vessel has to be swung prior to sailing, it seemed prudent to have as much water as possible. If berthed starboard side to at Cilacap Berths (East side of river), vessel turns bow to jetty on last of flood or bow out on ebb tide. Daylight sailing only if vessel requires to swing prior to sailing. Otherwise, vessel can sail any time. Those vessels berthed on S.W. side of the river (on Nusa Kambangan) appear to berth laden facing upstream and swing in the turning basin S.E. of the Ore Jetty in ballast.

Tugs: 3 vertical screw tugs of 3,500 h.p. plus a smaller unit. Tugs adopt push/pull practice. Very efficient.

Berths: At Cilacap, 3 modern 'T' head jetties with Chicksan loading arms and a storing crane. Use ship's gangway. Terminal security is very good with a Security Guard and shore jetty man in attendance at all times. Entry to the terminal is by pass or written authorisation only. Jetties are designed for vessels in 150 m. – 200 m. length range. There are 2 similar jetties in the S.W. corner of the river downstream in the first bend for larger vessels. There was one vessel of 230 m. length alongside during our visit. Again, modern 'T' head construction with dolphins.

Tankers: Shore present 4×10 in. Chicksan arms. High loading rates achieveable. 1,800 cu.m.p.h. until hastily slowed down as was vessels max. loading rate on one line. Cargo papers take about 4 – 5 hours. Independent Surveyor appointed who was very efficient. No lab available for final density, so it more than 2 shore tanks loaded, surveyor takes mean of 4 – 5 samples drawn from ship's tanks to establish Bill of Lading Relative Density. No final density given by shore.

Density: Lowest recorded was 1022 at half tide flood, but probably lower in the rainy season.

Fire Precautions: Good check list procedures and detailed tank preparation/loading and discharge instructions given by Terminal Representative.

Surveyors: See "Tankers".

Gangway/Watchmen: See "Berthing".

Customs Allowances: 200 cigarettes and 1 case of beer and 1 bottle of spirits. No rummaging took place.

Time: GMT plus 7 hours all year round.

Storing: (See "Prelims"). Several chandlers available, Pertamina vessels store locally. Believe locally supplied fresh vegetables and fruits of good value. All meats butchered locally.

1. Truck.
2. Not available.
3. Goods would have to be brought to vessel on handcart (nearly 0.5 miles on Jetty 3).
4. Would imagine shipchandler would provide labour.

Shore Leave: Passes essential. Currency regulations not strictly enforced. Local trishaw costs about S$10.00 per person return to town. Locals very friendly. Area best described as rural. Jakarta is 1 hours flight, 4 hours by car and 6 hours by train from Cilacap.

AUTHORITY: Departemen Perhubungan, Perusahaan Umum Pelabuhan 111, Cabang, Cilacap, Jalan Laut Jawa, Pelabuhan Cilacap. *Tel:* (0282) 21334, 22651, 22652, 22653. *Contact:* Soeroso Prawirosiswojo, Branch Manager. Sojoto Prawirodirjo, Harbour Master.

(b) CILACAP – IRON SAND PORT.

LOCATION: Iron Sand Jetty (loading installation) is situated at the Port of Cilacap, South coast of Central Java, in position: Lat. 07° 45′ 03″ S., Long. 109° 00′ 51″ E.

FLAGS: To be flown by incoming vessels: Vessel's National Flag; Indonesian Flag; Vessel's Number; Quarantine & Immigration Flag.

DOCUMENTS: To be produced upon vessel's arrival:

15 Crew Lists.
10 Passenger Lists.
5 Parcel Lists.
8 Stores Lists.
8 Cargo Manifests.
3 Narcotic Lists.
5 General Information (if any).
5 Personal Effects Lists.
5 Vaccination Lists.
Last Port Clearance.
10 Firearms & Ammunition Certificates.
10 Harbour Reports.
5 Crew's Radio & Camera Lists.
International Loadline Certificate.
Maritime Declaration of Health Certificate.
Safety Radio Certificate.
Health Book or Bill of Health.
Derat Certificate.
Safety Equipment Certificate.
Certificate of Registry and Tonnage.
Certificate of Vessel's Nationality.

Inspection Team: This team consists of the Port Health Officer, Custom Officer, Harbour Master, Immigration Officer and Police.

After the vessel is granted Free Pratique, the Immigration Officer will check Passports, Seaman's Books and Crew List and issue shore passes.

PILOTAGE: Pilotage is compulsory. Two Government Pilots are available.

There is one pilot station in position Lat. 07° 44′ 08″ S., Long. 108° 59′ 34″ E. If vessel wishes to be piloted to Iron Sand Jetty on day of arrival vessel must arrive at the pilot station before 1500 hrs. local time at the latest provided the Pilot is available (information of which will be confirmed by Sub-Agent).

RESTRICTIONS: Vessels served on first come, first served basis. Vessels berth between 0600 hrs. and 1500 hrs. and leave during daylight hours on high water. The depths at LWS are: Alongside wharf, 13.0 m.; Channel Bar 11.30 m.

Vessel's Conditions: The height of vessel from water line to top of hatchcoaming or railing must not exceed 15 m. Each side deck breadth from bulwark to hatchcoaming must be preferably 7 m. minimum and 9 m. maximum.

MAX. SIZE: LOA 186 m. Max. draft 10.40 m. Deeper possible but it depends on depth at the time of passing bar and after consultation with the Harbour Master.

RADIO: Messages to Pasirbesi Cilacap can be sent through Cilacap Coastal Radio Station, call sign PKR 3.

Arrival Notice – Information Required:

Owner's Advice: Owner or Agent to advise by cable to Anekatambang Jakarta and Pasirbesi Cilacap at least 10 working days before vessel's expected arrival at the loading port.

Master's Advice: At least 48 hours before vessel's arrival at Cilacap Pilot Station, the ship's Master or Agent shall give the following information to Anekatambang Jakarta and Pasirbesi Cilacap: Last port of call, draft on arrival, quantity of iron sand to be loaded, stowage plan (hatch division for iron sand cargo) and other necessary messages.

Final amended arrival time must be sent at the latest 24 hours before arrival.

Previous experience showed that one cannot rely on telegrams regarding ETA sent by Agents at last port of call arriving in due time, therefore Pasirbesi Cilacap waits for the Master's telegram in order to make necessary preparation such as ordering Pilot etc.

Ship's radio transmitter is not to be used while lying in port.

TUGS: Available.

BERTHING:

Mooring: Vessels are moored alongside 1 jetty and 6 dolphins with 4 bollards with good nylon ropes, 4 fore, 4 aft, 1 fore breastline and 1 after breastline. Distance between the two extreme dolphins is 160 m.

Loading Facilities: Loading installation consists of one boom (stacker), iron sand is loaded into the hold of the vessel by means of conveyor belt. Boom can be hoisted vertically from 00° to 60° but the maximum position for proper operation is only up to 15° inclination angle and can swing 26.85 m. (60°) to each side. The length of boom is 33.33 m. The maximum outreach is about 16.33 m. from jetty to seaward.

Loading Capacity: About 400 – 500 t.p.h., however, it depends on the type of vessel, cargo space and size of hatches available.

Weighing: The iron sand is automatically weighed during loading by means of weightometer. The specific gravity of iron sand is around 2.60.

Unloading: Cargo for Aneka Tambang only.

Labourers: Labourers will be supplied by shipper. Making the vessel ready for loading to be done by vessel's Crew members.

STEVEDORES: Loading is performed by shipper's personnel. Loading equipment to be furnished by the vessel.

Working Hours: Loading to be effected on weather working days of 24 consecutive hours, Sundays and Holidays included (WWD SHINC), but the following National Holidays are excepted:

New Year (January 1st); Idulfitri (the fixed 2 consecutive days of the year; Idul Adha (the fixed day of the year); Independence Day (the fixed day of the year); Maulid Day (the fixed day of the year); Easter (the fixed day of the year); Waisyak (the fixed day of the year); Nyepi (the fixed day of the year); Ascension (the fixed day of the year); the first Muharram (the fixed day of the year) and Christmas Day (December 25th). For definite dates consult Port Administrator.

CUSTOMS: Vessel's bonded store will be sealed by Customs Officer on arrival and will remain sealed until the vessel leaves Cilacap Port.

Note: It is recommended that ship's Master consult the Agents about the local prevailing Customs regulations with regard to currency, cigarettes, spirits, narcotics, etc. to prevent unnecessary difficulties and eventually fines.

MEDICAL: Doctor, hospital and inoculation service available.

FRESH WATER: Not available.

FUEL: Not available.

TIME: GMT plus 7 hours.

REPATRIATION: Can be arranged. Repatriant to be guarded by Immigration Officer from Cilacap to Jakarta until his departure from Jakarta to the destined country.

CONSULS: None.

SHORE LEAVE:

General: Crew members are permitted only to go to Cilacap. Shore pass must be carried by crew during shore visit.

Going beyond Cilacap is prohibited without special landing permit, which can be issued by the local Immigration Officer through Agents.

Visitors: Crew members are not allowed to invite friends, hawkers from shore aboard the vessel. It is also prohibited to lower lifeboats or rafts for purpose of fishing, sailing, visits to nearby islands, etc.

At Anchorage: While lying at anchor awaiting berth, no one is allowed to go ashore until vessel cleared.

Shore Leave Hours: From 0600 hrs. to 2300 hrs. local time.

GENERAL:

Fumigation: No facilities.

Nature of Bottom: Sand and hard materials.

Currents: Direction: at high tide, from East to West; at ebb tide, from West to East. Velocity: around 3-5 knots.

Chart: Indonesian Sea Chart No. 108.

AUTHORITY: *Shipper's Local Office:* P.T. Aneka Tambang, Unit Pertambangan Pasir Besi, Cilacap. Jalan Pandanarang, P.O.Box 24, Cilacap Central Java. *Cable Address:* Pasirbesi Cilacap. *Tel:* 22142, 22143. *Telex:* 22457.

Shippers: P.T. Aneka Tambang 24-26 Jalan Bungur Besar, Jakarta, Indonesia. *Tel:* 410108. *Telex:* Antam Jkt 49147. *Cable Address:* Anekatambang Jakarta.

CINTA TERMINAL: 05.27 S. 106.15 E. **(See Plan)**

DOCUMENTS: The following documents are required for immediate inspection by the Terminal Officials:

Maritime International Declaration of Health.
Valid Derat or Exemption Certificate.
6 copies of Crew Lists.
Passenger List, if any.
Certificates of Inoculation against any communicable diseases.
Valid Passports and/or Seaman's Books for all Crew members or passengers.
Notice of Readiness.
Indonesian Consular Clearance.
1 Crew Declaration of Personal Belongings.
1 Ship's Stores Inventory.
6 copies of Cargo Manifest for Cinta Terminal loading.
1 Copy of Cargo Manifest for Transit Cargo with a Summary.
1 Copy of Passenger Manifest.

Clearance from the last port of call will be required by the Government Authorities. Crew Lists and Crew Declaration of Personal Belongings must be on the approved Indonesian documents. Vessels are advised on their initial visit to the port to obtain sufficient forms for future visits.

In the normal course of events, Cinta Terminal acts as tanker agent and prepares all crude oil documents. No charges are made for these services. A tanker will be considered clear to depart Cinta Terminal when the crude oil loading documents and his outward clearance certificate have been delivered to the Master of the vessel.

EQUIPMENT: A vessel must have both bower anchors and ground tackle in good working condition and in such sizes and amounts as to meet either "Lloyd's" or "A.B.S." standards, although they may be in fact classified by other societies. It is strongly recommended that anchors have proper anchor buoys attached to each anchor.

All vessels must carry suitable stoppers for all manila or synthetic lines for mooring use.

Vessels to have suitable winches or capstans in good operating condition on the forecastle deck. Constant tension-type winches may not be used except when they can be solidly locked and the constant tension feature not used.

PILOTAGE: Pilotage is compulsory within the Terminal limits. Vessels to be moored at Cinta Terminal will be boarded by Cinta Terminal Mooring Master in the anchorage area. The Mooring Master will advise the ship's Master on approaches to the SBM, mooring, unmooring, connection and disconnecting hoses, and all other operations within the Terminal area. Vessels are requested to have a pilot's ladder, safely and securely rigged, ready for immediate use and long enough to meet the Mooring Master's launch. Vessels will provide a lee for the Mooring Master, both when boarding and leaving. Also a light line should be ready to take aboard the Mooring Master's portable radio.

ANCHORAGE: Position is Lat. 5° 25′ 25″ S., Long. 106° 11′ 09″ E. with a radius of 1 mile which must be used by vessels required to wait at anchor. Anchoring within the Terminal Area is prohibited. Mooring Masters will board arriving tankers in the anchorage area.

The holding area is West of the No. 1 Export SBM with water depth of 18 to 20 fathoms. Holding ground is fairly good. Area is large enough for sufficient manoeuvring and swinging room for several vessels.

If a tanker is not scheduled to berth on arrival (e.g. another vessel is already in the berth, or the Terminal is closed on account of adverse weather, etc.), Master will be advised by radio and requested to anchor.

RESTRICTED AREA: The limits of the restricted area is covered by lines between points of the following positions:

AA.	Lat. 04° 48′ S.,	Long. 106° 12′ E.
BB.	Lat. 04° 48′ S.,	Long. 106° 14′ E.
CC.	Lat. 05° 04′ S.,	Long. 106° 22′ E.
DD.	Lat. 05° 04′ S.,	Long. 106° 27′ E.
EE.	Lat. 04° 56.5′ S.,	Long. 106° 27′ E.
FF.	Lat. 04° 56.5′ S.,	Long. 106° 34′ E.
GG.	Lat. 05° 00′ S.,	Long. 106° 34′ E.
HH.	Lat. 05° 00′ S.,	Long. 106° 30′ E.
JJ.	Lat. 05° 07′ S.,	Long. 106° 30′ E.
KK.	Lat. 05° 10′ S.,	Long. 106° 26′ E.
LL.	Lat. 05° 10′ S.,	Long. 106° 25′ E.
MM.	Lat. 05° 26′ S.,	Long. 106° 28′ E.
NN.	Lat. 05° 33′ S.,	Long. 106° 18′ E.
PP.	Lat. 05° 33′ S.,	Long. 106° 14′ E.
RR.	Lat. 05° 37′ S.,	Long. 106° 14′ E.
SS.	Lat. 05° 37′ S.,	Long. 106° 09′ E.
TT.	Lat. 05° 15′ S.,	Long. 106° 09′ E.
XX.	Lat. 05° 15′ S.,	Long. 106° 04′ E.
YY.	Lat. 05° 06′ S.,	Long. 106° 04′ E.
ZZ.	Lat. 05° 06′ S.,	Long. 106° 10′ E.

RESTRICTIONS: Weather permitting, Cinta Terminal will operate on 24 hours per day, 7 days per week. Tankers will be berthed during daylight hours only and unmoored on 24 hours basis provided the berth is not occupied and/or storage is not critical.

MAX. SIZE: *Minimum Size Tanker Acceptable:* The minimum sized tanker acceptable at the Terminal will be not less than 20,000 d.w.t.

Max. Size Tanker Acceptable: The max. sized tanker acceptable at the Terminal calling for a full cargo will be 175,000 d.w.t. Larger tankers may be accepted subject to weather conditions at the time of loading without recourse to Maxus for any delays.

NAVIGATION AIDS: There are 4 SBMs, each fitted with 5 nautical mile white flashing light, flashing Morse code (U) at 15 second intervals.

The positions are as follows:

No. 1 Storage SBM: Lat. 05° 26′ 40″ S., Long. 106° 14′ 42″ E.

Permanently secured to this SBM is a large 602 ft. long barge "Cinta Natomas" used for storage of crude oil and accommodation, (headquarters of Cinta Terminal personnel). The barge shows lights and shapes as prescribed in the International Regulation for Preventing Collisions at Sea for vessels engaged in underwater operations. The barge is also equipped with a foghorn 5 second on, 55 second off, 5 second on, 10 second apart.

No. 2 Storage SBM: Lat. 05° 26′ 23″ S., Long., 106° 13′ 45″ E.
No. 1 Export SBM: Lat. 05° 25′ 25″ S., Long. 106° 14′ 09″ E.
No. 2 Export SBM: Lat. 05° 27′ 03″ S., Long. 106° 13′ 00″ E.

Platform Co-ordinates:

Cinta-A	Lat. 05° 26′ 24.46″ S.,	Long. 106° 15′ 44.73″ E.
Cinta-B	Lat. 05° 27′ 00.34″ S.,	Long. 106° 15′ 17.72″ E.
Cinta-C	Lat. 05° 27′ 00.33″ S.,	Long. 106° 15′ 19.57″ E.
Cinta-D	Lat. 05° 28′ 04.07″ S.,	Long. 106° 14′ 34.37″ E.
Cinta-E	Lat. 05° 27′ 44.93″ S.,	Long. 106° 15′ 23.22″ E.
Cinta-F	Lat. 05° 27′ 17.29″ S.,	Long. 106° 14′ 20.81″ E.
Cinta-G	Lat. 05° 26′ 49.77″ S.,	Long. 106° 16′ 11.19″ E.
Cinta-H	Lat. 05° 25′ 24.61″ S.,	Long. 106° 16′ 26.63″ E.
Cinta-P	Lat. 05° 27′ 02.51″ S.,	Long. 106° 15′ 19.25″ E.
Cinta-P1	Lat. 05° 27′ 04.63″ S.,	Long. 106° 15′ 19.25″ E.
Duma-A	Lat. 05° 25′ 37.59″ S.,	Long. 106° 27′ 46.26″ E.
Farida-A	Lat. 05° 10′ 52.30″ S.,	Long. 106° 19′ 44.70″ E.
Farida-B	Lat. 05° 10′ 36.50″ S.,	Long. 106° 18′ 41.60″ E.
Farida-C	Lat. 05° 10′ 36.50″ S.,	Long. 106° 18′ 41.60″ E.
Gita-A	Lat. 05° 22′ 11.38″ S.,	Long. 106° 22′ 45.00″ E.
Karmila-A	Lat. 04° 59′ 14.03″ S.,	Long. 106° 31′ 57.38″ E.
Kitty-A	Lat. 05° 30′ 58.85″ S.,	Long. 106° 11′ 52.82″ E.
Kitty-3	Lat. 05° 31′ 32.90″ S.,	Long. 106° 11′ 07.58″ E.
Krisna-A	Lat. 05° 11′ 05.20″ S.,	Long. 106° 11′ 31.00″ E.
Krisna-B	Lat. 05° 12′ 18.56″ S.,	Long. 106° 12′ 28.90″ E.
Krisna-C	Lat. 05° 13′ 13.20″ S.,	Long. 106° 11′ 40.30″ E.
Krisna-D	Lat. 05° 14′ 03.50″ S.,	Long. 106° 13′ 06.25″ E.
Krisna-E	Lat. 05° 10′ 45.22″ S.,	Long. 106° 10′ 51.09″ E.
Krisna-10	Lat. 05° 11′ 04.19″ S.,	Long. 106° 13′ 06.98″ E.
Krisna-P	Lat. 05° 12′ 18.56″ S.,	Long. 106° 12′ 28.90″ E.
Nora-A	Lat. 05° 30′ 06.65″ S.,	Long. 106° 18′ 50.55″ E.
Rama-A	Lat. 05° 26′ 50.23″ S.,	Long. 106° 17′ 15.95″ E.
Rama-B	Lat. 05° 26′ 25.96″ S.,	Long. 106° 19′ 54.49″ E.
Rama-C	Lat. 05° 25′ 21.00″ S.,	Long. 106° 18′ 56.60″ E.
Rama-D	Lat. 05° 27′ 03.00″ S.,	Long. 106° 19′ 00.00″ E.
Rama-E	Lat. 05° 25′ 12.65″ S.,	Long. 106° 20′ 00.84″ E.
Rama-F	Lat. 05° 27′ 07.80″ S.,	Long. 106° 20′ 17.37″ E.
Rama-G	Lat. 05° 25′ 51.76″ S.,	Long. 106° 17′ 53.68″ E.
Rama-H	Lat. 05° 25′ 54.59″ S.,	Long. 106° 20′ 37.50″ E.
Rama-I	Lat. 05° 27′ 14.28″ S.,	Long. 106° 18′ 18.46″ E.
Rama-P	Lat. 05° 26′ 27.65″ S.,	Long. 106° 19′ 55.00″ E.
Selatan-A	Lat. 05° 33′ 42.30″ S.,	Long. 106° 10′ 59.10″ E.
Selatan-B	Lat. 05° 34′ 52.36″ S.,	Long. 106° 11′ 33.73″ E.
Sundari-A	Lat. 04° 59′ 52.93″ S.,	Long. 106° 12′ 51.58″ E.
Sundari-B	Lat. 04° 59′ 16.41″ S.,	Long. 106° 12′ 54.76″ E.
Titi-A	Lat. 05° 10′ 13.39″ S.,	Long. 106° 24′ 13.24″ E.
Wanda-A	Lat. 05° 22′ 39.58″ S.,	Long. 106° 21′ 17.56″ E.
Yvonne-A	Lat. 05° 09′ 41.28″ S.,	Long. 106° 10′ 27.87″ E.
Yvonne-B	Lat. 05° 09′ 41.28″ S.,	Long. 106° 30′ 27.87″ E.
Zelda-A	Lat. 05° 11′ 11.11″ S.,	Long. 106° 22′ 56.48″ E.
Zelda-B	Lat. 05° 11′ 09.00″ S.,	Long. 106° 21′ 18.00″ E.
Zelda-C	Lat. 05° 11′ 07.74″ S.,	Long. 106° 21′ 15.42″ E.
Zelda-D	Lat. 05° 10′ 13.61″ S.,	Long. 106° 22′ 10.93″ E.
Zelda-E	Lat. 05° 11′ 22.53″ S.,	Long. 106° 22′ 01.41″ E.
Zelda-P	Lat. 05° 11′ 10.72″ S.,	Long. 106° 22′ 54.85″ E.

RADIO/VHF: *Cable Address:* "Maxus S.E.S. Jakarta". *Telex:* 44221-1A. *Operating Schedules and Frequencies:* Direct communication by radio telephony between Cinta Terminal (call sign: 6ZFT) and incoming vessels will be by: amplitude modulation (A3, A3H and A3J) operation in the 2, 4, 8 and 12 MHz bands and by International Marine VHF Channel 16 (156.80 MHz).

Cinta Terminal (call sign: 6ZFT) particulars are as follows: Operated by Maxus South East Sumatra.

Position: Lat. 5° 26′ 40″ S., Long. 106° 14′ 42″ E.

Hours of operation: 24.

Frequencies	*Class*	*Power*	*Mode*
4456.0 kHz	A3, A3H, A3J	150 W	AM

International Marine VHF Channels:

6 – 156.30 MHz	Simplex		
12 – 156.60 MHz	Simplex		
13 – 156.65 MHz	Simplex		
14 – 156.70 MHz	Simplex		
16 – 156.80 MHz	Simplex		
20 – 157.00 MHz	Receive	161.60 MHz	Duplex
26 – 157.30 MHz	Receive	161.90 MHz	Duplex
28 – 157.40 MHz	Receive	162.00 MHz	Duplex

Notes: 6ZFT keeps continuous watch on 4456 kHz. 6ZFT keeps continuous watch on VHF Channel 16.

All communications between ships and Cinta Terminal (6ZFT) will be way of this station except should a vessel be unable to contact 6ZFT, she should send messages through: Singapore Radio/9VG or Pertamina Radio/PKI-2.

Initial Communications: It is most important that ships establish communications with the Cinta Terminal (6ZFT) not less than 72 hours prior to arrival at the Terminal, giving estimated time of arrival. Further ETA information should be sent when the vessel is 48 hours, 24 hours, 12 hours and 4 hours distant or any time a change of one hour in original ETA occurs. These messages should specifically state whether ETA is given in GMT (Z) or local time (K).

Cinta Terminal time is GMT plus 7 hours throughout the year.

The 72 hours signal should include the following:

1. Name of vessel and radio call sign.
2. ETA and date.
3. Cargo requirements.
4. Deballast time.
5. Max. loading rate.
6. Vessels draft on arrival.
7. If there is any sickness aboard or clean bill of health.
8. Last port of call.
9. Any hull, bulkhead, valve or pipe-line leaks on vessel which could affect loading or cause pollution.
10. Distance in feet from bow to vessel's loading manifold.

On receipt of the first signal from a vessel Cinta Terminal (6ZFT) will transmit a message to her giving preliminary requirements and details as to Terminal. Masters are urged to comply with this in all details in order to facilitate vessel turn-around and Government formalities.

Communications Within 4 Hours of Terminal: Once ships are within the 4 hours distance of Cinta Terminal (6ZFT) communication, valid radio-telephone communications on International marine VHF may be established on Channel 16. This channel is monitored continuously.

Once contact has been made on Channel 16 further conversation will be conducted on a mutually compatible channel.

The 4 hours signal should confirm information on the time she will require to discharge ballast after arrival. Precise time of arrival should be given when the ship is 4 hours distant from the Terminal.

Communication in Terminal: The Mooring Master will be in direct control of all ship communications while in the Terminal Area. Any unauthorised communications will be cause for cessation of all operations excepting clearing the berth, and the vessel's Notice of Readiness will be nullified immediately.

PRATIQUE: In accordance with international practice, quarantine signals must be displayed by all vessels approaching Cinta Terminal area. These signals shall be displayed continuously until Pratique is granted. By day the flag of Indonesia should be flown throughout the vessel's stay in port. The boarding officials will attend the incoming vessel from the Cinta Terminal launch.

NOTICE OF READINESS: After arrival in the anchorage area and when the tanker is in every respect ready to load, the Master may tender his Notice of Readiness. Notice of Readiness will not be accepted during periods when the Terminal is closed. The Terminal is "closed" when the weather is such that it is too rough for incoming tankers to berth. The decision regarding the opening and closing of the Terminal will rest with the Terminal Superintendent. Tenders by vessels to load crude oil cargo will be normally accepted and berth assigned to vessels in chronological order of arrival provided such vessels have current nomination for cargo valid at the time of tender, carry clean ballast (if any), and have cargo tanks in fit condition to receive cargo. Also they must be in all respects properly equipped and ready to moor. Should berthing be delayed on account of bad weather, vessels will keep their position in line.

TUGS: Tugs and/or launches may assist in berthing vessels. These are under the direct supervision and control of the Mooring Master.

BERTH DESCRIPTION: The Terminal and Production Administrative Offices are located on board the 143,391 d.w.t. crude storage barge *Cinta Natomas* permanently moored approximately 8,500 ft. on a line bearing 164° from the First Export SBM. The nearest port with facilities is Jakarta approximately 51 nautical miles South-east.

The single point mooring buoy berth (SBM) is 13.5 m. in diameter, and designed to handle tankers in the 175,000 d.w.t. class. The buoy is equipped with dual 12 inch floating hose with ASA 150 lb. flanged connections. Both strings must be taken aboard. Loading rates will be from 11,000 to 20,000 barrels per hour range. The SBM is also provided with two permanently attached 15 inch circumference synthetic fibre floating mooring lines. These lines should be held under tension by the vessel at all times.

MOORING: Tankers are requested to have ready on the forecastle head the following:

- *(a)* Messenger lines on the forecastle head for bringing 2 mooring lines aboard from the SBM (mininum 6 in. circumference).
- *(b)* Mooring winches on forecastle head for handling two 12 in. circumference synthetic fibre floating mooring lines from the SBM.
- *(c)* Adequate chafing gear to prevent damage to mooring lines.
- *(d)* Derrick rigged and ready to pick up from launch, mooring shackles, nylon strops and hose connection gear on the port side midships.

On the near approach to the buoy a launoh will attach a ship's line to one of the Terminal's floating mooring lines. This will be hove aboard and secured to the towing brackets, if the ship is so fitted, or otherwise secured by a ship's mooring wire and nylon strop previously passed aboard. The same operation will be repeated with the second mooring line.

The Mooring Master may require the vessel to unmoor at any time he deems it necessary for the safety of the vessel or mooring buoy or both, or infringement of the Terminal regulations.

HOSES: The Mooring Master along with a ship's officer will direct the ship's crew in the raising, lowering, connecting and disconnecting the oil loading hoses as well as all other labour pertaining to the loading of crude. The Terminal will not provide any labour for work done aboard the vessel.

Vessels must be adequately equipped with boom, blocks, tackle, wire runners and sundry equipment on the port side to hoist the floating hoses from the sea to the loading position. (5 tons minimum hoist size required.) Vessel's loading manifolds should be prepared for two 12 in. ASA 150 lb. Camlock flanged hose connections prior to vessel's arrival at Terminal. Vessel should have adaptors available if their flanges do not correspond to the loading hoses' flanges. For details of Camlock flanges see "Plan". Where no crossover valves exist on loading manifolds it is recommended that loops between loading lines on the starboard side of these manifolds be fitted. 8 in. hose connections to be removed; also, if necessary, "Y" pieces removed so that maximum flow through the 12 in. cargo hoses will not be reduced. To assist in vessel's turnaround, tankers should have all necessary booms and cargo gear rigged and ready before ship is boarded by Mooring Master.

Vessels which may consider the lifting capacity of their gear to be marginal should strengthen their gear accordingly. A common way to do so is to rig a second topping lift on the boom.

LOADING: Before the loading begins, the Master will ensure that all Terminal and Port Regulations pertaining to the readiness of the vessel have been complied with; that the vessel is manned and in all respects ready to receive crude, and that all precautions required by the circumstances have been taken.

All communications relative to the loading of the vessel shall be routed through the Mooring Master who will remain in contact with storage barge *Cinta Natomas* constantly via portable VHF Units. In case of temporary breakdown of the portable VHF circuit, contact may be continued on International Marine Channels if the vessel is so fitted.

Should communications with the *Cinta Natomas* fail, loading ceases. An emergency cessation of loading may be effected by a continuous sounding of the ship's whistle.

The max. loading rate will be 17,000 b.p.h. (2,300 long t.p.h.). Loading will commence with one pump; when the vessel advises that the cargo is flowing into the tanks, the loading rate will be increased until the desired rate has been reached.

Vessels shall not close down against the incoming oil flow. Vessels will be held liable for damages resulting from failure to observe this precaution.

The vessel must give 30 minutes notice to the *Cinta Natomas* before starting to "top-off", and shall advise if a decrease in loading rate is desired.

The vessel must give 15 minutes' notice to the *Cinta Natomas* prior to the completion of loading, at which time the *Cinta Natomas* may reduce to one pump.

On completion of loading, all pumps will be stopped, loading hoses disconnected, and blind flanges with gaskets installed on the loading hose before lowering over the side. There should be no leakage. All cargo tank openings and pressure vacuum relief valves must be closed immediately after ullages and samples have been taken.

All documentation will be completed as soon as possible after loading is completed.

If during loading it is revealed that oil is leaking from the tanker, so as to constitute a safety or pollution hazard, loading shall cease and the tanker may have to leave the Terminal limits at the sole discretion of the Mooring Master. Completion of loading will only be undertaken if repairs have been carried out to the tanker to the satisfaction of the Mooring Master. A tanker so rejected shall not later be accepted on a subsequent visit for loading until satisfactory evidence of repair is submitted duly certified by ABS, Lloyd,s or other recognised surveyors.

Notice must be given by the vessel to the Mooring Master 30 minutes before vessel completes deballasting. The Mooring Master will advise the Cinta Terminal.

BALLAST: It is the responsibility of the ship's Master to see that no oil (crude, bunkers, diesel or bilge) or dirty ballast is pumped or spilled overboard from his ship while in the area. Drip pans should be used, especially when disconnecting hoses, in order to prevent spillage overboard.

Before loading commences all overside scuppers shall be made oiltight. At Cinta Terminal there are no slop tanks or facilities for receiving dirty ballast. Tankers must arrive with clean ballast. In the event a tanker does have dirty ballast it will not be allowed to be pumped overboard.

A vessel must have sufficient ballast for safe handling, having due regard to existing weather and sea conditions. Through careful watch of the weather and sea conditions, frequent exchange of information between ship and Terminal, and by a knowledge of the behaviour of his own vessel, the ship's Master may come to the Terminal with a minimum of ballast and thus lessen any possibility of infringement of sea pollution regulations.

Vessels equipped with a separate system of ballast tanks will be allowed to discharge ballast and load oil simultaneously, provided approval is first obtained from the Company Mooring Master and provided Government Petroleum Inspector agrees to do so.

Discharging Ballast at Night: When any vessel is discharging ballast in darkness, the sea around the area of discharge will be adequately lighted, so that any pollution will be readily noticeable.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: No repairs are to be made while berthing or unberthing, or in the berth. All engines to be on 30 minutes standby and steam on deck at all times.

MEDICAL: At Cinta Terminal, medical and dental services are not available. In emergencies requiring hospitalisation, the patient will have to be flown by helicopter to Jakarta. All expenses will be charged to the ship owner.

CUSTOMS ALLOWANCES: Cigarettes, cigars, tobacco, matches, spirits, wines, beer, perfume, arms, ammunition and possibly other items will be locked up under customs' seal from time of arrival of ship at the Terminal until the time of leaving territorial waters.

Each person is allowed 20 cigarettes per day of stay or 3 grams of tobacco or cigars in lieu thereof. Each man is allowed 1 litre of beer or 0.5 litres of wine per day. Special allowances are made for the Master under special circumstances.

Indonesian Customs and Immigration Officials will board the vessel as soon as possible after arrival to give inward clearance and pratique service. Indonesian Government Regulations are strictly enforced.

Contraband: The attention of Masters is called to the strict enforcement of Indonesian Regulations against smuggling. Illegal possession or landing of such items as narcotics, liquor, cigarettes, ammunition, sheath knives and similar weapons or other articles of contraband is subject to severe penalty and may result in prolonged delay of the vessel concerned.

All precautions must be taken to prevent the violation of contraband laws.

Masters are requested to inform the ship's officers and crew of the foregoing regulations pertaining to contraband, shore liberty, etc., and to be assured that all personnel completely understand.

IDENTIFICATION CARDS: Visitors must obtain a Special Pass from Indonesian Government Officials located in the Terminal and from the Company's Mooring Masters. It is recommended that visitors be restricted to a minimum due to hazards involved.

TIME: Indonesian local time is GMT plus 7 hours.

SHORE LEAVE: Shore liberty will not be granted except in cases of extreme emergency. Crew members cannot pay off or leave vessel at Terminal.

GENERAL: Safety rules and regulations are strictly enforced. The safety requirements are based upon the provisions of the Code of Safe Practices currently accepted by the Oil and Tanker Industries.

Provisions, spare parts or stores of any sort shall not be loaded from or discharged into any craft while the tanker is in or near the berth.

When a Mooring Master and his launch crew are assigned to a ship on business, it is expected that the ship will supply them with meals at the same time and in the same manner as comparable with personnel of the ship. No special meals or special foods will be required. The Terminal will keep this item to a basic minimum. The ship should also provide shelter and smoking facilities in the same manner as meals. All communictions between Terminal personnel assigned to a ship and ship's personnel should be through the Mooring Master.

AGENCY: See "General" before first port.

SHIPMASTER'S REPORT: July 1987.

There are 3 SBMs and the Northernmost SBM is used for loading tankers. Middle and Southerly SBMs are for export tankers but are not normally used and, according to the Pilot, are kept as spares.

The storage barge is moored to its own SBM.

After connecting the first line to the SBM, the Pilot goes forward and communicates with the bridge on VHF Channel 13.

AUTHORITY: Maxus S.E.S. Inc., P.O.Box 2759, Five Pillars Office Park, Jl. Letjen Haryono M.T.58, Jakarta, Indonesia. *Tel:* 7991608. *Telex:* JKT. 47121-IA, 47487-1A. *Cables:* Maxus.

CIREBON ✓ (Tjirebon): 06.41 S. 108.33 E. **(See Plan)**

DOCUMENTS:

Crew List.
Passenger List.
Customs Documents.
Manifest.
Bills of Lading.
Ship's Papers/Certificates.
Health Documents.

PILOTAGE: Compulsory. Applications made through Agent or to Port Administrator via Cirebon Radio.

ANCHORAGE: Boundaries of port area are coast line, meridian 108° 35′ 30″ E. and the parallels of 06° 42′ 15″ S. and 06° 43′ 40″ S.

A light buoy on the position of Lat. 06° 42′ 10″ S., Long. 108° 36′ 20″ E. is placed on the guidance line to the entrance of the harbour.

RESTRICTIONS: Cirebon Roads only accessible for ships of 8 m. max. draft, by taking the Tandkung Sanggarong Light Buoy at port hand. Only ships with 5 m. max. draft can enter Inner Harbour and moor alongside wharves.

All other ships anchor at outer roads.

HEALTH: Usual international procedures.

RADIO: Cirebon Coastal Radio Station. Call sign PKZ-2. Working freq. 6491.5 kHz and 8799.5 kHz, watching freq. 6265 – 6285 kHz and 8204 – 8249 kHz. Working time 0030 – 0130 hrs. and 0600 – 0700 hrs. GMT.

TUGS: Tug services available. Order through Agents.

BERTHING: Muarajati II Wharf: Length 238 m. Depth at LWS – 5.0 m. Linggarjati Wharf: Length 131 m. Depth at LWS – 4.5 m.

STEVEDORES: Arranged by Agent.

MEDICAL: Normal hospital facilities available. Agent will arrange for medical attention. Advance notice required.

TANKERS: Berthing for only 300 d.w.t. tankers at special oil jetty.

DENSITY: 1025.

FRESH WATER: Delivered by water lighter. One delivery 75 tons, discharged within 6 hours. For quick delivery 2 days advance notice to Agents required.

FUEL: ~~None~~ NOT available.

GANGWAY/DECK WATCHMEN: Recommended. Arrange with Agent.

OPENING/CLOSING HATCHES: Usually done by stevedores. Appreciated if done by crew.

CERTIFICATES: Port clearance last port of call. Certificates as required by vessel's country of registry and by SOLAS 1960.

CUSTOMS ALLOWANCES: 200 cigarettes per person. Wine/spirits: 1 bottle per person. Bottle opened.

IDENTIFICATION CARDS: Preferably Passports, Seamen's ID Cards (issued by maritime authorities; vessel's country).

CONSULS: At Djakarta, 280 km. from Tjirebon.

REPAIRS: Light repairs only by local dockyard.

DRY DOCK: Graving dock of 600 d.w.t. capacity.

REPATRIATION: Can be arranged by Agents.

AIRPORT: Kemajoran International Airport 257 km. from Tjirebon. Domestic Airport 40 km. from Tjirebon.

TIME: Local time (Western Indonesia Time) is GMT plus 8 hours.

HOLIDAYS: New Year (1st January); Ascension of Christ (15th May); Santa Maria (15th August); Independence Day (17th August); Maulud, Mir'adj and Idul Fitir determined by Moslem calendar and differ from year to year by International calendar. For definite dates consult Port Administrator. Cargo work on Idul Fitir (2 days) not guaranteed due to labour shortage.

POLICE/AMBULANCE/FIRE: Harbour Police 3897; City Police 4466; Ambulance 118; Fire brigade 113.

SHORE LEAVE: Allowed after satisfactory fulfilment of immigration requirements and in possession of crew's Harbour Card.

DELAYS: Bad weather (mostly rain).

DEVELOPMENTS: Surveys being made for extension and development of port with 10 m. deep basins, container facilities and a 10 m. deep channel for accommodation of 10,000 d.w.t. ships and future shipping.

AUTHORITY: Port Administrator.

DILLI: 08.33 S. 125.31 E. (See Plan)

PILOTAGE: Compulsory.

RESTRICTIONS: All foreign vessels calling at this port should obtain the Special Security Clearance, this is arranged by the vessel's Agent.

MAX. SIZE: Maximum LOA 120 m.

RADIO: Kupang Radio. Call sign PKK.
Frequencies: 2,182 kHz and 6,115 kHz.

VHF: Kupang Radio on VHF Channel 16.

TUGS: 1 tug of 240 h.p. and 1 mooring boat.

BERTHING: Length of wharf 180 m., breadth 20 m., depth alongside 7.0 m.

Storage: There is a godown with 1,600 sq.m.

Fork Lifts: 4×2 tons – 3 tons.

CRANES: 1×7 tons capacity.

STEVEDORES: Available.

FRESH WATER: Available alongside in small quantities.

FUEL: Not available.

REPAIRS: Repairs not possible.

DUMAI: 01.41 N. 101.27 E. (See Plan)

IMPORTANT FEATURES:

1. There are 4 CPI Oil Loading Berths, 2 Government Cargo Wharves and 2 Pertamina Refinery Wharves (6 berths) at Dumai. The CPI Oil Loading Berth No. 4 can be utilised for handling refined oil product, Oil Berth No. 4 can also be utilised for discharging crude oil. The Pertamina Refinery Wharves are for sole use of the Refinery. The Government Dry Cargo Wharf No. 1 can handle a vessel with a draft of 8 m. and 20,000 g.r.t., whilst No. 2, which can also be utilised for handling palm oil, is for handling dry cargo vessels with a capacity of 10,000 g.r.t. and a draft of 6 m.

2. Government Pilots moor and unmoor all vessels at Dumai Harbour. CPI supervises the movements of all vessels at the CPI loading berths.

3. Safety rules are strictly enforced. The safety requirements are based upon the provisions of the Codes of Safe Practice currently accepted by the Oil and Tanker Industries.

4. The Indonesian Government maintains a radio station (call letters "PKP") at Dumai. All incoming vessels should establish early contact with this station, in order to transmit ETA data, etc.

5. Shore liberty may normally be granted to ship's officers and crew after clearance of the vessel by Harbour Authorities on a 24 hour basis (subject to change).

6. The laws of the Republic of Indonesia are in force at Dumai; and all personnel, for their own protection, are urged to abide by them.

7. Display of quarantine signals on approach to Dumai must be maintained, until Pratique is granted. By day the flag of Indonesia should be flown throughout the vessel's stay in port.

PORT LIMITS: See "Pilotage" – "Harbour Pilot Area".

DOCUMENTS:

Copy of Agency Agreement Letter of Appointment (SIT LKP).
International Maritime Declaration of Health.
Valid Derat or Derat Exemption Certificate.
13 Crew Lists.
13 Passenger Lists (if passengers carried).
Certificates of Inoculation against any communicable diseases.
Valid Passports and/or Seamen's Certificates for all crew members and passengers.
Harbour Report/Last Port Clearance.
Load Line, Ship's Registry, Safety Radio, Construction and Equipment Certificates.
International Certificate on the Prevention of Pollution from Oil and Poisonous liquids.
For Customs: 1 Crew List, 4 copies Personal Effects List, 4 copies Stores List.

APPROACHES: The Dumai Port installations can be reached by deep draft vessels by proceeding from Malacca Strait into Bengkalis and following a buoyed channel on a Southerly course for a distance of 22 miles to the junction of the Rupat Strait. Vessels must make a turn of approximately 180° to enter the Rupat Strait and thence Westerly for a distance of 33 miles to Dumai. The Bengkalis and Rupat Strait Fairways have been wire-dragged clear to a depth of 24 m. and 18.3 m. LWS respectively.

Last survey was carried out from April to June 1982. Based on that survey, Dumai Sea Communication imposed the maximum draft of vessels passing Rupat Strait in/out bound Dumai Port is 17 m. (55.77 ft.) and LOA of 315 m. (1,033 ft.)

Vessels which have an LOA more than the above should have and obtain special guidance and permit from Government Harbour Master.

PILOTAGE: Harbour pilotage is performed by Government Pilots. The Harbour Pilot will board a vessel at anchorage for berthing or immediately on arrival at Buoy No. 22 when berth is available.

Harbour Pilot Area is:
Lat. 01° 44′ 00″ N., Long. 101° 22′ 50″ E.
Lat. 01° 44′ 00″ N., Long. 101° 26′ 50″ E.
Lat. 01° 42′ 35″ N., Long. 101° 30′ 00″ E.
Lat. 01° 40′ 00″ N., Long. 101° 30′ 00″ E.

Sea Pilots: Sea piloting for the Rupat and Bengkalis Straits is provided by the Department of Sea Communication.

According to the Dumai Port Authority's letter dated June 25, 1974, there are 2 piloting areas for Sea Pilot.

1. Bengkalis Strait and Rupat Strait from Fairway Buoy or Eastern part of Morong Strait to Eastern limit of Dumai Harbour Pilot Area (Long. 101° 30′ 00″ E.).

2. Rupat Strait and Bengkalis Strait from Eastern limit of Dumai Harbour Pilot Area (Long. 101° 30′ 00″ E.) to Northern limit of Sungai Pakning Harbour Pilot Area.

Pilotage is compulsory for vessels with a capacity exceeding 105 g.r.t. 6 hours prior to arrival Dumai Harbour area, all vessels should contact CPI through VHF Radio Channels 10 or 16 and 69. At Fairway Buoy all vessels should hoist International Code Flag "I require a Pilot" and contact Morong Pilot Station via Channel 16 for a "request for Pilot".

According to the Dumai Port Authority's memo dated May, 1972, effective on 1st June, 1972, all vessels proceeding to Dumai should hoist the International code flags "H" or "PT" when passing Buoy No. 17 as "requesting for Pilot" and call CPI's radio telephone (VHF) on Channel 12. You will be informed whether or not Pilots are available, if not you may then proceed directly to Dumai Harbour Anchorage Area.

The practice of berthing and unberthing vessels utilising CPI Mooring Masters has been discontinued.

Shipmaster's Report: 1977. Sea pilotage for the Rupat and Bengkalis Straits is now compulsory. The Sea Pilot will board vessels at Fairway Buoy, position Lat. 01° 54.5′ N., Long. 101° 51.5′ E.

Contact with the pilot station "Morong" is allowed on Channel 16.

In case the Pilot is not available, the recommended anchorage area is 0.5 miles N.N.E. from Fairway Buoy.

RESTRICTIONS: *Requirements for Entering Restricted Maritime Zone of Sumatra:* For some years, the Rupat-Bengkalis Straits area has been designated a Restricted Maritime Zone by decree of the Government of Indonesia.

A partial exemption from the requirement to secure special Indonesian Consular Clearance before entering this Zone has been granted by the Indonesian Navy to tanker vessels proceeding to Dumai from any port in the world except Singapore. Vessels require only normal clearances from their last port to obtain entry at Dumai. Vessels diverted at sea need only normal clearance from last port and the diversion cable. All vessels inbound to Dumai from the time abreast Raleigh Bank Light Buoy until anchored off Dumai Terminal must display the following recognised signals:

By Day:	The International Code Flag hoist "CAL" flown from a single hoist from the signal yard.
By Night:	A red light 6 ft. above a white light both visible all around the horizon at a distance of not less than 2 miles.

Vessels should be prepared to answer identification queries from Indonesian Naval Patrol Crafts.

The foregoing is subject to change.

ANCHORAGE: The Dumai general anchorage area is North and West of oil wharves. Minimum depth of water in this area 43 ft.; 35 ft. shoal spot to East of general anchorage should be noticed. Holding ground in anchorages considered good, bottom clay. Area large with sufficient manoeuvring and swinging room for several vessels of size to be accommodated at oil wharves.

If vessels are not met by the Pilot's launch on arrival, or not instructed by the Dumai Port Control Radio to berth on arrival, it is suggested that they proceed to the recommended anchorage area.

Cargo Ships:

Lat. 01° 43′ 20″ N.	Lat. 01° 42′ 50″ N.
Long. 101° 25′ 30″ E.	Long. 101° 27′ 00″ E.
Lat. 01° 42′ 50″ N.	Lat. 01° 42′ 10″ N.
Long. 101° 25′ 30″ E.	Long. 101° 27′ 00″ E.

Ballasted Tankers:

Lat. 01° 44′ 20″ N.	Lat. 01° 43′ 34″ N.
Long. 101° 24′ 30″ E.	Long. 101° 27′ 00″ E.
Lat. 01° 43′ 36″ N.	Lat. 01° 42′ 46″ N.
Long. 101° 24′ 30″ E.	Long. 101° 27′ 00″ E.

For Deep Draft or Loaded Tankers:

Lat. 01° 43′ 34″ N.	Lat. 01° 42′ 46″ N.
Long. 101° 27′ 00″ E.	Long. 101° 29′ 50″ E.
Lat. 01° 42′ 50″ N.	Lat. 01° 42′ 00″ N.
Long. 101° 27′ 00″ E.	Long. 101° 29′ 50″ E.

Prohibited Area:

Lat. 01° 42′ 50″ N.	Lat. 01° 42′ 16″ N.
Long. 101° 27′ 00″ E.	Long. 101° 28′ 46″ E.
Lat. 01° 41′ 12″ N.	Lat. 01° 40′ 58″ N.
Long. 101° 27′ 00″ E.	Long. 101° 28′ 46″ E.

MAX. SIZE: Length 315 m., draft 17 m. Vessels over 315 m. have to have a special permit.

Also see "Approaches" and "Shipmaster's Report" dated October, 1983 – "Circular".

RADIO/VHF:

1. *Means of Communications:* The following communication systems are available for vessels proceeding to Dumai:
   (a) Dumai Radio Call Letters "PKP" (Government Coastal Radio).
   (b) VHF Station Channel 16 (CPI and Pertamina operated).
   (c) Telex CPI No. 44386 Jakarta or 56271 Dumai.
   (d) Telex Pertamina No. 45348 Perta Jakarta or 49285 Perta Jakarta.

2. *ETA Messages:* Vessels proceeding to Dumai shall send ETA Dumai message as follows:

2.1. When proceeding direct from any port other than Palembang and Singapore:
(a) 96 hours prior to arrival at Dumai, transmit ETA Dumai message by vessel's radio to "Caldum" Dumai and "Pertaminaship" Dumai through Dumai Radio Station Call Letters "PKP".
(b) Should ETA Dumai change by 3 hours, send an amended ETA message immediately to "Caldum" Dumai and "Pertaminaship" Dumai.
(c) 24 hours before arrival at Dumai, *confirm* or *amend* ETA Dumai to "Caldum" Dumai and "Pertaminaship" Dumai regardless of any change in last ETA message sent.

2.2. When proceeding from Singapore:
(a) 96 hours prior to arrival at Singapore, cable ETA Dumai and estimated time of stay in Singapore to "Caldum" Dumai and "Pertaminaship" Dumai. Include words "From Singapore" in ETA message.
(b) At Singapore, when departure time from Singapore is known, *confirm* or *amend* ETA Dumai to "Caldum" Dumai and "Pertaminaship" Dumai through vessel's Agent in Singapore.
(c) Immediately upon departure from Singapore, and when vessel's radio can be used legally, re-*confirm* or *amend* ETA Dumai to "Caldum" Dumai and "Pertaminaship" Dumai.

2.3. When proceeding from Palembang:
(a) At Palembang, when departure time from Palembang is known, cable ETA Dumai to "Pertaminaship" Dumai through vessel's agent in Palembang.
(b) Immediately upon departure from Palembang, and when vessel's radio can be used legally, *confirm* or *amend* ETA Dumai to "Pertaminaship" Dumai.

3. *Operating Schedule and Frequencies:* There is a Government Coastal radio station at Dumai. Any message for Dumai Terminal should be sent through this radio station which operates as follows:

Name : Dumai Radio
Call Letters : "PKP"

Time (GMT)	*Transmits*	*Listens On*
0000 – 0030	448 kHz	500 kHz
0400 – 0500	448 kHz	500 kHz
0800 – 0900	448 kHz	500 kHz
1200 – 1300	448 kHz	500 kHz
1300 – 1400	8726 kHz	8726 kHz
0030 – 0130	8726 kHz	8726 kHz
0230 – 0330	13101 kHz	13101 kHz
0630 – 0730	17184 kHz	17184 kHz
0130 – 0200	2182 kHz	2182 kHz

If contact cannot be made with Dumai Radio, contact Singapore Radio, Call Sign "9VG" and forward ETA message to Amoseas Singapore "RS-21349".

4. *Radio Telephone (VHF):* A CPI operated VHF station is maintained 24 hours a day, and is available for information concerning vessel's port activities.

The following channels are available:

Channel 10 with Frequency : 156.500
Channel 16 with Frequency : 156.800
Channel 69 with Frequency : 156.475

Also see "General" before first port.

HEALTH: In accordance with international practice, quarantine signals must be displayed by all vessels approaching Dumai. These signals shall be displayed continuously until Pratique is granted. These signals are: Sunrise to Sunset, Quarantine flag "Q". Sunset to Sunrise, Signal lights (red over white).

Quarantine Officer and Immigration Officer will come on board to prepare the clearance at anchorage, except when the vessel comes alongside on arrival by issuing berthing permit only (not Free Pratique).

TUGS: At present mooring and unmooring assistance is provided by 5 Government 3200 h.p. diesel tugs which are stationed in the immediate vicinity of the wharves. Tugs lines used. While rendering assistance the tugboats are under orders of the Pilot on duty.

Number of tugs required is based on vessel's length.

71 m. – 100 m. length	1 tug
101 m. – 150 m. length	2 tugs
151 m. – 200 m. length	2 tugs
201 m. – 300 m. length	3 tugs
Over 301 m. length	4 tugs

BERTHING: Incoming ships are assigned in accordance with time of arrival, product to be loaded, size of vessels, and loaded draft.

Every effort will be made to berth vessels immediately upon arrival, and to this end Master should maintain radio contact with radio telephone (VHF) Channels 12 and 16.

At Dumai there are 8 wharves. 2 wharves are Government-owned and operated cargo wharves. One wharf is Pertamina owned and consists of 2 berths. A new wharf is Pertamina owned and consists of 4 berths. The other 4 wharves are C.P.I. owned and operated and referred to as Oil Wharf No. 1, Oil Wharf No. 2, Oil Wharf No. 3, and Oil Wharf No. 4. These C.P.I. wharves are utilised for loading/unloading of crude oil. These oil wharves are equipped with docking sonar for monitoring speed and distance of approaching vessels to be berthed at the wharves.

Terminal Official will relay the indicated speed and distance by walkie-talkie radio to the Pilot or Master on board vessel.

(a) C.P.I. Oil Wharf No. 1, located in approx. position: Lat. 01° 41′ 14″ N., Long. 101° 28′ 07″ E. Design capacity 150,000 d.w.t. Length between outer dolphins 1,210 ft. Least depth at face of wharf 61 ft. (MLWS). In terms of vessel's size and design this would be an LOA of approx. 1,008 ft., and a draft of 57 ft. Orientation of the wharf parallels the current flow.

(b) C.P.I. Oil Wharf No. 2, located in approx. position: Lat. 01° 41′ 14″ N., Long. 101° 27′ 52″ E. Design capacity 150,000 d.w.t. Length between outer dolphins 1,424 ft. 8 in. Least depth at face of wharf 59 ft. (LWS). In terms of vessel's size and design this would be an LOA of approx. 1,263 ft., and a draft of 55 ft. Orientation of the wharf parallels the current flow. Under certain circumstances in favourable weather conditions, slack tide during day time, this wharf is capable of receiving a VLCC with special arrangements.

(c) C.P.I. Oil Wharf No. 3, located in approx. position: Lat. 01° 41′ 14″ N., Long. 101° 27′ 42″ E. Design capacity 100,000 d.w.t. Length between outer dolphins 1,170 ft. In terms of vessel's size and design this would be an LOA of approx. 940 ft. and a draft of 54 ft. Orientation of the wharf parallels the current flow at 095° – 275° true.

(d) C.P.I. Oil Wharf No. 4, located in approximate position: Lat. 01° 41′ 14″ N., Long. 101° 27′ 31″ E.
Design capacity : 55,000 d.w.t.
Length between outer dolphins : 1,005 ft. 6 in.
Least depth at face of wharf : 51 ft. (LWS)
Orientation of the wharf parallels the current flow.

(e) Government Cargo Wharf No. 2, located in approx. position: Lat. 01° 41′ 14″ N., Long. 101° 27′ 04″ E. Design capacity 16,500 d.w.t. but able to handle 23,000 d.w.t. Length between outer dolphins 750 ft. Least depth at wharf face 34 ft. (LWS). Orientation of the wharf parallels the current flow. Only mobile cranes with a maximum lifting capacity of 5 tons are available. As no heavy lift floating crane or stationary crane is available, heavy lifts must be handled by ship's gear.

(f) Government Cargo Wharf No. 1, located next to Cargo Wharf No. 1, has designed capacity of 10,000 d.w.t.

(g) Pertamina Wharf Nos. 1 – 6.
1. Approximate Location:
   Berth Nos. 1 – 2: Lat. 01° 41′ 12″ N., Long. 101° 28′ 16″ E.
   Berth Nos. 3 – 6: Lat. 01° 41′ 12″ N., Long. 101° 28′ 39″ E.
2. All 6 berths are utilised for loading/unloading refined products, residue, Coke (Berth No. 4 only) and LPG.
3. Design Capacity:

Berth No.	*Max. d.w.t.*	*LOA (m.)*	*Draft (m.)*	*Least Depth at face of wharf at LWS (m.)*
1	100,000	275	17.0	18
2	10,000	125	14.0	15
3	35,000	208	10.6	16
4	25,000	194	10.3	15
5	35,000	208	10.6	16
6	3,000	109	6.0	15

4. Orientation of the berths parallel to the current flow.
5. Put into service:
   Berth Nos. 1 – 2 in 1971, Berth Nos. 3 – 6 in 1984.

6. Wharf Facilities:

Berth No.	No. of Chiksans	Size (in.)	Capacity	Bunker	Fresh Water	Deballast Facility
1	1	12	1,200 l.t.p.h.	N/A	N/A	N/A
	1	16	2,500 l.t.p.h.			
	1	8	600 l.t.p.h.			
2	1	12	1,200 l.t.p.h.	N/A	N/A	N/A
	1	8	600 l.t.p.h.			
3	3	12	1,500 l.t.p.h.	N/A	Available	N/A
4	1	—	600 t.p.h.	N/A	Available	N/A
			500 t.p.h. (coke)			
5	3	12	1,500 l.t.p.h.	N/A	Available	N/A
6	1	4	280 cu.m./hr.	N/A	Available	N/A

Notes: Berth Nos. 1 and 2:

Terminal: Also known as Putritujuh (Seven Sisters), Pertamina Terminal (Berth Nos. 1 and 2) consists of a finger shaped oil jetty with 2 loading berths (Outer and Inner) which are utilised for refined products. A barge pier lies immediately Westward of the oil jetty. All are owned and operated by Pertamina.

At the Outer Berth (Berth No. 1) 3,200 h.p. tugs are being used to berth/unberth vessels at any time and any stage of the tide by using the minimum vessels' engine and working in "lock" position nosing vessel at forward, midship and aft. Mooring boats assist in bringing lines to mooring dolphins. Head and stern lines are sent first.

The Jetty is a steel/concrete piling system with a concrete slab paving. The fendering is very efficient and in good condition and consists of 4 steel framed pads with springs and rubber bumpers chained to the jetty. Ordinary mooring equipment (ropes and/or wires) is requested from the vessel. No shore moorings are provided. Minimum vessel size for this berth is 13,000 d.w.t.

At the Inner Berth (Berth No. 2) mooring and unmooring is restricted to tide flooding current (Eastward), vessels always to berth with starboard side to 2 fendering pads similar to those at the Outer Berth ensure a good berthing. Vessels to provide only the ordinary mooring equipment existing on board. No additional moorings are provided by shore.

(h) General Wharves

Berth	Length (m.)	Width of Apron (m.)	Depth (m.)
Barges Wharf	40	16	9.0
Pilot Wharf	34	6	7.0
Domestic Wharf	60	6	6.0
Domestic Wharf	40	6	6.0
Palm Oil Dolphin	To be completed 1988	7	12.0

CARGO: There are 3 types of cargo in Dumai at C.P.I. Terminal.

1. Sumatra Light Crude with API gravity 36° approximate. Pour point 100°F. Solid point ±85°F.

2. Duri Crude with API gravity 22° approximate. Pour point ±60°F. Solid point ±55°F.

3. Pedada Crude. This crude is classified as Sumatran Light Crude.

LOADING: The Master or his representative is required to hand to C.P.I. within normal business hours a written Notice of Readiness to load.

C.P.I. Oil Wharf	Size of arms (in.)	No. of arms	Size of flanges (in.)	Sumatra Light and Medium Crude Peak Capacity	Average Capacity
No. 1	12	4	12	50,000	35,000
No. 2	16 – 12	3	12	75,000	40,000
No. 3	12	4	12	50,000	35,000
No. 4	12	2	12	25,000	15,000

All the loading arms flanges are designed to U.S. standard flanges, faced and drilled. All these wharves have Chicksan loading arms. The above peak and average capacity rates are for Sumatran Light Crude. For Duri Crude the above rate should be reduced to approximately 70%.

In case of low stock position, the average capacity may be reduced to approximately 50%.

Responsibility for Loading Arrangements: All operations in connection with the starting of loading, discharging, switching of tanks and topping off must be directly and personally supervised by a ship's Officer, and sufficient personnel should be on deck at all times to handle the loading and/or unloading operation.

Upon completion of loading and/or unloading, the vessel will be required to leave the wharf immediately after disconnecting hoses to await clearance at the anchorage.

Hose Handling: Wharf crews are on duty to handle loading arms and/or oil hoses on the wharf. Any required reducers and/or elbows to be fixed to ship's manifolds should be handled by ship's personnel (will not be handled by CPI personnel).

Cargo Loading Procedures: Before the loading is begun, the Master will assure that Terminal and Port Regulations pertaining to readiness of the vessel have been complied with; that the vessel is manned and in all respects ready to receive cargo, and that all precautions required by the circumstances have been taken. When the vessel is in all respects ready, the following loading procedure will apply:

(a) The Chicksan arms and/or cargo hoses will be swung on board by lifting gear located on the wharves and also with the assistance of the vessel's gear if required.
The required reducers and elbows to fit vessel's manifold must be connected and disconnected and taken from or to shore by ship's personnel.

(b) Notice must be given by the vessel to the Head Wharfman 90 minutes before the vessel completed deballasting.

(c) Loading will commence under gravity or with 1 pump. When the vessel advises that the cargo is flowing into tanks, the loading rate will gradually be increased until the desired rate has been reached.

(d) The vessel must give 30 minutes notice to the wharf before starting to "top off", and shall advise if a decrease in loading rate is desired.

(e) The vessel must give 15 minutes' notice to the wharf prior to completion of loading at which time the Head Wharfman may reduce to 1 pump.

(f) Ship's valves shall not be closed against loading pump pressure.

(g) On completion of loading, loading arms and/or cargo hoses must be drained and disconnected immediately.

(h) All cargo tanks openings and pressure vacuum relief valves must be closed immediately after ullages and samples have been taken.

The vessel will be unmoored immediately after completion of loading as tide and weather condition permit.

Suspension of Oil Handling Operations: Terminal personnel are authorised to suspend oil handling operations in the event any of the safety rules mentioned under "Safety Regulations" are not observed, or in the event of non-compliance with safety rules generally observed by competent tanker personnel. Oil handling operations may also be suspended if any other danger is believed to exist.

Oil Inspectors: There is no independent agency providing oil inspection service at Dumai.

Vessel's Gangways: Vessels shall supply safe gangway from ship to shore, which shall be adequately illuminated during the hours of darkness.

BALLAST: *Pollution of Sea by Oil:* The discharge of dirty ballast within the territorial waters of Dumai Port and entrance passage (Rupat and Bengkalis Straits) is strictly prohibited. Shore facilities for disposal of dirty oily ballast water is available at Dumai, however only for domestic tankers. For safe manoeuvring purposes, it is therefore compulsory that tankers arrive with sufficient clean ballast water on board to meet the requirement for minimum safe manoeuvring draft. All ballast water on board tankers other than domestic tankers loading at Dumai Wharves must be pumped overboard after arrival at berth and prior to loading. If after arriving alongside, a vessel is found to have dirty ballast water on board, such vessel will be sent to sea to accomplish the necessary tank cleaning. Such action will be on the vessel's expense and C.P.I. will not accept responsibility for the resulting delay to the vessel or any claims of the result thereof. A new Notice of Readiness to load must therefore be tendered. "Load-on-Top" procedure is expected to be carried out by each vessel loading at Dumai.

Ballast Requirements: Vessels should arrive with sufficient clean ballast water to enable safe manoeuvring under prevailing weather conditions. The accepted standard of deballasting time is 6 hours.

Deballasting Facility: Deballasting facilities have been constructed in Dumai and connected to all 4 C.P.I. Wharves.

However, this facility is only for domestic sailing tankers. Oceangoing tankers are expected to arrive with sufficient clean ballast water.

Minimum Draft: Minimum draft schedule recommended for various tonnage tankers are as follows:

d.w.t	Forward	Aft
a. 12,000 – 22,000	12 ft.	20 ft.
b. 22,000 – 32,000	16 ft.	24 ft.
c. 32,000 – 45,000	18 ft.	26 ft.
d. 45,000 – 60,000	19 ft.	27 ft.
e. 60,000 and over	22 ft.	28 ft.

The above is a recommendation only and the Master should use his own discretion in order to have safe manoeuvrable draft on arrival and while berthing.

READINESS: *Notice of Readiness:* The Master or his representative is required to hand to C.P.I. or its Agent at loading port, a written Notice of Readiness to load during business hours (24 hours everyday). Receipt of such Notice of Readiness by C.P.I. does not necessarily imply acceptance.

Every effort will be made to berth and load vessels on arrival in port. Arrival means anchoring or arrival at anchorage area in Dumai Harbour, see "Anchorage".

Readiness to Load or Unload: The following will apply in regard to Notice of Readiness to Load or Unload.

Notice of Readiness to Load or Unload is a warranty on the part of the Master that the vessel is in all respects ready to load or unload and that all tanks, pumps, pipe-lines and appurtenances of the vessel are fit to receive the cargo to be loaded or unloaded.

STEVEDORES: ETA should be sent to Agency or stevedoring company 2 days before arrival in order that necessary gangs may be arranged. Main commodity rates: Palm oil 200 tonnes/p.h. Sawn timber 25 cu.m.p.h. and bagged cargo 20 – 25 t.p.h.

CRANES: 1×13 tonnes. 1×18 tonnes used for small ships and barges.

FRESH WATER: Fresh water is available in limited quantities at all wharves. A request statement must be submitted to the Port Authority through the vessel's Agent.

FUEL: Not available.

MEDICAL: The Port Health Doctor has only limited facilities for medical treatment. If the services of more complete and/or specialised medical assistance are needed or emergency cases arise on board tankers calling at Dumai, the Port Health Doctor might refer such cases to C.P.I. hospital facilities or Pertamina Hospital. Dental facilities available. However, Masters of all vessels bound for Dumai are requested, if possible, to call at Singapore for medical assistance.

DENSITY: 1020.

FIRE PRECAUTIONS: Perumpel I Dumai Co., Tel: 2469. Caltex, Tel: 261. Pertamina, Tel: 272.

REPAIRS: No repairs shall be carried out to the main propulsion machinery and/or essential auxiliaries while alongside. The vessel's main propulsion machinery shall be in readiness for instantaneous use on short notice. No repair facilities ashore.

CUSTOMS: Ships' bonded stores will be sealed by the Indonesian Customs Officials on arrival and will remain sealed until the vessels leave Indonesian waters.

GANGWAY/DECK WATCHMEN: Strongly suggest that all Masters of tankers calling at Dumai maintain a close security watch while at anchor as well as when alongside the wharves. It is further recommended that on board the tankers unoccupied rooms should be securely locked and port holes closed before being vacated.

OPENING/CLOSING HATCHES: By stevedores.

CARGO GEAR:

Forklifts:	3×2 tonnes. 2×3 tonnes. 1×5.5 tonnes.
Head Truck:	2×40 tonnes.
Trailers:	2×40 tonnes. 4×20 tonnes.
Top Loader:	1×40 tonnes.

AIRPORT: Distance to airport 10 km. Jakarta: 3 flights weekly served by Merpati Pelita. Medan: 4 flights weekly served by Merpati Pelita. Batam: 3 flights weekly served by Merpati Pelita.

TIME: GMT plus 7 hours all year round.

REPATRIATION: Due to transportation difficulties and shortage of accommodation, normally no crew members from any vessel are allowed to disembark for repatriation purposes.

In emergency cases such as sickness and accident, however, C.P.I. may at its own discretion and upon request of the Master of the vessel concerned, assist in the repatriation process.

SHORE LEAVE: Shore liberty may normally be granted to ship's Officers and crew after clearance of the vessel by Harbour Authorities. Personnel proceeding on shore liberty should be provided with ship's pass and advised that the C.P.I. compound is out of bounds with the exception of the road from the wharves to the village road. Penalties imposed for violation of Harbour Regulations or local laws have been severe and C.P.I. can not intervene in such cases.

PROVISIONS: There are very limited facilities to handle ship's laundry and supply ship's provisions.

CONSULS: There are no Consuls or other foreign Government Representatives located at Dumai, or in the immediate vicinity.

HOLIDAYS: 12 religious and national holidays.

POLICE/AMBULANCE/FIRE: Tel: 21351 or 381 or 266.

EMERGENCY CO-ORDINATION CENTRE: Tel: 21437 (Coast Guard).

BANKS: 5 National Banks available.

STORING: See "Prelims".

1. Vessel can be stored by truck.
2. Shipmaster to inform Agency who will contact Ieveransir Company.
3. Distance 4 km.
4. Yes.
5. Contact Agent.
6. Riggers can be employed to assist with storing.

IDENTIFICATION CARDS: I.D. Cards and Passports required.

WEATHER: *Tides and Currents:* The tide rise is approximately 8 ft. in the springs and approximately 5 ft. at neaps.

Max. tide currents: Flooding Easterly at 3 knots. Ebbing Westerly at 2 knots.

The general direction of the current is parallel to the faces of the wharves. There is no slack current period in the Rupat Strait during Spring tides and only a very brief period of slack current during neap tides. The current reverses its direction almost immediately. Vessels will always be berthed stemming the current flow.

Winds: The N.E. monsoon is never very steady but is most constant in January when from 20 to 40 per cent of winds are N.E. In November and December N.E. winds are the most frequent. In February the most frequent winds are N.E. The S.W. monsoon begins in late May or early June. From June to September winds in the straits are mainly S.E. but not steady. At this season squalls known as "Sumatra's" occur off the coast; they are most frequent between 2200 and 0200 hrs.

Rain: The rainfall is heavy with yearly average from 80 to 100 inches. The wettest months are October to December or January. There are 2 comparatively dry seasons, February to March and June to August. The most intense rainfalls are in the afternoon but these heavy downpours are often short in duration. The duration of the rain is more evenly spread over 24 hours during the N.E. monsoon than during the rest of the year when rain most likely occurs in the evening and night.

Temperature: The average temperature is a little below 80°. The range in an average year is only 30°, between 65° and 95°. The daily range is from 15° to 20°. The humidity is high (70% – 90%).

SAFETY: While alongside, vessels must have the eye of towing (fire) wires lowered to the water's edge from offshore bow and quarter for emergency use. The eye of the wire should be painted white.

Emergency Facilities: The following shore fire fighting facilities are available at each wharf to assist a vessel in the initial stages of a fire at wharf.

(a) C.P.I. Oil Wharf Nos. 1 – 4:

1 fire pump capacity 750 g.p.m.
1 fire fighting monitor.
6 fire hydrants.
2 fog spray hydrants.
2 revolving nozzles underneath wharf.
1,000 ft. fire hoses of 2.5 in.
16 cans foam compound.
6×20 lbs. safety meter dry chemical powder.
1 set booster hose.
1 set foam equipment.
2×150 lbs. Yamato dry chemical powder fire extinguisher.

(b) Tugboats: Under instructions of Port Authority, equipped with fire fighting equipment and remote controlled nozzles.

Emergency Signal:

(a) The ship should sound an emergency station's signal consisting of a continuous ringing of the ship's alarm bells supplemented by a series of short blasts of the ship's whistle or siren. C.P.I. will then take such action as is necessary.

(b) A telephone is fitted on each wharf. C.P.I. personnel should be telephoned for assistance.

If no C.P.I. personnel are available, ship's personnel may call for emergency assistance by dialling telephone number 222 from each wharf.

After dialling, state the following:

1. Your name and name of vessel.
2. The exact location of the fire.
3. The nature of the fire if possible.

(c) Assistance can be summoned on VHF Radio if necessary. Use International Channel 12 or 16 on VHF. Given location and extent of assistance required.

(d) Refer to Fire Instructions Pamphlet as usually given to all vessels alongside the wharves.

(e) The shore signal in the event of an emergency is a fire siren or an alarm.

GENERAL: *Charts and Publications:* Masters of vessels proceeding to Dumai should obtain the latest sailing directions, charts and Hydrographic bulletins for the area.

In this respect attention is invited to the latest editions:

(a) U.S. Hydrographic Office Publication 162, Sailing Directions for Malacca Strait, Cape Rachado to Singapore;
(b) U.S. Hydrographic Office Chart No. 3764, Bengkalis and Rupat Straits;
(c) Netherlands Hydrographic Office Chart No. 18 (East Coast of Sumatra);
(d) British Admiralty Chart No. 795 (Cape Rachado to Singapore);
(e) The Indonesian Hydrographic Office Chart No. 18 covering Bengkalis and Rupat Straits.

Boarding on Arrival: A Government Pilot will board vessel on arrival if Wharf is available and will advise and assist in proceeding to wharves. A representative of the ship's Agent will also board the vessel at anchorage or alongside one of the wharves to deliver publications and forms and will make the necessary arrangements for vessel to load.

Port Officials: The Indonesian Government Port Authorities are located in the Government building situated along Jalan Laksamana (Laksamana Street).

General Cargo: General cargo consigned to C.P.I. is handled at the Government Cargo Wharf at Dumai. Only mobile cranes with a maximum lifting capacity of five tons are available. As no heavy lift floating crane or stationery crane is available, heavy lifts must be handled by ship's gear.

Compulsory Sea Pilot Area: Bengkalis Strait and Rupat Strait from Fairway Buoy or Eastern port of Morong Pilot Station to Eastern limit of Dumai Harbour Pilot Area (Long. 101° 30′ 00″ E.).

Other Areas Requiring Sea Pilot: Rupat Strait and Bengkalis Strait from Eastern limit of Dumai Harbour Pilot area (Long. 101° 30′ 00″ E.) to Northern limit of Sungai Pakning Harbour Pilot Area. (Applicable to vessels bound for Sungai Pakning from Dumai or v.v.).

General: While vessels are at anchor, no physical communication is allowed with shore except in emergency cases and/or with prior approval from the Harbour Authorities.

Lowering of ship's boats is prohibited without the prior approval from the Harbour Authorities.

Pilferage has taken place recently on board tankers at Dumai anchorages and wharves. C.P.I. of course regrets this practice, and strongly suggests that all Masters of tankers calling at Dumai maintain a close security watch while at anchor as well as when alongside, the wharves. It is further recommended that on board the tankers unoccupied rooms should be securely locked and port holes closed before being vacated. C.P.I. also wishes to draw all Masters' attention to the practice of trading with local sampans at the anchorage, which is also a fire hazard, and will not be tolerated by C.P.I. C.P.I. request that all possible steps be taken by ship's personnel to keep sampans away from the vessels while alongside, as loading may be stopped until this hazard has been cleared.

It should be noted that Harbour Authorities prohibited the presence of sampans near alongside vessels.

Contraband: The attention of Masters is called to the strict enforcement of Indonesian Regulations against smuggling. Illegal possession or landing of such items as narcotics, liquor, cigarettes, precious stones and metals, fire arms, ammunition, sheath knives and similar weapons, or other articles of contraband is subject to severe penalty and may result in prolonged delay of the vessel concerned.

All precautions must be taken to prevent the violation of contraband laws. C.P.I. employees are prohibited from bringing firearms, knives, liquor, cigarettes, food stuffs or other articles ashore and shipboard personnel must not offer such items to them. Commissions for the importation of goods from other countries are not to be solicited or accepted.

Compliance: Masters are requested to inform ship's Officers and crews of the foregoing regulations pertaining to contraband, shore liberty, etc., to assure that they are completely understood, and to require the full compliance of all hands.

DEVELOPMENTS: 1 new berth for palm oil under construction, also 3 berths for sawn timber, fertiliser, palm kernels, rubber and general cargo.

SHIPMASTER'S REPORT: October, 1983.

Documents: 14 Crew Lists required and all ship's personnel require passes. Immigration stamp all Discharge Books and/or Passports on arrival and Agent will take them ashore about 1 hour before unberthing for stamping again, when all passes also returned.

Pertamina, as vessel's Agents, have own forms for N.O.R., and Dry Certificates.

Cargo Inspector has his own forms.

Berthing: Vessel (140,000 d.w.t.) berthed at No. 2 Berth, stemming the tide. 3 tugs used, 1 forward, 1 aft and 1 midships with tugs' lines. Moorings 3, 3, 2 each end. Forward headlines first then breasts then springs and aft springs first, then breasts then sternlines. 2 watchmen on board all the time and they are very efficient.

After loading and if on maximum permissible draft, (see "Circular") then vessel unberths and anchors off berth to await HW.

Density: Density varied between 1008 and 1015 depending on state of tide.

Services: Ship Chandler will arrange for a barber to come on board and will also bring on board items for sale such as batik.

A telex message sent through the Agents took 51 hours to reach Singapore.

Identification Cards: All visitors to vessel require a pass issued by Texaco. Also see "Documents".

Circular: To All Agency Tankers Calling at Port of Dumai:

Based on the Circular of Dumai Harbour Master dated 14th January, 1982, Ref. No. S.DMI.AL.14/1/1982 regarding the draft limitation for vessels passing Dumai-Morong route, based on the result of the survey carried out by the Sea Communication Team, we herewith inform you that for the sake of your vessel's safety, your vessel's draft should not be more than 17 m. (max. LOA 315 m.) when passing the above mentioned route. Please be advised too, that you are recommended to pass this route during the high tide only.

Dumai, 20th January, 1982,
Pertamina of Shipping Dumai.

AGENCY: See "General" before first port.

AUTHORITY: Port Administration of Dumai, JL. Datuk Laksamana, Dumai. *Tel:* 21469, 21369, 21325, 21442. *Telex:* 56290. *Cables:* Adpel Dum. *Contact:* H. Simanjuntak, Port Administrator. Tel: 21162.

Note: Pilot Station, 21442-278-372, contact 24 hours.

C.P.I.: 434-261-278. Pertamina: 272-372.

P. T. Caltex Pacific Indonesia. (Head Office), Kebon Sirih 52, Jakarta 10110, Indonesia. *Tel:* 376908. *Telex:* 44386 Caltex IA. *Cables:* Calpacem, Jakarta.

Operating Office: Rumbai, Pekanbaru 28271, Sumatra. *Tel:* 21377. *Telex:* 56112 Caltex PBR, 56271 Caltex DUM (Dumai Terminal Office). *Cables:* Calpacem Pekanbaru.

GEBE ISLAND: 00.03 S. 129.23 E. (See Plan)

LOCATION: Port of Gebe Island is situated in the Halmahera Sea, North Maluku in position Lat. 00° 03′ 50″ S., Long. 129° 22′ 44″ E.

DOCUMENTS: *Documents to be produced upon vessel's arrival:*

14 copies Crew List.
12 copies Passengers List (if any).
5 copies Parcel List (if any).
5 copies Stores List.
8 copies Cargo Manifest.
5 copies Narcotic List.
8 copies General Information.
5 copies Personnel Effects List.
5 copies Vaccination List.
5 copies Fire Arms & Ammunition List.
Ship's Register.
Certificate of Nationality.
Safety Equipment Certificate.
Seaworthy Certificate.
International Load Line Certificate.
Maritime Declaration of Health Certificate.
Derat Certificate.
Last Port Clearance.
Safety Radio Certificate.
Harbour Report.

Ship's Inspection Team: This team consists of the Port Health Officer, Customs Officer, Harbour Master and Immigration Officer.

After the vessel has been granted Free Pratique, the Immigration Officer starts checking Passports, Seamen's Book and Crew List and then issues shore passes.

Vessel's bonded store will be sealed by Customs Officer on arrival and will remain sealed until the vessel leaves Gebe Island.

Use of ship's radio transmitter is prohibited while lying in port.

Note: It is recommended that ship's Master consult the Agents about the local prevailing Customs Regulations with regard to currency, cigarettes, spirits, narcotics, etc., to prevent unnecessary difficulties and eventually fines.

PILOTAGE: Pilotage is compulsory and there is a Pilot at Gebe Island.

Pilot boarding position: Lat. 00° 03′ 25″ S., Long. 129° 22′ 10″ E.

ANCHORAGE: Anchorage position for ore loading at Gebe Island is Lat. 00° 03′ 50″ S., Long. 129° 22′ 30″ E. Depth 65 m. LWS.

Chart: Indonesian Sea Chart No. 388.

RESTRICTIONS: Vessels may berth/unberth at any time between 0600 hrs. and 1800 hrs. local time.

Vessel may leave the loading point between 0600 hrs. and 2200 hrs.

RADIO: Cables to Adhiguna Jakarta, Antam Jakarta and Ternate can be sent through Jakarta Coastal Radio Station, call sign PKE and Ternate Coastal Radio Station, call sign PKE 5.

Arrival Notice: *Owner's Advice:* Owner to advise by cable to Adhiguna Jakarta and Antam Jakarta and Antam Ternate at least 8 working days notice of vessel's ETA at loading port.

Master's Advice: At least 48 hours before vessels arrival at Pilot Station, Master shall give the following information to Adhiguna Jakarta and Antam Ternate, with copy to Antam Jakarta; Last port of call, draft on arrival, estimated draft on departure, quantity of nickel ore to be loaded, stowage plan, quantity and kind of commodity to be discharged and other necessary information.

Final amended arrival time must be sent at the latest 24 hours before arrival.

Previous experience has shown that one cannot rely on telegrams regarding ETA sent by Agents at last port of call to arrive on time, therefore Antam Ternate will wait for the Master's telegram before making the necessary preparations.

TUGS: Available and compulsory.

CARGO HANDLING:

Lighters: A number of lighters of 120 d.w.t. to 600 d.w.t. are available.

Wharves: No facilities.

Loading/Unloading Facilities for General Cargo: No facilities.

Loading Facilities for Ore Carriers: Loading of nickel ore at Gebe loading point is done by means of ore barges.

Number of Gangs: 4 gangs are usually used by vessels equipped with cranes or derricks. If necessary stevedores can provide 6 gangs.

Loading Capacity: About 2,000 tons/24 hours per vessel depending on the type of vessel, vessel's cargo gear, weather conditions, etc.

Ore Carriers: All types of fully loaded draft ore carriers are acceptable. (Steep bottom sea around the loading point).

Vessels without cranes or derricks are not acceptable.

Minimum capacity of cranes or derricks must be 5 tons.

Unloading: Cargo for Aneka Tambang only.

STEVEDORES: Loading is performed by Shipper's personnel.

Working Hours: Loading to be effected on weather working days of 24 consecutive hours, Sundays and holidays included (WWD SHINC), but the following National holidays are excepted:

New Year (1st January), Idul Fitri, Idul Adha, Maulid Day, Easter, Independence Day (17th August), Christmas Day (25th December), Waisyak, Nyepi, Ascencion Day, Miradz, The First Muharam.

Despatch/Demurrage money to be settled in accordance with the related contract.

Labourers: Labourers will be supplied by shipper. Making the vessel ready for loading to be done by vessel's crew members.

MEDICAL: Hospital not available, doctor and inoculations are available.

FRESH WATER: Not available.

FUEL: Not available.

OPENING/CLOSING HATCHES: The first opening and the last closing as well as removing and reinstalling of hatch beams to be done by vessel's crew.

SURVEYORS: On/Off Hire surveys can be arranged.

TIME: GMT plus 9 hours.

HOLIDAYS: See "Stevedores".

AIRPORT: There are 3 flights per week between Ternate and Gebe served by chartered aeroplane. Flying time is about 60 minutes.

REPATRIATION: Can be arranged. Repatriate/s is/are to be guarded by Immigration Officer from Gebe to Jakarta via Ternate or Manado until his departure from Jakarta to the destined country.

CONSULS: None.

SHORE LEAVE: Shore pass must be carried by the crew during shore visit.

Invitation: Vessel's crew members are not allowed to invite friends, hawkers from shore aboard the vessel.

Leaving for Ternate: The crew members are prohibited to leave Gebe for Ternate, except Master and Officers who must be guided by Agents.

Local leave in Gebe is permitted as a concession.

GENERAL: *Priority:* Ore carriers first come first served.

Flags to be flown by incoming vessels: Vessel's National flag, Indonesian flag, Vessel's numbers, Quarantine and Immigration flag.

Ship Chandler: None. In emergency cases, for a limited quantity, Agents can act as ship's chandler.

Fumigation: No facilities.

Vessel's Disbursement Accounts: All vessel's disbursement accounts will be charged to the related principals through the General Agents.

Cash in Rupiah: Cash advance at Master's request can be supplied by Agents in a reasonable amount.

Although the port was built and owned by PT Aneka Tambang, a state mining enterprise which has been granted the concession to explore and exploit Nickel Ore at Gebe Island region, the port of Gebe Island is supervised by the government. This port has been declared a Special Nickel Ore port.

AGENCY:

General Agents: PT. Pelayaran Bahtera Adhiguna, 10–12 Jl. Kalibesar Timur, P.O.Box 1315, Jakarta, Indonesia. Cable Address: Adhiguna Jakarta. Telex: 42854 Adhiguna JKT. Tel: 676547, 672613.

Local Agents (Head Office): PT. Aneka Tambang, 24–26 Jl. Bungur Besar, Jakarta, Indonesia. Cable Address: Aneka Tambang JKT. Telex: 49147 Antam JKT. Tel: 410108 (Hunting system).

Local Agents at Loading Port: PT. Aneka Tambang, Unit Pertambangan Nikel Pulau Gebe, Jl. Gereja No. 1, P.O.Box 37, Ternate, North Malaku, Indonesia. Cable Address: Antam Ternate. Telex: 73153 Antam TT IA. Tel: (0921) 21289.

GRESIK: 07.09 S. 112.40 E. (See Plan)

BERTHING: Main jetty with length 284.5 m. and berthing dolphin 50 m. from jetty. Depth of water 15 m.-18 m. Vessels up to 30,000 d.w.t. able to berth off seaward side and 10,000 d.w.t. on shore side.

CARGO FACILITIES: *Discharge Facilities:* 15 ton grab Kangaroo crane with normal operating capacity of 300 t.p.h. and max. 550 t.p.h.

Multi-purpose conveyor to transport materials from the jetty to TSP plant – 600 t.p.h. capacity.

Pumping system for phosphoric acid from vessel to TSP plant tanks, complete with pump – 300 t.p.h. capacity.

Pumping system for ammonia −33°C from vessel to TSP plant complete with pump – 150 t.p.h. capacity.

FRESH WATER: Available.

SHIPMASTER'S REPORT: July 1984.

Location: Lat. 07° 08.4′ S., Long. 112° 39.6′ E., about 4.8 nautical miles N.W. of Sourabaja.

Documents:
Ship's Register.
Derat Certificate.
Load Line Certificate.
Radiotelegraphy Certificate.
Safety Equipment Certificate.
Safety Construction Certificate.
Seamen's Books.

These documents will be kept ashore during the vessel's stay at Gresik.

For Gresik:
2 Crew Lists.
2 Stores Lists.
2 Crew's Declaration Lists.
1 Maritime Declaration of Health.
1 Vaccination List.
1 Cargo Manifest and/or 1 Bill of Lading.

In addition for Sourabaja:
9 Crew Lists.
2 Stores Lists.
2 Crew's Declaration Lists.
1 Maritime Declaration of Health.
1 Vaccination List.
2 Cargo Manifests and/or 2 Bills of Lading.

Customs: The Customs will not seal the bonded stores, but strictly controls the said quantity of narcotics.

Pilotage: Compulsory, same Pilots as for Sourabaja. ETA to be sent at least 24 hours in advance. Normally the Pilot boards the vessel when passing the Karang Jamuang Island (pilot station), but if required, specially for deep draft vessels, the Pilot will board the vessel at the Outer Anchorage.

Anchorage: Position Lat. 06° 51′ S., Long. 112° 45′ E., depth of water between 35 m. and 40 m.

Gresik Anchorage: Position: Lat. 07° 05.7′ S., 112° 39.8′ E., 2.5 cables off the Petro Kimia Jetty. Sandy ground, no safe anchorage.

Restrictions: Maximum depth of water 33 ft. Maximum breadth of channel: 90 m. Official allowed sea water draft 32 ft., but Pilots accept 32 ft. 06 in.

Berth: Petro Kimia Jetty (private berth). Length of berth 320 m. approx., equipped with large rubber fenders every 40 m. Depth of water between 12 m. and 15 m. Height of tide about 2.5 m.

VHF: Call "Sourabaja Pilots" on Channel 12 or Channel 16 if no reply.

If vessel enters the channel without Pilot, a second call before passing Buoy No. 5 is required.

Tugs: Same tugs as for Sourabaja.

Vessel with a length of more than 150 m. has to take 3 tugs, (one of them only for stand by).

Cranes: 2 cranes, but only one used for discharging sulphur. This crane has a discharging capacity of 300 tonnes/hr.

Working Hours: Day and night, even during "Ramadan".

Times: 0800 – 1200
1300 – 1800
1900 – 2400
0100 – 0600

Fresh Water: Available from the jetty.

Fuel: Available by barge at Sourabaja Anchorage only.

Repairs: From Sourabaja.

Medical: In Sourabaja only.

Shore Passes: Given by Agent, to be returned before departure.

General: No Immigration and Port Health board the vessel at this berth. No foreign currency declaration necessary. Crew changes not allowed.

AUTHORITY: Harbour Master.

JAKARTA (Tanjung Priok): 06.10 S. 106.50 E.

(See Plan)

DOCUMENTS: Upon arrival vessels have to produce the following Certificates and Documents, which will remain in the Harbour Master's custody until cleared:
Nationality (Registry) Certificate.
Seaworthiness Certificate.
Measurement (Tonnage) Certificate.
Derat (Exemption) Certificate.
International Load Line Certificate.
Safety Certificate (passenger ships).
Safety Equipment Certificate (cargo ships).
Safety Radio and Radiotelephony Certificate (cargo ships).
Certificate of Approval (ship's radio station).
Health Book or Bill of Health.
Vaccination Certificates.
Last Port Clearance.
Subscription of Light and Harbour Dues and wharfage if any.
Crew Lists and Passenger's Lists.
Ship's Articles.
Other certificates and documents as required.

Ship's Arrival and Departure: 2 days before arrival of vessel, the ship's Agent has to inform the Port Administration, by completing appropriate forms. Copies of completed forms must also be submitted to the Harbour Master, Port Health Service, Immigration, Customs and Security for preparations of services. The Pilot may berth the vessel on request of the ship's Agent only after obtaining clearance from the Port Administrator, Harbour Master, Port Health Service and Immigration (foreign vessels only).

Before departure, port clearance is issued by the Harbour Master, after clearance has been obtained from Customs, the Port Health Service, and Immigration.

Ship's Certificate: The Ship's Certificate should be delivered to the Harbour Master through the Agent. This certificate will be returned to the Ship's Master prior to the ship's departure.

Ship's Manifest and Bill of Lading: The copy of the ship's manifest should be delivered to the Port Administrator through the Agent.

IMMIGRATION: Vessels arriving from abroad with passengers must hoist the "N" Flag. Masters have to supply the boarding Immigration Officer with Passenger's List of: *(a)* disembarking. *(b)* transhipping. *(c)* through passengers.

No persons are allowed on board until the vessel has been examined and the "N" Flag taken down. Passengers must be in possession of a valid visa: visitor's, entry or a transit visa. Those not having a visa may at the discretion of the Immigration Officer, obtain a landing permit. Members of the crew including the Master must appear in the Articles, in order to get shore permits.

PILOTAGE: Compulsory. Pilots will board the vessel at the Outer Anchorage, from 0800 – 1800 hrs.

The ship's Owner/Agent has to inform the Port Administration (the Pilotage Division) of the ship's arrival 24 hours in advance.

Walkie-talkie radio with a frequency of 27 MHz is used for communication between the pilot boats and the pilot station.

ANCHORAGE: Anchorage for vessels waiting for the Pilot is outside the breakwater.

APPROACHES: *Navigable Channel:* Length 8,000 m. Minimum width 250 m.-350 m. Minimum depth 11.0 m.-12.0 m. (Chart datum).

RESTRICTIONS: Max. draft is approximately 10 m.

MAX. SIZE:

Harbour	*Length* (m.)	*Draft* (m.)
1st	150	7
2nd	170	8
3rd	170	10
Oil	170	10
Coaster	60	4
Container	400	10

HEALTH:

Quarantine: A vessel is in quarantine and must hoist the quarantine flag (Q, QL, QQ), when it is a vessel:

1. that comes directly from abroad (Q flag),
2. that comes from an infected Indonesian Port (Q flag),
3. that takes passengers or cargo over from vessels mentioned in items (1) and (2) (Q flag),
4. whose Master has declared that a quarantineable disease exists or is suspected on board (QL/QQ).
5. which the Port Medical Officer has declared infected or suspected with a quarantineable disease (QL/QQ).

The concerned vessel is free from quarantine measures when Free Pratique has been obtained. The Free Pratique becomes invalid when a vessel is in quarantine as stated above or a quarantineable disease occurs during the validity of Free Pratique.

The Port of Tanjung Priok is a 1st class Quarantine Port.

At the request of the ship's Owner/Agent, the Department of Health will provide "Provisional Pratique", for vessels calling directly from abroad to any Indonesian port which is not classified as a quarantine port, provided that health conditions on board comply with the required health conditions. This "Provisional Pratique" however does not relieve the vessel from quarantine measures, and it is not to be construed as "Free Pratique".

Accordingly vessels enjoying "Provisional Pratique" are still required to hoist the quarantine flag.

Vaccination/Immunisation: Vaccination and immunisation against cholera can be carried out by the Port Health Service.

BOARDING AREA: Harbour Pilots, Quarantine Officer and Immigration will board the vessel at the Outer roads.

RADIO: Coastal Radio Station Call sign PKI Class A1, A2, A3; call sign PKZ Class A3.

VHF:

Harbour Master	Channel 16
Pilot	Channel 12–14
Tugboat Operations	Channel 12
Port Operations	Channel 14
Public Service	Channel 16

TUGS: Tugs are operated by the State-owned P.N. Tunda Bara, Cable address: "Coaltug", which also handle the mooring facilities. Vessels over 80 m. in length have to use at least 1 tug. 14 tugs available from 800 h.p. to 2,400 h.p. 2 tugs are equipped for fire fighting.

SPECIALISED CARGO-HANDLING FACILITIES: There are 2 transporters with grippers available at the coal wharf. 18 head trucks up to 40 tonnes capacity. 112 forklifts 2 tonnes-40 tonnes capacity.

CRANES:

	No.	*Capacity* Tonnes
Mobile Cranes	9	5-40
Floating Cranes	3	13-100
Quay Cranes	3	35-40
Transtainers	9	35-40

BERTHING:

Wharves	*Length* (m.)	*Depth (Chart Datum)* (m.)
Coaster Harbour	663	3–4
1st Inner Harbour	2,540	5–11
2nd Inner Harbour	1,900	
for coal	150	5–11
for fertiliser	150	
3rd Inner Harbour	1,709	8–12
Container Wharf	400	9–12
Conventional Wharf	500	9–11.5
Mineral Oil Harbour		
Oil Jetty	100	9–10
Bogasari (wheat)	162	11–12
Liquid Chemical	276	9–10

Buoys	*Number*	*Capacity* (tons)
West Buoys	6	15,000
East Buoys	10	5,000
1st Inner Harbour Buoys	7	6,000
3rd Inner Harbour Buoys	4	15,000
Nusantara Buoys	2	5,000
Dredging Yard Buoys	1	2,000

STEVEDORES:

Working hours: The usual working hours at the harbour are:

Monday-Thursday	0800 – 1200 hrs.
	1300 – 1600 hrs.
Friday	0800 – 1100 hrs.
	1330 – 1600 hrs.
Saturday	0800 – 1200 hrs.
	1300 – 1400 hrs.

Overtime is allowed on request.

Shipmaster's Report: Cargo work continuous, 7 days a week. No work for 2 days at the end of Ramadan.

MEDICAL: First Aid at the scene of accident. Medical treatment or advice available on request to the Port Health Service. Hospitalisation available in general and private hospital in Jakarta.

FRESH WATER: Available by pipe-line or barge, rate 50 – 60 t.p.h. Barge capacity 60 – 350 tons.

FUEL: Available by pipe-line or barge, (3×400 tonnes), supplier is Pertamina.

REPAIRS: Dry-docking and repairs are carried out by the State-owned P.N. Dock.

Electronic Repair Shop: Repair of electronic navigational aids and radio can be carried out by experts.

Repair and Testing of Navigational Instruments: Carried out by experts of the Hidral (Hydrography of the Indonesian Navy) and those of the P.N. Pelni workshop. Compass can be adjusted by an expert of the above-mentioned Hidral. Testing and issuing of certificates for navigational lamps by the Pelni workshop.

DRY DOCKS: 3 floating docks, max. capacity 17,500 tons, and 7 slipways, max. capacity 3,275 tons.

GANGWAY/DECK WATCHMEN: Available if required.

CUSTOMS ALLOWANCES: Tobacco: Each crew member is allowed to carry 200 cigarettes or 50 cigars or 100 grams of tobacco ashore without paying import duty. Alcohol: There is no allowance for alcoholic drinks. Other commodities: Maximum value of US $100. Each crew member is allowed to bring personal goods in use up to maximum value of US $100.

REPATRIATION: A valid document is needed. A re-entry permit from the country concerned is sufficient, if there is no passport available.

SHIP SUPPLY SERVICE:

P.T. Harapan Insani, 25 Jalan Imam Bonjol, Jakarta. Tel: 334-032, 334-084, 334-180, 334-214, 349-971. Telex: 44912 Incate Jkt, 46855 Insani Jkt. Branch: Balikpapan (East Kalimantan).

P.T. Patra Supplies & Services, No. 3 Gedung Patra, Jalan Gatot Subroto, P.O.Box 377/KBY, Jakarta. Tel: 513-955, 511-356. Telex: 44976 Cater Ia. Branches: Balikpapan (East Kalimantan) and Singapore.

P.T. Tata Wisata, Jalan Iskandarsyah Raya No. 1, Kebayoran Baru. Tel: 713-707 (3 lines). Telex: 47331 Tata Ia.

P.T. The First Trijaya, Jalan Tanah Abang II/97, Jakarta. Telex: 45965 Fitric Jkt. Cable: Fitricate.

AIRPORT: Kemayoran International Airport is approximately 8 km. from Tanjung Priok, and Halim International Airport is approximately 25 km. Kemayoran Airport, Tel: 47031.

TIME: The Port of Tanjung Priok is located in the zone of Western Indonesian Time, which is based on the time at the meridian of 105° East Longitude.

POLICE/AMBULANCE/FIRE: Fire 291399; Security 291691/291459; Ambulance 291045/290097.

CREW IDENTIFICATION CARD: Crew members having no Passport are required to carry a Seamen Identification Card (S.I.C.).

PORT SECURITY: Maintained by members of the Indonesian Armed Services, usually Police, Navy or Marine and Army. Crew members should be in possession of a shore pass issued by the Port Authority, accompanied by an identification card when leaving or entering the guarded gates of the Port Area. Shore passes can be obtained via the Agencies.

DEVELOPMENTS: Dredging underway. Container berth to be extended by 400 m. 2 container cranes and 14 rubber tyred gantry cranes on order.

AUTHORITY: Tanjung Priok Port Administration, P.O.Box 98, Jalan Palmas No. 1, Tanjung Priok, Indonesia. *Tel:* 491132, 491364. *Telex:* 49282. *Contact:* Port Administrator.

AGENT: Ben Jardine Shipping Services, Lippo Life Building, 2nd Floor, Jl.H.R.Rasuna Said, Jakarta 12910, Indonesia. Tel: (21) 5200314, (21) 5200338. Telex: 62682. Cables: Bensteamer. FAX: 21-517288.

Associated with Jardine Shipping Agencies.

JAMBI: 01.35 S. 103.38 E.

PILOTAGE: Compulsory. Pilot station at Muara Sabak.

RESTRICTIONS: The port is located approximately 90 miles from the outer bar of Batanghari River.

Maximum depth at the outer bar at high water is 4.0 m.

RADIO: Jambi Coastal Radio Station. Call sign PKC-3.

Frequencies: 6,491.5 kHz (A1), 3,825 kHz (A3).

VHF: Jambi Coastal Radio Station on Channel 16.

BERTHING: Concrete wharf with length 72 m. and depth alongside 2.0 m.

Storage: There is a godown with 700 sq.m.

Fork Lifts: 2×2 tons – 5 tons.

CRANES: 2×5 tons – 10 tons mobile cranes.

STEVEDORES: Available from the labour pool.

MEDICAL: Medical assistance available.

FRESH WATER: Available in limited quantities.

FUEL: Not available.

REPAIRS: No facilities available.

GENERAL: *Barges:* Barges available with capacity 300 tons.

JAYAPURA: 02.37 S. 140.39 E.

PILOTAGE: Pilotage is compulsory. Pilot boards vessel at the anchorage.

ANCHORAGE: Vessels anchor in position 02° 32′ 12″ S., 140° 43′ 24″ E.

RADIO: Jayapura Coastal Radio Station. Call sign PKN.

Frequencies: 8,694 kHz. (A1)
13,101 kHz. (A1)
17,074.4 kHz. (A1)

TUGS: No tugs available.

BERTHING: Concrete wharf length 132 m., depth alongside 8.8 m.

Storage: There is a godown with 4,100 sq.m. and an open storage area with 2,000 sq.m.

Fork Lifts: 4×2.5 tons – 3.5 tons.

CRANES: 1×5 ton mobile crane.

TANKERS: There is an oil jetty for small tankers. Length of jetty 33 m.

STEVEDORES: Available from labour pool.

FRESH WATER: Available.

FUEL: Not available.

REPAIRS: No facilities available.

KASIM MARINE TERMINAL: 01.18 S. 131.01 E.

(See Plan)

LOCATION: The terminal is located at the mainland Irian Jaya.

DOCUMENTS:

Certificate of Registry.
International Oil Pollution Prevention Certificate.
Load Line Certificate.
Safety Equipment.
Safety Construction Certificate.
Radio Certificate.
Derat Certificate.
15 Copies Crew Lists.
6 Copies cargo/no cargo declaration by Master
6 Vaccination Lists.
2 Crew Declaration.
4 Stores Lists.

PILOTAGE: Compulsory. Pilot boards in-bound vessels in position 00° 53′ S., 131° 10′ E. Vessels berth and unberth at any stage of the tide during the day.

Accommodation ladder is required. Also see "Anchorage". Vessels must make a lee for Pilot boat in choppy seas.

ANCHORAGES: Recommended anchorage area is 4.5 miles West of Sorong in position 00° 53′ S., 131° 10′ E. Under no circumstances should any vessel enter the restricted area around the structure at Kasim Terminal without a Mooring Master aboard. The area is marked by the dotted lines on the plan. (See "Plan".)

Any vessel arriving in the anchorage area after 1400 hours local time may have to wait in the anchorage area until first light the next morning to transit the Sele Strait to the terminal.

On arrival at anchorage contact "Sorong Control" and Pertamina Sorong Radio on VHF Channel 16 and between hours of 0600 and 1800 contact Kasim Marine Terminal Channel 16.

Note: Terminal Marine Advisors: Ensure that vessels do not anchor within Sorong Port Limits marked on chart. If they do Harbour Master will charge double fee.

It is preferable to anchor just outside the marked area. The anchorage position recommended is outside the harbour area.

RESTRICTIONS:

	Controlling depth (MLW)	*Mean tidal range*	*Velocity of current*	*Nature of bottom*
Entrance:	51 ft.	Approx. 5 ft.	Max. 7 kt.	Sand, mud
Channel:	51 ft.	Approx. 5 ft.	Max. 7 kt.	Sand, hard clay, coral
Anchorage:	120 ft.	Approx. 5 ft.	Max. 7 kt.	Hard clay, sand
Berth:	60 ft.	Approx. 5 ft.	Max. 7 kt.	Sand, hard clay, coral

MAX. SIZE: The channel is swept to a depth of 57 ft. Vessels max. draft is 50 ft. Also see "Berthing".

PRATIQUE: Available night and day. Customs and Immigration board on arrival.

RADIO: *Advice for arrival:* 72 hours prior to arrival at Sorong vessels should advise the Company of their estimated time of arrival by cable sent via "Pertamina's Coastal Radio" Station at Jakarta or Government Radio Station at Sorong. They should also confirm or amend them when they are 48 hours and again 24 hours, distant from Sorong.

Cable address: Pertamina, EPV, Sorong.
Cable address: Pertamina – Jakarta.

Pertamina Coastal Radio Stations:

1) Name of Station/Call Sign: Pertamina Jakarta Rádio – PKZ.
Geographical Coordinate: 06° 08′ S., 106° 50′ E.

Frequency (kHz)	*Class*	*Service (hrs.)* (GMT)	*Power*	*Nature*	*Keep Watch* (kHz)
452	A1	H24	1 kW	CR	500
8,626	A1	0200–0400 0500–0600 0700–0800 1000–1200 1400–1500 1700–2000	1 kW 1 kW	CR CR	8363.2–8364.8 8372.8–8373.6
12980	A1	0000–0200 0400–0500 0800–1000 1200–1400 1600–1700 2000–2200	1kW 1kW	CR CR	12544.8–12547.2 12559.2–12560.4
4419.4	A2	0500–0600 0800–0900	1kW	CR	4125.0–4131.2
4425.6	A2	1600–1800 2200–2400			
6512.6	A2	0000–0100 0300–0400 0600–0700 1200–1400 1800–2000	1kW	CR	6206.2–6215
6521.9	A2	0600–0700 1200–1400 1800–2000	1kW	CR	
8759.2	A1	0100–0300 0400–0500 0700–0800 1100–1200 1500–1600	1kW	CR	8235.3
VHF Ch. 9,16,19.		H24			Ch. 16

2) Name of Station/Call Sign: Pertamina Sorong Radio (PKY–41)
Geographical Coordinate: 01° 08′ S., 131° 15′ E.

Frequency (kHz)	*Class*	*Service Hours* (GMT)
6456.5	AI	0000–0020 0100–0120 0200–0220 0300–0320 0400–0420 2300–2320
6512	A3J	0020–0100 0120–0200 0200–0300 0320–0400 0420–0500
500	A1	H12 Hx
452	A1	H12 Hx
6518	SSB	H12 Hx
8755	AM	0000–0100
8730	AM	0200–0300 2300–0500

Working Hours Local Time (GMT + 9 hours):

Monday–Thursday	0715–1430 Local Time.
Friday	0715–1130 Local Time.
Saturday	0715–1330 Local Time.

Sundays and holidays are normally closed (except on request).

VHF Ch 16,9.

Government Radio Station:
Name of Station/Call Sign: Sorong Radio (PKY–4).

Frequency (kHz)	*Nature*	*Class*	*Hours* (GMT)
8461	—	A1	0000–0100 1000–1100
2182	SSB	—	0000–1300
8802	SSB	—	0900–1000 0300–3400
8219.5	—	—	0900–0930 0200–0300
6306	SSB	—	0600–0700 0800–0900
6337	SSB	A1	0500–0600 1100–1300
12 MHz 500/452			2230–2330

VHF Ch. 16, 20, 22, 28.

It is recommended that vessels arriving on weekends and public holidays and/or whenever there is no response from Pertamina PKY–41 contact the Government Coastal Radio Station PKY–4 who work every day, including holidays.

The following information should be included in the cable:

(1) Name of vessel and radio call signal.
(2) ETA in GMT and date (local time GMT plus 9 hours).
(3) Cargo requirements.
(4) Deballasting time.
(5) Maximum loading rate.
(6) If there is any sickness on board or clean bill of health.
(7) Flange dimension of vessel's manifold connection.

Also see "General" before first port.

TUGS: 2 tugs of 45 ton bollard pull each and 2×220 h.p. mooring boats.

BERTHING: Berthing is usually daylight hours but night berthing undertaken if required. It is not unusual to undock with a strong stern tide running.

Kasim Terminal is owned by Pertamina-Petromer Trend. Maximum size of vessel at the berth is, length 1,000 ft., beam 150 ft., and draft 50 ft. Depth of water 60 ft. (LW).

The berth is a standard type of tanker berth with 4 breasting dolphins and a loading platform set back inside the line of breasting dolphins. 4 mooring dolphins are set at intervals along the length of the berth and are fitted with quick release hooks and electric winches to handle light rope messengers.

Loading is through two 16 in. Chiksan loading arms and vessels with non-standard manifolds must provide their own reducers. Max. loading rate 39,000 bbls. p.h.

Loading arms are connected and disconnected by terminal staff.

The Kasim Marine Office is an octagonal wooden structure on piles, situated at the mouth of a small river 300 m. N.E. of the Loading Pier.

A Mooring Master remains on board throughout the vessel's stay and is in radio contact with the tank farm, pump station and Marine Office. The berth has its own gangway which is placed onboard the ship by shore crew.

Crude Oil Characteristic:

API Gravity at 60°F.	: 35.3
Reid Vapour Pressure at 100°F.	: 3.5 psi
Sulphur Content	: 0.7 % wt.
Carbon Residue	: 1.0 – 3.0 % wt.
B.S. & W.	: 0.1 % vol.
Flash Point (PMCC)	: Below 50°F.
Pour Point	: 30°F.
Loading Temperature	: 95°F.

DRY CARGO BERTH: 370 ft. long with depth of 15 ft. MLWS alongside vertical steel face with rubber fendering. 2 cranes available for discharge/loading with SWL 40 tons and 60 tons.

MEDICAL: Doctor available.

FRESH WATER: Limited supply (100 tons approx.) available at U.S.$3.75 per ton in an extreme emergency only.

FUEL: Not available.

REPAIRS: Can be undertaken at Sorong but not at Kasim Terminal.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits per man.

REPATRIATION: Possible in an emergency.

TIME: GMT plus 9 hours.

STORING: Not possible to store by truck or barge. Customs regulations state that nothing can be moved internally or externally without informing them. No riggers or equipment available.

SHORE LEAVE: No shore leave.

GENERAL: No stores. Clinic available.

During daylight hours Indonesian flag must be shown.

AGENCY: See "General" before first port.

AUTHORITY: Petromer Trend Corp., Kasim Marine Terminal, Sorong, Irian Jaya, Indonesia. *Telex:* (In Jakarta) 47163 JKT. *Cables:* Trendex JKT. *Contact:* Petromer Trend, Jakarta. L.R. Zeigler, Resident Manager; Captain Manopo Sambow, Marine Superintendent.

Jakarta Office: Five Pillars Office Park, Jalan Letjen, M.T. Haryono 58, P.O. Box 209, Jakarta. *Tel:* 791308. *Telex and Cables:* See above. *Government Authority:* Kesyahbandaran Sorong, Direktorat Jenderai, Perhubungangan Laut IX, Sorong, Irian Jaya.

Harbour Master – Sorong, Jln. Jend A. Yani No. 13, Sorong. *Tel.:* 21839. *Contact:* Captain Delson Nainggolan.

KIJANG: 00.51 N. 104.37 E. (See Plan)

LOCATION: The Bauxite Loading Port of Kijang is situated at the S.E. coast of Bintan Island in the Riau Archipelago, in position Lat. 00° 50′ 44″ N. and Long. 104° 36′ 31″ E.

FLAGS: To be flown by incoming vessel:
Vessel's National Flag.
Indonesian Flag.
Vessel's Number.
Quarantine & Immigration Flag. ("Q" and "N").

DOCUMENTS: To be produced upon vessel's arrival:
12 Crew Lists
4 Passenger Lists (if any).
4 Parcel Lists (if any).
4 Stores Lists.
4 Cargo Manifests.
4 Narcotics Lists.
2 General Information.
4 Fire Arms & Ammunition Lists.
4 Personal Effects Lists.
2 Vaccination Lists.
1 *Declaration of Health Certificate.
2 *Harbour Reports.
International Load Line Certificate.
Certificate of Registry and Tonnage.
Certificate of Vessel's Nationality.
Safety Equipment Certificate.
Seaworthy Certificate.
Safety Radio Telegraphy Certificate.
Derat Certificate.
Last Port Clearance.
*Forms to be supplied by Agents.

Inspection Team: This team consists of the Port Health Officer, Customs Officer, Harbour Master and Immigration Officer.

After the vessel is granted Free Pratique, the Immigration Officer checks Passports, Seamen's Books & Crew List and issues shore passes.

PILOTAGE: One Government Pilot available. Pilot compulsory.

Pilot's office : c/o Port Administration Tanjung Pinang.

Priority : First come first served.

There are 2 Pilot boarding positions:

1. Tanjung Tillie:	00° 48′ 12″ N.	104° 35′ 30″ E.
2. Temborak Laut:	00° 49′ 00″ N.	104° 41′ 30″ E.

If vessel wishes to be piloted to the port on arrival day, vessel has to arrive at the desired Pilot boarding position at under mentioned times:
1. Tanjung Tillie: Not later than 1800 hrs. local time.
2. Temborak Laut: Not later than 1600 hrs. local time.

However, it depends on Pilot's decision after considering tide and current's conditions.

In case vessel is long overdue (3 hours delay after Master's last ETA cable), Perbaki shall charge compensation for keeping labourers waiting, etc.

RESTRICTIONS: The height of vessel from waterline to top of hatch coaming or railing must not exceed 12.00 m. Each side deck breadth from bulwark to king post or mast must not be less than 6.50 m. vertically and from bulwark to hatch coaming must be preferably 7.00 m. min., and 9.00 m. max. Minimum breadth 20.0 m.

Cable Way: There is a cable way across the entrance channel about 500 m. South of the jetty. Height above LWS is 45 m.

MAX. SIZE: LOA 185 m. Max. draft 11.00 m. Max. beam 28.0 m.

Greater max. draft and LOA might be possible after consultation with the Pilot/Harbour Master and considering the depth at entrance of the port upon departure.

RADIO: Cables to Perbaki Tanjung Pinang can be sent through Tanjung Pinang Coastal Radio Station, Call sign "PKJ2". Station also on VHF Channel 16.

Arrival Notice: Owner's advice: Owner to advise by cable to Adhiguna Jakarta and Perbaki Tanjung Pinang, with copy to Aneka Tambang Jakarta: at least 8 working days notice of vessel's ETA at loading port.

Master's advice: At least 48 hours before vessel's arrival at Pilot Station, Master shall give the following information to Adhiguna Jakarta and Perbaki Tanjung Pinang, with copy to Aneka Tambang Jakarta: last port of call, draft on arrival, quantity of bauxite to be loaded, stowage plan (hatch division for bauxite cargo), quantity and kind of commodity (ies) to be discharged — if any — and other necessary messages.

Final amended arrival time must be sent at the latest 24 hours before arrival.

Previous experience has shown that one cannot rely on telegrams regarding ETA sent by Agents at last port of call arriving in due time, therefore Perbaki Tanjung Pinang waits for the Master's telegram in order to make necessary preparation such as ordering Pilot, etc.

Availability of berthing space: The availability of berthing space will be confirmed by Sub-Agents.

TUGS: Available and compulsory. 6 tugs 170 h.p. – 1,600 h.p.

BERTHING: Vessels are moored alongside 2 jetties and 7 dolphins with good nylon ropes, 5 fore, 5 aft, 2 foresprings, 2 after springs, 2 fore breastlines and 2 after breastlines. For Spring tide a hercules wire rope (extra) is obtainable.

Same will be carried out from the Southern part of bauxite jetty and serves then as additional breastline. If a vessel has not got sufficient lines, same may be hired from Perbaki.

When moored alongside jetties, vessels must take special care of the moorings during hours of ebb-tide, which runs in S-N. direction.

Due to strong current in Strait of Kijang the ship's Master is kindly requested to pay attention to Sub-Agents advices.

Vessels over 20,000 d.w.t. will need extra 2 stern and 2 head lines.

Shifting Ship: Shifting ship will be done during slack water only by utilising ship's gear and with assistance of tugboat if necessary. But to finalise loading as scheduled in stowage plan, shifting may be done even during flood/ebb tides using vessel's engine.

Jetty: There is no quay. Vessels are moored alongside 7 dolphins and 2 jetties.

Distance between the 2 extreme dolphins is 135 m.

Loading Facilities: Loading installation consists of 2 loading conveyors or stacker. Bauxite is loaded in the hold of vessel by means of conveyor belt.

Stacker can be moved vertically from 13° to 35°, but the maximum position for proper operation is only up to 18° inclination angle.

Each stacker can swing 8.00 m. (4.0 m. to inner side and 4.0 m. to outer side).

Distance between the 2 stackers in parallel position is 50.00 m.

The length of stackers is 47.79 m. each. At the lowest position (13°) the end of stackers outreach about 10.50 m. from jetty seaward. (In this position the height from water line to the end of stackers is about 15.0 m. HWS).

Loading Capacity: About 7,000 tons per day using 2 stackers.

Weighing: The bauxite is automatically weighed during loading by weightometer. The specific gravity of bauxite is around 1.25 and stowage factor around 29.

Unloading: Cargo for Aneka Tambang only.

STEVEDORES: Labourers will be supplied by Perbaki. Making the vessel ready for loading/unloading to be done by vessel's crew members.

Loading is performed by Shipper's personnel. Loading/unloading equipments to be furnished by the vessel.

If necessary and at vessel's request, trimming of the bauxite can be done by bulldozer, except in deep tanks, cross bunkers, small holds in which bulldozer cannot operate. Weight of bulldozer is 5 tons, so double gear is compulsory when loading, discharging or shifting bulldozer. In hold where bulldozers are going to operate, all beams of upper as well as lower tween decks have to be removed. This has to be done by vessel's Crew members. Loading/unloading and shifting bulldozers (with engine off) to be done by vessel's crew members. The vessel is responsible for any damage to the bulldozers while loading/unloading or shifting.

Working Hours: Loading to be effected on weather working days of 24 consecutive hours, Sunday and Holidays included.

MEDICAL: Doctor, hospital and inoculation service available.

DENSITY: 1020.

FRESH WATER: Not available.

FUEL: Not available.

HATCHES: The first opening and the last closing of hatches as well as removing and reinstalling of hatch beams to be done by the vessel's crew.

TIME: GMT plus 7 hours.

HOLIDAYS: The following National Holidays are non-working days. New Year, 1st January; Idul fitri, the fixed 2 consecutive days of the year; Idul Adha, the fixed day of the year; Independence Day, 17th August; Christmas Day, 25th December; Maulid Day, the fixed day of the year; Easter, the fixed day of the year; Waisyak, the fixed day of the year; Nyepi, the fixed day of the year; Ascension Day, the fixed day of the year; Mi'radz, the fixed day of the year and The First Muharam, the fixed day of the year.

CUSTOMS ALLOWANCES: Vessel's bonded store will be sealed by Customs Officer on arrival and will remain sealed until the vessel leaves Kijang port.

Note: It is recommended that ship's Master consult the Agents about the local prevailing Customs Regulations with regard to currency, cigarettes, spirits, narcotics, etc., to prevent unnecessary difficulties and eventually fines.

REPATRIATION: Can be arranged.

AIRPORT: There are regular daily flights from Tanjung Pinang, a domestic airport near Kijang, to Jakarta. Flying time is about 2 hours 15 minutes. Also a daily ferry service is available from Tanjung Pinang to Singapore. Sailing time about 3–4 hours.

CONSULS: None.

SHORE LEAVE: *Shore Pass:* Shore pass must be carried by Crew members during shore leave.

Invitation: Vessel's Crew members are strictly prohibited to invite friends and hawkers from shore aboard the vessel.

Anchorage: While lying at anchor waiting for berth no one is allowed to go ashore as long as vessel is not cleared.

It is also prohibited to lower lifeboats or rafts for the purpose of fishing, sailing, visiting nearby islands etc.

Leaving for Kijang and Around: Permitted.

SERVICES: *Cash Advances:* At Master's request can be supplied by Agents in a reasonable amount.

Fumigation: No facilities.

Ship's Chandlers: None. In emergency cases, Perbaki can act as ship's chandler for a limited quantity.

GENERAL:

Depths: Entrance: 10.50 m. LWS; Alongside jetty: 11.00 m. LWS

Current: Direction: At high tide, from North to South; At ebb tide, from South to North.

Velocity: Around 2–6 knots.

Chart: Indonesian Sea Charts No. 42 and 65.

Nature of bottom: Sand and soft materials.

SHIPMASTER'S REPORT: 1977.
Vessel's Dimension: Length 185.5 m. Beam 25.5 m.

Vessel sailed after loading wet bauxite ore in bulk. Vessel has previously visited the port 3 times and loaded to a draft of 11.2 m., however, due to poor tides loaded draft this voyage was 10.8 m.

Entrance to the port is from the North between Mapor Island and Merapas Island. The channel is clear and swept to 13.5 m. (chart datum) there are no navigational problems and Pilot boards in position 00° 50′ N. and 104° 43′ E. Also one can proceed onwards to the North of Kambat and Rusa Islands and then between Gabi and Riau to Tanjung Tillie anchorage. This is the accepted Pilot boarding ground and pilotage is compulsory and daytime only. The Pilot is accommodated at Tanjung Pinang but drives by car to the bauxite terminal and takes a launch from there to the vessel. He may not board upon arrival of vessel if the tide is unsuitable for berthing, as the ebb tide can reach 8 knots in Selat Kijang. There are 3 tugs available which are small, but quite adequate for berthing. The vessel proceeds past the berth then turns so as to berth starboard-side alongside. Moorings consist of 6 headlines, 1 breast line and 2 springs forward and 3 springs and 6 stern lines aft. Nylon lines are in position and can be hired as needed from the shore. The loading arms are fixed and shifting of the vessel is carried out at slack water.

Communication can be difficult at times. Tanjung Uban functions for 15 minutes in the hour and is not normally raised until day of arrival. All cables are sent through radio "PKI" Jakarta and seem to arrive at their destination. If possible despatch 3 copies of the Crew List to the port in advance as this speeds up clearance on arrival.

AGENCY:
General Agents: PT. Pelayaran Bahtera Adhiguna. 10-12 Jalan Kalibesar Timur, P.O. Box 1313, Jakarta, Indonesia. Cable Address: Adhiguna Jakarta. Telex: Adiguna JKT 42854. Tel: 676547, 672613.
Local Agents (Head Office): PT. Aneka Tambang. Jalan Bungur Besar 24–26, Jakarta, Indonesia. Cable Address: Anekatambang Jakarta. Telex: Antam JKT 49147 Jakarta. Tel: 410108 (hunting system).
Local Agents at Loading Port: PT. Aneka Tambang, Unit Per-tambangan Bauksit, Kijang. Postal Address: Kijang, Tanjung Pinang. Riau, Indonesia. Cable Address: Perbaki Tanjung Pinang. Telex: 57110 Antam TPI, 45665 Antam IA. Tel: 21177.
Vessel's Disbursement Account: All vessel's expenses will be charged to the related Principals through the General Agents.
AUTHORITY: Tanjung Pinang Port Authority, Port Administration, Tanjung Pinang, Riau, Indonesia. *Tel:* Tanjung Pinang 21153. *Contact:* Harbour Master.

KRUENG RAYA (Malahayati): 05.35 N. 95.31 E.

PILOTAGE: Compulsory. Pilot may be contacted on VHF Channel 12.
ANCHORAGE: Vessels anchor in position 05° 36′ 30″ N., 95° 30′ 30″ E.
RADIO: Coastal Radio Station PKA-5.
Frequencies: 4,055/5,165/5,295/6,926 kHz.
TUGS: No tugs available. One mooring boat of 99 h.p. available.
BERTHING: Length of wharf 100 m. Depth alongside 6.0 m.
Storage: Godown with capacity of 2,000 tons.
Fork Lifts: 4×2 tons – 5 tons.
CRANES: 1×15 ton mobile crane.
STEVEDORES: Available from labour pool U.K.A.
FRESH WATER: Available.
FUEL: Not available.
REPAIRS: No facilities available.

KUALA BEUKAH: 04.53 N. 97.57 E.

PILOTAGE: Not compulsory.
RESTRICTIONS: Berthing during daylight hours only. Unberthing at any time.
MAX. SIZE: 61,000 d.w.t. Max. LOA 220 m.
RADIO/VHF: Kuala Beukah Coastal Radio Station. Call sign PKB-7. Station operated by Pertamina.
BERTHING: Vessels moor to 5 buoys in position Lat. 04° 53′ 08″ N., Long. 97° 56′ 47″ E. Depth of water 25 m.

The buoy berth accepts vessels between 3,600 d.w.t. and 61,000 d.w.t. with an LOA of 185 m. – 220 m.

Vessels should have portside manifold ready to accept 1×10 in. hose. Crude oil is loaded at a rate of 6,000 bbls.p.h.
Shore Storage Tanks: Total capacity for crude oil 282,735 bbls.
MEDICAL: Clinic available.
DENSITY: 1020 – 1025.
FRESH WATER: Not available.
FUEL: Not available.
CONSULS: None.
TIME: GMT plus 7 hours.
AUTHORITY: *Operator:* Pertamina.

KUALA TANJUNG: 03.22 N. 99.28 E.

PILOTAGE: Compulsory. Pilotage is arranged by vessel's Agent.
ANCHORAGE: Vessels anchor in position 03° 23′ 05″ N., 99° 28′ E.

The holding ground in the anchorage is good and consists of clay and silty sand. Depth of water 15 m. – 23 m.
RESTRICTIONS: There are 2 recommended approach routes to the port. These routes are 2 miles wide and were surveyed by the Indonesian Hydrographic Office in 1979. Minimum depth of water in the area is 12.2 m. (C.D.).

No obstructions have been found in the area but many fish traps exist on both sides of the approach routes.
RADIO: All communications are passed via Belawan Coastal Radio Station.
VHF: Channels 16, 14 and 12 available.
TUGS: 2×1,300 h.p.
BERTHING:

Wharf	*Length* (m.)	*Depth* (m.)
A	200	9.0
B	150	9.0
C	80	5.6

Storage: There is a godown with 10,700 sq.m. and an open storage area of 12,800 sq.m.
Fork Lifts: 10×3 tons – 5 tons.
MEDICAL: Hospital facilities available.
STEVEDORES: Available from labour pool.
FRESH WATER: Available.
FUEL: Not available.
REPAIRS: No facilities available.

LABUANTRING BAY (Lembar): 08.44 S. 116.04 E.

(See Plan)

AMPENAN: 08.34 S. 116.04 E.

DOCUMENTS:
Health Certificate.
1 Vaccinations List (Yellow Fever, Cholera/Typhus).
9 Crew Lists.
7 Passenger Lists (landing/transit).
4 Lists of Personal Effects.
7 Ship's Stores Lists.
2 Cargo Manifests (discharge/transit).
4 Dangerous Cargo Lists.
1 Stowage Plan; all to be signed by Ship's Master and/or Chief Officer.
PILOTAGE: When Pilot required, vessel must request via Agent or via Ampenan Radio at least 24 hours before arrival. Pilot service will then be given by Harbour Master from Ampenan to Labuantring Bay.
ANCHORAGE: Overseas vessels not familiar with Labuantring Bay, normally call Ampenan and await particular information and/or Pilot to enter Labuantring Bay (outer buoy). Good holding ground in about 16 m. Vessels with a draft of more than 6 m. must keep clear from channel to inner harbour. Navigating in channel without Pilot may cause difficulties; channel equipped with buoys, depth approx. 7 m.
APPROACHES: When approaching Ampenan, harbour is marked by light tower. Excellent holding ground in about 16 m.
RESTRICTIONS: Vessel may enter Ampenan and Labuantring Bay (outer buoy) day and night. Vessel not visited by port authorities between 1800 hrs. to 0700 hrs. (local time), exceptional cases allowed. Vessels are not allowed enter into inner harbour (Labuantring Bay) after sunset.
WEATHER: November till April rainy season. Quite heavy winds and rain can affect cargo work.
HEALTH: Pratique granted by port doctor after boarding vessel. Vessels from an infected port have to hoist "Q" flag. If any suspected disease or fever on board, necessary inform Agent by cable or via radio station. Treatment of crew members for illnesses other than quarantinable diseases arranged by Government's practitioners through ship's Agent.
TUGS: None.
RADIO: Ampenan Radio. Call sign PKD 9. Freq. 500 kHz and 430 kHz. Times GMT: 0000–0100, 0500–0600: except Friday and Saturday: 0000–0100, 0900–1000. Sunday and holiday closed.
BERTHING: Length of quay at Labuantring Bay (Lembar) 128 m. Depth alongside 6.5 m.-7.5 m. Berthing at Ampenan (anchorage) for all sizes of vessel.
CRANES: None.
MEDICAL: Cable or radio before arrival if medical assistance necessary on entry. Government's hospital facilities available. Yellow Fever Certificates inspected on arrival.
STEVEDORES: Ordered by Agent. To enable Agent ordering necessary gangs, vessel must give accurate ETA at least 24 hours in advance. Working on Sunday and holidays allowed by agreement in exceptional cases.
TANKERS: Berthing at Ampenan.
FRESH WATER: Available.
FUEL: Available in limited quantities.
SHIP'S CERTIFICATES: Registered Tonnage Certificate, Load Line Certificate, Safety Radio Certificate, Safety Equipment Certificate, Light dues Receipt, Derat Certificate, Clearance from previous port, all to be shown on arrival.
IDENTIFICATION CARDS: All crew's passports must be certificated by Immigration Officer on arrival, whereafter to be used as shore passes.
GANGWAY/DECK WATCHMEN: Usually employed during loading and discharging operations.

CARGO GEAR: Wire and rope-slings, nets and net-slings, lighters all supplied by stevedores except rain-tents. No shore cranes available. Loading and discharging using ship's derricks.

OPENING/CLOSING HATCHES: Normally carried out by stevedores; ship's crew may if required by vessel to do so.

CUSTOMS ALLOWANCES: No restrictions. Custom's Officer supervises opening and resealing of bond.

CONSULS: None available locally.

AIRPORT: Served by regular airlines to Bali and Java.

TIME: GMT plus 8 hours.

HOLIDAYS: 1st January; Independence Day (17th August); Christian, Islamic and Balinese holidays as appointed by the Indonesian Government.

GENERAL: Vessels should not use ship's radio station. Harbour Police and Customs' guards on board during ship's stay in harbour.

SHORE LEAVE: Crew allowed ashore; passports required whilst ashore.

DELAYS: November to April is the rainy season. High winds and rain can affect cargo work.

LAWI LAWI (Sepinggan): 01.27 S. 116.46 E. **(See Plan)**

LOCATION: The Shore Terminal is situated approximately three miles inshore on the East coast of Kalimantan, Indonesia, in the Makassar Strait. It is about 12 miles South of Balikpapan.

The Single Buoy Mooring is approximately 5.75 miles offshore in position 01° 27′ 30.1″ S., 116° 45′ 37.1″ E. in 22 m. of water. The submarine line to the SBM sea bed manifold is 30 in. diameter. A double string of 20 in. diameter flexible submarine rubber hoses joins the sea bed manifold to the SBM.

DOCUMENTS: If arriving from a foreign port the following documents may be required for granting pratique:

Certificate of Registry.
Construction Certificate.
Load Line Certificate.
Safety Equipment Certificate.
Safety Radio/Telephone/Telegraph Certificate.
Exemption Certificate.
Cargo Certificate.
Derat Certificate.

Also required will be last Port Clearance and Crew List.

Crude oil loading documents will be prepared at the Lawi Lawi Terminal and when the vessel has been loaded the documents will be completed and final clearance formalities will be carried out on board.

Flag Dispensation: Each tanker entering the Lawi Lawi Terminal must have requested and been granted Flag Dispensation prior to its arrival. At the same time application should be made for Provisional Pratique through the Directorate of Quarantine and if granted a cable advice is sent to the Harbour Authorities. Port Health clearance is issued prior to the tankers arrival and is also valid for departure. If Provisional Pratique is not granted a Port Health Officer will be provided. All of the foregoing is arranged through and by the Agent.

PILOTAGE: A Mooring Master will board the vessel in the anchorage area and advise the Master on all manoeuvres relative to berthing and unberthing and connecting the hoses.

Vessels are requested to make a lee and have a pilot ladder long enough to reach the Mooring Master's launch. At night adequate lighting should be provided. Ships with more than 30 ft. freeboard should rig a pilot ladder to a position 3 ft. above the water and an accommodation ladder so rigged that the Pilot can transfer from the pilot ladder to the accommodation ladder once he is clear of the pilot boat.

READINESS: *Procedure when berth available on arrival:* A vessel for which a berth is available on arrival will be boarded by a Mooring Master in the anchorage area and providing that the vessel is in all respects ready to commence loading (except for the necessary deballasting) the Notice of Readiness will be accepted at the time of the Mooring Master boarding.

If the vessel is not in all respects ready to proceed to the berth, with main engines fully manoeuverable, mooring ropes on deck, windlasses, winches, etc. in good working order, Notice of Readiness will not be accepted until the Mooring Master is satisfied that all these conditions are met.

Procedure when instructed to anchor on arrival: A vessel which has been instructed by Lawi Lawi Port Control to anchor on arrival should, after doing so, inform Port Control of the precise arrival time. According to the practice of the port, acceptance of the Notice of Readiness will coincide with this arrival time, providing:

a) that it is within the hours of daylight-deemed to be from 0600 hours, local time to 1800 hours, local time.

b) that it is not a Public Holiday or Sunday, unless the vessel is actually handled on that day.

c) that the port is open.

d) that vessel's arrival is within her accepted date range.

An exception to clause (a) above, is when conditions allow night berthing, in which case the vessel will be accepted when the Mooring Master boards, or, should the vessel have been at anchor, when the anchor is aweigh, providing that the Mooring Master is then on board.

In addition to clause (a), (b) and (c), above, vessels will not be accepted when arriving at an unreasonable time ahead of their last signalled estimated time of arrival. It is not the practice of the port to keep pilots (Mooring Masters) on station in the anchorage.

Notwithstanding anything in the foregoing, Notice of Readiness will not be accepted at a time when it is not the practice of the port to accept it.

Delay due to excessive deballasting: Delays in commencement of loading due to deballasting in excess of 6 hours will be deducted from the laytime.

Exact arrival time: It is stressed that vessels must advise Port Control of their exact arrival time, as failure to do so may lead to loss of their berthing turn.

Lay Time: Lay time will be calculated as outlined in the Crude Off-Take Procedure, Lawi Lawi Terminal.

Conditions of use of port: The Master of each tanker will be given a copy of the "Conditions of use of Port of Lawi Lawi Terminal" which he will be asked to sign before the Company mooring and connecting equipment is hoisted on board and before any manoeuvre is commenced under the Mooring Master's advice.

ANCHORAGE: *Recommended Anchorage:* If vessels are obliged or instructed to anchor they must do so in the designated anchorage area. On no account is a vessel to anchor North of Latitude 01° 26′ 30″ S. or West of Longitude 116° 47′ E. The depth of water in the anchorage is 30 m. The bottom is mud/clay and the holding ground is considered good.

RESTRICTIONS: Berthing during daylight only, unberthing possible at any time.

MAX. SIZE: *Minimum Size Tanker Acceptable:* The minimum size of tanker that can be accepted for loading at the SBM is 15,000 d.w.t. and 145 m. LOA.

Maximum Size Tanker Acceptable: With the presently fitted, mooring assembly and hose string length, the maximum size tanker that can be loaded at the SBM is 135,000 d.w.t. and 290 m. LOA.

RADIO: *Advice of arrival:* 72 hours prior to arrival at the Terminal, vessels should advise Union Oil of their ETA's by cable sent via "Pertamina" coastal radio station at Balikpapan. They should also confirm or amend them when they are 48 hours and again when 24 hours, distant from the terminal.

Union Oil Company of Indonesia cable address:
Pertamina Tanjungsantan

Pertamina Coastal Radio Stations:

I. Name of Station – Balikpapan Radio
Call Sign – PKN 2
Frequency – Keeps watch on 2182 kHz A3
Answers on: 4415 kHz A3
6520 kHz A3
Class – A3H – A3J
Power – 500 Watt
Service – 24 Hours
Location – Lat. 01° 16′ S.
– Long. 116° 50′ E.

ETA messages sent to PKN2 should be addressed:
Pertamina Tanjungsantan =
Message =
Master +

As long as no direct contact exists with PKN2 ships will send ETA's to PKI2

II. Name of Station – Jakarta Radio
Call Sign – PKI2
Frequencies – 500 kHz (operates on 452 kHz)
– 2182 kHz answers on: 4178; 4280.5; 4363; 4410; 6457.5; 6520; 6516 kHz
– 8 MHz (operates on 8628 kHz)
Class – A1 500 kHz
A3 2182 kHz
A1 8 MHz
Power – 1 KW 500 kHz
500 W 2182 kHz
1 KW 8 MHz
Service – 500 kHz H24
2182 kHz 0400–0500 GMT
0700–0800
1000–1100
1500–1600
2000–2100
2300–2400
8 MHz 0100–0300 GMT
0500–0600
0900–1000
1100–1200
1400–1500
1730–1900
2100–2200

Geographical Location: Lat. 06° 08′ 00″ S. Long. 106° 50′ 00″ E.
ETA messages sent to PKI2 should be addressed:
Pertamina Tanjungsantan Via PKN2 =
Message =
Master +

Details of cable:

The following information should be included in the cable:

1. Name of vessel and radio call sign
2. ETA in GMT and date (local time is GMT + 8 hours)
3. Cargo requirements.
4. Deballast time.
5. Maximum loading rate.
6. Vessel's draft on arrival.
7. If there is any sickness aboard or clean bill of health.
8. Last port of call.
9. Any hull, bulkhead, valve or pipe-line leaks on vessel which could affect loading or cause pollution.
10. Distance in feet from bow to vessel's loading manifold
11. Flange dimensions of vessel's manifold connection if not to ANSI B16.5, B.S. 1560, Series 150 or equivalent.

Also see "General" before first port.

VHF: Vessels equipped with VHF radio telephone should contact "Lawi Lawi Control" on the International Maritime Service Channel 16 (156.80 MHz) when in range to request instructions.

Language: The language of the terminal is English and Indonesian.

BERTHING: *Work Crew Service:* Mooring and un-mooring, lifting, lowering, connecting and disconnecting hoses will be done by a Terminal work crew under the direction of the Mooring Master. Assistance from the ship's personnel in operating windlasses, winches, etc. will be required. Ship's crew will assist in hose connection/disconnection/mooring/un-mooring and carrying equipment from deck to forecastle as required. Any vessel whose crew do not give such assistance may be rejected and returned to the anchorage. Costs of such a delay would be for the ship's account.

Mooring: This description is only intended as a general outline and may be varied as to the order in which lines are taken up, etc. according to the circumstances prevailing at the time of mooring.

Moorings required from Tanker: The ship must provide and have ready the following. Two mooring ropes and one rope messenger line on forecastle.

The Approach: The ship approaches the buoy from down tide and wind, taking care to keep the wind right ahead. Adequate ballast must be retained on board to ensure that the vessel retains full manoeuvrability throughout the approach to the buoy and the actual mooring.

Bringing Aboard the Mooring Lines: The vessel will be brought to a position close to the buoy with the vessel stopped in the water and with the buoy fine on the port bow. During the approach to the buoy and while mooring, a Terminal work boat will keep the hoses pulled well clear to port. Under normal conditions the port rope will be the first taken on board. The Mooring Master will advise as to which rope is to be taken first and as to which fairlead this will be taken and the actual work of mooring will be done by a Terminal work crew. The ship will lower a strong messenger line to the mooring boat who will in turn make this fast to the approach rope. The approach rope of 10 in. circumference will be hove aboard and will in turn be hove on until the chafing chain and open links are centred in the fairlead.

Securing the Mooring Lines: While the approach rope is being hove aboard a strong wire strop will be made fast to a set of forecastle bitts. To the end of this strop will be fitted a 50 ton shackle and the strop will be so made fast that the end and the shackle will be about 5 ft. inboard of the fairlead. The approach rope will be hove on until the large link of the chafe chain is sufficiently far inboard for it to be connected to the strop by the 50 ton shackle. When this is done the approach rope will be slacked off until the full weight comes on the strop/chafing chain/buoy rope. The buoy rope is 150 ft. long and is 12 in. circumference nylon of plaited construction.

The approach rope can now be taken to the bitts to act as a preventer.

The second rope is now taken aboard and made fast in the same way. When both the ropes are fast, good ropes or strops, provided by ship, can be made fast to the spare links on the chafing chains to back up the main mooring if required.

Fire Wire: A fire wire must be rigged on the starboard side forward and on the stern. These must be tended throughout the vessel's stay at SBM to ensure that they are kept within 2 to 3 ft. of water. In the case of fire the tugs would connect to these wires to pull vessel clear of the SBM.

Connecting Hoses: When the mooring is completed the work boat holding the hoses clear will bring these alongside the ship in way of the port side manifold.

Strops and Shackles: Strops and shackles will be provided by the Terminal and put on board as the vessel approaches the buoy. The ship must provide 2 mooring ropes at least 8 in. circumference and 100 fathoms long, a 4 in. circumference messenger line, and 2 rope lashings 4 in. in circumference and 15 ft. in length. These lashings should be of Manila or Polypropylene, nylon is not acceptable.

Unmooring: To unmoor from the buoy any extra back-up lines that have been made fast to the chafing chains are slipped first. The approach ropes are then taken to the ship's windlass/capstan and the weight taken on them until the shackle between the strop and chafing chain is undone. With the vessel moving slowly astern the approach ropes are slacked off and finally slipped and allowed to float free. While the ship is unmooring, a Terminal work boat will keep the floating hoses towed clear and will keep them clear until the ship has slipped the moorings and is clear of the buoy.

HOSES: *Hose Lifting Capacity:* Tankers must be equipped with a hose lifting derrick at the port side manifold, with a lifting capacity in conformance with the table shown on page C2 of Appendix "C" to The International Oil Tanker and Terminal Safety Guide. For instance; a 15,000 d.w.t. ship, at ballast draft with smooth sea conditions would have to lift a weight slightly in excess of 3.5 tons. For this purpose it is essential that the derrick is double rigged and that there is sufficient runner wire on the winch for the block to reach the water when hooking the hose on. The winch must be in good working order, the end of the runner securely fastened to the drum end and the winch brake operative. The hoses at the Terminal are 16 in. internal diameter with the tanker rail hoses having an internal diameter of 12 in.

Manifold Connection Sizes: The minimum size manifold connection will be 8 in. The Terminal is equipped with flanged spools to connect 8 in., 10 in., 12 in. and 16 in. manifolds. Ships manifolds must terminate in flanges of ASA 150 series.

Details of ASA 150 flat face flanges are shown in the "plan" section. Unless the Terminal is given adequate notice, tankers equipped with manifold flanges of sizes and or ratings other than those specified above, will be rejected.

1×16 in. self floating hose is run from the buoy to the tanker. The last 3 hoses of the string, including the tanker rail hose, are 12 in. diameter. This reduction in diameter is made at the tanker end of the string so that the ship has less weight to lift when hoisting the hoses on board.

Hanging Off Hoses: Small bitts for hanging off loading hoses should be provided in line with the loading manifold.

LOADING: *Loading Rate:* Maximum loading rate will be about 20,000 bbls.p.h. It is recommended that vessels take maximum flow, with due regard to safety, in order to expedite turn around time as well as to provide ballast as quickly as possible. Care should be taken not to overload, as there is no possibility whatever of pumping back ashore. When vessels are equipped with permanent ballast tanks, the ballast in these tanks should be retained on board until the vessel has taken on board sufficient cargo to be manoeuvrable. Vessels not so equipped should examine the possibility of safely loading and discharging ballast simultaneously, as such practice improves turn around time as well as reducing the possibility of breaking out of the berth in bad weather in a completely light condition.

Closing Valves Against Oil Flow: Warning is given of the danger of closing valves against an incoming oil stream. This will create excessive pressure which may result in damage to the loading hoses, sea-line and Terminal facilities. Vessels will be held liable for damages resulting from failure to observe this precaution.

Radio Contact: During loading operations the vessel will contact the Terminal Despatcher ashore every 30 minutes by the assigned VHF channel to ensure that radio contact is being maintained. Pumping will be stopped immediately if it is found that radio contact with the ship has been lost.

In addition to the ship's VHF, the Mooring Master will carry a portable radio, of approved design, with which he will be able to contact the shore terminal and mooring launches.

Mooring Launch: Throughout the loading operation a Terminal mooring launch will be in attendance at the ship to tend hoses etc.

Every vessel requiring a "Shore Stop" will be required to inform the Mooring Master at start of loading and sign the form carried by the Mooring Master, requesting "Shore Stop". When requesting a "Shore Stop", Masters must understand that Union Oil Co. of Indonesia accept no responsibility for any errors in the quantity. Should the cargo asked for overload the vessel, it is not possible to pump oil back from the ship to the shore.

Lawi Lawi Crude Oil Specifications:

Gravity at 60°F.:	39 A.P.I. to 34 A.P.I.
Salt Content:	Less than 12 pounds per 1,000 bbls.
B.S. & W.:	0.30 Vol. % or less.
Sulphur:	0.04 – 0.15 Weight %
Pour Point:	15°F. to 20°F.
Viscosity:	1,000 to 2,000 cST @ 100° F.
Reid Vapour Pressure:	3 to 8 p.s.i.

BALLAST/POLLUTION: *Adequate Ballast:* Due to the exposed location of the crude oil loading berth, vessels are required to carry sufficient ballast for safe handling, having due regard to existing weather and sea conditions. A vessel found by the Mooring Master to be not adequately ballasted will be rejected.

Pollution: Owners and Masters are responsible to observe International Convention Laws and Indonesian Government regulations concerning pollution of the sea, having particular regard for this area of the Macassar Strait.

Clean Ballast: As there are no ballast discharging facilities, vessels must arrive at the Terminal with clean ballast, ensuring that all pipe-lines, pumps and strainers have been flushed out prior to arriving.

The Mooring Master will inspect ship's ballast on boarding and has the power to reject any vessel that he deems would cause pollution of the sea area, in which case the vessel must proceed to sea and return only when ballast is completely free of oil. Any vessel rejected because of dirty ballast will automatically nullify its Notice of Readiness and will lose any priority of position for loading. Ballast discharge should not be commenced without the prior agreement of the Mooring Master.

Bilges: Bilges must not be discharged while at the SBM or in the anchorage.

Inspection During Loading: At night the sea area around the vessel shall be adequately lighted, as frequent inspection by the Mooring Master will be made during the discharge of ballast. Any pollution whatsoever will be cause for rejection. Similarly, any hull leaks causing pollution during loading will be cause for rejection and the vessel will not be reaccepted unless satisfactory evidence of repairs has been certified by a qualified surveyor.

Cargo hose connections should be inspected during loading, drip-pans should be placed under the manifold, all unused cargo connections should be blanked off, sea-valves should be closed and lashed upon completion of deballasting and all scuppers must be securely plugged.

Fines and Claims: Any fines imposed by Governmental Authority for pollution shall be for the vessel's account.

In the event that the Company has to settle any third party claims as a result of damages to property caused by pollution attributable in any way to the vessel, they will have the right to reimbursement by those responsible for the vessel for all expenses incurred.

In the event of oil spillage or pollution of the waters, all labour and equipment costs for cleaning operations will be to the vessel's account.

REPAIRS: Being an open roadstead, vessels must keep engines on standby during their stay in the berth. No repairs to main engines may be undertaken while in the berth. Power must be kept on deck winches in case adjustments to mooring lines are found necessary.

Only the automatic turning gear should be used. If it should become necessary to turn the propellor(s) at revolutions greater than the minimum obtained by the automatic turning gear, application must be made to the Mooring Master in order that arrangements can be made to ensure that hoses are kept clear. The Mooring Master's written permission must be obtained before any such increase in revolutions.

CUSTOMS ALLOWANCES: Cigarettes, cigars, tobacco, matches, spirits, wine, beers, perfume, arms, ammunition and possibly other items have to be locked up under customs seal from time of arrival of ship in port until time of leaving territorial waters. Each person is allowed to bring in 200 cigarettes or the equivalent in grams of tobacco or cigars. Special allowances are made for the Master under special circumstances. The Customs Officer will seal the stores.

AIRPORT: Sepinggan Airport, distance 8 km.
TIME: GMT plus 8 hours.
FACILITIES: There are no facilities of any kind at Lawi Lawi S.B.M.

There are no engineering repair shops.
No fresh water.
No bunkers available.
No provisions or stores.
No crane or barge service.
No shore leave.
No crew changes.
No consulates available.

GENERAL: *Charts:*
British Admiralty Charts:

3014	Balikpapan Bay to Pulo Laut.
3031	Plans on the East Coast of Kalimantan.
941 B	Eastern Archipelago Sheet 2 Western Portion.
2637	Strait of Macassar South Port.

U.S. Naval Oceanographic Office Charts:

HO. 3045	Southern Part of Macassar Strait.
HO. 6188	Tanjung Tamarong to Sungai Pasir.

Sailing Directions: Indonesia Pilot Vol II, 1st edition 1976.
Hydrographic Survey: A detailed hydrographic survey including a wire sweep was carried out from November 1975 to February 1976. This survey covers the approach channel, anchorage area and the manoeuvring area in the vicinity of the SBM (See "Plan").
Safety: Every vessel which berths at the buoy shall remain under the charge of the Master who will take all steps necessary to preserve the safety and security of such vessel, crew and terminal personal who may board in the execution of their various duties.

The Master of every vessel at anchor in the designated anchorage or secured to the SBM shall ensure that all parts of the vessel to which any person may be lawfully required to proceed are properly illuminated. Efficient and easy means of access shall be provided to every vessel at anchor at the SBM and such access shall be adequately illuminated between sunset and sunrise.

Operations: No person(s) shall be permitted to board or leave the vessel other than by the gangway or other proper means provided for the purpose.

The Mooring Master may require the vessel to unmoor at any time he deems it necessary for the safety of the vessel or the moorings or both, or for infringement of Port Regulations. Unsatisfactory conditions will be reported to the Company's Marine Superintendent, who is empowered to reject a vessel for future calls unless the reported deficiencies have been remedied.

Sufficient crew members must be immediately available at all times to assit with any or all operations on board the vessel at the terminal.

Floating Logs: Masters are advised to keep a good lookout for partially submerged logs floating in this area. These can be large and a hazard to safe navigation.

AGENCY: See "General" before first port.

AUTHORITY: The installations of this Terminal are owned by P. H. Perusahaan Pertambangan Minjak Dan Gas Bumi Negara (Pertamina), a State Enterprise of the Republic of Indonesia.

Operator: Union Oil Company of Indonesia, Ratu Plaza Building, 7th Floor, Jl. Jend. Sudirman, Indonesia. *Mailing Address:* P.O.Box 264/DKT, Jakarta, Indonesia. *Cables:* Petroleum Jakarta *Telex:* 47335 Union-la. *Tel:* 712509, 737344, 712161.

LHOKNGA: 05.27 N. 95.14 E.

LOCATION: This port is located about 10 km. from Banda Aceh (Port of Malahayati).
PILOTAGE: Compulsory. Pilot boarding station is located in position 05° 27′ 30″ N., 95° 12′ 30″ E.
ANCHORAGE: Vessels anchor in position 05° 28′ 20″ N., 95° 12′ 40″ E.
MAX. SIZE: Maximum LOA 150 m., maximum draft 9.10 m.
RADIO: Ulee Lheu Coastal Radio Station. Call sign PKA-5. Station on SSB.
VHF: The Coastal Radio Station is on Channels 12, 13, 14 and 16. Working hours 0800 – 1200 and 1600 – 1800.

The cement factory is on Channels 6, 12, 15 and 16.

TUGS: 2 × 800 h.p.
BERTHING: There is a concrete berth with a length of 125 m. and an average depth alongside of 10.0 m. The port is used by P.T. Semen Andalas for delivery of cement to their factory.
CRANES: 1 × 10 ton mobile crane.
STEVEDORES: Available.
MEDICAL: Doctor and clinic available.
FRESH WATER: Available.
FUEL: Not available.
REPAIRS: No facilities available.
REPATRIATION: Crew repatriation possible via Blang Bintang Airport situated about 32 km. from Lhoknga.
HOLIDAYS: 17th August (National Independence Day), Idul Fitri and Idul Adha. Work can be carried out in the evenings on holidays.
AUTHORITY: P.T. Semen Andalas Indonesia, J.L. Banda Aceh, – Meulaboh km. 17, P.O.Box 30, Lhoknga, Banda Aceh 23523, Indonesia. *Tel:* (0561) 22571, 22372. *Telex:* 54120 Saibna la.

LHOKSEUMAWE (Including Hagu, Blang Lancang and Krueng Geukueh): 05.15 N. 97.07 E. (See Plan)

LOCATION: The port is situated on the North coast of Sumatra, Indonesia. The port limits (compulsory pilotage) are:

North:	Lat. 05° 17′ 00″ N.	Long. 97° 10′ 00″ E. to
	Lat. 05° 17′ 00″ N.	Long. 96° 58′ 20″ E.
West:	Lat. 05° 17′ 00″ N.	Long. 96° 58′ 20″ E. to the coast.
East:	Lat. 05° 17′ 00″ N.	Long. 97° 10′ 00″ E. to the coast.
South:	Along the coast between East and West limits include Blang Lancang and Public and Special Fertiliser Harbour (K.G.).	

The Blanc Lancang outer buoy is in position:
Lat. 05° 15′ 22″ N. Long. 97° 07′ 02″ E. Fl. 8 sec.

Chart and Sailing Directions for the area:
Republik Indonesia Hidral No. 8 Plant Chart No. 25.
Sailing Direction.
List of Lights.
Special Publication.

Lhokseumawe Harbour is divided into 4 areas:

1. Lhokseumawe Harbour.
2. Hagu Pertamina Special Oil Terminal.
3. Blang Lancang Pertamina Special Harbour (LNG/LPG/Condensate Terminal).
4. Krueng Geukueh Harbour (Fertiliser Terminal and Public Berth).

DOCUMENTS: *Clearance:* Vessels proceeding to Lhokseumawe, Hagu and Krueng Geukueh should carry out document clearance at Lhokseumawe anchorage; vessels proceeding to Blang Lancang at Blang Lancang anchorage.

Cholera Vaccination Certificates for all crew members and passengers (date not exceeding 6 months).
Certificates of Inoculation against any contagious diseases.

Customs, Immigration and Harbour Master will require the following for inspection:

10 Crew Lists.
5 Crew Declaration of Personal Effects.
5 Ship's Stores Lists (inventory).
3 Passengers Lists (if any).
5 Cargo Manifests, with a summary for transit cargo.
Clearance from the Last Port of Call.
Valid passports and/or Seaman's Certificates for all crew members.
International Maritime Declaration of Health.
Valid Derat or Derat Exemption Certificate.
Arms and Ammunition Declaration.
Load Line Certificate, Ship Registry, Radio Safety/Telegraphy Certificate, Ship's Construction Certificate, Safety Equipment Certificate.
U.S.C.G. Letter of Compliance.
General Information.

In accordance with practice in Indonesian ports the vessel's national flag, the Indonesian country flag, Quarantine, Immigration and Pilot flags must be displayed by all vessels approaching Lhokseumawe Harbour. These signals shall be displayed continuously until clearance is granted.

PILOTAGE: Compulsory for any movement of the ship in harbour and within the port limits.
Lhokseumawe Harbour: Pilot will board the vessel at the anchorage.
Hagu Special Oil Jetty: Pilot will board the vessel at the anchorage.
Blang Lancang Harbour: Pilot will board the vessel at the sea buoy or in the Anchorage Area about 3 miles from the breakwater.
Krueng Geukueh Harbour: Pilot will board in the Anchorage Area or one mile from breakwater.

Master, Owner or Agent should request the Pilot 6 hours in advance for berthing and 3 hours in advance for unberthing. The vessel should be stopped when the Pilot is boarding. Call the Lhokseumawe/Blang Lancang/Krueng Geukueh pilot station by VHF on Channel 12 (24 hours). Moving the ship for berthing and unberthing available in good conditions. The limit is: for the wind not more than 10 m./sec. and swell not more than 2 ft./sec. (for CBM) and visibility not less than 1 mile.

ANCHORAGE: A vessel which has been informed by the Agent to anchor on arrival shall proceed to the designated Anchorage Area.

Anchorage Area for Lhokseumawe Harbour and Hagu Special Oil Terminal is in position:
Lat. 05° 10′ 32″ N. Long. 97° 09′ 20″ E. Depth 20 m.

There are two Anchorage Areas at Blang Lancang Pertamina Special Harbour:

1. Anchorage Area for LNG tankers:
   Lat. 05° 15′ 17″ N. Long. 97° 07′ 45″ E. Depth of water 66 m.
2. Anchorage Area for Oil tankers:
   Lat. 05° 15′ 17″ N. Long. 97° 05′ 26″ E. Depth of water 63 m.

No dry cargo ship will anchor in Blang Lancang Special Harbour. All dry cargo ships visiting Blang Lancang Special Harbour should anchor in Lhokseumawe Harbour for clearance and awaiting a berth.

All vessels visiting Krueng Geukueh Harbour should anchor in Lhokseumawe Harbour for clearance and after that move to Krueng Geukueh Harbour and drop anchor 1 mile North from breakwater in position:
Lat. 05° 16′ 00″ N. Long. 97° 01′ 40″ E. Depth of water 42 m.

The holding ground in the Anchorage Area is reported to be poor. All vessels are required to maintain engines on one hour's notice in good weather and 15 minutes' notice when wind speed exceeds Beaufort Scale 4 (moderate breeze).

RESTRICTIONS: If there are two LNG ships alongside the dock no other ship will move to West Cargo Dock in the Blang Lancang Harbour, except P & T marine craft actually assisting the LNG tanker.

No ship will enter Blang Lancang Harbour with ammunition on board.

Vessel not allowed to proceed into the Blang Lancang CBM restricted area without permission.

No ship will berth during night time at Lhokseumawe/Hagu Wharf or at Blang Lancang SPM/MBM. Blang Lancang Harbour open for 24 hour service. Krueng Geukeuh Harbour open for day time only.

MAX. SIZE:

Old Lhokseumawe Harbour: Only barge and tugboats are able to moor at the dock, depth 2.4 m.

Hagu Wharf: Max. draft 6.0 m.

Blang Lancang Harbour:

LNG Dock I (North):	Max. LOA – 300 m.
	Max. draft – 13 m.
LNG Dock II (South):	Max. LOA – 300 m.
	Max. draft – 13 m.
West Cargo Dock:	Max. LOA – 180 m. General cargo.
	Max. draft – 6.5 m.
East Cargo Dock:	Max. LOA – 120 m.
	Max. draft – 7.0 m.
LPG Dock:	Max. LOA – 270 m.
	Max. draft – 13 m.
	Max. d.w.t. – 80,000
CBM:	Max. LOA – 273.8 m.
	Tankers – 3,000 – 100,000 d.w.t.
SPM:	Tankers – 40,000 – 280,000 d.w.t.

Krueng Geukueh Harbour:

Berth A–AAF	Max. d.w.t. – 10,000
	Max. LOA – 169 m.
	Max draft – 9.50 m.
Berth B–AAF	Max. d.w.t. – 15,000
	Max. LOA – 175 m.
	Max. draft – 9.5 m.
Berth PIM	Max. d.w.t. – 10,000
	Max. LOA – 169 m.
	Max. draft – 9.5 m.
– Public Berth (length 80 m. with 1 mooring buoy and 1 mooring dolphin).	Max. d.w.t. – 10,000
	Max. LOA – 150 m.
	Max. draft – 9.5 m.

HEALTH: In order to obtain Free Pratique vessel must cable name and nationality of the ship; ports of call during the voyage; number of crew and passengers (if any); port of destination and Agent; condition of health of all onboard with details of any sickness and whether all vaccinated.

Officials will board before with Pilot. Quarantine flag "Q" and Immigration flag "N" must be flown until clearance is granted.

RADIO: Ships proceeding to Pertamina/Pt. Arun: Call Lhokseumawe Radio Station, call sign PKB 20. (Owned/operated by Pertamina). Open 24 hours. See "List of Radio Signals" or on VHF Channel 16.

The following information is required.

(a) Name of Owner
(b) Name of vessel and Radio Call Sign
(c) Flag
(d) SDWT
(e) Name of Master
(f) Last port of call and departure date
(g) Discharge port and ETA
(h) Number of crew and passengers
(i) Maximum loading rate in barrels for oil tankers and cubic meters for LNG/LPG tankers.

Dry cargo ships: Call the General Agent in Belawan. Call Belawan Radio PKB 1. (Owned/operated by Port Authority). See "List of Radio Signals."

VHF: For Lhokseumawe Harbour and Krueng Geukueh Harbour: Call Lhokseumawe Pilot on Channel 12.

For Blang Lancang Harbour: Lhokseumawe Radio PKB 20 Channel 16. Marine Office Channels 16, 9 and 13. Pertamina Channels 16 and 19 (working).

For Pilot Station: Call Blang Lancang Pilot Station and Lhokseumawe Pilot on Channel 12.

Language: Indonesian and English.

RADAR: No radar service available.

TUGS: No tugs available in old Lhokseumawe Harbour.

Blang Lancang Harbour: 5 tugs available – 4 tugs with 4,200 h.p. 1 tug with 3,200 h.p. 2 mooring launches 550 h.p.

For Supertanker and LNG: Tanker will use the tug's lines. Tug's line will be charged by Company/Pertamina: Rates will be subject to change in accordance with operation cost and will not be subject to advanced notice.

Cargo ships will use ship's line.

In Krueng Geukueh Harbour: 2 tugs available with 1,000 h.p. Use ship's line. 1 mooring launch, 105 h.p. 1 pilot boat, 250 h.p.

BERTHING: *Old Lhokseumawe Harbour (Lhokseumawe Terminal):* A small pier with length 60 m. Construction: Piles with wood on the top. Depth 2.4 m. Only barges and small vessels under 500 d.w.t. can berth.

Blang Lancang Harbour (Arun Terminal): 2 special LNG docks, 400 m. length each with 10 mooring dolphins and 4 rubber fenders. Depth 14 m. at LWS.

One special LPG dock, 270 m. length, with 6 mooring dolphins and 2 rubber fenders. Depth 14 m. at LWS.

West Cargo Dock: Length of the dock 400 m. Depth 6 m. at LWS.

East Cargo Dock: Length 184 m. Depth 8.0 m.

CBM: The berth which is located offshore is designed for oil tankers ranging from 30,000 d.w.t. to 100,000 d.w.t.

Vessel approaches berth heading 250°T between Buoys 6 and 7 (see "Plan").

The CBM consists of 9 cylindrical mooring buoys secured by 3.5 in. stud-link chain to 30,000 lb. anchors. Some of the mooring buoys are fitted with 44 mm.×750 ft. long preventer wires for use with large ships.

Ships using the 16 in. hoses must have a derrick on the port side with SWL of 10 tons with which to lift the hoses from the seabed. The winches of ship for taking on the shore wires on the drum must be able to withstand 35 tons breaking strain.

Engines to be on one hour's notice throughout.

New SPM: Located 1 km. N.W. of CBM in position: Lat. 05° 15′ 18.23″ N., Long. 97° 04′ 03.33″ E. The SBM is designed for 40,000 d.w.t. – 280,000 d.w.t.

Asean Aceh Fertiliser (AAF Special Fertiliser Harbour): Berth A: Special fertiliser in bulk. 200 m. long with 8 dolphins (4 fenders). Depth. 10 m. at LWS. Designed capacity : Max. d.w.t. 10,000 or 169 m. length able to moor.

Berth B: General cargo berth. Concrete construction 300 m. long with fenders every 20 m. Depth 10 m. at LWS. Max. size 160 m. LOA able to moor.

PIM Special Fertiliser Berth: Located S.E. from Berth "Berth A" – AAF berth. (PIM – Puluk Iskandar Muda; AAF – Asean Aceh Fertiliser). Designed capacity : Max. d.w.t. 10,000 or 169 m. length able to moor. *New Lhokseumawe Public Berth:* Length 80 m. Vessels with Max. LOA 150 m. are able to moor using dolphin and mooring buoy.

STEVEDORES: Available. PBM Stevedoring Company.

MEDICAL: Hospital facilities available.

TANKERS: Oil tankers will be berthed at the CBM or the SPM.

The Loading/Mooring Master will provide shore labour for connection/ disconnection of the submarine hose strings. He maintains communication links with terminal.

Diameter of load line – 2×16 in. for large tankers.
– 2×8 in. for small tankers.

Ships visiting Blang Lancang should have clean ballast. No dirty ballast or slops facilities available.

LPG/LNG:

Storage Capacity:

LNG	636,000 cu.m.
Liquid nitrogen	6,500 gallons

Working Pressure:

LNG	70 p.s.i.
LPG	22 p.s.i.

LNG Characteristics:

Explosion limits	5.3 – 14 % vol.
Flammable	Yes
Boiling point	−161°C.
Flash point	−175°C.
Critical pressure	45.6 kg./sq.cm.
Critical temperature	−82.5°C.
Condensing ratio	0.8038

Loading:

	LNG	Vapour Return	LPG	Vapour Return
Pipeline (in.)	24	30	28	24
Loading rate (cu.m.p.h.)	11,000		3,400-4,770	
Discharging rate (Nm3)		77,880		10,700 (Propane) 12,400 (Butane)
No. of lines	3	1	2	1 (Propane) 1 (Butane)
Hose connection (in.)	16	16	12	12 (Propane) 12 (Butane)
Max. vertical limit (m.)	7.0		11.9	
Manifold to rail (m.)	3.35 (max.)		2.60 (max.) 1.25 (min.	

Condensate:

Storage capacity:	340,000 k/l
Loading temperature:	90°F.
Working pressure:	220 p.s.i.
Reed Vapour Pressure:	13 p.s.i.
API Gravity at 60°F.:	56-51
Loading rate (Bbls.p.h.):	55,000-60,000
Pipeline:	42 in.
Hoses:	2×12 in.

Also see "Berthing".

DENSITY: 1024.

FRESH WATER: Only available for tugs.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Ship's crew maintain deck watch.

Gangways: Cargo and oil tankers use ship's gangway. LNG tankers use shore gangway.

FIRE PRECAUTIONS: No smoking will be allowed on board while the ship is berthed and on the plant site of Arun Terminal, except in places approved by Harbour Master.

CONSULS: No Consuls in Lhokseumawe.

REPAIRS: No facilities.

SURVEYORS: Saybolt Surveyor attends at Blang Lancang CBM/SPM/ LNG dock.

DRY DOCKS: No facilities.

REPATRIATION: Crew changes and repatriation can be effected.

AIRPORT: Lhokseukon Mobil Oil Domestic Airport, about 30 km. from Lhokseumawe.

Malikussaleh/Kreung Mane PT. Arun Public Airport (Domestic) about 30 km. from Lhokseumawe.

Polonia International Airport located in Medan, about 360 km. from Lhokseumawe.

OPENING/CLOSING HATCHES: By ship's crew.

CUSTOMS ALLOWANCES: 200 cigarettes/10 cigars. 100 grams of tobacco. No spirits to be taken ashore.

IDENTIFICATION CARDS: Shore pass as required by Agent.

CARGO GEAR: At Lhokseumawe Terminal/Hagu no facilities for heavy lifts.

At AAF Cargo Dock/Blang Lancang Cargo Dock, heavy lifts can be handled.

TIME: GMT plus 7 hours.

HOLIDAYS: For LNG and Condensate: No holidays in operation. For other vessels: Idul Fitri – Idul Adha, no operations.

POLICE/AMBULANCE/FIRE: *Police:* Lhokseumawe/Hagu Area: (Sector) Public Tel: 110. (Resort) Tel: 21490.

Blang Lancang Area: Public Phone Tel: 21566 ext. 3242. Plant security ext. 2041/3222. PT. Arun Phone (Direct) Tel: 3242 or call PKB 20 on VHF Channel 16.

Krueng Geukueh Area: Public Phone (Number not given).

Ambulance:

Lhokseumawe/Hagu Area: Public Phone Tel: 118. (Public) Tel: 21012.

Blang Lancang Area: PT. Arun Phone (Direct) Tel: 3111, 2572, 2463 or call PKB 20 on VHF Channel 16.

Kruen Geukueh Area: PT. AAF (Direct) Tel: 555. PT. PIM (Direct). Tel: 333/444.

Fire:

Lhokseumawe/Hagu Area: Government Public Tel: 113/21955 Mobil Oil 21444 ext. 4225-4226. PT. Arun: Government Public Telephone Tel: 21566 ext. 2111, 1111.

Blang Lancang Area: PT. Arun (Direct) Tel: 2111, 1111 or call PKB 20 on VHF Channel 16.

Krueng Geukueh: AAF public telephone No. 22433, 22343, 22232. Plant Site ext. 222. Housing ext. 333. PIM public telephone No. 22699, 22149, 22769.

EMERGENCY CO-ORDINATION CENTRE: Contact "PKB 1" Belawan Radio for Search and Rescue.

TELEPHONES: No ships' telephones except for LNG/LPG ships during berthing.

SERVICES: Available.

BANKS: Lhokseumawe:
  Bank Exim Tel: 22085
  B.D.N. Tel: 21062
  B.I. Tel: 21399/21581
  B.B.D. Tel: 21332
  B.R.I. Tel: 21113
  B.N.I.-46 Tel: 21258
Blang Lancang Area:
  B.D.N. Post Batuphat PTG. Arun (Direct) Tel: 3157,3158
  PT. Arun Pioneer Camp (Direct) Tel: 3314
Krueng Geukueh Area:
  P.I.M. (Direct) Tel: 341.

SHORE LEAVE: Possible, except Socialist/Communist nationality.

DELAYS: Vessels calling at Blang Lancang CBM may be delayed if ship's mooring system is unsuitable or when berth is affected by strong winds and/or swell.

GENERAL: *Post Office:* Lhokseumawe: Jl. Samudera. Tel: 21026.

Blang Lancang/Krueng Geukueh: Batuphat (PT. Arun Tel: 3159).

Telegraphic Office: Centre or Interlocal: Jl. Merdeka. Tel: 21757.

Port Services: Jl. Pelabuhan Tel: 21181. Harbour Master Tel: 21485.

Restricted Area: 1.75 nautical miles radius of the centre of the SPM position.

DEVELOPMENTS: LPG berth will be operational in November 1988.

SHIPMASTER'S REPORT: April 1981.

Arun Terminal:

Documents: See "Jakarta".

Chart: B.A. 3584.

Berthing: There is a jetty for LNG loading. Position: Lat. 05.15 N., Long. 97.07 E.

This is an open sea loading point located just at the right hand side of the port of Blang Lancang for ships to load condensate cargo only.

Pilotage: Compulsory, Loading Master together with 4 – 6 shore personnel will assist in mooring, Pilot also onboard.

Loading: Vessel should be equipped with 10 ton derrick on port side, manifold 2×12 in. on port side, 2 mooring winches/drums, 1 minimum available at forward maindeck and 1 at after maindeck for serving the preventer wire 44 mm.×750 ft., as breast lines for 2 buoys. Vessel should also be equipped with 14 mooring lines minimum length 210 m. each for 9 mooring buoys. Loading Master will discuss the mooring procedures with Master before mooring.

Shore Facilities: None.

Agent: Pertamina, Blang Lancang, Cable Address: Pertaminaship, Jakarta.

SHIPMASTER'S REPORT: September 1983 (Updated 1988).

Arun Terminal:

Documents:

On arrival Health, Immigration and Harbour Master's Officer will board with the Agent to issue clearance.

Papers required:
  Maritime Declaration of Health.
  Vaccination Cards.
  Derat Certificate.
  Crew List (10-12 copies).
  Passports/Seamen's ID Books.
  Last Port Clearance.
  Arrival Report (supplied by the Agent).

The Agent will require the following documents to take to the Custom House ashore:
  Ship's Register.
  International Loadline Certificate.
  Safety Radio Certificate.
  Safety Equipment Certificate.
  Safety Construction Certificate.
  Certificate of Financial Responsibility (oil pollution).
  Derat Certificate.
  Immigration may take some, or all Passports/ID ashore.

After these formalities have been completed 4 or 5 Customs Officers will board. They will require:
  Ship's Stores List.
  Crew Personal Effects List.
  Cargo Manifest ('nil' declaration if applicable).

About 4 – 5 copies of each of the above should be adequate. The bond store, and possibly other storerooms, will be checked and some or all cabins will be searched.

Cargo documents should normally be ready by the time the hoses are disconnected, (about 1.25 hours after completion of loading). Return of Ship's Certificates, Passports, and issue of Port Clearance, can, it is reported, cause some delay. Vessels are not allowed to wait at the berth for documentation.

Pilotage: See "Berthing".

Anchorages: A designated waiting anchorage for tankers lies about 1.25 miles North-Eastward of the berth, in depths of about 60 m. (clay).

Restrictions: Mooring of condensate tankers carried out in daylight only. Unmooring is allowed day and night.

Restricted area: 1.75 nautical miles radius from centre of SPM.

Max. Size: The tanker berth is designed to accept vessels up to 100 MDWT, with LOA 275 m.

Approaches: Charts: BA 2777; BA 3585.

Apart from an active fishing industry operating in the area there are no navigational hazards in the approaches. There are adequate navigational lights serving Blang Lancang and Pelabuhan Blang Lancang, (although neither the light or racon on the beacon at Ka Geukueh, about 1.5 miles Westward of the terminal were active 9th-15th September, 1983). The storage tanks and gas flares at the terminal are prominent day and night.

Radio: Send ETA 72, 48 and 24 hours in advance to 'Pertaminaship Jakarta'. Additional information regarding the vessel's details, last port, cargo requirements, etc., is not obligatory as far as is known but seems advisable.

Radio Station 'PKB 20', at Lhokseumawe will handle traffic concerning navigation, cargo, etc., but watch schedules do not appear to be regular. The terminal may, via PKB 20, request information from the vessel regarding cargo requirements, loading rate, deballasting time (if applicable), number/type of mooring lines.

VHF: When within appropriate range the terminal may be contacted on VHF Channel 16; working Channels 9 and 19. The call sign is 'Arun'.

Tugs: Three tugs, each 4,200 h.p., assist the berthing. One tug is made fast forward and one aft; centre leads; tugs' towing ropes. One tug pushes at amidships as required. Two tugs attend during unberthing. Two large mooring boats are employed for mooring/unmooring.

Berthing: The terminal, owned and operated by Pertamina, together with Mobil and Japanese interests, exports Arun Natural Crude and LNG. Tankers load at a multi-buoy berth about 1.5 miles off-shore. Gas carriers load in a small artificial harbour (Pelabuhan Blang Lancang), about 1.5 miles E.S.E of the terminal. The small port of Lhokseumawe lies about 5 miles S.E. of the terminal. New Lhokseumawe Public Harbour and Fertiliser Terminal (AAF & PIM) located in Terminal Krueng Geukueh, about 5 miles WNW of the Blang Lancang outer buoy.

The tanker berth is located in an open roadstead in depths of 35 m. – 50 m. There are 9 mooring buoys, 2 bow buoys, 2 breasting buoys each side, 2 quarter buoys and 1 stern buoy. The tanker will require 4 bow lines, 4 breast lines and 5 stern lines. Wire ropes are acceptable, preferably with nylon tails. The bow lines should be at least 250 m. in length. Additionally the tanker will be required to pick up a 42 mm. diameter wire rope from each of the breasting buoys. Prior to berthing the vessel's mooring equipment will be inspected by the Mooring Master who will discuss the mooring operation with the Ship's Officers. The Mooring Master and Assistant will board with the Pilot at the time of berthing to supervise the mooring operation.

Accommodation on board is required for the Loading Master and one Mooring Master.

Scuba divers are in attendance to sort out any underwater problems that may occur with regard to the moorings and hoses.

Loading: Arun Natural Crude is a condensate, (akin to naptha), very light and gassy. Approximate quality details are:

h/

API, 55; temperature, 32°C; RVP, 11 psi. Cargo is loaded via two 12 in. flexible hoses. The terminal supplies labour for connecting/disconnecting the hoses. Ship's crew required to assist and operate winch and derrick. Allow for about 6 tons lift on each hose. Maximum loading rate is 65,000 bbls/hour. The terminal meters the quantity of cargo loaded. The meter is proved at each loading and the ship should receive a proving report on completion of loading.

Medical: Treatment available.

Fresh Water: None. (Said to be available at Pelabuhan Blang Lancang).

Fuel: None. (Said to be available at Pelabuhan Blang Lancang).

Airport: There is, reportedly, an air service with Medan, about 150 miles S.E. of Blang Lancang. Medan is said to be served by international flights.

Shore Leave: Permitted, except Socialist and Communist nationality.

Developments: Plans to install an SBM, as an additional berth, have been approved, it is reported.

General: Tides: Refer Lhokseumawe. Tides are semi-diurnal. Spring range is 1.4 m. Rates appear to be fairly weak. A ship will generally lay windrode at the anchorage.

Weather: November to March winds from N.E. prevail. June to September winds from S.W. prevail. The area is subject to SW'ly squalls May-September, and particularly June-August. Thunderstorms are most frequent March – April and October – November.

AUTHORITY: Lhokseumawe Port Administrator, Jl. Pelabuhan No. 4, Lhokseumawe, Indonesia. *Tel:* 21485.

Public Port Service (PERUM Pelabuhan I Lsm) Jl. Pelabuhan No. 1, Lhokseumawe, Indonesia. *Tel:* 21181 – 21881. *Telex:* 51039 PPI Lsm.

Contact: T. Rusly Harun, Branch Manager.
  Ubed Beddy, Harbour Master. Tel: 21485 and VHF Channel 16.
  Dr. Sukristoro Wardoyo, Port Health. Tel: 21154.
  B. Sutrisno, Lsm. Customs. Tel: 21267.
  Hamzah Akimin, Blang Lancang, Customs. Tel: (PT. Arun) 2145.
  Darsoeki, Immigration. Tel: 21039.

MACASSAR (Ujang Pandang): 05.08 S. 119.24 E.

(See Plan)

DOCUMENTS:

Certificate of Registry
Crew List
Log Book
Certificate of Seaworthiness
Load Line Certificate
Radio Certificate (Solas Certificate)
Health Certificate
Equipment Certificate (Solas Certificate)

Shipping documents as follows:

Manifest of cargo
Bills of Lading
Charter Party (if necessary)

PILOTAGE: Pilotage compulsory for vessels of more than 150 cu.m. in gross volumes.

To order a Pilot:

1. Contact the ship's Agent in this port via Macassar Radio (call sign PKF) by ship's radio or VHF Channel 16.
2. Also contact Macassar Pilot Station tower by VHF Channel 16.

Pilotage Information:

1. Every vessel of 71 m. LOA and over under Pilot's direction for berthing and unberthing is to use the Port Administration tugs.

There are 2 tugs available with initial letters "PA" on their blue funnel,

M.T. "Anggada VII" 800 h.p.
M.T. "Selat Tanakeke" 1,160 h.p.

2. Every vessel of 31 m. LOA and over, under Pilot's direction for berthing and unberthing is to be assisted by Port Administration mooring boat.

ANCHORAGE: The anchorage for vessels awaiting a Pilot is around the position Lat. 05° 07′ 30″ S., Long. 119° 22′ 30″ E. with depth of water 25 m. at LWS.

RESTRICTIONS: Entry not permitted after 1800 hrs. Every foreign vessel is to have special permission from Indonesian Government or Directorate General of Sea Communication for entering and should have representatives or handling Agent before entering this port.

Warships should contact the Indonesian Navy Commander of Territory VII (Pangdaeral VII) before entering the port.

MAX. SIZE: Max. LOA 200 m. Max. draft 9.0 m.

RADIO: See "Pilotage".

VHF: Harbour Master on Channel 16. Pilot Station on Channel 12.

TUGS: 5 tugs available.

BERTHING:

Depths of Water:

Main Entrance Channel: 13 m. at LWS.
Soekarno Wharf: Length 1,350 m. Depth 8.0 m. – 9.0 m. at LWS.
Hatta Wharf: Length 550 m. Depth 8.0 m. – 9.0 m. at LWS.
Oil Jetty (Pertamina Jetty): 8 m. at LWS.
Anchorage in the inner waters: 11 m. at LWS.

Special Attention in West Monsoons (November to February):

All vessels alongside Soekarno and Hatta Wharf should use fore and aft mooring lines to buoys which are available, to prevent the beating of ship's hull against the wharf.

STEVEDORES: Stevedoring by Port Labour (UKA). Capacity for discharging: 12 ton gang/hour – General Cargo. 17 ton gang/hour – Bulk Cargo (in bags). Heavy cranes available, capacity 15 tons.

MEDICAL: Doctor and clinic available.

FRESH WATER: Available rate 50 t.p.h.

FUEL: Available, MFO 50 t.p.h.

GANGWAY/DECK WATCHMEN: There are no special deck watchmen services but can be arranged through Agent.

OPENING/CLOSING HATCHES: Work carried out by stevedores.

CUSTOMS ALLOWANCES: Tobacco. Only sufficient for personal use (500 grams tobacco or 200 cigarettes for one passenger).

Wine and/or spirits not permitted out of bond.

IDENTIFICATION CARDS: Needed by Immigration Office.

CONSULS: Japan and Norway.

REPAIRS: Minor deck or engine repairs possible.

AIRPORT: Macassar Airport, called "Mandai Airport", distance from town about 23 km.

Services: Macassar–Kendari and Jakarta–Surabaya–Macassar Manado every day (3 times a day). Macassar–Ambon–Jayapura.

TIME: Middle Indonesian Time, GMT plus 8 hours.

HOLIDAYS: Every Sunday; New Year (January 1st); Idul Adha (November 11th); 1st Muharam 1399 H. Isa Almasih (May 15th); Proclamation Day (August 17th); Mi'radj Muhammad (July 3rd); Idul Fitri (September 9th); Maulud Muhammad (February 20th); Santa Maria (May 15th); Christmas Day (December 25th). Work can be arranged at overtime rates.

POLICE/FIRE/AMBULANCE: Police, Fire 4306. Ambulance 7227.

TELEPHONES: No arrangements exist for placing telephones on board.

DELAYS: Caused by rain (bad weather).

DEVELOPMENTS: In near future, Macassar to have bonded warehouse, godown for dangerous cargoes and be able to handle containers.

SHIPMASTER'S REPORT: March 1986.

5 buoys marked swept channel which has been realigned west of Kudingareng Lompo. Most local vessels use the alternative swept channel which passes South and East of Kudingareng Lompo. Mariso Beacon has been replaced by Ujong Pandang Beacon. The windows of the flour mill and silo terminal are the most positive mark for approaching the pilot station. The light beacons close to the entrance are impossible to identify from the city lights behind.

Pilot station has VHF Channels 12 and 16. 24 hour pilotage service is now available. The Harbour is cluttered by a dozen unlit mooring buoys, and great care is needed for ship's propellers.

Standard Indonesian Arrival Formalities soon after arrival. Inspection team consists of 2 Immigration Officers, 2 Customs Officers, Officials from the Harbour Masters Office and 2 Agents.

Vessels loaded crated plywood, standard 8 in. × 4 in. sheets, averaging 1.070 kg. Freight measurement 1.8 cu.m., gross measurement 2.02 cu.m. stowage about 3.06 cu.m. in centre holds. Small fork lift stows 6 tiers high, then lay steel plates and load up to a further 6 tiers. Vessel worked 3 hooks which averaged 50 – 60 crates per hook per hour. Factory 10 km. by road. Special alertness required for closing hatches in sudden torrential rain at night. Also Special precautions required for pilferage, such as removing all pressure gauges from hydraulic systems in deck houses. Long hasp padlocks provide no security at all, being broken more quickly than they can be unlocked.

AUTHORITY: Department of Communication, Directorate of Sea Communication, Port Administration Macassar. 6th Sea Communication Regional Office, Ujang Pandang.

MADURA: 06.51 S. 112.57 E.

PILOTAGE: Mooring Master boards in position Lat. 06° 48′ 30″ S., Long. 112° 56′ 49″ E.

RESTRICTIONS: Berthing and unberthing during daylight hours only.

MAX. SIZE: Max. d.w.t. 105,000. Max. LOA 250 m.

RADIO: Surabaya Radio. Call sign PKD.

VHF: Surabaya Radio. Call sign PKD 6.

BERTHING: Depth alongside storage tanker 21.3 m.

LOADING: Crude oil is loaded at an average rate of 15,000 b.p.h. through 2×12 in. hoses.

Characteristics of Crude Oil:

API Gravity at 60°F. : 46.1
Reid Vapour Pressure at 100°F. : 3.9 psi
Viscosity at 100°F. : 1.75 cST
Sulphur Content : 0.02 % wt
Carbon Residue : 0.7 % wt
Flash Point (PMCC) : Below 50°F.
Pour Point : 40°F.

MEDICAL: First-aid available.

DENSITY: 1020-1025.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: None.

AIRPORT: Juanda Airport at Surabaya is the nearest airport.

TIME: GMT plus 7 hours.

GENERAL: *Charts:* Indonesian Charts No. 84 and 96. British Admiralty Charts No. 1066, 1653 (C) and 921.

AGENCY: See "General" before first port.

SHIPMASTER'S REPORT: December 1985.

Location: The terminal is located 2.5 miles off the island of Madura on the N.W. coast in position: Lat. 06° 50′ 40″ S., Long. 112° 56′ 45″ E., near the entrance of Surabaya Strait.

Documents: See "Jakarta".

Pilotage: Compulsory within the terminal limits. Pilot boards in the anchorage or if berthing on arrival Pilot will board 2 miles North of the storage tanker "Asoka Nusantara". Pilot comes on board from a tug flying the "H" flag and requires a lee with pilot ladder or accommodation ladder rigged on lee side.

Anchorage: Within a 500 m. radius of position: Lat. 06° 45′ 30″ S., Long. 112° 56′ 49″ E. (2 miles North of storage tanker). Depth of water 32 m.

Restrictions: Normally daylight berthing only. Unberthing at any time.

Max. Size: Max. LOA 250 m. Depth of water 75 ft.

Health: The Health Authorities come on board after completion of berthing. They come from Surabaya by helicopter.

Radio: All incoming tankers are to send 72 hours and 48 hours notice of ETA to Kodeco-Madura Marine Terminal, through Pertaminaship Jakarta (Telex: 44450 and 45348) as Agents, giving best ETA. The first message should also include the following information:

1. Name of tanker and radio call sign.
2. Cargo requirements.
3. De-ballasting time; if a separate/permanent ballast system is fitted on board, this must also be stated.
4. Maximum loading rate.
5. Arrival draft, forward and aft.
6. Last port of call.
7. Confirm that vessel has clean Bill of Health.
8. If there is any sickness aboard, give all available information as to the possible type of sickness.
9. Specification, difficulties, defective equipment or gear which could present a hazard or difficulties when mooring/unmooring or during operations.

Further ETA message should be sent (to Kodeco-Madura Marine Terminal via, Pertamina local Agent; Cable address: Pertaminaship Surabaya. Telex: 31390 PSHSB) when the tanker is 24 hours and 12 hours from the terminal and if any significant change occurs in the original ETA or those subsequent thereto.

VHF: The storage tanker keeps watch on Channel 16 throughout 24 hours. The Pilot works on Channel 6.

Whilst in the anchorage vessel is to maintain watch on Channel 16.

Tugs: 2 tugs, "Ogan" 1,700 h.p. and "Semeru" 3,200 h.p. assist in berthing.

Berthing: The storage tanker "Asoka Nusantara" is of 107,000 d.w.t., LOA 260 m. and is permanently moored to an SBM by a 14 in. line. To load crude oil, the export tanker will be moored alongside the starboard side of the storage tanker. For this purpose 4 Yokohama fenders are laid on the water along the starboard side of the storage tanker. Six ropes are required at each end. Berthing is port side to.

Hose Connection: 2×12 in. rubber hoses with camlock quick release mechanisms. Ship's derrick required and connection is made by ship's crew.

Loading: The storage tanker has 3×10,000 bbls.p.h. pumps. Maximum loading rate is 30,000 bbls.p.h. and minimum loading rate is 15,000 bbls.p.h.

Madura Crude Oil is as follows:

API at 60°F	47.0 – 46.0
Temperature	85°F – 90°F
Pour point	10°F

Facilities:

1. No dirty ballast facilities.
2. No slop tanks available.
3. No fresh water available.
4. No shore leave allowed.
5. No crew changes possible.
6. No stores available.
7. No clinic is available.
8. No bunkers available.

Time: GMT plus 7 hours.

AUTHORITY: *Operator:* Kodeco Energy Co. Ltd., Nusantara Building, 19th Floor, Jakarta, Indonesia. *Tel:* 336244. *Telex:* 44734 Kdcegy-Ia.

MALILI: 02.39 S. 120.59 E. (See Plan)
MANGKASA: 02.44 S. 121.04 E. (See Plan)

OPERATOR: P.T. International Nickel Indonesia (P.T. Inco).

LOCATION: Malili and Mangkasa Tanker Terminal are situated in the Gulf of Bone, South Sulawesi about 300 miles N.E. of Ujung Pandang.

Malili:

Malili port is situated in the Gulf of Bone, South Sulawesi about 5 miles from Mangkasa Sea Tanker Terminal.

Vessels arriving at Malili port must remain in the Roads Anchorage, Anchorage Light Buoy (Qk. Fl.) in position Lat. 02° 42′ 30″ S., Long. 121° 01′ 40″ E. Anchorage is to the South of the buoy and having average depth of more than 20 m. (LWS)

This port *is to be assigned for* dry general cargo discharging and loading of nickel ore.

The sea chart to be used is Indonesian Chart No. 319.

Mangkasa Sea Tanker Terminal:

The terminal is located at Lat. 02° 44′ 25″ S., Long. 121° 04′ 00″ E. This terminal is provided for tankers of about 20,000 d.w.t. which are to be equipped with hose lifting derrick at the port side manifold.

The sea terminal itself consists of a four buoy mooring.

The hose has a diameter of 12 in. and fitted with 12 in. × 150 lb. ASA flange. The submarine pipe diameter is 20 in.

FLAGS: In accordance with the practice in Indonesian ports, the vessel's national flag, the Indonesian courtesy ensign, quarantine, immigration, Pilot and call sign flags must be displayed by all vessels approaching the port. These signals shall be displayed continuously until clearance is granted.

The above mentioned signals are:

Sunrise to sunset: quarantine flag "Q".
Sunset to sunrise: signal lights red over white.

The flag "N" should be flown until the Immigration Officer boards the ship. The "G" flag should be flown until the Pilot boards.

The vessel should also fly its call sign until the vessel is secured in the berth. These call sign flags must be flown again when the vessel is sailing until the vessel is clear of the anchorage area and the Pilot has departed.

The "G" flag should be replaced by "H" flag if the Pilot is already aboard the vessel.

The "P" flag may may be flown if the vessel is going to sail within 24 hours.

DOCUMENTS: Indonesian Immigration, Customs and Port Officials will board the vessel to grant clearance. Each crew member should be in possession of an International Vaccination Card and passport.

The following documents may be required for granting Pratique for the vessels arriving from foreign ports:

Certificate of Registry.
Ship's Construction Certificate.
Load Line Certificate.
Safety Equipment Certificate.
Safety Radio/Telephone/Telegraph Certificate.
Derat or Exemption Certificate.
Cargo Gear Certificate.

The last Port Clearance and Crew Lists are also required.

Flag Dispensation: All foreign vessels entering Indonesian ports must have requested and been granted Flag Dispensation prior to the arrival at the port. Also a loading or discharging permit must have been applied for from the authority concerned. All this will be done by the general Agent.

PILOTAGE: A Mooring Master will board the vessel in the anchorage area and advise the Master on all manoeuvres relative to berthing and unberthing and connecting the hoses.

Vessels are requested to make a lee and have an accommodation ladder long enough to reach the Mooring Master's launch. At night adequate lighting should be provided.

MAX. SIZE: The tanker buoy mooring is designed for a vessel of 20,000 d.w.t., 26,700 tons displacement, LOA 600 ft., and max. draft of 31 ft.

RADIO: Vessels arriving between 0700 – 2300 hrs. (local time) should contact "Balantang Base" on VHF Channel 16 four hours before arrival to confirm arrival time.

Notice of Arrival: 72 hours prior to the arrival at Malili or Mangkasa Tanker Terminal, the Master has to cable his ETA to "Inco Ujungpandang" through Ujung Pandang Coastal Radio Station which then, will be passed on to Malili or Mangkasa Coastal Radio Station.

The Master has to reconfirm or amend the ETA 48 hours and 24 hours before arrival at the port.

The cable address of "P.T. International Nickel Indonesia" (P.T. "Inco") of Ujung Pandang is Nikel Indonesia Ujung Pandang.

The coastal radio station of Ujung Pandang has the following particulars:

Name of Station: Ujungpandang Radio.
Call Sign: PKF.
Frequency: 465 – 500 – 8686 – 13101 kHz (A1), and 4409 – 2182 – 6518.6 – 8738.4 kHz (A3).
Power: 1 kW.
Service Hours: See book of Indonesia Coastal Radio Stations.
Geographical Location: Lat. 05° 06′ 30″ S., Long. 119° 26′ 20″ E.

Details of Cable: The information cable should give the following data:

1. Name of vessel and radio call sign.
2. ETA in GMT and date (local time, GMT plus 8 hours).
3. The quantity of cargo to be discharged.
4. Maximum discharging capacity (for tanker only).
5. Vessel's draft on arrival.
6. If there is any sick crew on board or clean bill of health.
7. Last port of call.
8. Any hull, bulkhead or valve leakages which may cause pollution (for tanker only).
9. Distance in feet from bow to vessel's manifold connection.
10. Flange dimensions of vessel's manifold.
11. Any requirements such as provisions, fresh water, etc.

Language: The languages used are Indonesian and English.

BERTHING: Mangkasa Sea Tanker Terminal: Mangkasa Sea Tanker Terminal is an offshore system with 4 fixed anchors connected to buoys which have a quick release mooring system. Buoys are located to suit 20,000 tonners with 2 buoys on the bow and 2 buoys at the stern. These buoys are not lit.

Connection to tank farm is via 12 in. flexible hose joined to 20 in. undersea pipe to the tanks. The flexible hose is fitted with a 12 in.×150 lb. ASA flange.

If the jetty of Mangkasa Tanker Terminal or "four mooring buoys" is unoccupied and has been fixed for certain vessel, the vessel will be boarded by a Mooring Master in the anchorage area providing that the vessel in all respects ready to commence discharging her cargo. The NOR tendered by the Master concerned will be accepted at the time the Mooring Master boards.

Anchoring: A vessel which has to anchor on arrival due to certain circumstances has to inform Balantang Base (VHF Channel 16) of her exact time of arrival at the port. This is important for adjusting the acceptance of the NOR tendered, providing:

1. It is within daylight, i.e. 0600 to 1800 hrs. local time. The NOR is considered to be accepted at the time the Mooring Master boards. Should the vessel have been at anchor, NOR is also accepted at the time the anchor is aweigh providing the Mooring Master is already onboard the ship.
2. It is not a public holiday or Sunday, unless the vessel is actually handled on that day.
3. The port is still open.

In addition to the above conditions, vessels arriving at an unreasonable time ahead of their last signalled estimated time of arrival will not be accepted.

Exact Time of Arrival: It is stressed that every Master has to advise the Port Control of his exact time of arrival to avoid unfavourable situations.

Work Crew Service: Mooring and unmooring, lifting, lowering, connecting and disconnecting hoses will be done by a terminal work crew under the direction of the Mooring Master. Assistance from ship's personnel in operating windlasses, winches etc., will be required.

Tanker Engines and Hose Lifting Derrick: Being an open roadstead, vessels must keep engines on stand-by during their stay in the berth. No repairs to main engines may be undertaken while in berth. Power must be kept on deck winches in case adjustments to mooring lines are found necessary. Ship's booms and deck winch must be capable of operating with a SWL in conformance with table shown on Page C2 of Appendix C to the International Oil Tanker and Terminal Safety Guide. Vessels with inadequate hose lifting equipment will be rejected.

Safety: Every vessel which berths at the buoys shall remain under the charge of the Master who will take all steps necessary to preserve the safety and security of such vessel, crew and terminal personnel who may board in the execution of their various duties.

The Master of every vessel at anchor in the designated anchorage or secured to the mooring buoys shall ensure that all parts of the vessel to which any person may be lawfully required to proceed are properly illuminated.

Efficient and easy means of access shall be provided to every vessel at anchor and at the mooring buoys and such access shall be adequately illuminated between sunset and sunrise.

No person(s) shall be permitted to board or leave the vessel other than by the gangway or other proper means provided for the purpose.

The Mooring Master may require the vessel to unmoor at any time he deems necessary for the safety of the vessel or the moorings or both or for infringement of Port Regulations.

Unsatisfactory conditions will be reported to the company's Logistic Superintendent, who is empowered to reject a vessel for future calls unless the reported deficiencies have been remedied.

Sufficient crew members must be immediately available at all times to assist with any or all operations on board the vessel at the terminal.

MEDICAL: Treatment possible at the Nickel Projects Hospital at Soroako, about 60 km. from Malili.

FRESH WATER: Not available.
FUEL: Not available.
CONSULS: None.
REPATRIATION: Crew changes especially foreign crew are difficult to arrange.
REPAIRS: No facilities.
CUSTOMS ALLOWANCES: Cigarettes, cigars, tobacco, matches, spirits, wine, beers, perfume, arms, ammunition and possibly other items have to be locked up under Customs and sealed from time the ship arrives in port until she leaves territorial waters.

Each person is allowed to bring in 200 cigarettes or equivalent in grams of tobacco or cigars. Special allowances are made for the Master under special circumstances. The Customs officials will seal the stores.
SERVICES: Provisions and stores not available.
AIRPORT: P.T. "Inco" operate a charter flight between Malili and Ujung Pandang (formerly Makassar) twice a day with a Twin Otter aircraft, flying time 1 hour.
GENERAL: *Chart:* Chart for the area is the Republic of Indonesian Chart No. 319 (The Gulf of Bone).
Facilities: Malili region in which nickel ore mine exploration is taking place is a newly opened region, isolated in the middle of the jungle. It is, therefore, not surprising if no facilities are available at present.
AGENCY: Owners have to appoint one of the Indonesian shipping companies as their general Agent for Indonesia. This shipping company will then appoint P.T. "Inco" to be their sub-agent for the Port of Malili and/or Mangkasa tanker terminal to attend the arriving vessel.

The agency appointment which should be confirmed by official company letter which has to be received at least 10 days prior to the ship's arrival at Malili Port or Mangkasa Tanker Terminal to give the general Agent a chance to arrange the necessary permits from the Indonesian Government.

AUTHORITY: P.T. International Nickel Indonesia, 18th Floor, Antara Building, Jl. Medan Merdeka Selatan No. 17, P.O.Box 2799, Jakarta, Indonesia. *Tel:* (21) 343035 (5 lines). *Telex:* 01-44757 Nikel Ia. *Cables:* Internickel Jakarta.

Malili/Mangkasa/Soroako Office: P.T. International Nickel Indonesia, Soroako, South Sulawesi, Indonesia. *Tel:* (21) 374378 and (0411) 28545. *Telex:* 01-46806 Inco Skoia.

MUNTOK: 02.04 S. 105.10 E.

DOCUMENTS:
Register Book.
Load-line Certificate.
Derat Certificate.
Harbour Report.
Radio Certificate.
Nationality Certificate.
Safety Equipment Certificate.
Port of Call List.
Last Port Clearance.
Light dues Payment.
Health Book.
6 copies Crew List.
3 copies Stores List.
6 copies Passenger List (if any).
Navy Book.
Port Manifest from every port.
Vaccination Certificates.
All loading Custom paper from every port.
PILOTAGE: Not available.
ANCHORAGE: Safe anchorage in 10 m. in position Lat. 02° 06′ S., Long. 105° 10′ E.
RESTRICTIONS: None.
MAX. SIZE: 2 m. draft at quay length 100 m., breadth 30 m.
RADIO: Pangkalbalam Radio. Call sign PKC-7.
TUGS: 7 tugboats available for communication between shore and ships, with capacity 340 h.p. each.
BERTHING: Anchorage 165° Tg. Kalian, 2 miles from shore. Only small vessels draft 7 ft. alongside quays.

19 barges with capacity 100 tons – 200 tons available for cargo operations.
STEVEDORES: Ordered by Agent.
MEDICAL: Facilities available.
TANKERS: No facilities.
FRESH WATER/FUEL: Not available.
CUSTOMS ALLOWANCES: 200 cigarettes per man; 1 bottle per man.
IDENTIFICATION CARDS: Not necessary.
CONSULS/REPAIRS/DRY DOCKS: None.
AIRPORT: None.
HOLIDAYS: On Moslem holidays, no cargo work.
SHORE LEAVE: After receiving permit issued by Chief of Police.
REGULATIONS: Customs, Harbour Master, Police Maritime, visit ship on arrival.
DELAYS: Delays due shortage lighter space.

NUNUKAN: 04.05 N. 117.37 E.

PILOTAGE: Pilotage is compulsory.
ANCHORAGE: Vessels anchor in position 03° 59′ 15″ N., 117° 57′ 45″ E.
RADIO: Tarakan Radio Station (see "Tarakan").
TUGS: No tugs available.
BERTHING: Wooden pier length 60 m., width 12 m. and depth alongside 3.5 m.
Storage: There is a godown and open storage is also available.
STEVEDORES: Available from labour pool.
FRESH WATER: Not available.
FUEL: Not available.
REPAIRS: No facilities available.
GENERAL: *Barges:* Not available.

PALEMBANG: 02.59 S. 104.45 E.

DOCUMENTS: Upoh arrival ships have to fill in the following Forms:
Harbour Report obtainable from the boarding Pilot, or from the Harbour Master.
Pilot's Certificate.

Upon arrival vessels have to produce the following Certificates and Documents, which will remain in the Harbour Master's custody until cleared:
Nationality (Registry) Certificate.
Seaworthiness Certificate.
Measurement (Tonnage) Certificate.
Derat (Exemption) Certificate.
International Load Line Certificate.
Safety Certificate (passenger ships).
Safety Equipment Certificate (cargo ships).
Safety Radio and Radiotelephony Certificate (cargo ships).
Certificate of Approval (ship's radio station).
Health Book or Bill of Health.
Last Port Clearance.
Subscription of Light and Harbour Dues and wharfage if any.
10 copies Crew List.
6 copies Passenger List.
2 copies Ship's Articles.
2 copies Stores List.
Manifests.
Bills of Lading.
Maritime Declaration to be completed by Master upon arrival, obtainable from boarding Quarantine officer, or via Agency.
ARRIVAL: 2 days before arrival of vessel, the ship's Agent has to inform the Port Administration, by completing appropriate forms. Copies of completed forms must also be submitted to the Harbour Master, Port Health Service, Immigration, Customs and Security for preparations of services.

Agent/Owners to advise Port Administration (Pilot Division) of vessels arrival 24 hours in advance.
PILOTAGE: Compulsory, consisting of Outer (River) and Harbour Pilot. Applications should be cabled to pilot vessel via Palembang Radio Station. Pilot vessel located at station position Lat. 02° 11′ 08″ S., Long. 104° 57′ 08″ E.

The Pilot may berth the vessel on request of the ship's Agent only after obtaining clearance from the Port Administrator, Harbour Master, Port Health Service and Immigration (foreign vessels only).

Vessels arriving in afternoon and unwilling to navigate the river in darkness should not hoist the pilot signal. The signal station is at the aforementioned pilot vessel, which answers the pilot signal as follows:
By night:

A flare-up light slightly over the railing, or waving with a white light means: Pilot will soon board the vessel. 1 red light vertical over a white light means: No Pilot available, vessel allowed to proceed until Pilot is met.
By day:
1. The international flag signal KYS from the International Code of Signal meaning: Pilot unable to attend due to motor defect or heavy seas. The Pilot can be picked up by ship's motor-boat.
2. The flag signal KKO meaning: No Pilot available, vessel allowed to proceed until Pilot is met.

Use of Harbour Pilot in Palembang is compulsory.
ANCHORAGE: *Musi Bar:* anchorage position Lat. 2° 08′ 30″ S., Long. 104° 58′ 30″ E., in depth of 9 fathoms, used for topping up ocean tankers from river craft.
RESTRICTIONS: Palembang is 54 miles upstream. The main entrance is the River Arun between Tg. Tjarat and Tg. Gedeh.
Depths from sea to Palembang/Musi River:

Sungai Lais	53 Dm. at mean level.
Kumbang Merah	49 Dm. at mean level.
Selat Djaran	49 Dm. at mean level.
South part of Pulau Ayam	54 Dm. at mean level.
Parit XII	54 Dm. at mean level.
South of St. Pandan	56 Dm. at mean level.
Tanjung Carat	50 Dm. at mean level.
South of Pulau Payung	56 Dm. at mean level.

Incoming ships have priority in passing the Outer Bar from 2 hours to 1 hour prior to HW. From 2 hours to 45 minutes prior to HW, outgoing ships have to wait between Tangjung Gedeh and Tandjung Tjarat.

Channel East of Pajung for incoming ships.
Channel West of Pajung for outgoing ships.
MAX. SIZE: Max. length 185 m. Max. draft 7.5 m.

HEALTH: Vessels arriving from abroad have to apply well in advance from the Department of Health (Quarantine Section) for a provisional Free Pratique, as said Pratique has to be cabled to the port. The provisional Free Pratique is only valid for this port, the next port of call must be a First Class Port as no further provisional Free Pratique will be issued, unless the vessel sails directly abroad.

RADIO: Palembang Coastal Radio Station. Call sign PKC. Working Frequencies: 500/448 kHz, 8437 kHz, 2182/2690 kHz, 8,808.8 kHz.

VHF Channel 16, 20, 22, 26 and 28. Time operating (local time) 0700 – 1330, 1500 – 1730, 1900 – 2100 hrs.

VHF:

Harbour Master	Channel 14
Pilot	Channel 12
Tugboat Operations	Channel Not known
Port Operations	Channel 12 – 16
Safety/Security	Channel 09 – 12 – 16

TUGS: Vessels over 60 m. length are required to use at least 1 tug. 4 tugs available, 1,160 h.p. – 1,800 h.p. 2 fire-fighting tugs at Pertamina, 750 and 850 h.p.

BERTHING: Boom Baru: Concrete Wharf, length 630 m., depth alongside 7 m. at LWS.

Fertiliser Wharf:

PUSRI I	: Length 125 m. Depth 6 m.
PUSRI II	: Length 100 m. Depth 6 m.
PUSRI III & IV	: Length 280 m. Depth 7 m.

Also see "Plaju".

CRANES: *Palembang:* (Mobile cranes). 1 at 7 tons capacity, 1 at 10 tons, 3 at 15 tons, 2 at 18 tons, 1 at 25 tons and 1 at 30 tons.

There are 19 fork-lift trucks available, capacity 2 tons – 15 tons.

Pusri: 2 mobile cranes, capacity 5 & 7.5 tons. 3 shore cranes, capacity 25, 40 and 100 tons.

MEDICAL: Hospital and First Aid available.

TANKERS: Pladju Terminal (Right Bank): Downstream of Harbour Board quay operated by P. N. Pertamina Unit II (Pladju) (ex-Shell). Also see "Plaju".

Sungai Gerong Terminal (Right Bank): Downstream of Harbour Board quay, operated by P. N. Pertamina Unit II Sungai Gerong (ex-Stanvac). Also see "Plaju".

DENSITY: 1000.

STEVEDORES: According to the requirements of the vessel concerned, labourers are requested from the U.K.A. (Port Labour Pool).

The usual working hours at the harbour are:

Monday – Thursday	0800 – 1200 hrs.
	1300 – 1600 hrs.
Friday	0800 – 1100 hrs.
	1300 – 1600 hrs.
Saturday	0800 – 1200 hrs.
	1300 – 1400 hrs.

Overtime is allowed on request.

FRESH WATER: Piped water supply is at 15/20 t.p.h., and through water barges is at 50/60 t.p.h. Water barge capacity 100 tons.

FUEL: Obtainable from Pertamina provided payment is arranged in advance through their Head Office in Jakarta. Delivery by pipe-line or barge.

REPAIRS: Facilities available.

PORT SECURITY: Maintained by members of the Indonesian Armed Services, usually, Police, Navy or Marine and Army. Crew members should be in possession of a shore pass issued by the Port Authority, accompanied by an identification card when leaving or entering the guarded gates of the Port Area. Shore passes can be obtained via the Agencies.

CUSTOMS ALLOWANCES: 200 cigarettes or 50 cigars or 100 grams of tobacco. There is no alcohol allowance.

TIME: The Port is located in the zone of Western Indonesian Time, which is based on the time at the meridian of 104° 46′ 36″ East Longitude.

AIRPORT: Talang Betutu Airport is approximately 12 km. from the port.

POLICE/FIRE/AMBULANCE: Security – 22386, Fire 20451/22386, Ambulance 22531.

IDENTIFICATION CARDS: Crew members having no passport are required to carry a Seaman's Identification Card (S.I.C.). A re-entry into country if there is no S.I.C.

REPATRIATION: A valid document is needed. A re-entry permit from the country concerned is sufficient, if there is no passport available.

CUSTOMS/NAVY REG.: Upon vessels arrival/departure, boarding team will come on board consisting of:

2 Navy Officers.
2 Customs Officers.
2 Health Officers (in case vessels coming from infected ports or abroad).
2 Immigration Officers (in case vessels coming from abroad only).
3 Clerks from Agents.

Nobody allowed on board until this team declares the vessel cleared.

AUTHORITY: Port Administrator.

PANARUKAN: 07.42 S. 113.56 E.

DOCUMENTS:

Port Clearance.
5 B/Model/Customs Clearances.
Customs papers.
Stores List.
Crew List.
Passenger List.
Light Dues Certificate.
Seaman's Book and Health Certificate.
Ship's Registry.
Load Line Certificate.
Safety Radio Certificate.
Derat Certificate.
Certificate of Nationality.
Tonnage Certificate.
Suez Canal Certificate.
Dispensation for Deck and Engineer Officers.

PILOTAGE: Not available.

ANCHORAGE: With bearings: Patjaron Hill, 275°; white light, 128°; red light, 187°. This anchorage leaves ship 300 m. from 20 m. line and over 500 m. from 7.5 m. patch.

RESTRICTIONS: No restrictions, vessel may enter and leave port at any time.

MAX. SIZE: In anchorage position draft permissible up to 15 m.

HEALTH: Pratique will be arranged by Agent and especially if the ship is just coming from a country suspected of special disease or fever, otherwise Pratique is automatic and a quarantine doctor boards.

RADIO: *(a)* Coastal station: Call sign, PKD 2; medium wave, 500 kHz; WF, 474 kHz; working hours GMT, 2400–0100 hrs., 0400–0500 hrs.
(b) Fixed station: Call sign, 8 AD 3; short wave, 8 MHz; working hours GMT, 0100–0400 hrs., 0500–0600 hrs.

TUGS: Tugs join vessel at anchorage position. Vessel can use tug's lines and the Agent will arrange. Usual charge for use of tug's lines.

BERTHING: There are no berths alongside.

STEVEDORES: 24 hours before ETA advice needed to arrange gangs.

MEDICAL: Hospital facilities available, vaccination/fever Certificates for crew can be issued by authority.

FRESH WATER: No facilities.

FUEL: No facilities.

GANGWAY/DECK WATCHMEN: Available.

OPENING/CLOSING HATCHES: Carried out by stevedores.

CUSTOMS ALLOWANCES: No restriction as long as goods remain on board ship.

CARGO GEAR: All gear supplied by stevedores except rain tent.

IDENTIFICATION CARDS: Needed if crew going ashore.

CONSULS: No local representation.

REPAIRS: No facilities.

TIME: GMT plus 7 hours.

HOLIDAYS: Sundays, 1st January; 17th February; 9th March; 7th May; 18th May; 15th August; 17th August; 28th September; 30th November; 1st December; 25th December. Work cannot be arranged on 17th August and 30th November but on other holidays cargo work can be arranged.

SHORE LEAVE: Can be arranged.

PANGKALAN SUSU: 04.07 N. 98.12 E.

DOCUMENTS:

12 copies Crew List.
12 copies Passenger List.
3 copies Cargo Manifest.
3 copies Ship's Stores List.
3 copies Crew Personal Effects List.
1 copy Maritime Declaration of Health.
1 copy Clearance from Last Port.

PILOTAGE: Compulsory. Sea pilot boards in position Lat. 04° 12′ 00″ N., Long. 98° 23′ 10″ E. Pilot requires 10 hours notice of arrival and 5 hours notice of departure.

RESTRICTIONS: Daylight berthing and unberthing only.

MAX. SIZE: Max. permissible size at the SBM is 100,000 d.w.t. Max. LOA 275 m. Depth of water 22 m.

RADIO: Pangkalan Susu Radio. Call sign PKB-2.

TUGS: Tugs and mooring boats available.

BERTHING: *SBM:* The buoy is located in position Lat. 04° 13′ 05″ N., Long. 98° 24′ 30″ E.
Inshore wharves: There are 3 inshore wharves with depth alongside 6.0 m. at LWS. Max. d.w.t. 3,500. Max. LOA 90 m. – 95 m.

LOADING: *SBM:* Crude oil is loaded at a rate of 2,000 k/l.p.h. through 1×12 in. hose. Storage capacity for crude oil is 119,528 k/l.
Inshore wharves: Wharf A-B: Crude oil is discharged at a rate of 15 k/l.p.h. through 1×6 in. hose. MSD is loaded at a rate of 15 k/l.p.h. through 1×4 in. hose.

Wharf C: Asphalt is loaded at a rate of 30 t.p.h. through 1×6 in. hose and BFS is discharged at a rate of 50 k/l.p.h. through 1×6 in. arm.

Wharf D: LPG is loaded at a rate of 300 k/l.p.h. through a loading arm with 4 in., 6 in. and 8 in. reducers.

Tank storage at Inshore Wharves: Asphalt 7,792 k/l. MSD 1,000 k/l.

MEDICAL: First-aid clinic available.

DENSITY: 1020-1025.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: None locally.

AIRPORT: Polonia Airport at Medan.

TIME: GMT plus 7 hours.
GENERAL: *Charts:* Indonesian Chart No. 16 and British Admiralty Charts No. 3574, 2777 and 1353.
Provisions: Fresh and dry stores available.
AGENCY: See "General" before first port.

SHIPMASTER'S REPORT: December 1978.
Location of SBM: Lat. 04° 13′ 05″ N., Long. 98° 24′ 30″ E.
Time: GMT plus 7 hours.
General: Normally weather is fair with moderate variable winds. But from November to March there are very often very strong Northeasterly winds together with heavy rain showers and thunderstorms. There are 2 tides a day, following the coast-line. The current on flood tide sets from N-buoy to S-buoy, the ebb tide sets from S-buoy to N-buoy. The depths around the SBM inside of these buoys are between 18 m. to 25 m. Vessels up to 100,000 d.w.t. are berthed at the SBM. The density is approximately 1023.

For approaching B.A. Chart No. 1353 is used. The Operator of the Terminal is Pertamina, Pangkalan Susu.
Navigation: Agent in Pangkalan Susu is Pertaminaship. Cable address is Pertaminaship Pangkalan Susu. ETA cables should be sent 72, 48 and 24 hours prior to arrival. First ETA should include the requested cargo.

Pangkalan Susu Radio belongs to Pertamina. Call sign is "PKB 2". Frequency 6456.5 kHz, calling band 6 MHz. The working hours are from 0700 to 1900 hrs.

VHF Channel for calling (Susu Radio) Channel 16, working Channel 12, 19, 20 and 24 for information. No Radio Pratique.

On arrival vessel has to anchor 2 miles East of SBM. At the anchorage the Pilot boards with the Loading Master and 7 crew, after the vessel is cleared by the Port Authorities. All stay on board to assist berthing and connecting cargo hose, and vessel has to supply food and accommodation. Regarding food – they are all very strict Moslems. They will also stay until the loading operation is completed.

Pilotage is compulsory (Government Pilot). A vessel will berth only during daylight, but unmooring day and night. After which the vessel has to anchor to await cargo papers.

Vessel must arrive with sufficient clean ballast for berthing at the SBM. Pilot ladder only is required.

Berthing at the SBM is normal SBM procedure with messenger rope from the vessel to pick up 1 rope only from the SBM. Then 3 ship ropes, eyes going from the vessel to the SBM and then back to the vessel again. During the vessel's stay at the SBM one tug is made fast with the ship's rope aft and the tug keeps the vessel clear of the SBM.
Tugs: Three tugs are used as follows:
1 tug 300 h.p. for floating hose.
1 tug 300 h.p. for line handling during mooring.
1 tug 1,700 h.p. for towing the vessel off the SBM and keeping her clear during the whole operation.

Steam turbine vessels have to run their turbine with 3–5 revs astern during their stay at the SBM and the tug aft.
Wharves/Buoys: SBM Pangkalan Susu is situated at Lat. 4° 13′ 05″ N., and Long. 98° 24′ 30″ E. and has a diameter of 15 m. and a height of 4.4 m. The buoy is an orange colour and has a red light with 3 long flashes, also 1 floating hose with 12 in. diameter. The SBM is used for export production of Katapa Crude and North Sumatra Crude. Four buoys are situated around the SBM within 1,000 m. of the SBM. Their positions are as follows:

"N"–Buoy	Lat. 4° 13′ 38.5″ N., Long. 98° 24′ 30″ E.
"S"–Buoy	Lat. 4° 12′ 40.0″ N., Long. 98° 24′ 30″ E.
"E"–Buoy	Lat. 4° 13′ 04.0″ N., Long. 98° 25′ 30″ E.
"W"–Buoy	Lat. 4° 13′ 04.0″ N., Long. 98° 23′ 57″ E.

The depth of water is between 18 m. and 25 m. in this area.
Repairs/Dockyards: No repairs possible.
Supplies/Service: Provision supply possible. But no bunkers, water, Deratting Certificate, no Consuls, crew change or medical treatment available.
Cargo Operations: Terminal Operator is Pertamina, Pangkalan Susu. Cargo information can be received on Channel 19. Other information on Channel 16 (Susu Radio) 19, 20 and 24. Loading rate 2,000 t.p.h., but can be reduced to 1,600 cu.m. when necessary for topping tanks. One×12 in. cargo hose is connected from SBM to ship's manifold, for connections, ship's derrick is used on portside with minimum 5 tons load (SWL). Seven crew with Loading Master assist for connecting the hose.
API=50.0 Temp.=85°F

One hour and again half-hour before completion of loading the Loading Master is to be informed. He will then stand by for stopping the cargo. All papers are typed on board the vessel and vessel has to supply typewriters, two if possible, to reduce the waiting time. After completion of loading the vessel will anchor about 1 mile off the SBM to wait for the cargo papers to be completed (about 2 to 3 hours).
Rescue/Distress: No salvage or Coast Guard available.
Port Authority: The vessel has to anchor about 2 miles off the SBM and the Custom Officials, Immigration, Quarantine Officer and Agent will board the vessel at the anchorage, about 12 persons in all. The authorities also clear the vessel if she is also bound for Kuala Beukah. For clearance the following are requested:

12 Crew Lists; 2 Vaccination Lists; 3 Stores Lists; 3 Crew Effects Lists; 1 Health Declaration; 1 Ship's Health Book for Indonesian Ports only, if not on board it will be issued by the authorities.
Approaches: The approach is very easy. The coast line gives a very good picture on the radar for navigation. But it is very difficult to pick up the SBM on the radar due to many fishing boats and fishing houses. The fishing boats will also interfere with the approach, especially during the night, many of them are showing no lights, until the vessel is very close.

AUTHORITY: *Operator:* Pertamina, Pertamina P&T, Daeran Sungagut, Pangkalan Brandan, Indonesia. *Tel:* 373657. *Telex:* 51794 Perta PBO. *FAX:* (061) 322688.

PANGKALBALAM: 02.06 S. 106.08 E. (See Plan)

DOCUMENTS:
Health Documents:
Maritime Declaration of Health.
Derat Exemption Certificate.
Vaccination Certificates.
Crew and Passenger List.
Health Book.

(a) Port Health Measures: The Port Health Service is responsible for the protection of the port against the introduction or dissemination of quarantinable diseases. This responsibility is based on:
1. The National Quarantine Law.
2. The National Epidemiological Law.
3. International Health Regulations.

(b) Vaccination/Immunisation:
Vaccination and Immunisation against cholera can be carried out by the Port Health Service. Yellow Fever prevention is carried out by the Port Health Service and General Hospital.

(c) Extermination of rats is carried out by the Port Health Service at the expense of shipping Agent.

Ship's Certificates: The Ship's Certificate should be delivered to the Harbour Master through the Agent.

The certificates will be returned to the ship's Master prior to the ship's departure.
Ship's Manifest and Bill of Lading: The copy of the ship's Manifest should be delivered to the Port Administration through the Agent.
Ship's Arrival/Departure:

(a) Two days before arrival of vessel, the ship's Agent has to inform the Port Administration, by completing appropriate forms. Copies of completed forms must also be submitted to the Harbour Master, Port Health Service, Immigration, Customs, and Security for preparation of services.

(b) Before departure Port Clearance is issued by the Harbour Master, after Clearance has been obtained from Customs, the Port Health Service and Immigration.

Immigration: Vessels carrying passengers arriving at Indonesian ports from abroad should have to show the "N" flag.

The Master is required to furnish the boarding Immigration Officer with a Passenger List showing the names of all on board and classified as:
(a) Disembarking passengers.
(b) Transhipment passengers.
(c) Through passengers (from abroad to ports outside of Indonesia).

PILOTAGE: Not available.
ANCHORAGE: Safe anchorage at green buoy, 10 m. Anchorage area: Lat. 02° 04′ S., Long. 106° 14′ 30″ E.
RESTRICTIONS: No anchoring at Eliot (red buoy).
MAX. SIZE: Length 140 m., breadth 30 m. Only vessels with draft of 8 ft. allowed to discharge alongside the quays.
RADIO: Coastal Radio Station Pangkalbalam Radio, call sign PKC5.
Time Schedule:

Frequencies		*Working Times*	
2182 kHz	A.1	0000–0100	GMT
2690 kHz		0300	GMT
2090 Rx		0600	GMT
2075 Rx		0000–0600	GMT
2085 Rx			
2100 Rx			
2638 Rx			
Channel 16 VHF.			

VHF: Channels 16, 15, 10, 20, and 22.
TUGS: 4 tugboats available, owned by P.N. Djakarta Lloyd, P.T. Samudera-Indonesia, and P.T. Pelni for communication between shore and ships. Capacity 150 h.p. – 350 h.p.
BERTHING: First Wharf: Length 60 m. Depth 1.65 m. at LWS.
Second Wharf: Length 60 m. Depth 1.65 m. at LWS.
CRANES: 2×10 tons (Port Authority), 4×10 tons and 1×4 tons (Private), All mobile cranes.

Port Authority has 2×2.5 ton fork lift trucks. 2×2.5 tons (Private) also available.
STEVEDORES: Ordered by Agent. Rates 15/20 t.p.h. per gang.
MEDICAL: First aid available at the scene of accident. Medical treatment or advice available regularly from the Port Health Service. Hospitalisation available at general and private hospital at Pangkalbalam.
FRESH WATER: Not available.
FUEL: Not available.
CUSTOMS ALLOWANCES: *Customs Regulations:* Ports in Indonesia are divided into:

(a) Sea Ports, i.e. ports at which foreign vessels may call without a "Flag Dispensation" from the Ministry of Communications (Directorate General of Sea Communications) and the Ministry of Finance. (Concerning the import and export of goods).

(b) Coastal Ports at which only vessels flying the Indonesian flag may call according to the Regulations.

The Port of Pangkalbalam is a Sea and Coastal Port. Vessels unloading and loading cargoes have to get a Customs Permit. The Cargo Manifest, the Ship's Stores List and the List of Crew's Belongings have to be delivered to Customs within 48 hours.
Tobacco Allowance: Each crew member is allowed to carry 200 cigarettes or 100 grams of tobacco ashore without paying import duty.
Alcohol Allowance: There is no allowance for alcoholic drinks.
Other Commodities: Maximum value of US$100.

Each crew member is allowed to bring in goods for personal use up to maximum value of US$100.
IDENTIFICATION CARDS: Crew members having no passport are required to carry a Seaman's Identification Card (S.I.C.)
CONSULS: None.
REPAIRS/DRY DOCKS: None.
REPATRIATION: A valid document is needed, entry permit from the country concerned is sufficient, if there is no passport available.

AIRPORT: Pangkalpinang 14 km. Regular flights to Jakarta and Palembang every day.
HOLIDAYS: On Moslem holidays, no cargo work.
POLICE/AMBULANCE/FIRE: Police 386 LB; Ambulance 444 OTM; Fire 326 LB.
SHORE LEAVE: After permission by Chief of Immigration.
REGULATION: Every ship on arrival must be passed by; Customs, Harbour Master, Maritime Police, Health service and Immigration Chief.
DELAYS: Due shortage of lighter space.
AUTHORITY: Pangkalbalam Port Administration, Jl. Yos Soedarso, Pangkalpinang, Indonesia. *Tel:* 21736, 21737. *Contact:* Mr. Soenaryo, Port Administrator.

PANJANG (Lampung), Including Tarahan: 05.28 S. 105.19 E. (See Plan)

PORT LIMITS: The Southern limit of the port is along the parallel 5° 34′ S.
DOCUMENTS:
Quarantine:
Vessels arriving from abroad have to hoist "Q" flag on arrival until boarded and released by Quarantine Officer.
Documents which have to be prepared:
Declaration of Health.
Derat (Exemption) Certificate.
Valid International Vaccination Certificates.
Crew and Passenger Lists showing the validity dates of above certificates.
Immigration:
Immigration, Crew and Passenger Lists.
Crew/Passengers to be cleared.
Customs:
General Declaration of Cargoes Aboard Ship.
(Copies of each Manifest).
Crew/Passenger Lists and Personal Effects Lists.
Ship's Stores List.
Clearance from Last Port.
Harbour Master: After having filled Harbour Report (handed to Harbour Master's Office or Boarding Agent), ships have to prepare the following documents to be kept in custody of Harbour Master during ship's stay in port.
Nationality (Registry) Certificate.
Seaworthiness Certificate.
Measurement (Tonnage) Certificate.
Derat (Exemption) Certificate.
International Load Line Certificate.
Safety Certificate(Passenger Ship).
Safety Equipment Certificate (Cargo Ship).
Safety Radio Telegraph/Telephony Certificate, and Ship's Radio-Station Certificate of Approval.
Declaration of Health.
Last Port's Clearance.
Subscription of Light and Harbour Dues and wharfage.
Crew/Passenger List.
PILOTAGE: Compulsory for vessels of 70 g.r.t. and over. Pilots are in Government Service. Pilot signals according the International Code of Signals. Boarding area is on the outer (West) side of a line of reefs, which extends from South to North on the West of the harbour basin. Pilot (7) can be ordered from the Port Administration via ship's Agents not less that 8 hours prior to berthing, and 4 hours prior to unberthing and shifting.

Pilotage information can be obtained from the Pilot Radio Station, Panjang Pilot/Panjang Radio/PKC9. VHF Channels 12 and 14, opened daily from 0030-1200 GMT. Pilotage available throughout 24 hours.
APPROACHES: *Navigational Report:* Approaching Panjang there are numerous small fishermen's houses built on bamboo sticks at sea, some without lights. Therefore approaching or sailing from Panjang at night time should not be attempted.
ANCHORAGE: Panjang Roads; outer (West) side of the reef about 2 miles from the breakwater in depth of 15 m..
MAX. SIZE: Max. draft 9.5 m.
HEALTH: During the time that the "Q" Flag is flying no one is allowed to board or leave the vessel except with the permission of the boarding Quarantine Officer.
Also see "Documents".
RADIO/VHF:
(a) Coastal Radio Station, Panjang Radio, call sign PKC4.
Frequencies: 6523, 430 and 450 kHz.
(b) Pilot Radio Station/Panjang Radio/PKC9, working hours:
Channel 12 and 14: 0030 – 1200 GMT.
Vessels are requested to report correct ETA to Pilot Radio Station 2 or 3 hours before arrival and inform the ship's particulars as follows:
Name and Nationality of the vessel.
LOA, g.r.t., draft.
Last Port and Next Port of Call.
TUGS: It is compulsory for ships with a length of 70 m. and over to use tugboats in berthing and unberthing operation.
The port owns 3 tugboats of 300 h.p. – 840 h.p.; 4 other diesel tugboats from 100 h.p. to 230 h.p. owned by the PJKA (2) and the PT. Djakarta Lloyd (2).
BERTHING:
Quay A on the South side, length 172 m., depth 8.5 m. LW.
Quay B on the East side, length 212 m., depth 5.5 m. LW.
Quay C on the West side, length 138 m., depth 3 m. LW.
Quay D on the North side, length 400 m., depth 9.4 m. LW.
Oil Jetty on the South side of Quay C, length 20 m., depth 5.5 m. LW.
Oil dolphin of Pertamina in the outer basin, South side of the reefs, depth 6.0 m.
Ocean vessels can also be berthed at 3 buoys in the inner basin (harbour).
Tarahan: Terminal is one mile to the South of Panjang, operated by P.T. Tambang Batubara Bukit Asam. Berth length 170 m., depth 12.0 m., distance between dolphins 240 m. Max. size: 40,000 d.w.t. Max. LOA 179 m., max. beam 27 m., max. draft 8.0 m. Loading rate (coal) 5,000 t.p.h.
LIGHTERAGE: 16 lighters available, capacity between 70 and 170 tons, owned by Port Administration and Shipping Agents, can be hired for loading vessels at anchor or buoys.
STEVEDORES: There are 1,300 registered labourers; working hours 0800 – 1200 and 1300 – 1600 local time. Overtime possible after being granted by the authorities concerned; 24 hours per day working time recommended.
Gang's average capacity 20 t.p.h. for bulk cargo and 15 t.p.h. for general cargo.
Mobile cranes 3.5 tons – 15 tons and fork lifts 2 tons – 15 tons capacity available.
MEDICAL: Medical attention can be arranged through the Agents. There is a port doctor. The general hospital is in Tanjungkarang, about 13 km. away, where sick crew members may be hospitalized.
TANKERS: See "Berthing".
FRESH WATER: Supply is handled by the Port Administration to the wharves through pipe-lines. All berths fitted with fresh water connections (6 hydrants). Capacity is normally about 72 t.p.h. No water barge available.
FUEL: Bunkering not available.
FIRE PRECAUTIONS: The Port Administration handles 1 fire-fighting truck and 1 fire trailer.
Smoking strictly prohibited in warehouses, inside the Pertamina yard, on oil-jetty, and on board tankers. During the time a tanker is discharging, fire extinguishers must stand ready on the pier.
CONSULS: No local representation.
REPAIRS: Minor repairs can be carried out.
DRY DOCKS: None available.
SURVEYORS: No Classification Society is represented at the port.
GANGWAY/DECK WATCHMEN: None available.
OPENING/CLOSING HATCHES: Opening and closing of ship's hatches is normally carried out by stevedores.
CUSTOMS: It is strictly prohibited to take undeclared foreign currency ashore. It is recommended that Masters consult the Agent about the local prevailing Customs Regulations with regard to currency, cigarettes, spirits, etc., to prevent unnecessary difficulties and eventually fines.
CARGO GEAR: Loading and discharging effected by ship's gear. 6 mobile cranes, between 3.5 tons and 15 tons, are available from the Port Administration, as well as 17 forklifts (between 2 and 15 tons) owned by Port Administration and shipping Agents.
AIRPORT: Branti Airport situated about 34 km. from Panjang. Regular (domestic) flights, Tanjungkarang–Jakarta v.v. 4 times daily.
TIME: GMT plus 7 hours.
HOLIDAYS: Fixed dates are: New Year (1st January); Independence Day (17th August) and Christmas Day (25th December). Other holidays: Idhul Adha, First of Muharram, Maulid of the Prophet Mohammad, Good Friday, Christ's Ascension, Mi'radj of the Prophet Mohammad and Idhul Fitri (2 days).
POLICE/FIRE: Port security is maintained by the state police; tel: 31.228 (Harbour Police). Fire Brigade, tel: 31113 or 52.741.
TELEPHONES: No arrangement exists for placing telephone on board.
SERVICES: Radar and radio repairs possible.
SHORE LEAVE: Crew members are allowed ashore. See "Shipmaster's Report".
IDENTIFICATION CARDS: Shore passes needed, obtained via Agents.
DELAYS: Normal expected delays due to shortage of berthing facilities and rainy weather.
GENERAL: The port's status is general exports (rubber, coffee, pepper, timber, cattle fodder, corn, etc.)
Charts and nautical publications concerning this port are issued by the Indonesian Naval Hydrographic Office (HIDRAL).
All Government offices in the port (Except Customs) keep working hours as follows: Monday to Thursday 0730 – 1430, Friday 0730 – 1100, Saturday 0730 – 1330 (Customs 0700 – 1600).
Ferry Network: Panjang – Merak (West Java) twice a day 2300 hrs. and 1100 hrs. (Government railway ferry). 6 hour voyage.
Panjang – Jakarta: On Monday, Wednesday and Saturday 1300 hrs. by Government Boeing Jetfoil (3 hours voyage).
Srengsem (2 miles South of Panjang) – Merak: twice daily Ro/Ro ferry, 4 hours voyage.
Bakauheni (100 km. S.E. from Panjang) – Merak: Ro/Ro ferry each hour, 1.5 hours voyage. Panjang – Bakauheni 1.5 hours by car.
DEVELOPMENTS: Construction works for the extension of Quay D with another 200 m. pre-stressed concrete wharf are under way, and planned for completion in 1989; including transit shed (3,000 sq.m.) directly behind new wharf.
Container – yard (25,000 sq.m.) behind new wharf.
Dredging under way.

SHIPMASTER'S REPORT: November 1987.
Anchorage: Due to numerous fishermens' houses on bamboo sticks in designated anchorage area, vessels can anchor at distance of about 0.5 miles to 1.0 miles West of reef that closes the port or South of designated anchorage area and more to the East of bay where no fishermens' houses observed.

Berthing: There are 2 berths on North side with depths of 9.4 m. and 10 m. Length of pier is about 450 m.
Gangway/Deck Watchman: Available through agent and strongly recommended due to the fact that many "stevedores" try to come on board for the purpose of stealing. Shore watchmen can distinguish the genuine stevedores.
Customs: Vessels are required to declare foreign currency. Bonded store is not sealed.
Stowaways: Vessel should be checked for stowaways.
Shore Leave: Extreme caution should be taken when going ashore as there are numerous attacks on crews, some resulting in killing of crew members. Stevedores/agents advise crew not to go ashore at night.

AUTHORITY: Port Perum Branch Panjang, Directorate General of Sea Communication, Communication Dept. (Lampung – Indonesia), Jl. Sumatera Pelabuhan Panjang, Lampung, Indonesia.
Tel: (0271) 31379, 31149, 31146, 31155, 31401 (17 lines). *Telex:* 27391.
Cables: Adpel Panjang. *Contact:* Administrator Pelabuhan Panjang or Kepala Cabang PERUM II Pelabuhan Panjang.

PLAJU (Sungai Gerong): 02.59 S. 104.51 E.

PILOTAGE: Compulsory. Pilot requires 12 hours notice of arrival and 6 hours notice of departure.
ANCHORAGE: The anchorage whilst awaiting sea pilot is in position Lat. 02° 14′ 08″ S., Long. 104° 57′ 03″ E.

The anchorage whilst awaiting a berth is in position Lat. 02° 58′ 55″ S., Long. 104° 50′ 32″ E.

The quarantine anchorage is in position Lat. 02° 59′ 20″ S., Long. 104° 49′ 20″ E.
MAX. SIZE: See "Berthing".
RADIO/VHF: Plaju Radio on HF and VHF, call sign PKC-2. The station is operated by Pertamina.

Palembang Radio is on VHF, call sign PKC. The station is operated by Ditjenla.
MEDICAL: Hospital and clinic available.
DENSITY: 1000 – 1110.
FRESH WATER: Available at most berths.
FUEL: Available at most berths.
CONSULS: None.
AIRPORT: Sultan Machmud Badaruddin-II Airport at Palembang.
TIME: GMT plus 7 hours.
BERTHING:

Location	*Depth at LWS (m.)*	*Max. d.w.t.*	*Min. LOA (m.)*	*Max. LOA (m.)*
Sungai Gerong				
Jetty No. 1	6.1	16,000	25	150
Wharf No. 2	6.3	18,000	30	160
Jetty No. 3	8.3	16,000	28	150
Jetty No. 4	5.7	18,000		160
Wharf No. 5	9.7	18,000		160
Jetty No. 6A	10.0			
Jetty No. 6B	10.0			
Plaju				
Wharf PTA	5.6	6,000		117
Jetty No. 7	5.6	13,000	71	140
Jetty No. 8	5.5	18,000	50	160
Jetty No. 9	8.5	18,000	50	160
Jetty No. 10	6.3	18,000	50	160
Wharf No. 11	7.3	10,000		145
Jetty No. 12	13.2	18,000	59	160

LOADING:
Shore Storage Tanks:

Oil Products	Total Safe Capacity (k/l)
Crude Oil	368,485
Intermediate	315,543
Avigas	19,067
Super 98	20,053
Mogas	271,810
Avtur	24,280
Kerosene	114,861
Autogas	80,992
Diesel Oil	56,576
Fuel Oil	111,885
LPG	7,087
Solvent	3,898
SBP-x40B	8,934
Haws	8,564
Asphalt	9,158
BFS	14,961
LSWR	130,994
Chemicals	12,059
Slop Oil	6,000

Products Handled:

Berth	*Cargo Handled*	*Average Transfer Rate*		*No. of Lines*	*Arm/Hose Connection Flange Dimensions*	
		Load (t.p.h.)	*Discharge (t.p.h.)*		*Hose (in.)*	*L.A. (in.)*
Sungai Gerong						
Jetty No. 1	Premium	400	–	1	–	8
	Kerosene	400	–	1	–	8
	Super 98	400	–	1	–	8
	ADO	400	–	1	–	8
	LSWR/FO	700	–	1	–	8
	Naphtha	–	500	1	–	8
Wharf No. 2	Liquid Wax	200	–	1	6	–
	Liquid TEL	100	–	1	4	–
	Crude Oil	–	600	2	8	–
	Gen. Cargo	–	–	–	–	–
Jetty No. 3	Super 98	400	–	1	8	–
	Premium	400	–	1	–	8
	Kerosene	400	–	1	–	8
	ADO	400	–	1	–	8
	Avtur	200	–	1	6	–
	LSWR	400	–	2	–	8
	Crude Oil	–	600	2	8	–
	LPG	20	–	2	3/12	–
Jetty No. 4	Pemium	300	–	1	–	8
	Kerosene	300	–	1	–	8
	Avtur	200	–	1	6	–
	LSWR	300	–	1	–	8
	LPG	40/18	–	2	–	3
Wharf No. 5	IDO	350	–	2	8	–
	LSWR (L)	300	–	2	8	–
	LSWR (S)	300	–	2	8	–
	Crude Oil	–	500	2	8	–
	MFO	50	–	1	8	–
	ADO	50	–	1	8	–
	Gen. Cargo	–	–	–	–	–
Jetty No. 6A	Premium	160	–	1	6	–
	Kerosene	160	–	1	6	–
	ADO	160	–	1	6	–
Jetty No. 6B	Premium	160	–	1	6	–
	Kerosene	160	–	1	6	–
	ADO	160	–	1	6	–
Plaju:						
Wharf PTA	HSD	100-250	–	2	6	–
	MDF	100-250	–	2	6	–
	MFO	100-250	–	2	6	–
Jetty No. 7	Premium	250-500	–	2	–	8
	Kerosene	250-500	–	1	–	8
	ADO	500	–	2	–	8
	IDF	500	–	2	–	8
	LSWR	350-500	–	2	–	8
	LSFO	350-500	–	2	8	–
	SBP	150	–	1	6	–
	HAWS	150	–	2	8	–
	Avtur	150	150	1	8	–
	Super Mogas	–	30	1	3	–
	Avigas	30	–	1	3	–
	Crude Oil	–	400-600	2	8	–
	BFS	200-300	–	2	8	–
	Mogas Component	–	300-500	2	8	–
	Paraxylene	–	500-750	1	–	6
	Acetic Acid	–	200-500	1	–	6
Jetty No. 8	Premium	250-500	–	2	–	8
	Kerosene	250-500	–	2	–	8
	ADO	500	–	2	–	8
	IDF	350-500	–	2	–	8
	LSWR	350-500	–	2	–	8
	LSFO	350-500	–	2	8	–
	SBP	150	–	1	6	–
	HAWS	150	–	2	8	–
	Avigas	150	–	1	6	–
	Avtur	150	150	1	6	–
	Crude Oil	–	400-600	2	8	–
	BFS	200-300	–	2	8	–
	Mogas Component	300-500	–	2	8	–
	Super Mogas	–	30	1	3	–
Jetties No. 9 & 10	Premium	250-500	–	2	–	8
	Kerosene	250-500	–	2	–	8
	ADO	500	–	2	–	8
	IDF	350-500	–	2	–	8
	LSWR	350-500	–	2	–	8
	LSFO	350-500	–	2	8	–
	Crude Oil	–	400-500	2	8	–
	BFS	200-300	–	2	8	–
	Mogas Component	–	300-500	2	8	–
	HAWS	150	–	2	8	–
	Avigas	150	–	1	8	–
	SBF	150	–	1	6	–
	Avtur	150	150	1	6	–
	Super Mogas	–	30	1	3	–
	Asphalt	200-300	–	1	–	6
Wharf No. 11	HSD	100	–	3	4	–
	MDF	100	–	3	4	–
	MFO	100	–	3	4	–
Jetty No. 12	HSD	100	–	1	6	–
	MDF	100	–	1	6	–
	MFO	100	–	1	6	–
	Crude Oil	–	400-600	3	8	–

CRANES: 3 Mobile cranes, capacity 15, 30 and 45 tons, 3 shore cranes, 1 at 15 tons and 2 at 5 tons.
AUTHORITY: *Operator:* Pertamina Up-III, P&T Daerah Sumbagsel, Jl. Beringin No. 1, Plaju, Indonesia. *Tel:* 377705. *Telex:* 27121 Ptamina Pl, 27113 Ptamina Sg. *FAX:* (0711) 21711.

POLENG: 06.39 S. 112.55 E.

SHIPMASTER'S REPORT: April 1978.

LOCATION: The Poleng Terminal consists of the tanker "Lynda" moored stern first to an SBS. The "Lynda" is a tanker of some 72,000 d.w.t. The position of the "Lynda" is 06° 38′ 42″ S., 112° 55′ 23″ E.

PILOTAGE: Performed by the Master of the "Lynda".

ANCHORAGE: The anchorage position is anywhere North and West of the "Lynda" distance 1 mile. The depth of water is 26 fathoms and 9 shackles of cable is recommended.

RESTRICTIONS: The "Lynda" is moored in 180 ft. of water and there is no restriction regarding the draft or the size of ship that she can accommodate alongside.

RADIO: The Post and Telecommunications Department do not permit the use of the WT/RT on the "Lynda" so all ETA's are sent via Pertaminaship Jakarta.

Once the "Lynda" receives the ETA they then organise the 'opening of the Port' and the officials to clear the ship are ordered from Surabaja. The usual documents are required and 2 Agents come out with the officials.

VHF: The "Lynda" keeps watch on Channel 6 and only monitors Channel 16 when a vessel is expected.

BERTHING: The "Lynda" has 4 "Yokohama" type fenders on her port side for berthing. Six ropes are required at each end. Berthing is port side alongside.

The "Lynda" is loaded direct from the well and the API is 55 with a loading temperature of 84°. Normally, the API is 47-42. The pumping capability of the "Lynda" is 2,000 t.p.h. although we were only able to get 1,557 t.p.h. The cargo is loaded through 1×12 in. hose.

Prior to loading the tanks on the "Lynda" are ullaged in the presence of the Customs and the cargo calculated. This is repeated at the end of the load for the Bill of Lading figures. Clearance is granted from Poleng and all documents are signed prior to sailing. There being no early departure available.

At present they are receiving 1 ship about every 2 months, mainly topping-off operations and it is thought that the vessel may be moved to another position.

FRESH WATER: Not available.

FUEL: Not available.

STORES: Not available.

GENERAL: No Walport film exchange. All shore personnel are accommodated aboard the "Lynda". Some vessels have parted their mooring lines during the Winter months with winds of 25 knots and 8 ft. – 18 ft. seas running.

POMALAA (Tanjung Lepee): 04.14 S. 121.32 E.

(See Plan)

LOCATION: Port of Pomalaa, Kolaka, is situated in the Gulf of Bone, S.E. Sulawesi in position Lat. 04° 10′ 30″ S., Long. 121° 36′ 00″ E.

LOADING POSITIONS:

Berth: Lat. 04° 10′ 30″ S., Long. 121° 35′ 56″ E.

Anchorage position for ore loading at Pomalaa: Vessels of 15,000 d.w.t. and over, Lat. 04° 10′ 00″ S., Long. 121° 35′ 24″ E. Vessels up to 15,000 d.w.t., Lat. 04° 10′ 06″ S., Long. 121° 35′ 30″ E.

Anchorage position for ore loading at Tanjung Lepee: Lat. 04° 13′ 38″ S., Long. 121° 32′ 31″ E.

FLAGS: To be flown by incoming vessels: Vessel's National Flag; Indonesian Flag; Vessels numbers; Quarantine & Immigration Flag.

DOCUMENTS: To be produced upon vessel's arrival:

14 Crew Lists
4 Passenger Lists
5 Parcel Lists
5 Stores Lists
8 Cargo Manifests
3 Narcotics Lists
3 General Information
5 Personal Effects Lists
3 Vaccination Lists
5 Arms and Ammunition Lists
International Load Line Certificate
Maritime Declaration of Health Certificate
Health Book or Bill of Health
Derat Certificate
Last Port Clearance
Safety Radio Certificate
Harbour Report.

Inspection Team: This team consists of the Port Health Officer, Customs Officer, Harbour Master and Immigration Officer.

After the vessel is granted Free Pratique, the Immigration Officer checks Passports, Seaman's Books and Crew List and issues shore passes.

PILOTAGE: Pilotage is not compulsory and there is no Pilot at Pomalaa. Because Pomalaa waters are still declared as uncleared waters, it is advisable that vessels calling for the first time at Pomalaa, use a Pilot.

Pilot can be ordered from Ujung Pandang via Nikel Ujung Pandang not less than 72 hours before vessel's arrival at pilot station.

There are 2 pilot stations: (1) For Pomalaa loading point and berth, Lat. 04° 04′ 03″ S., Long. 121° 28′ 00″ E. (2) For Tanjung Lepee loading point, Lat. 04° 15′ 00″ S., Long. 121° 29′ 00″ E.

If vessel wishes to be piloted to the loading/unloading point on arrival day, vessel has to arrive at pilot station before 1200 hrs. local time for Pomalaa loading point and berth and before 1400 hrs. local time for Tanjung Lepee loading point.

RESTRICTIONS: *Arriving/Departing Hours:* Arrival: from 0600 – 1800 hrs. local time. Departure: 1. Pomalaa loading point and berth: from 0600 – 1600 hrs. local time. 2. Tanjung Lepee loading point: from 0600 – 1800 hrs. local time.

Mooring: The undermentioned vessels can be moored alongside berth: General cargo vessels of max. LOA 135 m. and tankers of max. LOA 110 m.

Depths: Bar channel 11.00 m. (LWS); Alongside berth, North Pier, 5.00 m. (LWS); South Pier, 7.00 m. (LWS). At Pomalaa anchorage or loading point: for vessels of 15,000 d.w.t. and over – 13.00 m. (LWS); for vessels up to 15,000 d.w.t. – 11.00 m. (LWS). At Tanjung Lepee anchorage or loading point – 24.00 m. (LWS).

MAX. SIZE: *General Cargo:* At North Pier: LOA not to exceed 135 m. and fully loaded draft not more than 5.00 m. At South Pier: LOA not to exceed 135 m. and fully loaded draft not more than 7.00 m.

Tankers: LOA not to exceed 110 m. and fully loaded draft not more than 7.00 m.

Ore Carriers: Fully loaded draft not to exceed 11.00 m. Vessels without cranes or derricks are not acceptable. Minimum capacity of cranes or derricks must be 5 tons.

General Cargo at Anchorage: Fully loaded draft not to exceed 11.00 m.

RADIO: Cables to Nikel Ujungpandang can be sent through Ujungpandang (Macassar) Coastal Radio Station, call sign PKF.

Arrival Notice: Information required.

Owner's advice: Owner to advise by cable to Adhiguna, Aneka Tambang Jakarta and Nikel Ujungpandang at least 8 working days before vessel's arrival at loading port.

Master's advice: At least 48 hours (or 72 hours if Pilot's assistance required) before vessel's arrival in Pomalaa waters, Master shall give the following information to Adhiguna and Aneka Tambang Jakarta and Nikel Ujungpandang. Last port of call, draft on arrival, estimated draft on departure, quantity of nickel ore or ferro-nickel ingots to be loaded, stowage plan (hatch division for the respective cargo), quantity and kind of commodity(ies) to be discharged and other necessary messages. Final amended arrival time must be sent at the latest 24 hours before arrival.

Previous experience showed that one cannot rely on telegrams regarding ETA sent by Agents at last port of call in due time, therefore Nikel Ujungpandang waits for the Master's telegram in order to make necessary preparation.

Shipper/Agent's advice: Shipper/Agents shall cable the Master 3 working days before vessel's arrival indicating the loading/unloading position prepared and other necessary messages.

Ship's radio transmitter is not to be used while lying in port.

VHF: Communication by marine VHF possible with the port.

TUGS: Available.

BERTHING: The wharf consists of a concrete quay extending 70 m. seaward and 18 m. breadth.

Priority: Ore carriers. First come first served. Other vessels: Priority to be given to tankers.

Loading/Unloading Facilities for General Cargoes:

Shore facilities: A number of mobile cranes with capacities of 5 tons and 20 tons are available, also forklifts.

Lighters: A number of lighters of 70 d.w.t. up to 120 d.w.t. are available.

Loading/Unloading capacity: About 12 tons per gang per working hour, depending on the type of vessel, available cargo spaces, vessel's cargo gear, kind of cargoes, size of hatches, etc.

Unloading Facilities for Tankers:

Pipe-lines: 1 line of 10 in.×1,600 m. for M.F.O.
1 line of 8 in.×1,600 m. for I.D.O.

Pumps: 3 booster pumps with capacity of 150 cu.m./h. each.

Hoses: 4 pieces flexible hoses of 10 in.×9.40 m. with ASA 150 flanges connections.

Unloading capacity: maximum 200 t.p.h. by ship or shore pumps.

Tank farm capacity: 2×5,000 KL for M.F.O.
1×1,500 KL for I.D.O.

Tank cleaning: Tank cleaning operation is not allowed in Pomalaa waters.

Lay-time: Lay time shall commence 6 hours after N.O.R. tendered.

Loading Facilities for Ore Carriers:

General: Loading of nickel ore at Pomalaa and Tanjung Lepee loading point is done by means of barges.

Number of gangs: Usually 4 gangs are used by vessels equipped with cranes or derricks. If necessary stevedores can provide 6 gangs.

Loading capacity: About 2,000 tons/24 hours per vessel, depending on the type of vessel, vessel's cargo gear, weather conditions, etc.

Unloading: Cargo for Aneka Tambang only.

Vessels without cranes or derricks are not acceptable.

Labourers will be supplied by shipper. Making the vessel ready for loading/unloading to be done by vessel's crew members.

CRANES: Mobile cranes with capacity 5 tons – 40 tons.

Forklifts also available.

STEVEDORES: Stevedoring is performed by P.T. Aneka Tambang's personnel. Loading/unloading equipment to be furnished by the vessel.

Working Hours: Loading to be effected on weather working days of 24 consecutive hours Sunday and Holidays included (WWD SHINC), but the following National Holidays are excepted:

New Year (January 1st); Buddhist New Year; Hindu New Year; Independence Day (August 17th); Christmas Day (December 25th). Idul Adha, Maulid Day, Easter, and Lebaran determined by Moslem calendar and differ from year to year by international calendar. For definite dates consult Port Administrator.

Despatch/demurrage money to be paid in accordance with the related contract.

Loading/unloading to be effected with customary quick despatch (C.Q.D.) on good weather working days whereby Sundays, holidays, governmental local holidays and Saturdays between noon and midnight and Mondays between 0000 hrs. and 0800 hrs. are always excepted.

At Shipmaster's request, work on these excepted days can be arranged. The principals will pay the overtime charge on these excepted days.

MEDICAL: Doctor, hospital and inoculation services available.
TANKERS: See "Berthing".
FRESH WATER: None. In an emergency water can be supplied in limited quantity (max. 200 tonnes). This supply is intended for special ship which can berth alongside the jetties.
FUEL: Not available.
TIME: GMT plus 8 hours.
CONSULS: None.
CUSTOMS: Vessel's bonded store will be sealed by Customs Officer on arrival and will remain sealed until the vessel leaves port.
Note: It is recommended that ship's Master consult the Agents about the local prevailing Customs Regulations with regard to currency, cigarettes, spirits, narcotics, etc. to prevent unnecessary difficulties and eventually fines.
REPATRIATION: Can be arranged. Repatriant is to be guarded by Immigration Officer from Pomalaa to Jakarta via Ujung Pandang until his departure from Jakarta to the destined country.
AIRPORT: There is one flight a week between Ujung Pandang and Pomalaa, served by Merpati Nusantara Airlines (MNA) using Cassa or Oisi Planes. Flying time about 60 minutes.
GENERAL:
Cash Advances: Cash advance at Master's request can be supplied by Agents in a reasonable amount.
Fumigation: No facilities.
Survey On/Off Hire: Can be arranged.
Ship's Chandler: None. In emergency cases, for a limited quantity Agents can act as ship's chandler.
Chart: Indonesian Sea Chart No. 152.
Nature of Bottom: Sand and soft materials.
M.P.S. Tax: So called M.P.S. Tax (freight tax) has to be paid in advance to the Indonesian Tax Office at Jakarta, through the General Agents, Jakarta, therefore Principals are requested to remit the said MPS Tax's funds at the same time with the remittance of advance payment of ship's disbursements.

The amount of M.P.S. Tax (about 2% of the concerned freight earned) will be advised by the General Agents, Jakarta to the Principals, if possible a few days before Principal remits advance payment for disbursements. The final calculation of the M.P.S. Tax will be made later.
Disbursements: At least 14 days before vessel's arrival at Pomalaa, vessel's principal have to remit US$4,000 to the account of General Agents, at Jakarta as advance payment of the related ship's disbursement.

Vessel's Disbursement Accounts: All vessel's expenses will be charged to the related Principals through the General Agents.
SHORE LEAVE:
Shore Pass: Shore pass must be carried by crew whilst ashore.
Visitors: Vessel's crew members are not allowed to invite friends, hawkers from shore aboard the vessel.
Visiting Kolaka: Crew members are prohibited to leave Pomalaa for Kolaka, except Master and Officers, who must be guided by Agents. Local leave in Pomalaa concession is permitted.
Shore Leave Hours: From 0600 hrs. to 2300 hrs. local time.
AGENCY:
General Agent for Ore Carriers: PT Pelayaran Bahtera Adhiguna. 10-12 Jalan Kalibesar Timur, P.O.Box 1313, Jakarta, Indonesia. Tel 276547. Cable Address: Adiguna Jakarta, Telex: Adiguna Jkt 42854.
General Agent for Non-Ore Carriers: To be nominated by principals.
Sub-Agents: PT Aneka Tambang, Unit Pertambangan Nikel, Pomalaa. Jalan Dr. Sam Ratulangi 60, P.O.Box 213, Ujung Pandang, Indonesia. Cable address: Nikel Ujungpandang. Tel: 22237 – 22234.
Sub-Agent's Head Office: PT Aneka Tambang 24-26 Jalan Bungur Besar, Jakarta, Indonesia. Tel: 410108, Telex: Antam Jkt 49147. P.O.Box 2513, Jakarta.
AUTHORITY: Port Authority of Pomalaa, Pomalaa, Sulawesi Tenggara, Indonesia. *Contact:* Harbour Master.

PONTIANAK: 00.01 S. 109.19 E.

SHIPMASTER'S REPORT: March 1986.
DOCUMENTS: Inspection team of 2 Immigration Officers and Agent board at anchorage. This was the second Indonesian port of call.

Standard Indonesian Arrival Forms required, soon after arrival at anchorage.
15 copies Crew Lists (8 signed/dated for arrival – 7 signed/undated for departure).
2 copies Vaccination Lists.
Indonesian Health Book.
5 copies Personal Effects Declaration.
5 copies Bonded Stores Lists.
5 copies Deck, Engine, Provisions Lists.
5 copies Ship's Dutiable Goods.
5 copies Narcotics List.
5 copies Ports of Call List.
5 copies Parcel List (even if "nil").
5 copies Arms and Ammunition List (even if "nil").
5 copies Animals List (even if "nil").
5 copies Currency List (even if "nil").
5 copies Passenger List (even if "nil").
5 copies Import Manifest (even if "nil").
5 copies Transit Manifest (even if "nil").
PILOTAGE: Compulsory. Pilot boards at Muara Kubu.
ANCHORAGE: Ocean-going ships anchor S.W. of safe water buoy clear of prohibited area. Soundings have been reduced by up to 1.5 fathoms from those charted.
MAX. SIZE: Max. LOA 110 m., max. draft 5.0 m.
RADIO: Call sign PKS. Frequencies 500 and 6355 kHz.
VHF: Pilot station on VHF Channels 12, 14 and 16.
LOADING: Vessel loaded plywood crates of standard 8 ft. × 4 ft. sheets, averaging 1.070 kg. to 1.146 kg. Freight volume 1.8 cu.m., gross volume 2.02 cu.m., stowage 3.06 cu.m. centre holds. Vessel worked mostly one hook from a single barge alongside, 50-80 crates per hour. Using 1 forklift truck to stow 6 tiers, then laid steel plates and loaded up to 6 further tiers.

A large barge of 1,200 crates capacity, required 6.5 days to return to factory for a further load. Single tarpaulins on barges leave damp patches after heavy rain. Stevedores lived onboard. 19 miles by launch to city, about 3 hours and $115.00 per trip. Speedboat for 2/3 people about 30 minutes each way and about U.S.$136 per trip.
FRESH WATER: Available in limited quantities.
FUEL: Not available.

Bold

PULAU SAMBU: 01.09 N. 103.54 E.

LOCATION: Wharf No. 1 is located in position Lat. 01° 09′ 35″ N., Long. 103° 53′ 41″ E. There are 2 additional wharves and 2 jetties nearby.
DOCUMENTS: Upon arrival ships have to fill in the following forms:
Harbour Report (obtainable from the boarding Pilot).
Pilot Certificate.
Also required from the Masters are:
6 copies of Crew List.
1 copy Stores List.
1 copy Personal Effects List.
PILOTAGE: Pilots are in Government Service. Pilot signals according to the International Code of Signals. Pilots can be ordered direct by cable to the Harbour Master or via the ship's Agent. Pilot boards in position Lat. 1° 10′ 44″ N., Long. 103° 52′ 19″ E. Pilot requires 6 hours notice of arrival and 3 hours notice of departure.
RESTRICTIONS: Daylight berthing and unberthing only.
MAX. SIZE:

Berth	*Max. d.w.t.* (tons)	*Max. LOA* (m.)
Wharf No. 1	60,000	225
Wharf No. 2	2×400	2×56
Wharf No. 3	60,000	225
Jetty No. 4	400	60
Jetty No. 5	200	31.5 (Small Craft)

HEALTH: Vessels arriving from abroad have to fly the "Q" Flag (yellow flag) until boarded and released by the Quarantine Officer. Masters have to fill in the Quarantine Form and signed by him and the ship's surgeon, if any, and produce the following:
Health Book or Bill of Health.
Derat (Exemption) Certificate.
Valid International Vaccination Certificates of Crew members and Passengers.
Crew and Passenger's Lists showing the validity dates of above Certificates.

During the time that the "Q" Flag is flying no one is allowed to board or leave the vessel except with the permission of the boarding Quarantine Officer.
RADIO: Vessels calling at Pulau Sambu for bunkers should communicate with PKC 2 Pladju Radio or Tunasix Singapore, or direct with Sambu Radio PKJ 51 (A3 Radio Telephone) and VHF Channel 19.
VHF: Sekupang Radio (PKJ-20) and Sambu Radio (PKJ-51) both on VHF and operated by Pertamina.
TUGS: Available.
BERTHING: Pulau Sambu has an excellent location 8 miles South of Singapore and approximately 3 miles from the International waterway. The length of the navigable channel is 1,500 ft.
Depth alongside at LWS:

Wharf No. 1	10.5 m.
Wharf No. 2	11.3 m.
Wharf No. 3	10.6 m.
Jetty No. 4	5.6 m.
Jetty No. 5	3.0 m.

LOADING/DISCHARGING:
Shore Storage Tanks:

Oil Products	Total Safe Capacity
LSWR	127,816 k/l
HSFO	66,975 k/l
HSD	17,075 k/l
MDF	11,682 k/l
Kerosene	2,514 k/l
Premium	1,265 k/l
Slop Oil	2,984 k/l

Physical Characteristics of LSWR:

API Gravity at 60°F.	:	29.5 – 20.5
Viscosity at 100°F.	:	100 – 350 cSt
Sulphur Content	:	Max. 0.2% wt.
Carbon Residue	:	Max. 8% wt.
Flash Point (PMCC)	:	Min. 166°F.
Pour Point	:	Max. 120°F.
Loading Temperature	:	±140°F.

Products Handled:

Berth	*Cargo Handled*	*Pipelines* (in.)	*Average Transfer Rate* *Loading* (t.p.h.)	*Discharging* (t.p.h.)	*Hose Connections* *No.*	*Size* (in.)	*Max. Vertical Limit* (m.)
Wharf No. 1	Kerosene	6	400		1	6	18
	HSD/ADO	10	700		1	10	37
	LSWR	16	1,800		2	16	42
	MDF/MFO	12	1,000		1/2	12	21-35
	Slop Oil	6		200	1	6	16
Wharf No. 2	Fresh Water	6	50		1	6	12
Wharf No. 3	Kerosene	6	400		1	6	18
	HSD/ADO	10	700		1	10	37
	LSWR	16	1,800		2	16	42
	MDF/MFO	10	1,000		1/2	10	21-35
	Premium	4	300		1	4	20
	Slop Oil	6		200	1	6	16
Jetty No. 4	HSD	4	50		1	4	37
	Kerosene	4	50		1	4	18
	Premium	4	50		1	4	20
	MFO	4	50		1	4	35
Jetty No. 5	Fresh Water	6		90	1	6	12
	General Cargo						

DENSITY: 1020 – 1025.
FRESH WATER: Available.
FUEL: Ideally, it is necessary to advise suppliers of bunkers required at least 15 days before the ETA of the vessel. The authorities at Pulau Sambu also require the vessel to contact them 24 hours prior to their ETA.

Bunkers available: Fuel Oil, 1000 seconds, and MDO.

CONSULS: None.
AIRPORT: Nearest airport at Hang Nadim on Batam Island.
TIME: GMT plus 7 hours.
CUSTOMS: Masters have to declare all local currency on board. It is strictly prohibited to take local currency ashore. No limitation for foreign currency.

Master should consult the Agent about prevailing Customs regulations with regard to currency, cigarettes, spirits, etc., to prevent unnecessary difficulties and fines.

AGENCY: See "General" before first port.
AUTHORITY: Syahbandar Pulau Samba, Pulau Samba, Indonesia.

RAMBA (Dawas River): 02.37 S. 104.08 E.

PILOTAGE: Not compulsory.
RESTRICTIONS: Daylight berthing and unberthing only.
MAX. SIZE: *Jetty:* 10,000 d.w.t. Max. LOA 90 m.
RADIO/VHF: Ramba Radio on HF. Station operated by Asamera Oil.

Ramba Oil Jetty Radio on VHF. This station is also operated by Asamera Oil.

BERTHING:

Berth	*Position*	*Depth at LWS (m.)*	*Remarks*
Jetty	Lat. 02° 36′ 40″ S. Long. 104° 07′ 50″ E.	6.0	Oil barges
Cargo Dock	Lat. 02° 36′ 40″ S. Long. 104° 08′ 17″ E.	2.0	Barges
Storage "GW" Tanker	Lat. 02° 01′ 40″ S. Long. 104° 57′ 20″ E.	22.0	Good weather
"BW"	Lat. 02° 16′ 40″ S. Long. 104° 13′ 10″ E.	16.5	Bad weather

LOADING: Crude oil (API 38) is loaded at the jetty at a rate of 1,000 t.p.h. through 2×8 in. loading arms.

Storage capacity of crude oil 100,000 bbls.

MEDICAL: Clinic available.
DENSITY: 1000 – 1010.
FRESH WATER: Available at the jetty.
FUEL: Available at the jetty.
CONSULS: None.
AIRPORT: Sultan M. Badaruddin II Airport at Palembang.
TIME: GMT plus 7 hours.
AUTHORITY: *Operator:* Asamera Oil, Muggala Wanakbhakti Building, Block 4, 7th & 8th Floor, Jl. Jend. Gatot Subroto, P.O.Box 2858, Jakarta, Indonesia. *Tel:* 583641 (10 lines), 583511 (6 lines). *Telex:* 45697 Asamera-Ia, 47115 Asamera-Ia.

Asamera (South Sumatra) Ltd., Jl. Jend. Basuki Rachmat 1496, P.O.Box 76, Palembang, Indonesia. *Tel:* 24059, 24850. *Telex:* 27418 Asamera-Plb.

SABANG: 05.50 N. 95.20 E. (See Plan)

DOCUMENTS: Upon arrival vessels have to produce the following Certificates and Documents, which will remain in the Harbour Master's custody until cleared:

Nationality (Registry) Certificate.
Seaworthiness Certificate.
Measurement (Tonnage) Certificate.
Derat (Exemption) Certificate.
International Load Line Certificate.
Safety Equipment Certificate (cargo ships).
Safety Radio and Radiotelephony Certificate (cargo ships).
Health Book or Bill Health and vaccination certificates.
Last Port Clearance.
Subscription of Light and Harbour Dues and wharfage if any.
Crew Lists and Passenger's Lists with vaccination dates.
Ship's Articles.
Stores List.

Passport or Seaman's Card remain in Immigration Office until cleared and the crew to use shore pass to go on shore, issued by the Immigration.

PILOTAGE: *Approach:*

Vessel should steer on the light of Klah Island and keep at least 1 mile offshore, especially of Ujung Masam owing to an inward drift, until the bay is well open. When entering the bay, the light-buoy South of Ujung Lho Me should be kept on port side.

The Signal Station at Peunimpun reports day and night the arrival of ships, by night an unofficial white light, showing all around is shown, visible at a distance of 12 miles.

Signals by day with flags according the International Code of Signals and by night by signal lamp.

ANCHORAGE: Lat. 05° 53′ N., Long. 95° 32′ E.
HEALTH: Vessels arriving from abroad direct have to apply well in advance to the Department of Health (Quarantine Section) for a provisional Free Pratique, as said Pratique has to be cabled to the Port. The provisional Free Pratique is only valid for this Port, the next port of call must be a First Class Port as no further provisional Free Pratique will be issued, unless the vessel sails directly abroad.
RADIO: Sabang Radio. Call sign: PKA. Frequency: 500 kHz/438 kHz. Time: 0100–0200, 0400–0500, 0900–1000 GMT. 8473 kHz/8686 kHz. Time: 0200–0230, 1000–1030 GMT. 17184.5 kHz Time: 0230–0300, 1030–1100 GMT. VHF – Available. Power – 1 kW.
TUGS: A small tug available for mooring assistance, subject advance notice.
BERTHING: The usual anchorage in the inner roads is the North side of the bay, vessels can approach shore until in 32 m. and 29 m. depth. There is good holding ground. During S.W. or S.S.W. squalls in the West monsoon vessels have to be kept free from the quays by means of the mooring buoys moored off the berths.

Western Coal Wharf: Usable berth length 140 m. with depths alongside of 7 m. at LWS.
Eastern Coal Wharf: Usable berth length 150 m. Depths 6.8 m. at LWS.
Commercial Wharf: Usable berth length 150 m. Depths 8.0 m. at LWS (length: 220).

At the head of the oil jetty there is a depth of 10 m. at LWS.

FRESH WATER: Available, rate 30 t.p.h. with one hose. Usual to use 3 hoses. Water can be pumped faster if additional water pump used.
FUEL: Not available.
REPAIRS: Minor repairs can be carried out at the West end of the Coal Wharf at the repair shop and electrical power station.
CUSTOMS ALLOWANCES: It is recommended that Masters consult the Agents about the local prevailing Customs Regulations with regard to currency, cigarettes, spirits, etc., to prevent unnecessary difficulties and eventually fines.
AIRPORT: One domestic flight a day, 15 minutes drive from the Harbour.
AUTHORITY: Department of Sea Communication.

SALAWATI: 01.21 S. 130.59 E. (See Plan)

OPERATORS: Pertamina.
LOCATION: Salawati Marine Terminal is located in the Sele Straits between the Island of Salawati and mainland Irian Jaya, Indonesia

Salawati Marine Terminal Office is located on board the storage barge "Wampum" adjacent to the export tanker mooring.

Mooring system is positioned in Latitude 1° 21′ 18″ S. and Longitude 130° 58′ 39″ E. The minimum water depth in the area of the mooring system is 51 ft.

FLAGS: In accordance with practice in Indonesian Ports, Quarantine, Immigration, Pilot and call sign flags must be displayed by all vessels approaching the anchorage. These signals shall be displayed continuously until clearance is granted. The signals are as follows:

Sunrise to sunset:	Quarantine Flag "Q"
Sunset to sunrise:	Signal Lights (red over white)

The "N" flag should be flown until the Immigration Officer boards the ship. The "G" flag (request for Pilot) should be flown until the Mooring Master boards. The vessel should also fly its call sign. As soon as the Mooring Master boards, the "G" flag should be replaced by the "H" flag which signifies that the Pilot is aboard. The tanker may fly the "P" flag if it is going to sail within 24 hours.

DOCUMENTS: The boarding team, e.g. Agent, Customs, Immigration, Port Health Officers, Harbour Master will board the vessel in the anchorage area to grant clearance.

The Customs Officer will board the vessel to seal the stores. If arriving from a foreign port, the Agent will prepare the General Cargo Declaration form stating the cargo on board the vessel and attaching appropriate shipping documents. If the tanker is arriving from an Indonesian port, the 5-B Form issued at the last Indonesian port will be retained by Customs and the arrival clearance at Salawati is granted.

The Harbour Master submits a Harbour Report Form for the Master to complete. The Agent prepares the Ship's Documents Check List Form to check the validity of each document. These documents are: Certificate of Registry, Ship's Construction Certificate, Load Line Certificate, Safety Equipment Certificate, Safety Radio/Telephone/Telegraph Certificate, Cargo Gear Certificate and Derat/Exemption Certificate. This list is then delivered to the Harbour Master with the following documents attached: Last Port Clearance, Crew List approved by the Immigration Officer and Light Dues Receipt if arriving from another Indonesian port. The Harbour Master issues a port clearance on departure provided clearance is also granted by the other governmental authorities (A Panamanian port clearance for Panamanian flag vessels is not required at Salawati).

The Immigration Officer requires 2 copies of the Crew List and will check the Ship's Articles and the passports of the crew. When these documents are found to be in order, an arrival clearance will be marked on the crew list.

If arriving from another Indonesian port the Agent will sign a guarantee if the vessel cannot prove that light dues have been paid.

Prior to the vessel's departure the Immigration Official requires 2 copies of the Crew List to be marked for departure immigration clearance. The Master is given a signed copy by the Immigration official of the Crew List for departure.

Crude oil loading documents such as Bills of Lading, Quality Certificate, Quantity Certificate, Dry Certificate/Ullage Report, Time Loading Report, Certificate of Origin, Cargo Manifest and Master's Receipt for Documents/Samples are prepared at Salawati Marine Terminal. When the tanker has been loaded, the documents shall be completed and signed by the Master. Final clearance formalities will be carried out aboard the vessel in the anchorage area.

Customs will issue the 5–B form which is for departure clearance of the vessel.

The Master should be prepared to issue:

15 copies of Crew List.
4 copies of Cargo Manifest.
4 copies of Personal Effects.
4 copies of Bonded Store List.
4 copies of Stores List.
4 copies Narcotics List.
2 copies of Vaccination List.

Before leaving the terminal area, the Master should advise the terminal the Vessel's ETA at destination.

PILOTAGE: The Salawati Terminal Pilot will board the vessel in the anchorage area for passage to the Salawati Terminal. The channel is marked with numerous Navigational Aids to permit safe passage through the Sele Strait. Vessels arriving in the anchorage area after 1400 hrs. local time (GMT + 9 hours) will be berthed at the terminal at Pilot's discretion.

Ships are requested to have a pilot ladder safely and securely rigged and ready for immediate use, and long enough to reach the mooring launch. A combination of pilot ladder and ship's accommodation ladder, so arranged that personnel can first use pilot ladder until part way up the vessel's side, and then transfer to the accommodation ladder is recommended, especially on very large ships. A light line should be ready to take aboard the Mooring Master's equipment. There should be adequate lighting at night. Vessels will provide a lee for the Mooring Master both when boarding and leaving.

ANCHORAGE: If requested to anchor, the recommended anchorage area is 4.5 miles West of Sorong in position Latitude 00° 53′ 00″ S. and Longitude 131° 10′ 00″ E. Under no circumstances should the export tanker enter the restricted area around the structures without the Mooring Master aboard.

RESTRICTIONS: The approach channel has a minimum depth of 49 ft. A minimum under keel clearance of 6 ft. is required, restricting the maximum loaded draft of an export tanker to 43 ft.

Strength of Tide: Up to 4.5 knots.

MAX. SIZE: Salawati Marine Terminal can accept vessels up to 60,000 d.w.t. Under certain weather conditions, vessels up to 100,000 d.w.t., light loaded to the equivalent of a 60,000 d.w.t. vessel may be accepted. Such acceptance is at the discretion of the Area Superintendent or his designated alternate.

The Ship's Master must not permit his vessel to be loaded to a depth of more than 43 ft. deepest draft due to the restrictions of water depth in Sele Strait unless permitted to do so by The Company Area Superintendent or his designated alternate.

HEALTH: Each tanker entering the Port of Salawati must have requested and been granted entry permit/agency permit prior to its arrival. At the same time application is made for provisional Pratique through the Directorate of Quarantine and, if granted, a cable advice is sent to the harbour authorities. Port Health Clearance is issued prior to the tanker's arrival and is also valid for departure clearance. If provisional pratique is not granted a Port Health Officer will be provided. All of the foregoing is arranged through and by the Agent.

Each crew member should be in possession of an International Vaccination Card.

RADIO: It is most important that incoming tankers contact Salawati Marine Terminal 72 hours before the estimated time of arrival. Further cables should be sent to the terminal 48 hours and 24 hours in advance of arrival, or when ETA changes by more than 3 hours. Communications with Salawati Marine Terminal can be established using one of the following links.

Sorong Coastal Radio Station

Name of Radio : Pertamina Sorong Radio

Time schedule of Pertamina Sorong radio/PKY.41

	Frequency		*Hrs. of Service*	*Emis-*	
	QSW	*QSX*	*(GMT)*	*sion*	*Remarks*
I.	6456.5	6 mc/s Common- Ch. 5/6	0000 – 0020 0100 – 0120 0200 – 0220 0300 – 0320 0400 – 0420 2300 – 2320	A1	I. Service: Mon-Thurs: 2300 – 0500 Friday: 2300 – 0230 Saturday: 2300 – 0400
II.	6512.6	6206.2	0020 – 0100 0220 – 0300 0420 – 0500	A3J	II. Message/Telegram: QSJ: SC=40 CTMS CC=50 CTMS LC=30 CTMS
III.	4425.6	4131.2	0120 – 0200 0320 – 0400 2320 – 2400	A3J	III. Telephone Call: Minimum 3 minutes VHF : CC=4.80 GF. HF : CC=7.20 GF. by adding 1.60GF(VHF) 2.40GF(HF) every minute extra. (The land line charge is included in the land station charge).
IV.	156.45MHz 156.80MHz 161.55MHz	– Ch. 16 –	2300 – 0500	F3	IV. Proceed Sorong, please contact first, 2 or 3 days before arrival.

Time schedule Government Sorong Radio PKY 4.

Frequency		*Hours of Service*	*Emis-*
TX	*RX*	*(GMT)*	*sion*
500	500	0000 – 0500 0800 – 1300	A1
8461	8356 – 8374	0200 – 0300 0900 – 1000	A1
2182	2182	0000 – 0030 1000 – 1300	A3
8802.6	8270	0030 – 0100 1000 – 1100	
6204	6215	2230 – 2330	A3
6213.5	6215	0400 – 0500 0800 – 0900 0900 – 1000	
Ch. 16	Ch. 16	0000 – 0500 0800 – 1300 2300 – 2400	

Master should request Pertamina Sorong Radio to relay the necessary information to Salawati Marine Terminal.

Details of Arrival Cable:

The following information should be included in the cable sent to Salawati Marine Terminal 72 hours in advance of arrival.

1. Name of vessel and radio call sign.
2. ETA in GMT and date (Local time is GMT + 9 hours).
3. Cargo requirements.
4. Deballast time.
5. Maximum loading rate.
6. Arrival draft.
7. If there is any sickness aboard give whatever information is available as to the possible type of sickness, or confirm that vessel has clean bill of health.
8. Last Port of call.
9. Any hull, bulkhead, valve or pipe-line leaks on vessel which could effect loading or cause pollution.
10. Flange dimension of vessel's manifold connection.

Entry Permit or Agency Permit:

Each tanker entering Salawati Marine Terminal must have requested and been granted entry permit prior to its arrival. It is vital that the General Agent receives the following information two weeks before vessel's arrival to obtain agency permit for foreign vessel from the Government/Directorate General of Sea Communication:

1. Name of owners/principals and full address.
2. Name of vessel.
3. d.w.t./Call Sign/Flag.
4. Name of Master/Number of Crew.
5. Last Port of Call.
6. ETA.
7. Destination after loading.
8. Indonesian Ports of Call.

The ship's Master is responsible to ensure that no communication by radio is allowed within the terminal area. Unauthorised radio communication will be cause for cessation of all operations, except clearing of the berth, and vessel's notice of readiness will be immediately nullified.

Also see "General" before first port.

VHF: Vessels equipped with VHF radio telephone should contact terminal on International Mobile Service Channel 16/156.80 MHz from 0000–2400 hrs. GMT. The language of the terminal is English and Indonesian.

BERTHING: The Company Area Superintendent, or his designated alternate, shall be the sole authority to decide when the port is closed due to unsuitable weather conditions preventing normal working operations.

Various combinations of wind, sea, and tidal conditions, also the size, length, ballasted trim, and handling qualities of a vessel can affect the decision to berth a vessel at Salawati Marine Terminal. All of these factors have to be evaluated before a final berthing decision is made.

After a vessel has been berthed, a terminal official will board to discuss loading arrangements. Before any crude is loaded all ship's scuppers on main decks must be plugged and cemented oil tight. Approved mechanical means of closing scuppers may be accepted. A deck inspection will be made by Salawati officials and if the vessel is suitable for loading crude oil a signed notation to this effect will be made on the Company Dry Certificate.

It is the responsibility of the vessel to ensure that all mooring lines are properly tended. Salawati personnel will constantly check the vessel's mooring and at any time may direct the lines to be heaved tighter or slackened off under the supervision of a responsible ship's officer, as circumstances warrant.

During the vessel's stay at the mooring emergency towing wires shall at all times be hung over the ship's bow and stern. These wires shall be secured to the bollards inboard to enable the vessel to be towed away should the need arise. They must be tended throughout to keep the eye of the wire not more than 2 ft. above the water.

The terminal official will report unsatisfactory conditions to the Company Area Superintendent or his designated alternate, who may, in turn, reject the ship until corrections are fully made. All costs accruing therefrom will be for the ship's account.

A ship may be rejected, if, upon inspection, it is not properly equipped, or if it is not suitably manned, or if it has dirty ballast or tanks unsuitable for the cargo as determined by the Company Area Superintendent or his designated alternate.

A vessel is suitably manned if it has a full complement of qualified officers and a crew all of whom are in sober condition, competent and willing to carry out their duties and orders.

A ship must be equipped with a good working propulsion unit as passed by the appropriate survey society. Inoperative ships, or partially inoperative ships will be rejected. Should it become inoperative while at the moorings it will be removed at the vessel's expense.

No repairs are to be made while mooring or unmooring, or at the moorings without the express permission of the Company Area Superintendent or his designated alternate.

A vessel must have both bower anchors in good working condition and in such sizes and amounts as to meet either "Lloyd's or A.B.S." standards although they may be, in fact, classified by other societies. It is strongly recommended that anchors have proper anchor buoys attached to each anchor.

All vessels must carry adequate, synthetic lines used for mooring purposes. No wire ropes should be used for mooring export tankers at this terminal. Each mooring rope must not be less than 100 fathoms in length.

To assist in vessel's turn around, the Mooring Master will advise necessary booms and cargo gear rigged and ready before the ship is berthed.

BALLAST: No facilities are available for disposal of dirty ballast.

Owners and Masters are required to observe International Convention laws and Indonesian Government regulations concerning pollution of the sea, having particular regard for this area of the Sele Strait.

It is the responsibility of the ship's Master to see that no oil of any kind is pumped or spilled overboard from his ship. Drip pans, sand, dispersant etc., should be used at all times especially when disconnecting hoses, in order to avoid any spillage overboard.

The categories of pollution include oily water from bilges, crude residual from previous voyages, or any other matter that may result in pollution of the sea.

Any fines imposed by governmental authority for pollution shall be for the vessel's account.

In the event that the Company has to settle any third party claims as a result of damages to property caused by pollution attributable in any way to the vessel, they will have the right to reimbursement by those responsible for the vessel for all expenses incurred.

In the event of oil spillage or pollution of the waters all labour and employment costs for cleaning operations will be to the vessel's account if caused by the vessel.

As soon as practical after arrival, all tankers will be inspected by a Salawati Marine Terminal Official for dirty ballast. During discharge of ballast similar inspections will continue.

If evidence of oil appears at any of these inspections, the ship will be rejected, and will not be accepted again until satisfactory evidence is produced that such ballast was disposed of in a proper manner. If during inspection, or during progress of loading, it is revealed that ship's tanks are not tight, or that oil is leaking from the ship, the ship may be rejected or refused further loading.

If the ship's tanks are found to be leaking, it will not be accepted for loading.

A tanker must have sufficient ballast for safe handling having due regard to existing weather and sea conditions and also for safe passage through the Sele Strait. Through a careful watch of the weather and sea conditions, frequent exchange of information between ship and terminal, and by a knowledge of the behaviour of his own ship, a ship's Master may come to the terminal with a minimum of ballast and thus lessen any possibility of infringement of sea pollution regulations.

In addition to the lights usually displayed, vessels at the moorings discharging ballast or loading cargo during darkness will brilliantly illuminate the sea around the ship, so that any pollution will be noticeable. The lighting will be of an approved and permanent nature.

Tankers equipped with a separate system of ballast tanks will be allowed to discharge ballast, and load oil simultaneously, providing approval is first obtained from the Company Area Superintendent or his designated alternate or independent inspector.

Most responsible ship Owners have adopted a system of tank cleaning using circulatory methods of transfer of tank washings with chemicals. The result is that no oil discharges into the sea and oil separated is collected in a slop tank. The terminal will load on top of such slops unless otherwise directed. This system is highly recommended to avoid pollution of the Sele Strait.

Masters are warned that inspection of ballast is strict.

Any tanker rejected because of dirty ballast or sea pollution will automatically nullify his notice of readiness and will lose any priority of position for loading.

LOADING: It is absolutely essential that extremely careful supervision be exercised by officers of vessels while loading operations are in progress. A responsible ship's officer is required to be on duty continuously at a point near to the tanks being loaded. He will be assisted by an adequate number of ship's personnel in these operations.

Raising, lowering, connecting, tending and disconnecting of oil loading hoses as well as other labours and duties on shipboard connected with loading of cargo or maintaining mooring lines in a correct manner will be performed by the ship's crew directed by a responsible officer as required by the terminal official. Loading of export tankers is through two loading hoses with 10 in. ASA 150 connections.

All ships using Salawati Marine Terminal must be able to connect their manifold to the 10 in. flanges. Masters are reminded that it is the ship's responsibility to provide such reducers as may be required to make the connection and that the hose connecting operation will normally be carried out while the ship is de-ballasting.

The Terminal Official will report unsatisfactory conditions to the Company Area Superintendent or his designated alternate, who may, in turn, reject the ship until corrections are fully made. All costs accruing there from will be for the ship's account.

Request for the terminal to stop the flow of oil cargo at a predetermined tonnage must be in writing. The request must include the statement by the ship's Master that the Company will not be held responsible for any error and that in case of the vessel being overloaded the excess cargo cannot be pumped back to the storage tanker. Ship's Master will also be held responsible for any oil spills caused by this request.

The export tanker must move the loading hoses from the oil storage barge by means of its own derrick and using its own crew. The cargo derrick required to raise the loading hoses from the oil storage barge side must have minimum lifting capacity (SWL) of 5 tons and have a sufficient length of strong lifting wire rope on the drum to enable the cargo hook to reach the oil storage barge side, which is approximately 45 ft. away from the tanker's side, and still have adequate turns of wire left on the drum to ensure safety. Vessels which may consider the lifting capacity of their gear to be marginal should strengthen their gear accordingly. A common way to do so is to rig a second topping lift on the boom.

An A.O. Smith metering system is used to load the export tanker.

Two loading hoses with 10 in. of ASA 150 camlock flange connections are used to load the export tanker. All vessels not having 10 in. connections must provide their own reducers.

A loading rate of approx. 20,000 bbls.p.h. can be accomplished.

If, at any time an overflow of crude oil occurs, loading will be suspended immediately, and not be resumed until the oil is cleaned up and removed from the decks of the vessels, and/or from the surface of the sea, and any damage is repaired and no further danger exists. It is stressed that during loading operations, the Salawati cargo supervisor will immediately slow down the loading rate on receipt of a request for same from the ship's deck officer in charge of loading.

All spillages of oil must be reported immediately to the Company Area Superintendent, or his designated alternate, and subsequently, a detailed report, in writing, submitted by the Master of the vessel concerned giving all relevant details.

CARGO: *Typical Salawati Crude Analysis:*

API – Gravity at 60°F	41
Reid Vapour Pressure	2.0 at 100°F
Sulphur, Wt.%	0.5%
Kinematic Viscosity at 100°F	4.2 cST
Pour Point	+20°F
Carbon Residue	1.3% by weight
B S & W	0.1% by weight
Flash (PMCC)	Below 50°F

CARGO DOCUMENTATION: Crude oil loading documents such as Bills of Lading, Quality Certificate, Quantity Certificate, Dry Certificate, Ullage Reports, Time Loading Report, Certificate of Origin, Cargo Manifest and Master's Receipt for Documents/Samples are prepared at Salawati Marine Terminal.

When the tanker has been loaded, the documents shall be completed and be taken aboard the tanker for the Master's signature.

Notes of protest, if any, should be handed to the Company Area Superintendent or his designated alternative for further delivery to Phillips Petroleum Company Indonesia, Jakarta.

CUSTOMS ALLOWANCES: Cigarettes, cigars, tobacco, matches, spirits, wine, beer, perfume, arms, ammunition and possibly other items have to be locked up under Customs seal from time of arrival of ship in port until time of leaving territorial waters. Each person is allowed to bring in 200 cigarettes or the equivalent in grams of tobacco or cigars. Special allowances are made for the Master under special circumstances. The Master should prepare two copies of the Stores List for Customs use.

FRESH WATER: Not available.

FUEL: Not available.

MEDICAL: No clinic available.

REPAIRS: No facilities.

CONSULS: None.

REPATRIATION: Not possible. If emergency conditions prevail, for humanitarian reasons, exceptions to the foregoing may be permitted. All expenses incurred will be for ship's account.

TIME: GMT plus 9 hours throughout the year.

SHORE LEAVE: Not possible.

DELAYS: Delays to vessels using Salawati Marine Terminal due to the port being closed because of bad weather conditions shall not be computed as used lay time when compiling vessel's turn around time.

GENERAL:

Logs: Masters are advised to keep careful watch on the approaches for semi-submerged floating logs which may become hazardous to safe navigation.

Charts: Charts for the area are as follows:

1. Admiralty Chart No. 3744
2. Admiralty Chart No. 3745.
3. Admiralty Chart No. 1416.
4. Indonesian Hydrographic Charts No. 213, 217 & 219.

Winds: Winds can reach a maximum of 75 m.p.h. during local storms and all vessels must make sure they carry sufficient ballast to be manoeuvrable in the restricted waters of Sele Strait during these storms.

Stores: Not available.

Visitors: Only authorised personnel or visitors are permitted on the storage barge and/or export tanker.

Crude Oil Testing: The crude oil testing laboratory is equipped to perform the following tests:

API Gravity, BS & W, Pour Point, R.V.P. and salt content. Any additional tests that may be required will be performed in Jakarta.

Flag: During daylight hours the Indonesian flag must be flown throughout the vessel's stay in port.

AGENCY: See "General" before first port.

SHIPMASTER'S REPORT: August 1978.

General: The loading terminal is located on the East coast of Salawati Island at Sele Strait. Salawati marks the Western part of New Guinea and belongs to Indonesia.

Reference: Refer to B.A. Charts 3744, 3745, 1416.

Coast Pilot 35, Eastern Archipelago Volume III.

Documents: Inward and outward clearance carried out at anchorage. Watches in excess of one, radios, cassette recorders, perfume etc., will be sealed by Customs. Seal will be inspected when receiving outward clearance. Papers required for clearance:

15 Copies of Crew Lists.
4 Copies of Cargo Manifest
4 Copies of Personal Effects
4 Copies of Bonded Store List
4 Copies of Stores List
4 Copies of Narcotics List
2 Copies of Vaccination List

Ship's registry taken ashore and returned on outward clearance.

Pilotage: Government Pilot and Mooring Master – usually from Kasim Terminal board at anchorage. Mooring Master acts as Pilot. From the anchorage vessel proceeds through Sangoilin Mon (Heilige Straat) and Sele Strait towards Salawati. Heilige Straat is marked by unlit buoys and beacons, privately maintained by the oil companies. The min. depth is 49 ft., max. sailing draft from Salawati is 43 ft.

Anchorage: Recommended anchorage in position Lat. 00° 53′ S., Long. 131° 10′ E. in approx. 25 fathoms of water.

Restrictions: Usually transit from anchorage towards Salawati is carried out during daylight hours only.

Vessels of 100,000 d.w.t. have been berthed at Salawati.

Health: Radio Pratique not available.

Radio: Pertamina office listens on VHF Channel 16 but calls are seldom answered. Kasim Marine Terminal listens on 16 and contacts Pertamina office by telephone.

Advance notice. As per Charterer's instructions to Pertamina, Jakarta.

Tugs: Two tugs are available from Kasim Terminal to assist in berthing and unberthing.

Berthing: Berth is constructed of 2 mooring dolphins and 2 breasting dolphins with storage barge "Wampum" being moored to the Western side of dolphins and export tanker being moored to the Eastern side.

Vessel may berth port or starboard side to, depending on stage of tide. The vessel is moored with 8 ropes forward and 8 aft, ropes being handled by mooring launches.

Two hoses of 10 in. are connected to ship's manifold by ship's crew. The barge is said to have a capacity of about 70,000 LT, the maximum loading rate of Salawati crude is 20,000 bbls./hr.

Vessels not having received inward clearance by 1500 hrs. local time at the latest will have to await the following daylight before proceeding towards Salawati.
Weather/Winds: Uniformly high temperatures, high humidities and abundant rainfall. Winds are usually light, with a seasonal reversal as N.W. and S.E. Monsoon, however, winds can reach a maximum of 75 m.p.h. during local storms.
Tide: Between 2 – 5 knots at berth and in Sele Strait, rise of tide about 2 m.
Repairs: Not available.
Supplies/Services: None available.
Shore Leave: Not possible.

AUTHORITY: Pertamina, Jalan Yos Soedarso No. 32-34, Jakarta, Indonesia. *Tel:* 62.21.490311. *Contact:* Mr. Indra Kartasasmita.

SAMARINDA: 00.30 S. 117.09 E.

PILOTAGE: Pilotage is compulsory. Pilot boards at Muara Pegah.
ANCHORAGE: Vessels entering Samarinda inner harbour anchor at Muara Pegah: 01° 00′ S., 117° 21′ E. Depth 22 m.
Vessels loading/discharging at outer anchorages: Muara Berau: 00° 14′ 30″ S., 116° 34′ 04″ E. or at Muara Jawa: 01° 02′ 30″ S., 117° 15′ 00″ E. Depth of water 20 m.
RESTRICTIONS: Maximum LOA entering outer bar 156 m. with maximum draft 6.8 m. Depth of outer bar 6.8 m. at LWS. Depth of inner harbour 6.8 m. at LWS.
RADIO: Samarinda Coastal Radio Station. Call sign PKN-6.
Frequencies: 8,174/8,356/8,374 kHz.
VHF: Samarinda Radio on Channel 16.
TUGS: No tugs or mooring boats available. Four pilot boats available.
BERTHING:

Concrete Wharf No.	*Length* (m.)	*Depth alongside (LWS)* (m.)
1	100	7.0
2	100	7.0
3	150	7.0

Storage: There is a godown of 3,200 sq.m. and an open storage space of 8,250 sq.m.
Fork Lifts: 16×2 tons – 5 tons.
CRANES: 2×15 tons mobile cranes.
STEVEDORES: Available from labour pool.
MEDICAL: Hospital facilities available.
FRESH WATER: Available in limited quantities.
FUEL: Not available.
REPAIRS: No facilities available.
GENERAL: *Barges:* Privately owned barges available.

SAMPIT: 03.06 S. 113.04 E.

LOCATION: The port is located 45 miles from the outer bar.
PILOTAGE: Not available.
ANCHORAGE: Vessels anchor in position 03° 06′ 00″ S., 113° 02′ 15″ E.
RESTRICTIONS: Maximum depth at outer anchorage 2.10 m. at LWS.
RADIO: Sampit Coastal Radio Station. Call sign PKG-2. Frequencies: 2,182/6,215.5 kHz.
TUGS: Not available.
BERTHING: Length of wharf 208 m. Depth alongside 4.5 m. at LWS.
Storage: Godown and open storage available.
Fork Lifts: Available.
CRANES: Available.
STEVEDORES: Available from labour pool.
FRESH WATER: Not available.
FUEL: Not available.
REPAIRS: No facilities available.
GENERAL: *Barges:* Not available.

SANGATTA: 00.22 N. 117.34 E.

PILOTAGE: Mooring Master available.
ANCHORAGE: The anchorage whilst awaiting berth is located in position Lat. 00° 18′ 58″ N., Long. 117° 37′ 35″ E.
RESTRICTIONS: Berthing during daylight hours only. Unberthing at any time, day or night.
MAX. SIZE: *CBM:* 36,500 d.w.t. Max. LOA 220 m.
VHF: Balikpapan Radio, call sign PKN-2, on VHF. Station operated by Pertamina.
Sangatta Radio, call sign PKN-4, on VHF. This station also operated by Pertamina.
BERTHING: There is a CBM (4 buoys) located in position Lat. 00° 21′ 35″ N., Long. 117° 34′ 26.5″ E. Depth of water 21.0 m. Crude oil is loaded at a rate of 8,570 bbls.p.h. through 2×12 in. hoses.
There is a jetty in position Lat. 00° 23′ 03″ N., Long. 117° 33′ 58.0″ E. The depth alongside the jetty is 1.5 m. at LWS.

LOADING:
Shore Storage Tanks:

Oil Products	Total Safe Capacity
Crude Oil	250,000 bbls.
Premium	290 k/l.
HSD	870 k/l.

Physical Characteristics of Crude Oil:

API Gravity at 60°F.	:	34
Reid Vapour Pressure at 100°F.	:	3.8 psi
Viscosity at 100°F.	:	2.7 cSt
Sulphur Content	:	0.08% wt.
Carbon Residue	:	0.65% wt.
B.S. & W.	:	0.15% vol.
Flash Point (PMCC)	:	Below 50°F.
Pour Point	:	75°F.

DENSITY: 1020 – 1025.
FRESH WATER: Not available.
FUEL: Not available.
AIRPORT: Temindung Airport at Samarinda.
TIME: GMT plus 8 hours.
AUTHORITY: *Operator:* Pertamina.

SANTAN TERMINAL (Attaka): 00.06 S. 117.32 E. (See Plan)

LOCATION: The Terminal is situated on the East Coast of Kalimantan, Indonesia in the Makassar Strait. It is about 80 miles North of Balikpapan.
DOCUMENTS: If arriving from a foreign port the following documents may be required for granting pratique. Certificate of Registry, Ship's Construction Certificate, Load Line Certificate, Safety Equipment Certificate, Safety Radio/Telephone/Telegraph Certificate, Exemption Certificate, Cargo Certificate and Derat Certificate. Also required will be last Port Clearance and Crew List.
Crude oil loading documents will be prepared at the Santan Terminal and when the vessel has been loaded the documents will be completed and final clearance formalities will be carried out on board.
Each Crew member should be in possession of an International Vaccination Card and Passport or Seaman's Book. Indonesian Immigration, Customs and port officials will board the vessel to grant clearance.
Flag Dispensation: Each tanker entering the Santan Terminal must have requested and been granted Flag Dispensation prior to its arrival. At the same time application should be made for provisional Pratique through the Directorate of Quarantine and if granted, a cable advice is sent to the harbour authorities. Port Health clearance is issued prior to the tanker's arrival and is also valid for departure. If Provisional Pratique is not granted a Port Health Officer will be provided. All of the foregoing is arranged through and by the Agent.
Customs and Immigration: In accordance with practice in Indonesian ports, the vessel's national flag, the Indonesian courtesy ensign, quarantine, immigration, Pilot and call sign flags must be displayed by all vessels approaching Santan. These signals shall be displayed continuously until clearance is granted.
The signals are as follows:

Sunrise to Sunset:	Quarantine Flag "Q"
Sunset to Sunrise:	Signal Lights (red over white)

The "N" flag should be flown until the Immigration Officer boards the ship. The "G" flag (request for Pilot) should be flown until the Mooring Master boards. The vessel should also fly its call sign, (signal letters). This signal may however be hauled down after the vessel is secured to the SBM. It must be flown again when the vessel is sailing and kept flying until after the vessel is clear of the anchorage area. As soon as the Mooring Master boards, the "G" flag should be replaced by the "H" flag which signifies that the Pilot is aboard. The tanker may fly the "P" flag if it is going to sail within 24 hours.
PILOTAGE: *Procedure When Berth Available on Arrival:* A vessel for which a berth is available on arrival will be boarded by a Mooring Master in the anchorage area and providing that the vessel is in all respects ready to commence loading (except for the necessary deballasting) the Notice of Readiness will be accepted at the time of the Mooring Master boarding.
If the vessel is not in all respects ready to proceed to the berth, with main engines fully manoeuvrable, mooring ropes on deck, windlasses, winches, etc., in good working order and readiness, it will not be accepted until the Mooring Master is satisfied that all these conditions are met.
Also see "Operations".
ANCHORAGE: If vessels are obliged, or instructed, to anchor, they should do so in the recommended anchorage and on no account are they to manoeuvre or anchor West of Longitude 117° 33.5′ East unless a Mooring Master is on board. The depth of water is 40 m. with a bottom of mud/clay. Holding ground is considered good.
The Southern limit of the anchorage is defined by two buoys Number "10" coloured red and Number "12" coloured red and white chequers. At night both buoys show a white light flashing 1 second every 6 seconds.
The Southerly limit of a reef on the Northern side of the anchorage area is marked with a buoy numbered "11" and coloured black. At night this buoy shows a green light flashing green 1 second every 5 seconds. Another buoy coloured with red and black horizontal bands and marked with the letter "A" shows a group flash light showing 3 white flashes every 6 seconds.
All the buoys are fitted with radar reflectors.

READINESS: *Procedure When Instructed to Anchor on Arrival:* A vessel which has been instructed by Santan Port Control to anchor on arrival should, after doing so, inform Port Control of the precise arrival time. According to the practice of the port, acceptance of the Notice of Readiness will coincide with this arrival time, providing:

a) Vessel is within scheduled date range.
b) That it is within the hours of daylight – deemed to be from 0600 hrs. local time to 1800 hrs. local time.
c) That it is not a Public Holiday or Sunday, unless the vessel is actually handled on that day.
d) That the Port is open.

An exception to clause (a) above, is when conditions allow night berthing, in which case the vessel will be accepted when the Mooring Master boards, or, should the vessel have been at anchor, when the anchor is aweigh, providing that the Mooring Master is then on board.

In addition to clauses (a), (b) and (c) above, vessels will not be accepted when arriving at an unreasonable time ahead of their last signalled estimated time of arrival. It is not the practice of the port to keep Pilots (Mooring Masters) on station in the anchorage. Santan Port Control maintains a continuous listening watch on Channel 16 VHF.

Notwithstanding anything in the foregoing, Notice of Readiness will not be accepted at a time when it is not the practice of the port to accept it.

Also see "General".

NAVIGATION:
Attaka Reef: The Attaka Reef is marked with a buoy coloured red and yellow chequers. At night it shows a white light flashing 2.5 seconds every 6 seconds.

Ship Approach Channel: The ship approach channel to the Santan Anchorage is marked with 4 buoys and numbered from seaward 2, 4, 6 & 8 respectively. At night they show a white light flashing 0.5 seconds every 2 seconds. The No. 2 buoy is positioned at Lat. 00° 04′ 7.5″ S., Long. 117° 47′ 39.5″ E. Ships should stay to the North of these buoys.

SBM: The SBM is fitted with a radar reflector and at night shows a Qk. Fl. W. light. One of the floating hose strings is fitted with two winker lights.

Inshore Area: Inshore of the SBM area a concrete pile beacon painted red and numbered "16" shows a white flashing light every 6 seconds and marks the Northerly limit of two dangerous reefs.

The work boat canal is marked by 2 buoys, the Northerly one numbered "15" and showing a white flashing light and the Southerly numbered "18" and showing a red light.

There is a beacon on each bank of the canal, at the shore line. The North bank beacon showing a white light and the South bank a red light.

Onshore Area: A radio antenna approx. 150 ft. high is located at approximately Lat. 0° 05′ 24″ S., Long. 117° 26′ 34″ E. The mast shows fixed red air lights by night on the top and midsection.

RESTRICTIONS: Berthing during daylight only, unberthing at any time.

MAX. SIZE:
Minimum Size Acceptable: The minimum sized tanker acceptable at the Terminal is the T-2 Class or equivalent of not less than 17,000 d.w.t.

Maximum Size Acceptable: The maximum sized tanker acceptable at the Terminal calling for a full cargo is 125,000 d.w.t. and 275 m. LOA.

RADIO:
Procedure for Appointing Agent: Owner should cable: Pertamina Ship Jakarta. The cable should appoint Pertamina as Agent to attend the tanker at Santan and should be sent 2-4 weeks prior to vessel's arrival.

Advice of Arrival: 72 hours prior to arrival at the Terminal vessels should advise the company of their estimated times of arrival by cable sent via Pertamina's Coastal Radio Station at Balikpapan. They should also confirm or amend ETA when they are 48 hours and again when 24 hours, distant from the Terminal.

Union Oil Company of Indonesia cable address: Pertamina Tanjungsantan.

Pertamina's Coastal Radio Stations:

I. Name of station – Balikpapan Radio; Call Sign – PKN 2; Frequency – Keeps watch on 2182 kHz A3, answers on 4415 kHz A3, 6520 kHz A3 (vessel's selection); Class – A3H-A3J; Power – 500 watt; Service – 24 hour; Location – Lat. 01° 16′ S., Long. 116° 50′ E.

ETA messages sent to PKN2 should be addressed:

Pertamina Tanjung Santan =
Message ....
Master..............

As long as no direct contact exists with PKN2, ships send ETAs to PKI2 (See below).

II. Name of station – Jakarta Radio; Call sign – PKI2; Frequency – 500 kHz (operates on 452 kHz), 2182 kHz answers on: 4178, 4280.5, 4363, 4410, 6457.5, 6520, 6516 kHz. 8 MHz (operates on 8628 kHz); Class – A1 500 kHz; A3 2182 kHz; A1 8 MHz; Power – 1 kW, 500 kHz, 500 watt, 2182 kHz; 1 kW 8 MHz.

Service – 500 kHz H24, 2182 kHz 0400 – 0500, 0700 – 0800, 1000 – 1100, 1500 – 1600, 2000 – 2100, 2300 – 2400 hrs. GMT; 8 MHz 0100 – 0300, 0500 – 0600, 0900 – 1000, 1100 – 1200, 1400 – 1500, 1730 – 1900, 2100 – 2200 hrs. GMT.

Location: Lat. 06° 08′ 00″ S., Long. 106° 50′ 00″ E.

ETA messages sent to PKI2 should be addressed:

Pertamina Tanjungsantan via PKN2 =
Message ....
Master..............

Details of Cable: The following information should be included in the cable:

Name of vessel and radio call sign.
ETA in GMT and date (local time is GMT+8 hours).
Cargo requirements.
Deballast time.
Maximum loading rate.
Vessels draft on arrival.
If there is any sickness aboard or clean bill of health.
Last port of call.
Any hull, bulkhead, valve or pipeline leaks on vessel which could affect loading or cause pollution.
Distance in feet from bow to vessel's loading manifold.
Flange dimensions of vessel's manifold connection if not to ANSI B76.5, B.S. 1560, Series 150 or equivalent.

Also see "General" before first port.

VHF: Vessels equipped with VHF radio telephone should contact "Santan-Control" on Channel 16 (156.80 MHz) when within range to request instructions.

Language: The language of the Terminal is English and Indonesian.

MOORING/UNMOORING: This description is only intended as a guide and may be varied as to the order in which lines are taken up etc. according to the circumstances prevailing at the time of mooring.

Moorings Required From Tanker: The ship must provide and have ready the following: Two mooring ropes and one rope messenger line on the forecastle.

The Approach: The ship approaches the buoy from down tide and wind, taking care to keep the wind right ahead. Adequate ballast must be retained on board to ensure that the vessel retains full manoeuvrability throughout the approach to the buoy and the actual mooring.

Bringing Aboard the Mooring Lines: The vessel will be brought to a position close to the buoy with the vessel stopped in the water and with the buoy fine on the port bow. During the approach to the buoy and while mooring, a terminal work boat will keep the hoses pulled well clear to port. Under normal conditions the port rope will be the first taken on board. The Mooring Master will advise as to which rope is to be taken first and as to which fairlead this will be taken. The actual work of mooring will be done by a terminal work crew. The ship will lower a strong messenger line to the mooring boat who will in turn make this fast to the approach rope. The approach rope of 10 in. circumference will be hove aboard and will in turn be hove in until the chafing chain and triangular plate is centred in the fairlead.

Securing the Mooring Lines: While the approach rope is being hove aboard, a strong wire strop will be made fast to a set of forecastle bitts. To the end of this strop will be fitted a 50 ton shackle and the strop will be so made fast at the end and the shackle will be about 5 ft. inboard of the fairlead. The approach rope will be hove on until the large link of the chafing chain is sufficiently far inboard for it to be connected to the strop by the 50 ton shackle. When this is done the approach rope will be slacked off until the full weight comes on the strop/chafing chain/buoy rope. The buoy rope is 150 ft. long and is 12 in. circumference double nylon of plaited construction.

The approach rope can now be taken to the bitts to act as a preventer. The second rope is now taken aboard and made fast in the same way. When both the ropes are fast, good ropes or strops, provided by ship, can be made fast to the spare links on the chafing chains to back up the main moorings.

Fire Wires: A fire wire must be rigged on the starboard side for'd and on the stern. These must be tended throughout vessels stay at the SBM to ensure that they are kept within 2 ft. to 3 ft. of water. In case of fire the tugs would connect to these wires to pull vessel clear of the SBM.

Connecting Hoses: When the mooring is completed, the work boat holding the hoses clear will bring these alongside the ship in way of the port side manifold.

Unmooring: To unmoor from the buoy any extra back up lines that have been made fast to the chafing chains are slipped first. The approach ropes are then taken to the ship's windlass/capstan and the weight taken on them until the shackle between the strop and chafing chain is undone. With the vessel moving slowly astern the approach ropes are slacked off and finally slipped and allowed to float free. While the ship is unmooring, a terminal work boat will keep the floating hoses towed clear and will keep them clear until the ship has slipped the moorings and is clear of the buoy.

Strops and shackles will be provided by the Terminal and put on board as the vessel approaches the buoy. The ship must provide 2 mooring ropes at least 8 in. circumference and 100 fathoms long, a 4 in. circumference messenger line, and two rope lashings 4 in. circumference and 15 ft. in length. These lashings should be of manilla or polypropylene, nylon is not acceptable.

BERTHING FACILITIES: The Sea Terminal consists of a "single point mooring" loading berth also known as a "mono-buoy" or "single buoy mooring". The berth is located at Lat. 00° 06′ 18.6″ S., Long. 117° 32′ 18.8″ E.

The "single buoy mooring" is approximately 4.33 miles offshore in 28 m. of water. The submarine line to the "single buoy mooring" is 30 in. in diameter. A single string of 20 in. submarine hose connects the submarine line header to the "single buoy mooring". Two strings of 16 in. floating hose connect the "single point mooring" to the tanker rail hoses which are 12 in. in diameter. The hoses are always taken up on the port side.

Hose lifting Derrick Capacity: Tankers must be equipped with a hose lifting derrick with a lifting capacity in conformance with the table shown on page C2 of Appendix C to the International Oil Tanker and Terminal Safety Guide.

Manifold Connection Sizes: The minimum size manifold connection will be 8 in. The Terminal is equipped with flanged spools to also connect to 10 in., 12 in., and 16 in. manifolds. Tanker manifolds should terminate in ASA Series 150, flat face flanges. Unless the Terminal is given adequate notice, tankers equipped with manifold flanges of other sizes or ratings will be rejected.

BALLAST/POLLUTION:
Adequate Ballast: Due to the exposed location of the crude oil loading berth, vessels are required to carry sufficient ballast for safe handling, having due regard to existing weather and sea conditions. A vessel found by the Mooring Master to be not adequately ballasted will be rejected.

Pollution: Owners and Masters are responsible to observe International Convention Laws and Indonesian government regulations concerning pollution of the sea, having particular regard for this area of the Makassar Strait.

Clean Ballast: As there are no ballast discharging facilities, vessels must arrive at the Terminal with clean ballast, ensuring that all pipe-lines, pumps and strainers have been flushed out prior to arriving.

The Mooring Master will inspect ship's ballast on boarding and has the power to reject any vessel that he deems would cause pollution of the sea area, in which case vessel must proceed to sea and return only when ballast is completely free of oil. Any vessel rejected because of dirty ballast will automatically nullify its Notice of Readiness and will lose any priority of position for loading. Ballast discharge should not be commenced without the prior agreement of the Mooring Master.

Bilges: Bilges must not be discharged while at the SBM or in the anchorage.

Inspection During Loading: At night the sea area around the vessel shall be adequately lighted, as frequent inspection by the Mooring Master will be made during the discharge of ballast. Any pollution whatsoever will be cause for rejection. Similarly, any hull leaks causing pollution during loading will be cause for rejection and the vessel will not be re-accepted unless satisfactory evidence of repairs has been certified by a qualified surveyor.

Cargo hose connections should be inspected during loading, drip-pans should be placed under the manifold, all unused cargo connections should be blanked off, sea-valves should be closed and lashed upon completion of deballasting and all scuppers must be securely plugged.

Fines and Claims: Any fines imposed by governmental authority for pollution shall be for the vessel's account.

OPERATIONS:

Mooring Master: A Mooring Master will board the vessel in the anchorage area and advise the Master on all manoeuvres relative to berthing and unberthing and connecting the hoses.

Vessels are requested to make a lee and have a pilot ladder long enough to reach the Mooring Master's launch. At night adequate lighting should be provided. Ships with more than 30 ft. freeboard should rig a pilot ladder to a position 3 ft. above the water and an accommodation ladder so rigged that the Pilot can transfer from the pilot ladder to the accommodation ladder once he is clear of the pilot boat.

Work Crew: Mooring and unmooring, lifting, lowering, connecting and disconnecting hoses will be done by a terminal work crew under the direction of the Mooring Master. Assistance from ship's personnel in operating windlasses, winches, etc. will be required. Ship's crew will assist in hose connection/disconnection/mooring/ unmooring and carrying equipment from deck to forecastle as required. Any vessel whose crew do not give such assistance may be rejected and returned to the anchorage. Costs of such a delay would be for the ship's account.

Tankers Engines and Hose Lifting Derrick: Being an open roadstead, vessels must keep engines on standby during their stay in the berth. No repairs to main engines may be undertaken while in berth. Power must be kept on deck winches in case adjustments to mooring lines are found necessary. Ship's booms and deck winch must be capable of operating with a SWL in conformance with the table shown on page C2 of Appendix C to the International Oil Tanker and Terminal Safety Guide. Vessels with inadequate hose lifting equipment will be rejected.

Only the automatic turning gear should be used. If it should become necessary to turn the propeller(s) at revolutions greater than the minimum obtained by the automatic turning gear, application must be made to the Mooring Master in order that arrangements can be made to ensure that hoses are kept clear. The Mooring Master's written permission *must* be obtained before any such increase in revolutions.

Hanging Off Hoses: Small bitts for hanging off loading hoses should be provided in line with the loading manifold.

Safety: Every vessel which berths at the buoy shall remain under the charge of the Master who will take all steps necessary to preserve the safety and security of such vessel, crew and terminal personnel who may board in the execution of their various duties.

The Master of every vessel at anchor in the designated anchorage or secured to the SBM shall ensure that all parts of the vessel, to which any person may be lawfully required to proceed, are properly illuminated. Efficient and easy means of access shall be provided to every vessel at anchor or at the SBM and such access shall be adequately illuminated between sunset and sunrise.

No person(s) shall be permitted to board or leave the vessel other than by the gangway or other proper means provided for the purpose.

The Mooring Master may require the vessel to unmoor at any time he deems it necessary for the safety of the vessel or the moorings or for infringement of Port Regulations.

Unsatisfactory conditions will be reported to the company's Marine Superintendent, who is empowered to reject a vessel for future calls unless the reported deficiencies have been remedied.

Sufficient Crew members must be immediately available at all times to assist with any or all operations on board the vessel at the Terminal.

LOADING: *Loading Rate:* Maximum loading rate will be about 30,000 bbls.p.h. It is recommended that vessels take maximum flow with due regard to safety in order to expedite turn around time as well as to provide ballast as quickly as possible. Care should be taken not to overload, as there is no possibility whatever of pumping back ashore. When vessels are equipped with permanent ballast tanks, the ballast in these tanks should be retained on board until the vessel has taken on board sufficient cargo to be manoeuvrable. Vessels not so equipped should examine the possibility of safely loading and discharging ballast simultaneously, as such practice improves turn around time as well as reducing the possibility of breaking out of the berth in bad weather in a completely light condition.

Closing Valves Against Oil Flow: Warning is given of the danger of closing valves against an incoming oil stream. This will create excessive pressures which may result in damage to the loading hoses, sea-line and Terminal facilities. Vessels will be held liable for damages resulting from failure to observe this precaution.

Crude Oil Characteristics:

		Attaka	*Badak*	
API Gravity at 60°F.	:	43.3	43.2	
Reid Vapour Pressure at 100°F.	:	7.6	7.3	psi
Viscosity at 100°F.	:	1.42	1.38	cSt
Sulphur Content	:	0.06		% wt.
B.S. & W.	:	0.05	0.04	% vol.
Pour Point	:	15	10	°F.

Storage Capacity:

Crude	2,500,000 bbls.
Propane	20,000 k/l.

Loading Temperature:

Propane	85°F. – 90°F.

Radio Contact: During loading operations the vessel will contact the Terminal Despatcher ashore every half hour by the assigned VHF channel to ensure that radio contact is being maintained. Pumping will be stopped immediately if it is found that radio contact with the ship has been lost.

In addition to the ship's VHF the Mooring Master will carry a portable radio, of approved design, with which he will be able to contact the shore terminal and mooring launches.

Mooring Launch: Throughout the loading operation a terminal mooring launch will be in attendance at the ship to tend hoses etc.

Every vessel requiring a shore stop will be required to inform the Mooring Master at start of loading and sign the form carried by the Mooring Master, requesting shore stop. When requesting a "Shore Stop", Masters must understand that Union Oil Co. of Indonesia accept no responsibility for any errors in the quantity. Should the cargo asked for overload the vessel, it is not possible to pump oil back from the ship to the shore.

CUSTOMS: Cigarettes, cigars, tobacco, matches, spirits, wine, beers, perfume, arms, ammunition and possibly other items have to be locked up under customs seal from time of arrival of ship in port until time of leaving territorial waters. Each person is allowed to bring in 200 cigarettes or the equivalent in grams of tobacco or cigars. Special allowances are made for the Master under special circumstances. The Customs officer will seal the stores.

FACILITIES: There are no facilities of any kind at Santan. There are no engineering repair shops; no fresh water; no bunkers available; no provisions or stores; no crane or barge service; no shore leave; no crew changes; no consulates available.

GENERAL: *Exact Arrival Time:* It is stressed that vessels must advise Port Control of their exact arrival time, as failure to do so may lead to loss of their berthing turn.

Lay Time: Lay time will be calculated as outlined in the Crude Off-Take Procedure, Attaka Unit.

Conditions of Use of Port: The Master of each tanker will be given a copy of the Conditions of Use of Port of Santan Marine Terminal, which he will be asked to sign.

Delay Due to Excessive Deballasting: Delays in commencement of loading due to deballasting in excess of 6 hours will be deducted from the laytime.

Floating Logs: Masters are advised to keep careful watch on the approaches for semi-submerged or floating logs which may become hazardous to safe navigation.

Charts: Charts for the area are as follows:

1. Republic of Indonesia, Chart 130, East coast of Kalimantan, Balikpapan to Muara Berau.
2. Republic of Indonesia, Chart 37, East coast of Kalimantan, Muara Berau Kutie River to Cape Mangkalihat.
3. U.S. Naval Oceanographic office, old Chart H.O. 3044, new Chart N.O. 72014 Borneo East coast. Sandakan Harbour to Sungai Mahakam.
4. U.S. Naval Oceanographic office, old Chart H.O. 6185, new Chart N.O. 72110 Borneo East coast, Tanjung Mangkalihat to Tanjung – Tamarong.
5. British Admiralty, Chart 2636, North part of Strait of Makassar.
6. British Admiralty, Chart 2660, China Sea – Southern Portion.
7. British Admiralty, Chart 941-B, Eastern Archipelago.

Sailing Directions: Sailing directions are in the following:

Eastern Archipelago Pilot, Vol II. 7th Edition, 1961.

Hydrographic Survey: A detailed hydrographic survey was carried out from November 1971 to January 1972, of an area between Lat. 0° 03′ S. and 01° 23′ S. and extended from the shore line to some 20 miles offshore. Charts are available on request from the Terminal showing the results of this survey for the approaches to the Terminal on a natural scale of: 1:25,000 and for the anchorage and loading area on a natural scale of 1:12,500.

AGENCY: See "General" before first port.

SHIPMASTER'S REPORT: 1976

Situated about 80 miles North of Balikpapan on the East coast of Borneo, in 00.07 S. 117.28 E., the only chart available BA.2636 is of too small a scale to advise safe first time entry in darkness. So, after a number of unsuccessful attempts to contact Santan Terminal for instructions – only the latter portion of his transmissions were being received, and very underpowered, it was decided to await daylight, cruising on 118° Meridian.

At 0600 hrs. vessel was again in the vicinity of Attaka Buoy, Pilot contacted by VHF 16. He instructed us to proceed 270° T and he would meet us, East of SBM. The SBM is located about 4.5 miles offshore, marked by a QK.FL.W. light, vis. 6 miles, and is impossible to distinguish from Attaka Buoy.

The best approach is to reach a point 4 miles North of Attaka Buoy which has a Ra.Refl. and was identified at just under 12 miles. From thence, subject to the Master's assessment of the situation, and assuming possession of a copy of the Chartlet, to proceed inward on 257° T, which will take him along the Approach Channel. But he should be prepared for quite strong set to North or South – this being my experience, both inward and outward. Pilot states that up to 125,000 d.w.t. can be handled. Originally, the channel had 4 buoys, marking the South side of the channel, but the outer 2 have been withdrawn. Channel has been swept and min. depth shown is 50 m. Each buoy has a Ra.Refl. and with 3.5 mile spacing, are easy to track on radar and visually, once their existence is known, from the Chartlet.

An anchorage area exists between 0.5 and 2 miles East of the SBM, bounded by 3 buoys to West side and 1 to South. These mark Coral Shoals. The Pilot said it was acceptable to come straight in from Attaka Buoy, in ballast, but loaded vessels must stay in Swept Channel, as the possibility of isolated Coral Heads exists, and the area South of the channel has not been fully swept.

A mooring/hose party boards with the Pilot, and takes care of these duties, the vessel only being required to provide an officer and 2 winchmen on the foc's'le and an officer and winchman for connecting the hoses (2×16 in.). A ship's mooring line is lowered to the launch to pick up the port SBM polypropylene line, this finally brings up a chain (approx. 8 in. dia. link). A special very flexible wire, provided by shore, is secured round both Port and Starboard forward bitts on foc's'le head, with an eye at each end projecting forward. The mooring chain is then shackled to this. A stout messenger is acceptable for picking up the starboard mooring, but it is advisable to have a second mooring line available on deck in our opinion. The chain is then shackled to the South eye of the shore wire, which is around the bitts. There is no provision for quick release gear, so letting go in an emergency, e.g. wind, would not be easy.

Hoses are 16 in., but fitted with 12 in. flanges (not reducers) and are bolted to manifold, again no quick release provided. Pilots' estimate of weight of each hose is 7.5 tons. Hoses are hung off on chains passed round manifold supports, instead of cruciform bollards – apparently because of the length of chain used. Hose/mooring party work well and safely.

EDP is not available, and vessel had to lie awaiting papers after leaving SBM for about 40 minutes, after which passage outward along the channel was without problem, with adequate water depths all the way.

Radio messages are sent via Balikpapan PNK2 to Petroleum Balikpapan, but appears to be on only 2 hours a day. But Pilot said they had not received our ETA's, but said this was quite normal. Agents were Pertaminaship Jakarta. No relief facilities, stores, water or bunkers available, and mail both in and out not advised, due uncertain delivery.

SHIPMASTER'S REPORT: May 1986.
Vessel: 95,000 d.w.t.

All papers as per Senipah were required, also transit cargo or 'nil' cargo manifest, in duplicate. Terminal is operated by Unocal 76. Coast Guard boarded with Agent to inspect vessel's documents which were also taken ashore by Agent. Polypropylene rope aft for tow boat.

With reference to Admiralty Chart No. 3040 only No. 8 channel buoy still exists. According to the Pilot the depth of 18.5 adjacent to Buoy 'A' is decreasing.

AUTHORITY: *Operator:* Union Oil Company of Indonesia, Ratu Plaza Building, 7th Floor, Jl. Jend. Sudirman, P.O.Box 264, Jakarta, Indonesia. *Tel:* 712509, 737344. *Telex:* 47335 Union-Ia.

SEKUPANG: 01.07 N. 103.55 E.

PILOTAGE: Pilot not available.
ANCHORAGE: Vessels anchor in position 01° 07′ 30″ N., 103° 53′ 30″ E. Depth of water in the anchorage is 15 m. – 20 m. at LWS.
RADIO: Sekupang Radio Station. Call sign PKJ 20.
BERTHING: There is a concrete wharf with a length of 80 m. and depth alongside 12.0 m. at LWS.
Storage: There is a transit shed of 6,000 sq.m.
Fork Lifts: There are 5 units with capacity 2 tons – 5 tons.
CRANES: 4×10 tons – 25 tons mobile cranes.
STEVEDORES: Local labour available.
FRESH WATER: Available.
FUEL: Not available.

SELAT LALANG: 01.11 N. 102.13 E.

DOCUMENTS:
6 copies Crew List.
6 copies Passenger List.
1 copy Cargo Manifest.
1 copy Ship's Stores List.
1 copy Crew Personal Effects List.
1 copy Maritime Declaration of Health.
Last Port Clearance.
PILOTAGE: Compulsory. Pilot requires 6 hours notice of arrival and 3 hours notice of departure.
ANCHORAGE: The anchorage whilst awaiting the sea pilot is in position Lat. 01° 56′ 30″ N., Long. 101° 50′ 30″ E.
RESTRICTIONS: Berthing and unberthing during daylight hours only.
MAX. SIZE: 140,000 d.w.t. Max. LOA 280 m.
RADIO: Dumai Radio on HF, call sign PKP. This station is operated by Ditjenla.
VHF: Sungai Pakning Radio, call sign PKP-5. This station is operated by Pertamina.

BERTHING: The storage barge "Hudbay Riau" is moored in position Lat. 01° 11′ 22″ N., Long. 102° 13′ 03″ E. Depth of water 22.7 m.

Vessels require starboard manifold to be ready to accept 2×12 in. hoses.

Shore Storage Tanks:

	Total Safe Capacity
Oil Products	
Crude Oil	1,012,142 bbls.

Physical Characteristics of Crude Oil:

API Gravity at 60°F.	39.9
Reid Vapour Pressure at 100°F.	1.0 psi
Viscosity at 100°F.	12.9 cSt
Sulphur Content	0.04% wt.
Carbon Residue	1.3% wt.
Pour Point	95°F.

MEDICAL: First Aid clinic available.
DENSITY: 1012 – 1020.
FRESH WATER: Not available.
FUEL: Not available.
CONSULS: None.
AIRPORT: Simpang Tiga Airport at Pekanbaru.
TIME: GMT plus 7 hours.
AUTHORITY: *Operator:* Hudbay Oil (Malacca Strait) Ltd., Arthaloka Building, 4th Floor, Jl. Jend. Sudirman 2, Jakarta, Indonesia. *Tel:* 587381, 584001. *Telex:* 45218 Homsl-Ia, 46055 Homsl-Ia.

SEMARANG: 07.01 S. 110.27 E. (See Plan)

DOCUMENTS:
Required for inward and outward:
Certificate of Registry.
Certificate of Nationality.
Loadline Certificate.
Radio Telegraphy Safety Certificate.
Derat Exemption Certificate.
Last Port of Clearance.
Safety Equipment Certificate.
Health Book (used Indonesian Port only)
Crew List (9 copies).
Stores List.
Personal Effects List.
Free Pratique Granted.
Light Dues Bill from last Port of Call.
Customs Cargo Clearance (PU) Import.
Customs 5 B Form from Last Port of Call.
Manifest (25 copies).
Customs Documents Export Cargo (if any).
Customs Documents Transhipment (Model H if any).
Authorities boarding the vessels on arrival:
Immigration Officer.
Customs Officer.
Quarantine Health Officer and Police Officer.
PILOTAGE: Compulsory. Pilot boards at anchorage, can be contacted on VHF Channel 16.
ANCHORAGE: Anchorage 3 nautical miles from coast, where depth 9 m. For smaller ships safe anchorages 1,900 m. from pier, where depth 5.0 m. – 7.0 m.
HEALTH: Vessels arriving must hoist "Q" flag. Work can only begin after inspection of security team boarding vessel upon arrival during working hours.
RADIO: Semarang Coastal Radio Station. Call sign PKR.
Frequencies: 500, 8249 and 8354 kHz. Also VHF Channel 16.
TUGS: Normally tugs join vessel in roads.
BERTHING: New Wharf: Length 605 m. Depth alongside 9.0 m. at LWS.
Domestic Wharf: Length 340 m. Depth alongside 5.0 m. at LWS.
STEVEDORES: Necessary to inform Agent exact time of arrival. Labour gangs to be arranged 1 day before. Also details of cargo to be discharged needed to arrange stevedoring materials, especially for ships anchoring in roads.
Gang Capacity:
In Semarang Port there are 1,409 stevedore workers registered at the Labour Pool (Y.U.K.A.) 1 gang labour = 15 stevedore workers.
Working Rates:
(a) From vessel to barges and vice versa:
– Load/discharge general cargo – 12 tons gang hour.
– Load/discharge bulk cargo – 20 tons gang hour.
(b) From barges to Godown and vice versa.
– Load/discharge general cargo – 10 tons gang hour.
– Load/discharge bulk cargo – 18 tons gang hour.
(c) From vessel to Godown and vice versa.
(if vessels at the quay).
– Load/discharge general cargo – 15 tons gang hour.
– Load/discharge bulk cargo – 18 tons gang hour.
(d) Discharge glass sheet from vessel to barges; same as general cargo.
(e) Discharge steel bars from vessel to barge – 20 tons gang hour.
Working Hours (normal working hours):
Monday – Thursday 0800 – 0400 hrs.
Friday – Saturday 0800 – 0200 hrs.
EQUIPMENT: One day's notice required for hiring.
Cranes/Forklifts:
P.L.T.U. Projects: 1 shore crane with max. capacity 90 tons. Can be used if not required by P.L.T.U.
Port Administration (Perum Pelabuhan): 3 mobile cranes with max. capacity 10 tons, 10 forklifts max. capacity 2.5 up to 10 tons.

Unit Terminal P.A.: 2 mobile cranes with max. capacity 10 tons, 5 forklifts with max. capacity 3 up to 5 tons.

Samudera Indonesia: 2 mobile cranes with max. capacity 3 and 10 tons.

Gesuri Lloyd: 3 mobile cranes with max. capacity 4 tons. 1 forklift max. capacity 2 tons.

Djakarta Lloyd: 2 mobile cranes with max. capacity 3 and 4 tons. 3 forklifts max. capacity 2.5 tons each.

Bahari: 2 forklifts with max. capacity 3 tons.

Godowns:
Trikora Lloyd: 1,960 sq.m.
Djakarta Lloyd: 5,400 sq.m.
Samudera Indonesia: 3,480 sq.m.
Pelni: 3,510 sq.m.
Bahari: 3,000 sq.m.
PN.VTP/Tobacco: 1,780 sq.m.
Unit Terminal PA: 10,520 sq.m.
Dangerous cargo Warehouse: 800 sq.m. (one only)

Open Storage:
Trikora Lloyd: 4,000 sq.m.
Unit Terminal PA.I-II-III.: 15,470 sq.m.
Djakarta Lloyd II.: 1,200 sq. m.
Djakarta Lloyd III.: 1,200 sq. m.

Tugs:
Samudera Indonesia: 4 tugs.
Gesuri Lloyd: 4 tugs.
Pelni: 1 tug 300 h.p.
Trikora Lloyd: 1 tug 120 h.p.
Hesti Kencana Lloyd: 1 tug 120 h.p.
Atrind Marina Graha: 6 tugs.
Bahari: 1 tug.

Lighters:
Samudera Indonesia: 18 lighters (3,955 tons capacity).
Djakarta Lloyd: 12 lighters (1,850 tons capacity).
Pelni: 9 lighters (1,100 tons capacity).
Trikora Lloyd: 11 lighters (1,925 tons capacity).
Bahari: 5 lighters (500 tons capacity).

MEDICAL: Medical assistance can be given upon ship's arrival. First aid can be given by harbour doctor in harbour area. Serious cases taken to hospitals in town. 4 hospitals available. Port Health Officer can issue vaccination/fever Certificates if required.

TANKERS: Buoy mooring in position Lat. 06° 53.6′ S., Long. 110° 25.8′ E.

FRESH WATER: Can be supplied by 100 ton barge once a day. Also available alongside, rate 10 t.p.h.

FUEL: Fuel oil and diesel oil available in limited quantities, only to coasters.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Opening and closing hatches done by stevedores.

CUSTOMS ALLOWANCES: 200 cigarettes or equivalent in tobacco permitted for each crew member to hold out of bond. Wine and/or spirits, maximum value of U.S. $10.

IDENTIFICATION CARDS: Needed.

CONSULS: No local representation.

REPAIRS: Minor repairs only. Dock for repairing small vessels, tugs and barges.

SURVEYORS: Bulk and general cargo surveyors available.

REPATRIATION: Repatriation of crew members arranged by Agents by contacting Immigration Officer for permits concerned.

AIRPORT: Airport (A. Yani) 5 miles from harbour. Domestic flights only.

TIME: GMT plus 7 hours.

HOLIDAYS: New Year (1st January); Independence Day (17th August); Id el Fitr; Christmas Day (25th December), Waisak.

POLICE/AMBULANCE: Semarang 245 or 726.

TELEPHONES: No facilities for placing telephones on board.

SHORE LEAVE: Crew members allowed ashore.

SERVICES: No facilities for underwater repairs, electrical repairs or tank cleaning.

SHIPMASTER'S REPORT: November 1987.

Pilotage: There is no need for vessels of draft over 3.5 m. to anchor in roads.

Berthing: There are 2 berths for vessels of max. draft up to 9.0 m. Length of berth about 600 m. We loaded tapioca in bags.

Tugs: 2×1,500 h.p.

Customs Allowances: Bonded store not sealed. It was possible to take beer and cigarettes without permission of Customs.

Time: GMT plus 7 hours.

Delays: It seems that no loading is carried at anchor any more.

AUTHORITY: Port Authority Tanjung Emas, Jl. Sers. Marinir Usman Janatin No. 8, Semarang, Central Java, Indonesia. *Tel:* 24491, 20687. *Telex:* 22305. *Cables:* Kacab Smg. *Contact:* Captain Alex Moniaga, Branch Manager.

SENIPAH TERMINAL: 01.03 S. 117.13 E. (See Plan)

LOCATION: The Sea Terminal consists of a SBM (Single Buoy Mooring), loading berth also known as "mono-buoy". Berth is located in position Lat. 1° 03′ 05″ S., Long. 117° 13′ 13″ E.

The Terminal is situated about 45 km. N.E. of Balikpapan on East Coast of Kalimantan, Indonesia, at position 0° 58′ 05″ S., 117° 08′ 27″ E.

DOCUMENTS: Indonesian Immigration, Customs, Harbour Master and Port Officials will board the vessel to grant clearance and will require the following for inspection:
2 Parcel Lists.
2 Currency Lists.
2 Arms & Ammunition Lists.
2 Inventory Lists.
2 Vaccination Lists.
2 Animals Lists.
2 Narcotics Lists.
8 Crew Lists.
2 Crew Declaration of Personal Belongings.
2 Ship's Stores List (inventory).
3 Passenger Lists (if any).
2 Cargo Manifest for Transit Cargo with a summary.
Clearance from the Last Port of Call.
Valid Passport and/or Seaman's Certificate for all crew members.
Certificate of Inoculation against any contagious diseases.

If arriving from a foreign port, the following documents may be required for granting Pratique: Certificate of Registry; Ship's Construction Certificate; Load Line Certificate; Life Safety Equipment Certificate; Safety Radio/Telephone/Telegraph Certificate; Cargo Gear Certificate and Derat or Exemption Certificate. TOVALOP Certificate.

Crude oil loading documents will be prepared at the Senipah Terminal and when the vessel has been loaded, the documents will be completed and final clearance formalities will be carried out on board.

Also see "General" before first port.

FLAGS: In accordance with practice in Indonesian ports, the vessel's national flag, the Indonesian courtesy ensign, quarantine, immigration, pilot and call sign flags must be displayed by all vessels approaching Senipah. These signals shall be displayed continuously until clearance is granted.

The signals are as follows: Sunrise to Sunset: Quarantine Flag "Q". Sunset to Sunrise: Signal lights (red over white).

The "N" flag should be flown until the Immigration Officer boards the ship. The "G" flag should be flown until the Mooring Master boards. The vessel should also fly its call sign (signal letters). This signal may, however, be hauled down after the vessel is secured to the SBM. It must be flown again when the vessel is sailing and kept flying until after the vessel is clear of the anchorage area and the Mooring Master has left. As soon as the Mooring Master boards, the "G" flag should be replaced by the "H" flag. The tanker may fly the "P" flag if it is going to sail within 24 hours.

PILOTAGE: *Procedure when berth is available on arrival.*

A vessel for which the berth is available on arrival will be boarded by a Mooring Master in the anchorage area and, providing that the vessel is in all respects ready to commence loading (except for the necessary deballasting) the Notice of Readiness will be acknowledged as soon as tendered to the terminal by the Master of the vessel.

The Mooring Master will advise the Master on all manoeuvres to berthing and unberthing and connecting the hoses.

Vessels are requested to make a lee and have an accommodation ladder long enough to reach the Mooring Master's launch.

At night, adequate lighting should be provided.

When Mooring Master boards all mooring and hose equipment will be lifted on board from the mooring launch.

NAVIGATION AIDS:

S.B.M.: The S.B.M. has a 360° yellow light, flashing every second, visible for 5 miles under an atmospheric transmissivity of 0.85. This operates from sunset to sunrise.

Oil Platforms: Oil platforms of Bekapai Oil Field which are situated approximately 17 miles East by North of Senipah SBM, show at night a white light flashing, 2 short and 1 long flash (letter U).

ANCHORAGE: If vessels are obliged, or instructed to anchor, they should do so in the recommended anchorage area which is centred at position: Lat. 1° 05′ 29″ S., Long. 117° 15′ 01″ E. and has a radius of 1 mile. Water depth is between 40 m. to 45 m. While at anchor they should exercise vigilance and keep in touch with the Terminal by VHF at all times.

Procedure when instructed to anchor on arrival: A vessel which has been instructed by Senipah Terminal to anchor on arrival should, after doing so, inform the Terminal of the precise anchoring time. According to the practice of the Terminal acknowledgement of the Notice of Readiness will coincide with this anchoring time, providing:

a) That it is within the hours of daylight – deemed to be from 0600 hrs. local time to 1800 hrs. local time.
b) That it is not a Public Holiday or Sunday, unless the vessel is actually handled on that day.
c) That the Terminal is open.
d) That cargo is available in accordance with accepted loading date.

In addition to clauses (a), (b) and (c), above, vessels will not be accepted when arriving at an unreasonable time ahead of their last advised ETA. It is not the practice of the Terminal to keep Pilots (Mooring Masters) on station in the anchorage area. Senipah Terminal maintains a continuous listening watch on VHF (Channel 6).

RESTRICTIONS: Berthing during daylight only. Unberthing at any time.

MAX. SIZE:

Minimum Size: Minimum size tanker acceptable at the Terminal is 50,000 d.w.t. However, on an exceptional basis, it will be possible to accommodate tankers of 32,000 d.w.t. minimum size but must be able to use SBM mooring system. Minimum LOA 195 m.

Maximum Size: Maximum size tanker acceptable lifting a full cargo will be 125,000 d.w.t. On exceptional basis, Terminal can consider handling a tanker up to 150,000 d.w.t. Max. LOA 275 m.

Tankers of a larger size may be accommodated in the future, provided that Senipah is their first port of loading and that they load a part cargo only. These limits are at present under study.

Draft Requirement on Arrival: Vessels arriving at Senipah Marine Terminal should have the following draft:

d.w.t.	Fore	Aft
Under 60,000	19 ft.	27 ft.
Over 60,000	22 ft.	28 ft.

RADIO: *Advice of Arrival:* 72 hours prior to arrival at the Terminal, vessels should advise the Company of their ETA by cable sent via Pertamina's Coastal Radio Stations at Jakarta/Merak/Balikpapan. They should also confirm or amend them when they are 48 hours, and again when 24 hours, distant from the Terminal.

Total Indonesie cable address: Totalindo Balikpapan. Attention: Senipah Marine Terminal and Totalindo Jakarta. Attention: Shipcoord.

Communication for Contacting Agent: Pertamina Jakarta Radio/PKI2 (owned and operated by Pertamina).

Frequency kHz	Hours GMT	Keep Watch kHz
452*	H24	500
8628	0200–0300, 0400–0500, 0700–0800, 1030–1200 1400–1500, 1800–2000, 2200–2300.	8356–8374
12980	0000–0200, 0300–0400, 0500–0700, 0800–1030, 1200–1400, 1500–1800, 2000–2200, 2300–2400.	12534–12561
VHFCh. 9/16/19	0000–1500.	Ch.16

*Call/Reply

Pertamina Merak Radio/PKQ (owned and operated by Pertamina).

Frequency kHz	Hours GMT	Keep Watch kHz
452*	0000–0400, 0800–1000, 1200–1400.	500
8626	0100–0200, 0900–1030, 1500–1600, 2300–2400.	8356–8374
4361.6	0000–0100, 0200–0300, 0800–0900.	2182, 4066 4063 A3J/A3H
6518.6	0300–0400, 1200–1400.	2182, 6204 A3JA3H
VHF Ch.16/19/24/26	H24	Ch.16

*Call/Reply

Pertamina Balikpapan Radio/PKN2 (owned and operated by Pertamina).

Frequency kHz	Hours GMT	Keep Watch kHz
4415	H24	2182
6520	H24	8249 A3J/A3H
VHF Ch.16/19	H24	Ch.16

Note: 1. All messages destined to "Pertaminaship" can be sent to either PKI2, PKQ or PKN2.

Details of Cable: The following information should be included in the cable;

(a) Name of vessel and radio call sign.
(b) ETA and date in local time (GMT plus 8 hours).
(c) Cargo requirements.
(d) Deballast time.
(e) Maximum loading rate.
(f) If there is any sickness aboard or clean bill of health.
(g) Last port of call.
(h) Any hull, bulkhead, valve or pipe-line leaks on vessel which could affect loading or cause pollution.
(i) Distance in metres from bow to vessel's loading manifold.
(j) Flange dimensions of vessel's manifold connection, if not to ASA series 150 or equivalent.

2. For tankers equipped with telex system, can make direct contact to: TI JKT attention Ship-Coord: Telex No. 44108. TI BPPN attention Snp-Term: Telex No. 37101 or 37181.

Failure to advise Terminal of ETA may lead to loss of berthing turn.

Also see "General" before first port.

VHF: Vessels equipped with VHF Radio Telephone should contact terminal on international mobile service Channel 6 from 0000–2400 hrs. GMT.

Other Channel used is 16.

Language: The language of the Terminal is English and Indonesian.

BERTHING: The SBM is approximately 6 miles (11.1 km.) offshore in approximately 28 m. of water.

The SBM is served by 2 submarine lines of 26 in. diameter. Two strings of 20 in. hose connect the SBM to submarine line header. Two 20 in. floating hose strings reduced to 12 in. are connected to Tanker for loading purposes. Hoses are lifted up and connected individually on port side.

Work Crew Service: Mooring, unmooring, lifting, lowering, connecting and disconnecting hoses will be done by ship's crew under the direction of the Mooring Master and assistance of Terminal crew.

Accommodation and meals: The Company Mooring/Loading Master and his crew (2 persons) stay on board the tanker during the time of the operations. Free accommodation and meals of the same standards as those of the Tanker's officers (for the Mooring Master) and of the Tanker crew (for company crew) must be provided.

Tanker's Engines: Being on open roadstead, vessels must keep engines on standby during their stay in berth. No repairs to main engines may be undertaken while in berth.

Only the automatic turning gear should be used. If it should become necessary to turn the propeller(s) at revolutions greater than the minimum obtained by the automatic turning gear, application must be made to the Mooring Master in order to ensure that there is no inconvenience to do so.

The Mooring Master's written permission must be obtained before any such increase in revolutions.

MOORING/UNMOORING: *Method of Securing to Buoy:* This description is only intended as a guide and may be varied as to orders of lines etc. according to circumstances and weather prevailing at time of mooring.

When Mooring Master boards all mooring and hose equipment for the job on hand will be lifted from the mooring launch.

The Approach: The vessel will be brought to a position close to the buoy with vessel stopped in water with SBM fine on port bow. During approach to SBM, one mooring launch will keep hoses well clear of vessel. Under normal conditions the port side SBM rope will be the first rope taken on board. Mooring Master will advise which rope will be taken first. Actual work of mooring will be done by ship's crew with assistance from terminal work crew. Vessel will lower a mooring rope with good lashing on eye to the mooring launch which will make this fast to approach rope. The approach rope of 10 in. circumference polypropylene will be hove on board until the chafing chain is approximately centred in the fairlead.

Securing the Mooring Lines: While approach is being made, two 11 in. rope strops will be made fast one on each side to the forecastle bitts. The strop will be attached to a 50 ton shackle with pin removed. This shackle should be lying between 2 m. to 3 m. in board of fairlead.

When sufficient chafing chain has been heaved on board, the rope strops will be shackled on to the end links of the chain. The approach rope will then be slackened off and used as back up to the rope strops. The second rope is made fast in the same manner. When mooring is completed the mooring launch will be made fast by a mooring rope (200 m. long) through the centre lead aft so as to be in position to tow as long as the tanker is in the berth.

Connecting Hoses: When mooring is completed a work boat holding the hoses clear will bring the hoses alongside the port side manifold for connection.

Unmooring: To unmoor from the SBM all extra back up lines that have been secured are slipped first. The approach rope is then taken to ship's windlass/capstan and hove up, both of them together, until sufficient chain is in board to remove both shackles from the terminal strops. When the vessel is moving slowly astern the approach ropes are slackened off into the water slowly and finally slipped until allowed to float free.

LOADING:

Loading Rate: Maximum loading rate will be nearly 25,000 barrels (3,750 metric tons) per hour. It is recommended that vessels take maximum flow with due regard to safety in order to expedite turn around time as well as to provide ballast as quickly as possible.

Care should be taken not to overload, as there is no possibility whatever of pumping back to Terminal. When vessels are equipped with permanent ballast tanks, the ballast in these tanks should be retained on board until the vessel has taken on board sufficient cargo to be manoeuvrable. Vessels not so equipped should examine the possibility of safely loading and discharging ballast simultaneously, as such practice improves turn around time as well as reducing the possibility of breaking out of the berth in bad weather in completely light condition.

Hose Lifting Derricks – Deck Winches: Ship booms and deck winches must be capable of operating with a SWL of 5 tons for tankers to be secured to the SBM. Vessels with inadequate hose lifting equipment will be rejected. Power must be kept on deck winches in case adjustments to mooring lines are found to be necessary.

Manifold sizes: The hoses at the terminal are 12 in. in diameter.

Tanker manifolds should terminate in ASA series 150. Unless terminal is given adequate notice, tankers equipped with other sizes or ratings will be rejected.

Grades of crude oil available: There are 2 grades of Crude Oil available at Senipah Marine Terminal, namely, Bekapai Crude Oil and Handil Crude Oil. Vessels lifting Bekapai Crude are not required to heat the oil during voyage to the discharge port.

Vessels lifting Handil Crude Oil are required to be equipped with heating coils.

It is recommended, as from commencement of loading of Handil Crude, the vessel should endeavour to maintain a temperature of 105°F or at least a temperature slightly above the pour point (±85°F) until the time the vessel discharges its cargo at the unloading port.

In case a vessel has to load 2 parcels of cargo (i.e. 1 Handil and 1 Bekapai), loading must be stopped between the two parcels for line flushing with the second grade of oil.

Outward Clearance: A tanker will be considered clear to depart Senipah Terminal when the crude oil loading documents have been delivered to the Master.

Any protests by the Master concerning the quantity of cargo should be made before departure and any resulting investigation should be made before the vessel sails.

BALLAST:

Adequate Ballast: Due to the exposed location of the crude oil SBM berth, vessels are required to carry sufficient ballast for safe handling, having due regard to existing weather and sea conditions. A vessel found by the Mooring Master to be not adequately ballasted will be rejected.

Pollution: Owners and Masters are responsible to observe International convention laws and Indonesian Government regulations concerning pollution of the sea, having particular regard for this area of the Macassar Strait.

Clean Ballast: As there are no ballast discharging facilities, vessels must arrive at the Terminal with clean ballast, ensuring that all pipe-lines, pumps and strainers have been flushed out prior to arriving.

The Mooring Master will inspect ship's ballast on boarding and has the power to reject any vessel that he deems would cause pollution of the sea area, in which case the vessel must proceed to sea and return only when ballast is completely free of oil. Any vessel rejected because of dirty ballast will automatically nullify its notice of readiness and will lose any priority of position for loading. Ballast discharge should not be commenced without the prior agreement of the Mooring Master.

Bilges: Bilges must not be discharged while at the Terminal.

Inspections During Loading: At night the sea area around the vessel shall be adequately lighted, as frequent inspection by the Mooring Master will be made during the discharge of ballast. Any pollution, whatsoever, will be cause for rejection. Similarly, any hull leaks causing pollution during loading will be cause for rejection and the vessel will not be reaccepted unless satisfactory evidence of repairs has been certified by a qualified surveyor.

Cargo hose connections should be inspected during loading, drip-pans should be placed under the manifold, all unused cargo connections should be blanked off, sea-valves should be closed and lashed upon completion of deballasting and all scuppers must be securely plugged.

CUSTOMS ALLOWANCES: Cigarettes, cigars, tobacco, matches, spirits, wine, beers, perfume, arms, ammunition and possibly other items have to be locked up under Customs seal from time of arrival of ship in port until time of leaving territorial waters. Each person is allowed to bring in 200 cigarettes or the equivalent in grams of tobacco or cigars. Special allowances are made for the Master under special circumstances.

The Customs Officer will seal the stores.

AIRPORT: Senipah Airport is near the town. Sepinggan Airport is 70 km.

TIME: GMT plus 8 hours.

SERVICES: There are no facilities of any kind at Senipah:

There are no engineering repair shops.
No fresh water.
No bunkers available.
No provisions or stores.
No crane or barge service.
No shore leave.
No crew changes.
No consulates available.
No clinic available.

GENERAL:

Floating Logs: Masters are advised to keep careful watch on the approaches for semi-submerged or floating logs which may become hazardous to safe navigation.

AGENCY: See "General" before first port.

SHIPMASTER'S REPORT: May 1986

Vessel: 95,000 d.w.t.

Of the documents listed only Crew Lists, Narcotics Lists, Crew Declarations, and Stores Lists were required. 2 cargo manifests of 'nil' cargo were required. Ship's documents taken ashore for examination. Cargo papers take at least 1 hour. Pilot boat's full speed only 8 knots. Polypropylene rope required aft for tow boat.

AUTHORITY: *Operator:* Total Indonesie, P.O.Box 6, Balikpapan, East Kalimantan, Indonesia. *Tel:* 22010-14. *Telex:* 37101 Bppia. *Contact:* Head of Production.

Head Office: Kuningan Plaza North Tower, Jalan H. R. Rasuna Said, Kavling C. 11-14, Jakarta Selatan. P.O.Box Tromolpos 10, Jakarta 10002. *Tel:* 5200505. *Telex:* 011-44108. *Cables:* Totalindo Jakarta.

SIBOLGA (Pulau Herek): 01.44 N. 98.45 E.

PILOTAGE: Not compulsory.

ANCHORAGE: Vessels anchor near Pulau Sarudik Beacon (red light). Position 01° 43′ N., 98° 45′ E. Depth 9.0 m.

RESTRICTIONS: Maximum draft 5.3 m. at LWS.

RADIO: Sibolga Coastal Radio Station. Call sign PKB-3. Frequencies: 474 kHz. and 500 kHz. (A1/A2).

TUGS: Privately owned tugs available.

BERTHING: A "T" shaped wharf with length 130 m. and width 10 m. The approach is 103 m. long and 15.5 m. wide. Depth alongside 5.3 m. at LWS. Maximum capacity 15 tons.

Storage: Godown space available of 900 sq.m. and open storage space of 600 sq.m.

Fork Lifts: 2 × 2 tons – 5 tons.

CRANES: Not available.

STEVEDORES: Available from labour pool.

FRESH WATER: Available when alongside wharf.

FUEL: Not available.

REPAIRS: No facilities available.

GENERAL: *Barges:* Privately owned flat-top barge available.

SORONG: 00.53 S. 131.15 E.

PILOTAGE: Compulsory. Pilot requires 6 hours notice of arrival and 3 hours notice of departure.

ANCHORAGE: The anchorage whilst awaiting sea pilot is located in position Lat. 00° 52′ 00″ S., Long. 131° 13′ 30″ E.

RESTRICTIONS: Berthing and unberthing possible at any time day or night.

MAX. SIZE: 21,000 d.w.t. Max. LOA 175 m.

RADIO: Sorong Radio on HF, call sign PKY-41. The station is operated by Pertamina.

BERTHING: The jetty is located in position Lat. 00° 52′ 54″ S., Long. 131° 14′ 43.8″ E. Depth alongside 11.0 m. at LWS.

Also see "Kasim Marine Terminal".

LOADING:

Cargo Handled:

Product	*Loading Rate* (per hour)	*Discharge Rate* (per hour)	*Hoses*
Crude Oil	800 bbls.		1×8 in.
Premium		100 k/l	1×6 in.
Kerosene		100 k/l	1×6 in.
HSD	40 k/l	100 k/l	1×6 in.

Shore Storage Tanks:

Oil Products	Total Safe Capacity
Crude Oil	170,000 bbls.
Premium	2,572 k/l
Kerosene	1,528 k/l
HSD	7,961 k/l
Slops	5,000 k/l

Physical Characteristics of Crude Oil:

API Gravity at 60°F.	: 35 – 34
Reid Vapour Pressure at 100°F.	: 2.5 psi
Viscosity at 100°F.	: 5.9 cSt
Sulphur Content	: 0.7% wt.
Carbon Residue	: 1.0 – 2.5% wt.
B.S. & W.	: 0.05 – 0.10% vol.
Flash Point (PMCC)	: Below 50°F.
Pour Point	: 10°F.

Loading Temperature: 86°F.

MEDICAL: Hospital and clinic available.

DENSITY: 1020 – 1025.

FRESH WATER: Available at a rate of 25 t.p.h.

FUEL: Available.

CONSULS: None.

AIRPORT: Jefman Island which is 8 miles away.

TIME: GMT plus 9 hours.

AUTHORITY: *Operator:* Pertamina, Pertamina P&T UEP-Y, Jl.A.Yani, Sorong, Indonesia. *Tel:* (0951) 21743. *Telex:* 77110. *FAX:* (0951) 21729.

SOURABAJA (Tandjong Perak): 07.12 S. 112.44 E.

(See Plan)

DOCUMENTS: Upon arrival vessels have to produce the following Certificates and Documents, which will remain in the Harbour Master's custody until cleared:

Nationality (Registry) Certificate.
Seaworthiness Certificate.
Measurement (Tonnage) Certificate.
Derat (Exemption) Certificate.
International Load Line Certificate.
Safety Certificate (passenger ships).
Safety Equipment Certificate (cargo ships).
Safety Radio and Radiotelephony Certificate (cargo ships).
Certificate of Approval (ship's radio station).
Health Book or Bill of Health.
Last Port Clearance.
Subscription of Light and Harbour Dues and wharfage if any.
Crew Lists and Passenger's List.
Ship's Articles.
2 Stores Lists.

IMMIGRATION: (Department of Defence and National Security). Vessels arriving from abroad with passengers must hoist the "N" Flag. Masters have to supply the boarding Immigration Officer with Passenger's List of: *(a)* disembarking. *(b)* transhipping. *(c)* through passengers.

No persons are allowed on board until the vessel has been examined and the "N" Flag taken down. Passengers must be in possession of a valid visa: visitor's, entry or a transit visa. Those not having a visa may at the discretion of the Immigration Officer, obtain a landing permit. Members of the crew including the Master must appear in the Articles, in order to get shore permits.

PILOTAGE: Pilots are in Government service. Pilot signals according to International Code of Signals. Pilots have to be ordered by Agent 24 hours before arrival and 6 hours before departure.

Compulsory Pilotage, consisting of sea and harbour pilotage.

Western Channel: The Sea Pilot will board the vessel at the entrance of the Western Channel from pilot launch stationed at Karang Jamuang position Lat. 6° 55′ 43″ S., Long. 112° 43′ 46″ E. Upon arrival at the pilot station by day, ships should hoist the International Code Flag "G" and the Ship's International Call Sign. Pilot station on VHF Channel 12, from 0600 hrs. – 0000 hrs. Pilot boat on VHF 12, 14 and 16. The following local signals regarding Pilots should be observed if shown by the pilot vessel:

(a) By night: a flare-up light (white) or waving a white light above the railing means: Pilot will soon board your vessel.

(b) By day: the First Substitute over the Code Flag "S" means: no Pilot available, vessel allowed to proceed until she meets the Pilot. By night: a red light over a white light.

(c) By day: 2 black cones 1 vertical over the other points downwards or by night: 2 green lights 1 over the other means: no Pilots are available for ships of less than 10,000 cu.m. gross. If this signal is made by the Pilot, vessels do not have to show the pilot signals.

(d) By day: the International Signal GFM or by night: a green light over a white light means: Pilot will board your vessel by row-boat as no motor-boat is available.

Eastern Channel: No pilot vessels. Pilots will board the vessel at the entrance by means of a pilot barge dispatched from Tg. Perak Pilot Station at the Harbour Master's Office.

Sea Pilot will take the vessel up to the Inner Roads, where the Harbour Pilot takes over.

Request for Pilot: Request for Pilot is made by the ship's Agent 10 hours prior to the entry of vessel in port. At least, 6 hours prior to departure, request for Pilot must also be submitted.

This request is submitted to Pilot Division on telephone numbers 293157, 291354.

For information regarding the arrival of a vessel, the Master of the vessel can send a cable to Tanjung Perak Port Administration by way of VHF radio telephone on Channel 12, which is available round the clock.

The Master of the vessel can also send the cable through "PKD", see "Radio".

ANCHORAGE: Waiting anchorage for Pilot within:

Lat. 6° 51′ S., Long. 112° 45′ E.; Lat. 6° 51′ S., Long. 112° 47′ E.; Lat. 6° 52.5′ S., Long. 112° 47′ E.; Lat. 6° 52.5′ S., Long. 112° 45′ E. Depth 22 m. at LWS.

RESTRICTIONS: There are 2 entrances: Western and Eastern Channels.

Western Channel: Used for deep draft vessels with depth of 9.0 m. at LWS. Distance to Tg. Perak about 25 miles.

Eastern Channel: Least bar depth through this channel is 2.5 m. – 5 m. at LWS. Distance to Tg. Perak is about 22.5 miles.

Boarding Area: Harbour Pilots, Quarantine Officer and Immigration will board the vessel at the Inner Roads (anchorage).

MAX. SIZE: The max. draft for vessels entering the access channel to the port is 9.5 m. with a max. LOA of 210 m.

RADIO: Coastal Radio Station call sign PKD.

Frequencies: 430, 500, 550, 8730 and 8754.4 kHz.

Pilot Station Karang Jamuang is also reachable through radio call sign PKW: frequency 500 kHz. This station can also be contacted by VHF Channels 12, 16.

VHF: Pilot boats: Channels 16, 14, 12, 8 and 6.

Pilot Station: Channels 12 and 14.

Harbour Master: Channels 12 and 14.

Tugs: Channels 16, 14, 12, 8 and 6.

TUGS: For poor steering vessels and those with deep drafts, tugs assistance is indispensable from light buoy No. 5 till light buoy No. 4 is passed.

The tug service is provided by the Port Administration for which the Port Administration has 6 tugs. 2 tugs – 1,740 h.p., 2 tugs 1,500 h.p. and 2 tugs – 800 h.p. 2 mooring boats also available.

BERTHING: The total length of effective quay in Tanjung Perak Port is 5,205 m.

Quay	*Length*	*Depth at LWS*
Jamrud Utara	950 m.	8.6 m.
Jamrud Selatan	800 m.	7.9 m.
Jamrud Barat	180 m.	8.2 m.
Berlian Barat	735 m.	8.2 m.
Berlian Timur	780 m.	8.4 m.
Berlian Utara	140 m.	7.5 m.
Nilam Timur	1,030 m.	8.2 m.
Perak	140 m.	8.2 m.
Mirah	640 m.	7.0 m.

Tanker Terminal:

Government Petroleum Pier Depth alongside at LWS is 9 m.

Semampir East " 12 m.

Semampir West " 10 m.

Coal Wharf: Situated at the Southern end of Tambatan Nilam, equipped with 1 transporter and 2 bunker barges with steam operated grippers, owned by P.N. Tunda Bara.

PORT EQUIPMENT:

Capacity	*Port Administration*	*Private*	*Total*
Forklifts:			
2 tons	—	5 units	5 units
2.5 tons	70 units	5 units	75 units
3 tons	—	19 units	19 units
3.5 tons	—	20 units	20 units
4 tons	—	6 units	6 units
5 tons	10 units	14 units	24 units
7.5 tons	3 units	3 units	6 units
10 tons	1 unit	1 unit	2 units
12.5 tons	—	1 unit	1 unit
15 tons	2 units	—	2 units
25 tons	2 units	1 unit	3 units
Mobile Cranes:			
7 tons	—	1 unit	1 unit
15 tons	10 units	—	10 units
25 tons	2 units	2 units	4 units
30 tons	—	1 unit	1 unit
Floating Crane:			
50 tons	1 unit	—	1 unit
200 tons	1 unit	—	1 unit
Trailers:			
3.5 tons	1 unit	—	1 unit
20 tons	3 units	—	3 units
30 tons	—	1 unit	1 unit
40 tons	—	2 units	2 units

STEVEDORES: Working hours: Monday-Thursday 0700 – 1200, 1300 – 1500 hrs. Friday 0700 – 1100, 1300 – 1500 hrs. Saturday 0700 – 1200 hrs. Overtime: Monday-Friday 1500 – 1700 hrs. Sundays, holidays 0700 – 1200, 1300 – 1500 hrs. Night work allowed after permission from the Port Authority.

Average for bulk cargo 20 t.p.h. per gang

Average for bagged cargo 27 t.p.h. per gang

Average for general cargo 20 t.p.h. per gang

Average for machinery/iron 8 t.p.h. per gang

MEDICAL: Hospital and Port Health Centre.

TANKERS: See "Berthing".

FRESH WATER: Supply is handled by the Harbour Board to the berths and by 5 water barges. Present capacity about 1,100 tons per day for the whole harbour. Priority is for passenger vessels and application required 48 hours prior to ship's arrival.

FUEL: Fuel can be obtained via pipe-lines to all berths.

REPAIRS: Dry-docking and all sorts of repairs are carried out by the State-owned P.N. Dock. There are floating docks, capable of lifting 15,500, 3,500 and 4,000 tons. There are several slipways for coasters.

Electronic Repair Shop: All sorts of electronic repairs such as radar, echo-sounder, etc., can be repaired by private contractors.

CONSULS: U.S.A., U.S.S.R., Japan, Great Britain, Belgium, Australia, India, Pakistan, Philippines, France and Netherlands.

PORT SECURITY: Maintained by members of the Indonesian Armed Services, usually, Police, Navy or Marine and Army. Crew members should be in possession of a shore pass issued by the Port Authority, accompanied by an identification card when leaving or entering the guarded gates of the Port Area. Shore passes can be obtained via the Agencies.

CUSTOMS: It is strictly prohibited to take undeclared foreign currency ashore. It is recommended that Masters consult the Agents about local prevailing Customs Regulations with regard to currency, cigarettes, spirits, etc., to prevent unnecessary difficulties and eventually fines.

BANKS: Bank Negara 1946, Bank Bumi Daya and Bank Rakyat Indonesia.

DEVELOPMENTS: *Developments of the Short Term (1981-85):*

Supply of facilities for inter-state vessels: 8 quays length 640 m., 4 Godowns (area 13,700 sq.m.), 7 stacking areas (area 15,573 sq.m.).

Supply of facilities for container ships by changing part of the berths which are available, so that there is a facility for loading and unloading the containers: 4 quays length 1,200 m., stacking area 66,800 sq.m.

Build CFS (Container Freight Station) at the former Perak Airfield of an area 42,695 sq.m. To have available loading and unloading equipment: 2 multi-purpose mobile cranes, 12 head trucks, 27×40 ft./20 ft. chassis, 12×25 ton top loaders. 2×40 ton transtainers.

Developments of the Medium Term (1986-90):

Supply of facilities for inter-state vessels: 16 quays length 1,280 m., 8 Godowns (area 25,600 sq.m.), 8 stacking areas (area 30,000 sq.m.).

Supply of the facilities for container ships: 2 quays length 500 m., CFS near the quay 20,000 sq.m.

At the former Perak Airfield 200,000 sq.m. To have available loading and unloading equipment: 4 container gantry cranes, 18 head trucks, 32×40 ft./20 ft. chassis, 12×25 ton top loaders and 6×40 ton transtainers.

Developments Long Term (1991-2000):

At this stage a new basin at the West side of the Naval Academy is planned.

In this stage will be prepared: Facilities for inter-state vessels: 40 quays. Facilities for ocean-going vessels: 14 non-container quays, 2 container quays.

AUTHORITY: Port Administration Tanjung Perak, Jalan Kalimas Baru No. 194, Tanjung Perak. *Tel:* 291194, 291364. *Contact:* The Harbour Master.

AGENT: See "Jakarta".

SUNGAI PAKNING: 01.20 N. 102.09 E.

PILOTAGE: Compulsory. Pilot requires 6 hours notice of arrival and 3 hours notice of departure.

ANCHORAGE: The anchorage whilst awaiting sea pilot is located in position Lat. 01° 56′ 30″ N., Long. 101° 50′ 30″ E.

The anchorage whilst awaiting berth is located in position Lat. 01° 23′ 00″ N., Long. 102° 10′ 00″ E.

RESTRICTIONS: Berthing during daylight hours only. Unberthing any time, day or night.

MAX. SIZE: 61,000 d.w.t. Max. LOA 220 m.

RADIO: Dumai Radio on HF, call sign PKP. This station is operated by Ditjenla.

VHF: Sungai Pakning Radio, call sign PKP-5. This station is operated by Pertamina.

BERTHING: There is an offshore platform located in position Lat. 01° 20′ 24″ N., Long. 102° 09′ 29.5″ E. Depth of water at the platform is 15.3 m. at LWS.

There are two berths, the inner berth and the outer berth.

LOADING: *Outer Berth:* Vessel's port side manifold required. Vessels discharge crude oil at a rate of 1,000 t.p.h. and load LSWR at a rate of 1,300 t.p.h. There are 10 in. loading arms on the platform.

Inner Berth: Vessel's starboard side manifold required. Naphtha, kerosene and diesel oil loaded at a rate of 400 t.p.h. through 6×8 in. loading arms.

MEDICAL: Hospital and clinic available.

DENSITY: 1012 – 1020.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: None.

TIME: GMT plus 7 hours.

AUTHORITY: *Operator:* Pertamina, Dumai.

TANDJUNG UBAN: 01.04 N. 104.13 E.

DOCUMENTS:

11 Crew Lists.
11 Passenger Lists.
Harbour Report (form to be supplied by the Agent).
Maritime Declaration of Health.
Vaccination List.
2 Stores Lists.
2 Bonded Stores Lists.
2 Personal Effects Lists.
Last Port Clearance.
2 copies Cargo Manifest.

PILOTAGE: Agent requests Pilot upon arrival of vessel, 72 hours advance notice of ETA required. Pilot boards vessel in harbour area.

ANCHORAGES:

Awaiting Pilot:
North entrance: Lat. 01° 15′ 10″ N., Long. 104° 12′ E.
South entrance: Lat. 01° 02′ 55″ N., Long. 104° 12′ E.

Awaiting Berth:
Large tankers: Lat. 01° 06′ 20″ N., Long. 104° 10′ 40″ E.
Small tankers: Lat. 01° 03′ 15″ N., Long. 104° 12′ 20″ E.

RESTRICTIONS: Berthing and unberthing during daylight only

MAX. SIZE:

Jetty No.	*Max. Size*	*Min. Size*	*Max. LOA (m.)*	*Min. LOA (m.)*
	d.w.t./cu.m.			
1	60,000 cu.m.	10,000 cu.m.	240	130
2 (Oil)	40,000	16,000	210	150
(LPG)	7,000 cu.m.		115	75
3 (Barge)	700		48	
4	20,000	1,200	160	60
5	36,000	5,000	185	100

HEALTH: Health Officer will board vessel after berthing. No Pratique granted, even for vessel after calling at another port in same country.

RADIO: Tandjung Uban Radio – call sign PKJ-2 and Sekupang Radio – call sign PKJ-20.

VHF: PKJ-2 on VHF.

TUGS: No tugs available.

BERTHING:

Depths Alongside at LWS:

Jetty No. 1 – 17.4 m.
Jetty No. 2 – 11.7 m.
Jetty No. 3 – 6.4 m.
Jetty No. 4 – 11.4 m.
Jetty No. 5 – 10.5 m.
Jetty No. 6 – 4.7 m. (for small craft).

Shore Storage Tanks:

Oil Products	Total Safe Capacity
Premium	9,200 tons
Kerosene	23,500 tons
HSD	31,750 tons
MDF	5,900 tons
MFO	23,000 tons
Propane	70,000 cu.m.
Butane	9,000 cu.m.
Mixed LPG	18,000 cu.m.

Loading/Discharging Rates:

Jetty No.	*Cargo Handled*	*Average Transfer Rate Load*	*Average Transfer Rate Discharge*	*No. of Lines*	*Arm/Hose Connection Flange Dimensions Hose (in.)*	*Arm/Hose Connection Flange Dimensions L.A. (in.)*
		t.p.h./cu.m.p.h.				
1.	Butane, propane	2,200 (cu.m.)	–	2	–	12
	Vapour Return	–	2,750 (cu.m.)	2	–	8
2.	Mixed LPG	700 (cu.m.)	–	1	–	6
	Vapour Return	–	700 (cu.m.)	1	–	4
	Kerosene	150	300	2	8	–
	Premium	150	250	2	8	–
	Premium	100	100	1	6	–
	HSD	150	250	2	8	–
	HSD	80	–	1	4	–
	MDF	100	100	1	8	–
	MFO	250	250	1	8	–
3.	Premium	100	–	1	4	–
	Kerosene	100	–	1	4	–
	HSD	60	–	1	4	–
4.	Kerosene	150	300	2	8	–
	Premium	150	250	1	8	–
	HSD	150	250	2	8	–
	MDF	200	300	3	8	–
	MFO	80	80	1	6	–

MEDICAL: Very limited facilities. Only a clinic with experienced wound dresser available. Valid cholera certificates for crew members required.

DENSITY: 1025.

FRESH WATER: Available ex-pipe-line – 5 t.p.h.

FUEL: Available.

CONSULS: None.

GANGWAY/DECK WATCHMEN: Port Authority provides 1 safety guard during vessel's stay in port.

CUSTOMS ALLOWANCES: Reasonable quantity allowed to be used during vessel's stay in port.

IDENTIFICATION CARDS: Possession of a valid Seaman's Book sufficient.

REPATRIATION: No facilities available.

AIRPORT: Kijang Airport (Tanjung Pinang) and Hang Nadim Airport (Batam Island).

TIME: GMT plus 7 hours.

POLICE/AMBULANCE/FIRE: Police, Tel: 55; Clinic, 37 and 58; Fire, 44 and 13.

TELEPHONES: Agents place telephone on board at no cost.

AGENCY: See "General" before first port.

AUTHORITY: Penguasa Pelabuhan (Port Authority).

Operator: Pertamina.

TANJUNG PANDAN (Belitung): 02.45 S. 107.38 E.

PILOTAGE: Not available.

ANCHORAGE: Vessels up to 3,000 d.w.t. anchor in position 02° 44′ 20″ S., 107° 36′ E. Vessels over 3,000 d.w.t. should anchor in Mangkob Besar Reef area, near lighted buoy, depth 11 m. – 12 m.

At time of S.W. Monsoon, vessels should anchor at the Northern entrance of Mendanau Strait.

RESTRICTIONS: No restrictions on vessel draft or size at anchorage.

RADIO: Not available.

TUGS: 6 × 80 h.p. – 320 h.p.

BERTHING: Anchorage port.

Storage: Godown space available.

CRANES: 1 × 15 ton shore crane available.

STEVEDORES: Available from labour pool.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: No facilities available.

GENERAL: *Barges:* 19 × 40 tons – 200 tons available.

TARAKAN: 03.17 N. 117.35 E.

(a) GENERAL CARGO
(b) TANKERS

(a) GENERAL CARGO

DOCUMENTS: See "Jakarta".

PILOTAGE: Compulsory pilotage consisting of Sea and Harbour Pilots. Ships requiring pilot service should notify the Harbour Master at least 24 hours before arriving at outer buoy. Tide: Semi-diurnal.

Pilots do not normally work at night. The approach buoys and leading lights are frequently extinguished and vessels arriving at night are recommended to anchor at No. 1. Buoy and await a Pilot in daylight.

ANCHORAGE: Lat. 03° 14′ 40″ N., Long. 117° 43′ 45″ E.

HEALTH: Vessels arriving from abroad direct in one of the 2nd Class Ports have to apply well in advance to the Department of Health (Quarantine Section) for a provisional Free Pratique, as said Pratique has to be cabled to the port concerned. The provisional Free Pratique is only valid for the port concerned, the next port of call must be a First Class Port as no further provisional Free Pratique will be issued, unless the vessel sails directly abroad from the 2nd Class Port concerned.

RADIO: Tarakan Coastal Radio Station. Call sign: PKO. Class A1. This station also has VHF Maritime Bands working on the same hours as the Short Wave Transmissions.

VHF: Pilot Station on Channel 16. Harbour Master on Channel 12.

TUGS: None.

BERTHING: The anchorage will hold many ships but very little cargo is worked from the anchorage as most vessels calling are timber ships waiting to load. The very occasional ocean cargo ship usually unloads on to a barge but very occasionally goes alongside the Commercial Jetty.

The Commercial Jetty has a least depth of 5.5 m. and a length of about 100 m. There is a crane capable of lifting 2 tons on the inside berth. This jetty is very old and dilapidated and normally handles only small craft of local inter-island character.

STEVEDORES: Working hours: 7 hours on normal working days. Overtime can be arranged.

FRESH WATER: Limited supply available by barge.

FUEL: Not available.

GENERAL: Port doctor available.

Carrying a camera ashore or even on deck of a ship for photography is strictly prohibited.

There is a small hospital. No stores, water, or fuel oil are available. There are no repair facilities at all. Pertamina operates a small hospital and a clinic. There is air communication to other parts of Indonesia through Balikpapan.

PORT SECURITY: Maintained by members of the Indonesian Armed Services, usually, Police, Navy or Marine and Army. Crew members should be in possession of a shore pass issued by the Port Authority, accompanied by an identification card when leaving or entering the guarded gates of the Port Area. Shore passes can be obtained via the Agencies.

(B) TANKERS.

PILOTAGE: Compulsory. Pilot requires 12 hours notice of arrival and 10 hours notice of departure.

ANCHORAGE: The anchorage whilst awaiting the Sea Pilot is 5 miles East of Tg. Batu.

The anchorage when awaiting a berth is Lat. 03° 15′ 30″ N., Long. 117° 36′ 30″ E.

RESTRICTIONS: Berthing and unberthing during daylight hours only.

MAX. SIZE: *CBM:* 55,000 d.w.t. Max. LOA 200 m. Depth of water 15.0 m.

Jetty: 6,000 d.w.t. Max. LOA 120 m. Depth of water 10.5 m.

RADIO: Tarakan Radio (PKO) on HF and operated by Ditjenla.

VHF: Tarakan Radio (PKO-2) operated by Pertamina.

TUGS: Available.

BERTHING: *CBM:* Vessels moor to a 6 buoy sea berth located in position Lat. 03° 17′ 05″ N., Long. 117° 35′ 07″ E. Crude oil loading is at a rate of 4,000 bbls.p.h. through 2×10 in. hoses.

Jetty: The jetty is located in position Lat. 03° 17′ 11.5″ N., Long. 117° 35′ 25″ E. Premium, Kerosene, Avtur and HSO are discharged at the jetty at a rate of 200 – 250 k/l.p.h. through 1×8 in. hose.

Shore Storage Tanks:

Oil Products	Total Safe Capacity
Crude oil	389,100 bbls.
Avtur	1,060 k/l
Premium	1,045 k/l
Kerosene	1,050 k/l
HSD	3,560 k/l

Physical Characteristics of Crude Oil:

API Gravity at 60°F. : 21.5 – 19.5
Sulphur Content : 0.13% wt.
B.S. & W. : Less than 0.5% vol.
Flash Point (PMCC) : 35°C.
Pour Point : No higher than 5°C.

MEDICAL: First-aid clinic available.

DENSITY: 1020 – 1025.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: None.

AIRPORT: There is an airport at Tarakan.

TIME: GMT plus 8 hours.

AGENCY: See "General" before first port.

OPERATOR: Tesoro Indonesia Pet. Co., Wisma Gunung Sewu, 5th-6th Floor, Jl. Jend. Gatot Subroto, Jakarta, Indonesia. *Tel:* 510508. *Telex:* 46178 Tesoro-la.

TEGAL, Java: 06.52 S. 109.10 E.

DOCUMENTS: Upon arrival, vessels have to produce the following Certificates and Documents, which will remain in the Harbour Master's custody until cleared:

Nationality (Registry) Certificates.
Seaworthiness Certificate.
Tonnage Certificate.
Derat (Exemption) Certificate.
International Loadline.
Safety Equipment Certificate.
Safety Construction Certificate.
Safety Radio-telegraphy Certificate.
Vaccination List.
5 Crew Lists.
2 Stores Lists.
2 Crew Baggage's Declaration.
Last Port Clearance.
Health Book.
Custom Clearance and Custom Documents.
Cargo Manifest and Bills of Lading.

When vessels arrive direct from foreign port, Customs and Harbour Police Officials board for search.

PILOTAGE: None.

ANCHORAGES: Lat. 06° 49′ S., Long. 109° 08′ 07″ E.

RESTRICTIONS: No restriction on night entry, but work is done next day (after 0800 hrs.).

MAX. SIZE: Max. draft for entering the port is 9 ft.

HEALTH: Maritime Declaration of Health needed from Master, if vessels coming direct from abroad. If vessel comes from other Indonesian ports, automatic Free Pratique.

RADIO:

I. Fixed Station:
Call sign 8AC on freq. 5315 kHz at 0100 – 0130 GMT
0230 – 0300
freq. 5165 kHz at 0430 – 0500 GMT
1000 – 1015
II. Tegal Coast Radio Station:
Call sign PKD 21 on freq. 2182/2690 kHz at 0030 – 0100 GMT
0400 – 0430
III. Open every day except on holidays.

VHF: Tegal Coastal Radio Station on Channel 16.

TUGS: Only used for towing lighters to vessels on the roads.

BERTHING: None. Anchorage only.

STEVEDORES: Ordered by Agent. If possible before arrival of vessel, some information mainly concerned with requirements of the Shipmaster advises Agents to arrange gangs and available space for Tegal cargo.

MEDICAL: Normally medical attention for crew to be arranged by Agent at order of Master.

FRESH WATER: Not available.

FUEL: Not available.

GANGWAY/DECK WATCHMEN: Services of watchmen if necessary to be ordered by Master.

OPENING/CLOSING HATCHES: Carried out by crew – sometimes by stevedores.

CUSTOMS ALLOWANCES: Tobacco, wine and/or spirits not allowed to be taken ashore.

IDENTIFICATION CARDS: Necessary.

CONSULS: None available locally.

REPAIRS: Slipways and berths for small vessels, LOA 25 m. and draft 9 ft.

REPATRIATION: Agents arrange necessary repatriation of crew.

TIME: Indonesian Western Time, GMT plus 7 hours.

HOLIDAYS: Only Moslem holidays: Id el Fitr. For 2 days no cargo work can be arranged.

POLICE/AMBULANCE/FIRE: Accident, Police, Tel: 10; First Aid for Ambulance (Texin Hospital), Tel: 387; Fire Departments (Texin), Tel: 17.

TELEPHONES: No facilities for placing telephones on board.

SHORE LEAVE: Crew members allowed ashore from 0800 up to 2100 hrs. every day. Not allowed to spend night on shore.

REGULATIONS: Crew members not allowed to bring cameras and/or foreign money ashore.

AUTHORITY: Tegal Port Directorate, Syahbandar, Jl. Kesatrian No. 6, Tegal, Indonesia. *Tel:* 61038, 41107.

TELOK AYER: 00.44 S. 109.05 E.

SHIPMASTER'S REPORT: March 1982.

PILOTAGE: Pilot Station in position: Lat. 00° 39′ S., Long. 109° 05′ E. Pilot comes from inner anchorage by small boat, journey time 5 hours.

ANCHORAGE: Vessels approaching Telok Ayer (Telok Airport) drop anchor 5 cables West of Fairway Buoy in position: Lat. 00° 39.5′ S., Long. 109° 05.5′ E.

RADIO: 24 hours notice to Agent to arrange Pilot.

VHF: Call "Padang Tikar Pilot" on VHF Channel 16.

CARGO HANDLING: Depth at loading point is 6 fathoms. Maximum depth in entrance to Padang Tikar River is 7.2 m. at HW. Vessels load plywood and sawn timber.

GENERAL: There are no alongside facilities for ships.

Stevedores, Shippers, Immigration and Customs Officers take full meals and accommodation onboard, during the loading operation, as the nearest town (Pontianak) is 12 hours away by speedboat.

TELUK BAYUR (Padang): 00.58 S. 100.20 E.

(See Plan)

FLAGS: *Flags to be Shown by Incoming Vessels:*

Nationality of vessel and Indonesian flag.
Call sign.
"Q" when the vessel comes from an infected port or when calling for a Port Health Officer.
"G" when Pilot is required.
"N" when vessel from abroad carrying Passengers. (Request for Immigration).
"H" when Pilot is on board.
"Y" when mail on board.
"B" when carrying dangerous cargo.

Flag to be Shown when Vessel Leaving Port:

Nationality of vessel and Indonesian flag.
Call Sign.
"H" Flag when Pilot is on board.

DOCUMENTS:

a) The Master must have in readiness for the Harbour Master Officials:
Certificate of Registry.
Certificate of Nationality.
Loadline Certificate.
Radio Safety Certificate.
Derat Certificate.
Safety Equipment Certificate.
Last Port Clearance.
Health Book (Indonesian Health Book) to be used in Indonesian waters only.
Crew List.
Stores List.
Personal Effects List.
Free Pratique.
Light Dues Bill from Port of Call (last Port).

b) Cargo Documents required by the Agent to clear the Vessel through Customs:
Customs Cargo Clearance.
Manifest.
Customs Document (outward cargo AVI and model E3).
Customs Document (inward cargo – AA).
Customs Document of transhipment cargo (model HH).

Authorities boarding the vessel on arrival:

Port Health Doctor (Quarantine Officer):

1. All vessels entering Port of Teluk Bayur from abroad should obtain Free Pratique. Vessel must wait until the Quarantine Officers board the ship before entering.
2. Documents to be shown to the Port Health Doctor:
Indonesian Health Book.
Crew List.
Passenger List.
Vaccination List.
International Vaccination Certificate.
Derat Exemption Certificate.

Customs:

1. It is prohibited during vessel's stay to sell any goods belonging to crew.
2. Foreign vessel, if carrying local cargo must have coasting permit.
3. Documents to be shown to Customs:
   Cargo Manifest.
   Provisions/Stores List.
   Crew List.
   Crew Personal Effects Declaration.
   Last Port Clearance/Custom clearances.

Immigration:

1. All vessels coming from abroad (Indonesian vessels as well as foreign vessels) are to use crew passes.
2. Foreign crew to be repatriated must be accompanied by an Immigration Officer, except if their pass is a visa.
   All expenses (ticket and travelling expenses) are for owner's account.
3. All foreign transit passengers have to fill in an embarkation/debarkation card.
4. Vessels arriving from abroad carrying passengers; The Master is also obliged to provide the Immigration Officers with a List of the Passengers on board.
5. Documents to be shown to the Immigration Officers:
   Crew List.
   Passenger List.
   Crew Passports/Passengers' Passports.
   Last Port Clearance/Immigration Clearances.
6. Foreign passengers landing at Teluk Bayur Port without visa, *must pay for Immigration Fee.*

Harbour Master:

1. If vessel intends to use their own life/motorboat for rowing exercise, permission should first be obtained from Harbour Master and Coast Guard.
2. Documents to be shown to the Harbour Master:
   Certificate of Registry.
   Certificate of Nationality.
   Loadline Certificate.
   Vessel and Passenger Safety Certificate.
   Radio Safety Certificate.
   Master Roll.
   Crew List.
   Passenger List.

Cargo Documents:

Cargo Manifest covering Teluk Bayur cargo – 7 copies.
Cargo Manifest covering cargo for other Port – 7 copies.
Stores List – 7 copies.
Crew Personal Effects List – 7 copies.
Crew List – 10 copies.

The above apply for a single call. In the event of a vessel arriving from a out-port for re-checking at Teluk Bayur, another set of copies of the Stores List and Personal Effects List must be re-submitted.

PILOTAGE: Compulsory harbour pilotage. Ships have to wait for Pilot inside the roads limits.(See "Anchorage").
Pilot is available each day from 0000 – 2400 hrs. ETA required 6 hours before arrival. ETD required 3 hours before departure.

ANCHORAGE: Vessels should anchor outside the breakwater until the Pilot comes on board at Position: Lat. 1° 00′ 50″ S., Long. 100° 22′ 20″ E. Distance from anchorage to the quay/jetty is about 2 miles.

Approaching the anchorage is not recommended during darkness due to fishing vessels and narrow channel.

HEALTH: Vessels arriving from abroad direct have to apply well in advance to the Department of Health (Quarantine Section) for a provisional Free Pratique, as said Pratique has to be cabled to the port. The provisional Free Pratique is only valid for the port and the next port of call must be a First Class Port as no further provisional Free Pratique will be issued, unless the vessel sails directly abroad.

RADIO: Padang Coastal Radio Station: Call sign PKP 2.
Frequencies: 500, 6355, 2182, 6218 and 6215.5 kHz.

Arrival Advice: Required before ship's arrival (to be telegraphed 48 hours prior to ship's arrival, however not less than 24 hours via Radio Station).

a. Name of vessel.
b. ETA at the Roads.
c. Draft.
d. Quantity of cargo to be discharged (in tons).
e. Number of passengers disembarking, also dangerous cargo (if any).
f. Ship's requirement (quantity required).
g. Any other information.

VHF: Pilot Station on Channel 12. Port Operations on Channel 16.

TUGS: *Selat Siberut* of 1,700 h.p. and *Selat Riau* of 1,200 h.p. are stationed at Teluk Bayur, the use of which is compulsory for incoming and outgoing ocean-going ships. Mooring boat available.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)
1st wharf	108	10.0 (under repair)
2nd wharf	108	10.0 (under repair)
3rd wharf	96	10.0 (under repair)
4th wharf – I	150	10.0
5th Quay – II	150	10.0
Special Quay Terminal		
Cement	98.5	10.0
Cement Terminal		
T.S.T	150	9.0
T.S.B.	150	10.0
Coal Terminal	225	7.5

CRANES: 1 mobile crane 25 ton capacity, operated by Perum Pelabuhan II Teluk Bayur.

Forklifts: Capacity 10 tons (one), capacity 5 tons (two), capacity 3.5 tons (two), capacity 2.5 tons (three).
P.T. Trikors Lloyd: capacity 3 tons (two), capacity 5 tons (one).
P.T. Samudera Indonesia: capacity 2.5 tons (one).
P.T. Djakarta Lloyd: capacity 2.5 tons (four).
P.T. Rintis Prasetya Stevedoring: capacity 3.5 tons (one).
P.T. Bomala: capacity 2.5 ton (two).
P.T. Karya Nasional: capacity 2.5 ton (one).
P.T. Setia Jaya: capacity 3.5 ton (one).

STEVEDORES: *Working Hours:*

Monday-Thursday: 0800 – 1200; 1300 – 1600; 1800 – 2400; 0100 – 0400 hrs.
Friday: 0800 – 1100; 1330 – 1600; 0000 – 0100; 0100 – 0400 hrs.
Saturday: 0800 – 1200; 1300 – 1600; 1800 – 2400; 0100 – 0400 hrs.

Overtime can be worked at request of the ship on normal days and Sunday/Holidays, are counted as overtime from 0800 – 2400 hrs. and from 0000 – 0600 hrs.

Rest hours (meal time): Monday till Thursday: 1200 – 1300; 0000 – 0100 hrs. Friday: 1100 – 1330; 0000 – 0100 hrs.
Day overtime: 1600 – 1800 hrs.
Night overtime: 0000 – 0100; 0400 – 0600 hrs.

Discharging/Loading Rate:
Average speed for:
Discharging: General cargo 12 – 15 tons per gang hour. Bagged cargo 18 – 20 tons per gang hour.
Loading: General cargo 12 – 15 tons per gang hour. Bagged cargo 18 – 22 tons per gang hour.

Number of Men per Gang: Ships gang 15 men. Wharf gang 20 men.

FRESH WATER: Available at wharf, officially at a rate of 15 cu.m. per hour, unlimited quantity during the wet season (September-April). During the dry season with a maximum request of 150 cu.m. and a capacity of 4 – 6 cu.m.p.h. Water should be boiled or chemically treated before consumption.

FUEL: High speed diesel and MFO available at Wharf No. 1 and Beton No. 1.

REPAIRS: Dry dock available for ships up to 500 d.w.t. Machine-workshops for minor repairs available.

SURVEYORS: Available.

MEDICAL: Teluk Bayur has harbour clinic for emergency cases. Hospitals at Padang.

AIRPORT: At Tabing, distance 15 km.

DEVELOPMENTS: Padang Cement have a new bagging terminal in operation.

AUTHORITY: Port Administration of Teluk Bayur/Padang, Jalan Tg. Priok, Teluk Bayur/Padang, Sumatra, Indonesia. *Tel:* 21836, 27282, 21066. *Telex:* 55151 Adpel Pd. *Contact:* V. Sima Da Silva, Port Administrator.

TELUK SEMANGKA (Semangka Bay):

05.34 S. 104.37 E.

PORT LIMITS:
Limit of Anchorage:
(*a*) Lat. 05° 32′ S., Long. 104° 36′ E.
(*b*) Lat. 05° 32′ S., Long. 104° 39′ E.
(*c*) Lat. 05° 36′ S., Long. 104° 39′ E.
(*d*) Lat. 05° 36′ S., Long. 104° 36′ E.

LOCATION: There are 2 storage tankers located in positions Lat. 05° 34′ 15″ S., Long. 104° 36′ 45″ E. and Lat. 05° 33′ 10″ S., Long. 104° 35′ 00″ E.

DOCUMENTS:
11 Crew Lists.
11 Passenger Lists.
7 Stores Lists.
7 Slop Chest Lists.
3 Customs Declaration Forms.
1 Clearance from Last Port.
2 Cargo Manifests.
2 Crew Personal Effects Lists.
1 Health Declaration.
1 Master's Declaration provided by Agent on arrival.

PILOTAGE: Pilot and Mooring Master board at the anchorage.

ANCHORAGE: In same area as floating storage vessels in about 30 fathoms of water. There is a gap in the fish traps with Tg. Balang Besi bearing 093° × 6.9 miles. This is about 9 cables from storage vessels.

The anchorage when awaiting the Sea Pilot is in position Lat. 05° 28′ 55″ S., Long. 105° 17′ 20″ E.

RESTRICTIONS: Berthing during daylight hours only. Unberthing at any time.

MAX. SIZE: 235,000 d.w.t. Depth of water 59 m. Max. LOA 325 m.

HEALTH: "Q" flag must be flown until Officials have been on board.
Port Officials come from Panjang.

RADIO/VHF: ETA etc. to be sent to Pertamina Jakarta.
Agung Radio, which is situated at Kota Agung at the head of the bay, may be contacted on VHF Channels 16 or 9 during office hours.
Panjang Radio (PKC-6) operated by Pertamina, may also be contacted on VHF.

TUGS: 2 tugs used for berthing/unberthing.

BERTHING: Vessels berth alongside Floating Storage Tankers with Yokohama fenders on starboard side. They are anchored in positions between 2 miles and 4 miles from the head of the bay.

Vessels berth port side alongside. Access is provided by floating storage vessel.

Hose connection amidships. Storage tankers mooring gang connect hoses. Ship's crane/derrick required for hose support. 2 × 12 in. hoses used, 1 per grade.

MEDICAL: Hospital clinic available.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: None.

REPAIRS: No facilities available.
AIRPORT: Baranti Airport at Bandar Lampung.
TIME: GMT plus 7 hours.
GENERAL: It must be ensured that the STS operation is carried out in accordance with the ICS/OCIMF STS transfer guide and ISGOTT recommendations.

There are approximately 100 moored floating fish traps in the area. They are met with from about 7 miles from the head of the bay. At night, they are well lit with powerful fishing lights and they tend to lie in lines which, with care, allows access to the Anchorage Area.

Accommodation may be needed for Pilot and Mooring Master.

Numerous jellyfish may cause problems with intakes.
AGENCY: See "General" before first port.

SHIPMASTER'S REPORT: January 1983.
Documents: Advisable to have at least 12 copies of Crew List. Harbour Master takes all certificates ashore and returns same prior to sailing.
Pilotage: No Pilots available for anchoring. Mooring Master berths/unberths vessel alongside storage tanker.
Anchorage: Good anchorage in depths of 15 fathoms – 50 fathoms of water in the Northern part of the bay.
Radio: PKI 1 and PKI 2 (Jakarta).
VHF: "Kota Agung Radio" keeps continuous watch on Channel 9.

Pertamina, local Agent, Mooring Master and storage tankers can be contacted on Channel 9.
Tugs: Two harbour tugs available for berthing/unberthing.
Tankers: No berths. 2 storage tankers of about 235,000 d.w.t. handling gas oil and kerosene. 4 Yokohama fenders on the starboard side of storage tankers. 12 in. hoses used for cargo transfer.
Fuel: Gas oil available.
Consuls: British Consul stationed in Jakarta (Tel: 330904).
Repairs: Minor repairs possible.
Surveyors: Lloyd's and Indonesian Government Radio Surveyors had to come from Jakarta to carry out vessels Safety Equipment and Safety Radio Telegraphy Surveys.
Airport: Nearest airport at Tanjung Karang, 100 km. away. Several flights to Jakarta daily.
Time: GMT plus 7 hours throughout the year.
Services: Limited stocks of fresh fruits, vegetables and meat available locally.
Shore Leave: Pertamina operates 3 service boats daily for crew to go ashore.
Identification Cards: Not necessary.
Delays: About 7 days – 10 days for discharging gas oil.

TERNATE: 00.46 N. 127.22 E. (See Plan)

DOCUMENTS: The following documents must be ready upon vessel's arrival:

- 14 copies Crew List.
- 12 copies Passenger List.
- 5 copies Stores List.
- 8 copies Cargo Manifest.
- Bills of Lading
- 8 copies General Information.
- 5 copies Personal Effects List.
- 5 copies Vaccination List.
- 5 copies Firearms & Ammunition List.
- Harbour Report.
- Last Port Clearance.
- Completed Declaration of Health.
- Valid Derat Certificate.
- Passports.

PILOTAGE: Compulsory. Notice of ETA and request for a Pilot must be made at least 6 hours in advance to Pilotage Authority through Ternate Radio (Coastal Station) on VHF Channel 16 or direct to Ternate Pilot Station on VHF Channel 12.

Pilotage service address: Dinas Kepanduan Perum Pelabuhan IV Cabang Ternate. Tel: 21574.
ANCHORAGE: Safe anchorage in harbour but better anchorage about 3 cables to the East of wharf in depth of about 65 m.
MAX. SIZE: Max. draft alongside 9.5 m.
HEALTH: Pratique is normally given by Pilot Station. Any advice on health matters obtainable from pilot service.
RADIO: Ternate Coastal Station, call sign "PKE" on VHF Channel 16. Pilot Station on VHF Channel 12 (Every day during working hours: 0800 – 1500).
TUGS: As required by Pilots, ship's line normally used.
BERTHING: Berth No. 1: Wharf length 248 m. Depth at LWS 10 m.
CRANES: 1 × 25 tonne mobile heavy lift crane.
STEVEDORES: Stevedoring arranged by labour union via Agent.
MEDICAL: Hospital facilities available.
DENSITY: 1025.
TANKERS: Oil Jetty (Pertamina Depot): Located 9 miles South of Ternate. Max. size alongside is 7,000 d.w.t.
FRESH WATER: Available from berth, rate 40 t.p.h.
FUEL: Oil delivered by tank trucks.
GANGWAY/DECK WATCHMEN: Usually ship's crew.
OPENING/CLOSING HATCHES: By stevedores or ship's crew. Whichever to ship's advantage.
DRY DOCKS: No facilities.
AIRPORT: Distance about 5 miles, served by Bourag Air Lines and Merpati Nusantara Airlines.
EMERGENCY CO-ORDINATION CENTRE: Ternate Coastguard Tel: 21143.
TIME: GMT plus 9 hours.
POLICE: Tel: 21164.
SHORE LEAVE: No restrictions.
REPATRIATION: Crew changes and repatriation can be arranged.
HOLIDAYS: National holidays are New Year, Idul Fitri, Idul Adha, Maulid, Easter Day, Waisyak, Nyepi, Ascencion Day, Miradz and the first day of Muharam.
CONSUL: None.
CERTIFICATES: Register, Tonnage and usual Certificates.
GENERAL: *Ship's Inspection Team:* This team consists of the Port Health Officer, Customs Officers, Harbour Master/Immigration Officer. The vessel having been granted Free Pratique, the Immigration Officer starts checking Passports, Seamen's Books and Crew Lists and then issues shore passes.

Vessel's bonded store will be sealed by Customs Officer on arrival and will remain sealed until the vessel leaves Ternate Port.

The ship's radio transmitter may not be used whilst vessel alongside.
Chart: Indonesian Chart No. 385.
AUTHORITY: The Port Administrator, JL. Jend. A. Yani No. 1, Ternate. *Tel:* 21129, 21206, 21574.

Harbour Master, JL. Jend. A. Yani No. 1, Ternate. *Tel:* 21572.

UDANG NATUNA: 04.02 N. 106.29 E.

LOCATION: The SBM and storage tanker "Udang Natuna" are located in position Lat. 04° 02′ 14″ N., Long. 106° 28′ 53″ E., in a depth of 19 m.
DOCUMENTS:

- 6 copies Crew List.
- 6 copies Passenger List.
- 1 copy Cargo Manifest.
- 1 copy Ship's Stores List.
- 1 copy Personnel Effects List.
- Maritime Declaration of Health.
- Clearance from Last Port.

ANCHORAGE: The anchorage whilst waiting for berth is at Lat. 04° 04′ N., Long. 106° 25′ E.
RESTRICTIONS: Berthing and unberthing in daylight hours only.
MAX. SIZE: 93,000 d.w.t. Max. LOA 260 m.
RADIO: Vessels use Jakarta Coastal Radio Station, call sign PKI-2, which is operated by Pertamina.
VHF: Vessels should make contact through Merak Radio, call sign PKQ. This station is also operated by Pertamina.
BERTHING: Vessels moor alongside the storage tanker, port side to.

Crude oil is loaded at a rate of 25,000 Bbls.p.h. through 2×12 in. hoses.
Physical Characteristics of Crude Oil:

API Gravity at 60°F.	: 39.6
Reid Vapour Pressure at 100°F.	: 2-5 psi
Sulphur Content	: 0.03 % wt.
Flash Point (PMCC)	: Below 50°F.
Pour Point	: 100°F.

AIRPORT: Nearest airport at Ranai.
TIME: GMT plus 7 hours.
AGENCY: See "General" before first port.
AUTHORITY: Continental Oil Co. of Indonesia, Sacna Graha Lana Building, 1st-5th Floor, Jl. H.R. Rasuna Said, P.O.Box 367, Jakarta, Indonesia *Tel:* 792051. *Telex:* 47265 Conoco-la, 47275 Conoco-la.

WAMSASI: 03.33 S. 126.09 E.

Log loading port on the West coast of Buru Island in position: Lat. 03° 33.5′ S., Long 126° 09.5′ E.

Vessels anchor 600 m. (approximately) off-shore in depth of 15 m.

Iran

GENERAL

Note: Movements of all types of general cargo, bulk cargo, refrigerated cargo, containers, steel products, machinery, cars, etc., are expected to increase considerably.

Dry cargo ports which are operational are Bandar Abbas, Bushire, Bandar Khomeini and Chah Bahar.

The ports of Abadan and Khorramshahr are not expected to be operational for some time.

Until further notice, all vessels calling at Iranian dry cargo ports must be self-sustaining.

There is a "Note" at the beginning of each port stating the latest position.

Money/Liquor: Ship's personnel travelling to and from Iran should be warned of the inadvisability of carrying liquor and/or large sums of money, both of which are liable to be confiscated.

Flag: Vessels to fly the flag of the Islamic Republic of Iran (flag is green, white and red with a red emblem in the centre).

NOTICES:

B.A. Notice to Mariners No. 34/83:

The Government of Iran has made the following announcements:

1. Vessels proceeding into the Gulf after passing through the Strait of Hormuz should pass at least 12 miles South of the following; Jazirat Bu Musa (Lat. 25° 52′ N., Long. 55° 02′ E.), Jazirat Sirri (Lat. 25° 54′ N., Long. 54° 32′ E.), Cable Bank (Lat. 26° 46′ N., Long. 52° 32′ E.) and thence 12 miles S.W. of Jazirat Farsi (Lat. 27° 59′ N., Long. 50° 11′ E.).

2. After passing Jazirat Farsi vessels should keep West and South of lines joining the following positions:

(a) Lat. 27° 55′ N., Long. 49° 53′ E.
(b) Lat. 29° 10′ N., Long. 49° 12′ E.
(c) Lat. 29° 10′ N., Long. 48° 40′ E.

After passing position (c) vessels may proceed North to Kuwait Harbour.

3. All vessels heading for Iranian ports should report to Bandar Abbas Port Control on passing Ras al Kuh (Lat. 25° 48′ N., Long. 57° 17′ E.) stating their ETA at the Strait of Hormuz and destination. If clearance is not received before passing Bandar Abbas (Lat. 27° 11′ N., Long. 56° 17′ E.) vessels should proceed to the anchorage off that port.

4. Deep draft tankers, loaded and not inward bound for Iranian ports, intending to enter the restricted zone North of a line joining the positions in (1) should request clearance from the Iranian Ports and Shipping Organisation (Telex 212271 BNDR IR) 48 hours before departure giving the following information:

(a) Last loading port
(b) Destination
(c) Route
(d) Speed
(e) Time of departure
(f) Visual identification

Procedures for vessels approaching Iranian Ports: The following information on procedures are necessary.

Masters should:

Contact Bandar Abbas Port Radio on the following frequencies:

HF 8469 kHz
MF 500 kHz
MF 464 kHz

and state:

1. Ship's name.
2. Flag.
3. Kind of vessel.
4. Loading or discharging port(s).
5. ETA Sirri Island (for tankers).
6. Expected time and date of passing Hormuz.
7. Ship's speed.
8. Reason for call/cargo for discharge or to load prior to arrival, and take instructions.

As per instructions issued by Iranian Port Authorities, the words "Persian Gulf" should follow the name of Iranian ports in the Persian Gulf in all messages, example: "Kharg Island Persian Gulf".

Tankers should anchor at Sirri Island after passing Bandar Abbas for proper turn when loading at Kharg Island, unless instructed to proceed towards Kharg Island directly.

Upon anchoring Sirri Island vessels should communicate with Sirri Marine on VHF for further instructions.

Masters should send all messages and ETA notices for NIOC Kharg Island, Lavan Island, Sirri Island and other oil loading ports, also for NIOC head office at Tehran, should be sent via Bandar Abbas Port Radio, with copy to Agents.

Arrival Notice – Tankers:

Please instruct all tankers to advise NIOC 72 hours prior to arrival to Kharg Island (P.G.) otherwise Marketing and Export Operation Department has no responsibility, so kindly advise urgently the following information:

1. Ship's deadweight.
2. Arrival loaded displacement.
3. Cargo bunker requirement.
4. Deballasting time.
5. Height of manifold when vessel ready to load.
6. Maximum arrival and sailing draft.
7. Vessel's dimensions.

Please furnish the Harbour Master at Kharg Terminal with above information from now on. Meanwhile it would be much appreciated if you follow the same procedure for other terminals (i.e. Sirri and Lavan) if the vessels are intended to load there.

ABADAN: 30.20 N. 48.16 E.

Note: The port was extensively damaged during the conflict and is not expected to be operational in the near future.

LOCATION: The Port of Abadan situated on right bank of the Shatt-al-Arab, about 47 miles up river from Rooka Buoy.

DOCUMENTS/PILOTAGE: See "Khorramshahr".

ANCHORAGES: On arrival of pilot boat vessel can anchor with no depth restriction. On entering the Shatt-al-Arab the following are the recognised anchorages: Kasba Anchorage position about 2 miles above Fao with a max. depth of 35 ft. in fresh water. Bawarda Anchorage position about 2 miles above Abadan with a max. depth of 31 ft. in fresh water. Vessels which are too deep to pass out of the river on one tide will be required to anchor at Kasba.

RESTRICTIONS: The Port is open for day and night navigation with arrival and sailing being controlled by the tide. Vessels normally enter the Bar at 4 hours before high water at the Bar or at 2 hours after high water at the Bar. Those entering 4 hours before, arrive at Bawarda anchorage generally during flood tide, so must anchor for 6 hours awaiting ebb. Those entering 2 hours after high water, arrive Bawarda during ebb tide and berth on arrival, providing berth available, weather conditions permit and outward movements do not delay. Vessels always berth starboard side to stem the ebb tide and without using tugs and leaving Abadan 4 to 6 hours before high water at Bar.

MAX. SIZE: Max. length 600 ft. Max. draft in the Shatt-al-Arab, Abadan and other river ports is 28 ft. 06 in.

HEALTH: Inward clearance is affected on board after receiving Free Pratique. Also see "Khorramshahr" – "Documents".

RADIO: The National Iranian Oil Company Coastal Radio Station call sign EQZ. The station listens for various calls on the normal International Marine Calling frequencies. When close to may be contacted on 500 kHz transferring to 428 kHz for exchange of traffic. Traffic list sent at 5 minutes past odd hours.

TUGS: Not available.

BERTHING: The number of jetties on the Abadan riverside have been reduced to eight. Nos. 3, 4, 7, 9, 11, 16, 22 and 26 have been maintained and are used for bunkering purposes and dry cargo operations.

Ships pass day and night so it is necessary that mooring lines be kept taut at all times to prevent surging on the jetties thereby breaking lines and causing damage to Company property.

Bunkering jetties for those vessels coming only for purpose of taking bunkers are:

Jetty No. 3	Draft alongside	31 ft.
Jetty No. 9	"	28 ft.
Jetty No. 22	"	25 ft.
Jetty No. 16	"	28 ft.

Bunkering jetties for those vessels bringing Oil Company's cargo are:

Jetty No. 7A	Draft alongside between 28 ft. – 31 ft.
Jetty No. 7B	
Jetty No. 7C	
Jetty No. 7D	

MEDICAL: Emergency cases: An ambulance will be dispatched on demand by calling telephone number 5555.

In ordinary cases of sickness or dental treatment: Agents will arrange transportation of patients, and advise Masters regarding necessary medical attention forms. If patient does not speak English he should be accompanied by an interpreter. Only in exceptional cases will a medical officer visit a patient on board.

TANKERS: Deliveries of the refined oil products of Abadan Refinery are effected to ocean-going tankers at Bandar Mahshahr since the inauguration of the products terminal of the National Iranian Oil Company at that port, therefore such shipments are not taking place from Abadan any more.

DENSITY: Fresh water.

FRESH WATER: Available at all jetties and at the anchorage by barge.

FUEL: Ships' bunkers are available; however not all types are available at all jetties, therefore, ship's Master should advise by radio the exact quantity and kind of bunkers required. Bunkers are delivered concurrent with loading unless otherwise requested by Master. Due to heavy bunkering commitments it is mandatory that vessels take their bunkers when convenient for the terminal, any delay incurred by a vessel taking bunkers after loading is the responsibility of the Master.

AUTHORITY: National Iranian Oil Co. Abadan Refinery.

AGENT: Gulf Agency Co. (Iran) Ltd.

All enquiries, telexes, cables, letters concerning Ship's Agency at Iranian Ports should be directed to G.A.C. Shipping (U.K.) Ltd.

G.A.C. Shipping (U.K.) Ltd., 75 Bell Street, Reigate, Surrey, England. Cables: "GACSHIP", Reigate. Telex: 944422 and 8950181 (4 lines). ("GAC UK G"). Tel: (737) 222111/12/13 and 222391/2. Facsimile: (737) 248049.

BANDAR ABBAS: 27.08 N. 56.12 E. (See Plan)

Note: This port has been in full use during the conflict and will continue to be used extensively. All types of cargo can be discharged.

DOCUMENTS:

Quarantine Officer

Crew List (1 copy, also all crew vaccination cards for inspection).

Customs Officer

Crew List (2 copies).
Stores List (2 copies).
List of Foreign Currency in possession of crew.

Port Authority

Crew List (1 copy).

Agents

Crew List (2 copies).

In order to avoid any delay in entering and discharging, the following documents must be sent by all loading port Agents to Bandar Abbas Agents as far in advance of vessel's arrival as possible:

Cargo Manifest (8 copies).
Freight Manifest (2 copies).
B/L Copies (2 copies each).
Stowage Plan (2 copies).
Crew List (2 copies).

All cargo shown on Manifest must be landed at the port, and it is therefore essential that short-shipments, cancellations, diversions, etc. (if any) be reported as early as possible and manifest should be corrected before submission to Port Authorities to avoid payment of fines. Stowage plans and hatch lists should also be sent ahead, giving ample time to be studied by Cargo Supervisor for unloading arrangements.

Ship's Certificates: The following Circular has been issued to all Agents by General Office of Port Shipping — Bandar Abbas.

"Please instruct Master to submit photo copies of all ship's certificates issued by classification Association to this Office upon arrival. Issuance of sailing permit depends on surrendering above certificates."

Signed: PSO Office, Bandar Abbas.

For guidance we are advised that certificates required are as follows:

1. Safety Wireless
2. Certificate of Machinery
3. Load Line Certificate
4. Registration Certificate
5. Classification Certificate
6. Ship's Cargo Gear and Safety Equipment Certificate
7. Derat Certificate

Kindly advise all vessels calling Bandar Abbas Port of the above requirements.

PILOTAGE: Application for Pilot to be made well in advance through Bandar Abbas Port Radio EQI. Agents may also arrange pilotage but should be advised of ETA well in advance.

ANCHORAGE: Approx. position Lat. 27° 04′ N., Long. 56° 14′ E. Depth 36 ft. The distance from the Outer Anchorage at Buoy No. 1 to the port entrance is about 2 miles.

Also see "Notice".

RESTRICTIONS: *Old Port:* Entry or departure day or night. Depth of water alongside jetty, minimum 34 ft. and depth in channel approx. 32 ft. at LW. Height of tide at HW about 3 m.

Width of entrance channel is about 150 m. at surface, and 100 m. at seabed.

MAX. SIZE: *Old Port:* Port can accommodate vessels up to 600 ft. length with a max. draft of 33 ft.

Max. draft alongside: Jetty Nos. 1, 2 and 3 – 33 ft.; Nos. 4 & 5 – 31 ft.; No. 6 – 30 ft.

New Port: Max. draft 33 ft. – 36 ft. Max. LOA 660 ft.

RADIO: Bandar Abbas Port Radio EQI – 500 kHz. 24 hour service. Port Telex No. 0362815 BDBA IR.

Radio Officer's Report: December 1984.

Following schedule for opening and working hours has been brought to our attention by the operator of Bandar Abbas Radio.

Quote:

Notice to all ships' Masters in effect from 25th November 1984: Abbas Radio/EQI will work on the following calling frequencies, GMT time and traffic lists.

From 0330 hrs. to 0830 hrs., Tx 8469 kHz, Rx 8 MHz (Channel 5/6).
Traffic List at 0335 hrs – 0535 hrs. – 0735 hrs. GMT.

From 0730 hrs. to 1230 hrs., Tx 12700 kHz, Rx 12 MHz (Channel 5) and 16 MHz (Channel 5).
Traffic List at 0835 hrs – 1035 hrs. GMT.

From 1230 hrs. to 1430 hrs., Tx 6362 kHz, Rx 6 MHz (Channel 5) and 4 MHz (Channel 5).
Traffic List at 1235 hrs GMT.

From 1430 hrs. to 0330 hrs., Tx 4252 kHz, Rx 4 MHz (Channel 5) and 6 MHz (Channel 5).
Traffic List at 1435 hrs – 1635 hrs. – 1835 hrs. – 2035 hrs. – 2235 hrs. – 0035 hrs. GMT.

Please observe the above table for your messages.

Unquote.

It has come to our attention, however, that contrary to the ITU "List of Coast Stations" the call sign instead of "EQI" is

EQI 2 for 4 MHz.
EQI 4 for 6 MHz.
EQI 6 for 8 MHz.
EQI 8 for 12 MHz.

Further deviation from the official published information is that the station works in the 8 MHz band on 3 frequencies. Its "CQ" tape runs on the indicated 8469 kHz, however, if a calling ship is heard the answer is given on a less powerful transmitter on 8469.5 kHz. Once contact is established on the ship's working frequency the station shifts to 8463 kHz. If long messages are held for the ship, this has been put on a tape and the ship will be instructed to listen on 8469 kHz again, to receive its traffic.

VHF: Channels 13, 16, 18 and 25. HF call-sign EQI available. Also see "Radio". Tugs on Channels 13 and 16.

TUGS: 2 tugs 1,200 h.p. each, for harbour services, as well as for towage, in case of necessity.

BERTHING: *Old Port:* Berthing and unberthing possible throughout 24 hours.

Quay is 1,050 m. long, 35 m. wide and capable of accommodating 6 vessels each of 175 m. LOA.

The Barge Jetty with a depth of 24 ft. can accommodate one vessel for alongside discharge.

There are 2 closed sheds, each having a capacity of 7,500 tons, 1 closed shed with a capacity of 15,000 tons and 6 open sheds having capacity of 100,000 tons.

Ore handling installation. The ore is loaded by conveyor belt and the average daily loading rate is 1,500 tons per day running from 0630 hrs. to 2200 hrs. daily.

Chrome ore loading is carried out at one hatch at a time only, and therefore the vessel has to be shifted by the crew in order to load the other hatches.

New Port: Located about 15 km. West of Old Port. Originally designed for 40 berths, but work has been suspended after completion of 24th berth. Oil handling installation is near Berth No. 1, moreover, Berth No. 1 is normally used for discharging vegetable oil. Berths No. 7 and 8 are used for containers. All 24 berths are operating at present.

Also see "Shipmaster's Reports".

STEVEDORES: Working hours at the New Port are 0600 – 2200 hrs.

CARGO GEAR: All vessels calling at this port must be capable of loading/discharging with their own gear, including rope, canvas and wire slings as necessary and/or wire or rope nets, etc.

Equipment: Equipment available ashore is as follows:

1 mobile crane of 60 tons; 1 mobile crane of 25 tons; 6 mobile cranes of 10 tons; 7 mobile cranes of 6 tons; 10 forklifts of 2 tons; 10 forklifts of 3 tons; 2 forklifts of 5 tons; 15 tractors, 15 trailers of 30 tons; 19 trailers of 20 tons; 11 trailers of 10 tons.

FREIGHT TAX: Freight tax is payable on any freight earned in Iran for any export cargo loaded at any Iranian port. Per article 90 of Tax Law, freight tax is payable at the rate of 5 per cent of gross freight, regardless of whether freight is collected in Iran or elsewhere. There is no tax on import cargo freight regardless of where the freight is paid. In other words, for cargo discharged in Iranian ports, even if freight is payable at destination to be collected in Iran, there is no tax applicable.

MEDICAL: There is a General Hospital with about 100 beds. A number of physicians and dentists are available. Facilities available for vaccinations and inoculations.

FRESH WATER: Fresh water is available at all berths ex-pipe-line excepting the chrome ore berth which is at a separate jetty. Vessels loading chrome ore must take fresh water (and bunkers) before or after loading as there is no connection at the ore loading berth. Fresh water also available ex-barge at the anchorage. There may be a shortage during Summer months. Cost US$15.00 per ton (approx. 1988).

FUEL: Fuel oil, gas oil and marine diesel oil are available at all berths ex-pipeline excepting the chrome ore berth which is at a separate jetty. Vessels loading chrome ore must take fuel (and fresh water) before or after loading as there is no connection at the ore loading berth.

CUSTOMS: Customs Officer will seal the store-room. All liquor and cigarette stocks will be placed under bond and reasonable ship's requirements should be taken from store before sealing.

IDENTIFICATION CARDS: According to regulations in force seamen should hold shore pass issued by respective Agents and signed by the Port Health, Port Police and local town Police Authorities. All shore passes should bear a photo of the holder, in order to facilitate checking at exit of port area. It is therefore necessary for Officers and crew to have a photo ready on arrival at the port to facilitate obtaining shore passes.

CONSULS: None.

REPAIRS: Minor repairs available at private workshops.

WEATHER: With the exception of about 2 months during the Winter, the air is generally wet and humid, but with little rainfall. Temperature seldom falls below 10 degrees centigrade in Winter, and seldom exceeds 40 degrees centigrade in Summer.

AIRPORT: About 15 km. distance from the port. Jet flights to international destinations on virtually a daily basis.

TIME: GMT plus 3.5 hours.

TELEPHONES: May be placed on board.

SERVICES: Survey, repairs, crew changes at sea or launch service to vessels off the port can be arranged. Contact through Agent.

SHORE LEAVE: Provided Security Dept. approves, crew allowed to go ashore by surrendering their seamen's books to port police guard.

NOTICES:

Notice to Mariners No. 16/64

UNMARKED SHIPS IN BANDAR ABBAS AREA

There are some unlit and unmanned dead ships in Bandar Abbas anchorage area and its vicinity, ships navigating in the area should take special care and are recommended to have local Pilots on board.

GENERAL: *Hotels:* The Gameron is a modern hotel equipped with air-conditioning, swimming pool and having 120 beds. A wooden swimming pier has been constructed on the sea-beach opposite the hotel for the use of residents. The Welcome Inn, a 3-star motel equipped with air-conditioning is used by seafarers.

There is another modern hotel, the Shah Abbas. Second-class hotels, about four in number are also available.

Provisions: There are no ship chandlers at Bandar Abbas, but fresh and canned provisions are available through the ship's Agent.

Transport: Distance between port and the town of Bandar Abbas is about 10 km. and there are private mini-buses and taxis available. Motor-boats are available for attendance upon vessels at anchorage and also at the chrome ore berth which is not approachable by land transport.

Laundry: Subject to time available, can be arranged by ship's Agent.

SHIPMASTER'S REPORT: January 1986.

New port of Shahid Rejaie is now in operation. 24 hours day working except reefer vessels which work from 0700/1100 and 1400/2300 hrs. depending on truck and heat situation.

The new port is over 30 km. from city of Bandar Abbas. Repatriation is possible as there are now direct flights from Bandar Abbas to Zurich/Frankfurt and Dubai. Agents require 72 hours notice of incoming and outgoing crew changes in order to arrange visas and formalities. Shore leave normally possible by application day before and only permitted between 1000 hrs.-1600 hrs. No telephones placed onboard so have to go to Agent's office in city of Bandar Abbas. Limited supplies of fruit, vegetables, etc., at moderate prices, obtainable via Agent. Also numerous boats with fish, vegetables, etc., at outer anchorage. Fresh water available from tanker trucks.

Boarding party arrives at anchorage and conducts search of all crew and officers cabins and accommodation areas. No alcohol permitted in anyones possession also strict Islamic laws re calendars, magazines, etc. Papers required – as per "Guide to Port Entry" plus lists of all foreign currency in each crew members possession.

A further search similar to that on arrival is made prior to departure. Essential to advise Coast Guard prior to entering Bandar Abbas approaches via VHF, also Harbour Authorities via W/T Bandar Abbas Radio 24 hours prior to arrival. Bonded store and main W/T transmitter sealed.

SHIPMASTER'S REPORT: January 1987.
Max. Size: Port can accommodate cargo/bulk vessels of 200 m. length with a maximum draft of 36 ft.
VHF: Channel 16 for Port, call "Port Control". Bandar Abbas Radio listens on Channel 25 and can be used for local calls.
Tugs: 5 tugs, 2,500 h.p. each for harbour duties and berthing.
Berthing: Bandar Abbas harbour has two ports.

Old Port: As mentioned in the "Guide", but now mainly used by dhows and barges. Only very rarely do general cargo ships discharge there. Ore jetty, bunker berth and a ferry berth still in use and will remain so. The remainder of the port will only be used by Iranian Navy, barges, dhows, etc.

New Port: No proper chart has yet been prepared for this area. It is located about 15 km. West of Old Port. Main channel from breakwater to anchorage (South of Old Port) is buoyed in the direction of 104°–284°.

Originally the port was being constructed for 40 berths but work has been suspended after completion of 24 berths. Oil handling installation is near No. 1 Berth.

Berth No. 1 is normally used for discharging vegetable oil, Berths No. 7 and 8 for containers, but in absence of appropriate vessels any ship can be berthed there. All 24 berths are now in use, and plans still exist for completion of up to 40 berths but it is not known when the work will restart.

No silos provided for bulk cargoes, hence it is discharged into lorries. Discharge rate can be up to 5,000 t.p.h. depending upon availability of transport.
Fresh Water: At anchorage available by barge and in port by road tankers. It is advisable that road tanker water is tested prior to receiving, as it is often a mixture of sea water and fresh water. Water is also expensive, hence vessels are advised to arrive with maximum water and if required to take water in Bandar Abbas it must be requested well in advance.
Fuel: Good quality fuel is available by barges and the request must be made to Shipping Co., Bandar Abbas if chartered to them.
Repairs: Private workshops can carry out minor repair work. But it must be checked properly.

Shipyard is now in operation 5 km. West of New Port but so far has only been used by Iranian ships. Except in emergency it is not available for other ships.
Telephones: Only available ashore for international calls. No telephones placed aboard vessels.

AUTHORITY: Port Director.
AGENT: See "Abadan".

BANDAR IMAM KHOMEINI: 30.25 N. 49.05 E.

(See Plan)

Note: Jetties and port facilities are operational. Already, several Iranian flag vessels have berthed and discharged. It has been reported that for the time being only Iranian flag vessels are allowed to call at Bandar Imam Khomeini.

The railway line to Tehran is already open and in use. Similarly, the roads to Tehran and other cities are open and in use.

DOCUMENTS:
Quarantine Officer
Crew List (1 copy, also all crew vaccination cards for inspection).
Customs Officer
Crew List (2 copies).
Stores List (2 copies).
Port Authority
Crew List (1 copy).
Agents
Crew List (2 copies).

In order to avoid any delay in entering and discharging, the following documents must be sent by all loading port Agents to Bandar Imam Khomeini Agents as far in advance of vessel's arrival as possible:
Cargo Manifest (8 copies).
Freight Manifest (2 copies).
B/L Copies (2 copies).

All cargo shown on manifests must be landed at the port, and it is therefore essential that short-shipments, cancellations, diversions, etc. (if any) be reported as early as possible and manifest should be corrected before submission to Port Authorities to avoid payment of fines. Stowage plans and hatch lists should also be sent ahead, giving ample time to be studied by Cargo Supervisor for unloading arrangements.

The names of consignees must be inserted on the manifest at the port of origin. This is due to the fact that names have not been inserted as per Iranian Customs authorities requirements.

In view of the above, Owners are kindly requested to make sure that manifests for Bandar Imam Khomeini are properly made out at loading port with correct names of consignees.
PILOTAGE: Application for Pilot to be made well in advance through Bandar Imam Khomeini Port Radio – EQN – 500 kHz. If Agents required to arrange Pilot they should be informed well in advance.

Pilotage operated by Bandar Imam Khomeini Authorities up to Bandar Imam Khomeini. Pilot vessel approximately 1 mile, 135° from Khor Musa Approaches Buoy No. 12. Approach within 2.5 cables of pilot vessel. During adverse weather pilot vessel may proceed above Bar, in such cases, do not attempt proceed inward without Pilot.
APPROACHES: Shipping channels well marked with light beacons and buoys and present no navigational difficulties in clear weather.

Small unlit tide gauge platform located on edge of the shoal West of shipping channel in Lat. 29° 42′ 30″ N., Long. 49° 03′ 48″ E., approximately 1.75 miles West of Khor Musa Approaches Buoy No. 4, and shown on Admiralty Chart.

Approaching vessels should steer for Khor Musa Light Float, in position Lat. 29° 36′ 32″ N., Long. 49° 34′ 47″ E., and from there a course should be set along marked channel for Buoy No. 12 in position Lat. 29° 56′ 03″ N., Long. 49° 06′ 47″ E., bearing 308° 45′ from Khor Musa Light Float.
MAX. SIZE: Vessels of 32 ft. draft may enter port at any time. Higher drafts depending on state of tide. Normal rise of tide about 11 ft. Entry permitted day or night.
HEALTH: Medical Officer boards at Bandar Imam Khomeini. Subject no infectious diseases reported on board during voyage, Medical Officer will grant Pratique.
RADIO: Bandar Imam Khomeini Port Radio EQN 500 kHz. Telex: 0612051 Bdho Ir.

Continuous watch on 500 kHz is to be maintained at all times while navigating in Khor Musa Waterway.
VHF: Channels 13, 16, 18 and 25. 24 hours service.
TUGS: Normally not required, but available if necessary due to bad weather. 9 tugs – 900/1,200 h.p. 1 tug – 3,200 h.p.

BERTHING:

Eastern Jetty,	Berths 1 to 5 – 34 ft.
Western Jetty,	Berths 6 to 8 – 34 ft.
	Berths 9 to 10 – 34 ft.
	Berths 11 to 20 – 34 ft.

1 berth is allocated for grain discharge only. This is done by grain vacuvators.

1 barge harbour with 884 m. length and draft of 21 ft.

Also see "Developments".
BULK HANDLING FACILITIES: Iron Ore Installation, loading capacity about 2,000 tons per day. The loading installation consists of 2 powerful moving cranes with a capacity of 100 t.p.h. on each unit, 2 funnel-shaped containers with a capacity of 30 tons each and a 600 m. long conveyor belt with a capacity of 175 t.p.h.
Sulphur: The shiploader travels the length of the vessel and has a loading rate of 400 t.p.h.

All derricks to be swung away from the shore giving the loader maximum clearance. Radio aerials, and fore and back stays to be removed.

Due to high temperatures, every precaution must be taken to combat risk of fire.
Grain: All berths are available for grain discharge. Grain is bagged in holds and discharged in slings using ship's gear. At only one berth is discharge possible by vacuvators. All discharges into railway wagons and/or trucks supplied by receivers.

All vessels discharging general cargo or grain should be prepared to handle discharge with own gear.
EQUIPMENT: 1 crane of 90 tons; 1 crane of 50 tons; 3 cranes of 35 tons; 6 cranes of 15 tons; 10 cranes of 10 tons; 4 cranes of 8 tons; 2 cranes of 6 tons; 7 forklifts of 5 tons; 14 forklifts of 3 tons; 5 forklifts of 10 tons.
MEDICAL: 24 hours advance notice of requirements to be sent to Agent.
FRESH WATER: There is water supply at Jetty Nos. 1 – 8, and Masters are requested to inform their Agents 24 hours in advance of their requirements, allowing Agents to pay for the water and take turn for supplying water to the vessel.

Fresh water can also be arranged at the Inner Anchorage by barge, and Agents will need 48 hours advance notice in order to obtain barge. Agents will have the barge loaded with water from jetty and deliver to anchorage.

As there is only 1 barge available, when this is out of commission, Agents cannot provide water at the anchorage, and vessels have to wait until they are docked alongside. Therefore it is advisable to arrive with ample water on board.
FUEL: Diesel oil and gas oil available by barge at 2–3 days notice.
HATCHES: Opening and closing by ship's crew.
WATCHMEN: Compulsory.
CUSTOMS ALLOWANCES: Reasonable quantity spirits and tobacco for consumption in port may be issued prior sealing store rooms. Strict supervision imposed by Customs and prohibited items, particularly tobacco and cigarettes, should not be taken ashore in excess of 50 cigarettes, or cigars, or 1 oz. tobacco.
IDENTIFICATION CARDS: According to regulations in force seamen should hold shore pass issued by respective Agents and signed by the Port Health, Port Police and local town Police Authorities. All shore passes should bear a photo of the holder, in order to facilitate checking at exit of port area. It is therefore necessary for officers and crew to have a photo ready on arrival at the port to facilitate obtaining shore passes.

REPAIRS: Radio and radar repairs can be arranged from Khorramshahr. At Bandar Imam Khomeini minor technical and mechanical repairs possible by private workshops. Repair shop and slip of 1,500 tons capacity in process of construction.
AIRPORT: Distant 110 km. Regular flights.
TIME: GMT plus 3.5 hours.
DEVELOPMENTS: Depths alongside new jetties when completed will be 13.0 m. – 15.8 m.

Description	*No. of Berths*	*Wharf Length (m.)*	*Completion Date*
Extension of the 4-berth jetty (Container terminal)	4	771	2 cranes in use
Extension of the 10-berth jetty	5	1,051.5	Completed
Extension of the 10-berth general cargo jetty	5	911.2	Completed
Construction of the 14-berth jetty	14	2,552	
Construction of the lighter harbour	20	880	Completed
Construction of the grain terminal	2	480	
Construction of the ore-loading facilities	1	250	Completed
Ro/Ro berth	1	—	

The container stacking area is about 200,000 sq.m. and equipment ready for use is as follows:

2 gantry cranes, for discharge of containers ex-vessels and 5 transtainers in container area, can accommodate about 12,800 TEU's as well as 630 TEU's of refrigerated containers.

SHIPMASTER'S REPORT:
Congestion: In the event of the port being congested vessels anchor initially in the vicinity of Buoy No. 12. Masters should then cable "Harbourmaster Bandar Imam Khomeini" to register the vessels turn giving: Date and time of anchoring; Gross and Net tonnage; length and draft. Pilot vessel "Azadeh" keeps watch on 2182 kHz and occasional watch on VHF Channels 16 and 13, Call sign "Khormusa Pilots". Vessels subsequently anchor in river to seaward of Bandar Imam Khomeini Jetties to await turn.

No water or stores can be obtained at Outer Anchorage.

At Inner Anchorage water and stores can be obtained by launch but with some difficulty.

SHIPMASTER'S REPORT: March 1988.

Since Iraq/Iran conflict started, many vessels have been hit by missiles in the buoyed channel leading to Khor Musa Bar from Khor Musa light vessel. A majority of wrecks which were clearly visible earlier have now sunk and are well submerged and no-one has exact information regarding their location. Vessels proceeding to this port are advised of wrecks by Bushire Harbour Master, but I have found his information misleading. Moreover, the draft in the dredged channel is no more than 10.0 m. at chart datum. No information has ever been reported and the area has not been surveyed since 1976. Pilot boarded the vessel between Beacons No. 13 and 20, and from this position all beacons are correctly marked; but before these beacons up to the light vessels, all buoys are damaged and mostly missing and none are numbered. Masters have to take the vessel up to the Bar on their own between unknown sunken wrecks and improper channel marking.

I have been up and down this channel through my own chosen route with 34 ft. draft.

AGENT: See "Abadan".

BANDAR MAHSHAHR: 30.27 N. 49.20 E. (See Plan)

Refined Products Loading Terminal of the National Iranian Oil Company.
FLAG: All vessels required to fly Iranian flag from foremast during daylight hours, while in port.
DOCUMENTS:

8 Crew Lists.
2 Bonded Stores Lists.
International Health Form.
If cargo aboard, Manifest certified by Iranian Consulate.
Clearance from Last Port.

GENERAL: Khor Musa is deep tidal inlet at head of the Gulf. Consists of triangular-shaped entrance 35 miles wide and 22 miles long followed by a channel, approximately 14 miles long with average width about 800 ft., ending at Port of Bandar Mahshahr. Khor Musa is entered by deep water approach channel 25 miles long and 0.8 miles wide, commencing at Khor Musa light float, located in position Lat. 29° 36′ 32″ N., Long. 49° 34′ 47″ E. At end of approaches channel, near Buoy No. 12, restricted depths and channel widths extend for distance of 8 miles, in vicinity of Khor Musa Bar. A deep water channel then exists up to commercial port of Bandar Imam Khomeini, and to oil port of Bandar Mahshahr, a total distance of 37 miles from end of Bar Channel. Refined products delivered to Bandar Mahshahr Terminal from National Iranian Oil Company's Refinery at Abadan.
TERRITORIAL WATERS: The 12 mile limit of Iranian territorial waters crosses approaches channel in vicinity of Khor Musa Approaches Buoy No. 8, which is approximately 20 miles from Khor Musa light float.

KHOR MUSA APPROACHES:
Navigational Dangers: Numerous shoals and sand banks in Khor Musa with low-lying shore lines and few conspicuous marks. However, shipping channels well marked with light beacons and buoys and present no navigational difficulties in clear weather. A small unlit tide gauge platform located on edge of shoal West of shipping channel in Lat. 29° 42′ 30″ N., Long. 49° 03′ 48″ E., approximately 1.75 miles West of Khor Musa Approaches Buoy No. 4, and shown on Admiralty Chart.
Outer Khor Musa Channel: Approaching vessels should steer for Khor Musa light float, in position Lat. 29° 36′ 32″ N., Long. 49° 34′ 47″ E., and from there a course should be set along marked channel for Buoy No. 12 in position Lat. 29° 56′ 03″ N., Long. 49° 06′ 47″ E., bearing 308° 45′ from Khor Musa light float.
New Khor Musa Channel: Depth of channel is 40 ft. below L.A.T.
Note: Buoys South of and including Buoy No. 12 above are referred to as Khor Musa Approaches Buoys. Buoys North of No. 12 above are referred to as Inner Khor Musa Buoys.

PILOTAGE: Compulsory. Service operated by Bandar Imam Khomeini Port Authorities up to Bandar Imam Khomeini, and by Oil Company between Bandar Imam Khomeini and Bandar Mahshahr. Pilot vessel maintains station approximately 1 mile, 135° from Khor Musa Approaches Buoy No. 12. Vessels requiring Pilot should approach within 2.5 cables of pilot vessel. During adverse weather conditions Pilot may proceed above bar for shelter; in such cases vessels should not attempt to proceed inward without Pilot. Essential that ETA Bandar Imam Khomeini is transmitted to Coastal Radio Station EQZ as soon as possible after Pilot has embarked at Pilot Station. If for any reason a vessel is required to wait at any time at Bandar Imam Khomeini, it will be advised through EQZ. Marine Operation Section, Bandar Mahshahr Terminal, on receipt of ETA Bandar Imam Khomeini, will arrange for Berthing Master to board vessel at Bandar Imam Khomeini anchorage and allocate jetty berth at Bandar Mahshahr.

BANDAR MAHSHAHR APPROACHES:
Navigational Dangers: Khor Musa Channel well marked with buoys and beacons, but attention is drawn to following:
(a) Outer Khor Musa Bar: Lat. 29° 59′ N., Long. 49° 04′ E. and Inner Khor Musa Bar Lat. 30° 02′ N., Long. 49° 01′ E., where restricted channel widths and depths exist and min. depth 40 ft. Buoyed channel over bar is 800 ft. wide, but declared min. depth of 40 ft. only applicable to central half of channel. Towards edges of channel, shallower depths exist.
(b) Qassar bin Siswan: A rocky shoal, in Lat. 30° 12′ N., Long. 48° 58′ E. approximately 10 miles North of Inner Khor Musa Bar, marked by Buoy No. 9 with min. depth 6 ft.
(c) Khor Wastah to Beacon 18: Near sharp bend to East in channel, where tidal streams reach rate of over 4 knots at ebb.
Khor Musa Bar: Reached approximately 5 miles N.W. from pilot vessel, and normally does not restrict passage of inward vessels.
Khor Musa Channel: After leaving bar, channel is followed up Khor Musa for about 32 miles to anchorage at Bandar Imam Khomeini.
Bandar Imam Khomeini: All inward bound ships required to anchor on arrival off Bandar Imam Khomeini, where Pilot disembarks and a Government Medical Officer comes on board to grant Pratique. For this purpose an accommodation ladder should be rigged and ready before arrival.
Bandar Mahshahr Roadstead: Shortly after leaving Bandar Imam Khomeini, the channel to Bandar Mahshahr is entered between the starboard hand Beacon No. 1 (flashing white) and the port hand Beacon No. 2 (temporarily removed). Channel well marked by light beacons to entrance of Bandar Mahshahr, at Beacon No. 4. All port hand lights flash red and all starboard hand lights flash white. Distance from Bandar Imam Khomeini Anchorage to Bandar Mahshahr about 7 miles. Before arriving at Bandar Mahshahr, the accommodation ladder must be taken in and the ship's side cleared for tugs and berthing.
ANCHORAGE: No anchorages in Bandar Mahshahr or Bandar Mahshahr roadstead. Inward bound vessels must anchor on Northern side of Khor Musa Channel, West of Bandar Imam Khomeini, and await arrival of Oil Company Berthing Master.
WIND AND TIDE:
Khor Musa Bar: Classified as Standard Port in Admiralty Tide Tables, Volume II. Tidal predictions considerably affected by strong winds. Variations up to 3 hours in time, and 3.5 ft. in height have been recorded. North-Westerly winds tend to lower level and retard predicted times of high and low waters; South-Easterly winds have opposite effect. At Khor Musa Bar, MHHW has rise of 11.6 ft. and MLHW has rise of 9.6 ft. above chart datum. Rise of tide at bar is also given by automatic tide indicator established near inner Khor Musa Buoy No. 8. Masters may obtain expected depth of water on Khor Musa Bar at any time by telephone to Marine Operations Office, Mahshahr, 4264.
Khor Musa: Tidal range increases between bar and Mahshahr. Maximum tidal velocities in Khor Musa about 3.5 knots on flood and 4.5 knots on ebb, at bend near Inner Khor Musa Beacon No. 18.
At Ports of Imam Khomeini and Mahshahr: Average time high water is 1 hour 35 minutes later, and low water 16 minutes later than on Bar. MHHW has rise of 17.0 ft., and MLHW rise of 14.6 ft. above Mahshahr chart datum.
Mahshahr Terminal: N.W. prevailing winds blow across jetties, from shore. On average, 60% of prevailing winds from N.W., 30% from S.E., and 10% variable. N.W. and S.E. winds frequently reach Force 8, but winds from other directions normally do not exceed Force 4. Maximum tidal range 18.9 ft. At springs, flood tide has velocity of 2 knots and ebb tide velocity 3 knots.
MAX. SIZE: Max. LOA 780 ft. Max. permissible draft at Khor Musa Bar is 40 ft. Depths in tanker berths vary from 37 ft. at Berth No. 4 up to 43.5 ft. at Berth No. 6.

Vessel up to 740 ft. LOA can be berthed day or night at any stage of the tide. Vessels lengths 741 ft. – 780 ft. can only be berthed during daylight hours flood tide and unberthed on flood tide day or night.

HEALTH: Owners should check with Agent respecting any recent imposition of anti-epidemic regulations and requirements for additional injections for crew members. Medical Officer boards at Imam Khomeini Anchorage. Subject no infectious diseases reported on board during voyage, Medical Officer will grant Pratique.

RADIO: Oil company has coastal radio station at Abadan, call sign EQZ. Station handles messages to and from oil ports of Mahshahr, Abadan, Kharg Island and Cyrus Terminal.

Nomination and Loading Orders: Signalled by Iranmash on receipt of vessel's first ETA. Vessels should signal tentative ETA Khor Musa Bar, 72 hours in advance, confirming ETA not less than 48 hours before arrival Khor Musa Pilot Vessel Station.

Radio Watches: Continuous watch on 500 kHz to be maintained at all times while navigating Khor Musa waterway, and ordinary listening watches maintained when at anchor.

VHF: Mahshahr Terminal equipped with International Maritime VHF/FM Radio Telephone Service, using standard international frequencies. Masters recommended use this facility when within range of Mahshahr Terminal. Channels available on continuous watch basis:

No. 16 Safety and Calling.
No. 12 Port use, tankers and tugs.
No. 20 Port use, telephone extension.
No. 26 Port use, telephone extension.

Initial contact should be made on Channel 16 and then transfer to Channel 12 for port operations, or Channel 20 or 26 for telephone extension.

TUGS: 3 tugs at terminal, all of 1,500 b.h.p., all fully equipped for fire fighting. Incoming ships are met by tugs in channel about 1 mile below port limits. 2 tugs always used berthing, and 1 or 2 unberthing, according to state of tide and direction of ship's head. Vessels take tug's ropes.

BERTHING: Vessels arriving on flood tide berthed starboard side to jetty, vessels arriving on ebb tide berth port side to jetty. 6 bulk loading jetties, each fitted with Woodfield loading unit. 10 in. loading arms, 6 in. bunker arms. Minimum number mooring ropes or wires required is 14, as follows: (Forward) – 4 head ropes, 2 breast ropes, 1 back spring. (Aft) – 4 stern ropes, 2 breast ropes, 1 back spring. For additional security 1 extra breast line forward and aft should be used. Unless breasts of adequate strength line are used, there is every possibility of vessel when in light condition being blown off jetty by N.W. wind and damaging loading equipment.

Maximum loading rates are:

Liquid propane/butane	1,500 t.p.h.
Aviation gasolines	700 t.p.h.
White spirits (solvent)	400 t.p.h.
Motor gasolines	2,200 t.p.h.
Motor gasoline (over the rail blending)	400 t.p.h.
Naphtha	2,100 t.p.h.
Turbine fuels	1,600 t.p.h.
Kerosines	1,500 t.p.h.
Gas oils	2,500 t.p.h.
Marine diesels	700 t.p.h.
Fuel oils	5,000 t.p.h.

LPG LOADING: Propane and butane gas is loaded at No. 6 Jetty at a rate of 1,500 t.p.h. Propane and butane cannot be loaded simultaneously.

As 16 in. fixed Chicksan liquid and vapour return arms are used for loading, certain ships are limited to one-side berthing only. To avoid delay of vessels, it is advisable to have vapour return connections on both sides of liquid connection on board.

Terminal has available a series of ASA Standard reducers and adapters.

Loading temperature of propane is about minus 48°F., and butane is about minus 23°F.

BALLAST: Tankers may discharge ballast ashore at Jetty Nos. 1, 2, 5 and 6. Ballast received at rate of 2,000 t.p.h. Slops and residues at rate of 200 t.p.h.

MEDICAL: No medical facilities at terminal. Agents may arrange medical attention through Oil Company clinic in Abadan. In event hospital treatment required, patient would be taken to Abadan.

FRESH WATER: Limited supply potable water available all jetties, but supply very limited during months June to October.

FUEL: Fuel and diesel oil available each jetty. 10 in. loading arms connected to 6 in. flexible hoses. Loading rates, fuel max. 500 t.p.h., diesel max. 400 t.p.h. 48 hours notice required.

FIRE PRECAUTIONS: On arrival Imam Khomeini Anchorage, Master is given 6 copies of Fire and Safety Regulations. Fire Station and Emergency tel. 4111.

CUSTOMS ALLOWANCES: Reasonable quantity spirits and tobacco for consumption in port may be issued prior sealing store rooms. Strict supervision imposed by Customs and prohibited items, particularly tobacco and cigarettes, should not be taken ashore in excess of 50 cigarettes, or cigars, or 1 oz. tobacco.

CONSULS: Consulates situated in Khorramshahr.

REPAIRS: No repair facilities at Mahshahr or Imam Khomeini. In emergency, the Oil Company may be able to undertake minor repairs. No main engine repairs whilst alongside loading jetties without permission from Terminal Superintendent.

TIME: GMT plus 3.5 hours.

TELEPHONES: Available at each jetty. If requested, telephone may be placed aboard.

SHORE LEAVE: Restricted to foreshore area only. Recreation centre opposite No. 2 Jetty.

CURRENCY: The unit of currency is the Iranian Rial. It is ilegal to use any other than Iranian currency ashore and heavy fines have been imposed for infringement of this regulation. Masters are requested to bring this matter to the individual notice of their officers and crew.

Currency denominations are:

Notes: 10,000, 5,000, 1,000, 500, 200, 100, 50 rials.
Coins: 20, 10, 5, 2 and 1 rial.

AUTHORITY: National Iranian Oil Co. Bandar Mahshahr.

AGENT: See "Abadan".

BUSHIRE: 28.59 N. 50.50 E. (See Plan)

Note: Jetties and port facilites are operational and no major damage has been caused to the port facilities.

DOCUMENTS:

Quarantine Officer
Crew List (1 copy, also all crew vaccination cards for inspection).
Customs Officer
Crew List (2 copies).
Stores List (2 copies).
Port Authority
Crew List (1 copy).
Agents
Crew List (2 copies).

In order to avoid any delay in entering and discharging, the following documents must be sent by all loading port Agents to Bushire Agents (via Khorramshahr) as far in advance of vessel's arrival as possible:

Cargo Manifest (8 copies).
Freight Manifest (2 copies).
B/L Copies (2 copies each).

All cargo shown on manifest must be landed at the port, and it is therefore essential that short-shipments, cancellations, diversions, etc. (if any) be reported as early as possible and manifest should be corrected before submission to Port Authorities to avoid payment of fines. Stowage plans and hatch lists should also be sent ahead, giving ample time to be studied by Cargo Supervisor for unloading arrangements.

PILOTAGE: Compulsory. Application for Pilot to be made well in advance through Bushire Port Radio EQM, 500 kHz. Agents may also arrange pilotage but should be advised of ETA well in advance.

ANCHORAGE: In outer port in (approx.) position Lat. 28° 58′ 30″ N., Long. 50° 44′ 50″ E.

RESTRICTIONS: Entry and departure day or night. Depth in outer channel 10.5 m. at LW. Depth of inner channel, 30 ft. at LW and 35 ft. at HW.

The depth alongside the berth is 30 ft. at LW and 37 ft. at HW.

MAX. SIZE: LOA 600 ft. Max. draft 27 ft.

RADIO: Bushire Port Radio EQM, 500 kHz. Telex number of port 0332108 BDBU IR.

VHF: VHF radio, operating on International VHF Marine Channels 13, 16 and 25. MF call sign EQM available at following zone times: 0500 to 0800 hrs. and 1200 to 1500 hrs.

TUGS: Normally not used. In event of bad weather tug will assist berthing. 2 tugs up to 250 h.p., 2 tugs of 1,200 h.p.

BERTHING: Jetty 360 m. long.

Max. draft No. 1 Jetty – 29 ft.
No. 2 Jetty – 25 ft.
Dolphins – 29 ft.
Navy Jetty – 21 ft.

MEDICAL: 24 hours advance notice of medical requirements to be passed to Agents. Doctor available for vaccinations and inoculations.

FRESH WATER: Available at berths ex-pipe-line.

FUEL: Not available.

HATCHES: To be opened and closed by shore labour.

CUSTOMS: Customs Officer will seal the store room. All liquor and cigarette stocks will be placed under bond and reasonable ship's requirements should be taken from store before sealing.

CARGO GEAR: *Equipment*

2 cranes up to 5 tons
6 cranes up to 5/10 tons
3 cranes up to 10/15 tons
1 crane up to 20/30 tons
1 crane over 50 tons (max. 60 tons).
5 forklifts 2/3 tons
7 forklifts 3/4 tons

IDENTIFICATION CARDS: According to regulations in force seamen should hold shore pass issued by respective Agents and signed by the Port Health, Port Police and local town Police authorities. All shore passes should bear a photograph of the holder, in order to facilitate checking at exit of port area. It is therefore necessary for officers and crew to have a photograph ready on arrival at the port to facilitate obtaining shore passes.

CONSULS: None.

REPAIRS: Minor repairs possible by local workshops.

AIRPORT: 7 km. from port. Regular flights.

TIME: GMT plus 3.5 hours.

TELEPHONES: May be connected on board.

SHORE LEAVE: Permitted.

DELAYS: Occasional delays awaiting berth turn.

CIRCULAR: Issued by Ports and Shipping Organisation – Bushire Directorate.

To: Master of MV/MT . . . .

We would like to draw your kind attention that polluting Iranian territorial waters with garbage or wastes is prohibited (same as other pollutants), therefore reception facilities will be available to collect all waste and garbage from all vessels as follows:

1. Collecting garbage will be carried out 3 times per week.
2. Reception facilities will be available at more than above mentioned times, upon Master or Ships Agencies request.
3. Collected waste and garbage shall be handed to Bushire Port Officials who approach your vessel.
4. Use of said facilities will be compulsory.
5. Related expenses will be charged to all vessels (used/not used) according to Bushire Port Directorate tariff.

The Master shall be responsible for following the provision of this Circular.

Penalty will be charged against those violating this Circular in accordance with Iran's existing legal regulations.

SHIPMASTER'S REPORT: 1976.
Fresh Water: Available at wharf ex-pipe-line but mains pressure is insufficient to pump water up to deck level of vessels and is therefore only generally available to small craft, e.g. fishing vessels.

Fresh water is also available ex-road tankers (10 tons and 20 tons capacity). Tankers are not equipped with pumps and a portable pump belonging to the Fire Brigade is used.
Identification Cards: Crew members proceeding ashore leave their Seamen's Book or identification card at the wharf check point and collect same on return.
Fuel: Bunker fuels and lubricating oils not available.
Watchmen: Posting of gangway and/or deck watchmen most advisable but recommend these should be provided from crew members.

SHIPMASTER'S REPORT: 1977.
Vessel discharged 726 metric tonnes of crane parts in 2 days (4 hatches).
ETA: To be given at least 7 days in advance through Bahrain Radio as telegrams take 2 days. From the outer anchorage the following Telegram must be sent to "Port Director Bushire" via Bushire Radio EQM 500 kHz: Anchor time, Draft, Length, Breadth, Cargo, Last Port.
Outer anchorage: Buoy No. 2 of fairway bearing 130° and 250° to the prohibited area in 10 m. to 20 m. water. The anchorage is not protected, but the holding ground is good, even in bad weather.
Pilots: The Pilot comes by a fast blue boat to the outer anchorage. There is 1 Pilot, also assistant and 1 docking master with 1 assistant, they only come out in daytime and good weather.
Tugs: There are 2 small and 1 large tugboat, which are used for turning the ship.
Pier: The 360 m. long pier has good wooden and rubber fenders and sufficient bollards. Ships always berth port side alongside. The starboard anchor is used for turning.
Clearance: The following documents are necessary:

5 Crew Lists.
1 Health Clearance.
1 Vaccination List (cholera).
1 Stores List.
1 Crew Effects List.

The stores and the radio-room are sealed, beer is not sealed.
Immigration: The immigration officials do not come aboard, the Agent takes all seamen's books ashore and exchanges them for shore passes which are valid from 0600 hrs. until 2200 hrs. while the ship is in port. Before leaving the seamen's books will be returned in exchange for the shore-passes.
Provisions: Fruit and fish can be obtained, good quality and low prices at the local market.
Water: Water from the pier in any quantity and good quality. The pipe-line – pressure is only enough for heights of about 3 m. to 4 m., so that some "tricks" must be used by larger ships.
Doctor: 24 hour's advance notice required.
Sea Protest: Notary public available, no consulates.
Bunkers: Not available.
Repairs: Were urgently required by the vessel and confirmed by Agent's, but nobody came on board.
Photographs: Taking of pictures not allowed, as Bushire is Military Base.
Crew-change: Very easy and can be done even on the outer anchorage when the ship has no clearance. The crew coming without delay directly from the airport to the ship in a launch which costs, for 1 trip (4 hours) only, US $71.00.

AUTHORITY: Port Director.
AGENT: See "Abadan".

CHAH-BAHAR: 25.17 N. 60.37 E. (See Plan)

Note: 2 jack-up jetties available. It has been reported that the port can accommodate ships up to 20,000 d.w.t.

ANCHORAGE:

Latitude: 25° 22′ N.	Longitude: 60° 30′ E.
Latitude: 25° 22′ N.	Longitude: 60° 33′ E.
Latitude: 25° 18′ N.	Longitude: 60° 30′ E.
Latitude: 25° 18′ N.	Longitude: 60° 33′ E.

MAX. SIZE: Max. size 10,000 d.w.t. – 28,000 d.w.t. Max. draft 28 ft. at HHW.
VHF: All ships destinated to the Chah-Bahar Port are requested to call Chah-Bahar on VHF Channel 16 between 0700 to 1900 hrs. local time.
DEVELOPMENTS: Considerable development is taking place, and the port is expected to become of considerable importance in the future. No date for expected completion of various development work being undertaken has been received, but we understand that the following plans have been made:—

A Container Terminal with length of 270 m., a warehouse of 9,000 sq. m. and an open area of 60,000 sq. m., suitable for vessels of up to 30,000 d.w.t.

Two Jetties for general cargoes. Length of jetties to be 360 m. with warehouses of 54,000 sq. m., and an open area of 60,000 sq. m., suitable for vessels of up to 20,000 d.w.t.

One Bunkering Jetty. Length of jetty 300 m. and suitable to accommodate vessels of up to 30,000 d.w.t.

SHIP'S OFFICER'S REPORT: May 1983.
Approaches: The approaches to Char-Bahar from the East, West and South are straightforward, as far as the Outer Anchorage Areas, where a Pilot will embark. There is a buoy in position Lat. 25° 14.8′ N., Long. 60° 29.6′ E., and marks a 16 m. obstruction to the North of it.

There is a Fl. 10s. 16M. light on Damagheh ye Chah-Bahar Point, this is at the present time unlit, and the Racon on the point has not been observed either.

The light on Damagheh ye Puzim is Fl. (1) 15s. 30m. 10M., and working at present.

The coastline also offers a good radar target, on both sides of the bay.
Pilotage: Pilotage is compulsory (to the best of my knowledge), the Pilot boards the vessel at anchor to the South of Damagheh ye Chah-Bahar Point, and takes the vessels to the anchorage within the bay (see Admiralty Chart No. 145).

The pilot boat is merely an open boat. International code flag "G" has to be flown by vessels requiring a Pilot.
Anchorages: The anchorage where vessels have been discharging, is bounded by the following positions: Lat. 25° 22′ N., Long. 60° 30′ E.; Lat. 25° 22′ N., Long. 60° 33′ E.; Lat. 25° 18′ N., Long. 60° 30′ E.; Lat. 25° 18′ N., Long. 60° 33′ E.

The bottom is soft mud, and the minimum charted depth is 10.3 m.
VHF: There is a Port Control Office situated in Konarak, the details are:

Frequency: VHF Channel 16, Channel 14.
Hours: 0600-1330 hrs., 1430-1830 hrs. local time.
Call: Konarak Port Control.

Tugs: There are 2 tugs at the port, however, they appear to be involved in the port construction. No further information is known about size, horsepower, etc.
Berthing: There is extensive work being carried out at Char-Bahar, however at present there are no berths open to vessels, 4 berths are due to be completed within the space of 4 months approximately. When these berths are open the main cargoes to be handled are bagged grain and fertiliser, for distribution within this Southern area of Iran. Vessels are however being discharged at anchor into barges and their contents being taken to Konarak.
Medical: There is a hospital, with limited facilities, at Char-Bahar.
Fresh Water: Not available.
Fuel: Not available.
Repairs: Not available.
Cargo Gear: Ship's gear used at anchorage.
Repatriation: Possible from Char-Bahar and Konarak, however, trouble can be experienced as personnel have to fly to Tehran.

It is, at present, due to the unrest within the country, very difficult for ship's personnel to join a vessel in Iran in general.
Airport: The airport is at Konarak, and has 5 flights to Tehran per week, but not on Sundays and Tuesdays. Flights from Tehran are still daily.
Time: GMT plus 3.5 hours.
Holidays: No work is carried out on Fridays.
Shore Leave: Shore leave is not permitted, any person visiting the vessel, e.g. doctor, has to accompanied by the vessel's Agent.
Regulations: Vessels are not permitted to leave Char-Bahar without clearance papers from the Harbour Master.
Delays: With most Iranian ports now at a standstill, delays of varying lengths can be expected.
General: From approximately mid June all facilities are closed down at Char-Bahar due to the S.W. Monsoon, as the working anchorage is affected by the S'ly swell that develops. Ships waiting here to proceed to Bandar Abbas, will also be despatched as the Agents, etc. also close down, and the whole port set-up is then non-operational.

Ship's stores are not available at Char-Bahar.
Authority: The main Port Administration takes place at Konarak, where there is a Harbour Master's Office and radio station.
Agent: The main Agents at Char-Bahar appear to be Shipping Co., Tehran. There are no telex facilities ashore, however there are no restrictions placed on vessels who wish to use their own radio equipment.

SHIPMASTER'S REPORT: January 1984.
Anchoring: 3 nautical miles East of the buoy at about Lat. 25° 15.5′ N., Long. 60° 29.5′ E. off Ras Pusim.
Port: Unsheltered Port (Port Facilities under development). No bad weather docking. Max. draft 31 ft. Max. length 200 m. Density 1026.0.
Pilot: Pilotage compulsory, will be advised by Port Control and meets vessel at the anchorage. Pilot comes out by tug.
VHF: Char-Bahar Port Control on Channels 16 and 12.
Tugs: 1 tug of 2,500 hp ("Ramassan"). Tug lines available, no line charges.
Documents: 7 Crew Lists, 7 Passenger Lists, 7 Stores Lists, 7 Vaccination Lists (Cards for inspection, Cholera obligatory), 7 Cargo manifests, last draft survey from loading port for bulk carrier, Ship's Safety Certificates for inspection (Rats, Cargo, etc.).
Health: From other Iranian ports no clearance formalities necessary. From sea clearance is effected before coming alongside and arrival.
Radio: Via Radio Bandar Abbas EQI.
Discharging: Only by ship's gear. Port Authorities have to be informed about cargo gear type (Cranes or derricks). No shore facilities. In case of emergency 1 crane of 75 tons lifting capacity available. Bulk cargo discharging rate about 2,000 tons per day, will be carried away by lorry. Stevedore chief has to be accommodated and fed.
Jetty: Consists of two pontoons on legs, connected by a bridge. Size of pontoons 150 m. by 30 m., bridge length 90 m. 8 bollards on pontoon ship's side.
Fresh water: Will be delivered by truck, rate about 30 tons max. per day. (Line under construction).
Fuel: Diesel oil by truck. Prices above international rate to keep supply low until Line and Stores are ready (now under construction).
Consul: None.
Repairs: Not possible.
Gangway/Deck watchmen: Supplied by Shore. Rate about 4,000 Rials per day.
Hatches: Opening and closing carried out by crew.

Customs Allowances: Customs Officer will seal all store rooms. Reasonable ships requirements (Cigarettes) should be taken out before sealing. 200 Cigarettes Allowance per week per crew member.
Repatriation: Can be arranged by agent.
Airport: Konarak Airbase. Daily flight from Bandar Abbas and Tehran and back. Konarak lies about 70 km. from Char-Bahar.
Time: Iranian Time 3.5 hours minus UTC.
Medical: Facilities available (Doctor, Ambulance). Emergency cases are sent to Tehran (Inform Port Authorities).
Telephone: Under construction.
Services: Provisions from local market at reasonable prices. Garbage removal available.
Shore Leave: By shore passes (photograph to be included).
Authorities: Port and Shipping Organisation. J. Khalaj (Port Director).

SHIPMASTER'S REPORT: January 1987.
The following is an update of the "Shipmaster's Report – dated January 1984". Items not remarked upon are the same.
Port: Drafts at berths are different, no dredging has been done for years. Maximum depth is no more than 9.0 m. In any case a vessel must not arrive here with d.w.t. of more than 25,000 tonnes, otherwise vessel will be directed to other Iranian ports for lightening.
Tugs: 2×2,500 h.p.
Discharging: Most cargo discharged here is on direct delivery basis and there are severe problems regarding lorries. Rate of discharge varies between 300 tons to 1,000 tons depending upon how many ships are in port.
Fuel: Twice the price of current market price.
Regulations: Strict Islamic Regulations to be adhered to especially for wives onboard. They must not be seen outside the accommodation without proper Islamic cover.
Fresh Water: Should be tested before filling ship's tanks.
Telephones: Telephone exchange ashore provides international calls. There is no delay to Europe and U.S.A.

AGENT: See "Abadan".

CYRUS TERMINAL: 29.01 N. 49.28 E. (See Plan)

LOCATION: Open, unsheltered submarine export mooring, Lat. 29° 01′ 27″ N., Long. 49° 28′ 51″ E. Storage barge *(Pazargad).* Lat. 29° 01′ 57″ N., Long. 49° 29′ 30″ E.
APPROACHES:
Obstructions: In addition to submarine export mooring and storage vessel *Pazargad,* various oil wells and production structures located in immediate vicinity, which constitute hazard to navigation, as follows:

	Lat.	*Long.*
Well C–2A and the Production Stations	29° 03′ 07″ N.	49° 29′ 57″ E.
C–3	29° 02′ 38.7″ N.	49° 27′ 23.1″ E.
C–4	29° 00′ 15″ N.	49° 32′ 00″ E.
C–5	29° 02′ 52″ N.	49° 31′ 34″ E.
C–6	29° 03′ 57″ N.	49° 29′ 57″ E.
C–7	29° 03′ 31.2″ N.	49° 29′ 05.6″ E.
C–8	29° 03′ 31.2″ N.	49° 30′ 48″ E.
C–9	29° 02′ 15″ N.	49° 29′ 57″ E.
C–10	29° 03′ 33″ N.	49° 27′ 22.5″ E.
C–11	29° 04′ 51″ N.	49° 26′ 31″ E.
C–12	29° 03′ 33″ N.	49° 23′ 56.5″ E.
C–13	29° 02′ 41″ N.	49° 25′ 39.5″ E.

Safest and most desirable direction of approach to Cyrus Terminal is from S.E. Due to numerous obstructions noted above any approach should be made with extreme caution.
Navigational Aids. All structures located within Cyrus Terminal area display interrupted quick flashing white lights and sound a fog horn. The storage barge *Pazargad* displays, as required, those day and night signals as prescribed by articles 27 (b) and 30 (a) of International Rules. The 6 mooring buoys for the Cyrus Terminal are not lighted.
DOCUMENTS:
Bill of Health.
Health Declaration (International Health Form to be filled out by Master on arrival).
Manifest (if with cargo certified by Iranian Consulate. If vessel is in ballast, no legalisation dues).
Clearance (from last port).
Register.
5 Crew Lists.
Passenger Manifest (if any passengers are on board).
5 Store Lists.
Bonded Store List.
PILOTAGE: Vessels will be boarded by Mooring Master of IPAC within 2 miles, approximately 180° true from *Pazargad*. Mooring Master will advise Master on approaches to berth, mooring and unmooring, connecting and disconnecting submarine hose and all other operations within berthing area. All manoeuvring within loading berth area shall be done only in accordance with advice of an IPAC Mooring Master, subject to understanding that Master shall remain solely responsible for safety and proper manoeuvring. Master or qualified deck officer must be on bridge at all times while ship manoeuvring.
Vessels requested to have pilot ladder safely and securely rigged, ready for immediate use, and long enough to reach Mooring Master's launch. If at night, adequate lighting must be rigged overside for Mooring Master to approach side of ship and climb ladder safely. Adequate searchlights should also be rigged on both wings of bridge when mooring at night, to assist in running lines to buoys.

ANCHORAGE: Area bound by: 28° 59′ 00″ N. to 29° 01′ 00″ N. between meridians 49° 28′ 00″ E. to 49° 31′ 00″ E. Depth of water 24 fathoms.
Masters cautioned not to anchor North of Lat. 29° 01′ 00″ and East of Long. 49° 31′ 00″ as there are numerous flow lines on sea bed connecting various structures, storage tanker and submarine terminal. During Winter months, November through March, severe South-easterly storms often encountered with little or no indication of impending storm. Vessels at anchor, and loading in submarine terminal, must have engines ready with full power for immediate use. Masters cautioned to use adequate scope of chain while anchored awaiting berth.
RESTRICTIONS: None. Terminal operates 24 hours per day, 7 days a week. Ships moored, loaded and unmoored at any hour, weather and other circumstances permitting. Terminal will never be closed due to religious holidays.
MAX. SIZE: Ship loaded by means of submarine pipe-line and 1 hose at 1 loading berth, located in approximately 140 ft. of water. Mooring buoys numbered 1, 2, 3, 4, 5 and 6. Starting with No. 1 East of mooring and numbered consecutively in clockwise direction. Max. capacity 70,000 d.w.t., max. length 950 ft.
HEALTH: The rules governing quarantine are the same as found in other ports of the world. Owners should check with Agent respecting any recent imposition of anti-epidemic regulations and requirements for additional injections for crew members.
RADIO: *Advice of Arrival:* Incoming tankers must send incoming ETA at least 3 days before arrival. The radio station at Abadan will handle IPAC's radio traffic, pre-arrival messages, etc., for vessels calling Cyrus Terminal. The station call sign is EQZ. Messages for IPAC should be to NIOC Kharg, prefixed "for IPAC" with copy to Agent. Further ETA messages should be sent when vessel 24 and 12 hours distant from Cyrus Terminal and at any other time any appreciable change occurs in original ETA or those subsequent thereto. The 12 hours ETA should include a positive statement regarding "ship's readiness to load" on arrival and the number of hours that will be required to discharge clean ballast after ship is berthed in mooring.
Radio Watches: While at the anchorage off Cyrus Terminal, vessels should maintain normal listening watches on both HF and WT.
VHF: Cyrus Terminal base *(Pazargad)* is equipped with VHF radio telephone and maintains a radio watch. Vessels arriving at Cyrus Terminal may communicate with the *Pazargad* on Channel 6.
TUGS: A charge for each tug movement will be made in accordance with rates established by IPAC. When tug/tugs are standing-by vessel mooring/unmooring, for use if required, the full fee will be charged. IPAC maintains launches to assist in mooring and unmooring.
BERTHING: (Also see "Max. Size"). Tankers to have ready: *(a)* Windlass and deck winches fore and aft. *(b)* 12 good manila or synthetic mooring lines, each not less than 120 fathoms in length, with efficient stoppers for each line. *(c)* On port or starboard side as directed, opposite ship's manifold, equipment capable of lifting submarine hose safely and expeditiously. Weight of lift 5.5 tons. *(d)* 1 bower anchor ready for immediate use, with minimum of 120 fathoms of chain. Anchors, chains and anchor windlass must be in good condition. *(e)* Equipped to fit flanges on submarine hoses, which are of ASA standards.
Permanent moorings in the berth consist of 6 steel cylindrical buoys each fitted with a quick release hook to which ship's mooring lines attached by mooring launches. The berth is laid out on a 2 heading basis, using 12 mooring ropes (4 bow, 4 beam, and 4 quarter).
LOADING: Maximum crude oil loading rates for a tanker using one 12 in. deck hose and 20 p.s.i. at ship's rail is approximately 12,000 b.p.h. Requested that ships receive oil as fast as it can be delivered, with due regard for safety, also that any fittings on manifold such as "Y's", strainers, or mud boxes, which tend to restrict flow of crude oil into the ships, be removed before arrival at terminal. Preferable that connections be provided so that a 12 in. deck hose can be used.
MEDICAL: Neither medical nor hospital facilities provided by IPAC. Private doctors and hospital facilities available at Tehran or Abadan. Emergency hospital cases only can be handled on Kharg Island, approximately 53 miles from Cyrus Terminal.
DENSITY: Salinity approximately 20% more than normal sea water.
TIDE/CURRENT: Tidal range between 6 ft. and 8 ft. Currents generally on axis of ship berthed in mooring; however, rotary currents can be expected.
FRESH WATER: No fresh water available.
FUEL: No bunkers or lubricants available.
FIRE PRECAUTIONS: A continuous and efficient fire watch must be kept on deck and in engine room. In event of fire breaking out in any part of a vessel, however minor it may be, fire alarm must be given immediately. This will consist of a succession of long blasts on ship's whistle, together with a rapid continuous ringing of ship's bell.
CUSTOMS ALLOWANCES: Present regulations allow each seaman to retain a maximum of 50 cigarettes or 1 oz. of tobacco or 5 cigars. The balance of all smoking items must be collected and carefully listed prior to arrival. This list will be checked by Customs before sealing locker. If any discrepancies, vessel is subject to a fine.
CONSULS: No consulates at Cyrus Terminal; consular or diplomatic representatives for most nations maintain offices in Tehran and some in Khorramshahr.
REPAIRS/STORES: Port is considered an "open roadstead", and under no circumstances may engines be shut down for repairs while ships are moored in submarine berth. No facilities for making vessel repairs. No spare parts, stores or supplies should be sent to Cyrus Terminal for delivery to a ship.
REPATRIATION: No facilities.
TIME: GMT plus 3.5 hours.
SHORE LEAVE: There is no shore leave permitted due to lack of facilities. No visitors permitted on tankers loading.
INSPECTION SERVICE AND MARINE SURVEYS:
Petroleum inspection services available at Cyrus Terminal from Saybolt. IPAC also inspects cargoes on specific request of off-taker companies.

GOVERNMENT OFFICIALS: Iranian officials, such as the Customs Officers, Immigration Officer and Quarantine Officer, are available on the barge *Pazargad*. Should Customs Guards be stationed on board vessels while in the moorings, it is expected that ships will provide food for these guards and other officials. All vessels calling at Cyrus Terminal must provide an accommodation ladder, rigged for Iranian Officials.
AUTHORITY: Iran Pan American Oil Co.

AGENT: See "Abadan".

HORMOZE TERMINAL (Valfajr Two): 26.57 N. 56.43 E.

Note: Operations to be transferred to Sirri Island in October 1988.

LOCATION: *Location of Storage Vessels:*

Position A:	Lat. 26° 57′ N.	Long. 56° 43′ E.
Position B:	Lat. 26° 53′ N.	Long. 56° 39′ E.
Position C:	Lat. 26° 44′ N.	Long. 56° 42′ E.
Position D:	Lat. 26° 48′ N.	Long. 56° 51′ E.

SERVICES: *Offshore Supply Service:* In order to service the tankers offshore at the Hormoze Terminal supply service with fast crew-supply boat in operation at Ras Al Khaimah.

For further details and service in connection with the G.A.C. supply service please contact G.A.C. Dubai, Tel: (971-4) 457555, 457612. Telex: 45448, 45809.

KHARG ISLAND: 29.14 N. 50.19 E. (See Plan)

Note: Jetties No. 3, 5, 9, 10, 12 and 15 operational. Jetty No. 8 under repair.

A. DARIUS TERMINAL. Oil-loading terminal of the Iran Pan American Oil Company.
B. KHARG TERMINAL. Oil-loading terminal of the National Iranian Oil Company. Including Sea Island Terminal.
C. KHEMCO TERMINAL. Loading terminal of Kharg Chemical Co.

GENERAL: (Items common to all Terminals): There are no ballast disposal facilities at Kharg and it is of the utmost importance that all vessels arriving at the anchorage should ensure that all water ballast and pipe-lines are completely clean.

FLAG: All vessels required to fly Iranian Ensign on foremast during daylight hours in Iranian waters. Iranian territorial waters extend 12 miles seaward from mainland and adjacent islands. Iranian flags may be obtained from Agent.

DOCUMENTS:

Bill of Health (certified by Iranian Consulate at port of origin or port of call. If no Iranian Consul available, the legalisation fees are payable at Kharg Island).
Health Declaration (International Health Form to be filled out by Master on arrival).
Manifest (if with cargo certified by Iranian Consul (see "Bill of Health" above). If vessel is in ballast, no legalisation fees due).
Clearance (from last port).
Register.
Crew List.
Passenger Manifest (if any passengers are on board).
Store List.
Bonded Store List.

APPROACHES: Vessels approaching Kharg from South, should keep at least 2 miles to East of Island. Vessels approaching Kharg from North should keep to West of Island, as Khargu Island to the North is very low lying and difficult to see at night until dangerously close-to.

Landfall: 3 high gas flare towers, 2 in the South and 1 to the North of the Island, make a most conspicuous landfall. At night, from a distance, the light from these flares tends to obliterate the various navigation lights. At night the glow from the 3 gas flares is visible from great distance, far beyond the range of any navigation lights. However on occasions, 1 or more or all of the flares may not be burning, making the main navigation lights more readily visible.

Navigational Dangers: Eastern coast is open and free from navigational dangers, except for coral reef, which extends for about 0.25 miles seawards along whole coast line. To S.W. of Island, numerous oil platforms in positions up to 5 miles offshore.

Kharg South Beacon: Lat. 29° 12′ 46″ N., Long. 50° 19′ 15″ E. At Southern end of Island, rotating white light, on steel tower, 295 ft. above MHHW, 2 flashes every 12 seconds, visibility 24 miles. Obscured by high ground and oil tanks between 151° and 215° from seaward. Light beam partly diverged upwards for aircraft. This is the main navigation light for Kharg area.

Kharg North Beacon: Lat. 20° 15′ 02″ N., Long. 50° 18′ 18″ E. At Northern end of Island, white light on steel tower, 261 ft. above MHHW, 2 flashes every 6 seconds, visibility 12 miles. Obscured by high ground and oil installations between 330° and 352° from seaward.

Khargu Beacon: Lat. 29° 20′ 20″ N., Long. 50° 21′ 18″ E. At Northern end of Khargu Island, on a steel tower 59 ft. above MHHW, a white light with 10° red sectors towards Ganaveh and Kharg Island to indicate general directions of submarine pipe-lines, 3 flashes every 8 seconds, visibility, 10 miles red sector, 15 miles white sector. Obscured between 011° and 041° from seaward by Kharg Island. Radar reflectors fitted to North and East sides of tower top.

Ganaveh Beacon: Lat. 29° 35′ 20″ N., Long. 50° 29′ 50″ E. On mainland, at start of submarine pipe-lines to Island, 2 miles N.W. of Ganaveh village, on steel tower, white light with 10° red sector along general direction of submarine pipe-lines, 1 flash every 5 seconds, visibility 10 miles red sector, 15 miles white sector. Light beam partly diverged upwards for aircraft.

South-East Buoy: Lat. 29° 11′ 29″ N., Long. 50° 19′ 51″ E. Red can buoy, white light, 1 flash every 2 seconds. Near edge of reef, S.E. Kharg Island in 54 ft. of water.

North-East Buoy: Lat. 29° 14′ 51″ N., Long. 50° 20′ 10″ E. Red conical buoy, white light, 1 flash every 6 seconds. On Northern boundary of port limits.

Channel Buoy: Lat. 29° 16′ 12″ N., Long. 50° 20′ 27″ E. Red conical buoy, white light, 1 flash every 3 seconds. In Eastern end of channel between Kharg and Khargu Island.

Radio Masts: At South end of Kharg Island a high radio mast painted red and white positioned at Lat. 29° 12′ 47″ N., Long. 50° 19′ 15″ E., approximate elevation 510 ft. Fitted with fixed red lights. Another radio mast, also painted red and white, positioned at Lat. 29° 14′ 10″ N., Long. 50° 18′ 26″ E., approximate elevation 367 ft., fitted with fixed red light.

Dideban Tomb: On highest point of Kharg Island, Lat. 29° 14′ 57″ N., Long. 50° 18′ 29″ E., a small domed building located, elevation 290 ft.

Mir Muhammad Tomb: On N.E. part of Kharg Island at Lat. 29° 15′ 10″ N., Long. 50° 18′ 46″ E., conical shaped tower surmounted by small dome, elevation 165 ft.

Khargu Trees: On Khargu Island at Lat. 29° 18′ 45″ N., Long. 50° 20′ 30″ E., a small group of trees, only ones on island, visible from long distances.

Notice Boards: On North, S.E. coast and S.W. of Kharg Island and along coasts of Khargu Island, large white notice boards indicating prohibited anchorages surrounding submarine pipe-lines.

Port Area: The area within:

29° 12′ 23″ N.	29° 14′ 53″ N.
50° 18′ 36″ E.	50° 21′ 17″ E.
29° 12′ 21″ N.	29° 14′ 53″ N.
50° 21′ 40″ E.	50° 20′ 20″ E.

offshore from Kharg Island has been proclaimed a port area. Port area used by vessels manoeuvring to and from oil-loading terminals. The whole of area within port limits declared a Prohibited Anchorage, and, a Restricted Manoeuvring Area. Vessels must not enter within port limits unless Berthing Master is on Board.

PILOTAGE: Vessels should proceed to Eastern Anchorage, outside port limits (Prohibited Anchorage and Manoeuvring Area) approximately 1.5 miles East of oil loading jetty, and await arrival of Berthing Master.

ANCHORAGE: The approved Anchorage Area is to East of Eastern boundary of Port Limits, where holding ground is good. All vessels on arrival at Kharg must proceed to anchorage area and await instructions.

Prohibited Anchorages: 3 Prohibited Anchorages in the Kharg Area:

(a) Submarine Pipe-lines: Anchorage prohibited in vicinity of submarine oil pipe-lines laid between North coast of Kharg Island and mainland near Ganaveh.

(b) Offshore Oil Platforms: Anchorage prohibited to S.W. of Kharg Island in vicinity of numerous oil wells and drilling platforms extending 5 miles or more out to sea.

(c) Harbour Area (East): The area surrounding the "T" jetty and extending approximately 2.5 km. offshore from the East coast has been declared as a Harbour Area.

(d) Harbour Area (West): The area surrounding the sea island and extending to a distance of approximately 4 km. offshore has been declared as a Harbour Area. The Harbour Area is used by vessels manoeuvring to and from the oil loading jetty. No vessel is allowed to enter or anchor within these areas unless a Berthing Master is on board.

Cautions: (a) Unlit mooring buoys at S.E. of Kharg Island (see Darius Terminal). *(b)* Oil Platforms to S.W. of Kharg Island. *(c)* Aircraft approach lane S.E. of a point mid-way between Naval Boat Harbour and Kharg North Buoy, in N.W. corner of Port Area.

HEALTH: Tankers calling at Kharg Island and requiring Radio Pratique should cable Agents 48 hours prior to arrival advising the following details:

(a) Number of persons on board, including Master and passengers.
(b) Last port of call.
(c) Ports of call during the voyage.
(d) Duration of voyage.
(e) If any person on board requires vaccination against cholera.
(f) If there has been any case of illness of contagious nature.

If approved, the Master will be notified and the vessel will be allowed to enter port without yellow flag or night quarantine signal.

MEDICAL: Small hospital with clinic on Kharg operated by National Iranian Oil Company for minor medical treatment. More serious cases may have to be sent by air to Abadan Hospital. Any medical services required should be brought to attention of Medical Officer when he boards vessel to grant pratique.

VHF: Kharg Terminal equipped with VHF radio telephone, using international frequencies. Continuous watch kept on international calling and emergency Channel 16, frequency 156.80 MHz. Other channels, available after contact has been established are: Nos. 4, 12, 14 and 20. Masters recommended use this facility when within range, particularly when approaching port. In poor visibility, when vessel's approach may not be observed from shore, VHF communication may be the means of avoiding delay in mooring/berthing.

RADIO: OSCO main radio station at Abadan will handle radio traffic. Call sign EQZ. Vessels bound for Kharg Terminal should prefix messages with "NIOC Kharg", and vessels bound Darius terminal should prefix with "NIOC for IPAC Kharg", in both cases with copy to Agents. Terminal on Telex No. 212770.

Radio Watches: While at anchor off Kharg Island, vessels should maintain normal listening watches on station EQZ on WT, and Kharg Terminal on VHF. Use of the ship's radio station and/or battery-charging equipment prohibited during cargo transfer operations.

Schedule of watch (GMT) (Hours)	*Listening watch frequencies* kHz	*Transmitting frequencies* kHz	*Receiving frequencies* kHz	*Remarks*
Continuous	500	500	500	Distress: Station is equipped with international Auto-Alarm receiver on 500 kHz.
Continuous	500	428	405–535	Traffic list every 2 hours from 0105 to 2305 hrs. GMT.
0400–0700	8356–8374	8471	8374–8460	*Traffic lists every 2 hours from 0405 hrs. GMT.
0700–0900	12534–12561	13069.5	12561–12689	
1000–1300	12534–12561	13069.5	12561–12689	
1400–1700	8356–8374	8471	8374–8460	
1700–1830	4178–4187	4294	4187–4231	

*During scheduled watches on HF while station/EQZ is not actually working with ships, traffic lists are transmitted automatically and continuously on frequencies 4294, 8471 and 13069.5 kHz according their schedules of watch.

DENSITY/TIDE/WINDS: Salinity of sea approximately 20% more than normal sea water. Surface temperature of sea ranges from 63° to 97°F depending on season. The extreme tidal range between 7 and 8 ft. with maximum rate of about 1.5 knots. Wind directions and velocity subject rapid change without warning and precautions necessary to avoid difficulties. Heaviest seas and swells while in port are from N.E. through S.E.

Tidal heights		*Tidal streams*			
L.A.T.	= +10.4 ft.	Slack water	10.75 hrs.	before	HHW
MLLW	= +1.8 ft.	Ebb (full)	7.75 hrs.	before	HHW
MHLW	= +3.6 ft.	Slack water	4.50 hrs.	before	HHW
MSL	= +4.1 ft.	Flood (full)	1.50 hrs.	before	HHW
LLHW	= +4.7 ft.	Slack water	1.00 hr.	after	HHW
MHHW	= +6.5 ft.	Ebb (max.)	3.75 hrs.	after	HHW
H.A.T.	= +8.2 ft.	Slack water	6.50 hrs.	after	HHW
		Flood (max.)	9.50 hrs.	after	HHW

Heights in feet above Chart Datum

Times are approximate only

FRESH WATER: Not available.

STORES: Commissary supplies, as well as steward's stores, in limited quantities, can be arranged through Agent with at least 5 days advance notice.

Not allowed to be placed on board while vessel is berthed, can be taken at anchor or boat comes alongside immediately after leaving jetty. Transfer of bonded stores is permitted, with Customs in attendance, while alongside.

IDENTIFICATION CARDS: Each seaman will be issued with a pass which will be punched when crossing the jetty limits going out and in, and may be used once only. In addition to this pass, seamen should carry an Identification Card or Vaccination Certificate, bearing the owner's photograph.

CUSTOMS ALLOWANCES: Present regulations allow each seaman to retain maximum 50 cigarettes or 1 ounce of tobacco or 5 cigars. The balance of all smoking items must be collected and carefully listed prior to arrival. This list will be checked by Customs before sealing locker. If any discrepancies, vessel subject to fine.

REPAIRS: Masters of vessels loading or discharging at Darius Terminal are advised that this port is considered an "open roadstead" and, under no circumstances may engines be shut down for repairs while ships are moored in submarine berth. No facilities at Darius Terminal for making vessels repairs, and it is emphasised that all vessels in submarine moorings must be in condition to clear immediately on instructions to do so. No repairs allowed alongside the Oil Loading Jetty at Kharg Terminal. Ship's main engines must be available at all times while alongside jetty.

AIRPORT: Small airport used by Oil Company aircraft and Iranair flights to and from Abadan. Due security arrangements movement of crew must be programmed through Agent.

TIME: GMT plus 3.5 hours.

A. **DARIUS TERMINAL** (Additional requirements and details).

Terminal operates 24 hours per day, 7 days a week. Ships moored, loaded and unmoored at any hour, weather and other circumstances permitting. Terminal will never be closed due to religious holidays.

LOCATION: A submarine terminal at S.E. corner off Kharg Island Lat. 29° 12′ 40″ N., Long. 50° 20′ 40″ E.

LANDMARKS: *Jetty:* Approximately 0.5 miles North of the mooring is a "T" shaped wharf for the berthing of Supertankers.

Khemco Jetty: Approximately 0.25 miles West of the terminal is a dolphin type jetty for berthing LPG and sulphur ships.

South Gas Flares: At the South end of Kharg Island, 2 very conspicuous gas flares bearing 277°, 1,900 ft. and 271°, 2,150 ft. from Kharg South Beacon. Approximate elevations: 400 ft.

North Gas Flares: In the centre of Kharg Island 2 very conspicuous gas flares bearing 191°, 3,050 ft. from Kharg North Beacon, elevation 435 ft.

Khemco Gas Flares: On the S.E. of Kharg Island 2 small gas flares burning in the Kharg Chemical Plant.

Note: At night, the glow from the 4 gas flares is visible at great distances. However, on occasions, 1 or more or all of the flares may not be burning.

Also see "Approaches" at beginning of Kharg Island.

RADIO: *Arrival Advice:* It is important that ships establish radio contact with IPAC when 3 days distant from Kharg Island and maintain this contact until just prior to arrival at the Terminal. All ships should send a 72 hour ETA message to IPAC, giving the best estimate of ship's arrival time at the Terminal. This first ETA message should also include a definite statement of the details of any equipment required from shore for connecting submarine hoses to ship's manifold. Further ETA messages should be sent to IPAC when the vessel is 24 hours and 12 hours distant from Kharg Island and at any other time when an appreciable change occurs in the original ETA or those subsequent thereto. The 12 hour ETA should include a positive statement regarding "ship's readiness to load" on arrival, and the number of hours that will be required to discharge clean ballast after ship is berthed in mooring.

Ship-to-Shore Communication: Kharg Terminal is equipped with VHF radio-telephone, using international frequencies. A continuous watch is kept on the international calling and emergency Channel 16, frequency 156.80 MHz. Other channels which are available after contact has been established are:

Channel	*Frequency in MHz*	*Call sign*
IPAC 14	156.700	IPAC Marine
IPAC 6	156.300	IPAC Marine
OSCO 12	156.600	Kharg Pilot
OSCO 20	157.000	Kharg Pilot

Masters are recommended to use this facility when within range, particularly when approaching the port. In poor visibility, when a vessel's approach may not be observed from the shore, VHF communication may be the means of avoiding delay in mooring. While a ship is in mooring, communication will be by portable VHF radiotelephone units. The Mooring Master will advise Masters and Officers regarding the emergency whistle signals set up for use in event VHF radiotelephone units becoming inoperative. The use of the ship's radio station and/or battery charging equipment is prohibited during cargo transfer operations.

Radio Watches: While at anchor off Kharg Island, vessels should maintain normal listening watches with station EQZ on W/T and Kharg Terminal on VHF.

MOORING: Vessel requested to have pilot ladder safely and securely rigged, ready for immediate use, and long enough to reach Mooring Master's launch. Mooring Master will board 2 miles seaward of the Terminal sea-buoy. Adequate searchlights should be rigged on both wings of bridge, when mooring at night, to assist in running lines to buoys.

Raising, connecting, disconnecting and lowering of submarine hoses will be performed by IPAC line handling crew as advised by Mooring Master, who will remain on board while ship in moorings. A capable winchman to be provided by ship.

Mooring buoys for Darius Terminal not lighted. Permanent moorings in berth consist of 5 steel cylindrical buoys each fitted with quick release hook, to which ship's mooring lines are attached by IPAC's mooring launches. The berth is laid out on the one heading basis, using both ship's bower anchors with 9 mooring ropes (4 beam, 4 quarter and 1 stern). Mooring buoys numbered 1, 2, 3, 4 and 5. Starting with No. 1. East of the mooring and numbers running consecutively in a clockwise direction.

Tankers to have ready: *(a)* Windlass and both bower anchors, each with not less than 120 fathoms of chain. *(b)* 9 good manila or synthetic mooring lines, each not less than 120 fathoms in length, with efficient stoppers for each line. *(c)* On port side opposite ship's manifold, equipment capable of lifting submarine hose safely and expeditiously. Weight of lift 5 tons.

LOADING: Ship loaded by means of submarine pipe-line and 2 hoses at 1 loading berth, located approximately 1 mile offshore in over 65 ft. of water. Crude oil loading hoses lifted on port side. Maximum crude oil loading rate for tanker using two 12 in. deck hoses and 20 p.s.i. at ship's rail is approximately 5,000 t.p.h.

In order to save ship time as well as to make berth available for others, requested that ships receive oil as fast as it can be delivered, with due regard for safety. Also requested that any fittings on ship's manifold such as "Y's", strainers, or mud boxes, which tend to restrict flow of crude oil into ship, be removed before arrival at terminal. It is preferable that connections be provided so that a 12 in. deck hose can be used. Vessels must be equipped to fit flanges on submarine hoses, which are of ASA standards.

FIRE PRECAUTIONS AND SAFETY: Full instructions will be given by Mooring Master, but vessel's personnel responsible for safety of vessel and must take all necessary precautions, whether or not so advised by Mooring Master.

During time vessel moored in Darius Terminal, a continuous and efficient fire watch must be kept on deck and in the engine room. In the event of fire breaking out in any part of vessel, however minor it may be, fire alarm must be given immediately. This will consist of a succession of long blasts on ship's whistle, together with a rapid and continuous ringing of ship's bell.

EMERGENCY MEDICAL ASSISTANCE: Vessels requiring emergency medical assistance should hoist international code flag "W" in daylight, and at night send "W" (· – –) on blinker light. To attract immediate attention, the same signal "W" (· – –) should be given on ship's whistle in either day or night hours. The signal should be repeated until acknowledged visually by either another ship in the moorings, or from IPAC launch. As soon as signal is received. Terminal officials will advise Agent as soon as possible of the emergency medical aid required.

FUEL: No bunkers available at submarine mooring. Bunkers may be loaded at main jetty having obtained nomination through NIOC Tehran (Export and Marketing). Tankers loading crude oil at "T"-head jetties have at all times priority for berth, over the vessels lifting bunkers only. Marine lubricants not available, except through marketing representatives by arrangement through Agent.

CURRENTS: Generally on the axis of the ship berthed in the mooring; however, rotary currents can be expected.

SHORE LEAVE: For personnel of vessels loading or unloading at the Terminal is arranged between Agent and Iranian Security Officer aboard vessel. Ship's personnel (other than medical or emergency cases) not allowed to disembark or embark at Terminal. Sufficient personnel must be aboard at all times for letting go lines and clearing moorings immediately.

B. **KHARG TERMINAL** (Additional requirements and details).

RESTRICTIONS: If arriving with a part cargo vessels will be refused loading by N.I.O.C. if the maximum displacement exceeds 250,000 tons.

OIL LOADING JETTY: "Tee" head with overall length of 6,038 ft. between fender faces. The fender to fender width is 138 ft., for the section South of trestle approach, and 124 ft. for North section. Jetty face is aligned in direction 172° 35′ – 352° 35′. Deck level 22 ft. above chart datum. The jetty, being on Eastern side of Island, is sheltered from prevailing N.W. winds, but exposed to S.E., when during Winter storms, waves of 8 ft. to 10 ft. often occur. A maximum wave height of 15 ft. has been recorded at Southern end of jetty, under such conditions.

Berth	*Depth of water* (m.)	*Maximum capacity* (d.w.t.)*	*Loading and bunker arms†*	*Height limits ship's manifold in metres above chart datum*
1	21.3	250,000	3×16 in. 2×12 in.	4.3 to 23.8
2	19.8	38,000	4×12 in.	3.4 to 18.9
3	21.3	250,000	3×12 in. (flexible)	4.3 to 23.8
4	20.1	65,000	5×12 in.	3.4 to 18.9
5	21.3	250,000	3×16 in.	5.8 to 25.3
6	20.4	120,000	3×16 in. 2×12 in.	4.3 to 23.8
7	18.3	175,000	3×16 in. 2×12 in.	4.3 to 23.8
8	19.2	45,000	5×12 in.	3.4 to 18.7
9	17.4	140,000	3×16 in.	4.3 to 23.8
10	17.7	90,000	5×12 in.	3.4 to 18.7

* Subject to weather, tidal conditions and lengths of vessels adjacent berths.

†12 in. Bunker arms at all berths. All Chicksan arm flanges are series 150 API.

Outer Berths: 9, 7, 1, 3, 5. Inner Berths: 10, 8, 2, 4, 6. Berth Nos. 7, 8, 9 and 10 located North of trestle approach.

SEA ISLAND TERMINAL: A 4 berth Sea Island Loading Terminal is in operation on the West side of Kharg Island.

The structure, 1,800 ft. long, is centred in Lat. 29° 13′ 29″ N., Long. 50° 17′ 10″ E., and is aligned in a direction 154°/334°. It is designed to accommodate vessels of approximately 150,000/500,000 tons at No. 11 Berth on the West side, and vessels of approximately 150,000/300,000 tons at No. 12 Berth on the East side.

Unless advised to the contrary, all vessels should proceed to the anchorage East of the Main Jetty.

Vessels instructed to load at the Sea Island are required to rig an accommodation ladder to facilitate the boarding of Customs, Health, and Port Authorities. Agency work and crew changes must also be effected at the anchorage. There is no shore leave from the Sea Island.

The comparatively exposed position of the Sea Island makes additional moorings advisable and vessels should be prepared to use their maximum number of mooring lines. Quick-release hooks are provided for all mooring lines.

Minimum size vessel, about 150,000 d.w.t.

Loading rates of up to 30,000 t.p.h. to one berth can be achieved at the Sea Island.

Only fuel-oil bunkers are available.

Vessels may, if considered necessary, be required to retain on board sufficient ballast while loading cargo to ensure that the loading arms do not exceed their maximum designed elevation.

Berth	*Depth of water* (m.)	*Maximum capacity* (d.w.t.)	*Loading and bunker arms*	*Height limits ship's manifold in metres above chart datum*
11	32.0	500,000	4×24 in. 2×16 in.	6.1 to 33.5
12	29.5	300,000	3×16 in.	6.1 to 28.3

The Sea Island has been extended to the Northward to create two new berths, 14 and 15.

Berth	*Depth of water* (m.)	*Maximum capacity* (d.w.t.)	*Loading and bunker arms*	*Height limits ship's manifold in metres above chart datum*
14	25.9	300,000	2×16 in. 4×16 in.	6.1 to 28.3
15	27.4	500,000	4×16 in.	6.1 to 33.5

Loading Arms: Luceat – quick coupling.

Effective Loading Rate: Berth No. 14 – 16,000 t.p.h. Berth No. 15 – 30,000 t.p.h.

TUGS: Vessel normally berthed with assistance of tugs which, together with Berthing Master, meet vessel at port limits. The tugs will come alongside, normally 1 to the bow and 1 to the stern, as far forward and aft as is safe and practical. Tugs' towing equipment will be used on all occasions.

BERTHING: Approaching berth, 2 fibre-rope headlines should be lowered to mooring launch, for transfer to jetty. 2 stern lines are then handled, preferably one at a time, to avoid possible fouling of vessel's propeller. Positioning of vessel's loading manifold in relation to Chicksan loading arms on jetty has to be carried out to a close tolerance, as directed by Berthing Master, to requirements of jetty operator. On inner berths, particularly Nos. 2, 4 and 8, vessels are berthed head outwards, i.e. stern to trestle. In these cases, vessels are towed stern first by after tug's hook wire, with forward tug either alongside or on towing hook, depending on tidal and weather conditions.

Mooring System: Under normal conditions, 12 lines are used to moor a vessel as follows: Forward: 3 headlines, 2 breast lines and 1 spring. Aft.: 3 stern lines, 2 breast lines and 1 spring.

During Winter S.E. storm period, it is usual to use 1 each additional headline and breast line, at each end making a total of 16 mooring lines. Breast lines and springs of wire rope are acceptable.

Berthing Limitations: Various combinations of wind, sea and tidal conditions, also size, length, ballasted trim and handling qualities of a vessel and available berth space, can effect decision to berth a vessel at Kharg. All these factors have to be evaluated before a final berthing decision is made.

Manifold Position: No berthing where manifold of vessel cannot be positioned, within horizontal limits of Chicksan loading unit arms, due to adjacent occupied berths.

Note: On outside berths, very large vessels of light free board in excess of 70 ft., may be required to retain sufficient ballast, to ensure that their manifolds remain within the vertical range of the Chicksan loading arms, until sufficient cargo is loaded.

LOADING: Both Iranian light and heavy crude oils available at all jetty berths. Crude oil is delivered to jetty from Tank Farm, situated on central plateau of sand, by gravity flow through 4×48 in. diameter pipe-lines and to the Sea Island by 2×78 in. shorelines and 2×56 in. sealines. Loading rates of up to 15,000 t.p.h. to one berth can be achieved at Kharg Terminal. Up to 60,000 t.p.h. can be delivered to all 10 berths simultaneously.

FUEL: Bunkering facilities at each berth. 2 grades available, marine fuel oil and marine diesel oil. Bunkers may be loaded up to a maximum rate of 1,000 t.p.h., and bunkering will normally commence before loading cargo. Only fuel oil available at Sea Island berths.

FIRE PRECAUTIONS: A copy of the "Fire and Safety Regulations" notice is given to Master of every vessel by Berthing Master, at Anchorage. 5 additional copies are passed aboard vessel when it arrives alongside jetty. These extra copies must be posted in conspicuous places throughout the vessel. While a vessel is within Port Area a continuous and efficient Fire Watch shall be maintained on deck and in the engine room. In event of fire, however minor it may be, the Fire Alarm shall be given immediately as follows:

On Board Vessel: Rapid and continuous ringing of ship's bell, together with a succession of long blasts on the ship's whistle or siren.

On Jetty or Elsewhere in Port Area: Rapid and continuous ringing of the gongs on the jetty. A push-button alarm system is provided at each berth.

SAFETY:

Amendment to Safety Regulations and Safety Inspections:

To keep Safety Regulations and Safety Inspections in line with current world-wide practice, the following new Rules will be put in force immediately.

1. At least 50% of the crew including sufficient senior officers shall be available on board at all times to deal with emergencies.
2. Two dry powder extinguishers plus 1 fire hose to be available at the manifold at all times.
   Note: This is especially important before connecting lines.
3. Present funnel deck hoses, now only required at inside berths, are now required on all berths including Sea Island.

C. **KHEMCO TERMINAL:** (Additional requirements and details)

OPERATOR: Kharg Chemical Company, Ltd. (Khemco), Tehran, Iran. Cable Address: "Chemkharg" Tehran. Telex: 2402 Khemco Tn.

LOCATION: Khemco Terminal dolphin jetty is located at the S.E. corner of Kharg Island Lat. 29° 12′ 45″ N., Long. 50° 20′ 05″ E.

APPROACHES: Vessels entering Kharg Island Roads must not approach or anchor West of Long. 50° 21′ 30″ E. (being approximately 1 mile East of Khemco Terminal), unless a Company Berthing Master is on board.

PILOTAGE: Company has own Berthing Masters, who will board vessels outside the port area and will pilot and berth the vessel alongside Khemco Jetty. Berthing Masters will also carry out the duties of safety officer.

Vessels with the Berthing Master on board shall display the international flag "H" in a prominent position while manoeuvring under his advice. This flag will be in addition to the "Q" flag, being already hoisted for quarantine purposes.

Vessels are requested to have a clean pilot ladder safely secured on the leeside of the ship for the Berthing Master. The pilot ladder should be long enough to reach the pilot tug or launch. At night adequate lighting for the pilot ladder shall be installed.

Pilotage, berthing, mooring and sailing of vessels will be carried out in accordance with instructions of the Mooring Masters, subject to the understanding that in all circumstances the Master of the vessel being manoeuvred shall remain solely responsible for the safety, proper navigation and manoeuvring of his vessel. The Master or a qualified ship's deck officer must be on the bridge at all times while the vessel is underway or unmoored.

NOTICE OF READINESS: Notice of Readiness will not be accepted at the time of arrival unless the vessel is in all respects ready to load. Arrival time will be considered as the time the berthing Master boards the vessel or the time that the vessel anchors, whichever occurs first.

RESTRICTIONS: Vessels can be berthed day or night in 2 directions using ship's moorings. Occasionally bow anchor will be used during berthing operation.

MAX. SIZE: Length of pier is 1,180 ft. with maximum of 42 ft. water alongside at MLLW.

RADIO: The main radio station at Abadan will handle Khemco's radio traffic. The station call sign is EQZ. Messages for Khemco should be prefixed with "NIOC for Khemco Kharg", with copy to Agent.

Advice of Arrival: It is important that ships establish radio contact with Khemco, when 3 days distance from Kharg Island, and maintain this contact until just prior to arrival at the terminal. All ships should send a 72 hours ETA message to Khemco, giving the best estimate of the ship's arrival time at Kharg anchorage. The first ETA message should also include a definite statement of the details of manifold dimensions, cargo requirement, Agent and any other necessary information. Further ETA messages should be sent to Khemco when the vessel is 24 hours and 12 hours distant from Kharg Island and at any other time if any appreciable change occurs in the original ETA or those subsequent thereto. The 12 hour ETA should include a positive statement regarding ship's readiness to load on arrival, and the number of hours required to discharge clean ballast after ship has berthed.

TUGS: Two 2,000 h.p. and one 1,000 h.p. diesel tugs are provided by the Company. Normally 2 tugs are used for berthing and 1 for unberthing, depending on the Berthing Master's discretion. Tugs moorings are provided by the company and vessels are requested to have good heaving lines handy on the deck for picking up the tug lines. All tugs are equipped with fire-fighting equipment, including a foam system, which can be used when required.

MOORING: If, in the opinion of the Berthing Master, the vessel is not equipped with adequate mooring facilities, lines or gear, he will so inform vessel's Master, and in such event shall not be brought into berth until such facilities, lines or gear are deemed satisfactory.

Mooring Launches. 4 powerful mooring launches are provided by the Company and normally 1 is used during berthing and unberthing operations.

Mooring Lines. Under normal weather conditions the following mooring lines are required: forward: 3 head lines, 2 breast lines, 1 spring; aft.: 3 stern lines, 2 breast lines, 1 spring.

All lines to be of 120 fathoms, with the exception of the breast lines, being of shorter length. No wire lines are to be used at Khemco jetty.

During abnormal conditions, especially during Winter periods, some additional 4 lines are required for extra moorings.

In most cases it might be necessary to pass all forward lines from the bow and all stern lines from the poop.

Dolphins. The jetty consists of 1 main and 8 smaller dolphins. 4 on either side of the main dolphin are for ships mooring. The main dolphin is connected to the shore via a trestle and causeway. Head and stern lines are passed to the dolphins by means of line handling launches and others by heaving lines. All mooring dolphins are fitted with quick-release hooks.

BERTHING: A. Berthing Masters. Vessels to be berthed at Khemco jetty will be boarded by a Company Berthing Master at Kharg anchorage and after advising the ship's Master of all port formalities, will normally take 2 tugs (1 to the bow and 1 to the stern), alongside while proceeding to the jetty.

B. Berth Turn. Vessels to load at Khemco jetty will normally be accepted and the berth will be assigned to the vessel in order of arrival and nomination. In the event the berthing is delayed by weather or other reasons, vessels will keep their positions in line. Vessels leaving the port area on account of weather or other reasons should keep in contact with the terminal in order that they will be available when weather moderates. Khemco reserves the right to load vessels out of turn following the return of good weather, to the extent that such loading out of turn does not materially delay the loading of other vessels in line. For example, in the event that weather or other reasons make it necessary for vessels awaiting berth to leave the terminal and put to sea, Khemco may load another vessel after the port opens, but before the return of the vessels waiting in line ahead of it. And further, Khemco reserves the right to decline to berth a specific vessel if its condition or facilities are unsafe for berthing or loading, but berths other vessels "out of turn".

C. Gangway. When alongside the jetty, vessels shall provide an efficient gangway with a net rigged underneath. During the hours of darkness, they shall install adequate safe lighting for the gangway. These lights are in addition to those used for the deck illumination.

D. Sailing. All lines are dropped by means of quick-release hooks, fitted on all dolphins and under normal conditions 1 tug is used on the hook at the bow of the vessel in order to clear her off the berth. Usually the documents are signed before departure, unless the berth is needed for another ship.

BALLAST: A. Rules and Regulations. Vessels arriving at Kharg should maintain a reasonable draft fore and aft for safe manoeuvring and berthing. When conditions permit, the Berthing Master will advise the Master to commence discharging ballast. It is the Master's responsibility to see that dirty ballast, whatsoever, is not pumped or spilled overboard. Only clean ballast or bilge water may be discharged within 50 miles of the coast-line. In the event of contaminated ballast or bilge water, the vessel will be required to divert this material to a ship's slop tank. Otherwise, the vessel may be unberthed and returned to a point not less than 50 miles from the coast line to discharge contaminated ballast.

There are no ballast disposal facilities at Kharg Island.

Masters are requested to arrive at Kharg with clean tanks, pipe-lines, sea suctions, strainers and pumps. Ships will not be accepted for loading if evidence of any dirty ballast is observed.

Any vessel returned to a position at least 50 miles off-shore to discharge dirty ballast, or for any similar reason, automatically nullifies any "Notice of Readiness" already tendered and loses any priority held for loading. The vessel will be entered for loading at the time of second arrival when a new "Notice of Readiness" will be tendered.

B. Loading and Deballasting Simultaneously. Vessels are permitted to load cargo and discharge clean ballast at the same time provided all safety and other aspects are observed.

C. Tank Cleaning. Ship-tank cleaning will not be allowed at the pier. Ships will be allowed to draw sea water ballast while alongside.

LOADING: A. Ship's Gear. Although the jetty is equipped with a boom to handle loading hoses, ships are requested to rig jetty side boom in a proper and safe manner for possible use. Masters will be responsible for ensuring that the ships gear or fittings are in good working order and will not in any way interfere with or hamper the working of the facilities.

B. Inspection. After the vessel has been berthed and all formalities carried out the vessel will be boarded by the loading Master. A joint inspection will be made by an authorised ship's officer and the loading Master after the exchange of information and documents. If the ship's tanks, piping or equipment are in such condition that a potential hazard exists, the ships will be refused permission to load until such hazards are corrected. In any case, the Owners or Charterers of the ship will be notified of any delay or refusal to load because of hazardous conditions and any expense due to such delay or refusal to load will be borne by Owners.

If the ship does not arrive with tanks and/or piping sufficiently cooled to permit loading, the time required to cool down shall not be counted as lay time. Any expenses, including LPG furnished by company, demurrage, etc., involved with the cool-down period and operation shall be borne by the Owners or Charterers of the vessel.

Should the vessel arrive at the loading terminal with inert gas in its tanks, after purging from a previous cargo of ammonia or other gas to prevent contamination of shore lines and facilities, the inert gas should be vented if possible before ship is moored. If the ship's tanks to be loaded previously contained a product different from what is to be loaded, the Master shall verify that the tanks are clean and ready to receive Kharg Chemical cargo.

C. Loading Propane and/or Butane. 1. General Information. No loading will begin until the ship is safely moored with fibre mooring lines, gangway lowered and secured, the ship grounded and ground tested, ship's and shore emergency fire hose pressurised and ready for use, fire wire in place, and ship/shore communications tested and in good working order.

All loading personnel will wear fibreglass hard hats, leather-palmed gloves, cotton long-sleeved shirts, long cotton trousers, cotton socks, and sandals or shoes that do not have spark-generating material, such as steel nails, cleats, toe or heel plates. Non-sparking tools will be used in making hose and ground connections. Silk clothing or headgear will not be permitted due to its affinity for collecting static electricity. Ship's grounds will be tested for continuity to shore before product or vapours pass through hoses.

Since the LPG may not contain an odorant, particular care shall be taken that the atmosphere does not become explosive. If there is no air movement, explosimeter readings will be taken hourly, and if an explosive atmosphere exists, loading shall stop until conditions change. Prior to loading the main cargo a small quantity of propane and/or butane will be loaded or circulated initially for cooling down purposes. The amount set aside for cooling down will depend on whether the cool down is for the ship's lines or ship's tanks. Generally, the ship's lines will be cooled down before loading each parcel.

Although a small amount of refrigerated LPG is normally retained in the bottoms of the ship's cargo tank during the trip to Kharg Island, the tank vapour space and tank walls are warmer. For a period of about an hour while low temperature circulation of the shore lines continues, a small amount of propane may be taken by the ship from cargo holds and sprayed into ship's tanks. This method cools the upper parts of the ship's tanks and vapour spaces. If propane is taken from shore lines, this is replaced from shore tankage as the circulating pump suction is "floating" on the shore tank outlet line.

The enclosed spaces around ship cargo tanks and double bulkheads should be frequently monitored by ship's personnel for cargo leakage.

The measures for dealing with any leakage to prevent the temperature of the hull structure from falling below a safe level depends upon the ship's design. The Master shall have standing orders for dealing with any leakage observed on the ship and shall so inform the Loading Master.

2. Loading Master and Jetty Operator. Once the vessel has been berthed, berth will be manned at all times by an operator, who will be stationed in the immediate vicinity of the berth loading bay. All information and forms will be passed by the Loading Master prior to commencement of loading.

3. Alarms. All alarm systems on vessel and communications between the jetty and control room shall be checked before loading is begun. Masters are requested to make the Loading Master fully familiar with the vessel's alarm systems. Otherwise, confusion may occur between loading alarms and fire alarms.

4. Connecting Loading Hoses. The loading and vapour-return hoses will be well supported and laid along the pier. Each hose and hose valve will be supported by jacks on ship's deck. Hoses will be protected by rope mesh. Once the loading hoses are connected they will be adjusted during loading operations. The shore and ship personnel shall be careful not to kink, stretch or damage hoses. Hoses not used will be blanked. Hose flanges will be completely bolted and shrouded.

Size of Hoses; propane 8 in. (with 8 in. ASA 150 flanges); butane 8 in. (with 8 in. ASA 150 flanges); vapour 6 in. (6 in. ASA flanges).

5. Air. It is most important that no air is allowed to enter either the ship or shore loading lines. All hoses and spools must be purged free of air after being connected.

Provision is made on shore for purging air from LPG and vent hoses on completion of hose connection to ship and for purging LPG vapour from hoses before disconnecting when loading is finished. Provision is made to supply inert gas for this purpose. Provision is also made for disposal of remaining liquid in hoses safely and effectively from shore connection of hoses before disconnecting and gas purging of hoses when loading is finished. Valves and connections are provided for this purpose on the shore end. All ice must be removed from around hose insulating gasket prior to hose disconnection. Cargo hoses shall be blanked and be removed from ship. Ground wires will remain connected until ship's gangway is removed and ship is ready to depart.

6. Loading Pressure. Loading pressure should not exceed 50 p.s.i. at any time.

7. Ship's Compressor. During loading, the ship may pump vapours ashore via the ship's compressor. The Loading Master should be advised before the compressor is started or stopped.

8. Loading Rates. Maximum loading rates for LPG products are as follows:

Propane (2 lines)	10,900 barrels per hour
Butane (2 lines)	7,800 ,, ,, ,,
Propane (1 line, pumping)	7,000 ,, ,, ,,
Butane (1 line gravitating)	3,900 ,, ,, ,,

It is more important that the Loading Master be informed before any changes are made by the ship in the vapour compression operation. He then will inform the shore loading area. Starting and stopping compressors on the ship affect the shore tank pressures and can result in damage to tanks and pumps. Ship's valves should under no circumstances be partially or completely closed against LPG flow without first informing the Loading Master. Pumping rates will normally be adjusted from the shore loading area.

The ship's Master is responsible for his ship at all times. The Company Loading Master will advise the Master in respect to loading pressures and hazards, but will not direct the loading except as may be necessary to protect their terminal's facilities or to prevent any hazards. Manipulation of ship's valves is the direct responsibility of ship's personnel.

LPG loading will be done on a 24 hours basis; hence the Master of the vessel, while alongside the LPG loading pier, will be responsible for the provision of adequate explosion proof lights, fittings and switches in all parts of the vessel where work is being carried out in any way connected with loading of LPG.

The ship's pipe-lines/vent system and/or liquification system shall be manifolded so that only those pipe-lines connected to the ship's tank being loaded will be open. All other pipe-lines' lines shall be closed and outlets blinded.

All doorways, vents, ports, air-conditioner intakes and other openings into which gaseous vapours could enter shall be closed.

During loading, there shall be no smoking, no open lights and no galley fire on the ship or in the vicinity of the pier.

Packaged goods, bunkers, water, freight and ship stores shall not be loaded or discharged during loading. Visitors will not be permitted on the ship during loading.

Loading of LPG shall be stopped whenever weather or sea conditions are hazardous to the ship, dolphins, LPG hose and manifold, adjacent vessels or personnel. The Senior Terminal Representative and authorised Ship's Officer shall jointly judge if such conditions exist. In case of dispute, the Senior Terminal Representative's judgement shall be followed.

During severe thunder storms, sand storms and electrical storms in the vicinity of the ship, loading shall cease until the storm subsides.

9. Strainer Boxes. It is important that no ice, pipe scale, etc., be allowed into the vessels' tanks. The ship should have strainers placed immediately upstream of the manifold valves. A careful watch must be kept on the pressure to prevent the strainers being blocked and periodically the strainers should be cleaned by using the built-in wiper, which should be turned clockwise only. In case of an absolute blockage loading will have to be suspended and the strainer cleaned, if necessary by removal. If one of the vessel's strainers is blocked, it may be possible to continue on the other hose.

10. Completion of Loading. A reduction in loading rate before topping of the final tank or tanks may be arranged through the Loading Master by the ship's officer in charge. When the vessel asks for a slow rate, the loading pump will be shut-down and valves re-aligned for circulation. The vessel should then complete loading at its own controlled rate off the circulation flow. The terminal might ask for a suspension of loading while re-aligning the circulation pump. When required to stop completely, the Loading Master should be advised.

11. Hose Disconnection. When disconnecting hoses in order to change or clean a strainer at the time of completion of loading, the following points must be remembered:

(a) All ice must be removed from around the hose insulating gaskets prior to disconnecting.

(b) The hoses and hose valves must be secured to the vessel to avoid slipping or twisting. This is best done with rope and/or pulleys.

(c) The hose valves and ship's manifold valves must be shut.

(d) The vessel's vent valves must be open either to the atmosphere or to the vapour return hoses.

(e) The ship's strainer and all pipes and flanges between the hose and manifold valves must be de-iced.

(f) The hose can then be disconnected, but the ship's manifold valves, vapour return valves and hose valves must be shut.

D. Loading of Bulk Sulphur. All rules and regulations concerning LPG loading also apply to sulphur.

1. Inspection. The joint inspection of the ship and the ship's holds to be loaded with sulphur will be made by the Loading Master and authorised ship's officer. If the condition of the ship's holds presents a potential hazard to personnel, sea or shore facilities, the ship will be refused permission to load until conditions are corrected. The Master shall bear the responsibility for notifying the Owners or Charterers of the ship of any delay or refusal to load because of hazardous conditions and any expenses due to such delay or refusal to load shall be borne by them. The Company reserves the right to refuse loading and their decision is final.

If the ship's cargo holds are not clean or are so hot and/or contain residue (such as excessive rust, sand-scrap iron, minerals, or mineral dust) that alone or in combination with sulphur or sulphur dust would contaminate sulphur being loaded, oxidise with sulphur, or cause a fire or explosion of the sulphur cargo, permission to load sulphur will be withheld until this condition is corrected.

2. General Information. Bulk Sulphur is loaded at 500 t.p.h. via a conveyor. The conveyor extends from the shore storage area along the causeway, trestle and finally to the main dolphin close to the ship's holds.

No loading will begin until the ship is safely grounded, moored with fibre lines, fire hoses pressurised, ship-to-shore communications operable and the chute grounded.

In order to minimise movement of fine sulphur dust, cowl ventilators serving hold into which sulphur is being loaded shall be blanked off to prevent circulation of air. Package goods, bunkers, water, freight, ship stores shall not be loaded or discharged during or after sulphur loading.

When sulphur is loaded in a deep hold with general cargo in the tween deck hold above the sulphur, the ship's Master will be responsible for installing a dust proof wooden bulk head enclosure in the hatchways from the over deck of the lower hold to the weather deck forming a tight enclosure to prevent sulphur dust from entering the tween decks during loading. Ceilings shall be tight to prevent sulphur dust from entering bilges. Any chinking at tank tops or bilge will be of non-combustible material.

Masters to maintain sufficient personnel to adjust and maintain chute position, gangways and keep mooring lines taut as ship is loaded.

If sulphur is loaded into a hatch already containing sulphur, representative samples may be requested by the terminal to determine quality.

Since the sulphur loading facility at the pier is fixed the ship will be warped and moored so that various ships holds that will receive sulphur can be loaded.

After each warping the ship will be moored and grounded and chute grounded. The hold to be loaded will be checked with an explosimeter to be certain that the hold is not in the explosive range. Personnel entering cargo holds for inspection must be equipped with life-lines and belts with non-sparking hardware, goggles with green tinted lenses, and self-contained breathing apparatus with a mask covering eyes and nose. The life-lines shall be of sufficient length and strength that 1 line could be used to pull a man out of a hatch. For each man working in the hold 1 man on deck must attend his life-lines. Personnel in the hold must wear gauntlet gloves, high-top shoes, long cotton socks, a fibre glass hard hat with a cotton cap ear flaps covering the head and ears, pants fastened at the cuff and long-sleeve shirts buttoned at the neck and wrists. Silk clothing or headgear will not be permitted due to its affinity for collecting static. Cotton clothing material is preferred.

Only the hatch being loaded with sulphur will be open. All other ship hold hatches must be closed. All doorways, vents, ports, air scoops, air conditioner intakes and other openings into which sulphur dust could enter should be closed during loading. After loading and trimming a hold, the hold hatch cover shall be closed and the next hatch to receive sulphur will be opened. The pier sulphur loading tower can be raised and lowered as well as rotated in order that the cargo hold being loaded can be evenly trimmed with little or no manual trimming. Each time the tower is moved the chute shall be grounded. No hand cargo load trimming will be allowed while the pier loading sulphur tower is in operation. The tower down-spout drop distance will be adjusted to minimise sulphur dusting.

The loading-tower operator will be advised by authorised ship's personnel on the deck by use of agreed hand signals of any hazards such as deck cargo, life boats, aerial guy wires, etc., that can do damage to loading tower. Personnel will work upwind as much as possible to minimise sulphur dust inhalation or sulphur on skin. Eye baths and showers are located at the dock and will be ready for use if needed.

No loading will be done until all personnel are out of ship's cargo holds. The ship's authorised officer shall assign personnel to sweep sulphur dust into cargo holds to minimise pollution of the adjacent sea water. If shovels or scoops are used the shovels must be of a non-sparking material such as monel. Personnel working cargo holds or on deck shall not be permitted to wear shoes with steel nails, or metal heels or toe plates that could cause sparking.

Loading of sulphur will be stopped whenever weather or sea conditions are hazardous to the ship, pier, dolphins, sulphur loading tower, pier equipment, adjacent vessels or personnel.

Sulphur dust, like most poor electrical conductors rapidly acquires a static charge under dry atmospheric conditions. To minimise this hazard the loading tower is equipped with water spray nozzles to humidify the sulphur and reduce dusting. Conveyor hoppers are also equipped with sprays.

During severe weather conditions loading will cease and cargo hold hatches shall be closed until the storm or seas subside.

Sulphur loading will be done on a 24 hour basis. The Master of the vessel while alongside the sulphur loading pier will be responsible for the provision of adequate explosion proof lights, fittings and switches in all parts of the vessel where work is being carried out in any way connected with loading. The Master of the vessel will assign authorised ship's officers and men as deemed necessary for the safe loading of the ship and to adjust mooring lines and keep sulphur dusting to a minimum.

FUEL: Presently no bunker facilities are available at Khemco jetty.

WEATHER: A. Climate. The climate along the coast of Kharg Island is generally mild. The days in mid-Summer are extremely warm and humid with the temperature reaching 117°F. (47°C.) and a relative humidity ranging from 10% to 98%. The Winter months, from November to March, are pleasant with a minimum temperature of about 39°F. (4°C.). Freezing weather is uncommon.

B. Weather Data and Summary.

Average annual rainfall	8 in.
Mean maximum temperature	87°F.
Mean minimum temperature	66°F.
Extreme maximum temperature	117°F.
Extreme minimum temperature	39°F.
Average relative humidity	59%

C. Winds. Wind directions and velocity are subject to rapid change without warning and precautions are necessary to avoid difficulties. The heaviest seas and swells are from the N.E. through S.E. The prevailing wind for most of the year is from the N.W., but during the Winter period strong S.E. storms occur with very little warning. The Khemco jetty is sheltered from the N.W. winds.

D. Tides. The tidal range is between 7 ft. and 8 ft., with a maximum rate of about 1.5 knots. The tidal streams run approximately parallel to the line of the jetty, with occasional cross currents.

E. Sea Temperatures. The surface temperature of the sea ranges from 63°F. to 97°F., depending on the season.

SAFETY: Masters of vessels are responsible for the safety of their vessels including, but not limited to compliance with official precautions, and must take all necessary precautions while the vessels are alongside the Khemco jetty. While the vessels are alongside the jetty, all personnel must comply with all port's safety rules and regulations.

GENERAL: *(a)* Shore Leave. Shore leave at the terminal must be arranged between Master and ship's Agent. Sufficient personnel must be on board at all times for emergencies.

(b) Visitors. Due to hazards involved, no visitors are allowed while the vessel is alongside the Khemco jetty.

(c) Light Dues. A charge of half a Rial per g.r.t. is levied on each vessel for light dues by the Iranian Government. This is in addition to light dues for Middle East Navigation Service. The Company shall have no responsibility in respect of any taxes, dues, or other charges levied by the Iranian Government or any of its departments or agencies.

(d) Painting and Scaling. Painting, chipping, scaling and any repairs on deck or overside is strictly prohibited while vessel is alongside the Khemco jetty.

(e) Garbage. Dumping of garbage and refuse strictly prohibited in port area.

(f) Repairs. No workshops or other facilities for repairs at Kharg Island.

(g) Customs. There are Customs and other official offices on the Island. Vessel will normally be boarded by a Custom Director, Immigration Officer and Director of Ports and Shipping.

(h) Consulates. No consulates on Kharg Island.

(i) Marine Surveyor. No marine surveyor on the Island, but can be available at 48 hours' notice through ship's Agent.

(j) Recreation Centre closed.

(k) Supplies. Provisions can be supplied if sufficient notice given. No fresh water is available for delivery to the ships. No laundry services are available at Kharg Island.

(l) Mail. Regular plane services between Kharg Island and the mainland and mail receiving and dispatching can be arranged through ship's Agent.

SHIPMASTER'S REPORT: June 1979 (with further updates in March 1980).

Approaches: Generally not a great deal of traffic. The D/F at the airport is operational and useful. Decca Navigator Chain 5C. Ships anchor at S.E. and S.W. of island.

2 buoys at Southern end of island:

Red Pillar Buoy Gp. Fl. (2) 6 sec. (29° 11′ N., 50° 20′ 24″ E.);

Green Wreck Buoy, conical (29° 12′ 06″ N., 50° 19′ 39″ E.), marks position of tug.

Anchorage: The Eastern anchorage is very exposed to Southerly winds (use Western anchorage if waiting for a long time in Winter). At the present time there are many tankers waiting which means small tankers and LPG vessels either have to anchor themselves in amongst VLCC's or anchor well out – generally about 4 miles East of the "T" jetty (less shipping waiting in March 1980). This seems to be quite acceptable to the Authorities and is more satisfactory as far as engine maintenance and winds are concerned.

Berth: South of "T" jetty owned by Khemco – Kharg Chemical Co. Approximate max. size of vessel 250 m. long; water depth LW 13.6 m. and about 60,000 d.w.t.

Consists of jetty stretching over about 150 m. connected to shore by pier. On the jetty there is a manifold for flexible LPG lines, line derrick with powered winch, sulphur gantry and chute connected by conveyor belt to stockpile ashore.

On either side of jetty there are 2 dolphins with quick release mooring hooks. The jetty and near set of dolphins are faced by shock absorbing fenders.

March 1980: With strong Southerly winds the berth is a hazard. We experienced a force 6 S.E. wind one night which fetched the swell up and caused the vessel to work heavily on the jetty, one release hook gave way (the securing pin snapped), luckily it was on a dolphin that had a catwalk so we were able to change the moorings. As we were port side too facing North into the "T" jetty we had to sit tight and put out extra moorings.

Fenders were very good (about the best that I have seen with large timber faces)

Depth by lead line. After (Southerly dolphin with catwalk) 12 m. at LW, forward dolphin 13 m. at LW.

VHF: Call 'Ipac Marine' on Channel 16, works on Channel 6, only operates office hours and when berthing.

Vessel can call 'Kharg Pilots' 24 hours on Channel 16, working Channel 12, who will try to pass message for you. 'Kharg Pilots' have nothing to do with 'Khemco' jetty.

Pilots: 2 Iranian 'Ipac' Marine Pilots solely for 'Khemco' jetty. They board 2 to 3 miles East of "T" jetty from tug (will use hoist).

Berthing: Generally only in daylight. Will unberth at night. Max. berthing winds Northerly 45 knots, Southerly 10 knots. Visibility 0.5 miles.

We actually ended up with visibility at about 2 cables in a sand storm when approaching the berth. But as all the preparations had been made and little wind, continued on Radar with no problems.

Vessels berth either side alongside (head into tide).

Current: From readings taken off ships log which accurate, current speed corresponds to position "B" on "T" jetty, BA Chart 11.

Tugs: 2 used for berthing and 1 on departure. Tugs lines.

At present 2 hired from Bahrain, one of 3,000 h.p. and 1 of 1,000 h.p. The small one is very manoeuvrable but inadequate pushing, especially in a wind.

Lines: 3 headlines, 2 breast lines and 2 springs each end. 3 headlines to outer dolphins, 2 as breasts to inner dolphins, 2 as springs to jetty ends.

There are quick release hooks but they are jammed up. 1 line boat only who goes backwards and forwards both ends, try to send 3 lines together (Tie up is slow, about 2 to 3 hours).

An exact line up with ends of flexible pipes on jetty with ship's manifold is required because the flexible pipes are not very flexible.

Gangway: Cannot be turned out and landed and must be brought in until before and after connection/disconnection.

It has to be turned through 130° if it is aft facing, or use fixed length. If vessel port side to, it is much easier to use in the conventional fashion.

Manifold: Most particular that manifold is lined up with hoses on quay. Liquid: 2×8 in. 150 ASA. Vapour return: 2×6 in. 150 ASA. Ship's reducers, shore derrick, ship's chain blocks supporting hoses from manifold gantry. Shore personnel connect.

Cargo: Propane and butane only by gravity feed. Max. rate each product 300 t.p.h., generally around 150 t.p.h. when shore tank near the bottom there is insufficient pressure to even gravitate. Vapour return lines available for both.

Cargo Temperatures:

At manifold, Butane – 6°C (B.P. 0.2 bars)

At manifold, Propane – 42°C (B.P. 0.7 bars)

The shore have no thermometers on their lines. Pockets jammed with old probes, all measurement is on pressure.

On my visit to the plant I ascertained the propane to be −43°C and butane −5°C.

Vapour Return Line: 1 flare for each product about half way up jetty on spur jetty, which normally just alight, so when you open up they can immediately see. If used in moderation no difficulties encountered.

No charge directly, but it is the practice to measure shore and ship tanks and check the difference. On our visit this did not happen as shore tanks had not been taken on departure due to being virtually empty.

At the start the vapour return lines were closed so the valve had to be sought.

Loading Master: There is always one on the jetty, tries to be helpful and speaks reasonable English. Best to telephone 441, 442, Mr. Shafiee or Mr. Ayzak who are the managers – very helpful, or telephone Control Room 412 for shift supervisor who will give you tank tonnages in barrels.

Stopping Propane: 1 hour's notice required to ready the pump for stopping and 5 minutes before completion. When you tell them to stop a little more liquid will run down the line by gravity. It was not possible to top off by gravity alone as by this time the shore tanks were very low.

Stopping butane was no problem as they ran out and we were at the end taking it as they were making it until that process came to a halt.

Specific Gravity: Propane: 0.505 60/60.
Butane: 0.574 60/60.

Surveyor: No outside surveyors. Plant chemist does the survey, agrees with Chief Officer. Ship figure on Bill of Lading.

Draft Reading: Difficult to read after draft, best to use binoculars and Aldis Lamp at night.

Tanks on Arrival: Up to Master whether the ship is capable of loading. If loading propane into butane atmosphere or I.G. or vice versa, Khemco require statement to this effect from Master.

The line is normally circulated for 8 to 12 hours before arrival by a small quantity of liquid being bled through to the VRL. Nevertheless, the first "Slug" is warm due to exposed quay section of line.

The lines (flexible) to ship are purged with Nitrogen after connection by a bleed in at the manifold connection. Nitrogen bottles on jetty.

Documentation:

8 copies Crew Lists.
2 copies Vaccination List.
1 copy Stores List.
2 copies Crew Declaration.
2 copies Maritime Declaration of Health.

The Agent, Port Authority Representative, Port Health and Customs board arrival berth. Numerous forms have to be completed. Arrival formalities take 45 minutes Clearance is given to Master on arrival.

On departure the 'Khemco' shift manager comes down with all the cargo papers – Manifest, Bill of Lading, Spec., etc., and signed onboard.

We finished cargo at 0900 hrs., and papers came aboard at 1145 hrs. This is normal.

The Agent is always on about E.D.P., it is not the practice on this berth and in any case for the sake of a few hours its best to have all the papers correct and note protest if necessary.

Pratique: Granted at berth.

Notice of Readiness: Generally will only be accepted when first line ashore (not at anchorage).

Note of Protest to be given with all force and Khemco may back down and accept on anchoring if port is not closed due to wind.

Communications: Cable "Chem Kharg" Tehran. Telex 2402 Kemco TN.

All telexes have to be routed via Tehran for international acceptance. Telephone poor, can hardly get through to mainland.

It became necessary for me to telephone UK so managed at night to get through to 'Kuwait Maritime' about 120 miles away. 24 hour watch not restricted as ALRS. Call Channel 16, generally works Channel 26. After contact vessel can wait about 30 minutes on Channel 16 before operator calls back. Channel 26 very clear.

March 1980. Not possible to contact 'Kuwait Maritime' in Winter months. It is possible to telephone UK from Kharg and from the jetty. A long wait is usual from the jetty and the line very weak, but it can be done with perseverance.

A better method is to get the Plant Manager to take you to the Central Exchange in the township and UK can be contacted via STD, it took about 40 minutes of constantly ringing to get connected and then you run the risk of disconnection, but again communication is possible and reasonably clear.

Telex via the Agent takes about 26 hours to get a reply due having to be telephoned through to Khorramshahr and then telexed to London via Tehran and vice versa.

Alcohol: We arrived with everything sealed. The Customs allowed us to have 6 cans of beer per man per day, no spirits (it depends on the Customs and Master).

Do not drink outside or give Iranians alcohol, the punishment is severe.

Radio Room: The Port Authority wanted to seal this but persuaded them to seal the antenna switchboard only (with chart paper and glue).

Fresh Water: Fresh water main runs to ship's side with meter. We obtained about 40 tonnes. Water is distilled and slightly brown.

Plant: At present about 300 tonnes per day of butane and 500 tonnes per day of propane are being produced which is about 60% of capacity.

Sulphur production is just resuming and is normally about 200 tonnes per day.

Feedstock is taken from IPAC (Iran Pan American Oil Co.) which is, or used to be, 50% AMOCO owned.

Feedstock is in the form of third stage refined well gas taken from 3 local wells, 2 on the island and the Darius field on the S.W. coast. Most of the 'Sour Crude Gas' is extracted before acceptance, what's left is used for making sulphur.

The plant is completely self contained apart from initial feedstock and covers about 1 sq. mile. It is fully automated and staffed by six operators on a shift system.

The gas which comes in H.P. and L.P. form depending on the wells, is fed through in 2 streams which are crossed to accept different Hydrocarbons thereby achieving a no waste system.

The gas is fed through Glycol towers for water absorbtion then heat exchangers to separate the different molecules.

After basic separation vertical separators are employed to further refine the product. This is then led to 3 stage compressors for reliquefaction then to chillers.

After processing the liquid is fed to receiving tanks for settling purposes then to 2 large atmospheric holding tanks.

The tanks are heavily lagged with bitumen glass wool compound and any boil off being re-liquefied.

The approximate amounts capable of being stored are 120,000 bbls. butane (11,000 tonnes), and 250,000 bbls. propane (20,000 tonnes) which under the original Japanese shipment meant about one 30,000 tonne shipment per month.

Power requirements for the electric motor drives are provided by two 4 MegaWatt Mitsubishi compound turbo generators, 1 being on auto stand by at any one time, supplied with steam from the 2 boilers that also produce sulphur.

Cooling water for the various systems is provided by salt and fresh depending on the plant. Salt by two 3,000 M3 electric pumps situated about two thirds the way down the jetty, these are backed up by a diesel driven auto start pump.

Fresh water is distilled at the rate of 700 tonnes per day by a steam separator and stored in two 1,000 tonne tanks.

A new Glycol plant was commissioned in March 1978 and a new distillation plant supplied last year but not erected. At present it is in polythene sheeting awaiting engineers.

Generally the plant is in a good state of repair and all instruments seemed to be working in the very comprehensive control room. The staff were most helpful but a camera was not allowed.

A product specification can be obtained. One is always given on completion, but with a lot of pressing can be obtained about 12 hours after commencement of loading.

Sulphur loading is slow and by a conveyor belt to a directional chute. The ship has to shift to load individual holds.

Kharg Crew Facilities:

Films: No Walport exchange.

Travel: The Agent said in emergency it could be possible for repatriation to be arranged.

Iran Air have restarted their 737 flights to Abadan, Bushire and Tehran once a day in each direction. Leaves for Abadan about 1000 hrs.

Khemco/IPAC have a flight from Tehran twice a week for their own personnel by Fokker Friendship. I was told it would be possible to get a seat or two on this on a one-off basis, arrangements would have to be made direct to these 2 companies in Tehran.

General (March 1980): Approximately 2 million barrels crude oil per day being exported. About 2 to 3, at maximum, tankers using the "T" jetty at any one time. About 2 tankers per week using the Western Sea Island.

The airport is functioning with regular 737 flights to Abadan, Bushire and Tehran.

The Cyrus field about 40 miles W.S.W. of Kharg has ceased production and the Darius Terminal has about 1 ship per month.

The Khemco berth handles 1 sulphur ship per month mainly for African countries and 1 LPG ship every 6 weeks for Japan.

AGENT: See "Abadan".

KHORRAMSHAHR: 30.26 N. 48.10 E.

Note: The port was extensively damaged in the conflict and is not expected to be operational in the near future.

LOCATION: Khorramshahr lies at confluence of Karoon and Shatt-al-Arab Rivers and is principal commercial port of Iran. Khorramshahr is terminus for Iranian Railway system and regular train service to rest of country is available. Good asphalt road connecting Khorramshahr to other major cities in country.

DOCUMENTS:

(a) Iraqi Quarantine Officer: Vessels arriving Outer Bar (Shatt-al-Arab Pilot Station) will be boarded by Iraqi Quarantine Officer who will check all crew vaccination cards. Masters requested notify Fao Quarantine Office at least 18 hours' prior vessel's arrival Outer Bar giving exact arrival time Outer Bar enabling Quarantine personnel board vessel immediately. Upon arrival Outer Bar, Master should have ready a copy of Crew List and crew vaccination certificates for presentation to Quarantine Officer.

(b) Iranian Quarantine Officer: Upon arrival Khorramshahr anchorage and prior berthing, the Iranian Quarantine Officer will board vessel. He requires 1 copy Crew List, and all vaccination cards should be available for inspection.

(c) Customs Officer: Customs Officer boards ship at anchorage or alongside Khorramshahr Jetty (in case of immediate berthing) and requires following documents:

Crew List (2 copies).
Stores List (2 copies).

(d) Port Authorities:

Crew List plus (1 copy).

Arrival information form of the port Administration will be supplied to the Master in duplicate upon arrival, by a port representative. This form should be filled in and returned to the port Berthing Master.

(e) Agents:

Crew List (2 copies, for arranging shore passes).

Order avoid any delay in entering and discharging, the following documents must be sent by all loading port Agents to Khorramshahr Agents as far in advance of vessel's arrival as possible:

Cargo Manifest (8 copies).
Freight Manifest (2 copies).
B/L Copies (2 copies each).

All cargo shown on manifest must be landed at the port, and it is therefore essential that short-shipments, cancellations, diversions, etc. (if any) be reported early as possible and manifest should be corrected before submission to Port Authorities to avoid payment of fines. Stowage plans and hatch Lists should also be sent ahead, giving ample time to be studied by Cargo Supervisor for unloading arrangements.

PILOTAGE: With exception of ships of Government of Iran or Iraq and sailing craft, pilotage compulsory for all vessels entering, leaving or navigating in the Shatt-al-Arab. Pilotage in river outside harbour limits of Khorramshahr conducted by River Pilot; within limits of Port by Harbour Master.

Vessels entering Shatt-al-Arab boarded by River Pilot from pilot vessel situated in proximity of Rooka Buoy (Lat. 29° 49′ N., Long. 48° 47′ E.), showing a white flash every 6 seconds and equipped with Radar Reflector.

Vessels bound for Khorramshahr are conducted by River Pilot as far as Khorramshahr Anchorage, from where a Harbour Master (Iranian) will board vessel and berth her as necessary.

Pilotage, dredging and other navigational dues are collected by Basrah Port Authorities and must be settled directly with Iraqi Maritime Transport Co. Ltd., Basrah, Iraq.

N.B. Owners having vessels bound for Khorramshahr or Abadan should contact Iraqi Maritime Transport Co. Ltd., Basrah, cables "Bawakhir", Basrah, about arranging of Shatt-al-Arab pilotage. Owners should also put Messrs. Iraqi Maritime Transport Co. Ltd. in funds by remittance well in time before vessel reaches the Outer Bar of Shatt-al-Arab in order to cover port tonnage dues, pilotage and dredging dues for sailing from Outer Bar to Abadan or Khorramshahr and return.

ANCHORAGES: On arrival off the pilot boat vessel can anchor with no depth restriction. On entering the Shatt-al-Arab River the following are the recognised anchorages:

Kasba Anchorage, position about 2 miles above Fao with a max. depth of 35 ft. in fresh water.

Bawarda Anchorage, position about 2 miles above Abadan with a max. depth of 31 ft. in fresh water.

Hartha Point, position about 20 miles above Abadan and 15 miles below Khorramshahr with a max. depth of 35 ft. in fresh water. Hartha Point is the anchorage to enable vessels to lighten to 29 ft. in fresh water to enable them to cross the Karun Bar.

Abu Flus, position about 16 miles above Hartha Point and about 14 miles below Basrah (Khora Anchorage) with a max. depth of 29 ft. in fresh water.

MAX. SIZE: Maximum permissible length for vessels calling Khorramshahr is 525 ft. Max. draft for crossing Karun Bar and also at Khorramshahr (Failieth) Anchorage is 28 ft. 6 in., fresh water. Max. draft at Karun Bar in December 1976 was 26 ft. so it is advisable to check before vessel proceeds to the port. The depth alongside Berth Nos. 1 to 3 is 27 ft., Berth Nos. 4 to 7 is 26 ft., and Berth Nos. 8 and 9 is 29 ft.

SPEED RESTRICTIONS: Engine speed must be reduced well in advance so that the vessel's speed when passing jetties at Khorramshahr and Abadan will not exceed 3.5 knots for vessels with more than 20 ft. draft, and 5 knots for all other vessels of over 100 g.r.t.

The same speed restrictions will apply in the Shatt-al-Arab when passing ships at anchor with barges or other vessels moored alongside, tugs with barges or other vessels in tow, and vessels engaged in dredging or other salvage work.

SHIP'S REGISTRATION: Ships have to register upon arrival at outer bar by sending telegram to Port Director Khorramshahr via EQK Khorramshahr Port Radio. At present the vessel, after registering her turn should wait at outer bar. If vessel proceeds to another port for discharging, her registration will not be valid. Vessel after registration of berthing turn for Khorramshahr can however call at Abadan Port during waiting period without losing her turn subject to permission from Harbour Master.

For registration Masters must answer a 14 point registration cable and also advise anchoring time (GMT).

HEALTH: See "Documents". Inward clearance is effected on board after receiving Free Pratique.

RADIO: Khorramshahr Port Radio, call sign EQK, 500 kHz, 2182 kHz.

Khorramshahr Harbour Master can be contacted on VHF Channels 13 and 16, 18 and 25.

Vessels destined for Khorramshahr should send a radio message to the Port Director Khorramshahr and to the ship's Agent 24 hours prior arrival at the Shatt-al-Arab Pilot Station (Outer Bar). Times should be quoted in GMT. Also see "Ship's Registration".

TUGS: The Port Organisation of Khorramshahr owns 2 tug-boats which are used for assisting berthing and unberthing whenever necessary. No tug boats which could be used for long-distance towage. Employment of tug-boats is not compulsory.

BERTHING: See "Ship's Registration". Berthing and unberthing performed by Iranian Harbour Masters supplied by Iranian Port Administration, Khorramshahr. Berthing turn, allocation of berth and anchorage space is under the control of Iranian Port Administration, Khorramshahr.

The Port consists of 3,199 ft. long jetty constructed with wooden piles (Berths 1 to 7) plus the new extension covering 1,000 ft., built by steel/concrete piles (Berths 8 and 9) running parallel with river bank. Jetty can receive 9 ocean-going vessels at a time.

CARGO HANDLING: *(a) Jetty.* All cargo handling/operations on shore, under control of Khorramshahr Port Administration. General cargo discharged from ships alongside jetty is received on domestic railway wagons and trailers controlled by Port Administration, and transported to Port Warehouses or open yards. Port Warehouse/Store keepers will later deliver cargo to consignees against clearance papers issued by Customs. There are shore cranes and floating cranes available for the purpose of discharging cargo as follows: 2 floating cranes (50 ton and 100 ton); 2 mobile cranes (80 ton); 3 mobile cranes (50 ton); also additional mobile cranes of 25 tons capacity or less.

The port yard is equipped with 3 cranes (90 ton, 50 ton and 40 ton). All cargo must be discharged by ship's own gear, and vessels calling at Khorramshahr should not accept cargo beyond their gear capacity to discharge.

(b) Barges. (i) General Cargo: Vessels carrying less than 500 tons cargo are permitted to discharge their cargo into barges, in which case all extra expenses and costs of barging, discharging ex barges, etc., are to be borne by the carriers and such operation is entirely at the risk and responsibility of the respective carrier.

(ii) Structural Iron/Steel: Structural iron/steel is always to be discharged in barges for unloading at Failieh Creek. Barges must be arranged by vessel's Agents, who also have to arrange labour for discharging the cargo ex barge at Failieh, sorting of the iron, and delivery to consignees. Agents should also employ watchmen for protecting the cargo while awaiting delivery to consignees, also tally clerk for supervising sorting and delivery of iron to the respective consignees.

(c) Cranes. For use in loading/unloading cargo *in the storage areas,* cranes are all used in the port yard *for unloading cargo ex rail wagons* and loading on to merchants' trucks.

There is 1 electric crane permanently installed at Failieh Creek with lifting capacity said to be 100/120 tons. This crane can be used for discharging cargo from barges at Failieh barge jetty.

(d) Storage. 19 warehouses (goods sheds), plus an open yard between the warehouses used for storing iron goods, as well as cargoes which can be stored in the open.

(e) Wagons/Trailers. For receiving cargo ex-vessels alongside jetty the Authorities have 160 rail wagons and 77 trailers with average capacity of 10 tons, but number of wagons/trailers provided to each vessel not sufficient to last 24 hours work at jetty. Although 24 hours working alongside jetty is compulsory, due to shortage of wagons hardly 12/18 hours work can be accomplished efficiently. A stand-by of 6/7 hours in Summer and of 9/11 hours in Winter is unavoidable.

(f) Delivery of cargo discharged at jetty. Port Authorities considered as direct receivers of the cargo discharged, who in turn deliver same to ultimate consignees against presentation of the carrier's Agents' Delivery Order.

Carrier's responsibility for cargoes discharged in good condition cease under tackle; slings are opened by labourers provided on wagons alongside each vessel. Broken packages are not permitted (by Customs) to be discharged on the wagons, and are therefore collected on board. Once daily, under full control of ship's officer, port supervisor and carrier's supervisor, the broken packages are delivered to Port Authorities and an official Process-verbal will be drawn by respective warehouse-keeper corresponding to remarks noted at the time. This arrangement is to prevent any delay to operations of the vessel.

(g) Overtime Costs. Wages of port staff on board for official hours are borne by port Authorities but overtime and food allowance are paid by carriers.

(h) Port Working Hours. Dayshift: 0700 – 1300 hrs. and 1500 – 2100 hrs. There is no night shift.

24 hour discharging at jetty is compulsory. The only stoppages are for lunch and dinner, 1 hour each. In Summer season, however, due to heat, discharging at jetty is stopped from 1400 hrs. to 1700 hrs.

(i) Liquid Cargo. Due to non availability of tank barges as well as storage area at Bandar Imam Khomeini, vessels carrying liquid cargo are bound to call at Khorramshahr, where consignees have their own tank-barges and storage tanks. This being the case, the Port Authorities do not divert vessels carrying liquid cargo, to Bandar Imam Khomeini.

In the Port of Khorramshahr, importers of vegetable oil and other liquid commodities, have arranged their own storage area outside Customs yard, and liquid consignments will be received directly ex-vessel into consignees' barges without any expenses to carrier. (Discharging performed at anchorage.)

Vessels carrying part-liquid cargo can discharge their cargo while awaiting a berth or alongside jetty, whilst unloading other cargo on the pier.

Further to above, whenever Port Authorities divert any vessel to Bandar Imam Khomeini, in the diversion order they indicate "Subject no liquid cargo on board", as vessels with liquid cargo will have to be accepted in the port of Khorramshahr.

Notice of Readiness for vessels carrying liquid cargo, has to be tendered after vessel has anchored at Khorramshahr anchorage (within Khorramshahr port limits). If, due to congestion, there is no space at Khorramshahr anchorage, vessels may have to remain at Shatt-al-Arab Pilot station for 1 or 2 days before entering the river.

(j) Dangerous Cargo. Dangerous cargoes are divided in two categories:

1. Acid and flammable cargoes.
2. Explosives such as dynamite, etc.

Vessels carrying acid and flammable cargoes are accepted alongside Khorramshahr berths to unload their general cargo plus dangerous cargo, and Port Authorities unload the dangerous cargo in a yard at Failieh, which yard is mainly used for storing iron joists, but a part is allocated for dangerous cargo.

Vessels carrying explosives are not allowed to berth at Khorramshahr. Recently the Port Authorities have stopped accepting any vessel with explosive cargo on board into the port of Khorramshahr, and those vessels have to proceed directly to Bandar Imam Khomeini before calling Khorramshahr for discharging general cargo, if any. The main port for discharging explosive and special cargoes consigned to Iranian Army is Bandar Imam Khomeini, where the Army have an agreement with the Port Authorities for 1 berth out of the 6 berths. Berth No. 3 is allocated for vessels carrying cargo consigned to Iranian Army, and whenever such vessel arrives at Bandar Imam Khomeini it will be berthed immediately, even if the port is congested; in other words, vessels with Army cargo have priority for berthing.

FREIGHT TAX: Freight tax is payable on any freight earned in Iran for any export cargo loaded at any Iranian port. Per article 90 of Tax Law, freight tax is payable at the rate of 5 per cent on gross freight, regardless of whether freight is collected in Iran or elsewhere. There is no tax on import cargo freight regardless of where the freight is paid. In other words, for cargo discharged in Iranian ports, even if freight is payable at destination to be collected in Iran, there is no tax applicable.

MEDICAL: Private doctors and hospitals located in the town for medical and dental treatment and hospitalisation. Arrangements for patients' visits to the doctors, dentists and hospital will be made by Agents upon request. In case of emergency special medical attendance on board can also be arranged. X-Rays, radiographies, blood and urine tests can also be conducted by equipped hospitals existing in Khorramshahr and Abadan.

DENSITY: Fresh.

FRESH WATER: Fresh water supply alongside berth available by pipelines and at anchorage by barges, capacity 100 tons.

FUEL: Bunkers are not available at Khorramshahr Jetty, however, bunkers (diesel oil and gas oil) can be supplied by barge. All classes of bunkers are supplied at Abadan jetties only. Bunkers could be obtained from Abadan provided arrangement for supply has been made beforehand with NIOC.

CUSTOMS ALLOWANCES: After receipt of documents, the Customs Officer will seal the store room. All liquor and cigarette stocks will be sealed and reasonable ship's requirements while in port should be taken from store before sealing. This amount recommended to be assessed and be ready for removal from the stores prior to the vessel's arrival in port. During the stay at the port, and upon request and giving prior notice to the Agents' supervisor on board, arrangements may be made to have the Customs officials open the stores to issue further quantities of stores for crew consumption.

IDENTIFICATION CARDS: According to regulations in force seamen should hold shore pass issued by respective Agents and signed by the Port Health, Port Police and local town Police Authorities. All shore passes should bear a photo of the holder, in order to facilitate checking at exit of port area. It is therefore necessary for officers and crew to have a photograph ready on arrival at the port to facilitate obtaining shore passes.

All officers and crew of ships lying at jetties or anchorage of the Port of Khorramshahr to carry their Seamen's Books with them when going ashore. At the gate, the Seamen's Books will be checked by the Police against the shore pass of each crew member, the Seamen's Book will then be kept by the Police and will be returned to the holder when returning through the gate.

REPAIRS: Minor repairs can be carried out to a limited extent by private workshops existing at Khorramshahr. However due to lack of skilled workers the workshops in question do not undertake any responsibility or guarantee for the jobs performed, and charges are high.

For radar, wireless, echo-sounders, etc. as well as refrigerator and air condition service there are a few engineering groups at Khorramshahr as well as Abadan, and technicians of these groups will attend to the repairs on board both at Khorramshahr and Abadan jetties or at anchorage, upon request.

Ships moored to the jetty are not permitted to disable main power-plants for repairs without prior approval of Marine Department. A port tug will be assigned to stand by alongside ship with tow line attached during entire period while plant is disabled.

DRY DOCKS: None.

SURVEYORS: Lloyd's Register; Det Norske Veritas; Bureau Veritas American Bureau of Shipping; Surveyors for ordinary damage to cargo and/or ship as well as for on-hire/off-hire survey can be arranged by Agents.

AIRPORT: Abadan International Airport about 10 minutes by car.

TIME: GMT plus 3.5 hours.

TELEPHONES: May be placed on board.

SHORE LEAVE: See "Identification Cards".

DELAYS: The port of Khorramshahr is generally congested, with a waiting time of about 2/5 days. Port Administration sometimes orders vessels to discharge their Khorramshahr manifested cargo in Bandar Imam Khomeini to ease the congestion at Khorramshahr.

PROVISIONS: Fresh provisions in limited quantity can be obtained but large quantities of provisions sometimes may not be possible to arrange due to the fact that the Municipality is controlling the market and sometimes may prohibit the supply of the items which are in short supply. Due to certain formalities involved in supplying provisions to vessels, it is requested that 24 hour notice be given to the shipchandler.

STORES: Local commodities only available. Bonded stores not available.

LAUNDRY: Laundryman can be arranged upon request.

AUTHORITY: Ports and Shipping Organisation, Tehran.

LAVAN ISLAND: 26.47 N. 53.20 E. (See Plan)

Note: Production has been resumed.

LOCATION: Lavan Island is 13 miles long and about 2.5 miles wide. It is situated on the S.E. coastline of Iran in Lat. 26° 48′ N., Long. 53° 16′ E. (Island centre). The Island lies roughly East – West.

PORT LIMITS: Port area limits which are under the control of IOOC, extend between the following points:

Lat. 26° 47.5′ N., Long. 53° 22.0′ E.
Lat. 26° 46.4′ N., Long. 53° 22.0′ E.
Lat. 26° 47.5′ N., Long. 53° 19.4′ E.
Lat. 26° 46.8′ N., Long. 53° 19.4′ E.

Vessels must not enter this area without permission from the Port Control. Anchoring in this area is prohibited.

DOCUMENTS:

5 Crew and Passenger Lists.
2 Stores Lists.
2 Bonded Stores Lists.
Clear Bill of Health from last port.
4 Bills of Lading.
8 Manifests.

In Iran, an additional copy of the Bill of Lading is required for all exports from the country. This must be signed by the Master and forwarded to the Customs Authorities, Lavan Island by the ship's Agent.

EARLY SAILING PROCEDURE:

Notice to Masters – Early Sailing Procedure:

In order to minimise delays to tankers awaiting official documentation after loading at the port, an Early Sailing System is now in force.

The following documents are prepared in advance, *except for cargo figures,* and presented by the ship's Agent to the Master for his signature upon the ship's arrival at the loading dock.

(A) Nos...... Originals & Nos...... Copies IOOC Bill of Lading.
(B) Nos...... Originals & Nos...... Copies IOOC Certificate of Origin and Cargo Manifest.
(C) Nos...... Originals & Nos...... Copies IOOC Tanker Time and Loading Report.
(D) Nos...... Originals & Nos...... Copies IOOC Report of Cargo and Ship's Ullages.
(E) Master's Receipt for Documents covering both pre-signed and onsite prepared forms.

Documents for Master's use, and for the Consignee care of the Master will be retained on board. All other pre-signed documents to be returned by the Agent to the IOOC Terminal Office.

Official cargo figures will be passed to the Master by radio *within 1 hour* of his departure. Advice of quantities loaded should be inserted by the Master on the 'Bill of Lading' and 'Certificate of Origin' forms as prior indicated.

Hand written copies of items (C) and (D) will be passed to the Master for his reference.

In cases of disagreement on cargo figures, the Master may,

(1) 'Note Protest' by cable or telex.
(2) Authorise the ship's Agent to 'Note Protest' on his behalf.
(3) Pass a written 'Note of Protest' to the Berthing Master who will acknowledge receipt on behalf of the Terminal.

IOOC appreciates the co-operation of Masters, Owners, Shippers and Consignees in agreeing to implement this system.

APPROACHES: Vessels approaching Lavan Island from due South will have a clear approach.

(a) Landfall. There are 5 gas flare towers and 1 ground flare. The most conspicuous flare is in position Lat. 26° 47′ 34″ N., Long. 53° 20′ 39″ E. situated in the vicinity of Port Area. This flare onshore, when burning, makes a conspicuous landfall for Lavan Island, but at night from a distance tends to obliterate the various navigational lights.

The other flares are in position,

Lat. 26° 47′ 41″ N., Long. 53° 20′ 19″ E.
Lat. 26° 48′ 25″ N., Long. 53° 20′ 03″ E.
(group of 3 flares).

All tanks in the IOOC Tank Farm are painted white.

The two front tanks have the word IOOC painted in black on the South side. Tank No. 2 is in position Lat. 26° 47′ 57″ N., Long. 53° 20′ 24″ E. A 1,000,000 bbls. tank has recently been constructed and added to the Tank Farm capacity. It is sited at the rear of the former 6×500,000 bbls. tanks.

(b) Navigational Dangers. South side of Island is open and free from dangers, but care should be exercised approaching from seaward as soundings shallow rapidly near coast with depths of 200 ft. only 4,500 ft. off shore.

(c) Charts covering the operational areas of IOOC are:

USHO 3647, 3648, 3650, 3660.
BA 2837, 2847, 2858, 2887, 2888, 3517, 3707.

PILOTAGE/NOTICE OF READINESS: Vessels must not enter the Port Limits without a Berthing Master on board.

Vessels should wait for the Berthing Master South of the Terminal Buoy, approximately 2 miles S.E. of the loading dock.

The Terminal operates a pilot launch and mooring launch for rope handling.

Pilot Room to be available and ready for the Loading Master and also trainee accommodation, should they decide to stay on board throughout the loading.

Immediately upon boarding the vessel, the Berthing Master will present the following documentation to the Master for his signature:

(a) A copy of the Port Rules and Regulations Book receipt and agreement form.
(b) IOOC "Notice of Readiness" form.
(c) Combined Tug, Pilot, Berthing/Unberthing charge form.
(d) Fire and Safety Regulations and No Smoking Notices for posting in approved spaces.

All the above documents must be processed prior to the vessel being berthed.

A vessel arriving in light condition must have sufficient ballast on board for safe handling. As the Terminal dock is located in the open sea, this amount has been set at 33% of the d.w.t. Trim must not be more than 10 ft. by the stern.

The Master's "Notice of Readiness" will be rejected if any of the ballast is oily, or if there is any leakage of oil from the vessel during loading, or any unsatisfactory condition on board ship which affects cargoworthiness or seaworthiness while under the jurisdiction of the Terminal.

In all such situations of dispute, the decision of the IOOC Marine Superintendent will be final.

NAVIGATIONAL AIDS: *Warning:* The following information is for the guidance of ships. IOOC does not guarantee or warrant that the listed aids to navigation are in the stated positions or operating.

Lavan Island Terminal Beacon: Located in Lat. 26° 48.1′ N., Long. 53° 21.3′ E. Fitted on top of a steel lattice tower 182 ft. above MLWIS. Light exhibited is Gp.Fl. (3) ev. 12 sec. vis. 15 miles.

Terminal Sea Buoy: Located in Lat. 26° 46.5′ N., Long. 53° 22.1′ E. A white can buoy with lattice tower and radar reflector. Light exhibited is Fl. ev. 5 sec. vis. 3 miles.

Salman Pipe-line Marker Buoy: Located in Lat. 26° 46.8′ N., Long. 53° 20.5′ E. A red can buoy with lattice tower and radar reflector. Light exhibited is Fl.R. ev. sec. vis. 3 miles.

Salman Pipe-line Rear Beacon (Onshore): Located in Lat. 26° 48.0′ N., Long. 53° 20.2′ E. Fitted on top of a steel lattice tower 192 ft. above MLWIS. Light exhibited is Fl.R. 10° vector, centred over the oil pipe-line, vis. 12 miles.

Salman Pipe-line Front Beacon (Onshore): Located in Lat. 26° 47.6′ N., Long. 53° 20.1′ E. Fitted on top of a steel lattice tower 115 ft. above MLWIS. Light exhibited is Fl.R. 10° vector, centred over the oil pipe-line, vis. 12 miles.

The Salman Pipe-line lights in transit signify a vessel is over the Salman pipe-line. Anchorage is prohibited within the area covered by the vector outline of the range lights, 10° apart.

Rostam Radio Mast: Located in Lat. 26° 48.2′ N., Long. 53° 19.2′ E. A steel lattice tower, painted red, 408 ft. above MLWIS. Light exhibited is Occ. R. ev. sec. visible 20 miles.

Decca Mast – Station "Green South": Located in Lat. 26° 47.5′ N., Long. 53° 22.4′ E. A steel lattice tower, painted red and white bands, 336 ft. above MLWIS. Light exhibited is Fl.R. vis. 20 miles.

Flares: The following flares are highly conspicuous and tend to obstruct the other navigational aids:

Salman – Located in Lat. 26° 47.6′ N., Long. 53° 20.6′ E.
Rostam – Located in Lat. 26° 48.4′ N., Long. 53° 20.0′ E.
LDC – Located in Lat. 26° 47.7′ N., Long. 53° 21.0′ E.

Radio Beacons: The following radio beacons belonging to IOOC are situated onshore and offshore at the Company's Salman Oil Field:

Signal LD transmitted on 310 kHz. Located in Lat. 26° 47.6′ N., Long. 53° 23.0′ E.

Signal LA transmitted on 397 kHz. Located in Lat. 25° 32.2′ N., Long. 53° 09.0′ E.

ANCHORAGES: Vessels must not enter port limits (which enclose a Prohibited Anchorage Area and Manoeuvring Area). They should proceed to vicinity of suggested Anchorage Area East of Oil Loading Dock and East of Long. 53° 22′ 00″ E., and in suitable depths of water wait for IOOC Berthing Master. The sea bottom is good holding ground. Depth about 40 m.

RESTRICTED AREAS: Salman's Production Facility (Offshore):

Located in Lat. 25° 32.2′ N., Long. 53° 09.0′ E.

The above platform complex, approximately 76 nautical miles South of Lavan Island, is situated in the centre of the Salman Oil Field.

This area, and 3 miles around it, is prohibited to navigation.

Crude oil is delivered to Lavan Island from offshore oil fields by submarine pipe-line.

From the Salman production complex in Lat. 25° 32.0′ N., Long. 53° 09.1′ E. A 22 in. pipe-line running approximately 008° T to a shore location on Lavan Island at Lat. 26° 47.5′ N., Long. 53° 20.1′ E. From the Rostam production complex in Lat. 25° 45.5′ N., Long. 52° 54.5′ E. An 18 in. pipe-line running approximately 023° T to a shore location on Lavan Island at Lat. 26° 47.5′ N., Long. 53° 20.0′ E.

In addition to the above, a 14 in. submarine pipe-line has been laid from the Balal Oil Field (undeveloped) to Lavan Island. The pipe-line runs approximately 056° T from an offshore location in Lat. 26° 18.8′ N., Long. 52° 32.8′ E., to a shore location on Lavan Island at Lat. 26° 47.6′ N., Long. 53° 19.6′ E.

Vessels are requested not to anchor or carry out any under sea/seabed operations in the vicinity of these pipe-lines.

MAX. SIZE: Water depths, adjacent to the dock, at LW are:

Berth No. 1: 68 ft. 4 in. (20.83 m.)
Berth No. 2: 65 ft. 0 in. (19.82 m.)

Keel clearance required by the Terminal is 3 ft. 0 in. at all times.

Tonnage capacity of the loading dock is:

Berth No. 1: 200,000 d.w.t.*
Berth No. 2: 75,000 d.w.t.**

*Vessels in the range 200,000 d.w.t. – 225,000 d.w.t. may be accepted subject to prior approval from IOOC Management which is based on answers to a 14 point questionnaire.

**Vessels are accepted for Berth No. 2 based on tonnage, overall length (maximum 850 ft. = 259 m.), position of the manifold in relation to the bow, and always subject to a maximum loaded draft of 43 ft. 6 in. (13.26 m.). Vessels over 65,000 d.w.t. should always be cleared by IOOC prior to firming up a nomination.

Following is a table of maximum loads that different size tankers can have on board on arrival, and remain acceptable for berthing:

(a) The maximum size vessel that is acceptable for berthing in a fully loaded condition is 100,000 d.w.t. This refers to vessels nominated for bunkers only.

(b) The maximum acceptable arrival load for tankers in the range 101,000 d.w.t. – 120,000 d.w.t. is 90,000 tons (675MB±).

(c) The maximum acceptable arrival load for tankers in the range 121,000 d.w.t. – 170,000 d.w.t. is 85,000 tons (638MB±).

(d) The maximum acceptable arrival load for tankers in the range 171,000 d.w.t. – 225,000 d.w.t. is 70,000 tons.

This schedule to be used in conjunction with the standard 14 point questionnaire for very large crude carriers.

CLEARANCE: *(Arrival)*: After Berthing Master has boarded vessel at Port Limits, and before vessel allowed proceed, Master will be required to sign following forms. *(a)* Condition of use of Port of Lavan Island, *(b)* Tug Requisition.

Master will also be provided with copies of Fire and Safety Regulations and a Safety Inspection form. After Pratique granted, Customs inspection carried out. Master will be required to furnish particulars of vessel including bonded stores, cargo, bunkers, and other information. 5 copies of the Crew List and stores remaining on board will be required before clearance is granted. *Customs surveillance is strict.*

The Terminal operates an Early Sailing System covering all cargo documentation. The following documents will be prepared in advance, *except for cargo figures*, and presented by the ship's Agent to the Master for his signature, upon the ship's arrival at the loading dock.

(a) B/L. (b) Certificate of Origin and Cargo Manifest. (c) Tanker Time and Loading Report. (d) Report of Cargo and Ships Ullages. (e) Master's receipt for documents.

Official cargo figures will be passed to the Master within 1 hour of his departure for insertion by the Master on the Bill of Lading and Certificate of Origin and Cargo Manifest.

In cases of disagreement over cargo figures the Terminal will accept the Masters "Note of Protest" by telex, by the authorised ship's Agent, or by written note handed to the Berthing Master.

HEALTH: Owners should check with Agent respecting any recent imposition of anti-epidemic regulations and requirements for additional injections for crew members. In the case of tankers, doctor will board when ship berthed at Loading Dock and for cargo vessels after ship has anchored. Should vessel, in either case, arrive from another Iranian port and carry a Clear Bill of Health, doctor will not normally board, and Pratique automatically granted.

Signals to be exhibited for vessels entering from foreign port: by day: "Q" Flag flown at masthead; by night: red all-round light, over white all-round light. If suspected that ship has disease or fever on board, ship will report details by VHF Channel 12 to Lavan Island.

There are occasional outbreaks of cholera. International Certificates of Inoculation/Vaccination are essential.

See Radio, "Free Pratique".

RADIO: Vessels nominated to load at Lavan Island should transmit arrival information 96 hours and confirm 48 hours prior to arrival.

Arrival messages should be transmitted to the following address through either Abadan Radio (EQZ) or Bandar Abbas Radio (EQI) or Lavan Radio (EQV).

IOOC Tehran. Telex: 212598 – 212346 – 212707 "Attn. Marsupt. Lavan".

Arrival messages to be in the following format:

AA Name of ship.
BB ETA Lavan in GMT and last port.
CC Cargo(s) required and Bunker(s) required.
DD Deballast time.
EE Size and number of connections for cargo/bunker.

If bunker connection only one side of maniforld, state location.

Lavan Radio Station, is operating on 500 kHz, call sign EQV, from 0530 hrs. – 1330 hrs. GMT.

IOOC tugs maintain a listening watch on 2182 kHz. Vessels should commence calling "Pourandokht I" when passing Quoin Island. When contact has been made, switch to working frequency 2638 kHz.

Radio Free Pratique: Vessels requesting Free Pratique by radio are required to transmit the following message through the same Channels as their ETA advice.

AA Name of vessel and ETA Lavan Island (in GMT).
BB Number of crew and state of health.
CC Number of vaccinations required for Cholera.
DD Number of deaths or cases of serious illness in the last 30 days.
EE Name of all ports called at during the last 30 days.
FF Master's Name.

Coastal Radio Station (EQZ) schedule and frequencies:

Schedule of Watch GMT (hrs.)	*Listening Watch Frequencies (kHz)*	*Transmitting Frequencies (kHz)*	*Receiving Frequencies (kHz)*	*Remarks*
Continuous	500	500	500	Distress Station is equipped with international Auto-Alarm receiver on 500 kHz.
Continuous	500	428	405-535	Traffic Lists every 2 hours from 0105 to 2305 GMT.
0400 – 0700	8356 – 8374	8471	8474 – 8460	Traffic Lists every 2 hours from 0405 hrs. GMT.
0700 – 0900	12534 – 12561	13069.5	12561 – 12689	
1000 – 1300	12534 – 12561	13069.5	12561 – 12689	
1400 – 1700	8356 – 8374	8471	8374 – 8460	
1700 – 1830	3178 – 4187	4294	4187 – 4231	

During scheduled watches on HF while station (EQZ) is not actually working with ships, traffic lists are transmitted automatically and continuously on frequencies 4294, 8471 and 13069.5 kHz according to their schedules of watch.

VHF: Lavan Terminal maintains a listening watch 24 hours on VHF Channels 16 and 12.

Vessels should commence calling "Lavan Island" 4 hours prior to arrival, on Channel 16. When contact has been made, switch to working frequency Channel 12.

TUGS: Two modern diesel tugs of 3120 b.h.p. fitted with controllable pitch propellers and a bollard pull of 42 tons are stationed at the loading dock and used for all manoeuvres.

The tugs are equipped with their own towing lines, fire fighting capability, foam, dispersant and fire wires.

Both tugs are on instant readiness throughout the entire time that a vessel is alongside the loading dock. The tugs will answer emergency signals, or can be called on VHF Channel 12, or by telephone (Tel. No. 222).

BERTHING: Vessels should have the following equipment ready for use upon their arrival at the port:

a) Anchors, port and starboard, ready for letting go.

b) Ropes or wires, eight each end, not on automatic tension.

c) Derricks rigged if shore reducers or flexible hoses are required.

d) Manifold blanks removed and reducers fitted ready to connect 16 in. series 150 ASA loading arm flanges.

e) Accommodation ladder lowered together with the pilot hoist or pilot ladder.

Note: Berthing Masters will not board any vessel which does not present a clean safe means of access.

f) Ballast tank lids opened to allow the Berthing Master to inspect ballast water.

The tanker loading dock is constructed of a loading platform in the centre of 4 two-sided jacket piled breasting dolphins, and 4 outlying two-sided jacket piled mooring dolphins.

The dock is 1,240 ft. (378 m.) long, and is connected to the shore by a trestle 1,764 ft. (538 m.) long.

The platform deck is 31 ft. 4 in. (9.55 m.) above Chart Datum (MLWIS).

Maximum reach of the loading arms above Chart Datum is:

Distance Manifold to Ship's Side	*Elevation*
10 ft. (3.05 m.)	76 ft. 6 in. (23.32 m.)
12 ft. (3.66 m.)	75 ft. 9 in. (23.09 m.)
14 ft. (4.27 m.)	75 ft. 0 in. (22.85 m.)
16 ft. (4.88 m.)	74 ft. 0 in. (22.56 m.)
18 ft. (5.49 m.)	72 ft. 9 in. (22.18 m.)

Rigid "Chiksan" hydraulically operated loading arms are situated on both sides of the loading platform.

Berth No. 1	4×16 in. for crude oil loading.
Berth No. 1	1×12 in. for product loading – (fuel & gas oil).
Berth No. 2	2×16 in. for crude oil loading.
Berth No. 2	*1×16 in. for naphtha loading.
Berth No. 2	1× 8 in. for product loading (fuel & gas oil).

* Gas oil can also be loaded through this arm.

All loading arms are fitted with a series 150 ASA American Standard outer flange with quick connection coupler.

The Terminal carries a full range of aluminium reducing spool pieces and flexible hoses (15 ft.×8 in.) for crude and product/bunker connections.

Shore gangways are provided for both berths, with a safety net for each gangway.

Fire wires must be rigged forward and aft, of sufficient strength to tow the vessel away from the berth in an emergency. The "eye" of the fire wire must be lowered to within 6 ft. of the water and maintained at this level at all times. The IOOC tugs are equipped with their own towing wires which will be shackled onto the vessel's fire wire.

Rat Guards: All ships berthed alongside must provide rat guards for the ship's moorings.

LOADING: Tankers are loaded at Lavan Island alongside an "L" shape 2 berth jetty, approximately 2,000 ft. offshore. The loading platform is fitted with rigid hydraulic loading arms which have quick connection/release couplers attached to the end flange.

There are 4×16 in. arms on the South Berth (No. 1) for crude loading, and 2×16 in. arms on the North Berth (No. 2) for crude loading.

Crude oil is delivered to the loading platform by gravity through 2×36 in. lines from a 4,000,000 barrel tank farm (Salman), and from a 1,500,000 barrel tank farm (Rostam).

Flow rates under normal conditions, with only 1 vessel loading, are approximately, Berth No. 1 (4 arms) 52,000 bbls./hr., Berth No. 2 (2 arms) 32,000 bbls./hr.

Flow rates with a vessel loading at each berth are approximately, Berth No. 1 (4 arms) 40,000 bbls./hr., Berth No. 2 (2 arms) 24,000 bbls./hr.

The minimum flow rate is 15,000 bbls./hr. All vessels accepting nominations to load at Lavan Island must be capable of loading crude at rates above this figure.

The API of Salman Crude Oil is 34 and the API of Rostam Crude Oil is 35.

The temperature of Salman Crude Oil varies between 91°F and 78°F (Summer/Winter), and the temperature of Rostam Crude Oil varies between 85°F and 66°F (Summer/Winter).

The Terminal will accept cargo requests 10% above or below the official nominated quantity unless specifically requested otherwise by the Consignor.

A shore stop to close off the flow of crude oil to the tanker will be executed by the Terminal provided the Master issues a written request to the Loading Master upon arrival at the loading dock. This request must include the statement that IOOC will not be held responsible for any error in the final quantity loaded.

Masters should note that in cases of overloading the excess cargo cannot be returned to the shore line.

Masters should also be aware that they will be held responsible for any overflows and pollution caused by their request for a shore stop.

An "Early Sailing System" of tanker documentation is operated by the Terminal as standard practice for all cargoes.

The Terminal will accept the "Load-on-Top" system of co-mingling tank cleaning oil residue from previous cargoes with the nominated quantity of Salman or Rostam crude oil, provided agreement has been obtained from the Consignor.

Slops should be segregated in a special "slop tank" or accumulated in one of the cargo tanks. A sample of the slop must be taken on arrival at the loading dock and kept for any future reference. Exact quantities must be calculated.

Vessels which arrive in ballast to load part cargo, should endeavour to place the ballast in such a manner as to allow loading to commence upon arrival at the loading dock.

The ballast may be retained for discharge en route to the next port, or discharged concurrent with loading. Provided the vessel can show adequate valve separation, this method is accepted by the Terminal, and will be finally confirmed by the Loading Master when satisfied that no pollution or contamination will occur.

Vessels arriving in ballast to load a full cargo, who carry most of their ballast in "permanent ballast" tanks, should also endeavour to arrange the remaining ballast in such cargo tanks as to allow loading to commence upon arrival at the loading dock, and discharge concurrent, using segregated lines and pumps. The Terminal will accept this system on the same basis as above paragraph.

GENERAL CARGO: Vessels with general cargo for IOOC should wait for instructions from Port Control in the general anchorage area, approximately 2 miles S.E. of the loading dock.

A sea berth has been laid adjacent to the small craft harbour at the East end of the Island to enable cargo vessels to discharge in most weather conditions.

The stern mooring buoy is located in Lat. 26° 47.1′ N., Long. 53° 23.2′ E.

The port anchor drop marker buoy is located in Lat. 26° 46.9′ N., Long. 53° 23.6′ E.

The vessel is secured by port and starboard anchors on a running moor spread together with three stern ropes secured to a stern mooring buoy. The vessel lies in a heading of 225° in such a manner as to provide a lee side against either the N.W. or S.E. prevailing winds.

To assist the vessel to moor, IOOC Berthing Master, tug, and mooring launch are provided without charge.

All cargo vessels shall comply with the Port Rules and Regulations as far as it affects them. Upon arrival, Masters will be issued with and sign for a copy of the official Port Book.

Cargo vessels should use the same procedure of arrival notification as laid down for tankers.

IOOC operates a 300 ton flat top barge which is permanently stationed at Lavan Island to off-load general cargo. As soon as the vessel is moored, the barge will be available alongside and will operate on a 24 hour basis.

Stevedoring is carried out on board by an independent Agent and at the dock side by IOOC.

DENSITY: The temperature of sea water alongside the Loading Dock varies from 71°F. in January to 93°F. in August. The density of sea water alongside the Loading Dock varies between 1023 and 1026.

BALLAST: The Terminal does not have any reception facility for disposal of dirty or contaminated ballast.

TIDE: The mean range of tide is 3 ft. 9 in. (1.14 m.)

The extreme range of tide is 5 ft. 6 in. (1.68 m.)

The highest tide recorded is 7 ft. 3 in. (2.21 m.) above MLWIS.

The lowest tide recorded is 0 ft. 5 in. (0.13 m.) above MLWIS.

A chart reading automatic tide gauge is fitted on the loading dock.

WEATHER: In Summer time from May to September temperature reaching 110°F. (43°C.) and humidity ranging from 10% to 100%. The Winter (November to March) mild and pleasant with minimum temperature approximately 48°F. (9°C.). The wind for most of year from N.W., but sometimes particularly during Winter strong S.E. storms likely to occur lasting for several days. Oil Loading Pier partly sheltered from N.W. winds, but exposed to winds from South.

During Winter storms, waves of 8 ft. to 10 ft. often occur. A max. wave height of 15 ft. has been recorded at the Southern end of the Island.

STEVEDORES: For cargo vessels the Agent requires 4 days Notice of Arrival in order to transport labour from Bandar Abbas. Agent provides labour for working cargo "to the rail" and receiver provides lighterage and labour thereon.

FUEL: Bunkers are now available at Lavan Island and can be loaded at both berths of the tanker loading dock through rigid hydraulic operated Chiksan loading arms.

These bunker products are provided by the Lavan Distillation Complex (LDC) which is operated by the National Iranian Oil Company (NIOC). Available bunker products are fuel oil and gas oil.

The plant also produces naphtha.

Bunker Requests:

Requests for information on bunkering should not be directed to IOOC. All questions relating to the bunker facility at Lavan Island will be handled by NIOC Marketing & Exports Division.

The address is:

Marketing & Exports,
National Iranian Oil Company,
P.O. Box 1863,
Tehran, Iran.
Cable Address: Naftmelli Tehran
Telex: 21-2514, 21-2613 and 21-2182
Telephone: 6151 – ask for Marketing.

LDC Tank Capacity is:

Naphtha 53,000 cu.m. (333,360 bbls.)
Fuel Oil 38,400 cu.m. (241,530 bbls.)
Gas Oil 30,800 cu.m. (193,730 bbls.)

LDC loading rates, by pump are:

Naphtha 1,500 t.p.h.
Fuel Oil 500 t.p.h.
Gas Oil 500 t.p.h.

LDC loading arms at the tanker dock are:

Berth No. 1: 1×12 in. supplying both fuel and gas oil.
Berth No. 2: 1×8 in. supplying both fuel and gas oil.
Berth No. 2: 1×16 in. supplying both naphtha and gas oil.

LDC product specifications are:

Naphtha SG at 60°=0.7205 (API at 60° 64.9)
Fuel Oil SG at 60°=0.9560 (API at 60° 16.5)
Viscosity Redwood at 100°=1,440 seconds.
Gas Oil SG at 60°=0.8450 (API at 60° 35.9)

MEDICAL: IOOC operate small clinics on the Island with resident doctors. This facility will be made available for emergency cases only.

FRESH WATER: None available.

CARGO GEAR: Ship's discharging dry cargo to barges in the cargo ship anchorage use ship's gear.

FIRE PRECAUTIONS: Vessel receives full detailed instructions from Berthing Master. Vessels must have fire-wires and engines not to be immobilised.

CONSULS: No consular representation on Lavan Island. Embassies of most nations are situated in Tehran.

REPAIRS: No repairs allowed alongside oil loading jetty. No workshop or repair facilities available. Ship's main engines must be available at all times while alongside jetty.

MARINE SURVEYS: Surveyors of the American Bureau of Shipping and Lloyd's are stationed at Bandar Abbas.

AIRPORT: No scheduled or regular air flights to Lavan Island. All aircraft required for transportation of goods or passengers must be made by charter. Airport is used by Oil Company Charter planes only and no other passengers are carried except in an emergency situation.

TIME: Standard zone time for Iran is GMT plus 3.5 hours.

POLICE/AMBULANCE/FIRE: There is a Government Gendarmerie Station on the Island. There are no telephones established for these services. Emergencies will be handled by IOOC staff in case of tankers.

SHORE LEAVE: Ships' crew not allowed to go ashore.

CREW CHANGES: Not permitted.

REGULATIONS: (Miscellaneous): *Painting and scaling.* Painting, chipping, scaling or spray painting on deck or overside *strictly prohibited* while vessel at any jetty berth.

GENERAL: *Flag:* All vessels are required to fly the Iranian Flag in Iranian territorial waters which extend 12 miles offshore.

Garbage: Dumping overside of garbage and refuse prohibited in Port Area.

Sanitation: Government Health Regulations require suitable covers to be fitted over all lavatory discharge outlets, etc., to prevent fouling of jetty or craft alongside.

Damage to Port Facilities: If a Master has reason to suppose that any damage has been caused by his vessel to any Port Facilities, he must agree, in writing, with IOOC Berthing Master as to nature and extent of such damage, and this must be confirmed by IOOC Marine Superintendent. IOOC has standard liability forms which cover both ship and shore, and are issued on every occasion.

Rat-guards: All ships berthed alongside must provide Rat-guards for Ship's Moorings.

No visitors: No visitors allowed on terminal dock, or on board vessels alongside dock, unless by written permission of Marine Superintendent. Only persons having authorised work will be given access to port limits, dock or vessels.

AUTHORITY: Iranian Offshore Oil Company, 339 Abbasabad Avenue, Tehran – Iran. *Tel:* 624102-5. *Telex:* 212598, 212346, 212707. *Cables:* Falatghareh, Tehran.

Mail Address: P.O.Box 1434.

AGENT: See "Abadan".

RAS BAHREGAN (Norwuz Loading Terminal): 29.43 N. 50.10 E. **(See Plan)**

PORT LIMITS: Port area limits which are under the control of IOOC extend between the following points:

Lat. 29° 43′ N., Long. 50° 00′ E.
Lat. 29° 43′ N., Long. 50° 12′ E.
Lat. 29° 40′ N., Long. 50° 10′ E.
Lat. 29° 40′ N., Long. 50° 24′ E.

Vessels must not enter this area without permission from the port control. Anchoring in this area is prohibited.

DOCUMENTS:

5 Crew and Passenger Lists.
4 Stores Lists.
4 Bonded Stores List.
Clear Bill of Health from last port.
4 Bills of Lading.
6 Manifests.

PILOTAGE: Vessels must not enter the Port Limits without a Mooring Master on board. Vessels should wait for the Mooring Masters approximately 2 miles off the SBM.

Prior Arrival: Vessels should have the following equipment ready for use upon their arrival at the port:

(a) Accommodation ladder lowered together with the pilot ladder if a VLCC, otherwise a pilot hoist or pilot ladder.

NOTE: Berthing Masters will not board any vessel which does not present a clean safe means of access.

(b) Ballast tank lids opened to allow the Berthing Master to inspect ballast water.

(c) Pilot room available and ready for the Berthing Master and also trainee accommodation, should they decide to stay on board throughout the loading.

(d) Under normal conditions vessels will be moored using 6 ship's lines. In rough weather the number of mooring lines will be increased. Therefore each ship to be moored at Bahregan SBM Terminal must be equipped with at least ten good quality mooring lines, each 120 fathoms or more in length with eyes and tail ropes spliced into each end. Two of these mooring lines should be laid out free for running adjacent to bitts and warping winches. Warping winches must be adequate to handle mooring lines under heavy strain, and efficient stoppers must be readily available to "hang off" mooring lines and transfer same from winch to bitts without loss of tension.

Ships must also have at least one good messenger line ready for immediate use; anchors, chains and anchor windlass must be in good condition. Vessels must be equipped to fit flanges of floating hoses, which are of ASA standards.

Ships must be adequately equipped with blocks, tackles and booms to hoist the floating hose, a 5.5 ton lift from the sea to the ship's rail, in a safe, efficient and expeditious manner. If, in the opinion of the Mooring Master, the vessel is not equipped with adequate mooring facilities, lines or gear, he will so inform the vessel's Master and in such event the vessel shall not be brought into the mooring until facilities, lines, or gear are deemed satisfactory. In this connection, lines cannot be provided by the company.

(e) Before a ship is moored at MBM Terminal, she must be equipped with at least 9 good quality mooring lines, each 120 fathoms or more in length with eyes and tail ropes spliced into each end. Mooring lines should be laid out free for running adjacent to bitts and warping winches. Warping winches must be adequate to handle mooring lines under heavy strain, and efficient stoppers must be readily available to "hang off" mooring lines and transfer same from winch to bitts without loss of tension.

Ships must have both bower anchors ready for immediate use, each with a minimum of 120 fathoms of chain. Anchors, chains and anchor windlass must be in good condition and capable of letting one chain go out on the run while heaving in on the other chain. Vessels must be equipped to fit flanges on submarine hoses, which are of ASA standards.

Ships must be adequately equipped with blocks, tackle and booms to hoist the submarine hoses, a 5 ton lift from the floor of the sea to the ship's rail, in a safe, efficient and expeditious manner.

If, in the opinion of the Mooring Master, the vessel is not equipped with adequate mooring facilities, lines or gear, he will so inform vessel's Master, and in such event the vessel shall not be brought into the mooring until facilities, lines or gear are deemed satisfactory.

On Arrival: Immediately upon boarding the vessel, the Berthing Master will present the following documentation to the Master for his signature:

(a) A copy of the Port Rules and Regulations Book receipt and agreement form.

(b) IOOC "Notice of Readiness" form.

(c) Combined Tug, Pilot, Berthing/Unberthing Charge form.

(d) Fire and Safety Regulations and No Smoking Notices for posting in approved spaces.

All the above documents must be processed prior to the vessel being berthed.

ANCHORAGE: The SBM is in the open sea with no surface obstructions in the vicinity. However, anchorage is prohibited in the following areas:

(a) Immediate vicinity of the SBM – within a 1.2 mile radius of the SBM.

(b) One mile on either side of 36 in. submarine pipe-line from SBM to Bahregan Oil Centre.

Suggested anchorage area is 2 miles S.W. of the SBM.

NAVIGATIONAL AIDS/PROHIBITED AREAS:

Two flares are located at:

Lat. 29° 50′ N., Long. 50° 15.8′ E.

Nowrouz production facility (Offshore) located in:

Lat. 29° 29′ 55″ N., Long. 49° 24′ 10″ E.

The above platform complex, approximately 50 nautical miles South West of Bahregan, is situated in the centre of the Nowrouz Oil Field. This area, and 3 miles around it, is prohibited to navigation.

Bahregansar Production Facility (Offshore) located in:

Lat. 29° 56′ 23″ N., Long. 49° 50′ 58″ E.

The above platform complex, approximately 30 nautical miles West of Bahregan. This area, and 3 miles around it, is prohibited to navigation.

RESTRICTIONS: The Bahregan SBM Terminal operates 24 hours per day, 7 days a week. However, mooring or unmooring is only carried out if fair or moderate weather conditions are prevailing.

In the event that berthing is delayed on account of weather, vessels will keep their position in line. Vessels required to leave the terminal area on account of weather (terminal closed) should keep in contact with the terminal via radio in order to be available when weather moderates.

FLAG: All vessels are required to fly the Iranian flag on the foremast during daylight hours. Iranian territorial waters extend 12 miles seaward from the mainland and adjacent islands.

ADVICE OF ARRIVAL: It is important that ships establish radio contact with SIRIP when 3 days distant from Bahregan Terminal and maintain this contact until just previous to arrival at the Terminal. All ships should send a 72 hour ETA message to SIRIP giving the best estimate of ship's arrival time at the Terminal.

Further ETA messages should be sent to SIRIP when the vessel is 24 and 12 hours distant from Bahregan Terminal and at any other time any appreciable change occurs in the original ETA or those subsequent thereto. The 12 hour ETA should include a positive statement regarding "ship's readiness to load" on arrival and the number of hours that will be required to discharge clean ballast after ship is berthed in mooring, as well as details of the flange size of the manifold.

MAX. SIZE: Water depths at the Terminals at LW are:

SBM 79 ft. (24.0 m.)
MBM 52 ft. (15.5 m.)

Keel clearance required by the Terminal is 3.3 ft. (1 m.) at all times.

Tonnage capacity of the Terminals are:

SBM 250,000 d.w.t.
MBM 45,000 d.w.t.

HEALTH: Masters should obtain Free Pratique before arrival at Ras Bahregan by cabling "NIOC Kharg Port Health" via EQZ Oilco Station or "Porthealth NIOC" Kharg.

RADIO: Vessels nominated to load at Bahregan should transmit arrival information 96 hours and confirm 48 hours prior to arrival.

Arrival messages should be transmitted to the following address through either Abadan Radio (EQZ) or Bandar Abbas (EQI).

IOOC, Tehran. Telex: 212598 – 212346 – 212707. "Attn. Marsupt. Bahregan".

Arrival messages to be in the following format:

AA	Name of ship.
BB	ETA Ras Bahregan in GMT and last port.
CC	Cargo required/cargo to discharge.
DD	Deballast time/Ballast time.
EE	Size and number of cargo connections.

Ras Bahregan Radio Station, is operating on 500 kHz, call sign BOC, from 0530 hrs. – 1330 hrs. GMT.

Ras Bahregan Radio maintain a listening watch on 2638 kHz. Vessel should commence calling "Bahregan" when passing Kharg Island.

Free Pratique: Vessels requesting Free Pratique by radio are required to transmit the following message through the same Channels as their ETA advice.

AA	Name of vessel and ETA Bahregan (in GMT).
BB	Number of crew and state of health.
CC	Number of vaccinations required for Cholera.
DD	Number of deaths or cases of serious illness in the last 30 days.
EE	Name all ports called at during the last 30 days.
FF	Master's Name.

VHF: Ras Bahregan Terminal maintains a listening watch 24 hours a day on VHF Channels 16 and 13.

Vessels should commence calling "Bahregan" 4 hours prior to arrival, on Channel 16. When contact has been made, switch to working frequency Channel 13.

NOTICE OF READINESS: The ship's officer responsible for loading or discharging should give IOOC's Mooring Master at least 30 minutes Notice of Readiness to commence loading or discharging.

The Master's "Notice of Readiness" will be rejected if any of the ballast is oily, or if there is any leakage of oil from the vessel during loading, or any unsatisfactory condition on board ship which affects cargo worthiness or seaworthiness while under the jurisdiction of the Terminal. In all such situations of dispute, the decision of the IOOC Marine Superintendent will be final.

MBM: MBM Terminal is located 5 miles from coast at:

Lat. 29° 47′ 00″ N., Long. 50° 11′ 30″ E.

The MBM Terminal is connected by a 4.5 mile 18 in. diameter submarine pipe-line to Bahregan Terminal. Bahregan Terminal is located at:

Lat. 29° 49′ 30″ N., Long. 50° 15′ 47″ E.

TUGS: Available and required. One modern diesel tug of 1,000 b.h.p. fitted with controllable pitch propellers is stationed at the Terminal and used for all manoeuvres.

The IOOC tug is equipped for fire fighting, using both water and foam through monitors situated on a fire fighting platform. IOOC tug is on instant readiness throughout the entire time that a vessel is moored at the Terminal. The tug will answer the emergency signal or by calling on Channel 13 VHF.

BERTHING: The Terminal operates a mooring launch and 3 small supply boats.

SBM: The SBM is designed to provide a safe mooring for tankers in most states of weather or sea. When moored to the SBM, tankers can load their cargo while weather-vaning about the Terminal. The moored vessel normally remains head into the wind and sea, riding at its most comfortable position. The SBM consists of a strongly constructed steel vessel securely moored in position by 6 sets of heavy mooring chains, each set is attached to a 3 pile template. The SBM is equipped with a Rotating Mooring Bollard, to which the tanker secures, a Rotating Cargo Manifold which carries the crude flow system from the SBM through the hoses, and a Rotating Balance Arm, which maintains the SBM on an even keel. These 3 components all rotate as one unit as the tanker swings with the sea or wind.

A submerged peripheral fender extending outward from the hull is provided to prevent damage to the floating hoses and SBM, should the tanker ride up against it.

MBM: Permanent mooring in the berth consists of 5 steel cylindrical buoys each fitted with a quick release hook to which the ship's mooring lines are attached by the company's mooring launches. The berth is laid out on a one heading basis, using both ship's bower anchors with 9 mooring ropes (4 beam, 4 quarter, and 1 stern).

The mooring buoys are numbered 1, 2, 3, 4 and 5 starting with No. 1 East of the mooring and numbers running consecutively in a clockwise direction.

HOSES: The Terminal carries a full range of reducing spool pieces and flexible hoses for connections.

SBM: 2×16 in. floating hoses.

After the vessel is securely moored to the SBM, the service launch will tow the end of the floating hoses to a point on the portside of the tanker immediately below the tanker's cargo manifold. The tanker's derrick runner should be ready to lift the hoses which will be secured by the attached chains in such a manner as to allow the ends of the hoses to reach the ship's manifold. The weight of the hose to be lifted is approximately 5.5 tons. The hoses are fitted with 16 in. flanges, and the company will provide reduction pieces to 14 in. or 12 in. or other sizes (as well as gaskets) as required to make connections to the ship's manifold. The hose connection is normally performed by IOOC's loading crew under the supervision of the Mooring Master. However, a ship's deck officer must be present, and must direct the ship's crew as required.

MBM: 2×10 in. submerged hoses.

After the vessel is securely moored, inside the MBM, the submarine loading hose must be lifted to the rail amidships. The 10 in. hose lift is 5 tons. Hoses are lifted by ship's gear on the starboard side. Ships should have manifold fittings aboard to allow connection of the flanges.

Tankers are loaded or discharged at this berth.

LOADING: Crude oil is delivered to the SBM through a 36 in. line and to the MBM through an 18 in. line from a 2,198,000 barrel tank farm.

Flow rate under normal conditions is approximately:

SBM (two hoses) 6,000 t.p.h.
MBM (two hoses) 5,000 t.p.h.

The minimum flow rate is 15,000 bbls./p.h. All vessels accepting nominations to load at Bahregan must be capable of loading crude at rates above this figure.

The initial loading rate is normally about 1,500 t.p.h. while the Loading Master and the ship's officer satisfy themselves that all is in order with the Terminal and the ship's facilities. As soon as this is done, the loading rate is increased to maximum or other rate as requested by the ship.

The API of Bahregan Crude oil is 26.0.

The temperature of Bahregan Crude oil varies between 62°F and 78°F (Winter/Summer).

The Terminal will accept cargo requests 10% above or below the official nominated quantity unless specifically requested otherwise by the consignor.

A shore stop to close off the flow of crude oil to the tanker will be executed by the Terminal; provided the Master issues a written request to the Loading Master upon arrival at the loading terminal. This request must include the statement that IOOC will not be held responsible for any error in the final quantity loaded.

Master should note that in cases of overloading, the excess cargo cannot be returned to the shore line. Masters should also be aware that they will be held responsible for any overflows and pollution caused by their request for a shore stop.

An "Early Sailing System" of tanker documentation is operated by the Terminal as standard practice for all cargoes.

The Terminal will accept the "Load-on-top" system of co-mingling tank cleaning oil residue from previous cargoes with the nominated quantity of Bahregan Crude oil, provided agreement has been obtained from the consignor.

Slops should be segregated in a special "Slop Tank" or accumulated in one of the cargo tanks. A sample of the slop must be taken on arrival at the Terminal and kept for any future reference. Exact quantities must be calculated.

Vessels which arrive in ballast to load part cargo, should endeavour to place the ballast in such a manner as to allow loading to commence upon arrival at the Terminal. The ballast may be retained for discharge en-route to the next port, or discharged concurrent with loading, provided the vessel can show adequate valve separation, this method is accepted by the Terminal, and will be finally confirmed by the Loading Master when satisfied that no pollution or contamination will occur. Vessels arriving in ballast to load a full cargo, who carry most of their ballast in "Permanent ballast" tanks, should also endeavour to arrange the remaining ballast in such cargo tanks as to allow loading to commence upon arrival at the Terminal, and discharge concurrent, using segregated lines and pumps. The Terminal will accept this system on the same basis as above paragraph.

PETROLEUM INSPECTORS: Services of the Saybolt Agency available subject to at least 3 days advance notice.

Surveyors of the American Bureau of Shipping and Lloyd's are stationed at Bandar Abbas.

MEDICAL: Depending on the availability of the Company doctor, medical assistance can be provided, although there is no hospital available. In cases of extreme emergency, IOOC will arrange transport to nearby towns at the ship's expense and responsibility.

CUSTOMS: A Customs Officer boards each vessel calling at the Terminal.

DENSITY: Salinity is approximately 20% more than normal sea water.

FUEL: Not available.

FRESH WATER: Not available.

STORES: Not available.

TIME: Standard zone time for Iran is GMT plus 3.5 hours.

SERVICES: No facilities for crew change, etc., or any other vessel's requirements, as the Terminal is situated off-shore in the Gulf and there are no transportation facilities other than Oil Company's flights from Abadan which are meant for their own personnel.

REPAIRS: Masters of vessels loading at Bahregan Terminal are advised that this port is considered an "open roadstead" and under no circumstances may engines be shut down for repairs while their ships are moored. There are no facilities at Bahregan Terminal for making vessel repairs.

CONSULS: There are no consulates at the Bahregan Terminal; however, consular or diplomatic representatives for most nations maintain offices in Tehran and some in Khorramshahr.

SHORE LEAVE: There is no shore leave permitted due to lack of facilities.

AUTHORITY: Iranian Offshore Oil Company, 339 Abbassabad Avenue, Tehran – Iran. *Cables:* Falatghareh, Tehran. *Telex:* 212598 – 212346 – 212707. *Tel:* 624102-7.

Mail address: P.O.Box 1434.

AGENT: See "Abadan".

SIRRI ISLAND: 25.54 N. 54.33 E. (See Plan)

Note: Ship-to-ship transfers to be resumed in the near future.

FLAG: The Iranian flag, green side uppermost, must be flown while the vessel is within territorial waters. Iranian territorial waters extend 12 miles seaward from the mainland and offshore islands.

LOCATION: The loading station is located in the S.E. part of the island of Sirri at:

Lat. 25° 54′ N., Long. 54° 33′ 30″ E.

Landfall on the island presents no difficulty, by day or night, for vessels coming from the Strait of Hormuz or from one of the Gulf Ports. The Island gives a good radar echo at 17 miles.

PORT LIMITS: Port area limits which are under the control of IOOC extend between the following points:

Lat. 25° 55.0′ N.,	Long. 54° 33.1′ E.
Lat. 25° 55.0′ N.,	Long. 54° 34.6′ E.
Lat. 25° 52.0′ N.,	Long. 54° 31.1′ E.
Lat. 25° 52.0′ N.,	Long. 54° 34.6′ E.

Vessels must not enter this area without permission from the Port Control. Anchoring in this area is prohibited.

NAVIGATIONAL AIDS:

Warning: The following information is for the guidance of ships. IOOC does not guarantee or warrant that the listed aids to navigation are in the stated positions or operating.

Sirri Island Terminal Light located in: Lat. 25° 54′ N., Long. 54° 33′ E. Light exhibited Fl. W. every 7 secs., visible 10 miles.

A lighted buoy, showing Fl. W.(3) every 12 secs. is visible 6 miles, and is located to the West of the S.E. end of the island.

The flare located in: Lat. 25° 54.1′ N., Long. 54° 31.9′ E. is highly conspicuous and tends to obstruct the other navigational aids:

Masters may find it useful to refer to the following documents:

1. French Hydrographic and Oceanographic Department Charts No. 2172 and 6051.
2. French Nautical Instructions, Series L, Volume IV.
3. British Navy Hydrographic Office Charts No. 2837, 2887, 2832 and 3781.
4. Lights and Fog Signals Book, series L.

PROHIBITED AREAS: Papa Production Facility (Offshore) located in position: Lat. 25° 42′ N., Long. 54° 17′ E.

The above platform complex, approximately 18 nautical miles S.W. of Sirri Island, is situated in the centre of the Sirri "A" oil field.

This area, and 3 miles around it, is prohibited to navigation.

Crude oil from offshore oil fields is delivered to Sirri Island by submarine pipe-line, from Papa production complex.

3 pipe-lines running approximately 182°T to a shore location on Sirri Island at: Lat. 25° 53.4′ N., Long. 54° 32.6′ E.

Vessels are requested not to anchor or carry out any under sea/seabed operations in the vicinity of these pipe-lines.

PILOTAGE: Vessels must not enter the Port Limits without an IOOC Berthing Master on board.

Vessels should wait for the Berthing Master approximately 2 miles off the Loading Dock.

Vessels should have the following equipment ready for use upon their arrival at the Port:

(a) Anchors, port and starboard, ready for letting go.
(b) Ropes or wires, 8 each end, not on automatic tension winches.
(c) Derricks rigged if shore reducers or flexible hoses are required.
(d) Manifold blanks removed and reducers fitted ready to connect 20 in. series 150 ASA loading arm flanges.
(e) Accommodation ladder lowered together with the pilot ladder if a VLCC, otherwise a pilot hoist or pilot ladder.
Note: Berthing Masters will not board any vessel which does not present a clean safe means of access.
(f) Ballast tank lids opened to allow the Berthing Master to inspect ballast water.
(g) Pilot room available and ready for the Berthing Master and also trainee accommodation, should they decide to stay on board throughout the loading.

Immediately upon boarding the vessel, the Berthing Master will present the following documentation to the Master for his signature:

(a) A copy of the Port Rules and Regulations Book receipt and agreement form.
(b) IOOC "Notice of Readiness" form.
(c) Combined Tug, Pilot, Berthing/Unberthing charge form.
(d) Fire and Safety Regulations and No Smoking Notices for posting in approved locations.

All the above documents must be processed prior to the vessel being berthed.

A vessel arriving in light condition must have sufficient ballast on board for safe handling. As the Terminal Dock is located in the open sea, this amount has been set at 33% of the d.w.t. Trim must not be more than 10 ft. by the stern.

Also see "Tugs".

ANCHORAGE: Vessels arriving to load at Sirri may anchor in 60 m. depth of water, 1.5 miles East of the lighthouse of Sirri Island, and take up a holding anchorage at their own initiative, providing they have not received instructions for docking upon arrival.

Prohibited Anchorage: Under no circumstances may vessels anchor in the zone surrounding the dock area, within a one-mile radius.

It is strictly forbidden to anchor in the vicinity of the S.E. end of the island (undersea pipe-lines); anchorage to the North and West of the island is considered unsafe and of poor holding qualities.

HEALTH: Following mooring and positioning of the vessel's access ladder, Iranian medical authorities or their representative will grant Pratique. Masters are advised to notify by radio any cases of infectious disease which may have broken out aboard.

RADIO/VHF:

1. Vessels nominated to load at Sirri Island should transmit arrival information 96 hours and confirm 48 hours prior to arrival.

Arrival messages should be transmitted to the following address through either Bandar Abbas Radio (EOI) or Abadan Radio (EQZ).

IOOC Tehran, Telex: 212598 – 212346 – 212707.

Attn. Marsupt. Sirri.

Arrival messages to be in the following format:

AA Name of ship.
BB ETA Sirri in GMT and last port.
CC Cargo required.
DD Deballast time.
EE Size and number of connections for cargo.

Abadan Coastal Radio Station (EQZ) schedules and frequencies:

Schedule of Watch GMT (hrs.)	*Listening Watch Frequencies* (kHz)	*Transmitting Frequencies* (kHz)	*Receiving Frequencies* (kHz)	*Remarks*
Continuous	500	500	500	Distress Station is equipped with international Auto-Alarm receiver on 500 kHz.
Continuous	500	428	405-535	Traffic Lists every 2 hours from 0105 to 2305 GMT.
0400 – 0700	8356 – 8374	8471	8474 – 8460	**Traffic Lists every 2 hours from 0405 hrs. GMT.
0700 – 0900	12534 – 12561	13069.5	12561 – 12689	
1000 – 1300	12534 – 12561	13069.5	12561 – 12689	
1400 – 1700	8356 – 8374	8471	8374 – 8460	
1700 – 1830	3178 – 4187	4294	4187 – 4231	

**During scheduled watches on HF while station (EQZ) is not actually working with ships, traffic lists are transmitted automatically and continuously on frequencies 4294, 8471 and 13069.5 kHz according to their schedules of watch.

2. Sirri Island Station, is operating on 500 kHz, and 2182 kHz from 0400 – 0800 hrs. LT and from 1100 – 1400 hrs. LT.

3. Sirri Terminal maintains a listening watch 24 hours on VHF Channels 16 and 12.

Vessels should commence calling "Sirri Island" 4 hours prior to arrival, on Channel 16. When contact has been made, switch to working frequency Channel 12.

4. Sirri tugs maintain a listening watch on 2182 kHz. Vessels should commence calling "Sirri Tugs" when passing Quoin Island. When contact has been made, switch to working frequency 2638 kHz.

5. *Radio Free Pratique:* Vessels requesting Free Pratique by radio are required to transmit the following message through the same Channels as their ETA advice.

AA Name of vessel and ETA Sirri Island (in GMT).
BB Number of crew and state of health.
CC Number of vaccinations required for Cholera.
DD Number of deaths or cases of serious illness in the last 30 days.
EE Name all ports called at during the last 30 days.
FF Master's Name.

MAX. SIZE: The loading station is designed for docking and handling of vessels having a minimum length of 240 m. and a maximum length of 365 m. This normally restricts utilisation to vessels in the approximate size range of 80,000 d.w.t. to 330,000 d.w.t. The maximum authorised draft for these vessels is 24.00 m. (78 ft. 9 in.).

TUGS: 2 modern diesel tugs of 4,250 b.h.p. fitted with controllable pitch propellers and a bollard pull of 65 tons are stationed at the loading dock and used for all manoeuvres.

The tugs are equipped with their own towing lines, fire fighting capability, foam, dispersant and fire wires.

Launches: The Terminal operates a pilot launch and 2 mooring launches for rope handling.

NOTICE OF READINESS: The Master's "Notice of Readiness" will be rejected if any of the ballast is oily, or if there is any leakage of oil from the vessel during loading, or any unsatisfactory condition on board ship which affect cargoworthiness while under the jurisdiction of the Terminal.

In all such situations of dispute, the decision of the Sirri Marine Superintendent will be final.

The vessel's Owner may bring in a Classification Surveyor, at his own expense, to conduct a survey.

BERTHING: *Port Facility – Tanker Dock:*

1. Vessels are ordinarily docked port side to the dock on a heading of 017°, at mooring piling equipped with "Yokohama" type inflatable fenders. Mooring lines are attached to 6 mooring pilings, equipped with quick-release hooks. The dock comprises a loading platform linked to land by a catwalk. All ships berthed alongside must provide rat guards for the ship's moorings.

2. Water depth, adjacent to the dock, at LW is 28 m.

3. Keel clearance required by the Terminal is 3 ft. at all times.

4. Connection and disconnection of the loading arms is performed by IOOC personnel, with the assistance of the vessel's crew. The vessel's cranes are not used unless absolutely necessary, as in the event of failure of the platform hoisting equipment. The loading arms are of 20 in. size, with hydraulic couplers for 16 in., 14 in. and 12 in. flanges.

Vessels are advised to have their reducers attached to the loading manifold, ready for connection. Before connection is begun, the vessel will be connected to the arc system voltage equalising cable.

5. After the vessel is moored and Pratique issued, an IOOC representative responsible for loading and safety will reach agreement with the vessel as to loading conditions, possible flow rate, and quantities to be handled. The IOOC representative is on watch on the dock at all times. The Master of the vessel must provide him with all the information necessary to ensure proper completion of the loading process. The Master shall designate an officer to be responsible for loading and safety on board, in liaison with this representative, and a crew member who shall be permanently stationed near the manifold for direct communication with the dock. The Master shall be fully responsible for valve operations and safe loading on board. If necessary, the vessel may at any time request a reduction in the pumping rate.

When loading is completed, tank ullages shall be taken by an officer of the vessel, in the presence of the IOOC representative.

The Terminal shall furnish the vessel with samples of the crude loaded, taken by continuous sampling on the loading line. Such samples shall be numbered and sealed, and shall state the origin of the crude.

6. At the end of the loading process, the vessel shall notify the Terminal 0.5 hour, and again 10 minutes, before the planned stop loading.

LOADING: *Loading Facility:*

1. Tankers are loaded at Sirri Island alongside a 1 berth jetty, approximately 600 ft. offshore. The loading platform is fitted with rigid hydraulic loading arms which have quick connection/release couplers attached to the end flange.

Crude is loaded by 3×20 in. loading arms, 1 of which are also used for unloading dirty ballast water from the tanker.

2. The maximum loading rate is 15,000 cu.m./hr. The minimum flow rate is 15,000 bbls/hr. All vessels accepting nominations to load at Sirri Island must be capable of loading crude at rates above this figure.

3. The API of Sirri crude oil is 31.

4. The temperature of Sirri crude oil varies between 93°F and 86°F (Summer/Winter).

5. The Terminal will accept cargo requests 10% above or below the official nominated quantity unless specifically requested otherwise by the Consignor.

6. A shore stop to close off the flow of crude oil to the tanker will be executed by the Terminal provided the Master issues a written request to the Loading Master upon arrival at the loading dock. This request must include the statement that IOOC will not be held responsible for any error in the final quantity loaded.

Masters should note that in cases of overloading, the excess cargo cannot be returned to the shore line.

Masters should also be aware that they will be held responsible for any overflows and pollution caused by their request for a shore stop.

7. An "Early Sailing System" of tanker documentation is operated by the Terminal as standard practice for all cargoes (see "Early Sailing Procedure").

8. Most responsible ship owners have adopted a system of tank cleaning using circulatory methods of transfer of tank washing on board ship and treating these washings with chemicals. The result is that no oil is discharged into the sea and the oil separated is collected in a Slop Tank. With the written permission of Off-Taking Companies, the Terminal will "Load on Top" of such slops. To avoid pollution of the Gulf, this system is highly recommended.

9. Vessels which arrive in ballast to load part cargo, should endeavour to place the ballast in such a manner as to allow loading to commence upon arrival at the loading dock.

The ballast may be retained for discharge enroute to the next port, or discharged concurrent with loading. Provided the vessel can show adequate valve separation, this method is accepted by the Terminal, and will be finally confirmed by the Loading Master when satisfied that no pollution or contamination will occur.

Vessels arriving in ballast to load a full cargo, who carry most of their ballast in "permanent ballast" tanks, should also endeavour to arrange the remaining ballast in such cargo tanks as to allow loading to commence upon arrival at the loading dock, discharge concurrent, using segregated lines and pumps. The Terminal will accept this system on the same basis as above paragraph.

10. A 90,000 cu.m. storage reservoir enables vessels to discharge the dirty water ballast from their tanks into IOOC land installations, by means of two of the 20 in. handling arms in the dock installation.

BALLAST: *Ballast Upon Arrival:* Vessels must come in with adequate ballast and proper trim to be able to manoeuvre in satisfactory conditions of safety.

Ballast must not be less that 30% of d.w.t., or 50% of loaded draft; FW, bunkers and stores are not considered ballast. I.O.O.C. reserves the right to leave at anchor vessels not meeting these conditions; the resulting delay will be for account of the vessel.

The Terminal is equipped with a dirty ballast holding tank; ballast unloading is performed by two 20 in. arms. Any discharge of dirty water overboard is forbidden.

Ballast Discharge: A 90,000 cu.m. storage reservoir enables vessels to discharge the dirty water ballast from their tanks into I.O.O.C. land installations, by means of two of the 20 in. handling arms in the dock installation.

Disposal of Ballast: International Law: Ship's Masters are held responsible to observe International Convention Laws concerning pollution of the sea, having particular regard to the Gulf Area.

Disposal of Ballast at Sea: Ship's Masters are warned that no dirty ballast, or bilge water should be disposed of in the sea within 50 miles of the coast of Iran.

When so disposing of ballast, all pipe-lines, sea suctions, strainers, and pumps that are later to be used to discharge clean ballast, must be flushed clean, so that there will be no chance of even a small amount of sea pollution when the clean ballast is pumped out.

Master's Responsibility: It is the ship's Master's responsibility to see that no oil of any kind is pumped or spilled overboard from his ship.

Categories of Pollution: This includes oil water from bilges, crude residue from previous voyages, or any other matter that may result in pollution of the sea. Any fines imposed shall be to ship's account.

Tank Inspection: As soon as practical after arrival, all vessels' tanks will be inspected for oil in ballast. During discharge of ballast similar inspections will continue.

Ship Rejections: If evidence of oil appears at any of these inspections the ship will be rejected, and will not be accepted until satisfactory evidence is produced that such ballast was disposed of in a proper manner. If during inspection, or during progress of loading, it is revealed that ship's tanks are not tight, or that oil is leaking from the ship, she may be rejected or refused further loading.

Ship Survey: Should the ship's tanks be found leaking it will not be later accepted for loading, unless satisfactory evidence duly certified by Lloyd's or A.B.S. Surveyors, or other recognised Surveyors of repair, is submitted.

Notice of Readiness Rejection: Any vessel rejected because of dirty ballast or sea pollution will automatically nullify his "Notice of Readiness" and lose any priority of position for loading.

On return from sea, ships' Masters should tender a new Notice of Readiness to I.O.O.C. If this is accepted by I.O.O.C. vessels will then be entered for loading at the new time of acceptance. Vessels will be rejected for dirty ballast at all times.

Ballast Quantity: A vessel must have sufficient ballast for safe handling, with due regard to existing weather and sea conditions. Through a careful watch of the weather and sea conditions, frequent exchange of information between ship and Terminal, and by a knowledge of the behaviour of his own vessel a ship's Master may come to the Terminal with a minimum of ballast and thus lessen any possibility of infringement of sea pollution regulations.

Additional Lighting: In addition to the lights usually displayed, vessels in the berth discharging ballast or loading cargo during darkness will themselves illuminate the sea around the ship, so that any pollution will be readily noticeable.

Special Provision: Vessels equipped with a separate system of ballast tanks will be allowed to discharge ballast and load oil simultaneously, providing approval is first obtained from the Sirri Terminal Superintendent.

Load on Top Method: Most responsible ship owners have adopted a system of tank cleaning using circulatory methods of transfer of tank washing on board ship and treatment with chemicals.

The result is that no oil is discharged into the sea and the oil separated is collected in a slop tank. With the written permission of Off-Taking Companies, the Terminal will "Load on Top" of such slops. To avoid pollution of the Gulf, this system is highly recommended.

EARLY SAILING PROCEDURE: Notice to Masters:

In order to minimise delays to tankers awaiting official documentation after loading at the port, an Early Sailing system is now in force.

The following documents are prepared in advance, *except for cargo figures*, and presented by the ship's Agent to the Master for his signature, upon the ship's arrival at the loading dock.

(A) Nos......... Originals & Nos......... Copies of IOOC Bill of Lading.
(B) Nos......... Originals & Nos......... Copies of IOOC Certificate of Origin and Cargo Manifest.
(C) Nos......... Originals & Nos......... Copies of IOOC Tanker Time and Loading Report.
(D) Nos......... Originals & Nos......... Copies of IOOC Report of Cargo and Ship's Ullages.
(E) Master's Receipt for Documents covering both pre-signed and onsite prepared forms.

Documents for Master's use, and for the Consignee care of the Master will be retained on board. All other pre-signed documents to be returned by the Agent to the IOOC Terminal Office.

Official cargo figures will be passed to the Master by radio *within 1 hour* of his departure. Advice of quantities loaded should be inserted by the Master on the "Bill of Lading" and "Certificate of Origin" forms as prior indicated.

Hand written copies of items (C) and (D) will be passed to the Master for his reference.

In case of disagreement on Cargo figures, the Master may:

1. "Note Protest" by cable or telex.
2. Authorise the ship's Agent to "Note Protest" on his behalf.
3. Pass a written "Note of Protest" to the Berthing Master who will acknowledge receipt on behalf of the Terminal.

IOOC appreciates the co-operation of Masters, Owners, Shippers and Consignees in agreeing to implement this system.

POLLUTION: It is the Master's responsibility to ensure that no garbage, refuse or liquid discharge is allowed to pollute harbour waters.

Adequate covers must be placed over all sanitary and galley discharges to prevent fouling the dock structure.

Ship's Masters are obliged to observe International Convention Laws concerning pollution of the sea.

Rules and Regulations establishing procedure for the Sea of Oman and the Gulf must be strictly observed by all Masters.

IOOC monitors the entire area within their field of operation, and will fully document and report back to NIOC any case of pollution for further action.

MEDICAL: IOOC operates a small clinic on the Island with resident doctors. This facility will be made available for emergency cases only.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: The island has no repair shop. Repairs may be made at anchorage after loading, subject to approval by I.O.O.C.

REPATRIATION: I.O.O.C.'s air transport to Tehran is not available for the transport of relief crews.

AIRPORT: I.O.O.C. has an air transport service to Tehran.

TIME: Sirri Island is on Iranian Standard Time which is GMT plus 3 hours 30 minutes.

SHORE LEAVE: Crew are prohibited from going ashore, except by special authorisation issued by I.O.O.C., by agreement with the consignees and the local authorities.

Swimming alongside the vessel and the dock is prohibited.

GENERAL: *Weather:* From May to September, very hot and humid conditions prevail with temperatures reaching 47°C (117°F) and relative humidity ranging from 10% and 100%.

The Winter months, from November to March, are mild and pleasant with minimum temperatures of about 4°C (39°F). The average rainfall is approximately 200 mm. (8 in.) per annum, all of which falls during the Winter months.

Throughout the year, the dominant winds are from the W.N.W., with winds of a force greater than 20 knots from November to March. This orientation is approximately 290° at Sirri. This wind, known as the "Shomal", blows particularly in the Summer during a period of forty days (beginning of June to mid-July); in the Winter, the wind comes on abruptly and can reach 30 to 40 knots.

Note: Violent winds from the N.E. reaching 60 knots have been observed in the Winter season.

Tides: In the waters around the island of Sirri, the tides are semidiurnal with diurnal assymetry. High tide occurs approximately 9 hours after the moon passes the meridian of Greenwich. The average water level is 0.90 m. above chart datum and the average tidal range 1.50 m.

The seasonal S.W. wind from April to September causes the water level in the Gulf to rise by 0.30 m.

Sea Conditions: The swell is short and rapidly becomes steep, and it is often out of proportion to the wind force. With the Shomal, it can reach 3.50 to 4.50 m., but the maximum wave height at Sirri is in the range of 1.80 to 3.00 m. The swell subsides rapidly after the wind dies down.

Sea temperature varies from 71°F. (22°C.) in January to 93°F. (34°C.) in August.

Currents: Tidal currents are of the order of one knot, with N.N.E. and S.S.W. major components; thus currents are roughly parallel with the dock alignment.

Sanitary Report: This formality is normally performed after the vessel docks; however, vessels remaining at anchor may, through their Agents, complete customs and health examinations in the roadstead.

Publications and Charts: Masters may find it useful to refer to the following:

a. French hydrographic and oceanographic department charts No. 2172 and 6051.
b. French nautical instructions, Series L, volume IV.
c. Lights and fog signals book, Series L.
d. British Hydrographic Office chart Nos. 2837, 2887 and 2832.
e. Gulf Pilot (63).

Rat Guards: All ships berthed alongside must provide Rat Guards for the ship's moorings.

Territorial Waters: Iranian territorial waters extend 12 nautical miles from the coast and adjacent islands.

Surveyors: Surveyors of the American Bureau of Shipping and Lloyd's are stationed at Bandar Abbas and Abadan.

Consuls: No Consular representation is available at Sirri but the Embassies of most nations are situated in Tehran.

Officials: Customs, Ports and Shipping, and Gendarmerie Officials are stationed on Sirri Island.

Maintenance: Maintenance work such as scaling and painting on deck or from the loading dock, is prohibited at all times while the vessel is alongside the loading dock.

SAFETY: *Safety Watch:* A safety watch is provided on the loading platform by I.O.O.C. personnel, under the orders of the Loading Supervisor.

Throughout the time the vessel is alongside, I.O.O.C. makes the following seagoing facilities available to the vessel:

a. Two 300 h.p. docking escort boats.
b. Two safety tugs with monitor water nozzles, foam generators and anit-pollution spray equipment.
c. Fixed dock equipment (water screens, nozzles).

The Master remains solely responsible for safety aboard his vessel. He shall maintain sufficient crew on board to be able to handle his vessel without hazard, and ensure rapid response with fire fighting equipment:

a. Keep the engines ready for use.
b. Make sure the vessel keeps its station with the dock, so that the loading arms always operate within their designed work-zone.
c. Make sure that the mooring lines provide firm mooring without abnormal strain.

An I.O.O.C. representative shall make sure that these safety provisions are in force throughout the time the vessel is alongside the loading station.

If need be, the standby tug may be called upon for correction of docking position. Loading may be halted, and the arms disconnected.

Preventative Measures: The vessel must show a red flag by day, and by night a red light visible through 360°.

The Master must post a notice at the gangway, absolutely prohibiting smoking, the use of open lights, and access to visitors.

All hull valves shall be closed, except for those handling water circulation.

All main deck scuppers shall be plugged.

Two wire rope emergency tow lines, of adequate length and strength shall be placed on the starboard side, one forward and one aft; the eyes of the tow lines shall be maintained a suitable distance above the water, so that the tugs can couple to them easily.

The access gangway shall be properly positioned on deck.

Fire Protection: Smoking, the use of open lights, and the use of tools liable to produce sparks are prohibited outside the zones where such are normally authorised on a tanker.

In zones classified as dangerous, the use of equipment other than types approved for this use by an official body is prohibited.

Further, in general, the Master is obliged to adhere to international safety regulations.

AUTHORITY: Iranian Offshore Oil Company, 339 Abbassabad Avenue, Tehran – Iran. P.O. Box 1434. *Tel:* 624102-5 *Cable:* Falatghareh, Tehran. *Telex:* 212598-212346-212707. *Contact:* Captain M. H. Salimzadeh, Head of Marine Operations.

AGENT: See "Abadan".

Iraq

TANKERS: Please note that all correspondence, cables, and telexes concerning tankers calling at Iraqi terminals are to be directed to following addresses.

Postal address: State Enterprise for Maritime Agencies. P.O. Box 3, Basrah.

Cable address: Tankers Basrah. Tankers Fao.

Telex No.: 7009.

Cables for arrival should be addressed to both "Tankers" Basrah and "Tankers" Fao.

ALBAKR TERMINAL: 29.41 N. 48.49 E. (See Plan)

LOCATION: The terminal is 31 miles S.E. of Fao in position Lat. 29° 40′ 36″ N., Long. 48° 48′ 38″ E. Depth of water 29.30 m. at MLWOST.

PILOTAGE: Pilotage is compulsory for all inward and outward tankers using the Khor al Khafja buoyed channel when the draft is over 15.85 m.

NAVIGATIONAL AIDS: 8 lighted buoys define the deep water channel at the 69 ft. (21m.) depth contours in the immediate vicinity of Albakr Terminal. The buoys are battery powered with quick flash characteristics with visibility range of 1 mile. The perimeter of Albakr Terminal is outlined with flashing marine lanterns to define a hazard to marine navigation. The lanterns are battery powered, some are white lens flash with 5 mile range and others are red lens flash with 2 mile range.

The radio tower is equipped with an aviation hazard light (red). It is also equipped with a long range marine beacon (white) located below the red hazard light.

MAX. SIZE: Max. length, 366 m. Max. draft 21 m. Night berthing possible.

RADIO: Tankers are requested to contact Albakr Terminal through Basrah Control Radio (YIR) at least 72 hours, 48 hours and 24 hours prior to arrival giving ETA. Prior to docking the tanker must also provide the terminal operator with information required to prepare the "loading order" format, this information should include the type of crude to be loaded, loading rate in barrels, the Registry No. of vessel, nationality, name of Master. The Master will be informed of approach instructions such as location of berth, weather and sea conditions, and the communication channel to be used for vessel docking assistance.

Vessels bound for Iraqi territorial waters should also contact Fao Radio (YIS) at least 24 hours before entering territorial waters requesting free pratique from Medical Officer Fao. The request should indicate the state of health of the crew on board together with relevent information.

Name of Station: Khor al Khafja FC(10) Albakr Terminal FP
Call Sign : Albakr Radio
Service : 24 Hours

The following table shows the details for contacting the Iraqi port coast stations. The number between brackets corresponds to the notes explained below.

Frequency	Emission Channel	Class	Power	•Service Nature
156.375 MHz (6) (8)	67	F^3	0.02	OT (2) (3)
156.550 MHz (3) (5)	12	F^3	0.02	OT (2) (3)
156.80 MHz (1) (3) (4) (7) (8) (11)	16	F^3	0.02	
161.80 MHz	24	F^3	0.02	

FC Coast Station
FP Port Station
OT Station open exclusively to operational traffic of the service concerned
(1) Transmits urgent Notices to Mariners
(2) Transmits meteorological bulletins (North Arabian Gulf Weather Forecast)
(3) For Navigation and harbour control services
(4) Calling and Safety frequency
(5) First priority working frequency
(6) Second priority working frequency
(7) Weather bulletins at 0630, 1430 hrs. and on request
(8) Used for marine traffic control
(10) Station under the direction of Iraq Administration
(11) Permanent watch

While in Iraqi Territorial waters, ships under way shall maintain watch on Channel 16 (156.80 MHz) and/or (461.5 kHz) to ensure immediate reception of the instructions issued by the controlling authorities.

(a) Khor Al-Khafja, Albakr Terminal Radio, maintains listening watch on Channel 16 (156.80 MHz).
(b) Pilot station (Al-Rasheed Radio YIBE maintains listening watch on Channel 16 (156.80 MHz) and 500 kHz.
(c) Fao Radio (YIS) maintains listening watch on Channel 16 (156.80 MHz) and 500 kHz.
(d) Basrah Control Radio (YIR) maintains listening watch on Channel 16 (156.80 MHz) and 500 kHz.

Instructions:

(a) Navigation warnings are transmitted on 500 kHz by Basrah Control Radio (YIR).

(b) North Arabian Gulf weather forecast is transmitted by:
1. Basrah Control Radio on:
440 kHz at 0530, 1330 GMT and on request.
6493.25 kHz at 0530 GMT and on request.
8668 kHz at 1330 GMT and on request.
2. Khor Al Khafja, Albakr Terminal Radio, on Channel 16 (156.80 MHz) at 0530 GMT and on request.

(c) Traffic control signal on Channel 16 (156.80 MHz) and on 500 kHz by Basrah Control Radio (YIR).

(d) Traffic control signal on Channel 16 (156.80 MHz) and 500 kHz by Fao Radio (YIS).

(e) Traffic control signal on Channel 16 (156.80 MHz) by Albakr Terminal Radio.

Commercial and Public Correspondence: Call Basrah Radio (YIR) on Channel 16 (156.80 MHz) 500 kHz. 4, 6, 12 and 16 MHz. bands, and after initial contact has been established change to one of the working frequencies as instructed to pass messages.

TUGS: 3 available, 2 of 4,000 h.p. and 1 of 2,200 h.p.

BERTHING: The terminal consists of 2 loading platforms (A) and (B) each loading platform has 2 loading berths. Berths No. 1 and 2 of Platform "A" and Berth No. 4 of Platform "B" can accommodate tankers ranging in size from 35,000 d.w.t. to 350,000 d.w.t., Berth No. 3 of Platform "B" can accommodate tankers ranging in size between 85,000 d.w.t. and 350,000 d.w.t., Total length of structure is 975.4 m. and 106.7 m. wide at centre.

LOADING: Storage and pumping facilities on shore are connected to Albakr Terminal by 2×48 in. pipe-lines. The Terminal is capable of loading through either one of the pipe-lines at a time or both.

Capacity of each line varies between 77,000 to 89,000 b.p.h. depending on type of crude (Basrah heavy or Basrah light type). With both lines in operation at the same time loading rate can be increased to max. 141,500 b.p.h. (19,000 tonnes p.h.). 2 tankers can load with different types of crude at the same time. Loading facilities can be remotely controlled from the Control Room.

Loading will be stopped if any regulations are not observed and in the case of oil spillage.

Loading may be stopped in still air conditions, during severe electrical storms and/or high wind and sea conditions.

Loading Arms: For each loading berth, 3 identical 24 in.×80 ft. long Luceat DCMA loading arms, with hydraulically operated coupling fitted with adaptors to allow automatic and fast coupling to tanker manifold flanges ranging from 16 in. to 24 in. (spools for 10 in., 12 in. or 14 in. to 16 in. are available at the terminal if required).

Gangway: A power operated telescopic personnel gangway is provided at each berth. These gangways can withstand 500 lb. load at mid-span in the extended position.

Meters: 16 in. A. O. Smith positive displacement meters, 16 meters for each platform, capacity of each meter 12,500 b.p.h.

Meter Prover: One 24 in. triple "U" bi-directional mechanical displacement meter prover for each platform. The occurence of each prover is decided bi-yearly utilizing certified volume tanks.

Continuous Crude Oil Gravity Analyzer: There is a number of ARCCO Anulus Model 1-F10 50X liquid gravity analyzers on each loading platform capable of detecting API gravity from 45° to 15°, the output from these analyzers are displayed on the appropriate loading formats and is recorded on charts in the Control Room.

These gravity analysers are to be checked constantly and re-calibrated bi-yearly according to the manufacturer's recommendations.

A responsible member of the crew must be in contact with the terminal officials at all times.

READINESS: Notice of Readiness will be received by INOC representative provided the vessel is ready to load. Lay time will commence 6 hours after receipt of Notice of Readiness berth or no berth.

SAFETY PRECAUTIONS: On arrival at the terminal, INOC Representative will discuss with the Master the "Safety Requirements" letter addressed to him also the Safety Check List.

Attention is also drawn to the Tanker Safety Guide published by the International Chamber of Shipping and to the International Oil Tanker Terminal Safety Guide.

SHIP DOCKING ASSISTANCE SYSTEM: 1 unit for each berth, consisting of speed of approach measuring instrument with fixed wide and narrow beam R.F. heads, a data processor and visual display units when the vessel is within 2 miles of Albakr Terminal. The rotatable R.F. head which is nearest to the vessel shall be aimed at it, during the docking the system will display approaching vessel's velocity.

FRESH WATER: Can be made available by Ports Administration after 24 hours notice from tankers. Water supply is from barges or small water tankers. Notice to be through Agent.

FUEL: May be made available after 72 hours notice through Agent. Supply is direct from small bunker tanker or barges. Bunkering however, not allowed while tanker is on berth and it is allowed only when tanker is waiting for berth or after completion of loading and unberthing.

SHORE LEAVE: Not allowed.

LIGHT DUES: The Iraqi Ports Administration will collect any light dues payable including those due to the Middle East Navigation Aid Service.

REGULATIONS:

(a) Mooring.
"All vessels after arrival, having been moored to the satisfaction of the Harbour Master, shall tend their own anchor cables, ropes, lines and hawsers. It is important for tankers to tend their mooring frequently".

(b) Ship must be ready to move under its own power.
While in berth, ships must be ready to move under their own power in the event of their breaking adrift, catching fire or any other emergency. No repairs are to be carried out while in the berth, which would immobilise the ship or impair her firefighting efficiency.

(c) Cleaning of boiler tubes.
Cleaning of boiler tubes alongside the Island Terminal is forbidden.

POLLUTION: No dirty ballast. No oily water or other refuse to be discharged overboard.

When a vessel enters port waters in ballast, the ballast water for overside discharge must be clean and a declaration signed by the Master delivered to the representative of the terminal to this effect.

Ashes, oil, oily water or other refuse must not be discharged overboard in port waters. Vessel's scuppers must be effectively plugged and leakage or spillage of oil aboard ship must not be swept or washed overboard whilst in port waters.

Vessels are subject to heavy fines and liabilities for claims arising.

AUTHORITY: All approaches to Albakr Terminal and Khor al Khafja are controlled by the Iraqi Ports Administration.

Cable MAWANI - BASRAH Telex 7008 Ports

Attention is drawn to port rules and bye laws 1942, Quarantine Regulation No. 28 of 1963 and schedules of dues and charges.

The terminal is the property of Iraq National Oil Company (INOC) and is administered and controlled by the said company to facilitate the loading of tankers with crude oil.

Cable Address	INOC (Basrah)	- PETROLNA BASRAH
	INOC (Baghdad)	- PETROLNA BAGHDAD
Telex No.	INOC (Basrah)	- 7003
	INOC (Baghdad)	- 2204/2295

The sole Agent for all vessels visiting Iraqi ports is The State Enterprise for Maritime Agencies. All requests for services to tankers should be directed to the Agent.

See "General" before first port.

BASRAH (Maqal and Umm Qasr): 30.31 N. 47.50 E.

Note: Iraqi imports are mainly made up by bulk wheat, bagged rice and sugar, but a significant increase in the import of construction equipment, consumer goods, etc. is expected.

The main Iraqi port of Basrah situated in the Shatt Al Arab waterway has been landlocked since the outbreak of the conflict some 8 years ago. It is expected that it will take a considerable time to remove wrecks and dredge the waterway, once an agreement is reached.

Until Basrah is fully operational again, the bulk of Iraqi imports will have to go through ports in Kuwait, Jordan and Turkey.

DOCUMENTS: On arrival at pilot station vessel requires following: Ship's Register, letter from Owner confirming that vessel has not called at an Israeli port, all Health Certificates of Crew must be valid against cholera, 2 copies Crew List, 2 copies Provision List, 2 copies Manifest, Freight manifest for Baghdad Rail cargo, Breakdown list and Stowage Plan, Dangerous cargo and heavy lift list (if any).

PILOTAGE: Compulsory. Owners having vessels bound for Basrah should contact Iraqi Maritime Transport Co. Ltd., Basrah, cables "Bawakhir Basrah" to arrange Shatt-al-Arab Pilotage. Owners should also put Iraqi Maritime Transport in funds by remittance well in advance of vessel reaching Outer Bar of Shatt-al-Arab in order to cover port tonnage dues, pilotage and dredging dues, for sailing from Outer Bar to Basrah and return.

The pilot boat is located usually in position Lat. 29° 45′ 15″ N., Long. 48° 50′ 45″ E. and on arrival vessel should contact pilot boat immediately for instructions. Pilots are available for vessels proceeding to Abadan and Khorramshahr (in Iran) and Basrah (Maqal and Umm Qasr). Providing Master has given Agent 48 hours notice of vessel's ETA Pilot will board immediately providing tide is suitable to allow vessel to continue to destination. Master should use call sign YIR on 500 kHz for Basrah Radio in order to pass messages to Agent. Vessel should listen for messages on 440 kHz from YIR or use VHF on Channels 14 and 12. On boarding the River Pilot will hand Master various forms for completion in respect of Light Dues and River Pilotage. Master to hoist the Iraqi National Flag.

The Navigation of the Shatt-al-Arab River is under the jurisdiction of the Iraqi Ports Administration which takes in the approaches to Abadan and Khorramshahr in Iran.

ANCHORAGES: On arrival off the pilot boat vessel can anchor with no depth restriction. On entering the Shatt-al-Arab River the following are the recognised anchorages:

Kasba Anchorage, position about 2 miles above Fao with a max. depth of 35 ft. fresh water.

Bawarda Anchorage, position about 2 miles below Abadan with a max. depth of 31 ft. in fresh water.

Hartha Point, position about 6 miles above Abadan with a max. depth of 35 ft. in fresh water. Hartha Point is the anchorage to enable vessels to lighten to 29 ft. in fresh water to enable them to cross the Karun Bar.

Abu Flus, position about 12 miles above Hartha Point with a max. depth of 29 ft. in fresh water.

Khora Anchorage, position about 3 miles from Basrah Wharves (Maqal) with a max. depth of 29 ft. in fresh water.

Jubailah Anchorage, position at Basrah Silo about 0.5 below Basrah Wharves (Maqal) with a max. depth of 29 ft. in fresh water.

The maximum length between perpendiculars permitted by the Iraqi Ports Administration for vessels in the Shatt-al-Arab River is 560 ft.

RESTRICTIONS: The Iraqi Ports Administration issue a booklet of Tide Tables each year and the movements of vessels in and out of the Shatt-al-Arab River are restricted to the high water tables for vessels using Basrah and Khorramshahr. Movements to and from these ports are only permitted in the hours of daylight. The max. draft for a vessel proceeding to Basrah is 29 ft. in fresh water. If vessel's draft exceeds this lightening takes place at Umm Qasr. Although the draft obtainable alongside the wharves is 31 ft. the max. draft for moving in the river is 29 ft. on account of the restriction at the Karun Bar.

MAX. SIZE: For vessels proceeding to Basrah the max. LOA allowed by the Iraqi Ports Administration is 560 ft. There is no restriction on the breadth. The max. draft in fresh water for vessels to and from Basrah is 29 ft. (In April 1980 we received a report stating that the maximum draft was 22 ft. 4 in.). The max. LOA for Umm Qasr is 580 ft.

HEALTH: Masters are requested to call the Chief Medical Officer at Fao on 500 kHz, call sign "YIS", requesting Free Pratique 24 hours before vessel's arrival at pilot station. All crew Vaccination Certificates should be valid and available for Medical Officer's arrival on board. He will also expect to find a valid Derat Certificate on board. Anyone boarding the vessel ahead of the Medical Officer whilst the "Q" Flag is still hoisted is liable to a fine. Special precautions are taken in case of a vessel arriving direct from an epidemic area and even if the crew are holding valid inoculation certificates the vessel may be delayed at the pilot station. The Iraq Government is very sensitive about the spread of cholera. Derat Certificate renewable at Basrah.

RADIO: When a vessel is 3 days away from Basrah, radio contact can be established with Basrah Radio, call sign YIR on HF 4, 6, 8, 12 and 16 kHz bands. When the vessel is within 3 days of arrival, Basrah Control Radio (YIR) can be used (transmitting on 500 kHz and receiving on 461.5 or 440 kHz).

List of Coast Stations (Iraq): Summary of Procedures:

1. Whilst inside Iraq territorial waters, ships under way will maintain watch on Channel 16 (156.80 MHz) and/or 461.5 kHz to ensure immediate reception of instructions issued by the controlling authorities.

(a) Khor Al-Amaya Radio maintains listening watch on Channel 16 (156.80 MHz).

(b) Pilot Station (Al-Rasheed Radio YIBE) maintains listening watch on Channel 16 (156.80 MHz) and 500 kHz.

(c) Fao Radio (YIS) maintains listening watch on Channel 16 (156.80 MHz) and 500 kHz.

(d) Al-Wasiliyah Radio (YIT) maintains listening watch on Channel 16 (156.80 MHz) and 461.5 kHz.

(e) Basrah Control Radio (YIR) maintains listening watch on Channel 16 (156.80 MHz) and 500 kHz.

(f) Umm Qasr Radio (YIU) maintains listening watch on Channel 16 (156.80 MHz) and 500 kHz.

II. Special Instructions:

(a) Navigational Warnings are transmitted on 500 kHz by Basrah Control Radio (YIR).

(b) North Gulf Weather Forecast is transmitted by:

1. Basrah Control Radio on:
440 kHz at 0530, 1330 hrs. GMT and on request. 6493.25 kHz at 0530 hrs. GMT and on request. 8668 kHz at 1330 hrs. GMT and on request.

2. Khor Al-Amaya Radio on Channel 16 (156.80 MHz) at 0530, 1330 hrs. GMT and on request.

(c) Traffic Control Signals on Channel 16 (156.80 MHz) and 500 kHz by Basrah Control Radio (YIR).

(d) Traffic Control Signals on Channel 16 (156.80 MHz) and 461.5 kHz by Al-Wasiliyah Radio (YIT).

(e) Traffic Control Signals on Channel 16 (156.80 MHz) and 500 kHz by Fao Radio (YIS).

(f) Traffic Control Signals on Channel 16 (156.80 MHz) and 500 kHz by Umm-Qasr Radio (YIU).

(g) Traffic Control Signals on Channel 16 (156.80 MHz) by Khor Al-Amaya Radio.

III. Commercial and public correspondence: Call Basrah Radio (YIR) on Channel 16 (156.80 MHz), 500 kHz, 4, 6, 8, 12 and 16 MHz bands and after initial contact has been established change to one of the working frequencies as instructed to pass messages.

Basrah Radio follows the following time-table:

Hours	*Listen on*	*Answers on*	*Traffic Lists*
H24	500	440, 461.5	–
0400–0600	6265.5–6280.5	6493.25	0505
0600–0800	16708–16748	16968	0705
0800–1000	8354– 8374	8668	0905
1000–1200	16708–16748	16968	1105
1200–1400	8554– 8374	8668	1305
1400–1600	12531–12561	12986.5	1505
1600–1800	4177– 4187	4356.5	1705

VHF: Port radar service. VHF can be used to call the Iraqi Port Administration at Basrah on Channel 16.

TUGS: River and sea-going tugs are available. Tug-boat services are offered as and when deemed necessary by port Pilot or Harbour Master, and are available at all times during day and night.

BERTHING: See "Restrictions". All berthing of vessels at Basrah is done during daylight hours only and according to suitable tide. The Harbour Master joins vessel on her arrival at Khora Anchorage which lies about 2 miles from the Maqal Wharves. In the case of Umm Qasr the Harbour Master joins vessel on arrival off the wharves.

Height of pier (quay) at berthing places above mean low water:

(a) Maqal – Plus 12.5 ft. above zero port datum. Port datum is 3.96 ft. above mean zero level at Fao.

(b) Umm Qasr – 24.65 ft. above lowest water of spring tide which is referred to as Umm Qasr Port datum.

Difference between high and low water:

(a) Maqal: A daily variation of 5 ft. between tides and max. of 8 ft.

(b) Umm Qasr: An average of 12 ft. between tides, and max. of 17 ft.

Maqal (Ma'gal): Wharves have continuous frontage of 2,000 m. depth alongside 9.15 m. Max. length of vessel, 171 m., berthing for 12 vessels.

Umm Qasr: The port is situated at the South end of the Khor Zubair, where it joins the Khor Abdullah. The sea approach to Umm Qasr is some 103 km. in length along the Khor Abdullah, commencing in deep waters of the Gulf near the mouth of the Shatt-al-Arab.

A navigation channel the lowest part of which is 9 m. at LLW and of ample width is well marked with beacons and light buoys from the Shatt-el-Arab entrance pilot vessel to Umm Qasr. Loaded vessels with a draft of 9.75 m. will be able to sail on 2 tides each day to and from Umm Qasr. Pilot and Harbour Master services are compulsory.

The wharves are of reinforced concrete with a continuous frontage of 640 m. and depth of 9.75 m. at LLW. They are able to accommodate 3 cargo ships at one time. Each berth is 183 m. long. The wharves are provided with a total of 10 electric shore cranes from 3-15 tons capacity. In addition there is a 100 ton floating crane, 2 sea-going tugs and an ample number of mobile cranes, forklifts, eel trucks, tractors, trailers, etc. The Umm Qasr wharves are directly connected with roads and railway lines of the Iraqi Republican Railways.

There are also 2 mooring buoys 247 m. apart.

Fresh water available directly from mains on wharves.

3 new steel jetties at Abu Flus directly North of the Fertilizer jetty have been completed. These jetties are served by 6 electric shore cranes of 5 tons capacity. Vessels up to 171 m. long and 8.84 m. draft can lie alongside.

Grain Silo: Capacity 65,000 tons, loading capacity into ship's holds, 1,050 t.p.h. jetty 213 m. long, available for berthing ships up to 183 m. long with a draft of 8.84 m. for loading and unloading of grain.

Muftiyah Jetties: One wooden jetty with limited length owned by Port Authority for distribution of oil products and for the purpose of handling crude and refined oil for local consumption, also for exporting oil products outside Iraq. Also a further new concrete jetty available for berthing vessels 175 m.

Fertilizer Wharf: A modern concrete wharf situated on the banks of Shatt-al-Arab river at Abu Flus with a total length of 100 m., width 10 m., can accept vessels with length 182 m. and draft 8.84 m. It is allocated for the exportation of fertilisers by the State Co. for Fertilisers.

Mooring Buoys: There are also 13 mooring buoys, 7 at Ashar, 4 at Sunger and 2 at Abu Al Khasib, 220 m. apart.

CRANES: The wharves are served with 60 electric shore cranes from 1.5 tons to 15 tons capacity and 1 electric shore crane of 60 tons capacity, in addition there are 2 floating cranes one of which is 100 tons capacity capable of lifting direct from ships to railway trucks on the wharves, and the other of 20 tons capacity capable of lifting cargo at a distance of 30 m. from the centre of the jib. Also about 200 pieces of various type of mechanical and electrical handling equipment.

BRIDGES: There are no bridges across the river from the entrance to Basrah Wharves (a distance of about 80 miles).

STEVEDORING: Information of the numbers of gangs required on board on vessel's arrival should be passed to the Agent together with vessel's ETA through Basrah Radio. The average rate of discharge of general cargo at Basrah (Maqal and Umm Qasr) is 6 tons per ganghour per 16 hour day. Contractors will place labour on board to discharge or load cargo but at the risk of the vessel as a Contractor will not accept any responsibility for damage done by labour.

Unloading of vessels basically carried out from vessels to wharves by Port cranes or ships' derricks. Heavy lifts and some dangerous cargoes are discharged overside into barges. Loading from jetty is by crane directly into ships. Loading at midstream is by lighters.

Bulk Cargoes: Discharged by grab direct to the Dock at Umm Qasr and by suction to the silo at Basrah. The equipment at Basrah is rated at 2,500 L/tons per day discharge and 5,000 L/tons per day loading, but under favourable conditions discharge rate may exceed 3,000 L/tons per day.

MEDICAL: For a vessel in to Basrah (Maqal and Umm Qasr) no advance notice is required, in order to obtain medical attention. Hospital facilities available at the new port hospital and other local hospitals.

For arrival at Basrah it is necessary to hold valid cholera certificate.

TANKERS: See "Khor-al-Amaya".

FRESH WATER: Fresh water is available at the wharves at Maqal and Umm Qasr but where a vessel is moored in midstream and requests water there is the additional charge for the hire of the water tanker.

FUEL: Only 1 grade of fuel oil available from the Basrah Refinery, a fuel oil viscosity 200 to 210 Red. No. 1, SG 0.920. Diesel oil also available.

Fuelling is direct if taken alongside Muftiyah Refinery jetties, otherwise by barge. No coal bunkers available.

GANGWAY/DECK WATCHMEN: It is recommended that vessels moored or anchored in the river employ Gangway/Deck Watchmen.

OPENING/CLOSING HATCHES: This work is normally done by crew, but if the labour on board are asked to do it they should be supervised by an Officer.

CUSTOMS ALLOWANCES: (Tobacco) The Ship's Bond is sealed on arrival but prior to the sealing each member of the crew can have 200 cigarettes. The Bond will be opened by the Customs on the request of the Master at any time during vessel's stay in Basrah.

(Wine and/or Spirit). Each crew member is permitted to have 1 litre out of Bond. On sailing from Basrah the Master is required to wait till vessel has cleared the Shatt-al-Arab River before opening the Bond. This does not apply when vessel calls at Khorramshahr or Abadan on the way down river.

IDENTIFICATION CARDS: All crew members are required to carry with them some form of identification when going on shore.

CONSULS:

Belgium	Tel: 3666	Portugal	Tel: 4469
Denmark	" 3205	Saudi Arabia	" 3219
Greece	" 3601	Sweden	" 3511
India	" 4824	United Kingdom	" 4251
Kuwait	" 2235	U.S.A.	" 4231
Norway	" 3511	U.S.S.R.	" 5410
Pakistan	" 3598		

REPAIRS: All types of repairs except major engine repairs can be carried out.

DRY DOCKS: Floating dock available, capacity 4,000 tons. Also slipway, capacity 700 tons.

REPATRIATION: No difficulties in arranging the repatriation of crews from Basrah. Emergency visas are easily obtained for joining and departing crews.

AIRPORT: The Basrah Airport formerly an International Airport is now used only as a domestic airport and is situated about 2 miles from the Maqal Wharves but 50 miles from Umm Qasr. There is a daily flight to Baghdad to connect with International flights, also 3 flights per week to Kuwait to connect with International flights.

TIME: Iraq time is 3 hours ahead of GMT and there are no alterations made to clocks during the year.

HOLIDAYS: The official holiday of the week in Iraq is Friday. The other holidays are: 3 days Id-el-Fitr; 4 days Id-el-Adha; Al Hijaa; Ashura; Birth of the Prophet Mohammad; New Year 1st January; Army Day, 6th January; 8th February; 21st March; 1st May Labour Day; 14th July; 17th July.

POLICE/AMBULANCE/FIRE: A call to 7601 or 7606 will connect to the department required.

TELEPHONES: Telephone is placed on board a vessel as soon as secured alongside wharf.

GENERAL: The rain season in Basrah is between November and April and during the Summer months from May to October the temperature can be as high as 55°C. It is important that crew members keep the backs of their necks covered whilst working on deck during the heat of the Summer. The use of salt tablets are recommended during the heat of the Summer.

SPECIAL SERVICES: There is a laundry service available.

SHORE LEAVE: There is no restriction on crew members going on shore but it is important that they carry a form of identification.

REGULATIONS: The Port Authority have requested that no photography takes place from the ship whilst passing naval or military installations.

AUTHORITY: President, State Organisation of Iraqi Ports, Basrah.

AGENT: The business of Shipping Agencies relating to all ships calling at Iraqi Ports is entrusted solely and exclusively to State Enterprise for Maritime Agencies, P.O. Box 3, Basrah.

General Cargo: Cable address: Maragent. Telex No. 7009.

Tankers: Cable address: Tankers. Telex No.: 7009.

FAO: 29.58 N. 48.29 E.

DOCUMENTS: On arrival at pilot station, vessel requires the following:

Ship's Register.

Letter from Owner confirming that vessel has not called at Israeli Port.

Health Certificates of Crew must be valid against cholera.

2 copies Crew List.

2 copies Provision List.

2 copies Manifest.

Dangerous Cargo List, if any.

PILOTAGE: The pilot boat is located in position Lat. 29° 46′ 45″ N., Long. 49° 48′ 37″ E., and on arrival vessel should contact Pilot boat immediately for instruction. VHF Channels 14 and 12. Provided Master has given Agent 48 hours' notice of vessel's ETA, Pilot will board immediately.

ANCHORAGE: On arrival of the pilot boat, vessel can anchor with no depth restriction.

MAX. SIZE: *Tankers:* 675 ft. LOA. Vessels may load to a max. draft of 35 ft. (10.65 m.) depending on the tidal conditions at the time, otherwise to a draft suitable to cross the bar with safety.

HEALTH: Masters are requested to call the Port Medical Officer at Fao on 500 kHz, call sign "YIS4", requesting Free Pratique between 8 and 12 hours before vessel's arrival. All crew vaccination certificates should be valid and available for the medical officer's arrival on board. He will also expect to find a valid Derat Exemption Certificate on board. Anyone boarding the vessel ahead of the Medical Officer whilst the "Q" Flag is still hoisted is liable to a fine.

Special precautions are taken in the case of a vessel arriving from an epidemic area and even if the crew are holding valid vaccination certificates the vessel may be delayed at the pilot station. The Republic of Iraq is very sensitive about the spread of cholera.

RADIO: Basrah Radio, call sign "YIR" on high frequencies 4, 6, 8, 12 and 16 bands. Fao Radio, call sign "YIS", traffic control signals on Channel 16, and 500 kHz. Also see Khor-al-Amaya.

Tankers should establish contact with Iraqi National Oil Co. 48 hours before arrival. Call sign RNT. Frequency 6493 kHz.

TUGS: Available on request.

BERTHING: There are 4 loading jetties with a depth of 10.95 m. alongside at LWST. Each jetty has one 60 cm. crude oil delivery line with four 25 cm. flexible hoses. Jetties are floodlit and fitted with fire monitors and four 3 ton SWL cranes. Lengths of berth, 205.75 m. each. Max. draft 10.65 m. Night berthing possible. Loading rates Nos. 2 and 4 jetties average 4,000 t.p.h.

FRESH WATER: Available, rate approximately 10 t.p.h.

REPAIRS: Minor repairs possible.

MEDICAL: No advance notice is required in order to obtain medical attention. Medical units are present at Fao, Umm Qasr and Maqal. A modern hospital containing all the essential units is found at Maqal. Crew in need of special attention or admission may be referred to it by the medical units.

TIME: 3 hours ahead of GMT.

AUTHORITY: President, State Organisation of Iraqi Ports, Basrah.

KHOR-AL-AMAYA: 29.47 N. 48.49 E.

OPERATORS: Basrah Petroleum Company Limited.

LOCATION: Island Terminal about 17 miles out in the Gulf from the mouth of the Shatt-al-Arab River.

ADMINISTRATION: All waters of the Shatt-al-Arab and of the approaches to Khor-al-Amaya are controlled by the Iraqi Ports Administration.

APPROACHES: *(a) Lights.* One white all-round navigation light has been fitted to the top of the radio mast on the centre piled structure at a height of 153 ft. above MHWS. Character: flashing every 5 seconds, visible for 18 miles: candlepower 7,400.

Red lights are fitted at the 4 extreme corners of the structure which is 1,300 ft. long. Character: fixed red visible 2 miles.

Additionally there are several aircraft warning lights (red) on various parts of the structure marking the upper extremities of towers and other erections including the central radio tower.

The channel between the entrance to the Shatt-al-Arab and the Khor-al-Amaya Sea Island Oil Terminal is marked by buoys and the Shatt-al-Arab Light Vessel (refer to relevant notices issued by the Iraqi Ports Administration, M.E.N.A.S., and Admiralty Notices to Mariners).

(b) Tides. High water at the Terminal may be expected to occur about 20 minutes before high water at the Shatt-al-Arab, Outer Bar. This may vary due to local meteorological and spate conditions. Tidal streams in the vicinity are rotatory and are not likely to exceed 2 knots. The maximum streams are generally along the berthing faces of the Terminal, but at certain states of the tide, cross sets, at right angles to the berthing faces, may be experienced. These are unlikely to exceed 0.75 knots.

DOCUMENTS:
Crew List (5 copies).
Store List (2 copies).

PILOTAGE: Compulsory. Masters of vessels bound for Khor-al-Amaya Terminal should contact the Pilot vessel which cruises in an area about 2 miles S.E. of the Terminal. They will receive instructions as to whether to lie off, anchor or proceed towards the Harbour Master's launch.

(a) All vessels using Khor-al-Amaya buoyed channel are reminded that loaded tankers outward bound from Khor-al-Amaya Terminal have top priority in navigating the buoyed channel and all other vessels are to keep clear in all cases.

(b) All inward-bound vessels are to contact Khor-al-Amaya Harbour Master on VHF Channels 16 and 14 before entering Khor-al-Amaya channel for information regarding deeply laden tankers using the restricted channel, and for berthing and anchoring instructions.

(c) Pilotage is compulsory for all inward and outward bound tankers using the Khor-al-Amaya buoyed channel when the draft of the tanker is 15.85 m. (52 ft.) or over.

(d) Tankers arriving to load at Khor-al-Amaya with draft in excess of 15.85 m. (52 ft.) must give their ETA at Shatt-al-Arab Light-vessel at least 12 hours in advance by contacting the Pilot station or Khor-al-Amaya Terminal.

ANCHORAGES: Anchorage areas have been established bounded by lines joining the following positions:

(a) *Anchorage "A"*
  (i) Lat. 29° 32′ 08″ N., Long. 48° 58′ 59″ E.
  (ii) Lat. 29° 31′ 24″ N., Long. 48° 58′ 06″ E.
  (iii) Lat. 29° 32′ 53″ N., Long. 48° 56′ 56″ E.
  (iv) Lat. 29° 33′ 14″ N., Long. 48° 57′ 20″ E.
(b) *Anchorage "B"*
  (i) Lat. 29° 44′ 03″ N., Long. 48° 49′ 34″ E.
  (ii) Lat. 29° 43′ 52″ N., Long. 48° 49′ 12″ E.
  (iii) Lat. 29° 42′ 08″ N., Long. 48° 50′ 18″ E.
  (iv) Lat. 29° 42′ 21″ N., Long. 48° 50′ 45″ E.
(c) *Anchorage "C"*
  (i) Lat. 29° 45′ 39″ N., Long. 48° 48′ 41″ E.
  (ii) Lat. 29° 44′ 28″ N., Long. 48° 47′ 38″ E.
  (iii) Lat. 29° 44′ 06″ N., Long. 48° 49′ 31″ E.
  (iv) Lat. 29° 43′ 35″ N., Long. 48° 48′ 28″ E.
(d) *Temporary Lightering Anchorage*
  (i) Lat. 29° 46′ 00″ N., Long. 48° 48′ 28″ E.
  (ii) Lat. 29° 45′ 40″ N., Long. 48° 48′ 39″ E.
  (iii) Lat. 29° 45′ 34″ N., Long. 48° 46′ 35″ E.
  (iv) Lat. 29° 44′ 06″ N., Long. 48° 47′ 18″ E.

Note:
(i) Anchorages "A" and "B" are for deep-draft vessels of 12.19 m. (40 ft.) and upwards.
(ii) Anchorage "C" is to be used by tankers (laden or in ballast) whose draft does not exceed 12.19 m. (40 ft.).
(iii) The temporary lightering anchorage is for the exclusive use of lighters. No other ships or vessels are to anchor within this area.

MAX. SIZE: 330,000 d.w.t. loading part cargo. Max. LOA: 1,200 ft. Max. draft 69 ft.

HEALTH: Quarantine Officer boards after berthing. Vaccination Certificates required.

RADIO: Procedure for contacting Basrah Petroleum Company. Vessels are requested to establish contact with Basrah Petroleum Company Limited, Basrah, 48 hours prior to arrival, and to re-establish contact 48 hours after departure. Telegraphic Address: (Baspetco Basrah), (Baspetco Fao). Position: Lat. 30° 35′ 36″ N., Long. 47° 48′ 32″ E. Call sign "HNT" (FC). (a) Transmission 8,582 kHz. (b) Reception, tankers call on 8,356 – 8,374 and work on 8,374 – 8,457.5 kHz. Periods 0400 – 0430 hrs., 0800 – 0830 hrs., 1200 – 1230 hrs., 1600 – 1630 hrs. All times GMT. Services: C.V. Class of Operation: C.W. Class of Emission: A1.

Vessels should indicate their date and time of arrival, quantity of cargo required and whether in a state to receive cargo. In the event of vessels being unable to establish direct wireless contact with Basrah Petroleum Company Radio Station, messages should be passed through the Iraqi Ports Administration.

Procedure for Contacting Iraqi Ports Coast Stations

I. Summary of Procedure. Whilst inside Iraqi territorial waters, ships under way will maintain watch on Channel 16 (156.80 MHz) and/or 461.5 kHz to ensure immediate reception of instructions issued by the controlling authorities.
(a) Khor Al-Amaya Radio maintains listening watch on Channel 16 (156.80 MHz).
(b) Pilot station (Al-Rasheed Radio YIBE) maintains listening watch on Channel 16 (156.80 MHz) and 500 kHz.
(c) Fao Radio (YIS) maintains listening watch on Channel 16 (156.80 MHz) and 500 kHz.
(d) Al-Wasiliyah Radio (YIT) maintains listening watch on Channel 16 (156.80 MHz) and 461.5 kHz.
(e) Basrah Control Radio (YIR) maintains listening watch on Channel 16 (156.80 MHz) and 500 kHz.
(f) Umm-Qasr Radio (YIU) maintains listening watch on Channel 16 (156.80 MHz) and 500 kHz.

II. Special Instructions.
(a) Navigational warnings are transmitted on 500 kHz by Basrah Control Radio (YIR).
(b) North Gulf weather forecast is transmitted by: 1. Basrah Control Radio on: 440 kHz at 0530, 1330 hrs. GMT and on request. 6493.25 kHz at 0530 hrs., GMT and on request. 8668 kHz at 1330 hrs., GMT and on request. 2. Khor-al-Amaya Radio on Channel, 16 (156.80 MHz) at 0530, 1330 hrs. GMT and on request.
(c) Traffic Control Signals on Channel 16 (156.80 MHz) and on 500 kHz by Basrah Control Radio (YIR).
(d) Traffic Control Signals on Channel 16 (156.80 MHz) and 461.5 kHz by Al-Wasiliyah Radio (YIT).
(e) Traffic Control Signals on Channel 16 (156.80 MHz) and 500 kHz by Fao radio (YIS).
(f) Traffic Control Signals on Channel 16 (156.80 MHz) and 500 kHz by Umm-Qasr Radio (YIU).
(g) Traffic Control Signals on Channel 16 (156.80 MHz) by Khor-al-Amaya Radio.

III. Commercial and Public Correspondence. Call Basrah Radio (YIR) on Channel 16 (156.80 MHz), 500 kHz, 4, 6, 8, 12 and 16 MHz bands, and after initial contact has been established change to one of the working frequencies as instructed to pass messages.

Frequencies instruction to pass messages time table 1200 – 1400 hrs. listen on 8354 – 8374 answer on 8668 traffic lists 1305.

Note: All messages are changeable except those concerning navigational aids, distress, pratique and medical advice messages.

TUGS: 3 tugs of 4,000 b.h.p. are available to assist in berthing and unberthing.

BERTHING: The Terminal consists of a piled structure, in 22 m. of water, having 1 tanker berth on one side and 2 berths on the other side with suitable mooring dolphins and platforms ahead and astern which are connected by cat-walks. The orientation is 320°/140°. The max. loading rate, with only 1 berth in use, is 9,000 t.p.h.; with 2 berths in use the max. loading rate at each is 4,500 t.p.h. Fire-fighting towers are provided, also a helicopter platform. Loading by "Woodfield" flow booms offering 4×16 in. and 2 or 4, 12 in. hoses. Vessels of the order of 120,000 d.w.t. can be accepted at berths 5 and 6 and 330,000 d.w.t. max. draft 21 m. at berth No. 7.

The S.G. and A.P.I. and temperature of the crude oil will be supplied to the Master on radio request.

Berthing of tankers: MENAS NOTICE No. 114/74.

No tanker of draft exceeding 17.68 m. (58 ft.) shall be permitted to berth or unberth at the existing Wharf No. 7 in the N.W. Direction.

No tanker of draft exceeding 17.00 m. (56 ft.) shall be permitted to berth at Wharf No. 7 and in the S.E. Direction.

No tanker of draft exceeding 17.68 m. (58 ft.) shall be permitted to berth at the proposed Wharf No. 8 and in the N.W. Direction.

No tanker of draft exceeding 17.00 m. (56 ft.) shall be permitted to berth at the proposed wharf No. 8 and in the S.E. Direction.

MEDICAL: An Iraqi Ports Administration Medical Dresser will always be available to attend to quarantine matters, derat certificates, etc. A doctor can be made available, through vessel's Agent, upon prior request, but necessary to give 24 hours notice to arrange.

FRESH WATER: Available with 24 hours notice.

FUEL: Not available ex-wharf.

CUSTOMS ALLOWANCES: During vessel's stay at Terminal, 1 carton of cigarettes only allowed to each crew member.

SAFETY REGULATIONS: Safety regulations and fire fighting procedures will be discussed with the Master on arrival.

GANGWAYS: Ships must supply their own gangways when alongside. Accommodation ladders and other ship side ladders are not suitable.

REPAIRS: Basrah Petroleum Company has no facilities to undertake ship repair work of any description.

AGENCY: Masters of tankers should contact the Agent through Basrah Radio Station prior to arrival. Agent's representatives are not housed on the island. Ship's documents for port clearance purposes are passed by them to the Agent for action. Stores and provisions will be sent out by the Agent, given sufficient prior notice.

See "General" before first port.

AUTHORITY: President, State Organisation of Iraqi Ports, Basrah.

Republic of Ireland

BANTRY BAY: 51.41 N. 09.27 W. (See Plan)

DOCUMENTS:
- 1 Crew List.
- 1 Stores List.
- 1 Crew Declaration.
- 1 Maritime Health Declaration.
  - Ship's Register (tonnage).
  - British Light Dues (receipts).
  - Clearance from Last Port.

APPROACHES: The approaches to the Bay are marked by the Sheep Head Light, visible 18 miles, Roancarrig More Light, visible 12 miles, and Whiddy Island Light, visible 3 miles.

Buoy No. 9 is now the only buoy on station.

PILOTAGE: Pilotage compulsory for tankers. Not compulsory for other vessels. Pilot launch available for tankers through VHF at Oil Terminal Control. Pilot launch available for other vessels if requested through Valentia Radio to their local agents at Bantry. First time users of the port are advised to use a Pilot or at least not to attempt a night entrance without one. Pilots disembark when and where requested. Contact with Pilot launch is through VHF radio. Tankers using the Oil Terminal should send ETAs to their appointed agents and also to the Oil Terminal, Bantry. Cargo vessels using Bantry Inner Harbour/Pier should send ETAs to their local Agents.

Request for Pilots may be made to Murphy and O'Connor. Tel: 027-50001. Telex: 75870. FAX: 027-50024.

ANCHORAGE: For smaller vessels, the East end of Whiddy Island (10 fathoms) and Bantry Harbour (25 ft. depth).

MAX. SIZE:
- (a) Bantry Harbour – draft not more than 25 ft.
- (b) Bantry Pier – 150 ft. length with draft 12 ft.
- (c) Oil Terminal – Operations suspended pending repairs.

HEALTH: All vessels must exhibit quarantine signals until quarantine formalities completed or Free Pratique granted. By day, International Code Flag "Q"; by night, red light over white light.

No person other than Pilot is allowed to board any vessel either alongside jetty or at anchorage until pratique has been granted. Pilot to be informed when any suspected disease or fever on board.

RADIO: Messages and ETAs through Valentia Radio, Land's End or any UK station.

VHF: A 24-hour VHF service is maintained at Oil Terminal Control, operating on Channels 16, 14 and 11. This service is normally for use by tankers using the Oil jetty, but may also be used by ships using Bantry Inner Harbour and Pier.

Note: The Oil jetty is out of commission as the result of an explosion in January 1979.

BERTHING: Berthing at Bantry Pier depends on size of vessel and state of tide.

Ascon Jetty: Located on South side of Oil Terminal, this berth can accommodate small vessels up to 200 ft. in length and a max. draft of 17 ft.

A 6 in. manifold loading/discharge is situated midway along this jetty for small diesel tankers and mobile cranes can be provided for small vessels discharging cargo for the Terminal.

OIL TERMINAL: (The Terminal was damaged by a disaster in January 1979 – it is non-operational at the moment, the only navigational buoy still on station is, the West Ground, No. 9). The sea island is still standing and is 1,600 ft. in length and situated approx. 1,300 ft. offshore. The island jetty is comprised of a centre platform and mooring dolphins.

STEVEDORES: Available; 24 hour advance notice to Agent required. *Stevedores:* Murphy and O'Connor Ltd., Bantry. Tel: 027-50001. Telex: 75870.

MEDICAL: Medical attention is available on arrival and in an emergency on a 24 hour basis. Vessels should give instructions regarding medical attention through Agents who will make the necessary arrangements for emergency medical attention either on board or at Bantry Pier.

FRESH WATER: Available at Bantry Pier.

FUEL: Gas oil and fuel available at Bantry Pier in road tenders of 20 tons.

REPAIRS: Local repair firms can undertake limited repairs, but nearest dockyard available for major repairs is at Cork.

SURVEYORS: Ship's surveyors available subject to 24 hours notice through Agent.

DENSITY: 1025.

CUSTOMS ALLOWANCES: Tobacco: Depending on stay in port. Approximately 80 to 100 cigarettes per man for 2 to 3 days. Wine and/or Spirits: half litre per man.

IDENTIFICATION CARDS: Required.

REPATRIATION: There are facilities for crew repatriation.

CONSULS: Spanish Consul (Murphy and O'Connor Ltd.). Tel: 027-50001.

AIRPORT: Situated 48 miles away at Cork. Frequent International flights.

TIME: GMT plus 1 hour during Summer months. GMT from October to March.

HOLIDAYS: Cargo work can be carried out on most holidays, except Christmas.

POLICE/AMBULANCE/FIRE: Dial 999.

EMERGENCY CO-ORDINATION CENTRE: Marine Co-Ordination Service Shannon Airport – Tel: 061-61969 and 61219.

TELEPHONES: No arrangements for placing telephones on board.

SHORE LEAVE: Permitted.

BANKS: Allied Irish Bank. Tel: 027-50008.

Bank of Ireland. Tel: 027-50377.

SERVICES: Vessels requiring any of the following services should advise Agent prior to arrival, giving fullest possible details.

Divers: Services of divers available to vessels for inspection and freeing fouled propellers.

Provisions: Normal supplies of most categories available. Ample time should be given to ship chandler.

Laundry: Large amounts sent to Cork (24 hrs. return service), but rather expensive.

Storing: Vessels can be stored by truck at Bantry Bay.

GENERAL: All vessels required to fly Irish Ensign on foremast during daylight hours. Irish territorial waters extend 12 miles seaward from mainland.

AUTHORITY: Bantry Bay Harbour Commissioners, c/o Cork County Council, Wolfe Tone Square, Bantry, Co. Cork. *Tel:* 027-50058. *Contact:* Hon. Secretary.

CASTLETOWNBERE: 51.41 N. 09.54 W. (See Plan)

LOCATION: See Admiralty Chart No. 1840 (plan insert) "Bantry Bay Blackballhead/Shot Head".

Castletownbere is a Fishery Harbour Centre. Owned and controlled by the Department of Marine (Fisheries Division – Harbours).

DOCUMENTS: Health Certificate, Crew List, List of Bonded Stores, Vessel's Register, Logbook, Crew Passports.

Also valid Load Line Certificate. Safety Equipment Certificate, Radio Safety Certificate, Safety Construction Certificate, Cargo Gear Book.

PILOTAGE: Not compulsory. If Pilot required, contact Harbour Master for local Pilot.

ANCHORAGES: Bearhaven Sound. (See Admiralty Chart No. 1840), a large well sheltered anchorage adjacent to port.

MAX. SIZE: Always afloat. Dinish Island Wharf. 17 ft. MLWS. Length 305 ft.

Mainland Wharf East. 12 ft. MLWS. Length 426 ft.

Mainland Wharf West. 12 ft. MLWS. Length 557 ft.

All berths are accessible for wagons/containers, etc.

HEALTH: Customs grant pratique if vessel is clear, if not Doctor will be notified.

VHF: Harbour Master's Office on Channel 16.

TUGS: None.

BERTHING: In accordance with Harbour Master's instructions. Berthing day or night.

STEVEDORES: None. Local labour available if required.

MEDICAL: No advance notice necessary. Hospital facilities available.

FRESH WATER: Available at all berths.

FUEL: Available at all berths, no notice required (diesel only) and all berths accessible to tanker wagons. Also available at Dinish Island Wharf where there are 3 lines at the West end of the wharf.

REPAIRS: Syncrolift for vessels with max. weight 300 tons and 100 ft. LOA. Carriages and bays for 3 vessels.

Local machine shops/engineers for repair work available. Electronics engineer available.

GANGWAY/DECK WATCHMAN: Not required.

OPENING/CLOSING HATCHES: By crew.

CUSTOMS ALLOWANCES: As per current regulations.

IDENTIFICATION CARDS: Not required.

AIRPORT: Cork airport 80 miles, served by regular airlines.

TIME: GMT plus 1 hour, reverting to GMT from October to March.

HOLIDAYS: Cargo work can be arranged on holidays.

POLICE/AMBULANCE/FIRE: Tel: Police 70002. Ambulance 70004. Fire station 70049.

TELEPHONES: Not available for placing onboard.

SHORE LEAVE: Allowed.

BANKS: Allied Irish Bank Ltd., Castletownbere. Tel: 027-70025.

GENERAL: Castletownbere is designated as a fishery harbour centre, for the import/export of fish, fish products and processed fish, from local plants. Also for landing of fish from local fishing fleets. The mainland wharf has an ice making plant, for supply of ice to fishing vessels and an auction hall.

Stores/Provisions: Available locally.

Bonded Stores: Available from Cork.

Customs and Excise: Office in harbour office building. Tel: 027-70102.

AUTHORITY: Department of The Marine, Harbour Office, Castletownbere, Co. Cork. *Tel:* 027-70220. *Contact:* Captain W. H. Jones, Harbour Master. Tel: (after hours) 027-70128.

CORK (including Cobh, Whitegate): 51.50 N. 08.17 W. (See Plan)

PORT LIMITS: Line joining Cork Head and Power Head.

DOCUMENTS:
- 3 Crew Lists.
- 2 Passenger Lists.
- 1 Health Declaration.
- 3 Customs Manifests.

For Shore Formalities
- Ship's Register.
- Safety Equipment Certificate.
- Safety Radio Certificate.
- Load Line Certificate.
- Light Dues Certificates.
- Derat Certificate.

PILOTAGE. Minimum 24 hours notice of ETA and draft to Agent. Accurate ETA's are vital as Pilots only go afloat on this basis. When within VHF range, contact should be established through "Cork Harbour

Radio" (see "Radio"). This station combines Port Operations and Information service and co-ordinates the pilotage service. The pilot launches are also fitted with VHF Channels 6, 12 and 16.

For large deep-drafted vessels, Pilot usually boards up to 2 or 3 miles South of Roches Point. Compulsory river pilotage area extends upstream from Spit Bank Light.

ANCHORAGES: Safe deep-water anchorages as arranged with Pilots.

RESTRICTIONS: Navigation by night and day. Ships of 5.0 m. draft can make passage of river to Cork at any stage of tide.

Bridges: Near Albert Quay and Andersons Quay.

MAX. SIZE: *Cork:* Max. length 152 m. Draft fresh water on Spring tides 8.7 m. on Neap tides 7.8 m.

Whitegate: Tankers up to 275 m. length. 11.6 m. draft. Max. draft 12 m. at highest tides.

Ringaskiddy: Max. size 60,000 d.w.t. Max. draft 13.0 m.

HEALTH: Health Declaration form is presented to Customs Officer or Port Health Inspector and Pratique issued without delay. In cases of disease on board notify Agents who inform Health Authorities.

RADIO: Coast Station – Valentia Radio. W/T and R/T. R/T link call facilities available. Telex fitted. In U.K., Coast Stations also relay messages direct to Agents.

VHF: Harbour Radio: VHF Channels 12, 14 and 16, 24 hour watch maintained. Call sign "Cork Harbour Radio". A Port Operations and Information Service is provided and it is through this organisation that the requirements of the Harbour Master will be made known.

Vessels underway are required to maintain a VHF watch on Channel 12 or 14 as instructed.

RADAR: No Port Control Radar. Pilot boats equipped with radar.

TUGS: Deep draft vessels take tug assistance from Horse Head to Cork and vice versa. Tug's lines are used. Tankers use two to three tugs for berthing at Whitegate Terminal.

BERTHING: The quays at Cork afford good accommodation for vessels up to 152 m. LOA, on fresh water drafts of 7.8 m. on Mean Neap tides and 8.7 m. on Mean Spring tides with 8.8 m. alongside quay. The Deep Water Quay at Cobh is 189 m. long and vessels of 6.0 m. draft can berth with safety. The deep water berth at Ringaskiddy can accommodate vessels up to 60,000 d.w.t. with max. draft 13.0 m.

Berth	*Length* (m.)	*Depth* (m.)
City Quay:		
Albert Quay	135.0	5.5
South Jetties	411.5	8.8
South Deepwater Quay	201.2	6.1
Ford's Wharf (Private)	347.5	2.7 – 4.0
E.S.B. (Private)	152.4	4.0
Penrose Quay	146.0	3.3
Horgan Wharf	205.7	8.8
North Swinging Basin	146.6	8.8
North Deepwater Quay	335.5	5.2
Custom House Quay (North)	176.9	7.3
Custom House Quay (South)	167.6	4.6
Tivoli:		
Ro-Ro Terminal	125.0	5.2
Container Berth	122.0	7.3
General Purpose Berth	152.0	8.8
Bulk Ore Berth	152.0	8.8
Bulk Liquid/Livestock	115.8	5.2
Oil Jetty	24.4	4.0
Lower Harbour Quays:		
Deepwater Quay	189.0	6.1
Kennedy Wharf	45.7	3.2
Whitegate Oil Jetty No. 1	365.0	11.4
Whitegate Oil Jetty No. 2	106.7	10.2
Spencer Jetty (Private)	131.0	7.2
Basin (Private)	152.0	5.2
Bunkering Berth (Private)	76.4	7.1
Pfizer Jetty (Private)	259.0	9.6
Haulbowline Industries (Private)	53.3	2.6
Ringaskiddy Ro-Ro/Ferry Terminal	148.5	9.4
Ringaskiddy Deep Water Berth	215.0	13.4
Marino Point	237.0	10.2

SPECIAL CARGO FACILITIES:

Grain: 1 mobile suction discharge plant at South Jetties, discharge rate up to 120 t.p.h. Max. ship size 152 m. LOA, 8.7 m. draft on spring tide. Storage capacity 80,000 tons.

1 suction unit × 150 tonnes per hour. Silo capacity 7,000 tons at South Deepwater Quay.

Coal/Fertiliser/Sulphur: 1×6 ton level luffing grab crane discharge rate up to 90 t.p.h. Max. ship size 152 m. LOA, 8.7 m. draft.

Containers: 1×30 ton travelling transporter container crane backed up by 2×30 tonne straddle carriers. Length of berth 122 m. Max. depth at 7.3 m. L.A.T.

Roll-on/Roll-off Berth "Tivoli": Max. height of link span 8.6 m. above LWOST. Min. height of link span 2.7 m. above LWOST. Max. loading 65 tons. Distance from side of berth to centre line of link span 11.4 m. Max. ship size 137 m. LOA. Berth dredged to 5.2 m. L.A.T.

Roll-on/Roll-off Berth Ringaskiddy: Length of linkspan 42.1 m., width of linkspan 7.2 m. spadehead at outer end 14 m.×14 m. Max. LOA permissible 158.5 m. Berth dredged to 9.4 m. LAT.

Livestock loading Ramp and Lairage: Max. ship size 106.7 m. LOA. Berth dredged to 5.2 m. L.A.T.

Pfizer Jetty: Length between dolphins 259.2 m. Max. draft 10.8 m. on all tides.

Molasses discharge rate, 1,000 t.p.h.
Fuel Oil discharge rate, 600 t.p.h.
Sulphuric Acid discharge rate, 200 t.p.h.

Bananas: Automatic banana discharge equipment at Ringaskiddy Deepwater berth.

STEVEDORES: Labour hiring times. Week-days 0800, 1000 and 1130 hrs. Gangs for week-end working must be hired at 1700 hrs. on Fridays. ETA advice could include number of gangs workable.

MEDICAL: All medical and hospital services available at short notice.

TANKERS: Irish Refining Co. Terminal at Whitegate is situated on East side of Lower Harbour. Two deep water berths for tankers. Max. size, 55,000 d.w.t. or 90,000 d.w.t. partly laden. Slop reception facilities available.

Length between dolphins, 366 m.
Crude discharge rate up to 4,000 t.p.h.
HFO loading rate up to 1,700 t.p.h.
Gas Oil loading rate up to 700 t.p.h.
Petrol loading rate up to 600 t.p.h.
LPG loading rate up to 20 t.p.h.

Diameter of Hoses:
Berth No. 1: Crude and Black Oils 10 in. ASA.
Clean Products 8 in. ASA.
Berth No. 2: All Products 6 in. ASA.

I.F.I. (Irish Fertiliser Industries): At Marino Point. Overall length dolphin to dolphin 375 m. Dredged to 10.2 m. at L.A.T. to accommodate Ammonia tankers of up to 15,000 d.w.t. and bulk or general cargo vessels of up to 25,000 d.w.t. (Partly loaded). Vessels of up to 186 m. LOA and 9.5 m. draft will be acceptable.

DENSITY: Average density of water in river 1008.

FRESH WATER: Available at all quays ex-hydrants – delivery rate 25 t.p.h.

FUEL: Major grades of bunker fuel and diesel as well as marine lubricants can be obtained through suppliers. Delivery by road or river tanker.

WATCHMEN: Recommended but not compulsory.

OPENING/CLOSING HATCHES: Crew must perform this work as dockers decline to do it.

CUSTOMS ALLOWANCES: 200 cigarettes per man, and 1 bottle spirits per man.

CARGO GEAR: No special local requirements. Regulations similar to British Board of Trade safe working requirements. 1×30 ton container crane is provided by Cork Harbour Commissioners. A number of mobile cranes up to 100 tonnes capacity are available from local plant hire firms and stevedoring firms.

IDENTIFICATION CARDS: Not required.

CONSULS: *Norway:* B. J. Foley, c/o Marine Transport Services, Atlantic Quay, Cobh. Tel: 811485. *Belgium:* G. Jones, c/o Celtic Coasters, 33 St. Patricks Quay, Cork. Tel. 504018. *Italy:* P. Cali, University College, Cork. Tel. 276871. *Germany (F.R.):* M. Corkery, Solicitor, Camden House, Camden Quay, Cork. Tel: 509367. *France:* F. Zatellier, c/o Eurotranslations, 6 Sullivans Quay, Cork. Tel. 276093. *Finland:* C. Doyle, 1 Connell Street, Cork. Tel. 275235. *Spain:* F. Ronayne, c/o Ronayne Shipping Ltd., Monaghan Road, Cork. Tel: 964444. *Sweden:* W.H. Sullivan, 6 St. Patricks Quay, Cork. Tel: 500588. *Denmark:* T. Halpin, c/o Beamish and Crawford Ltd., South Main St., Cork. Tel: 276841. *Netherlands:* G. Van Der Puil, Glanmire House, Lower Glanmire House, Cork. Tel: 504200.

REPAIRS: All types of deck and engine repair facilities available.

DRY DOCK: Verolme Cork Dockyard main dry dock can take vessels up to 158.5 m. in length. Floating docks of 2,000 and 10,800 tonnes lifting capacity, also 4×40 tonne cranes. Able to carry out repairs to ships afloat of any tonnage using the port.

SURVEYORS: Lloyd's Surveyor at Cork.

REPATRIATION: Can be carried out without difficulty.

AIRPORT: 5 miles from city. High frequency scheduled flights to Irish, British and continental airports.

TIME: GMT from 0200 hrs. on Sunday following 3rd Saturday in October to 0200 hrs. on Sunday following 3rd Saturday in March (unless latter is Easter Saturday, in which case to 0200 hrs. on Sunday following 2nd Saturday in March).

One hour ahead of GMT (i.e. Standard European time) for remainder of year.

HOLIDAYS: New Years Day, St. Patrick's Day (March 17th); Good Friday; Easter Monday; First Monday in June; First Monday in August; Last Monday in October; Christmas Day (December 25th); St. Stephen's Day (December 26th).

POLICE/AMBULANCE/FIRE: 999 is emergency number for all services. Actual: Police 273161; Fire 966333; Ambulance 966333.

EMERGENCY CO-ORDINATION CENTRE: Port Operations and Information Station will provide this service and will raise the alarm in the event of a major marine emergency. Tel: (021) 811380, VHF Channels 12 and 16. Outside the port area, emergency services will be co-ordinated by Shannon Marine Rescue Co-ordination Centre, Tel: (061) 61219, 61969, 61509 or 61233 Ext. 251 or 252 or through Cork Air Traffic Control during opening hours at (021) 965326.

BANKS:
Allied Irish Banks Ltd., 66 South Mall, Cork. Tel: 276811.
Bank of Ireland Ltd., 32 South Mall, Cork. Tel: 276712.
Northern Bank Ltd. 89 South Mall, Cork. Tel: 508422.
Ulster Bank Ltd. 54 South Mall, Cork. Tel: 274381.

STORING: See "Prelims".

1. Vessels can be stored by truck.
2. No restrictions on storing. Barge storing not applicable.
3. Trucks may proceed alongside for storing.
4. Fork lifts may be used for storing.
5. Bonded stores authorised by Collector of Customs, Government Buildings, Sullivans Quay, Cork.
6. Local riggers may be employed to assist with storing.

SERVICES: All tanker services available at Whitegate. Otherwise, various general services required by ships available at Cork.

SHORE LEAVE: No restrictions on shore leave.

DELAYS: Except waiting for tide there are very few occasions on which entry to or departure from the port is subject to delay.

DEVELOPMENTS: The deepwater berth at Ringaskiddy became operational in August 1986, thus concluding the first phase of the creation of the largest deepwater industrial complex in Ireland.

Ringaskiddy has a fully serviced 1,000 acre area owned by the Industrial Development Authority. Cork Harbour Commissioners have reclaimed a further 155 acres for use as operational and storage areas.

Ringaskiddy is serviced by the Cork City and Harbour Water Supply Scheme which provides 30 million gallons of water per day. The Irish Government has enacted legislation to set up a freeport at Ringaskiddy which will enhance the attractiveness of Cork Harbour.

The Kinsale gas field 30 miles due South of Cork Harbour serves industry in the harbour area and is linked to the national natural gas grid. The gas is used by I.F.I. at Marino Point in their ammonia/urea plant.

Cork Harbour Commissioners have decided to invest £3 million at the Tivoli Container Terminal. The development programme will extend and upgrade the container terminal and provide new container handling equipment.

AUTHORITY: Cork Harbour Commissioners, P.O.Box 53, Custom House Street, Cork, Ireland. *Tel:* (021) 273125-9. *Telex:* 75848. *FAX:* (021) 276484. *Contact:* P. Keenan, General Manager. B. O'Sullivan, Harbour Engineer. Captain P. Farnan, Acting Harbour Master. S. J. Geary, Marketing Manager.

DUBLIN: 53.21 N. 06.16 W. (See Plan)

PORT LIMITS: Port of Dublin includes all water between Rory O'More Bridge (over River Liffey) and imaginary line drawn from Martello Tower at Sutton on North side of Dublin Bay to Sorrento Point at Dalkey on South side, but excluding Dun Laoghaire Harbour.

DOCUMENTS:

Forms C. 1 or C. 2 Customs report form (actually a copy of Manifest).

Form CU. 35 Victualling Bill (note covering Bonded Stores to be loaded Dublin).

Form CU. 7 Entry Outwards in ballast (for vessels sailing light).

Form CU. 10 Entry Outwards with cargo.

Form CU. 25 Entry Outwards (details of previous and forthcoming voyages).

Health Form.

"Jerque" Note (list of bonded stores on board on arrival).

Crew List must also be presented with personal declarations of dutiable possessions (i.e. radios; T.V.s; record players, etc.).

PILOTAGE: Limits of Dublin Pilotage District are waters of River Liffey between Butt Bridge and of sea Westward of Sixth Meridian between parallels of latitude passing through Bailey Lighthouse on North and through Sorrento Point on South including all bays, creeks and harbours and all tidal and closed docks within such area. Following classes of ships exempted from compulsory pilotage if not carrying passengers:

(1) Ships trading coastwise of not more than 200 tons gross tonnage.

(2) Home trade ships (including ships trading coastwise), of not more than 450 tons gross tonnage, excluding ships carrying petroleum or explosive cargo.

Incoming Vessels: Pilotage service is based on a Pilot shore station situated on Eastern Breakwater and operated by direct boarding cutters, each about 15.0 m. long. Harbour Office, Pilot Shore Station and Pilot Cutters are equipped with VHF Channels 16, 12 and 6.

ETAs should be given 12 hours before arrival and amendments may be made up to 2 hours before original ETA.

ETAs and any subsequent amendments should be passed by radiotelephone (VHF Channel 12; call sign Dublin Harbour Office) or radiotelegram to "Harmaster Dublin".

Holders of Dublin Pilotage Certificates should indicate this by flashing single letter signal "C" when approaching pilotage area between sunset and sunrise.

Vessels Outward Bound or Shifting: Order for Pilot should be made early as possible through Harbour Office Tel: 748771 or Telex: 32508 during office hours (0900 – 1700 hrs.); and Tel: 748779 outside office hours. Following details should be given: name and situation of vessel, destination, draft, time of departure. It must be stressed that such orders must be made in sufficient time making due allowance, particularly at night, for accessibility of vessel. A minimum of 1 hour's notice is necessary for inward or outward Pilot.

ANCHORAGES: Scotch Bay – S.E. Dublin Bay and just East of Dun Laoghaire 10 m. LAT – 12 m. LAT.

RESTRICTIONS: Draft restrictions: 10.0 m. HW Neap Tides; 10.2 m. HW Normal Tides; 10.5 m. HW Spring Tides. Vessels drawing 6.5 m. or less can enter at any state of tide.

Maximum speed in river in vicinity of berths is 4 knots.

ENTRANCE: Approach well lighted and easy of access. Inner Channel of Harbour, formed by almost straight channel of River Liffey from entrance at Poolbeg Lighthouse to Alexandra Basin, is 215 m. wide for greater part of length and maintained at depth of 7.8 m. LW. From Alexandra Basin entrance, River is quayed for a distance of nearly 3.0 km. to Matt Talbot Memorial Bridge in centre of City.

MAX. SIZE: State of tide governing max. draft, no breadth restriction, overall length restriction of approx. 200 m.

HEALTH: Pratique automatic for movements Ireland/U.K. area. Maritime Declaration of Health indicates requirements. This declaration must be submitted on arrival by Master of ship coming from foreign port. This requirement does not now normally apply to vessels trading *solely* between Ireland and ports in West Germany, Belgium and Netherlands, Atlantic and Mediterranean coast of France, Italy and Greece. Other requirements mentioned on Maritime Declaration of Health form still apply to such ships.

"Foreign Port" is port situated elsewhere than Ireland and UK.

Master of foreign-going ship may be asked to produce valid Derat Certificate or Derat Exemption Certificate in respect of vessel. Travellers (passengers and crew) may be requested to produce valid certificates of vaccination. Ships may be subjected to sanitary inspection by inspectors of Port Health Service.

Swill must not be landed from vessels which trade outside Ireland.

Granting of Pratique by radio not practised at Dublin, But is under consideration at present.

RADIO: Valentia Radio, Ireland. Portishead Radio, U.K. Anglesea Radio, U.K.

TUGS: Normally meet vessels at North Bank Lighthouse (roughly half-way mark of main channel) 1 mile West of Poolbeg Lighthouse.

BERTHING: The following berthage is available to shipping using the port.

North Side of the River, from Talbot Memorial Bridge to North Wall Light, available as berthage, 2,244 m., depth 4.6 m. – 6.5 m. LAT. Cranes: 1×6 tonnes and 4×4 tonnes.

Alexandra Basin, South and East sides: Length of berthage 520 m., depth 7.1 m. – 7.7 m. LAT. Cranes: 1×6 tonnes, 4×4 tonnes.

Alexandra Quay West (North side of Alexandra Basin): Length of berthage 375 m. depth 9.8 m. – 10.3 m. LAT. Cranes 1×6 tonnes, 6×4 tonnes.

Alexandra Quay East: Length of berthage 360 m., depth 10.3 m. LAT. Cranes: 5×4 tonnes.

Ocean Pier West (East end of Alexandra Basin): Length of berthage 418 m., depth 9.7 m. LAT. Cranes: 1×10 tonnes, 7×4 tonnes, 1×35 tonne derrick.

Ocean Pier South: Length of berthage 142 m. depth 9.5 m. LAT.

Ocean Pier East: Length of berthage 244 m., depth 10.3 m. LAT. Cranes: 4×4 tonnes.

South side of the River, from Talbot Memorial Bridge to Ringsend Gut, available as berthage 1,598 m., depth 4.6 m. – 6.5 m. LAT. Cranes: 5×4 tonnes.

South Bank Quay: Length of berthage 205 m., depth 8.5 m. LAT.

Container Handling Berths:

B+I Terminal: Length of berth 229 m., depth 5.9 m. LAT (incorporates No. 4 Ro/Ro). 1×30 tonne transporter crane.

Sealink Terminal: Length of berth 145 m. depth 5.9 m. LAT. 2×30 tonne transporter cranes and 2×30 tonne Goliath cranes.

Southside Terminal: Length of berth 567 m., depth 7.7 m. LAT (incorporates No. 3 Ro/Ro). 2×30 tonne transporter cranes, 1×32 tonne derrick crane and 1×10 tonne portal crane.

Ocean Pier West: Length of berth 183 m., depth 9.5 m. LAT. 1×35 tonne derrick crane.

Roll-On/Roll-Off Facilities:

North Side: No. 1 Ramp – Length of berth 140 m., depth 5.9 m LAT.
No. 2 Ramp – Length of berth 242 m., depth 10.3 m. LAT.
No. 4 Ramp – Length of berth 200 m., depth 5.9 m. LAT.
No. 5 Ramp – Length of berth 215 m., depth 11.0 m. LAT.
South Side: No. 3 Ramp – Length of berth up to 520 m., depth 7.7 m. LAT.

BULK HANDLING FACILITIES:

Dry Bulk Jetty in Alexandra Basin: Length of jetty 247 m. depth 9.45 m. (North side) and 10.5 m. (South side). This jetty is equipped with a bulk ore conveyor and ship loading system for export of ore concentrates. 2×10 tonne grabbing cranes. It is also equipped with pipe-lines for liquid sulphur, ammonia and molasses. The jetty is also used for coal imports with a separate conveyor system linking the jetty with a back area coal storage site.

Coal/Dry Bulk Quay, South Side: Length of quay 358 m., depth 11.0 m. LAT. This quay, with storage areas, hoppers, conveyor belts, 2×4 tonne and 2×10 tonne grabbing cranes is one of the most sophisticated bulk handling berths in Western Europe.

STEVEDORES: ETA required by Stevedores before 1500 hrs. Monday to Thursday for work the following day, and by 1500 hrs. Friday for work Saturday, Sunday or Monday.

Average discharge rates: *Grain:* 3,000 tons per day. *Timber:* 120 standards packaged per gang/day. *General:* Bagged cargo and fast general, including paper, 250 tons per gang/day. *Other Generals:* 90 tons per gang/day.

Stevedores for deep-sea section: Dublin Cargo Handling Ltd., East Wall Road, Dublin 1. Tel: 745023. Telex: 30903.

TANKERS: No slop residue discharge facilities.

Tanker Berths	*Max. Draft*	*Length*
No. 1, West Oil Jetty, West Side	10.4 m.*	226 m.
No. 2, West Oil Jetty, East Side	10.7 m.*	235 m.
No. 3, East Oil Jetty, West Side	10.1 m.*	207 m.
No. 5, East Oil Jetty, East Side	6.5 m.	110 m.
South Bank Quay (E.S.B.)	8.5 m.*	213 m.
South Bank Quay (Poolbeg)	11.3 m.*	198 m.

*Time suitable for navigation in approaches – 1 hour before High Water for deepest draft.

Common User Oil Pipe-line System: This system provides 21 pipe-lines to Eastern Oil Jetty and 15 pipe-lines to Western Oil Jetty. Cargoes of tankers berthed at these jetties can be discharged to storage installations of any of the oil companies.

E.S.B. (Electricity Supply Board): At Poolbeg Jetty (formerly known as "Pigeon House 'B' Jetty"). Max. size 35,000 d.w.t. with the aid of tugs. Present depth sufficient for vessels of this size.

DENSITY: 1025 at all stages of tide.

FRESH WATER: Available at all berths by 2.5 in. hose line – 8/10,000 g.p.h. per hydrant.

FUEL:

Grades of Fuel Oil	*Viscosities*
Heavy Fuel Oil	3,500 sec. max.
Inter. Fuel Oil	1,500 sec. max.
Medium Fuel Oil	950 sec. max.
Light Fuel Oil	200 sec max.

Advance Notice required. Bunkering by pipe-line depends on availability of Oil Berth. Bunkering by Oil Barge normally a.m. notice on day required. Bunkering by Road Tanker – 24 hours notice.

FIRE PRECAUTIONS: Port By-Laws; Harbour Master's orders/Letters to Masters. Ref.: International Maritime Dangerous Goods Code.

Packed Petroleum: IMO Recommendations on the safe transport, handling and storage of dangerous substances in port areas.

Fibrous Cargoes: See Directives No. 2 and 3 to Masters. Jute, hemp and sisal must be removed ex-ship from port area.

Cotton, cocoa fibre, kapok, etc., must be removed ex-ship to Hazardous Goods Shed.

General: Harbour Police-Watch obligatory during handling of all hazardous or inflamable cargoes, and on tankers during vessels' stay in port. No smoking permitted in Oil Zone, sheds, etc.

GANGWAY/DECK WATCHMEN: If no watchmen from crew, then shore watchman is recommended.

OPENING/CLOSING HATCHES: Patent hatches by crew; other hatches with some assistance from dockers.

CERTIFICATES:

Certificate of Registry.
Radio Safety Certificate.
Load Line Certificate.
Current Trinity House light bills.
Safety Equipment Certificate.

CUSTOMS ALLOWANCES: Tobacco per 8 days: 200 cigarettes – Master; 150 cigarettes – Officers; 100 cigarettes – Crew. Wine and/or Spirits: quarter pint per day per man.

CONSULS: *Embassies:*

	Telephone		*Telephone*
American	68 87 77	Greek	76 72 54
Argentine	69 15 46	Indian	97 08 43
Australian	76 15 17	Italian	60 17 44
Austrian	69 45 77	Japanese	69 42 44
Belgian	69 20 82	Netherlands	69 34 44
	69 15 88	Nigerian	60 43 66
British	69 52 11	Portuguese	89 33 75
Canadian	78 19 88	Spanish	69 16 40
Chinese	69 17 07	Swedish	71 58 22
Danish	75 64 04	Swiss	69 25 15
Egyptian	60 65 66	Turkish	68 52 40
French	69 47 77	USSR	97 75 25
German (F.R.)	69 30 11		

Consular Offices:

Brazilian	85 19 71	Monaco Consulate General	73 55 66
Cyprus	69 13 97	Norway Honorary Consul	79 36 83
Ecuador	69 54 48	Pakistan Honorary Consul of	69 82 34
Finland Honorary Consul General of	76 51 53	Panama	74 78 67
Iceland Honorary Consul General of	80 81 03	Peru	80 02 56
Luxembourg Honorary Consul General of	68 17 56	Philippines Honorary Consul of	76 01 50
Malta Honorary Consul of	76 03 33	Portugal Honorary Consul of	89 44 16

REPAIRS: All classes of repairs carried out by Independent Companies located in the Port area.

DRY DOCKS: Graving Dock No. 1: Length overall 125 m.; width at entrance 21.3 m.; depth over sill at HWOST 5.25 m., depth over blocks at HWOST 4.57 m. Equipment – one 6 ton EP crane.

Graving Dock No. 2: Inside length with caisson gate in: Extreme outer position 202 m.; normal outer position 194 m. Centre position 112 m.; inner position 78 m. Width at entrance 24.4 m.; depth over sill at HWOST 7.62 m. Depth over blocks at HWOST 6.8 m.

The intermediate positions for the caisson gates make it possible to operate inner section so as to accommodate a small or medium-size vessel independently of remainder of dock.

Equipment: One E.P. crane, 25 tons at 22 m. radius to 5 tons at 30 m. radius. Seven power capstans of 5, 10 and 15 tons pull. Fresh and salt water hydrants at dock sides.

Patent slips: No. 1 – Length of cradle 23 m. for vessels up to 200 tons displacement. No. 2 – Length of cradle 51 m. for vessels up to 350 tons displacement.

REPATRIATION: May be arranged by ship's Agent through Department of Justice.

AIRPORT: Dublin Airport, 6 miles North of city centre, served by regular services direct to U.K., Europe, U.S.A. and Canada.

TIME: GMT plus 1 hour. Reverting to GMT between October and March.

HOLIDAYS: New Year's Day (1st January); St. Patrick's Day (National Holiday) (17th March); Good Friday*; Easter Monday; Spring Bank Holiday (1st Monday in June); August Bank Holiday (1st Monday in August); Last Monday in October; Christmas Eve, half holiday (24th December); Christmas Day (25th December); St. Stephen's Day (26th December).

*Not a port holiday, but all other offices closed.

These days can be worked at Sunday rates and conditions.

POLICE/AMBULANCE/FIRE: Contact Harbour Police patrol or at Dock Gates, or dial 999 on public telephone for all emergency services.

Port fire alarm system is linked via fire panel at Alexandra Road to local fire station.

TELEPHONES: Coin-box telephones available near Oil Berths. No rental charges; normal coin-box rates.

SERVICES: No facilities for tank cleaning; discharge of tank washings in small quantities to road tankers.

SHORE LEAVE: No port restriction on crew's shore leave.

GENERAL: Masters' cash requirements for week-end must be notified to Agent by noon on Friday.

AUTHORITY: Dublin Port and Docks Board, Port Centre, Alexandra Road, Dublin 1. *Tel:* 722777 – 748771. *Telex:* 32508. *Cables:* Harbour Dublin. *Contact:* Mr. R. N. Hayes, General Manager. Captain C. J. Lawless, Harbour Master.

DUN LAOGHAIRE: 53.18 N. 06.08 W. (See Plan)

PORT LIMITS: Seaward port limits extend to 457 m. beyond the breakwater pierheads.

DOCUMENTS: See "Dublin".

PILOTAGE: See "Dublin". Dun Laoghaire lies within the Dublin Pilotage District.

ANCHORAGES: Scotsmans Bay. See "Irish Coast Pilot".

RESTRICTIONS: See "Irish Coast Pilot".

MAX. SIZE: Fairway dredged to 5.0 m.

HEALTH: See "Dublin".

RADIO: See "Dublin".

VHF: The Harbour Office operates on Channels 16, 14, 12, 9 and "M". During office hours a continuous listening watch is kept on Channel 16. Call sign "Dun Laoghaire Harbour Office".

TUGS: Tugs arranged through Dublin Port.

BERTHING: Harbour formed by 2 breakwaters, East Breakwater length 1,290 m. West Breakwater, length 1,548 m. Width at entrance between breakwaters, 232 m. Depth at entrance 6.2 m. – 7.9 m.

Berth No.	*Berth Name*	*Berth Length* (m.)	*Depth below Chart Datum* (m.)
1	East Pier Berth.	76	5.0
2	Mailboat Pier, East Side.	139	5.0
3	Mailboat Pier, West Side	130	5.0
4	Car Ferry Pier, East Side.	142	5.0
5	Car Ferry Pier, West Side.	142	5.0
	Traders Wharf Shoreward side.	131	3.2

CRANES: Mobile cranes can be hired locally. For yacht fitting: 1×2 ton and 1×5 ton hand cranes, available for fitting out yachts near Traders Wharf.

SPECIALISED CARGO HANDLING FACILITIES: Ro–Ro facilities at Berths No. 3, 4 and 5. Ramp widths 3 m. Maximum slope 1 in 8. Berth No. 3 can accommodate vessels up to 22 m. beam. Berth No. 4 can accommodate vessels up to 17.4 m. beam. Berth No. 5 can accommodate vessels up to 18.2 m. beam. No facilities for handling liquid chemicals or LPG carriers.

BRIDGES: None.

STEVEDORES: Arranged locally.

MEDICAL: Hospital and dental facilities available.

DENSITY: 1025.

FRESH WATER: Available at all berths.

FUEL: Fuel delivered by road tanker.

FIRE PRECAUTIONS: Only usual non-smoking precautions.

CONSULS: See "Dublin".

REPAIRS: See "Dublin".

DRY DOCKS: See "Dublin".

SURVEYORS: As per Lloyd's Shipping Agents, Dublin.

GANGWAY/DECK WATCHMEN: The ship's watch.

CUSTOMS ALLOWANCES: As per E.E.C. Regulations.

CARGO GEAR: Load/discharge can be by ship's gear or mobile cranes.

REPATRIATION: Facilities exist for crew changes and repatriation.

AIRPORT: Dublin Airport (Collinstown) 20 km.

TIME: GMT. GMT plus 1 hour from last Sunday in March to fourth Sunday in October.

HOLIDAYS: New Year's Day, St. Patrick's Day, Good Friday, Easter Monday, first Monday in June, first Monday in August, last Monday in October, Christmas Day, St. Stephen's Day.

POLICE/AMBULANCE/FIRE: Police 801285/800187; Fire 801903/999; Ambulance 999.

EMERGENCY CO-ORDINATION CENTRE: Telephone 999.

TELEPHONES: None on board visiting ships.

SERVICES: Various services available.

BANKS: All major Irish banks have branches in the area.

STORING: Ship's stores available. Trucks proceed alongside at the berth.

SHORE LEAVE: Possible, no restrictions.

IDENTIFICATION CARDS: Seaman's Identification Card sufficient.

REGULATIONS: Nothing unusual.

DELAYS: There are no delays.

AUTHORITY: Commissioners of Public Works, 51 St. Stephen's Green, Dublin 2, Ireland. *Tel:* (01) 613111. *Telex:* 90160. *Cables:* OIBRE. *Contact:* Captain J. P. Carter, Harbour Master. *Tel:* (01) 801130

DUNMORE EAST: 52.09 N. 06.59 W.

LOCATION: Dunmore East is situated on the West side of the Waterford Estuary, 14.5 miles from the Port of Waterford. It is a major fishing harbour centre.

DOCUMENTS: Standard ship's papers.

APPROACHES: Width at entrance 280 ft.

PILOTAGE: See "VHF".

VHF: Not used in the harbour. However, Waterford Harbour Commissioners operate a pilot station on the high ground East of the Harbour and can be contacted on Channel 16.

BERTHING:

	Length (m.)	*Depth below Chart Datum* (m.)
East Pier	146	2.9
Auction Hall Quay	80	2.9
West Wharf	155	2.9

CRANES: Mobile cranes can be hired locally.

MEDICAL: Hospital and dental facilities available.

DENSITY: 1025.

FRESH WATER: Fresh water available at East Pier and Auction Hall Quay.
FUEL: Piped diesel available on East Pier.
DRY DOCK: Syncrolift (30 m. × 10.7 m. S.W.L. 230 tonnes).
AIRPORT: Waterford Airport, 13 km.
TIME: GMT. GMT plus 1 hour from last Sunday in March to fourth Sunday in October.
HOLIDAYS: New Year's Day, St. Patrick's Day, Good Friday, Easter Monday, first Monday in June, first Monday in August, last Monday in October, Christmas Day, St. Stephen's Day.
POLICE/AMBULANCE/FIRE: Police 83112/74888; Ambulance 73321; Fire 83196.
EMERGENCY CO–ORDINATION CENTRE: Telephone 999.
STORING: Ships stores available. Trucks proceed alongside at the berth.
AUTHORITY: Commissioners of Public Works, 51 St. Stephen's Green, Dublin 2, Ireland. *Tel:* (01) 613111. *Telex:* 90160. *Cables:* OIBRE. *Contact:* Lt. Cmdr. J J Grannell, Harbour Master. *Tel:* (051) 83166.

FENIT: 52.17 N. 09.53 W.

PORT LIMITS: All waters East of a line from Kerry Head to the Westernmost point of the Magharee Islands.
DOCUMENTS: See "Dublin".
PILOTAGE: Pilotage is not compulsory, but is recommended. ETA at least 24 hours before Pilot required. VHF to Pilots and Harbour Master is available.
ANCHORAGE: Included in Pilotage duty. The area recommended is W.N.W. of Samphire Lighthouse.
RESTRICTIONS: Deep draft vessels berth some 2 hours either side of high tide.
MAX. SIZE: Vessels of 400 ft. have no difficulty in berthing. Maximum draft 20 ft. to be afloat.
HEALTH: Pratique procedure as in other Irish Ports.
RADIO: Valentia Radio Station will accept and forward W/T messages.
VHF: Harbour Master and Pilots listen on Channel 16 and switch to Channel 12 for passing messages.
RADAR: No service available.
TUGS: Not necessary.
BERTHING: 328 ft. of berthing space.
CRANES: There are two cranes available on the pier, 20 ton electric gantry and 15 ton diesel jib crane. Extra cranes may be hired.
STEVEDORES: There are 4 stevedores for the Port:

R. McCowens & Son, Edward St., Tralee – 066-21033
I. T. I. Ltd., Dock Rd., Limerick – 061-313088
Tralee Seabase Ltd., 10 Nth. Richmond St., Dublin 01-786377
Argosea Services Ltd., Foynes.

MEDICAL: Regional Hospital in Tralee (8 miles).
TANKERS: Not to exceed max. draft 18 ft.
FRESH WATER: Supplied from hydrants on quay side at 20 t.p.h. Cost £1.25 per ton.
FUEL: Bunkers available from oil terminal on the pier.
Contact: Kerry Petroleum Clash, Tralee. Tel: 066-21155
or Estuary Fuels, 23 O'Curry St., Limerick. Tel: 061-313362
REPAIRS: May be arranged on a limited scale.
AIRPORT: Local airport at Farranfore (15 miles) and International Airports at Shannon and Cork (80 miles)
AUTHORITY: Tralee & Fenit Pier & Harbour Commissioners, The Harbour Office, the Pier, Fenit, Tralee, Co. Kerry. *Tel:* 066-36293. *Contact:* Lt. Commander J. Barrett, Harbour Master. *Tel:* 066-36103. K. Lawlor, Secretary. *Tel:* 066-36293.

GALWAY: 53.16 N. 09.03 W. (See Plan)

DOCUMENTS:

1 Crew List (official form).
1 Passenger List (official form).
1 List of Articles (dutiable) in Possession of Crew (official form).
1 Stores List (to include bonded surplus stores for seal, firearms, ammunition, animals, radio transmitting and receiving sets) (unofficial form).
Maritime Declaration of Health (official form).

Documents, etc., required by Agent for Customs Purposes:

Ship's Register.
Load Line and Safety Certificates, etc.
Receipt for previous payments of light dues if any.

PILOTAGE: Compulsory. Pilots board incoming vessels only at "tide times" (approx. 2.5 hours before HW until HW); vessels arriving at times outside this period should anchor and await Pilot. Safe anchorages at Inner Roadstead or near Margaretta Buoy according to tonnage and draft, Pilot will board at either. Application for Pilot should be to Agent with notice of ETA. International light and sound signals may be used. Pilots. Tel: Galway (091) 61874/623-29.
ANCHORAGES: During S.W. gales safest anchorage is at Black Head.
RESTRICTIONS: Entry from 2 hours before HW until HW only.
MAX. SIZE: Governed by depth on sill of 28 ft. at springs and 24 ft. at neaps: width of dock gates, 65 ft. and length of turning area 480 ft.
HEALTH: Master of ship arriving from foreign port must deliver Maritime Declaration of Health in order to obtain Pratique. An oral declaration will suffice for ships trading solely between Republic of Ireland and Belgium, Holland and European France. Pratique will be granted or withheld depending on answers given to questions put in Health Declaration.

In event of a suspected disease or fever on board, vessel is detained pending arrival of Medical Officers of Health. No unauthorised person is allowed to leave ship without authority of Chief Medical Officer.

Pratique is automatic when vessel arrives from ports in Great Britain, Isle of Man, Northern Ireland and Channel Islands or another port within Eire.

RADIO: ETA cables to Agents, etc., through Valentia Radio if approaching from South or Malin Head if from North. Valentia has telephone link service. Port VHF on Channel 16.
TUGS: No tugs available.
BERTHING:

Berth	*Length* (m.)
Mulvoy Quay	209
Breatnach Quay	176
Dun Aengus Dock – North	164
Dun Aengus Dock – South	161
New Pier	134

CARGO HANDLING FACILITIES: Grain, coal, bulk fertilisers, etc. are all handled by grabs, discharge rates 1,500 t.p.d. per crane.
4×25 tonne cranes for grab discharge.
STEVEDORES: Agents arrange after receipt of ETA.
MEDICAL: No special port medical requirements. Ships medical requirements should be included in ETA signal.
TANKERS: 2 berths. No special requirements.
DENSITY: 1012 (average).
FRESH WATER: Available by hose in unlimited quantities. Rate up to 50 t.p.h.
FUEL: All grades available.
GANGWAY/DECK WATCHMEN: Open quays – watchmen recommended.
OPENING/CLOSING HATCHES: Normally carried out by crew.
CUSTOMS ALLOWANCES: Wine, Spirits and Tobacco: Members of a crew who remain out on a vessel during her stay in port are allowed to retain in their own possession, under certain conditions, the following quantities of the undermentioned goods:

Tobacco in any form (to cover 8 days)	*Spirits in any form* (to cover 4 days)	*Wine* (to cover 4 days)
The Master 8 oz.	1 pint	1 gallon
Officers (i.e., Mates, Engineers, Wireless Operators, Ship's Surgeons, Pursers, Chief Stewards or Serangs) 6 oz.	1 pint	1 gallon
Other Crew members 4 oz.	1 pint	

IDENTIFICATION CARDS: Not needed.
CONSULS: T. McDonogh & Sons Ltd., Merchant's Road, Consul for France and Belgium only. No others in Galway.
REPAIRS: Deck and engine repairs carried out afloat.
DRY DOCKS: No dry dock.
REPATRIATION: Crew changes and repatriation can be effected.
AIRPORT: Dublin (140 miles) and Shannon (55 miles). Airports served by regular flights.
TIME: GMT plus 1 hour. Reverting to GMT from October to March.
HOLIDAYS: Christmas Day; St. Stephen's Day (26th December); St. Patrick's Day (17 March); Easter Monday; Whit Monday; First Monday in August.
POLICE/AMBULANCE/FIRE: Police Tel: 63161. Ambulance Tel: 64222. Fire Tel: 999.
TELEPHONES: No arrangements exist for placing telephones on board.
SERVICES: Compass adjusters available in Dublin. 24 hours notice to Agent.
SHORE LEAVE: Allowed.
DELAYS: Apart from tidal, none.
SHIP SUPPLY SERVICE: Arranged by ships Agents: City of Galway Shipping Co. Ltd.

The occasional call for landing sick/injured seamen could be effected by the Lifeboat Service (R.N.L.I.) or on occasion by the Harbour Authorities' Pilot Launch.

AUTHORITY: Galway Harbour Commissioners, 49 Dock Street, Galway. *Tel:* 091-62329 and 61874. *Telex:* 50195. *Contact:* Captain F. W. Sheridan, Harbour Master & Pilotage Superintendent (Home Tel: 091-63920).

HOWTH: 53.23 N. 06.04 W.

PORT LIMITS: Seaward port limits extend to 457 m. beyond the breakwater pierheads.
DOCUMENTS: Standard ships papers.
VHF: Harbour Office operates on Channels 16 and 9.
BERTHING:

	Length (m.)	*Depth below Chart Datum* (m.)
West Pier	310	3.9
West Pier	140	4.8
Trawler Pier	65	3.9
Trawler Pier	120	4.8

CRANES: Mobile cranes can be hired locally.
MEDICAL: Hospital and dental facilities available.
DENSITY: 1025.
FRESH WATER: Fresh water available at most berths.
FUEL: Fuel delivered by road tanker.

DRY DOCK: Syncrolift (36 m. × 12.5 m., S.W.L. 700 tonnes).
AIRPORT: Dublin Airport, 14 km.
TIME: GMT. GMT plus 1 hour from last Sunday in March to fourth Sunday in October.
HOLIDAYS: New Year's Day, St. Patrick's Day, Good Friday, Easter Monday, first Monday in June, first Monday in August, last Monday in October, Christmas Day, St. Stephen's Day.
POLICE/AMBULANCE/FIRE: Police 322806/322003; Ambulance or Fire 481704/999.
EMERGENCY CO–ORDINATION CENTRE: Telephone 999.
STORING: Ship's stores available. Trucks proceed alongside at the berth.
AUTHORITY: Commissioners of Public Works, 51 St. Stephen's Green, Dublin 2, Ireland. *Tel:* (01) 613111. *Telex:* 90160. *Cables:* OIBRE. *Contact:* Captain N. J. Reid, Harbour Master. Tel: (01) 322252.

KILLYBEGS: 54.38 N. 08.26 W. (See Plan)

PORT LIMITS: A line joining Drumanoo Head and Pound Point.
DOCUMENTS: See "Dublin".
PILOTAGE: No permanent Pilot but one can be acquired on request.
ANCHORAGE: Very safe anchorage.
RADIO: Malin Head Station.
VHF: Link calls through Malin Head VHF Channel 16.
BERTHING: Large fishing fleet has to be accommodated.
MEDICAL: Necessary to send advance warning re illness or injury to a Crew member.
FRESH WATER: Available.
FUEL: Fuel oil available.
IDENTIFICATION CARDS: Not needed.
SHORE LEAVE: Crew members allowed ashore.
DEVELOPMENTS: Major harbour scheme has commenced – dredging has been completed. Work is in progress on the provision of a boatlift (syncrolift).
AUTHORITY: Department of The Marine. Lenson Lane, Dublin 2. *Tel:* (01) 615666. *Telex:* 90253 FFWS. *FAX:* (01) 789527. *Contact:* Captain P. J. Hodgman, Harbour Master (Tel: (073) 31032).

KINSALE: 51.42 N. 08.31 W.

PORT LIMITS: Straight line drawn due West of Hangman's Point ("Arrived Ship Line").
DOCUMENTS: See "Dublin".
PILOTAGE: 12 hours notice of ETA required. Pilot operates on VHF Channels 16 and 14. Pilot boards at Bulman Buoy (WP). Pilot station tel: 021-772300 and 774233 and 772256.
ANCHORAGE: 4 cables South of Bulman Buoy or off Lower Cove in line with Charles Fort. Depth 6.7 m. LW.
RESTRICTIONS: Berthing at HW only. Bar, depth 3 m., 2 to 3 cables South of Charles Fort. All vessels lie aground at LW. Tides 1.5 knots. Also see "Berthing".
MAX. SIZE: Vessels up to 80 m. LOA, draft 5.0 m. and 2,000 d.w.t.
VHF: Vessels approaching the port call pilot station on Channel 16 and then switch to Channel 14. Call sign "Kinsale Harbour Radio".
BERTHING: Berthing starboard side to at HW on Southern side of Pier Head (Customs Quay); length 60 m. Depth MHWST 6.10 m., MLWNT 2.74 m. All vessels lie aground at LW.
CRANES: Mobile grab cranes of 25 tons – 35 tons capacity available.
STEVEDORES: Working hours 0800 – 2000 hrs., Monday to Friday.
FRESH WATER: Available ex-hydrant on berth.
AIRPORT: Cork Airport 14 miles.
TIME: GMT; Summertime GMT plus 1 hour (March to October).
AUTHORITY: Kinsale Harbour Commissioners, The Pier, Kinsale, Co. Cork. *Tel:* 021-772503. *Contact:* E. Hurley, Harbour Master.

LIMERICK: 52.40 N. 08.38 W. (See Plan)

PORT LIMITS: The Port of Limerick extends from Sarsfields Bridge in Limerick City to a line joining Loop Head and Kerry Head. It includes Limerick City Dock and Quays, Dernish Island Jetty (Shannon Airport), Aughinish Marine Terminal, Foynes Island Jetty, Tarbert Island Jetty and Money Point Jetty but *not* Foynes Harbour and Cappa Pier Kilrush.
According to custom and practice, smaller vessels "arrive" as they pass Scattery Island Lighthouse and larger vessels at the outer anchorage.
DOCUMENTS:
EEC Arrival Form for tankers over 1,600 tons gross (to be presented to boarding Pilot).
2 Crew Lists.
2 Passenger Lists.
3 Custom's Manifest (Tobacco List).
Deck Cargo Declaration.
Health Declaration.
Ship's Register (Tonnage Certificate).
Safety Equipment Certificate.
Safety Radio Certificate.
Load Line Certificate.
Receipt for last previous Trinity House Light Dues payment (if any).
Derat Certificate.

PILOTAGE: Compulsory from Scattery Island (52.35 N., 09.31 W.) to Limerick for all vessels and from Kilcredaun for vessels in excess of 3,000 n.r.t. Large vessels with drafts of 13.0 m. and over are advised to embark their Pilots West of Kilcloher. ETA for Pilots passed in advance by Agents. Masters may call Pilots (Scattery Pilot Station – Channel 16 VHF) or by normal International Code sight or sound signals. ETA to be sent 24 hours in advance and amended as necessary. Pilots watch only when vessels are expected inwards or outwards.
ANCHORAGES: Coastal vessels normally wait tide to Limerick at Scattery Roads; Beighcastle Anchorage depth over 18.0 m. (52.40 N., 08.57 W.) about 18 miles downstream off Limerick is nearest deep-water anchorage; now disused as lightening place for bulk grain cargoes. Larger vessels (over 10,000 d.w.t.) anchor 2.5 to 3.0 miles West of Scattery Lighthouse in depths from 12.0 m. – 25.0 m.
RESTRICTIONS: Entrance to Limerick Dock is limited to 2 hours preceding HW; vessels over 3,000 d.w.t. normally berth on daylight tides only.
MAX. SIZE: Dependent on tide. Up to 6.1 m. draft on Spring tides (neap tides about 5.0 m.) Vessels of 155 m. × 20 m. beam have berthed at Limerick Dock on suitable draft. Such vessels are subject to weather delays.
HEALTH: If no infectious diseases on board, Pratique granted by Customs Preventive Officer on arrival on presentation of Health Declaration of Master. Landing of dogs and cats from outside British Isles strictly forbidden.
RADIO: Irish Stations; Valentia Radio VHF or R/T (link-calls available) or Malin Head Radio, or any U.K. Radio Station. Agents have special arrangements with Valentia Radio and Malin Head Radio, cables passed by direct telex to Agent's office.
Telex in Harbour Master's Office No. 70248 HABR EI.
VHF: Masters can call Scattery Pilot Station on Channel 16, or Limerick Harbour Radio – same, working on Channels 12 and 13.
TUGS: 1 tug of 36 tons bollard pull and 2 tugs each of 22 tons bollard pull are available in the estuary in addition to one small tug of 5 tons pull and a dredger fitted with towhook.
BERTHING: In Limerick Dock there are 10 berths of which only 1 (Shell berth) is reserved exclusively for tankers. The cement berth is also used for tankers when required. Drafts on all berths approx. tidal gauge plus 0.3 m. Extensive berthage on tidal quays now used by fertiliser vessels up to about 1,000 d.w.t. lying safe ground on mud berths.
TANKERS: Apart from Limerick Dock tanker berths, Dernish Oil Jetty situated approximately 1 mile South of Shannon Airport. Jetty head (Lat. 52° 41′ N., Long. 08° 55′ W.) 45 m. long. Distance between head and stern buoys 130 m. Depth alongside LW 8.0 m. Jetty designed for vessels of up to 6,000 d.w.t. and 7.0 m. draft, assuming manifold amidships. Aviation fuel pumped direct to airport.
STEVEDORES: At Limerick City Docks the sole stevedores are Limerick Cargo Handling Ltd. (as a result of rationalisation scheme). ETA per Agent before 1600 hrs. each day Monday to Thursday for labour next day. Master to state number of gangs/workable hatches. Crew open and close hatches. Normal work 0800/1700 hrs. but overtime can be worked 24 hours per day, Saturday and Sunday included. Requisition for labour for weekend work and 0800 hrs. Mondays by 1600 hrs. Friday.

Discharge rates: Bulk cargoes 1,000 tons per day.
D.B.B. 60 standards per day.
Packaged timber 150 stand. per gang day.
Bagged cargoes (palletised in hold) 400 tons per gang day.
Generals 130 tons per gang day.
All cargoes by crane discharge.

CONTAINER HANDLING FACILITIES: A 32 ton gantry container crane at Limerick Docks.
MEDICAL: All medical facilities available at short notice.
DENSITY: 1000 in Limerick Dock, except in certain late Summer conditions.
FRESH WATER: Available at all berths in Limerick ex-hydrant. Average rate 7.5 t.p.h.
FUEL: All grades available in reasonable quantities per road truck on 24 hours notice. (Non-bunker port prices).
WATCHMEN: Watchmen from crew, or if none available shore watchmen available.
HATCHES: Opening and closing of hatches, setting up derricks, shifting of hatches, beams, patent hatches, etc., all to be done by ship's crew with no assistance from shore gangs.
CONSULS: Belgium, Denmark, Finland, France, Germany (Fed. Rep.), Netherlands, Spain, Sweden.
CUSTOMS ALLOWANCES: (Tobacco per 8 days). Master 200 cigarettes; Officers 150 cigarettes; Crew 100 cigarettes. Wine/Spirits: quarter pint per man per day.
REPAIRS: Limited facilities. Dry dock available for vessels up to 40 ft. beam and not exceeding 15 ft. draft.
SURVEYORS: Nearest Marine Surveyor is Captain E. Hayes. Tel: Limerick (061) 43606 (office) and 62502 (home). Telex: 28224. Fax: 061-40262.
Also Caleb Brett, Belfast; Cargo Superintendents, Dublin; P. B. Harrison, Dublin; Casebourne & Turner, Dublin.
Lloyd's Register Offices are at Rushbrook, Cork, Tel: 021 – 811831. A.B. and B.V. are represented by P. B. Harrison (Dublin) Tel: 01 – 895878.
Salvage Association are represented by Mullock & Sons (Limerick Foynes) Lloyd's Agents, Tel: 061 – 54044, Telex: 26911.
REPATRIATION: No difficulties. Shannon International Airport 15 miles from Limerick. Daily flights world-wide destinations.
TIME: As U.K. GMT or GMT plus 1 hour (Summer Time).
HOLIDAYS: (For dock working), New Year's Day (1st January); St. Patrick's Day (17th March); Easter Monday; First Monday in June; First Monday in August; half-day 24th December, 25th December, 26th December (Christmas Day and St. Stephen's Day).
POLICE/AMBULANCE/FIRE: Dial 999 for all emergency services.

BANKS: Bank of Ireland (Limerick) Telex: 26840 with overseas agencies and branches throughout area.

Allied Irish Bank (Limerick) Telex: 26864 with overseas agencies and branches throughout area.

EMERGENCY CO-ORDINATION CENTRE: Marine Rescue Co-ordination Centre, Shannon Airport Tel: 061 – 61969 also 061 – 61219, Telex: 26262. (Oil pollution co-ordination and fire on ships co-ordination is through Harbour Master, Limerick).

STORING: Alongside from trucks. No restriction on fork lifts or riggers. In the case of Petroleum vessels with Class I or Class II cargoes, storing is not allowed during cargo working or ballasting, except where small items are hand carried onboard from vehicles parked at least 30 m. from ship.

Storing at Dernish Oil Jetty restricted to very light vehicles when cargo work permits.

SHORE LEAVE: No restrictions.

AUTHORITY: Limerick Harbour Commissioners, Harbour Office, 3 Percy Square, Limerick. *Tel:* 061 – 315377. *Telex:* 70248 Habr Ei. *FAX:* 061-314857. *Contact:* Captain E. K. Donnelly, Harbour Master.

NEW ROSS: 52.23 N. 06.56 W.

PORT LIMITS: Drumdowney Point to Kilmokey adjacent Barrow Bridge Lat. 52° 21.4′ N., Long. 7° 00′ W. The vessel is considered to be an arrived ship at the time of first HW after arrival off Dunmore East Pilot Station.

DOCUMENTS:
- 2 Cargo Manifests.
- 1 Bill of Lading.
- 1 Crew List.
- 1 Ship's Store List.
- 1 Passenger List.
- 1 Clearance.
- Register.
- Light Dues Certificate.
- Derat Certificate.

PILOTAGE: For Estuary Pilot (See "Waterford").

New Ross Pilots Tel. 051-82206. Pilotage messages received and transmitted by Cheek Point Radio VHF Channels 16 and 14. Early ETA advisable. Pilotage compulsory.

ANCHORAGE: To Pilot's advice.

RESTRICTIONS: Max. draft 19 ft. at Neap tides, 22 ft. at Spring tides, max. length 360 ft. (may be increased under certain conditions), max. beam 60 ft.

Navigation of the River Barrow for max. size vessels usually restricted to 2 hours before, to 2 hours after HW.

HEALTH: Declaration on arrival, international signals for Pratique.

RADIO: Malin Head, Land's End or Ilfracombe Radio Station.

TUGS: Available on request.

BERTHING: 2,000 ft. new jetty, depth 25 ft. below LW Spring tide.

Roll-on/Roll-off facilities available.

STEVEDORES: 24 hours notice required to Staffords, New Ross. Tel: (051) 21400. Telex: 80711.

Bulk discharge rate:	200 t.p.h.
Bag rate	100 t.p.h.
Liquid discharge	300 t.p.h.

FRESH WATER: Available at all berths.

FUEL: Obtainable by road tankers.

CONTAINER FACILITIES: 45 ton crane. Five acre storage space.

MEDICAL: Services available locally.

TANKERS: 1 oil jetty used by Campus Oil, Esso and Texaco.

DENSITY: 1000.

WATCHMAN: Available if required.

HATCHES: Ship's crew normally open and close hatches; shore-crane may assist.

CUSTOMS ALLOWANCES: Members of a crew who remain on a vessel during stay in port, are allowed to retain under certain conditions the following quantities of the undermentioned goods:

Tobacco (in any form): Master 8 oz., cigarettes 200; Officers: tobacco 6 oz., cigarettes 150; Crew members: tobacco 4 oz., cigarettes 100.

Spirits (in any form) to cover 4 days 1 pint (1 bottle each). Wine of any strength allowed in place of spirits at rate of 1 pint wine to half pint spirits. In addition, an allowance of 1 quart of beer or 1 pint of wine 30 proof per man per day. Members of crew whatever rank finally leaving vessel allowed to take ashore free of duty for their own personal consumption, following quantities of undermentioned goods, when they form whole of their unconsumed stores:

(a) If from ports in Great Britain, Northern Ireland, or the Isle of Man, or continental ports between the Elbe and Brest (except vessels crossing at regular and frequent intervals): tobacco in any form 4 oz.; spirits (ordinary drinkable) quarter pint; spirits (cordials or perfumed) quarter pint.

(b) If from any other port, double the quantities specified at *(a)*.

(c) Irrespective of the port from which arriving.

IDENTIFICATION CARDS: Not required.

REPAIRS: Repairs afloat possible.

REPATRIATION: Facilities exist.

AIRPORT: Dublin 95 miles; Cork 90 miles.

TIME: GMT plus 1 hour. Reverting to GMT between October and March.

HOLIDAYS: St. Patrick's Day (17th March); Easter Monday; Whit Monday (1st Monday in August); 25th and 26th December.

POLICE/AMBULANCE/FIRE: Telephone 999.

SHORE LEAVE: Allowed.

GENERAL: *Chart:* No. 2046 and 2049.

AUTHORITY: New Ross Harbour Commissioners, The Quay, New Ross, Co. Wexford, Ireland. *Tel:* (051) 21303. *Telex:* 80711. *Contact:* Captain D. M. Carroll, General Manager.

RATHMULLEN: 55.05 N. 07.31 W.

DOCUMENTS: Papers supplied by Agent in Rathmullen or by Customs.

PILOTAGE: Pilot obtained through Agent in Rathmullen 24 hours notice of ETA required.

ANCHORAGE: Anywhere in Lough.

MAX. SIZE: Any size of vessel can anchor. Max. draft for berthing, 30 ft.

HEALTH: See "Dublin".

RADIO: Malin Head.

TUGS: None required.

BERTHING: No specific requirements.

CRANES: Mobile cranes available. 24 hours notice required.

STEVEDORES: 24 hours ETA required.

MEDICAL: Assistance can be arranged at short notice. Hospital facilities are available at Letterkenny.

FRESH WATER: Available on berth.

FUEL: Different grades available at short notice.

GANGWAY/DECK WATCHMEN: Recommended

OPENING/CLOSING HATCHES: Normally carried out by crew.

CUSTOMS ALLOWANCES: Tobacco, Wine: See "Dublin".

IDENTIFICATION CARDS: Not needed.

CONSULS: None at port.

REPAIRS: Only small repair jobs carried out.

REPATRIATION: Facilities exist.

AIRPORT: 80 miles away, serviced by regular flights.

TIME: GMT plus 1 hour. Reverting to GMT in Winter months.

HOLIDAYS: Work can be arranged on all church and bank holidays.

POLICE/AMBULANCE/FIRE: Police, Rathmullen 074-58113; Fire, Letterkenny 074-21676; Ambulance, Letterkenny 074-22022.

TELEPHONES: No arrangement for placing telephones aboard.

SERVICES: No special services.

AUTHORITY: Harbour Master – Rathmullen.

Donegal County Council, County House, Lifford, Co. Donegal, Ireland. *Tel:* (074) 41066. *Telex:* 42124. *Contact:* T. O'Reilly, County Secretary.

ROSSLARE: 52.16 N. 06.20 W. **(See Plan)**

PORT LIMITS: The limit lines start from a point on shore 4,000 ft. S.E. of viaduct and extend due North for a distance of 6,000 ft. and then due West for a distance of 7,000 ft., thence due South for a distance of 3,430 ft., terminating on shore at a point 3,650 ft. West of existing viaduct.

DOCUMENTS:
- Customs Documents.
- Ships Manifests.
- Crew List.

PILOTAGE: Not compulsory.

ANCHORAGES:

Prohibited Anchorage:	304° – 4.5	cables	from	Lighthouse
Thence	214° – 2	,,	,,	,,
,,	124° – 4.5	,,	,,	,,
,,	034° – 2	,,	,,	,,

No anchorage inside breakwater. Sheltered from Southerly round to North Westerly winds.

Dangers: Shoals with depths of less than 18 ft. extend about 4 cables E.S.E. from head of breakwater. Shoal 18 ft., Southern end of which lies about 0.75 cables Northward of end of breakwater. Southern end of an extensive stony flat, having depths of 13 ft. to 18 ft. lies about 3.5 cables further to N.W. Between these shoals lies several outcrops of 18 ft.–19 ft.

MAX. SIZE: Harbour dredged to depth 6 m. LWOST.

Ro/Ro Berth No. 2: Length overall 152 m. Ro/Ro Berth No. 3: Length overall 171 m. Max. beam 22.86 m.

HEALTH: If no infectious diseases on board, Pratique given by customs on arrival. If from a port within E.E.C. this may be given verbally, otherwise required in writing.

RADIO: Ilfracombe, Lands End Radio and Celtic Radio stations.

VHF: Call sign "Rosslare Harbour Radio" Channel 16. Channels 14, 12 and 6 for further communication when within radio range.

RADAR: Not available.

TUGS: None available.

BERTHING: Berth No. 2 and 3 adjustable. Ro/Ro ramp SWL 50 tonnes. Also see "General".

CRANES: None. Roll-on/Roll-off only.

STEVEDORES: Ordered by Agents. ETA necessary.

MEDICAL: Advance notice required at least one hour. Hospital facilities 12 miles away.

DENSITY: Average 1025.

FRESH WATER: Laid on, delivery by hose. Cost £1.00 per 1,000 gals, or part thereof. Rate 15 – 30 t.p.h.

FUEL: No facilities.

GANGWAY/DECK WATCHMEN: Not compulsory.

OPENING/CLOSING HATCHES: Crew assisted by stevedores.

CUSTOMS ALLOWANCES: Tobacco: 50 grammes per day or (40 cigarettes or 10 cigars). Spirits, 0.25 litres per day. Wine, 0.50 litres per day.

CONSULS: None.

REPAIRS: Rosslare Harbour Ships Repairs. Telephone (053) 33194. Telex: 80675.

REPATRIATION: No facilities.

AIRPORTS: Dublin 110 miles. Cork 134 miles. Waterford 51 miles. Small private airfield Castlebridge, 18 miles.

TIME: GMT plus 1 hour. Reverting to GMT in Winter months.

HOLIDAYS: New Year's Day; St. Patrick's Day (17th March); Easter Monday; June Bank Holiday; August Monday; Christmas Day (25th and 26th December). No work Christmas Days – 25th and 26th December.
POLICE/AMBULANCE/FIRE: Police: Rosslare Harbour 33204; Ambulance: County Hospital, Wexford 22233; Fire: Fire Brigade, Wexford 22618.
TELEPHONES: Operators to arrange with Department of Posts and Telegraphs.
SHORE LEAVE: Crew allowed ashore.
IDENTIFICATION CARDS: Seaman's Book sufficient.
GENERAL: Leading lights for No. 3 berth are fixed red, 120° visible over and arc of 90° from 079° to 169° surmounting yellow diamond shaped daymarks.

Lighthouse on main pier end, 50 ft. flashing W.R.G. every 5 seconds.

New pier built 1980. Overall length 152 m. Berth No. 1 is reserved for future developments. Berth No. 2 in operation, Mardev Linkspan (Ro/Ro). Depth 6 m. LOWST. Light pier end. QK Fl. white. Leading lights occ. white 3 secs. 146°.
DEVELOPMENTS: New car/coach Customs Examination Hall completed 1986.

New terminal building work will be completed in 1989.
AUTHORITY: Coras Iompair Eireann, Heuston Station, Dublin.

Rosslare Harbour, Co. Wrexford, Ireland. *Tel:* (053) 33114. *Telex:* 80730. *Contact:* Captain G. Livingstone, Harbour Master/Port Manager.

SHANNON ESTUARY: (See Plan)

(a) Foynes Harbour: 52.36 N. 09.06 W.
(b) Foynes Island: 52.37 N. 09.07 W.
(c) Tarbert Island Oil Terminal: 52.35 N. 09.21 W.
(d) Money Point Generating Station: 52.36 N. 09.25 W.
(e) Aughinish Island Alumina Plant: 52.38 N. 09.03 W.

(a) FOYNES HARBOUR

DOCUMENTS: See "Limerick".
PILOTAGE: Compulsory from Scattery Island to Foynes Buoys. Pilot may be taken off Kilcredane Head about 9 miles farther West as an optional extra (usually by vessels over 5,000 d.w.t.). ETA for Pilots passed in advance by Agent. Masters may call Pilots (Scattery Pilot Station, Channel 16 VHF) or by normal International Code sight or sound signals. Foynes Harbour Pilot boards at Foynes Buoys. Call Foynes Harbour Radio VHF Channel 16.
ANCHORAGE: Vessels waiting to enter Foynes normally anchor Foynes Roads (West of Foynes Buoys).
RESTRICTIONS: No restrictions by day or night on vessels under 6,000 d.w.t.
MAX. SIZE: Vessels up to 190 m. length and 10.5 m. draft with restriction on beam of 30 m. Ore cargoes of up to 22,000 tons and grain cargoes up to 27,000 tonnes have been loaded and tankers up to 32,000 tons have discharged.
HEALTH: See "Limerick".
RADIO: See "Limerick".
VHF: As for Limerick except for "Limerick Harbour Radio" substitute "Foynes Harbour Radio".
TUGS: 2 × 1,250 h.p. at Foynes Harbour.
BERTHING:

West Pier: 10.5 m. LWOST. 106 m. quay with mooring buoys ahead and astern. For tankers, crude ore (loading by conveyor system) and other cargoes. See "Stevedores".

East Pier: 11.3 m. LWOST. 104.5 m. quay with mooring buoys ahead and astern.

Inner Berth, East Jetty: 6.5 m. LWOST. Length 131.1 m.

East Jetty Extension: 11.3 m. LWOST. 115 m. of quay.

Two other berths where vessels up to 2,000 d.w.t. lie safe aground on soft mud during low water.
CRANES: Four 40 ton mobile cranes are available and controlled by the harbour, other cranes can be hired from local firms if and when required. A local firm based in Foynes has a fleet of 80 forklifts, and 5 Bob-Cats which are also available at the Port. 1 × 15 tonne Nelcon mobile grabbing crane, capable of conversion for general cargo also available.
STEVEDORES: ETA to Agent before 1600 hrs. Monday/Thursday for labour next day 0800 hrs., before 1600 hrs. Friday for labour Saturday or 0800 hrs. Monday. For cargoes other than bulk ore or concentrates in bulk Masters should state number of gangs/workable hatches.

Crude Ore: West Pier Conveyor: 500 t.p.h. loaded normally on continuous basis, day and night, commencing on berthing (16,000 tons in 28 running hours).

Packaged D.B.B.: 120 stds. per gang day (pre-slung).
Packaged D.B.B.: 70 stds. per gang day (shore slings).
Bulk Fertilisers: 1,000 tons per day (mobile grab crane).
Bag Fertilisers: 400 tons per gang day (shore mobile cranes).
Bagged Barytes, bagged cement and other bagged commodity: 400 tons per gang day (ship's gear/mobile crane).

Storage Facilities: 15 acres of open landing ground and 45,000 sq.ft. of covered storage.

Weighbridge: There are 6 modern weighbridges (max. 60 tonnes) located throughout the Harbour Lands, and further weighing facilities will be installed as required.
MEDICAL: Emergency facilities available at short notice locally. Full general hospital facilities at Limerick, 25 miles distant.
DENSITY: Variable on season and tidal conditions between 1008/1020.
FRESH WATER: Available at all berths. Industrial water also available.
FUEL: Available East Pier from adjacent installation.
WATCHMEN: Normally crew watchmen.
HATCHES: See "Limerick".
CUSTOMS ALLOWANCES: See "Limerick".
REPAIRS: Limerick facilities – no dry dock.
REPATRIATION: No difficulties – Shannon Airport 34 miles.
TIME: See "Limerick".
HOLIDAYS: See "Limerick".
POLICE/AMBULANCE/FIRE: Dial 999.
SHORE LEAVE: No restrictions.
SHIP SUPPLY SERVICE: Contact: Ocean Inchape (Ireland) Limited, Aras Ide, Foynes, Co. Limerick.

Offshore Supply Services, Aras Ide, Foynes, Co. Limerick.
Irish Tugs Limited, Yacht Club Building, Cobh, Co. Cork.
Messrs. James Scott & Co. (Shannon) Limited, Hartstonge House, Hartstonge Street, Limerick.
AUTHORITY: Foynes Harbour Trustees, Harbour Office, The Docks, Foynes, Co. Limerick. *Tel:* Foynes (069) 65111 and 061-92380. *Contact:* J. F. O'Malley, Secretary. Captain S. A. Histon, Harbour Master. Tel: (069) 65381, 65244.

(b) FOYNES ISLAND

LOCATION: Cement Limited Oil Jetty is located on N.W. side of island, which is not connected to mainland. Buoyed moorings for tankers up to 60,000 tons (length 950 ft.). Vessels lie alongside breasting dolphins off pipe trestle in 50 ft. min. LWOST. (Berth currently unused due to change over to coal by Cement Ltd.)
DOCUMENTS: See "Limerick".
PILOTAGE: Compulsory from Scattery Island to Foynes Island for all vessels but for vessels over 3,000 n.r.t. it is compulsory from Kilcredaun (otherwise as Limerick). Harbour Master advises vessels over 13.0 m. draft to embark Pilot West of Kilclogher.
ANCHORAGES: Vessels normally wait in Outer Anchorage 2.5 miles – 3.0 miles West of Scattery or at anchor in Cahircon Anchorage N.E. of Foynes Island Jetty waiting daylight early flood tide for berthing.
RESTRICTIONS: None for vessels up to 60,000 d.w.t. subject daylight movements berthing flood tide and departures during flood tide.

Mooring lines required: at least 4×120 fathoms and 6×90 fathoms polypropylene or similar.
MAX. SIZE: Min. depth alongside 50 ft.
RADIO:
VHF: } See "Limerick".
HEALTH:
TUGS: 2 tugs available (36 tons and 22 tons bollard pull). One tug only is usual at this berth.
MEDICAL: No facilities on island. See "Foynes" and "Limerick".
TANKERS: Flexible hoses 2×8 in. passed by derrick from pipe trestle to ship. Connections – PCD 11.75 in., 8 holes.
DENSITY: 1013 (average).
FRESH WATER: None available.
FUEL: None available.
CUSTOMS ALLOWANCES: See "Limerick".
REPAIRS: None except via Foynes or Limerick.
SURVEYORS: See "Limerick".
REPATRIATION: See "Limerick".
TIME: See "Limerick".
HOLIDAYS: As Limerick. Vessels normally discharge without regard to holidays.
TELEPHONES: Shore telephone placed on board for ship's use with cargo hoses. Tel.: 069-65226.
EMERGENCY CO-ORDINATION CENTRE: See "Limerick".
BANKS: See "Limerick".
STORING: Island location. All stores must be conveyed by launch.
SHORE LEAVE: Restricted to daylight hours as launch service only then available. No access to mainland except by launch.
AUTHORITY: Limerick Harbour Commissioners. (See "Limerick").

(c) TARBERT ISLAND OIL TERMINAL

LOCATION: Electricity Supply Board power station and Jetty located on N.W. shore of Tarbert Island (with road access from the mainland) 52.35 N., 09.21 W. Berth 48 ft. draft LWOST, overall length including outer mooring dolphins 1,050 ft. with berthing face of 300 ft.
DOCUMENTS: See "Limerick".
PILOTAGE: Compulsory from Scattery Island to Tarbert for all vessels but for vessels over 3,000 n.r.t. it is compulsory from Kilcredaun (otherwise as Limerick). Harbour Master advises vessels over 13.0 m. draft to embark Pilot West of Kilclogher.
ANCHORAGES: Vessels normally wait 2.5 miles West of Scattery for daylight flood tide for berthing.
RESTRICTIONS: None for vessels up to 70,000-80,000 d.w.t. on suitable draft, berthing daylight flood tide, departure on flood tide in daylight or darkness (subject good weather).
MAX. SIZE: The berth has 48 ft. alongside at low water.
RADIO:
VHF: } See "Limerick"
HEALTH:
TUGS: Available. One tug usually used at this berth.
MEDICAL: No facilities. Nearest doctor at Glin, Co. Limerick (6 miles), See "Limerick".
TANKERS: 2 Marine Arms – 10 in. PCD 14.15/16 in. Outer diam. 16 in., inner diam. 11 in. Holes, 12 of 0.75 in. diam.
DENSITY: 1025, except in very exceptional conditions.
FRESH WATER: Available.
FUEL: No~~ne~~ available. Jetty head approached from shore by footway (4.5 ft. wide×650 ft. long), therefore no direct access to berth from shore for road transport.
WATCHMEN: Watchmen from crew.
CUSTOMS ALLOWANCES: See "Limerick".
REPAIRS: None locally. Nearest Limerick 40 miles distant or Foynes, 7 miles distant. Difficulty of access should be noted.

SURVEYORS: See "Limerick".
REPATRIATION: See "Limerick".
TIME: See "Limerick".
EMERGENCY CO-ORDINATION CENTRE: See "Limerick".
STORING: A narrow viaduct 650 ft. long makes storing impossible from trucks alongside. Small four wheeled hand trolleys are used.
SHORE LEAVE: No restrictions.
TELEPHONES: At jetty head.
AUTHORITY: Limerick Harbour Commissioners. (See "Limerick").

(d) MONEY POINT GENERATING STATION:

LOCATION: On North shore, 3 miles East of Scattery Island. 52° 36′ N. 9° 25′ W.
DOCUMENTS: See "Limerick".
ANCHORAGES: Vessels normally anchor 2.5 miles – 3.0 miles West of Scattery when conditions allow. Vessels over 13.0 m. draft may be required to remain West of Loop Head in very bad weather. For these large vessels Pilots will normally board inside Loop Head.
RESTRICTIONS: Contact Port Control.
PILOTAGE: Compulsory from Scattery. Vessels over 3,000 n.r.t. are required to take a Pilot from Kilcredaun.
MAX. SIZE: 180,000 d.w.t. Max. draft 17 m.
RADIO/VHF/HEALTH: See "Limerick".
TUGS: Available. Number as directed by Harbour Master.
BERTHING: Length of berth 380 m. Depth alongside 25 m.
CARGO GEAR: 2×40 tonne ship unloaders will give a coal discharge rate of 1,500 t.p.h. 1 H.F.O. Marine Arm.
DENSITY: 1025.
FRESH WATER: Available.
FUEL: Available from road tanker.
CUSTOMS ALLOWANCES: See "Limerick".
REPAIRS: Limited repair facilities.
REPATRIATION: See "Limerick".
TIME: See "Limerick".
SHORE LEAVE: No restriction.
TELEPHONE: At jetty.
EMERGENCY CO-ORDINATION: See "Limerick".
STORING: No restrictions provided adequate notice is given to E.S.B. Money Point.
SURVEYORS: See "Limerick".
BANKS: See "Limerick".
AUTHORITY: Limerick Harbour Commissioners (See "Limerick").

(e) AUGHINISH ISLAND ALUMINA PLANT:

LOCATION: On South side of estuary, 2 miles N.E. of Foynes Island. 52° 38′ N. 9° 03′ W.

"L" Shaped Jetty with outer and inner berths. Outer berth: 12 m. draft LWOST, length of jetty head 275 m., plus 68 m. to dolphin.

Inner berth: 11 m. draft LWOST. Berth 230 m. long. Inner berth worked only on flood tide.

DOCUMENTS: See "Limerick".
ANCHORAGES: Vessels normally anchor 2.5 – 3 miles West of Scattery.

Anchorage also at Cahircon opposite Foynes Island if awaiting tide.

PILOTAGE: Compulsory from Scattery. Vessels over 13.0 m. draft are advised to embark Pilot West of Kilclogher.
RESTRICTIONS: Contact Port Control.
MAX. SIZE: Outer berth 70,000 d.w.t. Inner berth 30,000 d.w.t.
RADIO/VHF/HEALTH: See "Limerick".
TUGS: Available. Number as directed by Harbour Master.
CARGO GEAR: *Outer Berth:* 1 Bauxite Unloader (Krupp) 18,000 tons per 24 hr. day. 1 Alumina Loader (Claudius Peters) 24,000 tons per 24hr. day.
Inner Berth: 1 HFO Marine Arm 12 in. connection to 18 in. shore line and 1 Caustic Marine Arm 10 in. to 12 in. shore line.
DENSITY: Average 1013 – varies with tidal and seasonal conditions.
FRESH WATER: Available.
FUEL: Not available in bulk.
CUSTOMS ALLOWANCES: See "Limerick".
REPAIRS: Limited repair facilities.
REPATRIATION: See "Limerick".
TIME: See "Limerick".
SHORE LEAVE: No restriction other than company security controls.
TELEPHONE: At jetty.
EMERGENCY CO-ORDINATION CENTRE: See "Limerick".
STORING: No restrictions provided adequate notice is given by Chandler to Aughinish Alumina (Tel: 061-49488).
SURVEYORS: See "Limerick".
BANKS: See "Limerick".
AUTHORITY: Limerick Harbour Commissioners (See "Limerick").

SLIGO: 54.16 N. 08.28 W.

DOCUMENTS:

Crew List.
Aliens List for other than Irish and British Ships.
Customs Clearance from previous port.
Health Declaration.
Manifest.
Surveys 109 Deck Cargo and 107 for Grain.

PILOTAGE: Tel: 071-73157 for Outside Pilot, Sligo 071-77128 or 071-77111 for Inside Pilot who can be contacted on VHF Channels 12 and 16. Pilot boat has white square stern with small wheelhouse aft. Pilot boards off Raghley Head.
ANCHORAGE: East of Wheat Rock Buoy depth 40 ft.
RESTRICTIONS: Small vessels from half tide to 2 hours after high tide, large vessels near high tide and daylight.
MAX. SIZE: 320 ft. long, breadth not restricted, draft 21 ft. Spring tides, 18 ft. neap tides.
HEALTH: Home trade areas, verbal declaration, all others written declaration. Vessels from Great Britain automatic procedure. Suspected diseases inform Customs Officer or County Medical Officer of Health. Appropriate signals day and night.
RADIO: Malin Head, Wick or Port Patrick Radio.
TUGS: None.
BERTHING: 5 berths available. Length 30 m. – 75 m. Depth alongside 3.0 m. MHWN – 3.5 m. MHWS. 2×14 tonne mobile cranes.
STEVEDORES: 24 hours notice required. Average discharge rate: Coal and timber 150 t.p.h. Fertilisers in bags 2 gangs, 500 tons per 8 hour day.
MEDICAL: Large regional hospital.
DENSITY: 1004, high tide.
FRESH WATER: Available by hose, at 12.5p ton.
FUEL: All grades available.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: By crew.
CERTIFICATES:

Register.
Articles.
Light Dues Certificate.
Derat Certificate.

CUSTOMS ALLOWANCES: (May be changed to metric in near future). Members of crew who remain on a vessel during stay in port allowed to retain, under certain conditions, the following quantities of the undermentioned goods:

Tobacco in any form (to cover 8 days): Master 8 oz. 200; Officers 6 oz. 150; crew members 4 oz. 100.

Spirits in any form (to cover 4 days) 1 pint (1 bottle each). Wine of any strength, allowed in place of spirits at rate of one pint wine to 0.5 pt. spirits. In addition, an allowance of 1 quart of beer or 1 pint of wine per man per day.

Members of a crew of whatever rank finally leaving vessel allowed take ashore, free of duty, for own personal consumption, following quantities of undermentioned goods, when they form whole of their unconsumed stores:

(a) If from ports in Great Britain, Northern Ireland or the Isle of Man, or continental ports between the Elbe and Brest (except vessels crossing at regular and frequent intervals): Tobacco in any form 4 oz. Spirits (ordinary drinkable) 0.25 pint. Spirits (Cordials or perfumed) 0.25 pint.
(b) If from any other port, double the quantities specified at *(a)*.
(c) Irrespective of the port from which arriving.

IDENTIFICATION CARDS: Required.
CONSULS: Netherlands Vice-Consul, Sligo 2622.
REPAIRS: Welding and light repairs.
REPATRIATION: Facilities exist.
AIRPORT: Strandhill, Sligo.
TIME: GMT plus 1 hour. Reverting to GMT between October and March.
HOLIDAYS: St. Patrick's Day (17th March); Easter Monday; Whit Monday (1st Monday in August); Last Monday in October; 25th and 26th December. Not usual to work on any of these days.
POLICE/AMBULANCE/FIRE: Tel: 999.
TELEPHONES: None available for placing on board.
GENERAL: In N.W. gales, shelter available at Killybegs, Donegal Bay. In Southerly gales shelter in Killala Bay.
SHORE LEAVE: Allowed.
AUTHORITY: Sligo Harbour Commissioners, Harbour Office, Custom House Quay, Sligo, Co. Sligo. *Tel:* 071-61197. *Contact:* Secretary.

WATERFORD: 52.15 N. 07.07 W. (See Plan)

DOCUMENTS:

3 Manifests.
1 set Bills of Lading.
1 Crew List (aliens).
1 Ship Stores List.
1 Passenger List.

PILOTAGE: Compulsory. Tel. Address "Waterford Pilots" 24 hours ETA if possible. Tel. Dunmore East 83119. VHF call sign "Waterford Pilots". Channel 16 calling up, Channel 14 working.

Pilot boat black hull with words "Pilots" in white on sides. Location off Dunmore East Pier.

In event bad weather a vessel is directed to Passage East by VHF where a Pilot will board in smooth water.

ANCHORAGE: Good anchorage on Eastern Shore at entrance to Harbour in Easterly winds. 30 ft. LWOST.
RESTRICTIONS: Draft restricted by 2 bars. At Duncannon, a sand bar with a low water depth of 14.5 ft. The other at Cheekpoint with low water depth 11.5 ft.

Vessels of deeper draft await tide at Dunmore East Anchorage.

MAX. SIZE: 450 ft. LOA normally; 475 ft. LOA by arrangement. Draft 22 ft. neap tides; 24 ft. spring tides. 5,000/7,000 d.w.t. or 10,000 d.w.t. partly laden.
HEALTH: Vessels fly "Q" flag, pratique given by Customs. Infectious diseases to be notified to Agent before arrival.
RADIO: Messages through Land's End or Valentia Radio Stations.
VHF: Harbour Commissioners have VHF station at Dunmore East, Channel 16 for calling, Channels 12 and 14 for working. A watch is kept at the station during daylight hours and when a vessel is expected.

The geographical position of the R.T. Station is: Latitude 52° 08′ 45″ North. Longitude 6° 59′ 30″ West.

TUGS: No tugs available.
BERTHING:

Jetties	Length		Approx. Depth LWOST		Cargo Handling facilities	Remarks
	(m.)	(ft.)	(m.)	(ft.)		
North Side						
National Board & Paper Mills	45.7	150	6.09	20	Bulk oil discharge	Private
Nos. 1, 2 and 3 Berths	300	984	6.91	22′ 8″	2×3-ton elec. portal cranes	Public W.H.C.
No. 1	106.7	350				
No. 2	71.3	234				
No. 3	121.9	400				
Hall's	79.2	260	7.62	25	Grain elevators. Storage capacity of 25,000 tons	Private 200 t.p.h.
North Side (New Wharves):						
Frank Cassin Wharf (Container Wharf)	222.5	730	6.85	22′ 6″	2 at 35-ton gantry container cranes	W.H.C. Private backed by Container Compound
New Extension	55	180	6.85	22′ 6″		
New Container Berth No. 5	100.5	330	7.82	25′ 8″		W.H.C. Public backed by Container Compound
No. 4 Berth	139	456	7.82	25′ 8″	1×3 ton elec. portal crane	W.H.C. General
South Side:						
Forde Wharf	91.4	300	6.91	22′ 8″		W.H.C. Public
Clyde	243.3	800	5.18	17	1 at 25-ton electric derrick	W.H.C. Public backed by Container Compound
Adelphi Quay	74	243	5.48	18		W.H.C. Public backed by Container Compound

Also various Pontoons, etc., for Livestock loading.

There are various other cranes – 10 ton mobiles, forklifts, travel-lifts up to 28 tons, etc., available.

BRIDGES: Times of passing through Rice and Suir Bridge for National Board and Paper Mills Berth and for vessels proceeding upriver to Fiddown, to be arranged by Ship's Agent.
STEVEDORES: Agent arranges discharge upon receipt of ETA.
Grain discharge: 2,400 tonnes per day (300 t.p.h.).
Coal discharge: 600 tons per gang per day.
Sugar discharge: 800 tons per gang per shift of 8 hours.
Fertiliser discharge: 400 tons per gang per day.
Timber discharge: 30 standards per gang per day.
MEDICAL: Hospital and ambulance available. Arrangements made by ship's Agent.
TANKERS: Great Island Jetty, used by Electricity Supply Board. Max. design size 20,000 d.w.t. However approach channel of river and Duncannon Bar not yet dredged for this size.
DENSITY: 1008 at LWOST.
FRESH WATER: Available by hose 15 t.p.h.
FUEL: Supplies available by road tanker.
GANGWAY/DECK WATCHMEN: Day watchmen not necessary. Night watchmen at Master's request.
OPENING/CLOSING HATCHES: By crew.
CERTIFICATES:
Register.
Freeboard Certificate.
Tonnage Certificate.
Derat Certificate.
Radio Certificate.
Life-saving Appliance Certificate, etc.
CUSTOMS ALLOWANCES: Tobacco: Master 1 oz./days voyage, Officers 0.75 oz./day, Crew 0.5 oz./day. Spirits: 0.25 pint/man/days voyage.
CARGO GEAR: Not beyond ordinary Factory Act requirements.
IDENTIFICATION CARDS: Not needed.
CONSULS: Belgium and Netherlands: Mr. D. Hannigan, Bell Lines Ltd., Tel. 051-77021.
Spain – Mr. I. Farrell, c/o Nolan, Farrell & Goff, Newtown, Waterford, Tel. 72934.
France – Mrs. Sylvia Murphy, Dunmore East. Tel. 051-83416.
REPAIRS: Minor repairs.
DRY DOCKS: No dry docks available.
REPATRIATION: Facilities exist.
AIRPORT: Waterford 5 miles, Dublin 100 miles, Cork 75 miles, Shannon 75 miles. Served by regular airlines.
TIME: GMT plus 1 hour. Reverting to GMT in Winter months.
HOLIDAYS: St. Patrick's Day; Easter Monday; August Bank Holiday; December 25th and December 26th.
POLICE/AMBULANCE/FIRE: Police 74888; Ambulance 73321; Brigade 75555.
TELEPHONES: None available for placing on board.
SHORE LEAVE: Allowed.
DEVELOPMENTS: Consideration being given to deepening the approach channel. The extension of the deep-water berths will have 25 ft. 8 in. alongside at LWST.
AUTHORITY: Waterford Harbour Commissioners, Harbour Office, George's Street, Waterford, Ireland. *Tel:* 051-74907/8. *FAX:* 051-74908. *Contact:* M. F. McQuillan, General Manager. Captain J. A. O'Connor, Harbour Master.

WICKLOW: 52.59 N. 06.02 W.

PORT LIMITS: The seaward limits of the harbour are defined by a line drawn across the harbour entrance.
DOCUMENTS: Usual documents for Irish ports.
PILOTAGE: Pilotage is not compulsory. Should a Pilot be required, arrangements can be made through the Agent or the Harbour Office.
ANCHORAGES: A safe anchorage can be found anywhere in Wicklow Bay, except in N.E. or Easterly gales. A good anchorage can be found about 1 mile off the harbour entrance.
RESTRICTIONS: Deep draft vessels must dock at HW (see "Berthing"). Deep draft vessels lie safely aground at LW, the bottom consisting of soft mud.
MAX. SIZE: Max. length 91 m., max. draft 5 m.
HEALTH: See "Dublin".
RADIO: Anglesey Radio.
VHF: Calling – Channel 16, Working – Channel 14. Channels 2, 6, 7, 8, 26, 27 and 28 are also available.
Reception of port VHF only extends to about 10 miles offshore in a Northerly and Easterly direction and to about 4 miles offshore in a Southerly direction due to the signals being blocked by Wicklow Head. It is hoped to overcome these restrictions in the near future by raising the height of the aerial.
RADAR: No Port Radar.
TUGS: None.
BERTHING:
East Pier: 91 m. long, depths HW 5.2 m., LW 3.1 m. Not often used as the pier is exposed to North-Easterly winds and is only 7.3 m. wide.
Packet Pier: 93 m. long, depths HW 5.2 m., LW 3.1 m. Most used berth. Timber, bulk cement and bulk cargoes generally worked here.
North Quay: 130.1 m. long, depths HW 4.7 m., LW 2.8 m. Paper is worked at Northern end and the Southern end is in general use.
South Quay: 126.22 m. long, depths HW 4.9 m., LW 3.0 m. This quay is used for the export of woodchips in bulk.
CRANES: Mobile cranes are hired from local firms by stevedores or Agents. Max. lifting capacity is about 8 to 10 tonnes. For heavier lifts Agents or stevedores should be consulted.
BULK CARGO: Usually worked at East Pier or Packet Pier.
SPECIALISED CARGO-HANDLING FACILITIES: For bulk cement only.
BRIDGES: None.
STEVEDORES: Working hours 0800 – 1700 hrs. Overtime worked when required.
MEDICAL: Full medical facilities available. It is desirable if possible to give advance notice of any medical attention that may be required.
TANKERS: There are no tanker berths.
DENSITY: Varies between 1012 at LW to 1025 at HW.
FRESH WATER: Available at all quays.
FUEL: Gas oil is readily available and is brought to the ships' side by road tanker. Other types of fuel would need to be specially ordered.
FIRE PRECAUTIONS: Normal precautions only.
CONSULS: Nearest at Dublin.
REPAIRS: Only small repairs can be carried out.
DRY DOCKS: None.
SURVEYORS: Cargo surveyors can be contacted at Dublin or locally if necessary.
Lloyds' Register of Shipping, 2 Lower O'Connell Street, Dublin 1.
GANGWAY/DECK WATCHMEN: Not necessary.
HATCHES: Operated by vessel's crew.
CUSTOMS ALLOWANCES: As per European Economic Community (E.E.C.) Regulations.
CARGO GEAR: Shore cranes or vessel's gear may be used.
REPATRIATION: Arranged by Agents.
AIRPORT: Dublin, 40 miles away.
TIME: GMT, Summertime GMT plus 1 hour (March – October).
HOLIDAYS: See "Dublin".
POLICE/AMBULANCE/FIRE: Dial 999 or Police Tel: 2107/2287, Ambulance Tel: 2108, Fire Tel: 2371, Harbour Office Tel: 2455.
TELEPHONES: No facilities for placing telephones on board ship.
SERVICES: By contacting the ship's Agent all services are available. There is a waste oil disposal service. Nearly all services like radio and radar repairs, nautical publications, etc. are supplied from Dublin.
BANKS: Bank of Ireland Ltd., Main Street, Wicklow. Tel: 0404-2376. Allied Irish Banks Ltd., Abbey Street, Wicklow. Tel: 0404-2311 and 2051.
STORING: See "Prelims".
1. Stored by Truck.
2. Barge storing at Harbour Master's discretion.
3. Trucks can proceed alongside the vessel.
4. Fork lift trucks can be used.
5. Normal Customs Regulations in Ireland. Consult local Officer.
6. Local people can be employed.

SHORE LEAVE: Permitted.
IDENTIFICATION CARDS: Seaman's book is sufficient.
DELAYS: Tide restrictions only.
SHIP SUPPLY SERVICE: Contact: R. F. Conway & Co. Ltd., North Quay, Wicklow: Tel: (0404) 2210/2019. Telex: 25719. Telegram: Conway, Wicklow.
AUTHORITY: Wicklow Harbour Commissioners, North Quay, Wicklow, Co. Wicklow, Ireland. *Tel:* 0404-67455, 69466. *Contact:* Captain R. F. Flood, Harbour Master and Secretary.

Israel

GENERAL:

All vessels bound for the ports of Haifa, Ashdod and Ashkelon have to send a position report when they arrive at a distance of 50 miles from the Israeli coast. Such position reports shall be sent to "SVC IMOT" and shall contain the following information: (a) Date and time; (b) Ship's name; (c) Position; (d) Course; (e) Speed; (f) Destination.

ASHDOD (Inc. Ashkelon): 31.49 N. 34.39 E. (See Plan)

DOCUMENTS:

3 Crew Lists, and Crew Passports or Seamen's Books.
1 Provisions List.
1 List of Articles in possession each Crew member – cameras, binoculars, radios, cigarettes, tobacco, etc.
Master to declare firearms and rounds of ammunition.
4 Passenger Lists.
Stowage Plan and Manifest to be mailed in advance, preferable Master to cable 72 and 48 hours before arrival holds workable and gangs required also draft forward and aft on arrival.

PILOTAGE: ETA through Haifa Radio 4XO addressed to Agent at least 12 hours before arrival. Pilot station and boat equipped VHF Channel 14 and 16 contact station for instructions. Pilot boards about 0.5 miles off port entrance between W. to N.W. from breakwater head (green light).

In bad weather, when boarding impossible, vessel is guided into harbour by VHF or tugboat waiting at entrance, at Master's consent.

Pilot ladder as per Safety of Life at Sea. Vessel should head about 4 points off the wind. Recommended 2 life-lines running along ladder, 1 each side, ropes 2.5 in. – 3 in. circumference.

ANCHORAGE: All area open sea, no recommended safe anchorage, but vessel should avoid anchorage near fairway and too close to oil installation buoys.

Masters are advised to keep the decks well lit in view of the strong lights ashore which may cause the anchor lights to be seen with difficulty by approaching vessels.

Vessels moored to the breakwaters shall have their anchor lights burning.

RESTRICTIONS: Pilotage available 24 hours. Enter according arrival time or berths available. Vessels at anchorage awaiting berth keep watch Channels 14 and 16.

MAX. SIZE: Draft limitations at Bulk Pier: Summer, 12.50 m. Winter, 12.00 m. Draft limitations at other piers: 9.8 m. No. limits length or breadth. Also see "Tankers".

HEALTH: Free pratique is requested via Haifa, address, "Quarantine Haifa".

RADIO: Haifa Radio 4XO, also see "Haifa".

TUGS: 1 of 1,500 h.p., 1 of 1,000 h.p. and 1 of 2,800 h.p. Each charge included in pilotage charge for normal berthing attendance. Tugs wait at port entrance and act on Pilot's instructions. Vessel's lines are requested.

BERTHING: Container terminal with 2 gantry cranes.

TANKERS: Terminal situated at Ashkelon where tankers load crude oil by under-water pipe-lines. Size of vessel is unlimited due to the depth of water. The loading rate is about 30,000 tons in 12 hours. All services such as supply of bunkers, provisions, water, crew changes, must be carried out at Ashdod roadstead where health and immigration officials board. Vessels not requiring any services at Ashdod may call directly at Ashkelon, only paying light dues and anchorage dues.

FRESH WATER: Fresh water supplied by hydrants at 220 t.p.h.

FUEL: Supplied by trucks, or supplied by special barges. 24 hours advance notice required.

CONSULS: All Consulates in Tel-Aviv approx. 40 km. Available by telephone.

REPAIRS: No dock, but minor repairs effected.

GANGWAY/DECK WATCHMEN: Private companies supply gangway watchmen, obtainable through Agent.

OPENING/CLOSING HATCHES: Performed by stevedores. Mechanical hatch covers operated by crew.

CUSTOMS ALLOWANCES: 200 cigarettes, 1 open bottle of spirits per person.

IDENTITY CARDS: Issued by port police on arrival.

TIME: Local standard time is 2 hours ahead of GMT.

AIRPORT: Lod Airport, served by regular airlines, distance 35 km.

HOLIDAYS: Port business is suspended on the following holidays: Saturdays; The 2 days of the Jewish New Year (Rosh Hashana); The Day of Atonement (Yom Kippur); The first and the last day of the Feast of Tabernacles (Sucot); The first and the last day of Passover (Pesah); Pentecost (Shavuot); Independence Day. The first of May is observed by the port workers as Labour Holiday and therefore no work is done in the port on that day.

POLICE/AMBULANCE/FIRE: Police, Ambulance, Fire Services, telephone 22222.

REGULATIONS:

Stand-by for Moving Vessels: The Master or person for the time being having charge of a vessel shall ensure that adequate officers and crew are available and that the main propelling machinery of the vessel is maintained for moving the vessel at 1 hour's notice.

No vessel may drop steam, dismantle engine or otherwise interfere with the propelling power of the vessel, nor may the vessel be left unattended by responsible officers and crew unless permission to do so is first obtained in writing from the Harbour Master.

Photography: Photography in the Port Area is strictly forbidden without a written permit issued by the Security Officer of the Port.

Swimming: Swimming in Ashdod Harbour is strictly forbidden and Masters should instruct their crews accordingly.

Use of Ship's Boats: The use of ship's boats is forbidden in Ashdod Port. Launch service is available for the convenience of ship's personnel.

Shore Leave: Shore leave passes are obtainable at the Frontier Control Section of the Port Police Station. Applications for the passes shall be filed with the Boarding Officer, Port Police.

All breakwaters are out of bounds to crews of merchant vessels.

SHIPMASTER'S REPORT: 1978.

Pilotage: Compulsory. Pilot boards off the breakwater. Pilot requires 1 hours notice of vessels arrival.

Anchorage: Outside breakwater.

Restrictions: Vessels able to berth and unberth at any stage of the tide day or night.

Health: Radio pratique possible. Quarantine officials require 12 hours and 24 hours notice of vessel's arrival.

Radio: Haifa Radio.

VHF: Channels 16, 12 and 14. Pilot and Port Authority use Channel 14.

Tugs: Tugs available and are used depending on berth.

Berthing: Vessel berthed at Berth No. 4/190. Exact location is No. 1 North pier. Conditions at the berth poor due to swell and undercurrent. Nature of the bottom sand/mud. Bulk handling facilities for handling phosphate available in the port. There are 30 quay cranes available. Ro/Ro facilities available. There is ample mechanical equipment for handling of palletised cargoes. There is also adequate storage space for breakbulk and palletised cargoes. There are 3 gantry cranes available for handling containers, also ample storage space for containers. Accommodation ladder required.

Density: 1025.

Identification Cards: Crew members to have passport photograph for landing pass (this is best carried out at previous port).

Services Available: Fresh water, fresh provisions, repair facilities, machine shop, Lloyd's Surveyor, Salvage Surveyor, laundry services, bunker fuel oil, diesel oil, lubricating oil, doctor and hospital, groceries and meats.

SHIPMASTER'S REPORT: 1979.

Documents:

1 Police Condition Slip
1 Customs Condition Slip
3 Crew Lists
1 List Ship's Stores and Bond

Pilotage: Compulsory. Pilot boards 0.5 miles from breakwater.

Restrictions: Vessels may berth and unberth at any stage of the tide day or night.

Health: 24 hours before arrival request radio pratique from "Quarantine Haifa".

Radio: Haifa 4X0.

VHF: Pilot and Port Authority on Channels 16 and 14.

Tugs: 3 tugs available 1×3,000 h.p., 1×1,500 h.p., 1×1,000 h.p. The use of tugs depends on which berth used and also which direction the vessel will be heading.

Berthing: North Quay: Berths 101, 102, 103: berths located just inside the breakwater, max. draft permitted 10 m., density alongside 1029. Accommodation ladder required.

Bulk Handling Facilities: Phosphate loading facilities available.

Cranes: 9×30 tons at 15 m. (15 tons at 25 m.).
9× 8 tons at 15 m. (4 tons at 25 m.).
Ample mobile cranes available.

Special Cargo Handling Facilities: Ro/Ro facilities available. 3 container gantries available. Ample storage space for breakbulk cargoes, palletised cargoes and containers.

Stevedores: Labour normally refuses to rig derricks or handle hatches.

Working Hours: Sunday to Thursday (inclusive):
First Shift 0630 and 1400 hrs.
Second Shift 1500 and 2145 hrs.
Friday: First Shift 0630 to 1300 hrs.
Second Shift 1300 to 1530 hrs.
Saturday — No work.

Services Available: Fresh water, fresh provisions, repair facilities, machine shop, Lloyd's Surveyor (from Haifa), Salvage Surveyor (from Haifa), laundry services, bunker fuel oil, diesel oil, lubricating oil, doctor and hospital, groceries and meats. Nearest airport is at Tel-Aviv.

AUTHORITY: Israel Ports Authority, Port of Ashdod, P.O.Box 9001, Ashdod, 77191 Israel. *Tel:* 5528280, 5521106. *Telex:* 371818. *FAX:* 5524956. *Cables:* Ashnam – Ashdod. *Contact:* Harbour Master.

AGENT: Carmel Shipping Ltd., Port Area, Block 9, P.O.Box 4020, Ashdod, Israel. Tel: 08-524811, 08-521334, 08-531022. Telex: 381183 Cisas IL. Fax: 08-531213. Cables: "Carmelship Haifa".

EILAT (Elath): 29.32 N. 34.57 E. (See Plan)

DOCUMENTS:

For Customs:
Customs Questionnaire, Crew Customs Declaration, Stores List, Crew List, Passengers List, Foreign Currency List, Narcotics List, Arms List, Import Cargo Manifest, Transit Cargo Manifest.

For Quarantine:
International Quarantine message may be sent, addressed "Quarantine Haifa" via Haifa Radio (4XO), to obtain Free Pratique. Maritime Declaration of Health.

For Border Control (Immigration):
1 Police Questionnaire, 2 Crew Lists, 2 Passenger Lists, Seamen's Books and travelling documents of passengers.

PILOTAGE: Compulsory, ordered through Agent. When unable to contact Agent, Pilot can be ordered by contacting Harbour Master by Haifa Radio, or by VHF Channel 14. Vessel due to berth awaits opposite oil installations located approximately 2.5 cables South of the main jetty. Vessels requesting Pilot for anchoring stop opposite the North end of the main jetty. Tankers waiting Pilot for oil installations to stop 0.5 miles South of oil installations. Pilot motor launch, red hull, buff superstructure amidships stationed at North end of main jetty. Pilot ladder complying with all safety regulations and properly lighted during dark hours is necessary. Vessels awaiting Pilot should anchor only in designated area.

ANCHORAGES: Boundaries of area marked by lines connecting following positions;

(A)	Lat. 29° 32′ 51″ N.,	Long. 34° 57′ 19″ E.
(B)	Lat. 29° 32′ 26″ N.,	Long. 34° 58′ 34″ E.
(C)	Lat. 29° 31′ 40″ N.,	Long. 34° 58′ 27″ E.
(D)	Lat. 29° 32′ 31″ N.,	Long. 34° 57′ 06″ E.

Average depth 25 fathoms. If arriving at port for first time, do not try anchoring anywhere outside anchoring area.

Anchorage positions will be alloted by Port Control – call sign "Yamit" on VHF Channel 14.

Anchorage Positions:

(1)	Lat. 29° 32.62′ N.,	Long. 34° 57.37′ E.
(2)	Lat. 29° 32.49′ N.,	Long. 34° 57.64′ E.
(3)	Lat. 29° 32.37′ N.,	Long. 34° 57.97′ E.
(4)	Lat. 29° 32.25′ N.,	Long. 34° 58.31′ E.
(5)	Lat. 29° 32.37′ N.,	Long. 34° 57.34′ E.
(6)	Lat. 29° 32.17′ N.,	Long. 34° 57.70′ E.
(7)	Lat. 29° 32.06′ N.,	Long. 34° 58.04′ E.
(8)	Lat. 29° 31.96′ N.,	Long. 34° 58.37′ E.
(9)	Lat. 29° 32.22′ N.,	Long. 34° 57.02′ E.
(10)	Lat. 29° 32.02′ N.,	Long. 34° 57.29′ E.
(11)	Lat. 29° 31.82′ N.,	Long. 34° 57.65′ E.
(12)	Lat. 29° 31.69′ N.,	Long. 34° 58.06′ E.

MAX. SIZE: For berthing alongside main cargo jetty, length 528 m., max. draft up to 11.9 m. Vessels are allowed to load to 12.1 m. draft and sail on high tide.

Additional cargo jetty length 170 m., max. draft up to 6.1 m.

North Oil Jetty accommodates tankers up to 125,000 d.w.t. with draft of 17.1 m.

South Oil Jetty can accommodate tankers up to 500,000 d.w.t. Depth of water alongside 28.6 m.

HEALTH: Free Pratique may be requested by cable via Haifa Radio from Quarantine Authorities. If suspected disease or fever on board immediately advise Quarantine Eilat with all details.

RADIO: Communication via Haifa Radio 4XO. Full details working hours and frequencies found in "Admiralty List Radio Signals" and similar publications. Good radio connection with Eilat can be obtained also via Haifa Radio, call sign 4XO, operating continuously.

TUGS: Tugs meet vessel off quay. Lines not usually used as tugs usually push. When needed, ship's lines used. 1 tug 2,750 h.p., 1 tug 960 h.p., 1 tug 280 h.p. and 2 boats 220 h.p. each.

BERTHING: No difficulty except at times of strong Southerly winds when small vessels may have to leave quay and proceed to anchorage or sea, due to strong swell.

BULK HANDLING FACILITIES: Bulk elevator for bulk loading (Phosphate & Potash) capacity 800 m.t.p.h.

Storage Area:

Sheds – 17,000 sq.m.
Open storage – 55,000 sq.m.
Cold storage warehouse – 500 tons.
Bulk potash shed – 80,000 tons.
Phosphate bulk shed – 35,000 tons (3,300 sq.m.)

CRANES: 1 electric driven crane S.W.L. 50 tonnes. 1 electric driven crane S.W.L. 35 tonnes. 4 electric driven cranes S.W.L. 25 tonnes, when coupled S.W.L. 48 tonnes per couple. 1 diesel/electric driven crane S.W.L. 15 tonnes. 1 diesel driven crane S.W.L. 60 – 80 tonnes. 6 diesel driven cranes S.W.L. 7 – 13 tonnes.

Port is fully equipped for container handling. Container traffic exceeds 39,500 TEU's.

STEVEDORES: Booked by ship's Agent. All details of cargo distribution and storage to be cabled in advance to Agent.

Port Working Hours:

Summer: (May 16th – October 15th)
Sunday – Thursday 0530 – 1330 and 1600 – 2300 hrs.
Friday 0530 – 1230 and 1400 – 2000 hrs.
Winter: (October 16th – May 15th)
Sunday – Thursday 0600 – 1400 and 1530 – 2230 hrs.
Friday 0630 – 1300 and 1400 – 2000 hrs.

MEDICAL: Hospital facilities available.

DENSITY: 1028 (Winter), 1030 (Summer).

FRESH WATER: Available in unlimited quantities and supplied at all jetties. No facilities for supplying fresh water at anchorage.

FUEL: All grades supplied in any quantity by barge.

OPENING/CLOSING HATCHES: Normally by stevedores.

CUSTOMS ALLOWANCES: Every Crew member is permitted to keep 200 cigarettes or equivalent amount of other tobacco, out of bond. Every crew member is permitted to keep 1 bottle of spirits and 1 bottle of wine, out of bond.

IDENTIFICATION CARDS: Every crew member going ashore should have a shore leave pass. Shore leave passes will be received from the border control officer after the vessel is cleared.

CONSULS: There are no consulates in Eilat. All consulates are in Jerusalem or in Tel-Aviv.

REPAIRS: All afloat deck and engine repairs can be performed by local workshops.

DRY DOCKS: Syncrolift with lifting capacity of 1,200 tons.

REPATRIATION: There are facilities for arranging repatriation or crew changes.

AIRPORT: Eilat Airport is used at present for internal traffic only. There are 8 flights daily from Eilat to Tel-Aviv except on Saturdays. From Tel-Aviv there is good transportation to Lod International Airport.

TIME: Local time is GMT plus 2 hours. Summertime, GMT plus 3 hours (April–September).

HOLIDAYS: No cargo work is usually performed during official holidays or Saturdays. The official holidays are: Passover (2 days during April); Independence Day (1 day end April/beginning May); First Harvest Day (1 day end May/beginning June); Jewish New Year (2 days, September); Day of Atonement (1 day end September); Feast of Tabernacles (2 days, October). No cargo work is usually performed during 1st of May although it is not an official holiday.

TELEPHONES: At present there are no facilities to arrange telephones on board ships.

TELEPHONE NUMBERS:

Eilat Port Management	059-72191/8
Harbour Master	059-71319 (office) 059-76868 (after office)
Oil Pipe-line	059-76171
Immigration	059-72590
Hospital	059-73151

SHORE LEAVE: Crew members are granted shore leave.

DELAYS: Normally vessels arriving after midnight are berthed only at daybreak, before the beginning of the morning shift.

GENERAL: Meteorological: Weather warnings if any are issued and delivered to vessels upon receipt.

REGULATIONS: Booklet containing port regulations placed onboard all vessels on first arrival and must be adhered to.

AUTHORITY: Israel Port Authority, Port of Eilat, P.O.Box 37, Eilat, Israel. *Telex:* 07721. *Cables:* Namsuf Eilat. *Contact:* D. Segal, Port Manager – Tel: (office) 059-72916, (home) 059-72387. Captain P. Earon, Acting Harbour Master.

AGENT: Carmel Shipping Ltd., P.O.Box 1015, Haifa 31009, Israel. Tel: 04-530041-2, 04-523293. Telex: 46550 Carml IL, 46821 Carml IL. Fax: 515886. Cables: "Carmelship Haifa".

HADERA: 32.28 N. 34.53 E. (See Plan)

LOCATION: About half-way between Haifa and Tel-Aviv. The terminal is used for the importation of coal for the adjacent power station.

PILOTAGE: Compulsory. Also see "General".

ANCHORAGE: See "General".

APPROACHES: *Lights and Shore Features:* The 2 Power Station Buildings which are about 80 m. high, the twin chimneys which are 254 m. high and the pier with its 2 gantry cranes are very outstanding features on the otherwise rather flat coast. The pier is a very conspicuous radar target.

A vessel approaching in darkness will be able to distinguish the port by the set of red and white lights on the chimneys, and a fixed red light at the Western extremity of the pier. The Mount Carmel Light and Mikhomoret Light will also be in sight.

There are red and green flashing lights at the entrance to the cooling-water basin, and a flashing white light on the North-Westerly buoy of the multi-buoy installation.

VHF: VHF radio installed to communicate with ships, tugs and other craft on matters relating to the port's operation.

TUGS: 2 tugs, about 40 tons pull each, with fire-fighting equipment 2 boats function as mooring, passenger and pilot boats.

BERTHING: The port's installations consist of:

1. An off-shore coal unloading terminal consisting of a pier (300 m.×24 m.) which is constructed 1.8 km. from the Shore Line. It is connected to the shore by an approach jetty on piles.

Minimum water depth at the pier – 20 m. It is designed for ships of up to 180,000 d.w.t.

The height of the pier above MSL is 14 m. There are 11 breasting and mooring dolphins along its North side, their height above the sea is 4.5 m. Quick-release hooks installed where applicable.

Ships are moored to the North side of the pier with their bow to seaward.

Discharging the ship's cargo is done by 2×35 ton gantry cranes.

2. A cooling water basin for the supply of sea water to the station condensers is also used by the port's craft. The water's depth in the navigable area is 5 m.

MEDICAL: First aid is given at the Regional Hospital at Hadera.

TANKERS: There is a fuel oil unloading terminal, about 1.5 km. North of the coal pier, where tankers are made fast to a multi-buoy system and fuel is pumped ashore through a 32 in. submarine pipe-line. Water depth is 18 m. and ships of 70,000 d.w.t. can be accommodated.

FRESH WATER: Available to the pier.

FUEL: Arranged by Agent.

REPAIRS: Arranged by Agent.

STORES: Arranged by Agent.

GENERAL: *Instructions to Ships' Masters:*

1. Please keep the port informed of your ETA, any changes in your original notice should be communicated to your Agent.

2. Your VHF Channels 16 and 10 should be used for radio contact with the port when approaching and when your ship is anchored.

3. The Pilot will prefer to board your vessel when in a position 1 mile North of the jetty, and bow Southward; the same position is also the best for anchoring if your ship does not berth on arrival.

4. Your pilot ladder should be as directed by IMO Regulations, properly cleaned and secured.

5. Due to the exposed position of the berth, constant and thorough attention to the mooring lines should be carried out. Generally the moorings will consist of:

A. Forward:
- 4 Head Lines.
- 2 Breast Lines.
- 2 Springs.

B. Aft:
- 4 Stern Lines.
- 2 Breast Lines.
- 2 Springs.

All head and stern lines must be fibre ropes-polypropylene or others. Breast lines and springs, if not made of fibre must have fibre tails, 15 m. – 20 m. long. Starboard anchor with about 8 shackles will also be used.

6. When the ship is moored to the jetty.
- (a) Main engines, steering, windlasses etc., should be in working order. Any fault or damage to be repaired immediately and the port to be informed.
- (b) The ship shall always have sufficient officers and crew onboard so as to be able to leave the jetty in an emergency.
- (c) Mooring lines should be continuously checked for wear, load distribution, etc., and any irregularity tended to.
- (d) All ballast tanks, including holds designed for water ballast, to be filled as soon as possible. Cargo holds into which water ballast will be pumped should be the first to be emptied of cargo.
- (e) The vessel to keep herself informed on expected weather conditions.
- (f) Constant – tension winches should not be in operation for head and stern leading lines simultaneously.
- (g) Do not change your mooring lines nor re-arrange them, unless the Duty Pilot is consulted.

7. Oily water should not be pumped, nor garbage be thrown overboard.

For ships that have to pump out oily water of any source, there is a reception tank and a separator on the jetty.

Ship's garbage should be put in plastic bags and loaded into a supplied container.

8. You have to get permission before doing:
- (a) Welding work, anywhere on the ship.
- (b) Diving work at the ship's hull.
- (c) Lifeboat exercises.

9. The ship has to inform the Port immediately about any accident, fire, explosion, leakage etc. on or near the ship.

10. The above instruction to Masters are based on the Ports' Ordinance and Regulations, issued by the Israeli Ministry of Transport.

SHIPMASTER'S REPORT: December 1982 (Updated 1986).

Documents: See "Haifa".
Pilotage: Compulsory. Pilot joins vessel approximately 1 mile off jetty.
Anchorage: Recommended approximately 1 mile 345° of end of jetty.
Max. Size: 200,000 d.w.t. Least depth of water alongside 20.0 m.
Radio: See "Haifa".
VHF: Continuous watch on Channels 16 and 10, working on Channel 10.
Health: See "Haifa".
Tugs: Two available, 4,000 h.p. (approx.).
Berthing: Ships moor port side alongside, head out to sea.
Bulk Handling: Coal: 2 large overhead gantry cranes with grabs of approximately 20 tonnes capacity having an outreach of approximately 40 m. and at present discharge coal by endless conveyor belt system, rate approximately 28,000 tons per day. During 1985, 3 million tons were discharged from 22 vessels.
Tankers: There is a tanker mooring consisting of six buoys and an underwater pick up/discharge point close North of the jetty.
Density: 1030.
Medical: Facilities available, via Tel Aviv or Haifa.
Fresh Water: Laid onto jetty. Ship to supply own connections and hoses.
Fuel: Available via lighter from Haifa. Small quantities can be delivered by truck.
Repairs: Limited, via Haifa.
Surveyors: Cargo inspectors and surveyors of most associations available, arrangements via Agent.
Stevedores: 24 hours per day except Saturdays and holidays.
Gangway Watchmen: Not required. Very strict watch kept at installation gates.
Opening/Closing Hatches: Mechanical hatches by crew.
Customs: See "Haifa".
Identity Cards: See "Haifa".
Airport: Tel Aviv Airport approximately 50 km.
Holidays: Same as "Haifa".
Shore Leave: See "Haifa".
General: All ships proceeding to Israeli ports report as per "Admiralty List of Radio Signals" Vol. 6, Part II, Page 320 and "Guide to Port Entry".

Documents, etc. as for Haifa, from which Port Immigration/Customs/Police etc. cover Hadera. Vessel will be cleared at anchor on arrival if berth is already occupied.

Hadera is a new port constructed to serve a new power station in position Lat. 32° 28′ 08″ N., Long. 34° 53′ 10″ E. Two conspicuous grey cement chimneys, with red lights at night together with the power station and a jetty extending a mile out to sea make the place easy to identify. No difficulties in the approaches. The port has been in operation since April 1982. First vessels being discharged at anchor by derrick barge, but since September has been accepting vessels alongside the new jetty extending 1 mile out to sea into deep water. There is a new small boat harbour on the North side at the root of the jetty, equipped with quay and cranes.

Berthing, approach jetty from the North, letting go starboard anchor when approximately 1 cable off to assist in swinging and for heaving off when sailing. Two tugs used for berthing, they are based in the small boat harbour, only one used when sailing. Use tug's ropes.

Working part of jetty is 300 m. long and is 14 m. above sea level, is on two levels. Lower level (Skeleton) is for moorings, which are adequate and fitted with remote control quick release gears in case of bad weather in Winter as jetty is very exposed. (Vessel before this vessel had to vacate berth for 40 hours, due to swell.) Good fendering.

No pedestrians allowed along jetty. Transport is arranged with Agents/Power Station Authorities.

Shore gangway provided.

Stores/Laundry can be taken/delivered by a truck via jetty.

Hatch "cleaning" is by contract labour. If started early enough they make a reasonable job to re-deliver 'shovel clean'. Notice of Readiness accepted as of the time vessel anchored awaiting berth.

Crew change facilities exist via Tel Aviv Airport. Incoming report to Haifa Immigration Control and deposit passports for passes. Home-going members have to be in possession of air tickets before leaving vessel.

SHIPMASTER'S REPORT: October 1985.

1. Agents, Harbour Master and Pilots are very co-operative.
2. There is always 1 Pilot and 1 tug on duty in case of rough weather.
3. Master receives a weather report twice daily from Harbour Master.
4. A "Supervisor" of National Coal stays on board to assist discharging when office is closed.
5. Agent (National Coal), Harbour Master (Hadera Port), Pilot (Hadera Pilot) and boat service (Solmar) all listen to VHF Channel 10 (call signs in brackets). If necessary at night Solmar will telephone the Agent at his home, and he will then call vessel on Channel 10.
6. Due to deck arrangements of our vessel the shore gangway could not be used. Vessel's gangway used and landed on fender.
7. The final trimming of cargo is poor and leaves lots of cleaning remaining for vessel's crew.
8. Due to distance to jetty (good fenders) it is not possible to use the transverse crane of the vessel for storing.
9. National Coal employs 4 time-chartered bulkers of 120,000 – 160,000 tons to supply the power station of Hadera with coal. The station consumes about 10,000 tons daily. About 5 more shiploads are needed yearly. Mostly panamax bulkers from U.K.

AUTHORITY: Port of Hadera, P.O.Box 314, Hadera, Israel. *Tel:* (06) 332976, 332250. *Telex:* 46272 Nph Il. *Contact:* Port Manager or Captain Y. Braker, Harbour Master.

HAIFA: 32.49 N. 35.00 E. (See Plan)

DOCUMENTS:
- 1 Photograph of each member of the crew.
- 3 Crew Lists, and Crew Passports or Seamen's Books.
- 1 Provisions List.
- 1 List of Articles in possession each Crew member – cameras, binoculars, radios, cigarettes, tobacco, etc.

Master to declare firearms and rounds of ammunition.
- 4 Passenger Lists.

Stowage Plan and Manifest to be mailed in advance, preferable Master to cable 72 and 48 hours before arrival holds workable and gangs required, also draft forward and aft on arrival.

PILOTAGE: Compulsory for all merchant and foreign naval vessels. Pilotage service is rendered round the clock. Vessels are boarded by Pilot seaward of the main breakwater.

ANCHORAGE: Vessels shall not anchor within the prohibited areas and must keep clear of the fairways of the main harbour and Kishon Zone.

MAX. SIZE: The width of the entrance channel to the main port, between the main and lee breakwaters, is 183 m. The depth of the entrance is 12 m. The width of the entrance to the Kishon Harbour is 70 m., with a min. depth of 8.50 m. Vessels of max. draft 35 ft. can be safely accommodated in the main port: in the Kishon Harbour accommodation is limited to vessels of 27 ft. draft. Depth in both harbours are maintained by dredging at regular intervals.

Tankers: Up to 50 ft. draft at buoy moorings.

RADIO: Radio-telephone service from ship-to-shore and vice versa via Haifa Radio, call sign 4XO. Ships in port may also be connected to the Israeli telephone system.

The port has a signal station equipped with a modern 60 kw VHF installation, working on Channels 12, 14 and 16. The station is licensed for port operation only and is in continuous service. For all other ship-to-shore communication contact Haifa Radio, call sign 4XO.

The Israeli Meteorological Service broadcasts twice daily the weather forecast in English for East Mediterranean area over Haifa Radio.

Vessels approaching the coast of Israel shall report their position to the Israeli Authorities in accordance with the following procedure:

(a) Every foreign vessel bound for the ports of Haifa, Ashdod or Ashkelon shall send a position report to the Israeli Ministry of Transport (IMOT) via Haifa Radio (4XO). Such position report should be sent in the form of a free of charge service cable when the vessel arrives at a distance of 50 miles from the coast and it shall contain vessel's name, position, course, speed and destination.

(b) In addition to the report, in *(a)* above and according to the Ports' Regulations, every vessel (foreign or Israeli) entering the Israeli territorial waters shall send a position report which shall contain vessel's name, position, course, speed and destination and which shall be sent at the time the vessel enters territorial waters (6 miles) to:
- (1) The nearest Port Operation Services, by means of VHF; or
- (2) The IMOT via Haifa Radio (free of charge service cable) in cases where VHF communication with the nearest port cannot be established.

HEALTH: Free Pratique by radio is granted on request by the International Quarantine Message to the Quarantine Station round the clock (including holidays) via Haifa Radio, call sign 4XO on 500 kHz.

Medical advice by radio for all ships may be obtained through Haifa Radio 4XO free of charge. Call "Medico Haifa".

There is no special quarantine anchorage.

TUGS: Vessels obtain tug assistance, if required, for entering or leaving the harbour and for shifting. 2 tugs of 1,500 h.p. and of 1,000 h.p.

BERTHING: Ships moor normally to wharves and jetties, and to a lesser extent stern to the main breakwater and alongside dolphins.

Main Harbour

The main harbour is situated on the Southern shore of Haifa Bay at Lat. 32° 48′ N., Long. 35° 01′ E. It is protected by 2 breakwaters: the main breakwater, 2,826 m. long, in the North, and the lee breakwater, 745 m. long, in the East.

The harbour basin covers an area of 1,038,000 sq.m. (about 255 acres). The main port's land area amounts to 642,000 sq.m. (about 158 acres).

Kishon Auxiliary Harbour

To the East of the main port, around the lower reaches of the Kishon rivulet, lies the Kishon Auxiliary Harbour. It consists of an outer harbour basin that is protected by 2 breakwaters of 600 m. and 350 m. length respectively, and a main channel of 1,045 m. length, of which the first stretch of 700 m., measured from the entrance to the outer harbour basin, has a depth of 8 m. while the second stretch of 345 m. has a depth of 6.50 m. A side channel, 213 m. long and 4 m. deep, which branches off the main channel toward the East, serves as a fishing dock. Another side channel 350 m. long and 8 m. deep serves as holding basin of the shipyard and the Chemicals Terminal.

Wharves	*Length* (m.)	*Depth* (m.)
Main Port		
Main Wharf	1,520	5.00-13.80
Cargo Jetty A	205	6.80
C	107	6.80
Oil Jetty	350	10.00
East Lighter Wharf	110	4.20
Kishon Zone		
Cargo Wharf	355	8.50
	285	8.50
Fishing Dock	213	4.00
Chemicals Wharf	325	8.50

BULK HANDLING FACILITIES: *Coal:* Coal imports are usually handled by grabs fixed to shore cranes.

Grain: 2 mobile elevators on main wharf (depth 13.8 m.) with combined unloading capacity of 590 t.p.h. A third elevator has a nominal capacity of 600 t.p.h. *Chemicals:* Chemicals in liquid bulk unloaded and loaded at chemical tank farm in Kishon Zone. Terminal jetty suitable for tankers up to 20,000 d.w.t. with draft 22 ft. 6 in. Storage capacity 45,000 cu.m. *Containers:* Presently containers are discharged and loaded in the Western area of the port and Kishon Harbour, having all facilities to handle 20 ft. and 40 ft. containers. A container terminal is in the process of being established in the Eastern part annexed to the Oil Dock Breakwater. All container handling equipment available. Also see "Developments".

CRANES:

	No.	*Capacity* (Tons)	*Radius* (m.)
Floating Derrick	1	100	—
Portal Cranes	2 (Koks)	35	—
	12	5	25
	3	15	30
	6	25	30
Mobile Cranes	5	5–6.5	—
	9	8–13	—
	7	7	—
	7	15–16	—
	2	30	—
	4	42	—
Fork Lift Trucks	95	—	—

CONTAINER HANDLING EQUIPMENT:

	No.	*Capacity under spreader (tons) (20′ – 40′ containers)*	*Reach from quay* (m.)	*Height of lift* (m.)
Container Quay	1	35	32	22
Gantry Cranes	1	35	32	26.5
	No.	*Capacity (tons)*		
Rubber-tyred	2	30.5		
Portal Cranes	3	40		

STEVEDORES: Enable Agent order gangs, important obtain 48 hours advance accurate ETA from vessel. Failure give precise ETA may result in ship losing 12/24 hours, also cost gang waiting time. No work on official holidays.

Working Hours: Work is usually carried on in 2 shifts: the first shift is from 0630 to 1430 hrs., on ordinary working days, or from 0630 to 1330 hrs. on the eve of Saturdays and holidays. The second shift is from 1530 to 2230 hrs. on ordinary working days and from 1330 to 2030 hrs. on the eve of Saturdays and holidays. Occasionally, in order to complete work on a ship or for special cargoes, a third shift is worked.

TANKERS: Up to 4 oil tankers can be accommodated at one time at the Oil Jetty, one on each side (draft 28 ft. – 33 ft.).

In the Roadstead.

There are 3 submarine oil loading and unloading berths, connected to a submerged pipe-line.

Berth No.	*Situation in relation to harb. entrance*	*Diameter*	*Extension from shore*	*Direction*	*Depth under water*
1	1.75 m.	12 in.	4,200 ft.	307°	52 ft.
2	1.75 m.	12 in.	4,500 ft.	290°	52 ft.
3	0.50 m. N.E.	32 in.	10,000 ft.	319°	58 ft.

The signal station ashore opposite Berth No. 3 has 2 signal masts. Vessels moor with their own 2 anchors ahead and mooring lines to 2 buoys astern. The oil company's Mooring Master supervises the connecting and loading or discharging, remaining aboard until sailing time.

Throughput Rates

Vessels load or unload up to 1,000 t.p.h. through 10 in./12 in. pipelines on the Oil Jetty. The 32 in. pipe-line berth is destined for loading or unloading supertankers at the rate of up to 2,000 t.p.h.

MEDICAL: Hospital facilities available. Agent will board vessel with company doctor if so required by the Master.

FRESH WATER: Drinking water is plentiful and of satisfactory quality; no treatment is needed as water is frequently examined and chlorinated when required. The water is supplied by hydrants from shore or by water-barge at a delivery rate of 30–50 t.p.h. Boiler water not available.

FUEL: The following grades of oil are available for supply as bunkers:

Heavy Fuel Oil	1,500 secs. Red. 1 at 100°F.
Light Fuel Oil	450 secs. Red. 1 at 100°F.
Marine Diesel Oil	Standard Grade

The oil is supplied direct from Oil Dock or from barges. Bunkers are normally supplied between 0700 and 1515 hrs. on working days; at any other time by special arrangement. Delivery rate from Oil Dock is up to 500 t.p.h. (3,500 bbls.) and from barges up to 150 t.p.h. (1,000 bbls.)

REPAIRS: Israel Shipyards Ltd. run a modern shipyard, situated in the Kishon Zone, capable of building ships of up to 20,000 d.w.t. and to handle hull repairs, conversions, engine repairs and repairs of electric equipment.

The yard operates 2 floating docks with a lifting capacity of 7,500 tons and 1,100 tons respectively.

Vessels which need no dry docking can be repaired at the shipyard's quay, totalling 400 m. length with 7m. – 8 m. depth.

Ogen Ltd. also undertake ship repairs.

Floating Dock with lifting capacity of 24,000 tons.

GANGWAY/DECK WATCHMEN: Not compulsory. Port guard keeps gangway watch.

OPENING/CLOSING HATCHES: Performed by Stevedores. Mechanical hatch covers operated by crew.

CUSTOMS ALLOWANCES: 200 cigarettes, and 1 open bottle of spirits per person.

IDENTITY CARDS: Issued by port police on arrival.

TIME: Local standard time is 2 hours ahead of G.M.T.

AIRPORT: International air connection from Lod Airport, 105 km. from Haifa.

CONSULS:

Austria
Belgium
Denmark
Finland
France
Greece
Guatemala
Ivory Coast
Liberia
Netherlands
Norway
Panama
Spain
Sweden
Yugoslavia

HOLIDAYS: Port business is suspended on the following holidays: Saturdays; the 2 days of the Jewish New Year (Rosh Hashana); the Day of Atonement (Yom Kippur); the first and the last day of the Feast of Tabernacles (Succot); the first and the last day of Passover (Pesach); Pentecost (Shavuot); Independence Day. The first of May is observed by the port workers as Labour Holiday and therefore no work is done in the port on that day.

SHORE LEAVE: Shore leave passes are obtainable at the Frontier Control Section of the Port Police Station. Applications for the passes shall be filed with the Boarding Officer, Port Police. All shore leave passes must be surrendered to the Boarding Officer before departure of the vessel.

GENERAL:

Persons Boarding Vessels: No person shall be allowed on board any vessel unless he is in possession of a boarding pass which must be shown on demand to the police officer at the gangway.

Passes for boarding cargo vessels on business are issued by the Port Management; passes for boarding cargo vessels for any other purpose and passes for boarding passenger vessels are issued by the Frontier Control Section of the Port Police.

Swimming: Swimming in Haifa Harbour is strictly forbidden and Masters should instruct their crews accordingly.

Use of Ship's Boats: The use of ship's boats is forbidden in Haifa Port. A public motor-launch service is available for the convenience of ship's personnel. Call the motor-launch by day and night on VHF Channels 18 and 16.

Photography: Photography in the port area is strictly forbidden without a written permit issued by the Commander of the Port Guard.

DEVELOPMENTS: *Developments in progress:* Two projects, running concurrently, form the first stage of the development. One of the projects refers to the construction of a new Container Terminal within a specially designed containerships basin outside the existing breakwaters.

The second project deals with the deepening and extension of the Kishon Basin.

The Container Terminal will consist of 620 m. of quay front, with water depth reaching 14 m. below M.S.L. and a land area covering over 30 hectares.

AUTHORITY: Israel Ports Authority, Haifa Port Management, P.O.Box 33539, Haifa. *Tel:* 04-518111. *Cables:* Malhof. *Contact:* Port Manager or Captain I. Ben-Menachem, Harbour Master.

AGENT: Carmel Shipping Ltd., P.O.Box 1015, Haifa 31009, Israel. Tel: 04-530041-2, 04-523293. Telex: 46550 Carml IL, 46821 Carml IL. Cables: "Carmelship Haifa". FAX: 515886.

Italy

GENERAL:

WEAPONS AND ARMS: In July 1988, the Italian Government passed a law that all vessels carrying arms, including personal or ship's equipment, must declare them in order to obtain a Ministerial permission, before entering Italian territorial waters, only valid for one call.

Vessels calling at Italian ports with arms as described above have to declare them to the Agent at least 4 days before entering territorial waters with indications of full type/brand, serial number, calibre/gauge of each weapon kept onboard as well as the quantity of ammunition held.

All weapons should be in Master's care and declared on the Stores/Provisions List on arrival.

If undeclared weapons are found onboard, same will be confiscated and the Master will be subject to court trial.

Further to the above, the Ministry concerned has decided that for vessels calling at various Italian ports, a licence to carry firearms on board can, on application through the Agent at the first port of call, be obtained and this will also be valid for all other ports of call.

The application must specify names of all ports and dates of call.

HEALTH: *Shipmaster's Report:* March 1983: Radio Pratique granted 12 hours prior to arrival.

If vessel applies 24 hours prior to arrival she will be requested to re-apply 12 hours prior to arrival.

TANKERS: All tankers of more than 1,600 g.r.t. carrying crude oil and petroleum products as well as gas carriers, chemical carriers, full or partly loaded, empty but not in gas-free condition, and which, prior to entrance to territorial waters of any Italian port, shall advise the port authorities of the following details:

(a) Vessel's name and international call sign,
(b) Vessel's nationality,
(c) Vessel's LOA and draft,
(d) Port of destination and accurate ETA,
(e) Quality/quantity of cargo and
(f) IMO Certificate if carrying dangerous chemical cargo in bulk.

Furthermore, the Master should hand over to the Pilot a detailed list concerning all vessel's data, Safety Equipment, Safety Class and other Certificates, together with Crew List, etc.

Also SOLAS/MARPOL 73/78 and annexes applied.

For Italian ships (from 30th March 1988), Italy has implemented the A.R.E.S. (Automazione Ricerca e Soccorso) as application of S.A.R. Convention, Hamburg 1979.

Also see "Augusta" – "Agent's Report".

Tankers over 1,600 gross tons, entering or leaving Italian ports or carrying, or with uncleaned tanks which last carried petroleum, gas or chemical products, are required to make a comprehensive report to the appropriate Port Captain. See *Admiralty List of Radio Signals, Vol. 6.*

Such tankers must establish and maintain radio contact, preferably by VHF R/T, with the Port Captain, advising him immediately of any incidents or defects which may affect the safety of navigation or cause pollution. Pilots should be employed outside the areas of compulsory pilotage whenever the nature of the cargo or navigational conditions, including reduced visibility, require.

CREW CHANGES: In Italian ports, signing on of crew on to ships whose flag is not the flag of the citizenship of said crew (for instance of a Norwegian crew member signing on a Liberian vessel, a Danish crew member signing on a Swedish vessel, etc.) should be aware that from now on Italian Port Authorities will strictly require copy of the contract showing that the crew member was engaged out of Italy. It is also required that the contract be signed and stamped by the Consul (of the flag of the ship) of the place where the crew member is engaged. If Consulate is not available, by the National Authorities of the place. In no instance will the signature of the engaging company be accepted as substitute of the signature and stamp of Consul or Authorities.

STRAIT OF MESSINA:

Regulations:

1. Passage of the Strait is prohibited to vessels of 50,000 tonnes deadweight or over carrying pollutants.

2. Pilotage is compulsory for vessels of:
(a) 15,000 tonnes deadweight and above;
(b) 6,000 tonnes deadweight and above if carrying pollutants.

3. Vessels in (2) should pass the following information at least 12 hours in advance via Messina Radio:
Name.
Nationality.
Call Sign.
Deadweight tonnage.
Type and quantity of pollutant carried.
ETA at Capo Peloro or Punta San Raineri.
ETA should be confirmed at least 1 hour in advance.

Vessels other than those in (2) should pass the same information by VHF Channel 16 at least 2 hours in advance.

4. Vessels passing through the strait should keep to starboard of a line joining:
(a) Lat. 38° 16.5′ N., Long. 15° 43.5′ E.
(b) Lat. 38° 14.0′ N., Long. 15° 36.6′ E.
(c) Lat. 38° 10.8′ N., Long. 15° 36.0′ E.

5. Vessels on passage through the strait should keep engines ready for immediate manoeuvring and should maintain constant watch on VHF Channel 16.

Pilotage: Pilots for vessels on passage through the strait embark 3 miles North of Capo Peloro or 2.5 miles S.E. of Punta San Raineri.

Pilots for vessels entering Port of Messina embark 1.25 miles North of Punta San Raineri.

NOTE: Tankers with no cargo on board from 6,000 up to 14,999 g.r.t can pass Messina Strait without Pilot. Tankers over 50,000 g.r.t. with no cargo on board can pass Messina Strait (pilotage compulsory).

ANCONA: 43.37 N. 13.32 E. (See Plan)

PORT LIMITS: A vessel is considered to have "arrived" when she anchors in the Roads 1 mile from the red light located at the end of Mole and also when, in the case of a vessel of large tonnage she anchors a further mile out and communicates her time of arrival.

DOCUMENTS: Immediately after arrival and shortly prior to departure, the Master must complete the arrival and departure forms supplied and send them to the Maritime Authority.

When the Pilot is on board, the Master must submit to the other authorities, Customs, Police and Health the following further documents:

4 Copies Crew List.
1 Copy Provisions List.
1 Copy B/L for every set.
1 General Cargo Manifest.
3 Copies of Crew Dutiable Articles.
5 Copies Passenger List (in transit or otherwise).

PILOTAGE: The Ancona Port Pilots listen 24 hours a day on VHF Channel 12. Telegraphic address: Piloti – Ancona. Telephone: 071/54297. Pilotage, compulsory for all tankers and all vessels over 500 g.r.t. Pilotage starts within a radius of 1 mile from the port entrance.

There are 4 pilot cutters operated by the Pilots' Association. Vessels waiting for a Pilot must hoist the "G" flag of the International Code of Signals and await him in the roads.

The pilots' station is in a building located near the angle between Berths 1 and 2. There are 4 Pilots available.

ANCHORAGE: In the Roads at the Master's discretion. The advice of the Pilots may be sought via VHF. Anchorage in the roads is safe with winds coming from the 2nd and 3rd quadrants.

RESTRICTIONS: Vessels may enter and leave port day or night. The entry and departure of vessels of large tonnage and draft is governed by the tide which has an approximate range of 2 ft.

Normally, tankers carrying petrol or vessels carrying hazardous goods in category "A" are not allowed to enter port.

MAX. SIZE: In the port of Ancona, the entry of vessels up to 250 m. length is permitted. At the oil installations located outside the port, tankers over 300,000 d.w.t. can berth in water depth 33 m. At the oil installations located closer to the coast, tankers of 27 ft. to 40 ft. draft can berth. (See "Tankers").

HEALTH: There is a maritime health station in the port. Free Pratique may be granted to an anchored vessel by radio (by calling up "Sanimare Ancona" 12 to 6 hours prior to arrival) for vessels coming from countries not affected by health strictures. If fever is suspected aboard a vessel, she must anchor in the roads, hoisting the appropriate International Code of Signals flag, and waiting for the port doctor to come on board.

RADIO: Ancona Radio "ICA" uses calling frequency 500 kHz and a working frequency of 489 kHz. Radio telephone: Ancona Radio P.T. "ICA" on 2182 kHz. VHF: calling up Channel 16 and working Channels 25, 26 and 27. Station maintains 24 hours watch.

RADAR: There is no radar station in the port.

VHF: Port Authority on VHF Channel 16 from 0800 hrs. – 2200 hrs.

TUGS: Use of tugs in port is not compulsory but may be requested by Pilot or ordered by the Port Authority if necessary. From 0700 to 1700 hrs., there are always 4 tugs available, and from 1700 hrs. there is 1 tug available.

Requests for additional tugs can be made via the ship's Agent a few hours prior to the vessel's entry in port, this order to be made to Sadar S.p.A. Telegraphic address: Sadar S.p.A. Telephone: 071-51341. Tugs wait for vessel 1 mile from the port entrance and work on VHF Channel 12.

SPECIAL CARGO HANDLING FACILITIES: Berth No. 15 has a multi-purpose electro-hydraulic crane particularly suited for containers up to 40 ft. and for lifting conventional cargo up to 42 tons. The quay space behind is currently used as a container terminal.

A new handling area at Berths Nos. 23, 24 and 25 will come into operation with an area of 15 hectares and whose berths will have cranes particularly suited to container handling.

Adjacent to the port, in the Ancona Port Industrial Zone, there is a private area with Customs sheds for retention and movement of containers. This area covers 16,000 sq.m.

For Ro–Ro traffic there is no special equipment, but this type of traffic can be handled at almost all the berths.

CARGO HANDLING FACILITIES: Normal working times for mechanical equipment is from 0800 to 1200 hrs. and from 1330 to 1730 hrs.

Mechanical handling equipment on the quays consists of:

1 multi-purpose Paceco crane, of 42 tons capacity for containers and various goods.
4 De Bartolomeis 20 ton electric cranes with retractable jib.
6 electrical cranes of 6 tons capacity, with retractable jib.
2 electrical unloading platforms of 8 tons capacity.
1 electrical unloading platform of 10/12 tons capacity.
3 automatic De Bartolomeis of 20 tons capacity.
1×5 ton automatic.

It is possible to attach electro-hydraulic grabs to the quay cranes for the discharge of scrap iron.

BRIDGES: None have to be negotiated when entering the port.

STEVEDORES: The Compagnia Lavoratori Portuali operates in the port. Telephone: 071/28095. Telegraphic address: Compagnia Lavoratori Portuali Ancona. Requests for labour are made via the ship's Agent at least 24 hours prior to commencement of operations.

MEDICAL: There is an Italian Naval hospital in the port area close to Berth No. 10. It is reserved for personnel of the Italian Navy. Telephone number (M.M. exchange) 201392. There is a permanent service available.

Apart from this, there are in the town a main hospital "Umberto 1" with 1,000 beds, a 400-bed pediatric hospital, a cardio-rheumatological hospital, 2 geriatric hospitals, a neuropsychiatric provincial hospital, and a hospital specialising in tumours. There are also two private clinics with medical and surgical facilities.

BERTHING:

Berth No.	Location	Length (m.)	Depth alongside at distances from quay face		Max. size g.r.t.	Utilisation	Cranes
			Distance	Depth			
1	Clementino Mole	250	1 m. 5 m. 10 m.	9.14 m. 9.44 m. 9.90 m.	75,000	Load/discharge Dry goods, lumber, coils, palletised cement.	2×6 tons 2×10–20 tons
2	Luigi Rizzo Mole	189	1 m. 5 m. 10 m.	9.14 m. 9.30 m. 9.75 m.	35,000	Load/discharge Dry goods (phosphate, china clay, carbon etc.)	2 discharging platforms ×8 tons on rails and 1×12 tons (being renovated)
3	Luigi Rizzo Mole	116	1 m.	9.14 m.	25,000	Loading/discharging General and containers	Mobile cranes of 6.3–20 tons 2×5 cu.m. grabs available.
4	Luigi Rizzo Mole	200	5 m. 10 m.	10.30 m. 10.36 m.	35,000	Loading/discharging Bulk commodities and general	2×6 tons
8	Molo Woiryla	122	1 m. 5 m. 10 m.	7.62 m. 8.70 m. 8.70 m.	10,000	Bulk goods	Mobile cranes of 6.3–20 tons
Head	At head of No. 8 Berth	47	1 m.	7.62 m.	8,000	Containers, Passengers Lorries	
9	Molo Woiryla	124	1 m. 5 m. 10 m.	7.62 m. 9.14 m. 9.14 m.	10,000	Passenger vessels and Naval vessels	—
11	S. Maria Mole	147	1 m. 5 m. 10 m.	7.92 m. 9.40 m. 9.14 m.	15,000	Passenger vessels	—
12	S. Maria Mole	75	1 m. 5 m. 10 m.	7.92 m. 7.40 m. 7.31 m.	4,000	Passenger vessels	—
13	S. Maria Mole	155	1 m. 5 m. 10 m.	9.00 m. 9.75 m. 10.70 m.	20,000	Passenger vessels and Customs warehouse	—
14	Calata della Republica	194	1 m. 5 m. 10 m.	9.00 m. 9.00 m. 10.50 m.	25,000	Passenger vessels, General and timber	Mobile cranes 6.3–20 tons
15	Mole XXIX Sept. New Eastern container area (North side)	214	1 m. 5 m. 10 m.	9.14 m. 9.80 m. 10.20 m.	35,000	Containers, heavy lifts, Timber	1 Paceco crane 1 Badoni crane
16	New Eastern container area (South side)	120	1 m. 5 m. 10 m.	7.92 m. 10.00 m. 11.40 m.	12,000	Containers	—
17	Giovanni Berth	60 (Usable)	1 m.	7.00 m.	5,000	General	
18	—	113	1 m.	8.22 m.	10,000	Coastal and small vessels	—
19–20	Silos	295	1 m. 5 m. 10 m.	8.22 m. 10.10 m. 12.50 m.	75,000	Loading/discharging of cereals	2 suction plants each 2,000 t.p.h. Silos: 38 cells for cement and 4 cells for iron.
21	Silos	141	1 m. 5 m. 10 m.	8.54 m. 9.90 m. 12.50 m.	75,000	Loading/discharging of cereals	2 suction plants each with capacity of 125 t.p.h. on rails. Storage capacity 21,600 cu.m.
22	Silos	195	1 m. 5 m. 10 m.	9.30 m. 10.50 m. 12.00 m.	35,000	Loading/discharging cereals, loading/discharging goods by hook	2×6 ton cranes 2 suction plants capacity 140 t.p.h. each.
—	IGI Landing Stage	200	3 m 1 m.	9.75 m. 8.85 m.	15,000	Discharging of cargo for company's plant	
23	Nuova Darsena	263		10.8 m.	75,000	Containers, Timber, General	
24	Nuova Darsena	150		10.8 m.	10,000	Containers, Timber, General	Mobile cranes 5 – 20 tons
25	Nuova Darsena	258.5		10.8 m.	75,000	Containers, Timber, General	1×20/35 ton crane

TANKERS: *SFIR Mooring:* Mooring dolphins for tankers up to 10,000 g.r.t. Products handled: Refined products.

API – Island Terminal: Berth Position: Lat. 43° 40′ 03.7″ N., Long. 13° 24′ 21.6″ E. It is a single berth for tankers up to 90,000 d.w.t. with draft not exceeding 40 ft. Ship moored with her port side alongside the berth. Mooring manoeuvres permitted in daylight only. Unmooring manoeuvre permitted anytime.

Fittings for Loading/Unloading: 3 loading arms. 10 in. quick connections. 7 sea-lines (1×8 in., 1×12 in., 2×14 in., 2×16 in., 1×24 in.) for loading/unloading various grades of oil products and crude oil. The 24 in. sea-line is electrically heated (skin effect) for fuel oil and high viscosity crude oil.

Water Ballast: Water ballast to be discharged ashore by sea-line. Vessels on arrival for loading, when notifying their first ETA to Falconara, must communicate to the refinery the quantity of ballast to be pumped ashore.

Bunker and Water Supply: All grades of bunkers and undrinkable fresh water are available by pipes. Bunker loading to be performed before or after cargo operations.

Main Engine and Auxiliaries: Should the main engine and/or auxiliaries be temporarily out of use, the discharging operations will immediately be stopped, and vessel unmoored, until everything is once again in order. In such a case all expenses, delays and/or all arising damages will be to the account of the vessel and/or her Owner.

API Buoy Field: The buoy field that was positioned about 600 m. Westward of the Island Terminal for unloading crude oil, has been dismantled.

API Jetty: It is a pier of 1,308 m. in length with 4 berths: 3 for loading/unloading tankers and the other, closer to shore, for service boats. Berths:

Head Jetty: (Position: Lat. 43° 38′ 52.2″ N., Long. 13° 23′ 38.4″ E.) For tankers with draft not exceeding 27.5 ft.

Berth No. 1: For tankers with draft not exceeding 18 ft.

Berth No. 2: For tankers with draft not exceeding 16 ft.

Landing Stage: For service boats – water depth 10 ft.

Tankers are moored with the stern to the jetty and two anchors. Therefore ships must be fitted with cargo stern-line.

Fittings for Loading/Unloading: One derrick for each berth for connecting flexible hoses (4 in., 6 in., 8 in., 10 in.). Seven pipe-lines (3×8 in., 2×10 in., 2×12 in.) for loading/unloading various grades of oil products and crude oil.

Water Ballast: Water ballast to be discharged ashore by pipe-line. Vessel on arrival for loading, when notifying their first ETA to Falconara, must communicate to the refinery the quantity of ballast to be pumped ashore.

Bunker and Water Supply: All grades of bunker and undrinkable fresh water are available by pipes. Bunker loading to be performed before or after cargo operations.

API Sea Terminal

The API Sea Terminal consisting of a single steel platform mooring for vessels up to 300,000 d.w.t. and is located off Ancona Harbour in position: Lat. 43° 44′ 37″ N., Long. 13° 31′ 20″ E.

It has a minimum depth of water of 98 ft. at LWS. The platform, fixed on 6 steel piles sunk into the sea bottom is connected to the shore tanks by an underwater sea line 40 in. diameter.

On the platform there is a cardan joint from which 2 floating hoses 24 in. diameter depart and converge into a single line 24 in. diameter (average discharging rate 7,000 cu.m.p.h.) at the top of which are connected 2 lines of 16 in. diameter that end with 2 conic hoses 16 in./12 in. diameter (Tanker MS-GI) for connection to the ship.

Each tail hose is fitted with a quick closing valve to prevent risk of pollution.

The platform has a diameter of 82 ft. and is fitted with special rubber fenders.

Platform Light:

Light: White – Code Letter: "U" – Height a.s.l.: 39 ft. Period: 15 sec.

Light Characteristics:

1) Light: 0.5 sec.
2) Eclipse: 1 sec.
3) Light: 0.5 sec.
4) Eclipse: 1 sec.
5) Light: 2 sec.
6) Eclipse: 10 sec.

Range: 6 miles

Foghorn: Code Letter "U" – Range: 3 miles.

Characteristics:

1) Blast: 1 sec.
2) Silence: 2 sec.
3) Blast: 1 sec.
4) Silence: 2 sec.
5) Blast: 2 sec.
6) Silence: 22 sec.

The platform is equipped with radar reflector.

Weather and Currents:

Weather is generally good from May to the end of September. During the Winter time bad weather prevails from N.E.

The N.E. wind commonly named "Bora" is the strongest and the most frequent. The Easterly sea, which does not occur often, is generally strong. The Westerly winds generally cause fog or mists which, particularly in Winter, is very thick.

For approximately 8 to 9 months of the year the current sets in a S.E. direction whilst for the rest of the year, it is running in opposite direction.

The strength of the S.E. current is variable from 2 to 3 knots, therefore, in consideration of these facts neither engine repairs nor engine maintenance are permitted during the time the vessel is secured to the API platform and the main engine must be on permanent standby and ready for manoeuvring.

Radio/VHF:

Vessels bound for Falconara must send their ETA to Apioil – Falconara 72, 48 and 24 hours before their arrival.

In the last message the following information must be reported:

1) Maximum lifting capacity (s.w.l.) of derricks
2) Distance between bow and manifolds.
3) Diameter and type of manifolds flanges.
4) Whether the cargo tanks are equipped with inert gas system.
5) No. of lifeboats and capacity. No. of persons for which lifebelts are available on board. Total No. of actual crew on board, including passengers and technicians.

5/6 hours before arrival VHF contact can be established with the refinery maritime office on Channel 12.

Anchoring:

Vessels waiting for berth may anchor in a position approximately 1.5 miles Eastward off the platform. Ideal position for anchorage is: Lat. 43° 45′ 00″ N., Long. 13° 33′ 00″ E. or as otherwise instructed. Vessels are warned to anchor only in the recommended position because of the existence of submarine pipe-lines in other areas.

On Arrival:

The refinery operator, together with a gang of 4 skilled workers, will board the vessel before berthing to coordinate the discharging operations and they leave after completion of unmooring. Masters are therefore kindly requested to arrange for food and accommodation for the whole period of their stay aboard.

Mooring Operations:

Mooring operations will be undertaken with favourable weather conditions. The vessel shall proceed at a reasonable speed to the platform and generally shall start mooring by heading into the sea current or wind or swell.

As soon as the vessel is a proper distance from the platform she will run out 2 mooring ropes (1 on each side) which will be secured to the platform ropes by mooring crew. These ropes will then be heaved on board in order to pull up the platform ropes which will be secured on the bitts of the forecastle. The platform mooring ropes comprised of nylon rope, chain and polypropylene rope and pelican hooks will be used as stoppers for the chains.

4 mooring lines (2 for each side) must be ready on the forecastle for joining before manoeuvring to the platform.

The refinery operator shall not fail to give to the deck officer on duty on the forecastle all requested information concerning mooring operations as well as API's installation. All winches and windlass must be in perfect working condition with sufficient power and ready to work during the whole of the vessel's stay at the API platform. A good mooring rope of sufficient length must be ready aft and passed to the supply vessel enabling her to assist the tanker from the end of mooring up to few seconds before unmooring. Mooring operations will be carried out by the crew, under the Master's responsibility and according to the Pilot's suggestions.

During the ship's stay at the platform, the crew and API personnel will keep a constant watch on the mooring ropes and the platform. During the night the forecastle and mooring ropes must be brightly lit.

Unmooring:

The unmooring operations, except during unfavourable weather conditions, are quite simple. As soon as the 2 hoses have been disconnected, it will be sufficient to let go the supply vessel, heave up, as quickly as possible, the stern rope, then let go the 2 platform ropes, and put the main engine astern (if necessary). Masters are warned that as soon as the hoses are disconnected the service of the supply vessel will no longer be required.

Hose Handling:

On arrival both derricks must be rigged and ready to lift up the maximum permissible weight.

Throughout the period of time when the hoses are hoisted up, connected, disconnected or lowered overboard, 1 deck officer and 1 Crew member are required to coordinate and operate the winches. Lifting, connecting, lowering and other handling of hoses will be performed by API's gang under the Receiver's representative control.

Discharging Operations:

The Receivers' representative will advise the Master on all matters concerning the discharging speed, manifold pressure, or eventual hazards, but will not direct the discharging operations except if it may be necessary to protect the facilities or any Receivers' properties or apparatus.

Pollution:

The Master is fully responsible and must ensure that no petroleum or other contaminated products are discharged, or spilled overboard.

During the vessel's stay at the API installation, all deck scuppers and all overside deck openings shall be securely closed and oiltight. All pipelines not in use, must be blanked off.

Drip-pans must be in place at all times under manifold connections. An adequate supply of sandbags, or other anti-pollution chemical products, must be available at all times for immediate use.

Under no circumstances shall bilge water, oil, waste, or contaminated products be discharged overboard.

The Receivers will take any action or steps necessary to clean up or remove the contamination of the sea and the terminal structures if any. The vessel and/or her Owner, will be responsible for all expenses and all damage in connection with the contamination.

Italian Authorities are very strict and severe about pollution. It is worthwhile to remind Masters of the eventual penal implications against them for pollution.

Safety:

During the vessel's stay at the API terminal a sufficient number of crew members must remain on board to be ready for any kind of emergency. Crew members going ashore are warned that in case of bad weather it might not be possible to return on board until weather conditions have improved.

All fire equipment and hoses must be, at all times in perfect working condition and ready for use. A number of portable fire extinguishers must always be ready by the discharging manifolds and the breathing apparatus must be ready by the pump rooms for immediate use.

Main Engine and Auxiliaries:

Should the main engine and/or auxiliaries be temporarily out of use, the discharging operations will immediately be stopped, and vessel unmoored, until everything is once again in order. In such a case all expenses, delays and/or all arising damages will be to the account of vessel and/or her Owner.

Tending Mooring:

A crew member must be stationed at the bow of the ship while the vessel is at the platform to keep a constant watch on the moorings.

During the hours of darkness moorings must be illuminated.

Winches:

During the stay of the vessel at the terminal all deck winches must be ready to operate.

Supervising Discharging Operations:

The receivers' personnel will remain on board for the whole time. A qualified deck officer must always be available. It is recommended that the duty officer always carries with him a portable VHF in order to keep close and constant contact with Receivers' representative.

Supervising Floating Hoses:

Whilst the vessel is secured to the platform a sharp lookout on floating hoses must be ordered by the Master. Every abnormal situation in this respect must be immediately notified to Receivers' representative.

Washing Floating Hoses:

When discharge is completed, if requested, the vessel will pump water for a few minutes before disconnecting hoses, in order to displace crude-oil from the floating-lines. The Receiver's representative will advise the Officer on duty about this manoeuvre as well as pumping time.

Communications Between Ship and Shore:

Normally communications between ship and shore are maintained by API's representative. Masters are kindly requested to authorise the use of vessel's VHF when requested.

Boilers:

Boiler tubes must not be blown whilst at anchor or secured to the API platform.

Garbage:

Garbage and refuse must not be thrown overboard while the vessel is at anchor or secured to the API platform.

Bunkers:

Weather permitting, bunkers can be supplied by barges. API can supply all grades of fuel oil, marine diesel, gasoil and all grades of API's marine lube oils.

For bunker requirements vessels must cable to Apioil – Falconara 72 hours before their arrival (holidays, Saturdays excepted) stating qualities and quantities required. (No limitations for supplying).

Fresh Water:

Available only by tugboats with favourable weather conditions, and to be requested through vessel's Agents.

IMPORTANT WARNING

All vessels with a draft up to 40 ft. scheduled for API platform but not duly equipped to operate thereat, will be moored, if possible, at API conventional berths. All expenses, time lost and/or damages arising from the above will be to account of and charged to vessel/owners.

Report: *Crude Oil Washing:*

To carry out crude oil washing operations (COW) the vessel must be fitted with the following equipment:

(a) An inert gas system capable of supplying gas containing not more than 5% oxygen to all cargo tanks during all discharging and washing operations. Such systems must be fitted with an automatic alarm signal which will operate if the oxygen content of the gas rises above 5%.

(b) A tank cleaning machine permanently installed in the cargo tanks and connected to the cargo/wash system by permanent steel piping.

(c) A remote reading tank gauging system to ensure that the liquid levels in the cargo tanks can be monitored at any time, without having to open any ullage ports.

(d) The tank cleaning lines must be completely separate and isolated from the fire fighting system.

The procedures to be followed are listed below:

1. Prior to vessel arrival at the discharge port, the following test will be carried out:

   All cargo discharge lines and wash system lines must prove to be tight and free of leaks. The test will be effected with crude oil, to a pressure ranging between 150 p.s.i. and 175 p.s.i.

   The main cargo pumps safety devices, i.e.: pump casing and bearing temperature gauges and high temperature alarms, pump overspeed trips, remote emergency stops, pump reverse rotation alarms, cargo pump trip for low inert gas pressure, must be tested and found fully operational.

2. All openings to all cargo tanks must be securely closed and the pressure/vacuum valves set in the operational position.

3. All in and out valves of sea water heater must be closed.

4. The crude supply for the washing system will be secured directly from the main discharge lines or from separate tank cleaning lines connected directly to the main cargo pumps.

   The pressure used for "COW" will be 140 p.s.i. maximum. In the case of vessels equipped with washing system supply coming direct from the main discharge lines, such back pressure of 140 p.s.i. will be achieved by closing down completely on manifold valve or two manifold valves, if necessary.

   In the case of vessels equipped with a separate tank cleaning line, the 140 p.s.i. back pressure will be achieved by controlling the main cargo pump revolutions and it will not be necessary to close any manifold valves.

   Whichever manifold is used the shore hoses, or hard arms, will not be pressurised for crude washing purposes.

5. Before commencing crude washing any tank, the oxygen content of the inert gas supply must be checked and must not be more than 5%. In addition the atmosphere in the tank to be washed must be checked and must not be more than 5%.

   The inert gas system must be capable of supplying positive pressure to all cargo tanks during all discharging and crude washing operations. In the event that pressure in the cargo tanks fails to 4 in. W.G. the system will automatically stop all cargo pumps. Before crude washing each tank, its pressure must be checked and must not be lower than 20 in. W.G.

6. The tanks will be washed in two stages:

   Top Wash: When the level in the tank is down to 15 ft. innage the top two/thirds of the tank will be washed, using all machines in the tank simultaneously, on a pressure of max. 140 p.s.i. The washing pattern will be from 40° to 120° elevations. During top washing the tank will continue to be pumped out on the main cargo pumps.

   Bottom Wash: The top wash cycle will normally be completed when the tank is draining out on the main cargo pumps. The washing machines will be stopped and reset to the bottom wash pattern (from 0° to 40° elevation). The tank main suction will be closed and the stripping suction opened.

   When the tank is dry, bottom washing will commence using a maximum of four machines in the tank to ensure good drainage throughout the bottom wash cycles.

   On completion of the bottom wash cycles, the machines will be stopped and the cargo system will revert to normal discharge operations.

7. The whole "COW" operation will be carried out under the direct supervision of a responsible Officer well acquainted with "COW" and tank cleaning, who will be assigned to this supervision task by the Master.

   The necessary personnel will be put at the disposal of the responsible Officer by the Master, to carry out "COW" operations and, in particular, one man equipped with VHF radio will be stationed at the manifold throughout discharge operations.

   Before commencing "COW", the responsible Officer supervising the operation will discuss, in detail, the whole operation with Receivers' Representative and will carefully observe any provisions issued by Port Authorities and by Receivers in relation to "COW".

   If during "COW" operations the Master and/or the responsible Officer judge, at any time, that the operational conditions do not ensure total safety, all "COW" operations will be stopped at once.

DENSITY: The average salinity of the water in the Port of Ancona is 17.5 gr. per litre of chloride.

FRESH WATER: Along all the quays are numerous supply points with rates varying from 15 to 25 t.p.h. Vessels in the roads can be supplied with drinking water via the port tugs.

FUEL: Vessels moored at berths can be supplied by tanker barge. The supplier is S.P.A. API from their marine refinery at Falconara.

Requests for bunkers must be submitted to that company, via the ship's Agent at least 24 hours in advance, Saturdays and holidays excepted. The company's telephone number is 910901. Any type of product can be supplied.

FIRE FIGHTING FACILITIES: Apart from the water hydrants along the quays, which, if need be, can be used for coupling to hoses for fire fighting purposes, the port of Ancona has a fire brigade equipped with fire engine, together with other means on land and water.

The fire brigade is near the marine station at Berth No. 13. Apart from facilities on land, there are 2 craft available, one of which is highly sophisticated. Telephone: 201715.

If necessary, at very short notice, the town fire brigade can be called to the scene, their equipment consists of a fire engine with pumps and ladders and other modern means of efficient fire fighting. Telephone: 22222.

In port, there are the following maritime means for combating fires:

a) A motor launch of the port captaincy with fire fighting hoses and also the ability to spray foam.

b) 2 motor barges with pumping facility operated by the port fire brigade, having the following characteristics:

Vessel "VV.F.207" – speed 11 knots, equipped with 2 fire fighting pumps each capable of delivering 6,000 litres per min. at a pressure of 10 atmospheres and driven by 2 Fiat Aifo 260 h.p. engines each; 2 liquid foam pumps; 2 foam projectors; 2 foam tanks with a total capacity of 5,800 litres; 20 delivery pipes with 70 UNI unions, 400 m. overall; 16 delivery pipes with 45 UNI unions, 220 m. overall; 1 comet portable projector, 2 fixed foam projectors; 16 UNI 70 hose attachment points; 2 UNI 150 ditto; 2 double tube cannons for mixed usage (water and foam); 1 electrical compressor giving 5 atm. pressure; 2×500 watt projectors of which 1 is portable with 100 m. of cable; 1 retransmitter apparatus attached exclusively to the apparatus operated by the fire brigade.

6 port tugs having the following characteristics:

Tugs "Luisella" and "Tiziana" – TSL 485 – speed 14 knots – 5,000 h.p. – equipped with 2 exhaust pumps in the deck on starboard and port sides; regulation fire fighting equipment; 2 motor driven pumps; for internal use 2 pumps connectable to those on deck; international attachments and points; equipped with radar, radio and echo sounder.

Tug "Katria Prima" – TSL 140 – speed 12.5 knots – 1,014 h.p. – equipped with 1 monitor; 4×45 mm. swivel guns; thermo-mechanical electric pump of 60 t.p.h. capacity; foam tank – fitted with radar; radio; echo sounder.

Tug "Luisa Davanzali" – TSL 238 – speed 12.5 knots; equipped with 1×30 t.p.h. fire fighting pump; 2 exhauster pumps of 50 t.p.h. and 1 of 200 t.p.h. capacity; radar, radio, echo sounder, gyroscopic compass.

Tug "Cesare Davanzali" – TSL 364 – speed 14 knots – 1,800 h.p. – equipped with 2 electrical pumps of 200 cbm/hr. capacity for delivery purposes and capable of attachment to Minimax equipment for fire fighting purposes using foam with 2 cannon type projectors; in the deck are 14 points for attachment of hoses; 2×1000 kW. adjustable projectors; 1 motor compressor of the low pressure type working at a pressure of 8 atm.; equipped with radar, radio, echo sounder.

Tug "Nuovo Ancona" – TSL 148 – engine power 1,014 h.p. equipped with 2 fixed exhauster pumps of total capacity of 500 t.p.h. driven by 2×40 h.p. electric motors; 2 fixed fire fighting pumps, of capacity of 250 t.p.h. total, driven by 2×40 h.p. electric motors; equipped with foam plant and projector; fire fighting pipes have 4 points with 70 mm. unions; 1 portable exhauster pump of about 150 t.p.h. capacity – speed 12 knots – equipped with diving equipment – radio.

Tug "Luisa" 1,200 h.p.

CONSULS:

Sweden: Tel. 202223.
French Consular Agency: Tel. 22879.
Netherlands: Tel. 22614.
Denmark: Tel. 202223.

REPAIRS: It is possible to effect repairs of all types at yards within the port, and at the large electrical and mechanical repair undertakings in the town.

Cantieri Navali Riuniti (for large construction). Tel: 5951.
Cantiere Morini (also has available a floating dock for vessels up to 1,000 g.r.t. and slipways). Tel: 202224.
Cantiere Castracani (slipway). Tel: 55663.
Cantiere Riparazioni Navali (pleasure craft). Tel: 204323.
Cantiere Tecno-Matic (fibreglass units). Tel: 53643.
Cooperativa Metallurgica G. Tomassi (only for steel vessels). Tel: 204303.
Ditta EL.ME.A. (marine electrical equipment). Tel: 29409.
Ditta Schiavoni (marine electrical equipment). Tel: 55731.

DRY DOCKS: There is only one small floating dock in which it is possible to carry out repairs to vessels up to 1,000 g.r.t. The dock is owned by Cantieri Navali Morini. Tel: 204303.

SURVEYORS: In Ancona the Registro Italiano Navale has a town office at via Marsala No. 8. Tel: 202204. R.I.N. acts for the following foreign classification bodies: Germanischer Lloyd, Nippon Kaiji Kyokai, Jugoslavinski Registar Brodova and Register of Shipping of the U.S.S.R.

GANGWAY/DECK WATCHMEN: This service is advisable but not compulsory. In Ancona is a security firm "Istituto di Vigilanza Urbana e Campestre" di Dattilo Salvatore. Tel: 201784.

HATCHES: Hatches are opened by the crew where they are of the automatic type, and by the port labour force where they are of the conventional type. Hatches are re-closed in the event of rain.

CUSTOMS ALLOWANCES: On arrival in port, all goods under Customs exemption must be placed under seal. At the completion of Customs inspection, the Master may request the Customs officers permission to supply the following goods:

50 cigarettes for each Crew member.
1 kg. of salt for every 50 persons.
50 grams of sugar per person per day.
15 grams of coffee per person per day.
Liquor – small quantities to be agreed with the Customs officials according to the time of year.

REPATRIATION: It is possible to effect exchange of foreign Crew members on board foreign vessels since there is in the port an office of the Frontier Police.

For repatriation purposes, the following travel connections are available:

Train: Via the Ancona/Bologna/Rome line; via the Ancona to Rome direct line and via the Ancona/Pescara/Bari line.

Air: Departures from the Falconara Marittima Airport which is 10 km. from the port and reached by bus. There is a daily departure to Milan and 1 to Pescara.

Sea: the following lines are available: From 1st January – 31st December, Wednesdays (1330 hrs.) and Saturdays (2200 hrs.) to Patras by Greek vessel "Mediterranean Sea". From 1st October – 30th May, Mondays (0900 hrs.) Tuesdays (0030 hrs.) and Fridays (1700 hrs.) to Zara and Spalato by Italian vessel "Tintoretto". From 1st June – 30th September daily departure to Zara by Jugoslav vessel "Ilirija". From 1st June – 30th September every Thursday (1300 hrs.) and Sundays (2200 hrs.) to Patras by vessel "Mediterranean Sky". From 1st June – 30th September every Saturday (2200 hrs.) per Panamanian vessel "Neptunia" to Patras, Corfu and Haifa. From 1st June – 30th September every Tuesday (2200 hrs.) to Patras per Greek vessel "Patris". From 1st June – 30th September every Wednesday (1300 hrs.) and Saturday (2200 hrs.) departures to Patras and Higoumenitza by Greek vessel "Ionian Star". From 1st June – 30th September every Tuesday (1700 hrs.) departures to Dubrovnik by Italian vessel "Tintoretto".

TIME: GMT plus 1 hour. From 29th March to 26th September, GMT plus 2 hours.

HOLIDAYS: Every Sunday, 1st January (New Year); the Monday after Easter; 25th April (Liberation); 1st May (Labour Day); 4th May (Town's Patron Saint's Day); 15th August (Assumption); 1st November (All Saints); 8th December (Immaculate Conception); 25th December (Christmas); 26th December (St. Stephen's).

Work is possible on all these days, but at an increased rate.

POLICE/AMBULANCE/FIRE: Port Police 201030. Town Police 202860. Yellow Cross Ambulance 55622. Red Cross Ambulance 22680. Port Fire Brigade 201715. Town Fire Brigade 22222.

TELEPHONES: It is not possible to connect telephone lines on board vessels. In the port there are numerous telephone boxes for national and local communications and where it is possible to telephone to any part of the world.

SERVICES: The following special services are available in Ancona:

Tank washing at Falconara Marittima by the "crude oil washing" system, compass adjusting, repairs to radar or other electronic instruments on board and underwater work.

SHORE LEAVE: Foreign Crew members may go ashore from 0800 until 0200 hrs. the next morning provided they have a pass stamped by the Port Police. Beyond 0200 hrs. a special permit from the police is necessary to allow an overnight stay outside the port area.

SPECIAL REGULATIONS: Vessels of draft greater than 30 ft. mooring at berths on the South mole are secured a short distance off the quay by means of dolphins.

DELAYS: No delays.

NOTICE: *Regulations concerning navigation, fishing and anchoring in vicinity of API installations:*

1. It is forbidden for any vessel or craft whatsoever, with the exception of vessels intended to operate at the API installations:

a) to transit, remain or anchor within a radius of 1 nautical mile centred on the installations;

b) to anchor and fish by whatever means within a radius of 1 nautical mile centred on the installations quoted;

c) to anchor, engage in bottom fishing or engage in any activity on the sea bed within the area limited by the following points:

A – Lat. 43° 40′ 20″ N., Long. 13° 24′ 57″ E.
B – Lat. 43° 44′ 28″ N., Long. 13° 30′ 42″ E.
C – Lat. 43° 44′ 12″ N., Long. 13° 31′ 09″ E.
D – Lat. 43° 39′ 42″ N., Long. 13° 24′ 57″ E.

2. In the areas of the sea mentioned in No. 1, all vessels and craft in general which accidentally become entangled with anchors, fishing equipment or similar, underwater pipe-lines, must obligatorily abandon such equipment on the bottom in order to obviate damage to it and inform as quickly as possible the Maritime Authority.

3. Regulation No. 134/81 of 23.12.1981, mentioned above, is abrogated.

4. Those contravening this current regulation, provided that their action does not constitute the cause of a serious reaction, will be pursued within the terms of Article 1164 of the Navitagion Code and must compensate for the damage caused. It is obligatory for all entities whatsoever to observe and cause to be observed the terms of the present regulation.

Signed: The Commandant of the Port of Ancona.
Date: 22nd February 1986.

DEVELOPMENTS: 5 deep water berths (920 m.) to be constructed. Existing breakwater to be extended. New breakwater (300 m.) to be constructed.

AUTHORITY: Capitaneria di Porto Ancona, Banchina Nazario Sauro 12, 60100 Ancona, Italy. *Tel:* 071-51697. *Telex:* 561529 Compan I. *Cables:* Compamare Ancona. *Contact:* Sergio Albanese, Harbour Master. Francisco Colli, Assistant Harbour Master. Alessandro Parlioli, Port Captain.

MED

ARBATAX, Sardinia: 39.57 N. 09.42 E. (See Plan)

SHIPMASTER'S REPORT: September 1980.

PORT LIMITS: A vessel is considered to have "arrived" when she anchors in the roads 5 – 7 cables Northwards of the light of East Breakwater. Pilot leads vessel to the place for anchoring and also delivers on board all local documents and forms for completing for arrival clearance.

PILOTAGE: Not compulsory, but only available in daytime for entering. On leaving port the Pilot is available day and night. VHF Channel 16. Pilot boat black hull, about 6 m. in length, white house, on which is painted "Pilotti"; vessel awaits the Pilot Northward of the light of East Breakwater between breakwaters and Isola D'Oliastra Islet in position: Lat. 39° 57.24′ N., Long. 09° 42.95′ E., depth on roadstead from 10 to 30 m., good holding ground.

MAX. SIZE: Vessels of 200 m. length and max. draft 25 ft. 00 in. have entered.

HEALTH: Free Pratique may be requested by radio to "Sanimare Arbatax" between 12 to 6 hours prior to arrival, advising vessel's name, nationality, last port, number of crew and passengers and state of health on board. If from another Italian port Free Pratique is granted automatically.

TUGS: One tug with sufficient power for assisting in manoeuvres is available, ship's lines used. Tug takes lines in the roads and accompanies vessel to the port. Prior to mooring vessel drops anchor with about 3 shackles, tug turns the stern of the ship towards the pier, after which the ropes from fore and aft are transported and secured on the pier, tug pushes vessel alongside the pier on the port-side. The chain is slackened until 5-6 shackles out.

BERTHING:

Banchina Ovest – length 450 m. – depth 25 ft.
Banchina Postal – length 100 m. – depth 15 ft.
Banchina Centrale – length 100 m. – depth 15 ft.
Banchina Sud – length 80 m. – depth 15 ft. (for Ro/Ro ships only).

CRANES: One private mobile crane, 6 tons capacity, for discharging pulpwood at Banchina Ovest.

MEDICAL: Advise Agent of any requirements.

DENSITY: 1025.

FRESH WATER: Only from water barges.

FUEL: Pipe-line 250 mm. in diameter from store tanks on shore to the terminal at the head of the West pier.

HATCHES: Opening/closing is normally carried out by ship's crew. Winchmen from stevedoring company or ship's crew.

CUSTOMS ALLOWANCES: Depends on flag of vessel.

REPATRIATION: Regular line of ferry boats, train to Cagliari close to which there is an airport.

TIME: GMT plus 1 hour from 29th March to 26th September, GMT plus 2 hours European time.

HOLIDAYS: 1st January (New Year's Day), 25th April (Liberation Day), 1st May (Labour Day), 15th August (Assumption), 1st November (All Saint's Day), 8th December (Local Religious Holiday), 25th December (Christmas Day), 26th December (Boxing Day).

IDENTIFICATION CARDS: Special shore passes issued by local police, against passports.

DEVELOPMENTS: Present basin will be dredged to 9 m., new basin close to present one will be constructed with depth of up to 10 m.

AUTHORITY: Ufficio Circondariale Marittimo, 08041 Arbatax, Sardinia, Italy. *Contact:* Antonio Camboni, Port Commandant.

AUGUSTA (including Priolo and Melilli): 37.13 N. 15.14 E. (See Plan)

LOCATION: Augusta – Position refers to Torre Avolos Old Lighthouse in position Lat. 37° 12′ 37″ N., Long. 15° 13′ 34″ E.

Priolo – Same position as Augusta, Priolo lays on Southern part of harbour including a chemical pier outside the breakwaters. The port is under the jurisdiction of Siracusa.

Melilli – Correct name is Siracusa Santa Panagia, located 6 miles South of Augusta. Lat. 37° 06′ 30″ N., Long. 15° 15′ 40″ E.

Largest scale charts: B.A. 181-187. U.S. 53000-53200-53201. Italian 270-271.

PORT LIMITS: A line drawn between Santa Croce Lighthouse and Magnisi Lighthouse defines the seaward limits of the Port of Augusta.

A line drawn between Punta Magnisi and Punta Santa Panagia defines the seaward limits of the port of Santa Panagia.

DOCUMENTS: Ship's information must be sent by telex to Compamare Augusta, or to Compamare Siracusa for Santa Panagia, 24 hours before arrival (see "examples" below) in accordance with instructions issued by European Economic Community No. 79/116.

Crew Lists (at least 4 copies).
Custom Manifest.
Passenger Lists (4 copies).
Maritime Declaration of Health.
Bills of Lading.
Vaccination Certificates.

The following documents must be sent to Harbour Master's Office:

Certificate of Registry.
Civil Liability Certificate (for tankers only).
Information Note of Arrival.
Additional Declaration of Departure.
Cargo and Gear Safety Certificate.
Safety Construction Certificate.
Italian Light Dues.
Tanker Check List (to be presented to Pilot for acknowledgement).

In addition ships bound for the Esso Terminal must also radio the refinery, Rafinesso Augusta, via Roma Radio (IAR) 72 hours and 48 hours before arrival, giving ETA in local time and following advice:

Bill of Lading quantities in long tons, metric tons, gross bbls./net bbls.
Slop quantity, water percentage, tank number. If slop mixed with cargo, advise quantity cargo in slop tank.
Arrival draft.
Temperature of cargo for vessel carrying atmospheric residues and catfeeds.

X

For tankers calling to load: 72 hours prior arrival send cargo layout, preferred order of loading and number of grades ship can load at same time.

Examples: Messages sent to vessels:
Vessel Over 20,000 g.r.t.:

Please send the following information cabling Compamare Augusta. Telex: 912336. Vessels data, ETA Pilot, reasons for call, cargo/ballast details, if SOLAS Certificates 74-78, em. 81/83.

CLC data, IGS yes/no, Paris memo issued date prescriptions, if any, last port and confirm if all apparatus, hull machinery in good order.

Vessel under 20,000 g.r.t.:

Please send the following information cabling Compamare Augusta. Telex: 912336. Vessel's data, ETA Pilot, reasons for call, cargo/ballast details, if SOLAS Certificates 74-78, em. 81/83.

CLC data, Paris memo issued date prescriptions, if any, last port and confirm if all apparatus, hull, machinery in good order.

Chemical Carriers:

Please send the following information cabling Compamare Augusta. Telex: 912336. Vessel's data, ETA Pilot, reasons for call, cargo/ballast details, if SOLAS Certificates 74-78, em. 81/83.

CLC data, Paris memo issued date prescriptions, if any, certificate of fitness/IMO yes/no, last port and confirm that all apparatus, hull, machinery are in order.

Vessel's reply:
To: Harbour Master, Augusta.
Telex: 912336 Compau I

Vessel Features	Capo Argento, IBMX, Italian Flag, g.r.t. 2,976, d.w.t. 4,500, LOA 100 m. max. draft 5.95 m.
ETA Pilot	Pilot Augusta, 2nd December, 0600 hrs.
Agent	Mayflower Shipping Agency
Reason of Call	Unloading 1,400 tonnes Ethylene
Cargo	Ethylene 1,400 tonnes
SOLAS	Available SOLAS 74/Prot 78
IOPP	Expiring 30th April, 1986
CLC	Expiring 20th February, 1986
Paris Memo	Athens 19th September, 1985/No Prescription
IMO	Expiring December 1985
Last Port	Porto Torres
Remarks	In good order
	Master Capo Argento

PILOTAGE: Compulsory for vessels over 500 g.r.t. – 24 hours service – Second Pilot recommended by Local Authorities for vessels of 60,000 g.r.t. or above. Weather permitting, Pilot boards about 1 mile East of port main entrance – In case of bad weather, the pilot boat will station itself just inside the entrance and instructions to proceed will be given to vessels by VHF. Upon request, to facilitate vessels, or for other special reasons, Pilot can board up to 3 miles off the normal embarkation point.

Pilot charges vary with vessel's g.r.t., for hours between sunrise to 0800 hrs. and 1700 hrs. to sunset, for night hours, for Sundays and holidays, for flammable and explosive cargo and for boarding over 1 mile from main breakwater.

ETA to be confirmed 1 hour before arrival, calling "Augusta Pilot Station" on VHF Channel 12. In case of no radio contact, vessels must stop about 2 miles Eastward of the breakwater and hoist or flash the international code signals.

The pilot boat has a black painted hull with a white band and white superstructure with the word "Piloti" painted on both sides.

For Santa Panagia (Melilli), Pilot will board 1 mile seaward from Punta Santa Panagia for vessels incoming from South and 1 mile seaward from Punta Magnisi for vessels incoming from North. Pilot should be contacted on VHF Channel 14. Second Pilot recommended by Local Authorities for vessels of 60,000 g.r.t. or above.

APPROACHES: There are 2 entrances: the main one is situated between the central and northern breakwaters, with leading lights on a heading of 273° 51′ – Entrance is about 260 m. wide, with a depth over 36 m. in the middle, and may be used day and night.

Note: Vessels entering should be lined up on the leading lights/marks 1 mile before entrance and ship departing 0.5 miles before exit. In case of controversy Harbour Master will ask for documentation of above positions.

Santa Panagia is an open road and berthing to ISAB Terminal is allowed in daytime only.

A current may cross the entrance after prolonged periods of windy weather. The leading lights/marks are sometimes obscured by smoke from the industrial plants in the Southern part of the harbour. Naval vessels and outbound traffic have the right of way when passing through the harbour entrance.

Santa Panagia:

(a) Masters are cautioned when approaching Santa Panagia by night as there are no navigational aids in this area. Only 2 lighthouses (Murro di Porco Lighthouse to the South and Cape S. Croce Lighthouse to the North) can be used to fix the position of the vessel. In the landfall however, their bearings are opposite and therefore useless. Radar must be in good operating condition.

(b) Tunny nets are laid down in the area and marks can be temporarily missing and small fishing boats engaged in net fishing may be encountered up to 8 miles from the coast; these boats carry no special marks or lights to indicate that they are using nets.

(c) Naval ships quite often exercise off the East coast of Sicily, particularly in an area including Augusta to the North and extending well South of Syracuse.
Two submarine exercise areas are close to this part of the coast.

(d) A current may cross the entrance of the bay as well as the terminal area after prolonged periods of windy weather.

ANCHORAGES: Pilot compulsory inside and outside the breakwaters within the port limits.

The Inner Anchorage has a central zone with a depth of water not less then 22.4 m.

Outside it is recommended to anchor South of Main Entrance, because North of it there are many limitations.

For Santa Panagia Pilot compulsory inside the harbour limits – vessels anchoring outside of this line are not considered to be in port and consequently without port dues.

MAX. SIZE: VLCCs can enter the harbour with tug assistance, with the following limitations: 69 ft. draft for operations in the road (bunkers – provisions – crew changes) and 66 ft. 10 in. with a max. displacement of 450,000 tons to moor alongside SELM Priolo Supertanker Jetty. For Santa Panagia no limitations.

HEALTH: Vessels arriving from countries not suspect of epidemical diseases can ask and receive Free Pratique by radio, sending a telegram not more than 24 hours before arrival to "Sanimare Augusta" via Roma Radio (IAR) or "Sanimare Siracusa" for the Port of Santa Panagia. Arrivals from Italian or EEC Ports are considered clear.

It is necessary to request Free Pratique by radio because Health Officers do not board vessel from sunset to 0800 hrs.

The Office of the Health Department is located at Via Lungomare Rossini. Tel: (0931) 974920.

RADIO: Augusta Radio P.T. Listening on 2182 kHz. Working on 1643 and 2260 (24 hour service).

VHF: Augusta Radio P. T. Call Channel 16, working Channels 26 and 27 (24 hour service).
Harbour Master (Channel 16).
Pilots (Channel 12). Working 24 hours.
Tugs and Line Handlers (Channel 8). Working 24 hours.
Taxi-boats (Channel 10) From 0600 to 2330 hrs.
Agents Connection (Channel 9). Office hours.
Traffic Control (Channels 9 and 12). Working 24 hours.

TUGS: Tugs available in the harbour: 4×2,000 h.p., 2×2,400 h.p., 3×2,500 h.p., 2×1,200 h.p. and 1 tug on stand-by/emergency of 2,600 h.p.

Harbour service: 6 tugs on duty from 0700 – 1200 hrs. and from 1300 – 1800 hrs. 3 tugs available from 1800 – 2200 hours and 2 tugs available from 2200 – 0700 hrs.

Tugs' charges vary with vessel's g.r.t., for hours between 0001 – 0800 hrs, 1200 – 1300 hrs., 1700 – 2359 hrs., for Saturday, Sunday and holidays, for service exceeding 1 hour, for operations at SELM – Priolo Terminal.

For Santa Panagia there are 3 tugs available, 1 tug can be employed from Syracuse Harbour – additional tugs can be supplied from Augusta Harbour.

Use of tugs is compulsory for berthing and unberthing. The number of tugs allocated is decided by the Harbour Authority according to gross tonnage. Because of tug crew duty rosters, the most suitable tugs may not always be available. Tugs make fast on the hook after the vessel has cleared the entrance, using ship's ropes. Pilots communicate with tugs via VHF portable radios which they bring on board with them.

Line Handlers: Service is performed with 1 launch for vessels of less than 10,000 g.r.t. and 2 launches for vessels above 10,000 g.r.t.

Wires are not accepted but may be used when provided with a 5 m. Manila or other fabric end tail with eye.

Charge varies with vessel g.r.t., flammable and explosive cargo, rain, waiting time (1 hour delay), overtime from 0600 – 0800 hrs., 1200 – 1300 hrs., 1700 – 2000 hrs., night hours, Saturday, Sunday, holidays, lines above the total of 8 and mooring on dolphins/buoys.

BERTHING: *Commercial Wharves:*
Ro/Ro Pier: Length 260 m. Depth 12.0 m.
Banchina di Riva: Length 246 m. Depth 12.0 m.
Commercial Quay: Length 255 m. Depth 12.0 m.

Consortium Jetty:
Length 738 m. Depth at seaward end 12.2 m. 6 berths available. With Port Authority permission vessels may berth to discharge dirty ballast or transhipment cargoes.

MACET: Berth Nos. 1, 2 and 3 are at a finger jetty. Berth Nos. 1 and 3 used only by coasters and bunkering barges. Depth 12 ft. Berth No. 2 used by vessels up to 25,000 d.w.t. on stern discharge. Depth 28 ft. (see "Plan").

Enichem Augusta: Punta Cugno – Berth Nos. 3, 4, 5 and 5 Bis.

Berth No. 3 Northern Jetty used by Enichem Augusta for discharging and loading chemical products. Berth accepts vessels up to 3,000 d.w.t. mooring alongside. Depth 17 ft.

Berth No. 4 (Mid Jetty) used by Enichem Augusta for barges.

Berth No. 5 (Southern Jetty) used by Enichem Augusta for vessels up to 30,000 d.w.t. moored by stern for loading/discharging black/white products and chemicals. Depth alongside 30 ft.

Berth No. 5 Bis used by Enichem Augusta. It is a steel island connected to Berth No. 5 for vessels up to 5,000 d.w.t. for loading/discharging black/white products and chemicals. Depth alongside 21 ft.

Esso: Pier No. 1: Length of pier about 1,050 m. Heading 110°.

Berth No. 6: Used only by bunker barges.

Berth No. 7: For vessels up to 10,000 d.w.t. with LOA 197 ft. – 525 ft. Depth of water 35 ft. Pipe-lines with connection of 6 in. Loading rate 150 t.p.h. – 900 t.p.h. Loading of gasoline, gasoil, bitumen, fuel oil. Gangway ashore. Stern loading only.

Berth No. 8: For vessels up to 38,000 d.w.t. with LOA 197 ft. – 820 ft. Depth of water 35 ft. Pipelines with connections of 8 in. Loading of gasoline, JP/5, benzine and bitumen. Loading rate 165 t.p.h. – 900 t.p.h. Gangway ashore. Deballasting pipe-line available for all berths. Diameter 14 in., rates from 700 to 2,000 t.p.h. Shore capacity 20,000 tons.

Pier No. 2: Length of pier about 1,150 m. Heading: 110° ending in a steel platform. Large tankers discharge crude oil on either side of the platform at rates of up to 6,000 t.p.h.

North side, No. 10, receiving tankers up to 90,000 d.w.t. with LOA 230 ft. – 909 ft. Depth of water 51 ft. Loading of gasoline, gasoil, fuel oil, lube oil. Connections: 6 in. for bunker, 10 in. for black and white products, 10 in. for lube oil. Gangway ashore.

South side, No. 11, depth 54 ft., receiving tankers up to 140,000 d.w.t. with LOA 504 ft. – 974 ft. Depth of water 54 ft. Loading of all products as No. 10 except lube oil. Connections 10 in. No night-time movements for vessels over 60,000 g.r.t.

At about 400 m. from end platform there are 2 smaller platforms (Berths No. 9 and 12).

Berth No. 9: Receiving tankers up to 10,000 d.w.t. with LOA 197 ft. – 469 ft. Depth of water 26 ft. Loading of gasoline, gasoil, fuel oil, lube oil. 4 pipe-lines with connections of 6 in. – 24 in.

Berth No. 12: For tankers up to 12,000 d.w.t. with length 213 ft. – 492 ft. Depth of water 28 ft. Connections of 6 in. Loading of same products as No. 9. Alongside the pier pipe-lines are of diameter of 18 in. to 24 in. for crude oil, 16 in. to 20 in. for fuel oil, 14 in. for diesel and gasoil, 10 in. for kerosene, 8 in. for gasoline, 10 in. for naphtha and JP4. There is also a 14 in. pipe-line for deballasting and 8 in. lines for lube oil. All berths are provided with gangway. At Nos. 10 and 11 vessels may use wire ropes only if the eyes are made of either manila or nylon.

Unicem: A finger jetty. Berth Nos. 13 and 14 with depths of 23 ft. Used by small vessels carrying cement in bulk. Operations are through a conveyor-belt system, with a handling rate of about 300 tons per day. Berths No. 13 Bis and 14 Bis recently completed but not yet in use.

N.A.T.O. Pier: Berth Nos. 15 and 16 in depths of 35 ft. and 36 ft. respectively. Used for loading and discharging petroleum products, but being a Navy jetty, berthing is subject to priority being given to Navy requirements.

SELM-Priolo: Supertanker Jetty: For vessels up to 420,000 d.w.t. Berth Nos. 17 to 24 at SELM Jetty; Berth Nos. 25 and 26 at Steel Island; Berth No. 27, for vessels up to 20,000 d.w.t. which are moored by the stern, and secured to 4 buoys with bow anchors down. Berth used for chemical and petroleum products. All the berths have a deballasting pipe-line. Connections: 16 in. for crude and 8 in. for products.

SELM concrete jetty: Both dry and liquid chemicals are handled at this jetty. Berth No. 28, for small vessels whose length is not more than 80 m. moored by the stern. Berth No. 29, for vessels up to 20,000 d.w.t. Berth No. 31, for vessels up to 30,000 d.w.t. Bagged cargo at a rate of 2,000 tons per day, and bulk cargo up to 4,000 tons per day, load or discharge. Berth No. 30 used by bunker barges. Berth No. 32, for small tankers only.

Berth No.	*Depth* (ft.)	*Max. Draft* (ft.)	*Max. DWT*
17	14.75	13.01	1,000
18	24.28	22.06	6,000
19	42.00	40.35	3,000-48,000
20	73.50	64.99	250,000
21	73.50	66.08	375,000
22	45.90	42.00	3,000-48,000
23	24.60	23.00	6,000
24	11.81	9.08	1,000
25	45.93	42.06	5,000-70,000
26	45.93	37.06	5,000-35,000
27	37.40	34.00	26,000
29	—	29.06	Used by Agrimont
30	14.43	13.00	
31	—	31.06	

ENICHEM – ANIC: (Carichi Liquidi): Is situated in Priolo's Cove. Chemical products are handled. Berth No. 33, for vessels up to 3,000 d.w.t. Berth No. 34, for vessels up to 15,000 d.w.t. Berth No. 35 and No. 36 used by small vessels only.

Also see "Shipmaster's Reports".

Santa Panagia: *Berthing Procedure:* At all berths vessels are berthed so as to head outwards. The vessel approaches the berth almost perpendicularly to the pier and with the aid of tugs (generally 6 for a VLCC) and swung seaward, to approach the berth with an angle of about 45°. When at safe distance from the berth and almost in position, the vessel is then swung parallel to the berth and pushed alongside.

No anchor is used, however, both must be ready for any emergency. The following are the maximum landing speeds:

Berth No. 1: 25,000 d.w.t., 22.5 cm./sec.
50,000 d.w.t., 17.0 cm./sec.
Berth No. 2: 10,000 d.w.t., 25.0 cm./sec.
30,000 d.w.t., 30.0 cm./sec.
Berth No. 5: 250,000 d.w.t., 14.5 cm./sec.
50,000 d.w.t., 21.0 cm./sec.
Berth No. 6: 385,000 d.w.t., 13.5 cm./sec.
50,000 d.w.t., 21.0 cm./sec.

Cautionary Advice: Masters are cautioned that prevailing strongest winds and the resulting swell can affect their stay alongside. It is therefore very important that vessels, particularly high freeboard ships pay particular attention to moorings. The most efficient moorings are all wire moorings – mixed moorings of different stretch characteristics and breaking strain should be avoided, particularly in breast lines and springs.

Moorings reeled on winches must be held by brakes hardened up to full torque. No self-tensioning devices should be used. The mooring must be reeled in such a direction as to assist the break. Where split drum winches are used, a maximum to 2 layers should be on the working drum when the mooring reaches the shore bollard/mooring hooks. Brake must be in good condition.

There are limits applicable to freeboard from a windage point of view. This together with maximum operable wind speeds will be discussed with Master's of VLCC by a Terminal Supervisor. The vessel must be held firmly against the fenders at all times. It is unnecessary and dangerous to slack away lines, even if they appear taut, if the ship is not hard against the fenders.

The minimum recommended is 2 spring lines and 2 breast lines at each end.

Melilli: *Operator:* Industria Siciliana Asfalti and Bitumi (ISAB).

The terminal is situated 6 miles South of Augusta, 5 miles North of Syracuse, Sicily. The Marine Terminal is connected to the Refinery storage through 5 lines for LPG and 18 large diameter pipe-lines for Crude and Products which allow for high unloading and loading rates.

All berths are equipped to ensure rapid and safe operations.

Clean and dirty ballast discharge facilities, including ballast reception tanks of 100,000 cu.m. (0.6 million barrels) are available.

A sheltered harbour accommodates service boats and 3 modern 2,000 h.p. tugs are permanently available.

When more tugs are required, additional units are supplied from nearby Augusta.

Bunkering facilities are available on all berths and sea-going barges are operating from the Terminal and from a sheltered harbour equipped for bunkering purposes.

Crude Oil Transhipment: The marine facilities are also suited for transhipment from ULCC-VLCC to smaller tankers better fitted to serve various refinery and/or pipe terminal locations in the Mediterranean and Adriatic.

Crude and Product Storage: 8 tanks are available for incoming crude with a total capacity of 800,000 cu.m. (5 million barrels).

Semi-finished (intermediate) product storage enables the operation of plant units when upstream sections are not available for short periods and contributes to Refinery flexibility.

In particular there is large storage of fuel oil and gas oil fractions and 12 motor fuel component storage tanks.

Total intermediate storage in 27 tanks, amounting to 431,000 cu.m. (2.7 million barrels).

Finished product storage is in 38 tanks of various grades with a capacity of 825,000 cu.m. (5.2 million barrels).

A further 42,000 cu.m. (0.25 million barrels) are held in Refinery service tanks.

Jetty: Deep water is available close to the shore at the jetty side. The marine facilities consist of a finger with 5 berths having the following capabilities and restrictions:

Berth No. 6: Vessels of minimum 18,000/max. 600,000 d.w.t. Max. LOA 1,200 ft. max. draft 78 ft. For unloading crude and loading fuel oil.

Berth No. 5: Vessels of minimum 18,000/max. 250,000 d.w.t. Max. LOA 1,200 ft. Max. draft 78 ft. For unloading crude and loading fuel oil, gasoil and gasoline.

Berth No. 1: Vessels of minimum 5,000/max. 55,000 d.w.t. Max. LOA 790 ft. Max. draft 42 ft. 6 in. For unloading crude and loading all products.

Berth No. 2: Vessels of minimum 10,000/max. 30,000 d.w.t. Max. LOA 650 ft. Max. draft 36 ft. For unloading crude and loading all products except LPG.

Berth No. 7: Vessels of minimum 500/max. 3,000 d.w.t. and LPG carriers of minimum 500/max. 1,500 d.w.t. Max. LOA 320 ft. Max. draft 18 ft. For loading all products.

Somicem-Magnisi: Sea berth, stern mooring for loading crude oil – max. 22,000 g.r.t. Draft 36 ft.

Also see "Agent's Report".

STEVEDORES: Available from Compagnia Lavoratori Portuali.

CRANES: *Heavy Lifts:* Floating cranes with lifting capacity of 20 – 94 tons at a distance of 27 m. – 12 m. are available.

MEDICAL: Medical and hospital facilities available. Vaccinations done on board. Advance notice preferred for assistance required on arrival.

TANKERS: See "Agents Report" for accomplishments required before entering the Harbour and "Berthing" for facilities.

DENSITY: 1025, however it may be reduced by heavy rain.

FRESH WATER: Good quality potable water available by barges.

FUEL: All grades available by pipe-line or barge at anchorage, max. draft 65 ft.

Suppliers Esso, Agip, I.P., Shell, Mobil and Gulf. 48 hours notice required.

GANGWAY/DECK WATCHMEN: Employment of shore watchmen advisable. Employment of shore fire guards advisable.

OPENING/CLOSING HATCHES: Normally by ship's crew.

CUSTOMS ALLOWANCES: 40 cigarettes and 1 opened bottle wine/spirits per man.

IDENTIFICATION CARDS: Shore passes given by Immigration Police.

CONSULS:

Denmark	Tel: (0931) 977470.
Liberia	Tel: (0931) 975341.
Norway	Tel: (0931) 978544.

REPAIRS: Not permitted to tankers while alongside refineries jetties, may be carried out, while at anchorage, subject to Harbour Master's authorisation. If repairs to engine or it will affect the proper use of engine or in any way restrict the capability of manoeuvring the ship, continuous tugboat assistance may be imposed. Light steel, carpentry and routine maintenance is available from small local shipyards. Also electronic and electrical services.

DRY DOCKS: One floating dock, length 105 m., breadth 17.10 m., lifting capacity 3,000 tons. Ships up to 5,000 g.r.t. can be moored alongside the dry dock for light repair operations.

One floating dock, length 115 m., breadth 22.0 m. Lifting capacity 2,750 tons.

SURVEYORS: Available.

REPATRIATION: No difficulties.

AIRPORT: Nearest at Catania, can be reached in 40 minutes (distance 40 km. by car). Daily flights to Rome and Milan for international connections. Weekly flights to North Europe capitals available.

TIME: GMT plus 1 hour. Summer time, last Sunday in March to last Sunday in September, GMT plus 2 hours.
HOLIDAYS: Tankers not affected. 1st January; Easter Monday; 25th April; 15th August; 8th December; 25th December.
POLICE/FIRE/AMBULANCE: Boundary and Immigration Police, Tel: 113; Police (Carabinieri), Tel: 112; Ambulance, Tel: 971122; Fire, Tel: 974777.
TELEPHONES: Situated at all berths, not for private use. No direct connection to vessels.
SHORE LEAVE: Immigration Police issues shore passes to permit the landing of the crew and passengers.
GENERAL: *Garbage removal:* Compulsory service on arrival and every 24 hours thereafter.

SHIPMASTER'S REPORT: June 1982.
If landing a sick crew member, Pilot will board and vessel anchors inside the breakwaters. Harbour Master and assistant boarded to check that ship's certificates all valid. All usual entry papers required except Crew Declaration and Stores List, but total quantity of cigarettes required. Crew Lists on IMO Fal Form 5. Cables sent to Agents on Sundays and holidays should include Telex number in address otherwise they are not delivered until the next day.

We were anchored about 1.5 hours and the Pilot stayed on board. It was necessary to send ashore some crew members to assist with the stretcher, but they brought it back with them.

EEC Tanker Check List required.

SHIPMASTER'S REPORT: April 1985.
Radio Pratique: Send radio message, 12 hours prior to arrival to "Sanimare Siracusa".
Pilotage: Pilot boards 1 mile North of Cabo Santa Panagia and is contacted by VHF Channel 14. Call sign is "Siracusa Pilots".
Fresh Water: Water is available by barge from Augusta so advance notice required.
Repairs: Normal repairs, but no welding can be carried out alongside.
Fuel: Bunkers are taken via pipe-line when loading/discharging.
Officials: All Officials come from Siracusa (Syracuse).
Ship Chandlers: Available.

SHIPMASTER'S REPORT: February 1987.
Vessel: 95,000 d.w.t.
Berth: Santa Panagia Oil Terminal (formerly Mellili).

Pilot boards to anchor the vessel. He boards about 1 mile N.E. of Santa Panagia. The anchorage is in deep water, bottom mud and clay.

After anchoring, Agent boards with Harbour Master to check vessel's documents. As is usual at Italian ports, 3 firemen live on board.

1 tug each end, 2 ship's lines, 1 tug pushing, their lines taken ashore by boat. Tugs are paid by the hour (i.e. 1 hour 5 mins. = 2 hours' pay).

Shore passes required and shore leave is by boat to boat harbour. Ship's stamp required on all documents.

SHIPMASTER'S REPORT: May 1987.
Port: Priolo.

Vessels are directed to proceed to Santa Panagia Bay by the Agent. It comes under the jurisdiction of Siracusa. Pilots are picked up at Siracusa or off the berth. This appears to be dependent on what berth movements there are.

Anchorage is close off the berth or in Siracusa Bay. Vessel is charged for anchorage whether used or not.

There are no known restrictions at the berth.

Stores appear to be a considerable problem, due to Customs Regulations, so cancelled our requirements. Laundry was very expensive.

Shore leave is by launch from ship. No walking along jetty is allowed. Passes are supplied by Agents.

Master or his deputy *must* visit Harbour Master's Office to sight and sign for having seen Italian Notices to Mariners.

SHIPMASTER'S REPORT: October 1987 (Updated February 1988).
Documents:

6 Copies Crew List.
2 Copies Crew Declaration.
2 Copies Manifest.
1 Copy Health Declaration.
1 Copy Arms and Ammunition List.
6 Copies Cargo Manifest.
All Passports.

The port is a naval port and tends to be very strict with documentation. All the certificates are to be sited by the Harbour Master and a deck officer before they are taken ashore to the Harbour Master's Office. Shore passes are issued.
Charts: BA. Charts No. 966 and 1941.
Approaches: Mount Etna is often seen visually at about 60 miles. It is behind Catania about 20 miles to the North of Augusta. The Catania area often shows up on the radar at over 70 miles. Cape Spartivento is a good radar target at 80 miles.

In the vicinity of Augusta, Siracusa and Cape Morro Di Porco have proved to be good radar targets at over 40 miles.

There is a Racon (G) on the North beacon (green) at the main breakwater entrance.
Pilotage: Pilotage is available throughout 24 hours. Daytime movements only are carried out at certain berths. If vessel has to await berthing she can always anchor inside the breakwater. The pilotage service is good and efficient. Many traffic movements take place in the port.

The Pilot boards from a fast black hulled 'Speedcutter'. If the weather is good he will board 0.5 miles outside the breakwater and if the weather is poor he will board inside the breakwater heads. VHF Channel 12 is used for communicating with the pilots. He may also be contacted through the Port Authority telex (Telex No. 0043912336 COMPAU I). The Pilot requires an EEC Tanker Check List. Overtime rates charged between 1900 hrs. and 0800 hrs.
Anchorages: The anchorages off Augusta are generally poor, especially in bad weather as the bottom shelves rapidly and the holding ground is poor. The best anchorage for large vessels is about 100° T at a distance of one mile from the Southern Breakwater entrance (anchorage is prohibited within 1 mile of the entrance). Small vessels anchor in the northern area near Porto Xifonio. A favoured anchorage area for large vessels away from Augusta is at Bahia Dis Panagia which is about 4 miles South of Augusta. The alternative area is in the Bay of Simeto which is about 6.5 miles South of Catania. This Bay is open and the holding ground is quite good, thereby allowing vessels to drag safely. In February 1988 the coastguard moved us away and told us that only Catania or Augusta could be used for waiting.

Vessels nominated to berth or for services (bunkering, stores, etc.) anchor inside the breakwater and under Pilot's guidance. Small vessels use Waiting Area "A". Vessels can drag in strong winds so a second anchor and engines to be kept in readiness.
Health: Vessels are to request "Free Pratique" from Sanimare Augusta, Telex No. 0043' 970817 AUG RT, 24 hours before arrival or earlier if arriving from a nearby port. The vessel is to answer standard World Health Declaration questions. The agent will confirm Free Pratique before the Pilot boards. Free Pratique not necessary if from EEC country.
Tugs: Many tugs available. Ship's lines are used.

For Tankers, the following applies:

GRT		
500 – 2,000	inward 1 tug	outward None
2,000 – 5,000	inward 1 tug	outward 1 tug
5,000 – 12,000	inward 2 tugs	outward 1 tug
over 12,000	inward 2 tugs	outward 2 tugs

For Dry Cargo vessels under 5,000 G.R.T. no tugs required inward or outward.

If over 5,000 G.R.T. the table above applies.
Berthing: The port is mainly for oil products and gases. There is one berth for fertilisers near the Southern Breakwater. All berths in the port are numbered.

For gas products Pontile Montecantini, just outside Augusta South Breakwater, is used and it handles all gas products.

Pontile Super Petrolier (Berth No. 18 – inner North side) which is just South of the Military Pier also handles gas products. All berths are well fendered. Mooring boats are used.

At Pontile Montecantini which is well exposed in the Winter the moorings consist of 2 head/stern lines, 2 breast lines and 2 springs each end. Vessels berth head out at all piers. At Pontile Montecantini vessels berth on either side, the North side berth is No. 34. The use of the pier gangway is compulsory. It is used by pier personnel only. The offshore anchor is used when berthing.
Cargo: Pontile Montecantini Pier - Priolo: Vessel required to nitrogen purge to less than 0.2% and less than −50°C dewpoint in 13 hours (2,756 cu.m.) at about 1,000 cu.m.p.h. The surveyor was not often in attendance, the ship's staff did all the monitoring.

The propylene Chicksan is 6 in. with a 6 in. vapour return to shore flare.

Shore maximum loading rate 250 t.p.h. Temperature in tank −46° C, giving a manifold temperature of −44°C. The shore minimum rate for cooling down is 20 t.p.h. The requested supply rates adhered to quite closely by the terminal. Only a little English was spoken by the jetty staff. There is a shore stop for minimum/maximum.

Pontile Super Petroliere: For LPG mixture, Propane 25%, Butane 75%.

Hydraulic Boom/hose arrangement is 6 in. 300 ASA with 2 in. vapour hose attached. Shore reducer supplied, shore labour connect/disconnect hoses. Max. rate 200 t.p.h. Temperature LPG mix −4°C. Density 0.5667 at 15°C. Ship stop only. On presentation of Bill of Lading, watch difference; we were presented with shore/ship difference of 45 tonnes for discharge Tripoli, Libya. Understand this happens from time to time.
Fresh Water: Fresh water is available by barge throughout 24 hours at all berths. Any quantity of water can be supplied at a fast pumping rate using the barge hoses.
General: Boat service is provided by calling on VHF Channel 10, give the vessel's berth number or anchorage position. This is the only way to get ashore as walking down the piers is not permitted.

Shore passes are required.

Bunker barges are operated on VHF Channel 9. They are suitable for attending large tankers but are very awkward when supplying small gas vessels.

There are numerous ship chandlers available at the port, the produce is good and the prices are reasonable.

As this port is a Naval port it is under very strict control of the Military Harbour Master. They monitor gas vessels very closely.

Daily rubbish collection is compulsory.

The nearest airport is at Catania which is about 20 miles to the North.

Customs board after the Agent. Immigration matters now carried out ashore.

AGENT'S REPORT:
The following is a copy of a telex received from a ship's Agent in February 1980.

From: Seafox – Shipping Agents and Bunker Brokers. Head Office: Via Garibaldi, 3/5. Phones : (0931) 977470-978544. Telex: 970072 BONMAR I. Cable: Seafox Augusta Tlx. 970072. 96011 Augusta, Sicily.

We are acting as Shipping Agents in Augusta-Siracuse-Melilli (ISAB) ports and in this connection we take the liberty to advise you of new ordinance issued by Ports Authority in Augusta and Siracuse Ports in order to be able to inform through your good publication well known over the world.

Port Information:
According to instructions issued by European Economic Community No. 79/116, please be advised that Augusta Port Authority introduced a new Ordinance, to apply immediately, as follows:

Quote:

All Masters of petroleum-gas-chemical tankers, having d.w.t. 1,600 and over, with full or partial cargo or in ballast and not gas-free. Before entering or leaving Italian ports must comply with following regulations:

1. In due time, before entering territorial waters adjacent to the port, cable via Romaradio to their Agents:
   (a) Ship's name and call letters.
   (b) Ship's flag.
   (c) Length and draft.
   (d) Destination port and ETA.
   (e) Quantity and quality on board.
   (f) If ship carrying chemical products in bulk, Master's declaration to be in possession of safety equipment and construction certificate to carry chemical products in bulk, according to IMO Code.
   (g) If ship carrying chemical products in bags or liquid gas in containers, Master's declaration to be in possession of the appropriate certificate, according IMO Code.
2. On Pilot boarding vessel, Master must submit following Check List, duly filled, to the Pilot:

(a) Vessel's details:

1. Ship's name.
2. Flag.
3. Owners.
4. Port of Registry.
5. Year built.
6. Gross tonnage.
7. Length.
8. Classification.
9. Call letters.
10. Kind of propulsion.
11. Agents.
12. Propulsion apparatus-horsepower.
13. Draft forward.
14. Draft aft.
15. Draft amidships.
16. Cargo (according to cargo plan).
17. Quality.
18. Quantity.

(b) Safety Equipment		*Good Working Order*	*Deficiencies*
(i)	Construction and technical equipment	(Yes)	(No)
	Main engine and auxiliaries	"	"
	Main rudder apparatus	"	"
	Auxiliary rudder apparatus	"	"
	Anchor apparatus	"	"
	Fire fighting equipment	"	"
(ii)	Navigation equipment	"	"
	Characteristic of available manoeuvrings	"	"
	First radar apparatus	"	"
	Second radar apparatus	"	"
	Gyro compass	"	"
	Magnetic compass	"	"
	Radio direction-finder	"	"
	Echo-sounder	"	"
	Other electronic equipment to determine vessel's position	"	"
(iii)	Radio equipment	"	"
	Radiotelegraphy apparatus	"	"
	Radio-telephone apparatus	"	"
	VHF apparatus	"	"

(c) Safety Certificates and other documents:		
Safety construction	(Valid)	(Not valid)
Safety equipment certificate	"	"
Safety radio-telegraph certificate	"	"
Safety radio-telephone certificate	"	"
Cargo certificate	"	"
Registry certificate		
International oil pollution liability certificate	Valid From –	Till
Oil record book up to date	"	"
Fitness certificate to carry chemical products in bulk according to IMO Code	"	"
Fitness certificate to carry LPG in bulk, according to IMO Code	"	"

(d) Master and Crew on board

Description of Title and Number – issued certificates of . . . . .
Date issued . . . .
Place issued/country . . . .

Master
Chief Mate
Second Mate
Third Mate
Chief Engineer
First Engineer
Second Engineer
Third Engineer
Radio Officer
Pilot on board
Remaining other crew members, deck and engine

Date . . . .
Master's signature or Master's Representative
(if applicable)

Unquote

Please kindly instruct all Masters to comply accordingly in order to avoid delay in entering the port.

These same regulations apply for Melilli Port (ISAB Terminal) except for first part of information which all Masters have to cable directly to "Compamare Siracusa" via Romaradio in due time before arrival.

AUTHORITY: Capitaneria di Porto, 96011 Augusta. *Tel:* (0931) 978922, 978695. *Contact:* Captain Pietro Trovato Gangemi, Port Commandant.

BAGNOLI: 40.48 N. 14.10 E. (See Plan)

DOCUMENTS: An arrival report containing vessel's main particulars and data of certificates has to be filled in by Port Officer upon arrival.
5 Crew Lists.
5 Passenger Lists.
Store List in duplicate.
International Health Declaration.
Cargo Manifest.

PILOTAGE: Bagnoli Pilot is permanently on watch as from 0600 to 0600 hrs. Usual Pilot position is Lat. 40° 47′ 30″ N., Long. 14° 08′ 10″ E. Pilotage is compulsory for vessels over 500 g.r.t. for anchoring or entering the port. Permanent watch is maintained by pilot station on VHF Channel 9 and/or 12. Vessel requiring Pilot may also use other international signals, such as flag, morse/sound letter "G". When in port vessels to give pilot station 1 hour's notice for any service required. In the event of bad weather (Bagnoli area is mainly exposed to S.W. winds) vessels to shift out of piers or to change anchorage to Baia Roads (sheltered natural bay 3 miles from Bagnoli in a Westerly direction).

ANCHORAGE: Depth of safe anchorages in Bagnoli area and in Baia Roads ranging from 20 m. to 45 m. – sandy bottom. Anchorage is allowed in the line from the lighthouse of Nisida Island to the lighthouse of Capo Miseno.

RESTRICTIONS: Vessels can enter port at any time of day. No restriction for night departures.

MAX. SIZE: See "Berthing".

HEALTH: Free Pratique can be requested via radio cabling to Health Officer of Naples. Cable address: Sanimare, Naples.

RADIO: Naples Radio.

TUGS: Presently no tug available, if required they come from Naples. Time taken approximately 2 hours.

BERTHING: *Italsider Ore/Coal Discharging Pier:* Two berths available. Pier length 357 m. Berth accommodation length 200 m. – max. draft allowed when berthing in Westerly direction is 41 ft. 6 in. – max. draft allowed when berthing in an Easterly direction is 36 ft. with H.T. This pier is equipped with two turntable gantry cranes and conveyor belts. Ore discharging rate: 1,100 t.p.h. Coal discharging rate: 900 t.p.h. All necessary stevedoring services are performed by Italsider with their own personnel. Cranes capacity: 32 tons. Fresh water available.

Italsider Loading Pier: Equipped with 6 turntable cranes and rails – max. draft allowed on both berths is 10.5 m. Fresh water available.

Federconsorzi Discharging Pier: Equipped with a fixed gantry crane and aerial ropeway for discharging of phosphates and pyrites. Discharging rate per shift of 8 hours – 450 tons. Max. draft allowed is 5.40 m. Fresh water available.

Tide Range: Approximately 30 cm.

STEVEDORES: Available. Rate of discharge 1,500/1,700 t.p.h.

FRESH WATER: Available from pier. Rate of delivery 20 t.p.h., or by barge. Vessels at anchor supplied with fresh water by barge from Naples.

FUEL: All types available, always delivered by barge, normally oil companies require 48 hours notice.

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: Carried out by crew.

CUSTOMS ALLOWANCES: (For entire duration of stay). Tobacco, 50 cigarettes per crew member. Spirits: 1 bottle (opened) per crew member.

IDENTIFICATION CARDS: Required.

CONSULS: At Naples.

REPAIRS: Small repairs undertaken.

TIME: GMT plus 1 hour Winter. GMT plus 2 hours Summer.

HOLIDAYS: See "Naples".

POLICE/AMBULANCE/FIRE: Police 7602553; Ambulance 7520696, 258044 (Ospedale S. Paolo); Fire 7330210 and 7605353.

SHORE LEAVE: Allowed.

GENERAL: *Launch Hire:* Vessels waiting at anchor for their turn may hire launch for crew shore leave and relevant service performed from 0700 to 2400 hrs.

The Port of Bagnoli is mainly used for the discharge of ores, minerals, coal and for the loading of steel products for account of the Italsider S.p.A., metallurgic industrial group of national interest, operating with its own shore appliances. Manufacturers of chemical products, the Federconsorzi of Naples, operate in the Port of Bagnoli also with their own shore appliances.

AUTHORITY: Capitaneria di Porto di Napoli, Sezione Staccata di Bagnoli, Via Coroglio 10 Bis, Napoli. *Tel:* 7232272. *Cables:* Seziomare Bagnoli. *Contact:* Sandro Musto, Captain of the Port.

BARI: 41.08 N. 16.52 E. (See Plan)

DOCUMENTS: On arrival:
5 Crew Lists.
3 Provision Lists.
3 Lists of Articles in possession each Crew member.
Customs Documents.
Cargo Manifests.
Bills of Lading.
Ship's Papers.
Health Documents.
On departure:
Additional declaration of departure.

PILOTAGE: Pilot boards vessels on arrival by motor-boat near harbour entry, outer buoy. Pilotage compulsory for vessel over 500 g.r.t. inward or outward, shifting vessels from one point to another in or out of port. Pilot works on VHF Channel 12.

Pilot call: Letter "G" of International Code, Pilot attending day and night. For services from 1700 hrs. to sunset, or from sunrise to 0800 hrs. the dues are increased.

ANCHORAGE: Good anchorage in all weathers, but precautions should be taken against winds from North. Rocky bottom covered by mud. Bad holding ground. Strong range in the port when bad weather. Not allowed to anchor in fairway except in case of emergency. Anchorage usually allowed East side of Nuovo Molo Foraneo at a distance of about 1 mile from shore.

RESTRICTIONS: Max. depth at harbour entrance 40ft., width 793 ft. Depth of water at berths from 33 ft. to 40 ft.

Night berthing and unberthing is restricted for vessels exceeding 5,000 g.r.t. because of the unavailability of the tugs. Only 1 tug is available for 24 hours a day and a second tug only between 0700 – 2200 hrs. and with 24 hours advance notice.

MAX. SIZE: Maximum permissible length 800 ft. for oil carriers proceeding to oil pier. Max. draft 39 ft.

HEALTH: Masters can request Free Pratique by radio by applying to "Sanimare Bari". Free Pratique automatic for vessels coming direct from other Italian port, and "Q" flag not to be flown on entering. In event of any suspected disease or fever on board, Master should inform Sanimare Bari, not permitting anybody to board the vessel before doctor's inspection.

RADIO: Radio Roma, call sign "IAR." Bari Radio P.T. call sign "IPB" on 2182 kHz. and VHF Channel 16.

TUGS: Tugs normally join vessel outside harbour entrance. Towage service is carried out by following tug-boats belonging to "Rimorchiatori Napoletani": *Serapo* of 1,000 h.p., *Sole II* of 1,170 h.p. and *Ana Capri* of 1,000 h.p. Basic tariff is increased by 20% when the towage rope is given by tug-boat.

BERTHING: When specific side alongside berth is required by stevedores, Agents radio Master prior arrival and advise Pilot. Otherwise side alongside at Master's option after conferring with Pilot. Depth at piers 10 ft. – 47 ft. dependent location. No shore fenders alongside quays.

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
Molo Pizzoli	400	3.0 – 4.50	Fishing vessels
Molo S. Vito			
No. 1	—	3.00	Ferries
No. 2	153	5.00	
No. 3	120	6.00	
No. 4	273	5.00	
Banchina Dogana	250	4.25	Small vessels
Banchina Capitan			
No. 5	70	5.00	Cargo and passenger vessels
No. 6	300	5.00	
No. 7		5.50	
Vecchio Molo Foraneo			
No. 8	380	5.80	Pilots, tugs, cattle holding station
No. 9		5.80	
No. 10		5.48	
Molo Ridosso (Esterno) Avamporto			
No. 11a	280	10.37	Naval vessels, ferries
No. 12a		9.76	
Molo Ridosso (Interno)			
No. 11	280	7.62	Naval vessels, ferries
No. 12		7.92	
Banchina Dep. F.			
No. 13	300	9.14	Large passenger and cargo vessels, free zone, silos
No. 14		8.53	
Banchina Mezzog			
No. 15	175	9	
Banchina Lev.			
No. 16	470	9.15	
No. 17		9.15 – 9.75	
No. 18		9.75	
Nuovo Molo Foraneo			
Nos. 19 – 23	570	7.31	Waiting, laying-up
Nos. 24 – 25	200	7.31	
Nos. 26 – 28	300	8.83	
Nos. 29 – 31	300	13.00	Supertankers
No. 31a	300	14.00	
Molo S. Cataldo			
No. 31 bis	630	10.50	Loading/discharging oil products
No. 32		10.00	
No. 33e		9.50	
No. 33i		6.50	
No. 34		4.30	

BULK HANDLING FACILITIES: Grain discharge by 2 suction pipes at rate of 90 to 100 metric t.p.h. each.

STEVEDORES: Important to give ETA in good time. Normal working hours: Winter time (weekdays), 0800 – 1200 hrs., 1300 – 1700 hrs. Saturdays, 0800 – 1300 hrs. Summer time (weekdays), 0800 – 1200 hrs., 1400 – 1800 hrs. Saturdays 0630–1300 hrs.

Overtime: From 0600 – 0800 hrs. the tariff to be increased 25%; 1200 – 1300 hrs., 50%; 1700 – 2000 hrs., 25%; 2000 – 0600 hrs., 70%.

For handling pieces over 1,000 kilos, increase of 50% on the tariff. For unhealthy work, increase of 30% on the tariff.

Sunday. From 2400 – 0800 hrs. the tariff to be increased 100%; 0800 – 1200 hrs., 50%; 1400 – 1800 hrs., 50%; 1200 – 1400 hrs., 100%; 1800 – 2400 hrs., 100%.

MEDICAL: Not necessary for Agents to receive advance notice of required medical attention. Hospital facilities available.

TANKERS: Not allowed to do any degassing of tanks or any kind of repairs to vessel without Harbour Office permission.

Cleaning and degassing of tanks not allowed in port. Inspection of tankers and gas-free certificate can be obtained. Only clean ballast can be discharged in port.

Diameter of load-discharge pipe-lines at oil berth are:

20 in., 16 in. and 12 in. pipe-line for crude oil; 12 in and 18 in. pipe-line for fuel oil; 8 in. pipe-line for gasoil; 8 in. pipe-line for gasoline.

Crude oil discharged to Stanic Refinery from Berths No. 31 and No. 4 (Molo Foraneo) suitable for tankers up to 39 ft. draft.

Fuel and other refined products discharged at Berth Nos. 31, 32, 33 and 34.

Deballasting Facilities: There is a shore capacity for 6,500 tons of ballast water. All S. Cataldo Berths are served by a common 12 in. deballast line. On each berth a dirty product arm is used for deballasting line (partially made of concrete), the normal deballasting rate is 250 t.p.h. The maximum pressure being limited to 42 p.s.i.

For this reason it is suggested to arrive at berth with minimum safe manoeuvring ballast quantity.

No slop facilities are available.

DENSITY: Salinity 36%.

FRESH WATER: Available at all berths served with hydrants. Good drinking water supplied by Ente Acquedotto Pugliese. No barge available to carry water in the harbour and in the roads. Tugs may be used for this purpose.

FUEL: Available, 3 days advance notice required.

GANGWAY/DECK WATCHMEN: Service of watchmen is recommended, shift of 10 hours.

OPENING/CLOSING HATCHES: Normally carried out by stevedores. Opening or closing of hatches charged for work carried out during usual working hours.

CUSTOMS ALLOWANCES: 50 cigarettes only are given to each crew member out of bond on vessel's arrival. Wine is permited to be held out of bond but no spirits allowance permitted.

IDENTIFICATION CARDS: Shore leave pass is compulsory.

CONSULS:

Austria
Belgium
Bolivia
Denmark
Ethiopia
France
Germany F.R.
Greece
Liberia
Monaco
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
Turkey
United Kingdom

REPAIRS: Workshops and shipyards are capable to carry out repairs to hull and engines.

SURVEYORS: 1.There are cargo inspectors available; these can be obtained from S.G.S. Tel: 080/410333.

2. The representative of Lloyd's Register in the port is Lorusso.

DRY DOCKS: No dry docks are available at Bari. Nearest dry docks are at Taranto.

REPATRIATION: Many facilities for effecting crew changes and possibilities for arranging any necessary repatriations.

AIRPORT: Airport is located about 10 km. North of city. Served by regular airlines with flights for all countries daily.

TIME: Local time 1 hour ahead of GMT. Alterations to clocks are made from Spring to beginning of Autumn, giving 2 hours advance on GMT.

HOLIDAYS: New Year's Day (1st January); Liberation Day (25th April); Labour Day (1st May); Easter Monday; St. Nicholas, Patron of the Town (10th May); Proclamation Day (2nd June); Assumption B. V. Maria (15th August); All Saints' Day (1st November); Immaculate Conception (8th December); Christmas Day (25th December); Boxing Day (26th December).

Cargo work can be arranged on above days, and the stevedoring tariff increased as follows: From 2400 to 0800 hrs., increase 100%; 0800 to 1200 hrs., 50%; 1400 to 1800 hrs., 50%; 1200 to 1400 hrs., 100%; 1800 to 2400 hrs., 100%.

POLICE/AMBULANCE/FIRE: Police, 214116; Ambulance (First Aid) 444848; Fire, 212518.

EMERGENCY CO-ORDINATION CENTRE:

Bari Port Captaincy – Tel: 216860. On VHF Channel 16 from 0800 hrs. – 2100 hrs.

Bari Radio 'P.T.' on VHF (listens throughout 24 hours) on Channel 16.

STORING: See "Prelims".

1. Vessels in port can be supplied by lorries.
2. Lorries with stores for vessels at quays, apart from normal Customs requirements, (if necessary), have to be authorised to enter the port.
3. Lorries with trailers can line up on the berths alongside the vessels. The process is subjected to the commercial operations on hand and /or the position of the vessel at the berth.
4. Fork lift trucks are never used for supplying stores to ships in this port.
5. For the supply of provisions there is the company S.p.A. Cianciola – Tel: 080/235260, 235261, 235262. Telex: 810021. Cianci I. P. O. B. 240, 70100 Bari who may be approached for any specific requirement. The same Company also has a large area in the port, as a free zone, for storage of goods.
6. Local unloaders can be employed to help in placing goods in store on board if required and available.

BANKS: Banca Commerciale Italiana, Via Abate Gimma No. 87, 70100 Bari Tel: 080 – 216680.

Credito Italiano, Via Putignani No. 98, 70100 Bari. Tel: 080-216771.

Banco di Roma, Via Calefati No. 82, 70100 Bari. Tel: 080-235300.

TELEPHONES: No arrangements exist for placing telephone on board.

SHORE LEAVE: Allowed.

DEVELOPMENTS: Expected draft increases in the near future for berthing tankers up to 80,000 tons.

AUTHORITY: Capitaneria di Porto, Bari, Corso de Tullio 1, 70100 Bari, Italy. *Tel:* 080-216860. *Telex:* 812289. *Cables:* Compamare Bari. Also VHF Channel 16. *Contact:* Carlo Stea, Port Captain.

BRINDISI: 40.39 N. 17.56 E.

DOCUMENTS:

3 Crew Lists.
3 Lists of Passengers Disembarking.
3 Lists of Passengers in Transit.
Manifests of Cargo carried, with specification of port of origin and whether for local discharge or in transit. If stowed on deck or below deck.
List of Articles in possession of each crew member, such as cameras, binoculars, portable radios, cigarettes, tobacco or any kind of cheap-priced goods.

Other Certificates required to be on board:

Certificate of Ship's Tonnage.
Load Line Certificate.
Derat Certificate.
R/T Certificate.
Safety Certificate.
Anchorage Dues Receipt (if previously paid).

PILOTAGE: Vessel approaching port should apply for Pilot by hoisting the "G" flag, if by daytime. By night-time, letter "G" will have to be signalled by Morse, to port semaphore (Signal Station) which is located under shore lighthouse showing white flashes.

Telegraphic address of pilot station is "Piloti Porto, Brindisi". No ETA required for Pilots as station not equipped with wireless apparatus. Characteristics of pilot boat: gross tonnage, 9.4; power, 65 h.p.; speed, 8 knots.

Area where Pilot boards vessel:

In good weather: 1 mile from harbour entrance.

In bad weather: (a) If vessel is heading for inner harbour and is of small tonnage (up to 3,000 tons) Pilot boat will steer in a direct line, bows pointing towards vessel, up to entrance to "outer" harbour, where Pilot will board vessel. If vessel is of higher tonnage, she will have to take a "crosswise" position so as to form a sheltered area for Pilot, about 1 mile from harbour entrance. *(b)* If vessel (tanker) is bound for outer off-shore terminal (Montedison Installation) for discharge of crude-oil, Pilot boat will endeavour to approach vessel to communicate impossibility of immediate mooring. Anchorage roads, pending possibility for Pilot to board vessel, are 0.8 miles E.N.E. of "Punta Penne" (Capo Gallo).

ANCHORAGES: Besides anchorage point described above, there exists safe anchorages in bay for vessels having draft of 9 m. (29 ft. 6 in.) and in external harbour for vessels of less than 3,000 tons (gross).

RESTRICTIONS: Tankers of over 1,500 tons gross may berth only from sunrise till sunset. Port berths are inaccessible in unfavourable winds. Passenger or cargo vessels no restrictions.

MAX. SIZE: *Inner Harbour:* Draft not to exceed 9.4 m. (30 ft. 10 in). *Outside Main Port area:* For discharging crude oil at offshore terminal, max. draft allowed 11.50 m. (37 ft. 8 in.). For discharging or loading of other refined products of Montedison Installations, depth of berths varies from 4 m. to 9 m. (from 13 ft. 1 in. to 29 ft. 6 in.).

HEALTH: Apply to "Sanimare, Brindisi" by radio, 12 hours before arrival, and not later than 4 hours before arrival, according to provisions of Health Regulations, notifying in message state of health of crew and port of origin of vessel. Procedure not required if vessel entering after calling at another port in same country.

RADIO: Vessel can communicate ETA messages to Agents through Bari Radio (nearest station) or through Rome Radio which can pick up messages from vessels at sea almost in any part of the world.

TUGS: Tug service is generally effected from Punta Riso-Faro Della Pedagne Junction, up to inner harbour. It is customary to use tugs' lines for mooring and unmooring of tankers at terminals outside main port area, in view of the peculiarity of mooring operations and the area where tugs are to operate (subject to surf, choppy seas, winds). Charge for use of tugs' lines is 20% extra on normal towing rates.

TANKERS: Crude oil discharged at offshore buoy mooring for vessels up to 37 ft. 8 in. draft.

Other tanker berths at Inner Harbour for refined products, suitable for tankers up to 28 ft. draft.

STEVEDORES: Always advisable to notify in ETA messages to Agents number of hatches vessel intends working simultaneously to arrange gangs. Normal working hours: From 0700 to 1200 hrs. and 1400 to 1700 hrs. Overtime: Weekdays, 70% increase on normal tariffs. Sundays and holidays: Work performed during normal hours, 50% increase. On overtime, 100% increase.

MEDICAL: Hospital facilities available. For any kind of medical attendance or hospitalisation, if needed, it will be helpful to have port Agents advised by radio in advance.

FRESH WATER: Almost all mooring points alongside wharves are fitted with fresh water distributing hydrants. At off-shore terminals, supply is effected by tugs.

FUEL: Types of fuel available: Bunker "C", viscosity Engler at 50° (Centigrade), 16/20; specific weight, 0.950/0.960. Gasoil, viscosity Engler at 20° (Centigrade), 1.4; specific weight, 0.830. 48 hours advance notice for any supplies required.

FIRE PRECAUTIONS: Firemen always in attendance during loading/unloading operations by oil carriers.

GANGWAY/DECK WATCHMEN: Not required.

OPENING/CLOSING HATCHES: Normally carried out by crew.

CERTIFICATES: For vessels over 500 tons effecting international voyages:

(a) Passenger vessels:
  Safety Certificate.
  Radio and Radiophone Certificates (latter if included in vessel's equipment).

(b) Freighters:
  Safety Construction Certificate.
  Safety Equipment Certificate.
  Radio and Radiophone Certificates.

CUSTOMS ALLOWANCES: 50 cigarettes a day for each crew member, if vessel's stay in port exceeds 24 hours. No allowance if stay is shorter than 24 hours. Third of a bottle of spirits only.

IDENTIFICATION CARDS: Not particularly needed besides regular seaman's books.

CONSULS: Vice-Consulate of Denmark, Portugal and Netherlands, all having the same telephone number: 21123. Vice-Consulate of Spain: telephone: 21039.

REPAIRS: Only minor deck and engine repairs can be carried out locally.

REPATRIATION: Adequate facilities exist for effecting crew changes and repatriations as necessary.

AIRPORT: Distance from local airport 5 km. (3 miles). Airport regularly served by Alitalia Airline, ensuring 2 daily flights to Rome and 1 daily flight to other Italian cities, including, among others; Naples, Catania, Palermo, Cagliari, and other destinations via Rome. Direct international flights not scheduled from Brindisi.

TIME: Local time 1 hour ahead of GMT; from 29th March to 26th September, 2 hours ahead of GMT (Summer time).

HOLIDAYS: Officially recognised. Both national and religious holidays include: Sundays; New Year's Day; Epiphany (6th Jan.); St. Joseph's Name Day (19th March); Easter (Easter Monday); Anniversary of Liberation (25th April); Labour Day (1st May); Ascension, Corpus Domini (movable dates); Proclamation of the Italian Republic (2nd June); the Saints Peter and Paul Name Day (29th June); Assumption (15th August); All Saints' Day (1st Nov.); National Unity (4th Nov.); the Virgin Immaculate Conception (8th Dec.); Christmas, Boxing Day.

POLICE/AMBULANCE/FIRE: Police, 25555; Ambulance, 21310; Fire, 21222.

TELEPHONES: No current arrangements existing for placing telephones on board.

SHORE LEAVE: Allowed.

DEVELOPMENTS: Under construction: 1 pier in outer harbour, which is scheduled to be 200 m. in length (219 yards) with a depth of 12 m. (39 ft. 4 in.).

Coal unloading wharf of 670 m. length to be built to accommodate 2×150,000 d.w.t. vessels. Unloading will be by 2×1,500 t.p.h. bucket unloaders.

AUTHORITY: Capitaneria di Porto – Brindisi, Via Regina Margherita, No. 1, 72100 Brindisi, Italy. *Tel:* 21022, 21023. *Telex:* 813395 Compbr I. *Cables:* Compamare Brindisi.

CAGLIARI (including Sarroch), Sardinia: 39.05 N. 09.01 E (See Plan)

DOCUMENTS:

6 Crew Lists.
6 Passenger Lists.
2 Provisions Manifests.
2 Manifests of Crew Personal Effects.
Cargo Manifest.
Bills of Lading.
2 Arrival Reports, completed on arrival.
Maritime Declaration of Health, completed on arrival.
Ship's Certificates including Italian Anchorage Dues.
Vaccination Certificates for sighting.

PILOTAGE: Compulsory for vessels over 500 tons. Requested by ship's Agents. Vessels should wait in the roads for Pilot to board. International Code signals used for calling Pilot. Pilot station telephone number: 652929. Pilot boards tankers about 2 miles East of oil terminal.

Sarroch: Compulsory for all tankers. Vessels should wait in roads as follows:

G1 – (for tankers of more than 42 ft. draft) Lat. 39° 05′ 00″ N., Long. 09° 05′ 00″ E.
G2 – (for tankers of less than 42 ft. draft) Lat. 39° 04′ 27″ N., Long. 09° 03′ 15″ E.
G3 – (for tankers of less than 5000 g.r.t.) Lat. 39° 05′ 48″ N., Long. 09° 02′ 00″ E.

Pilot station telephone number 929006–929057. VHF Channel 16.

ANCHORAGE: All of the Roads are available for anchorage except where prohibited zones indicated on charts.

MAX. SIZE: Cagliari Port: Max. draft 26 ft. Sarroch, SARAS Terminal, tankers up to 380,000 d.w.t. Max. draft 68 ft. Depth of channel 75 ft.

HEALTH: Free Pratique may be requested by radio to Sanimare Cagliari between 12 to 6 hours prior to arrival advising vessel's name, nationality, last port, number of passengers and crew and state of health on board. Pratique is automatic for vessels coming from ports in E.E.C. countries.

RADIO: Cagliari Radio operating continuously on 2182 kHz. and on 156.8 MHz.

Tankers: 48 hours' radio notice must be given, also advice of readiness on arrival.

Following information to be sent with first ETA message to Saras – Sarroch, Telex: 790169 Saraff I.

1. Quantity of clean and/or dirty ballast.
2. Quantity of slops to be discharged/kept on board.
3. Previous cargo.
4. Condition of cargo tanks i.e. inerted, gas free, etc.
5. Arrival draft.
6. Sailing draft.
7. Distances bow manifold and stern manifold.
8. Manifold size and number of loading arms required.
9. Maximum acceptable loading rate.

VHF: *Cagliari:* Harbour Master's Office, Channel 16.
Sarroch: Harbour Master's Office, Channel 16. Pilot station, Channel 9. Mooring station, Channel 6. Boat service station, Channel 8. Loading Master – Saras Terminal, Channel 14.

Also see "Shipmaster's Report".

TUGS: 6 available, of up to 4,500 h.p.
Cagliari: Normally join vessels at the port entrance.
Sarroch: Normally join tankers at anchorage points and assist berthing at Saras Jetties Terminal.

BERTHING: *Cagliari*

Berth No. 1: Length 68.0 m.; draft 14 ft.
Berth No. 2: Length 128.0 m.; draft 24 ft.
Berth No. 3: Length 227.0 m.; draft 21 ft.
Berth No. 4: Length 123.7 m.; draft 18 ft. 03 in.
Berth No. 5: Length 60.3 m.; draft 18 ft. 03 in.
Berth No. 6: Length 116.8 m.; draft 8 ft.
Berth No. 7: Length 92.6 m.; draft 16 ft. 06 in.
Berth No. 8: Length 278.6 m.; draft 23 ft.
Berth No. 9: Length 325.8 m.; draft 24 ft.
Berth No. 10: Length 328.0 m.; draft 26 ft. 06 in.
Berth No. 11: Length 203.2 m.; draft 26 ft. 06 in.
Berth Nos. 2, 3 and 4 reserved daily for passenger ships.

TANKERS: *Sarroch Saras Jetties*

P.1: draft 39 ft. 6 in.
P.2: draft 36 ft.
P.3: draft 41 ft.
P.4: draft 38 ft.
P.5: draft 36 ft.
P.6: draft 26 ft.
P.7: draft 35 ft.
P.8: not yet workable
P.9: not yet workable
P.10: draft 23 ft.
Platform Island No. 1 (for crude oil discharging only) draft 68 ft.
Platform Island No. 2 (for crude oil discharging only) draft 57 ft.

Loading Rates:

Berth Nos. 1 – 4	Crude oil	5,000 t.p.h.
	Fuel oil	2,000 t.p.h.
	Gas oil	2,000 t.p.h.
	Gasoline	1,000 t.p.h.
Berth No. 5	Fuel oil	2,000 t.p.h.
	Gas oil	800 t.p.h.
	Gasoline	500 t.p.h.
	LPG	200 t.p.h.

Berth No. 6 For Bunkering Barges and small tankers up to 3,000 d.w.t. Fuel oil, gas oil, kerosene and gasoline at slow pumping rates.

Berth No. 7	LPG	200 t.p.h.
	Fuel oil	1,000 t.p.h.
	Gas oil	800 t.p.h.

Platform island for crude oil only at 10,000 t.p.h.

MEDICAL: All facilities available at Cagliari.

DENSITY: 1025.

FRESH WATER: Available by pipe-line at all berths. No water barges, although bunker barges may be able supply small quantity fresh water in emergency only.

At times fresh water is in short supply and may not be available.

Cost of delivery of fresh water by tug is 3,000 lire per tonne.

FUEL: All grades available ex-barge only. Barges supply vessels at anchor and vessels calling for bunkers only.

Vessels calling at Sarroch for bunkers by barge are required to keep Agents closely advised of their ETA and bunker requirements. Messages confirming the vessel's ETA should be sent to Agents 72, 48 and 24 hours before vessel's arrival. Masters should note that Customs Regulations do not permit the return of bunkers to the refinery after the barge is loaded, therefore an accurate figure of bunkers required must be given in the first ETA message to Agents.

BALLAST: The discharge of ballast by tankers can be effected at all berths at a pumping rate between 1,000 and 2,500 t.p.h. Reception of ballast ashore is into 3 tanks with total capacity of 20,000 cu.m. and 6 API separator vessels.

CUSTOMS ALLOWANCES: 40 cigarettes and 1 opened bottle wine/spirits per man, usually allowed for consumption on board while vessel in port.

IDENTIFICATION CARDS: Shore passes issued by local police.

CONSULS:

Belgium
Denmark
France
Netherlands
Norway
Sweden
United Kingdom

REPAIRS: Minor repairs can be handled at Cagliari. Slipway for vessels up to 400 tons.

REPATRIATION: No difficulties.

AIRPORT: Elmas Airport situated 12 km. from Cagliari.

TIME: GMT plus 1 hour. Summertime March to September: GMT plus 2 hours.

HOLIDAYS: Not applicable to tankers. New Year's Day (1st January); Epiphany (6th January); St. Joseph (19th March); Liberation Day (25th April); Labour Day (1st May); Easter and Day after Easter; Ascension Day; Corpus Domini; Proclamation Day (2nd June); St. Peter & St. Paul (29th June); Assumption B.V.Maria (15th August); All Saints' Day (1st November); Victory Day (4th November); Immaculate Conception (8th December); Christmas Day (25th December); Boxing Day (26th December).

POLICE/FIRE/AMBULANCE: *Cagliari:* Police Tel: 658956. Fire Tel: 652222. Ambulance Tel: 656979.
Sarroch: Police Tel: 929063. Fire Tel: 652222. Ambulance Tel: 929024.

TELEPHONE: No telephone connection on board.

SHORE LEAVE: Allowed.

DEVELOPMENTS: The new industrial port S.W. of Cagliari is still under construction. Both Meridionale and Settentrionale Moles have now been completed.

SHIPMASTER'S REPORT: October 1979 (Updated 1986).
Anchorage Restrictions: The following port regulation in force since April 30th, 1979:

Vessels calling at Sarroch for orders only, may not get permission to anchor at Golfo di Cagliari Anchorage.

Such a vessel must remain in position South of the line Cape Spartivento – Cape Carbonara.

Offence against this regulation will cause the vessel to be fully charged for harbour and light dues in connection with clearing by Immigration, Port Health, Customs and Agents.

VHF: Pilot operates on Channels 16 and 9. Agencies operate on Channel 8. Loading Master Sarroch/Saras Jetties operate on Channel 14. Call sign: "Saras Terminal".

SHIPMASTER'S REPORT: May 1981.

At the oil berths it is usual to have 4 tugs and tugs are paid by the hour, i.e. the use of a tug for 61 minutes costs 2 hours hire.

Moorings are usually 3,2,2, with head and stern lines sent first followed by springs. Require plenty of turns on the bitts for tugs.

Apparently the boatmen will not come out to the vessel if she is anchored outside the designated anchorage areas as shown on the chart unless, of course, the draft prohibits a close approach. It is frequently used for bunkering and crew changes.

To obtain fresh water from the jetty it is necessary to obtain, in duplicate, an official form from the Agent.

According to Pilot the max. size is now 250,000 d.w.t. and draft 23 m.

Harbour Master boards for, usually, at least one inspection and collects EEC check list. Vessels documents usually taken ashore for perusal by Harbour Master.

Anchorage dues are valid for one month.

AUTHORITY: Capitaneria di Porto di Cagliari, 09100 Cagliari, Italy. *Contact:* Captain Sergio Albanese, Port Commandant.

SARAS Marine Terminal, 09018 Sarroch (CA), Italy. *Tel:* (070) 900031 – 900061. *Telex:* 790169. *Cables:* Saras – Sarroch. *Contact:* Captain D. Grosso, Manager – Marine Service.

CATANIA, Sicily: 37.29 N. 15.06 E. (See Plan)

DOCUMENTS: Arrival report requested by Harbour Authorities. Also see "Augusta".

PILOTAGE: Master can communicate with Pilot on VHF Channel 16. Pilot boards at sight on harbour entry. International Code signals used to call Pilot.

ANCHORAGE: Vessel must remain on roads awaiting Pilot.

RESTRICTIONS: No restrictions on entry at night, except for tankers (either loaded or empty, as per harbour regulation). The tide at Catania is no more than 30 cm. Bar at entrance 30 ft.

MAX. SIZE: No limitation on the length and breadth but only on draft of vessel, provided same can be contained within the size of piers of Catania Harbour. See "Berthing".

HEALTH: The usual Sanitary Pratique as per all Italian ports is requested. Free Pratique obtainable by radio prior arrival sending cable to "Sanimare Catania".

RADIO: The quickest way is to address messages to "Romaradio", better if adding to the telegraphic address the telex number of Agency, so that after very short time from reception at Romaradio the message is in Agent's hands.

It is important that 72 *working* hours notice of ETA be passed to Agent.

TUGS: When Pilots are on board, they can call tugs by small radio-calling station. Very frequently the tug's Company, when seeing a large ship, join vessel at same time as Pilot. Tugs using ship's lines.

BERTHING:

Berth No.		*Length*	*Depth*
1 and 2	Molo Mezzogiorno, Oil berths	361 m.	30 ft. 6 in.
6	Molo Crispi, Silo berth	154 m.	30 ft.
7	" "	130 m.	29 ft.
8	" "	140 m.	29 ft.
9	" "	130 m.	20 ft. to 28 ft.
10 and 11	Sporgente Centrale	307 m.	30 ft.
12	Molo Centrale	120 m.	30 ft.
13	Sporgente Centrale	182 m.	30 ft. 6 in.
14	" "	169 m.	29 ft.
17	" "	142 m.	22 ft.
18	" "	142 m.	22 ft.
19	" "	156 m.	18 ft. to 21 ft.
20	" "	170 m.	16 ft. 6 in.
21	" "	111 m.	19 ft. 6 in.
22	" "	60 m.	16 ft. to 20 ft.

STEVEDORES: As per actual Port Labour Regulations, in order to book gangs, stowage details must reach Agency not later than 1100 hrs. of the day before ship's arrival, except for work to be done on Saturdays, Sundays and Mondays when application for gangs must be made on Friday.

The official load/discharge rate for general cargo is 50 tons per hatch per day (8 hours), but real output is higher. Increase for overtime, continuous shifts (0700–1330 hrs.; 1330–2000 hrs.; 2000–0230 hrs.). Night work, Sundays, national holidays, etc.

MEDICAL: Hospital facilities easily available. No advance notice required unless for emergency cases and for cases to be urgently treated during night and holidays.

TANKERS: 2 tanker berths are situated in line at Southern Breakwater, called "Molo Mezzogiorno". There are 3 pipe-lines, diameters of 8 in., 6 in., 4 in. No discharge facilities for tank washing.

Tankers are not allowed to berth or unberth at night.

SALINITY: Average salinity of water inside the port is the same as the average salinity of Mediterranean.

FRESH WATER: Available at nearly all quays including bunker piers.

FUEL: Bunkers available and supplied only by pipe connection at bunker pier (Molo Mezzogiorno). Max. rate 400 t.p.h.

CUSTOMS ALLOWANCES: Tobacco, for foreign ships not in coastal service in Italian Ports: 50 cigarettes per each crew member, for the first 24 hours of the ship's stay in port. Other cigarettes can be obtained for which an application to the Customs House is required. Spirits: 2 or 3 bottles per day (provided minimum 20 crew members).

CONSULS:

Austria	Germany F.R.	Norway
Belgium	Greece	Portugal
Denmark	Netherlands	Spain
Finland	Nicaragua	Sweden
France		

REPAIRS/DRY DOCK: Small repairs can be carried out at Catania. No dry docks available.

AIRPORT: Very near important airport with regular international flights.

TIME: GMT plus 1 hour. In Summer time GMT plus 2 hours.

HOLIDAYS: Normally, during all holidays it is possible to work with extra payment.

TELEPHONES: Numbers of emergency services: Police 531905; Emergency Police 113; Fire Brigade 327702; Sanitary Office 532123; Harbour Master 531667, 531134; Pilot 531906; Mooring 531150.

DEVELOPMENTS: Ferry berth under construction. 40 ton multi-purpose container crane to be installed. With spreader it will be able to handle 20 ft., 35 ft. and 40 ft. containers and general cargo up to 45 tons by hook.

AUTHORITY: Capitaneira di Porto. Via Dusmet, Porto di Catania, Italy. *Tel:* 531667, 531134. *Telex:* 912350. *Cables:* Capitaneria di Porto-Catania. *Contact:* Comm. Antonino Petralia.

CHIOGGIA: 45.14 N. 12.19 E. (See Plan)

PORT LIMITS: Bacino Marittima and Banchina Lombardo Esterno.

DOCUMENTS:
6 Crew Lists (IMO Form).
6 Passenger Lists.
2 Stores Lists.
2 Cargo Manifests.
2 Crew Personal Effects Lists.

PILOTAGE: Not compulsory. ETA at least 24 hours prior to arrival. Pilot will board 1.5 miles E.N.E. of channel entrance. Vessels on arrival may contact Pilots by VHF (Channel 14).

ANCHORAGE: Recommended anchorage 1.5 miles North East of the entrance. All vessels must keep radio watch, specially in Winter time owing to very strong E.N.E. winds.

Anchorage in inner road available, with Harbour Master authorisation.

HEALTH: Clearance on arrival.

VHF: Harbour Master on Channel 16 from 0800 – 2000 hrs. Venice radio (PT) on Channel 16, continuously.

TUGS: Available.

BERTHING: For general cargo there are the following berths: Banchina Lombardo Esterno: Length 650 m., max. draft 21 ft. Bacino Marittima, with 3 berths available, total length 480 m., draft from 14 ft. to 16 ft.

Banchina Lombardo Interno: Length 100 m., draft 14 ft. For bulk carriers (grain etc.) there are 2 mooring buoys.

Campo Boe San Felice: For ships LOA 220 m., max. draft 28 ft.
Campo Boe Perognola: For ships LOA 150 m., max. draft 21 ft.
Ro/Ro berth: Bacino Marittima South – max. draft 15 ft.

CRANES: 16 mobile cargo cranes – max. capacity 130 tons. 3 floating elevators for bulk carriers. 1 cargo crane on rails – capacity 5 tons alongside Banchina Lombardo Interno.

STEVEDORES: Working hours normally 0800 – 1200 hrs, 1400 – 1800 hrs.

MEDICAL: Hospital facilities available.

FRESH WATER: Available on the berth by hose connection. For ships on road by tug or barge, is necessary.

FUEL: Available by lighter.

CONSULS:

Argentina	Germany F.R.	Panama
Belgium	Greece	Peru
Brazil	Lebanon	Portugal
Denmark	Liberia	Spain
Finland	Netherlands	Sweden
France	Norway	United Kingdom

REPAIRS: Routine maintenance possible.

CUSTOMS ALLOWANCES: Italian Regulations apply.

SHIPMASTER'S REPORT: August 1980.

Vessel discharged yellow corn.

Chioggia is a famous fishing port in the Southern region of the Venice lagoon. In the past few years more and more vessels with grain cargo have been directed to this port because the facilities of Venice, Ravenna, etc., are not sufficient to handle the increasing quantities of imported grain, corn, soyabean meal, etc.

Vessels with an arrival draft deeper than 28 ft. have to anchor outside the breakwater about one mile N.E. of the entrance. The depth there is 12.0 m. – 14.0 m., the bottom is muddy. The lightering operations are done by floating elevator and modern barges. It is understood that the season is good and the sea calm. The daily discharge rate with one elevator is between 3,000 and 4,000 metric tons. The elevator is not self propelled, the barges are handled by a modern pushing tug. From the vessel the barges move alongside to the inner harbour basin named "Bacino della Stazione Marittima" where they are discharged by mobile cranes into lorries.

A shipchandler is available, the quality of fresh provisions is good. The shipchandler also co-operates with "Unitor" gas and oxygen change.

Fresh water is only available by tug at outer roads and in small quantities, tug charges about U.S.$300.00 per hour.

Transportation of crew and small amounts of stores is done by the pilot boat, which charges U.S.$75.00 per trip from 0800 hrs. until 1700 hrs. Monday-Saturday, outside that time 50% more.

The pilot boat listens on Channel 14 VHF during daytime, otherwise only when there is work for the Pilot.

When vessel's draft is not more than 28 ft., shifting into the inner roads is possible, there is a place close S.W. of the castle "Forte S. Felice" with two mooring buoys for the stern and one for the bow, distance between stern buoys and bow buoy is 250 m., the depth is 10.0 m.–11.0 m.

There is one tug available, further tugs have to come from Venice.

At the inner roads fresh water is available by waterboat from Venice-Marghera, minimum of two days notice required, the quality is good. A crewboat is available and has to be arranged by the Agent, VHF is not available, the charge rate is about 30,000 (thirty thousand) Italian Lira per trip.

The nearest airport is Venice/Marco Polo Airport, taxi charges from Chioggia to Airport between 30,000 and 40,000 Italian Lira.

From the ship's documents only the certificate of measurement was required by the authorities, other forms like those required at Venice.

Doctor and hospital with X-ray facility available, giving medical reports in Italian language only.

Repair facilities are not available, have to be ordered from Venice.

AUTHORITY: Capitaneria di Porto – Chioggia, Piazza Santa Croce 1290, 30015 Chioggia, Italy. *Tel:* (041) 400242, 404741, 404761. *Telex:* 411063 Compch I. *Cables:* Compamare Chioggia. *Contact:* T. Santapaola, Port Commandant.

TYPE ?

CIRO MARINA (Pta. Alice): 39.24 N. 17.09 E. (See Plan)

SHIPMASTER'S REPORT: November 1979.

The vessel was instructed to go to Ciro Marina to load a cargo of salt, at the time the vessel was berthed at Marina de Carrara. We realised that we did not have a chart of Ciro Marina and ordered one from Genoa. After 4 days still no chart was forthcoming, I do not think such a chart exists.

We approached Ciro Marina from the South, as close in as was considered prudent, but no sign of any harbour could be seen at the village of Ciro Marina.

Looking further North towards Pta. Alice (Al-lee-chi) a large hangar type building and loader could be seen, (this coincides with the statement in the Pilot supplement, page 78). We rounded the point and proceeded towards the loader, where dolphins could be seen. (See "Plan").

Torre Vecchia is not so noticeable when approaching from the East. (Mediterranean Pilot Vol. 2, Page 475, lines 18-22).

It was established that a Pilot should have been ordered through Crotone Pilot Station, 20 miles South of Pta. Alice. As the weather was excellent, and ascertaining that there was ample water I decided to berth the vessel, this was accomplished without any difficulty.

It is best to drop the anchor well out, as it is used to haul small ships off the dolphins to load, as the loader cannot traverse right in close. We were told there is usually a buoy moored offshore to take an offshore headline, but this had been washed ashore in the Winter. An offshore dolphin for a similar stern line is in position. (See "Plan").

I was told the loader can load up to 2,000 tonnes per hour, and is fairly manoeuvrable. With the loader placed amidships it was necessary to shift ship twice, to load right forward, and right aft.

No fresh water is available. It might be possible to get a small quantity of stores, although getting them on board would be quite a carry, the loading chute/pipe is about 300 m. long with a narrow catwalk alongside the loading belt, it is not the best way to get stores aboard.

Sailing presents no difficulties, just let go and steam away. The Pilot does not appear.

As this is an open to the sea berth it is dangerous with winds from W.S.W. through North to E.S.E., or any Northerly swell. Vessels of 14,000 tons use this "port" and large quantities of salt are exported.

References:
B.A. Chart 198.
Mediterranean Pilot Volume 2. 9th Edition 1965. Pages 474 and 475, along with supplement No. 7 – 1975.

Position: Gulf of Taranto. Lat. 39° 24.2′ N., Long. 17° 08.7′ E. (approx.).
Type of Port: Open to the sea.
Pilot: Ordered through Crotone Pilot, VHF Channels 16 and 14.
Radio Station: Crotone Radio is the nearest.
Cargo Loaded: Mineral salt.
Rate of Load: Up to 2,000 tonnes per hour.
Fresh Water: Not available.
Boatmen: Available. They stand by from arrival to departure.

AUTHORITY: Capitaneria di Porto Crotone, Lago Molo, Porto Nuovo, 88074 Crotone, Italy.
Tel: 0962-20721, 0962-20722. *Telex:* 890083 Compcr I. *Contact:* Manlio Ritiore, Harbour Master.

CIVITAVECCHIA: 42.05 N. 11.47 E. (See Plan)

DOCUMENTS: On arrival:
4 Crew Lists.
4 Lists Passengers in Transit.
4 Lists Passengers Disembarking.
2 Provisions Lists.
2 Lists of Crew Articles, including Tobacco, Cigarettes, Spirits, Radio, etc.
Detailed declaration of all firearms, weapons and ammunition onboard as ship's equipment.
Manifest(s) and Bill(s) of Lading (non-negotiable) covering all cargo on board.

It is recommended that particular care be exercised in giving the exact weight and number of tobacco, cigarettes, spirits, paper for cigarettes, cigars, cigarillos, coffee, sugar, salt, pepper, spices, cocoa and chocolate, etc. on board, as well as bunker quantities and lube oil, thus avoiding fines in case the Customs guards in searching vessel subsequently should find any concealed.

PILOTAGE: Pilots are advised of vessel's arrival by Port Authorities and by Agents. Therefore accurate advance notice of ETA should be addressed by Master to Agents. Pilot usually boards vessel within 1 mile of port. Pilot station in port area. Pilots work on VHF Channel 14.

ANCHORAGES: Any vacant place assigned by Port Authorities, taking into account vessel's draft. If port is congested vessels anchor at roads. Pilot assistance is recommended.

RESTRICTIONS: No restrictions are imposed upon entry. With the exceptions of particular individual cases to be submitted for perusal to Harbour Authorities, vessels may berth and sail at any time, weather permitting. Only 1 tug available between 0000 hrs. – 0500 hrs.

MAX. SIZE: Max. draft 34 ft. 6 in.

HEALTH: Clearance is granted by radio; Master to cable Sanimare Civitavecchia 24 hours prior to vessel's arrival. Quarantine requirements are those prevailing in all other Italian ports.

RADIO: Communications to and from vessels are sent and received from Civitavecchia Radio.

TUGS: Tugs wait for vessel at port entrance. Tug assistance is necessary although not compulsory.

BERTHING: Shore fenders keep vessel off the quay.
Berths: No. 2 for vessels up to 180 m. length, 28 ft. 6 in. draft.
No. 7 for vessels up to 160 m. length, 25 ft. draft.
No. 8 for vessels up to 240 m. length, 34 ft. draft.
No. 9 for vessels up to 130 m. length, 24 ft. draft.
No. 10 for vessels up to 220 m. length, 28 ft. 6 in. draft.
No. 11 for vessels up to 220 m. length, 28 ft. 6 in. draft.
No. 14 for vessels up to 190 m. length, 34 ft. draft.
No. 18 for vessels up to 220 m. length, 34 ft. 6 in. draft.
No. 20 for vessels up to 220 m. length, 38 ft. draft.

SPECIALISED CARGO HANDLING FACILITIES: Berth No. 8: Grain silo of 35/40,000 tons capacity is available; this berth is equipped with 1 rail-sucker with capacity 400 t.p.h. Ore, coal, fertilisers, sulphur, etc. can be handled at Quay Nos. 2, 7, 9, 10, 11 and 14. Structures for containers not available here, nevertheless small traffic might be practicable. Ro/Ro traffic practicable. No facilities exist for LPG carriers.

STEVEDORES: To enable Agent to order gangs it is very important to provide accurate ETA in good time.

Normal working time, Saturday inclusive: From 0600 – 1230 hrs., from 1230 – 1900 hrs. and from 1900 – 0030 hrs. against payment of 50% extra, Saturday 70% extra.

Sunday: Work can be performed at overtime rates plus 53% extra from 0600 – 1230 hrs., and 100% extra from 1230 hrs. – 1900 hrs.

Holidays: Work can be performed at overtime rates plus 150% extra from 0600 – 1230 hrs., from 1230 – 1900 hrs. and from 1900 – 0030 hrs.

MEDICAL: Not necessary to receive advance note of required medical attention. Hospital and clinical surgery available. Master to advise in advance of particular inoculations required.

TANKERS: Max. draft allowed 38 ft. Max. length 220 m. Tankers are not permitted to enter port before sunrise and after sunset. Diameter of discharge lines 8 in. – 14 in.

FRESH WATER: Drinking water and water for boilers is supplied from pier by hoses. Average pumping rate 40 t.p.h. – 100 t.p.h. Fresh water also available by barge, capacity 120 tons.

Shipmaster's Report: April 1980: Fresh water is always in short supply and only limited quantities supplied to vessels.

FUEL: Bunkering can be effected by means of barges and/or tank-lorries at all quays. Grades available: fuel oil and gas oil.

GANGWAY/DECK WATCHMEN: Watchmen services recommended.

CERTIFICATES: Requirements are those prevailing in all other Italian ports, e.g. Tonnage Certificate, Safety Equipment, Load Line, Derat Certificate, etc.

CUSTOMS ALLOWANCES: Tobacco. Quantity permitted to each crew member: 50 grams to be smoked within first 48 hours. Wine and/or Spirits. 1 open bottle of spirits.

IDENTIFICATION CARDS: Required. Passes issued by local police.

CONSULS: There are no Consulates, but only Consular Agencies or Honorary Representatives for the following countries:

Finland	Tel. 23134	Portugal	Tel. 23048
France	Tel. 23048	Spain	Tel. 24304
Norway	Tel. 25207	Sweden	Tel. 23109

Nearest British Consulate is in Rome.

REPAIRS: Repairs of limited extent and importance may be carried out by 2 local workshops.

REPATRIATION: Facilities exist to effect crew changes and to arrange repatriations.

AIRPORT: Distance from airport Leonardo da Vinci (Rome) 70 km.

TIME: 1 hour in advance in relation to GMT. Clock will be advanced 1 hour in Summertime, giving 2 hours advance of GMT.

POLICE/AMBULANCE/FIRE: Police, 23729; Ambulance, 23382; Fire, 23333.

HOLIDAYS: All Sundays, 1st and 6th January, 19th March, 25th and 28th April, 1st May, 2nd and 29th June, 15th August, 1st and 4th November, 8th, 25th and 26th December, Easter Monday, Ascension Day, Corpus Domini. Holiday work is subject to the authorisation of port authorities.

TELEPHONES: Can be connected on board vessels at Quay No. 7, 8, 9 and 10.

DEVELOPMENTS: Breakwater under construction.

AUTHORITY: Capitaneria di Porto di Civitavecchia, 00053 Civitavecchia, Italy. *Tel:* 0766-20250/35993. *Telex:* 611011. *Cables:* Compamare Civitavecchia. *Contact:* Technical Department or Harbour Master.

FIUMICINO: 41.46 N. 12.13 E. (See Plan)

DOCUMENTS:
Before entering territorial waters in the vicinity of the port, tankers' Masters must, directly or by ship's Agent advise authority of the following:
Ship's name and call sign;
Length and draft;
Destination and ETA;
General nature and quantity of cargo.

Documents required:
3 copies Crew List.
Stores Manifest.
List of Personal Effects.
Manifest of Cargo.

PILOTAGE: Vessel should await Pilot about 1.0 miles off the tanker loading platforms which are situated in the following positions:
Platform R1: Lat. 41° 45′ 13.54″ N., Long. 12° 09′ 14.54″ E.
Platform R2: Lat. 41° 44′ 44.35″ N., Long. 12° 10′ 03.58″ E.

ANCHORAGE: Vessels waiting to berth should anchor to the South of Platform R2, not less than 1 mile from the platform. The anchorage is not recommended during strong South or South-westerly winds, and in unfavourable weather conditions it is advisable for vessels to remain underway.

It is forbidden to use anchors in the near vicinity of the tanker berths, due to the presence of underwater pipe-lines. When approaching the moorings, anchors must be firmly secured in the hawse.

RESTRICTIONS: Pilotage and mooring is not carried out during hours of darkness. Unmooring possible day and night.

MAX. SIZE: R1 platform: 150,000–290,000 d.w.tonnes, 200,000 displacement tonnes, draft 50 ft.

R2 platform: 150,000 d.w.tonnes, 130,000 displacement tonnes, draft 45 ft.

HEALTH: Agent will advise "Sanimare Fiumicino", and doctor will come on board in the Roads, usually at 0900 hours.

RADIO: Advise Refinery of vessel's ETA 72 hours before arrival via Roma Radio. Confirm ETA 24 hours before arrival.

Vessels arriving for the first time at Fiumicino should also advise dimensions of vessel's manifold flange connections, as follows: distance from bow, distance from ship's side, height above deck, outside diameter, inside diameter, number of holes, distance between centre of opposite holes and diameter of holes.

Vessels should also communicate draft, cargo temperature, lifting power of derrick, voltage and type of current on board (AC/DC) and vessels loading should also advise quantity of ballast on board.

During cargo operations, the tanker will communicate by radio-telephone with the pumping station and the refinery.

VHF: Pilot station on VHF Channel 16. Listens during daylight hours only. Port Authority available 24 hours on VHF Channel 16.

TUGS: 1 × 2,330 h.p. Tug required by crude oil tankers and product tankers over 30,000 d.w.t.

MEDICAL: Local doctor and hospitals available in Rome.

TANKERS: 2 offshore mooring platforms, R1 and R2, connected to sea-lines of 16 in. (2), 20 in., 28 in. and 36 in. diameters. Loading rates 800 to 1,000 cu.m. per hour. Rate of discharge 3,000 to 4,000 cu.m./p.h.

Platform R1 for crude oil tankers.

Platform R2 for product tankers and small crude oil tankers of not less than 10,000 d.w.t.

Mooring: Vessel to have ready on arrival: port derrick rigged for hose handling; boat-rope, pilot ladder, heaving lines and lifebuoys on both sides; and bow stopper.

Vessel is moored by the bow about 30 m. to 50 m. distant from the mooring platform.

Hoses: Connecting and disconnecting hoses performed by refinery personnel, vessel to supply winchman and man the derrick. Derrick capacity to be at least 3 tons for ships loading and discharging products and 8 tons for crude oil tankers. Each platform is equipped with 2 floating hoses, about 200 m. long, which drift fully extended when berth is not occupied.

BALLAST: Raffineria di Roma can accept dirty ballast or tank washings up to a maximum of 13,000 tons. Recommended advise before arrival the quantity of ballast to be discharged. Ballast should be reduced to a safe minimum to save time at the mooring berth.

SALINITY: 25-28 grams per litre.

FRESH WATER: Supply by barge 100 tons per trip.

FUEL: Bunkers not available, only lube oil in drums can be supplied.

CUSTOMS ALLOWANCES: 40 cigarettes per day for 3 days for each Crew member.

CONSULS: All Consulates and Embassies in Rome.

REPAIRS: Small repairs can be effected but no dry dock.

AIRPORT: International airport "Leonardo da Vinci" at Fiumicino.

TIME: GMT plus 1 hour. From March 29th to September 26th, GMT plus 2 hours.

REGULATIONS: Raffineria di Roma will hold vessel responsible for consequences of any pollution caused by oil leaking or discharged from the ship. Strictest precautions to be observed.

Engine to be kept ready to leave the berth in the shortest possible time.

Propeller movements are forbidden while vessel in berth, due to presence of floating pipe-lines.

WINDS: In the Fiumicino Roads the strongest winds come from S.W., but all winds coming from S.E. to N.W. can cause storms that can be dangerous both for moored ships and anchored ships.

Northern winds, being partially weakened by the coast, are dangerous only when exceptionally strong.

Usually storms begin with S.E. winds, which then turn South-westerly reaching their maximum force; then they usually turn Northerly or North-westerly, finally weakening; this cycle can last from 3 days up to more than a week. However the above cycle does not always develop in this way, since the peculiar characteristic of this zone is the rapidity by which wind can change both in force and direction, as well as the sea possibility of becoming rough in a very short time. The stream almost always goes from S.E. towards N.W. at the speed of 0.5 to 1 knot. Owing to the Tiber's mouth, the stream can exceptionally increase in intensity, but due to the distance between terminals and shore, it has never up to now increased in intensity to such a point as to be dangerous for mooring and anchoring ships. Tides are practically negligible; in fact the maximum difference between high and low tide is about 0.40 m.

GENERAL: The refinery personnel will set up floodlights on deck but power is to be provided by the vessel as is assistance in the setting up.

A refinery representative will remain on the vessel to supervise cargo inspection, loading/unloading and surveillance. He is to be provided with accommodation and meals.

A room is to be provided for the radio connecting vessel with the refinery.

A Raffineria di Roma S.p.A. representative will, upon boarding the vessel, require a letter, stating:

(a) the minimum discharge rate of crude oil, products or ballast or the maximum loading rate;
(b) the maximum back pressure to be maintained at ship's manifold;
(c) amount of cargo requested for loading vessel.

AUTHORITY: Locamare Fiumicino, Viale Traiano 71, 00054 Fiumicino, Italy. *Tel:* (06) 6451911, 6451933. *Cables:* Locamare Fiumicino. *Contact:* Giuseppe di Matteo, Comandante.

Operator: Fina Italiana S.p.A., Via Rossini 6, C.P. 10056, 20122 Milano, Italy. *Tel:* 7759. *Telex:* 311210 Fina I.

GAETA: 41.13 N. 13.35 E. (See Plan)

PORT LIMITS: Although not reported on nautical charts, port limits may be considered as the seaward boundaries of the compulsory pilotage area.

DOCUMENTS:

6 copies Crew List.
6 copies Passenger List.
6 copies Cargo Manifest.
3 copies Provisions Manifest (Stores List).
3 copies List of Crew Personal Effects.
2 copies Arrival Report (on form submitted by Agents).
2 copies Maritime Health Declaration.
Vaccination Certificates for sighting.
Ship's Certificates including Italian Authority dues.

PILOTAGE: Compulsory for entering Roads, docking and undocking. Seaward boundaries of compulsory pilotage area within 2 miles from Punta Stendardo, up to a line joining Punta Stendardo with Torre Scauri (line bearing about 65° from Punta Stendardo). Pilots meet vessel about 2 miles from Punta Stendardo and can be contacted by VHF (calling Channel 16, working Channel 12) 1 hour before vessel's arrival.

Advance notice to Pilots given by vessel's Agent.

ANCHORAGES: Safe anchorage can be found outside the compulsory pilotage area or, according to Pilot's instructions, inside above said area.

RESTRICTIONS: No restrictions outside the compulsory pilotage area. Inside above area vessels to keep clear from prohibited anchorage areas, sea berth facilities and mooring buoys, mooring buoys for military vessels, oil jetty facilities and mussel beds.

Also see "Berthing".

MAX. SIZE: Inside compulsory pilotage area, max. permissible length, breadth, draft, within values of 200,000 d.w.t. class VLCC.

Also see "Berthing".

HEALTH: Pratique automatic for vessels coming from ports in E.E.C. countries.

Otherwise Free Pratique granted by local Health Officer who boards ships on arrival together with Harbour Officers, between 0700 hrs. and sunset. In order to facilitate boarding by officers at anchorage or berths, it is requested that vessels have a convenient accommodation ladder/gangway ready.

RADIO: 72, 48 and 24 hours' definite notice to Agent through Roma Radio (IAR).

VHF: Port Authority, Pilots, Tugs, Oil Sea Berth, Oil Jetty and Agency Offices equipped with VHF; calling Channel 16.

TUGS: Tugs standing just inside Punta Stendardo, being called for service by the boarding Pilot. Ship's lines used.

Tug-boat assistance compulsory, for vessel over 1,600 g.r.t., for docking and undocking; stand-by tug compulsory, for vessel loading or discharging at oil jetty (but not at oil sea berth), from connection to disconnection of cargo hoses.

BERTHING: Oil sea berth for VLCCs discharging crude oil, oil jetty for tankers discharging/loading crude oil and oil products, dry cargo main quay "Caboto", dry cargo pier "Genepesca". Docking/undocking normally performed in daytime only with possible exceptions.

VLCC Sea Berth: Owned by Messrs. S.I.O.G. (Societa' Italiana Oleodotti Gaeta) for class VLCC 200,000 d.w.t. discharging crude oil. Restrictions for vessels within above d.w.t. class not yet officially issued. Max. values of d.w.t., length, draft of vessels already called:

– Max. d.w.t.: 260,000 (VLCC Athene)
– Max. length: 349 m. (VLCC Agip Lazio)
– Max. draft: 20.30 m. (VLCC Agip Lazio)

One or 2 extra tugs (in addition to the 3 existing in the Port of Gaeta) may be needed for berthing larger size vessels at the sea berth, said extra tugs to come from Naples with adequate advance notice.

TERMINAL A.G.I.P.: Owned by A.G.I.P. (Deposito Costiero Di Gaeta) for tankers discharging/loading crude oil and oil products.

Restrictions:

Maximum permissible draft	48 ft.
Maximum permissible distance between cargo manifolds and vessel's stern.	450 ft.
Maximum permissible height of above vessel's cargo manifold from sea level	49 ft.

Tankers up to 60,000 d.w.t. normally berth and operate at A.G.I.P. Jetty; tankers over 60,000 d.w.t. and up to 90,000 d.w.t. may be berthed at Oil Jetty or at Sea Berth according A.G.I.P. advice; tankers over 90,000 d.w.t. will find berth at Sea Berth.

Terminal A.G.I.P. is a finger jetty with 3 berths: North Berth with restrictions as above; South Berth for vessels up to 39 ft. draft; stern berth for small coastwise vessels.

North and South Berths equipped with 4 articulated 8 in. steel pipe connections.

Dry Cargo Quay "Caboto": 106 m. long quay with max. official draft limitation of 20 ft.; vessels up to 130 m. length, drafts up to 20 ft. fwd and 22 ft. aft, are normally accommodated.

Dry Cargo Pier "Genepesca": 50 m. long pier with 1 berth each side for vessels up to 15 ft. draft.

New Dry Cargo Quay "Salvo D'Acquisto": Length 223 m., width 80.0 m., dredged depth 7.0 m.

Dry Cargo Handling: Cargo normally handled – general cargo, clay, kaolin, fertilisers, animal-feed, frozen commodities, clinker, cement, steel rounds, steel coils, aluminium ingots, etc.

CRANES: 4 mobile dock cranes available, each having max. lifting capacity 30 tons (normal working capacity 15 tons).

STEVEDORES: Compagnia Lavoratori Portuali 'G. Caboto'. Gangs ordered by Agents dealing with cargo.

MEDICAL: Physician, Dentist, Eye and other Specialists available. Hospital and Nursing Home in Formia (7 km. from Gaeta); new Gaeta Hospital operative. Inoculation service available. Vaccination Certificates issued. Extension of Derat Certificates granted.

TANKERS: See "Berthing".

BALLAST: At all berths only clean ballast can be pumped out. G.I.P. Oil Jetty equipped with system for discharging ballast ashore through 8 in. connections and a 1600 m. long 10 in. pipe-line at a rate of about 400 – 450 t.p.h.

FRESH WATER: Of excellent quality supplied to ships at all berths but not at sea berth. At sea berth or at road, fresh water can be supplied by tug-boat but expensive.

FUEL: Supplies of Bunker "C" and Gasoil can be arranged ex-installation at A.G.I.P. Oil Jetty; a minimum quantity of 200 tons is required for fuel and 100 tons for Gasoil. At dry cargo berths bunkers can only be arranged by road tanker. Bunkers not available for vessels accommodated at sea berth.

REPAIRS: Minor steel and machinery repairs currently performed by local machine shops; major repairs may be effected by personnel and equipment from Naples.

DRY DOCKS: 2 dry docks for vessels up to about 70 m. length.

SURVEYORS: Lloyd's, A.B.S. and other Classification Societies' Surveyors obtainable from Naples.

CUSTOMS ALLOWANCES: 40 cigarettes and 1 opened wine/spirit bottle per man.

IDENTIFICATION CARDS: Shore passes issued by local police.

REPATRIATION: Facilities available for effecting crew changes and arranging repatriation.

AIRPORT: Nearest airports Naples (96 km.) and Rome (International airport 135 km.).

TIME: GMT plus 1 hour September to March; GMT plus 2 hours March to September.

POLICE/AMBULANCE/FIRE: Police station telephone numbers: 113 (emergency); 460031; 460474. Ambulances telephone numbers: 24361; 24461. Fire department telephone number: 460270; 460931.

TELEPHONES: Arrangements for placing telephone aboard vessels not available.

EMERGENCY CO-ORDINATION CENTRE: Contact Harbour Master's Office.

STORING: At dry cargo berths vessels may be stored by truck. At oil jetty or sea berth by motor launch or barge.

AUTHORITY: Capitaneria di Porto – Gaeta, Piazzale Cabato, 04024 – Gaeta. *Tel:* 460088. *Contact:* Ferdinando Landi, Port Commandant.

AGENT: Italnoli, Lungomare Caboto, Palazzo Albani 3, 04024 – Gaeta, Italy. Cable Address: "Italnoli – Gaeta". Telex: 68050 Italgaet. Tel. 460572, 460915. *After Hours:* 460087, 460859.

GELA: 37.04 N. 14.15 E.

DOCUMENTS:
For Maritime Authority:
Arrival Report.
Crew List.
Ship's Certificates, for sighting.
For Port Health:
Maritime Declaration of Health (1 copy).
Vaccination Certificates, for sighting.
For Customs:
List of supplies, deck and engine stores.
Cargo Manifest and Bills of Lading.
For Commissariat of Public Safety:
Passenger List (2 copies).
Crew List (1 copy).
Shore Passes for all Passengers and Crew.

PILOTAGE: Pilotage is compulsory for vessels of 500 g.r.t. and over. The Gela Pilots' Corporation, based at Ionio Street No. 2, Tel: 0933/917051, has VHF equipment (Channel 16 for calling-up; Channel 12 for working).

Requests for pilotage must be made two hours prior to ETA, and in office hours (0600 to 2000 hrs.).

The Corporation has 2 service vessels with a black hull and with the letter "P" painted in white on both sides. To call the Pilot, the signals laid down in the international signalling code must be employed.

The pilotage service is rendered up to 1 mile from the Port Island.

Vessels awaiting the Pilot must anchor 1 mile to the West of the breakwater on a bearing of 250° from the green light on the breakwater or 1 mile to the East of the same breakwater on a bearing of 160° from the red light on the breakwater.

Berthing may be effected daylight hours. Unberthing can be effected day and night.

ANCHORAGE: See "Pilotage".

RESTRICTIONS: See "Pilotage".

MAX. SIZE: See "Berthing".

HEALTH: Free Pratique is not granted by radio but is given onboard after an accurate inspection.

RADIO: Roma Radio or Augusta Radio. Messages are forwarded quicker through Roma Radio. There is a coastal radio station at Gela.

VHF: The District Maritime Office listens on VHF Channel 16 during office hours (0800 to 2000 hrs.).

TUGS: Tug service is effected by 3 tugs stationed at the Port Island.

Use of tugs is compulsory for tankers and dry cargo vessels (dependent on g.r.t. and n.r.t.).

BERTHING: On the Port Island of Gela, the following berths are available:

6 berths on the breakwater suitable for taking tankers with a gross registered tonnage up to 30,000 tonnes and with a draft of 31 ft. 6 in. All berths are equipped to take bilge water and dirty ballast.

2 berths at the head of the pier suitable for taking vessels with dry cargo loading facilities and up to 18,000 g.r.t. with a draft of 31 ft. 6 in.

The Eastern berth is equipped with two platform trucks for handling bulk cargo, capacity 8 tons.

The Western berth does not have stationary quay equipment; mobile cranes can be made available for handling manufactured products, capacity 2.5 tons.

2 berths on the small head of the pier capable of taking tankers up to 3,000 g.r.t. with a draft of 20 ft.

1 sea berth in the buoyed area capable of taking tankers up to 80,000 g.r.t. with a draft of 42 ft.

Also see "Tankers".

TANKERS: Anic Sea Line Terminal: Situated about 1 mile off the breakwater, a crude oil discharge berth in depth of 42 ft. served by 34 in. sea-line terminating in two 12 in. flexible hoses. No slop discharge facilities. At the breakwater, Berth Nos. 1 to 6 for loading refined products and LPG can accommodate vessels up to 30,000 g.r.t. with max. draft 31 ft. 6 in. Berth Nos. 1 and 2 are used for crude oil and heavy products. Berth Nos. 3 and 4 are used for light products and gasoil. Berth Nos. 5 and 6 are used for LPG and petrochemical products.

Storage tanks situated up to about 15 m. above sea level.

STEVEDORES: Stevedoring carried out by local company. Labour must be ordered by Agent 3 – 12 hours in advance, depending on the shift requested.

MEDICAL: All assistance can be arranged by Agents. Hospital and private clinic available. Vaccinations and inoculations together with relative certificates can be carried out by the Office of Marine Health.

DENSITY: 1024.

FRESH WATER: Available at all berths against payment. Rate 10 t.p.h. Not available at Sea-Line Terminal.

FUEL: Available to vessels moored at the jetty head by means of road tanker, for small quantities only.

OPENING/CLOSING HATCHES: Optional to employ shore personnel.

CUSTOMS ALLOWANCES: As for other Italian Ports.

IDENTIFICATION CARDS: Required.

CONSULS: No local representation.

REPAIRS: Only minor repairs possible (Wood and metal work).

DRY DOCKS: None.

CLASSIFICATION SOCIETIES: None.

FIRE PRECAUTIONS: General standards of safety applicable to oil ports must be observed.

AIRPORT: No airport at Gela. Nearest airports at Catania and Palermo.

TELEPHONE NUMBERS: (Prefix 0933).

Maritime Authority	917755	Fire Brigade	911922
Customs	917716	Civil Hospital	930522
Maritime Health	930067	Pilots	917051
Finance Guard	930170	Tugs	911008
Public Safety Authority	930091	Boatmen	918009
Carabinieri	912868	Port Company	917775

TIME: GMT plus 1 hour. Summertime: GMT plus 2 hours.

HOLIDAYS: 1st January, Easter, Lunedi dell' Angelo (Angel's Monday), April 25th, May 1st, August 15th, November 1st, December 8th, December 25th and 26th.

SHORE LEAVE: Allowed.

TELEPHONES: It is not possible to have telephones placed onboard.

AUTHORITY: Capitaneria di Porto di Gela, Ufficia Circondariale Maritimo, Gela.

GENOA: 44.24 N. 08.54 E. (See Plan)

DOCUMENTS:
6 Crew Lists.
6 Passenger Lists.
Provisions Manifest.
Manifest of Crew Personal Effects.
3 Cargo Manifests.
Arrival Report, completed on arrival.
Maritime Declaration of Health Certificate, completed on arrival.
Ship's Certificates including Italian Authority Dues.
Vaccination Certificates for sighting.

Tankers: All the ships whose building contract dates 1975 or whose building started after June, 1976, must have a certificate I.O.P.P. (International Oil Pollution Prevention). If not, sailing will not be granted.

All other ships built before must have onboard all anti-pollution equipment and must hold the I.O.P.P. Certificate as from October 2nd, 1984.

Also the ships whose country has not taken part in MARPOL will be inspected by Port Authorities and R.I.N.A. for obtaining sailing permit.

PILOTAGE: Pilots advised of vessel's arrival by port authority and the latter by vessel's Agent. Therefore accurate ETA recommended. Pilotage compulsory for vessels over 500 g.r.t. To contact Pilots and pilot boats, VHF Channel 12. Time of working 24 hours. Pilots board vessel at about 1 mile off port entrance.

ANCHORAGES: Anchorage beyond the meridian passing through the port light at the end of Duca di Galliera Pier is forbidden from 1st June to 15th September.

RESTRICTIONS: Tankers not usually berthed during night.

During discharging at SPM vessel should keep at all times at least 30% of her SDWT (cargo and/or ballast) on board and trim should not exceed 5 m.

MAX. SIZE: Tankers: Up to 46 ft. draft within port. No limit for tankers mooring at Single mooring platform outside the port.

Other vessels: 31 ft. to 40 ft. draft. Also see "Tankers" and "Berthing".

HEALTH: Free Pratique may be requested by radio to "Sanimare, Genoa", between 12 to 6 hours before arrival, advising vessel's name, nationality, last port, number of passengers and crew and state of health on board. Pratique is automatic for vessels coming from all ports where there is no sanitary order.

RADIO: Genoa Radio, call sign ICB. Agent uses same station when cabling to vessels.

TUGS: Tugs join vessel at port entrance. Ship's line used. 42 tugs available, 600 h.p. – 6,000 h.p. Use of tugs optional except for vessels mooring to the platform or the buoy (oil discharge).

BERTHING: Pilot advises Master which side to berth. Shore fenders keep vessel off quay.

Molo Vecchio: 452 m. berthing length; 29–31 ft. permitted draft.

Silos Ponte Parodi: 200 m. berthing length; 36 ft. permitted draft.

Silos S. Limbania: 150 m. berthing length on both sides of the pier; permitted draft: 33 ft. East side, 36 ft. West side.

Ponte dei Mille: East side: 292 m. berthing length; 27–28 ft. permitted draft West side: 265 m. berthing length; 26–27 ft. permitted draft.

Ponte Andrea Doria: East side: 238 m. berthing length; 36 ft. permitted draft. West side: 233 m. berthing length; 36 ft. permitted draft.

Calata Oli Minerali: 474 m. berthing length (bow mooring); 24–36 ft. permitted draft.

Calata Stefano Canzio: 422 m. berthing length (bow mooring); 31–33 ft. permitted draft.

Calata Bettolo: 434 m. berthing length; 30 ft. permitted draft.

Ponte Rubattino: East side: 328 m. berthing length; 34 ft. 6 in. permitted draft. West side: 340 m. berthing length; 27–29 ft. permitted draft.

Ponte S. Giorgio: East side: 390 m. (will soon be in operation); 32 ft. permitted draft (will be 37 ft. 6 in.). West side: 264 m. berthing length; 30 ft. 6 in. permitted draft.

Ponte Ex Idroscalo: East side: 190 m. berthing length; 29 ft. permitted draft. Head: 190 m. berthing length; 35 ft. permitted draft. West side: 260 m. berthing length; 28–32 ft. permitted draft.

Ponte Ethiopia: East side: 255 m. berthing length; 32–33 ft. permitted draft. Head: 146 m. berthing length; 32 ft. permitted draft. West side: 399 m. berthing length; 29–31 ft. permitted draft.

Ponte Eritrea: East side: 388 m. berthing length; 29–31 ft. permitted draft. Head: 145 m. berthing length; 31 ft. permitted draft. West side: 398 m. berthing length; 29–31 ft. permitted draft.

Banchina Italsider: 500 m. berthing length; 40–44 ft. permitted draft.

Also see "Container Handling Facilities" and "Specialised Cargo Handling Facilities".

CRANES: Over 300 cranes and elevators with lifting capacities ranging from 1 to 45 tons. Over 80 self-propelling cranes with lifting capacities ranging from 10 to 45 tons. 9 floating cranes with lifting capacities of up to 210 tons.

CONTAINER HANDLING FACILITIES: Ponte N. Ronco/Ponte Canepa/Ponte Libia: The Container Terminal covers a total surface of about 250,000 sq.m., of which 230,000 sq.m. are uncovered areas for positioning containers and about 17,000 sq.m. consist of covered areas for deposit of packed goods coming from stripping and intended for stuffing of containers. Quays with a total length of 1,200 m. and a depth of 11 m. – 11.5 m. (36 ft. – 38 ft.) make it possible to berth 5 ships and modern lifting facilities enable to effect loading and unloading operations at a rate of 1 container every 3 minutes. About 5 km. of railway lines are at the disposal of the terminal for the containers marshalling.

The terminal has a stacking capacity of about 10,000 containers and handles 200,000 containers a year for 30 companies.

The Port of Genoa Authority (C.A.P.) runs the Container Terminal and sees to the integral management of the operations for unloading/loading containers.

The Port Authority renders all the services in connection with containers and cargo, and in particular:

Total planning of ship operations, included calculations of stability, draft, torsion, etc.

Checking of the conditions of containers on receiving and on delivering them, on stuffing and on stripping, and issuing of the relevant "interchanges".

Drawing up of damage reports.

Cleaning and disinfestation (when necessary) of containers.

Assistance on stowing, unstowing and on lashing, unlashing cargo inside containers.

Assistance in repairing packing.

Container sealing, labelling and weighing.

Assistance to reefer containers (plugging and unplugging to electric outlets, checking of temperatures, drawing up of "pre-trip inspection certificates").

Terminal Equipment:

6 × 45 ton container gantry cranes.

6 transtainers on rails.

4 transtainers on tyres.

Large fleet of straddle carriers, lift trucks, trailers and fork-lift trucks.

Calata Sanita Container Terminal:

Length of Quay	525 m.
Available Operating Length	440 m.
Depth	14.5 m. (46 ft.)
Total Area	165,000 sq. m.
Stacking Capacity	4,000 TEU.
Annual Handling Capacity	200,000 TEU.
Portainer Cranes	3×45 ton Lifting Capacity
Transtainers	8×40 ton Lifting Capacity

Also see "Developments".

SPECIALISED CARGO HANDLING FACILITIES: See "Berthing" for max. draft.

Ro/Ro Terminals: 25 special berths at Ponte Spinola, Ponte Calvi, Ponte dei Mille, Ponte A. Doria, Calata S. Lazzarino, Ponte Colombo, Ponte Assereto, Calata San Benigno, Calata Bettolo, Calata Bengasi, Calata Tripoli and Calata Derna, 45,000 sq.m. parking areas.

Cotton: 2 warehouses at Molo Vecchio, totalling 42,000 sq.m. in area and a 85,000 bale capacity.

Grain Silos: One at Santa Limbania (65,000 ton storage capacity – 600 t.p.h. unloading capacity). One at Ponte Parodi (45,000 ton storage capacity – 450 t.p.h. unloading capacity).

Maritime Passenger Stations: One at Ponte dei Mille and another one at Ponte Andrea Doria, capable of dealing with 5,000 passengers a day.

Three stations for Ro/Ro passengers at Ponte Calvi, Ponte Colombo and Calata Chiappella.

Animal Fats and Oils Depots: Plants at Ponte Assereto, Calata Sanita and Ponte Etiopia.

144 tanks having a total capacity of up to 53,000 tons.

14 barges with a total capacity of up to 12,000 tons.

Timber Terminal: 2 berths at Ponte ex Idroscalo, 50,000 sq.m. area yard.

Coffee: A special warehouse is available at Ponte Etiopia, covering 8,800 sq.m. 50,000 sacks can be stored there.

Cellulose Terminals: 2 special berths at Ponte Eritrea and Ponte Somalia. 12,000 sq.m. of covered area.

Export-cargo Clearing Centre: Warehouse of 15,000 sq.m. equipped for the handling of 1,000 tons a day of parcels.

Wool: A special warehouse at Ponte Libia covering a 17,000 sq.m. area. 40,000 bale capacity.

Other Special Plants: Warehouses, depots, and special facilities for wine, salt, skins, bananas, coal.

TANKERS: Berths in Genoa Harbour suitable for tankers up to 750 ft. length, 34 ft. draft. Tankers discharging at Calata Sanita and Calata Olii Minerali are berthed stern to quay.

Multedo Harbour situated West of main harbour has the following jetties:

Multedo Pier – for vessels up to 588 ft. length, 31 ft. draft.
Pier "A" – for vessels up to 580 ft. length, 36 ft. draft.
Pier "B" – for vessels up to 850 ft. length, 43 ft. draft.
Pier "C" – for vessels up to 850 ft. length, 46 ft. draft.
Pier "D" – Presently accommodating tankers up to 46 ft. draft.

Discharge Rate: Maximum discharge rate for crude products:

Pier "A"	2,500/3,500 t.p.h.
Pier "B"	3,500/6,000 t.p.h.
Pier "C"	6,000/8,000 t.p.h.
Pier "D"	6,000/8,000 t.p.h.

Masters may speak direct to Pilots or Harbour Masters at Multedo Oil Berth in order to obtain latest information about berthing, etc., by calling on VHF Channel 6.

All tankers over 40,000 d.w.t. must have inert gas system fitted and working.

Multedo Inner Harbour: Cautionary Advice: The twisted course of the buoyed channel and its limited width decreasing from 700 ft. at the entrance down to 490 ft. abeam the head of Molo Multedo represent a high risk factor. Therefore a good helmsman should steer the ship and prompt engine response is required. In approaching the entrance channel do not attempt to pass between the SPM and the breakwater.

Berthing Procedure: From the pilot station, vessels approach the buoyed channel heading 036°(T) in order to pass 800 m. abeam the tower and 200 m. abeam of the new Voltri Breakwater head. Tugs are made fast at the entrance of the buoyed channel. Vessels are swung in the dredged turning area off the pier heads and backed down to the berths. The mooring operation is controlled from the pier by a Marine Terminal Supervisor (Docking Master) who communicates with the Pilot by walkie-talkie.

Calata Canzio: Cautionary Advice: The direction of approach across the West-going current, the limited width and the considerable traffic of vessels demand great caution when entering or leaving the East Entrance.

Single Buoy Mooring: The new mooring facility is located at 1,740 m. from the airport breakwater in a water depth of about 65 m., at distance of 2,250 m. from the platform and just in front of Italsider steel factory; it is linked with shore plants by a submarine pipe-line.

The new buoy can accommodate tankers up to 270,000 d.w.t., 350 m. length, 53 m. beam, 20 m. draft. This size was chosen on account of the fact that 80% of vessels coming up to the platform are under 270,000 d.w.t., whereas it can accommodate vessels up to 500,000 d.w.t.

The terminal operations are expected to take the following time:

Mooring: (from tanker arrival to pump beginning) 2 – 3 hours.

Discharge: (tankers up to 270,000 d.w.t. and discharge rate 9,000 cu.m./p.h.) 20 hours.

Unmooring: 30 minutes.

Single Mooring Platform: A steel tower, set up about 2,800 m. off the Genoa Multedo Oil Dock in water 50 m. in depth is provided for the discharge of crude oil from supertankers up to 500,000 d.w.t. Unloading capacity 14,000 cu.m./h.

A 48 in. (120 cm.) submarine pipe-line connects the tower with the terminals of all the oil companies operating at the Multedo Oil Dock.

Technical Characteristics: The tower consists of a steel structure having the form of a truncated pyramid set into the sea-bed at a depth of 50 m. and supporting the following parts above the level of the sea:

A lower platform having quarters for the accommodation of personnel or the housing of the various services, the deck being at a height of 6.335 m. a.s.l. This platform is protected by a steel structure mounted on elastic supports, with wooden fenders topped with rubber buffers. The toroidal structure, externally to the rubber buffers, is 34.20 m. in diameter. Under the impact of a vessel, the ring will shift axially for a distance of 2 m. as a result of the system of shock absorbers which support the lower platform.

An upper platform 10.335 m. a.s.l. which carries the rotating arm for berthing tankers and the connection of the floating discharge hoses. The rotating arm reaches a height of 13.882 m. a.s.l. and is fitted with:

(a) a bollard capable of withstanding a horizontal pull of 360 tons;

(b) 2 pipes 24 in. in diameter running to a double universal joint at sea level for connecting the riser of the submarine line to the floating hoses linking tower and tanker; on the rotating part of the tower, the two 24 in. pipes are fitted with cut-off valves and may be connected one to the other by means of a by-pass with a gate valve;

(c) a 5 ton service crane;

(d) a lighted beacon and radar reflector at a height of 23 m.

Floating Hoses for Crude Oil Discharge: The 2× 24 in. pipes with which the riser connects on the tower are coupled by universal joints to 2 floating hoses of 24 in. diameter, with 16 in. terminals, each hose being about 310 m. in length and consisting of 29 sections of 10.67 m., of which the last 3 are of 16 in. diameter for connecting to the ship's manifold. They are fitted with a blank flange, a Camlock rapid-closing joint and a Keystone rapid cut-off valve that will ensure perfect tightness and rapid disconnection in an emergency.

The hose connections are exactly 90° left of the bollard with respect to the mooring vessel.

Signal Lights and Fog Horn: The tower is equipped with a regulation flashing white light 23 m. a.s.l. and a fog horn.

The 2 floating hoses are marked at night by 5 red lights visible at a distance of 2 miles.

Request for Berth: Mooring at the tower is generally reserved for tankers which, owing to their size and draft, are unable to use the Multedo Oil Dock and have applied for permission to the Port of Genoa Authority Oil Dock Management.

Order of Berthing: Arriving tankers that are to work cargo at the tower and are awaiting authorisation to berth thereat must anchor in the roads.

The order of berthing is that of anchorage in the roads and, for vessels authorised to berth, according to the moment when arrival in the roads is signalled to the Port Authority's lookout station at the foot of the main lighthouse in Genoa Harbour.

Should it be impossible to communicate with the lookout station, the time when communication is established with the Genoa-Multedo Oil Dock Operations Office over VHF radio, on the frequency that will be notified as soon as possible (normally Channel 6 – 156.3 MHz), indicating the point of anchorage or the ship's position, will serve for establishing the order of berthing.

Berthing at the tower will be authorised by the Oil Dock Management upon receipt of the Master's written or radioed assurance that the ship is fully efficient and ready to proceed to berth and commence discharge. The Oil Companies that are receivers of cargoes or in anyway interested as users of the Oil Dock should begin discharge within 4 hours of completion of mooring and continue without interruption, day and night.

Saving cases of proven *force majeure,* vessels moored at the tower must restrict berth occupancy to the time strictly needed for discharge operations and for ballasting.

Berthing at Tower: Berthing at the tower will be authorised only weather permitting and must be carried out with the assistance of a Pilot. The Master may ask for the help of tugs, in the number needed to ensure the manoeuvre being executed safely.

Ships should moor using two 15 in. nylon hawsers 65 m. in length, supplied by the tower, each able to withstand a 300 ton pull. The end of each hawser is fitted with a 4.5 m. length of chain of which the last link, devoid of stud, will be made fast to the ship's bow structures for securing mooring ropes.

The section of chain outside the fairleads contains a safety element calculated for a breaking load of 200 tons.

The vessel's mooring structures: anchor plates with aperture for pin, quick release hooks, bollards, steel ropes, warping winches, etc., must be in fully efficient condition and able to withstand the stresses to which they will be subject once the mooring ropes have been made fast to them; they must furthermore allow for the ship being unmoored at any moment by the crew.

As the mooring hawsers can break for accidental or other unpredictable causes before the limit of 200 tons is reached, despite the inspection normally made before the arrival of each ship, all tankers moored at the tower must at all times have their engines ready to move at full speed.

Safety Distance Around Tower and Pipe-line: No ship or other craft may station itself, anchor, fish, or carry out underwater or other activities in the area around the tower and pipe-line, boundaries of which are:

South: Parallel 44° 23′ 30″ N.
North: The coast.
West: Meridian 8° 49′ 40″ E.
East: Meridian 8° 49′ 20″ E.

Excepting for tankers proceeding to the tower and the craft providing harbour services and assistance, or other craft which have been duly authorised, no vessel or whatsoever craft may sail within a radius of 800 m. of the tower.

Mooring and Warping Ropes: The 2 mooring hawsers will be secured to a bollard which is part of the rotating structure of the tower and about 14 m. a.s.l. When no vessel is at berth, the 2 hawsers float on the surface, supported by red and yellow luminescent sleeves.

The ends of the hawsers are secured to 2 luminescent red buoys which support the lengths of chain that are to be made fast aboard.

Before a tanker arrives, the Port Authority's personnel will make the ends of the chain of each mooring line fast to a big, floating polypropylene rope about 80 m. in length which the vessel must pick up so that she may be slowly warped in to the tower.

Vessel will be moored with the aid of a craft suitable for operations in the open sea.

Watches, Emergency services and Master's Contacts with Personnel Engaged in Discharge: As though at anchor in the roads, vessels moored at the tower must continue to keep sea watches and retain on board the crew required to cope with any emergency manoeuvre, either for vacating the berth or to meet any other serious event involving the safety of the ship, persons and cargo.

Before commencing discharge, Masters should take steps to see that liaison ensuring rapid and reliable communication between the Oil Dock Management's representatives aboard, the Company interested with the discharge and the Master has been arranged.

Safety Measures to keep Vessel Clear of Tower: Vessels at berth must keep sufficiently clear of the outer ring of the tower to ensure that the bow bulb will not collide with the tower structures.

To this end, the Master must adopt all necessary measures and precautions and take such other steps as may be ordered by the Port Authority, including the use of a tug in order to keep the vessel at a safe distance from the tower.

Vessels needing to activate propellers in order to heat turbines must keep revolution to the minimum and run engines astern.

Hose Handling: While vessels are approaching and mooring at the tower, one of the craft will take the floating hoses in tow, arranging and keeping them in a position where they will not hinder manoeuvring.

On completion of mooring, the hoses will be brought alongside the vessel on the port side, so that the ends are level with the ship's manifold, and will be secured to the tackle of the cargo derrick in such a manner that the cargo receivers' personnel and the ship's crew may jointly hoist, connect and get the hoses ready and then begin discharge. Hoses must not be subjected to a pressure of more than 14 kg./sq. cm.

The ship's derrick should be able to lift at least 10 tons.

Stand-By Tenders During Discharge: During mooring and discharge and until sailing, the Port Authority will keep alongside or in proximity to the tower a stand-by tender of suitable size and power provided with the personnel, material and equipment that will ensure the proper functioning of the tower's facilities and provide any assistance that may be needed in the event of a spillage or other emergency.

Another smaller craft, duly equipped for the purpose, will be provided by the Port Authority for liaison between the Oil Dock, tower, tanker and tender and for transporting personnel or light materials.

The 2 craft will be equipped with continuous listening VHF radio and with anti-pollution and fire-fighting equipment.

Platform Services: The services relating to the operation of the tower's fixed and mobile facilities are under the control of the Genoa-Multedo Oil Dock Management, which exercises them through its personnel on the spot.

The employee in charge of services on the tower will be in touch, by VHF radio, with the Oil Dock Management, informing the latter how discharge is proceeding and of any abnormality and receiving from the latter such instructions as may be necessary. Locally, he will keep in touch with the ship's Master and the representative of the Company interested with the discharge in order to facilitate operations in so far as he is responsible and comply with all requests that may result in advantages and in improving safety in general.

Personnel Attending to Ship's Discharge: The Oil Company who is cargo receiver or anyway interested with the discharge and the Master, each within his own field of competence, will jointly supervise and be responsible for discharge and for connecting and disconnecting hoses.

A representative of the cargo receivers appointed for the purpose, will keep in constant touch with the company's booster station and the Oil Dock by means of VHF radio. He will act also in collaboration with the Master and the Port Authority's representative. For connecting and disconnecting hoses, the latter will make available the material and equipment provided on the tender.

Filling of Hoses With Water When Not In Use: For reasons of safety and to prevent pollution, the floating hoses must be kept full of water when not in use.

To this end, the 2 hoses are connected in the tower by means of the by-pass before the gate and non-return valves.

In agreement with the Master, the cargo receivers must drain the hoses of water before commencing discharge.

On completion of discharge, the cargo receivers must likewise flush out the hoses to remove all traces of oil, fill then with water, disconnect them, apply the blank flanges, close the Keystone cut-off valves and lower the hoses into the sea.

It is strictly forbidden:

(a) to introduce compressed air or any kind of gas into the hoses or the submarine pipe-line;

(b) to discharge the water from the hoses into the sea at the beginning of operations or that used for flushing the hoses on completion of operations.

During flushing, the cargo receivers must take all precautions against leakage or spillage of the water employed for the purpose.

Interruption of Discharge Operations for Safety Reasons: In the event of a deterioration of sea conditions, violent thunderstorms, trouble with the facilities that jeopardises safety, large scale pollution or other dangerous circumstances, the Management of the Oil Dock may, at its own unchallengeable discretion, order:

– immediate interruption of discharge;
– that the hoses be got ready for lowering into the sea;
– the adoption of all such measures as will enable the vessel rapidly to vacate the berth.

In agreement with the cargo receivers, vessels must therefore maintain a trim during discharge that will enable them to take to sea safely at any moment.

Prohibition to Pollute. Cleaning Up: Ships moored at the tower must not pollute the water with hydrocarbons, solid residues, or oil mixtures of any kind, nor effect gas-freeing or tank cleaning or transfer oil from one tank to another by means of temporary hoses or pipes slung over manholes or other tank apertures.

In the event of oil spills, the Oil Dock Management, without prejudice to the application of the penalties provided by law, will order the anti-pollution equipment of the craft standing by to come into operation at once, at the expense of whomsoever may be concerned, and the despatch of other equipment for cleaning up should it deem this necessary.

Bunkering and Victualling: Bunkers, victuals, drinking water and stores must in general be taken aboard while awaiting berth in the roads. Such operations may also be effected with the vessel moored at the tower before or during discharge (but not during ballasting) according to the procedure prescribed by the Oil Dock Management and with observance of the precautions that are ordered.

Ships and any other craft coming alongside tankers must be provided with a sufficient number of strong fenders to prevent hull to hull contact and be fitted with spark arresters on all main and auxiliary engine exhausts.

Authorisation to go Aboard: Persons needing to go aboard to do work or for other justified reasons must be provided with an authorisation issued by the Oil Dock Management.

Work on Engines: It is forbidden to vessels moored at the tower to carry out works which put the engines out of action or reduce its efficiency.

Other work which cannot be delayed may be authorised exceptionally by the Oil Dock Management at its own discretion provided certain instructions and safety measures are observed.

Transhipments: Vessels moored at the tower may carry out transhipment of their cargoes only to vessels moored in the Oil Dock, for such purposes making use of the pipe-line.

Other Regulations: Without prejudice to the regulations currently in force in the waters of the Maritime Department of Genoa, for all such matters as are not expressly provided for in the present regulations there shall be applied, to the extent to which they are applicable, the provisions of the Harbour Police and Safety Regulations for the Genoa-Multedo Oil dock, approved by order No. 10 of the President of the Port of Genoa Authority on the 30th September, 1968, the regulations for bunkering tankers in the Genoa-Multedo Oil dock, approved by decree No. 1384 of the President of the Port of Genoa Authority on the 1st September, 1966, of the Marine Services and Harbour Police Regulations approved by order No. 2 of the President of the Port of Genoa Authority on the 1st March, 1972, and the other laws and regulations in force in the Port of Genoa.

Penalties: Infringements of these regulations will be punished by application of the penalties provided in the Code of Navigation.

Safety Rules to Complied with During Stay of Tankers at Sea Terminal of Genoa-Multedo: The following are the principal safety rules that the Master is bound to strictly comply with and enforce during the stay of the ship under his command of Genoa-Multedo.

1. The main propelling machinery must be kept ready to move (standby) and there must always be available on board a sufficient number of crewmen to enable the ship to leave the berth immediately whenever ordered to by the Port of Genoa Authority (Consorzio Autonomo del Porto);
2. Vessel must have ready the accommodation ladder on starboard side and – on port side – the pilot ladder rigged forward of the poophouse;
3. Decks and surrounding waters must be properly lighted;
4. When mooring to platform anchors must never be dropped;
5. Vessel's firefighting equipment and the men in charge of its operation must always be ready for immediate action (in case of emergency). Men in drunken state must be watched and kept under supervision;
6. The ends provided with eyes of 2 strong 3.5 in./4 in. wire cables, length of which must be of 80 m./100 m. (260 ft./330 ft.) at least, must be placed hanging one fore and one aft to enable the ship to be towed out (to sea) in case of fire.

7. Unless authorised to the contrary and which will only be allowed in exceptional cases by the Oil Harbour Master, it is forbidden:
   (a) to carry out repair works, cleaning or gasfreeing of tanks or bunkers, etc.;
   (b) to carry out loading of cargo, water or other liquid products using hoses introduced through the cargo tanks lids.
8. It is strictly prohibited:
   (a) to keep fires of any kind on board, with the only exception of those for the service of ship's boilers and galleys if located in special rooms thoroughly protected against gas exhalations and far from the cargo lines;
   (b) to throw or pump overboard water ballast, bilge-water or water from any other source, that might pollute the port waters;
   (c) to cause escape of oil from the sea valves due to delay in starting the ballast pumps or any other reasons; to cause escape of oil due to leakage of pipes or valves on board; to provoke overflow of oil from cargo tanks. Accidental leakages on deck on deck must be collected into suitable receptacles and – with all precautions – poured again into the cargo tanks or carried ashore; all scuppers on the main deck and particularly those near the cargo manifolds must be plugged during the loading/unloading and ballasting operations;
   (d) the use of devices, tools and wrenches not made of non-sparking material, to connect or disconnect hoses, pipes or pipe fittings and to carry out work to any ship's equipment placed on deck or inside those spaces where the generation and/or presence of gas is possible;
   (e) to smoke on board except in those rooms approved by the Master and to throw overboard lighted matches or cigarettes;
   (f) the use of rocket signals, flares, etc.;
   (g) the use of electric hot plates, fans and other equipment which might produce sparks on deck or into those rooms having openings towards the cargo tanks;
   (h) the use of electric portable lamps and cables and of telephones not being explosion proof;
   (i) to keep open skylights, doors and hatches of spaces located in way of or near the cargo tanks;
   (l) to keep open the cargo tanks lids; to keep open Butterworth openings.

   The ship's personnel should take care that all ullage openings and gas vents are provided with spark arresters and that the latter are sound. They also should take care that the spark arresters placed on the funnels and combustion gases exhausts are sound;
   (m) shifting of steel tools, winch manoeuvring, loading and unloading of materials, connecting and disconnecting of cargo hoses during the whole period in which sampling and gauging of cargo tanks is carried out;
   (n) to carry out loading and unloading operations during storms with lightning;
   (o) the idling of pumps. Ship's personnel should immediately stop pumps that – for any reason – should idle;
   (p) the blowing of boiler's tubes;
   (q) the coming onboard of unauthorised people.
9. All engine propelled boats approaching the vessel must be provided with spark arresters on the combustion gas exhausts.
10. During shifting operations into tanks:
    (a) radio apparatus must be switched off and all aerials set to ground;
    (b) cargo lines not in use must have all valves closed and manifolds are to be blank flanged.
11. Loading of ship's stores and equipment should be carried out from the extreme poop. In case the aforesaid operations have to be carried out on deck, near the cargo tanks and should it involve the handling of heavy or metallic materials anyway, all precautions relating to the case or those each time specified by the Oil Harbour Master, should be taken.

    As a general rule the above mentioned operations are not allowed during the loading or ballasting of the ship. The crafts used for the transportation of the materials must approach the ship, stay alongside and move out without making use of the engine.
12. Tankers having on board inflammable or dangerous products, or – being empty or in ballast – having their tanks not certified gasfree, must hoist steadily and well in view, a red flag (letter "B" of the international code of signals) and by night a red light, which can be sighted from round the horizon.

Products/Chemicals:

Pier Alfa: Diameter of the connecting flange 10 in. ASA 150 with vertical face, the radius of 750 mm. from the axis of the connecting pipe at manifold is to be free from any hindrance. The distance between two centres of the 2 neighbouring pipes to manifold must be minimum 1,250 mm. A space of 1,200 mm. from the flange towards ship's rail horizontal axis is to be free of any hindrance.

West Pier: Diameter of the connecting flange 6 in. ASA 150 with vertical face. Radius from axis at least 500 mm. free from any hindrance. Minimum distance between 2 neighbouring centres at manifold 1,000 mm. Free space from flange towards ship's rail along horizontal axis at least 1,200 mm. It is understood that ships not equipped for above discharge will not be allowed to operate.

BALLAST: Facilities exist for the collection and clearance of slops by means of special barges.

STEVEDORES: *Working Hours:* General cargo: 3 shifts from Monday to Saturday: 0630 – 1300 hrs., 1300 – 1930 hrs., 1930 – 0100 hrs.

A fourth working shift is available from Monday to Friday in the period 15th March/15th November.

Coal, ore, grain: only the first 2 shifts. Italsider Pier: 24 hours' daily in 3 shifts.

MEDICAL: All medical assistance available. Advance notice required for urgent cases only.

DENSITY: Varying from 1025 to 1026.

FRESH WATER: Available direct from quay at almost all berths. Supply by lighter, minimum 20 cu.m.

FUEL: All grades available. Delivered by barge. 48 hours' notice desirable.

GANGWAY/DECK WATCHMEN: Recommended.

OPENING/CLOSING HATCHES: First opening and last closing normally carried out by crew.

CUSTOMS ALLOWANCES: Tobacco: Customs allow a maximum of 50 cigarettes or 10 cigars, or 50 grams tobacco per person, as long as vessel stays in port. All cigarettes, cigars, etc. must be ready on arrival in a locker in order to be checked and sealed by Customs guards. Wine and/or spirits. Wine allowed any reasonable amounts.

Spirits allowed: 1 bottle for every 2 Crew members.

Report: May 1983: Customs Regulations – Supply of Cigarettes and Tobacco: "Please inform members of a new rule at Genoa concerning forwarding of cigarettes, which provides that they may only be sent from the Port of Registry with invoices visaed by the Italian Consul there.

At Genoa, the Master must declare cigarettes and tobacco on board, number of crew and duration of next employment, thereafter the Customs will allow 40 cigarettes each day to each crew member for the duration of the voyage.

In case there is sufficient stock on board, the Customs will not allow supply, which might cause other troubles as well, due to the fact that the truck normally carrying other provisions and stores will remain stopped at Customs until the situation with cigarettes is clear".

CARGO GEAR: Certificates must be in order, otherwise authorities may prevent vessel performing commercial operations, especially if using derricks.

IDENTIFICATION CARDS: Required. Shore passes issued by local police.

CONSULS:

Argentina
Austria
Belgium
Bolivia
Brazil
Chile
Colombia
Congo Brazzaville
Costa Rica
Cuba
Cyprus
Denmark
Dominica
Ecuador
El Salvador
Finland
France
Germany F.R.
Greece
Guatemala
Haiti
Honduras
Iceland
India
Indonesia
Ireland
Ivory Coast
Lebanon
Liberia
Madagascar
Malta
Mexico
Monaco
Netherlands
Nicaragua
Norway
Pakistan
Panama
Paraguay
Peru
Philippines
Portugal
San Marino
Senegal
South Africa
Spain
Sri Lanka
Sweden
Switzerland
Thailand
Tunisia
Turkey
U.K.
U.S.A.
U.S.S.R.
Uruguay
Venezuela
Zaire

REPAIRS: All types of repairs available. Preferable have advance notice of requirements.

DRY DOCKS: 1 floating dry dock, lifting capacity up to 15,000 tons; 7 dry docks (largest dimensions 280 m. × 40 m. × 12.50 m.). Max. size 100,000 d.w.t.

REPATRIATION: All facilities available.

AIRPORT: Located at about 5 km. from town. Served by regular lines, international services.

Alitalia to Rome, Bari, Parigi, Naples; British Airways to London; Alisarda to Olbia; A.T.I. to Rome, Turin, Palermo, Alghero, Cagliara; Swissair to Zurich; Lufthansa to Frankfurt; Golden West Airlines to Turin, Venice and Trieste.

TIME: Local time in relation to GMT 1 hour ahead. Summer time further 1 hour ahead from March to September.

HOLIDAYS: New Year's Day (1st January); Liberation Day (25th April); Labour Day (1st May); Easter and day after Easter; Patron Saint's Day (24th June); Assumption B.V. Maria (15th August); All Saints' Day (1st November); Immaculate Conception (8th December); Christmas Day (25th December); Holiday (26th December).

Holiday work is available at overtime rates. Generally workers not available on 1st January, 1st May and 25th December. Saturday: Work performed after 1200 hrs. is at overtime rates.

POLICE/AMBULANCE/FIRE: Police: tel. 113; 25.69.75; 26.13.95; Ambulance: tel. 59.59.51; Fire: tel. 25.25.25 – 25.80.21.

TELEPHONES: Telephones can be placed on board at cost fixed by Italian State Telephone System.

DEVELOPMENTS:

Genoa Port Docks:

Works in Progress:

Within the port of Genoa area, the more outstanding works are:

New industrial zone including the construction of a giant floating-dock in pre-stressed-reinforced concrete for vessels of up to 350,000 d.w.t. A deep water (−22 m.) 350 m. long, service pier will also be built, together with 400 m. of new quays with 11–20 m. depth alongside and 80,000 sq.m. of connected areas;

Besides the above listed works, there are others worthy of mention as follows:

Medium term works:

Rectification of the Calata Gadda and Calata Boccardo quays thus allowing a more efficient use for ship repair purposes;

Long term works:

Completion of the San Benigno area arrangement works.

Voltri Dock:

Works in progress:

Seaward filling in works will be continued;

The protection breakwater will be extended 500 m. Eastward;

End-stretch of the seaward road connecting the material excavation area with the sea zone to be filled in.

Medium term works:

Voltri will consist of quays 1,100 m. long in the first stage, and 2,050 m. on completion.

5 container berths 300 m. long, 15 m. draft are planned, each terminal composed of 135,000 sq.m. of yards. They will be of the closed type – which means no outside vehicles allowed to circulate within the terminal – and will be capable of handling 100,000 TEU per year, that is 500,000 TEU total capacity per year.

The yard will be divided in zones as follows:
- Operative zone, for container unloading/loading operations, adjacent to the quay;
- Areas for container handling and marshalling;
- Areas for reefer containers;
- Parking areas for service vehicles.

The Ro/Ro terminal is planned to be 500 m. long, with adjacent yards 250,000 sq.m. in area, which will allow the parking of 2,000 trucks at the same time.

The 8 berths above mentioned will absorb 3,000,000 tons traffic of general cargo per year.

Two check-points for Customs controls are provided, each having a 60,000 sq.m. surface. One will be sited at the Eastern way out and the other at the Western way, thus allowing the service of containers and Ro/Ro traffic at minimum distance and maximum efficiency. The check-point will have space enough to park 300 trucks and straight connections with the City and National roads.

An area of 50,000 sq.m. is already used for stacking empty containers and storing trucks and trailers.

The first section, 2 container berths, equipped with 4 × 45 ton container gantry cranes and 2 Ro/Ro berths will be operational in 1989.

AUTHORITY: Consorzio Autonomo del Porto di Genova, Palazzo San Giorgio, Via Della Mercanzia 2, 16123 Genova, Italy. *Tel:* (10) 26901. *Telex:* 286579. *Contact:* Dr. Giuseppe De Sanctis, Port Director.

LA SPEZIA: 44.01 N. 09.51 E. (See Plan)

DOCUMENTS:
- 3 Crew Lists.
- 3 Passenger Lists.
- 1 Provisions List.
- 1 List of Parcels.
- 1 Cargo Manifest.
- 1 Bill of Lading.

All Ship's Certificates including Italian Anchorage Dues.

PILOTAGE: Compulsory for vessels over 500 g.r.t. Pilot station situated on breakwater at entrance to Gulf. 1 hour's notice to Pilots required for shifting and sailing vessel. Pilot boards incoming vessels at Torre Scuola.

Pilot on VHF Channel 14 from 2000 hrs. – 0600 hrs. Listens 1 hour before vessel expected. Tel. (0187) 30172, 30222.

ANCHORAGE: Safe areas available in depths 25 ft. to 34 ft. Mud bottom, no tide.

Tankers: If waiting for berth, required to anchor in Safety Zone immediately behind the breakwater. If this anchorage is occupied by 2 vessels later arrivals must anchor outside the Gulf.

RESTRICTIONS: Western entrance to Gulf is 400 m. wide with depth of 42 ft. 6 in. The dredged channel to the port is 42 ft. deep. Eastern entrance is 200 m. wide used by smaller vessels only.

MAX. SIZE: Limited only by draft; 33 ft. for the Mercantile Port and grain silos. For vessels proceeding to coal berth max. draft 30 ft. 4 in. For vessels proceeding to Enel Pier max. draft 35 ft.

Tankers up to 40 ft. draft accommodated.

HEALTH: Radio Pratique may be requested to Sanimare-La Spezia before arrival. Pratique is automatic for vessels from Ports in E.E.C. countries.

RADIO: Genoa Radio – ICB or Marina Militare ICS. Radio telephone station at Leghorn, transmitting 2591 kHz, receiving 2182 kHz.

VHF: Pilot Service Channel 14, Port Control Channel 9, Harbour Master Channel 16 (0800 – 2000 hrs.), and boat service Channel 12.

TUGS: 19 tugs available up to 1,359 h.p. For large tankers, 4 tugs usually used.

BERTHING: Primo Bacino:

Garibaldi Mole: The port basin is limited to the East by Garibaldi Mole, running North – South, to the coast and for a length of 509 m. It has depths of 8 m. – 10 m. and is used for discharging cereals, paper, containers and metal products. It has open storage areas and warehouses. The mole is used on both sides, which are equipped with fenders.

Malaspina Wharf: 200 m. long and 106 m. wide, with depth of water of 6.5 m. – 7 m. It has fenders.

Paita Wharf: 535 m. long. On its Eastern extension is a moden coal silo. On the shoulders of the wharf are areas for open storage of goods, and in the West Area there is the Ferruzzi cereals warehouse and the Carapelli edible oil store. The wharf has fenders, and on its Western extremity has an 80 m. section suitable for discharge using ship's gear. A 155 m. wharf is used for the offices of Customs and the Port Captaincy.

Italia Mole: 368 m. long, 10 m. wide, depth of water 5.5 m. – 7 m. Constructed to protect the port basin, and therefore not equipped with port equipment, it is used for berthing tugs.

Currently, it is to be used for berthing the passenger ferries between La Spezia and Bastia (Corsica).

IIP Landing Stage: 200 m. long, with 13 m. depth of water. It is equipped with bollards, fire-fighting equipment and hydrants. It allows berthing, loading and discharge of 2 tankers simultaneously, having equipment operating with a suction-depression system.

Minor Berths: These are constituted by 2 small piers where medium sized tankers can moor bow-on.

Secondo Bacino:

Artom Wharf: 320 m. long, with depth of water 11 m.

Fornelli Pier: West Side: The La Spezia Container Terminal, with 520 m. quay with depth of 12 m. – 13 m.

South Side: 150 m. long, currently used in Summer season for passenger vessels to berth.

East Side: Presently being developed as the second container berth.

Outer Terminals:

The Port of La Spezia incorporates the terminals of a few companies involved in maritime traffic. There are, to the East of the port, the Messina and Tarros Terminals, all with their own berths and private operational land areas for containers.

ENEL Landing Stage: 225 m. long, it is used for berthing vessels carrying fuel for the electricity power station.

SNAM Terminal: 480 m. long, situated in the bay of Panigaglia, it is employed in the discharge of methane carriers.

SPI Terminal: This is a terminal situated in the Eastern Area of the Gulf, provided with 5 buoys, permitting the discharge of tankers. The discharged products are shipped by underwater pipe-line to the coastal storage installation and from there to the refinery and storage area.

TANKERS: SPI Buoy Terminal, situated 650 m. from San Bartolomeo shore. Vessels moor stern towards the shore. A crude oil discharge berth in depth of 11.50 m., suitable for tankers up to 30,000 d.w.t. Other oil berth at ENEL Quay, depth 35 ft.

Safety Regulations are handed to Master on arrival and must be strictly observed. No shore steam or electricity available.

BULK HANDLING FACILITIES: Ferruzzi Grain Silos, 39,450 tons capacity, at Paita Dock. Discharge by 2 cereal suction towers with 4 pumps, overall loading/discharging capacity 400 t.p.h.

Sosimage at Garibaldi Quay, grain discharged by 4 vacuum-operated intake pipes, capacity 400 t.p.h. Capacity of silos, 30,000 tons. Length of quay 220 m., depth 35 ft. Berth will accept vessels of 30,000 d.w.t.

Vetrocoke Cokapuania: Coal conveyor system at Paita Dock, capacity 450 t.p.h. from colliers and 330 t.p.h. from other vessels. Capacity of silos 12,000 cu.m.

Carapelli Edible Oil Store: A temporary custody customs warehouse, with a covered area of 2,480 sq.m. and a 5,000 tons stocking capacity.

Speter Paper and Cellulose Store: Situated on the Garibaldi Mole, it has a covered area of 2,480 sq.m., and a 5,000 tons stocking capacity.

ENEL: Coal handling facility with 2 grab cranes, rate 10,000 tons per day. Max. LOA 255 m. Max. beam 32 m. Max. draft 13.0 m.

CRANES:

Garibaldi Mole, West Side:

Berth No. 1: 4 bridge cranes, capacity 6 tons (hook or bucket operation).

Berth No. 2: 2 bridge cranes, capacity 6 tons (hook or bucket operation).
1 bridge crane, capacity 8 tons (hook or bucket operation).

Berth No. 3: 3 bridge cranes, capacity 6 tons (hook or bucket operation).

East Quay:

Berth No. 9: 1 crane, capacity 3-6 tons (hook or bucket operation).
2 cranes, capacity 6-12 tons (hook or bucket operation).

Malaspina Dock:

Berth No. 4: 2 gantry cranes, capacity 3 tons (hook only).
2 gantry cranes, capacity 3-6 tons (hook or bucket operation).

Paita Dock:

Berth No. 5: 2 overhead travelling cranes, 10 ton capacity, travel 120 m.

Berth Nos. 6 & 7: 4 jib cranes, capacity 6 tons (hook or bucket operation).

Additional Cranes: 2 self-propelled cranes, (hook operation) 20 tons lifting power. 1 self-propelled crane for loading and unloading (hook or bucket operation) 40 tons lifting power. 1 self-propelled crane, 60 tons lifting power, for loading and unloading of various goods and containers.

Floating crane, capacity 110 tons, available in the Industrial Zone.

Artom Wharf in the second basin is equipped with 4 jib cranes with capacity of 20 tonnes.

On the Fornelli Pier, West side, is the La Spezia Container Terminal equipped with 2 RMG ship to shore cranes, up to 42 tons with 20 ft. to 40 ft. spreader and three RMG stacking cranes up to 45 tons.

STEVEDORES: Gangs to be ordered by 0700 hrs. for morning shift, and by 1300 hrs. for afternoon shift every normal day from Monday to Friday. For mechanised work the same routine is to be followed. Saturdays, morning is considered as overtime work (tariff plus 27.50%). On the afternoon of Saturday, time is considered as holidays and so are Sundays. Saturdays and Sundays shift to be ordered on Friday afternoon by 1500 hrs.

MEDICAL: All facilities available. Vaccination/inoculation can be arranged. Prior notice should be given if urgent attention required on arrival.

FRESH WATER: Available at most berths, or by barge.

FUEL: Supplied by barge and road tankers at berths.

IDENTIFICATION CARDS: Shore passes issued to crew.

CONSULS: Following countries represented at Spezia: Denmark, France, Finland, Netherlands, Norway, Portugal, Sweden.

REPAIRS: Naval and civil repair yards can undertake all types of work. Divers available through Port Captain.

DRY DOCKS: Available only when not used for naval vessels: No. 5, 209.65 m. by 27.60 m.; No. 6, 210.20 m. by 23.10 m. Floating dock for 110,000 d.w.t.

TIME: GMT plus 1 hour. GMT plus 2 hours from March 29th to September 26th.

POLICE/AMBULANCE/FIRE: Police tel: 0187-34418. Hospital tel: 0187/533111.

HOLIDAYS: New Year's Day (1st January); St. Joseph (19th March); Liberation Day (25th April); Labour Day (1st May); Easter and Day after Easter; Ascension Day; Assumption B.V. Maria (15th August); All Saints' Day (1st November); Immaculate Conception (8th December); Christmas Day (25th December); Boxing Day (26th December).

SHORE LEAVE: Allowed.

DEVELOPMENTS: 2 new berths (467 m. length) for container vessels and Ro/Ro vessels under construction at Molo Fornelli (East side) quay with depth 13 m. Expected to be operational late 1989.

SHIPMASTER'S REPORT: October 1988.

General: It is very difficult to contact the pilot station prior to arrival. It appears that pilots are only using portable W/T when answering ships approaching La Spezia Roads.

Channel 16 and working channels are frequently disturbed by powerful stations in the vicinity (Corse, Genoa, etc.).

Anchoring: Vessels up to 10.0 m. draft can anchor in position 1 mile S.E. of breakwater (Passo di Poniente) and at a distance of about 7 cables from Torre Scuola Island.

This anchorage is not recommended for ships with a draft of 10.0 m. in periods of swell. Charted depths are 13.0 m. up to 15.0 m.

In case of swell, or ship with draft of 10.0 m. or more, it is preferable to anchor 1 mile East of Del Tino Island.

Pilot: Pilot embarks in the Inner Harbour, when ship has already cleared the breakwaters (Passo di Poniente).

AUTHORITY: Capitaneria di Porto, Viale Italia 4, La Spezia, Italy. *Tel:* 0187-28580.

Camera di Commercio Industria Artigianato ed Agricoltura La Spezia, 19100 La Spezia. *Tel:* 32133/34/35. *Telex:* 282687 Camesp I. *Contact:* The President.

LIVORNO (Leghorn): 43.33 N. 10.20 E. **(See Plan)**

DOCUMENTS: Complete set of Manifests and B/Ls relative to cargo destined for this port. Complete set of Manifests of all cargo in transit. 3 Crew Lists. 3 Passenger Lists.

ANCHORAGE: Anywhere between 1 – 1.5 miles from breakwater.

PILOTAGE: Pilotage compulsory for all vessel's over 500 g.r.t. Sound signals for calling Pilot, 3 long blasts, or international signal "G". Pilot boards vessels 1 mile from breakwater.

Shipmaster's Report: June 1988.

Vessel has to call Pilot Station on VHF Channels 16/12 giving the usual ETA information.

Thereafter vessel has to call Port Control on Channel 10.

If this procedure is not followed Pilot will not board and delay will be incurred.

APPROACHES: Navigation within the confines of the port is very tight, the radius of bends are small, channels are narrow and swinging areas cramped. Masters must, therefore, exercise extreme vigilance when their ships are navigating in the port. In particular, it must be emphasised that prompt and accurate responses are required from engines and, in turbine-driven ships, full astern requirements should be met promptly and with maximum power. Masters should inform their Chief Engineers about these requirements before the ship enters the port.

Anchors must be ready to let go.

The current outside the breakwater usually sets across the entrance, but it is variable in both speed and direction. Care must be taken to allow for the set of current when lining up the ship for the entrance.

Immediately on entering between the Diga della Vegliaia and Diga Curvilinea, the ship has to make a 70° turn to port, then navigate a narrow channel for 0.5 miles to Bacino S. Stefano where ships bound for the Nuova Darsena (Berth Nos. 10 and 11) are swung. It is very important to arrive at the Bacino S. Stefano at the slowest possible speed in order to effect a tight swing. When the wind is from the Southern semi-circle, control of the ship can become difficult and proper control of the tugs is important.

RESTRICTIONS: No night berthing for tankers; no restrictions for tankers on sailing, when empty and up to 15,000 gross tonnage according to weather conditions.

MAX. SIZE: See "Berthing".

HEALTH: To obtain Free Pratique by radio cable to "Sanimare", Livorno, advising all health particulars at least 12 hours before arrival.

RADIO: Livorno Radio generally used for communications.

Arrival Advice: Agent to make request for berthing 3 days prior to arrival for cargo vessels and 10 days prior to arrival for passenger and cruise ships. Request to be made before 1000 hrs.

Day before arrival and not later than 1200 hrs. (1000 hrs. on holidays) advise ETA (day, hour, minutes = 00.00.00); number of containers to be moved.

RADAR: None.

VHF: Livorno Radio on Channels 16 and 26. Pilots and Port Control on Channels 14 and 16 and Harbour Master on Channel 16. 24 hour service available. Ship information service on Channels 16 and 10.

TUGS: There are a total of 20 tugs (700 h.p. – 6,200 h.p.) stationed in the port. Some are steam driven, others are motor driven. It is not always possible to allocate the best or most suitable tugs to each ship due to the strict duty roster of the tug crews. Tugs employ "on the hook" towing methods using ship's lines. Only good lines should be used for this purpose. Tugs are made fast outside the breakwater to assist ships to make the 70° port turn at the entrance.

For the larger ships, 4 tugs are normally used, 2 on the hook forward and 2 on the hook aft. In some circumstances, a fifth tug may be used, connecting on the hook forward.

Pilots communicate with the tugs by VHF using portable sets they bring on board with them.

BERTHING: Depths and Lengths of Various Berths

Berth	*Berth No.*	*Length/Depth/Remarks*
Bacino Santo Stefano - North West Side:		
1. Nuova Darsena Petroli	10	Length 344 ft. tankers.
	11	Length 295 ft., depth 37 ft. for tankers with a max. length of 984 ft. Tankers longer than 984 ft. with a draft of 37 ft. 6 in. can be moored in good weather on full tide
2. Radice Nuova Darsena Petroli	11/A	Length 229 ft., depth 14 ft.
3. Piccolo Fondale	11/B	Length 360 ft., depth 17 ft. 6 in. Only for vessel of a max. length of 360 ft. Petroleum/gas oil.
4. Vecchia Darsena Petroli	12	Length 20 ft. Petroleum/gas oil/fuel oil/crude oil.
	13	Length 98 ft., depth 30 ft. 6 in. for tankers with a length between 593 ft. and 748 ft. L.P.G.
5. Darsena Toscana West Side	14	Length 984 ft., depth 37 ft. Containers.
Bacino di Evoluzione:		
1. Calata Tripoli (Dow Chemical)	16	Length 690 ft., depth 26 ft. Chemicals/Ferries.
Darsena N. 1:		
1. Calata Assab		Total Length 1,312 ft.
	17	Depth 29 ft. U.S. Navy.
	18	Depth 29 ft. Ferries.
2. Calata Gondar	19	Length 690 ft., depth 27 ft. Ferries.
3. Calata Addis Abeba	20	Length 875 ft., depth 26 ft. 6 in. Bulk Cargoes.
4. Calata Neghelli	21	Length 787 ft. depth 26 ft. 6 in. Fruit.
Calata Neghelli	0	Length 197 ft,. depth 20 ft. Fruit.
Canale Industriale:		
1. Calata Bengasi	22	Length 885 ft., depth 28 ft. Timber, bulk cargoes.
2. Pontile Giopescal	23	Length 328 ft., depth 20 ft.
3. Terminal C. Colombo	24	Length 1,350 ft. Depth 28 ft. 0 in. For vessels of max. length of 610 ft. only.
4. Pontile Cledca	25	Length 262 ft., depth 18 ft. Tar, pitch, solvents.
5. Pontile Valchisone	26	Length 230 ft., depth 18 ft. Ro/Ro.
6. Costiero Italso	27	Length 220 ft., depth 28 ft. with distance barge. Vegetable oils.
7. Costiero D.O.C. (Chemicals)	28	Length 656 ft., depth 28 ft. with distance barge. Petroleum, oils, solvents, gas oil, fuel oil, latex, vegetable oil.
8. Costiero D'Alesio	29	Length 460 ft., depth 28 ft. with distance barge. Tankers.
9. Costiero Liquigas/AGIP	30	Length 656 ft., depth 28 ft. LPG.
10. Silos Ardenza	34	Length 690 ft., depth 28 ft.
11. Terminal Leonardo Da Vinci	35	Length 545 ft., depth 28 ft. Max. LOA 150 m.
12. Darsena Ugione	36	For tankers of max. length 230 ft., depth 20 ft.
Montedison	36/A	For tankers with max. length of 430 ft. and draft of 25 ft. 6 in.
	37	For tankers with a max. length of 367 ft. and draft of 20 ft.
13. Officine Meccaniche Botteghi	38	Length 490 ft., depth 18 ft.
Calata del Magnale:		
1. Magnale Non Operativo	39	Length 4,265 ft., depth 14 ft. Repairs.
2. Magnale Operativo Nord	40	Length 490 ft., depth 14 ft. Cement.
3. Magnale Operativo Centro	40	Length 490 ft., depth 18 ft. Cement.
4. Magnale Operativo Sud	40	Length 490 ft., depth 14 ft. Cement.
Darsena Pisa:		
1. Calata Darsena Pisa	41-42	Length 820 ft., depth 39 ft. 6 in. Bulk cargoes.
Bacino Santo Stefano - South East Side:		
1. Calata Alto Fondale	43-44-45 -46-47	Length 2,505 ft., depth 35 ft.
	48	Length 195 ft., depth 18 ft. Ferries.
Bacino Cappellini		
1. Calata Orlando	49	Length 495 ft., depth 28 ft.
	50	Length 495 ft., depth 28 ft. Bulk cargoes.
	51	Length 495 ft., depth 27 ft. Bulk cargoes.
2. Calata Siena	58	Length 165 ft., depth 20 ft. Ferries.
3. Calata Punto Franco		Total length 885 ft.
	59	Depth 28 ft. Ferries.
	60	Depth 28 ft. With distance barge Draft 34 ft. Bulk cargoes.
Bacino Firenze:		
1. Calata Pisa	52/53-54	Total length 1,475 ft., depth 25 ft.
2. Calata Carrara	55/56-57	Total length 1,475 ft., depth 25 ft.
Porto Mediceo:		
1. Calata Sgarallino	61-62	Total length 785 ft., depth 28 ft. 6 in. Passenger vessels.
2. Andana Degli Anelli	64	Length 490 ft., depth 25 ft.

Berth	*Berth No.*	*Length/Depth/Remarks*
3. Pontile Elba	66 North	Length 190 ft., depth 18 ft. Passenger vessels/ferries.
	66 South	Length 190 ft., depth 17 ft. Passenger vessels/ferries.
4. Andana Delle Ancore	67	Length 525 ft., depth 13 ft.
5. Banchina Allestimento Cantiere Orlando	74	Length 590 ft. Fitting out berth.
6. Molo Mediceo	75	Length 1,540 ft., depth 19 ft.
Darsena Nuova:		
1. Banchina South	70	Length 328 ft., depth 19 ft. 6 in.
2. Banchina West	71	Length 328 ft., depth 19 ft. 6 in.
Nuovo Bacino di Carenaggio:		
1. Banchina East	76	Length 1,050 ft., depth 26 ft. 6 in.
	78	Length 835 ft., depth 29 ft. 6 in.

CRANES: (owned by Azienda Dei Mezzi Meccanici)

Pier	*Type*	*Berth*	*Capacity (Tons)*	*Use*
Alto Fondale	crane	47	3.75	General cargo
Alto Fondale	crane	47	8/16	General cargo
Alto Fondale	crane	47	3.75	General cargo
Alto Fondale	crane	47	3.75	General cargo
Alto Fondale	crane	46	8/16	General cargo
Alto Fondale	crane	46	3.75	General cargo
Alto Fondale	crane	46	3.75	General cargo
Alto Fondale	crane	45	3.75	General cargo
Alto Fondale	crane	45	3.75	General cargo
Alto Fondale	crane	45	3.75	General cargo
Alto Fondale	portainer	44	50	Containers
Alto Fondale	portainer	43	50	Containers
Orlando	Container Gantry Crane	49	22	Containers
Orlando	portainer	49	32	Containers
Orlando	Container Gantry Crane	50	22	Containers
Orlando	Container Gantry Crane	50	5.50	Bulk
Orlando	crane	51	12	Bulk
Pisa	crane	52	3	General cargo
Pisa	crane	52	3	General cargo
Pisa	Bulk Gantry Crane	53	6	Bulk
Pisa	Bulk Gantry Crane	53	6	Bulk
Pisa	crane	54	5	General cargo
Pisa	crane	54	5	General cargo
Carrara	crane	57	6	General cargo
Carrara	crane	57	6	General cargo
Carrara	crane	56	8/16	General cargo
Carrara	crane	56	8/16	General cargo
Carrara	crane	55	8/16	General cargo
Carrara	crane	55	6	General cargo
Carrara	Gantry Crane	55	25	Marble
Sgarallino	crane	61	3	General cargo
Sgarallino	crane	61	6	General cargo
Sgarallino	crane	61	3	General cargo
Sgarallino	crane	62	3	General cargo
Sgarallino	crane	62	3	General cargo
Bengasi	Bulk Gantry Crane	22	6	Bulk
Bengasi	Bulk Gantry Crane	22	10	Bulk
Addis Ababa	crane	20	8/16	General cargo
Addis Ababa	crane	20	8/16	General cargo
Darsena Toscana	portainer	14	50	Containers
Darsena Toscana	portainer	14	50	Containers
Owned by Sintermar:				
Canale industriale	portainer		50	Containers
Canale industriale	portainer		40	Containers

Mobile Cranes and Equipment. *Owned by A.M.M.:* 1 crane capacity 60 tons.
1 crane capacity 40 tons.
1 crane capacity 25 tons.
5 fork-lifts up to 6 tons.
Owned by Dockers' Organization
3 Van Carrier capacity 30 tons.
18 Portainers up to 40 tons.
220 Travelling cranes of various type (fork-lifts lifting capacity up to 25 tons, bulldozers, tractors etc.)
Owned by private enterprises
2 Rubber tyred transtainers capacity 40 tons.
210 fork-lifts and travelling cranes
125 flatcars
40 tractors, towings etc.
7 semiportal suckers for cereals discharge.

BULK HANDLING FACILITIES: Grain: discharging rate 1,000 to 1,500 m. tons per day.

Ore and coal bulk: discharged by shore elevators at Calata Orlando, discharging rate 1,500 to 2,000 tons per day.

Cereals Silos: Silos Livornesi 28,000 tons. Silos and Tirrenian Warehouses 31,500 tons. Ardenza of Liquifarm G.I.A. 52,000 tons. Italso 32,000 ton.

TANKERS:

Nuova Darsena Petroli Terminal:

Cautionary Advice: The berthing heads of Berth Nos. 10 and 11 in the Nuova Darsena Terminal are constructed on stone walls and their protection consists of 4 fenders.

These fenders have small energy absorption characteristics and their size and spacing afford little protection against striking the quay wall or indenting the hull due to small single point landings. Heavy landings must, therefore, be avoided and ships must dock as parallel to the berth as possible.

The Nuova Darsena Berths are exposed to Westerly winds and, therefore, ships should ensure that moorings are adequate and in good condition.

Berthing Procedures: Ships for Berth Nos. 10 and 11 are swung in the Bacino S. Stefano, making a port swing with the aid of tugs and are then backed down to berth. Ships are, therefore, always starboard side to these berths. Headlines are run out first by mooring boat and, when in position, 2 of the tugs push the ship alongside. The mooring boats at Livorno are underpowered and there is no power assistance on the jetties to heave moorings ashore. For large ships, it is recommended to use 2 mooring boats.

Fibre ropes only to be used as head and stern lines.

The shore gangway is located aft of the hose tower.

Cargo Bunker Connections:

Crude oil	4 hoses × 10 in. ASA
Dirty products	1 hose × 6 in. ASA
Gasoil	1 hose × 8 in. ASA
Clean products	1 hose × 8 in. ASA

Bunker is supplied throughout the same flow booms.

Ullaging, Temperatures, etc.: To be taken by ship's personnel prior to arrival.

Deballasting Facilities: Receiving capacity is 15,000 cu.m. The rate is about 600 cu.m.p.h.

Passing Traffic, Weather, Tide, Current: The berth is exposed to winds from the Western semi-circle. The short breasting distance and the low quay make it very important to keep a close watch on moorings during unsettled weather conditions, particularly during the later stages of discharging when the moorings will become very steep. Ships with entirely separate ballast systems may ballast simultaneously with discharging; otherwise discharging may have to be stopped to take on ballast.

Density of Dock Water: Lowest recorded 1018.

Cargo and Bunker Facilities: Crude receiving facilities consist of 1×30 in. and 1×20 in. pipe-lines. Tankage is located about 5 km. away. Average discharge rates are about 3,000 t.p.h. Fuel oils are shipped via 1×16 in. line, average loading rate 650 t.p.h. Gas oil is shipped via 1×12 in. line, average loading rate 550 t.p.h.

Freeboard Restrictions: The Port Authority will not allow the freeboard of discharging tankers to rise above the height of the firefighting foam cannons located at the berth, i.e., 14 m. above water level. Ships which cannot maintain their freeboard below this level by ballasting during discharge will have to stop discharging when the freeboard reaches 14 m. and take on ballast before resuming discharge.

Darsena Ugione Terminal:

Cautionary Advice: Darsena Ugione, located about 1 mile up the narrow and congested Industrial Canal is itself narrow and congested. Ships have to back into Ugione and the corners of the Darsena are not fully protected. The fendering on Berth No. 36A (used by larger ships), does not fully protect the berthing head and great care must be taken.

The Channel to and from Darsena Ugione and the Darsena itself is subject to silting, and therefore maximum advertised draft must never be exceeded.

Berthing Procedures: Ships bound for Darsena Ugione will proceed up the Industrial Canal with the assistance of tugs and be swung either in the Bacino di Evoluzione about 0.5 km. below Ugione or at the entrance to Ugione itself. Before backing into Ugione, the port anchor is dropped and the head and stern lines are run out by mooring boat. There is no power assistance on the shore to heave the mooring ropes to the bollards and, therefore, ships should take care not to run out too much line at once. This is especially important if wires are used. There are no good spring line leads and, therefore, head and stern and breastlines should be placed accordingly. Ships are always starboard side to Berth No. 36A.

Shore gangway is run from main deck, close to manifold.

Cargo Bunker Connection: All products are handled through 2 fully balanced hard arms having 6 in. ASA bolted connections.

Cargo, Bunkers Handled: All grades of clean and dirty products are handled at Darsena Ugione. Loading rates average between 100 t.p.h. and 500 t.p.h.

Deballasting Facilities: Ballast water is discharged ashore through 12 in. line, maximum storage capacity is 3,000 tons. Tank washings (slops) cannot be received. Discharge rate of ballast water averages 300 t.p.h., therefore, ships should arrive with minimum ballast consistent with safety.

Both Terminals:

Oil Pollution Clean-up: Facilities are available.

Fire Fighting Facilities: At both terminals, elevated foam cannons serve each berth. At Nuova Darsena, the cannons are remotely controlled.

Services: Fresh water, distilled water, laundry, and stores are available.

Repairs, Gas Freeing, Immobilisation: All kinds of ships' repairs can be undertaken at Livorno including servicing of radio, radar and echo sounders with prior notice.

Tank cleaning and gas freeing are not allowed alongside the tanker berths.

While alongside the tanker berths, the engine and steering gear must be maintained ready at all times.

Also see "Berthing".

BRIDGES: None that interfere with port traffic.

STEVEDORES: ETA required by Agent in order to arrange matters with stevedores at least 48 hours before arrival.

MEDICAL: It is advisable to give details of assistance required together with ETA cable. Hospital facilities available.

FRESH WATER: Fresh water available at all berths except Bacino Alto Fondale. Water barge available.

FUEL: All grades available from berth. Advance notice required 48 hours; supply subject to Owners' stem.

FIRE PRECAUTIONS: Berths at which tankers operate are equipped with monitors.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

GANGWAY/DECK WATCHMEN: Recommended, 8 hour shifts, 0600 - 1400, 1400 - 2200, 2200 - 0600 hrs.

CERTIFICATES: All ship's certificates required.

CUSTOMS ALLOWANCES: Tobacco: 50 cigarettes, or 50 grams tobacco per man for the first 24 hours. Wine and/or Spirits: only in consignment of the Master.

IDENTIFICATION CARDS: Issued by local police authorities.

CONSULS:

Colombia
Denmark
Finland
France
Germany F.R.
Greece
Liberia
Monaco
Netherlands
Norway
Peru
Portugal
Spain
Sweden
Switzerland

REPAIRS: All types of deck and engine repairs are possible.

DRY DOCKS: Dry docks suitable to accommodate a Liberty type ship. A small floating dry dock for vessels up to maximum of 1,500 tons.

New Graving dock 350 m. × 56 m., depth on sill 10.0 m. (For 300,000 d.w.t. vessels).

REPATRIATION: All necessary repatriations possible.

AIRPORT: Nearest at Pisa, distance about 20 km.; served by Alitalia, British Airways, Lufthansa and Air France.

TIME: Local time is 1 hour ahead of GMT, and Summer time 2 hours ahead.

HOLIDAYS: 1st January, Easter Monday, 1st May, 15th August, 1st November, 8th December, 25th December, 26th December.

POLICE/AMBULANCE/FIRE: Police Tel: 23413, Carabinieri Tel: 808002, Dept. of Customs Guards Tel: 24066, Ambulances Tel: 33333/22111, Fire Brigade Tel: 22222.

TELEPHONES: Only at some quays is it possible to place telephones on board.

SERVICES: Tank cleaning and slop facilities available. Compass adjuster available. Refuse collection.

SHORE LEAVE: Possible.

IDENTIFICATION CARDS: Shore passes required.

DELAYS: No considerable delays.

SHIPMASTER'S REPORT: July 1987 (updated April 1988).

Port: Vada.

Location: 15 miles South of Livorno.

Chart: BA. Chart No. 131.

Documents:

8 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
3 copies Cargo Manifest.
3 copies Italian Port Authority Inward and Outward Forms.

Anchorage: Anchorage is 1.2 miles SSW of the pier face.

In poor weather Secche Di Vada Lt. 248° × 1.4 miles found to provide good holding ground in West winds of Force 7.

Pilotage: Pilots are supplied from Livorno. Vessels should call Livorno Pilot on VHF Channel 12, 2 hours before arrival at Vada.

Pilot boards from a mooring boat about 0.5 miles SW of the pier.

Restrictions: Daylight berthing only and after 0730 hrs. Departure is possible 24 hours without a Pilot.

VHF: Livorno Information Service on VHF Channel 10. They are very helpful.

Tugs: No tugs available.

Berthing: The berth accepts vessels up to 30,000 cu.m. with a draft 11.0 m.

Vessels normally berth port side alongside. The mooring boat comes from the nearby general cargo harbour.

It is possible to berth starboard side to but this makes departure difficult.

The Pilot likes to use the anchor when berthing, however, he should be persuaded not to use it as it makes departure difficult and sometimes hazardous.

Moorings in good weather consist of 3 head/stern lines and 2 springs forward and aft. An additional forward back spring is provided by the shore.

Depth alongside is about 42 ft.

Shore gangway used.

The berth is very exposed and berthing delays often occur especially in Winter. If the weather deteriorates while the vessel is alongside the berth the vessel may have to leave in a hurry.

The fenders are good.

Cargo: There is a single ethylene Chicksan of 8 in. which can take the ship's maximum pumping rate (pressure about 2-3 Bar).

Sampling takes about 4 hours.

The capacity of the shore tank for ethylene is approximately 4,800 tonnes. The maximum single intake is 4,000 tonnes. The plant uses about 300 tonnes per day for plastics.

General: The receiver of the cargo was Solvay, Telex No. 500127 Solvri, at Vada.

Very few services available at the rigid pier. No store trucks are able to come down the pier. The Pier Manager will assist in getting down the pier (length of pier 1 mile) in a service car.

Crew changes are not normally allowed, however, it would be possible to make one or two changes as long as prior permission had been given by the terminal. Crew members arriving have to go to the Agent's Office in Livorno during working hours (between 0800 and 1700).

The nearest airport is at Pisa which is about 1 hour by car.

It is about 40 minutes walk from the vessel to the town, which is a pleasant tourist town. Money can be changed at the bank and exchange bureau next door to the bank between 0800 – 1300 hrs. and 1600 – 1800 hrs.

ADD REPORT.

AUTHORITY: Capitaneria Di Porto Di Livorno, 57 100 Livorno, Italy. *Tel:* 21-362. *Contact:* Angelo Cedro, Captain of the Port.

Azienda Dei Mezzi Meccanici E Dei Magazzini Del Porto, Largo Strozzi 1, Livorno. *Tel:* 24-504. *Telex:* 500486. *Contact:* Direttore: Dr. Francesco Ruffini.

Camera Di Commercio Industria Artigianato E Agricoltura, Piazza Municipio 48, Livorno. *Tel:* 37-831 *Telex:* 500486.

AGENT: G. Fanfani & C. Srl., via Fiume 16, 57123 Livorno, Italy. Tel: (586) 894151 (10 lines), after hours 804347 and 500576. Telex: 500006 Cables: Fanfanico. Fax: (586) 894494.

MANFREDONIA: 41.37 N. 15.55 E. (See Plan)

PORT LIMITS: Seaward boundaries do not exist. A vessel is considered an "arrived ship" and (subject to Charter-Party terms) laytime will commence when boarding the Pilot or dropping the anchor in the Roads.

DOCUMENTS:

5 Crew Lists.
3 Provision Lists.
1 Arrival Report.
3 Curios Lists.
Cargo Manifest (Italian Form).
Bills of Lading and ship's documents not expired.

PILOTAGE: Compulsory for vessels over 500 g.r.t. The ship's ETA is furnished to the Pilots by the Agent. VHF service around the clock on Channel 12; Pilot station to be contacted 1 or 2 hours prior the ship's arrival in the Roads. International signals are used for calling Pilot; Pilot has to be taken on board within 1 mile range from the harbour entrance but, upon ship's request, Pilot may board the vessel wherever required. The pilot boat has a black hull with a white stripe all around and the letter "P" printed on both sides of the bow. White superstructure and mast. Max. speed 8 knots.

ANCHORAGE: Boundaries according to the draft; the bottom (mud and sand) has good holding. No anchorage is suggested with heavy S.E'ly weather. See "Plan".

RESTRICTIONS: Ships carrying dangerous cargoes will only berth in daytime (from sunrise to sunset); departure is allowed at any time for all vessels.

MAX. SIZE: No restrictions on LOA or beam. The only limitation is given by the draft which is 32 ft. 6 in. for ships operating to the New Industrial Port and 21 ft. 6 in. for those operating to the old harbour. The above drafts are referred to the Mean tide condition. One more foot can be added if docking with high tide.

HEALTH: Free Pratique is granted by the Port Authorities at anchorage or at the dock. Radio Pratique may be requested, by cable via Bari Radio, to "Sanimare Manfredonia".

RADIO: For ETA and other communications with Agents, receivers, etc., Roma Radio is suggested; call sign IAR.

VHF: Port Authorities: Channel 16 from 0800 to 2000 hrs local time from October to May and 24 hour watch from June to September.

Pilots, Tugs and Mooring Gangs: Watch and working Channel 12; service continuous.

Local Agents provided with VHF equipment listen from 0800 to 1700 hrs. on Channel 9 and 12.

RADAR: The new pilot station will be equipped with radar and Pilots should be able to provide a suitable radar service and port control.

TUGS: 2 tug boats of 1,300 h.p. Usually join the vessels in the Roads, together with the Pilot. Either ship's or tug's lines are used. Towage is compulsory for ships carrying dangerous cargoes.

BERTHING: New Industrial Port: A/1 300 m., A/2 250 m., A/3 265 m., A/4 265 m., A/5 315 m. Draft at MHWS 32 ft. 6 in.

Old Commercial Port: Nos. 1, 2 and 3 together 480 m., Nos. 4 and 5 together 220 m. Draft at MHWS 21 ft. 6 in.

CRANES: Old Commercial Port: Pier No. 2 equipped with 2 cranes with a safe working load of 6 tons each.

New Industrial Port: 2 cranes Reggiane type, multi-purpose, are located on piers A/3 and A/4. Safe working load 25 tons at 40 m. spread.

BULK CARGO FACILITIES: In addition to the cranes, the new port is equipped with 3 escalators for loading fertiliser in bulk (Berth A/2) and 2 self-moving suction pumps for cereals (Berths A/1 and A/2).

The rates are: Fertiliser in bulk 3,000 tons per working day. Grain, wheat and other cereals 5,000 tons per working day. Sulphur in bulk 2,000 tons per working day. Silver sand 2,500 tons per working day (working day 0700 – 1900 hrs.).

BRIDGES: None.

STEVEDORES: Gangs arrangements made by the Agent in due time. The load or discharge rates vary depending on the type of cargo, the vessel, the type of the ship's gear, etc.

MEDICAL: Crew members must be in possession of a valid vaccination card against cholera and yellow fever when coming from countries declared infected by the international health laws.

DENSITY: The average salinity of water in the port is 1026.

FRESH WATER: Available on the quays of both ports. Watering operations carried out by hoses which are connected to the pier connections.

FUEL: Any kind, grades and viscosity delivered by trucks.

FIRE PRECAUTIONS: Towing wires hanging from the sea side forward and aft.

CONSULS: None.

REPAIRS: Small deck and engine repairs are possible.

DRY DOCK: None.

SURVEYORS: All Classification Societies are represented in Bari, 2 hours away from Manfredonia.

GANGWAY/DECK WATCHMEN: Available, but not compulsory.

OPENING/CLOSING HATCHES: Opening and closing carried out by ship's crew.

CUSTOMS ALLOWANCES: 40 cigarettes per man. 1 bottle spirits.

REPATRIATION: All facilities exist for effecting Crew changes and arranging all the necessary pratiques for repatriation.

AIRPORT: The nearest airport is Bari, 130 km. away, but the re-opening of Foggia airport, 36 km away is expected.

TIME: From the last Sunday of March till the last Sunday of September "daylight saving time" is in force. GMT plus 2 hours. For the rest of the year the standard time is used, GMT plus 1 hour.

HOLIDAYS: Cargo operations are not carried out on the following days: All Sundays, April 25th, August 15th and 31st, December 8th, 25th and 26th, and January 1st.

POLICE/AMBULANCE/FIRE: For all services dial 113.

SERVICES: Compass adjusting, radar and gyro repairs. Divers available on request.

TELEPHONE: No arrangements exist for placing telephone on board. 1 telephone booth exists on "Molo di Ponente", Old Commercial Port, for local and long distance calls. A few telephone booths on Berths A/1 and A/3 of the New Industrial Port are to be connected in the near future.
SHORE LEAVE: Crew members of all nationalities are allowed ashore.
IDENTIFICATION CARDS: Seaman's book is sufficient.
DELAYS: Delays for port congestion are very unusual, however, delays no longer than 24/48 hours are expected.
GENERAL: 2 shipchandlers are available for stores, provisions, cigarettes and spirits.
AUTHORITY: Capitaneria di Porto, Piazza Marconi, Manfredonia. *Tel:* (0884) 23871-2-3. *Telex:* 812156 Compmf I. *Contact:* Harbour Master.

MESSINA: 38.11 N. 15.34 E. (See Plan)

DOCUMENTS: If vessel comes from foreign port, whenever possible, at least 1 copy of Crew List and Passenger List to be sent some days before her arrival, so that they can be delivered to police in advance.
Required on arrival:

3 Crew Lists.
1 Provisions List.
3 Lists Passengers in Transit.
3 Lists Passengers Disembarking.
1 List of Articles – new and Customs-barred in possession each crew member – cameras, binoculars, radios, cigarettes, tobacco, new articles, etc. If on inspection articles or quantities not in conformity or in excess, Master responsible; articles removed and heavy fine imposed.

Copies of Cargo Manifest also to be prepared on arrival.

If Anchorage Dues already paid and still in force, the relative receipt to be shown to the Harbour Authorities, together with other ship's papers and report of arrival to be delivered to them.
PILOTAGE: Pilotage through Messina Straits is available but not compulsory.

Vessels in transit who intend to avail themselves of optional pilotage may request a Pilot via:

a) Radio PT – Messina (IDF) on frequency 2182 kHz by radiotelephony at least 4 hours in advance.

b) The Messina and Reggio Calabria Port Captaincy telegraphically at least 12 hours in advance.

c) Through the ship's Agent.

d) By contacting the local pilot station directly by telephone 090/44483 or VHF Channel 12 at any time.

Ships requesting a pilotage service shall embark the Pilot in the following positions (which are also the boarding positions for the Port Pilots):

a) If Southbound: 3 nautical miles North of Cape Peloro.
b) If Northbound: 1.5 nautical miles S.E. of San Ranieri Light.

We wish to point out the great advantages that such a pilotage service may render to the ship, both in terms of fuel saving because it avoids the longer passage to the South of Sicily, and in terms of safety to navigation.

Also see "Italy – General" before first port and "Report" dated May 1985.
ANCHORAGES: Allowed outside harbour; at Paradiso's Bay, sufficient depths for safe anchorage existing. Advisable to request Pilot's assistance for indication of best anchorages.
Prohibited Anchorage: Between the parallels of 38° 12' 58" N. and 38° 10' 48" N.
RESTRICTIONS: For entering harbour during night-time ETA to be given in advance.

Also see "Italy – General" before first port and "Report" dated May 1985.
MAX. SIZE: Max. draft allowed: 33 ft. at passenger quay; other berths 27 ft.

Max. length 200 – 300 m.

Tankers: Length 100 m., draft 27 ft.
HEALTH: Free Pratique automatic for vessels coming from other Italian ports and quarantine flag not to be flown on entering. From other countries usual procedure applies.
RADIO/VHF: Contact through Rome Radio, Naples Radio, Augusta Radio, or Messina Radio VHF Channel 16 or R/T 2182 kHz.
TUGS: Not compulsory. Tugs join vessels at about 0.5 miles from entrance of harbour. If tug's lines used increase of 10% on tariff.
STEVEDORES: To enable Agent order gangs important obtain accurate ETA. Latest time to order gangs: normal shift 0730 hrs. for work in the morning; 1200 hrs. for work in afternoon; night shift 1600 hrs. same day – Saturday noon or Sunday at 1200 hrs. on Saturday.

Failure to give ETA results in cost of waiting gangs, charged to vessel.

Tonnage: Per gang in 8 hours: General cargo 50 ton – cereals 80 ton.
MEDICAL: Doctor can attend sick crew members or for vaccinations. Hospitals available.
TANKERS: There is a Eurobunker station only. Small tankers from time to time discharge fuel oil, gasoline, etc. Gas freeing, tank cleaning, slops and dirty ballast reception facilities available.
FRESH WATER: Only quays have water pipe-line connections and water may be supplied day and night directly from ashore by hoses; during Summer time water may be supplied from 0600 to 1100 hrs. only. Water available at night time by boat (max. 250 tons).
GANGWAY/DECK WATCHMEN: Recommended.
OPENING/CLOSING HATCHES: May be carried out by the crew or stevedores.

CERTIFICATES:

Safety Certificate.
Wireless Safety Certificate.
Freeboard Certificate.
Derat Certificate.
Anchorage Duties Voucher.
Crew List.
Passenger List.
Construction Certificate.

CUSTOMS ALLOWANCES: 50 gm. tobacco for each seaman. Spirits: 0.75 bottle for all crew.
IDENTIFICATION CARDS: Required.
CONSULS:

Argentina
Australia
Colombia
Denmark
Finland
Germany F.R.
Guatemala
Netherlands
Norway
Panama
Peru
Sweden

REPAIRS: Almost all types of deck and engine repairs can be carried out.
DRY DOCK: One dry dock belonging to SMEB (Societa' Messinese Esercizio Bacini) can be hired. Dimensions are as follows: Length 853 ft. (260 m), breadth 118 ft. (36 m.). One dry dock belonging to Italian Navy, therefore application must be granted by the Marina Militare. Dimensions are as follows: 492 ft. × 52 ft. 7 in. (bottom), 81 ft. 6 in. × 24 ft. 8 in. (top).
REPATRIATION: No particular facilities existing; but necessary repatriation can normally be arranged.
AIRPORT: Reggio Calabria Airport – distance about 10 km. From Messina, Reggio Calabria can be reached in 15 minutes by hydrofoil boats, which run every half hour (about). Flights from Reggio Airport in Winter, 1 per day; in Summer, 2 per day.
TIME: In relation to GMT local time is an hour ahead. During Summer, from March to September, clocks are put 1 hour forward.
HOLIDAYS: Work can be arranged, provided timely notice is given, in following official holidays, paying the respective increase on normal tariff:

New Year's Day (January 1st); Easter Monday; 25th April; 1st May; June 3rd; local religious holiday; 15th August; 25th December; 26th December.
POLICE/AMBULANCE/FIRE: Police, 46830; Ambulance, 2935592; Fire, 2930222.
TELEPHONES: No arrangements exist.
SHORE LEAVE: Allowed.

REPORT: May 1985.

The following is a copy of telex from ship's Agent to Ship Operator.

Quote:
Port Orders 7 – 18/85

As from 10th May 1985 *temporarily pilotage in the Strait of Messina* is compulsory for vessels over 6,000 g.r.t. carrying petroleum products or noxious substances to the sea. Pilotage is also compulsory to vessels not carrying the above products over 15,000 g.r.t. Vessels are to inform at least 12 hours prior arrival Messina Radio call sign IDF frequency 2182 kHz and cable Port Authorities of Messina and Reggio Calabria or through their Agents the following:

International call sign.
Flag.
G.r.t. as per International Certificate.
Type of cargo/es and quantities.
CLC and IDPP certificate details.

Same information has to be given to *Messina* and *Reggio Calabria's Port Authorities* by vessels not compulsory to take Pilot at least 2 hours prior their arrival at Messina via Messina Radio or VHF/FM Channel 16.

Pilot boards vessels coming from South at 2.5 miles S.E. of Punta S. Raineri Light.

Pilot boards vessels coming from North at 3 miles North of Capo Peloro Light.

Joint Port orders No. 6/85 and 13/85 issued respectively by Reggio Calabria Maritime Direction and Catania Maritime Direction is abrogated as from 10/5/1985.

Furthermore the decree of Ministry of Merchant Marine of 8th May 1985 about the navigation in the Strait of Messina states as follows:

As from 10th May 1985 the navigation in the Strait of Messina is forbidden to vessels equal or over 50,000 g.r.t. carrying petroleum products or noxious substances to the sea as defined by the International Conventions effective in Italy.

Unquote.

Also see "General – Strait of Messina" before first port.
AUTHORITY: Capitaneria di Porto – Messina, Via V. Emanuele, Messina, Italy. *Tel:* 41896. *Contact:* Port Commandant.

MILAZZO (Sicily): 38.13 N. 15.16 E. (See Plan)

DOCUMENTS:
6 Crew Lists.
6 Passenger Lists.
Provisions Manifest.
Manifest of Crew Personal Effects.
Cargo Manifest.
Arrival Report – completed on arrival.
Maritime Declaration of Health Certificate – completed on arrival.
Ship's Certificates, including Italian Authority dues.
Vaccination Certificates for sighting.

ARRIVAL ADVICE: At least 24 hours' notice of arrival to be passed to Agent in order to obtain allocation of berth from Port Authority. Consignees-Receivers as for Charter Party.

PILOTAGE: Pilot boards 1.5 miles off the berths. International Code signals used. Pilot can be contacted on VHF Channel 12. Compulsory for vessels over 500 g.r.t. (Berthing/Unberthing).

ANCHORAGE: There are 6 anchorages for tankers over 3,000 g.r.t.
No. 1 up to 600 m. off the harbour green light – Bearing 034°
No. 2 up to 920 m. off the harbour green light – Bearing 091°
No. 3 up to 3,870 m. off the harbour green light – Bearing 097°
No. 4 up to 3,050 m. off the harbour green light – Bearing 101°
No. 5 up to 1,200 m. off the harbour green light – Bearing 036°. Not in use at present due to sea bed being fouled (April 1986.).
No. 6 up to 1,600 m. off the harbour green light – Bearing 065°

Anchoring prohibited within 1 mile of Refinery Wharves. Pilot can be used for anchoring but not compulsory.

RESTRICTIONS: All tankers are berthed and unberthed between 0600 hrs. and 2000 hrs.

MAX. SIZE: Tankers up to 420,000 d.w.t.

HEALTH: Free Pratique on board may be requested on arrival by way of ship's Agents. The procedure to obtain Free Pratique by radio is being perfected. Pratique is automatic for vessels coming from ports in E.E.C. countries.

RADIO/VHF: Harbour Master Authority, Mediterranea Refinery, Pilot and Tugs may be contacted on VHF Channel 12. Harbour Master Authority may be contacted also on VHF Channel 16.

TUGS: 4 tugs available, 2×2,500 h.p., and 2×1,800 h.p. Meet vessel 0.75 miles off berths. Obligatory, at least one for mooring/unmooring tankers over 3,000 g.r.t. Ship's lines used.

DRY CARGO FACILITIES: Ludovico Mazzullo Jetty, length 340 m., depth 22 ft.; Pennello Eolie Jetty, length 65 m., depth 23 ft.

TANKERS: AGIP Petroli Co.: 10 berths for Tankers, distributed in 3 Jetties as follows:

No. 1 Jetty: (West Jetty) 500 m. long, for loading/unloading, with the following berths:

Berth No. 1 (West side – Outer end) – depth 48 ft. LPG arms and lines available.

Berth No. 2 (East side – Outer end) – depth 48 ft.

Berth No. 3 (West side – Inner end) – depth 21 ft. LPG arms and lines available.

Berth No. 4 (East side – Inner end) – depth 20 ft. LPG arms and lines available. Arms: 12 in. and 8 in. – Ballast lines 2×10 in. – Cargo lines 20, 16, 12 and 10 in.

No. 2 Jetty: (Middle Jetty.) 650 m. long, for loading/unloading, with the following berths:

Berth No. 5 (West side – Middle) – depth 55 ft.

Berth No. 6 (East side – Middle) – depth 55 ft. Arms:12 in. – Ballast line 1×20 in. – Cargo lines 2×40 in. (Crude oil) – 20, 16, 12 in. (Fuel oil) – 20 in. (Gasoil) – 12 in. (Virgin Naphtha) – 10 in. (Super Gasoline) – 10 in. (Normal Gasoline) – 10 in. (Kerosine).

Berth No. 5 bis (West side – Outer end) – depth 83 ft. Available for vessels up to 420,000 d.w.t.

Berth No. 6 bis (East side – Outer end) – depth 75 ft. Arms: 16 in. – Crude oil lines 2×40 in.

Berth No. 7 (West side – Inner end) – depth 25 ft., loading arms 6 in.

Berth No. 8 (East side – Inner end) – depth 24 ft., loading arms 6 in.

Berth No. 7 available for vessels up to 6,500 d.w.t. LPG arms and lines available.

Berth No. 8 available for vessels up to 4,500 d.w.t. LPG arms and lines available.

No. 3 Jetty: (East Jetty) 558 m. long, for loading/unloading under construction, with following berths:

Berth No. 9 (West side) – depth 45 ft.

Berth No. 10 (East side) – depth 45 ft.

Vessels berth head out. Lines run to mooring dolphin ahead and astern. Anchor is compulsory only for small tonnage tankers. Tankers may use wire ropes only on the jetty mooring hook. On the bitts may use wire ropes only if the eyes are made of manila or nylon. For tankers alongside the jetty it is compulsory to have ahead and astern, outside, wire ropes with eye.

Crude oil washing permitted.

Oilboom: Compulsory for vessels alongside the refinery jetties.

MEDICAL: All facilities available.

FIRE WATCHMEN: Compulsory for tankers alongside the Refinery Mediterranea jetties. Number of watchmen onboard is variable, according to the cargo Class ("A", "B" or "C") loading/discharging and to the tanker's g.r.t.

GANGWAY/DECK WATCHMEN: Watchmen service available. It is, however, recommended but not compulsory.

FRESH WATER: Boiler and drinking water supplied from the jetty. At anchorage by barge. Max. pumping rate 50 t.p.h.

FUEL: All grades available at Mediterranea Refinery berths, subject to prior notice. Also available at Milazzo Dry cargo harbour berths, all grades available by tank or truck.

BALLAST: Ballast facilities available at Mediterranea's berths. Reception 1,000 t.p.h. No restrictions on capacity.

IDENTIFICATION CARDS: Shore passes given by local police.

TIME: GMT plus 1 hour. Summer-time: March to September GMT plus 2 hours.

HOLIDAYS: Cargo work can be arranged on every day.

REPAIRS: All types of deck/engine repairs possible. Experienced and established marine workshops available.

SURVEYORS: Cargo Surveyors and Superintendents available. Ships Surveyors and Salvage Association also available.

CUSTOMS ALLOWANCES: 50 cigarettes are allowed per man per day for the first 2 days.

CONSULS: No Consuls in Milazzo. The nearest are in Messina for the following countries: Peru, Great Britain, Argentine, Norway, Uruguay, Chile, Denmark, Germany F.R., Australia.

AIRPORT: The nearest is at Reggio Calabria where there are 3 regular flights per day. Reggio Calabria can be reached by car and by hydrofoil in about 2 hours. Catania Airport also nearby, and may be reached by car or train in about 2 hours.

TELEPHONE: Connections possible at Refinery Wharves.

GARBAGE: Boats are available, and compulsory for vessels 24 hours after arrival.

BANKS: Italian banks only.

STORING: Vessels can be stored by barge during loading and unloading.

Fork lift trucks can only be used in the commercial port.

Local riggers can be employed to assist with storing in the commercial (dry-cargo) port only.

SHORE LEAVE: Allowed, but transit through the refinery area not permitted except in emergency. Boats are available for hire from wharves and anchorage to the landing pier in the Port of Milazzo. Shore passes given by local police.

DEVELOPMENTS: Coal unloading wharf of 530 m. Length and 30 m. depth to be built. Vessels of 120,000 d.w.t. will be unloaded by 2×1,500 t.p.h. bucket unloading systems.

SHIPMASTER'S REPORT: April 1986.

Vessel: 95,000 d.w.t.

With vessels this size Pilot will normally board for anchoring which operation is carried out with anchor in gear due to water depth. Usually slack down to about 2 shackles in water and then slack to 9 shackles.

Only means of getting ashore from anchorage and from the refinery jetty is by boat service which is arranged through Agent. VHF communication is very good and on berth the refinery requires VHF watch on Channel 12. Bonded stores sealed by Customs and for Liberian registered vessels will not be unsealed irrespective of vessel's length of stay.

Boat service does not operate after 2300 hrs. or if weather, in boatman's opinion, is too rough.

If American dollars are required then it is necessary to go to Messina to obtain them.

Pilot for berthing boards from pilot boat at anchor and usually requests vessel to weigh anchor before boarding. 3 tugs for berthing, 2 of which require 2 ship's ropes each, forward and aft, third tug puts up small rope amidships.

At Berth No. 5 usually starboard side to. Moorings 3, 2, 2 with head and stern lines first then springs, then breasts. Good mooring facilities with messengers and winches and berth is designed for VLCCs with shore gangway.

AUTHORITY: Ufficio Circondariale Marittimo di Milazzo, via Molo Marullo, Milazzo. *Tel:* 090-9281110.

Raffineria Mediterranea Milazzo, Box 154, Milazzo, Italy. *Tel:* 090-92321. *Telex:* 980025. *Cables:* Raffimed-Milazzo. *Contact:* Geom. Gianni Zimmardi, Refinery Marine Superintendent.

MONFALCONE: 45.48 N. 13.32 E. (See Plan)

PORT LIMITS: A vessel is considered to be an "arrived ship" when it is secured alongside the berth.

DOCUMENTS:
Arrival Report.
Crew List.
Passenger List.
Customs Documents.
All SOLAS Certificates.
Health Documents (only for vessels that are not arriving from the United States, and are not members of the West European Union).

PILOTAGE: Pilotage service is the responsibility of the Harbour Office, and is carried out by local Pilots. Pilots are not supplied with radio equipment. Pilotage service has to be requested by radio via Trieste radio station, to the Harbour Office or via VHF Channel 16. Pilotage is compulsory for vessels over 500 g.r.t. Pilot boat is equipped with VHF. Pilot boards about one mile from the entrance buoy.

ANCHORAGE: Vessels awaiting entry to the port are required to anchor between Duino and Sistiana, about 3 miles from the entrance. The anchorage provides good shelter from winds from the first and fourth quarters. The depth is approx. 12.0 m. and the bottom is mud.

RESTRICTIONS: Pilotage is effected day and night. It is not available during thick fog or when strong winds are blowing from the first quadrant. Maximum draft at high water is 10.5 m.

MAX. SIZE: At the ENEL Berth (berth for the discharge of coal destined for the electrical power station), vessels longer than 180 m. may not berth.

HEALTH: Pratique requested by radio via the Maritime Health Office at Trieste.

RADIO: Nearest coast station is Trieste Radio, through which all radio messages should be routed.

TUGS: Tug service is optional except for vessels proceeding to ENEL Berth, but the Maritime Authority can make service temporarily compulsory.
BERTHING: 910 m. of berthing space (6 berths) for loading and discharging various types of cargo, with a maximum depth of water of 10.5 m. One berth 120 m. long for discharging cereals with maximum depth of 10.5 m. The berths are served by railway branch lines.
BULK HANDLING FACILITIES: Silo berth is well equipped for discharging cereals.
CRANES: 5 heavy lift cranes on rails up to 45 tonnes capacity. 8 mobile cranes of varying capacities.
BRIDGES: There are no bridges that hinder maritime traffic.
STEVEDORES: Ordered via Agent.
MEDICAL: Hospital, doctor and vaccination facilities available.
TANKERS: The port only receives tankers with cargoes for ENEL.
DENSITY: Average 1027.
FRESH WATER: Available at all berths.
FUEL: Bunkering is by barge or by truck (capacity 20 tons).
FIRE PRECAUTIONS: Only for hazardous goods, during bunkering operations and the effecting of any work on board vessels involving flames.
CONSULS: None at Monfalcone, but available at Trieste.
REPAIRS: Minor repairs only.
DRY DOCKS: Max. size 300,000 d.w.t.
SURVEYORS: None at Monfalcone, but these may be easily contacted at Trieste.
GANGWAY/DECK WATCHMEN: Not compulsory, but available through Agent.
OPENING/CLOSING HATCHES: Opened and closed by ship's crew.
CUSTOMS ALLOWANCES: 50 cigarettes or 50 grams of tobacco available per man per day for the first two days.
AIRPORT: 5 km. from Monfalcone with connections to Milan and Rome.
TIME: GMT plus 1 hour; from 29th March to 26th September GMT plus 2 hours.
HOLIDAYS: Every Sunday, 1st January, 1st May, Easter, first day after Easter, 15th August, 1st November, 25th and 26th December. It is, however, possible to load and discharge vessels on these days by paying premium rates.
POLICE/AMBULANCE/FIRE: Police 113 or 72332; Ambulance 72249; Fire 74444.
TELEPHONES: Not available on board, numerous public telephones in the port.
SHORE LEAVE: Completely unlimited for crews of Western countries, but for crews of USSR block ships, crews must return on board by 0200 hrs., and for those of Chinese vessels by 2200 hrs.
IDENTIFICATION CARDS: Issued without any formality by the local police.
REGULATIONS: There are no special regulations.
DELAYS: Caused only by weather conditions.
BANKS: Banca Antoniana, Via F. Rosselli No. 37. Tel: 45301.
Banca Cattolica, Via Marconi No. 1. Tel: 470337.
Credito Italiano, Via Oberdan No. 5. Tel: 40061.
Banca del Friuli, Piazza Cavour No. 22. Tel: 73230.
Banco di Roma, Piazza Cavour No. 34. Tel: 45191.
STORING: See "Prelims".

1. There are no coastal fuel stores, and vessels arriving at Monfalcone are either supplied by road tanker or by fuel barges. The usage of the one or the other means is the responsibility of the Owners or Agents.
2. Supplies by barge can be effected at any time, whilst by road tanker only during non-working hours.
3. For loading and discharge, vehicles may come right alongside the berthed vessels.
4. There are no forklift trucks in use in the port of Monfalcone for unloading goods.
5. For discharge or shipment of goods, there is an Accident Prevention Ordnance No. 07/1981 issued by the Port Captaincy of Monfalcone.

GENERAL: During the Winter, there are days of very strong winds gusting up to 110 km/h. coming from the first quadrant which sweep the port's quays. The wind tends to become strong during the night, and it is necessary to strengthen moorings.
DEVELOPMENTS: An additional 2 berths will be available in the near future.
AUTHORITY: Capitaneria di Porto – Monfalcone, Via C. Cosulich 20, 34074 Monfalcone, Italy. *Tel:* 0481-712111. *Telex:* 461087. *Contact:* Captain Delfo Neri, Harbour Master.

NAPLES: 40.50 N. 14.17 E. ✓ (See Plan)

DOCUMENTS:
2 Crew Lists.
2 Passenger Lists.
Provisions Manifest.
Manifest of Crew Personal Effects.
Cargo Manifest.
Arrival Report – completed on arrival.
Maritime Declaration of Health Certificate – completed on arrival.
Ship's Certificates, including Italian Authority Dues.
Vaccination Certificates for sighting.
PILOTAGE: 13 Pilots and 3 motor launches. ETA to pilot station, VHF Channels 12 and 16 or to "Compamare" on Channel 6.
ANCHORAGES: Approximately 70 anchorages, having depths ranging from 11 m. to 15 m.
APPROACHES: *Port Approaches:* Approaches to the Gulf of Naples are free of navigational dangers. Ships approaching Naples from the North are cautioned to avoid the Procida Canal, between Procida Island and Capo Miseno (1.5 miles wide) in view of the heavy traffic usually met in this area and other navigation hazards. Passing well clear West of Ischia Island is recommended. Caution is necessary because numerous fishing boats are likely to be encountered in the area, especially at night and in the early morning.
Port Operations: The port is located on the Northern shore of a natural Gulf and is well sheltered from Northerly winds, but winds from the S.W. to S.E. may affect port operations at the petroleum berths, by creating a considerable swell inside the breakwater.
Entry/Berthing: For the berthing manoeuvres, and particularly when ships swing inside the petroleum basin, it is very important that ship's engine orders are carried out accurately and promptly. The Chief Engineer should be advised in advance of importance of this.
RESTRICTIONS: 2 port entrances of which the Western is 280 m. wide, the Eastern is 250 m. wide.
Use of propellers and thruster within 20 m. of piers not allowed.
MAX. SIZE: Tankers up to 45 ft. draft.
HEALTH: Free Pratique may be requested by radio to "Sanimare Naples" between 12 to 6 hours before arrival advising vessel's name, nationality, last port, number of passengers and crew, and state of health on board, Pratique is automatic for vessels coming from ports in E.E.C. countries.
TUGS: 8 tugs available as required to assist berthing.
BERTHING:

	Berth No.	*Depth*
Molo Angioino Ponente	5	28 ft.
	6	32 ft.
	7	32 ft.
Molo Angioino Testata	8	28 ft.
Molo Angioino Levante	9	35 ft.
	10	35 ft.
	11	32 ft.
Calata Piliero	12	26 ft.
	13	26 ft.
	14	26 ft.
Pontile Immacolatella Vecchia	15	20 ft.
Calata Porta di Massa	16/17	28 ft.
	18	26 ft.
	19	26 ft.
	20	26 ft.
Pontile Pisacane Ponente	21	32 ft.
	22	20-32 ft.
Pontile Pisacane Testata	23	25 ft.
Pontile Pisacane Levante	24	27 ft.
	25	28 ft.
Villa Popolo Ponente	26	20 ft.
Pontile Silos Ponente	27	36 ft.
Pontile Silos Levante	27	30 ft.
Villa Popolo Levante	28	24 ft.
Molo Carmine Ponente	29	29 ft.
	29	28 ft.
	30	29 ft.
Molo Martello	—	30 ft.
Molo Carmine Levante	31	25 ft.
	32	—
Testate Bacini	32	30 ft.
Cesario Console Ponente	33	26 ft.
Cesario Console Levante	34	26 ft.
	35	26 ft.
Calata Marinella	36	—
	37	27 ft.
	38	—
Vittorio Emanuele Ponente	39	—
	40	21 ft.
Vittorio Emanuele Levante	42	30 ft.
	43	29 ft.
Vittorio Veneto Calata	44	26 ft.
Flavio Gioia Ponente	45	33 ft.
	46	33 ft.
Flavio Gioia Testata	47	20 ft.
Flavio Gioia Levante	48	32 ft.
	49	32 ft.
Calata Granili	50	30 ft.
Bausan Ponente	51	32 ft.
	52	32 ft.
Bausan Testata	53	22 ft.
Bausan Levante	54	36 ft.
	55	36 ft.
Calata Pollena	56	35 ft.
Calata Vigliena Ponente	57	27 ft.
Darsena Pellegrino	57	18 ft.
	57	18 ft.
Calata Vigliena Levante	58	28 ft.
Vigliena Ponente	59	30 ft.
	60	30 ft.
Vigliena Testata	61	25 ft.
Vigliena Pennello	62	25 ft.
	63	33 ft.
Vigliena Levante	64	37 ft.
	65	37 ft.
	66	37 ft.
Calata Progresso	67	24 ft.
Calata Progresso	68	24 ft.
Molo Progresso Ponente	69	45 ft.
Diga Curvilinea	—	17 ft. depth at 5 m. from quay
Molo San Vincenzo	—	

CRANES:
Electric: 10×6 tons, 8×12 tons, 10×15 tons, 1×40 tons, 1×20 tons, 4×50 tons (Portainers), 1×45 tons (Portainer).
Floating: 1 of 100 ton (Italian Navy) and 1 of 60 ton (SEBN).

CONTAINER FACILITIES: The port is equipped with a container terminal. The facility includes: Quay of 650 m. Depth of water 12 m. – 15 m. (Bausan Quay). Container park of 110,000 sq.m. A link with the National Railway Network. 4 cranes for 20 ft. and 40 ft. containers at Bausan Quay East. A trans-European railway terminal operated by International Containers S.A. fitted with a Paceco-Vickers transtainer of 35 tons, lateral cranes of 35 tons and 7 tons, and fork-lift trucks.

There is an additional 50,000 sq.m. of container storage near the city and various private storage areas.

BULK HANDLING FACILITIES:
Coal: Four 6 ton units with hourly payload of 400 tons.
Cereals: 2 suction towers × 600 t.p.h. and 1 silo × 50,000 tons capacity; 2 suction towers × 250 t.p.h. and 1 silo × 40,000 tons capacity.
Containers: One 45 ton container bridge crane at Flavio Gioia Pier, capable of a lift every 2 minutes and 4×50 ton container bridge cranes at Bausan Pier.
Ro–Ro: 3 platforms and 1 slipway.

TANKERS: The petroleum port is located at the far East area of the port and consists of the Vigliena Pier, Calata Progresso and Progresso Pier. The petroleum port is exclusively used for handling crude oil and petroleum products at its 11 berths, and several pipe-lines connect these berths with the Naples Refinery of Mobil Oil Italiana, the plant of Mobil Chimica Italiana and the bulk plants of Agip, Esso Standard Italiana and IIP (ex-Shell Italiana) which are all located in industrial area of Naples adjoining the petroleum port at a distance not exceeding 4 miles. The maximum size of crude tankers, fully loaded, which can be accommodated at Progresso Pier is 90,000 d.w.t.

FRESH WATER: Water pipe-lines are connected to all wharves and piers in Port. Water barges available.

FUEL: All grades available. Delivered by barge subject to advance notice given.

REPAIRS: All types of ship repairs can be carried out by the shipyards of S.E.B.M. and Cantiere Navale Ferbex S.p.a.

DRY DOCKS: 3 graving docks with dimensions as follows:
Length 206 m., width 21 m.
Length 335 m., width 40 m.
In addition 2 floating docks:
Length 223 m., width 37 m.
Length 228 m., width 35 m., lifting capacity 28,000 tons

CONSULS:

	Tel:		Tel:
Argentina	552 31 34	Malta (Consul General)	552 15 73
Austria	28 77 24	Mexico (Chancery)	575 11 83
Belgium	41 27 33	Monaco	68 13 68
Bolivia	28 76 07/26 79 07	Netherlands	551 30 03
Chile	551 18 00	Nicaragua	41 89 43
Colombia	64 04 43	Norway	32 14 61
Costa Rica	780 32 75	Pakistan	752 29 65
Cyprus	41 89 36	Peru	552 56 19
Denmark	551 50 49	Philippines (Consulate General)	552 04 89
Dominican Republic	40 59 86	Portugal	41 79 11
Ecuador	42 51 10	San Marino	552 33 67
El Salvador	64 34 40	Sierra Leone (Consul)	20 92 47
France	764 2091/2	South Africa (Chancery)	20 69 31
Germany F.R. (Consulate General)	66 46 47/68 33 93	Spain	41 11 57
Greece	68 43 88	Sri Lanka	552 52 68
Guatemala	41 81 28	Sweden (1000 – 1230 hrs.)	551 50 49
Haiti	64 96 62	Switzerland	66 71 07/66 75 32
Honduras (Consulate General)	780 32 76	Thailand	769 09 59
Iceland	26 06 04	Turkey (Consulate General)	68 46 15
Indonesia	40 01 43	U.K. (Consulate General), Commercial and Consular	66 35 11
Ivory Coast (0900 – 1100 hrs.)	41 52 75	U.S.A.	66 09 66
Japan (Honorary Consulate)	552 11 83	Uruguay	40 31 78
Korea	20 94 30	Venezuela	41 85 50
Lebanon	31 37 41		
Liberia (Consulate General)	26 58 86		

CUSTOMS ALLOWANCES: 300 cigarettes, 1.5 litres of spirits, 4 litres of wine, 3 litres of soft drinks, 1 kilo of coffee, 200 grams of tea and 75 grams of perfume per person if from an E.E.C. country.

IDENTIFICATION CARDS: Shore passes given by local police.

AIRPORT: Capodichino Airport, situated 8 km. from city.
Full international services.

POLICE/FIRE/AMBULANCE: Police Tel: 794112, 794143; Fire 44555; Ambulance 752069, 752085 or call 113 and ask for service required.

TELEPHONES: Telephone system permits the connecting up of the ships in all berths with the city network.

TIME: GMT plus 1 hour. Summer-time: March to September GMT plus 2 hours.

HOLIDAYS: Local and national holidays: New Year's Day (1st January); Liberation Day (25th April); Labour Day (1st May); Easter and day after Easter; Assumption B.V. Maria (15th August); Local Saints' Day (19th September); All Saints' Day (1st November); Immaculate Conception (8th December); Christmas Day (25th December); and 26th December.

AUTHORITY: Consorzio Autonomo del Porto di Napoli, Piazzale Pisacane, 80133 – Napoli, Italy. *Tel:* (081) 26 65 66 PBX. *Telex:* 72 12 71 Capna I. *Contact:* Admiral Clemente Esposito, Maritime Director and Captain of the Port. Dr. Pasquale Accardo, President. Dr. Aldo Rossi, Executive Director.

OLBIA, Sardinia: 40.55 N. 09.31 E. **(See Plan)**

DOCUMENTS:
For Maritime Authority:
Arrival Report.
Crew List.
Passenger List.
Ship's Certificates, for sighting.
For Port Health:
Maritime Declaration of Health (2 copies).
Vaccination Certificates, for sighting.
For Customs:
List of Supplies and Engine Stores.
Cargo Manifest, enclosing Bills of Lading.
For Police:
Passenger List (2 copies).
Crew List (2 copies).
Shore Passes for all passengers and crew.

PILOTAGE: Pilots are requested by international code signals – Telegraphic address: Pilot – Olbia, at least 2 hours notice of arrival required. VHF of 15 Watts on pilot boat (Watch on Channel 16 – Working on Channels 6, 9, 12, 14) with service from 0500 hrs. till 0100 hrs. Pilot launch is wooden motor boat of 145 h.p. – speed 12 knots. Pilot boards 1 mile from lighthouse Isola Bocca. Vessels may anchor temporarily to await Pilot.

ANCHORAGE: In the Roads of Golfo Aranci.

RESTRICTIONS: Entrance kept clear for liners.

MAX. SIZE: Max. draft 20 ft.

HEALTH: Before arrival vessel to advise Agents if Free Pratique required, indicating state of health on board.

RADIO: The Port Authority listen on Channel 16 (VHF, range about 30 miles).

TUGS: 1 available, 1,910 h.p. service is optional, tug normally meets vessel in vicinity of Isola Bianca.

CRANES: 1 of 6 tons and 1 of 32 tons on rails in the inner port (at the Benedetto Brin Quay). 3 mobiles of 15 tons, 11.75 tons and 5.7 tons.

STEVEDORES: Agents require ETA 24 hours before arrival in order to arrange gangs.

MEDICAL: Hospital facilities available. Vaccinations and inoculations can be done, except for yellow fever which must be done in Cagliari.

FRESH WATER: Available in inner port and Isola Bianca.

FUEL: Available only by tank truck, subject 2 to 3 days notice.

GANGWAY/DECK WATCHMEN: Service is optional.

OPENING/CLOSING HATCHES: Work is exclusively done by stevedores.

CUSTOMS ALLOWANCES: 40 grammes tobacco per person per day. Not permitted to take tobacco out of the docks. Reasonable amount wine/spirits allowed for normal consumption on board.

IDENTIFICATION CARDS: Shore passes required.

CONSULS: No local representatives.

AIRPORT: Olbia Airport is Olbia – Costa Esmeralda, 3 km. away. Regular services with Rome, Milan, Pisa, Bologna, Cagliari and Nice (this last one in Summertime).

TIME: GMT plus 1 hour. Summertime GMT plus 2 hours from March to September.

HOLIDAYS: New Year's Day (1st January); Liberation Day (25th April); Labour Day (1st May); Easter Monday; Assumption B. V. Maria (15th August); All Saints' Day (1st November); Immaculate Conception (8th December); Christmas Day (25th December); Boxing Day (26th December).

POLICE/AMBULANCE/FIRE: Police, 22380; Ambulance, 22394; Fire, 22222.

SHORE LEAVE: Allowed.

DEVELOPMENTS: Planned to dredge entrance to 10 m. depth.

AUTHORITY: Capitaneria di Porto di Olbia, Viale Isola Bianca, 07026 Olbia, Italy. *Tel:* (0789) 21243, 21637. *Telex:* 792080. *Contact:* F. Lucido, Il Comandante.

ORISTANO, Sardinia: 39.45 N. 08.30. E. **(See Plan)**

LOCATION: Oristano is situated on the West coast of Sardinia in the Gulf of Oristano. Oristano is the chief town of the province of Oristano and the population is in the region of 29,000.

RESTRICTIONS: Entry/Departure, berthing and unberthing carried out in daylight hours only as the port is not equipped with leading lights or buoys.

MAX. SIZE: Martini Silo Quay – Max. draft 8.5 m.
MI.CHI.SA – Max. draft. 5.0 m.

VHF: Oristano Pilots on Channels 16 and 12.

TUGS: One tug available. Larger vessels require additional tugs which must come from Porto Torres (at high cost).

BERTHING: The port consists of 2 harbours. The outer basin being located between the 2 breakwaters and used for general cargo purposes and the inner basin being the industrial harbour. The manoeuvring area between the outer and inner basin has a diameter of 450 m. and depth of 12 m. The depth of both outer and inner basins is 12 m. The outer basin when completed will have berthing space of 1,240 m. and the inner basin (for industrial traffic) will have 2,500 m.

Soc. Chimica del Tirso: Length of berth 48 m. Berth for discharge of liquid chemicals to industries in Ottana.

Banchina di Servizio: Service berth, length 70 m., for berthing of small vessels.

Banchina Industriale – Canale W-E Silos Mangimi Martini: Length 370 m. Berth for discharging cereals. 2 suction pipes and 2 arms available.

In the near future a plant will be built to produce fodder and animal feed.

Banchina Industriale – Canale W-E – MI. CHI. SA.: Length of berth 69 m. Vessels berth to load bentonite by means of conveyor.
MEDICAL: 2 hospitals with 280 beds.
AIRPORT: Civil airport at Cagliari, Alghera and Olbia (daily connections to Rome, Milan, Naples, Bergamo, Pisa, Turin, Venice and Nice) are only 1 hour's drive from Oristano by car.

SHIPMASTER'S REPORT: 1978.
Oristano Bay has many shallows, none marked with buoys however there is an approach buoy which is presently unlit. A good anchorage was obtained 2.5 miles from the port. The Bay is completely open to the West and with a S.W. to West wind the swell builds up. The Perlite Co. loading berth is a pier and a ship berths across the 'T' end of it, the ship being parallel to the beach. The berthing part itself is 120 ft. long and the loading chute can be raised to a height of 6.5 m. – 6.8 m., depending on tide. A vessel has to move on the pier for loading in different hatches, as the chute has a fixed base. I understand that although at the time there was hardly any swell in Bay, alongside there was considerable movement. The loading rate as quoted by the Agent is 500 t.p.h. Good communications were obtained with link calls on VHF through Cagliari Radio to the Agents. The local Pilot lives in Porto Torres and boards at Torregrande. No VHF communication possible.

A new harbour is being built in the Bay as observed on the ship's radar. This consists of 2 breakwaters and a third breakwater extending at right angles across the entrance, with opening at both ends. In the Southern part of the Bay, there is a no anchoring and fishing area.

In the opinion of the Master the berth is not practical during the Winter months, as delays are caused by swell coming into the port. One vessel was at anchor for 3 days and sailed finally without loading.

SHIPMASTER'S REPORT: January 1979.
Port under construction.

This vessel (LOA 299 ft. Extreme breadth 43 ft. 9 in. draft 16 ft. 10 in.) was the fifth vessel to call at the port. We were unable to obtain Chart 3917 however, Chart 161A together with information given in sailing directions proved sufficient for the vessel to be brought to the anchorage.
Pilotage: The Pilot advises that he wishes to be embarked close to a buoy in position Lat. 39° 53′ N., Long. 08° 31′ E. which is indicated on Chart 3917. The pilot boat is a small open boat and does not have any distinctive marks. This boat would not be suitable for taking out to the 'Gulf' especially with a strong Westerly wind.

The Pilot brings the buoy astern and then proceeds on the course of approximately S.E. directly towards the harbour entrance.
Anchorage: Agent requested vessel to anchor about 2 miles off "Grande Torres".
VHF: Not available.
Radio: The Agent requested an accurate ETA as he makes arrangements for the Pilot and on seeing the vessel at the anchorage notifies the receivers by telex. This is then followed by a written Notice of Readiness of berthing.
Berthing: The grain silo berth is at the North side of "Canale Industriale" at its mid-length. This vessel swung with the aid of the port anchor and berthed starboard side alongside.

The quay is constructed of solid concrete and rises to a height of about 8 ft. above the water level. At the water line there is a ridge of about 9 in. extending along the whole length of the quay. Rubber fenders about 2 ft. in diameter are chained to the face of the quay at approximately 120 ft. intervals.

Once the vessel is alongside and against the fenders, it is protected from the concrete ridge but during berthing it would be possible to land on the projection because of the spacing of the fenders.

Bollards are also approximately 120 ft. apart except for one situated ahead of the vessel which is approximately 150 ft. from the next one aft. They coincide with the fenders.

The breakwater protects the harbour but difficulty may be experienced alongside due to swell following strong winds from a Westerly direction.
Port Facilities: Access to the vessel by road vehicle and fresh water facilities are still to be provided.

Harbour does not appear to provide any fire fighting facilities and when the grain silo is closed there is no telephone available.

It is about 10 miles by car to Oristano and the Agent's office. Half of the journey is by unmade road. There are no ship chandlers or repair facilities available in Oristano. Taxi drivers are reluctant to drive their vehicles over the rough ground and made additional high charges for the journey. The ship's agency was very helpful and went to great lengths to arrange for ship's laundry and to have water delivered to the vessel by truck. They also made some purchase of small items for the vessel.

The port of Oristano is likely to become a large complex and it must be assumed that provision of services to ships will be developed.

SHIPMASTER'S REPORT: March 1984 (Update on January 1979 report).

Our vessel LOA 191 m. arrived with laden draft of 35 ft. 5 in. to discharge a part cargo of 12,000 tonnes of grain.

Pilot station is under construction, but Pilot has (at home) VHF listening on Channel 12. So there is VHF communication with "pilot station".

Anchoring position according to Agent's cable is Lat. 39° 51.2′ N., Long. 08° 28.0′ E. and Pilot informed us by VHF when we were approaching the anchorage not to anchor further East than 1.5 miles from a line joining Cape San Marcos and Cape Frasca lights (due to our deep draft). Finally we anchored in position Lat. 39° 50.2′ N., Long. 08° 28.5′ E.

Pilot boat is still a small open boat with outboard engine, but they were expecting a new fast pilot boat in March 1984.

There is a white and red fairway buoy at approximate position, bearing from Cape S. Marcos light 063° distance 3.5 miles. The following 3 pairs of buoys green and red (red to port entering) and finally 1 red buoy. None of the buoys had lights at the beginning of March 1984.

Therefore entering and leaving the port is permitted only in daylight.

There is a tug stationed at Oristano of about 500 b.h.p., but when large vessels are expected a tug of about 5,000 b.h.p. comes from either Porto Torres or Cagliari. We were told that "large" vessels means more than 5,000 tons gross, but we could not confirm the size information. Naturally we had the assistance of both tugs in mooring and unmooring. The 5,000 b.h.p. tug made fast forward well outside the buoyed channel.

The buoyed channel has minimum depth 13 m. and the depth alongside "Martini" grain pier is 11.5 m., but in charter party draft limitation was 36 ft. SW.

Grain vessels berth port side alongside and when leaving they are swung by tugs and engine just in front of the pier as Canal Maritime is dredged to 11.5 m.

Grain Pier has good fenders but while the head of the vessel is somewhat protected by the silo, the stern is exposed to the strong Northwesterly and Westerly winds and at least 6 stern ropes, 1 breast and 2 springs aft must be passed ashore.

There is a local Shipchandler, but large orders must come from Cagliari.

Fresh water is available but very expensive and only by truck, minimum order 20 tonnes at 25,000 lire per tonne.

A new road of 6 km. connects the port with the town of Oristano.

SHIPMASTER'S REPORT: January 1985.

Vessel, LOA 148 m. Beam 22 m., visited Oristano (Lat. 39° 45′ N., Long. 08° 30′ E.), to unload maize with deepest draft 9.00 m.
Approaching: We reached pilot boarding ground/anchorage safely by steering to sea buoy at the entrance of Oristano Gulf. Sea buoy was recently installed at Lat. 39° 45′ N., Long. 08° 29′ E. (position approx.) but unlit, at night it can easily be detected by radar.
Anchorage: North: Close to sea buoy in 6 m. – 7 m. for light draft vessel. South: Close to sea buoy in 15 m. – 16 m. for deep draft vessel.
Pilotage: Pilotage is compulsory, only one Pilot at this port. ETA notice can be given 2 hours prior to arrival through VHF Channel 12 and Pilot keeps in touch with incoming vessel with his own radio. Pilot usually boards the vessel near the sea buoy and takes ship to harbour along a buoyed channel, which was also recently installed and reached both entrance breakwaters. It was installed according to IALA buoyage system (red to port) but unlit. Entry, departure and (un)berthing was restricted at night time.
Tugs: One tug only available and meets the vessel near the breakwater, ship's line was used. If Master insists on extra tug for berthing/unberthing in heavy weather, 48 hours prior notice is necessary, high cost is imposed as extra tug will come from Port of Cagliari. Master should pay special attention to (un)berthing with one tug, which is too low-powered to control a large vessel.
Manoeuvring:
(a) Depth: Buoyed channel was dredged to 13 m. and depth of both inner and outer port is 12 m.
(b) Buoyed channel and entrance breakwater about 200 m. wide and the inner basin entrance is 200 m. wide. Both inner and outer basins have plenty of room for turning around, diameter about 800 m.

General:
(a) Fresh water can be supplied by truck only.
(b) Fuel available by truck.
(c) Provisions and bonded stores can be purchased, ship suppliers provided assorted items, price is very reasonable.
(d) Cash advance in U.S. currency is restricted to small amounts as bank could not collect too much foreign currency.
(e) Density 1025.

PALERMO, Sicily: 38.07 N. 13.20 E. (See Plan)

DOCUMENTS:
6 Crew Lists.
6 Passenger Lists.
Provisions Manifest.
Manifest of Crew Personal Effects.
Cargo Manifest.
Arrival Report, completed on arrival.
Maritime Declaration of Health Certificate, completed on arrival.
Ship's Certificates including Italian Authority Dues.
Vaccination Certificates for sighting.

PILOTAGE: Compulsory for vessels over 499 gross tons. Pilot station keeps listening watch on VHF Channel 12. Pilot joins vessel 1 mile off port entrance. Pilot can be requested by International Code Signals. Pilot station and every Pilot equipped with walkie-talkie VHF set. In case of rough weather pilot boat will be in the bay and will lead ships through port entrance where Pilot will be able to board.
Line Handling: Compulsory for vessels over 499 G.R.T. Line handlers are normally employed at Pilot's orders but they can be directly contacted by VHF Channel 12.
ANCHORAGE: It is advisable to use Pilot for anchoring in Palermo Bay.
RESTRICTIONS: No entry restriction, but there is a daily ferry service from Naples arriving at about 0645 hrs. and sailing at 2030 hrs. and another ferry service four times a week (Monday, Wednesday, Friday and Sunday) arriving at about 1300 hrs. and sailing 1500 hrs. No vessel is allowed to leave or enter the port half an hour before arrival or sailing of these vessels.
MAX. SIZE: Max. draft is up to 44 ft. (13.40 m.) according to the quay. Tankers up to 15 m. draft.

HEALTH: Free Pratique may be requested by radio to "Sanimare", Palermo, between 12 to 6 hours before arrival advising vessel's name, nationality, last port, number of passengers and crew, and state of health on board. Pratique is automatic for vessels coming from ports in Italy, U.K., France, Belgium, Netherlands, Federal Republic of Germany and Greece.
RADIO: Naples Radio, Roma Radio, Cagliari Radio or Palermo Radio.
VHF: Port Captain listens on Channel 16 from 0800 hrs. – 2000 hrs.
TUGS: Four tugs are available with up to 2,000 h.p. Tugs normally join vessel in the bay. Ship's lines are used.
BERTHING:

Pier/Quay	*Length* (m.)	*Maximum draft* (ft.)	(m.)
Quattroventi Quay	235	24	7.40
Puntone Quay (containers)	400	44	13.40
S.Lucia Pier – East side	50	31	9.40
S.Lucia Pier – South side	180	24-31	7.40-9.40
Marinai d'Italia – Quay 1	115	34	10.40
Piave Pier – North side	326	37.5	11.40
Piave Pier – East side	85	37.5	11.40
Piave Pier – South side	326	37.5	11.40
Marinai d'Italia – Quay 2	110	37.5	11.40
V.Veneto Pier – North side	326	37.5	11.40
V.Veneto Pier – East side	65	37.5	11.40
V.Veneto Pier – South side	326	24	7.40
Marinai d'Italia – Quay 3	115	24	7.40
Sammuzzo Quay	350	24	7.40
Trapezoidal Mole – East side	350	*	*

* The quay is under construction. When completed, within 3 years, max. draft will be 54 ft. (16.40 m.), depth 17.0 m.

CONTAINER HANDLING FACILITIES: One 30.5 tonne container crane (gantry crane) with outreach of 23 m. from quay edge, height of spreader above sea level 17.5 m.

One 42 tonne container crane (gantry crane) with outreach of 34 m. from quay edge, height of spreader above sea level 29.5 m.

One 42 tonne container crane (gantry crane) with outreach of 36 m. from quay edge, height of spreader above sea level 29.5 m.

One 40 tonne mobile container crane with outreach of 30 m. from quay edge, height of spreader above sea level 26 m.

6 heavy duty lift trucks with front loading lifting frame and spreader (lifting capacity from 6 tonnes – 40 tonnes).

15 tractors.

63 trailer trucks, length 20 ft. and 40 ft.

BULK HANDLING FACILITIES: Silos for cereals at Piave Pier with a total capacity of 29,100 metric tons; discharge rate 250-350 tonnes p.h. (by the suction tower).

Warehouses (either bonded or not) and sheds with a total area of 10,000 sq.m. and a total capacity of 72,000 cu.m.

Refrigerated warehouses with a total capacity of 11,796 cu.m.

Tanks for oils and wines (which can also be used for stockage of any other type of liquid products) with a total capacity of 5,000 cu.m., linked to docks by pipe-lines.

Open air areas for over 220,000 sq.m.

CRANES: 8 electric cranes with capacity of 15 tons, max. outreach 25 m. and min. 7 m.

4 mobile cranes with capacities of 13 – 20 metric tons.

STEVEDORES: Gangs arranged through Agent for all goods except containers; engagement of gangs can be done in two ways (option left to Agent):

For "labour by day" (0800 – 1200 hrs. and 1300 – 1700 hrs.), to be ordered at 0730 hrs., 0830 hrs., 0930 hrs., 1030 hrs. to start work respectively at 0800 hrs., 0900 hrs., 1000 hrs., 1100 hrs., and 1230 hrs. to start work at 1300 hrs.

For "shifts labour" (for first shift 0800 – 1430 hrs., second shift 1430 – 2100 hrs.), to start work at 0800 hrs. or 1430 hrs. to be ordered respectively at 0730 hrs. and 1230 hrs.

Container handling, (every service, including stevedores) is provided by Ente Autonomo del Porto (Port Authority) Palermo for two daily shifts (first shift 0700 – 1400 hrs.; second shift 1400 – 2100 hrs.).

Port labour capacity (quantity of goods, except containers, loaded in 8 hours daily work employing all stevedores available:

Fully loaded trucks and vans carried by Ro/Ro ships – 240.

Bulk cargo 1,700 tonnes.

General cargo 700 tonnes.

Port labour capacity for container handling 140 TEU per shift per crane.

MEDICAL: Assistance will be given upon request.
TANKERS:

Oil Products: Agip. Max. length 185 m., draft 32 ft., 25,000 d.w.t. Tankers drop anchors and are tied up at 2 buoys astern. Discharge rate 200–400 t.p.h.

Esso: Max. draft 15 m., no limitation for length. Vessel drops anchor and ties up at 2 buoys by stern. Discharging rate 600 – 700 t.p.h.

DENSITY: 1025.
FRESH WATER: Available at any quay and in the bay. Rate by hose 70 t.p.h., by barge 80 t.p.h. Barge capacity 250 tonnes.
FUEL: Fuel oil, gas oil and marine diesel available at the quays and by barge with capacity 360 tonnes.
GANGWAY/DECK WATCHMEN: Not compulsory; usually number of watchmen required depends upon the Master.
OPENING/CLOSING HATCHES: Crew usually carry out this operation.
CUSTOMS ALLOWANCES: 40 cigarettes and one opened bottle wine/spirits per man.
IDENTIFICATION CARDS: Shore passes given by local police.
CONSULS: Austria, Belgium, Bolivia, Brazil, Denmark, Finland, France, Germany F.R., Greece, Liberia, Libya, Malta, Monaco, Netherlands, Norway, Panama, Peru, Portugal, Senegal, Spain, Sweden, Tunisia, U.S.A.
TIME: GMT plus one hour. Summertime: March to September, GMT plus 2 hours.
REPAIRS/DRY DOCKS: Palermo Shipyard, located in the Northeastern part of the port is operated by Fincantieri-Cantieri Navali Italiani, which groups all the largest Italian shipyards and is part of I.R.I.

It is one of the largest and most experienced shipyards in the Mediterranean area for ship repairs, maintenance, dry dock facilities, large marine motor services and for conversion of ships of any type and dimension.

The shipyard is equipped with:

One dry dock for vessels up to 400,000 d.w.t., fitted with 2 cranes of 120 tonnes and 2 cranes of 20 tonnes capacity.

One dry dock for vessels up to 20,000 d.w.t.

One floating dock for vessels up to 150,000 d.w.t.

One floating dock for vessels up to 32,000 d.w.t.

Two berths for vessels up to 400,000 d.w.t., fitted with cranes of 120 tonnes and 20 tonnes capacity.

One berth for vessels up to 160,000 d.w.t., fitted with cranes of 60 tonnes and 30 tonnes capacity.

Two piers (1×110 m. long and 1×150 m. long) for vessels up to 80,000 d.w.t., each fitted with a crane of 30 tonnes capacity.

A basin-dock for construction of new vessels up to 200,000 d.w.t. which can be alternatively employed for simultaneously building 2 or 4 units such as ferries, sections for lengthening vessels, etc.

A plate shop capable of machining 150 tonnes a day and which is equipped with all the latest machinery drilling and welding units.

Some engineering workshops also equipped with the latest types of machinery enabling total dismantling and re-assembly of engines.

Also see "Developments".

Tankers – Gas Free Plant:

A gas-free plant for tankers has recently been completed in proximity of the shipyard.

It is also able to purify dirty ballast water unloaded by oil tankers.

The plant has following potentialities:

Purify oily waters: 2,300 cu.m.p.h.
Reception of slops: 750 cu.m.p.h.
Steam production: 40 tonnes p.h.
Production of demineralized water: 20 cu.m.p.h.
Production of inert gas: 6,000 cu.m.p.h.

DRY DOCKS: Floating dock, length 285 m., breadth 46 m., suitable for vessels up to 150,000 d.w.t.

Floating dock, length 194 m., breadth 30 m., suitable for vessels up to 31,000 d.w.t.

Graving dock, length 172 m. breadth 28 m., suitable for vessels up to 25,000 d.w.t.

Graving dock, length 370 m. breadth 68 m., suitable for vessels up to 400,000 d.w.t.

Also see "Developments".

AIRPORT: Distance from Punta Raisi Airport is about 20 km. Airport served by regular services.
REPATRIATION: Good facilities exist.
HOLIDAYS: All Sundays; New Year's Day (1st January); Epiphany (6th January); Liberation Day (25th April); Easter Monday; Labour Day (1st May); Patron Saint's Day (15th July); Assumption B.V. Maria (15th August); All Saints' Day (1st November); Immaculate Conception Day (8th December); Christmas Day (25th December); Saint Stephen's Day (26th December).

The following holidays are considered "Non-Workable" (except for Ro/Ro vessels employed in regular lines): 1st January, Easter Sunday, 1st May, 15th July, 15th August, 25th December.

POLICE/AMBULANCE/FIRE: Police, 583664, 333433. Ambulance, 306644. Fire, 587919.
TELEPHONES: Available if required.
SHORE LEAVE: Allowed.
DEVELOPMENTS: One dry dock under construction for vessels up to 150,000 tons. A terminal for ocean dry bulk cargoes will be operational within 3 years.
AUTHORITY: Ente Autonomo del Porto di Palermo, via Principe di Belmonte i/c, 90139 Palermo. *Tel:* 091-586133. *Telex:* 910377 Eporto. *FAX:* 091-583040. *Cables:* Ente Autonomo Porto – Palermo. *Contact:* Doctor Paolo Cimino, General Manager.

PIOMBINO: 42.56 N. 10.33 E. (See Plan)

PORT LIMITS: Within 1 mile of Breakwater Light.
DOCUMENTS:

3 copies of Crew List.
3 copies List of Passengers in Transit or Disembarking.
1 Customs List, including ship and crew articles (Master is responsible for any excess or shortfall).
1 copy of Manifest and B/L of Cargo Discharging.
1 copy of Manifest for Cargo in Transit.

PILOTAGE: ETA to Agent in local time (GMT plus 1 hour). Summertime March to September (GMT plus 2 hours).

Pilots embark E.S.E. from breakwater light, distance 1 mile or less according to weather conditions. Pilotage usually available at greater distance on request of ship or Agent. Being an open road, care should be taken to provide shelter to Pilot embarking/disembarking facilities, especially in Southerly winds or a swell.

Pilot ladder according to Convention Safety of Life at Sea, and EMPA recommendations.

Southerly gales may prevent Pilot from embarking or even from approaching the ship; in this case pilot boat may guide limited size vessels to sheltered water and then embark Pilot (signals by lamp or by VHF on Channel 12).

Pilotage compulsory for vessels over 500 b.r.t. for entering and leaving the Port of Piombino and the Port of Tor del Sale (ENEL terminal 2.5 miles East of Piombino) also for shifting in harbour waters.

Pilotage compulsory for all ships directed to anchor in a wide area affected by submarine pipe-lines (see "Anchorage").

Pilot station has 2 Pilot boats fitted with VHF, keeping watch on Channel 12.

Pilots: Corporazione Piloti del Porto di Piombino e Tor del Sale, Piazzale Premuda, 30 – 57025 Piombino (LI). Tel: (0565) 30.535 (Office); 40.580, 30.175, 40.740, 41.345 (Residences).

ANCHORAGE: Outside the harbour, East or S.E. of Breakwater Light, according to size and draft of vessel. Pilotage compulsory for anchoring within a large area situated North of Lat. 42° 53′ N., and East of Long. 10° 32′ E. until Long. 10° 37′ East. A submarine pipe-line has been laid within the said area limits, starting from the coast and running in a Southwesterly direction to the Island of Elba. Anchorage is prohibited within a distance of 0.5 miles from the pipe-line. International signals and marks are yet to be set on the pipe-line; it is expected shore signals and light buoys (2 or 3) will be in position sometime in 1988.

Instructions for anchoring in the whole area are to be requested (compulsory) to the Pilots via VHF Channel 12, pending the setting up of a Vessel Traffic Service which is expected to start in the near future, possibly operated by the Pilotage Authority (see "VTS").

RESTRICTIONS: Berthing of large vessels (50,000 d.w.t. or more) is unadvisable in darkness or bad weather. Southerly gales prevent berthing, also for smaller vessels. Severe Southerly gales may force all ships in harbour to leave berths on account of swell and proceed to sea.

No restrictions on sailing but sometimes necessary to disembark Pilot at Portoferraio (Elba Island, 12 miles). Considerable swell in harbour during gales.

MAX. SIZE: Max. draft 39 ft., length 260 m., no breadth restriction. Can accommodate vessels up to 80,000 d.w.t.

HEALTH: Free Pratique automatic for vessels coming from Continent, "Q" flag not to be flown on entering. From other countries, including Spain and Portugal, usual procedure applies. Not coming from Continent it is possible to request Free Pratique by radio to "Sanimare, Piombino", between 12 to 6 hours before arrival.

RADIO: Civitavecchia or Livorno Radio.

VTS: Vessel Traffic Service is being organised by the pilotage service and will be operated from the ancient Semaphore Station in position: Lat. 42° 55′ 21″ N., Long. 10° 32′ 33″ E. The building is described in Sailing Directions as white with quadrangular tower and signal mast. VTS will furnish information, radar assistance and radar pilotage in the approaches to Piombino, etc.

BERTHING: Deltasider – Piombino (ex-Acciaierie di Piombino). Pier equipped for quick discharging of ore 1,000 tonnes per hour, coal 800 tonnes per hour, scrap, etc. – Berth No. 4 depth 39 ft. Berth No. 3 depth 35 ft. 6 in. Other commercial berths, max. depth 29 ft., equipped with mobile crane 10 tons.

4 berths for Ro-Ro vessels, max. draft 22 ft., max. length 140 m. (priority to vessels of Sardinia Lines). 2 additional Ro-Ro Berths for limited size ferries, reserved for Elba Island traffic (mostly tourists).

STEVEDORES: To enable Agent to order gangs, it is important to radio accurate ETA. Latest time to order gangs: shift 0600 – 1400 hrs., 1700 hrs. day before, shift 2200 – 0600 hrs., 1700 hrs. same day, shift 1400 – 2200 hrs., 1100 hrs. same day. Failure to give precise ETA may result in ship losing 12 – 24 hours, and the cost of the gang not employed.

MEDICAL: Doctor and dentist can attend sick crew. Hospital facilities available.

TANKERS: Oil terminal at Torre del Sale. In the vicinity of Torre del Sale (2.5 miles East of Piombino), a small shelter-harbour has been adapted for supplying the ENEL (National Electricity Board) electric plant with combustible oil. Torre del Sale shelter harbour can accommodate small tankers (up to 2,000 d.w.t.) with draft not exceeding 14 ft. Daylight traffic only with several restrictions for manoeuvring (use of tugs compulsory, wind not exceeding 14 knots, swell no higher than 1.5 m.). Pilotage compulsory and performed by Piombino Pilots with same charges and rules as in Piombino Harbour. VHF Channel 12.

FRESH WATER: Available at any pier, by pipe-line.

FUEL: Available by barge from Livorno.

OPENING/CLOSING HATCHES: Normally carried out by crew (if stevedores, extra charge).

CERTIFICATES:

Certificate of Registry.
Load Line.
Safety Equipment.
Radio Certificate.
Derat Certificate.

REPAIRS: Small repairs only undertaken.

SURVEYORS: Cargo Inspectors available locally or from Leghorn. Surveyors available.

REPATRIATION: It is posible to arrange repatriation.

HOLIDAYS: Cargo work can be arranged on all official holidays.

BANKS: Monte dei Paschi di Siena, Filiale di Piombino, Corso Italia 77 – 57025 Piombino. Tel: 33021, 35125. Telex: 590195 Paspio I.

Banca Toscana, Filiale di Piombino, Via Lombroso 9/13 – 57025 Piombino. Tel: 33321. Telex: 590057.

Banca Popolare di Novara, Filiale di Piombino, Via della Repubblica 7 – 57025 Piombino. Tel: 31345. Telex: 590320 Novbca I. P.O.Box 165.

Cassa di Risparmio di Livorno, Filiale di Piombino, Corso Italia 111 – 57025 Piombino. Tel: 34290.

EMERGENCY CO-ORDINATION CENTRE: Capitaneria di Porto – Livorno. Tel: 21362. Telegraphic address: Compamare, Livorno.

STORING: See "Prelims".

1. By truck.
2. Storing while discharging possible by barge or trucks.
3. Trucks are allowed to proceed to some berths, not all berths.
4. Forklift can be used.
5. Customs Regulations as for all Italian ports.
6. Usually not.

CONSULS: No Consuls.

POLICE/AMBULANCE/FIRE: Police 31111 or 32222; Ambulance 36022; Fire 33333; Emergency call (all services) 113.

SHORE LEAVE: Allowed.

AUTHORITY: Ufficio Circondariale Marittimo, Piazzale Premuda 21, Piombino. *Tel:* (0565) 32506. *Contact:* Comandante del Porto.

PORTO EMPEDOCLE: 37.17 N. 13.32 E. (See Plan)

PORT LIMITS: The seaward boundaries of the port at which a vessel is considered to be an "arrived ship" and laytime to commence are regulated by contract.

DOCUMENTS:

3 Crew Lists.
3 Passenger Lists.
1 Maritime Health Declaration.
1 Cargo Manifest.
1 Crew Declaration.
2 Arrival Reports.
1 Stores List.

PILOTAGE: Pilotage is compulsory for ships with a gross tonnage of more than 500 tons.

International Code Signals and VHF Channel 16 are used to call Pilot. Pilot station telegraphic address "Corporazione Piloti – Porto Empedocle", Tel: 66035 – The Pilot boat displays International Pilot Signals. The Pilot normally boards about 0.25 miles from the port entrance.

ANCHORAGE: About 1 mile from the red light at the head of the western mole between bearings 90° and 315° in depths of about 10 m.

RESTRICTIONS: No restrictions.

MAX. SIZE: North and East Pier (1st arm): Max. draft 21 ft.
East Pier (2nd arm): Max. draft 25 ft.

HEALTH: Pratique is given by the Port Medical Officer who boards all vessels coming from foreign ports. No Radio Pratique at present.

RADIO: No radio station, however it is possible to call "Capitaneria di Porto" (Harbour Master) operating on frequency of 2182 kHz from 0800 hrs. to 2000 hrs. local time.

VHF: Pilot station on Channel 16 (calling) and 12 (working) continuous. Harbour Master on Channel 16 from 0800 hrs. to 2000 hrs. local time.

RADAR: No radar available.

TUGS: One tug available.

BERTHING: 2 quays with max. draft 21 ft. and 1 pier with max. draft 25 ft. Berths are used for loading salt, fertilisers and general cargo and discharging bulk phosphate.

Salt is loaded at a rate of 300 t.p.h (approx.) at North Pier and 800 t.p.h. (approx.) at East Pier second arm.

CRANES: 1 crane for discharging phosphates. On request it is possible to obtain cranes from outside the port for heavy goods.

SPECIALISED CARGO-HANDLING FACILITIES: The berths are not equipped for handling containers or Ro/Ro traffic. Only small quantities of chemical liquid for local industries are handled.

BRIDGES: No bridges.

STEVEDORES: There are 2 ordering times each day. The first at 0730 hrs. and the second at 1230 hrs. It is possible to order gangs outside normal working hours through ship's Agent.

MEDICAL: All facilities available. Nearest Hospital is located at Agrigento, 5 km. away.

TANKERS: No tanker facilities.

DENSITY: Salt water.

FRESH WATER: Only small quantities supplied by tank truck.

FUEL: Small quantities supplied by tank truck.

CONSULS: None.

REPAIRS: Small repairs only undertaken.

DRY DOCKS: None.

SURVEYORS: Registro Italiano Navale (R. I. Na. Agent).

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Normally carried out by crew, can be done by stevedores on request.

CUSTOMS ALLOWANCES: 40 grammes of tobacco per man. Normal daily consumption wine/spirits allowed.

CARGO GEAR: Shore gear normally used for discharging. Ship's gear used for loading phosphates.

REPATRIATION: Can be arranged through Agents.

AIRPORT: Palermo approx. 170 km., Catania approx. 200 km. Daily flights to main Italian airports.

TIME: GMT plus 1 hour. Summer time (between 29th March to 26th September) clocks advanced 1 hour.

HOLIDAYS: All Sundays, 1st January, 25th April, Easter Monday, 1st May, 15th August, 25th December (Christmas Day), 26th December, All Saints Day (1st November), Victory Day (4th November), Patron Saints (25th or 26th February).

POLICE/FIRE/AMBULANCE: Police: Tel: 66044-66124.
Fire Brigade: Agrigento Tel: 26102-20222.
Ambulance: Tel: by day 66600; by night 66858.

TELEPHONES: No telephones available for placing on board.

SERVICES: No tank-cleaning equipment, no facilities for discharge of tank-washings, no compass adjusting etc.

SHORE LEAVE: Allowed. Shore passes are issued by Immigration.

AUTHORITY: Capitaneria di Porto – Porto Empedocle, Via Gioieni 55, 92014 Porto Empedocle, Italy. *Tel:* (0923) 66640 – 66469. *Telex:* 910638 Comppe. *Cables:* Compamare Porto Empedocle. *Contact:* Harbour Master.

PORTO TORRES (Sassari): 40.51 N. 08.24 E.

DOCUMENTS:
4 Crew Lists.
1 Passenger List.
1 Maritime Health Declaration.
1 Arrival Report.
1 Crew Declaration.

PILOTAGE: International Code Signals are used to call Pilot. Pilot station telegraphic address, Corpo Piloti Porto Torres, tel. P. Torres 514936. The pilot boats carry international pilot signals. The Pilot normally boards about 1 mile from port entrance. On request, vessel can be boarded 3 miles off port entrance. Also see "VHF".

ANCHORAGE: About 1 mile from the green light on head of West Mole in depths of 25 m.

RESTRICTIONS: The oil terminal is exposed to winds and swell from N.W. to N.E. Heavy N.E. swell may delay berthing of larger vessels. Vessels should be ready to leave the berth if necessary due to adverse weather conditions.

MAX. SIZE: Inner Port: Length 120 m., draft 7 m. Outer Port: Length 150 m., draft 8 m. West Mole: Length 150 m., draft 8 – 10 m.

ANIC Terminal: Pier A, length no limit, draft 9 m. Pier B, length no limit, draft 12 m. Pier C, length no limit, draft 15 m. Pier E, length no limit, draft 8 m.

HEALTH: Pratique is given by the Port Medical Officer who boards all vessels coming from foreign ports. No Radio Pratique at present. Pratique not required for vessels arriving from Common Market countries.

RADIO: Coastal radio station, Porto Torres Radio P.T., call sign "IZN", operating on 2182 kHz. A continuous service.

VHF: Pilots work on Channel 12. Launch service from anchorage to Oil berths work on Channel 6. It is also possible to call Porto Torres Radio on VHF Channel 16 (Calling and Safety), with continuous service on Channels 25, 26 and 27.

Captain of the Port on VHF Channels 16, 12, and 9 and 14 from 0800 – 2000 hrs.

TUGS: Join vessel about 0.5 mile from port or from ANIC Piers. Ship's lines normally used. 3 tugs available.

BERTHING: Tankers are only permitted to berth between sunrise and sunset, but may unberth at any time.

Dry-cargo vessels may enter at any time.

There are two ports, viz. New Port and Old Port. The New Port is comprised of the ANIC Jetty, and the Old Port is that area bounded by the East and West Breakwater Moles, within which are the Inner and Outer Harbours. The Inner Harbour is composed of the general cargo wharves which have in service electrical cranes up to 10 tons capacity. The Outer Harbour has oil berths at the West Mole, and general cargo berths at the East Mole in depths of up to 8.23 m.

STEVEDORES: There are two ordering times each day. The first at 0800 hrs. and the second at 1330 hrs. It is possible to order gangs outside normal working hours through ship's Agents.

TANKERS: *New Port,* consisting of the ANIC Jetty with Berths A, B, C and E and depths of water varying to allow ship drafts of between 9 m. and 15 m.

There are two lines of 20 in. and 10 in. diameter for deballasting ashore.

Old Port, the West Mole which forms the seaward limit of the (Outer) port has tanker berths in a depth of 7 m.

MEDICAL: All facilities available. Nearest hospital located at Sassari, 18 km. away.

DENSITY: Salt water.

FRESH WATER: Can be supplied in limited quantities to vessels in port and in the roads. All berths are fitted with fresh-water connections, but supply is unreliable due scarcity. Advance notice is required for deliveries by barge or from tugs.

FUEL: All grades available by pipe-line at ANIC piers. Elsewhere, can be supplied by barge, subject advance notice of 12 hours.

GANGWAY/DECK WATCHMEN: Authorised shore service available.

OPENING/CLOSING HATCHES: Normally done by crew, can be done by stevedores on request.

CUSTOMS ALLOWANCES: 40 grammes tobacco per man. Normal daily consumption wine/spirits allowed.

IDENTIFICATION CARDS: Not required.

CONSULS: No local consular representation. French and Costa Rican Consuls in Sassari.

REPAIRS: Only minor repairs can be effected locally.

REPATRIATION: Can be arranged through Agents.

AIRPORT: Nearest at Alghero-Fertilia, 34 km. away. Daily flights to main Italian cities.

TIME: GMT plus 1 hour. Summer-time, clocks advanced 1 hour between 29th March and 26th September.

HOLIDAYS: New Year's Day (1st January); Epiphany (6th January); Liberation Day (25th April); Labour Day (1st May); Patron Saint (22nd May); Easter Day, Ascension Day, Corpus Domini (variable date); Proclamation Day (2nd June); St. Peter and St. Paul (29th June); Assumption B. V. Maria (15th August); All Saints' Day (1st November); Victory Day (4th November); Immaculate Conception (8th December); Christmas Day (25th December); Boxing Day (26th December).

POLICE/FIRE/AMBULANCE: Police tel. 514888; Fire, 31421; Ambulance, 54973. Sassari Fire Brigade, tel. 270521; Sassari Ambulance, tel. 242124.

SHORE LEAVE: Allowed. Shore passes are issued by Immigration.

AUTHORITY: Capitaneria di Porto di Porto Torres, Porto Torres, Italy. *Tel:* (079) 502258, 502159. *Telex:* 792091. *Cables:* Compamare Porto Torres. *Contact:* Giorgio Maria Pompei, Port Captain.

PORTO VESME (Sardinia): 39.11 N. 08.23 E.

(See Plan)

LOCATION: Porto Vesme Harbour is located on the S.W. coast of Sardinia (Lat. 39° 11′ 5″ N., Long. 08° 23′ 5″ E.) in the district of Portoscuso. The harbour was built exclusively to serve the Porto Vesme Industrial Complex.

Porto Vesme is an artificial harbour sheltered by two breakwaters, the one to the North giving protection against N.W. sea and the other to the South giving protection against South and S.W. seas (see "Plan"). The harbour is managed by the Sant'Antioco Maritime District Office which maintains a local branch office at Porto Vesme for this purpose.

DOCUMENTS: See "Genoa".

PILOTAGE: Pilotage is compulsory for vessels over 500 g.r.t.; mooring party services are compulsory for vessels over 400 g.r.t.

The Pilotage Authority for the area is at Sant'Antioco and is equipped with a VHF radio station. A pilot motor boat, equipped with VHF radio, is stationed at Porto Vesme and is utilised for ferrying Pilots to and from ships. As a rule, Pilot services should be requested by ship's Agents, through the local branch of the Maritime District Office. Urgent requests can be made, however, directly by telephone or by VHF to the S. Antioco Pilotage Authority.

APPROACHES: The entrance channel to the harbour mouth is marked by 2 pairs of light beacons and 1 pair of light buoys and has been dredged to a depth of 14 m. (45 ft. 11 in.) along its entire length. The manoeuvring area within the harbour and the sea area alongside the Eurallumina Wharf have been dredged to a depth of 13 m. (42 ft. 8 in.).

ANCHORAGE: Small and medium-size vessels generally anchor in the area off Ghinghetta Rock (Lat. 39° 11′ N., Long. 08° 22′ E.) just outside the harbour approach channel, where depths vary from 12 m. to 20 m. (Area "A", see "Plan").

Deep-draft vessels usually prefer to await the Pilot or to anchor 2.5 miles North of Isola Piana (Lat. 39° 14′ N., Long 08° 19′ E.) (Area "B"). During settled weather periods, large-size vessels also tend to anchor off Ghinghetta Rock (Area "A"); should S.W. or N.W. gales rise while large size ships are riding at anchor in this area waiting to berth, Masters usually weigh anchor and lie either in the Gulf of Palmas (Area "C") or on the Southern side of the Island of San Pietro (Area "D"). From these anchorages, ships can subsequently either pick up the Pilot and proceed directly to port or return to ride at anchor off Ghinghetta Rock or Isola Piana.

MAX. SIZE: Max. Draft 12.0 m.

RADIO/VHF:

Station	*Mode*	*Remarks*
Cagliari Radio	Radiotelegraphy Radiotelephony VHF	Italian Post and Telegraph, available to the general public
Sant'Antioco & Carloforte Maritime District Offices	Radiotelephony 2182 kHz VHF: Channels 16 and 14	For Safety at Sea only
Sant'Antioco Pilot Office	VHF: Channel 12	
Pilot Boat, Porto Vesme	VHF: Channel 12	
Harbour tug, Porto Vesme	Radiotelephony 2182 kHz VHF: Channel 6	

TUGS: A 1,000 h.p. tug, equipped with VHF radio, is stationed permanently at Porto Vesme Harbour; if necessary additional tugs can be brought in from Cagliari Port, provided that sufficient warning is given to the ship's Agent.

BERTHING: *Mooring Operations:* A mooring service equipped with a motor boat, is available at Porto Vesme Harbour to assist ships to berth and unberth; this service can be requested either (i) through local ship Agents or the Pilotage Authority, or (ii) directly. All ships at anchor in the roadstead can contact their Agents by radio or by radio-telephone through the Italian Post Office radio-telephone network. At the same time, the Sant'Antioco Pilotage Authority, the pilot boat and the tug stationed at Porto Vesme Harbour can also be contacted directly by VHF radio or by radio-telephone for any details concerning anchorage points, estimated time of berthing or departure, and any other information relevant to ship's manoeuvre or safety while in the roadstead or at berth.

Eurallumina Wharf: The Eurallumina Wharf is provided with 2 berths.

Northern Berth: It is intended for unloading bauxite and caustic soda bulk cargoes. This berth can accommodate ships up to 92,000 d.w.t., drawing up to 12 m. (39 ft. 4 in.)

Depth alongside berth	:	13.0 m. (42 ft. 8 in.)
Length of berth	:	250 m.
Bauxite unloader	:	One "Kocks" unloader with liftable jib
Maximum free digging rate	:	Up to 1,200 tonnes/p.h.
Travel range of unloader along the wharf	:	19.5 m.
Maximum travel range of grab	:	24.50 m. from edge of wharf fenders
Maximum height of grab, in "open" position	:	17.70 m. above sea level
Operative height	:	15 m.
Minimum height of grab, in "open" position	:	10 m. below sea level

Note: It is necessary that the maximum height of the hatches coamings above sea level is kept below 14 m. during unloading operations.

Southern Berth: It is intended for loading of alumina bulk cargoes and for unloading of caustic soda bulk cargoes. This berth can accommodate ships up to 32,000 d.w.t. drawing up to 12 m. (39 ft. 4 in.).

Depth alongside berth	13 m. (42 ft. 8 in.)
Length of berth	200 m.
Alumina loader	One "Claudius Peters" loader with liftable, swivelling arm.
Maximum loading rate	Up to 1,000 tonnes/p.h.
Travelling range of loader along the wharf	143.5 m.
Maximum height of the loading cone	9.50 m. above sea level
Minimum height of loading cone	10 m. below sea level
Maximum extension of the loading cone from the outer side of the fenders	23 m.
Stowage factor of alumina in bulk	1 cu.m.p.tonne (36 cu.ft./long ton)

Note: It is necessary that the maximum height of the hatch coamings above sea level is kept below 9.50 m. during loading operations.

Both berths are equipped with a flexible pipe – 6 in. in diameter with ASA 150 flanges – for connection to the tanker manifolds to unload caustic soda. All ships must be equipped in order to allow the connection of the above pipe.

A dock booster station is equipped with:

1 booster pump of 275 cu.m.p.h
1 booster pump of 125 cu.m.p.h.

Any of these pumps can be switched on as an aid to the ship's pumps.

Departure: Ships are requested to leave their berths immediately after completion of unloading/loading operations. The Eurallumina Wharf Superintendent may allow extra time at berth, provided that the delay is compatible with the wharf schedule.

Operating Hours: The wharf is operated on a continuous basis, day, night, 7 days a week (holidays included).

Damage: Should damage be caused to the ship by Eurallumina loading/unloading equipment, during unloading of bauxite and caustic soda or loading of alumina, the ship's crew is requested to deliver immediately a "damage report" to Eurallumina's shift foreman on duty to debate the claim as necessary.

TANKERS: See "Berthing".

FUEL: Not available.

FRESH WATER: Available, but in short supply. Preferably vessels should arrive with sufficient water on board in order to avoid the heavy charges incurred in deliveries by tank lorries.

AIRPORT: Elmas, the airport of Cagliari, is only 1 hour by car from Porto Vesme Harbour and is connected to the major international airports on the mainland by several regular daily flights.

TIME: Local time at Porto Vesme harbour is GMT plus 1 hour, i.e. Central European Time. Summertime (GMT plus 2 hours) starts and ends, according to relevant EEC schedules.

WEATHER: *Tides:* Here, as elsewhere in the Mediterranean, the tidal range is very small; the highest tide is only 0.3 m. above the MLWS.

Currents: Since tidal currents are non-existent along the coast, the currents are exclusively wind and/or wave induced.

Wind: Prevailing wind directions are (in order of frequency): N.W. ("Maestrale", 4th quadrant) S.S.E. and E. ("Scirocco" and "Levante", 2nd quadrant) and S.W. ("Libecco", 3rd quadrant); maximum recorded wind speed: 55 knots from the N.W. direction ("Maelstrale").

Visibility: Normally excellent; during the hot Summer months, visibility may occasionally be reduced by early morning mists.

Weather-Temperature: The ambient temperature practically never drops to 0°C during the winter months and rarely exceeds 32°C during the Summer; permanent breezes in the San Pietro Channel mitigate the heat of the Summer. Relative humidity is normally 60-70%; peak values of 100% high and 20% low have been recorded, but are extremely infrequent.

The yearly rainfall varies from a minimum of 350 mm. to a maximum of 500 mm.; rainy periods are more prevalent in Autumn and Winter and at the beginning of Spring.

More detailed information can found either in Italian Sailing Directions or in those issued by other maritime countries.

GENERAL: The town of Portoscuso, situated 1 km. to the North of harbour, has both telegraph and public telephone facilities linked to the national and international telegraph and telephone networks. Excellent roads connect Portoscuso to the nearby mining town of Iglesias and Carbonia; both Iglesias and Carbonia are within easy driving distance of Porto Vesme Harbour and have hospital facilities and local branches of central government departments.

Safety Provisions: The Pilot assisting a ship for berthing at the Eurallumina wharf will give the ship's Master any local navigational information which may be required for bringing the vessel safely into port and for docking it securely alongside the wharf; the wharf is provided with numerous bollards and is protected with rugged fenders.

The ship must be well secured to the wharf according to standard nautical practice and made fast with ropes of adequate strength and in good order.

Since the local Maritime District Office is not in a position to issue regular gale/storm warnings, Masters are advised to rely on their ship's radio for weather forecasts so that, in the event of a gale warning, sufficient time will be available for them to take the necessary steps to avoid damage to the ship, to the wharf, or to port installations.

Derricks, cranes, and any other hoisting equipment on board must be stowed so as not to interfere with unloading or loading operations; derricks shall not be lowered on the side facing the wharf. On request, the ship's hoisting equipment will be placed (fully manned) at the disposal of Eurallumina.

The ship's deck and holds must be adequately illuminated after dark, so that loading and unloading of ship's equipment (grab bucket, power shovel, hose connections) can be operated correctly and so that personnel shovelling away and sweeping up bauxite in the hold and on deck may work safely and efficiently.

All access to the wharf by truck or by any other means of transport for the loading and unloading of ship's store or equipment is subject to clearance beforehand by the Wharf Superintendent and will only be permitted if the presence of vehicles on the wharf does not in any way interfere with cargo operations.

Access to and from the ship and/or wharf will normally be restricted to the ship's gangway. The gangway, which should be run out immediately after berthing, must be easily accessible at all times, safe for public use, and adequately illuminated at night. If the ship's gangway is not hinged at the root, it must be equipped with an auxiliary footbridge of about 4 m. at the lower end to reach the wharf over the fenders.

It is remembered that spills, splashes or puddles of caustic soda could be found on the wharf during the unloading operations of the product, and be a danger to people.

All persons entering the wharf area are requested to follow the marked pedestrian throughways and to keep away from any equipment which may be operating at the time, or from caustic manifolds. If, for any reason, it should prove necessary to board the ship by passing through the cordoned-off area, all possible precautions must be taken to avoid accidents and/or damage and also to avoid treading on bauxite or alumina or caustic spillages.

The Eurallumina Wharf is equipped with a built-in fire extinguishing system which, if necessary, can also be used by ships lying at berth.

On the wharf, 2 safety anti-caustic showers and 2 eye-washing devices are available; they are easily identified by green ever-lighted lamps and red painting

SHIPMASTER'S REPORT: 1975 (Updated 1984).

Harbour: The harbour is protected by two moles between which there is a wharf. A channel marked by buoys leads to the entrance.

Documents: On arrival the following documents are required.

Declaration of Health.
2 Crew Lists.
1 Copy of last Port Clearance.
1 Copy Vaccination List.
2 Stores Lists.
2 Personal Effects Lists.
1 Valid Derat Certificate.
All other ship's documents.

Radio Pratique: Unavailable.

Pilotage: For ships arriving the Pilot boards at 39° 14′ N., 08° 19′ E., but in severe North-Easterly gales the Pilot will board in Palmas Bay, position 39° 00′ N., 08° 30′ E. When leaving Port the Pilot leaves the ship abeam of Ghingetta Is., 3 cables off, position 39° 11′ 05″ N., 08° 22′ 25″ E. There is no pilot vessel, the Pilot boards from a tug.

Radio: Cagliari (IDC). No VHF service for pilotage.

Tugs: Two permanent tugs of 1,750 h.p. are operating and other tugs are available from Cagliari when necessary, and advising 4 days before ship's ETA.

Mooring Boat: Available.

Depths of Water:		
	In the Channel	14 m.
	Eurallumina Quay	13 m.
	Alsar Pier	8.5 m.
	Trade Quay	8.25 m.

Berthing: Eurallumina Quay (unloading point of bauxite vessels). Length 442 m. Height on surface of water 3.6 m. Large rubber sprung fenders 150 ft. apart are fixed to the quay. Double bollards 150 ft. apart.

Vessels using this quay usually berth starboard side to using the port anchor which is let go well off the berth.

Bauxite Discharging Rate: 15,000 tonnes/day. Discharging by grab.

Fresh Water: Available at the Trade Quay by tank cars. At Eurallumina Quay available at 15 cu.m./hr. (Boiler water only). No fresh water available at Alsar Pier.

Bunkers: Available by barge from Sarroch, about 70 miles from Porto Vesme.

Repairs: Limited minor repairs only and giving notice by radio. For Radio and Radar available at Cagliari.

Ship Chandler: Available advising Agent.

Consuls: No foreign representation.

Laundry: Available advising Agent.

Provisions: Fresh foods available but notice must be given immediately on arrival.

Airport: Cagliari about 90 km. from Porto Vesme. International schedule flights and domestic flights over the Italy Area.

Medical: Qualified doctors available ashore and also equipped hospitals. In emergency doctor will board ship.

Repatriation: Arrangements must be made with Agent in advance by cable or immediately on arrival.

SHIPMASTER'S REPORT: December 1984.

Porto Vesme is the name of the port and industrial complex. The local town is called Porto Scuso which may be better known to postal and telephone authorities.

Pilotage: Black pilot launch with VHF. Pilot carries portable VHF.

In strong N.W. winds Pilot requests vessels remain stationary, at pilot station, for boarding. Pilot disembarks West of Ghingetta Island, heading 340° using starboard side ladder.

Max. Size: Eurallumina Quay: Up to 12 m. draft permitted. (December 1984).

Tugs: One tug, nominal 1,400 h.p., is available at Porto Vesme. Other tugs available on order from Cagliari, etc.

Berthing: Very active rolling on Eurallumina Quay, fenders effective but strip all paint from hull. Local ships insert rubber tyres between ship and wooden faces of fenders. Long leads required on mooring lines to prevent breaking while rolling.

Fenders project at least 2 m. from wharf face, very difficult to swing gangway ashore causing delay. A brow may be more easily placed at first. Gangway or brow must have efficient rollers on ground.

AUTHORITY: Officio Locale Marittimo, Molo Centrale, Porto Vesme (Portoscuso-Cagliari), Sardinia, Italy. *Tel:* 0781-509114. *Cables:* Locamare Portoscuso. *Contact:* Harbour Master.

QUILIANO TERMINAL: 44.17 N. 08.28 E. (See Plan)

LOCATION: The SARPOM Marine Terminal at Quiliano is located on the Western shore of Golfo di Genova in Rada di Vado about 3 miles S.S.W. of the town of Savona.

DOCUMENTS: *Required by Savona Port Authorities:*

2 copies Stores List.
2 copies Crew Manifest (See "Customs Allowances").
8 copies Crew List.
8 copies Passenger List.
1 copy Cargo Manifest.
Health Declaration. International Health Form to be filled out by Master on arrival.
Bills of Lading (original and copy).
Certificate of Origin (original and copy).
Ullage Report at the loading port.
Copy of Bill of Lading for the Agent.
Clearance – not required.

PILOTAGE: Pilotage is compulsory. VHF contact on Channel 13 should be established with the Pilot Station at Savona when within range. The pilot boarding position is 44° 17′ N., 8° 30.5′ E., approximately 2 miles South of Savona Harbour.

Two pilots are normally provided. One is in charge of piloting and the second, with less seniority, is on deck advising the officers and crew performing the mooring operation. The pilots bring with them their own VHF sets with which to communicate with tugs, mooring boats, and shore.

Pilot Ladder: Vessels are requested to have a proper pilot ladder securely rigged and long enough to reach the Pilot launch. During periods of darkness, adequate lighting must be rigged overboard for the pilot to approach the side of the vessel and climb the ladder safely.

If the vessel's freeboard exceeds 9.2 m. (30 ft.), the pilot ladder must be rigged in conjunction with the accommodation ladder.

Accommodation Ladder: When the vessel is berthed, the accommodation ladder is requested on the starboard side by the Port Authorities.

SARPOM Marine Terminal Supervisor: The vessel is boarded before the commencement of mooring operations by a SARPOM Marine Terminal Supervisor (SMTS) who is an experienced Master. He remains on board up to the end of the unmooring operations and acts as the coordinator of all ship/shore operations, providing local advice to the Master in any emergency that may arise. While at the berth, ship/shore communications are by portable VHF radio units used by the Marine Terminal Supervisor only.

ANCHORAGE: For vessels awaiting berth, the anchorage area is delimited by the following coordinates:

A – Lat. 44° 17.2′ N., Long. 08° 28.6′ E.
B – Lat. 44° 17.5′ N., Long. 08° 30.0′ E.
C – Lat. 44° 16.8′ N., Long. 08° 28.6′ E.
D – Lat. 44° 17.1′ N., Long. 08° 30.0′ E.

MAX. SIZE: Max. Draft 70 ft.

HEALTH: In addition to 36 hours notice of ETA prior to arrival, following messages are to be sent to:

(a) "Sanimare Savona" requesting Free Pratique.
(b) "Compamare Savona" (Harbour Master's Office) giving the following information:

Ship's Name
Flag
Call Sign
Length
Drafts
Cargo grade and quantity
ETA anchorage or pilot station.

RADIO/VHF:

Master to Radio "SARPOM Quiliano"

AAA	Bill of Lading quantity in long tons.
BBB	Slops, quantity water percentage, tank number.
CCC	ETA Quiliano upon departure last port.
DDD	Any ETA change exceeding 12 hours.
EEE	ETA Quiliano 72 – 24 hours prior arrival.
FFF	Draft of arrival at berth.

Ship-to-Shore Communications: Ship-to-shore communications, while the ship is berthed will be by portable VHF radio units used by SARPOM Marine Terminal Supervisor only. The use of the ship's radio station (except VHF set) and/or battery charging equipment is prohibited for safety reasons during cargo-ballast transfer operations. In event of normal ship-to-shore communications failure, an emergency system will be operated.

Free Pratique. See "Health".

Radio Messages: Local Agent will transmit the following standard messages to all inbound vessels:

Standard Message No.1

Vessels from 50,000 d.w.t. to 90,000 d.w.t.

S/T . . . .

Master

Please advise ETA draft other requirements stop please urgently inform Agent and SARPOM Quiliano:

AAA	Have 2×16 in. ASA connections ready on starboard manifold stop All other flanges to be blanked and fully bolted stop If 16 in. not available advise size manifold.
BBB	Have boom hoisted on starboard side able to work abreast of main cargo manifold stop Boom must have a certified lifting capacity of not less than 10 tons.
CCC	Vessel will be moored at a seven buoy sea berth using bow anchors stop Anchors must have at least 9 shackles of chain each side.
DDD	Vessel must have at least 4 wires of 150 fathoms length mounted on mooring winches comma two on poop deck and two on main deck aft stop Winches must be fitted with warping drum in order to heave up and make fast to bitts terminal preventer wires of each buoy stop Synthetic tails are not accepted stop Have ready two synthetic lines on forecastle and three on poop deck for tugs.
EEE	Accommodation ladder to be ready on starboard side on arrival at berth for Port Authorities.
FFF	During entire stay at berth engine to be always on readiness and steam on deck kept open.
GGG	Cargo ullages temperatures and water dip must be taken on arrival by ship personnel jointly with terminal personnel stop Have tanks depressurised in order to carry out above measurements stop Besides depressuring of individual tanks during or at the end of discharge is required to provide access for tanks inspection.
HHH	Advise maximum discharging capacity available and estimated total discharge time considering terminal maximum receiving rate of 11,000 t.p.h. stop Cargo and slop quantities with water percentage and total volume cargo grade and slop commingled stop Ballasting time.
III	VHF contact on Channel 13 must be established with pilot station as soon as possible stop.

Failing to answer above details may result in operational delays accountable to vessel.

Agent . . . .

Vessels from 90,000 d.w.t. to 150,000 d.w.t.

Item CCC	–	Substitute	11 shackles.

Vessels over 150,000 d.w.t.

Item CCC	–	Substitute	13 shackles.
Item DDD	–	Substitute	6 wires (4 poop deck and 2 main deck).
	–	Substitute	3 synthetic lines on poop for tugs.

Standard Message No. 2

Pollution

Master . . . .

Your attention is drawn to the serious view taken by Terminal and Port Authorities for pollution of harbour waters by oil stop Please ensure all Crew members conversant and comply with pollution regulations stop Principle causes pollution due leaking sea valves comma overboard discharge valves and cargo/bunkering overflows stop Therefore we recommend you check sea valves and overboard discharges before arrival and review cargo/bunkering operations with Chief Officer/Chief Engineer stop Scuppers must be plugged on main and poop decks stop On arrival Marine Terminal Supervisor will give all assistance necessary but empowered take drastic action in event contravention pollution prevention requirements stop.

Agent . . . .

This cable is sent only to time chartered and voyage chartered vessels calling for the first time at Quiliano Terminal and to all vessels that during a previous call experienced oil spillage or disregarded the oil pollution prevention requirements.

Standard Message No. 3

Crude washing

AAA	Inert gas system fully operational and tested.
BBB	Please inform on what tanks COW will be carried out comma if these tanks are normally used for ballast comma if top washing only will be carried out and also bottom washing.
CCC	Each tank to be kept below 8 percent oxygen before and during operations.
DDD	IGS Gas output to be continuously monitored and maintained below 8 percent oxygen.
EEE	Indication of IGS output to be in control room to give instant abort if necessary.
FFF	Pressure in cargo tanks must be available to control room personnel.
GGG	All system to be permanent steel pipework and pressure tested.
HHH	All tank openings to be sealed comma remote tank gauging system therefore essential.
III	Responsible designated person to be in charge of operations.
JJJ	Tanks to be crude washed must have previously been washed less than 6 months before stop please answer all points and add any additional ship requirements or comments.

Agent . . . .

TUGS: Tugs are generally stationed in Savona Harbour. In view of required time to reach the Terminal Area (about 20 minutes time in good weather conditions) sufficient notice should be given.

The principal characteristics of tugs are:

Luigi Noli: Motor, 3,000 h.p. – 50 tons bollard pull (Kort nozzle). Fire equipment: Equipped with "Sourbel" fire-fighting articulated arms. 1 monitor fore mast, 23 m. above sea level; 2 monitors main mast, 16 m. above sea level, water/foam range 120/90 m.

Carmelo Noli: Motor, 1,700 h.p. – 20 tons bollard pull. 1 monitor fore mast – 12 m. above sea level. 2 monitors main mast – 9 m. above sea level. Water/foam range 90/70 m.

Giuseppe Piaggio: Motor, 1,600 h.p. – 17 tons bollard pull. 2 monitors main mast – 9 m. above sea level. Water/foam range 90/70 m.

Capo Vado: Motor, 1,250 h.p. – 15 tons bollard pull. 2 monitors main mast – 9 m. above sea level. Water/foam.

Priamar: Motor, 2,500 h.p. – no monitors – fire hose only.

Riviera: Same characteristics as "Priamar".

Piemonte: Motor 2,500 h.p. – 36.5 tons bollard pull (Kort nozzle) – Variable pitch propeller – Bow thrust. Fire equipment: "Sourbel" fire-fighting articulated arms – 1 monitor on foremast 16 m. above sea level – 1 monitor on main mast 12 m. above sea level – Water/foam range 120/90 m.

Lombardia: Same characteristics as *Piemonte*.

BERTHING FACILITIES: The berth is a conventional buoy mooring consisting of 7 Lamgar buoys, each designed for a 125 ton mooring load. Each buoy is equipped with a 40 mm. diameter preventer wire. Vessels are berthed with 2 anchors ahead, in addition to buoy preventer wires and the vessel's mooring wires at the stern.

The berth is laid out to allow safe maximum draft of 21 m. (70 ft.). The sea bed at the berth is firm sand overlaid by 1.0 m. — 2.0 m. of mud. Moored vessels have their bow seaward, heading 155° true.

Ships will discharge through 2 strings of hoses, i.e.

String No. 1: 7 lengths 35 ft. × 20 in. diameter.
2 lengths 25 ft. × 16 in. diameter.
1 length 30 ft. × 16 in. diameter.
String No. 2: 8 lengths 35 ft. × 20 in. diameter.
2 lengths 25 ft. × 16 in. diameter.
1 length 30 ft. × 16 in. diameter.

The submarine pipeline system, connected by manifold to the above strings, consists of 1 × 32 in. diameter and 1 × 36 in. diameter line of about 3,470 m. length reaching the shore installation (SARPOM Terminal) which has, at present, the capacity of 360,000 cu.m. storage.

MOORING REQUIREMENTS: The vessel is required to have the following equipment:

Synthetic Lines: Synthetic mooring lines are not acceptable for any class of vessel.

Mooring Wires: All vessels must have winch-mounted mooring wires with minimum diameter of 36 mm. and minimum length of 150 fathoms, as follows:

Vessels between 50 – 150 k.d.w.t.— 2 wires on poop deck
— 2 wires on main deck aft
Vessels greater than 150 k.d.w.t. — 4 wires on poop deck
2 wires on main deck aft

Mooring Bitts: All vessels must have the following mooring bitts (for connection of Terminal supplied preventer wires):

Vessels between 50 – 150 k.d.w.t.— 4 bitts on poop deck
— 2 bitts on main deck aft
Vessels greater than 150 k.d.w.t. — 5 bitts on poop deck
— 2 bitts on main deck aft

Ship's Derrick: All vessels must have a 10 ton SWL ship's derrick for lifting hoses from sea bed.

Bow Anchors: All vessels must have 2 bow anchors with following scope of anchor chain:

Vessels between 50 – 90 k.d.w.t. — 9 shackles
Vessels between 90 – 150 k.d.w.t.— 11 shackles
Vessels greater than 150 k.d.w.t. — 13 shackles

Simultaneous Ballast Capability: All vessels must be capable of simultaneous ballasting and cargo discharge in order to minimise the exposed wind area of the vessel while moored.

Vessel Rejection: If in the opinion of the Harbour Pilot or of the SARPOM Marine Terminal Supervisor, the vessel is not equipped with adequate mooring facilities, lines or gear, he will so inform the ship's Master and in such event the ship shall not be brought into the mooring until facilities, lines or gear, are deemed satisfactorily.

MOORING/HOSE CONNECTION:

Mooring Approach: Vessel will be boarded by the Harbour Pilots and SARPOM Supervisor off Savona Harbour Breakwater or at anchorage. All manoeuvring of ships proceeding to the Terminal and within the Terminal area will be done in accordance with the Harbour Pilot's advice. Vessels will proceed subsequently to Vado Bay on a course parallel to the coast, about 1.2 miles from the shore, up to the Terminal area.

Status of Vessel Equipment: The Master of the vessel shall notify the Pilot and S.M.T.S. of any special conditions, difficulties or peculiarities, such as defective equipment, lines or gear, which might impose special hazards in connection with handling, mooring or discharging the vessel.

It is required that vessels test steering gear, engine room telegraph, whistle and all navigational equipment before any manoeuvre to or from the berth. The pilot will decline to moor vessels if they are not equipped with satisfactory mooring equipment, lines, gear, etc.

Final Positioning: A starboard turn will be taken, steering on the "approaching range line ", leading to the mooring buoys. Another range line, crossing with the above line, marks the position where the starboard anchor should be dropped. With the assistance of 3 to 4 tugs the vessel continues her starboard turn, drops her port anchor and backs into the berth. A spar buoy is provided to mark the position of the subsea manifold. The S.M.T.S. will give measurements to spar buoy for final positioning. Tugs are stationed close within the Savona Harbour and are also used for unberthing and for emergencies.

Depending on the current direction, the Pilot may do the anti-clockwise manoeuvre instead of above clockwise manoeuvre, in this case the first anchor to be dropped will be the port anchor.

Running of Lines: The arrangement of mooring lines and preventers, and the sequence of mooring operations that will take place will be agreed between Master, Harbour Pilot and Terminal Supervisor. Vessel must be moored to the entire satisfaction of the Pilot and SARPOM Marine Terminal Supervisor.

Status of Mooring: The safety of the moored vessel is the Master's responsibility under all circumstances. However in order to ensure safe cargo handling and avoid damage to the Terminal installation, the Terminal Supervisor will check the vessel's mooring periodically and when found unsatisfactory, he will request the Master to correct or adjust the moorings. In extreme cases the Terminal Supervisor may decide to suspend the cargo discharge.

Cargo Hose Connection/Disconnection: Raising, connecting, disconnecting and lowering of the hoses will be performed by shore personnel (normally 6 men), who will remain on board throughout discharging operations.

The vessel's crew is required to assist shore personnel by handling the boom winch and carefully inspecting their hose boom equipment before arrival.

DISCHARGING:

Notice of Readiness: Notice of Readiness will be accepted at the beginning of the final positioning (1st anchor dropped) when the ship proceeds directly from sea to berth (provided that the vessel is in all respects ready to commence discharging).

It is also accepted at the time the vessel anchors, in case the berth is occupied by another vessel, or in case there is a shortage of storage capacity in the shore tanks.

Vessel Turnaround: The vessel turnaround should be as short as possible. Delays caused by vessel equipment malfunction or vessel operations not associated with cargo discharge may result in charges being levied against the vessel's owner by the chartering party. The time sheet shall be accurately filled out by the Terminal Supervisor and signed by the vessel's Master. This time sheet will form the basis for any demurrage or delay claims.

Documentation and Inspection Before Discharging: An independent inspection, appointed by the owner of the cargo and witnessed by the Terminal Supervisor in conjunction with ship's personnel shall:

(a) Take and record ullage, temperature and measurements of all cargo tanks.
(b) Take a composite sample of each grade of cargo; the receipt for samples shall be signed by a responsible ship's officer and the Terminal Supervisor.
(c) Check arrival ship ullages as above, against ullages reported in ship's documents at loading port or last port of call, in order to ascertain if any unexplained movements of cargo have taken place.
(d) Obtain vessel experience factor from ship's log, or if not available request ship's personnel to determine an experience factor based on the last 5/6 loadings.
(e) Obtain the following from the vessel:
    i. Copy of Ullage Report at loading port.
    ii. Copy of Letter of Protest at loading port in case of excessive difference between ship's/Bill of Lading figures.
    iii. Samples from loading port. The receipt for these samples shall be signed by a responsible ship's officer and the Terminal Supervisor.

Discharge Procedure: The procedure for the intended operation must be pre-planned. They must be discussed and agreed upon by the ship and Terminal Supervisor prior to the start of the operations. The agreed arrangements shall be recorded on the Cargo Discharge Plan. The form shall be signed by a responsible ship's officer and the S.M.T.S. Any change in the apreed procedure that could affect the operation must be discussed by both parties and agreed upon. After agreement has been reached by both parties substantial changes must be laid down in writing as soon as possible and in sufficient time before the change in procedure takes place.

Discharge Regulations:

1. All bunker tanks will be ullaged by the independent inspector and checked for explosivity by the Terminal Supervisor before discharging. Contaminated tanks must be isolated to the satisfaction of the Terminal Supervisor before discharge can commence. If all tanks are contaminated, the vessel will be rejected.
2. S.M.T.S. will check to ensure that all sea suctions and overboard discharge valves (cargo/ballast) are closed and sealed. These valves must be kept closed and sealed throughout discharging operations and opened only in case of emergency or by authorisation of S.M.T.S.
3. Suitable drip trays and sawdust bags must be provided at the ship's manifold.
4. A responsible officer must always be available on deck in close contact with the S.M.T.S. for any occurrence. The S.M.T.S. will advise him in due time when the switching of shore tanks, changes in discharging rates, etc., are required by the shore installation operations and for any emergency.
5. When the first hose is connected, discharging can be started as instructed by the SARPOM Marine Terminal Supervisor.
6. Maximum pressure allowed at Ship's Rail: 150 p.s.i. (10.6 kg./sq.cm.) Maximum discharge rate allowed: 1,300 cu.m./p.h. (81,600 bbls./p.h.
7. Discharging must be carried out at the maximum rate achievable with the ship's equipment within the limits shown above.
8. On completion of discharge, open suitable filling lines to drain the hoses into ship's tanks.
9. Pumping air or gas into the cargo hoses is prohibited.
10. Because of the importance of ensuring that all cargo discharge regulations and procedures are fully understood, the letter concerning discharging information must be signed as received by a responsible ship's officer.

Documentation and Inspection After Discharging: Terminal Supervisor in consultation with ship's representative will witness and record the measurements of all ship's tanks (dip or ullage, temperature as applicable), including tanks containing cargo of another terminal, and determine the eventual oil remaining in ship's lines.

Before sailing, a Statement of Fact concerning the comparison between the vessel's gross volume discharged and gross terminal outturn received will be provided to the vessel.

Ballasting: Vessels calling at SARPOM Terminal are required to be capable of ballasting simultaneously while discharging, after the S.M.T.S. is satisfied that no sea pollution or cargo contamination might occur.

Ballast operations after completion of discharge, must be reduced to the minimum required for safe handling of the vessel out of the berth. In fair weather, the propeller should be submerged and the vessel trimmed 10 ft. by the stern. Ballast operations can continue at reduced speed during unmooring.

While the vessel is ballasting, the S.M.T.S. in agreement with the Master will start singling up by letting go all preventer wires and any other additional mooring lines not strictly required for a safe mooring, taking into consideration the environmental conditions.

Switching of Shore Tanks/Emergency Stop: The S.M.T.S. will advise the Cargo Officer or a responsible Officer in due time when the switching of shore tanks, changes in discharging rates, etc., are required by the shore installation operations and for any other emergency that may occur.

Crude Oil Washing: Crude washing during discharging is allowed if requested. Request from ship must be sent at least 10 days before arrival. Permission will be granted by Harbour Master and SARPOM Terminal providing that all operations are in line with items listed in Standard Message No. 3 (see "Radio/VHF").

POLLUTION: The Italian Government enforces strict measures to prevent sea pollution. It is the ship's Master's responsibility to ensure that no oil (crude, bunker, diesel, bilge, etc.) is pumped or spilled overboard from the vessel.

Because of the importance that the Quiliano Terminal places on the avoidance of pollution, the Master will be required to sign acknowledging receipt of the letter concerning sea pollution.

Lighting: The sea area around the ship shall be adequately lighted as frequent inspection will be made during discharging and ballasting, in order to avoid any pollution whatever.

Cargo Hose Connections: Cargo hose connections must be frequently inspected during discharging, drip-trays should be placed at all times under the manifolds, all unused cargo connections must be blanked and fully bolted, all scruppers must be securely plugged, and sea valves must be closed and sealed before starting discharge. When ballasting, pumps must be started before opening sea valves.

Discharging Material Overboard: It is strictly prohibited to throw any material, papers, waste or goods either solid or fluid overboard. The Master of the vessel in conjunction with the ship's agency, should make arrangements for disposal over land of such material, if required.

Excessive Smoke: Excessive smoke from the vessel's funnel and sootblowing are strictly prohibited.

Actions in Event of Pollution: In the event of pollution, immediate notification must be given to the Terminal Supervisor who will notify the local authorities and initiate the Terminal Oil Spill Response Plan.

The Terminal maintains a motor boat equipped with oil dispersant and in the event a vessel causes pollution the Terminal will start the oil spill clean up, pending the arrival of the port authority's anti-pollution brigade.

All expenses and damage costs incurred in connection with pollution due to the vessel, will be charged to the ship.

In the event of continued infringements of pollution prevention rules, the ship will be rejected until appropriate action is taken in order to avoid any further risk of pollution.

MEDICAL: Doctors and hospital facilities are available at Savona.

FUEL: Bunkers are supplied by barge which moors portside alongside the vessel. Bunker requirement must be radioed to local Agent at least 48 hours in advance. For vessels expecting to arrive on Saturday or Sunday, the requirement must be forwarded not later than Thursday afternoon.

CUSTOMS ALLOWANCES: Present regulations allow each seaman to retain in his possession a max. of 40 cigarettes or the equivalent of tobacco or cigars, and 1 open bottle of spirits. The balance of all smoking items and spirits must be collected, listed and locked, and included in the Stores List.

CONSULS: Consulates for most nations maintain offices in Genoa (about 50 km. from Savona).

REPAIRS: Repair shops for minor repairs are available. For electronic equipment repairs, notice should be sent to the local Agent in due time.

SHORE LEAVE: Launches are sailing from ENEL Pier (located about 1 mile North of berth) and make regular runs to tankers berthed at SARPOM's Berth.

During bad weather the service is performed from Porto Capo Vado.

Sufficient personnel must be aboard at all times for letting go lines so that the vessel can clear the berth whenever required. It is suggested that half the crew, evenly spread between deck and engine, be kept on board. Regular watch for launch services is constantly maintained on Channel 13.

SERVICES: All kinds of stores and provisions are available locally.

Laundry service is available on a round-the-clock basis.

WEATHER: The bay, although sheltered from the strongest winds blowing from the fourth quadrant by high mountains coming down close to the coast, is subject to strong wind gusts from this quadrant, and the relative wind direction varies considerably in different parts of the bay at one time due to irregularities of the coastal heights.

The bay is open to Southerly winds and seas, and it is from this direction that seas and swells caused by strong wind between S.E. and South may interrupt marine operations. Delays in this area are mainly due to the impossibility of mooring a vessel under certain weather conditions than to withstand elements once she is moored. The berth current is part of the general offshore current stream and is not wind blown or tidal; its predominant direction is toward the S.W. and the maximum speed is 0.8 – 1 knots; generally currents do not exceed 0.5 – 0.6 knots. The faster currents are likely to occur more frequently during the Winter period; occasionally they reverse and set N.W. with a reduced velocity.

Tide is negligible and fog is rare.

In general, weather in the bay is seasonal. From May to October it is very good. The worst period is from October to December when winds and seas from South cause the maximum number of port closures.

From December to May the strongest winds are experienced from third and fourth quadrants but sea is usually smooth.

Weather Reports: 12 and 24 hour weather forecast data is available on request on a round-the-clock basis at the Terminal Office.

Broadcast weather reports for Mar Ligure, North Tirreno and Corsica are prepared by Navy Department of La Spezia and Air Force Weather Bureau. For Mar Ligure, they refer to Capo Mele (West of Vado Bay). Information concerning the weather is given on VHF through Genoa Radio Station, Channel 16 and 25, at 0135, 0735, 1335, 1935 GMT. Special gale reports are provided on VHF Channels 16 and 25 and on wireless on 500 kHz at 15 minutes and 45 minutes after every hour.

Radiotelephone information can also be received on 2182 kHz (Genoa Radio Station). Weather reports are also transmitted on 1722 kHz.

REPORT: November 1985.

Mooring: A 150 h.p. mooring boat with 5 men is usual for the mooring operation. When the ship's stern is nearly positioned, the first lines are sent out, normally to Mooring Buoys No. 6 and 7 on the port side. The remainder of the lines are sent to the buoys and made fast according to the Pilot's advice.

Synthetic lines are not allowed for mooring at Quiliano Sea Berth. Minimum diameter required for mooring wires is 36 mm. and the length of the wire should be at least 150 fathoms (274 m.).

To accommodate the shore preventers, all vessels should have mooring bitts located as follows:

Vessel between 50,000 – 150,000 d.w.t.: 4 bitts on poop deck and 2 bitts on main deck aft.

Vessels over 150,000 d.w.t.: 5 bitts on poop deck and 2 bitts on main deck aft.

Vessels are not berthed if there is more than:

1 knot current,

18 knots wind from an Easterly or Westerly direction.

Berthing: Ships are berthed assisted by tugs. Normally, 4 tugs are used for vessels up to 150,000 d.w.t. and 5 tugs for vessels over 150,000 d.w.t., 2 on the hook forward and 3 aft using ship's lines.

The Berth is approached on a range line and when in position, the starboard anchor is dropped and slacked out while the vessel proceeds to the port anchor drop position. The port anchor is then dropped and while the vessel continues its starboard swing, it is towed stern first into berth and positioned. A good spread of the anchors and sufficient chain on the bottom are essential for adequate holding power.

AGENCY: SARPOM does not perform any vessel agency functions. Owners of vessels calling at SARPOM Terminal must arrange their own ship's Agent.

AUTHORITY: Esso Italiana S.p.a, Viale Castello della Magliana 25, 00148 Roma, Italy. *Tel:* 59952913. *Telex:* 620830 Esso I. *Contact:* Maritime Service Dept.

SARPOM, Quiliano Marine Terminal, Via S. Torcello 1, 17040 Quiliano (SV), Italy. *Tel:* 019-887133. *Telex:* 200070. *FAX:* 019-887651. *Cables:* SARPOM Quiliano.

RAVENNA: 44.25 N. 12.12 E. (See Plan)

LOCATION: The Port of Ravenna is located on the Adriatic coast of Italy about 50 miles South of Venice. The Ravenna-Porto Corsini Port Complex is extensive.

1. The SAROM Steel Platform (Terminal 1).
2. The SAROM Combined Buoy Mooring (Terminal 2).
3. The SAROM Oceanic Buoy 5 (Terminal 3).
4. The SAROM Rotating Platform (Terminal 4).
5. Five berths in the Inner Harbour:
   - (a) Darsena SAROM, 2 berths.
   - (b) Channel Baione Berth PIR.
   - (c) Channel Candiano, Berth ANIC lato mare.
   - (d) Channel Candiano, Berth ENEL.
   - (e) Channel Candiano, Berth CABOT.

Nos. 1 – 4 are located in the open sea E.S.E. of the Entrance Channel to Ravenna Porto Corsini about 3 and 10 miles from the coast. The berths in the Inner Harbour are reached via the narrow Entrance Channel to Porto Corsini.

DOCUMENTS:

For Maritime Authority:
  Ship Safety Certificates.
  3 Crew Lists.
  3 Passenger Lists.
For Customs:
  1 Crew List.
  1 Passenger List.
  Cargo Manifest.
  Bills of Lading.
  1 Provisions List.
  1 Customs Declaration of each Crew member.
For Maritime Health:
  1 Crew List.
  1 Passenger List.
  Derat Certificate or Exemption.
  Maritime Health Declaration.
For Police:
  1 Crew List.
  1 Passenger List.

PILOTAGE: Ordered by Agent in advance. Contact by radio telephone: Nos. 430453 and 430204 during office hours. Cables to Piloti del Porto, Marina di Ravenna. Pilot station and both pilot boats equipped with VHF, Channels 16, 9, 6 and 12. Pilot is embarked not less than 1 mile from head of breakwater. Vessel awaiting Pilot may anchor 1.5 miles from breakwater head. This anchorage is not secure in bad weather. Vessel bound for SAROM installation, embarks Pilot at least 0.5 miles from the berths. Pilot launches have black hull with white band, white superstructure, 10 m. to 14 m. in length.

ANCHORAGE: Anchorage prohibited in vicinity of submarine pipe-lines and cables. Vessels waiting for a berth may anchor at a distance more than 1.5 miles from the outer breakwater head according to their draft and subject to weather conditions.

RESTRICTIONS: Berthing and mooring at SAROM Sea Berths allowed in daylight only. Unberthing and sailing can be carried out in darkness.

Berthing day and night from entrance to San Vitale Basin. Inner port daylight berthing only. The channel to the inner port is navigable one way only. Traffic signals are displayed to indicate when channel closed to incoming vessels.

MAX. SIZE: *Inner Port:* Draft limited from 17 ft. to 17 ft. 6 in. depending on vessel's beam.

San Vitale: Max. draft 28 ft. allowed from port entrance to San Vitale Basin.

SAROM (Oil Platform – No. 1): Length not limited, max. draft 36 ft.

SAROM (Oil Berth – No. 2): Length not limited, max. draft 36 ft.

SBM Terminal – No. 3: Length not limited, max. draft 44 ft.

SAROM (Oil Platform – No. 4): Length no limit, max. draft 70 ft.

HEALTH: Pratique given by radio, on request to Sanimare Ravenna. Pratique is automatic for vessels coming from ports in E.E.C. countries.

RADIO: Messages via Ravenna Radio, Ancona Radio, Venezia Radio, or Trieste Radio.

VHF: Ravenna VHF Radio Station operates on Channels 16, 25, 26, and 27.

The Ravenna Port Informer is in contact with Ships Agents and operates on Channel 9 from 0600 hrs. – 2200 hrs. every day including holidays.

TUGS: Tugs join vessel in outer port. Ship's lines are used.

There are 7 tugs stationed at Ravenna (2 of less than 1,000 h.p., 2×1,000 h.p. and 1×2,048 h.p. Voith Schneider type with 25 tons bollard pull). 4 of the tugs are equipped for fire fighting. The Harbour Authority lays down the number of tugs to be taken by each vessel according to size.

BERTHING: *Shipmaster's Report:* 1982.

It is advisable to keep vessel well secured when alongside as passing vessels have little consideration.

CRANES: Heavy lift floating crane to be located in the Candiano Canal.

STEVEDORES: To be ordered before 1030 hrs. for afternoon work, and before 1630 hrs. for following morning.

MEDICAL: All facilities available.

TANKERS: Sea Berths:

SAROM Steel Platform – Terminal No. 1:

Cautionary Advice: Vessels moored at this terminal as well as all other Sea Berths must always keep the engines ready in order to be in position to unmoor and leave immediately in case of emergency or in case in the Master's judgment the weather conditions suddenly get worse.

General: The No. 1 Terminal consists of 2 platforms of 15 m. diameter each supported by 36 tubular piles. Installed on the platform are: a white light, flashing twice every 5 secs. and a fog horn giving 3 long blasts every 20 secs.

Berthing and Mooring: The Berth is usually approached from the North, the 2 anchors are dropped, first the port anchor then the starboard anchor, and the vessel is swung assisted by 2 tugs, and towed into position in the berth with 7-8 shackles of chain out on each anchor. Occasionally a wire may be necessary and is made fast on the port bow connected with a fixed anchor.

The stern is moored with 4 wires supplied by the terminal and connected to 4 buoys. On completion of mooring the distance between ship and platform must be about 50 ft. heading East.

Cargo Connections: Products are handled at this berth through 1×12 in. flexible hose with 12 in. ASA connection to the vessel's stern discharge flange. Maximum pressure allowed is 12 kg./sq.cm.

Ballast Facilities: None available.

Gangway: Ship's gangway or accommodation ladder should be rigged on the starboard side for Authorities.

Ullaging – Temperatures: Taken by terminal personnel.

Services: Bunkers and fresh water can be supplied by barge.

SAROM Combined Buoy Mooring – Terminal No. 2:

General: This terminal consists of 4 buoys anchored in sea bottom. Distance from No. 1 Terminal is 500 m. towards South and from coast 6,100 m. The position is Lat. 44° 28′ 14″ N., Long. 12° 21′ 55″ E.

Berthing and Mooring: The mooring must be carried out with ship's bow towards East and taking up on the stern 4 steel wires supplied by SAROM and connected with the 4 buoys. The vessel must be anchored with 7 – 8 shackles of chain (port and starboard) and the forecastle port side also must be secured with steel wire connected with a fixed anchor.

Cargo Connections: There is only 1×16 in. flexible hose (ASA) to be connected, always on port side. The position of the hose is signalled by a small red marker buoy. When mooring is completed the red marker buoy must be located on the vessel's port side 30 m. apart.

Derricks: Vessels must arrive ready with port side derrick able to hoist the flexible hose weighing 5 tons.

Ballast Facilities: None available.

Gangway: Vessel should rig suitable accommodation ladder.

Bunkering: By barge.

Ullaging – Temperatures: Taken by shore personnel.

SAROM Oceanic Buoy – Terminal No. 3:

General: No. 3 Terminal consists of 1 large anchored buoy on which are installed a red light, flashing twice every 5 secs., a fog horn (letter "C" every 20 secs.) and a radar Racon code "C". Distance from No. 1 Terminal is about 4,500 m. E.N.E. and from coast 10,300 m.

Berthing and Mooring: The mooring must be carried out with ship's bow towards North, and taking up 2 steel wires supplied by SAROM, connecting the stern of the ship to the large buoy, and 4 steel wires connecting the ship to 4 small buoys anchored in the proximity of the large buoy. The 2 steel wires on the stern must be secured in order to maintain the ship about 120 m. from the buoy. Vessel must be anchored with 7 – 8 shackles of chain (port and starboard) and the forecastle port side must also be secured with a steel wire connected with a fixed anchor.

Cargo Connection: There is only 1 flexible hose with 10 in. ASA flange to be connected, always on port side.

Derrick: Vessels must arrive ready with port side derrick able to hoist the hose weighing 5 tons.

Ballast Facilities: None.

Gangway: Vessel should rig suitable accommodation ladder.

Bunkering: By barge.

Ullaging – Temperatures: Taken by shore personnel.

SAROM Rotating Platform – Terminal No. 4:

General: No. 4 Terminal consists of a rotating platform elastically connected with a fixed platform supported by 6 tubular piles of 48 in. diameter.

Its position is Lat. 44° 27′ 25″ N., Long. 12° 31′ 30″ E. Distance from shore is 18,300 m. Mooring is allowed for vessels with a max. draft of about 70 ft. The platform shows a white flashing light 3 times every 15 secs., also a fog horn code "U" and Racon code "U".

Berthing and Mooring: The vessel must approach the platform up to a distance of about 120 m. One vessel's synthetic rope will be connected with the assistance of the mooring boat with the steel wire supplied by SAROM. With the aid of the steel wire heaved up by vessel, vessel will approach the platform as far as a distance of about 65 m. and there the steel wire will be made fast.

The mooring operations will be carried out only in normal weather conditions. The unmooring operations can be carried out at any time day or night. One tug will assist at the stern in order to avoid collision with the platform.

Cargo Connections: There is a floating hose with 16 in. flange (ASA) to be connected on port side manifold. Before disconnecting, the floating hose (length of about 270 m.) must be filled with water. Max. pressure 8 kg./sq.cm.

Derrick: Vessels must arrive with port side derrick of 10 tons SWL.

Ballast Facilities: None.

Gangway: Vessel should rig suitable accommodation ladder.

Bunkering: By barge.

Ullaging – Temperatures: Taken by shore personnel.

Inner Harbour:

Darsena SAROM Berth:

Location: The SAROM Berths are located in the Darsena SAROM on the South side of Largo S. Vitale, the Ponente Berth on the West side and Levante on the East side of the Darsena.

Berthing and Mooring: The Inner Harbour is entered between the breakwaters protecting the entrance to Canale Baiona. 2 tugs are usually made fast on the hook, fore and aft, when abeam of the breakwaters and assist vessels through the channel. Vessels bound for the SAROM Berths proceed farther South through Canale Candiano and are swung (using 1 anchor) assisted by tugs in the Lago S. Vitale. They are then towed stern first into Darsena SAROM and moor starboard side alongside at the Levante Berth, and port side alongside the Ponente Berth. Head and stern lines are run in by mooring boats.

Wires are not accepted, wires with synthetic tails are accepted.

Preparations: A 2 ton SWL derrick is required for hose handling, and should be ready on arrival. There is no shore gangway and the vessel should have a gangway ready on starboard side for the Levante Berth and port side for the Ponente Berth. Ullages and temperatures are taken by terminal personnel.

Cargo Handled and Connections:

Berth Levante

Clean products: 1×8 in. ASA hose 8 kg./sq.cm.

Dirty products: 1×8 in. ASA hose 8 kg./sq.cm.

Berth Ponente

Gasoline: 1×8 in. ASA hose 8 kg./sq.cm.

Gasoil: 1×8 in. ASA hose 8 kg./sq.cm.

Dirty oils: 1×8 in. ASA hose 8 kg./sq.cm.

Ballast Facilities: Ballast facilities are available for unlimited quantities. Discharge rate 400 t.p.h.

Fire Fighting Facilities: There are 3 towers with foam/water monitors.

Oil Pollution – Clean Up: Facilities available.

Services: Bunkers and fresh water are available.

PIR Berth:

Location: The PIR Berth is located on the South side of the Canale Baiona about 1 mile from the port entrance.

Berthing, Unberthing and Mooring: Berthing allowed only by daylight, unberthing not allowed after 1 hour after sunset. The harbour is entered and tugs are made fast as per Darsena SAROM Berth. Vessels bound for PIR Berth, will be berthed with starboard side alongside, therefore vessel will be swung in the Turning Basin (junction – Canale Candiano – Canale Baiona) and then backed in position by tugs.

Cargo Handled and Connections:

Clean products: 2×8 in. flexible hoses with 8 in. ASA connections 5 kg./sq.cm.

Dirty products: 2×8 in. flexible hoses with 8 in. ASA connections.

Maximum pressure allowed: 6 kg./sq.cm.

Gangway: Ships must provide their own gangway.

Derrick: A 2 ton SWL derrick required on port side for hose handling.

Ullaging – Temperatures: Taken by terminal personnel.

Services: Bunkers and fresh water are available.

Fire Fighting: System installed.

Oil Pollution – Clean Up: The terminal has a quantity of oil dispersant and absorbent.

ANIC Berth "Lato Mare":

Cautionary Advice: The ANIC Berth is located on the West side of Largo S. Vitale about 0.5 miles North of the Darsena SAROM. It is a marginal berth and ships bound to and from Ravenna pass close by, and may cause a moored vessel to surge in the berth. It is, therefore extremely important that vessels are securely moored and that the mooring lines are properly tended and watched.

Berthing and Mooring: Vessels bound for the ANIC Berth enter the harbour and connect tugs as described per Darsena SAROM Berth and are then swung in the Largo S. Vitale and berthed head out with port side alongside.

Cargo Handled and Connections: This terminal handles various classes of oils or chemicals. Both jetties have the same facilities.

Solvents: 2×4 in. ASA flexible hose. 7 kg./sq.cm.
Chemicals: 2×6 in. ASA flexible hose. 7 kg./sq.cm.
Dirty oils: 2×8 in. ASA flexible hose. 7 kg./sq.cm.

For clean oils there are also 2 rigid arms 6 in. flange ASA. Max. pressure 8 kg./sq.cm.

Gangway: Ship should rig their port side gangway.

Derrick: A 2 ton SWL derrick required on port side for hose handling.

Ullaging – Temperatures: Taken by terminal personnel.

Services: Bunkers and fresh water are available.

Ballast: None at present. In future there will be possibility of dirty ballast discharge.

Oil Pollution – Clean Up: No facilities available.

Fire Fighting Facilities: Fixed foam/water monitors and mobile fire fighting men.

ENEL:

General: This terminal is on the North bank of Canale Candiano about 1.5 miles West of junction Canale Candiano/Canale Baiona. Handles exclusively boiler oils. The terminal consists of a jetty that can accommodate vessels up to 280 m. LOA with max. draft of about 28 ft.

Berthing and Mooring: Normally 2 tugs are used, and since the vessel must be moored port side alongside it is swung in proximity of confluence of Canale Candiano/Canale Baiona and then backed into position by means of tugs.

Wires not accepted.

Cargo Handled – Connections:
F.O.: 1×8 in. ASA flexible hose. 6 kg./sq.cm.: For larger vessels.
F.O.: 1×6 in. ASA flexible hose. 6 kg./sq.cm.: For smaller vessels.

Gangway: Vessels should rig suitable gangway.

Derrick: 2 ton SWL ready on port side.

Ullaging – Temperatures: Taken by terminal personnel.

Bunkering/Fresh Water: By barges.

Oil Pollution – Clean Up: No facilities available.

Fire Fighting Facilities: 4 foam/water monitors.

CABOT:

General: This terminal is located 1 mile West of ENEL Jetty. Can accommodate vessels up to max. 128 m. LOA with max. draft of about 28 ft. Handles only aromatic oils class "C".

Berthing and Mooring: At this terminal vessels are moored with port side alongside. Vessels are backed into position after being swung in the turning basin.

Cargo Handled – Connections: Only aromatics are received at this berth. There are 2×6 in. ASA flange flexible hoses. 7 kg./sq.cm. For larger vessels 2 hoses are used, only 1 for smaller vessels.

Gangway: Vessels should rig suitable gangway.

Derrick: 2 ton SWL ready on port side.

Ullaging – Temperatures: Taken by terminal personnel.

Bunkering/Fresh Water: By barge.

Oil Pollution – Clean Up: No facilities available.

Fire Fighting Facilities: Fire hydrants, water only.

DENSITY: 1024.

FRESH WATER: Only available ex-wharf at San Vitale and at inner port piers. Barge available for deliveries to the Silos Piers and tanker terminals.

Shipmaster's Report: 1982.

Delivered by road tanker only at silo pier (Setramar) in lots of 8 tons.

FUEL: Available by barge.

FIRE PRECAUTIONS: Tankers are given copy of port fire regulations on arrival. No repairs or gas freeing to be carried out without permission of Port Authorities.

GANGWAY/DECK WATCHMEN: Optional, can be employed from shore if required.

OPENING/CLOSING HATCHES: Can be performed by ship's crew or by stevedores.

CUSTOMS ALLOWANCES: 50 cigarettes per man for first day in port. Wine/spirits, allowance is made for normal daily consumption on board.

IDENTIFICATION CARDS: Shore passes given by police.

CONSULS:

France	Tel: 39.7.58.
Norway	Tel: 24.5.47.
Spain	Tel: 24.0.14.
Sweden	Tel: 22.6.39.

REPAIRS: Minor engine repairs can be effected. Floating dry-dock available for up to 1,000 tons displacement.

REPATRIATION: Can be arranged.

AIRPORT: Forli Airport situated 25 km. away, with daily flights to Rome and Milan.

TIME: GMT plus 1 hour. From April to September, GMT plus 2 hours.

POLICE/FIRE/AMBULANCE: Police, Tel: 22.4.66; Ambulance, 22.3.11; Fire, 22.2.22.

TELEPHONES: Can be installed on board at San Vitale Berths.

SHORE LEAVE: Allowed. Launch service available for vessels in the roads.

SHIP SUPPLY SERVICE: Contact: I.S.A.P. s.r.l. Impresa Servizi Ausiliari Portuali via Circonvallazione Piazza d'Armi, 74 48100 Ravenna. Service is rendered to the ships waiting at anchor in Ravenna Roads or to the tankers discharging at the refinery terminals located in Ravenna Roads.

Vessels: "Elisabetta Seconda", 17.15 m. LOA and 4.60 m. breadth. 2 engines 130 h.p. each able to transport 22 passengers.

"Francesca Romana", 17 m. LOA and 4.65 m. breadth 1 engine 240 h.p. able to transport 12 passengers.

DEVELOPMENTS: The access channel is to be deepened to 35 ft. and widened. Dredging to commence early 1988.

AUTHORITY: Capitaneria di Porto Ravenna, Via Antico Squero 9, Ravenna, Italy. *Tel:* (0544) 22100, 32506, 32154. *Telex:* 551366 Compra I. *Cables:* Compamare Ravenna. *Contact:* Rocco Federico, Port Captain.

SALERNO: 40.40 N. 14.45 E. (See Plan)

DOCUMENTS: As for all Italian ports, i.e. all ship's documents in valid condition and Arrival Reports, to be filled upon arrival with the Port Authority's representative.

PILOTAGE: Pilot station keeps watch on Channel 16 VHF from 0600 – 2000 hrs., working Channel 14.

ANCHORAGE: Position of anchorage, about 1 mile W.S.W. of green flashing light.

RESTRICTIONS: Vessel cannot enter or sail from the harbour between 2100 hrs. and 0500 hrs.

MAX. SIZE: Vessel allowed to enter port should not exceed 220 m. in length or 30 ft. draft.

HEALTH: Free Pratique not obtainable by radio. Usual formalities on berthing.

RADIO: All cables should be sent via "Napoli Radio" call sign "IQH".

TUGS: Lines must be supplied by the ship.

BERTHING: 13 berths with depths from 21 ft. to 30 ft.

CARGO HANDLING EQUIPMENT:

16 mobile cranes with capacity up to 270 tons.
80 forklift trucks with capacity from 4 tons to 37 tons.
6 dumper trucks.
Hydraulic grabs.
Specialised terminals for cars and wheeled units, containers, forest products, steel products.
Ro/Ro facilities.
Handling and storage area: 250,000 sq.m.
Equipment for loading/discharging bananas, fruit, refrigerated and frozen cargoes in cartons.

STEVEDORES: Stevedores are to be informed 24 hours prior to vessel's arrival.

MEDICAL: Medical Service should be requested in advance. Hospital facilities are obtainable.

DENSITY: Average salinity inside port is 1025.

FRESH WATER: Fresh water available at all berths, ordered through Agent.

FUEL: Bunkers may be supplied from Naples by truck or barge. If large quantities are requested supply will be effected by barge from Naples.

CUSTOMS ALLOWANCES: Only 40 cigarettes on vessel's arrival. This applies to officers and crew. The remaining stock will be sealed in vessel's bonded store.

CONSULS: No consular representatives exist in Salerno. Nearest at Naples.

REPAIRS/DRY DOCKS: No dry dock exists. Only small workshops attending minor repairs.

SURVEYORS: Lloyd's Register in Naples. Tel: (081) 323714. R.I.N.A. in Naples Tel: (081) 325644.

GANGWAY/DECK WATCHMAN: Contact Instituto La Vigile. Tel: 239928.

AIRPORT: The nearest airport is at Naples. Distance 60 km.

REPATRIATION: Crew changes and repatriation possible.

TIME: One hour ahead of GMT in Winter. Summertime (March – September) GMT plus 2 hours.

HOLIDAYS: Other than the national festivities, September 21st, a local holiday, being the Name Day of the town's Patron Saint.

TELEPHONES: Emergency phone number is: 113-112.

IDENTIFICATION CARDS: Crew I.D. cards issued by police on arrival.

GENERAL: *Garbage:* Collection is compulsory. Collected from vessels at anchor and by truck if vessel at quay.

Ship Chandler: Montanari General Ship Chandlers, Tel: (089) 237553.

Services: Radar, VHF and gyro service or repairs may be obtained through request to Agent prior to vessel's arrival.

AUTHORITY: Capitaneria di Porto Salerno, Molo Manfredi, 84100 Salerno. *Tel:* (089) 224544, 224765. *Telex:* Compsa 722559. *Cables:* Compamare Salerno. *Contact:* Harbour Master.

SAVONA (including Vado Ligure): 44.18 N. 08.29 E. (See Plan)

PORT LIMITS: One mile from Savona Port Breakwater.

DOCUMENTS:

Arrival Report for Port Authority.
Cargo Manifest.
Provisions and Crew Personal Effects Manifest.
8 Crew Lists.
Class Certificate.
Safety Equipment Certificate.
Safety Construction Certificate.
Safety Radio Certificate.
Ship's Register – Load Line Certificate.
Derat Exemption Certificate.

PILOTAGE: Pilotage is compulsory for vessels over 500 g.r.t. Pilot ordered through Agent. Telegraphic address: Piloti Porto di Savona. Pilot launch is black with white band. To call Pilot, use flag or light signals according to International Code. For vessels bound for Savona or Vado Ligure, Pilot boards about 0.5 to 1 mile S.E. of the red light at Savona port entrance. Pilot station on VHF Channel 13 day and night.

ANCHORAGE: The Roads of Savona offer a safe and spacious anchorage. Depths of 25 m.

Important limits: it is forbidden to anchor North of bearing 270° from red light. It is forbidden to anchor East of bearing 360° from the white light between 15th May and 30th September.

Shipmaster's Report: April 1983.

In any season the limits are:
North Border – bearing 305° from red light "Frandgiflutti".
South Border – bearing 340° from Point Lat. 44° 18′ 30″ N., Long. 08° 29′ 27.5″ E.

RESTRICTIONS: Night entrance is considered for each case depending on type of mooring and vessel's draft. At Savona berths, vessels on maximum draft berth in daylight at high tide. No restrictions on unberthing.

MAX. SIZE: See "Berthing".

HEALTH: Free Pratique may be requested by radio from "Sanimare Savona" prior to vessel's arrival except for vessels coming from countries subject to sanitary control, for which the Harbour Doctor must go on board in order to expedite Free Pratique. Free Pratique is automatic for vessels entering after calling at another Italian port or any other port belonging to E.E.C. – In the event of any disease or fever contact Agents.

RADIO: Genova Radio or Roma Radio.

VHF: Pilot station on Channel 13, day and night. Harbour Master's office on Channel 16, day and night. Port Authority on Channel 13 (Tel. 80.20.21).

TUGS: Tugs join vessel in vicinity of Savona port entrance or at Vado Ligure just off the berth. Ship's line usually used. If tug line used, tariff plus 20% is charged.

BERTHING:

Inner Harbour; depth 17 ft., quay length 480 m.

Quay Nos. 1, 2, 3, 4, 5, 6, and 7, depth alongside quays – min. 23 ft., max. 32 ft., quay length 790 m.

Quay Nos. 8, 9, 10 and 11, depth alongside quays – min. 29 ft., max. 32 ft., quay length 417 m.

Quay Nos. 12, 13, 14, 15, 16, 16A, depth alongside quays – min. 23 ft., max. 36 ft., quay length 670 m.

Quay Nos. 31 and 32 (new deep water quays). Depth 51 ft. Quay Length 368 m.

Funiviaria Plant (Pier No. 22), depth 32 ft. 6 in., quay length 140 m.

Vado Ligure:

Porto Vado North, depth 34 ft., quay length 210 m.

Porto Vado South, depth 20 ft. to 23 ft., quay length 400 m.

Pier Italiana Coke S.p.A., depth 41 ft.

CRANES: The port is equipped with modern mobile cranes with the following capacities:

10 bridge cranes, capacity from 4.5 to 6 tons;

22 electric cranes, capacity from 1.5 to 20 tons;

18 mobile cranes, capacity from 15 to 150 tons;

2 mobile cranes, equipped with spreaders for handling containers.

SPECIALISED CARGO-HANDLING FACILITIES: Funiviaria Plant is equipped for quick discharging of cargoes in bulk (coals and ores) by means of 4 electric transporters capable of handling 1,100 t.p.h. It is directly connected to overhead wire railway, capable of carrying 400 t.p.h. to its storage, the capacity of which is 400,000 tons. Depth alongside 32 ft. 6 in.

Cereal Silo belonging to "Savona Silo S.p.A." with depth alongside of 35 ft. has a capacity of 60,000 cu. m., it is fitted with 2 pneumatic towers having an intake of 500 t.p.h. and one loading tower with capacity 300 t.p.h.

A 14 storey parking house capable of containing 3,000 cars. Ro/Ro terminal available.

Container terminal in Savona Basin includes an area of almost 50,000 sq.m., for the storage and the shifting of the containers.

Terminal in Savona Basin for cellulose and forest products includes 550 m. of loading quays for ocean-going vessels; roofed warehouse of over 8,000 sq.m.; 60,000 cu.m. capacity for 20,000 tons of goods; it is served by 1,600 m. of railways, 300 m. out of which are roofed; over 200 trucks available for forwarding goods by road.

Single storey warehouse for general cargoes having a capacity of 12,000 cu.m.

Vado Ligure: Pier San Raffaele is fitted for discharging and loading large vessels with cargoes in bulk (coal for the Italiana Coke S.p.A.).

South Unloading Pier: Length 160 m. Depth 41 ft. 2 slewing grabs, unloading rate 10,000 tons per day. Berth accepts vessels up to 50,000 d.w.t.

North Loading Pier: Length 128 m. Depth 30 ft. 1 loader, rate 2,000 tons per day. Berth accepts vessels up to 30,000 d.w.t.

Cereal Silo belonging to Messrs. Ceres S.R.L. is capable of handling vessels up to 60,000 d.w.t. Depth alongside 40 ft. Storage capacity 65,000 tons; discharging rate 800 t.p.h.; re-forwarding rate 500 t.p.h.

Reefer Terminal: Length of berth 300 m. Unloading/loading plant for foodstuffs and other refrigerated cargoes at Porto Vado North. The plant consists of conveyor belts which from the holds load goods directly onto trucks, railway-cars and vice-versa. The rate is about 300 tons per line (4 lines) per shift. Packages weight: up to 35 kg. Packages size: up to 600 mm.×500 mm.×350 mm. Refrigerated storage capacity 1,600 tonnes at -2°C.

STEVEDORES: Ordered by ship's Agent, no separate ETA required.

MEDICAL: All facilities available.

TANKERS: *Esso Pier:* Length 345 m. Depth at head 33 ft. Discharge rate 1,000 t.p.h. Storage capacity 200,000 cu.m. Vessel moors to buoys and uses anchor.

Berthing and Mooring: Night berthing is not permitted.

Normally, 1 tug is used by vessels of up to 14,000 d.w.t. and 2 tugs are used for larger vessels. The tugs tow on the hook using ship's lines. 1 tug is used for unberthing.

Vessels approach the berth from a general Easterly direction and are swung off the head of the pier and backed stern first into the berth. Vessels berthing at the pier head use both anchors with about 7 shackles in the water and secure lines from the stern to 4 mooring buoys near the pier head.

Agip Agrimont Pier: Length 700 m. Depth at head 39 ft. Discharge rate 700 t.p.h. Storage capacity at Vadoil 300,000 cu.m. Vessel moors using ship's anchor and 5 buoys. There is a berth along the North side for tankers unloading sulphuric acid, unloading rate 300 t.p.h.

Industria Italiana Petroli Pier: Length 420 m. Depth at head 31 ft. Vessel moors to 4 buoys. Discharge rate 800 t.p.h. Storage capacity in excess of 100,000 cu.m.

Isaoil Pier: length 435 m. Depth at Head 31 ft. Vessel moors using ship's anchor and 4 buoys. Discharge rate 250 t.p.h. Storage capacity 100,000 cu.m.

Berthing and Mooring: Night berthing is not permitted.

Normally, 3 tugs are used for berthing. The tugs tow on the hook using ship's lines. 1 tug is used for unberthing.

Vessels approach the berth from a general Southern position steering North. When about 500 m. off jetty head, starboard anchor is dropped. With tugs' help, the vessels are swung in order to present the stern to the head of the jetty. Port anchor is dropped. Normally 7 – 8 shackles of chain are used. The stern is moored with 2 lines on each of the 4 buoys. Vessels up to 15,000 d.w.t. can be moored, maximum draft is about 29 ft. Synthetic ropes are recommended.

Sarpom Buoyage: Approximately 1,340 m. from the Quiliano mouth there are the pipe-lines Quiliano-Trecate's buoys at a draft of 115 ft. for mooring tankers up to 260,000 d.w.t.

By means of its submarine piping they get a pumping rate of over 10,000 t.p.h. Its plant ashore contains a coastal storage from which goes a pipe-line 146 km. in length reaching the Sarpom refining mill (See "Quiliano Terminal").

DENSITY: 1025.

FRESH WATER: Can be supplied alongside the quay by hoses, rate of delivery 10 t.p.h. The cost amounts to 1,568 Lire per ton plus 9,507 Lire for the use of hose up to 50 m. long; plus 19,014 Lire for the use of hose up to 150 m. long; plus 28,521 Lire for the use of hose over 150 m. long. Possible to supply fresh water in roads, weather permitting.

FUEL: All grades available from major oil companies and supplied by barge only.

FIRE PRECAUTIONS: Tankers or vessels handling dangerous cargoes, are requested to use vigilance prevention fire service carried out by 2 men, one on board and the other ashore, supplied by the "Cooperativa S.Barbara III°" (fire brigade). No repairs or gasfreeing to be carried out without permission of Port Authority.

GANGWAY/DECK WATCHMEN: Optional, can be employed from shore if required.

HATCHES: Opening/closing hatches normally carried out by crew, on request stevedores can be arranged.

CUSTOMS ALLOWANCES: Bond sealed. 50 cigarettes or the equivalent in tobacco per person for the first day in port, wine and spirit allowance is made for normal daily consumption on board.

CONSULS:

Denmark	Tel. 28813	Netherlands	Tel.	821422
France	" 38451	Spain	"	821747
Malta	" 821404	Sweden	"	809471
Norway	821747			

REPAIRS: All types of repairs possible except drydocking.

In Savona the Classification Society is represented by the R.I.N.A. (Lloyd's Register of Shipping). The A.B.S., N.V., etc., are represented in Genoa (40 km. from Savona).

SURVEYORS: General cargo and bulk cargo Inspectors available at Savona or in case of need from Genoa. Petroleum Inspectors such as Saybolt-Van Duyn available at Siracusa with office in charge also for Savona.

Locally available only Italian Register of Shipping (R.I.N.A.) all other Classification Societies available from Genoa. The representative of Salvage Association available from Genoa.

REPATRIATION: All facilities available for crew changes, good railway connections.

AIRPORT: Genoa (Cristoforo Colombo) distance 40 km.; Milano (Malpensa and Linate) distance 210 km.; Torino (Caselle) distance 149 km.

TIME: GMT plus 1 hour. From April to September, GMT plus 2 hours.

HOLIDAYS: New Year's Day, (1st January); Town's Patron Saint, (18th March); Liberation Day, (25th April); Easter Monday; Labour Day, (1st May); Assumption Day, (15th August); All Saints Day, (1st November); Immaculate Conception Day, (8th December); Christmas Day, (25th December); Boxing Day, (26th December).

POLICE/FIRE/AMBULANCE: Police, Tel. 828868; Ambulance, Tel. 827272 (White Cross), Tel. 806868 (Red Cross); Fire, Tel. 33333 and 86244.

EMERGENCY CO-ORDINATION CENTRE: Harbour Master, Station of Savona. Tel: (019) 386656 (Officer on duty 24 hours a day).

TELEPHONE: Can be connected on board.

SERVICES: Cleaning of holds can be carried out by "Coop. Lavoro Marina"; Tank-washing is possible only if the washing water is kept on board. Compass adjusting performed by Prof. G. Manella, c/o Nautical Institute.

BANKS:

Banca D'America e D'Italia, Via Garibaldi, 5, 16100 Genova. Tel: 284141 (with automatic selection). Telex: Baigen 270023.

The above bank is a branch of Bank of America, San Francisco.

Banca Commerciale Italiana, Via Paleocapa, 121 r. Tel: 386407. Telex: 270059.

Banca Nazionale del Lavoro, Piazza Marconi, 3. Tel: 802061. Telex: 270313.

Banca Popolare di Novara, Piazza Diaz, 41. Tel: 828881. Telex: 331037.

Banco di Napoli, Via Vegerio, 27. Tel: 37285. Telex: 271092.

Banco di Roma, Piazza Diaz, 48. Tel: 21902. Telex: 616184.

Cassa di Risparmio di Savona, Corso Italia, 10. Tel: 83111. Telex: Carisa 271075.

Istituto Bancario S. Paolo di Torino, Corso Italia, 90 r. Tel: 802051. Telex: 270514.

SHORE LEAVE: Allowed. Launch service available for vessels on the roads.

IDENTIFICATION CARDS: Shore passes issued by the Immigration Office.

DELAYS: Normally no delays expected.

STORING: See "Prelims".

1. Vessel can be stored both by barge or truck.
2. Vessel can store from barge during loading or discharging.
3. Trucks can proceed along side at the berth only in the commercial port and not at the private piers.
4. Fork lift trucks can be used on the jetty to handle stores.
5. Goods which make up stores loaded or transhipped on vessels sailing from Savona, are considered goods in-transit or re-exportation when foreign and considered final exportation when national or nationalised goods.
6. Local riggers and on request stevedores can be employed to assist with storing.

SHIP SUPPLY SERVICE: Provisions are supplied by the local ship chandlers who by their own motorboats can join off-shore ships (about 20 miles from the harbour).

Names and addresses are as follows:

La Naval Provveditoria, Via Quarda Superiore 3-2, 17100 Savona (Italy). Tel: 822715. Cables: Navalprovis.

Francesco Baglietto & Figlio, Via Quarda Inferiore 40-42-44 r., 17100 Savona (Italy). Tel: (019) 21587. After hours (019) 803987. Telex: 271120. FAX: 019-386385.

Montanari s.r.l., Via del Molo 3 r., 17100 Savona. Tel: (019) 25047 – 26749.

For vessels not alongside a quay, crew and passengers are landed by the motorboats of the following firms:

I.M.A.R.T. s.n.c. di Spezialetti – Saccone & C. Impresa Marittima Artigiana Rimorchi Trasporti, Corso Vittorio Veneto 50/10, 17100 Savona (Italy). Tel: (019) 802537 – 828917.

NASTASI s.a.s. Trasporti Marittimi Locali di Merce – Servizio rada persone, Calata P. Sbarbaro – Zona 21, 17100 Savona (Italy). Tel: (019) 821224.

Boschi Italo & Matini Giuseppe, Trasporti con motobarca, via Brilla 6/2, 17100 Savona (Italy). Tel: (019) 881523.

Canneva Umberto, Calata P. Sbarbaro, 17100 Savona (Italy). Tel: 25263.

Polimone Carlo, piazza D'Alaggio, 17100 Savona (Italy). Tel: (019) 20652.

Any extra or emergency services can be carried out by the tugs owned by:

Soc. Carmelo Noli fu Giovanni, Sbarchi Imbarchi Spedizioni Rimorchi, Piazza Rebagliati 3, 17100 Savona (Italy). Tel: (019) 821254, 821118. Telex: 272293.

Name	*g.r.t.*	*LOA (m.)*	*h.p.*	*Class*
Luigi Noli	398.00	37.90	3,000	Ocean going
Lombardia	197.52	31.11	2,500	Ocean going
Piemonte	197.52	31.11	2,500	Ocean going
Carmelo Noli	274.30	33.36	1,700	Ocean going
Giuseppe Piaggio	177.45	27.74	1,600	—
Capo Vado	176.20	27.74	1,250	—

DEVELOPMENTS: Container terminal under construction in Vado Basin.

AUTHORITY: Ente Autonomo del Porto di Savona, via Gramsci 14, 17100 Savona, Italy. *Tel:* 802021 (with automatic selection). *Telex:* 271462 EAP SV. *FAX:* 019-827399. *Cables:* Portautonomo, Savona. *Contact:* Dr. Giovanni Bono, Managing Director.

TARANTO: 40.29 N. 17.13 E. (See Plan)

DOCUMENTS:

6 Crew Lists.
6 Passenger Lists.
Provisions Manifest.
Manifest of Crew Personal Effects.
Cargo Manifest.
Arrival Report, completed on arrival.
Maritime Declaration of Health Certificate, completed on arrival.
Ship's Certificates including Italian Anchorage Dues.
Vaccination Certificates for sighting.

PILOTAGE: Pilotage is obligatory for vessels over 500 g.r.t., both for entry and leaving from Mar Grande. The Pilot boards arriving vessels at a distance of not less than 1 mile from the lighthouse of Capo S. Vito, and leaves on sailing when the line between the S. Vito and S. Paolo lights has been passed.

RESTRICTIONS: Entry allowed day and night.

In Mar Grande, the bottom slopes gradually upwards from the mouth (more than 30 m. at the centre) to the facing coastline (about 14 m.). In Mar Piccolo, the maximum depth of 12.5 m. in the first inlet and of 9.5 m. in the second inlet which slopes upwards towards the coast.

Vessels drawing more than 16 m. must pass to the West of the light buoy with radar reflector located about 1 mile to the South of the mouth of Mar Grande and which indicates the Western limit of two areas of 17 m. and 18 m. depth.

Passage through the navigable channel: Merchant vessels whose passage necessitates the opening of the swing bridge and all foreign flag vessels must obtain authorisation to pass through the channel from the Port Captaincy. Methods of passage are indicated in the Mediterranean Sailing Directions.

Prohibited Areas: To the South of the Islands of S. Pietro and S. Paolo is an area in which transit is prohibited.

MAX. SIZE: Tankers up to 72 ft. draft may berth at buoy mooring.

Also see "Berthing".

HEALTH: Free Pratique is automatic for vessels coming from E.E.C. countries. From other countries it may be obtained via radio, by applying to "Sanimare Taranto" between 12 and 6 hours before arrival.

Yellow fever vaccinations could be arranged by calling Bari port doctor to Taranto with two days' notice.

RADIO: Vessels at sea may communicate with Taranto by the following means:

By R/T via Crotone Radio, listening continuously on 2182 kHz.
By VHF via Bari Radio, listening on Channel 16 from 0600 – 2400 hrs.
By VHF via the Port Captaincy, listening continuously on Channel 16 and the Pilot Station listening continuously on Channel 12 (Pilot service and safety only).

Tankers: Tankers carrying/or to load over 2,000 tons of petroleum products have to send a cable 36 hours in advance to "Compamare Taranto" containing the following details:

Ship	Type/call sign/name/flag/g.r.t./n.r.t./d.w.t.
Age	Age of the ship/LOA/draft fore-amidship-aft.
Arr	ETA to pilot station.
Cargo	Type/quantity of cargo on board/or to be loaded.
Fire	If vessel equipped with inert gas system and its efficiency.
Solas	Whether Safety Certificates issued according to Solas 1960 or Solas 74/Protocol 78 or Solas 74.
I.O.P.P.	Date/place/validity I.O.P.P. Certificate.
Paris	Date and place where carried out last 6 monthly inspection in European ports in accordance with Paris 1982 memorandum.
Poll	Date and place of issuance/validity of Certificate of Insurance or other financial security in respect of civil liability or oil pollution damage – not Tovalop.
Remarks	Any news concerning deficiencies to hull/engine/steering gear/safety equipment.

Tankers belonging to countries who are not signatories to the Solas 74/Protocol 78, will have to anchor in Mar Grande Roads and are subject to a visit by the authorities as per Memorandum of Understanding on Port State Control.

TUGS: 6 tugs (1,000–1,920 h.p.), available. Compulsory for vessels over 20,000 g.r.t., 2,000 g.r.t. carrying hazardous cargo and vessels which have to pass through the navigable channel.

BERTHING: *Outer Harbour:* Quay Nos. 1/2, combined length, 1,050 ft. (32 m.); max. draft, 26 ft. 3 in. (8 m.); Quay No. 3, length, 820 ft. (250 m.); max. 27 ft. 10 in. (8.50 m.).

Italsider Pier: *Eastern side* (for discharge of ore, coal, steel scrap): length, 4,456 ft. (444 m.); depth alongside 52 ft. 6 in.; max. draft allowed 50 ft. Vessels up to 200,000 d.w.t. have berthed at Italsider Jetty No. 4. Length 1,353 ft. Depth alongside 80 ft. Discharge rate for iron ore (2 Dravo unloaders) 1600–2400 m.t.p.h. Discharge throughout 24 hours.

Also see "Regulations".

Western side (for discharge and loading of finished goods): length, 1,566 ft. (477 m.); depth alongside 33 ft.

Safety: During Winter time, berths are subjected to heavy swell which may force vessels to leave same, as the breakwater effectively protects only the Eastern side. However, work is now in progress to lay new breakwater, which should also render safe the Western side.

Head of the Pier: Width, 448 ft. (136.55 m.); max. length of vessel, 459 ft. (140 m.) or up to 525 ft. (160 m.), subject to vessels laying at Western and Eastern sides being berthed at not less than 164 ft. (50 m.) from head of pier; depth alongside, 32 ft. 8 in., (10 m.).

Cement Pier: Max. depth is 8.50 m.; suggested max. draft 8.20 m. (26 ft. 10 in.); max. vessel length acceptable, 120 m.; rate of loading (in bulk): up to 280 mt.p.h.; (in bag): up to 35 mt.p.h.

TANKERS: *Aviation Gasoline Oil Jetty:* Tankers moor with 2 anchors and with stern made fast to 4 buoys. Connection by stern. Vessel lifting up hoses (9 in.) from the jetty (breadth 9 ft., length 1,476 ft.). Length of pipe-line from 0.5 to 1.5 miles.

Access to vessel by boat. No water or bunkers available. Max. draft 25 ft. Night crossing of Mar Piccolo up to and from jetty is not allowed.

Navy Oil Jetty: Pier, terminating in 2 quays, which may accommodate 2 vessels each. Max. draft 33 ft., hoses 300 mm. Night movements allowed.

Petroleum Pier: Exclusively used for handling petroleum products at its 4 berths and is connected by several pipe-lines with Shell Italiana Refinery, as well as with the bulk plants belonging to Agip, and Industrie Chimiche de Gaeta, which are all located in the industrial area of Taranto adjoining the petroleum port. Access to the pier is through a dock 350 m. long and 33 m. wide. The pier itself is 560 m. long.

Berth Nos. 1 and 2 (after berths), max. length of vessel, 175 m. (557 ft. 3 in.); max. draft, 9.50 m. (31 ft. 2 in.). Max. depth, 10 m. (32 ft. 9 in.). Bunkers from line, (8 in. hose, 10 in. pipe-line). Water, by barge. Loading arms, 2 of 10 in., 3 of 8 in.

Berth Nos. 3 and 4 (fore berths), max. length of vessel, 208 m. (682 ft. 5 in.); max. draft, 10.50 m. (34 ft. 5 in.); max. depth, 11.00 m. (36 ft. 1 in.). Bunkers and water, as per berths 1 and 2. Loading arms, 6 of 10 in.

Pier is fitted with 1 line for each product to be loaded (14 lines) and a 20 ft. line for ballast discharge. Any quantity of ballast may be received by the pier. Access to the pier for provisions only via boats.

Shell CBM: Shell Terminal for discharge of crude oil is situated in Mar Grande N.E. of St. Paul's Island. Distance 3,000 m., and bearing 048° from light at the head of St. Paul Breakwater. Vessels moor at Q Buoys with port anchor down. Buoys are equipped with intermittent red lights and quick-release hooks.

The hoses (2×12 in.) are signalled by marker floats and have to be lifted by vessel with derrick capacity at least 8 tons. The terminal is connected with the refinery by a 34 in. pipe-line, 5 km. long. Max. length acceptable 330 m., max. draft 72 ft., max. d.w.t. 200,000 tons.

2 tugs recommended for berthing with good weather and without North-westerly winds. Night mooring and unmooring allowed.

Agip/Anic Terminal: Vessels moor with 2 anchors and with stern made fast to 4 mooring buoys.

Maximum draft 26 ft. 3 in. (8 m.). Under rough weather conditions vessels may have to leave the terminal, position being exposed. No mooring at night allowed, while unmooring is permitted. Supplies, bunkers, water, and connections with vessel by barge.

For methanol, tank inspection is usually carried out in the roads, before berthing.

Pozzi Ferrandina SPA Terminal: 3 sea lines, the hoses of which must be lifted from the sea bottom by ship's gear. 1 sea line (6 in.) is used to load methanol and 1 (6 in.) to load soda. Third (3 in.) sea line is for water. Port side hose connection. Pipe-line length 0.25 miles.

Vessels moor with starboard anchor and made fast to 3 buoys astern and 1 port. Night movements are not allowed. Max. draft 22 ft. Max. length 85 m.

Industrie Chimiche Di Gaeta, G.I.D. Terminal: Situated further West of Pozzi Terminal, it has 3 sea lines with hoses of 6 in. and 10 in., which have to be lifted from sea bottom.

Vessels moor with port anchor and make fast to 3 buoys astern and 1 buoy forward starboard. Max. draft 22 ft. Night movements not allowed.

BRIDGES: 1 bridge in Inner Harbour. Opening times: 0020 – 0420 hrs., 0830, 1510, 2110 hrs. Opening on Agent's request to Harbour Master (24 hours' notice requested for day opening time). Max. speed in the canal, 6 knots.

MEDICAL: Civil hospital and private clinics, also military hospital and ambulance service of Italian Red Cross.

STEVEDORES: Available. Normal working from 0700 to 1500 hrs. For work performed in overtime/and/or holiday, the "Tariffs to the Workers" are increased as follows:

Day	*Shift*	*Increase*
Weekdays	1500–2300 hrs.	40%
	2300–0700 hrs.	80%
Saturday	1100–1500 hrs.	40%
	1500–2300 hrs.	40%
	2300–0700 hrs.	80%
Sunday	0700–1500 hrs.	50%
	1500–2300 hrs.	80%
	2300–0700 hrs.	100%

DENSITY: 1029 – 1031. Tides negligible. Maximum variation 1 ft.

FRESH WATER: Available at all quays from 0700 to 1700 hrs. Also available by barge of up to 190 tons capacity.

FUEL: Available by barges from Agip; Shell and Sincat. 48 hours' notice requested, aside from usual stemming. Also available at the tanker berths by pipe-line.

Lubricating Oil. Available from Shell, Mobil and Esso.

FIRE PRECAUTIONS: Performed by fire brigade and compulsory to all tankers undergoing repairs/dry docking. It is requested and paid for by the shipyard, which afterwards charge same directly to the Owners.

GANGWAY/DECK WATCHMEN: Available. Hourly cost, lire 450 per watchman used (lire 500 on Sunday and holiday).

OPENING/CLOSING HATCHES: Usually carried out by crew, but stevedores also carry out this operation.

CUSTOMS ALLOWANCES: 40 cigarettes and 1 opened bottle wine/spirits per man.

IDENTIFICATION CARDS: Required. Shore passes issued by local police.

CONSULS: Spain, France, Panama and Norway.

REPAIRS: All major repairs undertaken.

DRY DOCKS: 2 floating docks owned by Stabilimenti Navali Societa per Azioni Taranto (Telex: 860020) with dimensions as follows:

	Dock No. 1	*Dock No. 2*
Length at support level	699 ft. 8 in.	808 ft. 4 in.
Length overall	765 ft. 4 in.	869 ft. 4 in.
Breadth at support level	121 ft. 3 in.	137 ft. 1 in.
Depth	29 ft. 8 in.	27 ft. 9 in.
Lifting capacities	28,000 tons	40,000 tons

Max. draft acceptable in channel leading to the shipyard is 33 ft.

REPATRIATION: Good facilities exist.

AIRPORT: Located at Grottaglio, 20 minutes by car from the city. It is served by 4 daily connections with Rome, and 1 to Naples.

TIME: GMT plus 1 hour in Winter. GMT plus 2 hours in Summer.

HOLIDAYS: New Year's Day (1st January); Epiphany Day (6th January); Saint Joseph's Day (19th March); Liberation Anniversary (25th April); Easter Monday; Ascension Day (19th May); Corpus Domini Day (9th June); Labour Day (1st May); Republic Foundation's Day (2nd June); Saint Peter and Paul's Day (29th June); Assumption Day (15th August); All Saints' Day (1st November; National Unity Day (4th November); Immaculate Conception Day (8th December); Christmas Day (25th December); Saint Stephen's Day (26th December); Town Saint Patron's Day (10th May), at Taranto.

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TELEPHONES: No facilities for placing telephones onboard. Vessels in the roads may make connection via VHF radio.

SERVICES: Compass adjusting, divers, frogmen, daily refuse collection, etc. available.

Slop collection: Societa Armatoriale, Taranto provide a slop collection service for ships passing by Taranto.

The slop-ship Panda (about 16,000 cu.m.) is equipped for removal of bilge water, dirty ballast and slops, having a loading rate of about 200 cu.m./hr., with oil/water separators capable of 150 cu.m./hr.

The company's mailing address is Societa Armatoriale Srl, Corso due Mari 18, 1-74100 Taranto, Italy. Telex: 860864 (AB: diver i).

SHORE LEAVE: Allowed.

GENERAL: The port area of Taranto comprises of areas:

Mar Grande:

(a) The commercial port defined to the East by the S. Eligio Mole and to the West by the first projection (S. Cataldo Mole).

(b) The industrial port defined to the East by the second projection and to the West by the fourth projection of the industrial sector, and also to the West by Punta Rondinella, beyond Mar Grande.

(c) The oil port constituted by the I.P. Pier (this also includes Agip and Montedison), by the pipe-line terminals of Agip and Anic-Liquichimica, together with the I.P. buoyed area.

(d) The military pier of Chiapparo as far as operations of merchant vessels are concerned.

Mar Piccolo:

(a) The Cariati and Garibaldi Berths.

(b) The berths and basins of the Taranto Shipyards.

(c) The Military Aeronautical Forces Pier as far as operations of merchant vessels are concerned.

The usages of the berths in the port of Taranto, apart from various contingent arrangements made by the Port Captaincy Command, are as follows:

Commercial Port: S. Eligio Mole: For bunkering from land to vessel, for restocking bunker deposits, for embarkation of port services: Pilots, mooring gangs, fire watchmen, for the launches of Customs and Police. In relation to the requirements of the port services at S. Eligio Mole, vessels carrying various cargoes may also berth.

S. Eligio Berth: For pontoons and tugs.

Wharf No. 1 (Commercial Berth): Intended for commercial traffic.

1st projection (S. Cataldo Mole): Intended for commercial traffic.

Wharf No. 2 (between the 1st projection of S. Cataldo Mole and the 2nd Italsider projection): Intended for commercial traffic.

Industrial Port: (Partly under concession to Soc. Italsider of Genoa for the Fourth Taranto Ironworks and partly to Soc. Cementir).

2nd Italsider projection: East Side: For discharging ore and coal. Head: For discharging Category C oil products; West side. For loading and discharge of metal products.

Wharf No. 3 (between 2nd and 3rd Italsider projections): For loading and discharging metal products.

3rd Italsider projection: East and West Sides: For loading and discharge of metal products. Head: For discharging Category C oil products.

Wharf No. 4 (between 3rd and 4th Italsider projections): For loading bagged cement.

4th Italsider projection: East Side: For discharge of iron ore and coal, and for loading bulk cement.

Italsider Mole (new port basin to the West of Punta Rondinella): West Side: For loading and discharging metal products.

Oil Port: (Under concession to the companies I.P., Agip, Montedison and Anic-Liquichimica). For loading and discharge of oil products of all hazardous categories and chemical products.

Cariati Berth: For motorised fishing vessels and small fishing craft.

Garibaldi Berth: For fishing vessels and laid-up craft.

REGULATIONS: *Safety Regulations for Coal Vessels:* Vessels arriving with coal for Taranto should follow the following safety procedures:

The Master has to cable (Prior to entering port) to the Harbour Master, Taranto (cable "compamare taranto", telex 813199 compta) stating:

1. a) Dangerous coal characteristics according to IMO Regulations, i.e. to which class does the coal belong.
   b) That crew shall adhere to IMO requirements in handling such cargo.
   c) That opening devices for hatch covers have been recently checked/maintained.
   d) That cargo does not show any sign of self-combustion.
   e) That hatch opening operation shall be carried out taking into due consideration every precaution suggested by the type of cargo.
2. Should all requirements as per No. 1 not be duly fulfilled, the Harbour Authorities shall order the vessel to be placed in a safe position and wait for the port chemist to attend on board.
3. Unloading operation is subject to previously opening and ventilating all holds and adjoining spaces which might contain gas.
4. In addition to all safety rules enforced by the Port Safety Regulations and competent authorities, safety regulations are to be followed during sea passage, while lying in roads or at port, i.e. signs must be displayed prohibiting smoking, use of naked flames, chipping or using any other ignition source close to the cargo spaces or any adjoining space.

   Any possible repair work must be authorised by Port Authorities.

   Similar signs must be shown under receiver's care on quay.
5. No incompatable activities can be carried out on board the vessel and/or on the quay. No repairing/maintenance work can be carried out within 15 minutes from holds opening.
6. All necessary precautions must be taken during discharging operations to avoid cargo spilling in sea to prevent any pollution.

AUTHORITY: Il Comandante Colonello di Porto. *Telex:* 813199 Compta I.

TORRE ANNUNZIATA: 40.45 N. 14.27 E. (See Plan)

DOCUMENTS and all General Information – refer to "Naples".

Arrival: An inspection is made on board by the Finance Guard (Customs Department) to check cargo documents in respect of goods and the composition of provisions on board. Then the Master of the vessel or his Representative (Ship's Agent) presents to Customs the manifest for arrived goods together with relative commercial documents. At the request of the Ship's Agent, the landing of goods is authorised on the "Discharge Copy" of the manifest which sets out each individual item to be landed.

Goods can be discharged into the Customs Warehouse or Private Warehouse to await Customs Clearance.

Departure: Prior to departure of vessel, the Customs releases a departure manifest, setting out a list of any goods in transit or destined for other Italian or foreign ports.

PILOTAGE: Pilotage is obligatory for vessels over 500 g.r.t., and is effected by 2 Pilots of the Castellamare di Stabia Corps of Pilots. Tel: 8717196. Pilots use a wooden pilot cutter 10 m. long and with a speed of 10 knots.

RESTRICTIONS: Entry permitted during daytime only for vessels in excess of 80 m. LOA.

Mainly a fishing port with few facilities for larger vessels. Reported not to be suitable for larger vessels during winter months due to frequent high winds and heavy swell within the harbour.

MAX. SIZE: Length 472 ft., draft 30 ft.

VHF: Radio station of the Port Captaincy, with VHF unit operating between 0800 hrs. and 2000 hrs., listening out on Channel 16, and working on Channel 15.

TUGS: The port has no resident tugs available; if required, they can be requested from Naples.

3 line boats available to assist with mooring.

BERTHING: *Calata Crocelle:* 1 berth only. Length 315 m. of which 200 m. is in use. Depth alongside 6 m. – 7 m. Used for commercial operations and by fishing vessels.

Molo di Levante: 1 berth only. Length 250 m. Depth 8.5 m. – 9 m. Used for commercial operations; general cargo, cereals, iron pipes, etc. 2 towers each with 2 suction pipes, rate of each tower 600 t.p.h. The silo is owned and operated by Societa Lavorazione Cereali del Mezzogiorno (Tel: (081) 8615991).

CRANES: 1×20 ton quay crane, 1×40 ton mobile crane.

CARGO HANDLING FACILITIES: 1 grain silo, capacity 60,000 tons, loading rate 1,200 t.p.h. Loading onto rail trucks or lorries by gravity using hoppers with overall delivery rate 250 t.p.h.

STEVEDORES: Working Hours: 0800 – 1200 hrs. and 1300 – 1700 hrs.

MEDICAL: Port doctor available. Hospital with 100 beds.

FRESH WATER: Available.

FUEL: Available. By tanker or barges owned by Messrs. Garolla of Naples.

WATCHMEN: Not available.

AIRPORT: Naples Airport (Capodichino) is 23 km. away, and has domestic services to Rome, Milan, Bologna, Brindisi, Catania, Genoa, Palermo, Turin, with 2 international flights per week to London.

BANKS: Banca Commerciale Italiana, Corso Umberto I 153. Tel: 8615100.

Credito Italiano, Corso Vittorio Emanuele III^{e} 307. Tel: 8615240.

Banca Nazionale del Lavoro, Via dei Mille. Tel: 8612003.

EMERGENCY CO-ORDINATION CENTRE: Comando in Capo del Dipartimento Militare Marittimo del Basso Tireno (Military Naval High Command for Lower Tyrenia), Via Santa Lucia, Naples. Tel: (081) 406244.

STORING: See "Prelims".

1. Yes, using own means of handling.
2. Yes.
3. Yes.
4. Yes.
5. See above.
6. Yes.

SURVEYORS: None.

GENERAL: The port has no Ship's Agents, Forwarding Agents, or Naval Suppliers.

Two road vehicle weighing bridges on the East Mole, one operated by Customs with a capacity of 40 tons, and one by SO.LA.CE.M. with a capacity of 80 tons.

There are ample electric train services to the rest of Italy from the town station. Torre Annunziata is connected by motorways (A3) with Naples and Salerno, and by main roads to Naples, S. Giovanni Teduccio, Salerno and Sorrento.

Post, telegraph and telephone offices are a short distance from the port in the town.

One lifeboat, 2 engined with a speed of 24 knots, 5.3 m. long, owned by the State and operated by Circomare.

There is no Fire Brigade.

The port is subject to a slow siltation process due to the River Sarno which comes into the sea 1 mile to the South.

The cross wind is from the West. The Scirocco and the Libeccio cause a strong dangerous surf for vessels berthed at the quays.

The tide brought up by the Libeccio sometimes comes right over the West Mole.

When works currently in hand are terminated, involving the construction of a small elbowed quay about 130 m. long in the West area of the port, this will supply a safe berth for fishing vessels, which will also be advantageous for the nearby Calata Crocelle, which will thus remain available for commercial operations only. There are good areas for future development.

DEVELOPMENTS: Calata Crocelle being extended by 35 m. West Breakwater being extended.

AUTHORITY: Ufficio Circondariale Marittimo di Torre Annunziata, Porto di Torre Annunziata, 80058 Torre Annunziata. *Tel:* (081) 8611855, 8622978. *Contact:* Lieut. Pietro Lafata, Port Captain.

TRIESTE: 45.39 N. 13.45 E. (See Plan)

PORT LIMITS: From Barcola (4 km. East of Capo Miramare) to Zaule, in the Muggia Bay. The roadstead is 18/24 m. deep. If Readiness is declared before 1200 hrs. laytime commences at 1300 hrs. If readiness is declared between 1200 hrs. and 1700 hrs. laytime commences at 0800 hrs. the following day. The declaration of "Readiness" is made when the ship docks at the operative pier or when the ship anchors in the roadstead.

ANCHORAGE: No Pilot required to anchor in roads. Normal anchorage for vessels awaiting entry is to the West of Luigi Rizzo Breakwater where the holding ground has been reported to be poor.

DOCUMENTS:

For Customs:
2 Cargo Manifests.
1 Stores List.
1 Provisions List.

For Port Authorities:
Arrival Report.
2 Crew Lists.
3 Passenger Lists.

For Police:
1 Crew List.
1 Passenger List.
Shore Passes, provided by Agents.

For Port Health:
Maritime Declaration of Health.
Also see "Shipmasters Report".

PILOTAGE: Compulsory for vessels over 499 g.r.t. Location of pilot station for large tankers is in approximate position: Lat. 45° 37′ N., Long. 13° 43′ E. Call Pilot on VHF Channel 14, working Channel 10.

For smaller vessels Pilot boards in approximate position: Lat. 45° 39′ N., Long. 13° 44′ E.

MAX. SIZE: Tankers up to 1,000 ft. LOA, draft 54 ft. 3 in. and 160,000 S.D.W.T. at SIOT Terminal Berth No. 3 and 1,076 ft. and 215,000 S.D.W.T. at SIOT Berth No. 4.

HEALTH: Free Pratique is granted by the Local Health Officers who board the vessels on arrival together with Port Authorities. The Pratique can also be requested by cable, addressed to "Sanimare – Trieste" and stating the port of origin, the number of crew and general health condition on board.

RADIO: Trieste Radio call sign IQX, operating continuously. Radio Telephony and/or telegraphy can be used. RTF Channels 8, 12, 16, and 500. ETA to be sent 48 hours in advance to Agent. Any change of ETA of more than 1 hour should be reported.

VHF: Harbour Master – call sign 'Compamare Trieste' on Channel 16. Also see "Pilotage" and "Tugs".

TUGS: 8 tugs available up to 3,000 h.p. 6 tugs also available up to 1,500 h.p. Tugs normally join vessel at pilot boarding station. Ship's lines used. Tug assistance is compulsory for tankers. Tugs equipped with VHF and foam fire fighting equipment. VHF working Channels 10/12.

BERTHING: Max. draft allowed at berths as follows:

Punta Franco, Vecchio, ore pier, 28 ft.; Other berths, 21 ft. Punto Franco, Nuovo, ore pier, 30 ft. silos, 31 ft. 5 in.; general cargo, 31 ft. Punto Franco, Scalo Legnami, 24 ft. Molo Martello, 30 ft., max. length of ship, 171 m. Italsider, berths, 45 ft.

Pontile Aquila, oil pier, 38 ft. Italcementi, berths, 30 ft. Vetrobel, berth, 30 ft. A.F.A., berth, 21 ft.

Mole No. 7 (Container Terminal), max. draft 52 ft.

SPECIALISED CARGO HANDLING FACILITIES: Wheat storage-bin for cereals and oil-seeds, capacity 30,000 tons, with 4 pneumatic unloaders. Auxiliary set, capacity 16,000 tons, with 3 pneumatic dockers.

Coal and ore discharge at Pier 5: 3×6 ton bridge cranes and 6×6 ton jib cranes. Discharge rate 200 tons per shift. Max. draft 9.5 m.

Coals and minerals plant, Molo V, with 7 cranes and 3 bridge cranes.

Coals and minerals plant Italsider pier with two 25-ton unloaders. Rate 400 tonnes/hr. for coal and 500 tonnes/hr. for iron ore.

Unloading, loading, alcohol and other liquid stowage plant, capacity 5,340 cu.m.

Maturity, conservation and disinfestation fruits and vegetables plant.

Refrigerant, capacity 3,700 tons.

Container Terminal: Quay length 650 m., total area 20 ha. 4 rail-mounted 42 ton gantry cranes (portainer) and other modern and special installations for unloading/loading, moving and parking containers.

Roll-on/Roll-off: 3 ramps at Mole No. 7.

STEVEDORES: The working hours for the harbour operations are: 1st turn from 0730 to 1400 hrs. 2nd turn from 1400 to 2030 hrs. On Sundays and holidays the 2nd turn is limited to ferry boats, container ships, unloading/loading of live animals, and to perishable goods operations. Customers can take advantage of a possible 3rd turn in the labour days, Monday to Friday, from 2100 to 0330 hrs.

Night work, Sundays and holiday work, the 2nd turn of Saturday and the continuation of the turn is considered as overtime work.

MEDICAL: All facilities available. Preferable order in advance if required on holidays.

TANKERS: No slop discharge facilities; no repairs allowed to tankers at loading/discharge berths; no trucks or lorries allowed at Aquila Oil Pier which can only be approached by motor boats.

Restrictions: Night berthing is not permitted at the Aquila berth except for tankers under 3,000 d.w.t.

When the temperature is below 0°C, vessels calling at the Aquila berth, may, on occasions, not be berthed on account of ice layers forming on the surface of mooring buoys.

Berthing operations are also restricted at all terminals when wind exceeds 80 km./hr. (43 knots).

Cautionary Advice: The Bora is a violent Northeasterly wind, which in the Port of Trieste blows from a general East-Northeasterly direction. It is exceptionally strong from November through February and can, within a few hours, reach gale or hurricane force. The Bora is accompanied by a rise in barometric pressure and a drop in temperature, and freezing conditions can occur.

A very close watch on weather and moorings is therefore necessary at all berths in the harbour.

Tugs: Towage is compulsory for vessels over 3,000 gross tons.

Berthing Operations: Usual seamanship precautions must be taken approaching berths.

Wires are permitted after the vessel has been bonded using bonding wires.

Pilot/tug/mooring boat communications during berthing operations are carried out by walkie-talkie.

Two mooring boats are normally used.

Transalpine Pipe-line Terminal (SIOT).

The following are some of the regulations for vessels calling at SIOT.

REGULATIONS

Arrival of Vessels: No vessels may enter the SIOT port area except in strict compliance with instructions issued by SIOT.

Extraordinary Docking Conditions: Damaged vessels must report to SIOT well in advance of their date of arrival at the port area. Should SIOT consider a vessel to be unsuitable for discharge at the terminal, said vessel may be refused admission, or ordered to lay off, even after discharge operations have been started, or be admitted for discharge only on specially defined terms.

Docking and Sailing Manoeuvres: SIOT does not assume any responsibility for the docking or sailing manoeuvres of any vessel, including towage and mooring and for any pollution caused by the vessel. Pilotage and sufficient number of tug-boats with efficient power are compulsory.

Mooring Operations:

1. The right to assign a berth to incoming vessels for the discharge of cargo rests with SIOT.

2. All vessels must securely and tautly be moored at all times when at jetty. Masters' attention is drawn to the peculiar conditions of Bora wind which can blow with little warning and with extreme violence. Hawsers and mooring lines must be secured on quick release hooks and pulleys provided for the purpose.

3. Access to and from a vessel will be established by way of a SIOT gangway. The gangway will not be placed on board before the following conditions are met:

a) The vessel must be securely moored.

b) The vessel must be earthed to the jetty.

4. Access from the ship's deck to the gangway, if required, is to be provided by the vessel.

Traffic Within the Port Area:

1. Access to or from a vessel is not permitted until the vessel has been properly cleared by the appropriate Authorities.

2. Employees and Representatives of SIOT on duty must be granted access to the vessel to perform their tasks, the Master or his representatives shall furnish them with all pertinent data that SIOT may require and must give them permission to personally inspect all facilities necessary for handling cargo.

3. Passes provided by the Police must be issued by the Master to crew members and other for shore leave purposes.

4. Any person wishing to enter the SIOT port area must have in his possession a pass as prescribed by SIOT and the Authorities. Once in the port area he must report to the Pier Master for the necessary instructions regarding behaviour in the port area.

5. All traffic between the ship and shore as far as it must pass through the premises of SIOT is restricted exclusively to the tanker jetties and their access roads. Unless specially authorised no motor vehicles are allowed on the piers. All transportation will be performed by a special bus-service provided by SIOT.

Cargo Operations:

1. Before receipt of a cargo, SIOT, on behalf of the consignees will measure the contents of the tankers' cargo tanks at Trieste or may accept a measurement made prior to the arrival at Trieste and will take an average sample.

The binding determination of the quantity received by SIOT will be made by means of manual gauging in the storage tanks of Trieste Tank Farm or with the aid of automatic measuring device and according to the legal, Customs and fiscal requirements.

If the measurements in the storage tanks at Trieste Tank Farm show a difference exceeding 0.5% of the quantity in metric tons stated in the loading documents, SIOT will notify in writing the Master, if possible, advising at the same time the consignee.

2. All sea valves, overboard or other appropriate valves, isolating the cargo system from the sea, must be closed prior to the start of discharge operations and must be checked and where possible sealed. Where tankers are fitted with normal ballast system such sealed valves may only be opened with the consent of SIOT and providing alternative cargo isolating valves can be closed and sealed.

In all other cases valves must remain sealed and closed throughout discharge. Authorisation to open these valves must be obtained from SIOT prior to ballasting.

3. Discharge operations should be carried out as far as possible, without interruption and within the shortest possible time. The maximum pressure permissible on the shore gauge is 10 bar.

4. The completion of discharge shall be agreed by both, SIOT and the Master and if required by the Master or the consignee, both shall sign a "Qualified Certificate on the Petroleum Remaining On Board".

5. Should any complaint arise which may have a bearing on the quantity or the quality of the cargo, or on the discharge operations, SIOT will lodge a protest in writing, the receipt of which must be confirmed by the Master.

6. Inert cargo tanks and tank washing with petroleum:

a) Discharge of inerted ship tanks and tank washing with petroleum when agreed to by the Port Authorities will only be permitted when it is carried out in full accordance with the "Guidelines for Tank Washing with Crude Oil", latest edition, published jointly by: International Chamber of Shipping and Oil Companies International Marine Forum London.

b) In particular, inerted cargo tanks of vessels shall remain sealed and kept under positive inert gas pressure throughout the stay alongside except as required for cargo measurement and sampling.

Vessel Berth Occupancy:

1. The estimated discharge time and time for normal ballast operation shall be mutually agreed between SIOT and the Master or his authorised representative.

2. The pumping program shall be determined in agreement between SIOT and the Master. SIOT is entitled to interrupt discharging and have the berth cleared in case of emergency.

3. Upon completion of the discharge and ballast loading the vessel shall clear the berth subject to consideration of safety. Bunkering and fresh water loading, if required, shall, if possible, take place during discharge.

4. As berth occupancy time, tankers shall be allowed the running hours tabled below appropriate to the cargo quantity, Sundays and holidays included:

Cargo Quantity (1,000 tonnes)	*Max. Allowed Running Hours excl. COW*	*incl. COW*
up to 50	30	39
50 up to 100	33	42
over 100	36	45

It is expected that the unloading rate per hour will exceed 5% of the total cargo capacity of the respective vessel.

Running hours shall commence when the vessel has her first rope ashore and shall end when the unloading arms are disconnected on completion of discharge and the last rope ashore is off. If the unloading is prohibited and/or interrupted at the request of SIOT or by request of the Authorities, the running hours shall be extended by the same number of hours that the unloading was prohibited and/or interrupted unless the reason for prohibition and/or interruption is due to circumstances for which the Shipper and/or Master are responsible. Any period exceeding the above mentioned running hours requires special approval from SIOT. In exceptional circumstances SIOT has the right to request a vessel to vacate the berth.

5. SIOT will set up a list of vessels which have failed by their own fault to meet the berth occupancy time referred to above and reserve the right to refuse these vessels for future deliveries. SIOT can also refuse vessels which to SIOT's reasonable judgement may endanger its installations and/or increase SIOT's risk of liabilities towards third parties.

Special Services:

1. SIOT will provide a bus service between the berth and the entrance gate of SIOT port area, the costs of which will be charged to the ships via their Agents.

2. Connections for telephone service to ships will be provided by SIOT. This service and phone invoices will be charged through the ship's Agent.

3. Fees for any other special service rendered by SIOT to a ship, will be charged through the ship's Agent.

Safety Regulations:

1. All safety measures in the SIOT port area shall comply with the ISGOTT and the local safety regulations. In case of different requirements the most stringent ones have to be applied.

2. It is strictly forbidden within the SIOT port area to smoke, to carry any open fire or any equipment with glowing parts, or to use any fire-kindling devices or lighters other than those expressly admitted in special cases by the competent authorities or by SIOT.

3. No hot repair work is allowed whilst a vessel is alongside the SIOT jetties, unless, under exceptional circumstances permission has been granted by SIOT and the Port Authorities.

4. All other repairs whilst at the jetties, will only be permitted after consultation with SIOT and sanction obtained.

5. It is the responsibility of the vessel's Master to report a fire on his vessel to the SIOT Pier Master. The latter will inform immediately the Fire Brigade and the Harbour Master.

Every vessel is required to have a fire wire constantly adjusted to the water line forward and aft while on the berth. The ISGOTT Safety Check List shall be used on all vessels visiting the SIOT Marine Receiving Facilities. Failure to comply with this list may well cause cargo operations to be delayed.

6. Portable Walkie-Talkie sets should only be used for mooring and unmooring. It is strictly prohibited to use them during discharging and ballasting operations unless they are approved and intrinsically safe in compliance with the ISGOTT.

7. Vessels must not be immobilised without permission being obtained from SIOT and the Port Authorities.

Special Incidents:

1. Any incident affecting the safety of the vessel or jetty, any fire and serious accidents on board or caused by the vessel must be reported at once to SIOT.

2. Masters must ensure that as soon as any oil is spilt from their vessel all cargo operations will be stopped and may only resume operations if authorised by SIOT.

3. In case of imminent danger, and if the circumstances warrant, SIOT shall have the right to discontinue cargo operations and take any action considered necessary for the safety of the vessel and/or the terminal. As far as the safety of the vessel is concerned any such action shall be taken in consultation with the Master. If the danger results from the vessel the measures shall be taken at the vessel's expense. No claim will lie against SIOT for any damage resulting from any such measure taken reasonably.

GENERAL: SIOT Marine Receiving Facilities are owned and operated by SIOT (Societa Italiana per l'Oleodotto Transalpino). They are situated in Muggia Bay in postion Lat: 44° 36′ 36″ N., Long: 13° 46′ 36″ E. and fall under the administration of the Trieste Port Authority.

The Marine Receiving Facilities consist of 2 finger piers each with 2 berths, for oceangoing vessels, discharging crude oil and petrol products to the Trieste Tank Farm.

Approaches: The Marine Receiving Facilities are approached from the North Adriatic Sea. A dredged channel joins the Gulf of Trieste to the piers. The channel is 1 mile (1,852 m.) long and 200 m. wide.

It is marked by 3 buoys flashing green, 2 buoys flashing red, and 1 buoy flashing white.

Pilotage: Pilotage is compulsory.

Arriving vessels take a Pilot about 0.5 miles West of the Northern end of Luigi Rizzo Breakwater.

Anchorage: The anchorage place is indicated by the Pilots.

Normal anchorage for vessels awaiting entry is to the West of Luigi Rizzo Breakwater where the holding ground has been reported to be poor.

Communications: When within range vessels should maintain constant communications with the Agent via Radio Trieste.

Radio Trieste will provide vessels with up to date information in regard to movements and other matters possibly affecting their passage to the port area.

ETA shall be given 48 hours in advance. Any change in ETA of more than 1 hour should be reported.

Minimum Manoeuvring Draft: Pilots require sufficient ballast for safe manoeuvring. The propellors should be covered. The trim of the vessel should not exceed 10 ft. by the stern.

Water Depth: The dredged depth in the harbour approaches to the piers and the depth alongside Berth Nos. 2, 3 and 4 are not less than 17.4 m. at Mean Sea Level (MSL), at Berth No. 1, 16.9 m.

Tides: Water levels may be raised or lowered as much as 0.6 m. due to the tide in respect to MSL. Higher tide excursions are exceptional. Additionally a deviation of 0.6 m. can be expected from predicted heights due to meteorological conditions.

Tugs: There are sufficient tugs available on prior request, to assist in berthing any size of vessels.

The tugs vary in power, from 750 kW (1,000 h.p.) to 2,000 kW (2,600 h.p.)

All are equipped with VHF multi-channel communication and are provided with foam fire fighting equipment.

The tugs, tow ropes should normally be used for berthing. The number of tugs employed will vary according to the size of vessel and the prevailing weather conditions.

Berths and Max. Size of Tankers: The finger piers are orientated 067.5° – 247.5° (T) in the direction of the prevailing Bora wind. Currents do not affect the berths appreciably.

(a) Berth Nos. 1 and 2 (No. 1 finger pier 1,561 ft. = 476 m. overall length).
Min. Size of vessel acceptable: LOA 525 ft. = 160 m.
Min. Summer deadweight 16,500 d.w.t.
Max. size of vessel acceptable: LOA 950 ft. = 290 m.
Max. allowable draft at Berth No. 1 at MSL 52 ft. 6 in. = 16 m.
Max. allowable draft at Berth No. 2 at MSL 54 ft. 3 in. = 16.5 m.
Max. Summer deadweight 100,000 d.w.t.

(b) Berth No. 3 (finger pier 1,610 ft. = 491 m. overall length).
Max. size of vessel acceptable: LOA 1,000 ft. = 305 m.
Max. allowable draft at MSL 54 ft. 3 in. = 16.5 m.
Max. Summer deadweight 160,000 d.w.t.
Min. size: As per pier No. 1.

(c) Berth No. 4 (finger pier 1,610 ft. = 491 m. overall length).
Max. size of vessel acceptable: LOA 1,076 ft. = 328 m.
Max. allowable draft at MSL 54 ft. 03 in. = 16.5 m.
Max. Summer deadweight 215,000 tons.
Min. Size: As per Pier No. 1.

The breasting dolphins at each berth are designed to withstand the impact forces of the maximum size tankers acceptable when fully laden and approaching at a maximum angle of 2° – 3° to the berthing line at a maximum velocity of 15 cm./s. (approx. 0.25 knot).

On dolphins "A1" and "A2" of both piers there are installed red (above) and green (below) warning lights each having a visibility of 2 miles.

Crude and Product Handling Facilities: Discharge of Crude and Products is via 3×16 in. diameter articulated unloading arms at Berth Nos. 1, 2 and 3 and via 4×16 in. diameter arms at Berth No. 4.

The shore lines are 36 in. diameter up to the root of the pier: they enlarge into 42 in. diameter for a further 6 km. to the Trieste Tank Farm.

Discharge rates of up to about 9,000 cu.m.p.h. are possible.

Maximum permitted pressure at the shore gauge is 150 p.s.i. = 10 bar. Each pair of lines is provided with a valved cross-over near the unloading platform and all the lines are provided at shore with another valved cross-over manifold which permits the use of any idle line to unload a tanker through more than one line.

Bunkers and Fresh Water: Fuel oil and marine diesel bunkers are available at all berths through 10 in. diameter loading arms situated on each side of the discharge rack. Fresh water supplies are available at all berths and should be ordered through the Agent or the Master.

Bunker fuel is not supplied directly by SIOT and must be ordered well in advance via Agent. Bunker fuel by barges is not permitted alongside the jetties, unless under special exceptional circumstances with permission of Port Authority and SIOT. In no case bunkering by barges is permitted during ballast or ullaging of tanks.

Mooring Arrangements: See "Plan".

It is ship's responsibility to provide safe and proper mooring in order to prevent tankers drifting off the berth and exceeding the operating envelope of the unloading arms.

Mooring lines must be carefully tended to hold the vessel in position and close to the pier at all times.

2 shore breast wires are provided at Berth Nos. 1 and 2 each and 3 shore breast wires at Berth Nos. 3 and 4 each, and it is recommended that vessel should make use of them.

The mooring dolphins F and G, at each side of Pier No. 2, are combined to an arch-type mooring point, located at 10.55 m. above MSL.

A similar arch-type structure exists in axis F at Pier No. 1.

Mooring patterns and characteristics are dependent on ships' architecture and weather conditions as well as lines material.

Mooring patterns shown in the "Plan Section" have been designed as examples for standard vessels under worst experienced wind conditions.

Assuming that tankers are securely moored with mooring lines and equipment in good condition, and that moorings are properly tended, it should not normally be required to restrict the freeboard of tankers to reduce the exposed windage area when alongside the berths. However, should any limitation be considered necessary it will be arrived at by consultation between the Master and the SIOT Pier Master.

Masters' attention is drawn to the peculiar conditions of Trieste where winds can blow with little warning and with extreme violence. Attention is also directed to the "Mooring Guidelines".

Fire Protection: The fire fighting system of the Marine Receiving Facilities consists of elevated and tele controlled monitors. On the piers there are 4 monitors at each jetty. 2 monitors are located on the platform of each pier, other 2 monitors facing seawards are located each at the catwalks and 2 monitors facing shorewards are located each above the access road.

Each monitor, located at the catwalks or above the access roads, has a capacity of 6,000 litres per minute of water-foam compound mixture with a throw of 70 m.

Each monitor located on the platform has capacity of 3,000 litres per minute of water-foam compound mixture with a throw of 60 m.

The foam compound used is fluoroproteinic liquid. All monitors are independently fed with sea water by means of an electric motor driven pump, and a diesel motor driven pump.

All monitors are telecontrolled from the root of each pier.

A main line of 24 in. supplies the water on the main trestle. From the root of the piers, where are located the foam mixer stations, start 4 lines (2×8 in. and 2×10 in.) (reinforced glass fibre) located on the sea bottom. These lines supply the water-foam compound to all monitors.

Each elevated monitor is water cooled.

A 8 in. water-foam line is provided on each pier.

Besides the sea and shoreward located monitors, these lines supply 4 water-foam hydrants along each pier. 6 water-foam hydrants are on each platform.

Portable fire extinguishers, dry powder extinguishers of 10 kg. and 50 kg. capacity are available.

Further, all tugs are fitted with fire fighting monitors for water and foam. During loading and discharging operations firemen certified by local Fire Brigade are present on the pier.

Medical: Any medical requirements should be made through the vessel's Agent before or on arrival.

Only first aid facilities are available 24 hours per day at the Marine Receiving Facilities.

Internal Communications: Internal telephones are located at each pier's platform as well as external telephones on board each vessel moored alongside.

To use the ship's telephones do the following:

1. To call Terminal
dial 30 for Pier Master
dial 25 for Pier Master Assistant
2. To call Outside
dial 0 and then the required outside number
(also international calls are possible)
3. Ships are connected with following phones
Berth No. 1 – Internal 21 – Outside 82 84 55
Berth No. 2 – Internal 22 – Outside 82 84 56
Berth No. 3 – Internal 23 – Outside 82 84 57
Berth No. 4 – Internal 24 – Outside 82 33 70
incoming and outgoing calls possible.
4. Telephone Operator No. 20.

Pollution: A combined system of floating and pneumatic barrier is installed. Whilst floating barriers are laid underneath the longitudinal axis of each finger pier and the main trestle, a plastic pipe with nozzles anchored with concrete weights on the sea bottom, connects dolphin B1 with dolphin A2, thus protecting Berth Nos. 2 and 3. A similar plastic pipe nozzle surrounds the sea bottom area occupied by vessels moored at Berth Nos. 1 and 4. Along each berth spot lights are installed in order to allow detection of oil spill, at night time. In the case of oil spillage, air compressors, supplying, via a 6 in./4 in. air supply system, the respective air bubble oil barrier, are started by remote control.

Air bubbles emerging from the pipes on the sea bottom form a water dam able to contain oil within the encircled area.

All expenses in connection with anti-pollution measures, skimming barges and bubble barriers included, will be totally charged to the responsible ship.

Agents: Most shipping Agents visit all vessels on arrival and several times during the duration of the vessel's stay.

The Agent's offices are all situated in the town of Trieste and Master would be well advised to ensure they have the office and the home telephone numbers of the Agent's clerk dealing with their vessels.

Transportation: SIOT provides transport from the platform to the entrance gate. Ship's personnel are recommended, to order a taxi either using the ship-shore telephone or from the watchman's office

Walking through the SIOT port area is not permitted.

Taxis and private cars are not allowed within SIOT port area.

Trieste centre is about 5 km. by road.

Crude Washing: Crude washing is allowed under the prescriptions and following the procedures contained in "Ordinance No. 928/82 – 1st June 1982", issued by the Port Captaincy of Trieste.

Copy of the above Ordinance No. 928/82 can be obtained through the Ship's Agents.

MOORING GUIDELINES: See "Plan".

In order to prevent damage to the loading arms, and possible pollution of the harbour, it is of the utmost importance to ensure that a vessel is not permitted to move off the berth and exceed the operating envelope of the unloading arms.

The advice contained in these Mooring Guidelines has the objective of ensuring that any tendency for the vessel to "drift off" and cause damage to the loading arms and pollution is avoided.

Mooring Examples: The following, as well as the mooring plans, are based on the theoretical calculations according to OCIMF standard and on worst wind conditions.

Wind loads corresponding to gusts of 92 knots or maximum winds *of 78 knots from E.N.E. (Bora) and to gusts of 65 knots or maximum winds* of 55 knots from all other directions.

*Winds of a duration of minimum 30 seconds.

All the lines considered to be wires (steel lines) with MBL (minimum breaking load) of: 83 tons (36 mm. dia.) for ships with more than 100,000 d.w.t. MBL 66 tons (32 mm. dia.) for ships with less or equal to 100,000 d.w.t.

The windage area and the tankers' architecture as used in this example, especially as far as hawse-holes positions are concerned, have to be regarded as typical for the various classes of vessels calling at Trieste, but cannot be considered always applicable.

The Masters' attention is called on the fact that these guidelines have to be regarded as examples only and must be implemented accordingly depending on quality of lines used, MBL of the same, vessel windage area as well as forecast of weather conditions.

In particular we recall the Master's attention on:

a) If lesser breaking load mooring lines are used vessels should endeavour to provide additional lines (together with any shore wires which are available), as nearly equivalent restraint capability as possible. Mixed mooring of wires and synthetic should be avoided.

b) If mixed moorings of wire and synthetic or natural fibre are used, it is important that, due to the differing elasticity of these materials, their use in the same direction of restraint shall be avoided. If possible, wires shall be used as breast lines. In addition, 2 shore breast wires are provided at Berth Nos. 1 and 2, and 3 breast wires at Berth Nos. 3 and 4, and it is recommended that vessels should make use of them.

c) The discharging arms are vulnerable to damage should vessels range or move off the berth. It is essential that a vessel is held securely alongside throughout the discharge.

Special care has to be taken in providing lines which must not have excessive elasticity to ensure sufficient transverse restraint.

d) Full steam pressure must be maintained and be available to all mooring winches throughout the period vessel is alongside.

e) As soon as a vessel is secured, brakes on all mooring winches must be secured. Winches shall not be left on automatic tensioning.

f) Masters shall ensure that mooring lines are in good condition and free of visible defects. Winch brakes or securing devices should be in efficient operating order. In case of vessels in excess of 100,000 d.w.t. winch brakes should be capable of withstanding a load of 60% of the MBL and this should be supplemented in strong wind conditions by ensuring winches are put in gear with power applied in the heave position.

g) An efficient watch must be maintained throughout the vessel's stay alongside.

h) SIOT is entitled to stop operations and/or summon tugs if it appears that vessel's movement will endanger the discharging arms, or in the absence of an alert and efficient deck watch. All pertinent expenses will be charged totally to the vessel.

Action Guidelines for Adverse Weather Conditions: The following guidelines are drawn up in order to assist SIOT's and vessel's personnel in determining the course of action to be taken during stages of weather deterioration, when wind threatens to blow the vessel off the berth.

Masters are cautioned to use them only as a guide, as the physical characteristics of individual vessels may vary according to the type of vessel and the nature of the mooring used. Any limitation considered necessary will be arrived at by consultation between the Master and the SIOT Pier Master.

Valid for All Berths and All Wind Directions:

Discharge can continue regularly in wind Forces up to 7 (30 knots or 15 m./sec.).

Discharge to be stopped* if the wind is in the ranges from Force 7 (30 knots or 15 m./sec.) to Force 8 (37 knots or 19 m./sec.) and the cargo on board is less than 30% of the summer d.w.t.

Discharge to be stopped* independently from the quantity of cargo on board if winds over Force 8 (37 knots or 19 m./sec.).

*When stopping discharge for wind conditions loading arms should be drained and disconnected, the crews and engines kept on standby and tugs alerted if necessary.

Weather Forecast: Weather forecasts are not available at the piers, but the local Meteorological Institute may provide them on a phone call. The accuracy of this service cannot be guaranteed and Masters should be alerted for conditions which may differ from those provided in the general forecast and ensure the safety of the vessel and the Marine Receiving Facilities. Masters will be aware of the fact that the prevailing wind blowing at Trieste has an E.N.E. direction, can blow with little warning and gusts can reach 100 km./h. or more in an extremely short time.

SIOT MARINE RECEIVING FACILITIES:

	Berth No. 1	*Berth No. 2*	*Berth No. 3*	*Berth No. 4*
Water depth at Mean Sea Level	55 ft. 4 in. (16.9 m.)	57 ft. (17.4 m.)	57 ft. (17.4 m.)	57 ft. (17.4 m.)
Raising or lowering of water level on predicted heights due to meteorological conditions 0.6 m.				
Maximum allowable draft (dependent on water level)	52 ft. 6 in. (16.0 m.)	54 ft. 3 in. (16.5 m.)	54 ft. 3 in. (16.5 m.)	54 ft. 3 in. (16.5 m.)
Min. size of vessel (d.w.t.)	16,500	16,500	16,500	16,500
Max. size of vessel (d.w.t.)	100,000	100,000	160,000	215,000
Min. length of vessel (m.)	160	160	160	160
Max. length of vessel (m.)	290	290	305	328
Max. discharge rate (cu.m./h.)	9,000	9,000	9,000	9,000
Unloading arms (with flanges ASA 150)	3×16 in.	3×16 in.	3×16 in.	4×16 in.
Bunkering arms (with flanges ASA 150)	2×10 in.	2×10 in.	2×10 in.	2×10 in.
Max. pressure permitted at shore gauge	10 bar	10 bar	10 bar	10 bar

Operator: Societa Italiana per l'Oleodotto Transalpino S.p.A., Piazza Unita d'Italia, 7, Casella Postale 544 I-34121 Trieste/Italy. Tel: 040-69 121, 040-827003. Telex: 460126. Code: Talin.

New San Sabba Terminal:

The terminal is located about 600 m. Eastward of the SIOT Pier No. 1 and is used for products discharge. It consists of a concrete finger pier, aligned in an East-Northeasterly direction with a berth on each side. Berth No. 1, facing S.E., is used for larger ships, while Berth No. 2 can accommodate vessels of up to 18,000 d.w.t.

Cautionary Advice: The breasting facilities at Berth No. 1, particularly forward, are poor and a very close watch on moorings is necessary, especially during the Bora season.

Berthing Procedures: Tugs are usually made fast with ship's lines just inside the breakwater. Ships bound for Berth No. 1 are swung seawards of the berth and backed onto the berth, dropping the port anchor with 6-7 shackles in the water and mooring starboard side alongside.

Ships bound for Berth No. 2, steer directly for the berth and moor starboard side alongside. Port anchor is not normally used for this manoeuvre, but should be ready for use in an emergency.

Gangway: There is no shore gangway, ship should rig a safe gangway.

Cargo and Bunker Connections:

Dirty products:

1 × 12 in. hard arm (ASA type), at Berth No. 1.

1 × 10 in. hard arm (ASA type), at Berth No. 2.

Clean products and gas oil:

1 × 8 in. hard arm (ASA type), at Berths No. 1 and No. 2.

Bunkers:

1 × 6 in. flexible hose at both berths.

Deballasting Facilities: There are no deballasting facilities.

Stores: By barge only.

Aquila Berth: This terminal is located on the South shore of Vallone di Muggia. The berth is aligned in a Northeasterly direction and consists of a concrete T-head type jetty with buoys for all but the spring moorings. Vessels moor starboard side to.

Berthing Procedures: The manoeuvring space off the berth is limited. 2 tugs are normally made fast on the hook, using ship's lines, when the vessel is inside the breakwater. On approaching the berth, the vessel is turned slightly to port and the port anchor is let go and slacked off to about 4 shackles. The vessel is then pushed on to the berth by the tugs, while the chain is slacked out to about 7 shackles in the water. The moorings are taken to the buoys by the mooring boat and made fast.

Gangway: There is no shore gangway and vessels should rig their own gangway.

Cargo Connections, Handling and Ballast: The Aquila refinery receives crude via the SIOT installations so only products and lubes are handled at this berth.

Dirty products are handled via 1 × 8 in. flexible hose. Clean products and gas oil are handled via 2 × 8 in. flexible hoses, and lubes and bunkers via 1 × 6 in. flexible hose. All are with ASA flange connections.

Dirty ballast can be discharged at a rate of 150 t.p.h.; maximum storage capacity is 3,500 tons.

Old San Sabba Pier:

This berth is used by small ships. Because of the very confined manoeuvring space. 2 tugs are normally used to assist vessels berthing. Ships berth port side to and the starboard anchor is used to assist in leaving the berth.

General: *Pollution:* The port pollution sensitivity is very high.

Each vessel alongside is surrounded by a floating barrier. Furthermore, the following equipment is available in the port:

3 skimming barges (speed 16 knots), 3 cu.m. capacity.

1,000 m. floating barrier.

20 tons of absorbent powder.

Fire Fighting Facilities: All berths are well equipped with high level fire fighting facilities including remotely controlled fire pumps and foam monitors. Moreover, all tugs are equipped with 2 or 3 water foam monitors.

Security: Shore leave is permitted. Shore passes are issued by the Port Captaincy and crew members' and visitors' identities are checked at the gate or boarding point.

Bunkers, Lubricants, Hydraulic Oil: Fuel and diesel oil are supplied by pipe with no restrictions on maximum quantity. Minimum quantity delivery by pipe: Fuel oil 100 tons, diesel oil 30 tons. Simultaneous bunkering and discharge is allowed.

Lubricants, hydraulic oils, etc., are generally available, but 3 days' notice is required. They are suplied in drums by barge.

Fresh Water: Drinking water is available by pipe. No restrictions on quantity.

Distilled Water: Not available.

Repairs: Repair facilities available. Immobilisation of main engine not allowed at the berths.

Allowed at roads with tug attendance.

No tank cleaning and gas-freeing facililties available.

Stores: Laundry, provisions and stores area available with advance notice.

Telephone: Can be installed on board.

Special Regulations: For vessels discharging at TAL, SIOT Terminal cargo measurement and sampling may be required both before and after discharge. To facilitate these measurements and to avoid excessive venting when alongside, ships with an operating inert gas system are asked to reduce the system pressure to the safe minimum operational level (100-150 mm. WG.) immediately prior to the Pilot boarding for berthing. Detailed requirements for the safe measurement access to inerted tanks and for repressurisation and operation of the inerted gas system during actual discharge will be handed to and discussed with inerted ships on berthing.

DENSITY: 1025.

FRESH WATER: Available by pipe-line at all berths. No barges available.

FUEL: All grades available, loading rate about 250 t.p.h. 48 hours notice required. Also see "Shipmaster's Report".

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Optional, but stevedores usually perform this operation for convenience.

CUSTOMS ALLOWANCES: 50 cigarettes for each man and one bottle wine/spirits between 5 men. Only one allowance given while vessel in port.

IDENTIFICATION CARDS: Shore passes are issued by local police.

CONSULS:

Austria	tel. 90891	Lebanon	tel. 37370
Belgium	tel. 37073	Netherlands	tel. 61690
Brazil	tel. 35317	Sweden	tel. 29182
Chile	tel. 28960	Turkey	tel. 24393
El Salvador	tel. 36556	United Kingdom	tel. 35760
Germany F.R.	tel. 37141	U.S.A.	tel. 30221
Greece	tel. 28278	Uruguay	tel. 31664
Guatemala	tel. 29551	Yugoslavia	tel. 24969
Honduras	tel. 95225		

REPAIRS: All kinds of hull, deck and engine repairs can be carried out by Arsenale San Marco and other yards.

DRY DOCKS: 5 dry docks available.

Shipmaster's Report: January 1985.

There is a new dry dock, located at Arsenale San Marco. Our vessel was the first to use it, our dimensions being:

LOA: 255.0 m.
Moulded breadth: 35.3 m.
Moulded depth: 19.0 m.

REPATRIATION: No facilities.

AIRPORT: 15 miles distant. Two flights daily to Venice/Milan and Rome for international connections.

TIME: GMT plus 1 hour. Summertime: GMT plus 2 hours.

HOLIDAYS: New Year's Day (1st January); Liberation Day (25th April); Labour Day (1st May); Good Friday, Easter Monday, Assumption B.V. Maria (15th August); All Saints' Day (1st November); St. Giusto (3rd November); Immaculate Conception (8th December); Christmas Day (25th December); Boxing Day (26th December); Cargo work can be arranged on the above days.

POLICE/FIRE/AMBULANCE: Police, tel. 113; Fire, 2222; Ambulance, 68888.

TELEPHONES: Can be installed on board.

SHORE LEAVE: Allowed.

DEVELOPMENTS: Ro/Ro terminal with 70,000 sq.ft. storage under construction.

Timber yard to be extended.

SHIPMASTER'S REPORT: May 1981.

Documents/Fuel: If anchoring off Trieste for bunkers only the following are required: 5 Crew Lists, 2 Stores Lists, 2 Crew Declarations. No Pratique required if coming from Koper, Yugoslavia. Vessel does not have to pay anchorage dues. — SVTR. AUG/89.

AUTHORITY: Ente Autonomo del Porto di Trieste, Punto Franco Vecchio, Cas. Post 569, 34100 Trieste, Italy. *Tel:* 6731 (Operator). *Telex:* 460257 Eapt D; 460365 Eapt C and 460282 Eapt C (Container Terminal at Mole VII). *Contact:* Dott. Luigi Rovelli, General Manager.

Harbour Master, Riva 3 Novembre 13, Trieste. *Tel:* 630005/9 (3 lines). *Telex:* Compt TS 461181.

VENICE: 45.26 N. 12.20 E. (See Plan)

DOCUMENTS: Minimum number of ship's papers required upon arrival:

By Port Health:
2 copies Passenger List.
2 copies Crew List.

By Police:
2 copies Passenger List.
2 copies Crew List.

By Ship's Agents:
2 copies Passenger List
2 copies Crew List.
2 copies Cargo Manifest.

By Customs:
2 copies Cargo Manifest.
2 copies Provisions and Stores List.

PILOTAGE: Pilot boards 2 miles from breakwater. Master can contact Pilot by VHF Channel 13.

ANCHORAGE: Anchorage for large tankers will depend upon Master's discretion. However there is a good anchorage in position:

Lat. 45° 26′ 02″ N., Long. 12° 20′ 23″ E.

RESTRICTIONS: Advisable to enter during daytime and with favourable tide.

Access: North: At Lido with channel depth of 11.0 m.

South: At Malamocco with channel depth of 14.50 m. This channel at Southern end of Lido Island, first leading to San Leonardo tanker berth and then North to Marghera

Also see "Tankers".

HEALTH: Health Officer boards as soon as vessel is berthed. Pratique can be obtained by radio prior arrival. Radio request to "Sanimare Venice" through Trieste Radio.

TUGS: Tugs are available and will join vessel at breakwater and/or off Lido when proceeding to S. Nicolo. Ship's lines have to be used.

BERTHING:

Quay	*Berth No.*	*Length (m.)*	*Depth (m.)*
Marittima:			
Banchina Piave	1 – 6	850.80	10.00
Testata Marmi	7 – 8	233.00	10.00
Banchina Tagliamento	9 – 15	726.70	10.00
Banchina Palazzo	16	150.75	8.00
Banchina Isonzo	17 – 22	741.00	10.00
Testata Silo	23	103.20	9.50
Banchina S. Marta	24	177.40	8.00
	25 – 27	286.20	8.00
Banchina S. Basilio	28 – 29	172.55	9.00
	30 – 31	158.75	10.00
Marghera: Mole A & B			
Banchina Friuli	1 – 2	376.60	10.00
Banchina Cadore	3	230.30	10.00
Banchina Veneto	4 – 9	1001.15	9.00
Banchina Trento	10	220.00	4.00
Banchina Bolzano	11	132.65	10.00
Banchina Lombardia	12 – 15	573.62	10.00
Banchina Aosta	16	165.52	10.00
Banchina Piemonte	17 – 20	770.88	13.00
Banchina Romagna	21	260.00	13.00
Banchina Emilia	22 – 27	1067.89	13.00

CRANES:

Marittima:	44 ×	1.5-3 tons
	8 ×	3-6 tons
	4 ×	6-12 tons
	1 ×	30 tons
	30 ×	1 ton (Shed Cranes)
Marghera:	5 ×	1.5-3 tons
	16 ×	3-6 tons
	2 ×	13-30 tons
	2 ×	22-30 tons
	2 ×	12 tons
	4 ×	6 tons (Bridge Unloaders)
	2 ×	330 t.p.h. (Bridge Unloaders), 30 tons SWL.
	2 ×	1,500 t.p.h. (Bridge Unloaders), 34 tons SWL.
	5 ×	300 t.p.h. Grain Elevator

Equipment: Handling equipment for general use in yards, in sheds and in holds in the commercial port areas of Marittima and Marghera.

Mobile Cranes	17×	1.25 tons – 20 tons
Mobile Cranes	2×	30 tons (telescopic)
Mobile Cranes	2×	90 tons (telescopic)
Mobile Cranes	2×	150 tons
Yard-Tractors	9×	40 h.p. – 48 h.p.
Yard-Tractors	4×	74 h.p.
Fork-Lifts	119×	1 ton – 3 tons
Fork-Lifts	14×	5 tons – 6.25 tons
Fork-Lift	1×	4.8 tons – 8.1 tons
Belotti Wheel Loaders	2×	40 tons
Wheeled Shovels	22×	0.39 – 5.4 tons
Tracked Shovels	2×	1.4 tons
Trucks	4×	6.97 tons
Wheeled Transpallets (with forks)	5×	1 ton

CONTAINER HANDLING FACILITIES: Container and Ro/Ro facilities in the port.

Marittima: Ro/Ro Terminal at the Isonzo Quay: 2 Berths. 45,000 sq.m. marshalling area.

Ro/Ro Terminal at S. Marta Quay: 3 Berths.

Ro/Ro Terminal at S. Basilio Quay: 2 Berths. 1 Passenger Terminal.

Marghera:

Container Terminal at the Emilia Quay:
3 – 4 Berths (along 600 m. quayside).
1 Ro/Ro berth.
3 Portainers of 50 tons capacity.
1 Bridge crane for containers of 45 tons capacity.
2 Rail mounted gantry cranes of 45 tons capacity.
3 Rubber-tyred gantry cranes of 45 tons capacity.
7 Mobile cranes (Belotti B75) of 60 tons capacity (40 tons under spreader).
1 Mobile crane of 6.5 tons capacity.
11 Fork-lifts of 12–35 tons capacity.
7 Tugmasters of 180 h.p.
8×40 ft. Trailers.
195,000 sq.m. stacking area.

Ro/Ro Terminal at the Friuli and Cadore Quays: 2 Berths, 57,000 sq.m. marshalling area.

Ro/Ro Terminal at the Aosta Quay: 4 Berths. 70,000 sq.m. marshalling area. 24,000 sq.m. stuffing sheds. 1 Passenger Terminal.

BULK HANDLING FACILITIES: Bauxite discharging at Montecatini and Molo Commerciale in Porto Marghera.

Discharge by crane grabs at rate of 2,000 tons per day at Montecatini, and 1,500 tons per day at Molo Commerciale. Vessels up to 28 ft. draft can be accommodated.

Coal discharged at ENEL jetty and Mole "A". Discharge rates 6,000 tonnes per day and 6,500 tonnes per day respectively.

STEVEDORES: The Provveditorato al Porto Venice are exclusively entitled to manage all the commercial work in the harbour including stevedores. Vessel should en route ETA cable to Agent at least 48 hours prior vessels arrival to arrange gangs.

MEDICAL: Hospital facilities always available. No notice required in advance.

TANKERS: Tank washings cannot be disposed of inside port. Diameter of loading/discharge lines 8 in. to 12 in.

One berth for tankers at San Leonardo can accommodate vessels up to 85,000 d.w.t. Max. draft is 45 ft. 3 in. Good discharging and no back-pressure. Speedboats up to Venice take about 40 minutes.

Discharging Berths for Tankers at Porto Marghera:

Darsena IROM, length 570 m., depth 30 ft.

Esso Pier: depth alongside 26 ft.

Shell Pier: depth alongside 26 ft.

Di Dr

Port entrance of Malamocco, at South point of the Island of Lido, has been reopened where a canal 12 m. deep leads to Port of Marghera. This canal allows large tankers to proceed to coastal storage tanks without passing through urban centre of Venice.

Esso/IP:

Berthing: Ships bound for Darsena Esso/IP proceed along the Malamocco channel, with the assistance of 2 tugs, up to Bacino di Evoluzione No. 1 where 2 additional tugs are made fast aft. They are swung in Bacino di Evoluzione and proceed along the Canale Vittorio Emanuele stern first. They then enter Darsena Esso/IP stern first. Ships are always starboard side to Berth 3M and portside to Berth 2M and to the Esso/IP berth.

Moorings are taken ashore by mooring boats. The minimum number of mooring lines required for each berth is as follows:

Berths 2M, 3M and Esso/IP
2 head lines,
4 breast lines (2 fwd – 2 aft),
6 spring lines (3 fwd – 3 aft),
2 stern lines.

The use of wires is not permitted.

I.R.O.M. Brentelle, Berth 4B:

Cautionary Advice: This berth is located at the junction of Canale Vittorio Emanuele and Canale Brentelle. Vessels are berthed starboard side alongside. The facilities are used by I.R.O.M. for clean and dirty products. There is heavy traffic in this area and care must be taken that ship's lines are always tight. Moreover, when a ship over 3,000 d.w.t. is entering or leaving Canale Brentelle, the loading/discharging operations are discontinued and the tanker moved off the berth. Maximum draft is about 22 ft.

Darsena I.R.O.M., Berths 2M and 3M:

Berthing: Ships bound for Darsena I.R.O.M. are swung with the assistance of 4 tugs in Bacino di Evoluzione No. 1. They navigate Canale Vittorio Emanuele stern first for about 4 cables and then enter Darsena I.R.O.M. bow first. Ships are always starboard side to Berth 2M and port side to Berth 3M. Due to the heavy traffic in Canale Vittorio Emanuele care must be taken that ship's lines are always tight. Vessels up to about 18,000 d.w.t. or 20,000 d.w.t. are berthed.

DENSITY: Average salinity of water inside port 1020.

FRESH WATER: Available.

FUEL: All grades available and delivered by barge.

CUSTOMS ALLOWANCES: The Customs require from the ship a complete list in duplicate of Provisions and Stores. It is particularly important that the quantities of items such as tobacco, cigarettes, spirits, coffee, matches, pepper, salt, spices, cars, chocolate, should be given accurately. Customs Officers will supervise the issue while ship is in port. Amount of tobacco allowed out of Bond: 50 cigarettes per man for all foreign vessels except British and U.S.A. flags. 20 cigarettes per day per man on British and American flag vessels.

OPENING/CLOSING HATCHES: Normally carried out by stevedores.

CONSULS: Following are Consulates maintaining their offices at Venice.

Argentine
Austria
Belgium
Bolivia
Brazil
Colombia
Denmark
Finland
France

Germany F.R.
Greece
Ivory Coast
Lebanon
Liberia
Luxembourg
Mexico
Monaco
Netherlands

Norway
Panama
Peru
Portugal
Spain
Sweden
Switzerland
United Kingdom

REPAIRS/DRY DOCKS: There are ample facilities for repairs. Following are particulars of Venice dry docks:

Minore	*Maggiore*	*Principe*	
298.8 ft.	526.3 ft.	820.3 ft.	extreme length
58.4 ft.	79.8 ft.	117.8 ft.	breadth of entrance
1.0 ft.	1.0 ft.	3.1 ft.	height of sill above bottom dock
19.7 ft.	29.6 ft.	36.0 ft.	depth on sill at high water.

SURVEYORS: R.I.N.A., Lloyd's Register, Germanischer Lloyd, A.B.S., Norske Veritas, N.K.K. and U.S.S.R. Register of Shipping.

AIRPORT: International Airport Marco Polo about 10 km. from Porto Marghera. Served by regular airlines.

TIME: GMT plus 1 hour. Summer Time from March to September, GMT plus 2 hours.

HOLIDAYS: The public and port holidays are the following: 1st January; 6th January; 19th March; 25th April; Monday after Easter Day; 1st May; Ascension Day; Corpus Christi Day; 2nd June; 29th June; 15th August; 1st November; 4th November; 21st November; 8th December; 25th December; 26th December.

TELEPHONES: Telephones will be placed aboard the ship.

SHIPMASTER'S REPORT: Porto Marghera. November 1979.

Pilotage: Pilot station works on Channel 13 VHF. Speaks very good English. Pilot launches are built to the same specification as the new Trinity House high speed launches, there are five in number. Black hull with white superstructure. Pilot ladder to be 3 ft. feet above the water line. Pilot boards from the rigging. In favourable weather pilot station about 0.5 miles East of the Fairway Buoy, in adverse weather conditions vessel proceeds in on leads and Pilot embarks inside the moles.

Anchorage: Good anchorage for small vessels especially during the Bora from the N.E. in 6 fathoms of water with Porto di Lido Northern Mole Light bearing 280° × 1.5 miles.

Stevedores: Port works 5 days a week in 3 shifts Monday to Friday: 1st shift 0800 to 1430 hrs.; 2nd shift 1430 to 2100 hrs.; 3rd shift 2100 to 0200 hrs.

2 shifts worked on Saturdays 0800 to 1430 and 1430 to 2100 hrs. Possible to work Sundays 0800 to 1430 hrs.

Container Berth: Berth relatively new with good fenders – room for two vessels. Two container cranes. Ample straddle loaders. Upper berth suitable for Ro/Ro if berthed port side to.

Tugs: For vessels over 100 m. in length it is necessary to engage a tug for turning.

Speed in Canal: Maximum speed through Venice and up the canal to Porto Marghera 6 knots. heavy fines can be imposed for excessive speeds.

Cash Drawn: Customs have to approve any cash drawn and it is essential that any excess must be paid back to Agent before departure. Unable to land at any other port.

Customs: When proceeding from one Italian port to another the Clearance is placed on board together with one copy of 'Manifesto di Partenza'. Most important that Master has this copy on demand at subsequent port.

AUTHORITY: Provveditorato al Porto di Venezia, Zattere 1401, C.P. No. 745, 30123 Venice, Italy. *Tel:* (041) 5289820-5203166. *Telex:* 410344 Portve. *Cables:* Provviporto. *Contact:* Ing. A. Baroncini. Capitaneria di Porto.

NOTES

Please also advise Shipping Guides Ltd.

Ivory Coast

ABIDJAN: 05.18 N. 04.00 W. (See Plan)

PORT LIMITS: The pilotage zone is limited by a circle with a 3.5 mile radius centred on the pier lighthouse of the West jetty of the entry canal.

DOCUMENTS: "All ships calling at Abidjan to discharge cargo will have to supply on arrival altogether 13 sets of Cargo Manifests and 4 sets of Freighted Manifests for each port of loading (IMO class code for all hazardous cargoes), as the administration no longer accepts reproductions of documents supplied by the Agents. Furthermore, Masters are reminded to hand to Agents on arrival, 6 Crew Lists, 4 Stores Lists, 4 Bonded Stores Lists, 4 Crew Declarations, 6 Passenger Lists (even if nil), 5 Animal Lists (even if nil), 5 Narcotics Lists (even if nil), Arms and Ammunition List, (even if nil), 5 Lists of Ports of Call and 1 Vaccination List. Furthermore, the attention of Masters is drawn to the fact that the Customs Services are strictly enforcing the control regulations on incoming vessels and very heavy fines are imposed in cases of omission or mistakes in Declarations of Slop Chests, Stores Lists etc".

All Manifests and Bills of Lading should refer to the IMO class code for hazardous cargoes.

It should also be noted that hazardous cargo found and not mentioned in above documents will have to remain on board.

Also see "Notice".

PILOTAGE: About 1 hour before arrival ships equipped with VHF shall confirm to the Pilot station, on Channel 12 or 16, their correct hour of arrival off the Roads; then the boarding time for Pilot shall be communicated. It is essential that these times are clearly understood both by ship and Pilot station.

Ships shall stay in a position so they keep across the swell and the wind which both generally come from the South and they shall put the pilot ladder on the lee side, i.e. Port if steering Eastward, Starboard if steering Westward.

Pilotage is compulsory, except for shifting alongside quays. For ships leaving harbour or shifting within harbour limits, request for a Pilot should be made at the Harbour Master's Office at least 3 hours before sailing or shifting. For a night sailing or shifting, request must be made before 1700 hrs.

Warning: When embarking Pilot, keep well clear of sandbank extending from entrance to Vridi Canal.

ANCHORAGE: Vessels may anchor on the outer road in 20 m. to 30 m. of water, firm sandy bottom, also to the South and to the West of the West jetty of the Vridi Canal.

RESTRICTIONS: Ships may enter or leave Abidjan only between certain time limits. These limits can be obtained from the pilot station on Channel 12 or from the local Agent no more than 3 or 4 days ahead of time.

MAX. SIZE: Until now the largest vessel admitted was 243 m. in length. Vessels with a length of 250/260 m. may be able to be admitted ultimately. At the present time, the maximum permissible draft is 31 ft. It will soon be increased to 33 ft.

HEALTH: Request for Free Pratique is given by the Agent to Port Health Authority, who will board vessel on arrival.

RADIO: Masters must radio through Abidjan – Radio their ETA and draft, 24 hours and again 6 hours before their arrival, to the Port Commandant (COMPORT) or in his absence, to the consignee. For a night arrival, the telegram must arrive at the station before 1700 hrs.

When at anchorage off Vridi Canal, vessels should watch for signals from Vridi Signal Station, which keeps continuous watch, and advise them regarding the time the Pilot will board their ship. Port Captain's office and Vridi Signal Station keep a permanent watch on 156.6 MHz. and 156.8 MHz. Agents may be obtained through Abidjan Radio on 2182 kHz. Abidjan Radio answers on 1813 kHz.

VHF: Channels 16 and 12 are used: 16 for security and 12 for general traffic. It is strongly advised to use Channel 12. This Channel is strictly reserved for the harbour traffic and ships wishing to talk to each other should do so on a ship to ship Channel 8.

RADAR: Installed in the Harbour Master's office. Vessels can contact port radar by calling "Comport Abidjan" on VHF Channels 16, 12 and 11, or through Abidjan Radio, which keeps watch on Channel 16.

TUGS: Tugs join vessel at the port entrance. Towing lines are provided by the tug. Tugs work on VHF Channel 8.

BERTHING:

Bananier Quay: (Banana Carrier Quay): Length 350 m., 2 berths, depth 7 m.

North Quay: Length 775 m., 5 berths (Nos. 1–5) from East to West, depth 10 m.

West Quay: 1,525 m., 10 berths Nos. 6 to 15 from North to South, depth 10 m.

South Quay: 1,145 m., 6 berths Nos. 16 to 21 from North to South, depth 11.5 m.

Roll-on/Roll-off Berth: Length 200 m. Depth 12.5 m.

A temporary Roll-on/Roll-off berth is located at the North Quay of the fishing harbour, length of the quay 350 m., depth 7 m.

A quay 90 m. long, situated on the South bank of the lagoon between the access canal and the discharge canal (Bietri Canal) extended by a system of piles, permits the mooring of vessels 140 m. long and with 26 ft. draft. This Quay is called 'Siveng Quay' and is reserved for the Company of the same name.

2 oil wharfs situated on the East bank of the access canal accommodate large vessels of more than 200 m. with a max. draft of 31 ft.

A "sea line" buoy situated off Port-Bouet can accommodate vessels having a length of 270 m., and a draft of 46 ft. and not exceeding 75,000 d.w.t. (See "Tankers").

Mooring buoys lined up in the North part of the port (Banco Bay) are used by vessels taking on timber.

The Quays of the port are not equipped with cranes, so loading and unloading operations are undertaken by vessels own gear.

SPECIALISED CARGO HANDLING FACILITIES:

Container Terminal: 4 Berths (No's 22, 23, 24 and 25) each 200 m. length are in service. A study with regard to equipping these quays with gantry cranes is being undertaken. The area of the container park is 60,000 sq.m. Loading and unloading of the containers is by ship's gear. Transport on the quays is made by trailers.

Ro/Ro berth: This berth has a park of approximately 40,000 sq.m.

Details of the ramp of the temporary berth, situated on the North quay of the fishing harbour are as follows: Width 17 m., height above chart datum 1.5 m., permissible loading 20 tons by pulley. The height of the quay above datum is 1.8 m.

Vessels arriving with cereals destined for "Grand Moulins D'Abidjan" are received at Berth No. 1, or they are given a berthing priority. Handling is by means of suckers and conveyor, average rate of discharge 150 t.p.h. The capacity of the silos is 30,000 tons. The "Grand Moulins" are also equipped to load pellets in bulk at this berth. They can also receive cereals for third parties; in this case the transporting vessel still benefits from the mooring priority.

The handling companies Transafric and Socopao are also equipped with suckers (Vigan pumps) for discharge of cereals. Evacuation is then made either by tipper lorries (Transafric) or by direct discharge under hangar (Socopao). The vessels are then directed to the ordinary berths and do not benefit from any mooring priority. The rates of discharge are in the order of 50 to 70 t.p.h.

Palm oil is usually taken on board at Berth No. 16 where 2 pipe-lines come from the oil depots. The diameter of these pipe-lines are 4 in., and the flow rate is 250/280 t.p.h. Vessels mooring at this berth do not have priority. These oils may be taken on board at any other berth by tankers.

Wine in bulk is also received at the ordinary berths and also discharged by tankers.

The timber yard is situated in the North part of the port. It is bordered by a quay of 380 m. from which the timber is put in the water or loaded on barges before being towed to the vessel on which it is to be loaded. The equipment of this park (yard) is as follows: 1 gantry crane of 20 tons and 1 of 10 tons, 1 derrick of 20 tons, 3 fork lifts of 16 tons, 1 fork lift of 7 tons.

The park for discharged timber is situated between the West quays and the fishing port; it is bordered by a quay of 350 m. called "Quai de Chalandge" (Lighterage Quay), depth 2.5 m. The equipment for this park comprises: 5 fork lifts of 10 tons and 1 of 12 tons.

The port has 2 floating cranes: one with 150 tons capacity and one of 25 tons capacity.

Mooring of tankers at the wharves of the Vridi Canal is made at slack water and departure at the end of high tide. It is also to be noted that, in spite of reinforced moorings, the mooring to these wharves is sometimes rendered impossible because of the heavy swell which builds up in the canal.

Prime materials for manufacture of fertilizers are received in bulk at the "Siveng Quay" where discharge is by derricks and suckers.

The banana carrier quays are provided with air conditioned and stocking hangers as well as necessary equipment for loading.

SOGIP Shipping: Private quay for fishing vessels. Cold room with capacity of 2,200 tonnes at −20°C.

TANKERS: (Also see "Berthing".)

Shipmaster's Report: The Sea Line Berth at Port Bouet near Abidjan.

(a) Introduction: Vessel ordered to part discharge 21,000 tons of crude. With a max. draft of 48 ft. 6 in., this was the largest vessel to use these facilities; the previous largest being about 60,000 d.w.t. (1973).

(b) Approach from sea: Coast line is low with few distinguishing marks. Outline picked up at about 18 miles range (using Marconi Raymark), at about the same time as 100 fathom line was crossed. Coast is very steep-to with a pronounced rift in sea bed leading to canal entrance in Abidjan.

(c) Anchorage: Vessel anchored about 2 miles from sea line terminal at Port Bouet. The usual anchorage is to West of canal, which would permit a more suitable approach to the berth.

(d) Berth: The sea berth is situated about 1 mile S.S.E. of Port Bouet light. According to chart prepared by terminal authorities Societe Ivoirienne de Raffinage (SIR), the depths of water in the berth are 16 m. aft and 19 m. for'd, at chart datum. Members of the diving team and terminal representatives are of the opinion that there is greater than 1 m. more water than indicated; this is backed up by observed soundings of for'd depth of 21 m., with a rise of tide of 0.5 m.

Moorings consist of four 6 in. shore wires from buoys aft; 4 similar wires for'd, 2 from buoys, 2 from the sea bed; both anchors are used with about 8 or 9 shackles of cable on each.

Hoses are connected on port side, 2×12 in. leading to a 1×24 in.×5 km. sea line. Back pressure is limited to 7 kg./sq.cm. (about 100 lb./sq.in.). Berth is aligned to head into the prevailing Southwesterly wind. Unfortunately this places the vessel beam on to the current which is unpredictable in both magnitude and direction. After 9 years' experience at the berth, the diving team are unable to predict for a particular time if the current will run at all, or in what direction or at what strength. Current velocities of up to 2.5 knots are normal. If the current starts to run at this strength at an early stage of a berthing operation it is probable that the operation will have to be abandoned.

(e) Berthing: Approach to the berth is made on a heading of 145° in line with buoys A and B on SIR chart. During much of the approach the vessel is within 5 cables of the shore, but, with one exception, the depth of water is adequate.

When the vessel was between 1 and 2 ship's lengths from buoy A, in Grid reference position 579.030 393.280 on SIR chart, the under keel clearance was 15 ft., for several minutes. There was a very low, barely discernable, swell running, but the approach to the berth runs with this swell directly abeam, causing the vessel to roll an estimated 5°; the effect of this was to give a min. bilge clearance of 10 ft.

Berthing operation is routine, with some shore labour assisting with wires. No carpenters' stoppers are provided for wires, but two each end can be made fast on to the storage drums of the winches.

(f) Discharging: Limiting back pressure maintained by two cargo pumps running at 1,200 r.p.m. Discharge rate achieved was 2,237 t.p.h., which is usual for this berth.

(g) Bunkering: Bunkers are available in the berth in amounts greater than 500 tons. As bunkers are taken via the same sea line as cargo is discharged, the operation is somewhat clumsy and time consuming: crude in the sea line is displaced by fuel oil; the hose is shifted to bunker connection; bunkers are taken; the hose is re-connected to cargo manifold; the fuel oil in the sea line is displaced by crude oil. This sequence of operations took a total of eight hours. If a total discharge was planned, it might be advisable to take bunkers in the middle of the discharge, in order to obviate the need to use stripping pumps to displace the fuel oil in the sea line, amounting to some 1,200 tons.

Notice: *Information for the attention of the Masters of tankers mooring at the S.I.R. sea-line of Port Bouet:*

The conditions at this sea-line necessitate the presence on board of the following personnel during operations of mooring and connection of the hoses.

1 Superintendent who combines the duties of Mooring Master, Loading Master and chief diver.
2 Divers who also assist in the mooring and the connecting operations.
2 Seamen for the refinery's launch.
2 Assistants for the mooring and connecting operations.

These personnel will be present until pumping starts. We would be glad if you would provide meals for them during this period (from 8 to 12 hours normally).

Usually the Superintendent and the refinery's representative eat in the officers' mess and the rest in the crew's mess.

Once pumping has started the following personnel stay on board. The Superintendent; the refinery's representative; 2 seamen; 1 assistant.

We would be grateful if you can provide cabins and meals in the officers' mess for the Superintendent and refinery's representative and sleeping quarters and meals for the 3 other persons until the tanker's departure.

The refinery's launch the "Sirius" helps during the mooring and connecting operations and serves as a liaison launch between the tanker and the refinery. Would you reserve a mooring berth on the starboard side of the tanker with pilot's ladder for access aboard? The mooring ropes are provided by the refinery and should be reserved for the launch "Sirius". The Agent's launch or any launch other than the "Sirius" should moor forward of this berth and should be provided with its own pilot's ladder.

We thank you in advance for your kind cooperation in this matter and wish you a satisfactory stay on the sea-line.

Signed: General Manager, Societe Ivoirienne de Raffinage.

STEVEDORES: Gangs must be ordered before 1700 hrs. on the previous day.

MEDICAL: All medical services and hospitalisation can be arranged without difficulty. Crew members are obliged to have valid certificates against yellow fever.

DENSITY: Varies from 1025 in January to 1000 in November.

FRESH WATER: Supplied from the quay at the rate of 40 t.p.h. per hydrant. Can be supplied by barge.

FUEL: 1500 secs. fuel available from Abidjan Refinery. Advance notice required.

WATCHMEN: Services of shore watchmen are recommended. See "Notice".

PIRACY: February 1988: Whilst at anchor overnight awaiting berth, vessel was boarded by armed pirates who threatened crew and stole stores and crew effects.

Vessel berthed in morning and worked from 0730 hrs. – 1930 hrs. During the night, whilst alongside, the vessel was again boarded and plundered.

HATCHES: Normally opened and closed by stevedores.

CUSTOMS ALLOWANCES: Each man allowed to retain 200 cigarettes and 1 bottle of alcohol.

IDENTIFICATION CARDS: Should be carried by crew going ashore.

CONSULS: The following countries are represented locally:

Algeria
Argentina
Austria
Belgium
Benin
Brazil
Canada
Central African Rep.
Chile
Colombia
Congo
Denmark
Egypt
Ethiopia
Finland
France
Gabon
Germany F.R.
Ghana
Guinea
Guinea Bissau
India
Israel
Italy
Japan
Korea
Lebanon
Liberia
Mali
Mauretania
Morocco
Netherlands
Nigeria
Norway
Poland
Romania
Senegal
Spain
Sudan
Sweden
Taiwan
Tunisia
U.S.S.R.
United Kingdom
U.S.A.
Upper Volta
Vietnam
Yugoslavia
Zaire
Zambia

REPAIRS: All types of repairs can be effected. There is a floating dock with lifting capacity 2,000 tons.

REPATRIATION: Can be arranged.

AIRPORT: Local international airport with connections to all parts of the world.

TIME: GMT. No alterations during the year.

HOLIDAYS: 1st May and 7th December no work can be carried out. Other holidays which may be worked at overtime rates are: 1st January, Easter Monday, Whit Monday, Ascension Day, 1st November, Christmas.

POLICE/FIRE/AMBULANCE: Police, tel. 35.57.57; Fire, tel. 238/82; Ambulance, tel. 238/82.

TELEPHONES: Can be connected on board if requested for vessels moored at Quays No. 1, 2, 4 and 5.

SHORE LEAVE: Allowed without restriction. See "Notice" below.

DEVELOPMENTS: The port extension project of the Locodjro site (West bank of the Bay of Banco) to be constructed. Facilities to include container terminal, mineral terminal, additional fishing port, clinker berth and additional general cargo berths. 2×40 ton gantry cranes to be installed.

NOTICE: Agent's Notice to Masters: 1986.

REF: DOCUMENTS – SECURITY – WARNINGS.

In order to comply with the various local regulations and meet the different Port of Abidjan Authorities requirements, we give below, the necessary instructions, information and warnings.

(A) *Documents:*

Upon arrival you will have to hand over the following documents to the corresponding authorities:

1. *To the Agent:* 4 Crew Lists, 4 Ports of Call Lists, 4 Passenger Lists, 1 Store List, 1 Animal List, 1 Crew Declaration List, 1 Drugs List, 1 Arms and Ammunition List, 2 full sets of Inward Manifests.
2. *To the Customs Officers:* 1 Crew List, 1 Ports of Call List, 1 Passenger List, 1 Store List, 1 Crew Declaration List, 1 Drugs List, 1 full set Inward Manifest.
3. *To the Police Officers:* 1 Crew List, 1 Ports of Call List, 1 Passenger List, 1 Animal List, 1 Arms and Ammunition List.
4. *To the Health Officers:* 1 Crew List, 1 Ports of Call List, 1 Passenger List, 1 Animal List, 1 Vaccination List.
5. *Remarks:* We must stress that all these above documents must be correctly and accurately completed, your attention is especially drawn to the documents given to the Customs Officers: Store List, Crew Declaration List, Drugs List, which will be thoroughly checked and any discrepancies could lead to heavy fines to the vessel.

   Customs Regulations require that any item which is not absolutely necessary to the functioning of the ship must be declared. This concerns mainly any television, radio, video, or other electrical apparatus belonging to the ship which have to be mentioned on the Store List together with all items usually declared.

   Also for exchange control operations, Customs require that any amount of foreign currency which is either personal to a crew member or belonging to the ship's funds in excess of CFA150.000 per man (approx. US$335.00) must be declared on the Provisions or Crew Declaration List.

(B) *Security:*

Your are hereby advised that security wise, Abidjan Port is quite unsafe these days, and Master must protect his ship against the following:

Robberies and Pilferage of Cargo and Vessel Property: Police Officers watch is compulsory on vessel discharging foodstuffs. However, additional watchmen (private or police) are recommended to avoid robberies and pilferage of cargo. Please discuss this matter with your Agent who can order the necessary watchmen at your request and for your account.

It is further recommended to keep all cabins closed and keep a watch at the entrance to the living quarters.

Prostitution: Even though they are not allowed to enter the port area, prostitutes board vessels either from shore or lagoon side.

You are hereby informed that such practices are strictly prohibited and vessel will be prosecuted and fines levied by police in case prostitutes are found on board your vessel.

(C) *Warnings/Smuggling:* We draw your attention on the strictness of the local Customs Regulations and hereby warn you and your crew of the heavy risks taken in case of any attempt at smuggling.

We strongly warn crew members not to deal with anyone trying to sell local produce (such as cocoa or coffee) or to buy any part of your cargo or personal effects (such as radios, televisions, videos, watches, sugar, rice, fish, etc.). Please note that some of these "dealers" are "Agent Provocateurs" and the Customs usually prosecute the vessel with fines out of all proportions.

You are also reminded that crew members are not allowed to carry in and out the port any personal effects or provisions of any value.

SHIPMASTER'S REPORT: October, 1983.

Documents: Customs are very strict on Crew Declaration and Crew Lists. Fines in case of differences are very high.

In case you are notified of a fine you should contact your P and I Club through your Agent.

Yellow Fever Certificates not compulsory.

Anchorages: Many ships that have had to anchor inside the harbour have been boarded by armed thieves – it is preferable to wait 30 miles off coast drifting rather than anchoring inside harbour waiting for berth.

Radio: "Comport" must be advised 24 hours prior to arrival. Arrival/departure is governed by Vridi Channel. Navigational opening times advised by Agent. Inward bound ships are advised to arrive 30 minutes after advertised opening times as outward ships have Pilot Priority.

Berthing: Max. draft at Banana Loading Pier is 7.5 m. We always berth port side to using starboard anchor. 140,000 boxes fruit usually loaded in a 40 hour working period. Labour works as cargo is available. For bananas/pineapples, holds are pre-cooled to +8°C for survey.

Average rate of general/frozen cargo discharge at General Cargo Piers is max. 15 t.p.h. depending on transport available.

Fresh Water: No difficulties at General Cargo Quays, but only available at Banana Quay by barges (whose services are unreliable). Always preferable to give as much notice as possible.

Watchmen: 2 ships' watchmen on duty at night plus 2 shore watchmen. The latter are regulars appointed by Ship's Master.

Regulations: Please note that security net under gangway is compulsory. The lack of it would result in a heavy fine from the Port Authority.

If unauthorised persons are allowed on board this may result in heavy fines by the Port Authority.

Crew Safety: It is advisable to take a taxi when proceeding ashore.

It cannot be too stongly emphasised that NO person should venture ashore on his own either by day or night.

SHIPMASTER'S REPORT: February 1985.
Customs: It is advisable to declare all valuable goods such as television sets, video-recorders, video tapes, radios and binoculars, also soft drinks and beer, as it is common for Customs to impose fines of $1,000 – $2,000 if incorrect declaration is made.

The Ship's Stores List/Provisions List must also be correct otherwise fines will be imposed.

AUTHORITY: Port Autonome D'Abidjan, BP. V85, Abidjan, Ivory Coast. *Tel:* 32-01-66, 33-14-24. *Telex:* 22778 Dgpaa CI. *Contact:* Director General.

AGENT: Socopao Cote d'Ivoire, 01 B.P. 1297, Abidjan 01, Ivory Coast. Tel: 32-02-11. Telex (Shipping): 23562, 23745, 23755, 23413 Freight CI. Cables: "Freight Abidjan". FAX: 32-92-05.

ESPOIR (Floating Storage Unit): 05.04 N. 04.26 W.

(See Plan)

Production expected to cease late 1988. Facilities will be removed and wells plugged early 1989.

PORT LIMITS: See "Plan".

Lay time will commence upon vessel being all fast.

DOCUMENTS: See "Abidjan".

PILOTAGE: The services of a Berthing Master are arranged by Agent and provided by Phillips Petroleum Co. (PPCoIC).

Berthing Master boards approximately 3 miles from the FSU in position 5° 08′ N., 04° 19.5′ E.

ANCHORAGES:

Tanker Anchorage:

A. Lat. 5° 09′ 30″ N., Long. 4° 22′ 00″ W.
B. Lat. 5° 10′ 00″ N., Long. 4° 17′ 00″ W.
C. Lat. 5° 08′ 00″ N., Long. 4° 17′ 00″ W.
D. Lat. 5° 07′ 30″ N., Long. 4° 22′ 00″ W.

Anchoring Prohibited:

E. Lat. 5° 05′ 00″ N., Long. 4° 31′ 30″ W.
F. Lat. 5° 05′ 00″ N., Long. 4° 24′ 30″ W.
G. Lat. 5° 00′ 30″ N., Long. 4° 24′ 30″ W.
H. Lat. 5° 00′ 30″ N., Long. 4° 31′ 30″ W.

RESTRICTIONS: Mooring of a ship will not take place during dark hours – mooring will not take place if conditions are judged unfavourable by ship's Pilot, "Phillips Enterprise" Master or Terminal Superintendent. Mooring will not take place until after satisfactory completion of ship's safety inspection by Terminal Representative.

Also see "Berthing".

MAX. SIZE: Max. LOA 925 ft. Depth 280 ft.

HEALTH: See "Abidjan".

RADIO: All vessels destined to load crude oil at the Espoir Terminal are required to advise the Terminal Operator of their ETA (Estimated Time of Arrival) at the Terminal designated anchorage area 5 days, then 72, 48, 24 and 12 hours prior to their arrival. The 5 day's notification need only be given if the current sea passage of the vessel is in excess of 2 weeks' duration.

The 72 hour notification must include the following:

1. Exact ETA (local time and date).
2. Quantity of cargo required – in barrels.
3. Number and size of manifolds and reducers ASA 150.
4. Distance from bow to manifold and stern to manifold.
5. Length of flat side.
6. Minimum speed and equivalent RPM.
7. Confirm 5 mooring lines forward and 5 mooring lines aft (mooring lines should be minimum 11 in. with adequate chafing protection).
8. Advise arrival and departure draft and trim.
9. Any requirements needing early attention.
10. Confirm inert gas system operating correctly and that vessel will maintain a maximum oxygen content of 8% in the tanks throughout berthing, deballasting, loading and unberthing operations.

The 48, 24 and 12 hour notification need only specify the latest ETA, plus any amendment to the details already advised under the 72 hour notification. After the initial notification has been made, any change in ETA of more than 12 hours must be immediately advised to the Terminal Operator.

ETA messages can be routed as follows:

1. Phillips Base/Abidjan – VHF Channels 19, 20 and 24.
2. Phillips Base/Abidjan – Landline Telex: 22681 and 22682.
3. Phillips Base/Abidjan – HF SSB (voice)
   Ship transmits 4139.5 kHz
   Ship listens 2008.0 kHz
   Sel code 20947.
4. "Phillips Enterprise"/Espoir Terminal – VHF Channel 6.
5. "Phillips Enterprise"/Espoir Terminal – Telex via Inmarsat 00-581-1242511. Answerback 1242511 DTSI X.
6. "Phillips Enterprise"/Espoir Terminal – Telephone via Inmarsat 00-871-1242511.
7. Abidjan Radio (TUA).

VHF: FSU is equipped with VHF radio. Normally uses Channels 16 – 11.

VHF Channel 11 will normally be used between the storage vessel and the offtaking vessel during operations. The Berthing Master may designate another Channel if necessary. The Berthing Master will supply portable sets equipped with this Channel for inter-vessel use.

Communication During Loading Operations: As a general rule, medium and high frequency radio-telegraph and radio-telephone systems are to be shut-down during cargo transfer and deballasting. For more information, consult the OCIMF/ICS Ship-to-Ship Transfer Guide (Petroleum).

Inter-vessel Communications Failure: If inter-vessel communications fail during any part of the operation (mooring, deballasting, cargo transfer, unmooring), the vessel affected shall sound the International Signal "K" on her whistle and cargo operations, if in progress will be stopped until normal communications are re-established.

Aircraft Frequencies: Those vessels fitted with aircraft VHF frequencies when expecting helicopters, will make radio contact prior to their approach on 126.40 kHz. At this time operational advice will be exchanged such as permission to land and or information on hoists etc.

TUGS: 1 supply vessel and 1 twin screw/bow thruster tug of 60 ton bollard pull will assist during mooring. Tug normally joins the vessel 3 miles N.E. of Terminal.

BERTHING: The "Phillips Enterprise" (230,000 d.w.t. VLCC) located in position Lat. 05° 04′ 03″ N., Long. 04° 25′ 32″ W. is a permanently moored tanker used as a floating loading, storage and off-loading facility. Vessel is moored stern first to a buoy via a rigid arm, free to weathervane 360°. Off-loading ships are moored alongside port side to port side. Fenders are provided by "Phillips Enterprise".

Depending on ship size, offtake tankers will moor with minimum 6 head/stern lines and double wire springs with nylon tails. FSU provides 2 polyprop lines fore and aft.

The following sets forth guidelines on weather conditions under which berthing or unberthing operations may take place during PPCoIC loading operations. On many occasions, there may be circumstances or a combination of circumstances which may or may not preclude berthing or unberthing operations. In these circumstances, good judgment should be used by the Master, under the Berthing Master's advice to decide the action to be taken.

For Berthing: The berthing manoeuvre normally should NOT be attempted when any of the following parameters are reached:

1. Winds, Waves and Swell from the Same Direction
   (a) Wind velocity 30 knots or more.
   (b) Wave height 10/12 ft. or more.
   (c) Swell of short or average length, height 10 ft. or more.
2. Winds, Waves in Different Direction to Swell
   (a) Wind velocity 15 knots or more.
   (b) Wave height 5/6 ft. or more.
   (c) Swell of short or average length, height of 5 ft. or more.

For Unberthing: Whenever either of the following parameters is reached or exceeded, then vessels should normally be unmoored.

(a) Wind 35 knots or more.
(b) Wave height 10 ft. or more, or when cross-wind or swell is causing undue working of the mooring lines.

Immobilisation of engines not permitted.

LOADING: The "Phillips Enterprise" is equipped with 1×16 in. hose string. Manifold connection from ship should be 16 in. ASA 150 lbs.

Transfer operations are to be made in strict accordance with ICS/OCIMF Ship-to-Ship Transfer Guide and Espoir Terminal Regulations and Information Handbook.

Crane: One hose handling hydraulic crane on the "Phillips Enterprise". Ship's port manifold boom required to complete rubber hose connection for discharging.

BALLAST/POLLUTION: No dirty ballast facilities. Only clean ballast from segregated ballast tanks is to be discharged. The offtaking vessel's Master and the Loading Supervisor of the Espoir Terminal vessel should assure themselves that such ballast is clean. Vessels calling at the Espoir Terminal must be members of the TOVALOP agreement. Valid certificate of membership must be on board the vessel.

MEDICAL: In case of emergency medical attention, the following information should be sent to the Agents:

1. Name, rank, nationality and passport number.
2. Method of travel and port of disembarkation.
3. Specify general symptoms and any particular requirements.

DENSITY: Salt.

FRESH WATER: Not available.

FUEL: Not available.

FIRE PRECAUTIONS: Transfer operations are to be made in strict compliance with the ICS/OCIMF Ship-to-Ship Transfer Guide and Espoir Terminal Regulations and Information Handbook, a copy of which is given to the off-loading tanker prior to the mooring operation.

EMERGENCY CO-ORDINATION CENTRE: Phillips Base/Abidjan for any emergency situation arising from the conduct of lifting operations at the Espoir Terminal.

REPAIRS/SPARES: Whenever it is necessary to send ashore ship's equipment, deck/engine machinery, spare parts, etc., for repairs or transhipment, the Agents must be advised 24 hours in advance in order to file with the Customs in sufficient time before the parts arrive. In addition, a letter from the Master, addressed TO WHOM IT MAY CONCERN, giving all details on the parts, etc. should be attached to the respective cases.

SHORE LEAVE/REPATRIATION: Shore leave is not allowed for crews while in the cargo transfer area; however, crews are allowed to be repatriated or to go ashore for medical attention. In case of repatriation, the Master must send a message to his Agent at least 24 hours prior to the crew member's arrival ashore indicating:

1. Name, rank, nationality and passport number.
2. Way of travel from the loading area to shore, i.e., loading vessel's name, helicopter, supply boat, etc., and port of disembarkation.
3. Final destination and the reason for disembarkation, e.g., repatriation, to doctor or hospital.

SAFETY: *Emergencies:* The Emergency Signal will consist of a series of short rapid blasts on either ship's whistle or siren. This signal will apply through any part of the operation. All pumping must stop and the full resources of the ship directed to deal with the emergency.

Special Signals: Both vessels engaged in the oil transfer operations will display the lights and shapes required by the International Regulations for Preventing Collision at Sea, 1972 or any subsequent amendments.

Weather: Available local weather forecasts, supplemented by shipboard facsimile weather records and area weather reports from the Abidjan Office should be checked before and throughout the operation.

Gangway Safety Net: If a gangway between vessels is used, a safety net must be rigged underneath the gangway between both vessels at all times.

Emergency Towing Wires: Emergency towing wires shall be properly rigged on the starboard side of the off-taking vessel, forward and aft. These wires are to be kept near the water surface at all times.

Deck Watch: A Deck Watch on mooring must be maintained by both vessels and the bow of the off-taking vessel should not be allowed to fall off.

GENERAL: *Helicopters:* Helicopters will not be used for the transfer of personnel or materials to and from the terminal area during the period vessels are mooring or unmooring.

The landing of helicopters on vessels engaged in the ship-to-ship transfer is expressly forbidden unless previously authorised by PPCoIC. If permission is granted, arrangements and advice to the interested parties will be co-ordinated by the PPCoIC Office in Abidjan.

Whenever a helicopter is sent to the loading area, the Master of the vessel to which it is dispatched will, before its departure, be advised by PPCoIC Abidjan, of the helicopter's ETA at the vessel along with any relevant information necessary. Any oil transfer operation will cease 30 minutes before its arrival.

Vessels fitted with radios, on frequency 126.40 kHz should attempt to make radio contact with the helicopter before its arrival.

Notice of Readiness: The off-taking vessel should on arrival at the "Designated Anchorage Area", tender Notice of Readiness (N.O.R.) through the Loading Supervisor on duty who will acknowledge receipt as per terms and conditions of the Charter Party. If no Loading Supervisor is on duty at the time, then consideration may be given to tendering N.O.R. by radio through vessels Agent.

Bills of Lading: After the cargo transfer operation has been completed and the cargo quantity determined, Bills of Lading will be prepared by the designated shipping Agent or in his absence by the Terminal Operator, in accordance with Appendix A of the Crude Oil Lifting Procedures.

AUTHORITY: Phillips Petroleum Company – Ivory Coast, 01 B.P. 3857, Abidjan 01, Ivory Coast. *Tel:* 32.16.14 (Ext. 505). *Telex:* 22681, 22682. *Cables:* Philivco, Abidjan. *Contact:* C. J. Head, Marine Superintendent.

SAN PEDRO: 04.44 N. 06.38 W. ✓ (See Plan)

LOCATION: The Port of San Pedro is located at the old mouth of the river bearing the same name. The river has been diverted and now comes into the sea to the East of the hill on which a light is located.

DOCUMENTS:

3 copies Crew List.
3 copies List of Ports of Call.
1 copy Passenger List.
1 copy Declaration of Arms and Ammunition.
3 copies Kroo List.
1 copy Health Declaration.
6 copies of Manifest.
2 copies Bills of Lading.
3 copies List of Hazardous Cargo, disembarking or in transit.

APPROACHES: *In Clear Weather:* The first recognisable Port characteristics are:

1. The lighthouse to the N.E. of the Port on a hill (Lat. 4° 44′ 55″ N., Long. 6° 36′ 00″ W.) – which is a four-sided pylon 26.8 m. high on the top of which is a square metal shelter with horizontal red and white stripes and on its middle part on the Southern side is a white sphere. The height of the light is 160.3 m.

2. Hertzien Relays: Cylindrical telecommunications tower, grey in colour and 59.3 m. high. It is located 1,100 m. – 268° from the light of the Eastern Jetty on a hill dominating the Port. Its height in relation to sea level, is 127 m. At the top of it is a metal aerial mast.

In Misty Weather: There is an aeronautical radio beacon (Lat. 4° 46′ 12″ N., Long. 6° 38′ 58″ W.) operating during the day from 0730 hrs. to 1830 hrs. and at night on request (frequency 330 A1 call sign "SAP".). The request for night operation must be made to ASECNA at Abidjan.

PILOTAGE: Pilotage is compulsory for entering and leaving and for moving within the pilotage limits, defined by a circle of 4 miles radius centred on the base of the Western Jetty (Pointe Quiquerez).

All vessels wishing to enter the pilotage area of the Port must send at least 24 hours prior to arrival, a telegram or a telex stating ETA, overall length, draft, nature and tonnage of goods to be loaded or unloaded.

The telegram or telex should be sent for the attention of the Port Commandant, or otherwise to the Consignee.

The pilot boat is a cutter which has a black hull and white superstructures marked "Pilote San Pedro". The usual summoning signals for the Pilot are also supported by 2 long and 1 short (G) audible signals on the siren.

Pilotage is available day and night for leaving the port and for movements at the quay. Berthing at the buoys only possible during daylight hours. Departures are announced at the daily port conference.

Pilot service not available 24th & 31st December (1800 – 0800 hrs.).

Three hours before sailing, the ship's Agent must confirm or modify the time for sailing as is expected.

The vessel must confirm again its departure 1 hour before sailing (by VHF or by any other means if the vessel does not have VHF).

RESTRICTIONS: Tides impose no restriction. However vessels drawing 34 ft. (the authorised maximum) operate during HW to facilitate their movements.

MAX. SIZE:

Berth	*Max. LOA* (m.)	*Max. Draft* (m.)
Oil Berth	90	5.5
Berth No. 1	155	10.5
Berth No. 2	200	10.5
Berth No. 3	190	10.2
Berth No. 4	195	10.5
Berth No. 5	140	10.5
Berth No. 6	150	8.5
South Quay	150	8.5
West Quay	586	10.5

RADIO: Vessels anchored can communicate with the Port Captaincy on VHF (Channel 16 and 12 with permanent watch). There is permanent radiotelephone watch on 2182 kHz, as well as communication by light signals.

TUGS: One tug of 1,300 h.p.

BERTHING: The port protection structures comprise of a Western breakwater 265 m. long and a breakwater to the East of 145 m. length. Access is by means of a 120 m. wide channel dredged to 12.50 m. The entrance passage is 200 m. wide. A heading of 291.5° leads to the port.

The channel gives access to a manoeuvring basin of 400 m. diameter dredged to 11.8 m. depth.

South Quay: Length 155 m., depth 9 m.
West Quay: Length 181 m., depth 11 m. and 405 m., depth 12 m.
Service Quay: Length 109 m., depth 4 m.

There are 5 loading points at buoys for loading timber: 2 to the North of the Western Quay, and 3 to the North of the Eastern Breakwater, which can take vessels with a maximum length up to 140 m. at 3 buoys and 200 m. at 2 buoys. Depth 11 m.

Cement Handling Berth: Length 200 m. Vessels berth against dolphins and secure to buoys fore and aft. Depth of water 11 m.

There is also inside the Port a small tanker berth for vessels not exceeding 100 m. on the Eastern Breakwater. The areas located to the North and East of these berths are used for storing timber.

Also see "Max. Size".

STEVEDORES: Work around the clock.

MEDICAL: There is a hospital with limited facilities at San Pedro. For serious cases, patients are taken by medical plane to Abidjan (which is 1 hour's flight away).

EQUIPMENT: No quay cranes, cargo handled by ships gear.

One mobile crane, capacity 60 tons. One 30 ton "Challenger" for handling containers. Lighters of 200 ton and 300 ton capacity.

FRESH WATER: Available at the quays, rate 30 t.p.h. Also available at the buoys by barge, capacity 300 tons, rate 25 t.p.h.

FUEL: Available alongside at the quays by road tanker.

CONSULS: France.

REPAIRS: There are several workshops for effecting small repairs. The Port Authority also undertakes repairs, contact Harbour Master.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits.

AIRPORT: Daily air link with Abidjan

TIME: GMT.

HOLIDAYS: *Public:* December 7th, (Independence Day); May 1st, (May Day).

Legal Holidays: The following legal holidays are considered public holidays with pay unless they fall on a Sunday:

January 1st; End of Muslim's Lent (Ramadan); November 1st, All Saints' Day; Ascension Day; Assumption; Easter Monday; Whit Monday; December 25th.

It should also be noted that when December 7th and May 1st fall on a Sunday the following day is considered a public holiday. The same when December 7th falls on a Tuesday or Friday, the preceeding or following day is considered holiday.

POLICE/AMBULANCE/FIRE: Police Tel: 71-13-43; Ambulance Tel: 71-10-25; Hospital Tel: 71-11-21 and 71-16-01.

GENERAL: *Tides & Currents:* The maximum tidal range is 1.5 m. (about half an hour ahead of the tidal times at Abidjan).

The slight S.W'ly current at the Port entrance of 0.5 to 1 knot is negligible inside the Port.

There is a slight tidal rip at the South Quay. But in the whole port and particularly at the South Quay, there is a considerable undertow between the months of June and September.

Weather: The tropical climate with tradewinds is rather mild (maximum 30°C, minimum 20°C, the absolute minimum being registered in January 15°C).

The rain seasons go from May to August; the region is irrigated by tornadoes from April to May and September to October. The average rate of rainfall reaches 1,600 mm./year.

Fresh Food: Only available in small quantities.

Roads: A tarmacadam road connects with Abidjan, distance 450 km.

Port Officials: The Port Captaincy, the pilotage and tug control are all in the Captaincy building which is a two storey structure, raised on a circular dias located at Pointe Quiquerez. The Customs are within the Port to the South of the Western Quay.

DEVELOPMENTS: By 1990, in order to cater for increased exports and imports, the Port will have 4 anchorage points and 7 quay berths, one of which will be multi-purpose. This will involve extending the Port to the North and enlarging the Northern Dock, creating an Inner Port, extension of dredging, creation of open storage areas and construction of quays. In all, the plan, from a long term aspect, is to have 10 km. of quay, 500 hectares of port industrial area and 200 hectares of commercial areas.

AUTHORITY: Port Autonome de San Pedro, B.P.340, San Pedro, Ivory Coast. *Tel:* 71.20.80 or 71.16.61. *Telex:* 99102 Comport-CI. *Cables:* Comport San Pedro. *Contact:* Captain Guy Lambert, Harbour Master (VHF Channel 16 or 2182 kHz). *Tel:* 71-16-85.

AGENT: Socopao Cote d' Ivoire, B.P. 370, San Pedro, Ivory Coast. Tel: 711133, 712232. Telex: 99104 Freight CI. Cables: "Freight San Pedro".

9.28 6.60

Jamaica

KINGSTON: 17.59 N. 76.50 W. (See Plan)

PORT LIMITS: The area of the sea to the Northward of the Palisadoes extending from Harbour Head to Port Royal and a straight line from Port Royal to the jetty at Small Point.

Charts: General Chart of Jamaica No. 446. Kingston Harbour No. 454.

DOCUMENTS:

For Customs:

2 Crew Declarations.
Clearance from the Last Port of Call.
1 Ship's Register, i.e. Ship's Information.
2 Stores Lists.
2 Dangerous Cargo Lists.
International Certificates of Vaccination for each Crew Member.

For Immigration

2 Passenger Lists.

For Agent

Bills of Lading covering all cargo on board.
2 Crew Lists.
2 Stores Lists.
5 Manifests.
Ship's Register, Safety Certificate and Load Line Certificate.

For Quarantine

1 Crew List.
Maritime Declaration of Health signed by Master.
1 Derat Certificate.
International Certificates of Vaccination for Crew Members.

PILOTAGE: Pilotage is compulsory. A minimum of six (6) hours advance notice from the Master or Agent for the services of a Pilot. Pilots usually board the vessel two (2) miles S.E. of Plumb Point Lighthouse or East Middle Ground Buoy.

VHF contact with the Pilot Office is made through Channel 11.

ANCHORAGES: There are 5 anchorages namely A, B, C, D and E which are reserved. Reservation for the use of these anchorages should be made through the Harbour Master.

The 5 reserved anchorages are:

A. 210° Distant from R.C. Cathedral Dome 12.2 cables.
Position: Lat. 17° 57′ 17″ N., Long. 76° 57′ 12″ W.
B. 186.5° Distant from R.C. Cathedral Dome 10.9 cables.
Position: Lat. 17° 57′ 14″ N., Long. 76° 47′ 12″ W.
C. 162.5° Distant from R.C. Cathedral Dome 12.1 cables.
Position: Lat. 17° 57′ 14″ N., Long. 76° 46′ 40″ W.
D. 118.5° Distant from R.C. Cathedral Dome 28.4 cables.
Position: Lat. 17° 57′ 00″ N., Long. 76° 44′ 30″ W.
E. 124° Distant from R.C. Cathedral Dome 24.4 cables.
Position: Lat. 17° 57′ 07″ N., Long. 76° 45′ 00″ W.

In addition there is unlimited anchorage space available toward the Eastern end of the Harbour.

Entry – Day or Night.

RESTRICTIONS: Entry – day or night. Rise and fall of tide, average range 10 in., occasionally 16 in. Strength of current in harbour 1.5 knots (in some places). Main direction and average speed of prevailing winds E.S.E. 20 m.p.h. Months of max. rainfall (i) April/May, (ii) Sept., Oct. and Nov. Hurricane period June 15th – November 15th.

MAX. SIZE: Recommended max. draft into Port Royal 40 ft. for vessels of unlimited size. Main ship channel max. recommended draft of 36 ft. 6 in. and is 800 ft. wide at its narrowest point. Depth 39 ft. at MLW. Newport West has recommended draft of 32 ft. 6 in. with a turning basin of 1,500 ft. Esso Terminals has recommended max. draft of 34 ft. 6 in. Max. recommended draft of 32 ft. 6 in. to proceed Eastwards, from Esso Terminals, in harbour to anchorage or berths. Newport East has max. recommended draft of 27 ft. 6 in.

HEALTH: See "Documents".

Radio Pratique may be granted.

Crew not allowed to take fruit ashore.

Pratique Procedure: The Customs Officer who boards the vessel to check all documents will after he has placed excess tobacco and liquor under bond indicate to the Master when Pratique has been granted.

If a vessel obtains Pratique at Kingston, automatic Pratique granted to proceed to any other port in Jamaica.

RADIO: Cable Agents giving ETA, Draft, Passengers (if any), cash required. Call sign "KNRDO 6YI".

Tankers: ETA messages to state arrival time at Pilot Station, maximum draft on arrival, last port(s) of call, number of crew, date Derat Certificate expires, confirm crew possess valid vaccination certificates, cash, stores and laundry requirements, details of diseases if any and request Radio Pratique.

VHF: VHF Channel 16 – Kingston Radio. VHF Channel 11 – Pilotage.

TUGS: Available and compulsory for berthing and unberthing. Two tugs of 2,800 h.p. Tugs join incoming vessel near berth. In case of emergency tug joins vessel wherever requested by Master. Tugs on VHF Channel 16 (24 hours). Usually ship's lines used, but if tug's lines used there is no extra cost.

BERTHING: At the Public Wharves there are 11 existing berths and their specifications are as follows:

Berth No.	Length	Depth	Max. Draft
No. 1	525 ft.	25 ft.	22 ft. 6 in.
No. 2	600 ft.	30 ft.	27 ft. 6 in.
No. 3	600 ft.	33 ft.	30 ft. 6 in.
No. 4	600 ft.	34 ft.	31 ft. 6 in.
No. 5	600 ft.	33 ft.	30 ft. 6 in.
No. 6	600 ft.	32 ft.	29 ft. 6 in.
No. 7	600 ft.	33 ft.	30 ft. 6 in.
No. 8	600 ft.	31 ft.	28 ft. 6 in.
No. 9	600 ft.	34 ft.	31 ft. 6 in.
No. 10	600 ft.	39 ft.	36 ft. 6 in.
No. 11	600 ft.	39 ft.	36 ft. 6 in.

In the immediate vicinity of these berths the clear turning is 1,500 ft.; elsewhere there is adequate swinging room for the largest vessel. At Berths 1 – 8 there are the following:

4,725 ft. of berth frontage	3,247,000 sq. ft. of open storage
467,000 sq. ft. transit shed	67,000 sq. ft. of cold storage

Tractors, cranes and forklifts are used to move cargo from ship's side. Ro/Ro facilities are located at Berth No. 1, where there is an 80 ft. concrete ramp. There is a floating barge/ramp at Berth No. 8. Full container facilities are available at Berths 9, 10 and 11; and in addition there are approx. 50 acres of terminal area with storage space for 5,000 containers and a Container Freight Station of 45,000 sq. ft.

There are no specialised berths on the public wharves for handling bulk cargo. However, when necessary, consignees make their own discharging and storage arrangements.

Dangerous Cargo: 1. Vessels wishing to transit any Jamaican Port with dangerous cargo/goods on board are required through the Master or Agent to apply to the Harbour Master for permission to make such a transit.

The application should be made not less than 48 hours before the vessel's ETA and must include:

(a) The I.M.O. number assigned to the cargo as per I.M.O. Dangerous Goods Code;
(b) The volume of the cargo;
(c) The port for which the cargo is destined.

2. Vessels loading dangerous cargo for intended discharge in a Jamaican port must before loading such cargo apply to the Harbour Master for permission to go alongside for the purpose of discharging same. The application must include:

(a) The I.M.O. number assigned to the cargo as per I.M.O. Dangerous Goods Code;
(b) The volume of the cargo;
(c) The nature of the cargo and storage;
(d) The name of the intended port of discharge.

Equipment: Four Portainer Cranes (40 ton), 9 Karrilifts, Heavy Forklifts (max. 32 ton), for handling empty containers and several Tractors and Chassis.

The 4 Portainer Gantry Cranes are capable of moving 20 ft., 35 ft. and 40 ft. containers at a rate of 30 an hour; the 9 Karrilifts can handle similar size containers.

Developments: Rails on Berth 11 have been extended by 200 ft. Adjacent to this extension it is proposed to erect a 100 ft. berthing platform for handling Ro/Ro vessels.

STEVEDORES: To enable Agent order gangs important to obtain accurate ETA from vessels. Time: 1200 hrs. the working day before vessel arrives. Shifts: 0700 – 1400 hrs., 1400 – 2100 hrs., 2100 – 0500 hrs. Saturdays, Sundays and public holidays attract premium rates.

Stevedores normally rig and open, but crew open MacGregor hatches. All necessary gear supplied by stevedores except rain tents and special lifts requiring special gear, which vessel must supply. Average unloading rate 10/15 tons per gang hour for general cargo.

BULK HANDLING FACILITIES: *National Gypsum & Quarries Limited:* National Gypsum and Quarries Limited operates a wharf at Harbour Head for the export of gypsum rock only.

There are 3 steel and concrete dolphins and 1 wooden dolphin. The concrete and steel dolphins are the principal docking structures. They are 161 ft. apart. The min. draft currently available is 26 ft., but this could be increased at short notice to 29 ft. Vessels of 440 ft. length and 64 ft. beam are normally loaded. Bulk rock loading facilities capable of loading crushed gypsum at an average rate of 700 t.p.h.-1000 t.p.h. are available.

Wherry Wharf Limited: Wherry Wharf Limited maintains a pier at Newport East for loading and unloading lumber, corn and animal feed ingredients.

The wharf is 200 ft. long with a depth of 29 ft. It has a free-flow access road and a 200 ft.×60 ft. apron.

Shell Company (W.I.) Limited: Shell Company (W.I.) Limited has bulk cargo facilities at Harbour Head used primarily by Jamaica Flour Mills.

MEDICAL: Agents to be advised before arrival of vessel if emergency medical attention required. Hospital facilities available. If inoculation required Master to advise Agents prior arrival of vessel.

TANKERS: No specific requirements applicable to oil carriers. Reducers available to fit 12 in. – 4 in. load/discharge lines. Slop (residue) discharge facilities available taking maximum 500 gallons. Gas free certificate required for tankers laying alongside Public Wharves in Kingston.

Texaco Caribbean Inc.: Texaco Caribbean Incorporated operates 1 wharf which is situated at Harbour Head and is known as the Eastern Terminal. The jetty is 325 ft. long and will accommodate vessels up to 18,000 tons (gross). Max. draft at low tide is 28 ft. Berth is used for receival of bulk petroleum products and for bunkering vessels with Gas Oil, Marine Diesel and Fuel Oil. No packaged goods are handled at this berth. Fresh water supplies are available.

Esso Marketing Terminal: Max. length of vessels 600 ft. Max. safe draft –31 ft. Draft forward restricted to 28 ft. only with vessel moored portside alongside. Both day and night berthing possible. Fresh water is available. Bunkers available here are Heavy Fuel Oil (Bunker C), Marine Diesel, Marine Gas Oil and a wide range of intermediate bunkers.

Esso Refinery Marine Dock: Max. length of vessels 743 ft. Max. safe draft 36 ft. 6 in. Fresh water is available and day and night berthing possible. The Esso Refinery Pier is used for receiving crude petroleum from tankers as feed stock for the Refinery through a 20 in. under sea pipe-line. A wide range of finished products is also delivered into tankers for export as well as for discharge at other ports on the island.

Esso Refinery Dry Cargo Dock: Max. length of vessels – 400 ft. (Freighters) and 475 ft. (Tankers). Drafts alongside vary from 25-27 ft. Draft forward restricted to 17 ft. 6 in. with vessel moored portside alongside only. Fresh water is available. This dock is used for loading and unloading packaged and drummed lubricating oil on freighters for export to various countries throughout Central America and the Caribbean.

Other materials exported here are lubricating oil in bulk and various grades of asphalt in drums.

DENSITY: Average density 1026.
FRESH WATER: Fresh water available at berth. Average delivery rate 20 t.p.h.
FUEL: All grades (viscosities) available. At least 2 days' notice required. *Bunkering Depot – Newport West:* The Shell Company (W.I.) operates bunkering facilities at Newport West.

A hydrant system with outlets at each berth provides a complete range of bunkers.

Esso bunkering facilities are available at Newport West. Pipe-lines run from the nearby Esso Kingston Terminal to the berth at Newport West providing Heavy Fuel Oil and intermediate ranges of bunkers. Marine Gas Oil is also available Monday through Friday by tank truck.

Texaco Caribbean Incorporated also has facilities for bunkering vessels with Gas Oil, Marine Diesel and Fuel Oil.
FIRE PRECAUTIONS: Fire boat available equipped for fighting harbour fires 24 hours per day. Also equipped fire engines situated within easy reach of docks available 24 hours a day.
GANGWAY/DECK WATCHMEN: Services of watchmen are recommended.
OPENING/CLOSING HATCHES: Hatches covered by Pontoon and Hatch Boards opened and closed by stevedores. MacGregor hatches handled by crew.
CERTIFICATES:
Safety Certificate.
Ship's Register.
Load Line Certificate.
Test Certificates for derricks and cargo handling gear.
CUSTOMS ALLOWANCES: Tobacco, 2 oz. tobacco in any form (2 oz. pipe tobacco or 40 cigarettes) per day. Wine and/or spirits, 6 oz. or 0.5 reputed pint of spirit per day. 1 pint wine allowed Master and Officers only or as stated in the Articles under flag they fly.
CARGO GEAR: The usual certificates covering testing and inspection of all gear and equipment as required under Docks Regulation 1934 of Great Britain or by International Labour Organisation, will be acceptable.
IDENTIFICATION CARDS: No Identification Cards required.

CONSULS: Consuls not available on Saturdays and Sundays, except by special request.

	Kingston Tel. No.
High Commissions	
British Information Service	69050
Canadian High Commissioner	61500
Trinidad and Tobago High Commissioner	65739, 65730
Embassies	
American Embassy	63645
Argentine Embassy	65588
Chinese Embassy	70860
Cuban Embassy	74362–3
Dominican Embassy	66676
French Chancery Embassy	79811
German F.R. Embassy	66728
Israeli Embassy	68768
Mexican Embassy	66891
Netherlands Embassy	69026–8
Panamanian Embassy	70042
Soviet Embassy	41048
Venezuelan Embassy	65519–0
Consular Offices	
Argentine Consulate	77616
Austrian Consulate General	25623
Belgium and Luxembourg Consulate	64295
Colombian Consulate General	42004
Costa Rican Consulate General	67285
Danish Consulate	36737
Finnish Consul	23006, 22519
German F.R. Embassy – Consular Section	66728
Greek Consul	23685
Guatemalan Consul	42966
Haitian Consulate General	77595
Hondurian Consul Ad Honorem	67285
Italian Consul	66981
Jordanian Consulate	82661
Lebanon Consulate	76465
Liberian Consul	27169
Mexican Consulate	66891
Nicaraguan Consul	22856
Norwegian Consul	39811–4
Peruvian Consul	76565
Salvadorian Consul	25780
Spanish Consul	22856
Swedish Consulate	36737
Swiss Consulate General	23347

REPAIRS: Minor deck and engine repairs possible by 2 firms. Pre-advice of 3 days recommended.
DRY DOCKS: Dry dock facilities available.
SURVEYORS: Lloyd's Register, A.B.S., B.V., G.L., Det Norske Veritas.
REPATRIATION: Facilities available for effecting crew changes.
AIRPORT: Norman Manley International Airport – approximately 10 miles – served by many airlines.
TIME: Local time is GMT minus 5 hours.
HOLIDAYS: Days when work is performed only on overtime rate: New Year's Day; Ash Wednesday; Easter Monday; National Heroes Day (third Monday in October); Boxing Day. Days when ports closed, no work performed: Good Friday; National Labour Day (May 23rd); Independence (first Monday in August); Christmas Day.
POLICE/AMBULANCE/FIRE: Emergency tel. numbers: Police 116; Ambulance 110; Fire 110. Commissioner of Police 79858–0. Radio Control Room 81261–2. Fire Brigade 22121. Fire Boat Station 27018.
TELEPHONES: Arrangements exist for placing telephones on board. The Jamaica Telephone Company to be advised by Agents 2/3 days before vessel arrives.
SERVICES: Compass adjusting services available. Although routine repairs to radar, radios and other electrical equipment are possible, technical services generally limited.
SHORE LEAVE: Crew members allowed on shore after vessel cleared by Immigration. Vessels arriving from some countries require special Government approval before shore leave permitted, but no restrictions are normally placed on vessels arriving from Western European, American or African countries.
REGULATIONS: Dogs are not permitted to land unless they have undergone quarantine or are imported from United Kingdom.
DELAYS: Normally there are no delays to vessels calling at the port.
GENERAL: *Ship's Chandlers:* 3 ship's chandlers available.
Communications: Regular air services daily to London, New York and other European and American cities, and is therefore in excellent position to offer emergency facilities to vessels requiring urgent spares, crew replacements, etc. Vessels can anchor at Port Royal close by airport.
Customs: Vessels are searched thoroughly by Customs for *firearms* and contraband. Masters are held responsible by Customs for security of bonded stores, etc. Masters are therefore alerted to check security arrangements and to keep watch on bond whilst in port.
AUTHORITY: Port Authority of Jamaica, 15-17 Duke Street, P.O.Box 474, Kingston, Jamaica. *Tel:* 922-0290/8. *Telex:* 2386 Portops Jamaica.

MONTEGO BAY: 18.30 N. 77.56 W. (See Plan)

DOCUMENTS, PILOTAGE and all general information: refer to "Kingston".
ANCHORAGE: There is one anchorage in Montego Bay which must be booked through the Harbour Master in Kingston. Depth 5 to 6 fathoms.
RESTRICTIONS: Entry – day and night. Rise and fall of tide, average range 10 in. No current in harbour. Main direction and speed of prevailing wind, N.E., 10 m.p.h. Subject in January-February to occasional 2 – 3 day spells of squalls with driving rain known as Northers which makes lying at the anchorage uncomfortable, but there is virtually no swell alongside the berths.
MAX. SIZE: Unlimited water at anchorage. The 1,500 ft. long 400 ft. wide straight channel has a minimum depth of 34 ft. MSL, as does the 1,600 ft. diameter turning basin.
CLEARANCE: Customs, Health, Immigration Offices are maintained at the port.
BERTHING:

Montego Freeport is a new port developed with 3 berths operated by Montego Wharves Limited.

Berth No. 2 – 600 ft. long, 34 ft. minimum depth alongside, 7.5 ft above water line.

Berth No. 3 – 588 ft. long, 25 ft. minimum depth alongside, 6.5 ft. above water line.

Berth No. 4 – 387 ft. long, 25 ft. minimum depth alongside, 6.5 ft. above water line.

These berths are reached through a 1,500 ft. long straight channel 400 ft. wide dredged to a min. depth of 34 ft. There is 23,000 sq.ft. warehouse and an 87,000 cu.ft. cold storage facility adjacent to berth 2 with a wharf apron of 75 ft. Berths 3 and 4 are designed for Roll-on/Roll-off with 13 acres of bonded storage space adjacent. Berth 4 is used principally by cruise ships and is connected to a 5 acre duty free shopping complex by a 200 ft. long tree-lined walkway.

Montego Freeport Limited intends to build Berth No. 1 in the next few years which will be a continuation of Berth No. 2, creating 1,300 ft. of continuous berth face with ample space behind for expansion. The cold storage is planning on doubling its capacity.
STEVEDORES: The Port is open 24 hours of the day. To enable Agents to order gangs, it is important to obtain accurate ETA from vessels. Time: 1200 hrs. the day before the vessel arrives. Shifts: 0700 – 1400 hrs., 1400 – 2100 hrs. Mondays to Fridays with option to extend the first shift to 1700 hrs. at single time; 0700 – 1200 hrs. Saturdays, thereafter at overtime. Details can be obtained from Montego Stevedoring Limited, P.O. Box 303, Montego Bay.
TANKERS: No specific requirements applicable to oil carriers. Reducers available to fit 12 in. – 4 in. load/discharge lines. Slop (residue) discharge facilities available taking maximum 500 gallons. One tanker berth, Berth No. 2 minimum depth alongside 34 ft. MSL. Gas-free Certificate required for tankers laying alongside.
DENSITY: Average density 1026.
FUEL: All grades (viscosities) available. At least 4 days notice required.
FRESH WATER: Can be supplied from the dock. 30 t.p.h.
MEDICAL: All facilities at St. James's Hospital. Advise Agent in advance.
SECURITY: Under the jurisdiction of the Montego Bay Police and also 24-hour patrols in the port area by private security guards.
CONSULS: No consular offices in Montego Bay. See "Kingston".
FIRE PRECAUTIONS: Equipped fire engines situated within easy reach of docks 24 hours per day.
IDENTIFICATION CARDS: Recommended for crew.
REPAIRS: There are no dry dock facilities, but minor repairs can be effected alongside.
AIRPORT: 5 miles from port. Donald Sangster International Airport served by regular airlines.
POLICE/AMBULANCE/FIRE: Police, Tel: 119; Ambulance, Tel: 110; Fire, Tel: 110.
AUTHORITY: Montego Freeport Limited, P.O.Box 303, Montego Bay, Jamaica. *Telex:* 5329 Moport.

OCHO RIOS: 18.25 N. 77.07 W.

REYNOLDS PIER

GENERAL: Reynolds Jamaica Mines act as Agents for all cargo vessels using the pier at Ocho Rios. *(a)* Tel. Ocho Rios 603. *(b)* Cable address is "Mines" Ocho Rios, Jamaica. *(c)* 72 hour and 24 hour ETA requested. *(d)* Radio telephone 2738 kHz open when calls expected at 0700, 1100, and 1500 hrs. local zone time.

PILOTAGE: Compulsory. Pilot meets vessel 1 mile N.E. of Sea Buoy. On rare occasions when a local Pilot is not available expenses and detention must be paid for an outside Pilot.

MAX. SIZE: Max. LOA 850 ft. Depth alongside pier 38 ft. Recommended draft 35 ft.

FRESH WATER: 50 c. per ton supplied from pipe-lines on the pier.

FUEL: Bunker "C" Fuel Oil – daily prevailing rate Kingston Harbour. Diesel Fuel Oil – per oil company suppliers Kingston.

REGULATIONS: (1) If any Master of any vessel or any other person shall throw or deposit, or permit to be thrown or deposited *(a)* any rubbish, earth, mud, stone, sand, ballast or other similar matter; or *(b)* any oil or mixture containing oil or oil residues, in any channel leading into or out of any harbour, or in any place within the limits of any harbour other than such place therein as shall be set apart for such purpose he shall be liable to a penalty not exceeding one thousand dollars.

(2) No siren or steam whistle shall be sounded on any vessel in any harbour except for the purpose of making signals as laid down in the regulations for preventing collisions at sea, provided that any vessel may sound one warning blast of not more than five seconds duration before sailing. Any person committing a breach of the rules is liable for a penalty not exceeding 1,000 Dollars.

CARGOES: The Reynolds Jamaica Mines Pier is occupied about twice each week by ore carriers for 8 to 12 hours and about twice a month by sugar ships for indefinite periods.

CRUISE SHIP PIER

LOCATION: Lat. 18° 24′ 26.4″ N., Long. 77° 06′ 44.3″ W.

PILOTAGE: Compulsory.

ANCHORAGE: Anchorage can be arranged depending on length and draft of vessel.

MAX. SIZE: Max. LOA 650 ft., depth alongside pier is 35 ft. (MLW). Recommended draft for vessel 35 ft.

TUGS: Not available.

CLEARANCE: Customs, Health and Immigration Offices are maintained at Port.

BERTHING: Used principally by cruise ships.

FRESH WATER: Fresh water available.

SECURITY: 24-hour patrols in Port area by private security guards. There is also a Police Post in the Terminal Building.

IDENTIFICATION CARDS: Recommended for crew.

AUTHORITY: Port Authority of Jamaica, 15-17 Duke Street, Kingston, Jamaica. *Tel:* 92-20290/8. *Telex:* 2386 Portops Jamaica.

AGENT: Lannaman & Morris (Shipping) Ltd., P.O. Box 2, Kingston 15. Tel: 92-37653. Cable Address: "Seahost Jamaica". Telex: 2242 Seahost Jam.

PORT ANTONIO: 18.11 N. 76.27 W. (See Plan)

SHIPMASTER'S REPORT: June 1983.

DOCUMENTS: See "Kingston".

PILOTAGE: Compulsory. 24 hours' notice to be given via Agent.

The Pilot boarded from a small outboard motorboat about 2 miles N.E. of Folly Point. There is a VHF but on this occasion it was not working. The Pilot identified himself by flashing the word 'Pilot' by light.

Ladder normally required on the starboard side on arrival and port side on departure.

The Pilot is extremely competent and experienced.

ANCHORAGES: No anchorage outside harbour due to depth of water.

MAX. SIZE: Banana Pier (Boundbrook Wharf): LOA 511 ft. 2 in., beam 70 ft., draft 25 ft.

HEALTH: Quarantine examination when alongside.

RADIO: Kingston Radio.

VHF: Pilot uses Channel 16 (not operational June 1983).

TUGS: None available or required.

BERTHING: *Boundbrook Wharf:* The entrance channel (0.65 miles long) is very narrow, all navigational lights were lit. Least depth 29.5 ft. Rise of tide, 1 ft. 4 in. When clear of the channel the ship is headed towards the South end of the wharf and the port anchor let go in such a position that, when the ship is alongside, 7 shackles of cable will have been veered. When approaching the wharf the cable is used to swing the ship.

A boat takes the headrope to a bollard on the South face of the wharf. When the ship has swung sufficiently the boat then takes the stern rope to a bollard on the North face.

The pier is only 300 ft. long, it may be necessary to use a pilot ladder for access to the vessel should the stern overhang the pier. Vessels can berth and unberth 24 hours a day.

In the summer months the winds are generally light and from the South but in the winter they are Northerly and strong with a consequent swell in the harbour and, in those conditions it is considered that berthing at Boundbrook wharf would be difficult.

When unberthing, moorings are singled in to one stern rope to the North face of the wharf. The ship is then moved, whilst still alongside, so that the North knuckle of the wharf is abreast the lower gangway platform, it is necessary to have a fender handy in this position. The anchor cable is then hove in swinging the ship's head off the wharf. At the same time a steady strain is maintained on the stern rope so that the ship pivots about the knuckle and the stern swings into the cut on the North side of the wharf. When nearly at right angles to the wharf the engine is moved ahead with the rudder to starboard thus swinging the stern clear of the knuckle, the stern rope is cast off and the anchor weighed so that the ship moves clear of the wharf and continues to swing to port so as to be heading more or less for the channel.

The Pilot disembarks in a position abeam of Folly Point with the ship's head North.

CRANES: None. The pier is fitted with portable conveyors for loading bananas through side doors. Ship's gear is not required for rigging conveyors.

SPECIALISED CARGO HANDLING FACILITIES: Boundbrook Wharf used solely for loading bananas. No facilities for Ro/Ro vessels. Forklifts available for handling of pallets of bananas. However, there is inadequate storage space for palletised cargo.

STEVEDORES: Adequate numbers for loading bananas.

MEDICAL: Doctor and hospital available.

DENSITY: 1025.

FRESH WATER: Available.

FUEL: Not available.

CONSULS: Nearest Consuls at Kingston.

REPAIRS: Small repairs can be undertaken.

DRY DOCKS: None.

SURVEYORS: Nearest Lloyd's Surveyor at Kingston.

AIRPORT: At Kingston.

GENERAL: *Provisions:* Small amounts of fresh provisions available. No groceries or meat available.

Laundry: No service available.

PORT ESQUIVEL: 17.53 N. 77.08 W. (See Plan)

GENERAL: Vessels proceed through a dredged channel approximately 1.5 miles long with a minimum depth of 39 ft. The wharf is situated in a basin at the inner end of the channel and can take vessels up to 650 ft. long with a maximum draft of 36 ft.

DOCUMENTS:

6 Crew Lists.
6 Passenger Lists.

Customs Documents:

4 Stores Lists.
Crew's Manifest of Declaration outside of Personal Effects.
4 Load Line Certificates.
4 Small Parcels Lists.
4 Customs Clearance from last port of call.
Fire Arms List.
Narcotics List.
List of live animals and meats on board vessel.

Health Documents:

International Certificate of Vaccination of all Crew members.
Maritime Declaration of Health.
Crew's Declaration of Health.
6 Manifests.
4 Bills of Lading.

Ship's Documents:

3 Stowage Plans of Cargo.
2 Deadweight Surveys (Bulk carriers only).
Charter Party and any other specific documents of instructions relating to the loading or discharging of cargo.
Also see "Shipmaster's Report".

PILOTAGE: Pilotage compulsory. Compulsory pilotage limit 2 miles to seaward of line drawn from Polink Point to Bare Bush Cay to Portland Cay to Portland Point. Cable advice 48 and 24 hours ahead of vessels ETA at pilot station must be sent to vessel's Agent at Kingston, Jamaica.

One pilot boat *Silver Spray,* launch equipped with ship-to-shore radio communication: (One General Electric VHF – FM 30-watt output multi-channel set).

VHF shore set manned 24 hours per day. Contact with Port or launch can be made on three international Channels – 16, 2 and 6.

Also see "Shipmaster's Report".

ANCHORAGES: *(a)* Seaward to East of pilot station, depth in excess of 38 ft. *(b)* Leeward of Pigeon Island – depth 38 ft. min. *(c)* Eastward of entrance of main channel – depth 38 ft.

RESTRICTIONS: Restriction of permissible draft to max. of 36 ft MSL.

MAX. SIZE: Max. permissible length 650 ft. and draft 36 ft.

HEALTH: Pratique procedure requires presentation of undermentioned health documents: *(a)* International Certificate of Vaccination of all crew members. *(b)* Maritime Declaration of Health. *(c)* Crew's Declaration of Health. In event any suspected communicable disease or fever on board, Master required to advise Agents in advance.

RADIO: JAMINTEL "KNRDO 6YI".

TUGS: Pilot boat will be on standby during berthing operations of all vessels to assist in placing ship's lines on to pier if requested by the Pilot.

BERTHING: *Western Berth:* Bulk loading alumina – vessels max. length 630 ft., breadth of 92 ft., max. draft 36 ft. Length of Bulk Wharf 630 ft. Depth of water 39 ft. MSL. Average tide 12 in.

Minimum depth of water in Channel and/or approaches 39 ft. MSL. Bulk alumina vessels still given priority on Western Berth.

Eastern Berth: General Cargo – max. length of vessel 650 ft., breadth 60 ft., max. draft 36 ft. Length of General Cargo Wharf 950 ft. Depth of water 39 ft. MSL. Average tide 12 in.

Equipment available:

(a) Shiploader – Travelling Gantry Type – part of conveyor system for loading bulk alumina only.

Max. travel 415 ft. – maximum outreach for loading purposes 48 ft. Clearance height from wharf level 28 ft. from water level 35 ft. Rate of loading per hour = 1,000 long tons.

(b) One Galion crane and one 660 P & H crane. Forklift trucks. Launch service.

There is no extra charge for the use of shore equipment during overtime hours and will remain at a flat rate for all hours worked.

SPECIALISED CARGO HANDLING FACILITIES: Eastern and Western berths equipped to handle receival of bulk cargoes, e.g. grain, soya meal, soya beans, salt, sulphur, etc., by using shore crane with grabs, vessel discharging by grabs. Bulk liquid chemicals handled as shown under "Tankers". Additional berth on Southwestern shoreline now being used to handle small bulk grain, soya meal and soya bean carriers, and can be utilised for handling of Ro/Ro traffic and containerised cargo.

STEVEDORES: Cable advice to Agents in Kingston, Jamaica, 48 and 24 hours ahead of vessel's ETA at pilot station for arrangements to provide stevedore and dock labour.

MEDICAL: Agents to be advised 48 hours ahead of vessel's ETA pilot station of medical attention required, details of inoculations, vaccination/fever certificates, etc. Free ambulance service provided. Nearest hospital approximately 15 miles.

TANKERS: Both sides of pier equipped to handle receival and delivery of Bunker "C" oil, caustic liquor, sulphuric acid and molasses. Diameters of the load/discharge lines are:

Bunker C Oil	8 in.
Caustic liquor	10 in.
Sulphuric acid	4 in.
Molasses	12 in.
Water	4 in.

Max. permissible draft 36 ft. below MSL.

Note: For vessels loading and discharging fuel oil and caustic/liquor max. length 650 ft., breadth 92 ft., max. draft 36 ft.

DENSITY: 1025 subject to slight variation during heavy rainfall.

FRESH WATER: Max. of 300 metric tons available. Delivery made from storage tank at a rate of 40 to 50 metric t.p.h.

FUEL: Bunker "C" fuel oil is available from dock. Application to be made to Shell Company (W.I.) Ltd., through ship's Agent for supply of bunkers. Pumping rate approx. 130 metric t.p.h.

Specification:

(i) API 9.0 min – 10.0 max.
(ii) Ash percent wt. 0.12 max.
(iii) Flash point pmcc 150°F. min.
(iv) Viscosity SSF at 122°F. 120 min. – 200 max.
(v) Pour point 60°F. max.
(vi) Vanadium ppm 475 max.

FIRE PRECAUTIONS: Strategically located fire hydrants throughout port and on pier. No special precautions apart from "No smoking" rule. One fire truck located at Port Esquivel.

GANGWAY/DECK WATCHMEN: Service of watchman optional but not necessary. During time vessel is in port there is Customs guard on pier and strict security measures are carried out by port Security Force on personnel entering or leaving port compound which is surrounded by a chain-link security fence.

OPENING/CLOSING HATCHES: For bulk alumina vessels, opening and closing of hatches is done by crew members. For general cargo vessels, opening and closing of hatches may be done by crew members or on request to Agents, by stevedores.

SHIP CERTIFICATES:

Load Line Certificate.
Registration Certificate.

CUSTOMS ALLOWANCES: Tobacco: Each crew member including ship's officers, normally allowed by local customs authority 2 oz. of tobacco or 2 pk. of 20 or 25 cigarettes per day released from bond. Wine and/or Spirit: No limitations to use of wine on board. For spirits each crew member is allowed a part bottle per man.

CARGO GEAR: Local Agents provide necessary cargo gear. These are tested every 6 months in accordance with Factory Law and certificates issued for respective maximum lifting capacities.

IDENTIFICATION CARDS: Not necessary as the Passport will serve this purpose. Also see "Shipmaster's Report".

CONSULS: No consuls are available. Consular Offices are located in Kingston approximately 30 miles away.

REPAIRS: Limited repairs may be undertaken.

DRY DOCKS: None.

REPATRIATION: Upon request, local Agents arrange crew changes and any necessary repatriation.

AIRPORT: Norman Manley International Airport approximately 40 miles away.

TIME: GMT minus 5 hours.

HOLIDAYS: New Year's Day (1st January); Ash Wednesday (in accordance with calendar); Good Friday (in accordance with calendar); Easter Monday (in accordance with calendar); Labour Day (23rd May); Independence Day (first Monday in August); National Heroes Day (third Monday in October); Christmas Day (25th December); Boxing Day (26th December). These holidays are sometimes subjected to change in accordance with Government Proclamations.

1. No work is carried out on Good Friday and Christmas Day.
2. Work on vessels loading bulk alumina and discharging Bunker C oil and caustic liquor is usually carried out on other public holidays.
3. For general cargo vessels work is optional on public holidays except Good Friday and Christmas Day, and only carried out on Master's request or in accordance with Terms of Charter Party.

POLICE/AMBULANCE/FIRE: Old Harbour Constabulary Tel: 983-2255; Old Harbour Fire Brigade Tel: 983-2276. Port Esquivel also has its own fire brigade. An ambulance service is available for any crew member requiring medical attention. Several qualified doctors within a 6-mile radius of port. There is also a fire station.

TELEPHONES: Facilities do not exist for placing of telephones on board ship other than Magneto telephones. Telephones mounted on both sides of pier for easy access. International telephone services available and scale of rates is as per schedule listed in Jamaica Telephone Company's Directory.

GENERAL: Port normal working days Monday-Friday 0800 – 1630 hrs. Overtime in excess of 8 hours per day or 40 hours per week, Monday-Friday at time and a half normal rate; Saturday between midnight and midnight time and a half normal rate, double time for hours worked on Sundays and two and one half times for hours worked on public holidays, between midnight and midnight. Rail facilities exist on Western side of the pier. Distance from fender to centre of rail line 17 ft. 9 in. Ship chandlering or any other requirements may be acquired through local Agents.

SERVICES: Special services are limited. Arrangements can be made through vessel's Agents for the port or local contractors to undertake these jobs.

SHORE LEAVE: Crew members usually granted shore leave by Immigration Authority for period vessel remains in port. Immigration Authority can, however, withdraw permission of shore leave to any individual crew member who, in their opinion, may be a security risk.

REGULATIONS: No unusual regulations.

DELAYS: The normal delays in berthing, loading or discharging or bunkering can be expected when the two berths are occupied.

SHIPMASTER'S REPORT: November 1986.

Pilot: The pilot station is off Buoy Nos. 1 and 2, however, Pilot normally boards off Port Esquivel Fairway Buoys. Only at the request of the ship's Master, will the Pilot board at pilot station, which might be the case when no proper charts are on board.

Entrance to Portland Bay, through the fairway, proved not to be difficult, as the leading line on Pigeon Island was very useful and all the buoys were in place (and all alight).

Made entrance, as well as departure, during daylight. The front leading light tower on Pigeon Island proper was visible, however, the rear leading light structure on the reef, North of Pigeon Island, was less discernible, due to the chimneys of the power plant on the main shore.

Formalities: Papers required:

Customs:
1 Clearance from Last Port.
1 Stores List.
1 Crew's Effects List.
1 Crew Cigarettes/Liquor List.
1 Crew List.

Quarantine:
1 Maritime Declaration of Health. (Preferable on Jamaica Form, otherwise on International Form.)
1 Vaccination List.
1 Crew List.
1 Ship's Declaration on Meat and Livestock. (On Jamaica Form, otherwise on self made form).

Agents:
2 Crew Lists.
1 Stores List.
1 Crew's Personal Effects List.
Manifests and other available cargo papers.

Both the Agent and the Custom's Officer require the date of expiry of the International Load Line Certificate only. No copies of said Certificate were required.

No ship's papers (Certificates) were taken ashore for presentation to the Authorities.

All the Authorities were very friendly and with all the required papers ready upon arrival, clearance was obtained within 15 minutes of boarding.

A paper had to be signed that 3 meals a day (and also a midnight snack) had to be provided for 1 Custom's Officer. However, the Custom's Officer made no use of this.

Bonded stores are placed under seal.

Identification Papers: Not required to take passport ashore. Crew members wishing to go ashore will be given a shore pass at the gate. A copy of the ship's crew list is posted at the gate by the Agent. The shore pass will be collected on returning from shore to the vessel.

AUTHORITY: *(a)* Alcan Jamaica Company, Port Esquivel. A Division of Aluminium Company of Canada Limited (Inc. in Canada), P.O. Box 2, Old Harbour, Jamaica, West Indies. *Tel:* 983-2289. *Cables:* Esquivel, Kingston, Jamaica. *Contact:* E. N. Harding, Operations Manager.

(b) Port Authority of Jamaica, 15-17 Duke Street, Kingston, Jamaica. *Tel:* 92-20290/8. Telex: 2386 Portops Jamaica.

PORT KAISER: 17.52 N. 77.37 W.

DOCUMENTS:

6 Crew Lists.
4 Stores Lists.
Declaration of Crew Personal Effects.
Customs Clearance from Last Port.
Maritime Declaration of Health.
Vaccination Certificates for all crew members.
Cargo Documents.

PILOTAGE: Compulsory. Pilot boards about 1 mile seaward of the jetty. International Code Pilot Signals used.

ANCHORAGE: Recommended 1.5 to 2 miles off end of finger pier from South to S.W.

MAX. SIZE: Tankers up to 40 ft. draft.

HEALTH: Pratique granted by Customs Officers who board on arrival, after Master has completed Maritime Declaration of Health, and Crew's Declaration of Health. All crew members require valid Vaccination Certificates. In event of suspected disease or fever on board Agent should be advised full particulars by radio before arrival.

RADIO: "KNRDO 6Y1."
TUGS: None available.
BERTHING: Tanker berth at the end of a finger pier. Pier head is adequately fendered and a holding off buoy is utilised if necessary because of swell. Vessels berth portside to the jetty. Both anchors used.

Finger pier is 610 ft. long. The berth is being dredged to 50 ft. depth.
TANKERS: Fuel and gas oil discharged, 8 in. hoses. No slop facilities.
DENSITY: 1025.
FRESH WATER: Not available.
FUEL: Not available.
CUSTOMS ALLOWANCES: 25 cigarettes and part bottle spirits per day per man.
CONSULS: Nearest at Kingston.
SHORE LEAVE: Allowed.

SHIPMASTER'S REPORT: October 1978.
Documents:
6 Crew Lists.
3 Store Lists.
2 Curio Lists.
1 Vaccination List.
1 Maritime Declaration of Health.
Load Line Certificate.
Derat Certificate.
Clearance from Last Port.
4 Notices of Readiness.
Pilotage: Pilot available and compulsory. Pilot station 1 mile S.W. of Pier.
Restrictions: Day and night berthing possible.
Max. Size: LOA, 650 ft. Beam 90 ft. Max. draft 36 ft.
Tugs: No tugs available. In an emergency nearest tugs at Kingston.
Berthing: Length of pier 700 ft. 1 shiploader, max. outreach 90 ft. and max. clearance under loader 46 ft. 2 chutes load 1 hatch (port and starboard). Loader movable along dock for 600 ft. Max. loading rate 1,100 short t.p.h. or 25,000 tons daily for bulk carriers. Loading carried out 24 hours a day.

Berth not very satisfactory in heavy swell and ship's side rails are very prone to damage when loaded as large fenders (tractor tyres doubled up) hang over main deck and damage rails. Stevedores refuse to accept this damage.

Vessel only broke 1 mooring rope. Shore gangway used, of light aluminium construction which must be tended throughout. A hazard to get ashore or onboard.

When strong Westerly current running and Easterly winds blowing, Pilot informed me that it sometimes takes up to 7 hours to berth ships. When very heavy seas running, it is best to leave berth and return when weather improves.
Medical: 2 hospitals at Mandeville but seamen usually sent to Nursing Home.
Tankers: Fuel oil, diesel oil, sodium sulphate, caustic soda and sulphuric acid handled at the tanker berth.
Density: 1025 – 1026.
Fresh Water: Not available.
Fuel: Not available.
Time: GMT minus 5 hours. Except during Daylight Saving Time GMT minus 4 hours.
Repatriation: Reliefs and repatriation can be arranged through Kingston which is about 87 miles away by road. Reliefs flying out through Miami all lost their luggage for a while as it was booked right through to Jamaica. Advisable to book luggage to Miami, collect and clear through Customs and then re-check it in. U.S. visa also required even for transit through U.S.A.
Current: Usually Westerly at 2.5 to 3 knots.

The current runs at right angles to the steel girder type berth on stilts and makes it difficult to get the stern alongside so a powerful tug would have been of great assistance.
Tidal Range: 1.5 ft.
Publications/Charts:
B.A. 260 Pedro Bank to the South Coast of Jamaica.
B.A. 258 Ports and Anchorages on the South Coast of Jamaica.
B.A. 446 Jamaica.
USA 26124 Portland Bight to Great Pedro Bluff (with plan of Port Kaiser).
NP 70 West Indies Pilot (N.W. Part) Vol. 1 with Supp. No. 4.
Working Hours: Office hours 0800 – 1600 but 24 hours when vessel in port.
Officials: Customs, Quarantine and Immigration Officials boarded on arrival. The Quarantine Official lives on board whilst vessel in port to ensure nothing is thrown into the sea.
Survey: Holds surveyed before loading for cleaniness and Certificate of Cleanliness issued. Draft survey taken before and after loading (6 ft. swell and rough seas at the time).
Laundry: Can be arranged but takes 2 – 3 days.
Provisions: Fresh provisions available from nearest country market at Mandaville. Market days – Wednesday, Friday and Saturday. Main stores can be ordered from Kingston but very expensive and trucking charge $150.
VHF: Channel 16 said to be monitored in Agents office at Port Kaiser, pilot boat and Dock Office Port Kaiser but not able to make contact when inward bound.

AUTHORITY: Port Authority of Jamaica.

PORT RHOADES, Discovery Bay: 18.29 N. 77.24 W.
(See Plan)

DOCUMENTS:
5 Crew Lists.
2 Stores Lists.
1 Customs Clearance from last port.
2 Declaration of Crew Personal Effects.
1 Maritime Declaration of Health (available on arrival).
Vaccination Certificates for all crew members.
1 Copy of each cargo document.
PILOTAGE: Compulsory. ETA's should be cabled to "Kaisbaux Discovery Bay", 48, 24, and 12 hours before arrival.

Pilot will board vessel on arrival 2 miles outside channel, if berth is available.
ANCHORAGES: No designated anchorage. If berth is occupied, vessels will remain within a 3-mile area of the channel until berth is available. Docking instructions are given by VHF.

The area around the harbour to a depth of 60 m. is a marine reserve for study. Positively no anchoring on surrounding reefs.
RESTRICTIONS: Entry may be at any time of day or night throughout the year.
MAX. SIZE: Max. permissible length, 700 ft.
Max. permissible breadth, 92 ft.
Max. permissible draft, 37 ft. 6 in.
PRATIQUE: Pratique inspection and clearance given on berthing. Notify "Kaisbaux, Discovery Bay" as soon as possible before arrival full details of any suspected disease or fever on board.

There is no Radio Pratique.
RADIO: Route all ETA's and cables via Kingston Radio or nearest radio station.
VHF: Channel 16, 24 hours a day. Channels 12, 13, 26 and 28 also available. Range 30 miles.
TUGS: None available. Pilot launch will assist in taking ship's lines during docking if required.
BERTHING: One finger pier, (Position 18° 28′ 45″ N., 77° 24′ 20″ W.) adequate fenders, used by bauxite ships and tankers alike.

Ships loading bauxite must dock with the top of the hatch covering of the first hold to be loaded not more than 35 ft. above sea level.

Bauxite loading rate 4,000 t.p.h.

All loading hatches to be opened for inspection if weather permits.

Gangway to be rigged ready for lowering immediately on berthing. safety net must be attached to the gangway.

Hawse pipes to be securely sealed as soon as berthing is completed. Draft reading and other ladders are to be kept hauled up at all times while the ship is berthed.

Rat guards to be installed on lines at all times when at berth. Washboards are to be installed over starboard wing tank outlets, so as not to discharge on pier.
STEVEDORES: All arrangements are made by Kaiser Bauxite Company for unloading/loading any general cargo.
MEDICAL: Medical facilities and hospital available in the vicinity.
TANKERS: Two fuel lines, hose 8 in. (pipe-line 12 in.) diameter. Back pressure 150 lb. One gas oil line, hose 8 in. (pipe-lines 6 in.) diameter. Back pressure 150 lb.

Tankers use same berth as bauxite vessels. It may be necessary at times for tankers to wait on bauxite vessels loading, or arriving, and tankers may have to vacate the berth before completion of discharging to make way for bauxite vessels which have absolute priority.
DENSITY: 1025.
FRESH WATER: Available.
FUEL: Not available.
FIRE PRECAUTIONS: Usual non-smoking precautions with respect to tankers. Portable fire extinguisher available on pier.
GANGWAY/DECK WATCHMEN: To be provided by vessel.
OPENING/CLOSING HATCHES: To be done by ship's crew.
CERTIFICATES:
Load Line Certificate.
Registration Certificate.
Derat Exemption Certificate.
CUSTOMS ALLOWANCES: Tobacco: Each crew member, including officers, normal allowance 2 oz. tobacco or 2 packets of 20 cigarettes per day released from bond. Wine: no limitations on use of wine on board. Spirits: Officers only are allowed part bottle.
IDENTIFICATION CARDS: Not required.
CONSULS: Nearest Consuls are in Kingston, 80 miles distant.
DRY DOCKS: No facilities in Jamaica for other than the smaller types of vessel (e.g. tug).
REPATRIATION: Can be arranged through ship's Agent.
AIRPORT: Montego Bay, 40 miles away; Kingston, 90 miles away.

Both are international airports, with several scheduled flights per day to U.S.A. and Europe.
TIME: GMT minus 5 hours.
TELEPHONES: No arrangements for ship-board connections.
GENERAL: *Buoyage:* IALA system "B".

SHIPMASTER'S REPORT: March 1984.

SatCom has been used successfully in giving the 48, 24 and 12 hour ETAs.

Call on Channel 16 VHF when 20 miles off.

Pilot will board about 1.5 miles to the N.E. of the entrance. Some Pilots do not like to dock vessel at night and delays may be encountered.

If awaiting berth drifting 8 – 12 miles off to the N.N.E. seems to be the most satisfactory. There is about a 0.5 knot West drift depending on weather conditions.

This vessel has a 93.2 ft. beam and is loaded without difficulty but a close eye must be kept so as not to get a starboard list that will be very hard to correct.

When docking, the approach will be at right angles to the dock. At about 200 yards away the port anchor will be let go and 2 lines sent to the farthest inshore bollard at the head of the dock. The vessel will then be worked alongside using small kicks ahead until it is fast alongside, starboard side too. All vessels dock starboard side in a very sheltered berth. When fast alongside there will be 6 – 7 shackles out on the anchor. When making the approach have the 2 headlines married with a gantline and the pilot boat will have an easier time. Docking with strong offshore winds can be very difficult.

When departing the vessel heaves up on her anchor pulling herself in to the channel. Care must be taken not to speed so as to squat the vessel when going out loaded, especially in swells. There have been reports from other Masters of touching bottom in the channel and the divers in the local marine laboratory have confirmed anti-fouling paint on the reefs on the channel bottom.

Limited diving work can be arranged through Kaiser from the Marine Laboratory located in Discovery Bay.

Port officials are very friendly and helpful. Vessels bound for the States must keep a sharp watch for stowaways and smugglers.

AUTHORITY: Kaiser Bauxite Company, Discovery Bay, P.O., St. Ann, Jamaica, W.I. *Tel:* 973-2221/5. *Telex:* 7404. *Cables:* Kaisbaux. *Contact:* Evon L. Clarke, Shipping Supervisor.

SALT RIVER: 17.50 N. 77.10 W.

DOCUMENTS: Health Certificate. Crew List. Manifest. Bills of Lading and other ship's papers for cargo shipped, prepared by Wisco Wharves Limited, a subsidiary of The West Indies Sugar Company Limited.
PILOTAGE: Latest 12 hours prior arrival off pilot station. Cable "Monymusk Lioneltown" giving name of vessel, ETA, date of arrival. Pilotage – optional, Barebush Cay; Compulsory, Pigeon Island; pilot boat at Salt River.
ANCHORAGE: Lat. 17° 49.58′ N., Long. 77° 08.40′ W.
RESTRICTIONS: No restrictions.
MAX. SIZE: Draft 30 ft.
HEALTH: Customs grant Pratique.
RADIO: Cable Agents via Kingston Radio/6YI.
TUGS: Not applicable.
BERTHING: No berthing facilities.
STEVEDORES: 48 hours notice prior arrival of vessel. Commodity bulk sugar. Loading rate approximately 1,800 tons per day.
MEDICAL: No advance notice required.
FRESH WATER: Can be arranged if given sufficient notice.
FUEL: None available at port but can be arranged.
GANGWAY/DECK WATCHMEN: Customs guards.
OPENING/CLOSING HATCHES: Normally done by crew.
SHIP CERTIFICATES: Registered Tonnage Certificate on first call. Master's and Chief Engineer's Certificates of Competency, also Load Line Certificate.
CUSTOMS ALLOWANCES: Tobacco, determined by Customs. Wine and/or Spirit, determined by Customs.
IDENTIFICATION CARDS: Not required.
CONSULS: None.
REPAIRS: Not possible.
REPATRIATION: Can be arranged.
AIRPORT: Palisadoes International approximately 50 miles away and served by regular airlines.
TIME: GMT minus 5 hours.
HOLIDAYS: New Year's Day; Ash Wednesday; Good Friday; Easter Monday; Labour Day (23rd May); National Heroes Day; Independence Day; Christmas Day (25th December); Boxing Day. Work can be arranged on all public holidays except Good Friday and Christmas Day.
POLICE/AMBULANCE/FIRE: Police Vere 233; Ambulance Vere 337; No port fire brigade.
TELEPHONES: Radio communication ship to wharf can be arranged.
SHORE LEAVE: Crew members are allowed ashore.
DELAYS: Delays can be expected.
AUTHORITY: The West Indies Sugar Co. Ltd.
AGENT: The West Indies Sugar Company Limited, 5 Trevennion Park Road, P.O.Box 174, Kingston 5, Jamaica, W.I. Tel: 65927–8. Telex: 13. Cable address: Head Office: "Wisco Kingstonja". Home Office: "Monymusk Lioneltown".

SAVANNA LA MAR: 18.12 N. 78.09 W.

DOCUMENTS: Declaration of Health Certificate forms obtainable from Supercargo. 4 copies Crew List, Stores List. Manifest, Bills of Lading and other ship's papers for cargo shipped prepared by Sugar Shipping Limited, a subsidiary of The West Indies Sugar Company Limited.
PILOTAGE: Latest 12 hours prior arrival off pilot station. Cable "Wicaroo Frome" giving name of vessel, ETA, date of arrival, cash required. Diesel powered 88 h.p. launch painted black hull, red deck, white wheelhouse. District – Compulsory and Optional.
ANCHORAGE: Lat. 18° 11.27′ N., Long. 78° 08.20′ W.
RESTRICTIONS: No night entry or sailing.
MAX. SIZE: Draft 19 ft.
HEALTH: Maritime Declaration of Health prepared by Master and lodged with Customs. MOH is notified of any suspected illness and action taken. Pratique automatic.
RADIO: Cable Agents via Kingston Radio 6YI.
TUGS: Not applicable.
STEVEDORES: No particular ETA advice required. Commodity, bulk sugar. Average loading rate 1,500 tons per day.
MEDICAL: No advance notice required. Hospital facilities available.
FRESH WATER: No facilities.
FUEL: No port facilities, but can be arranged.
GANGWAY/DECK WATCHMEN: Customs guards.
OPENING/CLOSING HATCHES: Normally done by crew.
SHIP CERTIFICATES: Registered Tonnage Certificate on first call. Master's and Chief Engineer's Certificates of Competency, also Load Line Certificate.
CUSTOMS ALLOWANCES: Tobacco, determined by Customs. Wine and/or Spirit, determined by Customs.
CARGO GEAR: No additional requirements. In use, grabs operated by ship's winches.
IDENTIFICATION CARDS: Not required.
CONSULS: None.
REPAIRS: Not possible.
REPATRIATION: Can be arranged.
AIRPORT: Montego Bay International approximately 32 miles away and served by regular airlines.
TIME: GMT minus 5 hours.
HOLIDAYS: See "Kingston".
POLICE/AMBULANCE/FIRE: Police Savanna la Mar 621; Ambulance 533; Fire 666 and 540.
TELEPHONES: Radio communication ship to wharf can be arranged during day only.
SHORE LEAVE: Crew members are allowed ashore.
DELAYS: Delays can be expected.
AUTHORITY: The West Indies Sugar Co. Ltd.
AGENT: The West Indies Sugar Company Limited, 5 Trevennion Park Road, P.O.Box 174, Kingston 5, Jamaica, W.I. Tel: 65927–8. Telex: 13. Cable address: Head Office: "Wisco Kingstonja". Home Office: "Wicaroo Frome".

NOTES

Please also advise Shipping Guides Ltd.

Japan

GENERAL:

RADIO PRATIQUE: Procedures to obtain Radio Pratique:

A. Sanitary Certificates:

a. A vessel intending to obtain Radio Pratique should apply for issuance of Sanitary Certificate to Quarantine Office through Agents.

b. Accepting the application, Quarantine Officers will attend the vessel for Sanitary Inspection while the vessel is in the port in exactly the same manner as the inspection of derat.

c. When the vessel has passed the Sanitary Inspection, the Quarantine Officer will issue the Sanitary Certificate and give the Issuance Number to the Master. But in general respects, the inspection is rather severe.

d. The Sanitary Certificate is valid in all ports of Japan, and its term of validity is only for one year.

B. Application for Radio Pratique:

a. When the Master requires Radio Pratique, he should cable the Head of the Quarantine Station via Agents in accordance with the quarantine rule which stipulates that it must be done within 36 hours to 12 hours prior to the respected arrival port.

b. The items to be reported by cable are enumerated in clause (f) hereunder.

c. When Agents receive the telegram from the Master, the Agents submit the Radio Pratique Application Form together with a copy of the cable sent by the Master.

d. After checking and inspecting all telegrams and papers submitted by the Agents, the quarantine authorities will grant the Radio Pratique if everything is in order and issue the Free Pratique certificate and term of validity.

e. The Master who has received the cable advising issuance of the Free Pratique from the Authorities should submit the necessary documents, Crew List and Passenger List to the Authorities on his arrival.

f. ★Items to be reported by cable to the Authorities are as follows:

(1) Notification that this cable is the information provided by Item-2, Clause-17 of the Law concerned. This identification should be noted on the top of the body as abbreviation of "RPM".
(2) Name and nationality of the vessel (the item is unnecessary in this cable).
(3) Full number of Sanitary Certificate indicated with a number of seven (7) figures.
(4) Name of port of departure and its date.
(5) Name of ports of call and sailing date during 15 days before arrival.
(6) Name of port and ETA at destination of the vessel.
(7) Derat Certificate – name of the authorities issued, date of issue and kind of derat.
(8) Number of crew and passengers.
(9) Whether or not the vessel had transferred any passengers and/or goods from another vessel or aircraft on her voyage during 15 days before arrival. In case this is affirmative, details of which should be described.
(10) Whether there are any patients onboard or not, taken ill during 15 days before the arrival. In case this is affirmative, detailed conditions of illness must be given.
(11) Whether there has been any death of persons (with the exception of deaths caused by accident) during 15 days before arrival, and if this is affirmative, details of it, i.e. name and age of the person and/or present condition of the person.
(12) Whether rats were caught and whether there was any danger of the outbreak of black plague, and whether or not rats died abnormally.
(13) Whether there is or not goods on board tainted by any virus of quarantine epidemics.
(14) Whether or not there is a doctor on board.
(15) Name of Master of the vessel.

★An example for Cable:

RPM 084005 New York 1st Dec Honolulu 16th Dec
(1) (3) (4) (5)
Tokyo 25th Dec. 1000 Yokohama 1st Nov 81 Derat Crew 35 Pax 3
(6) (7) (8)
9 to 13 None Al Taro Yamada
(9 – 13) (14) (15)

SMR

POLLUTION: Effective 1975, the Marine Pollution Prevention Law requires any tanker of 150 tons gross and above which is loaded with an oil cargo to have materials for oil removal either on board, or aboard escort boats, or at a depot base. Depot bases are understood to have been established, and in this connection Owners, Time Charterers, or Masters are strongly recommended to contact their Agents at least 10 days prior to vessels' arrival Japan.

PILOTAGE: *Compulsory Pilot waters surrounding Japan:* Pilot compulsory ports, channels and straits:

I-A. Harbour: Vessels over 300 G/T. Hibikinada, Kawasaki, Kobe, Kokura, Moji, Naha, Sasebo, Shimonoseki, Tobata, Wakamatsu, Yawata, Yokohama, Yokosuka.

I-B. Harbour and Bay: Vessels over 10,000 G/T. Chiba, Funabashi, Kisarazu (Kimitsu), Tokyo and Tokyo Bay, Mizushima.

II. Channels and Straits: Vessels over 10,000 G/T. Kanmon Kaikyo (Strait), Uraga Suido (Channel), Akashi Kaikyo (Strait), Bisan Seto, Irago Suido, Kurushima Kaikyo (Strait). (Large vessels, oil tankers, liquefied gas tankers and vessels carrying dangerous cargo should arrange for watching-boats to guard their course until their safe navigation is confirmed even after they leave the traffic route.)

The Maritime Safety Agency has requested that all foreign flag vessels and vessels carrying dangerous cargo employ Pilots in order to maintain the safety of shipping traffic in the above-mentioned waters surrounding Japan.

The Agency has also requested that vessels take Pilots on board when they navigate the Yura Seto (Tomogashima Suido).

CREW JOINING:

Requirements of Travelling Documents to Japan for Crew/Superintendent:

Crew Joining vessel Max. Stay ashore	Travelling Document	Visa	Remarks
(1) Ordinary Case			
within 5 days	Seaman's Book or Passport	No	Special Landing Permit issued but valid for crew travelling direct to port where crew join ship.
over 5 days	Passport	Req'd	See names of Countries for which visa exempted
(2) New building			
within 30 days	Seaman's Book or Passport	No	See (1) Remarks
over 30 days	Passport	Req'd	See names of Countries for which visa exempted
(3) Purchase/Delivery			
Crew arrival before ownership changed within 10 days	Seaman's Book or Passport	No	Max. 10 days stay ashore permitted subject to Agents' submission of Sale of Contract and Export Licence. See (1) Remarks
Crew arrival before ownership changed over 10 days	Passport	Req'd	See names of Countries for which visa exempted
Crew joining ship before ownership changed	Passport	Req'd	See names of Countries for which visa exempted
Crew arrival after ownership changed		Same as (1)	Ordinary case
Superintendent *(4) All cases*			
	Passport	Req'd	See names of Countries for which visa exempted

Names of countries for which visa not required:
Within 30 days: New Zealand.
Within 90 days: Argentina, Bangladesh, Belgium, Canada, Chile, Colombia, Costa Rica, Cyprus, Denmark, Dominican Republic, El Salvador, Finland, France, Greece, Honduras, Iceland, Iran, Israel, Italy, Luxembourg, Malta, Netherlands, Norway, Pakistan, Peru, Portugal, San Marino, Singapore, Spain, Sweden, Tunisia, Turkey, Uruguay, Yugoslavia.
Within 180 days: Austria, Federal Republic of Germany, Ireland, Mexico, Switzerland, United Kingdom.

Remarks: The above schedule is made out by Dodwell Tramp Agencies on general understanding with Immigration Authorities. However, the above details are not expressly stated in the text of the law but based on Immigration Control Order Article 16 which reads:

Article 16. Permission for landing for Re-shipping.

1. The Immigration Inspector may, in case an alien crewman desires to pass through Japan in order to re-ship on board another vessel in another port of entry in Japan, upon application of the carrier operating the vessel on which the alien crewman has arrived, and in case the alien crewman desires in order to become a crewman of a vessel in Japan, to land from another vessel, etc. and pass through Japan, upon application of the carrier operating the vessel in Japan, permit the landing for re-shipping respectively.

2. In case the permission provided for in the preceding paragraph is given, the Immigration Inspector shall issue a permit for landing for re-shipping to the crewman concerned.

3. In case the permission provided for in paragraph 1, is given, the Immigration Inspector may impose upon the crewman such restrictions regarding period of stay in Japan, route to be followed in transit, and any others which he may deem necessary in accordance with Ministry of Justice Ordinance.

In view of the foregoing, the contents of the schedule is not absolute and may be altered. In order to ensure that crew members are permitted to land Japan to join ships, please send Agent information well in advance on personal data of crew member such as Full Name, Rating, Date of Birth, Passport or Seaman's Book Number together with Flight No. and Ship's ETA/calling port.

SAFETY: The following telex was received from Japan regarding safety regulations for LPG carriers at Japanese ports.

Quote:

The Receiving Terminal Clause (LPG Tankers).

In order to prevent marine pollution by oil and ensure safety in cargo operations, Owner, Master and Crew shall abide by international and/or national laws and regulations.

Especially at discharging port(s) in Japan, Owner, Master and Crew shall observe "Marine Pollution and Marine Disaster Prevention Law" and other relevant law(s).

Moreover, Owner, Master and Crew are strongly requested to observe and/or take actions in accordance with the clauses stipulated hereunder.

(a) Before arrival at the first discharging port, the vessel shall complete undermentioned operations:

1. The following pumps and lines shall be flushed and kept clean:
   Vessel's pumps: fire pump and G.S. pump
   The lines: bilge lines in engine room
   fire lines and G.S. lines.
2. Reliquefaction units shall be checked to see whether they are in good working condition.
3. Cargo handling equipment on board shall be tested in accordance with the instructions given by Charterer; especially, the pressure test of cargo and vapour lines shall be done with a pressure of more than 5 kg./sq.cm. Lubricating lines for cargo pumps (if equipped) and other lines connected with above mentioned lines shall be tested at working pressure prior to the vessel's arrival at the discharging port.
   Safety valves of cargo tanks and cargo lines shall be checked to see whether they are in good condition.
4. Upper deck shall be kept clean and free from oil.
5. The faces of manifolds for connecting with shore lines shall be kept clean.
6. Mooring winches, derricks, cargo control equipment and engine (main engine, generator, boiler, etc.) shall be checked to see whether they are in good working condition.
7. Vessel shall send the Charterer the result of the operations stipulated in this clause (from items (a)-1 to (a)-6) by radio in accordance with Charterer's instructions 3 days or more prior to ETA at the first discharging port.

(b) During berthing operation and while the vessel is alongside the pier, the vessel shall comply with the terminal safety regulations hereunder:

1. While the vessel is alongside the pier, the following work shall be prohibited:
   i. Transferring of bunkers.
   In a case of emergency, however, such work shall be done after obtaining permission from the terminal representatives by checking the work to be done.
   ii. The operations for which fire is used and those which are likely to cause fire.
   iii. The work which will make the vessel unable to move under its own power.
2. During cargo operation, necessary numbers of watchmen for ensuring safety shall be on deck, besides Officers on duty, so that they may watch the vessel and the adjacent areas to eliminate any type of accident.
3. While the vessel is in port, the boil off gas shall not be exhausted.
4. The pressure of the lubricant oil at the stern tube after seal shall be kept lower than that of sea water outside the vessel.
5. While the vessel is alongside the pier, gas detection shall be made at regular intervals in the following places:
   i. Around the valves of each tank dome.
   ii. Around the manifolds.
   iii. Around the compressor room.
6. The Crew of the vessel shall be prepared for cargo leakage and/or gas leakage which might happen aboard the vessel.

(c) If there is any indication of cargo leakage and/or gas leakage during cargo operation, the vessel shall stop all pumping operations and notify the Terminal Representatives and/or Charterer's Supervisor(s) to that effect.

The vessel shall not resume cargo operation unless a thorough investigation is made, appropriate remedies are taken, and permission from the Terminal Representatives is obtained.

(d) When Charterer sends their Supervisor(s) to the vessel to check the vessel or to assist cargo handling operation in the case of necessity, Owner, Master and Crew shall agree to cooperate with him or them.

At all times, however, the full responsibility for cargo operation shall still lie with the vessel.

(e) Owner shall send the Safety Marine Supervisor(s) to the vessel to attend the vessel's cargo operation at all times and he or they shall also be requested to attend the meeting for securing safety which is held prior to commencement of cargo operation.

Unquote.

REPORT: 1984.
Providing information of an anchored vessel at time of the approach of a typhoon in Tokyo Bay.

The Regional Maritime Safety Headquarters and the relative authorities have issued a notice, the contents of which is summarised as follows:

In Tokyo Bay, there are 2 congested areas with anchoring vessels at the time of the approach of a typhoon and cases of dragging anchor and collisions will occur. We, therefore, will try to provide the following information concerning the situation of anchoring vessels when a typhoon approaches these areas of Tokyo Bay for the time being, make effective use of the anchorage and prevent accidents to anchoring vessels.

1. Office to provide information . . . Tokyo Wan Traffic Advisory Service Centre (Tokyo MARTIS or VTS Tokyo)

2. Time of commencing/ending information provision . . . The time when the recommendation of refuge is established/withdrawn by Captains of the Ports in Tokyo Bay.

3. Individual information . . . The number of anchoring vessels at 10 minutes to every hour will be informed in English and Japanese by VHF (Call by Channel 16, communicate with Channel 14 or 22) or telephone (Telephone Number: 0468-43-8622-8624) upon request of vessels.

Anchoring vessels in Tokyo Bay are requested to pay careful attention to the following subjects when stormy weather such as a typhoon is expected.

– Anchoring vessels are requested to keep watch continuously on VHF Channel 16.

– Vessels should keep the main engine on standby-by at all times.

SHIPMASTER'S REPORT: August 1978.
It is possible to have the latest changes in ETA relayed by VHF to Inland Sea Pilot stations, for:

1. Wadamisaki via Kobe Port Radio on Channel 16, call "Kobe-Port", or Osaka Port Radio on Channel 16, call "Osaka-Port".
2. Sekisaki via Oita Port Radio on Channel 16, call "Oita-Port".
3. Hesaki, via Shimonoseki Port Radio on Channel 16, call "Shimonoseki Port".

These stations are very co-operative and they immediately give the latest information concerning boarding-time and place, as well as requirements concerning the pilot ladder.

AIOI: 34.46 N. 134.28 E. (See Plan)

PORT LIMITS: A line drawn between Kama-Saki and Kane-Ga-Saki defines the seaward limit of the port.

DOCUMENTS:
Ship's Register.
2 Voyage Memorandum (List of ports of call).
Last Port Clearance.
3 Crew Lists, including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist watch, radio, firearms/swords, etc., (only at first port of call in Japan).

Ship's Agents will prepare: Inward/Outward Declaration. 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agents should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Inland Sea Pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all inland sea ports. Pilotage compulsory for vessels of 10,000 g.r.t. and over, and recommended for smaller vessels in view of number of islands and difficult channels causing navigational hazards. Pilots obtained from one of three pilot stations dependent upon vessels last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination. *Note:* VHF communication available with Inland Sea pilot stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits). Position 34° 34.09′ N.; 135° 11′ E. Telegraphic address: "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki lighthouse. (Vessels transitting Bungo Channel.) Position 33° 13′ N.; 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki pilot station.

3. Hesaki, at East side of Kanmon (Shimonoseki) Straits. Position 33° 56′ 24″ N.; 131° 03′ 12″ E.

Aioi Dock Master not licensed to pilot vessels from outer harbour and boards at anchorages outside Aioi Bay.

ANCHORAGES: 9 anchorages outside Aioi Bay and 2 anchorages inside the Bay as follows:
North: True bearing 342° from Kasamatsu Iwa, distance 1,340 m.
South: True bearing 335° from Kasamatsu Iwa, distance 860 m.

MAX. SIZE: See "Berthing".

HEALTH: Pratique to be obtained at another Port prior arrival Aioi.

At first port of call in Japan, vessel must obtain Free Pratique. Quarantine officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards and Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers health condition to respective Quarantine Office through ship's Agents prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agents through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi and Northbound to contact Nagasaki Radio respectively.

TUGS: Normally join vessel at anchorage inside Aioi Bay. Tug's lines always used without charge.

BERTHING:

Wharf No.	LOA (m.)	Max. Draft at LW (m.)
1	266	7.0
2	175	5.5
3	Usually not used	
4	284	5.5
5	100	5.5
6	Usually not used	
7	340	7.0
8	340	5.5
9	290	6.5
10	340	5.5
11	230	5.5
12	350	7.5

MEDICAL: Full hospital facilities available without prior notice.
TANKERS: Must be fully gas-freed before entering the port. No facilities for tank cleaning or gas freeing in the port. Barge for slop disposal can be arranged by Agents.
DENSITY: Average 1025/1026 Winter, and 1018/1020 Summer.
FRESH WATER: Available from jetty/dock.
FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at max. 7 days prior notice.
CUSTOMS ALLOWANCES: Only allowed cigarettes for personal use, but no spirits.
CONSULS: None.
DRY DOCKS:

Restrictions: Vessels may anchor any time day or night. Draft and trim to be adjusted to enter dry dock per dockyard recommendation as follows:

Name of Dock	Max. Draft at L.W.	Max. Trim	Min. Trim
No. 1 D.	5.50 m.	$\frac{L(m)}{200}+1.50$ m.	$\frac{L(m)}{200}+0.10$ m.
No. 2 D.	4.50 m.	$\frac{L(m)}{200}+1.50$ m.	$\frac{L(m)}{200}+0.10$ m.
No. 3 D.	5.50 m.	$\frac{L(m)}{300}+1.50$ m.	$\frac{L(m)}{300}+0.10$ m.

Deeper draft available at HW.

Max. Size: Max. size of ships to be accommodated as follows:

	LOA	LBP	Breadth	d.w.t. (LT)
No. 1	238 m. 780 ft. 9 in.	230 m. 754 ft. 7 in.	33 m. 108 ft. 3 in.	73,000
No. 2	156.1 m. 512 ft. 1 in.	145 m. 475 ft. 8 in.	19.8 m. 63 ft. 11 in.	14,000
No. 3	341 m. 1120 ft.	328 m. 1076 ft. 1 in.	54.5 m. 178 ft. 10 in.	300,000

REPAIRS: Dockyard port. All repairs available. Specialist technicians obtainable from Kobe/Osaka area.
SURVEYORS: Lloyd's Register, N.K.K. and A.B.S. have offices in the I.H.I. Shipyard. Other surveyors available from Kobe.
AIRPORT: Osaka (Itami).
TIME: GMT plus 9 hours. Permanent.
POLICE/AMBULANCE/FIRE: Police 110 or Aioi 2–0740; Ambulance/Fire 119 or Aioi 2–7128.
EMERGENCY CO-ORDINATION CENTRE:

Marine Safety Agency, Himeji Branch office: Tel: 0792 - 34 - 1016.

Marine Safety Agency, Kobe Office: Tel: 078 - 331 - 0111. Call sign: JGD/Kobe Hoan.

TELEPHONES: Placed aboard at IHI shipyard.
SERVICES: No special services at Aioi, but available from Kobe/Osaka.
SHORE LEAVE: There is no restriction on crew's shore leave if they carry shore pass issued by local immigration office.
AUTHORITY: Kamigori Doboku (Public works) Office, 500 - 5, Aza Maruogami, Kamigori, Kamigori-Cho, Ako-Gun, Hyogo Pref. *Tel:* (07915) 2 - 0083.
AGENT: See "Himeji"

AKITA: 39.45 N. 140.03 E. (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
5 Crew Lists including Passport Numbers.
5 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist watch, radio, firearms/swords (only at first port of call in Japan).

Ship's Agents will prepare Inward/Outward Declaration. 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Ships Agents should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Not compulsory but recommended. Boards at 39° 46' N., 140° 00' E. (1 mile 270° from Akita lighthouse) or off Funakawa 1 mile 140° from breakwater end light if required. 2 Pilots board if ship's gross tonnage exceeds 18,000. Cost 170% of pilotage.
ANCHORAGE: Off Akita, 2 miles 270°-280° from Akita Lighthouse. Depth exceeds 20 m. Bottom – soft clay with mud. No buoys.
MAX. SIZE: See "Berthing". Min. depth at extreme low water – In fairway – 10.0 m. At Anchorage – 20.0 m. Tidal range 20 cm. – 30 cm.
HEALTH: Quarantine anchorage 39° 51' N. 139° 53' E. When impossible to inspect at Funakawa, i.e. during bad weather, officers attend off Akita.
RADIO: Niigata Radio when ship coming from South. Sapporo Radio when ship coming from East/North. Choshi Radio if long distance.
VHF: VHF Channel 16 – 156.8 MHz. VHF Channel 12 – 156.6 MHz. Operated by Regional Maritime Safety Headquarters (Harbour Master).
TUGS: 1 tug 2,000 h.p. available owned by local government. 4 tugs (200 – 800 h.p.) available, privately owned.
BERTHING:

Berth No.	Wharf	Length (m.)	Depth (m.)	Capacity (g.t.)	Discharging
1	Gaiko No. 1	270	13.0	50,000	Zinc Concentrates, Bulk Cargo
2	Ohama No. 1	185	10.0	15,000	G.C.
5	Ohama No. 2	185	10.0	15,000	Cement, G.C.
6	Ohama No. 3	185	10.0	15,000	G.C.
9	Nakajima No. 1	161	9.0	10,000	G.C.
8	Nakajima No. 2	185	10.0	15,000	G.C., Bagged Cargoes
7	Nakajima No. 3	185	10.0	15,000	Zinc Concentrate, G.C.
15	Terauchi Pier	200	7.5	5,000	Grain, Plaster, Cement
16	Mukaihama No. 1	130	7.5	5,000	Logs
17	Mukaihama No. 2	130	7.5	5,000	Logs
18	Mukaihama No. 3	185	10.0	15,000	Logs
19	Mukaihama No. 4	185	10.0	15,000	Logs
20	Mukaihama No. 5	185	10.0	15,000	Logs
Private					
	Akita Power Stat. No. 3 Dolphin	313	13.0	50,000	Crude Oil
	Tohoku Seishi Wood Chip Berth	210	10.0	35,000	Wood Chips

STEVEDORES: Working time 0830–1630 hrs. every day.

Grain in bulk: 150–170 t.p.h. by shore crane, 40–60 t.p.h. by ship's gear.

Logs/lumbers: 200,000 BM per gang per day (Nanyozai), 80,000–100,000 per gang per day (Beizai).

Potash in bulk: 150–180 t.p.h. by shore crane, 50–60 t.p.h. by ship's gear.

Fertiliser in bag: 250–300 tons per day per gang.

Zinc concentrate in bulk: 300–350 t.p.h. by shore crane. 40–60 t.p.h. by Ship's gear.

MEDICAL: Hospital and treatment available.
TANKERS: See "Berthing".
DENSITY: 1020–1021.
FRESH WATER: Available at every wharf. Rate 30 t.p.h.
FUEL: Domestic bunkers available. If bonded bunkers required, brought from Hakodate, Niigata.
GANGWAY/DECK WATCHMEN: Not compulsory, but available if required.
OPENING/CLOSING HATCHES: Stevedores open and close hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting charges.
CERTIFICATES: Ship's Register to show Customs Inspector to check ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance seems poor.
CUSTOMS ALLOWANCES: Only 50 cigarettes to take ashore. No spirits.
CONSULS: No Consuls, but 2 notary public offices.
REPAIRS: Minor repairs only.
REPATRIATION: Possible.
AIRPORT: Flights to Tokyo/Osaka/Nagoya/Hakodate/Sapparo 1–4 times per day. 20 km. from port.
TIME: GMT plus 9 hours. No alterations during year.
HOLIDAYS: Local holidays: January 2nd, 3rd, August 13th, 14th, December 30th, 31st. 1st, 3rd and 5th Sunday of each month also non-working.
POLICE/AMBULANCE/FIRE: Contact through Agents.
SERVICES: Provisions – Available. Hold Cleaning – Available. Surveyor – Available from Niigata.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days.
AUTHORITY: Akita Port Administration Office, 7-1 Nishi 1-Chome, Tsuchizaki Minato, Akita City. *Tel:* (0188) 45-2021/0042/0652.
AGENT: Sub-Agents of Dodwell & Co. Tokyo. Akita Kairiku Unso Co. Ltd. 5–9 Nishi 2-chome, Tsuchizaki-Minato, Akita-shi, Akita-ken. Japan, O11. Tel. Akita (0188) 45–0185/9. Telegraphic: "Kairiku Akita". Telex: 8422–24.

AMAGASAKI: 34.42 N. 135.24 E. (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agents will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agents should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Usual for Pilot to embark at Kobe (Wada Point); however, if Master does not require a Pilot between Wada Point and Amagasaki, Pilot embarks off Amagasaki.

Cables: "Hanshinpilot Osaka" and "Hanshinpilot Kobe". One day's notice ETA required. Telephone through VHF. 3 Pilot boats at Osaka and 6 boats at Kobe with wireless communication with pilot station. Pilot boards Kobe, Wada Point (Kobe quarantine anchorage). Amagasaki, 2.5 – 3 miles off Amagasaki. In case bad weather unable to take Pilot. Safe Pilot ladder required. Vessel waits for Pilot at anchorage as above.
ANCHORAGE: No quarantine anchorage; quarantine inspection only available at Kobe (Wada Point). Safe anchorage (approx.) position 34° 39′ 30″ N., 135° 20′ 18″ E. Draft 12.8 m.
RESTRICTIONS: Pilot not available after sunset.
MAX. SIZE:

	Kobe Steel Works (Ohgimachi Wharf)	*Kobe Steel Works (Ohama Wharf)*
Max. LOA	230.0 m.	176 m.
Max. breadth	No Limitation	No Limitation
Max. draft	11.70 m.	10.4 m.
	Public Wharf	
Max. LOA	176.21 m.	
Max. breadth	No Limitation	
Max. draft	10.0 m.	

Daikyo Oil Jetty. Max. LOA 198 m., beam no restrictions, max. draft 10.6 m.
HEALTH: At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically West bound vessel to contact Choshi and North bound to contact Nagasaki Radio respectively.
TUGS: 1 tug × 2,200 h.p. Additional tugs available from Kobe. Tug usually joins vessel at anchorage off Amagasaki. Tug's line used for operation free of charge.
BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.
Public Berths:

No. 1	Length 165 m.	Depth 9.0 m.
No. 2	Length 150 m.	Depth 9.7 m.
No. 3	Length 180 m.	Depth 10 m.

Kobe Steel (Ohama): Max. d.w.t. 25,000. Berth length 364 m. Depth 10.4 m. Products handled, ore and coal. 3 cranes×200 t.p.h.
Kobe Steel (Ohgimachi): Max. d.w.t. 35,000 or 55,000 with part load. Berth length 220 m. Depth 11.7 m. Product handled, coal. 3 cranes× 300 t.p.h.
CRANES: 3×10 ton cranes at the public wharves.
TANKERS: Daikyo Oil Jetty suitable for up to 33,000 d.w.t. Discharge rate 1,500 t.p.h. through one 10 in. pipe.
STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700–1900 hrs. 50% additional of basic stevedorage; 2100–0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.
MEDICAL: No advance notice required unless urgent.
DENSITY:

	Ohgimachi Wharf	*Ohama Wharf*	*Public Wharf*
Winter	1023.5 – 1025.0	1020 – 1025	1025 – 1119
Summer	1022.0 – 1025.0	1013 – 1025	1017 – 1025

FRESH WATER: Available at any time.

	Kobe Steel Works Wharfs	*Public Wharf*
Methods	Shore line	Shore line
Sunday, Holiday	Daytime 40% up	40% up
	Before midnight 50% up	50% up
	After midnight 100% up	50% up

Daikyo Oil Jetty. Only available by barge from Kobe.
FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

Bunkering at Oil Jetty prohibited.
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

Compulsory for tankers working cargo at oil jetty.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
CONSULS: No consulates in Amagasaki area.
REPAIRS: No dockyard. Minor repairs can be carried out on vessel alongside wharf.
REPATRIATION: Possible.
AIRPORT: International airport Osaka, 15 miles from Amagasaki.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
HOLIDAYS: Kobe Steel (Ore/Coal) Nil. Public Wharf (Scrap) 20th July.
POLICE/AMBULANCE/FIRE: Police 110; Ambulance 119; Fire 119.
TELEPHONE: No telephone installation service on board.
SERVICES: Compass adjustment can be carried out at anchorage.
SHORE LEAVE: Local Immigration Officers issue shore pass valid for only 3 days, but 3 days extensions possible if ship stays longer.
AUTHORITY: Amagasaki Port Administration Office, 21, Doi-cho 7-chome, Amagasaki City, Hyogo Pref. *Tel:* (06) 412-1361/5.

AGENT: Dodwell Tramp Agencies, Osaka. (see "Osaka".)

ANAN (Tachibana): 33.52 N. 134.40 E.

DOCUMENTS: and all general information, refer to "Shimotsu".
PILOTAGE: Not compulsory. Pilot can be arranged through Agent if required.
MAX. SIZE: Max. draft 10.50 m., limited by channel depth.
HEALTH: Closed port. If arriving directly from abroad, vessel should proceed to Shimotsu for health clearance. Immigration authorities attend from Komatsushima if required.
TUGS: One tug of 2,000 h.p. available.
BERTHING: Nippon Denko Wharf, length 200 m., depth alongside 11 m. Unloading capacity 500 t.p.h.
FRESH WATER: Available from shore hydrants only.
FUEL: By barge from Hanshin area only.
AUTHORITY: Anan Doboku (Public Works) Office, Aotani, Tomioka-cho, Anan City, Tokushima Pref. *Tel:* (08842) 2-3111.

AGENT: See "Niihama".

AOMORI: 40.52 N. 140.45 E.

DOCUMENTS: Documents and all general information, refer to "Hachinohe".
PILOTAGE: Not compulsory. Harbour Pilot available at Quarantine Anchorage.
RESTRICTIONS: Day and night entry possible.
HEALTH: Free Pratique granted at the anchorage.
TUGS: 1×1,680 h.p. and 1×70 h.p.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Max. draft* (m.)	*Max. Size* (g.r.t.)
No.2 Wharf (2)	178	9.0	8.5	10,000
(3)	155	7.5	7.0	5,000
(4)	193	9.0	8.5	10,000
3,000 ton Pier	115	7.5	7.0	3,000
3,000 ton Pier	260	5.5	5.0	3,000
Tsutsumi Wharf	260	7.5	7.0	5,000
Aburakawa Lumber Port	200	4.5	4.0	5,000

CRANES: 2×35 tons, 2×18 tons and 1×13 tons.
TANKERS: *Bridgestone Pier:* Max. LOA 260 m., max. draft 12.0 m. Product handled: LPG, 1×12 in. line, discharge rate 1,200 t.p.h.
FUEL: Can be supplied by barge from nearest stock port (Hakodate).
FRESH WATER: Available ex-wharf.
REPAIRS: Small repairs possible.
AUTHORITY: Aomori Port Administration Office, 5-5, Hon-cho 4-chome, Aomori City. *Tel:* (0177) 34-4101.

AGENT: See "Hachinohe".

ATSUMI: 34.40 N. 137.04 E.

DOCUMENTS, and all general information: refer to "Yokkaichi".
PILOTAGE: Compulsory; Pilot boards at the point 300° – 7 miles from Kamishima Lighthouse.

Also see "Nagoya" – "Pilotage: Shipmaster's Report".
RESTRICTIONS: No possibility of passage through Nakayama Suido after sunset. However, vessels under 9 m. draft able to enter from Nojima South Passage.
MAX. SIZE: *Dolphin Pier:* 70,000 d.w.t., LOA 240 m., max. draft 12.50 m.
SBM: 210,000 d.w.t., max. draft 13.00 m.
CLEARANCE: *Quarantine:* Quarantine Office opened at Atsumi.
Immigration: Immigration Officials attending from Toyohashi.
TUGS: Minimum 2 tugs required for mooring/unmooring due to strong current.
BERTHING: *Dolphin Pier:* Lat. 34° 39′ 36″ N., Lat. 137° 04′ 54″ E. 2.5 km. from installation.
SBM: Lat. 34° 39′ 47″ N., Long. 137° 03′ 56″ E. 2 km. from installation.
Shoreline: Dolphin Pier: 2×12 in., discharge rate 3,000 t.p.h.
SBM: 2×16 in., discharge rate 7,500 t.p.h.
FRESH WATER: At Dolphin Pier: ex pipe-line (boiler water only). At SBM: by barge.
FUEL: Bunkering permissible only at anchorage by barge.
DENSITY: 1025 at both berths.
AUTHORITY: Chubu Electric Power Co. Inc., No. 1 Toshin-Cho, Higashi-Ku, Nagoya, 461-91 Japan. *Tel:* (052) 951-8211. *Telex:* 444-4405 Chuden J.

AGENT: Chubu Port Service Co. Ltd. (Subsidiary company of Port Authority).

CHIBA (including Yahata): 35.36 N. 140.07 E.
(See Plan)

DOCUMENTS:
Ship's Register. Last Port Clearance. 3 Crew Lists including Passport Numbers, 3 Passenger Lists. 1 Stores List. 1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agents will prepare Inward/Outward Declaration, Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Harbour Pilots are available at the anchorage.
Pilot not available after sunset.
Also see "Pilotage" in "Japan – General".

ANCHORAGES: Quarantine anchorage on Northern part of Tokyo Wan. Chart No. 1061, published by Maritime Safety Agency.

SIGNALS: Following signals exhibited at Chiba Lt. and Chiba Signal Station.

	By Night	*Remarks*
Chiba Route	W. flash 2 secs.	Over 500 GT outwards — STOP.
	R. flash 2 secs.	Over 500 GT entering STOP
	R. and W. flash 3 secs.	Over 10,000 GT entering or outwards — STOP.
	3R. and 3W. flash 6 secs.	Entering or outwards — STOP.
Ichihara Route	O G. O G.	Over 500 GT outwards — STOP.
	O R. O R.	Over 500 GT entering — STOP.
	O G. O G. O R.	Over 10,000 GT entering or outwards — STOP.
	O G. O G. O R. O R.	Entering or outwards — STOP.

RESTRICTIONS:

	Length (m.)	*Width* (m.)	*Depth* (m.)
Funabashi Route	9,000	300	−12
Chiba Route	14,720	350	−18
Ichihara Route	2,350	250	−12
Anegasaki Route	1,450	350	−16
Shiizu Route	2,200	300	−16
Kitasode Route	1,500	300	−10.5
Minamisode Route	1,500	350	−14

MAX. SIZE: See "Berthing".

HEALTH: Radio Pratique available, requested through Agent. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera infected area within 10 days, Master must advise crew and passengers' health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agent through Chosi Radio or Nagasaki Radio which covers all ports in Japan. If specifically West bound vessel to contact Chosi and North bound to contact Nagasaki Radio respectively.

RADAR/VHF: No radar service. VHF call sign "Chiba Port Radio" Channel No. 12 156.6 MHz (Simplex), Channel 14 156.7 MHz (Simplex), Channel 16 156.8 MHz (Simplex), Channel 20 161.6 MHz (Duplex), Channel 22 161.7 MHz (Duplex).

TUGS: 13 tugs, 1,900 h.p. – 3,200 h.p. Tugs join vessel at entrance of each waterway. Tug's line used.

CRANES: Floating cranes, 50 ton – 600 ton, available from Yokohama.

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agents to arrange stevedores. Vessel must constantly keep her Agents advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gears not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1700 – 1900 hrs. (50% additional of basic stevedorage) 2100 – 0500 hrs. next morning (130% additional) Sundays/holidays (60% additional).

BERTHING: Contact Agent for berthing arrangements on entry. No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Name of Berth	*Length* (m.)	*Depth* (m.)	*Capacity* (d.w.t.)	*Shore Cranes & Pipe-lines*
(Katsunom Area)				
(Public)				
Higashi Futo A,B	260	− 7.5	5,000	
Chuo Futo Kita B,C,D	390	− 7.5	5,000	
E,F,G	390	− 7.5	5,000	
H,I	260	− 7.5	5,000	
Chuo Futo Minami D,E,F	555	−10	15,000	
(Private)				
Kami Futo	350	−12	30,000	Belt conveyor
(Chiba Area)				
(Public)				
Dezu Futo A,B,C	430	− 7.5	5,000	
Chuo Futo A,B,C,D,E	1,000	−10	15,000	
Chuo Futo F,G,H	720	−12	30,000	
Ichihara Ganpeki A,B	240	− 7.5	5,000	
(Private)				
Mitsubishi Pier	50	− 9.5	8,800	100 t.×1
Nippon Silo Pier	160	−12	50,000	200 t.×2
Sin Tozai Reizosoko Pier	120	−12	30,000	
Chiba Kyodo Silo Pier	150	−12	50,000	300 t.×1
Hisosirt Nippon Seito Pier	150	−12	20,000	330 t.×1
Newport Sangyo Pier	150	−12	40,000	
Keiyo Mokuzai Futo	120	−12	30,000	12 t.×2
Kozai Yard Wharf	200	− 7.5	2,000	20 t.×1
Oioda Cement Pier	55	−12	20,000	400 t.×1
Chiba Mokuzai Futo	180	−12	30,000	15 t.×4
Tosei Itochu Pier	160	−12	50,000	400 t.×1
Marubeni Abeni Oil	320	−14	50,000	500–2,400 kl./h.
Kawatetsu Wharf (A)	200	− 9.5	12,000	10 t.×1
(B)	150	−10.5	25,000	20 t.×3
(C)	138.7	−11	30,000	22 t.×3
(E)	160	−10.5	10,000	Nil
(F)	270	−12	45,000	16 t.×2
(G.H)	167	− 9.5	11,000	9 t.×2, 10 t.×4
(J)	405.5	−18	150,000	60 t.×2
(L.M)	530	−12	45,000	15 t.×2, 16 t.×2
(E.B)	352	−18	200,000	60 t.×2
(E.A)	197	−11.5	30,000	
(OD)	130	−11	20,000	22 t.×1
(OC)	245	−10.5	33,000	15 t.×2
Toden Chiba (S)	35.2	− 9.5	6,000	800 kl./h.
(B)	305	− 9	10,000	1,200 kl./h.
(Q)	22.5	− 7.5	6,000	250 kl./h.
(Ichihara Area)				
Furukina Dolphin	63	− 8	7,000	Nil
Showa Denko No. 2	250	−10	16,000	50 t.×1
Mitsui Zosen No. 5	385	− 9	150,000	40 t.×1
No. 1	200	− 9.5	213,000	20 t.×1
No. 2	227	− 8	213,000	
No. 4	400	− 9	213,000	
	398	− 9	33,000	
Showa Hatsuden Pier	36	− 9.5	3,000	500 kl./h.
Fuji Denki Pier	80	− 9.5	10,000	350 t.×1
Fuji Sash Wharf	76	− 9	10,000	Nil
Asahi Glass Pier	195	−12	50,000	500 t.×2
Maruzen No. 2 Pier	100	−11.8	50,000	500 kl./h.
Sea Buoy (Imodco)		−16	100,000	500 kl./h.
Maruzen No. 10 Pier	100	−13	100,000	1,000 kl./h.
No. 15 Pier	151.4	− 8.5	8,000	1,000 kl./h.
No. 14 Pier	151.4	− 8.5	8,000	1,000 kl./h.
Kyodo Pier	150	−12	20,000	360 kl./h.
Ube Dolphin	250	−10	15,000	
Kyokuto Oil Pier	415	−16	80,000	3,000 kl./h.
	147	− 7.5	6,000	2,500 kl./h.
Idemitsu No. 1 Oil Pier	201	−16	100,000	14,800 kl./h.
No. 2	167	−15.5	80,000	10,200 kl./h.
No. 3	97	−10.5	20,000	2,100 kl./h.
Toden L.P.G. Berth	102	−14	50,000	
(Sodegawra Area)				
Fuji Oil Pier	420	−16	120,000	7,700 kl./h.
Sumitomo O Pier	210	−10.5	30,000	350 t.×1
N Pier	162	−10.5	15,000	60 t.×1
Nichirin A Pier	260	−10.5	30,000	375 t.×1
Itochu Berth	180	−12	20,000	Nil
To Gas L.P.G. Berth	533	−16	50,000	7,100 kl./h.
Keiyo Sea Berth	470	−20.5	258,000	12,500 kl./h.

MEDICAL: No advance notice required unless urgent.

TANKERS:

Berth	*Product*	*Shorelines*	*Discharge Rate* (t.p.h.)
Kyokuto	Naphtha	12 in.×1	1,500
	Crude Oil	12 in.×3	5,000
	Fuel Oil	12 in.×3	2,000
Maruzen No. 2	Fuel Oil	10 in.×1	800
	Crude Oil	10 in.×1	1,500
	Naphtha	10 in.×1	800
Maruzen No. 10	Fuel Oil	12 in.×1	1,300
	Naphtha	12 in.×1	900
Maruzen No. 14	Butadeine (Loading)	10 in.×1	400
Keiyo Sea Berth (W)	Crude Oil	16 in.×3	10,000
Keiyo Sea Berth (E)	Crude Oil	16 in.×3	10,000
Fuji Oil	Crude Oil	12 in.×3	4,000
	Fuel Oil	12 in.×3	1,500
	Propane	12 in.×1	300
	Butane	12 in.×1	300
Idemitsu Oil No. 1	Crude Oil	12 in.×2	5,000
	Minus Oil	12 in.×2	3,000
	Fuel Oil	12 in.×2	3,000
Idemitsu Oil No. 2	Crude Oil	12 in.×2	4,000
	Fuel Oil	12 in.×2	1,500
	Propane	12 in.×1	1,000
	Butane	12 in.×1	1,000
Idemitsu Oil No. 3	Fuel	8 in.×1	800
	Naphtha	6 in.×1	500
	Lub. Oil	6 in.×1	500

Berthing at Sea Berth: Berthing is limited to daylight hours only. Vessels always berth with the bow towards the N.E. end of the berth. In the normal berthing manoeuvre the vessel is brought parallel to the berth, at a distance of about 200/300 m., and then warped alongside. While approaching the berth, Pilots check the speed with shore targets and radar distance. Vessel is required to maintain the 3 cm. radar in operation. When coming alongside, speed is monitored by a Sonar doppler installed at the berth. The Pilot is advised by walkie-talkie if the berthing velocity exceeds the safety limits. The speed of approach for vessels up to 260,000 d.w.t. must be less than 15 cm./sec.

When berthing, sliding along the berthing dolphins should be avoided so as not to damage the rubber cell fenders.

The normal mooring configuration is:

4 head lines
3 breast lines forward
3 back springs forward
3 back springs aft
3 breast lines aft
4 stern lines

It is advisable to have ready a certain number of synthetic ropes.

The breasting dolphins are located quite close and the breasting lines are short and are at a steep angle.

A Terminal Port Captain remains on board during the entire operation and should be consulted with regard to mooring arrangements. Caution should be exercised for wash caused by passing ships.

Close co-ordination is maintained between the Terminal and the shore throughout the operation.

No repairs are permitted alongside. IOTTSG Safety and Pollution check lists are strictly observed.

Operator's Report: 1983.

Keiyo Sea Berth (Discharging Terminal): Operated by Keiyo Sea Berth Co. Ltd.

Terminal operates 24 hours per day, 7 days a week. Ships moored and unmoored daytime, weather or other circumstances permitting. Terminal will not be closed due to any holidays.

Location: Lat. 35° 30′ 30″ N., Long. 139° 56′ 25″ E.

Pilotage: Compulsory.

Anchorage: 236°, 5,000 m. and 305°, 3,200 m. off from centre of Keiyo Sea Berth.

Restrictions: Max. draft 19.2 m. but vessels whose draft exceeds 18 m. are tide controlled (full flood required when ships made fast).

Berthing: West Berth, starboard side alongside. East Berth, port side alongside.

Cargo Rates: Maximum rate 12,000 kl./hr. Maximum pressure 9 kg./sq.cm. at manifold.

FRESH WATER: Available by barge and shore line.
FUEL: Most grades available.
GANGWAY/DECK WATCHMEN: Recommended.
OPENING/CLOSING HATCHES: Carried out by stevedores.
SHIP'S CERTIFICATES: See "Tokyo".
CUSTOMS ALLOWANCES: Tobacco – 200 cigarettes. Wine and/or spirits – 1 bottle.
CONSULS: None.
REPAIRS: All major repairs possible.
DRY DOCK: Mitsui Ship Building Yard. 500,000 d.w.t. and 300,000 d.w.t. dry docks.
REPATRIATION: Possible.
AIRPORT: About 40 km. to New Tokyo Airport (Narita).
TIME: Japan Standard Time (135° E.) = GMT plus 9 hours. Permanent.
HOLIDAYS: New Year's Day (January 1st); Attaining the Age of Maturity Day (January 15th); State Foundation Day (February 11th); Vernal Equinox Day (March 21st); Birthday of Emperor (April 29th); Constitution (May 3rd); Children's Day (May 5th); Respect Day for the Aged (September 15th); Autumnal Equinox Day (September 24th); Gymnastic Day (October 10th); Civilisation Day (November 3rd); Labour Thanksgiving Day (November 23rd). Cargo work can be arranged at 50 – 100% extra on basic cost.
POLICE/AMBULANCE/FIRE: Police Tel: 110, Fire and Ambulance 119.
TELEPHONE: Facilities for placing telephones on board only at Chuo Pier.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days extensions possible if ship stays longer.
DEVELOPMENTS: New coal terminal under construction for vessels of 60,000 d.w.t. Depth alongside 14 m.
AUTHORITY: Chiba Port Administration Office, 6-1 Chuoko, 1-chome, Chiba City, Chiba Prefecture, Japan. *Tel:* (0472) (46)6201. *FAX:* 0472 (46) 6206.

AGENT: Sub-Agent of Dodwell & Co. Tokyo. Chiba Kaiun Sangyo Co. Ltd., 1-20, 3-Chome, Suehiro, Chiba. Cable: Chibamarine, Chiba. Tel: Chiba (0472) 61-3361. Telex: 03722-230.

LPG:

Name	Chiba No. 2	Fuji Berth	Anegasaki	KPI Pier	Marubeni
Owner	Idemitsu	Fuji Sekiyu	Tokyo EP Co.	Kyokuto Sekiyu	Marubeni
Type	Dolphin	Dolphin	Dolphin	Dolphin	Dolphin
Max. Deadweight Berthed	80,000	120,000	60,000	100,000	57,000
Max. LOA Berthed (m.)	260	—	250	260	230
Max. Draft Berthed (m.)	13.9	15	12.5	13.5	12.5
Side Alongside	Port	Starboard	Port	Starboard	Port
Water Depth in Channel (m.)	16	15.7	16	15	18
Bore, Manifold (m.s.)	12/12	12/8	12/8	12/12	12/10
Storage Tanks, LPG (Thousand Kilolitres)	3×25.5	2×20	2×60 2×45	2×77.6	1×30 1×20
Storage Tanks, LBG (Thousand Kilolitres)	1×25.5	1×40 1×20	4×40	2×77.6	1×30
Derrick Necessary	No	Yes	No	No	Yes
Accommodation Ladder Necessary	Yes	Yes	No	No	No
Bunker from Shore	6 in.	8 in.	8 in.	10 in.	—
Bunker from Barge	No	No	Yes	No	—
FW from Shore	Yes	Yes	Yes	No	Yes
Ship-Side Return Gas Blower Needed	Yes	Yes	No	Yes	Yes

ETAJIMA: 34.11 N. 132.29 E. (See Plan)

OPERATORS: C.I. Oil Terminal.
LOCATION: Name of berth, C.I. Oil Terminal. Position: Lat. 34° 11′ 30″ N., Long. 132° 29′ 00″ E.
DOCUMENTS:

Certificate of Registry.
Safety Equipment Certificate.
Derat Exemption.
Clearance from Last Port.
10 Crew Lists.
2 Crew Customs Declaration (Japanese Form).
4 Stores Lists.
5 Slop Chest Lists.
Quarantine Declaration.

PILOTAGE: Compulsory. Pilot boards in Bungo Channel 3 miles South Seki Saki Lighthouse. Pilot station (Lat. 33° 13′ N., Long. 131° 54′ E.) equipped with light signal – no VHF. Pilot remains on board during Pratique operations – also see "Tankers".
ANCHORAGE: See "Restrictions".
RESTRICTIONS: Controlling depths (MLW) are as follows: entrance 20 m.; channel 17 m.; anchorage 17 m.; berth 15 m.; The mean tidal range is 3 m. Nature of bottom is mud. Velocity of current: entrance 1 knot; channel 1.5 knots; anchorage 0.5 knots; berth 0.5 knots. Vessels may berth at any stage of the tide during the day.
MAX. SIZE: 30,000 – 80,000 d.w.t. and 120,000 d.w.t. with half cargo. Max. LOA 185 m. – 273 m. Depth 15.5 m. Max. draft 14.0 m. according to tidal conditions.
HEALTH: Available during daytime only in Kure or Iwakuni Quarantine Anchorage. Quarantine Officers inspect galley, pantry and food stores. Pilot ladder used for boarding.
RADIO: Shimonoseki – Kobe.
TUGS: Five available and advised for berthing and unberthing. One forward and one aft, 3,000 h.p.
MEDICAL: Doctor available.
TANKERS: Pilot berths/unberths vessel.

It is dangerous to navigate at night.

Moorings: Forward 3 headlines — Aft 3 sternlines
2 breast lines — 2 breast lines
2 spring lines — 2 spring lines

Connections: 2×12 in. connected and disconnected by shore gang booms not necessary. Max. pressure required by shore is 7 kg./sq.cm.
Pumping Rate: 5,000 k/l per hour expected.
Pipeline: Length 131.6 m.; 2×24 in.
Gangway: Pilot ladder used as not sufficient room for gangway.
Pollution: Berth is closed by floating pollution retain. Dimension 320 m.×56 m.
Ballast: During ballast operations shore personnel remain on board to check for dirty ballast and a motor-boat watches for same purpose. There are no slop tanks or facilities for dirty ballast ashore.
Storage Capacity: Crude oil, 22,000 k/l × 5 tanks; 21,300 k/l × 3 tanks; (total crude oil 173,900 k/l).
DENSITY: Summer 1020, Winter 1025 average.
FRESH WATER: Available, any quantity, by water barge from Kure, 4 days' notice required.
FUEL: Available.
FIRE PRECAUTIONS: Standard regulations.
REPAIRS: Facilities available – shore steam and electricity available.
DRY DOCKS: Available, lifting capacity 500,000 tons.
STORES: Laundry and provisions available.
CUSTOMS ALLOWANCES: 200 cigarettes, 1 open bottle of spirits and some beer.

Customs Officers inspect crew cabins.

AUTHORITY: C.I. Oil Terminal Ltd., 5-1, Kita-Aoyama, 2-Chome, Minato-Ku, Tokyo, Japan. *Tel:* Tokyo 03-497-8147. *FAX:* Tokyo 03-497-8144. *Contact:* M. Suzuki, Director.

Etajima Oil Supply Terminal, 3639-3 Etajima-Cho, Aki-Gun, Hiroshima, Japan. *Tel:* (0823) 42-3131/5.

FUKUYAMA: 34.29 N. 133.26 E. (See Plan)

Located on central Northern coast of Setonaikai (Inland Sea) and on border of Hiroshima Prefecture and Okayama Prefecture.

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 copy Voyage Memo (last 3 months).
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agents will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agents should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Inland Sea Pilotage should preferably be arranged through Agent by cable via Nagasaki Radio and/or Choshi Radio giving 72 hours notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from one of two pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication available with Inland Sea Pilot Stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits) Position Lat. 34° 34.09′ N., Long. 135° 07.54′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse. (Vessels transitting Bungo Channel). Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Moji". In event bad weather, recommended vessels proceed shelter as near as possible having due regard to safety, to Sekisaki pilot station.

APPROACHES: Main approach channel (leading to raw material discharging berths and pipe loading berth). Depth 16 m. (52 ft. 6 in). Width 350 m. (1,148 ft.). Distance from quarantine anchorage to "A" berth, 9,500 m.

Pilot undertakes berthing vessels at "A", "B", "M" or "L" berths, with draft up to 16 m. Vessels drawing over 15.5 m. may berth at high tide.

Branch channel (leading to loading berths except pipe berth). Depth 11 m. (36 ft.). Width 300 m. (984 ft.). Distance from quarantine anchorage to Export berth No. 1: 11,500 m.

ANCHORAGES: Quarantine anchorage position: Lat. 34° 22.5′ N. and Long. 133° 26.3′ E., an area of 750 m. radius.

RESTRICTIONS: Inland Sea (Setonaikai):

1. *Akashi Strait and Bisan Seto:* All vessels, over 200 m. LOA shall navigate on Bisan Seto in daytime only and also vessels over 250 m. LOA have to have an escort boat when navigating on Akashi Strait and Bisan Seto respectively in accordance with the Maritime Regulations. Permissible draft on arrival 16 m., but 12 m. on departure.

2. *Kurushima Strait:* The vessels, over LOA 200 m. shall navigate on Kurushima Strait at slack water in daylight and vessels over LOA 250 m. and up to 300 m. have to have an escort boat when navigating on Kurushima Strait.

The draft restrictions are as follows: The permissible draft for LOA from 200 m. up to 250 m. shall be less than 13 m. and LOA from 250 m. up to 300 m. shall be less than 11 m.

Escort Boat: 2 escort boats with VHF available. Max. speed 24 knots, cruising speed 18 knots.

MAX. SIZE:

Berth	*Max. LOA* (m.)	*Max. draft* (m.)
"A"	305	16.0
"B"	285	16.0
"F"	180	11.0
"E"	210	13.0
"L"	350	16.0

Also see "Berthing".

HEALTH: Radio Pratique available. At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards and Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers' health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound, to contact Nagasaki Radio respectively.

VHF: "Fukuyama Port Radio" on Channel 16 (0600 – 2000 hrs.).

TUGS: 5 tugs (3,200 h.p.) available in the Fukuyama Harbour. Additional tugs are available from other Inland Sea terminals.

STEVEDORES: Stevedores available at all times for loading steel products and discharging raw materials.

For a berth term contract on loading, at least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA.

If stevedores cannot commence loading at time notified by the Agents, the orderers must pay for waiting time. Discharging for all raw materials is on "Free In/Out" basis. Therefore, stevedorage is to receivers account. Loading/unloading is carried out by shore cranes. Ship's gear is not used.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio. Berthing/unberthing not carried out during hours of darkness.

Nippon Kokan K.K. – Fukuyama Works. Private Berths.

Raw Material Berths (Discharging Berths).

Berth	*Length and depth in metres*	*Max. size of vessels acceptable in d.w.t.*	*Cargoes discharged*	*Remarks*
"L"	315 17.3	200,000	Coal and Ore	2 gantry cranes each with 1,500 t.p.h. discharging capacity. Average discharging rate per hour:
"M"	250 17.0	200,000	Coal and Ore	Iron Ore 1,200 tons with 1 crane. Coal 800 tons with 1 crane.
"A"	300 17	150,000	Coal and Ore	4 gantry cranes (available for both "A" and "B" berths) each with 1,500 t.p.h. discharging capacity. Average discharging rate per hour:
"B"	280 16	100,000	Coal and Ore	Iron Ore 950 tons with 1 crane. Coal 700 tons with 1 crane. Normally 2 cranes are used for a vessel
"E"	210 14	75,000	Mainly Coal	2 gantry cranes each with 750 t.p.h. discharging capacity. Average discharging rate: Coal 600 t.p.h. with 1 crane.
"F"	180 11	20,000	Mainly Coal for coastal vessels	2 level-luffing cranes each with 300 t.p.h. discharging capacity. Average discharging rate: Coal 500 t.p.h. with 2 cranes.
"S"	249.5 12(max.draft)	35,000	Pig Iron and Scrap for discharging and loading	3 level-luffing cranes each with 15 tons lift capacity. Average discharging rate per hour: Pig Iron 350 tons with 3 cranes. Scrap 300 tons with 3 cranes.

Steel Product Loading Berths:

Name	*Berth No.*	*Length* (m.)	*Depth* (m.)	*Capacity* (d.w.t.)	*Cranes* (tonnes)	*Remarks*
Dom-estic	1 – 2	200	5	2,000	1×40, 1×250 (Derrick)	Construction Cargo
	3 – 8	600	5	2,000	1×20, 3×30 (LLC)	
	9 – 13	550	6 – 7	1,500 – 3,000	3×20, 1×30 (Gantry)	
	22 – 24	300	7	3,000	1×28 (Gantry)	
Ex-port	1	234	11	20,000	5×30 (LLC)	
	2	230	13	35,000	1×20 (Gantry)	
	3	146	13	35,000		
	4	250	13	35,000	1×20, 1×30 (Gantry)	
	5	130	13	35,000	2×40 (LLC)	
Pipe	P	399	11.5	35,000	1×20, 1×50 (Gantry)	Pipe
Slag	1	181	7	5,000	1×600 tonnes/p.h. (Ship Loader)	Slag

MEDICAL: No advance notice required except on Sundays, holidays and in an emergency.

DENSITY: Summer 1016 – 1022. Winter 1025. The density not much affected by tide, which is maximum 3.84 m.

FRESH WATER: Available at any berth. Supply capacity about 11 t.p.h. Water barge also available, capacity 150 tons.

FUEL: Bunkers by lighter from Kobe, Mizushima, Tokuyama or Moji area. Advance notice required.

GANGWAY/DECK WATCHMEN: Not specially required unless valuable cargo on board. Steel Mill's guard are on watch at all gates.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches for loading steel products. Charge is assessed according to tariff. Recommend request stevedores for this work unless crew can complete it before berthing. For discharging raw materials opening/closing hatches must be carried out by ship's crew before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 60 cigarettes to take ashore but no spirits.

CONSULS: None.

REPAIRS: Only minor repairs.

DRY DOCK: None. Available at Innoshima or Mukayima and Tsuneishi.

REPATRIATION: Possible.

AIRPORT: Nearest airport is Okayama (70 km.), but Tokyo and/or Osaka are preferable due to convenience of traffic.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Report to Guardmen's office located at Middle Gate of Nippon Kokan.

TELEPHONES: No arrangements for placing telephone on board. Private telephones connecting with offices in the compound of the Fukuyama Works are placed at each of the raw material berths.

For vessels alongside export berths, private telephone available at foremen's office located on berth.

GENERAL: Fukuyama is a local and new port, developed along with the expansion of Nippon Kokan, Fukuyama Steel Works.

Ship repairs (except small ones) for machinery, radio, radar, etc., are all arranged by firms located in Tokyo, Osaka and Kobe.

SERVICES: Hold cleaning.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for 15 days.

AUTHORITY: Fukuyama Public Works Office, 286-2 Miyoshi-Cho, Fukuyama City, Hiroshima Pref. *Tel:* (0849) 21-1311.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo, Nissan Senpaku Ltd., Port Bldg., 1, Kokan-cho, Fukuyama-shi, Hiroshima-ken. Cable address: Nissan Fukuyama. Domestic Telex: 6436-11; 6436-12 Nissan J. Tel: Fukuyama (0849) 41-0535.

FUSHIKI: 36.49 N. 137.03 E.

DOCUMENTS:
Ship's Register.
Last Port Clearance.
6 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agents will prepare Inward/Outward Declaration, 2 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Pilot available any time during daylight. Not compulsory. No telegraphic address of pilot station, therefore, direct advice to local Agent always required. Pilot meets vessels 029°, 2 miles off leading light, thence takes vessel to Quarantine Anchorage ground. Due to many fish-nets on both sides of fairway if requiring to come into Quarantine Anchorage without taking Pilot, necessary to advise Agent in advance. In case of bad weather and need to await outside port, recommend cruising in Toyama Bay until sea abates. Bay area too deep to anchor and also danger of fish-nets. When approaching position for Pilot, give exact ETA to Agent by using Niigata Radio and/or VHF to Fushiki Harbour Master. Small wooden pilot boat painted yellow. No particular light or sound signals required.

ANCHORAGE: Safe at all seasons with depth from 8 m. to 11 m. Sand and clay bottom. Room at anchorage for at least 6 vessels over 5,000 gross tons.

RESTRICTIONS: Pilot not available during darkness. No restrictions on tide, because small tide in all seasons. If draft over port limitation, vessel enters port after making adjustment by lightening in Outer Harbour.

MAX. SIZE: Length 180 m., draft 31 ft. in Summer and 30 ft. in Winter. However, depth of port not always definite, being a river port and dredging operations always carried out to keep depth all year round. Tidal range is maximum 0.45 m. Dredging to 10.0 m. depth underway.

HEALTH: Radio Agent for Free Pratique not less than 12 hours and not more than 36 hours before arrival, advising full details of vessel and health conditions on board. When Free Pratique is granted by radio, vessel will be required to submit the following documents to Quarantine Officer on arrival:
Maritime Declaration of Health.
Crew List.
Passenger List.

The following vessels will not be able to get Radio Pratique:
A vessel that has been in contact with an infected area or a suspected infected area within 15 days of arrival.

If a vessel has on board any case, or any suspected case, of infectious disease within 15 days of arrival.

If a vessel does not possess a valid Derat or Derat Exemption Certificate.

RADIO: (Also see "Pilotage".) Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: Tugs normally join vessel at port entrance, but sometimes in Outer Harbour for large vessels. Narita-Maru (2,060 h.p.) and Nihonkai-Maru (1,800 h.p.) provide lines, free of charge and Raicho-Maru (760 h.p.) uses ship's line. Used only when Pilot on board.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agents mainly by radio.

Berth	*Length* (m.)	*Capacity* (g.t.)	*Shore* Cranes & *Pipe-lines*
Left No. 1 Wharf	160	10,000	2×5 T
Left No. 2 Wharf	150	10,000	
Left No. 3 Wharf	185	10,000	
Left No. 4 Wharf	185	10,000	
Left No. 5 Wharf	90	1,000	
Right No. 1 Wharf	220	2×3,500	1×5 T
Right No. 2 Wharf	220	2×3,500	
Right No. 3 Wharf	185	15,000	1×8 T
Right No. 4 Wharf	175	10,000	
Right No. 5 Wharf	130	5,000	

Note: Depth becomes shallow with every rainfall. Therefore, recommended to contact the port authorities prior to vessel's call. See "Max. Size".

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agents, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1700 – 1900 hrs. 50% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.

MEDICAL: No advance notice required unless urgent.

DENSITY: Average density between 1015 and 1019 in all seasons.

FRESH WATER: Available, from left Wharf No. 1, 2 and 3, average 45 t.p.h. In other berths, to be supplied by barge, average 50 t.p.h.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. Bunkers will be lightered from the nearest bunker port at maximum 7 days' prior notice.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: None.

REPAIRS: Minor repairs only.

DRY DOCKS: No dry docks. Nearest available in Toyama.

REPATRIATION: Possible.

AIRPORT: Toyama Airport about 35 km. distance. 2 regular services a day. ANA only.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

HOLIDAYS: 1st May and New Year's Day.

POLICE/AMBULANCE/FIRE: Police, Fushiki Police Station, Takaoka (0766) 44-1500; Ambulance, Fushiki Fire Station, Takaoka (0766) 44-1122; or 119; Fire, Fushiki Fire Station, Takaoka (0766) 44-1122.

TELEPHONES: No facilities for placing telephones on board.

SERVICES: Hold cleaning available.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days extension possible if ship stays longer.

DEVELOPMENTS: Right No. 4 Wharf reconstructed, now 175 m. long, 10 m. deep, also Right No. 5 Wharf, 130 m. long, 7 m. deep. Left No. 1 Pier under reconstruction, when completed will be 185 m. length, 10 m. depth. Left No. 2 Pier to be reconstructed and completed to same size as Left No. 1.

AUTHORITY: Fushiki Port Administration Office, 5-15, Fushiki Minato-machi, Takaoka City, Toyama Pref. *Tel:* (0766) 44-0277.

AGENT: Sub-agents of Dodwell & Co. Ltd., Toyko. Fushiki Kairiku Unso Co. Ltd., 6-6, Fushiki-Minato-machi, Takaoka-shi, Toyama-Ken. Tel: Takaoka (0766) 44-130019. Telegraphic address "Fushikikairiku Fushiki". Telex: 05155-571/572.

HACHINOHE: 40.33 N. 141.33 E. (See Plan)

DOCUMENTS:
5 Crew Lists including Passport Numbers.
4 Passenger Lists.
1 Store List.
1 Declaration of Crew's Baggage (only first port of call in Japan).
1 Maritime Declaration of Health (for Quarantine on specific form).
1 Vaccination List of Crew (for Quarantine).

Ship's Register and Port Clearance from previous port (Presentation only). Ship's Agent will prepare Inward/Outward Declaration, Cargo Manifest for discharge and Cargo Manifest in transit using specific forms.

PILOTAGE: Not compulsory but arrangeable at Master's request. Pilot is generally arranged by Agent if Master requires, and vessel has to inform Agent ETA at latest 24 hours before arrival. Pilot comes on board from tug which flies flag "H". Tug has no facility to communicate with vessel, therefore vessel must constantly keep in close communication with Agent in order to advise Pilot.

When vessel approaches Hachinohe, VHF (Channel 16) belonging to Harbour Master is available for communication with Agent and Pilot.

Pilot boards at vicinity of Quarantine Anchorage (Lat. 40° 33′ N., Long. 141° 33′ E.). Pilot operates from 0630 hrs. till sunset.

ANCHORAGES: Open sea anchorage with a sandy bottom. Depth of water 12 m. – 16 m.

RESTRICTIONS: Pilot arrangeable only in daytime for entry.

MAX. SIZE: See "Berthing".

HEALTH: At first port of call in Japan, vessel should obtain Free Pratique, thus unnecessary further Pratique procedure at another port in Japan.

Quarantine Inspector boards vessel on arrival at Quarantine Anchorage (005.5°, 2,790 m. from Northern Breakwater Light) but occasionally boards upon berthing unless berth congested.

Master should submit to the Inspector the Maritime Declaration of crew, Vaccination List of crew, Vaccination Cards and Derat Exemption Certificate.

In case of vessel coming from an infected area, Master to report health condition of crew and passengers, number of crew and whether supplied with any provisions or water, also names of crew or passenger landed there.

If there is sick person on board, Master to report to quarantine office the illness condition in detail through ship's Agent thereafter Master should obey instructions of quarantine office.

RADIO: Masters' telegrams from Westbound vessel via Choshi Radio and Northbound vessel via Nagasaki Radio are passed on to Agents.
Call sign: Choshi Radio JCS, JCT, JCU and JDC
Nagasaki Radio JOS, JOT, JOU and JDB.

VHF: VHF available but it belongs to Harbour Master (Channel 16). If no emergency in effect, Harbour Master will pass simple messages to Pilot, Quarantine or tugs.

RADAR: No shore radar service however harbour tug-boat is equipped. Consequently tug-boat has been used by Quarantine and Pilot in foggy season.

TUGS: Pilot boards from tug-boat in vicinity of Quarantine Anchorage and escorts the vessel to inner harbour. Tug-boats always supply tug line free of charge.

BERTHING: In addition to berths mentioned below there are facilities with lesser depths for small vessels.

Public Wharves: Controlled by Aomori Pref.

Name Wharf/Pier	*Capacity (DWT)*	*Depth of Water (m.)*	*Length (m.)*	*Cargo Handled*
Hattaro No. 1	1,000	−5.0	75.8	Building materials
Hattaro No. 2	1,000	−5.0	70.0	Building materials
Hattaro A	5,000	−7.5	130.0	Steel
Hattaro B	5,000	−7.5	130.0	Steel
Hattaro C	15,000	−10.0	185.0	Ore, scrap
Hattaro D	50,000	−13.0	270.0	Ore
Hattaro E	50,000	−13.0	270.0	Ore
Hattaro F	15,000	−10.0	185.0	Ore, pulp timber
Hattaro G	15,000	−10.0	185.0	Ore, pulp timber
Hattaro No. 3	700	−4.5	60.0	Building materials
Hattaro No. 4	700	−4.5	70.0	Building materials
Hattaro No. 5	700	−4.5	60.0	Building materials
Hattaro No. 6	700	−4.5	60.0	Building materials
Hattaro No. 7	700	−4.5	60.0	Building materials
Hattaro No. 8	2,000	−5.5	100.0	General cargo
Hattaro No. 9	2,000	−5.5	90.0	General cargo
Hattaro No.10	700	−4.5	60.0	General cargo
Hattaro N	5,000	−7.5	130.0	General cargo, steel
Hattaro O	5,000	−7.5	130.0	Steel, general cargo
Kawaragi No. 1	3,000	−6.5	116.5	Feed, steel
Kawaragi No. 2	3,000	−6.5	115.4	Steel, general cargo
Kawaragi No. 2 Pier	5,000	−7.5	44.7	Petroleum products, fuel oil
Kawaragi No. 3 Pier	5,000	−7.5	44.7	Petroleum products, fuel oil
Kawaragi No. 4 Pier	5,000	−7.5	37.0	Petroleum products, fuel oil
Kawaragi No. 5 Pier	5,000	−7.5	37.0	Petroleum products, fuel oil
Kawaragi No. 6 Pier	5,000	−7.5	26.0	Propane, butane gas
Shirogane A	10,000	−9.0	165.7	Feed, cement
Shirogane B	15,000	−10.0	180.0	Pulp timber, ore
Shirogane C	5,000	−7.5	115.7	Cement, fish oil
Shirogane No. 1	2,000	−6.0	92.9	
Shirogane No. 2	3,000	−6.5	132.5	Building stone
Shirogane No. 3	1,000	−5.0	140.0	Ore
Shirogane No. 4	1,000	−5.0	140.2	Ore
L.S.T. Dolphin	2,000	−5.0	8.0	

Private Wharves:

Name	*Capacity (DWT)*	*Depth (m.)*	*Length (m.)*	*Cargo Handled*	*Operator*
Mitsubishi Paper Mills Wharf	15,000	−10.0	190.0	Chipboard, paper	Mitsubishi Paper Mills Co.
Mitsubishi Paper Mills Pier	30,000	−12.0	202.0	Chipboard, paper	Mitsubishi Paper Mills Co.
Maritime Self-Defence Force	1,000	−5.0	67.3	(Rescue ship)	Defence Facilities Administration Agency
Hachinohe Refinery Wharf	1,000	−5.0	64.5	Sulphuric acid	Hachinohe Refinery Co.
Ferries	5,000 (G/T)	−7.5	165.0	Ferries only	Aomori Prefecture Ferry Quay Corporation
Tohoku Grain Terminal Pier	50,000	−13.0	311.0	Feed	Tohoku Grain Terminal Co.
Tohoku Grain Terminal Pier	2,000	−5.5	(311.0)	Feed	Tohoku Grain Terminal Co.
Taiheiyo Kinzoku (Pacific Metals) Wharf	3,000	−6.5	355.0	Coal, ore	Taiheyo Kinzoku Co.
Taiheiyo Kinzoku (Pacific Metals) Wharf	3,000	−6.5	100.0	Coal, ore	Taiheyo Kinzoku Co.
Hachinohe Thermo-electric Power Station Wharf	3,000	−6.5	200.6	Crude petroleum, coal	Tohoku Electric Power Co.
Nippon Sekiyu (Nippon Oil) Wharf	3,000	−6.5	150.0	Petroleum products	Nippon Sekiyu Co.
Tozai (East-West) Oil Wharf (C zone)	3,000	−6.5	70.0	Petroleum products	Tozai Oil Terminal Co.
Esso Wharf	3,000	−6.5	74.0	Petroleum products	Esso Standard Oil Co.
Maritime Self-Defence Force Wharf	1,000	−6.5	50.0	Petroleum products	Defence Facilities Administration Agency
U.S. Military Fuel only	1,000	−6.5	70.0	Petroleum products	U.S. Navy in Japan
Shell Wharf	3,000	−6.5	74.0	Petroleum products	Shell Oil Co.
Idemitsu Dolphin	3,000	−6.5	20.0	Petroleum products	Idemitsu Kosan Co.
Kyodo Oil/Mobil Oil Wharf	2,000	−6.5	23.0	Petroleum products	Kyodo Oil Co. Mobil Oil Co.
Tozai Oil (B zone) Wharf	2,000	−6.5	20.0	Petroleum products	Tozai Oil Terminal Co.
All-Japan Federation of Fishing Cooperatives Wharf	500	−4.0	7.5	Petroleum products	All-Japan Federation of Fishing Cooperatives
Tohoku Port Service Wharf	5,000	−7.5	40.75	Petroleum products	Tohoku Port Service Co.
Koshuha (High Frequency) Wharf	3,000	−6.5	100.0	Coal, coke	Koshuha Chúzo (High Frequency Casting) Co.
Cooperative Feed Wharf	700	−4.5	60.5	Feed	Kita–Tohoku Cooperative Feed Co.
Co-op Chemical Wharf	2,000	−6.5	137.0	Fertilizer	Co–op Chemical Co.
Sumitomo Metal Mining Wharf	20,000	−11.0	285.0	Limestone, cement	Sumitomo Metal Mining Co.

CRANES:

Name of berth	*Crane*	*Nos.*	*Capacity (in case of Zinc concentrates)*	*Max. height*
Hattaro B-berth Hattaro C-berth	Unloader	2	Each 315 K/T per hr.	14 m.
Hattaro E-berth	Unloader	1	630 K/T per hr.	19 m.
Hattaro F-berth Hattaro G-berth	Mobile tower crane	2	Each 100 K/T per hr.	6 m.

No heavy-lift facilities.

STEVEDORES: Stevedores arranged upon receiving Master's ETA information.

Main Cargo	*Rate of works (average)*	
Nickel Ore	6,000 K/T per day	Discharging
Zinc Lead Concentrates	3,000 K/T	"
Logs	2,100 CM	"
Woodchips	10,000 K/T	(24 hrs. work)
Canned goods	230 K/T	Loading

MEDICAL: 3 General Hospitals and Medical Specialists available. No advance notice required unless urgent.

TANKERS: See "Berthing".

DENSITY: About 1025.

FRESH WATER: Available from wharf and water barge. 50 t.p.h. by barge and 40 t.p.h. from wharf. Basic cost water barge ¥370.– per k/t. at wharf (Hydrant) ¥195.– per k/t.

FUEL: All grades of domestic oil obtainable by oil barge. Bonded oil being brought from Yokohama, Chiba, Kashima, Sendai and Tomakomai with sufficient notice beforehand.

CONSULS: None.

REPAIRS: Minor repairs possible.

DRY DOCKS: Only for small vessels in 1,000/2,000 tons G.T. class, 2 dry-docks and other floating dock.

SURVEYORS: No Classification Society at this port except Marine Surveyor "Nippon Kaiji Kentei Kyokai" licensed by the Japanese Government. Surveyors of NK, Lloyd's, ABS and NV normally come from Hakodate, Tokyo or Yokohama.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Ship's option.

CUSTOMS ALLOWANCES: Customs allow 200 cigarettes and 1 bottle of spirits.

CARGO GEAR: See "Cranes".

REPATRIATION: All facilities available for crew changes.

AIRPORT: Misawa Airport, distance Hachinohe/Misawa about 50 km.

TIME: GMT plus 9 hours.

HOLIDAYS: Official holidays; New Year's Day (1st Jan.), Adults' Day (15th Jan.), Foundation Day (11th Feb.), Vernal Equinox Day (21st Mar.), Emperor's Birthday (29th Apr.), Constitution Memorial Day (3rd May), Children Day (5th May), Respect-for-the-Aged Day (15th Sept.), Autumnal Equinox Day (23rd Sept.), Health & Sports Day (10th Oct.), Culture Day (3rd Nov.) and Thanksgiving Day (23rd Nov.).

Work can be arranged on above days except New Years' Day but can not arrange 2nd & 3rd Jan., May Day (1st May), Hachinohe Festival (21st Aug.), Stevedores Year End Holiday (31st Dec.) and 1st, 3rd and 4th Sunday of every month.

POLICE/AMBULANCE/FIRE: Police 110; Ambulance and Fire 119.

TELEPHONES: It is not possible to place telephones on board.

SERVICES: Marine Survey, Tally, Hold Cleaning (Cargo vessels), Notary Public.

SHORE LEAVE: Immigration issue shore-passes for ship's stay if crew have valid Passport or Seaman's Book (Valid 3 days, with possible extension).

IDENTIFICATION CARDS: Not required.

REGULATIONS: Vessel may sail anytime.

DELAYS: No delay normally but sometimes due to congestion of a specific berth.

DEVELOPMENTS: Fairway in Hattaro Area including Hattaro E-Berth will be dredged to −13 m. in future and Hattaro D-Berth to be constructed together with large shore-crane, also Hattaro Pier No. 2 is being planned and will be constructed in the vicinity of Hattaro F&G- Berth. Moreover two long breakwaters will be constructed outside the harbour, however this is presently under negotiation with Fishermen's union in respect of fishery. (Length of Breakwater 3,700 m.).

SHIPMASTER'S REPORT: 1975

Pilotage: Compulsory. The Quarantine Anchorage is position Lat. 40° 32.9′ N., Long. 131° 32.7′ E., bounded by a circle radius 2.5 cables. In view of the considerable new development vessels should obtain Japanese chart No. 65 if possible. Vessels navigating on B.A. charts can be met by Pilot at a position 2 miles North of Same Kaku Lighthouse, by prior arrangement.

Restrictions: Vessels may sail any time.

Max. Size: Draft 9.5 m. LOA 170 m. breadth no restriction (June 1975).

Health: Radio Pratique can be obtained by all vessels holding valid Japanese Sanitary Inspection Certificate. (This rule applies to all Japanese Ports).

Tugs: A number of tugs are available.

Berthing: A number of new berths are now available. Dredging is in progress and available drafts can be expected to increase.

Airport: Two flights per day.

Developments: Reclamation, expansion, dredging etc., in progress.

AUTHORITY: Hachinohe Port Administration Office, 1 – 131 Kitanuma, Kawaragi, Hachinhoe City, Aomori Pref., Japan. *Tel:* (0178) 28–2105. *Contact:* General Manager.

AGENT: Narasaki Sangyo Co., Ltd., Hachinohe Branch, 10-4, Aza Kaigan, Oaza Kawaragi, Hachinohe-shi, Aomori-ken. Cable Address: Narasaki Hachinohe. Telex: 0822960 Nara J. Tel: (0178) 20-1651.

HAKATA: 33.36 N. 130.24 E. **(See Plan)**

DOCUMENTS:
Customs: When vessel arrives direct from foreign port, Customs Officials will board vessel for search. The following documents are to be submitted.

Crew List, Passenger List, Store List, Manifest of Crew Personal Effects (must be signed by individual crew member), Arms and Ammunition List, Narcotics List, List of Ports of Call on Current Voyage, Discharging Cargo Manifest, Through Cargo Manifest, Declaration Inward/Outward (Form No. C2000).

The following will be checked on board:

Ship's Registry, Last Port Clearance.

When vessel comes from Japanese port, Customs Officials will not attend on board, except special case. The Master or Agents are to attend at Customs House for entry formalities with the following documents:

Discharging Cargo Manifest, Through Cargo Manifest, Declaration Inward/Outward, Ship's Registry, Last Port Clearance, Documents entrusted with the Master at previous port.

On vessel's departure, a clearance is issued by Customs, after confirming payment of tonnage dues.

Immigration: Immigration Officials board vessel on her arrival in port to examine passports, discharge books and/or other equivalent travel documents and provide a 72-hour landing pass for crew members and passengers. 1 copy each of Crew List and Passenger List are required by them. Providing vessel's Agents with a Crew List beforehand will be a great help in expediting immigration business on vessel's arrival. When vessel stays in port more than 72 hours, the landing passes will be extended every 72 hours on application.

In the event that crew members, without entry visas, are to be landed for repatriation or transfer, Immigration will not permit their landing unless passage, by either sea or air, ensuring the prompt departure from Japan (within 72 hours) of these men have been booked, or unless the vessels to which they are to be transferred, arrive in Japan within 5 days.

PILOTAGE: Not compulsory, but necessary unless Master well acquainted with locality. Pilot embarks at Quarantine Anchorage; position Lat. 33° 38′ N., Long. 130° 19′ 30″ E. Request for Pilot made through ship's Agent, Master reporting ship's ETA by radio giving accurate time of arrival at least 24 hours prior arrival, also any subsequent change. Pilot on VHF Channel 16, 11 and 12. In the event of rough sea, harbour tug-boat will be used.

Shipmaster's Report: 1982

The Hakata Pilot is available on request off Genkai Island (Lat. 33° 42′ N., Long. 130° 15.5′ E.).

ANCHORAGE: No anchorage in port.

RESTRICTIONS: No restrictions if vessel in Free Pratique and draft less than 10 m. No tide.

MAX. SIZE: No restrictions of length, breadth. Draft 11.10 m.

HEALTH:

(a) Quarantine Station: Sea area surrounded by the following lines:

1. The line connecting between the top of the Nokono-Shima and point "A" which is located on the sea in the direction of 90° and at the distance of 2,540 m. from the top of the Nokono-Shima. (The parallel of 33° 38′ 00″ N.)
2. The line connecting between point "A" and point "B" which is located on the sea in the direction of 000° and at the distance of 1,750 m. from point "A". (The Longitudinal line of 130° 20′ 00″ E.).
3. The line drawn towards the Nokono-Shima in the direction of 270° from point "B". (The parallel of 33° 37′ 06″ N.).
4. The coast line of the Nokono-Shima.

The centre of the Quarantine Anchorage: Lat. 33° 37′ 30″ N., Long. 130° 19′ 30″ E.

(b) Quarantine service is rendered from sunrise to 1 hour before sunset.
(c) "Q" flag should be hoisted until Free Pratique is granted.
(d) When vessel arrives from plague infected or suspected area within 10 days after she left such place, a 24-hour special quarantine is required. All sanitary scuppers must be closed and garbage not thrown overboard after vessel reaches 60 miles off inland sea areas.
(e) Radio Pratique is applicable.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi and Northbound to contact Nagasaki Radio respectively.

VHF: Hakata Port Radio on Channels 11, 12, and 16. Power 50 watt. 24 hour operation.

TUGS: 2×2,400 h.p. and 1×2,600 h.p.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Wharf	*Length* (m.)	*Depth* (m.)
Central Pier	556	–10
	166	– 9
	390	– 7.5
Suzaki Pier	553	–11
	390	– 7.5
Hakozaki Pier	480	–12
	370	–10
	910	7.5

CARGO HANDLING FACILITIES:

Pneumatic Unloader:

No.	*Capacity*	*Location*
4	400 t.p.h. each	Suzaki Pier
1	400 t.p.h.	Hakozaki Pier

Gantry Crane:

No.	*Capacity*	*Location*
1	3 tons	Hakozaki Pier

Average performance of loading/unloading:

Discharging:	Grain in Bulk	400 t.p.h.	by conveyor
		50 t.p.h.	by winch
	Crude rubber	30 t.p.h.	
	Sugar in bulk	50 t.p.h.	
	Lumber	30/35 t.p.h.	
	Frozen Horse Meat	20/25 t.p.h.	
	Containers	25/30 Containers per hour	
Loading:	Fertilisers in bulk	60 t.p.h.	
	Tyres & tubes	60/65 Ms/tons	

Grain silos:

Capacity tons	*Location*	*Owners*
53,000	Suzaki Pier	Genkai Silo
69,000	Suzaki Pier	Hakata-ko Silo
20,000	Suzaki Pier	Hatsumura Silo
35,000	Suzaki Pier	Kamigumi Silo
25,000	Suzaki Pier	Ishibashi Silo
13,000	Suzaki Pier	Fuso Silo
10,000	Suzaki Pier	Taiyo Seifun
40,000	Hakozaki Pier	Kamigumi Silo

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Normal working hours: 0800 to 1700 hrs.

Overtime work is possible by applying to Customs at the following fees:

0000–0500 hrs.	350 Yen per hour
0500–0830 hrs. 1700–2200 hrs. and Sundays and Holidays	300 Yen per hour
2200–2400 hrs.	350 Yen per hour

No work can be arranged for on 31st December to 3rd January.

MEDICAL: No advance notice required unless urgent.

DENSITY: About 1024.

FRESH WATER: No water barge available. Hydrants: at Central, Hakozaki and Suzaki Pier. Rate of delivery: 30 t.p.h.

FUEL: Bonded bunker oil is not available at this port, but is to be lightered from other port. An adequate notice should be given to the suppliers in order to avoid delay in replenishment. The rate of delivery from oil barge is 80 – 100 t.p.h.

Suppliers	*Installation*	*Required notice*
Shell Sekiyu K.K.	Shimonoseki	2 days
Esso Oil Co.	Shimonoseki	2 "
	Sakai	5 "
Mobil Oil Co.	Kokura/Moji	2 "
	Oita	3 "
Caltex Oil Co.	Shimonoseki	2 "
	Kudamatsu	3 "
Mitsubishi Shoji	Shimonoseki	2 "
	Iwakuni	3 "
	Kanokawa	3 "
C. Itoh & Co., Ltd.	Matsuyama	4 "
	Mizushima	4 "
Nissho Co.	Shimonoseki	2 "
	Matsuyama	4 "
Mitsui & Co., Ltd.	Oita	3 "
Nippon Mining Co.	Mizushima	4 "
Kanematsu Gosho	Kokura	2 "
	Tokuyama	3 "
Idemitsu & Co., Marubeni Iida Co.		
Sumitomo Shoji	Tokuyama	3 "

FIRE PRECAUTIONS: Modern chemical fire service boat "Hiryu Maru" (30 tons).

CONSULS:

Hon. British Consulate, Kitakyushu Tel: 093-331-1311
American Consulate General, Fukuoka Tel: 092-751-9331
Republic of China Consular Agency, Fukuoka Tel: 092-761-3458
Republic of Korea Consulate General, Fukuoka Tel: 092-771-0461

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

REPAIRS: Local workshop (fishing-boat repairs) available only for small repairs, so Agent for ocean-going vessel in Hakata arranges repairs from Moji or Tobata.

REPATRIATION: Possible.

AIRPORT: Fukuoka Airport: Distance: about 20 minutes from Hakata Port by car. JAL Domestic regular airline for Tokyo and Osaka. ANA Domestic regular airline for Tokyo, Osaka. Also, Cathay and JAL airlines for Taipei, Hong Kong 4 times a week. Korean and JAL airlines for Seoul and Pusan daily except Sunday.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police/Ambulance Tel: 110; Fire 119.

TELEPHONES: May be placed on board if 7 days notice given.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for 15 days, but 7 days extension possible if ship stays longer, good for any Japanese port.

AUTHORITY: Hakata Port and Harbour Bureau – Fukuoka, 13-13, Sekijo-Machi, Hakata-ku, Fukuoka-city, Japan. *Tel:* (092) 291-0561.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Holme Ringer & Co. Ltd., Hamachi Building, 2nd Floor, 10-17 Kamiya-cho Hakata-ku, Fukuoka-shi Fukuoka-ken. Cable Address: "Ringer Fukuoka". Telex: 0726496 Ringer J. Tel: (092) 271-1292/1260.

HAKODATE: 41.47 N. 140.42 E.

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agents will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Not compulsory, but in practice is necessary. Pilots available 24 hours a day and vessels able enter and leave port day and night. Pilots board about 1.5 miles S.W. of Breakwater Lighthouse. Pilot boat is small boat carrying flag "H".

The limit of Hakodate Piloting District is the sea area surrounded by a line drawn from Obana Misaki to Kattoshi Misaki and the coastline.

ANCHORAGES: Quarantine Anchorage outside breakwater and care should be taken not to foul fishing nets. Good anchorage inside breakwater at East side of Section 3 – depth 11 m. to 13 m.

RESTRICTIONS: Quarantine and Customs business between 0800 and 1700 hrs. only.

MAX. SIZE: Tankers up to 75,000 d.w.t. at SBM. Max. draft 14.5 m. Max. LOA 260 m.

Also see "Berthing".

HEALTH: Radio Agent for Free Pratique not less than 12 hours and not more than 36 hours before arrival, advising full details of vessel and health conditions on board. When Free Pratique is granted by radio, vessel will be required to submit the following documents to Quarantine Officer on arrival:

Maritime Declaration of Health.
Crew List.
Passenger List.

The following vessels will not be able to get Radio Pratique:

A vessel that has been in contact with an infected area or a suspected infected area within 15 days of arrival.

If a vessel has on board any case, or any suspected case of infectious disease, within 15 days of arrival.

If a vessel does not possess a valid Derat or Derat Exemption Certificate.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which covers all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: 1×500 h.p., 2×800 h.p., 1×1,100 h.p., 1×2,000 h.p. and 1×3,200 h.p. Tug line generally used.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agents mainly by radio.

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Capacity* (g.t.)
North Wharf (North Side)	130	7.0	6.5	3,500
Central Wharf				
(North Side No. 1)	171	9.0	8.5	8,000
(North Side No. 2)	165	9.0	8.5	8,000
(South Side)	133	8.0	7.0	6,000
Bandai Wharf (Front Side)	185	9.0	8.5	8,000
(South Side)	130	7.5	7.0	6,000
No. 1 Buoy		9.0	8.0	8,000
No. 2 Buoy		10.0	9.5	10,000
No. 3 Buoy		10.0	9.5	10,000

CRANES: Hakodate Dock own 1×200 ton and 1×50 ton floating crane.

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agents to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1700 – 1900 hrs. (50% additional of basic stevedorage) 2100 – 0500 hrs. next morning (130% additional) Sundays/holidays (60% additional).

MEDICAL: No advance notice required unless urgent.

TANKERS: *Single-Buoy Mooring:* Asia Oil Company, sea berth suitable for up to 75,000 d.w.t. and max. draft 14.5 m. at Imodco Buoy.

Position: Lat. 41° 48′ 08″ N., Long. 140° 40′ 57″ E.

Soundings: At site 15.5 m. In approaches to site, more than 15.5 m. The approach to terminal is free from obstructions.

There is one 20 in. crude line running 2,000 m. from shore to the buoy, and about 500 m. from shore line to the storage tanks.

Mooring: There is no night mooring. Unmooring is carried out from 0600 till 2400 hrs., and may be done by the Master of the ship without a Pilot.

A mooring/unmooring gang is provided for by Agent. Two launches and one tug are in attendance at the mooring. One launch will keep the hose clear while the other handles the lines. The tug is standing by and only pushes against bow or near the stern to keep the head of the vessel in position whilst mooring.

At least 6 good mooring lines are required, preferably each line to its own bollard. The lines are run single to the buoy. The position of the ship's bow from the buoy is about 40 m., when the distance from the buoy to ship's manifold is about 360 ft.

When mooring, it is requested that the propeller is completely stopped or otherwise turned astern.

Both bow anchors are to be hove well up in the hawse pipe and properly secured before reaching the buoy. Anchors are never to be used while on the buoy. They may foul the buoy's mooring cables and pipe-line on the bottom if released.

Floating Hose: There is one set of 12 in. floating hose for the discharge of crude only. The floating hose is about 600 ft. long from the buoy's manifold. The last two lengths are floating in doughnut-shaped plastic floats. The end is marked with an unlit marker buoy.

The hose connections are always made to the port manifold and are lifted with ship's gear. The hose when full of cargo and equipment weighs over one and a half tons. Information is required of the distance from ship's bow to ship's manifold, and the distance from ship's side to ship's manifold prior to arrival.

Standard flanges are used on the hose. OD 19 in. diameter of bolt-circle 17 in. with 12 bolt-holes size 0.875 in.

Discharging: The discharging should be arranged in such a way as to be able to take sufficient ballast into ship's tanks, when about half way during discharge; to be able to get the ship's head down to prevent the vessel from veering too widely, and run over the hose near the buoy, in case of unfavourable conditions.

Maximum allowed back pressure by shore is about 10 kg./sq.cm. During the discharge the main engine must not be immobilised as it may be used to keep the vessel clear of the buoy.

Stand-by Men: While on the buoy, the vessel will be required to provide sleeping quarters for four men, this includes the foreman who will remain on board throughout the entire operation. It is requested that the discharge officer be provided with meals. The other men are supplied with food from shore.

Discharge Rate: 1,800 k/l per hour.

DENSITY: Average 1025.

FRESH WATER: Available at piers ex-hydrants and by barge at anchorage. Supplier, Hakodate Municipal Office.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

Fuel supplies for Hakodate are generally lightered from Tokyo Bay area and delays can be caused by weather conditions.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommended request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Custom Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: None.

REPAIRS: Hakodate Dockyard Co., undertakes hull and engine repairs.

DRY DOCKS: No. 1. Capacity 15,000 g.t., length 180 m., breadth 22.45 m. depth 6 m. No. 2. Capacity 9,000 g.t., length 140 m., breadth 8 m., depth 6 m.

AIRPORT: Distant 20 minutes by car.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police 110; Ambulance 119; Fire 119.

TELEPHONES: Arrangeable on board.

SHORE LEAVE: Local Immigration Officers issue shore pass valid for only 3 days, but 3 days extension possible if ship stays longer.

AUTHORITY: Port and Harbour Bureau, Hakodate City, 4-19 Suehiro-cho, Hakodate City, Hokkaido. *Tel:* (0138) 22-3101.

AGENT: Sub-Agents of Dodwell & Co., Tokyo. Narasaki Sangyo Co., Ltd. c/o Kyoei Unyu Co., Ltd., No. 5-22, Kaigan-cho, Hakodate, Hokkaido. Cable address: "Funekyoei Hakodate". Domestic Telex: 09925-64. Tel: Hakodate (0138) 42-4121.

HIBIKINADA: 33.57 N. 130.50 E. (See Plan)

LOCATION: The Port of Hibikinada is located in position Lat. 33° 56.7′ N., Long. 130° 49.9′ E. and is only protected by a breakwater. It has no other shelter and is exposed to strong winds from the North. The strongest winds are from the NW and if accompanied by swell, causes a dangerous surge in the port.

PILOTAGE: Kanmon Strait and Harbour Pilotage Association.

Pilotage compulsory. Pilot boards inbound vessel at Mutsure: Lat. 33° 58′ 30″ N., Long. 130° 52′ 48″ E. or at He Saki: Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.

ANCHORAGE: *Coming from West:* Mutsure Anchorage: Lat. 33° 59.5′ N., Long. 130° 51.7′ E. Depth 23 m.

Coming from East: He Saki Anchorage: Lat. 33° 56′ N., Long. 131° 03′ E. Depth 12.5 m.

If gale force winds blowing, it is possible with Coast Guard permission to shift to Mutsure Anchorage.

RESTRICTIONS: Berthing and unberthing only during daylight hours. Berthing undertaken at slack water only. Unberthing at any stage of the tide.

Vessels are permitted to transit Shimonoseki with a max. draft 30 ft. 6 in. at anytime and with a max. draft of 32 ft. 10 in. at HW. Also see "Report".

Controlling Factors:

	Controlling Depth (MLW) (m.)	*Mean Tidal Range* (m.)	*Velocity Current* (knots)	*Nature of Bottom*
Entrance	20	1.0	3 max.	Mud
Channel	13.5	1.0	3 max.	Mud
Anchorage	21	1.0	3 max.	Mud
Berth	13.5	1.0	nil	Mud

MAX. SIZE: *Wharf A-1:* Max. LOA – 350 m. Max. draft 13.0 m. Max. 150,000 d.w.t. Beam of vessel determined by hatch width.

HEALTH: Radio Pratique available if vessel in possession of valid sanitary Certificate.

RADIO: Nagasaki Radio "JOS" and Choshi Radio "JCS".

VHF: "Shimonoseki Port Radio" and "Kitakyushu Port Radio" on Channel 16. Working frequency for berthing information is Channel 14.

TUGS: There are 3 tugs available each 3,500 h.p. Use of all 3 tugs is advisable when docking and undocking.

BERTHING: Vessels always dock port-side-to. Ship's gangway used.

Vessel berthed at A-1 Wharf. Heading 247° true. Max. LOA 350 m. Max. draft 13 m. Depth at LW 13 m. Beam of vessel determined by hatch width. Cargo handled coal.

Moorings: FORWARD: 3 headlines, 1 breast line, 2 springs.

AFT: 3 stern lines, 1 breast line, 2 springs. Vessel berths against spring roller fenders.

Cranes: 3 unloaders available, 2 × 34 ton capacity and 1 × 45 ton capacity.

MEDICAL: Doctor available.

FRESH WATER: Available.

FUEL: Available (No oil barges available).

REPAIRS: Possible.

DRY DOCK: Available.

SERVICES: Laundry and provisions available.

CHARTS: BA 1578, BA 532, BA 127.

DEVELOPMENTS: Port will reclaim land of 590 ha. for redevelopment, industrial use, and for waste disposal. 2 berths on the domestic trade quay will also be improved.

REPORT: June 1985: It was found that, whilst the weather was severe and from a North/Northwesterly direction it was not abnormally severe. Had the vessel been able to moor in a symmetrical fashion, she would have been in no difficulty.

The berth was extended in 1976 to accommodate two vessels simultaneously. As a result, the vessel that moors to the Eastern end of the jetty can, depending upon the size of the two vessels on the jetty, overhang with their after end. The effect of this, as can be seen from the plan, is that vessel has nowhere to put out proper stern mooring lines except to a shore mooring post (see "X" on "Plan"). On our vessel, the mooring lines were in the order of 130 m. long, and some four times the length of the headlines. It is well known that mooring lines should be symmetrical at either end of the vessel.

The only place for the larger vessel on the "Plan" to moor safely is some 50/60 m. ahead of her diagrammatical position. It is, of course perfectly feasible for a vessel to moor ahead of that shown in the plan. If this was the case, we would consider her to be perfectly safe.

AUTHORITY: Kitakyushu Port and Harbour Bureau, 2-7 Nishi-Kaigan, 1-chome, Moji-Ku, Kitakyushu City, 801 Japan. *Tel:* (093) 321-5941. *FAX:* (093) 321-5915.

HIMEJI (including Hirohata, Shikama, Mega and Aboshi): 34.47 N. 134.41 E. (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Store List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agents will prepare Inward/Outward Declaration, Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: See "Kobe". Vessels take Inland Sea Pilot off Wada, Hesaki or Sekisaki; or from ports of Inland Sea. No exact pilot station and no checking point at port of Himeji (Mega, Shikama, Hirohata and Aboshi) but Agents arrange Pilot when vessel approaches upon receiving cable giving 24 hours advance notice. Pilot boarding positions as follows: Mega Lat. 34° 44′ N., Long. 134° 42′ 15″ E. Shikama Lat. 34° 45′ N., Long. 134° 39′ E. Hirohata Lat. 34° 44′ N., Long. 134° 37′ E. Aboshi Lat. 34° 44′ N., Long. 134° 34′ 10″ E.

No strict location of anchorage for vessel awaiting a Pilot in Himeji area, but should be as close as possible to port according to draft and communication.

ANCHORAGE: No strict boundary areas for anchorages. Anchor as close as possible to the port according to draft.

RESTRICTIONS: At ports of Mega, Shikama and Aboshi, no Pilot boarding between sunset to sunrise. Hirohata Pilot will board from sunrise to 2200 hrs. for vessels less than 10,000 d.w.t. for entry, and less than 15,000 for departure, for Pier Nos. 4, 5, 6, 7, 9 and 10 but other berths only from sunrise to sunset.

MAX. SIZE: Draft restrictions as follows:

Mega 11.80 m., Shikama 10.0 m., Hirohata 13.0 m. (80,000 d.w.t. or 110,000 d.w.t. part load) for Central Pier, 7.50 m. for Kamota Pier (Pier Nos. 1 – 7), 9.45 m. for Tsuruta Pier (Pier Nos. 10 – 14). 16 m. (160,000 d.w.t. or 270,000 d.w.t. part load) for No. 18 Pier. Aboshi 9.0 m.

Sea buoy mooring, max. draft 19.2 m. Max. 254,000 d.w.t.

HEALTH: No Quarantine Office at Himeji. At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards. Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel to contact Choshi and Northbound to contact Nagasaki Radio respectively.

TUGS: Tug(s) normally join vessel when approaching, or at anchorage. Always use tug's lines without charges.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth	*Wharf length* (m.)	*Max. LOA* (m.)	*Max. Draft* (m.)
Shikama			
Public Pier No. 2	135		7.00
Public Pier No. 3	170		8.80
Public Pier No. 4	170		8.80
Public Pier No. 5	170		8.80
Public Wharf No. 6	170		8.80
Public Wharf No. 7	230		10.00
Nakajima Wharf	390		5.00
Sembagawa Wharf	360		4.00
Buoy No. 2	220	160	7.70
Aboshi			
Aboshi Pier	185	150	9.00
Buoy No. 1 – 2	250	175	9.00
Buoy No. 2 – 3	270	180	9.00
Hirohata			
Yumesaki Wharf (Pier No. 1 – 2)	280		7.50
Kamoda Wharf (Pier No. 3 – 7)	722		7.50
Central Wharf (Pier No. 8 – 9)	315	265	13.20
Tsuruta Wharf (Pier No. 10 – 12)	463		9.50
Shioiri Wharf (Pier No. 13 – 14)	320		9.45
Pier No. 18	300	320	16.00
Oil Berth	140		7.50
Buoys			9.50

CRANES:

Hirohata:

Central Quay No. 8 – 9: 2×25 ton, 1×38 ton.
Kamoda Quay No. 3 – 7: 2×9 ton, 2×5 ton.
Yumesaki Quay: 1×20 ton, 2×10 ton, 1×20 ton.
Tsuruta Quay No. 10 – 12: 4×9 ton.
Higashimaha Quay: 1×20 ton, 2×30 ton.
Genkyo Quay No. 18: 2×45.5 ton.

Shikama:

2×5 ton and 1×10 ton at Public Wharves (Nos. 1 – 7).

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1630 – 2130 hrs. 60% additional of basic stevedorage; 2130 – 0830 hrs. next morning 130% additional; Sundays/holidays 100% additional.

MEDICAL: No advance notice required unless urgent.

TANKERS: Idemitsu Kosan Co. Ltd., Himeji Oil Jetty where 1 berth only and max. draft 11.8 m. allowed. Shore discharging facilities 3×12 in. diameter hose connections which connect to 18 in. diameter line for tank hoses. Acceptable max. 5 kg/sq.cm. on hose gauge, discharge rate abt. 2,000 l/t per hour.

Note: Idemitsu Kosan Co. Ltd., Himeji, require following information prior to arrival for smooth berthing and connecting hoses: Height from sea to deck; Length from vessel's side to underneath of hose connections; Height from deck to connection of line; Diameter of connection.

Operator's Report: 1983.

Idemitsu Kosan Hyogo Sea Berth (Discharging terminal) is operated by Idemitsu Kosan Co. Ltd.

SBM Berth. Berthing equipment to OCIMF standard.

SBM operates 24 hours per day, 7 days a week. Ships moored and unmoored at daytime, weather and other circumstances permitting. SBM will not be closed due to any holidays.

Area around the SBM with radius of 410 m. is an open port for Customs' Regulations. Therefore supplies, disembarkation, etc. should be handled by related regulations.

Location: Lat. 34° 42′ 37″ N., Long. 134° 39′ 54″ E.

Pilotage: Not compulsory.

Anchorage: Himeji port is not an open port. Ships can anchor at the following points.

Point "A" Lat. 34° 42′ 58″ N., Long. 134° 39′ 02″ E., depth 21 m.
Point "B" Lat. 34° 42′ 10″ N., Long. 134° 40′ 48″ E., depth 21 m.
Point "C" Lat. 34° 41′ 30″ N., Long. 134° 41′ 00″ E., depth 23 m.

Anchorage "A" and "B" are for tankers of less than 18.5 m. draft.

Restrictions:

(a) Berthing Master comes on board 3 miles South from the line joining Kurakake Id. and Kami Id.

(b) Ship's Master has to arrange tug boats both sides and aft (total of 3 tugs).

(c) Ship proceeds at moderate speed taking into consideration tide and wind and any other circumstances. When approximately 1,000 m. from SBM vessel reduces her speed to avoid risk of touching SBM.

(d) Ship has to stop completely 200 m. from the SBM.

Max. size:

Maximum draft 19.20 m.
Maximum d.w.t. 254,000 tons

Berthing:

From bow to manifold 145 m.-186 m.
Derrick capacity SWL in excess of 10 tons.

Mega: ✓

Berth	*Depth* (m.)	*Pipe-Lines*
Idemitsu Jetty No. 1 – Berth No. 1 – No. 4	5.0 – 7.0	4×8 in.
Idemitsu Jetty No. 2 – Berth No. 5	7.0	8 in.
Idemitsu Jetty No. 3 – Berth No. 6	12.2	12 in. and 8 in.
Idemitsu Jetty No. 4 – Berth Nos. 7 – 8	7.0	2×8 in.
Idemitsu Jetty No. 5 – Berth No. 9 – No. 12	5.0 – 7.0	4×8 in.
LPG Jetty – Berth No. 22	6.0	4 in. and 2 in.
Monoageba	6.0	
Sea Berth	19.0	
Kanden LNG Jetty	14.0	—

DENSITY: Average density between 1025 and 1026 in Winter season and 1018 and 1020 in Summer season.

FRESH WATER: Idemitsu Oil Jetty, Shikama Public Pier and Hirohata Pier able to supply fresh water from shore, but *No Water Barge available at Port of Himeji* therefore not able to supply fresh water at Satetsu Pier (Shikama), Shikama Buoy, Aboshi Buoy or outside anchorage.

Port	*Average rate of delivery*
Mega	20 – 30 tonnes/p.h.
Shikama	25 – 30 tonnes/p.h.
Hirohata	15 – 20 tonnes/p.h.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

GANGWAY/DECK WATCHMEN: Not specially required unless passenger or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CARGO GEAR: See "Certificates" but no special requirements.

CONSULS: No consuls at Himeji, Shikama or Hirohata.

REPAIRS: Most minor deck and engine repairs available at port of Himeji; in case special technician required, should be called from Kobe.

DRY DOCKS: No dry dock available at port of Himeji. Nearest dry dock Ishikawajima-Harima Heavy Industries Co. Ltd., Aioi, who have following dry docks. Also see "Aioi".

	LOA	*LBP*	*Breadth*	*Depth*	*Capacity*
Dock No. 1	238 m. (780'9")	230 m. (754'7")	33 m. (108'3")	5.5 m. (18')	73,000 d.w.t. (LT)
Dock No. 2	156.1 m. (512'1")	145 m. (475'8")	19.5 m. (63'11")	4.5 m. (14'9")	14,000 d.w.t. (LT)
Dock No. 3	341 m. (1,118'9")	328 m. (1,076'1")	54 m. (177'1")	6 m. (19'8")	300,000 d.w.t. (LT)

REPATRIATION: Possible.

AIRPORT: About 60 km. to Itami Airport. Regular services.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

HOLIDAYS: At Aboshi, no work on 1st and 3rd Sunday. At Shikama, shore crane, no work on 1st and 3rd Sunday but gangs available for discharging and loading.

POLICE/AMBULANCE/FIRE: Police (Shikama) Tel: 35-1441; Ambulance (Shikama) 119 or 35-0119; Fire (Shikama) 119 or 35-0119.

TELEPHONE: No facilities for placing telephones on board.

GENERAL: No quarantine available at port of Himeji, therefore pratique to be obtained at other ports.

SERVICES: Tally, laundry, daily provisions by ship chandler available locally. All other service from Kobe or Osaka.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for 9 days, but 3 days extension possible if ship stays longer.

AUTHORITY: Himeji Port Administration Office, 294, Suka, Shikama-ku, Himeji City, Hyogo Pref. *Tel:* (0792) 35-0176.

AGENT: Sub-agents of Dodwell & Co., Tokyo. Shikama Kaiun Co. Ltd., Minato-machi, Shikama-Ku, Himeji-shi. Tel. Himeji (0792) 35-0912. Telegraphic address "Shikamakaiun Himeji". Telex: 05772211 Sikama J.

HIROSHIMA: 34.20 N. 132.25 E. — See Plan

DOCUMENTS: See "Yokohama".

PILOTAGE: Inland Sea pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from one of three pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication available with Inland Sea Pilot Stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits). Position Lat. 34° 34.09' N., Long. 135° 11' E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse (vessels transitting Bungo Channel). Position Lat. 33° 13' N., Long. 131° 54' E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki Pilot station.

3. Hesaki, at East side of Kanmon (Shimoneseki) Straits. Position Lat. 33° 56' 24" N., Long. 131° 03' 12" E.

ANCHORAGES:

Anch-orage	*From Ujina Lighthouse Bearing*	*Distance* (m.)	*Radius of Anchorage* (m.)	*Conditions*
"A"	56°	2,510	180	Draft – below 6 m. Length – below 120 m. Necessary P & S Anchor
"B"	52°	2,200	180	Draft – below 7 m. Length – below 120 m. Same as "A"
"C"	67°	2,467	180	Draft – below 8 m. Length – below 150 m. Same as "A"
"D"	58°	1,070	200	Draft – below 10 m. Length – below 150 m. Same as "A"
"E"	89°	900	200	Draft – below 12 m. Length – below 150 m. Same as "A"
"F"	116°	1,160	200	Draft – below 12 m. Length – below 150 m. Same as "A"
"G"	127°	1,640	200	Draft – below 12 m. Length – below 150 m. Same as "A"
"H"	133°	2,160	200	
"I"	158°	900	300	
"J"	162°	1,500	300	
"K"	122°	3,280	300	
"L"	132°	3,430	300	
"M"	261°	4,770	300	
"N"	262°	3,840	300	

Ujina Lighthouse is at South of Ujina-islet Lat. 34° 20' 14" N., Long. 132° 27' 55" E.

RESTRICTIONS: Depth of approach to berth about 10 m. Pilots not available after sunset.

MAX. SIZE: Wharf (Hiroshima Prefecture Public Berth) No. 1 length 166 m., draft 9.7 m. (10,000 g.r.t. vessel). No. 2, length 166 m.

Gaibo-Ganpeki (wharf for ocean-going vessel) length 337 m., depth alongside about 10 m., max. draft acceptable 9.70 m.

HEALTH: Usually vessels anchor at the quarantine anchorage, where the authorities board and grant Free Pratique.

TUGS: 15 Tugs, 800 h.p. – 5,000 h.p. Join vessel at quarantine anchorages. Tug's lines used.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
Gaibo Wharf No. 1	170	10.0	
Gaibo Wharf No. 2	170	10.0	
Gaibo Wharf No. 3	170	10.0	
Gaibo Wharf No. 4	170	10.0	
Lumber Port Wharf	370	10.0	15,000 d.w.t.
Hatsukaichi Dolphin No. 1	240	12.0	30,000 d.w.t.
Hatsukaichi Dolphin No. 2	185	10.0	
Hatsukaichi Dolphin No. 3	200	10.0	
Hatsukaichi Dolphin No. 4	200	10.0	

CRANES: 6 floating cranes, 40 ton – 450 ton.

1 container crane (available at berth 650 m. long and 7.5 m. depth).

STEVEDORES: Working hours: 0830 – 2100 hrs.

TIDES: Max. (spring tide) 3.9 m. Min. (neaps) 0.57 m.

Rate of current at flood tide generally 0.25 knot to N.E.; 0.5 knot at ebb tide to S.W. South area of Togeshima and Kannonsaki 0.25 knot at flood to S.S.E., and 0.5 knot at ebb tide to N.N.W.

FRESH WATER: By water barge (capacity: 330 tonnes available). Additional charges made for overtime i.e. after 1700 hrs., and Sunday, holidays and Saturday afternoon.

FUEL: Most grades of domestic and bonded oil available, delivered by barge.

CONSULS: No consuls in Hiroshima. Nearest Osaka or Kobe. Marine note of protest can be attested by local notary public.

REPAIRS: All types of deck, electrical and engine repairs.

DRY DOCKS: Largest dry dock Taibi Dry Dock, Mitsubishi-Hiroshima Works, length 154 m., breadth 22.00 m., 10,300 g.r.t. Kanawa Dry Dock and Ujina Dry Dock available for 3,500 g.r.t. and 1,500 g.r.t. respectively.

AIRPORT: Hiroshima Airport. Only domestic airlines every hour to Osaka and Tokyo.

POLICE/AMBULANCE/FIRE: Police (for emergency) 110; Ambulance 119; Fire 119.
TELEPHONE: No arrangements for placing telephones on board.
SERVICES: Any navigational apparatus can be serviced on request, Cargo holds cleaning services can also be carried out, but tank-cleaning and other services are to be arranged from Kobe.
REGULATIONS: Many seaweed and oyster beds near anchorages, therefore oil pollution precautions strictly observed.
AUTHORITY: Hiroshima Port Administration Office, 23-53, Ujina Kaigan 2-chome, Minami-ku, Hiroshima City. *Tel:* (082) 251-7117.
AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Naigai Unyu Co. Ltd., 23-36, 2-chome, Kaigan-dori, Ujina Hiroshima-shi, Hiroshima-ken. Cable address: Naigai Hiroshima. Domestic Telex: 0652-963 Naigai Hir. Tel.: Hiroshima (0822) 54-2421.

HITACHI: 36.30 N. 140.37 E.

DOCUMENTS: and all general information, refer to "Onahama".
PILOTAGE: Not compulsory. Pilot boards in approximate position Lat. 36° 28′ 13″ N., Long. 140° 38′ 40″ E. (Quarantine Station). Pilot not available after sunset.
MAX. SIZE: Draft 8.50 m. limited by channel depth.
PRATIQUE: Radio Pratique available.
TUGS: 1 × 2,400 h.p. available. A 2,000 h.p. tug will be brought from Kashima if required.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Capacity* (d.w.t.)	*Shore Cranes and Pipe-lines*
No. 1 Pier					
1-A	192	4.0	3.5	1,000	Nil
1-B	121	7.5	7.0	5,000	Nil
1-C	130	7.5	7.0	5,000	Nil
1-D	185	10.0	8.2	15,000	Unloader 2×150 t.p.h.
1-E	121	6.8	6.8	5,000	1×250 tons
1-F	97	4.0	3.5	500	Nil
No. 2 Pier					
2-A	130	7.5	6.4	5,000	Nil
2-B	165	9.0	8.2	10,000	Container Crane 1× 30.5 tons
2-C	130	7.5	7.2	5,000	Nil
2-D	130	7.5	6.0	5,000	Nil
No. 5 Pier					
5-A	130	7.5	7.0	5,000	No cranes Logs and Timber
5-B	185	10.0	9.2	15,000	
5-C	185	10.0	9.2	15,000	

STEVEDORES: Working hours: 0800 – 1630 hrs. except Sunday.
FRESH WATER: Available.
FUEL: Domestic oil is available; bonded oil will be brought from Yokohama, when required.
REPAIRS: Minor repairs can be undertaken.
AUTHORITY: Hitachi Port Administration Office, 3-21 Kuji-cho 1-chome, Hitachi City, Ibaraki Pref. *Tel:* (0294) 52-4000.
AGENT: Sub-Agent of Dodwell & Co., Tokyo. Hitachi Port Service Co., Ltd. 10-3, 1-chome Kujimachi, Hitachi-shi, Ibaragi-ken. Cable Address: Hitachips, Hitachikujihama. International Telex: 03645-543. Tel.: (0294) 53-0313.

HOSOSHIMA: 32.25 N. 131.41 E.

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.
PILOTAGE: Telegraphic address of pilot station "Pilot Hososhima". 48 and 24 hours' advance notice of ETA required, and any change in ETA. Pilot boards at Hososhima Quarantine Anchorage location, Hosohima Lighthouse N.E. 1 mile off, position Lat. 32° 25′ 50″ N., Long. 131° 41′ 53″ E.
ANCHORAGE: Refer Japanese Chart No. 1223 (Ozue-wan and Hososhima-Ko).
RESTRICTIONS: Strictly no entry after sunset or departure after 2200 hrs.
MAX. SIZE: Max. permissible LOA 170 m., draft 31 ft. 10 in. (9.7 m.)
HEALTH: At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers' health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel to contact Choshi and Northbound to contact Nagasaki Radio respectively.
TUGS: Join vessel in position Lat. 32° 26.5′ N., Long. 131° 39.5′ E. Tug's lines to be used. 2 tugs, 1×1,100 h.p. and 1×760 h.p.
BERTHING:

Wharf	*Berth Length* (m.)	*Max. Draft* (m.)	*Cranes*
Industrial Port			
No. 1	175	9.50	1×8 ton
No. 2	196	9.30	
No. 3	100	5.00	
No. 4	180	5.00	
No. 5	130	7.00	
No. 6	180	9.70	
Hyuga Refinery's Wharf			
	260	9.90	2×18 ton
Sugar Plant Wharf (Dolphin)	150	8.60	
Commercial Port			
No. 1	230	5.80	
No. 2	250	6.80	

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gears not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1630 – 2130 hrs. (60%) additional of basic stevedorage; 2130 – 0500 hrs. next morning 130% additional; Sundays/holidays 100% additional.
MEDICAL: No advance notice required unless urgent.
DENSITY: Average 1025 in Winter, 1020 in Summer, subject to weather and tide current.
FRESH WATER: Available from dock, 20/30 t.p.h.
FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest stock ports at maximum 7 days' prior notice.
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and net tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
CONSULS: No local representatives.
REPAIRS: None.
REPATRIATION: Possible.
AIRPORT: Nearest, Miyazaki Airport about 2 hours drive from Hososhima. JAL and ANA lines.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Police 110; Ambulance 119; Fire 119. Public telephone booth available near by the berth.
TELEPHONES: No facilities for placing telephones on board.
SHORE LEAVE: Local Immigration Officers issue shore pass valid for 15 days when Hososhima is first port of call in Japan.
AUTHORITY: Hososhima Port Administration Office, No. 17371-2 Shinkai, Hichiya, Hyuga City, Miyazaki Pref., Kyushu, Japan. *Tel:* 09825-2-5366. *Cables:* Port Authority Hyuga. *Contact:* Mr. Ogata.
AGENT: Sub-Agents of Dodwell & Co. Ltd., Tokyo. Hakko Unyu Co. Ltd., No. 731, Kaigan-dori, Hososhima, Hyuga-shi, Miyazaki-ken (883). Cable Address: "Ringer Hyuga". Domestic Telex: 0776677 HakkoHJ. Tel.: Hyuga (09825)2-2185.

IHO: 34.45 N. 134.46 E.

NO VESSELS CALLING AT THE PRESENT TIME – FACILITIES NOT IN USE SINCE 1973.
DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agents will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agents should be provided with necessary information about details of cargoes in advance.
ANCHORAGE: Closed Port. Agent will arrange anchorage position for discharging, with Authorities, but usual position Iho Signal Station, bearing 215° distant 3,000 m. (Signal Station Lat. 34° 44′ 58″ N., Long. 134° 46′ 12″ E.).

PILOTAGE: Inland Sea Pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from 1 of 3 pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication available with Inland Sea Pilot Stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits) Position Lat. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse. (Vessels transiting Bungo Channel). Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible, having due regard to safety, to Sekisaki Pilot Station.

3. Hesaki, at East side of Kanmon (Shimoneseki) Straits. Position Lat. 33° 56′ 14″ N., Long. 131° 03′ 12″ E.

HEALTH: Pratique must be obtained at another port before calling Iho.

At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers' health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: Not required. Discharging at Outer Anchorage.

TANKERS: Port is operated for oil discharging only. Discharge is into barges through 6 in. hoses at either side of vessel.

DENSITY: Average density is between 1025 and 1026 in Winter season and between 1018 and 1020 in Summer season.

FRESH WATER: Not available.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunker will be lightered from the nearest stock ports at maximum 7 days prior notice.

REPAIRS: Not available.

DRY DOCK: Nearest dockyard at Aioi.

AIRPORT: Nearest airport at Osaka.

TIME: GMT plus 9 hours, no alterations.

POLICE/AMBULANCE/FIRE: Police tel. 07944/2-3377; Ambulance, 119 or 2-2101; Fire 119 or 2-2101.

SERVICES: None. Nearest services available at Kobe/Osaka area.

AGENT: See "Himeji".

IMABARI (Imahuru): 34.04 N. 133.00 E. (incl. Mategata). (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Inland Sea pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessel over 10,000 g.r.t. Pilots obtained from 1 of 3 pilot stations dependent upon vessels last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication available with Inland Sea Pilot Stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits) Position Lat. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse. (Vessels transitting Bungo Channel), Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki Pilot Station.

3. Hesaki, at East side of Kanmon (Shimonoseki) Straits. Position Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.

ANCHORAGE: Anchorage outside breakwater, sufficient water, but on account fast current deemed not safe anchorage. Anchorage inside breakwater generally shallow, and sea area narrow for large vessels. To discharge logs only Temposan Wharf available for vessels alongside berth where holding ground is good and depth of water is 7.50 m.

Vessels drawing over 7 m.: vessel can enter Mategata (open road) deemed to be most fitted place for vessels entry to discharge logs. Port of Mategata faces Aki-Nada and located near West entrance of Kurushima Channel; Lat. 34° 06′ N., Long. 132° 55′ E., where holding ground good and depth of water 12 m. – 20 m. is kept.

RESTRICTIONS: No entry after dark.

MAX. SIZE: Temposan Wharf length 110 m., breadth no limit, draft 7 m. Mategata (open road) length no limit, breadth no limit, draft 10 m.

HEALTH: At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards and Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers' health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: 6 tugs available, 1,050 h.p. – 4,000 h.p. Temposan Wharf: join vessel at sea anchorage, using tug's line with charge. Mategata (open road): no tug required in normal conditions.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio. Also see "Max. Size".

Kurashiki Wharf:

Section	*Length* (m.)	*Depth* (m.)
1	165	9.0
2	140	7.5
3	180	5.5
4	270	5.5

Toryu Wharf:

Section	*Length* (m.)	*Depth* (m.)
1	180	5.5

CRANES: Floating crane available from Kure.

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1700 – 1900 hrs. 50% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.

MEDICAL: No advance notice required unless urgent.

DENSITY: Temposan Wharf 1015. Mategata 1015.

FRESH WATER: Fresh water available by barge from Onomichi.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: See "Kobe".

REPAIRS: Only minor repairs.

DRY DOCKS: Not available at this port, the nearest ones are Kawasaki Heavy Industries Ltd., Sakaide; Hitachi Shipbuilding & Engineering Co. Ltd., Innoshima; and Mukaishima; dimensions of these docks as follows:

Kawasaki Heavy Industries Ltd., Sakaide. Dock No. 2 for 500,000 d.w.t. vessel. 450 m.×72 m.×12.3 m. It is not in action yet for ships to repair. Only used presently for shipbuilding and after services.

Hitachi Shipbuilding & Engineering Co. Ltd., Innoshima Dock, Dock No. 1 for 20,000 d.w.t. vessel. 175 m.×25.62 m.×9.10 m. Dock No. 3 for 130,000 d.w.t. vessel. 282.50 m.×47 m.×11.33 m.

Hitachi Shipbuilding & Engineering Co. Ltd., Mukaishima Dockyard, Dock No. 1 for 3,000 d.w.t. vessel. 86.18 m.×13.60 m. ×6.80 m. Dock No. 2 for 8,500 d.w.t. vessel. 125 m.×18 m.×7.40 m. Dock No. 3 for 25,000 d.w.t. vessel. 175 m.×29 m.×9 m.

REPATRIATION: Possible.

AIRPORT: No airport. Nearest airports are Matsuyama and Takamatsu where are All Nippon Airways.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police Tel. 110; Ambulance 119; Fire 119.

TELEPHONES: No facilities for placing telephones on board.

GENERAL: Mategata is a closed port. To conform with regulations, vessel obtains permission from Shikoku Maritime Bureau to enter.

Customs request vessels calling Mategata to obtain permission to enter at preceding port of call by paying charge at same rate of tonnage dues prior to arrival of vessel. Application undertaken by Agent.

No quarantine available. Nearest station Matsuyama. No Immigration. Officer comes from Niihama.

SERVICES: None.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days extension possible if ship stays longer.

AUTHORITY: Imabari Port Administration Office, 2 Katahara-cho 1-chome, Imabari City, Ehime, Pref. *Tel:* (0898) 22-4120.

AGENT: See "Matsuyama".

IMARI: 33.18 N. 129.49 E.

PILOTAGE: Pilots are available. Boarding stations at 33° 26.4′ N., 129° 42.7′ E. and quarantine anchorage, see "Health".
RESTRICTIONS: Entry/departure possible day and night.
HEALTH: Formalities will be carried out at anchorage. Quarantine Station is 096° 1,300 m. (200 m. circle) from Uranosaki Lighthouse in position 33° 20′ 06″ N., 129° 48′ 32″ E.
TUGS: 1×2,000 h.p. Additional tugs available from Sasebo and Nagasaki.
BERTHING:

Name	*Depth* (m.)	*Permissible Draft* (m.)	*Capacity* (d.w.t.)
Buoy No. 1	10.0	8.0	15,000
Buoy No. 2	12.0	10.0	30,000
Buoy No. 3	14.0	12.0	60,000
Kubara Wharf	10.0	8.0	10,000

STEVEDORES: 12 gangs available for logs.
TANKERS: LPG tankers – see "Shipmaster's Report".
FRESH WATER: Available from barge only (capacity 180 tons).
FUEL: Domestic oil is available; bonded oil will be brought from Moji or Nagasaki with sufficient notice, when required.
REPAIRS: The shipyard is capable of carrying out all kinds of fitting-out and repair work.

SHIPMASTER'S REPORT: November 1984.
Location: The terminal is a fairly new facility situated deep within Imari Bay on the N.W. coast of Kyushu – some 12 miles or so North of Sasebo. It is owned by Kyushu L.P.G. Fukushima Terminal Company Limited and was built in August 1982.

It is used solely for LPG discharge and there is a coastal tanker loading berth immediately adjacent.
Approaches: BA. 1527 is the only British chart to cover the area from the South and is barely adequate. Japanese Charts 166 and 1256 will give a better indication of the geography of the bay and immediate approaches.

On this occasion we arrived from the Arabian Gulf and chose to approach to the East of the Goto Retto, through Aizaki Seto and thence North to pass between Azuchi O Shima and Taku Shima, i.e. through Oshima Seto.

Navigation presents no problem with the high land providing excellent radar returns. Because of the strong tidal streams it will be necessary to time the passage of Aizaki Seto on the flood; if this cannot be managed then passage through to the East of Eno Shima is recommended.

There are the usual huge concentrations of fishing vessels in the area and, on arrival, the Pilot advised strongly against attempting another passage of Oshima Seto. (We had transited on a Sunday morning and the passage was entirely clear. On departure, however, it was thick with fishing vessels). A passage to the North of Azuchi O Shima is therefore recommended.

From Safety Regulations:
(i) Master should proceed carefully in Imari Bay to prevent grounding in shallow water (from Aoshima S.E. 1.3 miles, depth 12.4 m. – 13.8 m., Nohtori Asase depth 15.5 m.).
(ii) Under keel clearance shall be kept to more than 10% of maximum ship's draft.
(iii) Entering bay is prohibited under the following conditions:
  1. Wind force is forecasted to increase to more than 10 m./sec.
  2. Wave height is forecasted to be more than 1.0 m.
  3. Visibility is forecasted to decrease to less than 1.0 mile.
(iv) Boil-off gas blowing is prohibited in Imari Bay.
(v) Master shall be requested to proceed through Imari Bay during period from sunrise to sunset.
(vi) Master will be requested to keep ship's speed less than 8 knots while proceeding in Imari Bay.
(vii) The vessel should keep a good lookout by radar and sight.

Pilotage: Pilot compulsory for LPG tankers over 10,000 gross tons. The pilot boarding position is 33° 29′ N., 129° 40′ E., although this is not marked on the BA charts. The Pilot boarded from a tug and required the pilot ladder 2.0 m. from the water. Boarding daytime only. The vessel is then escorted to her berth by 2 or 3 tugs, one of which stations itself over a shoal (12.0 m.) patch within the bay as a marker. There is a 4 knot speed restriction in this area. Pilot guarded Channel 16 and worked Channel 6 VHF.

Length of pilotage about 1.5 hours to quarantine anchorage and thence to berth.
Restrictions: See "Approaches" and "Berthing".
Max. Size: 70,000 d.w.t., max. draft 15.5 m.
Health: If the vessel has a valid Sanitary Certificate the quarantine anchorage may be dispensed with and the vessel will be cleared alongside.
VHF: See "Pilotage".
Tugs: See "Pilotage".
Berthing: Vessels may berth either side alongside although they prefer to berth port side to, presumably to save time on arrival. Local regulations prohibit the connection of cargo lines after sunset.

Normal mooring configuration of 3, 3, 2, with lines on quick release hooks. Mooring boats in attendance.

A shore gangway is provided, length 15 m., extension ability 5 m. – 9 m., can operate to 33° above horizontal and to 17° below horizontal.

The following restrictions apply to berthing:
1. Max. wind force allowed: less than 10 m./sec.
2. Max. wave height allowed: less than 1.0 m.
3. Visibility allowed: over 1.0 sea mile.
4. Max. docking speed allowed: less than 10 cm./sec.
5. Max. docking angle allowed: less than 6°.

From Safety Regulations:
1. Should be port side alongside in principle.
2. Should use tugboat for berthing and unberthing.
3. Should keep berthing speed less than 10 cm./sec., berthing angle less than 6°.
4. Should use line boat for berthing.
5. When coming alongside berth, the ship's manifold to be used shall be clearly marked with "Flag N" so as to be easily distinguished by the Terminal Berth Master on the jetty.
6. Should be careful not to damage the berth facilities.

Discharging: Normal cargo survey procedure. However, the shore carry out their own determination of cargo S.G. and will use this figure for their own calculations.

Normal Japanese Safety Inspections and procedures. There is supposed to be a 4 hourly safety check throughout discharge.

The discharge presented no problems with a rate of 1,200 t.p.h. being achieved with 4 pumps.

A back pressure of 3.0 bar was stipulated but we worked constantly at about 3.2 bar without any complaint, tonnage rate apparently being their main consideration at the time.

Chiksans are purged with Nitrogen on completion.
Cargo Operation Specifications:

	Propane (Liq.)	*Propane (Vap.)*	*Butane (Liq.)*	*Butane (Vap.)*
Receiving capacity (cu.m./hr.)	2,000	2,700	2,000	2,300
Allowable max. pressure kg./sq.m.	10	10	10	10
Allowable temperature (°C)	−45	−45	−10	−10
Hose flange size from shoreside (inches)	12	10 All 150 ASA	12	10

Remarks: Unloading cargo operation of Propane and Butane shall be carried out at the same time.
Chicksan Arm Arrangements: From left to right looking shoreward: Propane vapour, Propane liquid, Butane liquid and Butane vapour.

This being the usual Japanese configuration of V.L.L.V. with dedicated lines.
Shore Vapour Blower Capacity:
Propane: Max. pressure 2,400 mm. Aq.
Max. quantity 5 t.p.h.
Butane: Max. pressure 2,400 mm. Aq.
Max. quantity 5.8 t.p.h.
Shore Tank details:
for Propane: Tank capacity 40,000 tons×2
Tank pressure 0.15 kg./sq.cm.
Tank temperature −45°C
for Butane: Tank capacity 40,000 tons×2
Tank pressure 0.15 kg./sq.cm.
Tank temperature −10°C
Nitrogen Supply:
Tank capacity: 27 cu.m. (in liquid)
Supply rate: 3,000 cu.m./hr.
Flange size: 1.0 in.
Flare capacity: 3,500 cu.m./hr.×1
Communications: Communication is by means of a telephone placed on board in the CCR. Level of English rather poor and an Agent is invariably in attendance to assist.

Ship's Tel. No.: 380.

Shore Cargo Control Room Tel. Nos.: 350, 351, 352.
Fresh Water: Available from the berth but a minimum of 7 days' notice was quoted for this service.

Tank capacity 350 cu.m, supply rate 17.5 cu.m./hr., Hose flange size 2.5 in.

Water may also be taken by barge (prohibited during cargo operations).
Fuel: Available by barge and must be taken at anchor.
Repairs: The main engines and other equipment for ship's manoeuvring shall be in an operable condition and in a state of immediate readiness while alongside the berth.

There are a number of contractors available for minor repairs, with the usual restrictions on hot work and the movement of large metal objects. There is a large shipyard within the area which could presumably handle emergency repairs.
Surveyors: Nearest Lloyd's Surveyors are at Nagasaki and Moji.
Gangway/Deck Watchmen: Whilst alongside at the terminal berth, responsible member of crew shall be stationed at the ship's gangway to advise visitors of safety regulations and to check visitors and crew members.
Storing: Stores may be loaded from the quay but not whilst working cargo.
Shore Leave: Ship's crew and visitors shall take the route through the terminal shown on the map in the terminal information booklet.

Ship's crew should carry Landing Permit which is issued by Japanese Immigration Officer.

No smoking shall be allowed in the terminal.

When taking photographs of the terminal, permission should be obtained from the Terminal Representative.
Regulations: Following are extracts from the Terminal Safety Regulations.

Cargo handling operation shall be stopped and the vessel shall be shifted to a safe anchorage under such conditions as follows:
1. When Harbour Master or Maritime Safety Agencies order ship's Master to shift vessel.
2. Wind force is forecasted to increase to more than 15 m./sec.
3. Wave height is forecasted to be more than 1.0 m.
4. Visibility is poor (less than 200 m.).
5. Thunderstorm is forecasted to be approaching.
6. When LPG vapour accumulation is present on the deck.
7. When a fire occurs either on the vessel or in the vicinity.
8. When warning of approaching tidal wave is received.

Smoking shall be prohibited onboard when Chicksan arms are being connected or disconnected.

Fire wires shall always be lowered to sea level over the off-side bow and quarter to enable tugs to connect up rapidly in an emergency.

Lubricant pressure of stern tube shall be maintained lower than sea water pressure.

AUTHORITY: Imari Doboku (Public Works) Office, 122-4 Shinten-Cho, Imari City, Saga Pref., Japan. *Tel:* (09552) 34151.

INNOSHIMA: 34.17 N. 133.11 E.

DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 copy Voyage Memo (last 3 months).
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords etc. (only at first port of call in Japan).

Ship's Agents will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in Transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Inland Sea Pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from one of three pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication with Inland Sea pilot stations. Also see "Shipmaster's Report" before first port.

Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits) Position Lat. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address "Anjin Kobe".

Sekisaki, 3 miles South of Sekisaki Lighthouse (vessels transitting Bungo Channel). Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible, having due regard to safety, to Sekisaki Pilot Station.

Kanmon Pilot boards at Mutsure (Lat. 33° 58′ 15″ N., Long. 130° 53′ 43″ E.) for passing Shimonoseki Strait to Hesaki where Pilot will be changed to Inland Sea Pilot.

Hesaki, at East side of Kanmon (Shimonoseki) Straits. Position Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.

ANCHORAGE: No. 1, 14 m. deep, 1.4 miles off Hyakkan Island 180°. No. 2, 9 m. deep, 1.5 miles off Hyakkan Island 290°.

RESTRICTIONS: In general, mooring/unmooring and/or dry-docking in-and-out carried out in daytime only.

MAX. SIZE:

	Length	Breadth	Draft
(1) For mooring only	320 m.	× 50 m.	× 7 m.

(2) Max. draft for entering port: 9 m.
(3) Max. draft for mooring: 5 m. – 7 m. according to quay.

Current is N.E. at high tide, and S.W. at low tide at max. 2.5 knots.

HEALTH: In event vessel proceeding Innoshima direct from foreign port, vessel to receive Pratique at Quarantine Anchorage Kobe or Saganoseki (Lat. 33° 15′ N., Long. 131° 52′ E.) or Mutsure (Lat. 33° 59′ N., Long. 130° 53′ E.).

At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers' health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which covers all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: 6 tugs available, 320 h.p. – 3,500 h.p. Ship taken into port by Dock Master who joins ship at anchorage with tug-boat. Usually tug's lines used.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth	*Depth* (m.)	*Length* (m.)	*Capacity* d.w.t.	g.r.t.
Hitachi Innoshima Yard				
Repair Berth				
No. 1	7.0	160	12,000	9,500
No. 2	4.0	120	8,000	5,000
No. 3	7.0	220	55,000	35,000
No. 4	7.5	240	130,000	80,000
No. 5	7.0	300	130,000	80,000
No. 6	7.0	380	10,000	7,000
No. 7	10.0		220,000	140,000
No. 8 (West)	10.0	435	220,000	140,000
(East)	7.0		55,000	35,000
No. 9	9.0	300	80,000	50,000

TANKERS: Tank cleaning station operated by Setonaijai Tank Cleaning Company, can receive slops up to rate of 250 t.p.h.

MEDICAL: No advance notice required unless urgent. Hospital facilities available.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

FRESH WATER: Available by barge or pipe-lines at shipyard.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: None.

REPAIRS: All facilities for major repairs.

DRY DOCKS: Hitachi Zosen:

	Length (m.)	*Width* (m.)	*Depth* (m.)	*Capacity* (d.w.t.)
Dock No. 1	175.00	25.60	9.10	21,000
Dock No. 2	282.50	47.00	11.30	130,000
Dock No. 3	260.00	57.00	11.10	100,000

AIRPORT: Hiroshima Airport or Okayama Airport (domestic only). About 2 hours by car from both airports.

TIME: GMT plus 9 hours. Permanent.

TELEPHONES: Telephone is available: Shipyard installs one telephone in accommodation and another one in engine room.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days extension possible if ship stays longer.

SERVICES: The following services are available: Tank cleaning, discharge of tank washings, compass adjustment, ship's chandler.

AUTHORITY: Mihara Doboku (Public Works) Office, 1834-65, Enichi-cho, Mihara City, Hiroshima Pref. *Tel:* (08486) 4-2322.

AGENT: Sub-Agent of Dodwell & Co., Tokyo. Hamaoka Kaiun Co., Ltd., 2207, Habu-cho, Innoshima-shi, Hiroshima-ken. Cable address: Hamaoka Innoshima; Tel: Innoshima (08452) 2-1340/2. Telex: 06499-94.

ISHINOMAKI: 38.23 N. 141.19 E.

DOCUMENTS and all general information, refer to "Ofunato".

PILOTAGE: Not compulsory. Pilots board at Lat. 38° 23′ 42″ N., Long. 141° 16′ 06″ E.

RESTRICTIONS: Channel depth 10 m. LW.

HEALTH: Radio Pratique available. Formalities carried out at the Quarantine Anchorage (Lat. 38° 23′ 15″ N., Long. 141° 17′ 05″ E.).

TUGS: 7 tugs, 450 h.p. – 3,200 h.p.

BERTHING:

Berth	*Length* (m.)	*Permissible* *Depth* (m.)	*Draft* (m.)	*Capacity* d.w.t.	*Shore Cranes & Pipe-lines*
Minami Hama Wharf (1) (For chip carriers)	165	10.0	9.5	15,000	
Minami Hama Wharf (2)	165	9.0	9.0	10,000	
Minami Hama Wharf (3)	130	7.5	7.5	5,000	
Hiyori Wharf (6)	165	9.0	9.0	10,000	2× {Pneumatic Unloaders
Hiyori Wharf (7)	185	10.0	10.0	15,000	
Ohte Wharf (3, 4, 5)	320	5.5	5.5	2,000	(3 berths)
Ohte Wharf (1, 2)	260	7.5	7.5	5,000	(2 berths)
Nakajima Wharf (1)	130	5.5	5.5	2,000	
Nakajima Wharf (2, 3)	370	10.0	10.0	15,000	(2 berths)
Jyujyo Wharf (Dolphin)	92	6.0	6.0	3,000	1×Pipe-line

FUEL: Domestic oil is available; bonded oil will be brought from Shiogama, when required.

FRESH WATER: Available from shore and by barge.

REPAIRS: Minor repairs possible.

AUTHORITY: Ishinomaki Port Administration Office, 17-2 Nakajima, Ishinomaki City, Miyagi Pref. *Tel:* (0225) 95-6271.

AGENT: Sub-agent of Dodwell & Co., Tokyo. Nanko Unyu Co. Ltd., 13-banchi, Shiomi-cho Ishinomaki-shi, Miyagi-ken. Cable Address: Nanko Ishinomaki. Domestic Telex: 08628-60. Tel: (0225) 96-3815. Postal No.: 986.

IWAKUNI, Yamaguche Bay: 34.10 N. 132.14 E.

DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agents will prepare Inward/Outward Declaration, Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Not compulsory. Pilots available at Quarantine Anchorage, when required.

Inland Sea Pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Cable address "Ansin Moji". Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000, g.r.t.

Pilots obtained from 1 of 3 pilot stations dependent upon vessels last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication available with Inland Sea Pilot Stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits). Position Lat.. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, miles South of Sekisaki Lighthouse (vessels transitting Bungo Channel). Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki Pilot station.

3. Hesaki, at East side of Kanmon (Shimonoseki) Straits. Position Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.

ANCHORAGES: 2 anchorages, 1 for "Quarantine" and repairing, etc., other for discharging logs.

(a) Quarantine, Lat. 34° 10′ 28″ N., Long. 132° 16′ 43″ E. minimum depth 27 m.

(b) Discharging area, Lat. 34° 11′ 12″ N., Long. 132° 14′ 21″ E. minimum depth 10 m.

Nature of bottom mud. Minimum bottom width no limit.

RESTRICTIONS: Day and night entry possible.

HEALTH: Radio Pratique available. At first port of call in Japan vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: Tugs normally join vessel at Quarantine area. Tug's lines to be used free of charge. 6 tugs available, 4×3,000 h.p. and 2×2,500 h.p.

BERTHING: No berthing from sunset to sunrise. At least 2 hours notice arrival necessary to reach berth, in event of direct arrival from foreign country.

Berth	*Length* (m.)	*Depth* (m.)	*Draft & Length* (m.)	(m.)	*Capacity* (d.w.t.)
Public, Iwakuni North No. 3 Wharf*	100	9.0	9.0	150	20,000
Sanyo-Kokusaku Pulp Logs Pier	160	7.5	7.5	150	25,000
Sanyo-Kokusaku Pulp Chip Pier		11.5	11.5	200	40,000
Public, Iwakuni −10M Bussen-Futo	185	10.0	10.0	180	20,000
Public, Iwakuni −5.5M Bussen-Futo	150	5.5	5.5	150	3,500

*1×10 ton crane.

MEDICAL: No advance notice required unless urgent.

TANKERS: Max. 150,000 d.w.t.; slop discharge pipe-lines.

	Max. d.w.t.	*Max. LOA*	*Max. safe draft*	*No. and diameter hoses*
Koa Oil Crude Pier	150,000	No limit	16.50 m.	12″×3
Koa Oil No. 3 Pier	25,000	200 m.	10.00 m.	8″×1
Kenei North No. 3 Pier	35,000	230 m.	9.00 m.	12″×2

Discharge rates:

Koa Oil Crude Pier	(Crude Oil)	6,000 t.p.h.
Koa Oil No. 3 Pier	(Low sulphur Fuel Oil)	600 t.p.h.
Kenei North No. 3 Pier	(Crude Oil)	500 t.p.h.

DENSITY: 1020.

FRESH WATER: Available at:

Koa Oil Private Crude Oil Pier.
Koa Oil Private Products Pier No. 3.
Public, Iwakuni North No. 3 Wharf.
Sanyo-Kokusaku Pulp Private Logs Pier.
Sanyo-Kokusaku Pulp Private Chip Pier.

Water barge arrangeable from Onomichi.

FUEL: Available ex-wharf, but not ex-barge. All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gears maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CARGO GEAR: See "Certificates" but no special requirements.

CONSULS: No consul but Marine Note of Protest can be attended by local notary public.

REPAIRS: Minor repairs possible.

REPATRIATION: Possible.

AIRPORT: Hiroshima airport 45 km. (about 2 hours).

For Osaka (TOA Airline) 0900 hrs., 1415 hrs., 1725 hrs., 2000 hrs.

For Tokyo 0750 hrs., 1100 hrs., 1355 hrs., 1510 hrs., 1755 hrs., 1905 hrs.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police 110 (just dial); Ambulance 119 (just dial); Fire 119 (just dial).

TELEPHONES: No arrangements available except Koa Oil.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days extension possible if ship stays longer.

DEVELOPMENTS: New berth named "Muronoki Pier" under construction.

AUTHORITY: Iwakuni Port Administration Office, 557-15 Shozoku, 6-Chome, Iwakuni City, Yamaguchi, Pref., Japan. *Tel:* 0827-22-2271. *Contact:* Hirohiko Sugitani, General Manager.

AGENT: Sub-agents of Dodwell & Co., Tokyo. Naigai Unyu Co. Ltd., Iwakuni Office, 7-35, 4-chome, Shinminato-cho, Iwakuni-shi, Yamaguchi-ken. Cable address: Naigai Iwakuni; Domestic Telex: 06672-39, Naigai J. Tel: Iwakuni (0827) 21-7115/6.

KAGOSHIMA: 31.35 N. 130.33 E. (See Plan)

DESCRIPTION: Port situated in Kagoshima Bay, the Southern part of Kyushu and consists of 6 sections as follows:

Old Harbour (Honko): Divided into Inner Harbour sheltered by breakwaters which can accommodate up to 3,000 tonners, and Outer Harbour, (open roads) where large size vessels lie at anchor.

New Harbour: Adjacent to Main Harbour on the South. This section also sheltered by breakwaters and a 10,000 tonner can be accommodated.

South Harbour: Located about 6 km. away from old harbour on South side and used for small coasters.

Lumber Harbour: Located about 7 km. away from old harbour on South side and used for log carriers, a 15,000 tonner can be accommodated.

DOCUMENTS:

Customs: When vessel arrives direct from foreign port, Customs Officials board for search. Following documents to be submitted:

Crew List.
Passenger List.
Manifest of crew personal effects (must be signed by individual crew member).
Stores List.
Arms and Ammunition List.
Narcotics List.
List of ports of Call on current voyage.
Discharging Cargo Manifest.
Through Cargo Manifest.
Declaration inward/outward.

Following will be checked on board: Ship's Registry; Last Port Clearance.

When vessel comes from Japanese port, Customs Officials will not attend on board, except in special case. Master or Agents to attend Custom House for entry formalities with following documents:

Discharging Cargo Manifest.
Through Cargo Manifest.
Declaration inward/outward.
Ship's Registry.
Last Port Clearance.
Documents entrusted with the Master by Customs at previous port.

On vessel's departure, a clearance is issued by Customs, after confirming payment of tonnage dues.

PILOTAGE: Not compulsory, but necessary unless Master well acquainted with locality. Pilot embarks at quarantine anchorage (see "Health"). Request for Pilot made through Agent. Master to report by radio accurate ETA at least 24 hours prior to arrival.

ANCHORAGE: Ample good holding anchorage available in Outer Harbour. Depth: Over 9 m.

RESTRICTIONS:

Wharf	*Location*	*Length* (m.)	*Depth* (m.)
7.9 m. Wharf	Old Harbour	110	7.9
7.5 m. Wharf	Old Harbour	220	7.5
North No. 1	New Harbour	125	7.5
North No. 2	New Harbour	160	5.5
South No. 5	New Harbour	165	9.0
South No. 6	New Harbour	260	7.5
Lumber Wharf	Lumber Port	180	10.0
(15,000 tonners can be accommodated)			
Taniyama Wharf No. 1 (District No. 1)	Taniyama Port	250	12.0
(50,000 tonners can be accommodated)			
Taniyama Wharf No. 2 (District No. 2)	Taniyama Port	260	7.5
(5,000 tonners can be accommodated)			
Taniyama Wharf No. 6	Taniyama Port	260	7.5
(5,000 tonners can be accommodated)			
Taniyama Wharf No. 7	Taniyama Port	390	7.5
(5,000 tonners can be accommodated)			
Grain Dolphin in Taniyama District No. 1 for private quay. (65,000 tonners can be accommodated)		171	12.0

HEALTH: Radio Agent for Free Pratique not less than 5 hours and not more than 36 hours before arrival, advising full details of vessel and health conditions on board. When Free Pratique is granted by radio vessel will be required to submit the following documents to Quarantine Officer on arrival:

Maritime Declaration of Health.
Crew List.
Passenger List.

The following vessels will not be able to get Radio Pratique:

1. A vessel that has been in contact with an infected area or a suspected infected area within 15 days of arrival.

2. If a vessel does not possess a valid Derat or Derat Exemption Certificate.

Quarantine:

(a) Quarantine Station: Sea area within radius of 1,000 m. from centre, position Lat. 31° 33′ N., Long. 130° 35.5′ E.

(b) Quarantine service rendered from sunrise to 1 hour before sunset.

(c) "Q" flag should be hoisted until Free Pratique granted.

(d) When vessel arrives from plague-infected or suspected area within 10 days after she left such place, 24-hour special quarantine required.

All sanitary scuppers must be closed and garbage not thrown overboard after reaching 60 miles off Japanese coast.

RADIO: Recommended Master contacts Agent through Choshi Radio or Nagasaki Radio which covers all ports in Japan. If Westbound via Chosi and Northbound to Nagasaki respectively.

TUGS:

"Wakashio Maru No. 2"	twin diesel vessel 3,200 h.p.
"Kinko Maru"	twin diesel vessel 3,000 h.p.
"Sanko Maru"	twin diesel vessel 3,000 h.p.

BERTHING: No specific requirements. Pilot boarding time will be notified by Agent mainly by radio.

New Port (Kagoshima-Shinko). Sheltered harbour with main entrance 150 m. wide between S. breakwater (350 m.) and N. breakwater (150 m.). Sheltered anchorage in depth of 5.5 m. – 9.0 m. No mooring buoy. Berthing outside breakwater in depth of 9.0 m. and inside breakwater in depth of 5.5 m. – 9.0 m.

Piers: South Pier (in foreign trade zone):

165 m. long with 9.0 m. alongside, will take one vessel of about 10,000 g.r.t.

260 m. long with 7.5 m. alongside, two vessels less than 5,000 g.r.t.

120 m. long with 4.5 m. alongside, two vessels less than 500 g.r.t.

North Pier (for inbound vessels):

125 m. long with 7.5 m. alongside will take one vessel of about 3,000 g.r.t.

160 m. long with 5.5 m. alongside two vessels less than 1,000 g.r.t.

Taniyama Pier No. 1 (Taniyama-ko 1-ku 1-go wharf)

250 m. long with 12.0 m. alongside, 2 vessels less than 50,000 g.r.t.

Taniyama Pier No. 2 (Taniyama-ko 1-ku 2-go wharf)

260 m. long with 7.5 m. alongside, 2 vessels less than 5,000 g.r.t.

Taniyama Pier No. 6 (Taniyama-ko 2-ku 6-go wharf)

260 m. long with 7.5 m. alongside, 2 vessels less than 5,000 g.r.t.

Taniyama Pier No. 7 (Taniyama-ko 2-ku 7-go wharf)

390 m. long with 7.5 m. alongside, 3 vessels less than 5,000 g.r.t.

Note: Taniyama Harbour: Located 11 km. from Old Harbour on South and used for large vessels.

STEVEDORES: Maximum 10 gangs available. Working hours: 1 labour shift.

Normal working hours: 0800 to 1700 hrs. Overtime work possible, until about 2000 hrs. by applying to Customs at following hours: 1700 – 2200 hrs., 0500 – 0830 hrs. Also Sundays and holidays 2200 – 0500 hrs. All night work is impracticable. No work can be arranged for 30th December and during New Year holidays (1st to 3rd January).

MEDICAL: Imakyurei Hospital, Chou Hospital, Fukusaki Hospital, Yotsumoto Dental Plant. Igo Oculist. No advance notice required unless urgent.

TANKERS: No tanker berths at Kagoshima, but Central Terminal Station (C.T.S.) in Kagoshima Bay. See "Kiire".

FRESH WATER: One 200 ton water barge available. Hydrants at wharves in main harbour. Rate of delivery: 50 t.p.h. from barge; 20 – 30 t.p.h. from hydrants. NOT

FUEL: ~~None available~~. Lightered from anotherport. Ample notice so that necessary lighterage can be arranged.

GANGWAY/DECK WATCHMEN: Not specifically required unless passengers or valuable cargo on board.

2 sets of shore gangways (10 m. long) with platforms (3 m. high) also English speaking watchmen are available but advance notice is required.

OPENING/CLOSING HATCHES: Stevedores open/close hatches. Cost per hour depending on type of cargo. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears poor.

CUSTOMS ALLOWANCES: Only 50 cigarettes to take ashore but no spirits.

REPAIRS: Hull/engine repairs are available at Kagoshima Dockyard and Iron Works and Kikukawa Iron Works.

REPATRIATION: Possible.

AIRPORT: Kagoshima International Airport. Located to the North, 50 minutes' drive from centre of Kagoshima city.

TIME: GMT plus 9 hours. No alterations to clocks during year.

HOLIDAYS: See "Tokyo" (Also see "Stevedores").

SERVICES: Cargo Survey. Provisions and Stores. Fumigation – Toyo Fumigation attend from Moji on request.

WIND/TIDE: N.W. wind prevails in Winter season and Easterly wind in Summer. Wet seasons in April and July. Average tidal range 2.74 m. In the outer harbour, flood tide sets to North and ebb to South. Maximum speed of current 2 knots. Current in inner harbour is less than 0.25 knots.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 day extension possible if vessel stays longer. Also see "Regulations".

REGULATIONS: Immigration Officials board vessel on arrival to examine Passports, Discharge Books and/or other equivalent travel documents and provide 72 hour landing passes for crew members and passengers. 1 copy each of crew list and passenger list required by them. Providing ship's Agent with a Crew List beforehand will be a great help in expediting immigration business on vessel's arrival. When vessel stays in port more than 72 hours, the landing passes may be extended 72 hours on application. In the event that crew members, without entry visas, are to be landed for repatriation or transfer, Immigration will not permit their landing unless passage, by either sea or air, ensuring the prompt departure from Japan (within 72 hours) of these men has been booked, or unless vessels to which they are to be transferred, arrive in Japan within 5 days.

AUTHORITY: Kagoshima Port and Harbour Office, 18-16 Izumi-Cho, Kagoshima City, 892 Japan. *Tel:* (0992) 23-3277.

AGENT: Sub-agents of Dodwell & Co. Tokyo. Kyoshingumi Co. Ltd., Agency Department, Zisaki, Zyonan-cho, Kagoshima-shi, Kagoshima-ken. Cable address: Kyoshingumico Kagoshima; Domestic Telex: 07822-46. Tel: (0992) 26-7124, 26-7115.

KAKOGAWA: 34.42 N. 134.50 E. (See Plan)

Port is for sole use of the Kobe Steel Co. Ltd. Declared open port as of 1st May 1970, but vessels should first call off Kobe to obtain Free Pratique, Customs clearance and Pilot.

Also see "Shipmaster's Report" dated June 1985.

DOCUMENTS:

Ship's Register.

Last Port Clearance.

3 Crew Lists including Passport Numbers.

3 Passenger Lists.

1 Stores List.

1 Declaration of Crew's Baggage, i.e. tobacco wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

Also see "Shipmaster's Report" dated June 1985.

PILOTAGE: Pilot will board off Kobe when calling for Free Pratique and Customs clearance. Pilot will be arranged by Agent subject advance request and usual ETA advices.

Also see "Shipmaster's Report" dated June 1985.

RESTRICTIONS: Mooring/unmooring conducted daylight hours only.

MAX. SIZE: Kobe Steel, Berth No. 4: 165,000 d.w.t. (or 250,000 d.w.t. with part load).

HEALTH: Vessel must call off Kobe for Free Pratique. At first port call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers' health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which covers all ports in Japan. If specifically Westbound vessel, to contact Chosi, and Northbound to contact Nagasaki Radio respectively.

BERTHING:

	Length	*Depth*	*Max. Size*
Pier W-5	240 m.	11.90 m.	35,000 d.w.t.
Pier W-6	275 m.	11.90 m.	35,000 d.w.t.
LPG Dolphin	77 m.	16.00 m.	70,000 d.w.t.
Scrap Pier	250 m.	11.10 m.	25,000 d.w.t.
South Pier	450 m.	6.80 m.	—

Depth at low water is 17 m. in the fairway which is 400 m. wide.

Kobe Steel:

Berth	*Length* (m.)	*Depth* (m.)	*Max. LOA* (m.)	*Max. Draft* (m.)
No. E-4	400	17.0	300	16.0
No. E-2	200	14.5	190	12.5
No. E-3	300	14.0	239	14.5

Products Handled Coal and ore.

Cranes: 4 × 1,500 t.p.h. at E.4; 1×700 t.p.h. at E.3; 2×35 ton at West Wharf (No. 5) and 2×35 ton at West Wharf (No. 6).

MEDICAL: Treatment has to be arranged from Kobe.

FRESH WATER: Available from quay. Rate 50 – 80 t.p.h.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

REPAIRS: Arranged from Kobe.

REPATRIATION: Possible, through Kobe.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days extension possible if ship stays longer.

SHIPMASTER'S REPORT: When the vessel anchors off Kobe in the Roads, "Kobe Harbour Control" will call on VHF Channel 16 and ask for anchoring time and position from Kobe Headlight.

The maximum draft at Higashi Harima is 15.5 m.

Vessels always berth port side alongside. The gangway should be lowered as soon as possible to let the officials aboard.

The vessel loaded 112,000 metric tons in 60 hours, previously the same amount had been loaded a little quicker.

Bilge water, oil or garbage should never be thrown overboard because owners have to pay compensation to the Fishermen's Union.

Berthing takes place 2 hours before high water.

SHIPMASTER'S REPORT: June 1985.

Pilotage/Sanitary Inspection: If vessel in possession of valid Japanese Sanitary Inspection Certificate and has been granted Radio Free Pratique, the Inland Sea Pilot boards 5 miles S.S.W. of Kobe Lt. This Pilot berths the vessel at Kakogawa.

Customs clearance and other formalities, in this event are carried out after berthing at Kakogawa.

Pollution: Penalties and mandatory compensation are particularly severe for any form of pollution. A floating save-all barrier is placed around the ship. This would appear to be as much for identifying offenders, as for preventing the spread of pollution.

When discharging coal, petroleum-coke or ore at the West Wharf (Kobe Steel Co.), scuppers must be efficiently plugged to prevent overside pollution in the event of rain or ballasting overflows. One selected scupper outlet is connected to a shore drainage hose.

Shore Leave: At West Wharf and LPG Jetty, ship's personnel are not permitted to traverse the wharf or any other roadway or part of the steelworks on foot.

Kobe Steel Co. does not provide any form of transport inside the complex. However, a taxi schedule can be arranged through the Agent, between ship and Kakogawa (JNR) railway station (Y.2,400 each way). Frequent trains to Kobe – about 35 minutes. Kakogawa, itself has reasonable shopping facilities in the vicinity of the railway station.

AUTHORITY: Kakogawa Doboku (Public Works) Office, 97-1, Tenjingi, Jike-machi, Kakogawa City, Hyogo Pref. *Tel:* (0794) 21-1101.

AGENT: See "Himeji".

KAMAISHI: 39.16 N. 141.55 E. (See Plan)

DOCUMENTS:

Ship's Register. Last Port Clearance. 6 Crew Lists including Passport Numbers. 4 Passenger Lists. 1 Stores List and 2 Lists of Ports of Call.

1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Pilot not compulsory, but arrangeable at Master's request. Pilot arranged by Agent and vessel required to radio Agent ETA 24 hours before ship's arrival. Pilot boat has no facility to communicate, nor particular light or sound signals, but flies Pilot flag "H". Pilot boards at Lat. 39° 16′ N., Long. 141° 59′ E. About 1 mile N.N.E. of Osaki Point. No alternative area in event bad weather.

ANCHORAGE: Up to 4×30,000 d.w.t. vessels can safely anchor. Max. size at anchorage 120,000 d.w.t. Depth of water: 31 m. 43 m. at Quarantine Anchorage.

RESTRICTIONS: Vessel free in and out anytime.

MAX. SIZE: Draft 14 m. and LOA 300 m. (915 ft.) Breadth no restriction.

HEALTH: *Quarantine Anchorage:* Located in Western semi-circle of 500 m. radius with centre at Lat. 39° 15′ N., Long. 141° 55′ E. This area is also used for urgent anchorage.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Chosi, and Northbound to contact Nagasaki Radio respectively.

TUGS: Tugs (2) join vessel at anchorage and tugs' lines used free of charge.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth		*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Capacity* (d.w.t)	*Shore Cranes*
South Pier						
NSC No. 3	Old	230	8.4	8.4	13,000	1×7 T, 1×15 T
	New	288	13.5	13.0	25,000	Unloader 700 t.p.h.
NSC No. 4	Old	230	8.7	8.7	20,000	2×7 T, 1×17 T
	New	288	14.0	13.0	160,000	Unloader 700 and 900 t.p.h.
North Pier						

NSC Nos. 1 & 2 not suitable for the vessel more than 5,000 g.r.t.

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agents to arrange stevedores. Vessel must constantly keep Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1630 – 2130 hrs. 60% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 100% additional.

MEDICAL: No advance notice required unless urgent.

DENSITY: Winter 1026-1027. Summer 1023-1024.

FRESH WATER: Available from wharf by hose. Rate of delivery: about 10 t.p.h. – 15 t.p.h. No water barge.

FUEL: Domestic diesel oil (Bunker A) is available. Bonded oil will be brought from Sendai, Yokohama and Kashima with sufficient advance notice.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CONSULS: None.

REPAIRS: Minor repairs such as welding, piping, lathing works, etc. only.

DRY DOCKS: None.

REPATRIATION: Possible.

AIRPORT: Hanamaki, distance 100 km. (2 hours by car). Toa Domestic Airlines (TDA); 3 flights between Hanamaki/Tokyo everyday, 2 flights between Hanamaki/Osaka everyday and 1 flight between Hanamaki/Sapparo every day.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police 2-4536 (Headquarters) and 2-3828 (Water Police Station); Ambulance 119; Fire 119.

TELEPHONES: No facilities for placing telephones on board.

SERVICES: Surveyor, tally, hold cleaning, tank cleaning.

GENERAL: Discharging ex-gearless vessel not possible at anchorage.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days extension possible if ship stays longer.

AUTHORITY : Port and Harbour Dept, Iwate Prefecture Government, 10-1 Uchimaru, Morioka City, Iwate Pref., 020 Japan. *Tel:* (0196) 51-3111. *Contact:* Masanao Takeda, Director, Port & Harbour Department.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Narasaki Sangyo Co., Ltd., Kamaishi Branch, Kamaishi Building, No. 1-1, Hama-cho Kamaishi-shi, Iwate-ken. Cable Address: Narasaki Kamaishi. Domestic Telex: 8355-56. Tel: (0193) 22-2731/2. Postal No.: 026.

KANDA: 33.47 N. 131.00 E. (See Plan)

PILOTAGE: Not compulsory; Inland Sea Pilots are available from Sekisaki, Hesaki or Mutsure if required. Harbour Pilots are available at the anchorage (Lat. 33° 48′ 03″ N., Long. 131° 03′ 02″ E).

RESTRICTIONS: Pilots are only available from sunrise to 1 hour before sunset.

PRATIQUE: Available at the Hesaki or Mutsure Anchorages. (In case of vessels from East, formalities will be carried out at the Hesaki Anchorage. If vessels from West, formalities will be carried out at the Mutsure Quarantine Anchorage. But after Free Pratique granted, vessels have to pass the Kanmon Channel en route to off Kanda).

TUGS: 1 × 3,000 h.p. and 1 × 1,300 h.p. (Tugs from Moji also available when required).

BERTHING:

Public Wharves:

Berth No.	*Length* (m.)	*Depth* (m.)	*Remarks*
No. 1	370	10.0	2×15,000 d.w.t.
No. 2	130	7.5	1×5,000 d.w.t.
No. 3	110	6.5	1×3,000 d.w.t.
No. 4	150	5.5	2×2,000 d.w.t.
No. 5	386	4.5	6×700 d.w.t.
No. 6	7	4.5	1×700 d.w.t.
No. 7	130	7.5	1×5,000 d.w.t.
No. 8	260	7.5	2×5,000 d.w.t.
No. 9	440	4.5	7×700 d.w.t.
No. 10	580	10.0	2×15,000 d.w.t.
No. 11	185	10.0	1×15,000 d.w.t.
No. 12	10	3.0	—
No. 13	351	3.0	—
No. 14	100	2.0	
A	119	2.0	
B	175	2.0	

Private Facilities:

Berth No.		*Length* (m.)	*Depth* (m.)
No. 15	Kyusyudenryoku Wharf	18	3.0
No. 16	Kyusyudenryoku Wharf	104	7.5
No. 17	Aso Cement Wharf	35.4	7.5
No. 18	Aso Cement Wharf	28	7.5
No. 19	Aso Cement Wharf	74	6.0
No. 20	Ube Kosan Wharf	86	7.5
No. 21	Ube Kosan Wharf	46	6.0
No. 22	Ube Kosan Wharf	33.5	4.5
No. 23	No. 1 Mitsubishi Kogyo Cement Wharf	55.4	4.5
No. 24	No. 2 Mitsubishi Kogyo Cement Wharf	19	6.0
No. 25	No. 3 Mitsubishi Kogyo Cement Wharf	48	7.5
No. 26	No. 4 Mitsubishi Kogyo Cement Wharf	185.4	10.0
No. 27	Yutaka Kozai Wharf	215	4.5
No. 28	Ube Kosan Wharf	55	6.0
No. 29	Nihon Cement Wharf	49	7.5

Remarks: In case of vessel's draft exceeds 9 m., entry/departure only practicable at HW.

FRESH WATER: Available from shore, except Matsuyama Wharf & Dolphin and Mitsubishi Kogyo Cement Wharf where a barge is available.

FUEL: All kinds of bunkers will be brought from Moji or Shimonoseki, when required.

REPAIRS: All kinds of repairs can be undertaken by Moji repairers.

AUTHORITY: Kanda Port Administration Office (Fukuokaken Kandakomusho), 29 Banch Minato-machi, Kanda-machi, Fukuoka Pref. *Tel:* (093) 434-0585. *Contact:* Katsuaki Yano, General Manager.

KANMON-KO (Kanmon Harbour). (See Plan)

According to Japanese Harbour Area Regulations, Moji, Shimonoseki, Kokura, Tobata, Wakamatsu and Yawata are respective sections included in one port namely Kanmon Harbour. The expression of the port as "Kanmon" has been used in charter parties, where these 6 ports are considered to be one port. Vessel's movements within these ports is treated as shifting berth in the same port. Therefore, if vessels calls at more than 2 ports within this area, such calls are covered by one payment of tonnage dues. However, at Tobata, Wakamatsu and Yawata, port dues are levied in addition to tonnage dues.

Entry/departure procedures to Customs, Immigration and/or Harbour Master should be effected at each port, as those officials stationed individually at each port.

Pilotage is compulsory for vessels over 10,000 g.r.t. passing through Kanmon Channel.

AUTHORITY: Kitakyushu Port and Harbour Bureau, 2-7 Nishi-Kaigan, 1-chome, Moji-Ku, Kitakyushu City, 801 Japan. *Tel:* (093)-321-5941. *FAX:* (093) 321-5915.

Shimonoseki Port and Harbour Bureau, 1-1, Nabe-Cho, Shimonoseki City, 750 Japan. *Tel:* (0832) 31-1111.

KANOKAWA: 34.11 N. 132.26 E. (See Plan)

(PORT STATUS: CLOSED PORT)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
10 Crew Lists including Passport Numbers. (For Iwakuni and Kanokawa.)
10 Passenger Lists. (For Iwakuni and Kanokawa.)
2 Stores Lists. (For Iwakuni and Kanokawa.)
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Inland Sea pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from 1 of 3 pilot stations dependent upon vessels last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF Communication available with Inland Sea Pilot stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits). Position 34° 09′ N., 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse. (Vessels transitting Bungo Channel.) Position 33° 13′ N., 131° 54′ E. Telegraphic address "Anjin Moji". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki Pilot Station.

3. Hesaki, at East side of Kanmon (Shimoneseki) Straits. Position Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.

Inland Sea Pilots also attend Harbour Pilotage but if specifically required Harbour Pilot boards at Port entrance South side of Ohkurokamishima, Position Lat. 34° 10′ N., Long. 132° 26′ E.

ANCHORAGES: Good holding ground. Entrance Channel and Harbour Channels. Depths 18 m. min. Bottom mud and sand. Difference between quoted datum and chart datum about 2 m. (to be added). Harbour anchorage about 2 miles South of "T" head berth where vessel remains if waiting berth. (Lat. 34° 08′ N., Long. 132° 24′ 3″ E.).

RESTRICTIONS: No berthing or unberthing between sunset and sunrise.

MAX. SIZE: Length 270 m., beam 40 m., draft 14 m., deadweight 125,000. See "Tankers".

HEALTH: Closed port. Vessel must call at another port (such as, Matsuyama or Iwakuni) for Customs and Health clearance before entering Kanokawa. At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers' health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

N.B. Vessels destined for Kanokawa call at Iwakuni for quarantine and Customs formalities for entering Kanokawa (Closed Port) before proceeding to Kanokawa.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically West bound vessel to contact Choshi and Northbound to contact Nagasaki Radio respectively.

TUGS: Arranged from Kure. Normally join at Kanokawa Port Entrance. Usually tug's lines used without extra charge.

DENSITY: 1023 – 1025 alongside berth. Rise of tide: Springs 3.4 m. Neaps 2.6 m.

FRESH WATER: Available at berth, ex-pipe-line. Average delivery rate – 20 t.p.h.

TANKERS:

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft & LOA* (m.)	*Capacity*	*Pipe-lines*
Mitsubishi Shoji Kanokawa No. 1	73.6	12.2	11.2×240	Less than 30,000 d.w.t.	See below
No. 3	159.00	15.4	14×270	Less than 125,000 d.w.t.	
Nos. 2 & 4		7.0		For coastal Tanker use only, 5,000 d.w.t.	

Pipe-lines:	*No. 1*	*No. 3*
Size and number of manifold	1×12 in.	5×12 in.
Size and number of shore line	1×16 in.	2×24 in.
Max. back pressure on shore gauge	5.0 kg/sq.cm.	5.0 kg/sq.cm.
Average speed for discharging	2,000 kl/hr.	3,000 kl/hr.

FUEL: Most grades of domestic and bonded oil obtainable by barge only at anchorage after completion of discharge, with 3 days' advance notice.

CONSULS: None.

REPAIRS: See "Kure".

AIRPORT: See "Kure".

TIME: GMT plus 9 hours. Permanent.

POLICE/AMBULANCE/FIRE: Police 110; Ambulance 119; Fire 119.

TELEPHONES: No arrangements available for placing telephones on board.

AUTHORITY: Ohgaki Doboku (Public Works) Office, 25 – 3 Oaza Ohara, Ohgaki-Cho, Saiki-Gun, Hiroshima Pref., Japan. *Tel:* 0823 – 57 – 3434. (*Note:* This is a closed port, therefore there is no Port Authority.)

AGENT: See "Kure".

KASHIMA: 35.54 N. 140.42 E. (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
5 Crew Lists including Passport Numbers.
5 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in Transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Pilot called through Agent. Pilot boards about 2 miles to N.E. from the end of South Breakwater, in vicinity of Lat. 35° 58.5′ N., Long. 140° 44′ E.

ANCHORAGE: No suitable anchorage at present. Quarantine Anchorage is within a rectangular section commencing at point "A" (089° 45′, 5,200 m. from Kashima lighthouse) thence 151° for 1,500 m., thence 241° for 1,000 m. thence 331° for 1,500 m. thence to point "A". Depth 18.3 m.

Shipmaster's Report: July, 1981.

Quarantine Anchorage only for small ships (under 3,000 d.w.t).

Pilots advised and requested vessel to anchor (on next visit) 2 to 3 miles, 45° off North end of pier, pilot station also located in this position.

Reasons: Anchorage close to outgoing traffic, especially for very large vessels. Also anchor holding ground not good in case of sudden wind gusts.

Anchorage as mentioned (also on B.A. Charts) is not used any more and Quarantine Officer boards after passing second breakwater.

APPROACHES: Normally the approaches to Kashima are not as congested as some of the other ports of Japan, but in good weather a large number of fishing and pleasure craft may be met.

Being free of off-lying dangers the approach to the Pilot Boarding ground do not present any difficulty, however, the presence of swell very often hampers the manoeuvre of the tugboat carrying the Pilot. A convenient leeway is required to enable the Pilot to board.

Approaches to Kashima Oil Co. Terminal: The berth approach is made only during daylight hours. Pilots board, at the latest, one hour before sunset.

All traffic for entering into or departing from the port, and all movements inside the port are controlled from the signal station near the N.W. side of the harbour entrance. For the signals shown please refer to H.O. PUB No. 156 or B.A. Japan Pilot Vol. 1 (No.41). The type of control is "one way" for larger vessels. The signal station is not equipped with radar or VHF, but may contact a vessel via telephone and Ibarki Port Radio.

The harbour entrance is marked by two buoys.

Leading lights, 183.5°, are exhibited for steaming up the channel. The depths in the outer channel are 24 m. and in the inner part 22 m. below chart datum. Tidal currents in the channel are weak, less than 0.5 knots.

No entry is made if wind velocity from Northerly directions is 7 m./sec. or over, or from other directions 10 m./sec. or more. Also, berthing operations are suspended if the wave height is 1.5 m. or more.

The tug that brings the Pilot(s) on board joins the vessel immediately. 4 other tugs join inside the breakwater.

During periods of Northerly swell the entry channel is fully exposed. Vessels at low speed generally have difficulty in steering therefore, laden VLCCs are also required to attain a speed up to 6 knots until as close as 0.75 miles from the 200,000 ton crude berth. The full power of five tugs is normally sufficient to timely reduce the headway but at times vessels engines are also called for prompt and strong astern action.

RESTRICTIONS: Pilot does not board vessel after dark.
Passages:

Name	*Width* (m.)	*Depth* (m.)
Central Passage	400 – 600	19 – 13
South Passage	300 – 430	12 – 10
North Passage	300	13 – 10
Outport Passage	480 – 540	24 – 22

MAX. SIZE: *Tankers:*

Berth	*Max. d.w.t.*	*Max. L.O.A.*	*Max. Safe Draft*
200,000 ton Sea Berth	200,000	336.34 m.	19.00 m.
100,000 ton Berth	100,000	258.16 m.	14.00 m.
70,000 ton Berth	70,000	238.50 m.	11.91 m.

Bulk carriers have entered with draft up to 44 ft.

HEALTH: Radio Pratique is available if application in accordance with Japanese Regulations. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers' health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel to contact Choshi and Northbound to contact Nagasaki Radio respectively.

VHF: 50 Watt powered base station operates at Oh-aza Igiri, Kamisu-cho, using call sign "Ibaraki Port Radio", continuous watch is maintained 24 hours on Channel 16, all calling should be on Channel 16, and working Channels 14 and 12. Tugs (including Pilots) work on 400 mHz.

Shipmaster's Report: July 1981.

VHF station (call: "Ibaraki Port Radio") on Channel 16, traffic on Channel 14.

Handles all traffic about pilotage, etc. Station not yet mentioned in List of VHF stations (Radio Holland). Agents pay 3,500 Yen per ship per port call for using the station.

TUGS: Usually joins vessel at anchorage where Pilot boards; Tug's lines used.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Name	*Depth* (m.)	*Length* (m.)	*Number of Berths*	*For Ships* (d.w.t.)	*Major Cargo Handled*
*Fuka-Shiba Public Wharf Berths	– 5.5	300	3	2,000	Sundries
*South Public Wharf Berths	–10.0	370	2	15,000	Sundries
*South Public Wharf Berth	– 7.5	130	1	5,000	Sundries
(a) Heavy Oil & Sundries Berth	– 7.5	130	1	5,000	Heavy oil, Sundries
Raw Materials Berths	–16.0	451	3	5,000×2 80,000×1	Coal, iron ore
Raw Materials Berths	–19.0	749	2	150,000	Iron ore, coal
Slab Berth	–14.0	300	1	50,000	Sand, gravel, iron and steel
Manufactured Goods Berths	–12.0	1,184	6	50,000	Iron and steel
Manufactured Goods Berths	– 7.5	782	6	3,000×1 5,000×5	Iron and steel
Sundries Berth	– 6.0	175	1	3,000	Sundries
All-Weather Berths	– 7.5	200	2	5,000	Sundries
West Spiral Berth	– 6.0	127	1	3,000	Sundries
(b) Crude Oil Pier No. 1	–22.0	129	1	200,000	Crude oil
Crude Oil Pier No. 2	–16.0	76.8	1	100,000	Crude oil, heavy oil, LPG
Crude Oil Pier No. 3	–14.0	39.6	1	80,000	Crude oil, heavy oil
Shipping Piers	– 6.0	92	2	3,000	LPG
Shipping Piers	– 6.0	585	12	3,000	Petroleum products
Shipping Piers	– 6.0 – 9.0	764.5	7	3,000	Petroleum products
(c) Heavy Goods Berth	– 5.5	120	1	1,000	Sundries
50,000-ton Dolphin	– 7.5	50	1	5,000	Heavy oil
(d) 100,000-ton Pier	–16.0	231	1	100,000	Raw salt
(e) 65,000-ton Pier	–13.0	280	1	65,000	Cereals
Shipping Berths (Pier)	– 6.3	505	5	500×1 2,000×1 3,000×3	Cereals
(f) 65,000-ton Pier	–13.0	281	1	65,000	Cereals
Shipping Berths (Pier)	– 6.3	370	3	2,000×1 3,000×2	Cereals
(g) Kanto Grain Terminal Berth	–13.0	280	1	65,000	Cereals
(h) Manufactured Goods Berth	–10.0	70	1	1,600	Machinery
(i) High-pressure Gas Dolphin	– 7.5	29	1	3,000	Chemicals
(j) No. 8 berth	–10.0	195	1	15,000	Chemicals
No. 9 berth	– 6.0	28	1	3,000	Chemicals
(k) Dangerous Cargo & High-Pressure Gas Berths	– 6.0	336	4	3,000	Chemicals
(l) Manufactured Goods Berth	– 7.0	145	1	3,000	Chemicals
(m) Raw Materials Berths	– 6.0	150	1	1,500	Chemicals
Joint Berth for Two Companies (A)	– 7.0	140	1	3,000	Chemicals
(n) Raw Materials-Manufactured Goods Berths (A)	–10.0	400	2	15,000	Silicon Sand
Raw Materials-Manufactured Goods Berths (B)	– 7.5	255	2	5,000	Chemicals
Joint Berths for Four Companies (B)	– 7.0	230	2	3,000	Chemicals
*Landing Stages at the Central Vessel Basin	– 4.0	458	—	—	—
*Waste Oil Dolphin	– 5.5	27.2	2	3,000	—
*Landing Stages at the Basin for Small Vessels	– 2.0 – 3.5	351	—	—	—
*Igiri Berths	– 4.5 – 5.0	939	—	—	—
*Ikemuko Berths	– 5.0	113	—	—	—

(a) Sumitomo Metal Industries Ltd.
(b) Kashima Oil Co. Ltd.
(c) The Tokyo Electric Power Co. Inc.
(d) Kashima Chlorine & Alkali Co. Ltd.
(e) Showa Sangyo Co. Ltd.
(f) Zen-No Silo Co. Ltd.
(g) Kanto Grain Terminal Co. Ltd.
(h) The Shin-etsu Chemical Industry Co. Ltd
(i) Mitsubishi Petrochemical Co. Ltd.
(j) Mitsubishi Petrochemical Co. Ltd.
(k) Japan Synthetic Rubber Co. Ltd.
(l) Takeda Chemical Industries Ltd.
(m) & (n) Asahi Glass Co. Ltd.
(A) Asahi Glass Co. Ltd.,
Mitsubishi Gas-Chemical Co. Inc.
(B) Asahi Denka Kogyo K.K.
Kuraray Co. Ltd.,
Mitsubishi Gas-Chemical Co. Inc.,
Kanegafuchi Chemical Industry Co. Ltd.

*Public Berth.

MEDICAL: No advance notice required unless urgent.

TANKERS: Requirements prior to arrival: Manifold: position, number and external and internal diameters. Reducer: type (ASA or JIS, etc.) and external and internal diameters. Bolt: diameter and number, also diameter of pitch circle. Pumping capacity. Ship's draft and ETA, to be received by 0900 hrs. every morning continued 3 days prior to day of arrival. Water requirement (because of necessity of pumping-up tank for preparation).

Berthing Procedure and Mooring at 200,000 d.w.t. berth: Normally 3 to 5 tugs attend and are employed in a combination of "alongside" and "on the hook".

Vessels always berth port side to. The normal procedure is to bring the vessel to a stop, parallel to the berthing face, at distance of 100 – 150 m., and then warp her alongside with the tug assistance. The sequence for handling ship's lines is: spring lines, breast lines, and then bow and stern lines. 2 mooring launches are used.

Since the breasting dolphins at the 200,000 d.w.t. berth used for the spring lines are rather a long distance apart, conventional spring lines from the main deck are frequently very short and often break when a swell is running. Therefore, it is advisable to try using longer springs from the forecastle and poop decks.

The normal mooring configuration is: 4 bow lines, 4 stern lines, and 4 breasting lines and 2 spring lines both forward and aft.

The berth is equipped with a sonar docking system.

Discharge Rates:

Berth	*Product*	*Discharge Rate (t.p.h.)*		*Shoreline*
200,000 Ton Berth	Crude Oil	10/12,000		38 in.×1 42 in.×1
	Bunker	5/600	(Connection)	12 in.×1
100,000 Ton Berth	Crude Oil	4/6,000		24 in.×1
		4/6,000		26 in.×1
	LPG	2/3,000	(Propane)	22 in.×1
			(Butane)	22 in.×1
	Bunker	5/600	(Connection)	8 in.×1
80,000 Ton Berth	Naphtha White Kerosene	1,800		14 in.×1
	Minus Crude Oil	3/3,500		16 in.×1
	Fuel Oil	1,800/2,000		20 in.×1
	Crude Oil	3/3,500		24 in.×1
	Bunker	5/600	(Connection)	8 in.×1

DENSITY: 1025.

FRESH WATER: 50 metric t.p.h. from shore pipe, 50% additional for service between 0600–0800 hrs. 1700–2200 hrs. and during rainy and rough weather, also on Sundays and holiday. 100% additional for service between 2200–0600 hrs.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days' prior notice. Bunkers are also available from Kashima Oil Co. with prior notice.

FIRE PRECAUTIONS: No special precautions, but water curtain made alongside dolphin in case of fire, and there is a fire boat (15 gross tons, and airfoam system).

GANGWAY/DECK WATCHMEN: Not specially required unless at Kashima Oil Refinery Berth.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 40 cigarettes to take ashore but no spirits.

IDENTIFICATION CARDS: Not required.
CONSULS: None.
REPAIRS: Hull and engine repairs possible.
AIRPORT: Narita Airport (New Tokyo International Airport).
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Police Tel. 110; Ambulance/Fire Tel. 119.
TELEPHONES: Not available for placing on board.
SERVICES: No equipment nor facilities, but compass adjusting and others arrangeable from Yokohama.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for 9 days, extension possible for longer stay.
DEVELOPMENTS: Port under construction. When completed, total length of wharf will be about 17 km. for about 30 big industries such as iron and steel works, oil refinery and chemical works, foodstuff and foodstuff industries, etc.
AUTHORITY: Kashima Port Administration Office, 13 Oh-aza Higashi Fukashiba, Kamisu-City, Kashima-Gun, Ibarak-Ken, Japan. *Tel:* 0299-92-2111.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Keiyo Shipping Agency Ltd., Kashima Office, 65-86 Kamisu, Kamisu-Machi, Kashima-Gun, Ibaraki-Ken. Cable Address: Keiyoshipkashima Itako Domestic Telex: 3658-926 Tel: Kashima 02999 2-2193.

KAWASAKI: 35.32 N. 139.46 E. (See Plan)

PORT LIMITS: The boundary of the Kawasaki Port consists of: The position of the central outfall of the border canal (Sakai Canal) of Ohkawa-cho, Kawasaki-ku, Kawasaki City and Anzen-cho, Tsurumi-ku, Yokohama City. From this position to a point of 151° 30′, 3,460 m. and from this latter position to a point of 126°, 2,310 m. The position of 136°, 5,150 m. from the Tamagawa River Haneda Light Beacon, the line drawn from the end point of the Tamagawa River administrative boundary border line and the sea surface which covers the shore. The water surface of the following canals: Sakai Canal (beyond the East of the administrative boundary border line), Siraishi Canal, Tanabe Canal, Minami Watarida Canal, Asano Canal, Ikegami Canal, Sakurabori Canal, Iriezaki Canal, Mizue Canal, Shiohama Canal, Yako Canal, Chidori Canal, Daishi Canal, Suehiro Canal and Tama Canal. The water surface of the area of Siraishi-cho No. 2, Asano-cho No. 1, Yako No. 3-1, Yako No. 1-1 and Ukishima-cho No. 100 of Kawasaki-ku, Kawasaki City and the downstream water surface of Kannongawa Iriebashi. The water surface area of Tamagawa River (beyond the West of the administrative boundary border line), downstream of the line drawn 43° 30′ from the S.E. side of Tono machi Kawasaki-ku, Kawasaki City.
DOCUMENTS:
Quarantine Station
Quarantine Declaration.
Crew List.
Passenger List.
Fumigation Certificate.
Cargo Manifest.
Derat Exemption Certificate and Vaccination List.
Immigration Office
All Seamen's Books and Passports.
Declaration Inward Outward of Vessel.
Crew List.
Passenger List.
Application for shore pass.
Custom House
Last Port Clearance.
Ship's Register.
List of Tobacco.
Narcotics List.
Revolver List.
Declaration Inward Outward of Vessel.
Crew List.
List of Ship's Stores.
Cargo Manifest.
Passenger List.
List of Crew's Baggages or List of Personal Effects.
Through Cargo Manifest.
PILOTAGE: See "Yokohama".
RESTRICTIONS: Tsurumi Passage 11.70 m. (HW); Kawasaki Passage 12 m. (HW). At night except in an emergency, vessels over 500 g.t. shall not enter port between hours of sunset and sunrise unless permission previously obtained from Captain of the Port. Vessels over 500 g.t. may enter without prior notice in order avert sea disaster or other unavoidable circumstance.
Note: No vessel of more than 1,000 g.t. permitted enter through Kawasaki Passage from 0630 hrs. to 0900 hrs. No vessel of more than 1,000 g.t. permitted depart through Tsurumi Passage from 0630 hrs. to 0900 hrs.
MAX. SIZE:

Passage	*G.R.T.*	*LOA*	*Draft*	*Remark*
Kawasaki	—	up to 250 m.	12 m.	high water
	up to 50,000	—	11.7 m.	,,
Tsurumi	—	up to 225 m.	11.7 m.	,,
	over 50,000	up to 260 m.	11 m.	,,

Tankers:

Berth	*Max. d.w.t.*	*Max. LOA*	*Max. Safe Draft*
Keihin Kawasaki Sea Berth	250,000	300 m.	30.00 m.
Toa Nenryo Ohgishima Sea Berth	250,000	300 m.	26.00 m.
Toa Nenryo Ukishima Sea Berth	100,000	250 m.	16.60 m.
Toa Nenryo No. 1 Pier	68,000	250 m.	12.00 m.
General Sekiyu A-1 Pier	65,000	250 m.	12.00 m.
Mitsubishi Oil No. 1 Pier	73,000	260 m.	12.00 m.
Mitsubishi Shoji	40,000	250 m.	12.00 m.
Toa Oil No. 1 Pier	46,000	225 m.	12.00 m.
Toa Oil Main Pier	45,700	260 m.	12.00 m.

HEALTH: Available at Kawasaki (same procedure as Yokohama).
RADIO: Available at Kawasaki (same procedure as Yokohama).

VHF: VHF radio telephone station under joint control of Tokyo, Kawasaki, Yokohama and Chiba Port and Harbour Bureau. Call Sign. "Kawasaki Port Radio." This station covers all Tokyo Bay with radius 50 km. from location of transmitting antenna (Yokohama). Station keeps in touch with ships crossing in vicinity of Nojimasaki Point and is able to communicate with a ship that is a fairly long distance South of Jyogashima Island.

Channels, Class, Frequencies.

	Channel	*Class*	*Frequencies used by ship*	*Frequencies used by coast*
Calling	16	F3	156.80 MHz	156.80 MHz
Working	11	F3	156.55 MHz	156.55 MHz
	12	F3	156.60 MHz	156.60 MHz
	14	F3	156.70 MHz	156.70 MHz
	18	F3	sending 156.90 MHz receiving 161.50 MHz	sending 161.50 MHz receiving 156.90 MHz
	20	F3	sending 157.00 MHz receiving 161.60 MHz	sending 161.60 MHz receiving 157.00 MHz
	22	F3	sending 157.10 MHz receiving 161.70 MHz	sending 161.70 MHz receiving 157.10 MHz

Port official in charge of Marine Operation Section, Port and Harbour Bureau, City of Yokohama or Kawasaki or Tokyo Metropolis or Chiba Prefecture will give ships necessary instruction relating to Port Operations Services. No charge for communication in regard to Port Operations Services. (Not commercial service.)

If commercial service required, call "JBK" Tokyo on Channel 26.
TUGS: Normally join vessel at anchoring position. Ship's lines used. 35 tugs up to over 3,000 h.p. available.
STEVEDORES: Ordering of labour gangs is by 1600 hours on the previous day.
MEDICAL: Contact Agent to arrange medical attention. Agent must present Arrival Notice to Quarantine Station in advance of vessels arrival. Hospital facilities available.
TIDAL CURRENT: The littoral current running Westward along reclaimed industrial area of city is very slow and has rate of about 0.3 m. around the head of municipal wharf when tide is on the ebb.
FRESH WATER: Supplied at piers and by water barges, overtime on Sundays and legal holidays.

	Barge	*Loading Capacity (ton)*	*Remarks*
Water	Hoei Maru No. 12	350	Operated by Water Bureau of Kawasaki City
Barge	Kosie Maru	300	

GANGWAY/DECK WATCHMEN: Watchmen not necessary and not recommended.
OPENING/CLOSING HATCHES: Normally carried out by stevedores.
FUEL: All grades available.
CERTIFICATES: See "Yokohama".
CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes, Wines/spirits, 1 bottle per person.
IDENTITY CARDS: Needed to go ashore.
CONSULS: See "Yokohama".
REPAIRS: All repairs possible.
DRY DOCKS: Hitachi Dockyard.

Dock Number	*Length*	*Breadth*	*Depth*	*Capacity*
No. 1	155.5m.	25.4 m.	8.5 m.	14,200 g.r.t.
No. 2	210.0 m.	30.0 m.	11.0 m.	25,000 g.r.t.

7/

AIRPORT: Distance from airport (Narita International Airport) 230 km. Airport served by regular airlines.
TIME: GMT plus 9 hours. Permanent.
HOLIDAYS: National holidays, Sundays. National holidays January 1, 2, 3, 15; February 11; March 21; April 29; May 3, 5; September 15, 23; October 10; November 3, 23; December 28, 29, 30, 31. Cargo work cannot be arranged on following days: December 31; January 1, 2, 3.
BERTHING: Vessels of more than 1,000 g.r.t. desiring to enter First Section of Kawasaki, and Fourth Section, Yokohama Quarter, shall report ETA off Tsurumi Passage in advance to Captain of Port. When intending shift berths within First Section of Kawasaki and Fourth Section, Yokohama or to depart, the estimated time of getting under way shall also be reported in advance to Captain of Port. Report shall be made by noon of day before estimated date of entry or getting under way. Also see following "Tables".

Name	Length (m.)	Depth (m.)	Capacity	No. of Ships	Cargo Handled	Remarks
Public						
Chidoricho						
No. 1 Mooring Wharf	120	7.3	3,000	1	General Cargo	Wharf
No. 2 Mooring Pier	171	9.0	10,000	1	General Cargo	Pier
No. 3 Mooring Pier	190	10.0	15,000	1	General Cargo	Pier
No. 4 Mooring Wharf	220	10.0	15,000	1	General Cargo	Wharf
No. 5 Mooring Pier	211	10.0	15,000	1	General Cargo	Pier
No. 6 Mooring Pier	209	10.0	15,000	1	General Cargo	Pier
No. 7 Mooring Pier	180	10.0	15,000	1	General Cargo	Pier
ABC Loading Stage	309	4.5	1,000	3	General Cargo	Pier
Kojima Shinden Loading Stage	146	4.5	700	2	General Cargo	Pier
Higashi Ohgishima						
No. 1 Wharf	185	10.0	15,000	1	General Cargo	Wharf
No. 2 Wharf	185	10.0	15,000	1	General Cargo	Wharf
No. 3 Wharf	240	12.0	30,000	1	General Cargo	Wharf
No. 4 Wharf	240	12.0	30,000	1	General Cargo	Wharf
No. 5 Wharf	240	12.0	30,000	1	General Cargo	Wharf
No. 21 Wharf	130	7.5	5,000	1	General Cargo	Pier
No. 22 Wharf	130	7.5	5,000	1	General Cargo	Pier
No. 23 Wharf	130	7.5	5,000	1	General Cargo	Pier
No. 24 Wharf	130	7.5	5,000	1	General Cargo	Pier
No. 25 Wharf	130	7.5	5,000	1	General Cargo	Pier
Waste Oil Disposal Plant						
No. 5 – 6 Piers	174	6.0	2,000	2	Waste Oil	Pier
No. 3 – 4 Piers	98	5.5	500	2	Waste Oil	Pier
Commercial						
Mitsui Wharf						
Coal Wharf	378	10.0	22,000	3	Coal	Wharf
General Cargo Wharf	339	9.0	16,000	2	Cement	Wharf
General Cargo South Wharf	102	7.0	6,000	1	Iron and Steel	Wharf
Coal South Wharf	124	7.0	6,000	1	Iron and Steel	Wharf
Toyo Wharf and Warehouse						
Parallel Pier	389	12.0	20,000	2	Rice, Cereals and Beans	Pier
General Cargo Pier	268	9.5	10,000	2	Cement	Pier
Dolomite Wharf	110	5.5	1,000	1	Chemicals	Wharf
Private						
Asahi Chemical Industry						
No. 1 Pier	33	5.1	1,900	1	Chemicals	Pier
No. 2 Pier	32	5.5	2,000	1	Chemicals	Pier
No. 3 Pier	30	5.0	1,200	1	Chemicals	Pier
Idemitsu Kosan Kawasaki						
No. 1 Pier	103	10.0	20,000	1	Petroleum Products	Pier
No. 2 Pier	24	5.0	1,000	1	Petroleum Products	Pier
No. 3 Pier	17	5.0	1,000	1	Petroleum Products	Pier
Idemitsu Kosan Ukishima						
No. 1 Wharf	81	4.7	2,000	1	Heavy Oil	Wharf
No. 2 Wharf	81	4.7	2,000	1	Petroleum Products	Wharf
Kawaichi Industry Pier	28	6.0	1,500	1	Iron and Steel	Pier
Kawasaki Chemical						
Chidori Pier	122	9.0	10,000	1	Chemicals	Pier
Tank Pier	25	4.8	1,100	1	Chemicals	Pier
J.N.R. Kawasaki Pier	115	7.0	3,000	1	Machinery	Pier
Showa Gatx Pier	69	11.4	19,000	1	Chemicals	Pier
Showa-Shell Oil						
Ogimachi Terminal No. 1 – 3 Piers	32	5.5	1,500	3	Heavy Oil	Pier
Ohgishima East No. 1 Pier	100	7.5	5,000	1	Petroleum Products	Pier
Ohgishima East No. 2 Pier	90	7.5	3,000	1	Petroleum Products	Pier
Ohgishima East No. 3 Pier	60	5.0	1,000	1	Petroleum Products	Pier
Ohgimachi Refinery No. 1 – 4 Piers	82	10.5	20,000	4	Heavy Oil	Pier
Ohgimachi Refinery No. 5 Pier	40	10.0	4,000	1	Petroleum Products	Pier
Ohgimachi Rifinery No. 6 Pier	58	10.0	4,000	1	Heavy Oil	Pier
Keihin Kawasaki Sea Berth	11	30.0	250,000	1	Crude Oil	Single point mooring
Showa Denko Kawasaki Plant						
Ohgimachi No. 1 Berth	40	5.4	800	1	Petroleum Products	Pier
Ohgimachi No. 2 Berth	39	5.4	1,000	1	Chemicals	Pier
Ohgimachi No. 5 Berth	139	7.4	3,000	1	—	Wharf
Kodo Kasei Wharf	45	5.0	1,000	1	—	Pier
Kyoyu Pier	33	6.0	3,000	1	Chemicals	Pier
Showa Butsuryu Pier	89	5.5	2,000	1	Chemicals	Pier
Nippon Express No. 1 Wharf	124	6.0	1,500	1	Metaric Products	Wharf
General Sekiyu						
A-1 Pier	71	12.0	65,000	1	Crude Oil	Pier
A-2 Pier	39	6.5	6,000	1	Heavy Oil	Pier
A-3 Pier	30	8.0	2,000	1	Heavy Oil	Pier
A-4 Pier	32	9.5	3,000	1	—	Pier
B-1 Pier	29	6.5	2,000	1	Heavy Oil	Pier
B-2 Pier	25	6.5	1,000	1	Heavy Oil	Pier
Central Glass						
Tama River Base Wharf	79	5.5	1,300	1	Chemicals	Wharf
Daiichi Cement						
Cement Pier	32	10.0	1,200	1	Cement	Pier
Taio Paper						
Taio Wharf	113	5.0	700	1	Paper, Pulp	Wharf
Daikyo Oil						
Daikyo Pier	38	6.0	2,000	1	Petroleum Products	Pier
Toa Oil						
No. 1 Factory, No. 1 Pier	7	11.0	5,000	1	Petroleum Products	Pier
No. 1 Factory, No. 2 Pier	87	11.0	46,000	1	Petroleum Products	Pier
No. 1 Factory, No. 3 Pier	96	11.0	5,000	1	Petroleum Products	Pier
No. 2 Factory, No. 4 Pier	33	5.4	2,000	1	Petroleum Products	Pier
No. 2 Factory, No. 5 Pier	37	5.4	2,000	1	Petroleum Products	Pier
Toa Oil, Kyodo Oil						
Main Pier	84	12.0	45,700	1	Petroleum Products	Pier
No. 1 Wharf	18	6.0	1,500	1	Heavy Oil	Wharf
No. 2 Wharf	14	6.0	1,250	1	Petroleum Products	Wharf
No. 3 Wharf	18	6.0	2,800	1	Heavy Oil	Wharf

Name	Length (m.)	Depth (m.)	Capacity	No. of Ships	Cargo Handled	Remarks
Toa Nenryo Kogyo						
No. 41 Pier	31	7.3	2,000	1	Heavy Oil	Pier
No. 42 Pier	47	7.3	5,000	1	Petroleum Products	Pier
No. 43 Pier	37	6.0	2,000	1	Heavy Oil	Pier
No. 44 Pier	47	7.3	5,000	1	Heavy Oil	Pier
No. 45 Pier	30	5.0	1,000	1	Petroleum Products	Pier
No. 46 Pier	25	4.7	500	1	Petroleum Products	Pier
No. 1 Pier	89	12.0	68,000	1	Petroleum Products	Pier
No. 2 Pier	36	6.5	2,000	1	Petroleum Products	Pier
No. 3 Pier	36	6.5	2,000	1	Petroleum Products	Pier
No. 4 Pier	34	6.0	1,500	1	Petroleum Products	Pier
No. 5 Pier	32	6.0	1,000	1	Petroleum Products	Pier
No. 6 Pier	55	4.5	300	1	Petroleum Products	Pier
No. 7 Pier	55	4.5	500	1	Petroleum Products	Pier
Tonen Ukishima Sea Berth	409	16.6	100,000	1	Crude Oil	Pier
Tonen Ohgishima Sea Berth	510	26.0	250,000	1	Crude Oil	Pier
Ohgishima Oil Bunkering Pier	23	26.0	2,000	1	Heavy Oil	Pier
Ohgishima Water Bunkering Pier	23	26.0	1,000	1	Water	Pier
Higashi Ohgishima Oil Terminal						
No. 1 Pier	145	8.2	5,000	1	Heavy Oil	Pier
No. 2 Pier	122	7.5	3,000	1	Heavy Oil	Pier
No. 3 Pier	113	9.2	1,000	1	Heavy Oil	Pier
Tokyo Electric Power						
Kawasaki Naphtha Pier	319	8.0	5,000	1	Petroleum Products	Pier
Kawasaki No. 1 Heavy Oil Pier	34	4.5	500	1	Petroleum Products	Pier
Kawasaki No. 2 Heavy Oil Pier	34	4.5	500	1	Petroleum Products	Pier
Tsurumi No. 1 Coal Pier	79	8.0	3,000	1	—	Pier
Tsurumi No. 2 Coal Pier	108	9.0	10,000	1	—	Pier
Tsurumi Heavy Oil A Pier	53	7.0	1,000	1	—	Pier
Tsurumi Heavy Oil B Pier	37	7.0	3,000	1	—	Pier
Tsurumi Light Oil Pier	30	9.0	500	1	—	Pier
Ohgishima LNG Berth	467	18.0	65,000	1	LNG	Pier
Ohgishima Oil Bunkering Berth	164	18.0	3,500	1	Heavy Oil	Pier
Toshiba Hamakawasaki Plant Pier	31	6.0	2,000	1	Machinery	Pier
Tonen Petrochemical Chidori Pier	23	6.0	3,000	1	Heavy Oil	Pier
Toray Industries Ukishima No. 6 Pier	29	6.0	2,000	1	Chemicals	Pier
Nissho Iwai						
No. 1 Pier	103	12.0	60,000	1	Heavy Oil	Pier
No. 2 Pier	38	5.6	2,000	1	Heavy Oil	Pier
Nisshin Unyu Soko Kawasaki Pier	60	5.0	1,300	1	Chemicals	Pier
Nisshin Flour Milling Wharf	223	12.0	50,000	1	Wheat	Pier
Nichimo Oil Refinery No. 1 Pier	209	12.0	5,000	1	Heavy Oil	Pier
Nippon Car Ferry						
A Pier	195	7.5	10,000	1	Transportation Machinery	Pier
B Pier	195	7.0	6,000	1	Transportation Machinery	Pier
Nippon Kokan						
Ohgishima Raw Material Berth A	360	22.0	200,000	1	Iron Ore	Pier
Ohgishima Raw Material Berth B	240	18.0	100,000	1	Coal	Pier
Ohgishima Raw Material Berth C	170	7.5	5,000	1	Coke	Pier
Ohgishima North Honsen Wharf	320	13.5	68,000	1	Iron and Steel	Wharf
Ohgishima Fuel Berth A	45	6.0	3,000	1	Chemicals	Pier
Ohgishima Fuel Berth B	43	9.0	700	1	—	Pier
Ohgishima North Berth A	60	7.0	3,000	1	—	Pier
Ohgishima North Berth B	60	7.7	3,000	1	Gravel, Sand, Stone	Pier
Ohgishima North Berth C	60	5.0	3,000	1	—	Pier
Ohshima East Wharf	292	9.0	16,000	3	Iron and Steel	Wharf
Shiraishi Goods Wharf	198	6.0	2,000	1	Iron and Steel	Wharf
Nippon Oxygen Wharf	191	5.0	1,000	1	Machinery	Wharf
Nihon Seiyu Pier	29	5.1	1,000	1	—	Pier
Nippon Petrochemicals						
Ukishima No. 2 Pier	28	5.0	1,300	1	Chemicals	Pier
Ukishima No. 4 Pier	29	5.0	1,300	1	Petroleum Products	Pier
Ukishima No. 5 Pier	27	6.0	1,500	1	Petroleum Products	Pier
Ukishima No. 7 Pier	23	6.0	1,300	1	Heavy Oil	Pier
Ukishima No. 10 Pier	29	6.0	2,000	1	Petroleum Products	Pier
Kawasaki Chidori Pier	68	7.0	3,000	1	Heavy Oil	Pier
Nippon Petroleum Gas						
Main Pier	88	12.0	62,000	1	Petroleum Products	Pier
No. 3 Pier	28	6.0	1,300	1	Petroleum Products	Pier
Nippon Cement Pier	115	8.0	7,000	1	Cement	Pier
Hitachi Shipbuilding Wharf	466	6.0	26,000	4	Ship Repair	Wharf
Fujiei Industry Pier	28	6.0	1,000	1	Iron Ore	Pier
Liquefied Gas Terminal						
No. 1 Pier	80	10.7	50,000	1	Petroleum Products	Pier
No. 2 Pier	17	10.7	1,000	1	—	Pier
Mitsubishi Shoji						
Berth A – B	91	12.0	40,000	1	Chemicals	Pier
Mitsubishi Oil						
Ohgimachi No. 1 Pier	106	12.0	73,000	1	Crude Oil	Pier
Ohgimachi No. 2 Pier	99	6.0	3,000	1	Petroleum Products	Pier
Ohgimachi No. 4 Pier	80	5.0	1,000	1	Heavy Oil	Pier
Ohgishima No. 5 Pier	100	7.5	5,000	1	Petroleum Products	Pier
Ohgishima No. 6 Pier	100	7.5	5,000	1	Petroleum Products	Pier
Ohgimachi Wharf	70	4.5	500	1	Heavy Oil	Wharf
Ryosei Industry						
Ryosei Pier	30	5.6	2,000	1	Chemicals	Pier

TANKERS:

Berth	*Product*	*Shorelines*	*Discharge Rate t.p.h.*
Keihin Kawasaki Sea Berth	Crude Oil	20 in.×2	10,000 (max.) or manifold pressure 7 bar
Toa Nenryo Ohgishima Sea Berth	Crude Oil	16 in.×4	13,500
Toa Nenryo Pier	Fuel Oil	12 in.×2	5,000
Toa Nenryo Ukishima Sea Berth	Crude Oil	12 in.×3	5,000
Toa Oil No. 3 Factory	Crude Oil	12 in.×3	1,400
Toa Oil No. Pier	Crude Oil	10 in.×2	1,670
General Sekiyu Seisei	Crude/Fuel	12 in.×2	3,000
Mitsubishi Oil	Crude Oil	12 in.×2	4,000
	Fuel Oil	8 in.×1	1,500
Mitsubishi Shoji	Fuel Oil	8 in.×2	800
Nissho Iwai	Fuel Oil (C)	12 in.×1	1,000
	Fuel Oil (A)	10 in.×1	800

Nissho Co. Ltd., Kawasaki Terminal: This facility is located on the Western side of the Daishi Channel about 1,200 m. from the Northern entrance of the outer breakwater. It consists of a berth designed to accommodate tankers up to about 60,000 d.w.t. in the light loaded condition.

The berth consists of an "L" shaped jetty with a roadway and a pipe trestle 20 m. long. It is provided with 2 breasting dolphins which are connected to the platform by trestles. 2 bollards are installed on the dolphins. Other bollards are installed ashore along the face of the quay.

No capstans are provided and so it is difficult to send heavy wires ashore. Therefore, it is advisable to have a number of synthetic ropes readily available.

The back springs which are made fast to the bollards located on the dolphins, have a very short lead and are at a steep angle.

The 2 dolphins are provided with resilient buffer fender systems having hollow rubber tubes. No sonar doppler is provided.

The normal mooring configuration is:

3 head lines,
2 breast lines forward,
2 back springs forward,
2 back springs aft,
2 breast lines aft,
3 stern lines.

The terminal does not use hard arms. Rubber hoses are used, generally consisting of a string of 3 lengths of 10 in. JLS flanges, connected with bolts and nuts.

The vessel's derrick must be used for handling the hoses.

High pour fuels are generally handled at this terminal but vessel's assistance is no longer required at the end of each discharge for flushing the hoses and shore lines. The terminal now flushes back into the ship the line's contents.

No gangway is provided.

Bunkers and fresh water are not available at this berth.

Berth A-1: Berth A-1 is designed to accommodate tankers up to about 65,000 d.w.t. in light loaded condition. The berth consists of a T-shaped jetty with a roadway and pipe trestle 40 m. long, and is provided with 2 breasting dolphins positioned at a distance of 80 m. and connected to the platform by trestle. The dolphins are provided with small bollards which are seldom used for ship's lines. Usually the lines, including the springs are run ashore to bollards having adequate strength.

There are no capstans for pulling the lines ashore and some difficulties may be experienced, particularly when handling heavy wires. It is advisable to have ready a certain number of synthetic ropes.

2 smaller berths are located in the inner side of the jetty face. These berths are left vacant when a tanker is alongside Berth A-1. The structure on these berths may interfere with the vessel's mooring arrangement and may create difficulties when sending the vessel's lines ashore.

The dolphins are provided with rubber cell fenders (diamond shaped). Sliding along the dolphins should be avoided so as not to damage the rubber fenders.

The berth is provided with a sonar doppler to monitor the berthing speed. The pilot is advised by walkie-talkie if the berthing velocity exceeds the safety limit.

The normal mooring configuration is:

3 head lines,
2 breast lines forward,
2 back springs forward,
2 back springs aft,
2 breast lines aft,
3 stern lines.

3 hard arms are installed on the platform. 2×12 in. diameter are used for discharging crude and fuels and 1×12 in. is used for the discharge of LPG liquid. No LPG vapour return line is installed on the jetty. Arms are connected by means of nuts and bolts. The flanges are ASA 150 p.s.i. for bunker fuel, the others for lubricating oil. Bunker can be supplied simultaneously with vessel discharge operations.

Esso controlled tonnage generally discharges fuel and diesels oils at Berth A-1. High pour fuels are also handled at this berth and the terminal may require vessel's assistance for flushing the arms and the lines after each discharge. No slop or deballasting facilities are provided.

A heavy and bulky gangway is provided which has to be lifted by the vessel's derrick.

The hooks on the end of the gangway are narrow and cannot grip the ship's sheer strake so have to be laid on the ship's handrail. On several occasions, vessel's handrails have been damaged by the gangway hooks. Fresh water is available at this berth through a 2.5 in. outlet.

POLICE/FIRE/AMBULANCE: Police Kawasaki 266-9161; Ambulance and Fire Kawasaki 299-0119.

TELEPHONES: Connection to ship. Charge for use.

SERVICES: Tank-cleaning. Compass adjusting. Direction Finder calibration.

SHORE LEAVE: Crew members allowed ashore after being issued with shore passes.

DELAYS: Awaiting favourable tide. Delay of Quarantine inspection.

SHIPMASTER'S REPORT: *The Tonen Ohgishima Sea Berth:*

1. Suggest Mikimoto Lighthouse used for end of passage as from there inwards to Uraga Channel (58 miles) heavy concentrations of traffic frequently experienced.
2. Entry to Uraga Channel for VLCC's permitted only during daylight (i.e. sunrise to sunset).
3. Pilot boards in vicinity Uraga No. 1 Buoy from 1 of the 2 tugs which escort the vessel to Yokohama/ Kawasaki and requires fire fighting tug standing by at Uraga Buoys Nos. 1–6.
4. Deep draft signal to be displayed including the red flashing light and Code "First Substitute over Flag 'B'" and 2 black cylindrical shapes (0.6 m. × 1.2 m.) placed vertically (refer Maritime Traffic Safety Law).
5. ETAs (No. 1 Buoy Uraga) should be updated as promptly as possible. Considerable importance attached to the vessel's arrival/ sailing time by Tokyo Wan Traffic Advisory Service Centre (TWTASC).
6. Vessel must anchor at Kawasaki Anchorage where Port Health boards (pilot hoist used).
7. Berthing/Unberthing Ohgishima Sea – berth during daylight only (sunrise to sunset).
8. Berthing pilots (2) embark at Quarantine Anchorage, 6 tugs all using nylon tow ropes with eye on bitts. Always port side alongside. Refer mooring diagram for details. No additional mooring ropes available on loan or hire from berth. Shore gangway, Chiksan arms 4×16 in. connections.
9. A spill boom completely surrounds the vessel on the berth. A comprehensive book (in English) of the Terminal Regulations placed on board on arrival. Tonen Company require a tape recording concerning oil pollution to be broadcast throughout the vessel's p/a system before cargo discharge commences.
10. Ullaging is witnessed by Oil Co. representative. Samples taken from all tanks necessitating the opening of tank hatches. All tanks dipped after discharging completed.
11. The loading of stores, provisions, etc. (either by crane or derrick) is not permitted on this berth. No restrictions on items being *carried* on board via the gangway, e.g. laundry. Necessary to anchor after discharging/ballasting to take on stores.
12. During severe weather conditions tug assistance was requested to stand by the vessel on the berth. Tugs cannot approach unless the spill boom is removed and this will only be removed if cargo discharge ceases and Chiksan arms disconnected.
13. A shore liberty boat was arranged through Agent. This service is to Yokohama, approx. 1 hour journey. A boat service to nearby Kawasaki is permitted and take 40 minutes. All boat services suspended when weather deteriorates. Shore passes issued by Immigration Authorities on board and must be collected in before vessel leaves berth.

AUTHORITY: Port & Harbour Bureau of Kawasaki City, Miyamoto-cho, Kawasaki-ku, Kawasaki City, 210 Japan. *Tel:* 044 (200) 2111. *Contact:* Choshun Kikuchi, Director.

AGENT: See "Yokohama".

KIIRE: 31.23 N. 130.32 E. (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
5 Crew Lists including Passport Numbers.
5 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in Transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: No particular regulations for navigating in Kagoshima Bay. Suggest enter Bay on course close to Osumi Peninsula. 3 Light Beacons South of oil piers for ships approaching and manoeuvring. Bay Pilots not provided but Mooring Master provided for assistance to Master for berthing without charge. No VHF available for ship-shore communication.

ANCHORAGES: Anchorage area ranges in depth from 30 m. to 60 m. Holding ground in these areas only fair; recommended vessels lie to long scope of chain. Locally tide rise approximately 3 m. in springs and 1.5 m. neaps. Maximum tide currents Northerly 0.32 knots, Southerly 0.47 knots. Ample anchorage and manoeuvring area N.E. of terminal.

Since the holding ground in Kagoshima Bay is not very good, most vessels prefer to proceed to the open sea, outside the bay, if a typhoon is predicted to pass nearby.

RESTRICTIONS: Night entry and departure permitted subject to weather conditions. However, Harbour Master will not permit vessels loaded with oil cargoes to berth between sunset and sunrise.

MAX. SIZE:

Berth	*Max. Draft* (m.)	*D.W.T.* (tons)
1	16.2	33,000–150,000
2	16.2	33,000–150,000
3	25.2	33,000–450,000
4	30.6	up to 500,000

HEALTH: Radio Pratique available. Quarantine Officers board the vessel either at the Quarantine Anchorage or at the pier, depending on availability of berth.
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel to contact Choshi and Northbound to contact Nagasaki Radio respectively.
TUGS: Mooring and unmooring assistance provided by 4×3,200 h.p. tugs.
BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.
MEDICAL: Advance notice required if arriving at weekend.
TANKERS: (Crude oil only).

Berth No.	*Max. LOA*	*Connections*	*Discharge Rate*
1	300 m.	4×12 in.	10,000 k/l (loading/unloading)
2	300 m.	4×12 in.	10,000 k/l (loading/unloading)
3	400 m.	6×16 in.	27,600 k/l (unloading)
			12,000 k/l (loading)
4	450 m.	2×16 in.	9,200 k/l (loading/unloading)
		3×24 in.	30,000 k/l (unloading)
			12,000 k/l (loading)

Berthing Procedures and Mooring: The counter current in the bay is anti-clockwise and in the berthing area runs in a S.E. to South-Southeasterly direction, parallel to the berthing face of the berths, at a rate of about 0.5 knots. As a result, vessels always berth port side to.

The normal berthing procedure is to bring the vessel to a stop at a position about 150 m. off the berth, parallel to berthing face, and then to warp her alongside with tug assistance.

Since all berths are surrounded by submersible oil booms, anchors cannot be used when close to the berths.

Berth No. 4 has been designed to permit safe berthing of a 500,000 d.w.t. tanker with a berthing velocity of 20 cm./sec., but normally the berthing velocity is less than 10 cm./sec.

The sequence of bringing out mooring lines depends on tide and wind direction, but normally spring lines first (heaving lines first) and then the other lines (direct in the launch). 2 mooring launches attend (115 h.p. and 165 h.p.)

The usual mooring configuration at Berth No. 4 is forward: 4 headlines, 3 breast lines, 3 spring lines; aft: 4 stern lines, 3 breast lines, 3 spring lines. (A total of 20 lines). During the Winter Northwesterly storm periods, it is usual to add forward and aft each one breast line and one spring line, making a total of 24 lines. At Berth No. 3 under normal conditions, 14 lines are used and in Winter, 18 lines. During the Winter Northwesterly storm periods moorings at Berth No. 3 moorings are same as Berth No. 4.

Tension winches must be set to manual operation and the brakes must be securely applied.

All mooring lines will be inspected by the terminal prior to commencing cargo operations and they have to be in good condition. Also, regular inspections of moorings are carried out during the cargo operations.
DENSITY: 1025.
FRESH WATER: Water obtainable at berth on oil piers at rate of 40 t.p.h.
FUEL: Domestic oil is available from Kagoshima and bonded oil will be lightered from Moji area, when required.
FIRE PRECAUTIONS: Very strict Safety Regulations.

Disregard of regulations will result in stopping all loading or unloading operations and the vessel being ordered off berth for appropriate action to be taken.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
CONSULS: None.
REPAIRS: Available Moji, Sasebo and Nagasaki.
DRY DOCKS: None.
REPATRIATION: Possible.
AIRPORT: Distance from airport about 2 hours by car. ANA, JAL and JAS (TDA) airlines serve daily.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Police station Tel: 110; Fire brigade station is located at terminal and Ambulance available at that station.
TELEPHONE: Telephone placed on board at Terminal free of charge for inter-office communication.
SERVICES: All services available.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.
AUTHORITY: Ibusuki Doboku (Public Works) Office, 301, 12-cho, Takanohara, Ibusuki City, Kagoshima Pref. *Tel:* (09932) 2-2171.
Nippon Oil Staging Terminal Co., Ltd.
AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Tokyo Tanker Marine Service Co. Ltd. 2856-5, Uenohama Aza Nakamyo, Kiire-cho, Ibusuki-gun, Kagoshima-ken. Cable Address: Tankmarine Kiire. Domestic Telex: 7867-22 Tel: (09934) 5-0171. Fax: (09934) 5-1143.

KIKUMA: 34.03 N. 132.51 E. (See Plan)

LOCATION: ~~Sea Berth: Lat. 34° 03′ 34.2″ N., Long. 132° 51′ 52″ E.~~
Dolphin Berth: Lat. 34° 03′ 0.8″ N., Long. 132° 51′ 21″ E.
DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.
PILOTAGE: Inland Sea Pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from 1 of 3 pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours' and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.
Note: VHF communication available with Inland Sea pilot stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits) Position: Lat. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse. (Vessels transitting Bungo Channel). Position: Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki Pilot Station.

3. Mesaki, at East side of Kanmon (Shimonoseki) Straits. Position: Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.

ANCHORAGE: Lat. 34° 03′ N., Long. 132° 51′ E. Water depth: 15 – 30 m. Anchorage located about 350 m. off beach. Holding ground good and Port faces Iyo-Nada and located Bungo Channel. Current at berth and off shore very strong. During Winter months strong N.W. wind prevails.
RESTRICTIONS: Mooring and unmooring daytime only and to be carried out on flood tide.
MAX. SIZE: See "Tankers".
HEALTH: Closed port. Vessels should obtain Pratique at Matsuyama and Sekisaki, also Radio Pratique available in this port.
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically West bound vessel to contact Choshi and North bound to contact Nagasaki Radio respectively.
TUGS: Join vessel at sea anchorage, always using tugs line without charge. 2 to 4 tugs are required for berthing, depending on size of vessel. 3 tugs are normally used for unberthing.
BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.
MEDICAL: No advance notice required unless urgent.
TANKERS: *Taiyo Oil Co. Terminal.* 2 tanker berths available.

Berth	*Max. d.w.t.*	*Max. LOA (m.)*	*Max. Safe Draft (m.)*	*Type Cargo & diameter/Number of shore pipes*	*Dis-charge rate t.p.h.*
Dolphin Berth	88,450	237	16	Crude oil 24 in.×1(12 in.×2)	4,500
				Motor Gasoline 18 in.×1(10 in.×1)	1,100
				Kerosene 12 in.×1 (12 in.×1)	600
				Diesel Gas Oil 24 in.×1 (12 in.×2) ,	1,600

DENSITY: Anchorage 1015. Berth 1015.
FRESH WATER: Fresh water not available but usually brought by barge from Onomichi (about 6 hours run to Kikuma). Rate of delivery 80 tons to 200 t.p.h. dependent on barge.
FUEL: Can only be supplied by barge from Hanshin and Kanmon area, provided 5 days notice is given. All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from nearest bunker stock ports at maximum 7 days prior notice.
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
CONSULS: No consuls. The nearest Consulates in Kobe.
REPAIRS: Only minor repairs.
REPATRIATION: Possible. Nearest Immigration Office situated at Matsuyama.
AIRPORT: Nearest Matsuyama, distance 50 km.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Police 110; Ambulance 119; Fire 119.
TELEPHONES: No facilities for placing telephones on board.
SERVICES: See "Kobe".
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days extension possible if ship stays longer.
GENERAL: As this port is a closed port, the undermentioned procedures required: In conformity with regulations vessel required to obtain special permission to enter from Shikoku Maritime Bureau.

Customs request vessel call at Kikuma to obtain special permission for entering at preceding port, by paying the charge at the same rate of tonnage dues.

Prior to arrival of a vessel, the above procedures will be undertaken by Agent.

No quarantine available, the nearest quarantine station is located at Matsuyama.

No Immigration Office at this port (coming from Matsuyama).
AUTHORITY: Taiyo Oil Company Ltd., Kikuma Refinery, Tane 4070-2, Kikuma-Cho, Ochi-Gun, Ehime-Prefecture, Japan. *Tel:* 0898-54-2500. *Telex:* 5845-542. *FAX:* 0898-54-4156. *Contact:* Production Department, Oil Handling Section.
AGENT: See "Niihama".

KINUURA: 34.50 N. 136.56 E. (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: When Pilot required, cable Agent at least day before arrival with ETA. Pilot station located Lat. 34° 40′ N., Long. 136° 58′ E. If ETA changes, cable "Handakoun Handa Aichi" who pass messages to Pilot. Vessels anchor to await Pilot at above position. VHF communication available.

Also see "Nagoya" – Pilotage: "Shipmaster's Report".

ANCHORAGE: Kinuura Anchorage located in position Lat. 34° 49′ N., Long. 136° 57′ E. Depth of anchorage: Outside high tide bank about 38 ft. – 39 ft., inside high tide bank about 32 ft. – 33 ft.

RESTRICTIONS: Entry restricted only by draft; no other restrictions.

Channel Depths:

Channel	*Depth* (m.)
Entrance Channel	9.0 – 12.0
Taketoyo Channel	4.5
Sekitan Channel	10.0
Nishifuto Channel	5.5
Handa Channel	3.5
Shinkawa Channel	4.5
Takahawa Channel	7.5
Minami Channel	4.0

MAX. SIZE: Depth at Central Wharf (West) 12.0 m. (Public Berths), Naka Nihon Grain Centre 12.0 m., Shell Oil 12.0 m., all other berths 10.0 m.

HEALTH: At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Name	*Type*	*Length* (m.)	*Depth* (m.)	*Capacity* (d.w.t.)	*No.*
Taketoyo Area					
Chuden Quay	Private	350	12.0	30,000	1
Chuden Quay	Private	184	7.5	5,000	1
Asahi Glass Quay	Private	218	5.5	2,000	4
Nippon Kagaku Quay	Private	116	11.5	15,000	1
Nakayama Jetty	Private	50	5.5	1,000	1
Nakayama No.1 Quay	Private	108	4.5	700	1
Nakayama No.2 Quay	Private	250	6.0	3,000	2
Tokai Carbon Jetty	Private	5.4	4.5	700	1
Nippon Lubrizoil Jetty	Private	21	4.5	700	1
Kawatetsu No.1 Quay	Private	500	6.0	3,000	4
Kawatetsu No.2 Quay	Private	550	12.0	40,000	2
Taketoyo Quay	Public	180	4.5	700	3
Taketoyo North Quay (Coal)	Public	255	7.5	5,000	2
Handa Area					
Chuo Wharf W. No.1 Quay	Public	360	5.5	2,000	4
Chuo Wharf W. No.2 Quay	Public	520	7.5	5,000	4
Chuo Wharf W. No.3 Quay	Public	185	10.0	15,000	1
Chuo Wharf W. No.4 Quay	Public	185	10.0	15,000	1
Chuo Wharf W. No.5 Quay	Public	240	12.0	30,000	1
Chuo Wharf W. No.6 Quay	Public	240	12.0	30,000	1
Chuo Wharf W. No.11 Quay	Public	300	4.0	500	6
Kamesaki Pier Quay	Public	555	10.0	15,000	3
Chuo Wharf W. Mooring Buoys (2)	Public	—	10.0	10,000	1
Dau Jetty	Private	210	9.0	10,000	1
Takahama Area					
Takahama No.1 Quay	Public	180	4.5	700	3
Takahama No.2 Quay	Public	130	7.5	5,000	1
Asai Jetty	Public	21	5.0	1,000	1
Hekinan Area					
Chuo Wharf E. No. 1 Quay	Public	630	5.5	2,000	7
Chuo Wharf E. No. 2 Quay	Public	130	7.5	5,000	1
Chuo Wharf E. No. 3 Quay	Public	185	10.0	15,000	1
Chuo Wharf E. No. 4 Quay	Public	240	12.0	30,000	1
Toyota Quay	Private	300	6.5	3,000	3
C. Itoh Quay	Private	195	12.0	40,000	1
Nakanihon Grain Quay	Private	162	12.0	40,000	1
Nichikinko Quay	Private	12	5.5	2,000	2
Keizairen Quay	Private	100	10.0	500	2
Ishibashi Quay	Private	50	10.0	500	1
Mazada Quay	Private	70	5.5	2,000	1
Onoda Quay	Private	52	8.0	6,000	1
Shell Quay (LPG)	Private	224	12.0	45,000	1
Shell Quay	Private	72	5.5	1,500	1
Shell Quay	Private	65	5.5	1,000	1
Shinkawa No.1 Quay	Public	100	4.5	700	2
Shinkawa No.2 Quay	Public	150	4.0	500	3

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi and Northbound to contact Nagasaki Radio respectively.

VHF: Mikawawan Port Radio on Channels 16, 11 and 12. Irago Pilot on Channel 13.

TUGS: No tug required when vessels enter anchorage, only alongside wharves.

Tugs – "Kawana Maru" 3,200 h.p. "Kinuura" 3,200 h.p., "Yahagi" 1,460 h.p. and "Kouhachi Maru" 1,500 h.p.

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost.

MEDICAL: No advance notice required unless urgent.

DENSITY: About 1023–1027.

FRESH WATER: Available, but only 1 water barge – capacity 75 tons. When vessels alongside Public Wharves, water can be taken from shore. Delivery rate: 75 t.p.h. but if more than 75 tons required barge returns to shore to load, therefore trip takes about 3 hours.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days' prior notice.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

DEVELOPMENTS:

(1) Public Wharves Plan:

Area Name	*Plan*	*Remarks*
Chuo Wharf West	15,000 D/W class. Depth 10 m. 2 berths 370 m. long. 5,000 D/W class. Depth 7.5 m. 4 berths 520 m. long. 2,000 D/W class. Depth 5.5 m. 2 berths 180 m. long.	Land for quays 105 ha. 89 ha. completed.
Taketoyo North Quay	30,000 D/W class. Depth 12 m. 1 berth 240 m. long. 15,000 D/W class. Depth 10 m. 1 berth 185 m. long. 5,000 D/W class. Depth 7.5 m. 1 berth 130 m. long.	Land for quays 10 ha. in progress. 4 ha. completed.
Taketoyo Quay	700 D/W class. Depth 4.5 m. 6 berths 360 m. long.	Land for quays 8 ha. 6 ha. completed.
Plot 14	5,000 D/W class. Depth 7.5 m. 2 berths 260 m. long.	Land for quays 6 ha.
Plot 18	(as for Plot 14).	

(2) Timber Handling Facilities Plan:

Place Name	*Plan*	*Remarks*
Kamesaki Quay	30,000 D/W class. Depth 12 m. 1 berth 240 m. long. 15,000 D/W class. Depth 10 m. 3 berths 555 m. long.	Land for quays 26 ha. 25 ha. under construction.

(3) Basin Facilities Plan:

Area	*Place Name*	*Plan*	*Remarks*
Channels	Chuo Channel	Depth 12 m. width 400 m.– 600 m. for 30,000 D/W class ships.	
	Nishio Isshiki Channel	Depth 7.5 m. width 200 m. for 5,000 D/W class ships	
	Chuo Quay N. Port	Depth 12 m. area 214 ha.	54 ha. completed.
	Chuo Quay	Depth 12 m. area 184 ha.	133 ha. completed.
	Chuo Quay W.	Depth 5.5 m. – 10 m. area 46 ha.	
	Taketoyo N. Quay	Depth 6 m. – 12 m. area 100 ha.	3 ha. completed.
	Taketoyo Quay	Depth 4.5 m. area 4 ha.	
Anchorages	No. 1 & 3 plots	Depth 12 m. area 258 ha.	35 ha. completed.
	No. 2 plot	Depth 12 m. area 141 ha.	55 ha. completed.
	No. 14 & 18 plots	Depth 7.5 m. area 34 ha.	

(4) Outer Wall Facilities Plan:

Place Name	*Plan*
No. 14 plot	Nishio Breakwater, length 200 m.
No. 18 plot	Isshiki Breakwater, length 200 m.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: None.

REPAIRS: None.

AIRPORT: None.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

HOLIDAYS: 20th July.

POLICE/AMBULANCE/FIRE: Police 110; Ambulance/Fire 119.

TELEPHONES: No telephones available to place on board.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days extension possible if ship stays longer.

AUTHORITY: Kinuura Port Office, 1-1, 11-Gochi, Handa-shi, Japan. *Tel:* (0569) 21-2451.

AGENT: Dodwell & Co., (Dry Cargo): Handa Koun Kabushiki Kaisha, 1-4, 11 Go-chi, Handa-shi, Aichi-ken. Cable Address: Handakoun Handa. Telex: 04563626 H Koun J. Tel: (0569) 23-2301.

KIN WAN (Okinawa): 26.22 N. 127.58 E. (See Plan)

DOCUMENTS:

Customs:

Required upon vessel's arrival by:
Customs Officer: Okinawa Customs Branch, Henza Sub-Branch Office.
Location: 2972 Aza Henza Yonashiro-Son, Okinawa (Tel: 09897-7-8558).

1. When ship arrives direct from foreign port, Customs Officer will board vessel for search. Following documents to be submitted.

Crew List and Passenger List.
Stores List (please prepare Stores List stating ship's stores).
Manifest of crew personal effects.
(Please prepare manifest of crew personal effects list duly signed by each).
Parcel List.
Arms and Ammunition List.
Narcotics List.
Seal List.
List of ports of call on current voyage.
Ship's Registry.
Last Port Clearance.
Bill of Lading.

Ship's Agent will prepare Inward Declaration, one Cargo Manifest, Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

2. When ship comes from Japanese port, Customs Officer will not attend on board except special case. Agent to attend Customs House for entry formalities with following documents.

Crew List and Passenger List.
Stores List.
List of ports of call on current voyage.
(Last Port Clearance and Documents entrusted with the Master by Customs at previous port).

Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

Immigration:

Required upon vessel's arrival by:
Immigration: Naha Immigration Kinwan Sub-Branch Office.
Location: 2628-2 Ishikawa City, Okinawa (Tel: 09896-4-2858).

1. When ship arrives direct from foreign port, Immigration Officer will board vessel for check. Following documents to be submitted.

Crew List. . . . . 2 copies
Passenger List. . . . . 2 copies

Please collect the crew Seaman's Book in order such as No. 1, No. 2 . . . till the end as per Crew List stated.

Please collect the passports in order such as No. 1, No. 2 . . . till the end as per Passenger List stated.

Ship's Agent will prepare Inward Vessel Declaration, one application for shore pass, one application for extension of the area of movement using specific forms.

2. When ship comes from Japanese port, Immigration Officer will not attend on board, except special cases. Agent to attend Immigration Office for entry formalities with following documents.

Crew List. . . . . 2 copies
Passenger List. . . . . 2 copies
Seamens' Books
Passports

Documents (Shore Passes) entrusted with the Master by Immigration at previous port. Ship's Agent will prepare Inward Declaration, one application for Shore Pass, one application for Extension of the Area of Movement using specific forms.

APPROACHES: See "Berthing" – Report dated 1983.

PILOTAGE: Also see "Approaches".

Berthing Masters will normally board from a tug having a blue hull and cream upperworks, with a tall mast bearing a number (1, 2, 3 or 4). Since the tugs have a fairly high freeboard, pilot ladders should be rigged with the bottom step about 6 ft. (2 m.) above the water level, otherwise the lower steps may be crushed or damaged. Vessels with a freeboard exceeding 30 ft. are requested to rig the pilot ladder in conjunction with an accommodation ladder in the approved manner.

Masters of calling vessels are reminded of their obligation to comply with statutory rules and are requested to comply with International recommendations concerning pilot ladders. If the ladder is not safe, the Berthing Master may refuse to board and thus cause unnecessary delay to the ship.

ANCHORAGES: Recommended anchorages: Also see "Berthing" – Report dated 1983.

For mammoths in order of arrival:
K1: Lat. 26° 24′ 00″ N., Long. 127° 57′ 48″ E.
K2: Lat. 26° 23′ 30″ N., Long. 127° 57′ 12″ E.
KE: Lat. 26° 25′ 00″ N., Long. 127° 58′ 10″ E.
(Subject Japanese Coastguard M.S.A. approval is obtained by Agent.)
For vessels 50,000 d.w.t. – 150,000 d.w.t.
KS: Lat. 26° 23′ 06″ N., Long. 127° 56′ 43″ E.
S1: Lat. 26° 22′ 30″ N., Long. 127° 56′ 48″ E.
S2: Lat. 26° 22′ 00″ N., Long. 127° 56′ 48″ E.

Products anchorage: The area bounded by a line joining the following positions:

1. Lat. 26° 22′ 00″ N., Long. 127° 56′ 29″ E.
2. Lat. 26° 22′ 13″ N., Long. 127° 56′ 33″ E.
3. Lat. 26° 22′ 00″ N., Long. 127° 57′ 19″ E.
4. Lat. 26° 21′ 51″ N., Long. 127° 57′ 05″ E.

The holding ground is good in anchorages, but depths in the first groups between 22 and 25 fathoms; it is therefore recommended that at least 1 shackle of chain be walked back on the windlass before letting go the anchor.

Depths in the product anchorage vary between 10 and 14 fathoms.

Prohibited Anchorage: Owing to the existence of underwater pipe-lines, telephone cables and obstructions, anchoring is prohibited anywhere S.E. of a line joining the following 2 positions:

1. Lat. 26° 22′ 31″ N., Long. 127° 58′ 08″ E. (i.e. the N.E. dolphin of the Sea Island)
2. Lat. 26° 21′ 37″ N., Long. 127° 56′ 44″ E. (i.e. the N.E. dolphin of No. 3 Berth on the Products Pier)

For berthing, Masters of vessels are requested to have the propeller submerged and vessel in a reasonable trim for ship-handling purposes (not exceeding 3.5 m.).

RESTRICTIONS: Berthing operation is permitted during daylight only. Unberthing operations take place throughout 24 hours.

There are no specific restrictions on draft, but in order to ensure safe handling characteristics it is recommended that vessels arriving in ballast arrange that the propeller is fully submerged, with a stern trim not exceeding about 10 ft. Vessels which do not meet this requirement may be delayed in berthing until additional ballast has been run in.

MAX. SIZE: 5 berths are available for calling tankers. No. 1 Berth can accommodate vessels up to 500,000 d.w.t., and No. 2 Berth vessels up to 150,000 d.w.t. These 2 berths are situated at the offshore platform. Berths No. 3, No. 4, No. 5 are situated at the Product Dock. (Also see "Berthing").

Berth No.	*Max. d.w.t.*	*Least depth of water below datum*	*Remarks*
Sea Berth 1	500,000	102 ft.	
Sea Berth 2	150,000	90 ft.	
Prod. Pier 3	60,000	50 ft.	Max. dist. stern to manifold 320 ft.
Prod. Pier 4	20,000	36 ft.	
Prod. Pier 5	10,000	30 ft.	

In addition to the above tanker berths a dry-cargo berth is also available. This berth is 110 m. in length and has a least depth of 22 ft. below Okinawa Datum.

HEALTH: Quarantine Office: Naha Quarantine Office.
Location: Naha Godo Chosha Bldg., 11-1, 2-chome, Minato-Machi, Naha, Okinawa (Tel: 0988-68-1674).

At first port of call in Japan, vessel may obtain Free Pratique.

Quarantine Officer will attend vessel only from daylight to sunset, and Master to show all vaccination cards and Derat Exemption Certificate. If vessel arrives from infected area crew and passengers' health condition to be cabled to Quarantine Officer through ship's Agent prior to arrival, and close all soil pipes before entering port.

(1) *Radio Pratique:* Free Radio Pratique Telegrams to Quarantine Station not less than 12 hours and not more than 36 hours before arrival, advising full details of vessel and health condition on board. When Free Pratique is granted by radio, vessel will be required to submit the following documents to Quarantine Officer on arrival.

Maritime Declaration of Health . . . . 1 copy
Crew List and Passenger List. . . . . 1 copy
Vaccination List . . . . 1 copy

(2) The following vessels will not be able to obtain Radio Pratique.

A vessel that has been in contact with an infected area or a suspected infected area within 15 days of arrival.

If a vessel has onboard any case, or any suspected case, of infectious disease within 15 days of arrival.

If a vessel does not possess a valid Derat or Derat Exemption Certificate.

RADIO: When on route to the Kin Wan Port at Okinawa a vessel's ETA must be communicated to his Agent, 72, 48 and 24 hours prior to arrival. If VHF is not available arrival information can also be passed to your Agent by "Ship Telephone Service". Naha: 09885-4-5155.

It is important that ETAs are confirmed 12 hours before expected arrivals and amendments communicated when known.

VHF station "Kin Wan Tug" located on Henza Island keeps a 24 hour listening watch on Channel 16 (156.800 MHz) and Channel 13 (156.650 MHz). Tel: 09897-7-8341 is also manned 24 hours per day.

RADAR: The port is not equipped with radar. Poor visibility may occur in heavy rain, but fog is rare. Coastlines and buoys within the bay give good echo returns on ship's radar. All tugs are fitted with radar, and on occasions vessels have been guided into the port by them in heavy rainstorms, the tug keeping close alongside within sight of the bridge, and communicating by VHF.

TUGS: 4 tugboats are stationed at the Terminal. The Berthing Master in consultation with the Master will decide the number of tugs required for each berthing operation and as stand-by tugs during the vessel's stay in port.

Vessels are berthed with the assistance of up to 4 tugs according to the vessel's size and weather conditions. Such tugs will either secure alongside, "American style", or will secure forward or aft by their towing hooks. Tugs' lines are always used. The tugs are 2×3,400 h.p. Z-peller, 2×2,600 h.p. Z-peller and 2 small twin-screw tugs 400 h.p., and are manned by highly skilled crews. It should be noted that the port charges for vessels are a fixed amount based on deadweight tonnage, and this charge is not affected by the number of tugs used or not used. Masters may thus follow the Berthing Master's recommendations regarding tug requirements without having to consider what may well be dangerous economies.

READINESS: A vessel is "arrived" for Notice of Readiness purposes, when the Berthing Master boards or, if vessel proceeds to anchorage without a Berthing Master, when she drops her anchor.

BERTHING: In normal circumstances no lines are run out until the vessel is alongside the berth and in position. Tugs will hold her there whilst the mooring takes place, springs usually being run first, followed by breastlines, then head- and stern-lines. On the larger berths all lines except springs are lowered to the water and taken to the dolphins by line-handling boats, where they are secured to quick-release hooks. Nothing is required in the way of pennants, tails or shackles. Springs are passed direct to the dolphins by heaving-lines.

Owing to the depth of water, anchors are not normally used when berthing at the sea-berth. However, the outboard anchor should in all cases be ready for emergency use.

Weather permitting, vessels secure starboard side alongside at No. 3 Berth. At Nos. 4 and 5 vessels can only berth starboard side to the pier, owing to the construction of the berths. Therefore if wind conditions do not permit of berthing in this way, the berthing will be delayed until the wind is suitable. At the sea-berth, mammoth vessels normally berth port side to the pier, but this is only to reduce the time taken for the operation, and they can be berthed starboard side to if conditions require it. Smaller vessels are berthed either way according to requirements and conditions.

The Marine Office is equipped with a Weather Facsimile Recorder, and Masters can obtain the latest information regarding possible storm conditions by contacting the Berthing Master on VHF Channel 13 or by calling 580 on the internal telephone system from the berths. When typhoons are imminent all cargo operations cease and vessels are required to vacate the berths and are recommended to proceed to sea.

Berth No. 1: Also see "Report" dated 1983 (below).
Owners: Okinawa Terminal Company Ltd.
Position: Lat. 26° 22′ 25″ N., Long. 127° 58′ 01″ E.
Depth: 30 m. (MLWS).
Max. Size: 385 m. LOA, 70 m. beam, 26 m. draft. 500,000 d.w.t.
Services: Fresh water not available.
Loading Rates: Bunkers/HFO 3,000 kl/h, product 2,000 kl/h. Crude 12,000 kl/h., Ballast 4,000 kl/h. Max. pressure 250 p.s.i.

Berth No. 2: Also see "Report" dated 1983 (below).
Owners: Okinawa Terminal Company Ltd.
Position: Lat. 26° 22′ 25″ N., Long. 127° 58′ 01″ E.
Depth: 28 m. (MLWS).
Max. Size: 305 m. LOA, 45 m. beam, 20 m. draft. 150,000 d.w.t.
Services: See Berth No. 1
Loading Rates: See Berth No. 1.

Berth No. 3
Owners: Okinawa Sekiyu Seisei K.K.
Position: Lat. 26° 21′ 34″ N., Long. 127° 56′ 40″ E.
Depth: 15.5 m. (MLWS).
Max. Size: 240 m. LOA, 35 m. beam, 13.5 m. draft.
Services: Fuel oil (bunkers) available, 70 kl/h. 6 in. hoses used. Fresh water available, but not fit for drinking.
Loading Rates: Aviation, JP4 and Naphtha, 500 kl/h × 2 low sulphur FO 1,000 kl/h × 3. Fuel oil and diesel 1,000 kl/h. Max. pressure 15 kg./sq.cm.
Vessels normally berth starboard side to.

Berth No. 4
Owners: Okinawa Sekiyu Seisei K.K.
Position: Lat. 26° 21′ 29″ N., Long. 127° 56′ 48″ E.
Depth: 11.5 m. (MLWS).
Max. Size: 175 m. LOA, 22 m. beam, 10 m. draft limiting condition 90 m. stern to manifold.
Services: Fuel oil available, rate 70 kl/h. Chicksan used. Fresh water available, but not fit for drinking.
Loading Rates: Aviation, JP4, JP1, kerosene 500 kl/h × 2. Low sulphur F.O. 600 kl/h. diesel 1,000 kl/h, fuel oil "A" 1,000 kl/h. Maximum pressure 15 kg./sq.cm.
Vessels berth starboard side to.

Berth No. 5
Owners: Okinawa Sekiyu Seisei K.K.
Position: Lat. 26° 21′ 28″ N., Long. 127° 56′ 58″ E.
Depth: 10 m. (MLWS).
Max. Size: 110 m. LOA, 17 m. beam, 8.5 m. draft limiting condition 10,000 d.w.t.
Services: Fuel oil, 6 in. hose, 70 kl/h diesel, 6 in. hose, 700 kl/h. Fresh water available, but not fit for drinking.
Loading Rates: JP4, JP1, kerosene, diesel and fuel oil "A" 700 kl/h. Max. pressure 20 kg./sq.cm. sulphur, 120 kl/h, max. pressure 15 kg./sq.cm. low sulphur fuel, 600 kl/h max. pressure 20 kg./sq.cm. LPG 200 kl/h max. pressure 27 kg./sq.cm.
Vessels berth port side to.

Operator's Report: 1983.
Okinawa Terminal Co. Ltd. (OTC) Sea Berth (Discharging and loading terminal): Operated by OTC.

Terminal operates 24 hours per day, 7 days a week. Ships moored and unmoored at anytime, weather or other circumstances permitting. Terminal will not be closed on any holidays.
Location: Lat. 26° 22′ 25″ N., Long. 127° 58′ 01″ E.
Pilotage: Compulsory.
Anchorage: (See "Plan") Anchorages are in the following positions. Approval of The Captain of the Port of Kim-Nakagusuku must be obtained through Agent prior to arrival

K1: Within a radius 700 m. Lat. 26° 24′ 00″ N., Long. 127° 57′ 48″ E. For vessels of 100,000 g.r.t. or over.

K2: Within a radius 700 m. Lat. 26° 23′ 30″ N., Long. 127° 57′ 12″ E. For vessels of 100,000 g.r.t. or over.

KE: Within a radius 700 m. Lat. 26° 25′ 00″ N., Long. 127° 58′ 10″ E. For vessels of 100,000 g.r.t. or over.

KW: Within a radius 700 m. Lat. 26° 25′ 12″ N., Long. 127° 55′ 24″ E. For vessels of 100,000 g.r.t. or over.

KS: Within a radius 600 m. Lat. 26° 23′ 06″ N., Long. 127° 56′ 43″ E. For vessels of maximum 100,000 g.r.t.

S1: Within a radius 400 m. Lat. 26° 22′ 30″ N., Long. 127° 56′ 48″ E. For vessels of maximum 10,000 g.r.t.

S2: Within a radius 400 m. Lat. 26° 22′ 00″ N., Long. 127° 56′ 48″ E. For vessels of maximum 10,000 g.r.t.

Approaches: For the purpose of Traffic Separation and Control, the approach to Kin Bay is divided by a channel centre line joining the following positions. Lat. 26° 26′ 00″ N., Long. 128° 02′ 00″ E. and Lat. 26° 24′ 47″ N., Long. 127° 59′ 26″ E.

Vessel should make for position Lat. 26° 26′ 00″ N., Long. 128° 04′ 00″ E. off the East coast of Okinawa and from there steer to the West, passing Menguisho light beacon abeam to port at a distant of about 1.25 miles. The Berthing Master will board VLCC's (150,000 d.w.t. or over) or any ship which is on a first visit to the port.

When vessels are abeam of the beacon (but if circumstances should prevent this, the ship should continue on the Western course for one mile past the beacon) alter course to 242°, after about 1.4 miles on this new course the ship will be at the inner pilot boarding area.

Berthing:
Maximum rate 4,000 kl/h
West side of sea berth (No. 1 berth)
Max. size 500,000 d.w.t.
Max. draft 26.0 m.
East side of sea berth (No. 2 berth)
Max. size 150,000 d.w.t.
Max. draft 20.0 m.

Ballast: Disposal of dirty ballast water over the side is strictly prohibited by the Authorities and any pollution of the sea will result in heavy claims and fines.

No ballast is to be taken from the bay unless required for the ship's segregated clean ballast system. Ballast for cargo tanks will be supplied by the terminal.

LOADING: Loading lines at the berths are as follows: *(Note:* Hoses are listed from N.E. to S.W.)

Berth No.	*Dia. (in.)*	*To handle*	*Type*
1	16	Products	Chicksan arm with Q/C
	16	Crude/HFO	Chicksan arm with Q/C
	16	Crude/ballast	Chicksan arm with Q/C
	16	Crude/ballast	Chicksan arm with Q/C
	16	Crude	Chicksan arm with Q/C
	16	Ballast	Chicksan arm with Q/C
2	16	Product	Chicksan arm with Q/C
	16	Crude/HFO	Chicksan arm with Q/C
	16	Crude/ballast	Chicksan arm with Q/C
	16	Crude/ballast	Chicksan arm with Q/C
	16	Crude	Chicksan arm with Q/C
3	4	Bunkers (DO, FO)	Flexible hose
	10	Ballast	Mechanical arm
	10	Naphtha/JP4/kero.	Mechanical arm
	10	Naphtha/JP4/kero.	Mechanical arm
	12	Ballast/LSFO	Mechanical arm
	12	Low sulphur fuel	Mechanical arm
	12	Low sulphur fuel	Mechanical arm
	6	Bunkers (DO, FO)	Flexible hose
4	10	Ballast	Mechanical arm
	10	JP4, Jet A1, kero., naph.	Mechanical arm
	10	JP4, Jet A1, kero., naph.	Mechanical arm
	10	Automotive or marine diesel	Mechanical arm
	10	Low Sulphur (FO)	
	6	Bunkers (DO, FO)	Flexible hose
5	6	Auto/marine diesel, kero.	Flexible hose
	4	LPG vapour return	Flexible hose
	6	LPG/propane/butane	Flexible hose
	6	Liquid sulphur	Mechanical arm
	6	Bunkers (FO, DO)	Flexible hose

During cargo transfer or ballast operation all vessels shall show signal flag "B" during the day, and a red light during the night.

Transfer operation shall not be started, or if started shall be discontinued by either the duty officer of the vessel or the Terminal supervisor, when any of the following conditions come to his attention:

(a) During severe electrical storms.
(b) If a fire occurs on the pier or on the vessel.
(c) If there is not sufficient competent personnel aboard the vessel or on the pier to safely handle cargo operation in progress.
(d) Should any condition develop which represents a hazard to the vessel or Terminal installation.

MEDICAL: Agents should be given advance notice of medical or dental attention required. Clinic and hospital facilities are available, and in emergencies helicopter evacuation is possible. There is also a Company ambulance on Henza Island, for emergencies only. Tel: 119. If no answer, or at night, telephone 318. Or contact C.C.D. (Central Control Desk) on VHF Channel 16 or 13 or Tel: 580.

DENSITY: The bay is open to the sea, and normal density is 1025.

FRESH WATER: Available at Berth Nos. 3, 4 & 5, but not fit for drinking.

FUEL: All grades of bunkers are available at Nos. 3, 4 and 5.

CONSULS: At present the only Consulates on Okinawa are those of U.S.A., Korea and Philippines.

REPAIRS: Only minor repair facilities are available in Kin Wan, for such small components as can be sent ashore, e.g. repairing of valves or piping, re-winding of electric motors.

DRY DOCKS: None.

GANGWAY/DECK WATCHMEN: Shore gangways are fitted at Nos. 1, 2 and 3, and are supplied free of charge. Ship's gangways must be provided at Nos. 4 and 5. Watchmen are not required since access to the berths is controlled by the Company's security guards at the installation gates.

REPATRIATION: Crew changes and/or repatriation can be arranged by the Agent.

AIRPORT: Kin Wan Port is about 2 hours by car from Naha Airport (depending on traffic conditions) from where there are frequent services by several major airlines to all parts of the world via Tokyo, Honolulu, Taipei or Hong Kong.

TIME: Local time is 9 hours ahead of GMT, unchanged throughout the year.

HOLIDAYS: Local holidays do not normally affect operations in the port. Bank Holidays are now basically the same as those in other Japanese ports.

POLICE/AMBULANCE/FIRE: Ambulance 119 after hours or 580 (C.C.D.) or VHF 16; Fire 119 after hours or 580 (C.C.D.) or VHF 16; Police inform C.C.D. by VHF Ch. 16 or Tel: 580, or Berthing Master Tel: 578.

TELEPHONES: Telephones are not placed on board, but for urgent ship's business arrangements can be made for calls to be placed through the Company switchboard.

SERVICES: Tank-cleaning alongside is prohibited, but facilities for discharge of tank washings are available. See "Pollution Control".

SHORE LEAVE: For reason of safety the Terminal and the Off-Shore Platform are restricted areas. However, ship's personnel and visitors to ships are permitted to disembark and embark via the dolphins, which are also the personnel landing areas. Loitering at the loading platform will not be permitted.

Unauthorised or apparently intoxicated or disorderly persons shall be prohibited from entering the pier and the Terminal.

Shore passes will be issued by the Agent. These passes must be surrendered to the Agent prior to the ship's departure, unless the vessel is bound for another port in Japan when they can, after stamping, be used in the second port. The pass is sufficient, and no other means of identification need be carried when ashore.

POLLUTION CONTROL: Gas-freeing is not allowed on tankships alongside the pier.

To minimise the chances of pollution *all* ballast, whether clean or dirty, *must* be discharged ashore, except that which is contained in independent "permanent" ballast tanks. Also all ballast loaded into cargo tanks must be taken from ashore, and not from the Bay. The shore ballast tank has a capacity of 550,000 barrels and is connected to all tanker berths.

Caution: The sea berth is surrounded by a new type of sink/float oil fence to contain any oil that may be spilled on the sea. This fence is moored in place by 36 anchors and ropes. Vessels are therefore warned against approaching this fence or using any anchors in the vicinity of the sea berth. Nor should they throw overboard any old wires, ropes or other rubbish which may foul or damage the fence or its moorings.

The Terminal will, in case of an oil spill, take such steps as may be deemed necessary to fight the pollution before it spreads. If the spill is due to faulty equipment or materials on the vessel or to negligency on the part of ship's personnel, the Terminal shall be indemnified for any expenses incurred in connection with the preventive action taken.

No ballast is to be taken from the Bay unless required for the ship's clean permanent ballast system. Ballast for cargo tanks will be supplied by the Terminal.

FIRE PRECAUTIONS: Smoking and use of naked lights is strictly prohibited on board vessels alongside the berths, except in those enclosed spaces aboard ship specifically designated by the Master as "Smoking Areas".

Fire wires of steel must be hanging over the side of the offside bow and quarter whilst alongside to enable tugs to connect readily in an emergency situation. The towing eyes should be maintained at water level.

Boiler tubes must not be blown whilst vessel is alongside and every precaution must be taken to prevent sparks and soot particles escaping from the funnel.

Mooring of boats or craft with mechanical propulsion alongside a vessel loading/discharging crude oil or in the process of ballasting, is not allowed, unless special permission has been given by the Terminal.

In case of a fire aboard a vessel alongside the pier the following sequence of procedure should be adhered to:

- *(a)* "Kin Wan Tug" to be informed immediately.
- *(b)* All cargo operations to cease forthwith.
- *(c)* MOV's and gate valves on loading arms, nitrogen and battery limit valves to be closed as soon as possible.
- *(d)* Dock personnel to stand-by for disconnecting loading arms, unberthing or fire-fighting in accordance with instructions issued by the Berthing Master or "Kin Wan Tug".

During an emergency situation on board a vessel alongside, the Berthing Master will be in charge of organising the preliminary fire-fighting assisted by "Kin Wan Tug". He is to make use of all available means at his disposal, such as tugboats, launches, personnel, terminal equipment and other facilities to assist the vessel and protect lives and Terminal installations. Should the Berthing Master be unavailable or unable to communicate, "Kin Wan Tug" will direct the preliminary fire-fighting.

Kin Bay area comes under the jurisdiction of the 11th District of the Japanese Coast Guard and lies in Kin Nakagusuku Port. The telephone number of the Captain of the Port-Coast Guard Offices, 11th District is 098895-4874 or 5439.

AUTHORITY: Okinawa Prefectural Government, 1-2-32, Izumisaki, Naha, Japan 900. *Contact:* Nobuo Oshiro, Chief of Port Division.

AGENT: Kin Wan Port Service Co. Ltd., 6483 Aza-Heianza Yonashiro-Son, Okinawa, Japan. Tel: 09897-7-8226, 8341. Cable: Kinwan Port Koza, Okinawa.

KISARAZU (Kimitsu): 35.22 N. 139.52 E. (See Plan)

PORT LIMITS: Refer to Marine Chart No. 1067. Published by Surveys of the Hydrographic Department M.S.A., Japan.

DOCUMENTS: Arrival

Quarantine Service:
Maritime Declaration of Health – WHO Form, 1 copy.
Crew List – free form, 1 copy.
Passenger List (if any) – free form, 1 copy.
Vaccination Certificate (cholera), presentation.
Derat (Exemption) Certificate, presentation.
List of valid terms of Crew's Vaccination Certificate, presentation.

Immigration Service:
Crew List – free form, 1 copy.
Passenger List (if any), – free form, 1 copy.
Seamen's Ledger, presentation.
Passport or Seamen's Book (all of them), presentation.

Customs Inspection:
Ship's Register, presentation.
Last Port Clearance, presentation.
Crew List – free form, 1 or 2 copies.
Passenger List (if any) – free form, 1 copy.
Store List (Japanese Customs form required).
Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan.)
List of ports of call including last foreign port.

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: *Berthing Pilot:* Compulsory for foreign trade vessels over 10,000 g.w.t. Application is to be made to Yokohama Pilot Office, via local Agent. Pilot boards on Kisarazu Quarantine Station or entrance of approaching passage. Available during daytime only.

Bay Pilot: Uraga & Nakanose on entering: Bay Pilot became compulsory in January 1977 for foreign trade vessels over 10,000 g.w.t. Application required 24 hours prior to entering by Cable to Anjin Yokosuku through Agent or direct. Pilot boarding position located on point 5.0 miles and 161° from Kannon Zaki L.H. Available any time, if any delay, change must be cabled to Anjin Yokosuka.

On leaving: Application same as on Entering. Pilot boarding on pier or off harbour.

ANCHORAGE: Refer to Japanese Chart No. 1062 (middle part of Tokyo Bay). Kisarazu Quarantine Anchorage boundary.

RESTRICTIONS: See "General".

HEALTH: At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port. A vessel may be berthed without a stay at the anchorage if Radio Pratique system used and permission of Chief of Quarantine Office. If Pratique formalities carried out locally vessel anchors 1.5 miles off No. 1 Entrance Buoy in position: Lat. 35° 21′ 54″ N., Long. 139° 50′ 35″ E.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

VHF: Port Radio Station at Yokohama works 24 hours. Channel 16. Call sign "Yokohama Port Radio".

RADAR: Radar station at Kannonzaki which controls all vessels in Uraga Channel.

TUGS:
9 tug boats belonging to Kimitsu tug boat station.

2,000 h.p. – 2,400 h.p.	3 tugs
2,600 h.p. – 3,000 h.p.	2 tugs
3,200 h.p.	4 tugs

Another 16 tug boats listed belonging to Yokohama tug boat station.

3,500 h.p. – 4,000 h.p.	2 tugs
3,000 h.p. – 3,500 h.p.	4 tugs
2,500 h.p. – 3,000 h.p.	2 tugs
2,000 h.p. – 2,500 h.p.	8 tugs

Tug boat's lines used free of charge.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by VHF.

Public: Kisarazu Quay E. Max. draft 7.5 m. at high tide. Length 260 m. Capacity 5,000 d.w.t.

Private: Kisarazu Lumber Association dolphin pier. Max. draft 10.0 m. Length 250 m. Capacity 15,000 d.w.t.

Kimitsu Works of Nippon Steel Corporation.

Centre Pier:

No. 1–4	Coastal chemical tanker, tug boat basin.
No. 5	Coastal Raw material discharging berth.
No. 6	Discharging berth of iron ore and coal. Max. draft 16.0 m. at high tide. Length of berth 304 m. Capacity 150,000 d.w.t. or 270,000 d.w.t. (Part load). Dischage rate for coal 25,000 tonnes per day.
No. 7	Discharging berth of iron ore and coal. Max. draft 18 m. at high tide. Length of berth 350 m. Capacity 200,000 d.w.t. Discharge rate for ore 30,000 tonnes per day.
No. 8	Discharging berth of iron ore and coal. Max. draft 18 m. at high tide. Length of berth 422 m. Capacity 270,000 d.w.t. Discharge rate for ore 30,000 tonnes per day.
No. 10	Coastal Limestone carrier berth.
No. 11, 12	Coastal tanker berth.

Centre Pier unloader at No. 6 & 7 – 4 units each capacity 1,500 t.p.h.

Centre Pier unloader at No. 8 – 1 unit capacity 2,500 t.p.h.

West Pier:

No. 1–6	Coastal small ships only.
No. 7	Loading berth of steel products. Max. draft 11 m. Length of berth 250 m. Capacity 30,000 d.w.t. Shore crane 1 unit 20 tons, 1 unit 30 tons.
No. 8	Loading berth of steel products. Max. draft 11 m. Length of berth 250 m. Capacity 30,000 d.w.t. Shore crane 1 unit 30 tons, 1 unit 20 tons.
No. 9	Loading berth of steel products. Max. draft 11 m. Length of berth 285 m. Capacity 30,000 d.w.t. Shore crane 1 unit 30 tons, 1 unit 35 tons.
No. 10	Loading berth of steel products. Max. draft 11 m. Length of berth 230 m. Capacity 40,000 d.w.t. Shore crane 2 units each 30 tons.

East Pier:

No. 2	Loading berth of steel pipes. Max. draft 11 m. Length of berth 240 m. Capacity 30,000 d.w.t. Shore crane 3 units on No. 2 & No. 3 berth 30 ton.
No. 3	Loading berth of steel pipes. Max. draft 11 m. Length of berth 240 m. Capacity 30,000 d.w.t. (See No. 2 Berth).
No. 4–13	Coastal ships only used for loading wire rod, angle bar, etc. and discharging materials.

CRANES: See "Berthing".

BULK CARGO FACILITIES: See "Berthing".

SPECIALISED CARGO-HANDLING FACILITIES: See "Berthing".

BRIDGES: None.

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost.

Average loading rates:	Coils 75 t.p.h.
	Plates 50–60 t.p.h.
	Pipes 40 t.p.h.
	Angle 40 t.p.h.
	Wire rods 15–25 t.p.h.
Average discharging rates:	Coal 700 t.p.h.
	Iron ore 750–800 t.p.h.
	1,500–1,600 t.p.h.
	(2,500 ton unloader)
	Manganese ore 600 t.p.h.
	Iron sand 900 t.p.h.
	Coke 700 t.p.h.

MEDICAL: No advance notice required unless urgent.

TANKERS: Only coastal tankers.

DENSITY: 1021-1025.

FRESH WATER: Available from shore line. Rate of delivery 40-50 t.p.h.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay. Bunkers will be lightered from the nearest bunker stock ports (Yokohama and Chiba) at maximum 7 days' prior notice.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches except steel hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CARGO GEAR: Usually load/unload by shore cranes.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 60 cigarettes to take ashore but no spirits.

CONSULS: None.

REPAIRS: Minor repairs only.

DRY DOCKS: 500,000 d.w.t. dry dock at Chiba.

SURVEYORS: Nippon K.K.K., Kimitsu Branch.

REPATRIATION: Possible.

AIRPORT: Narita (Tokyo) International Airport is about 2 hours by car or railway.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

HOLIDAYS: No cargo loaded on January 1st. Cargo discharged on all holidays.

POLICE/AMBULANCE/FIRE: Kisarazu Police Station tel. 0438-23-4011; Kisarazu Fire Brigade and Fire Station tel. 0438-23-7121.

TELEPHONES: No telephones installation direct to vessels alongside wharf.

SERVICES: Provisions, laundry, ship's stores, garbage, hold cleaning, navigation aids. Special service are called from Chiba, Yokohama and Tokyo.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.

IDENTIFICATION CARDS: Shore Pass and Seaman's Book required.

REGULATIONS: See "General".

GENERAL: Notification to Maritime Safety Agency:

According to Maritime Traffic Safety Law, The Master of large vessel (over 200 m. in LOA and 10,000 g.w.t.) is required to give to Regional Maritime Safety Agency an advance report of estimated time passing the traffic route and other matters and also required to obey the instruction given by the Agencies.

Notification cable definitely to be given by 1200 hrs. (JST) on the day prior to entering, directly from Master or through local Agent. Any change in reported matters, is to be reported 3 hours before the time of entering by radio communication or telephone.

Seaweed cultivation to be carried out in the vicinity of Nippon Steel Corporation Kimitsu Works so Master's co-operation with regards to the following items would be appreciated.

1. The discharge of oil or oily waste into the water is strictly prohibited by Marine Pollution Law and other related ordinance.
2. Proceeding to the cultivation area is prohibited.
3. Numerous buoys each exhibiting flashing yellow lights have been established to mark the outer side-line of the seaweed cultivation area.
4. Bunkering possible daytime only (sunrise to 1 hour before sunset) in the Port of Kimitsu.

AUTHORITY: Kisarazu Port Administration Office, 3-13-34, Kaifuti 3-chome, Kisarazu City, Chiba Pref. 292. *Tel:* (0438) 25-5141.

AGENT: Sub-agents of Dodwell & Co. Ltd. Toyko. Chiba Kaiun Sangyo Co. Ltd., Kimitsu Office, c/o Kaiun Centre Kimitsu Works of Nippon Steel Corporation, No. 1, Kimitsu, Kimitsu-shi, Chiba-ken. Tel: Kimitsu (04395) 2-0800. Cable Address: Chibamarine Kisarazu.

KOBE: 34.40 N. 135.12 E. **(See Plan)**

DOCUMENTS:

Ship's Register.
Last Port Clearance.
1 Stores List.
1 Declaration of Crew's Baggage.
4 Crew Lists.
4 Passenger Lists (if any).

Ship's Agents will prepare other documents such as Inward/Outward Declaration, Cargo Manifest, etc., using Japanese Custom's Forms.

PILOTAGE: *Tomogashima Channel Pilot (not compulsory but recommended):* Pilot boards 5 – 7 miles South of Tomogashima (approximately Lat. 34° 10′ N., Long. 135° 00′ E.). Cable address: "Baypilot Kobe". If Bay Pilot is required, inform them 24 hours prior to vessel's arrival at Tomogashima Pilot Station.

Harbour Pilot: Pilot boards at Quarantine Anchorage at Wada-Misaki Point. Cable address: "Pilot Kobe". 24 hours' prior notice is required. When vessel moors to buoy, chain cable should be prepared.

ANCHORAGES: Quarantine Anchorage: Lat. 34° 38′ N.; 34° 38.6′ N. Long. 135° 10′ E.; 135° 11′ E.

All vessels requiring anchorage for awaiting berth, repairs, bunkering, etc., must obtain anchoring position from Harbour Master.

RESTRICTIONS: Quarantine officials are available during daylight hours. Berthing is not permitted after 2130 hrs.

MAX. SIZE:

Name of Berth	*Max. LOA (m.)*	*Max. Safe Draft (m.)*	*Depth at Berth (m.)*
Showa Sangyo	213	10.35	12.60
Tomen Silo	223	10.35	12.40
Zenno Silo	223	10.35	12.20
Kohnan Silo	245	10.71	12.20
Hanshin Silo	210	10.26	11.60

Also see "Tankers".

HEALTH: Quarantine Officials board vessel from daylight to sunset at Quarantine Anchorage.

Radio Pratique is available. Vessels must be in possession of a valid Japanese Sanitary Inspection Certificate.

Documents Required: Derat Exemption Certificate, Crew List, Passenger List, Maritime Declaration of Health and Vaccination Cards.

RADIO: Recommend Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel to contact Choshi, and Northbound to contact Nagasaki Radios respectively.

Kobe-Radio details:

	Security and Port message	*Port message*	*Public message*
Call sign	JGD	Kobe Port Radio	JCK
Name of Station	Coast Station or Special Service Station	Kobe Port Radio	Kobe Radio
Station Owner	5th Regional Maritime Safety Headquarters	Kobe Municipality (its Port & Telegraph Harbour Bureau)	Kobe Central Office
Frequency	444 kHz. 500 kHz. 500 kHz. 512 kHz. International VHF Channels 12, 16	International VHF Channels 16, 12, 11, 18, 20. 24-hour service.	134.9 kHz. 143 kHz. 416.5 kHz. 487.5 kHz. 500 kHz. 512 kHz. 425 kHz.

TUGS: Join vessel at entrance of fairway. Tug's lines used without extra charge. 40 tugs available.

BERTHING: Chains must be used in mooring to a buoy. Ship must not drop anchor near a buoy when it is moored to one. Ship brought head in alongside pier except in special cases. Some berths impossible to reach after sunset,i.e. dolphin berths. This is why ships need to arrive outside breakwater before sunset.

Wharves and Mooring Dolphins for Large Vessels (Public)
E=East Side; W=West side; S=South side

Name			Length (m.)	Width of Apron (m.)	Fixed Depth of Water (m.)	Fixed Number of Vessels Coming alongside: Gross Tonnage	Fixed Number of Vessels Coming alongside: No. of Berths
Shinko Pier	1	W.	364	12	9.1	10,000	2
		E.	364	7.2 – 12	9.1	10,000	2
		S.	102	—	9.1	2,000	1
	2	W.	364	6.7 – 12	9.1	10,000	2
		E.	364	12	9.1	10,000	2
		S.	102	—	9.1	2,000	1
	3	W.	365	6.7 – 12	9.1	10,000	2
		E.	378	6.7 – 12	10.0 – 11.0	10,000	2
		S.	102	—	9.1	2,000	1
	4	W.	591	7.0 – 9.0	10.0 – 12.0	20,000 15,000 10,000	1 1 1
		E.	644	9.0	10.0 – 12.0	50,000 10,000	2 1
	5	W.	457	11.0	10.0 – 12.0	30,000 15,000	1 1
		E.	444	11.0	10.0	15,000	2
		S.	148	—	10.0	5,000	1
	6	W.	445	11.0	10.0	15,000	2
		E.	441	11.0	10.0	15,000	2
	7	E.	200	6.2	10.0	30,000	1
		W.	200	6.2	10.0	15,000	1
	8	W.	387	6.5	10.0	15,000	2
		E.	400	15.0	10.0	15,000	2
Maya Pier	1	W.	588	20	10.0 – 12.0	30,000 15,000	1 2
		E.	400	20	10.0 – 12.0	30,000 15,000	2 1
	2	W.	400	20	10.0 – 12.0	30,000 15,000	1 1
		E.	400	20	10.0 –12.0	30,000 15,000	1 1
		S.	192	10	12.0	15,000	1
	3	W.	400	20	10.0 – 12.0	30,000 15,000	1 1
		E.	400	20	10.0 – 12.0	30,000 15,000	1 1
		S.	192	10	12.0	15,000	1
	4	W.	400	20	10.0 – 12.0	30,000 15,000	1 1
		E.	600	20	10.0 – 12.0	30,000 15,000	1 2
		S.	192	10	12.0	15,000	1
Hyogo Pier	1	W.	436	5.4	7.2 – 9.0	10,000 5,000	1 2
		E.	623	5.4	7.2	5,000	4
		S.	127	—	7.2 – 9.0	3,000	1
	2	W.	436	5.4	7.2 – 9.0	10,000 4,000	1 1
		E.	436	5.4	7.2 – 9.0	10,000 8,000 4,000	1 1 1
		S.	127	—	9.0	3,000	1
	3	W.	265	13	7.5	6,000	2
		S.	178	15	9.0	5,000	1
Hyogo-Ko	Shijo Mae		323	10	4.5	700	5
Naka Pier		W.	637	8	5.5 – 9.0	8,000 2,000	1 4
		E.	215	8	9.0	8,000	1
Tohbu Home Trade Wharf		W.	455	15	5.5	2,000	5
		E.	527	15	6.0	3,000	5
		NE.	629	15	5.5	2,000	7
		N.	361	15	5.5	2,000	4
Higashi-Kobe Ferry Terminal	No. 1		130	6	5.5	1,000	1
	No. 2		170	6	7.5	3,000	1
	No. 3		205	6	7.5	6,000	1
	No. 4		170	6	6.0	3,000	1

Name		*Length (m.)*	*Width of Apron (m.)*	*Fixed Depth of Water (m.)*	*Fixed Number of Vessels Coming alongside* — *Gross Tonnage*	*Fixed Number of Vessels Coming alongside* — *No. of Berths*
Nada Wharf	South Side (W.)	135	5.4	6.3	2,000	1
	(E.)	510	5.4	4.5	700	8
Pier of Waste Oil Separation Facilities of Vessels		76	—	7.7	3,000	1
Suma Harbour	S.	180	15	5.5	2,000	2
	E.	110	15	5.5	2,000	1
Port Island	C.1– 9	2,650	40	12.0	25,000	9
	L.1–15	3,000	30	10.0	15,000	15
Port Island Dolphins for bunkering facilities		99	—	13.0	50,000 3,000	1 1
Kobe Fukae Ferry Terminal		170	10	7.5	8,000	1
Mooring Dolphins		1,800	—	10.0 – 12.0	(total) 84,000	9
Rokko Island	G.H.I.	1015	20	10.0	15,000	5
	K.L.M.	755	20	10.0	15,000	4
	Ferry Berth	199	6	7.5	6,000	1

Wharves for Large Vessels (Private)

E = East side W = West side S = South side

Name		*Length (m.)*	*Width of Apron (m.)*	*Fixed Depth of Water (m.)*	*Fixed Number of Vessels Coming alongside* — *Gross Tonnage*	*Fixed Number of Vessels Coming alongside* — *No. of Berths*
Mitsui Pier	W.	177	11	10.0	10,000	1
	E.	185	11	10.0	10,000	1
Takahama Wharf	W.	193	11	8.2	8,000	1
	E.	325	13	8.2	8,000	2
K.S. Nos. 1 – 5		1,527	1.5	9.5 – 13.0	10,000	5
Unclassified		6,549		4.5 – 13.0	500 – 150,000	54

(The column includes most of the private piers of the fitting-out quays belonging to Kobe Shipyard & Engine Works of Mitsubishi Heavy Industries, Ltd. and Kawasaki Heavy Industries, Ltd.)

Mooring Buoys

The whole sea surface within the Port Limits is divided into 6 sections.

Section	*Owner of Buoys*	*No. of Buoys*	*Buoy Number or Designations*	*Fixed No. of Vessels Coming Alongside* — *No. of Vessels Moored*	*Fixed No. of Vessels Coming Alongside* — *Gross tonnage*
No. 2	Kobe City Government	9	Nos. 1, 2, 4-8, 11, 12	9	2,000 – 20,000
	Kawasaki Heavy Industries Ltd.	2	A, B	2	3,000 – 8,000
	Mitsubishi Heavy Industries Ltd.	2	C, D	2	4,000 – 18,000
No. 3	Shell Sekiyu Kaisha, Ltd.	4	Shell Buoy	1	70,000
	Maruzen Kanematsu and Esso Companies	4	MKS Buoy	1	60,000
No. 5	Kobe City Government	2	Nos. 21(A,B)	1	10,000

CONTAINER HANDLING FACILITIES:

	Terminal	*Berths*	*Length (m.)*	*Water Depth (m.)*	*Terminal Area (sq.m.)*	*C.F.S. Floor (sq.m.)*	*Handling System*	*Container Cranes (tons)*
Port Island	PC. 1	1	300	–12	103,500	6,663	Chassis	2 – 30.5
	PC. 2	1	300	–12	105,000	4,226	Transtainer	2 – 30.5
	PC. 3	1	300	–12	105,000	(7,755)	Straddle Carrier	4 – 30.5
	PC. 4	1	300	–12	105,000	(5,303)		
	PC. 5	1	250	–12	91,000	3,564	Transtainer	2 – 30.5
	PC. 6	1	300	–12	91,707	5,048	Chassis	2 – 30.5
	PC. 7	1	300	–12	97,984			
	PC. 8	1	300	–12	97,650	(9,900)	Straddle Carrier	6 – 30.5
	PC. 9	1	300	–12	105,000			
	PC. 10	1	300	–12	78,700	–	–	–
	PC. 11	1	350	–12	85,000	–	–	
	PC. 12	1	350	–12	80,500	–	–	–
Maya	Q R S	2	580	–10/–12	46,000	5,732	Straddle Carrier	1 – 25.4 2 – 30.5
Rokko Island	RC – 1	1	350	13	12.2 ha.	9,222	–	2 – 40.0
	RC – 2	1	350	13	12.2 ha.	–	–	2 – 40.0

BULK HANDLING FACILITIES: Hanshin Silo Company Berth, 11.60 m. depth alongside available for vessels up to 50,000 tons d.w.t. Discharge effected by 2 pneumatic unloaders with capacity 400 t.p.h. per unit.

Kobe Silo Berth, length 752 ft., depth alongside 41 ft. 2 mobile discharging units each with capacity of 500 t.p.h.

Kohan Silo Berth, length 214 m., depth alongside 12.2 m. equipped with 2 discharging units which can be used for grain, sugar, or general cargo, also 1 pnuematic unloader, with capacity 1,500 t.p.h. per unit.

Kobe Steel, Berth No. 3: Length 334 m., depth 13.0 m., max. LOA 300 m., beam 40.0 m., draft 12.5 m. 2 cranes available for coal and ore. Discharge rate 1,400 tonnes/p.h.

In the current development programme a total of 7 container berths are to be provided at Kobe.

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores.

MEDICAL: No advance notice required unless urgent. Hospital facilities available.

TANKERS:

The Port Island receives bunker oil from tankers into the terminal and delivers Intermediate 15 and MDO by pipe-line to vessels moored at Kobe Port Island. This berth is equipped with loading arms and utilises a boom completely surrounding the discharging tanker to prevent the spread of any oil spill.

Storage facilities consist of 3 tanks of 36,000 kl (226 mb) for Intermediate 15 and 2 tanks of 5,000 kl (31 mb) for MDO.

Pumping facilities consist of 3 pumps of 700 kl/hour (4,400 b.p.h.) capacity for Intermediate 15 and 2 pumps of 200 kl/hour (1,258 b.p.h.) capacity for MDO.

Special features include an automatic control system from a central control board, remote valve operation, remote tank gauges, communication equipment at each bunkering berth, flow meters for all deliveries, a chemical fire engine, a crane and a lorry for recovery of waste oil.

The terminal is open between 0900 and 1700 hrs. and availability at other times involves overtime.

Name of Berth	*Max. d.w.t.* (approx.)	*Max. LOA* (m.)	*Max. safe Draft* (m.)	*Mooring–Pipeline–discharging rate*
Shell. Bunkers ex-barge only. No slop discharge facilities.	70,000	250	12.6	To 4 buoys. 1×24″, 1×12″ for F.O., D.O. Minas/Seria Waxy Residue. Average discharge rate (1 Pipe) 1,000 t.p.h. Max. (2 Pipe) 3,000 t.p.h. (mooring possible when tide runs towards West)
MKS. Bunkers ex-barge only.	40,000	234 (breadth 33)	11.20	To 3 buoys. 2×16″ for F.O. and D.O. Average discharge rate 1,000 t.p.h. Max. 1,300 t.p.h. mooring possible when tide runs towards West)
Mitsubishi Shoji (for L.P.G.tankers). Bunkers available ex-wharf; ex-barge at anchorage. No slop discharge facilities. Also see "Shipmasters Report".	45,000	240 m.	10.35 m.	Alongside Pier. 2×12″ for F.O. and 1×12″ for D.O. Average discharge 800 t.p.h. per pipe. Max. 2,000 t.p.h.
Port Island Oil Berth	70,000	240 m.	10.98 m.	2×16″ for Fuel oil. Average discharge rate 2,000 t.p.h. Max. 3,500 t.p.h.

MKS Buoy Berth (Noda Terminal): When approaching the berth, the vessel heads straight for the middle of the berth, taking into account the direction and velocity of the tidal stream. Vessels can berth either heading East or West, depending on the direction of the tidal stream, and always use only 3 of the 4 buoys and 2 bow anchors. When heading East the manoeuvre is as follows: When the bow approaches the line connecting the 2 Southerly buoys, drop starboard anchor, swing to starboard paying out about 8 or 9 shackles. When the vessel is about half its length past the 2 Easterly buoys, drop port anchor. Then work vessel astern, paying out port chain and heave in starboard chain to about 4 shackles. Send ropes to 3 buoys, 2 or 3 ship ropes to each buoy, depending on weather and then secure the 40 mm. preventer wires. In this case the Southeasterly buoy is not used. 2 or 3 tugs attend. When heading West, the manoeuvre is similar, but first drop anchor, swing over to port, drop starboard anchor. In this case the Southeasterly buoy is not used. Normally 2 mooring launches are used.

TIDE: Mean height of tide 1.030 m. Some of tanker berths in West part of port affected by tide. Currents less than 1 knot inside harbour.

DENSITY: Winter: 1023 – 1026. Summer: 1018 – 1022.

FRESH WATER: Supplied from the quays at rates of 40 to 50 cu.m./hr. Three water barges available, largest with capacity 325 cu.m., can supply vessels at rates up to 300 cu.m./hr.

Possible to supply fresh water at anchorage weather permitting. 24 hours' prior notice is required.

FUEL: All grades are obtainable from major oil companies and supplied by barge.

FIRE PRECAUTIONS: LPG tankers instructed by Maritime Safety Headquarters to strictly observe safety rules. Example: checking on what is carried by those who go aboard; banning ship's stores to be loaded on to ship which is working.

WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: By Stevedores or crew, ship's option.

CERTIFICATES: Ship's Register to show Customs Inspector for registered gross and nett tonnage. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Tobacco (per passenger or crew member). Temporary shore-leave up to 50 cigarettes (duty free); Disembarkation up to 200 cigarettes (duty free). Maximum allowable (only in case of disembarkation) up to 800 cigarettes duty free (however, 600 cigarettes – taxable).

Wines and/or Spirits: Crew member: When the ship at sea for more than 1 month, up to 6 bottles (1 bottle – duty free); less than 1 month up to 6 bottles (no duty free). Passengers: When a passenger travels for less than a fortnight up to 12 bottles (1 bottle – duty free); more than a fortnight up to 12 bottles (up to 3 bottles – duty free).

CONSULS: The following countries are represented by Consuls in Kobe and Osaka area:

- Argentina
- Australia
- Austria
- Belgium
- Bolivia
- Brazil
- Central African Rep.
- Chad
- Chile
- China
- Costa Rica
- Denmark
- El Salvador
- Finland
- France
- Germany F.R.
- Greece
- Guatemala
- India
- Indonesia
- Italy
- Ivory Coast
- Jordan
- Korea
- Malagasy Republic
- Malta
- Mexico
- Netherlands
- Norway
- Pakistan
- Panama
- Paraguay
- Philippines
- Portugal
- Singapore
- Spain
- Sri Lanka
- Sweden
- Switzerland
- Thailand
- Turkey
- United Kingdom
- U.S.A.
- U.S.S.R.

REPAIRS: All repairs possible.

DRY DOCKS:

Owner	Name	Overall length m.	Width m.	Depth m.	Remarks
Mitsubishi Heavy Industry Ltd.	Dock No. 4	290.0	41.2	13.0	Capacity 150,000 d.w.t.
Kawasaki Heavy Industry Ltd.	Dock No. 1	160.0	22.0	8.83	The largest ship docked: 215 m.× 30.5m.×6.8 m. Capacity of No. 4 – 50,000 d.w.t.
	Dock No. 2	94.0	15.4	14.8	
	Dock No. 3	172.8	26.0	13.0	
	Dock No. 4	215.0	33.5	11.0	

(Number of docks in Kobe)

Kobe Dockyard Engine Works Co. Ltd.	3 floating docks
Ishihara Shipyard Co. Ltd.	1 floating dock
Arata Dockyard & Engine Works Co. Ltd.	1 floating dock
Shikase Dockyard Ltd	1 floating dock
Mitsubishi Heavy Industries Ltd.	3 floating docks 1 dry dock
Kawasaki Heavy Industries Ltd.	2 floating docks 2 dry docks

SURVEYORS: Lloyd's Register, Germanischer Lloyd, American Bureau of Shipping, Bureau Veritas, Norske Veritas, Nippon Kaiji Kyokai.

REPATRIATION: Possible.

AIRPORT: Osaka International Airport. Distance from Airport about 1 hour by car.

Domestic: Following regular airlines, Japan Air Lines, All Nippon Air Lines, Nihon Kokunai Koku, Toa Koku.

International: For Far East: Japan Air Lines 31 flights per a week, Thai International Air Lines 10 flights per a week, Cathay Pacific Air Lines 8 flights per a week, China Air Lines 11 flights per a week, Korean Air Lines 12 flights per a week, North-West Air Lines 7 flights per a week.

For Europe: Lufthansa 1 flight per week, British Airways 3 flights per week, Air France 2 flights per week.

For United States: Japan Air Lines 12 flights per week, Pan American 3 flights per week.

TIME: GMT plus 9 hours. No alteration to clocks throughout year.

HOLIDAYS: 1st January (New Year's Day); 15th January (Coming-of-Age Day); 11th February (National Founding Day); 21st March (Spring Equinox Day); 29th April (The Emperor's Birthday); 3rd May (The Constitution Day); 5th May (Children's Day); 15th September (Respect for the Aged Day); 23rd September (Autumn Equinox Day); 10th October (Health Sports Day); 3rd November (Culture Day); 23rd November (Labour Thanksgiving Day).

POLICE/AMBULANCE/FIRE: *Police:* 110; Water Police Station tel. 331–2351, 331–2354, Ikuta Police Station 331–0044, Fukiai Police Station 231–4441, Hyogo Police Station 551–0051.

Ambulance: 119.

Fire: 119; Water Fire Department 331–9951, Fukiai Fire Department 291–0401.

TELEPHONES: Possible to place telephone on board.

SERVICES: Compass adjusting, radio/radar services, etc.

GENERAL: When typhoon approaching, Port Captain requires ships to proceed outside breakwater.

SHORE LEAVE: Crew members free to go ashore with landing passes issued by Immigration Authorities.

DELAYS: 1. Weather condition (where strong wind prevents ships entering port). 2. Tide (berths in West part of port). 3. Berths where no ships permitted berth alongside at night. 4. Where a quarantine officer or Pilot being awaited. 5. Shortage of gangs, weather.

DEVELOPMENTS: Rokko Island is now under construction to the East of Port Island. Berths RC-1 and RC-2 completed. Berth RC-3 under construction with length 350 m., depth 14 m. Berth RC-4 to be completed in 1988. Both berths to have 3×40 tonne gantry cranes.

5 additional berths, each 350 m. length are planned for the Port Island.

3 additional berths, each 300 m. LOA and depth 12 m. planned for Maya Piers.

SHIPMASTER'S REPORT: February 1980.
Sakai to Kobe:
Transit: For LPG ships this can only be accomplished in daylight.
Pilots: In normal conditions Sakai Pilot will depart at about No.5 buoys Hamadera Passage and vessel proceed to Kobe No.6 Breakwater embarking Pilot at No.3 Buoy. In weather with poor visibility take 'Bay' Pilot, no movements with visibility less than 1 mile.
Kobe:
Pilot: For vessels proceeding to Mitsubishi Storage Terminal, Pilot is embarked at No.3 Buoy and leaves at same.
VHF: Kobe Port Radio.
N.O.R.: 1st Line ashore.
Tugs: Two powerful tugs join vessel just inside No.7 Breakwater. Cost of one tug Yen 48,000 per hour.
Terminal:
Moorings: 3,2,2, each end, Line boat available.

Tanker type jetty with mooring dolphins each end connected by catwalks.

Berth situated West end of No.2 Industrial area.

Port side to.

Gangway can be difficult to land on narrow catwalk.

No transport near ship, about 5 minutes walk to gate.

Depth: 12.50 m.

Connections: Chicksans: 12 in. liquid, 8 in. vapour return. The forward vapour return line has a right angle elbow in it. Connection and disconnection by shore personnel, can take 1.5 to 2 hours.

Quite often a vapour mixture is returned to the vessel if discharging two grades, generally acceptable if propane and butane.
Max. Rate: About 700 tonnes/p.h. both grades.
Surveyor: NKKK in attendance.
Microbus: We hired microbus for 20 persons on contract hire for 9 hours at Yen 70,000 – about £125. Easy to arrange through Agent.
Doctor: Obtainable, about £40 per visit.
Fresh Water: From the pier through Mitsubishi – will only give what Master has ordered. At 20 t.p.h. Difficult to connect American couplings. Yen 500 per tonne.
Stores: Nil on berth.
Facilities: All repairs off berth.

Walport Film and Video exchange through Agent.
Safety: Normal requirements plus fire axes each end at moorings.
Anchorage: Outside Kobe Breakwaters in areas marked on Japanese Chart. We anchored in Lima 3 area, very congested.

Best to obtain up to date Japanese Hydrographic Office Charts of Kobe and Osaka Bay as frequent changes, also BA. charts do not have incidentals like anchorage areas, Tomogashima traffic routes, lava beds, etc.
General: As usual the shore line is continually changing and care is required in taking positions.

BA. 2265: Kobe Ko. New breakwater marked by temporary light buoys from Breakwater No. 6 in position 34° 39.99′ N., 135° 14.86′ E. to 34° 39.63′ N., 135° 15.19′ E. in direction 324° – 144° for 830 m.

BA. 3614: Osaka Bay. New Osaka International Airport Buoy 34° 26.9′ N., 135° 16.15′ E. in a Southerly direction for 3.5 miles and Westerly direction for 2.5 miles with causeway to shore in approx. position 34° 24.5′ N., 135° 18.2′ E. Many barges crossing from Awaji Shima.

Also see "SAKAI" – "Shipmaster's Report" – Kobe was 2nd Port of Call.

AUTHORITY: Port and Harbour Bureau, Kobe City Government, 5-1 Kano-Cho, 6 Chome, Chuo-Ku, Kobe, 650 Japan. *Tel:* 078-331-8181. *Telex:* 78548 Kobeport. *Cables:* Japangate. *Contact:* Promotion Division.

AGENT: Dodwell Tramp Agencies, P.O.Box 557 Kobe Port, Kobe Meiji Seimei Building 3–7, Isogami-dori 8-chome Fukiai-ku, Kobe. Tel. (078) 251-0021. Cable Address: Dodtramp Kobe. International Telex J 78826.

KOKURA: 33.54 N. 130.53 E. (See "Kanmon-Ko") (See Plan)

Kokura situated between Moji and Tobata. On the East is contiguous to Moji Port, on the West to Tobata Port and on the North it opens to the Kanmon Straits.
DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.
PILOTAGE: Inland Sea Pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from one of three pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication available with Inland Sea pilot stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits) Position Lat. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address: "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse (vessels transitting Bungo Channel). Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki Pilot Station.

3. Hesaki, at East side of Kanmon (Shimoneseki) Straits. Position Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.
ANCHORAGE: Anchorage not in use as the area is being dredged for the purpose of navigation fairway.
RESTRICTIONS: Vessel enters port only within 1 hour before and after slack tide in daytime. No night departure.
MAX. SIZE: See "Berthing".
HEALTH: At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards and Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers' health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi and Northbound to contact Nagasaki Radio respectively.
TUGS: See "Moji".
BERTHING:

Name of Berth	*Length* (m.)	*Depth* (m.)	*Permissible draft* (m.)	*Capacity* (g.r.t.)
Murasaki				
Kawajiri Wharf	225	10.0	10.0	20,000
Sunatsu				
West Wharf	366	8.2	8.2	13,000
Sumitomo Metal*				
West No. 1 Wharf	270	12.0	11.0	40,000 d.w.t. with part load
Hiagari Wharf				
No. 3	OA 180	11.0	10.0	25,000
No. 4	OA 180	11.0	10.0	25,000
No. 5	OA 180	11.0	10.0	25,000
Ferry	270	5.5	5.5	5,000
No. 6	OA 200	11.0	10.0	20,000
No. 7	OA 200	12.0	11.0	20,000
Kanematsu				
Oil Pier	OA 170	6.5	6.5	18,000 d.w.t.

*2 cranes – capacity 1,000 t.p.h. each.

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700–1900 hrs. 50% additional of basic stevedorage; 2100–0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.

(a) Max. 6 gangs are available.
Stevedores, regular employees 116, temporary labourers 109. Longshoremen 459.

(b) Lighters: Kokura Marine Transportation Co., lighters 25, tonnage 8,900 tons.

(c) Shore crane:

No.	*Capacity*		*Location*	*Owners*
2	10 tons		Sunatsu Wharf	Sumitomo Metal
1	6 tons		Sunatsu Wharf	Kokura Marine
3	12 tons	outreach 18 m.	Sumitomo Metal Wharf	Sumitomo Metal
3	35 tons		Hiagari Wharves Nos. 6 and 7	Shin Nihon Steel Corp.

(d) Floating crane: Arrangeable from Moji.

(e) Average performance of loading/discharging:
Discharging: Iron ore 40/50 t.p.h./gang/hatch (by ship's gear). 200 t.p.h./gang/hatch (by shore crane). Coal 40/50 t.p.h./gang/hatch (by ship's gear). 100/150 t.p.h./gang/hatch (by shore cranes). Scrap steel, pressed 20 t.p.h./gang/hatch (by ship's gear). Ordinary 10 t.p.h./gang/hatch (by ship's gear). Bulky 5 t.p.h./gang/hatch (by ship's gear). Loading: Steel under 20 ft. long 25–30 t.p.h./gang/hatch, over 20 ft. long 15–20 t.p.h./gang/hatch.

(f) 2 shifts: 0800 to 1700 hrs. and 1700 to 0700 hrs. Normal working hours: 0800 to 1700 hrs. Refer to Moji for further information.
TANKERS: Also see "Berthing". At Kanematsu-Goshi Oil Refinery 1×6 in. line, rate 900 t.p.h. (Fuel/diesel oil). No slop facilities available.
DENSITY: 1025.
FRESH WATER: From hydrants at Sunatsu and Sumitomo Metal wharves, the rate of delivery per hour: 30 tons per hydrant. Also delivered by barge.
FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at max. 7 days' prior notice.
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
CONSULS: See "Moji".
REPAIRS: See "Moji".
AIRPORT: Japan Air Lines, Fukuoka, and Cathay Pacific Air Lines, Fukuoka, about 1.5 hours by train and taxi from Kokura station to airport.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Police 110; Ambulance 119; Fire 119.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.

SHIPMASTER'S REPORT: 1975. Vessel discharged iron ore at Sumitomo Metal Industries.
Pilotage: Arriving from East. He Saki: Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.
Arriving from West. Mutsure: Lat. 33° 58′ 30″ N., Long. 130° 53′ 00″ E.
Anchorage:
He Saki: Lat. 33° 56.2′ N., Long. 131° 02.9′ E. Depth 11.4 m.
Mutsure: Lat. 34° 00.0′ N., Long. 130° 52.5′ E. Depth 19.0 m.
Departing from He Saki anchorage to arrive to port of destination in Kanmon Straits in Slack Water and only in daylight.
Normally Pilot boarding 1 hour before tide change. Allowable drafts to transit Kanmon Straits, max. 30 ft. anytime. Max. 32 ft. 10 in. at HW.
Radio Pratique: Obtained if in possession of valid Sanitary Certificate and all Certificates valid. Send cable to Agent with prefix RPM following the standard text.
Docking: Always starboard side.
Anchor: Port anchor ready for emergency.
Fenders: Prismatic rubber.
Gangway: Ship's accommodation ladder.
Discharging Facilities: 3 cranes – capacity 180 t.p.h. each.
Departure from Dock: Undocking only in daylight and about 1 hour before slack water. 3 tugs are necessary for turning the vessel in the narrow basin to head out.
Under construction 2 unloaders, cantilever bridge type, with capacity of 1200 t.p.h. each.

AUTHORITY: Kitakyushu Port and Harbour Bureau, 2-7 Nishi-Kaigan, 1-chome, Moji-ku, Kitakyushu City, 801 Japan. *Tel:* (093)-321-5941. *FAX:* (093) 321-5915.

KOMATSUSHIMA: 34.00 N. 134.36 E. (See Plan)

DOCUMENTS:
Ship's Register.
Last Port Clearance.
6 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 5 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.
PILOTAGE: Not compulsory. 3 authorised licensed Pilots available.
ANCHORAGES: Situated at Western corner of Komatsushima Bay and port protected by three breakwaters, North, East and South covering 396,700 sq. m. Depths of water at anchorages as follows:
(a) Inside Breakwater 8 m. – 10 m.,
(b) Outside Breakwater 8 m. – 13 m.,
(c) Wharf 8.50 m.
RESTRICTIONS: Vessels must get permission and instructions where to anchor from Port Captain before arrival. Wharf and Inner Harbour: Entering and sailing usually only during day-time regardless tide and current. Outer Harbour: Entry and sailing anytime.
MAX. SIZE: Anchorage inside breakwater: Length no limit, breadth no limit, draft 8.60 m.
Anchorage outside breakwater: Length no limit, breadth no limit, draft 8.60 m.
Shinko Wharf: (Suitable 10,000 d.w.t.) Length 175 m. Draft 8.5 m.
Kanaiso Wharf. (Suitable 10,000 d.w.t.) Length 175 m. Draft 8.5 m.
Kanaiso Wharf. (Suitable 15,000 d.w.t.) Length no limit. Draft 10 m. after dredging.
HEALTH: Pratique to be obtained at Shimotsu prior arrival Komatsushima. At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.
TUGS: Wharf and Inner Harbour: Join vessel at Sea Anchorage, always using tug's line without charge. Outer Harbour: No tug required in normal conditions.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent generally by telegram.
(a) *Quays*

Port Area	*Name of Facility*	*Depth of Water (m.)*	*Length (m.)*	*No. of Berths*
Public				
Komatsushima	Shinko Wharf	9.0	150	1
	Shinko Quay	9.0	170	1
	Kaneiso Quay	9.0	200	1
	Shinko South Quay	6.4	221	2
	Shinko North Quay	6.4	218	2
	Honko Ferry Jetty	6.5	142	1
	Shinko West Quay	4.5	91	1
	Nakanosu Quay	5.5	108	1
Tokushima	Asada Quay	5.5	270	3
	Asada Quay	10.0	185	1
	Mandai Chuo Quay	5.0	207	3
	Suehiro Quay	5.0	300	4
Private				
Komastsushima	Sanyo Kokusaku Pump Jetty	7.5	100	1
	Nankai Kisen Jetty	5.0 – 5.5	127	2
Tokushima	Ocean Ferry Quay	7.5	130	1
	Tokushima Hanshin Ferry	6.0	112	1
	Tokushima Ferry	4.0	88	1

a

(b) *Mooring Buoys, Dolphins:*

Harbour Area	*Name of Facility*	*Depth of Water (m.)*	*No. of Berths*
Public			
Komatsushima	Honko Buoy	9.0	1
Private			
	Tokuyama Cement Dolphin	6.4	1
	Sumitomo Cement Jetty	5.5	1
	Nokyo Shiryo Jetty	5.5 – 7.5	1

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gears not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1630 – 2130 hrs. 60% additional of basic stevedorage; 2130 – 0500 hrs. next morning special additional; Sundays/holidays 100% additional.
MEDICAL: No advance notice required unless urgent.
DENSITY: 1015.
FRESH WATER: Alongside berth: Can be supplied by shore line with capacity of 25 t.p.h.
FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock at maximum 7 days' prior notice.
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
CONSULS: None. Nearest consulates in Osaka.
REPAIRS: Only minor repairs up to 3,000 d.w.t..
DRY DOCKS: No dry dock. Nearest at Hitachi Shipbuilding & Engineering Co. Ltd., Chikko Works, Osaka; Kawasaki Heavy Industries Ltd., Kobe and Mitsubishi Heavy-Industries Reorganised Ltd., Kobe Shipyard & Engine Works.
AIRPORT: Nearest airport Tokushima (10 miles North) where TOA Domestic Airlines, 9 flights to Osaka, 1 to Tokyo.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Police Tel: 110; Ambulance 119; Fire 119.
TELEPHONES: No facilities for placing telephones on board.
SERVICES: None.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.
AUTHORITY: Komatsujima Port and Harbour Office, 37, Shinko, Komatsujima-cho, Komatsujima City, Tokushima Pref. *Tel:* (08853) 2-3422.
AGENT: See "Niihama".

KUDAMATSU: 34.00 N. 131.52 E. (See Plan)

DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Store List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Inland Sea Pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from 1 of 3 Pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication available with Inland Sea Pilot Stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits) Position Lat. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse (vessels transitting Bungo Channel). Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki Pilot Station.

3. Hesaki, at East side of Kanmon (Shimonoseki) Straits. Position Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.

ANCHORAGE: Kudamatsu loading anchorage Lat. 33° 59′ 40″ N., Long. 131° 51′ 20″ E.

RESTRICTIONS: No restriction for entry into and/or departure from anchorage during night and daytime. But berthing/unberthing effected during daytime only.

MAX. SIZE: No restriction on length, breadth, and draft for any vessel entering port, but maximum safe draft for Nippon Oil Jetty 19 m., 178,000 d.w.t, Hitachi Seisakusho 9.5 m. and Toyo Kohan Wharf 11 m.

HEALTH: Radio Agent for Free Pratique not less than 12 hours and not more than 36 hours before arrival, advising full details of vessel and health condition on board. When Free Pratique is granted by radio, vessel will be required to submit the following documents to Quarantine Officer on arrival at Quarantine Anchorage (Lat. 33° 56′ N., Long. 131° 51′ 30″ W.):
Maritime Declaration of Health.
Crew List.
Passenger List.

The following vessels will not be able to get Radio Pratique:

A vessel that has been in contact with an infected area or a suspected infected area within 15 days of arrival.

If a vessel has on board any case, or suspected case, of infectious disease within 15 days of arrival.

If a vessel does not possess a valid Derat or Derat Exemption Certificate.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel to contact Choshi and Northbound to contact Nagasaki Radio respectively.

TUGS: Tugs normally join vessel proceeding to Nippon Oil Refinery Wharf at Lat. 33° 58′ 20″ N., Long 131° 53′ 30″ E. and proceeding to Toyo Kohan Wharf at Lat. 33° 59′ 40″ N., Long. 131° 51′ 20″ E. Tug's line used and charges for line's use is included in tug-boat operation charge. 8 tugs available, 2,000 h.p. – 4,000 h.p.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

	LOA (m.)	*Depth* (m.)	*Capacity* (g.r.t.)	*Cargo*
Hitachi Wharf	175	9.5	12,000	Plant/Carrier
Toyo Kohan Wharf	200	11.0	20,000	Steel Plate
Kudamatsu Public Wharf	130	7.5	5,000	General Cargo
Kudamatsu Public Wharf	185	10.0	15,000	General Cargo

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1630–2130 hrs. 60% additional of basic stevedorage; 2130–0830 hrs. next morning 120% additional; Sundays/holidays 100% additional.

MEDICAL: No advance notice required unless urgent.

FRESH WATER: At anchorage, Kudamatsu section II: water barges available from Tokuyama. Rate of delivery 50 t.p.h. At Nippon Oil Refinery and Toyo Kohan Wharf, hydrants are available. Rate of delivery 20 t.p.h.

FUEL: Major oil companies are represented and all grades of marine oil can be delivered, usually by barge.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

TANKERS: Nippon Oil Refinery:

Berth	*Max. d.w.t.*	*Max. LOA* (m.)	*Max. draft* (m.)
Nippon Petroleum East	178,000	420	19.0
Nippon Petroleum West	50,000	400 (6 buoy)	12.0

Berth	*Products*	*Shoreline*	*Discharge rate* (t.p.h.)	*Hoses*
Nippon Oil (East)	Crude Oil	34″×1	5,000	Pipeline
		16″×1		Chicksan Joint
Nippon Oil (West)	Crude Oil	10″×1 (on floating)	600/800	
		12″×1 (on shore)		

DENSITY: 1025.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: None.

REPAIRS: Small repairs possible.

DRY DOCKS: Kasado Dockyard Co. Ltd.

Dry dock	*Length* (m.)	*Breadth* (m.)	*Depth* (m.)	*Docking capacity* (d.w.t.)
Building dock	255.0	50.0	11.0	90,000
Repair dock No. 1	153.6	22.2	8.0	16,000
Repair dock No. 3	227.0	37.0	11.0	70,000

REPATRIATION: Possible.

AIRPORT: Ube and Hiroshima airports: 20 minutes by Shinkansen and taxi 20 minutes, total 40 minutes to Ube Airport.

Shinkansen 40 minutes, taxi 10 minutes, total 50 minutes to Hiroshima Airport.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police: 110. Ambulance and Fire: 119.

TELEPHONES: No arrangements exist for placing telephones on board.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.

AUTHORITY: Shunan Port Administration Office, 111, Chikko-cho, Tokuyama City, Yamaguchi Pref. *Tel:* (0834) 21-1787.

AGENT: Sub-agents of Dodwell & Co. Ltd., Sankyu Unyo Kiko K.K., 1379-14 Aza Yamzakiya, Oaza-Nishitoyoi, Kudamatsu-shi. Yamaguchi-Ken. Tel. Kudamatsu (0833) 43-0390. Cable Address: Sankyuunyu Kudamatsu. Telex: 6754-67.

KURE: 34.14 N. 132.32 E. (See Plan)

DOCUMENTS:
Ship's Register.
Last Port Clearance.
5 Crew Lists including Passport Numbers.
5 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc., (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Inland Sea pilotage should preferably be arranged through Agent by cable via Nagasaki/Choshi Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea Ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from one of three pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits) Position 34° 34.09′ N., 135° 11′ E. Telegraphic Address: Anjin Kobe.

2. Sekisaki, 3 miles South of Sekisaki lighthouse (vessels transitting Bungo Channel). Position 33° 13′ N., 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki pilot station.

3. Mutsure, at West Entrance of Kanmon (Shimonoseki) Strait, Position: 33° 59′ N., 130° 53′ E. Telegraphic address "Anjin Moji".

Note: VHF communication with pilot stations available as follows:

Name of Station	*Call/Answer Channel*	*Communication Channel*	*Working*
Kobe Port Radio (For Wadamsaki)	Channel 16	Channel 12	24 hours
Shimonoseki Port Radio (For Mutsure)	Channel 16	Channel 14	24 hours
Oita Port Radio (For Sekisaki)	Channel 16	Channel 14	24 hours

Also see "Shipmaster's Report" before first port.

ANCHORAGES:

	Minimum Depth	*Minimum bottom width*	*Density of water*	*Nature of bottom*
Entrance Channel	20 m.	No limit	Summer Av. 1020	Sand, mud and rock
Harbour Channel(s)	20 m.	No limit	Winter Av. 1025	Mud and sand

Depths refer to M.W.L. Difference between datum quoted and chart datum: about 2 m. (to be added) Rise of tide: springs 3.4 m. neaps 2.6 m. Also see "Berthing".

HEALTH: Radio Pratique available. Vessels usually anchor at the quarantine anchorage where the authorities board and grant Free Pratique. Quarantine anchorage (approx. 34° 13′ 45″ N., 132° 31′ 00″ E.)

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound/Eastbound to contact Nagasaki Radio respectively.

TUGS: Tugs normally join vessel at quarantine anchorage area. Tug's lines free of charge.

BERTHING: Harbour/Berthing Pilot available from Quarantine anchorage. Pilots do not agree to berth or unberth outside period from sunrise to sunset, according to their regulations. For berthing, at least 2 hours' advance arrival necessary to reach berth before sunset.

Harbour Anchorage: Following 2 anchorages with good ground (mud & sand) suitable vessels up to 80,000 d.w.t. LOA 300 m.

Name of Anchorage:	*Position:*	*Depth:*
Anchorage "C"	34° 13′ 51″ N., 132° 31′ 29″ E.	20 m.
Anchorage "D"	34° 13′ 29″ N., 132° 31′ 45″ E.	20 m.

Name of Berth	*Length (m.)*	*Depth (m.)*	*Permissible Draft (m.)*	*Capacity (d.w.t.)*
Showa Municipal Pier	170	9.0	7.0	10,000
Nisshin Steel Works Pier No. 3	270	18.0	18.0 (with Tide)	150,000
Kawaraishi Minami Municipal Pier	370	10.0	9.5	15,000

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep Agent advised of ETA. If stevedores cannot commence loading/unloading at time notifed by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1630–2130 hrs. approx. 60% additional of basic stevedorage; 2130–0430 hrs. next morning 130% additional; Sundays/holidays approx. 100% additional.

MEDICAL: No advance notice required unless urgent.

TANKERS: No facilities.

FRESH WATER: Fresh water by barge:

(a) Hiro Kisen's water barge (on behalf of Kure City, 1 barge only, capacity 330 m/t).
   1. Basic volume of water, per ship per supply: 50 cu.m. or less ¥35,000
   2. For more than basic volume: per 1 cu.m. or less.......................... ¥700
   3. No overtime additional required.

(b) Onomichi Water Supply Co's water barge (used in case above barge is unavailable), capacity 400 m.t.
   1. Basic volume of water, per ship per supply: 200 cu.m or less.......................... ¥190,000
   2. For more than basic volume: per 1 cu.m or less ¥760
   3. Extra charge for overtime and holiday services: at ¥5,000 per hour for supply from 1600 to 0600 hrs.
   4. For Dec. 31 & Jan. 1,2,3,4 & 5: 50% additional.

FUEL: Most grades of domestic oil are available, bonded bunkers will be brought by barges from Iwakuni, Tokuyama, Moji or Kobe with 72 hours' advance notice.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Hatches usually opened by crew before berthing, however, hatches can be opened by stevedores if arrangements made.

CERTIFICATES: Ship's Register to show Customs Inspector for confirmation of ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 60 cigarettes to take ashore but no spirits.

CONSULS: No consul available at Kure, but Marine Note of Protest can be attested by the local notary public.

REPAIRS: All types of deck and engine repairs are possible.

DRY DOCKS: Following dry docks are available at I.H.I. Kure Shipyard

No.	*Length*	*Width*	*Depth*	*Capacity*
2	343 m.	65 m.	11.0 m.	up to 400,000 tons
3	510 m.	80 m.	13.5 m.	up to 800,000 tons
4	334 m.	47 m.	17.0 m.	up to 160,000 tons

AIRPORT: Hiroshima airport, distance from Kure approximately 35 km. – 40 km. and about 90 – 120 minutes by car. Only domestic regular airlines available. 6 flights to Tokyo and 2 flights to Kagoshima daily.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police (for emergency) 110; Ambulance 119.

TELEPHONES: No arrangements available for placing telephones aboard except in special cases.

SERVICES: All navigational apparatus can be serviced as required with minimum 24 hours' advance notice. Cargo hold/Tank cleaning services can be arranged from Kobe area.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for 72 hours only, but 72 hours' extension possible if ship stays longer.

GENERAL: Kure is a local port which makes it difficult to arrange all requirements. At least 72 hours' notice helpful.

AUTHORITY: Port and Harbour Dept. – Kure City, 1-6 Chuo 4-chome, Kure City, Hiroshima Pref. *Tel:* (0823) 25-3336.

AGENT: Sub-agents of Dodwell & Co. Tokyo. Naigai Unyu Co. Ltd., 1-7, 1-chome, Naka-dori, Kure-shi, Hiroshima-Pref. Tel. Kure (0823) 21-5181/7. Cable Address: Naigai Kure or Kurekanyu Naigaiunyu. Telex: 6623-40.

KUSHIRO: 42.58 N. 144.21 E.

DOCUMENTS: Ship's Register. Last Port Clearance. 4 Crew Lists including Passport Numbers. 4 Passenger Lists. 1 Stores List. 1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wristwatch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: No telegraphic address. Previous advance notice, minimum 8 hours' advance notice ETA and any alterations. Contact pilot boat through Harbour Office/tug boats with wireless telephones. Pilot boat has no radio telephone. Pilot boat waits at Quarantine Anchorage (1,000 m. off and 280° from North Breakwater white light), and entrance of breakwater during winter period (December–March).

ANCHORAGE: Bottom sand and mud. Minimum depth 9 m. in passage and 7.5 m. in anchorage. Depth over 29.5 ft. 162,075 sq.m., Section 2; Depth over 24.5 ft. 690,000 sq.m., Section 2 and 3; Depth under 24.5 ft. 393,600 sq.m., Section 3. Tidal range, average high-tide plus 1.533 m., average low-tide plus 0.154 m., average tidal difference plus 0.953 m.

RESTRICTIONS: Vessel allowed to enter and sail day and night. Pilot assistance officially not compulsory but in practice necessary, and Pilot service available sunrise to sunset for entry and up to 2100 hrs. for sailing.

MAX. SIZE: See "Berthing".

HEALTH: Radio Pratique available. Formalities will be carried out at the anchorage. Quarantine Station 1,200 m. – 293° off Kushiro Breakwater Red Lighthouse.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: Usually join vessel at entrance of breakwater and ship's lines to be used.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio. All berths limited by depth in entrance channel.

Berth	*Length (m.)*	*Depth (m.)*	*Capacity d.w.t.*
Central Pier No. 1 & 2	340	9.0	10,000×2
No. 3	180	10.0	15,000×1
No. 4	130	7.5	5,000×1
No. 5	130	7.5	5,000×1
No. 6	130	7.5	5,000×1
North Pier No. 1 & 2	383	8.0	10,000×2
North Pier No. 3	148	8.0	5,000×1
New South Pier	130	7.5	5,000×1
South Pier	91	5.4	2,000×1
South Pier	218	7.5	5,000×1
Tanker Berth No. 1	130	7.5	6,000×1
West Pier No. 1 – 1	90	5.5	6,000×1
West Pier No. 1 – 2 & 3	330	9.0	10,000×2
West Pier No. 1 – 4	240	12.0	40,000×1
West Pier No. 1 – 5	185	10.0	15,000×1
West Pier No. 1 – 6	165	9.0	10,000×1
West Pier No. 1 – 7	165	9.0	10,000×1 (use with car ferry)
West Dolphin	260	7.5	6,000×4 (tanker only)
West Pier No. 2 – 8	90	5.5	2,000×1
West Pier No. 2 – 9	180	7.5	5,000×1
West Pier No. 2 – 10	185	10.0	15,000×1
West Pier No. 2 – 11 & 12	480	12.0	40,000×2

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gears not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1630 – 2130 hrs. 60% additional of basic stevedorage; Sundays/holidays 100% additional; Saturdays 10% additional.

MEDICAL: No advance notice required unless urgent.

TANKERS: West Dolphin: 4 berths for 6,000 d.w.t. Hose diameter 10 in., 12 in. and 6 in.

South New Pier – 1 berth for 6,000 d.w.t. Hose diameter 10 in.×1.

DENSITY: Average 1025 inner breakwater HW and average 1022 LW.

FRESH WATER: Direct supply from the wharves or by barge.

FUEL: Domestic oil is available; bonded oil will be brought from Hakodate or Muroran with sufficient advance notice.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear's maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
CONSUL: None. U.S. Consul located in Sapporo city.
REPAIRS: Ordinary deck, engine and electrical repairs arrangable by the local factory.
DRY DOCKS: None; nearest located in Hakodate and Muroran ports.
REPATRIATION: Possible.
AIRPORT: Kushiro airport about 40 minutes taxi or direct connection bus from port area. Flight service daily, 6 flights for Tokyo and 4 flights for Sapporo.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
HOLIDAYS: 1st May.
POLICE/AMBULANCE/FIRE: Police HQ 23–7111 or emergency 110; Hospitals Kushiro Grand Hospital 41–6121, Kushiro Red-Cross Hospital 22–7171; Fire HQ 22–2156 or emergency 119.
TELEPHONES: No systems for arranging on board.
SERVICES: Arrangable from Muroran.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for 7 days or 15 days, but 5 days' extension possible if ship stays longer.
DEVELOPMENTS: Total of 9 berths including one for up to 40,000 d.w.t. Industrial raw materials carriers will be built and port breakwater will be lengthened by 3,940 m.
AUTHORITY: Port & Harbour Dept. – Kushiro City, 5, Kurogane-cho 7-chome, Kushiro City, Hokkaido. *Tel:* (0154) 23-5151.
AGENT: Sub-agents Dodwell & Co. Ltd., Tokyo, Narasaki Sangyo Co. Ltd., c/o Mitsuwa Transport Co. Ltd., Attn. Shipping Agency Dept., Shinfuji-cho, Kushiro-shi, Hokkaido. Tel: (0154) 31-3030. Cable address: Funemitsuwa Kushiro. Telex: 0962971 F MTW J. Attn: Agency Dept.

MAIZURU: 35.27 N. 135.19 E.

DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agents should be provided with necessary information about details of cargoes in advance.
PILOTAGE: Not compulsory. Pilots are available at the anchorage near Kanegasaki for vessels requiring Pilot services.
Pilot station: Lat. 35° 32′ 00″ N., Long. 135° 18′ 30″ E.
ANCHORAGE: Section 2, Depth 9 m., Section 3, 17 m.
RESTRICTIONS: Channel depth 12.0 m.
MAX. SIZE: See "Berthing".
HEALTH: Radio Pratique available. Vessels usually anchor at the outer harbour where the authorities board and grant Free Pratique.
No. 1 Quarantine Anchorage (Outer) Lat. 35° 30′ 15″ N., Long. 135° 20′ 42″ E.
No. 2 Quarantine Anchorage (Inner) Lat. 35° 29′ 15″ N., Long. 135° 20′ 32″ E.
TUGS: Both ship's and tug's lines used. 3 tugs available, 1 × 1,600 h.p. and 2 × 100 h.p.
BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth		*Length* (m.)	*Depth* (m.)	*Permissible draft* (m.)	*Capacity* (g.r.t.)
No. 1 Pier		86	4.0	4.0	—
No. 2 Pier	No. 1 Wharf	110	7.3	6.5	3,000
	No. 2 Wharf	120	7.3	6.5	5,000
	No. 3 Wharf	185	9.0	8.1	8,000
	No. 4 Wharf	105	7.3	6.5	—
No. 3 Pier	No. 1 Wharf	185	10.0	9.0	—
	No. 2 Wharf	150	10.0	9.0	—
	No. 3 Wharf	185	10.0	9.0	—
No. 4 Pier		185	10.0	9.2	15,000

Buoy	*Location*	(m.)	*Capacity* (g.r.t.)
Kita Buoy No. 1	Lat. 35° 27′ 22″ N., Long. 135° 19′ 13″ E.	14	15,000
Ohgimi Buoy No. 1	Lat. 35° 30′ 28″ N., Long. 135° 23′ 34″ E.	14	15,000
Katsura Buoy No. 1	Lat. 35° 28′ 38″ N., Long. 135° 20′ 27″ E.	6	5,000
Taira Buoy No. 1	Lat. 35° 30′ 34″ N., Long. 135° 23′ 34″ E.	6	5,000
Taira Buoy No. 2	Lat. 35° 30′ 01″ N., Long. 135° 23′ 27″ E.	8	12,000
Taira Buoy No. 3	Lat. 35° 30′ 17″ N., Long. 135° 23′ 31″ E.	14	15,000

Remarks: No. 1 Pier is exclusively used by fishing boat. No. 2 Pier, No. 4 Wharf is exclusively used by domestic ferry boat. No. 2 Pier, No. 3 Wharf is only accessible for 130 m. when ferry boat is alongside at No. 4 Wharf. Taira Buoys (No. 1 – No. 3) are for discharging of logs/lumber only.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.
STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1700 – 1900 hrs. 50% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.
MEDICAL: No advance notice required unless urgent.
DENSITY: 1025.
FRESH WATER: Available from wharf and by barge.
FUEL: Domestic oil is available; bonded oil will be brought from Moji, with sufficient advance notice.
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
CONSULS: None.
REPAIRS: Possible.
DRY DOCKS: 246 m. × 33.5 m. × 12.5 m. Two others.
REPATRIATION: Possible.
AIRPORT: None.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Police 07736-5-0810; Ambulance 07736-5-2174; Fire 07736-5-2174.
TELEPHONES: Not possible to place telephones on board.
SERVICES: None.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.
AUTHORITY: Maizuru Port Administration Office, 19-5, Koaza Shimazaki, Aza Matsukage, Maizuru City, Kyoto Pref. *Tel:* (0773) 75-1174.
AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Iino Kaiun Kaisha Ltd., Maizuru Office, 18-5, Koaza Shimasaki, Oaza Matsukage, Maizuru-shi, Kyoto-fu. Cable Address: Iino Maizuru. Domestic Telex: 05734-426 Iino J. Tel.: Maizuru (0773) 75-2111 2/7.

MATSUSHIMA: 32.56 N. 129.36 E. **(See Plan)**

SHIPMASTER'S REPORT: May 1988.

PILOTAGE: Nagasaki pilot boarding ground is at position 32° 43.3′ N., 129° 46.7′ E. which is about one mile E.N.E. of Ma Hana lighthouse on Io Shima Island. The pilot station and pilot boat at Nagasaki do not have VHF so all communications must be made well in advance through the vessel's Nagasaki agent via telex or by cable via Sasebo Radio.

On arrival at Matsushima, the Pilot boards from a tug in position 32° 58.5′ N., 129° 35.2′ E.
ANCHORAGE: The recommended anchorage at Matsushima, but not authorised, is in position 32° 58.7′ N., 129° 35.6′ E.
RESTRICTIONS: Berthing and unberthing during daylight hours only.
HEALTH: If the vessel is in possession of the Japanese Sanitary Certificate, Radio Free Pratique can be obtained by sending a message to the Quarantine Office in Nagasaki via the vessel's Agent, after which the vessel can proceed directly to Matsushima. If vessel is not in possession of Japanese Sanitary Certificate it has to call at Nagasaki for ordinary quarantine service, Customs and Immigration formalities, etc.

If vessel is to proceed to Nagasaki for quarantine the Pilot will anchor the vessel at the outer roads (Anchorage A, Harbour Section No. 6) in position 32° 42′ N., 129° 48′ E. The mooring buoy with a red light on BA. Chart No. 2815 in position 32° 41.8′ N., 129° 47.45′ E. is no longer in existence.

Quarantine formalities are possible between 0830 hrs. and 1600 hrs., therefore the vessel has to arrive at Nagasaki Roads before 1600 hrs., otherwise vessel will have to stay overnight in the roads. As soon as formalities are completed the vessel may sail for Matsushima without a Pilot.
VHF: Channels 16, 3 and 6.
TUGS: In general, vessels over 60,000 d.w.t. use 3 tugs and vessels under 60,000 d.w.t. use 2 tugs. On departure 2 tugs are used for unberthing. Tugs tow lines are used. The port tugs have a blue hull with white superstructure and orange mast.
BERTHING: Berth P1: Length 255 m., depth alongside 14.0 m.
Berths P2, P3 and P4: Each have a length of 114 m. and a depth alongside 8.0 m.

Matsushima is a small island with an electric plant of the Electric Power Development Co. Ltd. It is a well organised plant with its own port. The concrete berth is well fendered and there are ample mooring bollards and additional storm bollards. Off the Northern end of the wharf there is a dolphin joined to the shore by a 65 m. long catwalk. The Northern end of the berth will accept vessels over 60,000 d.w.t. The Southern end is for vessels of 5,000 d.w.t., 2,000 d.w.t. and 2,000 d.w.t. respectively.

It is the custom of the port to berth port side alongside, but if requested by the Master, vessel may berth starboard side alongside.

The berthing pilot, who is a Power Company employee, hands over a berthing plan when he arrives, which contains information about mooring lines, depth alongside and strength and number of bollards. All the bollards are painted and are numbered. The plant and the berth are always kept clean.

There is an approach velocity meter on the quay and tugs are fitted with receivers.

Moorings consisted of 5 head/stern lines and 1 spring line at each end. On approaching the berth, 2 headlines can be sent away at one time by the line boat.

On average 5 vessels a month call at Matsushima.

CARGO HANDLING FACILITIES: At Matsushima there is one unloader with 4 IHI cranes of 23 tonnes capacity each. The discharging rate with grabs is 700 t.p.h. maximum for each crane, or 2,800 t.p.h. in total. The average discharging rate is 1,600 t.p.h.

Normal working hours are from 0630 hrs. to 2130 hrs., 7 days a week, including holidays.

The only day not worked is January 1st (New Years Day).

MEDICAL: There is a hospital at Oseto Cho.

FRESH WATER: Available, rate 15 t.p.h.

FUEL: Bonded oil (fuel and diesel) will be brought from Seto Island ports.

GANGWAY/DECK WATCHMEN: It is compulsory to have one watchman on board to attend to the telephone which is placed on board on arrival. The watchman remains on board until vessel's departure.

REPATRIATION: Possible via Nagasaki or Sasebo.

SHORE LEAVE: Shore passes are issued for Matsushima and Oseto town only. Oseto town is opposite Matsushima Island. There is a ferry boat service between 0700 hrs. and 2210 hrs.

GENERAL: *Provisions:* It is possible to obtain stores at the port.

Tidal Range: Maximum +3.50 m. Minimum −0.50 m.

Hotels: There is no hotel accommodation at Matsushima or Oseto.

Tax Free Shop: Should crew wish to buy electrical goods, the Master should contact Kaijima Company in Sasebo City via the Agent. It is suggested that a cable/telex is sent well in advance in order that a salesman may be sent aboard on arrival.

MATSUYAMA: 33.52 N. 132.42 E. (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Inland Sea Pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from 1 of 3 pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication available with Inland Sea Pilot stations. Also see "Shipmaster's Reports" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits) Position Lat: 34° 34.09′ N., Long: 135° 11′ E. Telegraphic address "Anjin Kobe".
2. Sekisaki, 3 miles South of Sekisaki lighthouse (vessels transitting Bungo Channel). Position Lat: 33° 13′ N., Long: 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible, having due regard to safety, to Sekisaki pilot station.
3. Hesaki, at East side of Kanmon (Shimonoseki) Straits. Position Lat: 33° 56° 24′ N., Long: 131° 03′ 12″ E.

ANCHORAGE: The port faces Iyo-Nada and located near Bungo Straits. Entrance open to Iyo-Nada towards West, but port protected by West breakwater and small island off Northern part of approaches where holding ground good. During Winter months strong N.W. wind prevails causing heavy swell at anchorage. Depth of water 17 m. – 25 m.

RESTRICTIONS: *Oil tanker berth:* Vessel drawing less than 12 m. can moor and unmoor at half-flood during daytime but vessels drawing 12 m. or more advised to await high water.

Dry cargo is logs only and cargo working carried out at anchorage of Umaiso and Yura Bay.

Yura Bay: Vessels no longer than 110 m. can berth. Daytime entry only regardless of tide and current.

MAX. SIZE: *Maruzen Oil Co. Ltd., Matsuyama Refinery, Genyu Sambashi:* Max. 50,000 d.w.t. Max. LOA, 240 m. Max. safe draft 12 m.

Umaiso Bay: Length of vessel 160 m.; breadth no limit; draft 15 m.

Yura Bay: Length 110 m.; breadth no limit; draft 10 m.

Also see "Berthing".

HEALTH: At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers' health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: For tankers: Join vessel at Quarantine anchorage, using tug's lines without charge. For dry cargo vessel, no tug required for berthing and unberthing in normal conditions.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

General cargo to be loaded/discharged at the following wharves in Matsuyama.

Berth section	*Length*	*Depth*	*Max. size* *d.w.t.*
Wharf No. 1			
Sect. 1	380 m.	9.5 m.	15,000
Sect. 2	230 m.	5.5 m.	5,000

Imazu Port Wharf: New Wharf for log discharging only in position Lat: 33° 48′ 46.79″ N., Long: 132° 41′ 49.06″ E. Length 320 m. Depth 9.5 m.

Restrictions: Due to tidal condition (strong current) Pilot requires 2 tugs for mooring and unmooring, even if vessel is less than 5,000 g.r.t.

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gears not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1700–1900 hrs. 50% additional of basic stevedorage; 2100–0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.

MEDICAL: No advance notice required unless urgent.

TANKERS: No advance notice of diameter of load/discharge lines required. See "Max. Size".

Manifold: 1×12 in. (Fuel Oil) 600 t.p.h.; 1×12 in. (Crude Oil); 2,000 t.p.h. 1×12 in. (Diesel Oil) 800 t.p.h.

DENSITY: Anchorage 1015. Berth 1015.

FRESH WATER: *Maruzen Oil Co. Ltd., Matsuyama Refinery, Genyu Sambashi:* Can be supplied by shore line with capacity 25 t.p.h.

Anchorage: Can be supplied by 60 ton barge with capacity 60 t.p.h. Strong winds prevail during Winter months, when no water can be supplied.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days' prior notice. Also see "Moji, Fuel".

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless ship's crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: Consulates in Kobe.

REPAIRS: Only minor repairs.

DRY DOCKS: None. Nearest at Kawasaki Heavy Industries Ltd., Sakaide; Hitachi Shipbuilding & Engineering Co. Ltd., Innoshima and Mukaishima, dimensions of those docks as follows:

Kawasaki Heavy Industries Ltd., Sakaide. Dock No. 2 for 500,000 d.w.t. vessel 450 m.×72 m.×12.3 m. Only used presently for shipbuilding and after services.

Hitachi Shipbuilding & Engineering Co. Ltd., Innoshima Dockyard. Dock No. 1 for 20,000 d.w.t. vessel 175 m.×25 m.×25.62 m.×9.10 m. Dock No. 3 for 130,000 d.w.t. vessel 282.50 m.×47 m.×11.33 m.

Hitachi Shipbuilding & Engineering Co. Ltd., Mukaishima Dockyard. Dock No. 1 for 3,000 d.w.t. vessel 86.18 m.×13.60 m.×6.80 m. Dock No. 2 for 8,500 d.w.t. vessel 125 m.×18 m.×7.40 m. Dock No. 3 for 25,000 d.w.t. vessel 175 m.×29 m.×9 m.

REPATRIATION: Possible.

AIRPORT: Domestic airport situated South of harbour. All Nippon Airways flights to Osaka and Tokyo.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police 110; Ambulance 119; Fire 119.

TELEPHONES: No facilities for placing telephones on board.

SERVICES: Only at Kobe.

SHORE LEAVE: Immigration issue shore passes valid for 7 days if vessel only calling at one port in Japan or 15 days if vessel calling at more than 2 ports in Japan, further extension possible.

AUTHORITY: Matsuyama Marine Safety Agency, Kaikan-Dori, Matsuyama, Japan. *Tel:* (0899) 51-1197. *Contact:* Port Captain.

AGENT: See "Niihama".

MIIKE: 33.00 N. 130.23 E.

DOCUMENTS:
Ship's Register.
Last Port Clearance.
5 Crew Lists including Passport Numbers.
2 Passenger Lists.
3 Ports of Call Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Compulsory; Pilots board at the point Lat. 32° 59′ N., Long. 130° 23′ E.

Shimabara Bay Pilot (Kuchinotsu Pilot) not compulsory. Pilots board 1 mile South of Kuchinotsu Lighthouse, Lat. 32° 35′ N., Long. 130° 12′ E. (Advise ETA Kuchinotsu 48 hours prior to arrival.)

Vessel should proceed to Miike Anchorage by itself in case of Pilot not being arranged.

ANCHORAGES: Lat. 32° 59′ N., Long. 130° 23′ E. Harbour limit within circle of 2,700 m. radius centring on lighthouse at West end of Northern Breakwater. Roadstead affords safe anchorage, mud and sand.

RESTRICTIONS: Vessel shall dock or depart on HW. Ebb stream begins about 30 mins. before HW and runs to South for 6 hours. Max. current 3 knots at entrance of channel. Flood stream begins at about LW time and runs to North for 6 hours max. 3 knots at lighthouse. Channel 1,800 m. long, 137 m. broad from jetty to jetty, 45.7 m. width at bottom. 7.3 m. depth at LWOST.

MAX. SIZE: No limitation for breadth and length, but max. drafts are as follows: 29 ft. 6 in. up to 20,000 d.w.t.; 26 ft. 4 in. up to 25,000 d.w.t.; 24 ft. 6 in. up to 30,000 d.w.t.

HEALTH: Formalities will be carried out 2 miles off the lighthouse (Lat. 33° 0′ 8″ N., Long. 130° 23′ 50″ E.). Radio Pratique available.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: 3 tugs available. 2×1,100 h.p.; 1×800 h.p.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth	*Length* (m.)	*Depth* (m.)	*Draft* (m.)	*Capacity*	*Shore cranes & pipe-lines*
North Quay (No. 6, 7, 8)	520	10.7	8.5	30,000	2×10 tons 1 unloader*
Dock Pier	114	8.5	8.2	1 × 8,000	
Dock Quay	421	8.5	8.2	2 × 8,000	2 coal loaders
Quay No. 5	91	10.7	10.0	1 × 8,000	1 coal loader
New Quay No. 5	68	10.7	10.0	1 × 6,000	1 coal loader

*One shore unloader at North Quay No. 8. Mainly used for vessels over 5,000 d.w.t.

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1700 – 1900 hrs. 50% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 100% additional.

MEDICAL: No advance notice required unless urgent.

DENSITY: 1025.

FRESH WATER: Available at wharf only. Delivery 20 t.p.h. – 25 t.p.h.

FUEL: Domestic oil is available; Bonded oil will be brought from Moji or Tokuyama, when required.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches (according to charter party). Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gears' maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: Consuls at Osaka or Tokyo.

REPAIRS: Minor repairs only.

DRY DOCKS: See "Moji".

SURVEYORS: (1) No cargo inspectors available. (2) Lloyd's Register, American Bureau and Bureau Veritas in Miike.

REPATRIATION: Possible.

AIRPORT: See "Moji".

TIME: GMT plus 9 hours. No alterations made to clocks during year.

HOLIDAYS: 15th August, 1st January.

POLICE/AMBULANCE/FIRE: Tel: 110 and 119.

TELEPHONES: Available at Agent's office.

STORING: See "Prelims".
1. By truck.
2. Barge storing only when loading steel products.
3. Trucks can proceed alongside at berth.
4. Fork lift trucks available.
5. If any regulations in force agent will arrange documents.
6. Only a few riggers available. Extra riggers come from Moji or Kobe.

SHORE LEAVE: Local Immigration Offices issue crew permit valid for only 7 days, but 7 days' extension possible if ship stays longer.

AUTHORITY: Mitsui Mining Co., Ltd., Miike Port Office, 1 Shinkomachi, Omuta, Fukuoka 836, Japan. *Tel:* (0944) 57-3131. *Contact:* General Manager.

Maritime Safety Agency, No.7 District Agency, Miike Office. *Contact:* Harbour Master or Captain of the Port.

MINAMATA: 32.11 N. 130.21 E. (See Plan)

PORT LIMITS: The sea surrounded by the circular arc with a radius of 1,700 m. centred upon Myojin-zaki (Lat. 32° 11′ 59″ N., Long. 130° 22′ 30″ E.), and the line from the point of Myojin-zaki to Tsutsuwa-zaki (Lat. 32° 10′ 50″ N., Long. 130° 22′ 27″ E.) and the coast.

DOCUMENTS:
3 Crew Lists.
3 Passenger Lists.
1 Manifest.
1 Customs.
Stores List.
1 Health Document.
1 Bill of Lading.

PILOTAGE: Pilot station Lat. 32° 11′ N., Long. 130° 04′ E. (1 mile South of Toshima-Lighthouse of Ushibuka) (acting also as an Agent for foreign vessels). Senko Co. Ltd., Minamata Branch, located at 2-34 Umedo-Cho 1-chome, Minamata-shi, Kumamoto-ken. Tel: 09666-3-4117. Telex: 764941 Senko J.

ANCHORAGE: Within port limits.

RESTRICTIONS: A Pilot is not available after dark for an outgoing vessel but around-the-clock for incoming vessels. Availability of Pilot is dependent on the tidal conditions.

MAX. SIZE: Max. d.w.t. 40,000 tons at anchorage – Length 190 m., depth 10.5 m. Max. d.w.t.10,000 tons at Hyakken Wharf – Length 130 m., depth 6.5 m. The tidal difference between high and low water (spring tides) is 4.1 m.

HEALTH: All the necessary procedures must be undertaken at the Minamata-Yatsushiro Branch Office of the Nagasaki Quarantine Station.

Radio Pratique available. Quarantine inspection will be carried out in position Lat. 32° 12′ 30″ N., Long. 130° 20′ 40″ E. This position is about 20 minutes by boat from the port.

Quarantine Office Tel: 2-4016.

RADIO: Not available.

VHF: Not available.

TUGS: 3 tugs (200 h.p.) owned by Senko Co. Ltd, Minamata Branch.

BERTHING: Hyakken Wharf: Length 210 m., depth 5.5 m. at low tide.

Hyakken New Wharf: Length 210 m. depth 6.5 m.

CRANES: Not available. A vessel is required to use her own gear alongside the quay.

STEVEDORES: Senko Co. Ltd., Minamata Branch.

MEDICAL: Advise Agent.

FRESH WATER: Available from Hydrant of Hyakken Wharf, rate approx. 150 – 200 t.p.h.

CONSULS: None.

REPAIRS: Only minor repairs possible.

DRY DOCKS: Not available.

SURVEYORS: Will attend from Miike (N.K.K.K.).

GANGWAY/DECK WATCHMEN: Service of watchmen is not necessary.

HATCHES: Opening and closing is done by the stevedores if required.

CUSTOMS: Tel: 2-2347.

REPATRIATION: Minamata Branch Office of the Fukuoka Immigration Office arranges necessary repatriation.

AIRPORT: Kumamoto Airport (about 100 km. distance), by car. Kagoshima Airport about 60 km. by car.

POLICE/AMBULANCE/FIRE: The Minamata Police Station located at 2-4 Tenjin, Minamata-shi, Kumamoto-ken. Tel: 09666-3-2171.

The Minamata Head Station of the Minamata Fire Department located at 523, Jinnai-Kitazono, Minamata-shi, Kumamoto-ken. Tel: 09666-3-1191.

TELEPHONES: There are no arrangements for placing telephones on board.

SHORE LEAVE: Shore passes are issued at the Minamata Branch Office of the Fukuoka Immigration Office.

DELAYS: An incoming foreign vessel is to be given priority, but delays will be expected when the quay is occupied by vessels.

DEVELOPMENTS: Hyakken New Wharves (7.5 m. and 10 m. depth) to be completed late 1989.

AUTHORITY: Minamata Port Office, 2-21 Minatomachi, 3-Chome, Minamata Shi, Kumamoto-Ken, Japan. *Tel:* 3-2449.

AGENT: Senko Co. Ltd., Minamata Branch, located at 2-34, Umedo-Cho 1-chome, Minamata-Shi, Kumamoto-Ken. Tel: 09666-3-4117. Telex: 7649-41 Senko J. Cable Address: "Senkomarine Minamata".

MISUMI: 32.38 N. 130.27 E. (See Plan)

PORT LIMITS: The sea surrounded by the line from Seto-no-hana to the lighthouse on Oyano Island, the line from Togasaki on the same island to Daishiro-bana on Chizoku Iland, the line from Daishiro-bana to Usagi-bana on Tobase Island, the line West to Tobase Bridge, and the coast.

DOCUMENTS: 3 Crew Lists, 3 Passenger Lists, 1 Manifest, 1 Customs, 1 Stores List, 1 Health Document, 1 Bill of Lading.
PILOTAGE: Pilot station (acting also as an Agent for foreign vessels).

Misumi Branch Office of the Nippon Tsuun K.K. located at Higashiko 1, Misumi-machi, Uto-gun, Kumamoto-ken. Tel: 09645-2-3121 or 2-3125.

Misumi Kaiun K.K. located at Higashiko 1, Misumi-machi, Uto-gun, Kumamoto-ken. Tel: 09645-2-3562 or 2-3278.
ANCHORAGES: Within port limits.
RESTRICTIONS: A Pilot is not available after dark, also his availability depends on the tidal conditions.
MAX. SIZE: Maximum d.w.t. 15,000 tons from North entrance (Lat. 32° 38′ N., Long. 130° 27′ E.). 27,000 tons from South entrance (Lat. 32° 33′ 18″ N., Long. 130° 29′ 39″ E.). The tidal difference between high and low water is great (4 m).
HEALTH: All the necessary procedures must be undertaken at the Misumi Branch Office of the Nagasaki Quarantine Station.
RADIO: Not available.
VHF: Not available.
TUGS: 3 tugs owned by the Misumi Kaiun K.K., 2 tugs owned by the Misumi Branch Office of the Nippon Tsuun K.K.
BERTHING:

Quay	A	Length	137 m.	Depth	8 m.
,,	B	,,	160 m.	,,	9 m.
	C	,,	165 m.		9 m.

CRANES: 1 zip crane (fixed) owned by the Kumamoto Prefecture. 3 zip cranes (fixed), 2 mobile cranes, 2 shovel loaders (movable) and 5 fork-lifts (movable) owned by the Misumi Kaiun K.K.

1 zip crane (fixed), 1 mobile crane, 4 truck cranes (fixed) and 2 pay loaders (movable) owned by the Nippon Tsuun K.K.

A vessel is not required to use her own gear along the Quays A, B, and C, but is sometimes required to do so at the time of loading and discharging.
STEVEDORES: Advise Agent.
MEDICAL: Advise Agent.
FRESH WATER: Available from the water supply facilities operated by the Kumamoto Prefecture.
CONSULS: None.
REPAIRS: Only light repairs possible.
DRY DOCKS: Small docks for less than 1,000 tons.
SURVEYORS: Available.
GANGWAY/DECK WATCHMEN: Service of watchmen is not necessary.
HATCHES: Opening and closing is done by the stevedores.
REPATRIATION: Misumi Branch Office of the Fukuoka Immigration Office arranges necessary repatriation.
AIRPORT: Kumamoto Airport (about 60 km. distance).
POLICE/AMBULANCE/FIRE: The Oyano Police Station Misumi Police Box located at Higashiko, Misumi-machi, Uto-gun, Kumamoto-ken. Tel: 09645-2-3110. Nishi Branch Station of UKI Fire Department located at Nakamura, Misumi-machi, Uto-gun, Kumamoto-Ken, Tel: 09645 (2) 2222.
EMERGENCY CO-ORDINATION CENTRE: Misumi Kaijo Haonbu (Misumi Maritime Safety Office) Tel: 09645 (2) 3103.
TELEPHONES: There are no arrangements for placing telephone on board.
SHORE LEAVE: Shore passes are to be issued at the Misumi Branch Office of the Fukuoka Immigration Office.
STORING: Trucks may proceed alongside. Fork lift trucks not available. Contact Agent if riggers required.
DELAYS: Delays will be expected when quays are occupied by vessels or a Pilot cannot go on board because of the tidal conditions.
AUTHORITY: Misumi Port Office of the Kumamoto Prefecture, 1160–39, Oaza Misumiura, Misumi-machi, Uto-gun, Kumamoto-ken. *Tel:* 09645 (2) 2079. *Contact:* Port Director.

AGENT: Holme Ringer & Co., Ltd. c/o Misumi Kaiun K.K. 3-1159, Oaza Misumiura Misumi-machi, Uto-gun, Kumamoto-ken. Cable Address: Ringer Misumi. Tel: Misumi 09645 (2) 3563 or (2) 3278.

MIYAKO: 39.39 N. 141.58 E. (See Plan)

DOCUMENTS:
For Quarantine
1 Statement by Ship's Master.
1 Crew List.
1 Passenger List (if any).
Yellow cards for all.
1 Derat Certificate.
For Immigration
1 Declaration of Inward Vessel.
Passport or Seamen's Book for all.
1 Crew List.
1 Application for shore pass.
For Customs
1 Last Port Clearance.
1 Declaration of Inward Vessel.
1 Crew List.
1 List of Crew's Baggage.
1 List of Ship's Store.
2 Cargo Manifest (Discharging).
1 Cargo Manifest (Through).
1 Certificate of Ship's Registry.
For Port Management Office
1 Declaration of Inward Vessel.
For Maritime Safety Base
1 Declaration of Inward Vessel.
1 Crew List.
1 Cargo Manifest (Discharging).
1 Cargo Manifest (Through).

Above documents to be prepared by Master before arrival.

Master to telegraph ETA and crew's health condition directly to Quarantine Miyako before arrival.
PILOTAGE: Not compulsory, but arrangeable at the Master's request. Pilot ordinarily boards at/around Quarantine anchorage, also available boarding at the Master's request at outer harbour which position is HeisaKi light Northward 1.5 miles (Lat. 39° 40.5′ N., Long. 142° 1.2′ E.).
ANCHORAGES: Quarantine anchorage located at Lat. 39° 37.82′ N., Long. 141° 59.3′ E. Depth 16 m. – 22 m. Bottom mud and sand. Outside breakwater, care should be taken not to foul fishing nets.

Depth in inner anchorage 12 m. – 15 m.
RESTRICTIONS: Night entry and departure permitted subject to weather conditions.
MAX. SIZE: Draft 12 m. and LOA 240 m., breadth no restrictions.
HEALTH: Radio Pratique available. Formalities carried out at anchorage.
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. Westbound vessel, via Choshi Radio, and Northbound via Nagasaki Radio.
TUGS: Normally join vessel on passage from anchorage. Tug's line used. One tug available 2,400 h.p. Additional tugs available from Kamaishi.
BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth		*Max. LOA* m.	*Depth at LW* m.	*No. of wharf*	*Max. d.w.t.*
Desaki Wharf	No. 1 & 2	218	7.3	2	3,000
,, ,,	No. 3	175	9.0	1	10,000
Lumber Port buoy			8.0	1	8,000 (G/T)
Fujiwara Wharf	No. 1 & 2	260	7.5	2	5,000
,, ,,	No. 3	240	12.0	1	40,000
,, ,,	No. 4	180	4.5	–	–
,, ,,	No. 5 & 6	260	7.5	–	–

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1700–1900 hrs. 50% additional of basic stevedorage; 2100–0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.
MEDICAL: No advance notice required unless urgent.
TANKERS: No facilities.
DENSITY: Average 1019.
FRESH WATER: Available from wharf about 50 t.p.h. but no water barge. In case vessel urgently requires water at anchorage, tug-boat arrangeable for this purpose.
FUEL: Domestic oil is available; Bonded oil will be brought from Tokyo or Sendai, when required.
GANGWAY/DECK WATCHMEN: Not especially required unless passengers or valuable cargo on board.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depends on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommended request stevedores for this work unless crew can complete it before berthing.
CERTIFICATES: Ship's Register, Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.
CUSTOMS ALLOWANCES: 60 cigarettes to take ashore but no spirits.
CONSULS: None.
REPAIRS: Minor deck and engine repairs available.
DRY DOCKS: None.
REPATRIATION: Possible.
AIRPORT: Hanamaki Airport distant 150 km. from Miyako (2.5 hours by car). 1 flight between Hanamaki/Tokyo Monday/Thursday/ Friday and Saturday and 2 flights Tuesday/Wednesday and Sunday by Toa Domestic Air Lines (TDA).
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Police 2-5011 (Headquarters) and 2-6037 (Water Police Station); Ambulance 119; Fire 119.
TELEPHONES: No facilities for placing telephones on board.
SERVICES: Surveyor, Tally, Hold cleaning, Tank cleaning.
SHORE LEAVE: Local Immigration Office issues shore pass valid for only 3 days; 3 days' extension possible if ship stays longer. If vessel advises longer stay in port on arrival, Immigration can issue shore pass for 9 days.
GENERAL: Discharging ex-gearless vessel at wharf not possible as no shore crane for discharge.
AUTHORITY: Miyako Port Administration Office, 114, Fujiwara 3-chome, Miyako City, Iwate Pref. *Tel:* (01936) 2-1471.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Miyako Kowan Unso Kaisha, Ltd. No. 1-12, Rinkodori Miyako-shi, Iwate-ken. Cable address: Koun Miyako. Domestic Telex: 8344-08. Tel: (01936) 2-3501/5. Postal No.: 027.

MIZUSHIMA: 34.31 N. 133.45 E. (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: *(a)* Inland Sea pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from 1 of 3 pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication available with Inland Sea Pilot Stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits). Position Lat. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse (vessels transitting Bungo Channel). Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki Pilot Station.

3. Hesaki, at East side of Kanmon (Shimoneseki) Straits. Position Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.

(b) Vessels over 50,000 d.w.t. or of draft of more than 12.5 m. are unable to pass through Kurushima Strait and required to transit Wadamisaki.

There are very narrow and crooked channels, such as the Kurushima Strait, maximum tidal current amounting to 10 knots; the Bisan Strait maximum tidal current amounting to 4 knots, and the Akashi Strait, maximum tidal current amounting to 6 knots.

(c) Harbour Pilot: Pilots of the Inland Sea Pilots Association are also employed for this pilotage if required, and Pilot boards at Mizushima Quarantine Anchorage (Lat. 34° 26′ 30″ N., Long. 133° 34′ 30″ E. approximate centre position of quarantine area). However, if an Inland Sea Pilot is employed at the above-mentioned pilot stations, the same Pilot acts for harbour pilotage.

ANCHORAGES: Anchorages available for small size vessels only. In case of large vessels waiting for berthing, these vessels shall wait at Quarantine Anchorage, at around Nabeshima, at nearby Sakatewan or off Kobe.

Around "Q" Anchorage Depth	15 m. – 18 m.
Around Nabeshima Depth	32 m. – 40 m. (temporarily suspended)
Nearby Sakatewan Depth	32 m. – 41 m.
Off Kobe Depth	43 m. – 47 m.

RESTRICTIONS: *(a)* Entering and departing from port shall be in accordance with instructions to be given by Signal Station.

(b) No restriction imposed upon entering or leaving port during night-time, nevertheless such movements are next to impossible in consideration of the nature of the structures of the port. In addition Pilots refuse to board during night-time.

(c) Super-sized vessels, unable to enter except at high tide.

Pilots should be consulted in advance for draft exceeding 14.80 m.

MAX. SIZE: See "Berthing".

HEALTH: Radio Pratique available. Formalities will be carried out at Quarantine Anchorage Lat. 34° 26′ N., Long. 133° 44′ E.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which covers all ports in Japan. If specifically Westbound vessel to contact Choshi and Northbound to contact Nagasaki Radio respectively.

TUGS: Tugs normally join the vessel at the Quarantine Anchorage area. Usually tug's lines used free of charge.

BERTHING:

Max. d.w.t.	*Max. LOA*	*Max. safe draft*	*Discharging facilities*	*Discharge rate per hour/gang or unit*
Coal, Iron Ore and Scrap				
(A) *Tokyo Seitetsu*				
(i) A Berth – 215 m.				
54,000	164 m.	at high tide 12.0 m.	Ship's gear only	Scrap 20 tons Pig Iron 30 tons
(ii) B and C Berths – 300 m.				
20,000	150 m.× 2	9.0 m.	Crane 6 tons×2 Ship's gear	Scrap 30 tons Pig Iron 40 tons
(B) *Kawasaki Steel Corp., Mitzushima Works*				
C Berth				
30,000	485 m.	11.0 m.	28 Tns. Crane×2 22 Tns. Crane×1	
Takahashi-gawa Berth – 770 m.				
30,000	250 m.	11.0 m.	30 Tns. Crane×2	
D Berth – 400 m.				
35,000	No limit	11.0 m.	Ship's gear Shore crane 16 tons×1 17 tons×1	Scrap 15 tons Pig Iron 25 tons
E Berth				
0 m. – 656 m.				
110,000	No limit	14.80 m.	Unloader	
F Berth				
320 m.			1,500 tons×3	
200,000	No limit	14.80 m. – at high tide		Coal 30,000 tons Iron ore 40,000 tons
Grain				
(A) *Nishi Nihon Grain Centre Mizushima Works*				
Nishinihon Wharf (Dolphin)				
60,000	162 m.	12.0 m.	Pneumatic unloader×2	400 tons per unit
(B) *Nishi-Futo*				
(i) 1 berth				
15,000	180 m.	10.0 m.	Ship's gear	Wheat 80 tons Soybean 70 tons
(ii) 2 berth				
10,000	130 m.	9.0 m.	Ship's gear	Wheat 80 tons Soybean 70 tons
(C) *Seto Futo Co. Ltd.*				
Seto Futo				
76,000	No limit	14.0 m.	Pneumatic unloader×1 Level luffing crane×2 Silo capacity 21,000 tons	400 tons per unit 500 tons per unit
Oil				
(A) *Mitsubishi Oil Co Ltd., Mizushima Refinery*				
(i) No 5 Pier (Dolphin)				
70,000	No limit	12.3 m.	Crude oil 12 in.×2 Fuel oil 12 in.×2 Diesel oil 6 in.×1	5,000 tons 1,000 tons 800 tons
(ii) No. 6 Pier (Dolphin)				
230,000	No limit	14.80 m.*	Crude oil 12 in.×3 Fuel oil 8 in.×1	7,000 tons 400 tons
(B) *Nippon Mining Co. Ltd., Mizushima Refinery*				
(i) No. 1 Pier (Dolphin)				
60,000	No limit	12.5 m.	Crude oil 12 in.×2 Fuel oil Diesel oil	4/5,000 tons 7/1,200 tons 600 tons
(ii) No. 2 Pier (Dolphin)				
230,000	No limit	14.80 m.*	Crude oil 12 in.×5 LPG 12 in.×2 Fuel oil 8 in.×1	8,000/12,000 tons 900 tons 400 tons
(C) *Asahi Kasei K.K. Mizushima Works*				
C-8 Pier (Dolphin)				
10,000 (g/t)	No limit	8.3 m.	Chemical (vapour line 4 in.×1) (cargo line 6 in.×1)	100/200 tons

*N.B.—Some allowance may be granted by Pilot depending on tidal condition. Depth of water (14.80 m.) + tide = Ship's draft + keel allowance (ship's draft × 0.1 + 0.5 m.).

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1700 – 2100 hrs. 50% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.

MEDICAL: No advance notice required unless urgent.

TANKERS: See "Berthing".

DENSITY: Entrance channel Summer average 1020, Winter average 1023. Harbour channel Summer average 1019, Winter average 1025.

FRESH WATER: Available at berth, ex-pipe-line. Average delivery rate 20 k/t/hour. Water barges available, sent from Onomichi. Delivery rate approximately 50 k/tons per hour.

FUEL: Most grades available.

FIRE PRECAUTIONS: *(a)* Whenever necessary to repair vessel, the rule of "Strictly and Completely No Fire" is to be observed. *(b)* To keep sufficiently powered tugboat alongside vessel at all times when engine is under repair. *(c)* A written pledge to be submitted to Oil Company, promising to take full responsibility and to pay full indemnity by ship's Owners (in case of repairing vessel) if any accident has occurred by fault of the vessel.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gears maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: No consul available, but marine note of protest can be attested by the local notary public.

REPAIRS: All types of deck and engine repairs possible by Mitsui Shipbuilding and Engineering Co. Ltd., Tamano Works. Minor repairs possible by Nojima Senpaku Co. Ltd., Mizushima Works, Sonkyo Nainenki Seisakusho Co.

DRY DOCKS: *Sanoyasu Dockyard Co. Ltd., Mizushima Shipyard:* Dimensions of longest drydock. Length 675 m., width 63 m., depth 13 m. *Mitsui Shipbuilding and Engineering Co. Ltd., Tamano Dock:*

(a) Dimensions of largest dry dock No. 3 D. Dock (length 672 ft. × width 103 ft. 3 in. × depth 32 ft.). *(b)* Number of small docks: 2.

AIRPORT: Okayama Airport is the nearest from Mizushima, distance approximately 40 km. and takes about 40 minutes by car. Only domestic regular airlines available. 3 flights to Tokyo, daily.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police 110; Ambulance 119; Fire 119.

TELEPHONES: No telephone installation service on board.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.
SERVICES: All navigational apparatus can be served, as requested, but technicians are to be sent from Kobe.
REGULATIONS: Quarantine Anchorage is outside harbour limits therefore (i) no persons allowed ashore from this anchorage, (ii) No supplies permitted to vessels and, (iii) No Agency services available.
REPORT: (Ship's Agent) 1984.

As you are aware, a vessel over 200 m. in length or 50,000 d.w.t. is not allowed to anchor off Mizushima whilst waiting for a berth or other purposes as the space in the Roads is narrow. Therefore, if a berth is not available at the expected time of ship's arrival, the ship has to anchor off Kobe, which is the nearest available place to wait for berthing turn. During vessel's stay in Kobe Roads, quarantine service from Kobe Quarantine Station is not available except in an emergency as this service is available at Mizushima. The Customs entry which requires payment of tonnage dues is not made at Kobe.

In the above circumstances, we, in order to protect the Owners interests, have been instructing the Masters of the vessels to tender Notice of Readiness when they arrived off Kobe for waiting berth although most Receivers or Charterers only accept the NOR when Free Pratique is granted at Mizushima if the vessel is not qualified to obtain Radio Pratique.

It is apparent that when calculation of laytime is made controversy arises between Shipowners and Charterers as to who is to bear the risk of waiting off Kobe for a discharging berth. The Charterers may contend that the Master is not allowed to tender NOR without Free Pratique and Customs clearance whilst the Owners rebut that the ship was lying at a place for waiting berth solely for Receivers/Charterers convenience, being her voyage ended.

In order to avoid a dispute of this kind, we would respectfully suggest modifying the charterparty clause for a vessel of the above category calling at Mizushima as follows:
Quote:

If berth is not available on arrival at discharging port, vessel shall be allowed to tender Notice of Readiness from place of anchorage ordered by Port Authorities whether in berth or not, whether in port or not, whether Customs cleared or not, whether in Free Pratique or not.

Laytime at second/third discharging port, if used, to commence on arrival, whether in berth or not, whether in port or not, whether Customs cleared or not. Time for shifting from a waiting anchorage to discharging berth not to count.
Unquote.

AUTHORITY: Mizushima Port & Urban Development Bureau, Okayama Pref. 1-12, Mizushima Fukuzaki-cho, Kurashiki City, Okayama Pref. *Tel:* (0864) 44-7141.

AGENT: Sub-agent of Dodwell & Co. Ltd., Tokyo. Naigai Unyu Co. Ltd., 1, 2 – chome, Kaigan-Dori Mizushima, Kurashiki-Shi Okayama-Ken. Cables: Naigai Kurashikimizushima. Tel: Kurashiki (0864) 44-5211.

MOJI (Kitakyushu): 33.54 N. 130.55 E. (See Plan) (See "Kanmon-Ko").

LOCATION: Moji port is located in the Kanmon Straits between Shimonoseki on Honshu Island and Moji at the Northeast tip of Kyushu and is well sheltered from the open sea by steep hills on all sides. According to the Harbour Regulations, the port is one of the sections in Kanmon Harbour which consists of Moji, Shimonoseki, Kokura and Dokai (Tobata, Wakamatsu and Yawata). In 1963, five cities, Moji, Kokura, Tobata, Wakamatsu and Yawata situated in North-Eastern part of Kyushu were combined in one city, as Kitakyushu.

Moji is now known as Moji-ku of Kitakyushu City.

DOCUMENTS: When ship arrives direct from foreign port, Customs Officials will board to search vessel. Following documents to be submitted:

Crew List.
Passenger List.
Stores List.
Manifest of crew personal effects (must be signed by individual crew member).
Arms and ammunition list.
Narcotics List.
List of ports of call on current voyage.
Discharging Cargo Manifest.
Through Cargo Manifest.
Declaration inward/outward (Form No. C2000).

The following will be checked on board:

Ship's Registry.
Last Port Clearance.

When ship comes from Japanese port, Customs Officials will not attend on board, except special case. Master or Agent to attend Custom House for entry formalities with following documents:

Discharging Cargo Manifest.
Through Cargo Manifest.
Declaration Inward/Outward.
Ship's Registry.
Last Port Clearance.

Documents entrusted with the Master by Customs at previous port. On ship's departure, clearance issued by Customs, after confirming payment of tonnage dues.

PILOTAGE: (1) *Harbour Pilotage:* Compulsory for entry, departure and when vessel passing through Straits if g.r.t. exceeds 10,000 tons. Pilots embark Eastbound vessels at Mutsure Quarantine Anchorage position half mile East Mutsure L.H. Lat. 33° 58′ 15″ N., Long. 130° 53′ 43″ E. and Westbound vessels at Hesaki Quarantine Anchorage position 125°, 1,500 m. from Hesaki L.H. Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E. Two Pilots embark vessels exceeding 30,000 gross tons for entry and departure charging double pilotage.

(2) *Sea Pilotage:* Vessels approaching from East can obtain Pilots by radio request made at least 24 hours in advance. Pilot embarks at position 3 miles South from Sekisaki L.H. Lat. 33° 13′ 00″ N., Long. 131° 54′ 00″ E.

(3) Pilots should be kept closely advised of vessel's accurate ETA at pilot station. If any change in vessel's movements, Master requested to immediately communicate by radio or VHF to pilot offices directly or through Agent reporting revised ETA. Cable addresses of pilot offices are: Harbour Pilot "Kanmonpilot Moji", Inland Sea Pilot "Anjin Moji".

(4) *VHF:* Vessels keep in direct contact with port authorities with regard to arrival, berthing instructions and Pilot's requirements through VHF as follows:

(a) Call sign: Kitakyushu Port Radio (or Shimonoseki Port Radio).
(b) Location of Radio facilities: Transmitting and receiving station located at the top of Mt. Hinoyama, Shimonoseki.
(c) Type of wave: Channel: Simplex 16 (calling, responding); Simplex 12 (communicating); Simplex 14 (communicating); Duplex 20 and 22 (communicating). Output 50 W.
(d) Operating hours: 0000 – 2400 hrs.
(e) Communicating range: Within a radius of 50 miles from the Hinoyama Station.
(f) Communicating language: Japanese/English.

ANCHORAGE:

Tanoura No. 1 anchorage (83° from Moji Saki Light Buoy, 1,340 m.). Draft 9.1 m.

Tanoura No. 2 anchorage (83° from Moji Saki Light Buoy, 1,770 m.). Draft 9.1 m.

Tanoura No. 3 anchorage (80° from Moji Saki Light Buoy, 2,300 m.). Draft 9.1 m.

WIND, TIDE: Easterly winds prevail in warm seasons. N.W. winds prevail in Winter season. Dense fog frequently prevails in Spring and Autumn.

Tidal range 3.07 m. Current near entrance of port runs Westward at flood and Eastward at ebb. Speed of current in vicinity of narrowest section of Straits sometimes reaches 7 – 8 knots. In stream of port, it is about 3 – 5 knots.

RESTRICTIONS: *(a)* Berthing: During daytime only. Swift tidal current prevails at buoy berths necessitating strong moorings, and in accordance with harbour rules, ships moor with anchor chains to buoy. Requisite chain preparations should be completed before ship leaving pilot station. Occasionally large vessels drawing deep draft made to await high water and/or suitable current to berth alongside wharves.

(b) Departure: With adequate notice, no restrictions from anchorage and/or buoys. Night departure from wharves generally practicable, except No. 7 Wharf and Nos. 8, 9, 10 Wharves, the latter 3 berths however only permitting vessel to sail against tide.

(c) Tug assistance may be required at Pilot's discretion for large vessel mooring to and/or unmooring from buoy, depending upon efficiency of engine and conditions of weather, tidal current, etc.

(d) Vessels with draft over 9.14 m. (30 ft.) but not exceeding 10 m. can pass through Kanmon Straits with favourable tide.

MAX. SIZE: *Tankers:* 1 tanker berth, Mitsui & Co. Berth "B". Max. d.w.t. 33,000 tons. Max. LOA, 200 m. Max. safe draft 9.10 m.

Also see "Berthing" and "Tankers".

HEALTH: Radio Agent for Free Pratique not less than 12 hours and not more than 36 hours before arrival, advising full details of vessel and health conditions on board. When Free Pratique is granted by radio vessel will be required to submit the following documents to Quarantine Officer on arrival:

Maritime Declaration of Health.
Crew List.
Passenger List.

The following vessels will not be able to get Radio Pratique:

A vessel that has been in contact with an infected area or a suspected infected area within 15 days of arrival.

If a vessel has on board any case, or any suspected case of infectious disease, within 15 days of arrival.

If a vessel does not possess a valid Derat or Derat Exemption Certificate.

(a) Quarantine Station at Western entrance: half mile East from Mutsure Lighthouse Lat. 33° 58′ 15″ N., Long. 130° 53′ 43″ E.

(b) Quarantine Station at Eastern entrance: 125°, 1,500 m. from Hesaki Lighthouse Lat. 33° 56′ 24″ N., Long. 131° 30′ 12″ E.

(c) Quarantine inspection not allowed inside port except when weather or other special reasons prevent quarantine boat from approaching ship at anchorage.

(d) "Q" flag should be hoisted until ship is in Free Pratique.

(e) Vessels exceeding 20,000 gross tonnage may undergo quarantine on application when they berth inside port.

(f) Quarantine service is rendered from sunrise to 1 hour before sunset.

(g) When ship arrives from plague infected or suspected area within 10 days after she left such place, a 24 hour special quarantine is required. All sanitary scuppers must be closed and garbage must not be thrown overboard after ship reaches 60 miles off Japanese coast.

(h) Radio Pratique is obtainable according to the Radio Pratique Regulations.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel to contact Choshi and Northbound to contact Nagasaki Radio respectively.

VHF: See "Pilotage".

TUGS: Normally join vessel at suitable position for mooring in judgment of Pilot and tug. In operation, tug's line to be used for mooring and unmooring without any charge. 10 tugs, 1,500 h.p. – 3,520 h.p.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Name of berth	*Length* m.	*Depth* m.	*Permissible draft* m.	*Capacity* g.t.	
Nishikaigan Wharf (public)					
No. 1 (No. 1–2)	450	8.7	8.5	No Limit	Subject to draft and length
2		9.0	9.0	No Limit	Wharves No. 1-3 being reclaimed (see "Plan")
3 (No. 3–7)	877	9.3	9.3	No Limit	
4		10.0	9.3	No Limit	
5		10.0	9.0	No Limit	1×crane for grain cargo
6		10.0	9.3	No Limit	
7		10.0	9.0	No Limit	
8 (No. 8–10)	527	11.0	9.2	No Limit	
9		11.0	9.2	No Limit	
10		11.0	9.0	No Limit	
11	195	11.0	9.0		
12 (No. 12–13)	345	9.0	8.5	No Limit	2×pneumatic suckers
13		9.0	9.3	No Limit	2×pneumatic suckers

No. 11, 12 and 13 also known as Shinhama Wharf.

Larger size vessel (maximum 25,000 g.r.t. and 220 m. LOA) can be accommodated at Nos. 2-3, 3-4 and 12-13 wharves, using 2 berths.

Moji Buoy					
No. 1		9.0	9.2	15,000	
2		9.0	9.2	15,000	
3		9.0	9.3	No Limit	Subject to draft and length
6	(160)	10.0	10.0	No Limit	
7	(160)	10.0	10.0	No Limit	
8		9.0	9.0	No Limit	
Tanoura Wharf					
No. 1	105	6.0	6.0		Banana centre
2	105	6.0	6.0		
3 (3-4)	370	10.0	9.6	No Limit	Container berth
4					
5	170.4	9.0	9.0	No Limit	Subject to draft and length
6	170.3	9.0	9.0	No Limit	Subject to draft and length
7	181.1	9.0	9.0	No Limit	Subject to draft and length
8	185	10.0	9.4	No Limit	Subject to draft and length
Tanoura Anchorage No. 1, 2 and 3		9.1	9.1	20,000	
Tanoura Oil Berth (dolphin) (Mitsui Bussan and M-lida Wharf)	10.0		9.1	33,000 d.w.t.	
Tachinoura Wharf					
No. 1	120	4.5			
2	185	10.0	9.6		
3	185	10.0	9.6		
4	185	10.0	9.6		
5	185	10.0	9.6		
6	185	10.0	9.6		
7	620	12.0	10.8		Container berth
8					
9	376	10.0			
28	370	10.0			
29					
30	555	10.0			Container berth
31					
32					

Shinmoji: Shinmoji Wharf is equipped to handle raw materials and goods used in the Shinmoji marine industrial area. The second term reclaiming construction has been carried out, so that it will be able to function as an intensive centre for middle-distance and long-distance ferrying in the future. Depths alongside 4.5 m.–10.0 m.

Developments: See "Developments".

CONTAINER HANDLING FACILITIES:

Tanoura Container Terminal

Total area: 61,100 sq.m.
Area per berth: One berth only
Sea depth: 10 m. under low water level (LWL)
Length of wharf: 300 m.
Marshalling yard: 46,894 sq.m.
CFS: 3,390 sq.m.
Office, control tower: 596 sq.m.
Gantry crane: Single/twin: Single
Height of span above quay: 9.2 m.
Max. outreach: 36 m.
Max. backreach: 7.5 m.
Lifting capacity: 37.5 tons
Spreader sizes: Capable of handling containers of ISO-IS & IC also Matson type
Width of rail: 30 m.
Reefer plugs: 220 V×12
Illumination: 3 (25 Lux) 1 kW×28
Track scale: Scaling maximum 50 tons
Straddle carriers: 3

Tachinoura No. 1 Container Terminal:

Total area: 128,720 sq. m.
Area per berth: Two berth
Sea depth: 12 m. under low water level (LWL)
Length of wharf: 620 m.
Marshalling yard: 96,665 sq. m.
CFS: 800 sq. m.
Gantry crane: Single/Twin: Twin (three cranes)
Height of span above quay: 10.8 m.
Max outreach: 38 m.
Max. backreach: 11 m.
Lifting capacity: 48.6 tons
Spreader sizes: Capable of handling containers of 180-ISO and IC, also Matson type
Width of rail: 16 m.
Reefer plugs: 220 V×68
Illumination: 4 (25 Lux)
Track scale: Scaling maximum 50 tons
Straddle carriers: 13

Tachinoura No. 2 Container Terminal

Total area: 119,080 sq.m.
Area per berth: Three berth
Sea depth: 10 m. under low water level (LWL)
Length of wharf: 555 m.
Marshalling yard: 108,110 sq.m.
Gantry crane: Single/Twin: Single (in the future 3 cranes)
Height of spain above quay: 10.8 m.
Max. outreach: 37.2 m.
Lifting capacity: 48.1 tons
Spreader sizes: Capable of handling containers of 180–ISO and IC, also Matson type
Width of rail: 16 m.
Reefer plugs: 220 V × 40
Illumination: 4 (25 Lux)
Straddle carriers: 13 (common use with Tachimoura No. 1 Container Terminal).

BRIDGE: Kanmon Bridge – Clearance 61 m.

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Average loading/discharging:

Bulk cargo:	Coal	50	t.p.h./gang/hatch	(dis)
	Iron ore	45–50	t.p.h./gang/hatch	(dis)
	Grain	50	t.p.h./gang/hatch	(dis)
Baled cargo:	Cement	50	t.p.h./gang/hatch	(load)
	Fertilisers	40	t.p.h./gang/hatch	(load)
	Grain	30–50	t.p.h./gang/hatch	(dis)
	General	40	t.p.h./gang/hatch	(load)
Steel cargo:	Under 20 ft. long	25–30	t.p.h./gang/hatch	(load)
	Over 20 ft.	15–20	t.p.h./gang/hatch	(load)
Scrap steel:	Pressed	20	t.p.h./gang/hatch	(dis)
	Ordinary	10	t.p.h./gang/hatch	(dis)
	Bulky and awkward	5	t.p.h./gang/hatch	(dis)
Lumber/logs:	Lumber	15–20	t.p.h./gang/hatch	(dis)
	Logs	30	t.p.h. gang/hatch	(dis)

2 shifts; 0800 to 1700 hrs. and 1800 to 0500 hrs. Normal working hours 0800 to 1700 hrs. Overtime work is possible by applying to Customs. No work can be arranged on 31st December and during New Year holidays (1st to 3rd Jan.). No work on 1st and 3rd Sunday of each month.

MEDICAL: No advance notice required unless urgent.

TANKERS: No slop discharge facilities. Mobil Oil Berth situated at Okubo, near Tanoura. In the vicinity of the berth, the current runs towards West nearly all the time. Maximum rate of current 3 knots. Vessels berthed during period that tide sets to West, in daytime only. Mooring berth consists of 1 oil pier (length 80 m. width 5 m.) and 2 dolphins. Two 10 in. pipes connected to vessel; discharge rate 1,000 t.p.h. (Fuel and diesel oil).

Also see "Max. Size".

FRESH WATER: Good fresh water supplied from water barges to vessels lying at buoys and/or anchorage; from hydrants to those alongside wharves. The rate of delivery per hour is 20 – 40 tons from hydrant and 50 tons from barge.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

Bonded bunker oil is supplied by oil barges. The rate of delivery: 80 t.p.h. – 100 t.p.h.

Suppliers	*Delivery agents*	*Installation*	*Required notice* days
Shell Sekiyu K.K.	Uyeno Unyu	Shimonoseki	1
Esso Oil Co.	General Bussan	Mutsure	1
		Sakai	4
Mobil Oil Co.	Nisshin Tanker	Kokura/Moji	1
		Oita	2–3
Caltex Oil Co.	Shimazu Kaiun	Shimonoseki	1
		Kudamatsu	2
Mitsubishi Shoji Kaisha	Nisshin Tanker	Mutsure	1
	Asahi Tanker	Iwakuni	3
	Tsurumi Yuso	Kanokawa	3
C. Itoh & Co.	Asahi Tanker	Matsuyama	3
	Chikko Kogyo	Mizushima	3
Nissho Co.	Nisshin Tanker	Mutsure	1
	Tsurumi Yuso	Matsuyama	3
Mitsui & Co.	Chikko Kogyo	Oita	2–3

Suppliers	Delivery agents	Installation	Required notice days
Nippon Mining Co.	Nippon Tanker	Mizushima	3
Idemitsu & Co.	Nagai Kaiun	Tokuyama	2
Sumitomo Shoji Kaisha	Asahi Tanker		
Marubeni-Iida Co.			
Kanemusu-	Nagai Kaiun	Kokura	1
Gosho Co.	Asahi Tanker	Tokuyama	2

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommended request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore, but no spirits.

CONSULS: Honorary British Consulate concurrent with Honorary Swedish Consulate.

REPAIRS: Mitsubishi Heavy Industries, Ltd. Shimonoseki; Daiki Industries Co., Ltd. Moji; Kitakyushu Iron Works, Tobata.

DRY DOCKS: Refer "Shimonoseki".

REPATRIATION: Possible.

AIRPORT: Fukuoka Airport 2 hours by train and taxi.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police station (tel. 110) and Fire/Ambulance (tel. 119).

TELEPHONE: Telephone placed on board.

SERVICES: All services available, including hold cleaning and grain fitting.

SHORE LEAVE: Immigration Officials board vessel on her arrival in port to examine passports, discharge books and/or other equivalent travel documents and provide 72-hour landing passes for crew members and passengers. One copy each of Crew List and Passenger List are required by them. Providing ship's Agent with a Crew List beforehand will be a great help in expediting Immigration business on ship's arrival. When ship stays in port more than 72 hours, the landing passes may be extended every 72 hours on application. In the event that crew members without entry visas are to be landed for repatriation or transfer, Immigration will not permit their landing unless passage, by either sea or air, ensuring the prompt departure from Japan (within 72 hours) of these men, has been booked, or unless the ships to which they are to be transferred arrive in Japan within 5 days.

DEVELOPMENTS: Dredging work is being carried out for deepening the draft to 13 m. and extending the Pier Aprons. This construction, dredging and reclaiming is expected to be completed by 1989.

Tachinoura District: (See "Plan"). New land of 106 ha. will be reclaimed to be used for a public quay for foreign trade, a container terminal and for green parks. The 5 berths on the container quays, the 10 berths on the quays for foreign trade and the 29 berths on the quays for domestic trade will be improved.

Nishikaigan District: In order to accept larger vessels, port will reclaim the land of 20 ha. for the wharf, port roads and green parks. The 6 berths on the foreign trade quays will also be improved. Nishikaigan Wharf will thus be modernised for foreign trade.

Shinmoji District: (See "Plan"). New land of 245 ha. will be reclaimed to be used for a car-ferry base, rearrangement space for factories, green parks and a yacht harbour. The 2 quays for foreign trade, 2 quays for domestic trade and the 2 berths on the ferry quay will be improved.

Shirashima District: As a part of the national plan for the storage of petroleum, a storage base with a capacity of 5.60 million Kl. will be constructed on the ocean. This will be the first of its kind in the world.

AUTHORITY: Kitakyushu Port and Harbour Bureau, 2-7 Nishi-Kaigan, 1-chome, Moji-ku, Kitakyushu City, 801 Japan. *Tel:* (093) 321-5941, (093)-321-5941. *FAX:* (093) 321-5915.

MURORAN: 42.20 N. 140.58 E.

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare 2 Inward/Outward Declarations, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Arranged by Agent subject receipt of ETA advice at least 24 hours prior arrival. Pilot boards vessel about 1 mile outside breakwater. Not compulsory.

ANCHORAGES: Outside harbour limits: Subject to notice having been given to Authorities prior arrival.

Inside harbour limits: Permitted in any part.

MAX. SIZE: *Nissei Pier (Nippon Petroleum):*

Max. d.w.t.	*Max. LOA*	*Max. Safe Draft*
*50,000 (*30,000 g.r.t.)	230 m.	11.00 m.
100,000 Sea Berth	250 m.	15.00 m.

*For vessels of deadweight tons, gross tons and LOA in excess of above limits it is necessary to obtain entry permission from the Harbour Master, Pilot and the Refinery in advance.

Ore Carriers: Max. LOA, 300 m., max. draft, 16.0 m.

HEALTH: Vessels usually anchor at the sea area within a circle of radius 1,000 m. – directed 290° 4,200 m. from Daikokujima Lighthouse, where the authorities board and grant Free Pratique. Radio Pratique also available.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which covers all ports in Japan. If specifically Westbound vessel to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: 10 tugs, up to 3,200 h.p. Usually meet vessel near Inner Harbour breakwater. 10% additional charge if tug's lines used.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Capacity* (d.w.t.)	*Shore Cranes*
Motowanishi Wharf	176	10.2	9.7	12,000	1× 5 tons
Nippon Steel					
Wharf (A)	742	9.0	8.5	12,000	3× 3 tons
Wharf (B)	400	9.0	8.5	15,000	4× 8 tons
Nippon Steel (iron ore)	250	14.0	14.0	35,000	2×15 tons
Nippon Steel (iron ore)	300	16.5	16.0	160,000	2×21 tons
Nittsu Pier	150	9.0	8.5	10,000	2× 5 tons
Centre Pier	310	8.5	8.0	10,000	—
West Pier (No. 2)	360	9.0	8.5	10,000	—
Nikko Pier	185	8.0	7.5	7,000	—
Sakimori Wharf	185	10.0	9.2		1×10 tons

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700–1900 hrs. 50% additional of basic stevedorage; 2100–0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.

MEDICAL: No advance notice required unless urgent. Hospital facilities available.

TANKERS: See "Max. Size". N.P.R.C. Muroran Refinery. Discharge berth. About 25% of deadweight required in ballast.

Berth	*Product*	*Pipe-line*	*Discharge Rate*
50,000 d.w.t.	Crude Oil	2×12 in.	2,400 k/l
100,000 d.w.t.	Crude Oil	4×12 in.	8,000 k/l

DENSITY/TIDE: Density 1025. Rise and fall of tide about 4 ft.

FRESH WATER: Delivery at piers: Average rate about 40 t.p.h. Delivery by barge: Rate about 60 t.p.h.

FUEL: Available.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: None.

REPAIRS: Only minor repairs available, but Hakodate dockyard able undertake all grades repairs.

AIRPORT: Domestic flights only from Chitose Airport – 100 km. from Muroran.

TIME: GMT plus 9 hours. Permanent.

POLICE/FIRE: Police Muroran 2-5191; Fire Muroran 2-2111.

TELEPHONES: May only be connected on board at No. 2–2 West Pier.

SHORE LEAVE: Local Immigration offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.

AUTHORITY: Port & Harbour Bureau, Muroran City, Mubanchi, Kaigancho 1-chome, Muroran City, Hokkaido *Tel:* (0143) 22-3191.

AGENT: Sub-agent of Dodwell & Co., Tokyo. Narasaki Sangyo Co. Ltd. 3–2, 3-chome, Kaigan-Dori, Muroran-shi, Hokkaido. Tel. Muroran (0143) 24-1314/6. Cable Address: Narasaki Muroran. Telex: 0987781/2 Nsmur J.

NAGASAKI: 32.45 N. 129.52 E. (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
5 Crew Lists including Passport/Seaman's Book Numbers.
5 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in Transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Not compulsory, but necessary unless Master well acquainted with locality. Pilot embarks in vicinity of Ioshima Lighthouse, Lat. 32° 43′ 20″ N., 129° 46′ 43″ E. Pilot available any time, subject to adequate notice (no VHF system). All communication with Pilot through Agent. Pilot boat carries International signals. "G" flag in daytime and "Morse" signals at night to call Pilot. In event bad weather Pilot boards at anchorage off Megami.

ANCHORAGES: Megami Anchorage located in Harbour Division No. 3 (within line between Kagenoo Lighthouse and West end of Shirogashima) 60 ft. depth and capacity of 3 vessels of 20,000 d.w.t. Safe anchorage.

Megami Anchorage, Harbour Division No. 6: Located in line between Onata Seto Beacon and Tan Saki, having ample space with 140 ft. depth, accepting 500,000 d.w.t. tankers.

RESTRICTIONS: Berthing: During daytime only, except for emergency purposes. Entering into anchorage at Megami is generally permitted anytime with Harbour Master's permit. Departure: No restriction from buoy or wharf with adequate notice, but no night departure from Oil Terminals, except Hayashikane Oil Terminals of Dinokubi and Kozaki.

MAX. SIZE: Max. permissible length 1,200 ft., breadth 120 ft., draft 15.0 m.

Tankers:

Berth	*Max. d.w.t.*	*Max. LOA*	*Max. Safe Draft*
Zengyoren (Kozaki Depot)	60,000	230 m.	13.00 m.
Hayashikane Oil Co. (Dinokubi Depot)	60,000	230 m.	13.00 m.
Mobil Oil Co. (Kibachi Depot)	22,000	200 m.	11.00 m.
Idemitsu Kosan (Kibachi Depot)	22,000	200 m.	11.00 m.
General Sekiyu (Otao Depot)	20,000	230 m.	15.00 m.

HEALTH:

(a) Quarantine Station: Sea area surrounded by the following lines:
1. From Senbonyama Beacon to Megami Beacon.
2. From Megami Beacon to Naginata Lighthouse.
3. From Senbonyama Beacon to Takaboko Island.

(b) Quarantine service is rendered from sunrise to one hour before sunset.

(c) Radio Pratique is effective.

RADIO: Recommended Master communicates with Agent through Chosi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel to contact Choshi and Northbound to contact Nagasaki Radio respectively.

TUGS: Tugs normally join vessel at anchorage for swinging and/or at berth for assisting vessel. Tugs available: 3×3,200 h.p. owned by Dokai Tug Co.; 3,500 h.p., 3,000 h.p., 2,880 h.p. and 2,400 h.p. owned by Kowa Kogyo Co.; 2,200 h.p. owned by Nishi Kyushu Marine Co. Ltd.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Wharf	*Length*	*Depth*	*Capacity*	*Crane*
Dejima	413 m.	9 m.	10,000 g.r.t. × 2 vessels	3 tons × 2 2 tons × 1
Yanagi	270 m.	12 m.	46,000 g.r.t. × 1 vessel	
Yanagi	185 m.	10 m.	7,000 g.r.t. × 1 vessel	
Matsugae	275 m.	12 m.	50,000 g.r.t. × 1 vessel	Passenger ships

Buoy	*Ship's Length (O.A.)*	*Permissible draft*	*Capacity g.r.t.*
Nos. 1 – 2	270 m.	14 m.	105,000 × 1
Nos. 2 – 3	250 m.	14 m.	50,000 × 1
Nos. 3 – 4	200 m.	14 m.	20,000 × 1
Nos. 4 – 5	175 m.	14 m.	6,000 × 1
Otao Nos. 1 – 2	347 m.	21 m.	150,000 × 1
MHI MC–MD	256 m.	10 m.	25,000 × 1

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1630–2130 hrs. 60% additional of basic stevedorage; 2130–0500 hrs. next morning 150% additional; Sundays/holidays 100% additional.

CRANES: *Floating Cranes:* 120 tons owned by Kowa Kogyo Co.; 330 ton floating crane available with adequate prior notice which originally located in Moji area.

MEDICAL: No advance notice required unless urgent.

TANKERS:

Berth	*Product*	*Shoreline*	*Discharge Rate (t.p.h.)*
Zengyoren (Kozaki Depot)	Diesel/ Gas Oil	8″×1	700
Hayashikane Oil (Dinokubi Depot)	Diesel/Gas/ Lub Oil	8″×1	700
Mobil Oil Co. (Kibachi Depot)	Fuel Oil	8″×1	400 (Berthed alongside)
Idemitsu Kosan (Kibachi Depot)	Fuel Oil	8″×1 6″×1	400 400
General Sekiyu (Otao Depot)	Fuel Oil	8″×1	700 (Sea Buoy)

A slop discharge station operated by Nishi Nippon Tanker Service located at Ioshima with facilities for tankers up to 500,000 d.w.t. mooring to three 20-ton bollards. Receiving capacity 1,500 cu.m. per hour. The tank cleaning facilities can accept 10 vessels of 200,000 d.w.t. per month.

DENSITY: 1025.

FRESH WATER: Capacity of water barges: 500 tons and 300 tons. 2 barges in total. Rate of delivery: 100 t.p.h. Wharf hydrants at Yanagi, Matsugae and Dejima.

FUEL: Available ex-barge only. 3–5 days' prior notice required by oil company.

FIRE PRECAUTIONS: No specific precautions.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 60 cigarettes to take ashore, but no spirits.

CONSULS:

People's Republic of China, Consul-General, tel. 49-3311
French Consul Agency, tel. 23-1221
Portuguese Honorary Consul Agency, tel. 26-2311

REPAIRS: All types of repair can be carried out.

DRY DOCKS:

	Length	*Width*	*Depth*	*Capacity (g.r.t.)*
Koyagi Dock (MHI)	400 m.	100.0 m.	14.5 m.	250,000
No. 2 Dock (MHI)	335 m.	54.0 m.	9.5 m.	165,000
No. 3 Dock (MHI)	268 m.	37.2 m.	8.8 m.	65,000

SURVEYORS: Cargo surveyors able to attend from Moji or other areas if prior notice given. LR, ABS & BV are available in Nagasaki. Salvage Association or U.S. Salvage are able to attend from Moji to Nagasaki.

REPATRIATION: Possible.

AIRPORT: Distance 54 km. (centre of town to air terminal). Time 1.5 hours by car. All Nippon Airway have regular daily service with 7 flights for Tokyo and Osaka, and Towa Domestic Airlines have regular daily service with 2 flights for Tokyo.

Overseas services: Japan Air Lines (JAL) and General Administration of Civil Aviation of China (CAAC) have regular service with 2 flights a week to Shanghai, China.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police 22-2141; Ambulance/Fire 22-3211 (Fire station).

EMERGENCY CO-ORDINATION CENTRE: Contact Harbour Master.

TELEPHONE: Shore telephone can be installed on board vessel at wharves of Yanagi, Matsugae and Dejima. Vessels at Mitsubishi Yards can communicate via shipyards' switchboard with town.

STORING: See "Prelims"

1. Yes.
2. No restrictions, vessel can store at anytime if adequate notice given.
3. Trucks can proceed alongside at the berth.
4. Yes.
5. No special regulations, but a simple style application must be made to Customs before storing.
6. Yes.

SHORE LEAVE: Local Immigration Officers issue shore pass valid for only 15 days, but 15 days' extension possible if ship stays longer.

AUTHORITY: Nagasaki Port Authority, 2-11 Dejima, Nagasaki City. *Tel:* (0958) 22-1257. *FAX:* 0958-22-2265 (Head office).

Harbour Master (Maritime Safety Agency): 7-29 Matsugae, Nagasaki. *Tel:* (0958) 27-5133.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo, Nagasaki Warehouse Co. Ltd., 2-13, Dejima-Machi, P.O.Box 6, Nagasaki. Tel. Nagasaki (0958) 24-1261. Cable Address: Ringer Nagasaki. Telex: 0752322 Nasoko J.

NAGOYA: 35.05 N. 136.53 E. (See Plan)

LOCATION: Situated at Northern head of Ise Bay. Harbour protected by breakwater 8,250 m. in length stretching from Chita Peninsula to bank of Kiso River at opposite side of harbour.

DOCUMENTS:

(a) Quarantine (only when arriving from a foreign port); 1 Maritime Declaration of Health, 1 Crew List, 1 Cargo Manifest, 1 List of Passengers (if any on board), Log Book and Registry should be readily available.

(b) Customs: 1 Declaration Inward/Outward with ports of Call, 1 Ship's Registry, 1 Last Port Clearance, 1 Store List including arms and narcotics, 2 Manifests of Cargo for Discharge (prepared by Agents), 1 Manifest of Through Cargo, 1 Crew List, 1 List of Passengers, 1 List of Crew's Baggage (only necessary if crew-members have to land personal effects ashore).

(c) Immigration: 1 Crew List, 1 Notification of Arrival, 1 Application for Shore-passes, 1 List of Passengers, 1 Notification of Departure (to be returned through Agents after sailing).

(d) Harbour Master: 1 Crew List, 1 Declaration Inward/Outward with Ports of Call.

(e) Port Authority: 1 Declaration Inward/Outward with Ports of Call.

PILOTAGE: Request Pilot and other services to JHY (Nagoya Port Radio Station) at least 5 or 6 hours prior on frequency 500 kHz. JHY keeps watch also on 480 kHz. Pilot station near No. 1 and No. 2 channel buoys at entrance of harbour channel (1). When wind over 15 m./sec. Pilot boards inside High Tide Breakwater. When very rough, Pilot taken on board East side of Kinjo Signal Station. Pilot not compulsory but advisable. Pilot boat white painted with white and red funnel and letters "Pilot" on hull.

Shipmaster's Report: January 1985.

Pilotage for "Irago Suido", entrance for Yokkaichi-Nagoya Bay, has become compulsory since beginning of 1984.

Pilot to be arranged through the Agents and boards at Lat. 34° 31′ N., Long. 137° 04′ E.

ETA to be confirmed 3 hours before arrival at No. 1 Buoy by VHF, and also to Nagoyahoan, which is the controlling body for the traffic in the Irago Strait.

Shipmaster's Report: January 1987.

All vessels must enter and leave Ise Bay through Irago Suido Traffic Route. Pilotage is compulsory for all foreign vessels and for all vessels of 10,000 g.r.t. or over operating N.W. of a line bearing 050° from Hansu Hana Lighthouse (Lat. 34° 26.5′ N., Long. 136° 55.6′ E.) to the coast of Atsumi Hanto.

ANCHORAGES: The port boundary indicated by line connecting Oono Lighthouse (Lat. 34° 55′ 49″ N., Long. 136° 49′ 28″ E.), Ise Bay Light Buoy (Lat. 34° 56′ 05″ N., Long. 136° 47′ 44″ E.), S.W. corner of Nagoya High Tide Breakwater (Lat. 35° 1′ 54″ N., Long. 136° 47′ 04″ E.) and the base point at N.W. of the same Breakwater (Lat. 35° 00′ 54″ N., Long. 136° 46′ 09″ E.).

Quarantine Anchorage, located outside High Tide Breakwater offers safe anchorage for vessels awaiting Pilot or quarantine service. Depth of this anchorage area ranges from 10 m. to 20 m. Sea bed silty clay.

MAX. SIZE:

	Berth	*Capacity* (d.w.t.)	*Depth* (m.)	*Length* (m.)
Tanker	Isewan Sea Berth	250,000×2	25.5	500
Ore Carrier	Nippon Steel Corp.	100,000×1	14.0	350
Container Ship	Nagoya Container Berth	35,000×2	12.0	872
Car Carrier	Toyota	65,000×1	11.0	2,500
General Cargo	Nisshin Seifun	50,000×1	12.0	150
	Toyo Grain	50,000×1	12.0	255
	Oji Seishi	50,000×2	12.0	227
				249

HEALTH: Radio Agent for Free Pratique within 36 hours before arrival, advising full details of vessel and health conditions on board. When Free Pratique is granted by radio vessel will be required to submit the following documents to Quarantine Officer on arrival:

Maritime Declaration of Health.
Crew List.
Passenger List.

The following vessels will not be able to get Radio Pratique:

A vessel that has been in contact with an infected area or a suspected infected area within 15 days of arrival.

If a vessel has on board any case, or any suspected case, of infectious disease within 15 days of arrival.

If a vessel does not possess a valid Derat or Derat Exemption Certificate.

RADIO:

JHY (Nagoya Port Radio Station). Service area: 100 miles. Frequency: 500 kHz. Working frequency: 429.5 kHz.

International VHF (Nagoya Port Radio). Service area: 100 miles. Frequency: Channel 16, working Channels 12 and 20.

To be given prior arrival: Name; Capacity; Draft and length; Port of departure; Last port; Time of arrival at outer port; Time of passing Kamishima Signal Station; Grade of cargo; Grade of dangerous cargo (if any); Health of crew.

TUGS: Usually join at point where vessel directs course toward allocated berth. Tug's lines normally used without charge.

BERTHING:

Public Wharves

	Berth No.	*Length* (m.)	*Depth* (m.)	*Capacity* (g.r.t.)
Garden Pier	1	245	4.5 – 10.0	700×1
				15,000×1
	2	185	10.0	15,000×1
	3	210	10.0	20,000×1
West Pier	8	185	10.0	15,000×1
	9	120	4.5	700×2
	10	185	10.0	15,000×1
Inae Pier	16	170	9.0	15,000×1
	17	226	9.0	15,000×1
	18	176	9.0	15,000×1
	19	180	10.0	15,000×1
Inae Pier No. 2	20 – 21	380	10.0	15,000×2
	22 – 24	540	10.0	15,000×3
	25	208	10.0	15,000×1
	26	265	4.5	700×4
No. 10 Coal Wharf	27 – 29	413	9.0	3,000×1
				10,000×2
	31 – 32	184	7.3	5,000×2
	33	185	10.0	15,000×1
No. 4 Wharf	11 – 12	260	7.5	5,000×2
No. 5 Wharf	36	183	5.5	2,000×2
No. 6 Wharf	38	185	10.0	15,000×1
	39	213	9.0	15,000×1
No. 7 Wharf	40 – 41	240	7.3	5,000×1
No. 8 Wharf	43 – 45	571	5.5	2,000×4
				700×2
	46 – 48	420	5.5	2,000×5
				700×1
Scrap Wharf	50	180	10.0	15,000×1
	51	120	4.5	700×2
Kinjo Wharf	52 – 53	497	12.0	35,000×2
	54	200	10.0	15,000×1
	55 – 56	400	10.0	15,000×2
	58 – 62	1,000	10.0	15,000×5
	71	450	5.5	2,000×5
	72 – 73	260	7.5	5,000×2
	74 – 75	260	7.5	5,000×2
	*76 – 77	470	10.5	15,000×2
	78	200	10.0–10.5	15,000×1
	79 – 81	600	10.0	15,000×3
	82 – 84	600	10.0	15,000×3
	85	280	12.0	50,000×1
	63 – 64	400	10.0	15,000×2
	65 – 67	600	10.0	15,000×3
Sorami Wharf	95 – 96	440	5.5	2,000×3
				1,500×1
				700×1
West 4 Section (Logs)	98 – 99	370	10.0	15,000×2
(G.C.)	91	185	10.0	15,000×1
	92	300	12.0	35,000×1
West 3 Section (Logs)	88 – 89	260	7.5	5,000×2

Public Buoys

Buoy No.	*Capacity*
No. 2, 3, 4	27,000×2
No. 5, 8, 9, 10, **11, 12, 19, 20, 21, 22	20,000×8
No. 50, 51, 52, 57	15,000×3
No. 53, 54, 58	15,000×3
**No. 55, 59, 60, 61	15,000×3

Remarks: *Wharf No. 76, 77 & 92 Full Container Berth
**Buoy No. 11 and No. 12 Used as Single Buoy

Private Berths (More than 10,000 d.w.t. capacity)

General Cargo	*Capacity* (d.w.t.)	*Length* (m.)	*Depth* (m.)	*Remarks*
Ube Cement Co. Pier	14,000	78	10.0	Dolphin
Toho Gas Co. Pier	25,000	144	10.0	
Isewan Kaiun & Nippon Kaiun Pier	10,000	152	9.0	
Rinoru Yushi Co. Pier	34,000	180	10.0	
Toray Pier	15,000	175	10.0	
Nisshin Seifun Pier	50,000	150	12.0	
Toyo Grain Terminal Pier	50,000	255	12.0	Dolphin
Zen Nou Pier	15,000	190	12.0	Dolphin
Chita Futou Co. Pier	35,000	160	12.0	
Oji Seishi Pier	50,000	227	12.0	Dolphin
	50,000	249	12.0	
Yura Kaiun Pier	15,000	250	10.0	
Cement				
Chichibu Cement Co. Pier	12,000	73	10.0	Dolphin
Automobiles				
Toyota Pier	65,000	2,500	11.0	
	30,000	500	11.0	
	20,000	200	11.0	
Tankers				
see "Tankers"				
Iron Ore				
Nippon Steel Corp. Pier	100,000	350	14.0	
	70,000	250	13.0	
	70,000	250	13.0	
	50,000	140	13.0	
Containers				
Public Berth 76-77	15,000×2	470	10.5	2 cranes
92	35,000×1	300	12.0	2 cranes

DENSITY: 1020.

FRESH WATER: Water supplied direct from pier.

CONTAINER HANDLING FACILITIES: Nagoya Container Berth Co. Berths R1, R2 and R3. R1 equipped with 22 m. Ro/Ro ramp. Total length 850 m. Depth 12.0 m. Capacity 3×35,000 d.w.t. 6 cranes available.

Also see "Berthing" – "Private Berths".

BULK HANDLING FACILITIES: Coal Pier (Area No. 10 Pier) can accommodate ships up to 150,000 tons. Depth of water 10.0 m.

Nippon Steel Corp., has 1 berth for handling of iron ore with 350 m. long wharf and a depth of water 14 m., 2 berths for ore and/or coal with a 500 m. long wharf and a depth of 13 m., 1 berth for scrap iron with 140 m. wharf and a depth of water 13 m.

Grain handling facilities include Wharf No. 8, 185 m. long and 10 m. deep. Tohama Wharf 135 m. long and 10 m. deep. Nisshin Wharf 150 m. long and 12 m. deep. Tokai Silo Wharf 190 m. long and 14 m. deep. Toyo Grain Wharf 170 m. long and 13 m. deep. Chita Futo Wharf 160 m. long and 12 m. deep.

Also see "Berthing".

MEDICAL: Hospitals conveniently located near port.

TANKERS: 53 oil tanker berths over 1,000 tons including 2 off-shore berths (Sea Berth) of depth: 25 m. for 250,000 ton tankers.

Berth	*Length* (m.)	*Depth* (m.)	*Capacity* (d.w.t.)	*Remarks*
Nippon Mining Corp.	128	12.0	50,000	Dolphins
Idemitsu Chita Berth No. 2	443	14.0	100,000	Dolphins
Toho Gas	420	14.0	100,000	Dolphins
Chubu Electric Power Nippon Mining Corp.				Joint Berth
Showa Shell Petroleum	280	12.0	30,000	Dolphins
Nippon Petroleum Marubeni				Joint Berth
Isewan Sea Berth	500	25.5	250,000	Offshore Facility

Operator's Report: 1983.

Ise Bay Sea Berth (Discharging Terminal) is operated by Isewan Sea Berth Co., Ltd.

Terminal operates 24 hours per day, 7 days a week. Ships moored and unmoored daytime, weather or other circumstances permitting. Terminal will not be closed due to any holidays.

Depth around the Sea Berth is 25.0 m. Berth direction alignment is North (360°) – South (180°).

Location: Lat. 33° 55′ 26″ N., Long. 136° 44′ 36″ E.

Pilotage: Sea Berth requires Pilot for berthing and unberthing.

Anchorage: South 1, 2, 3, miles off from South end of Ise Bay Sea Berth.

Berthing: East berth port side alongside. West berth starboard side alongside.

Cargo Handling: Maximum rate 18,000 Kl/hr. Minimum pressure 10.0 kg./sq.cm. at manifold.

FUEL: All grades fuel available. Delivered by barge only.

CONSULS: The following countries are represented in Nagoya: Ecuador, France, Netherlands, Korea, Mexico, Portugal, Sweden, Thailand.

GANGWAY/DECK WATCHMEN: Not compulsory but recommended.

OPENING/CLOSING HATCHES: Normally carried out by crew. When stevedores do this work charges are made.

CUSTOMS ALLOWANCES: For crew (per landing): 60 cigarettes, 1 bottle of spirit when sailing period exceeds one month, 2 bottles over 3 months.

For passengers: 3 bottles of spirit; 200 cigarettes or 50 cigars; 2 ounces of perfume; 1 watch of which price is not over ¥30,000; other items of which total price is under ¥200,000.

CREW IDENTIFICATION CARDS: Required.

REPAIRS: All types of repairs possible. Repairs by Ishikawajima-Harima Heavy Industries Co. Ltd., Nagoya Shipyard.

DRY DOCKS: Ishikawajima-Harima Heavy Industries Co. Ltd., Nagoya Shipyard: Length 150 m., width 24.2 m., capacity 13,000 g.r.t.

Chita Shipyard of Ishikawajima-Harima Heavy Industries Co., Ltd. (IHI), length 810 m., width 92 m., capacity 250,000 g.r.t.

AIRPORT: Nagoya Airport, 20 km. from Port. 3 JAL (Japan Air Lines) flights for Hong Kong, 2 flights for Manila (weekly), 3 JAL flights to Seoul and 3 KAL flights to Seoul.

HOLIDAYS: National Holidays: New Year's Day (Jan. 1st), Adults Day (Jan. 15th), Foundation Day (Feb. 11th), Vernal Equinox Day (Mar. 21st), Emperor's Birthday (Apr. 29th), Constitution Day (May 3rd), Children's Day (May 5th), Respect for The Aged Day (Sept. 15th), Autumnal Equinox Day (Sept. 23rd), Health Promotion Day (Oct. 10th), Culture Day (Nov. 3rd), Labour Thanksgiving Day (Nov. 23rd). Cargo handling not arranged on December 31st, January 1st, 2nd and 3rd, and July 20th (Maritime Day).

TIME: JST (Japan Standard Time), 9 hours ahead of GMT.

POLICE/AMBULANCE/FIRE: Police 110, Ambulance 119, Fire 119.

TELEPHONES: Telephone can be arranged on board ships berthed at most wharves. For application call 652-7581. Telegram 971-4222, Time 117, Weather 177.

DEVELOPMENTS: Main Channel 14 m. deep and 350 m. wide will be enlarged to 17.5 m. deep. Secondary Channel 10 m. deep and 300 m. wide will be dredged to 12 m. deep and 400 m. wide.

Anchorage area 9 m. deep at present will be deepened to 10 m.

Kinjo Pier Development: 26 berths with 10 m. will be constructed.

Nippon Kokan K. K. to build large graving dock at Tsu. Length of dock 250 m. Width of gate 220 m.

New deep water berth to be built on the South side of the container berth with length 340 m. and depth 14.0 m. Completion expected 1990.

AUTHORITY: Nagoya Port Authority, 8-21, 1-Chome, Irifune, Minato-Ku, Nagoya, 455-91 Japan. *Tel:* (052) 661-4111/4. *Telex:* 04463816 NPAJ. *FAX:* (052) 661-0155. *Contact:* Yoshiro Haraguchi, Executive Vice-President.

AGENT: Sub-agent of Dodwell & Co.. Goyo Kaiun Kaisha Ltd. 3-4, Irifune 2-chome Minato-ku, Nagoya-shi Aichi-ken. Cable Address: "Shipgoyoh Nagoya". Domestic Telex: 446-3113 Spgoyo J.

NAHA, Okinawa: 26.12 N. 127.40 E. (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists, including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wines/spirits, camera, wrist-watch, radio, firearms/swords, etc. (Only at first port of call in Japan.)

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest, Cargo Manifest in transit using specific forms. Therefore Ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Pilot services compulsory. Pilot boards in position Lat. 26° 13′ 49″ N., Long. 127° 38′ 20″ E. International Pilot Signals used.

RESTRICTIONS: Vessels entering Naha Port are controlled by the limiting depth in the entrance channel of 11 m. Entry possible 24 hours.

MAX. SIZE: Length and beam not limited. Max. draft 11 m.

HEALTH: Radio Pratique possible. Formalities will be carried out at the Quarantine Anchorage.

RADIO: Recommended communicate with Agent through Choshi Radio or Nagasaki Radio, which cover all ports in Japan. If specifically Westbound vessel to contact Choshi, and Northbound to contact Nagasaki Radio, respectively.

TUGS: 3 tugs available, 2,000 h.p. – 2,400 h.p.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Number of Berths*
Naha Wharf			
No. 1	200	7.5	1
No. 2	195	9.5	1
No. 3	178	9.5	1
No. 4	56	7.5	0
No. 5	76	5.0	0
No. 6	147.7	7.5	1
Shinko Wharf			
No. 1	474	7.5	3
No. 2	70	5.0	1
No. 3	420	7.5	3
No. 4	420	7.5	3
No. 5	420	11.0	2
No. 6	450	11.0	2

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores.

MEDICAL: All medical and hospital facilities available.

TANKERS: Two berths for tankers at North side of commercial port.

Berth F – 7.5 m. depth alongside.
Berth G – 8.5 m. depth alongside.

FRESH WATER: Available at the berths at a rate of 20 t.p.h. – 50 t.p.h.

FUEL: All grades of fuel available.

OPENING/CLOSING HATCHES: Stevedores will carry out this work. Cost per gang according to type of cargo. Recommend stevedores for this work unless crew can complete it before berthing.

CUSTOMS ALLOWANCES: Each man allowed take 60 cigarettes ashore, but no spirits.

REPAIRS: Facilities available for minor repairs.

TIME: GMT plus 9 hours all year round.

SHORE LEAVE: Local Immigration Office issues shore pass valid for 3 days, but extension possible if ship stays longer.

DEVELOPMENTS: Large scale developments underway with completion expected in 1990.

New bridge recently completed.

AUTHORITY: Port & Harbour Bureau, Naha City, 95, Tondo-cho, Naha City, Okinawa Pref. *Tel:* (0988) 68-1843.

AGENT: Sub-agent of Dodwell & Co., Connell Bros. Company, Ltd., P.O.Box 57, Naha, Okinawa. Cable Address: Seabsea Naha. Tel: J 79822. Tel: (0988) 63-3991.

NAMIKATA: 34.07 N. 132.55 E. (See Plan)

Port Status – Closed Port.

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists, including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage.

PILOTAGE: Inland Sea Pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station.

Inland Sea Pilot Association covers all Inland Sea ports. Pilotage not compulsory but recommended in view of great number of islands causing navigational hazards. Pilot obtained from one of three pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth.

1. Wadamisaki. (In this case Pilots compulsory if over 10,000 g.r.t.) Position: Lat. 34° 38′ N., Long. 135° 11′ E. Cable Address: "Anjin Kobe".
2. Sekisaki. Position: Lat. 33° 13′ N., Long. 131° 54′ E. Cable Address: "Anjin Saganoseki".
3. Hesaki. Position: Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E. Cable Address: "Anjin Moji".

ANCHORAGE: No anchorage at Namikata.
RESTRICTIONS: Mooring and unmooring daytime only.
MAX. SIZE: Oil tankers: 125,000 d.w.t. Gas tankers: 67,000 d.w.t.
HEALTH: Closed port. Vessels should obtain Pratique at Matsuyama.
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio.
TUGS: Join vessel off Namikata, always using tug's line without charge. 2 to 4 tugs are required for berthing, depending on size of vessel.
BERTHING: Berthing time will be notified by ship's Agent by radio.
MEDICAL: No advance notice required unless urgent.
TANKERS: *Namikata Terminal Co. Ltd.* only. Located approximate position Lat. 34° 07′ 07″ N., Long. 132° 54′ 32″ E. See "Max. Size".
FRESH WATER: Available by shore line. Rate of delivery: 20 t.p.h.
FUEL: Not available.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
REPAIRS: Not possible.
REPATRIATION: Possible. Nearest Immigration Office situated at Niihama.
AIRPORT: Nearest at Matsuyama and Takamatsu.
TIME: GMT plus 9 hours.
POLICE/AMBULANCE/FIRE: Police 110; Ambulance 119; Fire 119.
TELEPHONE: No facilities for placing telephones on board.
GENERAL: As this port is a closed port, the undermentioned procedures required to obtain special permission to enter from Shikoku Maritime Bureau:

Usually vessels call at Matsuyama to obtain special permission for entering closed port at Namikata, by paying the charge at the same rate as tonnage dues; the above procedures will be undertaken by Agent. No quarantine available, the nearest Quarantine Station at Matsuyama. No Immigration Office at this port (Officials come from Niihama).

The above procedures of Quarantine/Customs will be undertaken by Namikata Agent.
SHORE LEAVE: Local Immigration Officer issues shore pass.

SHIPMASTER'S REPORT: May 1987.
Pilotage: Inland Sea Pilot from Seki Saki inwards who also undertakes berthing/unberthing, etc. Inland Sea can be traversed by day or night although daylight is preferable.

Pilot should be ordered in advance, telexes sent to "Oita Kyushu" via Moji MSA Radio and confirmed by VHF when within range of Oita Radio.
Restrictions: Berthing/unberthing daylight only when current is less than 0.5 knots for LPG tankers and 1.0 knots for other tankers.

Vessels must proceed to Matsuyama Anchorage for Immigration clearance and to await suitable berthing conditions.
Anchorage: No anchorage off Namikata, waiting vessels must anchor off Matsuyama.
Obstructions: There is a 10 m. patch just North West of Kazitori-No-Ha.
Tugs: 3 tugs used for berthing and 2 tugs used for unberthing with the usual guard tug in attendance inwards and outwards from Matsuyama and whilst vessel alongside.
Berth: Berth is of modern construction and design. Vessels usually berth starboard side to with 4 head/stern lines, 2 breast lines and 2 springs fore and aft. Arms: Liquid 2 × 12 in. ASA. Vapour return line 1 × 8 in. ASA. Discharge rate 1,800 tonnes/hour. Shore gangway provided.
Fuel: No bunkering allowed at Namikata, however can be supplied off Matsuyama where additional tonnage dues must be paid.

AGENT: Kaiko Tanker Co. Ltd., Namikata Office. Address: Miyazaki-600, Namikata-cho, Ochigun, Ehime, Japan. Tel: 0898-52-2009. Telex: 5845554. FAX: 0898-52-2367. Cable Address: Kaiko Imabari.

Kaiko Tanker Co. Ltd., Matsuyama Office. Address: 6-12, 1-chome, Nakasuka, Matsuyama, Japan. Tel: 0899-51-0733. Telex: 5842011. FAX: 0899-51-0359. Cable Address: Kaiko Matsuyama.

NAOETSU: 37.11 N. 138.14 E.

DOCUMENTS:
1 Inward Declaration of Vessel.
1 Cargo Manifest.
1 Through Cargo Manifest.
1 List of Provisions and Stores.
1 List of Tobacco and Personal Effects.
7 Crew Lists (preferably airmailed in advance).
2 Passenger Lists.
PILOTAGE: Pilot embarks at Quarantine Anchorage to take vessel directly to berth during daytime. All transmitting and receiving through Niigata Radio Station (call sign JCF, Type of Wave: 438454) or Choshi Radio Station and/or Nagasaki Radio Station. Cable Agent 1 week's notice of ETA and accurate ETA 24 hours before arrival, thereafter advising any change in arrival time. No pilot boat. Pilot uses tug-boat.
ANCHORAGES: Half-circle drawn at a point of Lat. 37° 11′ 31″ N., Long. 138° 13′ 59″ E. (lighthouse) with radius 1,600 m.
RESTRICTIONS: Berthing and unberthing daytime only.
MAX. SIZE: LOA 160 m. draft 9.50 m. in Summer, and 9.00 m. in Winter.
HEALTH: Radio Pratique available. Formalities will be carried out at the anchorage. Quarantine Station 321° – 2,200 m. (Lat. 37° 11′ 45″ N., Long. 130° 14′ E. 700 m. radius) from Naoetsu Lighthouse.
RADIO: Niigata Radio Station: JCF. Nagasaki Radio Station: JOS. Choshi Radio Station: JCS.
VHF: Channel 16.
TUG: Normally joins vessel at entrance of port. Ship's lines used. One tug 750 h.p. One tug 1,800 h.p. will be brought from Niigata when required.

BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Capacity* (d.w.t.)	*Remarks*
West Wharf No. 1	185	10.0	9.0	25,000	1 Unloader
West Wharf No. 2	185	10.0	9.0	25,000	2 Tower Cranes
South Pier No. 1	105	6.0	5.5	3,000	
South Pier No. 2	105	6.0			Passenger Boat Station
South Pier No. 3	128	6.0		1,500	
South Pier No. 4	120	4.5			Fishing Boat Station
Centre Pier No. 1	130	6.3		3,000	
Centre Pier No. 2	185	7.8		15,000	
Lumber Pier	185	10.0	8.9	15,000	
East Pier No. 1	185	10.0	9.0	25,000	
East Pier No. 2	185	10.0	9.0	15,000	
East Pier No. 3	185	10.0	9.0	15,000	
Kosanhin			11.5	40,000	2 cranes
Tanker Berth N	105	6.0		3,000	
Tanker Berth L	150	6.0		2,000	

STEVEDORES: ETA, draft and hatch cargo quantities to be advised before arrival. Main bulk commodities: unloader crane (1) 150 t.p.h.; tower cranes (3) 120 – 130 t.p.h. and equipment.
MEDICAL: No notice required except in emergency, and attendance on Sundays/holidays.
DENSITY: 1023 – 1025.
FRESH WATER: Available from shore. 30 t.p.h.
FUEL: Domestic oil is available. Bonded oil will be brought from Moji or Hakodate, with sufficient advance notice.
GANGWAY/DECK WATCHMEN: No professional watchmen available.
OPENING/CLOSING HATCHES: Stevedores if Owner guarantees payment of operation charges.
CUSTOMS ALLOWANCES: Tobacco: Each crew member allowed to retain for his private use 200 cigarettes, 50 cigars, 250 grams of tobacco, etc. Wine/and/or Spirits: 1 bottle of liquor, to last 1 week.
IDENTIFICATION CARDS: Passport and/or Seaman's Book required.
CONSULS: None.
REPAIRS: Minor repairs only.
REPATRIATION: Necessary documents to be submitted to Immigration and Customs Authorities in Naoetsu.
AIRPORT: Niigata. 2.5 hours by train. One flight per day to Tokyo.
TIME: GMT plus 9 hours. Permanent.
HOLIDAYS: No work 31st December and 1st, 2nd and 3rd January. Subject to gangs on other holidays.
POLICE/AMBULANCE/FIRE: Police 110; Ambulance/Fire 119.
TELEPHONE: No facilities for placing telephones on board.
SERVICES: Technicians for repair and/or adjustment of radar or wireless despatched from Niigata or Tokyo. Hold and/or tank cleaning operations by shorehands available, however gangs are from Niigata.
SHORE LEAVE: Crews allowed ashore within limit of Johetsu City.
DELAYS: Due to port congestion.
GENERAL: During Winter and bad weather, hire of nylon rope (100 mm.) desirable in order to avoid hull damage. Rope owned by Naoetsu Agency Association. Charge made for use.
AUTHORITY: Naoetsu Port Administration Office, 6-8, Minato-machi 1-chome, Johetsu City, Niigata Pref. *Tel:* (0255) 43-4167.
AGENT: Sub-Agents of Dodwell & Co. Ltd., Tokyo. Niigata Rinko Kairiku Unso K.K. 9-11, 2-Chome, Minato-cho, Johetsu-shi, Niigata-ken. Tel: Naoetsu (0255) 43-4207. Cable address: "Rinko Naoetsu". Telex: 03252-468 Naoetsu Kaiun Unso.

NAOSHIMA: 34.28 N. 133.58 E.

PILOTAGE: Not compulsory. Inland-sea Pilots are available at Wada-Misaki or Hesaki (off Moji).
RESTRICTIONS: Daylight berthing and unberthing only.
HEALTH: Radio Pratique not available. Vessels usually anchor at Wada-Misaki (off Kobe) or nearest quarantine port, where the authorities board and grant Free Pratique.
TUGS: None. Tugs from Mizushima are available.
BERTHING: Mitsubishi Metal Wharf: Length 180 m. Depth 10.0 m. Max. draft 10.0 m. Max. size 20,000 g.r.t.
FUEL: Domestic oil is available. Bonded oil will be brought from Kobe, when required.
FRESH WATER: Water barge will be brought from Okayama, when required (1×50 tons).
REPAIRS: Small repairs can be undertaken.
AUTHORITY: Port & Harbour Dept., Kagawa Pref., 1-10, Bancho 4-chome, Takamatsu City, Kagawa Pref. *Tel:* (0878) 31-1111, 62-3653, 34-9302.
AGENT: See "Uno".

NIIGATA: 37.54 N. 139.04 E.

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in Transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Not compulsory. Pilot embarks at Quarantine Anchorage (Lat. 37° 58′ N., Long. 139° 03′ E.) to take vessel directly to berth during daytime. All transmitting and receiving normally effected through Niigata Radio Station (call sign: JCF, Wave: 438454), or Choshi Radio Station and/or Nagasaki Radio Station. Radio ETA 1 week's notice and accurate ETA at least 24 hours before arrival. Notify any changes to ETA.

ANCHORAGES: Anchorage is a rectangle located N.W. of lighthouse at West Breakwater at a distance of 1,600 m. covering an area of about 160,000 sq.m. Lat. 37° 57′ 37″ N., Long. 139° 04′ 00″ E. Depth: 18-24 m. Bottom: fine sand.

Safe Anchoring: Warning and instructions have been given by Niigata Harbour Master to secure safety of vessels anchoring off Niigata Port especially in Winter season, when the port is greatly affected by N.W. gale.

1. Vessels anchoring outside the breakwater within the Harbour limit must maintain their position West side of N.W. line drawn from Niigata Lighthouse (Fl. R. sec. 13 m. 12 miles) and must avoid the vicinity of the mouth of the Shinano River or Showa Oil Co.'s Sea-berth (which is connected with shore facilities by submerged pipe-lines).

2. Vessels anchoring outside the breakwater must maintain their positions in the sea area where the depth of water is 25 m. or more. This rule does not apply to vessels waiting for quarantine inspection and/or Pilot. Vessels under 10,000 gross tons should also keep a sufficient distance from shore.

3. Vessels over 10,000 gross tons with dangerous cargoes or oil anchoring outside the breakwater must advise their positions to the Harbour Master by radio.

4. Vessels anchoring outside the breakwater must keep a bridge watch unless they are equipped with radio. (According to the governing law, any vessel staying outside the breakwater is treated as a navigating vessel even if she is within the harbour limit).

5. Vessels waiting at anchorage must keep watching weather forecast. In case bad weather is reported, the following necessary actions should be taken; namely, officers on duty, confirmation of ship's position, engines on standby, the use of extra anchors, sheltering, etc.

6. In case a vessel requires shelter from N.W. wind in Winter, it is suggested that such vessel proceed to Sado Island and anchor off Morotsu Port, Akadomari Port, Sado Island South Coast or Sado Channel.

7. When approaching the entrance of the port, a vessel can be drawn too close to the East Breakwater or the shallows existing East of the port entrance by force of N.W. gale, N.E. current and river flow. Therefore, vessel must enter from N.W. of Niigata Lighthouse, approaching from Quarantine Anchorage and alter course as West Breakwater Lighthouse and Niigata Port Light Beacon are seen in a line. It is dangerous for vessel to anchor at any areas East of Shinano River.

8. Prior to arrival, Japanese Charts No. 1155A, 122 and 1197 or substitutes should be provided on board. Charts 1181, 1198 may also be needed.

RESTRICTIONS: Berthing and unberthing daytime only. Entry and/or departure at time authorised by Port Authority. Shinano Fairway from port entrance to Rinko Wharves, depth 11 m. to 12 m.

MAX. SIZE: *Tankers:*

Berth	*Max. d.w.t.*	*Max. LOA*	*Max. Safe Draft*
Nisseki Dolphin	36,000	207 m.	10.60 m.
SBM (Sealine Buoy)	130,000	—	17.00 m.
Rinko "B" Pier	60,000	210 m.	10.60 m.
Rinko "C" Pier	60,000	210 m.	10.60 m.
Rinko "E" Pier	25,000	165 m.	10.00 m.
East 1 Wharf	45,000	220 m.	11.80 m.
East 3 Jetty	100,000	260 m.	11.80 m.

HEALTH: Radio Pratique available. Vessels usually anchor at the point Lat. 37° 58′ N., Long. 139° 03′ E., where the authorities board and grant Free Pratique.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Niigata:

Berth	*Max. d.w.t.*	*Max. LOA (m.)*	*Max. Draft (m.)*	*Remarks*
Rinko "A"	60,000	230	*10.40 (Winter)	1 unloader
Rinko "B"	60,000	210	10.60 (Summer)	3 cranes (coal)**
Rinko "D-1"	15,000	140	*10.40 (Winter)	3 cranes (coal) grain
Rinko "D-2"	50,000	210	10.50 (Summer)	handled at "D-2"
East Port	55,000	250	12.50	1 unloader (coal and nickel)
Wharf "H"	24,000	180	9.50	Fertilisers
Wharf "F"	25,000	180	9.50	Fertiliser & grain
Wharf "G"	10,000	180	7.50	Fertilisers

*Winter, 15th November – 31st March; Summer 1st April – 14th November.

**Concentrates (copper, zinc and lead) also handled.

Higashi: West Pier, depth alongside 12 m.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. Westbound vessel to contact Choshi, and Northbound to contact Nagasaki Radio respectively. (Also see "Pilotage".)

TUGS: Tugs normally join vessel at position of fairway. Towing operations are done by ship's lines. 7 tugs, 150 h.p. – 1,800 h.p.

CRANES: 1×40 ton container crane.

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1700 – 1900 hrs. 50% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.

MEDICAL: No advance notice required unless urgent.

TANKERS: Slop (residues): No discharge facilities.

LNG Berth recently completed.

Berth	*Product*	*Shoreline*	*Discharge Rate (t.p.h.)*
Nisseki Dolphin	Crude Oil	1×8″, 1×10″	700/1,500
	Fuel Oil	1×8″, 1×10″	600/1,000
SBM (Showa)	Crude Oil	1×24″	3,000
Rinko "B"	Crude, Fuel	2×10″	600/1,500
Rinko "C"	Crude, Fuel	2×10″	800/1,000
Rinko "E"	Crude, Fuel	1×8″	600
East 1 Wharf	Crude	3×12″	2,000
	Fuel	3×12″	1,800
East 3 Jetty	Crude	1×28″	5,000
	Fuel	1×28″	2,000

DENSITY: Average in Rinko Wharves (approx.) 1006. Average in Municipal Wharves (approx.) 1005.

FRESH WATER: Available from all wharves. Cannot be supplied at anchorage during the Winter season.

FUEL: Domestic oil is available. Bonded oil will be brought from Hakodate or Moji with 7 days' advance notice.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore, but no spirits.

CONSULS: None.

DRY DOCKS: No facilities for ocean going vessel.

REPATRIATION: Possible.

AIRPORT: 5 km. Round service Japan Domestic Air Line.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

HOLIDAY: 22nd August.

POLICE/AMBULANCE/FIRE: Water Police 44-2269; Ambulance Station 119; Fire Station 119; Main Police Station 110.

TELEPHONES: No facilities for telephones on board available.

SERVICES: Hold cleaning by longshoremen available.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.

REGULATIONS: Oil carriers can receive bunker by oil barge and/or shoreline except when discharging cargo.

AUTHORITY: Niigata Port Administration Office, 6-3, Ryugashima 1-chome, Niigata City. *Tel:* (0252) 47-9131.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Niigata Rinko Kairiku Unso K.K., 2-Chome, Rinko-cho, Niigata-shi, Niigata-ken. Cable Address: Rinkokairiku Niigata. Telex: 03122501 Rinkon J., 03122502 Nrinko J. Tel: (0252) 74-5181 & 8932, 73-2289.

NIIHAMA: 33.58 N. 133.16 E. (See Plan)

DOCUMENTS:	*No. of copies*
For Quarantine	
1. Statement by Ship's Master	1
*2. Crew List	1
3. Passenger List (if any)	1
*4. Yellow Cards for All	1
*5. Derat Certificate	1
For Immigration	
1. Declaration of Inward Vessel	1
*2. Passport or Seamen's Book for All	1
3. Crew List	1
4. Application for Shore Pass	1
For Customs	
1. Declaration of Inward Vessel	1
*2. Crew List	1
*3. List of Tobacco	1
*4. List of Crew's Baggages	1
*5. List of Ship's Stores	1
6. Cargo Manifest (Discharging)	1
*7. Cargo Manifest (Through)	1
*8. Certificate of Ship's Registry	1

For Harbour Master

1. Declaration of Inward Vessel 1
*2. Crew List 1

For Harbour Office

1. Declaration of Inward Vessel 1

*To be prepared by Master before arrival. Others to be made up by Agent with assistance of Master on arrival.

Master to telegraph ETA and Crew's Health Condition directly to Quarantine Niihama before arrival.

PILOTAGE: Inland Sea Pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from one of three pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication available with Inland Sea pilot stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits) Position Lat. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse (vessels transitting Bungo Channel). Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki Pilot station.

3. Hesaki, at East side of Kanmon (Shimonoseki) Straits. Position Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.

Inland/Sea Pilotage: Pilotage at Kurushima Channel/Bisan-Seto/Akashi Channel is compulsory for ships over 10,000 g.r.t. Pilot boarding position unchanged, namely, Sekisaki/Hesaki/Wada, even if ship requires only foregoing area's service.

ANCHORAGES: Approved anchorage area just inside harbour limit. A circle drawn at a point Lat. 33° 59′ 18″ N., Long. 133° 16′ 31″ E. with radius of 430 m. where holding ground good and depth of water 12 m. – 15 m. No buoy moorings. Harbour protected by breakwater.

TIDE: (Springs) Max. 263 cm.; min. −9 cm. (Neaps) max. 182 cm.; min. 136 cm.

RESTRICTIONS: Pilot does not take vessel in during darkness. Vessel has to wait if depth during LW 8.50 m. is insufficient to pass channel.

MAX. SIZE: See "Berthing".

HEALTH: Quarantine Inspectors go aboard during day. Master to keep waste until Quarantine inspected in event of any suspected disease or fever on board after entered Japan.

RADIO: Choshi Radio, Nagasaki Radio.

TUG: Joins vessel at Quarantine Anchorage or Section II, always using tug's lines without charge. "Niihama Maru" 700 h.p. If more powerful tugs required, can be obtained from Matsuyama or Mizushima.

BERTHING: Harbour Pilot operates during day.

Berth	*Length*	*Depth*	*Berthing Restrictions*
"A"	Anchorage	8.0 m.	Draft 8.0 m. LOA 120 m.
"B"	Anchorage	9.3 m.	Draft 9.0 m. LOA 165 m.
"B-3" Wharf	103 m.	10.0 m.	Draft 9.5 m. LOA 170 m.
"K-4" Wharf	120 m.	9.1 m.	Draft 9.0 m. LOA 160 m.
"K-6" Wharf	200 m.	14.0 m.	Draft 13.0 m. LOA 250 m.
Kuroshima Buoy	Anchorage	11.0 m.	10,000 d.w.t. or less
"N-4" Wharf	80 m.	7.0 m.	Draft 7.5 m. LOA 110 m.
"N-8" Wharf	110 m.	9.3 m.	Draft 9.0 m. LOA 150 m.
Juki	85 m.	5.0 m.	Draft 5.0 m. LOA 100 m.

Berth A: Public berth for general purposes, no buoy, just anchorage. However, vessel anchoring at this berth sometimes ordered by port authority to shift in order vessel approaching or leaving berth No. 4 may pass.

Berth B: Vessel moors stern to wharf with 2 anchors about 4 shackles each.

CRANES:

Berth "B3"	2× 5 tons
Berth "K4"	3× 5 tons
Berth "K6"	2×25 tons One 250-ton and one 50-ton floating crane.

MEDICAL: Hospitals and medical facilities available weekdays only.

TANKERS: No facilities for oil carriers.

DENSITY: Entrance 1023 (rate of tide, 1 knot); channel 1022; anchorage 1021.

FUEL: Bunkers in bond available from main ports or oil stations in tranship. 2 days' notice.

FRESH WATER: Water is available from the berths "K-4" and "K-6" only after normal working hours – 10 t.p.h. Water is not available from any other berths. A 70 ton barge is available, it can supply 300 tons per day.

GANGWAY/DECK WATCHMEN: Not necessary.

OPENING/CLOSING HATCHES: Stevedores.

LOADING/DISCHARGE RATES:

Average rate of Discharging Cargo:

Alumina	150 – 170 t.p.h. by pneumatic apparatus
Anthracite coal	50 – 70 t.p.h. by ship's gear
Bauxite	700 – 800 t.p.h. by 2 shore cranes
Chemical Oil	200 – 250 t.p.h. by ship's pump
Copper Concentrates	70 – 100 t.p.h. by ship's gear
	130 – 150 t.p.h. by shore crane
Logs	600,000 – 800,000 BFM/day by ship's gear
Nickel Concentrates	70 – 90 t.p.h. by ship's gear
	130 – 150 t.p.h. by shore crane
Phosphate	70 – 90 t.p.h. by ship's gear
Potash	40 – 60 t.p.h. by ship's gear
Salt in bulk	50 – 70 t.p.h. by ship's gear
	80 – 100 t.p.h. by shore crane

Average Rate of Loading Cargo:

Alumina in bags	50 – 60 t.p.h. by ship's gear
Alumina in bulk	170 – 180 t.p.h. by pneumatic apparatus
Ammonium Nitrate	50 – 60 t.p.h. by ship's gear
Anode Paste	100 – 120 t.p.h. by shore crane
Fertiliser in bags	50 – 60 t.p.h. by ship's gear
Fertiliser in bulk	80 – 100 t.p.h. by ship's gear

CUSTOMS ALLOWANCES: Only 50 cigarettes to take ashore. No spirits.

CARGO GEAR: Valid Cargo Gear Certificate sometimes required by stevedores when cargo gear maintenance appears to be poor.

CONSULS: None. Nearest in Kobe.

REPAIRS: Minor repairs only. Main engine piston overhauling possible.

DRY DOCKS: None. For nearest see "Matsuyama".

REPATRIATION: Arranged by Agent.

AIRPORT: None. Nearest at Matsuyama and Takamatsu. All Nippon Airways – 11 flights per day to Osaka and one to Tokyo.

TIME: GMT plus 9 hours. Permanent.

HOLIDAYS: National Holidays: New Year's Day, January 1st; Adult's Day, January 15th; Foundation Day, February 11th; Vernal Equinox Day, March 21st; Emperor's Birthday, April 29th; Constitution Memorial Day, May 3rd; Children's Day, May 5th; Respect-for-age Day, September 15th; Autumnal Equinox Day, September 24th; Physical Culture Day, October 10th; Culture Day, November 3rd; Labour Thanksgiving Day, November 23rd.

Local holidays: New Year's Day (Lunar Calendar), January 30th; May Day, May 1st; Memorial Day of the Sea, July 20th; Bon Festival (Lunar Calendar), August 8th; Autumnal Festival, October 16th-18th.

Vessels may enter/leave *except* January 1st, and cargo work can be done as usual at overtime rates on above national/local holidays *except* for *Niihama* (December 31, January 1, 2, 3, and October 17, 18).

Vessels may enter/leave port at overtime rates and cargo work will be done up to 1700 hrs. (daytime) against surcharges.

No cargo will be handled *Niihama* (December 31, January 1, 2, 3, and October 17, 18). No ship's movement (as well as cargo handling) can be done on January 1st.

POLICE/AMBULANCE/FIRE: Police 110; Ambulance/Fire 119.

TELEPHONES: No facilities for placing telephones on board.

GENERAL: *Quarantine:* Hiroshima Quarantine Office, Niihama Detached Office, Nishibara-cho, Niihama, Tel: Niihama 32-3966.

Customs: Kobe Customs, Niihama Branch Customs, Nishibara-cho, Niihama, Tel: Niihama 32-3405.

Immigration: Niihama Port Station, Takamatsu Immigration Office, Nishibara-cho, Niihama, Tel: Niihama 32-2672.

Maritime Bureau: Sanbashi-dori, Niihama, Tel: Niihama 32-2855.

Maritime Safety Agency: Nishibara-cho, Niihama, Tel: Niihama 33-0055.

Emergency Procedure: No Harbour Master radio available, therefore cable Agent. Telephone sub-agent since one person will be in attendance even during night, who in turn will contact person in charge.

Salvage: No salvage tug stationed, nearest from Kure.

SHORE LEAVE: Crew allowed ashore with pass.

DEVELOPMENTS: Sumitomo Chemical Co. Ltd., Kikumoto Works, intend to make another Bauxite berth available for large size vessel (suitable for vessels up to 50,000 d.w.t.).

Sumitomo Metal Mining Co. Ltd., Niihama reclaiming land adjacent to Western harbour limit of Port of Niihama to construct additional refinery for producing copper with a berth for 25,000 ton vessel to discharge copper concentrate. Final date of completion unknown.

AUTHORITY: Niihama Marine Safety Agency, Nishibara-Cho, Niihama. *Tel:* (0897) 32-3405. *Contact:* Port Captain.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Sumitomo Warehouse Co. Ltd., 2-5, Sobiraki-cho, Niihama-shi, Ehime-ken. Cable Address: Sumitomosoko Niihama. Domestic Telex: 0584-4432. Tel: Niihama (0897) 37-1101.

NISHIHARA (Nakagusuku Wan), Okinawa: 26.14 N. 127.50 E. (See Plan)

LOCATION: The Nansei Sekiyu Ltd. Refinery is located in Nishihara Town on the East coast of Okinawa, towards the Southern end of Nakagusuku Bay. Also see "Max. Size". There is also a Nihon Sekiyu Terminal SBM about 2 miles N.N.W. of the NSS SALM. (Withdrawn 1980, area safe for navigation).

DOCUMENTS:
3 Manifests
6 Crew Lists
2 Passenger Lists
2 Stores Lists
2 Personal Effects Lists
2 Ports of Call Lists
(voyage memo...past 3 months)
2 Transit Cargo Manifests
2 International Health Declarations
Ship's Register
International Loadline Certificate
Safety Equipment Certificate
Derat Certificate
Last Port Clearance.

Each Crew member will be issued with an Official Pass, which must be returned prior to vessel sailing.

PILOTAGE: Normally vessels will be expected to enter Nakagusuku Bay through entrance marked Tatsu Kuchi, and pick up Berthing Master inside bay – South of Tsuken Jima. Inside bay Berthing Master requests that vessel keeps South of buoy marking Chikunigaa Shoal. Berthing shall be carried out at day time only.

A safe convenient pilot ladder is to be provided for the Berthing Master. Berthing Master stays aboard vessel throughout discharge, except vessel berthed at the pier.

ANCHORAGES: Navigation and anchorage in the waters near the NSS Product Pier and Crude Berth will in so far as possible be restricted to those ships directed into these waters by Berthing Master. In the interests of safety, ships will not enter the restricted area unless so directed by Berthing Master. The restricted area is within the following boundaries:

Beginning at a point described as Lat. 26° 13′ 33.88″ N., Long. 127° 47′ 30.24″ E.; thence running South Long. 60° 00′ 00″ E., a distance of 200 m. to an angle point described as Lat. 26° 13′ 30.62″ N., Long. 127° 47′ 36.48″ E.; thence running South Long. 35° 40′ 45″ E., a distance of 1,170 m. to an angle point described as Lat. 26° 12′ 59.69″ N., Long. 127° 48′ 00.98″ E.; thence running North Long. 45° E., a distance of 3,350 m. to a point on the circumference of a circle described as Lat. 26° 14′ 20″ N., Long. 127° 49′ 30″ E.; thence running to the right a distance of 3,170 m. along said circumference, which is described by a radius of 1,060 m. with its centre located at Lat. 26° 13′ 56.18″ N., Long. 127° 50′ 00.00″ E. to a point on the circumference described as Lat. 26° 13′ 30″ N., Long. 127° 50′ 22″ E., thence running South Long. 48° W. a distance of 1,780 m. to the Nakasone Buoy located at Lat. 26° 12′ 54.2″ N., Long. 127° 49′ 37.5″ E., thence running South Long. 53° W. a distance of 1,940 m. to the Wara Reef located at Lat. 26° 12′ 17.7″ N., Long. 127° 48′ 45.0″ E., thence running West Lat. 18° N. a distance of 2,810 m. to a buoy located at Lat. 26° 12′ 44″ N., Long. 127° 47′ 07″ E., thence running North Long. 17° W. a distance of 710 m. to a point at Lat. 26° 12′ 46.42″ N., Long. 127° 47′ 56.61″ E.

MAX. SIZE: For crude vessels a single point mooring (SALM – Single Anchor Leg Type Mooring), capable of handling vessels from 90,000 d.w.t. to 270,000 d.w.t. is established in approximate position Lat. 26° 14′ N. Long. 127° 50′ E., about 2.5 miles offshore.

Products are shipped from a pier connected to the shore – the pier has 2 berths, one for vessels up to 97,000 d.w.t. and one for small vessels up to 4,000 d.w.t.

PRATIQUE: Port Officials will board the vessel after berthing.

RADIO: Crude vessels discharging at Nishihara should report ETA at pilot station (Lat. 26° 13′ N., Long. 127° 52′ E.) 72, 48, 24 and 12 hours prior arrival. Berthing instructions and time of Pilot boarding will be relayed by a telegraph appointed Agent. Refinery has no VHF radio.

Weather reports essential – particularly during typhoon season. Naha Radio – JCX medium wave 500 kHz. Traffic lists broadcast at odd hours GMT. Short wave 6470 kHz, traffic lists broadcast at even hours GMT.

TUGS: 2 tugs and a launch are available for assisting with mooring and unmooring. The Berthing Master in consultation with the Master will decide the number of tugs required for the berthing operation and for standby during the time at berth.

CRUDE BERTH: Single buoy mooring with vessel secured by 2 heavy polypropylene lines from buoy. Lines connected to chains through bow mooring lead and secured inboard. Chains secured direct to Brega Pin or by double mooring wire or mooring rope (polypropylene 8 in. or over) to bollards, port and starboard side of forecastle head. There is 72 ft. of water at buoy position. Vessels may remain in berth in winds of up to 50 m.p.h.

Floating Hoses: 2×24 in. into 2×20 in. connected to 2×16 in. are connected on vessel's port side. There is a 42 in. line from buoy to shore. The maximum pumping rate is 75,000 b.p.h.

PRODUCT PIER: A 110° – 290° orientated pier allows tankers to approach the berth in a ballasted condition in either of 2 opposite directions. Vessels of 4,000 d.w.t. size and above will be handled at Berth No. 1 and smaller vessels at Berth No. 2

The water depth at the pier is approximately 47 ft. The extreme tidal variation is +7.9 ft. to −1.0 ft. and maximum storm tide will add approximately 3 ft. The maximum current is less than 1 knot.

Berth No. 1 is equipped with 1×16 in. loading arm for clean products and 2×16 in. loading arms for dark products. Each of these all-metal hydraulically controlled loading arms is fitted with a remotely operated coupling device to connect to a nominal 10 in. ASA, DIN or BS flanged connection without bolting.

Berth No. 2 is equipped with 2×6 in. loading arm for dark and clean products. These arms are part metal, part hose and are fitted with flanges to be bolted to a nominal 6 in. ASA, DIN or BS flanged connection.

Each berth is provided with a gangway.

Vessels will deballast through the loading arms into a 24 in. ballast water line leading to refinery tankage. Under no circumstances should vessel discharge any ballast water directly into the bay.

Fire protection at the pier consists of a foam concentrate tank and proportioning pump, a fire water pump and distribution system, fixed combination water-foam monitors and air-foam play-pipes.

OIL POLLUTION WARNING: We wish to alert all vessels entering this port of the extreme sensitivity on the part of the community and governmental authorities regarding any incident involving oil pollution of the seas. Any oil spill, regardless of size, is considered a criminal act, and offenders are dealt with accordingly. We urge all vessels to make complete pre-arrival checks for cargo and ballast system tightness, and to strictly adhere to all pollution prevention practices, procedures and policies while discharging or deballasting at this port. Officers and crews should be extremely alert during all phases of vessel operation for potential oil spill risks and seek assistance from shore representatives should any unusual risk arise.

TIME: GMT plus 9 hours. Summertime is not used. All ETAs and other messages should be made in local time.

SHORE LEAVE: Shore leave is permitted – launch service may be arranged but is at vessel's expense.

No person will be given permission to enter the refinery unless they are in the microbus which will be provided by ship's Agent.

AUTHORITY: Nansei Sekiyu K.K., 858 Aza Onaha, Nishihara-Cho, Okinawa, 903-01 Japan. Postal Address: P.O.Box 525, Naha, Okinawa, 900-91 Japan. *Tel:* 098945-3331.

Captain of the Port: Kin-Nakagusuku, 46 Soeishi, Nakagusuku-Son, Okinawa, Japan. *Tel:* 098895 – 4874.

OFUNATO: 39.03 N. 141.44 E. (See Plan)

DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Not compulsory but recommended as many fishing obstructions in the harbour. Pilot boards about two miles from entrance of Ofunato Bay, Lat. 39° 00.2′ N., Long. 141° 45.5′ E. but for vessels less than 10,000 g.r.t. Pilot boards in Quarantine Anchorage where depth 35 m. (but not after dark). Master must radio vessel's Agent of ETA 24 hours in advance, because neither telegraphic address of pilot station nor VHF available.

ANCHORAGES: Not suitable in stormy weather. Depth of water at anchorage 30 m. to 40 m. Quarantine Anchorage located between radius 500 m. of Lat. 38° 59′ N., Long. 141° 48′ E.

RESTRICTIONS: Depth of water at entrance of passage 14 m., oil tanker's draft restricted to 9.0 m. and draft of log and coke carriers restricted to 8 m. Depth of water alongside wharf 9 m. at mean level.

MAX. SIZE: *Tankers:* Kamei Oil Piers Max. d.w.t. 35,000. Max. LOA, 210 m. Max. Safe draft 9.0 m.

Log and Coke Carriers: Max. LOA 180 m., max. draft 8.0 m. Tidal range 1 m. – 1.4 m.

HEALTH: Radio Pratique available. Formalities carried out at the anchorage.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically West bound vessel to contact Choshi and North bound to contact Nagasaki Radio respectively.

TUGS: Small tugs 800 h.p. and 600 h.p. available. Large tugs (2,400 h.p.) can be arranged from Kamaishi with advance notice, they usually join vessel about 400 m. in front of jetty and discharging wharf. Ship's lines used if necessary.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gears not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1700 – 1900 hrs. 50% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.

MEDICAL: No advance notice required unless urgent.

TANKERS: One tanker berth. Product handled, Diesel Oil. Shoreline, 8″×2. Discharge rate, 800 t.p.h.

DENSITY: Average density 1020.

FRESH WATER: Available from shore. Supply 10 t.p.h. – 15 t.p.h.

FUEL: Domestic oil is available. Bonded oil will be brought from Yokohama or Hakodate, with sufficient advance notice.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore, but no spirits.

CONSULS: None.

REPAIRS: Minor deck and engine repairs available.

DRY DOCKS: None.

REPATRIATION: Possible.

AIRPORT: Hanamaki Airport about 97 km. from Ofunato. TOA Domestic Air Lines (TDA); 2 flights between Hanamaki/Tokyo every day, 2 flights between Hanamaki/Osaka every day and 1 flight between Hanamaki/Sapparo every day.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

TELEPHONES: No facilities for placing telephones on board.

GENERAL: Discharging ex-gearless vessel at wharf not available, because no shore crane for discharge.

SERVICES: Surveyor: NKKK and Kentei Shin Nihonsha. Hold and tank cleaning. Provisions/laundry/water. Bunker: Domestic diesel available.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days; 3 days' extension possible if ship stays longer.

AUTHORITY: Port & Harbour Department, Iwate Prefecture Government, 10-1, Uchimari, Morioka City, Iwate Pref., 020 Japan. *Tel:* 0196-51-3111. *Contact:* Masanao Takeda, Director, Port & Harbour Department.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Morita & Co. Ltd., No. 108 Chayamae, Ofunato-cho, Ofunato-shi, Iwate-ken. Cable Address: Morita Ofunato. Domestic Telex: 8382-32. Tel.: (01922) 6-5131. Postal No. 022.

OITA: 33.17 N. 131.40 E. (See Plan)

DOCUMENTS: When ship arrives direct from foreign port, Customs Officials will board the vessel to search. The following documents are to be submitted:–

Crew List.
Passenger List.
Stores List
Declaration of Crew's baggage. (Must be signed by individual Crew member).
Arms and Ammunition List.
Narcotics List.
List of Ports of Call on Current Voyage.
Discharging Cargo Manifest.
Through Cargo Manifest.
Declaration Inward/Outward (Form No. C2000).

The following will be checked on board:–

Ship's Registry.
Last Port Clearance.

When ship comes from Japanese port, Customs Officials will not attend on board, except special case. The Master or Agents are to attend at Customs House for entry formalities with the following documents:–

Discharging Cargo Manifest.
Through Cargo Manifest.
Declaration Inward/Outward.
Ship's Registry.
Last Port Clearance.
Documents entrusted with the Master by Customs at previous Port.
Store List.

On ship's departure, a clearance is issued by Customs, after confirming payment of tonnage dues.

No Customs house open outside office hours except when advance notice given.

Immigration: Immigration Officials board vessel on her arrival in port to examine passports, discharge books and or other equivalent travel documents and provide 72-hour landing passes for Crew members and passengers. 2 copies each of Crew List and Passenger List are required by them. Providing ship's Agents with a Crew List beforehand will be a great help in expediting Immigration business on ship's arrival. When ship stays in port more than 72 hours, the landing passes may be extended every 72 hours on application.

In the event that Crew members, without entry visas, are to be landed for repatriation or transfer, Immigration will not permit their landing unless passage, by either sea or air, ensuring the prompt departure from Japan (within 72 hours) of these men have been booked, or unless the ships to which they are to be transferred, arrive in Japan within 5 days.

RESTRICTIONS:

Berthing: During daytime only.

Departure: Night departure from wharves is generally impracticable, except vessels at Sea-Berth and Seihin Berth can depart up to 2000 hrs. However, this will depend upon condition of weather, etc.

MAX. SIZE: See "Berthing" and "Tankers".

PILOTAGE: Harbour pilotage not compulsory. It is compulsory for vessels over 10,000 g.r.t. to take a Pilot in the Inland Sea.

Request must be made at least 24 hours in advance and Pilot should be kept closely advised of vessel's accurate ETA at pilot station. If there is any change in vessel's movements, the Master is requested to immediately radio to the pilot office directly or through Agents reporting the revised ETA. The cable address of the pilot office is "Anjin Moji". *Shipmaster's Report:* April 1988.

Inland Sea Pilot not compulsory in the Inland Sea from Se Saki to Oita or from Oita to He Saki (entrance to Kanmon Kaikyo)

Nor is pilotage compulsory from Se Saki (Bungo Suido) to He Saki.

In the Inland Sea, pilotage is compulsory for vessels over 10,000 g.r.t. in Kurishima Kaikyo, Bisan Seto and Akashi Kaikyo.

At Oita, Harbour Pilot is not compulsory, however it is advisable to make use of the services of a Harbour Pilot as the tug Captains do not speak English, which might cause language problems if no Harbour Pilot is employed.

ANCHORAGES:

No.	*Depth* *(m.)*	*Capacity* *(g.r.t.)*	*Position*	*Remarks*
No. 1	37–38	Under 20,000	33° 16′ 26″ N. 131° 38′ 44″ E.	Within radius of 100 m.
(265°, 3,400 m. from Tsurusaki Hakuchi Breakwater East Lighthouse "A" point).				
No. 2	52–53	Over 100,000	33° 17′ 09″ N. 131° 42′ 00″ E.	680 m. to No. 3 Buoy
(59°, 1,960 m. from "A" point).				
No. 3	48–50	50,000/100,000	33° 17′ 04″ N. 131° 42′ 26″ E.	590 m. to No. 4 Buoy
(70°, 2,490 m. from "A" point).				
No. 4	45–46	20,000/50,000	33° 16′ 52″ N. 131° 42′ 44″ E.	630 m. to No. 5 Buoy Draft up to 15 m.
(80°, 2,870 m. from "A" point).				
No. 5	35–40	Under 30,000	33° 16′ 40″ N. 131° 43′ 03″ E.	580 m. to No. 6 Buoy Draft up to 13 m.
(88°, 3,300 m. from "A" point).				
No. 6	35	Under 30,000	33° 16′ 29″ N. 131° 43′ 22″ E.	Draft up to 10 m.
(93°, 3,800 m. from "A" point).				
Shin Nittetsu Anchorage 6 m. – 40 m.		5,000×3 3,000×3	The sea area circumscribed by the lines connecting the following points end to end: 1. The point "A", 278°, 1,310 m. from the Otozu Breakwater West light- house in Oita Harbour. 2. The point, 249°, 1,200 m. from "A". 3. The point, 219°, 170 m. from "A". 4. The point, 330°, 550 m. from "A".	
Quarantine Anchorage 25 m. – 43 m.			The sea area circumscribed by the following lines: The line that connects the point "A", 227°, 11,550 m. from the Sekisaki lighthouse with the point, 180°, 1,500 m. from "A"; a second line that connects the same with the point 260° 2,100 m. from it; a third that connects the same with the point, 0°, 1,300 m. from it and a fourth that connects the same with "A".	

*It is necessary to obtain permission from Harbour before vessel's arrival.

HEALTH:

(a) Quarantine Station: Lat: 33° 16′ 00″ N., Long: 131° 46′ 00″ E.

(b) Quarantine inspection is not allowed inside port except when weather or other special reasons prevent the quarantine boat from approaching ship at anchorage.

Quarantine is effected in berth for a vessel more than 3,000 g.r.t., provided the vessel possesses valid (i) Derat Exemption/Fumigation Certificate. (ii) all crew/passengers are healthy. (Radio message from ship's Master for these items are required 2 days in advance).

(c) Quarantine service is rendered from sunrise to 1 hour before sunset.

(d) "Q" flag should be hoisted until ship has Free Pratique.

(e) When ship arrives from plague infected or suspected area within 10 days after she left such place, a 24 hour special quarantine is required.

All sanitary outlets must be closed and garbage must not be thrown overboard after ship reaches 60 miles off Japanese Coast.

(f) Radio Free Pratique possible.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

VHF: Vessel can keep in direct contact with port authorities in regard to their arrival, berthing instructions also Pilot's requirements, etc., through VHF, the details of which are as follows:–

(a) Call sign: Oita Port Radio.

(b) Location of radio facilities: The transmitting and receiving station is located at the top of Mount Tohmiyama, Saganoseki (Sekisaki)

(c) Channel: Simplex 16 (Calling)
12 (Communicating)
14 (Communicating)
Antenna power: 50 W.

(d) Operating Hours: 0000–2400 hrs.

(e) Communicating range: Within a radius of 100 km. from the station at sea.

TUGS: Operator: Oita Rinkai Kogyo.

Tug	*g.r.t.*	*H.P.*
*Yuhi Maru	276	3,200 Schneider
*Kakuho Maru	199	3,500 C.P.P. Kort Nozzle
*Ryusei Maru	199	2,400 Z-Peller.
Udo Maru	141	2,000

Morita Maru	177	2,000
*Hikita Maru	274	3,200 Z-Peller
*Daiho Maru	293	3,200 Z-Peller
Nagata Maru		3,000

It is a practice to use tug's line for berthing/unberthing.
*Fire extinguishing apparatus equipped.

Kyushu Oil Co. own a special boat equipped with an extinguisher system and station same when a tanker berthing/unberthing at their expense.

BERTHING:

Wharf	*Length berth* (m.)	*Max. LOA* (m.)	*Max. Safe Draft* (m.)	*Capacity* (d.w.t.)	*Public or Private*
Sumiyoshi					
No. 1	185	160	9.10	15,000×1	Public
No. 2	185	160	9.20	15,000×1	Public

(Larger size vessels can be accommodated at Nos. 1–2 wharves, using 2 berths)

Wharf	*Length berth* (m.)	*Max. LOA* (m.)	*Max. Safe Draft* (m.)	*Capacity* (d.w.t.)	*Public or Private*
Otozu:					
E–3	240	200	11	Under 30,000	Private (Nippon Steel Corp.)
E–4	200	170	11	Under 30,000	
E–5	200	170	12	Under 35,000	,, ,,
E–6	200	170	12	Under 35,000	,, ,,
E–7	200	170	12	Under 35,000	,, ,,

(Larger size vessels (max. 50,000 d.w.t. and 250 m. LOA) can be accommodated at the wharves, using 2 berths).

Control tower for vessel's entry/departure to and from Otozu Hakuchi is located at the end of Otozu Hakuchi, close by lighthouse.

Wharf	*Length berth* (m.)	*Max. LOA* (m.)	*Max. Safe Draft* (m.)	*Capacity* (d.w.t.)	*Public or Private*
Sea Berths:					
N–1	310 (plus 125 m. dolphin)	350	22	50,000/200,000	Private (N.S.C.)
N–2	310 (plus 140 m. dolphin)	350	25	5,000/300,000	Private (N.S.C.)
N–3	350 (plus 140 m. dolphin)	350	22	50,000/100,000	Private (N.S.C.)
N–4	210	180	20	5,000/30,000	Private (N.S.C.)

STEVEDORES: *Stevedoring Companies:*

Nippon Express Co. – maximum 4 gangs are available.
(at Sumiyoshi public wharves – Tsurusaki Kairiku Unyu – maximum 4 gangs are available)

Hirohata Kaiun Kaisha – maximum 2 gangs are available for loading steel products (for export) at Nippon Steel Corp.

Tsurusaki Kairiku Unyu – maximum 2 gangs are available for loading steel products (for export).

Nippon Express Co. – maximum 2 gangs are available for discharge steel scrap and pig iron.

Kamigumi Co. – 3 gangs are available for discharging iron ore/coal.

Working Hours:

(a) At Sumiyoshi public wharves: 0800 to 1700 hrs. (No work on Sundays and holidays. No work can be arranged New Year's holidays).

(b) At Nippon Steel Works (coal/iron ore) 3 shifts, 0600 – 1400, 1400 – 2200, 2200 – 0600 hrs.

At Nippon Steel Works (loading steel products) 3 shifts/actual nett working:

1. 0700 – 1100 hrs. meal 1100 – 1145 hrs.
   1145 – 1500 hrs. oiling crane: 0700 – 0715 hrs. 7.00 hrs.
2. 1500 – 1800 hrs. meal 1800 – 1845 hrs.
   1845 – 2215 hrs. oiling crane: 1500 – 1515 hrs. 6.15 hrs.
   2215 – 0200 hrs. meal 0200 – 0245 hrs.
3. 0245 – 0700 hrs. oiling crane: 2215 – 2230 hrs. 7.45 hrs.

21.00 hrs.

Average loading/discharging rates:

Bulk cargo:	
Iron Ore (sinter)	1,600 t.p.h./crane/hatch (dis.)
Coal	1,300 t.p.h./crane/hatch (dis.)
Steel Scrap:	1,000 tons per day per crane (dis.)
Pig Iron:	2,700 tons per day per crane (dis.)
Logs:	30 t.p.h./gang/hatch (dis.)
Steel Cargo: HR. Coil	200 t.p.h./gang/hatch (load)

CRANES:

Shore cranes:

1. Sumiyoshi public wharves	— No crane available.
2. N.S.C. loading wharves	— 50 t×1, 30 t×3, 20 t×3: (for HR. Coil) — 50 t×1, 35 t×1: (for M.S. Plate)
3. N.S.C. Sea-Berth	— 81 t×3

Floating Crane: 40 tons capacity available.

MEDICAL: Hospitals available. No advance notice required unless urgent.

TANKERS: Private berths: 24 hours operations. Berthing/unberthing during daylight only.

Kyushu Oil Jetty (Dolphin Style):
Length of berth 480 m., max. LOA 350 m., Max. draft 19.50 m. Capacity 60,000/270,000 d.w.t.

A submarine type rubber oil fence is stretched around the berth.

5 unloading arms are installed on the unloading platform and can be connected directly to ship's manifold. 4 of these unloading arms are 12 in. diameter and used for discharging crude oil.

The other arm is 12 in. in diameter and used for fuel/diesel oil. Nominal capacity for discharging crude oil is 10,000 Kl/hr. and for fuel/diesel oil, 1,000 Kl/hr.

Following information required 3 days before arrival: Manifolds, type, size, number and distance between, also pump capacity.

Showa Denko Naphtha Berth: (Dolphin) Length of berth 400 m. max. LOA 300 m. Max. draft 15 m. Capacity 5,000/70,000 d.w.t.. Product handled – Naphtha. Rubber oil fence provided at berth. 2×12 in. lines, rate 3,000 Kl/hr. LPG also handled.

DENSITY: (Average):
1023 in Summer season at Sumiyoshi.
1023 in Summer season at Sea-Berth.
1021/1023 in Summer season at Otozu Hakuchi.
1024 in Winter season at Sumiyoshi.
1025 in Winter season at Sea-Berth.
1021/1025 in Winter season at Otozu.

FRESH WATER: Good fresh water is supplied from hydrants to vessel alongside wharves. The rate of delivery:

At Sea-Berth 30/50 t.p.h. hydrants every 103 m. (12 hydrants).

At Otozu Wharf: 35/45 t.p.h. hydrants are every 50 m. (21 hydrants).

At Sumiyoshi Public Wharf: 25/30 t.p.h. hydrants every 100 m. (3 hydrants).

At Kyushu Oil Jetty: 25/30 t.p.h. only 1 hydrant is available. 1 day's advance notice required.

At Showa Yuka 70,000 d.w.t. Naphtha Berth: 25/30 t.p.h. 1 hydrant available. 1 day's advance notice required.

Oil barge (tank separated for fresh water) of 40 tons capacity available for emergency case.

FUEL: Bonded bunkers supplied by oil barges (except vessel at Kyushu Oil Jetty where rate of delivery is 450 Kl/hr).

The rate of delivery: 200/500 t.p.h.

Suppliers	*Delivery Agents*	*Installation*
Shell Sekiyu K.K.	Ueno Unyu	Shimonoseki
Esso Oil Co.	Nisshin Tanker	Shimonoseki
Mobil Oil Co.	Nisshin Tanker	Shimonoseki/Oita
Caltex Oil Co.	Shimazu Kaiun	Shimonoseki/Oita
Mitsubishi Shoji	Sanem Shoji	Mutsure/Iwakuni Kanokawa
Mitsui & Co.	Chikko Kogyo	Oita
C. Itoh & Co.	Asahi Tanker Chikko Kogyo	Matsuyama Oita
Nissho-Iwai Co.	Nisshin Tanker	Mutsure Matsuyama
Nippon Mining Co.	Nippon Tanker	Mizushima
Idemitsu & Co. Sumitomo Shoji Marubeni Corp.	Asahi Tanker	Tokuyama
Kanematsu-Gosho Co.	Nagai Kaiun Asahi Tanker	Kokura Tokuyama

Fuelling is permitted only during the hours of daytime, observing as always the strict precautions against oil spills into the harbour.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board. Available from Moji.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore, but no spirits.

CONSULS: None.

REPAIRS: 2 companies available.

DRY DOCKS: None.

SURVEYORS:

(a) Classification Survey Associations:

Nippon Kaiji Kyokai	(Moji)
Lloyd's Register of Shipping	(Nagasaki or Shimonoseki)
American Bureau of Shipping	(Shimonoseki)
Bureau Veritas	(Fukuoka)
Norske Veritas	(Kobe)

(b) Cargo Survey Associations:

Lloyd's Agents	093–331–1311
Nippon Kaiji Kentei Kyokai NKKK	58–3951
Shin Nippon Kentei Kyokai	27–4111
Far East Superintendence Co., Ltd.	58–9225
Japan Inspection Co.	58–7020

REPATRIATION: See "Documents – Immigration".

TIME: GMT plus 9 hours. No alteration made to clocks during year.

POLICE/AMBULANCE/FIRE: Police tel. 110; Ambulance and Fire 119.

TELEPHONES: No telephones can be placed on board.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.

According to new Customs regulation, ship's crew members are requested to land ashore by designated Micro bus or launch from ship at Sea-berth and by launch from ship at Seihin wharves via Customs house.

AIRPORT: Oita Airport: approx. 56 km. to the airport via land. Approx. 16 miles to the airport via sea (hovercraft). Hovercraft run between Oita City and the New Oita airport. Domestic line only, Toa Domestic Airlines and All Nippon Airways.

GENERAL: *Japan Maritime Disaster Prevention Centre:*
Tsurusaki Kairiku Unyiu K.K. are appointed by the Japan Maritime Disaster Prevention Centre as base for stock piling and use of the materials for removal of discharged oil.

Restrictions: It is prohibited to pump out bilges, to throw overboard sweepings, waste or garbage of any kind and cleaning dust out of holds, whilst the vessel is in port or in pilotage waters according to regulations. Also, not permitted to wash ship's deck and painting ship's outside shell platings.

Services: The following are available: Laundry, hold cleaning, fumigation, deck and engine stores, provisions, dunnage, Japanese charts (HO and BA charts available from Yokohama and Kobe respectively with adequate notice.).

DEVELOPMENTS: Land reclamation continues in 3 areas. Public wharves as well as private wharves will be constructed.
AUTHORITY: Shin Sangyotoshi Kaihatsu-Kyoku, Ohita Pref., 3-33, Mukaibaru Nishi 1-chome, Ohita City *Tel:* (0975) 58-5111.

AGENT: Sub-Agents of Dodwell & Co. Ltd., Tokyo. Tsurusaki Kairiku Unyu K.K., 1000, Oaza Misa, Oita City, Japan. Postal Code 870-01. Tel. 0975–21–6111/9. Cables: Tsurukai Oita. Telex: 07723-89.

OMISHIMA (Ohmishima), Inokuchi Port: 34.16 N. 133.00 E.

DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.
PILOTAGE: Inland Sea pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from one of three pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.
Note: VHF communication available with Inland Sea pilot stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits). Position Lat. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse (vessels transitting Bungo Channel). Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible, having due regard to safety, to Sekisaki Pilot Station.

3. Hesaki, at East side of Kanmon (Shimoneseki) Straits. Position Lat. 33° 56′ 24′ N. Long. 131° 03′ 12″ E.

ANCHORAGES: Omishima Island located at centre of the Inland Sea and lies between Ehime and Hiroshima prefectures. Eastern part of island, Inokuchi surrounded by deep water where holding ground good. Oil company located at Inokuchi. No strong winds.
RESTRICTIONS: No restriction on entry; however mooring and unmooring to be carried out during daytime, regardless of tide and current.
MAX. SIZE: *Tankers:* Maruzen Ohmishima Oil Jetty: Length 140 m. Depth 9.0 m. Coastal tankers of 3,000 g.r.t. allowed to berth. Berth designed to accept max. 7,000 d.w.t.
HEALTH: At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from day-light to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days, Master must advise crew and passengers health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.
TUGS: Join vessel at sea anchorage, always using tug's line without charge.
TANKERS: No advance information of loading/discharge lines required. No loading facility. Only one berth available for discharge. Product handled, fuel oil. Shore line, 1×10 in. Discharge rate, 400 t.p.h.
DENSITY: Anchorage 1025. Berth 1025.
FRESH WATER: Not available but usually brought by barge from Onomichi (about 3 hours run to Omishima). Rate of delivery 80 tons to 200 tons per hour which depends on barge.
FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore, but no spirits.
CONSULS: No consuls. Nearest Consulates are at Kobe.
REPAIRS: Minor repairs only.
REPATRIATION: Possible.
AIRPORT: Nearest at Matsuyama and Takamatsu.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Police 110; Ambulance 119; Fire 119.
TELEPHONES: Not available.

GENERAL: Closed port. To conform with regulations vessel obtains special permission from Maritime Bureau and Customs at Takamatsu to enter.

Customs request vessels calling Omishima to obtain permission to enter at preceding port of call by paying charge at same rate of tonnage dues prior to arrival. This procedure undertaken by Agent. No Quarantine Station, nearest at Matsuyama. Immigration Officer comes from Niihama.
SHORE LEAVE: Immigration issue shore passes valid for 7 days if vessel only calling at one port in Japan or 15 days if vessel calling at more than 2 ports in Japan, further extension possible.
AUTHORITY: Imabari Marine Safety Agency. *Tel:* (0898) 32-0708.
AGENT: See "Niihama".

ONAHAMA (Iwaki City): 36.56 N. 140.55 E.

The port is protected by breakwater, 7,910 m. long and is open to the South.
DOCUMENTS:
Ship's Register.
Last Port Clearance.
4 Crew Lists including Passport Numbers.
4 Passenger Lists including Passport Numbers.
1 Stores List.
1 Declaration of Crew's baggage, i.e. tobacco wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in Transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.
PILOTAGE: No means of communication with Pilots and vessels should arrange pilotage by advising Agent of ETA. Not compulsory; Pilots are available at the anchorage (Lat. 36° 53′ 05″ N., Long. 140° 54′ E.) for vessels requiring Pilot services.

For Tankers at Lat. 36° 52′ 05″ N., Long. 140° 54′ 00″ E.
ANCHORAGES: Just outside No. 1 West Breakwater. Depth of water 14 m. – 22 m.
RESTRICTIONS: Restriction only by ship's draft. Depths of water alongside wharves 9 m. and 10 m. at low tide, and rise of tide is about 1.40 m. highest. Berthing daylight only. Unberthing at Pilot's option.
MAX. SIZE: *Tankers:* Sea Berth: Max. 80,000 d.w.t. Depth 15.0 m. Max. safe draft, 13.50 m. (Also see "Berthing").
HEALTH: Radio Pratique available. Formalities will be carried out at anchorage.
RADIO: Recommended Master communicates with Agent through Chosi Radio or Nagasaki Radio which covers all ports in Japan. If specifically Westbound vessel to contact Chosi and Northbound to contact Nagasaki Radio respectively.
TUGS: Normally join vessel on passage from anchorage. Vessel's lines used. 4 tugs available, 1×2,400 h.p., 1×2,100 h.p, 1×1,800 h.p. and 1×800 h.p.
BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Name of Pier		*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Capacity* (d.w.t.)	*Shore Cranes*
No. 1 Pier	No. 5	130	7.5	7.0	5,000	
	No. 6	100	5.0	4.5	1,000	
	No. 7	100	5.0	4.5	1,000	
No. 2 Pier	No. 1	165	9.0	9.0	15,000	8t×1
	No. 2	185	10.0	9.75	30,000	8t×1
No. 3 Pier	No. 1	175	10.0	9.7	30,000	8t×1
	No. 2	175	10.0	9.7	15,000	8t×1
	No. 3	175	10.0	9.75	30,000	8t×1
	No. 4	175	10.0	9.75	30,000	8t×1
No. 4 Pier	No. 1	90	4.5	4.0	1,000	
	No. 2	200	10.0	9.7	15,000	
	No. 3	200	10.0	9.5	15,000	
	No. 4	80	6.0	5.5	3,000	
	No. 5	80	6.0	5.5	3,000	
	No. 6	80	6.0	5.5	3,000	
Fujiwara Pier (Logs Discharge)						
	No. 1	185	10.0	9.7	15,000	
	No. 2	225	10.0	9.7	15,000	
	No. 3	225	10.0	9.7	15,000	
	No. 4	130	7.5	7.0	5,000	
Ohtsurugi Pier						
	No. 1	130	7.5	7.0	5,000	5t×1
	No. 2	130	7.5	7.0	5,000	
	No. 3	185	10.0	9.75	15,000	
	No. 4	185	10.0	9.75	15,000	
	No. 5	130	7.5	7.0	5,000	
	No. 6	130	7.5	7.0	5,000	
	No. 7	130	7.5	7.0	5,000	
	No. 8	130	7.5	7.0	5,000	

STEVEDORES: At least 24 hours prior notice excluding 2nd and 5th Sundays and holidays required in order for Agent to arrange stevedores. 1st, 3rd and 4th Sundays shall be non-working days. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1630–2130 hrs. 60% additional of basic stevedorage; 2130–0800 hrs. next morning 120% additional; Sundays/holidays 100% additional.

MEDICAL: No advance notice required unless urgent.
TANKERS: Sea Berth: Product handled, Naphtha and Crude Oil. Shoreline 16 in.×2. Discharge rate 9,000 k/l per hour. Bunkers not available ex-pipe-line.
DENSITY: 1025.
FRESH WATER: Available from shore lines, at about 30 t.p.h.
FUEL: Domestic oil is available. Bonded oil will be brought from Yokohama with sufficient advance notice, when required.
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnage. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
CONSULS: None.
REPAIRS: Minor repairs only.
DRY DOCKS: None.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Iwaki (0246); Police 54-1111; Ambulance and Fire, 119.
TELEPHONES: No facilities for connecting on board.

SHIPMASTER'S REPORT: 1975.
The port is protected by breakwaters, 1 running North and N.E. 11,170 ft. long and 1 running Westerly and W.S.W'ly 5,520 ft. long, the latter which affords some protection from Southerly swell.
Pilotage: The Pilot boards at the main breakwater entrance. If possible, obtain Japanese Port Chart No. 63 and approach Chart No. 68.
Anchorage: If awaiting Pilot anchor approximately 1 mile E.S.E. of the Southern extremity of the East breakwater.
Max. Size: Several new berths have recently opened, including No. 5 and No. 6.
Health: The centre of the Quarantine Anchorage is located 6 cables S.E. from the Southern extremity of the East breakwater. Radio Pratique is accepted if a Japanese Sanitary Inspection Certificate is held.

AUTHORITY: Onahama Port Construction Office, 38-1, Onahama Tatsumi-cho, Iwaki City, Fukushima Pref. *Tel:* (0246) 54-2411.

AGENT: Sub-agent of Dodwell & Co. Ltd., Tokyo. Onahama Kairiku Unso Kaisha, Ltd., 36 Tatsumi-cho, Onahama, Iwaki-shi, Fukushima-ken. Cable Address: Kaiun Iwaki. Domestic Telex: 08922-80 Onakai J. Tel: (0246) 53-3221/6. Postal No.: 971.

ONOMICHI-ITOZAKI (incl. Mihara, Matsunaga): 34.20 N. 133.16 E. (See Plan)

DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).
1 copy Voyage Memo (last 3 months).

Ship's Agent will prepare Inward/Outward Declarations, 1 Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.
PILOTAGE: Inland Sea pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea Ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from one of three pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.
Note: VHF communication available with Inland Sea pilot stations. Also see 'Shipmaster's Report' before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits). Position Lat: 34° 34.09′ N., Long: 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse (vessels transitting Bungo Channel). Position Lat: 33° 13′ N., Long: 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible, having due regard to safety, to Sekisaki pilot station.

3. Hesaki, at East side of Kanmon (Shimoneseki) Straits. Position Lat: 33° 56′ 24″ N., Long: 131° 03′ 12″ E.

Inland Sea Pilot also berths vessels at anchorage berth (if Matsunaga Bay – logs), or pier in Itozaki district (Mihara section).

Pilot boards for berthing from 30 minutes after sunrise until 30 minutes before sunset.

ANCHORAGES: Draft limitations: Itozaki-Mihara 7.5 m. Matsunaga Bay 8.5 m. Tidal range: Maximum (+) 3.91 m. Minimum (–) 0.09 m. Capacity for 3×20,000 ton vessels.
HEALTH: Radio Pratique not available. Quarantine formalities normally carried out at Mutsure (off Moji) when vessel comes from West through Kanmon Strait, Matsuyama when vessel comes from West through Bungo Channel (Sekisaki Pilot Station) and Fukuyama when vessel comes from East (Wadamisaki Pilot Station).
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.
TUGS: Tugs available at Onomichi at any time with 24 hours notice. 7 tugs of 2,000 h.p. – 3,000 h.p. available.
BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft and Length overall* (m.)	*Capacity* (g.r.t.)
Municipal Nishigosho Pier	404	6.5	5.0×130	2,000
Municipal Shinhama Pier	250	5.5	4.5×100	2,000
Matsunaga Bay (Anchorage)		5.0–10.0		1×10,000 1×6,000 1×3,000
Municipal Itozaki Pier	320	10.0	9.0×200	3,000

Itozaki Pier: Cargo handled from Mitsubishi and Hitachi Works, cement in bags, steel and logs.
STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700 – 1900 hrs. 50% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.
MEDICAL: No advance notice required unless urgent.
TANKERS: No facilities.
FRESH WATER: Available. Method of delivery (1) Barge. (2) Pier. Additional charge for overtime work and in event of bad weather.
FUEL: Domestic oil is available, Bonded oil will be brought from Kobe, Kanokawa, Hirohata or Moji.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 40 cigarettes to take ashore but no spirits.
REPAIRS: Repairs possible for vessels up to 100,000 g.r.t.
CONSULS: None.
REPATRIATION: Possible.
AIRPORT: Nearest domestic airport at Hiroshima. Nearest international airport for crew joining/repatriation is Osaka International Airport.
TIME: GMT plus nine hours. Permanent.
POLICE/AMBULANCE/FIRE: Police 110; Ambulance/Fire 119.
TELEPHONES: No arrangements for placing telephones on board.
SHORE LEAVE: Local Immigration Authority issue shore passes valid for 15 days if vessel calling at more than one port in Japan and 7 days if vessel only calling at a single port. (If only calling Onomichi-Itozaki, Immigration issue 7 day pass).
AUTHORITY: Port and Harbour Dept., Onomichi City, 27-13 Kohama-cho, Onomichi, Hiroshima Prefecture, Japan.
AGENT: Mihara Shipping Agency Ltd., 1903-22-501, Enichi-cho, Mihara, Hiroshima Prefecture, Japan 723. Tel: 08486-4-3342, 0848-25-2482 (Onomichi Office). Telex: 642220 Shipmi. FAX: 08486-4-6025. Cables: Miharaship Mihara.

OSAKA: 34.39 N. 135.26 E. (See Plan)

DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.
PILOTAGE: Pilotage is compulsory for vessels of 10,000 gross tons or more. 24 hours' notice required. Telegraphic address: "Hanshinpilot Osaka". VHF contact with Osaka Port Radio on Channels 12, 16, 19, 20. Agents operate Channel 26. Three 15 ton Pilot boats with radio equipment to pilot office. Pilot boards anywhere within harbour limits. In event bad weather Pilot boards just inside breakwater when acknowledgement obtainable from Master. If awaiting Pilot, anchor inside harbour limits as near as possible to breakwater.

BERTHING: No specific requirements. Pilot boarding time will be notified by VHF or radio.

Wharf	Wharf Length (m.)	Water Depth (m.)	Mooring Capacity Gross tons	Mooring Capacity No. of Ships	Main Cargoes Handled
Tsumeyoshi Wharf	360	5.5	1,000	4	General Cargoes
North Port Wharf 1	250	10.0	10,000 500	1 1	Bulk
North West Wharf 2	120	5.5	1,000	1	Bulk
Umemachi West Wharf	792	12.0 10.0	30,000 20,000 10,000	1 1 1	Coal, General Cargoes Oil, LPG
Umemachi Pier	395	10.0	10,000	2	Bulk, Oil
Sakurajima Wharf	535	10.0	7,000 10,000	1 2	General Cargoes
Ajikawa Pier North Wharf	482	5.5	1,700	5	Passengers, General Cargoes
Ajikawa Pier West Wharf	120	5.5	1,000 500	1 1	General Cargoes
Ajikawa Pier South Wharf	312	6.5 5.5	2,000 1,000	1 2	General Cargoes
Ajikawa Wharf 2	360	10.0	10,000 8,000	1 1	General Cargoes
Ajikawa Wharf 3	178	10.0	10,000	1	General Cargoes
Osaka Port Silo Wharf	210	11.0	13,000	1	Bulk Grains
Ajikawa Wharf 1	320	10.0	10,000 3,000	1 1	General Cargoes, Bananas
Tempozan Wharf	185	10.0	10,000	1	Passengers, General Cargoes
Ajikawaguchi Wharf	170	10.0	10,000	1	General Cargoes
Central Pier North Wharf Central Pier South Wharf	210 210	11.0 10.0	13,000 10,000	1 1	General Cargoes
Wharf 1	437	10.0 5.5	10,000 700	2 1	General Cargoes
Wharf 2	341	10.0	10,000 5,000	1 1	General Cargoes
Wharf 3	315	10.0 7.5	10,000 3,000	1 1	General Cargo
Wharf 5	394	9.0	6,000 500	2 1	General Cargoes, Salt, Bulk Cement
Wharf 6	359	10.0	10,000	2	General Cargoes
Wharf 7	361	10.0	10,000	2	General Cargoes
Wharf 8	336	7.5	3,000 1,000	2 1	General Cargoes, Bulk Cement
Wharf 10	617	5.5–9.0	7,000 3,000 1,000	1 2 1	Steel
Wharf 11	90	5.5	1,000	1	Steel
Taisho Pier 1 North Wharf	450	5.5	1,000	5	General Cargoes
Wharf A	1,040	7.5	3,000	8	General Cargoes
Wharf B	550	7.5	3,000	4	Paper, Pulp, General Cargoes
Wharf D	580	7.5 5.5	3,000 1,000	2 3	General Cargoes, Cars
Wharf E	821	7.5 5.5	3,000 1,000	2 5	Passengers, Cars,
Wharf G	720	5.5	1,000	8	Steel, General Cargo
Wharf I	720	5.5	1,000	8	General Cargoes
Wharf J	720	12.0	20,000	3	Food
Wharf K	370	10.0	10,000	2	Passengers, General Cargoes
Containership Wharf No. 1 (C 1)	250	12.0	25,000 D/W	1	General Cargoes 2 Gantry Cranes
Containership Wharf No. 2 (C 2)	250	12.0	25,000 D/W	1	General Cargoes 2 Gantry Cranes
Containership Wharf No. 3 (C 3)	300	12.0	35,000 D/W	1	General Cargoes 2 Gantry Cranes
Containership Wharf No. 4 (C 4)	250	12.0	25,000 D/W	1	General Cargoes 3 Gantry Cranes
Containership Wharf No. 5 (C 5)	300	12.0	35,000 D/W	1	General Cargoes 1 Gantry Crane
Liner Wharves L 1	200	10.0	10,000	1	General Cargo
L 2	200	10.0	10,000	1	General Cargo
L 3	200	10.0	10,000	1	General Cargo
L 4	250	10.0	10,000	1	General Cargo
L 5	250	10.0	10,000	1	General Cargo
L 6	230	10.0	10,000	1	General Cargo
L 7	230	10.0	10,000	1	General Cargo
Ferry Wharf F 1	165	7.5	8,000	1	Passengers, Cars, General Cargoes
F 2	130	6.0	3,000	1	
F 3	148	6.0	3,000	1	
F 4	165	7.5	8,000	1	
F 5	165	7.5	8,000	1	
F 6	130	6.0	3,000	1	
F 7	240	8.5	10,000	1	
F 8	205	7.5	8,000	1	
Omni Terminal R 1	185	10.0	10,000		Containers; Plant; Steel; Timber, etc. 3 Gantry Cranes 1×30.5 tons and 2×40.5 tons
R 2	240	12.0	20,000		
R 3	240	12.0	20,000		
R 4	185	10.0	10,000		
R 5	185	10.0	10,000		

ANCHORAGES: Section Nos. 7 and 8. Section 7 is Quarantine Anchorage. Section 8 for other vessels. Captain of the Port allocates anchorage position prior vessel's arrival which radioed to Master by Agent. Max. draft about 14.0 m.

RESTRICTIONS: Vessels only permitted to enter from sunrise to 2100 hrs. Full container vessels permitted to enter from sunrise to 2400 hrs. and to depart at any time of the day. However, in order to avoid danger, some wharves (oil wharf, Nakayama Wharf and various shipyards where there is not enough space to conduct berthing operation), accept vessel only until sunset.

MAX. SIZE: Max. permissible length 250 m., draft 11.6 m. Also see "Tankers".

HEALTH: Vessel requiring Free Pratique requested cable directly to "Quarantine Station", Osaka informing ETA, date of departure from last port, name of last port, number of crew and health condition. At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera-infected area within 10 days Master must advise crew and passengers health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

Radio Pratique is available only for a vessel which possesses Valid Sanitary Inspection Certificate issued by the Japanese Government.

RADIO: Osaka Port Radio, 24-hour port operation service on VHF Channels 16, 12, 19 and 20.

RADAR: Osaka Harbour Radar has 24-hour navigation aid and weather information service and supplies information on ship movements, etc. Contact by VHF Channels 16, 14 and 22.

TUGS: 10 Port Authority tugs. Tugs join vessel just before harbour entrance. Tug's lines used, no extra charge.

CONTAINER FACILITIES: Berths C1, C2, C3, C4, C5, R2, R3 and R4 each equipped with container handling gantry cranes. Berth C1 equipped to handle Ro/Ro.

BRIDGES: 4 bridges under construction. Clearance 33.3 m. – 47.0 m. Completion 1989-91.

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1630 – 2130 hrs. 60% additional of basic stevedorage; 2130 – 0500 hrs. next morning 130% additional; Sundays/holidays 100% additional.

MEDICAL: No advance notice required unless urgent. General and Seaman's hospitals available.

TANKERS: No slop discharge facilities. Wharf No. 49, Sakurajima Oil Wharf, max. LOA 250 m., max. safe draft 11.60 m. Product handled, fuel oil, diesel oil, Minas Waxy. Shoreline 12 in. Discharge rate 1,000 t.p.h.

Shipmaster's Report: December 1985.

Tankers are only taken alongside between 0930 hrs. and 1500 hrs. In Summer sometimes between 0900 hrs. and 1600 hrs. but it is not usual.

Sakurajima Wharf 49 has a max. safe draft of 11.60 m., however with such a draft entering only possible during HW. If high water does not fall between 0930 hrs. and 1500 hrs. vessel has to wait a few days.

We discharged 5,000 tons of Ethylene Dichloride at Sakurajima Wharf. Only one connection of 8 in. Discharging rate 700 cu.m.p.h.

DENSITY: Outside anchorage: 1023 – 1025. Near breakwater: 1020 – 1022. Average density inside breakwater 1020. Wharves near estuaries (Aji River, Shirinashi River, Kizu River and etc.): 1016 – 1020.

FRESH WATER: Methods of delivery: by barges or pipe-line.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CARGO GEAR: See "Certificates", but no special requirements.

CONSULS: The following consulates available in Osaka:

Austria
Australia
China, People's Rep. of
France
Korea
New Zealand
Singapore
Switzerland
U.S.A.

REPAIRS: All grades repairs possible.

DRY DOCKS: Hitachi Zosen Co. Ltd., Chikko Ship Yard. No. 1 Dock 247.5 m.×55.7 m., depth 11 m. No. 2 Dock 355.0 m.×62.7 m., depth 11 m.

Namura Dock Co. Ltd., No. 1 Dock 180 m.×27.5 mm., depth 9.3 m. No. 2 Dock 149 m.×22 m., depth 9.3 m.

Sanoyas Co. Ltd., No. 1 Dock 155 m.×21.7 m., depth 7.4 m. No. 2 Dock 112 m.×17 m., depth 7m.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore, but no spirits.

AIRPORT: One hour required from Osaka Port to Osaka International Airport by car (about 25 km. distance). Regular airlines:

Overseas Lines: Japan Airlines, Cathay Pacific Airlines, China Airlines, Thai International Airlines, North West Airlines, United Airlines, British Airways, Korean Airlines, Lufthansa Airlines, Singapore Airlines, Air France.

Domestic Lines: Japan Airlines, All Nippon Airways, Toa Airways.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

HOLIDAYS: Every Sunday, May 1st, July 20th, December 31st to January 4th.

POLICE/AMBULANCE/FIRE: Police tel. 110; Ambulance tel. 119; Fire tel. 119.

TELEPHONE: Wharf connections available.

SERVICES: All services available.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.

DEVELOPMENTS: Berths (under construction):

	Length	*Depth*
North Port (North District)	720 m.	12.0 m.
	390 m.	7.5 m.
	300 m.	4.0 m.
North Port (South District)	700 m.	14.0 m.
	560 m.	14.0 m.
South Port (North District)	700 m.	13.0 m.
	150 m.	10.0 m.
	200 m.	4.0 m.

Reclamation (under construction):
North Port (North District) 223.5 Ha.
(South District) 391.1 Ha.
South Port (North District) 71.9 Ha.

AUTHORITY: Port and Harbour Bureau, City of Osaka, 2-8-24, Chikko Minato-ku, Osaka, 552 Japan. *Tel:* (06) 572-5121. *Telex:* 525-6320 OPPAJ. *Cables:* Omhbureau. *Contact:* Sumio Shiozaki, Manager of Promotions Department.

AGENT: Dodwell Tramp Agencies, Osaka Kagaku-Seni Kaikan, 39, 5-chome, Kawara-machi, Higashi-ku, Osaka. International Telex: J63250. Cable Address: Dodtramp Osaka. Domestic Telex: 522-3948. Telephone: (06) 203-5151.

OTARU: 43.12 N. 141.01 E. (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Limit of Otaru Pilotage District is sea area surrounded by line drawn from Kayashiba-misaki to Horaiso-misaki and coast line. Licensed Pilots stationed in office from 0900 to 1700 hrs. Boarding place about 1 mile from North B.W. Lt. H. 70°. Pilot boat painted white and carries International Code flag "H" at forecastle deck.

ANCHORAGES: Depth of water inside breakwater is 3.6 m. to 17.0 m. and nearly everywhere is good anchorage. Sea area outside breakwater also good for anchorage, but be careful not to foul fishing nets. Around quarantine anchorage is best outside breakwater.

MAX. SIZE:

Piers and Quays

	Berth No.	*Length (m.)*	*Depth of water (m.)*	*Capacity (g/t)*	*Main usage*
Pier No. 1:	1–2	339	9.0–10.0	10,000×1	General cargo
				6,000×1	
	3	127	10.0	3,000×1	General cargo
	4–5	293	9.0	6,000×2	Corn
Pier No. 2:	7–8	293	9.0	6,000×2	Bananas
	9	126	9.0	3,000×1	GC
	10–11	293	9.0	6,000×2	Corn
Pier No. 3:	13–14	343	9.0	6,000×2	GC
	15	127	9.0	3,000×1	GC
				10,000×1	Lumber
	16–17	361	9.0–10.0	6,000×1	Mutton
Chudo Pier:	1–2	315	7.5–10.0	3,000×1	GC
				10,000×1	Cement
	3	260	10	10,000×1	Ore
	4–5	380	7.5–12.0	20,000×1	Corn
				3,000×1	
Katsunai Pier:	1	240	12.0	20,000×1	Corn, Log
	2–4	555	10.0	10,000×3	G.C.
	5	251	9.0	16,000×1	Ferry Boat
Wharf A:	6	128	7.0	1,000×1	GC
	12	128	7.0	1,000×1	GC
Sakai-machi Wharf		352	7.0	2,000×3	GC
Umaya-machi Wharf		392	7.5	3,000×2	Oil, cement

RESTRICTIONS: Quarantine and Customs business between 0900 hrs. and 1700 hrs. Pilot assistance not compulsory but in practice necessary.

HEALTH: See "Hakodate".

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: Two tugs available. Tugs M/S "Sakura Maru" 147 g/t 1,000 h.p. M/S "Tatwiea Maru" 199 g/t 2,600 h.p. Both belong to the Port Authority.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

STEVEDORES: At least 24 hours prior notice required in order to arrange stevedores by Agent, excluding Sundays and holidays. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1630 – 2130 hrs. 60% additional of basic stevedorage; Sundays/holidays 100% additional.

MEDICAL: No advance notice required unless urgent.

TANKERS: Available berthing for small vessels only, 1,000 g/t and usual berthing 300 – 500 g/t. Japanese tankers only. Draft: Max. permitted 7.2 m. Discharging: about 100 tonnes p.h.

DENSITY: Average 1025.

FRESH WATER: Good drinking water at all piers and wharves. Water barge available when off shore in harbour.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

FIRE PRECAUTIONS: No smoking at tanker berth, Umaya-machi Wharf.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 20 cigarettes to take ashore, but no spirits.

CONSULS:

American Consulate, Sapporo in Sapporo City only.
Tel: 011-221-5121.
U.S.S.R. Consulate, Sapporo in Sapporo City only.
Tel: 011-561-3171.
Korean Consulate, Sapporo in Sapporo City only.
Tel: 011-621-0288.

REPAIRS: All type of deck and engine repairs are possible.

DRY DOCKS: None.

REPATRIATION: Possible.

AIRPORT: Distance from airport about 80 km. 21 flights per day from Chitose airport to Tokyo airport.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

HOLIDAYS: Stevedores do not work on 1st May.

POLICE/AMBULANCE/FIRE: Tel: Police 110; Ambulance and Fire 119.

TELEPHONES: Arrangeable on board.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.

AUTHORITY: Otaru Port Administration Office, 8-2, Minato-machi, Otaru City, Hokkaido *Tel:* (0134) 23-1264.

AGENT: Sub-agents of Dodwell & Co., Tokyo. Narasaki Sangyo Co. Ltd., Otaru Branch, Mitsui Bldg., 1-9 1-chome, Ironai-cho, Otaru-shi. Tel: Otaru (0134) 23-3281. Cable Address: Narasaki Otaru. Telex: 9526–40.

OWASE: 34.04 N. 136.15 E.

DOCUMENTS:

Ship's Register.
Last Port Clearance.
5 Crew Lists including Passport Numbers.
5 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan). Each person's signature is necessary in it.

Ship's Agent will prepare 2 Inward/Outward Declarations. 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Pilot station is 2 miles East from Togashira Island. Pilotage is not compulsory at this port but recommended to take pilotage by Toho Oil Co. Ltd.

ANCHORAGES: Quarantine Anchorage position is Lat. 34° 03′ 55″ N., Long. 136° 13′ 20″ E. Depth of water 60 m. – 80 m. Radius 500 m. However, it is not advisable for vessels to stay there for a long time as there are many fishing boats nearby.

RESTRICTIONS: According to Agreement between Fishery Association and Oil Refinery, ship's movement is prohibited at night. See "Berthing".

MAX. SIZE: See "Tankers".

HEALTH: Radio Pratique available. Formalities carried out after entering the port.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which covers all ports in Japan. If specifically Westbound vessel to contact Choshi, and Northbound to contact Nagasaki Radio respectively.
TUGS: Tugs usually join vessel at Outer Harbour (near Quarantine Anchorage) and tug's line is used. Tugs come from Nagoya. VHF Channel 16, 6, and 12.
BERTHING: Time limit of Pilot boarding for berthing to Toho Oil Terminal is 3 hours before sunset due to the agreement between Fisheries and Toho Oil Co. Ltd.
MEDICAL: No advance notice required unless urgent. Hospital facilities available.
TANKERS: Toho Oil Owase Pier: Depth of water, 17.3 m., Max. d.w.t. 150,000, Max. LOA, 275 m. Max. safe draft 16.00 m. Product handled crude oil. Shoreline 2×12″. Discharge rate, 4,500 k/l.p.h.

Toho Oil Sea Berth: Depth of water, 21.0 m. Max. d.w.t. 250,000. Max. LOA 350 m. Max. safe draft 19.00 m. Product handled, crude oil. Shoreline 2×20″. Discharge rate 7,000 k/l.p.h.
FRESH WATER: Fresh water can be supplied to the vessel from pipe at quay. Supply capacity 30 t.p.h.
FUEL: Domestic oils available. Bonded oil will be brought from Nagoya, Yokohama, Chiba or Kobe.
CERTIFICATES: Ship's Register to show Customs Inspector ship's gross and net registered tonnages.
CUSTOMS ALLOWANCES: Only allowed 60 cigarettes to take ashore but no spirits.
CONSULS/REPAIRS/AIRPORT: None.
TIME: GMT plus 9 hours. Permanent.
TELEPHONES: Emergency numbers, Owase Police Office (05972) 2-0004; Owase Fire Station (05972) 2-2020; Owase Hospital (05972) 2-2118. No facilities for placing telephones on board.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but extension possible if ship stays longer.
AUTHORITY: Owase Doboku (Public Works) Office, 2-11, Hayashi-machi, Owase City, Mie Pref. *Tel:* (05972) 2-2017.

AGENT: Nippon Express Co., Ltd., Owase Branch. Tel: (05972) 2-2217. Cable: "Nexco Owase". Uyeno Unyu Shokai, Yokkaich Branch. Tel: (0593) 45-2271. Cable: "Uyeno Shell Yokkaichi".

RUMOI: 43.57 N. 141.38 E. (See Plan)

SHIPMASTER'S REPORT: November, 1985.
DOCUMENTS:
5 Crew Lists on Japanese forms.
1 Stores List.
3 Passenger Lists (if carried).
Last Port Clearance.
Register.
PILOTAGE: 24 hours notice required. Boarding position at Quarantine Anchorage if fine weather or inside lee of new breakwater. Pilot boat is a small tug with a white hull.
ANCHORAGE: Lat. 43° 57′ 11″ N., Long. 143° 37′ 30″ E. – Very poor holding ground, rock bottom. Exposed from N.W. to S.W. Numerous fishing floats, nets, etc., in approach to anchorage to about 3 miles offshore.
RESTRICTIONS: Daylight entry only, sailing reportedly to be allowed up to 2 hours after sunset.
MAX. SIZE: Maximum ship size 150 m. LOA, 25 m. beam and 7.2 m. draft.
RADIO: *ETA:* Via Choisi Radio. This port has no VHF therefore ETA's can be given via Otaru Radio on VHF Channels 16 and 12 when coming from South.
TUGS: Two smail tugs of approximately 450 h.p. Very expensive and poorly equipped and handled.
BERTHING: Depth alongside and in approaches 5.5 m. – 7.2 m.
STEVEDORES: Very good. Discharged boxes of frozen fish at average rate of 30 tons per working hour. Normal stevedoring hours 0800 – 1700 hrs. with overtime to 2100 hrs. if required.
MEDICAL: Hospital available.
FRESH WATER: Available.
FUEL: Available.
REPAIRS: Minor repairs possible.
GANGWAY/DECK WATCHMEN: Not compulsory.
OPENING/CLOSING HATCHES: Crew open and close hatches. Stevedores adjust derricks as required under ship's supervision.
REPATRIATION: Possible.
AIRPORT: Nearest airport 15 km. from town (subject to delays in winter) ice, snow, fog, etc.
TIME: GMT plus 9 hours all year round.
TELEPHONE: In Agent's office, adjacent to wharf.
DEVELOPMENTS: *Breakwaters:* New Western Breakwater under construction. It is marked by a red buoy at North end (position: Lat. 43° 58′ 28″ N., Long. 141° 37′ 52″ E.) which must be left to starboard on entering.
GENERAL: *Provisions/Laundry:* Available.

SAKAI (Including Senboku and Hannan Port): 34.34 N. 135.27 E. (See Plan)

DOCUMENTS:
Ship's Register.
Last Port Clearance.
7 Crew Lists including Passport Numbers.
2 Passenger Lists.
1 Stores List
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (if first port of call in Japan).

Ship's Agent will prepare inwards/outward Declaration, 1 Cargo Manifest in transit using specific form. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.
PILOTAGE: Cable address "Hanshinpilot Osaka". 24 hours' notice required. VHF (Osaka Port Radio), Channel 16, JBD Osaka Radio, Channels 25, 26 and 27. Three boats capacity 15 tons, 147 h.p. Pilot boards anywhere within harbour area, but preferably at Quarantine Anchorage – Sector No. 7. Bad weather: Unable to take Pilot. Boarding measures: Safe pilot ladder. Anchorage for vessel waiting Pilot: As Pilot Boarding Area.

Inland Sea Pilot cable address: "Anjin Kobe" can also be used for following wharves: Kansai Oil Co. Ltd., Sakai Wharf; Koa Oil Co. Ltd., Sakai Wharf.
ANCHORAGES: Quarantine inspection carried out at Quarantine Anchorage – Sector No. 7 where max. draft 12.5 m. Vessels with draft over 12.5 m. have to obtain Free Pratique at other ports.

Anchorage location for larger vessels is designated on a grid system by the Captain of the Port. The instructions will be passed to the Master via the Agent.
RESTRICTIONS: Entry not possible after sunset. Sailing possible anytime but Pilots not available after sunset.

(a) Arrival notice for ships over 500 tons gross must be given to Harbour Master 48 hours prior to arrival.

(b) Entrance passage draft limitation: 11.20 m.
MAX. SIZE:

Name of Wharf (Jetty)	*Max. draft* (m.)	*Max. LOA* (m.)
Nippon Steel Wharf 3-A/3-B	14.0	255
Nippon Steel Wharf 2-H	10.2	181
Ube Kosan Wharf (Export)	9.0	130
Ube Kosan Wharf (Import)	10.2	174
Public Wharf 3 & 6	9.0	160
Public Wharf 1, 2, 4, 5 only for vessel less than 500 tons		
Osaka Seiyosho Wharf	9.0	144

Tankers:

Name of Berth	*Max. d.w.t.*	*Max. LOA* (m.)	*Max. Safe draft* (m.)
General Wharf	130,000	290	15.50
Kansai Oil Jetty	130,000	320	15.50
Koa Sekiyu Crude Oil	150,000	320	15.50
Ube Kosan, Sakai "D" Wharf	20,000	170	9.20
Marubeni Sakai	50,000	250	12.50
Kansai Oil Jetty (LPG)	160,000	320	15.50
Mitsui Toatsu (LPG)*	50,000	200	14.00
Osaka Gas Semboku Jetty (LNG)	37,000	230	10.00

*See "Shipmasters Report".
VHF:

	Call Sign	*Call On*	*Work On*
Osaka Bay Pilot	Osaka Bay Pilot	Channel 16	Channel allocated
Harbour Pilot	Hamshin Pilot	Channel 13	Channel 13
Port Radio	Osaka Radio	Channel 16	Channel allocated
Sakai MSA (Captain of the Port)	Sakai Hoan	Channel 16	

TUGS: Join vessel at anchorage under instruction or attending Pilot. Tug lines used, cost in tug hire.
BERTHING: (Berths with less depth or capacity not shown).

Berth	*No.*	*Water Depth* (m.)	*Total length* (m.)	*No. of Berths*	*Ship tonnage* (d.w.t.)
Sakai:					
Shiohama Wharf	1	7.0	120	1	5,000
Ohama Wharf	1	4.5	60	1	1,000
Ohama Wharf	2	5.5	270	3	3,000
Ohama Wharf	3	7.0	240	2	5,000
Ohama Wharf	4	9.0	165	1	12,000
Ohama Wharf	5	10.0	370	2	18,000
Ohama Wharf	6	7.5	130	1	6,000
Senboku:					
Matsunohama Wharf	1	5.5	540	6	2,000
Komatsu Wharf	1	5.5	360	4	3,000
Komatsu Wharf	2	7.5	390	3	6,000
Shiomi Wharf	1	4.5	480	7	1,000
Shiomi Wharf	3	10.0	555	3	18,000
Shiomi Wharf	4	7.5	260	2	6,000
Sukematsu	2	7.5	390	3	6,000
Hannan:					
Kishiwada Wharf	1	10.0	185	1	15,000
Mooring Buoys		12.0	260	1	20,000
Mooring Buoys		12.0	230	1	15,000
Mooring Buoys		12.0	190	1	10,000
Mooring Buoys		12.0	160	1	5,000
Kaizuka Wharf	1	6.5	202	2	2,000
Kaizuka Wharf	2	6.5	400	3	3,000

There are many additional berths with depth of 2m. – 4m.

HEALTH: Radio Pratique available. Vessels usually anchor at the Quarantine Anchorage in Osaka, where the authorities board and grant Free Pratique.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agents to arrange stevedores. Vessel must constantly keep her Agents advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agents, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew at additional cost. Overtime surcharges 1700 – 1900 hrs. 50% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.

MEDICAL: No advance notice required unless urgent.

TANKERS: *Berthing Procedure at General Wharf:* Vessels may enter the Hamadera Passage during daylight hours only, from 0700 hrs. until about 2 hours before sunset. In addition, for mooring larger vessels a tellurometer is provided on bridge. No entry is made if wind speed is 15 m./sec. or over (for VLCC's 10 m./sec.), or if a typhoon is forecast.

Normally 4 tugs attend to a vessel of 160,000 d.w.t. and 6 tugs to larger vessels. The local rule is that total tug power is from 8% to 10% of the vessel's deadweight, depending on weather conditions.

The berthing manoeuvre is carried out by the attending tugs with very little assistance from the ship's engines. The vessel approaches the berth at a 5° angle until about 2 ship lengths away. Then, the vessel is brought parallel to the berth, about 200 ft. to 300 ft. off, and eased alongside by the tugs and mooring lines. The approach speed is approximately 0.5 knots until 1 ship length away. Currents in the basin are very weak.

Mooring: The 2 mooring launches have insufficient power to handle wires and consequently are slow. However, an additional large launch is made available to handle wires. The normal mooring sequence is forward back spring, aft back spring, bow line, stern line, and breast lines. In view of the underpowered mooring launches, it is advisable to use synthetic lines for the bow and stern lines. The normal mooring configuration is 4 bow lines, 2 forward breast lines, 2 forward back springs, 2 aft back springs, 2 aft breast lines and 4 stern lines. In view of the limited space available in front of the bow, care should be exercised not to overshoot the berth.

Berth	*Product*	*Shoreline*	*Discharge Rate (t.p.h.)*
General Wharf	Fuel Oil	12 in.×3	7/8,000
	Crude Oil	12 in.×3	9,000
Kansai Oil Jetty	Fuel Oil	10 in.×1	600
	Crude Oil	36 in.×1	7/8,000
Koa Sekiyu Crude Oil	Fuel/Crude	32 in.×1	5,000
Ube Kosan, Sakai "D" Wharf	Naphtha	12 in.×1	700
Marubeni Sakai Oil Terminal	Fuel Oil	16 in.×1	2,500
	Minas Oil	18 in.×1	2,500
Kansai Oil Jetty (LPG)	Propane	12 in.×1	1,000
	Butane	10 in.×1	1,000
Mitsui Toatsu (LPG)	Propane	12 in.×1	1,000
	Butane	12 in.×1	1,000
Osaka Gas Senboku Jetty (LNG)	LNG	8 in.×5	2,000

DENSITY: Osaka Gas Wharf and Nippon Steel Corporation Wharves 1020 to 1025.

All other wharves, 1010 to 1025.

FRESH WATER: Minami Hakuchi anchorage by barges. All other wharves by shore line.

FUEL: Most domestic and bonded fuels available.

GANGWAY/DECK WATCHMEN: Recommended and compulsory for tankers working cargo.

OPENING/CLOSING HATCHES: Stevedores open and close hatches with terms subject to charter party.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Each man allowed 200 cigarettes to take ashore but no spirits.

CARGO GEAR: See "Certificates" but no special requirements.

CONSULS: None.

REPAIRS: See "Osaka".

DRY DOCK: Hitachi Shipbuilding & Engineering Co. Ltd., Sakai Shipyard, Dock No. 2, length 455 m., width 63 m., depth 11 m., capacity 400,000 d.w.t.

REPATRIATION: Possible.

AIRPORT: International Airport Osaka, 45 km. distant.

TIME: GMT plus 9 hours No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: See "Osaka".

TELEPHONES: Available except Nippon Steel Wharf and Public Wharf.

SHORE LEAVE: Local Immigration Officers issue shore leave pass valid for 3 days, but a 9 day pass is obtainable in case where a vessel stays in port for longer period.

DEVELOPMENTS: 29 berths under construction at Sakai-Senboku. Max. depth 12 m. 53 berths under construction at Hannan, depths from 4 m. – 12 m.

SHIPMASTER'S REPORT: February 1980. (L.P.G. Carrier).

Osaka Bay: Also see "Kobe" – "Shipmaster's Report".

Entry: No transit of Tomogashima Strait at night from Sunset to Sunrise. This is not a regulation but a Japanese Government request which for all intents and purposes is a requirement.

Pilotage: Bay Pilot is a recommendation for LPG carriers which again means a requirement. About 97% of overseas shipping and 60% of Japanese foreign going shipping use this service.

Lights: Flashing red over green to be permanently on day and night in Japanese waters if vessel over 200 m. length. Red is for dangerous cargo and flashes at 120 to 140 flashes per minute and green for vessels over 200 m. flashes at 180 to 200 flashes per minute.

Two black cylinders by day for over 200 m. length plus 1st substitute over 'B' for dangerous cargo.

Fire Wires/Mooring Line: To be rigged starboard side fore and aft, plus 1 mooring line at each end. In actual fact we kept the fire wires in during transit of Osaka Bay in case of slippage and getting caught in propellor. The Pilot approved.

Navigation: Sumoto – Oki Light Buoy: Lat. 34° 21.1′ N., Long. 135° 00′ E. must be left to port (North or South bound). This is not indicated on BA.3614 as a traffic separation buoy. The Pilot advised me that some foreign ships without Pilot leave this buoy on the wrong side, if JMSA catch any vessel doing this they are liable to prosecution. No navigation in visibility less than 1 mile and no berthing when wind speed exceeds 12 m./sec.

Pilot: Boards about 7 miles South of Tomogashima. Cable: 'Bay Pilot Kobe' 12 hours ETA, if any alteration cable 'Urgent Bay Pilot Kobe'.

Then by VHF through Kobe Port Radio – range 80 miles. Pilot nearly always starboard side. Boards from 3 fairly fast purpose built red hulled cutters based at Sumoto on Awaji Shima Island.

Pilot disembarks about 1 mile South of Tomogashima Strait.

Entry: For LPG carriers and certain other dangerous classification ships there is no night passage of Tomogashima Straits or Osaka Bay which means from about 1600 hrs. to 0600 hrs. there is no transit. Further complications are:

(1) At the berths themselves at Sakai and Kobe, LPG movements and berthing during darkness prohibited.

(2) If vessel has no Sanitary Certificate Free Pratique cannot be given which means anchoring at Osaka Quarantine anchorage for Pratique.

(3) The cost of an escort tug whilst vessel is at anchor is fairly costly about £100 per hour.

Therefore if Pratique is required (No Sanitary Certificate) and berthing that day is undertaken, arrival at Tomogashima pilot station can only be between 0600 to 0930 hrs. as the Quarantine service finishes for lunch time and if Pratique is not granted before lunch, entry is unlikely to take place that day.

If Sanitary Certificate is held, Pilot boarding at Tomogashima can be between 0600 to 1200 hrs.

Pratique: Free Pratique can only be given on proper notification by Radio 24 hours before arrival to Quarantine Service, prefixed by RPM through Agent. Current Sanitary Certificate must be held.

Pratique is granted whether or not Sanitary Certificate held but as above delay will be entailed. Granted at Osaka Anchorage between 0830 to 1200 hrs. and 1300 to 1700 hrs. Sanitary Certificate costs about £100 and is valid for 1 year. Application is made through Agent who arranges prior inspection by 'Rentokil' agency (£100) for any debugging and water testing and then followed by Government inspection which takes about 1.5 hours. Storerooms, fridges, galley, toilets, garbage bins, drinking water, etc., etc., all checked. This certificate entitles vessel to Free Pratique.

If the ship is not calling at Japan again within the 12 month period it is of little value, otherwise if likely to call, for an LPG ship with restricted entry the £200 could be well spent.

For Pratique, vessel anchors in Osaka Quarantine anchorage position Lat: 34° 37′ N., Long: 135° 21.5′ E. (approx.).

Escort Boat: A fire-fighting escort tug is required for Loaded LPG ships in port limits. An escort boat of smaller capabilities is required for LPG ships in Vapour taking on bunkers or Lub oil in port limits.

Approximate cost of firefighting tug is £100 per hour.

Therefore to anchor overnight to await berthing in loaded condition will require escort tug costing in region of £1,500. During cargo operations instant communication must be maintained with escort tug by VHF or Walkie Talkie.

Sakai:

Notice of Readiness: On anchoring at Quarantine anchorage or when Harbour Pilot boarding, whichever first.

Agent suggests tendering Tomogashima Pilot and seeing if receiver accepts.

Pilot: Harbour Pilot boards at Quarantine anchorage or at No. 1 and 2 Buoys Hamadera Passage channel as indicated on BA.3614.

Depth: Minimum depth in channel found to be 18 m.

V.H.F.: Kobe Port Radio, very powerful station – 80 miles range. Osaka Radio used for public correspondence.

Tugs: Two tugs join about half way down buoyed channel. Usual powerful Japanese type, tug's lines.

Berth: Mitsui Toatsu – Fertiliser berth: Position Lat: 34° 32.45′ N., Long: 135° 25.6′ E.

Port Side to.

Depth: 14.5 m.

Stern overhangs end of quay.

Gangway can be easily landed.

No stores on quay.

If wind speed exceeds 15 m./sec. no berthing and instant disconnection.

Vessel must be connected and have commenced pumping by sunset.

Solid concrete pile quay wall with ample fenders.

Lines: 3, 2, 2, each end. Line boat available, about 1.5 hours to tie up.

Connections: Rubber hoses for liquid and Vapour Return.

Propane line 12 in., Butane line 12 in. connection ASA 150.

Vapour 8 in. for both.

Shore labour with shore reducers.

Takes about 1.5 hours to connect.

Rate: Maximum able to accept: Propane: 800 m.t.p.h.

Butane: 1,300 m.t.p.h.

We were pumping at very close to this figure all the time with 3 pumps on each grade – shore restriction.

Cargo General: Little back pressure.

We had no surveyor, all tonnages on shore figures.

Plant capacity: Propane: 1 tank of 20,000 metric tons.
Butane: 3 tanks 12,000 metric tons.
1 tank 24,000 metric tons.

Approximately 15 m. of hose is used from shore manifold.

Fire axe required for moorings each end.

Watchman: English speaking watchman with telephone on board throughout 24 hours.

Departure/Arrival: Latest 1700 hrs.

Arrival: Hoses must be connected and discharge commenced before sunset.

Facilities: No stores alongside.

Water available, about Yen 700 per tonne.

Doctor will board vessel at minimum charge of Yen 20,000.

STD telephone to U.K. very expensive.

Crew changes: Via Osaka International Airport – no difficulties.

Repairs – Diawa (Company accredited Japan repair company).
Kobe H. Kajita (Konishi now in general office). 078–681–6001 Telex 5622–849 Daiwindus.

Documents: 1st Port:
1 Health Declaration
1 Vaccination List.
1 Application for Shore Pass.
3 Crew Manifests (Crew Declaration) – Japanese Form.
7 Crew List – Ship.
1 Declaration (Ship Information) – Japanese Form.
3 Ship's Stores.

If any crew changes new personnel must be added onto original crew list (Manifest).

Seal Bond only, leave Beer Room open.

Usual procedure with shore passes – all handed in on departure, bottom torn off if calling at 2nd port and re-application made.

For 2nd Port:
7 Crew Lists.
1 List Ship's Stores.
1 Application Shore Passes.

AUTHORITY: Sakai Port Administration Office, 1, Shiohama-cho, Sakai City, Osaka. *Tel:* (0722) 38-5241.

AGENT: See "Osaka".

SAKAIDE: 34.19 N. 133.51 E. (See Plan)

DOCUMENTS:
1 Voyage Memorandum (List of Ports of Call).
Ship's Register.
Last Port Clearance.
5 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc (only at first port of call in Japan).

Ship's Agents will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Inland Sea pilotage should preferably be arranged through Agent by cable via Nagasaki Radio or Choshi Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage is compulsory for vessels over 10,000 g.r.t. Pilots obtained from one of three pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits) Position Lat. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse (vessels transitting Bungo Channel). Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible, having due regard to safety, to Sekisaki pilot station.

3. Hesaki, at East side of Kanmon (Shimonoseki) Straits. Position Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.

ANCHORAGES: Port located on North coast at East part of Shikoku Island in Inland Sea.

Boundaries and Areas. Area bounded by line joined with three points, East corner of Sosha river mouth, Mamako-Hana of Semi Jima and Tako-Saki of Shotsuji-Yama.

Depth of water inside harbour limit: 9 m. Outside harbour limit: 13 m.

RESTRICTIONS: Vessels entering and/or leaving during daytime only at wharves; but no restrictions day and night at sea anchorage provided favourable weather conditions prevail.

MAX. SIZE: See "Berthing".

HEALTH: At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from Cholera infected area within 10 days, Master must advise crew and passengers health condition prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

VHF: Sakaide Port Radio is located on top of Seijima (Lat. 34° 21′ N., Long. 133° 51′ E.). Watch is kept from 0600 to 2000 hrs. each day on Channel 16.

TUGS: Wharves: Join vessel at Sea Anchorage, using tug's line without charge. Sea Anchorage: No tug required in normal conditions.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agents mainly by radio.

Berth	Max. Size (d.w.t.)	Max. LOA (m.)	Max. draft (m.)	Remarks
Mitsubishi "A"	70,000	275	13.00	Coal
Mitsubishi "B"	20,000	200	13.00	Coal
Mitsubishi "C"	55,000	220	11.50	Coke loading
Centre Pier	20,000	175	9.00	Fertiliser, grain

East section of Centre Pier, length 160 m., breadth no limit, depth 9 m. West section of Centre Pier, length 110 m., breadth no limit, depth 7.5 m.

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700 – 1900 hrs. 50% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.

MEDICAL: No advance notice required unless urgent.

TANKERS: Asia Kyoseki Refinery No. 2 Pier. Max. size 50,000 d.w.t. Max. LOA 230 m. Max. draft 12.40 m. 2×24 in. for crude (4,000 kl.p.h.); 1× 16 in. for fuel (1,000 kl.p.h.); 2×14 in. for chemical products (10,000 kl.p.h.).

Asia Kyoseki Pier No. 1 (Sea Berth) max. size 100,000 d.w.t., depth alongside 19.6 m.; 2×16 in. connections for crude. Max. unloading rate 10,000 kl.p.h.

DENSITY: Inside harbour limit 1025. Outside harbour limit 1025.

FRESH WATER: Sea anchorage. No water barge available but usually brought from Onomichi (about 4 hours run to Sakaide). Rate of delivery 80 to 200 t.p.h. dependent on barge.

Centre Pier: Can be supplied by shore line with capacity 25 t.p.h.

Mitsubishi Chemical Industries Wharf: Can be supplied by shore line with capacity 60 t.p.h.

FUEL: All grades of bonded bunkers are stocked in Tokyo, Ise Bay, Osaka and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

FIRE PRECAUTIONS: No specific precautions.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per gang per hour depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificate sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore, but no spirits.

CARGO GEAR: See "Certificates", but no special requirements.

CONSULS: None. See "Kobe".

REPAIRS: Only minor repairs.

SURVEYORS:

1. Nippon Kaiji Kentei Kyokai is stationed at Sakaide.

2. Nippon Kaiji Kyokai (NK Class) and Lloyd's Register are stationed at Sakaide.

DRY DOCKS: Kawasaki Heavy Industries Ltd., Sakaide, which is suitable to dry dock. Dock No. 2 for 500,000 d.w.t. vessel. 450 m.×72 m.×12.3 m. Not yet in action for ship repairs. Only used at present for ship building and after services.

Floating dock with capacity 80,000 d.w.t. under construction.

REPATRIATION: Possible.

AIRPORT: No airport. Nearest Takamatsu, All Nippon Airways 11 flights to Osaka and one to Tokyo and TOA domestic airlines to Tokyo/Fukuoka.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

HOLIDAYS: National Holidays – see "Niihama". Local Holidays: New Year's Day (Lunar Calendar) January 30th; May Day May 1st; Memorial Day of the Sea July 20th; Bon Festival August 8th.

No ship's movement can be effected on January 1st, 2nd and 3rd, August 8th and October 15th.

POLICE/AMBULANCE/FIRE: Police 110; Ambulance 119; Fire 119. Sakaide Maritime Safety Base, 6-2858.

TELEPHONES: No facilities for placing telephones on board.

GENERAL: Mitsubishi Chemical Industries Co. Ltd., Sakaide Works. As wharf of above works located outer harbour limit of Sakaide port, the undermentioned procedures required: In conformity with regulations, vessel required to get special permission for entering into closed port, which will be given from Shikoku Maritime Bureau.

Customs request vessel calls Mitsubishi Chemicals Wharf to obtain special permission for entering. If tonnage dues paid prior arrival, this procedure will be attended to by Agent.

Waiting anchorage: Avoid Bisan Seto Boundary according to special water zone navigation order. Imperative to exclude water surfaces with established Fishery Privilege.

Vessels waiting to berth at centre pier are lightened at anchor.

STORING: See "Prelims".
1. Available by both, however, for Asia Kyoseki by barge.
2. Available during cargo operations.
3. Available, however at Mitsubishi "A" or "B" berth – by barge for heavyweight goods.
4. No, however, at Centre Pier East/West they are available.
5. No special regulations.
6. Yes.

BANKS: No American/European banks. But it is possible to collect foreign currency, especially U.S. Dollars, at The 114th Bank, Ltd., Takamatsu.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 7 days, but extension for next 7 days possible if ship stays longer.

AUTHORITY: Sakaide Port Administration Office, 5-32 Irifune-cho, Sakaide, Pref. of Kagawa, Japan. *Tel:* 08774-6-2858. *Contact:* Port Captain.

AGENT: Asia Marine Agency Ltd., 1-3-2, Irifune-cho, Sakaide-shi, Kagawa-ken. Cable Address: Asiamarine Sakaide. Telex: 05825689 Asimar J. Tel.: (08774) 6-6209/6215.

SAKATA: 38.55 N. 139.48 E. (See Plan)

Located at mouth of Mogami River. Strong wind blows from Japan Sea November to March.

In Winter season, wave height between 3 m. to 5 m., length 70 m. to 80 m. and period 7 to 10 seconds. Current South to North along coastline.

TIDAL RANGE:

Higher high water	+61 cm.
Spring tide high water	+45 cm.
Neap tide high water	+41 cm.
Mean sea level	+39 cm.
Neap tide low water	+35 cm.
Spring tide low water	+31 cm.

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc., (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Order Pilot through Agent. In bad weather, wait instructions from Agent.

ANCHORAGES: All sea areas (except waterway) available for anchorage. No prohibited anchorage areas. Pilot station and quarantine anchorage position is the area in the 500 m. radius circle centre of which is 260° – 3,100 m. from Sakata Light Station.

RESTRICTIONS: Ship movements in daytime only.

MAX. SIZE:

Name	*No. of Berths*	*Length (m.)*	*Depth (m.)*
Kominato Wharf	1	270	−13.0
Sumikei Wharf (Private)	1	270	−13.0

HEALTH: At first port of call Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera infected area within 10 days, Master must advise crew and passengers' health condition to respective Quarantine Office through ship's Agent prior to arrival and close all soil pipes before entering port.

TUGS: 2×2,000 h.p.

BERTHING: No particular requirements.

Agent communicates by means of ship's radio with respect to the exact time when the Pilot has to be taken on board.

No.	*Name*	*No. of Berths (m.)*	*Depth (m.)*	*Length*
1	Buoy (Logs only)	1	−10.0	220
2	Sodeoka Wharf	3	−7.5	390
3	Suisan Wharf (No. 2)	–	−4.5	380
4	Suisan Wharf (No. 1)	–	−4.5	140
5	East Wharf (Funa ba-cho)	9	−4.5	555
6	East Wharf (Shin machi)	2	−7.5	260
7	West Wharf	1	−10.0	185
8	West Wharf	1	−4.5	53
9	West Wharf	2	−5.5	180
10	Ohama Wharf (No. 2)	5	−4.5	305
11	Ohama Wharf (No. 2)	1	−5.5	90
12	Ohama (No. 1)	2	−9.0	330
13	Sekiyukichi Pier (Private)-Oil	2	−7.0	92
14	Kominato Wharf (No. 1)	1	−13.0	270
15	Kominato Wharf (No. 2)	1	−10.0	185
16	Kominato Wharf (No. 3)	1	−10.0	185
17	Kominato Pier	1	−10.0	253
18	Kyohatsu Wharf (Private)	1	−5.0	160
19	Sumikei Wharf (Private)	1	−13.0	270
20	Kyohatsu Pier (Private)-Oil	2	−7.5	324

RADIO: Niigata Radio. Call sign JCF. Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which covers all ports in Japan.

If specifically Westbound, vessel to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

STEVEDORES: In order to arrange stevedores, advance notice required by Agent at least 24 hours before, except Sundays and National Holidays.

Logs, 1,400 cu.m. per day are handled by ship's winches.

MEDICAL: No advance notice required unless urgent. Medical facilities available at Sakata City Hospital.

TANKERS: 2 berths. Depths 7.0 m. and 7.5 m.

FRESH WATER: Wharf feedwater only. No water boat.

FUEL: All kinds of bonded oil available at Bay of Tokyo, Bay of Ise and Port of Kanmon. Bunkers lightered from Hakodate provided at least 7 days' notice given.

GANGWAY/DECK WATCHMEN: Not specially required, unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages.

Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: If voyage over 30 days – 200 cigarettes and one bottle of spirits per man.

CONSULS: Korean Consulate Tel: 0222-21-2751.

REPAIRS: Minor repairs only.

REPATRIATION: Crew replacement conducted basis "landing for transfer to another vessel".

AIRPORT: Yamagata Airport, situated 105 km. from Sakata. Four flights per day.

TIME: GMT plus 9 hours. No alterations.

HOLIDAYS: Public offices closed on Sundays and National holidays. Cargo work every day except 1st and 3rd Sunday of each month and 1st, 2nd and 3rd January.

POLICE/AMBULANCE/FIRE: Police (urgent) Tel: 110; (usual) Tel: 22-6611. Ambulance (urgent) Tel: 119; (usual) Tel: 22-3214. Fire (urgent) Tel: 119; (usual) Tel: 22-3214.

TELEPHONES: No facilities for placing on board.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 day extensions possible if ship stays longer.

AUTHORITY: Sakata Port Office, 5-15 Funaba-Cho, 2-Chome, Sakata-Shi, Yamagata Pref. *Tel:* 0234-23-5444. *Contact:* Teizoh Nakamura, Sakata Port Office.

AGENT: Sub-agent of Dodwell & Co., Tokyo. Sakata Kairiku Unso Co., Ltd., 6-19, 2-chome, Funaba-cho, Sakata-shi, Yamagata-ken. Cable Address: Kairiku Sakata. Domestic Telex: 08733-08, Tel: Sakata (0234) 22-1801.

SASEBO: 33.10 N. 129.43 E. (See Plan)

DOCUMENTS: See "General – Customs and Immigration".

PILOTAGE: Compulsory. Vessel should keep Pilot closely advised through Agent, of ETA pilot station at least 24 hours prior arrival and any subsequent change. Pilot boards vessel 1 mile N.W. Kogosaki lighthouse. (Lat: 33° 06′ N., Long: 129° 38′ E.). In bad weather, Pilot will board at Lat: 33° 05′ 48″ N., Long: 129° 40′ 24″ E.

Telegraphic address of Port Captain "JNK" 500 kHz (Sasebo Maritime Safety Office).

ANCHORAGE: Ample good holding ground in inner harbour, but is controlled by U.S. Navy and only following anchorage available for commercial vessels: No. 3 Section, Depth 10 m. – 37 m. Capacity 20,000 g.r.t. and over × 10.

RESTRICTIONS: Entry and departure from sunset to sunrise only allowed under extenuating circumstances subject to Port Captain's special permission (U.S. Naval vessels excepted). No particular restrictions upon draft or tide conditions. Berthing during day only. Controlling depth of water – in the passage 23 m. – 54 m., at anchorage 10 m. – 37 m.

WEATHER: Southwesterly winds prevail in Summer, while Northerly blows frequently in other seasons. Max. wind velocity recorded 26.1 m./sec. In early Spring dense fog prevails, but renders navigation impossible only for 7 days or so.

Tidal range 2.6 m. Current rate max. 1.5 knots in vicinity of harbour entrance at rising tide. At ebb tide, it flows in opposite direction and is faster than during flood, but not so strong as to hinder navigation.

MAX. SIZE: See "Berthing". No particular limitation for entering port. For berthing however, acceptable length, draft and breadth will be decided case by case in accordance with conditions of each berth consulting with Pilots, U.S. Navy and Port Captain. No tanker installations outside port.

TUGS: Normally join vessel about 0.5 – 1 hour prior berthing and tug's lines used. Charge for use of lines included in tug hire.

No. of Tugs	*Horse Power*	*Owner*
2	3,200	Nishi-Nippon Harbor Services Co.
3	2,900	Nishi-Nippon Harbor Services Co.
1	2,250	Nishi-Nippon Harbor Services Co.
1	2,000	Nishi-Nippon Harbor Services Co.
1	1,500	Nishi-Nippon Harbor Services Co.
6	Small Boats	Nishi-Nippon Harbor Services Co.
1	2,400	Sasebo City

HEALTH: See "Moji". Quarantine station: Lat: 33° 05′ 30″ N., Long: 129° 42′ 00″ E. 1.5 miles East of Kogosaki Lighthouse. Vessels chartered by USN (GAA, T/C, CVC, V/C) shall be cleared by U.S. Navy Quarantine and service available after sunset also.

RADIO: See "Yokohama".

BERTHING:

Wharf	*Length* m.	*Depth* ft.	*Capacity* (g.t.)	*Cargo*	*Remarks*
Iorizaki	80.5	32	20,000×1	Oil	Under U.S. Navy's control
Motofune No. 1	79.5	32	20,000×1	,,	,, ,, ,,
Motofune No. 2	79.5	32	20,000×1	,,	,, ,, ,,
Akasaki No. 1 & 2	298.0	40	20,000×2	,,	,, ,, ,,
Akasaki No. 3	219.0	40	20,000×1		,, ,, ,,
Yokose	88.0	45	20,000×1		,, ,, ,,
India Berth No. 1	254.4	31	20,000×1		For repairs
,, ,, No. 2–3	363.5	31	20,000×2		Repairs
,, ,, No. 4–6	575.5	31	20,000×3		Repairs and general cargo
,, ,, No. 7–8	363.5	31	20,000×2		General cargo
,, ,, No. 9	151.5	31	20,000×1		General cargo

No. 1 is under control of U.S. Navy

No. 2–5: Exclusive use of SSK (Shipyard)

No. 6–9: Under control of the U.S. Navy. No. 6 and 7 Berths can be used for commercial vessels, subject to the U.S. Navy's permission.

Wharf	*Length* m.	*Depth* ft.	*Capacity* (g.t.)	*Remarks*
Maehata Gaibo No. 1	185.0	33	20,000×1	Grain and general cargo
Ekiura Wharf	150.0	16	1,000×2	General cargo
Hizukushi Wharf	103.0	15	500×2	" "
Maehata Wharf	143.0	15	500×3	" "
Maehata Gaibo No. 2	190.0	36	25,000×1	Grain and general cargo

No. of Buoy	*Depth*	*Capacity (g/t)*
10		Over 10,000
23	9 m. – 23 m.	5,000 to 10,000
7		Under 5,000

These buoys also controlled by U.S. Navy and their use for commercial purposes subject to U.S. Navy's permission, except following buoy which is free for commercial vessels:

	Depth	*Capacity (g/t)*
No. 9	27 ft.	5,000×1

STEVEDORES: Maximum 10 gangs available.

Classification	*Regular employees*	*Temporary labourers*
Stevedores	100	150
Longshoremen/Warehousemen	100	200

2 shifts: 0830 – 1630 and 1630 – 2130 hrs. Normal working hours: 0830 – 1630 hrs. Overtime work possible by applying to Customs. No work can be arranged during New Year holidays (1st to 4th January), 31st December and 1st May.

MEDICAL: Hospital: U.S. Station Hospital (for U.S. military personnel only). Sasebo Dojinkai Hospital. Tanaka Hospital. Bussaka Dental Hospital.

TANKERS: Diameter of lines: 8 in. No slop (Residue) discharge facilities. Number of tanker berths as follows:

Berth	*Length* (m.)	*Depth* (ft.)	*Remarks*
Akasaki No. 1, 2, 3.	517	40	under U.S. Navy's control
Motofune No. 1 & 2.	159	32	under U.S. Navy's control
Iorizaki	80.5	32	under U.S. Navy's control
Yokose	88	45	under U.S. Navy's control

DENSITY: 1025.

FRESH WATER: Available by barge 1 each of 200 and 100 tons. Rate of delivery 50-100 t.p.h./barge. Water from hydrant at India Berth Nos. 6, 7, 8 & 9. Rate of delivery 25 t.p.h./hydrant.

FUEL: No stock of bonded oil, but lightered from other ports. Adequate notice required order avoid delay. Rate of delivery from barges 100/200 t.p.h.

Suppliers	*Installation*	*Notice required days*
Shell Sekiyu K.K.	Nagasaki	3
	Shimonoseki	4
Esso Oil Co.	Shimonoseki	4
	Sakai	6
Mobil Oil Co.	Kokura/Moji	4
	Oita	5
Caltex Oil Co.	Shimonoseki	4
	Kudamatsu	5
Mitsubishi Shoji Kaisha	Shimonoseki	4
	Kanokawa	5
C. Itoh & Co.	Matsuyama	5
	Mizushima	5
Nissho-Iwai Co.	Shimonoseki	4
	Matsuyama	5
Mitsui Bussan Kaisha	Oita	5
Kanematsu-Gosho Co	Kokura	4
Idemitsu Kosan Kaisha	Tokuyama	5
Marubeni-Iida Co.		
Sumitomo Shoji Kaisha	Tokuyama	5

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CARGO GEAR: Shore cranes:

No.	*Capacity*	*Location*	*Owners*
1	250 tons	India Berth No. 5	S.S.K.
1	15 tons	India Berth No. 2 & 3	S.S.K.
2	15 tons	India Berth No. 4 & 5	S.S.K.
1	15 tons	India Berth No. 7 & 8	U.S. Navy

Floating Cranes:

No.	*Capacity*	*Owners*
1	120 tons	Nishi-Nippon Harbor Services Co.
1	12 tons	Nishi-Nippon Harbor Services Co.
1	10 tons	Nishi-Nippon Harbor Services Co.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

IDENTIFICATION CARDS: See "General – Immigration".

CONSULS: None.

REPAIRS: All deck and engine repairs possible.

DRY DOCKS: Sasebo Heavy Industries Co. Ltd. No. 3, dry dock: Length 370 m. Width 70 m. Depth 15 m. Max. ship (d.w.t.) 300,000. Another 5 dry docks available.

AIRPORT: Itazuke Airport, Fukuoka, about 120 km. (about 180 minutes by taxi). Served by regular airlines. Nagasaki Airport, Nagasaki, about 50 km. (about 70 minutes by taxi). 10 flights daily (All Nippon Airways).

TIME: GMT plus 9 hours. No alterations to clocks throughout year.

POLICE/AMBULANCE/FIRE: Police Station: Sasebo 23-7161 (if emergency: 110). Ambulance Sasebo 23-5121 (Sasebo Fire Station). Fire Sasebo 119 (Sasebo Fire Station).

TELEPHONES: No facilities exist for placing telephones on board.

GENERAL: *Customs:* When vessel arrives direct from foreign port, Customs Officials board for search. Following documents to be submitted. Crew List, Passenger List, Store List, Manifest of Crew Personal Effects (must be signed by individual crew member). Arms and Ammunition List, Narcotics List, List of Port of Call on current voyage, Discharging Cargo Manifest, Through Cargo Manifest, Declaration inward/outward (Form No. C2000). Following will be checked on board. Ship's Registry, Last Port Clearance.

When vessel comes from Japanese port, Customs Officals will not attend on board, except special case. Master or Agents to attend at Customs House for entry formalities with following documents. Discharging Cargo Manifest, Through Cargo Manifest, Declaration inward/outward, Ship's Registry, Last Port Clearance, documents entrusted with the Master by Customs at previous port.

On vessel's departure, clearance issued by Customs after confirming payment of tonnage dues.

Immigration: Immigration Officials board vessel on arrival to examine passports, discharge books and/or other equivalent travel documents and provide a 72 hour landing pass for crew members and passengers. Two copies each of Crew List and Passenger List are required by them. Providing vessel's Agent with these documents beforehand will help in expediting Immigration business on arrival. When vessel in port more than 72 hours, landing passes will be extended every 72 hours on application.

In event that crew members, without entry visas, to be landed for repatriation or transfer, Immigration will not permit their landing unless passage, by either sea or air, ensuring prompt departure from Japan (within 72 hours) of these men has been booked, or unless vessels to which they are to be transferred, arrive in Japan within 5 days. Services are rendered from 0900 hrs. to 1700 hrs.

SERVICES: Hold cleaning. Compass adjusting. Fumigation.

AUTHORITY: Port & Harbour Bureau, Sasebo City, 3-5, Yorozu-cho, Sasebo City, Nagasaki Pref. *Tel:* (0956) 22-6128.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Nishikyushu Warehouse Co. Ltd., Tategami-cho, Sasebo-shi, Nagasaki-ken. Tel: Sasebo (0956) 24-6161. Cable Address: Soko Sasebo. Telex: 748227 Soko J.

SHIMIZU: 35.00 N. 138.30 E. (See Plan)

DOCUMENTS: *Quarantine* (only when arriving from a foreign port):
1 Maritime Declaration of Health.
1 Crew List.
1 List of Passengers (if any on board).
Log Book and Registry, Certificate of Vaccination and Derat Certificate (or Derat Exemption Certificate) should be readily available.

Customs:
1 Declaration Inward/Outward of vessel.
1 Ship's Registry.
1 Last Port Clearance.
1 Stores List, including arms and narcotics.
2 Manifests of Cargo for discharge (prepared by Agents).
1 Manifest of Through Cargo.
1 Crew List.
1 List of Passengers.
1 Declaration of Crew's Baggage (only necessary if crew members have to land personal effects ashore).
1 Parcel List.

Immigration:
2 Crew Lists.
1 Application for Shore-passes.
2 Lists of Passengers.
1 Declaration Inward/Outward of vessel.

Harbour Master:
1 Declaration Inward/Outward of vessel.

Port Authority:
1 Declaration Inward/Outward of vessel.

PILOTAGE: Pilotage should be arranged through Agent by VHF (Shimizu Port Radio, Channels 16, 12, 14, 20), or vessels requiring Pilot should hoist signal flag "G". Pilot Station: on the point 043° – 1500 m. from Shimizu Lighthouse (the lighthouse: Lat. 35° 00′ 24″ N., Long. 138° 32′ 00″ E.)

ANCHORAGES: See Section 3 on Chart of Shimizu.

MAX. SIZE: Dry-cargo max. draft 12 m. Length and breadth no restriction.

HEALTH: Free Pratique automatic calling at another Japanese port. Radio Pratique available.

VHF:

Name of Station	*Frequency (Channel No.)*	*Class & Power (W)*	*Type of Operation*	*Use*
Shimizu Port Radio	16	F3 50	Simplex	Call & Reply
	12		Simplex	Communication (priority for urgency)
	14		Simplex	Communication
	20		Duplex	Communication

TUGS: Normally join in-coming vessels near pilot station. Tug's lines usually used no extra charge.

CARGO HANDLING FACILITIES:

Wharf	*Type*	*Capacity*	*Number*
Okitsu No. 2 Wharf	Gantry (travelling)	30.5 tons	1
	Transtainer (travelling)	30.5 tons	1
Sodeshi No. 1 Wharf	Gantry (travelling)	30.5 tons	3
	Transtainer (travelling)	30.5 tons	7
Sodeshi No. 2 Wharf	Unloaders	400 t.p.h.	2
Hinode Wharf	Jib Crane (portable)	5.3 tons	1
	Jib Crane (fixed)	51 tons	1
Fujimi Wharf	Unloader (fixed)	180 t.p.h.	3
	Pneumatic unloader (travelling)	300 t.p.h.	2
	Belt-conveyor	450 t.p.h.	1
	Cement Unloader	470 t.p.h.	1
Suzuyo Warehouse Wharf	Pneumatic Unloader (fixed)	80 t.p.h.	1
	Pneumatic Unloader (fixed)	50 t.p.h.	1
Honen Oil Dolphin	Pneumatic Unloader	156 t.p.h.	2
	Pneumatic Unloader	300 t.p.h.	1
Nihon Light Metal Wharf	Unloader	540 t.p.h.	2
	Air Slide	150 t.p.h.	1
	Loading Arm	1,400 t.p.h.	1
	Loading Arm	500 t.p.h.	2

SPECIAL CARGO HANDLING FACILITIES:
Container Berth: Okitsu No. 2 Wharf No. 11 – No. 12, depth 12 m., length 440 m. (2 berths), 1 gantry crane (capacity 30.5 tons), 1 transtainer (capacity 30.5 tons).
Sodeshi No. 1 Wharf: Berth No. 6 – 8: Length 720 m., depth 12.0 m. 3 gantry cranes, capacity 30.5 tons each. 7 transtainers, capacity 30.5 tons each.

TANKERS: Toa-Nenryo Berth (8 berths): Max. permitted draft 22 m., max. size 250,000 d.w.t.

STEVEDORES: Normally latest time to order gangs 1500 hrs. previous day.

MEDICAL: No advance notice required unless urgent.

DENSITY: 1023 – 1024.

FRESH WATER: Most berths supply by shore installations, otherwise barge.

FUEL: All grades of oil delivered by barge only.

FIRE PRECAUTIONS: Harbour fire-fighting corps with a fire-fighting boat.

GANGWAY/DECK WATCHMEN: Service of watchmen optional but not necessary.

OPENING/CLOSING HATCHES: Opening and closing of hatches may be done by Crew members or on request to Agent by stevedores.

CERTIFICATES: Ship's Register, Radio and Safety equipment Certificate, Derat Exemption Certificate, etc.

CUSTOMS ALLOWANCES: Tobacco: 60 cigarettes permitted. Wine or spirits, according to the length of voyage: None within 1 month voyage, 1 bottle over 1 month, 2 bottles over 3 months.

IDENTIFICATION CARDS: Passport or Seaman's Book.

CONSULS: None.

REPAIRS: Most repairs and overhauls possible.

DRY DOCKS: Kanazashi Shipyard, largest dry dock – 122 m. × 18.5 m., 5,700 tons. Floating dock – 65 m. × 18 m. 1,000 tons.

Nippon Kokan Shipyard, floating dock – 135 m. × 27.8 m. 7,900 tons.

SURVEYORS: Japan Marine Surveyors & Sworn Measurers' Association, Shimizu Branch, 7-5, Irifune-cho, Shimizu, Japan. Tel: 52-0177.

Japan Oil Stuff Inspectors Corporation, Shimizu Branch, 1-28, Irifune-cho, Shimizu, Japan. Tel: 52-8549.

New Japan Surveyors & Sworn Measurers' Association, Shimizu Branch, 7-17, 1-chome, Minato-cho, Shimizu, Japan. Tel: 53-1290.

Japan Grain Inspection Association, Shimizu Office, 2-20, Hinode-cho, Shimizu. Tel: 53-1228.

AIRPORT: 263 km. from Narita International Airport, 180 km. from Haneda.

TIME: GMT plus 9 hours. Permanent.

HOLIDAYS: No work from December 31st to January 3rd and Shimizu Port Festival Day (First Sunday in August). Also the 1st and 3rd Sunday of every month, except containers.

POLICE/AMBULANCE/FIRE: Police 110; Ambulance 119; Fire 119; Water Police 52-0200.

TELEPHONE: Telephones can be arranged onboard at most berths by calling 64-2002.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 7 days but 7 days' extension possible if ship stays longer.

BERTHING: *Public:*

Wharf	*Berth*	*Depth (m.)*	*Length (m.)*	*Max. Size (d.w.t.)*	*Main Usage*
Okitsu No. 1 Wharf	No. 1 – No. 3	10.0	556	15,000	General Cargo
	No. 4 – No. 5	5.5	181	2,000	General Cargo
	No. 6 – No. 9	10.0	740	15,000	General Cargo
Okitsu No. 2 Wharf	No. 10	7.5	168	5,000	General Cargo
	No. 11 – No. 12	12.0	440	30,000	Containers
	No. 13 – No. 14	10.0	370	15,000	Cars
Sodeshi No. 1 Wharf	No. 1 – No. 4	4.5	240	700	Ballast, Steel materials
	No. 5	7.5	135	5,000	Logs
	No. 6 – No. 8	12.0	720	30,000	Containers
	No. 9 – No. 10	9.0	350	10,000	—
	No. 11	12.0	240	30,000	Logs
	No. 12 – No. 15	7.5	520	5,000	General Cargo
Sodeshi No. 2 Wharf	No. 16	10 – 12	330	30,000	Wood-chips
	No. 17	9.0	165	10,000	Petroleum
	No. 18	7.5	72	1,000	Petroleum
Ejiri Wharf	No. 1 – No. 5	6.5	472	3,000	Fish & Shell
	No. 6 – No. 7	4.5	149	700	Fish & Shell
	No. 8 – No. 12	4.5	340	700	Fish & Shell
	No. 13 – No. 16	4.5	262	700	Fish & Shell
	No. 17 – No. 18	6.5	185	3,000	Fish & Shell
Shimizu Wharf	No. 1 – No. 5	4.5	323	700	Steel materials Soyabean Meal, Waste Oil
Hinode Wharf	No. 1 – No. 2	7.3	226	5,000	General Cargo
	No. 3	9.0	114	10,000	General Cargo
	No. 4	12.0	240	30,000	General Cargo
	No. 5	10.6	240	20,000	General Cargo
Fujimi Wharf	No. 1 – No. 2	4.5	120	700	Ballast, Sand
	No. 3 – No. 4	9.0	310	10,000	Woodchips
	No. 5	12.0	240	30,000	Grain, Cement
	No. 6 – No. 7	9.0	329	10,000	Sugar, Raw Cotton
Anchorage Mooring Buoy Basin	Orido	5.0–10.5	344,100 m.^{2} 3 Buoys	10,000 – 20,000	Logs
Private:					
National Railway Wharf		7.3	266	5,000	Cement
Toa Nenryo Sea-Berth		22.0	480	250,000	Naphtha
Toa Nenryo Sea-Berth		6.0–8.2	590	5,000	Naphtha
Honen Oil Dolphin		11.0	210	40,000	Grain, Molasses
Suzuyo Warehouse Wharf		4.5	48	700	Grain
Suzuyo No. 1 Pier		5.0	27	1,000	Petroleum
Nihon Light Metal Wharf		9.0–11.0	365	32,000	Bauxite Ore, Alumina, Heavy Oil
Nakayama Steel-Works Wharf		5.0	41	1,000	Steel Materials
Nippon Kokan Wharf		5.5–6.5	895	24,000 g.r.t.	
Kanazashi Shipyard Wharf		4.5–5.5	471	20,000 g.r.t.	
Miho Shipyard Pier		5.5–6.0	277	8,000 g.r.t.	
Seiko Dock Pier		7.0	20	500 g.r.t.	

SHIP SUPPLY SERVICE: Operated by Shimizu Port Service Ltd., 10-78 Hinode-Cho, Shimizu City, Shizuoka Pref., Japan.
AUTHORITY: Shimizu Port Administration Bureau, 9-25 Hinode-Cho, Shimizu City, Shizuoka Pref., Japan 424. *Tel:* Shimizu (0543) 53-2203. *Contact:* Kohji Sakurai, Manager of Planning and Development Division.

AGENT: Sub-Agent of Dodwell & Co. Ltd. Suzuyo & Co., Ltd. 11 – 1 Irifune-cho, Shimizu-shi, Shizuoka-ken. Cable Address: Suzuyo Shimizu. Domestic Telex: 3965-671, 672, 677 Suzuyo Smz. Tel: Shimizu (0543) 53-3111/3914 and 52-1398.

SHIMONOSEKI (including Mutsure): (See Plan)
33.57 N. 130.58 E.
(See "Kanmon-Ko")

DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agents should be provided with necessary information about details of cargoes in advance.
PILOTAGE: *Nissin Tanker Pier – Mutsure:* Pilotage is not compulsory but all vessels should take a Pilot. The Pilots reportedly are experienced, qualified and well organised.

If the vessel is coming from Westwards, the Pilot will board at the anchorage position N.N.E. of Mutsure-Sima.

If the vessel is coming from Eastwards, the same Pilot who navigated the vessel through the Kanmon Passage will bring the vessel to the berth if the tidal conditions are favourable and the berth is not occupied. Otherwise, the vessel should anchor off the terminal in an authorised anchorage.

Pilots meet vessels arriving from Eastward near the entrance approaches of Kanmon Passage off the Hesaki Lighthouse. However, this is not applicable when the vessel is coming from Seto Naikai.

Pilots have available heavy launches or tugs which generally have black and white superstructure.

The Port of Kanmon Ko is divided into several Districts, the most important of which are Shimomoseki, Moji and Wakamatsu. The anchorage is quite congested and the traffic is heavy. Also, a lot of fishing boats, barges on tow, and other craft may be encountered, so extreme caution should be exercised.

Also see "Moji".
ANCHORAGES: Mutsure Anchorage: Undermentioned area is open port. The sea area surrounded by:
(a) Line connecting Daibahana on Takenoko Island and top of Wagora Island.
(b) Line connecting top of Wagora Island and Udonohama on Mutsure Island.
(c) Coastline between Udonohama and Unoishibana on Mutsure Island.
(d) Line connecting Unoishibana and Anse-no-Shiri in Shimonoseki.
(e) Line connecting Anse-no-Shiri and point at 370 m. from Daibahana on the line connecting Daibahana and top of Wagora Island.
(f) Line Long. 130° 54′ E.

Anchorage includes a part of Quarantine Anchorage and Mutsure Oil Berth; depth 10 m. – 25 m.
RESTRICTIONS: See "Moji".
MAX. SIZE:

Wharf	*Numbers*	*Length* (m.)	*Depth* (m.)	*Capacity* (g/t)
Daiichi Pier	9 – 10	330	8.5	10,000×2
	12	165	8.0	10,000×1
	13	165	8.5	10,000×1
Daini Pier	15	150	8.5	10,000×1
	16	165	8.5	15,000×1
	17	210	9.1	15,000×1
Hosoe Wharf	18	130	7.2	(Exclusively used by Kampu-Ferry)
	19	130	7.0	5,000×1
	20	185	9.0	15,000×1
	21	185	9.4	15,000×1
Hananocho Pier	24	185	9.5	15,000×1
	25	185	10.0	15,000×1

Note: If both Nos. 12 and 13 piers are used, LOA up to 160 m.
If both Nos. 15 and 16 piers are used, LOA up to 160 m.
If both Nos. 20 and 21 wharves are used, LOA up to 230 m.
If both Nos. 24 and 25 piers are used, LOA up to 230 m.
Fukuura Berth (for lumber discharge only)
120 7.2 5,500 d.w.t

Also see "Tankers".
HEALTH: See "Moji".
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel to contact Choshi and Northbound to contact Nagasaki Radio respectively.
VHF: See "Yawata".
TUGS: See "Moji".
BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.
Mitsui Kinzoku Dolphin Pier: Max. d.w.t. 60,000. Max. LOA 230 m. Max. draft 11.90 m. 1 shore crane. Bauxite and phosphate handled.
BRIDGES: Kanmon Suspension Bridge was built in 1973 across Hayatomo Channel (narrowest place in Kanmon Strait, width of fairway 530 m.) between Shimonoseki and Moji. The height of the bridge from sea level is 61 m.
STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agents to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700 – 1900 hrs. 50% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.
MEDICAL: It is recommended that advance notice be given if treatment required.
TANKERS: Shell Oil Berth situated at Hikoshima, on Southwestern end of Honshu, facing Moji across Kanmon Strait. In vicinity of berth, flood tide sets to East, ebb tide to West, current about 5-6 knots. Mooring berth consists of 4 buoys, approximately 140 m. offshore, space between buoys being approximately 270 m.

Max. dimensions of vessel which can be safely accommodated are 18,000 d.w.t., LOA 170 m., breadth unlimited, draft 9 m. Product handled, fuel oil. Shoreline 1×8 in. Discharge rate 500 t.p.h.

Vessels only berthed or unberthed when tide sets to West during daytime only. In approaching berth, as vessel comes against tide, full engine power and tug assistance required. One 10 in. pipe connected to vessel; discharge efficiency per hour 500-600 kl.

Nissin Tanker Pier No. 1 located about 610 m. South of Mutsure Lighthouse. At this berth, West-going current stronger than East-going and ship taken to berth only on Westerly current, with stern towards South. Most suitable berthing time is 2 – 3 hours after commencement of West-going current. Max. dimension of vessel which can be accommodated at this berth is 95,000 d.w.t., LOA 246 m., draft 15 m. Product handled, fuel oil. Shoreline 3×12 in. Discharge rate 2,000 t.p.h. Berth Nos. 2 and 3 handle coastal tankers only.
DENSITY: 1025.
FRESH WATER: Good fresh water supplied either from water barge or from hydrants alongside wharves. Rate of delivery from water barge 50 t.p.h. and from hydrants 40-50 tons.
FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice. Also see "Moji – Fuel".
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can can complete it before berthing.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore, but no spirits.
CARGO GEAR: See "Certificates", but no special requirements.
CONSULS: Korean Consul, Tel. (66) 5341.
REPAIRS: All types of repairs possible.
DRY DOCKS: Mitsubishi Heavy Industries Ltd. 4 dockyards (Nos. 3 & 4 for smaller vessels).
Hayashikane Shipbuilding K.K. 3 dockyards (Max. 1,100 g.t.).
Towa Shipbuilding K.K. 1 dockyard (Max. 1,000 g.t.).
Mitsubishi Heavy Industries Ltd.
Dimensions of Docks:

	Length (m.)	*Breadth* (m.)	*Draft* (m.)
No. 1 Dock	164.13	25.0	7.04
No. 2 Dock	150.10	20.0	6.88

Max. Size of Vessel for Docking:

	Length (m.)	*Breadth* (m.)	*Draft* (m.)
No. 1 Dock	160.00	22.50	5.50
No. 2 Dock	143.00	19.30	5.00

REPATRIATION: Possible.
AIRPORT: Approx. 80 km. to Fukuoka Airport; about 1.5 hours by train. Approx. 18 km. to Kitakyushu Airport; 40 minutes by taxi.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Police Station 110; Ambulance/Fire Station 119.
TELEPHONE: Possible to place telephone on board.
SERVICES: All services available.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.
DEVELOPMENTS: Nishiyama lumber discharge wharves (depth of water 12 m.) and a lumber pool for larger vessels are under construction at Western centre of Hikoshima Island, facing Kanmon Straits.
AUTHORITY: Shimonoseki Port Authority, (750) 1-1 Nabecho, Shimonoseki City, Japan. *Tel:* (0832) 31-1111. *Contact:* S. Takaoka, General Manager.
AGENT: See "Moji".

SHIMOTSU (including Kainan): 34.06 N. 135.08 E.

DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agents should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Pilot request to be given to pilot station through Agent. Advance notice of ETA: 72 hours and 24 hours before arrival. No VHF available. Pilot usually attends by tug boat. No special pilot boat. Pilot boards Lat. 34° 07′ 25″ N., Long. 135° 06′ 45″ E. No alternative area in event of bad weather. Location of anchorage for awaiting pilot – Lat. 34° 07′ 25″ N., Long. 135° 06′ 45″ E., as pilot station.

ANCHORAGES: Quarantine Anchorage, 20 m. depth.

RESTRICTIONS: Entry daytime only.

Yura Bay: Vessels no longer than 110 m. berth. Daytime entrance only regardless of tide and current.

MAX. SIZE:	*Max. d.w.t.*	*Length*	*Draft*
Tonen O-1	236,000	480 m.	18.50 m.
Tonen E-1	70,000	400 m.	12.50 m.
Maruzen Buoy Berth	35,000	230 m.	9.50 m.
Maruzen Jetty 5	50,000	392 m.	11.60 m.
Fuji Kosan Jetty 9 (Kainan)	70,000	250 m.	12.50 m.
Fuji Kosan Ohsaki Sea Berth	245,000	—	24.00 m.

Also see "Tankers".

HEALTH: Radio Pratique available.

Formalities will be carried out at the undermentioned positions which will be specified by Harbour Master.

1. Lat. 34° 07′ 09″ N., Long. 135° 06′ 20″ E.
2. Lat. 34° 08′ 09″ N., Long. 135° 06′ 28″ E.
3. Lat. 34° 08′ 25″ N., Long. 135° 05′ 47″ E.
4. Lat. 34° 08′ 33″ N., Long. 135° 06′ 49″ E.
5. Lat. 34° 09′ 00″ N., Long. 135° 06′ 29″ E.
6. Lat. 34° 08′ 48″ N., Long. 135° 07′ 30″ E.
7. Lat. 34° 09′ 14″ N., Long. 135° 07′ 27″ E.

RADIO: Recommended Masters communicate with Agents through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound, to contact Choshi, and Northbound, to contact Nagasaki Radio respectively.

TUGS: Tugs join at Quarantine Anchorage, tug lines used.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agents mainly by radio.

MEDICAL: No advance notice required unless urgent.

TANKERS: There are no slop facilities.

Berth	*Product*	*Shorelines*	*Discharge Rate* (t.p.h.)
Tonen O–1 Jetty	Crude Oil	2×12 in.	4,500
		3×16 in.	12,000
Tonen E–1 Jetty	Crude Oil	2×12 in.	2,500
	Fuel Oil	1×10 in.	2,000
Maruzen No. 5 Jetty	Crude Oil	2× 8 in.	1,500
Maruzen Buoy Berth	Fuel Oil	1× 8 in.	500
	Lube Oil	2× 6 in.	500
Fuji Kosan Jetty 9 (Kainan)	Crude Oil	3×16 in.	13,000

Tonen O-1 Jetty: This berth consists of an unfendered central platform with access way and pipe trestle to the shore, having on each side 1 flexible and 2 rigid breasting dolphins with catwalk connected to the central platform. There are 2 more rigid mooring dolphins for breasting lines located in a backward position relative to the breasting frontage and accessible by catwalk.

The spring lines are secured to either one of the rigid breasting dolphins at each side of the central platform.

The original mooring buoys have been replaced with mooring dolphins standing off the central platform 251 m. and 241 m. thus extending the total mooring frontage to 492 m. All mooring and breasting dolphins are fitted with capstans and remotely operated quick release hooks.

Currents run parallel to the berthing face, maximum 2 knots each way.

The berth has been approved for accommodating tankers of about 236,000 d.w.t. Depth alongside the berth is about 20 m. below C.D.

Berthing Procedures and Mooring: The vessel is turned about 1 mile North of the berth and then backed down to the berth. The reason for this procedure is twofold. First, there is insufficient room at the berth for turning. Second, in the port of Shimotsu vessels are normally berthed heading out so that in case of an emergency they can depart with the least possible delay. Furthermore the passage South of Zi-no-Shima inland is very often obstructed with fishing nets.

The vessel is brought parallel to the berth, about 150 ft. – 300 ft. off, and then pushed alongside by the attending tugs. Mooring lines are only led when the vessel is very close in or resting against breasting dolphins. The normal sequence for handling ship's ropes is: spring lines, bow and stern lines, and then the forward and aft breasting lines.

The mooring configuration for vessels less than 100,000 d.w.t. is: 3 bow lines, 3 stern lines, 2 forward breasting lines, 2 aft breasting lines, 2 forward back springs, 2 aft back springs. For vessels up to 200,000 d.w.t., an additional bow line and stern line is required. For vessels over 200,000 d.w.t., an additional breast line fore and aft is necessary. 2 mooring launches are used. The berth is equipped with a sonar docking system.

When very strong Southerly winds are experienced, the vessel will go port side to. This rarely happens.

DENSITY: Average density 1012.

FRESH WATER: Available at every berth except Fuji Kosan Sea Berth, by shore lines, rate about 25 tonnes per hour. Also available by barge.

FUEL: Most grades of domestic and bonded oil are available. If bunkering is carried out at anchorage, guard boat and oil fence will be required by harbour regulations.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore, but no spirits.

IDENTIFICATION CARDS: Not required.

CONSULS: None.

REPAIRS: Only minor deck and engine repairs.

DRY DOCKS:
Yura Dockyard: Mitsui Shipping & Engineering Co. Ltd. have constructed a 350,000 d.w.t. new dockyard in Yura, 50 nautical miles South of Kobe Lat. 33° 57′ 30″ N., Long. 135° 07′ 00″ E. Vessels calling at Yura port are requested to note the following information:

Tonnage dues should be paid at Wakayama since Yura is closed port.

Dock Master boards at position 280° – 2,000 m. from Arijima Lighthouse for entering Yura and Pilot is not required.

Vessel is requested to wait at Wakayama Anchorage if dry dock or wet basin is not available.

Vessel is requested to call at Shimotsu for Free Pratique if necessary.

REPATRIATION: Possible.

AIRPORT: Osaka International Airport.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police 110 and Ambulance/Fire 119 (in case of emergency).

TELEPHONES: No facilities for placing telephones on board.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.

AUTHORITY: Wakayama Shimotsu Port Administration Office, 22, Chikko 6-chome, Wakayama City. *Tel:* (0734) 31-7266.

AGENT: Sub-Agents of Dodwell & Co., Tokyo: Shimamoto Kaiun K.K., Kowan Kaikan, 3066, Shimotsu, Shimotsu-cho, Kaiso-gun, Wakayama-ken. Cable address: Shimamoto Wakayama Shimotsu. Domestic Telex: 05542-749 Shimast. J. Tel: (07349) 2-0141.

SHIOGAMA (Including Sendai): 38.20 N. 141.03 E. (See Plan)

DOCUMENTS:
Ship's Register.
Last Port Clearance.
3 Crew Lists including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Personal Effects.

Agent should be provided with necessary information to prepare Inward/Outward Declarations and Cargo Manifests.

PILOTAGE: Not compulsory but can be arranged at request of Master. Pilot not available after dark. Pilot boards at Fairway Buoy "A", position Lat. 38° 13′ 15″ N., Long. 141° 08′ 15″ E.

ANCHORAGES: Depth: 28 m. Bottom: Rock and sand. Anchorage not suitable in rough weather and as no sheltered anchorage nearby it is advisable for vessels to proceed offshore.

RESTRICTIONS: *For Vessels Entry Into and Sailing from Sendai:* Priority of entry and sailing from the port is given to ferries. Entry and sailing of other vessels is restricted to times outside ferry schedules. Entry of tankers controlled by Tohoku Oil Refinery Co. Ltd. under supervision of Harbour Master.

RADIO: Choshi Radio or Nagasaki Radio.

BERTHING:

Sendai:

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Capacity* (g.r.t.)	*Cranes* (tons)
Tohoku Oil Pier		18.0	17.0	125,000 d.w.t.	
12 m. Public Berth	240	12.0	11.5	20,000	
10 m. Public Berth	185	10.0	9.5	18,000	
Azuma Seiko (Private)	300	12.0	11.5	20,000	2×30 1×10
Fujisawa Seiko (Private)	300	8.0	7.5	10,000	1×30

Shiogama:

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft & Length Overall* (m.)	(m.)	*Capacity* (g.r.t.)	*Shore Cranes*
Teizan No. 1 (T.1)	160	8.5	8.5	160	10,000	
No. 2 (T.2)	160	8.5	8.5	160	10,000	
No. 3 (T.3)	130	7.5	7.0	120	15,000	
No. 4 (T.4)	130	7.5	7.0	120	15,000	
Higashi Wharf (E.1,2,3)	330	7.5	7.0	—	3×3,000	1×3 t.
Naka Wharf	130	7.5	7.0	130	5,000	1×2 t.
(E. side)(M. 4,5,6)	140	4.5	4.0		2×1,000	
Naka (W. side)(M. 7,8)	197	4.5	4.0	—	2×1,000	
Naka (N. side)(MN)	169	5.5	5.0	—	2×2,000	
Nishi Wharf (W)	323	4.5	4.0	—	4×1,000	

MAX. SIZE: See "Berthing".

HEALTH: Radio Pratique available.
Sendai: Formalities will be carried out at the Quarantine Anchorage (Lat. 38° 13′ 03″ N., Long. 141° 06′ 42″ E.)
Shiogama: Formalities will be carried out at the Quarantine Anchorage.
TANKERS: *Tohoku Oil LPG Pier:* Vapour Line: 1×8 in., Liquid line connection (Propane) 2×12 in., Butane 1×12 in., Depth alongside 17 m. Length between dolphins, 125 m.

Vessel discharges through 2×16 in. Chicksan loading arms each capable of receiving 4,000 t.p.h. Also 1×8 in. Chicksan loading arm for bunker.

There are no facilities for dirty ballast.

Storage Capacity:
Crude Oil: 102,000 Kl×5
55,000 Kl×1
Fuel Oil: 31,000×5

New Sendai Oil Pier: Report received August 1978.
Position: Lat. 38° 16′ N., Long. 141° 02′ E.

Pilot available at Quarantine Anchorage, position Lat. 38° 13′ N., Long. 141° 06′ E. Fresh water available. Depth alongside 18 m. Permissible draft 17 m. Max. size 150,000 g.r.t.

FRESH WATER: Supplied by shore line at 40 t.p.h.
FUEL: *Sendai:* Domestic oil is available; bonded oil also available from Tohoku Oil K.K.
Shiogama: Domestic oil is available; bonded oil will be brought from Yokohama or Sendai, when required.
TIME: GMT plus 9 hours. No alterations during the year.
DEVELOPMENTS: 15 public wharves under construction to accommodate vessels of 15,000 – 40,000 d.w.t. for discharging and loading of general and bulk cargoes. Depth alongside 10 m. – 12 m.
AUTHORITY: Shiogama Port Administration Office, 7-13, Teizan-dori 1-chome, Shiogama City, Miyagi Pref. *Tel:* (02236) 2-3391.

Sendai Port Administration Office, 1-2, Sakae 2-chome, Tagajo City, Miyagi Pref. *Tel:* (02236) 5-9111.

AGENT: Okimiya Transport Inc. 13-24, 2-chome Minatomachi, Shiogama-shi, Miyagi-ken. Cable address: Oki Shiogama. Domestic Telex: 08592-49 Okiinc. Tel: (02236) 4-1161. Postal No. 985.

TAGONOURA: 35.06 N. 138.42 E. (See Plan)

PORT LIMITS: Commences 5 cables from the harbour entrance. A vessel is considered an "arrived ship" at this point.
DOCUMENTS: Same as "Shimizu".
PILOTAGE: Ordered 24 hours in advance through Agents. If possible vessels should obtain Japanese Chart 1075 for the approaches and Japanese Harbour Plan No. (P) 98. Two fixed green leading lights visible 13 miles lead the ship through the entrance on a bearing of 323.5° True. Vessels should approach on this transit until 1 mile off the breakwater entrance which is marked by an Occ. G. 6 sec. 14.4 mile light on the West Breakwater and a Occ. R. 6 sec. 15 mile light on the East Breakwater. The Pilot will board from a tug 1.25 miles from the entrance. 2 tugs will attend for the entrance transit.
ANCHORAGES: Due to the steep nature of the coast no roadstead anchorages are available. In the event of having to wait for Pilot or weather to moderate it is necessary to steam outside the entrance or anchor and wait near Shimizu Quarantine Station.
RESTRICTIONS: The allowable draft should be verified with the Agents before arrival as this does vary, the average being 6.5 m. alongside the berth. The entrance channel has a minimum depth of 9 m. at all times.
MAX. SIZE: LOA 600 ft., beam 100 ft. These extremes are likely to be increased as the port develops.
HEALTH: Radio Pratique is unavailable even if vessel holds a valid Japanese Sanitary Inspection Certificate; if not, then quarantine will be cleared at Shimizu.
RADIO: Chosi Radio. When nearing Shimizu a call can be made via Shimizu Radio VHF requesting them to telephone ETA to Tagonoura Pilot.
TUGS: 2 tugs normally required. These are ordered from Shimizu in advance by Tagonoura Agents. The same applies on departure.
BERTHING:

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Capacity* (d.w.t)
Yoshiwara Wharf No. 1	167	9.0	9.0	1×10,000
2	125	7.5	7.5	1× 5,000
Chuo Wharf 1 & 2	410	9.0	9.0	2×10,000
3 & 4	250	7.5	7.5	2× 5,000
Asahi Kasei Wharf	170	9.0	9.0	1×10,000
(Private)	80	7.5	7.0	1× 5,000
Fuji Wharf No. 1, 2 & 3	375	7.5	7.5	3× 5,000
4	115	6.5	6.5	1× 3,000
Suzukawa Wharf	485	5.5	5.5	6× 2,000

SPECIALISED CARGO FACILITIES: Tagonoura handles bulk phosphates, etc. Also liquid chemical carriers and tankers.
BRIDGES: None.
STEVEDORES: Private arrangements. Working hours: Weekdays 0830 – 2130 hrs. Labour not available 1st and 3rd Sundays of each month or January 1st-4th or August 16th.
MEDICAL: Hospital and immediate services available.
TANKERS: One oil wharf. Max. permissible draft 5.5 m. Capacity 2×5,000 d.w.t. vessels.
DENSITY: 1021.
FRESH WATER: Unlimited. Available on the berth, rate less than 15 t.p.h. Cost Yen 250 per ton.
FUEL: All grades and lubricants available from Chiba, Toyko, Yokohama and Shimizu.
REPAIRS: Minor repairs only available.
DRY DOCK: None.
SURVEYORS: Cargo Inspectors and Surveyors of all societies are available through the Agents.
GANGWAY/DECK WATCHMEN: Available but not necessary.
HATCHES: Opened and closed by crew.
CUSTOMS ALLOWANCES: Same as "Shimizu".
CARGO GEAR: Ship's gear.
REPATRIATION: Possible. Frequent train services to Toyko.
AIRPORT: Narita Chiba Prefecture near Tokyo.
TIME: GMT plus 9 hours throughout.
TELEPHONES: None available.
SERVICES: All services available at short notice from Shimizu or Toyko.
SHORE LEAVE: Possible.
IDENTIFICATION CARDS: 7 day passes issued, extended if needed.
EMERGENCY CO-ORDINATION CENTRE: Maritime Safety Agency Tagonoura Branch Tel: (0545) 32-0154.
STORING: Vessels can be stored by trucks proceeding alongside the berth and can use fork lift trucks on the wharf to handle stores.
AUTHORITY: Tagonoura Port Administration Office of Shizuoka Prefecture, 1-2 Suzukawa-cho, Fuji-shi, Shizuoka-ken, Japan. *Tel:* 0545.33.0495. *Contact:* Mr. Yosuke Saito, Manager.

TANABE: 33.44 N. 135.21 E. (See Plan)

DOCUMENTS:
Harbour Master: Report of arrival and departure.
Shimotsu Customs Office (Tanabe Branch): 1 copy each of the following.

Ship's Register
Last Port Clearance
Crew List
Passenger List
Stores List
Declaration of Crew's Baggage (First port only)
Cargo Manifest (Discharge & through cargo)
Declaration Inward of vessel
Parcel List.

Osaka Immigration Office (Shimotsu Branch):

1. Before ship's arrival: "Notice of Ship's Arrival" is to be submitted 24 hours before ship's arrival with Crew List (Name, Nationality, Date of Birth, Number of Passport or Seaman's Book, Rank).
2. On ship's arrival: "Report of Ship's Arrival" is to be submitted with Crew and Passenger Lists (if already submitted before ship's arrival, not required).
3. On Ship's Departure: "Report of Ship's Departure" to be submitted with Crew List if any changes.

Note: It is required that ship's Agent is able to guarantee the identification of crew.
PILOTAGE: Not compulsory, but if required Agent to be advised 72 hours prior arrival. No pilotage sunset to sunrise. Anchorage waiting for Pilot Lat. 33° 42′ N., Long. 135° 19′ E. Pilot station 2,200 m. 315° from Banshono-hana Lighthouse. Depth 38 m.
ANCHORAGES: Waiting anchorage, 1,900 m. 40° from Banshono-hana Lighthouse. Depth 19 m. Bottom, sand and mud.

In Tanabe Port, there are many rocks, and therefore it is required to investigate the port passage sufficiently, according to the Chart of Tanabe Port which is issued by Maritime Agencies (Chart No. 74).

RESTRICTIONS: Max. draft 9.5 m. (31ft.), high tide. Usual draft, under 8.5 m. (28 ft.).

When a vessel loaded with explosives or dangerous cargo is entering the port, she must obey the instructions issued by Port Master when outside the port.

There is no restriction for night arrival.

HEALTH: Vessels usually anchor in the port of Owase or Shimotsu, where the authorities board and grant Free Pratique.
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

Tanabe Maritime Safety Office, call sign: JNH.

The contents of communications must be concerned with ship's arrival and departure, and maritime safety.

VHF: Call: "Tanabe Hoan".

Communication to be concerned with ship's arrival and departure arrangements and port safety affairs.

Telephone number of Maritime Agencies: 0739-22-2000.

TUGS: None available.
BERTHING: 2 buoy berths, depth 10 m. and 7.5 m.
STEVEDORES: Available through Kinan Port Transport Union.
MEDICAL: No advance notice required unless urgent. In an emergency contact Maritime Agencies.
TANKERS: Proceed to Shimotsu.
DENSITY: About 1030.
TIDE: Tidal range: Maximum plus 2.13 m. Minimum minus 0.21 m.
FRESH WATER: Available by water barge, capacity 30 tons. Daytime delivery only to buoy berths. 48 hours' notice required.
FUEL: Bonded oil will be brought from Shimotsu or Kobe, when required.
GANGWAY/DECK WATCHMEN: Not necessary.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 60 cigarettes to take ashore but no spirits.
CONSULS: None.
REPAIRS: No facilities available.
AIRPORT: Nanki Shirahama Airport about 25 km. distant. 2 Domestic flights daily to Tokyo.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Tanabe police office, tel. 0739-22-1226; Ambulance, tel. 0739-22-0931; Fire department, tel. 0739-22-0931.
SERVICES: None available locally but obtainable from Osaka.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.
AUTHORITY: Tanabe Doboku (Public Works) Office, 23-1, Asahigaoka, Tanabe City, Wakayama Pref. *Tel:* (0739) 22-1200.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Shimamoto Kaiun K.K., 193 Kamiyashiki, Tanabe-shi, Wakayama-ken. Tel: Tanabe (0739) 24-2424. Cable Address, Shimamoto Tanabe. Telex: 05562-103.

TOBATA: 33.55 N. 130.51 E. (See "Kanmon-Ko")

(See Plan)

DOCUMENTS:

- Ship's Register.
- Last Port Clearance.
- 3 Crew Lists including Passport Numbers.
- 3 Passenger Lists.
- 1 Stores List.
- 1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.
PILOTAGE: Compulsory. Harbour Pilots and Inland Sea Pilots are available at the pilot station or quarantine anchorage. Mutsure pilot station. Lat. 33° 59′ 30″ N., Long. 130° 53′ 00″ E.
ANCHORAGES: No. 5 Section, Wakamatsu. Depth: 9 m.– 11 m. Capacity 15,000 g.r.t. × 2. Quarantine Anchorages also used when necessary.
WIND/TIDE: South-easterly winds prevail in the warm seasons and North-westerly winds in the Winter season. The maximum velocity recorded in the past being 18 m./sec. The tidal range is 2.145 m. The current at the channel leading to new port runs Southward at the flood and Northward at the ebb. The maximum speed of the current is about 3 knots. There is no current in the dock.
RESTRICTIONS:

(*a*) Vessels exceeding 20,000 tons gross may berth only within 1 hour before and/or after slack tide. Vessels under 20,000 tons gross may berth regardless of current, if it does not exceed 5 knots.

(*b*) Night entry: Vessels under 10,000 gross tons may berth at Nos. 1, 2, 3 and 8 wharves until 2200 hrs. in Summer season and 2100 hrs. in Winter season, subject to Harbour Master's permission and Pilot's agreement.

(*c*) Night departure: Vessels under 20,000 gross tons allowed to sail from Nos. 1, 2, 3, 8 wharves and Nos. "A", "B", "C" buoys until 2200 hrs., regardless of current, provided they are moored with bow outward.

(*d*) Least depth in channel, 17.0 m.

MAX. SIZE: No. 4 Ore Pier: 160,000 d.w.t. or 250,000 d.w.t. with part load.
HEALTH: Formalities will be carried out at the anchorage. Quarantine station 105° – 2,800 m., (800 m. square) from Mutsure Lighthouse.
RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.
TUGS: Two tugs join vessel at entrance of harbour (in front of harbour signal station). Vessels exceeding 20,000 tons gross require 3 tugs. One of them will join vessel at Mutsure leading into main harbour and 2 join vessel at entrance of port (in front of harbour signal station).
BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth	*Length* (m.)	*Depth* (m.)	*Draft* (m.)	*LOA* (m.)	*Shore Cranes*
(Ore Pier)					
Wharf No. 1	200	10.5	10.5	200	4×30 t.
2	200	11.0	11.0	200	
3	250	13.0	13.0	270	
4	405	17.5	16.0	327	
(Coal Pier)					
Wharf No. 8	267	11.5	11.5	250	2×10 t.
9	267	9.5	9.5	170	
Buoy No. A		12.0	9.5	180	Floating Crane
(Loading Pier)					
Uchiura No. 5 Wharf	190	9.5	9.5	221.5	1×25 t. 1×10 t.
Shoko Wharf Tobata	150	8.5	8.5	150	
Shin Nittetsu Kagaku (RI)	105	7.5	7.0	110	
Sakaigawa Public Wharf (RS)	299	7.5	7.0	120	
Hibikinada Mitsui Kozan Coking Ind.		13.0	12.2	340	

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700 – 1900 hrs. (50% additional of basic stevedorage), 2100 – 0500 hrs. next morning (130% additional), Sundays/holidays (60% additional).
MEDICAL: Kinjyo Hospital, Yawata; Shimada Surgical Hospital, Yawata. No advance notice required unless urgent.
TANKERS: *Kitakyushu LNG. Co.:* Max. size 125,000 d.w.t. Max. LOA 286 m. Max. draft 12.0 m. 3×16 in. (LNG) discharge rate 12,000 kl.; 1×16 in. (boil off oil) discharge rate 12,000 kl.
DENSITY: Average density in the port is about 1019 – 1021 in Summer season, 1025 – 1026 in Winter season.
FRESH WATER: Available in connecting lines from shore side at Wharf Nos. 1, 2, 3, 8 and 9. No. of hydrants 5, 4, 5, 5, 5. At buoys: from barges, arranged from Wakamatsu. Rate of delivery: 55 – 70 t.p.h., ex-hydrant, 60 t.p.h., barge. Overtime (0500 – 0800 hrs.) (1700 – 2200 hrs.), 50% add.; (2200 – 0500 hrs.), 100% add.; bad weather, 50% add.; Sundays and holidays, 50% add.; minimum quantity at Tobata, 30 tons; minimum quantity at Mutsure, 50 tons.
FUEL: Domestic oil is available. Bonded oil will be brought from Moji, Ube or Oita with sufficient advance notice, when required.
FIRE PRECAUTIONS: No tanker berth. Each tugboat equipped with fire extinguishing system for attending emergencies on request.
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo aboard.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
CONSULS: See "Yawata".
REPAIRS: All types of deck and engine repairs possible afloat.
DRY DOCK: No dry dock.
REPATRIATION: Possible.
AIRPORT: See "Yawata".
TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Tobata Police Office, Tel: 093-871-4321; Wakamatsu Water Police, Tobata Branch, Tel: 093-861-0284; Ambulance/Fire: Tobata Fire Department, Tel: 093-871-2621.
TELEPHONES: See "Yawata".
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.
AUTHORITY: Kitakyushu Port and Harbor Bureau, 2-7 Nishi-Kaigan, 1-chome, Moji-ku, Kitakyushu-City, 801 Japan. *Tel:* (093) 321-5941, (093) 321-5941. *FAX:* (093) 321-5915.

TOKUYAMA (including Tonda): 34.02 N. 131.48 E.

Port situated in Yamaguchi Prefecture on Western part of mainland, facing Seto Inland Sea. Surrounded by Oshima Peninsula on the East, by Otsu-Shima and Uma-Shima (islands) on the S.W. and by the land on the North forms a large bay with deep water suitable for shelter. Sen-Shima and Kurokami-Shima (islands) lying in harbour, divide it into Tokuyama Section and Tonda Section.

DOCUMENTS:

(a) Customs. When vessel arrives direct from foreign port, Customs Officials will board to search. The following documents are to be submitted:

Crew List.
Passenger List.
Stores List.
Manifest of Crew Personal Effects (must be signed by individual crew member).
Arms and Ammunition List.
Narcotics List.
List of Ports of Call on current voyage.
Discharging Cargo Manifest.
Through Cargo Manifest.
Declaration Inward/Outward (Form No. 02000).

The following will be checked on board: Ship's Registry, Last Port Clearance. When vessel comes from Japanese port, Customs Officials will not attend on board, except special case. Master or Agent are to attend at Custom House for entry formalities with the following documents:

Discharging Cargo Manifest.
Through Cargo Manifest.
Declaration Inward/Outward.
Ship's Registry.
Last Port Clearance.
Documents entrusted with Master by Customs at previous port.

On vessel's departure a clearance is issued by Customs, after confirming payment of tonnage dues. Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

(b) Immigration. Immigration Officials attend from Tokuyama. They board vessel on arrival to examine passports, Discharge Books and/or other equivalent travel documents, and provide 72 hour landing passes for crew members and passengers. One copy each of Crew List and Passenger List are required by them. Providing ship's Agent with a Crew List beforehand will be a great help in expediting Immigration business on vessel's arrival. When vessel stays in port more than 72 hours, the landing passes will be extended every 72 hours on application. In event that crew members, without entry visas, are to be landed for repatriation or transfer, Immigration will not permit their landing unless passage, by either sea or air, ensuring the prompt departure from Japan (within 72 hours) of these men has been booked, or unless vessels to which they are to be transferred, arrive in Japan within 5 days. Also see "Shipmaster's Report".

PILOTAGE:

Inland Sea Pilot (Sekisaki/Tokuyama): Not compulsory. Agent gives 24 hours' notice to Pilot Association Moji, and advise if ETA changed. (Master to cable "Anjin Moji" in case ETA changed and believes that his advice, if relayed by Agent, will not reach in good time; for example, at night before date of arrival at Sekisaki). Location: 3 miles South of Sekisaki Lighthouse (Lat. 33° 13′ N., Long. 131° 54′ E.). Pilot boards on vessel's arrival at pilot station day and night. No alternative area in event of bad weather. No VHF.

Harbour Pilot (Tokuyama Harbour or Tokuyama-wan): Not compulsory. Pilot boards in Tokuyama-wan at Quarantine Anchorage, or other anchorage to pilot to berth. Master who has not taken Pilot at Sekisaki should enter harbour without Pilot (no pilot station at entrance). Master to inquire position for anchoring from Agent prior arrival. Agent will advise Master in consideration of vessel's size, draft or number of other vessels, especially supertankers in port.

ANCHORAGES: Quarantine Anchorage, 34° 01′ N., 131° 46′ E., depth water 36 ft. Deeper water of more than 60 ft. about 2 miles S.W. of Quarantine Anchorage where Quarantine board supertankers. If harbour congested, vessels, especially supertankers, anchor Outer Harbour. In this case Quarantine go to Outer Harbour if advised by Master or Agent. In emergency or unable contact Agent, vessel can talk with Harbour Master by VHF, Channel 16, calling "Tokuyama Hoan". No restriction for entry into and/or departure from the anchorages after nightfall.

MAX. SIZE: Largest recorded vessel to enter 275,000 d.w.t., 19.5 m. draft.

Tankers:

Berth	*Max. d.w.t.*	*Max. LOA (m.)*	*Max. Safe Draft (m.)*
Idemitsu Sea Berth	275,000	340	19.50
Idemitsu Ohura No. 3	50,000	250	12.00
Idemitsu Ohura No. 5	70,000	300	12.00
Idemitsu Ohura No. 7 (L.P.G. Terminal)	50,000	250	12.00
Idemitsu Center	35,000	220	11.00
Nippon Seiro Jetty	30,000	200	11.00

HEALTH: Radio Agent for Free Pratique not less than 12 hours and not more than 36 hours before arrival, advising full details of vessel and health conditions on board. When Free Pratique is granted by radio vessel will be required to submit the following documents to Quarantine Officer on arrival:

Maritime Declaration of Health.
Crew List.
Passenger List.

The following vessels will not be able to get Radio Pratique:

A vessel that has been in contact with an infected area or a suspected infected area within 15 days of arrival.

If a vessel has on board any case, or any suspected case of infectious disease, within 15 days of arrival.

If a vessel does not possess a valid Derat or Derat Exemption Certificate.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: Join inside harbour. For supertankers outer harbour if requested. Tugs' lines used. 8 tugs available, up to 4,000 h.p.

BERTHING: Also see "Tankers". No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

(a) Wharf	*Length (m.)*	*Depth (m.)*	*Capacity (g/t)*	*Cargo*
Tokuyama Soda Salt Pier	117	10.0	15,000×1	Salt/Cement Clinker
Tokuyama Soda Cement Pier	145	11.0	20,000×1	Cement in bulk
*Toyo Soda Fertiliser Pier	110	9.0	10,000×1	Fertiliser
*Toyo Soda Salt Pier	140	12.0	20,000×1	Salt/Coal
*Toyo Soda Cement I	125	9.0	10,000×1	Cement in bag
*Toyo Soda Cement II	68	10.0	20,000×1	Cement in bulk
Nisshin Seiko Pier	66	6.0	1,200×1	Steel products
Harumi Public Pier	260	7.5	5,000×2	General cargo
Harumi Public Pier	370	10.0	15,000×2	General cargo
Minatomachi Public Pier	210	6.0	2,500×2	General cargo

*Located at Tonda, Lat. 34° 03′ N., Long. 131° 44′ E.

(b) Buoy	*Depth (m.)*	*Capacity (d.w.t.)*	*Cargo*
Idemitsu Sea Berth	20	275,000×1	Crude oil

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1630–2130 hrs. (60% additional on basic stevedorage), 2130–0830 hrs. next morning (120% additional on basic stevedorage), Sundays/holidays (100% additional on basic stevedorage).

Loading/Unloading Facilities:

(a) Gangs: Maximum 40 gangs are available.

Classification	*Regular Employees*	*Temporary labourers*
Stevedores	200	230
Longshoremen	110	80

Stevedoring Companies: Tokuyama Kairiku Unso Kabushiki Kaisha; Kamigumi & Co. Ltd.; Toyo Koun Co. Ltd.; Sankyu Unyo Kiko Co. and Nippon Express Co. Ltd.

(b) Lighters: No lighter is available, but coastal boat available for use as substitute for lighters. 8,000 d.w.t. arrangeable with notice of 2 weeks in advance.

(c) Shore Crane:

Wharf	*Capacity grab (tons)*	*Max. discharge rate (t.p.h.)*
Tokuyama Soda Salt Pier	10	500
Toyo Soda Salt Pier	12	550

(d) Floating crane: Capacity, 100 tons available from Kudamatsu.

(e) Average performance of loading/unloading: Loading: Cement in bags, 55 – 65 t.p.h./gang; Soda ash in bags, 40 – 50 t.p.h./gang; Fertiliser in bags, 55 – 65 t.p.h./gang. Salt in bulk, 500 – 550 t.p.h./ship. Clinker in bulk, 180 – 200 t.p.h./ship. Chrome Ore in bulk, 65 – 75 t.p.h./gang.

Working Hours: 1 labour shift. Normal working hours: 0800 – 1700 hrs. Overtime is possible by applying to Customs. No work can be arranged for during New Year Holiday (1st to 3rd January) and Holiday (14th to 16th August).

MEDICAL: No advance notice required unless urgent.

Hospitals: Asanoumi Hospital, Asami Hospital, Ishikai Hospital, Chuo Hospital, Ono Dental, Ishida Dental.

TANKERS: No slop facilities.

Berth	*Product*	*Shoreline*	*Discharge Rate (t.p.h.)*	*Hoses*
Idemitsu Sea Berth	Crude Oil	36″×1 30″×1	10,000	16″×2 Flexible, 8 ton derrick for each hose.
Idemitsu Ohura No. 3	Crude Oil	18″×1	5,000	12″×2 Chicksan joint
Idemitsu Ohura No. 5	Crude Oil	24″×2	5,000	12″×2
	Fuel Oil	30″×1	4,000	Chicksan
	Naphtha	24″×1	3,000	
Idemitsu Ohura No. 7	LPG	12″×2	1,200	Chicksan joint 12″×2 (liquid)
	Butane	8″×2		8″×2 (vapour gas)
	Naphtha	24″×1	3,000	
Idemitsu Centre	Fuel Oil	18″×1	2,000	8″×2 Chicksan Joint.
Nippon Seiro Jetty	Raw Oil	12″×1	700	8″×1 Flexible
	Fuel Oil	10″×1	500	8″×1 Flexible

Idemitsu Sea Berth: Located in Tokuyama Bay at the position of Lat. 33° 59.5′ N., Long. 131° 46.1′ E., consisting of 7 mooring buoys. 275,000 d.w.t. tanker can be accommodated at this berth, being moored to buoys fore and aft. 4 powerful tug boats and 2 line boats are engaged in berthing/unberthing. Depth of water 20 m. Also see "Report" below.

Nippon Seiro Refinery: The mooring berth consists of 1 oil pier and 2 mooring buoys, to which vessel is moored fore and aft, port side alongside pier, there are also dolphins fore and aft.

Nippon Zeon Wharf (25 ft.) for LPG only.

Operator's Report: 1983.

Idemitsu Kosan Tokuyama Sea Berth (Discharging terminal):

Multiple buoy mooring system berth with 1 or 2 anchors.

Berth operates 24 hours per day, 7 days a week. Ships moored and unmoored at daytime, weather or other circumstances permitting. Berth will not be closed due to any holidays.

Location: Lat. 33° 59′ 12″ N., Long. 131° 46′ 00″ E.
Pilotage: Not compulsory.
Approaches: In order to make use of slack water berthing operations should be commenced 2 hours before slack water.

Berth is to be approached on a course of 075° after passing N.W. of Iwa Island, anchorage position visible from ship's bridge just after passing Sukumo Island abeam to starboard.

After letting go anchor (port), turn anti-clockwise with tug's assistance and let out 3 shackles and approach berthing position and take in slack anchor chain.

In Winter (from November-March) monsoons prevail, let go starboard anchor when heading about 320° and port anchor is out to 5 shackles then let out both chains, and move astern into berth.

1st line out should be taken to either No. 1 or No. 2 mooring buoy, whichever is the nearest.

Berthing:
(a) Vessel must not proceed to starboard of yellow buoy, because North of transit line No. 2 and 3 buoys area becomes shallow with depths 17 m. – 19 m.
(b) If port anchor let out too fast or too much, ship cannot return to manifold position, as anchor position designed for 8 – 9 shackles on port anchor when ship made fast.
(c) When Berthing Master comes on board, please advise him of number of shackles on each anchor and length from bow to manifold.
(d) Wire mooring lines are better than hawsers especially in case of No. 1, 2, 3, 4, 5, 7 buoys where wire should be used (each using 2 wires) as these wires are used to adjust the manifold position.
(e) Mooring arrangement:
Port anchor 8 – 9 shackles
Starboard anchor 2 – 3 shackles
No. 1 – 7 buoys 2 lines to each

DENSITY: 1025.

FRESH WATER: Water barges available, 1 each of 450 tons, 350 tons and 160 tons. Hydrants at Harumi Public Pier, Idemitsu Central Pier, Toyo Soda Wharf. The rate of delivery: 50 t.p.h. from barge, 20 t.p.h. from hydrant. (Public hydrant 30 t.p.h.).

FUEL: Major oil companies are represented and all grades of marine oil can be delivered usually by barge.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: None.

REPAIRS: Minor repairs only.

DRY DOCKS: Kasado Dockyard in Kudamatsu-wan, entrance 3 miles East of Tokuyama-wan entrance. Largest dry dock for 90,000 tonners and two other dry docks/building docks.

AIRPORT: Hiroshima (about 40 minutes by Shinkansen), Ube (about 40 minutes by Shinkansen and taxi).

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police, tel. 110; Ambulance and Fire, tel. 119.

TELEPHONES: No facilities for placing on board.

SERVICES: From Moji, Kobe or Osaka.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.

SHIPMASTER'S REPORT: June, 1983.
Toya Soda Salt Pier at Tonda.

Documents/Immigration: Landing Passes are now valid for 1 week but restricted to the immediate Port Area (Tokuyama) only. This restriction is enforced and the Agent must make written, individual application for any crew member required or desiring to leave the Tokuyama area. There are severe penalties (Y100,000) for being found ashore by the Authorities without a Landing Pass.

Pilotage: The Inland Sea Pilot who boarded at Seki Saki also acted as Harbour Pilot, boarding from a fast launch with the vessel making about 4 knots. Oita Port Radio, in the first Western bay of the Inland Sea after passing through the Hayasui Seto entrance, called on VHF Channel 16 to confirm the vessel's nationality and ETA.

For a vessel of our size (see "Berthing"), pilotage is at daylight High Water only, using 3 tugs and the Eastern dredged channel into Tonda Port. Departure is during daylight hours only (pilot available apparently 0630 – 1830 hrs. during June, although ours wasn't ordered by the Charterers' Agents until 0800 hrs.). Vessel was swung off the berth by 2 tugs and proceeded to sea, again by the Eastern Channel, there being a substantial 'corner' to negotiate in the dredged channel on the Tokuyama section of the port.

Health: We could not get Radio Pratique as the Authorities required the number of the vessel's Sanitary Certificate. However, after berthing, we were unable to ascertain just what this Certificate was. The number of our Derat Exemption and type and make of the sewage system did not satisfy this question either.

Berthing: We were probably one of the larger vessels to berth at the Toyo Soda Salt Pier, discharging 31,536 metric tons of coal on dimensions – length 177 m., beam 27.8 m., draft 10.5 m. and of 20,096 gross tons. With large, engines-aft, bulk carriers there are problems with landing the gangway on the end of the jetty. A shore gangway cannot be used because of the travel of the Portainer-type discharging crane. Stevedores use a vertical steel ladder clipped over the sheer strake for access.

Access ashore through the Toyo Soda Cement Factory is prohibited to ship's crew and a Launch Service (Sampan) must be engaged, with the requisite timetable, for transport to Tokuyama, 15 minutes distant, the launch berthing at the Customs Pier.

This launch is also used for the Agent, watchmen, etc. and it may well be preferable to lower the off-side gangway to near the water as a means of access. The only permitted access to and from the launch via the vessel's gangway onto the wharf is by a badly bent vertical steel ladder at the end of the jetty.

Fresh Water: Not available from Toyo Soda Salt Pier, delivery can only be made by lighter, June 1983 price ¥770 per ton.

Storing: Mobile cranes are not allowed onto the wharf to work ship's stores, E/R spares, etc. and if these cannot be coped with by the vessel's own gear or stores crane, floating plant would have to be hired.

AUTHORITY: Shunan Port Administration Office, 111, Chikko-cho, Tokuyama City, Yamaguchi Pref. *Tel:* (0834) 21-1787.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo. Holme Ringer & Co. Ltd., c/o Sankyu Transportation & Engineering Co. Ltd., Shunan Branch, 12-7 Chikko-cho, Tokuyama-shi, Yamaguchi-ken. Cable address: Ringer Tokuyama. Domestic Telex: 6765-93 Sankyu J. Tel.: Tokuyama (0834) 22-0039.

TOKYO: 35.43 N. 139.46 E. (See Plan)

DOCUMENTS:
4 copies Inward/Outward Declaration – (Form C.2000 prepared by Agent).
1 copy Berth Application (normally prepared by Agent).
3 Cargo Manifest (Form C.2030 prepared by Agent).
1 List Ship's Stores (Form C.2040).
2 Parcel List.
5 Passenger Manifest (Form C.2070).
5 Crew Manifest (Form C.2060).
1 Statement by Master (Form C.2020).
1 Declaration for Payment Tonnage Dues (prepared by Agent).
1 Maritime Declaration of Health.
1 Application for Shore Passes (prepared by Agent).
2 Baggage Lists (Form 5370).

PILOTAGE: 12 hours advance notice of ETA required. Pilot boats named Musashi, Takao, Tsukuba and Ayase. No light or sound signals, use ship's radio in case necessity arises. Address: Tokyo Pilot Association, 3-26-82 Kaigan, Minato-ku, Tokyo (at the Southern tip of the Shibaura Wharf). Tel: 453-1691.

Pilot boards vessel outside harbour. Vessel awaits Pilot around "Quarantine Anchorage".

Vessels requiring a Pilot for the Uraga Channel should radio request to Anjin Yokosuka advising ship's details and arriving time at No. 1 Uraga Channel Light Buoy. Uraga Channel Pilot embarks 3 – 5 miles S.S.E. of Kannonsaki Lighthouse, and will disembark on arrival at destination port limits. Applications for Uraga Channel Pilot should reach pilot office 24 hours before vessels arrival at No. 1 Uraga Channel Light Buoy.

Vessels of 10,000 gross tons or more should give "Notification of Traffic" to ensure safety of their navigation in or near Uraga Suido and Nakanose traffic routes (normally by Agent).

ADVANCE APPLICATIONS: Passenger ships and large vessels using mooring facilities must submit applications for use of facilities to port managers (the Port and Harbour Bureau of Tokyo Metropolitan Government) through shipping firms or Agents 3 days before entry into port so that they may have berths designated.

When they want to use anchorage facilities, they must submit applications for use of anchorage areas to Tokyo-Yokohama Port Director (the Port and Harbour Section of the Tokyo Maritime Safety Agency) to have anchorage sites designated. Small vessels of less than 300 gross tons do not need to submit anchorage application.

When ships of over 500 gross tons want to enter port at night (from sunset to sunrise), must submit applications in advance to Port Director and receive permission. Copy of written permission given to captain of ship when ship has entered port.

A ship carrying explosives or any other dangerous cargo must submit 2 copies of application in advance for permission to use port to Port Director. Such ships required to stay outside port in No. 3 Area. However, they will be allowed to enter port when Port Director considers it allowable.

RESTRICTIONS: No. 1 Fairway is long and narrow (4,200 m. × 300 m.) and carries considerable traffic. Vessels under 500 tons not permitted use Fairway when vessel over 5,000 tons is in transit. Depth 12 m.

Container Vessels: May enter from sunrise till 2400 hrs. and may leave at any time.

ANCHORAGES: See "Advance Applications".

Quarantine Anchorage on starboard hand of No. 1 Fairway.

Sector "A" is a triangular sea area formed by line passing through point 180° and 400 m. from Light Buoy No. 16 and point 105° and 240 m. from same light buoy. Accommodates one 1,000 ton class ship or 2 ships of 500 ton class or smaller.

Sector "C" (263,330 sq.m.) is a space between Harumi Wharf and Toyosu Wharf. Accommodates five 2,000 ton class vessels.

Sector "D" (141,350 sq.m.) sea area enclosed by line drawn from point 217° and 400 m. from Northwestern tip of Tsukishima Fishery Base through No. 8 Mooring Buoy. No. 15 Buoy and Southern tip of Tsukishima Fishery Base. Accommodates 5 vessels smaller than 1,000 tons, but 2 if vessels larger than 700 tons.

MAX. SIZE: Draft: General/Bulk: 7.0 m. for Toyosu; 10.0 m. for Shinagawa, Harumi and buoys; 10.0 m. for Land-lot No. 13 and 15; 12.0 m. for Oh-i and Aomi.

Tide: These drafts are at low water. The difference between high and low water level is about 2 m.

Tankers: Tokyo Gas Wharf (Toyosu) Max. d.w.t. 23,000. Max. draft 11.0 m.

HEALTH: Radio Agent for Free Pratique not less than 12 hours and not more than 36 hours before arrival, advising full details of vessel and health condition on board. When Free Pratique is granted by radio vessel will be required to submit the following documents to Quarantine Officer on arrival:

Maritime Declaration of Health.
Crew List.
Passenger List.

The following vessels will not be able to get Radio Pratique:

A vessel that has been in contact with an infected area or a suspected infected area within 15 days of arrival.

If a vessel has on board any case, or suspected case, of infectious disease within 15 days of arrival.

If a vessel does not possess a valid Derat or Derat Exemption Certificate.

Medical inspection of plants: When a report is received in advance from a ship by telegraph or other means of communication, Tokyo Office of the Yokohama Plant Disease Prevention Station must be notified by telephone or verbally in request for an on-the-spot inspection of plant in question.

Medical inspection of animals: When a report is received from a ship in advance by telegraph or other means of communication, the Tokyo Branch or the Haneda Branch of Animal Disease Prevention Station must be notified by telephone or verbally in request for an on-the-spot inspection of the animals.

RADIO: Vessels entering are watched at all times at Torigasaki, the entrance gate to Tokyo Bay, and record of passing the point is taken. As each ship passes point, this is immediately communicated by VHF radio telephone to head office of Tokyo Signal Communications Company. From here news communicated on normal telephone or on exclusive direct call telephone to interested parties (also see "VHF").

Recommended Master communicates with Agents through Choshi Radio or Nagasaki Radio which covers all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

VHF:

A. Transmitting antenna:	Located 39° 26′ N. 139° 39′ E.
B. Type:	Single communication – Yagi type. Plural communication – Corner reflector type.
C. Direction:	Southern part of entrance to Tokyo Bay and Port of Tokyo.
D. Frequency class:	F3.
E. Frequency:	Simplex communication – 156.6 MHz, Channel 12 156.7 MHz, Channel 14 156.8 MHz, Channel 16 (for calling, answering and safety) Duplex communications – 161.6 MHz, Channel 20 161.7 MHz, Channel 22
F. Antenna power:	50 W.
G. Call sign:	Tokyo Port Radio.
H. Range:	Approx. 100 km. (straight range) S.E. side – About 20 nautical miles South of Nojimazaki. S.W. side – About 5 nautical miles North of Oshima Island. North side – Tokyo Port and Chiba Port.
I. Operating time:	All times.

Ship Telephone: Uses VHF and is a service between navigating or anchored ships and subscriber telephones on land, and between ships connected via base station on land. Communicating sphere approximately 50 km. to 100 km. from base station. Base stations located so as to allow communication with any ship sailing along Japanese coasts.

Charges for device: ¥1,000 for 1 telephone set and actual cost for use by ship.

Service charges: (in case Japan Telegraph and Telephone Public Corporation installed the unit) ¥40,000 a month for long term, ¥4,000 a day for short term.

Call charges: Within specified call area for ship telephone in general – ¥180 up to 3 minutes and additional ¥60 per minute after the 3 minutes.

TUGS: The port has 2 tug companies: (i) Toko Service Co. Ltd., 3-25-8, Kaigan, Minato-ku, Tokyo. Tel: (452) 4781. (ii) Shibaura Tsusen Kaisha Ltd., 3-1-3, Kaigan, Minato-ku, Tokyo. Tel: (455) 1461. Upon notification to either, tugs will be waiting in neighbourhood of scheduled berth. Ship's lines to be used.

BERTHING: Any vessel entering port required to:

(1) Submit 1 each of "Declarations Inward/Outward of Vessels" to TMG and TMSA. See "Documents".

(2) Submit "Application for Berth" to TMG. See "Documents".

(3) Submit "Application for Designation of Anchoring Site" to TMSA (Form No. 13) regarding anchoring area.

Berthing will be in order of arrival, passenger and special cargo vessels excepted.

Name of Wharf	*Length* (m.)	*Depth* (m.)	*No. of Berths*
Shinagawa (Foreign Trade)	585	10.0	3
Shinagawa (Domestic Trade)	476	8.0	3
Shinagawa Container Terminal	558	10.0	3
Shibaura	910	7.8	7
Hinode	564	6.7	6
Takeshiba	309	6.7	3
Tsukishima	260	7.5	2
Harumi	1,444	9 – 10.0	8
Toyosu	800	7 – 10.0	8
Ariake Terminal	750	5.0	10
Oh-i Marine Products Wharf	450	12.0	2
No. 15 Lumber Wharf	720	10.0–12.0	3
Oh-i Container Terminal	2,300	12.0	8
Odaiba Terminal	1,800	10.0	9
Aomi Container Terminal	300	12.0	1

There are many private wharves and other smaller public wharves in use and under construction.

STEVEDORES: Advance advices should be made 24 hours at latest before vessel's arrival order arrange necessary gangs.

Discharge rates (approx.):

(a) Iron, steel and scrap, using crane or magnet, about 1,000 tons/day.
(b) Coal, crane and bucket, 1,500/2,000 tons/day.
(c) Ores, grabs and bulldozers, 1,000 tons/day.
(d) Timber, 1,000 tons/day.
(e) Grain, crane with bucket or suction, 1,000 tons/day.

MEDICAL: Hospitals, clinics and all specified facilities. Advance notice not necessary.

TANKERS: No slop discharge facilities (see "Services"). One tanker berth only. Products handled, Naphtha and crude oil. Shorelines, one 12 in. for each product. Discharge rates 1,000 t.p.h. (Naphtha) 900 – 1,000 t.p.h. (Crude).

FIRE PRECAUTIONS: (Tankers).

1. Must enter port at dead slow speed preceded by patrol boat of TMSA, 1 tug boat each side of vessel and followed by fire patrol boat.
2. Engine to be kept ready for immediate use in case of emergency.
3. Tow lines to be placed over bow and stern with eyes close to water surface.

Note: No vessels allowed alongside a tanker during loading or discharging.

DEPARTURE PROCEDURE: Ship over 300 tons departing must hoist signal in daytime and 2 white lamps at night and make 2 prolonged blasts of whistles or siren 30 minutes before starts to move and then act according to signals given by signal station on Shibaura Quay. Departure notice must be submitted to Maritime Safety Agency and port managers (operations Section of Port and Harbour Bureau). Foreign ships must submit required documents in addition to above notice to Tokyo Custom House, Immigration Control Office.

CARGO HANDLING FACILITIES:

Wharf/Terminal	*Equipment*	*Capacity*	*Cargo Handled*	*Remarks*
Oh-i Terminal	16 container gantries	30.5 tons	Containers	Straddle carriers and transtainers available.
Shinagawa Container Terminal	1 container gantry 2 container gantries	24.5 tons 30.5 tons	Containers	Ro-Ro facilities, Straddle carriers available.
Shinagawa (Foreign Trade)	2 unloaders 1 belt conveyor	6.4 tons 600 t.p.h.	Machinery, sugar, fruit.	3 transit sheds (18,118 sq.m.) Open storage 14,451 sq.m.
Shibaura (Foreign Trade)			Paper, cement, fertiliser, feed grain	2 transit sheds (4,665 sq.m.) Open storage 2,104 sq.m.
Hinode Terminal			Salt, paper, soda ash.	9 transit sheds (19,583 sq.m.) Open storage 6,806 sq.m.
Tsukishima Terminal			Marine products	
Harumi Terminal	4 portal jib cranes	5 tons	Sugar, wheat, fruit, marine products.	Passenger ship terminal at Berth "HL"
Toyosu Energy Terminal			Gas, steel, coal, general cargo.	
Ariake Terminal			Gravel, sand, lumber, construction materials.	Open storage 92,163 sq.m.
Odaiba Terminal	2 gantry cranes at Berth "AB"	10 tons	General cargo, steel, timber, fruit.	9 warehouses (64,766 sq.m.)
Terminal 15			Timber.	Storage capacity 400,000 tons. Open storage yard 254,246 sq.m.
Aomi Container Terminal	2 gantry cranes		Containers	6 straddle carriers

FRESH WATER: Water supply from hydrant by Tokyo Metropolis, and waterboat by private management.

(a) Water supply on wharves	
Application	Bureau of Port and Harbour Offices in charge of each wharf.
Work of water supply	Tokyo Port Service Association.
(b) Water supply by water boat	
Extra charge	Overtime from 0600 to 0800 50%
	from 1700 to 2200 50%
	from 2200 to 0600 100%
	Special district 50%
	Festival day 50%

In the case of less than 20 tons per time, it will be considered 15 tons supply.

FUEL: All grades available. 24 hours' notice required.

GANGWAY/DECK WATCHMEN: Necessary only in the case of valuable cargo.

OPENING/CLOSING HATCHES: Normally by crew.

CUSTOMS ALLOWANCES: (Tobacco) 200 cigarettes a week. (Wine and/or spirits) 760 cc's per crew member per week.

IDENTIFICATION CARDS: Not required.

CONSULS: Most countries have embassies and consuls in Tokyo.

REPAIRS: *Ship Repairer:* Ishikawajima-Harima-Juko Co. Ltd. Tel: 03(244) 5670, Telex: J22232 (Ichico), has 2 dry docks for vessels of 11,000 and 23,000 d.w.t. and slipways from 8,000 to 60,000 d.w.t. capacity.

DRY DOCKS: Largest dry dock: length 180 m.; width 24 m.; depth 7.27 m. Capable of accommodating vessel of 16,750 gross tons.

Also 1 other dry dock for ocean-going vessels.

SURVEYORS:

American Bureau of Shipping, Nihon Bldg., 6-2 Ootemachi 2, Chiyoda-ku, Tokyo 100. Tel: 279-7992/6.

Lloyd's Register of Shipping, No. 32 Mori Bldg., 4-30 Shibakoen 3, Minato-ku, Tokyo 105. Tel: 438-0481.

Nippon Kaiji Kyokai, 28-2, Hamamatsu-cho, Minato-ku, Tokyo 108. Tel: 434-2341.

AIRPORT: Distance to new Tokyo International Airport (Narita Airport), approx. 60 km.

TIME: GMT plus 9 hours. Permanent.

HOLIDAYS: National Holidays: New Year's Day (Jan. 1st); Adult Day (Jan. 15th); Foundation Day (Feb. 11th); Vernal Equinox Day (around March 21st); Emperor's Birthday (April 29th); Constitution Commemoration Day (May 3rd); Children's Day (May 5th); Respect-for-Age Day (Sept. 15th); Autumnal Equinox Day (around Sept. 23rd); Physical Education Day (Oct. 10th); Culture Day (Nov. 3rd); Labour Thanksgiving Day (Nov. 23rd).

No cargo work on 1st or 3rd Sundays of each month, and no work from 31st December to 3rd January inclusive. Cargo work can be arranged on all other days including National Holidays.

POLICE/AMBULANCE/FIRE: Tokyo Water Police, 5-8-36, Konan, Minato-ku, Tokyo. Tel. (433) 2411. Call Fire Stations for ambulances. Tokyo Water Fire Station, 5-1-23, Kachidoki, Chuo-ku, Tokyo. Tel. (534) 0119.

TELEPHONES: (also see "VHF").

Installed on ships moored at piers or jetties to allow telephone communications between ships and subscriber telephones on land and between ships.

BANKS: Sumitomo Trust & Banking Co., Ltd. Tel: 278-3131. Telex: J28631, 02226049.

Yasuda Trust & Banking Co. Ltd. Tel: 278-8111. Telex: J2223828 Ysdtbt.

Dai-Ichi Kangyo Bank, Ltd. Tel: 596-1111. Telex: J22379, J22315.

The Kyowa Bank Ltd. Tel: 287-2111. Telex: J24275.

Mitsui Bank, Ltd. Tel: 501-1111. Telex: J22378, J22559, J22643, J22644.

Sanwa Bank Ltd. Tel: 216-3111. Telex: J22384.

Mitsubishi Trust & Banking Corp. Tel. 212-1211. Telex: J24259.

The Nippon Trust & Banking Co. Ltd. Tel: 272-1261. Telex: J24197.

Toyo Trust & Banking Co. Ltd. Tel: 271-7881. Telex: J22717. Tytbki.

Industrial Bank of Japan, Ltd. Tel: 214-1111. Telex: J22325.

Long-Term Credit Bank of Japan, Ltd. Tel: 211-5111. Telex: J24308.

Nippon Credit Bank, Ltd. Tel: 263-1111. Telex: J26921.

Branch Offices of Foreign Banks:

North America:

Irving Trust Company (Tokyo Branch). Tel: 595-1131.

Bank of America National Trust and Savings Association. Tel: 214-0241.

American Express International Banking Corporation. Tel: 504-3341.

Wells Fargo Bank, N.A. Tel: 214-1771.

Crocker National Bank. Tel: 211-7241.

Chemical Bank. Tel: 214-1351/9.

Continental Illinois National Bank and Trust Company of Chicago. Tel: 216-1661.

Seattle First National Bank. Tel: 212-6481.

Security Pacific National Bank. Tel: 214-2721.

Chase Manhattan Bank: Tel: 214-3361.

Rainier National Bank. Tel: 214-5781.

National Bank of Detroit. Tel: Tel: 214-7301.

Bankers Trust Company. Tel: 214-7171.

The First National Bank of Chicago. Tel: 245-1021.

Citibank, N.A. Tel: 279-5411.

The First National Bank of Boston. Tel: 211-2611.

Manufacturers' Hanover Trust Company. Tel: 242-6511.

Marine Midland Bank, N.A. Tel: 216-0531.

Mellon Bank, N.A. Tel: 216-5861/4.

Morgan Guaranty Trust Company of New York. Tel: 214-2761/8.

First Interstate Bank of California. Tel: 211-0751/9.

Europe:

The Chartered Bank. Tel: 213-6541.

Grindlays Bank, P.L.C. Tel: 271-1151.

National Westminster Bank, Ltd.

Barclays Bank International, Ltd. Tel: 214-3611.

The Hongkong and Shanghai Banking Corporation. Tel: 211-6461.

Midland Bank, Ltd.Tel: 284-1861.

Lloyds Bank International Limited. Tel: 214-6771.

Banca Commerciale Italiana. Tel: 242-3521.

Algemene Bank Nederland, N.V. Tel: 211-1760/9.

Amsterdam Rotterdam Bank. Tel: 284-0701/2.

Credit Suisse. Tel: 215-1681.

Swiss Bank Corporation. Tel: 214-1731.

Union Bank of Switzerland.Tel: 214-7471.

Westdeutsche Landsbank Girozentrale.Tel: 216-0581.

Commerzbank, A.G Tel: 502-4371.

Banque de Paris et des Pays-Bas S.A Tel: 214-5881.

Societe Generale de Banque. Tel: 287-0481.

Deutsche Bank, A.G. Tel: 214-1971/6.

Dresdner Bank, A.G. Tel: 214-5961.

Bayerische Vereinsbank Aktengesellschaft. Tel: 284-1341.

Credit Lyonnais. Tel: 214-4561.

Societe Generale. Tel: 503-9781.

Banque Nationale de Paris. Tel: 214-2881.

Banque de L'Indochine et de Suez. Tel: 582-0271.

Union de Banques Arabes et Francaises–U.B.A.F. Tel: 241-5945.

Asia:

Bank of India.Tel: 212-0911/3.

State Bank of India.

Bank Negara Indonesia.Tel: 214-5621/5.

Oversea-Chinese Banking Corp., Ltd. Tel: 214-2841.

SERVICES: Two tank cleaning companies available with barges of capacity 100 tons for disposal of residues. All other usual services available.

SHORE LEAVE: Crew members allowed ashore upon ship Master's request to Tokyo Immigration Office if have valid Passports or Seaman's Pocket Ledgers. In case a crew member has a criminal record or has been expelled from Japan, he will not be allowed ashore.

PORT REGULATIONS: Maintenance of order in Port of Tokyo is under the responsibility of TMSA in accordance Port Regulation Law. In case of an occurrence of disaster, TMSA and the Tokyo Water Fire Station will take charge of refuge, rescue and fire fighting.

DELAYS: Congestion in the port. Bad weather.

DEVELOPMENTS: 48 public wharves, 2 container berths (Obaiba Container Terminal: length 600 m. depth 12.0 m.), 2 car ferry berths, 5 passenger boat berths, 7 timber berths, 12 berths for dangerous cargo and 20 specialised berths to be constructed.

Orange juice terminal to be constructed.

AUTHORITY: Bureau of Port and Harbor of the Tokyo Metropolitan Government, 8-1 Marunouchi 3-Chome, Chiyoda-ku, Tokyo. *Tel:* 03-211-7949. *Telex:* J 33346 Portokyo. *Contact:* Port Promotion Section.

AGENT: Dodwell Tramp Agencies, CPO Box 297, Togin Building, 4–2, 1-chome, Marunouchi, Chiyoda-ku, Tokyo. Tel. (03) 211-2141. Cable Address: Dodtramp Tokyo. International Telex: J22274, J22602 and J24469.

TOMAKOMAI: 42.35 N. 141.35 E. (See Plan)

PILOTAGE: Not compulsory. Pilots board at the point of 500 m. off from breakwater.

RESTRICTIONS: Berthing and unberthing possible day and night.

MAX. SIZE: See "Berthing".

HEALTH: Radio Pratique available. Vessels usually anchor at Tomakomai, where the Authorities board and grant Free Pratique.

TUGS:

Name	*Gross Tonnage*	*Engine Type*	*Nom. Shaft horsepower*	*Owner*
Tomakomai Maru	115.58	Diesel	1,100	Tomako Service Co., Ltd.
Azuma Maru	197.74	"	3,200	"
Kasuga Maru	135.00	"	2,400	Tomakomai Kaiun Co., Ltd.
Hokuto Maru	298.92	"	4,000	"
Iburi Maru	190.22	"	3,200	"
Hokuyo Maru	195.38	"	2,600	"
Atago Maru	187.67	"	2,900	Kitanihon Eisen Co., Ltd.
Hercules	272.19	"	4,000	"

BERTHING: Public Facilities:

Name of Berth	*No. berths*	*Length (m.)*	*Depth (m.)*	*Berthing Capacity (d.w.t.)*	*Principal goods handled*
Wharves: (Western District)					
East Wharf No. 1-4	4	660	−9.0	10,000	Coal (Capacity 400 t.p.h.)
East Wharf No. 5-6	2	260	−9.0	10,000	Cement, iron & steel products
West Wharf No. 1-4	4	660	−9.0	10,000	Paper pulp, iron & steel products
North Wharf No. 1-2	2	260	−7.5	5,000	Paper pulp, motor vehicles
North Wharf No. 3-4	2	180	−5.5	2,000	Iron & steel products
South Wharf No. 1-2	2	370	−10.0	15,000	Paper pulp, iron & steel products
South Wharf No. 3	1	195	−11.0	20,000	Wood chips & pulp
Central-South Wharf No. 1	1	240	−12.0	30,000	Fertilisers & feeding stuffs
Central-South Wharf No. 2	1	185	−10.0	15,000	Limestone, fertiliser & feeding
	1				stuff
Central-South Wharf West	1	165	−9.0	10,000	Cement
Central-Nth. Wharf No. 2-3		260	−7.5	5,000	Iron & steel products, gypsum,
	1				wood materials
Central-North Wharf No. 4	1	90	−7.5	5,000	Iron & steel products
Yufutsu Wharf No. 1	1	280	−12.0	30,000	Wood chips
Yufutsu Wharf No. 2	1	185	−10.0	15,000	Containers
Yufutsu Wharf No. 3	1	130	−7.5	5,000	Containers
Yufutsu Wharf No. 4	1	130	−7.5	5,000	Containers
Yufutsu Wharf No. 5		240	−12.0	30,000	Containers, 40 ton gantry crane
Central-North Wharf No. 1	1	185	−10.0	15,000	Wood material
Fishing Port District No. 1	1	55	−5.0	500	Marine Products

Name of Berth	No. berths	Length (m.)	Depth (m.)	Berthing Capacity (d.w.t.)	Principal goods handled
Wharves: (Eastern District)					
Central Wharf	4	740	−10.0	15,000	Machinery
Central Wharf	6	780	−7.5	5,000	Machinery
East Wharf	2	480	−12.0	30,000	Coal, etc.
East Wharf	6	780	−7.5	5,000	Coal, etc.
Dolphin Berth					
Timber Port District Dolphin	2		−10.0	15,000	Wood Material

Private Facilities:

Name of Berth	No. berths	Length (m.)	Depth (m.)	Berthing Capacity (d.w.t.)	Principal goods handled
Wharves:					
Tomakomai Industrial Port Development Co., Ltd.	3	669	−8.5	13,000 g.r.t.	Ferry vessels
Dai Nippon Ink & Chemical's Ink Co., Ltd.	1	185	−7.5	5,000	Chemical Industrial Products
Nikkei Tomakomai Co., Ltd.	1	211	−12.0	15,000	Alumina, aluminium, coke, metal
Nikkei Tomakomai Co., Ltd. Central Wharf	1	200	−14.0	65,000	Bauxite
Tomakomai Kyodo Power Co., Ltd.	1	51.6	−10.0	5,000	Machinery, heavy oil
Soda Group	2	490	−10.0	15,000	Sea salt, etc.
Tomakomai Chemical Co.	2	330	−10.0	15,000	Sulphuric acid, ore
Hinode Chemical Industrial Co., Ltd.	2	500	−10.0	15,000	Caustic soda, Petroleum, products
Sumitomo Metal	1	165	−7.5	5,000	Iron & steel products
Maruichi Steel Tube Ltd.	1	185	−7.5	5,000	Iron & steel products
Nippon Steel Corporation	2	374	−7.5	5,000	Iron & steel products
Nippon Kokan K.K.	1	185	−7.5	5,000	Iron & steel products

TANKERS:

Name of Berth	No. of berths	Length (m.)	Depth (m.)	Berthing Capacity (d.w.t.)	Product handled
Tomakomai Futo Co.	3	390	−7.5	5,000	Petroleum products, heavy oil
Nikkei Tomakomai Co., Ltd. Pier	1		−14.0	70,000	
Oji Paper Co., Ltd. Pier	1		−7.5	5,000	Heavy oil
Tomakomai Kyodo Thermal Power Co., Ltd. Pier	1		−7.5	5,000	Petroleum products
Idemitsu Kosan Pier (Partly completed)	13		−7.5	5,000	Petroleum products
Petroleum Distribution Base Pier					
Joint Oil Terminal Wharf	4		−7.0	4,000	Petroleum products
Idemitsu Hokkaido Sea Berth	1		−24.0	250,000	Crude oil

Report:
Idemitsu Hokkaido Sea Berth (Discharging Terminal):
Location: Lat. 42° 36′ 10″ N., Long. 141° 38′ 50″ E.
Operator: Idemitsu Kosan Co. Ltd.

Terminal operates 24 hours per day, 7 days a week. Ships moored and unmoored daytime weather or other circumstances permitting. Terminal will not be closed on any holidays.

Approaches: Clear and unimpeded from South. White and red striped high chimney (approx. position: Lat. 42° 38.1′ N., Long. 141° 35.6′ E.) makes a most conspicuous landfall. In poor visibility, in heavy fog or rain, radar reflector fitted at centre of Sea Berth can be located first by ship's radar and after that Sea Berth will be seen in direction from N.W. to S.E.

Westward of Sea Berth, there are many cargo vessels anchored.

Ships berthing starboard side alongside at the Sea Berth, proceed on course 314° observing transit of chimney and East Breakwater Lighthouse.

Anchorage: No strict boundary areas for anchorage but Master recommended to anchor 1 mile to 2 miles S.E. from Sea Berth.

Holding ground is good and depth about 27 m. – 30 m.

Pilotage: Sea Berth requires Pilot for berthing, no strict location of anchorage for ships awaiting Pilot in Tomakomai area, but should be as close as possible to port in accordance with harbour draft and communications.

2 Pilots will board ships over 30,000 g.r.t. Pilot uses tug boat for boarding.

Important Features: Ships arriving in Winter season (November-March) should pay special attention to the cold, as average temperature in that season ranges from −3°C to 5°C.

MEDICAL: Hospitals, doctors and dentists available.

FUEL: Domestic oil is available. Bonded oil will be brought from Hakodate with sufficient advance notice, when required.

FRESH WATER: (Public).

Wharf	Owner	No. of water Hydrants	Max. capacity t.p.h.
Coal Wharf	Tomakomai Port Authority (Tomako Services Co., Ltd.)	16	60
West Wharf	,,	16	40
East Wharf	,,	6	60
South Wharf	,,	11	40
North Wharf	,,	8	40
Central-South Wharf	,,	9	40
Central-North Wharf	,,	11	40
Yufutsu Wharf	,,	17	40

REPAIRS: Minor repairs possible.

SHIP SUPPLY SERVICE:

Tomako Service Co., Ltd., 9 Shiomi-cho, Tomakomai, Hokkaido, 053 Japan. 4 service boats.

Also see "Tugs".

DEVELOPMENTS:

1. The Projected Outer Block Facilities:

Area	Name	Plan(~1995)	Completed
Outer Harbour	East Breakwater Central Breakwater Inside Breakwater	5,350 m. 2,750 m. 1,030 m.	4,750 m. — —
East Fairway	A – Breakwater B – Breakwater East Breakwater West Breakwater	345 m. 360 m. 40 m. 20 m.	345 m. 304 m. 40 m. 20 m.
Central Waterway	Breakwater	200 m.	—

2. The Projected Harbour Facilities (Fairway, anchorage and waterway)

Area	Name of Harbour Facilities	Max. Vessels (d.w.t.)	Depth (m.)	Width (m.)
Outer Harbour	East Fairway	250,000	−24	540 – 740
	Central Fairway	15,000	−10	350 – 500
	Anchorage	250,000	−22	—
	Anchorage	150,000	−20	—
	Anchorage (Refuge wait)	—	—	—
East Waterway	Anchorage	60,000	−7.5~−14	550 – 700
	Water area for dangerous cargoes	5,000	−7.5	
Central Waterway	Anchorage	15,000	−7.5~−10	500

3. The Projected Berthing Facilities

(a) (Public):

District	Name of facilities	Depth (m.)	Max. Vessels (d.w.t.)	No.	Extension (m.)
East Waterway	East Wharf	−12 −7.5	30,000 5,000	1 6	240 780
Central Waterway	Central Wharf	−7.5~−10	5,000-15,000		1,130

(b) (Exclusive):

District	Name of facilities	Depth (m.)	Max. Vessels (d.w.t.)	No.	Extension (m.)	Remarks
Outer Harbour	250,000 D/W Class Dolphin	−22	250,000	1	—	Comp'd June '82 (10,000 D/W Class)
	150,000 D/W Class Dolphin	−20	150,000		—	
East Waterway	Terminal facilities for bulk cargoes	−14	60,000	1	280	Completed
	Berthing facilities for dangerous cargoes	−7.5	5,000	15	1,300	Comp'd Oct. '80
	Hokuden Pier	−7.5	5,000	1	143	(2,000 D/W Class)

AUTHORITY: Tomakomai Port Authority, 6-38, Minato-machi 1-chome, Tomakomai City, Hokkaido 053 – Japan. *Tel:* (0144) 34-5551. *FAX:* (0144) 34-5559. *Contact:* Takayuki Hotsubo, Executive Vice-President.

AGENT: Sub-Agents of Dodwell & Co., Tokyo. Narasaki Sogo-unyu Co., Ltd. Tomakomai Marine Branch, 13-24, 2-chome Motonakano-cho, Tomakomai City, Hokkaido. Cable Address: Narasaki Tomakomai. Domestic Telex: 09842-10 Nstoma J. Tel: (0144) 36-3636.

TOYAMA: 36.46 N. 137.13 E.

DOCUMENTS:

Ship's Register.
Last Port Clearance.
6 Crew Lists, including Passport Numbers.
6 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Not compulsory. No telegraphic address for pilot station, but Pilot arranged through Agent whom keep advised ETA which may be sent through Niigata Radio. Pilot boards about 1 mile off East Breakwater from small tug. In event bad weather recommend remain outside port until weather clears. Pilot available daytime only from sunrise to sunset.

ANCHORAGES: The harbour at the Jintsu river mouth is always calm. Covers about 125 acres, with depths of from 16.5 ft. to 33 ft. over mud and sand. Room at anchorage for at least 4 vessels over 5,000 gross tons. Anchoring position for ocean tankers is Lat. 36° 46.6′ N., Long. 137° 14.4′ E.

MAX. SIZE: Max. LOA 175 m., but may be extended by 2.0 m. – 3.0 m. if Pilot agrees.

Also see "Tankers".

HEALTH: Radio Pratique available. Formalities carried out at Quarantine Anchorage.

RADIO: (Also see "Pilotage"): Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: Usually join vessel at port entrance but can join outside harbour for large vessels. Used only when Pilot aboard.

"Nagata Maru" – 3,000 h.p. uses own lines free of charge.
"Nihonkai Maru" – 1,800 h.p. uses own lines free of charge.
"Raicho" – 2,600 h.p. uses own lines free of charge.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth	*Length* (m.)	*Depth* (m.)	*Draft* (m.)	*Capacity* (g.r.t.)	*Shore Cranes* (tons)
Public:					
Wharf No. 1	185	10.0	9.5	15,000	1×5
2	185	10.0	9.5	15,000	1×3
3	185	10.0	9.5	15,000	
4	160	9.0	8.5	10,000	
5	180	5.5	5.0	2,000	
6	90	6.0	5.5	3,000	
7	130	7.5	7.4	5,000	
8	185	10.0	9.5	15,000	
9	90	5.0	4.5	1,000	
No. 1 Dolphin	21	5.0		1,000	
No. 2 ,,	12	6.0		3,000	
No. 3 ,,	21	5.0		1,000	
Private:					
Onoda Cement Silo	100	7.0			
Hokuden Dolphin	18	8.0		5,000	

MEDICAL: No advance notice required unless urgent.
TANKERS: Max. size: 200,000 d.w.t., max. LOA, no limit, and max. safe draft 19 m. for Sea Berth of Nihonkai Sekiyu K.K., Toyama. Two lines, diameter 16 in. Reducing pieces supplied as necessary. Discharge rate 7,500 t.p.h.
DENSITY: 1015–1019 min./max.
FRESH WATER: Available ex-wharf at Nos. 1, 2, 3, 4 and 5 Wharves; average 40 t.p.h. Other berthing positions supplied by barge which ordered from Fushiki and is filled up at Toyama.
FUEL: Domestic oil is available. Bonded oil will be brought from Moji with sufficient advance notice when required.
FIRE PRECAUTIONS: Nihonkai Oil Co., Toyama, issue Safety Regulations to Master on arrival tanker sea berth.
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
CONSULS: None.
REPAIRS: Minor repairs only.
DRY DOCKS: Nihonkai Juko Co. Ltd., Toyama. No. 1 dock, used for construction. No. 2 dock, ship-building capacity: length, 104 m.; width 15 m.; depth, 1.8 m. Size of dock: length, 112 m.; width, 14.6 m.; depth, 4 m. Maximum building capacity, 4,000 g.r.t. No. 3 dock, ship-building capacity: length, 150 m.; width, 20.8 m.; depth, 5 m. Size of dock: length 168.2 m.; width, 21.88 m.; depth, 9.2 m. Maximum building capacity, 10,750 g.r.t.
AIRPORT: Toyama Airport, distance about 10 km. Five daily flights.
TIME: GMT plus 9 hours. Permanent.
POLICE/AMBULANCE/FIRE: Police, Toyama North Police Station, Toyama (0764) 37–7171; Ambulance, Toyama Iwase Fire Station, Toyama (0764) 37–7141 or 119; Fire, Toyama Fire Station, Toyama (0764) 37–7141.
TELEPHONES: No facilities for placing on board.
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 15 days, but 15 days' extension possible if ship stays longer.
AUTHORITY: Toyama Port Administration Office, 5, Kaigan-dori, Higashi-Iwasemachi, Toyama City. *Tel:* (0764) 37-7131. *Telex:* 5152256 Nextoy J. *Cables:* Nexco Toyamako. *FAX:* 0764-37-9945.

AGENT: Nippon Express Co. Ltd., (Toyama Port Branch) No. 61 Higashi-Iwasemachi, Toyama-City, Toyama-Pref, Japan. Tel: 0764-37-7111. Telex: 5152256 Nextoy J. Fax: 0764-37-9945. Cables: Nexco Toyamako.

TOYAMA SHINKO: 36.47 N. 137.10 E.

DOCUMENTS:
- Ship's Register.
- Last Port Clearance.
- 6 Crew Lists including Passport Numbers.
- 3 Passenger Lists.
- 1 Stores List.
- 1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agents will prepare Inward/Outward Declaration, 2 Cargo Manifests and 1 Cargo Manifest in transit using specific forms. Therefore ship's Agents should be provided with necessary information about details of cargoes in advance.
ANCHORAGES: No anchorage at Toyama-Shinko, therefore, if vessel required to await for berth or some other reason, use Fushiki Outer Anchorage ground where safe at all seasons with depth from 8 m. to 11 m. Sand and clay bottom. Room at anchorage for at least 6 vessels over 5,000 gross tons.
PILOTAGE: Pilot available any time during daylight. Not compulsory. No telegraphic address of pilot station, therefore, direct advice to local Agent always required. Pilot meets vessels 209° 2 miles off leading light of Fushiki Port, thence takes vessel to Fushiki Quarantine Anchorage ground, due to many fishing-nets on both sides of fairway. No Quarantine Anchorage ground established presently at Toyama-Shinko, therefore, every vessel obtains free pratique at Fushiki. If requiring to come into Quarantine Anchorage without taking Pilot, necessary to advise Agent in advance. In case of bad weather and need to await outside port, recommend cruising in Toyama Bay until sea abates. Bay area too deep to anchor and also danger of fishing-nets. When approaching position for Pilot, give exact ETA to Agent by using Niigata Radio and/or VHF to Fushiki Harbour Master. Small wooden pilot-boat painted yellow. No particular light or sound signals required. Even if the vessel already obtained Free Pratique in other port, need to approach the aforesaid position for Pilot, because of no Pilot position located in Toyama-Shinko.
RESTRICTIONS: Pilot not available during darkness. No restrictions on tide, because small tide in all seasons. If draft over port limitation, vessel enters port after making adjustment by lightening in Outer Harbour in Fushiki.
MAX. SIZE: Length 200 m., draft 34 ft. Tidal range is max. 0.45 m.
HEALTH: Formalities will be carried out at Fushiki quarantine anchorage.
RADIO: (also see "Pilotage"). Recommend Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.
TUGS: Tugs normally join vessel at port entrance, but sometimes in Fushiki Outer Harbour for larger vessels. Maritia-Maru (2,060 h.p.) and Nihonkai-Maru (1,800 h.p.) provide lines, free of charge and Raicho-Maru (760 h.p.) uses ship's line. In case public tug, i.e. Nihonkai-Maru and Raicho-Maru used, always require Pilot on board.
BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth	*Length* (m.)	*Depth* (m.)	*Draft* (m.)	*Capacity* (d.w.t.)
Public				
No. 1 Wharf	280	12.0 (14.0 m. in near future)	11.0	50,000
No. 2 Wharf	185	10.0	9.5	15,000
No. 3 Wharf	185	10.0	9.5	15,000
No. 4 Wharf	185	10.0	9.5	15,000
No. 5 Wharf	130	7.5	6.5	5,000
No. 6 Wharf	130	7.5	6.3	5,000
East Wharf	185	10.0	9.5	15,000
Private (Log carrier only)				
Toyama Sangyo	373	10.0	9.0	15,000
Toyama Chuo Mokuzai No. 1	200	10.0	9.0	15,000
Toyama Chuo Mokuzai No. 2	155	7.5	7.0	5,000
Toyama Chuo Mokuzai No. 3	210	8.0	7.5	8,000
Toyama Futo West	70	6.0	5.5	3,000
Toyama Futo Centre	170	8.0	7.0	5,000
Toyama Futo East	140	8.0	7.0	5,000
Koike Mokuzai	171	10.0	9.0	15,000

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700 –1900 hrs. 50% additional of basic stevedorage; 2100 – 0500 hrs. next morning 130% additional; Sundays/holidays 60% additional.
MEDICAL: No advance notice required unless urgent.
DENSITY: Average density between 1015 and 1019 in all seasons.
FRESH WATER: Available, from wharves No. 1, 2, 3, 4, 5 and 6 average 10 t.p.h. In other berths, to be supplied by barge, average 50 t.p.h.
FUEL: Domestic oil is available. Bonded oil will be brought from Kanmon area, with 1 week advance notice, when required.
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore, but no spirits.
CONSULS: None.
REPAIRS: Minor repairs only.
DRY DOCKS: No dry docks. Nearest available in Toyama.
REPATRIATION: Possible.
AIRPORT: Toyama Airport about 25 km. distance. Two regular services a day. ANA only.
TIME: GMT plus 9 hours. No alterations made to clocks during year.
HOLIDAYS: 1st May and New Year's Day, most probably from 31st December to 3rd January.
POLICE/AMBULANCE/FIRE: Police, Shinminato Police Station, Shinminato (07668) 2-3141; Ambulance, Shinminato Fire Station, Shinminato (07668) 2-3175; Fire, Shinminato Fire Station, Shinminato (07668) 2-3175.
TELEPHONES: No facilities for placing telephones on board.
SERVICES: Hold cleaning available.
SHORE LEAVE: Local Immigration Officers issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer. Attending from Fushiki Immigration Office, Fushiki, due to no office in Toyama-Shinko.

AUTHORITY: Toyama Prefecture, 1-7 Shinsogawa, Toyama City, Toyama Pref., Japan. *Tel:* (0764) 31-4111.

AGENT: Sub-agents of Dodwell & Co. Ltd. Tokyo, Fushiki Kairiku Unso Co. Ltd., 6-6 Fushiki-Minato-machi, Takaoka-Shi, Toyama-ken. Head Office in Fushiki; Takaoka (0766) 44-1300/9 and Toyama-Shinko Branch; Shinminato (07668) 4-3330. Cable address: Fushikikairiku Fushiki, only to Fushiki Head Office. Telex: 05155571/2 Kairik J.

TSUKUMI: 33.05 N. 131.52 E.

DOCUMENTS:
- Ship's Register.
- Last Port Clearance.
- 3 Crew Lists, including Passport Numbers.
- 3 Passenger Lists.
- 1 Stores List.
- 1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Not compulsory, but recommended unless Master well acquainted with locality. Pilot embarks vessel at anchorage, position Lat. 33° 05′ 30″ N., Long. 131° 54′ 00″ E. Request for Pilot made through Agent; Master to report ETA 24 hours prior arrival.

ANCHORAGES: Good holding anchorage available; depth of water about 25 m. Loading and/or unloading of cargo usually effected alongside wharves and in event of loading/unloading at anchorage, when rough weather prevails, difficulty sometimes experienced on account of swell from open sea. Therefore suggested that vessel anchor as close to shore as possible consistent with safety.

RESTRICTIONS:
- *(a)* Berthing: Night entry or berthing after nightfall, though not impractical (depending on weather) is not recommended unless special arrangements (stevedores, etc.) necessitate vessel's immediate berthing.
- *(b)* Departure: Night departure allowed, weather permitting, and subject Pilot's agreement.

MAX. SIZE: See "Berthing".

HEALTH: Vessels usually anchor in the Bay of Saganoseki or Saiki, where the authorities board and grant Free Pratique.

RADIO: Recommended Master communicates with Agents through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: 2 tugs, each 1,800 h.p.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agents mainly by radio.

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Capacity* (g./t.)
Todaka Pier No. 1	125	10.0	10.0	6,000
No. 2	125	9.0	9.0	6,000
Nittetsu Pier	160	10.5	10.5	23,000
Noshima Wharf	164	9.5	9.0	18,000 (d.w.t.)
No. 2 Wharf	121	8.5	8.0	10,000 (d.w.t.)
No. 1 Wharf	82	8.0	8.0	3,500
Noshima Pier	168	16.0	16.0	100,000 (d.w.t.)

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700–1900 hrs. (50% additional of basic stevedorage), 2100 – 0500 hrs. next morning (130% additional), Sundays/holidays (60% additional).

MEDICAL: No advance notice required unless urgent.

DENSITY: Average density about 1024.

FRESH WATER: Available from shore; water barge will be brought from Saiki, when required.

FUEL: Bonded oil will be brought from Moji or Matsuyama, when required at anchorage.

FIRE PRECAUTIONS: By Marine Security Guards.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo aboard.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: None.

REPAIRS: Local workshop available only for minor repairs.

REPATRIATION: Possible.

AIRPORT: Oita Airport; 1 hour from Tsukumi by train. Regular airlines: ANA, JDA, TAW.

TIME: GMT plus 9 hours. No alterations to clocks during year.

HOLIDAYS: 14th – 16th August.

POLICE/AMBULANCE/FIRE: Police, 110; Ambulance/Fire, 119.

TELEPHONES: No facilities for placing telephones on board.

SERVICES: No special services available, but if required will be arranged by Agent who calls from another port.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extensions possible if ship stays longer.

AUTHORITY: Usuki Doboku (Public Works) Office, 72-1, Aza Susaki, Oaza Usuki, Usuki City, Ohita Pref. *Tel:* (09726) 3-4136.

AGENT: Sub-agents of Dodwell & Co. Tokyo. Azuma Shipping Co. Ltd., Nakatsuru Bldg. 2nd Floor, 15-5, Semento-machi, Tsukumi-shi, Oita-ken. Cable Address: Ringer Tsukumi. Domestic Telex: 07755-77. Tel.: Tsukumi (09728) 2-2144.

TSURUGA: 35.40 N. 136.03 E.

DOCUMENTS:
- Ship's Register.
- Last Port Clearance.
- 3 Crew Lists, including Passport Numbers.
- 3 Passenger Lists.
- 1 Stores List.
- 1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Daylight hours only. Pilot arranged through Agent. Await Pilot at quarantine anchorage (see "Anchorages").

ANCHORAGES: Quarantine Anchorage is best area for anchoring to avoid heavy weather (being protected from the North by mountains). Position Lat. 35° 40′ 08″ N., Long. 136° 02′ 55″ E.

HEALTH: Radio Pratique available. Formalities carried out at Quarantine anchorage.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which covers all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: Join ship inside breakwater and use tug's line.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*LOA* (m.)	*Capacity* (g.r.t.)	*Shore Cranes* (tons)
Tsuruga Cement Wharf (T.C.W.)	150.0	7.5	—	150.0	6,000	1×18.5
Kanegasaki W. (K.W.) (Public)	205.0	9.5	8.6	180.0	18,000	1×6.4
Railway W. (R.W.) (JNR)	163.6	8.5	7.8	120.0	6,000	1×30.0 1×5.0
Horai Wharf (H.W.) (Public)	390.0	7.3	6.8	180.0	2×4,000	—
Kawasaki-Matsue Wharf (K-M.W.)	370.0	10.0	9.2	300.0	20,000	1×8.5

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700 hrs. – 1900 hrs. (50% additional of basic stevedorage), 2100 hrs. – 0500 hrs. next morning (130% additional), Sundays/holidays (60% additional).

MEDICAL: No advance notice required unless urgent.

TANKERS: No facilities for large tankers.

DENSITY: Average density through year 1023.

FRESH WATER: Available from wharf, and by barge.

FUEL: Bonded oil will be brought from Moji with sufficient advance notice, when required.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspectors ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: None.

REPAIRS: Minor repairs only.

AIRPORT: Distance 1 hour by train. 2 flights daily to Tokyo.

TIME: GMT plus 9 hours. Permanent.

POLICE/AMBULANCE/FIRE: Police, 2–4000; Ambulance and Fire, 119.

TELEPHONES: Not available for placing on board.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.

SERVICES: Hold cleaning.

AUTHORITY: Tsuruga Port Administration Office, 2-1, Sakura-Machi, Tsuruga City, Fukui Pref. *Tel:* (07702) 2-0369.

AGENT: Sub-Agents of Dodwell & Co., Tokyo. Tsuruga Kairiku Unyo Kaisha Ltd., P.O.Box 11, 10-2, Sakura-machi, Tsuruga-shi, Fukui-ken; Cable Address: Kairiku Tsuruga, Domestic Telex: 05176-693, Tel.: Tsuruga (07702) 2-3111.

UBE: 33.56 N. 131.15 E. (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists, including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agents should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Not compulsory but recommended unless Master well acquainted with area. No Harbour Pilot stationed at Ube but Inland Sea Pilot will attend.

Inland Sea pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to Pilot station. Inland Sea Pilot Association covers all inland sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from one of three Pilot stations dependent upon vessel's last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours' advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication available with Inland Sea Pilot Stations.

1. Wadamisaki, at entrance to Kobe (vessels transitting Kii Straits). Position Lat. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse. (Vessels transitting Bungo Channel). Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki Pilot Station.

3. Hesaki, at East side of Kanmon (Shimoneseki) Straits. Position Lat. 33° 56′ 24″ N., Long. 131° 03′ 12″ E.

ANCHORAGE: Sea bottom is mud.

Depth	4 m. – 7.5 m.	7.5 m. – 10 m.
Sheltered	73,000 sq.m.	233,100 sq.m.
Unsheltered	12,175,500 sq.m.	680,000 sq.m.

HEALTH: At first port of call in Japan, vessel must obtain Free Pratique. Quarantine Officers will attend vessel only from daylight to sunset and Master to show all Vaccination Cards, Derat Exemption Certificate. In case vessel arrives from cholera infected area within 10 days, Master must advise crew and passengers health condition to respective Quarantine Office through ship's Agents prior to arrival and close all soil pipes before entering port.

RADIO: Recommended Master communicates with Agents through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel to contact Choshi and Northbound to contact Nagasaki Radio respectively.

TUGS: "Naruto Maru" 2,800 h.p., "Nachi Maru" 2,800 h.p. and "Iris" 2,400 h.p. stationed at Ube. Other tugs available from Moji or Tokuyama. Tug's lines used at no extra charge.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agents mainly by radio.

Wharf	*Length*	*Depth*
Public Okinoyama Wharf	370 m.	10 m.
Public Shibanaka Wharf	185 m.	10 m.
Public Shibanaka East Wharf	152 m.	9 m.
Public Shibanaka New Wharf	260 m.	7.5 m.
Ube Cement Wharf	247 m.	9 m.
Ube Kosan Chisso Wharf	188 m.	9 m.
Ube Kosan Urea Wharf	223 m.	9 m.
Ube Kosan No. 2 Pier	131 m.	9 m.
Central Glass Wharf	162 m.	9 m.
Public Shinmachi Wharf	260 m.	7.5 m.

Wharf for Limestone:

Name of wharf: Okinoyama Limestone Wharf (Ube Kosan No. 5 Wharf). Length of wharf 165 m. Maximum safe draft 11.00 m. Maximum 30,000 d.w.t. Fairway 300 m. wide, 2.25 miles long, 8.80 m. deep, with shallow spot 8.40 m. at low water. Accessible max. draft 10.50 m. Facilities: Loaders × 2; 1,500 tons per unit/hour. Entry and Departure: Berthing/unberthing is practicable only during daytime. Deep draft vessel may unberth at high tide only.

STEVEDORES: At least 24 hours' prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agents advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agents, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700 hrs. – 1900 hrs. (50% additional of basic stevedorage), 2100 hrs. – 0500 hrs. next morning (130% additional), Sundays/holidays (60% additional).

MEDICAL: No advance notice required unless urgent.

RESTRICTIONS:

(a) Outer harbour: No restriction.

(b) Inner harbour: Berthing/unberthing is practicable only during daytime.

(c) Deep draft vessels may berth at high water only.

MAX. SIZE: See "Berthing" and "Tankers".

FRESH WATER: *(a)* Water barges available from Moji and supply about 50 t.p.h. *(b)* Water from wharf supply at Central Glass Ube Cement and Ube Chisso wharves.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

TANKERS: Seibu Sekiyu Co. Refinery.

(a) Geographical Location: Lat. 33° 49′ 48″ N., Long. 131° 13′ E. 163°, 11,400 m. from Motoyama Misaki.

(b) Entry Permission: Sea berth located outside harbour limit of Ube port and treated as a closed port. Vessels therefore required to obtain special permission for entry from Customs at any open port prior to arrival.

(c) Restrictions: Max. 230,000 d.w.t. Max. LOA 325 m. Max. safe draft 19.5 m.

(d) Diameter/No. of shore pipes: Float-sink hose: 16 in.×2 lines connecting to manifold; sub-marine hose: 20 in.×2 lines; submarine pipe-line: 48 in.×1 line.

(e) Discharging Rate: 7,800 t.p.h. (Crude oil).

DENSITY: 1025.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: None.

REPAIRS: Sasebo Heavy Industries Co., Ltd., Moji; Kitakyushu Iron Works, Tobata; Ube Dockyard Co., Ltd.

DRY DOCKS: None.

AIRPORT: 30 minutes by road.

TIME: GMT plus 9 hours. Permanent.

POLICE/AMBULANCE/FIRE: Police 110; Ambulance/Fire 119.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 day extension possible if ship stays longer.

SERVICES: All services available.

AUTHORITY: Ube Port Administration Office, 5-7, Minato-machi 1-chome, Ube City, Yamaguchi Pref. *Tel:* (0836) 31-3311.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo.

Dry Cargo: See "Moji".

Tankers: Uyeno Unyu Shokai, Yamaguchi Branch Office, Oaza Nishioki, Onoda-shi, Yamaguchi-ken; Cable address: Uyenoshell Ube, Domestic Telex: 6845-42, Tel. Ube (0836) 88-1171.

UNO: 34.29 N. 133.57 E.

DOCUMENTS:

Ship's Register.
Last Port Clearance.
6 Crew Lists, including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Inland Sea pilotage should preferably be arranged through Agent by cable via Choshi (Nagasaki) Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all inland sea ports. Pilotage is compulsory for vessels over 10,000 g.r.t. Pilots obtained from one of three pilot stations dependent upon vessels last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as harbour Pilots up to berth or anchorage at destination. Harbour Pilots available sunrise to sunset.

Note: VHF communication available with Inland Sea Pilot Stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transiting Kii Straits). Position Lat. 34° 34′ N., Long. 135° 08′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse. (Vessels transiting Bungo Channel.) Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki Pilot Station.

3. Hesaki, at East side of Kanmon (Shimonoseki) Straits. Position Lat. 33° 57′ N., Long. 131° 03′ E.

ANCHORAGE:

Harbour anchorage	*Bottom*	*Depth*	*Position from Tobisu Beacon*
No. 1 Anchorage (off shipyard)	Sand and/ or Sand/Shell	13.0 m.	323°–700 m.
No. 3 Anchorage (Max. LOA 180.0 m.)		23.0 m.	043°–1,300 m.
No. 4 (closed port)		21.0 m.	150°–500 m. (May-Sept.)
No. 4 (closed port)		21.0 m.	162°–820 m. (Oct.-April)
No. 5 Anchorage (Max. LOA 180.0 m.)		29.0 m.	023°–850 m.
No. 6 Anchorage (Max. d.w.t. 6,000)		21.0 m.	025°–1,300 m.

RESTRICTIONS: Vessel is only able to berth at time of slack water in Bisan Central Passage from daybreak to before sunset. Vessel's bottom clearance must be 10% of depth in passing through the passage and whilst in berth.

Mitsui Hibi Wharf and Hibi Public Wharf are closed-ports. Ship's crew members (including Master) must get hired launch (ferryboat) for going ashore, this being a Japanese Customs Law.

MAX. SIZE: See "Berthing".

HEALTH: Vessels usually anchor at Wada-Misaki (off Kobe), where the Authorities board and grant Free Pratique.

Quarantine Officials not stationed in the port, therefore, vessel has to pass a quarantine inspection at Kobe (Quarantine) Anchorage (Lat. 34° 38′ N., Long. 135° 11′ E.) when vessel coming through the Kii Channel, Matsuyama, Mizushima, Sakaide or any other "Q" port when coming through the Bungo Channel, or Mutsure "Q" Anchorage (Lat. 33° 58′ N., Long. 130° 52′ E.) when vessel coming through the Japan Sea.

Vaccination is available at local hospital. If vessel requires sanitary inspection, Officials come from Mizushima.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: Tugs join vessel at Outer Harbour area. Tug's lines used.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Length Overall* (m.)	*Capacity* (g.r.t.)
No. 1 Pier	270	5.8–8.0	7.1	180	10,000
No. 3 Pier	185	10	9.6	170	10,000
Hibi Public (Closed Port)	180	10	9.1	170	10,000
Mitsui Hibi (Closed Port)	176	13	12.0	176	30,000

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew.

MEDICAL: No advance notice required unless urgent.

TANKERS: None.

DENSITY: Winter 1022.7; Summer 1023.98.

FRESH WATER: Available ex-shore pipe. Available by water barge, 100 tons capacity from Mizushima.

FUEL: Available but not bonded. Bonded fuel is available from main ports or oil station.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered, gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 60 cigarettes to take ashore but no spirits.

CONSULS: No consuls available, but Marine Note of Protest can be attested by local notary public at Okayama.

REPAIRS: All types of deck and engine repairs possible.

DRY DOCKS: *Mitsui Engineering Shipbuilding Co. Ltd.:*

Dry dock	Length	Width	Depth	d.w.t.
No. 1	545 ft. 6 in.	76 ft. 1 in.	26 ft. 9 in.	20,500
No. 2	560 ft.	74 ft. 1 in.	26 ft. 9 in.	19,000
No. 3	670 ft.	103 ft. 3 in.	32 ft.	46,000

Mitsui floating dock, max. size 150,000 d.w.t.

REPATRIATION: Possible. Convenient route for crew joining is by train from Tokyo/Osaka to Uno via Okayama.

AIRPORT: Okayama Airport 25 km. Only domestic airlines; 3 flights to Osaka, via Tokyo, daily.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police (for emergency) Tel: 110; Ambulance Tel: 119; Fire Tel:119.

TELEPHONES: No arrangements for placing telephones on board.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 72 hours, but 72 hours' extension possible if ship stays longer. Pass may be used in Uno (Tamano City) area only.

AUTHORITY: Tamano Port Administration Office, 8-9, Uno 1-chome, Tamano City, Okayama Pref. *Tel:* (0863) 31-3211.

AGENT: Sub-Agents of Dodwell & Co. Ltd., Tokyo. Naigai Unyu Co. Ltd., Shokokaikan Bldg. 7350, Chikko Kaigan-dori Tamano-shi, Okayama-ken (706). Cable Address: Naigai Tamano. Domestic Telex: 5946-869. Tel: (0863) 31-2211.

WAKAMATSU: 33.54 N. 130.48 E. (See "Kanmon-Ko"). (See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists, including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Compulsory. Harbour Pilots and Inland Sea Pilots are available at the pilot station or quarantine anchorage. Mutsure Pilots Station: Lat. 33° 59′ 30″ N., Long. 130° 53′ 00″ E. Inland Sea pilotage should preferably be arranged through Agent by cable via Nagasaki Radio giving 72 hours' notice. Urgent correction of ETA outside business hours should be cabled direct to pilot station. Inland Sea Pilot Association covers all Inland Sea ports. Pilotage compulsory for vessels over 10,000 g.r.t. Pilots obtained from of 3 pilot stations dependent upon vessels last port of departure and at Master's discretion. Pilotage available throughout 24 hours and 72 hours advance notice preferred, thereafter advising any alterations. Most Inland Sea Pilots also act as Harbour Pilots up to berth or anchorage at destination.

Note: VHF communication available with Inland Sea pilot stations. Also see "Shipmaster's Report" before first port.

1. Wadamisaki, at entrance to Kobe (vessels transiting Kii Straits). Position Lat. 34° 34.09′ N., Long. 135° 11′ E. Telegraphic address "Anjin Kobe".

2. Sekisaki, 3 miles South of Sekisaki Lighthouse. (Vessels transiting Bungo Channel). Position Lat. 33° 13′ N., Long. 131° 54′ E. Telegraphic address "Anjin Saganoseki". In event bad weather, recommended vessels proceed for shelter as near as possible having due regard to safety, to Sekisaki Pilot Station.

3. Hesaki, at East side of Kanmon (Shimoneseki) Straits. Position Lat. 33° 56′ 24″ N. Long. 131° 03′ 12″ E.

ANCHORAGES: No. 5 section, Wakamatsu. Depth 9 m. – 11 m. Capacity (g/t), 15,000×2. Also quarantine anchorage.

RESTRICTIONS: Pilots not available after sunset. Entry and Sailing are controlled by the one-way signals as follows: *Entry:* 0800 to 1100 hrs.; 1300 to 1500 hrs. 1 hour before sunset to sunset. *Sailing:* 1100 to 1300 hrs.; 1500 hrs. to 1 hour before sunset. Sunset to 0800 hrs. Easterly winds prevail in warm season, dense fog prevails sometimes in Spring and Winter, but generally clears in a few hours in the morning. Tidal range about 1.5 m. and current in leading channel about 1.5 – 2.5 knots, but no current in port. Due to narrow channel leading to main harbour and shallow water at entrance of channel, length and draft of vessels are generally limited as follows:

Buoy: Ship's length overall, 165 m.; draft, 8.5 m.; 11,000 g.r.t

Fairway leading into main harbour about 200 m. wide and 2 miles long, running parallel to a breakwater and reclaimed land. In this channel, as in main harbour and fairway, vessels observe only one-way traffic and on an outgoing signal from the shore, wait outside for outgoing vessel until channel is cleared. Vessels with draft of more than 7 m. can enter/depart only at high tide. Entry permitted only from sunrise and vessel to be berthed before sunset. Night departure prohibited.

MAX. SIZE: See "Berthing".

HEALTH: Radio Pratique available. Formalities will be carried out at the anchorage. Quarantine station 105° – 2,800 m. (800 m. square) from Mutsure Lighthouse.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specially Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

TUGS: 2 tugs join vessel under Wakato Bridge at corner of fairway leading to main harbour.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth and Wharves	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Length Overall* (m.)	*Capacity* (g.r.t.)	*Shore Cranes* (tons)
Buoy B	210	8.5	7.6	165	15,000	—
Buoy C	220	8.5	8.4	160	10,000	—
Buoy E	160	8.1	8.1	160	10,000	—
Buoy H	150	6.4	6.4	110	2,500	—
Buoy I	150	6.4	7.0	110	3,000	—
Buoy L	220	8.6	8.5	165	10,000	—
Buoy M	150	6.7	6.0	110	2,000	—
Buoy N	200	6.7	6.7	160	7,000	—
Makiyama	140	7.0	6.8	140	*No limit	1×3, 2×2.3
Asahi Glass	150	8.5	8.5	150	,,	1×3, 1×2
Tobata Shoko (TW)	150	8.5	8.5	150	,,	—
Mitsubishi (Coal) OKG	160	8.4	8.4	160	,,	2×4
Chemical Ind. OKJ	180	8.3	8.3	160	,,	1 shiploader
Kurosaki OD1	140	8.0	8.0	150	,,	—
Kokyo Wharf OD2	120	7.0	7.0	120	,,	—
Dolphin Wharf						
HD 1 (Logs)		10.0	9.0	190	,,	—
HD 2 (Logs)		10.0	9.0	170	,,	—
HD 3 (Logs)		10.0	9.0	200	,,	—

*Subject to draft.

BRIDGES: Wakato Bridge. Height of mast limited to 38 m. for passing under bridge.

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700 – 1900 hrs. (50% additional of basic stevedorage), 2100 – 0500 hrs. next morning (130% additional), Sundays/holidays (60% additional).

MEDICAL: No advance notice required unless urgent.

TANKERS: No tanker berths.

DENSITY: Average density in port about 1019 – 1021 in Summer season; 1025/1026 in Winter season.

FRESH WATER: Available. Rate of delivery: 50 t.p.h. – 60 t.p.h. ex-barge. Minimum quantity at buoy, 10 tons; minimum quantity at No. 5 Section, 30 tons.

FUEL: Domestic oil is available. Bonded oil will be brought from Moji, Ube or Oita with sufficient advance notice, when required.

FIRE PRECAUTIONS: No tanker berth. Each tugboat is equipped with fire extinguisher system for attending emergency case at request.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS: See "Yawata".

REPAIRS: All grades deck and engine repairs afloat.

DRY DOCKS: None.

AIRPORT: See "Yawata".

TIME: GMT plus 9 hours. Permanent.

POLICE/AMBULANCE/FIRE: Wakamatsu Water Police, tel. 093-761-2731; Wakamatsu Police Office, tel. 093-761-2731; Ambulance/Fire: Wakamatsu Fire Department, tel. 093-761-4031; Defence/Rescue department, tel. 093-761-4353.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.

DEVELOPMENTS: Land reclamation N.E. Wakamatsu for discharge wharves (coal/iron ore). Depth to be 12 m.

AUTHORITY: Kitakyushu Port & Harbour Bureau, 2-7 Nishikaigan, 1-chome, Moji-ku, Kitakyushu-City 801, Japan. *Tel:* (093) 321-5941. *FAX:* (093) 321-5915.

AGENT: See "Tobata".

WAKAYAMA: 34.13 N. 135.08 E. (See Plan)

DOCUMENTS:
- Ship's Register.
- Last Port Clearance.
- 3 Crew Lists, including Passport Numbers
- 3 Passenger Lists.
- 1 Stores List.
- 1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: Wakayama-Shimotsu licensed Pilots. ETA advices to Agent. Pilot boards 1,500 m. – 2,500 m. off Wakayama Breakwater. Chart Nos. 1150 and 1143 (Japanese Maritime Safety Board). No pilot boat. Pilot boards from tug.

ANCHORAGES: For waiting Pilot and/or berth (nature of bottom, sand mixed with mud.) Four anchorage points for large vessels (ore carriers for Sumitomo Metal) over 30,000 tons gross are provided by the Port Authority. Agents must apply for one when required. The position of each from the lighthouse (flashing white) in the Southern sector of the port is as follows:

"A" – 3,000 m. – 255°
"B" – 3,500 m. – 272°
"C" – 4,100 m. – 283°
"D" – 4,800 m. – 292°

Other vessels are required to anchor in position (approx.) Lat. 34° 13′ 30″ N., Long. 135° 06′ 30″ E. or nearer the shore if possible. (Wakayama Log Carrier): 2,000 m. 245° and 230° from Red lighthouse; depth about 22 m.

RESTRICTIONS: Pilot available daytime only. Channel depth, (Southern Section) 9.0 m; (Northern Section) 14.0 m.

MAX. SIZE: (Wakayama Log Carrier): South Section, LOA 160 m., 20,000 d.w.t. draft 9.0 m.; LOA 200 m., 35,000 d.w.t., draft 10 m. (Sumitomo Metal Pier, South Section): LOA 300 m., 100,000 d.w.t. or 150,000 d.w.t. with part load, draft 14.0 m.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio or Kobe Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio or Kobe Radio respectively.

HEALTH: Radio Agent for Free Pratique not less than 12 hours and not more than 36 hours before arrival, advising full details of vessel and health condition on board. When Free Pratique is granted by radio vessel will be required to submit the following documents to Quarantine Officer on arrival:
- Maritime Declaration of Health.
- Crew List.
- Passenger List.
- Vaccination List.

The following vessels will not be able to get Radio Pratique:

A vessel that has been in contact with an infected area, or a suspected infected area within 15 days of arrival.

If a vessel has on board any case, or suspected cases, of infectious disease within 15 days of arrival.

TUGS: Tug assistance normally commences from outer harbour. Tug lines used and charge included in towage. 8 tugs available, up to 3,000 h.p.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

BULK HANDLING FACILITIES:

Berth	*Max. d.w.t.*	*Length (m.)*	*Depth (m.)*	*Cranes*
Sumitomo Metal A	18,000	172	9.5	7×700 t.p.h. 1×1,000 t.p.h.
Sumitomo Metal B	160,000	365	14.0	
Sumitomo Metal C	160,000	274	14.0	
Sumitomo Metal D	40,000	215	12.0	
Sumitomo Metal E	26,000	218 (LOA)	11.00 (Max. draft)	2×20 tons
Sumitomo Metal F	18,000	180 (LOA)	9.30 (Max. draft)	

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1630 – 2130 hrs. (60% additional of basic stevedorage), 2130 – 0400 hrs. next morning (130% additional), 0400 – 0830 hrs. (60% additional), Sundays/holidays (100% additional).

MEDICAL: No advance notice required unless urgent.

TANKERS: *Wakayama Northport (LPG Dolphin):* Sumitomo Metal: Max. 48,000 d.w.t., Max. LOA 230 m., Max. draft 12.0 m., 1×12 in. (butane), rate 2,700 kl.

DENSITY: 1025 – 1030.

FRESH WATER: Available alongside and Water boat, capacity 90 tons.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo on board.

OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. Cost per hour per gang depending on type of cargoes. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 200 cigarettes to take ashore for one week but no spirits.

CONSULS: None.

REPAIRS: Minor repairs only. Suwa Shipyard Co. Ltd.
Tel. 0734-31-1694.

DRY DOCK: None.

REPATRIATION: Possible.

AIRPORT: Itami, Osaka, about 3 hours by car.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

POLICE/AMBULANCE/FIRE: Police, 110; Ambulance/Fire, 119.

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 9 days, but 9 days' extension possible if ship stays longer.

DEVELOPMENTS: Breakwater under construction in the vicinity of the entrance to Wakayama No. 1 Area.

AUTHORITY: Wakayama Shimotsu Port Administration Office, 22, Chikko 6-chome, Wakayama City. *Tel:* (0734) 31-7266.

AGENT: *Wakayama North Port* (Sumitomo Steel Mills), Sumikin Kaiun Co. Ltd., c/o Sumitomo Kinzoku K.K., 1850, Minato, Wakayama City. Tel. Wakayama (0734) 55-5151. Cable Address: Shipsumikin Wakayama. Telex: 05542161 Smikai J, 05542162, 05542193.
Wakayama South Port (Lumber/log discharge), Shimamato Kaiun Co., Ltd., 7, 5-Chome, Chikko, Wakayama City. Tel: Wakayama (0734) 22-5111. Cable Address: Shimamoto Wakayama. Telex: 05542151 Simawk J.

YATSUSHIRO: 32.30 N. 130.05 E. (See Plan)

PORT LIMITS: The sea surrounded by the circle with a radius of 5,000 m. centred upon the triangulation point on Kagashima Island (28.7 m. high), the lines West to the respective bridges on the lowest Mae-kawa and Kuma-gawa, and the coast.

DOCUMENTS:
- 3 Crew Lists.
- 3 Passenger Lists.
- 1 Manifest.
- 1 Customs.
- 1 Stores List.
- 1 Health Document.
- 1 Bill of Lading.

PILOTAGE: Pilot station (acting also as an Agent for foreign vessels):

Yatsushiro Branch Office of the Nippon Tsuun K.K. located at 262-15 Minato-machi, Yatsushiro-shi, Kumamoto-ken. Tel: 09653-7-0011 or 7-0012.

Kokoku Unyu K.K. located at 262 Minato-machi, Yatsushiro-shi, Kumamoto-Ken. Tel: 09653-7-1101. Telex: 767503 Kounkij.

Yatsushiro Branch office of Kitakyushu Unyu K.K. located at 3-2 Tatema, Yatsushiro-shi, Kumamoto-ken. Tel: 09653-2-7136. Telex: 767592 Yatsushiro Kitakyuunma.

Yatsushiro Koun K.K. located at 9-4 Asahichuodori, Yatsushiro-shi, Kumamoto-ken. Tel: 09653-5-2233. Telex: 767506.

ANCHORAGES: Within port limits.

RESTRICTIONS: A Pilot is not available after dark, also his availability depends on the tidal conditions.

MAX. SIZE: Max. d.w.t. 35,000 tons. The tidal difference between high and low water is 4.3 m.

HEALTH: All the necessary procedures must be undertaken at the Yatsushiro-Minamata Branch Office of the Nagasaki Quarantine Station.

RADIO: Not available.

VHF: Not available.

TUGS: 1 tug owned by the Jonan Unyu K.K., tugs also available from Miike Port in Fukuoka Prefecture.

BERTHING:

Quay		Length		Depth
Quay	A	Length	130 m.	Depth 7.5 m.
,,	B	,,	130 m.	,, 7.5 m.
,,	C	,,	165 m.	,, 9.0 m.
,,	D	,,	185 m.	,, 10.0 m.
,,	E	,,	185 m.	,, 10.0 m.

CRANES: 7 mobile cranes and 20 shovel loaders.

As a rule, when a vessel is secured alongside Quays A, B, C, D and E there is no need to use the ship's own gear. However, it may sometimes be necessary to use the ship's gear during loading and unloading.

STEVEDORES: Arranged by ship's Agent.

MEDICAL: Arranged by ship's Agent.

FRESH WATER: Available from the water supply facilities operated by the Kumamoto Prefecture.

CONSULS: None.

REPAIRS: Not possible.

DRY DOCKS: Not available.

SURVEYORS: Not available.

GANGWAY/DECK WATCHMEN: Watchman is not necessary.

HATCHES: Opening and closing is done by the stevedores.

REPATRIATION: Yatsushiro Branch Office of the Fukuoka Immigration office arranges necessary repatriation.

AIRPORT: Kumamoto Airport (about 70 km. distance).

POLICE/AMBULANCE/FIRE: The Yatsushiro Police station located at Nishimatsuejo-machi, Yatsushiro-shi, Kumamoto-ken. Tel: 09653-5-2110.

The Yatsushiro Head Station of the Yatsushiro Fire Department located at 1-10 Matsuejo-machi, Yatsushiro-shi, Kumamoto-ken. Tel: 09653-2-6181.

EMERGENCY CO-ORDINATION CENTRE: Yatsushiro Branch Office of the Misumi Maritime Safety Department. Tel: 09653-7-1477.

TELEPHONES: There is no arrangements for placing telephone on board.

STORING: See "Prelims".

1. Yes.
2. Yes.
3. Yes.
4. Yes.
5. Yes.
6. Yes.

SHORE LEAVE: Shore passes are to be issued at the Yatsushiro Branch Office of the Fukuoka Immigration Office.

DELAYS: Delays will be expected when quays are occupied by vessels or a Pilot cannot go on board because of the tidal conditions.

AUTHORITY: Yatsushiro Port Office of the Kumamoto Prefecture, 249 Minato-Machi, Yatsushiro City, Japan. *Tel:* 09653-7-0632. *Contact:* Port Office Superintendent.

AGENT: Yatsushiro Branch Office of the Nippon Tsuun K.K., 262-15 Minato-machi, Yatsushiro-shi, Kumamoto-ken. Cable Address: Nexco Yatsushiro. Tel: 09653-7-0011.

YAWATA: 33.52 N. 130.49 E. (See "Kanmon-Ko")

(See Plan)

DOCUMENTS:

Ship's Register.
Last Port Clearance.
3 Crew Lists, including Passport Numbers.
3 Passenger Lists.
1 Stores List.
1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

PILOTAGE: *Harbour Pilotage:* Compulsory for entry, departure and when passing through Straits if vessel exceeds 10,000 g.r.t. departure. Pilots embark Eastbound vessels at Mutsure Quarantine Anchorage (see "Moji"), Westbound vessels at Hesaki Quarantine Anchorage (see "Moji"). Two Pilots embark vessels exceeding 20,000 gross tons, charging 180% pilotage.

Sea Pilotage: Vessel approaching from East obtain Pilot by radio request made at least 24 hours in advance. Pilot embarks 3 miles South from Sekisaki Lighthouse; Lat. 33° 13′ N., Long. 131° 54′ E.

Pilots should be kept closely advised of accurate ETA pilot station. If any changes, Masters requested radio immediately to pilot offices direct or through Agent reporting revised ETA. Cable addresses of pilot offices: Harbour Pilot, "Kanmonpilot Moji". Inland Sea Pilot, "Anjin Moji". Require 24 hours' notice of ETA, but can attend with 2 – 3 hours' notice in emergency cases.

ANCHORAGES: No anchorage at Yawata, but quarantine anchorage used in essential cases. See "Health".

RESTRICTIONS:

(a) Because of narrow channel leading to Yawata and shallow water at entrance of channel, length and draft of vessel limited, except for berthing at Nishi-Yawata Wharf, where 20,000 gross tonnage with 200 m. length overall and 8.3 m. draft may be accommodated. Limits:

	Wharf	*Buoy*
Length (overall)	166 m.	155 m.
Draft	8.5 m.	8.5 m.
Gross tonnage	10,000 tons	10,000 tons

Vessel slightly exceeding above may be berthed at the Pilot's discretion, subject weather conditions and efficiency of engine, steering, etc.

(b) Fairway leading into main harbour about 200 m. wide and 2 miles long, running parallel to breakwater and reclaimed land. In this channel, as in main harbour and fairway to Yawata, vessels observe one-way traffic and, on a "not-clear" signal from shore, wait outside for outgoing vessels to clear channel. Vessels with draft of more than 7 m. can enter/depart only at high tide.

(c) Entry permitted only from sunrise and vessels to be berthed before sunset. Night departure prohibited.

(d) Wakato Suspension Bridge crosses channel between Tobata and Wakamatsu. Height of bridge from water line at fairway 42.675 m. at spring high tide; height of mast of vessels passing under bridge limited to 38 m.

(e) Easterly winds prevail in warm season. N.W. winds in Winter. Dense fog sometimes in Spring and Winter, but generally clear in morning. Tidal range about 1.2 m. Tidal current in channel about 1.5 to 2.5 knots, but no current in port.

(f) Port privately owned and controlled by Nippon Steel Corp.

MAX. SIZE: See "Berthing".

HEALTH: See "Moji".

(a) Quarantine station at Western entrance: 0.5 mile East of Mutsure Lighthouse Lat. 33° 58′ 15″ N., Long. 130° 53′ 43″ E.

(b) Quarantine station at Eastern entrance: 125°, 1,500 m. from Hesaki Lighthouse Lat. 33° 56′ 24″ N., Long. 131° 30′ 12″ E.

(c) Quarantine inspection not allowed inside port except when weather or other special reasons prevent quarantine boat from approaching ship at anchorage.

(d) Quarantine service is rendered from sunrise to 1 hour before sunset.

(e) "Q" flag should be hoisted until ship in Free Pratique.

(f) Vessels exceeding 20,000 gross tonnage may undergo quarantine on application when they berth inside port.

(g) When ship arrives from plague-infected or suspected area within 10 days after she left such place, 24 hours special quarantine required. All sanitary scuppers must be closed and garbage must not be thrown overboard after ship reaches 60 miles off Japanese coast.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Berth	*Length* (m.)	*Depth* (m.)	*Permissible Draft* (m.)	*Length Overall* (m.)	*Shore Cranes* (tons)
(Ore Wharf)					
Wharf No. 14	150	9.0	8.0	100	—
15	150	9.0	8.5	120	—
16	150	9.0	8.5	147	2×12
17	150	9.0	8.5	147	—
18	179	9.0	8.5	166	2×12
(Coal Wharf)					
Wharf No. 19	180	9.0	8.5	166	1× 5
20	180	9.0	8.5	166	1× 5
(Scrap or Pig Iron Wharf)					
Nishiyawata					
Wharf No. 2	120	9.0	8.5	100	2×40
No. O.B.2	220	9.0	8.5	200	—
Buoy A	220	11.0	9.5	180	—

Note: Capacity for the above, no limit subject to draft and length.

VHF: Vessel can keep in direct contact with port authorities in regard to arrival, berthing instruction, etc, through VHF, details as follows:

	Kitakyushu (Moji)	*Shimonoseki*
(a) Call sign:	"Kitakyushu Port Radio"	"Shimonoseki Port Radio"

(b) Location of radio facilities: The transmitting and receiving station located at top of Mt. Hinoyama, Shimonoseki, for both the above radio stations.

(c) Type of wave:

Channel:	Simplex 16	(Calling, responding)
	Simplex 12	(Communication)
	Simplex 14	(Communication)
	Duplex 20	(Communication)
	Duplex 22	(Communication)
Outport:		50 W.

(d) Operating hours: 0000 – 2400.

(e) Communicating range: Within a radius of 50 miles from the station.

(f) Communicating language: English and Japanese.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.
TUGS: 2 tugs join vessel at corner of fairway leading into main harbour. Ship's lines used when vessel berths.
BRIDGE: See "Restrictions".
STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by the Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1700 – 1900 hrs. (50% additional of basic stevedorage), 2100 – 0500 hrs. next morning (130% additional), Sundays/holidays (60% additional).
MEDICAL: No advance notice required unless urgent.
TANKERS: No tanker berth.
DENSITY: Average density in port about 1020 – 1022 in Summer season, 1024 – 1025 in Winter season.
FRESH WATER: At buoys: Water barges available from Wakamatsu, rate of delivery about 50 t.p.h. At wharves: (No. 16, 17, 18, 19, 20 and Nishi-Yawata Wharf.) From hydrants: 25 t.p.h. – 40 t.p.h. For supply at Nishi-Yawata Wharf, 1 day prior notice required. Overtime charge: (0500 – 0800 hrs.) (1700 – 2200 hrs.), 50% add.; (2200 – 0500 hrs.), 100% add.; bad weather 50% add.; Sundays and holidays, 50% add. Minimum quantity at Yawata, 10 tons. Minimum quantity at Mutsure Anchorage, 50 tons.
FUEL: Domestic oil is available. Bonded oil will be brought from Moji, Ube or Oita with sufficient advance notice, when required.
FIRE PRECAUTIONS: No tanker berth. Each tugboat is equipped with fire extinguisher system for attending emergency cases.
GANGWAY/DECK WATCHMEN: Not specially required unless passengers or valuable cargo aboard.
OPENING/CLOSING HATCHES: Stevedores carry out opening and closing hatches. If any time lost by ship's crew doing this work, stevedores charge ship for waiting. Recommend request stevedores for this work unless crew can complete it before berthing.
CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.
CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.
CONSULS: British Consul, who is also acting Swedish Consul, is stationed with Holme Ringer, Moji (tel. 093-331-1311). American Consul stationed at Fukuoka (tel. 092-751-9331). Korean Consul stationed at Fukuoka (tel. 092-771-0461).
REPAIRS: All types of deck and engine repairs possible.
DRY DOCKS: No dry dock available.
REPATRIATION: Possible.
AIRPORT: Fukuoka Airport, approx. 70 km.

(a) International line:
JAL, for Pusan (Tuesday and Thursday);
for Taipei-Hongkong (Monday and Thursday);
CPA, for Taipei-Hongkong (Wednesday and Saturday);
KAL, for Pusan-Seoul (Mon., Tues., Wed., Fri., and Sat.).
(b) Domestic line:
JAL and ANA, regular service.

TIME: GMT plus 9 hours. No alterations made to clocks during year.
POLICE/AMBULANCE/FIRE: Yawata Police Station, tel. 093-671-6631; Wakamatsu Water Police, Yawata Port branch, tel. 093-681-3475; Ambulance/Fire, Yawata Fire Department, tel. 093-671-4831.
TELEPHONES: Nippon Senpaku Tsushin K.K. available at Moji (tel. 093-331-1089). In case of Mutsure anchorage, extra boat charge and personnel expenses will be incurred. Due to insufficient number of telephones require adequate advance notice for installation. Suitable ship's electrical voltage; DC – 22/28 v. AC – 100 v. 110 v. 120 v. (to keep at least within 10 v.).
GENERAL: Whenever vessel takes bunkers in port, advisable to close deck scuppers' holes before pumping in order to avoid overflow oil into sea.
SERVICES: Tank cleaning, sand blasting (Fuji Co., Tobata), chemical cleaning (Fuji Co., Tobata). Hold cleaning (Tsuyama Kosan K.K., Yawata; Fuji Co., Tobata). Compass adjusting (Kajiwara Koki, Shimonoseki). DF calibration (Nippon Radio Co., Tobata). Life-raft servicing and inspection (Kikutani Sengu, Shimonoseki; Marinair International, Kobe; International Marine, Kobe; Marine International; Yokohama and Tokyo); this service requires name of maker in advance. Radio and radar repairs available, but requires name of makers/type of the machine in advance. Laundry (Sunrise Cleaning, Tobata; Moji Dry Cleaning, Moji). Watchmen service available. Charts: only Japanese charts available locally; BA and HO charts can be obtained from Kobe and Yokohama respectively, with adequate notice. Grain fitting (Ushio Co., Moji; Fuji Sobi, Moji); this work is usually carried out at Moji (public port). Fumigation (Toyo Fumigation Co., Moji), this work is not permitted at Yawata but at Moji. Floating crane, capacity 200 tons (Kondo Kaiji, Wakamatsu; Nichibei Kosan). Diver (Nippon Salvage Co., Moji; Tsuyama Kosan, Wakamatsu). Salvage service (Nippon Salvage, Moji) Painting service (Fuji Co.).
SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days, but 3 days' extension possible if ship stays longer.
DEVELOPMENTS: All the present discharging berths (wharves) for coal, ore (including Nishi-Yawata Scrap Wharf) converted to loading berths.
AUTHORITY: Kitakyushu Port and Harbor Bureau, 2-7 Nishikaigan, 1-chome, Moji-ku, Kitakyushu City, 801 Japan. *Tel:* (093) 321-5941, (093) 321-5941. *Fax:* (093) 321-5915.

YOKKAICHI: 34.57 N. 136.38 E. (See Plan)

DOCUMENTS: See "Yokohama".
PILOTAGE: Not compulsory; Pilot available at Lat. 34° 56′ 15″ N., Long. 136° 40′ 40″ E. Vessels requiring Pilot cable Agent at least a day ahead advising exact ETA pilot station.

Wireless station for communicating with entering ships and for other port business, call signal JCZ. Radio wave in use is A1.A2 500 kHz and A1.A2 486 kHz, output A1 50 W. and A2 110 W. Zone of communication about 100 km.

Yokkaichi Signal Station also equipped for assigning berths to entering ships and for other port business. VHF communication available, call signal Yokkaichi Port Radio, Channel 16. Working Channel 14, 0600 hrs. to 2000 hrs. any day.

Also see "Nagoya" – "Pilotage: Shipmaster's Report".
ANCHORAGES: Vessels anchor in position Lat. 34° 56′ 15″ N., Long. 136° 40′ 40″ E. where Authorities board and grant Free Pratique; Max. depth 13 m.
RESTRICTIONS: Entry restricted by vessel's draft and Pratique. Max. draft inside port 12 m. Quarantine Authority attend vessel usually from dawn to sundown on any day. Berthing daytime only. Unberthing any time except tankers daytime only.
MAX. SIZE: Max. permissible draft inside port 12 m.
Tankers:

Berth	*Max. d.w.t.*	*Max. LOA* (m.)	*Max. Safe Draft* (m.)
Showa Outer SBM	275,000	335	19.30
Showa Inner SBM	170,000	300	15.80
Showa Wharf "E"	32,000	232	10.50
Daikyo SBM	230,000	330	19.50
Daiyo Umaokoshi Pier	60,000	240	9.80

HEALTH: Request for Radio Pratique to be addressed to Agents not less than 12 hours before arrival.
TIDE: Tidal current of Ese Bay runs Northward along East side of Mie Prefecture and turns round at mouth of Kiso River and runs Southward for Chita Peninsula.

Tidal level:		Tidal level (average)
	High tide	+7.74 ft.
	Mean tide	+4.30 ft.
	Low tide	+0.00 ft.

TUGS: Normally stand-by to assist vessel inside breakwater of entrance to fairway; tug's lines used.
BERTHING:

Berth No.	*Depth* (m.)	*Length* (m.)
1	8.0	161.0
2–3	8.5	245.0
4–5	9.0	215.0
6	3.0	179.0
8	10.0	190.0
9	10.0	200.0
10	5.5	200.0
11	10.0	200.0
12	5.0	140.0
13	11.0	245.0
14	10.0	220.0
15	10.0	220.0
16	7.5	114.0
17–18	5.5	163.0
19–21	5.0	210.0

SPECIALISED CARGO HANDLING FACILITIES:
Bulk Cargoes: No. 2 Wharf has a cereal silo which can store 56,840 tons of imported grain. 2 pneumatic unloaders with unloading capacity of 300 t.p.h. per machine at the Northern berth of the pier to connect the silo with conveyors.
Containers: One deep-sea container berth of 280 m., quay length and minimum water depth of 12 m., incorporating a Ro-Ro ramp. Two 37.5 ton and 44.5 ton Hitachi container cranes. Container yard and marshalling yard area of 58,750 sq.m. Three TCM straddle carriers, 3 forklift trucks (10 tons – 25 tons), 15 tractors, 35 trailers. Container freight stations at Asake 5,940 sq.m. Wool centre 46,768 sq.m.
Facilities of Container Terminal:
1. Total area 58,750 m.
2. Container berth: Length 280 m., depth 12 m., mooring capacity 25,000 d.w.t.×1 berth.
3. Cargo handling equipment: Ramp-way 1 unit, container cranes 2 sets, 1×44.5 tons, 1×37.5 tons.
4. Transport machine: Straddle carrier, 3 units, 1×40 ft., 2×20 ft.; fork lift 3, 1×25 tons, 1×20 tons, 1×10 tons.
5. Container yard: Container yard 6 yards, 29,730 m. refrigerated container yard, one yard 1,275 m.
6. Other relevant facilities: Chassis yard 5,740 m.; wool centre 46,768 m.; cold store 4,664 m.; meat centre 3,335 m.

Liquid Chemicals/LPG Carriers:
Operator: Yokkaichi LPG Terminal Co. Ltd.
Location: Lat. 34° 50′ 05″ N., Long. 136° 40′ 00″ E.
Max. Mooring Capacity: 67,000 d.w.t.
Depth of Water: Passage: 12 m.
Berth: 12 m.
Max. Acceptable Length: 255.46 m.
Max. Acceptable Draft: 10.50 m.
Tidal Range: Zero to plus 2.36 m.
Side Berthing: Starboard
Type of Unloader: Chiksan Arms.
No. of Receiving Lines: 2 liquid and 2 vapour.
Size of Manifold Flange: Liquid 12 in., vapour 8 in. ASA-150.
Manifold Configuration: From forward to aft – bv-bl-pl-pv.
Max. Airdraft Manifold: 19.00 m.
Remarks: Safety Pledge letter has to be filed with Port Authority.

TANKERS:

Berth	*Product*	*Shoreline*	*Discharge Rate (t.p.h.)*
Showa Outer SBM	Crude Oil	16 in.×2	8,350
Showa Inner SBM	Crude Oil	12 in.×2	5,000
Showa Wharf "E"	Naphtha	12 in.×1	1,000
	Fuel Oil	12 in.×1	1,000
	Kerosene (Load)	10 in.×1	300/500
	Lub Oil (Load)	3 in.×1	200/300
Daikyo SBM	Crude Oil	16 in.×2	5,000
Daikyo Umaokoshi Pier 1	Crude Oil	12 in.×2 (Chicksan)	3,000
	Fuel Oil	12 in.×1	3,000
	Naphtha	6 in.×2	350/400
	Kerosene (Load)	6 in.×2	380/400
Daikyo Umaokoshi Pier 9	Crude Oil	12 in.×1 (Chicksan arms)	3,000
	Fuel Oil	12 in.×1 (Chicksan arms)	3,000
	Naphtha	6 in.×2	350/450

Attention is drawn to the manual "Safety Standards on Discharge Operations for Crude Oil Tankers", which will be handed to the Master on arrival by the Berthing Master and which are to be strictly adhered to. Apart from request for the normal international safety precautions for tankers, it contains several regulations which could cause considerable delays to vessels if not taken into account when planning discharge/ballasting operations.

Such regulations are:

1. Ballasting operations shall commence between sunrise and 90 minutes before sunset.
2. Berthing operations shall be performed so that discharge operations can be commenced between sunrise and 90 minutes before sunset.
3. Unberthing shall be conducted only between sunrise and sunset.
4. Discharge operations shall be suspended when malfunctions occur to the vessel or discharge facilities or at other times when in the judgement of the Master and the Berthing Master, it is necessary to suspend operations.

It is therefor of utmost importance that the planning/timing of port operations are carefully drawn up and fully discussed with the Berthing Master prior to commencement in order to reduce delays to a minimum. The good operational conditions of ship's equipment (pumps, etc.) and awareness of personnel are of equal importance.

DENSITY: Average 1025.

FRESH WATER: Available, rate of delivery 50 t.p.h. from shore pipes at Government wharves; 100 tons from barge; before 2200 hrs. additional cost 50%; after 2200 hrs. additional cost 100%.

FUEL: Most domestic and bonded oil available, ex-barge.

Minimum 5 days' notice required.

CONSULS: None.

REPAIRS: Minor repairs only.

AIRPORT: No airport.

POLICE/AMBULANCE/FIRE: Police, Tel: 110; Ambulance/Fire, Tel: 119.

TELEPHONES: Telephone can be arranged from shore connection at Government wharves. No connections at tanker berths.

GENERAL: Lightening: Not allowed, except a cargo of oil or chemicals.

SERVICES: Technicians for vessel's instruments can be arranged from other ports.

REGULATIONS: Under adverse weather conditions:

1. If a typhoon is reported approaching, and upon advice from refinery representative, loading or unloading operation will be suspended and vessel will leave berth to a designated area for refuge.
2. During a violent thunderstorm, cargo work will be stopped upon receiving order from refinery, and vent-line valves securely closed.
3. During stormy weather, with gusty winds condition, Master shall follow weather reports closely and shall endeavour to prevent any accidents by taking all possible precautions, such as reinforcing mooring ropes and arranging adequate emergency personnel to stand-by for any emergency.

Liability for Accidents: If accident is judged by Maritime Safety Office and Port Captain to be ship's fault, either through negligence of these Safety Regulations or otherwise, Master shall immediately cease operations, if necessary, and simultaneously follow in good faith the instructions of refinery and Port Captain, and take all necessary actions. Master shall inspect and verify cause of accident in the presence of refinery representative and ship's Agent, and shall be held responsible for reporting the accident, in writing, to the parties concerned. Until this is completed and full agreement reached with refinery representatives, the vessel shall not leave the jetty, unless otherwise requested. For actual confirmation of the accident, and damage liability, Public Surveyor (Messrs. Japan Marine Inspections Co. Ltd.) is fully entitled to inspect the accident.

AUTHORITY: Yokkaichi Port Authority, 9-1, Chitose-cho, Yokkaichi City, Mie Pref. *Tel:* (0593) 53-5541/6.

AGENT: Sub-agents of Dodwell & Co. Ltd., Tokyo.

Dry Cargo Vessels: Yokkaichi Warehouse Co. Ltd., 6, Chitose-cho, Yokkaichi Mie-ken. Cable address: Soko Yokkaichi. Domestic Telex: 04948-179 Yonso J. Tel. Yokkaichi (0593) 53-5211.

Tankers: Uyeno Unyu Shokai Yokkaichi Office c/o Showa Yokkaichi Sekiyu K.K. 1, Shiohama-cho, Yokkaichi-shi Mie-ken. Cable address: Uyenoshell Yokkaichi. Domestic Telex 0494-8276. Tel: Yokkaichi (0593) 45-2271/8.

YOKOHAMA (incl. Negishi and Tsurumi): 35.27 N. 139.38 E. (See Plan)

DOCUMENTS:

Immigration:

Ship's Register.

Last Port Clearance.

3 Crew Lists, including Passport Numbers.

3 Passenger Lists.

1 Stores List.

Customs:

1 Declaration of Crew's Baggage, i.e. tobacco, wine/spirits, camera, wrist-watch, radio, firearms/swords, etc. (only at first port of call in Japan).

Ship's Agent will prepare Inward/Outward Declaration, 1 Cargo Manifest and Cargo Manifest in Transit using specific forms. Therefore ship's Agent should be provided with necessary information about details of cargoes in advance.

There are 3 types of berths in the Port of Yokohama. Public berths for common use, directly managed by the Municipal Port and Harbour Bureau of Yokohama, that is the administration of the port; Berths for exclusive use owned and leased by Yokohama Port Terminal Corporation, which was founded by the local government of Yokohama to construct and manage exclusive-use berths for foreign trade; and berths owned by public companies located in the bay.

Shipping companies or Agents have to submit the documents for port entry for all ships of more than 700 g.r.t. to the Accounting Division of the Municipal Port and Harbour Bureau of Yokohama regardless of berth's type. Furthermore, they have to submit the documents showing the exact schedule of ships to the Marine Affairs Division. It also includes the application of the unified arrangement of pilots, tugs, and line-handling and the Division will make the reasonable schedule list by using the computer and offer the arrangement service. They also submit the application for using a berth when ships use the public berths. All documents' procedure is done by special forms.

PILOTAGE: At the Ports of Yokohama and Kawasaki, ships are duty bound to use pilots for safe navigation in the ports.

The Port of Yokohama is always very busy, and so, all movements of each ship (entry, exit and shift) are controlled by the Municipal Port and Harbour Bureau of Yokohama, the Administrator of the port. Shipping companies or Agents have to submit the document showing all movement of the ship, which also includes an application for arrangement of pilots, tugs and line-handling, to the Bureau. The Bureau does the unified arrangement for each ship. If any change necessary to arrangements already made, 2 hours' notice is sufficient to make rearrangement of them.

The station of pilot launches is located at the rear of "Pilot Building" (nearby the entrance of Osanbashi Pier). Pilots usually use a small pilot launch and make use of tugs when it is employed at the same time for embarking and disembarking, especially when sea is rough. In either case, launch or tug with pilots on board displays "H" flag or lights prescribed in international regulations. Usually pilots in ports of Yokohama and Kawasaki embark or disembark near Yokohama Fairway Entrance Light Buoys No. 1 and 2. But, when ships anchor inside or outside the port because of waiting for berths, etc., it is usual for them not to request pilots. In these cases ships which want to be quarantined, anchor in the quarantine area in the port and other ships anchor at safe place except for restricted area outside of the port.

If ships pick up pilots inside the port, pilot charge is less as it is assessed on two stages; "From outside of the port to Yokohama Fairway Entrance Light Buoys No. 1 and 2" and "from Yokohama Fairway Entrance Light Buoys No. 1 and 2 to the quay or mooring buoys".

Uraga Channel: Ships which are going to enter the port of Yokohama have to report to Tokyo Marches of Maritime Safety Agent ("Tokyo Marches" is also a call sign) by 1200 hrs. of the day before passing through Uraga Channel (in the case of ships carrying dangerous cargoes, 3 hours before passing through) and are permitted and given detailed orders about passing time. After that, ships request pilots for Uraga Channel by VHF radio or ships' telephone (call sign "Anjin Yokosuka"). At that time, ships also report the arriving time at No. 1 Uraga Channel Light Buoy (in the case of exit No. 6 Buoy). Pilots for Uraga Channel usually embark in the area between the limit line of "Tokyo Marches Control" and Uraga Channel No. 1 Buoy for entry and at the quay or mooring buoys in the port for exit.

Recommendations: To be followed by tankers of 100,000 d.w.t. or more when they navigate through the Uraga Channel with cargo loaded:

1. 12 hours and 3 hours, respectively, before such a vessel expects to pass the Uraga Channel No. 1 Light Buoy, it should report the following items to the Yokohama Maritime Safety Division. Also, after the three-hours-in-advance report, it should keep its radio station open. This, however, is not required if the vessel is Southbound:
   - *(a)* Name of vessel.
   - *(b)* Signal letters, d.w.t. tonnage, type and quantity of cargo, name of port intended to enter (not required in a 3-hours-in-advance report).
   - *(c)* Availability of international VHF transmitter-receiver equipment aboard.
   - *(d)* Time at which the vessel expects to pass the Uraga Channel No.1 Light Buoy.
2. Refrain from sailing through the Channel when visibility is poor due to thick mist, etc. (less than about 1 nautical mile).
3. Avoid sailing through the Channel at night unless it is essential to do so. Follow any instruction that may be issued from the Director of the Yokohama Maritime Safety Division as to the time for sailing through the Channel.
4. Maintain look-out at the bow and listen to regular weather reports.
5. Between the neighbourhood of the Uraga Channel No. 2 Light Buoy and that of the Uraga Channel No. 5 Light Buoy, avoid overtaking other vessels (weighing about 500 g.r.t. or more) unless it is essential to do so.

ANCHORAGES: 12 m. – 26 m. in Quarantine Anchorage, and 26 m. – 34 m. in other areas. For details refer to chart published by Hydrographic Division of Japan MSA.

RESTRICTIONS: In the Port of Yokohama, when vessels use berths in public piers, conventional cargo vessels may arrive at the berths up to 2200 hrs. and container vessels may pass through the Honmoku breakwater up to 2400 hrs. There is no restriction on departure. Shifting inside the port must be done according with the entry and exit. In the case of private berths, each company has their own restrictions.

MAX. SIZE: See "Berthing".

Tankers:

Name of Berth	*Max. d.w.t.*	*Max. LOA*	*Max. safe draft*
Keihin Yokohama (Sea berth)	No limit	No limit	19.50 m.
Shell Oil (Main Jetty)	No limit	180 m.	10.00 m.
General Sekiyu	No limit	182 m.	9.30 m.
Mobil Oil	No limit	176 m.	9.20 m.
Asia Oil No. 5	No limit	No limit	12.00 m.
Nisseki Koyasu	No limit	250 m.	12.00 m.
Nisseki Negishi A (E.)	No limit	310 m.	16.70 m.
Nisseki Negishi B	No limit	250 m.	13.60 m.
Shell Sekiyu Super Berth	No limit	260 m.	11.70 m.
Tokyo Gas	50,000	300 m.	12.00 m.

HEALTH: Radio Agent for Free Pratique not less than 12 hours and not more than 36 hours before arrival, advising full details of vessel and health conditions on board. When Free Pratique is granted by radio, vessel will be required to submit the following documents to Quarantine Officer on arrival:

Maritime Declaration of Health.
Crew List.
Passenger List.

The following vessels will not be able to get Radio Pratique:

A vessel that has been in contact with an infected area or a suspected infected area within 15 days of arrival.

If a vessel has on board any case, or any suspected case of infectious disease, within 15 days of arrival.

If a vessel has no valid Derat or Derat Exemption Certificate.

RADIO: Recommended Master communicates with Agent through Choshi Radio or Nagasaki Radio which cover all ports in Japan. If specifically Westbound vessel, to contact Choshi, and Northbound to contact Nagasaki Radio respectively.

VHF: Call sign Yokohama Port Radio. (See details under "Kawasaki/VHF").

TUGS: Tugs are under control of Yokohama Kawasaki Tug Company and normally join ships between outer breakwater, light house and entrance light buoys. Number of tugs depends on pilot's decision and normally one or two tugs are required. Many recently built ships are equipped with bow thrusters and in this case only one tug is needed. Number of tugs also depends on the specific condition of the quay and weather conditions. Usually tug's lines are used and charges are included in towage. 34 tugs are available.

BERTHING: No specific requirements. Pilot boarding time will be notified by ship's Agent mainly by radio.

Mooring Buoys:

District	*Mooring Capacity*	*No. of Berths*	*Buoys*	*Depth (m.)*
1st District	1,500	2	H1.H2	5.5–12.0
	2,000	1	H3	
	15,000	7	No.1.2.3.4.5.6. 7.8.9.10	
2nd District	12,000	1	No.20.21	9.7–10.0
	15,000	1	No.22.23	
3rd District	1,000	3	N1.N2.N3.N4	12.0
	15,000	2	No.30.31.32.33.	
	5,000	2	No. 36.37.38	
5th District	15,000	2	KM2.KM3	10.0

Also see Tables.

Private Piers: *(Deeper than 4.5 m.)*

District	*Piers and Wharves*	*Length (m.)*	*Depth (m.)*	*Mooring Capacity (D/T)*	*Number of Berths*	*Kind of Cargo*
TSURUMI-WARD						
	Asia Sekiyu Wharf No. 3	120	7.0	4,000	1	Oil Products
	No. 4	30	5.6	2,000 (G/T)	1	L.P.G.
	No. 5	95.7	12	65,000	1	Crude Petroleum
	No. 6	140	6	5,000	1	Oil Products
	Asahi Glass Co. Ltd. Pier	53	5	1,300	1	Glass, Silica
	Ajinomoto Co. Ltd. Pier	113	9	10,000	1	Grain
	Azuma Kaiun Pier	67	9.5	27,000	1	Steel Materials
	Ensuiko Berth	100	9.5	3,000	1	Sugar Cane
	Osaka Cement Co. Ltd. Pier	95	8	5,000	1	Cement
	Kobe Seikojo Co. Ltd. Yokohama Pier	72	4.5	700	1	Steel Materials
	Showa Sangyo Co. Yokohama Pier	163	8.8	15,000	1	Grain
	Showa Shell Pier	70	8	5,000 (G/T)	1	Petroleum
	Showa Shell Co. Sea Berth	280	12	80,000	1	Petroleum
	No. 1 Pier	106	12	20,000	1	Petroleum
	No. 2 Pier	63	5.5	1,000	1	Petroleum
	General Sekiyu Co. Tsurumi Pier	108	9	20,000	1	Petroleum
	Daito Yugyo Yokohama Pier	90	6	3,000	1	Petroleum
	Daikoku Warehouse Co. Pier	87	6	1,100	1	Steel Materials
	Tokyo Electric Power Co. Ltd.					
	Yokohama Power Plant Pier No. 1	49	9	10,000	1	Heavy Oil
	No. 2	49	9	10,000	1	Naphtha
	Tokyo Gas Co. Ltd. Tsurumi Wharf	228	5.5	1,000 (G/T)	1	Coal
	Tokyo Gas Co. Ltd. Tsurumi Wharf	223	6	2,000	2	Coal
	Suehiro Wharf	141.5	7.5	650	2	Coal
	Tokyo Shibaura Electric Co. Ltd. Pier No. 1	31	5	3,000 (G/T)	1	Electrical Machinery
	No. 2	38	6	1,500 (G/T)	1	Electrical Machinery
	Naigai Yuso Pier	41	4.5	2,000	1	Oil Products
	Nippon Futo Warehouse Co. Ltd. Pier	24	6	1,500	1	Oil
	Nitto Kagaku Ltd. Yokohama Pier No. 1	29	5	1,600	1	Crude Petroleum
	No. 2	38	6	2,000	1	L.P.G.
	No. 3	26	5	1,000	1	Sulphur
	No. 4	26	5	1,000	1	Chemical
	Nippon Kokan Co. Ltd. Keihin Iron Works Wharf	250	10	3,000	1	Gravel
	Nippon Kokan Co. Ltd. Keihin Iron Works Wharf	118	4.5	1,200	2	Steel Materials
	Ogishima Product Wharf A	250	7.5	3,000	2	Steel Materials
	B	266	11.5	20,000	1	Steel Materials
	C	267	12.5	30,000	1	Steel Materials
	D	250	12	30,000	1	Steel Materials
	Pier	68	5.5	1,500	1	Gravel
	Pier	118	4.5	1,200	2	Steel Materials, Coke
	Nippon Kokan Co. Ltd. Tsurumi Dock Yard					
	East Pier	213	6 – 9	190,000	1	For Ship Equipment
	West Pier	250	6	120,000	1	For Ship Equipment
	South Pier	160	6	6,000 (G/T)	1	For Ship Equipment
	Mitsubishi Kogyo Co. Cement Pier	122	7.5	6,700	1	Cement
	Mobil Sekiyu Co. Ltd. Pier	102	9.5	24,000	1	Petroleum
	Ogishima Sekiyu Kiechi Co. Sea Berth	Buoy	23	200,000	1	Crude Petroleum

STEVEDORES: At least 24 hours prior notice excluding Sundays and holidays required in order for Agent to arrange stevedores. Vessel must constantly keep her Agent advised of ETA. If stevedores cannot commence loading/unloading at time notified by Agent, the orderers must pay for waiting time. If cargo gear not rigged on berthing, stevedores will do same for ship's crew. Overtime surcharges 1630–2130 hrs. (60% additional of basic stevedorage), 2130–0400 hrs. next morning (130% additional). Sundays/holidays (100% additional).

Private Piers: *(Continued).*

District	*Piers and Wharves*	*Length (m.)*	*Depth (m.)*	*Mooring Capacity (D/T)*	*Number of Berths*	*Kind of Cargo*
KANAGAWA-WARD						
	Sangyo Shinko Co. Pier	32	6	2,000	1	Steel Materials
	Showa Denko Co. Ltd. Yokohama Work Pier	267	9	21,000	1	Ore
	Dolphin	72	9	5,300	1	Ore
	Nippon Seifun Co. Ltd. Pier	213	9	20,000	1	Grain
	Nisshin Transportation & Warehousing Co. Pier	244	9	19,000	1	Grain
	Nippon Kokan Co. Ltd. Asano Dock Yard A	110	5	4,200	1	For Ship Equipment
	B	93	9	8,300	1	For Ship Equipment
	D	85	8	8,300	1	For Ship Equipment
	E	200	8	113,000	1	For Ship Equipment
	H	180	7.5	20,000 (G/T)	1	For Ship Equipment
	Nippon Kokan Co. Ltd.	30	6	3,000	1	Sulphuric Acid
	Nippon Petroleum Refining Co. Ltd.					
	Yokohama Refinery Pier A	65	12	80,000	1	Crude Petroleum
	B	35	7	2,000	1	Oil Products
	C	109	9	15,000	1	Oil Products
	E	43	6	1,400	1	Oil Products
	F	75	7	1,500	1	Oil Products
	D	35	7.7	3,000	1	Oil Products
	Yokohama Warehouse Co. Ltd.					
	Suzushige Wharf No. 1	398	12	30,000 (G/T)	1	General Cargoes
	No. 2	148	10	15,000 (G/T)	2	General Cargoes
	No. 3	159	8	7,000 (G/T)	3	General Cargoes
	National Government Silo Pier	193	9	18,000	1	Grain
	Nippon Telephone Telegraph Pier	130	7	3,000 (G/T)	1	For Marine Cable Ship
NAKA-WARD						
	Kokusai Futo Co. A, B Berth	358.5	17.5	150,000	1	
	C	190	7.5	3,000	1	Salt, Silica, Grain
	F, G	185	6.5	500 (G/T)	3	
	H Pier	84.5	6.5	2,000	1	Ore
	Kokusai Cable Ship Pier	35	7.5	4,000 (G/T)	1	For Marine Cable Ship
	Sumitomo Kinzoku Kogyo Co. Pier	189	5.5 – 10	3,000	2	Steel Materials
	Nippon Express Co. Honmoko Pier	208	11	3,000	2	Steel Materials
	Nissan Honmoku Wharf No. 1–2	180	10	18,000	2	Cars
	No. 3	110	4.5	3,000	1	Cars
	Mitsui & Co. Ltd. Honmoku Wharf	208	11	35,000	1	Cars, Timber
	Mitsubishi Heavy Industries, Ltd.					
	Honmoku Works No. 1	335	9	120,000	1	For Ship Equipment
	No. 3	416	9	200,000	1	For Ship Equipment
	No. 4	463	7	200,000	1	For Ship Equipment
	No. 6	250	10	5,000		For Ship Equipment
	No. 7	270	10	5,000		For Ship Equipment
ISOGO-WARD						
	Ishikawajima-Harima Heavy Industries Co. Ltd.					
	Yokohama 2nd Works No. 1 Jetty (South)	223	9	200,000	1	For Ship Equipment
	(North)	181	9	30,000	1	For Ship Equipment
	No. 3 Jetty (South)	250	8	200,000	1	For Ship Equipment
	(North)	256	9	300,000	1	For Ship Equipment
	No. 4 Jetty (South)	205	17	100,000 (G/T)	1	For Ship Equipment
	(North)	255	17	100,000 (G/T)	1	For Ship Equipment
	Ube Kosan Co. Pier	180	8.5	15,000	1	Cement
	Kanto Ryoko Concrete Kogyo Co. Pier	12.5	5	1,000	1	Cement
	Kokan Kenzai Co. Pier	65	6	2,000	1	Steel Materials
	Electric Power Development Co. Isogo Wharf	140	7.5	6,000	1	Coal
	Tokyo Gas Co. Ltd. Negishi Wharf	100	12.5	50,000	1	L.N.G., Heavy Oil
	Nippon Petroleum Refining Co. Ltd.					
	Negishi Refinery Pier A	532×2	17	150,000	2	Crude Petroleum
	B	112	13.6	50,000	1	Oil Products
	C2	110×2	7	3,000	2	Oil Products
	C3-4	98×4	7	3,000	4	Oil Products
	D1-4	52×7	5.0 – 9.5	1,500	7	Oil Products
	H1-3	104×6	7.5	3,500	6	Oil Products
	H4	142×2	8-11.8	5,000	2	Oil Products
	H5	142×2	9	5,000	2	Oil Products
	Lubricating Oil Pier	65×2	12	700	2	Lubricating Oil
	L.P.G. Pier	20	5	500	1	L.P.G.
	Sulphur Pier	30	6	1,000	1	Sulphur
	Asphalt Pier	23	6	1,500	1	Asphalt
	Nisshin Oil Mills Ltd. Isogo Pier	304	12.5	55,000	1	Grain
	Domestic Pier	80	12	1,700	1	Heavy Oil
	Chichibu Cement Pier	76	5	1,000 (G/T)	1	Cement
	Chiyoda Refrigerator Co. Ltd. Pier	45×2	6	800	2	Fishery Products
KANAZAWA-WARD						
	Asahi Kigyo Co. Suzuegumi Warehouse Co. Pier	188	11	20,000	1	Alcohol, Cement
	Asahi Kigyo Co. Suzuegumi Warehouse Co. Pier	45	7	700	1	Alcohol, Cement
	Keihin Wharf Co. Ltd. Yokohama A	259	12.5	50,000	1	Cars
	B	146	9.5	12,000	1	Cars
	Daikoku Soko Co. Pier	80	7	2,000	1	Steel Materials
	Toyota Car Pier	173	6.5	1,300	1	Cars
	Maruzen Sekiyu Co. Pier	110	7.2	1,000	1	Oil Products
	Maruzen Sekiyu Co. Pier	126	7.2	5,000	1	Oil Products
	River Steel Co. Ltd. Pier	75	6	1,000	1	Steel Materials
	River Steel Co. Ltd. Pier	145	6	3,000	1	Steel Materials
	Mitsubishi Heavy Industries, Ltd.,					
	Kanazawa Works Dolphin	–	6.5	2,500	1	Diesel

DENSITY: Average approx. 1023.

FRESH WATER: Available (rate 50 t.p.h.) at Honmoku Pier, Yamashita Pier, Osambashi Pier, Shinko Pier, Yamanouchi Pier, Mizuho Pier, Detamachi Pier, Daikoku Pier and 4 Automatic Vending Machines. 3 Water barges with 280 tons capacity also available. 24 hours prior notice is required to supply on Sundays and National Holidays.

FUEL: All grades of bonded bunkers are stocked in Tokyo Bay, Ise Bay, Osaka Bay and Kanmon Port. At all other ports bunkers will be lightered from the nearest bunker stock ports at maximum 7 days prior notice.

FIRE PRECAUTIONS: Oil installations in Yokohama/Kawasaki generally do not allow bunker barge to come alongside ships moored to their berths.

Public Piers

Piers	Length (m.)	Depth (m.)	Mooring capacity (d.w.t.)	Number of berths	Remarks
Honmoku Pier	5,240	5.5–11.0	20,000 15,000 2,000	2 23 1	Includes 3 container berths for common use and 2 multi-purpose berths with 2 gantry cranes
Honmoku Pier Yokohama Port Terminal Corporation's Container Berths	1,400	12.0–13.0	40,000 35,000 25,000	1 2 2	All for exclusive use. 8 container gantry cranes 1 Ro-Ro Ramp
Yamashita Pier	1,860	10.0–12.0	25,000 20,000 15,000	1 1 8	
Osanbashi Pier	966	10.0–12.0	10,000	6	
Shinko Pier	1,770	7.2–10.2	15,000 10,000 5,000 2,000	2 5 3 1	Berth No. 7 is used by U.S. Army
Yamanouchi Pier	402	8.0	5,000	3	
Detamachi Pier	520	7.5	5,000	4	Bananas and Timber
Daikoku Pier	1,479	7.5–12.0	30,000 15,000 5,000	2 3 4	
Daikoku Pier Yokohama Port Terminal Corporation's Berth	2,200	10.0–12.0	35,000 15,000	2 8	2 container berths and 8 liner berths for exclusive use. 4 container gantry cranes
Kanazawa Timber Pier	185	10.0	15,000	1	
Mizuho Pier	1,259	9.0–10.0	15,000 8,000	5 2	All are used by U.S. Army
Waste Oil Disposal Facilities	343	2.6–5.9	3,000 1,000	1 2	For coastwise tankers

CRANES: *Floating Cranes:*

Lift	*No.*
Under 50 tons	2
51–100 tons	3
101–150 tons	3
151 tons and over	2

Cargo Handling Machines: (Private) Machines

	No.	*Capacity*
Large Sized Machines – Cranes	25	10,695 t.p.h.
Others	28	10,500 t.p.h.
Jib Cranes and Bridge Cranes	195	13,916 t.p.h.
Mobile Cranes	145	17,459 t.p.h.
Fork Lifts	1,357	8,217 t.p.h.
Shovel Loaders	66	694 t.p.h.
Transtainers	10	334 t.p.h.
Straddle Carriers	44	1,325 t.p.h.

The Municipal Port and Harbour Bureau and the Yokohama Port Terminal Corporation.

Machines	*No.*	*Capacity (tonnes)*
Gantry Cranes	3	Each 55.0 (Rated Load)
Gantry Cranes	20	Each 30.5 (Rated Load)
Hammer Head Crane	1	Each 50.0 (Rated Load)
Level Luffing Crane	1	Each 30.0 (Rated Load)

SHORE LEAVE: Local Immigration Offices issue shore pass valid for only 3 days; but 3 days' extension possible if ship stays longer.

MEDICAL: No advance notice required unless urgent.

CERTIFICATES: Ship's Register to show Customs Inspector ship's registered gross and nett tonnages. Valid Cargo Gear Certificates sometimes required by stevedores when cargo gear maintenance appears to be poor.

CUSTOMS ALLOWANCES: Only allowed 50 cigarettes to take ashore but no spirits.

CONSULS:

Consulate-General of Argentine Republic	Tel. 641–4194
Consulate-General of the Republic of Korea	Tel. 621–4531/2
Honorary Consulate of Paraguay	Tel. 401–3431
Honorary Consulate of the Netherlands	Tel. 651–1661/9
Honorary-Consulate-General of El Salvador	Tel. 211–1371
Royal Swedish Honorary Consulate	Tel. 201–4171
Royal Thai Honorary Consulate	Tel. 651–1361
Royal Norwegian Honorary Consulate	Tel. 641–0141/7
Royal Danish Honorary Consulate	Tel. 651–1381
Consular Agency of Mexico	Tel. 671–7277
Honorary Consulate of Colombia	Tel. 312–8461
Vice-Consulate of Brazil	Tel. 641–0097

REPAIRS: Any kind of repairs can be effected at this port.

REPATRIATION: Possible.

AIRPORT: Haneda International Airport 25 km., Narita International Airport 100 km. and served by many regular airlines.

TIME: GMT plus 9 hours. No alterations made to clocks during year.

HOLIDAYS: Only observed at Public terminals.

POLICE/AMBULANCE/FIRE: Police, 110; Ambulance, 119; Fire, 119.

TELEPHONES: Telephones can be placed on board.

SERVICES: Almost all requirements by ships could be met, if time permits.

TANKERS: Masters of tankers seldom requested to fit reducing pieces before arrival for connection of shore lines since oil installation have own appliances. Two slop disposal facilities, one in District No. 5 in Yokohama which is private enterprise and can dispose of dense residues, and one in District No. 1 in Kawasaki which is run by Kawasaki city and can dispose of diluted slop or oily ballast. (Also see "Max. Size").

Berth	*Product*	*Shoreline*	*Discharge Rate (t.p.h.)*
Keihin Yokohama Sea Berth	Crude	20 in.×2	8,000
Showa Shell Oil Main Jetty	Lub. Oil	8 in.×2	1,200 (Kl.p.h.)
		6 in.×2	1,200 (Kl.p.h.)
		4 in.×2	1,200 (Kl.p.h.)
	Fuel (Black Oil)	8 in.×6	1,200 (Kl.p.h.)
		6 in.×1	1,200 (Kl.p.h.)
	Fuel (White Oil)	8 in.×8	1,200 (Kl.p.h.)
		6 in.×1	1,200 (Kl.p.h.)
General Sekiyu (Tsurumi Terminal)	Fuel	10 in.×1	600
	Fuel	8 in.×1	600
	Fuel	6 in.×1	300
Mobil Oil (Tsurumi Terminal)	Lub. Oil	6 in.×10	300 (each)
	Fuel	12 in.×3	800 (each)
	Fuel	10 in.×4	600 (each)
	Chemical	12 in.×1	1,000
	Chemical	8 in.×2	500 (each)
Esso Sekiyu (Tsurumi Terminal)	Fuel	12 in.×1	600
	Lub. Oil	10 in.×1	200
	Lub. Oil	6 in.×2	150/100
	Kerosene	10 in.×1	500
	Soluent	6 in.×1	150
Asia Oil No. 5	Crude	10 in.×2	2,000
	Fuel-C	10 in.×2	2,000
	Fuel-A	6 in.×1	500
	Gasoline	6 in.×1	600
	Kerosene	6 in.×1	500
	LPG	6 in.×1	200
Nisseki Yokohama	Crude	12 in.×2	2,500 (Total)
Nisseki Negoshi A(E.)	Crude	12 in.×3	7,500
A(W.)	Crude	12 in.×3	7,500
B	Fuel/Crude	12 in.×2	5,000
Showa Shell (Sea Berth)	Fuel	12 in.×3	1,800 (Kl.p.h.)
Tokyo Gas	LNG	12 in.×2	5,000 (Kl.p.h.)
	LNG (Gas)	12 in.×1	9,000 (cu.m.p.h.)
	LPG	12 in.×1	2,400 (Kl.p.h.)
	LPG (Gas)	12 in.×1	3,000 (cu.m.p.h.)
	Naphtha	10 in.×1	2,000 (Kl.p.h.)
	Naphtha	6 in.×1	700 (Kl.p.h.)

DRY DOCKS: The largest dry dock, owned by Ishikawajima-Harima Heavy Industries Ltd. (and another six smaller dry docks owned by Mitsubishi Heavy Industries Ltd., Nippon Kokan K.K.). Max. length, 1,161 ft. 5 in.; breadth at entrance, 183 ft. 8 in.; height of sill above bottom dock,, 5 ft. 3 in.; depth on sill at high water, ordinary spring tides, 20 ft. 3 in.

DEVELOPMENTS: *Daikoku Pier:* Daikoku Pier is an island type pier, which is constructed in 2 stages. The first district of 22 ha. has been completed and 19 berths, including 2 container berths and 8 liner berths, have started operations. A green belt and sports facilities are open to port workers and crew. The second district of 100 ha. is under construction and will be equipped with the following facilities: 2 container berths each for 40,000 d.w.t. class ships (length: 600 m., depth 13 m.) completion 1990; 3 tramp berths each for 15,000 d.w.t. class ships (length: 555 m., depth 10 m.); one tramp berth for 30,000 d.w.t. class (length: 240 m., depth 12 m.).

Honmoku Pier: Additional reclamation work on "D" Jetty (approx. 7 ha.) for expansion of facilities has been completed. The Honmoku Terminal Office Centre, which was built to make public container berths more efficient by gathering information from shipping companies, agents and cargo handling companies using these berths (opened in January 1986). CFS and MS opened in 1987. Terminal Corporation opened one container berth leased to APL in 1984 and another container berth (leased to MOL) in 1986, on this reclaimed land.

1,000 m. quay of "C" Jetty for public use has been improved to multi-purpose berths, mainly for container cargoes. Initially, 400 m. length with 2 gantry cranes started operations in 1986.

Pier D: 2×300 m. container berths to be built by 1990.

Minami Honmoku Pier: Minami Honmoku Pier to be constructed by reclaiming 98.2 ha. at the South area of Honmoku Pier. Large container berths (4) are planned on this pier.

Kanazawa Reclamation Project:

Reclamation work has been carried out in the sea in front of Kanazawa Ward, in accordance with the city redevelopment plans. A modern industrial zone will be formed on this reclaimed land and many factories that are now scattered in the city, whose locations are undesirable from an environmental view point, has been urged to be relocated to this zone. Thus, while improving the conditions in the city area and various city facilities, the project aims at realising an ideal industrial complex where new and relocated facilities will be given sufficient guidance and assistance to have highly modernised facilities that will be free from any pollution problem.

In addition, a marine park (partly open) will be made, where the people can enjoy the beauty of nature and take quiet repose.

Minato Mirai 21 New Port City Plan for 21st Century: A plan for constructing a new city is underway in an area of 110 ha. extending from the East entrance of Yokohama Station to Shinko Pier via Takashima Pier by reclaiming 76 ha. of land in addition, for the functions of this area as a harbour are poor as its facilities have been overworked.

This area has good conditions of location. Therefore, by integrating here the city functions such as business, culture, commerce and recreation, etc., with international features as its axis and by improving the harbour according to the liking of citizens, it is planned to form a new and attractive city by uniting the entire city that has been split up into two parts. At the same time, it is planned to strengthen the harbour functions by way of integrating the control functions.

Its construction work started in November 1983 with the year 2,000 as the target for its completion.

AUTHORITY: Port and Harbour Bureau, City of Yokohama, 2 Yamashita-cho, Naka-ku, Yokohama, 231 Japan. *Tel:* 045-671-2874/2888. *Telex:* 3822844 Green J. *Contact:* H. Shimizu, Director of Port Promotion Division.

AGENTS: Dodwell Tramp Agencies, P.O.Box 271, Yokohama Port, 5th Floor, Minato Building, 33, 3-chome, Hon-ho, Naka-ku, Yokohama. Tel: (045) 201-6991. Cable Address: Dodtramp Yokohama. International Telex: J47721.

YOKOSUKA: 35.17 N. 139.40 E. (See Plan)

DOCUMENTS:

Customs:
- Port Call Notification.
- Cargo List.
- List of Crew's dutiable possessions.
- Passenger List.
- Crew List.
- Ship's Nationality Certificate.
- Port Departure permission paper.

Immigration:
- Crew List.
- Port Call Notification.
- Passport or Crew Pocket Book.

Quarantine:
- Declaration of Health.
- Crew List.
- Passenger List.

Plant Protection Station:
- Plant Importation Inspection Application.

Maritime Safety Agency:
- Port Call Notification.
- Application for Loading, Transfer and Unloading of Explosives and Combustibles.
- Application for Transport of Explosives and Combustibles.

Port Authority:
- Port Call Notification.
- Application for use of Facility.

PILOTAGE: In applying for Pilot at time of entry and departure, pilot station should be contacted 24 hours in advance of beginning of Pilotage through Agent. 44 Pilots available.

Uraga Channel Pilots: Tel: 0468-35-6211. Telex: 3852-451.

VHF Call sign: "Uraga Channel Pilot", on Channel 16.

ANCHORAGES: At 4th District of Yokosuka Port. Depths 10 m.–30 m.

RESTRICTIONS: The 1st, 2nd and 3rd District of Yokosuka Port under compulsory pilotage districts.

Possibilities of Entry or Sailing after Sunset:

Nagaura Pier:
Entry – 0600 hrs. to 1800 hrs.; Sailing – 0600 hrs. to 2200 hrs.

Yokosuka Shin-ko:
Entry – 0600 hrs. to 1700 hrs.; Sailing – 0600 hrs. to 1700 hrs.

MAX. SIZE: See "Berthing".

HEALTH: Radio Pratique available. Authorities board at anchorage. Quarantine Station to be informed in advance name of last port, ship's name, tonnage, number of crew, number of passengers, ship's nationality, etc. In event any suspected disease, Agent should be advised. When isolation of ship needed, it will be transferred to Nagahama Quarantine Station in Yokohama.

RADIO: Local radio station.

TUGS: Can be arranged through Agent. Tugs normally join vessel in 3rd District when vessel enters Nagaura and New Port, and in 7th District when it enters Kurihama. Tug's lines to be used. Charge for tug's lines included in charge for tug.

BERTHING: Agent submits application for berth to Port Authority (Nagaura and Kurihama Port Offices and Yokosuka New Port Wharf Company).

			Max. Size		
Berth	*Depth* (m.)	*Length* (m.)	*Draft* (m.)	*Length* or g.r.t.	*Remarks*
Nagaura Pier					
No. 1	9.0	150	8.7	15,000 g.r.t.	At high tide
No. 2	10.0	200	9.7	210 m.	In good weather
North Dock	10.7	85 dolphin	10.9 Plus Tide	21,000 g.r.t. about 200 m.	
South Dock	4.9	about 80 dolphin	5.0	2,000 g.r.t.	
East Dock	7.8	about 90 dolphin	8.0		
Yokosuka Berth					
No. 6	9.4	118	8.0		
No. 7	9.7	118	8.2		
No. 8	10.6	225	9.0		
South	8.2	64	7.2		
No. 9	4.2	160	3.7		
No. 10	10.0	150	8.5		
No. 11	11.5	150	9.5		
No. 12	7.3	280	6.7		
No. 6 Dock	12.6	317	9.1		Across sill 51.5 m.
Berth No. 14	12.6	150	9.1		
Berth No. 15	12.6	167	9.1		
Berth No. 16	12.6	167	9.1		
Berth No. 17	12.6	150	9.1		
No.5 Dock	10.0	307	9.1		Across sill 32.1 m.
No. 4 Dock	7.82	227	6.8		Across sill 25.3 m.
New Port					
Pier No. 1	5.5	90	5.0	2,000 d.w.t.	
Pier No. 2	5.5	90	5.0	2,000 d.w.t.	
Pier No. 3	7.5	130	6.5	5,000 d.w.t	
Wharf No. 1	10.0	200	9.0	15,000 d.w.t.	
Wharf No. 2	10.0	200	9.0	15,000 d.w.t.	
Nagaura Buoys					
C1	12.7	190	11.7	20,000 g.r.t.	
C3	13.3	160	12.3	20,000 g.r.t.	
C4	13.2	250	12.2	20,000 g.r.t.	
C5	12.1	270	11.1	20,000 g.r.t.	
C6	11.3	170	8.9	10,000 g.r.t.	
C8	8.5	130	7.5	3,000 g.r.t.	
N2 – N6	7.2	110	6.2	3,000 g.r.t.	
N5	7.0	100	6.0	3,000 g.r.t.	
N14	6.1	100	5.5	3,000 g.r.t.	
N16	6.1	100	5.5	3,000 g.r.t.	
Kurihama					
No. 1 Pier (Nichiro)	6.5	220	6.0	8,000 g.r.t.	
No. 2 Pier (Shingan)	6.6	130	6.1	8,000 g.r.t.	

STEVEDORES: Agent will arrange stevedores.

MEDICAL: Agent can arrange doctor who understands foreign languages.

TANKERS: No berthing facility for commercial tankers. Only U.S. Naval Base, Yokosuka, has berthing facilities.

FRESH WATER: Available by barge or ex-wharf. 50% additional charge in case of bad weather or out of office hours.

FUEL: Most grades of domestic and bonded oil are available from Yokohama or Kawasaki.

GANGWAY/DECK WATCHMEN: Agent arranges watchmen.

OPENING/CLOSING HATCHES: Stevedores or crew.

CUSTOMS ALLOWANCES: Tobacco: 2 packets per day. Spirits: 1 bottle when more than 1 month voyage; 2 bottles when more than 6 months voyage.

CONSULS: None.

REPAIRS: Dockyards available for all repairs.

DRY DOCKS: 1 – 475×19.5 ft.; 1 – 352×15.75 ft. 5 large-size slips; 1 rigging wharf.

REPATRIATION: No facilities exist. If necessity occurs, Yokohama Immigration Office will attend.

AIRPORT: 40 km. to Tokyo International Airport.

TIME: GMT plus 9 hours. No alterations during year.

HOLIDAYS: Cargo work usually daytime. On Saturday afternoon and Sunday, National holidays, Municipal Inauguration Anniversary, and December 31, January 1, 2 and 3 no cargo work.

POLICE/AMBULANCE/FIRE: Police, 110; Ambulance/Fire, 119.

TELEPHONES: Facilities now underway.

GENERAL: Port situated in city confines, a portion of port is used by JMSDF and also by the U.S. Navy according to Japan-U.S. Security Treaty.

AUTHORITY: Nagaura Port Office, Mubanchi, Minato-machi, Taura, Yokosuka City. *Tel:* (0468) 61-3419.

Port & Harbour Dept., Yokosuka City, 11, Ogawa-cho, Yokosuka City. *Tel:* (0468) 22-4000.

AGENT: Sub-Agent of Dodwell & Co., Tokyo. Sagami Unyu Kabushiki Kaisha, Taura Minato-Machi, Yokosuka-shi, Kanagawa-ken.

Cables: Sagami Yokosuka Taura. Tel. Yokosuka (0468) 61-5361.
Telex 03852-528.

Jordan

AQABA: 29.31 N. 35.01 E. (See Plan)

LOCATION: The commercial sea port of Aqaba is the only outlet to the Hashemite Kingdom of Jordan, and is situated at the top of the Gulf of Aqaba at Lat. 29° 31′ N., Long. 35° 01′ E.

The Passenger and Container Terminals lie approximately 3 miles to the South of the main port.

The New Oil Exporting Jetty lies approximately 8 miles to the South of the main port.

The Fertiliser Industry Terminal lies approximately 12 miles to the South of the main port.

PORT LIMITS: The Southern limit of the port is an imaginary line 270° from Al Derrah Point (Saudi Border); about 12.5 miles from the main port.

DOCUMENTS: *Documents required by the authorities for cargoes:*

1 copy of all dangerous goods on board showing IMO & UN numbers.
6 copies unfreighted Manifest, showing IMO & UN numbers for dangerous goods.
2 copies of unfreighted Manifest for Free Zone if vessel has Free Zone cargo.
1 set of non-negotiable Bills of Lading.

All Manifests should bear the following clause: "This is to certify that the above vessel has not called and is also not scheduled to call at any Israeli ports nor is owned by any Israeli Company, also it is not included in the Black List".

All the above documents are to be airmailed to the Agent's Head Office in Amman and not Aqaba.

Documents Required by the Authorities for Free Pratique:

7 copies Crew List.
7 copies Passenger List.
1 copy Stores List.
1 copy Crew Declaration List.
1 copy Vaccination List.

The Following Forms to be Filled:

2 copies of Maritime Declaration of Health.
1 Customs Declaration Form.
2 copies Vessel's Specification Form.
1 copy Pilotage Form.

The Following Documents to be Produced for Checking:

(*a*) Log Book.
(*b*) Ship's Registry Certificate. (Kept by the Port Authorities until departure).
(*c*) Derat Certificate.

PILOTAGE: Pilotage is compulsory for all vessels above 150 n.r.t. for berthing, unberthing and entering the near (East) anchorage area. Pilotage is obtained from the Harbour Master through Port Control. Ships in harbour requiring a Pilot should call the Pilot via Aqaba Port Control Radio (VHF Channel 16, working Channel 12) 1 hour before ship is ready to move. Advance notice of the ship's requirement of pilot service should be given to the Agent who should advise the Harbour Master or his representative.

It should be noted that vessels may proceed to sea from the anchorage without taking a Pilot, but for ships leaving the berths alongside, pilotage is compulsory. Sound signals are prohibited.

Ships intending to go to anchorage, cargo berths or bulk export berths should wait for Pilot 1 mile to the West of the Phosphate Berth.

Ships intending to berth alongside the Floating Berth (Yarmouk) or Container Terminal should wait for Pilot 1 mile to the S.W. of these berths.

Ships intending to berth alongside the Fertiliser Berth or the new Oil Jetty should wait for Pilot 1 mile to the S.W. of these berths.

The vessel has to supply the following information to the pilot station when requesting a Pilot:

(a) Name of vessel;
(b) Nationality;
(c) Agent's name;
(d) Overall length;
(e) Maximum draft;
(f) Gross and net tonnages;
(g) Cargo for Aqaba;
(h) Any special characteristics of vessel.

ANCHORAGES: About 0.6 miles from shore in depths of 15 — 30 fathoms. Ships awaiting discharge can easily anchor in deep water anchorage which can accommodate 11 large vessels.

Anchorages 1-5 are called inner anchorage and are used for ships discharging cargo into barges. The remainder (6-11) are used for ships waiting. The anchorage may take a larger number of ships during congestion periods. All anchorages lie in the compulsory pilotage areas.

When anchored, all ships must keep 6 cables distance from the Royal Jetty.

RESTRICTIONS: The entry of ships to anchorage after sunset is not allowed. Berthing is prohibited during darkness at the oil terminal.

Ships' Masters are warned that contravention of above rules renders them liable to penalties of up to JD. 10,000 per ship.

MAX. SIZE: Up to 20,000 d.w.t. Max. draft 32 ft. for the cargo berths and 100,000 d.w.t. and 50 ft. draft for the phosphate loading berth. Also see "Berthing" and "Notice".

HEALTH: Health Officials board after vessel drops anchor or after vessel is secure alongside.

The Port Medical Officer is in charge of granting Free Pratique to all vessels on arrival, and of all medical matters concerning ships and seamen.

RADAR: There is no Port Control Radar, but tug "Ramm" is equipped with radar and sounding apparatus.

VHF: Aqaba Port Control at Harbour Master's Office listen from 0700 to 2400 hrs. local time on VHF Channel 16, working Channels 10 and 12 for service messages. Pilots listen VHF Channel 16.

TUGS: Compulsory. 3 tugs, 1,300 h.p. – 1,500 h.p. 8 mooring and towing boats 80 h.p. – 380 h.p.

RADIO: Aqaba Radio Station, call sign JYO.

Watchkeeping hours are currently from 0500 hrs. to 1700 hrs. GMT. The station received all MF frequencies on: 500 kHz and 477 kHz and receives HF frequencies from 0700 hrs. to 0900 hrs. GMT only on 8728 kHz. The radio station listens on VHF Channel 16.

Weather forecasts: Twice daily, at 0730 hrs. and 1530 hrs. GMT. A new radio station is presently under construction and is expected to be completed by mid-1989.

The new radio station will work for 24 hours and will be able to receive all types of communications (Telegraphic, Telephonic, Telex, etc.)

Note: To all ships bound for Aqaba Port = In order to facilitate berthing and cargo handling at Aqaba Port, Masters of ships are kindly requested to cable Harbour Master in Aqaba via Aqaba Radio 72 hours and confirm 24 hours before arrival providing the following information:– Ship's name, Flag, Last Port, Next Port, Cargo for Aqaba, Tonnage and Type, Length, Breadth, GRT/NRT, Draft Forward/Aft, ETA, Aqaba Agent's Name, Liner or Charterer, Year built, and if Ro-Ro ship, the Ramp Location. Station Telex No. 62325 Aq Radio Jo. Station Tel. No. 315544 and 314321.

BERTHING: The Main – Port Berths: Includes 12 berths with a total length of 2,050 m. for handling general cargo, grain, phosphate and discharging lighters.

Berth No.		*Length of Berths* (m.)
1	receives ships up to 20,000 d.w.t.	160
2,5,6		180
3,4		180
7		150
8,9		150
Lighter Discharging Berth		150
Phosphate Berth A (With conveyor belts and shiploader of 1000 t.p.h.)		210
Phosphate Berth B (With conveyor belts and two shiploaders of 2200 t.p.h. each).		180 (Receives ships up to 100,000 d.w.t.)

Also see "Notices".

Container Berth: Total length of 540 m. and a depth of 15 m. which can receive 3 vessels at a time up to 100,000 d.w.t. each. It is equipped with 2×40 ton gantry cranes. Attached to this berth and with a depth of 10 m. is the Ro-Ro Berth with 40 m. length.

The Container Terminal has a container freight service, Container Freight Station (CFS) and a container and Ro/Ro storage area of 309,000 sq.m.

The capacity of the container storage area is 7,000 full containers and 5,000 empty containers (in TEUs).

The Terminal also has 24 power points for the supply of power to refrigerated containers.

Passenger Terminal and Yarmouk Floating Berth: Length 150 m. and depth 15 m. It specialises in passenger traffic and their vehicles, it also receives Ro-Ro and container ships.

Mo'ta Floating Berth: Recently fixed to the North of container berths with a length of 150 m. and a depth of 15 m. It is used for bagged cement, export purposes and Ro-Ro vessels. Max. size 20,000 d.w.t.

Moshterak Berth: Length 120 m. and depth of 11 m. Dolphin berth used for oil product exports. Max. size 120,000 d.w.t.

New Oil Export Jetty: Length of jetty 150 m. Depth alongside 25.0 m. There are 4 breasting dolphins and 4 mooring dolphins. Max. size 300,000 d.w.t. Max. monthly oil exporting capacity 300,000 tons.

Industrial Port: Jordan Fertiliser Industry Co. Ltd.

A)	Timber berth (J.F.I) 1	*Sea Side*
	Max. draft permissible	7.0 m.
	Length of berth	80 m.
	Max. vessel width	—
	Max. vessel d.w.t.	5,000 tons
B)	(J.F.I.) 2	*Shore Side*
	Max. draft permissible	1.75 m.
	Length	45 m.

There is possibility to use Berth No.1 and No.2 for Ro/Ro vessels of different sizes, with stern (straight) ramp of not less than 35 m. in length. The vessel will be moored 25 m. from the jetty.

C)	Fertiliser berth	*Sea Side*	*Shore Side*
	Max. draft permissible	15 m.	11 m.
	Length	230 m.	190 m.
	Max. vessel width	27 m.	27 m.
	Max. vessel d.w.t.	50,000	40,000

2×2,000 t.p.h. shiploaders and 1×500 t.p.h. ship evacuator.
2 Potash stores, each 75,000 tons capacity.

CARGO EQUIPMENT: *Grain Silos:* Erected by Ministry of Supply on Berth No.1 with evacuators & conveyor belts with a capacity of 500 t.p.h., and storage capacity of 150,000 tons.

Cargo Handling Equipment:

62 cranes with a capacity of 2 tons - 90 tons.
108 Forklifts with a capacity of 1.5 tons - 22 tons.
49 Tractors.
9 Straddle carriers for handling containers.
19 Tug Masters.
12 Top lifts of 5.0 - 30.5 tons.
2 Gantry cranes with a capacity of 40 tons each.
120 Trailers.
33 Barges with a capacity of 250 tons - 500 tons each, including 1 Water Barge, 1 Waste Collection Barge and 1 Oil Pollution combatting Barge.

Storage Facilities:

Total Shedded Area	41,500 sq.m.
Closed Hangers Area	34,500 sq.m.
Paved Open Storage Area	450,000 sq.m.
Closed Cold Store	500 Tons
Container Terminal Area	309,000 sq.m.

STEVEDORES: Stevedoring is carried out by The Ports Corporation and their working hours are from 0700 – 1400, work must start at 0700 and end at 1400, therefore there is 1 hour overtime in the morning from 0700 – 0800. The second shift's working hours are 1700 – 0100 next morning and are counted as overtime hours.

Ships with homogenous cargoes of bags or steel may work four shifts per day – first shift 0700 to 1100, second 1100 to 1600, third 1600 to 2200 and fourth 2200 to 0500 next morning.

During the month of Ramadan the timing is 0700 – 1300 for the first shift and 2100 – 0300 next morning for the second shift, the four shift system is suspended during this month.

Cargo work is continuous throughout the year with the exception of 1 day at Eid-El-Fitr (the first day of the holiday) and 1 day at Eid-El-Adha (the first day of the holiday).

Friday is the official weekly holiday therefore the working hours during this day are treated as overtime hours at an extra cost of JD 37.5 per gang per day.

Ships' Working Hours: Ships can work around the clock depending on the Master's option and the number of ships in port. Opening of ships' hatches is allowed up to 2100 hrs. if Agent arranges for gangs beforehand.

The port meeting is held daily at 1000 hrs.

TANKERS: Tankers loading fuel oil can be handled at the following berths:

Mushterak Berth: Consisting of 2 dolphins 120 m. apart from each other with a depth of 11.0 m.

New Oil Berth: Export tankers berth alongside storage vessel "Red Seagull" LOA 362 m. "Red Seagull" is under management of "Sosema Matex" and is used to export Iraqi Crude Oil. No draft restrictions for ocean-going tankers, however LOA should not exceed 340 m. Loading is through 3 × 12 in. hoses at an average rate of 8,000 tonnes per hour.

Port Restrictions:

1. No night berthing/unberthing.
2. Dirty ballast facilities are not available.
3. Pilot boarding area adjacent to the terminal.
4. Slops not accepted.
5. No limitation on freeboard.

Port Circulars:

Ref. No. 2/10/2/499
Date: 10/1/86

To Ocean Going Oil Tankers Arriving at Aqaba Oil Terminal:

Standard information from ocean going oil tankers arriving at Aqaba Oil Terminal must be sent by cable or letter to Ports Corporation at least 15 days before arrival.

1. Date/time of arrival to be confirmed 5, 4, 3, 2, 1 days before arrival.
2. Ships particulars name/kind, date of building, d.w.t., draft, LOA, breadth.
3. Ballast condition, quantity of ballast, condition of ballast segregated or clean ballast.
4. Slop quantity on board on arrival.
5. Condition of cargo tanks, crude oil washed, gas free etc.
6. All overboard ballasting, deballasting, lines condition flushed, cleaned.
7. Equipped with inert gas system, then percentage of oxygen in the cargo tanks on arrival and throughout cargo operations.

All information sent to Ports Corporation must be correct.

Ref. 2/10/2/521
Date: 29/1/86

Port Instructions and Regulations to receive and serve Oil Tankers:

All oil tankers arriving at Aqaba Oil Terminal should comply and perform with the international convention 1973 and 1978 (MARPOL) marine pollution protocol and with OCIMF/ICS for ship to ship transfer guide (petroleum) for the safety and preventing pollution at Aqaba Gulf, hereby:

1. Oil tankers are requested to have segregated ballast, only such capacity which will allow them to operate safely on ballast conditions and on manoeuvring purposes are accepted. No other ballast except the segregated will be, for any reason, discharged at sea - while there are no reception facilities available at Aqaba Oil Terminal.
2. Oil tankers will be allowed to come alongside the storage vessel only if fully inerted. They will be rejected if oxygen percentage is more than 8% and the inerted condition will be maintained throughout mooring and loading/discharging operations.
3. Oil tankers must have the cargo tanks dry, clean and suitable to receive cargo on arrival avoiding any kind of contamination.
4. The crude oil must be loaded by tankers of approximately 200,000 d.w.t. as per contract with Ports Corporation.
5. Tankers age should not be more than 10 years.
6. Oil tankers will be inspected by Ports Authority on arrival coming alongside the storage vessel and they will be rejected if not complying with the requirements mentioned here above.

Also see "Berthing".

DENSITY: Average density in the port is 1031.

MEDICAL: The Health Department of Aqaba Port provides all medical services required and responds to any urgent calls by radio before arrival. A government hospital is available and is well-staffed.

FRESH WATER: Fresh water may be supplied to ships and water may be supplied alongside any of the berths with the exception of the floating berth which has no water available.

FUEL: Bunker fuel is available in Aqaba.

REPAIRS: Only minor repairs may be carried out above the waterline. Divers may be obtained and a private firm carries out repairs to Navigational Aids including radar, gyro compass, echo sounder, wireless equipment, etc.

DRY DOCKS: Slipway for maintaining port equipment.

SURVEYORS: Germanischer Lloyd, NKK, Bureau Veritas and Lloyd's Register are available.

OPENING/CLOSING HATCHES: Normally handled by stevedores while alongside or by ships' crew before arrival.

CUSTOMS ALLOWANCES: 20 packets of cigarettes and 1 bottle of liquor for each crew member. Ships' store is locked and sealed by Customs while in port.

GANGWAY/DECK WATCHMEN: Customs provide a guard who has to be given full board and lodging. Ships are also supplied with local watchmen through Agents.

HOLIDAYS: May Day (May 1st); Independence and Army Day (May 25th); Arab Reconaissance Day (July 4th); Crowning of King Hussein (August 11th); King Hussein's Birthday (November 14th).

The following dates change from year to year as they are reckoned in accordance with the lunar calendar consisting of 354 days.

1986: Eid El Maraj (April 7th); Eid El Fitr (June 8th); Eid El Adha (August 16th); New Year Hijriya (September 5th); Prophet's Birthday (November 15th).

CONSULS: All Consulates are in Amman, the capital, except for Hon. Danish Consulate, (Vice-Consul), at Kawar Building and Egyptian Consulate (Western Housing Area).

TIME: GMT plus 2 hours.

AIRPORT: Aqaba Airport links Aqaba with Amman International Airport 355 km. away. One flight daily except for Thursday and Saturday when 2 flights are scheduled for each.

GENERAL: *Weather:* Masters are warned that during the Winter months strong Southerly gales can develop within 2 hours followed by swell. In such a case it may be necessary for small vessels to unberth and proceed to sea, and also for vessels in the anchorage to weigh anchor and proceed to sea and remain at sea until the weather moderates.

Range of Tide: The range of tide is 1.2 m. at Spring tides.

Firefighting: The port has its own fire brigade, which includes 5 water and foam engines; 1 dry powder engine; 1 ladder engine; 3 water and rescue engine and 2 manual high capacity pumps, plus a variety of equipment such as breathing apparatus, etc.

The town of Aqaba has a highly efficient and well equipped fire brigade and it is 4 km. away from the port.

Aqaba Airport 11 km. away also has a fire brigade and assistance may be called for from any of these whenever needed.

Waste Matter and Pollution: No rubbish may be thrown overboard either at the anchorage or alongside the quays. A barge calls regularly at all anchorages to collect garbage. No vessel which has carried livestock may clean its holds while in port. No vessel may pump overboard any silage, fuel or water ballast liable to contaminate the port. This regulation refers particularly to substances mixed with oil.

Ships' Masters are warned that contravention of the above rule renders them liable to penalties of up to JD. 10,000 per ship.

NOTICE:

The Hashemite Kingdom of Jordan Port Corporation - Aqaba
No. 7/3/9492
Date: 4/10/1986

Circular No. 26 for 1986 (with amendment 8/3/1987)
to all Ship Agents

Further to my Circular No. 3 for the year 1985, and effective immediately it is forbidden to accept any vessel calling at Aqaba Port for discharge at berth if she is exceeding the length and draft hereunder.

All Lines represented by you should comply with these instructions.

Berth	*Draft allowed* (m.)	*Length of Vessel* (m.)
No. 1	11	200
No. 2	10	180
No. 3, 4	12.5	180
No. 5	10.5	180
No. 6	10	180
No. 7	8	150
No. 8, 9	5.8	110
Old Phosphate – A	11	
New Phosphate – B	15	220
Mou'ta	15	150
Joint Berth	12	250
Ro/Ro	10	180
Containers	14	230
Yarmouk	10	150
Wood	7	120
Orient Fertiliser Berth	11	190
Western Fertiliser Berth	15	230

Fertiliser Berth No. 2 and Ro/Ro Berth (9 m.): Ro/Ro vessels should have a ramp with at least 35 m. length, and with a minimum distance of 25 m. from the berth.

Signed:
General Manager,
Ports Corporation.

DEVELOPMENTS *Development Projects:* Proposed projects for 1986 - 1990 are:-

1. Erection of a new Ro/Ro passenger terminal.
2. Erection of a berth to serve the Ro/Ro passenger terminal.
3. Developing Port's communication system and the coastal station.
4. Project of prevention of pollution & firefighting.
5. Purchase of 2 tug boats & cargo handling equipment.
6. Computerisation is under consideration.

AUTHORITY: The Ports Corporation – Aqaba, P.O.Box 115, Aqaba, Jordan. *Tel:* 314024/8. *Telex:* 62262, 62352 Port Jo, 62235 Radio Jo. *FAX:* 316204, 316249. *Cables:* Port, Aqaba. *Contact:* Eid Al-Fayez, Director General.

AGENT: Gulf Agency Co. (Jordan) Pvt. Ltd., P.O.Box 1479, Aqaba, Jordan Tel: 314218, 312909, After office hours: (06) 821155. Telex: 62343 Gacship JO. Fax: 313618. Cables: Gacship, Aqaba.

Kampuchea

NOTES

Please also advise Shipping Guides Ltd.

KOMPONGSOM: 10.38 N. 103.29 E.

PORT LIMITS: The seaward boundaries are fixed by the buoys "KS" to the South and "A" to the East (for cargo ships) and 2 miles N.W. of Rocher Carre (for tankers).

DOCUMENTS:

Entry form to be completed on arrival:
23 Manifests of Cargo for Discharge.
2 Manifests of Cargo in Transit.
10 Crew Lists.
7 Passenger Lists.
7 Lists of Provisions.
7 Lists of Crew Personal Effects.
7 Lists of Arms and Ammunition.
7 Lists of Drugs and Narcotics.
Ship's Register.
Passenger Safety Certificate.
Safety Equipment Certificate.
Safety Radio Certificate.
Safety Construction Certificate.
Load Line Certificate.
Derat Exemption Certificate.

PILOTAGE: Contact "Pilot Kompongsom" giving ETA 24 hours before arrival. Pilotage is compulsory for all vessels of more than 150 n.r.t. Pilot launch is a white motor boat carrying international pilot signals. Cargo Vessels: Pilot boards at Buoy KS. Tankers: Pilot boards 2 miles N.W. of Rocher Carre. Pilot station equipped with VHF simplex Channel only, Channel 16.

ANCHORAGES: Southern Anchorage: Centred on Buoy KS at the entrance of the deep-water channel in depths of 10 m. – 12 m.

Northern Anchorage: to the West of Buoy A, in depths of 10 m. – 11 m.

Tanker Anchorage: 2 miles N.W. of Rocher Carre in depths of 15 m. – 18 m.

RESTRICTIONS: Entrance prohibited to Portuguese and South African vessels. Berthing daylight only, and unberthing day and night but delays may occur in bad weather during S.W. monsoon.

MAX. SIZE: Cargo vessels: Draft 7.60 m. plus height of tide. Limited by entrance channel. Tankers: Length 220 m., and draft 11.50 m.

HEALTH: Authorities board all vessels on arrival at the quay or in the outer harbour. Quarantine flag to be flown by all vessels even if coming from a Kampuchean port. In case of suspected disease on board, contact "Sante Kompongsom" by radio before arrival.

RADIO: Kompongsom Radio; call sign XUK, operating 24 hours daily. Medium wave: receiving on 500 kHz, transmitting on 500 and 458 kHz. Short wave: receiving on 8364 and 4185 kHz. Transmitting on 8480, 8680, and 4342 kHz.

TUGS: Available to assist berthing and unberthing. Join vessel in immediate vicinity of the berth. Vessel's lines used. 3 tugs available, largest 1,500 h.p.

BERTHING: Commercial Dock: West side, 2 berths for vessels up to 9.50 m. draft. East side, 2 berths for vessels up to 7.50 m. draft.

New basin, for vessels up to 6.50 m. draft.

Tankers: Oil Refinery Terminal situated at Pointe du Depart. 2 sea-line buoy berths in depths of 13 m. No slop disposal facilities. Hoses are lifted and connected by ship's crew.

STEVEDORES: Working times from 0700 hrs. – 1130 hrs., from 1400 hrs. – 1700 hrs., from 1900 hrs. – 2200 hrs. according to authorisation of Military.

MEDICAL: Advance notice required of serious cases to arrange transportation to Phnom Penh. Local doctors and hospital available for non-surgical cases. Crew require cholera and yellow fever certificates.

DENSITY: 1022 in February; 1012 in July.

FRESH WATER: Available at Commercial Dock at rate of 10 cu.m./hr. Very small quantities may be supplied by tug.

FUEL: Only available supply by tanker-lorries in case of emergency.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

OPENING/CLOSING HATCHES: Performed by stevedores.

CUSTOMS ALLOWANCES: Each crew member allowed 1 carton cigarettes and 1 bottle alcohol for 5 days. Master not included in this restriction.

IDENTIFICATION CARDS: Seamen's passports or Seamen's Books are taken by Immigration in exchange for a shore pass to be surrendered when vessel departs.

CONSULS: France, Tel: 2742. All other consuls at Phnom Penh.

REPAIRS: Small repairs can be undertaken on board.

REPATRIATION: Can be arranged.

AIRPORT: Ream Airport, 18 km. from Kompongsom, domestic flights only. Pochentong Airport at Phnom Penh 226 km. from Kompongsom, with international services.

TIME: GMT plus 7 hours all the year round.

HOLIDAYS: Work can usually be arranged on all days except at Kampuchean New Year, 13th, 14th and 15th April, and for 2 days near the end of September which is the Buddhist Festival of the Dead.

POLICE/AMBULANCE/FIRE: National Police Tel: 2630; Police Aid 17; Fire 18; Ambulance 19.

SHORE LEAVE: Allowed. Permission of Immigration Department is required to travel outside Kompongsom port area.

Curfew: In force from 2200 hrs. – 0600 hrs.

DEVELOPMENTS: New wharves being built and access channels deepened.

AUTHORITY: Direction du Port Autonome de Kompongsom.

Kenya

MOMBASA: 04.04 S. 39.40 E. (See Plan)

DOCUMENTS:
Health Certificates: Forms obtainable from Pilot.
6 Crew Lists.
10 Passenger Lists.
Dangerous Cargo Lists.
Ship's Register.

Shipmaster's Report: 1981.
Declaration of Health (Form Med-284).
Port Health Clearance of Ships (Form GPK-160).
Set Vaccination Lists.
4 Crew Lists.
4 In-transit Passenger Lists.
4 Landing Passenger Lists.
Arrival Declaration for Passengers (Landing Only) (Form F1).
Stores List (Form C7).
Crew Declarations (Form C8).
Parcel Lists (Form C3).
Ship's Register (Copy).
Ship's Record & Master's Report (Form EAH-6007) (to Pilot).
Shore Passes (Company Forms).
Arrival & Sailing Reports (Agency Forms).

Shipmaster's Report: April 1984.

Please note that the "East African Countries" (Kenya, Tanzania, etc.) Customs Union does not exist any more and separate Customs Declarations are needed for each country. Consequently Bonded Stores seal can be broken after Mombasa or Dar Es Salaam.

PILOTAGE: ETA through ships' Agents, 48 hours' notice. VHF Channel 12 (Mombasa Radio VHF Channel 16). Pilot boat 72 ft. launch, international orange hull, white superstructure. No signals for Pilot – call on VHF Channel 12 (Mombasa Pilots) or by signal lamp to lighthouse. Pilot boat position 1 mile outside "Turning Buoy" on Ras Serani leads (301°). No special bad weather regulations. Pilot ladder 6 ft. from water – must have manropes – lit at night.

Tankers: For deep laden tankers, Pilot boards 1 hour before HW. Because of strong currents, deeply laden tankers must not attempt to "close" in before sighting pilot launch. Good lee and some headway recommended.

Special attention is drawn to the fact that ships bound for Kipevu must be in the agreed pilot embarkation position at the agreed time. The time agreed is chosen, such that, ships may transit the dredged channel with maximum advantage of the rising tide and arrive off the berth just before the ebb sets in. At that moment only little time is left to position the vessel and tie up sufficient moorings to hold vessel on to the jetty face, before the force of the ebb, diverted to an abeam direction by the jetty causeway, comes to bear on the ship's side.

Distance to Shimanzi Jetty, about 6 miles.
Distance to Kipevu Jetty, about 7 miles.

ANCHORAGES: No safe outer anchorage.

RESTRICTIONS:

Tankers:

1. By day: Max. length 850 ft.
   By night: Max. length 680 ft.
   Trim to be between 4 ft. to 6 ft.
2. Restrictions for night movements for Crude Oil or Black Oil ballasted vessels up to 850 ft. LOA provided: (Rigid requirements.)
   (a) movement takes place on last 3 hours of flood tide;
   (b) all anchorages between berth and sea are vacant;
   (c) the Duty Pilot holds a Master's Certificate;
   (d) ballast draft to be 18 ft. forward, 22 ft. aft.

No night movements are permitted for Low Flash White Oil product vessels. Masters of vessels ready to sail at night are strongly advised to notify the Authorities of the time of sailing; the vessel is to be ready to sail before 1600 hrs. and preferably before 1500 hrs. of the day in question.

This should be done by Radio direct to the Assistant Harbour Master and through Agent. The Agent must also make the request in writing to the Harbour Authorities so that proof of requirements exists.

This is a standing regulation.

MAX. SIZE: Length 850 ft. Draft 43 ft. 06 in. Also see "Restrictions", "Berthing" and "Tankers".

HEALTH: Radio Port Health Officer, Mombasa, giving last port of departure, ETA Mombasa, condition of crew, any sickness on board, passengers. Must have "Q" Flag until doctor visits vessel.

RADIO/VHF: Mombasa Radio Coast Station M/F, H/F, W/T & R/T and VHF R/T Services:

Station 5ZF (W/T) 500 – 524 kHz; traffic list 0100, 0500, 0900, 1300, 1700, 2100; Continuous watch; listening freq. 500 kHz.

Station 5ZF2 (W/T) 8710.4 kHz; traffic list 2018; schedules 2018 –2030, OBS only 0080 – 0030, 0600 – 0630, 1200 – 1230, 1800 – 1830; listening freq. 8354 – 8374 kHz.

Station 5ZF3 (W/T) 13065 kHz; traffic list 0448, 0830, 1518; schedules 0448 – 0530, 0830 – 0900, 1518 – 1545; listening freq. 12531 – 12561 kHz.

Station 5ZF4 (W/T) 17175.2 kHz; traffic list 1248; 1248 – 1315; listening freq. 16708 – 16748 kHz.

Station (R/T) 2595, 2181 kHz; traffic list 0603, 1203; schedules 0600 – 0630, 1200 – 1230; continuous listening watch outside schedules 2182 kHz; listening freq. 2182 kHz.

Station (R/T) 4409.4 kHz; traffic list 0533, 1303; schedules 0530 –0600, 1300 – 1330; listening freq. 4104.4 kHz.

Station (R/T) 8805.6 kHz; traffic list 0633, 1233; schedules 0630 –0700, 1230 – 1300; listening watch on 8255.6 kHz; 0330 – 1530 listening freq. 8255.6 kHz.

Mombasa Radio also provides continuous R/T service on VHF for the benefit of ships in and around Mombasa within radius of 30 miles. Channel 16 for calling and Channels 26 and 27 for working. All times in GMT.

TUGS: 3×4,000 h.p. and 1×6,000 h.p. (salvage tug). Tugs join vessel inside harbour between Ferry and Kilindini Reef. Tug lines no additional charge.

BERTHING: All berths fendered. Nos. 8, 9 and 10 and Shimanzi Oil Terminal berths, no berthing on ebb tide, with range of 6 ft. or more. Kipevu Oil Terminal berthing on first of ebb with tankers over 650 ft.

Draft alongside Nos.	1 to 5	32 ft. at datum
,, ,,	7	32 ,, ,, ,,
,, ,,	8	31 ,, ,, ,,
,, ,,	9	34 ,, ,, ,,
,, ,,	10	31 ,, ,, ,,
,, ,,	SOT	32 ,, ,, ,,
,, ,,	11 to 14	30 ,, ,, ,,
,, ,,	16 to 18	36 ,, ,, ,,
,, ,,	Mbaraki	36 ,, ,, ,,
,, ,,	KOT	44 ,, ,, ,,

Draft in Buoys varies from 24 ft. to over 60 ft. at datum

Channel depth 40 ft. at datum, plus tide, minus 6 ft. N.E. or 8 ft. S.E. Monsoon gives max. draft for entry. Therefore, max. draft given as 44 ft. as this is the controlling factor for KOT.

CARGO HANDLING: No. 9 Berth has been arranged for bulk export of soda ash. Berth for Roll-on/Roll-off traffic operates at Berth No. 14. Container berths at No. 16, 17 and 18. One 40 tonne container crane at No. 16. 3 ship-to-shore gantry cranes, 11 rubber mounted yard gantry cranes and 2 rail mounted gantry cranes available. Also see "Developments".

Mbaraki cement berth for bulk export of cement clinker and automated loading of cement in bags, also used for bulk import of coal.

Shimanzi oil terminal now handles all imports of bulk vegetable oil as well as all other oil products except crude oil.

Bulk Molasses exports handled at Berth No. 9 and Mbaraki.

Bulk cargoes are at present handled by grabs, railway wagons and lorries.

STEVEDORES: ETA preferably 48 hours in advance in order to arrange gangs. Advisable notify Harbour Master ETA and also give quantity of cargo to be loaded and/or discharged and other matters of importance.

Working Hours: Weekdays: 3 shifts, 0700 – 1500, 1500 – 2300 and 2300 – 0600. Saturday and Sundays: One shift, 0700 – 1500.

Stevedoring carried out by Kenya Ports Authority.

MEDICAL: In emergencies necessary to receive advance notice. Hospital facilities available. Inoculations required – yellow fever (endemic zones in Africa and South America), cholera (all ships from Asia).

TANKERS: Discharge and load white oils at Shimanzi. Discharge and load Heavy oils at Kipevu.

Shimanzi Oil Terminal: T-head jetty with 200 ft. long berthing head. Depth alongside 32 ft. LWOST. Bunkers and fresh water available.

Kipevu Oil Terminal: T-head jetty with 225 ft. long berthing head. Tankers up to 65,000 d.w.t. berth at dolphins alongside jetty head; depth alongside 44 ft. LWOST. Max. length 820 ft. Max. draft 44 ft. (over 42 ft. by arrangement). Slop reception facilities for 3,000 tons.

At Kipevu, tankers normally berth starboard side to at slack tide, on the beginning of the ebb. Masters should assist Pilots to moor as quickly as possible, in view of the abeam current in a direction off the jetty, which is created by the jetty causeway configuration. This current will increase with the ebb tide and ships with all wire moorings are advised to use their first-ropes-ashore with priority. Mooring launches are low powered and can only handle 1 wire at a time, and mooring dolphins are not fitted with winches and require manual handling of wires. In view of the above, and in view of the accurate positioning required to connect to chiksan arms, it is vital that the ship be brought against the breasting dolphins as soon as possible.

In cases where vessel's mooring is delayed by whatever reasons, Pilots may require extra tugs to assist in keeping the ship alongside.

Report:

Approaches: The approaches to Mombasa either from North or South must be conducted with extreme caution as Andromache Reef on the S.W. side and Levin Reef on the N.E. side and a great number of shallow waters, all of them not detectable at HW, pose a threat to navigation.

Consideration should also be given to the very strong East African current, setting North, which reaches 4.5 knots during the months from April to November then declining to about 1.5 knots in February.

It is strongly suggested that no attempt should be made to negotiate the approach to the turning buoy without the Pilot on board, and that the positioning of the ship on the leading line to approach the turning buoy be taken at least 1.5 miles from the turning buoy, to properly evaluate the drift.

The suggested waiting area is in Lat. 04° 04′ 12″ S. and Long. 39° 42′ 12″ E. in about 20 fathoms of water.

Navaids: There are no navigation aids with the exception of an RDF (Ras Serani Lt., KL-389.6-A$_2$, Lat. 4° 04′ 15″ S., Long. 39° 40′ 44″ E.).

Anchorages: (Outside). A suggested anchorage postion is in Lat. 04° 06′ 12″ S. and Long. 39° 42′ 12″ E. (same as suggested waiting area). The anchorage is not sheltered, rather exposed to currents, wind and sea, and bottom holding capacity is doubtful.

Anchoring is not suggested unless the ship has to wait for a long period of time. In this case, Pilots should be consulted on VHF Channel 12 for the most suitable position.

Anchorages: (Inside). There are 6 approved anchorages in the port area, 3 of which are located between Ras Mzimba and Kilindini Reef. The remaining are situated respectively 2 in Port Kilindini and 1 in Port Reitz.

The suggested anchoring point for all of them is along the leading line.

Tankers are usually not allowed to anchor inside the port, except for short waiting periods. VLCCs are sometimes moored on buoys to await berth.

Pilotage: Pilots hold Master's Certificate of Competency. Only Senior Pilots with Master's Certificates and at least 1 year's experience as Pilots in Mombasa Roads are authorised to Pilot large ships. There are currently 12 Pilots employed in Mombasa.

Some delays in obtaining the Pilot can be expected due to shortage of Pilots.

Pilots board the ship approximately in Lat. 04° 06′ 12″ S. and Long. 39° 42′ 12″ E. (waiting area) or up to 1.5 miles from the turning buoy, from a blue hull cutter with white superstructure on which 'Pilot' is painted in black.

When leaving the port, during the S.W. monsoon period with heavy swell affecting the port entrance, the Pilot disembarks just after the Ras Serani turn, before the turning buoy, but may be retained past turning buoy.

Both pilot hoist and pilot ladder are acceptable for boarding and leaving the ship although the ladder is preferred. Manropes obligatory.

Mombasa is a natural port and very well protected where navigation must be conducted with the utmost care and precision.

The port has recently been dredged to permit entrance by vessels with 1,100 ft. LOA.

Chart B.A. 666 is very well detailed and meets all necessary requirements for a safe in-port passage. A very recent Hydrographic Survey following major dredging activities will be added on a New Edition due 1985.

When the ship is set on the approaching leading line, up to the turning buoy the navigation should be checked with utmost care as this leading line sensitivity is rather poor, since the 2 Mackenzie Pt. beacons are too close to each other.

After having rounded the turning buoy navigation proceeds on the heading line 301° and in the area South of Ras Serani, the ship has to make a sharp turn to West to proceed on course 238°. In this turning area tidal currents set North and a good berth must be given to shallow waters, marked by a buoy which is well inside the 6 fathom line.

When on course 238° the ship approaches the narrowest passage in the port, about 600 ft. wide. This passage is marked by a buoy on the South side of the channel and a beacon on the North side.

After Ras Mzimba, when on course 309° another narrow passage must be negotiated before entering Port Kilindini. This passage, about 600 ft. wide, is usually well marked.

After this passage, navigation up to the oil jetty does not present any particular difficulty.

After Ras Serani up to Port Reitz the tidal currents run in the same direction as the channel.

The port navigation is controlled by VHF from the Harbour Master's office.

Shoals in the port area are marked by beacons. It may occur that some of them are missing without any warning. Caution should be exercised as in some areas leading line beacons could be obscured by growing vegetation or by anchored ships.

DENSITY: 1025.

FRESH WATER: Available at all berths; in stream ex-tug at Harbour Master's discretion or barge of 300 tons capacity. 30 t.p.h. on quay.

FUEL: *Main Quay Berths:* Marine fuel oil, viscosity 1500 secs. Marine diesel fuel. Gas oil cannot be delivered by pipe-line at these berths but delivery can be made by bulk lorries up to only 10 tons at extra delivery cost. Minimum 48 hours' notice required. Quantities of 10 to 30 tons can be made by rail tank wagon if 48 hours' advance notice given. Thin fuel oil viscosity below 1500 secs. can be delivered at all berths through Fisher blender. Only 1 Fisher blender available and can deliver fuel to only 1 vessel at a time.

Shimanzi Oil Terminal: All grades, i.e. fuel oil, marine diesel, gas oil and thin fuel oil (through Fisher blender).

Cased Oil Jetty: Only marine diesel and gas oil can be delivered at this jetty.

Kipevu Oil Terminal: Only fuel oil of viscosity between 1500 secs. and 3500 secs. available. Fuel oil viscosity below 1500 secs. not available. At least three days' clear notice required by EA Oil Refineries for arranging bunker delivery. Not possible to deliver any marine diesel or gas oil either ex pipe-line or rail tank-wagons/bulk lorries at this berth.

GANGWAY/DECK WATCHMEN: Watchmen available for gangway and deck and recommended.

OPENING/CLOSING HATCHES: Normally done by stevedores except MacGregor type hatches.

CERTIFICATES: Normal port requirements for safety cargo equipment.

CUSTOMS ALLOWANCES: Tobacco, 200 cigarettes for each crew member for 8 days. Wine and/or Spirit, 8 small bottles of beer for each crew member for 4 days.

CARGO GEAR: All cargo gear supplied by stevedores.

IDENTIFICATION CARDS: Port passes issued by the Port Authority.

CONSULS: The following countries are represented in Mombasa: Germany F.R., India, Belgium, Denmark, France, Italy, Norway, Sweden, Netherlands, Greece, USA.

REPAIRS:

1. See "African Marine" below.
2. Helmaco Engineering Company Ltd., P.O. Box 99111, Mombasa. Tel: 316776/7 or 316051/2. Telex: 21003, 21045 A/B COMARCO. Almost every aspect of repair work of vessels afloat can be undertaken. Slipway for small vessels.
3. Divecon Limited, P.O. Box 99111. Mombasa. Telephone and telex as for Helmaco. Underwater cleaning and repairs undertaken.
4. Comarco Communications Ltd., P.O. Box 99111, Mombasa. Telephone and telex as for Helmaco. Marine electronic repairs of all kinds carried out.

DRY DOCKS:

African Marine Dry Dock:

Principal Dimensions:

Length	590 ft. 00 in.	180.00 m.
Entrance width	80 ft. 10 in.	24.75 m.
Dock width	86 ft. 00 in.	26.40 m.
Minimum water depth LWS	13 ft. 00 in.	4.00 m.
Maximum water depth HWS	26 ft. 00 in.	7.90 m.

Cranage: 1×30 ton fixed, adjacent to the dock gate.

1×7 ton mobile on rails which can traverse the full length of the West side of the dock.

1×5 ton mobile on rails which can traverse the full length of the East side of the dock.

1×5 ton fixed at the jetty.

1×7 ton mobile.

1×12 ton mobile.

Berths: One piled jetty capable of mooring ships of up to 280 ft. length overall, with certain draft restrictions. A second berth capable of taking ships of up to 300 ft. length overall situated at the dock gate entrance for all but very deep drafted vessels.

Slipways: Two slipways capable of slipping barges, lighters and other small craft.

Tugs and Harbour Craft: For towing and transport. Paint pontoons, barges and catamarans, welding generators and air compressors (either self-propelled or 'dumb') which can be berthed alongside a 'gash' barge and a barge containing workshop facilities.

Electrical Shop: A fully equipped workshop (A/C and D/C).

Carpenter's Shop: Fully equipped to carry out all types of work.

Foundry: All types of castings in cast iron and non-ferrous metal. Maximum single pour in cast iron normally 15 c.w.t. with larger pours by special arrangement.

Paint Shop: All types of ship's paintwork.

Design Office: Chief Draftsman and Design Draftsmen undertake all types of work.

Air Conditioning and Refrigeration Workshop: Specialises in the installation, repair and servicing of General Electric air conditioning units and ship's refrigeration equipment.

General Labour: Gangs of men for cleaning, storing ship available at short notice.

Power Supplies: A/C and D/C power supplies are available at the alongside berths. Two power barges are available which contain: 1×400 KVA, 440 volt, 600/S 3-phase diesel generator; 1×210 KVA, 440 volt, 60 C/S 3-phase diesel generator; 3×60 kW, 220 amp 220 volt D/C diesel generators.

Machine Shops: Comprehensively equipped to handle all types of engineering work.

Plate Yard: For all types of ship repairs, ship construction and steel prefabrication work. A blacksmith's shop for forging and smithying work and a shop for sheet metal work.

Welding Shop: Electric arc welding, both in shop and in the port area. Approved to Lloyd's Register of Shipping standards.

REPATRIATION: Possible. Facilities available.

AIRPORT: About 7 miles from port. Served by regular airlines.

TIME: GMT plus 3 hours.

HOLIDAYS: New Year's Day; Good Friday; Easter Monday; Labour Day (1st May); Madaraka Day (1st June); First Monday in August; Kenyatta Day (20th October); Independence Day (12th December); Christmas Day; Boxing Day (26th December).

Also for persons belonging to Islamic Faith: Idd ul Azha and Idd ul Fitr. Christmas Day is normally only holiday on which port closed except for necessary pilotage of ships in and out and for dealing with mails, passengers and their baggage, livestock and perishables. On other public holidays restricted working at Mombasa may be carried out at overtime rates. Overtime rates also apply on Saturdays after 1500 hrs. and on Sundays, and to third shift between 2300–0600 hrs.

POLICE/AMBULANCE/FIRE: In Port Area – Police 567 444 and 374; Ambulance 33; Fire 333.

TELEPHONES: Telephones supplied on board. Charges include cost of local calls. Telephone essential per port regulations.

SERVICES: All solvents for tank cleaning available. Repairs to Gyro compass, radar and most other electronic aids to navigation. Compass adjusting by arrangement with port.

SHORE LEAVE: All crew members allowed ashore and to travel except those from Socialist countries who must stay on Mombasa Island.

PORT REGULATIONS: White tankers and vessels carrying explosives enter port daylight only. No vessels carrying explosives or dangerous cargo allowed to berth at Main Quay.

DELAYS: Usually no waiting days.

SHIP SUPPLY SERVICE: Kenya Ports Authority, P.O.Box 95009, Mombasa – Kenya. Tel: 312211. Telex: 21243 Bandari. Cables: Kenports.

Private Organisations:

Comarco Ltd., P.O.Box 99111, Mombasa – Kenya. Tel: 316776/7, 315319. Telex: 21245 Comarco.

Murri International Salvage Company, P.O.Box 82345, Mombasa – Kenya. Tel: 20822/3 – 24 hours. Tel: 24912 – Office hours. Telex: 21215 Kboat.

Southern Oil Supply Co. Ltd., P.O.Box 84145, Mombasa – Kenya. Tel: 315738, 23889, 313204. Res: 471737. Telex: 20049, 21223, Sosco. Cables: Sosco.

Allied Oil Services, P.O.Box 99570, Mombasa. Tel: 315627.

NOTICE: *From the General Manager, East African Oil Refineries Ltd. To Ships' Masters.*

Spillage of Oil and Air Pollution:

I would like to draw your attention to the serious consequences which will arise from any spillage or discharge of oil into the waters of Kilindini Harbour. This part of the Kenya shoreline, with its famous coral reef, is an extremely beautiful and popular tourist attraction as well as providing a means of livelihood for many local people.

Any spillage of oil can harm the environment and raises a great deal of criticisms from the residents of the area. The same applies to excessive funnel smoke.

In the event of any spillage or leak from ship or jetty facilities, ship's officers should immediately warn refinery personnel, who will instigate emergency measures. If there is any delay in notifying the refinery, then any oil spillage or pollution into the sea must be reported to:

(1) Ras Serani Lighthouse (Mombasa Port Control) manned 24 hours. Telephone Mombasa 312895 (21211 ext. 357 office hours only). VHF Radio Channel 12.

(2) Senior Harbour Master Kipevu, Office hours telephone Mombasa 24864 or 312211 ext. 259. Other times telephone Mombasa 471550 or through signal station in (1).

I am sure you will agree that both you and your staff as well as ourselves should do all that we can to protect this part of the environment against pollution. Moreover, it is a firm belief that we should try our utmost to avoid adverse publicity for the oil industry of which we are both part.

NOTICE: *Notice from ship's Agent to Masters:*

Stowaways from Mombasa:

We wish to inform you that stowaways from the Port of Mombasa are a very serious problem and we have had a number of vessels leaving Mombasa with half a dozen stowaways on board causing the Owners considerable expense and inconvenience.

Please, therefore, take every precaution to ensure your vessel is not boarded by stowaways whilst in Mombasa. We would suggest you employ shore watchmen to guard the vessel and also perhaps to have members of your crew on duty at all times to protect the ship. Please, just before sailing, carry out a thorough search of the whole ship with your crew and the watchmen. We also suggest that once you have sailed and you are outside the port limits, you steam around the area for a few hours to give any stowaways the impression that the vessel is fully underway, and again during this period have your crew thoroughly search the ship.

If stowaways are found on board of non-Kenyan nationality then the authorities do not permit them to be landed in Mombasa. Most of the stowaways from Mombasa tend to be Tanzanians.

We would stress again that stowaways are a serious problem in Mombasa and it is up to you to ensure your vessel does not sail with stowaways on board. Please inform your crew about stowaways and that they should be on the look out at all times for any suspicious persons on board.

DEVELOPMENTS: New equipment installed includes additional gantry cranes (5×15 tons capacity) for container handling at Mombasa and inland container depot, now open at Embakasi, Nairobi.

Berth Nos. 16, 17 and 18 (total length 600 m.) have been modified to take the above mentioned cranes.

AUTHORITY: Kenya Ports Authority, P.O.Box 95009, Mombasa, Kenya. *Tel:* 312211. *Telex:* 21243 Bandari. *Cables:* Kenports. *Contact:* Managing Director. Captain A. J. Ketoyo, Senior Harbour Master.

AGENT: East African Commercial and Shipping Company Limited, Notco House, Moi Avenue, Mombasa, Kenya, P.O.Box 95103. Tel. 26251/2 or 21141/2. Telex 21151 Keship Ke. Cables "Kenship, Mombasa".

NOTES

Please also advise Shipping Guides Ltd.

Republic of Kiribati

BANABA (Ocean Island): 00.52 S. 169.35 E.

PHOSPHATE MINING HAS CEASED. ALL INSTALLATIONS HAVE BEEN DISMANTLED.

TARAWA (Betio): 01.25 N. 172.54 E. (See Plan)

DOCUMENTS:
Customs: Boards vessel at anchor.
- Clearance from Last Port.
- 4 Crew Lists.
- 3 Passenger Lists.
- Stores List.
- 1 Ship's Report Inward.
- 1 List of Unmanifested Cargo.
- 1 Crew's Stores List.
- 1 Marine Form.

Health:
Pratique granted by Health Department who board at anchorage with Customs.
Vaccinations against Cholera (if required can be carried out).
Name of ports visited and date of arrival at respective ports.

Immigration:
- 2 Crew Lists.
- 2 Passenger Lists.
- Last Port of Call.
- Next Port of Call.
- Passports.
- Final Destination.

Agent:
- 3 Bills of Lading.
- 5 Manifests.
- Last Port.
- Next Port.
- 1 Crew List.
- 1 Passenger List.

Agriculture:
- Plants Certificates.
- Animal Certificates.

PILOTAGE: Pilot available and must be informed of vessel's ETA 24 hours in advance through the Agent. Entering vessels are strongly advised to await Pilot one mile West of Fairway buoy. Pilot can be contacted by VHF on Channel 16. Pilot boards from small tug, painted yellow, which flies "H" flag at stern. Buoys in lagoon are likely to be missing. Also see "Radio".

ANCHORAGES: See Chart BA. 3269. Betio anchorage main anchorage. Inside the lagoon, safe in all weather although in rare strong winds it may not be possible to work vessel in the lagoon.

RESTRICTIONS: Vessels arriving after 1800 hrs. are advised not to enter the passage and should drift 5 miles away from the entry point.

MAX. SIZE: Any vessel drawing up to 26 ft. may enter at LWOST and 30 ft. HW. Length and breadth are not critical, however vessels over 600 ft. to navigate with extreme care.

HEALTH: See "Documents".

RADIO: Tarawa Radio (T3K) on 500 kHz, 2182 kHz and 6215 kHz. Contact Senior Pilot 4 hours before arrival on VHF Channel 16. Pilot will arrange all formalities, Customs, Health, stevedores, etc.

RADAR: No port radar service.

TUGS: 3 tugs (available for towing barges).

BERTHING: None (lighterage port). Small jetty will be available in 1988.

CRANES: 1 × 20 ton container crane on wharf (stationary). 2 × 5 ton mobile cranes.

STEVEDORES: Available 24 hours. Discharging rate 12 t.p.h. Labour available weekends and holidays if required.

MEDICAL: Medical attendance could be obtained through the Agent during working hours. Hospital available where suspected disease could be medically examined.

TANKERS: Vessels drawing up to 14 ft. can anchor close to the jetty where lines are connected to shore pipes. Maximum working pressure 50 lbs. No tanker berth and vessels must provide lines. Floats can be provided by Mobil Oil Agency with labourers if required.

DENSITY: Sea Water.

FRESH WATER: Available in limited quantities in an emergency only and delivered by water barge. Cost of water A$5.00 per 500 gallons. Delivery charge A$3.90 per 200 gallons. Water may be contaminated.

FUEL: Diesel only (in very short supply), in restricted quantities and delivered by barge in tanks. Refuelling cost A$11.20 per 500 gallons.

FIRE PRECAUTIONS: No special precautions other than normal precautions for tankers.

CONSULS: British and Australian High Commissioners and South Korean Honorary Consul stationed at Bairiki (also see "General").

REPAIRS: Small but well equipped and capable workshop for light repairs.

DRY DOCK: Small patent slip, capable to slip ships of 150 tons displacement.

CUSTOMS ALLOWANCES: 25 cigarettes per day and 6 cans (310 ml.) beer per day.

SURVEYORS: Marine Superintendent of the Ministry of Transport and Communications will also act as Lloyd's Sub-Agent and cargo surveyor.

HATCHES: Opened and closed by Stevedores.

WATCHMEN: Not required.

REPATRIATION: All facilities available for crew changes.

AIRPORT: 13 miles from anchorage point. Air service to Nauru on Wednesday only, by Air Nauru, arrives from Nauru 0900 hrs. and departs 1000 hrs.; and to Honolulu once a week by Air Tungaru (the national airline) via Maduro, Marshall Islands.

TIME: GMT plus 12 hours.

HOLIDAYS: New Year's Day (January 1st); Good Friday; Easter Saturday; Easter Monday; Public Holiday (July 14th); Youth Day (first Monday in August); Christmas Day (December 25th) and Boxing Day (December 26th). No cargo work can be arranged.

POLICE/AMBULANCE: Police and Ambulance 999.

SERVICES: Ship's laundries.

SHORE LEAVE: All crew are allowed to go ashore after inward clearance is granted.

IDENTIFICATION CARDS: No shore passes issued. Passport or Seamen's Book are not required when on shore leave.

REGULATIONS: No food waste, ballast, engine oil to be discharged in the lagoon.

BANK: Bank of Kiribati, P.O.Box 66, Betio. Tel: 26124.

DELAYS: Expected delays can be caused by heavy rain and port congestion.

DEVELOPMENTS: "L" shaped jetty with length 50 m. and width 8.0 m. at head to be constructed at North end of Eastern Mole. Depth alongside 5.5 m.

GENERAL: Tarawa is the main port of entry for Kiribati. Other entry port is Christmas Island.

Tarawa Atoll is roughly triangular in shape. A number of islets, separated by shallow passages, dry at low water, form the Southern and Eastern sides of the Atoll. The Eastern side is approximately 19 miles North and South and the Southern side is 16 miles in an East-West direction.

Causeways link up the islets along the Southern side and part of the Eastern side. On the Western side there is a barrier reef, most of which is sunken, enclosing a large lagoon navigable by vessels drawing 26 ft. at LWOST and 30 ft. at HW.

The President's and Main Government Offices are at Bairiki Islet which is connected by causeways to the Tungaru Central Hospital, Government Schools at Bikenibeu and the international airport at Bonriki and the Port of Betio.

AUTHORITY: Ministry of Transport and Communications, Marine Division, P.O.Box 506, Betio, Tarawa, Republic of Kiribati. *Tel:* 26468. *Telex:* 77022 Mincomm. *Cables:* Harbour Master, Tarawa. *Contact:* Captain B. Highland, Harbour Master and Marine Superintendent.

AGENT: Shipping Corporation of Kiribati, P.O. Box 495, Betio, Tarawa, Republic of Kiribati. Tel: 26525, 26521. Cable Address: Portco Tarawa. Contact: Captain T. D. Murdoch, General Manager.

NOTES

Please also advise Shipping Guides Ltd.

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Democratic People's Republic of Korea

GENERAL

ETA PROCEDURE: The Notice of ETA is applicable to the Owners (operators and charterers) and the Master of foreign vessels calling at ports of the D.P.R.K.

1. The Owners who fix vessels every month, provide the monthly fixture of ships to the Ocean Shipping Agency of the D.P.R.K. (Head Office) and Branches (herein after called the Agent) before 25th of the previous month and advise immediately if any change.
   (1) Vessel's name, flag and call sign.
   (2) ETA and port of call.
   (3) Description and quantity of discharging and loading cargo.
2. The Owners send the Agent the following documents before arrival in the port: 1) Bill of Lading 3 copies, 2) Manifest 3 copies, 3) Stowage Plan 3 copies, 4) Charter party or handling terms, 5) Others if any.
3. The Owner or Master advise the Agent of the Notice of ETA at the Pilot Station 10 days and 3 days, 24 hours, 12 hours and 4 hours prior to arrival.
   1) 10 days' Notice:
   (1) Vessel's name, flag and call sign.
   (2) ETA and port of call.
   (3) Vessel's particulars (g.r.t., n.r.t., d.w.t., number and size of hatches, derricks and their capacity, LOA, breadth, draft.)
   (4) Numbers of crew, passengers and nationality.
   (5) Description and quantities of discharging/loading, details of heavy lift if any.
   (6) Copies of charter party or handling terms.
   (7) Provisions, ship's stores, repair.
   (8) Flag of the D.P.R.K.
   (9) Last port and ship's position.
   (10) Full address of Owner or Operator, payer of disbursements and banker.
   (11) Others if any.
   2) 24 hours', 12 hours' and 4 hours' Notice of ETA at the Pilot Station; Ship's position and speed only.
   3) The Master should advise the Agent of the ship's position and the time when she passes the following line.
   (1) Korea East Sea.

Lat. 42° 24′ N.,	Long. 131° 10′ E.
Lat. 41° 43′ N.,	Long. 132° 20′ E.
Lat. 38° 00′ N.,	Long. 130° 00′ E.
Lat. 38° 00′ N.,	Long. 128° 45′ E.

   (2) Korea West Sea.

Lat. 39° 50′ N.,	Long. 123° 20′ E.
Lat. 37° 00′ N.,	Long. 123° 20′ E.
Lat. 37° 00′ N.,	Long. 126° 30′ E.

4. The Master should navigate to the pilot station at least 15 miles from the coast after passing the above lines mentioned in item 3-(3).
5. On arriving at the pilot station the Master should give the Agent the Notice and enter the port under pilotage.
6. The Owner should deposit disbursement funds before ship's arrival at the port and inform the Agent of the following;
   (1) Name, amount, date, No. and other details of T.T.
   (2) Ship's name and port of call.

List of Agencies:

1. Head Office

Pyongyang	Name	The Ocean Shipping Agency of The D.P.R.K.
	Address	Bipa Street, Moranbong District, Pyongyang, The D.P.R.K.
	Telex No.	5470 kosa kp
	Cable Address	Kosa Pyongyang
	Telephone No.	5-2472 Pyongyang

2. Branch Offices

Nampo	Name	The Ocean Shipping Agency of The D.P.R.K., Nampo Branch,
	Address	Hoopodong, Nampo District, Nampo City, The D.P.R.K.
	Telex No.	5224 np kosa kp
	Cable Address	Kosa Nampo
	Telephone No.	5701 Nampo
	Coast Radio	HML
Haeju	Name	The Ocean Shipping Agency of The D.P.R.K., Haeju Branch,
	Address	Sohaedong, Haeju City, South Hwanghae Province, The D.P.R.K.
	Telex No.	7306 hj kosa kp
	Cable Address	Kosa Haeju
	Telephone No.	5310 Haeju
	Coast Radio	HMJ
Songlim	Name	The Ocean Shipping Agency of The D.P.R.K., Songlim Branch,
	Address	Shingyangri, Songlim City, North Hwanghae Province, The D.P.R.K.
	Telex No.	7307 sl kosa kp
	Cable Address	Kosa Songlim
	Telephone No.	1100 Songlim
	Coast Radio	HMQ
Chongjin	Name	The Ocean Shipping Agency of The D.P.R.K., Chongjin Branch,
	Address	Suhang 2 Dong, Songpyong District, Chongjin City, The D.P.R.K.
	Telex No.	6201 ch kosa kp
	Cable Address	Kosa Chongjin
	Telephone No.	23227 Chongjin
	Coast Radio	HMC
Hungnam	Name	The Ocean Shipping Agency of The D.P.R.K., Hungnam Branch,
	Address	Kumbikdong, Ryongsong District, Hamhung City, South Hamgyong Province, The D.P.R.K.
	Telex No.	6202 hn kosa kp
	Cable Address	Kosa Hungnam
	Telephone No.	2656 Hamhung
	Coast Radio	HMH
Wonsan	Name	The Ocean Shipping Agency of The D.P.R.K., Wonsan Branch,
	Address	Zangchondong, Wonsan City, Kangwon Province, The D.P.R.K.
	Telex No.	6203 ws kosa kp
	Cable Address	Kosa Wonsan
	Telephone No.	3008 Wonsan
	Coast Radio	HMU
Rajin	Name	The Ocean Shipping Agency of The D.P.R.K., Rajin Branch,
	Address	Changpyongdong, Rajin City, North Hangyong Province, The D.P.R.K.
	Telex No.	6204 rj kosa kp
	Cable Address	Kosa Rajin
	Telephone No.	693 Rajin
	Coast Radio	HMR

CHUNGJIN: 41.43 N. 129.42 E. (See Plan)

DOCUMENTS:
8 Crew Lists.
2 Vaccination Certificates.
2 Lists showing currency, gold and valuables in possession of crew members.

The following information should be radioed to Port Authorities before arrival:
Number and nationality of crew.
Name of last port.
Ports called at during last month.

PILOTAGE: On reaching North Korean waters, vessels required to give a position report every 3 hours to KOSA Chungjin. Pilot and Port Authorities board in position 41° 30′ N., 130° 05′ E. where vessels should await Pilot. Water depth too deep to permit anchoring.

ANCHORAGES: No possibility of anchoring outside harbour limits.

CLEARANCE: On arrival in port, the radar, echo sounder, main and emergency transmitters and all optical equipment is sealed. An inspection team board the vessel to verify currency and valuables declarations. Seamen's Books required to be stamped with landing pass.

BERTHING: Berth No. 1, max. draft 24 ft. Berths No. 2 and 3, max. draft 27 ft. Berths No. 4 and 5, max. draft 28 ft.

CARGO GEAR: Vessels loaded and unloaded by ship's gear. At Berths 4 and 5 there is a conveyor belt facility for coal loading.

SHORE LEAVE: Seamen not allowed to visit other vessels, or leave the harbour area.

Unauthorised money changing forbidden, and it is prohibited to take Korean currency out of the country.

No bathing in harbour area.

SHIPMASTER'S REPORT: December 1980.
There are 2 harbours in Chungjin, the Western harbour and the Eastern harbour which are about 2.5 miles apart. Western harbour is mostly for export of coal and iron and Eastern harbour for import of general and bulk cargo.

The following port information is for the Eastern harbour:
Documents: Immigration, Customs and Quarantine Officials board the vessel at the pilot station. The Korean Authorities bring on board their own forms for ship's stores, currency, valuables, binoculars, cameras, etc., and fill these in by using the information contained in the ship's forms. However they also take the original of the ship's paper.

Papers required for entry:
5 copies Crew List (IMO Form).
1 copy Vaccination List (Cholera).
1 copy Crew's Effect Declaration (IMO Form).
1 copy List of Currency and Valuables (Free Form).
1 copy Ship's Stores Declaration (IMO Form).
1 copy Ports of Call List.
1 copy Maritime Declaration of Health.

A "General Information" sheet, containing such particulars as vessel's name, call sign, Port of Registry, official number and all the normal data contained in the ship's register, including cargo on board, amount and where loaded etc., was found to be of great help in filling out their forms and speeded-up the entry and clearance process. 5 copies of above should be made for distribution to Agent, Customs, Immigration, Harbour Master and Quarantine.

Master's Advice: It is important that all crew members strictly comply with the Rules and Regulations in Korea, especially concerning cameras and binoculars as photography and the use of binoculars is strictly prohibited in the harbour area as well as in the City and the surrounding area. If the Customs, during their second cabin check, find a camera or binoculars the matter will be treated very seriously.

For landing permit, Immigration will stamp the passports or the seaman's books. However I managed to persuade the Immigration Officer not to stamp the passports because of the trouble in certain countries when they see a D.P.R. Korean stamp but it took 2 days and higher Immigration Authorities to get this permission.

When filling out the Customs and Immigration Forms, the name North in North Korea should not be written on any of above mentioned forms or any other documents as well as on private letters. The Authorities don't accept a divided Korea and will cross out the name North, in any place it is written.

It is not necessary to take cash advance in Korean Won. American Dollars and Yen are most welcome.

Pilotage: Method of contact: VHF or radio contact not possible. Agent will inform the pilot station of vessel's ETA.

Boarding Position: Lat. 41° 42.8′ N., Long. 129° 50.5′ E. (4 miles S.S.E. of breakwater). Pilot is compulsory. Service Time: Daytime only.

Anchorage: From 0.5 miles – 4 miles S.S.W. of Chungjin Harbour in 8 – 30 fathoms. Good anchorage in mud/sand and protected from Northerly wind. However during strong South-westerly wind there is a heavy sea and swell.

Approaches: Simple and straightforward. Practically due North along Korea's East coast until abeam of Cape Kozakof, then straight for the Pilot boarding position or anchorage.

Restrictions: Entry: 30 ft. even keel on entry to the harbour.

Special Regulations: Vessel received orders by cable to navigate 15 miles off the Korean D.P.R. coast and pass through position 41° 38.9′ N., 129° 52′ E. en route to the pilot boarding position.

Max. Size: Max. draft alongside at the grain and general pier was 28 ft. and in the harbour 30 ft.

Health: Radio Pratique not available.

Radio: Contact through Congjin Coast Radio Station, call sign "HMC" frequency; Call on 500, work on 428 kHz., ships work 425 kHz. Traffic list every hour plus 20 minutes. After initial call on 500 kHz., usually followed by QRU. MF only.

After arrival, radio station on board is sealed and there is no VHF in the port. However after arrival in the port, Agent will bring on board a small transmitter/receiver for daily communication between Master and Agent's office. The set working on 24 volts. Very few people speak English. I found only the Pilot and Agent had a fair command of English.

Arrival Notice: Five days then 72, 48 and 24 hours to Agent. Also 5 days and 3 days to receivers.

Tugs: Two tugs available, about 500 h.p. maximum. Tugs always take ship's line.

Berthing: Mooring Method: Vessels drawing more than 28 ft. must first lighten her draft at anchor in the inner harbour. Vessel is brought up in a North/South direction in the harbour and moored aft to the bollards on the breakwater with 4 lines and port and starboard anchor forward, 6 shackles in the water (Mediterranean Mooring).

Along the grain pier, which is only 150 m. long, a strong mooring is recommended partly because the after part of the vessel overhangs the end of the pier and partly because of the occasionally heavy swell along the pier.

Grain Wharves: Vessels only allowed alongside with draft of 28 ft., but a sounding with a line showed about 32 ft. It was not possible to get exact information of water depth alongside the general pier. I found the total wharves length to be about 1,500 m. The grain pier is 150 m. long. Certain wharves in the Eastern part of the harbour, which are shown on BA. Chart No. 1271, do not exist anymore as usable wharves.

Facilities for Bulk Carriers: There are a total of 8 cranes in the harbour, each of about 10 tons capacity. Two of the cranes are serving the grain pier and connected with a conveyor belt system. No difficulty with height of vessel.

Cargo Operations: At the harbour anchorage (Mediterranean mooring) the cargo is discharged by ship's gear. Stevedores operating the cranes. Operation is slow and there is often damage to the vessel with grabs due to inexperienced stevedores.

Two cranes serve the vessel alongside the grain pier. They are able to discharge about 3,000 tonnes per day but actual quantity discharged per day (taken over a 7 days period) was only 1,600 tonnes, mostly due to lack of stowage space, transportation problems and crane breakdowns.

Stevedores work 24 hours a day, 7 days a week.

The cranes bring the grain to a conveyor belt system which again brings the cargo to the store house. The store house has a maximum capacity of 12,000 tonnes.

There is a railroad system serving the grain and general pier. Stevedore damage must be reported to the foreman immediately. All damages are repaired before departure by shore repair workers.

Medical: Services available.

Density: 1026.

Fresh Water: Good quality fresh water available at the pier. Charge Won 2.75 per ton (US$ 1.75). Fresh water can also be delivered by barge to the anchorage.

Fuel: Available but expensive.

Repairs: According to the Agent, all deck and machinery repairs can be carried out. I expect that to be correct as there is a big shipyard in Chungjin.

Surveyors: Local Surveyor only.

Customs: The Bonded Stores are not sealed but all cameras and binoculars are collected before entering the harbour and sealed in a locker. Radio room and echo sounder also sealed.

When the vessel has berthed alongside the pier, Customs will once more come on board and this time check thoroughly for binoculars and cameras throughout the ship. It is possible they will confiscate all cameras and binoculars found during the second check.

Time: GMT plus 9 hours.

Shore Leave: Crew members are not allowed outside the harbour area. Permission is only given for a visit to the Seaman's Club, just outside the gate, but only a walk, straight from the gate to the club. There is an armed guard at the gangway to whom crew members must present their passport or seaman's book and also once more at the harbour gate. Shore leave is from 0800 hrs. to 2300 hrs. There is a new Seaman's Club near Western harbour (about 8 km. from Eastern harbour – by car about 10 minutes). Transportation to and from this club costs US$ 7.00 per bus.

General: Current: Experienced a slight South-westerly set towards the shore in Kyongusogu Bay when approaching from the South.

Tide: Port not effected.

Charts: BA. 1271, 1316. J.A. 162.

Swell: A heavy swell can cause problems for vessels alongside the wharves, especially in July/August. At times the swell may cause vessels to leave the wharf and shift to the anchorage.

Distress: In case of distress a long blast followed by a short blast with the whistle and repeated 3 times, this will warn the Harbour Master who will take action.

Derat: Derat exemption certificate can be issued.

Laundry: Available and requires about 3 days. Laundry service is satisfactory.

Provisions: Available in limited quantities.

– SVR

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HAEJU (Haijuube): 37.59 N. 125.42 E.

SHIPMASTER'S REPORT: August 1978.

DOCUMENTS: Same as Nampo, but Korean Forms must also be filled in on arrival.

PILOT STATION: B.A. Chart 1258. Situated between following points:

37° 40′ 30″ N.	125° 35′ 00″ E.
37° 42′ 00″ N.	125° 35′ 00″ E.
37° 42′ 00″ N.	125° 32′ 24″ E.
37° 40′ 30″ N.	125° 32′ 24″ E.

The ship should anchor and wait. It is imperative to anchor within Pilot Station Area, which is used by North and South Korea, otherwise the Authority will not board the vessel. Approaches to Haeju are not covered by B.A. Charts, Korean (Nos. 15–1354, 1328, 1329) not obtainable. Pilot boards together with Quarantine and Immigration officer. The inspection starts immediately, all crew must have Seaman Book for identification. Food stores and pantries also inspected. Pilotage is carried out depending on tide and ship's draft, daytime only. Berthing at slack tide. After berthing arrival inspection continues (Harbour Master, Customs, Coast Guard).

ANCHORAGE: Ships sometimes complete loading at the Anchorage in position 37° 55.5′ N., 125° 46′ E., depth 11.4 m., but probably swinging space for one ship only. Ships waiting for berth anchor in the vicinity of the wharf. With no chart it makes the situation difficult, as there are no lights or light buoys. Position only obtained by radar. One anchor used due to strong tide which sometimes reaches 4 knots.

ARRIVAL ADVICE: The arrival notice to be sent to KOSA Haeju giving all particulars same as Nampo, first contact via Haeju Coast Radio Station, call sign HMJ, to be made 48 hours before arrival. Earlier contacts via Shanghai Radio.

RADIO: Haeju Radio, call sign HMJ.

BERTH: Old berth described in China Sea Pilot, Vol. III, page 540. Extension works in progress. Shore cranes. Depth at low water about 6.8 m.

EXPORTS: Zinc concentrates, cement from the new factory connected with Port by conveyor belt.

FRESH WATER: From hydrant alongside, at anchor by barge (dredger).

FUEL: In restricted quantities, price unknown.

SERVICES: Provisions and Laundry, available through Seamen's Club.

AUTHORITY: Port Master and Harbour Master.

HEUNGNAM: 39.50 N. 127.45 E. (See Plan)

SHIPMASTER'S REPORT: November 1983.

PILOTAGE: The pilot station is at Lat. 39° 44.8′ N. and Long. 127° 41.0′ E. When arriving at this position and no Pilot is available, vessels are ordered to anchor. Ships are also ordered to navigate at least 12 miles off the coast.

ANCHORAGE: The anchorage is secure and safe with a depth of water of at least 36 ft., however soundings were unobtainable because of the sealing of all equipment.

If vessels arrive with a draft of over 25 ft., cargo is discharged into barges at anchor approximately 1 mile South of the breakwater.

The white light at the end of the breakwater can be seen at a distance of approximately 5 miles.

MAX. SIZE: The minimum depth in the harbour is 28 ft. and ships of up to 25 ft. draft are allowed alongside.

BERTHING: The length and direction of the quays etc. in the harbour are reasonably accurate as they were obtained using radar (See Plan).

The berths are used as explained on the plan. Also the two cranes at the Southern end of the Pier "D" are used for the export of bulk cement.

NAMPO (Chinnampo): 38.43 N. 125.25 E. (See Plan)

SHIPMASTER'S REPORT No. 1.

DOCUMENTS:

8 Crew Lists.
2 Vaccination Lists.
2 Lists showing currency, gold and valuables in possession of crew.
Bonded stores must be declared but not sealed.

ARRIVAL ADVICE: The following information should be radioed to KNSA Nampo before arrival:

(1) ETA Nampo Station, Lat. 38° 37′ 30″ N., Long. 124° 49′ 30″ E.
(2) Nationality.
(3) Gross Registered Tonnage.
(4) Net Registered Tonnage.
(5) Deadweight.
(6) Length overall.
(7) Height of Freeboard.
(8) Speed.
(9) Last Port of Call.
(10) Colour of ship's hull.
(11) Number of crew and passengers.
(12) Hatch Loading/Discharging cargo Plan.
(13) Draft.
(14) Ship's position together with ETA 24 hours before arrival within area connected positions Lat. 37° 00′ N., Long. 124° 30′ E., Lat. 38° 08′ N., Long. 123° 35′ E., and Lat. 39° 50′ N., Long. 124° 07′ E. Also vessel should advise position and time passing above connected lines.

PILOTAGE/ANCHORAGE: Pilot and Port Authorities (Quarantine Officer and Immigration Officers) board at position Lat. 38° 37′ 30″ N., Long. 124° 49′ 30″ E. where vessels should anchor awaiting Pilot.

Night pilotage prohibited, according to port regulations.

CLEARANCE: After embarkation of Port Authorities at Nampo Station the Radar, Echo sounder, VHF, DF, Radio Room and all optical equipment is sealed. On arrival in Port, Customs Officers board the vessel and together with Immigration Officers search the whole ship.

Seamen's Books required to be stamped with landing pass and they are taken ashore by Immigration Authorities for formalities.

BERTHING: Coal berth can accommodate vessels up to 20,000 d.w.t. There are 2 conveyor belts for coal loading but 1 only can work at a time. Conveyor belts are not movable, the vessel has to shift. Vessels loaded and unloaded mostly in the roads by ship's gear. There are 3 other berths but have no information.

RADIO: Nampo Radio. Call sign HML.

FRESH WATER: Only available by barge.

TIME: GMT plus 9 hours.

SHORE LEAVE: Seamen allowed to go ashore by boat or bus only. Seamen are not allowed to leave harbour area. In order to visit other vessels in port, application should be made to Immigration Authorities.

GENERAL: *Currency:* It is prohibited to take Korean currency out of the country.

Bathing: Prohibited.

Fishing: Prohibited.

Provisions: Limited quantities available at the Seamen's Club.

SHIPMASTER'S REPORT No. 2.

Information covering Nampo, Democratic People's Republic of Korea, previously known as Chinnampo. See in connection with this B.A. Chart 1257 and 1656, China Sea Pilot III.

The following general information was produced by the navigating officers of a vessel in 1974.

NAVIGATIONAL INFORMATION: Pilot boarding point Lat. 38° 37′ 5″ N., Long. 124° 49′ 5″ E. Wreck at Lat. 37° 38′ 2″ N., Long. 124° 48′ 2″ E., 3 masts above water at all states of tide. Radar echo good at 6 miles. Buoy – old position Lat. 37° 37′ 4″ N., Long. 124° 51′ 4″ E., moved to Lat. 37° 37′ 2″ N., Long. 124° 50′ 7″ E.

Light Sei To – flash every 23 sec. Visible for 8 miles
Light buoy at Lat. 37° 37′ 4″ N., Long.124° 53′ 6″ E., flashes 18 sec.
Light Shimai To flashes 18 sec.
Light San extinguished
Light Chiri extinguished
Light Hi To extinguished
Light at Lat. 38° 41′ 7″ N., Long. 125° 18′ 1″ E., (Bachishin) flashes 30 sec.
Light at Nanryoki extinguished
Light at Lat. 38° 43′ 3″ N., Long. 125° 24′ 6″ E., extinguished.

PILOTAGE, ANCHORAGES, INSPECTION AND CLEARANCE: The Pilot boarding point is at the same time the outer limit of Nampo Harbour and the clearing inwards point. To await Pilot and further instructions before proceeding into Nampo, vessels must wait here. Information can be obtained via coastal radio Nampo (details in Nautical Wireless Service Standing Instructions), VHF is not available.

The anchorage at the pilotage waiting point is good, and the bottom is a thin layer of grey mud with clay underneath it. With wind from the S.W., there is a slight swell. Depth of water between 25 m. and 26 m., vessels should anchor with a chain length of at least 100 m. on the capstan and calculate adequate room for swinging, since there is a very strong tidal flow at all states of the wind and weather, running up to 4 knots according to our observations.

The Pilot comes on board with clearance authorities. As pilot cutter (also no VHF) a normal tug is used, which in Winter is also used as an ice-breaker. The tug does not display a Pilot's flag, only the national flag. The hull of the tug is black, superstructure white with large Korean characters on the front of the bridge. Pilotage only available during daylight hours.

At clearance inwards point (pilotage boarding point) all binoculars, including bridge binoculars, and photographic equipment is gathered together and sealed for the total time in port. It is only released after the Pilot leaves the vessel on departure from the port. Likewise all echo-sounding, radar, direction finding equipment is sealed. The use of such equipment and filming and photography in Democratic People's Republic of Korea is completely forbidden.

From the clearance inwards point the journey to the anchorage in front of the town is usually at full speed for most of the way. The anchorage is selected by the Pilot. The Pilot gives a good impression and from our observations knows his job well. However, one can only expect very rudimentary English from him. The same applies to the clearance authorities who have only a very few words of English. Clearance proceeds slowly but is carried out very correctly.

GENERAL INFORMATION: When at anchor in front of the town, further official authorities come on board. These check the whole ship, and go through the deck and engine room areas accompanied by one chosen member of the crew. Whilst the ship is being examined, all other crew members must remain in their cabins. The crew member accompanying the authorities must have his seaman's book with him as identification. When the authorities leave the ship finally they take the log away, and bring it back after a few days. Going ashore is permitted, but normally only in the port area. There is a seaman's hostel there. Travel further inland is possible, but only by giving 24 hours prior notice to Immigration via the ship's Agent. Also from time to time it is possible for crew members to fly out, but this must be arranged via the state shipping Agent. Visits to other ships is also possible, but only by giving 24 hours prior notice to Immigration. Radios and cassette recorders may not be taken on land or even on deck. Their use is only permitted within the ship and cabins. Fresh water and fresh food are available. In the roads, water is delivered by water boats. Removal of rubbish is also possible by due notice through the Agent, and is even possible at the anchorage. Boat manoeuvring can likewise take place, but it must be reported, and may only take place in the vicinity of one's own ship.

For clearance inwards, the following documents are required:

7 Crew Lists.
1 List of Items in Possession of Crew divided into gold, valuables, money, signature.
1 Vaccination List.
1 Maritime Declaration of Health.
1 Passenger List, even if none on board.
1 Narcotics List.
1 List of Tobacco and Personal Goods.

The authorities bring a list of provisions with them and fill it out after declaration on board. Stores, such as alcohol and cigarettes are not sealed.

The Health Authorities place greatest score by cleanliness of toilets, refrigerators, food stores, kitchens, pantries, hospital and first-aid station.

Generally, it may be stated that the ship's broker and Agent speak and understand good English, but from the authorities normally one can expect no knowledge of Western languages.

The port roads offer anchorages for at least 15 sea-going vessels and enough room for swinging. However, in each case at least 170 m. chain should be allowed so that the vessel lies securely. The tidal current, in accordance with our observations, runs at a good 4 knots. The anchorage bottom is good and comprises grey mud. The depths of water shown in the charts are, in accordance with our observations, roughly correct.

To the West of the port on the town shore there is a large shipyard with a mobile gantry crane over a slipway under construction. The slipway is about 150 m. long. Normally, the crane is at night directly on the bank (high water mark) and is illuminated and thus constitutes a good bearing, particularly at night, since otherwise no long-range port lights are available.

Position of the crane is about Lat. 34° 43′ 2″ N., Long. 125° 24′ 1″ E. This area where the shipyard is located is designated as "Iron works" in chart 1656, map of Chinnampo Ko. The waterside there no longer has an inlet, but has been straightened out, and building work is still in progress. See "Plan Section" of "Guide".

Likewise building works are in progress along the whole shore line between the shipyard and Nampo Ki. The shore line is also straightened here, and to all appearances has been developed as anchorage and repair yard for the Korean Navy. The 2 red/black buoys to the South of the iron works in the chart are no longer there. In this area there is only a small fixed buoy for guard boats and fishing craft.

In the middle of Shienshin Island there is a 9-storey white hotel, which is a good landmark by day.

The tidal pole in front of Nampo Ki is no longer available. On the Southern end Nampo Ki is a bunker with a small house on top. The lower part of the house is pink and the upper part white. The West pier of Hibatsu To has 5 mobile port cranes, with lifting capacity up to 5 tons. At the Southern end of the pier are 2 new large warehouses. A floating crane is available with a capacity of about 160 tons. On the Western pier is likewise a small warehouse and 2 mobile port cranes (up to 5 tons). At the Southern end of the Western pier, are two berths for deep sea freighters with a good 9 m. water depth N.W. alongside. At the Southern part of the Western pier there is a good 8 m. of water along a length of some 210 m. At berth 1 (West pier, Southern berth), vessels up to 32 ft. draft can go alongside in normal water conditions. The depth of water in the inner part of the port could not be exactly determined, but judging by the vessels there must be about 5 m.

The old coal pier has a berth with at least 10 m. depth of water. East of this pier is also a further coal pier, equipped also with conveyor belts and about 10 m. depth of water alongside.

For berthing and unberthing there are one large and three small tugs available. The large tug acts as pilot craft and for the authorities to visit for clearance. It has been previously described.

From our observations, in the inner roads loading and unloading rarely takes place. There are only a few lighters available. As the port is overloaded, a long waiting time must always be allowed for (at least 14 days).

Medical care for crew members here is somewhat difficult, since one tries with all means to avoid having to have the crew member transferred beyond the confines of the port. In this connection, the doctor comes only once on board and a decision is taken as to whether or not a visit to hospital is necessary. For such a hospital visit one has further to go through the Agent to the authorities to obtain permission to go beyond the port area.

Below are some soundings of the roads. The vessel's draft = 8.35 m. First bearing is Nampo Ki, second bearing is the pier light, fixed red, in front of the East pier:

Weather (Wind)	*Bearing*	*Time* (GMT)	*Measured depth, taking into consideration vessel's draft* (m.)
15° 8 knots	344°, 38°	2330	21.15
100° 8 knots	355°, 42°	0130	19.93
360° 5 knots	355°, 39°	0715	15.97
340° 5 knots	343°, 37°	0900	18.41
070° 9 knots	340.5°, 38.5°	2330	21.15
060° 5 knots	343°, 39.5°	0100	21.46
Circulating 5 knots	324°, 41°	0430	16.88
270° 13 knots	339°, 37°	0000	21.46
300° 20 knots	357°, 40.5°	0300	19.93
290° 10 knots	345°, 40°	0840	18.43
Circulating 5 knots	360°, 45°	0640	16.58

The pier structures have shuttering walls at the bottom, and the upper part is composed of equal-shaped stone blocks. At the mooring points fenders are composed of car tyres strung together on wires. The pier itself is in a satisfactory condition. Rail connection is available, and lorries may run along it. Water connections are also available. As the two cranes on pier Berth No. 1 have very large beams, they are often positioned between two hatches and then work the two hatches alternately.

Loading and unloading is made difficult since it is not possible to obtain precise information as to the number of gangs, the time they will turn up for work, whether they will work with their own equipment or with cranes or with the mobile cranes available. It continually happens that suddenly port workers will appear or disappear, although shortly beforehand the Agent will inform to the contrary.

Telephone connections with Europe are possible. Connections can be obtained at the Seaman's Club in the port after 1600 hrs. On average it takes an hour to get through. It is advisable always to try to get a line to Moscow, and then ask for the required connection oneself in English from the Moscow operator. This noticeably hastens the connection. Comprehension is at times very bad, calculation of charges is dreadful, and one must be prepared to pay three or four times the price as would appertain for a similar call in Europe.

The local currency is the Won. 1 US dollar = approx. 2.15 Won. In the Seaman's Club all customary Western currencies can be changed into Wons.

Loading rigging can be positioned from the ship. If for example this has to be done at night, it must be discussed in advance with the Agent as to whether this has to be done by the ship or the port personnel. If the rigging is done by the port personnel, it must be checked carefully.

Clearance outwards occurs in the harbour roads and not at the pier. It takes a good 3 to 4 hours. Here also, all crew members must be in their cabins for checking purposes, and if the authorities require it, personnel must be available to guide them around the ship. On leaving the port, yet another list must be presented of currency which each crew member has spent in Korea.

They are only interested in foreign currency which has been exchanged for Wons in the Seaman's Club, since Wons may not be exported.

On the journey out from the port, the Pilot is accompanied by an assistant and member of the coastguard. The latter, shortly after coming on board, removes all seals from apparatus sealed when coming into port. The Pilot leaves the vessel at a position Lat. 38° 35′ 5″ N. and Long. 124° 55′ 5″ E.

Herewith some soundings, taking into consideration draft of vessel. First bearing – pier light East side Hibatsu To – fixed red. Second bearing chimney at Lat. 38° 44′ 1″ N. and Long. 125° 25′ 9″ E. (shown on the chart as Chy.)

GMT	*Weather*	*Bearing*	*Line sounding* (m.)
0030	Calm 1022 mb	338° 43°	21.78
0130	Calm 1022	338° 42°	24.79
0430	Changeable 1022	335.5° 40°	21.03
0530	250° 14 knots 1022	312° 38°	24.18

SHIPMASTER'S REPORT: No. 3

VHF: Agent "KOSA" can be contacted on Channel 16. Generally port (Pilot, etc.) do not communicate with the ship directly. All communications (VHF) to be done through "KOSA". General watch keeping time (VHF) – 0900 hrs. to 1030 hrs.; 1200 hrs. to 1300 hrs.; 1400 hrs. to 1630 hrs.; 1900 hrs to 2100 hrs. and 2330 hrs. to 0030 hrs.

FRESH WATER: Also available from shore connections alongside No. 1 and 2 Berths.

SURVEYORS: State surveyors of D.P.R.K. (Democratic People's Republic of Korea) available. Survey fees about US$ 1,900.00 per visit.

REPAIRS: Facilities available.

New Dry Dock: is in operation which can handle ships over 180 m. in length. *Shipyard* builds ships (2 – 3 ships at a time) of moderate size (about 10,000 d.w.t.).

Dry Dock/Shipyard Workshop undertake ships repair. They have boat fully equipped with diving equipment and diver.

Factory Engineer/Technician (Electronic) undertake Radar/Echo-sounder/VHF repairs.

GENERAL:

Marine Note of Protest: No Notary Public or Court of Law. Masters wishing to lodge a "Note of Protest" can write to the Harbour Master who will endorse his (Master's) letter.

People strongly object calling their country "North Korea", it is to be called Democratic People's Republic of Korea.

Fresh Provisions: Fresh provisions also available through the ship chandlers (owned/controlled by the Government). It is advisable to take stores through the seaman's club, where quality can be checked before the provisions supplied on board.

SHIPMASTER'S REPORT: No. 4. May 1986.

Korean Regulations require foreign vessels to stay 15 miles off coast until abreast of port and we were tracked from 37° 00′ N., Northwards to ensure that we did so. As well as ETAs at 5 days, 24 hours, 12 hours and 4 hours before arrival at pilot station, vessel required to report position and speed 24 hours before and on crossing Lat. 37° North.

Approached Sei To Island on course 075° on flood tide with very strong Northerly set and carrying 15° for set to clear shoals to the North. Passed Sei To at 1.1 miles and 7 cables North of Hoko To then course 050° between red can buoy marking Southern end of Chu Shu or Naka Su and black conical buoy marking Northern limit of Kashi or Shimo Su, then 055° to Pilot Station No. 1 and waiting anchorage North of Shimai To. Neither of the above buoys appeared to have lights and were poor radar targets, so approach at night not advisable.

Instructed by cable from Agents (KOSA) to anchor at No. 1 Pilot Station to await Pilot, who arrived unexpectedly after only 2 hours at anchor. We could hear Agents KOSA on VHF Channel 16 but they did not answer.

2 Pilots, 2 Immigration Officials and Port Health boarded from tug which came out from Shimai To. Clearance to enter procedure carried out here which included placing all cameras and binoculars in radio room and sealing the door, took about one hour. The 2 Immigration Officials stayed onboard for passage up river. Echo-sounder sealed but not radars.

Channel to locks at Hito Suido passes close Northwards of Shimai To, 067° through No. 2 pilot station and waiting area to 8 cables N.N.W. of San To, thence straight course to locks.

The damming of the river and the river sealed off from the sea was completed in April 1986. The old main channel (Hito Suido) South of Hi To Island closed with sluices and three locks. Two for large ships in way of the old deep water channel, of which the largest is 270 m.×36 m. and a small lock for fishing vessels close to the Southern shore. The 2 main locks are side by side with a large control tower and large swing bridge on the centre dividing islands, which is extended East and West by 100 m. long leading jetties on piles. Leading jetties have vertical wood fendering against piles and locks have floating wood fenders for full length, both sides. One tug available to assist large ships to enter lock.

East of locks, channel close to South bank to avoid shallow patch in mid-river for first 3 miles, after which appears to be plenty of water for virtually full width, expect changes in the future though, with silt washing down river which cannot pass dam.

We went straight on to berth and the rest of the entry procedure which took 2 hours carried out, normally this is done at anchor before berthing. Papers required were as previous Master's Reports in 'Guide to Port Entry'. All Cholera vaccinations must be valid and all foreign currency must be declared. Before sailing a list is required of all foreign currency changed, which is readily possible at the Seaman's Club, all Hotels and most of the shops in Nampo amd Pyongyang.

Officials searched ship thoroughly on arrival. They require 4 Officers/men to accompany searches, with their passports, and all other personnel have to be in their cabins. Even deck stores and engine room searched. The same procedure takes place before sailing, but this time they are looking for stowaways and Korean currency which it is illegal to take out of the country.

Shore leave for ship's crew is only allowed between 0700 hrs. and 2300 hrs. local time daily and only inside port area, which includes Seaman's Club. Even for this, shore passes and passports must be taken, which are checked by guard at foot of gangway, on and off. Special permission has to be obtained for visits to Nampo City or the capital Pyongyang. This is readily given, though always accompanied by an official guide from either the agency or the Seaman's Club. We were allowed cameras out of seal for a guided tour of Pyongyang, but they were returned under seal, immediately on return to the ship.

Taking of soundings with hand lead, making drawings or sketches of anything in port area, visiting other ships, taking radios or tape recorders on deck and taking anything ashore without declaring to Customs are all strictly forbidden.

Garbage is collected from ship every 3 days, which service has to be paid for (about 300 Won each time). All garbage must be kept in closed bins, and nothing must be thrown overside.

Very keen on rat guards and net under gangway.

Fresh water readily available by barge, in 90 tonne quantities. Seemed to be of good quality though quite expensive (4 Won per tonne).

The Seaman's Club provides chandlery and laundry services. Good fresh vegetables available.

Rate of exchange (May 1986) 2.2 Won to US dollar and 3.4 Won to Pound Sterling.

Bulk handling berth consisted of three large concrete dolphins on steel pillars and joined by steel girders, on which tracks for bulk handling equipment run. Connected to shore by narrow walkway only. Total length of berth about 150 m. so stern was overhanging.

Berth equipped to discharge grain and to load bulk cement (cement being the largest export from the port).

Cargo of bulk wheat was discharged by three methods:-

1). By vertical belt lift to conveyor belt, thence to silo.
2). By ship's grabs via hopper to conveyor belt, thence to silo.
3). By ship's grabs to barges overside.

The majority of cargo being discharged by the latter two methods as, though the vertical lift belt was the fastest when working, it was continually breaking down. Also best work done at night as there was frequently a shortage of shore electrical power during the day.

Draft survey carried out to confirm quantity discharged and surveyor signed a statement to the effect that full B/L quantity discharged. Vessel not given clearance to sail until this had been done.

Although nearly everyone from the agency (KOSA) spoke good English, there was nobody from stevedores who did and consequently ship's personnel had very little control over which hatches were worked and when.

Agents: Korea Ocean Shipping Agency (KOSA) very attentive and said to have 24 hour Channel 16 VHF watch in their office, though this was not put to the test outside normal working hours. Requests for everything has to be by written application, i.e. money, fresh water, repair firm, etc.

SHIPMASTER'S REPORT: No. 5. August 1986.

ARRIVAL: *Pre-arrival notices:*
The state Agent, Korea Ocean Shipping Agencies, cable address "KOSA" will send by cable, instructions regarding reporting position at sea before arrival. In our case we had to send position 24 hours, 12 hours and 4 hours before arrival at pilot station together with course and speed.

The position is also to be sent when crossing a line joining the following positions:

Lat. 40° 00′ N., Long. 123° 20′ E.
Lat. 37° 00′ N., Long. 123° 20′ E.
Lat. 37° 00′ N., Long. 126° 30′ E.

The coast must be kept at a distance of 15 miles until the approach to the Island of Sei To (Lat. 38° 33′ N., Long. 124° 46′ E.)

Note: North of Lat. 37° 00′ N., the ships are challenged by Korean Navy vessels either by VHF or Morse Lamp. They request ship's name, nationality, cargo on board, destination, port of origin. Sometimes they approach close to vessel (3 – 4 cables) to check the name with powerful projector.

PILOTAGE/APPROACHES: *Pilot boarding anchorage:*
After passing Sei To Island the ship proceeds to the pilot waiting anchorage bounded by the following positions:

A. Lat. 38° 41′ 24″ N., Long. 124° 59′ 12″ E.
B. Lat. 38° 41′ 54″ N., Long. 124° 58′ 06″ E.
C. Lat. 38° 43′ 06″ N., Long. 125° 00′ 24″ E.
D. Lat. 38° 42′ 06″ N., Long. 125° 01′ 36″ E.

The tide is very strong but the holding ground is good, pay out sufficient chain to avoid dragging.

Approaches: The red buoy on the SW end of Naka Su Shoal, to be left on the port side when entering, is in position 37° 36′ 51″ N., 124° 50′ 42″ E. (7 cables S.W. of charted position).

The black buoy, starboard hand, 2 miles NE, is 3 cables WSW of the charted position.

The black buoy 1 mile N.E. of Shimai To Lighthouse has been changed to red and is in position (A) of the waiting anchorage (38° 41.4′ N., 124° 59.2′ E.).

LOCKS: A dam has been erected across the river from a position (approx) 38° 43.4′ N., 125° 14′ E. in a SW direction to the '5 1/4' wreck East of Hi To Island, then in a 263° direction to the Datum Rock (38° 40.8′ N., 125° 11′ E.) The area between Datum Rock and Hi To Island has been reclaimed and a large esplanade built.

Another dam with gates join Hi To Island to the mainland in a SSW direction (198°). 3 locks have been built on the SSW part:

Lock No. 1: The SSW most, is used for barges.

Lock No. 2: In the centre, is for large vessels up to 50,000 d.w.t., the dimensions are 275 m.×36 m. A training wall extends on both ends of the lock on the Northern part. The walls of the training wall are protected with wooden fenders, the lock has floating wooden fenders.

Lock No. 3: The Northernmost is for medium size ships, the dimensions are length 225 m. and beam 26 m. 2 ships can be accommodated at the same time.

Note: The lack of co-ordination between the Lock Master and Authorities operating the gates of the dam is frightening, when the gates are opened a very strong current sets across the Western part of the lock and it is impossible to leave the lock as the ship is pushed toward the shallow water still existing just outside the lock. Small craft may try to enter the lock when the gate is opened.

A road and railway line on the dam and lock system through a swinging bridge.

2 tugs are available to assist large vessels to enter the lock.

We entered the lock in loaded condition with a draft of 10.00 m. without any difficulties. Our vessel is 37,500 d.w.t.

The locks have been operating since April and the Pilots do not have much experience.

A very tall monument stands on Hi To Island.

PORT: See "Plan". Since the building of the dam there is no tide in the port and the current is negligible.

Salinity is lowering. At the time of our stay it varied from 1009 to 1005, it is said that in future it will be completely fresh water.

5 new berths have been built over the last 5/6 years in addition to Berth No. 1 and No. 2 in Hibatsu To.

Berth No. 3 extends in a Northeasterly direction for 220 m. from the light in position 38° 43′ N., 125° 24.6′ E. There is about 11 m. depth alongside the berth 2 cranes of 5 tons are available.

Berth Nos. 4 and 5 are inside a basin just North of Berth No. 3 and are used by barges.

Berth No. 6 (NE of Berth No. 3) is formed by 3 large platforms is equipped with 2 discharges and one loader for grain. There are minimum depths of 11.5 m. on the inside part of this berth (where we discharged most of the cargo).

Berth No. 7 (Eastward of Berth No. 6) is about 340 m. long. Berth No. 7 has minimum depth of 6.0 m. at the Eastern part and is used for general cargo. It also has a fixed hopper connected by belt to a silo. The berth is equipped with 2 cranes of about 5 tons capacity.

Berth No. 8 is equipped with 3 special loaders for cement in bags. It probably has a minimum depth of 11 m. as we have seen vessels loading up to a draft of 10 m.

Berth No. 9 (further Northeastward) is a loading berth for coal and is about 180 m. in length with depth of more than 12 m.

One loader runs on the pier for loading of coal in bulk.

Note: Cranes and equipment for handling grain are locally built and subject to frequent breakdowns. Safety guidelines are absolutely ignored by the stevedores who use wires and equipment of poor quality.

Electric cable connections are exposed to the weather.

Regulations: Port Regulations must be strictly followed and ships are subject to heavy fines for non observance of the regulations. Pollution is strictly prohibited. In future the discharge of sewage into the water will be prohibited.

General: There is another berth further upriver to discharge iron ore at a steel factory but details are not known.

The Agent KOSA has a VHF radio operating day and night.

Binoculars, ship's radio station and echo sounder are sealed at waiting anchorage, Radars are left open for operation.

SHIPMASTER'S REPORT: No. 6. December 1986.

Vessel called at Nampo with a cargo of bulk wheat from India (about 22,400 tonnes).

1. The Nampo pilot ground has been established in an area enclosed by the positions:

(a)	Lat. 38° 41′ 24″ N.	Long. 124° 59′ 12″ E.
(b)	Lat. 38° 41′ 54″ N.	Long. 124° 58′ 06″ E.
(c)	Lat. 38° 43′ 06″ N.	Long. 125° 00′ 24″ E.
(d)	Lat. 38° 42′ 36″ N.	Long. 125° 01′ 36″ E.

2. The binoculars are put away under seal, also the use of transmitters and echo sounders beyond the lock gate is forbidden.

3. Vessel berthed at Berth No. 6, and the Pilot informed me that a 10 m. fresh water draft is safe.

4. Berth No. 6 is a mechanised berth serviced by 2 conveyor belts and claims of a discharge rate of 3,000 tonnes per day. There are, however, breakdowns and we managed about 1,000 tonnes per day with a high of 1,400 tonnes per day. A silo receives the wheat and has a capacity of 20,000 tonnes. Berth No. 6 is also the loading berth for bulk cement, serviced by one loader. Supposedly a load rate of 3,500 tonnes per day can be achieved. The storage facility for the bulk cement is a silo of 60,000 tonnes capacity.

5. Galley garbage is cleared every 3 days. The Harbour Authorities are strict and among other things are very particular about rat guards being in position and the satisfactory operation of sewerage treatment plants.

6. The Agents are co-operative and helpful, and going by earlier Masters' reports, I think there is vast improvement in telex and telephone facilities.

7. Agent's cable address: Kosa Nampo.

FRESH WATER: Available by barge in 100 tonne quantities.

FUEL: Supplied only by barge either alongside or whilst the vessel in the anchorage. The bunker barges are not equipped with heaters and consequently the pumping rate very slow (about 90 tonnes per hour for heavy oil and 120 tonnes per hour for diesel oil). Each barge has a capacity of about 400 tonnes; No blending on the barge, this being performed at the refinery. The barges generally sail up from Pohang and have to clear customs formalities at Bukpyung. Fenders on the barges are virtually non-existent and if taking bunkers at the anchorage in any kind of weather extra tyres etc., should be used. We were supplied by Korean Marine Bunkering: Seoul 776-8531.

REPAIRS: Engine and general dock repairs possible from Donghai Marine Engineering Co. Ltd. The company has a staff of about 12 and are capable of handling most repairs. Welders are Korean registered. Various Customs formalities have to be completed before spare parts are removed from the port area. Prices appear reasonable though slightly higher than Ulsan and Inchon. Radar repairs can be arranged with ample notice. Chemical cleaning of heaters, etc., can be arranged.

SURVEYORS: Local Korean inspectors/surveyors are available at Mukho for draft surveys, on/off hire surveys, etc.

Lloyd's and Bureau Veritas are available from Seoul and will attend vessels at Bukpyung if necessary, with ample notice.

WATCHMEN: Available from Sanghyup Kongsa (again) recommended mainly for their ability to use telephone especially with the Agency 5 miles away. Cost about £12 per day.

CUSTOMS: Attend on berthing. Quite casual and friendly. Spirits and cigarettes sealed though beer and wine left unsealed. Normal allowances per person and an issue available after vessel has been in port for 5 days. One Customs Officer remains on the vessel during the stay in port, he requires a cabin and meals. Drugs are also sighted and sealed.

REPATRIATION: No difficulties in this area. Seoul some 300 km. away is served by an express bus service. Sub-Agents liaise with main Agents and all repatriations seem to run smoothly. An overnight stay is normally arranged at Seoul for incoming and outgoing crew members though this depends on flight times. The journey between Bukpyung and Seoul takes about 4.5 hours. It is necessary for joining crew members to fill out a personal manifest once aboard the vessel, this is collected prior to sailing.

HOLIDAYS: See "Inchon".

Arbor Day (April 5th) is also an official holiday at Bukpyung. Work is possible during all holidays.

TELEPHONES: Available at all berths. Only local calls taken.

SHORE LEAVE: No restrictions, no curfew.

GENERAL:

Weather: Refer to Pilot Book.

During the latter part of March and April long periods of relatively calm weather were disturbed by severe Lows and Fronts causing strong on shore winds and high seas. During these periods the port remains closed for berthing vessels, though sailing is possible. Smaller ships in the anchorage generally steam offshore during these periods.

Stores: Fresh supplies and all chandlery items supplied by Sanghyup Kongsa Co. Ltd., Bukpyung (the only chandler in the area). Fresh vegetables, fruit, fish, etc., are in plentiful supply locally. Deck and engine stores also available in the area, though more selective items can be obtained from Seoul. Local supplies are reasonably priced, though meat expensive. Bonded stores are also available. Medical supplies can be obtained from Seoul as well as current BA. Charts and Admiralty publications. These again are quite expensive.

Immobilisation: Possible with Port Authority approval.

Port Regulations: Bukpyung also serves as a naval port and consequently no photography allowed. No written port regulations. Painting over the side not allowed for fear of pollution, similarly no painting allowed from the quayside.

Launch Service: A launch service is available from the anchorage and is useful for crew repatriation. It can also be used for shore leave, once vessel has been cleared, though price is unknown.

Garbage: Arranged by Agents, taken away from ship by road truck. Rubbish should be retained on board, even at the anchorage, various naval craft regularly patrol around the port area and anchorage.

Consuls/Notary: No Consular offices at Bukpyung or Mukho, it being necessary to travel to Seoul for these purposes. It is also impossible to Note Protest at Bukpyung or Mukho.

Laundry: Adequate laundry facilities exist at Mukho, again arranged by Sanghyup Kongsa Co. Ltd., a 24 hour service is available.

Cleaning Gangs: These are available and will clean hatches between cargoes. It is not possible to pump out hold residue whilst alongside. Cleaning gangs do not generally work at night so some pre-planning required if vessel to discharge and load at the same port. Work requires constant supervision. Labour for the gangs picked up off the street.

Immigration: All passports inspected: Shore passes issued for all crew members and these renewable every four or five days. No Curfew exists at Bukpyung or Mukho. It is necessary to pass through Customs Office and Immigration Office before leaving the port area. Again all Immigration Officials most helpful and eager to practise their English. Shore passes collected prior to sailing before obtaining clearance.

Air Freight: Little difficulty in obtaining spare parts, air freight etc., from other countries. Main Agents at Seoul arrange necessary customs clearance and transport.

Agency: Main Agents at Bukpyung: Chokwang Shipping Co. Ltd. They are sub-Agents for most of the main Korean Agencies. Their office is situated at Mukho. With the number of vessels entering and using Mukho and Bukpyung they are kept extremely busy, however all Agency work is eventually attended to and their services are quite satisfactory. Telex and telephone facilities exist at their office, most telexes are directed through the main Agents in Seoul, however a direct line can be obtained if necessary.

SHIPMASTER'S REPORT: November 1985.

On British Admiralty Chart No. 882 BUKPYUNG. Name seems interchangeable on signs, etc.

The anchorage off the port between 0.5 – 0.75 miles W.N.W. of the South Breakwater Light seems good but exposed to E'ly weather. A good swell was running when we anchored off and vessel did not berth for 24 hours. Contact could be made with Agents through Mukho Radio on VHF Channel 16, switching to Channel 26. Language is a problem.

Panamax bulk carriers are the largest vessels taken at the port. Max. permitted draft 12.5 m. 2 moderate powered tugs and 2 small tugs. In bad weather would advise a panamax not to berth.

The commercial port is dominated by Ssang Yong cement works which exports over 2 million tons of cement a year. The bulk berth is clear and modern. Two grab dischargers are said to work 24 hours a day. But there are many stoppages. The jetty is well fendered, good bollards at approximately 100 ft. intervals. We would suggest 4 head/stern lines, 2 breast and 2 springs each end. Extra moorings in bad weather.

Pratique: Vessel was informed before arrival that Pratique was granted. After anchoring vessel was boarded and store rooms inspected, Derat not asked for. Pratique was again granted timed and dated.

Documents: Only Register asked for. Ship had made out stores, personnel goods, narcotic and arms lists on our paper and these were accepted. Only narcotics in Master's safe being checked. Shore passes were made out (by ship). These are required and checked at gate every time. Bond not sealed.

I was unable to Note Protest either here or at Mukho. No ABS surveyor available locally. Checked with Agent before lowering and running lifeboat for normal upkeep. I was informed that it was in order. A small naval craft wanted to arrest it shortly after it was lowered into the water and so we recovered it fast. Painting over the side is allowed.

Nearest airport at Seoul. There is an express bus service (5 hours) or train (6 hours) to Seoul.

Fresh water is available by barge. Bunkers, heavy fuels, diesel, lub oils, can be supplied if several days notice is given, I understand a coaster brings same from Busan.

AUTHORITY: Donghae (Bukpyung) District Maritime and Port Authority. *Tel:* (0394) 32 3631. *Telex:* K24336 Mhdmpa.

AGENT: Sub-Agents for Korea Universal Marine Co. Ltd., 855-17 Sonjung-dong, Donghae, Kanwon-do, Korea. Tel: (0394) 32-5982/3. Telex: K25838 Jokwang. Cables: "Chokwang Bukpyung". Fax: (0394) 32-5984.

Associated with Jardine Shipping Agencies.

BUSAN (Pusan): 35.07 N. 129.02 E.

DOCUMENTS:

9 Cargo Manifests.
3 Transit Cargo Manifests.
8 Crew Lists.
8 Passenger Lists.
4 Passenger Baggage Lists.
4 Mail Lists (forms supplied by Agent).
5 Parcels Lists (forms supplied by Agent).
2 Arms-Narcotics Lists.
2 Tobacco Lists.
4 Currency Lists.
4 Stores Lists.
4 Crew Personal Effects Lists.

Immigration: All Seamen's Books examined and shore passes made out. These passes to be carried at all times when ashore.

Certificates:

Derat Certificate or Exemption.

Inoculation and Vaccination Certificates for all crew members.

PILOTAGE: Professional Pilot service is available at Busan and contact can be made by telephone No. 44-1651. Necessary for arriving vessel to notify Pilots of arrival 24 hours in advance. VHF unavailable. Formal address is: 15 4-Ka, Jung Yang-Dong, Jung-Ku, Busan, Korea. Blast signal from vessel used to call Pilots. Pilot station position Lat. 35° 05′ 58″ N., Long. 129° 02′ 37″ E.

Pilotage is compulsory and available day and night. Pilot boards off the entrance to the outer harbour. Pilot boat is white launch with pilot signals. Tugs cannot be employed unless Pilot is on board.

ANCHORAGES:

Designation	*Depth*	*Capacity*
S-anchorage	8-9 m.	4 vessels of 300-2,000 tons
E-anchorage	11-12 m.	6 vessels of 8,000-12,000 tons

RESTRICTIONS: Vessel having called at Communist ports within 3 months of contemplated entry of Busan needs to obtain permission of authorities.

MAX. SIZE: Max. size 50,000 d.w.t. LOA 330 m. Max. draft 12.5 m.

HEALTH: Pratique granted to vessels anchored in a circular quarantine anchorage located in Outer Harbour. Quarantine Inspection can be arranged by day or night if sufficient advance notice given although regular hours are sunrise to sunset. Valid Cholera Certificates required. Inoculations against typhoid and typhus may be required depending on prevalent conditions.

Quarantine Anchorages:

(a) Lat. 35° 05.14′ N., Long. 129° 07.34′ E.
(b) Lat. 35° 04.78′ N., Long. 129° 07.12′ E.

RADIO: Busan Harbour Radio Station: call sign, "6MF".

Vessels to submit ETA to Busan Port and Maritime Authority 1 day – 3 days before vessel's arrival, message also to include name of Owner and Agent. 3 hours before arrival vessel must communicate with Busan Port Control.

Radio-Telegraphy: Calling 500 kHz (operating throughout 24 hours), working 520 kHz, 512 kHz.

Radio-Telephony: Calling 2183.4 (operating throughout 24 hours), working 1881.4 kHz, 2320 kHz.

VHF: Busan Harbour Control, calling on Channel 16, working Channel 12, 14, 20 and 22.

RADAR: A radar station is sited in the Harbour Office to assist vessels approaching the port in poor visibility.

TUGS: Tugs join an arriving vessel immediately inside the breakwater of Busan Harbour. Ship's own lines are used. Tugs can join large vessels outside the breakwater. 11 tugs, 1,000 h.p. – 3,200 h.p.

BERTHING: Normally in daylight only.

Pier	*Length of Quay* (m.)	*Depth of Water* (m.)	*Max. Size* (d.w.t.)
No. 1	407	8 – 9	8,000 7,000 500
No. 2	925	9 – 11	20,000 10,000 7,000 5,000 500
No. 3	1,145	9 – 11	10,000 8,000 5,000 3,000
No. 4	1,308	9 – 10	10,000 8,000 7,000 5,000 3,000 500
Central	646	9	8,000
No. 5			
(Container)	659	12.5	50,000
(Grain)	371	12.5	50,000
No. 6			
(Container)	603	12.5	50,000
No. 7			
(Coal)	127	10.5	6,000
(Scrap)	193	10.5	15,000
(Ore)	336	7.5 – 10.5	5,000
No. 8	535	10	15,000
	165	9	10,000
	130	7.5	5,000
	170	5	1,000
International Passenger Terminal	200	8.5	10,000
	120	7	3,000
			3,000
Coastal Terminal	575	6.5	1,000

CONTAINER FACILITIES: 6×30.5 ton and 2×40.5 ton capacity gantry cranes at the container terminal (Nos. 5 and 6). 2×40.5 ton and 7×30.5 ton transtainers available. 354 reefer points available.

BULK HANDLING FACILITIES: Grain terminal located at Pier No. 5. Storage capacity 83,000 tonnes. 2×400 t.p.h. ship unloaders and 1×450 t.p.h. conveyor.

Coal handling facilities at Pier No. 7. 2×300 t.p.h. unloaders and 1×600 t.p.h. conveyor.

STEVEDORES: On basis using full gangs per day, the capacity is : 1,000 L/tons on general cargo.

CRANES: 80 cranes with capacity 10 tons – 100 tons. 4×20 t.p.h. cranes for scrap iron.

TANKERS: A T-head oil pier extends about 700 ft. on the S.E. side of the North Harbour. Least depth at pier head is 32 ft. Used by tankers servicing Korea Oil Corporation.

MEDICAL: Service is available at short notice.

FRESH WATER: Available. Rate of water supply, 80 L/t.p.h. Supplied at pier, or by barge.

FUEL: Availability on Bunker "A", Bunker "C", LRFO, LO and diesel oil.

FIRE PRECAUTIONS: Port has separate anchorage for tankers. Port requests for compliance with regulation not to contaminate waters with inflammable substances, e.g. petroleum products. Tankers are prohibited to clean tanks in port.

GANGWAY/DECK WATCHMEN: This service is available.

OPENING/CLOSING HATCHES: Usually carried out by stevedores.

CUSTOMS ALLOWANCES: One carton cigarettes or 1 lb. of tobacco, and 1 bottle wine or spirits allowed, each man.

IDENTIFICATION CARDS: Crew required to carry valid identification cards at all times.

CONSULS:

Consul, Republic of China	Tel: 23-3617
Consul, Japan	Tel: 43-9221

REPAIRS: All repairs can be effected.

DRY DOCKS:

Name of facility	*Capacity* g.r.t.	d.w.t.	*Location*
Korea Ship Building Eng. Corp. No.1	3,000	6,000	Busan
Korea Ship Building Eng. Corp. No.2	20,000	60,000	Busan
Korea Ship Building Eng. Corp. No.3	80,000	150,000	Busan
Dae Sun Ship Building Corp.	2,000	4,000	Busan

REPATRIATION: World wide connections are available from Busan via Seoul or Tokyo.

AIRPORT: Airport is at Kim Hey about 28 km. from Busan. Japan-bound plane takes off every 3rd day.

HOLIDAYS: 1st-3rd January; 1st March; 10th March; 5th April; 6th June; 17th July; 15th August; 3rd October; 9th October; 1st October; 24th December; Buddhist Birthday 8th April (by the Lunar Calender), Choo Sug (Thanksgiving Day), 15th August (by Lunar Calender).

POLICE/AMBULANCE/FIRE: Police, 22-0863/2497; Ambulance, Busan Quarantine Station, 44-0119/0619.

TELEPHONES: "Port Telephone Service" operates for purpose of serving communication on board-shore.

SERVICES: Adjustment of compass available.

SHORE LEAVE: Allowed.

DELAYS: Port congestion is experienced occasionally.

DEVELOPMENTS: An additional 3 berth container handling facility to be built. 6 container cranes will be available. Completion expected 1990.

AUTHORITY: Pusan District Maritime and Port Authority, 1116-1 Jwadchun-dong, Dong-ku, Pusan, Republic of Korea. *Tel:* (051) 65-0933. *Telex:* K53377 Bdmpa.

AGENT: Korea Univeral Marine Co. Ltd., 5th Floor, Hwaishin Building, No. 80-16, 4-Ka, Joong-Ang-Dong, Joong-Ku, Busan, Korea. Tel: (051) 4626477. Telex: K53562 Kmyung. Cables: "Kochart Busan". Fax: (051) 4626847.

Associated with Jardine Shipping Agencies.

CHINHAI (Jinhae): 35.07 N. 128.42 E.

SHIPMASTER'S REPORT: 1977.

LOCATION: Lat. 35° 09′ N., Long. 128° 40′ E. (Town); Lat. 35° 07′ N., Long. 128° 42′ E. (Pier).

DOCUMENTS:

8 Cargo Manifests.
8 Crew Lists.
4 Stores Lists.
3 Lists of Crew's Personal Effects. Tobacco/Spirits.
1 Vaccination List.
1 Health Declaration.
2 Currency Lists.

All documents are Standard Form. Although currency lists are required, there are no restrictions on importing or exporting either Korean or other currencies.

PILOTAGE: Pilotage not compulsory but recommended. Pilots are ordered through Agents and board vessel about 10 cables West of Kadok Do Island. VHF not available. No pilotage during night hours. Pilot boat is a wooden launch exhibiting International pilotage signals.

ANCHORAGE: Recommended 7 cables in Northwesterly direction off Tongdu Mal Lt. Ho. (Kadok Do.). Depth 25 m. Good anchorage in sand and mud. Quarantine anchorage is located about 1 mile N.N.W. from Chori Som Island.

HEALTH: Radio Pratique not available. Pratique granted after inspection.

RADIO: Busan Radio, call-sign "HLP".

TUGS: Required for mooring and unmooring. 2 tugs available of 600 h.p. and 1,000 h.p.

BERTHING: Chinhai is a principal naval base. Vessels drawing up to 17 ft. can be accommodated alongside inner harbour.

A buoyed channel with a depth of 36 ft. MHW leads from East of Madang So, to the only berth available for deep-sea vessels about 1.5 miles N.E. The berth, about 660 ft. in length, belongs to the Chinhai Chemical Co. and can accommodate vessels with a maximum draft of 34 ft.

Depth-sounding alongside showed at least 43 ft. 3 in. at HW. (officially 34 ft.). Distance from HW level to deck of pier 2.10 m. Bottom thick mud, and density 1025.

Vessels not exceeding 34 ft. salt water draft berth 2 hours prior HW., and discharging commences immediately.

The berth is equipped with 1 grab only, and with conveyor-belt to nearby factory. The berth is used for discharging phosphate and potash, and very few general cargoes are handled. Discharge rate for phosphate is a maximum of 8,000 tons per 24 hours, with average of 6,200 tons.

Also see "Masan" – Bulk cargo facilities.

STEVEDORES: Work is continuous throughout 24 hours including Sundays, and without meal breaks.

MEDICAL: Attention available.

FRESH WATER: Available ex-barge from Masan, minimum 200 tons at US $3.00 per ton.

FUEL: Available ex-barge from Masan.

CONSULS: Nearest at Busan.

REPAIRS: Minor repairs only.

GANGWAY/DECK WATCHMEN: Available and recommended.

REPATRIATION: Possible from Busan.

CUSTOMS ALLOWANCES: No restrictions. Stores remain unsealed.

SHIPMASTER'S REPORT: February 1979.

PILOTAGE: Pilotage for the Port of Chinhae is compulsory, Pilots only available during daytime.

Pilots board in position Lat. 35° 02′ N., Long. 128° 47.5′ E. Ships waiting for a Pilot should anchor in the recommended anchorage situated North-east of the recommended track 306°/126° and extending from about 1 mile West to about 2 miles S.E. of Yon Do Island.

PROHIBITED ANCHORAGE AREA: A "Prohibited Anchorage Area" is situated between the existing prohibited area (approx. position 35° 00′ N., 128° 45′ E.) and the Western shore of the Kadok To Island.

The Northern limit of the "prohibited anchorage" area consists of a line running from position Lat. 35° 01.4′ N., Long. 128° 47.2′ E. in a 070° direction to the Western shore of Kadok To Island.

The Southern limit consists of a line running from Lat. 34° 58′ N., Long. 128° 47.3′ E. in a 061° direction to the Southernmost point of Kadok To Island.

According to the naval authorities, anchoring within the above mentioned area is prohibited because of existing submarine cables.

BUOYS: The red conical Buoy "No. 14" in position Lat. 35° 04.9′ N., Long. 128° 42.1′ E. is reported non-existent.

The red conical lightbuoy in position bearing 135° and 8.5 cables from the above mentioned Buoy No. 14 is also reported non-existent.

The black conical lightbuoy Gp. Fl(2) 6 sec. in position Lat. 35° 04′ N., Long. 128° 42.8′ E. is to be moved 4 cables in a 043° direction.

AUTHORITY: Masan District Marine Bureau.

AGENT: See "Masan".

DAIPORI (Daepo): 38.10 N. 128.36 E.

Vessels bound for Daipori to load iron ore must first call at Mukho for quarantine and customs clearance.

Pilotage from Mukho to Daipori, distance of 50 miles, is not compulsory, but recommended.

INCHON: 37.28 N. 126.37 E. (See Plan)

DOCUMENTS:

Arrival:

8 Crew Lists.
4 Cargo Manifests.
4 Stores Lists (Bond and shop).
4 Crew Customs Declaration.
4 Narcotics List.
4 Arms and Ammunitions List.
4 Ports of Call Lists (last 90 days).
1 Vaccination List.
2 Money Lists.
4 Passenger Lists (Marked "Nil").
Derat Certificate or exemption.

All the above lists are typed on ship's plain paper.

Coasting on Korean Coast: At each port after the first, one requires the same papers but only 2 copies of each, with the exception of the Crew List, of which 5 copies are required.

Vessels with hazardous cargo must complete application to carry hazardous cargo and an application for anchorage of hazardous cargo vessel.

PILOTAGE: There are 2 Pilot stations for entering Inchon (Tel: 883-8111/4):

Ando: At the Ando Light 38 miles off Inchon, position Lat. 37° 03.9′ N., Long. 126° 16.5′ E. (good weather) and Lat. 37° 06.95′ N., Long. 126° 19.6′ E. (bad weather) located in entrance to channel approaching Inchon from the Yellow Sea. 48 hours advance notice to Agent required for vessels requesting to meet Pilot at Ando, customary boarding point for deep-draft vessels.

Palmido: Pilotage from Palmido to Inchon or Inchon to Palmido is compulsory. This pilot station is at Palmido Island and Light, 8 miles off Inchon, position Lat. 37° 21′ N., Long. 126° 31′ E.

ANCHORAGE: Anchorage is divided into 5 large areas according to cargoes of the vessels.

A 1 – 5 (Logs, pulp)
B 1 – 6 (Ships waiting for entry to the inner harbour)
B 7 – 10 (Oil tankers and ships unloading scrap. Coal)
C 1 – 8 (Small tankers, LPG ships)
D 1 – 3 (Logs)
E 1 – 5 (Ships waiting for entry to the inner harbour)

HEALTH: The Quarantine Anchorage is located outside the harbour in position Lat. 37° 22′ 37″ N., Long. 126° 32′ 06″ E. A vessel which sailed from an "Affected Zone" and not passed 10 days thereafter is compelled to receive 24 hours quarantine before entering the discharging anchorage. Quarantine is available only for the period from sunrise to sunset.

RESTRICTIONS: A peculiarity of Inchon Port is the wide tidal range, i.e. max. 30 ft. difference between the low and high tides. Because of the extreme tidal range in Inchon Harbour and the strong tidal currents which result, the importance of maintaining strict surveillance of the vessel's mooring lines is emphasised. In this regard, the ship's officers and crew must be diligent in the performance of their duties. All vessels to discharge or load commercial cargoes should invariably obtain prior permission for berthing/anchoring from the Inchon District Maritime and Port Authority at least 24 hours before arrival, then proceed to a nominated anchorage in the stream under direction of a compulsory Pilot.

Lock Particulars:

	For 50,000 d.w.t. Vessels	*For 10,000 d.w.t. Vessels*
Lock Chamber	1 base	1 base
Total length	381.0 m.	288.25 m.
Usable length to		
Inner gate	280.0 m.	183.00 m.
Outer gate	310.0 m.	208.00 m.
Width	36.0 m.	22.50 m.
Height from sill	18.5 m. from sill	18.50 m. from sill
Height	19.0 m. from bottom	19.00 m. from bottom
Number of gates	3 sets	3 sets
Length of gates	38.0 m.	24.50 m.
Width of gates	8.3 m.	6.40 m.
Height of gate	18.5 m.	18.50 m.
Weight per gate	1,050 tons	590 tons
Time required for opening-closing	5 minutes	3 minutes

MAX. SIZE: Max. size 50,000 d.w.t. Max. LOA 302 m. Max. draft 13.0 m.

RADIO: Inchon Radio.

	Frequency	
Call Sign	*Calling*	*Working*
6 MF3	MF 500 kHz	MF 512 kHz
		520 kHz
or		
Inchon Harbour Control	VHF Channel 16	VHF Channel 12 Channel 14 Channel 20 Channel 22

TUGS: There are 17 tugs (1,000 h.p. – 3,200 h.p.). 2 – 3 tugs are required for each vessel.

All tugs are operated by private companies.

BERTHING:

Pier No.	*Berth No.*	*Total Length (m.)*	*Depth (m.)*	*Capacity (d.w.t.)*	*Remarks*
1	11-13	964	8.0	4,500	Dry Cargo
	14-17		7.5	2,000	Dry Cargo
2	21-22	1,442	12.0	20,000	Dry/
	23		12.0	30,000	Bulk Cargo
3	24-28	1,250	9.5	8,000	Bulk Cargo
	31-34		9.5	8,000	Steel and
	35-36		11.0	10,000	Heavy Cargo
	37		12.0	20,000	
4	41	1,160	12.0	10,000	Container
	42		14.0	30,000	Terminal
	43		14.5	50,000	and Bulk
	44		14.5	30,000	
	45		14.5	50,000	
5	51-52	604	14.0	50,000	Dry/Bulk Cargo
6	Under Development				
7	71-72	604	14.5	50,000	Grain
	73-74		14.5	50,000	Terminal
8	81-83		13.0	50,000	Scrap/Bulk

CRANES: 4 Gantry Cranes (35 ton class), 4 Transtainers (30 ton class), 3 Floating cranes (20 ton – 100 ton class), 101 land-based cranes (10 ton – 100 ton class).

BULK CARGO FACILITIES: No. 7 Pier is exclusively used for grain (Rate 800 t.p.h.) by 2 silo operators. Handling capacity is 4 million tons per year and storage capacity is 326,000 tons.

Taihan Bulk Terminal: Accommodates 2×50,000 d.w.t. vessels at dolphins. 2×700 t.p.h. Pneumatic suction elevators at each berth. Storage capacity 138,000 tonnes.

SPECIALISED CARGO HANDLING FACILITIES: No. 4 Pier (Berth Nos. 41-43 – (3 berths) – 625 m.; Berth No. 44 – 225 m. and Berth No. 45 – 310 m.) is used exclusively for containers. It has 2 container yards which are capable of storing 15,457 TEU. Ro-Ro ramp available.

TANKERS: There are six private companies handling oil, LPG and liquids. Maximum quantity of LPG loaded in a single operation is 1,500 tons.

Kyung In Energy Co. Terminal:

Designed for 50,000 d.w.t. over 50 ft. depth at LW. The marine terminal is situated at Lat. 37° 30′ 12″ N., Long. 126° 36′ 19″ E. The face of the dolphin fendering system is on a bearing of approximately 347° true.

The vessel will be berthed alongside the main and secondary berthing dolphins with the vessel's hull against the fenders, which are an integral part of the dolphins. All the dolphins are equipped with electric capstans and quick-release mooring hooks. A navigation light and fog horn is located on the Southern Exterior Mooring Dolphin (Exterior Mooring Dolphin No. 1). A navigation light is also located on Exterior Mooring Dolphin No. 2 on the N. side of the terminal facilities. When a vessel of the 50,000 d.w.t. class is moored to the terminal, the bow and stern lines will perform the function of the breast lines. Therefore, the spring lines must be led out through the chocks on board which will provide sufficient leads ahead and astern to restrict the movement of the vessel along the face of the dolphins. In this regard, due consideration must be given to the rise and fall of the tide.

Loading Arms: There are 3 "Continental-Emsco" loading arms situated on the loading platform. The one to the extreme North and the middle one of the three are for the discharge of crude oil. Both are fitted with 16 in. swivel connections having 150 pound flanges. The loading arm to the extreme South is for the loading of naphtha and is fitted with a 12 in. 150 pound flange. The loading arms are designed for a working pressure of 100 p.s.i.

During the connecting and disconnecting of the loading arms to the vessel, the loading arms will be manipulated and positioned by shore personnel. During the period of time when the loading arms are connected to the vessel's manifold, they will be in the "float" position and will be self-adjusting.

General Information:

Under no circumstances should any member of the ship's crew activate or operate the controls for the loading arms. Authorised shore personnel will perform this function.

The "Continental-Emsco" loading arms will tolerate only a minimum amount of transverse movement by the vessel in either direction. In other words, the movement of the vessel along the face of the dolphins is restricted. For this reason, it is mandatory that the vessel be kept in position, and that the mooring lines be properly tended. It is the responsibility of the vessel to maintain sufficient deck crew on duty to properly tend the mooring lines, and to ensure that the vessel maintains proper position relative to the loading arms.

Discharging Crude Oil:

The distance from the loading platform to the tanks is approximately 2.2 km. (1.4 miles). A 30 in. block valve is situated near the location where the trestle joins the island causeway. Block valves are also installed in the pipe-line system near the inlet to each of the crude oil storage tanks.

There are three crude oil storage tanks on Yul Do Island. Each has a capacity of 200,000 barrels. The tanks are 48 ft. in height with an overflow at 46 ft. There are no check valves in the crude oil pipe-line system. Thus, the vessel must take precautions against back-filling due to head pressure on the system.

It may be necessary to discontinue the discharge of crude oil when changing from one tank to another ashore. The vessel will be given adequate notice for the stoppage of the ship's cargo pumps.

Ballast:

It is unlawful to discharge dirty or oily ballast water into the waters of Inchon Harbour. Severe penalties may be invoked against the vessel by the Republic of Korea in the event of pollution of harbour waters.

The centre loading arm provides a dual function. It is used for discharging ballast from the vessel as well as for the discharge of crude. The ballast flows through a 12 in. pipe-line to the ballast storage tank on Yul Do Island. This tank has a capacity of 30,000 barrels, and is situated about 1.1 km. (0.68 miles) from the loading platform.

Loading Naphtha:

Naphtha is stored in two mainland storage tanks each of which has a capacity of 125,000 barrels. Three pumps provide the flow for shipping naphtha. Each pump has a capacity of 1,600 g.p.m. The pumps are on independent circuits. Thus, the loading rate of the naphtha can be governed by the number of pumps used.

The pipe-line from the pumps to the loading platform is 18 in. and is reduced to 12 in. on the loading platform. A block valve is located in the 18 in. pipe-line near the point where the island causeway joins the trestle. Another block valve is provided in the 12 in. pipe-line on the loading platform.

The pumps which are used for shipping naphtha can be stopped from the Marine Terminal Loading Platform, but they must be started from the mainland. Under normal conditions the vessel's deck officer on watch should give the terminal personnel 10 minutes notice prior to requesting that the loading rate be reduced, and the same notification prior to the completion of loading. As previously stated, the pumps can be stopped from the loading platform in case of an emergency.

The approximate distance from the mainland naphtha storage tanks to the loading platform is 5.4 km. (3.35 miles).

Regulations:

1. Sufficient number of crew members are to be on duty at all times to properly tend the mooring lines and ensure that the position of the vessel is maintained alongside of the dolphins.
2. Except in the case of an emergency, the deck officer on duty shall give the terminal personnel at least 10 minutes notice prior to changing the loading rate of the naphtha, and at least 10 minutes notice prior to the completion of loading cargo.
3. Under no circumstances is the vessel's main propulsion engine to be disabled, or are any repairs to be undertaken while the vessel is moored to the marine terminal.
4. The vessel's fire-fighting equipment is to be kept ready for immediate use. A sufficient number of hoses shall be led out forward and aft to provide full deck coverage.
5. Lights must be provided by the vessel to illuminate the water area in the vicinity of the bow, stern and off-shore side.
6. Smoking will be permitted in such *Interior* spaces as may be designated by the vessel's Master. However, smoking will not be permitted on any open deck areas.
7. The loading of ship's stores and supplies will not be permitted during the time ballast is being discharged, or naphtha is being received by the vessel.
8. Ullage hole screens are to be used at all times while bulk oil transfer operations are in progress.
9. Galley ranges, unless electric, are not to be used while the vessel is loading naphtha.
10. Except for the period of time actually required for passengers to embark or disembark from a launch, no boats, launches or vessels will be permitted to moor alongside a vessel which is berthed at the marine terminal.
11. Safety practices which are common to marine terminals on a world-wide basis will apply.

Honam Buoys: Lat. 37° 29′ 00″ N., Long. 126° 36′ 03″ E., draft acceptable 30 ft., at East side of A–3 anchorage. This berth is the private facility of the Honam Oil Refinery Co. (joint company with Caltex) for discharge of their own petroleum products. Consisting of 4 mooring Buoys and sub-marine pipe-lines.

Union Oil Terminal, 42 ft. depth alongside. Berthing/unberthing in daytime slack water only.

MEDICAL: Launch is provided in emergency call to evacuate sick men. Modernised hospital is available.
STEVEDORES: There are 16 stevedoring companies with 105 fork-lifts and 17 cranes. Annual cargo handling capacity is 11,625,000 tonnes.
DENSITY: Varies between 1022 and 1024.
FRESH WATER: Can be supplied by lighter, max. quantity 500 tons.
FUEL: Available by barge only.
CUSTOMS ALLOWANCES: One carton cigarettes or 1 lb. of tobacco, and 1 bottle wine allowed, each man.
IDENTIFICATION CARDS: Crew required to carry valid identification cards at all times.
REPATRIATION: Facilities for crew changes or repatriation.
GANGWAY/DECK WATCHMEN: Ship security guard service is supplied by 2 companies.
OPENING/CLOSING HATCHES: Normally carried out by stevedores.
CONSULS: None locally. Many Consuls and Embassies in Seoul, 50 minutes by train from Inchon.
REPAIRS: Deck and engine repairs possible by Inchon Shipbuilding Company.
AIRPORT: Regular flights worldwide from new international airport.
POLICE/FIRE/AMBULANCE: Police (883) 0011, Fire (882) 4069, Ambulance (73) 9000 (Inchon City Hospital).
TELEPHONES: Portable communication facility is available.
HOLIDAYS: January 1st (New Year's Day); February 20th (Folklore Day, first day of first lunar month); March 1st (Independence Movement Day); April 5th (Arbor Day); May 5th (Children's Day); Buddha's Birthday (8th day of fourth lunar month); June 6th (Memorial Day); July 17th (Constitution Day); August 15th (Liberation Day); September (Thanksgiving Day, 15th day of eighth lunar month); October 1st (Armed Forces Day); October 3rd (National Foundation Day); October 9th (Korean Alphabet Day); December 25th (Christmas Day).
GENERAL: Tide condition is critical, swift currents (high tide: 9 m. to 10 m.) special attention is required.
ACCOMMODATION LADDER: Essential for Port Officials on entry. Also for tanker berth no access allowed through plant. Rig on port side.
SHORE LEAVE: Launch service provided by 3 private companies.
DELAYS: Can be caused by bad weather.
DEVELOPMENTS: Coal Terminal to be built in the outer harbour to accommodate vessels up to 100,000 d.w.t. Length of berth 240 m., depth 16 m. Completion 1988.

SHIPMASTER'S REPORT: 1974.

Approaches: Inchon, the port for Seoul, the capital of South Korea, is situated in Lat. 37° 28′ 20″ N., Long. 126° 37′ 09″ E., and is approached from the South through the Yellow Sea. From Kyoknyolbi Do (Clifford Is.) LH. a course should be set to pass 1 mile North of An Do LH., in the vicinity of which the pilot boat will be waiting. Pilotage is not compulsory from this point but is recommended and the Pilot should be ordered at least 48 hours before arrival through the Agent, in Inchon.

From An Do, vessels proceed via the Dong Soodo (East Channel) which is very winding and narrow in places. All lighthouses now show lights in accordance with B.A. Charts and Publications (1984).

Pilotage is about 38 miles to the Inchon Anchorage for deep-sea vessels, about 3 hours steaming. The Pilot was good even in thick fog, and all Pilots seem to speak reasonable English. The pilot launch is fitted with VHF.

The anchorage is extensive, with room for about 30 ocean-going vessels, holding ground is good and no trouble was experienced in currents of 5 knots, although even stronger currents are experienced at Spring tides.

The Port: Can be divided into three sections according to location and function; the Inner Dock, Outer Harbour and Northern shoreline.

The Inner Harbour basin is presently operated for the accommodation of cargo ships up to 50,000 d.w.t. The Outer Harbour, of new construction, is largely for coastal and fishing vessels of less than 500 tons, and is located just outside and to the S.W. of the Inner Basin.

The Northern shoreline, North of the closed basin has unloading facilities at many private plants. These are lighter berths.

With the completion, in May 1974, of the new lock system and second tidal basin, the berthing facilities in the port have changed the cargo handling capacity from 1,420,000 tons to 6,270,000 tons per year by providing 3,820 m. length of quay and container berths.

Within the Inner Harbour is the first tidal basin (the older lock system dating from 1923). This basin is accessible through the new lock system.

Equipment in Use (August 1974): Tugs, 2 of 2,000 h.p.; 3 of 3,600 h.p.; Floating cranes, 1 of 75 tons capacity; 1 of 30 tons capacity; Container crane, 1 of 30 tons capacity.

Bulk Grain (1984): Pier No. 7: Jetty berths Nos. 71 – 72: 2 discharge towers, 1 conveyor belt, 1 ship at a time can be handled, capacity 800 t.p.h.

Pier No. 7: Jetty berths Nos. 73 – 74: 2 discharge towers (Simporters), 1 conveyor belt, 1 ship at a time, capacity 22,000 tons per day.

However, due to congestion of cargo in the elevators the maximum capacity on both jetties is reduced to 6,000 – 8,000 tons per day each.

Additional Equipment Planned: Tug boats, 4 of 7,000 h.p. Floating cranes, 1 of 100 tons capacity; 1 of 70 tons capacity. Container cranes, 4 of 35 tons capacity.

Further expansion is planned for the Northern side of the inner harbour. When completed there will be an additional 800 m. of quay at Pier 6 and 780 m. at Pier 8. This will add a total of 10 new berths for vessels from 5,000 to 50,000 d.w.t.

The Port of Inchon is administrated, managed and operated by the Government, represented by the Inchon District Marine Bureau (IDMB) in the Ministry of Transportation.

Decisions on administration and operation of the port, particularly to daily activities, are made by the Director, District Marine Bureau of the above Ministry.

Port activities, such as cargo in transit sheds, or in storage and port facilities of Government property, are in the custody of the Association of Port Management. This Association is formed from members of the various port users associations and was formed in 1972, under the control of the Minister in charge of Port Operations.

Port service companies and Stevedoring companies are still privately owned.

Repatriation and relief of crew members was made without any apparent difficulty.

SHIPMASTER'S REPORT: 1975.

The Ando pilot vessel is equipped with VHF Channel 16. If berthing in the tidal basin it is necessary to use vessel's sewage tank or sanitary tanks provided from ashore. Immigration require 2 copies of crew list forwarded before arrival to Agents, also require ports of call list for previous 3 months. If any crew member is caught smuggling in Republic of Korean ports the vessel is liable to be detained indefinitely.

SHIPMASTER'S REPORT: October 1986.

Pilot is quoted as being at Ando, as in Charterer's telexes, the actual pilot station is Chang-An-So, approximately 2.5 hours steaming to Inchon Anchorage. Pilot not compulsory, but unless vessel is a local trader, strongly recommend use of Pilot. Outside there is no draft problem, shallow patches to be avoided are well marked on charts.

Vessel anchored off Inchon Main Lock at 1930 hrs. on 10th October. Shortly after which 2 Berthing Pilots boarded. 4 tugs made fast, each bow and each quarter. There are strong currents. Lining-up for lock entrance not easy. Due to language it was not possible for Master to communicate with tugs. Max. draft for Inchon Lock, 12.5 m. at high tides and 12.2 m. at neap tides. Cleared lock and moved into container berth. Vessel berthed safely with no damage to or against vessel. All fast 2318 hrs. on 10th October.

Charterer's Agent attended vessel on arrival with Port Health for Pratique. At approximately 0900 hrs. next morning Customs, Immigration and other officials boarded and vessel was properly cleared. Inspection of ship followed. Accommodation spaces all found clear. Insects were found in holds in corn cargo so at 1100 hrs. was informed all but essential crew would be taken off for a day at 1400 hrs. for vessel to be fumigated. I remained on board with 2nd Officer, 3rd Engineer and 3 seamen. I requested to know what gas was being used and that some safety equipment be left on board. As only cargo space involved Charterers informed me, but not in writing, that they would bear all expenses.

Crew returned on board at 1400 hrs. on 12th October. Vessel still under fumigation. Crew then opened hatches. The actual fumigation was carried out in an efficient manner, but if something had gone wrong company would be responsible.

Discharge commenced 1905 hrs. on 12th October. Work is around the clock. But if a container ship comes in, the gantries are moved to her. Discharging also stops when it rains. There are 4 container gantries. All have grab facility, I noticed 40 tonne SWL on grabs.

The berth is well fendered, with adequate mooring bollards. Fresh water is supplied by barge. Medical facility appears to be good. Shore passes are issued and must be taken ashore. The guards at the dock gates are very strict. The dock system is large. No taxi or private car allowed in. This assists vessel to keep unauthorised people off ship.

Container berth also seems to discharge timber carriers and grain. The stevedore permanently on board, co-operated well with Chief Officer. Port Health came on board to renew Derat, no difficulties encountered.

AUTHORITY: Inchon District Maritime and Port Authority, 1-17 Hangdang 7-ga, Jung-gu, Inchon, Republic of Korea. *Tel:* (032) 883-4061. *Telex:* K23380 Idmapa. *Contact:* Kyu Jin Whang, Director General.

AGENT: Korea Universal Marine Co. Ltd., Room 505, Cheung-Seok Building, No. 241-7, 3-Ka, Shin Heung-Dong, Inchon, Korea. Tel: (032) 8826741, 8836716. Telex: K23228 Samship. Cables: "Samwooship Inchon". Fax: (032) 8847195.

Associated with Jardine Shipping Agencies.

KUNSAN (including Changhang): 35.55 N. 126.45 E.

The Port of Kunsan is situated on the Southern mouth of the Kum River which flows into the Yellow Sea, and North Changhang.

DOCUMENTS:

6 copies Report (Entry/Departure).
6 copies Crew List.
6 copies Passenger List.
2 copies Crew Personal Effects List.
3 copies Passenger Luggage List.
2 copies Store List.
9 copies Manifest (Dis./Loading) only.

NOTICES: All vessels bound for Korean ports should give an ETA to the local Agents 27 hours prior arrival. This is essential to enable the Agents to notify the Port Authorities and arrange Pilot if necessary.

RESTRICTIONS: Vessels should enter during daylight hours only. Many small Korean fishing and cargo boats in this area display dim navigation lights or none at all at night. Pilot is not compulsory but all vessels calling at this port recommended employ a Pilot in view of the hazardous channel and tidal difficulties. Controlling depth 8 ft. at Bar. Keel clearance of 2 ft. required.

PILOTAGE: The pilot station is situated at the Southern side of Piun Do (Hiyo To) Island the correct position of which is at Lat. 35° 56′ N., Long. 126° 27′ E.

The boarding point near Piun Do is about 14 miles from Kunsan. Pilot to be ordered at least 24 hours in advance. Pilots cannot board in rough weather. Due to constantly changing bottom conditions, vessel should not attempt to enter without Pilot.

ANCHORAGE: Outer anchorage about 5.5 miles West of Kunsan for vessels drawing up to 28 ft.

Inner anchorage off Kunsan suitable for vessels of 21 ft. draft.

MAX. SIZE: Draft 18 ft. to 27 ft. dependent on height of tide.

RADIO: Kunsan Radio, call sign HLN operating on 500 and 484 kHz.

TUGS: 5 tugs with respective capacity of 300 h.p. (1) 150 h.p. (2) and 80 h.p. (2) are available. 1 floating crane with capacity of 30 tons owned and managed by the Korea Dredging Corp. is available.

BERTHING: The port is controlled by Kunsan District Marine Bureau and all vessels come under jurisdiction of Kunsan Custom House. The anchorages in stream inner harbour can accommodate 1 or 2 vessels less than 1,000 gross tons, and outer anchorage (Yubudo Anchorage) accommodates 1 ocean-going vessel drawing about 28 ft. There are 5 pontoon piers (3 for Kunsan and 2 for Changhang) each of which can accommodate an ocean-going vessel with maximum draft of 27 ft.

STEVEDORES: There is 1 stevedoring company with 14 wooden barges, 3 steel barges and 3 tug boats. Discharging capacities: average records per day of 24 hours: coal 1,500 tons; grain and wheat 1,600 tons; fertilizer 1,300 – 1,400 tons; cement 1,000 – 1,100 tons; lauan log 500,000 B/F. Daytime only.

MEDICAL: Crew members should be in possession of health certificate showing vaccinations for typhoid. In case health certificate has expired, the person(s) will be vaccinated/inoculated by a quarantine doctor.

CURFEW: In Korea the curfew is still effective from midnight to 0400 hrs. every day.

HOLIDAYS: Public Holidays – New Year (January 1-3); Independence Movement Day (March 1); Labour Day (March 10); Arbor Day (April 5); Memorial Day (June 6); Constitution Day (July 17); Liberation Day (August 15); Nation's Foundation Day (October 3); National Alphabet Day (October 9); United Nations Day (October 24); Christmas Day (December 25). (Can be worked if requested.)

Local Holidays. Work cannot be carried out on Lunar New Year's Day and the Moon Festival, about 15th August.

SHORE LEAVE: Crew shore passes will be issued by Port Immigration Office.

AUTHORITY: Kunsan District Maritime and Port Authority. *Tel:* (0654) 3 4131/4. *Telex:* K66666 Gsdmpa.

AGENT: Sub-Agents of Korea Universal Marine Co. Ltd., No. 37-3. Changi-dong, Kunsan 511, Korea. Tel: 2-3592. Telex: K66674 Ssmarine. Cables: "Shinsung Kunsan". Fax: 43-0510.

Associated with Jardine Shipping Agencies.

MASAN: 35.11 N. 128.35 E.

PORT LIMITS: *Port Boundary:* 35° 09′ North.

Arrived ship: A vessel is considered as "arrived" when in the Quarantine Anchorage.

Laytime: (Subject to Charter Party). Generally commences at 0800 hrs. if Notice of Readiness tendered p.m. day before and 1300 hrs. if tendered a.m. day of arrival.

DOCUMENTS:

11 copies of Crew Lists (inward and outward).
3 copies of Personal Effects.
3 copies of Stores List.
3 copies of Bonded Stores Lists.
11 copies of Passenger Lists.
3 copies of Narcotics Lists.
3 copies of Arms and Ammunition Lists.
4 copies of Manifests (entry clearance only, excluding manifest for consignee, stevedore, checker's firm and other related firms)
2 copies of Bill of Lading.
5 copies of Entry Report (only entry clearance).
Ship's Certificates and Seaman's Books or Passports.

PILOTAGE: Kaduk Pilot Station: Lat. 35° 02′ N., Long. 128° 47′ E. ETA required 24 hours prior to arrival. (Tel: 2-9225).

Two pilot boats "An Se" and "Be Yun". VHF to be installed in pilot boats.

At the present time contact with Pilot made through Agent or Masan Harbour Control on VHF. Vessels to display usual pilot signals.

In case of bad weather vessels wait for Pilot at the pilot station.

ANCHORAGE: Mooring capacity at anchorages: A-1, A-2, A-3 Depth 30 ft.; A-4, A-5, A-6 Depth 24 ft.; A-7, A-8 Depth 23 ft. Quarantine Station Depth 36 ft.

RESTRICTIONS: Should take Pilot's guidance as a Korean Navy base is located very close to Masan port.

MAX. SIZE: 20,000 d.w.t. LOA 210 m. Max. draft 11.0 m.

HEALTH: Crew members should be in possession of health certificate showing vaccination for typhoid. If the health certificate has expired, the person(s) will be vaccinated/inoculated by a Masan National Quarantine Doctor.

RADIO: Seoul Radio.

VHF: VHF at Masan District Maritime and Port Authority (Call "Masan Harbour Control").

RADAR: None.

TUGS: Two tugs, "Chung Ryong" (Government owned) 1,000 h.p. and "Yong Ma" (Private) 2,000 h.p. Generally, ship's lines used and tugs join vessel at Quarantine Anchorage.

BERTHING:

	Depth (m.)	Length (m.)	Max. Size	No. of Berths
Pier No. 1	8.0	445	8,000	2
Pier No. 2	5.0	385	500	2
Pier No. 3	11.0	210	20,000	1
	11.0	210	20,000	1
Pier No. 4	11.0	1,050	20,000	5
Dolphin	7.0	88	5,000	1
KHIK	11.0	240	20,000	1
Yukong	7.0	100	3,000	1

CRANES: Cranes with capacity 40 – 60 tons expected to be installed at Chang Won Pier. Cargo operation is generally by ship's own gear.
BULK CARGO FACILITIES: There are two bulk cargo piers (Nos. 1 and 3), average discharge rate is 1,500 – 1,800 tons (0800 hrs. – 2100 hrs.) a day, and sulphur is generally discharged at port of Chinhae, where there is a chemical firm.

Length of pier: 210 m. Depth (low tide) 11 m. and one gantry crane (capacity 6 tons bucket) discharging rate is approximately 5,000 tonnes a day (24 hours).
SPECIAL CARGO HANDLING FACILITIES: None.
BRIDGES: None.
STEVEDORES: Advise stevedores number of hatches, number of derricks and capacity, and supply stowage plan on arrival.
Average Discharging Rate by Commodities: (0800 – 2100 hrs.).

Coal	1,500 tonnes
Grain	1,500 tonnes
Wire Rods	700 tonnes
General Cargo	700 tonnes
Others	600 tonnes

MEDICAL: Masan National Quarantine Office is responsible for any matters relating to vaccinations. Master should prepare a medical report form for patients visiting Masan hospital.
TANKERS: No facilities (Transhipment if any, carried out by lighters).
FRESH WATER: Available at Masan.
FUEL: Available by grades.
FIRE PRECAUTIONS: One fire boat stands by 24 hours a day at Central Pier.
CONSULS: None.
REPAIRS: Available anytime (two companies).
DRY DOCKS: 3 minor dry docks.
SURVEYORS: Various survey firms located at Masan, but not Lloyd's or ABS.
HATCHES: Generally, first opening and last closing is by ship's crew and others by stevedores.
GANGWAY/DECK WATCHMAN: Available at Masan.
CUSTOMS ALLOWANCES: Daily consumption quantity only.
CARGO GEAR: Using of cargo gear (utilisation) depends on negotiation.
REPATRIATION: Possible. Application for transferring and reason required. Agent's guarantee letter (for Crew) also required.
AIRPORT: Kimhae Airport: 70 km. from Masan. Kimpo Airport: 436 km. from Masan. Regular services.
TELEPHONE: Not available on board vessels.
SERVICES: Security guard, garbage disposal, line handling, shoring, launch, laundry and provision supply available at Masan.
POLICE/AMBULANCE/FIRE: Telephone Numbers:

Police (Foreign Section) 2-1206; Fire 2-1334; Ambulance 2-1151.
HOLIDAYS: New Year's Day (January 1st); New Year's Day (by Lunar calendar) (January 1st), Independence Movement Day (March 1st); Labour Day (March 10th); Arbor Day (April 5th); Buddha's Birthday (Lunar calendar) (April 8th); Children's Day (May 5th); Memorial Day (June 6th); Constitution Day (July 17th); Indpendence Day (August 15th); Armed Forces Day (October 1st); National Foundation Day (October 3rd); National Alphabet Day (October 9th); Christmas Day (December 25th).

Cargo operations on the above days depend on negotiations.
IDENTIFICATION CARDS: Shore pass available from Immigration.
DELAYS: There are no delays for berthing or bunkering.
GENERAL: ETA to authorities concerned no later than 24 hours before arrival.
SHORE LEAVE: Crew shore pass issued by Immigration and has to be extended every 120 hours.
DEVELOPMENTS: A large container yard to be built.
AUTHORITY: Masan District Maritime & Port Authority. *Tel:* (0551) 31176. *Telex:* K53676 Msdmapa.

AGENT: Sub-Agents of Korea Universal Marine Co. Ltd., No. 6, 2-Ka, Wapo-dong, Mansan, Korea. Tel: 45-4849. Telex: K52144 Maship. Cables: "Yeunghwa Masan". Fax: 44-2521.

Associated with Jardine Shipping Agencies.

MOKPO: 34.37 N. 126.23 E.

DOCUMENTS:

6 copies Report (Entry/Departure).
6 copies Crew List.
6 copies Passenger List.
2 copies Crew Personal Effects List.
3 copies Passenger Luggage List.
2 copies Stores List.
9 copies Manifest (Dis./Loading only).

PILOTAGE: Pilots stationed at Kasado Island, 34° 27′ N. 125° 02′ E. 30 miles from Mokpo (Tel: 2-1205). 24 hours notice to Agent required to arrange Pilot. Although not compulsory, vessels strongly recommended not to enter without Pilot.
NOTICES: All vessels bound for Korean ports should give an ETA to the local Agents 27 hours prior to arrival. This is essential to enable the Agents to notify the Port Authorities and arrange a Pilot if necessary.
RESTRICTIONS: Mokpo is located at the South-Western end of the Korean peninsula. The port is at the mouth of the Yungsan River which flows through the Yungsan Peninsula. Kasako Island protects this port from heavy winds and swell. The Yungsan River provides 5 anchorages where 5 vessels of Liberty type can berth at a time.

Tide Information: Max. tide level at high water 4.5 m.; min. tide level at high water 2.8 m.; average tide level at high water 3.5; Max. tide level at low water 0.5 m.; Min. tide level at low water 1.3 m.; Average tide level at low water 0.7 m.

ANCHORAGE: Five anchorages in depths from 11 m. to 20 m. Anchorage Nos. 2, 3, and 4 are better than No. 1 and 5 for discharging cargo because No. 1 is sometimes very dangerous due to strong tidal currents.
RADIO: Mokpo Radio. Call sign HLM operating on 500 and 484 kHz.
VHF: Pilots on Channels 12 and 16.
TUGS: Three tugs available, up to 150 h.p.
BERTHING: Sam Hak Do Pier, length 168 m. and width 18 m., where only one 8,000 ton ocean-going vessel can operate in 13 m. depth.

One berth for vessels of max. LOA 200 m. and max. draft 10.5 m.
STEVEDORES: There are 3 stevedoring companies with 28 wooden barges (1,680 tons), 7 steel barges (1,200 tons) and 3 tug-boats.
MEDICAL: Crew members should be in possession of Health Certificate showing vaccinations for typhoid. In case the Health Certificate has expired, the person(s) will be vaccinated/inoculated by a quarantine doctor.
FRESH WATER: Available at rate of 150 tons per day. 24 hours notice required.
HOLIDAYS: Public Holidays; New Year (January 1st-3rd); Independence Movement Day (March 1st); Labour Day (March 10th); Arbor Day (April 5th); Memorial Day (June 6th); Constitution Day (July 17th); Liberation Day (August 15th); Nation's Foundation Day (October 3rd); National Alphabet Day (October 9th); United Nations Day (October 24th); Christmas (December 25th). Work can be arranged on all above holidays. Local Holidays; No work can be done on Lunar New Year or on the Moon Festival about August 15th.
SHORE LEAVE: Crew shore passes will be issued by Port Immigration Office. Extension of shore passes should be made every 72 hours.
AUTHORITY: Mokpo District Marine and Authority. *Tel:* (0631) 42 1304. *Telex:* K66767 Mpodmpa.

AGENT: Sub-Agents of Korea Universal Marine Co. Ltd., No 3-7, 1-Ka, Okwang-dong, Mokpo, Korea. Tel: 2-0108, 2-0567, 42-5155. Telex: K66780 Interco. Cables: "Intership Mokpo". Fax: 43-0510.

Associated with Jardine Shipping Agencies.

MUKHO: 37.33 N. 129.07 E. (See Plan)

PORT LIMITS: The port limit is established by lines joining the following points:

A. Lat. 37° 33′ 12″ N., Long. 129° 07′ 25″ E.
B. Lat. 37° 33′ 12″ N., Long. 129° 08′ 12″ E.
C. Lat. 37° 32′ 00″ N., Long. 129° 08′ 23″ E.
D. Lat. 37° 32′ 00″ N., Long. 129° 07′ 02″ E.

DOCUMENTS:

6 Crew Lists.
6 Passenger Lists (In case of any passenger aboard).
3 Stores Lists.
3 Personal Effect Lists.
3 Cargo Manifests (In case of any cargo on board).
2 Port Itinerary Reports (For the last 6 months).

PILOTAGE: Compulsory and 3 licensed Pilots are available from 0500 – 2200 hrs., and usually join ship in position Lat. 37° 32′ 30″ N., Long. 129° 08′ 25″ E.

VHF Radio is available for contacting pilot station (Tel: 2-2324/3740).
ANCHORAGE: Outer Harbour offers anchorages for the vessel awaiting docking order with a rocky and sandy bottom.

Vessels lying anchored in this anchorage which is open roads, are recommended to pay attention to weather conditions. The depths vary from 9 m. to 26 m.
RESTRICTIONS: Pilot for entering inner harbour is available from 0500 hrs. to 2200 hrs. due to close of port.

The max. available depth of inner harbour is 8.5 m. The max. tidal range is 0.4 m.
MAX. SIZE: The max. permissible length, breadth and draft for entering inner harbour is as follows:

Length – 180 m. Breadth – 25 m. Draft – 8.5 m.
HEALTH: Pratique is automatic. For Pratique it is necessary to prepare the following documents: Yellow cards. Derat Certificate and/or Derat Exemption Certificate. In the event of any suspected disease or fever on board it should be reported without delay to Quarantine Station and/or Agent in Mukho.
RADIO: Shore Radio Stations: Seoul Radio, Kangreung Radio, Busan Radio and Mokpo Radio.

Mukho harbour Network 6MF2.
VHF: Call sign "Mukho Radio" Channel 16 for calling station. Channel 26 for communication.
RADAR: None.
TUGS: 2 tugs of 1,000 h.p. each equipped with their own towline are available.
BERTHING: *No. 1 Pier.* (Exclusively for loading Coal/Graphite in bulk).

Berth A: Exclusively for loading Coal/Graphite in bulk. Length 100 m. Available draft at LW 7.5 m. 2 lines of belt conveyor and 2 loaders, height above HWL. 7 m. Loading rate per hour per loader 300 tonnes.

Berth B: Exclusively for loading Coal/Graphite in bulk. Length 110 m. Permissible draft at LW 8 m. 2 lines of belt conveyor and 2 loaders, height above HWL. 7 m. Loading rate per hour per loader 400 tonnes.
No. 2 Pier: Exclusively utilised for Naval and Coast Guard ships. Length 140 m. Depth available 4 m.

No. 3 Pier: For loading bulk cement, bagged cement and cement clinker in bulk, and loading/unloading general cargoes. Length 330 m. Available draft at LW 8.5 m. or 28 ft. 1 line of conveyor and 1 loader (air slider) for loading bulk cement. 2 lines of belt conveyor and 2 loaders for loading bagged cement. 1 line of belt conveyor and 1 loader for loading cement clinker in bulk. Available height above HWL 8 m. Loading Rate: Bulk cement 400 tonnes/p.h. Bagged cement 1,500 tonnes per day per loader. Cement clinker 350 tonnes/p.h.

Loading rate for General Cargo as follows:

Average discharging rate per hour/gang:

Steel material	Various	30 tonnes
Machinery	Case	30 tons
Grain	Bulk	25 tonnes
Gypsum	Bulk	25 tonnes
Coke	Bulk	15 tonnes
Fertiliser	Bag	20 tonnes

Average Loading Rate per hour/gang:

Iron Ore	Bulk	20 tonnes

No. 4 Pier: For loading bulk cement and loading/unloading general cargoes. Length 150 m. Permissible draft at LW 7.5 m. 1 line of belt conveyor and 1 loader (air sliding chute) for loading bulk cement. Height above HWL 8 m. Loading Rate: Bulk Cement 400 tonnes/p.h. Loading rate of general cargoes same as at No. 3 Pier. Discharging rate of general cargoes same as at No. 3 Pier.

Central Pier: For loading/unloading general cargoes. Length 120 m. Permissible depth at LW 6.5 m. No shore facilities. Loading/unloading general cargoes same as at No. 3 Pier.

CRANES: Mobile Cranes 1×20 ton and 1×30 ton.

BULK CARGO FACILITIES: No discharging facilities. Loading facilities see "Berthing".

STEVEDORES: Vessels bound for this port are to radio Agent Shipper/Consignee and Harbour Master, at least 24 hours prior to arrival, draft on arrival, description/quantity of cargo.

Average Discharge Rate per gang/hour:

Steel materials	Various Types	30 tons
Machinery	Case	30 tons
Grain	Bulk	25 tons
Ores	Bulk	25 tons
Fertiliser	Bag	20 tons

Average Loading Rate per gang/hour:
(Only with labourer hands – manually)

Ores	Bulk	20 tons

Average Loading Rate per gang/hour:
(By shore loading facilities)

Coal/Graphite	Bulk	350 tons
Cement	Bulk	350 tons
Cement	Bag	60 tons
Cement Clinker	Bulk	350 tons

MEDICAL: Several hospitals available.

TANKERS: No facilities.

DENSITY: Average salinity of water in the port is 1.025.

FRESH WATER: Supply of fresh water available by water barge and from shore water works.

Supply at pier	50 t.p.h.
Supply by barge	100 tons per day

FUEL: Most grades of domestic and bonded oil available with 4 days prior notice.

FIRE PRECAUTIONS: None.

CONSULS: None.

REPAIRS: None.

DRY DOCKS: None.

SURVEYORS: Classification Surveyors are in Seoul and/or Busan.

GANGWAY/DECK WATCHMAN: Owner's/Master's option.

HATCHES: First Opening/Final Closing by crew and intermediate handling by stevedores.

CUSTOMS ALLOWANCES: Cigarettes: 1 carton. Wine/Spirit: 2 bottles.

CARGO GEAR: Shore loading facilities, see "Berthing". No heavy lift cranes.

REPATRIATION: Possible.

AIRPORT: No airport locally, however there is an express bus service between Mukho and Seoul.

HOLIDAYS: *Official Holidays are as follows:*

The New Year Day	1st January	Work cannot be arranged
Independence Movement Day	1st March	Can be arranged
Memorial Day	6th June	Can be arranged
Constitution Day	17th July	Can be arranged
Independence Day	15th August	Can be arranged
National Foundation Day	3rd October	Can be arranged
Hangul (Korean Alphabet) Day	9th October	Can be arranged
Armed Forces Day	1st October	Can be arranged
Festival Days:		
Lunar Calendar New Year	1st January (Lunar)	Work not possible
Labour Day	10th March	Work possible
Children's Day	5th May	Work possible
Buddha's Birthday	8th April (Lunar)	Work possible
Moon Festival Day	15th August (Lunar)	Work not possible
Christmas Day	25th December	Work possible

POLICE/AMBULANCE/FIRE: Police – 3112. Ambulance – 3900. Fire – 119, 3005.

TELEPHONES: None.

SERVICES: None. Should be arranged from Busan/Inchon.

SHORE LEAVE: Possible.

IDENTIFICATION CARDS: Shore passes are issued for every Crew member who wishes to go ashore.

REGULATIONS: No particular regulations.

DELAYS: Normal delays.

GENERAL: None.

AUTHORITY: Donghae Maritime & Port Authority. *Tel:* (0394) 32-3631. *Telex:* K24336.

AGENT: See "Bukpyung".

POHANG: 36.01 N. 129.24 E. (See Plan)

PORT LIMITS: The sea within the line joining the position of Yeonam Southern Cape Long. 129° 25′ E. to that of Lat. 35° 59′ 50″ N., Long. 129° 27′ 30″ E.

DOCUMENTS: See "Busan".

PILOTAGE: Compulsory, 4 licensed pilots available. Tel: 2-9221/2.

ANCHORAGE: 4 anchorages in depth 12 m. – 22 m. With muddy and sandy bottom.

MAX. SIZE: See "Berthing".

Ship Operator's Report: Posco Mineral Quay:

July 1979: Vessel of 142,767 d.w.t., with 112,012 tons of cargo on board docked at No. 1 B-2 with a draft aft of 49 ft. 6 in. (15.08 m.). The officially accepted draft is 14.50 m.

HEALTH: Quarantine Anchorage: Lat. 36° 03′ 47″ N., 129° 26′ 55″ E. Radio Pratique to be requested 36 hours prior to arrival.

RADIO/VHF: Port Control on VHF Channel 16.

TUGS: 3 tugs available of 3,000 h.p. The tugs are stationed at the third pier.

BERTHING:

Pier No.	*Berth No.*	*Max. Draft (m.)*	*Max. LOA/Beam (m.)*	*Max. Airdraft (m.)*	*Max. Size (d.w.t.)*	*Remarks*
1	11	16.5	350/50	15.0	150,000	2×1,500 t.p.h. unloaders
	13	14.5	310/42	15.0	100,000	3×1,500 t.p.h. unloaders (outreach 30 m.)
	14	15.0	310/42	15.0	100,000	
2	23	11.2	310/40	13.0	50,000	2×1,000 t.p.h. unloaders and 1×700 t.p.h. unloader (outreach 23 m.)
	24	11.0	200/40	13.0	20,000	
	25	10.8	200/40	13.0	10,000	
3	31A	7.0	140/25	10.0	5,000	4×15 ton cranes
	31B	8.0				
	32	9.0	150/25	10.0	5,000	
	33	9.5	150/25	12.0	10,000	
4	41	10.4	225/35	15.0	30,000	2×30 ton cranes
	42	9.0	195/32	13.0	20,000	1×25 ton crane and 1×35 ton crane
5	51A	9.6	300/32	13	20,000	
	51B	9.1				1×25 ton crane
	52	10.0	170/30	13	10,000	1×25 ton and 1×30 ton crane
	53	6.0	150/25		5,000	
	54	6.0	150/25		5,000	
6	61	5.0	150/20		2,000	
	62	4.0	150/20		2,000	
7	73	9.0	240/25		10,000	
	74	11.0	245/35		30,000	
	75	11.0	245/35		30,000	
	76	10.0	300/35		20,000	
8	81	11.0	250/35		30,000	
	82	11.0	250/35		30,000	
	83	9.5	200/25		10.000	
	84	9.5	224/35		20,000	
	85	9.5	224/35		20,000	

REPATRIATION: All facilities available for crew changes.

CRANES: 12 Shore cranes. (Lifting capacities 3,138 t.p.h.)

CUSTOMS ALLOWANCES: Tobacco: 400 cigarettes. Wine: 1,500 cc.

HOLIDAYS: New Year's Day – 3rd January, 1st March, 5th April, 5th May, Buddha's Birthday, 6th June, 17th July, 15th August, 3rd October, 9th October, Christmas Day.

POLICE/AMBULANCE/FIRE: Police 2-3419. Fire 119. Ambulance 2-5269.

FRESH WATER: Can be supplied alongside the quay or by water barge.

FUEL: Available locally. For large quantities 48 hours notice required.

SHORE LEAVE: Crew members allowed ashore.

IDENTIFICATION CARDS: Seaman's Book is sufficient.

AIRPORT: Kimpo 200 km., Kimhae 150 km.

FUEL: All grades obtainable from oil companies.

SERVICES: Sub-Agents. Ship's laundries, etc.

MEDICAL: 2 hospitals available.

DEVELOPMENTS: Central breakwater under construction.

Works in progress to increase capacity at first pier to 150,000 d.w.t. and draft to 16.5 m.

SHIPMASTER'S REPORT: 1975.

Pilot: Usually boards the vessel after anchoring in position Lat. 36.03 N., Long. 129.26 E.

Anchorage Position for Quarantine Clearance: Same as for Pilot.

Berthing: Entry and departure are only permissible during daylight hours, vessels are not allowed to berth at night.

Fresh Water: Available at all times ex-wharf without limit on quantity taken.

SHIPMASTER'S REPORT: 1975.

Approaches: There are no British Admiralty Charts covering this port. The coastal approach to Yongil Man can be made on Chart B.A. 3666, thereafter an American Chart No. 95166 (formerly H.O. 3257) is suitable for making the approach to the Quarantine Anchorage.

There are no offlying dangers, and depths shelve gradually from the entrance to the head of the bay.

A good lookout should be maintained for fishing nets which are many.

Quarantine: Port Health Officials board at the Quarantine Anchorage – Position Lat. 36° 02′ N., Long. 129° 26′ E. in a depth of 19 m. No Radio Pratique available.

If vessel arrives at night, officials board at daybreak next morning. No port movements during the hours of darkness.

Notice of Readiness: Accepted at time of Free Pratique granted.

Pilotage: Pilot boards with Port Health at anchorage. Pilot stated that our vessel 72,072 d.w.t. was too big for the port, which was designed for max. size 50,000 d.w.t. However, no difficulties experienced, berthing in calm weather conditions. Berthing and sailing in daylight hours only.

Entrance Channel: Entrance to harbour is made via dredged channel, commencing between 2 buoys, (Nos. 1 and 2), about 200 ft. apart, situated about 1 mile off Southern Breakwater head.

Axis of approach channel, from midway between the buoys to midway between the breakwater heads, is a straight line 259° True.

Dredged depth in the channel is stated to be not less than 13 m. However, according to the echo sounder, depth beneath keel was never less than 11 ft. until vessel entered the harbour basin, when further depth recording was impossible due to 'noise' from propeller wash caused by astern movements, obscuring echo sounder signal propagation. As the vessel's draft was 36 ft. 08 in. min. depth of water was therefore 47 ft. 08 in. = 14.5 m. approx. This was verified on the outward passage. The 13 m. minimum probably refers to the basin within the harbour entrance.

Tide: The rise and fall of tide is only about 1 ft.

Tugs: There are only 2 tugs available, both very weak. Pilot kept complaining that the tugs were inadequate for a vessel of this size, which was a fair assessment.

Berth: See sketch (Plan) for depth alongside POSCO mineral quay. Min. depth at berth stated to be 12 m. (39 ft. 04.5 in.) Max. permissible draft 11.2 m. (36 ft. 09 in.) Density was 1026.

Loaded vessels berth head in, starboard side alongside. Can prepare accommodation ladder starboard side before arrival.

The face of the quay is protected by permanent heavy-duty rubber fendering.

Moorings: A minimum of 3 head lines, 1 breast line, and 2 backsprings, each end, is recommended. Although the port is well sheltered from the prevailing W. – N.W. winds, it is wide open to the N.E. from which strong gales can suddenly develop.

Discharge: 2 modern transporter grabs discharge into a conveyor belt system. Discharge rate overall about 1,100 t.p.h., on a 24 hour basis. Holds were well swept clean on completion.

A meticulous draft survey was held upon arrival and after completion, to verify Bill of Lading.

Fresh Water: Plentiful supply from pipe line on the quay. Apply to Agent for services of waterman.

Customs: The bond is not sealed, but a Custom's Officer is stationed on board at the gangway throughout.

Shore Leave: The crew are not allowed to pass through the steelworks, going ashore. A liberty boat must be hired, which plies between the end of the quay and Pohang town pier, about a half hour run.

Last boat returning to ship at night leaves the town at 2200 hrs. First boat in the morning leaves at 0600 hrs. Shore passes issued on arrival.

Documents: The following arrival papers are required:—

Quarantine Declaration and Vaccination List.
14 Crew Lists.
3 Stores Lists.
3 Crew's Effects Declarations.
10 Cargo Manifests in Metric Tons.

N.B. The cargo manifests can be made up on board by typing on plain paper, but quantities must be stated in *metric tons*.

Repatriation: Possible. A complete Chinese crew change (25 men) was carried out during vessel's stay, plus one officer to the U.K.

Communications: There is no Telex system in Pohang. Cables are passed by telephone to General Agents in Seoul, for onward transmission. There is no problem arranging telephone communication with the U.K., but it is not possible to reverse the charges (call collect). Average waiting time about 1 hour.

Repair Facilities: Most engine and hull repairs can be carried out. There are 4 repair firms available, but it is advisable to take the Agent's advice as 3 of these firms are very small, with limited manpower. Materials not immediately available, can be brought by road from Busan, about 3 hours' journey. Lloyd's Hull & Engine Surveyors based in Busan.

SHIPMASTER'S REPORT: July 1975.

Port Limits: By a line drawn from Lat. 36° 04′ 10″ N., Long. 129° 25′ E., to Lat. 35° 59′ 50″ N., Long. 129° 27′ 30″ E., Korean Chart No. 135 Pohang Harbour and Approaches refers.

Documents: See "Busan".

Pilotage: Pilots board either at the Quarantine Anchorage or off the channel entrance as required. Pilotage within the harbour breakwaters is compulsory. No VHF available but Pilots are equipped with transceivers for port operations.

Anchorages: In roadstead, open to the N.E. in depths of 15 m. to 20 m. – Numerous mooring buoys and marker buoys for reclamation are in the vicinity. Vessels should anchor to seaward until a Pilot boards.

Restrictions: Vessels may arrive and sail from the roadstead at any time, but in daylight only if using the inner harbour.

Max. Size: No restriction in the roadstead, 12 m. in the inner harbour.

Pratique: It is advisable to give advance notice of Pratique. Pratique is granted to vessels anchored in a circular quarantine anchorage, radius 500 m., the centre of which is located in Lat. 36° 03′ 20″ N., Long. 129° 25′ 25″ E.

Radio: All messages to Pohang should be routed through Busan Radio HLP.

Tugs: A number of tugs are available, the 2 largest being 2,500 h.p. each. Tugs join the vessel at the breakwater entrance.

Approaches: Vessels using B.A. Chart 3666 should find flashing seabuoy in the entrance to Yon Iru Bay located in position Lat. 36° 05′ 50″ N., Long. 129° 30′ 35″ E., and from there steer a course 227° True (6.8 miles) to the Inner Harbour Fairway Entrance, which is marked by 2 buoys marked 1 and 2 and Qk. Fl. G. and Fl. R. 3 seconds, respectively each visible 5 miles. An anchorage should be found close seaward of the entrance buoys whilst awaiting a Pilot.

Berthing: A number of inner harbour berths are available at depths ranging between 8 and 12 m. datum.

The entrance fairway has a minimum depth of 12.4 m. Harbour developments are still in progress.

Stevedores: Arranged through Agents. Advance notice desirable.

Medical: Available.

Fresh Water: Limited quantities available by barge, if advance notice given.

Consuls: None.

Repairs: Only repairs of a minor nature can be undertaken.

Drydock: None.

Surveyors: Lloyd's available from Busan.

Gangway/Deck Watchmen: Not required.

Opening/Closing Hatches: By Crew.

Customs Allowance: See "Busan".

Repatriation: Not available.

Airport: Busan (Suyeng).

Shore Leave: Permitted, but even if vessel berthed alongside, launch service must be used.

Identification: Shore Passes.

Developments: Considerable reclamation and harbour developments in progress.

General: Last call of vessel was July 1975. B.A. Chart No. 3666 does not show the new port of Pohang at all but can be used for approach work. Korean Chart No. 135 should be obtained if possible.

SHIPMASTER'S REPORT: June 1980.

The port is situated in the S.E. part of the country at the head of a bay and fully exposed to any weather from between North and East. Approaching the port there are very few navigational hazards except numerous small fishing craft. The B.A. Chart No. 3666 covering the area is out of date and the inset showing Pohang gives insufficient detail. I would recommend that with only B.A. Chart No. 3666 entry to the port should be attempted in daylight only. Korean Chart Nos. 132 and 135 cover the port and approaches and appear to be more up to date.

The Korean Pilot Book Supplement No. 9 1978 on page 71 gives information on minefields and swept channels for approaching the port but the Harbour Pilots have no knowledge of these swept routes. However, there is a large area within the bay that is dangerous to navigation and anchoring but not marked on the chart. Vessels should not pass between the shoreline and a line drawn through the positions of the following lighthouse and buoys:

Fl. G. Lt.	– Lat. 36° 05′ 18″ N.,	Long. 129° 33′ 35″ E.
Buoy RW	– Lat. 36° 05′ 30″ N.,	Long. 129° 30′ 30″ E.
Buoy RW	– Lat. 36° 03′ 12″ N.,	Long. 129° 28′ 20″ E.
Buoy	– Lat. 36° 01′ 25″ N.,	Long. 129° 27′ 50″ E.

Also it is advisable to pass at least 2 miles North of the lighthouse so as to avoid the numerous fishing vessels and fishing stakes off the port, enter the bay passing the buoys on the port hand.

The indicated Quarantine Anchorage has only a limited depth of water and larger vessels are permitted to anchor in the vicinity of the second buoy where the vessel will be cleared by Quarantine Officers before the Pilot boards.

The ore/coal berth is situated in the new harbour where there is still a vast amount of new building and reconstruction taking place. The maximum draft is 14.5 m. and the approach through a short buoyed channel which offers no problems. The berth lies in an 035° – 215° direction with a depth alongside of 16.0 m. for 950 m. and vessels berth starboard side alongside. Standard moorings of 4–2–2 at each end and the port anchor with about three shackles, the latter being used for heaving off when unberthing.

Cargo discharge facilities are three units, with two more under construction, which should be completed by 1981, all suitable for the discharge of ore or coal. Discharge rate was about 30,000 tonnes per day using 2–3 units continuously.

Four tugs are used for berthing and unberthing operations, two of which are modern tugs. The two older tugs are due to be replaced soon with more powerful modern units.

Bulldozers are used for clearing hold bottoms and some shore labour is engaged sweeping up excess fallout off hatches, etc. Food and some form of accommodation has to be provided for the shift foremen on a continuous basis.

Fresh stores and provisions of good quality and reasonable price were obtainable but no frozen foods of any description available. Laundry service available and fair results.

Fuel oil bunkers were available by previous arrangements with Owners.

Shore leave is by launch only. Launch lands personnel in the old harbour about 5 miles away outside the breakwaters of the new harbour. No shore gangways available. Accommodation ladders required on each side as Port Officials and Agents board via the quay and ship's personnel are not allowed to walk on quay.

Repatriation for 26 Officers and Crew was done with very little effort and minimum paperwork. Personnel travel by coach to Busan thence by air to Osaka and Tokyo for London.

Arrival papers were as those required for Pusan and some company forms readily accepted.

The present maximum draft for the port is 14.5 m. but this is expected to increase to 14.75 m. next year.

Port limits have been extended and now join the following positions: Lat. 36° 04′ 30″ N., Long. 129° 25′ 20″ E.; Lat. 36° 03′ 00″ N., Long. 129° 28′ 00″ E.; Lat. 36° 01′ 12″ N., Long. 129° 29′ 54″ E.

SHIPMASTER'S REPORT: September, 1982.
Health: Radio Pratique not possible.
VHF: 16 then 6 with Pilot boats; 16 with Pohang Port Authorities; 16, 25, 26 and 27 with Pohang Radio.
Tugs: Four modern tugs.
Berthing: Depth alongside Berth No. 1 is 17 m. Vessels berth either side alongside. Berthing in daylight only for large vessels.
Fuel: All grades of bunkers and lubricants available from Korea Marine Bunkering Co., Ltd. Cable address: K Bunker Seoul. Telex: K28412.
Repairs: Sae Won Marine Engineering Co., Ltd., Cable address: Sae Marine Pohang. Telex: K4395. Tel: (72) 5400-1 (riding crew are available for ship repairs on passage).

Sam Yang Marine Engineering Co., Ltd., Telex: Symeco K4415. Tel: (3) 2251-2, (3) 4451., Agent for Unitor Service.

AUTHORITY: Pohang District Maritime and Port Authority, 58-7 Hangku-Dong, Pohang, Republic of Korea. *Tel:* (0562) 421812/5. *Telex:* K54300 Hangman.

AGENT: Sub-Agents of Korea Universal Marine Co. Ltd. No. 64-4, 1-Ka Bongbin-ro, Pohang 790-00, Korea. Tel: 3-1611/3. Telex: K54506 Shinpo. Cables: "Shinjin Pohang". Fax: 42-0205.

Associated with Jardine Shipping Agencies.

NEW-PYEONG TAEK

SAMCHEOG HAN (Sam Chuck): 37.30 N. 129.10 E.

(See Plan)

SHIPMASTER'S REPORT: June 1981
DOCUMENTS:
Ship's Register (1 copy required to be kept ashore)
Last Port Clearance.
10 Crew Lists.
3 Lists of Private Tobacco and Liquors.
4 Personal Effects Lists.
4 List of Foreign Money.
4 Stores Lists.
4 Ship's Property Declarations.

PILOTAGE: Pilot will board at Quarantine Anchorage.

After departure Sam Chuck vessel has to return Pilot to Bukpyung. During night time no pilotage.

HEALTH: On arrival Sam Chuck the vessel has to proceed to Bukpyung, about 5 nautical miles North of Sam Chuck, and has to anchor at the Quarantine Anchorage in position: Lat. 37° 29′ 36″ N., Long. 129° 10′ 30″ E.

The Port Health Officers will board the vessel and arrange Free Pratique.

Documents Required:
1 Crew List.
1 Maritime Declaration of Health.
1 Vaccination List.

VHF: "Mukho Radio" calling Channel 16, communication Channel 26 (slight interference).

TUGS: One tug available, equipped with own tow line.

BERTHING: Conveyor pier, left side of port entrance, exclusively for loading cement clinker in bulk.

Draft allowed according to Pilot is 6.8 m. Other berths, draft allowed is 6.7 m.

One belt conveyor with a loading rate about 300 tonnes per hour.

DENSITY: 1027.

CUSTOMS ALLOWANCES: 200 cigarettes and 1 bottle of spirits. Bonded store will not be sealed, as long as the Master only has the key.

One Customs Officer will stay on board for the whole time at berth.

SHORE LEAVE: Possible, shore passes issued for every crew member, have to be returned before departure.

GENERAL:
Ship Chandler: Available from Mukho.

SAMCHEON PO: 34.52 N. 128.05 E.

(See Plan)

SHIPMASTER'S REPORT: June 1983.

DOCUMENTS: Formalities similar to other Korean Ports, but local Authorities are not used to Foreign going ships yet and Port Clearance is very slow. All crew members issued with shore passes by Immigration Authorities, these passes are collected in again before sailing, to hand back to Immigration.

PILOTAGE: Although the Port Information Sheet states that pilotage is not compulsory, I feel that it would be unwise to attempt both berthing and sailing without the benefit of local knowledge. The streams can be very strong, we estimated up to about 4 knots whilst we were there.

Pilot boards at the Quarantine Anchorage. Pilot boarding regulations similar to those at other Korean ports.

Requests for a Pilot should be made through the vessel's local Agents.

ANCHORAGES: Quarantine Anchorage 34° 51′ 56″ N., 128° 05′ 23″ E. (600 m. radius). Good holding ground – yellow mud. Depth 17.2 m. Anchorage is open to South. Channel to quay dredged to 18 m. and is well buoyed.

RESTRICTIONS: Berthing/unberthing carried out at slack water, during daylight hours only.

MAX. SIZE: 100,000 tonnes deadweight. Max. depth alongside 18.1 m. Rise of tide 1.6 m.

TUGS: Two tugs are required. They come from Masan, 3 hours' notice required.

BERTHING: Wharf is 540 m. long and is divided into 2 berths. Principal commodity is coal for the power station.

	Length	*Depth*	*Max. Size*
Northwest end	270 m.	15.10 m.	50,000 d.w.t.
Southeast end	270 m.	18.10 m.	100,000 d.w.t.

Wharf is very well fendered, and has lrage rubber, 'Buffer', type fenders at regular intervals. There is a 2 m. high wall, which runs along the entire wharf frontage, the mooring bollards are set in breaks in this wall; but the set up is dangerous; very awkward for the linesmen, and virtually impossible to get a gangway out, ship to shore.

BULK CARGO FACILITIES: Two ship unloaders with 35 tonne grabs available for coal discharge. Capacity 1,500 t.p.h. each.

STEVEDORES: Working hours per day – 16 hours.

FRESH WATER: Not available.

FUEL: Not available.

CONSULS: Nearest Consuls at Busan.

REPAIRS: Limited repairs may be undertaken by local boat yard.

GANGWAY/DECK WATCHMEN: Three Watchmen and two Customs Officers on board at all times, and have to be fed and accommodated. The Watchmen will use one room, but the Customs want to be accommodated separately.

AIRPORT: Nearest at Pusan.

SHORE LEAVE: Shore leave by liberty boat only, takes crew to the small fishing port of Sam Cheon Po, itself about 1 mile further West. Crew members are not allowed to walk ashore through the power station, so only the liberty boat can be used.

IDENTIFICATION CARDS: See "Documents".

GENERAL: Fairly good quality fresh provisions may be obtained, Agent handles chandler's work as well. Agents very willing to be of assistance, but there are very grave language problems, hardly anyone speaks English, and those that do are usually very limited in what they understand.

SHIPMASTER'S REPORT: May 1984.
CHARTS: B.A. No. 127; American 95142; Korean 452.
DOCUMENTS:
9 copies Crew List.
1 Declaration of Health.
1 Vaccination List.
3 Passenger Lists (Nil return required).
2 Crew Declaration of Personal Effects.
2 Currency Lists.
2 Ship's Currency Lists.
2 Bonded Stores Lists.
2 Ship's Stores Lists (all foodstuffs on board to be declared).
1 List of Ports of Call (previous 9 months ports and countries).
2 Ammunition and Firearms List.
2 Narcotics Lists (sealed once checked).
7 Reports of Entrance/Departure (Agent supplies and completes).

ARRIVAL: 2 Customs and 2 Immigration officials and 1 army official board when vessel alongside, Agents assist.

PILOT: Boards in position Lat. 34° 50′ N., Long. 128° 6.5′ E., from small blue coloured boat. Advance notice of arrival important as Pilot comes from Masan (3 hours by bus) and there are no telex facilities in Samcheon Po. All messages in and out by telephone from/to respective radio stations. Best to use Seoul Radio. At least 24 hours notice after which it is too late to change. Pilot boards and takes vessel to Quarantine anchorage, waits onboard until vessel cleared, then berths vessel alongside, with the aid of 2 tugs.

BERTH: The berth is 1,550 m. long with depths of 14 m. at West end and 16 m. at East end. Very well fendered for whole length, but high due to very heavy swell during S.W. Monsoon, sufficient bollards along whole length.

There are 2 gantries for 2 berths with 20 ton grabs, onto conveyor belts to large storage yard. Air draft at least 25 m. from quay. Outreach about 30 m.

Only import at this berth is coal for power station (Korean Electric Company).

SHORE LEAVE: Possible by launch from ship, nobody allowed through installation except Master.

FRESH WATER/FUEL: Available by barge only. Bunkers by barge from Yusan or Busan. Fresh water obtained locally but costs US$4.0 per ton.

PROVISIONS: Available locally, usual Korean standard.

AGENT: Only one Agent in Samcheon Po. (Boo Young Shipping Co. Telephone No. 8111) No telex available.

SHIPMASTER'S REPORT: November 1985.

Approach easy from South. Straight up between Jang Got and Suu Do.

Approximately 16 m. of water in sheltered Quarantine Anchorage. Pilot not required for anchoring. VHF communication with Port Control just possible. Poor reception and language problem. Many small fishing boats and small buoys in the area. 2 tugs arrived by themselves and stood off. Unable to contact them, presumably they had come from Busan. Later a Pilot boarded who spoke a little English. Channel is well buoyed to the power station berth.

Vessel berthed at 1830 hrs. and commenced discharge at 1640 hrs. the following day.

A modern power station type berth, well able to cope with Panamax type vessels. Jetty well fendered with adequate mooring bollards. Unfortunately a wall 6 ft. (2 m.) high has been constructed along jetty edge with spaces left for bollards. The edges of which tend to chafe moorings. It also makes it hard to land gangway or accommodation ladder. This done by shore labour as crew not allowed to walk ashore. Boat service only, which ran to Si Racha.

There are guards on the jetty. Two modern grab dischargers available. There is no airdraft problem. Damage was done to hand rails in No. 4 hold, which ship repaired itself.

Cargo was completed at 0045 hrs. (56 hours after commencement) and vessel cleared at 0532 hrs.

ULSAN (Including Onsan): 35.27 N. 129.23 E.

(See Plan)

(a) GENERAL CARGO FACILITIES.
(b) YUKONG LIMITED – SBM.

(a) GENERAL CARGO FACILITIES

LOCATION: Ulsan is located on the Southern part of Korea's East coast 65 km. by sea from Busan. It is the site of the Hyundai Heavy Industries yard.

PILOTAGE: Compulsory. Quarantine/pilot station situated in position Lat. 35° 27′ 26″ N., Long. 129° 24′ 30″ E.

VHF: Port Control on VHF Channel 16. Vessel's to advise requirements and ETA 3 hours prior to arrival.

TUGS: 7 tugs. 600 h.p. – 2,600 h.p.

BERTHING: The commercial port handles steel products, coal, and chemicals required by the Ulsan Industrial Complex, which is adjacent to the port area and houses a car factory, an oil refinery, and a number of other heavy industry and chemical plants.

Berth	*Length* (m.)	*Depth* (m.)	*Remarks*
No. 1	130	8.0	General cargo
No. 2	260	12.0	General cargo, coal, cars
No. 3	347	9.0	
No. 4	322	7.5 – 11.0	Fertiliser, cars
No. 5	220	11.5	General cargo
KPC Pier	100	7.0	LPG
Coal Pier	273	10.0	Coal

Onsan – see "Shipmaster's Report", March 1987.

FRESH WATER: Available alongside and by barge at anchorage and mooring buoys.

FUEL: Available with 24 hours' notice.

DEVELOPMENTS: Grain terminal under construction for handling vessels of 15,000 d.w.t. – 60,000 d.w.t. 2×750 t.p.h. ship unloaders will be available.

A coal import facility is to be built, Korea Oil Corporation will be the user.

CHIEF OFFICER'S REPORT: 1975

Vessel's Particulars:
Length Overall – 162.18 m. Breadth – 22.8 m.
Summer Draft – 10.382 m. Summer d.w.t. 21,705 m./tons.

Anchorage: Local Agents generally wireless the Quarantine Anchorage position which is approx. 1.5 miles W.N.W. from the position shown on BA Chart No. 898. Care should be taken while anchoring as there are innumerable fishing floats, nets, etc. North of 35° 28′ N., and West of 129° 23.7′ E.

Restrictions: No pilotage between sunset and sunrise.

Pilotage & Berthing: The standard of pilotage was generally good. Pilot arranged by Agents and embarks at Quarantine Anchorage after vessel is cleared by Authorities. 1 anchor is used while going alongside. 1 tug of unknown h.p. and 2 mooring boats assist while berthing. 4 berths are available:

No. 1 Pier – Length 300 m. Depth variable.
No. 2 Pier – Length unknown. Depth supposed to be 36 ft.
No. 3 Pier – Length 165 m. Depth 29 ft.
No. 4 Pier – No details known.

Local Authorities themselves do not have any idea as to the actual depths alongside. It is advisable to sound the bottom twice daily especially at No. 1 Pier as the depths were found to vary almost every 10 ft. Cargo is loaded/discharged by vessel's cargo gear. Rate of loading bagged urea is approx. 400 m/tons per gang per day. Working hours are normally between 0700 hrs. and 1900 hrs. every day, Saturdays and Sundays included. Only on National Holidays no cargo is worked. Discharge of bulk sulphur and gas/product carriers is around the clock. A vessel carrying 28,000 tons of bulk sulphur was discharged in 5 days. There is 1 crane and conveyor belt on No. 1 Pier only for handling sulphur. It was observed that sometimes small coasters were loaded/discharged by mobile cranes.

Stevedores: Ulsan Port has a rule that a gang engaged for one particular hatch will only work that hatch from start to finish and will not work any other hatch, not even the other end of the hatch if the hatch has more than 1 set of derricks. Gangs have to be ordered before noon for the next day.

Medical: Local hospital used, patients normally taken there by watchmen.

Density: Apparently varies. Once 1016 was obtained while 10 days earlier 1020 was obtained.

Fresh Water: Available from barge whose capacity appears to be 150 tons. At least 24 hours notice necessary.

Fuel: Not available.

Repairs: Facility available but rates high.

Dry Docks: Hyundai Shipyard located at Ulsan builds VLCCs.

Watchmen: Essential on foreign vessels. Arranged by Agents.

Hatches: As per charter party but suggest use own crew as labour are only experienced with wooden hatchboards.

Repatriation: Usually done through Seoul which is about 5 hours away by bus. We changed Radio Officers and experienced no difficulty.

Telephones: Placed on board, but only for local calls via exchange.

Services: Only 1 ship chandler who handles everything including providing watchmen, laundrymen, etc.

Identity Cards: Shore pass issued for Ulsan valid for 3 days. To be renewed every fourth day. Usually done by watchmen who collect all passes and go to Immigration Office.

Surveyors: Lloyd's can be arranged from Busan.

General: Ulsan is a very busy port with a large amount of local and Japanese coastal traffic. Local Agents keep trying to shift bigger vessels ahead and astern to try and squeeze in small coasters. It is advisable to strictly adhere to the charter party rules at all times in this port to prevent delays and expense on vessel's account.

SHIPMASTER'S REPORT: May 1979 (Updated 1986).

Vessel: Summer d.w.t., 37,300; LOA, 194 m.; breadth, 28 m.; Summer draft, 36 ft.

Vessel loaded 30,000 tonnes of bagged fertiliser at No. 2 Berth using ship's cranes. The loaded departure draft was 33 ft.

Port Limits: As shown on Korean chart 119, arc passing through:
Lat. 35° 28′ 29″ N., Long. 129° 24′ 25″ E.
Lat. 35° 26′ 00″ N., Long. 129° 24′ 23″ E.
Lat. 35° 24′ 13″ N., Long. 129° 22′ 00″ E.

Documents: As per "Guide to Port Entry".

Pilotage: The Pilot was ordered through the Agent. The Pilot joins the ship in the anchorage from a white coloured pilot boat which has no VHF. A portable VHF is carried by the Pilot for communication with tugs and pilot station. Only 2 Pilots are on duty each day and there are no movements in port between 1900 hrs. and 0600 hrs. The standard of pilotage was good.

Anchorage: The Quarantine Anchorage as shown on Korean chart 119 is centred on Lat. 35° 27′ 25″ N., Long. 129° 25′ 34″ E. (Radius 400 m.)

Depth in this anchorage is 33 m. to 47 m. This anchorage is outside the harbour limits. A good anchorage was found 1 mile N.E. of No. 2 Imodco Buoy in 24 m. A boat service is available from the anchorage.

Restrictions: No night movements.

Max. Size: Not known.

Health: As per "Guide".

VHF: "Ulsan Radio" maintains a listening watch on Channel 16, contact is made on this Channel then switched to a working Channel. This station is used for local calls only.

Radar: No port radar.

Tugs: There are 2 tugs available of unknown horsepower. The tugs join the vessel off the berth and use their own lines.

Berthing: No. 2 Berth: Length approximately 250 m. The depth alongside was 11 m. with 13 m. offshore, the density varied but averaged 1006. There are no fixed shore facilities at this berth and it appears that it is often used by car carriers.

Cranes: Stevedores have 100, 60, 30 and 10 tonne mobile cranes available.

Bulk Cargo: 30,000 tonnes of bagged fertiliser was loaded using 4 ships cranes. Cargo was delivered to the berth in trucks and made up into slings on the jetty. The loading rate was 700 tonnes per hatch/day.

Stevedores: Gangs should be ordered before 1400 hrs. the previous day. There are a limited number of gangs available. Normal working hours are from 0700 – 1900 hrs. with 1 hour break. It is possible to shift gangs to different hatches under certain circumstances and night working is possible but not advised as same men work through to next day. The standard of cargo handling equipment supplied by stevedores is good.

Medical: Medical treatment and hospital facilities are available.

Hatches: Hatches should be opened before stevedores arrive on board or waiting time is incured.

Fresh Water: Fresh water is available and is delivered by barge.

Repatriation: Repatriation was carried out via Busan about 2 hours drive away without any problems.

Airport: Nearest airport Ulsan, regular daily flights to Seoul.

Telephones: A telephone is placed on board which is for local calls only via exchange. Overseas calls can be made from shore, these calls are collect, person to person, only with a waiting time of 2 hours (approximately).

Identity Cards: A shore pass is issued for Ulsan which is renewed every fifth day, usually done by watchmen who collect all passes and take them to the Immigration Office.

Stores: There is only 1 ship chandler and all stores are ordered through him. The quality is poor and the prices high.

SHIPMASTER'S REPORT: Port of Onsan. March 1987.

This port is, to all intents and purposes, part of the Port of Ulsan – all services (tugs, Pilots, Agents etc.) – are from Ulsan.

The port itself consists of a dolphin jetty, with berths on both sides and is owned and operated by "Ssangyang Oil Co." (See B.A. Chart 898 (Ports on East Coast of Korea) "On San Hang").

Berthing/unberthing is during daylight only.

Normal berthing is on either side of the jetty, with ship's head to the N.E. (vessel swung before berthing). It is recommended that good moorings, and as many as possible are used, as the jetty is open to Easterly swells which are common during summer months.

No services are available at the berth. Any fresh water or bunkers come, by barge, from Ulsan.

Cargo Connections: There appear to be only 2 per berth (on our call we used 1×8 in. Chicksan attached to a flexible length of hose. Aft of the "deep sea" berths there are coaster berths which appear to have larger Chicksans.

Maximum draft on the berth is reputed to be 10.8 m.

Documents are as listed in the "Guide".

SHIPMASTER'S REPORT: April 1988.

Restrictions: Vessels carrying dangerous cargoes are not allowed to berth/unberth during hours of darkness.

Health: Quarantine deadline is 1700 hrs.

Currency: Currency Lists no longer required. Japanese Yen may be taken ashore.

Shore Leave: No restrictions.

AUTHORITY: Ulsan District Maritime & Port Administration, 139-9, Maeam-Dong, Nam-Ku, Ulsan, Korea 690. *Tel:* 0522-75-4881/3. *Telex:* K 53425 USPORT.

AGENT: Sub-Agents of Korea Universal Marine Co. Ltd., No. 139-2, Maam-dong, Ulsan, Korea. Tel: 75-8881/4. Telex: K54499 Ussye. Cables: "Shinyang Ulsan". Fax: 76-1110.

Associated with Jardine Shipping Agencies.

(b) YUKONG – SBM.

DOCUMENTS:

3 copies of Manifested Parcels on board.
3 copies of the Stores List.
3 copies of List of Narcotics on board.
3 copies of List of Arms and Ammunition on board.
3 copies of List of Vessel's Tobacco, Cigarettes, Spirits, etc.
13 copies of the Crew List.
3 copies of List of Crew's Personal Effects, Tobacco, Cigarettes, Spirits, etc.
Crew's Vaccination Certificates.
Derat Exemption Certificates.
Clearance from Last Port.
10 copies of List of Landing Passengers, if any.
10 copies of List of Passengers in Transit, if any.
3 copies of List of Passengers Baggage.

PILOTAGE: The seaward approaches to the Imodco Terminal mooring site are free of underwater obstructions, and existing landmarks and navigation aids are adequate. Depth of water not less than 65 ft. in approaches. The Imodco Terminal can be approached with the summit of Pongdae San bearing 333° true. When in position the following navigation fix will obtain at the mooring site:

Pongdae San (summit)	bearing	333° true	distance	2,915 yd.
Pongjin Hang Light (end of breakwater)	"	053° true	"	4,770 yd.
Chuck To (centre cut)		255° true		3,800 yd.

A good radar echo will be obtained from the tanks ashore at approximately 20 miles, the Imodco buoys at a distance of 8 miles, and the small buoys, marking the floating hose heading off the Imodco Buoy, at 1.5 miles.

Lights ashore, lights on the Imodco Buoys and on the small buoys appear to be unreliable.

After clearing Customs a Harbour Pilot will board the vessel to direct it to the buoy and conduct the mooring operations if required. There is no night mooring. However, unmooring is carried out during darkness as well as in daylight.

ANCHORAGE: Anchor the vessel about 1 mile S.E. of the buoy, if the weather permits. In this location it is less difficult to find vessel, when in fog. Do not anchor less than 1 mile from buoy, and under no circumstances can the anchors ever be used on approaching the buoy terminal, chain cables and pipe-lines are located at this site and anchoring is strictly prohibited.

RESTRICTIONS: No night mooring at any time at SBM. Unmooring possible at any time.

MAX. SIZE: Max. mooring capacity 260,000 d.w.t. Max. draft 64.5 ft.

HEALTH: Entry prediction to be supplied to Quarantine Authorities by vessel's Agent 24 hours before arrival. Master required to complete Health Declaration when officer boards on arrival. Free Pratique is automatic when coming from another Korean port.

VHF: Communication available in Ulsan Port 24 hours a day.

"Ulsan Harbour Control" on Channels 14 and 16 for reporting vessel's arrival and departure.

"Ulsan Pilot" on Channels 13 and 16 and "Ulsan Radio" on Channel 16 for calling and working channels are Channels 25, 26 and 27 for public messages.

TUGS: 2 tugs assist in mooring operations and 1 tug assists with unmooring operation.

Tugs will join vessel about 1.5 miles East of No. 2 SBM.

BERTH DESCRIPTION: 2 berths at single buoy moorings.

Yukong Terminal No. 1 SBM:

Position: Lat. 35° 27′ 14″ N., Long. 129° 23′ 31″ E.

Description: A 3 m. diameter yellow cylindrical pillar type marker buoy installed at No. 1 SBM position in May 1984, and has top mark yellow "X" shape in accordance with IALA Regulations. The original SBM, 12.5 m. diameter red and white vertically striped buoy and 2×12 in floating hoses (730 ft.) removed to shore for repairs.

Light: Fl. Y. 3 secs. visibility over 5 miles, activated by storage battery, automatic sun switch.

Radar Reflector and Fog Horn: No radar reflector and no fog horn on marker buoy.

Yukong Terminal No. 2 SBM:

Position: Lat. 35° 26′ 44″ N., Long. 129° 23′ 20″ E.

Description: A 11.4 m. diameter yellow coloured buoy.

Lights: On buoy: Fl. Y. 6 secs. visibility over 5 miles. On hoses: 4 red winking marker lights equally spaced along the 980 ft. floating hoses, visible for 2 miles.

Fog Horn: A battery powered fog horn with a range in excess of 0.5 miles.

Weather: The berth is open to the weather and a short sharp swell is experienced when the wind is from the N.E.

BERTHING: 2 workboats (16 tons and 10 tons) are in attendance during mooring operations.

1 workboat will keep the hoses clear and the other handles the mooring ropes.

Both bow anchors are to be hove well up in the hawse pipes and properly secured before reaching the buoy.

Anchors are never to be used while at the buoy. They can foul buoy cables and pipe-line on the bottom if released.

No. 1 Buoy: Not in use.

No. 2 Buoy: The vessel will be moored with 2×18 in. nylon polypropylene ropes, 300 ft. in length, floating off the buoy.

Two ship's mooring ropes will be run to the buoy to pick up the buoy mooring ropes one by one when about 200 m. distance from the buoy.

Before approaching the buoy, 8 pieces of rope lashing (3 in. diameter and 10 m. length) and stoppers should be provided for mooring operations at forecastle.

Onsan: See "Shipmaster's Report" dated March 1987 in Section (A).

HOSES:

No. 1 Buoy: Not in use.

No. 2 Buoy: There are 2×16 in. hoses, 980 ft. and 945 ft. respectively in length. The hose connections are made to the port manifold of the vessel only and lifted one at a time to the ship's manifold. Each hose, when full of cargo is over 10.5 tons in weight.

Hose Mooring and Connection: Mooring and hose connection, disconnection will be carried out by Berthing Master and shore gangs, and while the vessel is at the buoy, 1 Harbour Master, 1 Cargo Inspector and 6 crew will remain on board during entire operations on the buoy. The vessel will be required to provide sleeping quarters and meals for them. They are mainly kept on board for emergency.

BUNKERS AND WATER: Available by barge at the anchorage. Bunkering is prohibited at SBM.

BALLASTING: After the vessel has discharged about half of her laden cargo, the vessel should be ballasted to a safe margin, to draw not less than 18 ft. forward.

This will avoid the vessel yawing widely on the buoy with strong winds and assist in avoiding contact with the buoy and hoses. Vessel will be moored at all times about 120 ft. from buoy.

REPAIRS/DRY DOCKS: All types of repairs possible at Hyundai Mipo Dockyard. Seven docks available, largest being 380 m.×65 m.×12.7 m.

ENGINES: The ship's engines must remain ready with full power for immediate use and to keep the vessel a safe distance from the buoy. Any repair work or hot work prohibited without the Berth Master's permission.

CUSTOMS ALLOWANCES: One carton cigarettes or 1 lb. of tobacco, and one bottle wine or spirits allowed, each man.

IDENTIFICATION CARDS: Crew required to carry valid identification cards at all times.

REPATRIATION: Nearest facilities for crew repatriation are at Pusan.

HOLIDAYS: 1st, 2nd, 3rd January; 1st March; 10th March; 5th April; 5th May; 6th June; 17th July; 15th August; 1st October; 3rd October; 9th October; 25th December and New Year's Day, (Lunar Calendar Day 1st January); Buddha's Day (Lunar Calendar Day, 8th April); Moon Festival Day (Lunar Calendar Day, 15th August).

SHORE LEAVE: Allowed.

REGULATIONS:

Notice to Vessels Arriving at Yukong Limited – IMODCO Buoy Terminal at Ulsan

In the interest of your vessel and Yukong IMODCO buoy we wish to bring to your attention the peculiarities that are most likely to occur while your vessel is moored to this terminal for discharge of cargo.

The buoy in its location is subject to wind, sea and tides and although the weather here is generally favourable we find that during each change of tide the vessel is quite frequently inclined to ride up on the buoy.

Our past experiences have taught us that *the best way to avoid this hazard is by use of the vessel's engine. In this instance we will require the co-operation of you and your officers.* The Berth Master who will assist you in mooring will also remain with the vessel throughout its entire discharge.

Tide or wind changes may cause the ship to ride up against the buoy. *In this case the Berth Master will anticipate the ship's movements and advise a dead slow bell astern to avoid ship's contact with the buoy. When the tide or other condition has again resumed its normal trend your engineers will be notified that the Berth Master is finished with the engine.*

During this period while the ship's engineer is on stand-by, one of your deck officers will be required to stand-by on the bridge, to pass the engine order from the Berth Master, who will be stationed on the ship's bridge to observe and direct this operation. The SBM's crew will stand-by at ship's bow and will inform of ship's movements to the Berth Master.

The seaward approaches to the Yukong Ltd. IMODCO terminal mooring site are free of underwater obstructions. Depth of water is more than 64.5 ft. in the approaches. Existing landmarks and navigation aids are adequate (Chart No. 119, published by H.O. of Korea is useful). A good radar echo will be obtained from the radar reflector located at buoy body.

Do not anchor within one mile of buoy and under no circumstances can anchors ever be used on approaching the buoy site and anchoring is strictly prohibited.

Vessels should be anchored 1.5 miles East of No. 2 IMODCO buoy where the vessel could be in sight of shore people and the people can board ship safely. Vessel should not be confused with the Yukong No. 2 Buoy and Ssangyong Refinery Buoy, which is located at Lat. 35° 25′ 13.5″ N., Long. 129° 23′ 08.5″ E. on the South side of Yukong No. 2 Buoy.

Use of Korean Government Pilots is compulsory. They will board the ship in daytime within the anchorage and before commencement of mooring operations. *There is no night-time mooring. Vessel unmooring is carried out day or night upon completion of cargo discharge.*

The Berth Master will board the ship while at anchorage and will take charge of mooring the vessel to the IMODCO buoy. He will be stationed at the ship's forecastle during mooring.

Two tugs assist with mooring and one tug with unmooring operations. Two launches are in attendance, one launch will keep the hose string free of the vessel while the other launch handles the mooring ropes during mooring operations. If the bight of the floating hoses protrudes a considerable distance beyond the buoy, the above hoses will be tended to avoid fouling the mooring buoy system while unmooring.

In the event it becomes necessary to vacate the buoy due to inclement weather or any other emergency, we caution you not to turn the propeller because it may foul hoses drifting near the ship's stern. A boat in attendance will tow the hoses away and clear of your vessel so that the ship's propeller can be used.

To avoid undue strain on the buoy, anchors, floating hoses, mooring ropes and chains, it will be necessary to ballast your vessel while on the buoy. Approximately 40% of her deadweight may be required as ballast to prevent undue strain on the buoy system. Dirty ballast tanks should be selected before hoses are connected to the manifold so that discharge of cargo and ballasting can be carried out simultaneously without contamination of cargo. The vessel will moor about 120 ft. from the buoy which will assist in avoiding contact with the buoy.

When the cargo has been discharged, your tanks inspected and found dry and the hoses disconnected, we will then request that you vacate the buoy mooring. If you desire to take on ballast or more time is required to complete your vessel's business you may go to anchorage to do so.

Yukong Limited will provide you with a copy of our crude oil unloading procedures which provides information and instructions for safe unloading of the crude oil cargo. It will be necessary to release tank inert gas pressure after the tugs have left. *The Yukong procedure specifies certain methods for gauging, water cut, temperature reading, sampling cargo and calculation of cargo. These procedures will be strictly followed by the Cargo Inspector together with Surveyor.*

If a VLCC is going to carry out crude oil washing, her equipment must satisfy Ulsan open sea buoy's crude oil washing regulations and peculiarities. Crude oil washing can be done under ship's responsibility and she must confirm to Yukong Ltd. not less than 7 days before her arrival that vessel's crude oil washing system is operational. Yukong Ltd. crude terminal provides booster pump to increase pumping rate, also an in-line sampler is installed in the shore line to monitor BS&W plus crude oil contamination with water.

The Berth Master is responsible for carrying out terminal's cargo unloading procedures. The Cargo Inspector will be on board for cargo inspection and will carry out cargo gauging and inspection of cargo compartments. Yukong Inspectors will also be on board prior to cargo unloading for sampling of cargo. Slop oil and BS&W shall be substracted from the quantity of cargo. When the Cargo Inspector is satisfied that all obtainable crude oil cargo is discharged to shore tanks, he will inspect the ship and sign the ship's empty and dry certificate along with the appointed ship's officer and the independent Surveyor.

Health: ETA to be supplied to Korean Quarantine Authorities by the vessel's Agent 24 hours before ship's arrival. The Ship's Master is required to complete the Health Declaration upon arrival of the Korean Quarantine Officer. Free Pratique is automatic when the ship is coming from another Korean port.

Radio: It is recommended that the Master communicates with the ship's Agent through Pusan Radio, which covers Ulsan port.

VHF communication is available in Ulsan port 24 hours/day, every day. Call sign "Ulsan Port Radio", calling Channel 16, working Channels 25, 26, and 27. A small walkie-talkie can communicate with the shore by the attendant launch. Pilot office: Tel: 72-7703/0419. Sunjin Tugs Co. Tel: 72-1278.

Ship's Repairs: Possible if arrangements with local shipyards are made prior to the vessel's arrival at Ulsan.

Identification Cards: Seaman's Book is sufficient, a ferry boat operates at all times.

SBM Team of Stand-by Men: While the ship is on the buoy, the vessel should provide sleeping quarters and linen for 8 men, this includes one Berth Master and Cargo Inspector. The stand-by men connect and disconnect hoses, clear floating hoses when necessary and are mainly kept on board for emergency purposes. Under certain conditions should it become necessary, they may ask the vessel for meals.

Safety: All ships and their Agents or concerned persons shall follow good safety practices including, in particular, but not limited to, those described in the International Oil Tankers of Terminal Safety Guide as issued by the OCIMF.

1. The vessel's personnel are responsible for the safety of the vessel and must take all necessary precautions, whether or not so advised by the Berth Master, bearing in mind the weather conditions, or any other circumstances requiring special care or attention.
2. While the vessel is moored or within the vicinity of moorings, all vessel's personnel and vessel's operations must comply with or be in accordance with the following safety rules:
   The ship's engines must remain ready with full power for immediate use.
   Not less than one deck officer and two seamen shall be available on deck at all times while vessel is in the moorings.
   Power must be available at all times on all deck winches and on anchor windlass during vessel's stay at the buoy.
   A good floodlight will be required to illuminate the area around the submarine and cargo hose connections during cargo transfer operations.
   During the discharge of ballast at night, the sea area around the vessel must be adequately lighted.
   Engine repair work is prohibited without the Berth Master's permission.
   Hot work is strictly prohibited while cargo is being discharged.
   Laundry service is available if requested prior to ship's arrival.

General: Many ship repair parts and equipment are obtainable in Pusan, located some 40 miles away from Ulsan. Allow about 4 hours for their procurement.

OPERATOR: Yukong Limited, 26-4 Yoido-Dong, Youngdungpo-Ku, Seoul, Korea 150. *Tel:* (02) 784-0051. *Telex:* OILKOR K23654. *FAX:* 82-2-784-6075.

AGENT: See "Section – A".

YOSU (including Kwangyang): 34.44 N. 127.45 E.

(See Plan)

(A) CRUDE WHARF, HONAM OIL REFINERY
(B) PRODUCT WHARF, HONAM OIL REFINERY
(C) NAKPO WHARF, BERTHS NO. 1, 2, 3, 4 AND 5
(D) PIER, LUCKY ADVANCED MATERIALS
(E) DRY CARGO, YOSU HARBOUR
(F) YOSU ENERGY
(G) KWANGYANG STEEL MILL, RAW AND PRODUCTS BERTHS

DOCUMENTS:
Last Port Clearance.
Register.
13 copies of Crew List.
12 copies of Passenger Manifest.
3 copies of Stores List.
3 copies of Bonded Store List.
3 copies of Arms and Ammunition List.
3 copies of Livestock List.
5 copies of Cargo Manifest.
1 copy of Vaccination List showing dates of last yellow fever vaccination, etc.

PILOTAGE: There are 2 pilot stations. Pilot station for vessels of less than 30,000 g.r.t. is located at Lat. 34° 44′ N., Long. 127° 49′ E., and for more than 30,000 g.r.t., such as crude tankers, is located at Lat. 34° 39′ N., Long. 127° 58′ E.

RESTRICTIONS: 2 overhead power cables with clearance of 27 m. and 39 m. respectively in approximate position: Lat. 34° 44′ N., Long. 127° 45′ E.

HEALTH: Before proceeding to respective berth vessels must anchor at the Quarantine Station to obtain Free Pratique.

RADIO: Yosu Port Radio Station, call sign 6MYS, operates on 500 kHz on 24 hour service.

The station's range is about 100/150 nautical miles and it is recommended that tanker Masters should contact the station giving their ETA at the pilot station.

Vessels calling at Yosu must cable the exact time of arrival at the pilot station to ship's Agent and Harbour Pilot's office. VHF Radio for calling Agent is Channel 16, name Agent and switch to Channel 26 to talk.

TUGS: 3×4,200 h.p., 2×3,000 h.p., 1×2,000 h.p. and 3×1,000 h.p.

MEDICAL: ETA to be supplied to quarantine authorities by vessel's Agent 24 hours before arrival. Master required to complete Health Declaration when officer boards on arrival. Free Pratique is automatic when coming from another Korean port.

There are medical facilities in Yosu town. Inoculations and vaccinations can be arranged by the quarantine doctor.

The Quarantine Stations are located at Lat. 34° 42.5′ N., Long. 127° 52.7′ E., for deep drafted vessel and Lat. 34° 45.2′ N., Long. 127° 46.3′ E., for less drafted vessel. The Quarantine inspection can be made at other than the above location depending on the situations. The inspection takes place during daylight.

DENSITY: 1025.

FRESH WATER: Fresh water is available for delivery to ships.

FUEL: Bunkers available by barge, subject to advance notice being given.

REPAIRS: There are repair facilities in Yosu.

CUSTOMS ALLOWANCES: One carton cigarettes or 1 lb. of tobacco, and one bottle wine or spirits allowed, each man.

REPATRIATION: Crew changes or repatriation can be arranged.

HOLIDAYS: 1st, 2nd and 3rd January, 1st March, 10th March, 5th April, 5th May, 6th June, 17th July, 15th August, 1st October, 3rd October, 9th October, 25th December. 1st January (Lunar Calendar), 8th April (Lunar Calendar), 15th August (Lunar Calendar).

IDENTIFICATION CARDS: Crew required to carry valid identification cards at all times.

SHORE LEAVE: Shore leave for ship's personnel is arranged by ship's Agent and the local authorities.

CHARTS: Republic of Korea H.O. Charts No. 209, 241 and 242.

(A) CRUDE WHARF, HONAM OIL REFINERY

GENERAL DESCRIPTION: The crude wharf is located at Lat. 34° 51′ N., Long. 127° 46′ 55″ E. running in a 336°/156° direction.

PILOTAGE: Pilot station for crude tankers is located at outer harbour in positon: Lat. 34° 39′ N., Long. 127° 58′ E. in the vicinity of Tae Do Island, where the Harbour Pilot boards to lead the vessel to Quarantine Anchorage.

APPROACHES: En route to the wharf, at approximately Lat. 34° 47.3′ N., Long. 127° 48.8′ E. vessels pass narrowest part of channel, Sam Gi, which has about 21 m. depth of water at MLLW, and marked by 5 light-buoys and one lighthouse. The course is laid midway between the 5 buoys. At about 1 mile from the wharf, there is a patch with 13 m. depth which is marked by a light buoy.

RESTRICTIONS: Berthing and operating restrictions are as follows:

1. Maximum approach angle: 10°
2. Maximum approach velocity: 0.15 m./sec.
3. Maximum current speed: 2.1 m./sec.
4. Winds

(a) Non-operating conditions
Maximum design velocity 38 m./sec.
(b) Operating Conditions (Moored at berth)
Maximum sustained velocity 18m./sec.
Maximum instant gust 27 m./sec.
(c) Maximum berthing wind velocity
13 m./sec. of Southerly wind
15 m./sec. of Northerly wind

MAX. SIZE:

Maximum crude carrier:	255,000 d.w.t.
Maximum products carrier (Clean):	80,000 d.w.t.
Maximum draft:	21 m.
Minimum crude carrier:	80,000 d.w.t.
Minimum products carrier (Clean):	30,000 d.w.t.

HEALTH: Normally vessels who could not be granted Radio Pratique anchor at the Quarantine Station which is located at around Lat. 34° 42.5′ N., Long. 127° 52.6′ E. At this anchorage, Quarantine doctors come on board. After quarantine inspection, the vessel should have port clearance of Customs, Immigration and so on.

BERTHING: *Approaching the Wharf:* It will be normal tanker practice that all tankers be berthed bow seaward to ensure a quick and uncomplicated departure in the event of an emergency. Main conditions for following this practice are as below:

1. Natural environment's conditions to be favourable.
2. Early passage of Sam Gi Channel prior to high tide to meet slack tide while berthing.
3. Vessel should swing to the North of Crude Wharf with the assistance of tug-boats and approaching course will be about 160°.

When the above is impracticable due to the limited effective manoeuvring space in the vicinity of the wharf, vessels will approach almost parallel to the wharf whose direction is about 336°.

While passing 13 m. patch, 1 mile off the wharf, loaded vessel should reduce speed to about 3 knots and all tugs will come alongside to the vessel's bow, mid-ship and quarter. At about half mile off the wharf, the vessel's speed should be 2 knots and when abreast of the wharf, the vessel should be stopped. When stopped, the abreast distance between vessel and wharf should be about 100 m. – 200 m.

Abreast distance will be reduced with the assistance of tugs. Closing speed must be 10 cm./sec. or less at a distance of 20 m. and less than 5 cm./sec. at a distance of 3 m. between the vessel and wharf. Distance and speed for both bow and stern will be displayed on the gangway tower of wharf upon vessel reaching about 160 m. from wharf.

Mooring: The wharf has 8 dolphins for mooring VLCCs as shown in the "Plan Section". Nos. 1 and 4 dolphins are to be used for head and stern lines, Nos. 2 and 3 for breast lines, and Nos. 5, 6, 7 and 8 dolphins for fore and aft spring lines. Each dolphin has quick release hooks with a capstan and about 100 m. of 3 in. messenger lines to pick up mooring wires/ropes.

To monitor tanker approach, the wharf is equipped with docking sonars which detect distance and approaching speed, which are also displayed on top of the gangway tower with visibility of about 200 m.

Line handling service agency will render services to handle lines on the wharf. The agency will provide 2 launches relaying mooring lines from berthing vessel to the wharf and 9 men including a chief in charge of the team hooking mooring lines to the dolphins.

About 20 mooring lines for 200,000 d.w.t. tanker are required. Type and quality of mooring lines are in accordance with ISGOTT paragraph 3.3.3 – i.e. "Preferably the mooring lines used to secure the tanker should all be of the same materials and construction. Wire ropes are recommended especially for larger tankers as they limit the tanker movement at the berth. Moorings composed entirely of fibres, especially synthetics, are not recommended as their high elasticity can allow excessive movement due to strong wind or current forces or passing ships. Wire ropes and fibre ropes should never be used together in the same direction because of the difference in their elastic properties".

Vessel puts out springs first, then breast lines and finally head or stern lines or vice versa. Normally breast and long lines will be relayed by launches to the wharf. While making fast spring lines, vessel should adjust centre of her manifolds to wharf loading arms at the request of shore operator. Vessels should be held tightly to breasting dolphins with the assistance of tug-boats, mainly by tug stationed midship, until mooring has been completed.

Anchoring in the vicinity of the wharf is not allowed except in an emergency.

Unberthing: Tugs will be stationed on seaward side of the vessel's bow, midship and quarter as necessary and will push the vessel so as to hold the vessel tightly to the breast dolphins while letting-go all mooring lines. Sequences of letting-go lines is the reverse of mooring. Therefore, long head and stern lines let go first, breast next and springs last.

DISCHARGING: *Prior to arrival:* Prior to arrival at the wharf, vessels should designate 3 manifolds which are convenient for unloading cargo. The designated manifolds should be marked by rags or other materials so as to be able to identify them easily from the wharf and adjust the vessel's position correctly to loading arms of the wharf. All the vessel's manifolds should be kept blinded until vessel is moored. Also, all crude oil tankers must be equipped with 16 in. ASA type flanges on her manifolds.

Connection of hoses: Discharging arms are as follows:

3×16 in. flanged for crude oils.
2×12 in. flanged for products (clean).

After completion of berthing, terminal representative and wharf operators will come on board and check readiness to connect discharging arms, fire fighting equipment, drip pans and oil removing materials. The 3×16 in. discharging arms for crude oil are rotary counter-weighted marine arms with hydraulic quick connect couplings. Remote controlled hydraulic positioners are provided and wharf operators will position and connect the outboard flanges of the arms to the tanker manifold. The vessel's crew, consisting of one responsible officer and 4 other crew, standby at the manifolds, prepare manifolds to be used, and co-ordinate with wharf operators in adjusting, connecting and securing discharging arms.

Operating Envelope: The unloading arms have been designed for an operating-height envelope that accounts for the elevation changes due to tide and varying freeboard of the largest and smallest tankers for which the wharf is designed. The 16 in. unloading arms will accommodate a maximum 255,000 d.w.t. tanker and a minimum 80,000 d.w.t. tanker, or heights of 26.3 m. to 5.2 m. above the lowest water level. The 12 in. unloading arms will accommodate a maximum 80,000 d.w.t. tanker and a minimum 30,000 d.w.t. tanker, or heights of 19.6 m. to 4.6 m.

A longitudinal drift of ±5.0 m. and a lateral drift of ±4.57 m. have been allowed for both sizes of unloading arms.

Rates and Pressure: After hoses have been connected, all shore valves will be opened and vessel's Chief Officer informed of shore readiness. Vessel will open all valves necessary to discharge except manifolds' valves which will be opened just prior to start of discharge.

After confirming that the cargo is flowing into designated shore tank, tanker rail pressure for all vessel sizes shall be 140 p.s.i.g., and maximum discharging rates are:

Arab Medium Crude Oil	70,000 b.p.h.
High Pour Low Sulphur Crude Oil	40,000 b.p.h.
Naphtha	30,000 b.p.h.

Crude Oil Washing (COW): Crude oil washing of cargo tanks using fixed tank washing machines in conjunction with fully inerted gas tanks is permitted on Master's acceptance of Honam Oil's conditions to carry out COW at the crude wharf which will be delivered to the vessel. The vessel requiring COW should notify it to Honam Oil in advance together with the information of previous COWs conducted and COW schedules to be carried out.

BALLAST: The ballasting operation should be discussed and agreed with the terminal representative regarding the approximate time of commencement and duration of ballasting both into permanent ballast tanks and cargo tanks.

To obtain quick turn around, the terminal encourages simultaneous handling of cargo and ballast, other than permanent ballast, if the vessel is so equipped. Ballasting should be minimum after discharging cargo.

FRESH WATER: Not available.

FUEL: Not available.

SERVICES: Honam Oil provide the following services: Telex service every day from 0800 hrs. to 1800 hrs., except Saturdays when service is available from 0800 hrs. to 1300 hrs., and no service on Sundays and holidays.

Telephone service every day from 0800 hrs. to 1900 hours.

A list of emergency telephone numbers will be available at the wharf.

AUTHORITY: Honam Oil, Yocheon Refinery. *Tel:* 82-0101. *Telex:* 762 (domestic). *FAX:* 82-2228.

Head office: Seoul. *Tel:* 787-1114. *Telex:* Honam K-27234 or K-23261. *FAX:* 787-6051, 785-5451.

(B) PRODUCTS WHARF, HONAM OIL REFINERY

APPROACHES:

Navigation: The route for product tankers up through to Yosu Gulf is easy, without any navigational hazards. After passing the Nak-Po, vessels will steer in a Northwesterly direction for about one nautical mile and then Westerly, keeping within the 10 metre contours.

There are 10.5 metres' shallows at approximate LLW along Myodo Sudo, so vessel's draft limit to pass this channel on high tide will be up to 10.5 m. or more, depending upon tidal rises and in accordance with OCIMF.

The hydrographic charts for navigation and approaching to the Product Wharf area have been published by the Republic of Korea Hydrographic Office.

Approaching and mooring to the Wharf:

a. Pilotage is compulsory for vessels over 1,000 gross tons in accordance with Yosu Port Rules. Tankers calling at the Product Wharf of Honam Oil for loading or unloading products should notify the latest ETA by radio to Port Authority and related Agents for Pilot.
b. The direction of tidal current stream in the vicinity of the wharf is nearly rectilinear and parallel to the wharf, running about 272° on flooding and 084° on ebbing at about 3 knots, the tidal range between maximum high and low water is about 4.0 m. The duration of ebb/flood is about 6.75 hours and 5.5 hours respectively.
c. Vessels are to be berthed with bow to seaward whenever possible, in order to facilitate unberthing as quickly as possible when an emergency situation arises. Use of anchors is not allowed while berthing, except in an emergency.

BERTHING: *Product Wharf:* The Product Wharf is located in approximate position Lat. 34° 51′ 40″ N., Long. 127° 44′ 10″ E.

The Product Wharf is designed to accommodate 5 tankers simultaneously. Berths No. 1 and No. 4 for approximately 5,000 d.w.t., Berth No. 2 for 2,000 d.w.t., Berth No. 3A for 20,000 d.w.t. and Berth No. 5 for 35,000 d.w.t. tankers, respectively.

The wharf is designed to moor and unmoor tankers on a 24 hour basis, depending on the tidal conditions at the time and the Master's judgement. The illumination for night work is satisfactory.

Cosmos Wharf: There is one berth located in position Lat. 34° 51′ 20″ N., Long. 127° 42′ 45″ E., designed to accommodate LPG vessels of less than 3,000 d.w.t. Shallowest depths of water in the approach channel and wharf area are 2.8 m. and 6.2 m. respectively. Therefore, vessels approaching the wharf should choose high tide and daytime to pass through this channel. Illumination for night work is excellent.

Berth Assignment for Loading/Unloading: Berths will be assigned to the vessel after review of the vessel's size and types of product to be loaded. The berth designations will be advised in advance, to the vessel through vessel's Agent.

Flanges: Honam Oil Refinery Wharves are equipped with ASA type flanges for loading arms and hoses.

LOADING:

Supervision: All cargo operations of loading, unloading, switching of tanks and topping-off should be supervised by a ship's responsible officer, and sufficient personnel should be on deck at all times to attend to the loading and/or unloading operations.

Loading Arm/Hose Connection: It is Honam Oil Refinery's policy that vessel's crew shall be responsible for connecting/disconnecting loading arm/hoses to and from vessel's manifold. Also proper reducers and elbows to fit to wharf loading arm couplings must be connected and disconnected by ship's crew. Wharf operators are always on watch to handle loading arms and winches for loading hoses.

Sequences: After mooring at the berth, Honam Oil Wharf Operators will come on board and check readiness to connect loading arms, fire fighting equipment, oil drip pans or oil removing materials. When the vessel is in all respects ready to connect loading arms/ hoses, the following loading procedure will apply:

a. The loading arms/hoses will be swung on board the vessel.
b. Connect loading arms/hoses by vessels's crew.
c. Notice must be given by the vessel to the wharf shift foreman one hour before the vessel completes deballasting.
d. Loading will be commenced by gravity. When the vessel advises wharf operator that the cargo is flowing into vessel's tanks, the loading rate will gradually be increased by pumping until the desired rate has been reached.
e. The vessel must give 30 minutes' notice to the wharf operator before starting "top-off", and shall advise if a decreased rate is desired.
f. The vessel must give 15 minutes' notice to the wharf operator prior to completion of loading at which time the wharf operator may reduce loading rate and/or stop loading pumps.
g. Ship's valves shall not be closed while loading pump is operating.
h. On completion of loading, loading arms/hoses must be drained and disconnected immediately. Samples must be taken upon completion of loading.

Loading Rates: The loading rates vary and depend upon kinds of products, sizes of loading arms and pipe lines, vessel conditions, etc. Detailed loading rates will be determined by close co-ordination between responsible vessel's officer and the wharf operator.

Each berth is equipped with counter weighted marine loading arms. Sizes of these arms' flanges are 6 in., 8 in., 10 in. and 12 in. ASA.

Deballasting: The discharge of dirty ballast within the territorial waters and entrance is strictly prohibited. Shore facilities for disposal of dirty/ oily ballast water is available at Honam Oil Refinery. The deballasting operation should be discussed and agreed with the Product Wharf representative regarding the approximate time of commencement, duration of deballasting and kind of ballast oil.

FRESH WATER: Vessels requiring fresh water request required amount of water to ship's agent in advance.

REPAIRS: There are no repair facilities and also repairs are not allowed on the product wharf. In the event of emergency cases, Honam Oil will assist in carrying out repairs under the supervision of refinery's safety personnel to expedite vessels from the wharf and a quick turn around.

RADIO: See "Radio" in section "A".

AUTHORITY: Honam Oil Refinery.

(C) NAKPO WHARF, NAMHAE CHEMICAL CORPORATION

A straight berth which could accommodate one 50,000, one 30,000 and two 20,000 d.w.t. vessels is located at about Lat. 34° 51′ 40″ N., Long. 127° 44′ 40″ E. The wharf is handling raw material by 800 tons crane and product of fertiliser by 300 tons crane.

(D) PIER, LUCKY ADVANCED MATERIALS, INC.

Located close to the product wharf of Honam Oil Refinery at about Lat. 34° 51′ 30″ N., Long. 127° 44′ 05″ E. Maximum vessel size and draft are about 4,400 d.w.t. and 5.5 m. respectively.

SIZE X

(E) DRY CARGO, YOSU HARBOUR

PIERS: 3 piers are located in Yosu town at about Lat. 34° 44.3′ N., Long. 127° 45.3′ East and consist of No. 1, No. 2 and No. 3 Piers.

RESTRICTIONS: No. 1 Pier is used for only small vessels. No. 2 Pier for vessels of less than 20 ft. draft and max. draft at No. 3 Pier is 26 ft. At anchor draft up to 35 ft.

CARGO-HANDLING FACILITIES: Crane barge of 30 tons capacity is available.

(F) YOSU ENERGY

LOCATION: 34° 51′ 38.96″ N., 127° 46′ 10.91″ E.

BERTH:

1) Principals:
Max. size: 75,000 CBM., LOA 230 m.
Max. draft allowable: 13 m.
Required minimum U.K.C.: 2.5 m.

2) Operating Condition:
a) Allowable conditions for mooring:

Max. Wind Speed	*Wind Direction*
13 m./sec.	Southerly
15 m./sec.	Northerly

Max. wave height: 1.64 m.
Approach speed: 0.15 m./sec.
Tidal time for mooring: Mooring at slack tide.
Tugs will assist with berthing when strong tidal current.
Time limit: Berthing operation only carried out in daylight.

b) Circumstances where unloading is not allowed:
Wind Speed: Over 18 m./sec.
Max. wave height: 0.93 m.
Speed of tidal current: Tugs will assist with berthing when there is a strong tidal current.
Time Limit: No restriction.
Other conditions: 1) Lightening.
2) Lack of proper safety plan and safety regulations on board.

SHORE CONNECTION: For LPG tanker, cargo operation and shore facilities.

1) Shore Connection: (P: Propane, B: Butane, L: Liquid, V: Vapour)
a) Arrangement as seen from seaward (from right to left): BL, BV, PV, PL.
b) Specification:

Standard of Flange	12 in. ASA 150	8 in. ASA 300	8 in. ASA 300	12 in. ASA 150
Use	BL	BV	PV	PL
Range of temperature	−9°C/0°C	−9°C/5°C	−50°C/5°C	−50°C/−30°C
Max. press.for operation	10 kg./sq.cm	5 kg./sq.cm	5 kg./sq.cm.	10 kg./sq.cm
Max. flow rate	2200 cu.m.p.h.	2200 cu.m.p.h.	2200 cu.m.p.h.	2200 cu.m.p.h.

c) Movable range:
Limit angle: 60°
Max. distance for angle of depression: 0.9 m. – 10.6 m.
Height above sea level: 22 m. (Mean sea level)

d) Required ship's manifold position:
– Distance between bow/stern and manifold: About 110 m.
– Distance between side plating and manifold: Minimum 1.0 m.
– Height above sea level: 20.5 m. (Mean sea level)
– Distance between each centre of flange: 2.0 m.

e) Size and number of reducers with onshore facilities:
2×10 in. ASA 150 and 2× 8 in. ASA 300.

2) Cargo Operation:
a) Requirements of ship's cargo tank and liquid line for discharging:

	Propane	*Butane*
Tank pressure:	Not exceeding 0.25 kg./sq.cm.	Not exceeding 0.25 kg./sq.cm.
Line Temperature:	Not exceeding −42°C	Not exceeding −5°C

b) Procedure for purging and cool down for connection (Arm and unloading line):
Procedure for purging before: 3 – 5 times vent with shore vapour.
Procedure for purging after: 3 – 5 times loading arm flushing with ship's hot gas.
Procedure for cool down: Not required.

c) Procedure and Rate of Discharging:

	Series Discharging		*Parallel Discharging*	
	Propane	*Butane*	*Propane*	*Butane*
		(cu.m.p.h.)		
Rate at start	500	500	500	500
Average Rate	1,200	1,200	1,200	1,200
Max. Rate	2,000	2,000	2,000	2,000
Rate of Finish	500	500	500	500
Vapour Return from Shore	6.9	8.9	6.9	8.9

d) Discharging quantity for B/L: Ship's calculated figure.

e) Circumstances when unberthing is requested:
– Wind speed: Over 30 m./sec.
– Wind direction: N.W., S.W.
– Max. wave height: 1.64 m.
– Other Conditions: 1) Typhoon.
2) In case of emergency.

MOORING:

a) Required numbers and quality of mooring ropes:

Fore lines:	4	wire and P.P. ropes.
Fore breast lines:	3	" " " "
Fore spring lines:	2	" " " "
After lines:	4	" " " "
After breast lines:	3	" " " "
After spring lines:	2	" " " "

b) Additional mooring ropes from shore: None.
c) Gangway: Shore gangway will be used.
d) Ship's derrick: To be kept on stand-by.
e) Indication of ship's manifold position: Required.
f) Mooring facilities – requirements:
– Types of bitts: Quick release hooks.
– Distance between bitts: 50 m. (average).
– Location and types of oil fence: Not available.
– Availability and location of speedmeter for approaching speed: Docking sonar on No. 1 breasting dolphin.
– Place for bonding cable: Not necessary.

g) Operation system at berth:
- Mooring personnel: At the bow: 5 persons.
  At the stern: 5 persons.
- Connection of arms: 5 persons.
- Required time: 15 minutes for each arm.
- Disconnection of Arms: 4 persons.
- Required time: 15 minutes for each arm.
- Unmooring Personnel: At the bow: 3 persons.
  At the stern: 3 persons.
- Communications: Shore can supply a walkie-talkie.

h) Disaster prevention system:
- External System: None
- Internal System: Emergency shut down system.
  Fire fighting system (fire hose).
- Disaster prevention facilities at the berth: E.S. system – fire fighting system (monitor).
- Availability of sea water pollution prevention facilities: None.

SHORE FACILITIES:
a) Shore liquid lines: (Distance from tank (heater) to ship's connection, diameter and max. pressure).
- Propane: 1,600 m. (600 m.) – 18 in. – 23 kg./sq.cm.
- Butane: 1,800 m. (600 m.) – 18 in. – 14 kg./sq.cm.

b) Flare stack capacity: Nil.

SUPPLIES AND SERVICE:
1) Drinking water and bunkers:
   a) Supply place: Yosu Anchorage.
   b) Method of supply: Barge.
   c) Advance notice: Advise Agent.
   d) Average rate: Bunkers: 100 – 200 t.p.h.
      Water: 800 tons per day.
2) Provisions:
   a) Available.
   b) Method of supply: From barge.
   c) Advance notice: Advise Agent.
   d) Kind of provisions available: Meat, fish, vegetables, etc.
3) Medical:
   a) Preventive injection: Cholera available.
   b) Advance notice: Advise Agent.
4) Landing: Possible.
5) Ship's repairs availability:
   a) Hull } Only at anchorage.
   b) Machinery }
6) Surveyor/Diver: Available.

BERTH SAFETY REGULATIONS:
Pier I: (Ocean and Coastal Tanker).
1) Vessel size:

Ocean:	Max. 75,000 CBM. Min. 30,000 CBM.
Coastal:	Max. 3,500 CBM. Min. 1,000 CBM.

Pier II: (Only Coastal Tanker).
1) Vessel size – Max.: 3,500 CBM.
   Min.: 1,000 CBM.
2) Loading Arms:
   2 self-standing for liquid LPG, equipped with 8 in. ASA 300 RF manual quick release couplings.

(G) KWANGYANG STEEL MILL, RAW AND PRODUCTS BERTH

LOCATION: 34° 54′ N., 127° 45′ E.
GENERAL: Port under construction.

Pohang Steel Co. discharge will handle vessels of 250,000 d.w.t. at a 900 m. length berth with depth of 20 m. The loading berth of 700 m. will accept vessels of 50,000 d.w.t.

2×2,000 t.p.h. grab unloaders and 1×2,000 t.p.h. shiploader will be available in the initial stages.

A 280 m. long quay is to be constructed to accommodate container vessels up to 50,000 d.w.t. Container handling equipment and other facilities will be available.

SHIPMASTER'S REPORT: July 1988.
Pohang Iron & Steel Company's complex is built on about 9 square kilometres of reclaimed land on the North side of Kwangyang Hang. It started production in May 1987 and at present manufactures about 5.5 million tons of steel products annually, with 8 million tons planned for 1991. The wharf fronting this area runs in a 101°/281° direction with an eventual length of 5.4 km. by 1991.

At the Eastern end a causeway running North and South has been built connecting Chijin Do Island with the complex.

Charts: B.A. Chart No. 3391. Korean Chart No. 241.

Documents:
- 10 copies Crew List.
- 5 copies Stores List.
- 5 copies Personal Effects List.
- 3 copies Arms & Ammunition List (See "Notice").
- 3 copies Narcotics List.
- 2 copies Ports of Call List (previous 3 months).
- 5 copies Cargo Manifest.
- 5 copies Through Manifest (where applicable).
- 1 copy Maritime Declaration of Health.
- Last Port Clearance.
- Ship's Register.
- Derat Exemption Certificate.

Pilotage: There are 5 licensed Pilots available at the present time. Vessels exceeding 30,000 g.r.t. embark their Pilots at 34° 39′ N., 127° 58′ E., and vessels under 30,000 g.r.t. at 34° 39′ N., 127° 29′ E. Pilots should be contacted on VHF Channels 16 and 14, 2 hours before arrival. This message should be repeated to Yeosu Harbour Control at the same time. There are no overhead power lines or bridges in the buoyed channel, but many fishing vessels operate in the area and they are usually cleared out of the way by a tug steaming ahead of the ship from the Quarantine Anchorage to the berth. When in ballast southbound, the Pilot leaves in the vicinity of the Quarantine Anchorage and the ship should stay outside the buoyed channel.

Anchorages: Large vessels are usually instructed by Yeosu Harbour Control to anchor in the vicinity of Tae Do Island, there is plenty of water and good holding ground (mud) here. The Pilot takes the ship up to the Quarantine Anchorage for Clearance by Port Officials from Yeosu. No mail is delivered unless requested. No Radio Pratique available.

Max. Size: 250,000 d.w.t. LOA 1,030 m. Beam 50 m. Draft 20.0 m.

Tugs: Tugs usually start to make fast off Nakpo Gak Light, using tugs' ropes. This ship (loaded inbound) used 4 tugs, both for berthing and unberthing. The Pilot communicates with the tugs on VHF Channel 14.

The following tugs are available: 3 × 4,200 h.p., 1 × 3,400 h.p., 1 × 3,200 h.p., 1 × 2,600 h.p., 1 × 1,900 h.p. and 2 × 1,200 h.p.

Berthing: Most ships using the Bulk Handling Berth are moored port side to (i.e. head out). This ship, 141,000 d.w.t. used 4 headlines, 4 sternlines, 2 breastlines each end and 2 back springs each end. 2 mooring boats are used to run the first ropes. On the quay is a digital readout giving the distance off for bow and stern and speed of approach.

There are no berthing or sailing operations during the hours of darkness.

Bulk Handling Berth: This is used for the import of iron ore, coal and limestone to feed the steelworks. Coal, via the conveyor system, also feeds the Coal Loading Berth for transhipping coal for coastal distribution. The berth is built on heavy steel piles, running 101°/281° with its present length of about 1.5 km. It is well fendered at 40 m. intervals with buffer type fenders having face pads 7 m. in width and 4 m. vertically, these keep vessel about 3 m. off the quay. The ship must provide its own brow for the gangway platform for access. The minimum depth alongside is 21.5 m. at MLWST, minimum keel clearance 1.5 m. Bottom is sand.

Discharging Facilities: 1×20 ton cantilever crane is situated at the Eastern end of the quay, usually the limestone berth.

Five electric gantry cranes with grab trolleys are mounted on rails which run the full length of the pier. Maximum air draft is 18 m. at HW. Outreach from the face of the fenders is 34.85 m. Grab capacity about 30 tonnes.

Discharging Rates: Maximum 40,000 t.p.d., normally 25,000 t.p.d. each.

Three separate conveyor belts run the full length of the pier to enable limestone, coal and ore to be discharged simultaneously.

Coal Loading Berth: This has been built into the Chijin Do Causeway and runs from the Eastern end of the Bulk Handling Berth, North and South, for about 350 m. It has a moving arm loader and handles ships of up to about 30,000 d.w.t., mainly coasters, the coal can come via the belt system either from the stock-pile or from larger ships discharging at the Bulk Handling Berth, at up to 20,000 t.p.d. There is a regular run down to Yeosu by coal barges.

Steel Products Berth: This lies about 2 km. West of the Bulk Handling Berth in the same line and will eventually make up the Western end of a continuous line of berths. It has 2 container type gantry cranes and 3×20 ton cantilever cranes. Main exports at present are steel coils.

Container Terminal: This is still under construction at Golyak-myon. The channel is being widened from 300 m. to 500 m. by dredging. There are up to 4 dredgers at a time working in different parts of the Bay.

Stevedores: Foremen, labour and crane drivers are in different Unions, this combined with language difficulties causes some confusion, hopefully over a period of time this will resolve itself.

Medical: Medical treatment and hospital facilities available.

Density: Ranges from 1022 to 1025, depending on the season.

Fresh Water: Available only by barge.

Fuel: Available only by barge, at least 2 day's notice required.

Repairs: Minor repairs are available at Yeosu, about 23 km. by launch, and divers are also available, but both are expensive.

Watchmen: From the time of obtaining Clearance to the time of sailing, a Customs Guard lives on board.

Repatriation: Possible. Normally by launch to Yeosu then by mini-bus to Yeosu Airport.

Time: GMT plus 9 hours. Daylight Saving Time, GMT plus 10 hours, is used from 8th May to 8th October.

Shore Passes: Necessary for aliens, renewed weekly. Korean crew have their Seaman's Books kept by Immigration until sailing time. As the dock gate is about 5 km. from ship and Kwangyang about 25 km., it is necessary to hire a mini-bus from the Agent at about U.S.$40 per trip.

Telephone: No telephones available from shore.

Stores: Local chandler can deliver alongside by truck. Western style meat and dry stores are usually imported and expensive, fruit and fresh vegetables plentiful in season. Spares are not easy to obtain.

Notice:

> Declaration of Weapons
>
> As you might know, the Republic of Korea is in a "Quasi-War" status with North Korea. Therefore, national security is of the utmost importance in our country.
>
> For the above mentioned reason, you must declare/report any guns, bullets, explosives, etc., to this country.
>
> At the time of your departure from this port, you will be permitted by the Custom's Office to take your weapons with you.
>
> For your own peace of mind, however, the overall security in Korea is well provided for and it is therefore unnecessary to carry weapons.
>
> Additionally, you are reminded that failure to properly declare/report your weapons is illegal and punishable by law.
>
> Thank you for your co-operation.
>
> Signed: .... Customs Director.

AGENT: Sub-Agents of Korea Universal Marine Co. Ltd., No. 350 Soojeon-dong, Yosu, Korea. Tel: 62-1406. Telex: K66734. Cables: "Newport Yosu". Fax: 64-1539.
Associated with Jardine Shipping Agencies.

Kuwait

GENERAL

VISA REGULATIONS: *Crew Changes:* Crew members joining ships at Kuwaiti ports can enter Kuwait with a valid Seaman's book, against a "Seaman's Guarantee Letter" from Agent, allowing 24 hour transit only to join a vessel in port.

For the preparation of a Seaman's Guarantee Letter (S.G.L.) and to arrange an "Airline's OK Board Telex" from Kuwait (to allow crew to board a flight to Kuwait without Kuwaiti visa), please telex the following particulars to vessel's Agent:

Full Name
Nationality
Seaman's Book Number/Date and Place of Issue
Age/Date of Birth
Profession
Flight Details

Once a seaman enters/joins vessel on S.G.L. as above, it is not permitted for him to sign off/leave the vessel in Kuwait due to Immigration restrictions applicable to seamen entering on S.G.L.

Visitors to ships, repairmen and business visitors should obtain a visa before travelling to Kuwait. It is also possible for the Agent to obtain a visitor's visa (N.O.C.) locally in Kuwait. However, visitors must send, 15 days prior to arrival, a photo-copy of the passport pages containing full passport particulars (imperative) and 3 passport size photographs to the Agent in order to apply for such a visa.

SPARES/MAIL: *Air Freight of Ship's Spares, Mail etc.:* Air-freighted spare parts and ship's mail should be addressed to the Master c/o the Agent, and marked: "Ship's Spares (Stores) in Transit" and be accompanied by packing list and commercial invoice and Certificate of Origin both in original, with name and address of manufacturer (imperative) and certified by Chamber of Commerce and legalised by any Arab Embassy/Consulate (except Egypt).

Contents and weight of consignment should be correctly stated in all documents and air way-bill.

Customs clearance formalities and delivery of air freight consignments in Kuwait will take 10-14 days. It is, therefore, advisable to despatch air freight parcels sufficiently well in advance of ship's arrival. The flight details and air way-bill number should be telexed to the Agent enabling the Agent to collect delivery order from the airline and commence clearance formalities immediately.

N.B.: No documents are needed for ship's mail. It is advisable to send ship's mail/printed matter/documents by air courier, due to faster handling at airport, and to avoid the lengthy procedures applicable to air freight consignments.

PACKING REGULATIONS: *Chemicals in Bags:* The following is from the Director General, Ports Public Authority.

"You will appreciate that chemical materials arriving in bags require careful and special handling to prevent tearing and contamination, and we would, therefore, request you to ask all Steamship Agents and Owners of vessels to give their best attention to shipments of this type of cargo, in an effort to ease its handling by the stevedoring labourers without obstacles.

The bags should properly be bundled and placed on pallets, covered by thick plastic and/or canvas covers for safety and security of the cargo and fast discharging.

It should be noted that unless this type of cargo is shipped on vessels under the condition mentioned above, the Ports Public Authority shall not permit discharging and the cargo will remain on board the on-carrying vessel".

In Transit and Kuwait Cargo Mixed Together in Ships' Holds: The Kuwait Ports Public Authority have reported a recent incident which occurred during discharge of cargo from a vessel.

The berthing of the vessel as usual was arranged according to the cable from the Master that Kuwait cargo was clear for discharge in all respects, but when the discharging operation was carried out, they observed that the in transit and Kuwait cargo in all hatches were mixed together. Such being the case the Ports Public Authority were compelled to move one truck out to receive Kuwait cargo, and then bring back the truck of receivers of the in transit cargo, and so on until the discharging was completed. This situation naturally entangled the work altogether and caused considerable delay in discharging the cargo from the vessel.

Therefore, the Ports Public Authority have requested that we draw Principals' attention to this and ask you to take good care in stowing cargo properly in ships' holds and that it not be mixed together.

MINA ABDULLA: 29.02 N. 48.11E. (See Plan)

LOCATION: Mina Abdulla bounded on South by parallel of Lat. 28° 55′ N. on the East by Long. 48° 18′ E. and on North by a line joining following points:

(1)	29° 01′ 45″ N.	48° 09′ 25″ E.
(2)	29° 01′ 45″ N.	48° 10′ 06″ E.
(3)	29° 02′ N.	48° 10′ 18″ E.
(4)	29° 02′ N.	48° 18′ 00″ E.

FLAG: Every merchant ship when entering or leaving port between sunrise and sunset shall fly her national flag and national flag of Kuwait and, when entering port, shall fly her signal letters. All vessels required to fly Kuwait flag on foremast during daylight hours. Flags may be obtained from Agent.

APPROACHES: Mina Abdulla is easily located as it is the Southernmost refinery of the group of refineries which form Ahmadi, Shuaiba and Mina Abdulla. A number of flares will be seen. The Sea Island is situated about 3 miles offshore of the refinery.

When a vessel is ready to enter at the same time as another vessel is ready to leave the port, the outgoing vessel shall have priority over the incoming vessel, subject always to the provisions of the International Regulations for Preventing Collisions at Sea and to the requirements of safe navigation.

DOCUMENTS: Before leaving Kuwait the Master shall be responsible for obtaining a Port Clearance Certificate. The documents necessary for vessels to enter and leave Mina Abdulla are:

Enter
Ship's Manifest.
Bill of Health.
Crew List.
Clearance from Last Port.
Light Dues Certificate.

Clear
Register.
Load Line Certificate.
Radio Certificate.
Safety Certificate.
Last Port Clearance.

Masters and Agents of vessels shall, when called upon by a Customs Officer or Marine Officer, produce any documents relative to the landing or shipment of their vessel's cargo in the port. The Master or his representative is required to hand to the Company a written Notice of Readiness to load.

Discharging certificates of oil cargo loaded from Kuwait and Partitioned Zone ports are to be sent to vessels' local Agents immediately duly attested by the Customs Authorities and Arab Consulate covering full quantity as per Bill of Lading.

If a vessel which has not submitted the certificate for the previous voyage calls for the second time, she will be allowed to load and sail only after paying a cash deposit of KD 2,000.

In order to avoid delay in berthing, loading and outward clearance for vessels, all owners must give instructions to Agents at discharging ports to forward relevant cargo discharge certificates to Agents at loading ports without delay.

PILOTAGE: Pilot normally boards the vessel about 1.0 miles – 1.5 miles to the Eastward of the Sea Island. Vessels are requested to have pilot ladder of approved pattern, safely and securely rigged, and ready for immediate use. When it is necessary for a vessel to anchor before berthing, she should do so in the recommended anchorage area. At all times a Pilot will be available on the Sea Island.

Vessel with a Pilot on board shall display International Code Flag "H" in a prominent position whilst manoeuvring under his advice, and shall, if so instructed by Pilot, display a flag indicating berth to which vessel is proceeding.

ANCHORAGES: Vessels requiring to anchor for any reason in port limits should do so within area enclosed between positions:

29° 02′ N.	48° 14.3′ E.
29° 02′ N.	48° 15.1′ E.
29° 01.2′ N.	48° 15.1′ E.
29° 01.2′ N.	48° 14.1′ E.

or within reasonable proximity to the East if congestion arises in anchorage area.

All vessels and craft within the port shall be navigated with care and caution, at a speed, and in a manner which shall not endanger the safety of other vessels or craft. In particular, special care and caution is to be observed in passing vessels or craft of the following category: weight-lifting or deeply-laden craft, vessels or craft in tow and vessels or craft engaged on diving, dredging, grabbing, pile-driving or construction work, survey operations or the removal of obstructions.

All vessels within the port shall anchor, or moor and unmoor, when and where required by the Pilot, and shall be moved from place to place as required and by such means or appliances as may be ordered by the Marine Officer.

Vessels or craft shall not anchor near any submarine lines within the port limits, unless engaged on work which, in the opinion of the Pilot, necessitates their doing so.

MAX. SIZE: Mina Abdulla Sea Island consists of 2 berths, primarily for loading, although unloading facilities are also available. The offshore berth (No. 19) is designed to receive tankers up to 276,000 tonnes displacement in ballast to load products and can also accommodate loaded tankers of 35 ft. It is envisaged that loaded tankers will only be handled in an emergency.

The inshore berth (No. 18) is designed to receive tankers from 25,000 to 140,000 tonnes deadweight in ballast and can also accommodate loaded tankers of 25,000 – 90,000 tonnes deadweight in emergencies. ⑥

The minimum depth of water at Berth No. 19 is 59 ft. and at Berth No. 18 minimum depth is 57 ft.

HEALTH: Quarantine regulations administered by Kuwait Government's Quarantine Medical Officer. Pratique granted at anchorage or berth.

Vessels calling at Mina Abdulla are requested to send following information to "Health Shuaiba Port" via Harbour Master at Mina Al-Ahmadi:

(1) Name of vessel.
(2) Last port of call.
(3) Health condition of crew.
(4) Validity of Cholera Certificates.
(5) Request for Free Pratique.

No craft, other than one having on board the Mooring Master or Port Health Officer, may approach any vessel entering the port and no other person may board any such vessel until Free Pratique has been granted.

Adequate covers shall be placed over all overside discharges.

Masters shall be responsible for ensuring that no unhealthy or offensive matter is deposited from their vessels on port premises. Any such matter so deposited that is, or becomes offensive, or, in the opinion of the Port Health Officer, injurious to health, may be removed, confiscated or destroyed and the place of deposit cleaned or disinfected on the direction of the Marine Officer at the expense of the Master responsible.

Any vessel, having on board offensive goods, or goods which, in the opinion of the Port Health Officer, are injurious to health, may be ordered to leave the port by the Marine Officer.

No ashes, refuse or other objectionable matter shall be thrown overboard from any vessel either on to any premises or into any waters of the port.

RADIO/VHF: All communications are to be made through the vessel's Agent, with the request that they be passed to K.O.C. Mina Abdulla, Harbour Master and Marine and Export Operations Department.

TUGS: 2 large tugs are available to assist in berthing and will operate to the Pilot's instructions, but will normally both be used while berthing, usually making fast on the starboard side, by means of 2 ropes each of which will be provided by the tug.

Both tugs are fully fitted with Fire Fighting and Dispersant spraying equipment.

MOORING: Pilots may decline to moor any vessel if in his opinion it is not equipped with satisfactory mooring facilities, lines and gear, etc.

The Sea Island consists of 6 mooring dolphins and 8 breasting dolphins all connected to the loading platform by walkways.

Mooring hooks and capstans for handling ropes are provided. Hooks are of the quick release type, and in an emergency can all be immediately released from the Control Tower. A shore gangway is provided at each berth.

All vessels berthing at Mina Abdulla must be provided with a minimum of 8 mooring ropes forward and aft.

LOADING: All products are loaded at the Sea Island by means of rigid loading arms. They are all fitted with hydraulically operated quick connect/disconnect couplings.

The black products are loaded by means of 10 in. connections and the white products by 16 in. connections.

The maximum loading rate will be approximately 2,000 tons per hour.

Caution: The incoming oil stream is pumped from shore and it is extremely dangerous to close a ship's valve against the incoming oil stream. Such a procedure creates an excessive pressure, which may damage submarine lines, ship's pipe-lines or the terminal facilities. Vessels will be held liable for damages resulting from failure to observe this precaution.

Loading and discharging of petroleum vessels shall not be undertaken without permission of the Oil Movements Department.

Loading and discharging of petroleum vessels shall not commence until:

(1) Master or Chief Officer has certified to the Oil Movements Department that all necessary valves are open and that vessel is in proper condition to receive or discharge cargo.

(2) Master or Chief Officer has certified to the Oil Movements Department that all ship's sea valves are closed or blank flanged except those required for water circulation purposes, and that these regulations are being and will be observed.

(3) Ship's tanks have been inspected by an authorised inspector and passed as suitable for loading.

Throughout period of loading and discharging operations, following conditions shall be observed:

(1) A responsible Ship's Officer shall be on watch on board at a point near tanks which are receiving oil during process of loading. The company's staff have received instructions to stop loading immediately whenever this rule is disregarded.

(2) A capable member of ship's crew shall be stationed by ship's tank valves which are receiving oil during loading.

(3) All pipe-lines shall, while rigged for loading or discharging petroleum, be directly and continuously earthed and kept constantly under supervision.

(4) No petroleum shall be allowed to escape or overflow.

(5) The following signals will be observed, as well as the radio communications, between ship and shore:

Signal Flag by Day		*Light Signal by Night*
	Starting	
1 Red Flag	Slow Speed	1 Red Light
2 Red Flags	Full Speed	2 Red Lights
	Stopping	
1 Red Flag	Slow Speed	1 Red Light
All Flags Down	Stop	No Lights

(6) When normal ship-to-shore communication fails, the emergency signal to stop the oil flow will be a continuous blast on the ship's whistle until the oil ceases to flow. Steam or air should never be shut off from whistle during loading. When practical, means should be provided for blowing the whistle from the after section of the cat walk. Whenever an Emergency Whistle Signal is used, all loading operations in the berths will be shut down until normal communication is restored. For this reason it is requested that ships in the area refrain from using ship's whistle for other than essential purposes.

Load Lines: Masters are warned that their load lines are subject to scrutiny by the Port Officer from Mina-Al-Ahmadi on completion of loading or bunkering. It is in their own interest therefore, to observe the regulations, as vessels are liable to be delayed and have to pump ashore or be fined if overloaded, and Port Clearance withheld.

BALLAST: As soon as practicable after arrival, all vessel's tanks will be inspected for evidence of oil in ballast. During discharge of ballast, similar inspections will continue. If evidence of oil appears at any of these inspections, the ship must return at once to a point not less than 100 miles from the coastline and there clean tanks and segregate slops.

Masters will be required to sign a declaration certifying that any water ballast intended for discharge from vessel is clean and free from oil.

No deballast reception facilities are available.

POLLUTION: Cases of discharging dirty ballast or oil spillages will be investigated and vessels are liable to fines and/or detention. Vessels shall not discharge into the water of the port any part of the content of their cargo, slop, or ballast tanks or bilges which is liable to pollute these waters. Masters shall ensure that pipe-line and equipment are clean before using them for discharging anything into the water of the port. Scuppers shall be plugged effectively and no leakage or spillage of petroleum on board shall be allowed to leak or be swept overboard.

The State of Kuwait has stringent laws in force concerning the pollution of the sea by oil. The following are 2 amended paragraphs of this law:

Paragraph 1, Art. 4. "A person responsible for any pollution as described in Articles 1 and 2 shall be punished by a fine of not less than 1,500 Dinars and not more then 40,000 Dinars. In the event of his committing a similar crime within a period of 1 year from the date of his conviction, such a person shall be punished by a fine of not less than 3,000 Dinars and not more than 40,000 Dinars, and in the event of his committing yet another crime within a year from this last conviction he shall be punished by a fine of not less than 6,000 Dinars and not more than 40,000 Dinars".

For each offence a bond of 40,000 Kuwaiti Dinars must be deposited prior to release of vessel.

Paragraph 3, Art. 6.. "The person responsible for pollution may suspend the detention order against the ship on payment, as a cash guarantee, of 40,000 Kuwaiti Dinars to the official entrusted with the execution of such order".

TIDE: The maximum tidal range is 10 ft. 6 in. and velocity of tide is from 0.5 to 2 knots.

DENSITY: 1025.

MEDICAL: Patients will in normal course of events be treated by Quarantine Medical Officer on board. Neither medical nor hospital facilities are provided by the Company. However, in cases of emergency those requiring urgent hospitalisation may be taken by vessel's Agent.

FUEL: Fuel oil bunkers can be loaded in either berth at a max. rate of 500 t.p.h, thus raising the max. loading rate of either berth by 500 t.p.h. for fuel oil cargoes only.

FRESH WATER: Cannot be supplied at Mina Abdulla. In case of utmost need Agent may hire a barge with a capacity of 100 tons of fresh water from Kuwait, and send to Mina Abdulla.

CUSTOMS: Import of firearms and ammunition is forbidden. Under Kuwait Law No. 46, it is an offence to sell or trade liquor within the State of Kuwait. Any person convicted for selling, purchasing, giving away, accepting or acquiring in any manner, liquor or any intoxicating drinks for the purpose of trading and marketing shall be punished by a maximum 3 year's imprisonment and a maximum fine of KD 300 or by only 1 of the 2 aforesaid penalties. Alcoholic beverage is strictly prohibited to be held out of bond. Master allowed to keep limited quantity in his cabin.

CONSULS: See "Shuwaikh". Consuls are situated just outside Kuwait town, some 30 miles from the terminal.

REPAIRS: No facilities.

REPATRIATION: See "Visa Regulations" under General before first port

AIRPORT: Kuwait.

TIME: GMT plus 3 hours.

PROVISIONS: K.O.T.C. does not provide any chandlering facilities. Masters of vessels calling at Mina Abdulla must arrange for supplies through ship's Agent. Foodstuffs, beverages, tobaccos, etc., are available from ship chandlers in Kuwait in limited kinds and quantities. Prices a little more expensive than in Kuwait due to long transportation. Ship's Agent should be advised by cable well in advance.

CERTIFICATES: See "Documents". There is no organisation for dealing with Derat Certificate at Mina Abdulla. Agents are responsible for presentation of Oil-discharging Certificate to Customs Authorities as guaranteed by them. All Cargo Discharge Certificates duly attested by the Arab Consulate are to be sent to Agents directly.

SHORE LEAVE: At present, crews not allowed ashore at Mina Abdulla, and this rule will be strictly adhered to.

REGULATIONS: Main engines shall always be kept ready for use. Steam pressure shall be maintained at minimum necessary to operate auxiliaries and to manoeuvre in case of need. Deck steam is to be maintained at all times.

Engine repairs which may prevent working of main engines may only be undertaken with written permission of the Oil Movements Department.

Master shall at all times retain on board sufficient crew to work vessels.

Vessels shall have both anchors ready for immediate use on arrival and departure.

Vessels berthed at sea terminals shall not carry out engine trials without permission of the Oil Movements Department.

No swimming in vicinity of vessels or from vessels in berth is allowed.

DEVELOPMENTS: The CBM berths formerly used have been removed, but the pipelines and ground tackle remain in place. The former position of the CBM berths, which are about 1 mile South of the Sea Island, are marked by a navigation buoy and Masters are cautioned from anchoring in this area.

AUTHORITY: Kuwait National Petroleum Co. (KSC), Mina Abdulla Refinery, P.O.Box 69, Safat, 13001-Safat-Kuwait. *Tel:* 3260233 ext. 3028/3029. *Telex:* Kunpema 44204 Kt. *Cables:* Kunpema Kt–Marine Mina Abdulla. *Contact:* Captain Hani S. Omar, Marine Department – Section Head.

All shipping movements are directed by Mina Al-Ahmadi Harbour Master.

MINA AL-AHMADI: 29.04 N. 48.09 E. (See Plan)

OPERATORS: Kuwait Oil Company.

LOCATION: Port of Mina Al-Ahmadi is open roadstead situated on Western shores of the Gulf.

PORT LIMITS: From the shore at Lat. 29° 02′ 50″ N. Eastward to Long. 48° 09′ 42″ E. Thence in a S.E. direction to position Lat. 29° 02′ 45″ N., Long. 48° 09′ 47″ E. then in an Easterly direction towards Long. 48° 11′ 30″ E. and the Northerly limit Lat. 29° 10′ 00″ N. from the shore to Long. 48° 11′ 30″ E.

Note: Southern limits liable to slight modification due to Shuaiba Port expansion. Changes of no consequence to visiting vessels.

FLAG: National flag of Kuwait is to be flown at foremast head during vessel's stay in port.

NAVIGATIONAL AIDS:

Current hydrographic information may be obtained by radio from the "Middle East Navigation Aids Service, Bahrain".

Lights and Fog Signals: A fog signal on the extreme South end of South Pier with characteristics of one 3-second blast every minute. Approx. position Lat. 29° 04′ 05″ N., Long. 48° 10′ 00″ E.

A fog signal situated on the North Pier with a characteristic of 2.5 second blast, 3 second silence, 2.5 second blast, 3 second silence, 2.5 second blast, 46.5 second silence, Approximate position Lat. 29° 07′ 24″ N., Long. 48° 09′ 00″ E.

A fog signal situated on the Sea Island with a characteristic of 2×3 second blasts every 90 seconds. Approximate position Lat. 29° 06′ 48″ N., Long. 48° 17′ 29″ E.

A fog signal situated on the Single Point Mooring with a characteristic of a 10 second blast every 60 seconds. Approximate position Lat. 29° 06.9′ N., Long. 48° 19.2′ E.

DOCUMENTS:

1. To obtain clearance inwards, following documents required by Agents:
   - (i) Ship's Register.
   - (ii) Safety Equipment Certificate.
   - (iii) Safety Radio Certificate.
   - (iv) Load Line Certificate.
   - (v) Last Port Clearance.
   - (vi) Two copies of Crew List showing names, nationalities and Passport/Seaman's Book numbers.

Items (i) to (v) are returned to Master together with Port Clearance (valid 24 hours only) prior to sailing.

2. Customs boarding officers require following:
   - *(a)* One copy of Crew List.
   - *(b)* Log Books covering period from last visit.
   - *(c)* Completed Customs Declaration Form (supplied by boarding officer).
   - *(d)* List of Ports visited with arrival and departure dates since last visit (form also supplied by boarding officer).
   - *(e)* Completed Ballast Form (form also supplied by boarding officer).
3. Immigration Officials require the following:
   - *(a)* Valid Passport or Seamen's Book – the latter is preferable for landing.
   - *(b)* Letter of Guarantee from Agents.
   - *(c)* Two copies of Crew Lists.

4. Early Departure Procedure. KOC Documents Section are now operating an Early Departure Procedure to cut down delays in documentation. Masters may opt to use this scheme, full details of which can be obtained from KOTC. Those vessels not accepting this system of documentation are unberthed to anchorage to await documentation and therefore subject to delay in sailing until documents are ready and delivered onboard by launch. Weather conditions may prolong such delays on occasions.

5. Discharge Certificates: Discharging certificates of oil cargo loaded from Kuwait and neutral zone ports are to be sent to vessels' local Agent immediately, duly attested by Customs Authorities and Arab Consulate covering full quantity as per Bill of Lading.

If a vessel, which has not submitted the certificate for the previous voyage, calls for the second time, she will be allowed to load and sail only after paying a cash deposit of KD 2,000.

In order to avoid delay in berthing, loading and outward clearance for vessels, all owners must give instructions to Agent at discharging ports to forward relevant cargo discharge certificates to Agent at loading ports without delay.

PILOTAGE: Vessels should arrive with sufficient clean ballast for safe manoeuvring under prevailing weather conditions. Under certain conditions the Pilot, after consulting the Harbour Master, may require additional ballast to be run in before berthing.

All berthing, unberthing and manoeuvring of vessels within the port limits, restricted area and prohibited anchorage must be done under the supervision of a KOC Pilot.

It is the duty of the Master to inform the Pilot of any special conditions, difficulties, or peculiarities whatsoever pertaining to his vessel which might impose hazards in connections with the handling, mooring, unmooring, loading or discharging of the vessel.

The Pilot boarding places for North Pier and for South Pier are 2 miles East of the respective piers, and for the offshore terminals 2 miles off the terminals.

Caution: Vessels are cautioned to keep well clear of the port area and on no account to pass within a distance of 2 miles of North or South Piers without a Pilot on board.

ANCHORAGES: The suggested anchorages in the Port of Mina Al-Ahmadi have been laid out to facilitate shipping in general. These anchorage areas are outside of the port limits and clear of the prohibited anchorage and restricted areas. Depths in the anchorages range from 10 to 15 fathoms, the seabed is of sand and soft coral with mud patches and affords good holding ground.

Incoming vessels are assigned berths by the Harbour Master in accordance with time of arrival, type of cargo required, size of vessel and loaded draft. Endeavour is made to berth vessels on arrival and Masters will be advised, prior to arrival, of the pier at which they will berth. If a berth is not available, vessels will be requested to anchor in one of the three anchorages as follows:

1. To the North-West or South-East of the Sea Island and inside of the Restricted Area.
2. To the East of the North Pier, outside of the port limits and to the North of the Prohibited Anchorage.
3. To the East of the South Pier, outside of the port limits and between the Southern limit of the Prohibited Anchorage and the Northern port limit of Shuaiba Port.

To the East of the port limits exists a Prohibited Anchorage and a Restricted Area which embraces the Sea Island and submarine-feeder pipe-lines.

Positions of these areas are:

Prohibited Anchorage	29° 05′ 00″ N.		29° 05′ 00″ N.
	48° 11′ 30″ E.	to	48° 15′ 00″ E.
	29° 07′ 00″ N.		29° 07′ 00″ N.
	48° 11′ 30″ E.		48° 15′ 00″ E.
Restricted Area	29° 05′ 00″ N.	to	29° 05′ 00″ N.
	48° 15′ 00″ E.		48° 20′ 00″ E.
	29° 09′ 00″ N.		29° 09′ 00″ N.
	48° 15′ 00″ E.		48° 20′ 00″ E.

HEALTH: Vessels calling at Mina Al-Ahmadi are requested to radio the following information to "Health Minahmadi Port":

(1) Name of vessel.
(2) Last port of call.
(3) Health condition of crew.
(4) Validity of Cholera Certificates.
(5) Request for Free Pratique.

Free Pratique will be considered at the discretion of the Quarantine Officer, and vessels must hoist the yellow flag unless they are informed by Agent or Harbour Control that Free Pratique has been granted.

Regulations.

- (i) All vessels must exhibit quarantine signals until quarantine formalities are completed or Free Pratique granted. By day, International Code Flag "Q"; by night, red light over white light. No person other than the Pilot is allowed to board any vessel either alongside pier or at anchorage until pratique has been granted.
- (ii) Valid Cholera Certificates will be required from travellers coming from infected areas with the exception of children under one year.
- (iii) Ratguards must be fitted to all moorings – this is being rigidly enforced.
- (iv) Maritime Declaration of Health Form (supplied by boarding Quarantine Officer) to be completed.
- (v) One copy of Crew List containing dates of vaccination and inoculation is required.
- (vi) International Certificates of Vaccination and Inoculation to be available for inspection if required.
- (vii) Details of air-conditioning available in vessel (form supplied by boarding officer).
- (viii) A valid Derat Certificate must be produced. Facilities are available locally for renewal.

RADIO:

1. *Station:* All radio communications to the Company should be quoted in Greenwich Mean Time and should be routed through Kuwait Coast Station 9KK, details of which are given below:

412G Al Kuwait (9KK) Lat. 29° 10′ 09″ N., Long. 47° 45′ 42″ E.

Frequency			*Hours*
(9KK) 430*, 450, 500	A1, A2	2 kW.	0300–2100
(9KK2) 4,287	A1	0.75 kW.	On request
(9KK3) 6,370	A1	0.75 kW.	On request
(9KK4) 8,525	A1	0.75 kW.	0300–2100
(9KK5) 12,895	A1	0.75 kW.	0300–2100
2,182, 2,200, 2,750	A3	0.1 kW.	0300–2100

*On request.

Procedure: Transmits traffic lists on 450 kHz each even hour; 8,525 and 12,895 kHz each odd hour plus 35, listens for 30 mins. thereafter: 2,750 kHz each odd hour plus 05.

2. *ETA:* 72 hours before arrival Masters should transmit to KUOCO through Al Kuwait Radio (9KK) the following information required by Kuwait Oil Company.

1. ETA.
2. Cargo and Bunkers required.
3. Notice of any repairs which may immobilise vessel.
4. Any special requirements regarding cargo documents.
5. Max. loading rate and ballast discharge time, special loading instructions if any.

The ETA should be confirmed 24 hours before arrival. The Master should also provide Agent with following information prior to arrival:

1. ETA.
2. Last port of call.
3. Any sickness on board.
4. Number of crew to see doctor or dentist.
5. All requirements – provisions, supplies, lubricating oils, repairs, stores, machinery for landing, crew repatriation, etc.

VHF: A short range VHF Radio Telephone. Port control system is in operation and continuous watch is maintained on International Channel 16. Port working Channels are:

11
12 General Port Working.
14
15
17 Sea Island Operations and General Port Working.
73
74 Pilot/Tugs Pier Controller North Pier/South Pier.

Vessels bound for Mina Al-Ahmadi should make contact, as soon as they are within range, calling "Mina Al-Ahmadi Port Control" on Channel 16.

Note: As Channel 16 is reserved for calling, safety and emergency, stations should refrain from using this Channel unnecessarily.

RADAR: Norcontrol VTS installed in the Marine Control Centre at the South Pier. It covers the approaches to the Sea Island and the South Pier.

NOTICE OF READINESS: Vessels are accepted for loading either by being given a range date or "As convenient". If a crude oil loading tanker arrives within her nominated range date (a 3 day period) her Notice of Readiness will be taken as the time of her arrival whether or not she is berthed on arrival. An LPG vessel is nominated an "Acceptance Date" plus 1 day and her Notice of Readiness will likewise be taken as the time of her arrival, whether or not she berths so long as her arrival time is within her range. If a vessel arrives "As convenient" or for lifting bunkers only then her notice of readiness will be taken as the time that the Pilot boards. Time of anchoring, together with position relative to South Pier Control should be advised to the Harbour Master by VHF or through 9KK as soon as possible. All vessels at anchor are required to be ready on receipt of 1 hour's notice from Port Control, this notice will be given by VHF or Lamp and vessels should ensure an efficient watch is maintained to receive notice.

Cancellation of Notice of Readiness: In all cases, including vessels having Range Dates, if after having received 1 hour's notice a vessel is not ready to berth when Pilot boards, at the expiry of that notice the original Notice of Readiness will be cancelled and the Pilot withdrawn. The new Notice of Readiness will be the time the Pilot re-boards the vessel concerned. As vessels are normally berthed in strict Notice of Readiness sequence, a vessel could lose considerable time through not being ready and Master should ensure that delays of this nature do not occur.

TUGS: K.O.C. maintain 3 diesel tugs for port use. They are 5,200 h.p. with a designated bollard pull of 70 tons. 2 tugs are normally on duty at all times. Hire charges for the services of Pilots, tugs and rope launches are covered by comprehensive port charges. Under normal operating conditions no tugs or other craft will come alongside the vessel before the Pilot boards. Ship's personnel must not signal for tugs or other boats to come alongside.

MOORINGS: When at berth, vessels must be moored to entire satisfaction of Pilot. Vessels must be ready at all times to put out extra moorings as requested by pier personnel or dictated by weather changes.

Mina Al-Ahmadi is subject to sudden fierce squalls; winds of 70 knots have been recorded, therefore vessel's mooring lines must be checked frequently to prevent excessive movement of vessel in berth. Experience has shown that wholly synthetic moorings have too much elasticity and allow vessel to range or drift away from the berth during periods of adverse weather. Whilst these moorings are acceptable as head/stern ropes, it is felt that the ideal breast moorings should be of wire or a wire rope combination with the end being sent ashore fitted with a synthetic pennant or tail. This type of mooring provides the necessary elasticity while still being able to hold the vessel in position. All vessels moored with automatic tension winches must set the manual brakes on these winches.

BERTHING: Vessels can berth at any time of the day and night. Berths are allocated by the Harbour Master depending on various factors and the berthing position is advised by VHF. All vessels must establish contact with Mina Al-Ahmadi Port Control before anchoring to ascertain position. Vessels should remain at 1 hour notice for berthing at all times and maintain a continuous listening watch on VHF Channel 16.

The Port facilities consists of 3 Piers, 1 Buoy Mooring (Sea Berth), Sea Island and Single Point Mooring.

South Pier: The South Pier is connected to the shore by an approach trestle, which leaves the shore in position Lat. 29° 03.6′ N., Long. 48° 09′ E., and runs seaward in an 071° 26′ direction for a distance of 4,200 ft. (1,280 m.). The "T" head is formed by the oil pier running Northwards in a 341° direction for 2,805 ft. (855 m.) and the South arm running in a 174° direction for 1,076 ft. (328 m.). The pier is a steel piled structure with a wooden deck, 24 ft. above zero tide. The South Pier has 4 oil-loading berths, plus 2 L.P.G. berths, and 1 for K.O.C. cargo discharge and local bunkering.

Bitumen Pier: A Bitumen Pier, for the export of Bitumen is located in an approximate position Lat. 29° 03.9′ N., Long. 48° 09′ E. The Pier approach projects out from the shore opposite the Bitumen plant in an 071° direction for approximately 600 m. The Pier head is 100 m. long and runs in a 341° – 161° direction. Water depth approximately 20 ft 6 in. (zero tide). Largest vessel to be accommodated 5,000 ton S.D.W.

North Pier: The North Pier is situated 3.5 nautical miles North of the South Pier and is connected to the shore by an approach trestle which runs seaward from Lat. 29° 07.1′ N., Long. 48° 08.2′ E. in a direction of 071° for a distance of 4,754 ft. (1,449 m.). The head is formed by the Oil Pier which runs Northward in a direction of 341° for a distance of 2,304 ft. (702 m.). The pier is a steel piled structure with a wooden deck, 20 ft. above zero tide. The North Pier has 4 oil-loading berths.

Sea Island: The loading platform of this Terminal is located in position Lat. 29° 06.8′ N., Long. 48° 17.5′ E. approximately 7.4 miles East of the North and South Piers. It is a steel piled structure in 94 ft. of water (zero tide). It consists primarily of a central loading platform with control tower, 6 mooring and 8 breasting dolphins all interconnected by catwalks. The Terminal which lies in a 330° – 150° direction, is some 1,620 ft. in length (494 m.). The height of the loading platform above zero tide is 44 ft.

The Sea Island has 2 loading berths. Crude oil is fed to the Terminal by a 48 in. submarine line and heavy fuel oil by a 20 in. submarine line. The submarine lines are marked by 3 light buoys lettered "A", "B" and "C". Details are given in the navigational aids. L.F.O. and D.O. bunkers are not available at the Sea Island.

Multi-pile Single Point Mooring: A Single Point Mooring is located in position Lat. 29° 06.9′ N., Long. 48° 19.2′ E. approximately 1.5 nautical miles East of the Sea Island. The SPM has been mothballed. The hose strings have been removed to store.

Sea Berth: There is 1 sea berth located South of South Pier. Berth "A" is maintained only for the import of refined products.

Limiting Depths and Berth Lengths:

Berth	*Depth at Zero Tide* (ft.)	*Nominal Length* (ft.)
South Pier		
1.	47	930
3.	48	930
4.	49	960
5.	41.5	765
6.	43	705
9.	44.5	615
10.	49	1,050
North Pier		
11.	59	1,008
12.	59	1,296
15.	57	792
16.	57	740
Sea Island		
20.	94	1,620
21.	94	1,620

Loading Manifold, Loading Connection Sizes: South Pier: Berths 5 and 6 only are equipped with 10 in. cargo hoses and 8 in. bunker hoses – standard 150/ASA.

Berth 1 is equipped with	5×16 in. Cargo Arms. 2×12 in. Bunker Arms.
Berths 3 and 4 are equipped with	1×12 in. Cargo Arm, white products 2×16 in. Cargo Arms, white products 2×16 in. Cargo and Bunker Arms, black products
Berth 10 is equipped with	4×16 in. Cargo Arms. 2×12 in. Bunker Arms.
Berth 9 is equipped with	6 in. bunker hose only. All Standard 150/ASA.
North Pier:	
Berths 11 and 12 Loading Arms	3×16 in. Cargo Arms. 2×12 in. Bunker Arms. 1×16 in. Chiksan for P.C.NA. (Berth 12)
Berths 15 and 16 Chiksan Units	4×12 in. Cargo Flanges. 2×8 in. Bunker Flanges. Standard 150/ASA.
Sea Island:	
Berths 20 and 21 Loading Arms	4×16 in. Cargo Flanges. 2×12 in. Bunker Flanges. Standard 150/ASA.
SPM:	
Berth 22 Floating Hoses	2×16 Cargo Flanges. 1×12 in. Bunker Flanges. Standard 150/ASA.

Reducers: All vessels using the Port of Mina Al-Ahmadi should be equipped with reducing spools to fit these loading connections. These fittings should be in place, prior to berthing to help expedite the vessel's turn around.

Crude/Product Loading Rates: The following table shows the crude and products available at each berth and the nominal loading rates.

Grade	*Location*	*Nominal Rate* (t.p.h.)
Crude Oil	Sea Island	15,000
Crude Oil	North Pier	7,200
Crude Oil	South Pier	2,100
HFO Bunkers	Sea Island	750
HFO Bunkers	North Pier	500
HFO Bunkers	South Pier	500
HFO Cargo	North Pier	2,000
HFO Cargo	South Pier	2,000
LFO Bunkers	North Pier	500
LFO Bunkers	South Pier	500
LFO Cargo	South Pier	1,100
D.O. Bunkers	North Pier	500
D.O. Bunkers	South Pier	500
Line Blend Fuel Oil	South Pier	1,200
Gas Oil	South Pier	1,500
L.S.F.O.	South Pier	2,600
A.T.K.	N. & S. Piers	1,500
M.S.	N. & S. Piers	1,200
P.C.NA.	N. & S. Piers	2,600
Bulk L.P.G.	South Pier	2,000

L.S.F.O.: Low Sulphur Fuel Oil.
A.T.K.: Aviation Terbine Kerosine.
M.S.: Motor Spirit.
P.C.NA.: Petrol Chemical Naphtha.

Note: All blended cargoes containing crude oil as one of the components can be loaded at any crude berth.

K.O.C. are in the process of installing a new metering system for Exports.

Slops: A 6 in. slop-line is available on all berths on North and South Piers for reception of slops. For first 3 hours use of this facility is free, for each additional hour or part thereof, a charge is made. Reception of slops is necessarily slow and a vessel may be considerably delayed in having to pump slops ashore. Vessels are therefore expected to arrive with clean ballast and Masters are asked to certify that all tanks and lines have been thoroughly washed unless "load on top" techniques are being operated.

FUEL: Heavy, light and diesel fuel can be supplied on all berths except the Sea Island, where only heavy fuel is available. There are no bunkering facilities on the Bitumen Pier.

	API	*Viscosity*	*Sulphur content*
Heavy Fuel	15.2–15.8	2,900–3,400	4.0 or less
Light Fuel	19.0–20.0	600	3.5 or less
Diesel Fuel	35.5–36.5	36	1.5 or less

LUBRICATING OILS: The stock of marine products of BP, Shell and Gulf Oil are maintained at Mina Al-Ahmadi and requests indicating the quantities are to be made in advance. All drums are to be handled during deballasting or before loading. Vessels will not be allowed to load more than 9 drums after loading unless under special circumstances and depending on shipping congestion. No bulk luboil delivery service available in Kuwait.

MEDICAL: Patients will normally be treated at State Quarantine Clinic, where doctors are on duty between 0800 – 1200 hrs. and 1500 – 2000 hrs. daily. In emergencies doctors are available any time. Patients requiring hospital treatment will be transported by Agents to either KOC hospital in Ahmadi or to State hospital in Kuwait. Dental treatment can be arranged by Agents.

FRESH WATER: Fresh water is not available at Mina Al-Ahmadi. Vessels should contact their Agents for supply from alternative sources, such as Shuwaikh Anchorage, Shuaiba Port, etc.

STORING: Vessels can only be stored by barge at the anchorage. When storing alongside at the berth, trucks can only proceed to the head of the jetty. From this point hand carts are used to the berth. No fork lifts can be used on the jetty. The labour force is supplied by the Ship Chandler who also deals with the Customs Regulations.

DEEP WATER DEPARTURE CHANNEL: A comprehensive survey was carried out to determine the route of the Departure Channel for the larger and deep draft vessels leaving the port of Mina Al-Ahmadi in a loaded condition. This channel is some 28 miles in length; it extends from the Sea Island Terminal to Madira Reef and is marked by 21 light buoys and 2 light beacons, one established on Taylor Rock and the other on Madira Reef. In addition to the above aids, Madira Reef Light Vessel has been re-positioned further to the East and renamed Ahmadi to act as a fairway mark. Water depth in the departure channel is from 91 ft. to 100 ft. and above. Two shallow patches, one is about 9 miles from Sea Island with a minimum 91 ft. and the second is 14 miles from Sea Island with 92 ft. minimum water. Vessels which by reason of their draft are confined to this deep water channel and consequently hampered in their freedom to manoeuvre, will exhibit the following signals:

(i) *By day.* A black cylinder 4 ft. long by 2 ft. in diameter exhibited where it can best be seen.

(ii) *By night.* Four red lights vertically disposed spaced 3 ft. apart with an all round visibility of 4 miles exhibited where they can best be seen.

The exhibition of these signals in no way absolves any vessel from taking all appropriate action to avoid collision as required by the International Rules and Regulations for Preventing Collisions at Sea, but if a deep draft vessel is in doubt that an approaching vessel is not giving her sufficient room to manoeuvre she should indicate such doubt by giving at least 5 short and rapid blasts on her whistle.

Vessels having less draft should, when able to do so, give way to vessels exhibiting and sounding these signals and indicate this intention by giving 1 short blast followed immediately by 1 long blast on the whistle. Normal sound signals for vessels in sight of another should then follow.

Anchoring and fishing are forbidden within the deep water Departure Channel.

The Departure Channel is marked by the following buoys and beacons conforming to the I.A.L.A. "A" system:

Number/ Letter	*Shape & Colour*	*Position*		*Character*	*Port/Starboard/ Special/Cardinal*
		N. Lat.	*E. Long*		
1	Conical G.	28° 57′ 33″	48° 46′ 18″	Qk. Fl. G	Starboard
2	Can R.	28° 56′ 23″	48° 46′ 04″	Int. Qk. Fl. R	Port
3	Pillar Y.B.	28° 57′ 23″	48° 41′ 52″	V. Qk. Fl.(6) + L. Fl. W. 10 secs.	S. Cardinal
4	Can R.	28° 56′ 41″	48° 41′ 12″	Fl. R. 10 secs.	Port
5	Conical G.	28° 58′ 23″	48° 39′ 00″	Fl. G. 5 secs.	Starboard
6	Can R.	28° 57′ 38″	48° 37′ 49″	Fl. R. 5 secs.	Port
7	Conical G.	29° 00′ 54″	48° 32′ 59″	Fl. G. 10 secs.	Starboard
8	Can R.	29° 00′ 09″	48° 32′ 31″	Fl. R. 10 secs.	Port
9	Conical G.	29° 00′ 38″	48° 31′ 07″	Fl. G. 5 secs.	Starboard
10	Pillar B.Y.	29° 00′ 27″	48° 31′ 53″	V. Qk. Fl. W	N. Cardinal
11	Conical G.	29° 01′ 20″	48° 28′ 52″	Fl. G. 10 secs.	Starboard
12	Can R.	29° 00′ 22″	48° 31′ 27″	Fl. R. 5 secs.	Port
13	Pillar Y.B.	29° 02′ 18″	48° 25′ 34″	V. Qk. Fl. (6) + L. Fl. W. 10 secs.	S. Cardinal
14	Can R.	29° 00′ 13″	48° 30′ 51″	Gp. Fl. (3) R. 10 secs.	Port
15	Pillar Y.B.Y	29° 05′ 27″	48° 21′ 25″	V. Qk. Fl. (9) W. 10 secs.	W. Cardinal
16	Can R.	29° 01′ 40″	48° 26′ 38″	Int. Qk. Fl. R.	Port
18	Can R.	29° 01′ 46″	48° 25′ 44″	Fl. R. 5 secs.	Port
20	Can R.	29° 01′ 53″	48° 24′ 50″	Gp. Fl. (3) R. 10 secs.	Port
22	Can R.	29° 03′ 18″	48° 22′ 53″	Fl. R. 5 secs.	Port
24	Can R.	29° 05′ 05″	48° 20′ 26″	Fl. R. 15 secs.	Port
A	Spherical Y.	29° 05′ 38″	48° 11′ 30″	Qk. Fl. Y.	Special
B	Spherical Y.	29° 05′ 59″	48° 13′ 15″	Qk. Fl. Y.	Special
C	Spherical Y.	29° 06′ 21″	48° 15′ 00″	Qk. Fl. Y.	Special
Taylor Rock	Beacon	29° 01′ 20″	48° 34′ 33″	Int. Qk. Fl. W.	—
Madira Reef	Beacon	28° 56′ 03″	48° 46′ 22″	Fl. R. 5 secs.	—
Ahmadi	Light Vessel	28° 56′ 00″	48° 53′ 00″	Fl. W. 12 secs.	—
A1	—	29° 07′ 00″	48° 09′ 18″	Qk. Fl. Y.	Special
B1	—	29° 06′ 06″	48° 09′ 18″	Qk. Fl. Y.	Special
C1	—	29° 05′ 06″	48° 09′ 18″	Qk. Fl. Y.	Special

Buoys A1, B1 and C1 mark the submarine pipeline from shore to North Pier Terminal (See "Plan").

CUSTOMS: Customs Officials will board vessels to inspect log books to ascertain violation of Israeli Boycott Rules and seal the liquor bond during stay in berth. An accurate list of alcoholic drinks in *Bonded Store* only is to be presented to the officials sealing the bond and the seal is not to be broken until vessel leaves the port.

(i) Personal effects mainly required for personal use and not for resale or purpose of commercial gain are allowed free of duty. However, all other goods are subject to a 4% ad valorem duty (CIF value). Suppliers' invoices and Certificate of Origin are required for clearance.

(ii) Importation and the sale of alcoholic beverages is strictly prohibited.

(iii) All goods for landing from tankers must be declared to boarding Customs Officer and necessary documentation completed.

(iv) Israeli goods, goods made by companies having interest or branches in Israel, Israeli vessels and vessels trading with Israel are boycotted and not allowed entry into Kuwait.

IMMIGRATION:

(i) Nationals of all friendly countries normally allowed to land. Israelis forbidden entry into Kuwait.

(ii) Transit visas should be obtained from Kuwait Embassies and Consulates abroad. However, in emergencies entry visas can be arranged at airport.

(iii) Transit passengers having valid connecting airline ticket to next port are allowed to land without visas up to 24 hours, extendable to 48 hours if required.

(iv) Seamen of all friendly countries normally allowed to land in transit to join vessels, without visas but on Agents guarantee. Advance information regarding names, nationalities, age, sex, etc. is required by Agents in order to facilitate reception and immigration clearance.

N.B. Thursdays and Fridays are Company holidays.

(v) Seamen allowed to land for hospitalisation, repatriation, transfer, etc., on a written undertaking that all expenses are met by Agents on behalf of Owners.

(vi) Passports must be valid for Kuwait for citizens of all countries. Stateless persons are required to have a visa before arrival in Kuwait.

Also see "Visa Regulations" in "General" before first port.

CONSULS: Most friendly countries maintain Embassies or Consulates in Kuwait Town.

TIME: Kuwait State bases local time on the 45th meridian (GMT plus 3 hours). This time is in force the whole year.

SERVICES: To avoid delay all vessels advised to cable Agent of all their requirements in advance, giving full details.

Repairs.

(a) Ship Repair: All running repairs are undertaken through local contractors.

(b) Radar/Radio and Electronic Equipment: Maintenance service of this equipment is available through KOTC whose engineers/technicians are available for service on request.

Supplies: Supply of chemicals, paints, spare parts and provisions are available through local Agents.

Laundry: Laundry service is available on advance notice.

Oil Inspection: An independent oil inspection service is maintained at Mina Al-Ahmadi by the following: E. W. Saybolt & Co., B. & R. Redwood Ltd., and Chas. Martin.

Seamens' Services Centre: Situated at South Pier. Provides recreational facilities for all visiting seamen. Personnel mail service, beverages, snooker, toiletries, souvenirs and Walport Film Exchange service available. Open 0800 hrs– 2000 hrs. daily.

Classification Societies: Lloyd's Register of Shipping has a Resident Surveyor in Kuwait and maintains an office with Kuwait Maritime & Mercantile Co., who attend marine and non-marine work. Other societies have non-exclusive surveyors and their services can be obtained through KOTC.

Divers: Divers' services are available, including underwater hull cleaning service, through KOTC.

SHORE LEAVE: Ship's personnel and passengers not permitted ashore for any purpose whatsoever until pratique granted. All shore leave is contingent upon compliance with quarantine regulations and, under limited conditions and hours, shore leave may be granted. Masters should consult Agents to obtain the necessary passes.

REGULATIONS:

(a) Local Laws: The laws of Kuwait are in force at the Port of Mina Al-Ahmadi. Masters and crew members are advised for their own protection to abide by them. Comprehensive regulations governing the use of the port are promulgated in Law No. 21 of 1961. Masters of visiting vessels should acquaint themselves with this law.

(b) Pollution: The State of Kuwait has stringent laws in force concerning the pollution of the sea by oil. For information, the following are two paragraphs of this law:

Para 1, Art. 4: "A person responsible for any pollution as described in Articles 1 and 2 shall be punished by a fine of not less than 1,500 and not more than 40,000 Kuwaiti Dinars. In the event of his committing a similar crime within a period of one year from the date of his conviction such a person shall be fined not less than 3,000 and not more than 40,000 Kuwaiti Dinars, and in the event of his committing yet another crime within a year from the date of this last conviction he shall be punished by a fine of not less than 6,000 but not exceeding 40,000 Kuwaiti Dinars.

Para 3, Art. 6: The person responsible for pollution may suspend detention order against the ship on payment, as a cash guarantee, of 40,000 Kuwaiti Dinars to the official entrusted with the execution of such order".

(c) Certificates: All vessels must comply with International Safety Regulations and ensure that ship's certificates, i.e. Safety Radio, Safety Equipment and Load Line are valid. Facilities are available for renewal or extension providing proper notice is given. At least 48 hours should be allowed *excluding* Thursdays, Fridays or other local holidays.

(d) Load Line Regulations are strictly enforced, vessels overloaded will not be allowed to sail and subject to lengthy delay awaiting suitable facilities for pumping ashore. No facilities for pumping cargo ashore from Sea Island and S.P.M. are available.

(e) A Cargo Discharge Certificate for cargo loaded from Kuwait each voyage is to be presented to the Customs and Ports in Kuwait through the Agents within 4 months from sailing and these certificates are to be signed and stamped by local Customs officials and authenticated by an Arab Embassy or Consulate in the country of discharge.

PORT TAX: Introduced by the State of Kuwait at the rate of 45.25 fils (KD. 0.4525) calculated on ship's g.r.t. and outward clearance is subject to payment of their dues before departure.

Declaration of g.r.t. and n.r.t. details essential to avoid overcharge.

AUTHORITY: Kuwait Oil Company (K.S.C.), P.O.Box 9758, Ahmadi-61008, Kuwait. *Tel:* Kuwait 3261558, 3262268. *Telex:* 44233 KT, 44293 KT. *Cables:* Kuoco Kuwait. *Contact:* Captain A. M. Salem, General Superintendent, Marine and Export Operations Department.

AGENT: For all tankers loading/discharging or sundry errands on a sole agency basis. Address: Kuwait Oil Tanker S.A.K. (Agency Branch), P.O. Box Fahaheel No. 7055, Kuwait. Telex: 4201, 4202. A/B Minatank Kwt. Tel. 911753/5; 911758/9; 911811. Cables: "Minatank Kuwait".

KOTC Agency is also connected with direct short range telephone VHF system and continuous watch is maintained on Channel 16. Working channels are and can be reached by calling "Minatank". Channel 16, calling only. Channel 26, Agency Working. Channel 27, Agency Working.

MINA SAUD (Mina Al Zoor): 28.45 N. 48.24 E.

(See Plan)

OPERATORS: Mina Saud Marine Terminal operated by Getty Oil Company, a subsidiary of Texaco. (hereinafter referred to as the Company). Weather and other circumstances permitting, ships will be loaded, moored and unmoored at all hours of the day, 7 days a week. Company representatives available at all times to discuss with Master any problems affecting vessel turnaround.

LOCATION: Mina Saud located just South of Ras Az Zaur approximately 23 miles 244° from Madira Light Vessel. Terminal connected to field and production centre at Wafra, 31 miles to N.W., by 16 in., and 10 in. oil pipe-lines, and 8 in. gas line.

The most conspicuous object at the terminal is the refinery flare, in position Lat. 28° 44′ 13″ N., Long. 48° 23′ 19″ E. Other objects conspicuous to the navigator are: Ras Al Zour Beacon: Lat. 28° 44′ 48″ N., Long. 48° 24′ 16″ E. A 35 ft. high frame exhibiting 1 flash every 5 secs.

A conspicuous power station/desalination plant close South of the terminal with two chimneys 192 m. high in position Lat. 28° 42′ 21″ N., Long. 48° 22′ 30″ E.

FLAG: All vessels required to fly Kuwait flag at foremast during daylight hours. Flags may be obtained from Agents.

APPROACHES: Vessels on passage direct to Mina Saud up Gulf should pass about 1 mile South of Madira Reef Light Vessel, thence make good a course of 242° to an anchorage off Mina Saud in 17 m.

DOCUMENTS:

Ship's Manifest.
Bill of Health.
Crew List.
Clearance from Last Port.
Passengers Manifest, if any.
Store List.
Bonded Store List.

Agents are responsible for presentation of Oil Discharging Certificate to Customs Authorities as guaranteed by them. All cargo discharge certificates duly attested by Arab Consulate to be sent to the Agents directly.

Cargo documentation carried out by Terminal. Masters will greatly assist Terminal Staff by prompt provision of ship's tank ullages on completion of loading. Normal practice is for Master to sign blank documents during loading in order to save time on departure. (Should the Master desire, he may protect Owners interest by issuing a protest letter at time of signing blank documents. This letter can be rescinded if document figures are acceptable.)

PILOTAGE: Vessels boarded by Mooring Master either on approach or at anchorage. Mooring Masters are Licensed Masters Foreign Going. They act in an advisory capacity to Master and have expert knowledge of local conditions.

Mooring Master will pilot the vessel into the berth, supervise the mooring and unmooring, and advise Master with respect to the connecting and disconnecting submarine hose. A ship's deck officer must be on the bridge at all times while ship is manoeuvring, and deck officer must direct ship's crew in all hose handling. During loading operations Mooring Master will act as Company's representative. A shore crew of 5 persons handle ropes to and from buoys during berthing and unberthing.

The same crew connect/disconnect hoses and remain on board throughout loading.

ANCHORAGES: Centre of the recommended anchorage area is in position 090° from Flare 4.3 miles, which has good holding ground with mud and sand bottom.

Prohibited anchorage area defined as follows: beginning at refinery flare 060° 3.5 miles thence 180° 1.75 miles thence 270° 3.0 miles to refinery flare.

MAX. SIZE:

Guidance for Maximum Dimensions:

	Berth No. 1	*Berth No. 2*
LOA	800 ft.	1200 ft.††
Beam	No limit	No limit
Max. Sailing Draft	41 ft.	52 ft. (56 ft.*)
Max. d.w.t. (for full cargo) approx.	50,000†	approx. 140,000†
Min. depth in berth	43.6 ft.	55.8 ft. (48.5 ft. on inshore bar)
Min. depth on exit route	43.6 ft.	53.8 ft.

*Tidal loading to 56 ft. allowed in suitable conditions.

†Larger vessels (up to 370,000 d.w.t.) are allowed for part cargo or bunkers providing other parameters are satisfied.

††Limiting parameter is maximum distance stern to manifold of 600 ft.

HEALTH: Vessels calling at Mina Saud are requested to include the following information.

1. Name of vessel.
2. Last port of call.
3. Health condition of crew.
4. Validity of Cholera Certificates.
5. Request for Free Pratique or details or any cases or suspected cases of infectious diseases during the last four weeks.

Free Pratique will be considered at the discretion of the Quarantine Officer and vessel must hoist the yellow flag unless informed by Agent or Harbour Control that Free Pratique has been granted.

RADIO/VHF: *Communications:* Messages should either be telexed direct (Telex: 23074 Kt, Fax: 3950126) or by cable via Kuwait Radio (call sign 9KK on 500 kHz) for onward transmission to Gettymar Mina Al Zour (Mina Saud).

Kuwait Radio transmits traffic lists on 450 kHz at 25 minutes past every even hour and on 8525 kHz and 12895 kHz at 35 minutes past every odd hour.

VHF Service maintained by Mina Saud Marine. Listening on Channel 16 (156.8 MHz). Operating hours: Continuous 24 hours a day, 7 days per week.

Masters are requested to advise ETA 72 hours before arrival Mina Saud, and to confirm this when 48 hours and 24 hours distant from the Port.

It will assist if the following information is passed to "Gettymar Mina Saud" before vessel's arrival.

Bunker fuel requirements in metric tons or U.S. bbls. at 60° F.
Cargo requirements in long tons or U.S. bbls. at 60° F.
Confirmation that only clean ballast is to be discharged and expected deballasting time.
Confirmation that ballast and pipe-lines are clean, 2 ropes or wires and both anchors forward and 9 synthetic ropes or wires available aft.
Arrival draft fore and aft, expected sailing draft fore and aft.

When berthed at Mina Saud contact with the shore is maintained by VHF R/T portable units supplied by the Company.

TUGS: Two tugs are available to assist berthing and unberthing, also to stand-by for emergencies while vessels are in berth.

Tug charges of 150 KD. per tug, per hour or part thereof based upon hours of actual usage when made fast or standing by ready to assist the vessel e.g. during berthing/unberthing operations. (whilst vessel is in the berth and throughout deballasting/loading operations. Additional tug charges will be levied if called to assist, e.g. tug(s) called to assist vessel to remain in berth in the event of bad weather or for any other reasons concerning safety).

READINESS: Notice of Readiness will be received by Company within terms of Charter Party or Contract when known, otherwise during ordinary business hours, which shall be between 0700 hrs. and 1800 hrs. local time except on Fridays and Public Holidays.

Laytime to commence 6 hours after time of acceptance or upon commencement of loading, whichever occurs first, except that when Notice of Readiness received before 1600 hrs. local time the 6 hours shall be continuous, but if received after 1600 hrs. then such 6 hours shall be daylight hours, daylight hours for such purpose being between 0600 and 1800 hrs. local time.

If after giving Notice of Readiness, vessel is delayed in getting into berth or in loading, such delay shall not count as used laytime unless delay shall be due to default of Company. On completion of loading, laytime shall cease upon disconnecting cargo hoses.

Should Company Mooring Master be handed a Notice of Readiness out of business hours and before commencement of loading he will note it as "Received" at that time, for acceptance by the Company at earliest recommencement of business hours, or at time of commencement of loading, whichever shall be first.

If Notice of Readiness given after latest accepted nominated lifting date, laytime shall not commence before commencement of loading.

BALLAST: Vessels must have enough clean ballast to permit safe manoeuvring under any conditions. All vessels, particularly VLCCs must retain ballast during early stages of loading and discharge ballast as necessary during latter stages of loading.

Mooring Master will advise when ballast discharge may commence. Inspection of ship's tanks for suitability to receive cargo carried out by Mooring Master or by qualified petroleum inspectors if required.

GEAR: For handling 2×10 in. strings of hoses ship's derrick should have a minimum safe working load of at least 5 tons. Outreach overside should be at least 5 ft.

2 lengths of 1 in. diameter good quality rope each of 20 fathoms in length should be available for use as slip ropes for flexible hoses.

Reducers should be available for connection of hoses to ship's manifold and to ship's bunker line connection.

Company provides snub lines of manila and wire rope for hanging off hoses.

In the event that ship's derrick gear is inadequate for loads required, a work barge can be made available. Charge for this barge, including positioning and personnel, is equivalent of 250 U.S. Dollars per hour (approx.).

BERTHING: There are 2 loading berths, each conventional multi-buoy moorings which are connected by a 20 in. submarine line for fuel or crude and a 12 in. submarine line for naphtha. Each berth has a 10 in. hose for fuel or crude and a 10 in. hose for naphtha.

Vessels taking bunkers will use fuel cargo hose before or after loading cargo. Manifolds should be prepared with 10 in. 150 ASA standard connections.

The outer berth, 073° – 2.6 miles from refinery flare, is equipped to take vessels of up to approx. 140,000 d.w.t. for full cargo. Larger vessels can be accommodated for bunkering only or part cargo. Max. draft allowed is 52 ft. In exceptional circumstances tidal loading to 56 ft. is allowed. See Appendix below.

Appendix A. Mina Saud Tidal Loading Procedure, December 1975: Assuming 1,000 ft. ship has berthed. Starboard anchor between 150 ft. and 300 ft. South of starboard anchor marker and one ship's length (1,000 ft.) inside, (Course made good 270°T). Starboard anchor ranged along bottom and port anchor let go when 11 – 12 shackles out on starboard. i.e. 1,000 ft. West of starboard (allowing for slack). Vessel would be in berth with between 8 – 10 shackles on each anchor.

When letting go at HW with ebb tide and heaving port anchor. Vessel should manage to remain in at least 16.4 m. charted depth, heading about 340°T with stern in line with, or to seaward, of manifold marker buoy.

Every effort should be made to pick up port anchor without slacking too much on starboard anchor. Ideally, last shot of port cable is dragged home whilst starboard cable is fairly tight, so that when port anchor is aweigh vessel swings to starboard and presents her port side to the ebb, thus regaining a mid berth position. (Sometimes necessary to put engines ahead in order to clear manifold marker hose buoys).

Pilot should endeavour to have vessel heading North when starboard anchor is aweigh. Vessel should then steam North or slightly West of North in order to maintain a distance of approx. 1,000 ft. from starboard anchor marker buoy. Vessel should start turn to starboard (bearing in mind ebb tide) when abeam of starboard anchor marker buoy, and endeavour to turn on radius of about 1,000 ft. with starboard anchor marker buoy at centre. A course of 066°T should be made good until deep water is reached. If this procedure is followed, the minimum depth should be not less than 16.4 m. (chart datum).

Note: 16.4 m. exists in berth and on exit channel. Close attention must be paid to vessel's position, as depths of less than 16 m. are in close proximity to exit channel.

Vessel should finish loading cargo or bunkers at least 3 hours before HW thus ensuring maximum height of tide for bottom clearance plus ebbing tide for easier control. (Ebb tide usually commences 2 hours before HW). See "Tides".

16.4 m. must be reckoned governing depth.

Calculate thus: 16.4 + height of tide then subtract 1 m. Result will be max. allowable draft (only if weather conditions are ideal).

eg.

16.4 m.
+ 1.8 m. height of tide

18.2 m.
– 1.0 m. clearance

17.2 m. allowable draft (56 ft. 5 in.)

It must be borne in mind that mentioned clearances are the absolute minimum that can be tolerated in ideal conditions.

Seismic survey indicates feasibility of dredging or burying pipe-lines should it ever be necessary and also indicates good anchor holding power potential throughout area. *End of appendix.*

The inner berth, 073° – 2.0 miles from refinery flare, has a minimum depth of 44 ft. at LLW and can accommodate vessels up to 800 ft. in length. Max. draft allowed is 41 ft.

MOORING: *(a)* Port is an open roadstead and ships must be prepared to use main engines, unmoor and leave at any time.

(b) Mooring and unmooring carried out during day or night, as required. Except mooring at Berth No. 1, during daylight only.

(c) Vessels moored to ebb tide stream at both inner and outer berths.

Resilience in mooring achieved by weight of clump anchor and catenary of chain cable. Remotely operated quick release hooks connect ship's ropes to the buoy. (At outer berth (No. 2) only.)

(d) Both port and starboard anchors should be lowered clear of hawse pipes and ready for instant letting-go from brakes.

Spar buoys established to mark starboard and port anchor dropping positions.

(e) 9 good quality synthetic ropes (or wires for VLCCs) should be flaked ready for running from the stern. After anchoring, as vessel proceeds astern in berth, quarter lines are run by Company launch and secured to quick release hooks on quarter buoys. 2 Lines are then run to No. 5 buoy on the Port Bow (Berth No. 2 only).

(f) When securely moored in correct position for handling hoses, each anchor should have about 8 shackles out and it is advisable that tankers using these submarine berths be provided with not less than 10×15 fathom lengths of cable on each anchor.

(g) Masters are requested to ensure that power to deck machinery and sufficient seamen to operate it are immediately available at all times when in berth.

LOADING: Submarine line marked by permanent red coloured buoy at each berth, and marker buoys fitted to all hoses.

Recovery of flexible hoses is by fleeting with ship's tackle making use of beckets fitted to recovery chain.

"Ship's Stop" is invariable rule except in an emergency. Ship must give reasonable stand-by time to Mooring Master, 15 to 20 minutes, to alert Terminal staff on shore for closing valves.

Loading rate at present averages 1,500 t.p.h. (Max. 2,000 t.p.h.)

MEDICAL: In emergency only. For normal cases, Agent arranges visit to Port Health Doctor.

FRESH WATER: Not available.

FUEL: Bunker fuel (Max. 1500 secs Redwood No. 1 equivalent to 180 Cst.) at loading berths through 12 in. submarine line with single 10 in. flexible hose, at Berth No. 1, and 10 in. hose at Berth No. 2.

FIRE PRECAUTIONS: Masters are responsible for enforcing "No Smoking" regulations for their vessels and Mooring Master will stop loading if he considers them to be inadequate or if they are not being obeyed. Smoking in Company craft in the berths is forbidden.

CUSTOMS: Alcoholic beverages strictly prohibited to be held out of bond. Master allowed to keep limited quantity in his cabin.

It is important to remind Owners and Masters that all goods, either landed or embarked, must be cleared by Agent through local Kuwait Government Customs.

Import of firearms and ammunition forbidden.

CONSULS: See "Kuwait."

REPAIRS: Repair facilities are available. Fully qualified divers are available from Terminal. Underwater cutting gear, welding equipment and a full range of underwater tools are available.

Services of divers and equipment are available at rates to be arranged for the job and agreed by Superintendent of Marine and Terminal Operations, Mina Saud.

Repairs to main engines must not be carried out in the berth without permission of Superintendent of Marine and Terminal Operations. Normally vessels requiring to immobilise engines will be anchored well clear of other ships.

REPATRIATION: Crew changes normally effected through Kuwait.

Also see "Visa Regulations" in "General" before first port.

TIME: GMT plus 3 hours. Permanent.

WEATHER: In Summer months of June, July and August light to moderate Northerly and North-westerly winds are general rule at Mina Saud. Occasional strong N.W. winds of Gale force. Strength and duration governed by strength of S.W. monsoon blowing outside the Gulf.

During Autumn and early Winter months fine weather is generally experienced associated with moderate N.E. monsoon prevailing outside the Gulf. Occasional 'Shamals' (N.W. winds) occur.

In late Winter period and Spring, strong S.E. winds with moderately heavy seas frequently experienced at Mina Saud. These are due to approach of low pressure systems from Atlantic and Mediterranean Sea spreading Eastwards across Levant and Iraq. Extremely violent local storms sometimes occur without warning especially at change of seasons. These disturbances sometimes attain hurricane force and are accompanied by erratic changes in wind direction and poor visibility due to suspended sand.

TIDES: Tide cycle is combination of diurnal and semi-diurnal tides giving a Higher High, Lower High, Higher Low and Lower Low Waters during a 24 hour period. Range of tide is average 7.5 ft. at Springs and 5 ft. at Neaps.

Commencement of ebb stream (direction 190°) after HW may be taken as 2 hours before predicted time of HW at Mina Saud published in Admiralty Tide Tables.

Main direction of flood and ebb streams are 010° and 190° respectively. Direction is extremely variable between LHW and HLW period. Average direction during this period about 045°.

Tide heights are affected by meteorological conditions and could vary by more than 3 ft. from predicted heights in extreme circumstances. Times of high and low water may also be considerably affected.

The Mooring Masters have access to information from the Marine Meteorological Station at Mina Saud.

STORES: Provisions and stores are available from Kuwait. Requirements should be arranged with Agents through Kuwait Radio prior to arrival at Mina Saud.

SHORE LEAVE: Can be arranged through Agent.

AUTHORITY: Getty Oil Company, P.O.Box 1, Mina Al Zour (Mina Saud), Zone Code 66051, Kuwait. *Tel:* 3950444 (ext. 339) or 3950221 or 3950096. *Telex:* 23074 Kt. *FAX:* 3950126. *Cables:* Gettymar. *Contact:* Captain P. W. Hodges, Marine Superintendent.

AGENT: See "Shuwaikh".

SHUAIBA: 29.03 N. 48.09 E. (See Plan)

PORT LIMITS: From a point on the coastline in position:

a) 29° 03′ 09.7″ N., 48° 09′ 04.6″ E. in direction 090° to
b) 29° 03′ 09.7″ N., 48° 09′ 27.58″ E. thence 116° to
c) 29° 02′ 45″ N., 48° 10′ 24.6″ E. thence 090° to
d) 29° 02′ 45″ N., 48° 15′ 09″ E. thence 180° to
e) 29° 02′ 00″ N., 48° 15′ 09″ E. thence 270° to
f) 29° 02′ 00″ N., 48° 10′ 16.8″ E. thence 180° to
g) 29° 01′ 15″ N., 48° 10′ 16.8″ E. thence 270° to a point on the coastline at
h) 29° 01′ 15″ N., 48° 09′ 29.4″ E.

The above limits are shown on Admiralty Chart No. 1223, and the coordinates of the first two points are amended according to last agreement with KOC in May 1983.

Ships whilst in port limits during daylight hours shall fly their national flag at the after part of the ship and where a ship is of foreign registry also the Kuwait National Flag at the fore.

DOCUMENTS:

Manifest: 15 copies which should clearly indicate weights in metric tons and measurements in cubic metres and each copy should be duly signed and stamped by the loading port Agent.

The copies of the manifest may be photostat copies or carbon copies but it is imperative that the stamp and signature made by the loading port Agent is appearing in original on each copy.

If cargo is carried in-transit a separate Transit Cargo Manifest (15 copies) is also required in same fashion as above.

Bills of Lading: 5 sets of non-negotiable copies Bills of Lading, i.e. ordinary carbon copies of Bills of Lading. Photostat copies will not be accepted.

In addition the following documents are to be provided:

4 copies of Final Stowage Plan, duly signed and stamped on each copy by the loading port Agent. Photostat copies are accepted as long as same are signed and stamped.

4 copies of Hatch List as above.

If dangerous cargo is being carried 2 copies of a separate Dangerous Cargo List are also required and again each copy to be duly signed and stamped by the loading port Agent.

Also 2 copies of Crew List to be presented to Customs Office.

N.B. Since all cargo for discharging at Port of Shuaiba has to go on direct delivery, and Customs clearance has to be completed prior to berthing of a vessel, it is therefore imperative that all documents, as above, are in Agent's hands for submission to relative authorities at least 7 working days prior to vessel's ETA, otherwise berthing of vessel is likely to be delayed.

PILOTAGE: Pilotage is compulsory and requests for Pilots may be made to Shuaiba Port Communications Centre (call sign "Shuaiba Port"). The Port Communications Centre is equipped with VHF Channels 16, 9 and 13.

ANCHORAGES: Ships bound for Shuaiba Port, with cargo to load or discharge, or intending to use facilities supplied by the port such as bunkering, will be permitted to use Shuaiba Port Anchorage between Lat. 29° 02.75′ N. and Lat. 29° 02.00′ N. and between Long. 48° 15.11′ E. and Long. 48° 12.72′ E. Ships are not permitted to anchor to the West of Long. 48° 12.72′ E.

All other ships not falling in the categories listed in the first paragraph, such as vessels waiting for orders or which have not been nominated for bunkers, are not permitted to anchor in the Shuaiba Port Anchorage and must anchor well to the East of Long. 48° 15.11′ E.

RESTRICTIONS: Vessels over 650 ft. berth/unberth during daylight hours only.

MAX. SIZE:

Dry Cargo Berth	*Max. Draft Permitted* (m.)	*Max. Ship LOA* (m.)
1	9.0	120
2	10.5	160
3	9.5	200
4	7.0	175
5	6.5	210
6	9.5	257
7	10.5	200
8	10.0	200
9	11.5	200
10	11.5	200
11	12.5	200
12	12.5	200
13	12.5	200
14	12.5	232
15	12.5	240
16	12.5	210
17	12.0	200
18	12.5	230
19	13.0	190
20	13.0	190

The seaward side Berths No. 4, 5, 6, 7 and 8 are occasionally affected by bad weather.

Agents of vessels with dimensions in excess of the above must make due representation to the Port Department for permission for these vessels to be accepted and ample notice is necessary when submitting such requests.

HEALTH: Vessels calling at Shuaiba are requested to send the following information to "Health Shuaiba Port".

(1) Name of vessel.
(2) Last port of call.
(3) Health condition of crew.
(4) Validity of Cholera Certificates.
(5) Request for Free Pratique.

Free Pratique will be considered at the discretion of the Quarantine Officer, and vessels must hoist the yellow flag unless they are informed by Shuaiba Port Communications Centre that Free Pratique has been granted.

RADIO: Vessels calling at Shuaiba Port are required to submit an initial ETA 72 hours and 36 hours prior to arrival followed by a firm ETA 12 hours before arrival. ETAs should be passed through Kuwait Radio (9KK) either to the ship's Agent or to the Harbour Master, Shuaiba.

In the case of tankers, cable advice of ETAs via Kuwait Radio (9KK) must be submitted to Kuwait Oil Tanker Company (KOTC) giving 72, 48 and 24 hours' notice of arrival.

Vessels equipped with VHF should contact Shuaiba Port Communications Centre when within range.

ETAs should contain details of arrival draft.

TUGS: Tugs of 4,200 h.p. are available. The use of tugs is compulsory.

BERTHING:

Southern Quay Mole: Berths No. 1 to 5.

The Western side of the mole consists of three berths, Nos. 1, 2 and 3, with a total berthage of 500 m., whilst the Eastern side consists of two berths, Nos. 4 and 5 with total berthage of 350 m.

There are 2 storage sheds but all cargo is direct delivery.

An overhead conveyor belt system exists at Berths No. 1 and 2.

Northern Quay Mole: Berths No. 6 to 20.

Berths No. 6, 7 and 8, which are on the seaward side of the breakwater, have a max. allowable draft of 9.5 m.-10.5 m. (See "Max. Size") and are restricted to good weather. Berths No. 9 to 14 have a max. allowable draft of 11.5 m.-12.5 m. Berths No. 15-20 have a max. allowable draft of 12.0 m.-13.0 m. Berths No. 12 to 14, equipped with 4 quayside cranes with max. capacity of 15 tons.

Total berthage of the Northern Quay Mole is 3,220 m.

Petroleum Products Pier: Located to the East of the Southern Quay Mole and consisting of 4 berths for the accommodation of tankers. Berths No. 1 and 3 comprise the Eastern Berths whilst Berths No. 2 and 4 are located on the Western side.

Berth No. 1	Length 350 m.,	draft 13.71 m.
Berth No. 2	Length 369 m.,	draft 12.19 m.
Berth No. 3	Length 369 m.,	draft 13.71 m.
Berth No. 4	Length 331 m.,	draft 12.12 m.

The above lengths are inclusive of mooring dolphins positioned Northward and Southward of the pier. Because of draft restrictions at Berths No. 2 and 4, tankers in excess of 230 m. in length will be subjected to the Port Authority's acceptance. Each berth is supplied with 2×20 in. fuel lines and 5×16 in. supply lines for naphtha, avtur and gas oil. All lines reduce to 12 in. at the loading arms. Additionally at Berth No. 2 there are lines for discharging lubricating oil and for loading liquid ammonia (See "Shipmaster's Report"). An 8 in. line for slops is available. Each berth at the Petroleum Products Pier is equipped to provide bunkers by means of 2×20 in. lines for fuel oil and marine diesel oil whilst light fuel oil is supplied by an 8 in. line.

Barge and Small Craft Harbour: Situated S.W. of the Southern Quay Mole. The Small Craft Harbour comprising 3 berths accommodating vessels of less than 4 m. draft.

Berth No. 1	Length 100 m.
Berth No. 2	Length 200 m.
Berth No. 3	Length 175 m.

The Barge Harbour which is more spacious than the Small Craft Harbour has a water depth of 5.5 m. and includes the following berths:

Berth No. 1	Length 211 m.
Berth No. 2	Length 157 m.
Berth No. 3	Length 287 m.
Berth No. 4	Length 250 m.

CONTAINER FACILITIES: A multi-user modern container terminal (S.A.C.T.) occupies Berths No. 15, 16, 17 and 18 with a total length of 880 m. and a total storage area of 31 hectares, equipped with 4×41 tonnes gantry cranes, straddle carriers, heavy duty forklifts, tractors and trailers. Both LCL and Reefer service available.

Containers in excess of 40 ft. length cannot be handled at the port.

STEVEDORES: Stevedores shall be nominated by Owner or Agent from a list of stevedores registered by the port for cargo handling operations. A common tariff published by the port applies.

Vessels will be required to maintain a minimum daily tonnage dependent on the type of cargo they are carrying.

Permission for the landing of heavy lifts on the quays must be obtained from the Port Manager each time in advance.

MEDICAL: Advance notice required if medical attendance needed on board.

TANKERS: See "Berthing" and "Shipmaster's Report".

DENSITY: 1025.

FRESH WATER: Available at Berths No. 1, 2, 3, 4 and 5.

FUEL: The Kuwait National Petroleum Co. KSC, Kuwait, supply marine fuel and diesel oil at cargo wharves and Petroleum Products Pier at Shuaiba.

Specifications as under:	*FO 1500*	*FO 600*	*MDO*
Ash % wt. max.	0.5	0.5	0.01
Pour point °C (°F.) max.	10 (50)	2 (50)	2 (35)
Specific Gravity 60/60 °F max.	0.99	–	–
Sulphur % wt. max.	3.8	3.5	1.8

Bunker nominations may be arranged through Kuwait National Petroleum Co. Telex: KNPC 2006 KT, KNPC 2689 KT and KNPC 2457 KT. Tel: Kuwait 449400, 443486, 437427. At least 3 days' notice required.

Bunker fuel, gas oil and marine diesel oil is available at the Petroleum Products Pier and at Berths No. 1, 2, 3, 4 and 5 and by small tankers.

GANGWAY/DECK WATCHMEN: Watch to be maintained by ship's crew.

CERTIFICATES: All usual documents such as:

Ship's Manifest.
Crew List.
Clearance from Last Port.
Passenger Manifest.
Stores List.
Bonded Stores List.
SOLAS Certificates.
Bill of Measurements, etc.

CUSTOMS ALLOWANCES: Tobacco, no restrictions. Wine and/or Spirit, alcoholic beverage strictly prohibited to be held out of bond.

IDENTIFICATION CARDS: Passport or Seamen's Book necessary.

CONSULS: See "Shuwaikh".

REPAIRS: Small repairs can be arranged if sufficient notice is given.

DRY DOCK: No dry dock available.

REPATRIATION: Can be arranged.

Also see "Visa Regulations" in "General" before first port.

TIME: GMT plus 3 hours.

HOLIDAYS: Every Friday, New Year's Day (1st January), Kuwait National Day (25th February).

The following Islamic holidays are celebrated but dates are subject to alteration: Prophet's Birthday, Prophet's Ascension, Eid Al Fitr, Eid Al Adha and 1st Muharram.

TELEPHONES: There are presently no facilities for shipboard telephones but it is programmed to provide telephones for the use of ships in the future.

SPECIAL SERVICES: The services of Classification Society Surveyors, Tank Cleaning Operators, Compass Adjusters, Divers and Underwater Cleaning and D/F Calibration Adjusters are available in the area.

SHORE LEAVE: Permitted.

PORT REGULATIONS: The following are excerpts of some of the more important port regulations:

Fire fighting appliances to be kept in readiness for immediate use.

Pumping or discharging in any way into the sea oil fuel tanks, bilges, dirty ballasts, etc., is prohibited.

Disposal of garbage over the side of the ship into the harbour is prohibited.

The presence of a Pilot on board a vessel shall not relieve the Master of his responsibility regarding the safety of the vessel. The Port Authority shall have the right to claim against a vessel for any damage caused by that vessel to berths, shore installations, tugs, buoys, etc.

The Harbour Master or his deputy may order a vessel to leave the berth at short notice in the case of emergency, bad weather, etc.

Vessels carrying explosives or dangerous cargoes must declare quantities and categories of same when they report their ETA.

Crew members are prohibited from swimming within the harbour.

Lowering into the water of ship's life-boats, launches or life-rafts is prohibited without the written approval of the Harbour Master or his deputy.

Mooring of ship's life-boats, launches or life-rafts to navigational marks and buoys is prohibited.

Due regard shall be given to the safety of divers when they are working within the Port Limits. Engines should be stopped when approaching their working area at a circle of 150 m. The launch attending divers displays the International flag letter "Alfa" during diving operations.

SHIPMASTER'S REPORT: May 1980. Vessel loading ammonia.

Approaches: Charts B.A. 3773 and BAP1223. The complex lies about 1.5 miles South of the port of Mina Al-Ahmadi.

At the time of call the Decca chain was not operating. Approach is fairly straightforward with good positions being obtained by radar and from the various light floats and buoys that abound.

Currents appear to follow the trend of the coastline.

Anchorage: There is no night berthing allowed on the Ammonia Berth. Vessels arriving during the hours of darkness are asked to anchor about 2 miles due East of the berth.

Pilotage: Pilots will board the vessel about 1.5 miles due East of the berth, usually from a tug.

Call Port and Pilots on Channel 16 VHF, usually work 13 or 14 thereafter. Communication was good, fluent English. Vessel has the option of berthing either side alongside and, if not heavily loaded, would suggest starboard side to with the head out.

Two powerful tugs available for berthing, usually only one required for sailing. Tug's lines, lying alongside.

Length of pilotage about one and a half hours to being secured.

Berth: Consists of a "T" jetty, the head of which lies about 340°/160°. The stem of the "T" is 1,000 m. long and the head about 800 m. long.

The Ammonia Berth lies on the Northern side of the "T" and inside.

Quoted depth is 40 ft. which was borne out by soundings. The Pilots however quoted a max. sailing draft of 36 ft.

The Ammonia Berth itself is about 350 m. long. The concrete sections of the jetty are currently undergoing repair and this affected the mooring arrangements. Besides this there are lamp standards which may interfere with lines in the future. Usual mooring arrangements, 3 headlines, 2 breastlines and 2 springs.

Gangway: It is only possible to use ship's gangway when lying starboard side to as it fouls the chicksan area when head in. Careful positioning and tending is required.

There is a group of chicksans which handle oil products about halfway along the jetty and the ammonia chicksans lie just South of these.

No VRL. No venting.

Shore personnel connected the chicksan (bolted) and no reducer was necessary.

Cooldown: Charterers asked us to limit the amount of coolant taken to 300 tonnes.

Petrochemical Industries Company (who operate the berth) would have allowed us to take this coolant into more than one tank had it been possible or necessary. They were very conscious of us having to vent excess pressure (using 'cascade' system for atmospheres) and went to great lengths to ensure no ammonia vapour was discharged to atmosphere.

Control of cargo rate was very good.

Vessel has to anchor at least three miles off berth to complete cooling.

Notice of Readiness: Was tendered on arrival and again on completion of purging/cooling operations. Cable "Ammoniaship". This was not accepted until secured in the loading berth and ready to load.

Loading: Despite the length of pipe-line from the refinery the product was reasonably cold and they have a recirculating system which enables stopping cargo at very little notice.

Berth operators were quite happy with bottom temperatures only at −32°. Loading rate is quoted at 1,000 t.p.h. but our overall average was only 605 t.p.h. at which the operators expressed themselves as satisfied.

Throughout the whole cooling and loading programme the vessel was under continual close scrutiny from shore personnel. The technical ability of these people was very high indeed (although very fair and practical minded). Pressure graphs and temperatures were checked and noted hourly together with hourly rates.

Redwoods attended as surveyors throughout. Bills of Lading are presented before sailing and are usually claused "Freight Prepaid".

Output of the plant is quoted as about 700 tonnes of liquid per day, but the fertiliser division apparently has first call on product which may result in short loading.

Note: The port office, which is situated at the junction of the "T", is very sensitive to ammonia smells and the personnel there test the atmosphere using Draeger tubes.

Bunkers: Diesel oil taken at this call and vessel has to position under the oil chicksans. This requires shifting ship to or from the loading chicksans.

Bunker suppliers, KNPC, will NOT accept bills signed over Time Charterer's stamp. Ask Owner for permission to sign the bills 'clean' prior to arrival.

General: Shore passes required, available at Immigration office on shore.

Transport is necessary to get from jetty to shore. This is provided on a continual basis.

Alcohol: Customs will allow alcohol to be issued to bars. It is better to arrive with these emptied and ask for an allowance. As usual, it is a very grave offence to offer alcohol to shore personnel.

Fresh Water: Available but none taken.

Medical: There is a medical centre ashore which provides a very efficient service for vaccinations.

General: Service is available for radars and Decca Navigator.

No stores taken.

Items may be landed for despatch to UK after informing the Customs and providing a description of the packages, etc.

Personnel may be repatriated (no alcohol in baggage) and there is a frequent service to UK.

Agents: Kuwait Oil Tanker Company, cables 'Minatank Kuwait'.

In case of emergencies they have an office on the shore which is manned 24 hours. If necessary to telephone UK one has to go to the head office at Ahmadi. Agents usually work Channel 26 VHF.

Departure: About four hours should be allowed for completion of paperwork before sailing. Vessel may leave the berth at night.

AUTHORITY: Ports Public Authority, P.O. Box 3874, Safat, 13039 Kuwait. *Tel:* 4812623, 4813282. *Telex:* 22740 Hmshp Kt. *Contact:* Dr. Ibrahim Makki, Director General.

AGENT: International Shipping Agency Limited, POB 20637, 13067 Safat, Kuwait. Old KIC Building, 1st Floor, Safat Square, Ahmad al Jaber Street, Kuwait, State of Kuwait. Tel: 2441860. Facsimile No. (965) 2415732. Telex: 22208 (Answerback "Isaship Kwt") and 22396 (Answerback "Isatug Kt"). Cables: "Shipagent, Kuwait".

In the case of tankers, agency services are provided by the Kuwait Oil Tanker Company.

SHUWAIKH (Kuwait Harbour): 29.21 N. 47.56 E.

(See Plan)

PORT LIMITS: According to the General Port Rules (1959) the Seaward Limits comprise all waters in the area confined by line drawn in direction 000° from Ras Al Ajuza, (Lat. 29° 23′ 27″ N., Long. 48° 00′ 24″ E.) to the parallel of Lat. 29° 30′ 00″ N. Hence in direction 230° to Ras Al Ashairij Lat. 29° 23′ 15″ N., Long. 47° 51′ 00″ E. For the seaward boundaries of the Port within which a vessel is considered to be on "arrived ship", refer to "Anchorage".

DOCUMENTS:

Manifest: 15 copies which should clearly indicate weights in metric tons and measurements in cubic metres and each copy should be duly signed and stamped by the loading port Agent.

The copies of the manifest may be photostat copies or carbon copies but it is imperative that the stamp and signature made by the loading port Agent is appearing in original on each copy.

If cargo is carried in transit a separate transit cargo manifest (15 copies) is also required in same fashion as above.

Bills of Lading: 5 sets of non-negotiable copy Bills of Lading i.e. ordinary carbon copy Bills of Lading. Photostat copies will not be accepted.

In addition the following documents are to be provided:

4 copies of Final Cargo Stowage Plan, duly signed and stamped on each copy by the loading port Agent. Photostat copies are accepted as long as same are signed and stamped.

4 copies of Hatch List as above.

If dangerous cargo is being carried 2 copies of a separate Dangerous Cargo List is also required and again each copy to be duly signed and stamped by the loading port Agent.

Also 2 copies of Crew List to be presented to Customs Office.

1 copy of Crew List, 2 copies of Passenger List, all Seaman's Books or Passports, 1 photograph of each crew member for the Immigration Office.

1 copy of Crew List, 1 copy of Vaccination List, all vaccination books for Quarantine Office. Immediately on berthing place the rat guards on mooring lines.

Ship's Registry, Loadline, Cargo Safety Equipment Certificate, Safety Radio Certificate and Last Port Clearance to be presented for port clearance.

APPROACHES: *Navigation Warning No. PPA 1/88 – 1509:* The following is a Navigational Warning issued by Ports Public Authority. State of Kuwait, applicable to all vessels arriving and/or departing all ports of Kuwait (Chart No. 3773).

Vessels arriving at Shuwaikh port:

1. All vessels calling at Shuwaikh Port shall abide by taking their course at 000° from position: 28° 36′ 02″ N., 48° 54′ E. up to one nautical mile North East of Ahmadi Light Vessel.
2. To observe its course through 294°, from one nautical mile towards North East Ahmadi Light Vessel, up to a distance of 3.8 nautical miles towards 160° from the Sea Island. From such a position the vessel shall take the course and observe the direction leading it to Shuwaikh Anchorage.
3. Speed of vessels shall not be less than 10 knots until passing Ras Al Ard Lighthouse.

PILOTAGE: Pilotage service available and request for Pilot should be made to Port Signals Station, or to look-out Signal Station when in use. Ships proceeding through the dredged channel to Shuwaikh are boarded by the Pilot in the anchorage. Pilotage not compulsory in the Outer Anchorage.

ANCHORAGES: Ships may take up anchor berth in the Outer Anchorage, without the Pilot.

Because of congested anchorage, and for the benefit of all concerned, the Outer Anchorage (BA Chart 1214) was divided into areas, and the approach waterway of 0.75 miles in width from Ras Al Ardh to anchorage and vice versa, is left free for navigation.

Ships bound for Kuwait, in order to *discharge their cargo* should anchor in the area marked by the following co-ordinates, and in the depth of water, according to their drafts.

Lat. 29° 25.0′ N.,	Long. 47° 58.7′ E.
Lat. 29° 27.0′ N.,	Long. 47° 58.7′ E.
Lat. 29° 27.0′ N.,	Long. 48° 02.5′ E.
Lat. 29° 25.0′ N.,	Long. 48° 02.5′ E.

Ships which have *no cargo* for Kuwait, and calling only for fresh water, provisions, crew changing, transhipments or any other reason, but not discharging cargo, should anchor: North of Parallel 29° 25.0′ N. and East of meridian 48° 03.0′ E. If mentioned anchorage area described is congested the ship could take temporary anchorage: North of Parallel 29° 24.0′ N. and East of Meridian 48° 05.5′ E. but change their position to the area described, immediately as opportunity occurs. The ship should leave the anchorage immediately after they have received the facilities, and proceed to the anchorage of the Port they are bound for.

Ships which have received instructions of possibility of berthing in the morning, should change their position to the area reserved, marked by the following co-ordinates:

Lat. 29° 25.0′ N.,	Long. 47° 57.6′ E.
Lat. 29° 27.0′ N.,	Long. 47° 57.6′ E.
Lat. 29° 27.0′ N.,	Long. 47° 58.7′ E.
Lat. 29° 25.0′ N.,	Long. 47° 58.7′ E.

When the movement is confirmed the vessel should hoist:

By Day: "G" Flag over a Black Ball or Shape.

By Night: A White Light over a Red Light, visible all round.

Note: (1) The Master shall advise the Director of Marine Operations (D.M.O.) and/or the Pilot of any damage or disability to the ship under his command, *before berthing.*

Ship unable to comply with the berthing instructions, should notify the D.M.O. in ample time of their inability to do so, by VHF, Visual Signals or via Kuwait Radio:

500 kHz	9 KK 4 – 6381 kHz
450 kHz	9 KK 6 – 8525 kHz

Any ship sailing from the outer anchorage for any reason, should notify the Kuwait Harbour Control that she is sailing and give the reason.

The Area North of Parallel 29° 25.0′ N. and West of Meridian 47° 57.6′ E., is reserved for ships of *National Fleet*, who require repairs, waiting for orders, changing crews, etc.

(2) The D.M.O. may direct any vessel to move from one berth to another, or vacate a berth as circumstances demand.

(3) (a). A ship whose turn is defined in the Morning Meeting, and whose Agent is notified, and upon calling her no reply is received shall be prohibited from her turn for *3 days*, and after its elapse will be given another turn.

(b). A ship which is defined as a temporary one on the record in the Morning Meeting, and upon calling, is not ready shall be prohibited from taking her turn for *2 days*, after which it will be given a normal turn.

(c). A ship which is registered and then sails, if she delays her return for her specified turn for berthing will be prohibited for *15 days*, as delay penalty.

MAX. SIZE: Max. draft at Berths No. 1 to 14, 31 ft. 6 in., and Berths No. 15 to 18, and dolphin berths, 26 ft. 6 in. Max. draft at Fishing Harbour Berths No. 1 to 3, 19 ft. 6 in. These drafts allow 2 ft. of water under the keel. Tidal range is about 2.8 m. (9 ft.). Berthing draft dependent upon tidal conditions at time of arrival, and vessels exceeding 26 ft. have to wait for tide.

HEALTH: Vessels calling at Shuwaikh Port must send the following information to "Health Port Shuwaikh" by cable:

(1) Name of vessel
(2) Last port of call
(3) Health condition Crew members
(4) Validity of Cholera Certificates
(5) Request for Free Pratique

Vessels arriving at Outer Anchorage must hoist "Q" flag, and keep it hoisted until Free Pratique is granted.

Free Pratique will be granted usually at anchorage, and in some cases alongside, at the discretion of the Quarantine Officer.

No person, except the Pilot, shall board the vessel, before Pratique is granted.

TUGS: Join vessel entering dredged channel, Tug's lines used. The use of tugs by ships manoeuvring within Shuwaikh port limits under direction of D.M.O. or Pilots. Number of tugs used for each movement: *(a)* 2 tugs for ships exceeding 400 ft. in length. *(b)* 1 tug for ships between 250 ft. and 400 ft. in length.

16 tugs available, 8 of 1,000-2,400 h.p. and 8 of 300-600 h.p. Use of tugs is compulsory.

RADIO/VHF: *Signal Station:* (Call Kuwait Harbour Control)

There is Lookout Signal Station at Ras Al Ajuza (Lat. 29° 23.3′ N., Long. 47° 59.8′ E.) and a Port Operation VHF/RT Service at the same position. The VHF/RT is a Single Frequency Simplex Service, operating on Channel 13 (156.650 MHz), 12 (156.600 MHz) and 11 (156.550 MHz). Working restricted to messages relating to the Movements and Safety of Ships.

All vessels arriving should establish contact with either one of these Stations as soon as possible by VHF or Visual Signals:

Tel: 2443785, 2443788, 2443796 and 2435873. Telex: 22733, 22740.

Kuwait Coastal Station (9 KK) operates from 0600 hrs. up to 2400 hrs.

Radio Station:

2182 kHz	8802.4 kHz
2765 kHz	13182.5 kHz
2750 kHz	17328.5 kHz
4434.9 kHz	22699.0 kHz
6518.6 kHz	

Radio Telegraphy – 9 KK:

9 KK	9 KK 2 –	4299 kHz
500 kHz	9 KK 4 –	6381 kHz
450 kHz	9 KK 6 –	8525 kHz
	9 KK 8 –	12895 kHz
	9 KK20 –	12925 kHz
	9 KK22 –	16995 kHz
	9 KK23 –	22304 kHz

For Kuwait: Only English and French languages are accepted, for the other countries all languages are accepted.

Telex: 22230, 23286 and 23771. Tel: 2449151, 2449154 and 2449157.

Marine Communications

This Service links the ship directly with their Agent or Principal in Kuwait and the Call for this Branch is "Kuwait Maritime".

The "Kuwait Maritime" Service covers all the ship's calls with Kuwait and abroad. The procedure is as follows:

Agent to Ship

Call by telephone No. 108 Kuwait Maritime, asking for connection, giving the Name of the Ship, and her Call Sign. The Kuwait Maritime operator will contact the ship for you on Channel 16 (156.800 MHz) and then transfer to vessel's frequency for communication.

Ship to Agent or Abroad

Call "Kuwait Maritime" on VHF Channel 16 (156.800 MHz) and ask to be connected to Agent or abroad.

REGISTRATION PROCEDURE: Notification of vessel's arrival. According to port regulations a questionnaire issued by the D.M.O., duly filled in and signed by the Master of the vessel, is to be submitted to the port prior to berthing. In many cases vessels arrive and obtain berth immediately and thus there is no possibility of presenting the questionnaire to Authorities in time. In order avoid berthing delays Masters should cable following information to the D.M.O. directly, 48 hours before arrival:

(a) ETA.
(b) Total cargo for discharging Kuwait.
(c) Distribution quantity each hatch.
(d) Declaration hazardous, flammable and explosives cargo, and guns and ammunition.
(e) Declaration all vessel's winches in good working condition and cargo clear for discharging at Kuwait.
(f) Draft fore and aft.

We quote below specimen cable covering the above:

"Vessel XXX ETA Kuwait 21/8 0600 local quantity discharging 1,400 tons general hatch one 300 hatch two 300 hatch three 250 hatch four 300 hatch five 250 no hazardous, flammable explosives guns ammunition stop All winches derricks good working condition draft fore 24 ft. Aft 27 ft.".

The above cable sent to the D.M.O. will facilitate berthing vessel on time. ETA to be reconfirmed before 24 hours, if any change.

Also see "Shuaiba – Notice".

Also cable Health, Port of Shuwaikh: ETA, last port, crew health, validity of certificates, and request Free Pratique.

Apart from above, on dropping anchor contact Port Health, Tel: 4811344, through Kuwait Maritime Channel 16 and request Free Pratique, and on receiving same inform Agent by VHF or by cable.

When approaching the anchorage vessel should hoist her "Call Sign" and "Quarantine" flag.

On arrival at anchorage contact Harbour Control and standby VHF Channel 16 when at anchorage.

Also send acknowledgement to ship's Agent stating time cable sent to Director Marine Operations Department.

BERTHING/CRANES:

Berth No	*Overall Length* (m.)	*Depth Below ACD* (m.)	*Max. LOA of vessel allowed to berth* (m.)	*Max. Permitted draft* (m.)	*Cranage*
1	186.58	10.06	175	9.6	Grain elevator 250 t/hr. Grain elevator 150 t/hr.
2, 3, 4, 5	186.58	10.06	175	9.6	3 cranes×3 tons capacity (For each berth) 1 crane×6 tons capacity (For each berth)
6, 7	185.75	10.06	175	9.6	3 cranes×3 tons capacity (For each berth) 1 crane×6 tons capacity (For each berth)
8	211.51	10.06	200	9.6	Cement elevator 350 t/hr. 3 cranes×3 tons capacity 1 crane×6 tons capacity
9, 10	199.92	10.06	220	9.6	3 cranes×3 tons capacity (For each berth) 2 cranes×6 tons capacity (For each berth)
11	199.92	10.06	220	9.6	3 cranes×3 tons capacity 1 crane×6 tons capacity

Berth No	Overall Length (m.)	Depth Below ACD (m.)	Max. LOA of vessel allowed to berth (m.)	Max. Permitted draft (m.)	Cranage
12, 13	190.73	10.06	225	9.6	2 container gantry cranes 36 ton capacity under the spreader. 1 mobile crane, 30 tons capacity
14	199.92	10.06	220	9.6	3 cranes×3 tons capacity 1 crane×6 tons capacity
15	179.72	8.53	200	8.0	3 cranes×3 tons capacity
16, 17	199.92	8.53	220	8.0	2 cranes×3 tons capacity (For each berth)
18	199.92	8.53	220	8.0	3 cranes×3 tons capacity
F.H.1	181.08	6.7	180	6.0	3 cranes×3 tons capacity 1 crane×6 tons capacity
F.H.2	155.69	6.7	110	6.0	2 cranes×3 tons capacity
F.H.3	199.77	6.7	220	6.0	3 cranes×3 tons capacity
F.H.3A	61.36	6.7	50	6.0	
14A	79.00	10.06		9.6	For Ro/Ro ships only

Note: There are 2 Dolphin Berths with depth alongside of 8.53 m. below ACD and capable of taking vessels up to 185 m. in length and 8.0 m. draft.

Entrance channel is 150 m. breadth and 8.53 m. depth (below ACD).

The Curvature of the channel has been recently widened, allowing vessels of 260 m. to pass through. Such vessels are allowed to berth provided that their draft is not greater than 9.6 m.

Closed Stores:

Store No.	Area (sq.m.)	Store No.	Area (sq.m.)
1	3,600	15	13,970
2	4,050	16	13,970
3	4,050	17	7,950
4	4,350	18	7,950
5	3,175	19	6,981
8	10,750	20	7,950
9	10,750	21	7,950
10	10,750	22	7,950
11	10,750	24	1,000
12	10,750	25	1,000
13	10,750	26	1,000
14	13,970	27	1,000

Total area of closed stores: 174,366 sq.m.

Covered Stores:

Store No.	Area (sq.m.)
7	10,000
23	5,250

Total area of covered stores: 15,250 sq.m.

Open Storage Areas:

Open Storage Area No.	Area (sq.m.)	
1	7,700	
2	7,000	
3	5,100	
4	8,800	
5	11,300	
6	6,700	
7	12,400	
8	16,600	
9	35,200	
10, 11	47,700	Container operation area for Berths No. 12 and 13
12	11,300	
13	56,300	
Areas North of Ghazali Street	262,500	

Total area of open storage: 488,600 sq.m.

Container Stacking Areas:

Container Terminal	120,000 sq.m.
New Extension	145,000 sq.m.
Total Container Stacking Area:	265,000 sq.m.

STEVEDORES: All stevedoring and transport inside the port is performed by an authorised contractor.

Container work is handled by Shuwaikh Container Terminal (SCT). There is at present a total area of 400,000 sq.m. allocated to container storage. Containers over 40 ft. length not handled. Plans are under consideration for specialised container berth facilities.

There are four Cement Silos of capacity 14,000 tons each adjacent to Berth No. 8. Discharging rate is 350 tons per hour.

Working Hours:

Winter (1st November – 31st March):	
Saturday – Wednesday	0700-1430 1430-2200
Thursday	0700-1230 1230-1800
Summer (1st April – 31st October):	
Saturday – Wednesday	0630-1400 1400-2130
Thursday	0630-1230 1230-1830

Overtime is compulsory for all vessels. On Fridays, only work on vessels which are to be completed during the day.

MEDICAL: Masters to radio prior arrival if medical attendance required on board. Hospital facilities available.

A rescue vessel, 90 ft. and 20 knots speed, equipped with surgery, operating theatre and all medical appliances is maintained by the Ministry of Health.

DENSITY: 1028 (Winter); 1036 (Summer).

FRESH WATER: All berths except Berths No. 1 to 7, have fresh water connection, and water can be supplied by pipe-line. Rate 20 to 25 t.p.h.

In addition to water available alongside the berths by pipe-line and hose, water may be supplied by barge to ships alongside dolphin berths. There are 2 private companies supplying fresh water alongside and at anchorage by barge.

FUEL: At all berths except Berths No. 15 to 18 and fishing harbours, fuel oil can be arranged through pipe-line. At other berths gas oil can be arranged by road tankers. For quality and prices please enquire from the Agents.

FIRE PRECAUTIONS: Shuwaikh Fire Brigade is responsible for all fire fighting in port areas and storage areas. There is also a fire station situated near the Small Boat Harbour, where the 3 fire fighting tenders are berthed. A salt water main for the fighting services is laid at all berths. There are two 90 ft. fire fighting tenders capable of pumping 5,000 gallons of water per minute from 4 nozzles. In addition they can pump 900 gallons of foam per minute. The 98 ft. fire fighting tender is capable of pumping 9,000 litres of water per minute and 650 litres of foam, and the capacity of her pump is 4,500 litres of water or 143.5 litres of oil. The tender has 8 nozzles for water and 2 nozzles for foam. These modern fire-fighting units are equipped with radio, radio-telephone, radar etc.

GANGWAY/DECK WATCHMEN: Gangway Watchman compulsory (see "Regulations").

OPENING/CLOSING HATCHES: Opening and closing of hatches is normally carried out by the stevedores on liners, and by ship's crew on charter vessels.

CUSTOMS ALLOWANCES: Tobacco: No restrictions. Wine and/or spirit allowance: Alcoholic beverage is strictly prohibited to be held out of bond. Master allowed to keep limited quantity in his cabin.

CERTIFICATES: A survey of life rafts may be carried out unless vessel's safety certificates indicate that life rafts were surveyed less than 12 months previously.

CARGO GEAR: Ship's gear and cranes used for discharging.

IDENTIFICATION CARDS: Passport or Seaman's Book necessary.

CONSULS:

Embassies:

Afghanistan	533030	Libya	644397
Algeria	519987	Malaysia	546022
Australia	2415880	Mauritania	512392
Austria	552532	Morocco	813700
Bahrain	513691	Netherlands	312650
Bangladesh	542688	Norway	551566
Belgium	512440	Oman	514380
Brazil	549600	Pakistan	532101
Bulgaria	531181	Philippines	546840
Canada	511451	Poland	510355
China	423871	Qatar	513599
Costa Rica	426770	Romania	548363
Cuba	2416727	Saudi Arabia	531155
Czechoslovakia	514451	Senegal	542044
Denmark	543166	Somalia	815578/79
Ecuador	562076	Spain	512722
Egypt	519955	Sudan	519299
France	516144	Sweden	2415539
Finland	463291	Switzerland	551876
German D.R.	817055	Syria	531164
Germany F.R.	814182	Tunisia	542144
Greece	814169	Turkey	531466
Hungary	814080	UAE	518381
India	530600	UK	432047/46
Indonesia	514588	USA	424151
Iran	533220	USSR	642711
Iraq	533467	Venezuela	542376
Italy	445120	Yemen Arab Rep.	518827
Japan	518155	People's Democratic Rep. of Yemen	517898
Jordan	533151		
Korea	554206	Yugoslavia	813140
Lebanon	519765	Zaire	543688

Consulates:

Cyprus	2433075	Sweden	2426908
Paraguay	4814462		

REPAIRS: All deck, hull and machinery repairs can be carried out by local shipyard. Repair facilities available for Gyro, Radar and electronics.

DRY DOCK: Floating dock lifting capacity 35,000 tonnes, dimensions 190 m. × 32 m. Syncrolift rated lifting capacity 2,000, tonnes.

SURVEYORS: Lloyd's Register of Shipping (Kuwait): American Bureau of Shipping (Kuwait); Bureau Veritas (Kuwait); Norske Veritas (Bahrain).

REPATRIATION: Can be arranged.

Also see "Visa Regulations" in "General" before first port.

AIRPORT: Served by regular airlines. Airport 17 km. from town.

TIME: GMT plus 3 hours.

HOLIDAYS: New Year's Day, Id Al Fitr, National Day (February 25th), Mount Arafat Day (Wakfa), Id Al Adha, New Hijra Year, Birthday of Prophet Mohammad, Isra walma'raj. The above days are subject to alteration.

No overtime work allowed on holidays and Fridays.

SERVICES: Swedish Welfare for Seamen. Lloyd's Surveyor. Butterworth Tank Cleaning Machines and Equipment and also underwater cleaning.

EMERGENCY CALLS:

	Tel. No.
Director, Marine Operations Dept.	4810754 Office 4819772 Office 4832526 Office 4833600 Residence 4833433 Residence
Pilotage and Movement Affairs Superintendent	4818498, 4814079 Office 5610535 Residence
Pilotage and Movement Affairs Superintendent	4816025 Office 4874084 Residence
Berthing Master	4834931, 4834946
Signal Stations:	
Shuwaikh	4810446, 4818472, 4818478
Ras Al Ajuza	2443788, 2435873, 2443785, 2443796
Fire Station Shuwaikh	4813500, 4817573, 4813692
Fire Boats	4816777
Quarantine Doctor	4813535, 4811344, 4820432
Hospital "SABAH" Exchange	4815000
Hospital "SABAH" Emergency Ward	4815000, 275, 500
Police Station, Shuwaikh	4813934
Coast Guard	4813711, 4816409
Immigration Shuwaikh	4813676
Customs Shuwaikh	4810319

TELEPHONES: Cannot be arranged on board.

PROVISIONS: All kinds of food available at reasonable prices.

SHORE LEAVE: Only permitted for Consular matters, medical reasons and making emergency telephone calls. Contact Agent for further information.

Shore passes are issued and must be returned to Immigration prior to departure, if not returned a heavy fine will be imposed. Crew members require a photograph but this is not returned.

GENERAL: The following is required from all vessels calling at Kuwaiti ports for the first time:

Quote:

> The Harbour Master Department of the Ports Public Authority, with immediate effect, request that Masters of vessels calling for the first time at Shuwaikh Port should give in their ETA cables, details of cargo on board, the length, width, number and condition of hatches, discharging facilities, and any other information which they may consider necessary in assisting the Ports Authority to allocate the vessels the best berth possible.
>
> Such information will considerably help all concerned and at the same time prevent unnecessary delay and unjustified extra charges to owners, since in the event that the allocated berth is not suitable, the Harbour Master shall have no alternative but to shift that particular vessel to another suitable berth, or take it out to anchorage.
>
> Futhermore, it has been observed some Masters of vessels are not indicating in their ETA cables to the Harbour Master the word "Kuwait" when indicating the tonnage figures of cargo onboard, clear and ready for discharging. It is imperative that the Master should say in his cable 'ETA . . . hours. Cargo for Kuwait . . . tons clear and ready for discharging draft . . . ft.

Unquote.

REGULATIONS: The State of Kuwait has stringent laws in force concerning the pollution of the sea by oil. The following are two amended paragraphs of this law:

Paragraph 1, Art. 4. "A person responsible for any pollution as described in Articles 1 and 2 shall be punished by a fine of not less than one thousand and five hundred and not more than forty thousand Dinars. In the event of his committing a similar crime within a period of one year from the date of his conviction, such a person shall be punished by a fine of not less than three thousand and not more than forty thousand Kuwaiti Dinars, and in the event of his committing yet another crime within a year from this last conviction he shall be punished by a fine of forty thousand Kuwaiti Dinars".

Paragraph 3, Art. 6. "The person responsible for pollution may suspend the detention order against the ship on payment, as a cash guarantee, of forty thousand Kuwaiti Dinars to the official entrusted with the execution of such order".

The Master shall advise the Harbour Master and/or Pilot of any special damage or disability to the ship under his command before berthing or unberthing.

A vessel in outer anchorage receiving a Movement Order in writing, by signal or VHF, and awaiting the Pilot, shall carry:

By Day: "G" Flag, over a black ball or shape.

By Night: A white light over a red light.

Ships that receive instructions to berth at specified hours and not adhering to these instructions could lose their turn and be liable to pay charges for the time lost at the berth, and facilities arranged for and not used due to such delay.

Ships that receive instructions to unberth at specified hours and not adhering to these instructions, i.e. retarding the movement of incoming ship, will be liable to pay charges for time lost at the berth and the facilities for the incoming ship, and not used, due to such delay.

Ships unable to comply with the berthing or unberthing instructions should notify the Harbour Master in ample time of their inability to do so by VHF, visual signals, personally or through Agent.

A ship entering or navigating within the dredged channel or inner basin shall have at least 1 anchor ready for immediate use.

The Master of a ship alongside Shuwaikh Wharf or dolphin berth, shall ensure that:

(a) Vessel not allowed to use VHF to any vessel except to call Kuwait Harbour Control or Kuwait Maritime.

(b) A safe and proper accommodation ladder to the quay is provided, adequately lit during the hours of darkness.

(c) A Quartermaster or watchman is stationed on deck, in charge of the ship's gangway, who shall inform the Master or the Duty Officer whenever required by the Port Authority Officials, and shall check that no authorised persons will enter the officer's or crew's accommodations. Gangway must be lifted up whenever vessel is not working, and at 2200 hrs. daily.

(d) The crew or watchman to attend the mooring ropes and lines, and shall cause their adjustment from time to time, as necessary on the rise and fall of the water.

(e) That no substance, matter or material is thrown overboard, either into the water or on to the wharf.

(f) That no engine repairs are undertaken which would prevent the movement of the vessel under her own power, without first obtaining the permission of the Harbour Master.

(g) That all pipe discharges on that side of the ship nearest to the wharf are either adequately and properly covered to prevent their effluent falling on to the wharf, or their use discontinued while the ship remains alongside.

(h) It is forbidden to jettison or ballast other than clean water or pump out the bilges or oil of any description within the port limits.

(i) All ships loaded with petroleum or crude oil at the wharf shall have the end of a steel hawser of sufficient strength, paid out to the water edge, at the offshore bow and quarter, to enable tugs to take the vessel to place of safety with the least possible delay.

(j) The Master shall at all times retain on board sufficient crew to work his ship.

(k) Ratguards to be fixed to all ship's mooring ropes.

(l) The Master shall not shift his vessel while alongside the wharf, prior to receiving permission from the Harbour Master or Berthing Master.

(m) The Master shall not connect water hoses to the water supply points and take water on board before receiving permission from the person in charge of water distribution.

(n) The Master shall report to the Harbour Master or Berthing Master any incident, accident or unusual happening on board his ship.

The Master not complying with the above-stated Port Rules, shall be liable to suffer the penalties prescribed for contravention.

Warning: Port tugs are supplied with nylon and polypropylene hawsers, which require particular attention when securing to ship's bollards, in order that they do not slip. Extra turns than normal on the bollards are recommended.

Ship's Life Boats:

In the Harbour: It is prohibited to use the ship's boats for transportation or boat-drill.

In the Outer Anchorage: It is permitted to use the ship's boats for transportation, but the crews land *only at Niga's Dhow Harbour* situated in Lat. 29° 22.7′ N., Long. 47° 58.2′ E., and every crew member must have in his possession a valid Passport or Seaman's Book.

NOTICE:

Supplied to Ship's Master, on arrival, by Agent (October 1984).

1. One watchman to be kept regularly on gangway.
2. Immediately the labourers leave the vessel after each night shift the gangway should be taken up and not to be lowered before 0600 hrs. next working day.
3. Strictly forbidden to sell any alcoholic drinks onboard or to bring on to jetty.
4. Rat guards to be fixed properly on the ropes.
5. No cleaning of decks, painting of hull or welding on deck is allowed when vessel is alongside jetty.
6. Neither fresh nor dirty water should be pumped out alongside jetty for any reason and under any circumstances.
7. No garbage should be thrown either on jetty or in to sea at any time and under any circumstances.
8. Any pollution either during supply of bunkers or at any other time and for any reason is entirely your responsibility.
9. No repairs or dismantling of engines are allowed unless prior written approval from the Harbour Master is granted.
10. Vessel's draft should not exceed that draft on which she was allocated a berth.

Maximum drafts of/on various berths are:

Jetty Nos. 1 – 14 inclusive	31 ft. 6 in.
Jetty Nos. 15 – 18 inclusive	26 ft. 6 in.
Dolphins	26 ft. 6 in.
Fishing Harbour	19 ft. 6 in.

AUTHORITY: Ports Public Authority, State of Kuwait, P.O.Box 3874-Safat, 13039 – Safat, Kuwait. *Tel:* 812622. *Telex:* Hmshp-KT 22740 and Tcra-KT 22733. *Contact:* Dr. Ibrahim Makki, Director-General.

AGENT: International Shipping Agency Limited, P.O.Box 20637, 13067 Safat, Kuwait. Old KIC Building, 1st Floor, Safat Square, Ahmad al Jaber Street, Kuwait, State of Kuwait. Tel: 2441860. Facsimile No.: (965) 2415732. Telex: 22208 (Answerback "Isaship Kwt") and 22396 (Answerback "Isatug KT"). Cables: "Shipagent" Kuwait.

Lebanon

BEIRUT (Beyrouth): 33.54 N. 35.30 E.

DOCUMENTS:

Manifests should be visaed by Lebanese Consul at ports of shipment, or at any port *en route* where there is a Lebanese Consul. If on account of non-existence of Lebanese Consul at ports of shipment or at any of these *en route* the manifests are not visaed, then such consular visa dues are collected at Beirut.

5 Copies of Cargo Manifests.
2 Store Lists.
5 Passenger Lists.
2 Lists of Cigarettes and Tobacco (see "Customs Allowances").

For cargoes loaded for Lebanon, there are new regulations concerning documentation as follows:

Original Cargo Manifest to be presented to the Authorities should be rubber stamped and signed by the Customs Authorities at the port of loading.

Copy of each Bill of Lading should be attached to the above Manifest.

A letter from Owners/Charterers indicating the Agents at the respective port.

PILOTAGE: Agent arranges Pilot via Harbour Master. Agent therefore to be kept well informed of ETA, 48 hours and 24 hours prior arrival. Pilot boat white with red funnel. Sound signals, 2 long and 1 short or contact can be made via VHF to Harbour Master. Pilot boards outside main breakwater. Assistance of Pilot outside daily normal hours, Sundays and official holidays, will be cost calculated at 100% more. Official normal working hours for pilotage station as follows: from 1st October up to 30th April, 0700 till 1700 hrs.; from 1st May up to 30th September, 0700 till 1800 hrs., For tankers outside harbour, the pilotage dues will be 100% extra.

Also see "Shipmaster's Report – January 1982".

ANCHORAGE: In Roads outside breakwater. Also see "Shipmaster's Report – January, 1982".

RESTRICTIONS: No particular restrictions. Pilot normally available between sunrise and sunset otherwise by special agreement.

MAX. SIZE: Max. draft in port 13 m. No limitation to breadth or length.

HEALTH: Health Authorities board in Roads. Health Form obtainable from Agent or doctor. Yellow fever certificates required for ships coming from Far East and Red Sea. Owners should check with Agents respecting any recent imposition of anti-epidemic regulations and requirements for additional injections for Crew members.

RADIO: Cables via Beirut Radio to and from Agent.

VHF: VHF Channels 13 and 16.

TUGS: Tugs of 1,000 h.p. join vessel inside port when necessary. Ship's lines to be used.

BERTHING: If port congested priority given to vessel already registered. Passenger-tourist vessels and cargo for Army have priority. Harbour capable of berthing 24 ships simultaneously and 3 moored on buoys, discharging into barges. All discharging is by ship's gear.

Dock No. 1: Surrounded by Quay Nos. 1, 2, 3. Depth of water varies between 3 m. and 8 m. Parts of Quay No. 1 and Quay No. 2 with 3 m. depth of water are reserved for floating units of port company and for launches of Harbour Master and pilotage service. Slipway of 1,000 tons capacity and workshops.

Dock No. 2: Surrounded by Quay Nos. 4, 5, 6, 7, with water depths varying between 8 m. and 10.5 m. On Quay No. 5 berthing priority is given to passenger ships, while the other quays are for cargo vessels.

Dock No. 3: Surrounded by Quay Nos. 8, 9, 10, 11, with depths varying between 10.5 m. and 13 m. All these quays can berth ships bringing general cargo. At Quay No. 8 of 13 m. depth, priority of berthing is given to grain ships.

Grain Silo: There are 120,000 tonnes capacity silos. Ships will be unloaded by means of 2 gantry type suction machines, mobile on rails with a capacity of 6×100 t.p.h.

Containers: A ship's Master advises that containers should be loaded on one side of the vessel and vessel berth that side to the berth as crane unable to reach outboard side.

Ro-Ro: All quays in Docks No. 2 and 3 can receive Ro/Ro vessels.

STEVEDORES: Ordered by Agent. No ETA to Stevedores necessary. Working hours, 0800 – 1200, 1300 – 1600. Otherwise overtime on Sundays and on official holidays.

MEDICAL: Master to advise Agent by cable prior to arrival if medical attendance required.

TANKERS: Notice: The Coral Oil Co. Ltd.: Dated November 1984. To the Master.

TANKER MOORING AND DISCHARGING PROCEDURE AT CORAL OIL TERMINAL, BEIRUT.

We should be grateful if you would kindly note the following:

1. Berthing: The following is for your guidance:

Our moorings have been laid so as to give you a stern mooring for the old lines and amidships mooring for the new line (see item 2) using ship's anchors at the head. It is recommended that both anchors should be dropped when the vessel is discharging.

The ideal position for your ship is such that she would be heading N.N.W., in which position you will be clear of all obstructions in the event of an emergency. As you are aware, there is a wreck lying on the sea-bed to the East of the moorings and a half-submerged rock to the West.

When the significant wind speed is 10 knots, it is recommended that you stop cargo operations and advise our representative on board (see item 4 below) accordingly. Our hoses will be disconnected immediately after that. Please ensure close co-ordination with him.

When the significant wind speed rises to 15 knots you are recommended to unmoor and leave the berth. It is your responsibility to ensure that arrangements are made for the Pilot's mooring boat to unmoor the ship's lines.

Please keep in touch with the Meteorological Office in periods of unstable weather, and keep your engines in a state of readiness.

N.B. For amidships discharge (see item 2 below) you are advised to have enough mooring ropes available to cover extra distance to our mooring buoys (roughly 4 × 200 m.).

Please do not "Hang On" in wind speed beyond the above limits.

2. Cargo Discharging System:
There are two systems:

(a) The "Old Lines": The so called "Old Lines" system is to be connected through our submarine hoses to your stern discharge point. At that point the following products may be discharged: Lubricating base oil through one line and Jet A-1 and a limited number of chemicals, Gasoline or Gasoil through another line. In this particular case, you are requested to pump sweet or sea-water plugs, as the case may be, to clear our submarine and shore line between products.

(b) The "New Line": The so called "New Line" is for amidships discharge and is exclusively used for chemicals through a 'pigging' arrangement. Ideally, you should have Nitrogen aboard as well as compressed air for use in conjunction with this system, bearing in mind that Nitrogen must be used (not compressed air) with low flash point products.

3. Quality of Cargo: Please hand our representative the Certificate of Quality, issued by the Refinery, corresponding to the cargo destined to us.

The cargo may not be discharged unless the Certificate of Quality is handed to us beforehand and found to be fully conforming to the latest issue of the relevant specifications.

Furthermore, we shall carry out a few tests on representative samples drawn from your tanks before discharge.

If the results of the analyses are unsatisfactory, the cargo may not be discharged.

4. Personnel on Duty: A member of our staff with a few assistants will be on duty day and night on your ship and we trust they will be allowed to use your mess-room from time to time. Installation personnel are also on constant watch checking the shore tanks, inspecting the pipe-lines and manipulating the signals.

We would ask you to ensure that a responsible member of your crew remain on duty at the stern or amidships to answer shore signals promptly and react accordingly.

A member of our staff is always present at the Installation while the ship is discharging and you are requested to contact him if anything should be required.

5. Security and Safety:

(i) No engine repairs should be carried out at this berth.

(ii) The Port Authority forbids gas freeing while the tanker is berthed. Besides, fishermen's practices in the immediate vicinity of the berth may endanger your ship in case of gas-freeing.

(iii) You will appreciate that we cannot be held responsible for the security of your ship or prevent unauthorised persons from going on board.

Peddlers might attempt to board tankers, in which case the safety of your operations might be affected. It is strongly recommended that you post watchmen to prevent their access to the ship.

6. Communications: (a) Pumping Signals: Shore signals are made with White and Red discs by day and coloured lights by night from the Yard Arm of the signalling mast at the shore end of our jetty.

Ship signals are a series of short blasts of 5 seconds' duration.

(i) Amidships Discharge:

	Shore Signals		*Ship Answering Signals*
	Day	*Night*	
Launch pig or sphere	One disc	One white light	One blast
Pump product	Two discs	One green light	Two blasts
Pump air or Nitrogen	Three discs	Two green lights	Three blasts
Stop pumping product, air or Nitrogen	Four discs	One red light	Four blasts
Disconnect	No disc	Two red lights	Several short and long blasts

(ii) Stern Discharge

Pump water	One disc	One white light	One blast
Pump product slowly	Two discs	One green light	Two blasts
Pump product full speed	Three discs	Two green lights	Three blasts
Stop pumping product or water	Four discs	One red light	Four blasts
Disconnect	No disc	Two red lights	Several short and long blasts

In the event of the ship having to stop pumping, please sound 4 short blasts before closing the valve, whereupon pumping should not be resumed until the appropriate signal has been run up again on our signal mast.

(b) "Walkie-Talkie": Walkie-Talkie communication is established between ship and the shore, but the equipment may fail and the above signals are essential.

(c) Motor-boat: Motor-boat is on Company service while the ship is at mooring.

7. Pumping and pumping speed: Delivery of all products may proceed day and night.

(i) "Old Lines" Jet A-1, some Chemicals, Gasoline or Gas Oil:

When delivering the above products through the "Old Line" (i.e. using water plugs), the following pumping speeds must be observed:

During the first half hour, pump slowly to clear the water plug in the pipe-line and avoid development of unrelaxed static electricity. The pumping rates must be limited as follows: Kerosene/Jet A-1 90 t.p.h., Water 115 t.p.h.

After the first half hour, the rate of pumping should be commensurate with a pressure at the stern connection to the submarine hoses not exceeding 100 p.s.i. It should not be less than 300 product t.p.h.

At the end of the cargo pumping operation, sea-water is to be pumped to clear the product contained in the pipe-line into the shore tanks. Pumping speed must not exceed 115 t.p.h.

(ii) "Old Lines" – Lubricating Base Oils: No restrictions except to pressure at the stern which is not to exceed 100 p.s.i.

(iii) "New Line" – Chemicals: No restrictions except to pressure at the amidships discharge point which is not to exceed 150 p.s.i.

The detailed procedure concerning the use of the sphere or pig and Nitrogen, Compressed Air, or Chemical products to push the sphere or pig will be discussed and agreed with you beforehand.

8. Quantities to be discharged: Will you please ensure that the quantities discharged agree with the B/L figures. Any difference in these figures should be confirmed in writing to the member of our staff on board your ship. In any case, the shore tanks' dips are those that will serve as a final basis for acknowledgment of the cargo received. They are witnessed and certified by the shore Customs Authorities, as well as the Insurance Surveyor.

9. Ship's Agent: The ship's Agent is expected to deal with all questions of port and harbour regulations, currency, health, etc.

Reminder: Hose-lifting derrick, air compressors and nitrogen; the tanker must be fitted with derricks of 3 to 4 tons lifting capacity (depending on the height of the connection above sea-level) to lift part of the submarine 8 in. hoses required for connection to its stern discharge or amidships discharge, as the case may be.

In the case of lubricating base oils, the tanker must be provided with an air compressor to clear the line before pumping the next grade of base oils.

In the case of chemicals, except for those to be discharged at the "Old Lines", the tanker must have Nitrogen and compressed air available in adequate quantity.

Signed: Manager Operations.

Also see "Shipmaster's Report" dated February 1983.

DENSITY: 1025.

FRESH WATER: The port company has equipped all quays with hydrants. Ships moored on buoys can also be supplied with water from cistern barge. By shore installation or by barge. Delivery rate 20/25 t.p.h. Outside harbour double price per barge.

FUEL: Fuel, gas oil, diesel obtainable. 48 hours' notice required.

FIRE PRECAUTIONS: Special berths for tankers.

GANGWAY/DECK WATCHMEN: Available and recommended.

OPENING/CLOSING HATCHES: For liners, by stevedores, otherwise per agreement.

CUSTOMS ALLOWANCES: (Tobacco) 40 cigarettes per Crew member (Master 2-3 cartons). Customs very strict, and will search crew cabins. Regulations are as follows:

1. That the quantity of tobacco to be allowed on board vessels upon their arrival at a Lebanese port, will be fixed on the basis of 2 packets per crew member, passenger per day and to be calculated on a maximum period of 4 months, if the vessel emanates from an American, Asian or African port - not central Africa; and for 2 months if the vessel last port of call is in Europe, Central Africa or Mediterranean, which will be deducted port of call, until arrival at a Lebanese port. That the number of passengers to be taken into account on a tourist vessel, will be the number of berths the vessel can accommodate and not the number of passengers actually on board. As to cargo vessels, the actual number to be accounted for will only be the crew members and the Master of the vessel.

2. In the event that it is the first call of the vessel at a Lebanese port and not aware of such regulations, and it was found onboard her an excess quantity to the actual one allowed, as indicated above, a Process Verbal will be established for the excess quantity found and the cigarettes placed under seal. An undertaking is also to be obtained from either the Owners and/or her Agents to the effect that they will submit a certificate, within 1 month, to be issued by the relevant Customs Authorities of the next port of call of the vessel after a Lebanese port. While the seizure on the vessel will be lifted when a Bank Guarantee equalling the amount of fine and dues is placed, or a personal guarantee from the Agent – if solvable – and in the event that the undertaking is not fulfilled the usual penalties will be inflicted according to the Law.

3. In the event the vessel is aware of such restriction, and for one reason or another, she is carrying an excess quantity, this excess must be, as per official regulations, shown on the manifest legalised and issued at the last port of call touched by the vessel prior to Beirut. Any excess found over and above such declaration will be considered as smuggling and the law will be applied.

Wine and/or Spirits: 1 bottle per crew member. Master allowed 3 or 4 bottles.

HOLIDAYS:

Holidays	*Date*	*Days*
New Year's Day	January 1st	1
St. Maron	February 9th	1
Good Friday (Catholic)	Varies	1
Easter Monday (Catholic)	Varies	1
Labour Day	May 1st	1
Good Friday (Orthodox)	Varies	1
Easter Monday (Orthodox)	Varies	1
Al Fiter (Ramadan)	Varies	1
Assumption Day	August 15th	1
Al-Adha	Varies	2
Moslem New Year's Day	Varies	1
Achoura	Varies	1
All Saints' Day	November 1st	1
Independence Day	November 22nd	1
Prophet's Birthday	Varies	1
Christmas Day	December 25th	1

Port closes completely: New Year's Day, Al-Adha, Easter Monday, Labour Day, Independence Day, 1st day of Ramadan and Christmas Day. On other holidays, day work in port carried out against overtime payment.

CARGO GEAR: Ship's gear to be used but mobile cranes can be hired. Shore cranes except mobile cranes only available at Quays 9 and 11. Floating crane of 120 tons available.

IDENTIFICATION CARDS: Shore pass given to each crew member. Passport and Seaman's Book to remain in Master's care.

CONSULS: Most countries have consulates.

REPAIRS: Most types of repairs carried out.

DRY DOCKS: None except for 500/1,000 tonner.

REPATRIATION: Very good facilities for repatriation.

AIRPORT: About 10 km. distant, served by regular airlines.

TIME: GMT plus 2 hours. Summertime, GMT plus 3 hours.

POLICE/AMBULANCE/FIRE: Telephone numbers: Police 16, Ambulance 18, Fire 17.

TELEPHONES: Available on request by shipping agency.

SERVICES: Tank-cleaning equipment. Facilities for discharge of tank-washings, compass adjusting, laundry, etc., available.

SHORE LEAVE: Crew allowed onshore.

DELAYS: 1. Unavailability of berth or barges due congestion mainly during Winter months (December to April). 2. Vessel already registered will lose turn if not returned to port in time. 3. Barge ordered for bunkering might be occupied if vessel's arrival delayed.

DEVELOPMENTS: There are plans for a new container berth with crane and container park at the fifth basin.

SHIPMASTER'S REPORT: 1978.

Navigation Buoy: The buoy off the end of the breakwater has been replaced in approximately the same position as the original buoy. The present buoy is painted green with a 'cone top mark'. Although the buoy is a light buoy the flash was not observed. On no account should the vessel pass between the end of the breakwater and the buoy as rubble is being dumped to extend the breakwater. The actual dumping position is marked.

The local Pilots are now working VHF Channel 16 from the Harbour Office.

SHIPMASTER'S REPORT: January, 1982.

Vessels approaching Beirut Harbour from a Southerly direction are advised to make Ras Beirut Light on a bearing of 132°. When the light is approximately 3 miles away alter course to 090° until the Eastern end of breakwater is abeam and alter course to 150° to pass Green Buoy (near end of breakwater) to starboard. The Pilot will board vessel near the green buoy or at anchorage.

Good anchorages may be obtained East of breakwater with good holding ground. In view of the prevailing tension it is advisable to approach Beirut during daylight hours as incidents of sniper fire and shelling have been reported.

Shore leave for seamen/ship's personnel may be granted during daylight hours from 0900 to 1500 only in the Christian (Eastern) Sector. It is not advisable to visit the Muslim sector of the Western Beirut.

Provisions, bonded stores and good shopping available despite tension.

SHIPMASTER'S REPORT: February 1983.

Tankers: The following are the requirements for product delivery vessels calling at tanker berths operated by Dora-Terminals.

Medco Terminal:

I – TECHNICAL CONDITIONS

1. Tanker mooring should take place during daylight at the berth specially provided for discharging opposite our installations at Dora i.e. "Baie Saint Georges".
2. Tanker's d.w.t. (dead weight tonnage) must not exceed 25,000 – 30,000 metric tons.
3. Only stern discharge is permissible.
4. Submerged portion of the tanker's stern must not exceed 28 ft. – 29 ft.
5. Discharge hose facilities provided are of 6 in., 8 in. and 10 in. diameter. Working pressure must not exceed 5 – 6 kg./sq.cm.
6. Upon arrival, the Shipmaster shall abide by the instructions given to him by Beirut Pilot and Harbour Master and by employees of this company, it being understood that putting the ship at anchor immediately upon arrival is subject to weather conditions. In other words mooring, anchorage and discharge of load are not possible when sea is rough.
7. Ship must be equipped with all necessary international documents in accordance with universally accepted rules and regulations because discharging takes place under supervision of Lebanese Customs Authorities and other Government Officials.
8. Swivelling tanker's crane boom to extend outside tanker minimum 3 m. in order to lift vertically flexible hoses. Also suitably located hang-off bitts for submarine hose.
9. Discharge line to be fitted with ASA 150 8 in. flange connected (or ASA 150 6 in. connection) and pressure gauge, conveniently located.
10. Pumps to be preferably centrifuge with by-pass (or relief valve) set at 9 kg./sq.cm.
11. Tanker shall be responsible for any and all damages which may occur to our installations whether it be due to weather, natural or technical reasons. Tanker shall likewise be responsible for damages caused by negligence or faulty manoeuvres on the part of the Master or the crew.
12. The company's Superintendent at his own discretion may refuse admission to a tanker or discharge of a cargo when he notices that the tanker is not adequately equipped technically for the discharging process as is usually required. Shipowners shall then carry out all necessary repairs, wherefore demurrage, if any, shall be exclusively at the tanker's expense.

13. When the discharge process has been completed and all formalities done, hose disconnected and mooring ropes released, the tanker, using its anchor to move forward, shall leave the mooring place immediately and clear a suitable distance off marine installations without using the propeller.
14. Should weather conditions worsen during discharge operations, the Superintendent shall have the right to disconnect the hose and request Shipmaster to leave discharge berth immediately for protection of human lives, installations and ship.
15. All harm befalling divers and/or company workmen during discharge activities shall be at the tanker's expense as long as these men are on board the tanker.
16. Both tanker and company shall be prepared to tie-in the discharge hose within 6 hours period effective from the time mooring at company's berth has been performed by Beirut Pilot.
17. Master is requested to give 72/48/24 hours' pre-arrival notice through "Radio Orient" to our cable address "Geochammas Beirut".

II – GENERAL CONDITIONS

1. Details of tanker arrival and discharge must be arranged beforehand. Should two tankers arrive at the terminal preference shall be accorded the tanker that has arrived first.
   In those cases where a Government-bound tanker comes in for unloading at the same time as another tanker is discharging at our installations, no demurrage shall be due by the company.
2. Quantities received are those measured in our tanks. The company shall not be responsible for any shortage due to leakage or otherwise, notwithstanding the fact that the company shall spare no effort to avoid any such loss.
3. It is clearly understood that all discharge activities such as anchorage, discharge, material receiving, storage, etc. are for the responsibility and expense of the Government. It is likewise agreed that all damage which may befall our marine installations, tanks and the company's other installations at Dora, irrespective of cause, even if it be a force-majeure, are the responsibility of the Government as the company shall then be working in accordance with the Government's request and for its account.
4. All port dues and other charges connected with the tanker or the cargo are for the Government expense.
5. All expense for products delivered by tank trucks are for the account of the receiver.
6. Under all circumstances the company shall be held free of any responsibility whether for reasons mentioned above or omitted. It is likewise not responsible in all instances where the terms "cas fortuit, force majeure" and applicable.
7. The company may be contacted through the following means:
   (a) Radio Orient Ogero.
   (b) Telex: 22259 Menira/20816 Mecham/20112 Ctctco.
   (c) Telegram: Geochammas-Beirut.
   (d) Tel: 894.077 (working hours: 0800 – 1400 hrs.)
   (e) Marine Band: Channel 16 when 30 miles away.

Wardieh Terminal:
Max. draft at Terminal 30 ft.
Max. quantity which can be received through the sealine is 200 metric tons per hour.
Type of flange – 8 in. flange.
Pumping can be effected through a 10 in. submarine pipe-line.

AUTHORITY: Compagnie de Gestion et D'exploitation du Port de Beyrouth, B.P. 1490, Beirut, Lebanon. *Tel:* (01) 580211/16. *Cables:* Beyrouport-Beirut. *Contact:* J. Khazen, Port Director.

AGENT: Gulf Agency Co. (Lebanon) Ltd., PO Box 4392, El Arz Street, Modern Building, Beirut, Lebanon. Cable address: "Gacship" Beirut. Telex 44874 (Answerback "GAC LE") or Athens 216344, 218687, 214548 ("GAC GR"). Telephones, 446189, 446086. 446097. After hours 480179.

CHEKAA (Including Enfeh Terminal): 34.20 N. 35.43 E. (See Plan)

See "General" before first port.

Port is used for cement loading and discharge of sulphates.
ANCHORAGE: Safe anchorage in Chekaa Bay.
MAX. SIZE: Max. d.w.t. 35,600 tons. Max. draft in calm weather 27 ft.
LOAD/DISCHARGE: Up to 4,000 tons cement and 2,500 tons coal per day.
TANKERS: *Enfeh Terminal:* Position: Lat. 34° 20′ 31″ N., Long. 35° 43′ 54″ E. Port is used to load and discharge gasoline and bitumen.
Anchorage: Safe anchorage in Chekaa Bay.
Max. size: Draft up to 20 ft.
Berthing: Using 2 anchors and moored stern to shore facilities. In event of swell vessel required to leave quay and anchor in bay.
Storage Capacity: 5,000 tons for gasoline. 2,500 tons for bitumen under construction.
Load/Discharge: Rate 150 t.p.h. Tankers to use stern discharge and communicate with shore 48 hours prior to arrival on VHF Channel 16.
Agent: Gefco.
REPORT: November 1982.
Slag is from time to time discharged at this port.

1. Max. draft permissible: 27 ft.
2. Length of berthing quay: about 40 m. – 45 m. Therefore vessels must do several shifts ahead and astern in order to discharge all holds.
3. Discharging by 2 shore cranes (1 fixed at quay and 1 mobile) using grabs.
4. Daily quantity discharged: about 2500 – 3000 tons per weather working day of 24 hours (receivers and stevedores working 24 hours round the clock, subject weather permitting).
5. The quay is at an open road, not sheltered and well exposed to South Westerly winds.
6. Agency attendance was monopolised in Chekaa since 1975 (when war started in Lebanon) and the only agents attending are:
   (a) Messrs. Kfoury, the Pilots of Chekaa for:
   The Societe des Ciments Libanais Sal Chekaa.
   (b) Mr. Paul Adem, for:
   The Societe Nationale de Cements Sal Chekaa, the company who owns the above mentioned quay.

AGENT: See "Beirut".

RAS SELAATA: 34.17 N. 35.40 E.

See "General" before first port.

Port is used for discharge of sulphates, sulphuric acid, grain and soya beans. When facilities are completed vessels of 70,000 tonnes will be accommodated.
MAX. SIZE: Up to 21 ft. draft (in calm weather) alongside pier which has 2 cranes.
AGENT: See "Beirut".

SIDON: 33.30 N. 35.21 E. (See Plan)

BERTHS NO'S. 1, 3 AND 4 HAVE BEEN TAKEN OUT OF SERVICE AND ALL MOORING BUOYS HAVE BEEN REMOVED. THE SUBMARINE LINE IS STILL THERE.
BOTH THE WHITE AND THE RED SEABUOYS ARE MISSING.

OPERATORS: Trans-Arabian Pipe-line Company, Sidon Terminal. The Company transports crude oil from Saudi Arabia via pipe-lines and exports from terminal South of Sidon (Saida). Terminal operates 24 hours a day, 7 days a week.
Advance Information: Prior to acceptance of nomination of vessels, Tapline requires advance information regarding maximum draft, vessel's equipment and location of manifold in reference to distance from the stern of the vessel, permanent ballast, simultaneous loading of cargo and discharging of ballast, etc. Acceptance or rejection will be made after evaluation of above data by Sidon Marine personnel.
FLAG: All vessels required to fly Lebanese Ensign on foremast during daylight hours. Lebanese flags may be obtained from ship's Agent.
LOCATION: Sidon Terminal is open, unsheltered roadstead, situated immediately North of Zahrani River, about 5 miles South of City of Sidon (Saida), Lebanon. It is approximately 35 miles South of Beirut, and 17 miles North of Tyre.
DESCRIPTION: Terminal's Tank Farm consists of 23 storage tanks situated East of terminal at 360 ft. (average) above sea level. Marine and administrative offices, a laboratory for testing stocks, 2 large and 2 small storage tanks all located within area just above sea level. An "L"-shaped pier for harbouring Company's marine craft extends approximately 1,000 ft. from shore near Southern end of berthing area.
NAVIGATIONAL AIDS: Radio beacon tower located 1,200 ft. back from beach, S.E of moorings. Occulting red light (about 30 flashes per minute) mounted on top, elevation 184 ft. above sea level; position Lat. 33° 30′ 04″ N., Long. 35° 20′ 31″ E. Tower also marked with 2 sets fixed red lights located respectively 45 ft. and 90 ft. below occulting red light. Radio beacon is automatic and operates on 24 hr. basis on frequency of 296.5 kHz, with "SAD" as the identifying call sign. It will signal 2 times over a 10-second period and then give a constant 1,000 cycle tone for 72 seconds. Tower is of cage-type construction, painted red and white. About 2.5 miles S.W. of terminal sea buoy and approximately 2 miles offshore is rocky shoal with approximately 32 ft. of water over it.

Vessels approaching from Southward should keep offshore until radio beacon tower bears 100° true before hauling-in.

"Sailing Directions for the Mediterranean" (U.S. Navy Hydrographic Office Publication No. 154A Vol. IV) reads in part:

> "*Caution:* As the coast between Saida and Tyre, 20 miles South-South-westward, is bordered in places by rocks and shoal water extending as far as 1 mile offshore, it should not be approached closer than 1.5 miles, nor within depths of less than 16 fathoms."

During darkness terminal range lights and mooring buoy marker lights may be visible. These lights are located inside the restricted area.

A conspicuous water tank (painted aluminium) on a tower located Lat. 33° 29′ 27″ N., Long. 35° 21′ 10″ E., the top of which has elevation of 460 ft. above sea level. Location is seaward of centre oil storage tanks.

There are a number of smaller radio towers to N.W. and S.W. of beacon tower. South of terminal, at Medreco Refinery, is a conspicuous black stack located Lat. 33° 29′ 31″ N., Long. 35° 20′ 08″ E. A little further N.W. from this stack is a tall pipe painted aluminium with a flare on top at Lat. 33° 29′ 35″ N., Long. 35° 20′ 03″ E.

Berth Locations:
Berth No. 1 (7 buoys) Lat. 33° 30.8′ N., Long. 35° 19.9′ E.
Berth No. 3 (6 buoys) Lat. 33° 32.0′ N., Long. 35° 20.4′ E.
Berth No. 4 (5 buoys) Lat. 33° 32.4′ N., Long. 35° 20.8′ E.

DOCUMENTS:

Health Declaration: International Health Form to be filled out by Master on arrival.

Cargo Manifest: No cargo arrival manifest required, as same usually prepared by local Agent.

Clearance: No clearance required.

Crew List: 4 copies required on arrival.

Passenger Manifest: If any passengers on board.

Store List: 2 copies.

Bonded Store List: 2 copies. Present regulations at Sidon Terminal allow each seaman to retain in his possession a maximum of 40 cigarettes or the equivalent weight of tobacco or cigars. The balance of all smoking items must be collected and carefully listed prior arrival. This list will be checked by Customs before sealing lockers. If any discrepancies, vessel subject to a fine.

PILOTAGE: Vessels to be moored at Sidon will be boarded by Mooring Master of Company within 2 miles to seaward of terminal sea buoy. Mooring Master will advise Ship's Master on approaches to berth, mooring, unmooring, connecting and disconnecting submarine hoses and in all other operations within berthing area. All manoeuvring of ships within berthing area shall be done only in accordance with advice of a Tapline Mooring Master, subject to the understanding that in all cases and circumstances Master of the vessel being manoeuvred shall remain solely responsible, on behalf of vessel's owner, for safety and proper manoeuvring of vessel. Ship's Master or qualified deck officer must be on bridge at all times while ship is manoeuvring.

Vessels must have a pilot ladder safely and securely rigged, and all vessels over 45,000 d.w.t. should have an accommodation ladder rigged in combination with pilot ladder for safe boarding of Mooring Master and Government officials. Pilot ladder should be abaft and close to accommodation ladder so that Mooring Master, after climbing a few steps, can use accommodation ladder for remaining climb. Since hoses handled on port side at Sidon, it is advisable to rig ladders on starboard side. If at night, adequate lighting must be rigged over-side for Mooring Master to approach side of ship and climb ladder safely.

Note: Vessels having special rigs, such as hoisting equipment on short sections of pilot ladder, are not required to rig pilot/accommodation ladders per the above.

ANCHORAGE: For vessels awaiting berth, good anchorage just W.S.W. of terminal sea buoy in 16 to 20 fathoms, sandy bottom. Vessels should under no circumstances anchor North of terminal sea buoy as depths are excessive for safe anchoring.

RESTRICTIONS: Berthing and unberthing during daylight hours only.

Vessels must not arrive with more than 50,000 tons cargo on board.

MAX. SIZE: Berth No. 2, depth approx. 67 ft. Tankers up to 80,000 d.w.t. or approx. 55 ft. draft are considered max. size which should be handled during Winter months at Sidon, and then only if vessel meets all of below recommended requirements. Otherwise, vessels of over 80,000 d.w.t. should not be nominated for liftings at Sidon during period November-April. In Summertime max. 100,000 d.w.t.

Based on previous experience, sudden and severe storms of long duration are not expected from April through October. Vessels over 80,000 d.w.t. may, therefore be accommodated during this period. However, prior to acceptance of nomination of vessels over 80,000 d.w.t. Tapline requires advance information regarding max. draft, vessel's equipment and location of manifold in reference to distance from stern of vessel which should not exceed 450 ft. Acceptance or rejection will be made after evaluation of above data by Sidon Marine personnel.

Summary of Recommendations for Vessels over 40,000 d.w.t.:

1. Capable, efficient and reliable anchor windlass(es).
2. 15 shots on starboard chain – 13 shots on port chain are satisfactory.
3. Mooring wire winches, 1 on aft well deck, 3 on poop deck, 200 fathoms wire on each, with adequate number of manila or synthetic ropes to double up as needed.
4. Capability of lifting 16 in. hose string – 6.5 tons static weight.
5. Suitably located hang-off bits.
6. Capability of keeping vessel in a reasonable safe ballast condition (November-March) by permanent ballast or loading while deballasting, or a combination of both.
7. Ship's manifold located not more than 400 ft. from stern.

RADIO:

(a) Facilities. Tapline has own ship-to-shore radio telegraph, and VHF radio telephone station at terminal. This station is not open to commercial traffic. Services limited to traffic between Tapline and tankers within 3 days' sailing time from terminal. Messages to or from tanker agents classed as "Commercial" and must be routed via Radio Orient, a commercial radio station. Its call sign is ODR.

Radio Orient Beirut, call sign ODR, transmits (CW) on 8702 kHz and 13101 kHz simultaneously half-past each hour beginning at 0630 until 2130 hrs. GMT, the traffic list; 524 kHz each hour beginning at 0600 hrs. until 2100 hrs. GMT, the traffic list. Listens on 8534–8374 kHz and 12531–12561 kHz for replies and calls each hour from half-past the hour until the hour; 500 kHz 0600 to 2200 hrs. GMT and 425, 454, 468 and 480 kHz from the hour until half-past the hour for replies and calls. Keeps watch only between 0600–2200 hrs. GMT on 500 kHz.

(b) Advice of Arrival. It is important that ships establish radio contact with "ODR" when 3 days distant from Sidon and maintain this contact at regular intervals until just prior to arrival at the terminal. All ships should send a 72-hour ETA message to Tapline, giving the best estimate of ship's arrival time, a statement of bunker requirements and other relevant information. Shorter notice may result in berthing delay. Further ETA messages should be sent when vessel is 24 hours and 12 hours distant and to cover any other time changes occurring in the original ETA or those subsequent thereto. The 12-hour ETA should include a statement regarding "ship's readiness to load" on arrival, and time required to discharge clean ballast after ship is moored. A further contact when 4 hours away is desirable for exchange of weather data and mooring schedule. Vessels failing to give minimum of 12 hours arrival notice may be subject to delays in acceptance.

(c) Ship-to-Shore Communications. Ship-to-shore communications, while ships are in moorings, will be by portable VHF radio units used by the Mooring Master only. The use of the ship's radio station (except Channels 16-14) and/or battery charging equipment is prohibited for safety reasons during cargo transfer operations.

In the event of normal ship-to-shore communications failure, the (ship's) emergency whistle signal should be used.

VHF: Tapline VHF radio telephone system operates on international Channels 14 and 16, 156.7 MHz and 156.8 MHz respectively. Channel 16 used to establish contact while all traffic handled on Channel 14. Tapline guards these channels on a 24 hour basis, and contact can generally be made at distances up to 100 miles from terminal. Conversations on these channels will be carried out in English language only.

Mooring Master only will be in direct charge of portable VHF ship-to-shore radio communications.

HEALTH: Rules governing quarantine of vessels are same as found in other ports.

BERTHING: 7 buoys at Berth No. 2. Berths numbered 1 to 4 from South to North. Vessels moored on 1 heading (West) basis using both bow anchors with max. possible spread of anchors to increase ship's anchor beam holding components. Ship's stern moored to cylindrical buoys fitted with release hooks, using 7 ropes (or wires) to respective mooring buoys. Permanent moorings consist of 7 steel cylindrical buoys in each berth.

Certain mooring buoys in all berths fitted with 1.5 in. diameter preventer wires, one end of which is secured to mooring buoys. When required, other end is brought on board vessel by a messenger line after ship moored in position. Preventer wires supplemental to ship's regular moorings during adverse conditions. Ships should have chain stoppers for handling these wires.

BALLAST: Masters are warned that no dirty ballast or bilge water may be discharged within an area extending 100 nautical miles seaward of the Lebanese coastline. All pipe-lines, sea suctions, strainers and pumps that are to be used for the discharge of clean ballast must be flushed clean prior to entering the 100 mile zone. Except for oil retrieved under "load-on-top" procedures, Masters must assure themselves that all oil tanks, pipe-lines and pumps are free of all traces of oil.

The terminal has no facilities for receiving oily ballast. A vessel must have sufficient ballast for safe manoeuvring. However, by carefully watching the weather, especially in the Summer months, by frequent interchange of weather information and berthing instructions, and, by a knowledge of the behaviour of his own vessel, a Master may desire to arrive at the terminal with minimum ballast thereby lessening any possibility of infringement of the pollution restrictions of this section, and also reducing time in berth.

As soon as practicable after arrival and prior to acceptance, all the vessel's tanks will be inspected for evidence of oil in ballast tanks. Inspection will continue during discharge of ballast. If evidence of oil appears at either of these inspections, the ship must return at once to a point not less than 100 miles from the coastline and there accomplish the necessary tank cleaning. Any vessel required to return to a position at least 100 miles offshore for the purpose of discharging dirty ballast, cleaning tanks or for any similar reason, automatically nullifies any Notice of Readiness already tendered, and at the same time loses any priority held for loading. On return from sea, vessel will be entered for loading at the time of the second arrival, when a new Notice of Readiness will be tendered.

Vessels discharging dirty ballast within the prohibited 100 mile zone may be subjected to action by the Lebanese Government. In addition, ship's owners and charterers will be promptly notified of any violation.

Masters are also warned that ship's garbage or trash should not be dumped within 50 miles from the Lebanese coast.

LOADING: *(a) Readiness:* Tenders to load will normally be accepted and berths assigned to vessels in order of arrival, provided vessels have nominations for cargo valid at the time, carry clean ballast and are in all respects equipped and ready to moor. In event berthing delayed on account weather, vessels will ordinarily keep their loading priority in order of arrival. Vessels required to leave port area on account of weather (port closed), should keep in contact with terminal via VHF in order that they will be available when weather moderates. Company will make every effort to load vessels on arrival, or as promptly as berth is available, weather permitting. Notice of readiness will not be accepted unless vessel ready to load. Arrival time will be considered as time Mooring Master boards vessel underway or time vessel anchors, whichever occurs first.

(b) Connecting-up. Ships loaded by means of submarine pipe-lines. Weight of the 16 in. hose in No. 2 Berth about 6.5 tons. Hoses lifted by ship's gear on port side. Detail of flange templates shown in drawings below. Ships should provide manifold fittings to allow connection of flanges shown in "Plan Section".

Mooring Master advises ship's personnel in lifting, connecting, disconnecting and lowering of hoses. A ship's deck officer must be present, and must direct ship's crew in all hose handling. There must be sufficient crew on deck to perform this work.

(c) Rates: Loading is by gravity flow from tank farm which is approximately 360 ft. above sea level. Loading rates as follows (approximate maximum):

	Rates (BPH)	
Berth	*With 1 Hose*	*With 2 Hoses*
2	40,000	70,000 (16 in. hoses)

Order save ship's time and to ballast vessel as quickly as possible, as well as to make berth available for others, it is requested that ships receive oil as fast as it can be delivered, with due regard for safety. The removal of any restrictions, such as strainers, etc., is recommended.

DISCHARGING: Ships unloading crude or refined products in Tapline seaberth must:

1. Be able to discharge at least 1,000 t.p.h.
2. Be equipped with centrifugal cargo pumps only. Piston pumps will NOT be accepted due to the damaging effect they have on the submarine hoses.
3. Ships without permanent ballast tanks must be able to discharge cargo and load ballast simultaneously.
4. Vessels must NOT strip (drain) their cargo tanks into the sealine. Air injected by this operation may cause the line to float and buckle.

Report: 1983. Cargo discharged through 8 in. line (old bunker line).

MEDICAL: Neither medical nor hospital facilities provided by Tapline. Private doctors and hospital facilities available at Sidon and Beirut. Agents acquainted with situation and can make necessary arrangements.

If unable make radio contact, then vessels requiring emergency medical assistance should hoist International Code Flag "W" in daylight, and at night, send "W" (· – –) on blinker light to attract immediate attention, the same signal "W" (· – –) should be given on ship's whistle in either day or night hours. Signal should be repeated until acknowledged visually by either another ship in berth; from shore station or from Company launch. As soon as signal is received, terminal officials will advise ship's Agent as soon as possible of the emergency medical aid required.

DENSITY: Salinity of the sea is same as open Atlantic Ocean. Temperature ranges from 60°F. to 85°F. (15.6°C. to 29.4°C.) depending on season.

FRESH WATER: Not available.

FUEL: Bunker fuel loaded at rate of 3,000–5,000 bbls.p.h. through 8 in. deck hose. Bunker connection should be located near ship's cargo manifold. Ships calling at Sidon to load crude oil should arrange for bunker fuel nominations through one of the offtaker companies well in advance of arrival. Bunker fuel will not be delivered until Tapline has received a firm nomination. Bunker fuel will be loaded as promptly as circumstances permit, but Tapline assumes no liability for any delays incurred by a vessel in berthing or loading bunker fuel. Maritime lubricants available, through marketing representatives in Beirut by arrangement through Agents.

PRECAUTIONS: *(a) Valve Control.* Ship's valves must not be closed against the oil stream.

(b) Emergency Signal. When, and if normal ship-to-shore communications fail, the emergency signal to stop oil flow will be a continuous blast on ship's whistle, until oil ceases to flow. Steam or air should never be shut off from the whistle during loading. Whenever emergency whistle is used, all loading operations in all berths will be shut down until communications can be established with vessel giving the signal. For this reason, it is requested that ships in the area refrain from using their whistles for other purposes.

(c) Readiness to Leave Berth. Port is considered an "open roadstead", and under no circumstances may engine be shut down for repairs while ships moored in submarine berths. Vessels in submarine berths must be able to clear, and shall clear immediately upon advice of Mooring Master. Ship's engine and gear must therefore be ready at all times with full power for immediate use.

(d) Loading and Deballasting Simultaneously. Properly equipped vessels will be encouraged to discharge clean ballast and load oil simultaneously. This capability is especially necessary during unsettled weather order keep vessel reasonably ballasted.

REPAIRS: No facilities.

SURVEYORS: Available from Beirut. Saybolt also available.

CONSULS: Italy and Norway. Consular or diplomatic representatives for most nations maintain offices in Beirut.

OFFICIALS: Lebanese officials, such as Customs Director, Quarantine Officer, Immigration Officer, Captain of the Port and Police, stationed at Sidon. Should Customs guards be stationed on board while in berth, it is expected that ship will provide food for these guards and other officials.

SHORE LEAVE: Arranged between Agent and Lebanese Security Officer aboard vessel. Ship's personnel (other than emergency or medical cases) not allowed to disembark at terminal. All personnel going ashore must land at Sidon where small boats must cross a shallow and sometimes impassable bar. Delays have been caused to vessels whose personnel have been unable to rejoin their ship. Sufficient personnel must be aboard at all times for letting go lines so that vessel can clear berth whenever required.

STORING: See "Prelims".

1. Barge only.
2. No storing during loading/ discharging.
3. Open sea-berth.
4. Open sea-berth.
6. No.

GENERAL: *(a) Mooring Wires and Winches.* Use of mooring wires to powered drums for all vessels calling at Sidon is strongly recommended. Because there are no mooring tugs available, a ship's ability to moor during marginal weather conditions is dependent upon its ability to warp itself into position. Vessels with capable wire winches and deck mooring equipment that are able to place 1 or 2 mooring ropes on a windward mooring buoy, usually able to moor without difficulty. Vessels over 40,000 d.w.t. should have mooring wires to powered drums, 1 on aft well deck and 3 on poop deck. The wires should be 200 fathoms in length and so secured as to be easily let go from ship if necessary.

(b) Ropes. Vessels should have 2 suitable, best quality mooring ropes of 200 fathoms each located on aft part of after well deck for use on either port or starboard side, 3 (min.) suitable, best quality mooring ropes of 200 fathoms each and 3 additional ropes of 150 fathoms each on poop deck plus properly located warping winches and bitts. Vessels equipped with mooring wire winches on poop deck may reduce required "additional" ropes accordingly. Wires are not used on port side of aft well deck due to possible fouling of wire with hose or pipe-line underwater facilities. In this position a suitable, best quality mooring rope must be used. 2 ropes of 200 fathoms each recommended, to be used on either side while mooring, and used on port side only for securing ship in berth.

SHIPMASTER'S REPORT: February 1983.

Tankers: The following notices are presented to the Master on arrival at the terminal.

TRANS-ARABIAN PIPE-LINE COMPANY
SIDON, Lebanon
Tanker Loading Advice

Master . . . . 19............

Your vessel is scheduled to moor in Berth No.............at . . . . hours...............................19.........

A Mooring Master will board your vessel prior to this hour. Engines, deck machinery, mooring lines and crew should be in readiness to proceed to berth.

The cargo (a 5 ton lift) and fuel hose will be picked up on the PORT SIDE.

The Mooring Master advises ship's personnel regarding the lifting and connecting of the submarine hoses, and after loading is completed, regarding the disconnecting and lowering. In this connection, he acts in an advisory capacity and assumes no liability on behalf of the Company. A ship's deck officer must be present, and he must approve the hose connection on board. The ship's crew will do the actual connecting and disconnecting of the hose.

The Mooring Master will be in charge of all ship to shore communications.

One prolonged blast of ship's whistle is the emergency signal to shore to stop the flow of oil to the ship and apply vacuum on the submarine lines.

SHIPS MUST NOT CLOSE VALVES AGAINST INCOMING OIL. Ships will be held liable for damage resulting from such closures.

Vessels in submarine berths must be able to clear immediately upon instructions from the Mooring Master.

CAUTION: It is the ship Master's responsibility to see that no oil (crude, bunker C, diesel or bilges) is pumped or spilled overboard from his ship either in the vicinity of the Company's Terminal area or within the area of 100 miles from the Lebanese coast. In the event of any oil spillage or loss from your vessel as the result of any act or omission of the vessel, such as but not limited to, pumping of oily water over side from ballast or bilge, or oil spill during loading, the vessel shall be responsible for all costs and expenses of clean up, or for any damages to property or injury to persons resulting from such spillage or oil loss. Tapline reserves the right to take all reasonable measures to clean up any resulting pollution or contamination on land or sea and will charge to vessel for all costs and expenses incurred thereby. In addition, since Tapline, as operator of the Terminal, is responsible (as a guarantor of the ship) for any damages to property of or injury to third persons, resulting from such spillages or oil losses, in the event Tapline pays or settles valid claims of third parties for such damages or injury, Tapline shall have the right to recover from the vessel all costs and expenses arising from its handling, payment and settlement of such third party claims.

The Port Authorities are very strict in this matter and a written report is submitted to ship's owners. WELL DECK SCUPPERS MUST BE PLUGGED DURING LOADING.

Please sign the attached duplicate of this notice, acknowledging receipt of same.

TRANS-ARABIAN PIPE LINE COMPANY.

TRANS-ARABIAN PIPE LINE COMPANY
SIDON, Lebanon

Master . . . . 19.........
Sidon, Lebanon

Dear Sir,

It is the ship Master's responsibility to assure that no oil including without limitation crude, bunker C, diesel or bilges is pumped or spilled overboard from his *vessel* in the vicinity of the Company's Terminal area or within the Prohibited Zone offshore Lebanon as defined in the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended in 1962. In the event of any oil spillage or loss from your vessel including but not limited to spillage due to pumping of oily water over the side from ballast or bilge or oil spill during loading, the vessel and her owners, operators, *Agents, and Master* shall be responsible for all costs and expenses of cleanup and for any injury to persons or damage to property, *including Tapline employees and property,* resulting from such oil spillage or loss. Tapline reserves the right to take all reasonable measures to clean up any resulting pollution or contamination on land or sea, but only as a contractor on behalf of your vessel and/or her owners, operators, *Agents or Master* and will charge the vessel and/or her owners, operators, *Agents or Master* for all costs and expenses incurred thereby.

Tapline, as operator of the terminal, is responsible as a guarantor of the ship for any injury to third persons or damage to property resulting from such oil spillage or losses. The Port Authorities are very strict in this matter and a written report is submitted to *the vessel's owners, operators, Agents or Master* for any such incidents. In the event Tapline settles or is required to pay valid claims of third parties for such injury or damage, Tapline shall have the right to recover from the vessel and/or from her owners, operators, *Agents or Master* all costs and expenses arising from its handling, settlement and payment of such third party claims.

Please sign and return the attached duplicate of this notice acknowledging receipt of same.

TRANS-ARABIAN PIPE LINE COMPANY.

AUTHORITY: 1. Zahrani Terminal, Lebanon, P.O.Box 28, Sidon, Lebanon.

2. Trans-Arabian Pipeline Company, P.O.Box 11-1348, Beirut, Lebanon. *Tel:* Beirut 341270-5. *Telex:* 20769 Le Taplin. *Cables:* Tapline Beirut. *Contact:* Captain K. E. Hopen, Asst. Terminal Superintendent.

AGENT: See "Beirut".

TRIPOLI: 34.28 N. 35.49 E. (See Plan)

(a) DRY-CARGO PORT (b) OIL TERMINAL

(a) DRY-CARGO PORT.

Manifests should be visaed by Lebanese Consul at ports of shipment or at any port *en route* where there is a Lebanese Consul. If on account of non-existence Lebanese Consul at ports of shipment or at any ports *en route* the manifests are not visaed, then such consular visa dues are collected at Beirut.

Non-Liner vessels calling at Tripoli, are to present on arrival to the local Customs' authorities, one copy of each manifest of cargo on board (even "IN BALLAST" manifests), DULY STAMPED AND SIGNED by the Customs' Authorities at the Loading Ports.

Otherwise, the vessel is subjected to a Customs' FINE.

DOCUMENTS:
1 Legalised copy of Cargo Manifests.
5 copies of Cargo Manifests.
2 Store Lists.
5 Passenger Lists.
2 Lists of Cigarettes and Tobacco (see "Customs Allowances").

In addition to documents listed, 2 copies of each Bill of Lading are to be handed over on arrival to the Agents, for Local Customs' Authorities control and check.

PILOTAGE: Compulsory. Agent arranges with Harbour Master, therefore keep Agent closely advised ETA. Harbour Master may also be contacted on VHF Channel 16.

Pilot boarding position: Lat. 34° 29.6′ N., Long. 35° 49.5′ E.

APPROACHES: Sunken wreck in position Lat. 34° 30′ N., Long. 35° 49′ E.

Depth in channel 9.0 m.

ANCHORAGE: Good anchorage.

MAX. SIZE: Max. LOA 150 m. (occasionally 175 m.). Max. draft alongside berth 22 ft. 6 in.

HEALTH: Health Authorities board in roads. Health form obtainable from Agent or doctor. Yellow Fever Certificates required for ships coming from Far East and Red Sea. Owners should check with Agents respecting any recent imposition of anti-epidemic regulations and requirements for additional injections for crew members.

RADIO: Cables via Beirut Radio to and from Agent.

VHF: Harbour Master on Channels 16 and 6.

BERTHING: New pier about 600 m. length. 2 berths. 20 cranes, capacities 5 tons – 100 tons. 2 forklifts with capacity 20 tons each. Lighters available for discharging alongside vessel. Ship's gear often used for discharging. There is a grain silo with capacity of 4,000 tonnes. 30 steel barges of 350 tons capacity each. 40 wooden and steel barges of 200 tons capacity each. All cranes, forklift and barges are privately owned. 50 ton floating crane available, owned by port company.

STEVEDORES: Ordered by Agent. No ETA to stevedores necessary. Working hours, 0700 – 1500, otherwise overtime included on Sundays and on official holidays.

MEDICAL: Master to advise Agent by cable prior to arrival if medical attendance required. Hospitals available.

DENSITY: 1025.

FRESH WATER: Available by barge.

FUEL: Available alongside by tanker trucks.

REPAIRS: Possible.

GANGWAY/DECK WATCHMEN: Available and recommended.

OPENING/CLOSING HATCHES: For liners by stevedores, otherwise per agreement.

CUSTOMS ALLOWANCES: Tobacco. 40 cigarettes per crew member. Customs very strict, checking crew cabins. Regulations are as follows:

1. That the quantity of tobacco to be allowed on board vessels upon their arrival at a Lebanese port will be fixed on the basis of 2 packets per crew member, passenger per day, and to be calculated on a maximum period of 4 months, if the vessel emanates from an American, Asian or African port – not Central Africa; and for 2 months if the vessel's last port of call is in Europe, Central Africa or Mediterranean, which will be deducted from the quantity, and on the same basis the consumption by the crew members and passengers during their trip, and this to start from the last port of call until arrival at a Lebanese port.

That the number of passengers to be taken into account on a tourist vessel will be the number of berths the vessel can accommodate and not the number of passengers on board. As to cargo vessels, the actual number to be accounted for will only be the crew members and the Master of the vessel.

2. In the event that it is the first call of the vessel, at a Lebanese port and not aware of such regulations, and it was found on board her an excess quantity to the actual one allowed, as indicated above, a Process Verbal will be established for the excess quantity found and the cigarettes placed under seal. An undertaking is also to be obtained from either the Owners and/or her Agents to the effect that they will submit a certificate, within one month, to be issued by the relevant Customs Authorities of the next port of call of the vessel after a Lebanese port. While the seizure of the vessel will be lifted when the Bank guarantee equalling the amount of fine and dues is placed, or a Personal Guarantee from the Agent – if solvable – and in the event that the undertaking is not fulfilled, the usual penalties will be inflicted according to the law.

3. In the event the vessel is aware of such restriction, and for one reason or another she is carrying an excess quantity, this excess must be, as per official regulations, be shown on the manifest legalised and issued at the last port of call touched by the vessel prior to Beirut.

Any excess found over and above such declaration will be considered as smuggling and the law will be applied.

Wine and/or spirits: 1 bottle per crew member; Master allowed 3/4 bottles.

CARGO GEAR: Ship's gear to be used.

IDENTIFICATION CARDS: Shore pass given to each crew member. Passport and seaman's book to remain in Master's care.

CONSULS: Most countries have consulates in Beirut.

AIRPORT: Beirut International Airport is 100 km. from Tripoli.

TIME: GMT plus 2 hours. Summertime, GMT plus 3 hours.

HOLIDAYS:

Holidays	*Date*	*Days*
New Year's Day	January 1st	1
St. Maron	February 9th	1
Good Friday (Catholic)	Varies	1
Labour Day	May 1st	1
Good Friday (Orthodox)	Varies	1
Al Fitr (Ramadan)	Varies	1
Assumption Day	August 15th	1
Al-Adha	Varies	2
Moslem New Year's Day	Varies	1
Achoura	Varies	1
Independence Day	November 22nd	1
Prophet's Birthday	Varies	1
Christmas Day	December 25th	1

BANKS:

The British Bank of the Middle East, Mina Street, Tripoli, Lebanon. Telex: 21850 Bbme.

Banco di Roma, Tell Street, Tripoli, Lebanon. Telex: 21818 Romtri.

STORING: See "Prelims".
1. Cargo ships can be stored by barge and truck and tankers by supply launches.
2. Cargo ships Yes. Tankers can be stored only at anchorage.
3. Yes.
4. Yes.
5. Storing can be done around the clock.
6. Storing is done by ship chandlers or their Agents.

SURVEYORS:
1. Cargo inspectors are available in Tripoli.
2. Surveyor's (Lloyd's, American Bureau . . . Independent) are also available in Tripoli.

AUTHORITY: The Harbour Master, Ministry of Public Works and Transport, El-Mina, Tripoli, Lebanon. *Tel:* 600283 (Harbour Master). *Telex:* 46030 LE A/B Tihama. *Contact:* V. Ghazi, Harbour Master.

AGENT: Gulf Agency Co. (Lebanon) Ltd., P.O.Box 2575, Zeilaa Building, 1st Floor, Tripoli El Mina (3100), Lebanon. Cables: "Gacship", Tripoli/Lebanon. Telephone: 600101, 600102, 600146, After hours 601515. Telex: 44874 or Athens 216344, 218687, 214548. Head Office: Beirut (which see).

(b) OIL TERMINAL.

Note: Terminal storage tanks were partly destroyed in late 1983. Sea berths were re-commissioned in March 1984.

DOCUMENTS: See "Section A – Dry-cargo Port".

PORT LIMITS: There are three spar-buoys to indicate the limits of the Company's Sea Terminal boundaries.

The location of these buoys is as follows:

1st.	Lat. 34° 30′ 03″ N.	Long. 35° 52′ 30″ E.
2nd.	Lat. 34° 29′ 42″ N.	Long. 35° 52′ 26″ E.
3rd.	Lat. 34° 29′ 03″ N.	Long. 35° 51′ 04″ E.

PILOTAGE: The company's Mooring Masters will meet tankers 2 miles N.E. of Tripoli Breakwater Head. Tankers of 40,000 d.w.t. and over should have rigged, when in light condition, an accommodation ladder lowered to about 12 ft. above water. This can be adjusted to suit conditions. A pilot ladder should be rigged immediately abaft the accommodation ladder, to within 2 ft. above the water. This will enable Pilot to ascend pilot ladder clear of launch and then step on to the lower platform of the accommodation ladder. United Kingdom Merchant Shipping (Pilot Ladders) Rules are relevant.

ANCHORAGE: Good anchorage immediately W.N.W. of No. 4 sea berth buoys.

MAX. SIZE: Least depth of water available in berth, and swinging circle, after deducting 6 ft. for the height above sea bed of the sea line and cradle is as follows: No. 1 Berth, 62 ft.; No. 2 Berth, 66 ft.; No. 3 Berth, 53 ft.; No. 4 Berth, 38 ft. The swinging circle is defined as 1.5 ship's lengths from dropping position of ship's inshore anchor. The approximate draft limits quoted are based on an under-keel clearance, in the berths, of 6 ft.

VLCCs will be handled in Berth No. 2 and loaded to a draft of 60 ft. During the period April to October, and subject to the Master and Mooring Master being satisfied that weather conditions permit loading to a reduced under-keel clearance of 4 ft., then the loaded draft may be increased to 62 ft.

HEALTH: See "Section A – Dry-cargo Port".

RADIO: The Lebanese Oil Installations Limited, Tripoli, must be informed 48 hours prior to arrival of a vessel's ETA, quantity of cargo required, maximum loading rate, SWL of derrick for lifting hoses and confirming that the ballast for discharge in port waters is clean. Communication with Iraq Petroleum Company, Limited, should be by cable addressed to "Petriraq, Tripoli, Lebanon", or direct to Tripoli Terminal Radio Station.

Tripoli Terminal Radio Station. Call Sign – ODC 8.

Waveband	*Hours (GMT)*	*Watch Details*
High Frequency	0800–0830	ODC 8 Broadcast Traffic List and calls ships on 8514 kHz. Listens on 8354–8374.
	1200–1230	Will transmit on 12831 kHz on request.
	1600–1630	
	2230–2300	
	0000–2400	Monitor 500 kHz for calls and answers only.
Medium Frequency	0730	Broadcast on 500 kHz QSW 442 kHz.
	0730–0800	Transmit Traffic List on 442 kHz, receives ship frequencies – 425, 454, 468, 480 and 512 kHz.
	1130	Broadcast call on 500 kHz, QSW 442 kHz.
	1132–1200	Transmit Traffic List on 442 kHz, receives on normal ship frequencies – 425, 454, 468, 480 and 512 kHz.
	1530	Broadcast call on 500 kHz QSW 442 kHz.
	1532–1600	Transmit Traffic List on 442 kHz, receive on normal ship frequencies – 425, 454, 468, 480 and 512 kHz.
	2200	Broadcast call on 500 kHz, QSW 442 kHz.
	2202–2230	Transmit Traffic List on 442 kHz, receive on normal ship frequencies – 425, 454, 468, 480 and 512 kHz.
	2232	Broadcast call QSY QSX 500 kHz.

Cables to Agents may be routed through Beirut Radio.

VHF: Tripoli:

Equipment: Fixed Station sited in Terminal Building and used by Control Room.
Call sign: Tripoli Control
Range: Approximately 15 miles.
Frequency: Transmitting on 163.6 MHz.
Receiving on 159.1 MHz.
Watches: Continuous.

Mobile Station
Equipment: Portable, battery operated, carried aboard vessel with Mooring Master.
Call sign: Ship's name (before mooring), or Berth No. (after mooring).
Range: Approximately 8 miles.
Frequency: Transmitting on 159.1 MHz.
Receiving on 163.6 MHz.
Watches: Continuous, whilst Mooring Master on board.

Notes

1. Tripoli also keeps a continuous watch on the international calling frequency of 158.8 MHz. This has a range of approximately 15 miles and its call sign is "Tripoli Control".
2. The VHF System is not connected to the main telephone switchboard and only selected shore stations have access to it.

TUGS: There is no tug at Tripoli.

BERTHING: *Sea Line Berths.* 5 berths numbered from N.E. to S.W. specifications as follows:

Berth No.	*Max. t.p.h.*	*Fixed Sea Line*	*Strings of Flexible Hoses*	*Approximate Limits*	
				Draft	*Deadweight*
1	5,000	2×24 in.	2×16 in.	56 ft.	140,000
2	6,000	1×32 in.	2×16 in.	60 ft.	250,000
3	5,000	1×32 in.	2×16 in.	47 ft.	87,000
4	Products	2×16 in.	2×12 in.	32 ft.	25,000
5	LPG	1×6 in. 1×3 in.	1×6 in. 1×3 in.	30 ft.	5,000

As loading is by gravitation, the maximum rates are dependent upon availability of suitable shore tanks and loading lines.

LOADING:

1. *Readiness to Load,* will be received by the Mooring Master, who is the Company Representative on board. The advice from the vessel which states she is ready to receive cargo is considered as final, and as indicating that every operation necessary aboard the vessel has been completed. As soon as possible after such a signal has been received, and without further advice, loading will commence. Damage to hoses can occur if ship's valves are not open at the start of loading.

2. *Derricks*

(a) Two hoses are connected on the port side amidship.

(b) Derricks or cranes reaching over the hose connection should be capable of lifting the flexible hose from the sea-bed to a height of up to 30 ft. above the deck.

(c) A minimum SWL of 5 tons is required for 12 in. hoses.

(d) The faster loading berths equipped with 16 in. hoses are available only to vessels with derricks and tackle with a minimum "Safe Working Load of 7 tons". Such vessels will be given berthing priority when queuing occurs and these berths are free but other vessels have not the capacity to handle the larger hoses.

3. *Hose Hang-off Bitts* are required at about 10 ft. from the ship's rail at the loading manifold to secure the submarine hoses on the port side.

4. *Hose Connection/Disconnection.* Ship's crew with a responsible officer in charge to perform all operations as advised by the Mooring Master, to lift, connect, disconnect and lower hoses.

5. *Ship's manifold* – to be prepared for the connection of 12 in. or 16 in. hoses with flanges of 150 series, dependent on berth allocation.

6. *Loading – Supervision and Commencement*

(a) All operations in connection with starting of loading, discharging, switching of tanks on board and topping-off must be directly and personally supervised by a responsible ship's officer.

(b) The advice from the vessel that she is ready to receive cargo is considered as final, and as indicating that every operation necessary aboard the vessel has been completed. As soon as such a signal has been received, and without further advice, loading will commence. Damage to hoses can occur if ship's valves are not open at the start of loading.

Caution: The oil loading stream to the ship is controlled on shore and it is extremely dangerous if a ship's valve is closed against the flow of oil.

To prevent excessive pressure from surge in ship and shore lines, ship's valves must not be shut-off against the stream, and when switching tanks, ship's valves must be closed slowly. Vessels will be held liable for damages resulting from any mal-operation of valves on board.

7. *Tank Dips.* During loading frequent checks should be made by the responsible ship's officer to ensure that cargo is entering the designated cargo tanks only and that there is no escape of oil into pump-rooms or through sea and overboard discharge valves. Particular care must be exercised by ship's personnel in "Topping-off" tanks and towards completion of loading to ensure that the terminal is given timely advice of any decrease in loading rate required. Adequate "standby" notice must be given before the final "stop".

8. *Loading Operations*

(a) The Mooring Master will not transmit any loading instructions to the shore until the responsible ship's officer is satisfied that the hoses are connected correctly and that all valves have been set for receiving cargo.

(b) Loading rates requested by the vessel or quoted by the terminal will be the peak or maximum rate at any time during the loading period.

(c) While in berth, ships should be ready to move under their own power in the event of their breaking adrift, catching fire, fire in adjacent berths or other emergency. No repair should be carried out while in berth which would immobilize the ship or impair her fire-fighting efficiency.

Failure to vacate the berth on completion of loading may result in delays to other vessels, demurrage, and loss of throughput which shall be accountable to the vessel.

(d) The Mooring Master will advise the Master of the ship as to any signals needed for local requirements.

(e) The Mooring Master brings a portable radio on board for ship to shore communication.

Products: *Requirements for a Product Delivery Vessel:*

1. The discharge berth is an open sea berth.
2. Tripoli Terminal Call Sign is ODC 8 and Master's ETA should be sent at least 48 hours prior to vessel's arrival on 500 kHz.
3. Vessel to be equipped with centrifugal pumps capable of maintaining a ship's rail pressure of 120 p.s.i. (reciprocating pumps are totally unacceptable).
4. Max. draft loaded 32 ft. in Berth No. 4 and 62 ft. in Berth No. 2.
5. 5 ton derrick SWL.
6. 6 mooring ropes 120 fathoms each.
7. Port and starboard anchors to have a minimum of 8 working shackles each.
8. Midship connection (Portside 1×12 in. 150 ASA).
9. Pumping is against a head of 270 ft.
10. Laytime to be calculated at an average discharge rate of 250 t.p.h.

DENSITY: 1025.

FRESH WATER: May be available at anchorage before berthing, but it is expensive.

FUEL: Fuel oil is available at Berths 2 and 3. The 12 in. bunker hose is raised on the port side of the vessel. Bunkering rates are 100 t.p.h. to 350 t.p.h.

CUSTOMS ALLOWANCES: See "Section A – Dry-cargo Port".

GENERAL:

1. *Ballast*

(a) Vessels should arrive with sufficent clean ballast for safe handling of vessel under prevailing weather conditions.

(b) Ballast water must be clean and a declaration signed by the Master and delivered to the terminal to this effect. Vessel's scuppers must be effectively plugged and leakage or spillage of oil aboard ship must not be swept or washed overboard.

(c) *Pollution of the sea – warning.* It is an offence to discharge dirty ballast or pump out bilges. The authorities are very strict and your attention is drawn to the Lebanese Notice to Mariners No. 23/1 of 29th July 1965, and to the volume entitled "International Conference on Prevention of Pollution of the Sea by Oil", issued by IMO London.

In the event of your vessel discharging dirty ballast or spilling oil, cost for cleaning the pollution, third party claims and port fines shall be borne by the vessel.

It is recommended that vessels carry an adequate amount of dispersants with means of application in case of oil spills.

2. *Gear to be provided by the ship*

(a) Anchor to be fitted with marker buoys and 20 fathoms line.

(b) 4 good mooring lines of not less than 150 fathoms each and of suitable size for the vessel. 2 additional 150 fathoms lines securely tailed to the first lines for cases where 150 fathoms may not reach to the stern buoys initially.

(c) For vessels of 50,000 d.w.t. and larger, powered mooring winches with 200 fathoms of wire rope.

(d) 4 suitable rope stoppers to be available aft.

(e) 2 good chain stoppers for use on 5.5 in. circumference wires (preferably carpenter's patent stoppers).

(f) 2 good 4.5 in. circumference boat ropes 200 ft. long placed one on each side of the vessel.

(g) 2 good ropes, 15 fathoms × 3.5 in. circumference and 2 heaving lines for lowering hoses.

3. *Lighting.* Manifold and poop mooring areas should be adequately lit to enable night mooring and loading operations to be carried out with safety. Sea area around the ship to be illuminated.

4. *Deck Watch.* A deck watch must be maintained at all times the vessel is in berth. In addition to its normal duties, the watch must inspect the hose connections and area around the ship against oil spillage, pollution, and prevent unauthorised persons from boarding your vessel.

5. *Boarding of vessel.* The control of persons boarding your vessel is the ship's responsibility. Boarding should be restricted to Company employees on duty and to persons authorised by the Port Authorities as advised by your Agents.

6. *Stores/Provisions* or other items should not be received or discharged whilst loading is in progress. Launches other than the Company's mooring launch, should not lie alongside the vessel.

7. *Tanker Safety.* Masters are at all times responsible for the application of all safety precautions as prescribed in the International Oil Tanker and Terminal Safety Guide.

8. *IOTTSG Safety Check List.* The Tanker Safety check list must be completed after inspection of each item prior to commencement of and during loading. The Mooring Master is authorised to stop all loading operations should he consider that the safety of lives and property is endangered by the infringement of safety rules.

9. *Action in case of Emergency.* In the event of a fire, oil spillage or other emergency on the vessel,

The Emergency Signal is:—

3 or more blasts of not less than 10 seconds duration each on whistle or siren supplemented by a continuing ringing of the general alarm bells.

SHIPMASTER'S REPORT: February, 1983.

Documents:

1 Copy Cargo Manifest.
3 Copies Crew Lists.
1 Copy Personal Effects Declaration.
1 Copy Bonded Stores List.

Approaches: Admiralty Chart No. 2903 – Tripoli Roadstead.

Ramkin Isle Light visible on approaches to the port but cannot be relied upon for full power.

Fairway Light Buoy (flashing green every 4 seconds):
Position: Lat. 34° 30′ 00″ N.
Long. 35° 52′ 28″ E.

N.B. – The Fairway Buoy has been removed.

All buoys should be treated with caution as some removed and all unlit. Breakwater and mooring buoys give good radar targets.

Pilotage: Pilotage is compulsory. In an emergency, vessel could dock/undock without Pilot. Area on chart marked 'Pilots' should be avoided due to a wreck with only 21 ft. clearance. Most suitable position for boarding is 1 mile East of this area.

It is requested that tankers of 40,000 d.w.t. and over should have rigged, when in light condition, an accommodation ladder lowered to about 12 ft. above the water. A pilot ladder should be rigged immediately abaft the accommodation ladder, to within 2 ft. above the water (U.K. Merchant Shipping – Pilot ladders – Rules 1965 is relevant).

Pilot ladder used for boarding. Accommodation ladder unsuitable due to swell.

Anchorage: Area for boarding Pilot is also suitable for anchoring, if awaiting berth due to adverse weather, and for approaches to the sealine berths. Good holding with 7 shackles of cable.

Restrictions: No night navigation.

Max. Size: Draft restricted to 62 ft. No restrictions on length or beam.

Health: Pratique granted on arrival.

Radio: Initial ETA sent to Beirut via Portishead Radio.

(a) Advice of ETA, is required 48 hours prior to vessel's ETA stating quantity of cargo required, max. loading rate, SWL of derrick for lifting hoses, and confirming that the ballast for discharge in port waters is clean.

(b) Lines of Communication:
  i. Tripoli Terminal Radio Station. Call sign ODC8.
  ii. By cable to "Petriraq Tripoli – Lebanon".
  iii. International VHF 156.8 MHz – range approx. 15 miles. Call sign "Petriraq Tripoli".

Tripoli Oil Installations – Lebanon.

Station: Tripoli Oil Installations – Lebanon, Tripoli Lebanon, private station for communication with tankers bound Tripoli, Lebanon.

Call sign: ODC8. Address: Toil, Tripoli Lebanon.

Periods open for traffic: ODC8 keeps a continuous 24 hours watch on 500 kHz for calls and answers only.

Medium Frequency Schedules: ODC8 transmits traffic list on 442 kHz and listens in the band 425-512 kHz.

0750 – 0800 hrs. GMT. 1530 – 1600 hrs. GMT.
1130 – 1200 hrs. GMT. 2200 – 2230 hrs. GMT.

High Frequency Schedules: ODC8 transmits traffic list on 8514 and 12831 MHz simultaneously and listens in the band 8554 – 8374 MHz:

0800 – 0830 hrs. GMT. 1600 – 1630 hrs. GMT.
1200 – 1230 hrs. GMT. 2230 – 2300 hrs. GMT.

Note: In addition to above, Tripoli Terminal keeps a continuous watch on the international calling frequency of 156.8 MHz. This has a range of approximately 15 miles and its call sign is "Toil, Tripoli Lebanon".

It is essential that tankers bound Tripoli Lebanon, communicate with station ODC8 at least 48 hours before arrival, and thereafter maintain contact (It may, at any time, be necessary to change orders regarding port of loading).

Radio station reported to be operating at reduced power but no contact made at all to date. Reasons given: No operators, no technicians, no maintenance, to name but a few. Contact made by VHF to 'Tripoli Oil Terminal', range varies from 15 miles down to 3 miles.

VHF: See "Radio". Pilots Channel 16, Port Channel 16, Agents' Channels 16 and 14.

Tugs: Not available. Vessels can dock/undock without tugs under favourable weather conditions.

Conditions of Use:

Notice: The facilities and assistance provided by TOIL to ships visiting the port for any purpose whatsoever are subject to the following conditions whether or not any charge is made therefor:

1. Assistance, Advice or Instructions.
   Neither the TOIL (which expression shall hereafter include any other owner of property used in conjunction with the property of TOIL) nor its servants or agents (in whatever capacity may be acting) shall be responsible for any loss, damage, injury or delay from whatsoever cause arising out of any assistance, advice or instruction whatsoever given or tendered in respect of any vessel. In all circumstances the Master of the vessel shall remain solely responsible on behalf of his Owners for the safety and proper navigation of his vessel, and the vessel and her Owners shall indemnify TOIL or its agent against all loss or damage sustained by TOIL or its servants or its agents, or for which TOIL shall be legally liable by reason of negligent navigation of the vessel.
2. Use of Sea Berths, Sea Loading Lines, Harbours, Jetties and Gear.
   (a) While TOIL has taken all reasonable care to ensure that the berths, facilities and other premises of TOIL and the gear and equipment used in connection therewith are safe, TOIL does not represent or warrant that the sea berths, sea loading or bunkering lines, harbours and jetties of TOIL or the gear and equipment (including gangways where provided) used in connection therewith are safe or suitable for any vessel, and any vessel using them or any of them shall be and remain at the sole risk of the Owners or Master thereof and in particular (but without prejudice to the generality of the foregoing) the safety or suitability of the gangway is the sole responsibility of the Master.
   TOIL does not warrant the seaworthiness of any craft hired or used by any vessel nor its fitness for any particular purpose.
   (b) TOIL will not be responsible for the acts or defaults of any of its servants or agents or of any Port Authority or its servants or agents nor for any loss, damage, injury or delay from whatsoever cause arising that may occur to the vessel or her cargo or equipment or to the Master or any member of her crew whether on board or otherwise, or in the course of mooring or unmooring or raising or lowering of the loading or bunkering lines or loading or discharging or otherwise howsoever, or to any third party, and the vessel and her Owners shall hold TOIL or its servants or agents harmless and indemnified against all claims, damages, costs and expenses arising therefrom.
   (c) TOIL will not be responsible for any loss, damage, injury or delay directly or indirectly caused by or arising from strikes, lock-outs or labour disputes or disturbances whether TOIL or its servants or agents are parties thereto or not.
   (d) If during or by reason of the use of the vessel of the sea line terminals, harbours or jetties or other premises of TOIL or its agents or the gear or equipment used in connection therewith or any craft of TOIL, any of them shall be damaged or become dangerous or unusable and irrespective of whether or not such damage has been caused or contributed to by the negligence of TOIL or its servants or agents or of any Port Authority or its servants or agents, the vessel and her Owners shall hold TOIL or its servants or agents harmless and indemnified against all loss arising therefrom.
3. These conditions shall be construed according to the law of Lebanon and if so required by TOIL the vessel and her Owners shall submit to the jurisdiction of the Lebanese Courts.

Notice of Readiness: Notice of Readiness accepted by Mooring Master at his time of boarding.

Ballast: Our vessel required a minimum of 6,000 tons of ballast on sailing light.

No facilities for dirty ballast or slops.

Loading: Mooring Master remains aboard at all times. Mooring boat and crew also stand-by throughout. Meals to be provided for the extra personnel.

Loading/Discharge Operations: Ship's pumping pressure not to exceed 120 p.s.i.

Discharging: Reducers supplied by terminal. No problems for 10 in. manifold.

Programme of operations:

During Mooring Operations:

	Action
1. Ullage, Water Dip and Sample Ship's Tanks.	Terminal for Refinery
2. Labelled Samples ex ship and any forwarded from loading port to Refinery for checking prior to commencement of discharge.	Terminal for Refinery
3. Authority to discharge cargo after testing of ship's samples.	Refinery

General Sequence of Operations:

1. Ship to pump sea water to clear into shore tanks the amount of gas oil contained in the sea and shore lines.	All concerned
2. When advised follow up with ship's cargo, warning of any stoppages in the ship's pumps is essential.	All concerned
3. On completion of discharge, ship to pump sea water, as required, to clear sea/shore lines.	All concerned
4. Sea/Shore Pipe-line systems to be left with sea water.	All concerned

	Action
Prior to commencement of Discharge:	
1. Pressure gauge to be fitted at hose on ship's manifold connection.	Marine Supervisor
2. Discharge pressure at ship's manifold not to exceed 120 p.s.i. (9 kgs.).	Mooring Master
3. Refinery to gauge tanks and prepare lines for the reception of gasoline (estimated at 180 Long Tons) and to confirm to Terminal Shift Supervisor when ready to receive the stream (time to be logged).	Refinery
4. Terminal Supervisor to ensure shift attendants are on duty to operate and supervise the booster pump at the transfer manifold.	M.M.S. and Terminal Supervisor
5. A Fireman will be required to be in attendance at the Booster Pump Manifold throughout discharge operations.	Refinery
Commencement of Discharge:	
1. Vessel to commence pumping sea water, gradually increasing pressure to maximum when all the system to the shore tank is checked and shore tank is receiving stream.	Mooring Master on board, also Ref. and Terminal Shift Supervisor
2. The booster Pump will pick up the stream at the Transfer Manifold, Pump attendants must be instructed to maintain a minimum positive suction pressure of 5 p.s.i. and operate within permissible amperage readings.	M.M.S. and Terminal Supervisor
It is VERY IMPORTANT that ship/shore operations be co-ordinated to ensure that the Booster Pump is never on stream when the ship's pumps are stopped, as this would cause DANGEROUS overheating conditions, especially dangerous in low flash point refined products.	Mooring Master, (Terminal Shift Supervisor for immediate instructions to Pump Attendant).
3. Pressure readings at ship's manifold and at Foreshore Manifold to be recorded hourly by Foreman.	Mooring Master and Terminal Foreman
During Ship's Pumping/Discharge:	
1. Refinery to sample at manifold of Tank 39 or any other points and advise when the line content of gas oil has been displaced and pumping of sea water by the ship should stop.	Refinery to Terminal Shift Supervisor
2. Refinery to advise when vessel may commence pumping its cargo.	Refinery to Terminal Shift Supervisor
3. Refinery to sample stream at Manifold of Tank 39 etc., where sea water would be drained out and switch stream into appropriate storage tanks when the required product appears in the sampling.	Refinery
4. IMPORTANT: Comply with Safety Code precautions when gauging receiving tank, especially when the oil level is below roof supports, to avoid the discharge of static electricity by the introduction of any "Conductors", such as a metal gauge tape and weight, into the space between the roof and level of the oil being received.	Refinery
Completion of Cargo:	
a) Mooring Master to advise when cargo discharge is completed and ship's tanks are dry.	Mooring Master
b) When advised, vessel to resume operations by pumping sea water to displace the line content of Blend Stock.	Mooring Master, Terminal Shift Supervisor
c) Refinery to advise when pumping of sea water may be stopped.	Refinery to Terminal Shift Supervisor
d) Refinery to gauge tanks and prepare certificate of quantity for cargo received in accordance with general procedure.	Refinery/ Terminal
e) Shore line to be re-set to "CLOSED" and to be left with sea water up to Tank 39.	Refinery to Terminal Shift Supervisor

Also see "Loading".

Density: 1025.

Fresh Water: Available by barge. Arranged through ship's Agent.

Fuel: Fuel oil is available in Berths 2 and 3 through a 12 in. hose lifted on the port side. Rates may vary between 100 and 350 t.p.h.

Diesel and lubrication oils not available.

Consuls: Nearest British Consul at Beirut.

Repairs/Dry Dock: Not available.

Surveyors: Lloyd's.

Gangway/Deck Watchmen: Due to attempted theft of paint stores by armed men, security guards recommended at the anchorage and on the berth.

Shore Leave: Not permitted.

Customs Allowances: Bond checked by Customs but not sealed.

Airport: Nearest at Beirut.

Services: Available: Laundry service, telex (unreliable), doctor, hospital, provisions, recovery of anchors, etc.

Not available: No facilities for discharge of slops or dirty ballast.

NOTICE: Responsibility for the safe conduct of operations on board your ship while at our terminal rests with you as Master. Nevertheless since our personnel, property and other may suffer serious damage in the event of accident aboard your ship, we wish before operations start, to seek your full operations and understanding on the safety requirements set out on the Ship/Shore Safety Check List.

The Safety requirements have been drawn up by ourselves in conjunction with other Terminal Operators in Middle East and representative section of the International Tanker Industry.

They are based upon the provision of the codes of safe Practice currently accepted by the Oil and Tanker Industries. We therefore expect you and all under your command to adhere strictly to them, throughout your stay in this Terminal. We, for our part, will ensure that our personnel do likewise and co-operate fully with you in the mutual interest of safe and efficient operation.

In order to assure ourselves of your compliance with these Safety requirements we have instructed our Mooring Master to report to you or your deputy and join one of your officers in a routine inspection of Cargo Decks and accommodation spaces.

If you observe any infringement of these requirements by Terminal or any other personnel on board your ships, please bring this immediately to the notice of our representative. Should you consider any immediate threat to the safety of your ships arises out of any action on our part or equipment under our control, you are fully entitled to demand an immediate cessation of operations.

Our Mooring Master is the Company Representative on board. WE RESERVE THE RIGHT IN THE EVENT OF CONTIUNED OR BLATANT DISREGARD OF THESE SAFETY REQUIREMENTS IN YOUR SHIP, TO STOP ALL OPERATIONS AND ORDER YOUR SHIP OFF THE BERTH FOR APPROPRIATE ACTION TO BE TAKEN BY THE CHARTERERS AND THE OWNERS CONCERNED.
For TRIPOLI OIL INSTALLATIONS – LEBANON

AUTHORITY: *Operator:* Tripoli Oil Installations Lebanon, P.O.Box 150, Tripoli (via Beirut), Lebanon. *Tel:* 601995, 620501/2/3/4. *Telex:* 46313, 46069. *Cables:* Petriraq Tripoli. *Contact:* Captain George Abed, Terminal Manager.

AGENT: Gulf Agency Co. (Lebanon) Ltd., P.O. Box 2575, Zeilaa Building, 1st Floor, Tripoli El Mina (3100), Lebanon. Cables: "Gacship", Tripoli/Lebanon. Telephone: 600101, 600102, 600146 after hours 601515. Telex: 44874 (A/B "GAC LE") or Athens 216344, 218687, 214548. Head Office: Beirut (which see).

NOTES

Please also advise Shipping Guides Ltd.

Liberia

GENERAL

COURTESY FLAG: Masters of vessels should check with the Pilot the correct times for raising and lowering (0600 – 1800 hrs.) the courtesy flag as heavy fines are imposed if raising and lowering is carried out at the wrong time. It is also advisable to carry a spare courtesy flag aboard the vessel.

BUCHANAN: 05.52 N. 10.02 W. (See Plan)

PORT LIMITS: A vessel shall be considered to have arrived at Port of Buchanan when she enters a circle with a 3 nautical mile radius from the beacon on the main breakwater head (Fl.G.3 sec.). The above does not affect present stipulations of ore ships' Notice of Readiness, which remain unchanged nor does it limit Port Authorities exclusive right to decide in which order ships shall be worked.

Notice of Readiness: Notice of Readiness will not be accepted from vessels anchored more than 3 miles off the head of the main breakwater.

DOCUMENTS:
1 copy Clearance from last Port of Call.
1 copy Health Declaration.
6 copies Number of Passengers.
4 copies Ports of Call
6 copies Cargo Manifest (even in ballast).
7 copies Crew List.
3 copies Stores List (ship).
3 copies Personal Effects List.
1 copy Vaccination List.

Customs, health and passport inspection normally takes place at the berth.

It is recommended that the Master of the ship himself attends at the boarding party to clear the ship upon arrival and that the above documents are prepared upon the ship's arrival.

PILOTAGE: Lamco provides pilotage. Pilot boarding approximately 1.5 miles off the main breakwater, bearing 095°/110°. Pilot to be provided with a clean and safe ladder on the lee side. Buchanan Pilot on VHF Channel 16.

ANCHORAGE: If waiting for Pilot, anchor off main breakwater on bearing 090° – 110°, 1.5 miles – 2.5 miles off main breakwater (South).

Exit Channel: Anchoring is prohibited within a sector with a bearing of 060° – 080° to the head of the main breakwater, as this is the exit sector.

RESTRICTIONS: Harbour traffic hours – towage and pilotage (ore ships), 0000 – 2400 hrs. General cargo ships (tankers), 0700 – 2300 hrs.

MAX. SIZE: See "Bulk Handling Facilities", "Berthing" and "Tankers".

Arrival Draft: Maximum arrival draft for ore carriers must not exceed 8.85 m. and air draft should not exceed 15.0 m. Maximum arrival draft for cargo vessels must not exceed 9.15 m.

HEALTH: Customs, health and passport inspection normally takes place at the berths. Quarantine signal must not be hauled down before "Free Pratique" is received. If diseases are suspected on board contact the Port Authorities or Agents by radio for instructions. After call at other Liberian ports where Free Pratique has been granted, Port Health will also board here.

RADIO: Buchanan Harbour will call on 6520 kHz, 4 days before ETA, between 0800 hrs. and 0830 hrs. GMT, or when within 200 miles call Buchanan Harbour on 2182 kHz at 0800 hrs. GMT. Communications with ore ships per HF, call 2182 kHz. Traffic, 2638 kHz, 2738 kHz. VHF, call Channel 16. Traffic, Channels 6, 9, 12 and 14.

Contact immediately before arrival:

Watch schedule of Buchanan Harbour:

From about 2 hours before expected arrival of an ore ship, the LAMCO Clearing Office is keeping continuous radio watch on VHF Channel 16 and call frequency 2182 kHz, for possible subsequent switching over to VHF Channels 6, 9, 12 or 14 and 2738 kHz or 2638 kHz.

The call sign is "Buchanan Harbour", ELM 1.

All ore ships heading for Buchanan are requested to establish radio contact with "Buchanan Harbour", ELM 1, using the above frequencies approximately one hour before estimated time of arrival.

Contact 24 Hours Before Arrival:

Whenever an expected ore ship is to arrive in the Port of Buchanan within about 24 hours, the LAMCO Clearing Office will for the purpose of securing timely and accurate information on the ETA of the ship, maintain the following radio watch schedule.

Morning watch : 0800 – 0900 GMT
Afternoon watch : 1500 – 1600 GMT

Frequencies:

The radio watch is kept on call frequency 2,182 kHz for subsequent switching over to 2638 kHz, or 2738 kHz, or 6520 kHz (0830 – 0900 and 1530 –1600 GMT).

The radio set used on shore has a reach of approximately 600 miles. In accordance with the above, ore ships heading for Buchanan and having radio sets operating on frequencies listed are requested to establish radio contact with "Buchanan Harbour" and give ETA message as soon as possible after they have come within 600 miles distance from the port.

Contact at a distance of approximately 1,400 miles and on sailing from last port:

Sailing from last port: On sailing from last port for Buchanan, the owner or the Master shall telegraph to "GIMSALES", Stockholm (Telex No. 17549) and to "LAMCO", Buchanan (Telex No. 44260) stating expected date of arrival and furthermore indicate to the latter the vessel's preferred radio working frequency in the 4000 – 8000 kHz range.

Radio watches: Starting 4 days before the vessel's ETA at Buchanan, "Buchanan Harbour", ELM 1, will call the vessel on 6520.0 kHz between 0830 – 0900 GMT and 1530 – 1600 GMT.

Every day, except on holidays and Sundays, Buchanan Harbour keeps watch on 2182.0 kHz between 0800 – 0830 GMT and 1500 – 1530 GMT and on 6520.0 kHz between 0800 – 0830 GMT and between 1530 – 1600 GMT. These watches will also be kept on holidays and Sundays in case a vessel is expected on those days or the following workday.

Notice in advance: The Master shall give telex or cable notice 72 hours and 36 hours prior to the vessel's expected arrival at Buchanan to LAMCO, Buchanan, if no radio contact has been established previously.

TUGS: Lamco provides towage with two tugboats 1,640 h.p. and one tugboat 3,300 h.p. Tugs join vessel about 0.5 mile North of red buoy.

BERTHING: Ore Quay: Length 257 m., depth alongside 14.0 m.
Commercial Quay: Length 320 m., depth alongside 10.0 m.
Tug Quay: Length 126 m., depth alongside 10.0 m.

Storage: A commercial warehouse with a storage capacity of 2,300 sq.m. built on the harbour along with the Customs warehouse of 1,000 sq.m.

Iron ore storage capacity: 1.7 million tons on shipping stockpiles. 0.4 million tons on feed stockpiles.

CRANES: 1×150 ton derrick crane and 1×20 ton portal crane at the Commercial Quay.

BULK HANDLING FACILITIES:

Instructions for the handling of ore ships with a draft of 39 ft. or more:

The departure shall be arranged in such a way that the following conditions are fulfilled:

1. *Minimum clearance "C"* under the ship's keel shall be 3 ft. except for ships having a beam "B" exceeding 125 ft., for which minimum clearance required shall be calculated by the following formula:

$$C = \frac{B}{125} \times 3 \text{ ft.}$$

2. *Maximum advisable draft "D" Max* in the basin shall at any time be based on the actual height of the sea level "H" at that time (measured from the project O-level) and on the required minimum clearance "C" under the keel shall under normal conditions be estimated as follows (for – 12.95 area):

$$D \text{ max} = 42.5 + H - C \text{ (all measurements in feet).}$$

3. *Departure on falling tide* is permitted only when it can be shown that the minimum clearance "C" as per above will be maintained during a period of at least 2 hours from the time the tugs start pulling. (This means as a consequence that for a ship that commences departure less than one hour *before* high water the draft shall be based on estimated level of the falling water 2 hours after commencement.

Note that the level one hour after high water has sunk about 7% and the level 2 hours after high water 25% of the total tidal range.

Deep Water Basin at Buchanan Ore Loading Quay: With the completion of the deep water basin at the Ore Loading Quay, the water depth alongside the quay is increased from 12.95 m. to 14.00 m. below the zero level of the General Elevation System.

The required keel clearance is 3 ft. for ships up to 125 ft. beam. The max. permissible draft alongside the quay is thus:

$$46 \text{ ft.} - \left(\frac{\text{beam in ft.}}{125} \times 3\right) \text{ft.} + \text{tide}$$

Tidal range:
MHWS = +1.18 m. above zero level of the General Elevation System.
MLW = +0.05 m. above zero level of the General Elevation System.
MLWS = – 0.15 m. below zero level of the General Elevation System.

Because of the necessity to save a rock shelf to support the sheetpiling of the cells when blasting and dredging the deep water basin, new fenders have been installed at the quay in order to keep the bilges of the vessels well clear of those rocks. The new fenders have a diameter of 1.20 m. A ship loaded to maximum permissible draft can have a list of 5° without touching the rock slope but since she would touch the bottom with a list of about 3° such lists will not be tolerated.

Height of Shiploader: 17.0 m. above the water level at MHWS. A 1.0 m. safety margin is normally sufficient.

Maximum shiploader outreach (including throw) from the new fender line is 24.0 m. whereby a max. 48 m. wide vessel can be loaded. Loading rate 6,000 t.p.h. (3,000 t.p.h. July 1987).

It must be clearly understood that the sailing drafts are unchanged. The width of the deep water basin is only 60 m. It gives however, the great advantage of being able to continue loading without stopping for low water, whereby loading can often be completed 12 hours earlier than without the deep basin.

An even greater advantage is probably the increased safety, should a large ship develop engine trouble after she has exceeded the former maximum permissible low water draft, in which case operators have no alternative but to pull vessel out at HW as "dead ship" which could very easily result in a major accident with enormous economic consequences. Now operators can let vessel remain alongside over the next low tide without any risk.

Vacation of Berth: Vessels should vacate their berths immediately after completion of loading or discharging.

Ore carriers are allowed a maximum stay of 30 minutes, whereafter US$1,000 per hour or any part thereof will be levied at the Harbour Master's discretion. (This may be exempt if vessel on max. draft awaiting high water sailing.)

STEVEDORES: As early as possible advance notice of ETA required latest by 1500 hrs. on day preceding arrival if a weekday. Or Saturday before noon if arrival on Sunday.

Shore working hours: Ore handling: 24 hours a day.

General cargo handling:

Morning Shift:	
Monday through Friday	0700 – 1500
Saturday	0700 – 1200
Afternoon Shift:	
Monday through Friday	1500 – 2300
Saturday	1200 – 2300
Night Shift:	
Monday through Saturday	2300 – 0700
Holidays:	0700 – 0700 of next work day.
Container vessels/Ro-Ro vessels (Afternoon Shift):	
Monday through Friday	1500 – 2300
Saturday	1200 – 2300
Container vessels/Ro-Ro vessels (Night Shift):	
Monday through Saturday	2300 – 0700
Container vessels/Ro-Ro vessels (Sundays and Holidays):	
Sundays & Holidays	0700 – 0700

MEDICAL: Hospital and medical care is provided; advance notice should be given in serious cases. Yellow fever and cholera vaccinations are compulsory to enter the Republic. Vaccination book is required.

TANKERS: One tanker berth with 1×8 in. pipeline for discharging only. Hose connections are 6 in. and 10 in.

Max. size: 8.2 m. draft if length 170 m. or less and 7.0 m. if length over 170 m.

Oil depot capacity:

22,000 cu.m.	diesel oil.
1,000 cu.m.	gasoline.
15,000 cu.m.	heavy oil.

Various storage tanks:

1,500 cu.m.	diesel oil.
450 cu.m.	heavy fuel.

DENSITY: Varying but around 1020/25.

FRESH WATER: Fresh water is available, ex-quay only, rate is 20 t.p.h. Subject to availability.

FUEL: No bunker facilities available.

GANGWAY/DECK WATCHMEN: Agent strongly recommends employment of night watchmen as thieving is commonplace.

OPENING/CLOSING HATCHES: Performed by stevedores.

REPAIRS: No commercial facilities available. In cases of emergency Lamco might assist with minor repairs.

CUSTOMS ALLOWANCES: Direct sales from ships are strictly forbidden.

IDENTIFICATION CARDS: Not required.

CONSULS: Swedish Vice-Consul only; however, most countries are represented either by Embassy or Consul at Monrovia.

REPATRIATION: Can be arranged.

AIRPORT: Roberts International Airport about 1 hour ride by car; several connections to the rest of the world.

TIME: GMT; no alterations during the year.

HOLIDAYS: January 1st; February 11th; Second Wednesday in March; March 15th; April 12th; May 14th; July 26th; August 24th; First Thursday in November; November 29th; December 1st; December 25th. Special holidays as proclaimed from time to time by the Liberian Government. No work will be performed on January 1st, July 26th and December 25th.

POLICE/FIRE/AMBULANCE: No phone available; however the Lamco Plant Protection Force should be contacted; one Officer is normally assigned to each quay/gate.

SHORE LEAVE: Apart from South African citizens, who are not allowed ashore, no restrictions.

DELAYS: Generally, no major delays have occurred. For ore carriers and tankers the tide may occasionally involve 24/36 hours waiting time depending on the size of ships expected to load: general cargo ships; no delay.

GENERAL: *Customs:* Two Customs Officers stay on board the ship during ship's entire stay and they should be given meals in the Officers' Mess and if necessary night quarters.

Cabins: It is recommended to keep all cabins locked during the stay in port.

Provisions: There are some chandlers in Buchanan for fresh fruits, fish, etc. No duty free or wholesale facilities provided.

Tide: Range of tide 0.90 m. – 1.50 m. (3 ft. – 5 ft.)

AUTHORITY: *Port Operators:* Lamco J. V. Operating Company, c/o Roberts International Airport, Robertsfield, Liberia. *Tel:* Monrovia 224238 (local), Monrovia 221190 (overseas), Buchanan 1545, 1546. *Telex:* 44260, 44293 Lamco. *Cables:* LAMCO Buchanan (Liberia) KTB. *Contact:* Harbour Master.

AGENT: All ore carriers must employ LJVOC as their Agent.

Other vessels:

Scanship (Liberia) Inc., PO Box 19 Lower Buchanan, Tel: 32.32.36. Telex via Monrovia 44281 and 44344.

GREENVILLE: 04.59 N. 09.03 W.

PORT LIMITS: Sea Buoy: 04° 58.27′ N., 09° 04.27′ W.

DOCUMENTS:

6 Crew Lists.
6 Passenger Lists.
4 Customs and Crew Declaration.
2 Vaccination Lists and valid Cholera/Yellow Fever Certificates.
2 Copies Manifests.
2 Copies, Bills of Lading.
Load Line and Safety Construction Certificates.
Licences of Officers (for Coast Guard).
Cargo Gear Certificate.

PILOTAGE: Compulsory. Pilot embarks in position of Sea Buoy or at the authorised anchorage. Boarding is done from a launch painted black and white with the word "Pilot" inscribed. Contact can be established on a normal working day between 0730 – 1700 hrs., on Saturdays 0730 – 1200 hrs., holidays and Sundays – Office not open, but should a vessel be expected the Pilot can be contacted during the expected time of arrival on VHF Channel 16 or 12.

ANCHORAGES: Indicated on the Chart by a dotted line commencing in position Lat: 4° 58.8′ N., Long: 9° 03.4′ W. running in a direction 309° for 11 cables thence 092° for 10 cables then 188° for 7 cables with a minimum depth of 6.5 fathoms. Care should be exercised as there exists a 4 fathom patch at the edge of the anchorage area. Vessels proceeding to the anchorage area should proceed with the Sea Buoy and the North Point Lighthouse, bearing 059° to within a distance of one mile from the breakwater, thereafter altering course for the anchorage.

RESTRICTIONS: Pilotage is carried out between 0500 hrs. and 2300 hrs. daily. Under extenuating circumstances pilotage can be done after 2300 hrs., if previous arrangements are made.

MAX. SIZE: Length 156 m., beam no restriction, draft 7.31 m.

HEALTH: Pratique granted by Port Health Officer on arrival at berth, no Radio Pratique granted.

RADIO: None, ETA's should be routed to Agents via telex or cables.

VHF: Contact can be established with the Marine Office or the various Agencies during normal working hours Monday – Friday 0730 – 1700 hrs., and on Saturdays 0730 – 1200 hrs. on Channel 16 VHF.

RADAR: No Port Control radar.

TUGS: One twin screw tug of 1,450 b.h.p. available for assisting vessels. This tug is equipped with modern fire fighting appliances, and can also execute coastal towage of vessels if required. Ship's lines are preferable for towing, but if not available then tug's line can be used.

Two 192 h.p. launches are available for assisting coasters, and the towing of logs when rafting is being done.

BERTHING: One jetty 585 ft. in length with a depth of 8.1 m. Smaller jetty for vessels not exceeding 180 ft. in length with a depth of 4.9 m. alongside. In addition vessels loading floating logs can be berthed safely in the middle of the basin parallel to the main jetty with a depth of 8.1 m. Under favourable weather conditions (November – April) a third vessel can be accommodated at right angles to the jetty in a similar depth to the inner basin. All loading and discharging must be done by ship's gear.

CRANES: None presently available, but plans are underway to purchase a 70 ton mobile crane.

BULK CARGO FACILITIES: Cargo handled-forestry products only i.e. logs, boules, sawn timber and plywood.

SPECIALISED CARGO HANDLING FACILITIES: None.

BRIDGES: None.

STEVEDORES: Arrangements can only be made on vessel's arrival as this depends on the availability of the logs and sawn timber to be loaded. The required loading rate for vessels alongside the jetty is 800 cu.m. per 24 hours and vessels in the basin 500 cu.m. per 24 hours.

MEDICAL: One Government owned hospital with 50 beds, and one private clinic, both with limited facilities available.

TANKERS: Facilities for small coastal tankers only, but larger tankers loading palm oil can use the large jetty with portable hoses/pipes connected from the permanent installation.

DENSITY: November-April 1025; May-October 1010.

FRESH WATER: Available at berth or by tug.

FUEL: Small amounts of diesel can be delivered by truck.

FIRE PRECAUTIONS: Usual precautions.

CONSULS: Nearest at Monrovia.

REPAIRS: No facilities.

DRY DOCKS: None.

SURVEYORS: All classification societies are represented at Monrovia. Surveyors will travel to Greenville if arrangements are made by Agents.

GANGWAY/DECK WATCHMEN: Available but not compulsory.

HATCHES: Opening/closing carried out by crew but alternative arrangements can be made for shore labour.

CUSTOMS ALLOWANCES: 200 cigarettes/1 bottle spirits per crew member, but depending on duration of stay.

CARGO GEAR: Ship's gear only.

REPATRIATION: Carried out via Monrovia.

AIRPORT: Small domestic airport 5 miles from the port with two flights daily to Monrovia, approximately 45 minutes flying time.

TIME: GMT is observed throughout the year.

HOLIDAYS: There are 13 National Holidays, January 1st, New Year's Day; February 11th, Armed Forces Day; 2nd Wednesday in March, Decoration Day; March 15th, J. J. Roberts' Birthday; Good Friday; 2nd Friday in April, Fast and Prayer Day; April 12th, National Redemption Day; May 6th, President Doe's Birthday; July 26th, National Independence Day; August 24th, National Flag Day; 1st Thursday in November, Thanksgiving Day; November 29th, Tubman's Birthday and December 25th, Christmas Day.

No work is permitted whatsoever on January 1st, New Year's Day; April 12th, Redemption Day: July 26th, Independence Day and December 25th, Christmas Day.

POLICE/AMBULANCE/FIRE: Within reach. Not available by telephone.

TELEPHONES: Not available.

SERVICES: No facilities exist for tank cleaning or compass adjusting.
SHORE LEAVE: No restrictions.
IDENTIFICATION CARDS: Not required.
REGULATIONS: No unusual regulations.
DELAYS: Can be expected during the rainy season (April-November) when adverse weather conditions (heavy swell) exist causing vessels to part their moorings. This usually lasts not more than 2 days in any given period. At such times, vessels are moved to the inner basin or to the roadstead until the conditions improve.

GENERAL: The port designed for the handling of logs and related wood products has just completed a re-habilitation project which included the dredging of the basin and approaches, new rafting and lighting facilities, also the placing of both fresh and salt water mains to the quay. Feasibility studies are now underway with a view to increasing the length of the Main Quay by 33 m. Despite the fact that the present facilities are for vessels of 156 m., vessels of 160 m. were safely berthed in the past year.

Navigational aids installed in 1987 as follows:

Sea Buoy R. & W. HOR. bands, Posn., 04° 58.27′ N., 09° 04.27′ W. Fl. W. ev. 10 secs.

Buoy marking mutine patch R. & W. HOR. bands, Fl. W. ev. 6 secs.

Red Buoy bearing 337° × 2 cables from the breakwater marking the Northern extremity of the Harbour, Fl. R. 3 ev. 8.5 secs.

North Pt. Lt. Ho Sectored Fl. R. & W. 2 ev. 11 secs.

130° – 310° Obscured
310° – 040° Red
040° – 080° White
080° – 130° Red

Light at the Northern extremity of Jetty, Fl. G. ev. 3 secs.

AUTHORITY: National Port Authority, Port of Greenville, P.O.Box 165, Greenville, Sinoe County, Liberia. *Tel:* 9538/9. *Cables:* "Sinoe Port". *Contact:* Captain S. L. Wynter, Chief Pilot.

AGENT: See "Monrovia".

MONROVIA: 06.20 N. 10.50 W. **(See Plan)**

DOCUMENTS:

4 Crew Lists.
4 Passenger Lists or Statements "Nil" if none aboard.
2 Manifests for Customs. This should state ballast if no cargo aboard.
4 List of Ports of call from commencement of voyage with date of calls.
1 International Health Declaration.
1 List of dates of yellow fever and cholera vaccination.
4 Stores Lists.
2 Crew Customs Declarations.
Immigration now stamp all seamen's discharge books or passports.
2 Livestock Lists.

Notice:

The National Port Authority have issued Circular No. 1/1988 which reads:

"The National Port Authority, Freeport of Monrovia, is herewith announcing the following:

1. Ship's ETA, draft – and corrected ETA – shall be furnished to the Harbour Master in writing, minimum 24 hours prior to ship's arrival.
2. The following cargo documents shall be furnished minimum 48 hours prior to ship's arrival to the Operations Manager (with the exception of those cargo documents of last coastal port in West Africa, which shall be made available at ship's arrival).

Import:

6 complete and legible sets of Cargo Manifests, classing separate:
- containers (size and type to be indicated)
- rolling units
- general cargo (loose)
- LCL-container manifest (separate per unit)
- summary.

2 Manifests of cargo to be shifted via quay
1 Stowage/bay plan
3 List of Dangerous Goods (as to IMDG-codification) for Monrovia
1 List of Dangerous Goods (as IMDG-codification) in transit

Export:

2 copies of the provisional Booking List shall be furnished minimum 48 hours prior to ship's arrival to the Operations Manager
3 complete and legible sets of Export Manifest classed as the Import Manifests – Customs passed and stamped, shall be furnished minimum 48 hours after ship's departure to the Operations Manager.

All cargo documents shall use metric system in weight and measurement.

3. As from 1st May, 1988 a new billing procedure has been established. As from this date, vessel's billing shall comprise of 2 invoices of same old form.

The first invoice shall cover marine services and facilities including water supply only, while the second invoice shall cover Operations Department tariff items i.e. shift surcharges for gangs, overtime, etc.

Payment is expected within 14 days after receipt of invoice, thereafter, port's services shall be suspended, until payment has been effected completely."

PILOTAGE: Pilot is compulsory. Pilotage available day and night, except for vessels berthing at the oil jetties. Pilot ordered through local Agent. 24 hours or minimum 12 hours notice of ETA by Radio Telephone on 2182 kHz. Pilot instructs ship through signal tower or direct on VHF Channel 16.

Pilot comes out from inside breakwaters by pilot launch, displaying "H" flag by day and white over red light at night and "Pilot" in large black letters on side of the launch. Pilot will inform ship by VHF which direction to proceed to meet the pilot launch by the Fairway Buoy. Vessels should always keep clear of the Fairway Channel, as very large bulk carriers sail on deep draft.

APPROACHES: The artificial harbour is protected by 2 rock breakwater extending 1.25 miles out into the open sea, encompassing some 750 acres of protected waters. The distance between the breakwater entrance is 970 ft. and in the centre of the opening a 500 ft. wide channel marked by buoys has been dredged to 49 ft. MLW. This channel is 1.33 miles long with a 30° turn half way and marked by means of 4 lighted channel buoys. North and South Mole ends of the breakwater are marked by red and green rotating light beacons respectively. The channel within the breakwaters gradually widens into a turning basin whose depth towards the Iron Ore Piers is dredged to a depth of 45 ft. MLW and 30 ft. off the General Cargo Pier.

ANCHORAGE: Recommended anchorage is 3 miles from breakwater (45 ft. – 60 ft.) in roadstead is to the South of the buoyed channel which provides goods holding ground on a sand and mud bottom. Vessels are not anchored within the Inner Harbour except for very short periods of time.

RESTRICTIONS: Pilot service is day and night. Loaded oil tankers berth in daylight hours only. Deep loaded vessels i.e. 40 ft. draft and over are restricted to tide for berthing and sailing. Maximum draft for main ore piers is 45 ft. Vessels up to 860 ft. length can be accommodated at these piers. No restriction on beam except that carriers with beam in excess of 126 ft. may experience difficulty in loading with present loading gantries. Bulk carriers of 90,000 d.w.t. and over will berth only in daylight hours.

MAX. SIZE: Vessels loading at the Iron Ore Piers are limited to a max. draft of 45 ft. and sail from 2 hours before HW up to the time of HW. At the bunker pier vessels are limited to a draft of 32 ft. and at the marginal cargo wharf to a draft of 30 ft. Vessels exceeding these drafts can be heavily fined.

Also see "Restrictions" and "Berthing".

HEALTH: Vessels entering must fly International Code flag "Q". Port Health Officials board upon berthing. Pratique automatic for vessels having cleared at other Liberian ports, but vessel must still clear Customs.

RADIO: ETA messages from ships are received in the Freeport through Liberian Government Radio Station, Monrovia and through French Cable Station, Monrovia.

Monrovia Radio call sign ELC-2150 (6° 17′ N., 10° 48′W.) is fitted with VHF and HF radio at the Freeport, working from 0800 hrs. to 2400 hrs. The VHF is of the Marine type with Channels 6, 8, 9, 10, 11, 12, 13, 14, 15 and 16. Also transmits on 482-500-512 kHz and receives on 500 kHz A1 2.5 kW.

Other Frequencies:		
	8518 (8 MHz Channels 5 & 6)	A1 2.5 kW
	12709 (13 MHz Channels 5 & 6)	A1 2.5 kW
	16983 (16 MHz Channels 5 & 6)	A1 2.5 kW
	17146 (17 MHz Channels 5 & 6)	A1 2.5 kW
	22491 (22 MHz Channels 5 & 6)	A1 2.5 kW

Telex Address: National Port Authority - NATPORT 44275.

VHF: Vessels arriving or sailing must make contact with Freeport Control Tower on Channels 16 and later 14 or 12 within the port area and Pilots' Office and for manouvering Channel 9.

TUGS: Use of tugs compulsory. 3 tugs available. 'Nana Kru' and 'Stockton Creek' 1,700 h.p. each and 'Bentol' 3,900 h.p. Join vessels just inside breakwater entrance. For berthing, tug lines used; for sailing, ships lines often used.

BERTHING: *Cargo Wharf:* The marginal cargo wharf is 2,000 ft. long (230 ft. leased to Amoco) and 36 ft. wide with 8 transit warehouses. The wharf has a concrete deck and has a depth alongside of 30 ft. at MLW. All cargo is discharged and loaded by ship's gear. Sufficient amount of cargo handling equipment is available such as forklift trucks ranging from 4 tons to 35 tons capacity. Tractors and trailers are available. A 40 ton capacity steam crane is available at No. 2 Berth for heavy lifts. There are also 2 mobile cranes with capacities from 25 tons to 35 tons but they are not suitable for ship discharge. Fresh water is available at this wharf, loading rate is approximately 25 t.p.h.

Bunker Pier: This is a "T" jetty on the South edge of the dredged basin with a depth of 34 ft. at MLW. No fresh water is available at this pier.

Port Authority Circular: October 1985.

"The maximum Summer deadweight of vessels allowed to berth at the Bunker Pier should not exceed 30,000 tonnes. The vessel must be provided with a minimum of 10 manila mooring ropes and under no circumstances will wire mooring lines be accepted especially those from auto-tension winches. It is also recommended that special shackles be provided by the vessels to be used in case of any unfavourable weather that will endanger the safety of the vessel while she is berthed alongside."

The bunker pier can accommodate vessels of max. LOA 700 ft. and draft 32 ft.

LPRC Crude Oil Discharging Berth: This is situated between the Bong Mine and NIOC Ore Piers and consists of one breasting dolphin and an after mooring dolphin. Tankers discharging crude oil are moored by means of 2 anchors with starboard side to the dolphin and the stern made fast to the mooring dolphin. Discharge is by means of submarine and floating pipe-lines connected on the starboard side amidships. Tankers are limited to a length of 700 ft. and draft of 40 ft. Fresh water is available at this pier.

Fish Pier: A pier with its own dredged channel and turning basin is used by fishing vessels to discharge cargo into cold storage. This pier is situated on the Northern Breakwater with the Cold Storage Facility located on the inshore side of the breakwater. Fresh water is available at the pier. The channel to the fish pier is 90 ft. wide and dredged to 20 ft. MLW. Size of vessels using this pier is limited to 240 ft. length and 19 ft. draft.

Iron Ore Piers:

Bong Mining Company Pier:

Approaches max. draft on MLW	45 ft.
Alongside max. LOA of vessel	900 ft.
Max. beam of vessel	125 ft.
Max. draft on HW	45 ft.
Alongside pier length	886 ft.
Depth alongside MLW	45 ft.
Loading boom height above HWOST	45 ft. 6 in.
Loading boom outreach from fenderline	57 ft.
Pier length covered by loading boom	750 ft.
Loading rate	3,200 t.p.h.

National Iron Ore Company Pier:

Approaches max. draft on MLW	45 ft.
Alongside max. LOA of vessel	1,000 ft.
Max. beam	114 ft.
Max. draft on HW	45 ft. North side 42 ft. South side
Alongside Pier length	900 ft.
Depth alongside MLW	45 ft. North side 42 ft. South side
Loading boom outreach from fenderline	60 ft.
Loading boom height above HWOST	43 ft.
Pier length covered by loading boom	640 ft.
Loading rate	1,200 t.p.h.

Fresh water available at this Pier.

Liberia Mining Company Pier: (Now used to accommodate vessels).

Approaches max. draft on MLW	45 ft.
Alongside max. LOA of vessel	830 ft.
Max. beam	130 ft.
Max. draft on HW	45 ft. North side 38 ft. South side
Alongside Pier length	825 ft.
Depth alongside MLW	45 ft. North side 42 ft. South side
Loading boom outreach from fenderline	61 ft.
Loading boom height above HWOST	46 ft.
Pier length covered by loading boom	560 ft.
Loading rate	2,000 t.p.h.

Fresh water available at this Pier.

BRIDGES: None.

STEVEDORES: Several stevedoring companies. Port Authority handles all cargo on shore and accepts cargo ex-ship's hook only.

A daily meeting with all ship's agents is conducted by the Operations Manager regarding the arrivals and departures of ships and to arrange for required gangs to load or discharge ships including requests for overtime and night work.

Stevedores gangs have to be ordered the day before required, therefore essential for Agents to receive ETA messages in sufficient time.

Working Hours: Monday-Friday: 0800-1200 and 1300-1600. Saturday: 0800-1200. Overtime is permitted at night, Sundays and Holidays if requested.

MEDICAL: Whenever possible Masters should cable Agents if require medical attention especially when arriving week-ends or during night. Hospital facilities available. Port Health require yellow fever vaccinations for crew members.

TANKERS: See "Restrictions" and "Berthing".

DENSITY: Density varies with the tide. Also varies during rainy season as river flow increases. Varies from 1009 to 1024 oz. per cu. ft. with average of approx. 1019 oz. per cu. ft.

FRESH WATER: Available (See "Berthing"). Average rate of delivery approx. 20 t.p.h.

FUEL: Light diesel oil and heavy fuel oil available and these can be blended to specification by supplying oil company. Fuel and diesel only available on bunkering pier.

GANGWAY/DECK WATCHMEN: Private security men are engaged by the Agent. Port Security also maintain regular patrol.

OPENING/CLOSING HATCHES: Normally done by stevedores.

CUSTOMS ALLOWANCES: Tobacco, reasonable quantities for consumption while in port. Wine and/or Spirit, as tobacco.

IDENTIFICATION CARDS: Not required, but Seaman's Books are endorsed aboard by Immigration.

CONSULS: Majority of foreign countries have Consuls.

REPAIRS: Limited deck and engine repairs can be carried out by private companies.

DRY DOCKS: One very small floating dock capable of lifting 300 tons with max. draft of 8 ft. This dock is used for small coastal craft and only accepts very limited outside work. There is also a synchrolift of about 250 tons, owned by private fishing company.

REPATRIATION: Repatriation of crew is possible.

AIRPORT: Roberts Field International Airport 45 miles distant. Served with daily international flights to Europe and America.

TIME: GMT.

HOLIDAYS: Many official holidays during year but cargo work carried out those days on overtime rates. Port closes 3 times a year: 26th July (Independence Day), Christmas Day and New Year's Day.

POLICE/AMBULANCE/FIRE: Port Authority have own Security Force and Fire Service, situated in port area. There is also an ambulance service.

TELEPHONES: There are no facilities for telephones on board.

SERVICES: Hull, deck and engine surveys can be obtained through Lloyd's, German Lloyd, B.V., Norske Veritas, America Bureau Agents and most of the other classification societies.

Provisions are available from duty-free bonded warehouses in the Freeport area. These include frozen, chilled and tinned food, spirits and tobacco products. A wide variety of housekeeping items, such as soap, paint, etc. are also available. Fresh vegetables and fruits are available through ship chandlers. 1×100 ton capacity lighter available.

WEATHER: *Tides and Currents:* The rise of tide varies from 2.0 ft. to 3.9 ft. from neaps to springs. The flood tide runs in a north easterly direction at approximately 1 knot and the ebb to the S.W. at approximately 1 knot. Inside the harbour a tidal flow of 0.5 – 1.0 knots is experienced. There is no prediction of the directions of flow as the water circulates around the harbour sometimes in one direction and sometimes in the opposite. The currents along the coastline are variable and not predictable.

Prevailing Wind: The prevailing wind is West to Southwest during the dry season. A Northerly wind is sometimes experienced for 2 or 3 weeks. The stronger winds are experienced during the wet season of April to November and during this period the average wind force is about Force 4 (Beaufort Scale). The wind usually rises in the afternoon or early evening and falls off during the night. During the dry season the wind is usually Northerly during early mornings and backs to the S.W. by late afternoon. Dangerous winds are revolving line squalls of intense force and usually of very short duration. Heavy rain/winds normally comes from the landside. These conditions are considered dangerous to vessels only during the process of berthing, but cause no danger to vessels in port securely moored. These infrequent tornadoes occur during the seasonal transition months of March/April and October/November.

Vessels alongside piers will sometimes experience a surge, which may part mooring lines. This is due not to the wind, but to a swell entering the harbour and is a condition which seldom occurs.

SHORE LEAVE: No restriction on shore leave.

PIRACY: Acts of piracy have taken place at the port.

SHIPMASTER'S REPORT: February 1983.

Pilotage: Pilot launch has black hull, white housing and green housing top. The word "Pilot" is painted in large white letters.

Pilot boards near the Sea Buoy, 7.3 cables from Southern Breakwater.

Health: 2 Coastguard Officials and 1 Immigration Official board with the Pilot to complete formalities. We do not think that this is the case for all vessels.

Radio: The Freeport of Monrovia no longer maintains a watch on HF 2182 kHz.

Tugs: 3 tugs available.

When sailing, vessel takes 1 tug at stern, using 2 ship's lines.

Gangway/Deck Watchmen: Port security personnel maintain continuous watch while vessel is berthed.

Opening/Closing Hatches: Normally done by ship's crew.

AUTHORITY: Office of the Port Manager, National Port Authority, Freeport of Monrovia, P.O.Box 14, Monrovia, Liberia. *Tel:* 221577. *Telex:* 44275. *Cables:* "Natport".

AGENT: Scanship (Liberia) Inc., P.O. Box 209, Bushrod Island, Monrovia. Tel: 22.28.32. Telex: 44281 and 44344. Cables: "Scanship Monrovia".

Socialist People's Libyan Arab Jamahiriya

GENERAL: All ports:

NAVIGATION REGULATIONS: The following telex received from Libyan Marine Department on 21st October 1985.

Quote:

Please be advised that the following general information to be added to next edition of "Guide to Port Entry".

1. The following is a resume of instructions issued by the Libyan authorities to which all ships must abide in Libyan territorial waters (limited by 12 nautical miles and in Gulf of Sirte by parallel 32° 30′ N.).

2. Ships bound for Libyan ports must inform the authorities of the port by writing or telegram 24 hours prior to entering the Libyan territorial waters including name, flag, nationality, destination, cargo, agent, date of arrival, duration of stay in the port, port of origin and the approach route to Libyan port and the port of destination after leaving Libyan waters, they must insure continuous monitoring on Channel 16 and contact the port authorities on Channels 16, 11 or 12.

3. Commercial ships may pass on innocent passage within territorial waters only during day time provided they inform the Libyan authorities at least 12 hours prior to entering and giving the latitudes and longitudes of the points of entering and leaving, duration of stay in territorial waters, courses and speed.

4. All ships must keep to the anchorage areas shown in charts and strictly refrain from causing pollution of waters.

5. The following are declared as prohibited areas:

A) 32° 52.8′ N., 13° 24.5′ E.
32° 57.7′ N., 13° 24.5′ E.
32° 57.7′ N., 13° 18.0′ E.
32° 53.8′ N., 13° 22.3′ E.
B) 32° 53.7′ N., 13° 20.6′ E.
32° 55.9′ N., 13° 18.0′ E.
32° 55.9′ N., 13° 15.0′ E.
32° 54.5′ N., 13° 15.0′ E.
C) 31° 09.0′ N., 19° 42.0′ E.
31° 09.0′ N., 19° 19.0′ E.
31° 56.0′ N., 19° 42.0′ E.
31° 56.0′ N., 19° 19.0′ E.
D) 32° 58.0′ N., 13° 06.0′ E.
32° 53.0′ N., 13° 06.0′ E.
32° 58.0′ N., 12° 48.0′ E.
32° 52.0′ N., 12° 44.0′ E.

6. Ships that violate the instructions and the prevailing laws will be subject to punitive penalties, including opening fire at the ship and forcing her to obey the orders of the Libyan Arab Fleet.

7. All ships shall proceed to any of the following ports through the approaching point and shall inform the Port Control of her course and speed.

Tripoli Port:
A) 33° 00′ N., 12° 58′ E
B) 33° 07′ N., 13° 10′ E
C) 33° 05′ N., 13° 19′ E
D) 33° 05′ N., 13° 04′ E
Benghazi Port:
A) 32° 03′ N., 19° 50′ E
B) 32° 09′ N., 19° 49′ E
C) 32° 17′ N., 19° 53′ E
D) 32° 20′ N., 20° 06′ E
Zwara Port:
E) 33° 03′ N., 12° 15′ E
Misurata Port:
F) 32° 34′ N., 15° 16′ E
Oil Terminals (Gulf of Sirte):
G) 32° 22′ N., 18° 30′ E
Derna Port:
H) 32° 58′ N., 22° 42′ E
Tobruk:
K) 32° 10′ N., 24° 02′ E

8. All ships shall maintain communication with the coastal stations.

9. All ships shall follow the instructions of the Port Authority about the anchorage position.

10. No ship shall have the right to change her anchorage location without port authority permission.

Unquote.

CLEARANCE: ETA to be advised to Port Authority 24 hours before arrival, including the following information: Ship's Name, type, Nationality and port of Registry; Owner, Master and Agent names; Gross and Net tonnage; Ship's length and draft forward and aft; Expected duration of stay in the port; Last port of call, tonnage, quantity and kind of cargo for discharging and loading; Full details of any dangerous liquids or cargo; Number of passengers and crew; Health situation.

Before arrival at the outer limits of the port, vessel requested to hoist the following signals: Flags of her call-sign; Flag of Quarantine; Flag of ship's Nationality; The Libyan Flag on the foremast; Red Flag during daylight and Red light during night-time, if carrying explosives or any inflammable cargo; Pilot Flag and the international flag code signals must be respected.

PORT LIMITS: As shown on Admiralty charts.

DOCUMENTS: *On Arrival:* Last Port Clearance; Full sets of cargo documents; Copies covering consignment; Certificate of Origin; Bills of Lading, etc. Not less than 7 copies of Crew and Passenger Lists. Other documents as required at each port.

Ship's Certificates should be delivered to the Marine Inspection Office at the port.

During the First 24 Hours of Arrival: Valid certificates to comply with all the International conventions in force for the State whose flag the ship is flying. Certificate of Registry. For the National ships, moreover, the official log book, engine log book and ship's articles.

Agency Requirements: The following agency requirements in respect of pre-arrival notices and documentation in addition to official documents and certificates needed for ordinary port clearance should be complied with. Pre-arrival notice to be communicated by telex to Agents containing following information:

(a) vessel's name and flag;
(b) g.r.t./n.r.t./s.d.w. and nature of cargo;
(c) ETA and quantity of cargo to be handled;
(d) exact address to whom disbursements accounts should be sent.

For dry cargo vessels further information should be submitted:

(e) conditions of stevedoring, whether basis liner terms or F.I.O.S.;
(f) net freight earned along with all cargo details specifically each Bill of Lading.

Upon arrival the following documents are to be handed over:

1. Masters of tankers should produce and hand over to Port Authorities 'Certificate of Discharge' pertaining to previous calls (non-compliance will cause delay in berthing);

Following only applying to dry cargo vessels:

2. 14 copies of Cargo Manifest (clearly stating measurements and weights);
3. 2 copies of Freight Manifest;
4. 2 copies each Bill of Lading;
5. 2 copies Cargo Plan.

Report: May 1984. From State Agent.

Agent to submit all ship's documents/certificates, cargo documents and crew documents and/or any other declarations connected thereto, in the Arabic language. This is effective from 1.6.84, noting until this date, we shall arrange for the required translation as a transitional period, after which and effective from the above mentioned date, all ships shall arrive with all above said documents/certificates/ declarations, etc., in the Arabic language.

Your full and strict adherence to the above is required avoiding unnecessary inconveniences to all parties concerned as any failure on your part shall never be tolerated by the concerned authorities.

Report: June 1984. From State Agent.

Please note: Temporarily vessels should arrive with the following ship certificates already translated into Arabic, otherwise vessels shall be delayed in sailing. The other documents we shall arrange for translation of same at our end on a temporary basis:

Certificate of Registry.
Safety Construction Certificate.
Safety Equipment Certificate.
Radio Telegraphy Certificate.
Load Line Certificate.

Report: September 1984. From State Agent.

Following documents imperative to be translated at your end, and not by Agent:

1. Ship's documents:

Registry Certificate.
Load Line Certificate.
Safety Construction Certificate.
Safety Equipment Certificate.
Safety Radio – Telegraphy Certificate.

2. All Cargo Manifests.

3. All other lists and declarations such as Crew List, Officers' List, Stores, etc.

Note that the competent authorities at our end (namely the Ports and Lights Department of Tripoli) are presently insisting on collecting from ship direct all the documents in question in Arabic translation upon vessel's arrival thus leaving no possibility whatsoever for any assistance previously rendered by the Agent.

PILOTAGE: Pilotage is compulsory for all vessels. Pilot boat will meet ships outside the harbour. Ships should wait for Pilot at anchor outside the harbour if weather is good. In case of bad weather, after getting permission from Harbour Master ships may enter the harbour at their own risk and anchor inside.

ANCHORAGES: *Benghazi:* Area between Lat. 32° 11′ N. and 32° 07′ N. and Long. 19° 56′ E. and 19° 59.2′ E.

Derna: Within 1.5 miles radius of position Lat. 32° 49.3′ N. and Long. 22° 39′ E.

Es Sider: Area between Lat. 30° 41.5′ N. and 30° 43.0′ N. and Long. 18° 22′ E. and 18° 25′ E.

Misurata: Within 1.5 miles radius of position Lat. 32° 23.0′ N. and Long. 15° 18′ E. (about 4.7 miles from main lighthouse).

Tobruk: Area between Lat. 32° 03.7′ N. and 32° 05.5′ N. and Long. 24° 02.0′ E. and 24° 03.0′ E.

Tripoli: Area between Lat. 32° 55.5′ N. and 32° 56.5′ N. and Long. 13° 09.8′ E. and 13° 11.7′ E.

Zuara: Within 1 mile radius of position Lat. 32° 57′ N., Long. 12° 10′ E. (in direction 065° from main lighthouse).

Also see individual oil terminals.

TUGS: Tugs are available at all Libyan Ports.

HEALTH: The following documents to be provided for the doctor: A valid Fumigation Certificate; International Vaccination Certificate for every person on board; Health Certificate for any animal or bird on board. No automatic Free Pratique between the Libyan Ports.

CUSTOMS ALLOWANCES: 200 cigarettes for each crew member or passenger. All kinds of alcoholic drinks are forbidden, even wine and beer, and to be kept in the store under the Customs seal. Also arms, perfume, saccharine and all kinds of anaesthetic. The sum of 10 Libyan dinars allowed for each crew member. All Libyan and Foreign currency to be declared in the Currency Declaration. All personnel effects and electronics to be declared in the Crew Declaration.

BLACK LIST: Libyan law prohibits vessels from having on board any goods or containers of Israeli origin. Any vessel having such goods or containers on board on arrival in the harbour will be liable to heavy fine and confiscation of the goods or containers. The Libyan Authorities may, moreover, refuse to clear the vessel.

REGULATIONS: Foreign currency not to be taken ashore. Crew members' visits between ships are not allowed without the prior permission of Customs and Immigration. Ship's lifeboats are not to be used within harbours limits without the prior permission of the authorities. No engine repairs to be carried out in port whilst alongside or at anchor in the port without prior permission of authorities. Movements of ships in the port are not allowed without instructions. Using ship's propellers whilst in port is not allowed without permission. Ship's whistles not to be used without good reason. Cleaning funnels or making smoke whilst in port is strictly forbidden. Ship's gangway to be in position at all times whilst alongside. Rat guards to be fixed all times on every rope. Painting or scraping the outer hull of the ship not to be carried out without prior permission of authorities. Duty officer to be on board all the time accompanied by sufficient crew.

For tankers or vessels laden with dangerous cargo; moreover, the mentioned hereabove: Red flag to be hoisted in daylight and red light to be on in the night-time. No movements allowed between sunset and sunrise for such ships. Electricity to be off from ship's holds whilst loading or discharging. Towing wires with suitable shackle to be ready fore and aft. Smoking and any kind of fire are strictly forbidden on deck. All steps for safety to be carried out.

POLLUTION: Pollution of any kind is strictly forbidden. Any ship causing any kind of pollution will be liable to heavy fine.

BERTHING PRIORITY: The berthing priority scheme, according to law, as follows: 1) Passenger ships. 2) Animal ships. 3) Liner and mail ships. 4) Cargo ships. 5) Tankers and dangerous cargo ships. Ships with cargo of less than 300 tons, may not have to comply with the scheme; subject to Harbour Master's decision.

OPENING/CLOSING HATCHES: To be done by crew.

IDENTIFICATION CARDS: Seaman's Book or Discharge Book, Passports, Identity Cards — all should be valid.

HOLIDAYS: Friday is the weekly day off. 2nd March; Revolution Day (1st Sept. yearly); Evacuation Days (28th March, 11th June, 7th October; yearly), Syrian Revolution Day (8th March, yearly); Sudanese Revolution Day (25th May, yearly); Egyptian Revolution Day (23rd July, yearly); Hijra New Year (1st Moharam, Muslim year); Ashoura (half day, 10th Moharam, Muslim Year); Mohammadan birthday (12th Rabih Awel, Muslim Year); Israa Wa Merag (half day, 26th, Rajeb, Muslim Year); Eid El-Fitr (1st, 2nd & 3rd Shawal, Muslim Year); Eid El-Adha (9th, 10th. 11th, & 12th Zi Al-Heja, Muslim Year).

TIME: Local time at all the seasons is GMT plus 2 hours.

CONSULS: Embassies in Tripoli. No consuls at any ports.

TELEPHONES: All calls through Tripoli and Benghazi Coastal Stations – No calls allowed when the ship is alongside.

SURVEYORS: The following addresses are Agents for the mentioned Classification Societies and may be contacted for the necessary surveys on request:–

Lloyd's Register of Shipping: P.O.Box 111115 Tripoli. Telephone: 74383. Telegraphic Address: Lloydsreg Tripoli Libya.

Bureau Veritas: Tripoli: Orfelli Agencies, 109 – 1st September Street, P.O.B. 2283, Telephone: 35338 and 37398, Telegraphic address: Shetaf Tripolilibia.

American Bureau of Shipping: Tripoli: Libyan Arab Shipping, Baghdad Street, Andalus Building, P.O.B. 882, Telephone: 41712 and 39358, Telegraphic Address: Arabship Tripolilibia, Telex 20033 Arabship.

Germanischer Lloyd: Tripoli: Johs Rieckermann, Baghdad Street, Andalus Building, P.O.B. 2121, Telephone: 37021 and 31069, Telegraphic address: Rieckermann Tripolilibia.

Registro Italiano Navale (RINA): Tripoli: Mr. Mahmoud Gamar, c/o Libyan Arab Shipping Co., Baghdad Street, Andalus Building, P.O.B. 2325, Telephone: 41712 and 39358, Telegraphic address: Gamarin Tripolilibia.

SHORE LEAVE: Crew members permitted ashore during daytime. Shore leave not permitted at oil terminals.

IDENTIFICATION CARDS: Shore passes issued and Seaman's Book to be kept at the gate at port entrance.

DELAYS: Delays in berthing and load/discharging can normally be expected.

MINE FIELDS: The following areas are prohibited area and dangerous for navigation due to mines:–

1)	Lat. 32° 52.78′ N.	Long. 13° 24.6′ E.
	Lat. 32° 57.67′ N.	Long. 13° 24.46′ E.
	Lat. 32° 57.67′ N.	Long. 13° 18.00′ E.
	Lat. 32° 53.82′ N.	Long. 13° 22.30′ E.
2)	Lat. 32° 53.70′ N.	Long. 13° 20.61′ E.
	Lat. 32° 55.93′ N.	Long. 13° 18.00′ E.
	Lat. 32° 55.93′ N.	Long. 13° 15.00′ E.
	Lat. 32° 54.45′ N.	Long. 13° 15.00′ E.
3)	Lat. 32° 37.00′ N.	Long. 23° 13.00′ E.
	Lat. 32° 14.50′ N.	Long. 23° 31.00′ E.
	Lat. 32° 10.50′ N.	Long. 23° 28.50′ E.
	Lat. 32° 37.50′ N.	Long. 23° 7.50′ E.

ATTENTION: It is imperative that vessels contact the wireless stations on the Libyan coast at a distance of 30 miles from the proceeding port, giving the ship's position. Ship's winches and cargo gear should be in good order otherwise they will be liable to heavy fine if any delay occurs.

FLOATING DOCK: See "Tripoli".

AUTHORITY: Port Affairs and Maritime Transport Bureau (Marine Department), P.O.Box 648, Tripoli, S.P.L.A.J. *Telex:* 20400, 20533 Minscon Ly. *Contact:* Head of Marine Department.

AGENCY: IMPORTANT.

Universal Shipping & Maritime Agency at Benghazi can attend to vessels at Benghazi, Marsa el Brega, Marsa el Hariga and Zuetina.

Universal Shipping & Maritime Agency,
P.O.Box 2450,
Omar Mukhtar Street,
Benghazi.
Cables: "Universal" Benghazi/Libya.
Telex: 40101/40025.

Universal Shipping & Maritime Agency at Tripoli can attend to vessels at Tripoli, Misurata, Zuara, Zawia, Ras Lanuf and Es Sider.

Universal Shipping & Maritime Agency,
P.O.Box 3703,
Tripoli.
Cable Address: "Uniship" Tripoli.
Telex: 20677, 20263.

Shahat Shipping & Stevedoring Co. will attend to agency matters at Benghazi, Derna, Marsa el Brega, Marsa al Hariga, Tobruk and Zuetina.

Shahat Shipping and Stevedoring Co.,
P.O.Box 2973 and 1496,
Benghazi,
Cable Address: "Shahat Ship" Benghazi.
Telex: 40231.

Germa Shipping and Stevedoring Co. will attend to agency matters at Misurata, Es Sider, Ras Lanuf, Tripoli and Zawia.

Germa Shipping and Stevedoring Co.,
(Temporary address Baghdad Street),
P.O.Box 985,
Tripoli.
Cable Address: "Germa Ship".
Telex: 20058.

AZZAWIYA: 32.48 N. 12.42 E.

Also see "General" before first port.

LOCATION: Azzawiya Oil Terminal is situated about 50 km. West of Tripoli.

PORT LIMITS: Vessels are considered to be "Arrived Ships" and (subject to charter party terms) laytime will commence, when the ship is approximately 2 miles off the S.A.L.M. berths.

DOCUMENTS: Masters are advised to have the following documents prepared before arrival in order to expedite ship's clearance:

(a) Crew List.
(b) Customs documents.
(c) Health documents.
(d) Bills of Lading.
(e) Ship's papers and certificates.

PILOTAGE/APPROACHES: Vessels are advised to anchor in a position 1.5 miles N.W. of S.A.L.M. Berth No. 1 to await Pilot and Agent/Customs clearance. Vessels must keep clear of the area deemed to be the pilotage area and not approach the berth closer than 1 mile without receiving Harbour Master's permission. Admiralty charts indicate an anchorage symbol in position:

Lat. 38° 49′ 00″ N., Long. 12° 42′ 00″ E.
and Flare symbol in position:
Lat. 32° 47′ 25″ N., Long. 12° 42′ 00″ E.

Azzawiya Oil Terminal is adjacent to the flare. Tankers are warned that it is unsafe to remain at anchor during adverse weather conditions and to keep to Northward of Lat. 32° 50′ N.

While at berths, tankers must have main engines ready for immediate use at all time. Sudden, and violent changes of weather may occur at any time, and vessels may be required to leave berths at very short notice. Pilot and service craft are available during day hours only until further notice.

RESTRICTIONS: Vessels must have sufficient ballast for safe manoeuvring and must not be trimmed more than 3 ft. by the stern.

If in opinion of the Marine Superintendent or the Mooring Master, the ship has insufficient ballast, she may not be allowed to berth.

The discharge of dirty ballast is strictly prohibited.

HEALTH: Local Authorities will board vessels to grant Pratique. Vessel must report any suspected disease or fever to local Health Authorities. There are shore facilities to treat serious injuries or major accidents.

RADIO/VHF: Call sign: "Azzawiya Control".

Azzawiya Control keeps 24 hours watch on Channels 16 and 22.

Vessels approaching the anchorage area must give the following information when possible:

(a) Ship's name and flag.
(b) Cargo nomination (if available).
(c) Distance between ship's rails and manifold.
(d) Manifold sizes and derrick capacities (S.W.L.).

Cargo transfer is carried out through VHF Channel 12 and/or Storno Walkie Talkie radios as the situation may require under the Mooring Master's Supervision.

Tankers should have the port derrick rigged before berthing and capable of lifting 10 tons if nominated for S.A.L.M. berths and 7 tons for C.B.M.2.

BERTHING: There are 3 off-shore berths with the following descriptions:

1. *Conventional Buoy Mooring Berth:* Named C.B.M. No. 2 (Clean product berth). Lat. 32° 48′ 07″ N., Long. 12° 42′ 52″ E.

Vessels will lie in this berth on a heading of 318° (T) approximately. Using 2 anchors, each with about 7 shackles in water. Depth of water 21 m. approximately. Size of vessels allowable for this berth is 5,000 –25,000 d.w.t. The berth is 1,200 m. offshore. Max. LOA 170 m. Max. draft 20 m. Manifold size 8 in. Vessel's cargo boom to have 4 tons SWL.

2. *S.A.L.M. Berths:* (Single Anchor Leg Moorings) for crude imports/fuel exports.

S.A.L.M. No. 1: Buoy is moored approximately 1,900 m. offshore with an average depth of 26 m. in position:

Lat. 32° 48′ 29″ N., Long. 12° 41′ 55″ E.

The berth is designed for vessels of 10,000 to 100,000 d.w.t. but not limited on size. Max. draft 27 m. Vessel's cargo boom to have 6 tons SWL. Manifold size 12 in. Minimum distance between manifold and ship's side 3.5 m. Berth for loading fuel oil.

S.A.L.M. No. 3: Buoy is moored approximately 1,500 m. offshore with an average depth of 30 m. in position:

Lat. 32° 48′ 23.8″ N., Long. 12° 41′ 08.7″ E.

The berth is designed for vessels of 15,000 to 140,000 d.w.t. but not limited to the above mentioned sizes. Max. draft 29 m. Vessel's cargo boom to have 7/10 ton SWL. Manifold size 16 in. Berth for loading fuel oil.

No lights have been installed as yet to mark C.B.M. No. 2.

S.A.L.M. Berths No. 1 and No. 3 are each equipped with a radar reflector and navigation light installed on the buoy deck with the following characteristics:

Colour: 1 white, 1 amber.

Code: Each transmitting morse letter "U" every 12 secs.

On all these berths, hose connection is carried out by ship's crew under Mooring Master's supervision.

GENERAL: No shore leave. No crew changes for non Libyan flag vessels. Fire and Safety regulations will be strictly enforced at all times. No fuel, diesel, fresh water or supplies available. Lifeboat not to be lowered in water.

AUTHORITY: Azzawiya Oil Refinery, P.O.Box 15715, Zawia, Libya. *Tel:* Azzawiya 20287. *Telex:* 30424 Arc Ly. *Cables:* Arc Ly. *Contact:* K. Baruni, Production Manager.

AGENCY: See "General" before first port.

BENGHAZI: 32.06 N. 20.03 E.

Also see "General" before first port.

PORT LIMITS: (a) The water area existing within the actual breakwater and that which may fall within any new breakwater eventually constructed up to the bridge across the shallow water basin at the Eastern side.

(b) The water area known as the navigational channel outside the harbour commencing as from the harbour entrance along the distinguishing marks of the channel for a distance of 1 mile (2 km.).

ANCHORAGE: See "General" before first port.

RESTRICTIONS: Vessels are not permitted to enter harbour between sunset and sunrise.

MAX. SIZE: All types of ships with 27 ft. draft and less in Wintertime and 28 ft. and less in Summertime are safe to enter the harbour.

RADIO: Benghazi Port Radio, from 0800 to 1800 hrs., call sign 5AV, R/T 2182, VHF Channel 16.

VHF: Port Radio on Channels 16 and 12.

BERTHING: Up to 15 vessels can be berthed at one time.

Quay No.	*Length* m.	*Depth* m.
1	310	9.0
2	280	9.0
3	170	9.0
Libya No. 1	40	5.5
Libya No. 2	130	5.5
Libya No. 3	115	5.5
F.J. No. 1	135	5.5
F.J. No. 2	135	5.5
F.J. No. 3	135	8.0

Note: F.J. No. 3 not in use at the present time.

STEVEDORES: All stevedoring operations and formalities to be done by Agent, 2 stevedoring companies will be formed in the near future.

CRANES: Electric floating crane available up to 200 tons.

MEDICAL: All facilities available.

FRESH WATER: Available by barge and alongside. Should be obtained from Port Authority through ship's Agent.

FUEL: Available through Agents. A notice of 48 hours needed, advisable for Chief Engineer to check what grades are available.

REPATRIATION: Facilities exist without difficulty.

AIRPORT: Benina Airport situated 29 km. away.

WATCHMEN: Compulsory, provided by Port Authority.

CONSULS: None.

REPAIRS: Minor repairs are possible. Also see "Tripoli".

POLICE/AMBULANCE/FIRE: Police 99, Ambulance: 2131, 2132, 2281, Fire: 5555, 5599.

SHORE LEAVE: Allowed after Free Pratique, Customs and Immigration formalities completed.

DEVELOPMENTS: Port extension project underway.

AUTHORITY: Port Manager and Harbour Master.

AGENCY: See "General" before first port.

DERNA: 32.45 N. 22.40 E. (See Plan)

Also see "General" before first port.

PORT LIMITS: (a) The water area existing within the actual breakwater and an imaginary line connecting the end of the breakwater and the damaged breakwater existing at the Southern side.

(b) The water area known as the navigational channel outside the harbour commencing as from harbour entrance for a distance of 1 km.

ANCHORAGE: See "General" before first port.

RESTRICTIONS: Vessels are not permitted to enter harbour between 2100 hrs. and 0600 hrs.

MAX. SIZE: Depth of Inner Bay – 8 m., Entrance – 9 m. and Outer Channel 10 m.

RADIO: Recommended that radio messages for Agents be sent via Malta Radio or any other near coast station.

VHF: Port Control on Channel 16.

TUGS: 3 tugs available.

BERTHING: Old Quay, Length 120 m., depth 6 m. New Quay, length 950 m., depth 9 m.

CRANES: 3 cranes available.

STEVEDORES: All stevedoring operations and formalities to be done by Agent. Two new companies will be formed in the near future.

TANKERS: Max. size 18,000 d.w.t. Max. draft 11.5 m. if weather conditions permit.

MEDICAL: Available.

FRESH WATER: Available alongside, to be supplied by Port Authority through ship's Agents.

FUEL: Available through Agents, a notice of 24 hours needed. Advisable for Chief Engineer to check what grades are available.

REPATRIATION: Available via Benghazi.

WATCHMEN: Compulsory, provided by Port Authority.

CONSULS: None.

REPAIRS: Not available. See "Tripoli".

POLICE/AMBULANCE/FIRE: Call Port Manager, 2063 and 2074.

SHORE LEAVE: Allowed after Free Pratique, Customs and Immigration formalities completed.

DEVELOPMENTS: New port facilities to include 1 quay, length 280 m. for general cargo and container vessels, depth alongside 9 m. – 10 m.

One quay, length 500 m., depth alongside 9 m. – 10 m. This quay will have 4 berths, one for grain cargoes, one for the Port Police, one for vessels loading and for mooring of a dry dock.

AUTHORITY: Port Manager and Harbour Master.

AGENCY: See "General" before first port.

ES SIDER: 30.38 N. 18.22 E. (See Plan)

Also see "General" before first port.

DOCUMENTS: Waha acts on behalf of tankers loading at Es Sider and shall prepare all crude oil loading documents. Germa Shipping and Stevedoring Co. is contracted by Waha for all normal agency duties. This agency is currently the only agency used by the four Owner Companies.

After a tanker arrives at the anchorage or is moored in a berth, an agency representative will come aboard, accompanied by Jamahiriya Customs Officials and Immigration Police. The agency representative will present certain clearance forms to the Master, which should be completed as soon as possible. After these forms have been signed by the Master, they shall be returned to the agency representative, who shall make the necessary distribution.

Crude oil loading documents shall be prepared by the Waha documentation group prior to and during loading operations, to expedite their final completion. When the tanker has been loaded, the documents shall be completed and endorsed by the Customs Officer and by the representative of the Secretariat of Petroleum. The documents shall then be distributed aboard the tanker and elsewhere, in accordance with previously arranged standard documentation schedules.

The tanker shall be considered clear to depart Es Sider when the crude oil loading documents have been delivered to the Master.

Jamahiriya Customs Authorities:

(a) List of the crew with a declaration of their personal belongings (Form supplied by the Customs Authorities).

(b) List of tanker's stores.

(c) List of passengers.

(d) Six copies of Cargo Manifest for cargo to be discharged at Es Sider.

(e) One copy of Cargo Manifest for cargo in transit.

Blank copies of "Certificate of Discharge" are placed on board every vessel at Es Sider. These certificates must be endorsed by the Customs, or other recognised authority, on completion of discharge. One completed certificate must then be forwarded to the Libyan Customs Authorities according to the instructions contained in the "Certificate of Discharge". At least one further copy should be retained on board, to be produced to the Customs on any subsequent voyage to a Libyan port. Failure to produce the certificate may result in delays to loading, or even rejection of the vessel by the Libyan authorities.

PILOTAGE: Vessels to be moored, anchored or manoeuvred will only be boarded within the recommended anchorage area (Pilot boarding area centred at Lat. 30° 41′ 54″ N., Long. 18° 23′ 30″ E.). A vessel is not considered arrived until it is in the recommended anchorage area. The Mooring Master will advise the Master on approaches to berths, mooring, unmooring, connecting and disconnecting the hoses and in all operations within the anchorage or berthing area. All manoeuvring of ships shall be done only in accordance with the advice of a Waha Mooring Master, subject to the understanding that in all cases and circumstances the Master shall remain solely responsible for the safety and proper manoeuvring of the tanker. The Master or one of his qualified deck officers must be on the bridge at all times while the tanker is being manoeuvred.

Tankers not equipped with pilot hoists shall provide a pilot ladder, or ladders, constructed and placed in accordance with latest Safety of Life at Sea Convention. Tankers having a large freeboard are requested to use a combination of pilot ladder and accommodation ladder, which is also in accordance with the above Convention. A ship's officer, plus the necessary crew members, shall be present at the ladder or hoist to ensure the safe embarkation and disembarkation of Mooring Masters and Port Authorities. All such ladders and hoists shall be thoroughly tested and inspected before the vessel arrives in the recommended anchorage.

The Mooring Master shall be in direct control of all tanker communications while in the Terminal area. Any unauthorized communications will result in the immediate cessation of all operations excepting clearing of the berth. Such tanker immediately nullifies its Notice of Readiness.

APPROACHES: Coastal landmarks in the area are as follows:

(a) The most prominent landmark is a water tower in the terminal area which is painted white and is 180 ft. above sea level. This water tower is located at Lat. 30° 38′ 00″ N., Long. 18° 21′ 01″ E. and displays a fixed red light at night.

(b) A communications tower in the Terminal area is a most conspicuous landmark. It is located at Lat. 30° 37′ 59.5″ N., Long. 18° 20′ 54.5″ E. Approximate height above chart datum of this tower is 246 ft. It is lighted at night with 2 vertical red lights, and has a height above ground of 200 ft.

(c) A radio antenna tower which is 395 ft. above sea level is located at Lat. 30° 36′ 56″ N., Long. 18° 16′ 55″ E. At night this tower is lighted by an occulting red light, flash two seconds, eclipse one second, and there is a fixed red light halfway up the mast. It is flanked by two dish shaped aerials.

(d) There is a water tower at Ras Lanuf Terminal with a highest elevation of 179.5 ft. above sea level located at Lat. 30° 30′ 42″ N., Long. 18° 32′ 22″ E. It is white in colour. A white light, characteristics:– flash two every 5 seconds, height above sea level 163 ft., is mounted on the seaward side. There is also a fixed red air warning light on the top of the structure.

(e) An omni-directional aircraft radio beacon is situated at Lat. 30° 37′ 29.8″ N., Long. 18° 21′ 07.7″ E. transmitting "OJ" 5 times every 60 seconds on 300 kHz.

Range lights and mooring buoy marker lights will appear and disappear with unscheduled frequency. These lights are for the use of the Mooring Masters at the Terminal and should be disregarded by any tankers using the Terminal.

ANCHORAGE: The recommended anchorage area is within an area centred on Lat. 30° 41′ 54″ N., Long. 18° 23′ 30″ E. with a radius of 1,000 m. The anchorage area has a sandy bottom with a depth of approximately 110 ft.

Great care should be taken approaching anchorage from the North or N.W. to give mono-moorings a wide berth.

MAX. SIZE: The following are the approximate berth limitations:–

	Length	*Draft*
No. 1 Berth	920 ft.	51 ft.
No. 2 Berth	890 ft.	51 ft.
No. 3 Berth	950 ft.	51 ft.
No. 4 Mono-Mooring	1,150 ft.	62 ft. 6 in.
	Max. beam 158 ft.	Max. d.w.t. 250,000
No. 5 Mono Mooring	1,165 ft.	73 ft.
	Max. beam 184 ft.	Max. d.w.t. 300,000

Note: No. 4 Mono-Mooring: The max. length overall is 1,150 ft. The max. draft to which vessel can load in good weather is 62 ft. 6 in., and when vessel lies within 30° of loading line. During adverse weather causing vessel to roll and pitch, draft may be restricted to 58 ft. The max. draft limitation in good weather is due to depth to top of loading line being 63 ft. at distance of 1,900 ft. from buoy.

Length, beam and d.w.t. could all be extended provided draft does not exceed 62 ft. 6 in.

All the above limitations are based upon standard tankers in normal weather conditions.

Waha reserve the right to vary the above limitations, depending on vessel's freeboard, (OBO's – ore/oil vessels, etc.) and also the prevailing weather conditions.

RADIO/VHF: Waha maintains direct communication with Tripoli Radio, details of which are shown in publication 205 of the U.S. Hydrographic Office and are included in the Berne Lists. Waha also maintains a VHF station at Es Sider Terminal.

Cables should be addressed to: Wahaoil Pipeline Tripolilibya. Cables addressed in this manner will be received directly by the Waha Communications Centre in Tripoli and relayed immediately by voice radio or teletypewriter to the terminal at Es Sider. Vessels with a telex facility on board should telex directly to 20158 Wahalibya, Attention Marine Superintendent.

Within 6 hours of clearing its last port for its voyage to Es Sider, each tanker shall provide the Terminal with the following information by cable addressed to Wahaoil Pipeline Tripolilibya:

(a) The name of the tanker.
(b) The name of the port from which the tanker last cleared.
(c) The date and hour of the ETA at Es Sider Terminal.

When the Master of the tanker en route to Es Sider is of the opinion that his tanker is within 72 hours of arrival at Es Sider, he shall notify the Terminal by cable addressed to Wahaoil Pipeline Tripolilibya, or telex as above, providing the following information:

(a) The name of the tanker.
(b) ETA at Es Sider.

When the Master of the tanker en route to Es Sider is of the opinion that his tanker is within 24 hours of arrival at Es Sider, he shall notify the Terminal by cable addressed to Wahaoil Pipeline Tripolilibya, providing the following information:

(a) The name of the tanker.
(b) ETA at Es Sider.
(c) Quantity of cargo required, maximum draft on departure Es Sider, and deballasting time required before vessel can commence loading.

When the Master of the tanker en route to Es Sider is of the opinion that his tanker is within 12 hours of arrival at Es Sider, he shall notify the Terminal by cable addressed to Wahaoil Pipeline Tripolilibya, or telex as above, providing the following information:

(a) The name of the tanker.
(b) ETA at Es Sider.

4 hours before the Master expects to arrive at Es Sider to receive a Mooring Master on board, he shall notify the Terminal by cable addressed to Wahaoil Pipeline Tripolilibya, or telex as above, and also pass the same by VHF radio, providing the following information:

(a) The name of the tanker.
(b) Precise ETA at Es Sider.

If the tanker is equipped with a FM radio-telephone in the 156–162 MHz band, communications may be established with the Es Sider Terminal Dispatcher by calling on Channel 16, 156.8 MHz. This frequency is monitored continuously. The range of the Terminal station is approximately 100 miles.

VHF Channel 12 is also available for use as a marine working frequency, although it is not monitored.

When the Master submits his first estimated time of arrival to the Terminal he shall indicate if the vessel is to load a part cargo, in which case it should be stated clearly whether it is first or second part of loading.

Jamahiriya Local Time is GMT plus 2 hours (GMT plus 1 hour in Winter).

N.B. Vessels are requested to refrain from using VHF Channel 8, as this is used as a tanker loading frequency, until such time as other frequencies are available and equipment is installed.

ARRIVAL PROCEDURE: Tenders to load crude oil cargo will normally be accepted and berths will be assigned to tankers in order of arrival, provided they have valid nominations for cargo and carry clean ballast, if any, and are in all respects equipped and ready to berth. In the event that berthing is delayed on account of weather, tankers will normally keep their position in line. Tankers required to leave Terminal area on account of weather (port closed) shall maintain contact with the Terminal via Tripoli Radio or VHF so they will be available when the weather moderates. Waha reserves the right to decline to berth a specific tanker if its condition or facilities are unsafe for berthing or loading, even though the Terminal may be open to other tankers. Waha Marine Superintendent's decision shall be final.

As soon as practical after arrival, all tanks will be inspected for evidence of oil in ballast. Similar inspections will continue during discharge of ballast. If evidence of oil appears at any time, the tanker shall be rejected forthwith and shall not again be accepted until it is shown the ballast can be properly discharged.

If during inspection or during progress of loading it is revealed that tanks are not tight or that oil is leaking from the tanker, it shall be rejected from further loading. Tanker shall not be later accepted for loading unless satisfactory evidence of repair is submitted, duly certified by Lloyd's or ABS Surveyors, or other recognised surveyors.

Upon arrival at the Terminal of Es Sider, the Master shall give Notice of Readiness to load by wireless or VHF but not before one or other of the following events shall have transpired:

(a) The Master shall have received the Mooring Master on board; or
(b) The Master shall have dropped anchor in the anchorage.

However, the Notice of Readiness shall not be accepted unless the tanker is in every respect ready to load.

In reporting readiness to load, the Master of any vessel arriving at Es Sider for the first time shall state whether the flanges on the manifold of his vessel are such as to permit hose connections without modification.

A tanker shall have sufficient ballast for safe handling. Careful watch of the weather, frequent interchange of information between the tanker and the Terminal and the knowledge of the behaviour of his tanker may permit the Master to bring his tanker with minimum of ballast and thereby reduce the possibility of violating sea pollution requirements.

HEALTH: Tankers shall fly "Q" on arrival by day and display a red light over a white light at night to indicate quarantine conditions.

VHF: Tankers shall keep continuous watch on VHF Channel 16 when at anchor in the anchorage. Failure to keep watch on Channel 16 may lose them their berthing turn.

TUGS: Not required. Waha maintains launches to assist in berthing tankers. These are under the direct supervision and control of the Mooring Master.

BERTHING: The 3 (7-Buoy) conventional berths are approximately 1 mile from shore and in approximately 65 ft. of water. Central Spar Buoys of these 3 berths are:

Berth No. 1 (Easternmost)
Lat. 30° 38′ 58″ N. Long. 18° 22′ 43″ E.
Berth No. 2 (Middle)
Lat. 30° 39′ 06″ N. Long. 18° 22′ 06″ E.
Berth No. 3 (Westernmost)
Lat. 30° 39′ 35″ N. Long. 18° 21′ 53″ E.

To the West of the 3 conventional berths is a mono-mooring berth. It is about 2 miles from shore in approximately 80 ft. of water.

Berth No. 4
Lat. 30° 40′ 31.5″ N. Long. 18° 21′ 43.7″ E.

To the East of the 3 conventional berths is a second mono-mooring berth. It is about 3.5 miles from shore in approximately 100 ft. of water.

Berth No. 5
Lat. 30° 39′ 55.95″ N. Long. 18° 25′ 19.13″ E.

Three lightbuoys have been placed on the North, East and West Cardinal points of the manoeuvring circle for Berth No. 5. The manoeuvring circle circumscribes an area 4,000 ft. from the berth centre.

Conventional Berths:

The Mooring Master may reject a tanker if he deems that the tanker is not properly equipped; or that the tanker fails to have a full complement of trained personnel capable of carrying out all the berthing procedures and in particular the hose connecting as directed by him; or that the tanker has dirty ballast; or that the tanks are not suitable for carrying crude oil. Tankers having a separate system of ballast tanks shall be permitted to discharge ballast and load oil simultaneously; however, approval shall first be obtained from the Waha Marine Superintendent.

Tankers shall be equipped with an adequate propulsion unit as certified by an appropriate Survey Society. Tankers with inoperative or partially inoperative propulsion units shall be rejected. No repairs shall be made while the tanker is in or near a berth.

Tankers shall have 2 bower anchors and ground tackle in good working condition and in sizes and class to qualify under either Lloyd's or ABS ratings, even though they may have been classified by other Societies. Vessels should be capable of running out a minimum of 165 fathoms (11 shackles) of chain on each anchor in order that they may be berthed at one of the sea loading berths.

Tankers shall have at least one winch, in good working order, on the poop deck capable of heaving on two ropes simultaneously. The winch drums must be of such a size to be able to take at least 5 turns of mooring rope.

Tankers shall have one winch on the after end of the main deck, so sited that ropes led through the fairleads at the after end of the main deck, port and starboard, can be hove on. The winch drum must be of such a size to be able to take 5 turns of mooring rope.

All tankers shall have suitable stoppers for all lines and stoppers for wire ropes. Wire ropes are a part of the permanent berths and all tankers shall pick up the wire ropes unless an exception is approved by the Marine Superintendent. The exception may be based upon tanker having suitable wires with nylon or synthetic rope tails for ease of handling by launch and launch crews. These tails should be of appropriate strength and of a suitable length to enable them to be manhandled on to the mooring buoy hooks. Constant tension winches may not be used except where they can be solidly locked and the constant tension feature not used. The making fast of berth mooring wires on ship's reels will be treated as a last resort to be used only in the absence of sufficient bitts.

Tankers shall have at least 9 good synthetic fibre lines of not less than 9 in. circumference and at least 120 fathoms in length, with an eye spliced in each end. These lines shall be placed out free for running; 3 on the after end of the main deck, and 6 on the poop deck. The 3 lines on the after end of the main deck shall be married together so that if the need arises the double length can be run on either side of the tanker. The Mooring Master may require the use of additional ropes or wires to effect a safer mooring, and these are to be supplied on his advice.

Tankers shall be equipped with blocks, tackle, booms, runners, and sundry equipment to efficiently hoist the submarine hoses (5 tons at conventional berths and 10 tons at monobuoys) from the sea bottom. Other necessary equipment includes wrenches, gaskets, nuts, bolts, strops, drip pans, sawdust, drift pins, etc. The derrick should be rigged with a single wire runner of sufficient strength to be able to lift 10 tons.

After the tanker is securely berthed, the submarine hoses shall be lifted amidships on the port side. The base lift may weigh up to 10 tons. Hoses shall be lifted and connected by the tanker crew. The Mooring Master shall advise the tanker's officer-in-charge concerning lifting techniques; however, the responsibility for all operations shall remain with the officer.

It is believed that the facilities at Es Sider are similar to those of other Mediterranean Terminals, and that, generally speaking, no unusual or unique equipment shall be required by the tankers.

Shore Stops: If it is requested by the Master of the tanker that the cargo flow should be stopped from the shore at a predetermined tonnage, it must be clearly understood that Waha Oil Company of Libya, Inc. will not be held responsible for any error, and that in the case of overloading, the excess cargo cannot be pumped back ashore.

Vessels are encouraged to load and deballast at the same time providing that segregated ballast tanks or double valve separation exists.

Mono Moorings: Nos. 4 and 5 Berths are single point buoy moorings. The body of the buoy is secured in a fixed position by means of 8 moorings, whilst the top of the buoy is in the form of a turn-table, allowing the ship's moorings and hoses to rotate and take up the position the vessel naturally lies due to wind, sea and current conditions.

Vessels are normally moored by 2 bow lines only, these being provided by Waha. A selection of wire strops and shackles will also be placed on board for mooring purposes. The 2 mooring lines are hove in until the length of chafing chain to O.C.I.M.F. standards is brought inboard. According to the mooring arrangements, the Mooring Master will advise on the method of securing the vessel. Ship's wires or ropes may be required to back up mooring equipment supplied by Waha. Smits towing brackets will be utilised when fitted in suitable position and if they are of adequate strength and size. Other O.C.I.M.F. standards chain compressors and fittings are acceptable. However, it should be noted that 2 ropes are provided and therefore 2 chafe chains must be hove inboard and properly secured. Under no circumstances shall the ship be moored with the lead-in ropes.

On advice from Waha that a vessel is to load at the mono moorings, she will have the following ready before the Mooring Master boards:

(a) Port side derrick to be rigged ready to lift various wire strops, shackles, and hose securing equipment. This equipment will be placed on board at the same time as the Mooring Master boards, or as soon as possible thereafter, who will advise on its disposition.

(b) Forward, the vessel should have ready 2 good synthetic fibre mooring lines, at least 9 in. circumference, 2 good 4 in. circumference rope messengers at least 400 ft. long, or two 3 in. wire messengers of the same length, each fitted with a suitable screw shackle. Also a crowbar, spikes and hammers.

(c) No moorings will be required aft.

(d) The vessel shall make a good lee on the port side, taking due care that ladders and accommodation ladders are clear of the tanker's manifold area and overboard discharges.

It is essential on this berth that the hoses be picked up immediately mooring operations are complete. On advice from the Mooring Master, part of the ship's crew must be standing by at the port manifold for this operation.

Hose lifting and connecting operations are basically the same as in conventional berths, except that hose strings are floating and therefore may require bowsing in rough weather.

Vessel's engines must be ready at all times, and under no circumstances is the propeller to be turned ahead without prior consent of the Mooring Master. Failure to comply with this may result in cessation of operations, and possible rejection as being unsuitable for a single point mooring. Any damage caused to the berth or hoses as a result of turning the propeller ahead without consent will be charged against the vessel.

In adverse weather, a continuous lookout will be required on the forecastle head, by responsible persons, to keep watch on the moorings, manifold and hoses.

In adverse weather the Mooring Master may require cargo to be loaded, in the initial stages, into the forward compartments and this should be complied with when requested.

Vessels are encouraged to load and deballast at the same time, where this is possible. In the case of vessels with permanent ballast tanks, this ballast should not be started without first consulting the Mooring Master.

LOADING: Raising, lowering, connecting and disconnecting of submarine hoses, as well as all other labours and duties on shipboard, shall be performed entirely by the ship's crew. Lack of co-operation by the crew in this operation will result in the rejection of the tanker, her return to the anchorage and any consequent loss of loading turn until crew are prepared to perform this work.

Mooring Masters shall report unsatisfactory conditions to the Waha Marine Superintendent, who may reject the tanker until corrections are made. All costs accruing from these conditions shall be for the tanker's account.

Loading Rates:

Conventional Berth Nos. 1, 2 and 3	40,000 b.p.h.
No. 4 Mono-Mooring	30,000 b.p.h.
No. 5 Mono-Mooring	50,000 b.p.h.

BALLAST: 4 hours deballast time (before commencing loading) is the maximum time allowable in consideration of the open and exposed nature of the berths. Vessels which take longer to deballast put the berth at unacceptable risk if the weather deteriorates. Should a tanker be unable to comply with this stipulation, Waha Marine Superintendent may berth more suitable vessels ahead of her if poor weather conditions dictate. Vessels with an unduly long deballast time may be rejected.

There are no facilities at Es Sider for the discharge of dirty ballast, and vessels arriving with dirty ballast will not be authorised to deballast in the vicinity of the Terminal. Any tanker rejected because of dirty ballast or sea pollution will automatically nullify its Notice of Readiness to load and thereby relinquish any right to priority of loading position.

It is the Master's responsibility to see that no oil of any kind is pumped or spilled overboard from his tanker. This includes oily water from bilges, residuals from previous voyages or any other matter that may result in pollution of the sea. Owners and Masters are invited to examine all laws concerning pollution of the sea, especially in regard to the Mediterranean Sea area. Inspections may be made by the Libyan Ports & Lights Authorities, whose opinion of the cleanliness of the ballast shall be final.

The waters in and adjacent to the Terminal of Es Sider must not be polluted, and only clean oil-free ballast may be discharged anywhere inside of a line 100 miles to seaward and roughly parallel to the Libyan Coastline.

Prior to acceptance all tanks will be inspected for evidence of oil in the ballast and during discharging similar inspections will continue.

Masters are warned that when disposing of dirty ballast outside Libyan waters, all pipe-lines, sea-suctions, strainers and pumps that are later to be used to discharge clean ballast, must be flushed clean so that there will be no chance of even a small amount of pollution when the clean ballast is pumped out.

Any vessel required to return to a position at least 100 miles offshore for cleaning tanks or for any similar reason, automatically nullifies any Notice of Readiness already tendered and at the same time loses any priority held for loading. On return from sea, vessel will be entered for loading at the time of the second arrival, when a new Notice of Readiness will be tendered.

Master's attention is directed to Es Sider Notices concerning oil pollution and to the serious consequences of discharging dirty ballast, besides having his tanker rejected.

MEDICAL: Medical assistance shall be on an emergency basis only. The Doctor will only board a vessel if it is physically impossible for the patient to attend the clinic ashore and there is no priority need for the Doctor's services on shore. Normally the Doctor will require the accommodation ladder rigged for boarding.

If it is necessary to land a patient at Es Sider, he must be accompanied by an officer able to speak English or Arabic. Patient and accompanying person must have their Passports and International Certificates of Vaccination and Immunisation, and the Authorities must be advised prior to their leaving the ship.

FRESH WATER: Not available.
FUEL: Not available.
REPATRIATION: No facilities exist for crew changes or repatriation.
TIME: GMT plus 2 hours.
REPAIRS: When a tanker is in or near the berth, its engines shall remain ready with full power for immediate use. Engine repairs shall not be performed near any berth.

WATCHMEN: Not less than one capable deck officer and three able seamen shall be available on the deck at all times. No person under the influence of alcohol shall be allowed on deck. The Mooring Master's opinion on the sobriety of an individual shall be final.

CUSTOMS ALLOWANCES: Cigarettes, cigars, matches, tobacco, spirits, wines, beers, perfume, arms, ammunition, saccharine, and certain other items shall be placed under Customs seal from the time of arrival in port until such time as the tanker has left territorial waters.

Each officer and crewman is allowed the following ration for each day the tanker is in port: *(a)* 25 cigarettes per day, or 25 grammes of tobacco or 25 grammes of cigars. *(b)* One litre of beer or 0.5 litre of wine. *(c)* Special provisions are sometimes made for the Master.

CONSULS: Consulates are located in Tripoli, which is approximately 650 km. by road from Es Sider. Some countries having Consulates are: Algeria, Argentina, Belgium, Brazil, Chad, Czechoslovakia, Denmark, Finland, France, Germany F.R., Ghana, Greece, India, Italy, Japan, Jordan (represented by Indian Embassy), Kuwait, Lebanon, Morocco, Nigeria, Nationalist Republic of China, Pakistan, Saudi Arabia, Spain, Sudan, Syria, Sweden, Switzerland, Tunisia, Turkey, Union of Soviet Socialist Republics, Venezuela and Yugoslavia.

GENERAL: The Terminal of Es Sider operates 24 hours a day, 7 days a week, while weather permits.

Range lights and mooring buoy marker lights will appear and disappear with unscheduled frequency. These lights are for the use of Mooring Masters at the Terminal, and should be disregarded by any tankers using the Terminal.

Waha maintains launches to assist in berthing tankers. These are under the direct supervision and control of the Mooring Master. Any service and facilities provided by Waha, including the services of the Mooring Masters, launches, or berthing equipment, are at the vessel's risk. The furnishing of a Mooring Master, launches, or other services and facilities shall not be construed to be, or give rise to, a personal contract. Waha shall have benefit of all exemptions from the limitations of liabilities to which an owner or a vessel is entitled under the laws of the United States of America.

When a Mooring Master and his assistants, possibly apprentice Mooring Masters, are assigned to a tanker, the tanker shall supply them with accommodation of the same standard and meals in the same manner as comparable personnel of the tanker. No special meals or special foods shall be required unless to comply with Moslem religious teachings. The intent is that the furnishing of meals to Waha personnel be kept to the minimum, compatible with the ordinary working of the Terminal.

No boats may be lowered into the water, except in an emergency.

Adequate deck lighting must be available for night mooring and loading. A good floodlight will be required to illuminate the area around the submarine and cargo hose connections during hosing and loading operations. During the discharge of ballast at night, the sea area around the vessel must be adequately lighted. If vessel is berthed on mono-mooring buoy, in addition to the foregoing, lights MUST be provided on forecastle head and over bow to facilitate supervision of moorings.

Stores of any sort shall not be handled while tanker is under "Notice of Readiness". No stores shall be handled while the tanker is in or near a berth.

Use of anchor marker buoys recommended.

Should any tanker or craft become an obstruction in any part of the Terminal or approaches thereto, or in any area of the submarine pipeline. Waha shall be empowered and shall have the right to take any steps it may deem necessary to remove the obstruction without notice to the Owners. All expenses of such removal shall be borne by the tanker or craft or by those owning it at the time of the accident causing the obstruction, and Waha shall be entitled to reimbursement by them for any such expenses incurred by it.

Power must be available at all times on all deck winches and on anchor windlass while the vessel is in the moorings.

If mooring wire winches are used, wires should be secured so as to enable them to be quickly let go from the vessel without damage.

Only in an emergency shall the tanker manifold valves be closed against crude flow, and then only with the Mooring Master's consent.

Should communications fail, the cessation of loading may be effected by a continuous sounding of the ship's whistle. This procedure will then stop the loading of all tankers in the area.

The bridge and/or control area shall not be locked nor otherwise arranged to prevent immediate entry at all times by the Mooring Master.

In adverse or marginal weather conditions Mooring Master may request that extra personnel be placed on duty on deck for tending moorings or hoses as required. Masters are advised to comply with this request.

The Mooring Master shall witness the plugging of all scuppers. Failure to plug scuppers shall result in the tanker's rejection.

The presence of unauthorised craft alongside a tanker will render it unacceptable. It shall be the duty of the tanker's personnel to clear all such craft away from the tanker.

When tankers are loading or discharging crude oil or ballast, and while tank tops are open or ullage plugs are open, boiler tubes shall not be blown. Every precaution shall be exercised to prevent sparks escaping through the funnel or stack or from the galley stack. The Mooring Master may demand all fires extinguished if he deems it necessary for safety.

Under the interpretation accorded to the Libyan "Boycott of Israel" Law, it is considered to be a violation thereof if a vessel calling at a Libyan terminal has on board any item of Israeli origin, irrespective of the nature thereof, including but not limited to manufactured products, fruit and vegetables, as well as empty crates, cartons, bottles and paper wrappings, regardless of the country where any of the foregoing was obtained. The law is strictly enforced, and the minimum penalty for violation thereof normally includes a fine and confiscation of all such items. Fines can exceed $1,000.

Charts: B.A. 3344 and Italian No. 431.

SHORE LEAVE: None of the officers and none of the crew of any tanker shall be permitted shore leave at Es Sider.

SHIPMASTER'S REPORT: May 1987.

Prior to arrival *all* storerooms were thoroughly checked to ensure that no produce, tools or equipment indicated that they were of Israeli or South African origin. "Magazines", Time, Newsweek, old newspapers etc., were put out of sight as many of these publications contain political cartoons. Israeli and South African national flags were removed from the flag locker together with their respective name tags. ALL alcohol placed in the bonded store and listed. An *accurate* Stores List of selected items together with a comprehensive *accurate* Crew Declaration List were prepared.

Fifteen minutes after berthing, Agent, Customs, Immigration and Port Captain boarded. Immigration checked Crew List against Passports. Customs checked Bonded Stores List against Bond Locker. Customs checked coffee and sugar against Stores List. No discrepancies were found and all other items were accepted. Port Captain checked vessel's trading certificates and had to be convinced why the vessel could not produce the trading certificates translated into Arabic. This could cause a delay on any subsequent voyage to Libya.

As stated in "Guide to Port Entry", Master has to sign a Declaration of Discharge, which *must* be endorsed by the Customs at the Port of Discharge and *must* be posted back to Libya, a copy *must* remain with the vessel. Failure to comply with the regulation will automatically mean a long delay and possible rejection of the vessel on any subsequent visit to Libya.

As all the necessary papers were in order and no discrepancies found all official were polite and quite happy.

There were no problems with mooring, loading cargo, figures, etc. However, this vessel does not have the required number of mooring ropes to berth as per port requirements. (9 ropes required Aft). See "Plan Section".

AUTHORITY: Waha Oil Co., P.O.Box 395, Tripoli, S.P.L.A.J. *Tel:* 31116/29 (ext. 6-212). *Telex:* 20158 Wahalibya. *Cables:* Wahaoil. *Contact:* Marine Superintendent.

AGENCY: See "General" before first port.

MARSA AL HARIGA: 32.04 N. 24.00 E. (See Plan)

Also see "General" before first port.

LOCATION: Marsa al Hariga Oil Terminal is located on the South side of the harbour of Tobruk, approximately 1 mile Eastward of Marsa al Hariga.

APPROACHES: Vessels bound for the terminal should approach the harbour of Tobruk from the North-East with the lighthouse on Tobruk Point bearing 238° (true). In daylight this lighthouse should be kept in line with the conspicuous German War Memorial on the South side of the harbour.

When about 4 miles from Tobruk Point, course should be altered to 224.5° (true) to bring the leading lights on Marsa Umm esc-Sciausc in line. This course should be maintained until the vessel is close to the outer buoy, where one of the company's Berthing Masters will board.

Deep-draft vessels sailing from the terminal should avoid navigating North-Westward of the leading line from Marsa Umm esc-Sciausc, owing to the presence of shoal water off Tobruk Point.

DOCUMENTS:

A. Customs Requirements. On the arrival of a vessel, the Tobruk Customs Authorities will require from the Master of the vessel:

4 copies of a Crew List.

2 copies of a List of Ship's Stores.

2 copies of a Declaration of the Crew's Personal Belongings, including currency, cigarettes, gifts, etc.

4 copies of a Passenger List.

Last Libyan (cargo discharge certificate) to be checked for validity on boarding, if not correct vessel has to wait outside for ship's purposes.

B. Harbour Master's Requirements. On the arrival of a vessel, the Tobruk Harbour Master will require from the Master of the vessel:

1 copy of a Crew List.

1 copy of a Passenger List.

1 copy of the Ship's Manifest.

1 copy of a Port Declaration (form will be made available to each vessel on arrival).

PILOTAGE: Vessels coming to and departing from the Terminal will be berthed and unberthed by Berthing Masters provided by the company, subject to the understanding that in all circumstances the Master shall remain solely responsible on behalf of his Owners for the safety and proper navigation of his vessel.

Berthing Masters will board at the Outer Buoy.

The Pilot and Loading Master are to be provided with cabins whilst the vessel is alongside.

ANCHORAGES: If a berth is not immediately available on a vessel's arrival off the harbour of Tobruk, the vessel will be advised by the company where she is to anchor.

Anchorage position for tankers waiting to be berthed is 1.5 miles N.E. of the Outer Buoy.

MAX. SIZE: Max. Summer deadweight 150,000 long tons and Max. draft 56 ft. at No. 1 and Max. Summer deadweight 130,000 long tons and Max. draft 52 ft. at No. 2. The berths are located at the end of a T-head jetty which extends some 700 ft. from the shore. There is a minimum depth alongside of 60 ft. and approach to and departure from the berth can be made in not less than this depth of water. Freeboard at any time whilst deballasting must not exceed 55 ft.

HEALTH: The Libyan Authorities will grant clearance by radio of a vessel coming to the terminal. Radio messages requesting clearance should be sent not earlier than 48 hours prior to vessel's arrival off the harbour of Tobruk and should give the details required in the Maritime Declaration of Health which must also be completed.

COURTESY FLAG: On entering the territorial waters of the Libyan Arab Republic which commence 6 miles off the coast of Libya, vessels should if possible, hoist the Libyan flag, and in any event the Libyan flag must be hoisted before entering the harbour of Tobruk. Should a vessel arrive without a Libyan flag on board, one may be obtained from the Company's Berthing Master when he boards at the Outer Buoy.

ARRIVAL MESSAGES: In addition to their arrival messages to Agent, vessels must pass an arrival message to the terminal via the company's radio station giving at least 72 hours notice of ETA and advising their estimates of:

(a) The quantity of cargo (in long tons) to be loaded at the terminal.
(b) The cargo loading rate (in long tons) per hour.
(c) The quantity of ballast (in long tons) to be discharged ashore at the terminal.
(d) The ballast discharge rate (in long tons).

If, subsequent to advice of their ETA there is any material change, a further ETA message must be passed via the company's radio station.

RADIO: Tobruk Radio 5 A1 (MF & HF). Position: 32° 02′ N. 24° 00′ E. Frequency: 420, 500 A1, A2, 0.5 kW. 4241 kHz at 2130 GMT, 8480 kHz at 1730 GMT, 16963 kHz at 0930 and 1330 GMT. All using A1 0.5 kW.

Note: Station owned by Arabian Gulf Oil Company. Company telegraphic address: "Injaz Tobruk". Telex: No.: Agoco Ly 50023. All times given are GMT. Station keeps watch on 500 kHz during 24 hours.

TUGS: For berthing and unberthing at the terminal, vessels will be required to use the 2 diesel tugs which are available at the terminal. Each of these diesel tugs has a bollard pull of approximately 25 tons.

BERTHING: *Jetty:* Vessels will berth on the jetty starboard side alongside, depending on the prevailing weather conditions, though starboard side alongside is preferred. Each berthing head is "T" shaped and is protected by 4 breasting dolphins.

Moorings: Normal requirements are 4 head ropes, 3 breast ropes and 2 springs (springs to be ropes whenever possible).

All moorings, except the backsprings to the outer breasting dolphins at Jetty Berth No. 1 attached to quick release hooks.

Buoy Berthing: (CURRENTLY NOT IN USE). Berthing/unberthing in daylight only.

HOSES: New loading arms installed (balanced type) are Woodfield Mark 4, manifold size 16 in. ASA. Loading rate is maximum of 4,000 t.p.h. per hose.

OIL BARRIER: "Gemlen" floating anti-pollution booms on reels at jetty heads. Boat with chemical dispersants standing-by. Anti-pollution barge with floating boom and oil skimmer is available.

BALLAST: Vessels should make every effort to arrive at the terminal with clean ballast and with the minimum quantity for safe handling under prevailing weather conditions.

All ballast must be discharged into shore tanks provided by the company, unless it is clean ballast, carried in tanks which are completely isolated from the vessel's cargo system. However, the discharge of such ballast into harbour waters must not be commenced until the ballast has been inspected by a company official, and he has certified that it is in order to commence discharge.

Ballast can be accepted into the Company's store tanks at rates up to 4,500 t.p.h. from the jetty berths. Ballast is discharged ashore over the jetty by way of a loading boom. Ballast is discharged ashore from the buoy berth through a separate 24 in. ballast discharge line connected to a 12 in. flexible hose. Max. quantity 35,000 tons.

LOADING: Cargo loading at each jetty berth is by means of four 16 in. flow booms to which 12 in. flexible hoses are attached. Cargo loading at the buoy berth is by means of a 34 in. submarine line to which two 12 in. flexible hoses are attached.

This system permits a max. loading rate of approximately 8,000 t.p.h. over each jetty berth, and 4,000 t.p.h. through the buoy berth. The actual loading rate for a particular vessel will be determined prior to the commencement of loading by agreement between the Master and the Company.

Jetty: Method: gravity loading, max. head 360 ft. rate regulated to requirements. Loading rates: 2 lines each 4,000 t.p.h. Two 8,000 t.p.h. maximum.

SAFETY: A copy of the Regulations will be given to Master when Company's Berthing Master boards at outer buoy. Masters should make themselves thoroughly acquainted with these Regulations, strict observance of which is required by the Company.

In the event of any infringement of the Regulations, operations may be stopped and, if so, will not be recommenced until the Company is satisfied that appropriate action has been taken by the Master to comply with all the Regulations. The Company also reserves the right to unberth a vessel in the event of a continued or blatant disregard of any of the Regulations. Any loss or expense to the Company resulting from an infringement of the Regulations and, in particular, in the event of an infringement leading to an interruption of operations and/or unberthing of a vessel, will be for the account of the Owners.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: No shore facilities for carrying out repairs to vessels either at the terminal or at Tobruk.

CONSULS: None.

CUSTOMS ALLOWANCES: Cigarettes, cigars, tobacco, matches, spirits, wines, beer, perfume, arms, ammunition and saccharine have to be locked up under Customs' seal from time of vessel's arrival in harbour of Tobruk until time of departure.

Whilst in harbour, each member of crew allowed following: 200 cigarettes (the Master will be allowed 400); half bottle spirits (the Master will be allowed 1 bottle); 4 bottles of beer or wine per man per day.

No fixed allowances for cigars and tobacco.

Libyan law prohibits vessels from having on board any goods or containers of Israeli origin. Any vessel having such goods or containers on board on arrival in the harbour of Tobruk will be liable to a heavy fine and confiscation of the goods or containers. The Libyan Authorities may, moreover, refuse to clear the vessel.

REGULATIONS:

1. *Ship's Garbage.* Whilst within limits of harbour of Tobruk the throwing overside of ship's garbage is prohibited.
2. *Ship's Radio.* Once vessel berthed at Terminal the use of her radio will not be permitted.
3. *Ship's Boats.* Use of ship's boats not permitted within limits of harbour of Tobruk.

SHIPMASTER'S REPORT: April 1983.

Anchorage: Anchorage position for tankers is from 1.5 miles – 2 miles N.E. of the Outer Buoy. Holding ground is bad. As soon as wind increases up to Force 7 and swell grows, it is best to heave up the anchor and to proceed to sea and wait, keeping watch on VHF Channel 16.

Many vessels have lost anchors.

Max. Size: Berth No. 1 – Max. draft 56 ft. Berth No. 2 – Max draft 52 ft.

AUTHORITY: General Ports and Lights Administration, P.O.Box 648, Tripoli, Libya.

Operator: Arabian Gulf Oil Co., P.O.Box 44, Tobruk. *Tel:* 2/2044. *Telex:* Agoco Ly 50023. *Cables:* Injaz Tobruk. *Contact:* Marine Department or Terminal Manager.

AGENCY: See "General" before first port

MARSA EL BREGA: 30.25 N. 19.34 E. (See Plan)

Also see "General" before first port.

FLAG: All ships should fly the Libyan flag, which is plain green, when inside territorial limits. They should make sure that they have a Libyan flag on board before leaving the last port of call. Failure to fly the Libyan flag may result in a heavy fine.

Libyan Law does not permit ships using Libyan waters to retain Israeli flags, stores or literature pertaining to Israel on board, even though these may be normally part of the vessel's navigation equipment.

LOCATION: Marsa el Brega is located in the South-Eastern part of the Gulf of Sirte in Lat. 30° 25′ 0″ N., Long. 19° 34′ 3″ E. It is an open bay contained between Ras Magdar and an unnamed headland some 3 miles to the West.

The Brega Sea Buoy is located in Lat. 30° 27.55′ N., Long. 19° 35.1′ E.

A bow mooring oil loading fixed structure is located in Lat. 30° 26.0′ N., Long. 19° 33.9′ E., with a flashing red light exhibited at a height 93 ft. above mean sea level.

Brega is radar controlled with the shore installation scanner in position Lat. 30° 25′ 02.5″ N., Long. 19° 34′ 55.6″ E. The height of the scanner tower is 112.2 ft.

The Radio Beacon is located in Lat. 30° 24′ 23.79″ N., Long. 19° 33′ 13.39″ E. The call sign is "MB" and it operates continuously on a frequency of 403 kHz.

Single point moorings are located in position Lat. 30° 26′ 45.26″ N., Long. 19° 34′ 01.40″ E. and Lat. 30° 26′ 27.3″ N., Long. 19° 33′ 01.3″ E.

A single flare is located in position Lat. 30° 24′ 31.9″ N., Long. 19° 35′ 49.7″ E. Three other flares are located approximately 700 ft. to the West and S.W. The flares when burning can be seen at extreme distances.

Numerous lighted and unlighted navigational and mooring buoys are located within the restricted area shown on B.A. Chart 3350. Vessels are cautioned that these buoys may change position due to weather. Vessels are not permitted to enter restricted area shown on Chart B.A. 3350 without a Brega Pilot on board.

DOCUMENTS: Customs and Immigration Officials will board the vessel, except in adverse weather. All relevant documents are supplied by the Agent. The Master will fill in, sign and stamp the papers. These will then be handed over to the Authorities before clearance for loading is granted.

Letters on ship's business should be addressed to Oil Movement Documentation, Sirte Oil Co., P.O.Box 385, Tripoli, Libya.

Vessels calling at Marsa el Brega should have the following documents in addition to the ship's register.

Customs and Ports and Lights Authorities Forms:

A. Port Declaration – Form P.L. 7 (1 copy)
B. (Title in Arabic) Inward Report – Form C.L. 128 (3 copies)
C. Cargo Manifest Inward – Form C.L. (3 copies)
D. Report Outwards – Form C.L. 4 (3 copies)
E. Crew Manifest Inwards – Form C.L. 31 (2 copies)
F. Export Manifest Form C.L. 155 (6 copies)
G. *Certificate of Discharge:* If vessel has not called at a Libyan port since October 18th, 1973, then a letter is required from the Master, addressed to the Secretariat of Petroleum, stating that he undertakes to mail the Certificate of Discharge, for the present petroleum cargo, from the port of discharge and retain one signed stamped copy on board. It is essential that the Certificate of Discharge for any petroleum cargo loaded after October 18th, 1973, be on board the vessel and it must be clearly signed and stamped by the Authorities at the port receiving the last Libyan cargo. Vessels may incur delays or be refused loading permission where this is not complied with.

Required when ships clear inwards, lists each member of the crew and all goods held (e.g. liquor, cigarettes, cameras, money, etc.) with crew member's signature opposite name or rank. This form is ordinarily supplied in advance so that it may be completed prior to arrival at Brega.

Ships making their first call at Brega must necessarily complete after arrival, but will then receive advance forms for future calls.

Cargo ships also require ship's Cargo Manifest Form (3) with same information as C. above.

Ship's Forms required by Customs:

A. Crew List – ship's form (3 copies)

Submitted for inward clearance and containing the following information: List of crew members, type of vessel, nationality, date of arrival, place from which arriving, destination, and estimated date of departure. Sign and stamp with ship's stamp.

B. Stores List – Ships form (2 copies)

A list of ship's stores required when ship clears inward. Sign and stamp with ship's stamp.

C. Clearance from Last Port – Port's form (1 copy)

Required for inward clearance to load at Brega. Must be properly signed and stamped by Officials of port of previous call. There are exceptions on requirement for this clearance dependent on ship, nationality and last port of call.

Other Forms: (Not required of cargo ships)

A. Report of Cargo and Ship's Ullages (original)

B. Tanker Time and Loading Report (original)

(A mimeograph original to be signed by the Master and returned to ship's Agent).

C. Certificate of Cargo Discharge (6 copies)

Master signs and stamps 1 copy at bottom of form, and returns it ashore.

The other 3 copies are completed by Master at port of discharge and stamped and signed by Customs Authorities. 1 copy should then be air-mailed to Ministry of Petroleum, Tripoli. The second copy air-mailed to Oil Movement Documentation (Brega), Sirte Oil Co., P.O. Box 385, Tripoli, and the third copy retained on board for presentation when the vessel next calls at Brega. It is essential that the copy retained on board be clearly stamped and signed and the cargo figure should correspond with the cargo figure loaded at Brega.

Notes on Ship's Documentation:

Sirte Oil Co. no longer supply an agency service. Vessels should nominate a government agency for all vessels calling at Libyan oil ports.

Information required by Sirte Oil Co. on vessel's assignment prior to vessel's arrival.

The Owner, Charterer or Agent should airmail or cable following to Marine Superintendent Brega, Sirte Oil Co., P.O.Box 385, Tripoli, Libya. Telex: 0901-50657, 30120-21-22.

(1) Name and flag of vessel.
(2) Dimensional characteristics, e.g. overall length, beam and max. draft.
(3) Total tonnage, number and type of products or cargo on board.
(4) Number and size of cargo hose connections on either side and distance in feet of each from the bow.
(5) Safe working load of derricks in vicinity those connections.
(6) Number of shackles of chain (90 ft. shots) on each anchor.
(7) Whether or not VHF fitted.

Information concerning dimensional characteristics need not be included in letter or cable after first call.

PILOTAGE: The services of a Pilot/Mooring Master are provided. He will normally board the vessel in the vicinity of the Brega Buoy and will advise the Master on approaches to the berths, mooring and unmooring, connecting and disconnecting cargo hoses, and all other operations within the berthing area. Vessels are cautioned not to enter the restricted area without the services of a Brega Pilot/Mooring Master. Pilot ladder must conform to international safety standards.

The Master of the vessel shall notify the Mooring Master of any special conditions, difficulties or peculiarities, such as defective equipment, lines or gear, which might impose special hazards in connection with handling, mooring, or loading the vessel. It is required that vessels test steering gear, engine room telegraph, whistle and all navigational equipment before any manoeuvre to or from the berths.

The Mooring Master will decline to moor vessels if they are not equipped with satisfactory mooring equipment, lines, gear, etc.

Vessels must be moored to the entire satisfaction of the Mooring Master, and must be ready at all times to put out more lines or to adjust the lines as required by any change in the weather or as requested by the Mooring Master.

Pilot Ladders:

Several instances of the use of unsatisfactory, dirty and unsafe pilot ladders have been reported by Pilots.

Faulty ladders endanger the lives of Pilots.

Instructions have been issued to all Pilots to report immediately any pilot ladders which do not comply strictly with the following orders:

(1) The Officer responsible for the embarkation and disembarkation of the Pilot is a Watchkeeping Deck Officer.
(2) The Pilot ladder is secure, clean and free from oil.
(3) The Pilot ladder is adequately lit at night.
(4) Means are provided to enable the Pilot to pass safely and conveniently from the head of the ladder into the ship or onto the ship's deck.
(5) The ladder is in good condition and its tread remains *horizontal.*
(6) The length of the ladder does not exceed 30 ft. Whenever the distance from sea level to a point of access to the ship is more than 30 ft., access from the pilot ladder to the ship must be by means of an accommodation ladder or other equally safe and convenient means.
(7) The ladder is rigged so that each step rests firmly against the ship's side.
(8) Spreaders are provided not more than 10 ft. apart to prevent the ladder twisting.
(9) Two manropes (not made fast to the ladder but to some independent structure) and safety lines are provided, and a lifebuoy with self-igniting light is available.

Vessels not complying with these rules will not be boarded by a Pilot and will suffer the consequent delay in berthing.

ANCHORAGE: Anchorages located 0.5 mile N.E. to East of Brega Buoy in 12 to 18 fathoms. *Vessels should not remain at anchor in bad weather.* Vessels *are not permitted* to anchor within half a mile of the channels into the bay and inner harbour, and are to keep clear of the 143° 41′ leads (East of the harbour).

RESTRICTIONS: Shahat Shipping Co., Benghazi, advised in January 1984 that only tankers and self-equipped Ro/Ro vessels with forklift and drivers are acceptable at the port, due to non-availability of labour.

No conventional general cargo ships can be discharged until further notice.

In February 1984 Shahat further advised that receivers may discharge cargo by their own labour.

MAX. SIZE: *Cargo vessels:* Maximum draft for vessels entering or sailing from the inner harbour is 10.0 m. (33 ft.).

Tankers: See "Berthing".

HEALTH: Quarantine signals must be displayed upon entering Brega port limits in accordance with international practice and shall be continuously displayed until Pratique is granted.

RADIO: Vessels bound Marsa el Brega not required call Tripoli for inward or outward clearance. Radio messages should be sent through Tripoli (via Malta if beyond communication range of Tripoli) and ETAs should be sent at least 48 hours but preferably 72 hours in advance. Master should state whether ETA in GMT or local time.

Unless 24 hours notice of ETA is received by Sirte Brega (Telex 0901-50657, 30120-21-22). Notice of Readiness will not be accepted.

As cable office closed between midnight and 0800 hrs., allowance for delays in receipt of radio messages due to this and other causes should be made when sending ETAs and other urgent traffic.

VHF: *Port Control Short Range and Radio-Telephone Communications:* Sirte Oil Co. Marine Terminal is equipped with a VHF radio port control system. It is intended that the following procedure should be adhered to:

Vessels approaching Brega and equipped with the appropriate VHF radio equipment, should call Brega Port Control on Channel 16.

Prior to Pilot boarding, the vessel will be allocated one of the four working Channels: 6, 9, 12, 13.

Sirte Oil Co. craft are equipped to operate on these Channels.

Portable sets will be available for use of vessels not fitted with VHF radio equipment.

Note: Whilst in Libyan Territorial waters, it is prohibited for vessels to use Radio and Wireless Telegraphy. On arrival at a Libyan port such equipment shall be sealed by the Customs Authorities. However, VHF communications between such vessels and Libyan Ports Authorities are not affected by this prohibition.

TUGS: Sirte Oil Co. maintains tugs and mooring launches to assist vessels to moor and unmoor.

BERTHING: Tankers: *Connecting of Cargo Hoses:* Cargo hoses used at No. 2 are 12 in. ASA and at Nos. 5 and 6 are 16 in. ASA. Raising, connecting, disconnecting, and lowering of the hoses used in all berths will be performed by the ship's crew as advised by the Pilot/Mooring Master who will remain on board while the ship is in the mooring. Vessels should arrive with port derrick topped and ready for use.

Ballast: Sirte Oil Co. has no facilities for the discharge of dirty ballast in Brega. Accordingly, all ships must arrive with clean ballast. International oil pollution regulations must be strictly observed by all ships while in Libyan waters. Ballast samples are analysed by laboratory technicians.

Vessels should have sufficient ballast aboard for safe manoeuvring, but should not arrive excessively ballasted. The propeller should be submerged and the vessel trimmed not more than 8 ft. by the stern.

Vessels not properly ballasted will not be berthed in order of arrival and will not have their Notice of Readiness accepted.

Loading and Deballasting Simultaneously: Vessels properly equipped will be encouraged to discharge clean ballast and load oil simultaneously subject to the loading rate being reasonable, and that this procedure does not unduly delay the discharge of clean ballast.

Cargo Loading: In order to economise vessel's time and for the benefit of all concerned, it is requested that officers in charge of loading endeavour to receive oil as fast as is safely possible.

The vessel will be responsible to see that all vessel's filling lines are empty and clean prior to commencement of loading in order to prevent contamination of cargo being loaded.

The Master shall indicate on a form the maximum loading rate which is required, having regard to the safety considerations outlined above.

During loading operations at least one licensed Deck Officer and one licensed Engineer Officer shall be on watch and immediately available.

All operations in connection with the starting of loading, discharging, switching of tanks and topping-off of tanks should be directly and personally supervised by a ship's officer in the presence of the Mooring Master.

Mooring Ropes: Tankers calling at Brega to load at the crude/naphtha sea berth should be equipped with a minimum of eight 10 in. circ. fibre or synthetic mooring ropes in good condition, not less than 120 fathoms in length. Mooring wires of equivalent strength are acceptable. A fibre or synthetic mooring rope in good condition must be available for towing vessels into berths by tug. It is recommended that 4 ropes be ready for use on the main deck. One on each side and one amidships joined to the others.

Outer Harbour:

Crude Tanker Sealine Berth Nos. 1, 3 and 4:

Berths 1, 3 and 4 are now out of service. Ground chains and clumps for the mooring buoys, and the *loading lines* are still in position.

Naphtha Crude Tanker Sealine Berth No. 2:

The least depth of water in this berth is 44 ft.

When berthed the tanker is heading 330° true with both anchors out forward, and 6–700 ft. of chain on each anchor. The stern is secured to 5 mooring buoys fitted with quick-release hooks. The submarine hoses are picked up amidships on the port side of the tanker and the vessel's derricks should have a safe working load of 5 tons.

A naphtha line with a single 12 in. connection is laid in this berth, the shore line being 24 in. A crude line with single 12 in. connection can be used if necessary. In good weather, Berth No. 2 can safely accommodate a 65,000 d.w.t. tanker with the following principal dimensions: 65,000 d.w.t.; length, 800 ft.; beam unrestricted, up to 42 ft. draft in good weather. Density of sea water about 1030.

Crude Tanker Sealines, Berths No. 5 and 6 – Single Point Moorings:

No. 5 SPM is located in approx. 140 ft. of water and is in position Lat. 30° 26′ 47″ N., Long. 19° 34′ 01.4″ E. No. 6 SPM is in approximately 140 ft. of water and is in position Lat. 30° 26′ 17.3″ N., Long. 19° 33′ 01.3″ E. The mooring consists of a monobuoy to which are attached 2×15 in. synthetic lines. These are shackled to a single 3 in. chain partly around which is a flotation cover. On the end of the chain is a 9 in. polypropylene line. Vessels using this mooring should have a Panama lead of 13 in. minimum diameter or equivalent fairleads suitable for taking on board the 3 in. chain.

Mooring is effected by heaving the polypropylene through the bow as near the centre lead as possible until the chain is on board, and then shackling two 14 in. nylon strops to open links in the chain. The strops and shackles will be placed on board with the Pilot and vessels are advised to have the port derrick ready to hoist the gear on board at that time. The vessel is also required to have a good 3.5 in. to 4 in. messenger line of at least 75 fathoms in length, ready for use on the fo'c'sle head.

The 48 in. pipe-line is approx. 11,850 ft. long, terminating at the underbuoy structure on the seabed. Crude is loaded through one string of self-floating 24 in. hose with 2×16 in. over-the-rail hose to the ship's manifold. Vessel's derricks should have SWL of 10 tons and if necessary be double rigged. The weight of a normal lift for connection to the ship's manifold amounts to less than 5 tons. This is for a hose free of oil, which is usually the case. Vessels with the following principal dimensions can be accepted in this berth: 300,000 d.w.t. Length, beam and draft unrestricted. Flow rate 45,000 b.p.h.

Berth Nos. 5 and 6:

Vessels entering the restricted area on the approach to, mooring and leaving, these two berths must at all times have their anchors firmly secured. No anchor work may be carried out at any time whilst a vessel is in this area.

West Harbour – Product Tanker Berth:

Tankers loading or discharging refined petroleum products at Marsa el Brega will be berthed at the Product Dock. Products will be loaded through a number of small pipe-lines approximately 2,000 ft. long. 4 in. or 8 in. hoses are provided according to the grades of oil being loaded or discharged. Vessels assigned to this berth must be suitably equipped with mooring ropes and have derricks capable of lifting 2 tons.

Vessels cannot be berthed or remain alongside the breakwater except in fine weather. The breakwater is equipped with resilient fendering and ample mooring points. Tankers will be berthed by an Sirte Oil Co. Pilot/Mooring Master. Two tugs are available, and a launch will run the mooring lines. In good weather vessel with the following principal dimensions can be accepted: Overall length 500 ft., beam unrestricted, draft 26 ft. max.

Gas Docks: Two types of processed gas are loaded in Marsa el Brega: liquefied natural gas (LNG) and pressurised liquefied petroleum gas (Press. LPG).

These are loaded on 2 piled berths situated on the South-Eastern part of the harbour.

There are dolphins for head, stern and breast lines.

The springs are secured to the central pier and in addition springs from the pier are also made fast. Vessels alongside the gas jetties must be ready to leave at short notice.

On the North or "A" jetty the following products are loaded: Press. LPG and LNG. On "B" jetty: Press. LPG and LNG. Minimum depth alongside gas jetties is 37 ft.

Acid Dock:

There is a small berth to deal with caustic soda.

Dry Cargo Dock:

Sirte Oil Cargo Dock accepts only cargo directly for Sirte Oil Co. All other cargoes are discharged in Eastern Harbour Cargo Dock.

Notice of ETA Port Brega must be given 72, 48 and 24 hours prior to the vessel's arrival. Master of vessel should also advise number of stevedore gangs required.

A Roll-on/Roll-off facility can be used by suitable vessels at times when the product jetty is not occupied. Vessel's dimensions should not exceed those described above for the Product Jetty.

Height of jetty above sea level is 1.5 m. (approx.).

Vessels assigned to discharge dry cargo at Marsa el Brega will be berthed alongside the dry cargo dock by an Sirte Oil Co. Pilot/Mooring Master. The min. depth alongside and in the approach is 30 ft. Two tugs are available. A mooring launch will be available to run mooring lines. The dry cargo dock is fitted with resilient fendering and ample mooring points. During Winter it may be necessary to leave the berth during bad weather, and the Master is responsible for any damage sustained by the jetty and/or his vessel. A Pilot/Mooring Master will be standing by at all times.

All mooring ropes should be in good condition and none should have more than one short splice in the usable length. Crew shall keep the moorings tendered and properly lighted day and night. Shore ropes are also available when necessary.

Ships shall provide their own gangways and the crew shall keep them lighted and tendered, day and night.

Ships must be equipped with adequate unloading gear. All cargo will be off-loaded with the use of ship's gear. When weather permits, derricks should be topped at sea prior to arrival. Due to the increase in cargo vessels calling at Brega, considerable delay may be experienced. Vessels carrying Sirte Oil Co. cargoes have priority over all other vessels.

The length of the dry cargo dock is 650 ft. The max. size ship which can be accommodated is 500 ft. overall, beam unrestricted, max. draft 26 ft.

INSPECTION/POLLUTION: *Arrival:* As soon as practicable after arrival and prior to acceptance, all of the vessel's tanks will be inspected for evidence of oil in ballast tanks. Inspection will continue during discharge of ballast. If evidence of oil appears at either of these inspections, the ship must return at once to sea and clean tanks, etc., in accordance with the procedures as laid down in the booklet entitled "Clean Seas Guide for Oil Tankers – The Operation of Load on Top" as issued by the International Chamber of Shipping – Oil Companies International Marine Forum.

Any vessel required to return to sea for the purpose of cleaning tanks or for any similar reason automatically nullifies any Notice of Readiness already tendered, and at the same time loses priority held for loading. On return from sea, vessel will be entered for loading at the time of the second arrival when a new Notice of Readiness will be tendered.

In addition to the lights usually displayed, vessels discharging ballast or loading cargo during darkness, will illuminate the area round the ship to the satisfaction of the Mooring Master in order that any oil on the surface of the sea may be readily detected and appropriate action taken. Vessels not having sufficient illumination will not berth if discharge of ballast continues after dark. Vessels having sufficient illumination will take precedence in berthing order. Vessels should provide suitable floodlights for working on deck during night operations, and should designate a responsible person to keep a continuous watch on hoses and moorings at all times during sea berth occupancy.

Loading Precautions: Masters are responsible to see that no oil (crude, bunker, diesel or bilge) is pumped or spilled overboard from their ships. Cargo hose should be inspected to ensure proper connection; drip pans should be in place, especially when disconnecting hose; scuppers should be plugged tight to contain possible spills; loading valves should be checked and tested to ensure proper operation and tight shut off; unused cargo and bunker connections should be blanked off; stern discharge line, if any, should be closed and blanked off; all sea valves should be closed and lashed shut upon completion of deballasting; the ship should provide sufficient staff (a minimum of one officer and three other crew members are recommended) to ensure proper supervision of loading and topping off operations.

If, during first inspection or during progress of loading, it is revealed that ship's hull is not oil-tight, ship will be rejected and refused further loading. Ship will not later be accepted for loading unless satisfactory evidence, duly certified by Lloyd's or American Bureau of Shipping or other recognised survey agency, of effective repair is submitted.

Contamination of the Sea: In the event any vessel should discharge dirty ballast or spill oil in the vicinity of the Brega Terminal area, Sirte Oil Co. retains the right to take any action that may be necessary to clean up the contaminated area whether the contamination is upon the sea or the shore, or upon any structures or properties located in or upon the sea or upon the shore. In addition, Sirte Oil Co. shall have the right to settle any claims of third parties arising from such contamination. All costs and expenses incurred by Sirte Oil Co. to carry out the cleaning up of such contamination, or the settlement of third party claims, shall be borne by the vessel or by those owning the vessel at the time of the said contamination, and Sirte Oil Co. shall be entitled to reimbursement by said owners for any such cost and expenses.

SAFETY: The vessel's personnel are responsible for the safety of the vessel and must take all necessary precautions, whether or not so advised by the Mooring Master, having in mind the hazards of the operation because of the product being loaded, weather conditions and any other circumstances requiring special care or caution.

While a vessel is moored, all the vessel's personnel and vessel's operations must comply with or be in accordance with the following Safety Rules:

(a) *Smoking is prohibited on the open decks of vessels. Smoking is permitted on board vessels only in enclosed spaces specifically assigned by the Master as Smoking Areas.*

(b) Before any loading commences all scuppers on the loading deck through which oil might escape overside must be tightly plugged and must be so maintained throughout the period the vessel remains within the limits of the harbour.

(c) The Master is responsible to see that oil from the vessel is neither spilled nor pumped into the water. At all times while loading cargo, all openings to the loading deck from crew, engine, galley and other dangerous areas shall be tightly closed.

(d) Boiler tubes are not to be blown. Every precaution must be taken so that sparks do not at any time escape from the funnel or stack.

(e) Ship's wireless is not to be operated while vessel is in the berth.

(f) Two hoses with spray nozzles to be laid out near manifolds and pressure maintained on fire mains at all times. Two suitable portable fire extinguishers (foam or dry powder) should also be available and bags of sand kept near manifold to contain any small oil spillage.

(g) Please note carefully that the Mooring Master is authorised to suspend operations in case any of the foregoing Safety Rules are not observed and in all cases where dangerous conditions or practices are deemed to exist.

Shore Alarm Signals:

Category 2 (Serious Incident): Three 2 second blasts of the District siren.

Category 3 (Major Disaster): A series of three Category 2 alarms.

Ships:

Fire: Six (6) or more short blasts, followed by a long blast repeated until shore contact, and continuous ringing of vessel's fire alarm system.

VHF Radio: *All* vessels to stand by Channel 16.

Fire or Explosion on Board Crude Vessel Berthed Offshore:

A. Responsible officer to man bridge, engines to be put on standby and crew to disconnect hoses as soon as possible.

B. Loading to be stopped on other vessels berthed offshore. Hoses to be disconnected and hung off, engines put on standby and crew standing by to vacate berth if necessary.

C. Vessels at anchor in the vicinity of the Brega Buoy to have engines on standby, with crews ready to heave up and put to sea if need arises.

Fire or Explosion on Board Ships in Inner Harbour:

A. Master to call Port Control on VHF Channel 16 with details.

B. Loading arms or hoses to be disconnected as soon as possible.

C. Loading or discharging to cease immediately on other vessels in harbour and offshore berths. Vessels to standby to vacate berths if necessary.

Fire extinguishers and hoses with nozzles capable of projecting a fine spray (fog) should be rigged in the vicinity of the loading/discharging manifold with fire mains pressurised at all times. (See 13.2.2.3 of I.O.T. & T.S.G., 2nd Edition).

Crude Oil Health Hazards (Hydrogen Sulphide Content)

A sour crude can be defined as one containing Hydrogen Sulphide (H_2S) within the range of 0.05 cu.ft. to 8.8 cu.ft. per 100 gallons or capable of generating atmospheric Hydrogen Sulphide concentrations of 5 to 1,000 p.p.m. Hydrogen Sulphide vapours in air are extremely toxic and the Maximum Allowable Concentrations (MAC) for personnel exposure throughout an eight hour day is 10 p.p.m. The gas is highly odorous and a particular hazard is its special effect of causing paralysis of the olfactory nerve, thus destroying the sense of smell.

Escape of Hydrogen Sulphide vapours from crude oil is relatively facile and due to a heavier than air effect (S.G. 1.19) may justify additional precautions under some atmospheric conditions.

The following medical effects on personnel exposed to Hydrogen Sulphide represent an indication of the degree of vigilance necessary to prevent or minimise exposure:

	Atmospheric Concentration Range	*Personnel Reaction*
(i)	50–100 p.p.m.	Slight irritation after exposure for 1 hour.
(ii)	200–300 p.p.m.	Marked irritation after exposure for 1 hour.
(iii)	500–700 p.p.m.	Loss of consciousness after exposure of 30–60 minutes.
(iv)	700–900 p.p.m.	Rapidly produces unconsciousness and death occurs a few minutes later.

The particular hazards introduced by the carriage of crudes containing Hydrogen Sulphide may be restricted by observing the following practices:

(1) Every opportunity should be taken to utilise closed loading facilities to discharge displaced gas remote from deck areas.

(2) During loading operations, where large volumes of gas are discharged to atmosphere, regular observations should be made of gas concentrations about the decks.

(3) Any persons engaged in sampling, gauging, sighting open cargo tanks or disconnecting cargo hoses, should work windward of the vapour source and should be kept under surveillance from a safe area.

(4) In the event of a person being rendered unconscious by vapours with high Hydrogen Sulphide content, urgent removal to a safe area and application of artificial respiration is of prime importance, followed by the early attention of a qualified medical practitioner.

(5) In respect of loading crude with a high Hydrogen Sulphide content, it is not necessary to take water dips after loading and ullages as indicated by "Whessoe" or other automatic gauges are acceptable on vessels fitted with this type of equipment. Cargo samples taken from the shore meter battery are acceptable.

(6) In respect of transporting crudes with a high Hydrogen Sulphide content, one day prior to arrival at the discharge port, the pressure/vacuum valves should be jacked open to allow gas concentrations to escape to atmosphere at the masthead; then prior to berthing those valves should be reset in the operating position.

The degree of sourness is normally indicated by the Hydrogen Sulphide content in p(arts) p(er) m(illion) *liquid measure.* The Hydrogen Sulphide contents of various types of sour crudes so defined are as follows:

Crude	*Hydrogen Sulphide (p.p.m. Liquid Measure)*
Agha Jari	20
Jambur/Bai Hassan	40
Kirkuk	40–70
Gach Saran	70
Brega	260
Qatar	200–300

The *Atmospheric* Hydrogen Sulphide concentration varies materially with atmospheric conditions. Particular caution should be exercised when petroleum vapours generally tend to concentrate about the decks. H_2S is readily detected with a MSA Toxic Gas Detector.

The precautions referrred to above should be carefully observed at all times.

MEDICAL: There are limited medical and no dental facilities at Marsa el Brega. Personnel requiring urgent medical treatment may obtain it, but this will only be undertaken in serious cases. The cost of transport and treatment will be charged to the vessel. A form entitled "Charges for Ship Account" must be completed in quadruplicate and sent ashore with the person requiring treatment. This form can be obtained from the ship's Agent.

Masters of vessels arriving at Marsa el Brega who require medical treatment should give advance notice of their requirements by radio whenever possible.

REPAIRS: No repairs are allowed to ship's engines while vessels are moored in the berths. Ship's engines should be ready for use on short notice in case the vessel has to vacate the berth suddenly because of bad weather. There are no repair facilities for ships available at Brega.

REPATRIATION: Crew members cannot pay off or leave the vessel at Marsa el Brega except in cases of emergency. Even in an emergency, it should be noted that Seamen's Books are not valid under the Libyan law. A valid passport is required, and with adequate notice by radio it is possible to obtain an exit visa for a crew member leaving in an emergency.

FRESH WATER: No fresh water is available.

FUEL: No bunkers are available.

SHORE LEAVE: Passengers and crew members are not permitted to land for reasons other than emergencies.

PORT REGULATIONS:

Cargo Vessels: Also see "Max. Size".

The following restrictions, conditions, rules and priorities shall be observed by Masters, Consignees and Agents of Non-Sirte Oil Co. cargo vessels calling at Marsa el Brega and berthing at the Sirte Oil Co. cargo jetty.

1. The permission of the Operations General Manager must be obtained before a non-Sirte Oil Co. cargo vessel can discharge. The Operations General Manager also designates certain priorities which may change from time to time. Agents of cargo ships must keep in touch with Marine Superintendent who will advise them of the priority assigned to their vessel.
2. Maximum vessel draft 26 ft.
3. Maximum length overall 500 ft.
4. No repairs may be carried out to the propulsion machinery during the unloading operation and the ship must remain mobile and be ready to manoeuvre at all times.
5. Vessels must be equipped with their own unloading Gear.
6. Unloading must be from ship to truck and no marshalling arrangements can be made available inside the reserved area. The unloading operations must be completed rapidly.
7. Unloading operations may not be performed except during daylight hours as determined by the Marine Superintendent.
8. Loading trucks will be required to adhere strictly to Sirte Oil Co.'s safety rules, particularly while operating within the limits of the Industrial area.
9. Arrangements for the entrance and movement of the stevedoring personnel must be coordinated with Sirte Oil Co.'s Industrial Security Division. No housing or victualling will be provided for stevedoring personnel. All expenses, costs, remunerations and compensations associated with this activity will be borne directly by the company concerned.
10. The stevedores will be held responsible for cleaning up after completion of unloading.
11. No victual, water supply or bunkering service is available for vessels calling at Brega.
12. Advance notification must be given to Sirte Oil Co. Marine Division at least 10 days prior to arrival of vessel at Marsa el Brega. ETA of vessel to be notified 72 hours prior to arrival and confirmation and reconfirmation 48 hours and 24 hours respectively prior to arrival.
13. A system of priorities for cargo vessels entering Brega is in operation as follows: 1st – Sirte Oil Co. cargo, 2nd – N.O.C., 3rd – other vessels. This system will apply even though this requires interruption of operations of vessels already berthed.
14. Weather and sea conditions, particularly during the period December to April of each year, impose severe restrictions on the cargo pier usage. Among these restrictions are the discontinuation of unloading and the unberthing of the ships as a safeguard against ship and berth damage.

One hour's notice will be given to Masters should it be deemed necessary to vacate the berth due to bad weather.

15. Sirte Oil Co. shall not be held reponsible for any waiting period or delay (demurrage) related to the entry of cargo ships, nor be liable for any costs or compensation in that connection, regardless of the circumstances.
16. Sirte Oil Co. shall not be held liable for any loss, damage or injury that may occur to any property or persons whatever the cause thereof as long as they are related to or resulting from the use of the port. Such loss, damage or injury shall be the liability of the Master, Consignee or Agent irrespective of whether they are real or alleged. The above named shall also undertake to indemnify Sirte Oil Co. for any such losses and damages and to hold Sirte Oil Co. harmless from any liability that may arise as a result thereof.
17. All vessel movements will be subject to the control and direction of Sirte Oil Co. Marine Division Superintendent.

GENERAL: *Charts:* Vessels calling at Brega should have on board B.A. charts 3350 and 3354, or H.D. chart H 203. No charts are available at Brega.

Provisions: There are no fresh or dry provisions available at Marsa el Brega.

Mail: The Ship's Agency will handle all official and crew ship's mail.

Harbour Work: Dredging is in continual progress in the vicinity of the inner harbour. Vessels are cautioned not to enter the restricted area (B.A. Chart 3350) without the services of a Brega Pilot/Mooring Master.

Master of cargo/product vessels calling at Marsa el Brega are cautioned that seaweed in suspension is present in the inner harbour area, and all precautions should be taken to avoid blockage of main engine room intakes.

All offshore loading is controlled by the VHF ship/shore radio. The Mooring Masters are equipped with portable VHF sets and the vessel will be assigned a frequency when the Mooring Master boards. In the event of total failure of ship/shore radio communication during loading, the ship should sound the emergency signal comprising a succession of short blasts on the ship's whistle. All loading operations will then cease until radio contact with the shore has been re-established.

All mooring lines to be fitted with adequate ratguards.

All berths in the inner harbour are adversely affected during periods of bad weather, particularly when the prevailing wind is from the North-West.

All vessels allocated berths in the inner harbour are therefore required to be ready to proceed to sea as directed by the Marine Superintendent or his representative when adverse weather prevails or is expected.

All tank lids to be closed and vented to the atmosphere via the agreed system.

Smoking is strictly prohibited on board all tankers except in locations approved by the Masters of the vessels. No smoking on deck even if gas free.

Full power must be available for all manoeuvring to and from all berths. During deballasting and loading, vessels must maintain engines and propulsive machinery in readiness at all times to leave the berth on short notice.

No repairs are permitted which will delay or interfere with this contingency. Contravention of this ruling constitutes a serious safety hazard and will entail towage from the berth and possible delay to the vessel for which Sirte Oil Co. will accept no responsibility.

It is the responsibility of the vessel, before arriving, to see that ballast water is free of oil and to *discharge ballast water through ballast discharge lines* prior to arrival to ensure their cleanliness.

All tankers for sea berths must have port derrick ready for use.

Masters are warned that no contaminated ballast or bilge water may be discharged within Libyan territorial waters. It is the responsibility of the vessel before arriving to ensure that ballast water is free of oil, and that all pipe-lines, sea suctions, strainers and pumps have been flushed clean of oil.

DEVELOPMENTS:

National Oil Company (NOC) – East Harbour:

Governing body: G.P.L.A. East side of harbour opened 1978.

Tanker Berths:

Jetties 1 and 2: Facilities for loading of Ammonia and Methanol on both jetties. On Jetty 2 facilities for receiving Acid and Caustic.

Overall Moorings: 175 m.
Loading Section: 43 m. (141 ft.).
Dredged depth: 14m. (45 ft.).

Urea Jetty: Overall length: 216 m. (See "Shipmaster's Report").
Dredged depth: 9 m. (29 ft.).

Cargo Dock:

Max. d.w.t.: 15,000 tons.
Overall length: 392 m.
Dredged depth: 11 m. (36 ft.).

Suitable Ro/Ro ships may berth alongside the Urea Jetty stern on to the Cargo Jetty, which has a height above sea level of approximately 2.7 m. (9 ft.).

SHIPMASTER'S REPORT: August 1984.

Charts: British Admiralty 3354, 3350. French 5792.

Approach: Refinery buildings are radar identifiable at over 20 miles and the fairway buoy (Lat. 30° 27.55′ N., Long. 19° 35.1′ E.) at over 6 miles, also at about this distance it is possible to make out the shape of the harbour breakwaters on radar. The line of soundings is very sharp on the echosounder, and the 50 m. line 7 miles out when coming from the North was raised very easily.

Pilotage: Pilot boarded at the fairway buoy from a large tug (Dutch company contracted to the port). Vessels are not allowed to proceed into the restricted area 0.5 miles South of the fairway buoy without a Pilot. The area inside the restricted zone having several tanker SPM's and other obstructions.

The Pilot was immediately concerned about the vessel's air draft for berthing at the Urea Berth. After berthing I made a rough calculation and would say a vessel with a main deck air draft of over 38 ft./40 ft. would have great difficulty accommodating them. Our main deck air draft at the time was 31 ft. When asked the Pilot stated that the maximum departure draft was 29 ft.

To approach the berth vessels enter with 2 tugs (2,000 h.p.) fast on the starboard shoulder and quarter, berthing being port side alongside. When the breakwater has been rounded vessel is headed East until clear of the Fl. 5 sec. elbow buoy when the swing to starboard with engines and tugs is started (starboard anchor ready in case of emergency). Once vessel is swung until heading about S.W., tugs then push her alongside as near into the corner with the general cargo berth as she she will go, in our case about 8 m. (this is also to facilitate the after elevator being used to work No. 1 Hatch, on this vessel LOA 169.1 m.).

Survey/Loading: Shippers are National Petroleum Co. and all cargo survey work is done by Societe Generale de Surveillances S.A. The surveyor was very helpful. Stowage factor for treated urea is approximately 48/49.5 cu. ft. per ton. The loading rate stated was 400 tonnes p.h. although in actual fact we never achieved an average of more than 300 tonnes p.h. Treated urea is very hydroscopic, with the climatic conditions in Libya, it is impossible to load if the relative humidity is over 75%. This usually involved stopping in the evenings around 1800/1830 hrs. and restarting in the morning 0800/0830 hrs., although on one occasion we did manage to work all night.

The elevator is self-trimming and does a reasonable job, however, with the high stowage factor some hatches were filled but because of the restricted height of the elevator, it proved impossible to get the loading chute high enough to fill the coamings as we would have liked, and thus our intake per hatch was reduced.

Clearance/Customs formalities: Libyan Government have issued a statement that from 7th June, 1984, all incoming ships must have all ship's papers and documents translated into Arabic. This we managed to have done but only because of the length of stay in the previous port. In actual fact the Agent took no notice of these translations, they wanted their own forms filled in by the Master. The Customs Officials were very courteous. No alcohol is allowed, also all cameras had to be locked in the bond as El Brega is a restricted port because of the oil installations, and hence no shore leave. The main transmitter was also sealed.

SHIPMASTER'S REPORT: November 1987.

Vessel: 95,000 d.w.t. tanker.

We were advised by Charterers to inform Derma Shipping, Tripoli of our ETA and other relevant information. They in turn advised us that we should contact Shahat Shipping, Brega, but they were in fact already receiving all ETAs.

We were unable to contact the terminal until some 2 hours off as they were in the process of moving their VHF aerial. When re-sited, communications are likely to be much improved.

No information is passed by the terminal to the pilots until just prior to arrival of the vessel. It is therefore a good idea to send a 24 hour ETA to Sirte Oil Company (Telex No. 30120, 30121, 30122) who will pass messages to the pilots.

Samples were taken of all ballast tanks (even segregated ballast) for analysis ashore. If excess oil is found, vessel will be ordered off the berth for extra cleaning.

Maritime Declaration of Health not required. Pilot grants Pratique on boarding. Pilot also carries out safety and anti-pollution check lists.

Tug does not usually tow astern as an on/off shore breeze keeps the vessel clear of the buoy, however engines are to be kept on 10 minutes notice in order to give stern power.

After berthing, the Pilot gives papers to the Master, 2 of which have to be completed and signed. The remaining papers have to be signed and are taken away by the Agent. The ship's stamp is to be placed on all papers.

Libyan Discharge Certificate: It is essential that the discharge figures inserted at the discharge port are exactly the same as the Bill of Lading figures.

The Crew Declaration has to be transferred to a local form and signed by each crew member. If some of the crew members are too busy to sign this form and in order to avoid delays to the Customs, it is in order for the Master to sign on their behalf.

On departure, call Port Control and give time of departure, course, speed and destination.

A new SBM is being laid in a position 242° True × 1.04 nautical miles from the existing SBM.

AUTHORITY: Sirte Oil Co., P.O.Box 385, Tripoli, Libya. *Contact:* Marine Superintendent – Brega.

AGENCY: See "General" before first port.

MISURATA (Qasr Ahmed): 32.22 N. 15.13 E.

(See Plan)

Also see "General" before first port.

GENERAL: The harbour is enclosed by 2 rubble mound breakwaters armoured by tetrapods. The North Breakwater extends 1,400 m. due East from Ras Zarrugh Lighthouse and East Breakwater extends 1,800 m. due North from the shore near the prominent radio station about 2 km. South of the Ras Zarrugh Lighthouse. There are lights on the breakwater roundhead. On the North Breakwater a green flashing light (0.3 secs.) every 3 secs. and on the Eastern Breakwater a red flashing light (0.3 secs.) every 3 secs. The Ras Zarrugh Lighthouse at the foot of the North Breakwater is a square tower with black and white vertical stripes. The structure is 8 m. high and is on the top of a 16 m. hill. The light is flashing white (0.5 secs.) every 5 secs. with a range of 8 miles.

On the South side of harbour there is Steel Mill Harbour which is under construction.

There is a radio mast 7.6 miles W.N.W. of Ras Zarrugh with fixed red flashing lights.

For Harbour Entrance there are guides, 2 fixed red lights and 1 green flashing light, bearing 273° N.W. from breakwater roundheads. The Harbour Entrance Channel is 150 m. wide and 12 m. deep.

Inside the entrance there is a turning circle, diameter 470 m., depth 12 m. and the harbour dredged area 920 m. × 200 m. to a depth of 11 m. leads due South alongside the berth. A 500 m. × 300 m. dredged area to a depth of 8 m. leads to the West alongside the North Breakwater.

Directions: Keep 2–3 miles offshore before turning due West for entrance.

Currents: Predominantly N.W. at mean rate of 0.5 to 0.75 knots but in Winter winds can reverse the flow and induce S.E. set in excess of 1 knot.

DOCUMENTS:

Crew List.
Passenger List (if any).
Ship's Stock.
Stores List.
Animals Aboard List.
Ship's Log.
Last Port Clearance.
Safety Certificate Certificate.
Construction Certificate.
Safety Equipment Certificate.
Load Line Certificate.
Radio Certificate.
International Oil Pollution Prevention Certificate.

Where possible Cargo Manifests and Stowage Plans should be forwarded by airmail to the local Agent, ahead of the vessel's arrival.

PILOTAGE: Compulsory, Pilot will board about 1 mile outside the port entrance.

ANCHORAGES: Bearing approximately 273° to lighthouse on Ras Zarrugh 13 m. depth 1 mile (2 km.) offshore but holding ground is poor and it is advisable to leave anchorage at signs of onset of bad weather.

RADIO: "Misurata Port Control" should be worked as early as possible.

VHF: A high powered base station operates at the top of a 16 m. hill at the foot of the lighthouse at Ras Zarrugh. A continuous watch is maintained round the clock on Channel 16. All other Authorities such as Harbour Master, Customs, etc., should be contacted through "Radio Misurata Port Control" on Channel 16. Channel 10 can be used inside the harbour.

TUGS: Join the vessel outside the Harbour Entrance. The tugs are m.t. "Sorman", m.t. Kiklah", each 565 b.h.p. and m.t. "Al-Keriat", 2,520 b.h.p.

BERTHING: There are 6 berths, totalling 1,120 m. of concrete quay dredged to 11 m. with timber and rubber fenders and bollards at 15 m. intervals, the quay deck is at an elevation of 2.25 m. The berths include a Ro/Ro facility.
CRANES: The following types of shore cranes are available and in the near future, a floating crane of 100 tons will be available. Capacity of cranes are 57, 45, 35 and 25 tons.
FRESH WATER: Available alongside and by barge "Ein-Tawourgah".
FUEL: Available.
MEDICAL: Full hospital facilities are available without prior notice.
STEVEDORES: *Working Hours:* 0630 to 2400 hrs., even on holidays.
REPATRIATION: Possible.
AIRPORT: Tripoli Airport situated about 220 km. from Misurata.
TIME: Local time GMT plus 1 hour from 1st day of October until 31st March, and GMT plus 2 hours from 1st day of April to 30th September.
HOLIDAYS: Fridays; 1st day of Lunar calander year; Idd-ul-Ahada, 4 days; Idd-ul-Zoha, 4 days; 2nd March; 8th March; 28th March; 11th June; 23rd July; 1st September; 7th October. Even on holidays cargo work continuously maintained.
CONSULS: Nearest consuls are at Tripoli.
SERVICES: All kinds of food and soft drinks are available except alcoholic drinks and pork.
SHORE LEAVE: Allowed after Free Pratique, Customs and Immigration formalities completed.
REPAIRS: See "Tripoli".
POLICE/AMBULANCE/FIRE: Call Port Manager Tel: 21101 & 21094.
DEVELOPMENTS: Grain silos are under construction.

Stage II has already been started for 4 general cargo berths, 4 container berths, 3 Ro/Ro berths and sheds, etc., and 1 oil terminal.

SHIPMASTER'S REPORT: December 1977.
Chart: British Admirality Chart No. 3353 "Ras Ashdir to Sirte".

A mole has been constructed from Ras Zorog in an East direction, the length of which is approximately 1,100 m.

A second mole extends from the shore in a Northerly direction, approximately 1,800 m. in length. Entrance to the harbour is between the outer ends of both moles.

Wharves and sheds are being built along three quarters of the length of the Northerly direction mole, and around the South part of the inner harbour perimeter. At the time of the visit by this vessel about 350 m. of quay was completed, with depth alongside of 11 m.

All the construction work appears to be done by Yugoslavian labour. The "Overseer" acted as Pilot and was a very able and pleasant person. All questions regarding cargo and fresh water, provisions, etc., were dealt with by him. He supplied 10 tons of fresh water by road tanker, and organised a visit from a ships' chandler for a small quantity of fresh salad and potatoes.

There are 2 small tugs which were used in berthing under the Pilot's direction. These were very necessary owing to a number of obstacles in the harbour (divers boats, pipes, etc.). The Pilot's knowledge of English was limited and it is most necessary for the ship's Master to judge his intentions carefully.

Without a doubt the Port of Misurata when open for commerce will be a very useful port, although a small port (inside harbour space was roughly estimated to be about 1,500 m. × 700 m.). The Pilot advised that it was expected to be opened about the middle of 1978.

The vessel anchored off the port entrance at 0800 hrs. and Pilot boarded at 1100 hrs., vessel berthed shortly afterwards. Discharge of 208 tons of construction material from No.1 hold commenced at 1330 hrs., and ceased at 2400 hrs. for the day. Work resumed at 0930 hrs. on the following day, and was completed at 1330 hrs. A mobile shore crane was used throughout for discharge into lorries.

All Agency work was attended to by our Tripoli Agent, who arrived onboard at 1700 on day of arrival. As Tripoli was our next port, he was most helpful in advising our berthing prospects at that port, and delivering ship's mail.

The entering and clearing formalities were attended to by 2 Customs Officers. They advised that there was strictly no shore leave for the crew. All accommodation was diligently searched including the Master's for alcohol, and none whatever was allowed to be in crew's possession. However when all was found to be in order, on request a small amount of bond stores was released for Christmas.

The vessel departed at 1600 hrs. for Tripoli where the Agent's estimate of 2 – 3 days waiting (although there were 50 ships at anchor) proved to be correct.

SHIPMASTER'S REPORT: March 1978.

Work is still in progress on the Southern Mole. More warehouses are to be erected there, also a grain silo. On the Western shore of the harbour more berths are to be constructed possibly for containers, but nothing finalised yet.

Misurata is to be principally a Ro/Ro port specialising in transit cargoes. A nearby motorway runs in a Southerly direction for 1,000 miles into Central Africa.

There will be facilities for conventional cargoes. Dredging is in progress in the Western part of the harbour in preparation for the new berths. The area is being marked by red marker buoys. The port is scheduled to open in June/July this year and to date there are no services excepting Customs who attend to all the Entering and Clearing formalities. All pilotage being performed by the Master, the contractors work boats will act as tugs if requested.

Documentation is similar to requirements for other Libyan ports also the same strictness regarding alcohol. All Officers and Ratings were allowed to retain a small quantity of beer, all other alcoholic drinks being placed under Seal.

SHIPMASTER'S REPORT: February 1988.
Chart: B.A. Chart No. 3353.
Documents:
8 copies Crew List.
2 copies Crew Declaration (on Libyan forms).
2 copies Manifest.
1 copy Health Declaration.
2 copies Currency Declaration (on Libyan forms).
All Passports.
1 copy Arms and Ammunition List.
1 copy Drugs List.
2 copies Cargo Manifest.

Cameras placed under seal. No cigarette issue allowed. Bond remains sealed if proceeding to another Libyan port. Definitely no alcohol. Customs would not allow beer issue. Ship's Certificates to be in Arabic. Passports exchanged for Landing Cards at the gate. All stores checked for signs of South African and Israeli produce.

Approaches: The name Qasr Ahmed is not used. All local people use the name Misurata and all Libyan Customs and cargo documents refer to Misurata.

The harbour area and power stations (32° 20′ N., 15° 13.5′ E.) were identified on the radar at 24 miles.

There are two harbours, the older general cargo and tanker port of Misurata and the recently constructed Steel Harbour which is about one mile to the South.

On approach, the power station chimneys and the gantry crane on the new Steel Harbour breakwater and the grain silo at Misurata are visible. At night, the flashing red lights on the power station chimneys and the horizontal red flashing lights between the chimneys are very conspicuous.

There are 2 sets of antenna dishes (32° 21.25′ N., 15° 13.3′ E.) just South of Misurata Harbour which are conspicuous.

Anchorage: Vessels may anchor anywhere off the breakwaters but not within 2 miles of the port. Anchorage exposed to heavy swells.

Channel: The leading line to Misurata Harbour is 270° and is indicated by leading marks/lights (red and white horizontal, inverted triangles and a front light exhibiting flash green every 5 seconds and the rear green light flashing green every 12 seconds). The front daymark is barely visible.

The Fairway Buoy has been removed.

The Pilot advises that the depth at the tanker berth is 38 ft. and eventually all the harbour will be the same depth. The maximum draft permitted at the tanker berth is 36 ft. and this was confirmed by the echo sounder.

2 sets of buoys and a Fairway Buoy in position 32° 30.9′ N., 15° 19.0′ E. mark the channel to the Steel Harbour. The leading light is 263°. There are no leading marks or lights visible. The Channel depth is believed to be 50 ft. and this was confirmed in part by echo soundings. The channel width is approximately 200 m.

Pilotage: The Pilot boards outside Misurata Harbour entrance from a small grey tug. Pilot normally boards between 0800 hrs. and 2000 hrs. Normally there are no movements on Friday.

Tugs: There are 2 tugs available, the larger tug being approximately 2,000 h.p.

VHF: On arrival, vessels should call Misurata Port Control on Channel 16, working Channel 12. On approach all the usual details are required (see "Tripoli – Shipmaster's Report" dated March 1988). Misurata Port Control on Telex No. 90130221 PORTMSLY

Harbour: The harbour is being extended beyond the existing breakwaters. New berths are under construction to the West of the existing Eastern breakwater berths.

The new oil terminal in position 13° 22.3′ N., 15° 13.2′ E. is capable of taking product tankers up to about 30,000 d.w.t.

All charted buoys inside the harbour have been removed.

The new Steel Harbour appears to be completed and has conveyors which are adjacent to the steel mills and one gantry type grab crane.

Within the Steel Harbour there is a service harbour with control tower.

Tanker Berth: The tanker berth is on the N.W. corner of Misurata Harbour. Vessels berth port side alongside.

The newly constructed concrete berth is a pier with outlying mooring dolphins each end, which are connected to the pier by steel walkways. The mooring points and fendering are very good.

This berth handles product imports for the local area including the steel mills and the power station. The products are LPG for cooking and heating fuel, jet fuel/Avgas, gas oil and fuel oil.

At the present time, there are no bunker or fresh water facilities, however, we understand that IFO and gas oil and fresh water pipelines are to be laid to the pier.

The gangway was easily landed.

Moorings: The moorings consisted of 2 head/stern lines, 1 breast line and 2 springs at each end. The starboard anchor with one shackle in the water was used for approaching the berth and a mooring boat assists with running lines.

Cargo: LPG is handled by a 6 in. Chicksan arm with clamps, the shore required a 6 in. spool. The pipeline is 8 in. diameter and runs a distance of 5.3 km. to 5 spheres with a total capacity of 8,000 cu.m.

The terminal requires cargo at 0°C. Max. pressure 8 kg./sq.m. Maximum pumping rate 145 cu.m./h. The shoreline relief valves are set at 16 kg./sq.m. and the maximum pressure in the shore tanks is 7 kg./sq.m. The average discharge is 68 t.p.h.

There was no surveyor in attendance and no shore calculations made. The Receivers, "Breganaft" checked the ullages.

The pipeline was hot gassed for 45 minutes.

Gas oil and Avgas are handled through 2×10 in. Chicksans and fuel oil is handled through 1×12 in. Chicksan.

Fresh Water: Fresh water is available by barge and should be ordered well in advance. While we were in port the barge was moored astern of us at the Port Authority Jetty. The capacity of the barge is 200 tonnes. It will also take water to vessels at anchor in calm weather.

Customs: Customs authorities make a very thorough search of the vessel.

Shore Leave: Not permitted.

General: Friday is a holiday so there is very little movement on that day.

AUTHORITY: Port of Misurata, P.O.Box 18218, Misurata, Libya. *Tel:* (051) 24457, 29428. *Telex:* 30221 Port Ms Ly. *Contact:* The General Manager.

RAS LANUF: 30.31 N. 18.35 E. (See Plan)

(A) MOBIL OIL LIBYA LTD.

(B) RAS LANUF OIL & GAS PROCESSING CO. INC. (RASCO)

(A) Mobil Oil Libya Ltd.

Also see "General" before first port and "Note" in "Authority".

DOCUMENTS: Customs will require:

4 Crew Lists.
1 Crew Declaration of personal belongings (including cigarettes, etc.)
2 Stores Lists.
1 Passenger List.

Crew Lists and Crew Declaration of personal belongings must be on the approved Libyan Government Documents. Vessels are advised on their initial visit to the port to obtain sufficient forms for future visits. Also required are:

6 Copies of Cargo Manifest for Ras Lanuf Discharge.
1 Copy of Cargo Manifest for transit cargo with a summary.
1 Copy of Passenger Manifest.

A copy of a Certificate of Discharge of the last cargo loaded at a Libyan port is required. Said Certificate to be duly signed and stamped by Customs Authorities at the discharge port. Blank forms will be delivered with the cargo documents.

Clearance from the last port of call will be required by the Government authorities. The police will require 4 copies of a Crew List and a Passenger Manifest if any passengers on board.

PILOTAGE: It is most important that ships establish communications with the terminal not less than 72 hours prior to arrival, giving estimated time of arrival. Further ETA signals should be sent when the vessel is 24 hours, 12 hours and 4 hours distant or any time a change of 1 hour in original ETA occurs. These messages should state specifically whether ETA is given in GMT or local time. The 72 hour signal should include the following: ETA, last port of call, if any sickness on board and if vessel has clean bill of health. Cargo quantity and grades expected to be lifted in net long tons at 60°F. The 12 hour signal should include definite indication as to whether the vessel is ready to load or not and should also include information on the time she will require to discharge ballast after arrival. Precise time of arrival should be given when the ship is 4 hours distant from the terminal.

Vessels to be moored at Ras Lanuf will be boarded by Mooring Master in the close vicinity of the suggested anchorage area mentioned below. The Mooring Master will advise the Ship's Master on approaches to berths, mooring, unmooring, connecting and disconnecting the hoses and in all operations within the mooring area.

NAVIGATION AIDS:

Seabuoy, red with white quick flash is located in approximately Lat. 30° 32.8′ N., Long. 18° 34.9′ E. Vessels in the vicinity should not navigate or anchor inshore of a bearing 120° – 270° running through this Light Vessel position.

A Fairway Channel Entrance Buoy flashing white every 2 secs. is located in a position approximately 30° 30′ 46″ N., 18° 37′ 44″ E.

A Channel Buoy flashing red every 5 secs. is located in a position approximately Lat. 30° 30′ 17″ N., Long. 18° 36′ 16″ E.

North Breakwater Light with occulting light green 2 every 10 secs. is located in a position approximately 30° 30′ 38″ N., 18° 35′ 43″ E.

East Breakwater Light with occulting light 2 red every 10 secs. is located in a position approximately 30° 30′ 29″ N., 18° 35′ 24″ E.

A Rear Range Light with a fixed white light is located in a position approximately Lat. 30° 30′ 56″ N., Long. 18° 34′ 09″ E.

A Front Range Light with a fixed white light is located in a position approximately Lat. 30° 30′ 54″ N., Long. 18° 34′ 17″ E.

An Unlit Spar Target Buoy, colour white is located in a position approximately Lat. 30° 31′ 20″ N., Long. 18° 35′ 21″ E.

An Unlit Spar Target Buoy, colour white is located in a position approximately Lat. 30° 31′ 12″ N., Long. 18° 35′ 35″ E.

The Mooring Area has been swept to a depth of 73 ft. in Berth Nos. 1, 2 and 3, at the SPM to a depth of 96 ft.

There are very few coastal landmarks in this area. The following should prove helpful to visiting mariners:

The Terminal Water Tower with highest elevation of 179 ft. 6 in. above sea level is located in Lat. 30° 30′ 42″ N., Long. 18° 32′ 22″ E. It is coloured white. A white light (characteristics: flash 0.2 secs., eclipse 1.05 secs., flash 0.2 secs., eclipse 3.55 secs.) is mounted on the seaward side of the structure at 163 ft. above sea level. There is also a fixed red warning light on top of the tower.

Large oil storage tanks with highest elevation 376 ft. above sea level are located in approximately Lat. 30° 27′ 24″ N., Long. 18° 29′ 58″ E. They are coloured white.

ANCHORAGE: Suggested anchorage area is within a 3,000 ft. radius of position Lat. 30° 33.5′ N., Long. 18° 36′ E. in approximately 90 ft. of water.

TUGS: 2×730 h.p. The company maintains launches (3×360 h.p.) to assist in mooring and unmooring vessels. These are under the direct supervision and control of the Mooring Master.

MAX. SIZE: Conventional berths: Up to 56 ft. draft; up to 130,000 d.w.t. Single Point Mooring: Up to 75 ft. draft, up to 265,000 d.w.t.

HEALTH: By day – fly flag "Q" and by night display red light over white light for Quarantine Service.

Libyan Customs, Federal Police and Immigration Officials will board the vessel as soon as possible after arrival to give inward clearance and "Pratique" services. Libyan Government Regulations are strictly enforced. The vessel should have a clean Bill of Health or equivalent document from the last port of call.

RADIO: Direct communication by radio between ship and shore is by VHF International Maritime Mobile Radio-telephone Service to Ras Lanuf Oil Movements Control Centre. All communication between ship and terminal should be by way of this station. ETA messages to Mobilpro, Tripoli, Libya, via Tripoli Radio (call sign 5AT). Ras Lanuf Oil Movements Control Centre keeps continuous watch on VHF Radio-telephone Channel 16 (156.80 mHz), Channel 14 (156.70 mHz) and Channel 11 (156.55 mHz). Vessels approaching the port should make contact on Channel 16 when shore will request her to switch to Channel 14. This Channel will also be used by terminal Marine Section for internal use and tanker mooring control. Channel 11 is reserved for communications between ships in mooring and Terminal Oil Movements Control Centre and should only be used for general purposes after obtaining clearance from Oil Movements Control on Channel 16. This is a safety measure since oil flow to ships is controlled through Channel 11 and therefore it must be clear at all times in case of need to stop oil flow for any cause. Channel 16 is for calling and safety use only.

BERTHING: There are 4 submarine loading pipe-lines which terminate in the following approximate positions which are each marked by an unlit white spar buoy.

Berth No. 1: Lat. 30° 31′ 35″ N., Long. 18° 34′ 37″ E., from which a submarine pipe-line runs to shore on a bearing of approximately 224°. Depth of water at spar buoy 70 ft.

Berth No. 2: Lat. 30° 31′ 55″ N., Long. 18° 33′ 58″ E., from which a submarine pipe-line runs to shore on a bearing approximately 197°. Depth of water at spar buoy 70 ft.

Berth No. 3: Lat. 30° 32′ 18″ N., Long. 18° 33′ 19″ E., from which a submarine pipe-line runs to shore on a bearing of approximately 198°. Depth of water at spar buoy 73 ft.

Berth No. 4: Lat. 30° 31′ 50″ N., Long. 18° 36′ 06″ E. – a Single Point Mooring buoy in 96 ft. of water.

Raising, lowering, connecting and disconnecting of submarine hoses, as well as all other labours and duties on shipboard, will be performed by the ship's crew under direction of the Mooring Master.

LIFTING HOSES: After the vessel is securely moored the submarine hose will be hoisted on the port side. Berths No. 1, 2 and 3 are each equipped with 2×12 in. loading hoses, the weight being approximately 5 long tons. Berth No. 4 (SPM) is equipped with 2×16 in. loading hoses the weight being approximately 5.75 long tons. Therefore, all lifting equipment and tackle should have a safe working load of at least 6 long tons. Hoses are lifted by ship's gear and crew, and all connecting of hoses will be done by them. The lifting derrick, equipment, tackle, etc., should be topped off and ready on arrival.

MEDICAL: No medical services (except in case of emergency and subject to a doctor being available) or other services are to be expected at Ras Lanuf.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: When a ship is in the moorings or vicinity, its engines must remain on standby with full power for immediate use. Deck machinery shall be kept in instant readiness. *Positively no repairs of any sort will be permitted in the moorings.*

CUSTOMS ALLOWANCES: Cigarettes, cigars, tobacco, matches, spirits, wines, beers, perfume, arms, ammunition, saccharine and possibly other items have to be locked up under Customs seal from time of arrival of ship in port until time of leaving territorial waters. Each person is allowed 25 cigarettes per day of stay or 25 grams of tobacco or cigars in lieu. Each man allowed 1 litre of beer or half litre of wine per day. Special allowances are made for Master under special circumstances.

CONSULS: The only consulates are located in Tripoli which is 670 km. by road from Ras Lanuf.

REPATRIATION: Crew members cannot pay off or leave the vessel at Ras Lanuf except in cases of extreme emergency. Even in an emergency it should be noted that Seamen's Books are not valid under the Libyan law. A valid passport is required.

BALLAST: Positively no provision is made for dirty ballast. Any ship arriving with dirty ballast will be rejected and all costs accruing therefrom will be to the ship's account. Notice of Readiness shall not be accepted until vessel returns with clean ballast and tanks fit to receive cargo. She will on second arrival tender a new Notice of Readiness to load.

TIME: Libyan local time is GMT plus 2 hours (1st April to 30th September) and GMT plus 1 hour (1st October to 31st March).

GENERAL: No stores, foodstuffs or goods whatsoever of Israeli origin may be on board any ship calling at Ras Lanuf.

Penalties: Fine, confiscation of goods and possibly more. The Libyan Government strictly enforces this law.

Whilst arriving fly the Libyan Ensign (plain green).

Due to the existence in these waters of the fish commonly called "Weaver" fish, ship's crew are urged to exercise extreme caution in fishing whilst lying off the port area. There have been several cases of poisoning by these fish, all of which were distressingly painful, caused by contact with the fins.

SHORE LEAVE: Not allowed.

AUTHORITY: Mobil Oil Libya Limited – Ras Lanuf (V40), P.O.Box 404, Tripoli, S.P.L.A.J. *Tel:* Tripoli 30081 (ext. 4116). *Telex:* Mobproly 20260. *Cables:* Pegasus Tripolilibya. *Contact:* Captain B. Michels – Ras Lanuf Marine Office.

Note: In May/June 1988, Mobil Oil Libya Ltd will change name to Veba Oil Operations (V.O.O.)

AGENCY: See "General" before first port.

(B) RAS LANUF OIL AND GAS PROCESSING CO. INC. (RASCO)

PORT LIMITS: Southward of area bound by Latitude 30° 32.7′ N. and between Longitudes 18° 34′ E. and 18° 39′ E.

DOCUMENTS: 4 copies of Crew List on approved Libyan government document. (Vessels are advised to obtain sufficient forms for future visits during their stay).

1 Copy of Personal Effects including cigarettes, etc.

2 Lists of Stores.

1 List of Passengers.

6 Copies of Cargo Manifest for cargo to be discharged at Ras Lanuf Harbour.

1 Copy of Cargo Manifest for cargo in transit.

1 Copy of Certificate of Discharge (of the last cargo) at Libyan port duly signed and stamped by the Customs Authority at the discharge port. Blank forms will be delivered with the cargo documents. If not done on board the Ship's Purser should make request for them to be provided.

Clearance from the last port of call is required by the Government Authority.

4 Copies of Crew List and the Passenger Manifest are required by the Police.

HEALTH: For quarantine services:

a) By day: Flag "Q" (yellow flag).

b) By night: Red light over white light.

c) Libyan Customs and Immigration Officials will board the vessel as soon as possible after arrival to give inward clearance and Pratique services. Libyan government restrictions are strictly enforced. The vessel should have a clean Bill of Health or equivalent document from the last port of call.

PILOTAGE: Ras Lanuf Harbour (RASCO) should be advised by telex (Telex: Ras Lanuf 50618, 50650 – Rasco Ly). Cable: Rasco, Ras Lanuf (Telephone via Tripoli 49994-99: via Benghazi 86744-48) at least 72 hours in advance, the ETA at RASCO Anchorage. It should be constantly updated/confirmed when 24 hours, 12 hours, and 4 hours distant. If more than 1 hour change in ETA occurs, the new ETA must be given. Clear specification should be made if ETA is in GMT or local Libyan time. The information in the ETA cables should be completed as per the terms of the charter party. The 72 hours message must include the ETA, last port of call, if any sickness on board, and if vessel has clean Bill of Health and cargo quantity expected to be lifted in net metric tons at 60°F (15.6°C). The 12 hour message should include definite indication as to the vessel being ready to load or not and should also include information on the time she will require to discharge ballast after arrival. Precise time of arrival should be given when ship is 4 hours distant from the terminal. On arrival at the anchorage, the vessel must contact RASCO Port Control on VHF Channel 16 to register herself.

Also see "Anchorage".

ANCHORAGE: Vessels to be secured alongside will be boarded by the Pilot in the anchorage or in its vicinity. The vessel should not manoeuvre or navigate in the vicinity of any sea buoys but should make directly for the anchorage which is a circle of diameter 1 nautical mile with centre in position Lat. 30° 32′ N., Long. 18° 38.09′ E., in more than 30 m. of water. For shallower draft vessels it is permissible to anchor due Southward as close as possible to this position, in an adequate and safe depth, Northward of the Fairway Buoy (position: Lat. 30° 30.6′ N., Long. 18° 37.7′ E.),leaving seaway free for approaching and manoeuvring. If need be vessels may anchor in safe waters Eastward of this anchoring area. Anchoring Westward of this area is prohibited.

BERTHING: Arrangement of Facilities at Quay Wharf and Finger Jetties

Berth No.	*Product*	*Parcel Size (Tonnes)*	*Loading Arm No.*	*Loading Arms Which Can Connect Simultaneously*	*Loading Arm Size/But Can Fit Without Spool*	*Maximum Working Rate of Loading Arm (cu.m./h.)*	*Expected Loading Rate Approx. (cu.m./hr.) Offload Rate (cu.m./hr.)*	*Remarks*
1A	Crude or Fuel Oil	50,000	43, 44 45, 46	1. Any two adjacent 2. 44, 45, 46. 3. 43, 44, 45. 4. 43, 46	12 in./8 in., 10 in., 12 in. ANSI 150 lbs.	1,750/1,165	3,160 (3 pumps) —	Deballasting facility presently not available.
1B	Crude or Fuel Oil	50,000	53, 54, 55, 56	1. Any two adjacent. 2. 54, 55, 56. 3. 53, 54, 55. 4. 53, 56	12 in./8 in., 10 in., 12 in. ANSI 150 lbs.	1,750/1,165	3,160 (3 pumps) —	Deballasting facility presently not available.
1A	Gas Oil	50,000	42, 43, 44	1. Any two adjacent. 2. 42, 43, 44.	12 in./8 in., 10 in., 12 in. ANSI 150 lbs.	2,500/1,850	3,750 (3 pumps) —	Deballasting facility presently not available.
1B	Gas Oil	50,000	52, 53, 54	1. Any two adjacent. 2. 52, 53, 54.	12 in./8 in., 10 in., 12 in. ANSI 150 lbs.	2,500/1,850	3,750 (3 pumps)	Deballasting facility presently not available.
1A	Deballast Bunkering	—	41 (exclusive) 46	—	12 in./8 in., 10 in., 12 in. ANSI 150 lbs.	3,000/1,500 1,000/500	—	Deballasting facility presently not available. Only one arm on each berth to be used for deballasting at one time.
1B	Deballast Bunkering	—	51 (exclusive) 56	—	12 in./8 in., 10 in., 12 in. ANSI 150 lbs.	3,000/1,500 1,000/500	—	
2A	Naphtha	10,000	22	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,850/1,500	1,550 (2 pumps) —	Deballasting facility presently not available.
2B	Naphtha	10,000	32	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,850/1,500	1,550 (2 pumps) —	Deballasting facility presently not available.
2A	Pyrolysis Gasoline	10,000	22	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,850/1,500	1,300 (1 pump) —	Deballasting facility presently not available.
2B	Pyrolysis Gasoline	10,000	32	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,850/1,500	1,300 (1 pump) —	Deballasting facility presently not available.
2A	Domestic Kerosene	30,000	24, 25	Both	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,950/1,300	3,750 (3 pumps) —	Deballasting facility presently not available. Cannot load Domestic Kerosene simultaneously on Berths 2A and 2B.
2B	Domestic Kerosene	30,000	34, 35	Both	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,950/1,300	3,750 (3 pumps) —	
2A	Jet Fuel	10,000	24, 25	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,950/1,300	1,150 (2 pumps) —	Deballasting facility presently not available. 1. Only one arm at a time. 2. Cannot load Jet Fuel simultaneously on Berths 2A and 2B.
2B	Jet Fuel	10,000	34, 35	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	1,950/1,300	1,150 (2 pumps) —	
2A	Deballasting Bunkering	—	21, 26 (exclusive)	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	3,000/1,500 1,000/500	—	Deballasting facility presently not available.
2B	Deballasting Bunkering	—	31, 36 (exclusive)	—	12 in./8 in., 10 in., 12 in.* ANSI 150 lbs.	3,000/1,500 1,000/500	—	Only one arm on each berth to be used for deballasting at one time.
3A**	Propylene	4,000	05: Liq. Load 06: Vapour/Off Load	Both	8 in./6 in., 8 in.* ASA 300 lbs.	–/720 4,168 kg./hr.	657 2,450	Both arms to be connected simultaneously.
3A**	Butadine (C4)	4,000	03: Liq. Load 04: Vapour/Off Load	Both	8 in./6 in., 8 in.* ASA 300 lbs.	–/630 4,168 kg./hr.	645 1,500	Both arms to be connected simultaneously.
3B**	Ethylene	4,000	07: Liq. Load 08: Vapour/Off Load	Both	8 in./6 in., 8 in.* ASA 300 lbs.	–/780 4,310 kg./hr.	710 3,800	Both arms to be connected simultaneously.
3B	LPG	4,000	01: Liq. Load 02: Vapour/Off Load	Both	8 in.6 in., 8 in.* ASA 300 lbs.	–/710 4,310 kg./hr.	714 2,900	Both arms to be connected simultaneously.
Quay (Import)	Caustic Soda 50%	4,000	09:	—	10 in./8 in., 10 in.* ASA 150 lbs.	–/330	—	Crane facility presently not available.
Quay (Import)	Methanol	4,000	10:	—	10 in./8 in., 10 in.* ASA 150 lbs.	–/650	—	Crane facility presently not available.

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* Other sized spools are provided.

** Jetties assigned for cryogenic products (Ethylene, Propylene, Butadine (C4)) now in operation. Vessels should arrive ready to load – cooled down with cargo vapour in vessels's tanks similar to the cargo to be loaded.

MAX. SIZE:

a) Tankers 3,000 – 50,000 d.w.t. will be catered for on finger jetties 1A and 1B which have a dredged depth of 14.0 m. Tankers 3,000 – 30,000 d.w.t. will be catered for on Berths 2A and 2B which have a dredged depth of 12.5 m. and Berths 3A, and 3B which have a dredged depth of 11.5 m. The quay wharf has a dredged depth of 11.5 m., on which 3 dry cargo ships of 5,000 – 20,000 d.w.t. can be berthed at one time. The quay wharf is 672 m. in length with a 35 ton multi-purpose crane to be installed and able to run the entire length of quay wall. Caustic soda discharging facilities are also available on the wharf, but the LOA of the vessel is limited as the distance between the ship's manifold and the extreme part of the vessels' stern should not be more than 48 m.

b) *Max. Size:*

Jetty 1-A, 1-B:	
Max. LOA	250 m.
D.w.t.	50,000 tons
Max. Draft	12.5 m.
Jetty 2-A, 2-B:	
Max. LOA	189 m.
D.w.t.	30,000 tons
Max. Draft	10.5 m.
Jetty 3-A, 3-B:	
Max. LOA	189 m.
D.w.t.	30,000 tons
Max. Draft	9.5 m.
Quay Wharf:	
Max. LOA	177 m.
D.w.t.	20,000 tons
Max. Draft	9.5 m.

c) Hooks have been provided on dolphins which are of 100 tons capacity. All bollards on the quay wharf fitted on the finger jetties are of 100 tons capacity. Other bollards are of 50 tons capacity.

RADIO/VHF: Direct communication between ship and shore will be made by VHF. RASCO Communication Centre maintains a continuous VHF watch on VHF channels. On approaching, vessels should make contact on VHF Channel 16 when they will be requested to switch over to another channel. ETA messages can presently be received only on telex (see "Pilotage"). When 4 hours distant arrival messages are to be passed on VHF in addition. VHF Simplex Channels allotted to this harbour are 10 and 12. The Duplex Channel allotted is 22. Vessels must confine themselves to the channel ordered by Port Communications.

TUGS: The harbour will maintain 2 coastal tugs (approx. 2,000 h.p. each) with anti-pollution and fire-fighting capabilities, 2 dual purpose launches and 3 mooring launches, when the harbour is fully operational. Vessels are, however, presently berthed by hiring of tugs.

RADAR: There is no radar in operation.

BERTHING: There are presently 6 finger jetties and a quay wharf (see "Max. Size"). Berthing will be done at the instructions of the Pilot who will board at the anchorage or in the vicinity. Vessels are to have their berthing gear in readiness well before berthing. 2 good lines forward and 2 lines aft will be required for passing to the tugs. Vessels must keep their fire-fighting and emergency system in operational readiness for their own use.

Hoses and Fuel Connections: No dirty ballast facilities at present.

All work on the ship is to be carried out by harbour staff.

Also see "Table" of previous page.

MEDICAL: Medical service can be provided in the event of an emergency. For an emergency having occurred at sea the terminal should be informed by quickest means. The patient should be kept ready for evacuation with his gear, CDC, passport and one person in attendance.

There are limited hospital and dental facilities available at a distance of about 30 km. from the harbour. During working hours, at a distance of about 3 km. medical facilities are available.

DENSITY: 1027.

FRESH WATER: Not available.

FUEL: Not available.

REPAIRS: When the ship is berthed, its engines must remain on standby with full power for immediate use. No repairs of any kind will be permitted when alongside.

CUSTOMS ALLOWANCES: Cigarettes, cigars, tobacco, matches, spirits, wines, beers, perfumes, arms, ammunition, saccharine and other items have to be locked up under Custom's seal from time of arrival of ship in port until time of leaving territorial waters. Each person is allowed 25 cigarettes per day of stay or 25 grams of tobacco or cigars in lieu. Liquor is not allowed to be possessed or consumed by any member of the crew.

CONSULS: Consulates are located at Tripoli 670 km. away by road from Ras Lanuf.

REPATRIATION: Crew cannot sign-off except in the event of extreme emergency. Even in an emergency it should be noted that Seaman's Book (CDC) are not a valid document under Libyan law. A valid passport is needed.

BALLAST: Presently there are no facilities to handle dirty ballast. Any ship arriving with dirty ballast will be rejected and all costs accruing therefrom will be to the ship's account. Notice of Readiness shall not be accepted until vessel returns with clean ballast and tanks fit to receive cargo. She will have to tender a fresh Notice of Readiness to load on the second arrival. Tank cleaning and gas freeing alongside will not be permitted under any circumstances.

TIME: Libyan time is GMT plus 2 hours (1st April to 30th September) and GMT plus 1 hour (1st October to 31st March).

FIRE PRECAUTIONS: Fire precautions are strictly enforced. Any laxity on this account will cause stoppage of operations.

SURVEYORS: No facility for surveying will be provided by the terminal.

GANGWAY/DECK WATCHMAN: Vessels are to employ their own watchman on the gangway.

HATCHES: Where hatches are required to be opened, the crew will be required to open them.

CARGO GEAR: The vessel's cargo gear is to be ready in all respects. The cargo gear may be augmented from shore. The Notice of Readiness will not be considered valid if cargo gear is not ready for instant use.

AIRPORT: Although the nearest airport is about 10 km. from the terminal the flight schedules are irregular, and are operated by private airlines. Regular flights operate from Tripoli 670 km. and Benghazi 375 km. by road.

HOLIDAYS: Notice of Readiness will be accepted and cargo work will be carried out on holidays. Fridays are weekly holidays.

POLICE/AMBULANCE/FIRE: In the event of an emergency, the Duty Loading Supervisor on the berth is to be contacted.

EMERGENCY CO-ORDINATION: Call Duty Loading Supervisor.

TELEPHONES: At present no facility exists for making a local call or international telephone calls from the vessel. Telex facility is available if arranged with the agent.

SERVICES: No special service is available.

BANKS: No banking or exchange facilities are available.

STORING: No storing facilities are available.

SHORE LEAVE: Not allowed.

GENERAL: (a) No stores, foodstuffs or goods of Israeli or South African origin may be on board any ship calling at Ras Lanuf. Penalties are fines, confiscation of goods and possibly more. The Libyan government strictly enforces this law. (b) On arrival fly Libyan ensign: plain green flag. (c) Once the ship is berthed, there is likely to be no delay in commencement of operations.

DEVELOPMENTS: The port is under development and more information, if needed, is obtainable from the Loading Supervisor on duty.

SHIPMASTER'S REPORT: October 1987.

Documents:

5 copies Crew List.
2 copies Crew Declaration.
2 copies Manifest.
1 copy Health Declaration.
1 copy Currency List.
2 copies Arms and Ammunition list.
2 copies Drugs List.

All alcohol is placed in bond and seals are checked during vessels stay. Vessels should not have on board any produce from Israel or South Africa.

This was the vessel's first call and Arabic documentation was not required.

Certificate of Discharge of previous Libyan cargo is required.

The figures for the bond are required in bottles and not litres or weight. For first Libyan call the Master is to make a declaration that the vessel has not called before and that a Negative Certificate of Discharge is held.

Charts: BA. Chart No. 3343 and 3354.

Approaches: Vessels are to approach and report to Libyan coastal station on reaching position Lat. 32° 30′ N., Long. 18° 30′ E.

On approach we used Benghazi Radio (5AB) on M/F-R/T (The ship does not have W/T). Service was clear and prompt.

The first radar target sited was the tanks at Es Sider (Lat. 30° 37′ N., Long. 18° 17′ E.). These tanks were sighted at 80 miles.

The wreck in position (Lat. 30° 49′ N., Long. 18° 05′ E.) was conspicuous at 29 miles.

Anchored vessels at Es Sider and Ras Lanuf also make a good target.

Ras Lanuf RASCO Harbour was picked up at 24 miles.

An ETA was sent to RASCO and Benghazi Radio 4 hours before arrival.

Anchorage: The anchorage is that indicated on the BA. Chart No. 3343 (Lat. 30° 32′ N., Long. 18° 38.09′ E.)

If vessels have to wait for departure documents and are required to vacate the berth they anchor 0.5 miles east of the main breakwater.

Pilotage: Pilots for RASCO Harbour are available 24 hours. There are no night restrictions.

The Pilot boards from a tug near the Sea Buoy and on departure the pilot leaves just inside the breakwater heads.

VHF: Channel 12 is used for communicating with the Pilots. RASCO Port Control on Channel 16 after which communications are on either Channel 10 or Channel 22. Port Control normally gives 1 hours notice for raising anchor and berthing.

Tugs: At the present time there are 3 tugs in operation in RASCO Harbour. 1 × 3,000 h.p., 1 × 2,500 h.p. and 1 × 500 h.p.. Ship's lines are used to the large tug. The small tug pushes alongside.

Berthing: Vessels normally berth head out at all berths, port side to. However, if vessels manifold is in an awkward position vessel can berth starboard side to. The depths are as charted on BA. Chart No. 3343. Pilots report the maximum Winter draft at Gas Berths No. 3A and 3B as being 9.5 m. In Summer a slightly increased draft is allowed.

The very large breakwaters afford the vessel good shelter.

Gas carriers berth at the innermost berths - Berth 3A and 3B. Berth 3A handling propylene and butadine (C4) and Berth No. 3B handles ethylene and straight LPG.

Moorings consist of 2 head/stern lines, 1 breast line and 2 springs fore and aft. The finger piers are well fendered. Ship's gangway used. A mooring boat assists with running the ship's lines.

Berths 1A, 1B, 2A and 2B are for products.

Cargo: Vessel loaded propylene at Berth No. 3A. Largest vessel handled to date was 30,000 cu.m., which was a full load of propylene. The average sized vessel handled is 4,000 cu.m.

Export of ethylene and propylene commenced in May 1987 and C4 shortly thereafter. LPG production is to start in the near future. The plant which is immediately behind the general cargo berth produces 1,000 tonnes of ethylene, 500 tonnes of propylene and 300 tonnes of C4 per day.

At Berth No. 3A the propylene Chicksans are 8 in., 300 ASA for liquid and vapour. The maximum pressure on the liquid line is 5 kg./sq.cm.

and on the vapour return line 1.2 Kg./sq.cm. Connection is by hydraulic clamps and shore reducers are provided.

Maximum propylene loading rate is 450 tonnes per hour.

The supply line is 3 km. in length and this causes a warm initial "slug". The coldest temperature achieved was −45°C for propylene (Terminal written advice), we got down to −44°C. There is no recirculation line. The pier staff who were mainly Yugoslavians were very co-operative. The SGS/Redwood Surveyor was from Belgium.

There is no nitrogen for purging at the present time as the plant uses the total supply capacity. It is believed that additional nitrogen production is planned.

Fresh Water: Not available.

Agent: We used Universal Tripoli who are the Government Agent. The local representative will have his own telex by November, telex number will be 50608 Uniship. We used the plant telephone to contact the agent, number being 3331/3332.

General: There is a general cargo quay called "Marginal Quay" inside of Berths No. 3A and 3B. The quay is well fendered and has a large flat quayside.

The LPG plant is immediatley behind with tanks to the South and 2 conspicuous flares in positions Lat. 30° 28.35′ N., Long. 18° 34.95′ E. and Lat. 30° 29.40′ N., Long. 18° 34.30′ E.

The breakwater lights are flashing (not occulting).

Further expansion is taking place to the South of the harbour in position Lat. 29° 12′ N., Long. 18° 35.5′ E.

No services are available at RASCO.

No alcohol is allowed in cabins. Everything is to be placed in bond. Customs check the seals at odd times.

We were advised that regular traders are sometimes made a special concession and are allowed beer and wine but only after arrival.

Positively no South African or Israeli produce to be on board. Large fines are imposed for contravention.

Ship's Certificates should be in Arabic for regular traders. However this is not necessary for the first call.

The Discharge Certificate is to be endorsed by the Customs at the port of discharge. Two copies are to be mailed to Libya and one copy is to be retained on board for the vessels next visit to Libya.

Passes are required if crew members wish to travel in the area. These are frequently and carefully checked.

AUTHORITY: Owners of the harbour: The Ras Lanuf Oil & Gas Processing Co. Inc., Ras Lanuf, Libya.

Postal address:

(i) P.O.Box Tripoli 75071 (Ghout el Shaal).
(ii) P.O.Box Benghazi 1971.

Tel: via Tripoli: 49994-99. via Benghazi: 86744-48
Cables: Rasco, Ras Lanuf. *Telex:* 50613, 50660 (Rasco Ly)
Contact: A. B. Khadrawi, Manager – Harbour Operations.

AGENCIES:
1. Germa Shipping Company.
2. Shahat Shipping Agency.
3. Universal Shipping Agency.

Also see "General" before first port.

TOBRUK: 32.04 N. 24.00 E.

Also see "General" before first port.

PORT LIMITS: The complete water area existing within Tobruk Bay or that water area existing to the West of an imaginary line commencing as from Tobruk Peninsula up to the coast to the South.

It is formed by 3 areas inside the Bay, namely Marsa Tobruk, the proposed naval base and Marsa Al-Hariga Oil Terminal.

ANCHORAGE: See "General" before first port.

MAX. SIZE: Max. draft: 29 ft. Max. length: 400 ft.

RADIO: Tobruk Radio (Station operated by Arab Gulf Oil, Operating times 0900/0930, 1300/1330, 1700/1730, 2100/2130 hrs.) 5AL: 420, 425 and 500, VHF (24 hours) Channels 12, 16 and 19.

BERTHING: Berths in Tobruk Harbour:

Quay No. 3: Length 82 ft., draft 11 ft.
Quay No. 4: Berth 1: Length 560 ft., draft 20 ft.
Berth 2: Length 395 ft., draft 28 ft.
Berth 3: Length 410 ft., draft 30 ft.

TANKERS: Refer to "Marsa Al Hariga".

STEVEDORES: All stevedoring operations and formalities to be done by Agents. 2 companies to be formed in the near future.

MEDICAL: Available.

FRESH WATER: Not available.

FUEL: Not available.

REPATRIATION: Available via Benghazi.

REPAIRS: Not available; see "Tripoli".

DEVELOPMENTS: Port extension project underway.

AUTHORITY: Port Manager and Harbour Master.

AGENCY: See "General" before first port.

TRIPOLI: 32.54 N. 13.13 E.

Also see "General" before first port.

PORT LIMITS: (a) The water area existing inside the actual breakwater and that which may fall within any new breakwaters eventually constructed in accordance with the Port Developments Project.

(b) The outer water area known as the navigational channel commencing as from the harbour entrance along the distinguishing marks of the channel for a distance of about 1 mile.

PILOTAGE: Compulsory Pilot boards at entrance of channel.

ANCHORAGE: See "General" before first port.

RESTRICTIONS: Any containers arriving on Ro/Ro ships should be on trailers.

MAX. SIZE: All types of ships with 28 ft. draft and less are safe in harbour.

RADIO: Tripoli Radio (coast station – 24 hours), 5AT, 476 and 500 kHz, R/T 2182 and 2197, VHF Channels 16 and 6.

Tripoli Port Radio (24 hours), 5AI, 500 kHz, R/T 2182, VHF Channels 8, 12 and 16 and in an emergency Channel 14. Tripoli Port Radio Telex No. 20464.

BERTHING:

	Quay No.	*Length* (ft.)	*Depth* (ft.)
Main Port:	5.5	200	11
	6 East	200	13
	6 West	220	13
	7	400	18
	8	400	22
	9	400	23
	10	450	22/25
	11, 12 & 13	930	22
	Victory	550	22
	F.J. STB.S.	200	10
	F.J. PT.S.	200	9
	Japanese	4,823	19.7
Karamanly:	1 & 2 (oil)	450	27
	3	400	22
	4	400	18
	5	300	15
	F.J. STB.S.	250	14
	F.J. PT.S.	250	16.5

STEVEDORES: Two companies available. Working hours: 0700-2000.

CRANES: 2 floating cranes, 100 tons and 200 tons capacity. 25 electric cranes 5 tons - 30 tons capacity. 67 cranes of various capacities up to 50 tons.

MEDICAL: All facilities available.

FRESH WATER: Available by barge and alongside, should be obtained from Port Authority through ship's Agent.

FUEL: Available through Agent. A notice of 24 hours needed, advisable for Chief Engineer to check what grades are available.

REPATRIATION: Crew changes are possible.

AIRPORT: A number of major air lines operate to and from Tripoli Airport which is about 27 km. from the city.

WATCHMEN: Available.

CONSULS: Algeria, 34631; Belgium, 37797; Bulgaria, 35733; China, 32300; Denmark, 39413; France, 33526 & 33527; Germany F.R., 33827 & 30554; Pakistan, 40072; Poland, 31768; Saudi Arabia, 30486; Spain, 35463 and 33275; Sudan, 39181 and 39182; Sweden, 32343; Switzerland, 32416; Greece, 36978 and 36689; India, 41835; Iraq, 34235; Italy, 34131; Jordan, 32707; Kuwait, 40282 and 40281; Lebanon, 33733 and 32289; Malta, 38081 and 38082; Morocco, 34239 and 40188; Netherlands, 41549 and 41550; Syria, 31783; Tunisia, 31051/2; Turkey, 37728; U.S.S.R., 30554; Venezuela, 36838; Yugoslavia, 34114 & 33392.

POLICE/AMBULANCE/FIRE: Main port call; 39111, 35010, 31518. Karamanly Wharf call: 30378, 35010, 31518.

SHORE LEAVE: Allowed after Free Pratique, Customs and Immigration formalities completed.

DRY DOCK: *Floating Dock:*

Length over platform	136.700 m.
Length over pontoon	121.200 m.
Moulded outer breadth	30.600 m.
Inner clear breadth	23.400 m.
Depth of pontoon at centre line	3.100 m.
Height of keel blocks	1.200 m.
Depth of water above keel blocks	6.400 m.
Lifting capacity	5,000 tons

Spare parts to be supplied by ship's owner. 3 kinds of marine paint are available.

DEVELOPMENTS: 2.6 km. of new quays under construction with depths of 10.0 m. – 12.0 m. The second phase of new construction will include berths for container vessels and Ro/Ro vessels.

SHIPMASTER'S REPORT: March 1988.

Chart: BA. Chart No. 248.

Documents:

8 copies Crew List.
2 copies Crew Declaration (on Libyan forms).
2 copies Manifest.
1 copy Health Declaration.
2 copies Currency Declaration (on Libyan forms).
All Passports.
1 copy Arms and Ammunition List.
1 copy Drugs List.
2 copies Cargo Manifest.

Cameras are placed under seal. No cigarette issue allowed. Bond remains sealed if proceeding to another Libyan port. Definitely no alcohol, Customs would not allow beer issue. Ship's Certificates to be in Arabic. Passports exchanged for Landing Cards at the gate. All stores checked for signs of South African and Israeli produce.

Approaches: Vessels are to contact Tripoli Radio on 2182 kHz. at least 8 hours before arrival and obtain current navigational warnings. At the same time advise Tripoli Radio of vessel's ETA and inward course and speed.

Tripoli Radio normally uses 2197 kHz. as the main M/F transmitting frequency. Their reply was prompt and English was good.

Tripoli Radio has Telex Nos. 90129515 AT TPLY and 90120300 TAT TPLY.

Tripoli Port should be contacted on VHF Channel 12 as early as possible, giving ETA Tripoli and inward course and speed.

Tripoli Port will require the following information: LOA, Beam, Gross Tonnage, Nett Tonnage, Draft, Cargo Tonnage, Agent, Charterer, Owner, Flag, Number of Crew and Nationality, Last Port of Call and Next Port of Call.

Tripoli Port Control has Telex No. 90120464 TRIPORTHLY.

On approach, Tripoli Port shows up well on radar at 30 miles when there are ships anchored off.

D/F Station "Tarabulus" was not obtainable.

The N.E. Breakwater and Tarabulus High Light Tower were conspicuous but the light was weak.

All Channel Buoys except No. 3 have been withdrawn. Only the beacons are in position.

Pilot: The Pilot may be contacted through Tripoli Port Radion on VHF Channel 16, working on Channels 12 and 8. The Pilot boards from a grey tug near Beacon No. 2. If the weather is poor, Pilot may board inside the breakwaters. The Pilots speak good English and are competent.

When leaving the Port, the Pilot disembarks in the Outer Harbour before reaching the new Breakwater's entrance.

Entry: Maximum draft handled to No. 3 Pier and Karamanli Mole is 29 ft. Tidal range 1 ft. 6 in. Minimum depth found at Karamanli Mole Oil Berth was 32 ft. There are no tanker movements from 30 minutes before sunset until 0730 hrs. the next day.

Generally, cargo vessels are not handled at night, however, movements may be undertaken if absolutely necessary.

In Winter the Port is often closed due to bad weather which causes very heavy N.W. swells across the breakwater entrance near Buoy No. 3.

Anchorage: The anchorage is that indicated on BA. Chart No. 248. Anchored vessels were spread out to the East of the limits on the chart but West of the Channel Leading Line. The anchorage is unprotected from all winds except those off the land. We anchored with Tarabulus Lighthouse bearing 165° × 1.5 miles for a period of 12 hours in a Force 9 wind from the W.N.W. and whilst trying to get underway we parted our cable.

Tugs: Tugs are not used by small vessels. Pilot reports that only 2 tugs are in operation at the present time.

Berth: LPG imports are handled at the outer end of Karamanli Mole. This berth only handles LPG. The old oil product pipelines are no longer in use.

The berth face consists of old sheet piling and is in a poor state of repair, protected by old tractor tyres. Inner Karamanli Mole is generally used by bulk carriers discharging grain, this can restrict the size of ships using the oil berth. Normally LPG is handled by small vessels.

Vessels normally berth port side alongside but can berth starboard side alongside if required and if space permits.

Mooring/Gangway: There are very few bollards on the berth and only breast lines can be run. Insufficient room to run stern lines. Ship's gangway was used and it was easy to land.

Cargo: LPG mix. Normally 75% Butane and 25% Propane, but this depends on the season (cooking fuel, etc.).

Liquid and vapour lines were 3 in. rubber hoses which were connected to 6 in. and 4 in. lines respectively. The distance to the pressure tanks (20 tonnes each) is 4 km. Pressure tanks product is bled off to road tankers and also piped inland. Discharge pressure was 9 kg./sq.cm. and the minimum temperature −2°C. via ship's heater and booster pump.

The line pressure fluctuates when product is bled off to road tankers.

The liquid shore line is to be hot gassed/blown clear for 2 hours on completion of liquid discharge.

Vapour is returned to ship, only opened 2 tanks for this operation, which reached 3 kg./sq.cm.

Average rate 40 t.p.h.

No surveyor attended. The receiver "Breganaft", also the shipper, was in attendance at the start and on completion and was of assistance.

Tank Dry Certificate required on completion.

Fresh Water: Fresh water is available by tanker truck of 10 tonnes capacity or by barge of 200 tonnes capacity. 2 self propelled barges were observed in the harbour. Cost of delivery inside the harbour is U.S.$10.0 per tonne.

Agent requires 48 hours' notice for fresh water in order to prepare paperwork.

Fresh water also obtainable at the outer anchorage in calm weather but cost is high.

VHF: Tripoli Radio on VHF Channel 26 but also uses Channel 22 and others as per ALRS. The Ship's Radio Station was sealed by Port Police whilst in Port.

International calls by vessels at anchor to Italy and Greece were handled quickly.

Customs: Officials visited the vessel 17 hours after arrival. As we were under seal on coastwise voyage from Zuetina they only checked seals on the bond. We were given a cigarette issue but no alcohol of any description was issued. All alcohol remains under seal whilst on the coastal trade. All radios and cameras were manifested so were allowed to be kept in cabins.

Agent: Vessel handled by "Universal". Agent attended with Customs 17 hours after arrival and was helpful with regard to ordering stores. If vessel finishes overnight she has to wait for clearance until 1000 hrs. the following day as the Customs House does not open until 0800 hrs.

Stores: Imported stores not available. Fresh produce available but dependent upon the season, prices are high. Basic items are obtainable.

Bunkers: Most grades available by road tanker through "Breganaft".

Forms: Also see "Documents". Crew Manifest and Money List to be on Libyan forms but if first visit to Libya, international forms are acceptable. All Ship's Certificates to be in Arabic.

Crew Manifest.
8 copies Crew List on IMO Forms acceptable.
2 copies Cash in Master's Safe.
2 copies Ship's Fixture List.
Port Clearance and Customs Clearance from Last Port (very important).

General: Vessels on coastwise trade must keep at least 12 miles offshore.

The local currency is the Libyan Dinar and 1 Dinar = U.S.$3.5 (official).

Mail can be sent out via the Agent.

Repatriation and crew changes are possible but outward tickets must be paid for in Tripoli (not PTA) by remittance of hard currency. There are nearly always vacant seats on all outward flights. All crew joining require a visa.

Shore leave is only allowed during daytime. Passport is handed in at the gate and a local I.D. card is given in exchange.

Friday is the Moslem holiday. March 2nd was a Public Holiday.

AUTHORITY: Port Manager and Harbour Master.

AGENCY: See "General" before first Port.

ZUARA: 32. 55 N. 12.07 E.

Also see "General" before first port.

PORT LIMITS: a) The water area existing between the actual breakwater and that which may fall within any new breakwater eventually constructed.

b) The water area known as the navigational channel existing outside the harbour entrance for a distance of about 0.5 miles (1 km.).

APPROACHES: If approaching from the East, vessels are to give the coast a berth of at least 3 nautical miles.

ANCHORAGE: See "General" before first port.

RESTRICTIONS: Port for ships laden with direct delivery cargo only.

MAX. SIZE: Ships up to 13 ft. draft and 65 m. length are safe in the harbour.

RADIO: Tripoli Radio and Port Radio use VHF Channel 16.

BERTHING:

Quay No.	*Length*	*Depth*
Shore quay	2 ships	13 ft.
F.J. Stb.S.	165 ft.	13 ft.
F.J. Pt.S.	165 ft.	13 ft.

STEVEDORES: 2 companies available.

MEDICAL: Available.

REPATRIATION: Possible.

AIRPORT: Tripoli Airport situated about 127 km. from Zuara.

REPAIRS: Not available, see "Tripoli".

POLICE/AMBULANCE/FIRE: Call Port Manager, Tel: 025305.

SHORE LEAVE: Allowed after Free Pratique, Customs and Immigration formalities completed.

DEVELOPMENTS: 18 berths to be constructed in a new master plan.

AUTHORITY: Port Manager and Harbour Master.

AGENCY: See "General" before first Port.

ZUEITINA: 30.51 N. 20.00 E. (See Plan)

Also see "General" before first port.

LOCATION: The Terminal Fairway Buoy, moored in position Lat. 30° 55′ 00″ N., Long. 19° 59′ 48″ E., is painted red; it shows at night a white light flashing "Z" every 10 seconds. A prominent landmark is the radio mast (height 451.5 ft. above sea level) in position Lat. 30° 49′ 57.6″ N., Long. 20° 03′ 05.5″ E.; it displays at night 3 red lights in a vertical line – the top light flashing, the 2 lower fixed. The top light is on top of the mast (which is 400 ft. above the base), the middle light is 266 ft. above the base, and the lowest light is 133 ft. above the base. At night flares at the Liquid Petroleum Gas Plant, in position Lat. 30° 54.2′ N., Long. 20° 05.4′ E., can be seen from a considerable distance; by day a column of smoke emanating from this position is also conspicuous. 14 large oil tanks, painted white, near the foot of the Radio mast, are prominent landmarks.

Positions of Moorings:

"Alpha" berth	Lat. 30° 53′ 30″ N.	Long. 20° 01′ 05″ E.
"Bravo" berth	Lat. 30° 52′ 18″ N.	Long. 20° 01′ 24″ E.
"Charlie" berth	Lat. 30° 52′ 08″ N.	Long. 20° 00′ 11″ E.
"Delta" berth	Lat. 30° 50′ 56″ N.	Long. 20° 00′ 26″ E.
"Echo" berth	Lat. 30° 50′ 16.4″ N.	Long. 19° 59′ 16.1″ E.

FLAGS: When arriving at Zueitina by day, ships must display, in addition to their own national ensigns, the Libyan flag and the appropriate quarantine signal. Throughout the ships' stay, during daylight hours, they must display the Libyan flag, their own national ensigns and, when applicable, the International Code signals "B", "H" or "G", and the appropriate quarantine signal.

DOCUMENTS: Soon after vessel's arrival, a Custom's Officer will board, accompanied by a Shahat Agency representative, who will act on behalf of the ship and its Agent, as well as on behalf of the Company, in the execution of essential business. The following documents, signed by the Master and imprinted with the ship's official stamp, are required by the Customs Official for the Customs and Immigration Departments and for the Port and Lights Authority:

2 Copies Entering and Leaving Territorial Waters Certificates.
2 Copies Report Inwards Certificates.
2 Copies Crew Declarations of Dutiable Goods.
2 Copies Crew Declaration List.
2 Copies Report Outwards Certificates.
3 Copies Boycott Certificates.
2 Copies Stores Lists.
5 Copies Crew Lists.
1 Copy Clearance from Last Port of Call.

2 Copies Tanker Characteristics Certificates.
1 Copy Certificate of Discharge, from the Discharge Port Authorities, of the last cargo loaded in Zueitina.

With the exception of the Crew Lists and the Stores Lists and the clearance from the Last Port, the above forms will be provided by the Company clerk.

It is important that the Master should be able to produce a properly authenticated certificate of discharge covering the last cargo loaded into the ship in Zueitina. If for some reason he is not in possession of such a certificate, he must write a letter of explanation which includes the pertinent extracts from the ship's log book, append his own signature to it and stamp it with the ship's official seal, and address it to the Secretariat of Petroleum, Es Zueitina, SPLAJ. If the explanation for failure to produce the certificate is considered satisfactory the ship may be permitted to load. If there appears to be any suspicion that the last port was not as stated, the ship will be turned away.

If the vessel has not previously loaded in Zueitina, the Master is required to confirm this fact in an official letter, stating also the ship's last port of discharge and giving an undertaking that the cargo about to be loaded will not be discharged in any of the countries to which the Arab embargo extends.

The Mooring Master will, after boarding, lose no time in informing Zueitina Marine that he has received one or other of these foregoing documents from the Master, which he will, at the first opportunity, send ashore for delivery to the Secretariat of Petroleum representative. This will ensure that there is no unnecessary delay in the commencement of loading.

On completion of loading, the Shahat Agent will again board the ship with the cargo documents which are to be signed by the Master. The clerk has to deliver to the Master one copy of each document for his own use and one copy for consignee and bring the rest of documents ashore with him.

1. Bill of Lading
2. Cargo Manifest
3. Time Sheet
4. Certificate of Origin
5. Master's Receipt
6. Export Manifest

All of which forms are provided by the Company or by the Agency. He will also take ashore any letters to be posted. On occasions, a Customs Official will visit the ship with the documentation clerk prior to sailing to ensure that the seals which were put on the bonded stores lockers have not been tampered with before the ship has left Libyan waters.

The documentation formalities prior to the ship's departure, are usually completed whilst the ship is unmooring from the berth, or just after it has left the berth, hove to with the Mooring Master still aboard. Sometimes, however (and particularly after the loading of "Agip" cargo), the processing of the papers ashore may take longer than usual, and the ship may have to anchor to await the clerk's eventual arrival, in which case the Mooring Master will direct it to a safe anchorage before disembarking. Zueitina Marine will then inform the Master when the launch bearing the clerk is about to leave the Small Craft Harbour, in order that the anchor may be weighed, and a lee side presented to the launch.

ACCEPTANCE PROCEDURE: *Notice of Readiness, Laytime, etc:*
Vessels Loading Crude Oils: A vessel for which a berth is available on arrival will be boarded by the Mooring Master at the Terminal Fairway Buoy and, providing that the vessel is in all respects ready to commence loading (except for the necessary de-ballasting time), the Notice of Readiness will be accepted at the time of the Mooring Master boarding, subject to the provisos – a, b, c and d, below.

If the vessel is not in all respects ready to proceed to the berth, with main engine and auxiliaries fully manoeuvrable, mooring ropes on deck, anchors, windlasses, winches, etc., in good working order and readiness, it will not be accepted until the Mooring Master is satisfied that all these conditions are met.

A vessel which has been instructed by Zueitina Marine to anchor in the roadstead on arrival should, after doing so, inform Zueitina Marine of the precise anchorage time, which time will, for the purposes of berthing order and the Port Log, be considered as the vessel's arrival time. According to the practice of the port, acceptance of the Notice of Readiness will coincide with this arrival time, providing:–

(a) that it is within the hours of daylight – deemed to be from 0600 hrs. (local time) to 1800 hrs. (local time),
(b) that it is not a Public Holiday, or a Friday (the Libyan Sabbath), unless the vessel is actually handled on that day,
(c) that the port is open, and
(d) that the vessel has been nominated to load.

An exception to clause (a) above, is when conditions allow night berthing, in which case the vessel will be accepted when the Mooring Master boards, or, should the vessel have been at anchor, when the anchor is aweigh, providing that the Mooring Master is then on board.

In the case of a vessel arriving without nomination, the Notice of Readiness will be accepted when notification of her nomination has been received at the Terminal, subject to provisos (a), (b) and (c) above, and instructions from the Company's Operations Department. On occasions when the Company deems it advisable to berth a vessel prior to the date of the nominations, acceptance of the Notice of Readiness will be at the time the Mooring Master boards, providing that the anchor is then aweigh.

In addition to clauses (a), (b) and (c) and (d), above, vessels will not necessarily be accepted when arriving at a time ahead of, or behind, their last scheduled Estimated Time of Arrival, especially if such acceptance would be at the expense of a vessel that has arrived within its nominated period.

Vessels Loading Liquid Petroleum Gas: A Liquid Petroleum Gas Tanker's Notice of Readiness will be accepted on arrival, provided that:

(a) the port is open ("port" meaning, in this case, the LPG berth),
(b) that it is not a Friday (the Moslem Sabbath) or an official holiday, unless the ship is actually handled on that day,
(c) that it is not during the night hours – deemed to be, at the LPG berth, between 1800 hrs. and 0600 hrs. (local time) – unless the ship is actually handled during that period,
(d) that the ship does not arrive on the same day, or clash with the loading of, another LPG tanker chartered under a LINOC contract,
(e) that the ship's tanks are in such a state of readiness, i.e., requiring no cooling, no purging, that loading can be commenced at *full rate* immediately the hoses are connected,
(f) that the arrival time does not differ appreciably, either before or after, from the last signalled ETA sent by the ship and received at the Terminal, and
(g) that the vessel has been nominated to load.

When a Liquid Petroleum Gas tanker does arrive whilst the port is closed, the Notice of Readiness will be accepted at the time of the opening of the port, subject to provisos (b), (c), (d), (e), (f) and (g).

The N.O.R. of an LPG loader arriving on a Friday or on an official holiday, or during the aforesaid night hours, will be accepted at 0600 hrs. (local time) on the first subsequent working day, subject to provisos (a), (d), (e), (f) and (g).

An LPG tanker arriving on the same day as an LPG tanker scheduled to load under a LINOC contract, or whose loading would clash with an LPG tanker scheduled to load under a LINOC contract, will have its N.O.R. accepted on the completion of hose connection, subject to provisos (e) and (f).

PILOTAGE: A Mooring Master will board the vessel in the close vicinity of Terminal Fairway Buoy and advise Master on all manoeuvres relative to berthing, connecting and disconnecting the hoses, and in all operations within the anchorage or berthing area.

Vessels of 40,000 d.w.t. and upwards should have a pilot ladder long enough to reach the Mooring Master's launch rigged just abaft the accommodation ladder, in such a manner that the Mooring Master can transfer to the accommodation ladder when about 10 ft. from sea level. Ladders must be strong, clean, and in good state of repair and conform to international requirements. In cases where the ladder(s) fails to conform with these requirements, the Mooring Master will decline to board until an adequate ladder has been provided. A good lee should be made, to allow the launch to come alongside and the Mooring Master to board safely. (Note: Ships which have been instructed to berth at the S.P.M's, and need to take the Company's gear aboard, should have the ladder(s) rigged on the port side, in order that they may take it aboard from the Mooring Master's launch with the working derrick as soon as the Mooring Master has boarded.)

The Mooring Master may require the vessel to unberth at any time he deems it necessary for the safety of the vessel, or the installations, or both, or because of infringements of the Port Rules by the vessel.

As soon as practicable after boarding, the Mooring Master will inspect the mooring and lifting equipment and the ballast, and not until he has assured himself that the equipment is adequate, and the ballast clean, will the ship be accepted. His opinion of the adequacy of the gear, and of the cleanliness of the ballast, shall be final.

ANCHORAGE: Vessels awaiting the Mooring Master, whether for berthing in the crude oil berths or alongside the LPG berth, should heave to in the close vicinity of the Terminal Fairway Buoy. If they are obliged, or instructed to anchor, they should do so in the recommended anchorage, which is within the radius of a circle centred in position Lat. 30° 55′ N., Long. 20° 01′ E. Under no circumstances should they anchor South of the 30° 54′ 00″ parallel. Whilst at anchor, they should exercise the utmost vigilance, and should keep in VHF radio-telephone with the Terminal at all times. If heavy weather necessitates them heaving up anchor and proceeding to sea, Zueitina Marine must be informed accordingly.

RADIO: 72 hours prior to arrival at Zueitina, Masters should advise the Company of their vessels' ETA via Tripoli and via Portishead Radio. They should subsequently confirm or amend them when they are 48 hours and again when they are 24 hours distant from the Port.

All messages to Zueitina Terminal should be addressed to the Operations Manager, Zuetina Oil Company, with copies to the Terminal Superintendent.

Messages should include the quantity and grade of cargo to be loaded, the last port of call and destination, Bill of Health status and details of any sickness on board. Estimated times of arrival should be given in GMT. (Libyan Standard Time is GMT plus 2 hours.).

Masters of vessels equipped with VHF radio-telephones should contact Zueitina Marine on Channel 13 or Channel 16 when within range, and give a firm calculated time of arrival at the Zueitina Fairway Buoy. They should also again inform Zueitina Marine Duty Officer of the quantity and grade of cargo required, the last port, estimated deballasting time and the destination. They should confirm that they have in their possession a Certificate of Discharge for the last cargo loaded into their ships in Zueitina or, in cases of ships arriving in Zueitina for the first time, that they have ready for the Secretariat of Petroleum a letter which certifies that the cargo which they are about to load will not be discharged in any country against which the Arab Oil Embargo extends. In vessels paying their first visit to the Terminal, Masters should also inform the Duty Officer of the size and type of the manifold connections (i.e. 12 in. ASA, or 10 in. European, etc), and whether or not they have on board heavy wires and shackles for mooring at the mono-buoys.

(N.B. It is important that all ships arriving at Zueitina are fitted with VHF radio-telephones, capable of operating on the main working Channels. Without VHF communications, Zueitina Marine cannot always know with accuracy a vessel's arrival time, and as a result that vessel might well lose its loading turn and be subjected to an appreciable – and, with VHF, avoidable – delay in consequence.)

An aerial radio beacon is located on the North-Eastern arm of the Small Craft Harbour, in position Lat. 30° 54′ 05″ N., Long. 20° 04′ 12″ E., intended as an aid to navigation for aircraft flying to and from Zueitina airstrip. The beacon transmits continually the call sign ZUE, on 369 kHz: the signal, which is omni-directional, has a range in excess of 100 miles.

HEALTH: Pratique will be granted by the Custom's Official. He will examine the ship's logbook, and will inspect and seal the bonded storerooms.

All ships must display the appropriate quarantine signal until given Pratique.

TUGS: One tug ("Saladin") of 4,600 h.p., bollard pull 55 tons now available to assist in berthing at CBM and LPG berths.

One to six mooring launches of 370 h.p. available, normally two launches assist berthing at SBM's.

BERTHING: The sea terminal consists of five berths for loading crude oil products, two of which – "Bravo" and "Delta" – are conventional buoy moorings, and the others – "Alpha" ("Alpha" buoy at present temporarily removed but position marked by Tower Buoy with same characteristic light) "Charlie" and "Echo" – are single-point moorings, or mono-buoys. Conventional buoy moorings "Bravo" and "Delta" are approximately 2.5 miles offshore, with an average depth of 70 ft. and 80 ft. respectively. 42 in. (ID) submarine lines connect the berths to the shore installations. To the header at the seaward end of each of these submarine lines are connected two strings of flexible reinforced rubber hoses, laid on the sea bed and buoyed when not in use. The forward of the two strings is made up of (from the header) three 30 ft. lengths of 24 in. i.d. hose, two 30 ft. lengths of 20 in. i.d. hose, and seven 30 ft. lengths of 16 in. i.d. hose. The after string is similar, but with one less length of 16 in. i.d. hose. To the seaward extremity of each hose string is fitted a 16 in. to 12 in. ASA reduction flange. When the ship has berthed, each hose string is towed in to the ship's side below the manifold by the attendant launch, to be hove up by crane or derrick and bolted to the ship's connections, *invariably on the port side.* Where the ship's connections differ from the 12 in. ASA flange on the hose, suitable reduction spools must be fitted. The weight to be lifted on each hose is approximately 7 tons.

Single-point moorings, "Alpha", "Charlie" and "Echo" are all approximately 3 miles offshore, in an average depth of 100 ft. of water. The submarine pipe-lines to "Alpha" and "Charlie" berths are of 48 in. i.d., that to "Echo" berth, 42 in. i.d. Particulars of the strings of hoses from the header to the ship's manifold are described in detail in the chapter on "Single-point Moorings". As in the conventional buoy berths, *the hoses are always taken up on the port side,* and the connecting flange on the hose is 12 in. ASA pattern. The weight to be lifted is approximately 7 tons, but this is to some extent dependent on the ship's freeboard.

Mooring Equipment: As a guide to Masters who intend to save time and labour, especially in these days of reduced "general purpose" crews, by equipping their ship with the requisite mooring gear, the following standard requirements is suggested:

(a) Two (2) flexible steel slip wires, 1.75 in. dia., 5.5 in. circumference, 130 ft. in length, or longer if the distance from the fairlead to the bitts is such that 130 ft. would be insufficient to make fast safely. Such slip-wires will have an eye spliced in one end only.

(b) Two (2) screw-pin or threaded bolt and nut, bow shackles, bow size 2.5 in., pin diameter 2.75 in., minimum width, jaw to jaw, 4 in.: breaking strain 150 tons.

Single-Point Moorings: The "Mono-buoy" is a large cylindrical buoy (weight 106 tons), divided by steel bulkheads into four water-tight compartments, through the centre of which emerges the loading hose. The perimeter of the buoy, to which the buoy-to-ship moorings are attached, is a turntable which revolves on bogies round the centre – hose-supporting – section, in such a manner that the vessel berthed on the buoy will always lie head to wind. The minimum depth of water within the swinging radius of the largest ship envisaged at the buoy is approximately 95 ft.

To the mono-buoy is attached a 240 ft. length of chain cable, made up of 2.375 in. U3 steel studded links, and supported in polyurathene buoyancy collars, at the seaward end of which is a "chafing chain". This "chafing chain" is 20 ft. long and of similar construction to the main chain, but with three open links at the end: it is detachable for periodic renewal. To the end of the chafing chain is attached the "approach rope" – a 200 ft. length of 10 in. circumference plaited polypropylene which, when not in use, is allowed to float out free from the buoy.

The ship approaches the buoy from downwind, taking care to keep the wind right ahead (adequate ballast should be retained aboard to provide manoeuvrability). When sufficiently close, the crew will lower to the attendant launch the end of a good mooring rope, to the eye of which has been attached a stout nylon lashing, about 2 fathoms long. This mooring rope should be passed out through a central panama lead, if a suitable one exists (or from a fairlead on the port bow (when the ship is fitted with a bulbous bow) a line put out through a central lead, should be brought back along the forecastle, clear of the bulbous bow, and then be lowered to the water to avoid the possibility of the launch coming into contact with the bulb when coming in to collect the end of the rope. Meanwhile, two heavy 5.5 in. circumference flexible steel slip wires will have been made fast in readiness, preferably on different sets of bitts, in such a manner that there is an adequate number of turns around the bitts and that the end of the eye reaches to approximately 10 ft. and 10 ft. 9 in. respectively from the panama/fairleads. When the chain comes aboard, it is quickly secured to the wires by two 150 tons B.S. shackles, which are bolted through two of the open links in the chafing chain. The strain on the approach rope (which had followed the ship's rope round the drum-end of the windlass) is now released, and the weight allowed to come on to the wires. The approach rope is then "turned-up" as an additional mooring and the ship is now all fast in the berth. Ship's tension wires, or other mooring lines, should also be shackled or lashed to the chain, for added security.

When leaving the berth, the ship's additional moorings are first detached from the chain, any slack which is in the approach rope is taken in and that rope made fast very securely. The slip wires are then slacked off slowly and carefully until the strain comes on to the approach rope (when strong winds have tightened the mooring, it will probably be necessary to put the engine slow ahead before attempting to do this). The shackles can then be taken adrift, freeing the wires, and the approach rope slacked off until the chain reaches the water – care being taken to ensure that it is not allowed to fall across the hoses. The engine is then put astern, and the rope allowed to pay out easily (with half a turn around the bitts to stretch it clear) as the ship leaves the buoy.

(Reminder – unlash the ship's rope from the approach rope before unmooring from the buoy!).

Loading: Rate of loading is between 32,000 b.p.h. and 50,000 b.p.h.

Conventional Buoy Moorings: In berths "Bravo" and "Delta" the ship is berthed with two anchors streamed out ahead and mooring lines to 5 buoys round the stern and quarters. In addition, to all buoys except No. 3 (right astern) there are attached 5.5 in. circumference steel wires, laid on the sea bed, buoyed, when not in use – in all but the most settled weather these are brought into the ship by the mooring launch, hove up and made fast on board. Vessels should have ready a good 3.5 in. rope messenger to take up these wires, and strong chain stoppers, or "carpenter's stoppers", for use when securing them.

Before the ship reaches the berth, there should be three good mooring lines ready on the after end of the main deck, two of which have been securely married in readiness to be sent away first, to warp the ship round. At least seven good ropes should be ready for running out from the poop, with lashings ready in case one rope has to be married to another. Plaited polypropylene ropes, at least 120 fathoms long and of a diameter and strength appropriate to the size of the vessel, are recommended: large manilla ropes, slow and cumbersome to handle, are definitely unsuitable for berthing under these conditions.

Synthetic ropes on automatic winches are favoured in this port, but it is recommended that they be at least 150, and preferably 200 fathoms long. The winches must be capable of being firmly locked when in the moorings – any tension feature is not permissible.

When it has been necessary to slip moorings in order to leave the berth quickly and without the assistance of the mooring launches, the Company will make every effort to recover them and to return them to the vessel as soon as possible. Normally the Company makes no charge for recovering anchors and moorings, but it reserves the right to do so under exceptional circumstances.

In the conventional buoy moorings, in order that ships may be securely moored against beam winds and with sufficient chain leading ahead to ride out heavy swells, it is recommended that they be equipped with ample chain on both bower anchors. Experience gained in sea berths suggests that the chain required on each anchor should be more than the length of the ship. In vessels of 100,000 d.w.t., for which the berths were designed, it is recommended that there should be 14 shackles (1,260 ft.) of chain on each anchor. A minimum acceptable amount of chain is 10 shackles (150 fathoms) for the safety of the ship and the company's installations. Anchor marker buoys should be used.

HOSES: The lifting, lowering, connecting and disconnecting of the cargo hoses will be done by the tanker's personnel in accordance with the advice and directions of the Mooring Master. Ship's derricks and deck winches should be capable of operating with a safe working load of 7.5 tons and preferably 10 tons. Vessels with inadequate hose-lifting equipment will be rejected. All derricks should be fitted with "preventer-guys" in addition to normal guy tackles. The port derrick must be rigged and ready for use on arrival. In addition ships leaving SPM should have the starboard derrick ready, too, in order to facilitate the discharge of the mooring gear on the lee side.

Sets of bitts, or strong staghorns, for hanging off the hoses, must be provided, suitably located near the manifold.

On the surface, extending from the buoy (to which it is connected by a Chiksan swivel (a universal joint)), is a hose string comprised of 24 (at "Echo") 26 (at "Alpha" and "Charlie") 30 ft. lengths of 24 in. i.d. floating hose, culminating in a floating junction box: from the other side of this junction box emerge two strings of four lengths of 16 in. i.d. hose. The end ones – the "over-rail" hoses – are fitted with 16 in. to 12 in. ASA reduction flanges, which, after the hose has been hove aboard, are bolted or clamped to the ship's manifold.

For VLCCs, additional lengths of floating hose are inserted if necessary.

LOADING: *Zueitina Crude Oils and Debutanized Condensate:* The principal cargo loaded at Es Zueitina Terminal is Zueitina Field Blended Crude Oil, pumped in from the Company's wells, 212 km. inland, but in addition certain other grades of crude oil are loaded, namely, Zueitina Medium Crude, Zueitina Premium Crude, and Zueitina Debutanised (Stabilised) Condensate. Also loaded are Liquid Petroleum Gas products, Butane and Propane (LPG) see "LPG Loading Berth", and "Agip" Buattifel Crude Oil, from the wells of Agnezia Generale Italiana Petroli, in concession 100.

Virgin naphtha also exported.

The following pertinent data will, we believe, be of interest to tanker owners and operators, Masters and Mates, and to refinery operatives in the discharging ports:

Zueitina Field Blend
Average A.P.I. 40.1
Average Specific Gravity 0.8246
Pour point +35
Reid Water Vapour Pressure +5.2 p.s.i. at 100°F
H_2S less than 5 p p m.
Flash Point below 60°F
Average loading temperature on board 108°F
Barrels per long ton at 60°F 7.741

Zueitina Medium Blend
Average A.P.I. 36
Average Specific Gravity 0.8448
Pour point +85
Reid Water Vapour Pressure +5.0 p.s.i. at 100°F
H_2S less than 5 p p m
Flash Point below 60°F
Average loading temperature on board 98°F
Barrels per long ton at 60°F 7.582

Zueitina Premium Crude
Average A.P.I. 43.5
Average Specific Gravity 0.8086
Pour point +30
Reid Water Vapour Pressure +5.6 p.s.i. at 100°F
H_2S less than 5 p p m
Flash Point less than 60°F
Average loading temperature on board 108°F
Barrels per long ton at 60°F 7.922

Zueitina Debutanised (stabilised) Condensate and Debutanised Condensate:
Average A.P.I. 78.0
Average Specific Gravity 0.6706
Pour point −60°F
Reid Water Vapour Pressure 11.0 p.s.i. at 100°F
H_2S less than 1 p p m
Flash Point less than 0°F
Average loading temperature on board 75°F
Barrels per long ton at 60°F 9.555

The grades of cargoes to be loaded will affect the berthing schedule, irrespective of the chronological sequence of vessels' arrival times.

It is recommended that vessels take the maximum flow with due regard to safety, in order to both expedite the turn-round time and to obtain the bottom-weight to counteract the possible effect of local winds which frequently spring up with little warning.

Care must be taken not to overload, as there is no provision whatsoever for cargo once loaded to be pumped back ashore.

Warning is given of the danger of closing hoses against an incoming oil flow. Such a procedure may create excessive pressures which result in damage to loading hoses, sea lines, and other Terminal equipment. Vessels which ignore this warning and do in consequence cause such damage will be held responsible for all costs incurred for the renewal or restoration of the damaged equipment.

The attention of Masters is drawn to Safety Precautions, wherein they are reminded of their responsibilities for ensuring that all persons aboard their ships are cognizant with the hazards involved in the loading operations, and with the need for strict observance at all times of the Fire and Safety Rules. Debutanised Condensate, in particular, is a highly volatile fluid which must be treated with the utmost prudence.

(N.B. particulars of cargoes included in the foregoing are for information only and do not constitute a guarantee of quality.).

Loading – A.G.I.P "Buattifel" Crude: Because of its high wax content – 37% – A.G.I.P. "Buattifel" Crude Oil, (hereafter referred to as "Agip") has to be maintained at a very high temperature throughout its entire transit from the wells to the Terminal system, and thence via the sea lines to the berth and the loading vessel: it will arrive on board at approximately 140°F, and the heating coils in the cargo compartments must be motivated in readiness and be capable of keeping the oil at above this temperature.

Two berths "Bravo" and "Charlie", have been modified for the loading of Agip cargoes – ships may be moored in either of these berths but because of the considerable heating problem involved only one of the berths at a time can be used for loading Agip cargo. Through the submarine lines to "Bravo" and "Charlie" central "gut" lines have been inserted – at "Charlie" berth where the sea line is 48 in. diameter, the gut line is of 18 in. diameter, and at "Bravo" – sea line 42 in. diameter – the diameter of the gut line is 16 in. These two gut lines (which are, of course, tied in ashore with the Terminal tank and metering and pumping complex) terminate 20 ft. from the headers at the seaward ends of the sea lines. The area between the outside of the gut line and the interior wall of the sea line is called the "annulus". To the headers (from which emanate the strings of flexible hoses which are ultimately bolted to the ship's manifold connections) are fitted remote control hydraulic valves, operative from the loading station within the Terminal.

Immediately prior to the berthing of the prospective Agip loading ship, hot Zueitina crude oil is circulated from its storage tank, through the gut line, and back through the annulus, heating the entire system. Once the ship is securely moored, preparations are made to replace the hot "Zueitina" oil with hot Agip oil. (60,000 barrels is the full line content at "Charlie", 33,600 barrels at "Bravo"). This process will take about four hours, and ship and shore must work in conjunction to ensure that the deballasting and the recirculation of the line with hot Agip oil are completed at about the same time. This is of vital importance, for once the line system is filled with hot Agip cargo it cannot remain in circulation for more than one hour. If the ship is not then ready to receive it, the Agip oil must be replaced by Zueitina oil, and only after this has been circulated round the line can the line be again replenished with another circulation of Agip oil. This entire process may take about 12 hours – a wastage of time which neither the Terminal nor the ship operators can afford to contemplate with unconcern.

When ship and shore are ready to begin loading, the remote control valves are opened and, at a very slow rate, the cold Zueitina oil which has been in the flexible hoses is loaded – 1,500 barrels at "Charlie", 300 barrels at "Bravo".

At this point, the loading officer in the ship will transfer the cargo to other tanks to avoid intermingling of the two types of crude, for now hot Agip is entering the ship's system, from the gut line. Loading continues at a slow rate until the contents of the gut line – 6,000 barrels at "Charlie", 3,600 at "Bravo" – have been pumped into the ship, after which the loading of the Agip, at normal rate, is through the annulus only. (The gut line is, at this point, filled with Zueitina oil, which will remain static throughout the loading of the Agip cargo).

With about 2,000 barrels of Agip cargo to go to completion, loading is stopped in order that the ship's loading officer may check his ullages and calculations. When, in "Bravo" there are 300 barrels to go, in "Charlie" 1,500 barrels, loading is again stopped briefly: this marks the completion ashore of Agip cargo being pumped into the circuit. Now the Zueitina oil in the gut line is pumped into the flexible hose strings, so that when the required quantity of Agip oil has been loaded into the vessels, the hose strings – from the headers to the terminal flanges, disconnected from the manifold – are filled with Zueitina crude oil, which will not solidify whilst the hoses lie dormant under the sea. Similarly, the Agip crude oil in the annulus of the sea line is pumped back into the tank ashore and replaced throughout the system by Zueitina crude.

The foregoing explanation pertains to vessels loading Agip cargo only, taking the minimum essential Zueitina oil solely as a line flush. If, however, a ship requires a part cargo of Zueitina crude, it will load that after completing the Agip cargo, except for that small quantity used as the line flush at the commencement.

A.G.I.P. "Buattifel" Crude, particulars:-
Average A.P.I. 41.0 at 60°F
Average Specific Gravity 0.806
Wax Content 37%
Pour point +95°
H_2S Nil
Flash Point 68°F (ABEL)
Average Loading Temperature on board 140°F to 150°F
Barrels per Long Ton 7.9 (approximate)

(N.B. The above data is for information only and does not constitute a guarantee of quality).

LPG LOADING BERTH: *Berth, Location and Nature:* The LPG loading berth is S.S.W. of the Small Craft Harbour, inside Tre Scogli Reef. It is designed for vessels of approximately 700 ft. in length, with a cargo capacity of 32,000 cu.m. The maximum permissible loaded draft (1977) is 28 ft.

The channel through the reef, between Trinity Buoy (painted yellow, quick flash green, Lat. 30° 53′ 30″ N., Long. 20° 02′ 48″ E.) and Wafeya Beacon – Scoglio Sud – (white skeleton tower, group flash, 6 every 10 seconds) runs in a 315° (T) – 135° (T) direction: it is marked by two leading marks, the front one in position Lat. 30° 53′ 16″ N., Long. 20° 03′ 42″ E., and the rear one 750 m. (2,460 ft.), 135° (T), from this position. Both marks are black steel pylons with black and red oblong grid topmarks: the front one shows at night an amber light flashing every 1.5 seconds, whilst the rear one shows an amber occulting light, the period of light being six seconds every ten seconds. A small white spar buoy, showing at night a quick flashing red light, marks the turning position for ships approaching or leaving the berth.

The loading platform is of structural steel, supported on concrete piles, and faced with heavy rubber fenders. Ships are berthed alongside four breasting dolphins (two of which are incorporated into the loading platform), with other mooring dolphins ahead and astern and on the inside bow and inside quarter. Ships approaching the berth swing round on the port anchor and about six shackles of chain – when moored, the chain is hove tight.

Only one loading line is used, with a connecting flange of 6 in. ASA 1,300 lbs. It is hove on board the ship with the ship's derrick or crane, or radial davit. A 12 in. Chicksan available for large vessels. Vapour line to "flare" only provided.

Such is the location of the berth – fully exposed to winds from most directions but sometimes protected partially by the reef from the worst effects of the swell – that on occasions LPG tankers cannot be berthed although the crude oil berths in the harbour are operational. And vice versa. Consequently, with regard to Port Closure Time, the LPG berth is regarded as a separate entity from the main harbour.

Arrival: On first contacting Zueitina Marine by VHF (Channel 13 or 16), the Master of an LPG tanker should, in addition to giving his ETA at the Terminal Light Float, inform Zueitina Marine of his last port, the intended port of discharge after leaving Zueitina, the quantity and grade of cargo required, the temperature at which he wishes the cargo to be loaded, the size of the ship's manifold connections, and whether or not he has aboard a Certificate of Discharge for the cargo loaded in Zueitina.

If the vessel is to berth on arrival, the Mooring Master will board in the close vicinity of the Terminal Fairway Buoy. If the ship is instructed to anchor, the Master should do so in the recommended anchorage.

Pratique, Customs Formalities: If the ship has been obliged to anchor, Pratique and Customs formalities may be dealt with in the anchorage. Alternatively, they may be attended to on board after the ship has berthed.

For information regarding documents required on arrival, Customs and Immigration procedure see "Documents".

Loading: For a ship which needs tank purging and cooling prior to loading, the minimum rate will be approximately 100 b.p.h. Inert gas is not provided at Zueitina Terminal – the vessel must provide inert gas for purging after previous cargoes other than butane or propane. The ship will not be loaded until the air has been purged to a maximum oxygen content of 0.5%. When loading has commenced, the minimum rate permitted by the Libyan Secretariat of Petroleum is 1,500 b.p.h. The maximum rate available is between 6,000 and 7,000 b.p.h. For "topping off", the rate can, within these limits, be adjusted to the requirements of the loading officer. Arrangements can be made in advance for the LPG plant to stop loading when the desired quantity has been metered into the ship, or alternatively, the ship's loading officer can instruct the Terminal to stop loading when he sees that the correct amount has been received aboard.

Loading operations on board are the responsibility of the ship's personnel. The Master's attention is particularly drawn to the Terms of Acceptance as detailed in the "Tanker Loading Advice" letter which he has signed, and to the "Zueitina Marine Terminal, Fire and Safety Rules".

The loading platform – abreast of the ship's manifold and within easy hailing distance – is manned at all times during loading operations, and the ship *must* maintain a continuous verbal contact with the loading operative. In addition, VHF contact between ship and loading installations must be maintained on Channel 12. In the event of any emergency – fire, leakage, parting of moorings, etcetera – the operative on the platform can stop the loading by remote control.

Unberthing in Bad Weather: Should deteriorating weather conditions necessitate the vessel leaving the berth quickly, a Mooring Master will be speedily available at all hours.

Cargo Particulars: The following data will, we believe, be of interest to Masters and Mates and operators of vessels loading LPG products:-

Propane

Average A.P.I. 146
Average Specific Gravity 0.510 60/60°F
Reid Vapour Pressure 175 p.s.i.g.
Free Water Nil
Copper Strip Corrosion 1a
Flash Point less than 0°F
Average Loading Temperature −40°F (−40°C)
Barrels per Metric Ton at 60°F 12.3 (approx).

Butane

Average A.P.I. 114.2
Average Specific Gravity 0.576 60/60°F
Reid Vapour Pressure 48 p.s.i.g
Free Water Nil
Copper Strip Corrosion 1a
Flash Point less than 0°F
Loading Temperature at Ship's Request, within Ranges +18°F (−8°C) to +35°F (+2°C)
Barrels per metric ton at 60°F 10.8 (approx.)

(N.B. The foregoing data is intended for information only, and does not constitute a guarantee of quality.)

Departure: Immediately after completion of loading, the manifold connections are unbolted and the loading arms retracted. Shortly afterwards the Mooring Master will board and, with the assistance of adequate mooring boats, unberth the ship and pilot it through the reef to a safe anchorage in the outer harbour before disembarking.

When the documents pertaining to the ship's loading have been completed ashore, a clerk will take them out to the ship. (On occasions he will be accompanied by a Customs Official, boarding the ship to ensure that the seals which were put on bonded storerooms on arrival have not been tampered with before the ship has left Libyan territorial water.) It is customary for Zueitina Marine to inform the ship's Master when the documents clerk leaves the Small Craft Harbour, so that the anchor may be hove up and a lee side presented to the launch.

After the documentation formalities have been completed on board, the Master is required to pass by VHF to Zueitina Marine the official sailing time of his ship.

MEDICAL: Medical facilities are limited to emergency cases only. Under certain circumstances, however, the Terminal medical practitioner will give advice to Masters by VHF in cases where Crew members appear to be suffering from undiagnosed ailments. If it is essential for a sick person to be landed, the ship's Agent must first obtain the approval of the Government authorities.

The sick person when coming ashore must be accompanied by an officer or other responsible person able to speak English, and both the patient and the person accompanying him must be in possession of passports. (Not seamen's discharge books, which are not recognised in Libya).

FRESH WATER: No fresh water available.

FUEL: No bunkers available.

REPAIRS: There are no engineering repair shops.

SURVEYORS: Various companies of cargo inspectors perform duties at Zueitina, but must be arranged prior to vessel's arrival through U.K. or Paris headquarters. No Classification Societies at Zueitina.

REPATRIATION: Only in an emergency can any crew member be paid off. Seamen's discharge books are not recognised in Libya. Crew members are advised to have a valid passport in their possession in case of emergency.

CUSTOMS ALLOWANCES: Each member of the crew is allowed 25 cigarettes, or 25 grammes of tobacco, one litre of beer, or half a litre of wine, for every day of the ship's stay in port. Other tobacco and cigarettes, wines, beers and spirits, as well as matches, arms and ammunition, and saccharine, will be retained under seal whilst the ship is in Libyan waters.

CONSULS: None locally. See "Tripoli".

BALLAST: Because of the exposed position of the sea berths, it is essential that vessels arrive with sufficient ballast for safe handling, having due regard to existing weather and sea conditions. Experience has shown that a fair estimate of the amount required is one third of the summer deadweight. A tanker found by the Mooring Master to be insufficiently ballasted will be rejected. However, it is imperative for the safety of the ship and of the installation that deballasting should be as speedy as possible, to reduce the period wherein the ship is most vulnerable to any sudden deterioration in the weather. It is, indeed, to the advantage of everyone concerned if the ship is able to commence loading as soon as the hoses are connected, deballasting simultaneous with the loading of the cargo. In cases when it is essential to complete the deballasting before loading can start, and deballasting time in excess of 6 hours will be deducted from the lay time.

As there are at Zueitina no facilities for discharging it ashore, vessels must arrive at the Terminal with clean ballast: all lines, pumps, and strainers must have been flushed out prior to arrival within 100 miles of the Libyan coastline.

The Mooring Master will inspect ship's ballast on boarding, and he has the power to reject any vessel that he deems would cause pollution in the Terminal waters. A vessel so rejected must proceed to a position over 100 miles from the coast, re-ballast, and return only when the ballast is completely clean. A new notice of readiness must then be tended, and the loading turn will be counted as from this second arrival.

The sea area round the ship shall be adequately lighted, as frequent inspection by the Mooring Master will be made during ballast discharge. Any pollution whatever, including bilge discharge, will be cause for rejection. Similarly, any hull leaks causing pollution during loading will be cause for rejection – a vessel rejected on these grounds will not be re-accepted until satisfactory evidence of repairs has been certified by a qualified surveyor.

On completion of deballasting, all unused cargo connections must be blanked off, sea valves closed and lashed, deck scuppers securely plugged, and drip pans placed below the cargo hose connections. All the requirements listed on the Company's Safety and Fire Precautions Check Form must be seen to be complied with before loading is commenced.

In the event that the Company has to settle any third party claims as a result of damage to property caused by pollution attributable in any way to a vessel, the Company will have the right to reimbursement by those responsible for the vessel for all expenses incurred.

WEATHER: Weather conditions in Zueitina are generally clement. The temperature during the Winter seldom falls below 10°C (50°F), and in the Summer, even at midday, is rarely in excess of 35°C (95°F). The prevailing winds are Northwesterly. During the mid-Summer months, the land- and sea-breezes phenomenon is very apparent: a Northwesterly wind springs up at about 1100 hrs. sometimes to reach near-gale force by late afternoon, then gradually dying away during the evening. At about 2300 hrs. the wind begins to blow off the land – again sometimes to a fresh breeze or near-gale – before falling away completely around dawn.

During the Spring and Autumn, and in the early Winter months, there are frequent prolonged periods of calm, tranquil weather. However, in Spring especially, and again in the Autumn, such periods may be interrupted by the onset of the "gibli", an off-shore wind which, like the "khamsin" wind in Egypt, springs up with little warning to reach gale intensity, laden with sand and dust to such an extent that visibility is reduced to a few yards.

In the Winter months, prolonged periods of strong Northwesterly gales, with very heavy seas and high swells, accompanied by frequent rain squalls, are experienced. Even after the strong winds have subsided, long, high swells may continue for several hours to prevent mooring operations. Such Northwesterly gales are usually accompanied by a sharply rising barometer, and follow the passing of a cold front, with winds from the West.

Rainfall is confined to the Winter months only. Fog is rare, though it does occasionally occur in the Spring and Summer around dawn, generally dissipating after two or three hours.

GENERAL: Vessels are advised not to have on board any articles whatsoever of Israeli origin. If anything of such a nature is found it will be confiscated and the ship be liable to a fine and possibly to a delay for further investigation.

Goods – and, in particular, alcohol and tobacco – must not be taken from ship to shore, or from ship to ship.

Being an open roadstead, vessels must keep engines in a state of immediate readiness. No repairs to main engine may be undertaken in berth. Steam or electric power must be available on deck in case adjustments to anchor cables or mooring lines are found necessary. Power must be available on ship's whistles and sirens. Ship's boats must not be lowered into the sea and detached from the falls. Swimming is prohibited. The Mooring Master (and, when applicable, his assistant(s)) assigned to a tanker, will remain on board until after the vessel has loaded, unmoored, has completed documentation formalities and has cleared the Company's installations and is safely heading for she open sea. During the time he is aboard he is to be provided with accommodation suitable for one of Master Mariner status, and with palatable meals.

SHORE LEAVE: No shore leave is permitted.

SHIPMASTER'S REPORT: March 1988.

Chart: B.A. Chart No. 3346.

Documents:

8 copies Crew List.
2 copies Crew Declaration.
2 copies Ship's Manifest.
1 copy Health Declaration.
2 copies Currency List.
All Passports.
1 copy Arms and Ammunition List.
1 copy Drugs List.

No alcohol allowed in cabins, all must be place in bond and manifested. "Magazines" and "calendars" must be placed under seal.

Money in the ship's safe is to be manifested. If vessel staying in Libyan coastal waters the bond remains sealed. Customs may issue a limited amount of beer but for ship use only.

Stores must be checked to make sure that there is no produce from South Africa or Israel.

The Crew Declaration and the Crew Money List must be on Libyan forms, unless first Libyan port of call.

Approach: The harbour area was observed on radar at 24 miles and Zuetina Light was observed at 15 miles. The Light Float light is weak. Zuetina D/F was operational. Taking of soundings on approach can be of assistance.

Bengazi Radio should be contacted on 2182 kHz. when inward bound. The Station was difficult to raise but the operators were polite and spoke good English. They require vessel's destination, ETA, position, course and speed.

Zuetina Terminal Telex No. 90120130 ZUELY.

Anchorage: LPG ships anchor in the anchorage indicated on BA. Chart No. 3346. If the vessel is familiar with the Port she may anchor 0.75 miles N.W. of Scoglio Sud Reef Lighthouse.

Pilot: The Pilot/Mooring Master boards at the anchorage from a mooring launch and on departure leaves at the same position. Zuetina Marine is on VHF Channel 13. Pilots stay on board whilst the vessel is at the Offshore Mooring but does not normally stay on vessels at the LPG Berth unless the weather is poor.

Entry: Between Scoglio Sud Reef Light and Q.Fl.R. Buoy in position 30° 53.55′ N., 20° 03.40′ E. less water reported. Approach and departure to the LPG Berth is made to the South and West of the Q.R. Buoy between the buoy and Trinity Shoal. Minimum depth from the Light Float to the berth was found to be 39 ft.

Tugs: One large tug/mooring vessel of 4,500 h.p. used at the Offshore Moorings. 3 mooring launches of 350 h.p. used at the LPG berth, these launches also used at the Offshore Moorings. A total of 4 launches are available and a 5th launch is under repair.

Berth: Vessels berth starboard side to. The berth is very exposed and often closed in Winter.

Berthing and unberthing possible at night time if the weather is calm, however, night berthing and unberthing not carried out if the tanks are full.

The Radar Station at Zuetina is in the same position as Zuetina Light.

The berth flat fender face is 25 m. in length with one breasting dolphin at each end. Small vessels tend to lie on the berth flat face. The berth is aligned 104° – 284°.

There is a Q.Fl.R. Light on the N.W. breasting dolphin.

Vessels leave the berth as soon as hoses are disconnected and complete paperwork at the anchorage.

Moorings: Moorings consist of 2 head/stern lines, 2 breast lines and 2 springs at each end. The head and stern lines are sent to buoys and the breast lines to the mooring dolphins. Springs are sent to bollards on the berth.

The port anchor was let go to approximately 3 shackles when approaching the berth. The mooring launches push the vessel into the berth and hold her there until all fast.

Cargo: The Chicksan arms have been taken down and only rubber hoses are used. Liquid hose is 6 in. 300 ASA. A vapour return line is available but metered and charged. It was not used.

There is a hydraulic crane on the berth for hose handling. A ship's derrick/crane is also required and ship's crew are required to make connection.

If vessel is handling butane and propane, butane is handled first. There is about 4.5 hours' wait between products whilst the line is cleared. Normal minimum rate is about 55 t.p.h. but can go slower for short periods while cooling. The normal maximum for hose loading is 200 t.p.h. Butane chilled to about −5°C. Beware of pressure reduction on loading chilled butane.

No surveyor or terminal representative was in attendance for figures at the start or finish.

There is a terminal representative in a hut on the berth during loading with a walkie-talkie on Channel 12. Channel 12 also connects with the LPG Control Room and can be contacted if there are any queries. The Bill of Lading is on the shore figures and this compares favourably with the ships's figures.

Propane can be loaded first by prior arreangement, however, the Terminal is not keen on doing this as the line is normally left under butane.

Average Specific Gravity of butane 0.567 and propane 0.508.

Facilities: Emergency medical attention is available at the Terminal Clinic. Agent advises that there are a few fresh stores available.

Customs: Beer is sometimes allowed out of bond if the vessel is proceeding outside Libya, but alcohol will not be issued if vessel is on the coastal trade. A cigarette issue is allowed.

If vessel is on the coastal trade, make sure the "Customs Rider" is correct on departure.

Papers: All departure documentation completed at anchorage after loading. The agent attends but no representative of the terminal. Completion of documentation can take up to 3 hours. The Libyan Discharge Certificate is very important and must be properly signed at the port of discharge even if on Libyan coastal trade.

General: The oil company has flights twice a week from Tripoli. Terminal personnel often arrive and leave via Benghazi which is 2 hours by road and take Air Malta flight to Valletta for onward connections.

AUTHORITY: Zueitina Marine Terminal, Zueitina Oil Co., P.O.Box 2134, Tripoli, S.P.L.A.J. *Tel:* Tripoli 38011 (ext. 116-119 Zueitina). *Telex:* 20289, 20130 Zue Ly. *FAX:* 39109. *Contact:* Captain J. Folkestad, Marine Superintendent. M. Oun, Operations Manager.

AGENCY: All ships must have an approved Agent to look after their interests. As from 1st June, 1978, all shipping agencies in the Socialist People's Libyan Arab Jamaharaya have been superseded by one nationalised company, known as The Shahat Shipping Agency.

See "General" before first port.

Cables of estimated time of arrival sent to the Agent should be in addition to, and not in place of, those sent to Oxyport, Oxylibya, Tripolilibya. Total charges are 750 Libyan dinars for the first 30,000 tons summer deadweight, or part thereof, plus 2 dinars 500 Dirhams for every 100 tons or part thereof in excess of 30,000 tons, plus 2% of the total sum in revenue stamps.

NOTES

Please also advise Shipping Guides Ltd.

1088
16
1104

34 + 32 = 1088
1 × 16
16
1104

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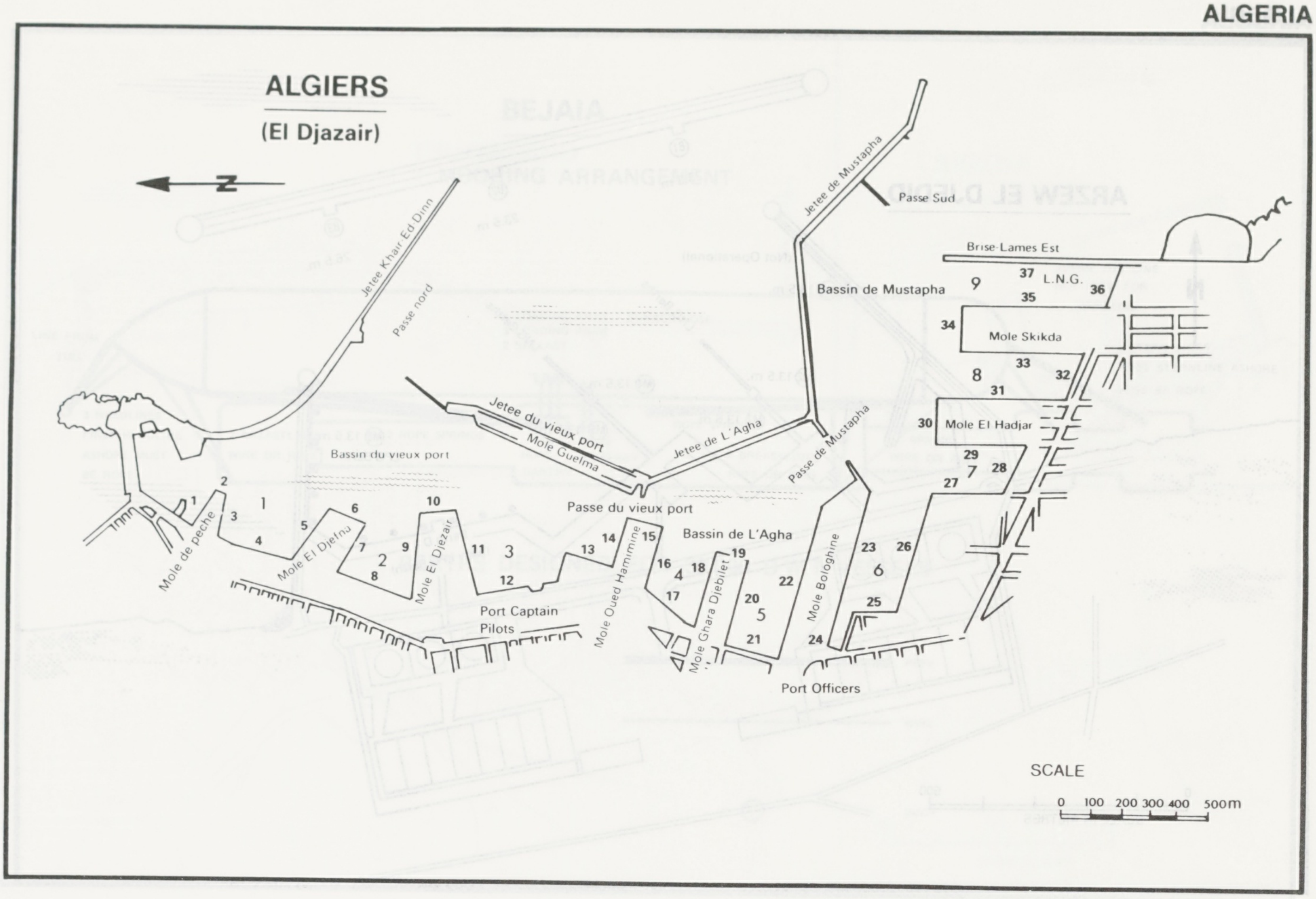
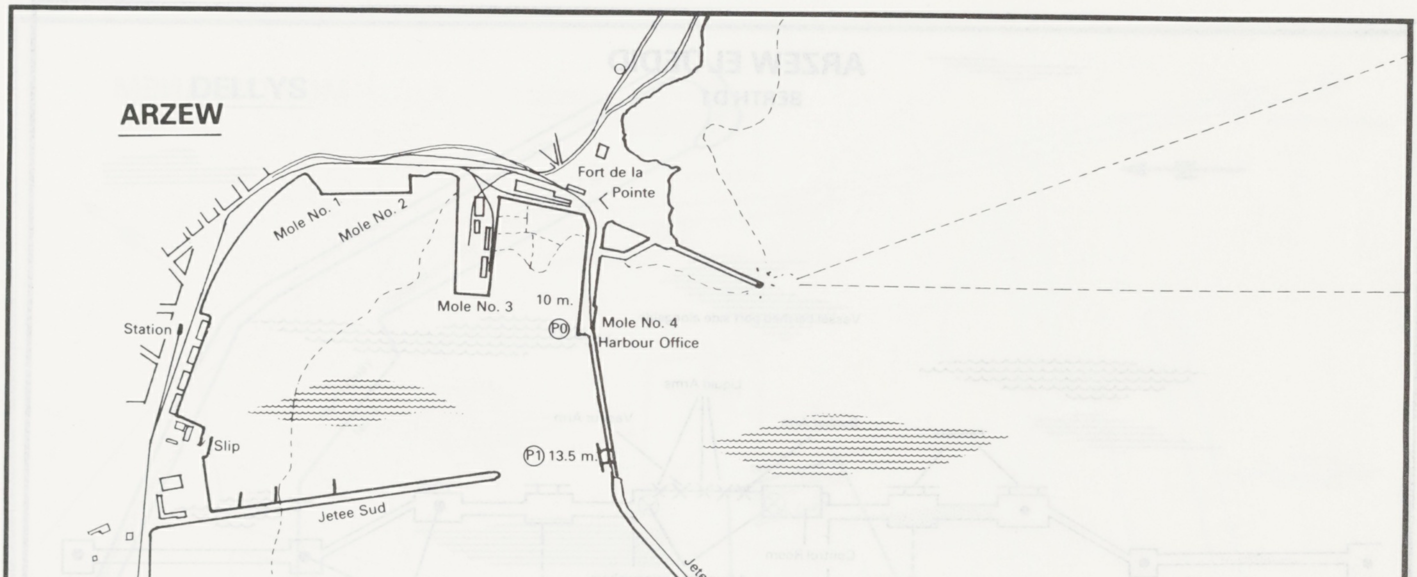
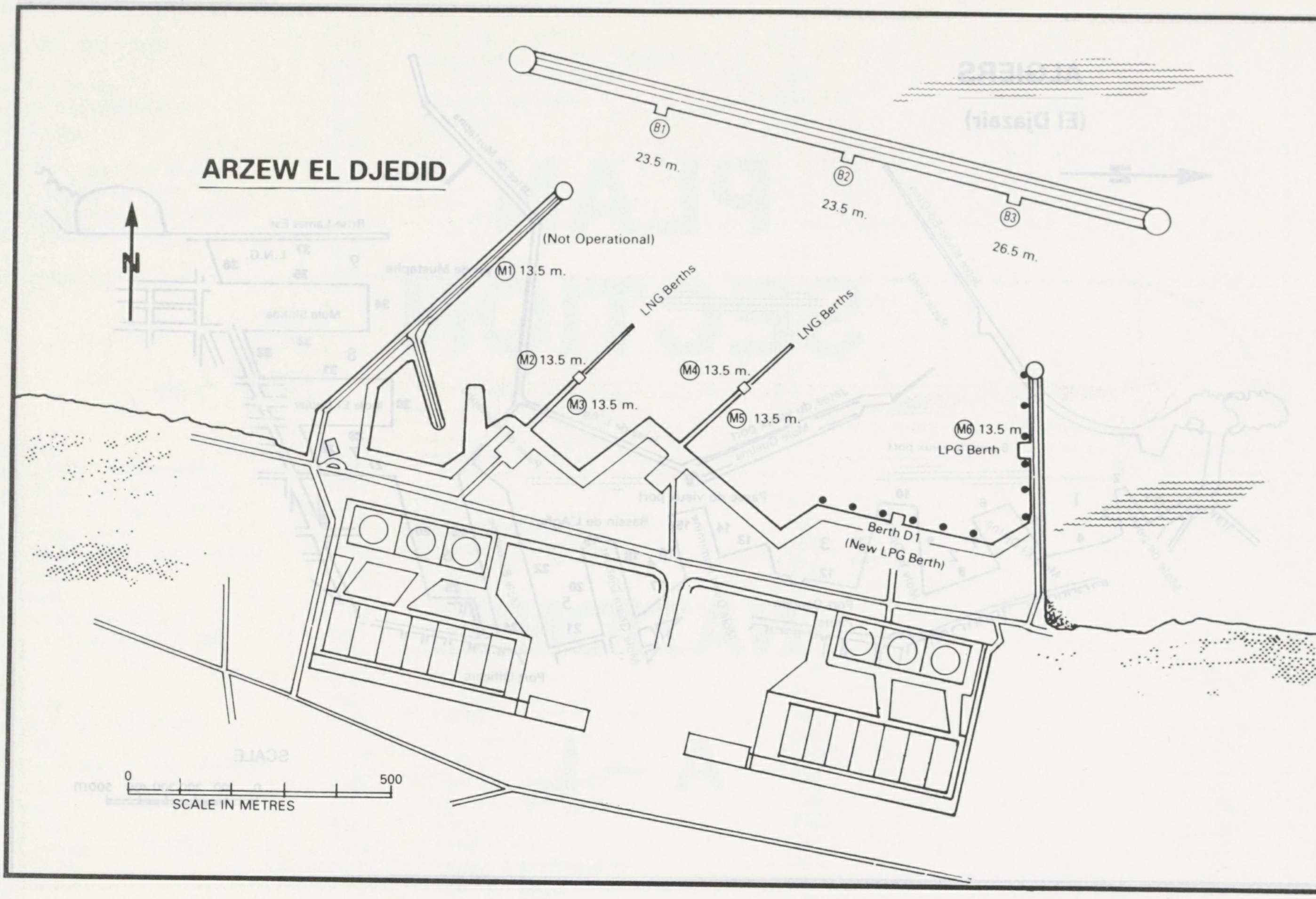
PLAN SECTION

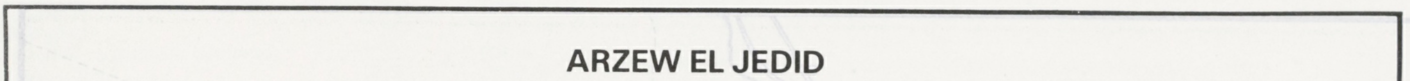
NATIONS

A – L

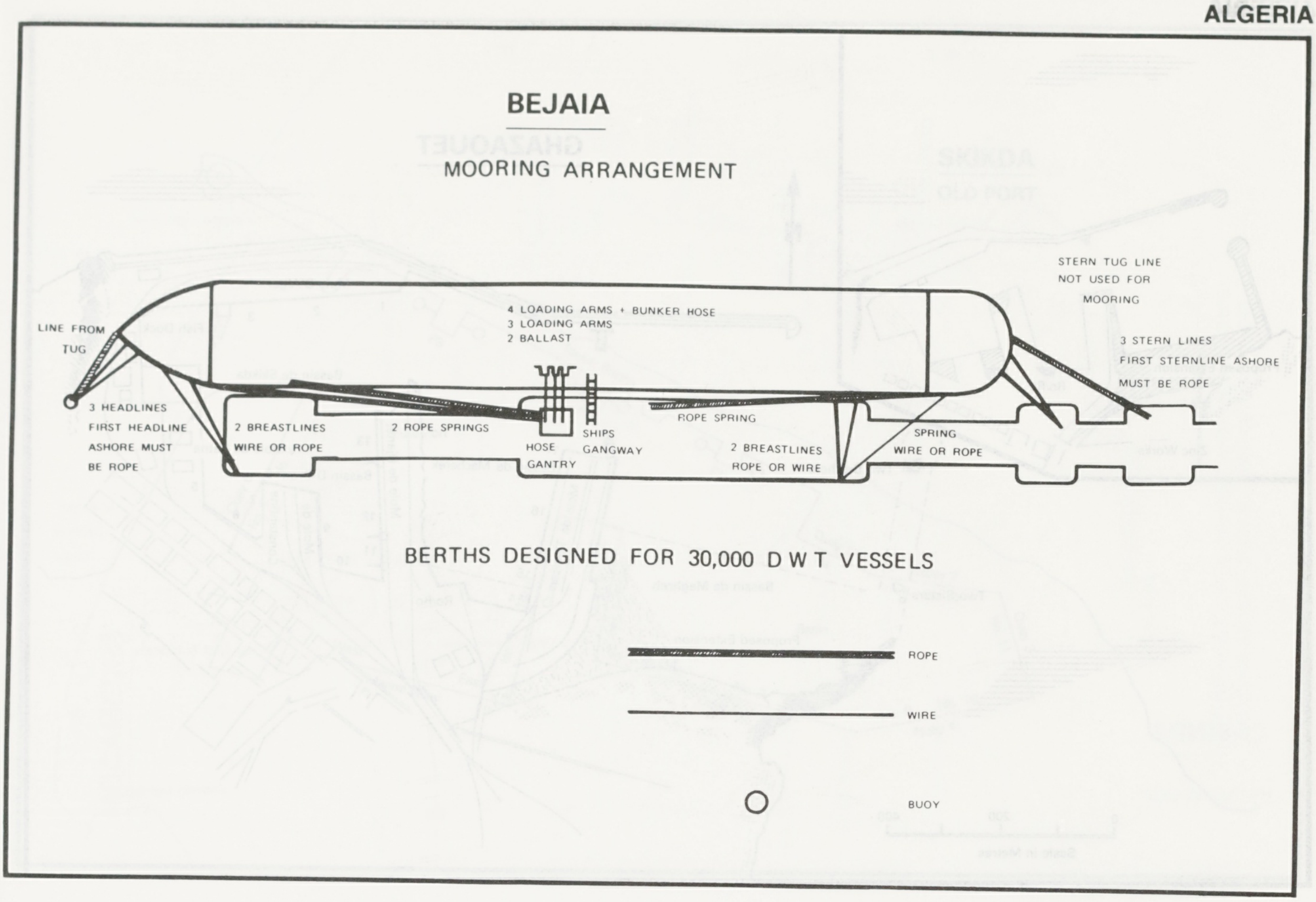

ALGIERS
(El Djazair)
N
Jetee Khair Ed Dinn
Passe nord
Jetee de Mustapha
Passe Sud
Brise-Lames Est
37
L.N.G.
Bassin de Mustapha
9
35
36
34
Mole Skikda
33
32
8
31
30
Mole El Hadjar
29
7
28
27
Passe de Mustapha
Jetee de L'Agha
Jetee du vieux port
Mole Guelma
Bassin du vieux port
Passe du vieux port
Bassin de L'Agha
1
2
1
3
4
5
6
Mole de peche
Mole El Djefna
7
2
8
9
10
Mole El Djezair
11
3
12
13
14
15
Mole Oued Hamimine
16
4
17
18
19
Mole Ghara Djebilet
20
5
21
22
Mole Bologhine
23
6
24
25
26
Port Captain
Pilots
Port Officers
SCALE
0 100 200 300 400 500m

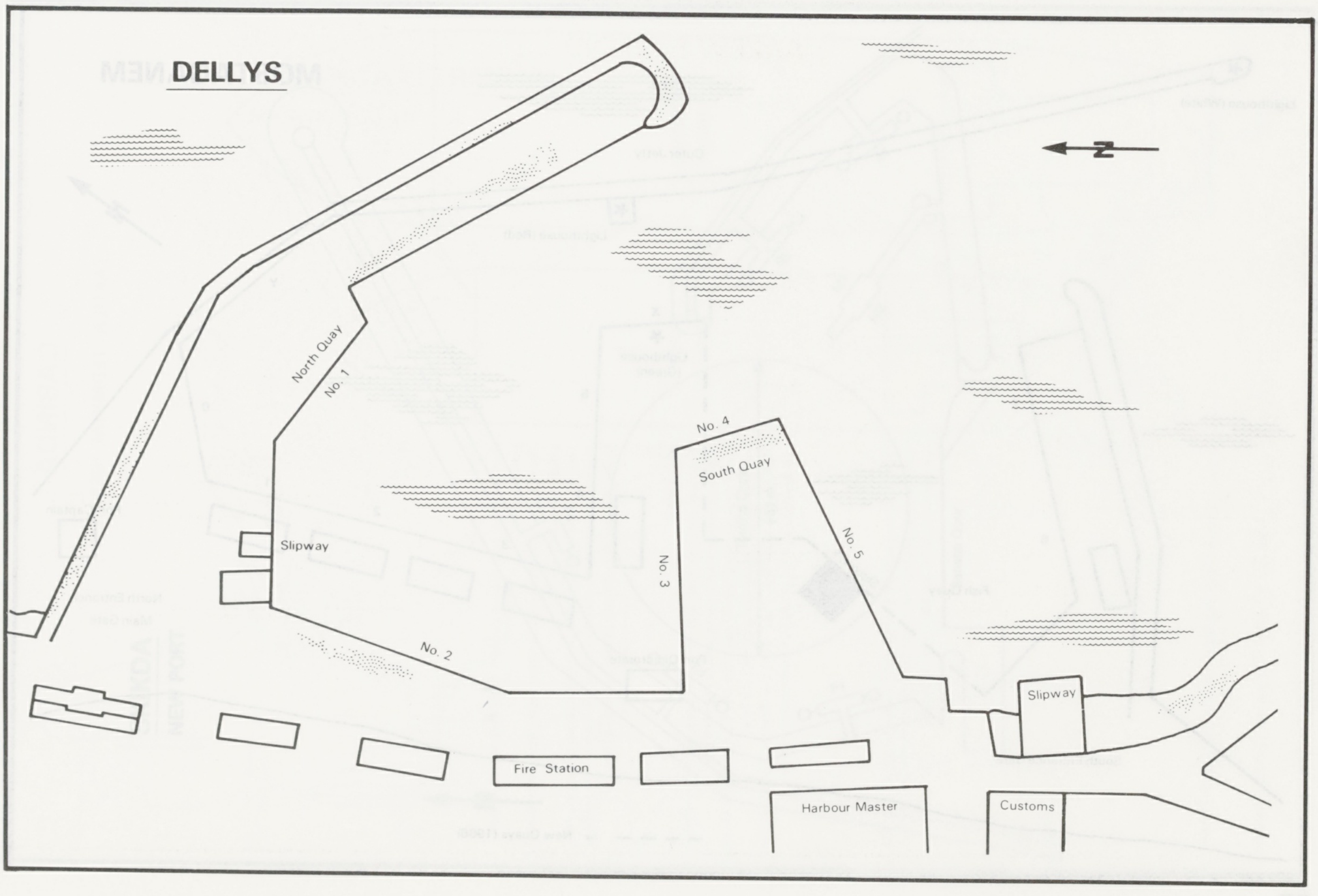

ARZEW
Fort de la Pointe
Mole No. 1
Mole No. 2
Mole No. 3
10 m.
P0
Mole No. 4
Harbour Office
Station
Slip
P1 13.5 m.
Jetee Sud
Jetee Large
Methane Port
P2
15.5 m.
North Berth 9.8 m.
South Berth 9.8 m.
Dns.
S2 11 m.
S1 10 m.
Jetee Secondaire
F.G.
N
0
500 m.
Methane
Liquifying Plant

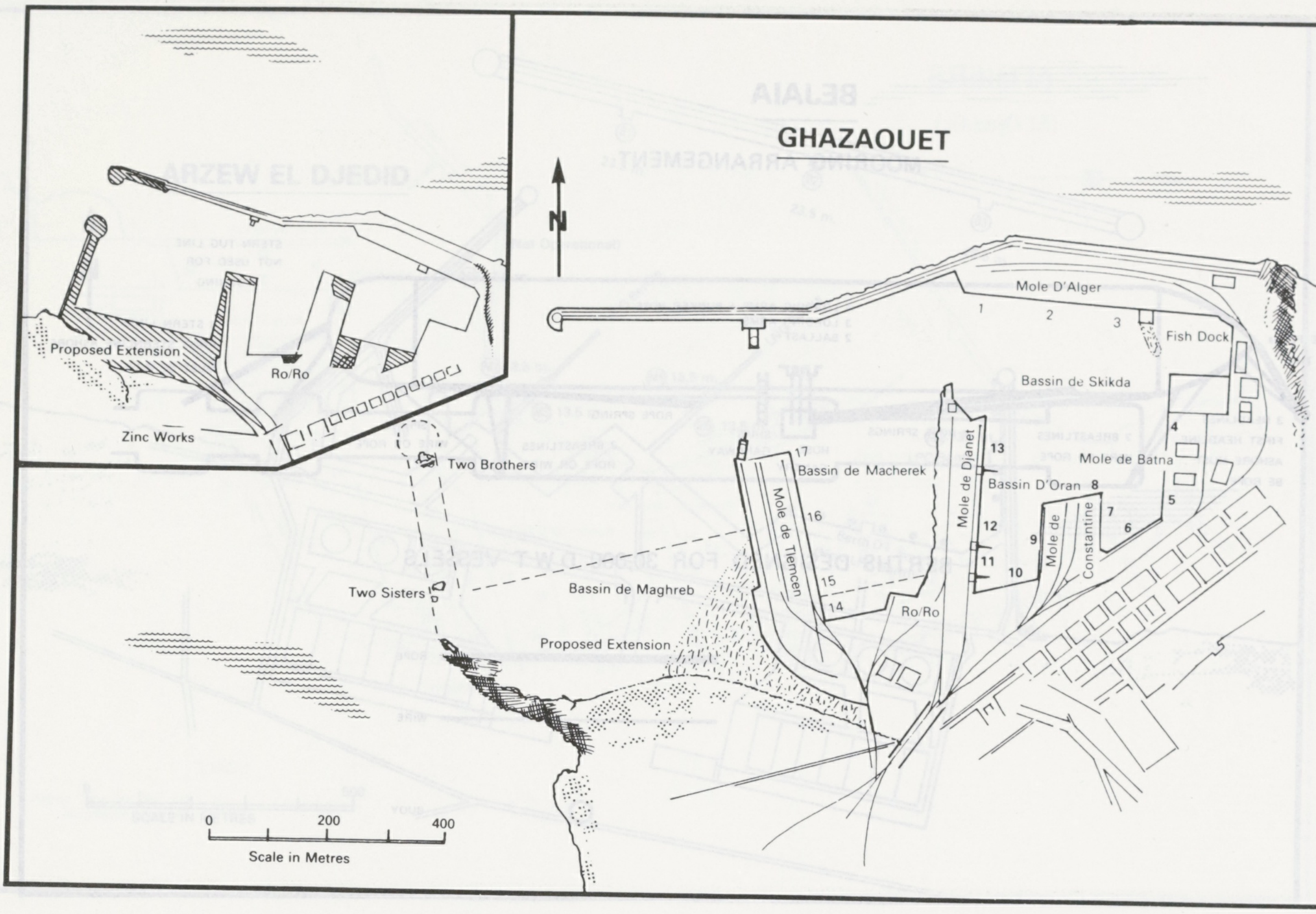

ARZEW EL DJEDID
N
(Not Operational)
M1 13.5 m.
B1
23.5 m.
B2
23.5 m.
B3
26.5 m.
LNG Berths
M2 13.5 m.
M3 13.5 m.
LNG Berths
M4 13.5 m.
M5 13.5 m.
M6 13.5 m.
LPG Berth
Berth D1
(New LPG Berth)
0
500
SCALE IN METRES

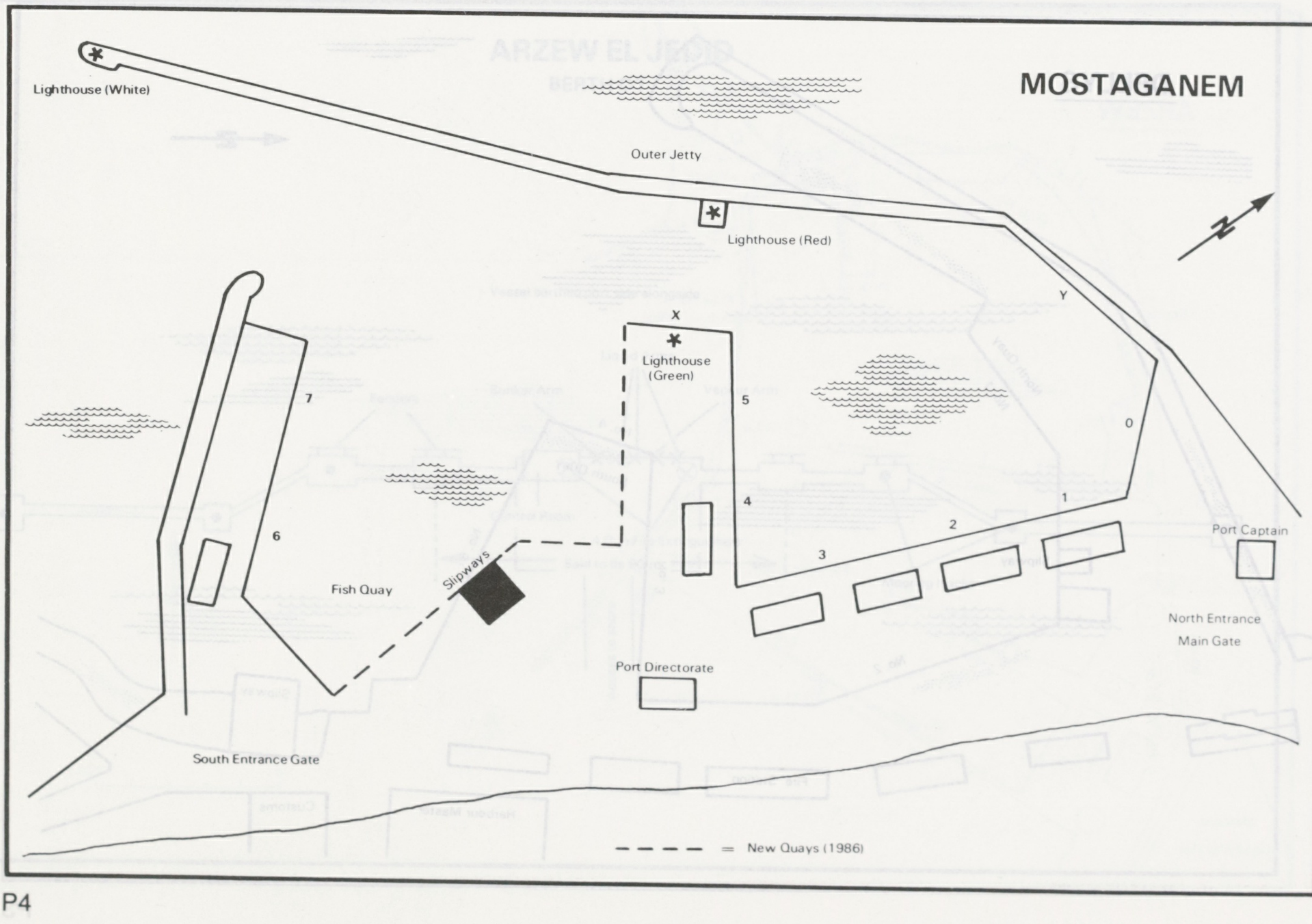

ARZEW EL JEDID
BERTH D1
Vessel berthed port side alongside
Liquid Arms
Fenders
Bunker Arm
Vapour Arm
Control Room
4 Gun Fire Extinguishers
Said to be 90 m.
Mooring Hooks
Access to shore

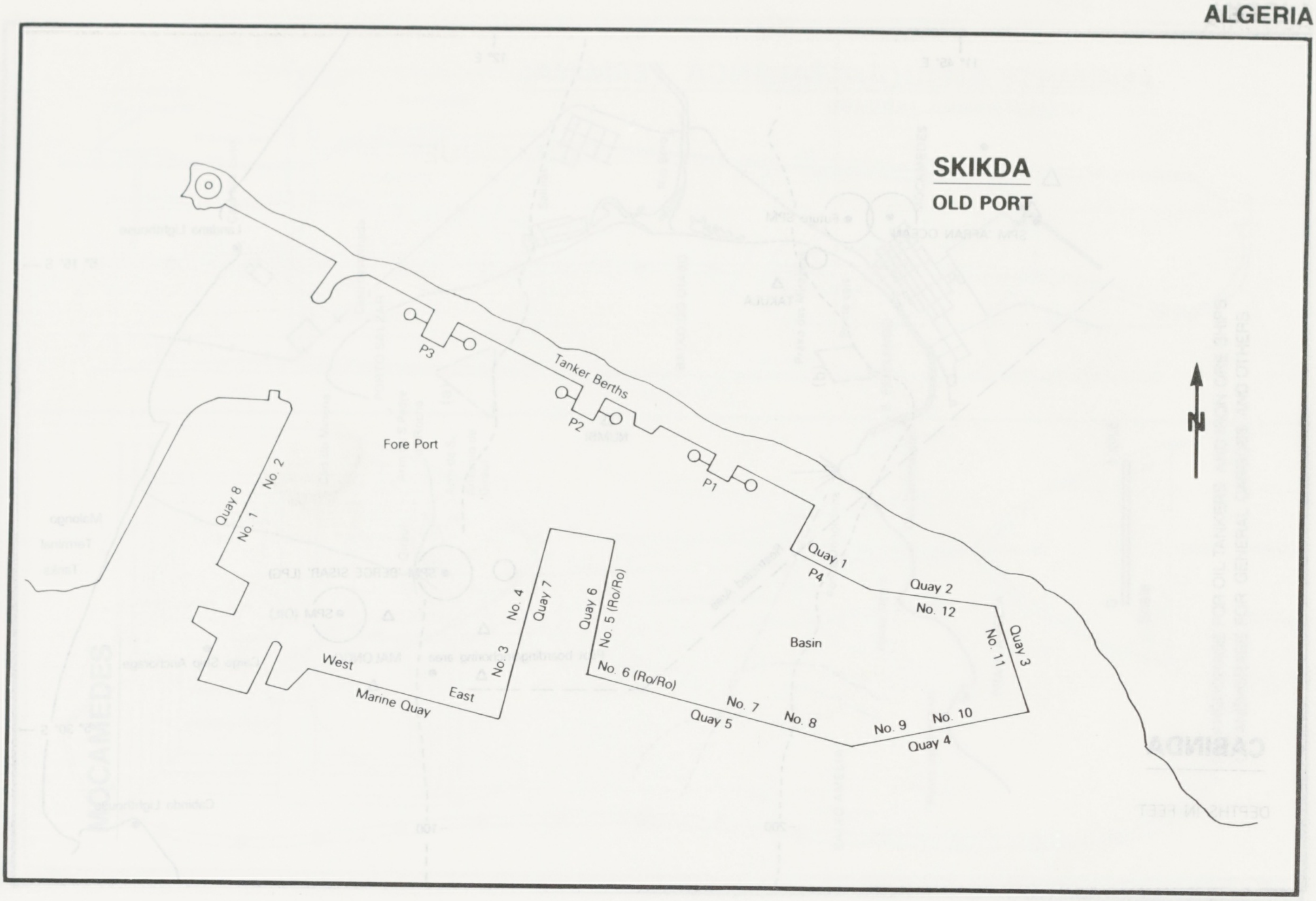
"Plan supplied by Ship's Master"

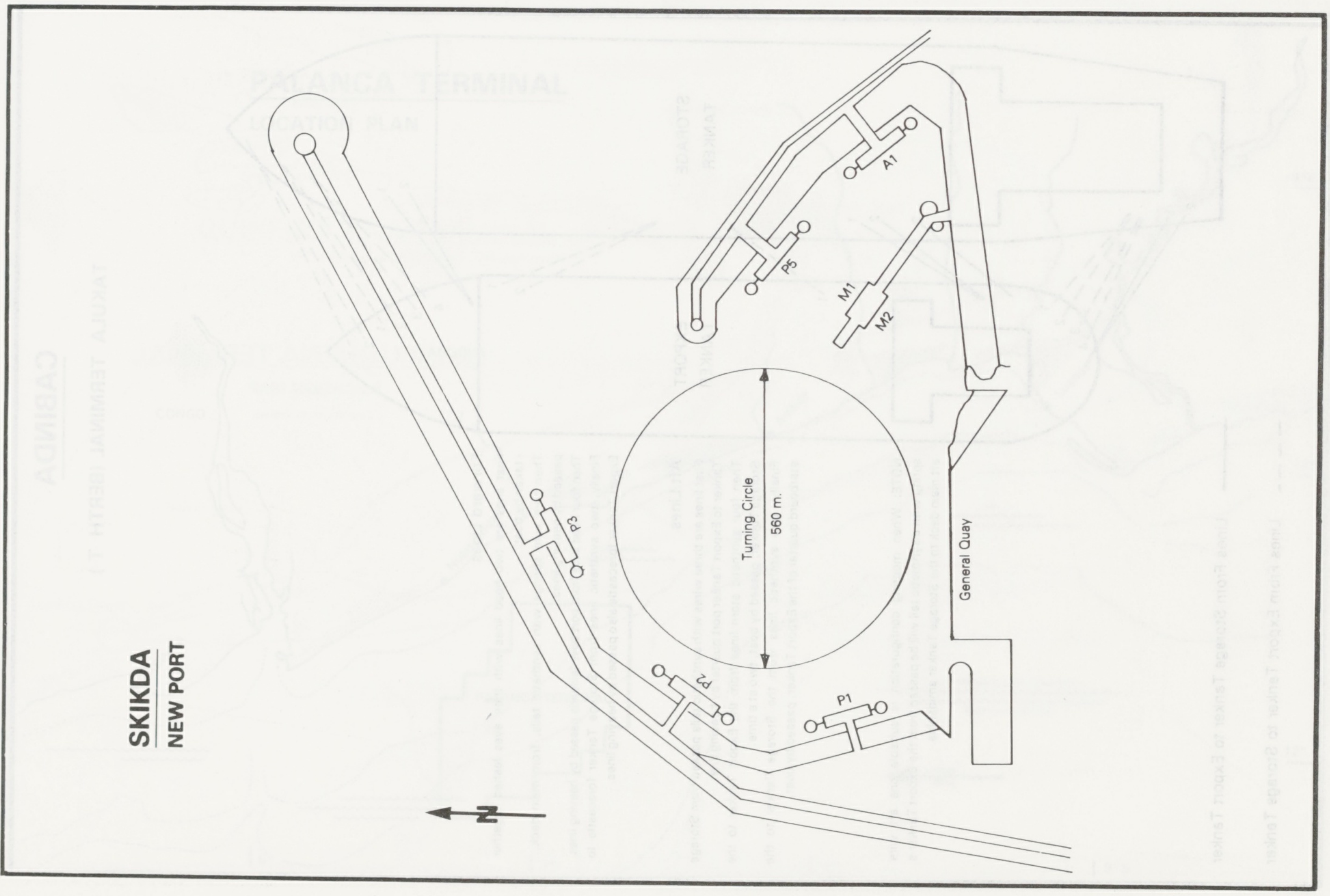

BEJAIA
MOORING ARRANGEMENT
LINE FROM TUG
3 HEADLINES FIRST HEADLINE ASHORE MUST BE ROPE
2 BREASTLINES WIRE OR ROPE
2 ROPE SPRINGS
4 LOADING ARMS + BUNKER HOSE
3 LOADING ARMS
2 BALLAST
HOSE GANTRY
SHIPS GANGWAY
ROPE SPRING
2 BREASTLINES ROPE OR WIRE
SPRING WIRE OR ROPE
STERN TUG LINE NOT USED FOR MOORING
3 STERN LINES FIRST STERNLINE ASHORE MUST BE ROPE
BERTHS DESIGNED FOR 30,000 D W T VESSELS
ROPE
WIRE
BUOY


DELLYS
N
North Quay
No. 1
No. 2
No. 3
No. 4
South Quay
No. 5
Slipway
Slipway
Fire Station
Harbour Master
Customs

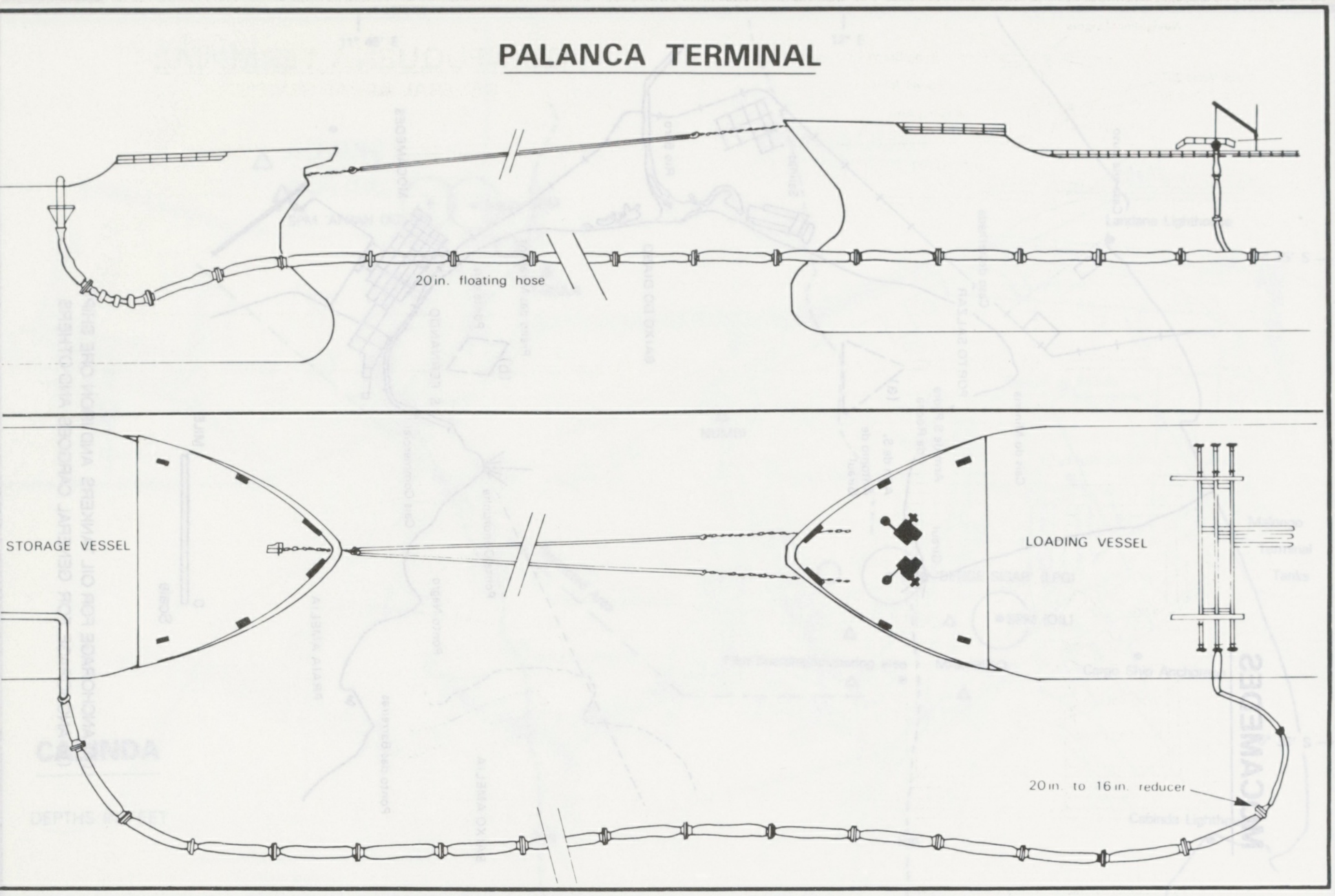

GHAZAOUET
N
Proposed Extension
Ro/Ro
Zinc Works
Two Brothers
Two Sisters
Bassin de Maghreb
Proposed Extension
Mole de Tlemcen
Bassin de Macherek
17
16
15
14
Ro/Ro
Mole de Djanet
13
12
11
10
Bassin D'Oran
8
9
Mole de Constantine
7
6
5
4
Mole de Batna
Bassin de Skikda
Fish Dock
Mole D'Alger
1
2
3
0
200
400
Scale in Metres


MOSTAGANEM
Lighthouse (White)
Outer Jetty
Lighthouse (Red)
N
Y
X
Lighthouse (Green)
7
6
5
4
3
2
1
0
Fish Quay
Slipways
Port Directorate
South Entrance Gate
Port Captain
North Entrance
Main Gate
= New Quays (1986)


SKIKDA
OLD PORT
N
P3
Tanker Berths
P2
P1
Fore Port
Quay 8
No. 2
No. 1
Quay 1
P4
Quay 2
No. 12
Quay 3
No. 11
Basin
No. 4
Quay 7
No. 3
Quay 6
No. 5 (Ro/Ro)
No. 6 (Ro/Ro)
No. 7
No. 8
Quay 5
No. 9
No. 10
Quay 4
West
East
Marine Quay


SKIKDA
NEW PORT
A1
P5
M1
M2
Turning Circle
560 m.
General Quay
P3
P2
P1
N

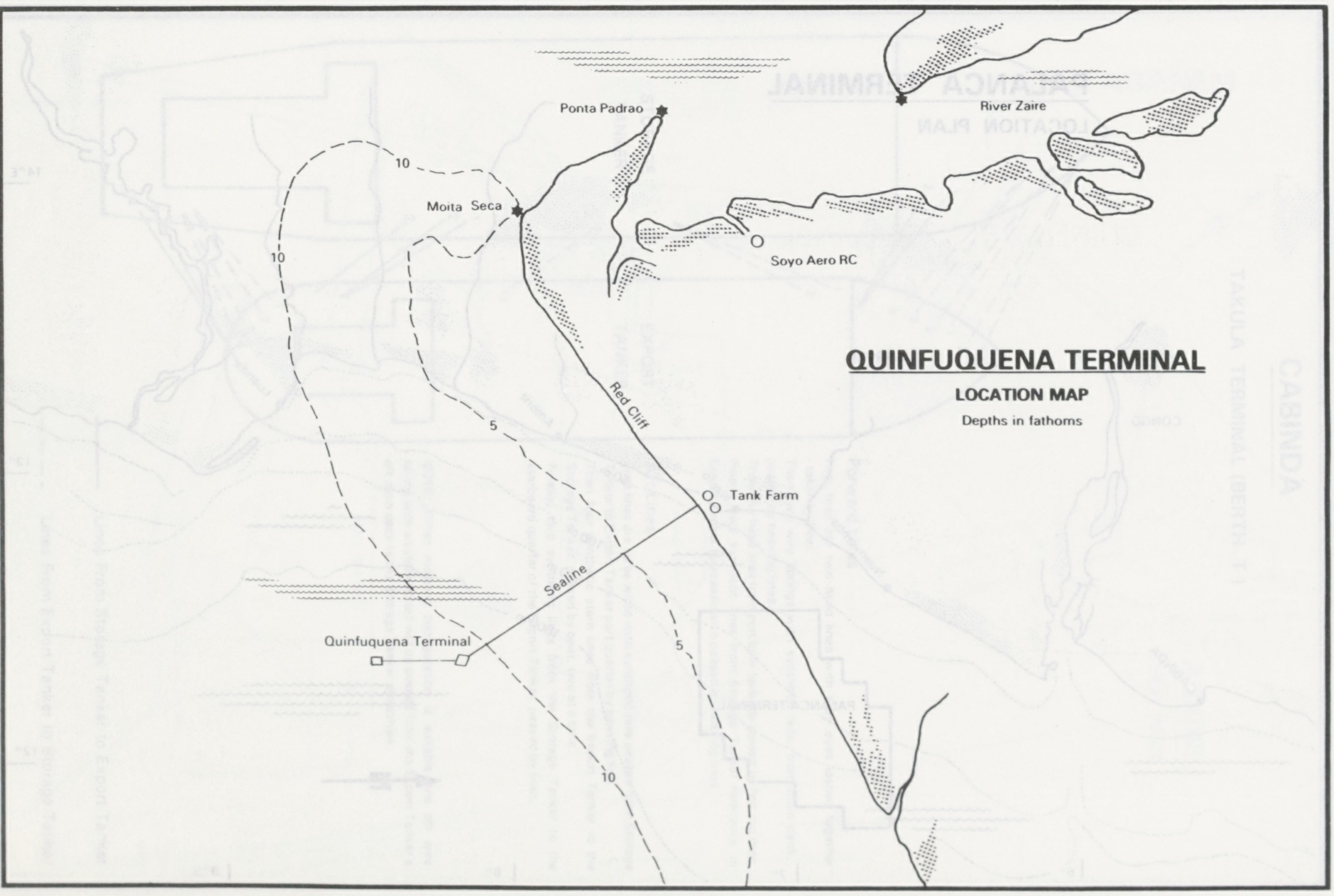
PALANCA TERMINAL

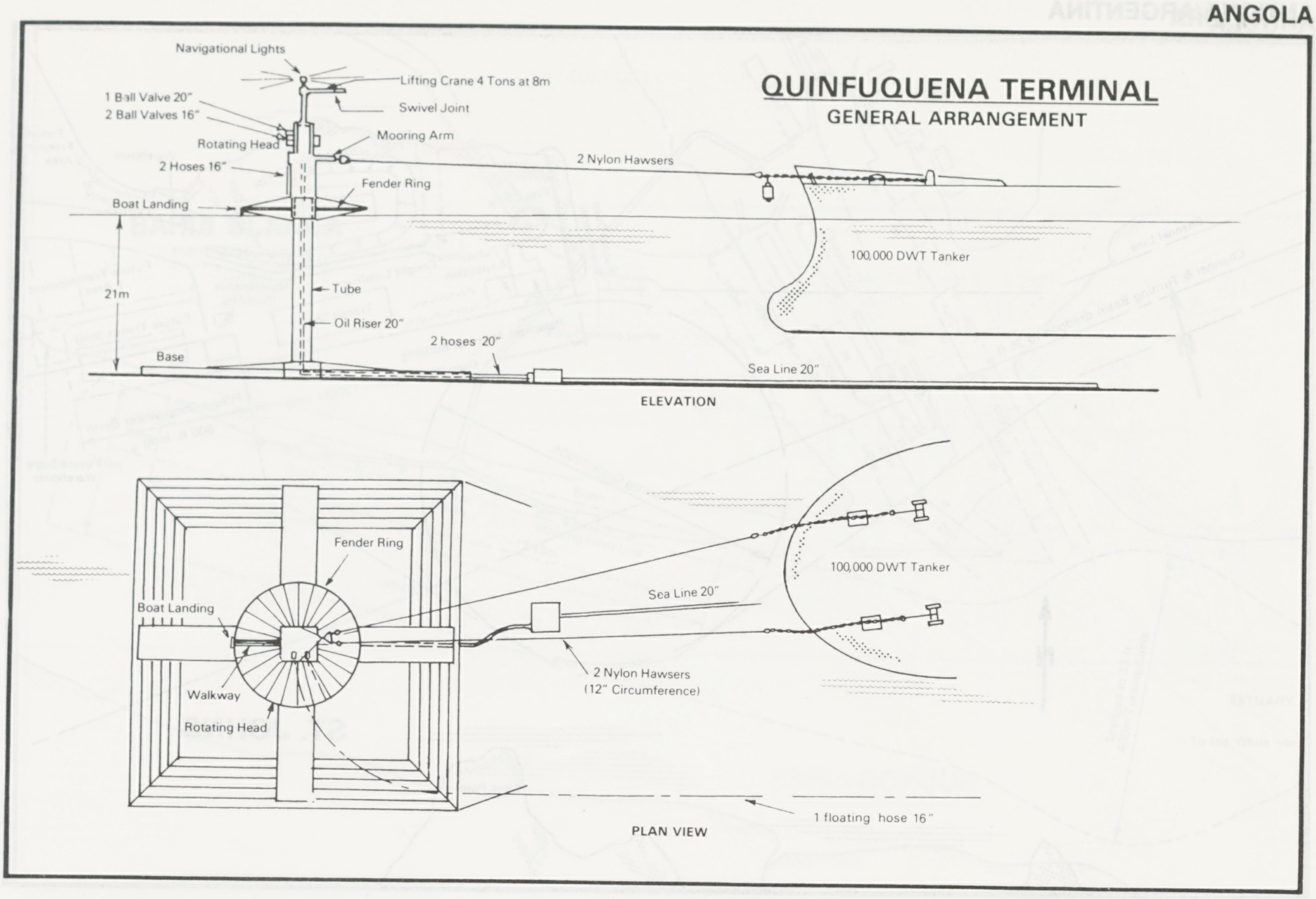

20 in. floating hose
STORAGE VESSEL
LOADING VESSEL
20 in. to 16 in. reducer

QUINFUQUENA TERMINAL

LOCATION MAP

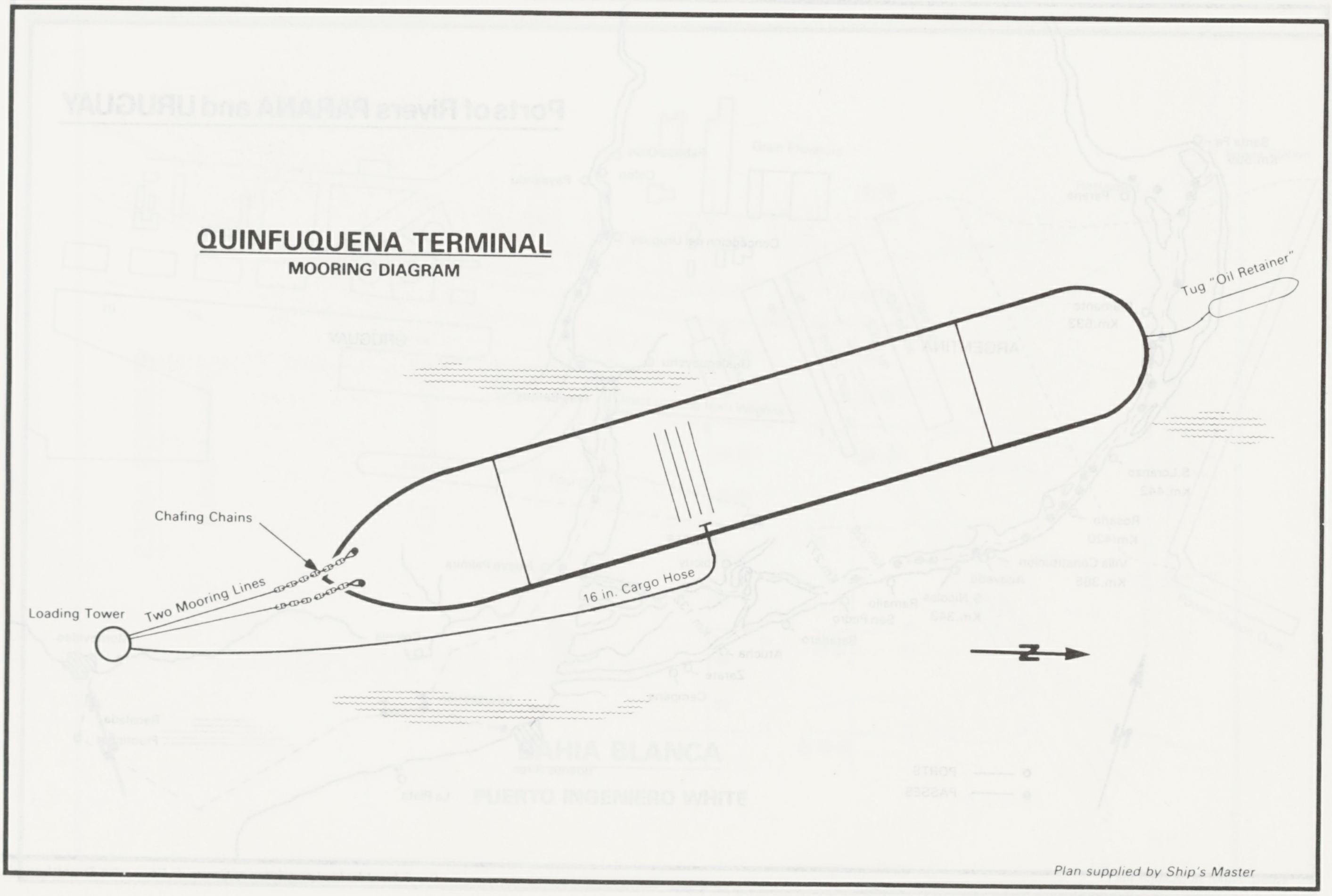
Depths in fathoms


River Zaire
Ponta Padrao
10
Moita Seca
10
Soyo Aero RC
Red Cliff
5
Tank Farm
Sealine
Quinfuquena Terminal
5
10



QUINFUQUENA TERMINAL
GENERAL ARRANGEMENT

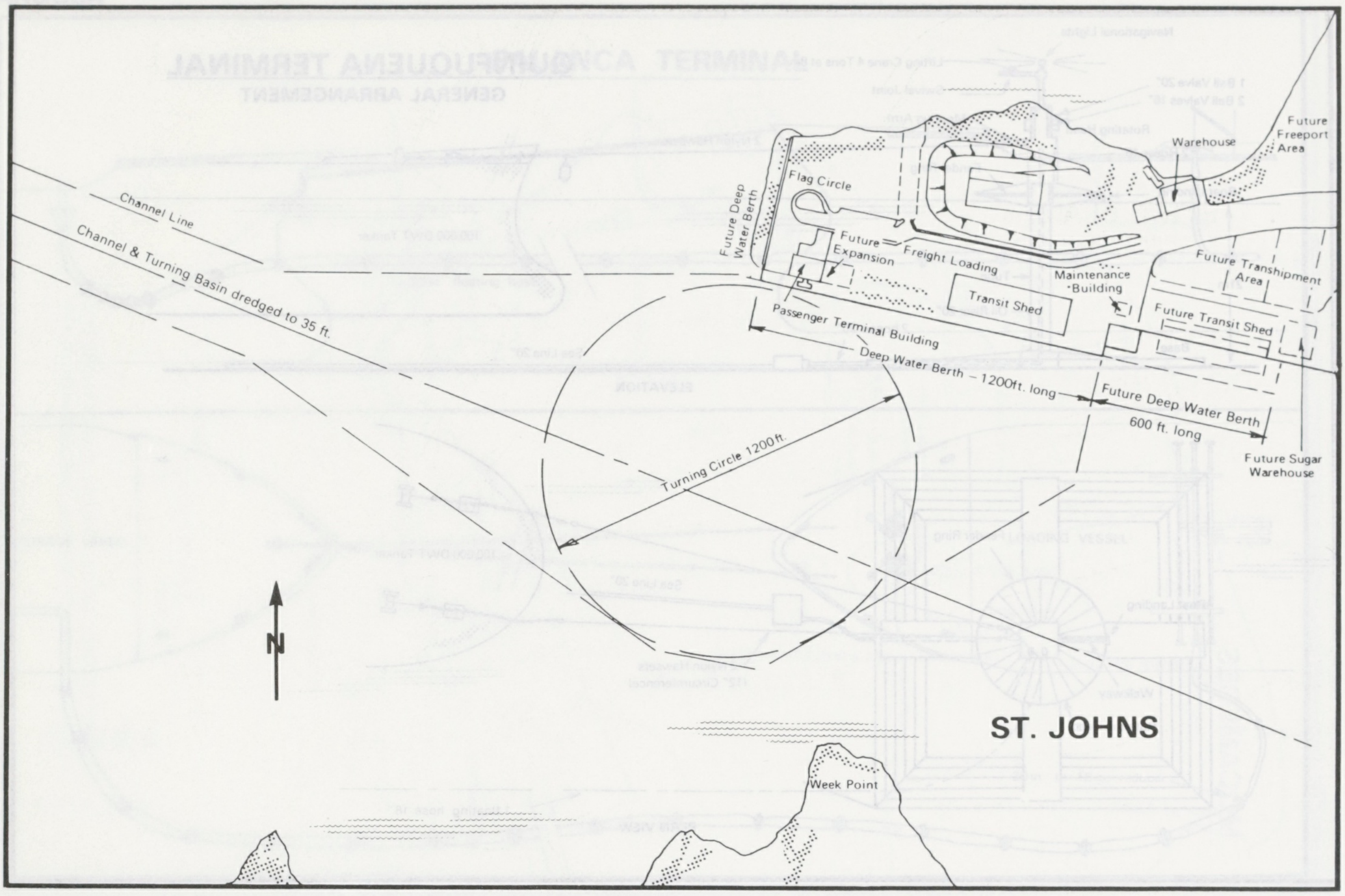
Navigational Lights
Lifting Crane 4 Tons at 8m
1 Ball Valve 20"
2 Ball Valves 16"
Swivel Joint
Rotating Head
Mooring Arm
2 Hoses 16"
2 Nylon Hawsers
Fender Ring
Boat Landing
100,000 DWT Tanker
21m
Tube
Oil Riser 20"
2 hoses 20"
Base
Sea Line 20"
ELEVATION
Fender Ring
100,000 DWT Tanker
Boat Landing
Sea Line 20"
2 Nylon Hawsers
(12" Circumference)
Walkway
Rotating Head
1 floating hose 16"
PLAN VIEW

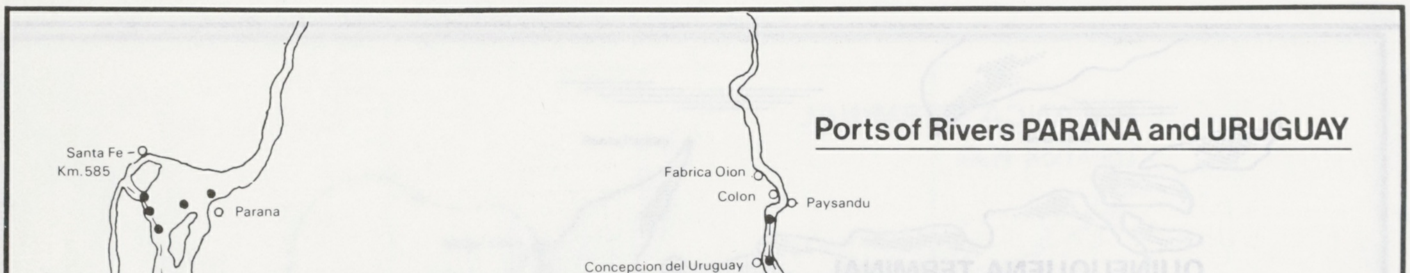


QUINFUQUENA TERMINAL
MOORING DIAGRAM

Tug "Oil Retainer"
Chafing Chains
Two Mooring Lines
Loading Tower
16 in. Cargo Hose
N

Plan supplied by Ship's Master


Channel Line
Channel & Turning Basin dredged to 35 ft.
Future Deep Water Berth
Flag Circle
Future Expansion
Future Freight Loading
Passenger Terminal Building
Transit Shed
Maintenance Building
Warehouse
Future Freeport Area
Future Transhipment Area
Future Transit Shed
Deep Water Berth – 1200ft. long
Future Deep Water Berth 600 ft. long
Future Sugar Warehouse
Turning Circle 1200ft.
N
ST. JOHNS
Week Point


Ports of Rivers PARANA and URUGUAY
Santa Fe Km.585
Parana
Diamante Km.533
ARGENTINA
S.Lorenzo Km.442
Rosario Km.420
Villa Constitucion Km.365
Acevedo
S.Nicolas Km.343
Ramallo
San Pedro
Km.326
Km.277
Baradero
Km.218
Ibicuy
Km.132
Atucha
Zarate
Campana
Fabrica Oion
Colon
Paysandu
Concepcion del Uruguay
Gualeguaychu
Fray Bentos
URUGUAY
Nueva Palmira
Colonia
Montevideo
Intersection
Recalada
Practicos
Buenos Aires
La Plata
N
○ —— PORTS
● —— PASSES

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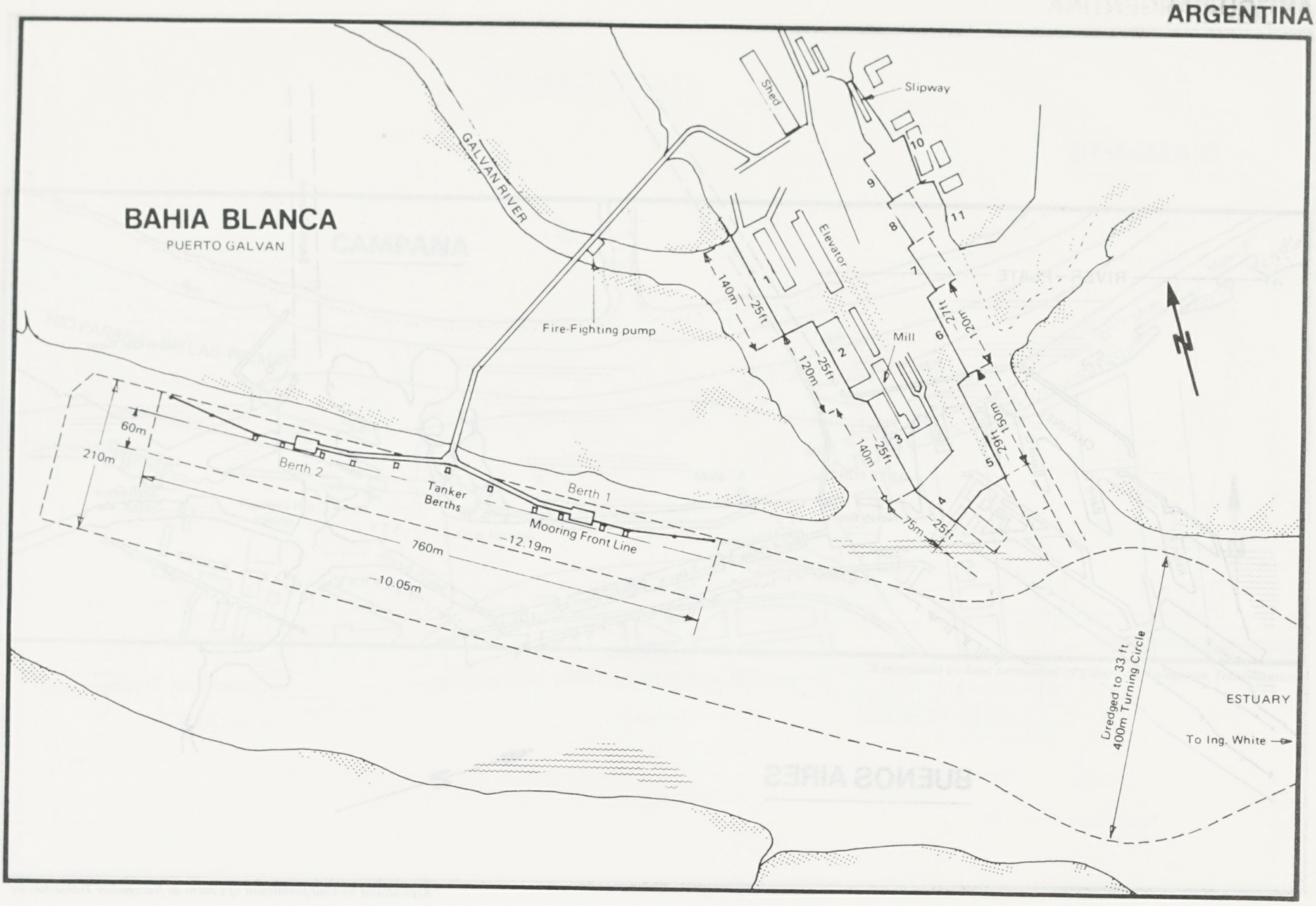
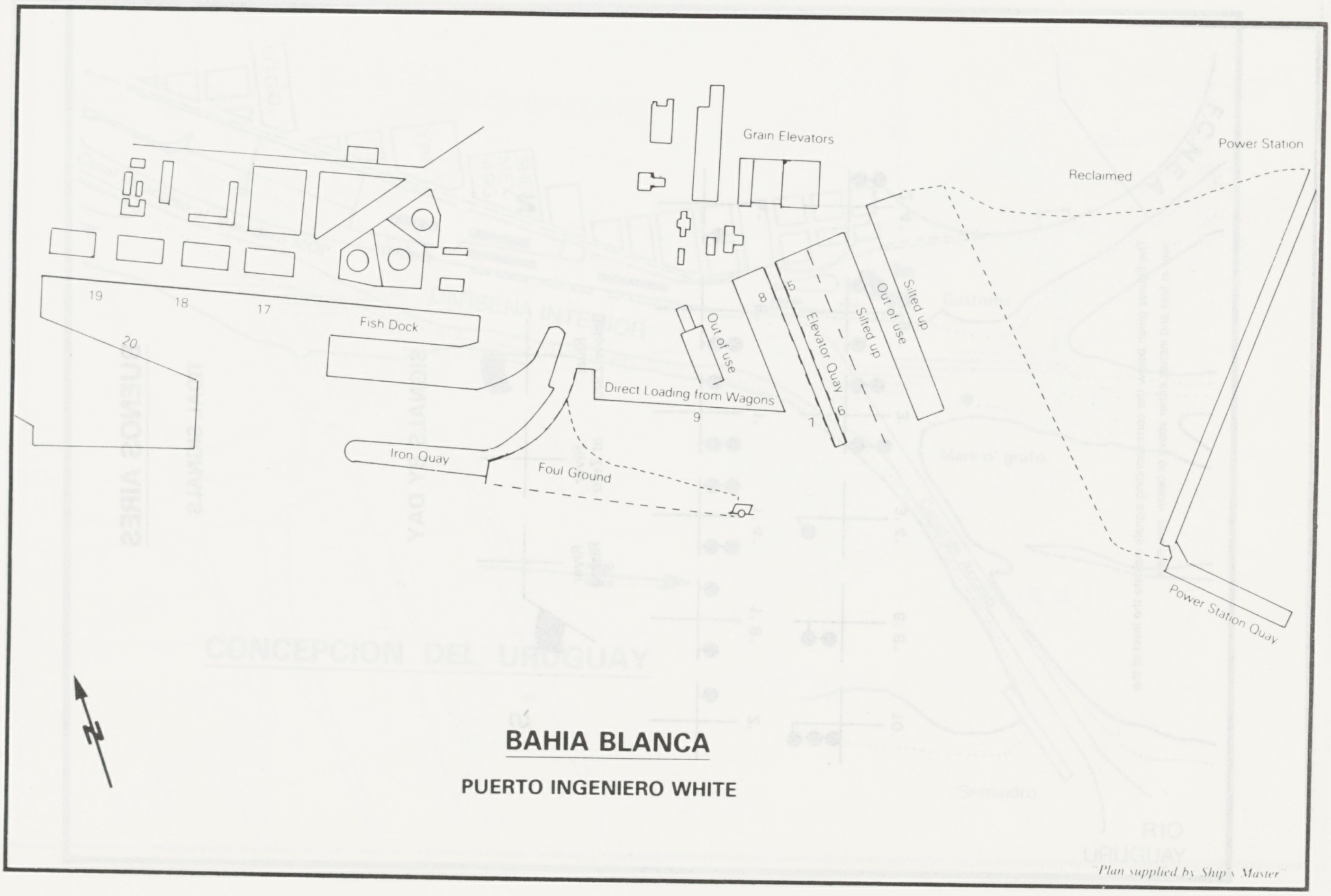


BAHIA BLANCA

PUERTO GALVAN

Shed
Slipway
10
9
11
8
GALVAN RIVER
Elevator
7
140m
25ft
1
2
120m
25ft
Mill
6
27ft
120m
Fire-Fighting pump
3
140m
25ft
150m
29ft
5
4
75m
25ft
60m
210m
Berth 2
Tanker Berths
Berth 1
Mooring Front Line
12.19m
760m
10.05m
Dredged to 33 ft
400m Turning Circle
ESTUARY
To Ing. White
N

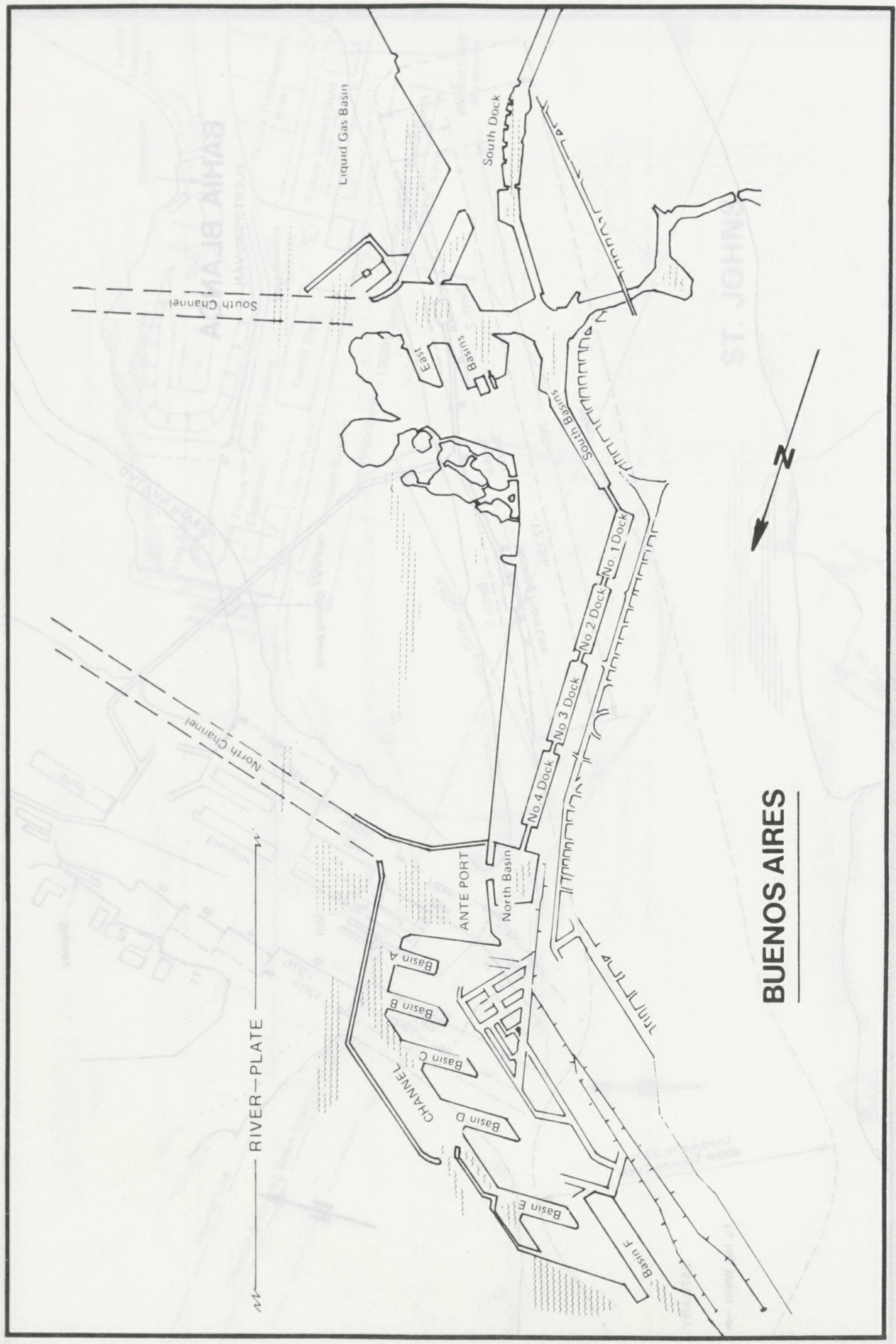


BAHIA BLANCA

PUERTO INGENIERO WHITE

Grain Elevators
Power Station
Reclaimed
19
18
17
20
Fish Dock
8
5
Out of use
Elevator Quay
Silted up
Out of use
Silted up
Direct Loading from Wagons
9
7
6
Iron Quay
Foul Ground
Power Station Quay
N

"Plan supplied by Ship's Master"


BUENOS AIRES
N
South Channel
Liquid Gas Basin
South Dock
East Basins
South Basins
No. 1 Dock
No. 2 Dock
No. 3 Dock
No. 4 Dock
North Basin
ANTE PORT
North Channel
RIVER—PLATE
Basin A
Basin B
Basin C
Basin D
Basin E
Basin F
CHANNEL

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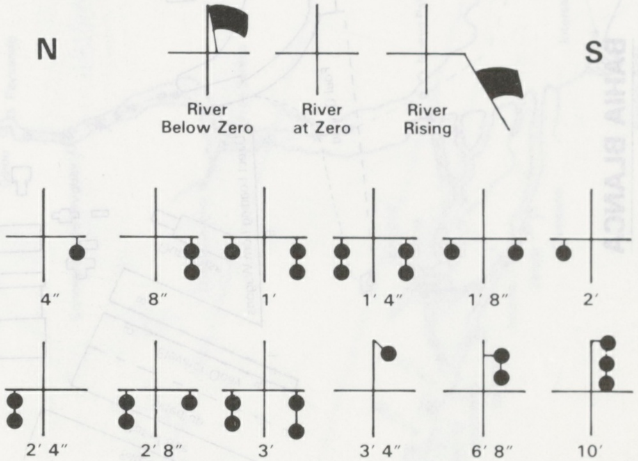
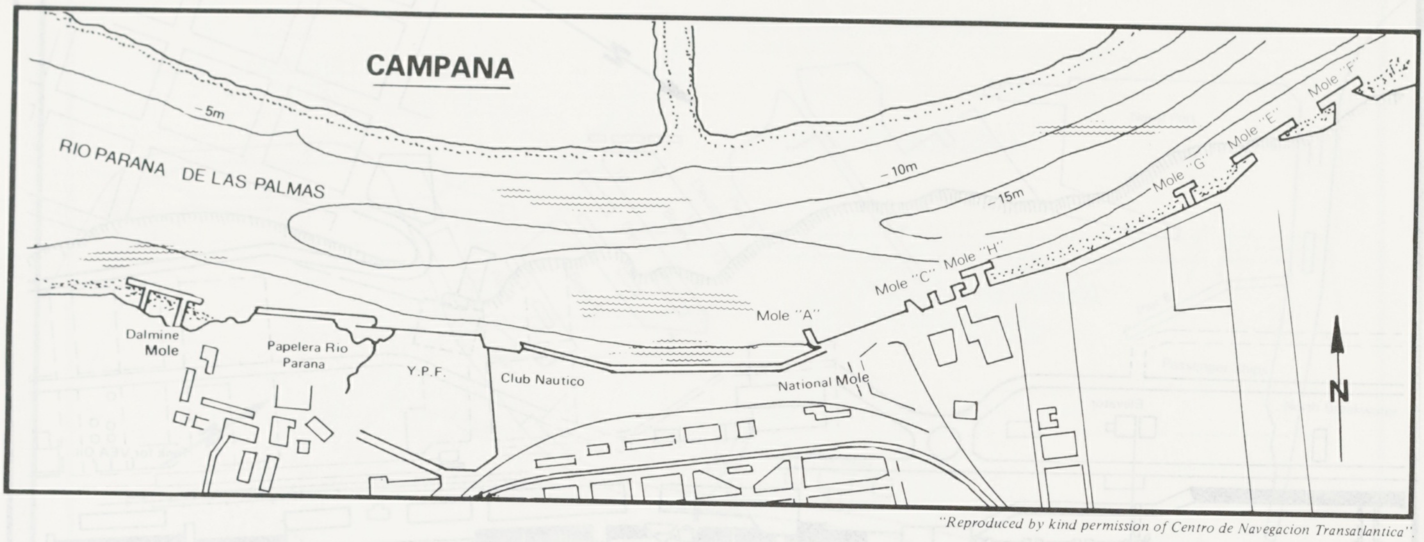
BUENOS AIRES

TIDAL SIGNALS

SIGNALS BY DAY


N
S
River Below Zero
River at Zero
River Rising
4″
8″
1′
1′ 4″
1′ 8″
2′
2′ 4″
2′ 8″
3′
3′ 4″
6′ 8″
10′

The figures given below the corresponding signals indicate the level of the river in feet and inches either above or below zero mark.


CAMPANA
–5m
RIO PARANA DE LAS PALMAS
–10m
–15m
Mole "F"
Mole "E"
Mole "G"
Mole "C"
Mole "H"
Mole "A"
Dalmine Mole
Papelera Rio Parana
Y.P.F.
Club Nautico
National Mole
N

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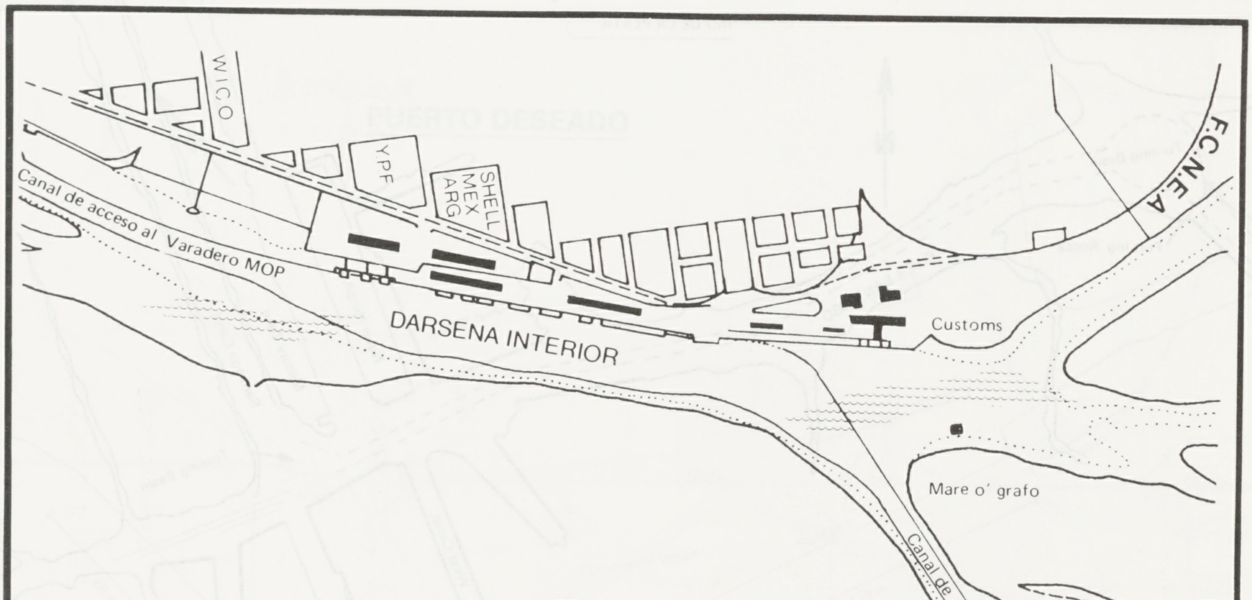
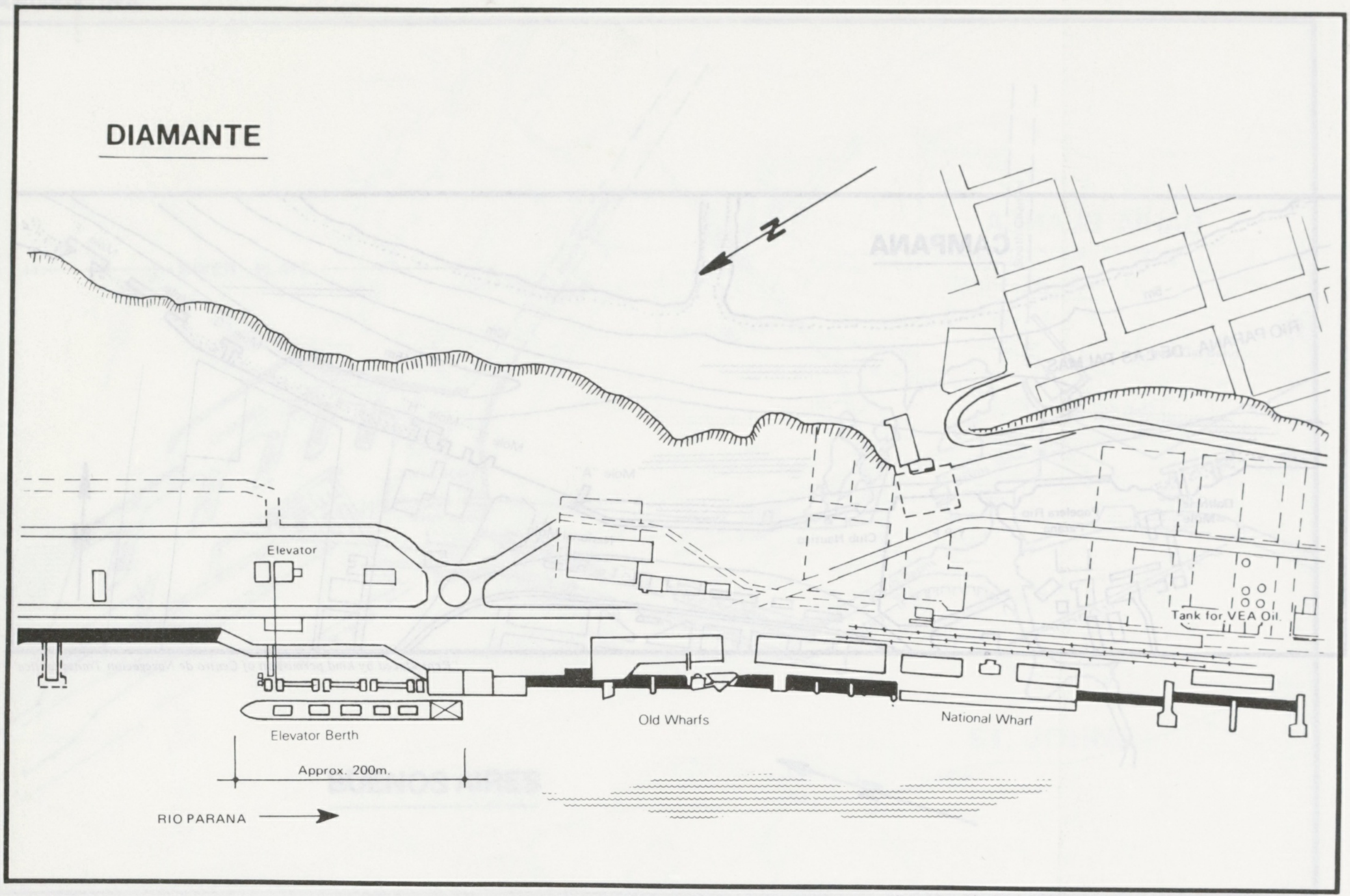

W.I.C.O
YPF
SHELL MEX ARG
F.C.N.E.A
Canal de acceso al Varadero MOP
DARSENA INTERIOR
Customs
Mare o' grafo
Canal de Acceso
N
CONCEPCION DEL URUGUAY
Semajoro
RIO URUGUAY


DIAMANTE
N
Elevator
Tank for VEA Oil.
Elevator Berth
Old Wharfs
National Wharf
Approx. 200m.
RIO PARANA

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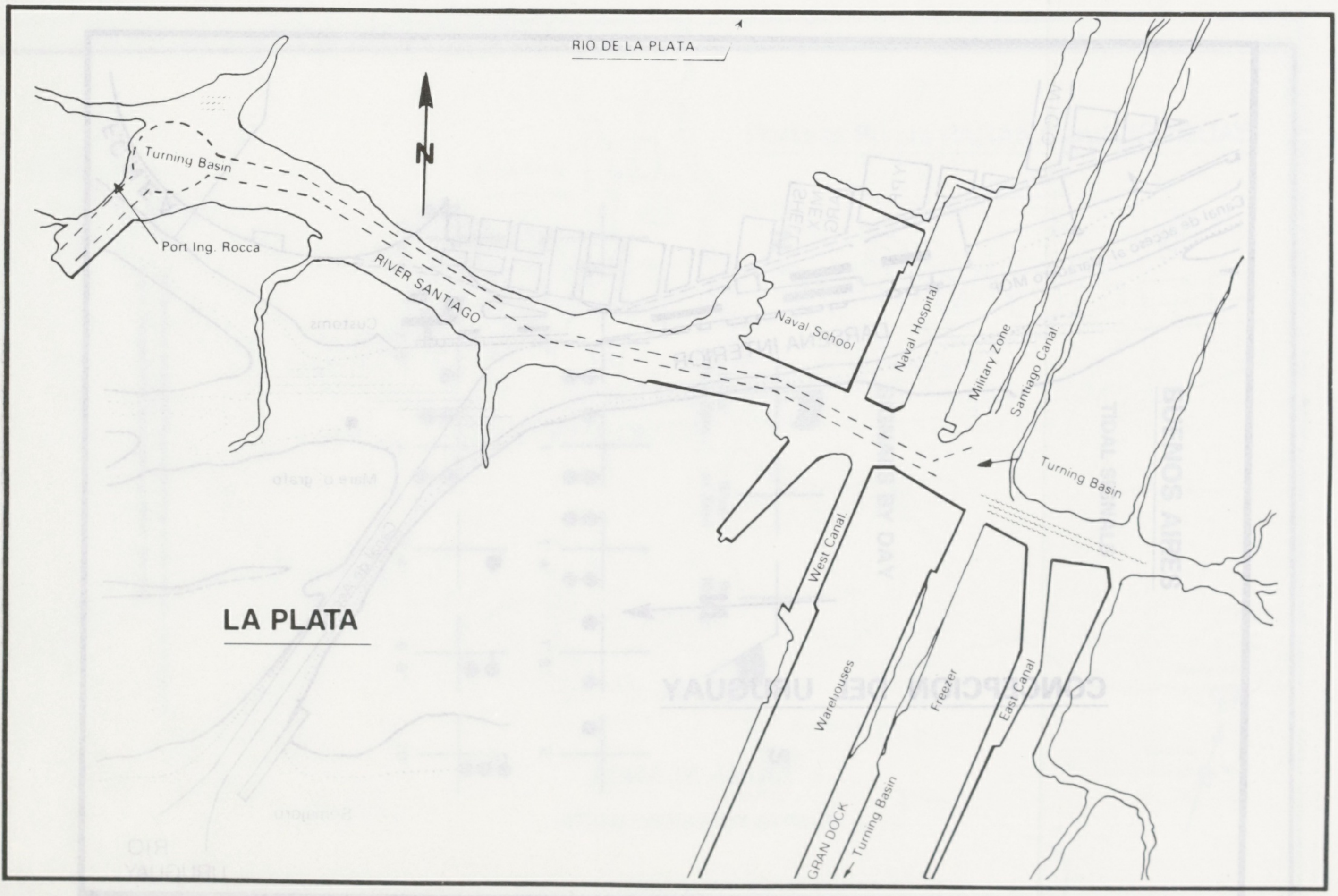
RIO DE LA PLATA
N
Turning Basin
Port Ing. Rocca
RIVER SANTIAGO
Naval School
Naval Hospital
Military Zone
Santiago Canal
Turning Basin
West Canal
Warehouses
Freezer
East Canal
GRAN DOCK
Turning Basin
LA PLATA

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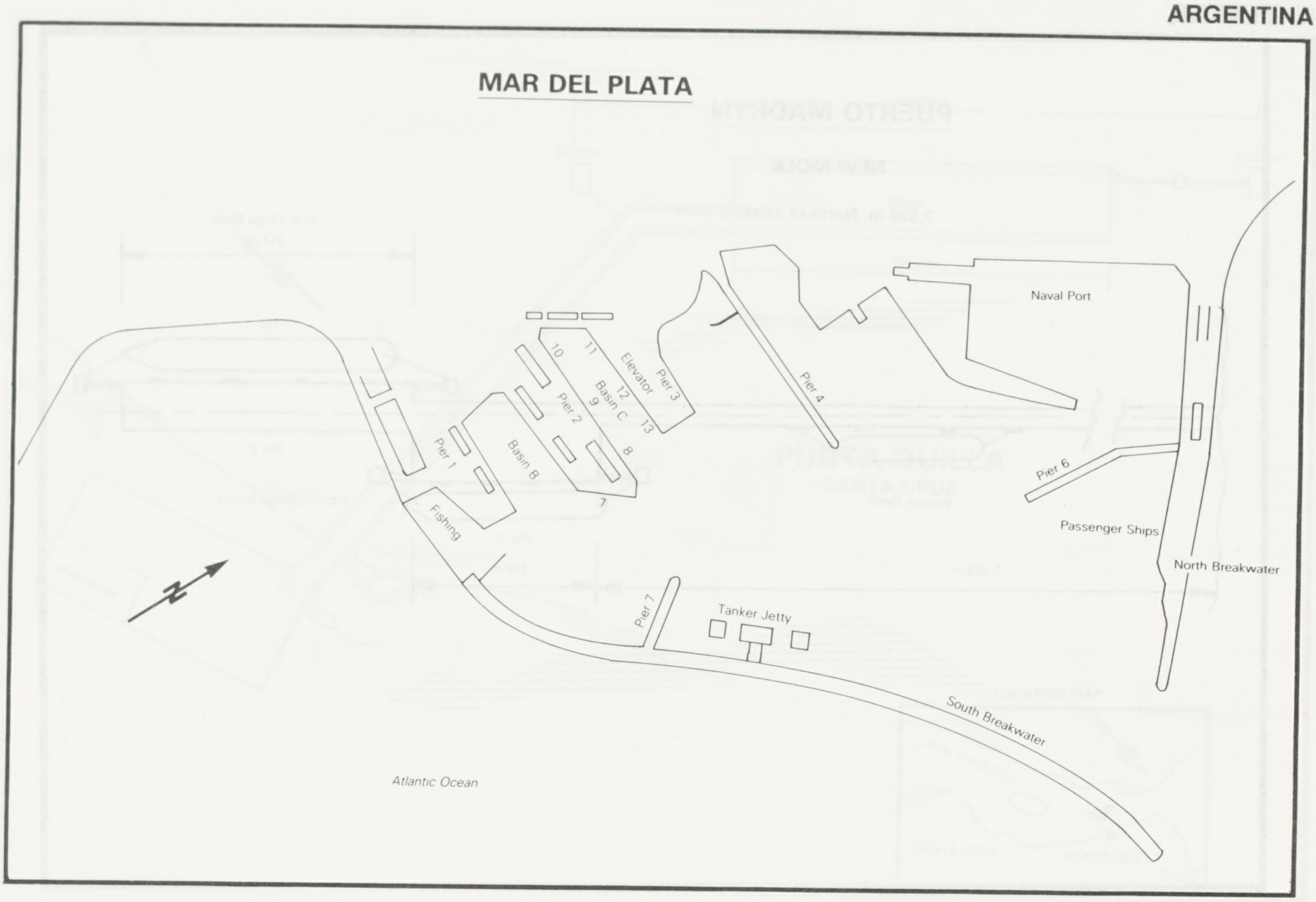
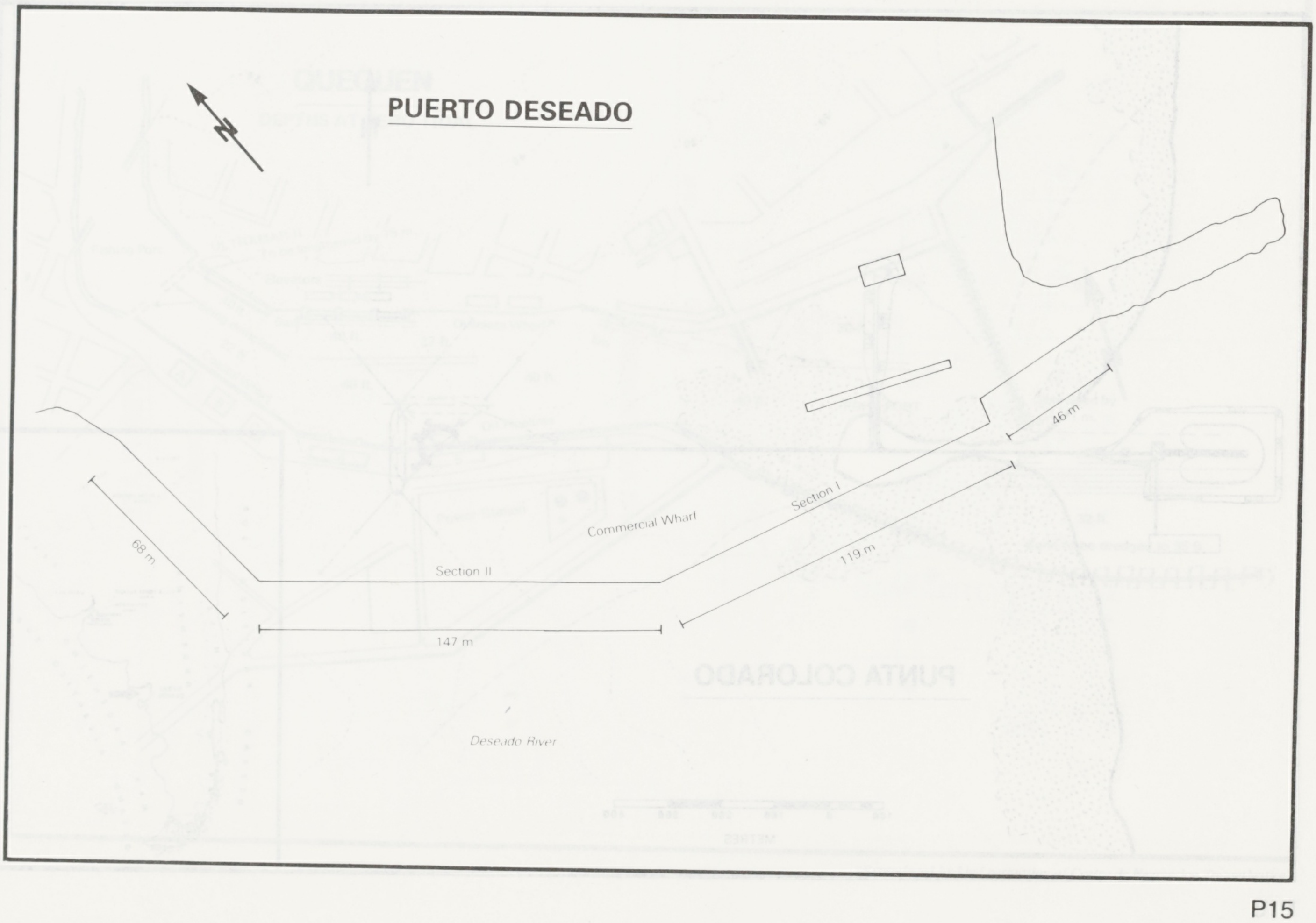
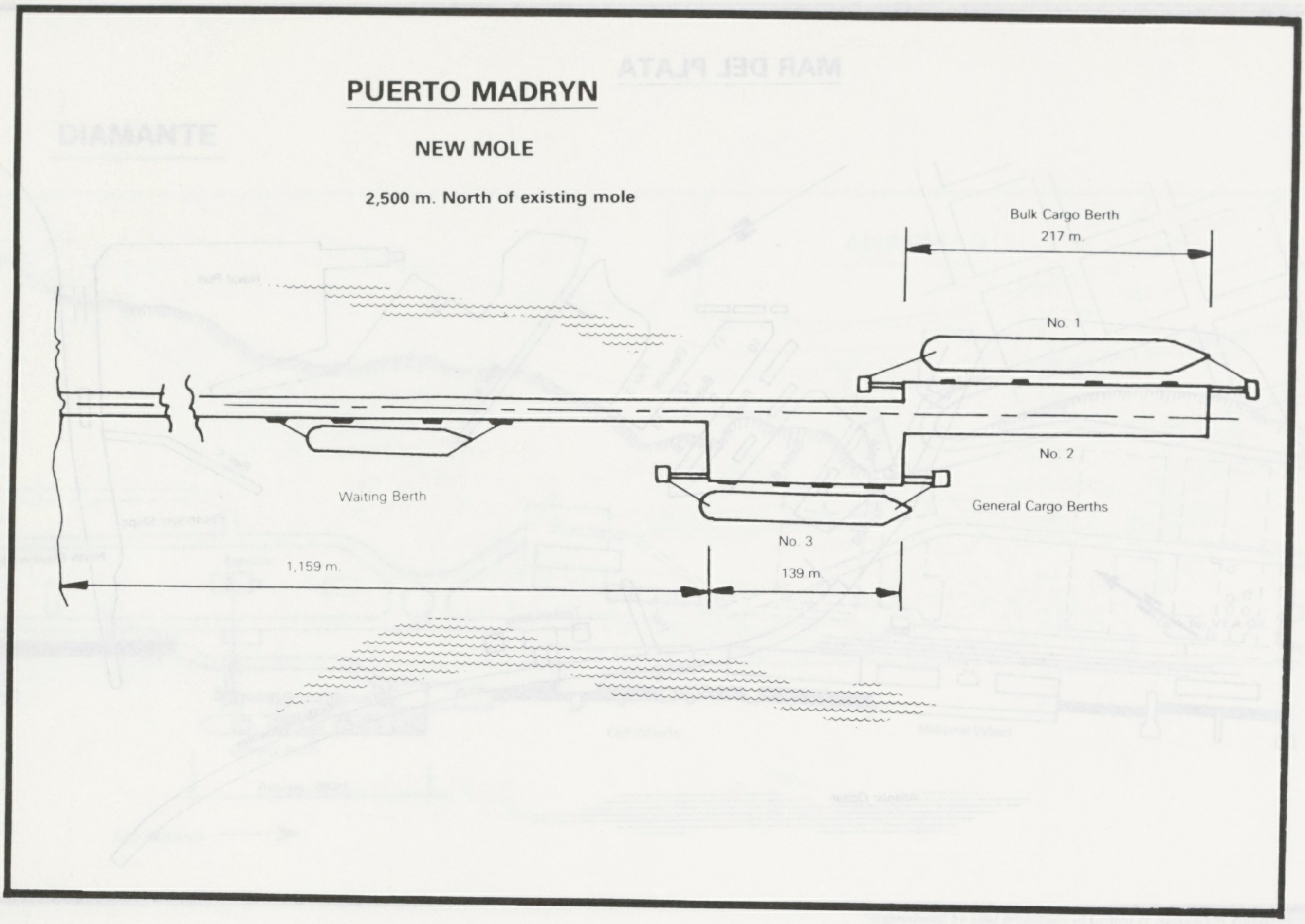
MAR DEL PLATA


Naval Port
Pier 3
Pier 4
Elevator
10
11
12
13
Basin C
9
Pier 2
8
7
Basin 8
Pier 1
Fishing
Pier 6
Passenger Ships
North Breakwater
Pier 7
Tanker Jetty
South Breakwater
Atlantic Ocean
N

PUERTO DESEADO


N
68 m
147 m
Section II
Commercial Wharf
Section I
119 m
46 m
Deseado River

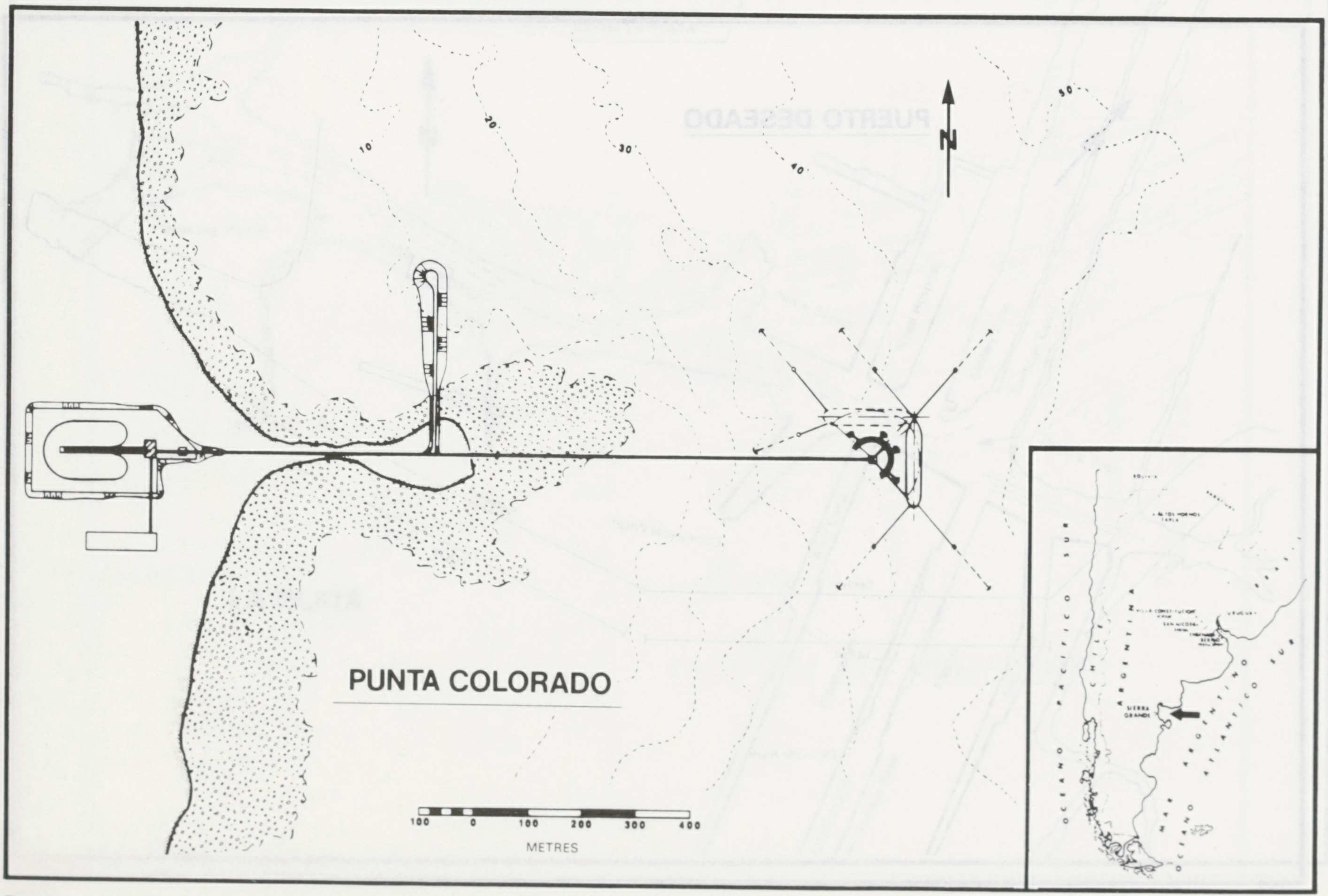


PUERTO MADRYN

NEW MOLE

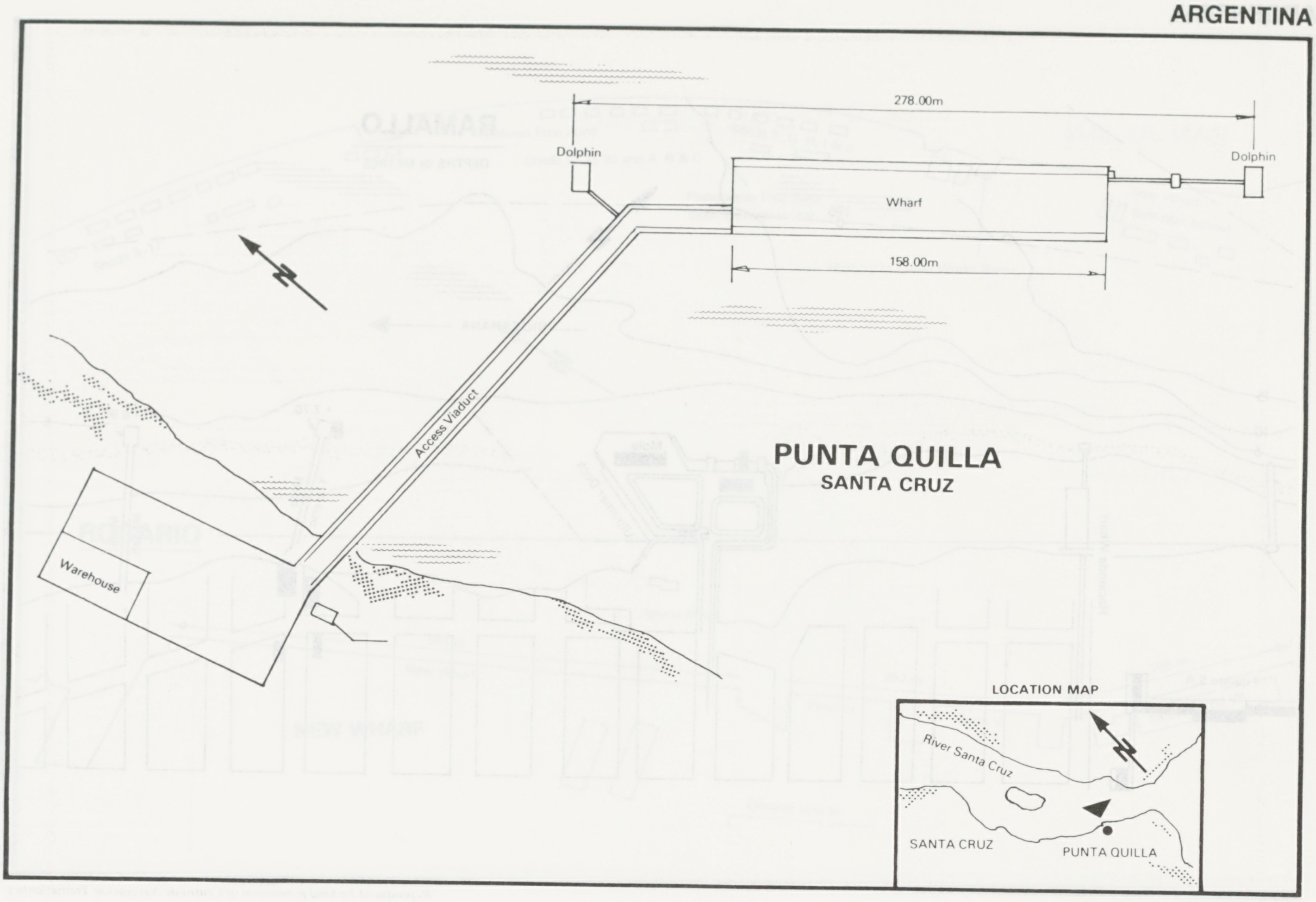
2,500 m. North of existing mole

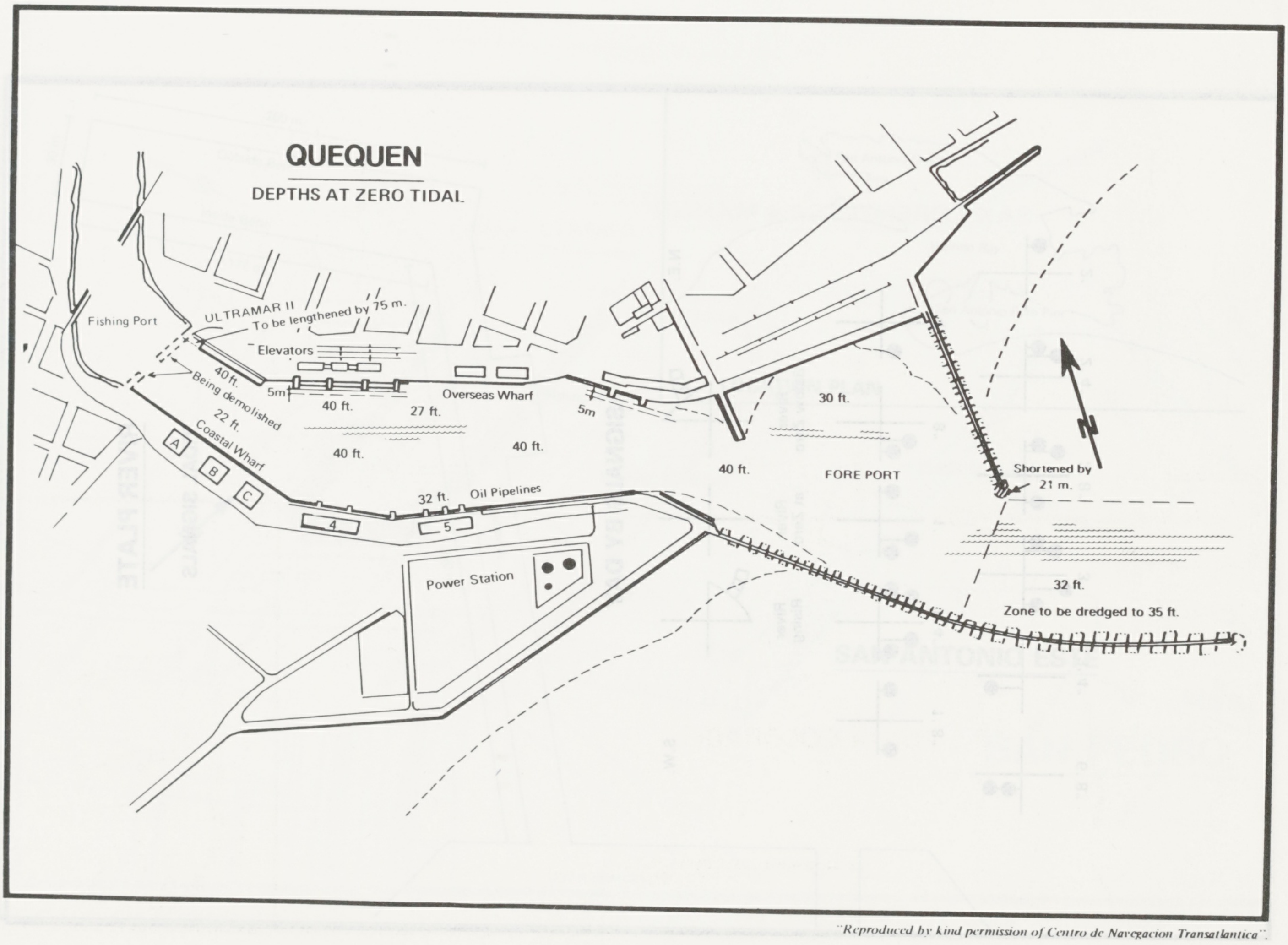
Bulk Cargo Berth
217 m.
No. 1
No. 2
General Cargo Berths
No. 3
Waiting Berth
1,159 m.
139 m.



PUNTA COLORADO

N
10
20
30
40
50
100
0
100
200
300
400
METRES
BOLIVIA
ALTOS HORNOS ZAPLA
BRASIL
VILLA CONSTITUCION
SAN NICOLAS
URUGUAY
ENSENADA
BERISSO
ARGENTINA
CHILE
SIERRA GRANDE
OCEANO PACIFICO SUR
MAR ARGENTINO
OCEANO ATLANTICO SUR


278.00m
Dolphin
Dolphin
Wharf
158.00m
Access Viaduct
Warehouse
PUNTA QUILLA
SANTA CRUZ
LOCATION MAP
River Santa Cruz
SANTA CRUZ
PUNTA QUILLA


QUEQUEN
DEPTHS AT ZERO TIDAL
Fishing Port
ULTRAMAR II
To be lengthened by 75 m.
Elevators
40 ft.
Being demolished
5m
40 ft.
27 ft.
Overseas Wharf
5m
30 ft.
22 ft.
Coastal Wharf
A
B
C
40 ft.
40 ft.
40 ft.
FORE PORT
Shortened by 21 m.
32 ft.
Oil Pipelines
4
5
Power Station
32 ft.
Zone to be dredged to 35 ft.

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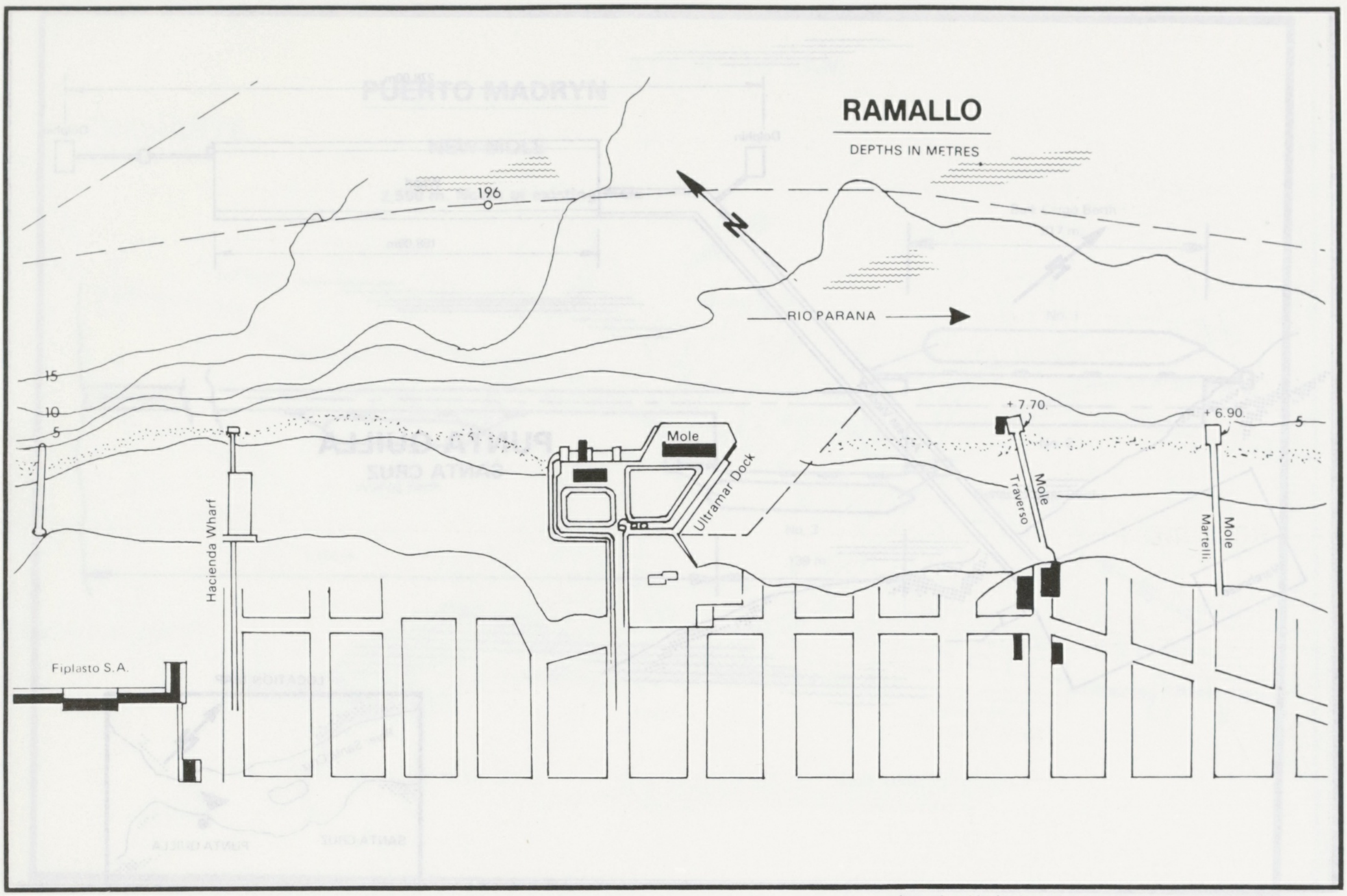
RAMALLO
DEPTHS IN METRES
196
N
RIO PARANA
15
10
5
+7.70
+6.90
5
Mole
Ultramar Dock
Mole
Traverso
Mole
Martelli
Hacienda Wharf
Fiplasto S.A.

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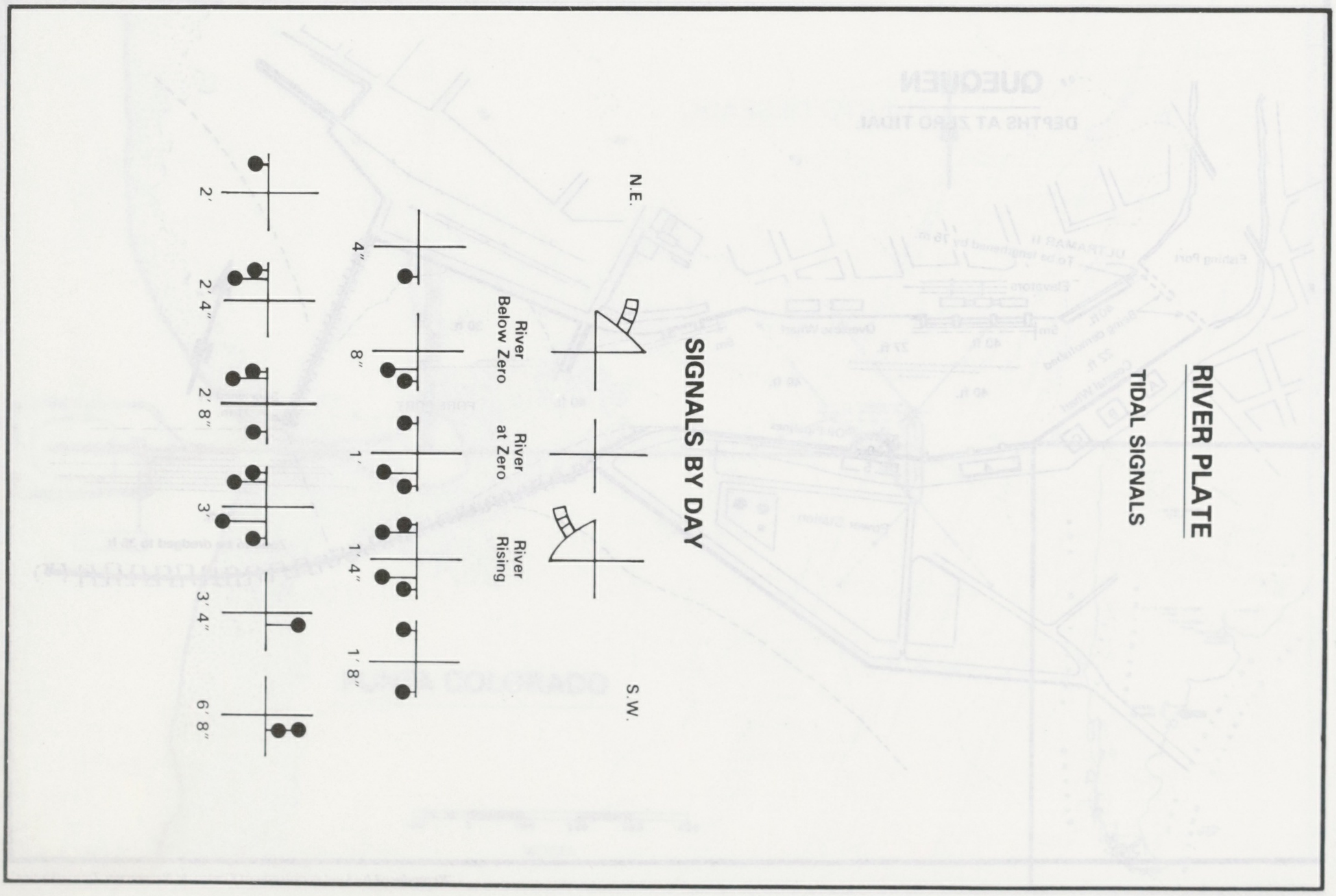
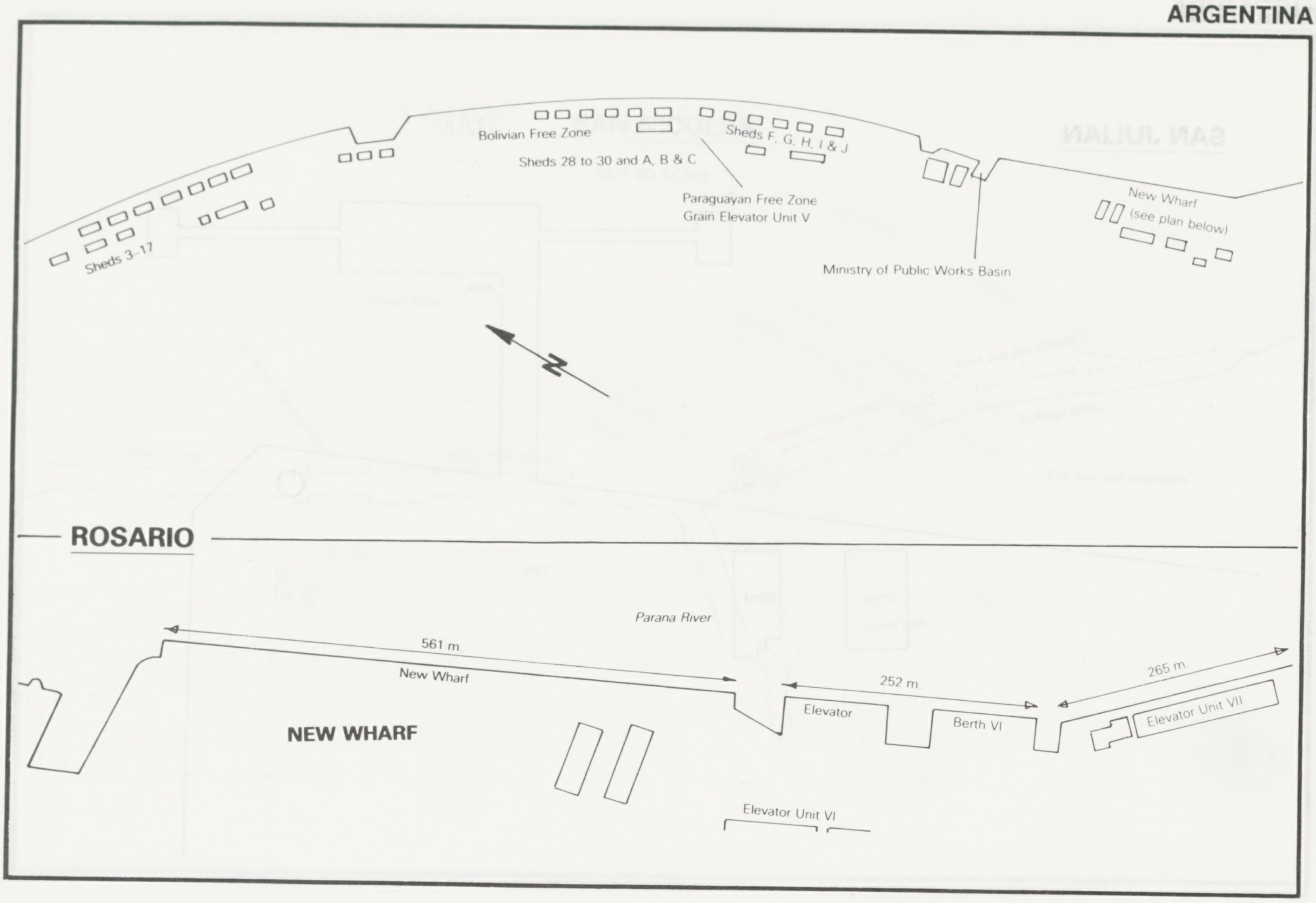
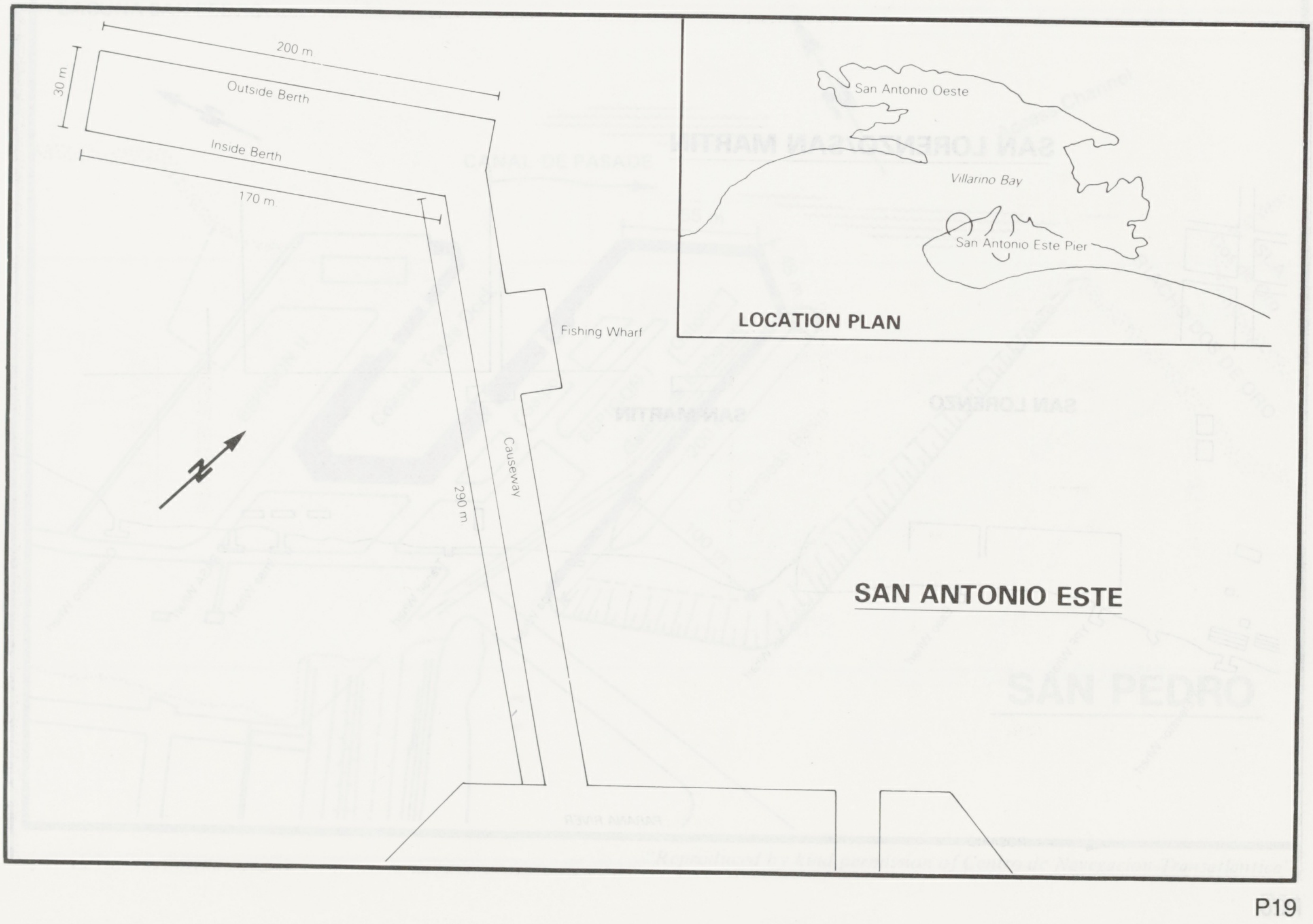
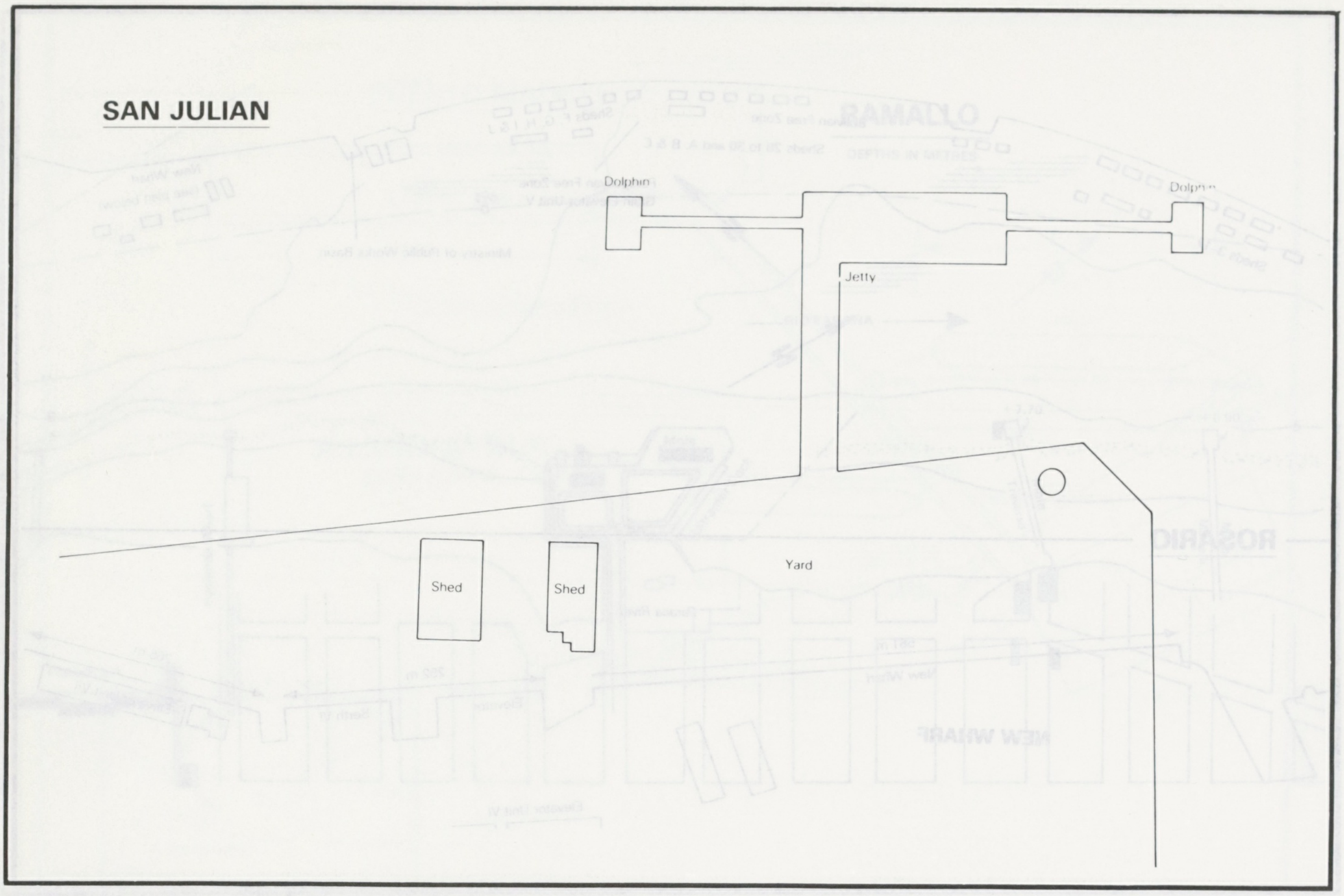
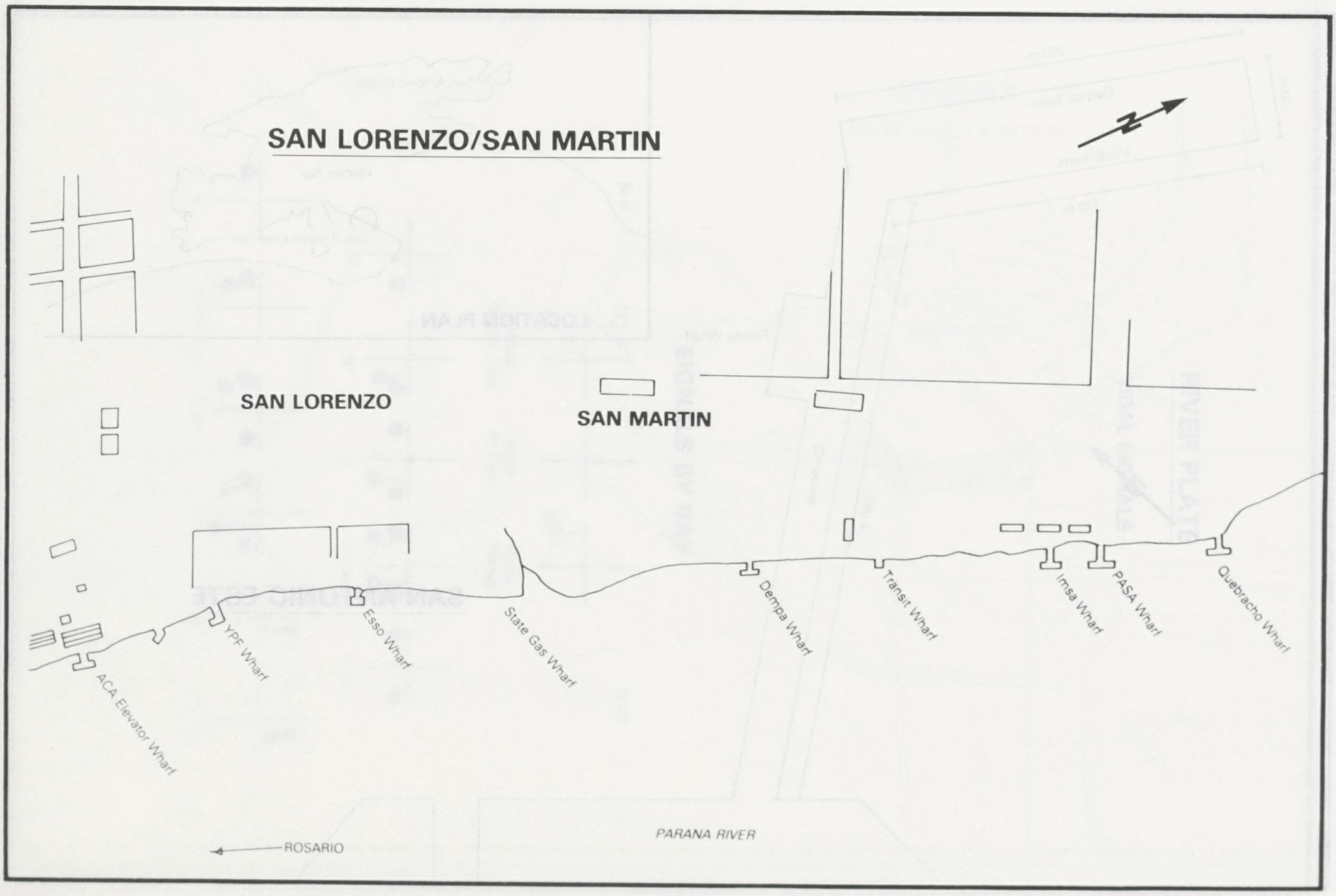
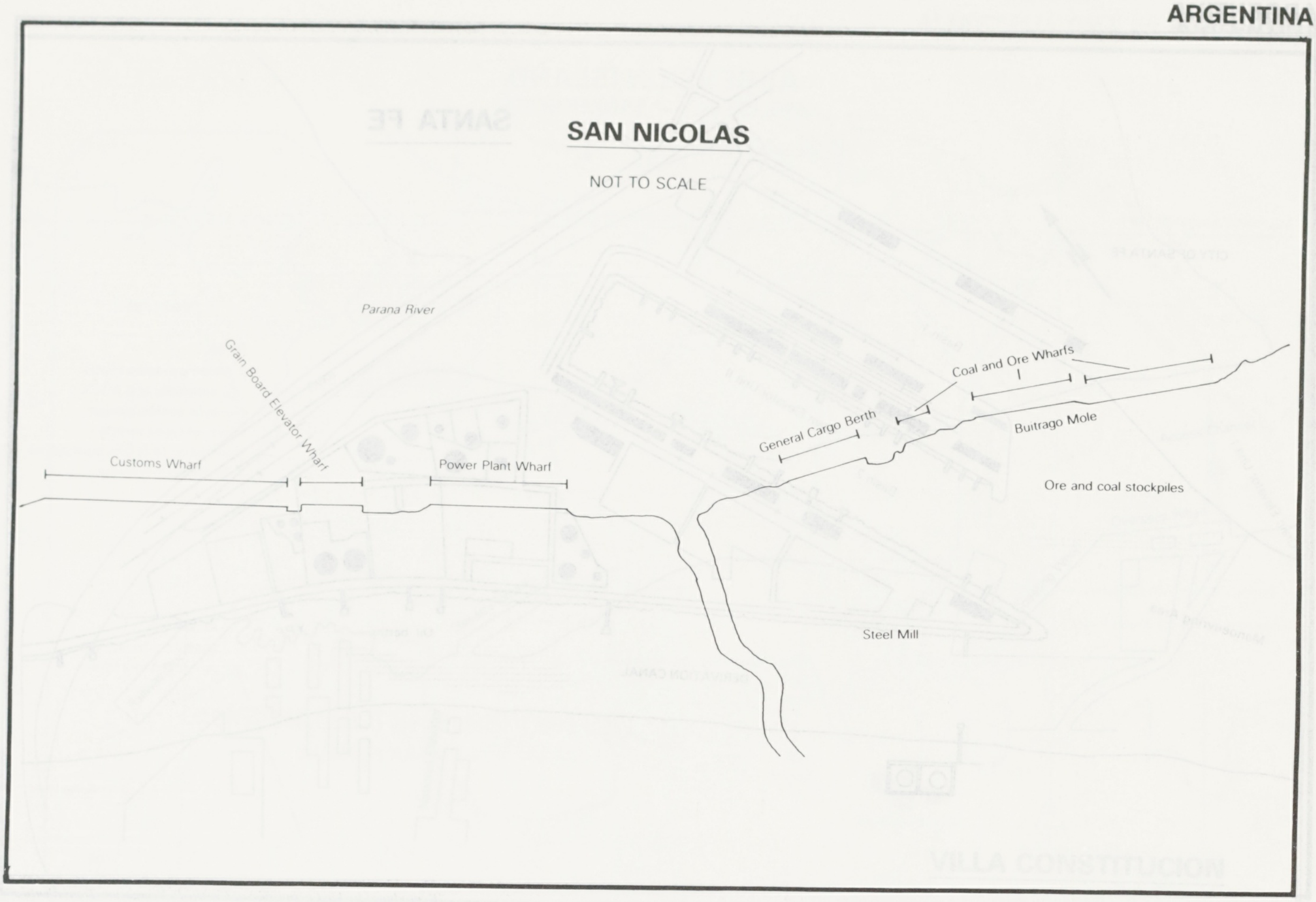

RIVER PLATE
TIDAL SIGNALS
SIGNALS BY DAY
N.E.
S.W.
River Below Zero
River at Zero
River Rising
4"
8"
1'
1'4"
1'8"
2'
2'4"
2'8"
3'
3'4"
6'8"

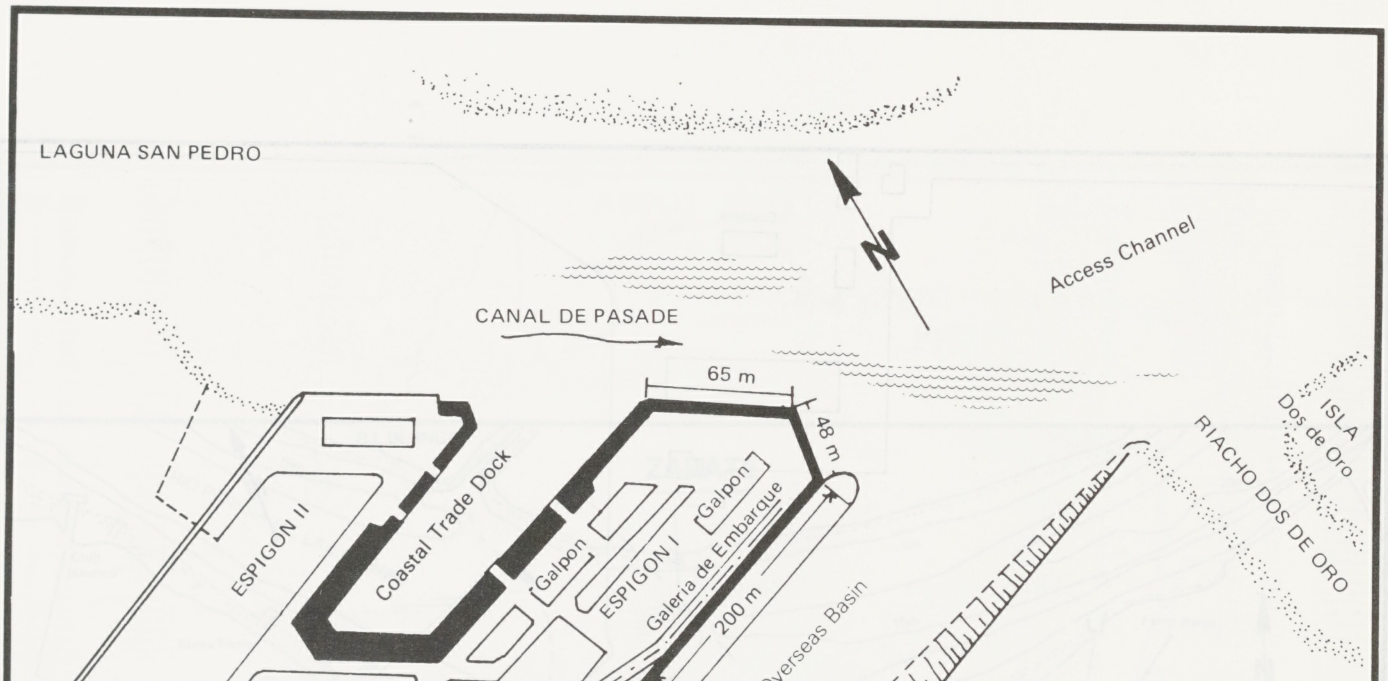

ROSARIO
Bolivian Free Zone
Sheds 28 to 30 and A, B & C
Sheds F, G, H, I & J
Paraguayan Free Zone
Grain Elevator Unit V
Ministry of Public Works Basin
New Wharf
(see plan below)
Sheds 3–17
Parana River
561 m.
New Wharf
NEW WHARF
252 m.
Elevator
Berth VI
265 m.
Elevator Unit VII
Elevator Unit VI


SAN ANTONIO ESTE
200 m.
30 m
Outside Berth
Inside Berth
170 m
Fishing Wharf
Causeway
290 m
LOCATION PLAN
San Antonio Oeste
Villarino Bay
San Antonio Este Pier


SAN JULIAN
Dolphin
Dolphin
Jetty
Yard
Shed
Shed


SAN LORENZO/SAN MARTIN
N
SAN LORENZO
SAN MARTIN
ACA Elevator Wharf
YPF Wharf
Esso Wharf
State Gas Wharf
Dempa Wharf
Transit Wharf
Imsa Wharf
PASA Wharf
Quebracho Wharf
PARANA RIVER
ROSARIO


SAN NICOLAS
NOT TO SCALE
Parana River
Grain Board Elevator Wharf
Customs Wharf
Power Plant Wharf
General Cargo Berth
Coal and Ore Wharfs
Buitrago Mole
Ore and coal stockpiles
Steel Mill


LAGUNA SAN PEDRO
N
Access Channel
CANAL DE PASADE
65 m
48 m
ISLA
Dos de Oro
RIACHO DOS DE ORO
ESPIGON II
Coastal Trade Dock
Galpon
ESPIGON I
Galpon
Galeria de Embarque
200 m
Overseas Basin
100 m
SAN PEDRO

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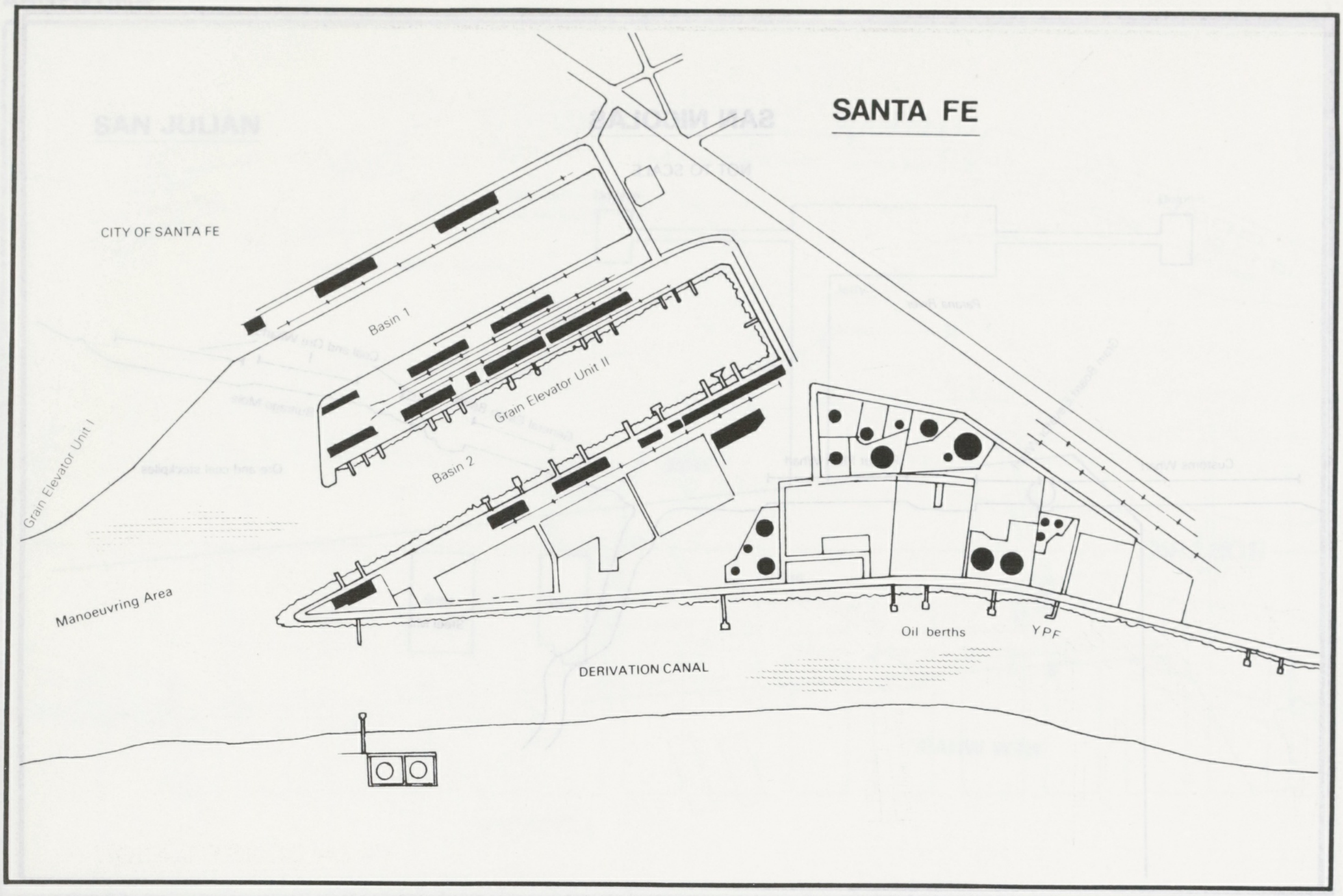
SANTA FE
CITY OF SANTA FE
Basin 1
Grain Elevator Unit II
Grain Elevator Unit I
Basin 2
Manoeuvring Area
DERIVATION CANAL
Oil berths
YPF

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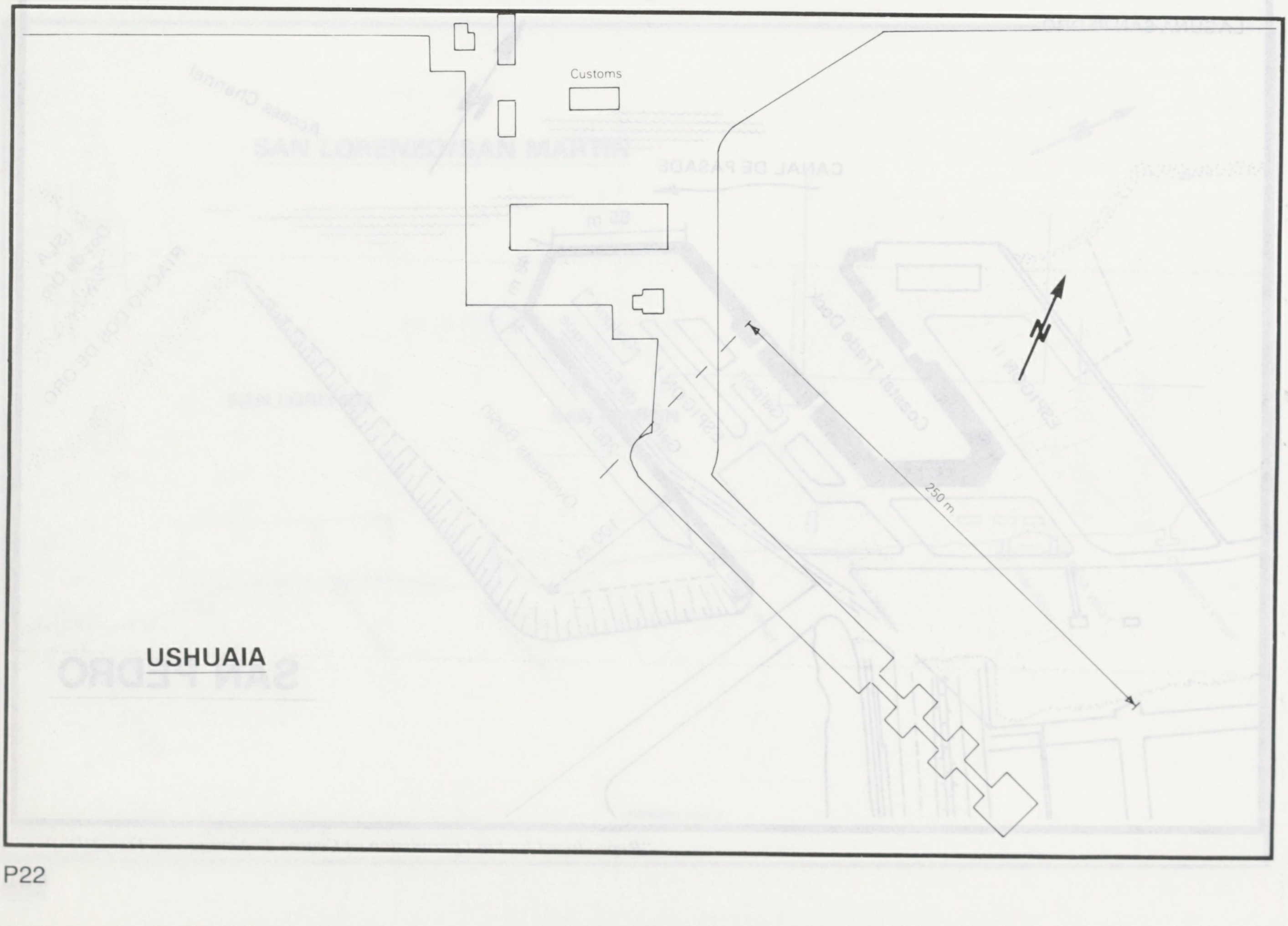
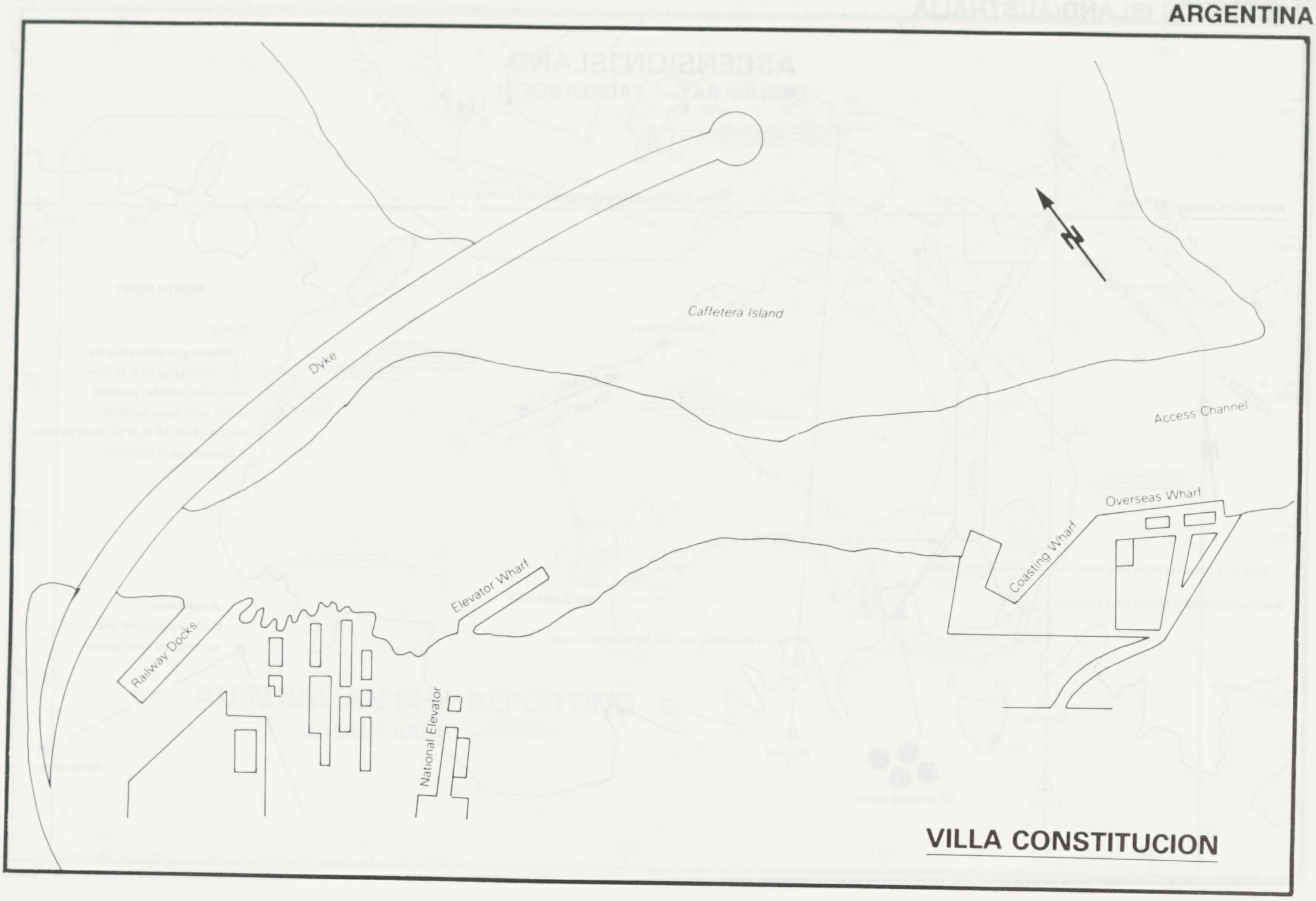
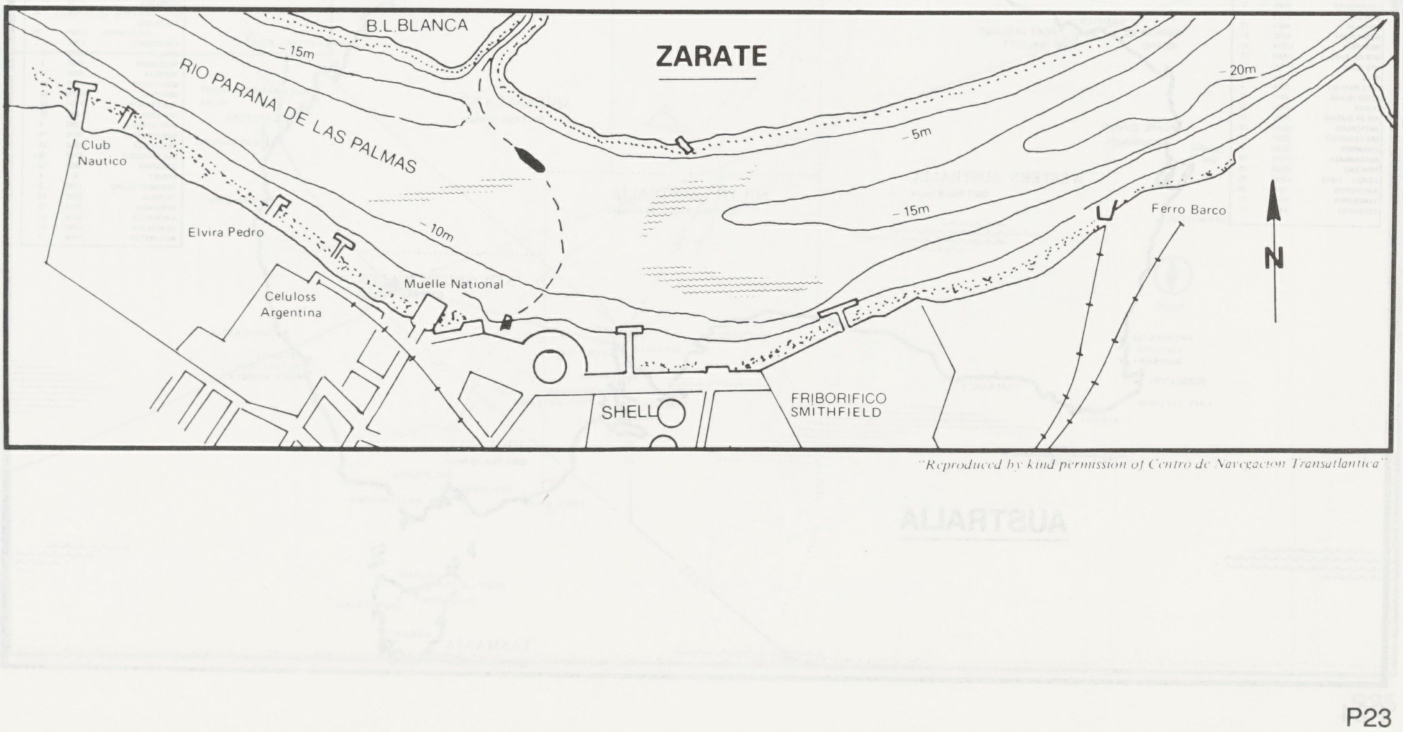

Customs
250 m
USHUAIA


Dyke
Caffetera Island
Access Channel
Overseas Wharf
Coasting Wharf
Elevator Wharf
Railway Docks
National Elevator
N
VILLA CONSTITUCION


ZARATE
B.L.BLANCA
RIO PARANA DE LAS PALMAS
-15m
-5m
-20m
-15m
-10m
Club Nautico
Elvira Pedro
Celuloss Argentina
Muelle National
SHELL
FRIBORIFICO SMITHFIELD
Ferro Barco
N

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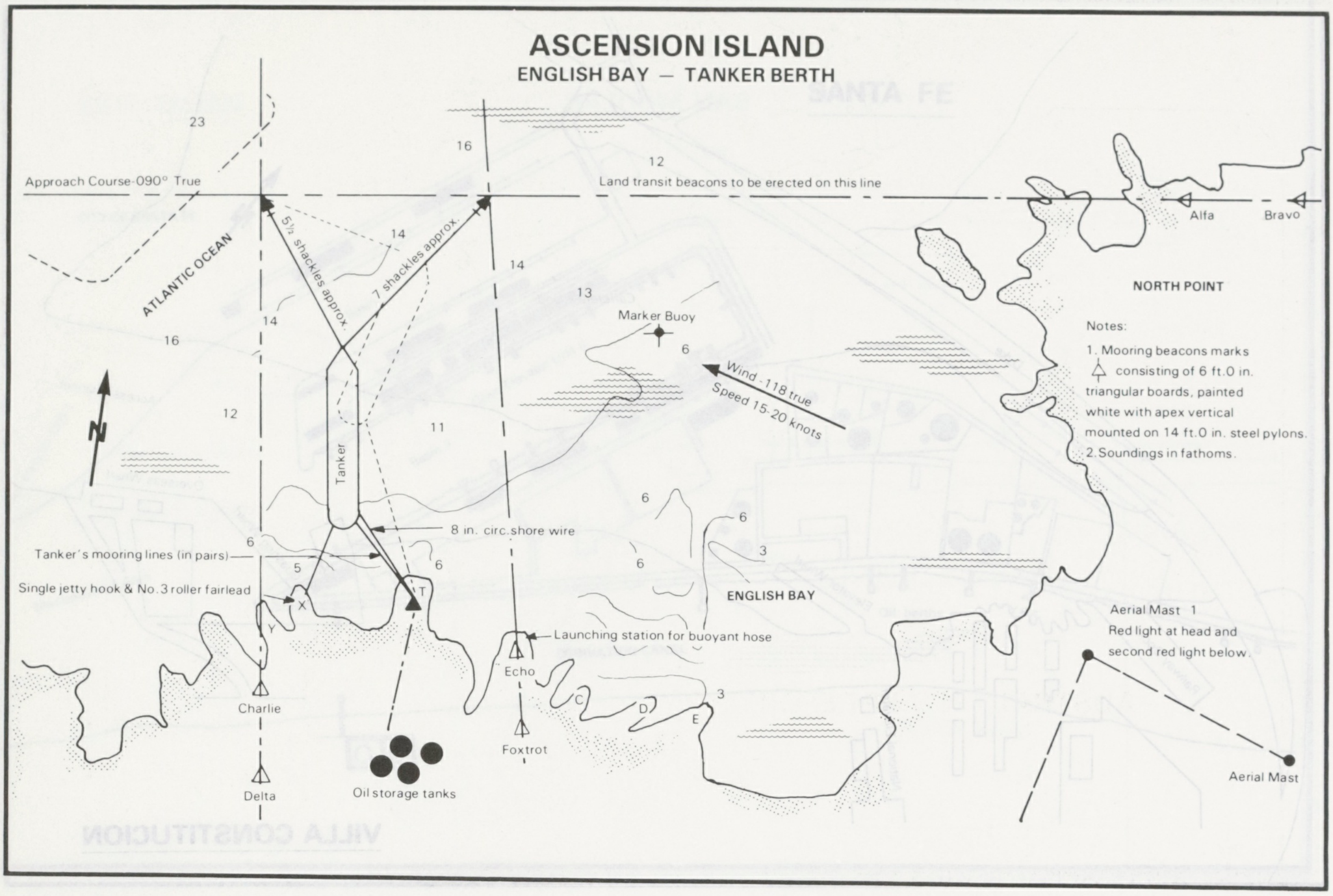


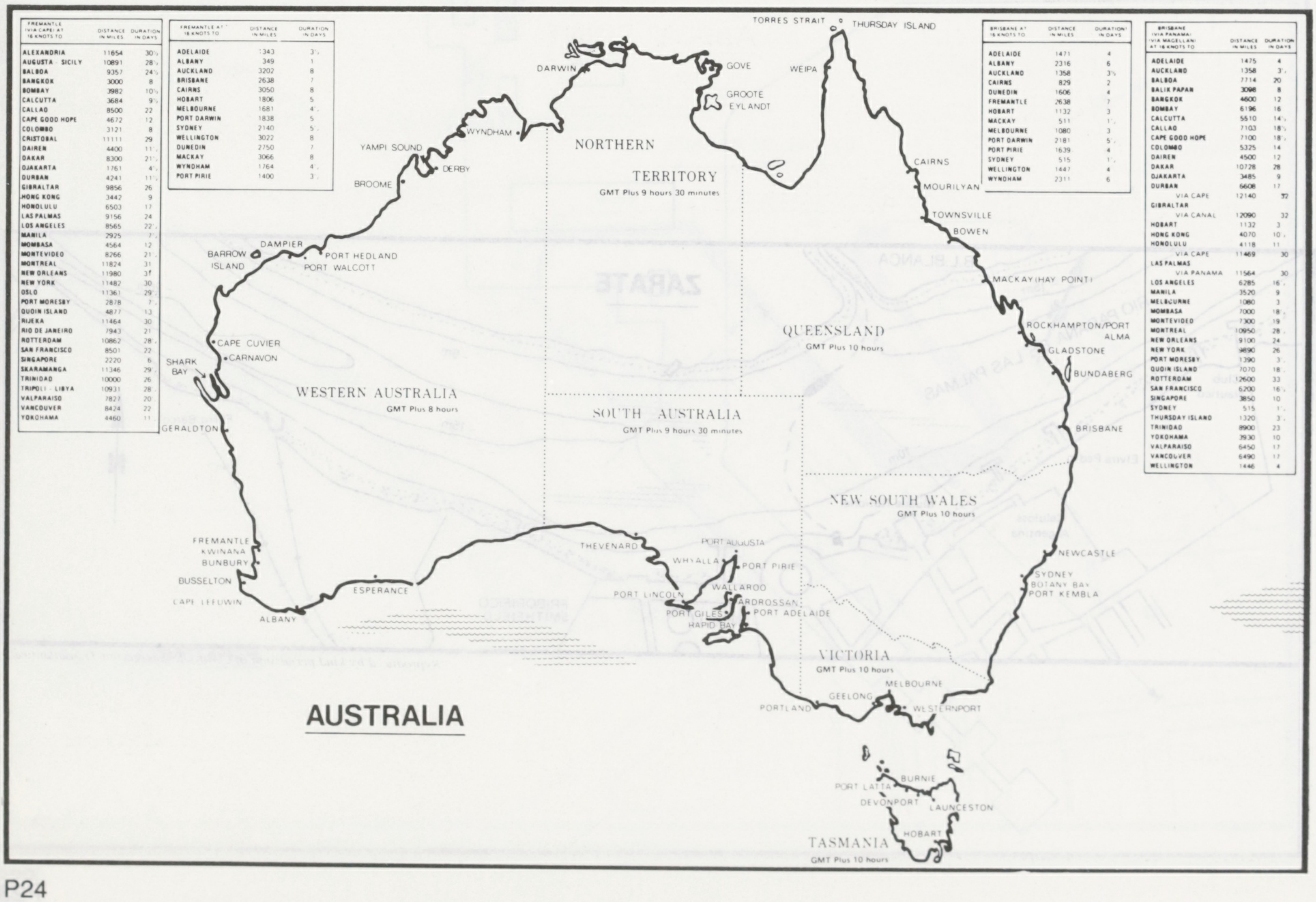
ASCENSION ISLAND

ENGLISH BAY — TANKER BERTH

23
16
12
Approach Course-090° True
Land transit beacons to be erected on this line
ATLANTIC OCEAN
5½ shackles approx
7 shackles approx
14
14
14
16
13
Marker Buoy
6
Wind -118 true
Speed 15-20 knots
N
12
11
Tanker
8 in. circ. shore wire
Tanker's mooring lines (in pairs)
Single jetty hook & No.3 roller fairlead
6
5
6
X
Y
T
Launching station for buoyant hose
Echo
Charlie
Delta
Oil storage tanks
Foxtrot
C
D
E
3
6
6
6
3
ENGLISH BAY
Alfa
Bravo
NORTH POINT
Aerial Mast 1
Red light at head and
second red light below.
Aerial Mast

Notes:

1. Mooring beacons marks △ consisting of 6 ft.0 in. triangular boards, painted white with apex vertical mounted on 14 ft.0 in. steel pylons.
2. Soundings in fathoms.



AUSTRALIA

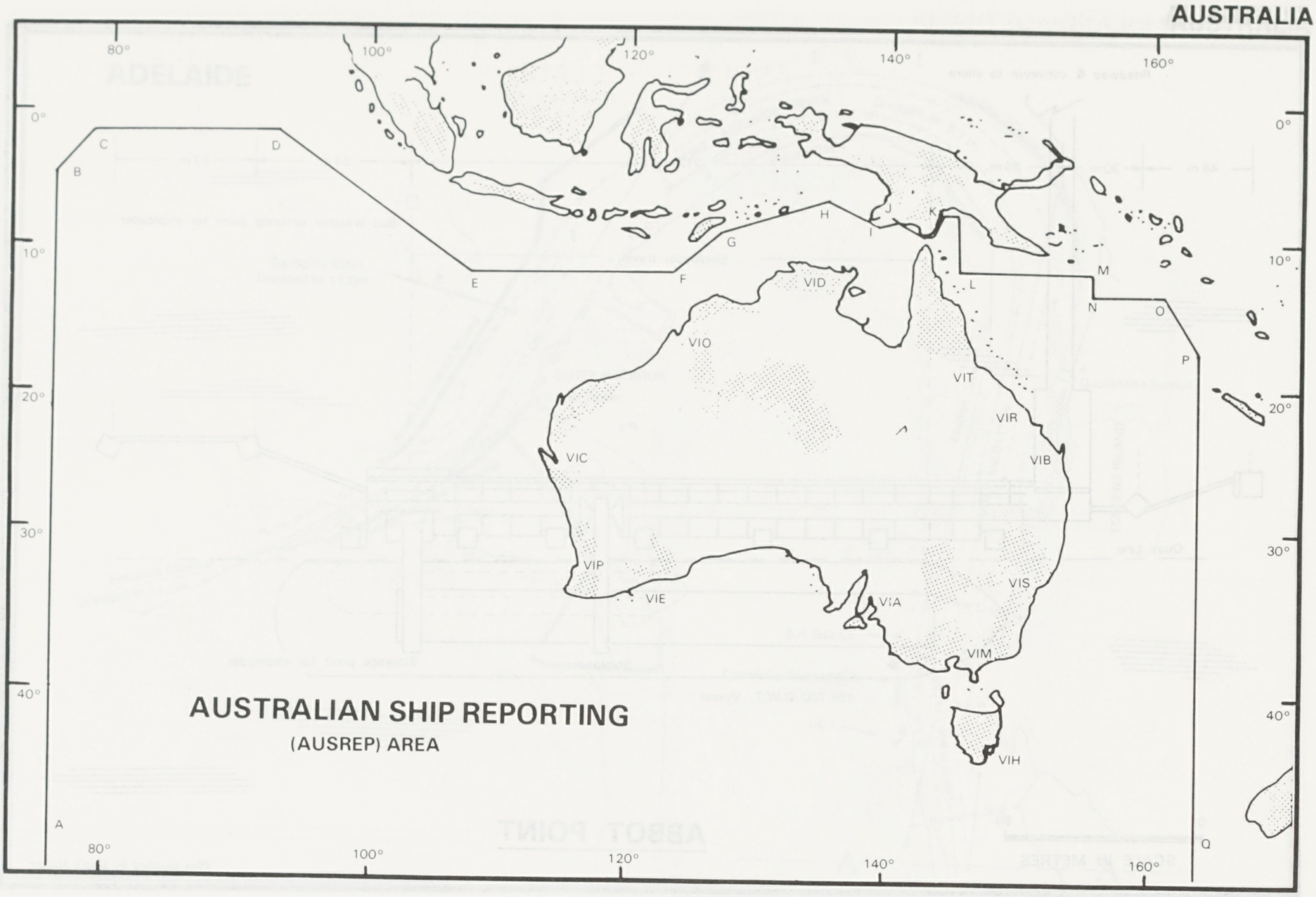
TORRES STRAIT
THURSDAY ISLAND
DARWIN
GOVE
WEIPA
GROOTE EYLANDT
WYNDHAM
YAMPI SOUND
DERBY
BROOME
NORTHERN TERRITORY
GMT Plus 9 hours 30 minutes
CAIRNS
MOURILYAN
TOWNSVILLE
BOWEN
DAMPIER
BARROW ISLAND
PORT HEDLAND
PORT WALCOTT
MACKAY (HAY POINT)
QUEENSLAND
GMT Plus 10 hours
ROCKHAMPTON/PORT ALMA
GLADSTONE
BUNDABERG
CAPE CUVIER
CARNAVON
SHARK BAY
WESTERN AUSTRALIA
GMT Plus 8 hours
SOUTH AUSTRALIA
GMT Plus 9 hours 30 minutes
GERALDTON
BRISBANE
NEW SOUTH WALES
GMT Plus 10 hours
NEWCASTLE
SYDNEY
BOTANY BAY
PORT KEMBLA
FREMANTLE
KWINANA
BUNBURY
BUSSELTON
CAPE LEEUWIN
ALBANY
ESPERANCE
THEVENARD
PORT AUGUSTA
WHYALLA
PORT PIRIE
WALLAROO
PORT LINCOLN
PORT GILES
ARDROSSAN
RAPID BAY
PORT ADELAIDE
VICTORIA
GMT Plus 10 hours
MELBOURNE
GEELONG
WESTERNPORT
PORTLAND
BURNIE
PORT LATTA
DEVONPORT
LAUNCESTON
HOBART
TASMANIA
GMT Plus 10 hours

FREMANTLE (VIA CAPE) AT 16 KNOTS TO	DISTANCE IN MILES	DURATION IN DAYS
ALEXANDRIA	11654	30½
AUGUSTA - SICILY	10891	28½
BALBOA	9357	24½
BANGKOK	3000	8
BOMBAY	3982	10½
CALCUTTA	3684	9½
CALLAO	8500	22
CAPE GOOD HOPE	4672	12
COLOMBO	3121	8
CRISTOBAL	11111	29
DAIREN	4400	11½
DAKAR	8300	21½
DJAKARTA	1761	4½
DURBAN	4241	11½
GIBRALTAR	9856	26
HONG KONG	3442	9
HONOLULU	6503	17
LAS PALMAS	9156	24
LOS ANGELES	8565	22½
MANILA	2925	7½
MOMBASA	4564	12
MONTEVIDEO	8266	21½
MONTREAL	11824	31
NEW ORLEANS	11980	31
NEW YORK	11482	30
OSLO	11361	29½
PORT MORESBY	2878	7½
QUOIN ISLAND	4877	13
RIJEKA	11464	30
RIO DE JANEIRO	7943	21
ROTTERDAM	10862	28½
SAN FRANCISCO	8501	22
SINGAPORE	2220	6
SKARAMANGA	11346	29½
TRINIDAD	10000	26
TRIPOLI - LIBYA	10931	28½
VALPARAISO	7827	20½
VANCOUVER	8424	22
YOKOHAMA	4460	11½

FREMANTLE AT 16 KNOTS TO	DISTANCE IN MILES	DURATION IN DAYS
ADELAIDE	1343	3½
ALBANY	349	1
AUCKLAND	3202	8
BRISBANE	2638	7
CAIRNS	3050	8
HOBART	1806	5
MELBOURNE	1681	4½
PORT DARWIN	1838	5
SYDNEY	2140	5½
WELLINGTON	3022	8
DUNEDIN	2750	7
MACKAY	3066	8
WYNDHAM	1764	4½
PORT PIRIE	1400	3½

BRISBANE AT 16 KNOTS TO	DISTANCE IN MILES	DURATION IN DAYS
ADELAIDE	1471	4
ALBANY	2316	6
AUCKLAND	1358	3½
CAIRNS	829	2
DUNEDIN	1606	4
FREMANTLE	2638	7
HOBART	1132	3
MACKAY	511	1½
MELBOURNE	1080	3
PORT DARWIN	2181	5½
PORT PIRIE	1639	4
SYDNEY	515	1½
WELLINGTON	1447	4
WYNDHAM	2311	6

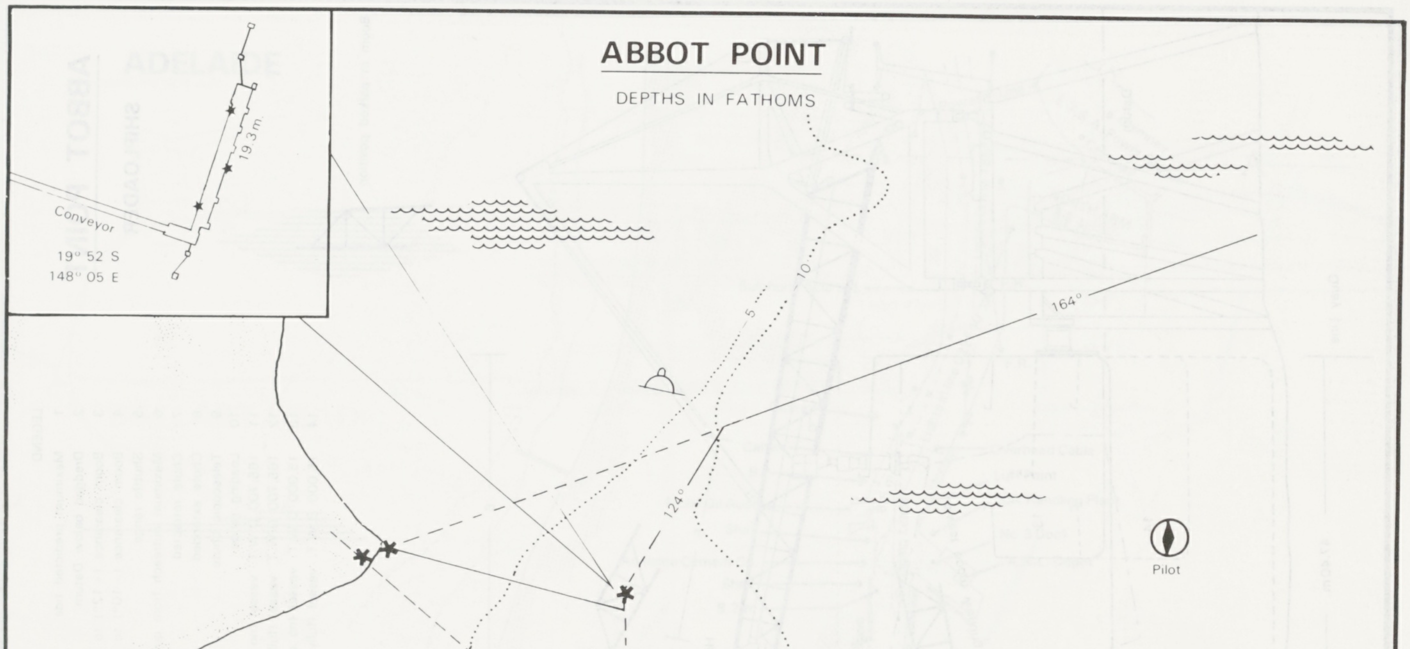
BRISBANE (VIA PANAMA) (VIA MAGELLAN) AT 16 KNOTS TO	DISTANCE IN MILES	DURATION IN DAYS
ADELAIDE	1475	4
AUCKLAND	1358	3½
BALBOA	7714	20
BALIK PAPAN	3098	8
BANGKOK	4600	12
BOMBAY	6196	16
CALCUTTA	5510	14½
CALLAO	7103	18½
CAPE GOOD HOPE	7100	18½
COLOMBO	5325	14
DAIREN	4500	12
DAKAR	10728	28
DJAKARTA	3485	9
DURBAN	6608	17
VIA CAPE	12140	32
GIBRALTAR		
VIA CANAL	12090	32
HOBART	1132	3
HONG KONG	4070	10½
HONOLULU	4118	11
VIA CAPE	11469	30
LAS PALMAS		
VIA PANAMA	11564	30
LOS ANGELES	6285	16½
MANILA	3520	9
MELBOURNE	1080	3
MOMBASA	7000	18½
MONTEVIDEO	7300	19
MONTREAL	10950	28½
NEW ORLEANS	9100	24
NEW YORK	9890	26
PORT MORESBY	1390	3½
QUOIN ISLAND	7070	18½
ROTTERDAM	12600	33
SAN FRANCISCO	6200	16½
SINGAPORE	3850	10
SYDNEY	515	1½
THURSDAY ISLAND	1320	3½
TRINIDAD	8900	23
YOKOHAMA	3930	10
VALPARAISO	6450	17
VANCOUVER	6490	17
WELLINGTON	1446	4



AUSTRALIAN SHIP REPORTING

(AUSREP) AREA

80°
100°
120°
140°
160°
0°
10°
20°
30°
40°
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
VID
VIO
VIT
VIR
VIB
VIC
VIP
VIE
VIA
VIS
VIM
VIH

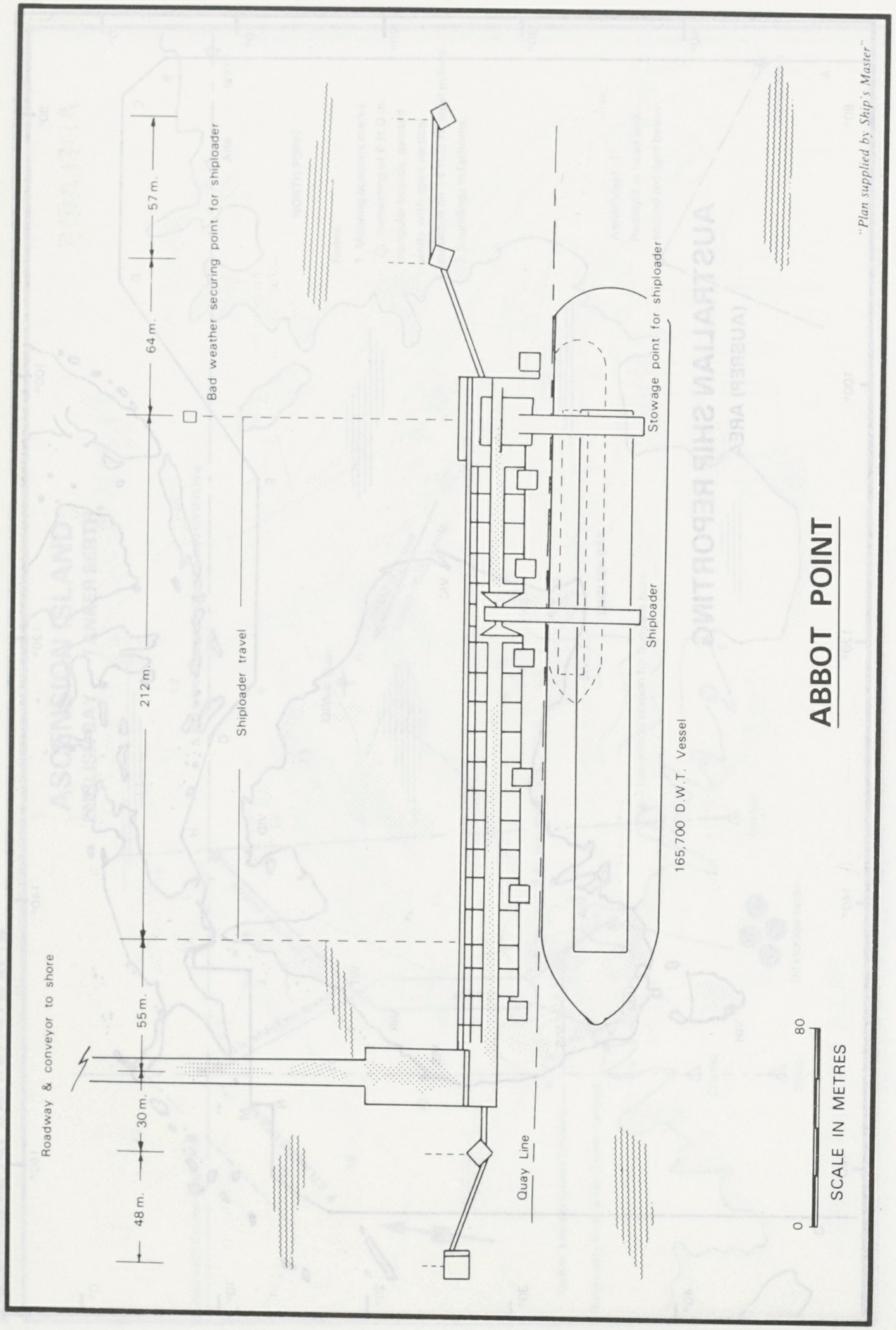


ABBOT POINT

DEPTHS IN FATHOMS

19.3m
Conveyor
19° 52 S
148° 05 E
164°
124°
274°
225°
5
5
10
10
Pilot
N

ABBOT POINT


Roadway & conveyor to shore
48 m.
30 m.
55 m.
212 m.
64 m.
57 m.
Quay Line
Shiploader travel
Bad weather securing point for shiploader
Stowage point for shiploader
Shiploader
165,700 D.W.T. Vessel
SCALE IN METRES
0
80

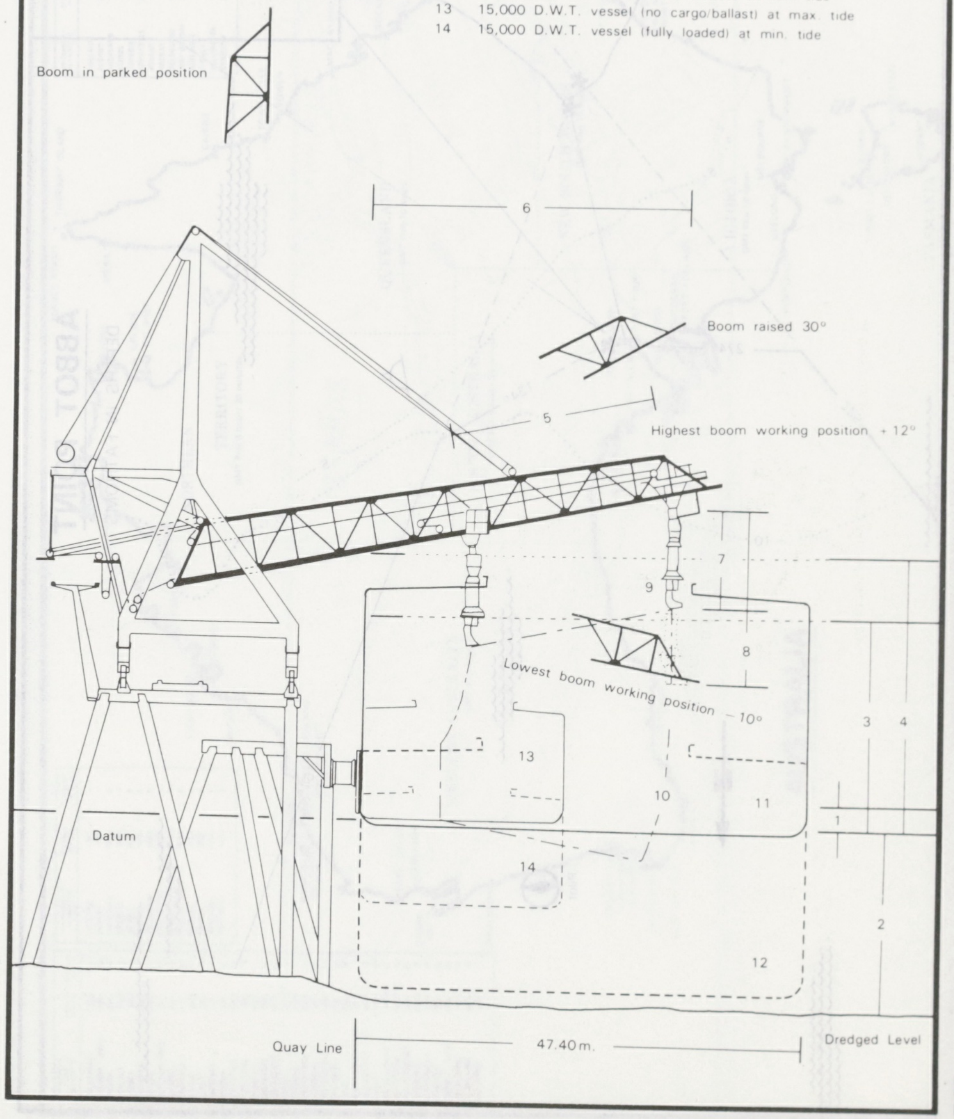
"Plan supplied by Ship's Master"

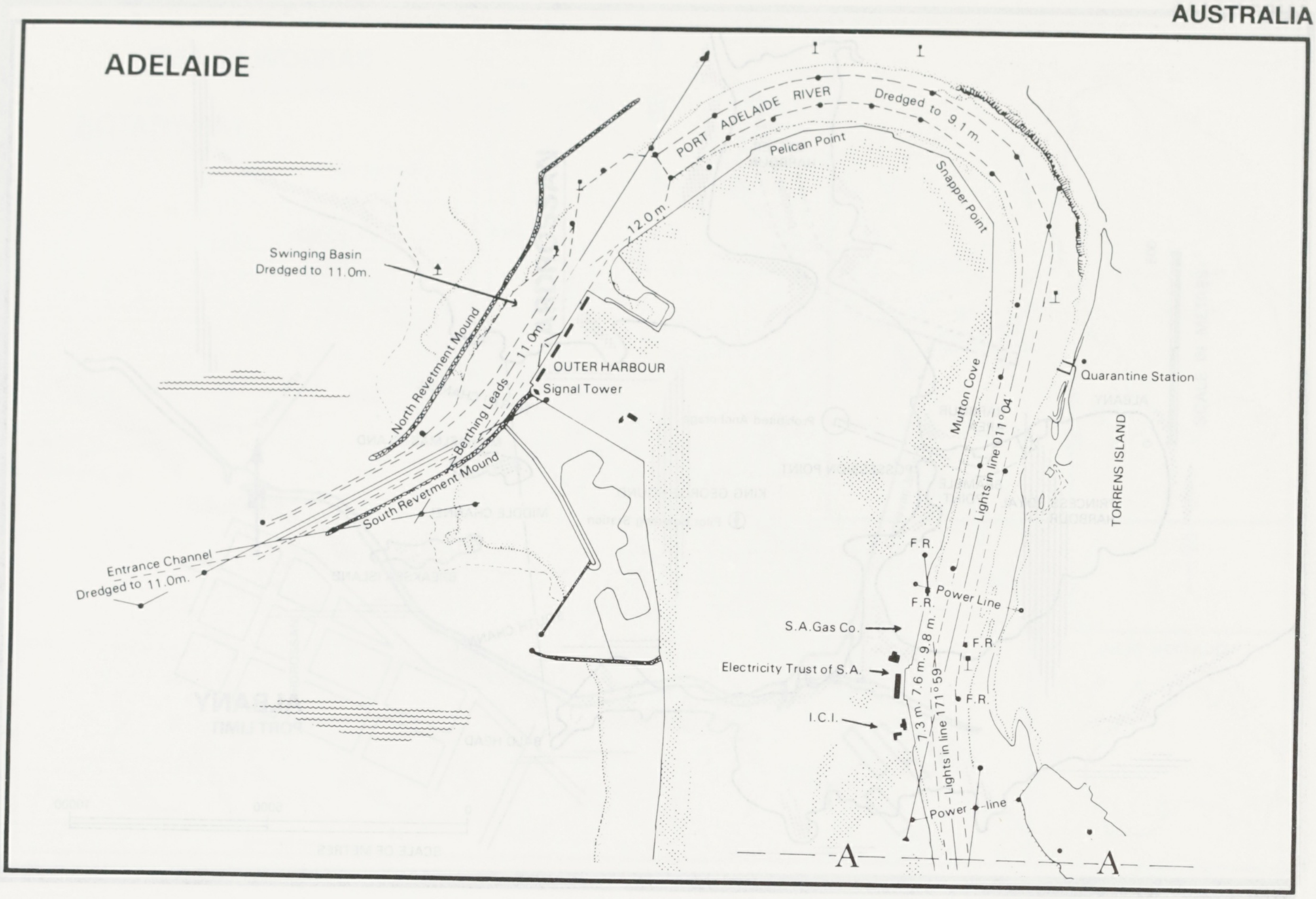
ABBOT POINT

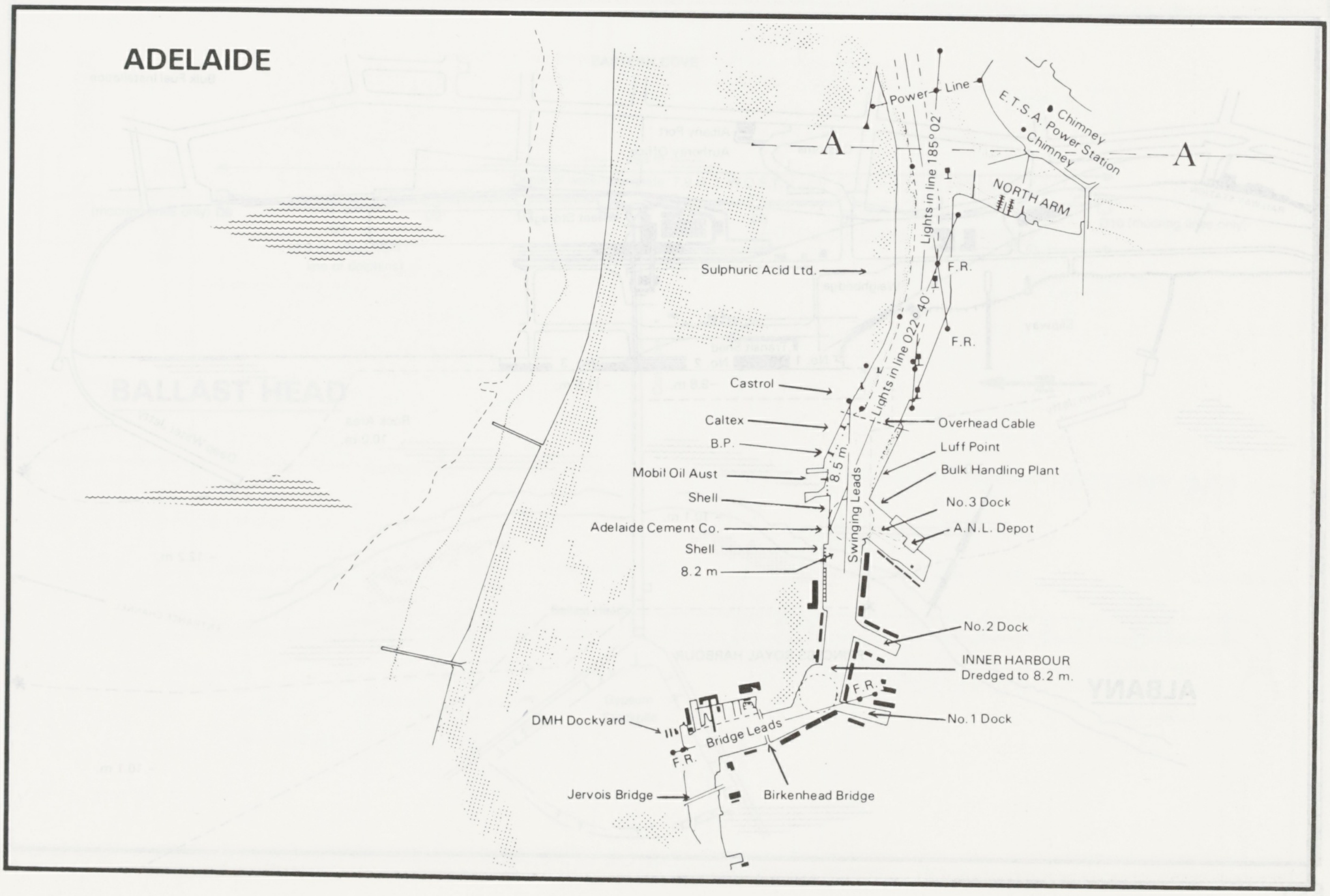
SHIPLOADER

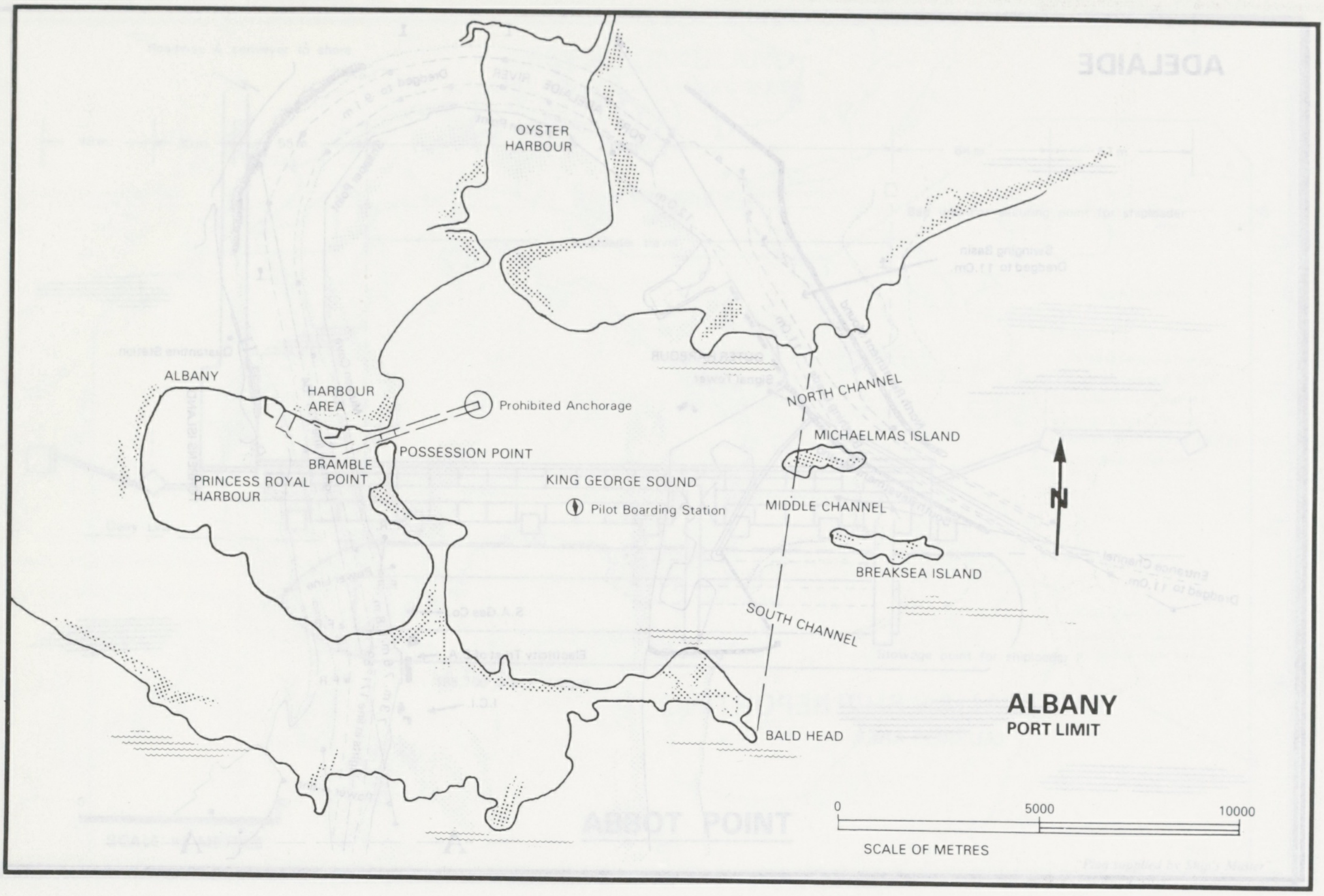
LEGEND

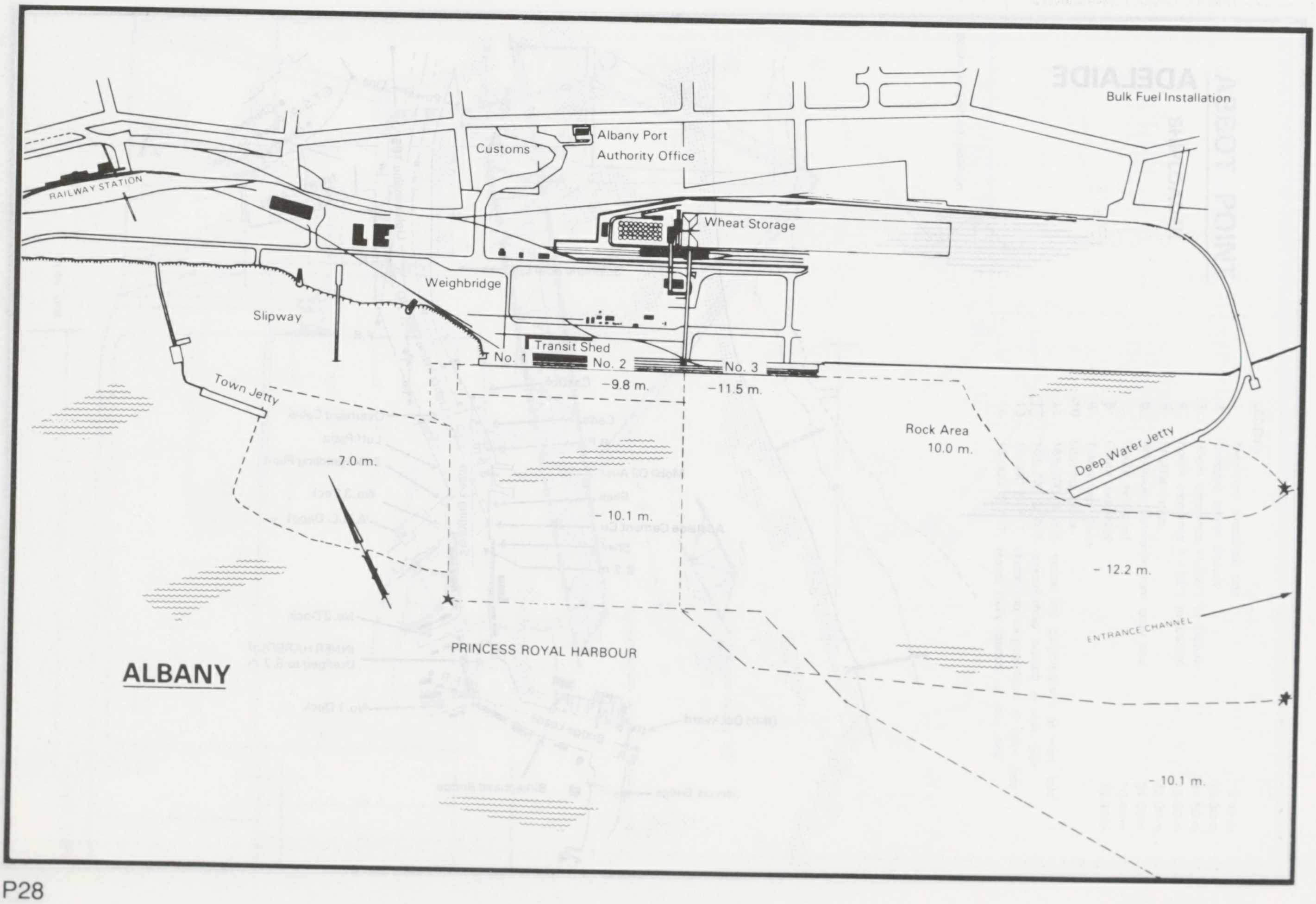
1	Maximum predicted tide	3.49 m.
2	Dredged below Datum	19.30 m.
3	Boom clearance (+12°) to Datum	27.50 m.
4	Boom clearance (−10°) to Datum	19.30 m.
5	Shuttle range	22.00 m.
6	Maximum outreach from quay line	34.00 m.
7	Chute retracted	10.40 m.
8	Chute extended	18.40 m.
9	Telescopic chute	
10	Loading range	
11	165,700 D.W.T. vessel (no cargo/ballast) at max. tide	
12	165,700 D.W.T. vessel (fully loaded) at min. tide	
13	15,000 D.W.T. vessel (no cargo/ballast) at max. tide	
14	15,000 D.W.T. vessel (fully loaded) at min. tide	

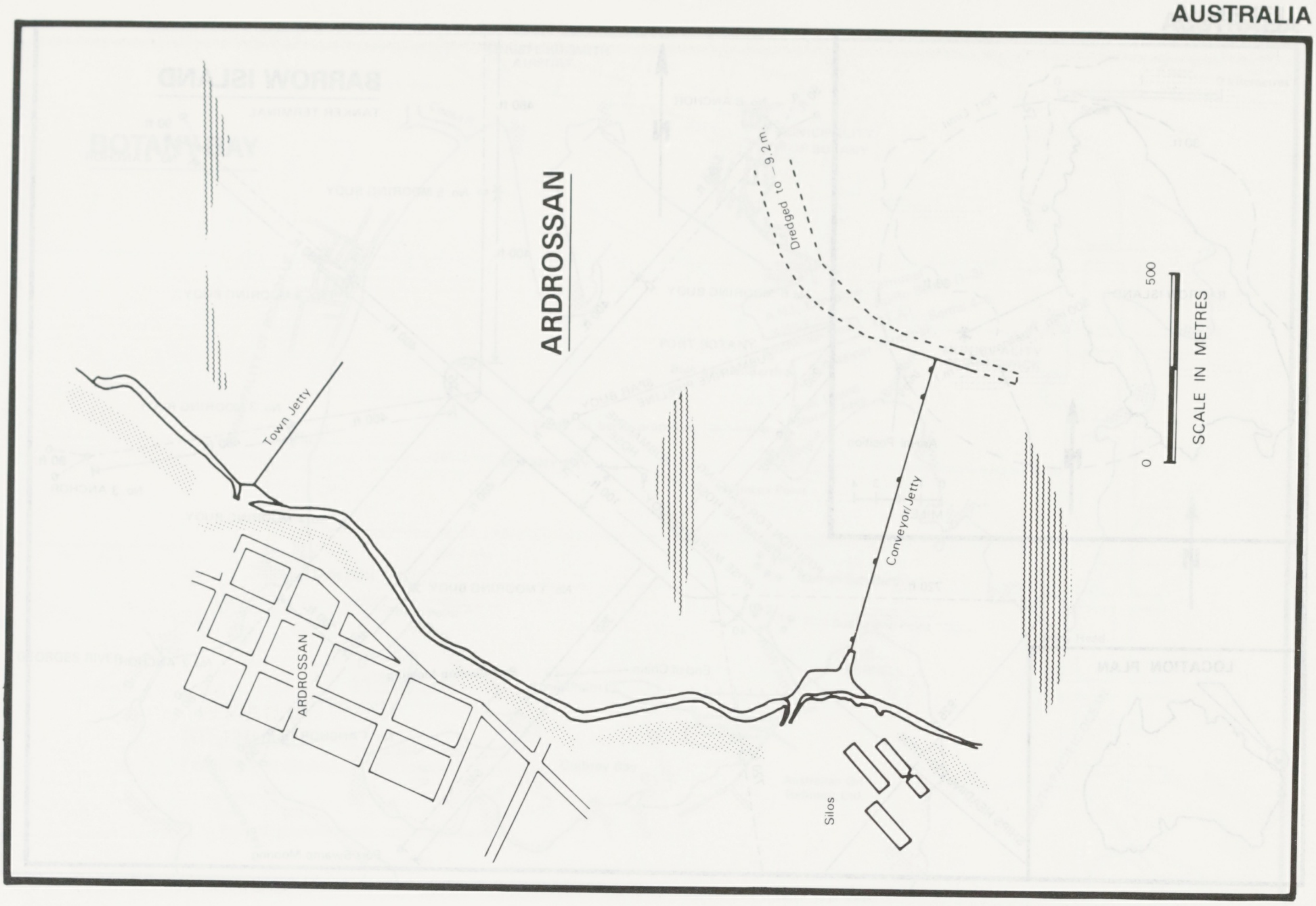

Boom in parked position
6
Boom raised 30°
5
Highest boom working position +12°
7
9
8
Lowest boom working position −10°
3
4
13
10
11
1
Datum
14
2
12
Quay Line
47.40 m.
Dredged Level

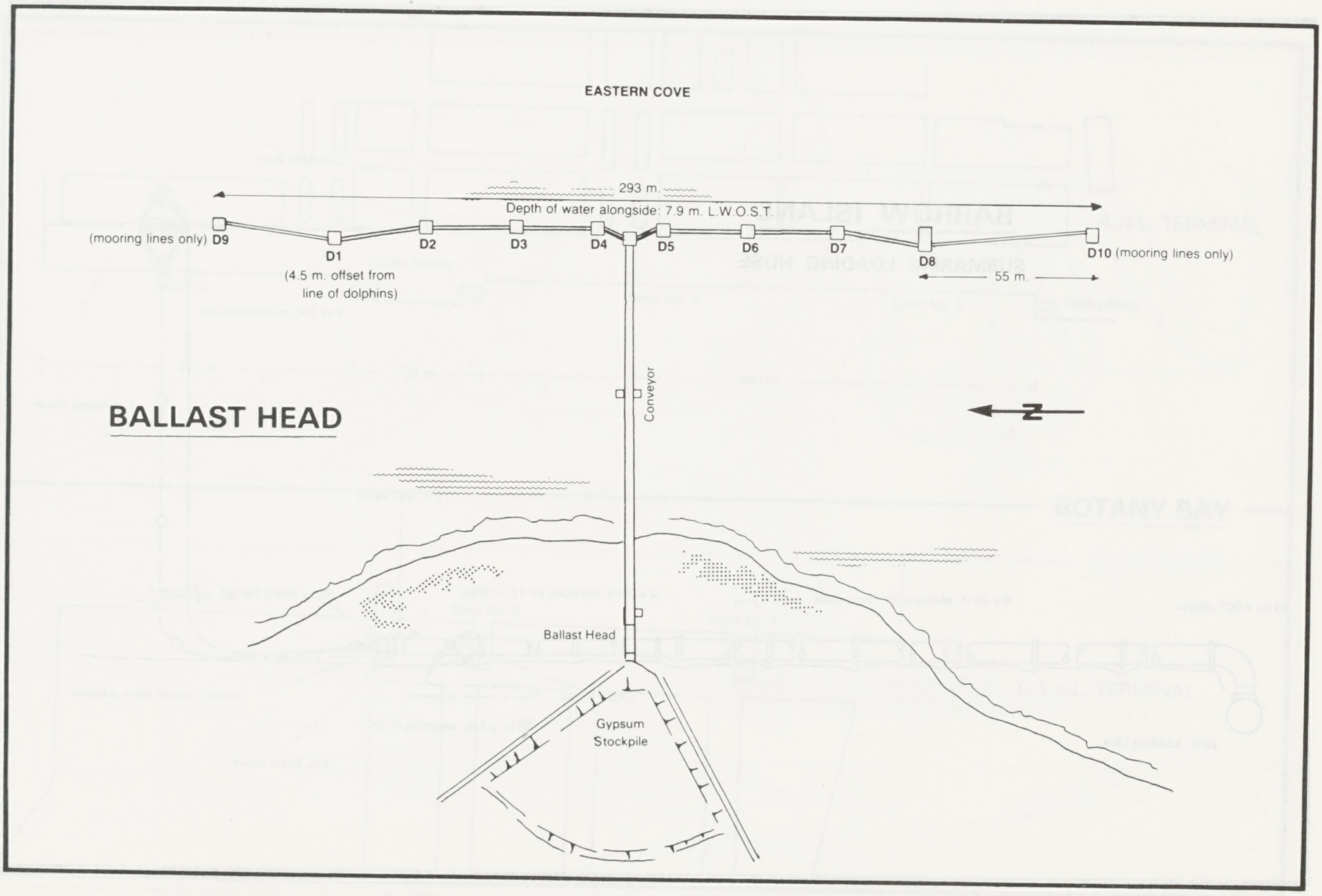

ADELAIDE
PORT ADELAIDE RIVER
Dredged to 9.1 m.
Pelican Point
Snapper Point
12.0 m.
Swinging Basin
Dredged to 11.0m.
11.0m.
North Revetment Mound
Berthing Leads
OUTER HARBOUR
Signal Tower
South Revetment Mound
Entrance Channel
Dredged to 11.0m.
Mutton Cove
Lights in line 011°04
Quarantine Station
TORRENS ISLAND
F.R.
F.R.
Power Line
S.A.Gas Co.
9.8 m.
Electricity Trust of S.A.
F.R.
7.3 m.
7.6 m.
Lights in line 171°59
F.R.
I.C.I.
Power line
A
A

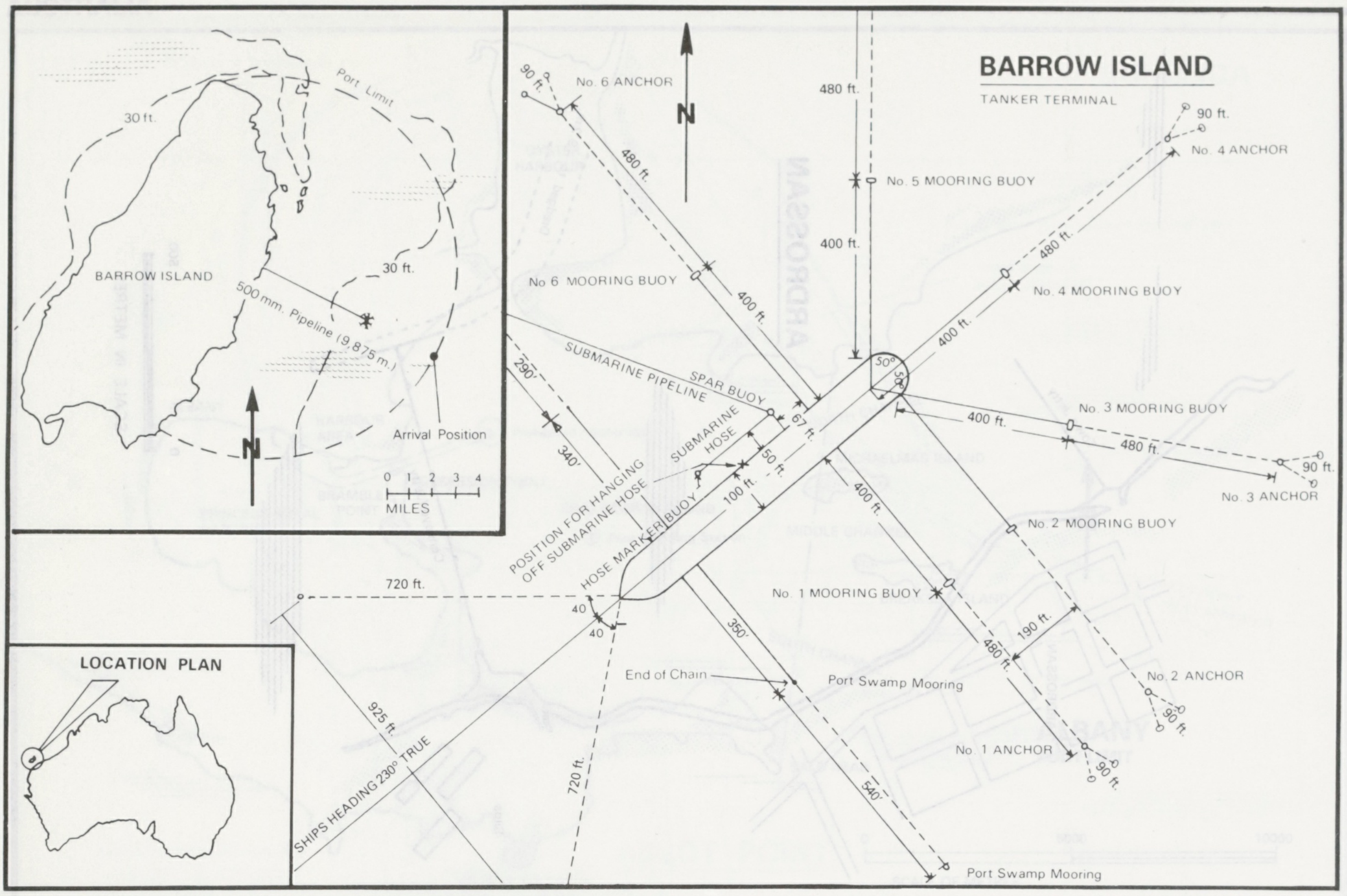

ADELAIDE
Power
Line
Chimney
E.T.S.A. Power Station
Chimney
A
A
Lights in line 185°02
NORTH ARM
Sulphuric Acid Ltd.
F.R.
F.R.
Lights in line 022°40
Castrol
Caltex
Overhead Cable
B.P.
Luff Point
8.5 m
Mobil Oil Aust
Bulk Handling Plant
Shell
Swinging Leads
No.3 Dock
Adelaide Cement Co.
A.N.L. Depot
Shell
8.2 m
No.2 Dock
INNER HARBOUR
Dredged to 8.2 m.
F.R.
DMH Dockyard
No.1 Dock
Bridge Leads
F.R.
Jervois Bridge
Birkenhead Bridge

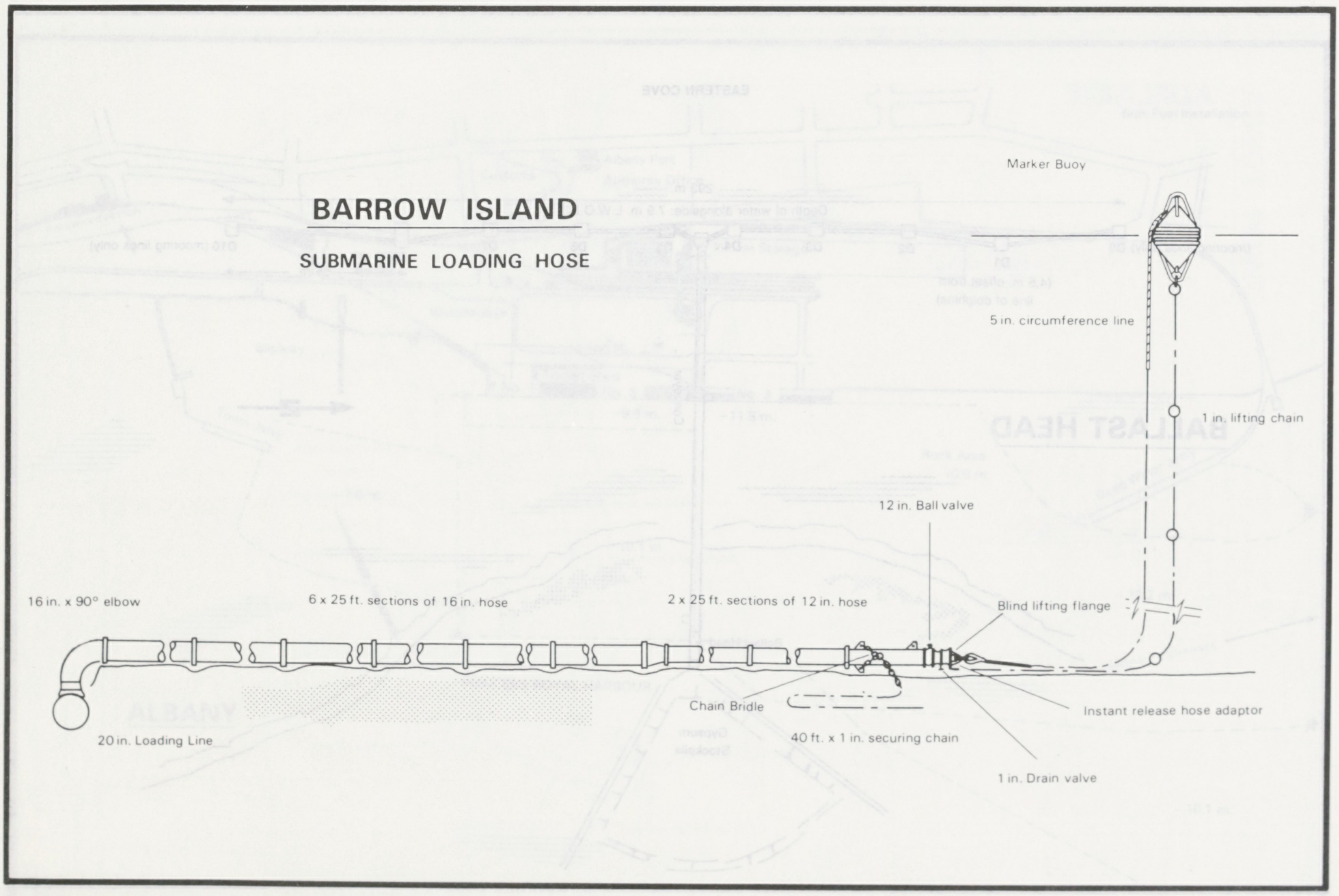

OYSTER HARBOUR
ALBANY
HARBOUR AREA
Prohibited Anchorage
NORTH CHANNEL
MICHAELMAS ISLAND
POSSESSION POINT
BRAMBLE POINT
PRINCESS ROYAL HARBOUR
KING GEORGE SOUND
Pilot Boarding Station
MIDDLE CHANNEL
N
BREAKSEA ISLAND
SOUTH CHANNEL
ALBANY
PORT LIMIT
BALD HEAD
0
5000
10000
SCALE OF METRES

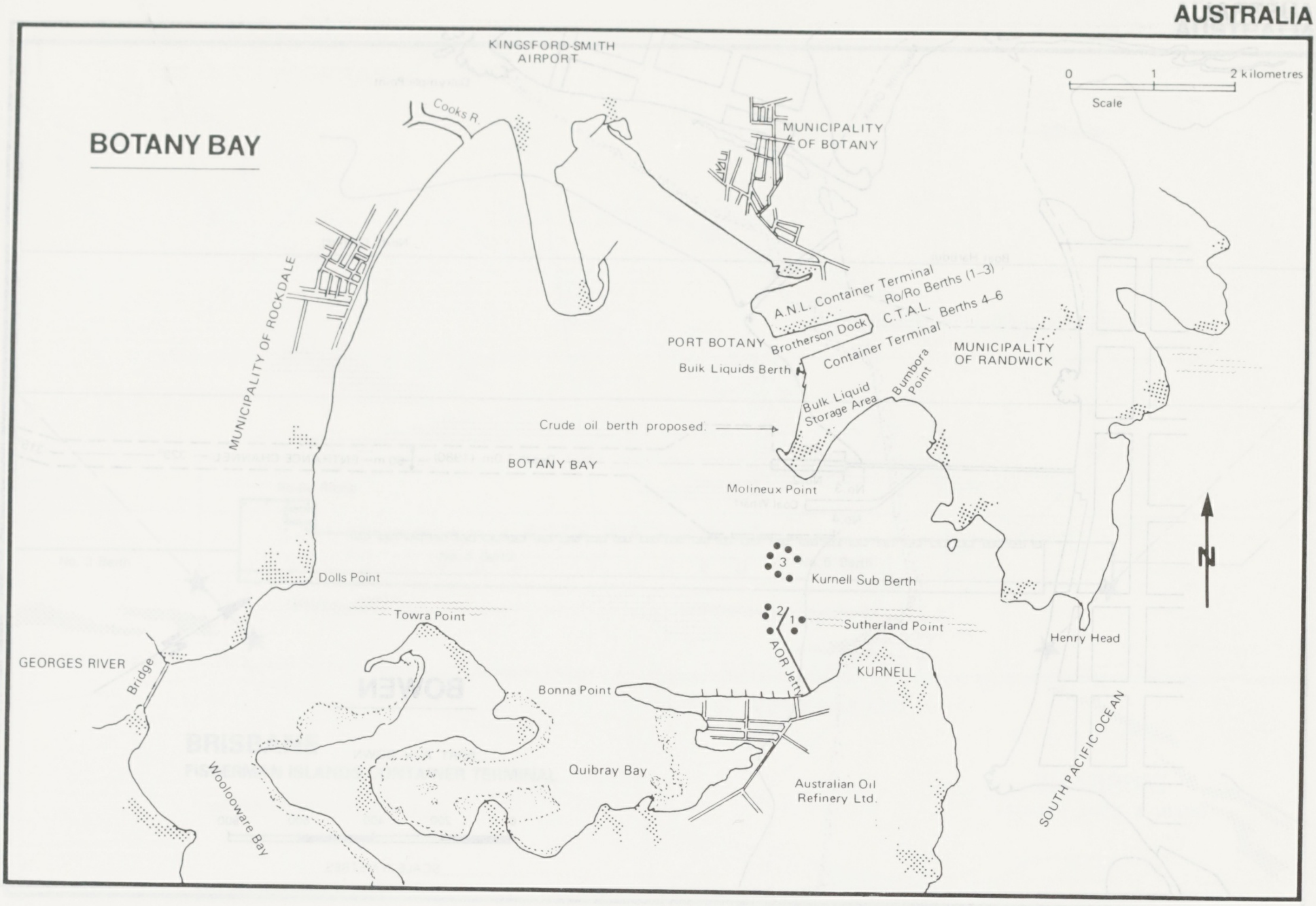

Bulk Fuel Installation
Albany Port Authority Office
Customs
RAILWAY STATION
Wheat Storage
Weighbridge
Slipway
Transit Shed
No. 1
No. 2
No. 3
-9.8 m.
-11.5 m.
Town Jetty
Rock Area
10.0 m.
Deep Water Jetty
-7.0 m.
- 10.1 m.
- 12.2 m.
ENTRANCE CHANNEL
PRINCESS ROYAL HARBOUR
ALBANY
- 10.1 m.

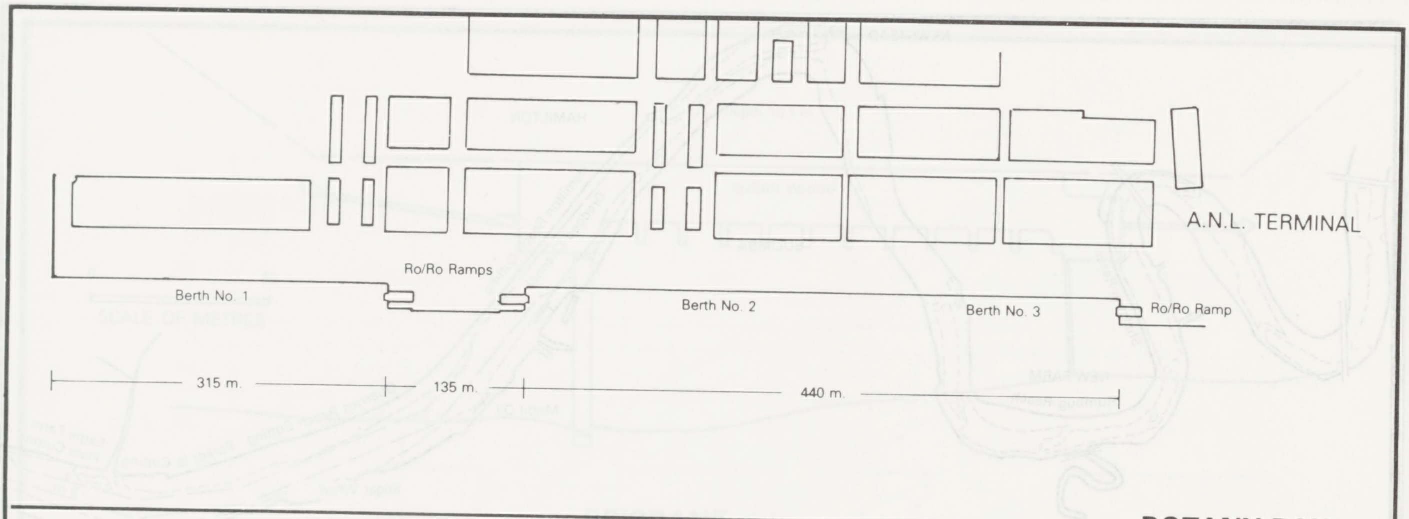

ARDROSSAN
Town Jetty
ARDROSSAN
Dredged to –9.2 m.
Conveyor/Jetty
Silos
0
500
SCALE IN METRES


EASTERN COVE
293 m.
Depth of water alongside: 7.9 m. L.W.O.S.T.
(mooring lines only) D9
D1
(4.5 m. offset from line of dolphins)
D2
D3
D4
D5
D6
D7
D8
D10 (mooring lines only)
55 m.
Conveyor
BALLAST HEAD
N
Ballast Head
Gypsum Stockpile

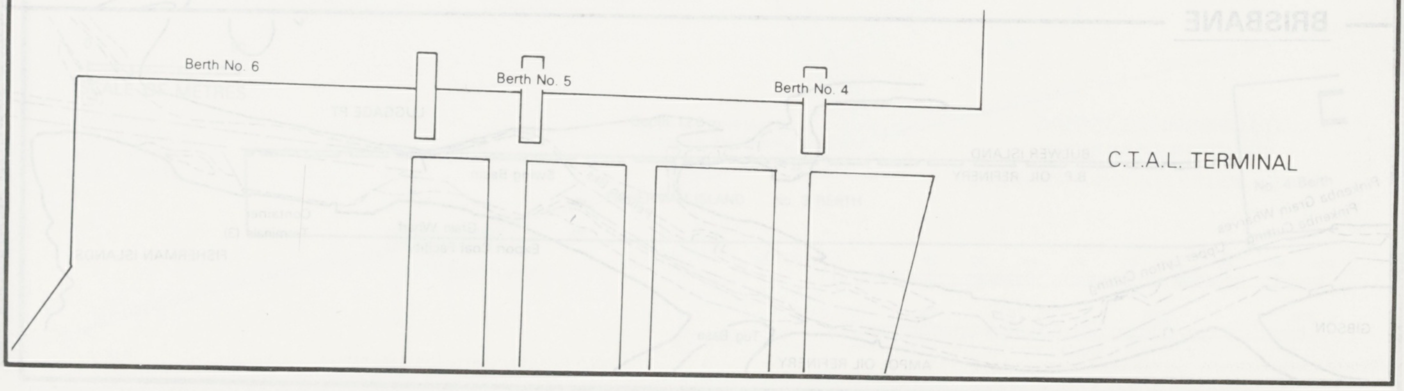

BARROW ISLAND
TANKER TERMINAL
N
No. 6 ANCHOR
90 ft.
480 ft.
No 6 MOORING BUOY
400 ft.
480 ft.
No. 5 MOORING BUOY
400 ft.
90 ft.
No. 4 ANCHOR
480 ft.
No. 4 MOORING BUOY
400 ft.
50°
50
SUBMARINE PIPELINE
SPAR BUOY
67 ft.
SUBMARINE HOSE
50 ft.
100 ft.
290'
340'
POSITION FOR HANGING OFF SUBMARINE HOSE
HOSE MARKER BUOY
No. 3 MOORING BUOY
400 ft.
480 ft.
90 ft.
No. 3 ANCHOR
400 ft.
No. 2 MOORING BUOY
No. 1 MOORING BUOY
720 ft.
40
40
350'
190 ft.
480 ft.
No. 2 ANCHOR
90 ft.
No. 1 ANCHOR
90 ft.
End of Chain
Port Swamp Mooring
925 ft.
SHIPS HEADING 230° TRUE
720 ft.
540'
Port Swamp Mooring
Port Limit
30 ft.
30 ft.
BARROW ISLAND
500 mm. Pipeline (9,875 m.)
Arrival Position
N
0 1 2 3 4
MILES
LOCATION PLAN

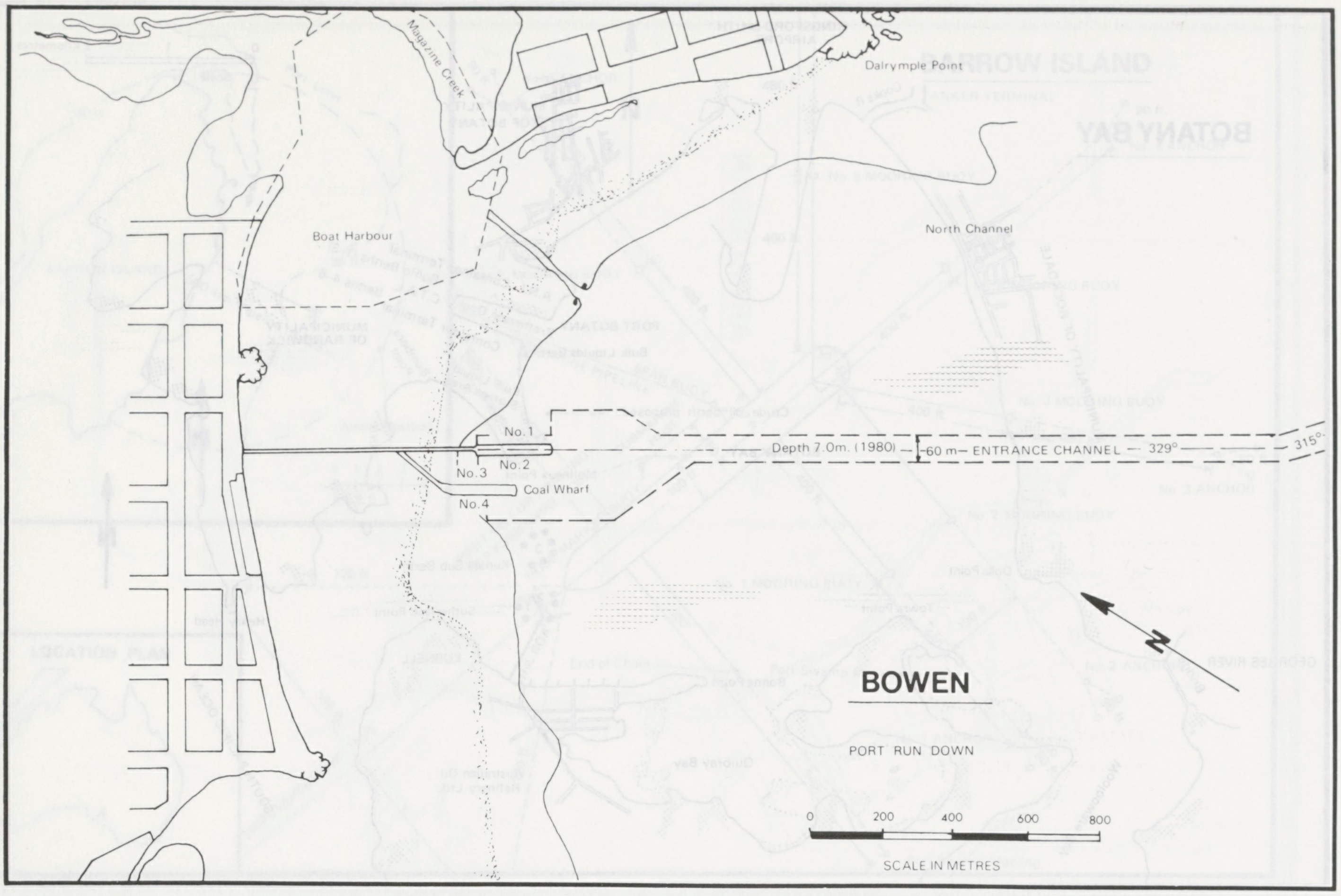

BARROW ISLAND
SUBMARINE LOADING HOSE
Marker Buoy
5 in. circumference line
1 in. lifting chain
12 in. Ball valve
16 in. x 90° elbow
6 x 25 ft. sections of 16 in. hose
2 x 25 ft. sections of 12 in. hose
Blind lifting flange
20 in. Loading Line
Chain Bridle
40 ft. x 1 in. securing chain
Instant release hose adaptor
1 in. Drain valve

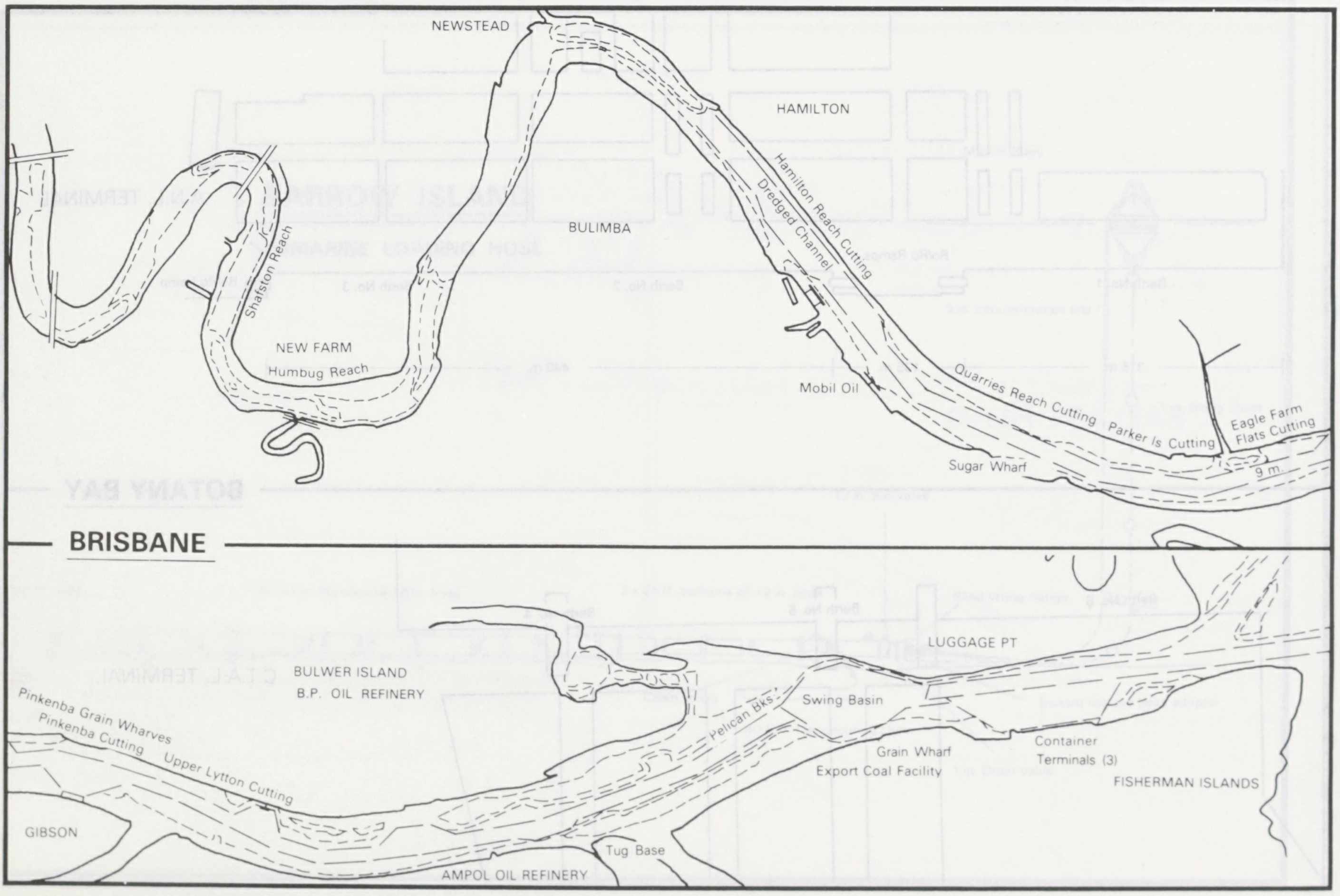

BOTANY BAY
KINGSFORD-SMITH AIRPORT
0 1 2 kilometres
Scale
Cooks R.
MUNICIPALITY OF BOTANY
MUNICIPALITY OF ROCKDALE
A.N.L. Container Terminal
Ro/Ro Berths (1-3)
C.T.A.L.
Berths 4-6
Container Terminal
PORT BOTANY
Brotherson Dock
Bulk Liquids Berth
Bulk Liquid Storage Area
Bumbora Point
MUNICIPALITY OF RANDWICK
Crude oil berth proposed.
BOTANY BAY
Molineux Point
3
Kurnell Sub Berth
2
1
Sutherland Point
AOR Jetty
Dolls Point
Towra Point
GEORGES RIVER
Bridge
Bonna Point
KURNELL
Henry Head
Quibray Bay
Woolooware Bay
Australian Oil Refinery Ltd.
SOUTH PACIFIC OCEAN
N

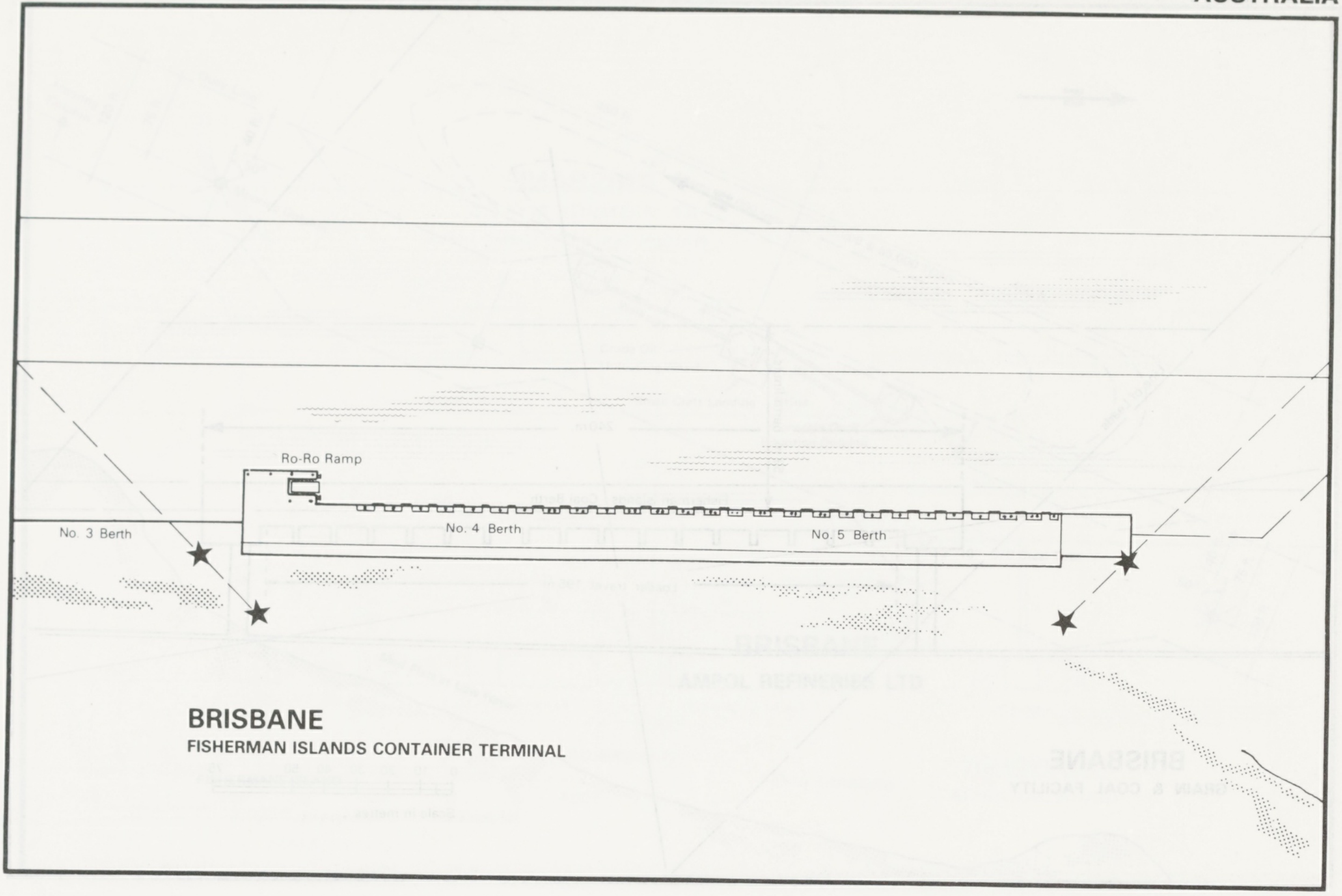

A.N.L. TERMINAL
Ro/Ro Ramps
Berth No. 1
Berth No. 2
Berth No. 3
Ro/Ro Ramp
315 m.
135 m.
440 m.

BOTANY BAY


Berth No. 6
Berth No. 5
Berth No. 4
C.T.A.L. TERMINAL

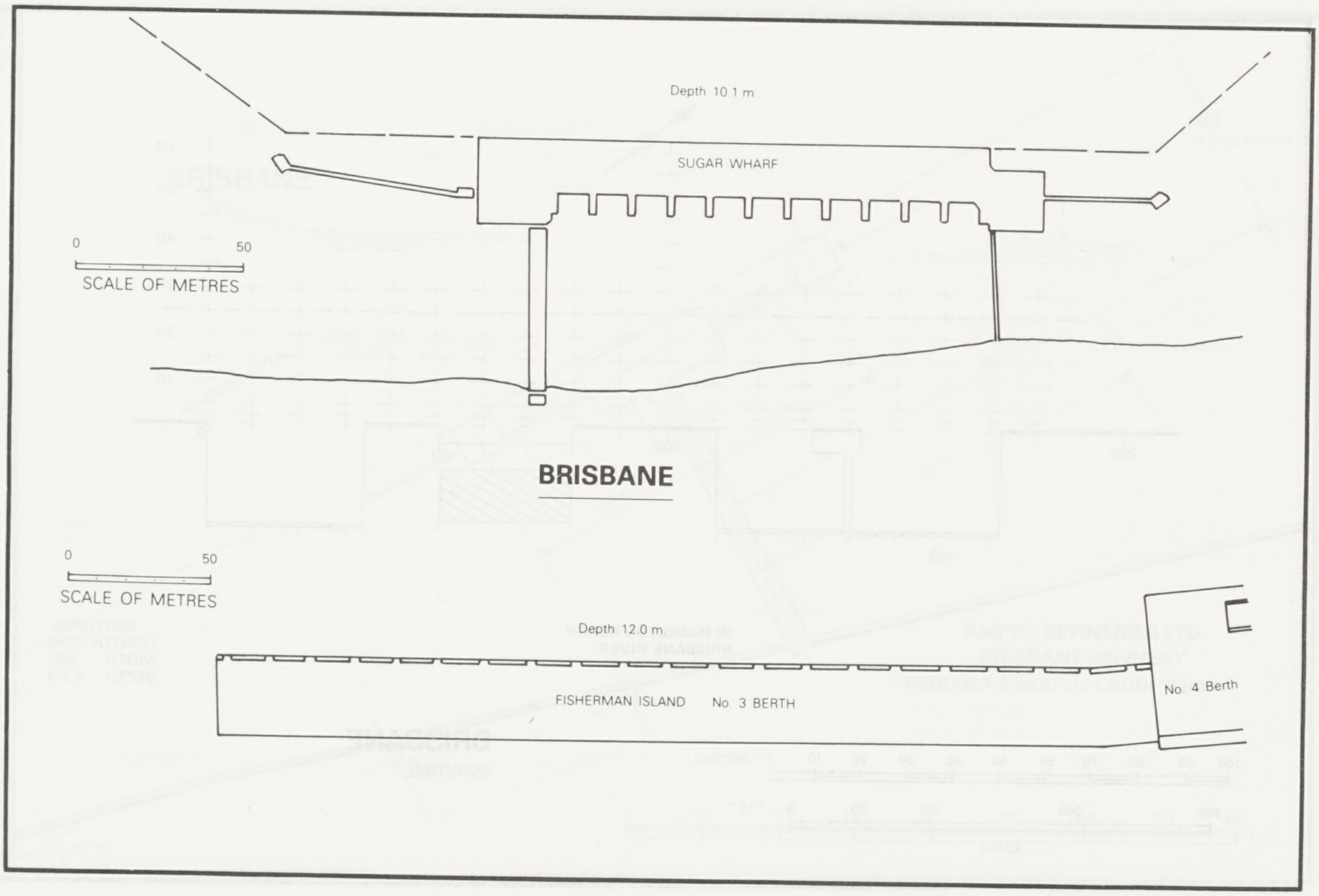

Magazine Creek
Dalrymple Point
Boat Harbour
North Channel
No.1
No.2
No.3
No.4
Coal Wharf
Depth 7.0m. (1980)
60 m
ENTRANCE CHANNEL
329°
315°
N
BOWEN
PORT RUN DOWN
0
200
400
600
800
SCALE IN METRES


NEWSTEAD
HAMILTON
Hamilton Reach Cutting
Dredged Channel
BULIMBA
Shafston Reach
NEW FARM
Humbug Reach
Mobil Oil
Quarries Reach Cutting
Parker Is Cutting
Eagle Farm Flats Cutting
Sugar Wharf
9 m.
BRISBANE
LUGGAGE PT
BULWER ISLAND
B.P. OIL REFINERY
Swing Basin
Pinkenba Grain Wharves
Pinkenba Cutting
Upper Lytton Cutting
Pelican Bks
Grain Wharf
Export Coal Facility
Container Terminals (3)
FISHERMAN ISLANDS
GIBSON
Tug Base
AMPOL OIL REFINERY

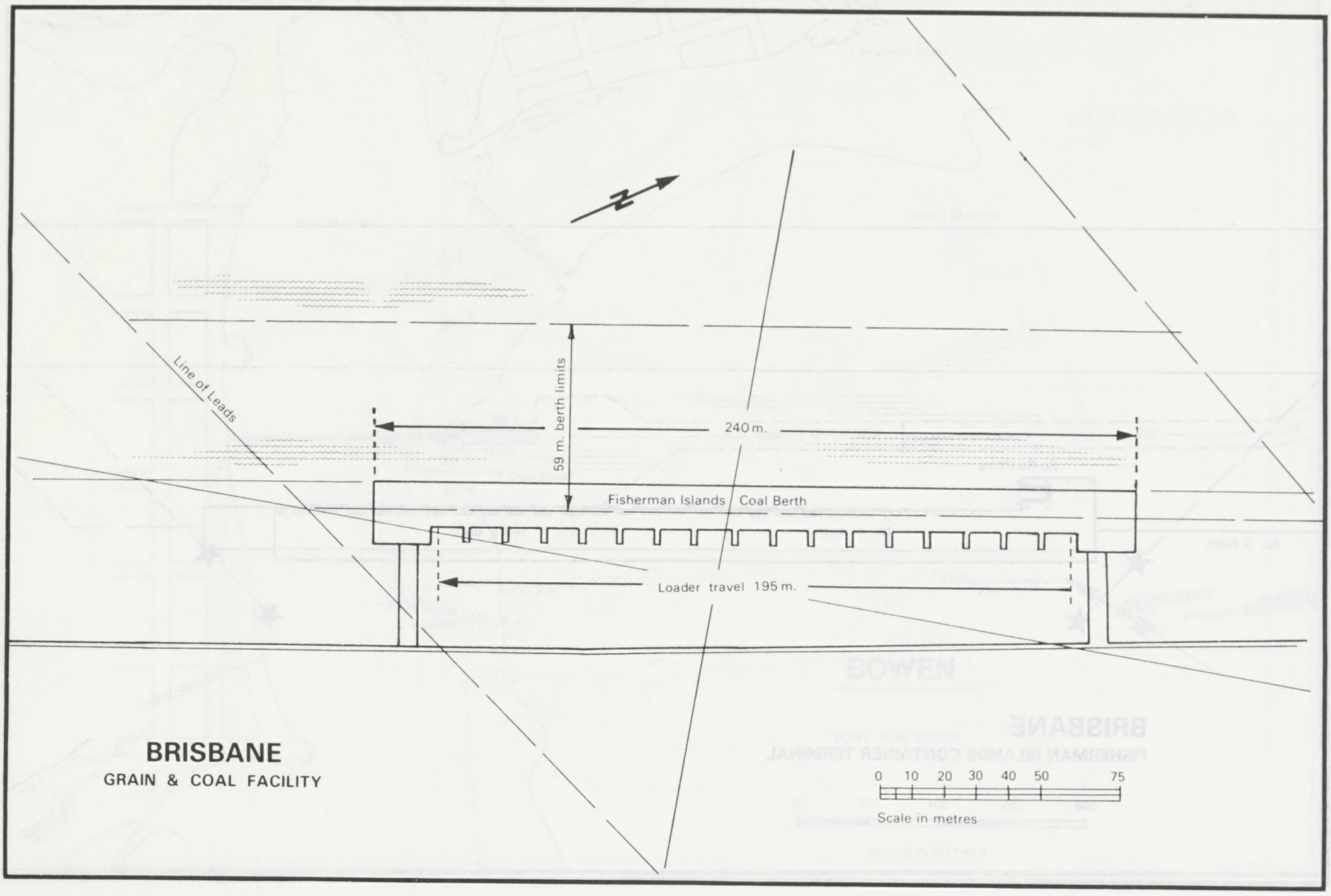

Ro-Ro Ramp
No. 3 Berth
No. 4 Berth
No. 5 Berth

BRISBANE

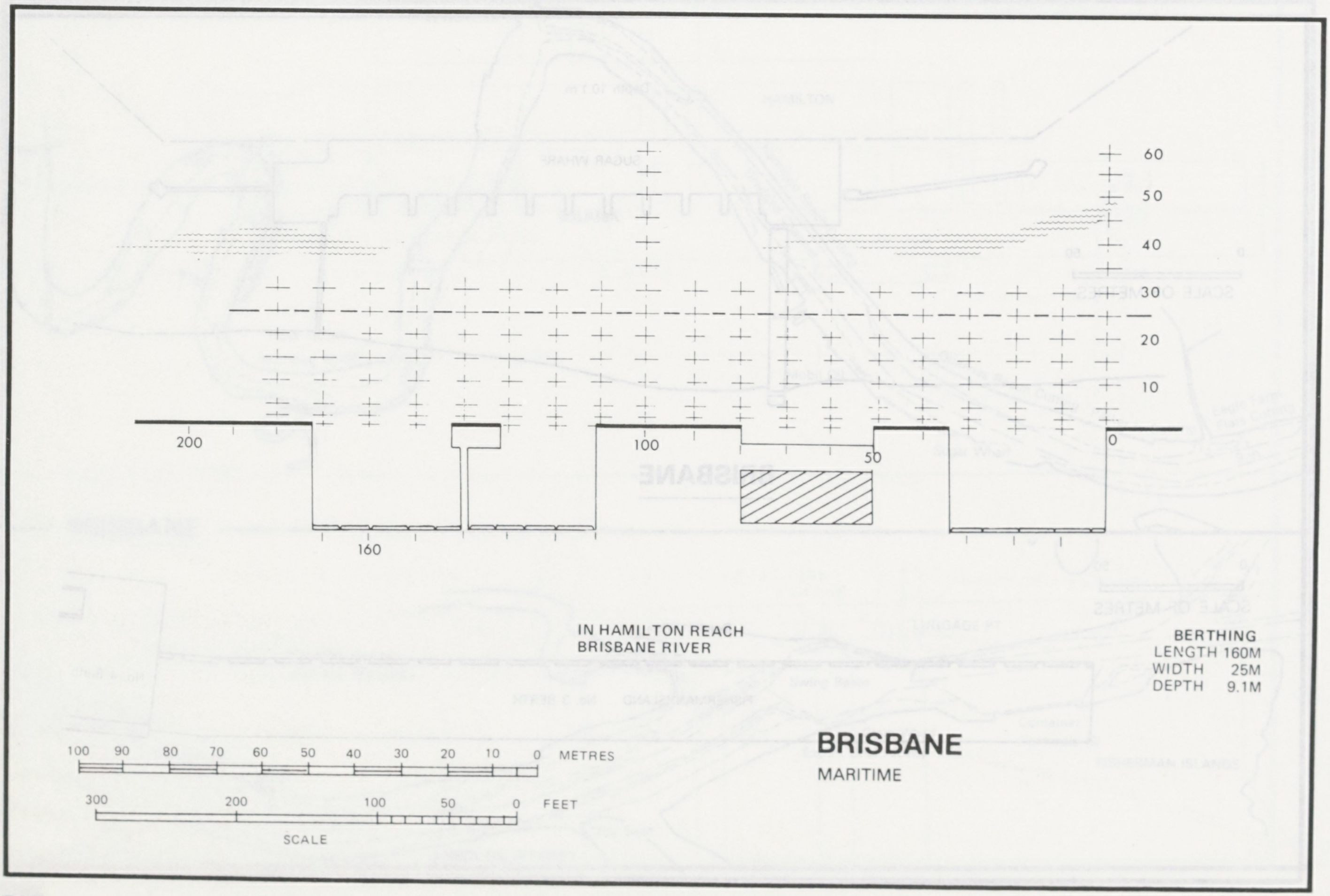
FISHERMAN ISLANDS CONTAINER TERMINAL


Depth 10.1 m
SUGAR WHARF
0
50
SCALE OF METRES
0
50
SCALE OF METRES
Depth 12.0 m
FISHERMAN ISLAND
No. 3 BERTH
No. 4 Berth

BRISBANE


Line of Leads
240 m.
59 m. berth limits
Fisherman Islands Coal Berth
Loader travel 195 m.
0 10 20 30 40 50 75
Scale in metres

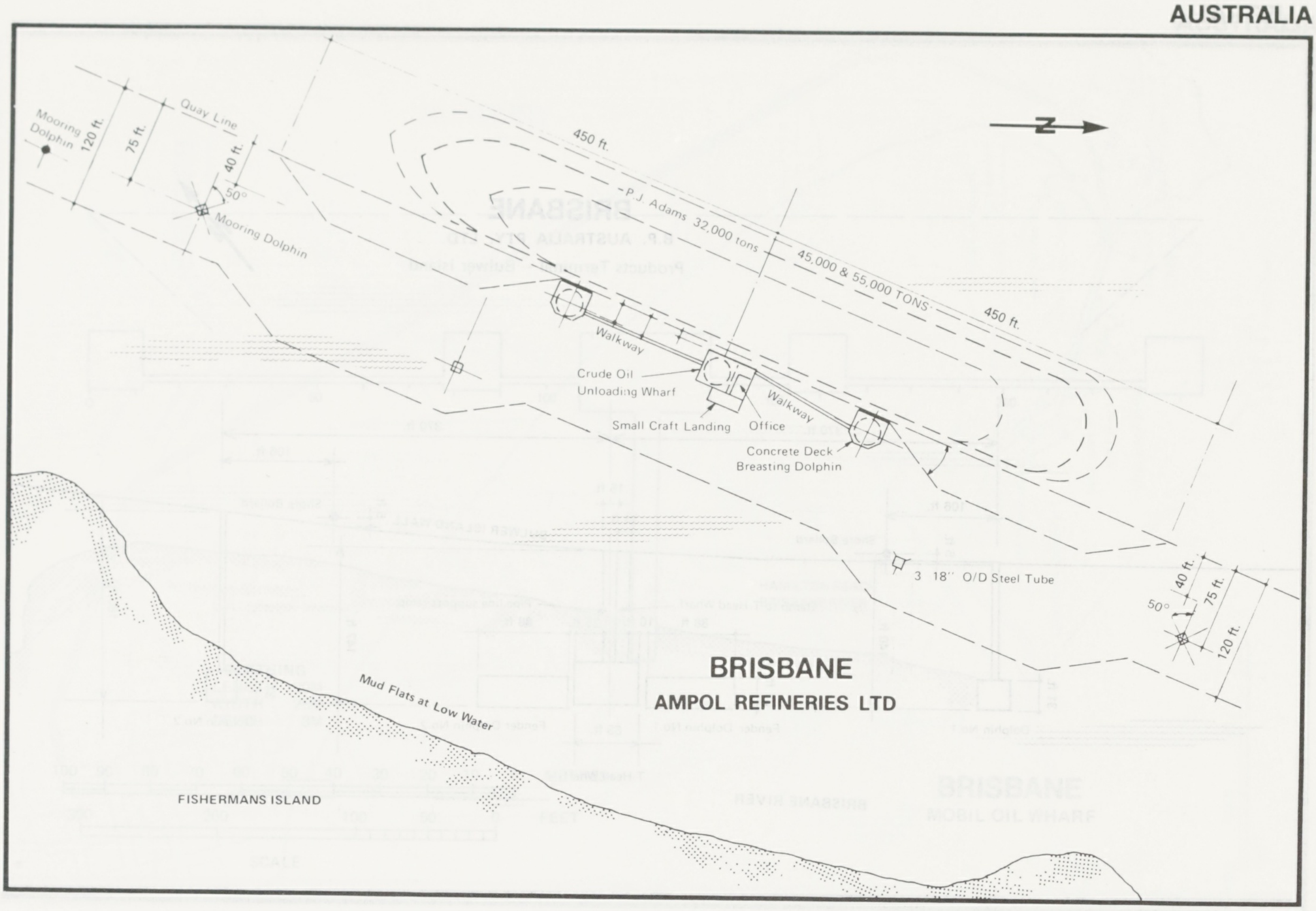
BRISBANE
GRAIN & COAL FACILITY


60
50
40
30
20
10
0
200
100
50
160
100 90 80 70 60 50 40 30 20 10 0 METRES
300 200 100 50 0 FEET
SCALE

IN HAMILTON REACH
BRISBANE RIVER

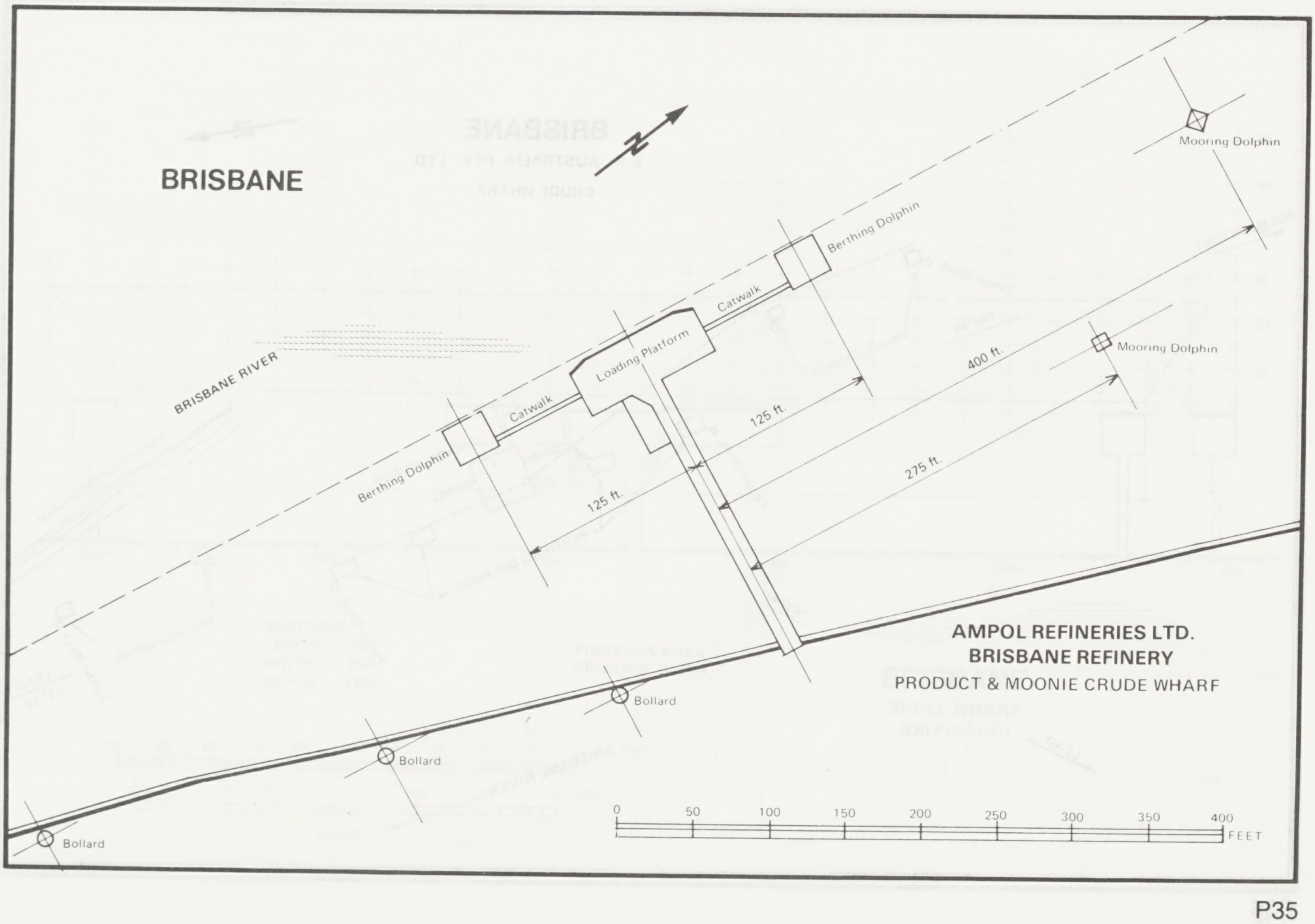
BERTHING
LENGTH 160M
WIDTH 25M
DEPTH 9.1M

BRISBANE
MARITIME


Mooring Dolphin
120 ft.
75 ft.
Quay Line
40 ft.
50°
Mooring Dolphin
450 ft.
N
P.J. Adams 32,000 tons
45,000 & 55,000 TONS
450 ft.
Walkway
Crude Oil Unloading Wharf
Walkway
Small Craft Landing
Office
Concrete Deck Breasting Dolphin
3 18" O/D Steel Tube
40 ft.
75 ft.
50°
120 ft.
Mud Flats at Low Water
FISHERMANS ISLAND

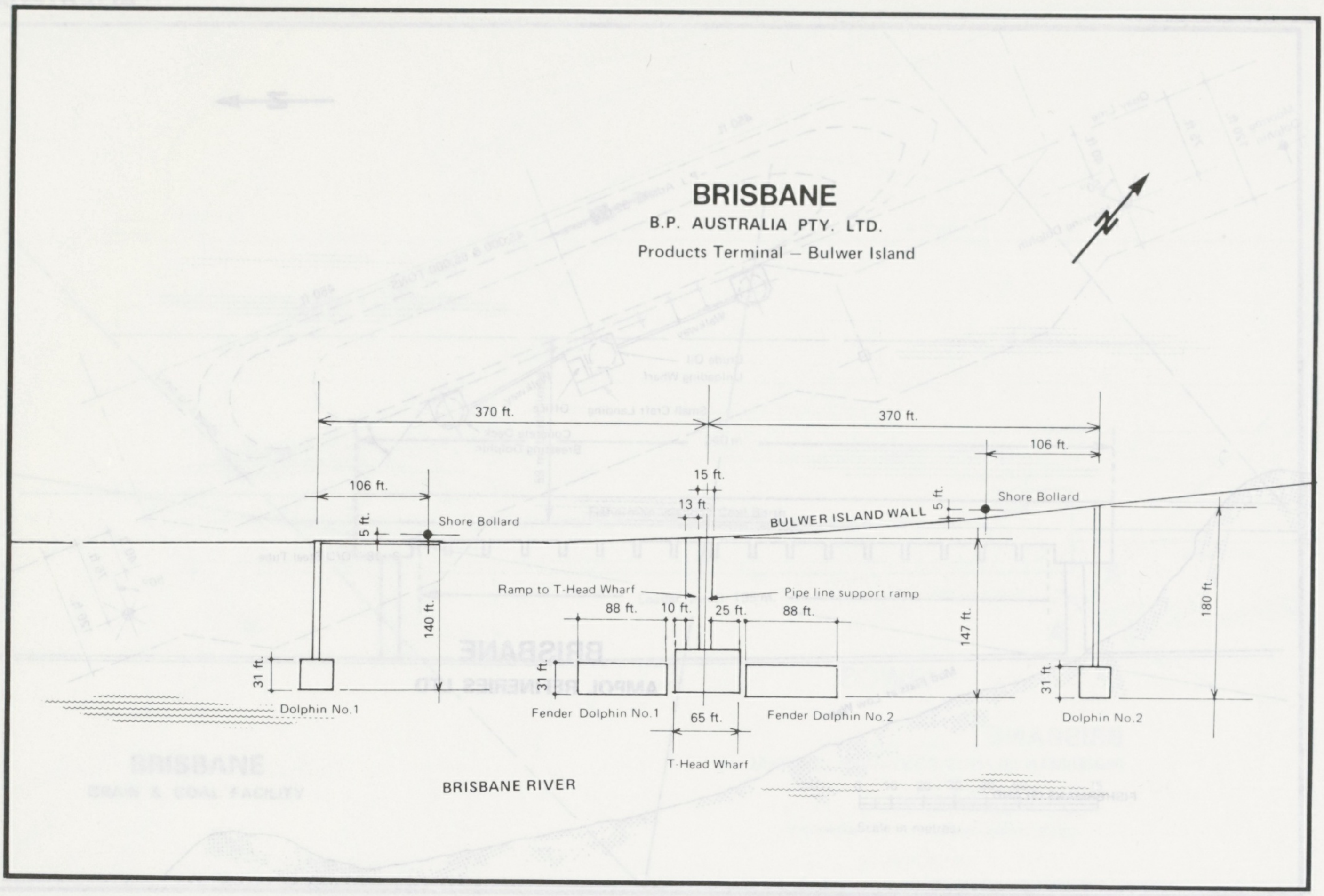
BRISBANE

AMPOL REFINERIES LTD


N
Mooring Dolphin
Berthing Dolphin
Catwalk
Loading Platform
Catwalk
Berthing Dolphin
BRISBANE RIVER
400 ft.
Mooring Dolphin
125 ft.
275 ft.
125 ft.
Bollard
Bollard
Bollard
0
50
100
150
200
250
300
350
400
FEET

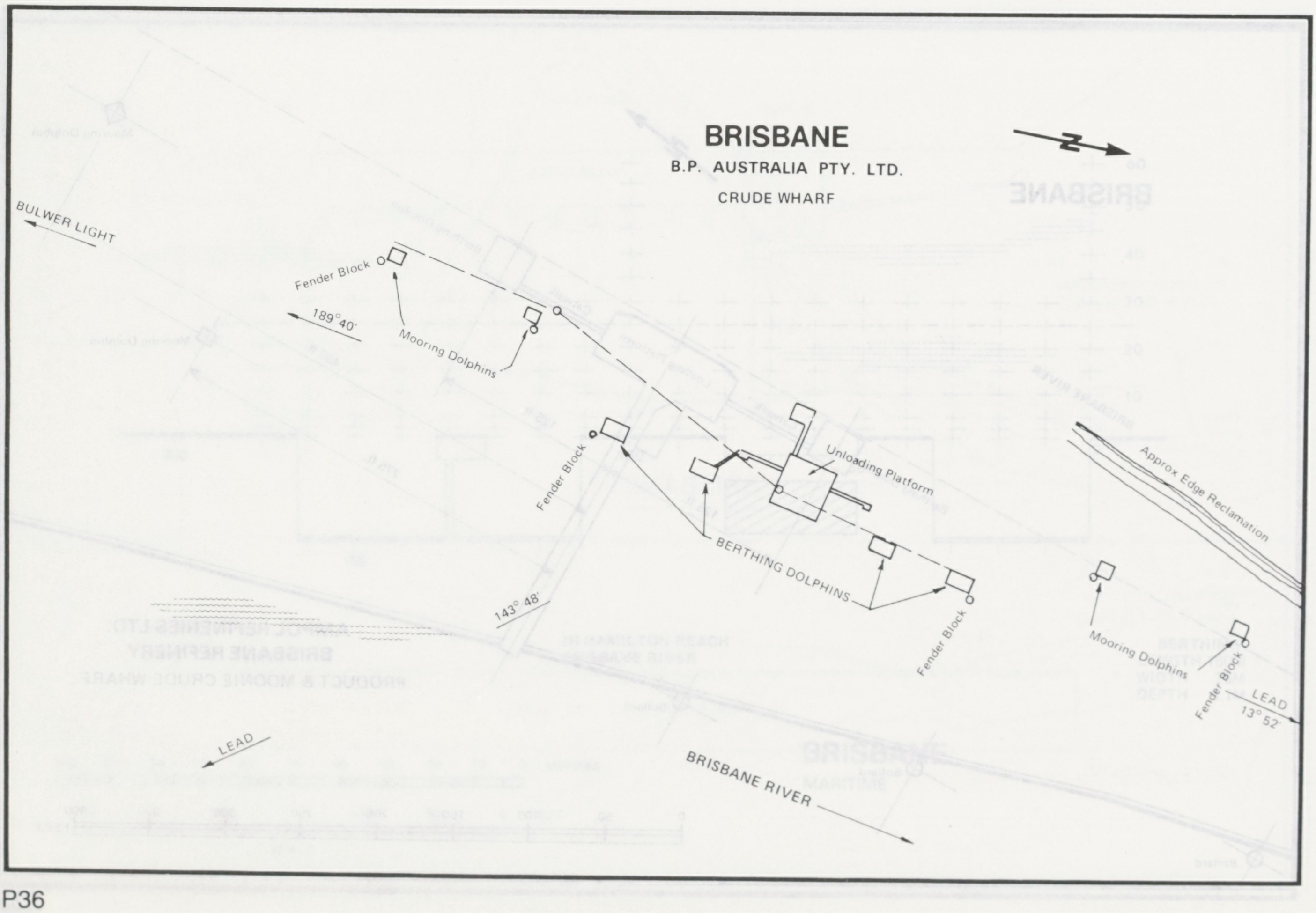
BRISBANE

AMPOL REFINERIES LTD.
BRISBANE REFINERY
PRODUCT & MOONIE CRUDE WHARF



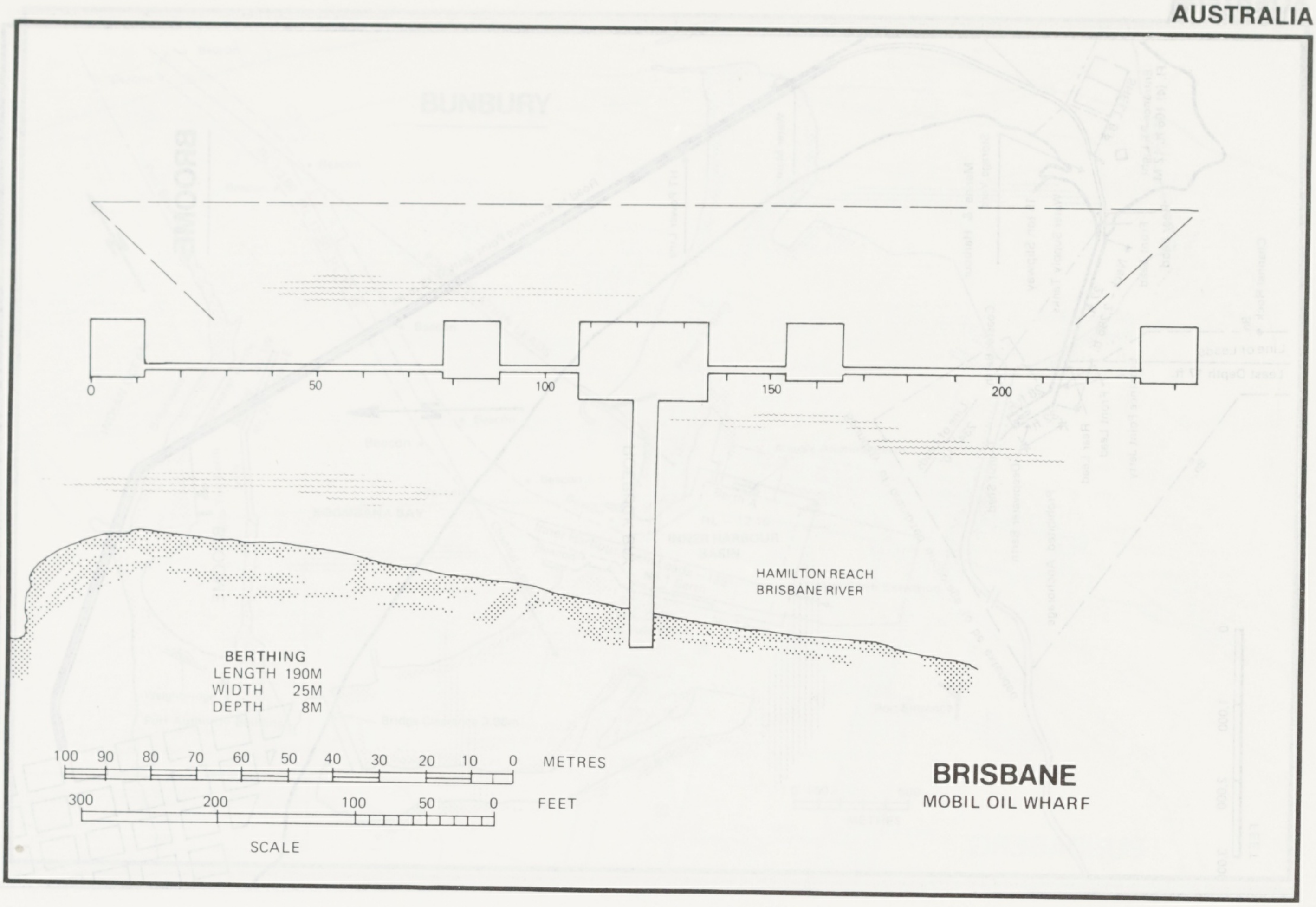
BRISBANE
B.P. AUSTRALIA PTY. LTD.
Products Terminal – Bulwer Island

370 ft.
370 ft.
106 ft.
106 ft.
15 ft.
13 ft.
5 ft.
5 ft.
Shore Bollard
Shore Bollard
BULWER ISLAND WALL
Ramp to T-Head Wharf
Pipe line support ramp
88 ft.
10 ft.
25 ft.
88 ft.
140 ft.
147 ft.
180 ft.
31 ft.
31 ft.
31 ft.
Dolphin No.1
Fender Dolphin No.1
65 ft.
Fender Dolphin No.2
Dolphin No.2
T-Head Wharf
BRISBANE RIVER



BRISBANE
B.P. AUSTRALIA PTY. LTD.
CRUDE WHARF

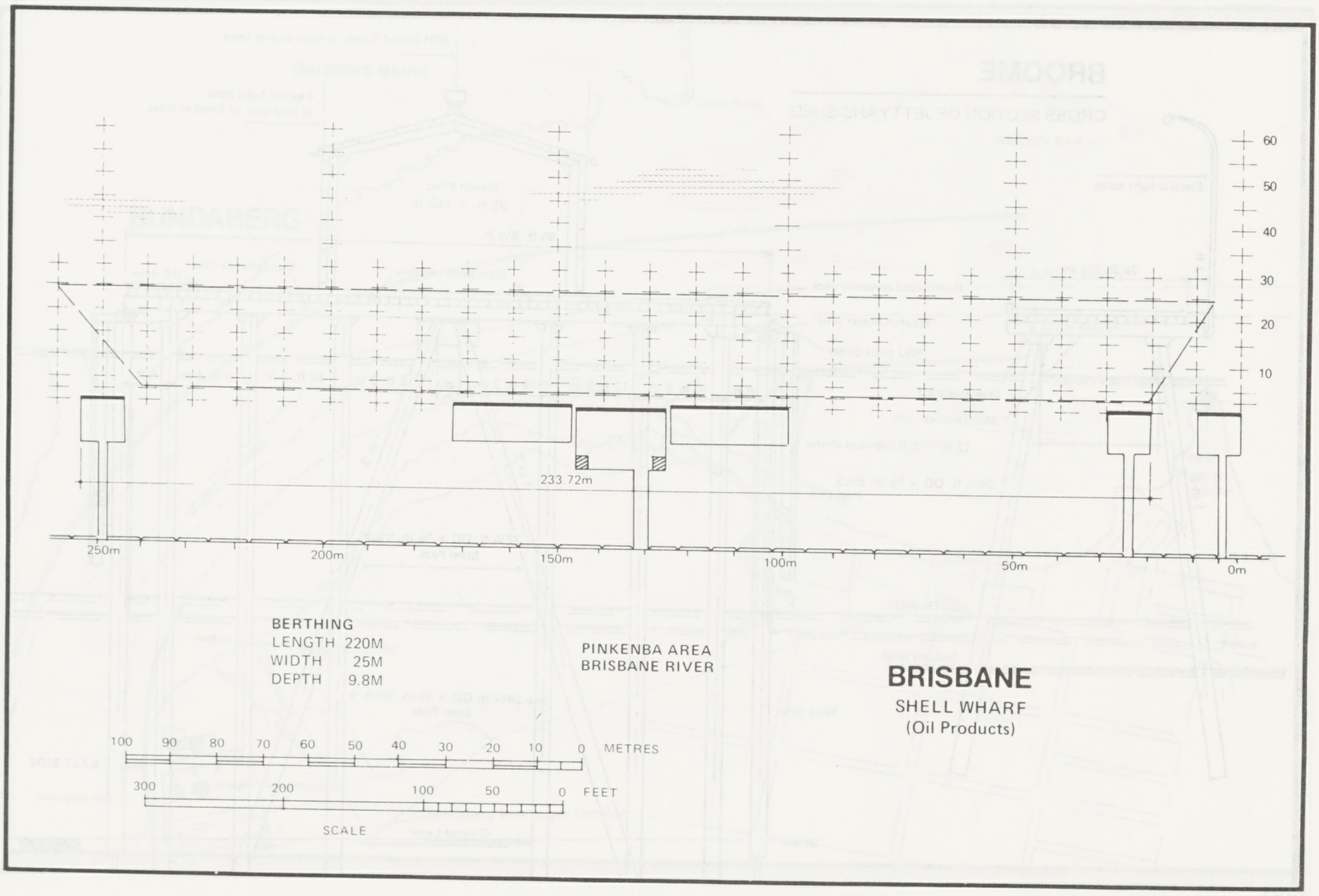
BULWER LIGHT
Fender Block
189° 40'
Mooring Dolphins
Fender Block
Unloading Platform
BERTHING DOLPHINS
143° 48'
Fender Block
Approx Edge Reclamation
Mooring Dolphins
Fender Block
LEAD
13° 52'
LEAD
BRISBANE RIVER


0
50
100
150
200
HAMILTON REACH
BRISBANE RIVER
100 90 80 70 60 50 40 30 20 10 0 METRES
300 200 100 50 0 FEET
SCALE

BERTHING
LENGTH 190M
WIDTH 25M
DEPTH 8M

BRISBANE

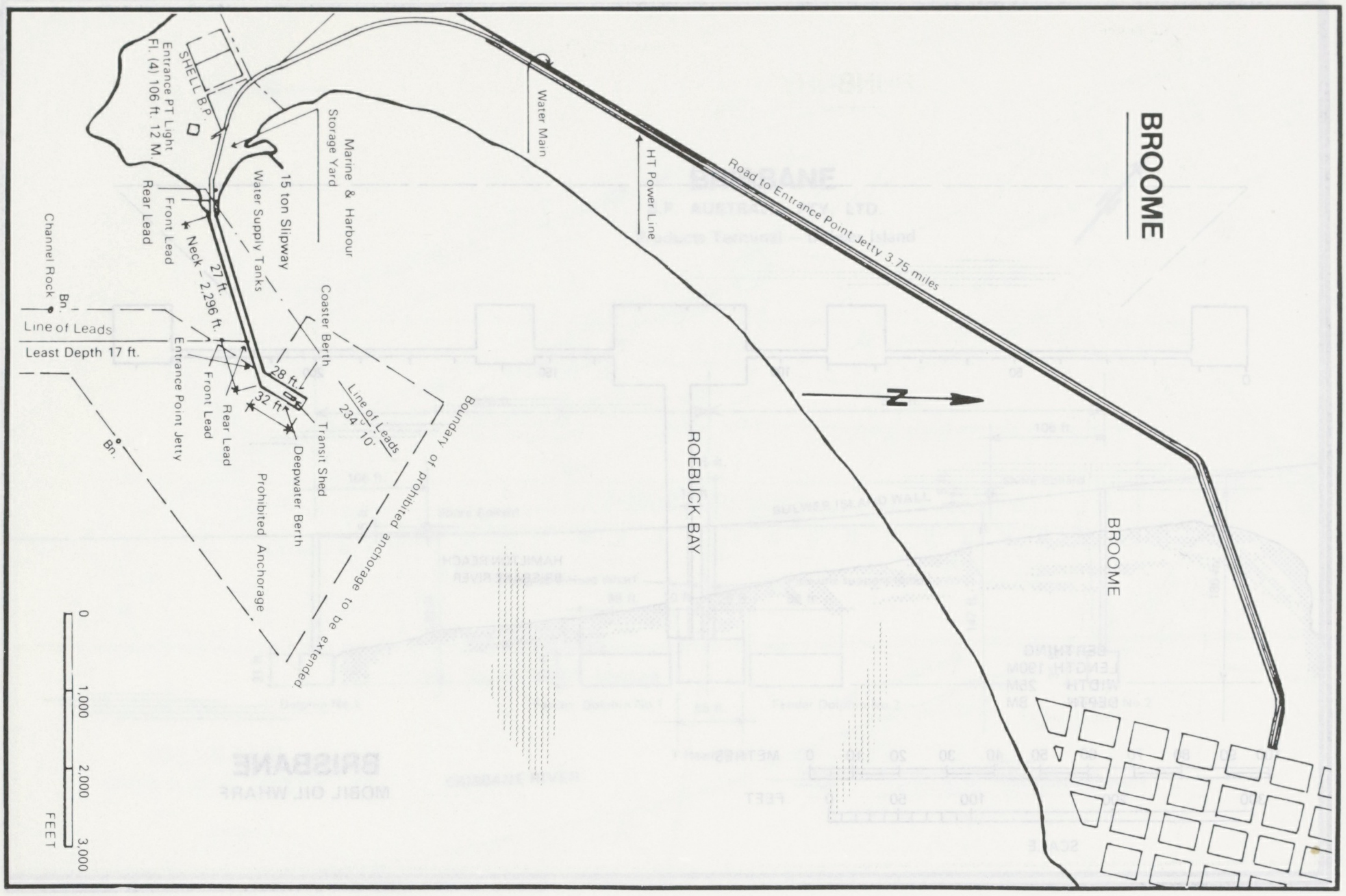
MOBIL OIL WHARF


60
50
40
30
20
10
233.72m
250m
200m
150m
100m
50m
0m
PINKENBA AREA
BRISBANE RIVER
100 90 80 70 60 50 40 30 20 10 0 METRES
300 200 100 50 0 FEET
SCALE

BERTHING
LENGTH 220M
WIDTH 25M
DEPTH 9.8M

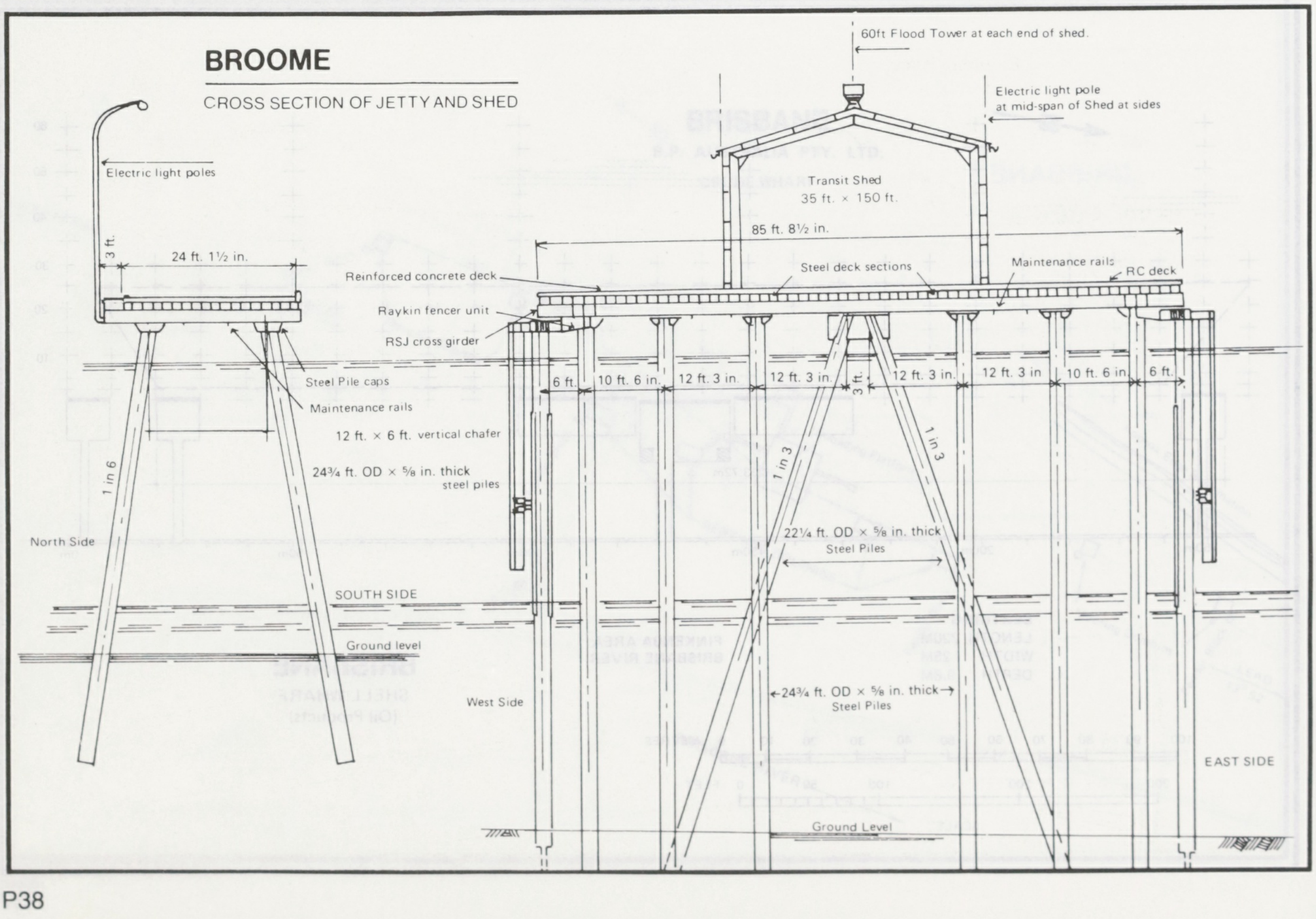
BRISBANE

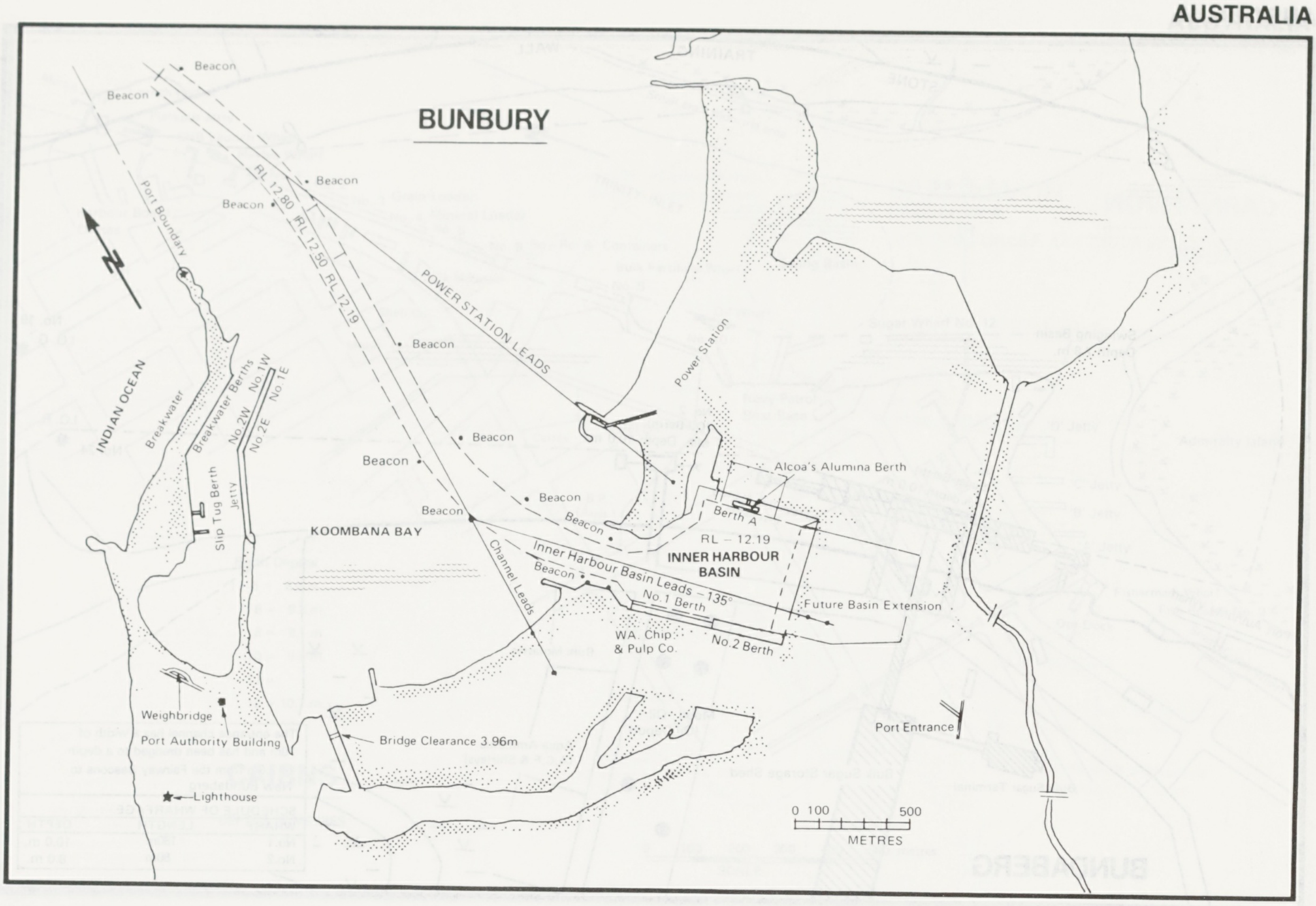
SHELL WHARF
(Oil Products)

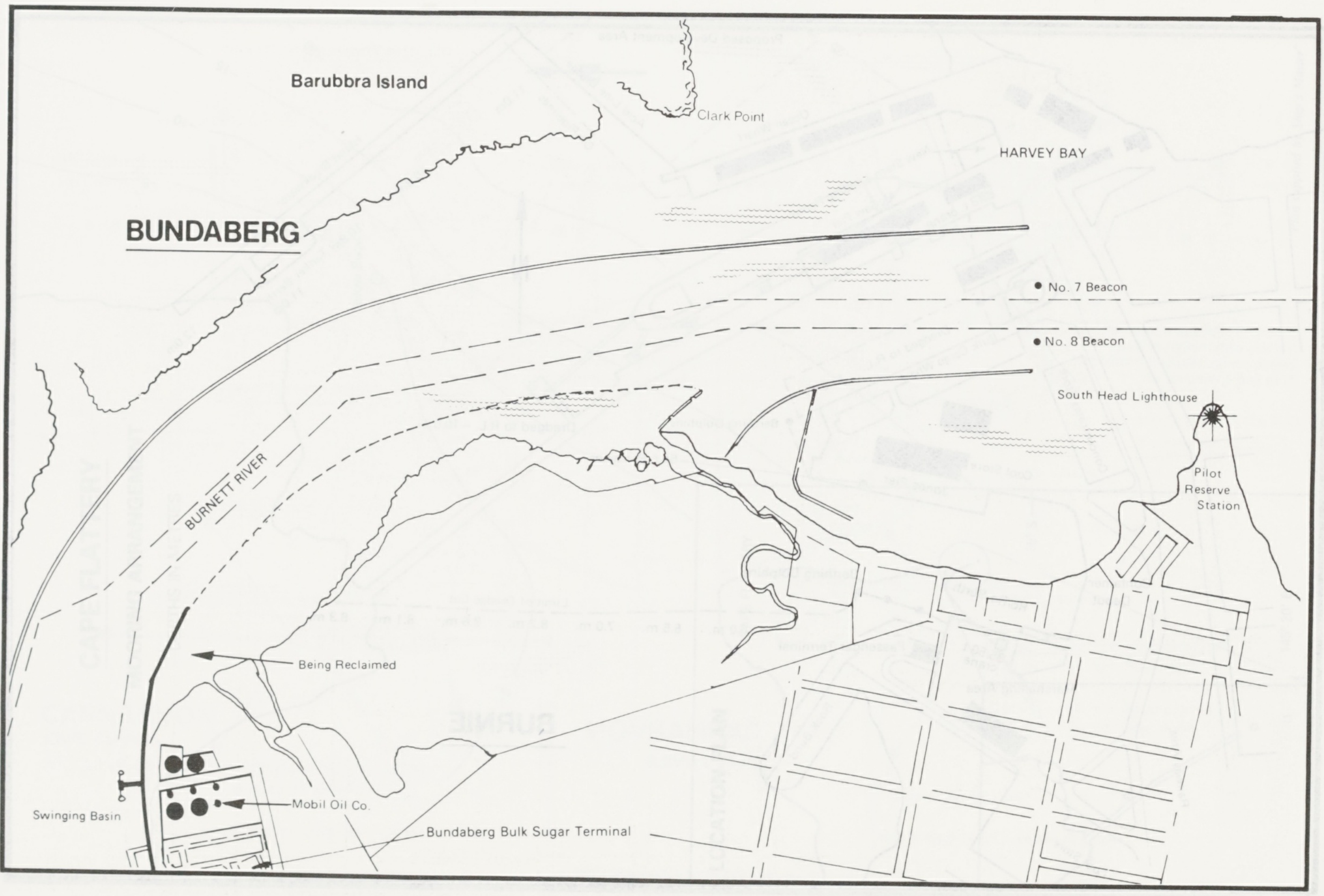

BROOME
Road to Entrance Point Jetty 3.75 miles
Water Main
HT Power Line
N
ROEBUCK BAY
BROOME
Marine & Harbour Storage Yard
15 ton Slipway
Water Supply Tanks
SHELL B.P.
Entrance PT Light Fl. (4) 106 ft. 12 M.
Front Lead
Rear Lead
Neck - 2,296 ft.
27 ft.
Channel Rock
Bn.
Line of Leads
Least Depth 17 ft.
Entrance Point Jetty
Front Lead
Rear Lead
Coaster Berth
28 ft.
32 ft.
Transit Shed
Deepwater Berth
Line of Leads 234° 10'
Boundary of prohibited anchorage to be extended
Prohibited Anchorage
Bn.
0
1,000
2,000
3,000
FEET

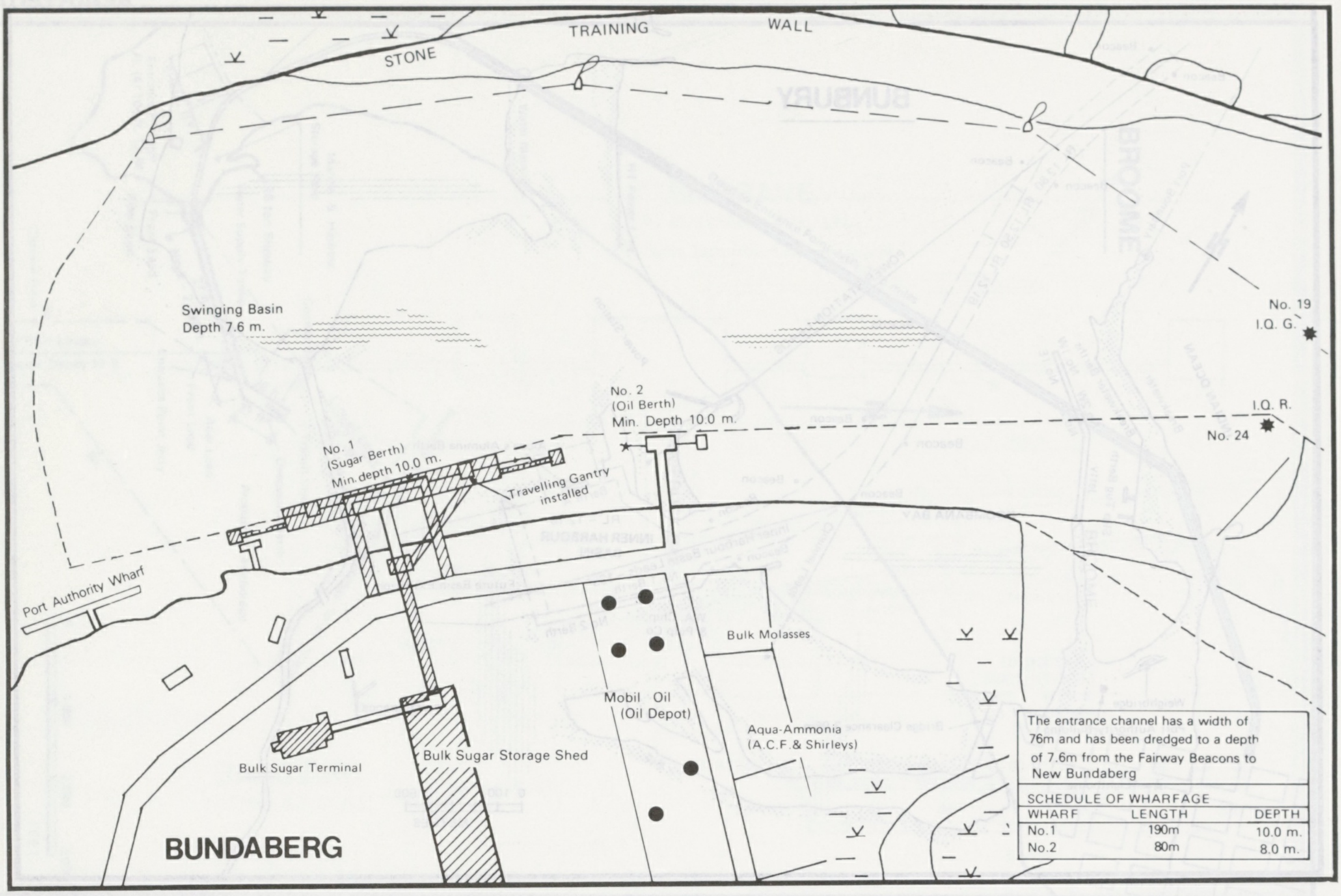
BROOME

CROSS SECTION OF JETTY AND SHED


60ft Flood Tower at each end of shed.
Electric light pole at mid-span of Shed at sides
Electric light poles
Transit Shed 35 ft. × 150 ft.
85 ft. 8½ in.
3 ft.
24 ft. 1½ in.
Reinforced concrete deck
Steel deck sections
Maintenance rails
RC deck
Raykin fencer unit
RSJ cross girder
Steel Pile caps
Maintenance rails
6 ft.
10 ft. 6 in.
12 ft. 3 in.
12 ft. 3 in.
3 ft.
12 ft. 3 in.
12 ft. 3 in
10 ft. 6 in.
6 ft.
12 ft. × 6 ft. vertical chafer
24¾ ft. OD × ⅝ in. thick steel piles
1 in 6
1 in 3
1 in 3
22¼ ft. OD × ⅝ in. thick Steel Piles
North Side
SOUTH SIDE
Ground level
West Side
24¾ ft. OD × ⅝ in. thick Steel Piles
EAST SIDE
Ground Level


Beacon
Beacon
BUNBURY
RL 12.80
RL 12.50
RL 12.19
Beacon
Beacon
Port Boundary
POWER STATION LEADS
Beacon
INDIAN OCEAN
Breakwater
Breakwater Berths
No 1W
No 1E
No 2W
No 2E
Jetty
Slip Tug Berth
Power Station
Beacon
Beacon
Alcoa's Alumina Berth
Beacon
Beacon
KOOMBANA BAY
Beacon
Berth A
RL – 12.19
INNER HARBOUR BASIN
Channel Leads
Inner Harbour Basin Leads – 135°
Beacon
No.1 Berth
Future Basin Extension
WA. Chip & Pulp Co.
No.2 Berth
Weighbridge
Port Authority Building
Bridge Clearance 3.96m
Port Entrance
Lighthouse
0 100 500
METRES

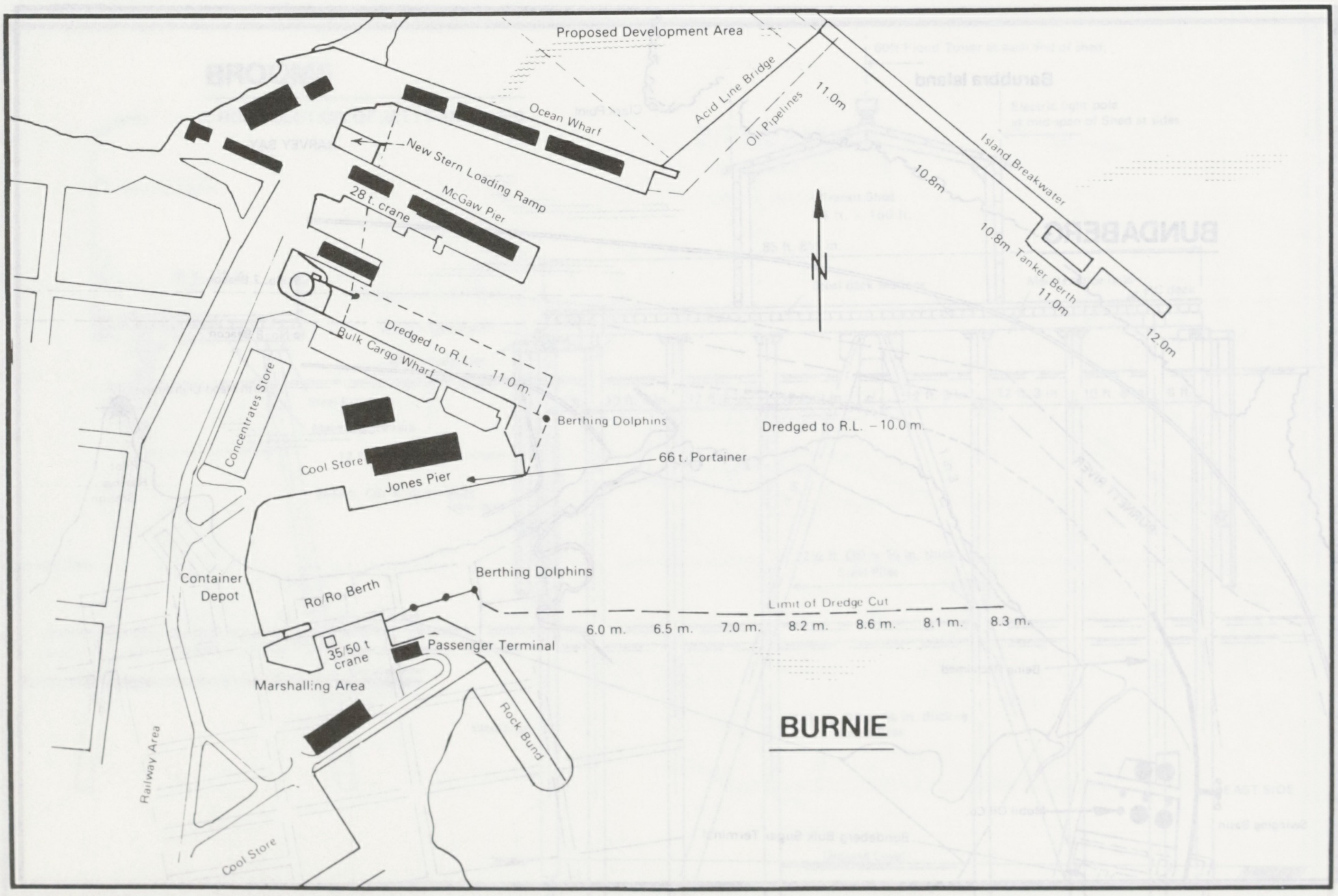

Barubbra Island
Clark Point
HARVEY BAY
BUNDABERG
No. 7 Beacon
No. 8 Beacon
South Head Lighthouse
BURNETT RIVER
Pilot Reserve Station
Being Reclaimed
Swinging Basin
Mobil Oil Co.
Bundaberg Bulk Sugar Terminal

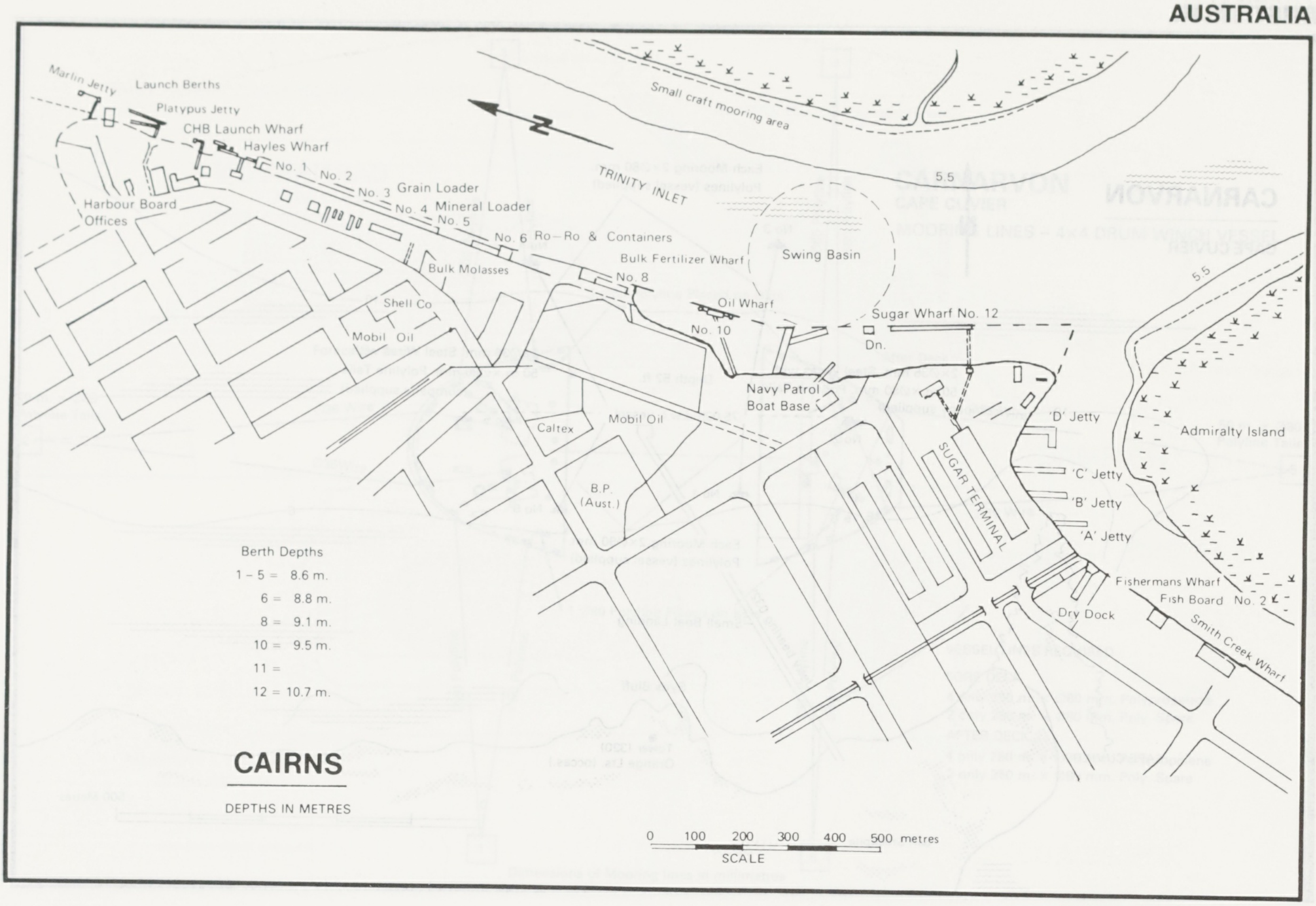

STONE
TRAINING
WALL
Swinging Basin
Depth 7.6 m.
No. 1
(Sugar Berth)
Min. depth 10.0 m.
Travelling Gantry
installed
No. 2
(Oil Berth)
Min. Depth 10.0 m.
No. 19
I.Q. G.
I.Q. R.
No. 24
Port Authority Wharf
Bulk Molasses
Mobil Oil
(Oil Depot)
Aqua-Ammonia
(A.C.F & Shirleys)
Bulk Sugar Terminal
Bulk Sugar Storage Shed
BUNDABERG

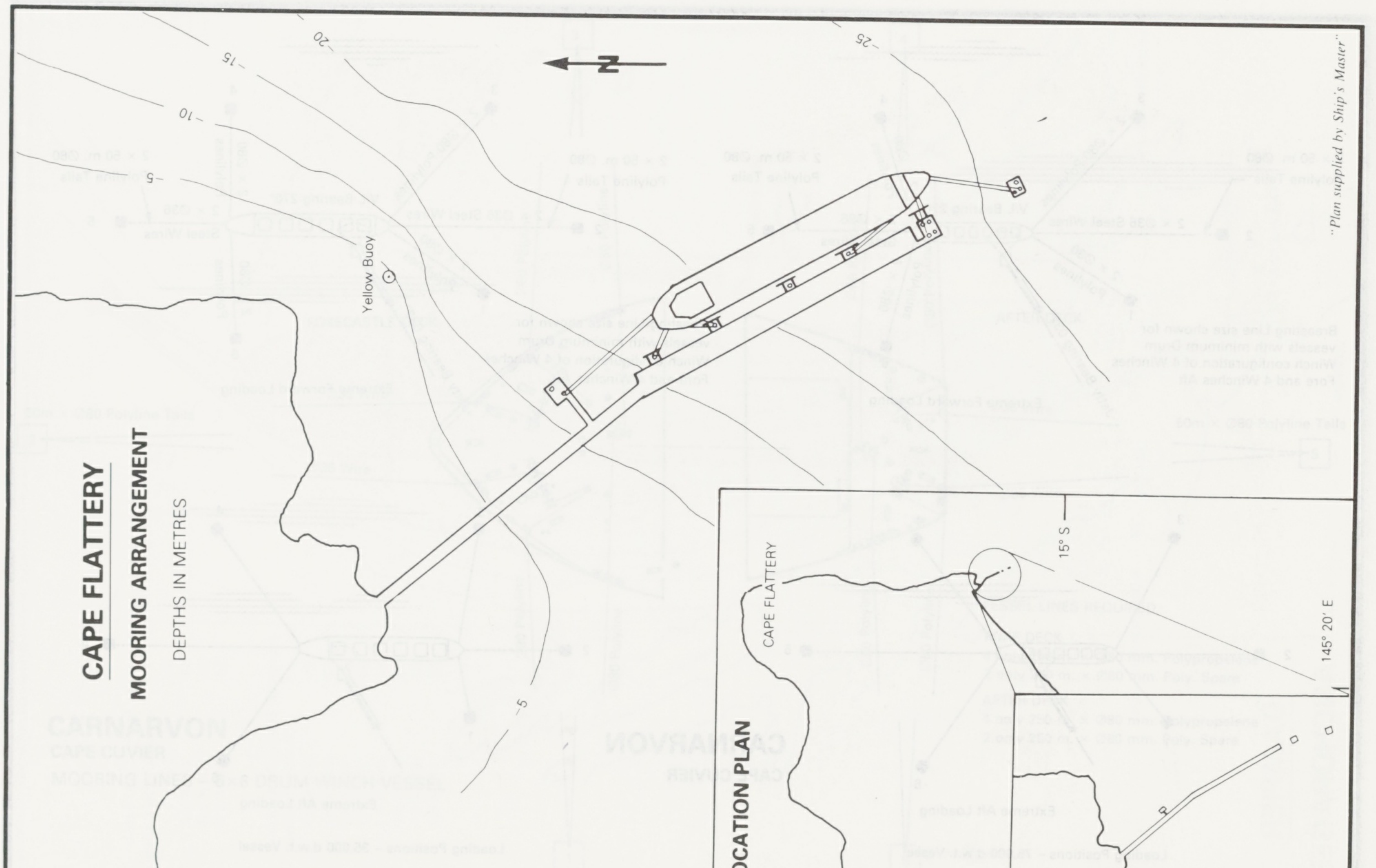
The entrance channel has a width of 76m and has been dredged to a depth of 7.6m from the Fairway Beacons to New Bundaberg

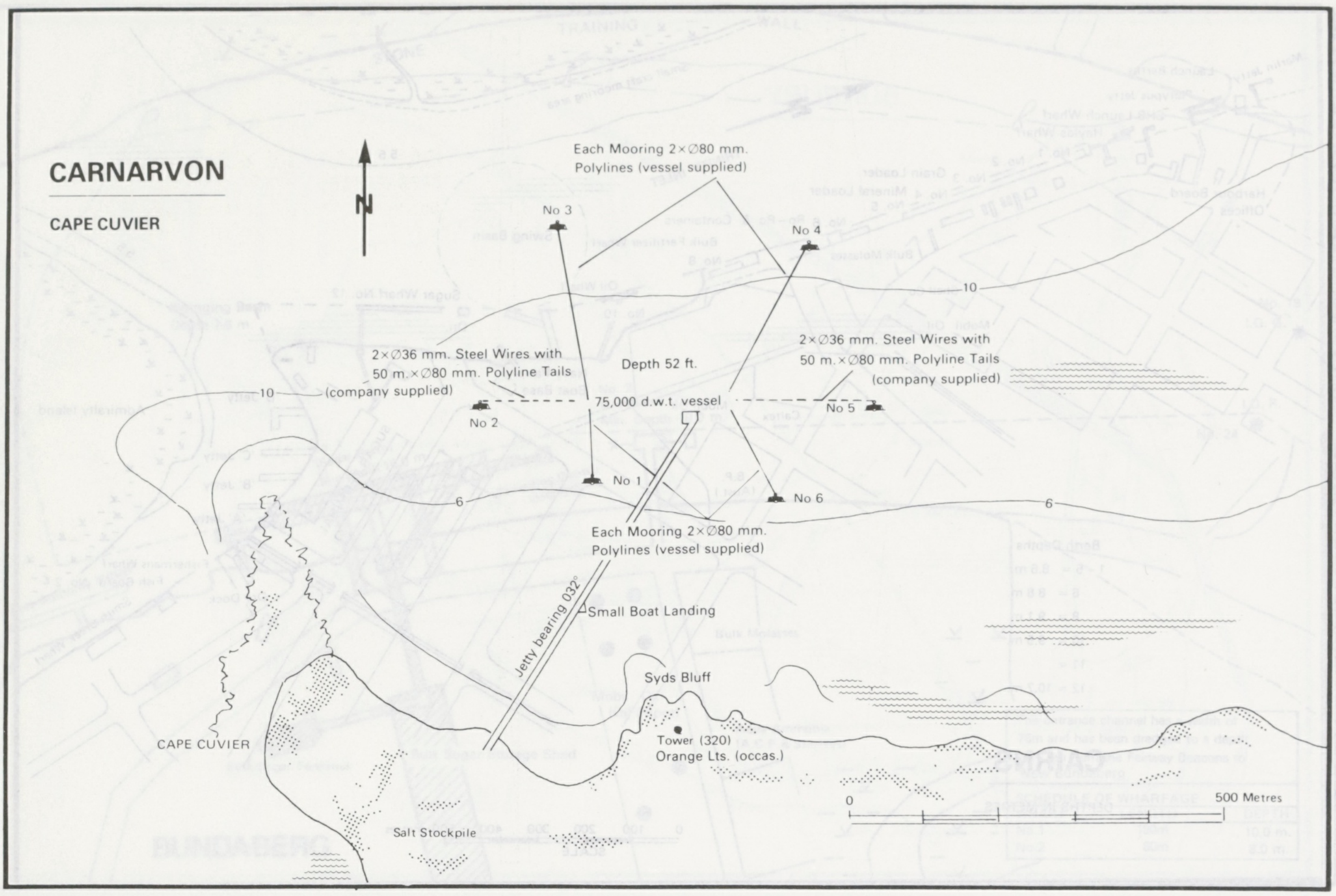
SCHEDULE OF WHARFAGE

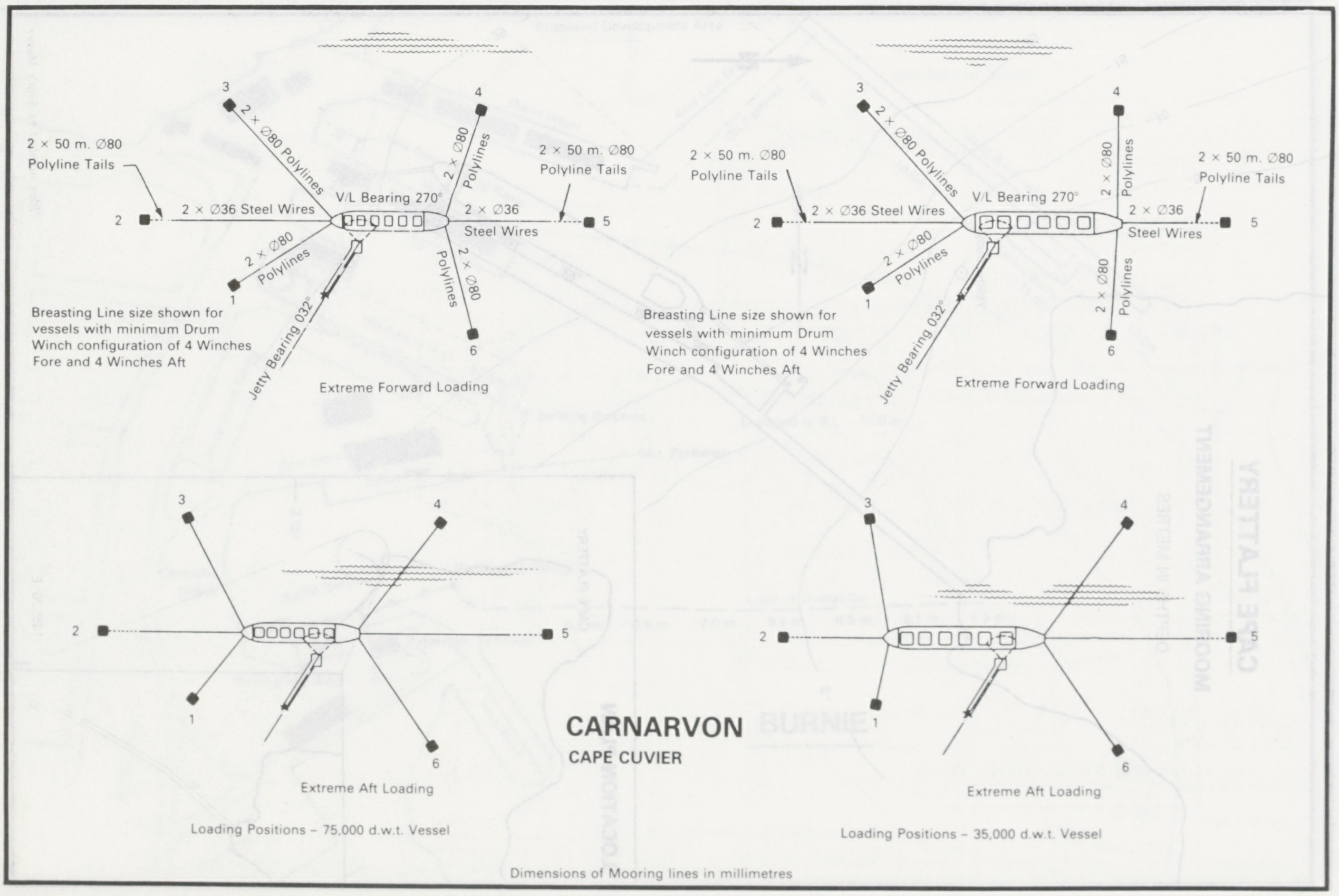
WHARF	LENGTH	DEPTH
No.1	190m	10.0 m.
No.2	80m	8.0 m.

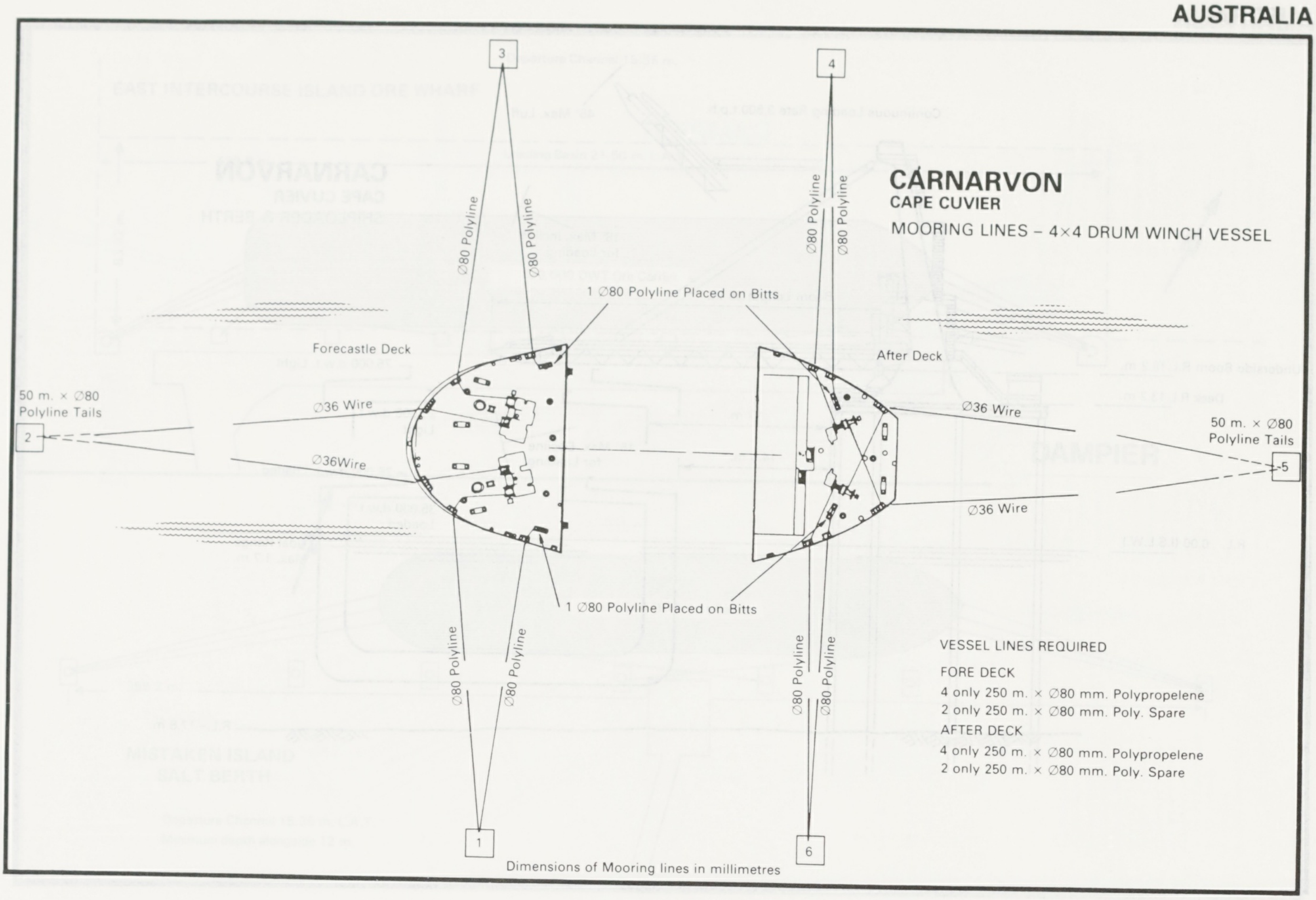

Proposed Development Area
Acid Line Bridge
Oil Pipelines
11.0m
Ocean Wharf
Island Breakwater
New Stern Loading Ramp
10.8m
28 t. crane
McGaw Pier
N
10.8m Tanker Berth
11.0m
12.0m
Dredged to R.L.
11.0 m.
Bulk Cargo Wharf
Concentrates Store
Berthing Dolphins
Dredged to R.L. −10.0 m.
66 t. Portainer
Cool Store
Jones Pier
Container Depot
Berthing Dolphins
Ro/Ro Berth
Limit of Dredge Cut
6.0 m.
6.5 m.
7.0 m.
8.2 m.
8.6 m.
8.1 m.
8.3 m.
35/50 t crane
Passenger Terminal
Marshalling Area
Rock Bund
Railway Area
Cool Store
BURNIE


Marlin Jetty
Launch Berths
Platypus Jetty
CHB Launch Wharf
Hayles Wharf
No. 1
No. 2
No. 3
Grain Loader
No. 4
Mineral Loader
No. 5
Harbour Board Offices
No. 6
Ro – Ro & Containers
Bulk Molasses
Bulk Fertilizer Wharf
No. 8
Shell Co
Mobil Oil
Oil Wharf
No. 10
Small craft mooring area
TRINITY INLET
5.5
Swing Basin
Sugar Wharf No. 12
Dn.
Navy Patrol Boat Base
Caltex
Mobil Oil
B.P. (Aust.)
SUGAR TERMINAL
'D' Jetty
'C' Jetty
'B' Jetty
'A' Jetty
Admiralty Island
5.5
Fishermans Wharf
Fish Board No. 2
Dry Dock
Smith Creek Wharf
Berth Depths
1 – 5 = 8.6 m.
6 = 8.8 m.
8 = 9.1 m.
10 = 9.5 m.
11 =
12 = 10.7 m.
CAIRNS
DEPTHS IN METRES
0 100 200 300 400 500 metres
SCALE
N


N
20
15
10
5
25
Yellow Buoy
5
"Plan supplied by Ship's Master"
CAPE FLATTERY
MOORING ARRANGEMENT
DEPTHS IN METRES
LOCATION PLAN
CAPE FLATTERY
15° S
145° 20' E


CARNARVON
CAPE CUVIER
N
Each Mooring 2×Ø80 mm. Polylines (vessel supplied)
No 3
No 4
10
2×Ø36 mm. Steel Wires with 50 m.×Ø80 mm. Polyline Tails (company supplied)
Depth 52 ft.
2×Ø36 mm. Steel Wires with 50 m.×Ø80 mm. Polyline Tails (company supplied)
10
No 2
75,000 d.w.t. vessel
No 5
No 1
No 6
6
6
Each Mooring 2×Ø80 mm. Polylines (vessel supplied)
Jetty bearing 032°
Small Boat Landing
Syds Bluff
CAPE CUVIER
Tower (320)
Orange Lts. (occas.)
Salt Stockpile
0
500 Metres


3
4
2 × 50 m. Ø80 Polyline Tails
2 × Ø80 Polylines
2 × Ø80 Polylines
2 × 50 m. Ø80 Polyline Tails
V/L Bearing 270°
2
2 × Ø36 Steel Wires
2 × Ø36 Steel Wires
5
2 × Ø80 Polylines
2 × Ø80 Polylines
1
6
Breasting Line size shown for vessels with minimum Drum Winch configuration of 4 Winches Fore and 4 Winches Aft
Jetty Bearing 032°
Extreme Forward Loading
3
4
2 × 50 m. Ø80 Polyline Tails
2 × Ø80 Polylines
2 × Ø80 Polylines
2 × 50 m. Ø80 Polyline Tails
V/L Bearing 270°
2
2 × Ø36 Steel Wires
2 × Ø36 Steel Wires
5
2 × Ø80 Polylines
2 × Ø80 Polylines
1
6
Breasting Line size shown for vessels with minimum Drum Winch configuration of 4 Winches Fore and 4 Winches Aft
Jetty Bearing 032°
Extreme Forward Loading
3
4
2
5
1
6
Extreme Aft Loading
3
4
2
5
1
6
Extreme Aft Loading
CARNARVON
CAPE CUVIER
Loading Positions – 75,000 d.w.t. Vessel
Loading Positions – 35,000 d.w.t. Vessel
Dimensions of Mooring lines in millimetres


3
4
Ø80 Polyline
Ø80 Polyline
Ø80 Polyline
Ø80 Polyline
1 Ø80 Polyline Placed on Bitts
Forecastle Deck
After Deck
50 m. × Ø80 Polyline Tails
2
Ø36 Wire
Ø36Wire
Ø36 Wire
50 m. × Ø80 Polyline Tails
5
Ø36 Wire
1 Ø80 Polyline Placed on Bitts
Ø80 Polyline
Ø80 Polyline
Ø80 Polyline
Ø80 Polyline
1
6

CARNARVON

CAPE CUVIER

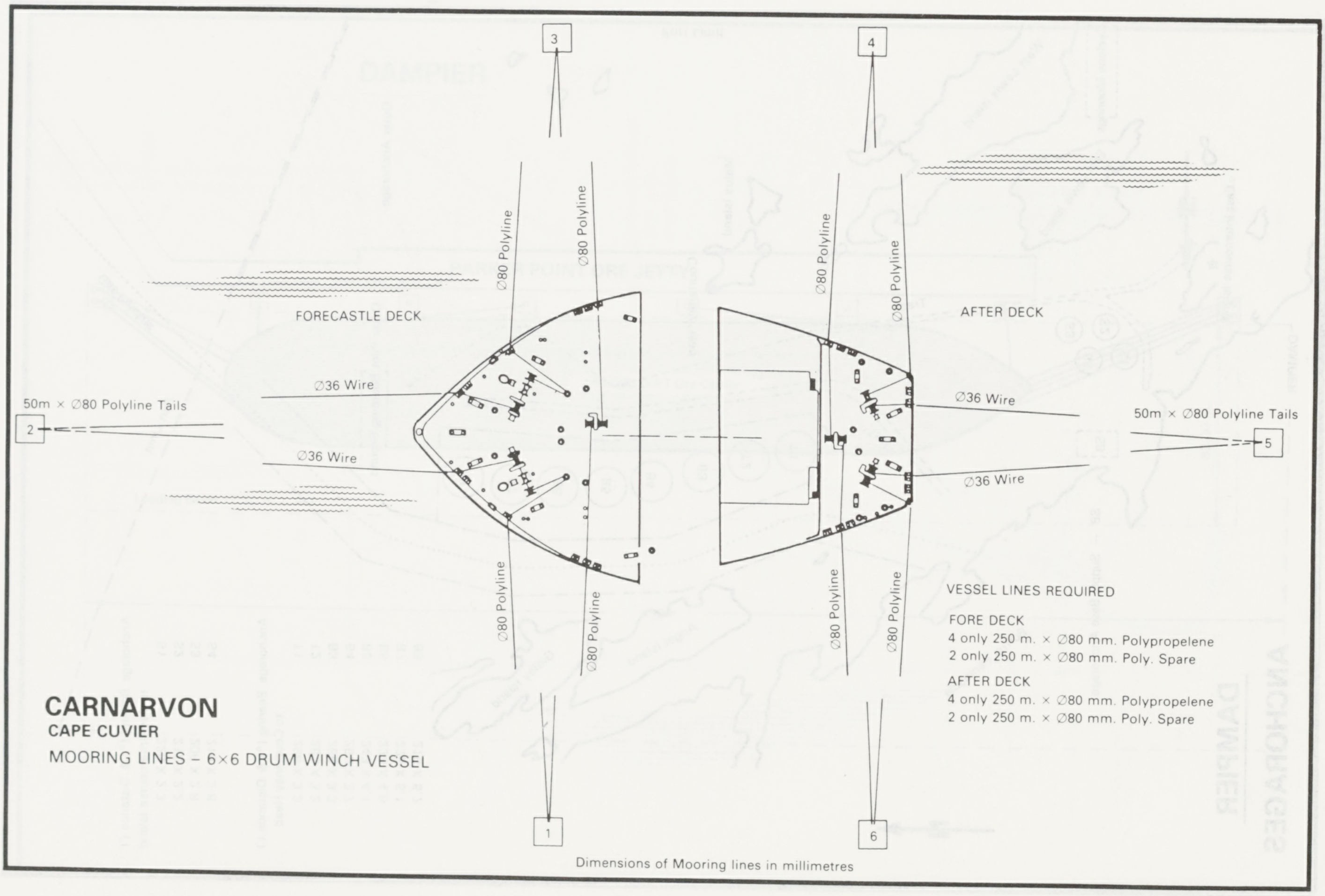
MOORING LINES – 4×4 DRUM WINCH VESSEL

VESSEL LINES REQUIRED

FORE DECK
4 only 250 m. × Ø80 mm. Polypropelene
2 only 250 m. × Ø80 mm. Poly. Spare

AFTER DECK
4 only 250 m. × Ø80 mm. Polypropelene
2 only 250 m. × Ø80 mm. Poly. Spare

Dimensions of Mooring lines in millimetres


3
4
Ø80 Polyline
Ø80 Polyline
Ø80 Polyline
Ø80 Polyline
FORECASTLE DECK
AFTER DECK
Ø36 Wire
50m × Ø80 Polyline Tails
2
Ø36 Wire
Ø36 Wire
50m × Ø80 Polyline Tails
5
Ø36 Wire
Ø80 Polyline
Ø80 Polyline
Ø80 Polyline
Ø80 Polyline
1
6

VESSEL LINES REQUIRED

FORE DECK
4 only 250 m. × Ø80 mm. Polypropelene
2 only 250 m. × Ø80 mm. Poly. Spare

AFTER DECK
4 only 250 m. × Ø80 mm. Polypropelene
2 only 250 m. × Ø80 mm. Poly. Spare

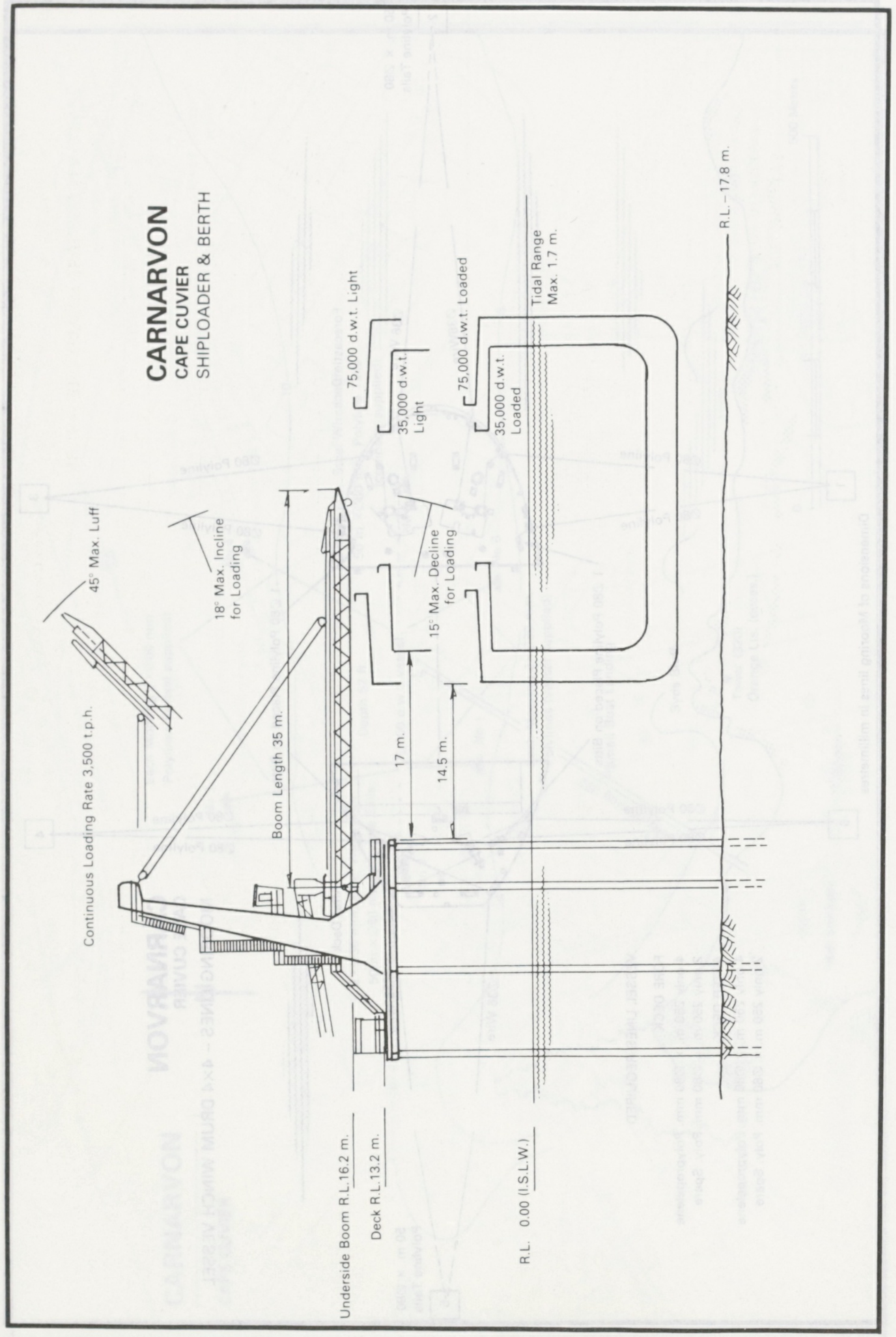
CARNARVON

CAPE CUVIER

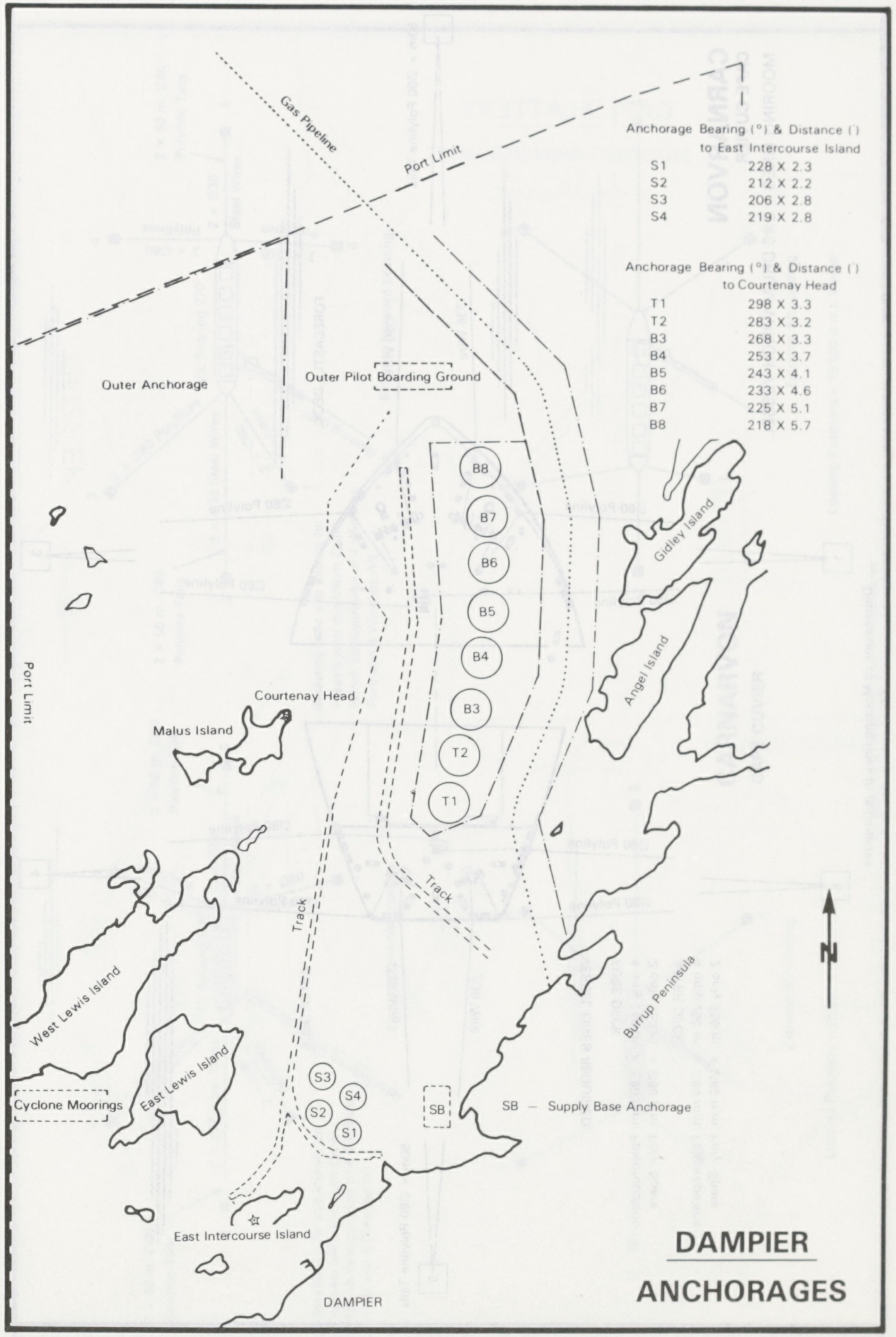
MOORING LINES – 6×6 DRUM WINCH VESSEL

Dimensions of Mooring lines in millimetres

CARNARVON
CAPE CUVIER
SHIPLOADER & BERTH


Continuous Loading Rate 3,500 t.p.h.
45° Max. Luff
18° Max. Incline for Loading
Boom Length 35 m.
17 m.
14.5 m.
15° Max. Decline for Loading
75,000 d.w.t. Light
35,000 d.w.t. Light
75,000 d.w.t. Loaded
35,000 d.w.t. Loaded
Tidal Range Max. 1.7 m.
R.L. –17.8 m.
Underside Boom R.L.16.2 m.
Deck R.L.13.2 m.
R.L. 0.00 (I.S.L.W.)

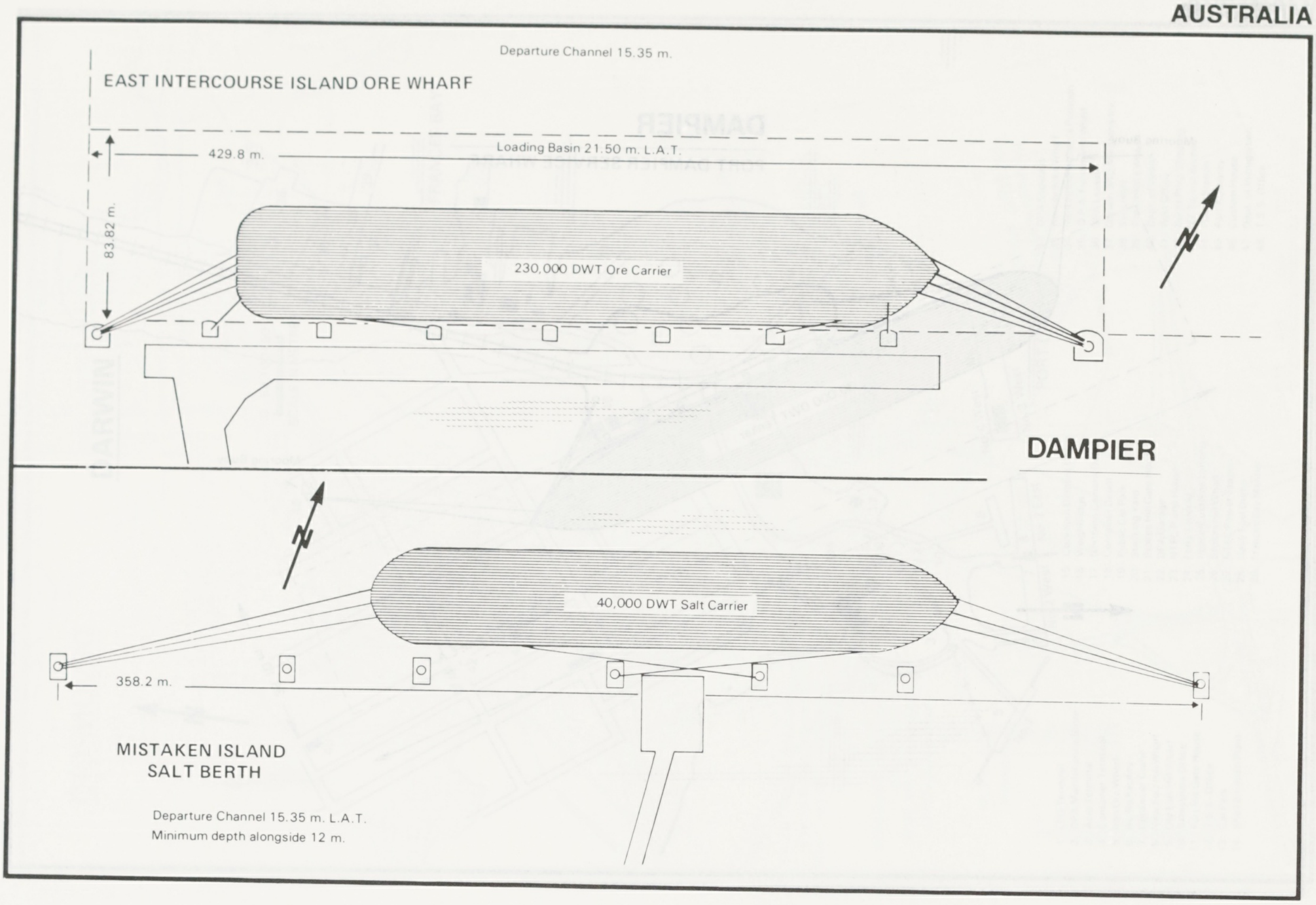
DAMPIER
ANCHORAGES

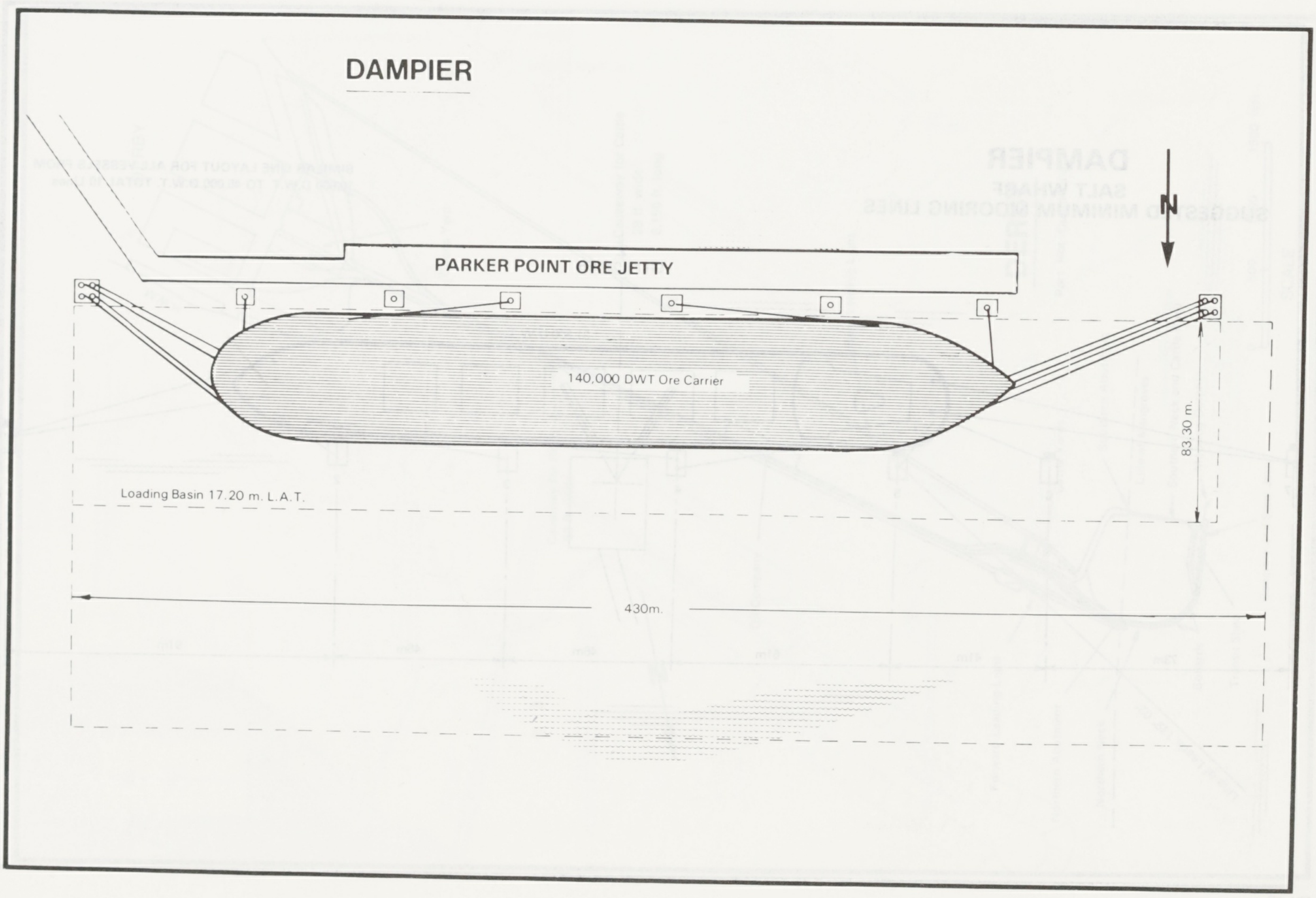

Gas Pipeline
Port Limit
Outer Anchorage
Outer Pilot Boarding Ground
B8
B7
B6
B5
B4
B3
T2
T1
Courtenay Head
Malus Island
Gidley Island
Angel Island
Track
Track
West Lewis Island
East Lewis Island
Burrup Peninsula
Cyclone Moorings
S3
S4
S2
S1
SB
East Intercourse Island
DAMPIER
Port Limit
N

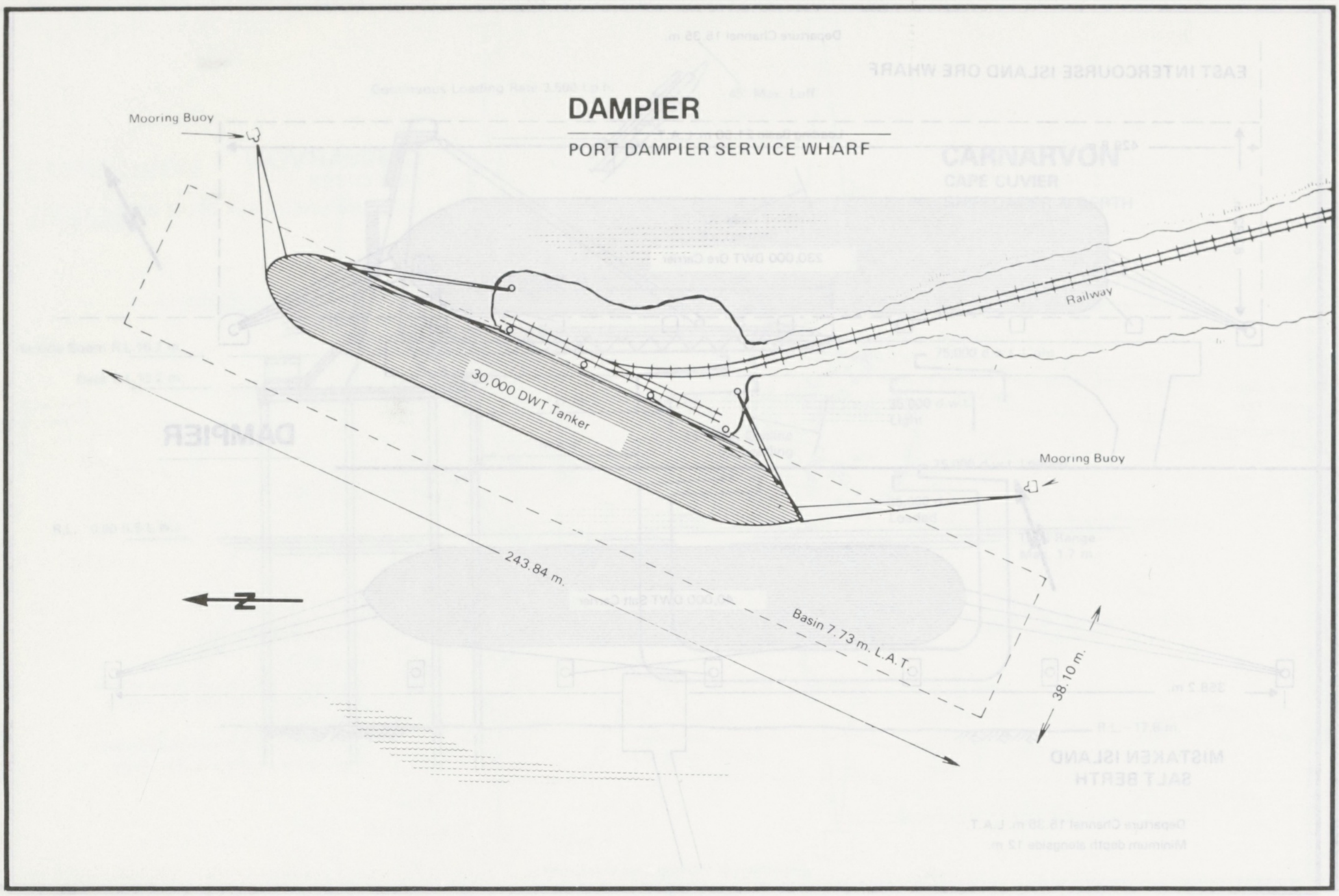
SB – Supply Base Anchorage

Anchorage	Bearing (°) & Distance (′) to East Intercourse Island
S1	228 X 2.3
S2	212 X 2.2
S3	206 X 2.8
S4	219 X 2.8

Anchorage	Bearing (°) & Distance (′) to Courtenay Head
T1	298 X 3.3
T2	283 X 3.2
B3	268 X 3.3
B4	253 X 3.7
B5	243 X 4.1
B6	233 X 4.6
B7	225 X 5.1
B8	218 X 5.7


Departure Channel 15.35 m.
EAST INTERCOURSE ISLAND ORE WHARF
429.8 m.
Loading Basin 21.50 m. L.A.T.
83.82 m.
230,000 DWT Ore Carrier
DAMPIER
40,000 DWT Salt Carrier
358.2 m.
MISTAKEN ISLAND
SALT BERTH
Departure Channel 15.35 m. L.A.T.
Minimum depth alongside 12 m.

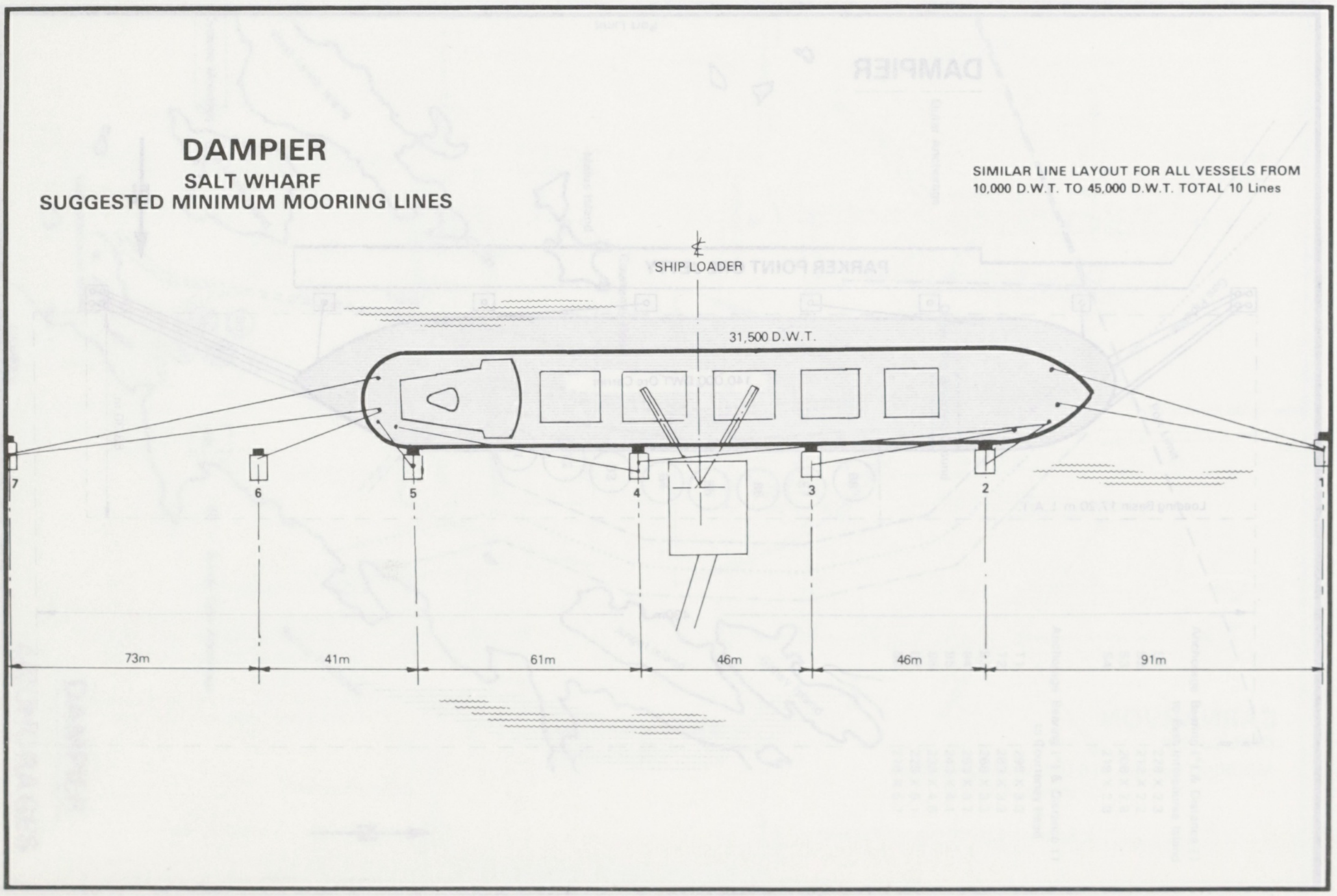

DAMPIER
PARKER POINT ORE JETTY
140,000 DWT Ore Carrier
83.30 m.
Loading Basin 17.20 m. L.A.T.
430m.



DAMPIER

PORT DAMPIER SERVICE WHARF

Mooring Buoy
Railway
30,000 DWT Tanker
Mooring Buoy
243.84 m.
N
Basin 7.73 m. L.A.T.
38.10 m.

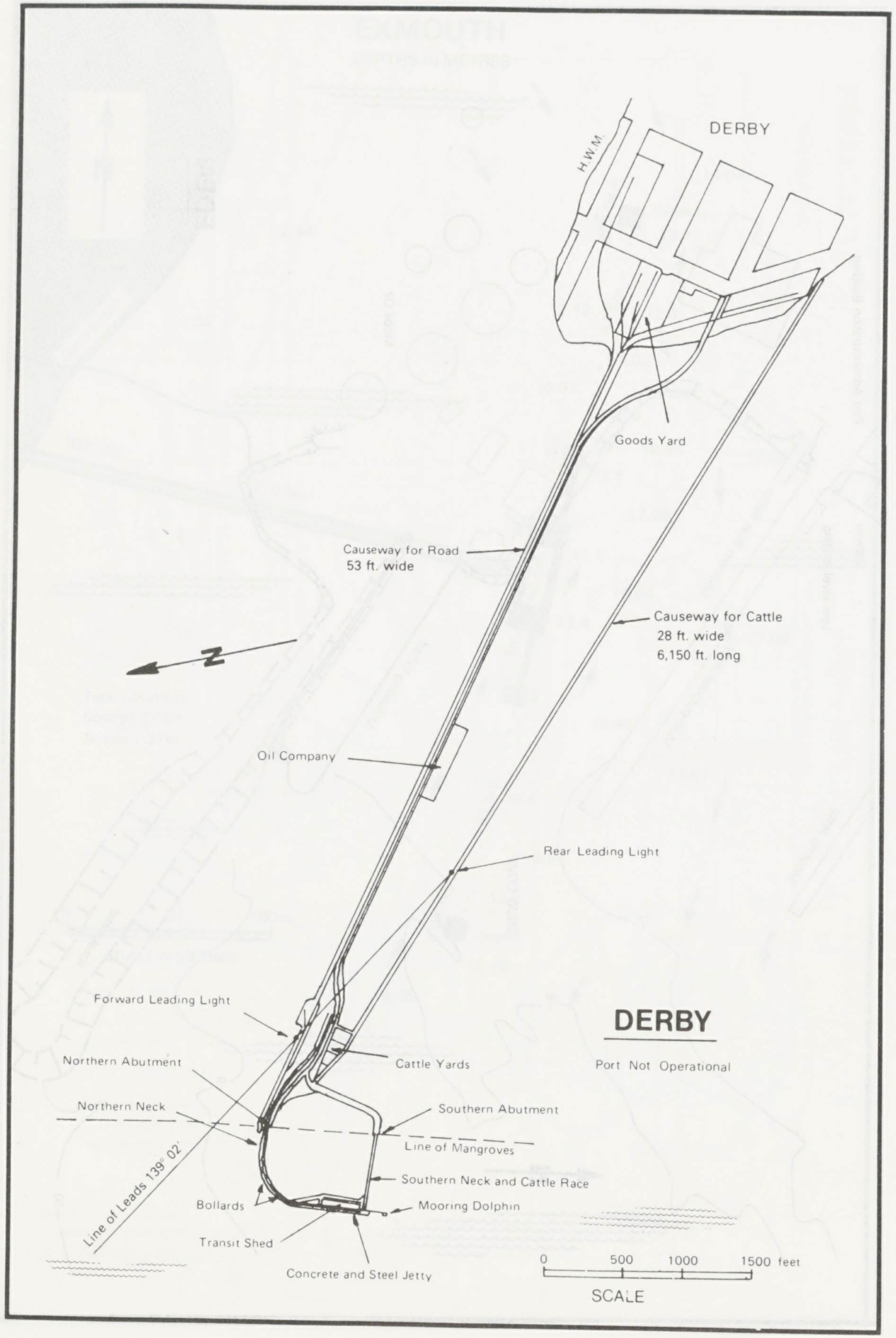


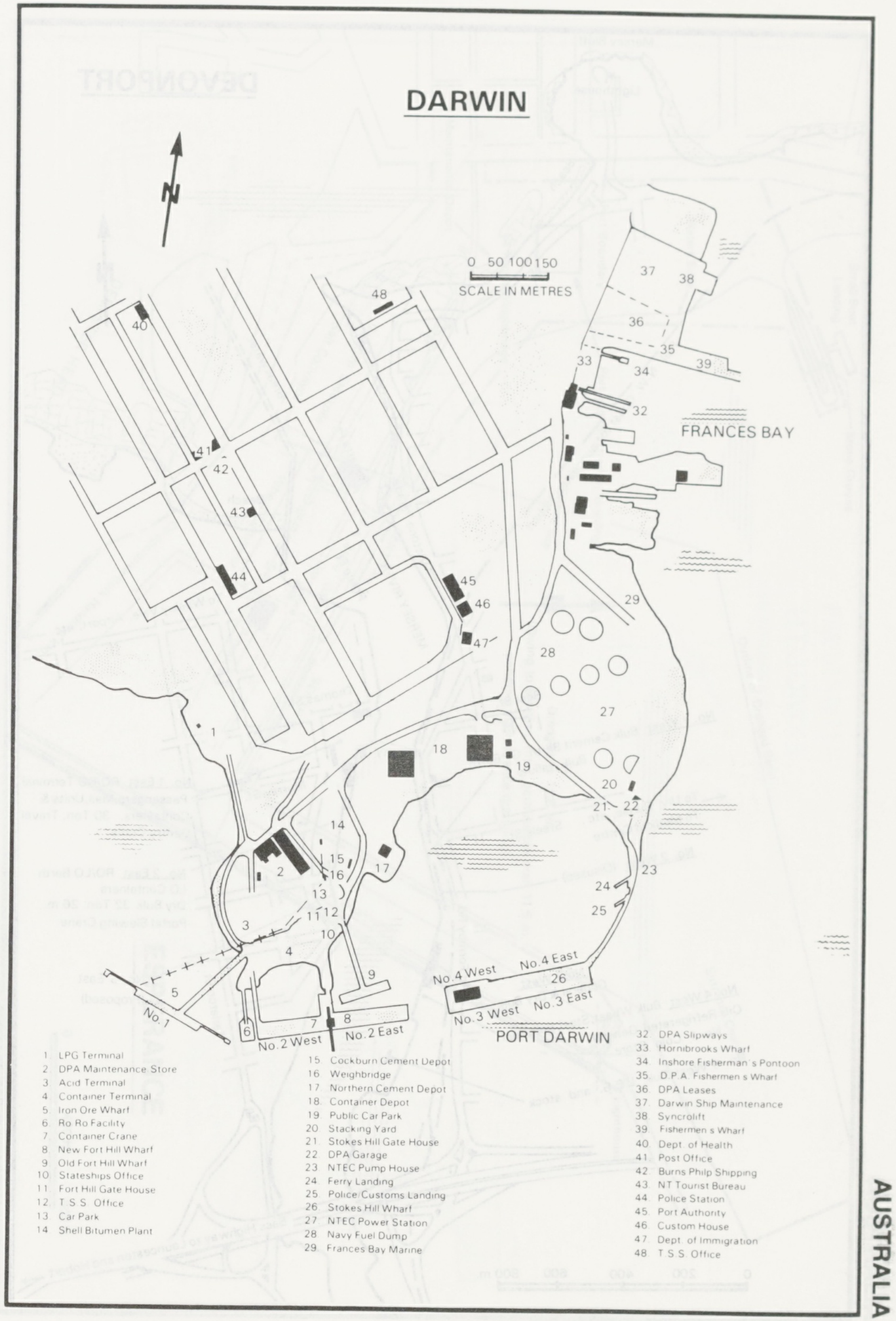
DAMPIER

SALT WHARF
SUGGESTED MINIMUM MOORING LINES

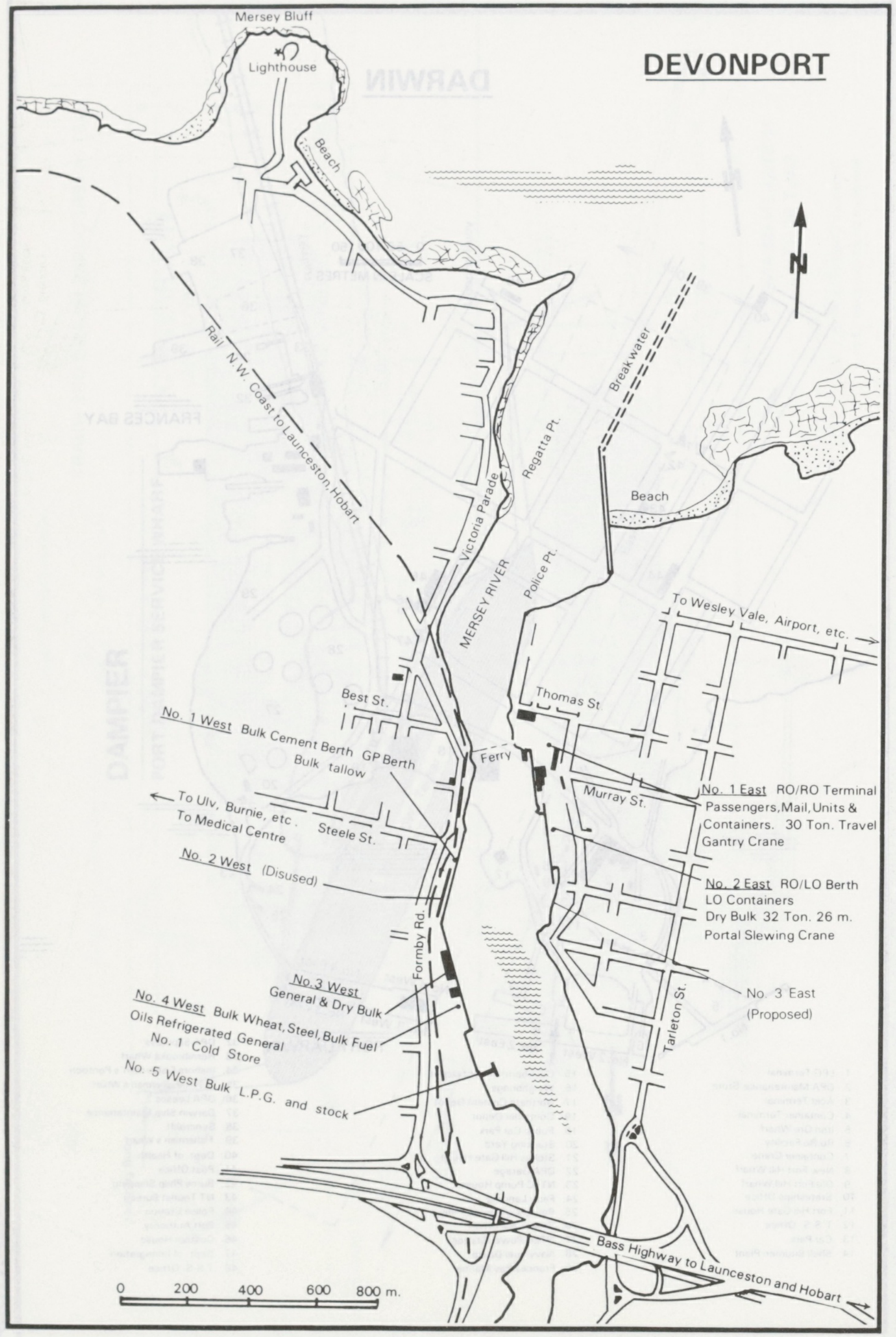
SIMILAR LINE LAYOUT FOR ALL VESSELS FROM 10,000 D.W.T. TO 45,000 D.W.T. TOTAL 10 Lines

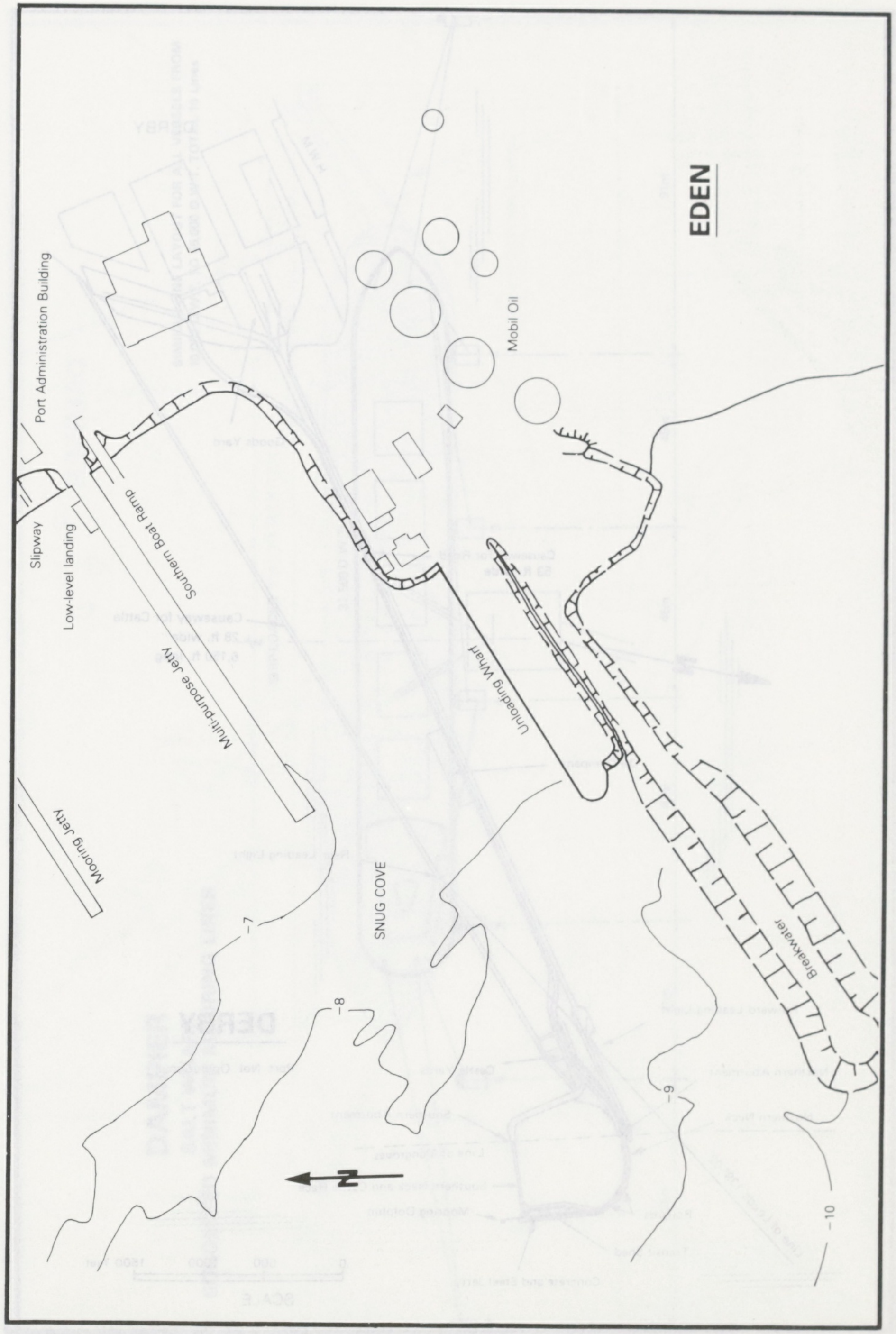
SHIP LOADER
31,500 D.W.T.
7
6
5
4
3
2
1
73m
41m
61m
46m
46m
91m

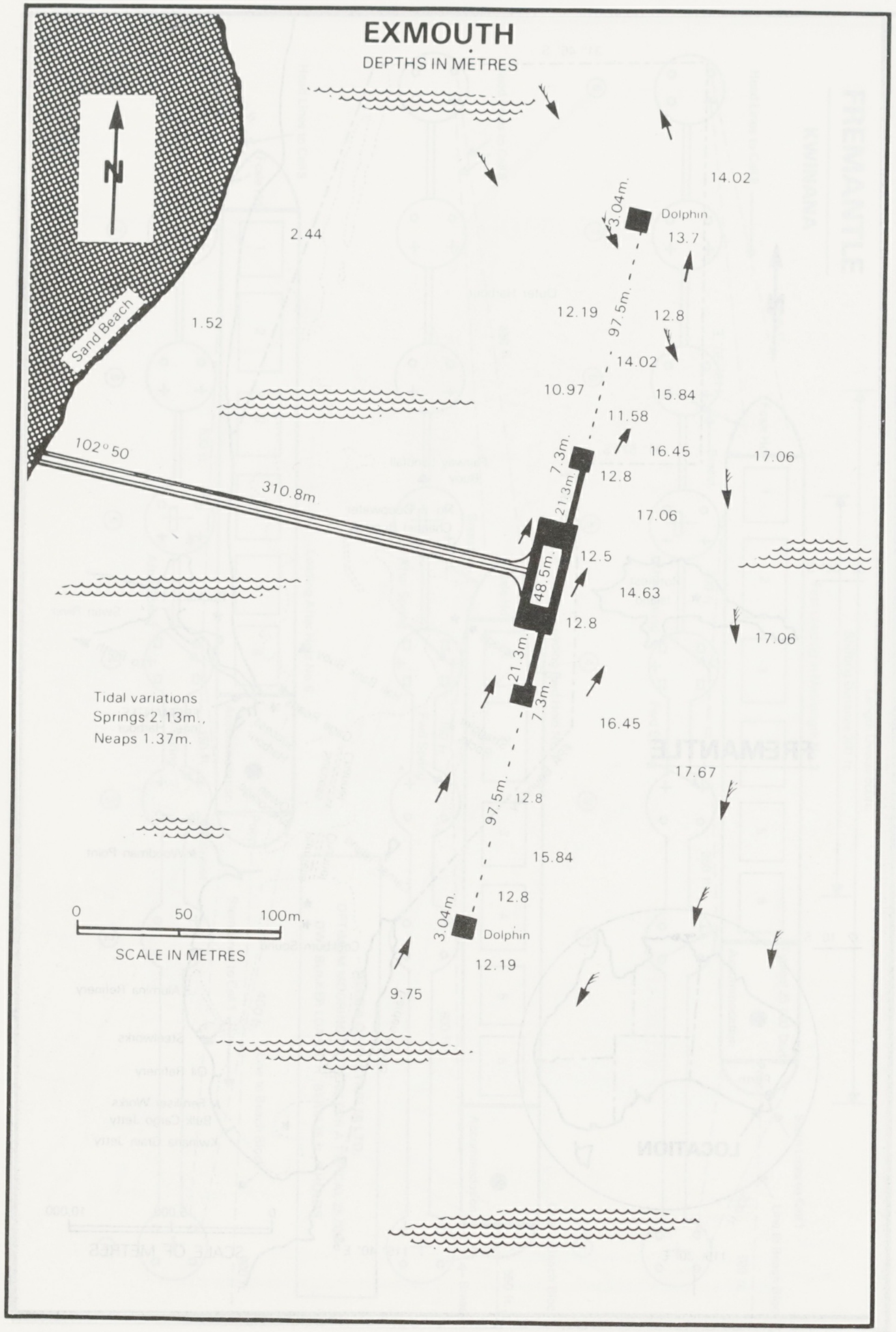

DERBY
H.W.M.
Goods Yard
Causeway for Road 53 ft. wide
Causeway for Cattle 28 ft. wide 6,150 ft. long
N
Oil Company
Rear Leading Light
Forward Leading Light
Northern Abutment
Cattle Yards
Northern Neck
Southern Abutment
Line of Mangroves
Line of Leads 139° 02'
Southern Neck and Cattle Race
Bollards
Mooring Dolphin
Transit Shed
Concrete and Steel Jetty
DERBY
Port Not Operational
0
500
1000
1500 feet
SCALE


DARWIN
N
0 50 100 150
SCALE IN METRES
FRANCES BAY
PORT DARWIN
No. 1
No. 2 West
No. 2 East
No. 3 West
No. 3 East
No. 4 West
No. 4 East
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48

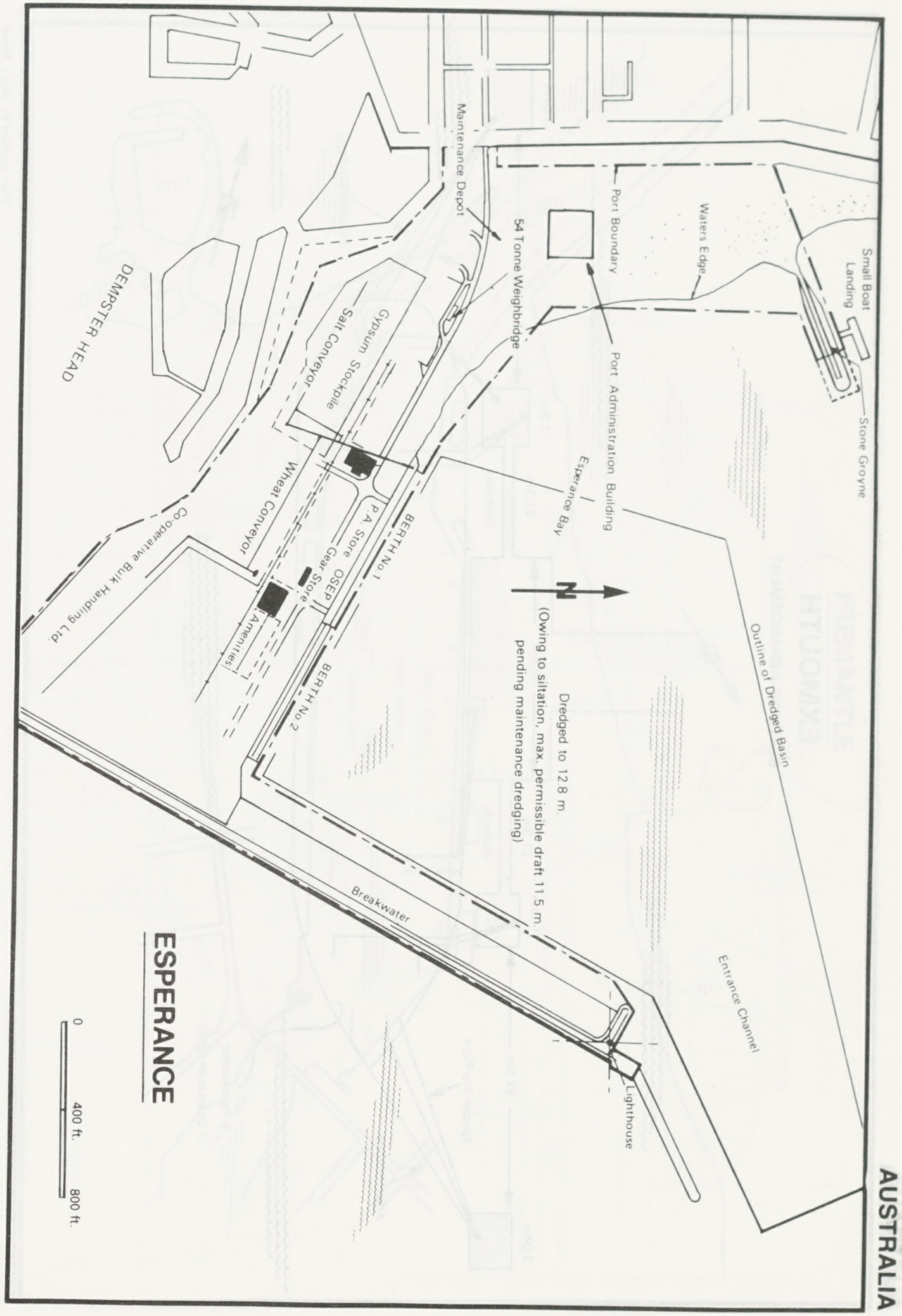
1. LPG Terminal
2. DPA Maintenance Store
3. Acid Terminal
4. Container Terminal
5. Iron Ore Wharf
6. Ro Ro Facility
7. Container Crane
8. New Fort Hill Wharf
9. Old Fort Hill Wharf
10. Stateships Office
11. Fort Hill Gate House
12. T.S.S. Office
13. Car Park
14. Shell Bitumen Plant
15. Cockburn Cement Depot
16. Weighbridge
17. Northern Cement Depot
18. Container Depot
19. Public Car Park
20. Stacking Yard
21. Stokes Hill Gate House
22. DPA Garage
23. NTEC Pump House
24. Ferry Landing
25. Police/Customs Landing
26. Stokes Hill Wharf
27. NTEC Power Station
28. Navy Fuel Dump
29. Frances Bay Marine
32. DPA Slipways
33. Hornibrooks Wharf
34. Inshore Fisherman's Pontoon
35. D.P.A. Fishermen's Wharf
36. DPA Leases
37. Darwin Ship Maintenance
38. Syncrolift
39. Fishermen's Wharf
40. Dept. of Health
41. Post Office
42. Burns Philp Shipping
43. NT Tourist Bureau
44. Police Station
45. Port Authority
46. Custom House
47. Dept. of Immigration
48. T.S.S. Office


DEVONPORT
Mersey Bluff
Lighthouse
Beach
N
Rail N.W. Coast to Launceston, Hobart
Breakwater
Regatta Pt.
Victoria Parade
Beach
MERSEY RIVER
Police Pt.
To Wesley Vale, Airport, etc.
Best St.
Thomas St
No. 1 West Bulk Cement Berth GP Berth
Bulk tallow
Ferry
Murray St.
No. 1 East RO/RO Terminal
Passengers, Mail, Units &
Containers. 30 Ton. Travel
Gantry Crane
To Ulv, Burnie, etc.
To Medical Centre
Steele St.
No. 2 West (Disused)
No. 2 East RO/LO Berth
LO Containers
Dry Bulk 32 Ton. 26 m.
Portal Slewing Crane
Formby Rd.
No. 3 West
General & Dry Bulk
Tarleton St.
No. 3 East
(Proposed)
No. 4 West Bulk Wheat, Steel, Bulk Fuel
Oils Refrigerated General
No. 1 Cold Store
No. 5 West Bulk L.P.G. and stock
Bass Highway to Launceston and Hobart
0
200
400
600
800 m.


EDEN
Port Administration Building
Slipway
Low-level landing
Southern Boat Ramp
Multi-purpose Jetty
Mooring Jetty
Unloading Wharf
Mobil Oil
Breakwater
SNUG COVE
-7
-8
-9
-10
N

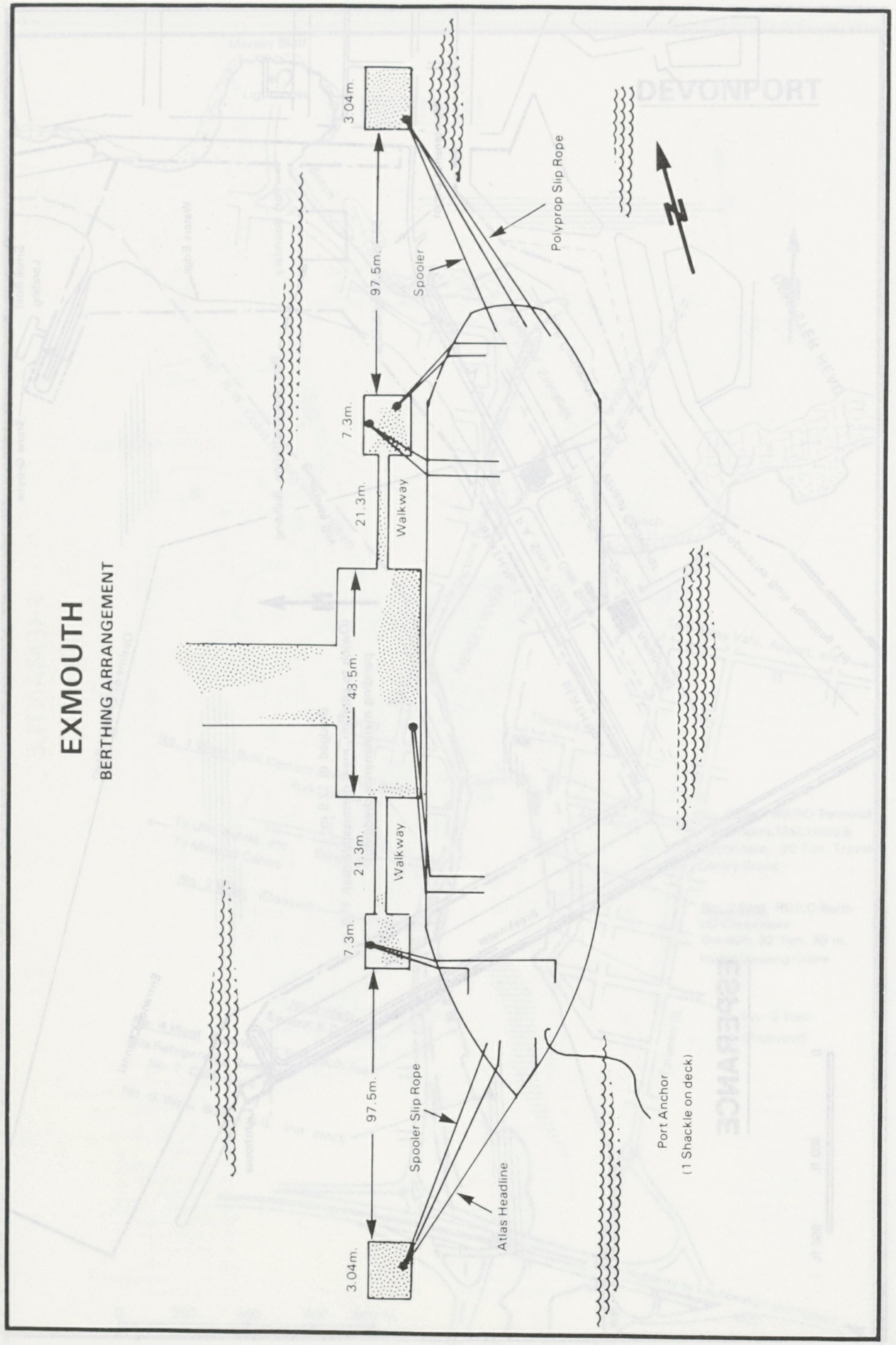

EXMOUTH
DEPTHS IN METRES
N
Sand Beach
2.44
1.52
102° 50
310.8m
Dolphin
3.04m.
14.02
13.7
12.19
12.8
97.5m.
14.02
10.97
15.84
11.58
16.45
7.3m.
17.06
12.8
21.3m.
17.06
12.5
48.5m.
14.63
12.8
17.06
21.3m.
7.3m.
16.45
17.67
12.8
97.5m.
15.84
12.8
3.04m.
Dolphin
12.19
9.75
Tidal variations
Springs 2.13m.,
Neaps 1.37m.
0
50
100m.
SCALE IN METRES

"Plan supplied by Ship's Master"


ESPERANCE
N
Small Boat Landing
Stone Groyne
Waters Edge
Port Boundary
Port Administration Building
Maintenance Depot
54 Tonne Weighbridge
Esperance Bay
Outline of Dredged Basin
Gypsum Stockpile
Salt Conveyor
DEMPSTER HEAD
BERTH No. 1
P.A. Store
OSEP
Gear Store
Wheat Conveyor
Amenities
Co-operative Bulk Handling Ltd.
BERTH No. 2
Dredged to 12.8 m.
(Owing to siltation, max. permissible draft 11.5 m.
pending maintenance dredging)
Breakwater
Entrance Channel
Lighthouse
0
400 ft.
800 ft.

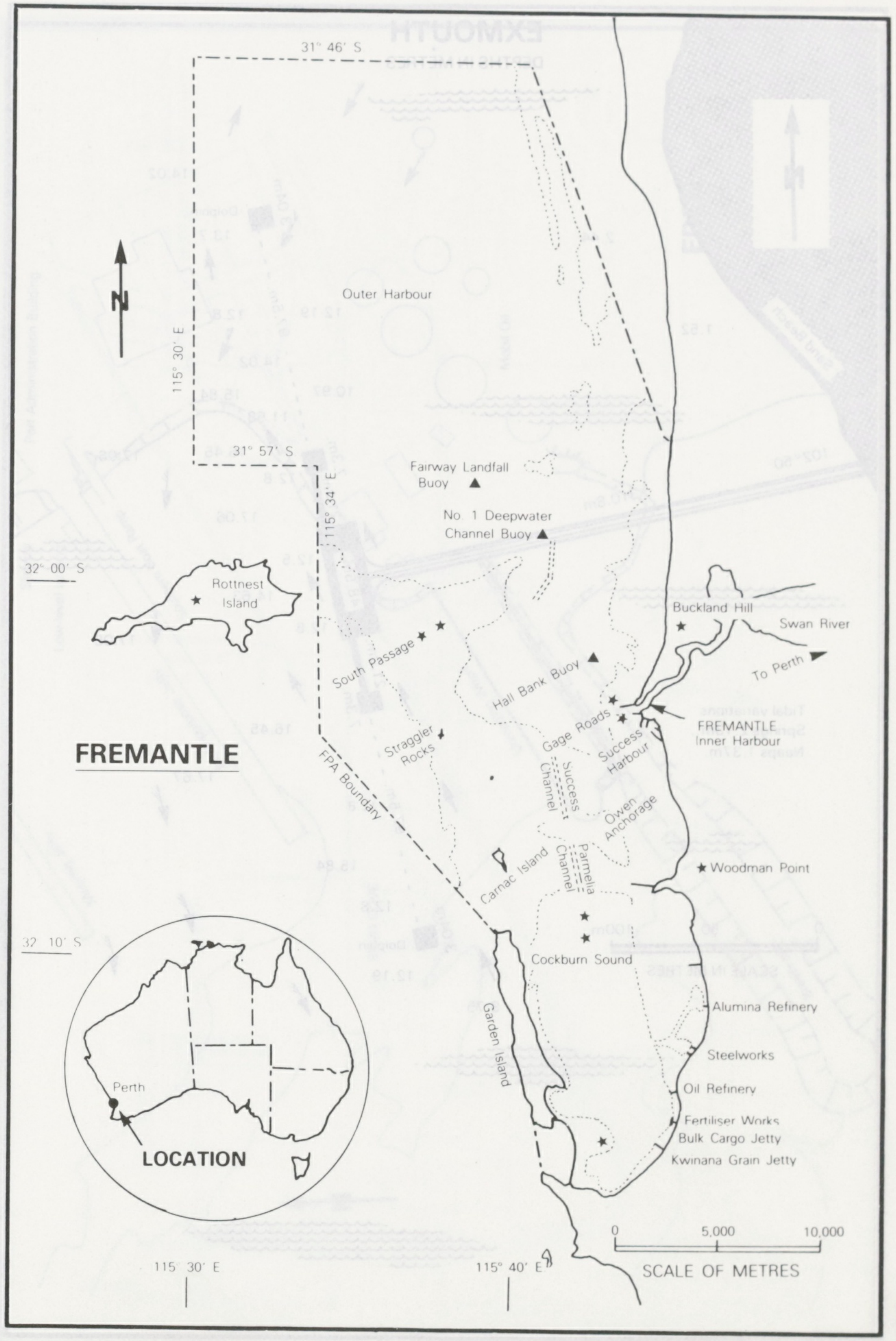
EXMOUTH

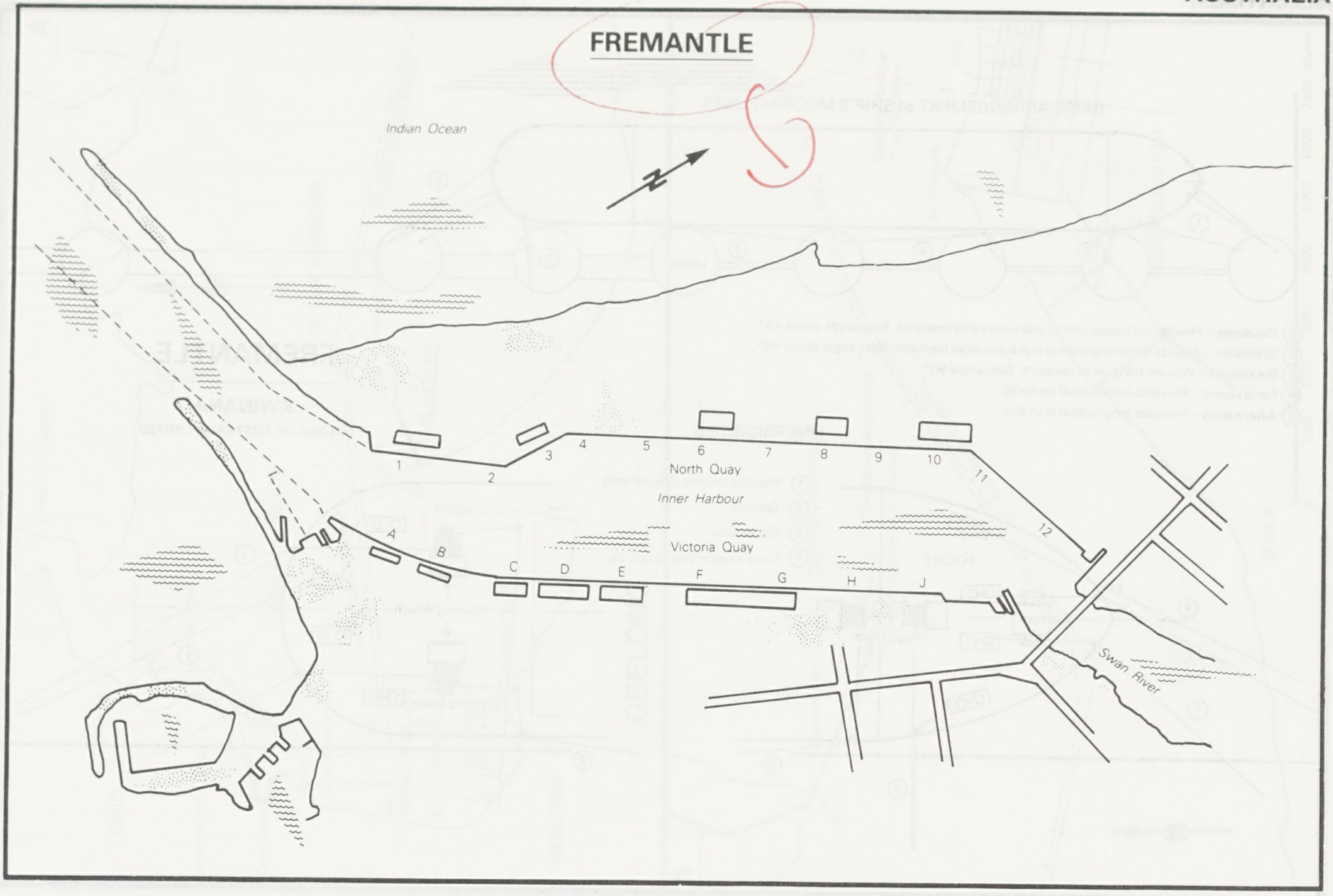
BERTHING ARRANGEMENT

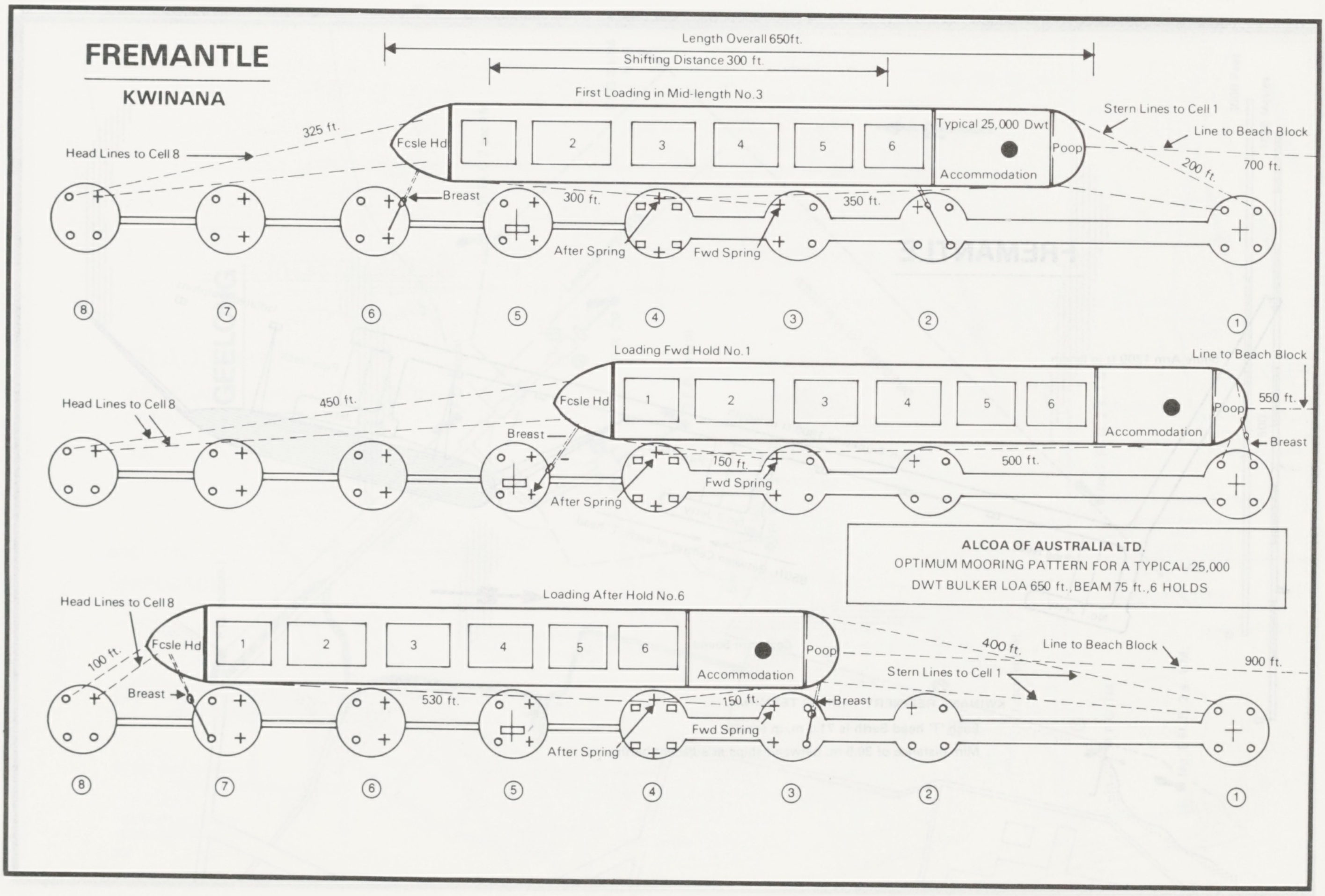

3.04m.
97.5m.
7.3m.
21.3m.
Walkway
43.5m.
21.3m.
Walkway
7.3m.
97.5m.
3.04m.
Polyprop Slip Rope
Spooler
Spooler Slip Rope
Atlas Headline
Port Anchor
(1 Shackle on deck)
N

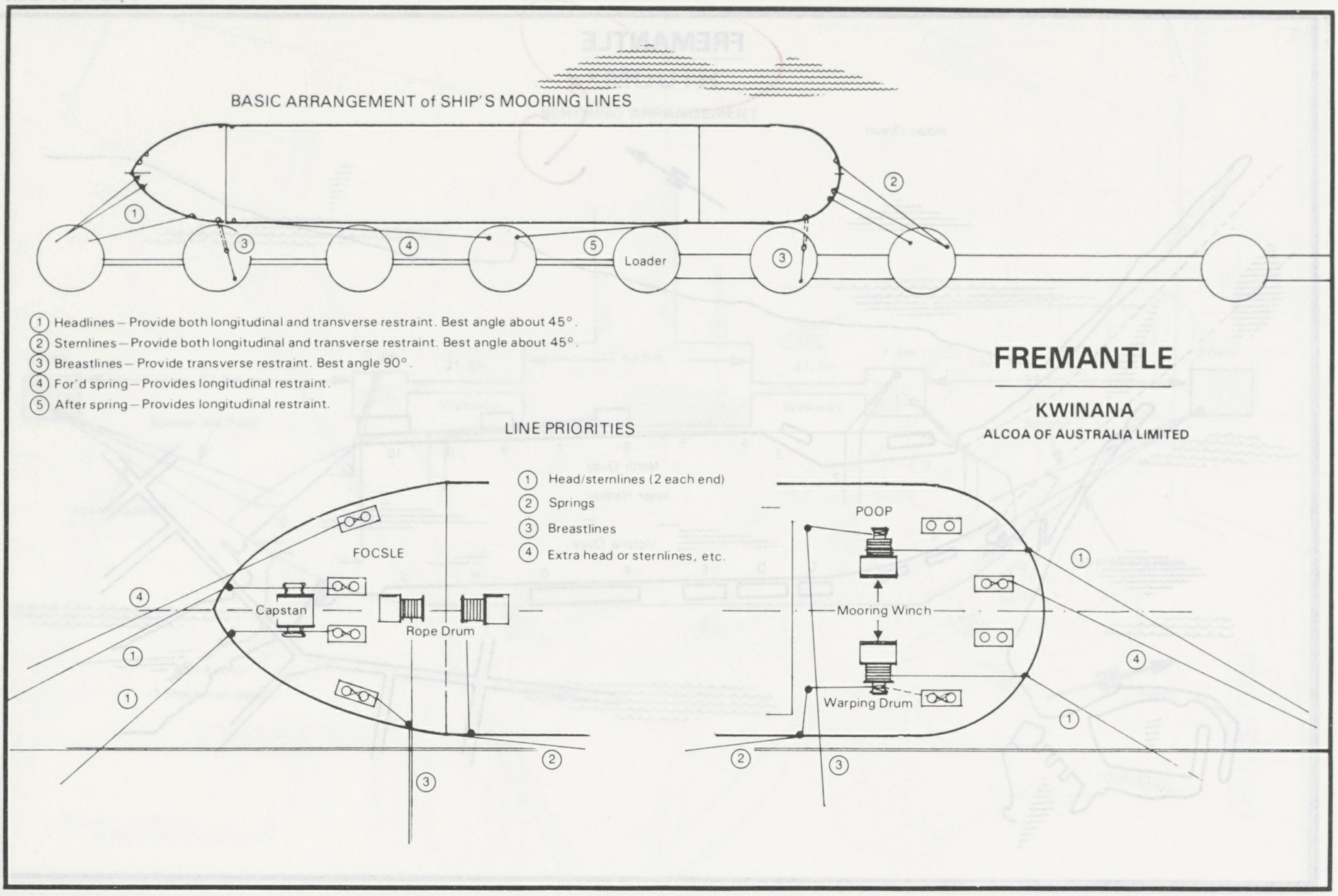
"Plan supplied by Ship's Master"

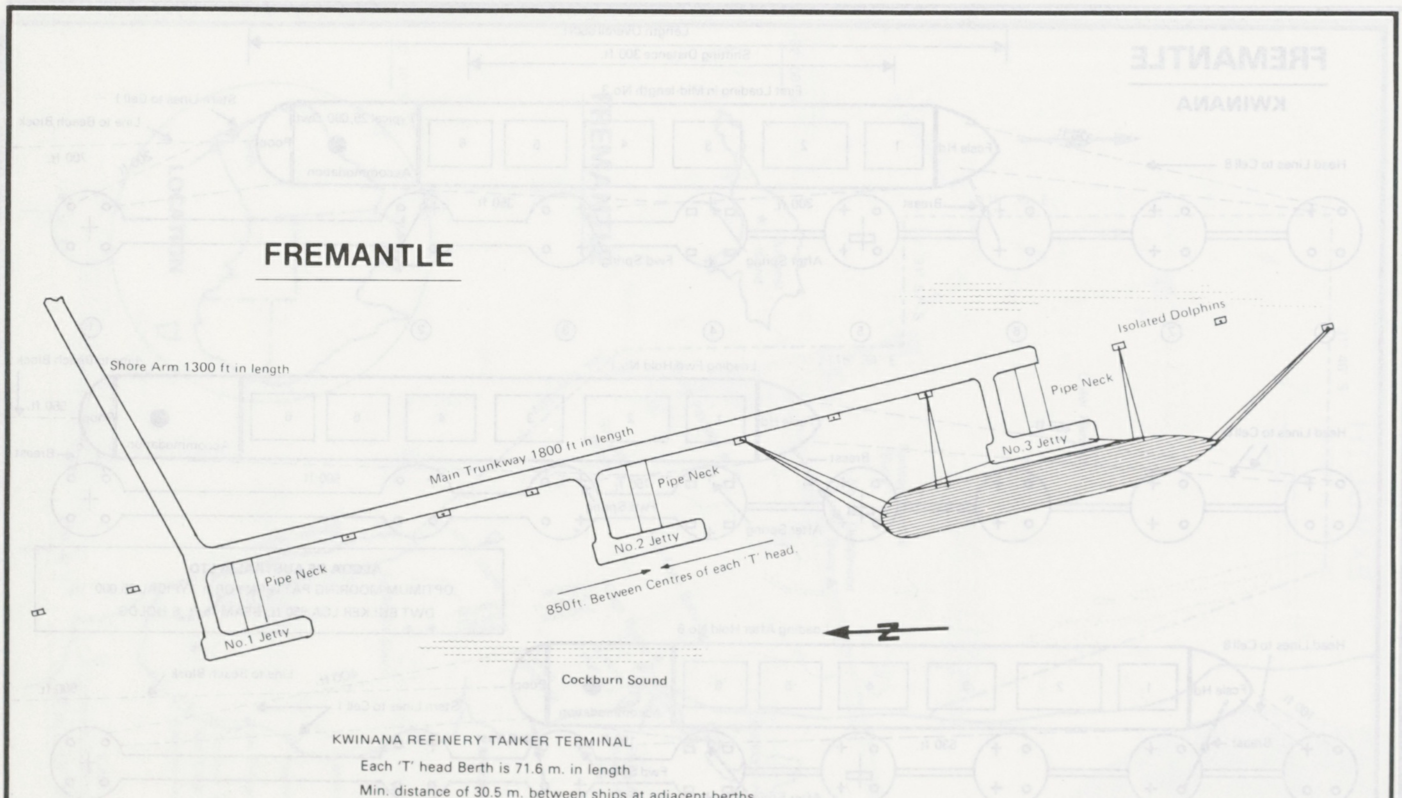
FREMANTLE

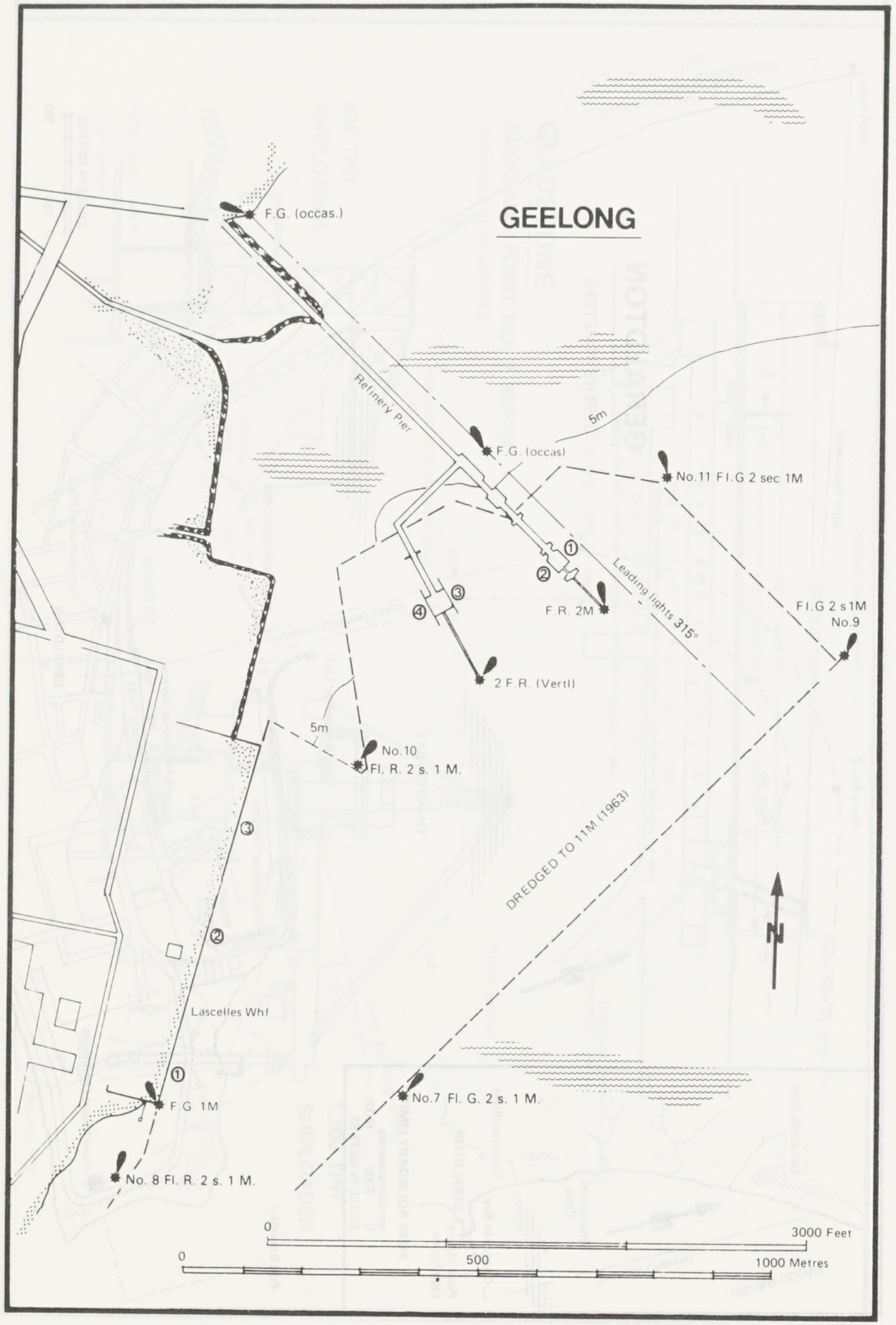

31° 46' S
115° 30' E
31° 57' S
115° 34' E
N
Outer Harbour
Fairway Landfall Buoy
No. 1 Deepwater Channel Buoy
32° 00' S
Rottnest Island
South Passage
Hall Bank Buoy
Buckland Hill
Swan River
To Perth
Gage Roads
FREMANTLE Inner Harbour
Success Harbour
Straggler Rocks
FPA Boundary
Success Channel
Owen Anchorage
Parmelia Channel
Carnac Island
Woodman Point
32° 10' S
Cockburn Sound
Garden Island
Alumina Refinery
Steelworks
Oil Refinery
Fertiliser Works
Bulk Cargo Jetty
Kwinana Grain Jetty
Perth
LOCATION
115° 30' E
115° 40' E
0
5,000
10,000
SCALE OF METRES

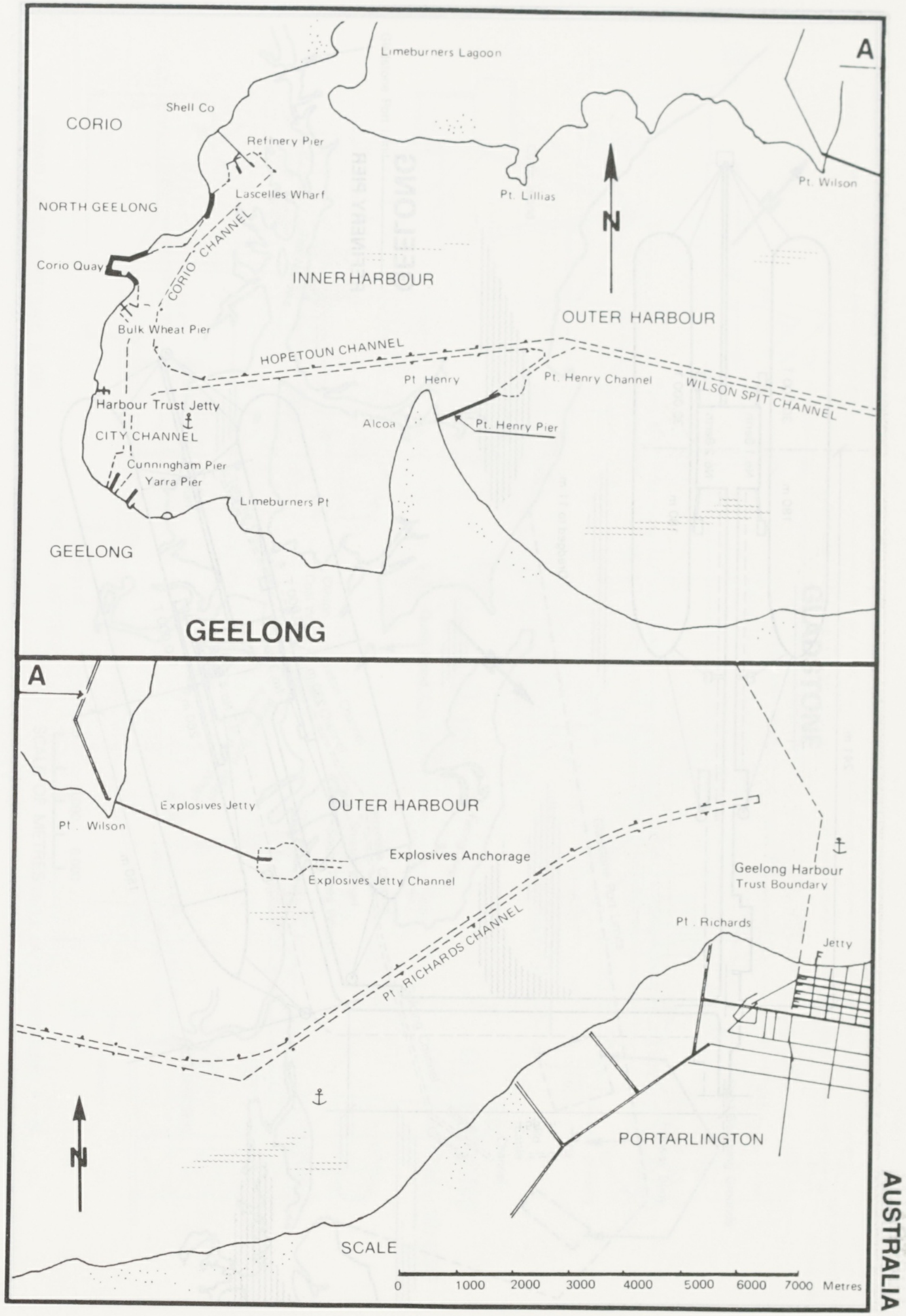

FREMANTLE
Indian Ocean
1
2
3
4
5
6
7
8
9
10
11
12
North Quay
Inner Harbour
Victoria Quay
A
B
C
D
E
F
G
H
J
Swan River

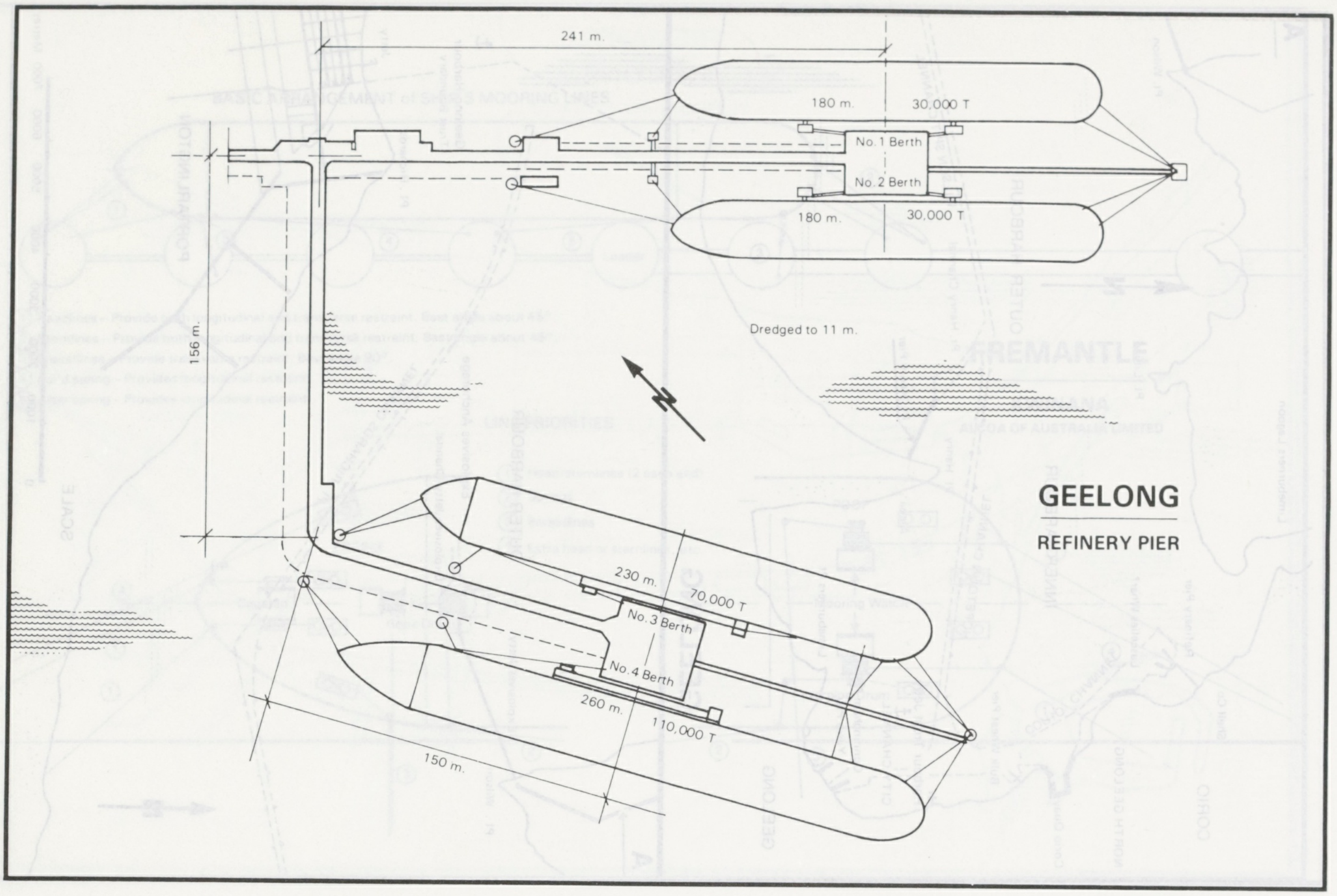

FREMANTLE
KWINANA
Length Overall 650ft.
Shifting Distance 300 ft.
First Loading in Mid-length No.3
Head Lines to Cell 8
325 ft.
Fcsle Hd
1
2
3
4
5
6
Typical 25,000 Dwt
Accommodation
Poop
Stern Lines to Cell 1
Line to Beach Block
200 ft.
700 ft.
Breast
300 ft.
350 ft.
After Spring
Fwd Spring
⑧ ⑦ ⑥ ⑤ ④ ③ ② ①
Loading Fwd Hold No.1
Line to Beach Block
Head Lines to Cell 8
450 ft.
Fcsle Hd
1
2
3
4
5
6
Accommodation
Poop
550 ft.
Breast
Breast
150 ft.
Fwd Spring
500 ft.
After Spring
ALCOA OF AUSTRALIA LTD.
OPTIMUM MOORING PATTERN FOR A TYPICAL 25,000
DWT BULKER LOA 650 ft., BEAM 75 ft., 6 HOLDS
Head Lines to Cell 8
Loading After Hold No.6
100 ft.
Fcsle Hd
1
2
3
4
5
6
Accommodation
Poop
400 ft.
Line to Beach Block
900 ft.
Stern Lines to Cell 1
Breast
530 ft.
150 ft.
Breast
Fwd Spring
After Spring
⑧ ⑦ ⑥ ⑤ ④ ③ ② ①

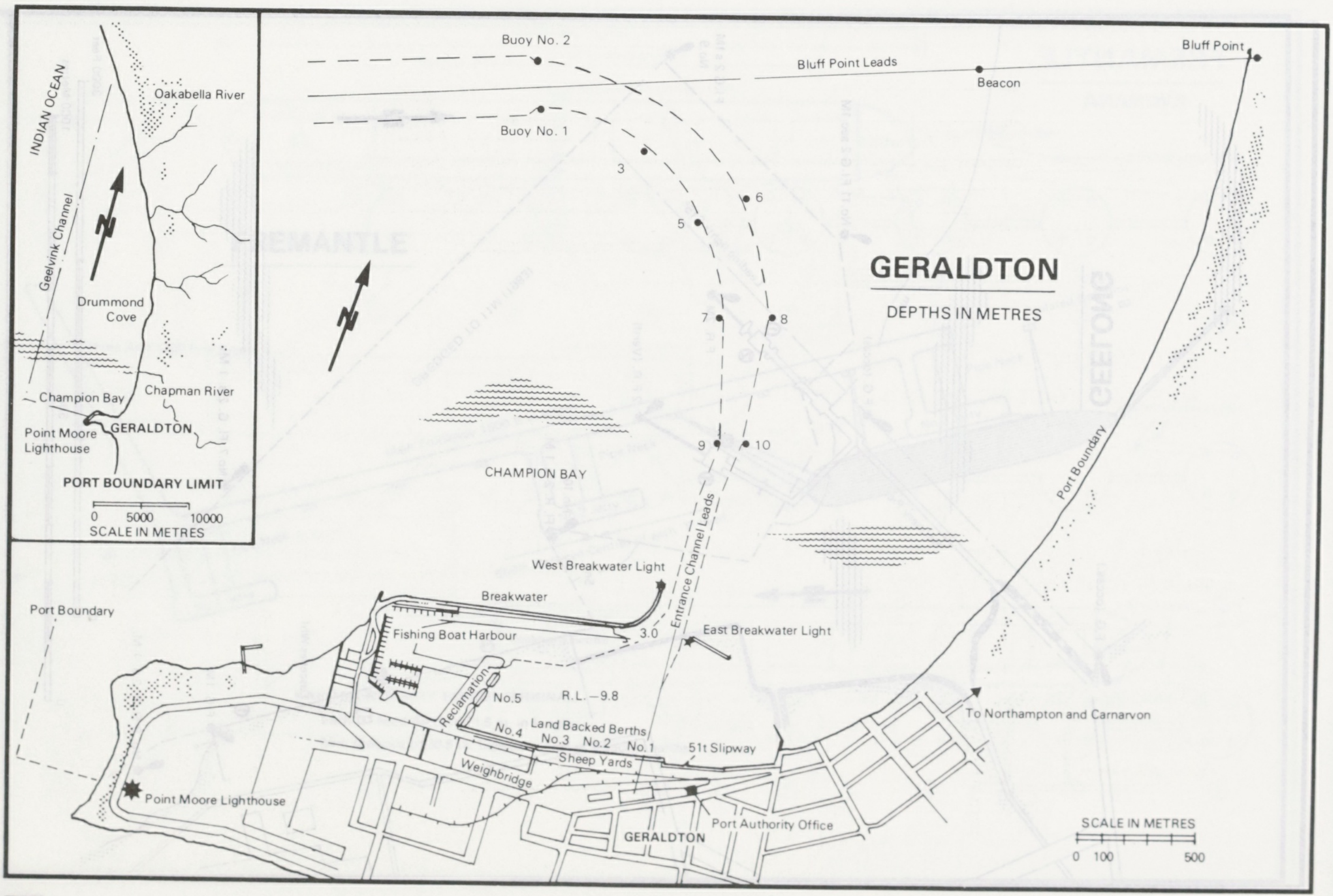

BASIC ARRANGEMENT of SHIP'S MOORING LINES
① ② ③ ④ ⑤ ③
Loader
① Headlines – Provide both longitudinal and transverse restraint. Best angle about 45°.
② Sternlines – Provide both longitudinal and transverse restraint. Best angle about 45°.
③ Breastlines – Provide transverse restraint. Best angle 90°.
④ For'd spring – Provides longitudinal restraint.
⑤ After spring – Provides longitudinal restraint.
FREMANTLE
KWINANA
ALCOA OF AUSTRALIA LIMITED
LINE PRIORITIES
① Head/sternlines (2 each end)
② Springs
③ Breastlines
④ Extra head or sternlines, etc.
FOCSLE
Capstan
Rope Drum
POOP
Mooring Winch
Warping Drum
① ① ④ ② ③ ② ③ ① ④ ①

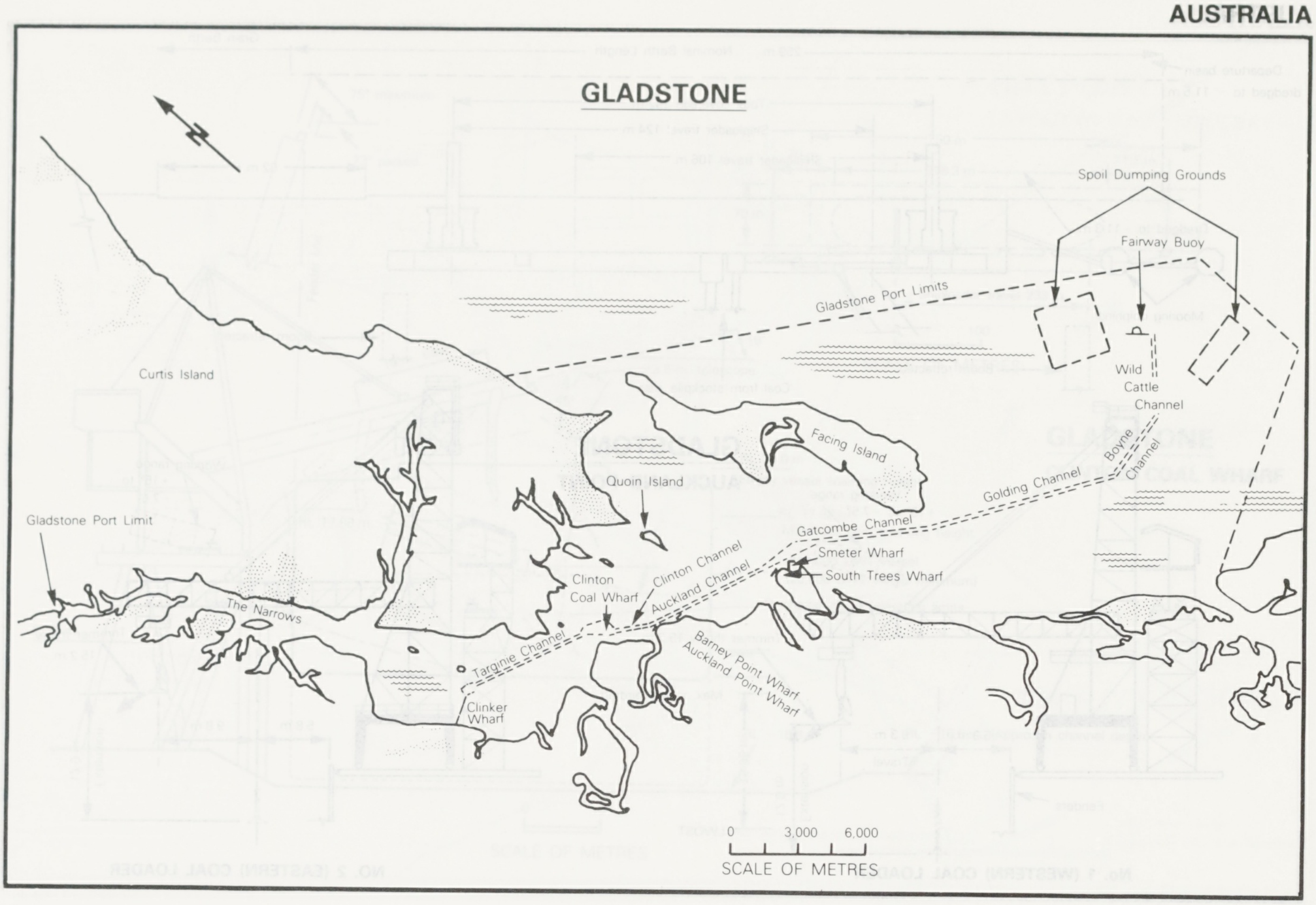

FREMANTLE
Shore Arm 1300 ft in length
Main Trunkway 1800 ft in length
Pipe Neck
No.1 Jetty
Pipe Neck
No.2 Jetty
850 ft. Between Centres of each 'T' head.
Pipe Neck
No.3 Jetty
Isolated Dolphins
N
Cockburn Sound
KWINANA REFINERY TANKER TERMINAL
Each 'T' head Berth is 71.6 m. in length
Min. distance of 30.5 m. between ships at adjacent berths.


GEELONG
F.G. (occas.)
Refinery Pier
F.G. (occas)
5m
No.11 Fl.G 2 sec 1M
①
②
③
④
Leading lights 315°
F.R. 2M
Fl.G 2 s 1M
No.9
2 F.R. (Vertl)
5m
No.10
Fl. R. 2 s. 1 M.
DREDGED TO 11M (1963)
③
②
N
Lascelles Whf
①
F.G. 1M
No.7 Fl. G. 2 s. 1 M.
No. 8 Fl. R. 2 s. 1 M.
0
3000 Feet
0
500
1000 Metres


A
Limeburners Lagoon
Shell Co
CORIO
Refinery Pier
Lascelles Wharf
Pt. Lillias
Pt. Wilson
NORTH GEELONG
N
Corio Quay
CORIO CHANNEL
INNER HARBOUR
OUTER HARBOUR
Bulk Wheat Pier
HOPETOUN CHANNEL
Pt. Henry
Pt. Henry Channel
WILSON SPIT CHANNEL
Harbour Trust Jetty
Alcoa
Pt. Henry Pier
CITY CHANNEL
Cunningham Pier
Yarra Pier
Limeburners Pt
GEELONG
GEELONG
A
Explosives Jetty
OUTER HARBOUR
Pt. Wilson
Explosives Anchorage
Explosives Jetty Channel
Geelong Harbour
Trust Boundary
Pt. Richards
Jetty
Pt. RICHARDS CHANNEL
N
PORTARLINGTON
SCALE
0
1000
2000
3000
4000
5000
6000
7000 Metres

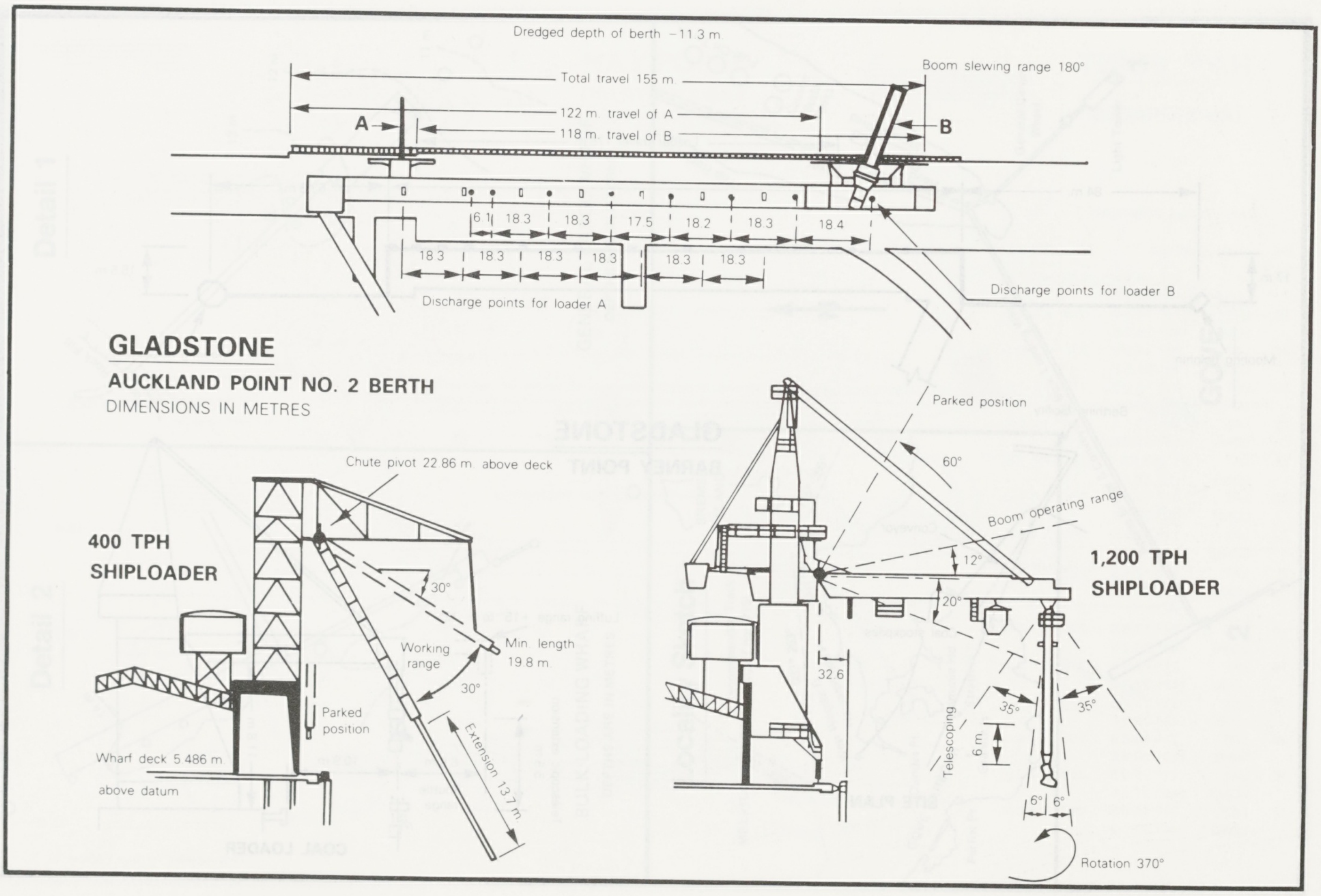

GEELONG
REFINERY PIER
241 m.
180 m.
30,000 T
No. 1 Berth
No. 2 Berth
180 m.
30,000 T
156 m.
Dredged to 11 m.
230 m.
70,000 T
No. 3 Berth
No. 4 Berth
260 m.
110,000 T
150 m.


INDIAN OCEAN
Oakabella River
Geelvink Channel
Drummond Cove
Champion Bay
Chapman River
Point Moore Lighthouse
GERALDTON
PORT BOUNDARY LIMIT
0 5000 10000
SCALE IN METRES
GERALDTON
DEPTHS IN METRES
Buoy No. 2
Buoy No. 1
Bluff Point
Bluff Point Leads
Beacon
3
5
6
7
8
9
10
CHAMPION BAY
Entrance Channel Leads
West Breakwater Light
Breakwater
Fishing Boat Harbour
3.0
East Breakwater Light
Port Boundary
Port Boundary
Reclamation
No.5
R.L. −9.8
No.4
Land Backed Berths
No.3
No.2
No.1
51t Slipway
Sheep Yards
Weighbridge
Point Moore Lighthouse
Port Authority Office
GERALDTON
To Northampton and Carnarvon
SCALE IN METRES
0 100 500



GLADSTONE

Spoil Dumping Grounds
Fairway Buoy
Gladstone Port Limits
Wild
Cattle
Channel
Curtis Island
Facing Island
Boyne Channel
Golding Channel
Quoin Island
Gladstone Port Limit
Gatcombe Channel
Clinton Channel
Smeter Wharf
South Trees Wharf
Clinton
Coal Wharf
Auckland Channel
The Narrows
Targinie Channel
Barney Point Wharf
Auckland Point Wharf
Clinker
Wharf
0
3,000
6,000
SCALE OF METRES

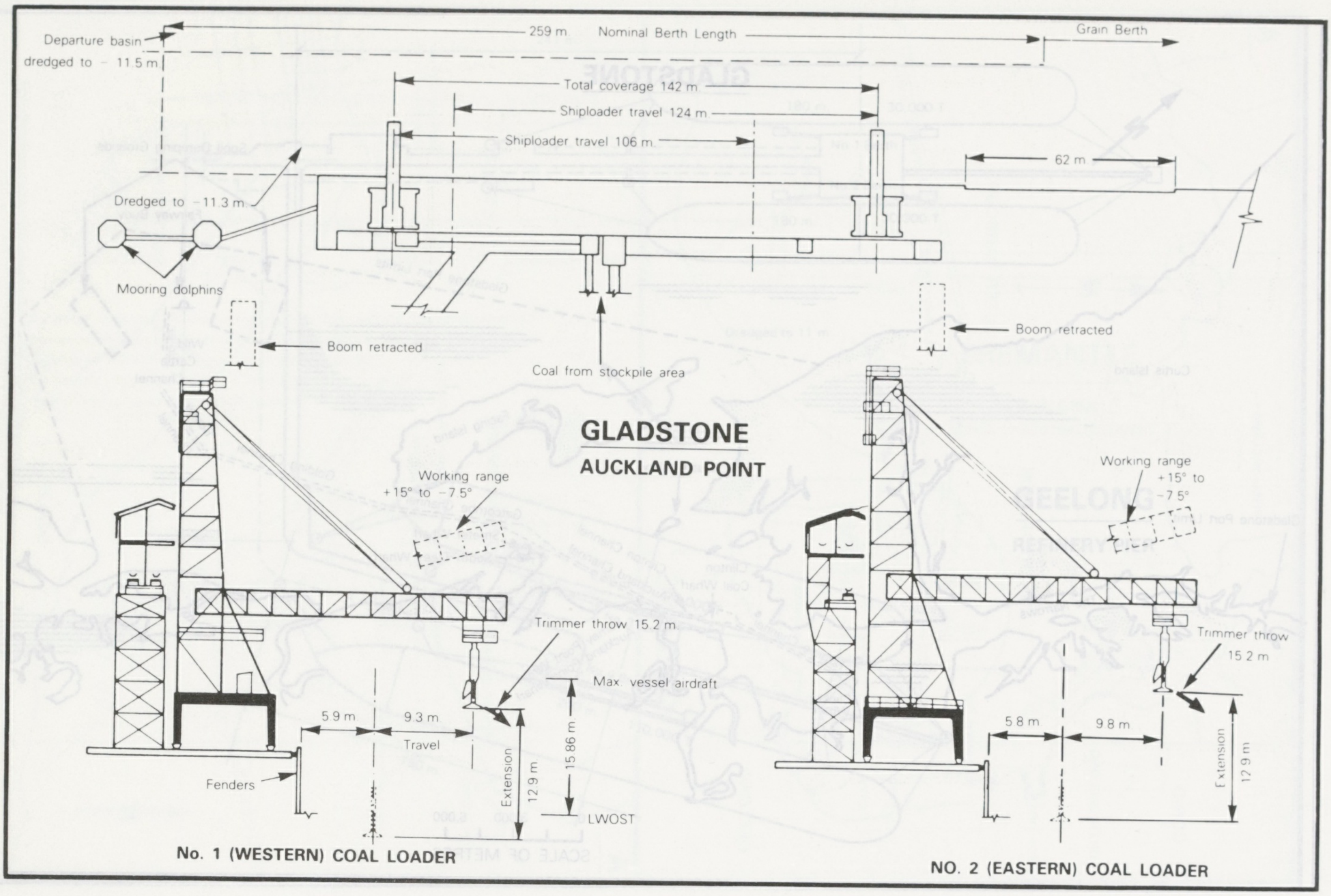


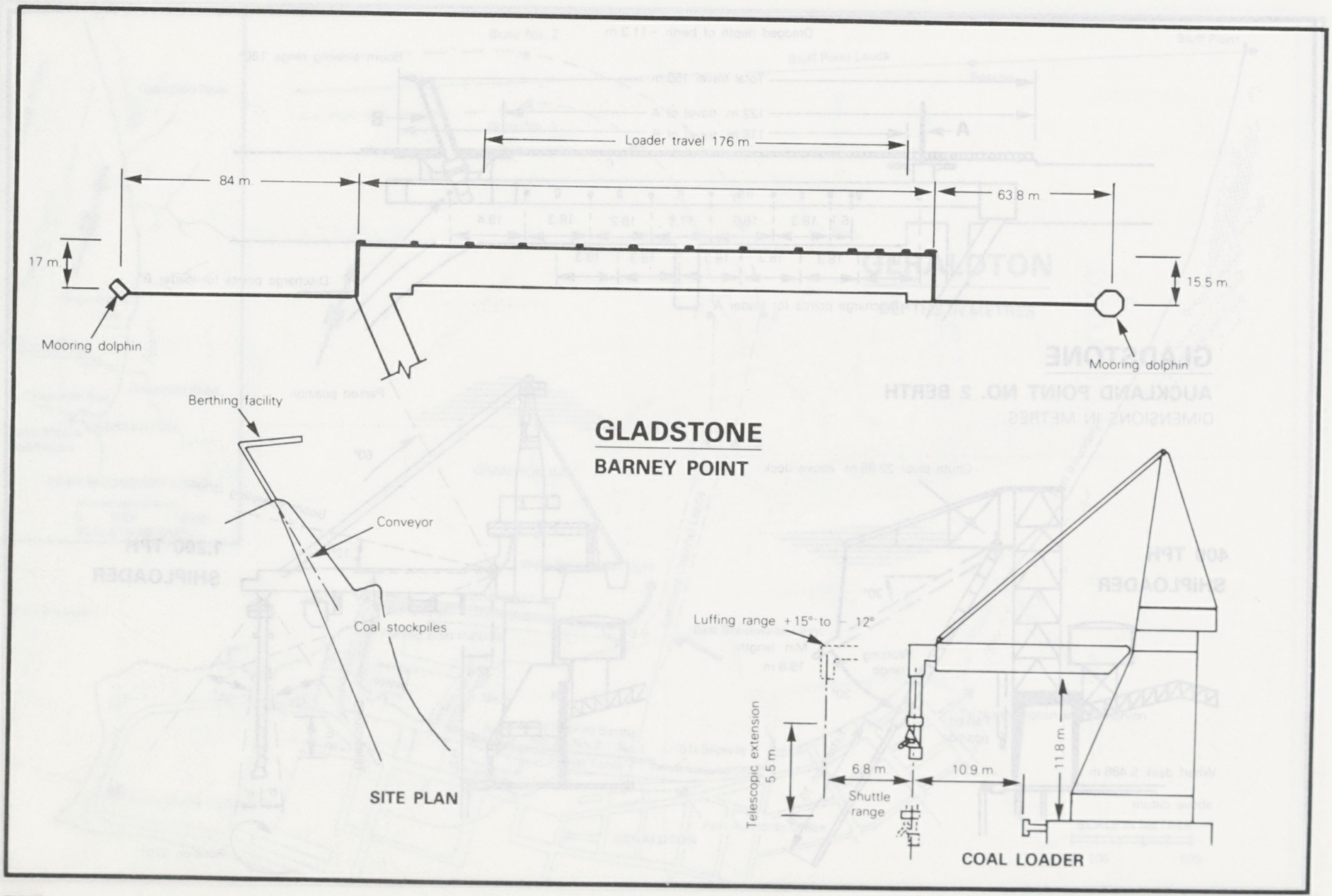
GLADSTONE

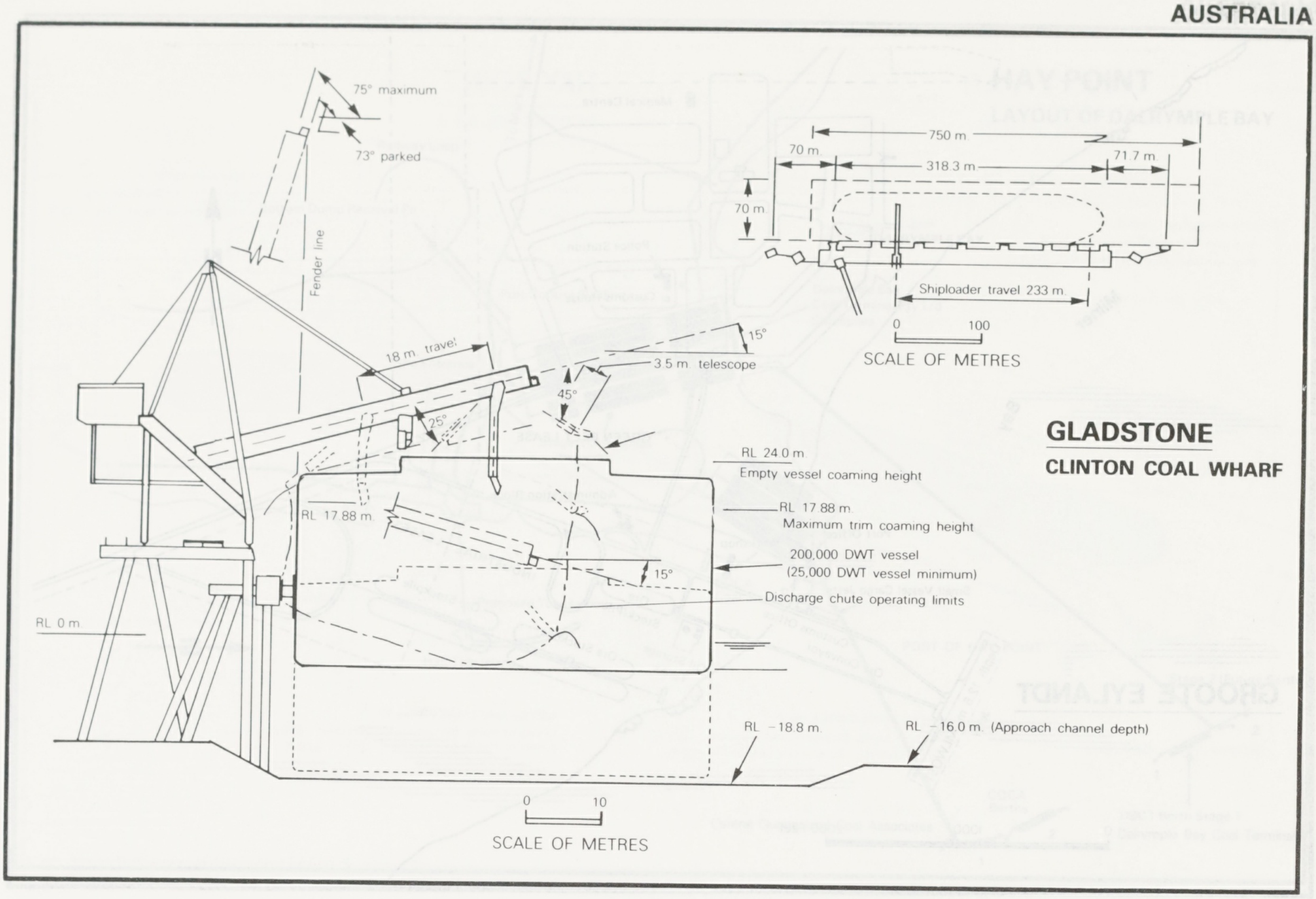
AUCKLAND POINT NO. 2 BERTH

DIMENSIONS IN METRES

Dredged depth of berth -11.3 m.
Total travel 155 m
Boom slewing range 180°
122 m. travel of A
118 m. travel of B
A
B
6.1
18.3
18.3
17.5
18.2
18.3
18.4
18.3
18.3
18.3
18.3
18.3
18.3
Discharge points for loader A
Discharge points for loader B
400 TPH
SHIPLOADER
Chute pivot 22.86 m. above deck
30°
Working
range
Min. length
19.8 m.
30°
Parked
position
Extension 13.7 m
Wharf deck 5.486 m
above datum
1,200 TPH
SHIPLOADER
Parked position
60°
Boom operating range
12°
20°
32.6
Telescoping
6 m
35°
35°
6°
6°
Rotation 370°


Departure basin
dredged to − 11.5 m
259 m
Nominal Berth Length
Grain Berth
Total coverage 142 m
Shiploader travel 124 m
Shiploader travel 106 m
62 m
Dredged to −11.3 m
Mooring dolphins
Boom retracted
Coal from stockpile area
Boom retracted
GLADSTONE
AUCKLAND POINT
Working range
+15° to −7.5°
Working range
+15° to
−7.5°
Trimmer throw 15.2 m
Trimmer throw
15.2 m
Max. vessel airdraft
5.9 m
9.3 m
Travel
Extension
12.9 m
15.86 m
LWOST
Fenders
5.8 m
9.8 m
Extension
12.9 m
No. 1 (WESTERN) COAL LOADER
NO. 2 (EASTERN) COAL LOADER

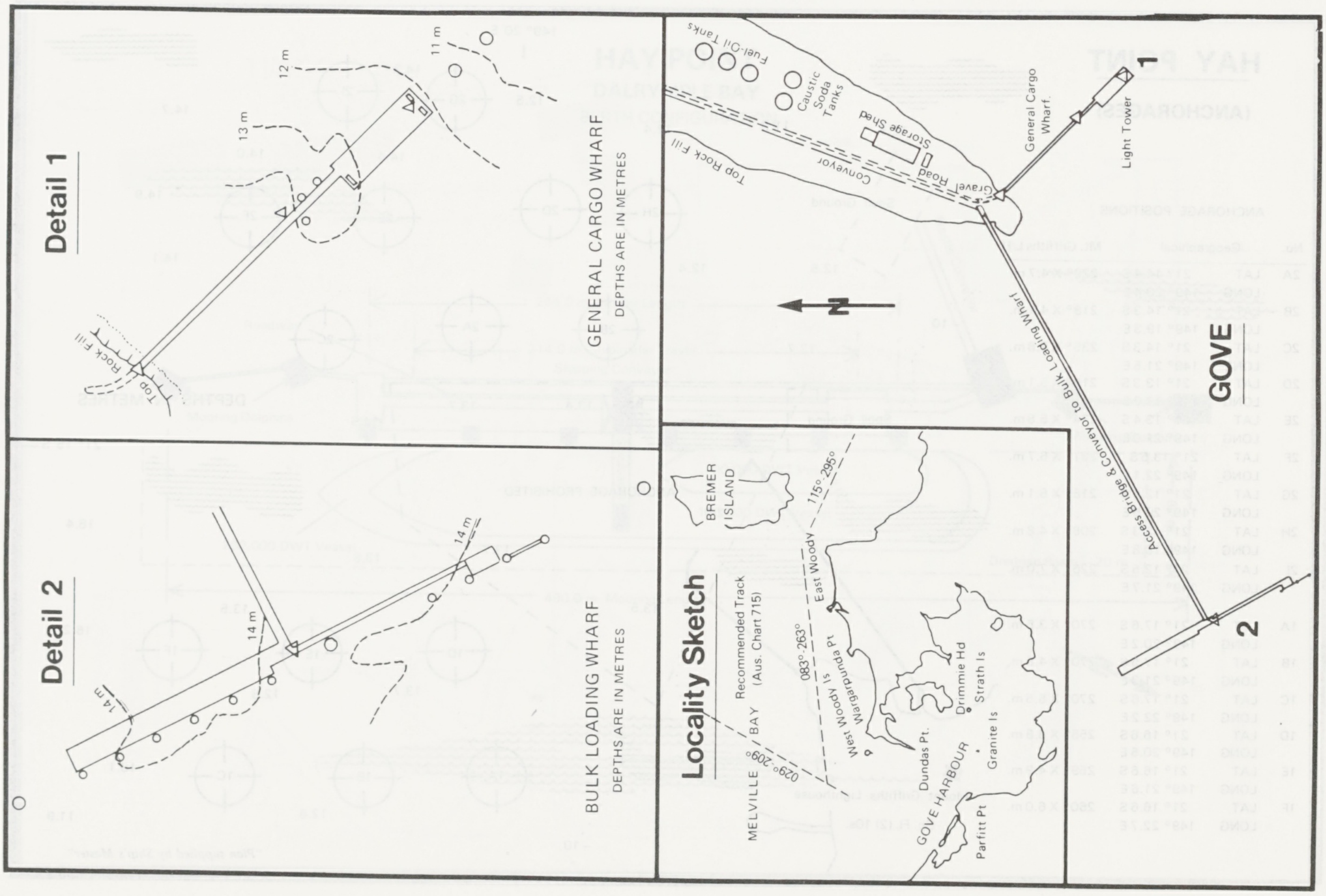

Loader travel 176 m
84 m
63.8 m
17 m
15.5 m
Mooring dolphin
Mooring dolphin
GLADSTONE
BARNEY POINT
Berthing facility
Conveyor
Coal stockpiles
SITE PLAN
Luffing range +15° to −12°
Telescopic extension
5.5 m
6.8 m
10.9 m
Shuttle
range
11.8 m
COAL LOADER



GLADSTONE

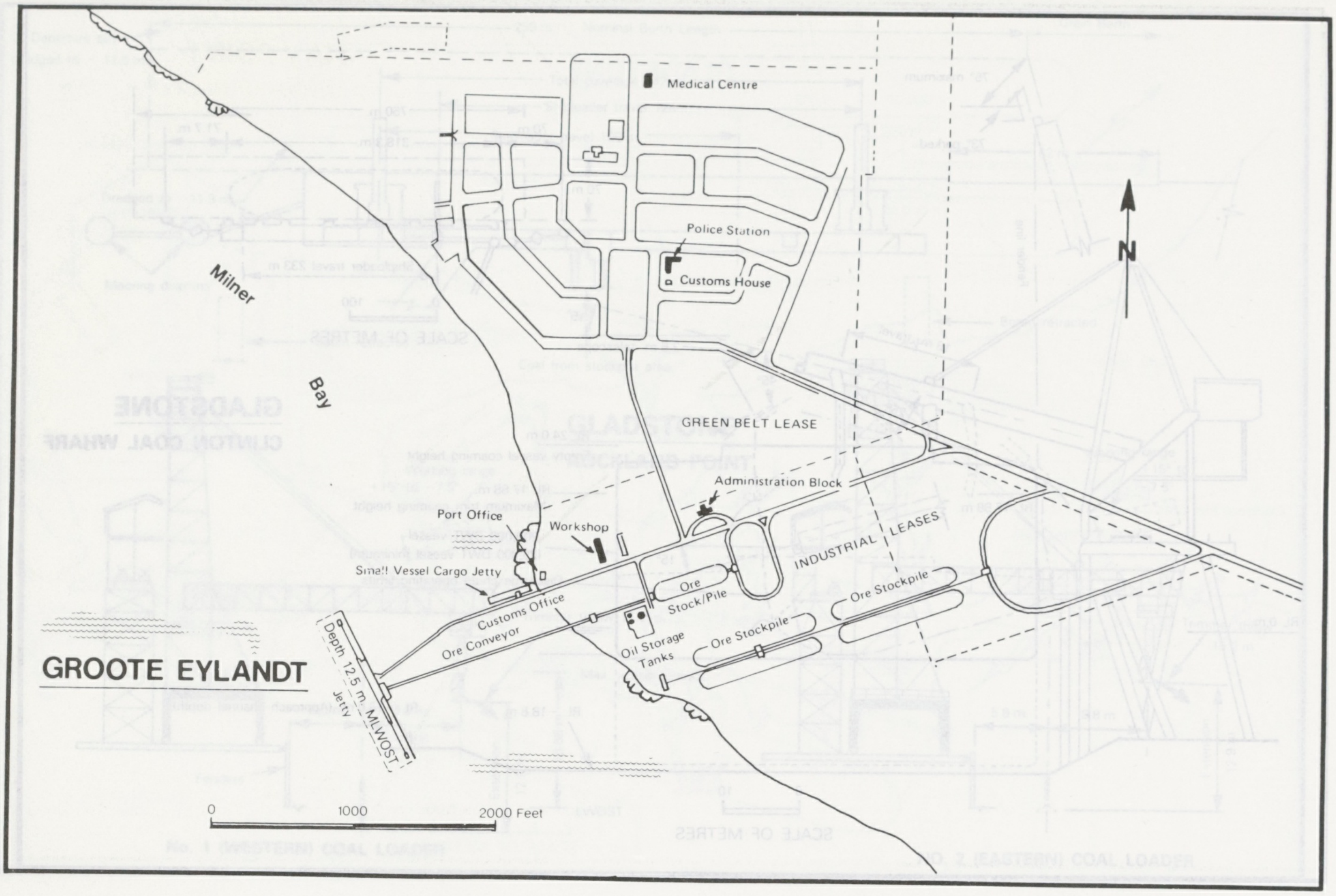
CLINTON COAL WHARF

75° maximum
73° parked
Fender line
18 m. travel
3.5 m. telescope
15°
45°
25°
15°
RL 24.0 m.
Empty vessel coaming height
RL 17.88 m.
RL 17.88 m.
Maximum trim coaming height
200,000 DWT vessel
(25,000 DWT vessel minimum)
Discharge chute operating limits
RL 0 m.
RL -18.8 m.
RL -16.0 m. (Approach channel depth)
0
10
SCALE OF METRES
750 m.
70 m.
318.3 m.
71.7 m.
70 m.
Shiploader travel 233 m.
0
100
SCALE OF METRES



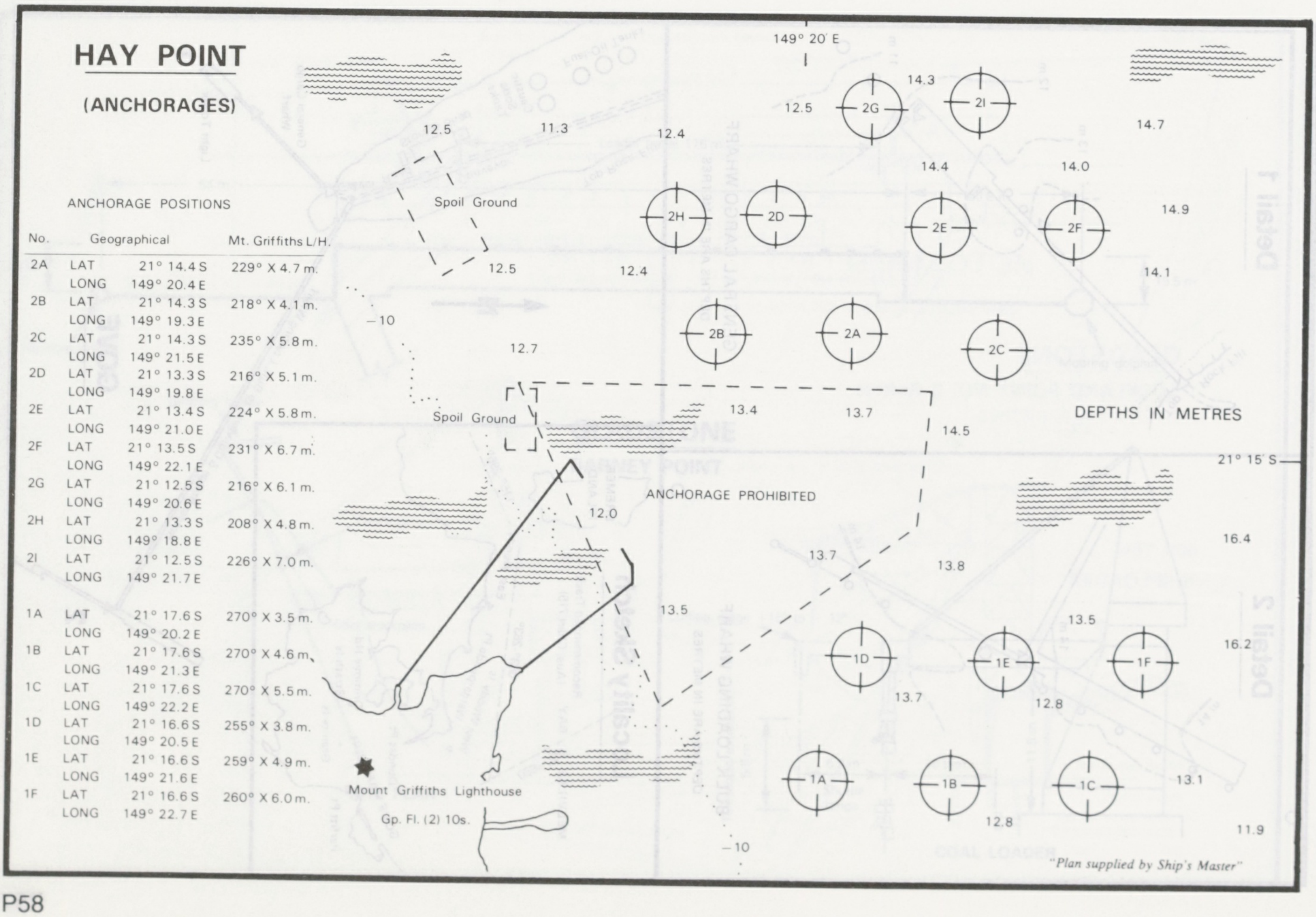
GOVE

Detail 1
12 m
13 m
11 m
Top Rock Fill
GENERAL CARGO WHARF
DEPTHS ARE IN METRES
Detail 2
14 m
14 m
14 m
BULK LOADING WHARF
DEPTHS ARE IN METRES
Fuel-Oil Tanks
Caustic Soda Tanks
Storage Shed
Conveyor
Road
Gravel
Top Rock Fill
General Cargo Wharf.
Light Tower
1
N
Access Bridge & Conveyor to Bulk Loading Wharf
2
Locality Sketch
BREMER ISLAND
MELVILLE BAY
Recommended Track (Aus. Chart 715)
115° 295°
East Woody
083° 263°
029° 209°
Wargarpunda Pt
West Woody Is
Dundas Pt
Drimmie Hd
Strath Is
Granite Is
GOVE HARBOUR
Parfitt Pt



GROOTE EYLANDT

Medical Centre
Police Station
Customs House
N
Milner
Bay
GREEN BELT LEASE
Administration Block
Port Office
Workshop
Small Vessel Cargo Jetty
INDUSTRIAL LEASES
Customs Office
Ore Conveyor
Ore Stock/Pile
Ore Stockpile
Ore Stockpile
Oil Storage Tanks
Depth 12.5 m. MLWOST
Jetty
0
1000
2000 Feet



HAY POINT

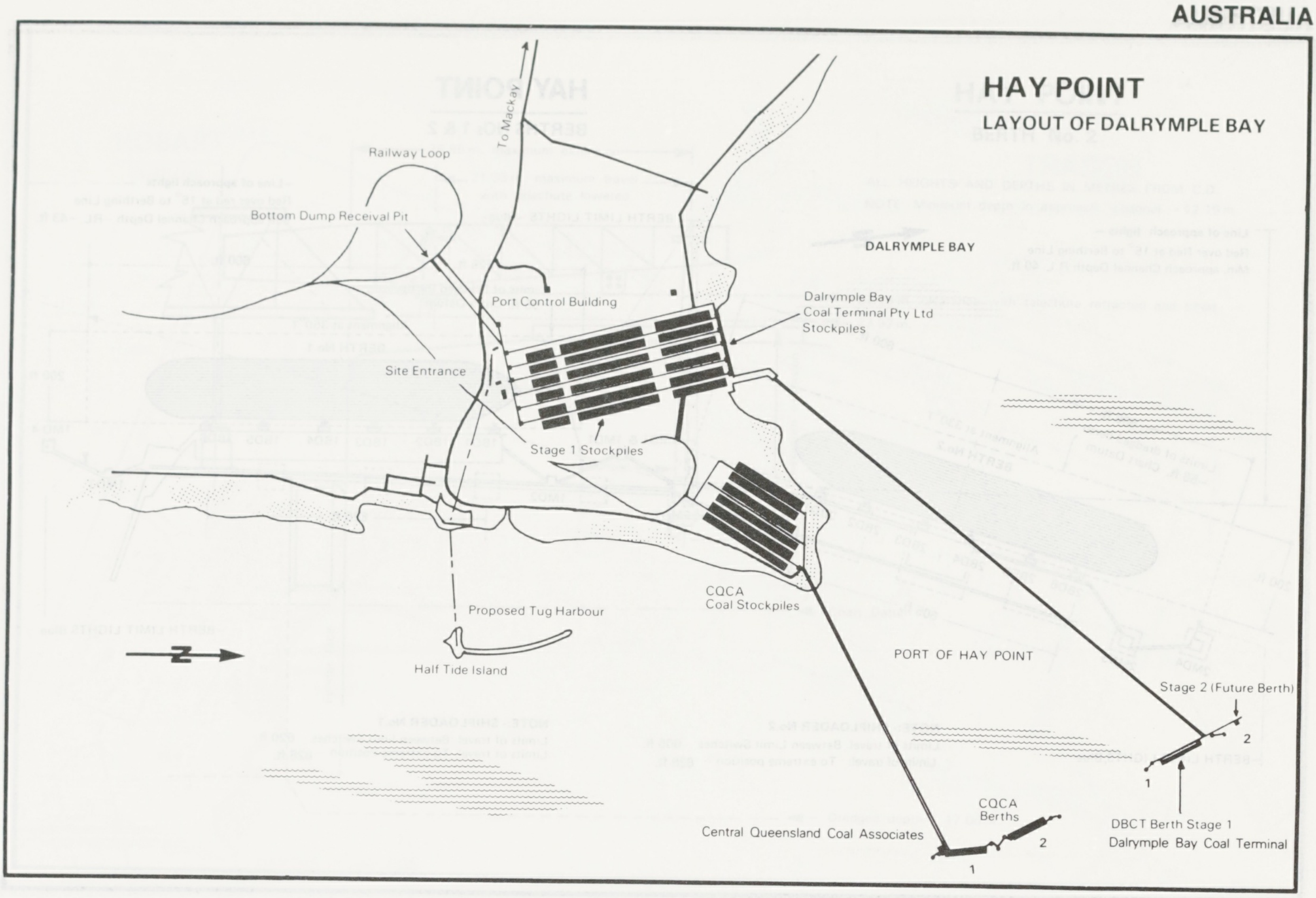
(ANCHORAGES)

ANCHORAGE POSITIONS

No.		Geographical	Mt. Griffiths L/H.
2A	LAT	21° 14.4 S	229° X 4.7 m.
	LONG	149° 20.4 E	
2B	LAT	21° 14.3 S	218° X 4.1 m.
	LONG	149° 19.3 E	
2C	LAT	21° 14.3 S	235° X 5.8 m.
	LONG	149° 21.5 E	
2D	LAT	21° 13.3 S	216° X 5.1 m.
	LONG	149° 19.8 E	
2E	LAT	21° 13.4 S	224° X 5.8 m.
	LONG	149° 21.0 E	
2F	LAT	21° 13.5 S	231° X 6.7 m.
	LONG	149° 22.1 E	
2G	LAT	21° 12.5 S	216° X 6.1 m.
	LONG	149° 20.6 E	
2H	LAT	21° 13.3 S	208° X 4.8 m.
	LONG	149° 18.8 E	
2I	LAT	21° 12.5 S	226° X 7.0 m.
	LONG	149° 21.7 E	
1A	LAT	21° 17.6 S	270° X 3.5 m.
	LONG	149° 20.2 E	
1B	LAT	21° 17.6 S	270° X 4.6 m.
	LONG	149° 21.3 E	
1C	LAT	21° 17.6 S	270° X 5.5 m.
	LONG	149° 22.2 E	
1D	LAT	21° 16.6 S	255° X 3.8 m.
	LONG	149° 20.5 E	
1E	LAT	21° 16.6 S	259° X 4.9 m.
	LONG	149° 21.6 E	
1F	LAT	21° 16.6 S	260° X 6.0 m.
	LONG	149° 22.7 E	

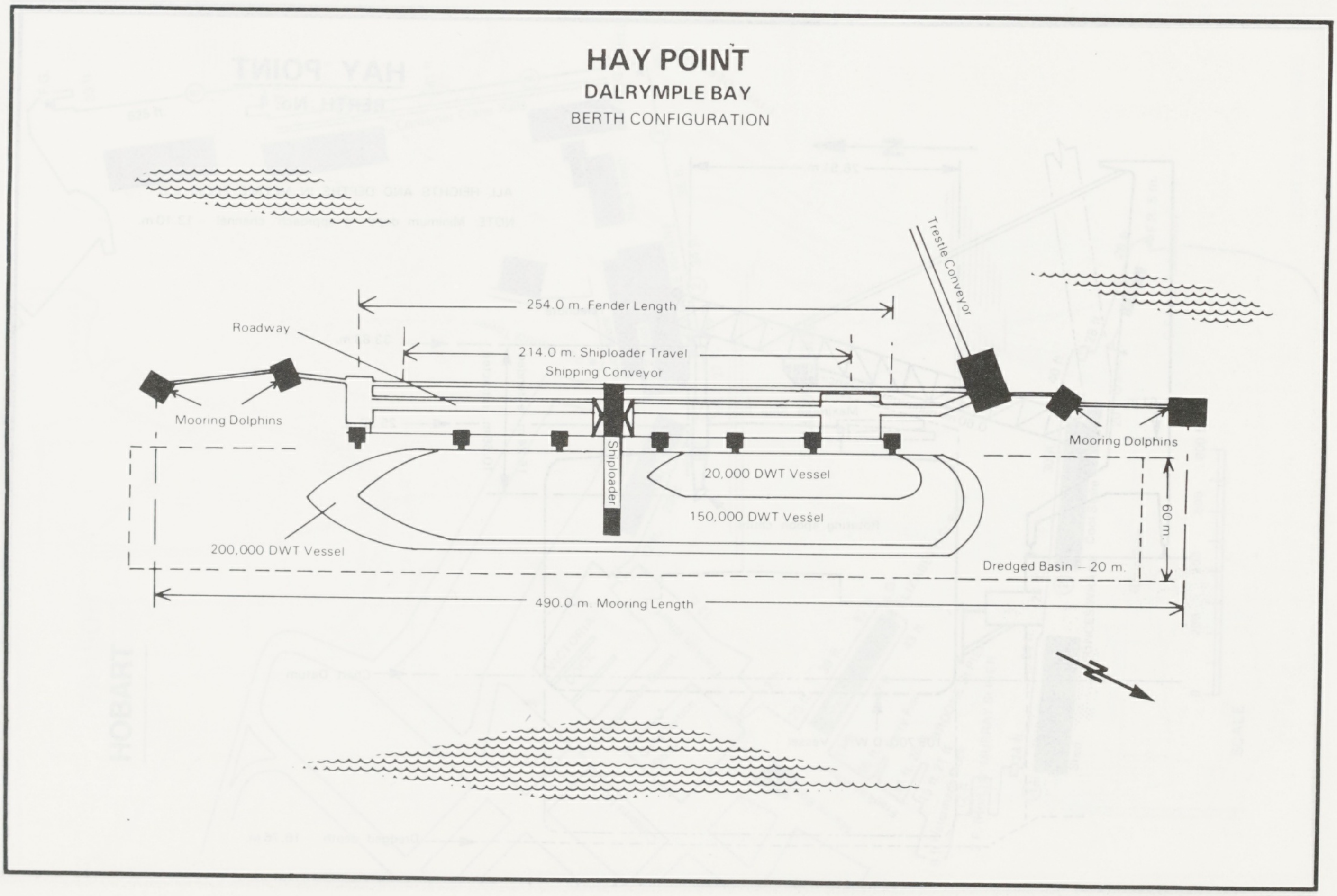
149° 20' E
12.5
2G
14.3
2I
14.7
12.5
11.3
12.4
14.4
14.0
Spoil Ground
2H
2D
2E
2F
14.9
12.5
12.4
14.1
–10
2B
2A
2C
12.7
13.4
13.7
DEPTHS IN METRES
Spoil Ground
14.5
21° 15' S
ANCHORAGE PROHIBITED
12.0
16.4
13.7
13.8
13.5
13.5
1D
1E
1F
16.2
13.7
12.8
1A
1B
1C
13.1
Mount Griffiths Lighthouse
Gp. Fl. (2) 10s.
12.8
–10
11.9

"Plan supplied by Ship's Master"



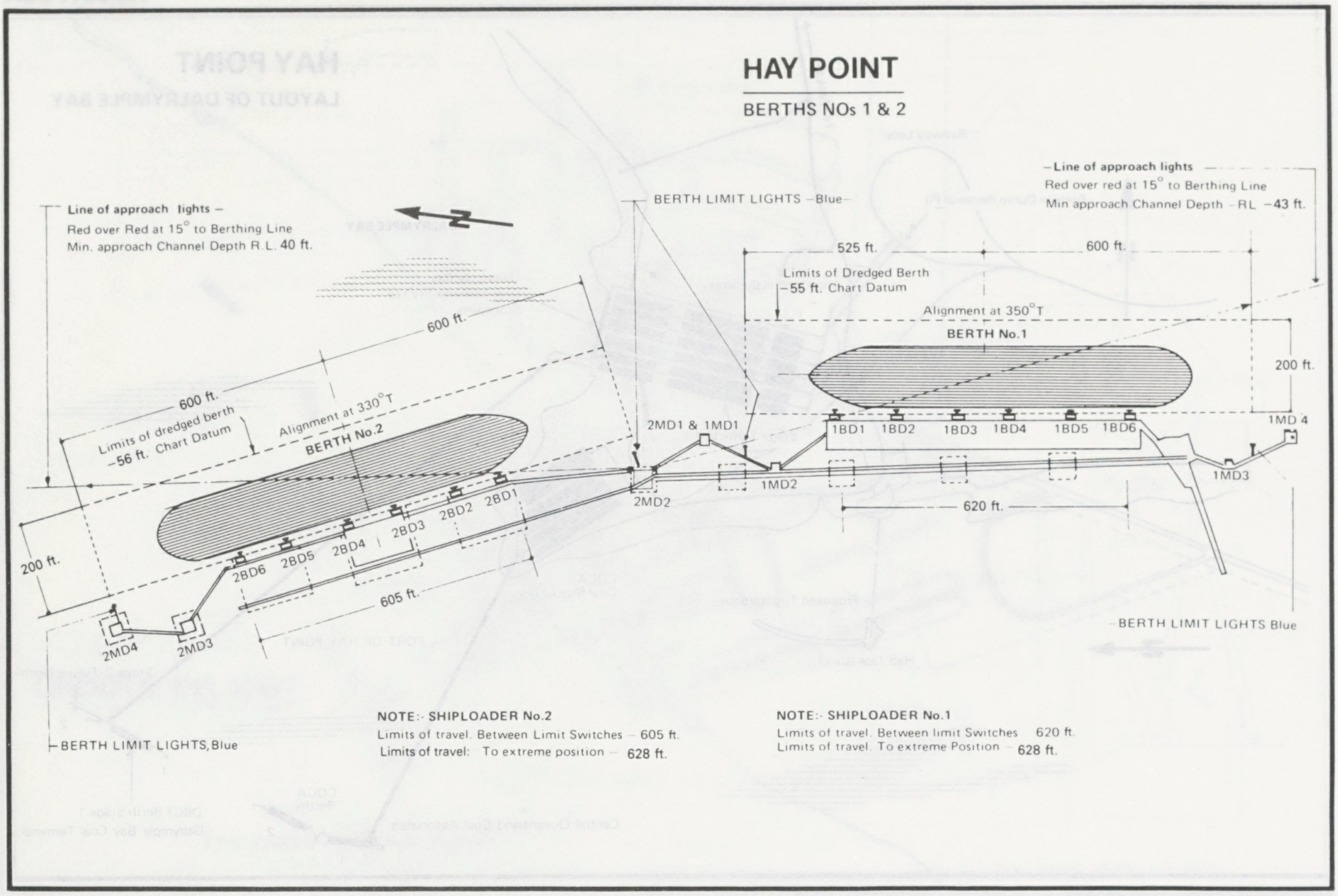
HAY POINT
LAYOUT OF DALRYMPLE BAY

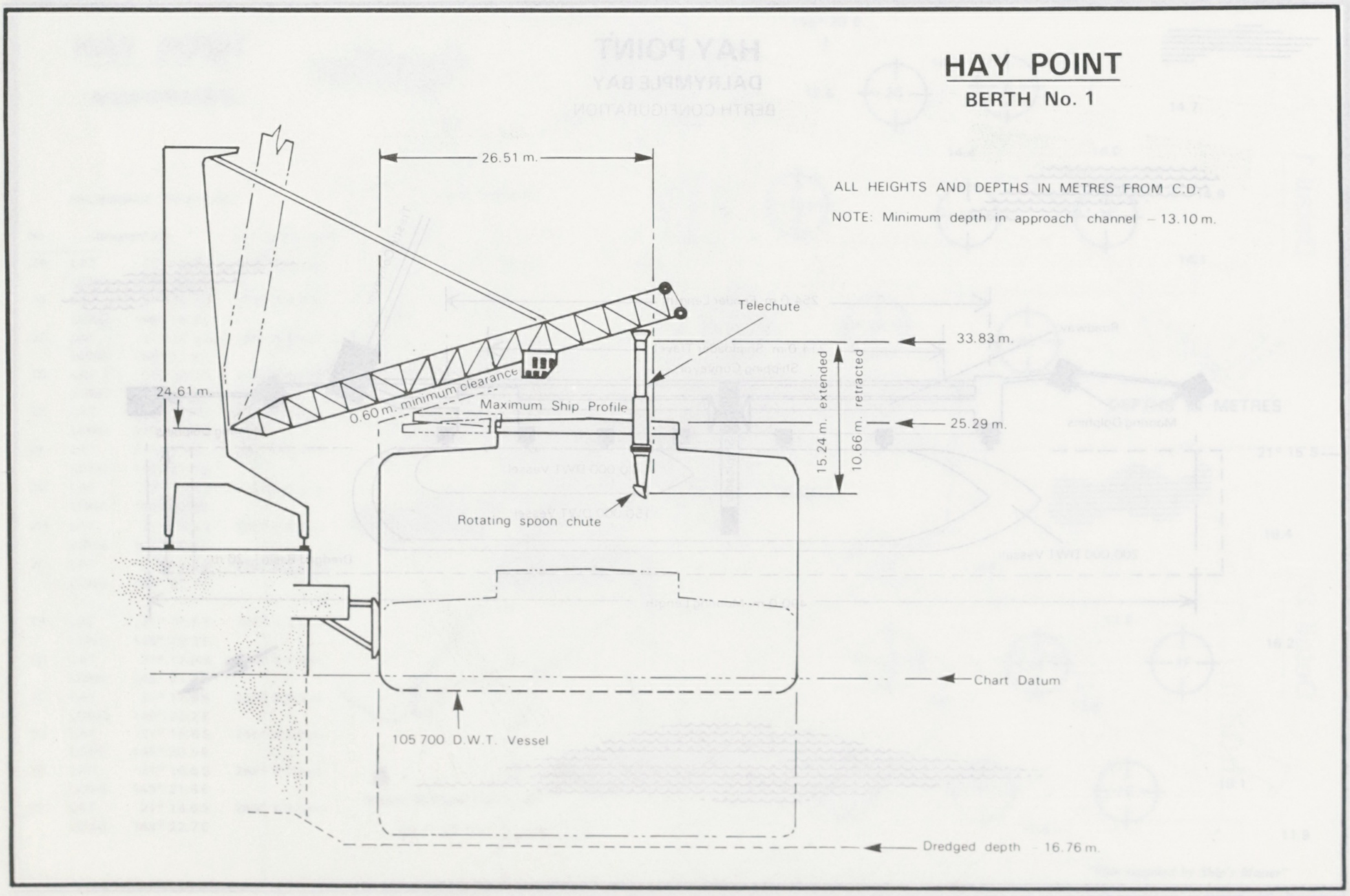
To Mackay
Railway Loop
Bottom Dump Receival Pit
Port Control Building
Site Entrance
Stage 1 Stockpiles
DALRYMPLE BAY
Dalrymple Bay Coal Terminal Pty Ltd Stockpiles
CQCA Coal Stockpiles
Proposed Tug Harbour
Half Tide Island
N
PORT OF HAY POINT
Stage 2 (Future Berth)
2
1
DBCT Berth Stage 1 Dalrymple Bay Coal Terminal
CQCA Berths
Central Queensland Coal Associates
2
1

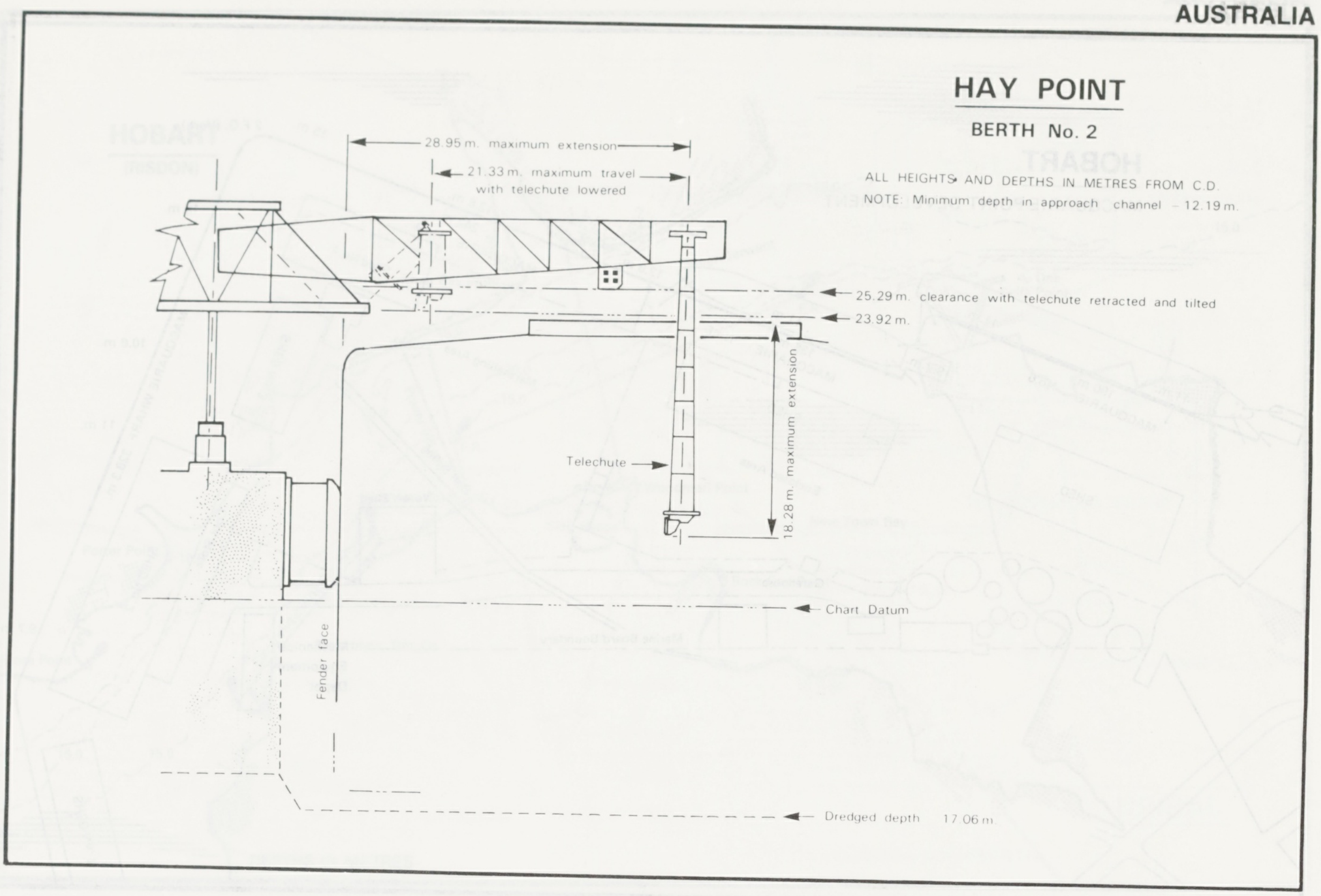


HAY POINT
DALRYMPLE BAY
BERTH CONFIGURATION

254.0 m. Fender Length
214.0 m. Shiploader Travel
Shipping Conveyor
Roadway
Trestle Conveyor
Mooring Dolphins
Mooring Dolphins
Shiploader
20,000 DWT Vessel
150,000 DWT Vessel
200,000 DWT Vessel
60 m.
Dredged Basin – 20 m.
490.0 m. Mooring Length
N


HAY POINT
BERTHS NOs 1 & 2
Line of approach lights – Red over Red at 15° to Berthing Line Min. approach Channel Depth R.L. 40 ft.
BERTH LIMIT LIGHTS –Blue–
–Line of approach lights Red over red at 15° to Berthing Line Min approach Channel Depth –RL –43 ft.
525 ft.
600 ft.
Limits of Dredged Berth –55 ft. Chart Datum
Alignment at 350°T
BERTH No.1
200 ft.
1BD1
1BD2
1BD3
1BD4
1BD5
1BD6
1MD 4
1MD3
1MD2
2MD1 & 1MD1
2MD2
620 ft.
600 ft.
600 ft.
Limits of dredged berth –56 ft. Chart Datum
Alignment at 330°T
BERTH No.2
200 ft.
2BD1
2BD2
2BD3
2BD4
2BD5
2BD6
605 ft.
2MD4
2MD3
BERTH LIMIT LIGHTS Blue
BERTH LIMIT LIGHTS,Blue
NOTE:- SHIPLOADER No.2
Limits of travel. Between Limit Switches – 605 ft.
Limits of travel: To extreme position – 628 ft.
NOTE:- SHIPLOADER No.1
Limits of travel. Between limit Switches 620 ft.
Limits of travel. To extreme Position – 628 ft.


HAY POINT
BERTH No. 1
ALL HEIGHTS AND DEPTHS IN METRES FROM C.D.
NOTE: Minimum depth in approach channel – 13.10 m.
26.51 m.
Telechute
33.83 m.
15.24 m. extended
10.66 m. retracted
25.29 m.
24.61 m.
0.60 m. minimum clearance
Maximum Ship Profile
Rotating spoon chute
Chart Datum
105 700 D.W.T. Vessel
Dredged depth – 16.76 m.

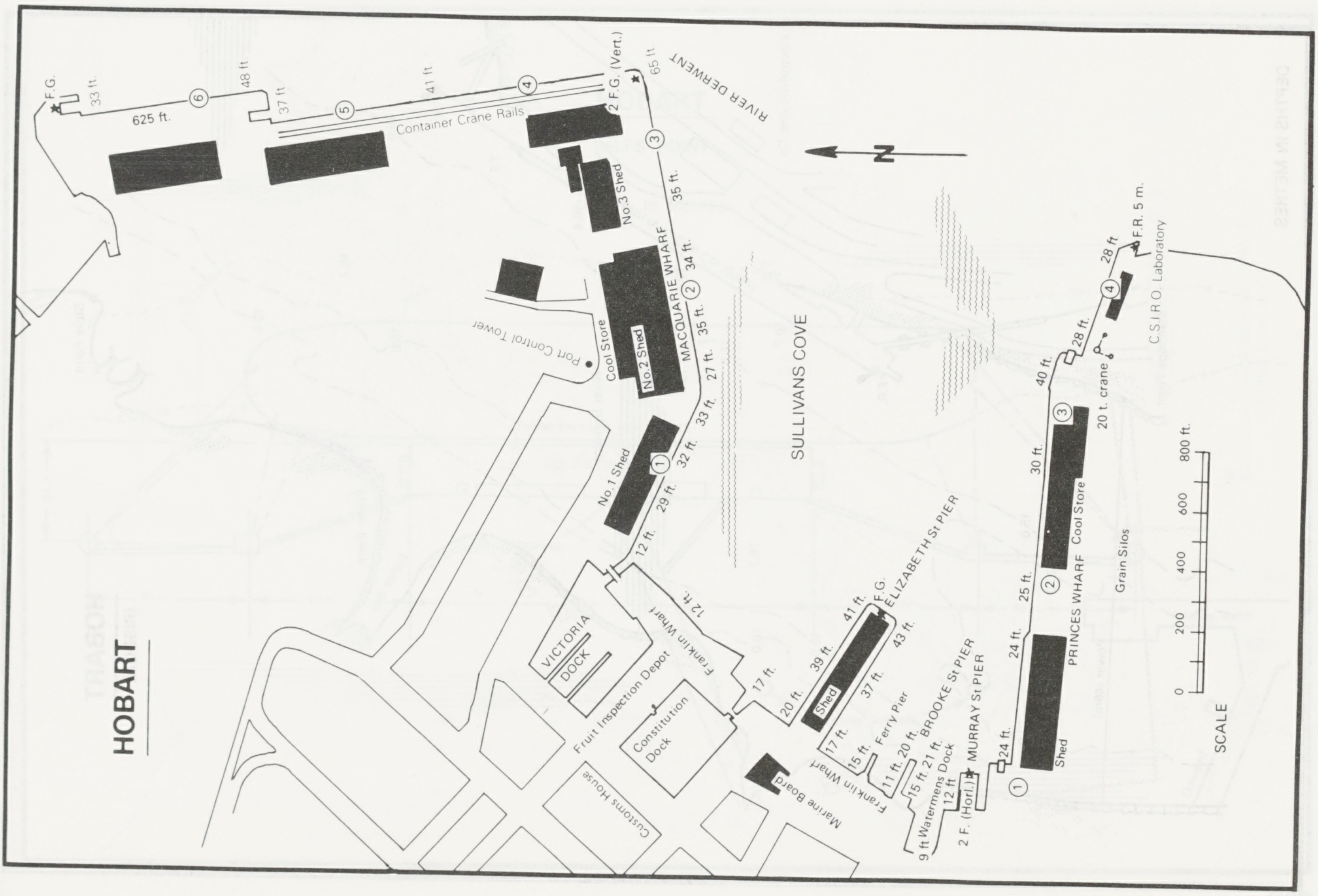


HAY POINT

BERTH No. 2

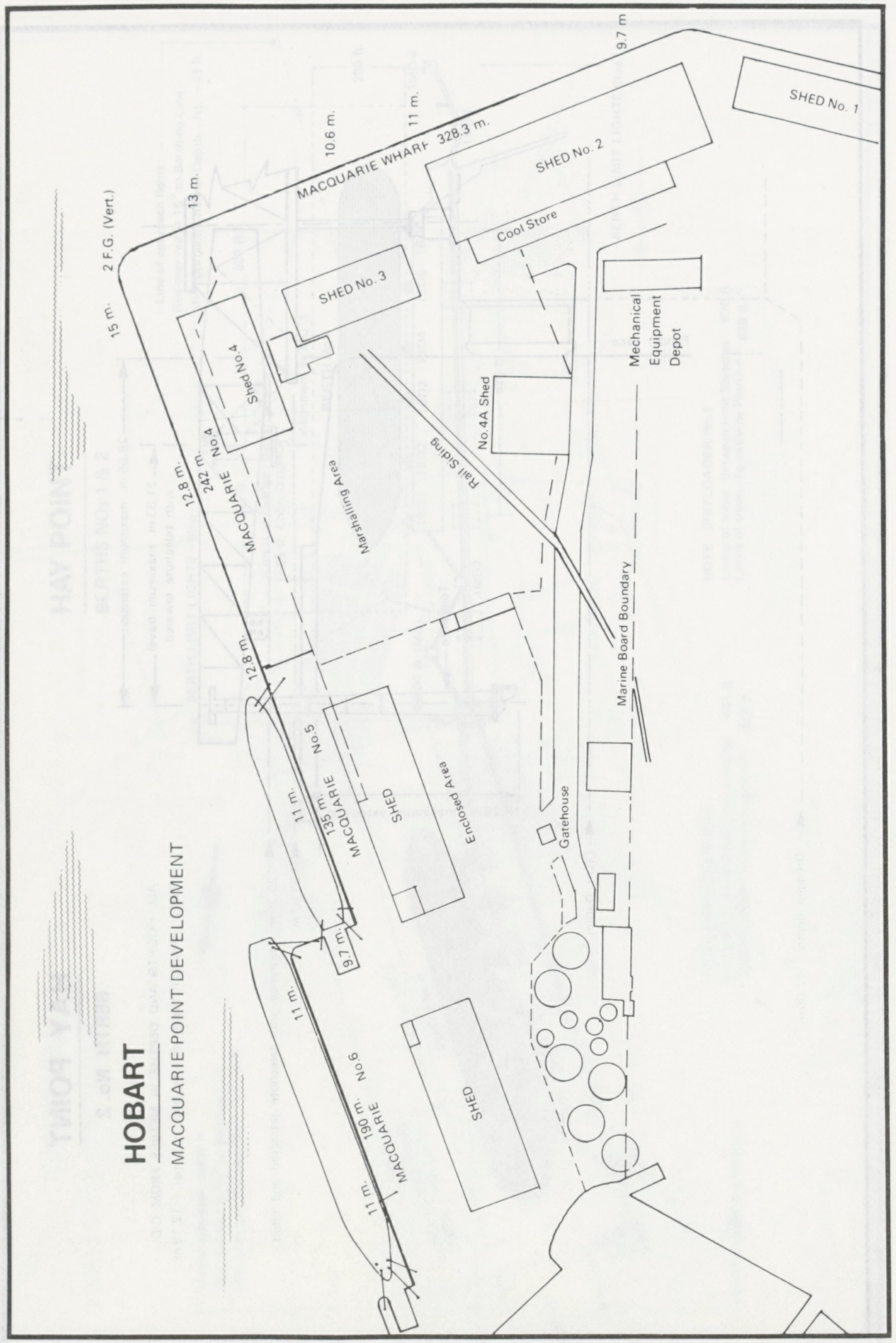
ALL HEIGHTS AND DEPTHS IN METRES FROM C.D.
NOTE: Minimum depth in approach channel – 12.19 m.

28.95 m. maximum extension
21.33 m. maximum travel with telechute lowered
25.29 m. clearance with telechute retracted and tilted
23.92 m.
18.28 m. maximum extension
Telechute
Chart Datum
Fender face
Dredged depth 17.06 m.



HOBART

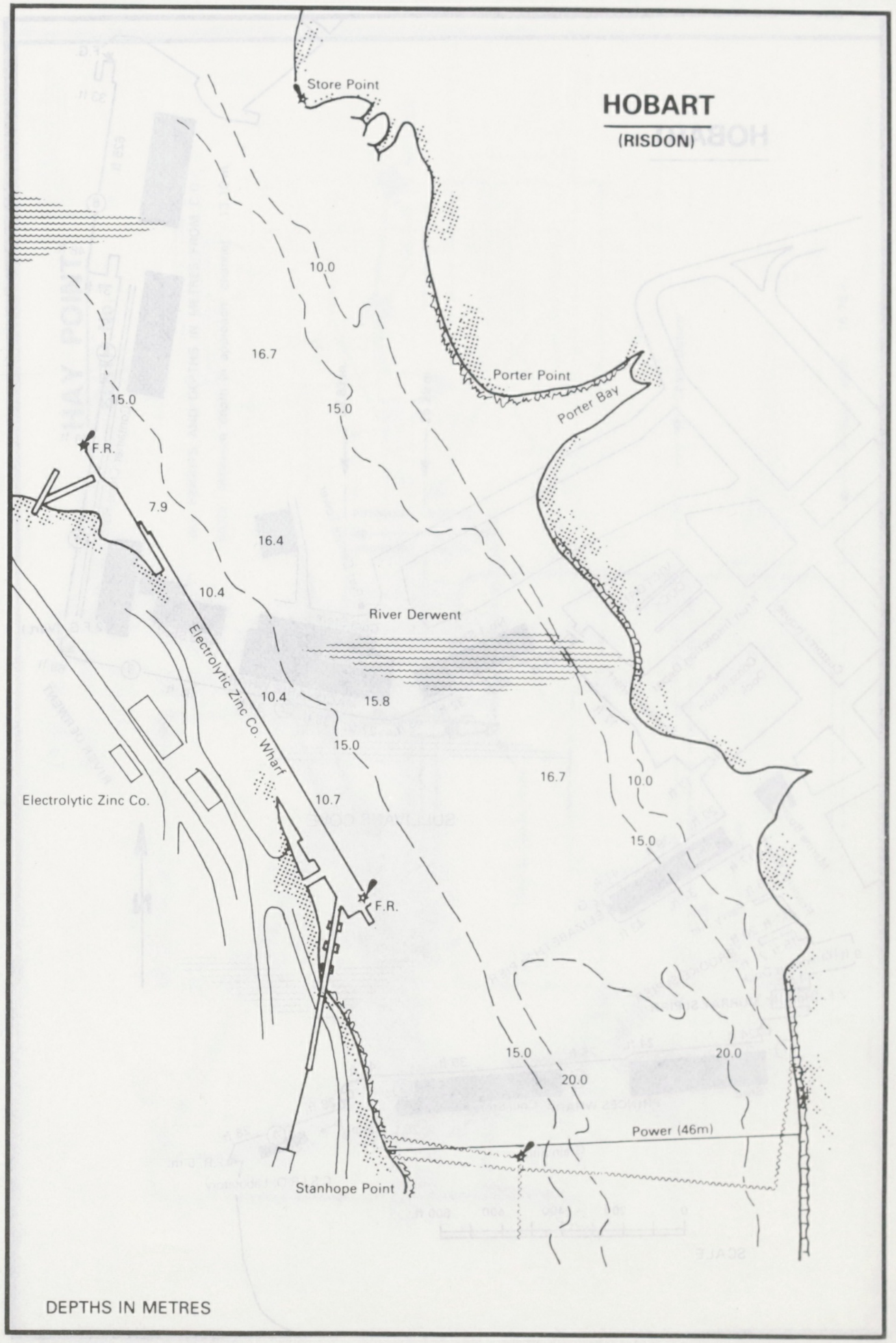
F.G.
33 ft.
625 ft.
6
48 ft.
37 ft.
5
41 ft.
4
Container Crane Rails
2 F.G. (Vert.)
65 ft.
RIVER DERWENT
N
3
35 ft.
No.3 Shed
34 ft.
2
MACQUARIE WHARF
35 ft.
No.2 Shed
Cool Store
27 ft.
Port Control Tower
33 ft.
No.1 Shed
1
32 ft.
29 ft.
12 ft.
SULLIVANS COVE
VICTORIA DOCK
Fruit Inspection Depot
Franklin Wharf
12 ft.
Constitution Dock
17 ft.
20 ft.
Shed
39 ft.
41 ft.
F.G.
ELIZABETH St PIER
43 ft.
37 ft.
17 ft.
15 ft.
Ferry Pier
11 ft.
20 ft.
BROOKE St PIER
15 ft.
21 ft.
Watermens Dock
9 ft
12 ft.
MURRAY St PIER
2 F. (Hor.)
Franklin Wharf
Marine Board
Customs House
24 ft.
1
Shed
24 ft.
25 ft.
2
PRINCES WHARF
Cool Store
30 ft.
3
20 t. crane
40 ft.
28 ft.
4
28 ft.
F.R. 5 m.
C.S.I.R.O. Laboratory
Grain Silos
0
200
400
600
800 ft.
SCALE



HOBART

MACQUARIE POINT DEVELOPMENT

SHED No. 1
SHED No. 2
MACQUARIE WHARF 328.3 m.
9.7 m.
11 m.
10.6 m.
13 m.
2 F.G. (Vert.)
15 m.
Cool Store
SHED No. 3
Shed No.4
No.4
242 m.
MACQUARIE
12.8 m.
Marshalling Area
Rail Siding
No.4A Shed
Mechanical Equipment Depot
Marine Board Boundary
12.8 m.
No.5
135 m.
MACQUARIE
11 m.
SHED
Enclosed Area
Gatehouse
9.7 m.
11 m.
No.6
190 m.
MACQUARIE
11 m.
SHED

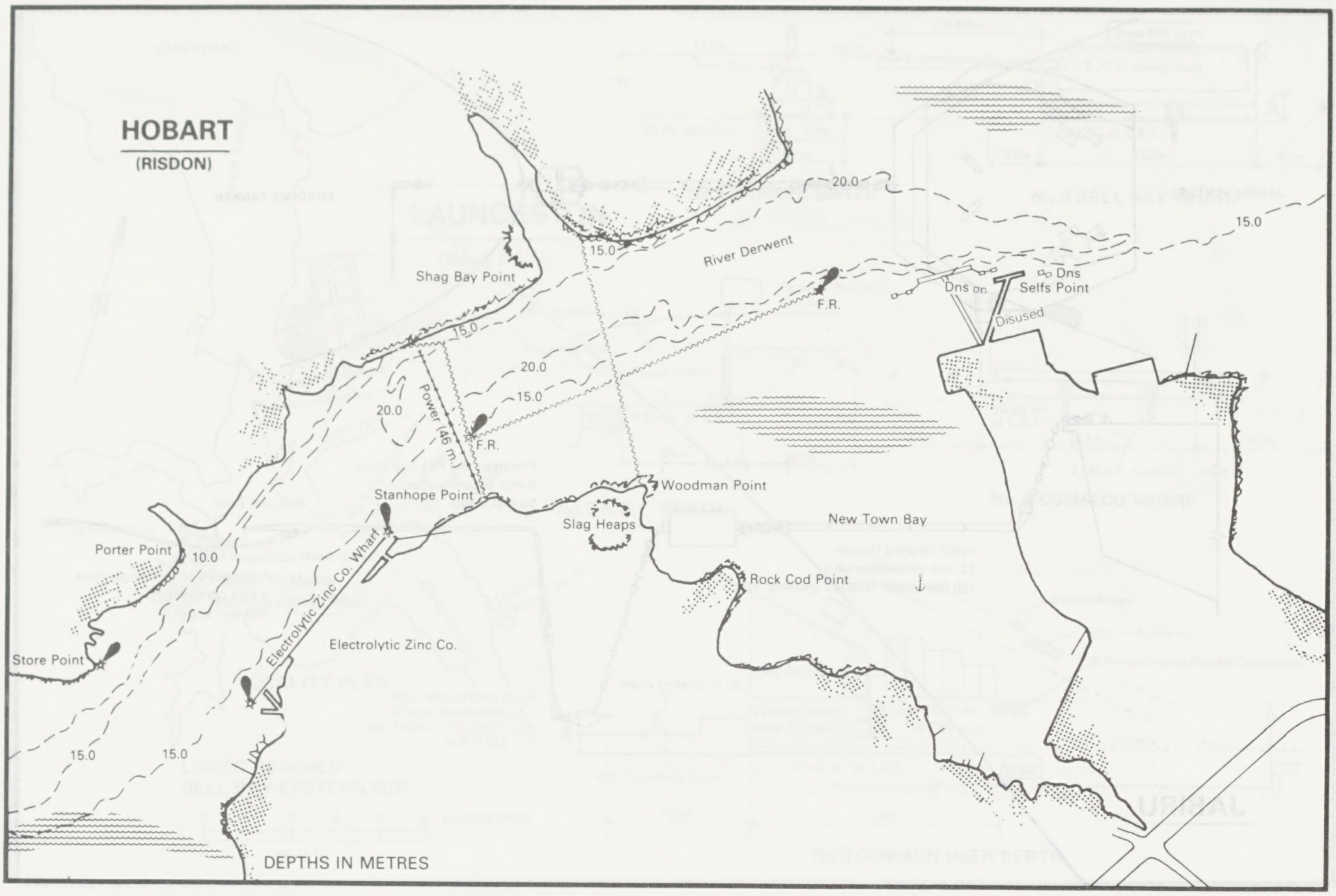


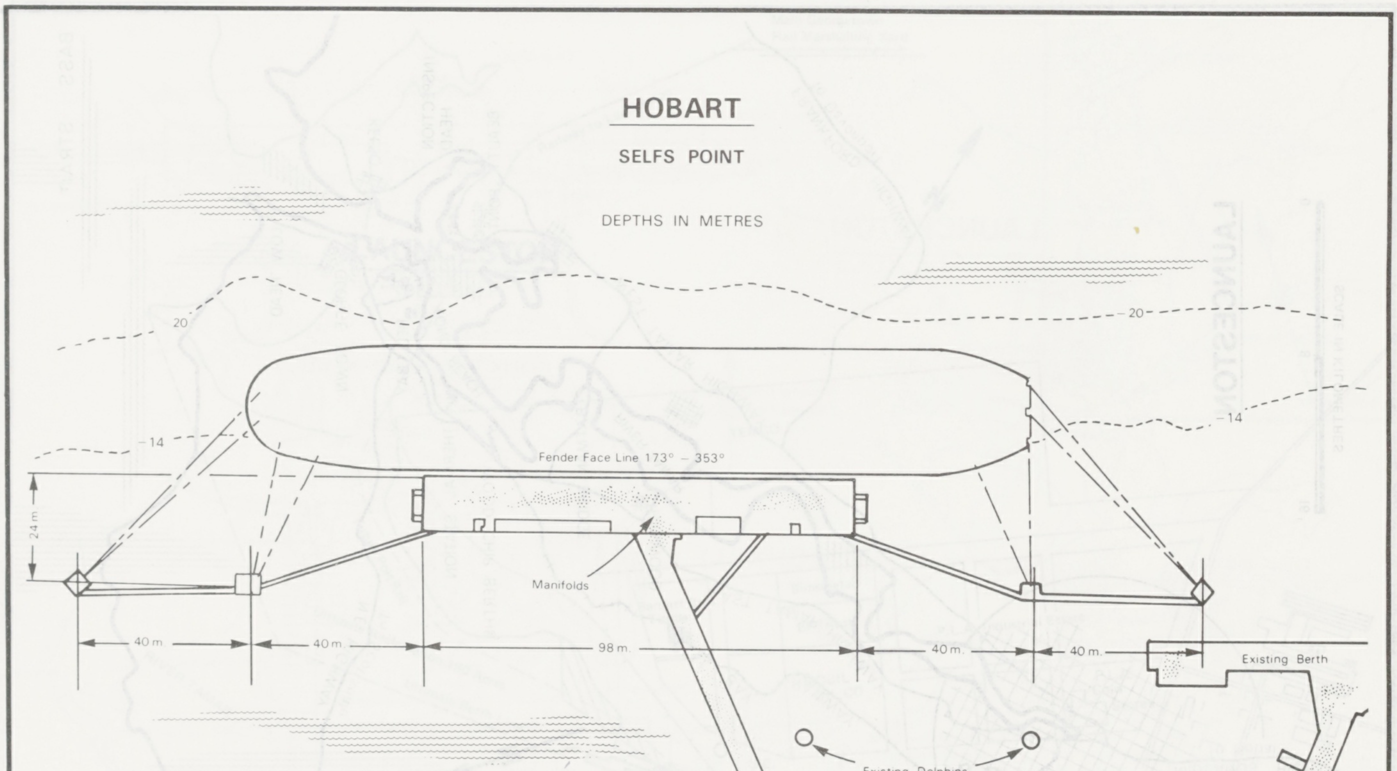
HOBART

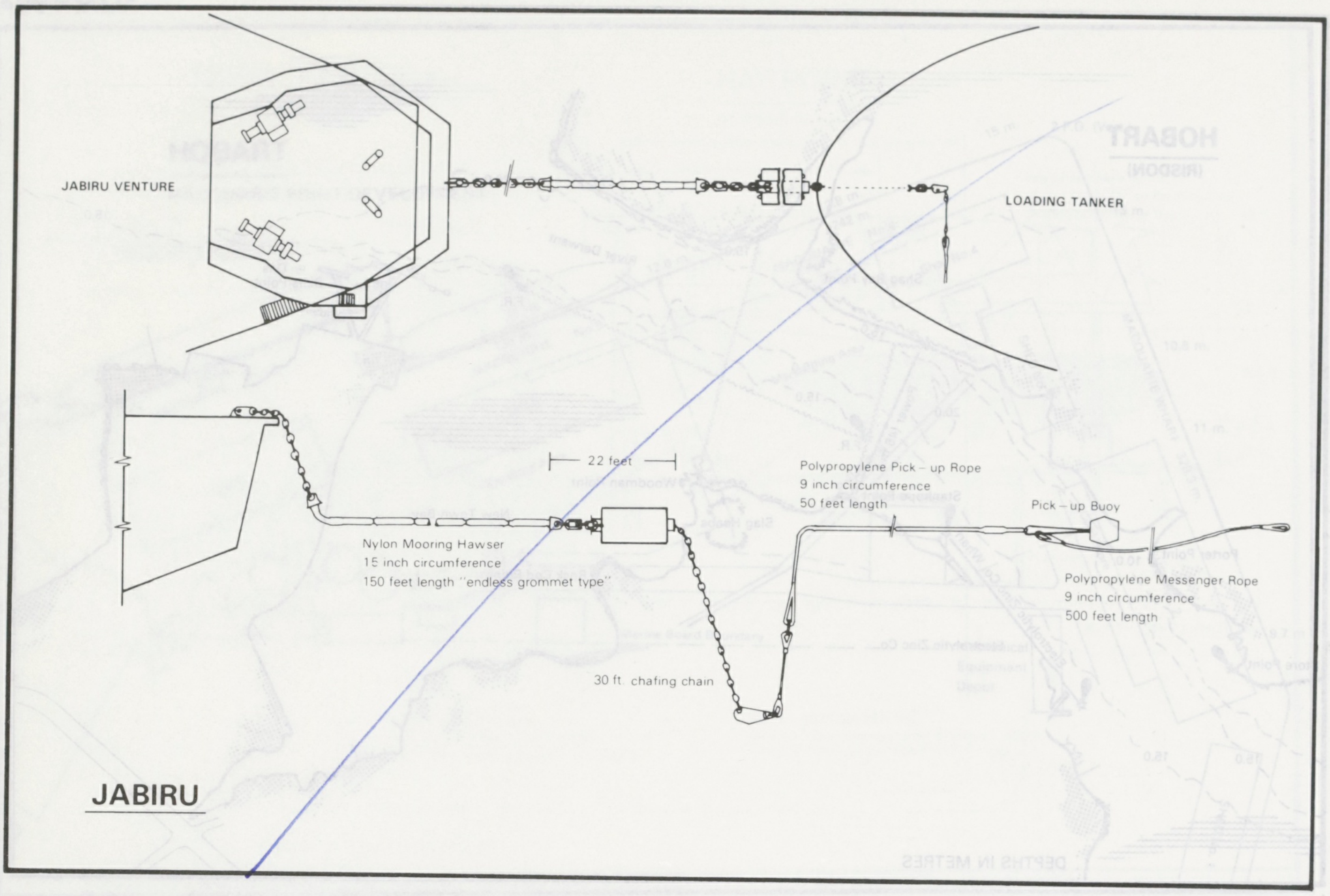
(RISDON)

Store Point
10.0
16.7
15.0
15.0
Porter Point
Porter Bay
F.R.
7.9
16.4
10.4
River Derwent
Electrolytic Zinc Co. Wharf
10.4
15.8
15.0
16.7
10.0
10.7
Electrolytic Zinc Co.
15.0
F.R.
15.0
20.0
20.0
Power (46m)
Stanhope Point

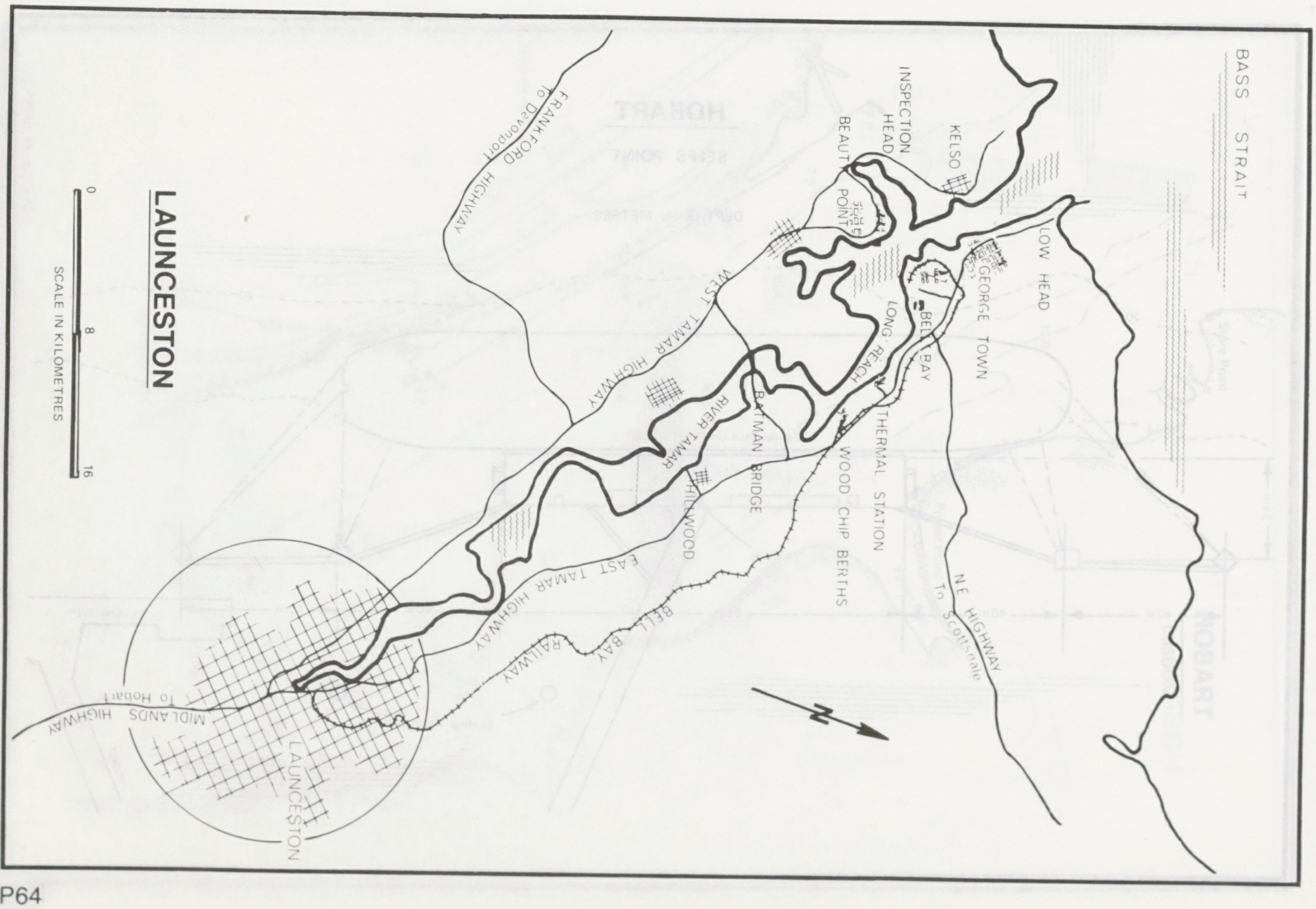
DEPTHS IN METRES


HOBART
(RISDON)
20.0
15.0
River Derwent
Shag Bay Point
15.0
F.R.
Dns
Dns
Selfs Point
Disused
15.0
20.0
15.0
20.0
Power (46 m)
F.R.
Woodman Point
Stanhope Point
Slag Heaps
New Town Bay
Porter Point
10.0
Electrolytic Zinc Co. Wharf
Rock Cod Point
Electrolytic Zinc Co.
Store Point
15.0
15.0
DEPTHS IN METRES

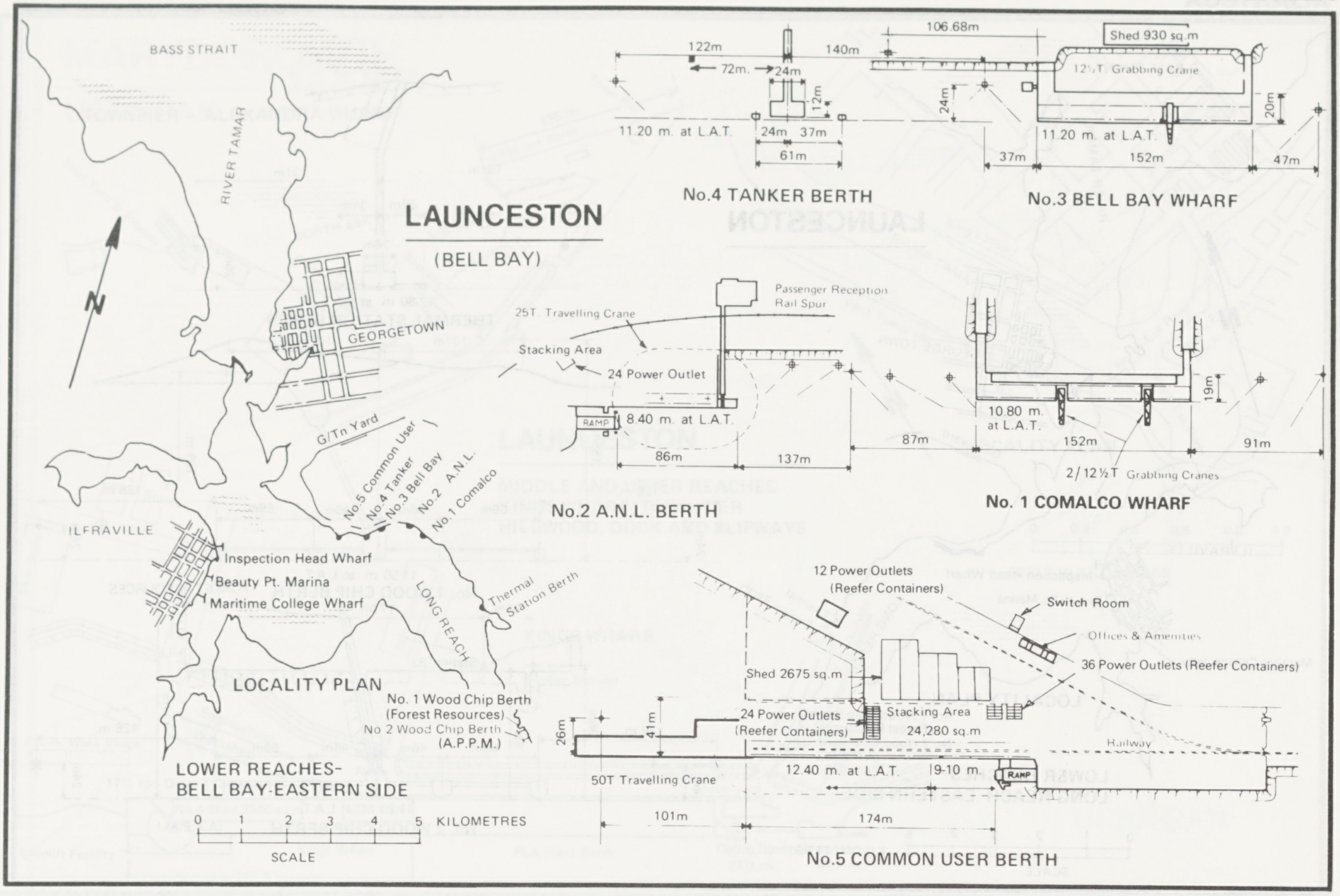

HOBART
SELFS POINT
DEPTHS IN METRES
20
20
14
14
Fender Face Line 173° – 353°
24 m
Manifolds
40 m
40 m
98 m
40 m
40 m
Existing Berth
Existing Dolphins
Disused

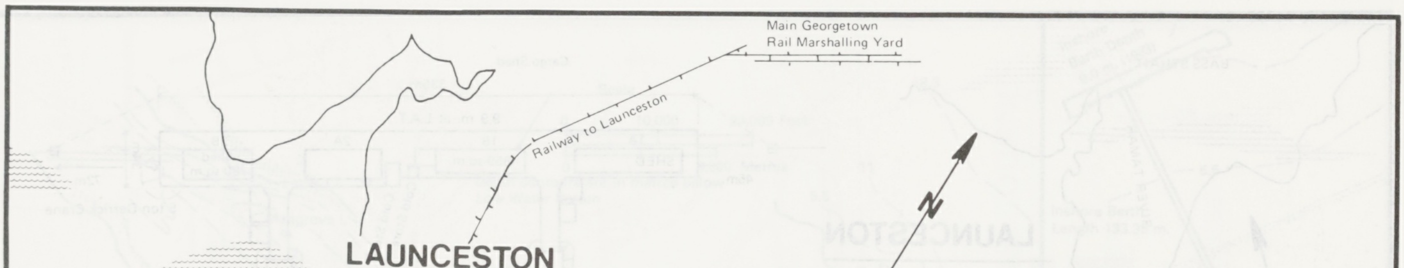

JABIRU VENTURE
LOADING TANKER
22 feet
Polypropylene Pick – up Rope
9 inch circumference
50 feet length
Pick – up Buoy
Nylon Mooring Hawser
15 inch circumference
150 feet length "endless grommet type"
Polypropylene Messenger Rope
9 inch circumference
500 feet length
30 ft. chafing chain

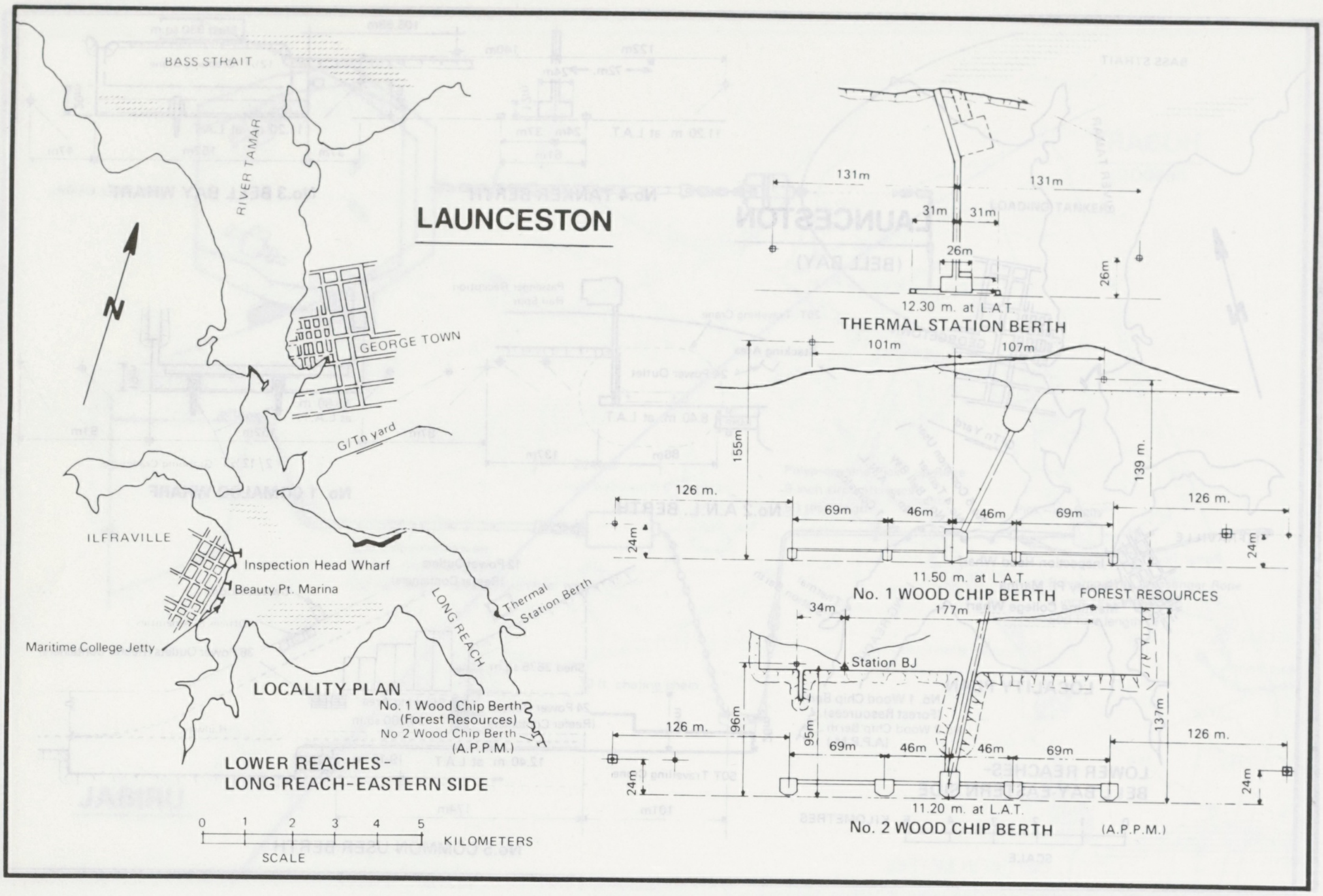
JABIRU

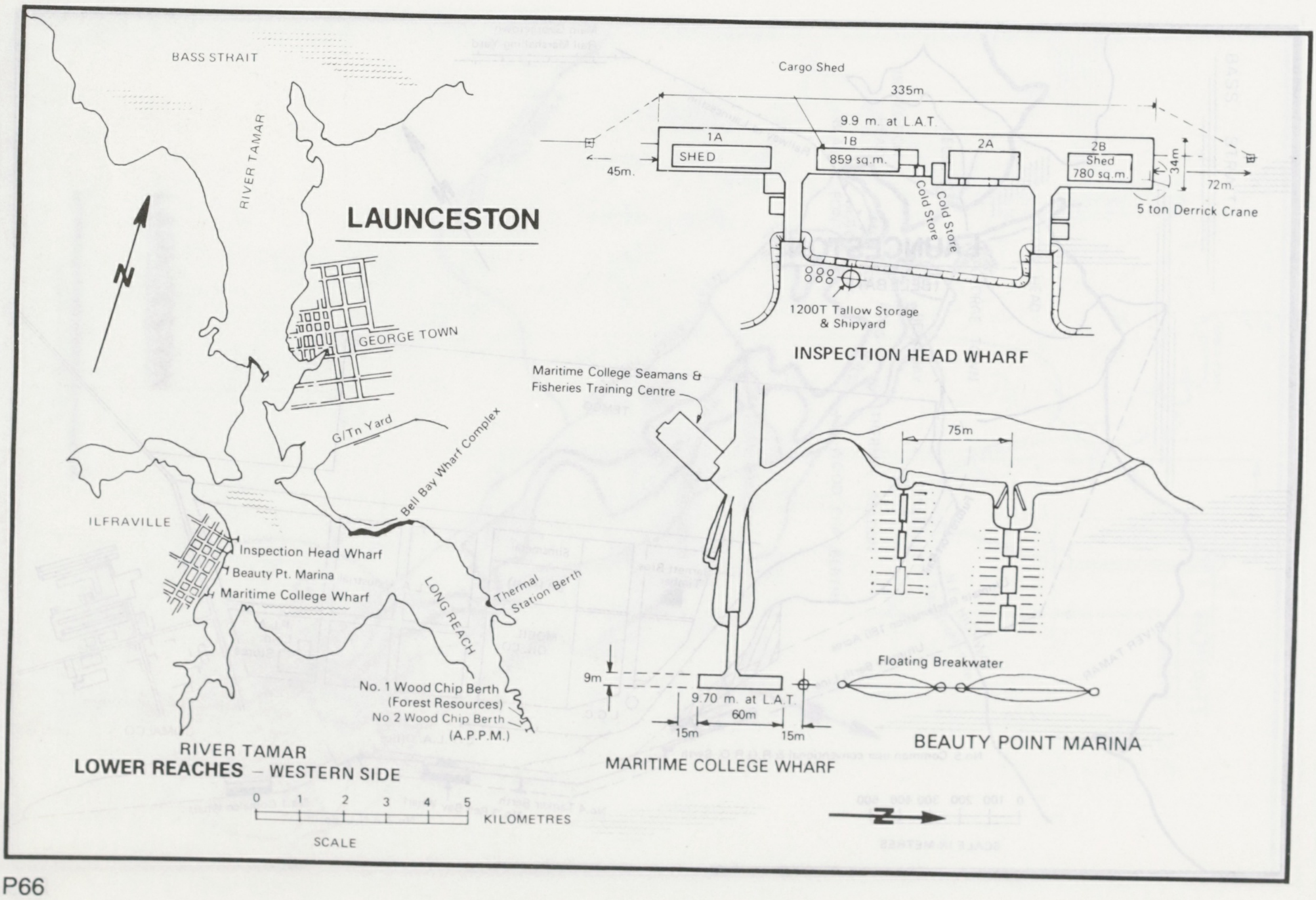

BASS STRAIT
INSPECTION HEAD
KELSO
BEAUTY POINT
LOW HEAD
GEORGE TOWN
BELL BAY
LONG REACH
THERMAL STATION
WOOD CHIP BERTHS
NE HIGHWAY
To Scottsdale
FRANKFORD HIGHWAY
To Devonport
WEST TAMAR HIGHWAY
RIVER TAMAR
BATMAN BRIDGE
HILLWOOD
EAST TAMAR HIGHWAY
BELL BAY RAILWAY
MIDLANDS HIGHWAY
To Hobart
LAUNCESTON
0
8
16
SCALE IN KILOMETRES

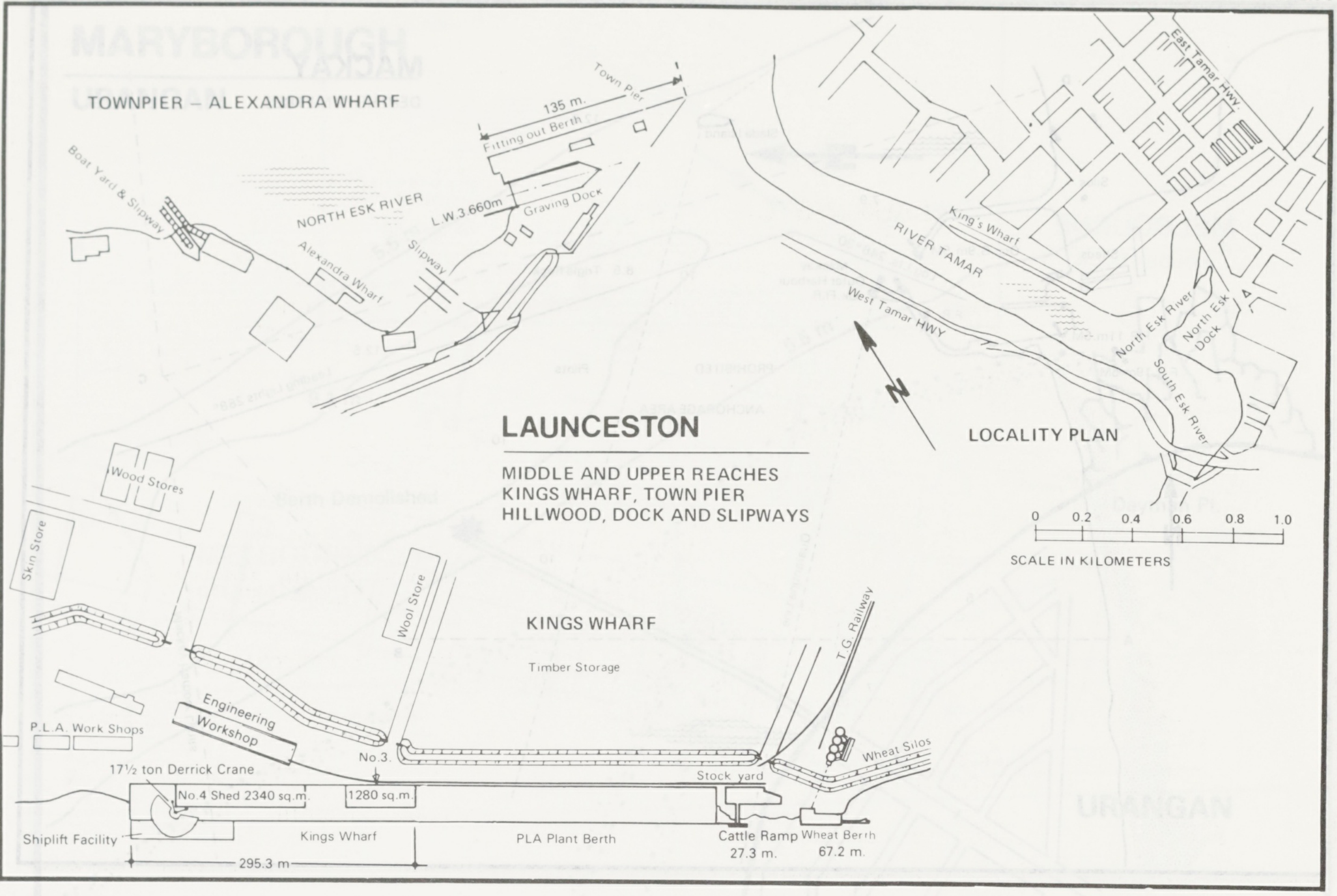
LAUNCESTON

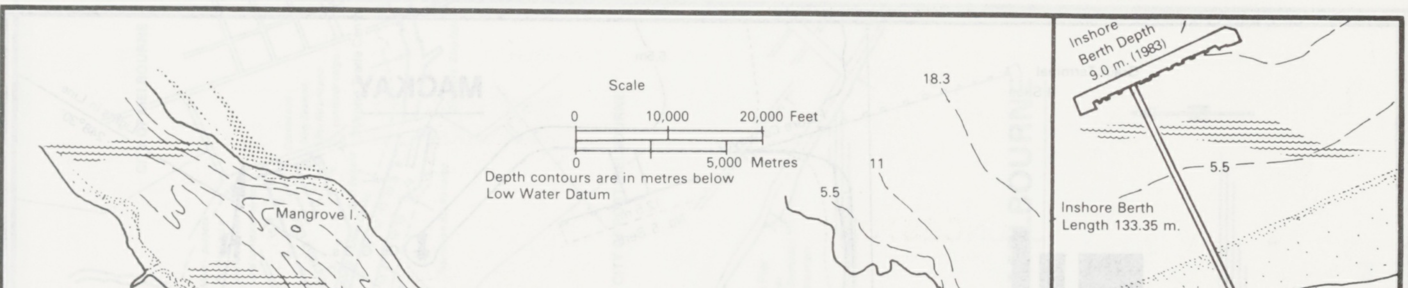

LAUNCESTON
(BELL BAY)
BASS STRAIT
RIVER TAMAR
N
GEORGETOWN
G/Tn Yard
No.5 Common User
No.4 Tanker
No.3 Bell Bay
No.2 A.N.L.
No.1 Comalco
ILFRAVILLE
Inspection Head Wharf
Beauty Pt. Marina
Maritime College Wharf
LONG REACH
Thermal Station Berth
LOCALITY PLAN
No. 1 Wood Chip Berth
(Forest Resources)
No 2 Wood Chip Berth
(A.P.P.M.)
LOWER REACHES-
BELL BAY-EASTERN SIDE
0 1 2 3 4 5 KILOMETRES
SCALE
122m
72m.
24m
140m
12m
11.20 m. at L.A.T.
24m
37m
61m
No.4 TANKER BERTH
106.68m
Shed 930 sq.m
12½T. Grabbing Crane
24m
20m
11.20 m. at L.A.T.
37m
152m
47m
No.3 BELL BAY WHARF
Passenger Reception
Rail Spur
25T. Travelling Crane
Stacking Area
24 Power Outlet
RAMP
8.40 m. at L.A.T.
86m
137m
No.2 A.N.L. BERTH
19m
10.80 m.
at L.A.T.
87m
152m
91m
2/12½T Grabbing Cranes
No. 1 COMALCO WHARF
12 Power Outlets
(Reefer Containers)
Switch Room
Offices & Amenities
36 Power Outlets (Reefer Containers)
Shed 2675 sq.m
24 Power Outlets
(Reefer Containers)
Stacking Area
24,280 sq.m
Railway
26m
41m
12.40 m. at L.A.T.
9-10 m.
RAMP
50T Travelling Crane
101m
174m
No.5 COMMON USER BERTH

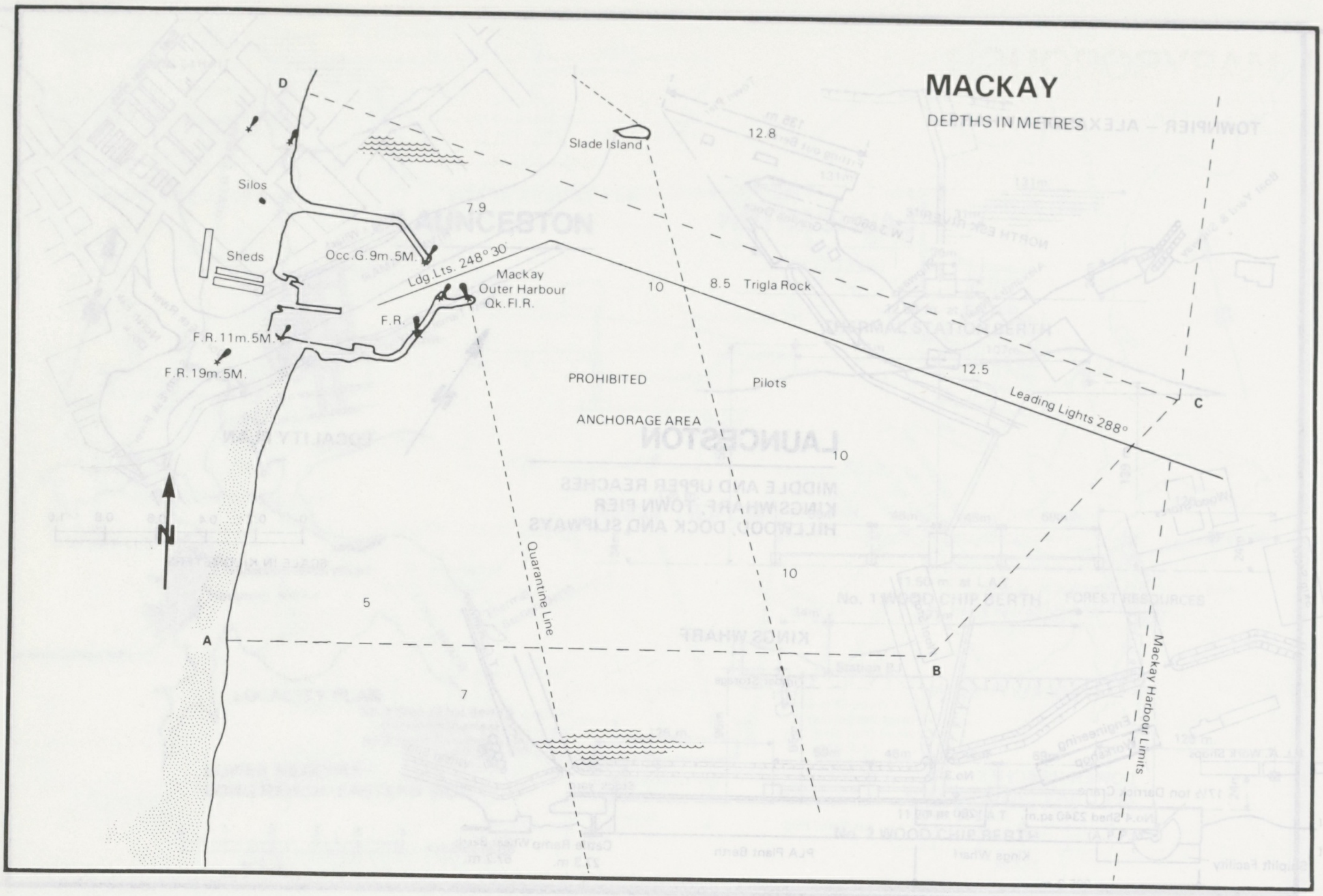

LAUNCESTON
(BELL BAY)
Main Georgetown
Rail Marshalling Yard
Railway to Launceston
N
TEMCO
Future Port Rail
Ultimate Reclamation 180 Acres
Ultimate Berth Line
RIVER TAMAR
Barnett Bros.
Timber
Simsmetal
BP (Aust)
MOBIL
OIL CO
P.L.A. Industrial Estate
P.L.A.
Cold
Stores
L.G.C.
P.L.A. Office
COMALCO
No.5 Common user conventional & R.O.R.O. Berth
No.4 Tanker Berth
No.3 Bell Bay Wharf
No.2 A.N.L. Berth
No.1 Comalco Wharf
0 100 200 300 400 500
SCALE IN METRES

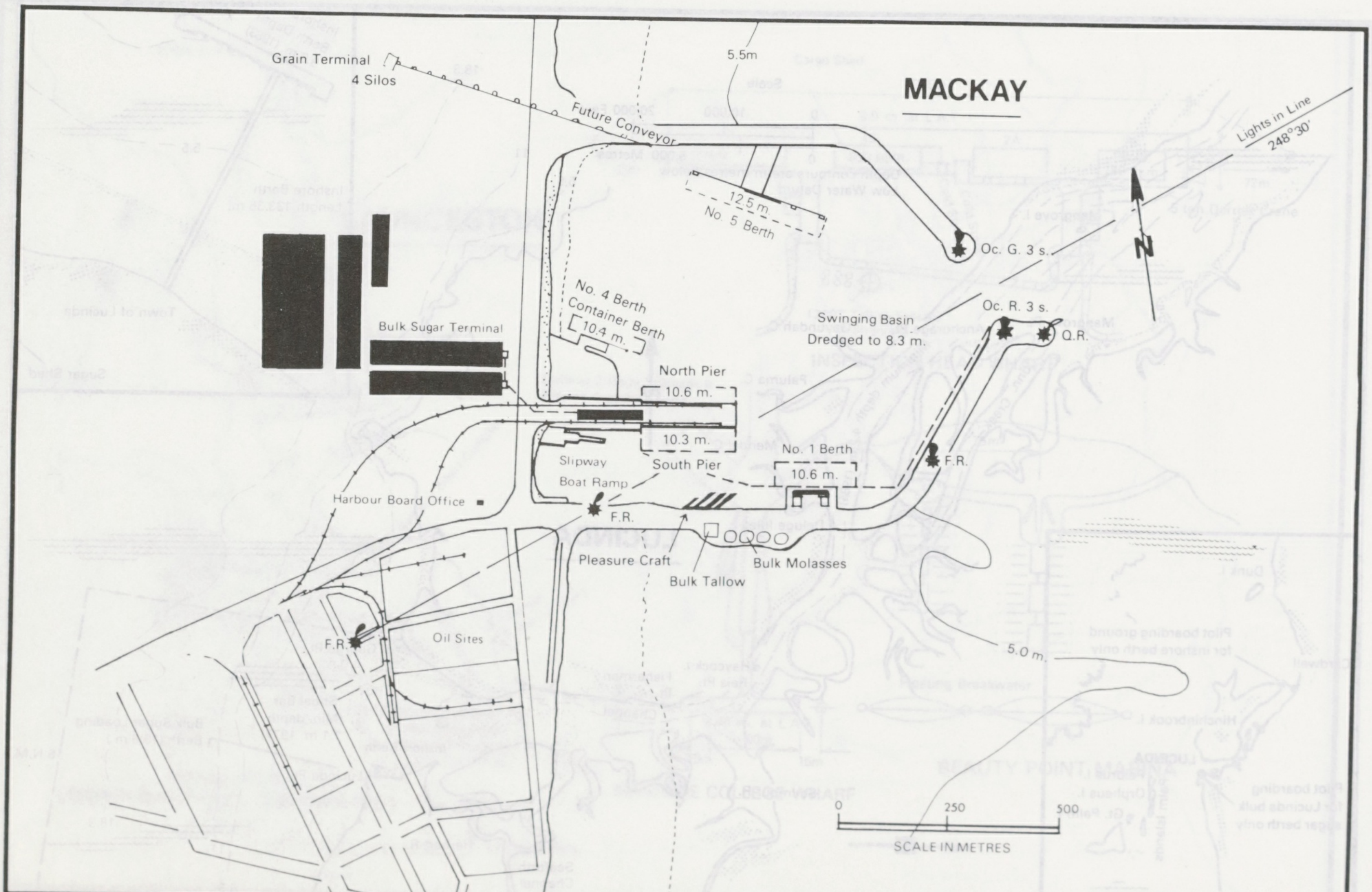

BASS STRAIT
RIVER TAMAR
LAUNCESTON
N
GEORGE TOWN
G/Tn yard
ILFRAVILLE
Inspection Head Wharf
Beauty Pt. Marina
Maritime College Jetty
Thermal Station Berth
LONG REACH
LOCALITY PLAN
No. 1 Wood Chip Berth (Forest Resources)
No 2 Wood Chip Berth (A.P.P.M.)
LOWER REACHES-
LONG REACH-EASTERN SIDE
0 1 2 3 4 5
KILOMETERS
SCALE
131m
31m
31m
131m
26m
26m
12.30 m. at L.A.T.
THERMAL STATION BERTH
101m
107m
155m
139 m.
126 m.
69m
46m
46m
69m
126 m.
24m
24m
11.50 m. at L.A.T.
No. 1 WOOD CHIP BERTH
FOREST RESOURCES
34m
177m
Station BJ
96m
95m
137m
126 m.
69m
46m
46m
69m
126 m.
24m
24m
11.20 m. at L.A.T.
No. 2 WOOD CHIP BERTH
(A.P.P.M.)

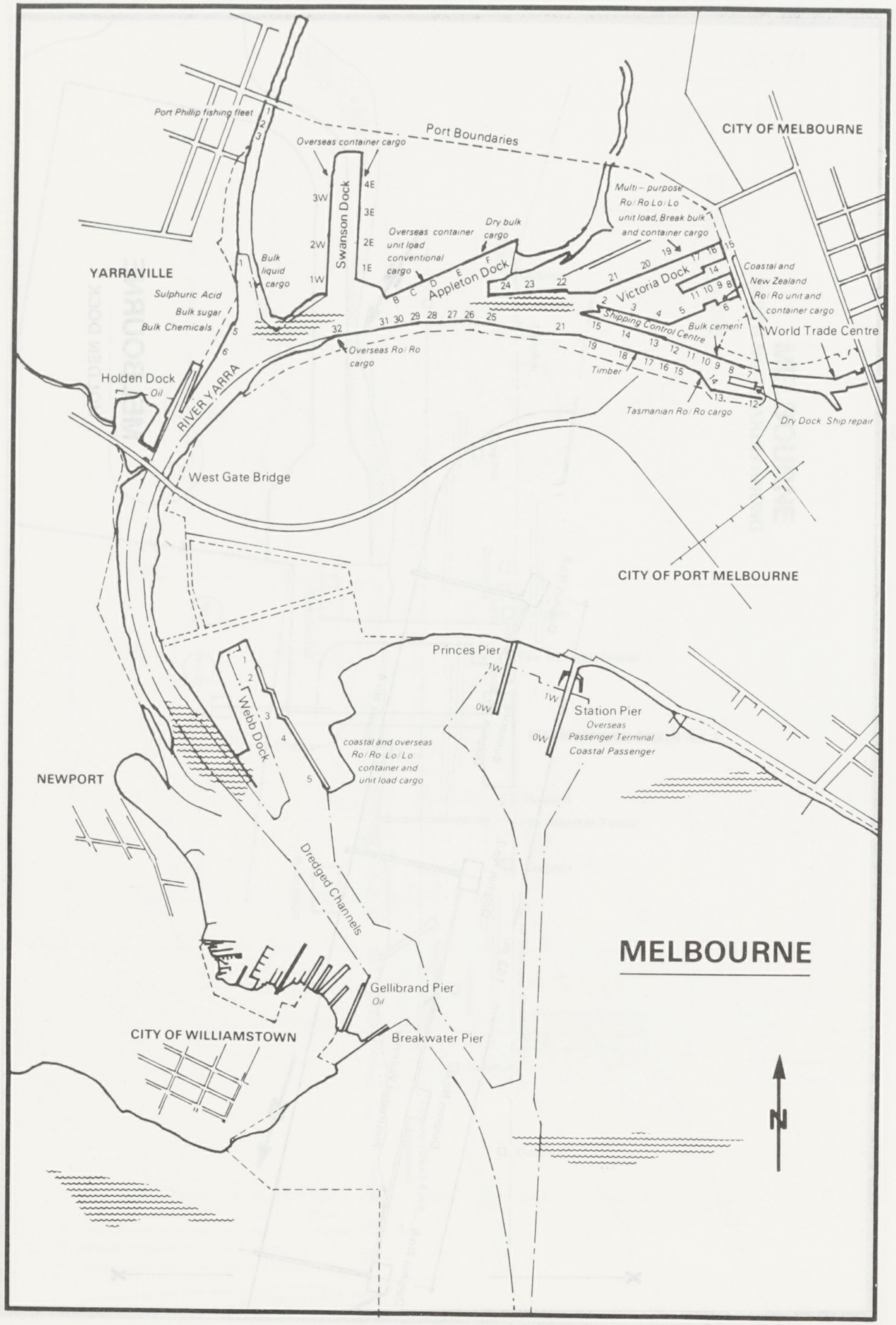

BASS STRAIT
RIVER TAMAR
LAUNCESTON
N
GEORGE TOWN
G/Tn Yard
Bell Bay Wharf Complex
ILFRAVILLE
Inspection Head Wharf
Beauty Pt. Marina
Maritime College Wharf
Thermal Station Berth
LONG REACH
No. 1 Wood Chip Berth (Forest Resources)
No 2 Wood Chip Berth (A.P.P.M.)
RIVER TAMAR
LOWER REACHES – WESTERN SIDE
0 1 2 3 4 5
KILOMETRES
SCALE
Cargo Shed
335m
9.9 m. at L.A.T.
1A
SHED
1B
859 sq.m.
2A
2B
Shed
780 sq.m.
45m.
34m
72m.
Cold Store
Cold Store
5 ton Derrick Crane
1200T Tallow Storage & Shipyard
INSPECTION HEAD WHARF
Maritime College Seamans & Fisheries Training Centre
75m
9m
9.70 m. at L.A.T.
60m
15m
15m
Floating Breakwater
MARITIME COLLEGE WHARF
BEAUTY POINT MARINA
N

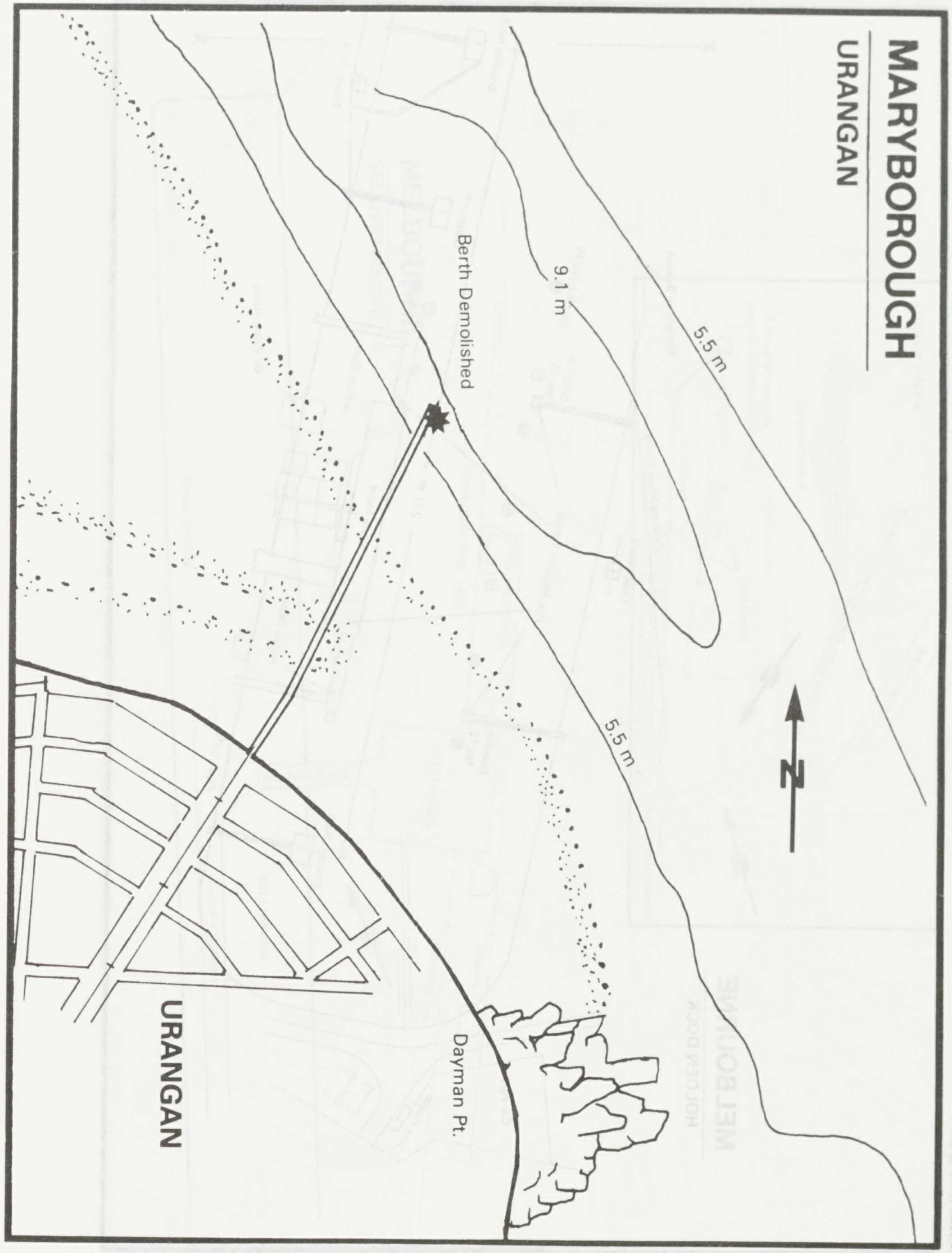

TOWNPIER – ALEXANDRA WHARF
Town Pier
135 m.
Fitting out Berth
Boat Yard & Slipway
NORTH ESK RIVER
L.W.3.660m
Graving Dock
Slipway
Alexandra Wharf
East Tamar Hwy
King's Wharf
RIVER TAMAR
West Tamar HWY
North Esk River
North Esk Dock
South Esk River
N
LAUNCESTON
MIDDLE AND UPPER REACHES
KINGS WHARF, TOWN PIER
HILLWOOD, DOCK AND SLIPWAYS
LOCALITY PLAN
0 0.2 0.4 0.6 0.8 1.0
SCALE IN KILOMETERS
Wood Stores
Skin Store
Wool Store
KINGS WHARF
Timber Storage
T.G. Railway
Engineering Workshop
P.L.A. Work Shops
No.3.
17½ ton Derrick Crane
No.4 Shed 2340 sq.m.
1280 sq.m.
Stock yard
Wheat Silos
Shiplift Facility
Kings Wharf
PLA Plant Berth
Cattle Ramp
27.3 m.
Wheat Berth
67.2 m.
295.3 m

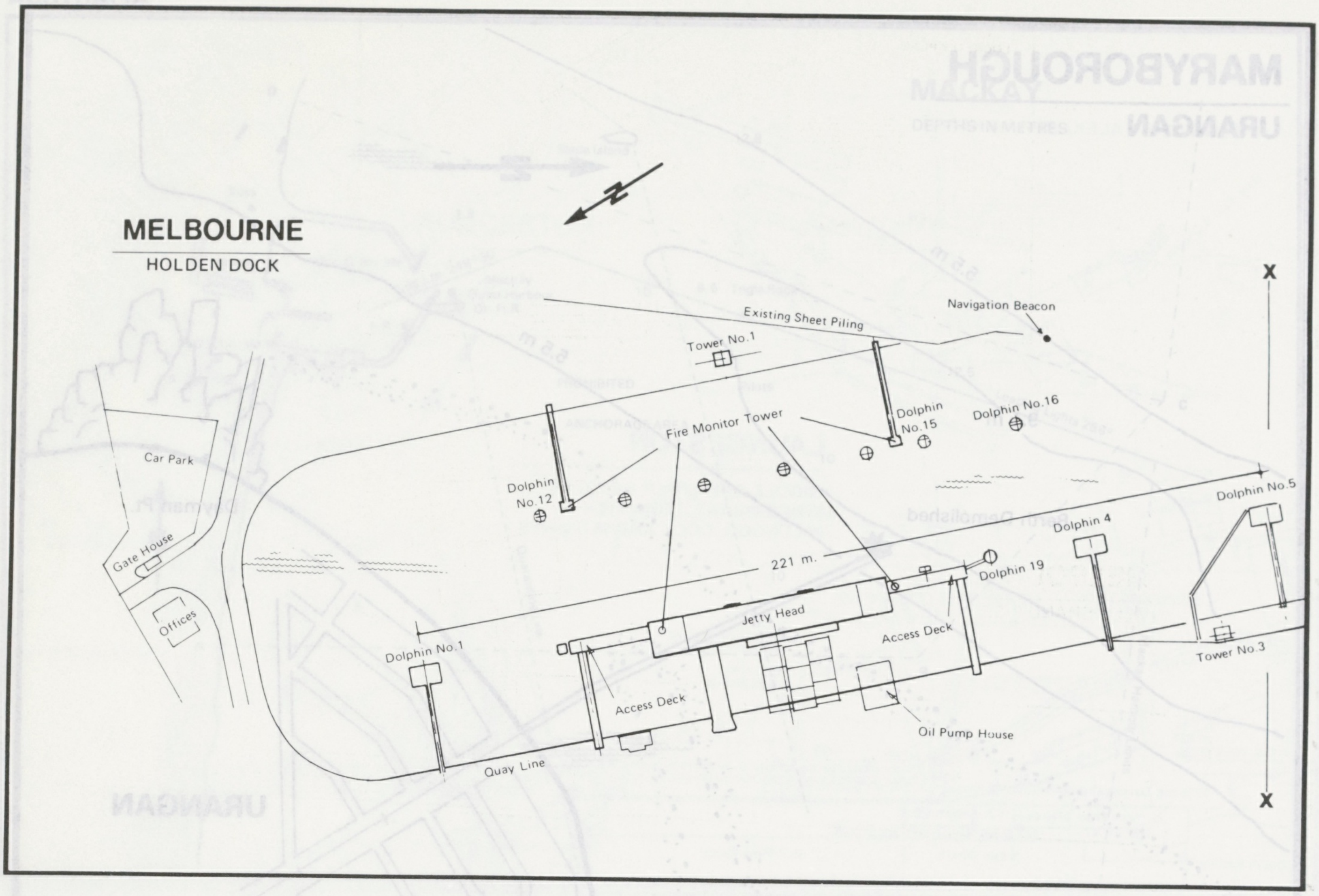

Scale
0 10,000 20,000 Feet
0 5,000 Metres
Depth contours are in metres below Low Water Datum
18.3
11
5.5
Mangrove I.
Mangrove Pt.
Anchorage Pt.
Gayundah C.
Conn. Creek
Minimum depth 4.2 m. (1984)
Paluma C.
Mendel C.
N
Deluge Inlet
LUCINDA
Inshore Berth Depth 9.0 m. (1983)
5.5
Inshore Berth Length 133.35 m.
Town of Lucinda
Sugar Shed
Haycock I.
Reis Pt.
Fisherman Pt.
Channel
George Pt.
Shoal Bar (Min. depth 1.1 m. 1977)
Bulk Sugar Loading Berth (13.6 m.)
6 N.M.
Inshore Berth
Lucinda Pt.
Seymour R.
Herbert R.
Seaforth Channel
18.3
11
5.5
Dunk I.
Pilot boarding ground for inshore berth only
Cardwell
Hinchinbrook I.
LUCINDA
Pilot boarding for Lucinda bulk sugar berth only
Pelorus I.
Orpheus I.
Palm Islands
Gt. Palm I.
LOCATION MAP

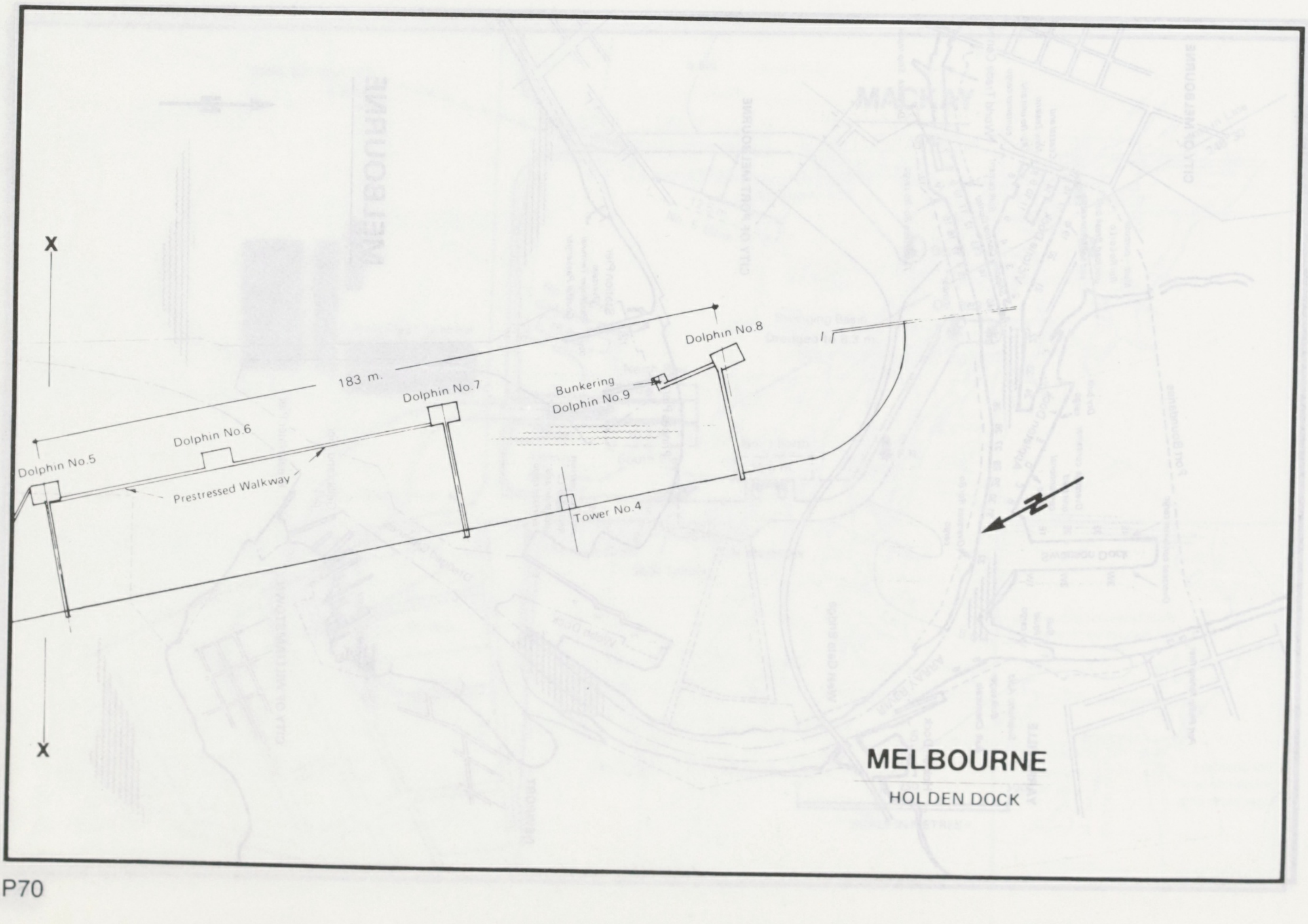

MACKAY
DEPTHS IN METRES
D
Silos
Sheds
7.9
Slade Island
12.8
Occ.G.9m.5M
Ldg.Lts. 248° 30'
Mackay
Outer Harbour
Qk.Fl.R.
F.R.
F.R.11m.5M.
F.R.19m.5M.
10
8.5
Trigla Rock
PROHIBITED
ANCHORAGE AREA
Pilots
12.5
Leading Lights 288°
C
10
N
Quarantine Line
10
5
A
B
7
Mackay Harbour Limits

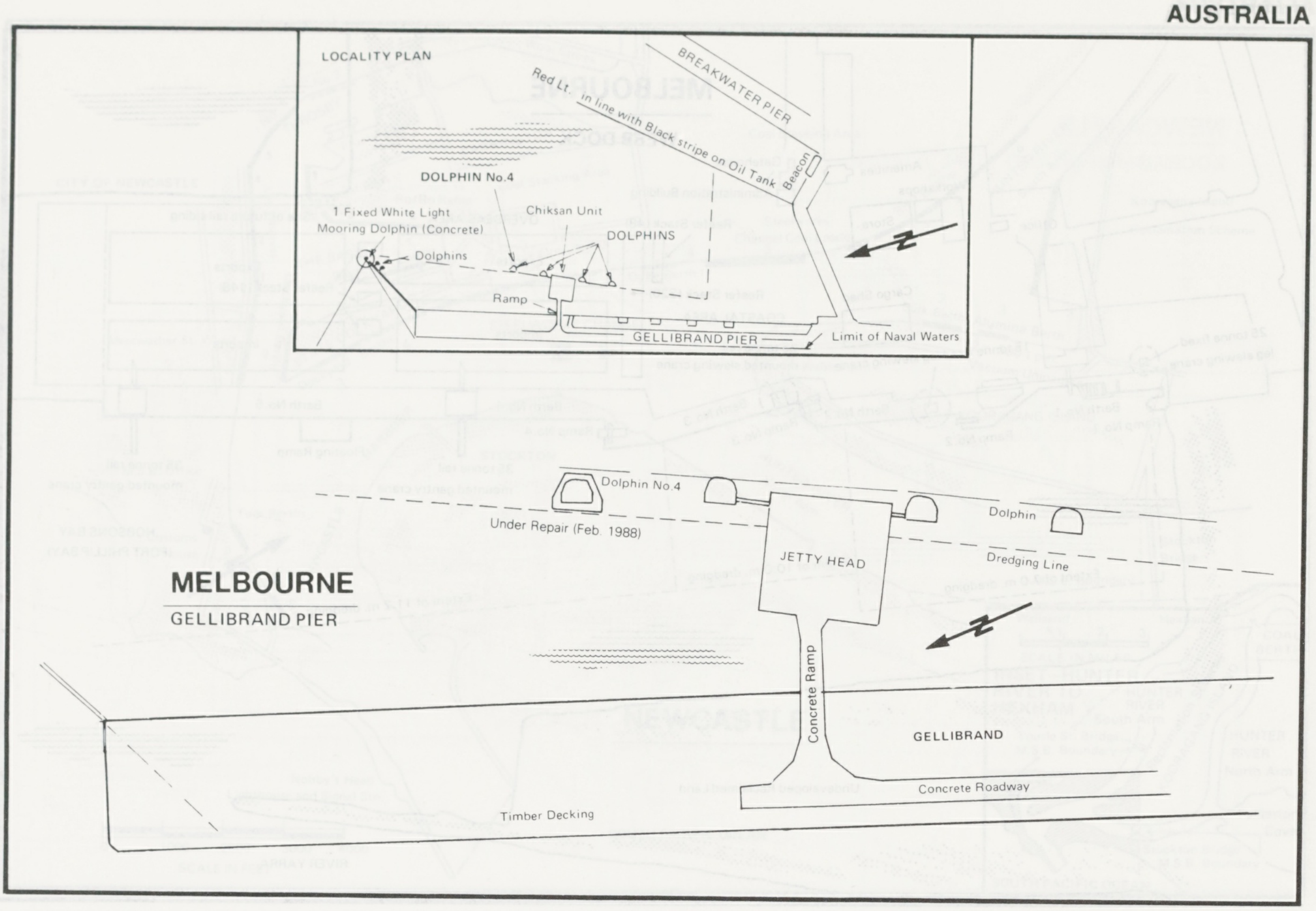

MACKAY
Grain Terminal
4 Silos
5.5m
Future Conveyor
12.5 m.
No. 5 Berth
Lights in Line
248°30'
N
Oc. G. 3 s.
Oc. R. 3 s.
Q.R.
Swinging Basin
Dredged to 8.3 m.
No. 4 Berth
Container Berth
10.4 m.
Bulk Sugar Terminal
North Pier
10.6 m.
10.3 m.
South Pier
No. 1 Berth
10.6 m.
F.R.
Slipway
Boat Ramp
Harbour Board Office
F.R.
Pleasure Craft
Bulk Tallow
Bulk Molasses
F.R.
Oil Sites
5.0 m.
0
250
500
SCALE IN METRES

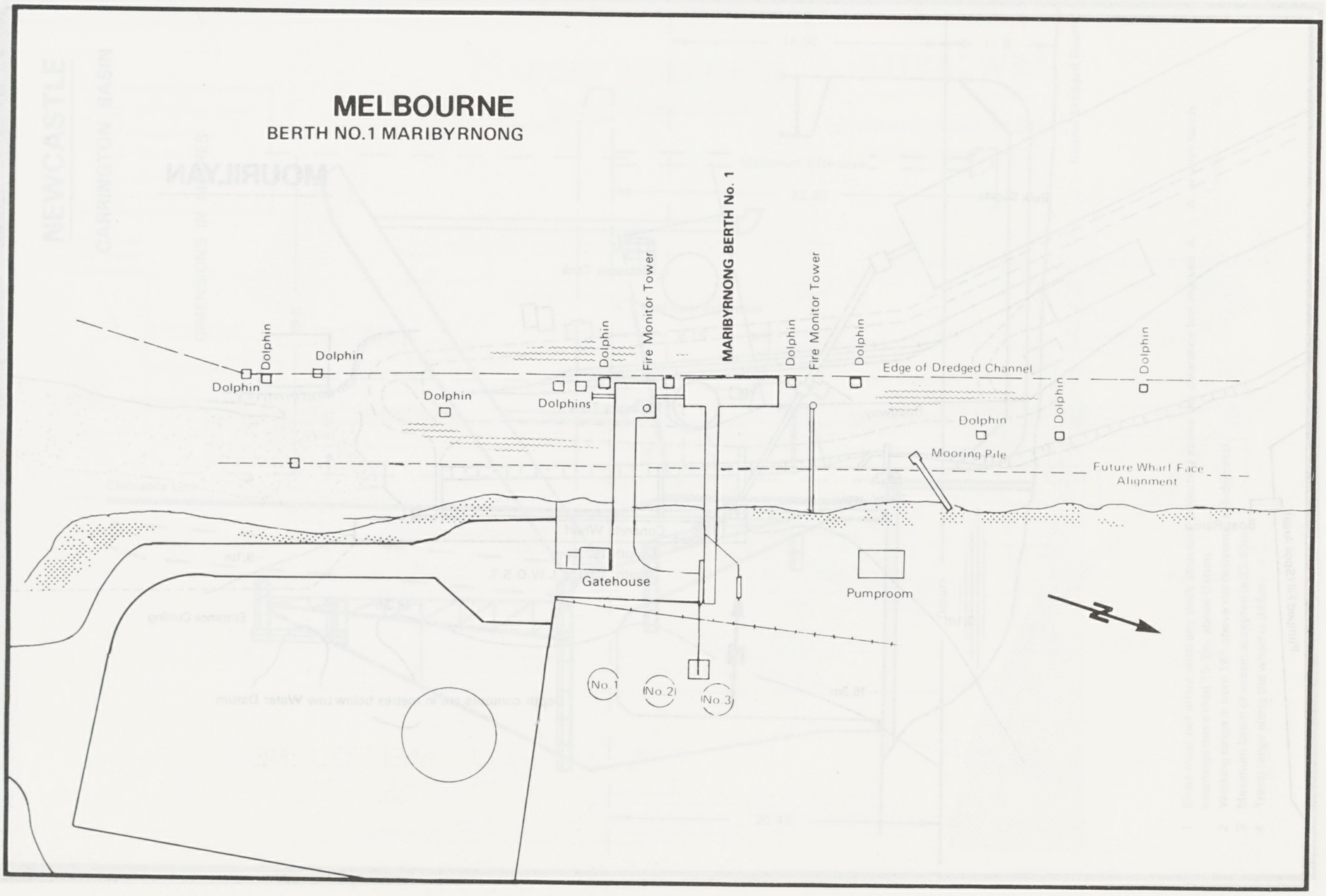

MELBOURNE
CITY OF MELBOURNE
Port Boundaries
Port Phillip fishing fleet
Overseas container cargo
Swanson Dock
4E
3E
2E
1E
3W
2W
1W
Bulk liquid cargo
YARRAVILLE
Sulphuric Acid
Bulk sugar
Bulk Chemicals
Overseas container unit load conventional cargo
Dry bulk cargo
Appleton Dock
Multi – purpose Ro/Ro Lo/Lo unit load, Break bulk and container cargo
Victoria Dock
Coastal and New Zealand Ro/Ro unit and container cargo
Shipping Control Centre
Bulk cement
World Trade Centre
Overseas Ro/Ro cargo
Timber
Tasmanian Ro/Ro cargo
Dry Dock Ship repair
Holden Dock
Oil
RIVER YARRA
West Gate Bridge
CITY OF PORT MELBOURNE
Princes Pier
Station Pier
Overseas Passenger Terminal
Coastal Passenger
Webb Dock
coastal and overseas Ro/Ro Lo/Lo container and unit load cargo
NEWPORT
Dredged Channels
Gellibrand Pier
Oil
Breakwater Pier
CITY OF WILLIAMSTOWN
N

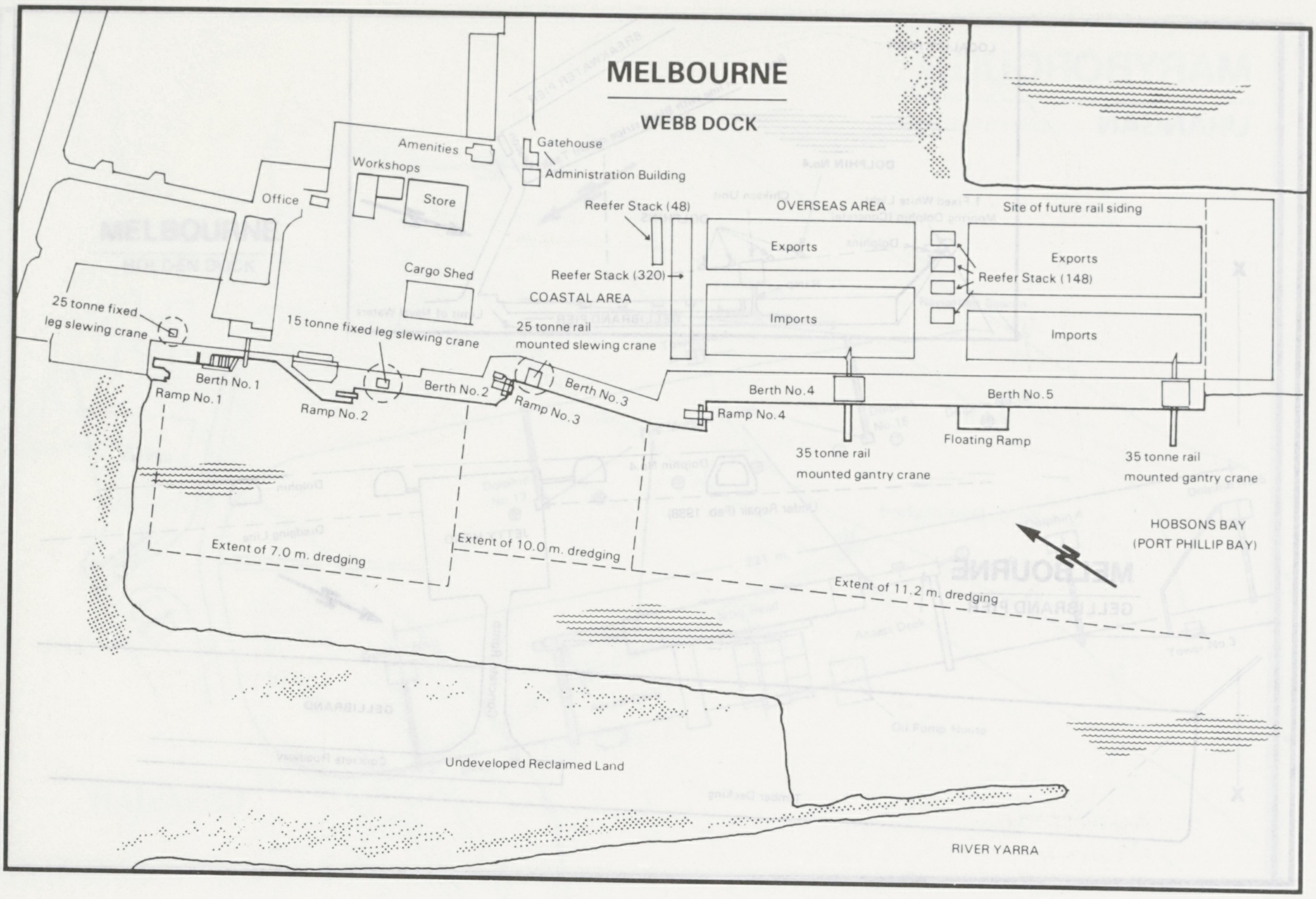

MARYBOROUGH
URANGAN
Berth Demolished
9.1 m
5.5 m
5.5 m
URANGAN
Dayman Pt.
N

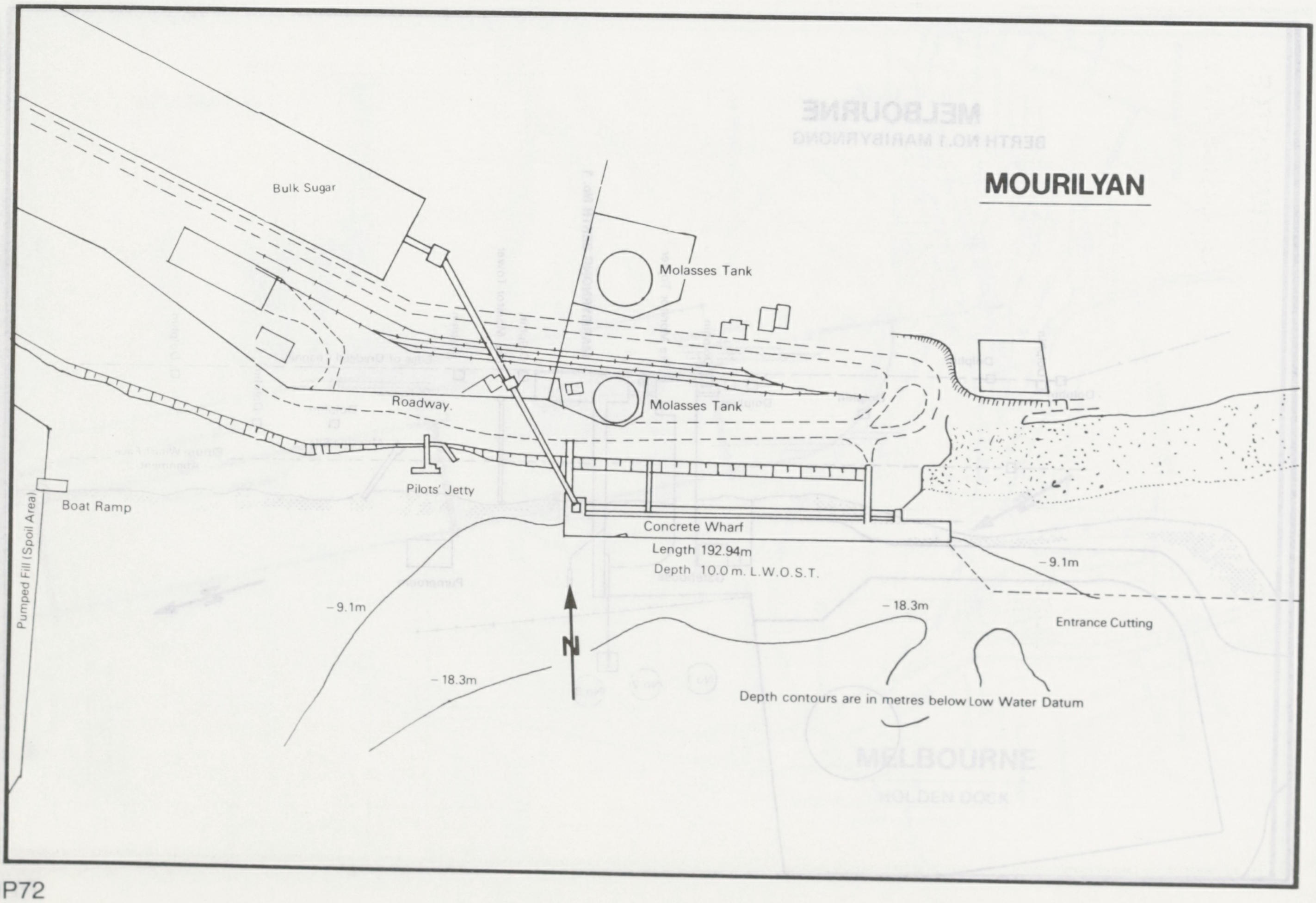

MELBOURNE
HOLDEN DOCK
X
X
Navigation Beacon
Existing Sheet Piling
Tower No.1
Dolphin No.15
Dolphin No.16
Fire Monitor Tower
Dolphin No.12
Car Park
Gate House
Offices
Dolphin No.5
Dolphin 4
Dolphin 19
221 m.
Jetty Head
Access Deck
Access Deck
Dolphin No.1
Tower No.3
Oil Pump House
Quay Line

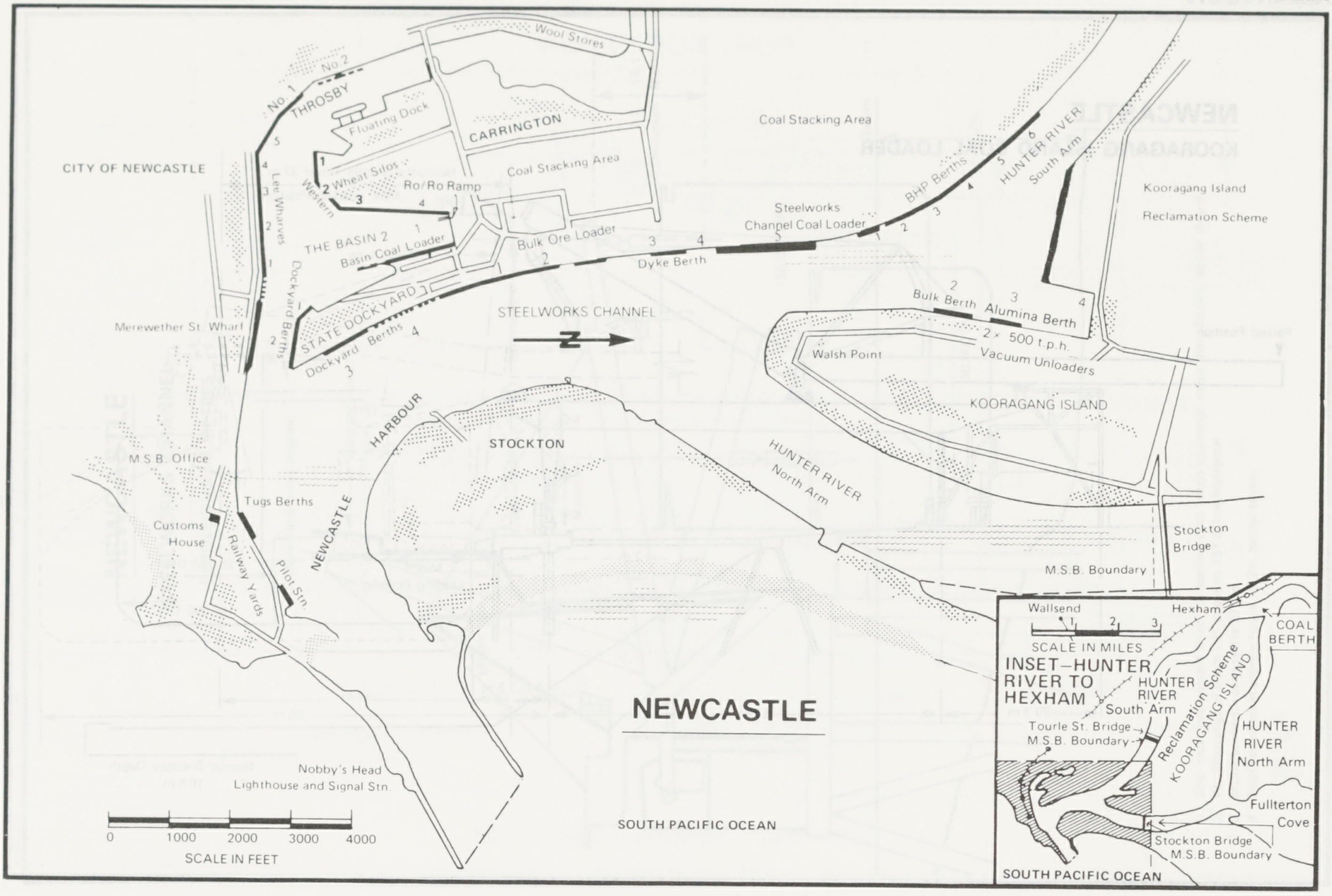

X
X
183 m.
Dolphin No.8
Bunkering
Dolphin No.9
Dolphin No.7
Dolphin No.6
Dolphin No.5
Prestressed Walkway
Tower No.4
MELBOURNE
HOLDEN DOCK


LOCALITY PLAN
BREAKWATER PIER
Red Lt. in line with Black stripe on Oil Tank
Beacon
DOLPHIN No.4
1 Fixed White Light
Mooring Dolphin (Concrete)
Chiksan Unit
DOLPHINS
Dolphins
Ramp
GELLIBRAND PIER
Limit of Naval Waters
MELBOURNE
GELLIBRAND PIER
Dolphin No.4
Under Repair (Feb. 1988)
Dolphin
JETTY HEAD
Dredging Line
Concrete Ramp
GELLIBRAND
Concrete Roadway
Timber Decking


MELBOURNE
BERTH NO.1 MARIBYRNONG
MARIBYRNONG BERTH No. 1
Dolphin
Dolphin
Dolphin
Dolphin
Dolphins
Dolphin
Fire Monitor Tower
Dolphin
Fire Monitor Tower
Dolphin
Edge of Dredged Channel
Dolphin
Dolphin
Dolphin
Mooring Pile
Future Wharf Face Alignment
Gatehouse
Pumproom
No.1
No.2
No.3

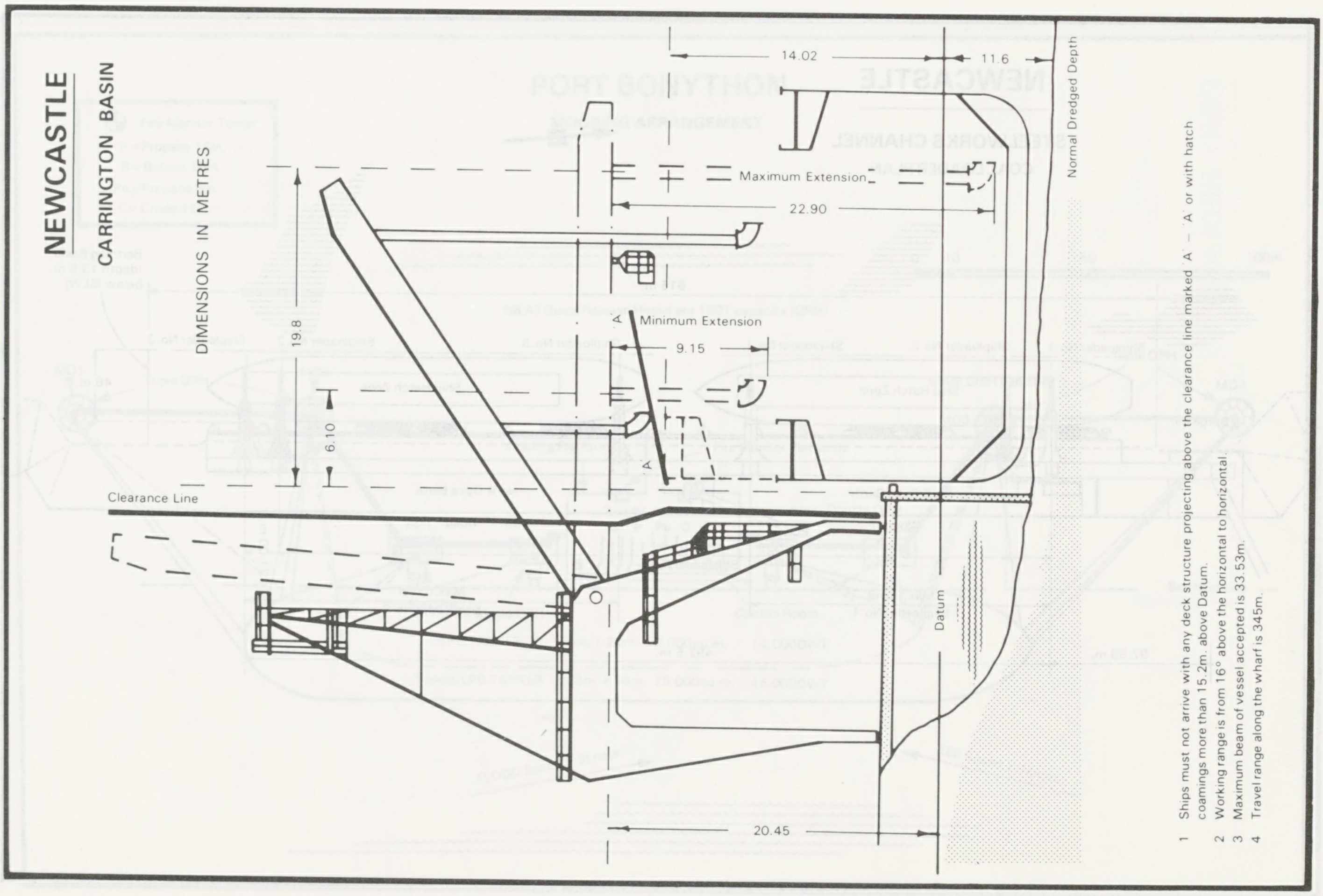

MELBOURNE
WEBB DOCK
Amenities
Gatehouse
Workshops
Administration Building
Office
Store
Reefer Stack (48)
OVERSEAS AREA
Site of future rail siding
Exports
Exports
Reefer Stack (320)
Reefer Stack (148)
Cargo Shed
COASTAL AREA
Imports
Imports
25 tonne fixed leg slewing crane
15 tonne fixed leg slewing crane
25 tonne rail mounted slewing crane
Berth No.1
Ramp No.1
Ramp No.2
Berth No.2
Berth No.3
Ramp No.3
Berth No.4
Ramp No.4
Berth No.5
Floating Ramp
35 tonne rail mounted gantry crane
35 tonne rail mounted gantry crane
HOBSONS BAY (PORT PHILLIP BAY)
N
Extent of 7.0 m. dredging
Extent of 10.0 m. dredging
Extent of 11.2 m. dredging
Undeveloped Reclaimed Land
RIVER YARRA


MOURILYAN
Bulk Sugar
Molasses Tank
Molasses Tank
Roadway.
Pilots' Jetty
Boat Ramp
Pumped Fill (Spoil Area)
Concrete Wharf
Length 192.94m
Depth 10.0 m. L.W.O.S.T.
-9.1m
-9.1m
-18.3m
-18.3m
N
Entrance Cutting
Depth contours are in metres below Low Water Datum



NEWCASTLE

Wool Stores
No. 2
No. 1
THROSBY
Floating Dock
CARRINGTON
Coal Stacking Area
CITY OF NEWCASTLE
Wheat Silos
Western
Ro/Ro Ramp
Coal Stacking Area
Lee Wharves
THE BASIN 2
Basin Coal Loader
Bulk Ore Loader
Dyke Berth
Steelworks
Channel Coal Loader
BHP Berths
HUNTER RIVER
South Arm
Kooragang Island
Reclamation Scheme
Dockyard Berths
STATE DOCKYARD
Dockyard Berths
STEELWORKS CHANNEL
Merewether St. Wharf
Bulk Berth
Alumina Berth
2 × 500 t.p.h.
Vacuum Unloaders
Walsh Point
KOORAGANG ISLAND
HARBOUR
STOCKTON
M.S.B. Office
HUNTER RIVER
North Arm
Tugs Berths
Customs House
NEWCASTLE
Railway Yards
Pilot Stn.
Stockton Bridge
M.S.B. Boundary
Nobby's Head
Lighthouse and Signal Stn.
SOUTH PACIFIC OCEAN
0
1000
2000
3000
4000
SCALE IN FEET
Wallsend
Hexham
COAL BERTH
SCALE IN MILES
INSET–HUNTER RIVER TO HEXHAM
HUNTER RIVER
South Arm
Reclamation Scheme
KOORAGANG ISLAND
Tourle St. Bridge
M.S.B. Boundary
HUNTER RIVER
North Arm
Fullerton Cove
Stockton Bridge
M.S.B. Boundary
SOUTH PACIFIC OCEAN



NEWCASTLE

CARRINGTON BASIN

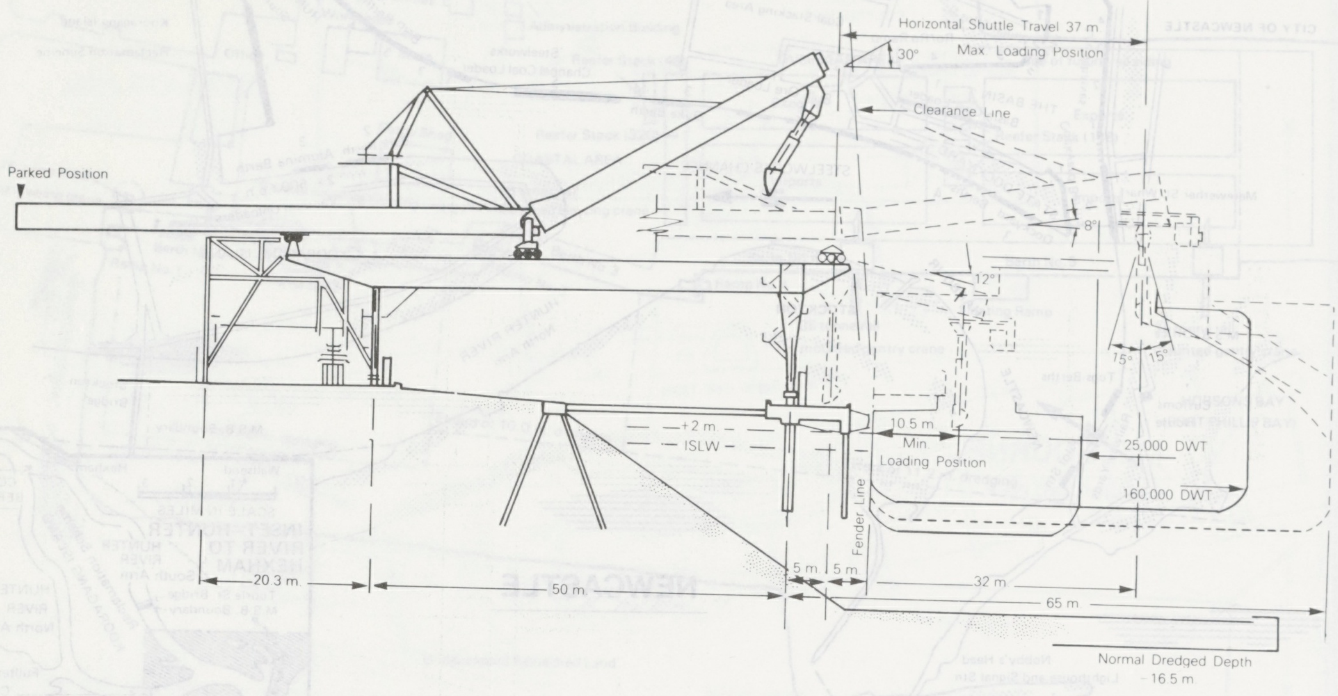
DIMENSIONS IN METRES

14.02
11.6
Normal Dredged Depth
Maximum Extension
22.90
19.8
A
Minimum Extension
9.15
6.10
A'
Clearance Line
Datum
20.45

1 Ships must not arrive with any deck structure projecting above the clearance line marked A — A' or with hatch coamings more than 15.2m. above Datum.
2 Working range is from 16° above the horizontal to horizontal.
3 Maximum beam of vessel accepted is 33.53m.
4 Travel range along the wharf is 345m.

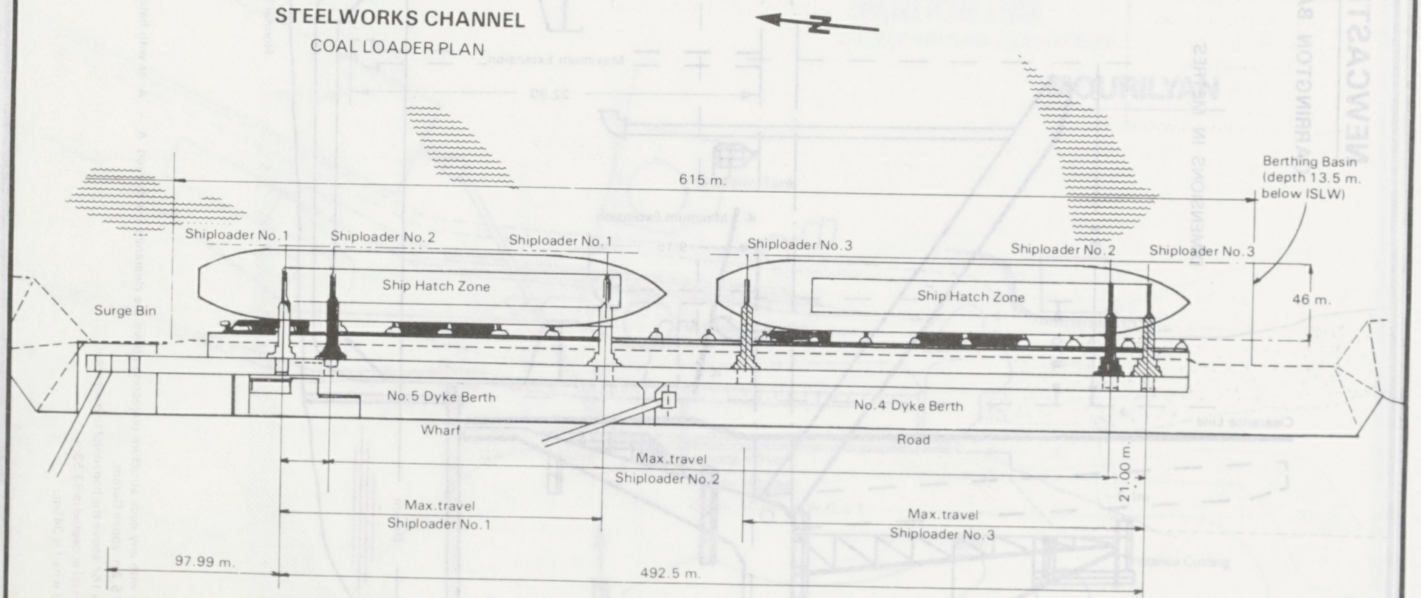
NEWCASTLE

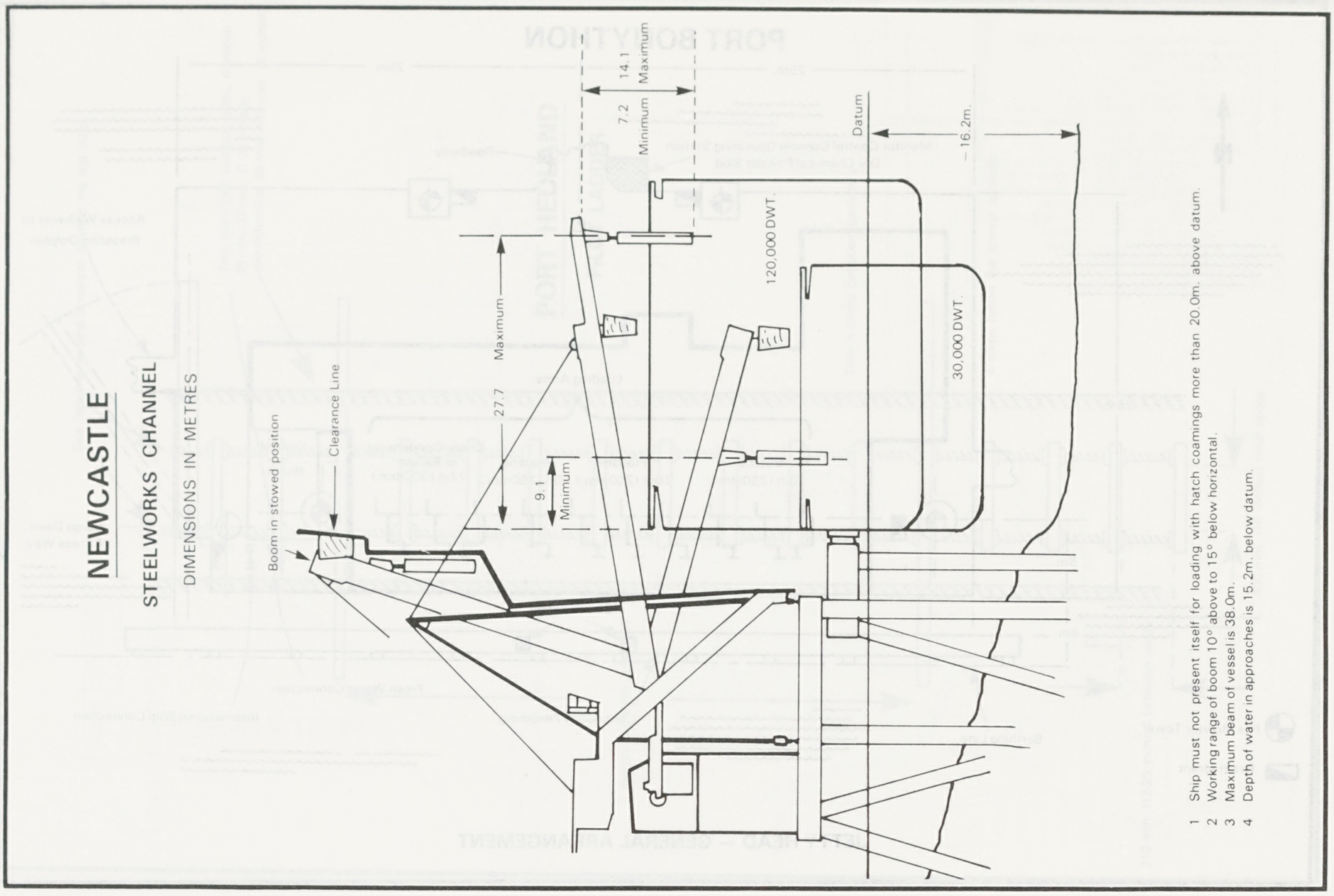
KOORAGANG ISLAND COAL LOADER


Horizontal Shuttle Travel 37 m
30°
Max Loading Position
Clearance Line
Parked Position
8°
12°
15°
15°
+2 m
ISLW
10.5 m
Min
Loading Position
Fender Line
25,000 DWT
160,000 DWT
5 m
5 m
20.3 m
50 m
32 m
65 m
Normal Dredged Depth
-16.5 m

NEWCASTLE

STEELWORKS CHANNEL
COAL LOADER PLAN


N
615 m.
Berthing Basin
(depth 13.5 m.
below ISLW)
Shiploader No.1
Shiploader No.2
Shiploader No.1
Shiploader No.3
Shiploader No.2
Shiploader No.3
Ship Hatch Zone
Ship Hatch Zone
46 m.
Surge Bin
No.5 Dyke Berth
Wharf
No.4 Dyke Berth
Road
21.00 m.
Max.travel
Shiploader No.2
Max.travel
Shiploader No.1
Max.travel
Shiploader No.3
97.99 m.
492.5 m.



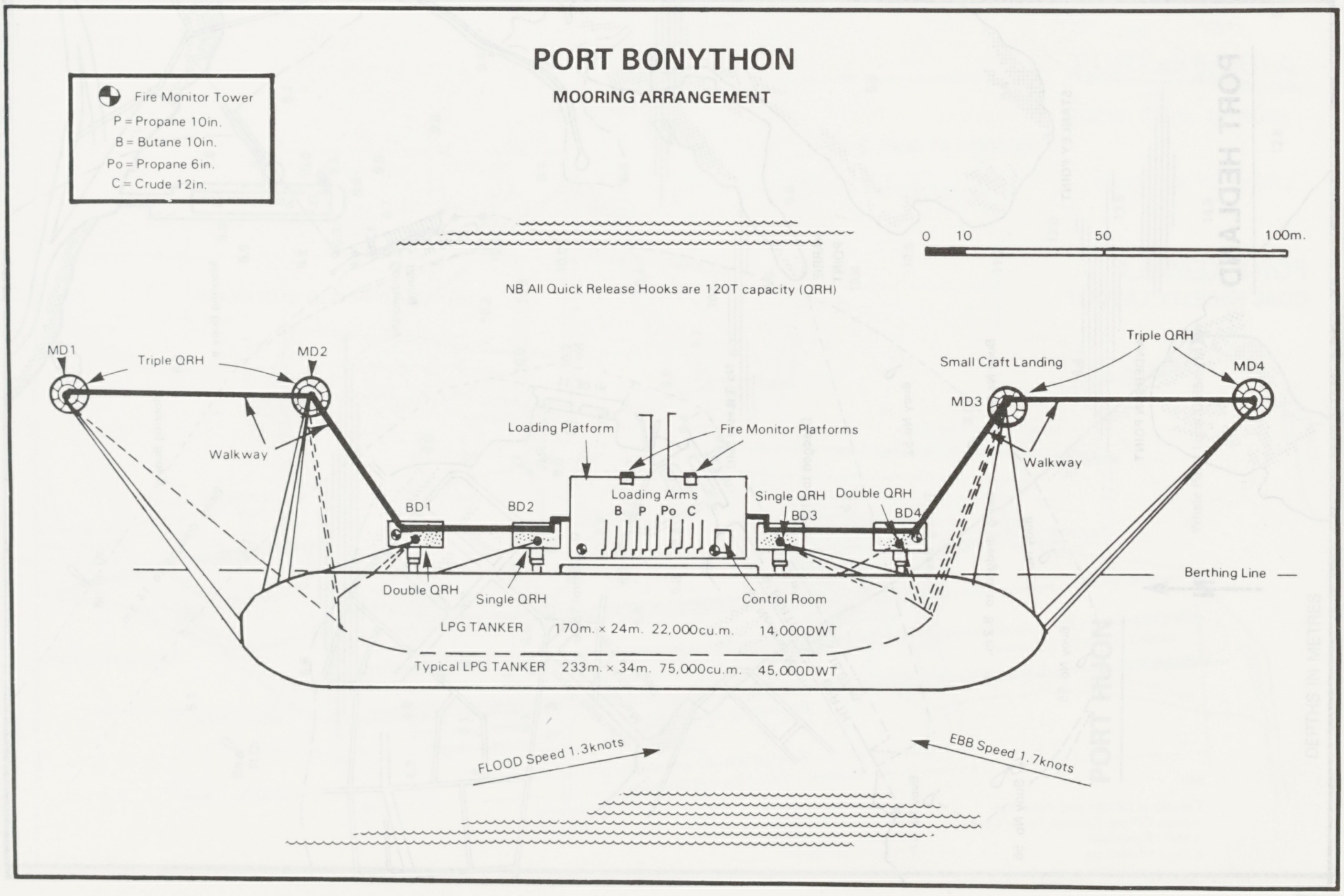
NEWCASTLE

STEELWORKS CHANNEL

DIMENSIONS IN METRES

Boom in stowed position
Clearance Line
27.7
Maximum
9.1
Minimum
7.2
Minimum
14.1
Maximum
Datum
16.2m.
120,000 DWT.
30,000 DWT.

1 Ship must not present itself for loading with hatch coamings more than 20.0m. above datum.
2 Working range of boom 10° above to 15° below horizontal.
3 Maximum beam of vessel is 38.0m.
4 Depth of water in approaches is 15.2m. below datum.

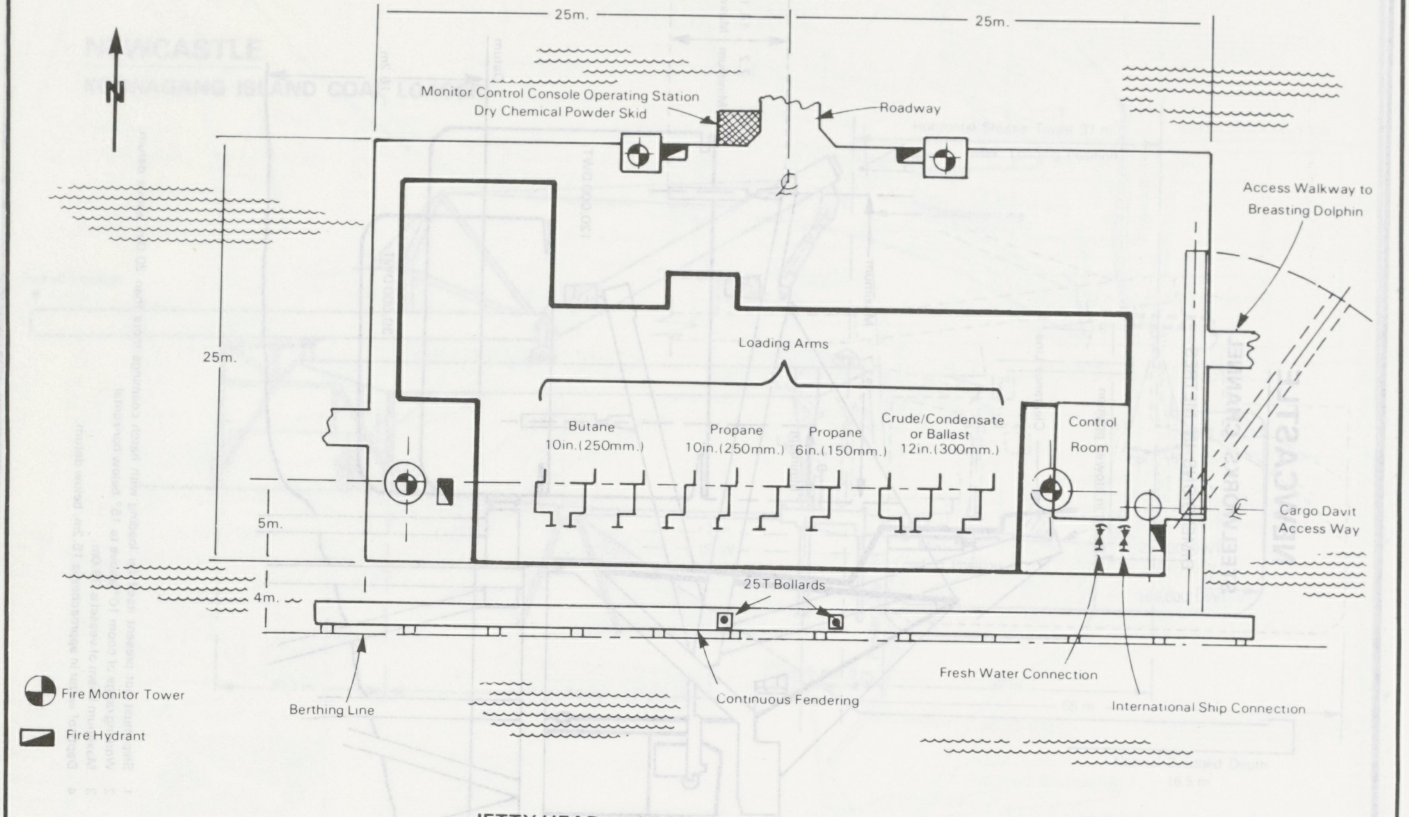


PORT BONYTHON

MOORING ARRANGEMENT

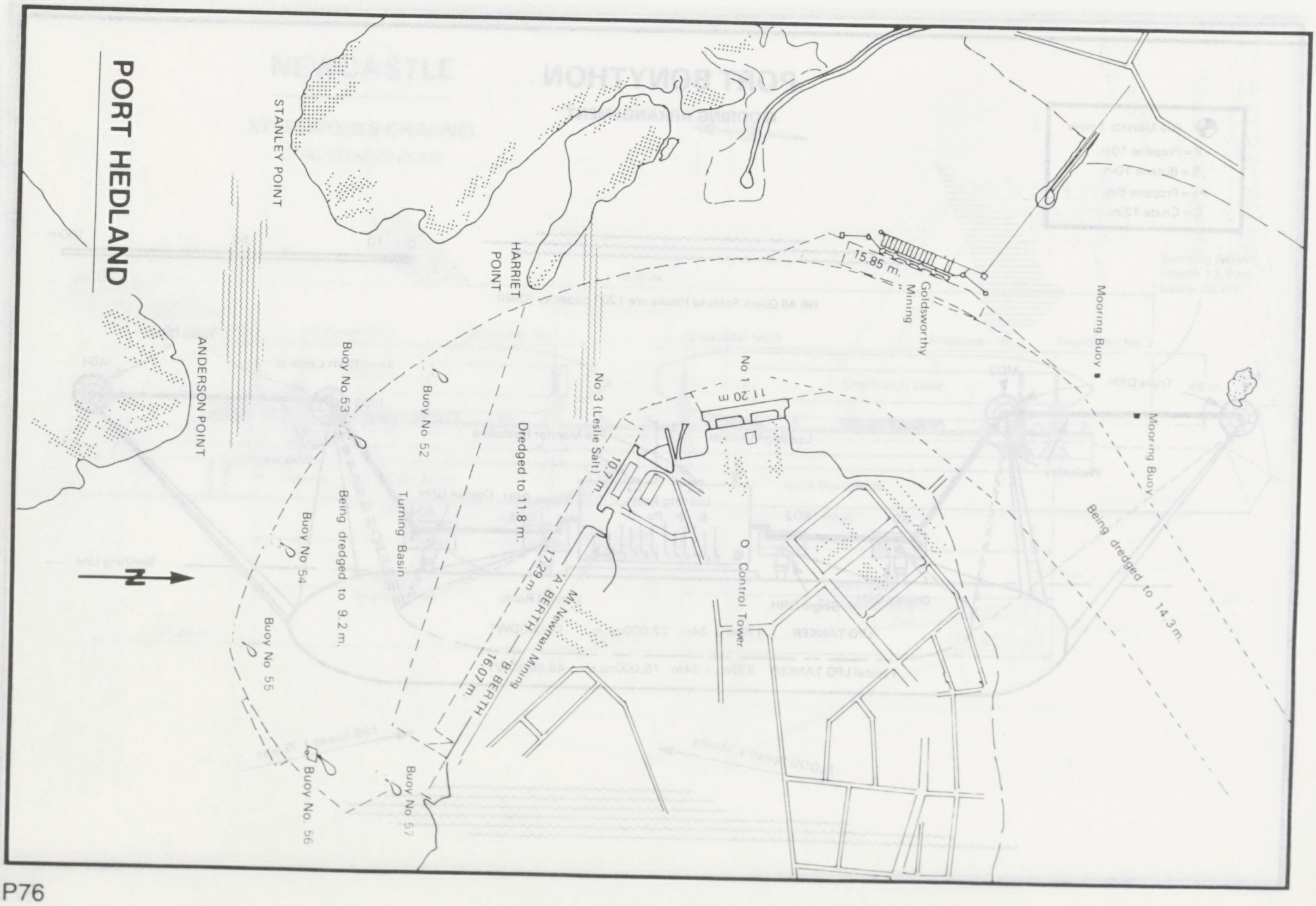
Fire Monitor Tower
P = Propane 10in.
B = Butane 10in.
Po = Propane 6in.
C = Crude 12in.
0
10
50
100m.
NB All Quick Release Hooks are 120T capacity (QRH)
MD1
Triple QRH
MD2
Walkway
Triple QRH
Small Craft Landing
MD3
MD4
Walkway
Loading Platform
Fire Monitor Platforms
Loading Arms
B P Po C
Single QRH
Double QRH
BD1
BD2
BD3
BD4
Berthing Line
Double QRH
Single QRH
Control Room
LPG TANKER 170m. × 24m. 22,000cu.m. 14,000DWT
Typical LPG TANKER 233m. × 34m. 75,000cu.m. 45,000DWT
FLOOD Speed 1.3knots
EBB Speed 1.7knots

PORT BONYTHON

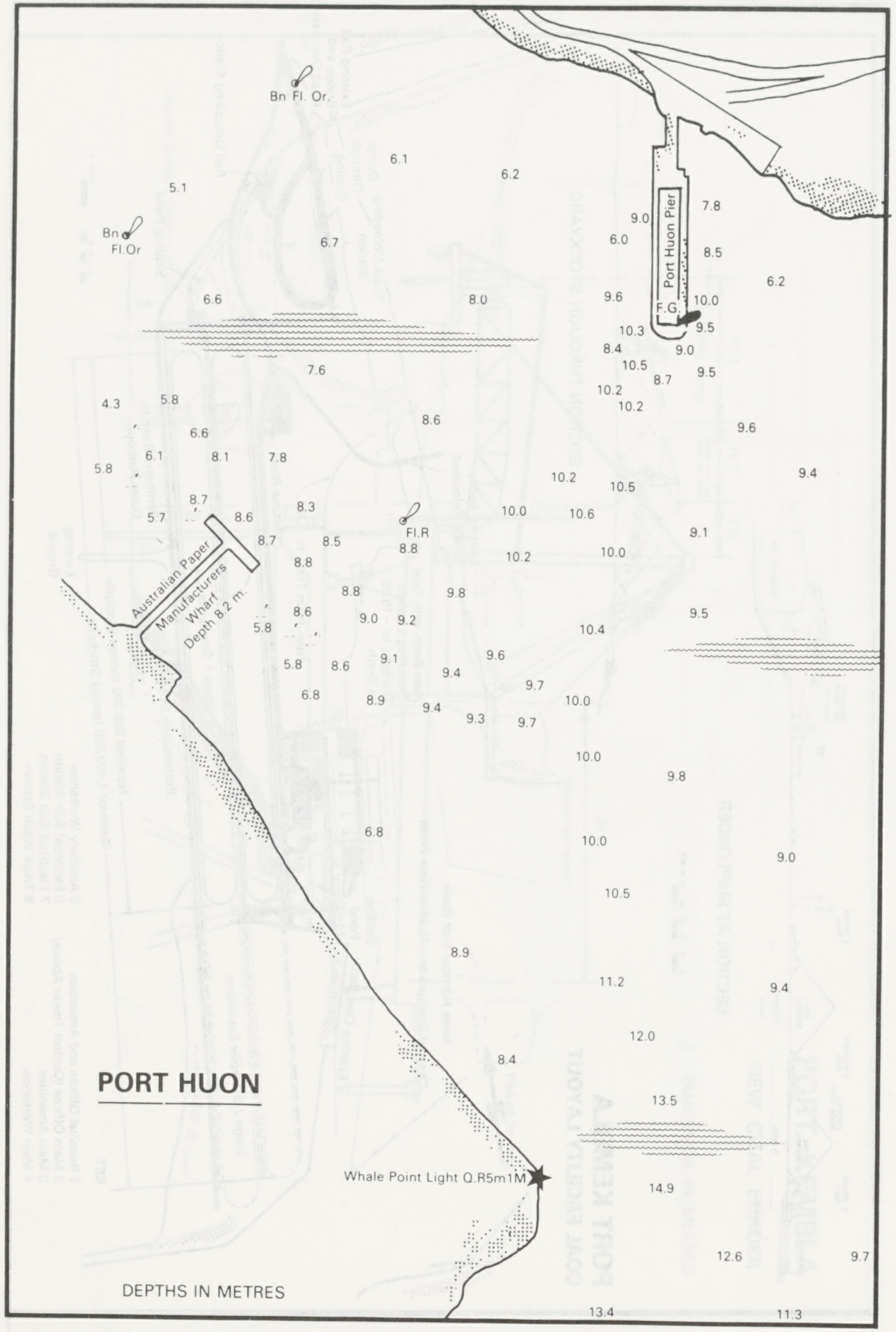

25m.
25m.
Monitor Control Console Operating Station
Dry Chemical Powder Skid
Roadway
Access Walkway to Breasting Dolphin
25m.
Loading Arms
Butane 10in.(250mm.)
Propane 10in.(250mm.)
Propane 6in.(150mm.)
Crude/Condensate or Ballast 12in.(300mm.)
Control Room
Cargo Davit Access Way
5m.
4m.
25T Bollards
Fresh Water Connection
International Ship Connection
Continuous Fendering
Berthing Line
Fire Monitor Tower
Fire Hydrant
N

JETTY HEAD — GENERAL ARRANGEMENT

PORT HEDLAND

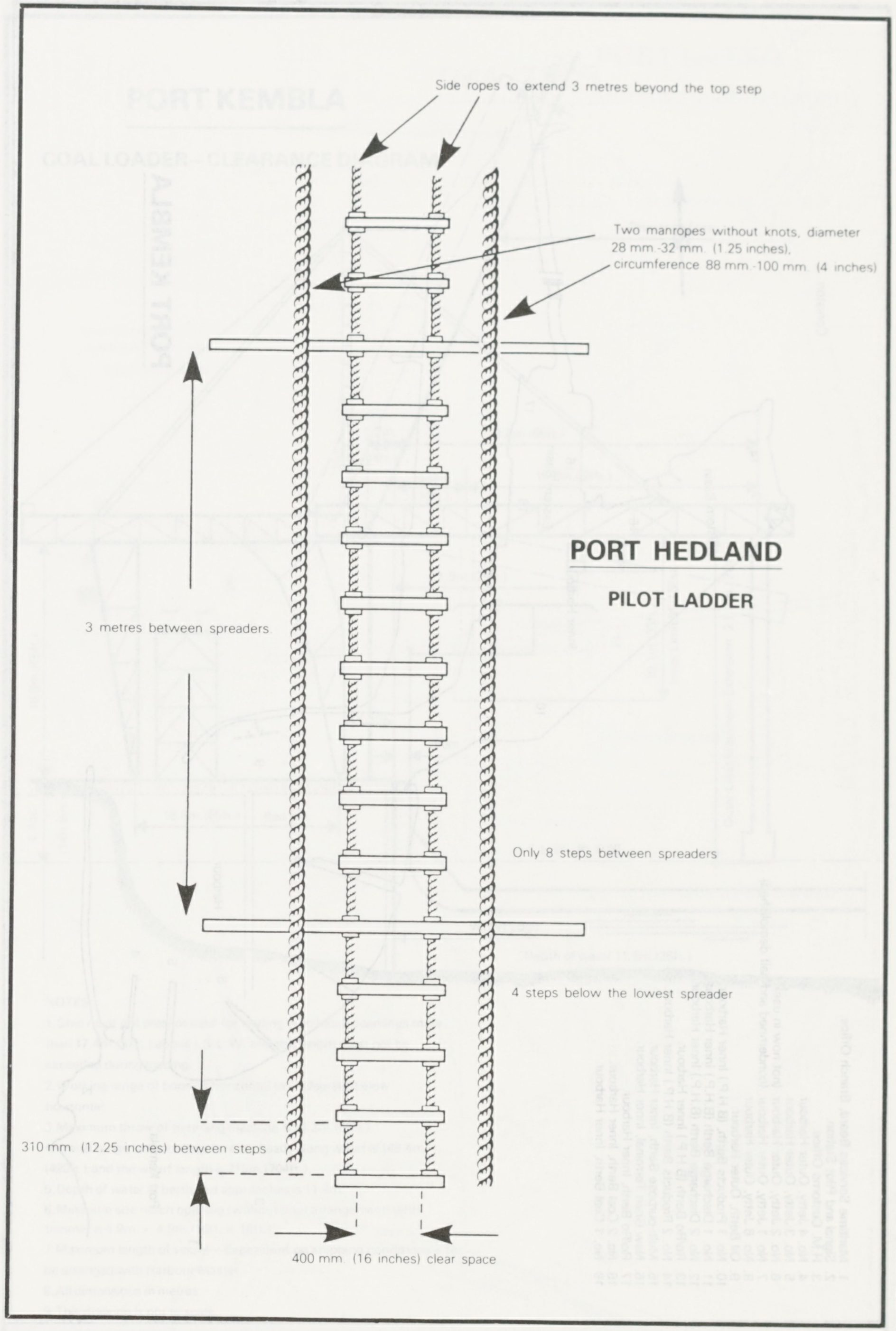

STANLEY POINT
HARRIET POINT
ANDERSON POINT
Buoy No 53
Buoy No 52
Buoy No 54
Buoy No 55
Buoy No 56
Buoy No 57
Being dredged to 9.2 m.
Turning Basin
Dredged to 11.8 m.
No 3 (Leslie Salt)
107 m.
17.29 m
'A' BERTH
'B' BERTH
Mt Newman Mining
16.07 m.
No 1
11.20 m
Control Tower
15.85 m.
Goldsworthy Mining
Mooring Buoy
Mooring Buoy
Being dredged to 14.3 m.
N

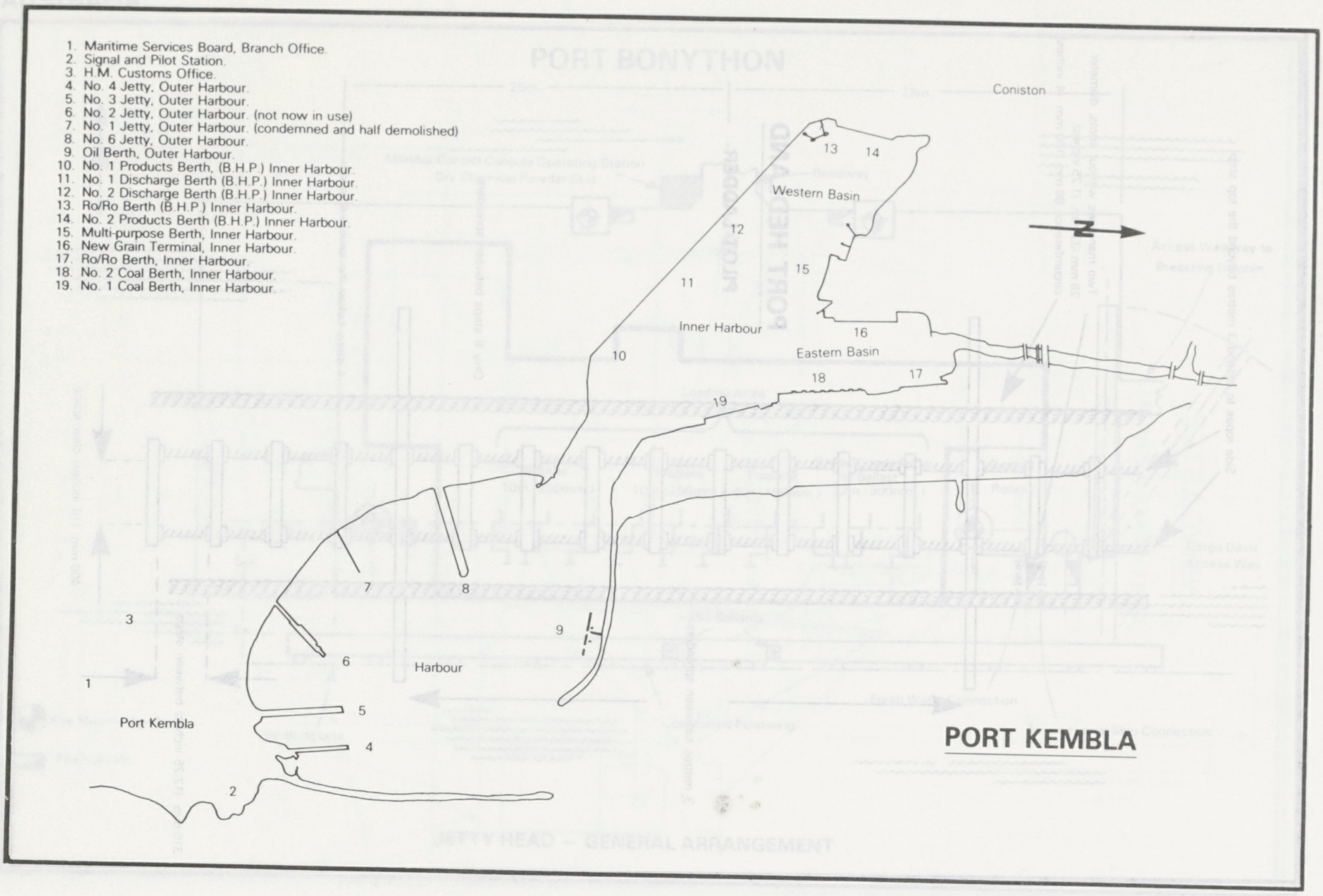
PORT HUON


Bn Fl. Or.
Bn Fl.Or
Port Huon Pier
F.G.
Fl.R
Australian Paper Manufacturers Wharf Depth 8.2 m.
Whale Point Light Q.R5m1M
DEPTHS IN METRES

PORT HEDLAND

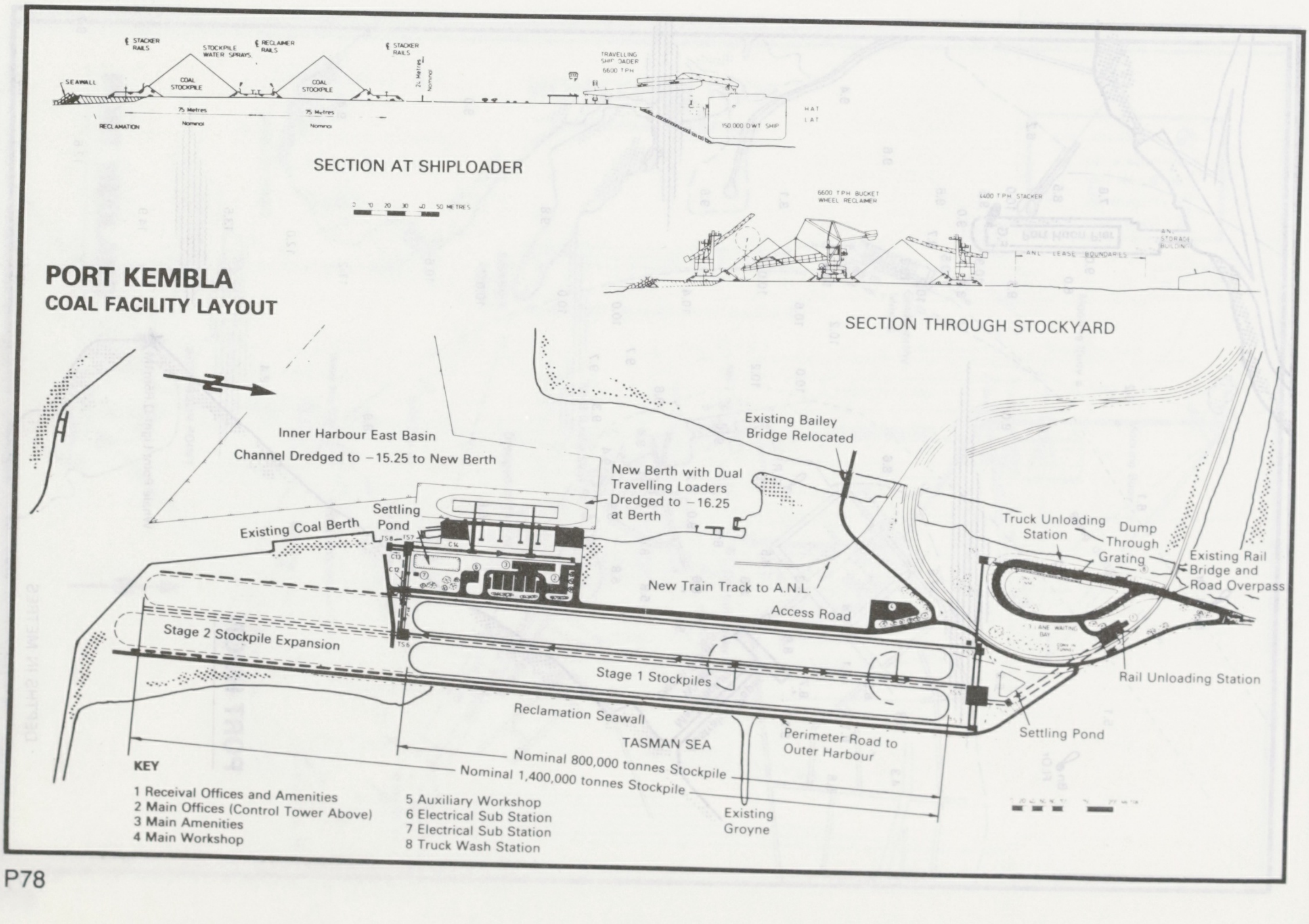
PILOT LADDER


Side ropes to extend 3 metres beyond the top step
Two manropes without knots, diameter 28 mm.-32 mm. (1.25 inches), circumference 88 mm.-100 mm. (4 inches)
3 metres between spreaders.
Only 8 steps between spreaders
4 steps below the lowest spreader
310 mm. (12.25 inches) between steps
400 mm. (16 inches) clear space


Coniston
13
14
Western Basin
12
15
11
Inner Harbour
16
10
Eastern Basin
18
17
19
7
8
3
9
6
Harbour
1
5
Port Kembla
4
2

1. Maritime Services Board, Branch Office.
2. Signal and Pilot Station.
3. H.M. Customs Office.
4. No. 4 Jetty, Outer Harbour.
5. No. 3 Jetty, Outer Harbour.
6. No. 2 Jetty, Outer Harbour. (not now in use)
7. No. 1 Jetty, Outer Harbour. (condemned and half demolished)
8. No. 6 Jetty, Outer Harbour.
9. Oil Berth, Outer Harbour.
10. No. 1 Products Berth, (B.H.P.) Inner Harbour.
11. No. 1 Discharge Berth (B.H.P.) Inner Harbour.
12. No. 2 Discharge Berth (B.H.P.) Inner Harbour.
13. Ro/Ro Berth (B.H.P.) Inner Harbour.
14. No. 2 Products Berth (B.H.P.) Inner Harbour.
15. Multi-purpose Berth, Inner Harbour.
16. New Grain Terminal, Inner Harbour.
17. Ro/Ro Berth, Inner Harbour.
18. No. 2 Coal Berth, Inner Harbour.
19. No. 1 Coal Berth, Inner Harbour.

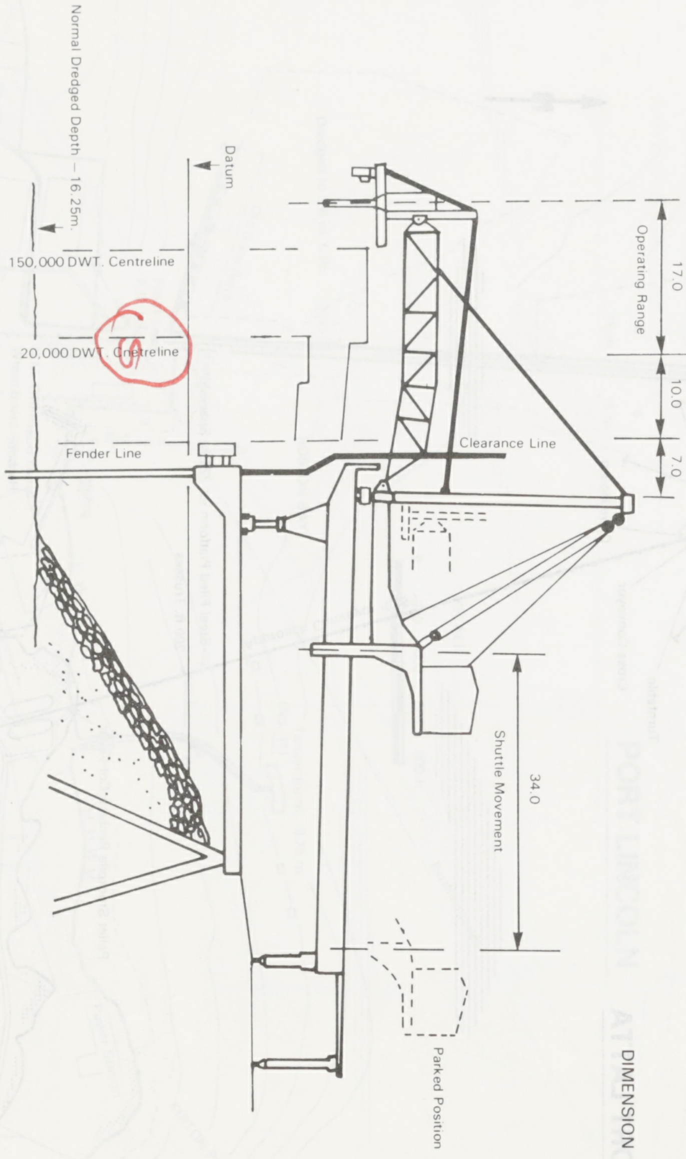
PORT KEMBLA


SEAWALL
STACKER RAILS
STOCKPILE WATER SPRAYS
RECLAIMER RAILS
COAL STOCKPILE
COAL STOCKPILE
STACKER RAILS
75 Metres Nominal
75 Metres Nominal
RECLAMATION
TRAVELLING SHIPLOADER 5600 T.P.H.
150,000 D.W.T. SHIP
H.A.T.
L.A.T.
SECTION AT SHIPLOADER
0 10 20 30 40 50 METRES
6600 T.P.H. BUCKET WHEEL RECLAIMER
4400 T.P.H. STACKER
A.N.L. LEASE BOUNDARIES
SECTION THROUGH STOCKYARD
Inner Harbour East Basin
Channel Dredged to −15.25 to New Berth
Existing Bailey Bridge Relocated
New Berth with Dual Travelling Loaders Dredged to −16.25 at Berth
Settling Pond
Existing Coal Berth
Truck Unloading Station
Dump Through Grating
Existing Rail Bridge and Road Overpass
New Train Track to A.N.L.
Access Road
Stage 2 Stockpile Expansion
Stage 1 Stockpiles
Rail Unloading Station
Reclamation Seawall
TASMAN SEA
Perimeter Road to Outer Harbour
Settling Pond
Nominal 800,000 tonnes Stockpile
Nominal 1,400,000 tonnes Stockpile
Existing Groyne

PORT KEMBLA
COAL FACILITY LAYOUT

KEY

1 Receival Offices and Amenities
2 Main Offices (Control Tower Above)
3 Main Amenities
4 Main Workshop
5 Auxiliary Workshop
6 Electrical Sub Station
7 Electrical Sub Station
8 Truck Wash Station


Normal Dredged Depth – 16.25m.
Datum
150,000 DWT. Centreline
20,000 DWT. Cnetreline
G
Fender Line
Clearance Line
Operating Range
17.0
10.0
7.0
34.0
Shuttle Movement
Parked Position

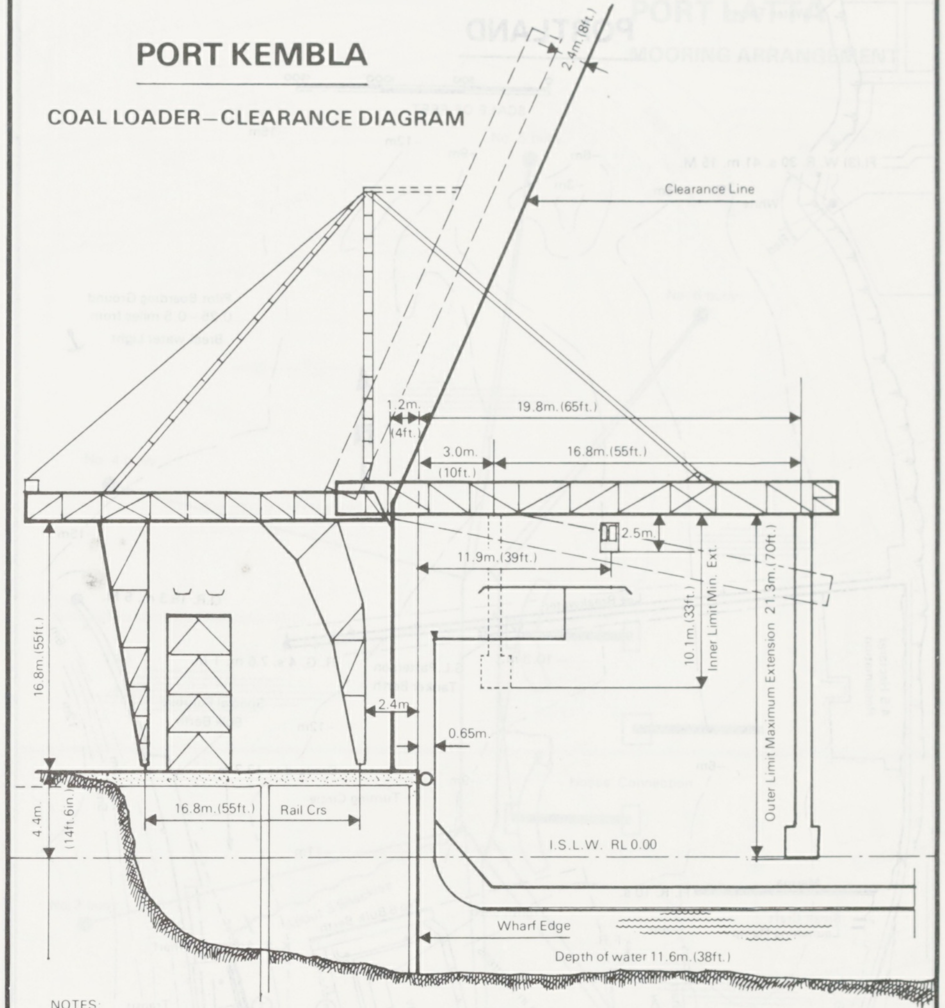
PORT KEMBLA

NEW COAL LOADER

DIMENSION IN METRES

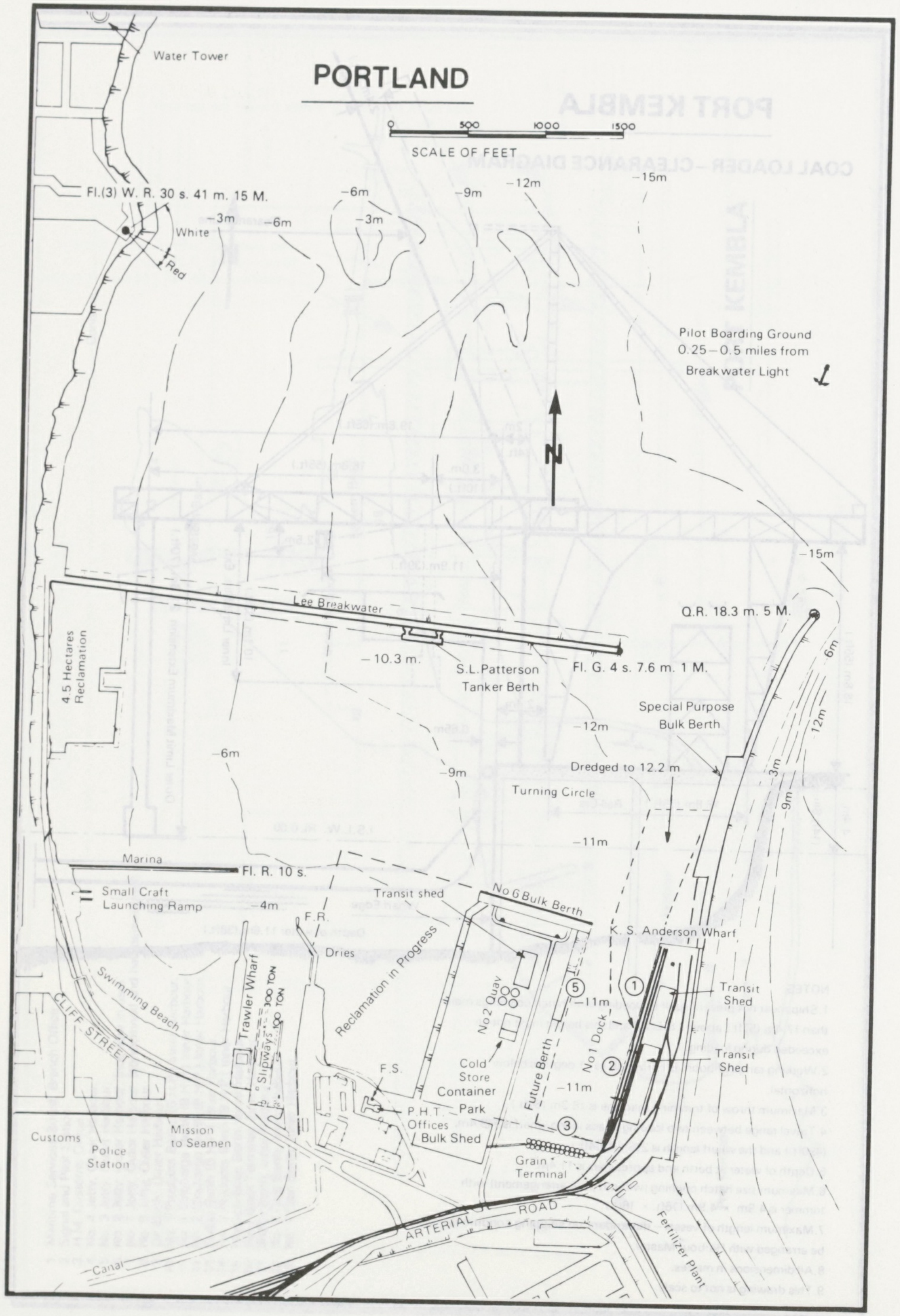
PORT KEMBLA

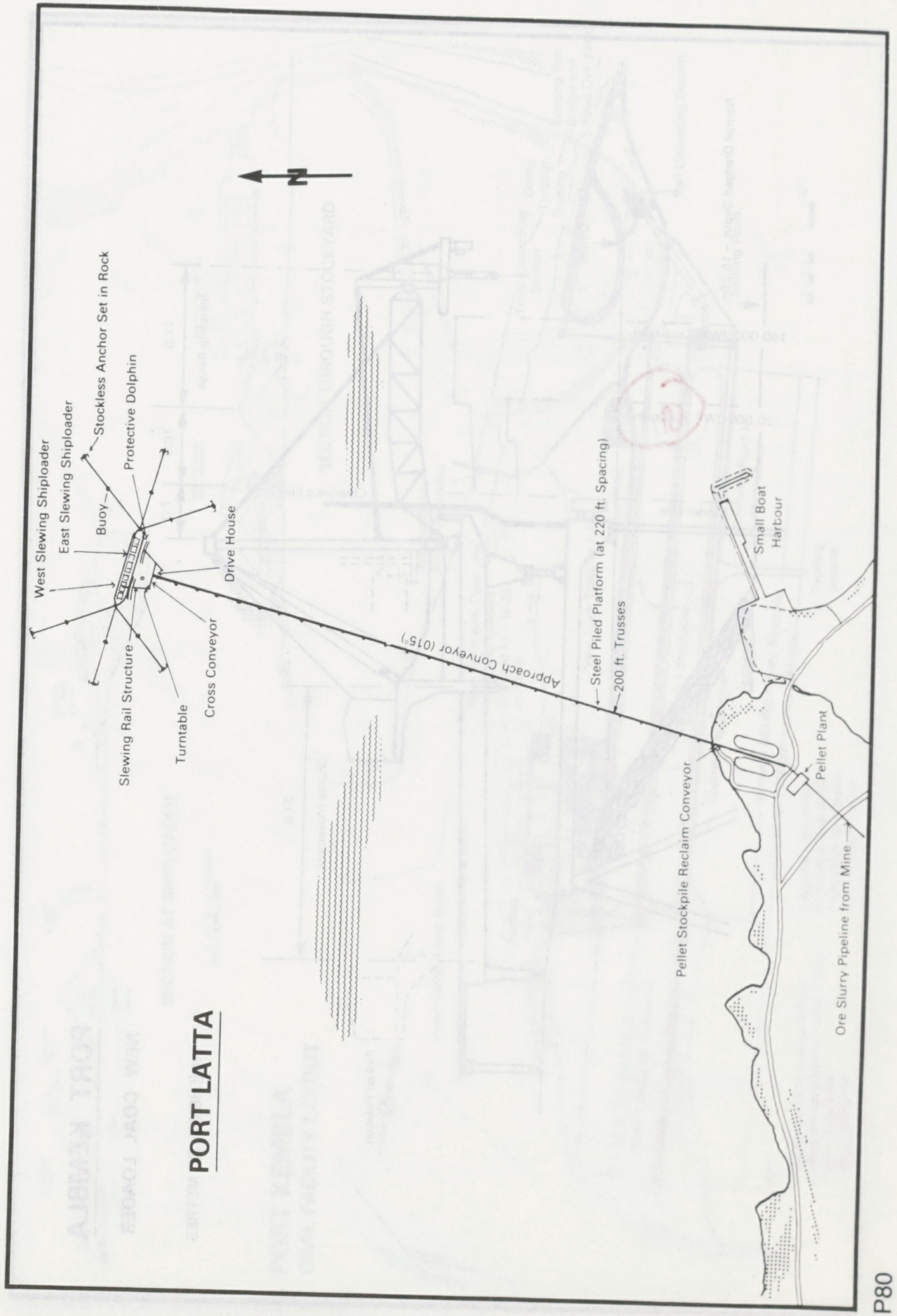
COAL LOADER—CLEARANCE DIAGRAM

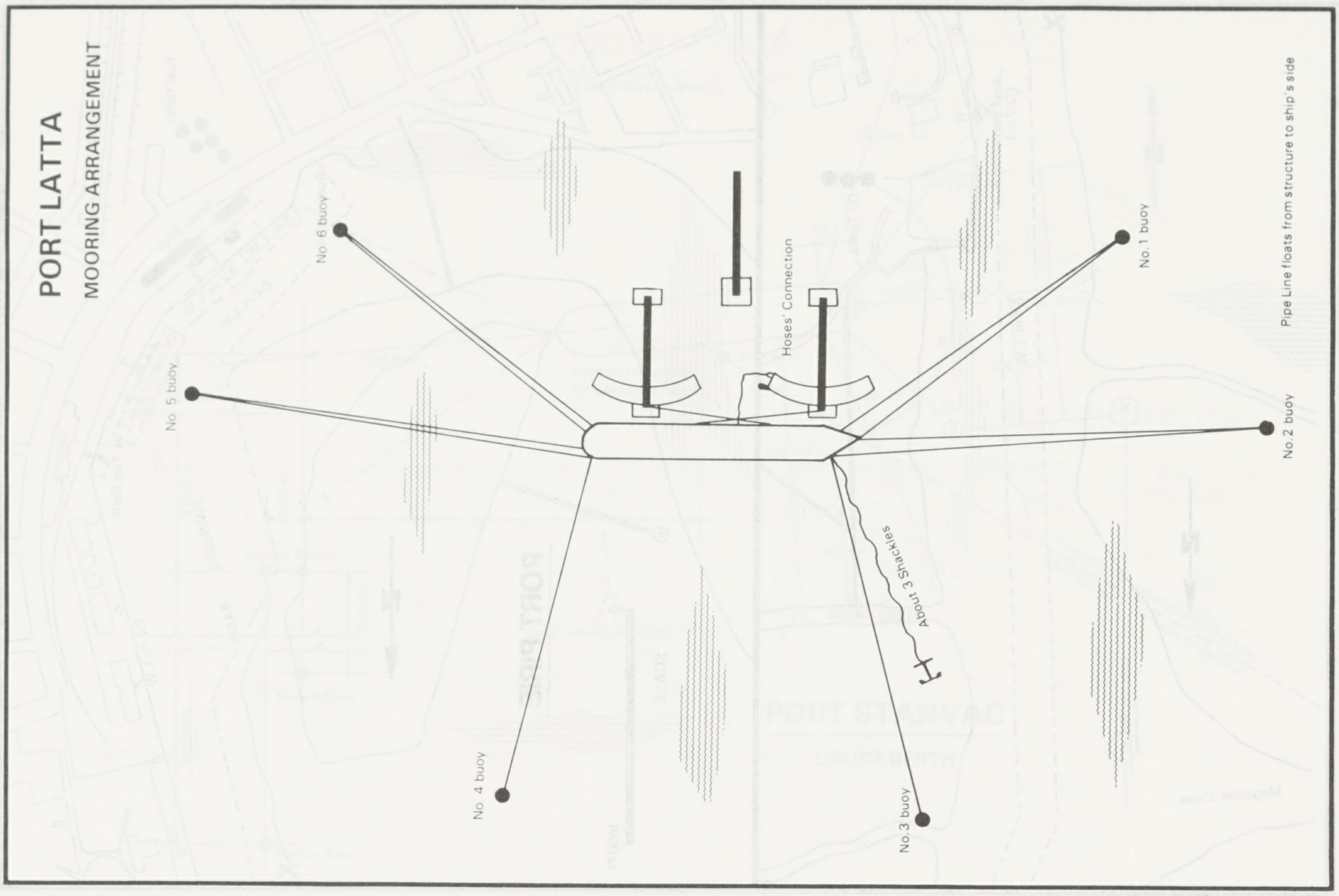

2.4m.(8ft.)
Clearance Line
1.2m.
(4ft.)
19.8m.(65ft.)
3.0m.
(10ft.)
16.8m.(55ft.)
2.5m.
11.9m.(39ft.)
10.1m.(33ft.)
Inner Limit Min. Ext.
Outer Limit Maximum Extension 21.3m.(70ft.)
16.8m.(55ft.)
2.4m
0.65m.
4.4m.
(14ft.6in.)
16.8m.(55ft.)
Rail Crs
I.S.L.W. RL 0.00
Wharf Edge
Depth of water 11.6m.(38ft.)

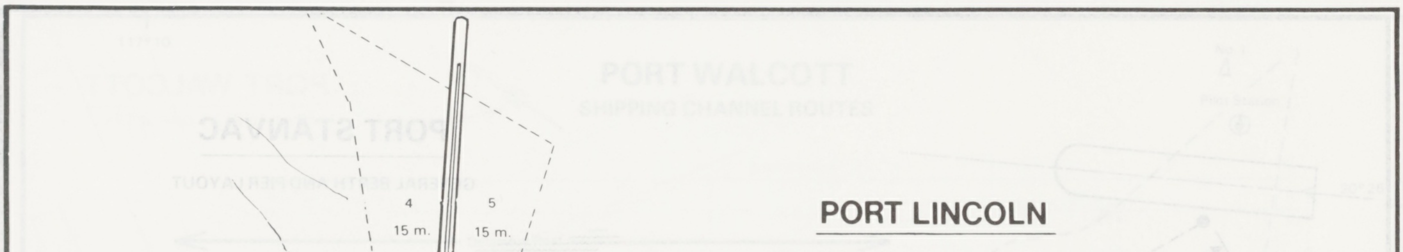
NOTES:

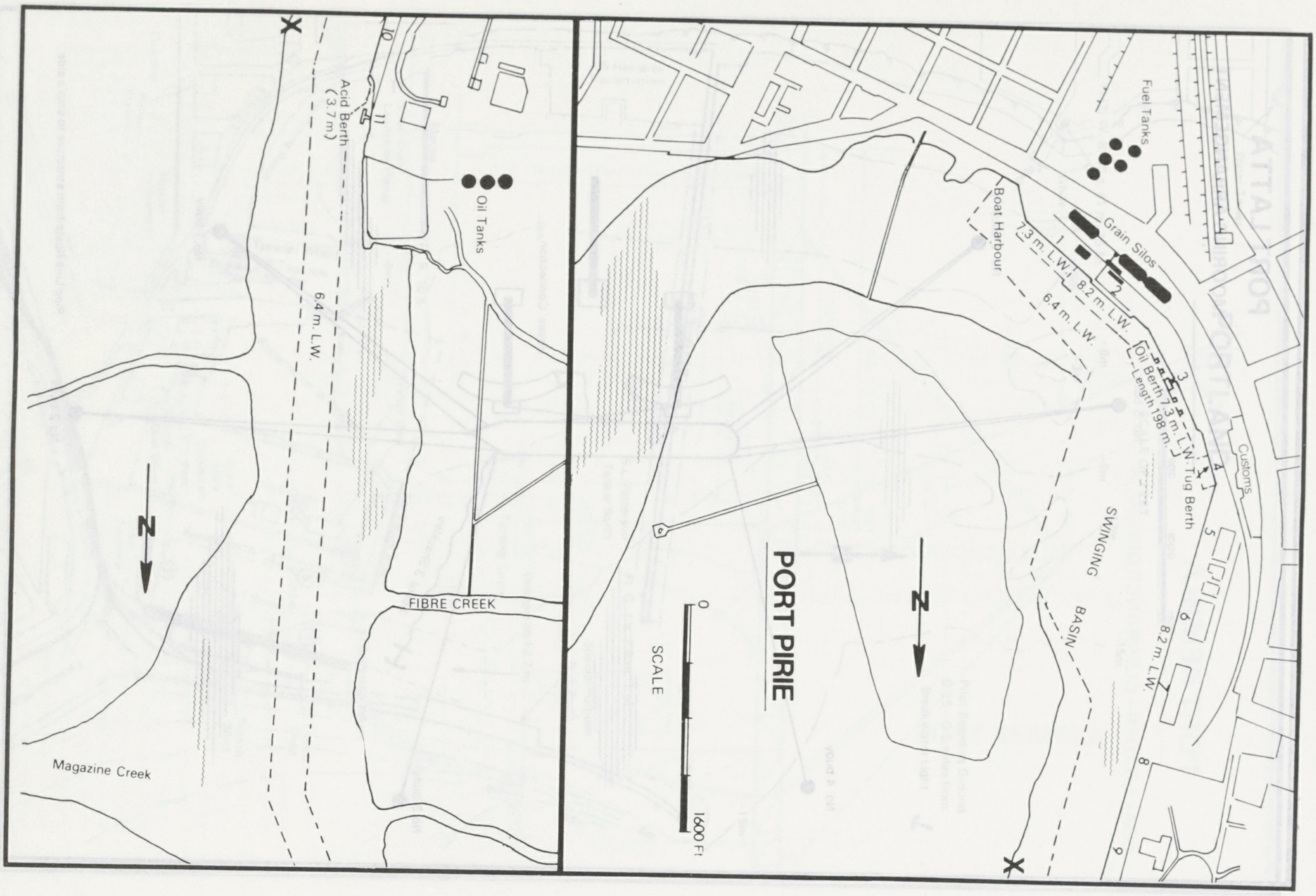
1. Ship must not present itself for loading with hatch coamings more than 17.4m.(57ft.) above I.S.L.W. and this height must not be exceeded during loading.
2. Working range of boom is horizontal to 11 degrees below horizontal.
3. Maximum throw of trimming machine is 18.3m.(60ft.)
4. Travel range between two loading heads along wharf is 149.4m.(490ft.) and the wharf length is 215m.(704ft.)
5. Depth of water at berth and approaches is 11.4m.
6. Minimum size hatch opening (without prior arrangement) with trimmer is 4.9m. × 4.9m.(16ft. × 16ft.).
7. Maximum length of vessel – dependent on shipping conditions – to be arranged with Harbour Master.
8. All dimensions in metres.
9. This drawing is not to scale.

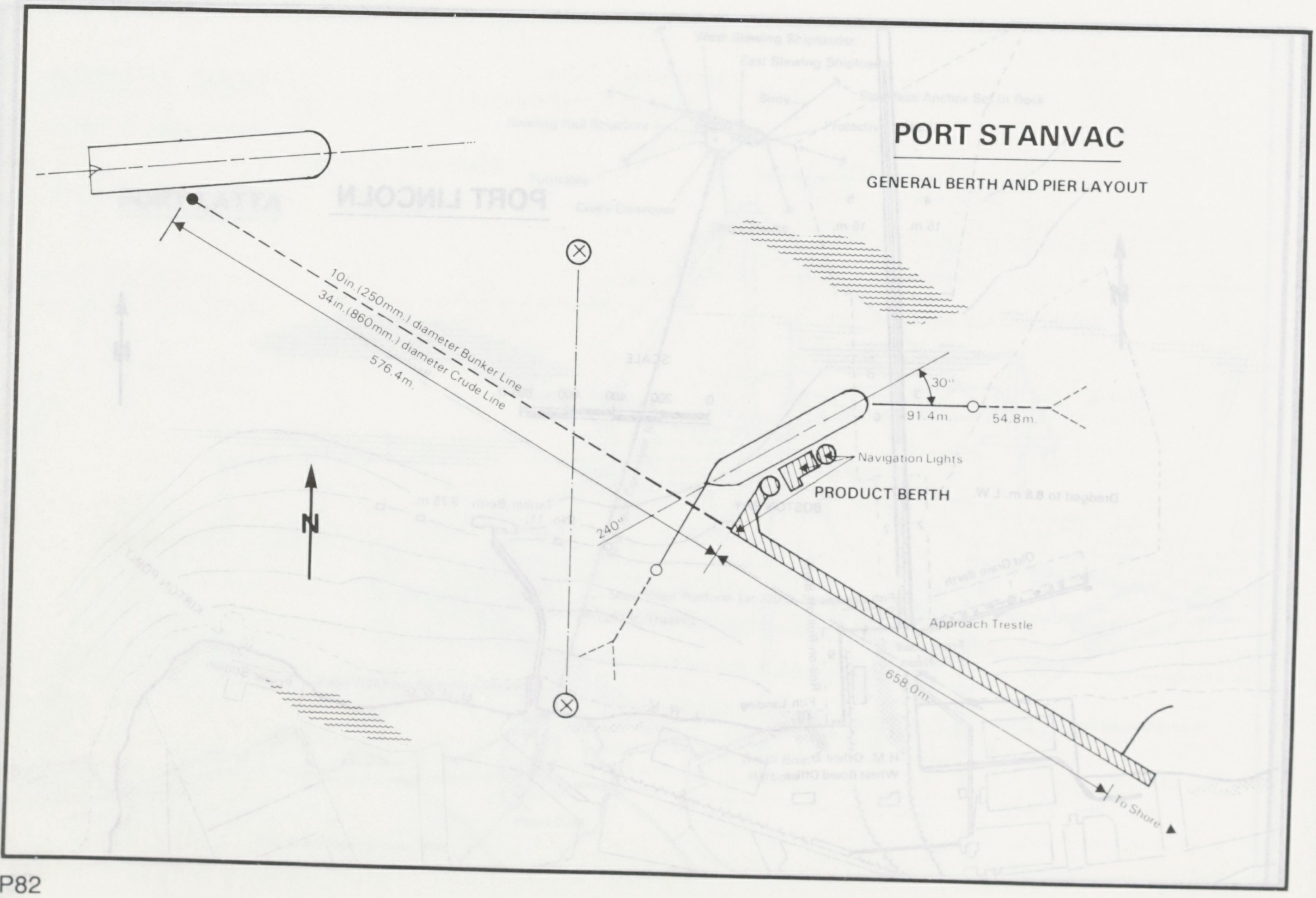

PORTLAND
SCALE OF FEET
0
500
1000
1500
Water Tower
Fl.(3) W. R. 30 s. 41 m. 15 M.
White
Red
–3m
–6m
–9m
–12m
–15m
Pilot Boarding Ground 0.25 – 0.5 miles from Breakwater Light
N
Lee Breakwater
4.5 Hectares Reclamation
–10.3 m.
S.L.Patterson Tanker Berth
Fl. G. 4 s. 7.6 m. 1 M.
Q.R. 18.3 m. 5 M.
Special Purpose Bulk Berth
Dredged to 12.2 m
Turning Circle
–11m
Marina
Fl. R. 10 s.
Small Craft Launching Ramp
–4m
F.R.
Dries
Transit shed
No 6 Bulk Berth
K. S. Anderson Wharf
Reclamation in Progress
Swimming Beach
CLIFF STREET
Trawler Wharf
Slipways
300 TON
100 TON
No 2 Quay
Future Berth
No 1 Dock
Transit Shed
Transit Shed
①
②
③
⑤
F.S.
Cold Store
Container Park
P.H.T. Offices
Bulk Shed
Grain Terminal
Customs
Police Station
Mission to Seamen
ARTERIAL ROAD
Fertilizer Plant
Canal


PORT LATTA
N
West Slewing Shiploader
East Slewing Shiploader
Stockless Anchor Set in Rock
Protective Dolphin
Buoy
Drive House
Slewing Rail Structure
Turntable
Cross Conveyor
Approach Conveyor (015°)
Steel Piled Platform (at 220 ft. Spacing)
200 ft. Trusses
Small Boat Harbour
Pellet Plant
Pellet Stockpile Reclaim Conveyor
Ore Slurry Pipeline from Mine


PORT LATTA
MOORING ARRANGEMENT
No. 6 buoy
No. 5 buoy
No. 4 buoy
No. 3 buoy
About 3 Shackles
Hoses' Connection
No. 1 buoy
No. 2 buoy
Pipe Line floats from structure to ship's side

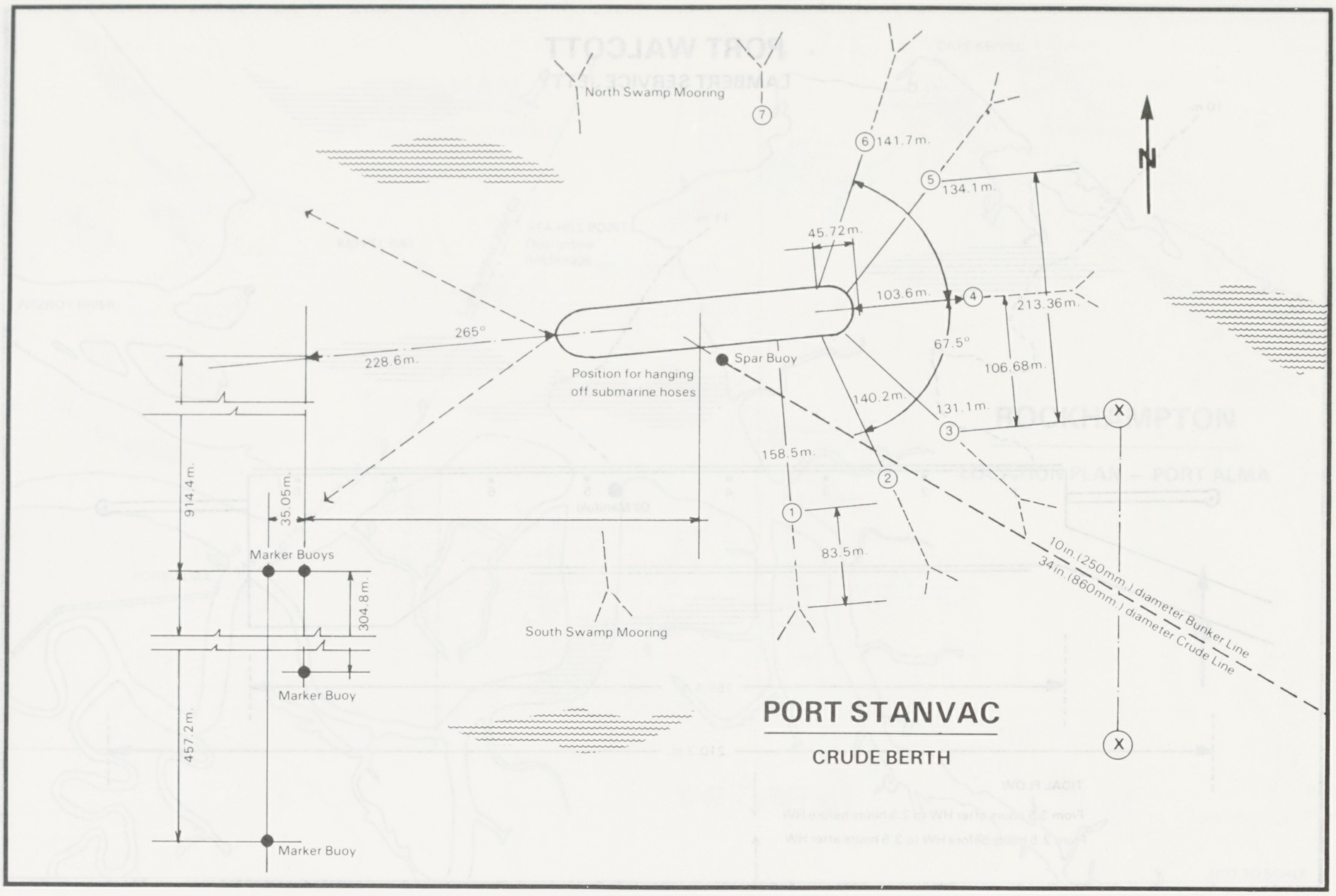

PORT LINCOLN
4
15 m.
5
15 m.
12 m.
3
6
SCALE
0 200 400 600 800 ft
Berthing Leads
N
Dredged to 8.8 m. L.W.
2
7
BOSTON BAY
Tanker Berth 9.75 m.
(No. 11)
Old Grain Berth
1
Fish Landing
Roll-on Roll-off Berth
9
Front Lead
F.R. Neon.
Fish Landing
10
L.W.M.
M.H.W.M.
KIRTON POINT
Power Station
H.M. Office &
Wheat Board Office


PORT PIRIE
Acid Berth (3.7 m.)
6.4 m. L.W.
Oil Tanks
FIBRE CREEK
Magazine Creek
N
10
11
SCALE
0
1600 Ft
Boat Harbour
Fuel Tanks
Grain Silos
7.3 m. L.W.
8.2 m. L.W.
6.4 m. L.W.
Oil Berth 7.3 m. L.W.
Length 198 m.
Tug Berth
Customs
SWINGING BASIN
8.2 m. L.W.
1
2
3
4
5
6
7
8
9


PORT STANVAC

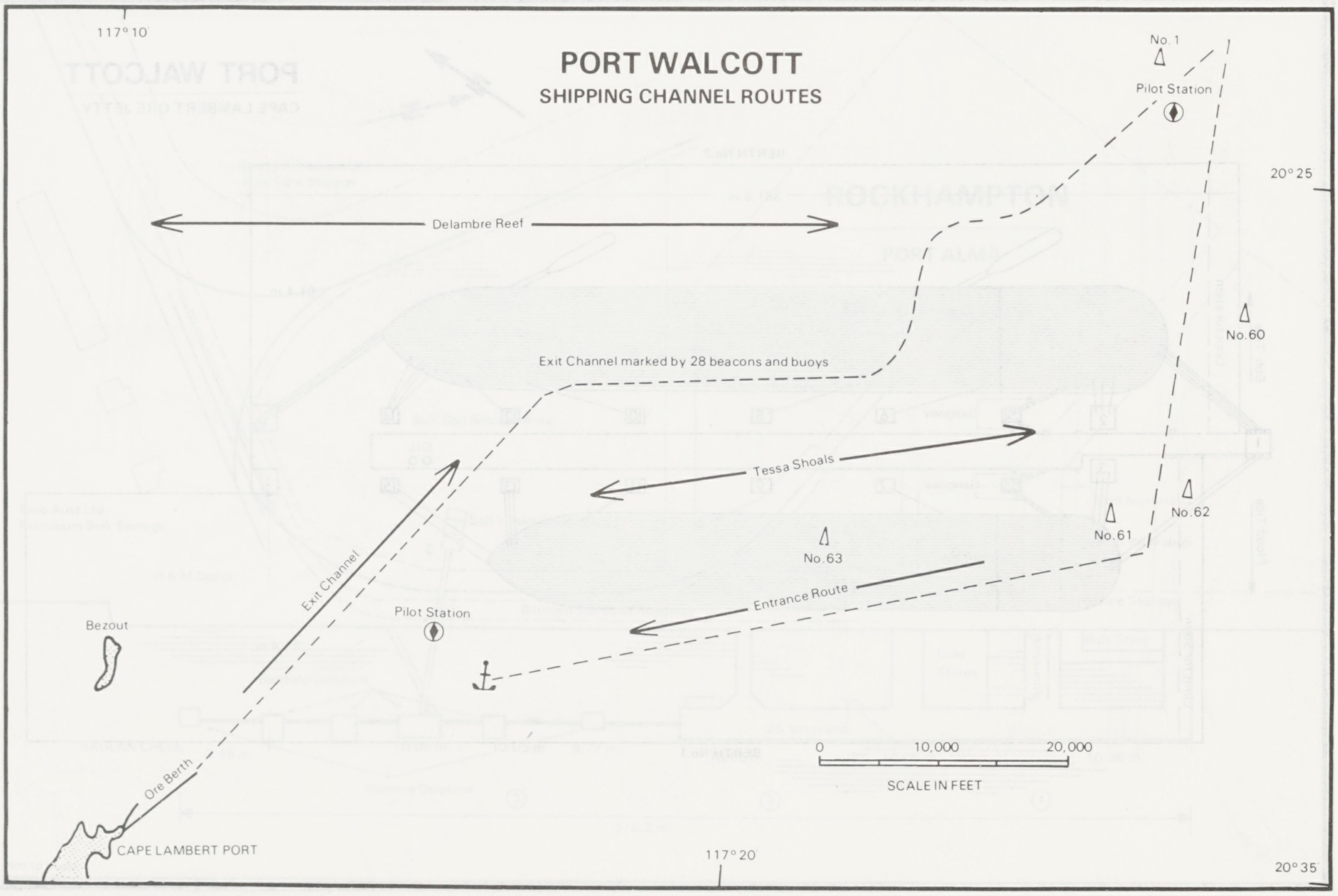
GENERAL BERTH AND PIER LAYOUT

10in.(250mm.) diameter Bunker Line
34in.(860mm.) diameter Crude Line
576.4m.
30°
91.4m.
54.8m.
Navigation Lights
PRODUCT BERTH
240°
N
Approach Trestle
658.0m.
To Shore


North Swamp Mooring
7
6 141.7m.
5 134.1m.
N
45.72m.
103.6m.
4
213.36m.
265°
228.6m.
67.5°
106.68m.
Position for hanging off submarine hoses
Spar Buoy
140.2m.
131.1m.
3
X
158.5m.
2
1
914.4m.
35.05m.
83.5m.
Marker Buoys
304.8m
South Swamp Mooring
10in (250mm.) diameter Bunker Line
34in (860mm.) diameter Crude Line
Marker Buoy
457.2m
Marker Buoy
X

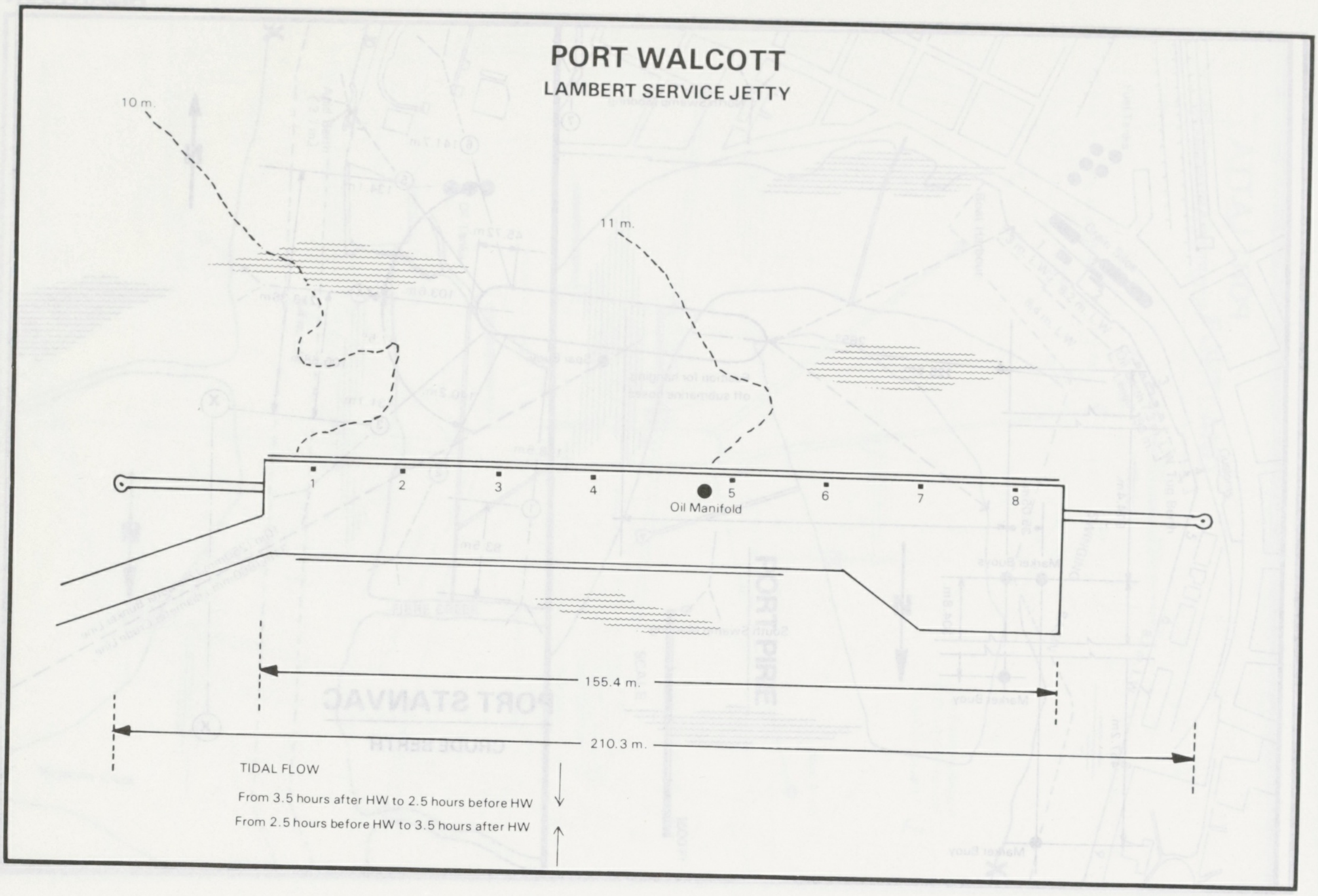
PORT STANVAC

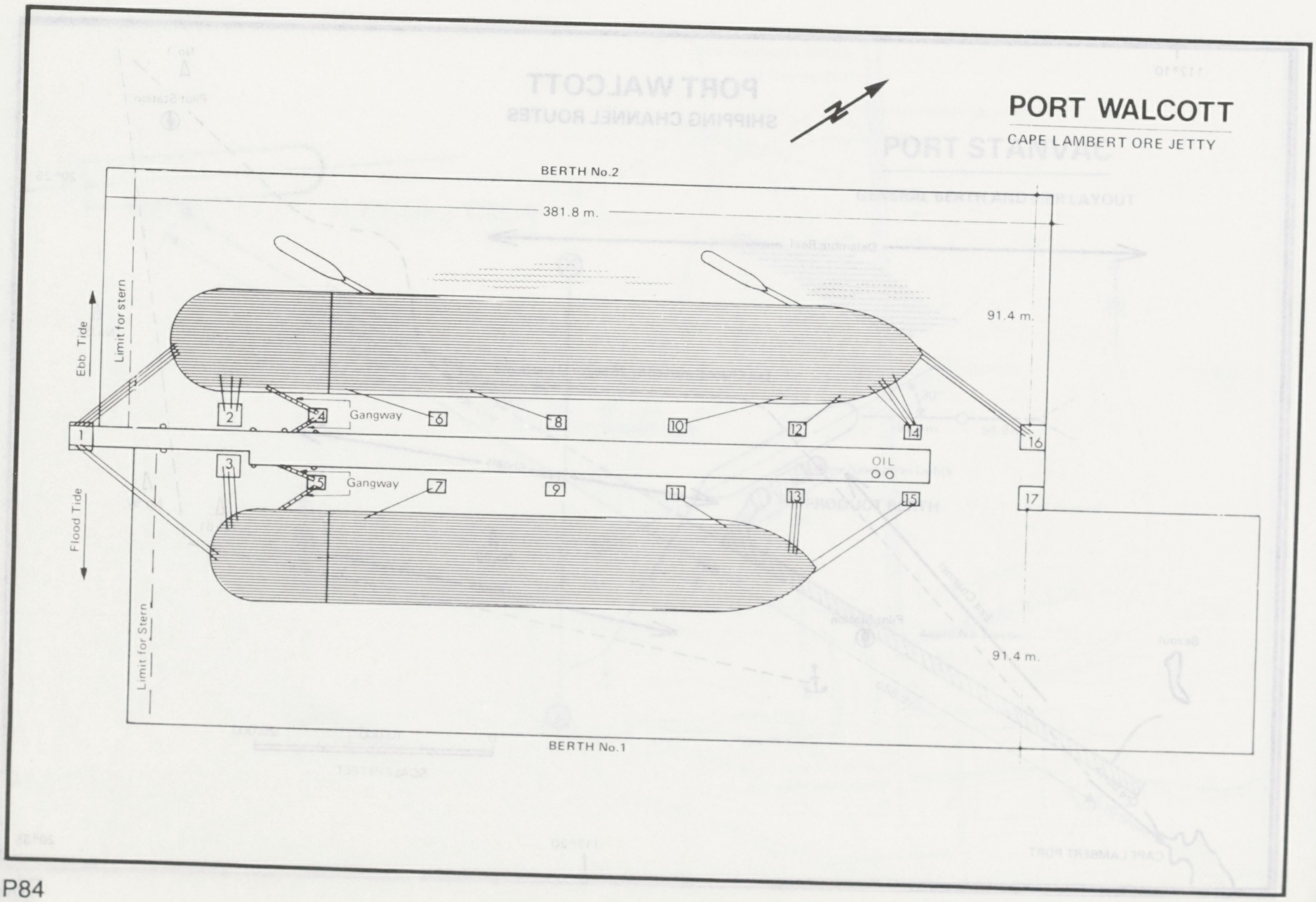
CRUDE BERTH

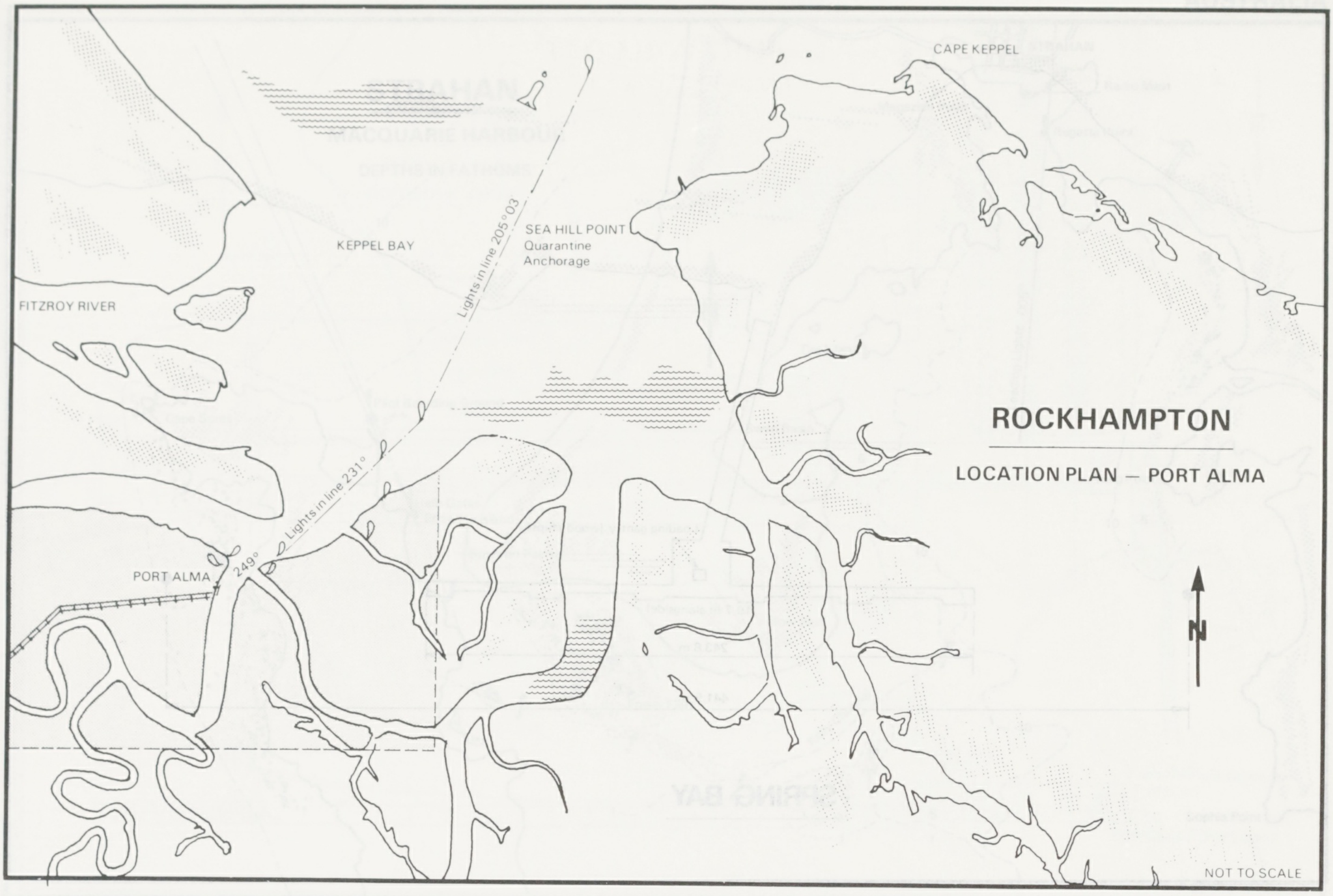

117°10
No. 1
Pilot Station
20°25
Delambre Reef
No.60
Exit Channel marked by 28 beacons and buoys
Tessa Shoals
No.61
No.62
No.63
Exit Channel
Entrance Route
Bezout
Pilot Station
0
10,000
20,000
SCALE IN FEET
Ore Berth
CAPE LAMBERT PORT
117°20
20°35

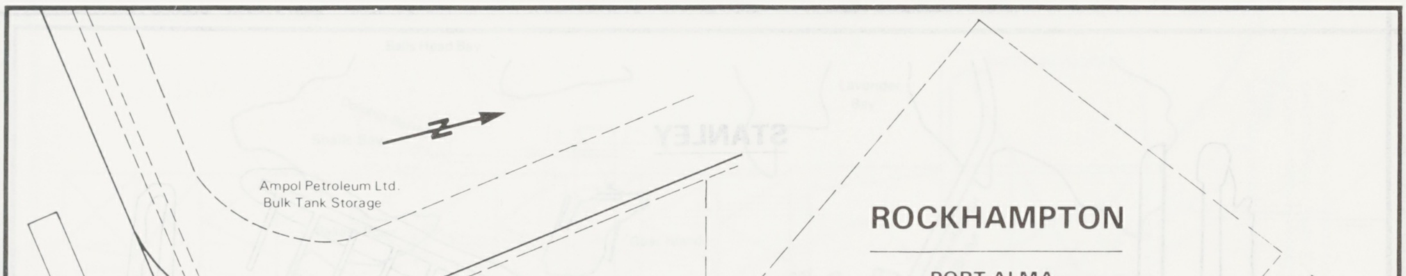
PORT WALCOTT

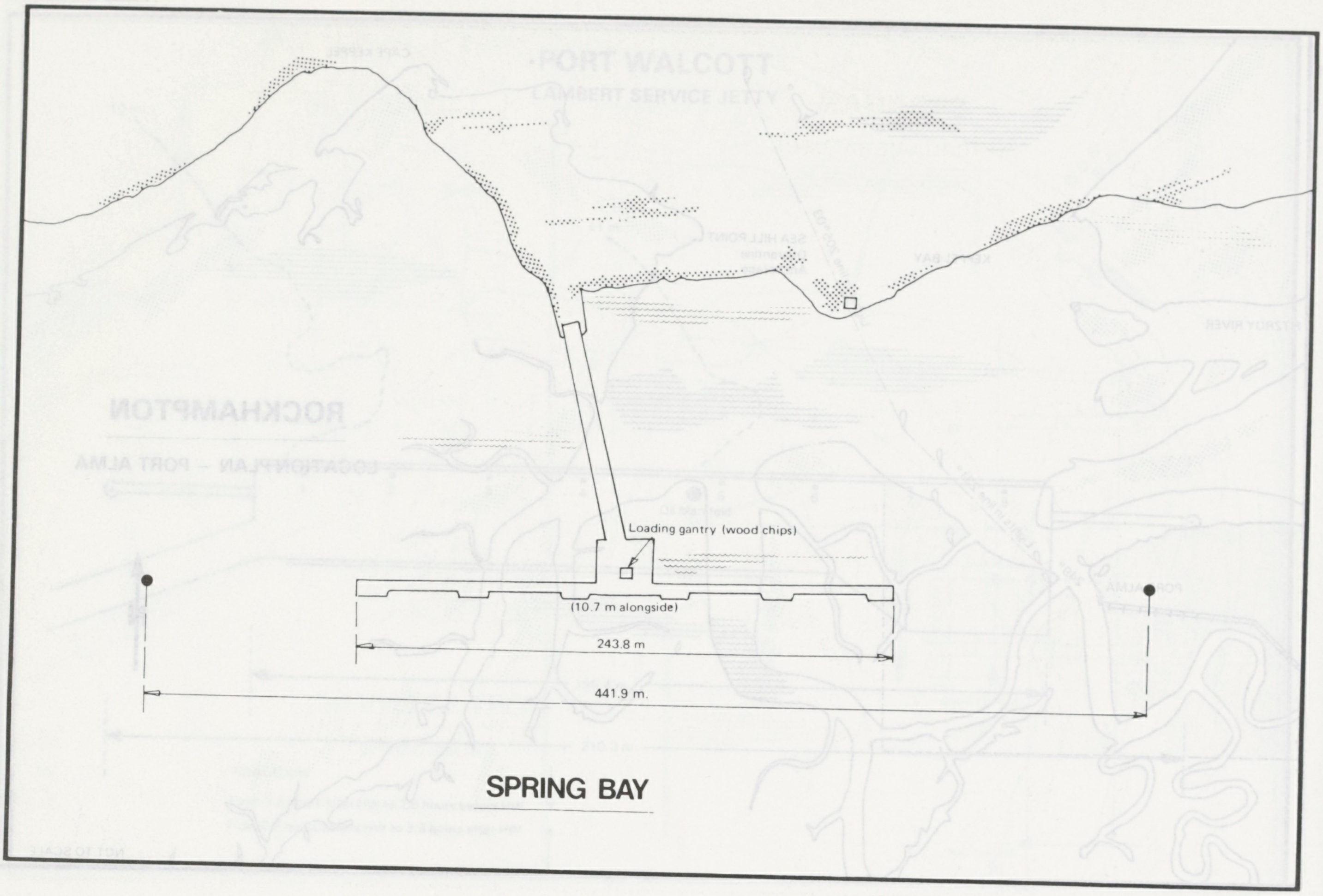
SHIPPING CHANNEL ROUTES


PORT WALCOTT
LAMBERT SERVICE JETTY
10 m.
11 m.
1
2
3
4
5
6
7
8
Oil Manifold
155.4 m.
210.3 m.
TIDAL FLOW
From 3.5 hours after HW to 2.5 hours before HW
From 2.5 hours before HW to 3.5 hours after HW

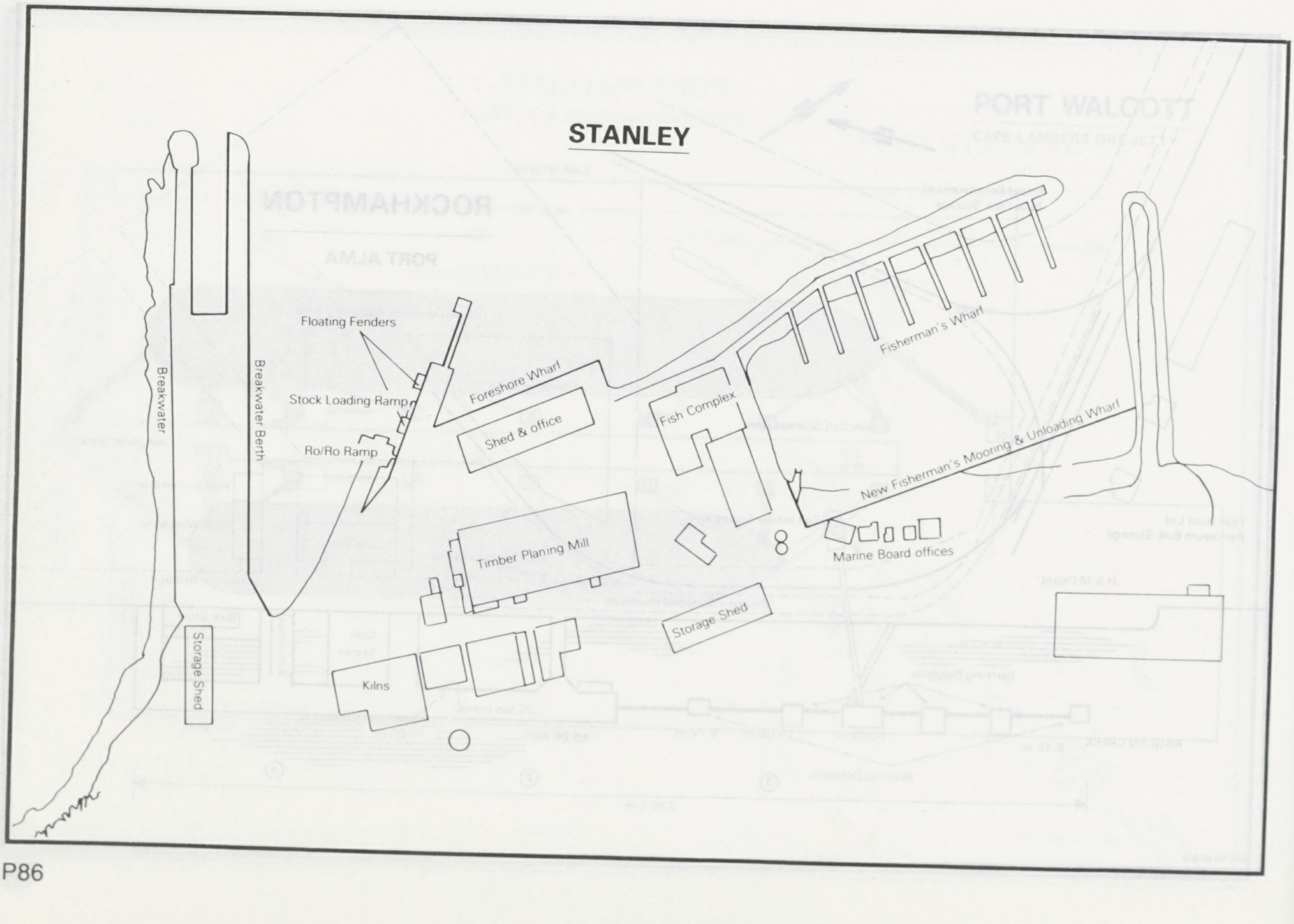

PORT WALCOTT
CAPE LAMBERT ORE JETTY
BERTH No.2
381.8 m.
91.4 m.
Ebb Tide
Limit for stern
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Gangway
Gangway
OIL
Flood Tide
Limit for Stern
91.4 m.
BERTH No.1


CAPE KEPPEL
KEPPEL BAY
SEA HILL POINT
Quarantine
Anchorage
FITZROY RIVER
Lights in line 205°03
Lights in line 231°
249°
PORT ALMA
ROCKHAMPTON
LOCATION PLAN – PORT ALMA
N
NOT TO SCALE

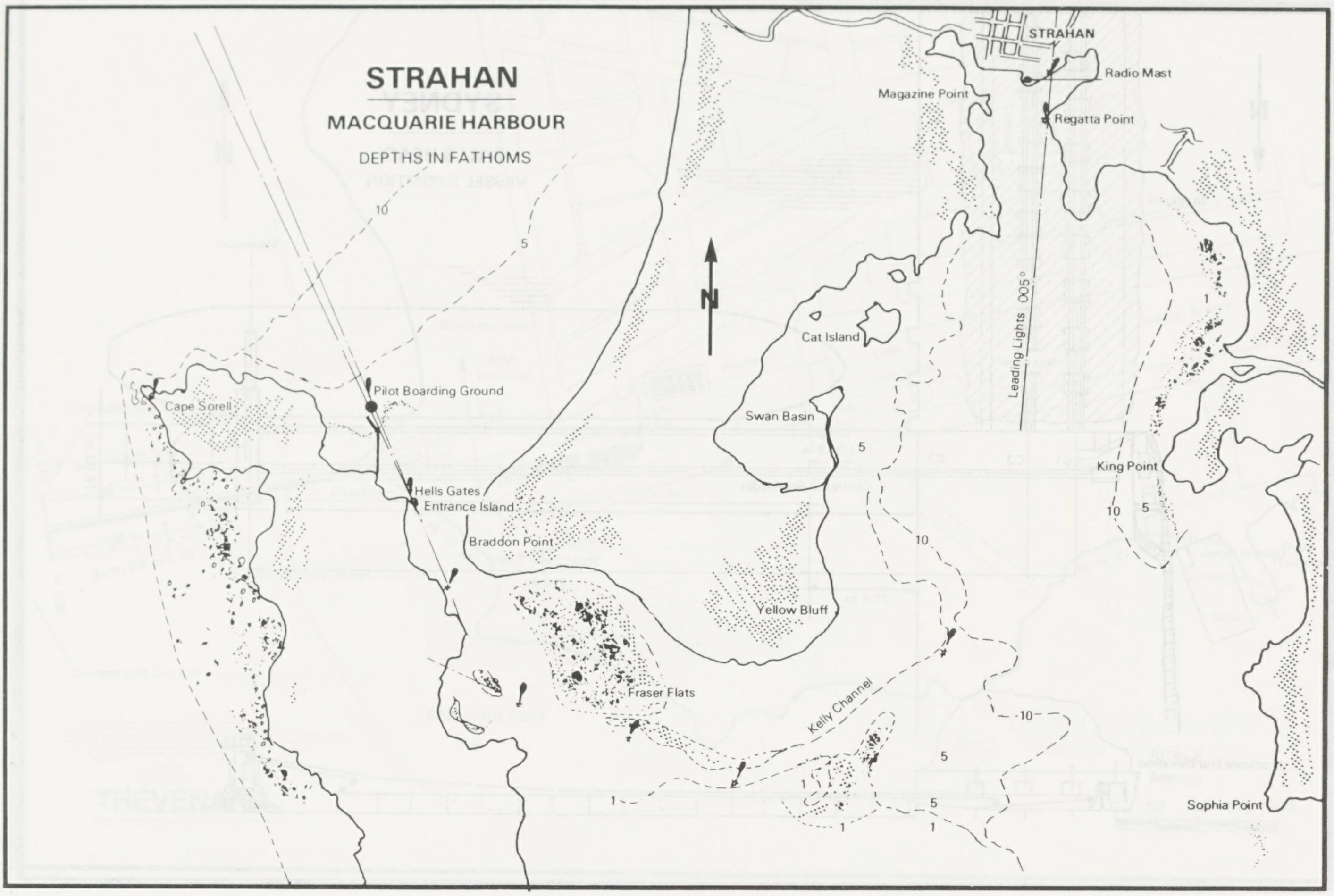

N
Ampol Petroleum Ltd.
Bulk Tank Storage
ROCKHAMPTON
PORT ALMA
Future Container Assembly Area
Container Area
Bulk Salt Storage Area
Industrial Area
Port Incinerator
RHB Workshop
Esso Aust Ltd
Petroleum Bulk Storage
Salt Intake Structure
Cold Stores
H & M Depot
ANL Container Area
Stevedore Storage
Bitumen Surfaced Roadway
Cold
Stores
Amenities
Bulk Store
Berthing Dolphins
25 ton crane
RAGLAN CREEK
9.46 m.
10.05 m.
10.05 m.
9.77 m.
10.05 m.
10.05 m.
10.36 m.
Mooring Dolphins
③
②
①
576.2 m.
Not to scale

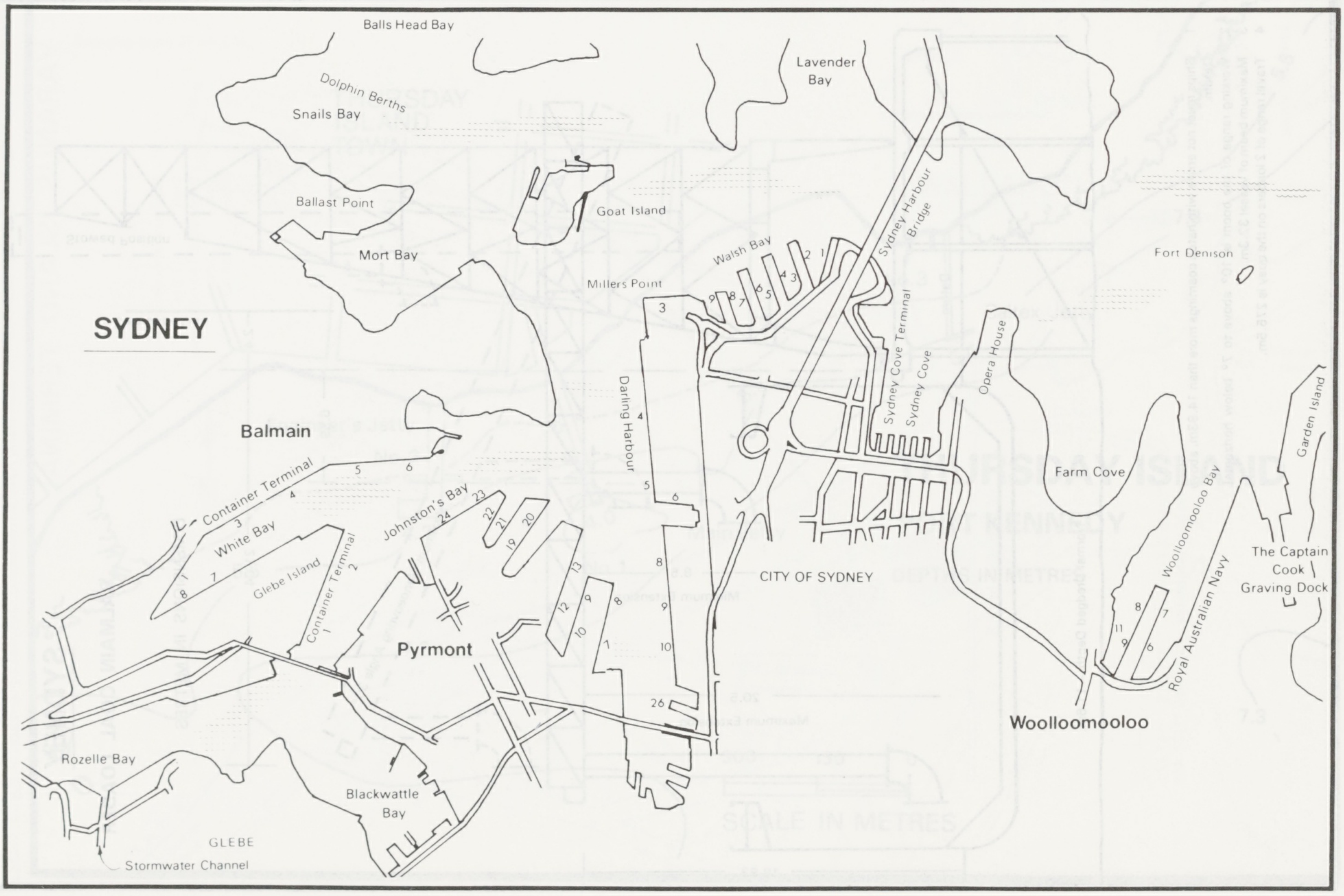

Loading gantry (wood chips)
(10.7 m alongside)
243.8 m
441.9 m.

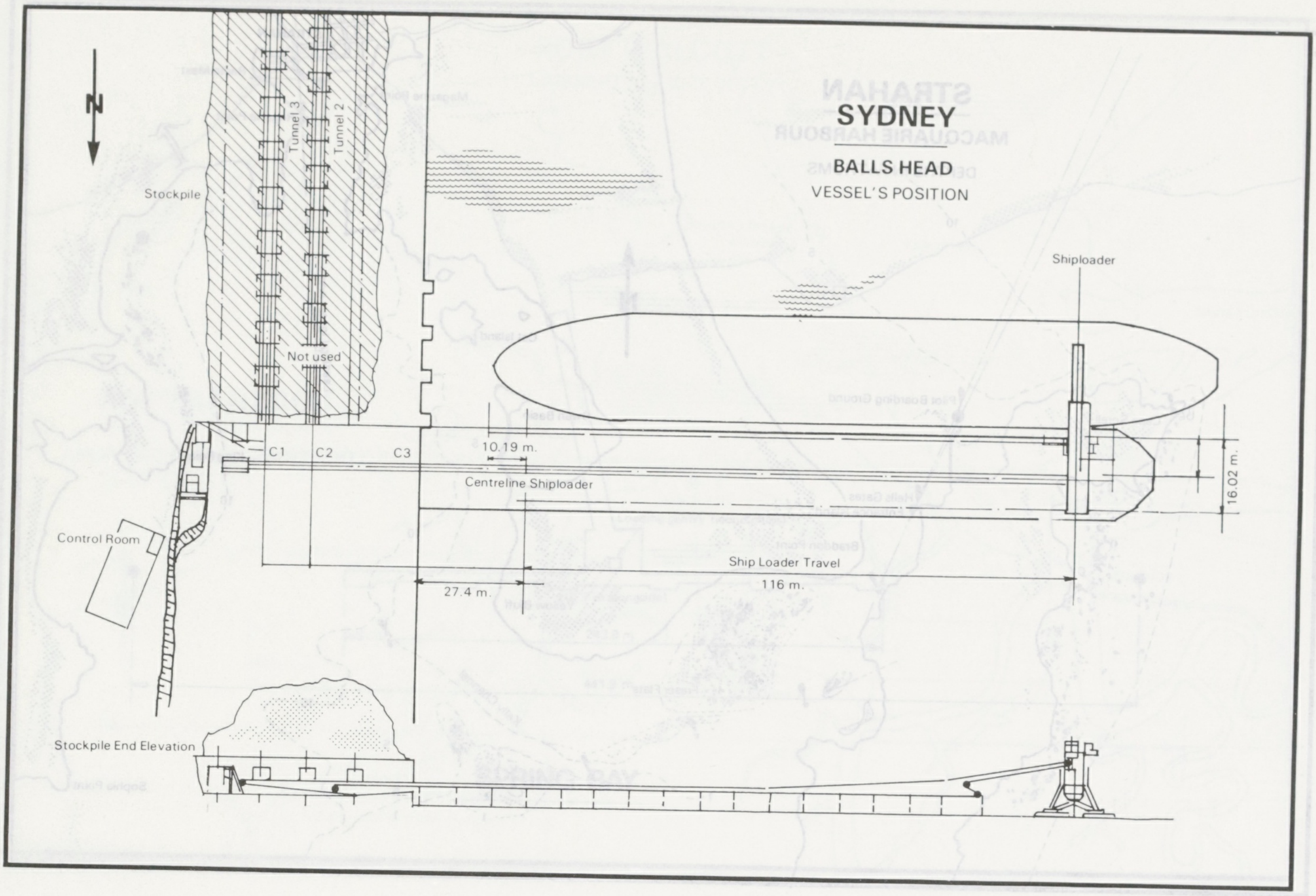
SPRING BAY


STANLEY

Floating Fenders
Stock Loading Ramp
Ro/Ro Ramp
Breakwater
Breakwater Berth
Foreshore Wharf
Shed & office
Fish Complex
Fisherman's Wharf
New Fisherman's Mooring & Unloading Wharf
Timber Planing Mill
Marine Board offices
Storage Shed
Storage Shed
Kilns


STRAHAN
MACQUARIE HARBOUR
DEPTHS IN FATHOMS
N
STRAHAN
Radio Mast
Magazine Point
Regatta Point
Leading Lights 005°
Cat Island
Swan Basin
Pilot Boarding Ground
Cape Sorell
Hells Gates
Entrance Island
Braddon Point
Yellow Bluff
Fraser Flats
Kelly Channel
King Point
Sophia Point
10
5
1
10
5
-10-
5
1
1
1
5


SYDNEY
Balls Head Bay
Lavender Bay
Dolphin Berths
Snails Bay
Ballast Point
Goat Island
Mort Bay
Walsh Bay
Millers Point
Sydney Harbour Bridge
Sydney Cove Terminal
Sydney Cove
Opera House
Fort Denison
Darling Harbour
Balmain
Container Terminal
White Bay
Johnston's Bay
Glebe Island
Container Terminal
Pyrmont
CITY OF SYDNEY
Farm Cove
Garden Island
Woolloomooloo Bay
The Captain Cook Graving Dock
Royal Australian Navy
Woolloomooloo
Rozelle Bay
Blackwattle Bay
GLEBE
Stormwater Channel

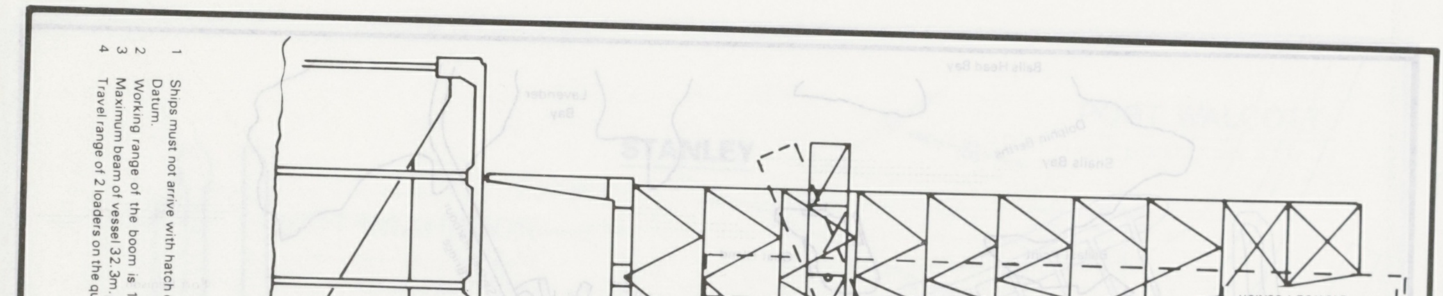


SYDNEY

BALLS HEAD

VESSEL'S POSITION

N
Stockpile
Tunnel 3
Tunnel 2
Not used
C1
C2
C3
10.19 m.
Centreline Shiploader
Shiploader
16.02 m.
Control Room
Ship Loader Travel
27.4 m.
116 m.
Stockpile End Elevation



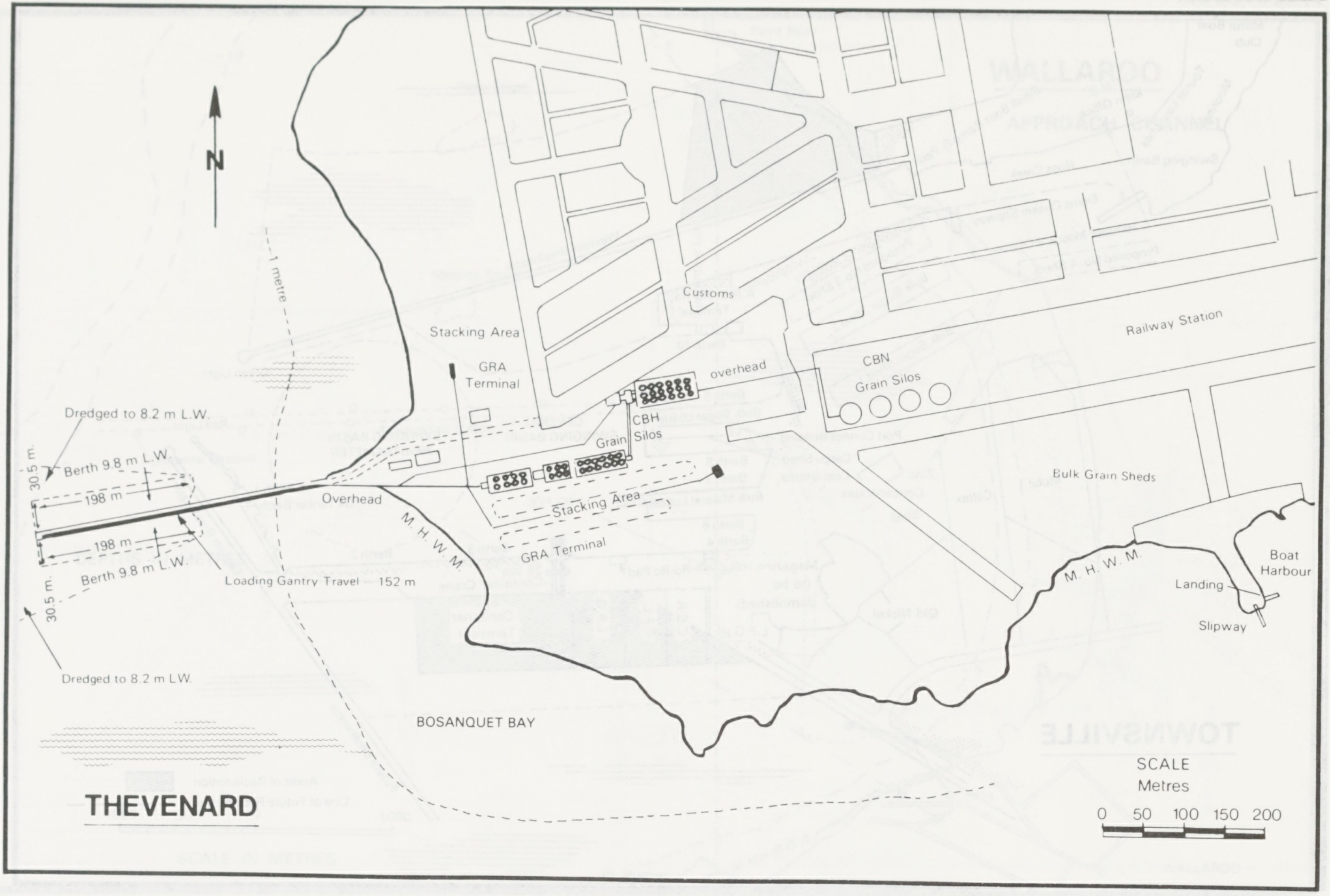
SYDNEY

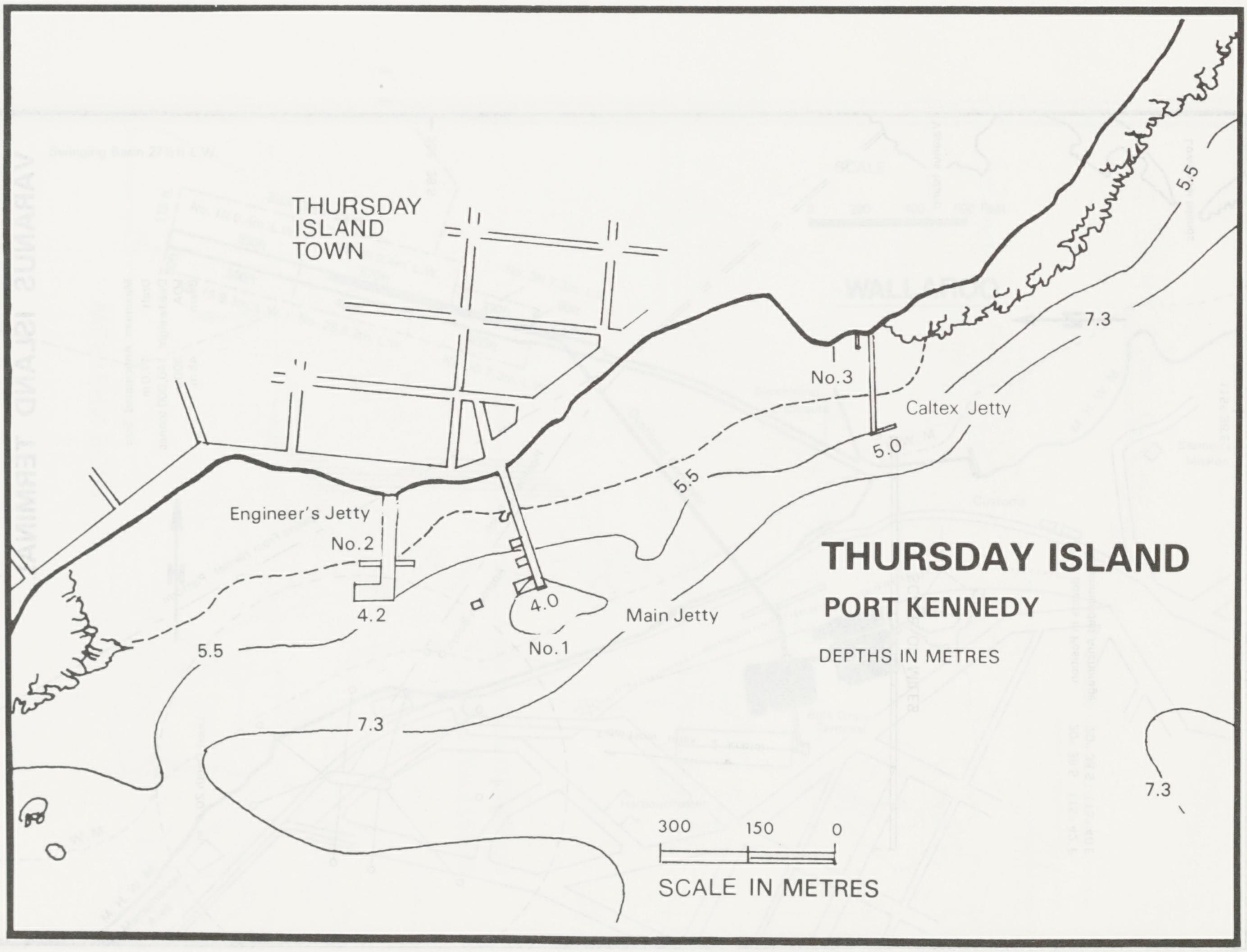
BALMAIN COAL LOADER

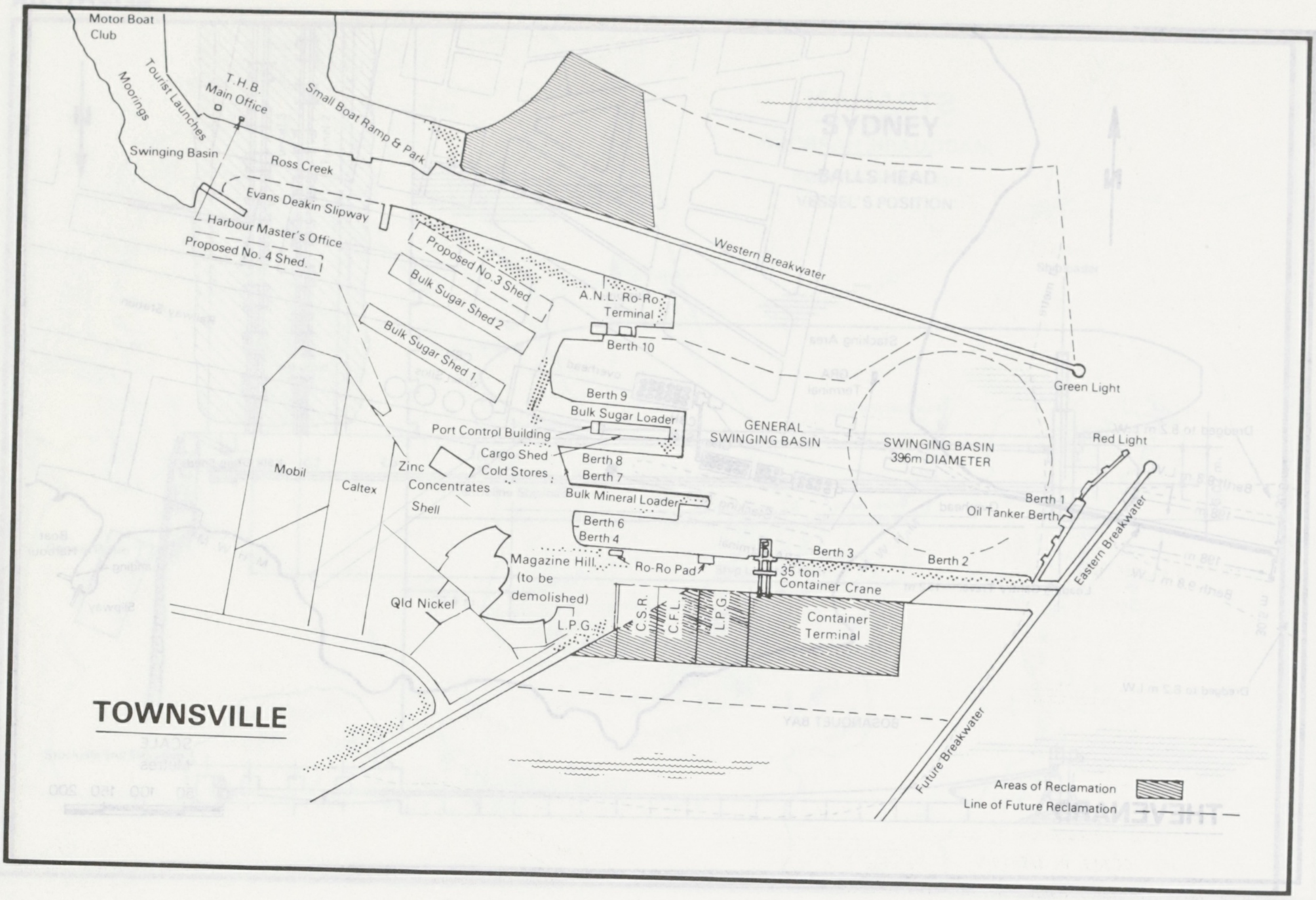
DIMENSIONS IN METRES

1 Ships must not arrive with hatch coamings more than 14.93m. above Datum.
2 Working range of the boom is 10° above to 7° below horizontal.
3 Maximum beam of vessel 32.3m.
4 Travel range of 2 loaders on the quay is 275.5m.

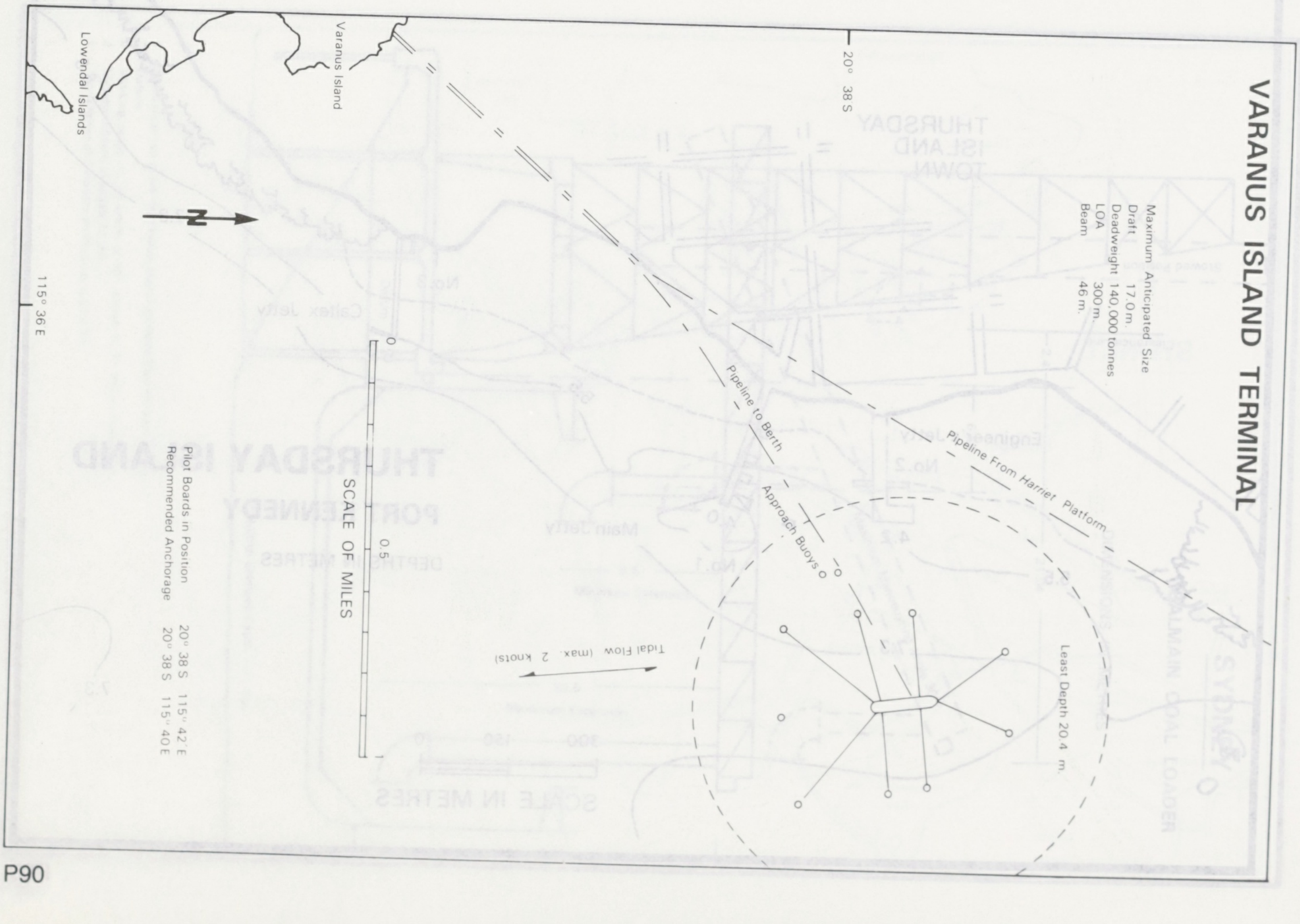
Stowed Position
Clearance Line
2.4
6.59
21.04
Datum
Maximum Manoeuvring Angle 30°
8.5
Minimum Extension
20.5
Maximum Extension
18.83
Normal Dredged Depth – 11.6m.


N
1 metre
Customs
Stacking Area
GRA Terminal
overhead
Railway Station
CBN Grain Silos
CBH Grain Silos
Dredged to 8.2 m L.W.
30.5 m.
Berth 9.8 m L.W.
198 m
198 m
Berth 9.8 m L.W.
30.5 m.
Overhead
M. H. W. M.
Stacking Area
GRA Terminal
Loading Gantry Travel 152 m
Bulk Grain Sheds
M. H. W. M.
Boat Harbour
Landing
Slipway
Dredged to 8.2 m LW.
BOSANQUET BAY
THEVENARD
SCALE Metres
0 50 100 150 200


THURSDAY ISLAND TOWN
5.5
7.3
No.3
Caltex Jetty
5.0
5.5
Engineer's Jetty
No.2
4.2
4.0
No.1
Main Jetty
5.5
7.3
THURSDAY ISLAND
PORT KENNEDY
DEPTHS IN METRES
300 150 0
SCALE IN METRES
7.3


Motor Boat Club
Moorings
Tourist Launches
T.H.B Main Office
Small Boat Ramp & Park
Swinging Basin
Ross Creek
Evans Deakin Slipway
Harbour Master's Office
Proposed No. 4 Shed.
Proposed No.3 Shed
Bulk Sugar Shed 2
Bulk Sugar Shed 1
Western Breakwater
A.N.L. Ro-Ro Terminal
Berth 10
Berth 9
Bulk Sugar Loader
Port Control Building
Cargo Shed
Cold Stores
Berth 8
Berth 7
GENERAL SWINGING BASIN
SWINGING BASIN 396m DIAMETER
Green Light
Red Light
Mobil
Caltex
Zinc Concentrates
Shell
Bulk Mineral Loader
Berth 6
Berth 4
Berth 1
Oil Tanker Berth
Eastern Breakwater
Magazine Hill (to be demolished)
Ro-Ro Pad
Berth 3
Berth 2
35 ton Container Crane
Qld Nickel
L.P.G.
C.S.R.
C.F.L.
L.P.G.
Container Terminal
Future Breakwater
Areas of Reclamation ▨
Line of Future Reclamation —

TOWNSVILLE

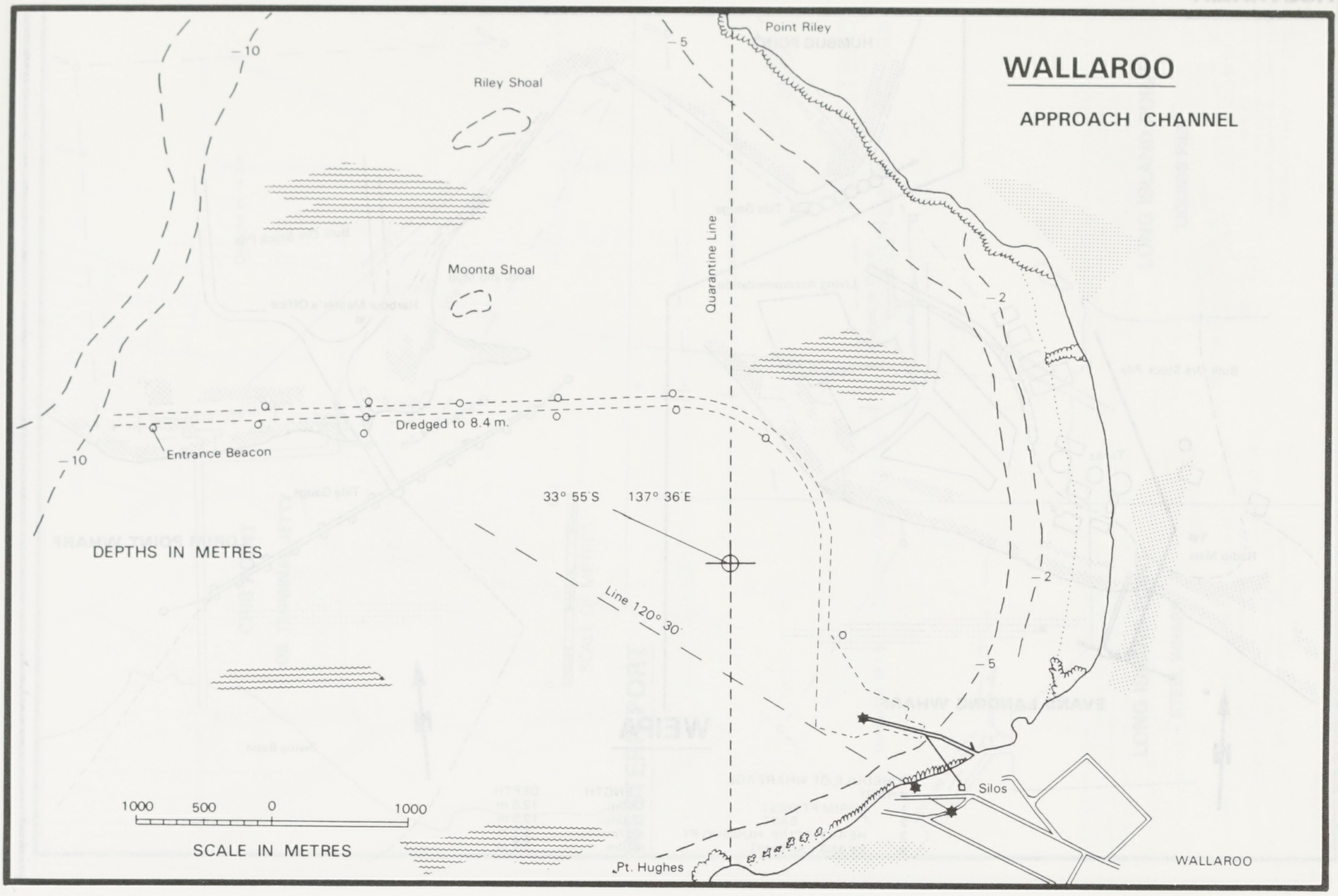

Lowendal Islands
Varanus Island
N
20° 38 S
115° 36 E
SCALE OF MILES
0
0.5
1
Pipeline to Berth
Pipeline From Harriet Platform
Approach Buoys
Tidal Flow (max. 2 knots)
Least Depth 20.4 m.

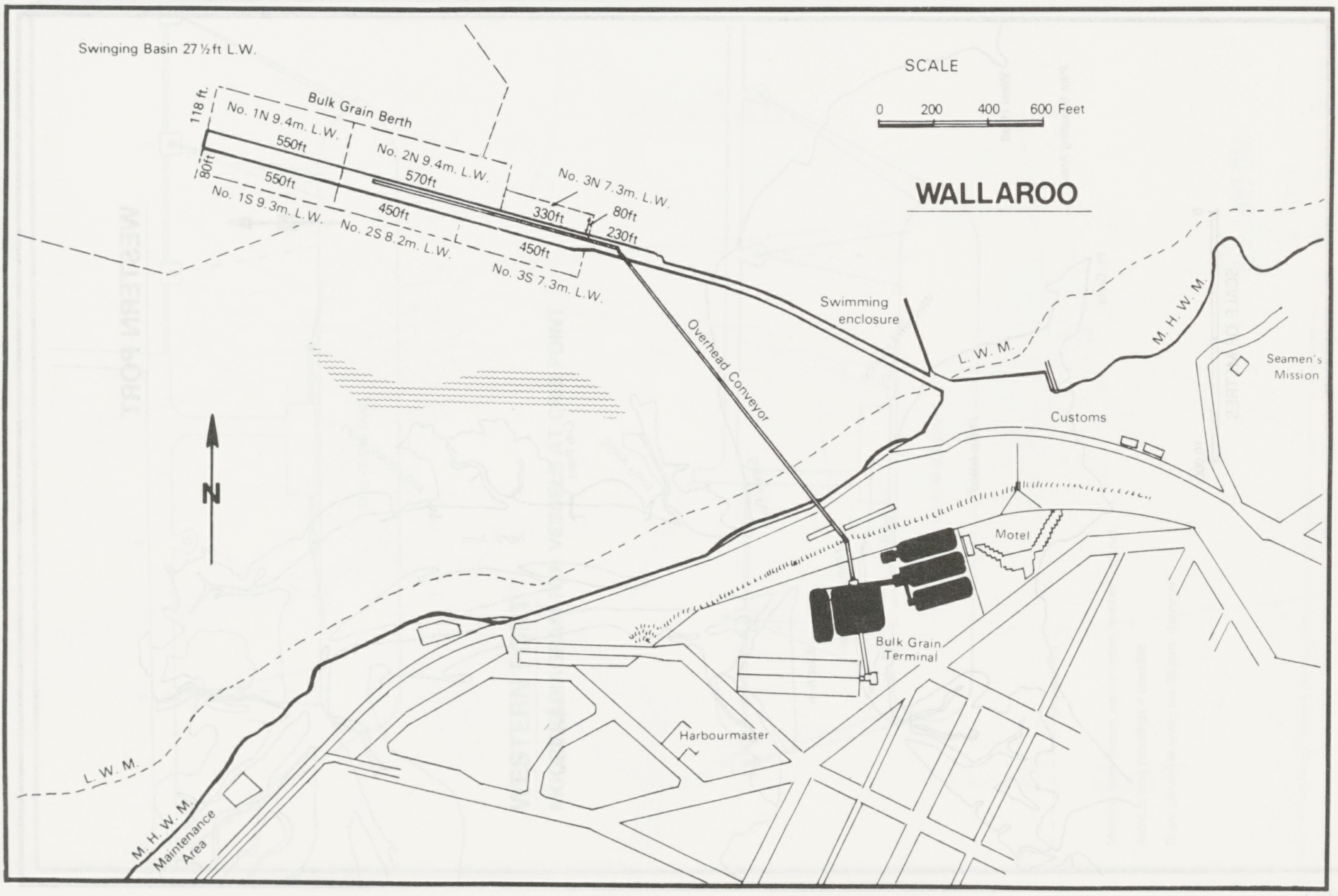
VARANUS ISLAND TERMINAL

Maximum Anticipated Size

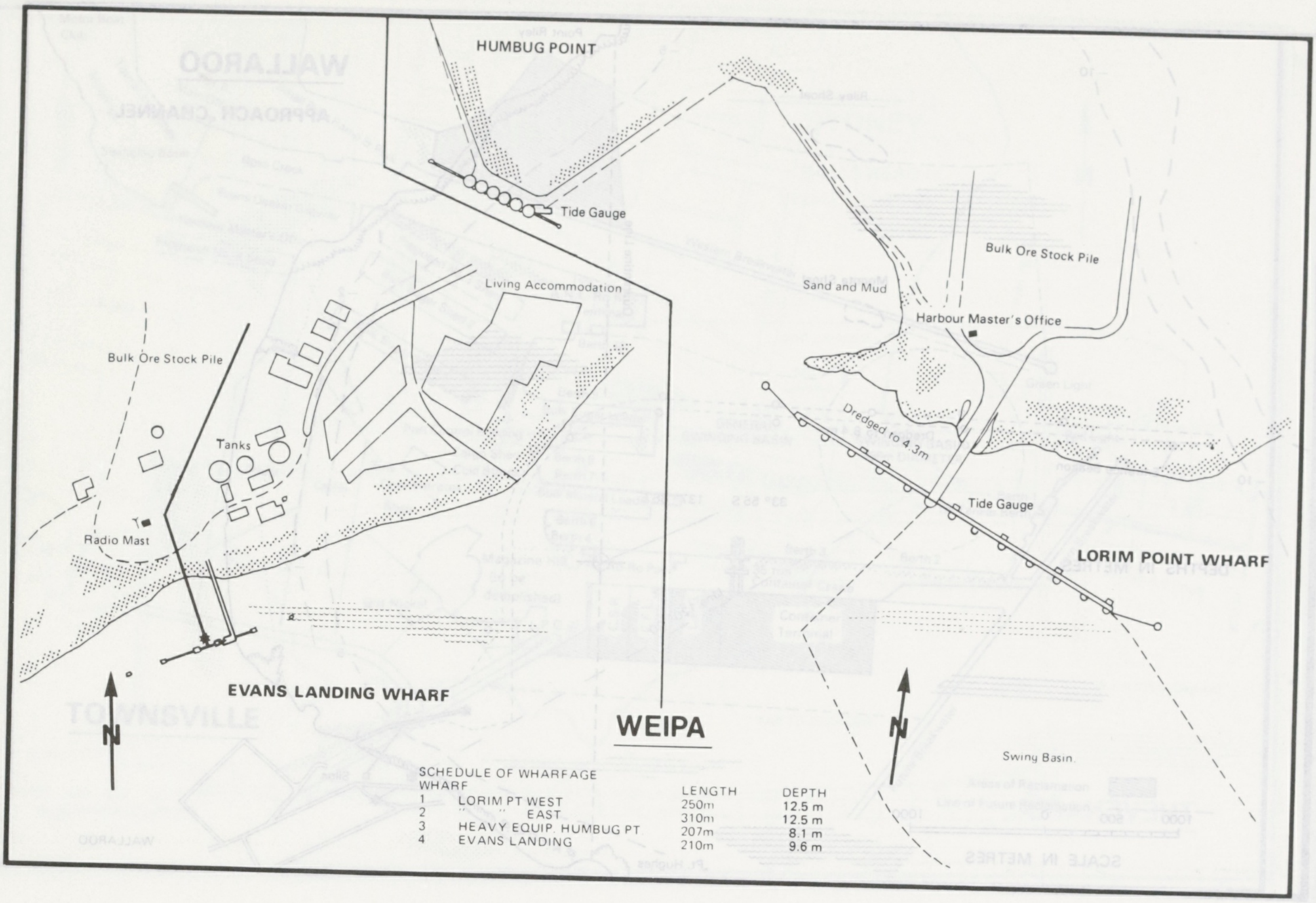
Draft	17.0 m.
Deadweight	140,000 tonnes
LOA	300 m.
Beam	46 m.

Pilot Boards in Position	20° 38 S	115° 42 E
Recommended Anchorage	20° 38 S	115° 40 E


WALLAROO
APPROACH CHANNEL
Point Riley
−10
−5
Riley Shoal
Moonta Shoal
Quarantine Line
−2
Dredged to 8.4 m.
Entrance Beacon
−10
33° 55′S 137° 36′E
DEPTHS IN METRES
Line 120° 30′
−2
−5
Silos
1000 500 0 1000
SCALE IN METRES
Pt. Hughes
WALLAROO


Swinging Basin 27½ ft L.W.
118 ft.
Bulk Grain Berth
No. 1N 9.4m. L.W.
550ft
No. 2N 9.4m. L.W.
570ft
80ft
550ft
No. 1S 9.3m. L.W.
450ft
No. 2S 8.2m. L.W.
No. 3N 7.3m. L.W.
330ft
80ft
230ft
450ft
No. 3S 7.3m. L.W.
SCALE
0 200 400 600 Feet
WALLAROO
Swimming enclosure
Overhead Conveyor
L. W. M.
M. H. W. M.
Seamen's Mission
Customs
N
Motel
Bulk Grain Terminal
Harbourmaster
L. W. M.
M. H. W. M.
Maintenance Area

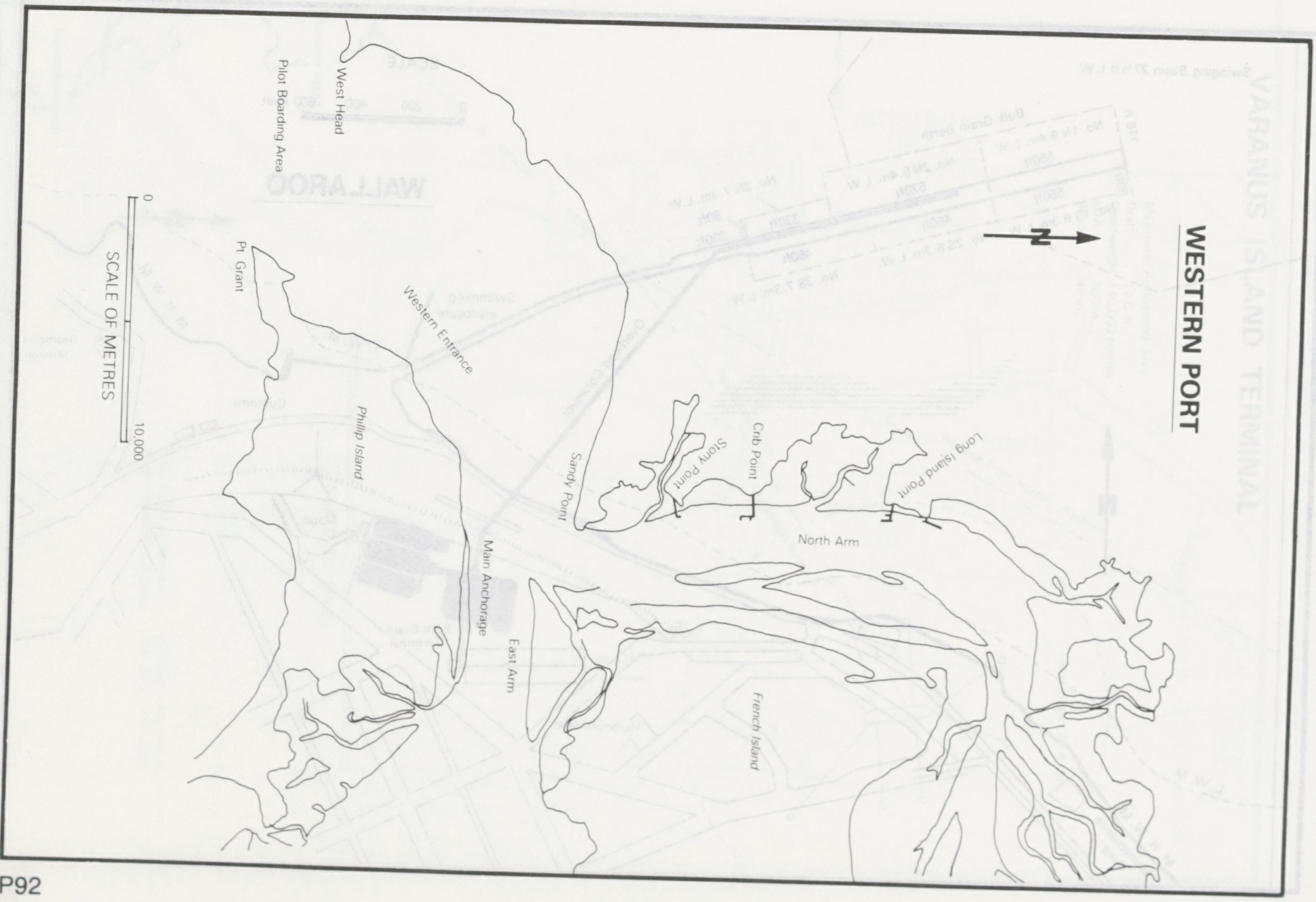
WEIPA

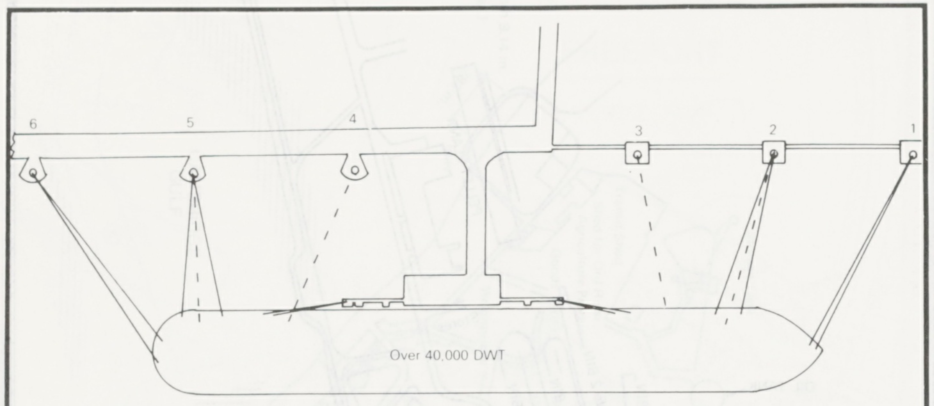

HUMBUG POINT
Tide Gauge
Living Accommodation
Bulk Ore Stock Pile
Tanks
Radio Mast
EVANS LANDING WHARF
N
Sand and Mud
Bulk Ore Stock Pile
Harbour Master's Office
Dredged to 4.3m
Tide Gauge
LORIM POINT WHARF
N
Swing Basin

SCHEDULE OF WHARFAGE

WHARF		LENGTH	DEPTH
1	LORIM PT WEST	250m	12.5 m
2	" EAST	310m	12.5 m
3	HEAVY EQUIP. HUMBUG PT	207m	8.1 m
4	EVANS LANDING	210m	9.6 m

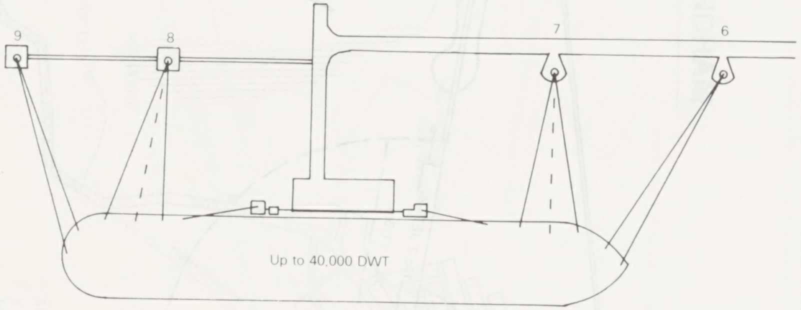
WESTERN PORT


West Head
Pilot Boarding Area
0
SCALE OF METRES
10,000
Pt Grant
Western Entrance
Phillip Island
Sandy Point
Main Anchorage
East Arm
Stony Point
Crib Point
Long Island Point
North Arm
French Island
N


6
5
4
3
2
1
Over 40,000 DWT

WESTERN PORT

MOORING DIAGRAM FOR VESSELS AT CRIB POINT


9
8
7
6
Up to 40,000 DWT

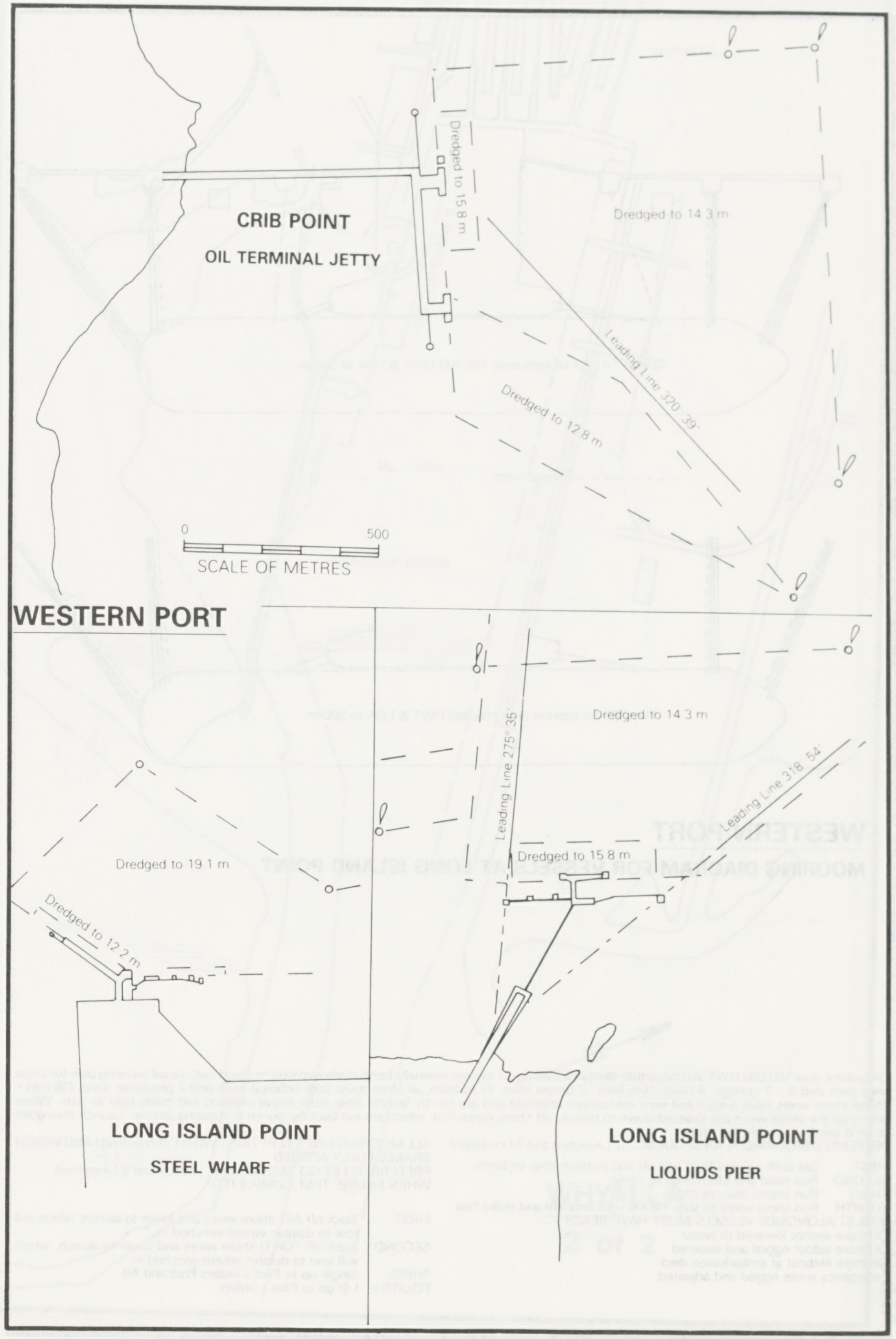
- - - - - - - - - Shore wires

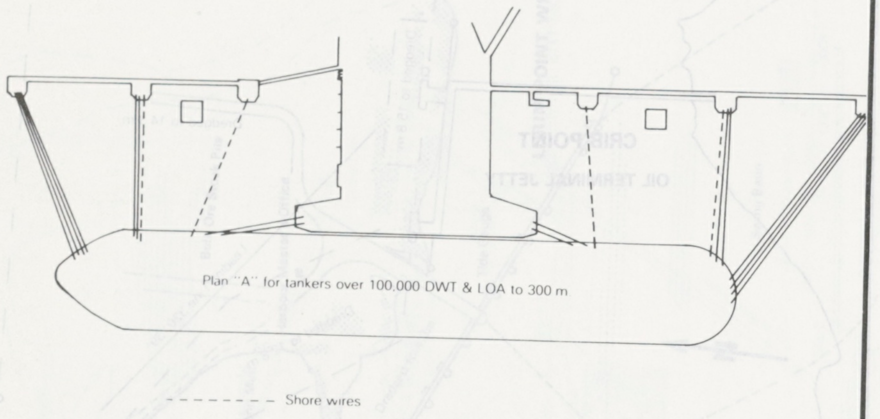
Mooring lines shown are minimum number required

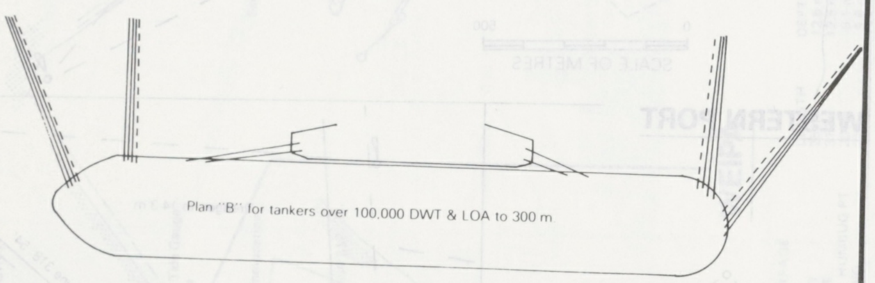
Avoid mixing moorings if possible

Shore preventer wires are 36 mm. diameter

WESTERN PORT


CRIB POINT
OIL TERMINAL JETTY
Dredged to 15.8 m
Dredged to 14.3 m
Leading Line 320° 39'
Dredged to 12.8 m
0
500
SCALE OF METRES
Dredged to 14.3 m
Leading Line 275° 35'
Leading Line 318° 54'
Dredged to 15.8 m
Dredged to 19.1 m
Dredged to 12.2 m
LONG ISLAND POINT
STEEL WHARF
LONG ISLAND POINT
LIQUIDS PIER


Plan "A" for tankers over 100,000 DWT & LOA to 300 m
Shore wires


Plan "B" for tankers over 100,000 DWT & LOA to 300 m

WESTERN PORT

MOORING DIAGRAM FOR VESSELS AT LONG ISLAND POINT

Oil tankers over 100,000 DWT and departure drafts exceeding 13 metres normally berth starboard-side-to (head out). Usual mooring plan for ships lines each end is:- 2 springs: 4 head-stern lines: 2 breast lines. In addition, all ships must take onboard each end 2 preventer wires (36 mm.). These shore wires have a rope and wire messenger attached and are run by launch. Ship must heave onboard and made tight to bitts. When letting go the shore wires are lowered down to launch, aft shore wires first, which are run back by launch to mooring dolphin. Launch then goes to for'd shore wires and runs them

PREFERRED MOORING PLAN SEQUENCE (2 Launches and 7 Linesmen)

FIRST:	Set both springs for'd and aft and position ship on berth
SECOND:	Run head and stern lines to shore
THIRD:	Run breast lines to shore
FOURTH:	Run shore wires to ship. Heave tight onboard and make fast

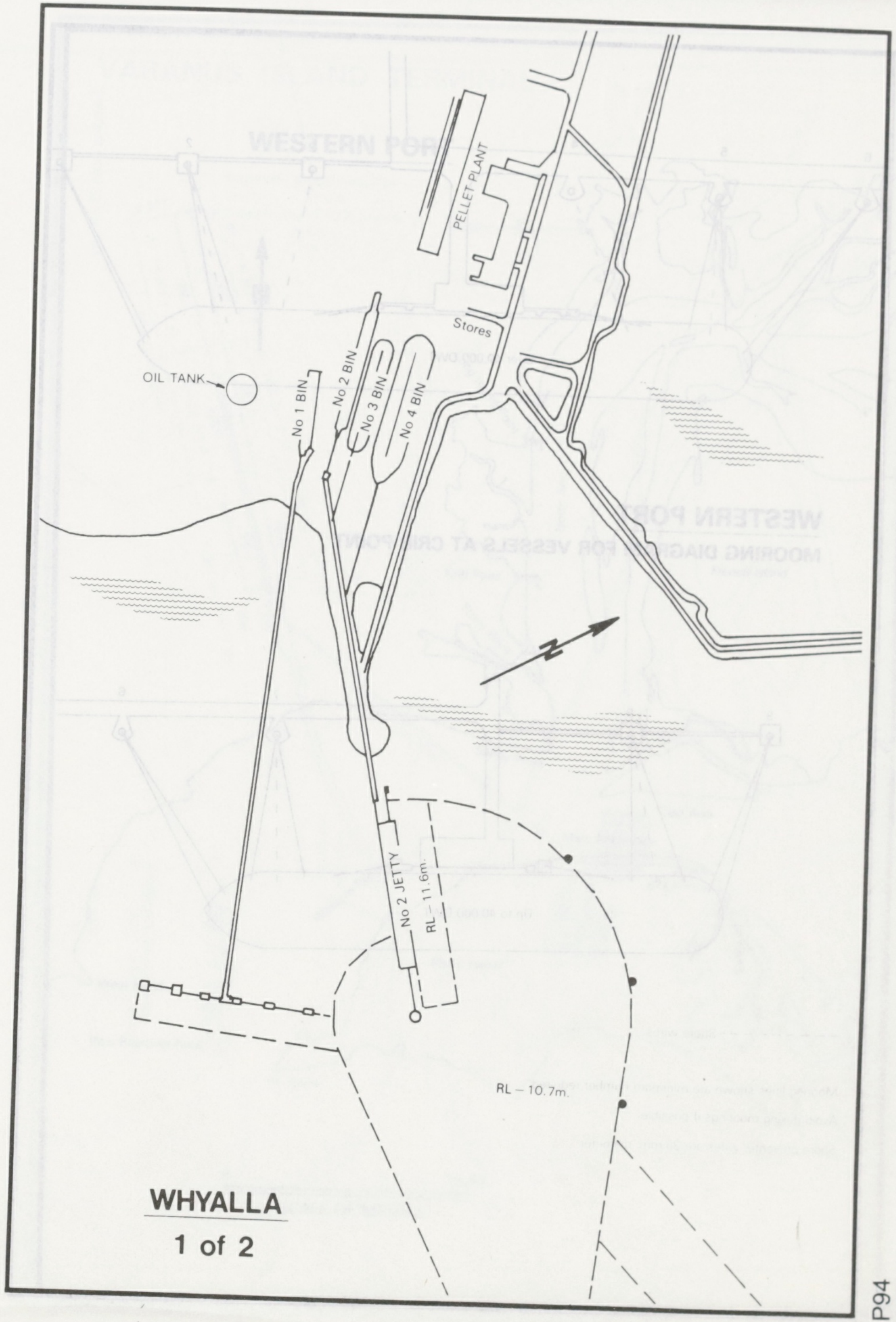
WHILST ALONGSIDE VESSELS MUST HAVE READY

Offshore anchor lowered to water
Offshore ladder rigged and lowered
Offshore lifeboat at embarkation deck
Emergency wires rigged and adjusted

ALL MOORING LINES KEPT TIGHT WITH EVEN STRAIN AND WINCH BRAKES FULLY APPLIED

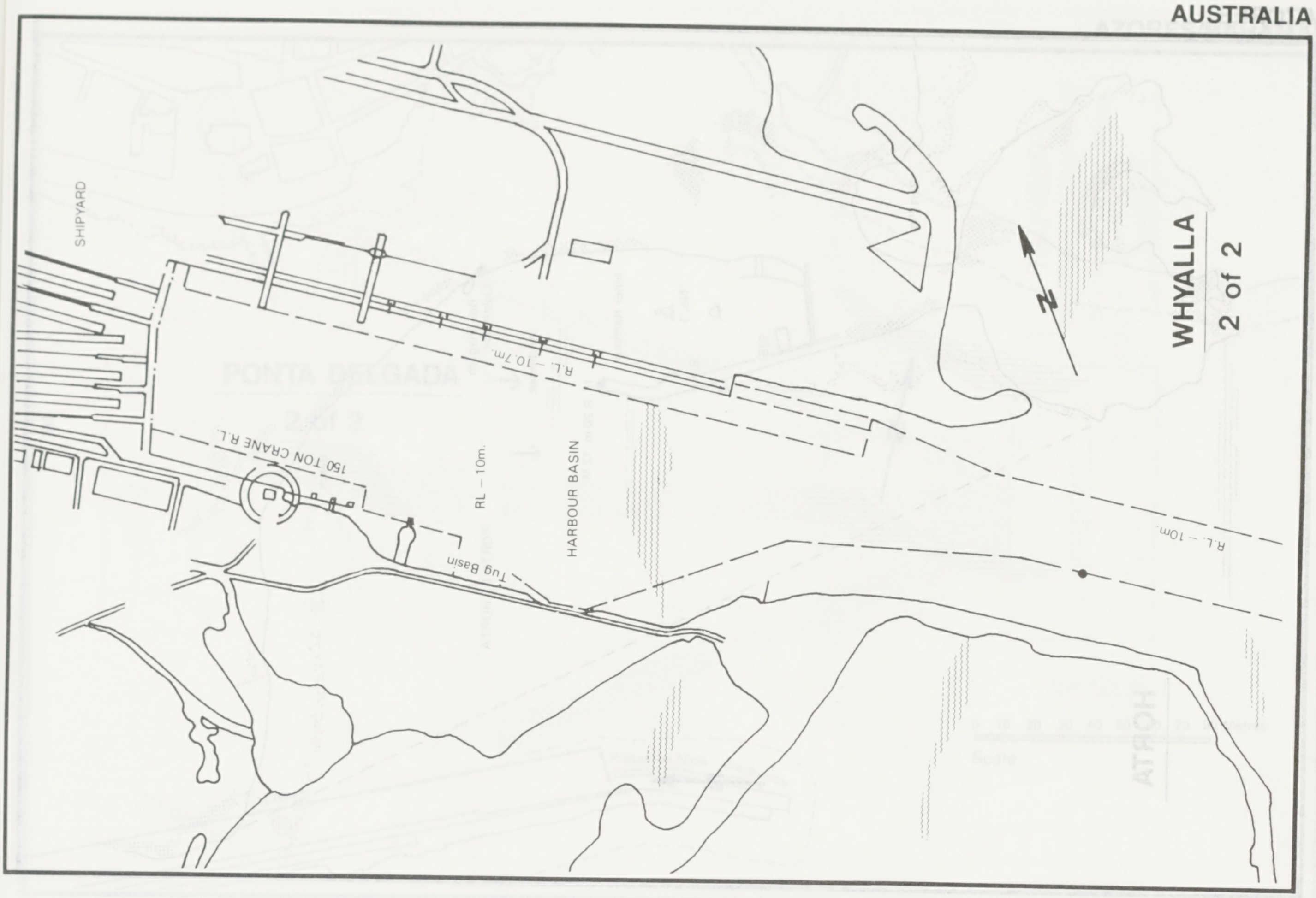
PREFERRED LET GO SEQUENCE (1 Launch and 6 Linesmen) WHEN ENGINE TEST COMPLETED

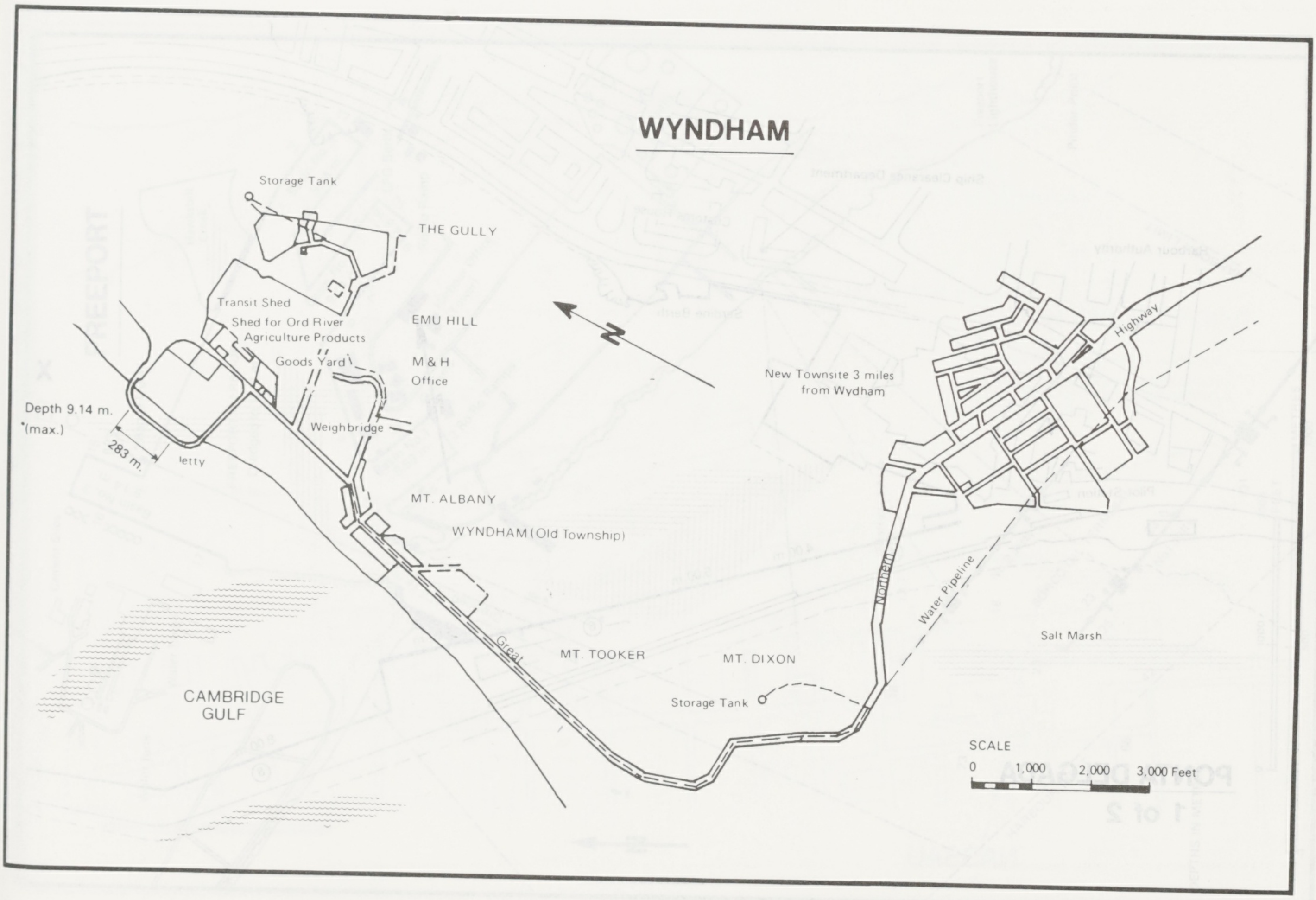
FIRST:	Slack off AFT shore wires and lower to launch, which will tow to dolphin where winched in.
SECOND:	Slack off FOR'D shore wires and lower to launch, which will tow to dolphin where winched in.
THIRD:	Single up to Pilot's orders Fore and Aft
FOURTH:	Let go to Pilot's orders

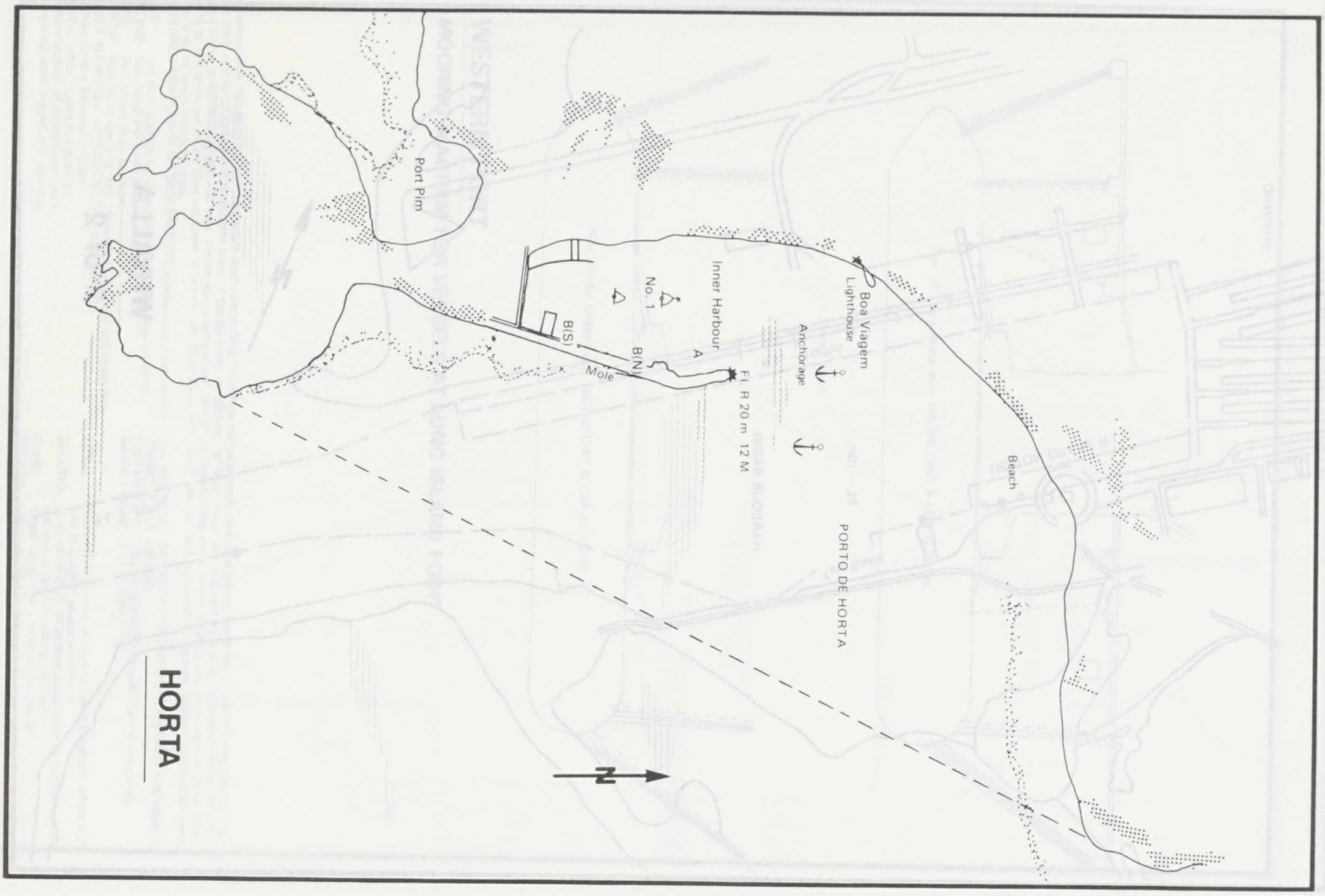

PELLET PLANT
Stores
OIL TANK
No 1 BIN
No 2 BIN
No 3 BIN
No 4 BIN
N
No 2 JETTY
RL – 11.6m.
RL – 10.7m.

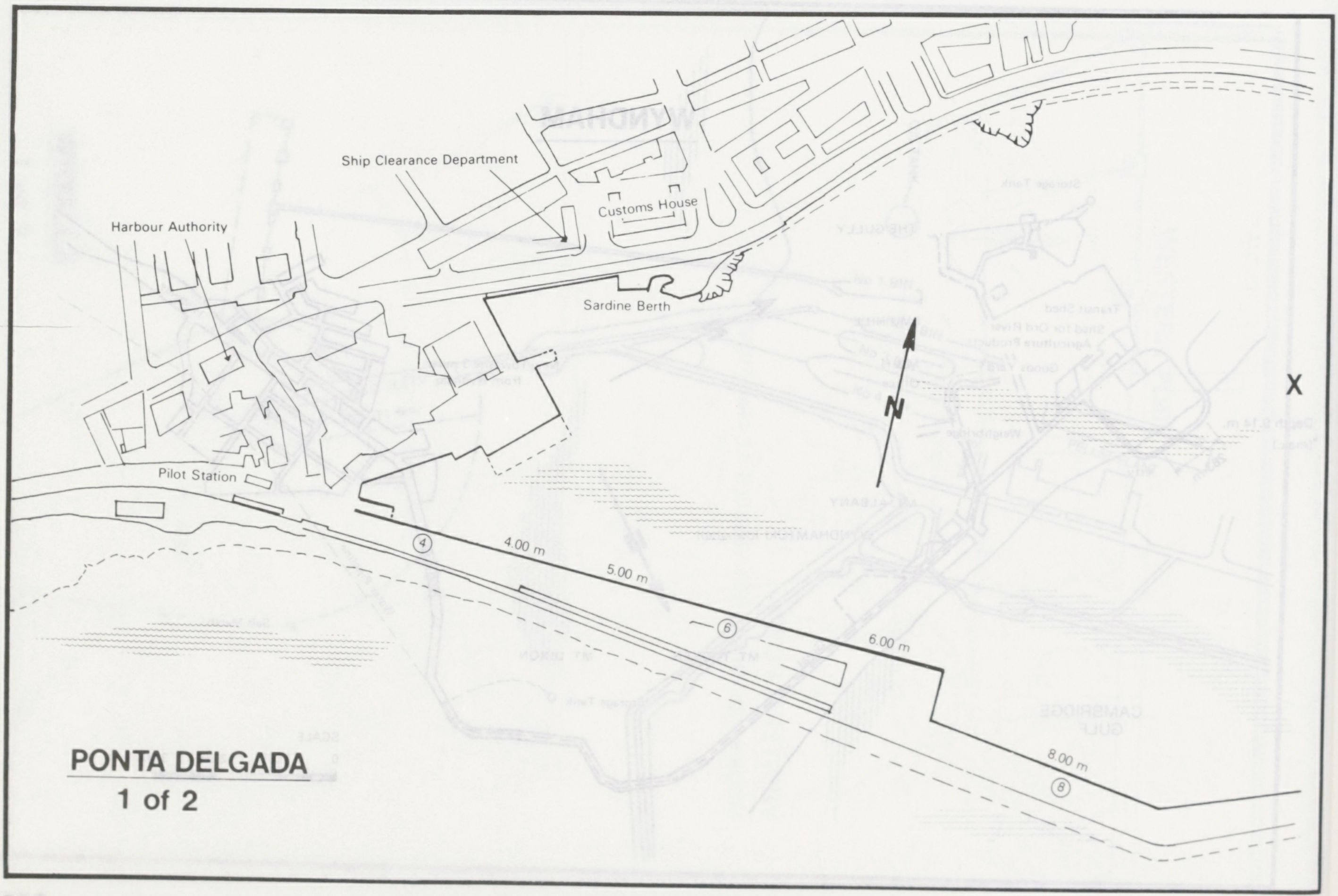
WHYALLA

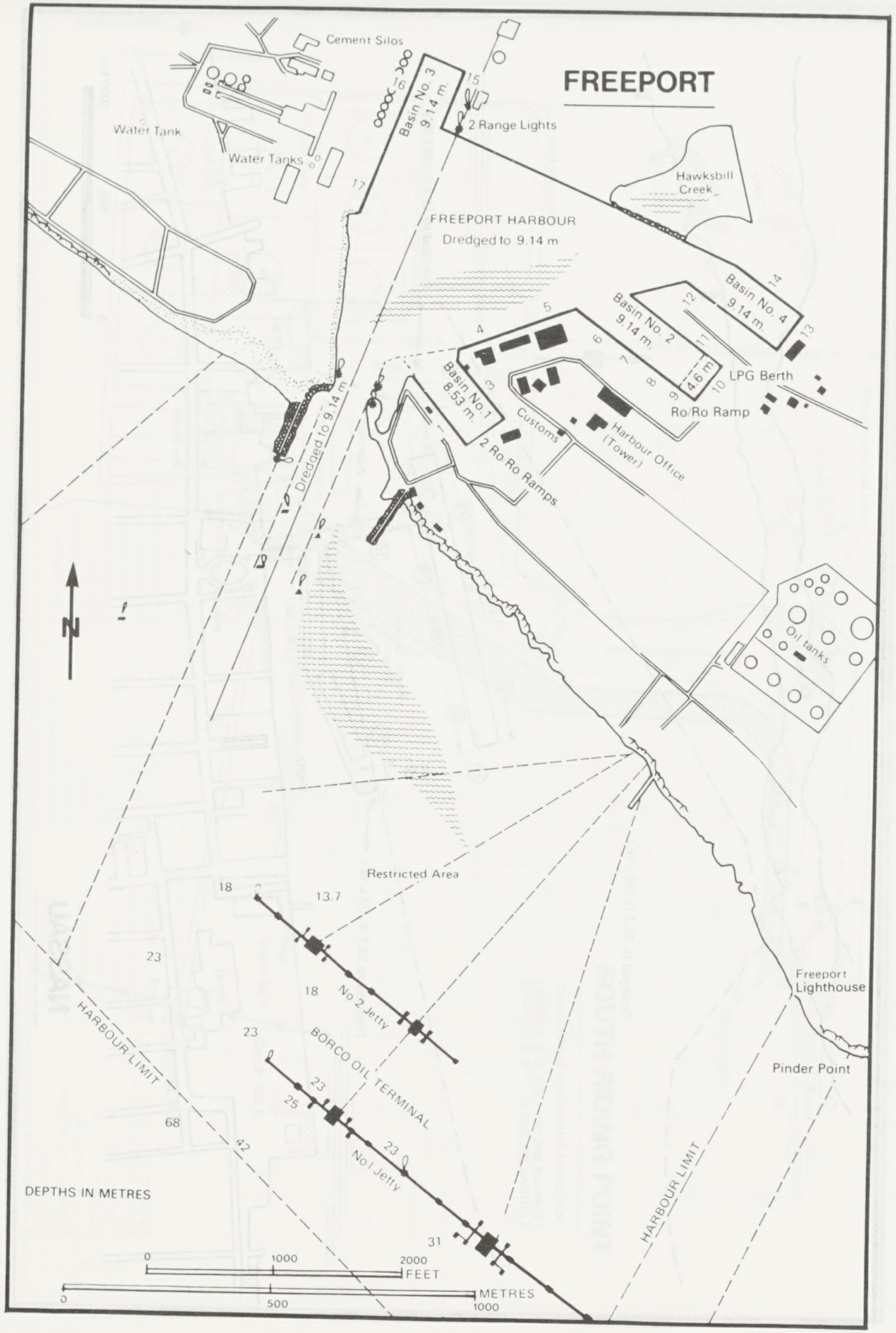
1 of 2

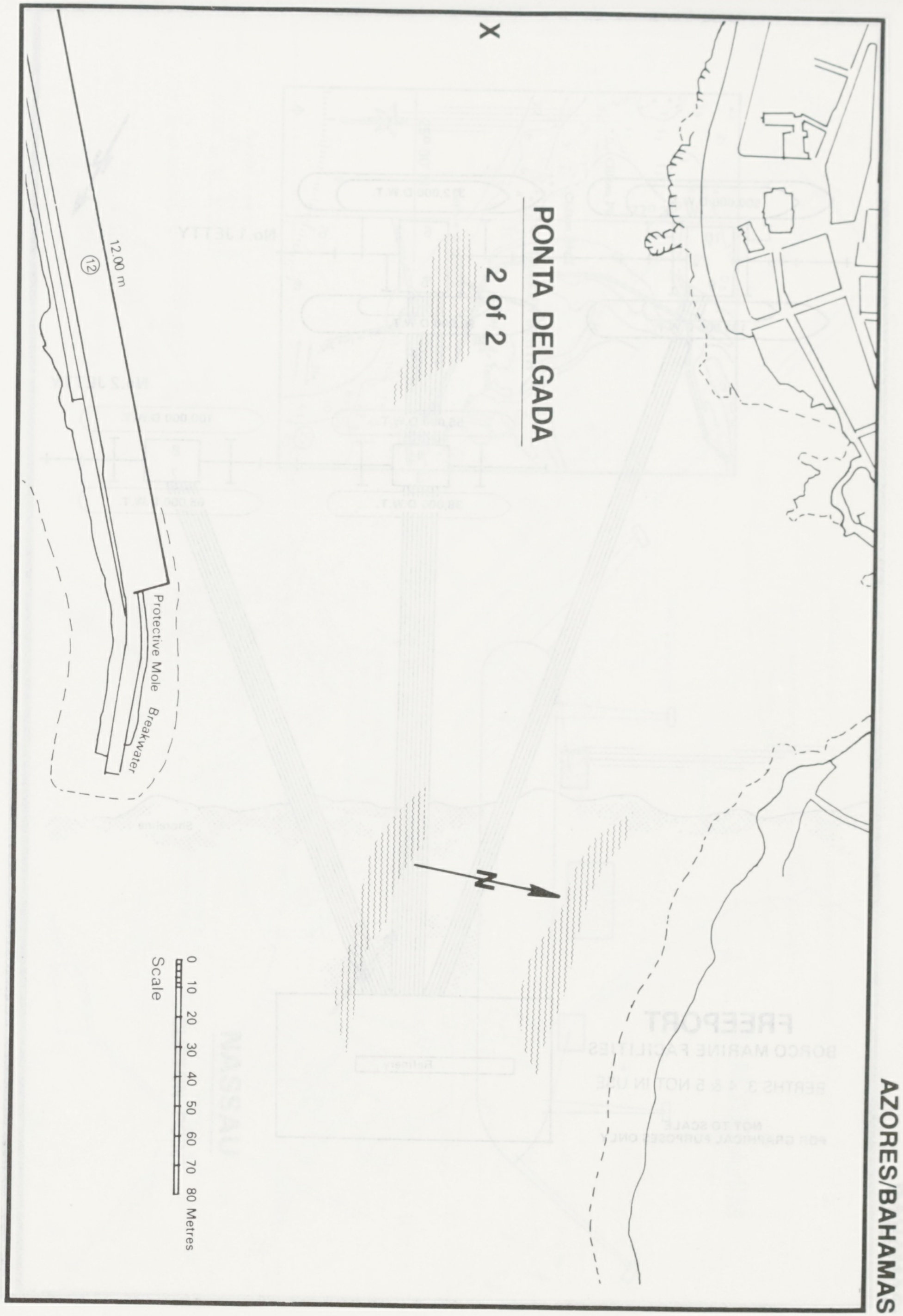

WHYALLA
2 of 2
N
SHIPYARD
R.L. – 10.7m.
150 TON CRANE R.L.
RL – 10m.
HARBOUR BASIN
Tug Basin
R.L. – 10m.

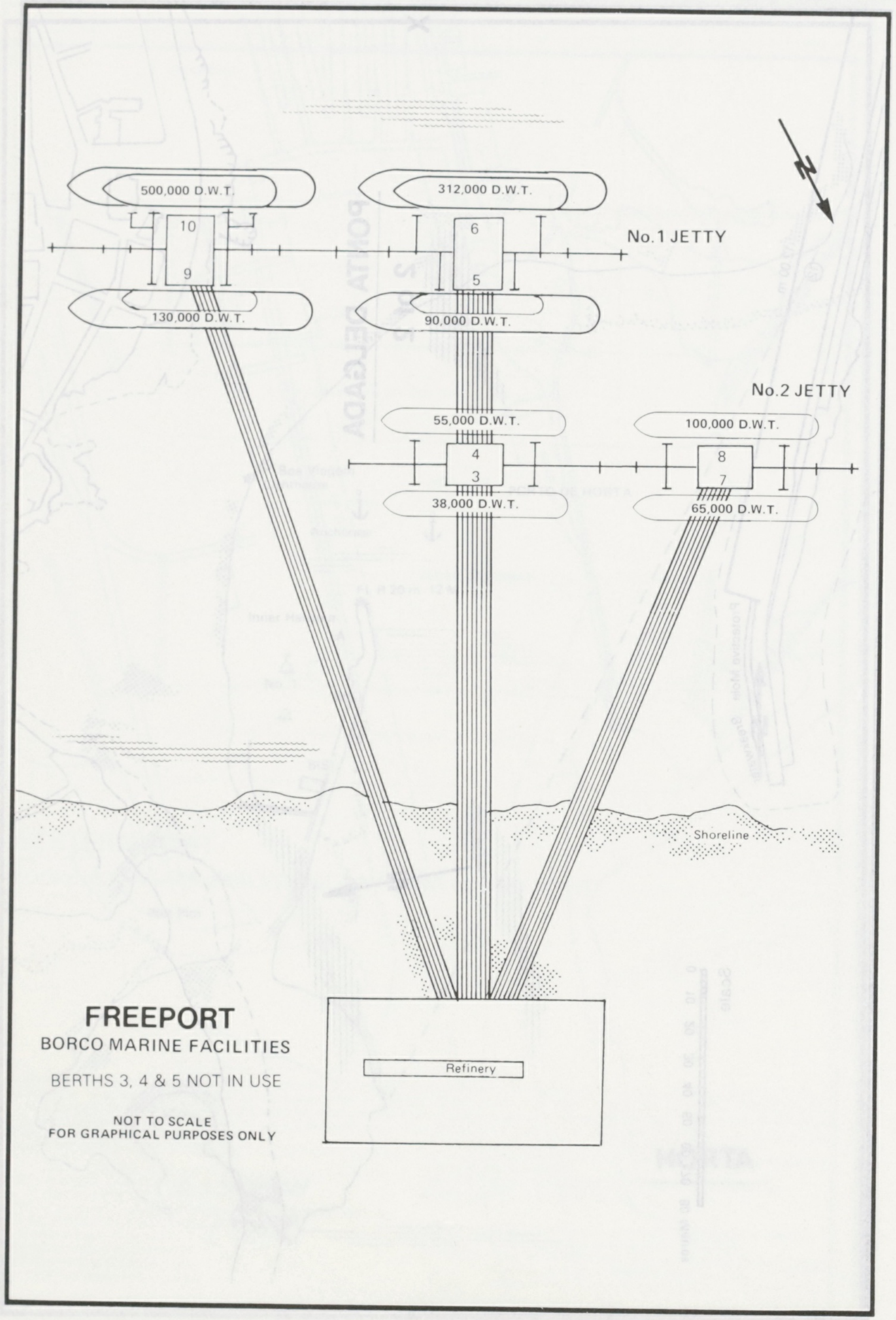

WYNDHAM
Storage Tank
THE GULLY
Transit Shed
Shed for Ord River Agriculture Products
EMU HILL
Goods Yard
M & H Office
N
Depth 9.14 m. (max.)
283 m.
Jetty
Weighbridge
MT. ALBANY
WYNDHAM (Old Township)
Great
Northern
Highway
New Townsite 3 miles from Wydham
Water Pipeline
Salt Marsh
MT. TOOKER
MT. DIXON
Storage Tank
CAMBRIDGE GULF
SCALE
0
1,000
2,000
3,000 Feet


HORTA
Port Pim
Boa Viagem Lighthouse
Inner Harbour
No. 1
A
B(S)
B(N)
Mole
Fl. R 20 m 12 M
Anchorage
PORTO DE HORTA
Beach
N


Ship Clearance Department
Harbour Authority
Customs House
Sardine Berth
Pilot Station
④
4.00 m
5.00 m
⑥
6.00 m
8.00 m
⑧
N
X
PONTA DELGADA
1 of 2


FREEPORT
Cement Silos
Water Tank
Water Tanks
Basin No. 3
9.14 m.
15
16
17
2 Range Lights
Hawksbill
Creek
FREEPORT HARBOUR
Dredged to 9.14 m
Basin No. 4
9.14 m.
14
13
12
11
10
Basin No. 2
9.14 m.
4
5
6
7
8
9
4.6 m
LPG Berth
Ro/Ro Ramp
Basin No.1
8.53 m.
3
Customs
Harbour Office
(Tower)
2 Ro Ro Ramps
Dredged to 9.14 m
Oil tanks
N
Restricted Area
18
13.7
23
18
No 2 Jetty
23
BORCO OIL TERMINAL
23
25
23
No 1 Jetty
68
42
HARBOUR LIMIT
31
Freeport
Lighthouse
Pinder Point
HARBOUR LIMIT
DEPTHS IN METRES
0
1000
2000
FEET
0
500
1000
METRES


X
PONTA DELGADA
2 of 2
12.00 m
⑫
Protective Mole
Breakwater
N
Scale
0
10
20
30
40
50
60
70
80 Metres

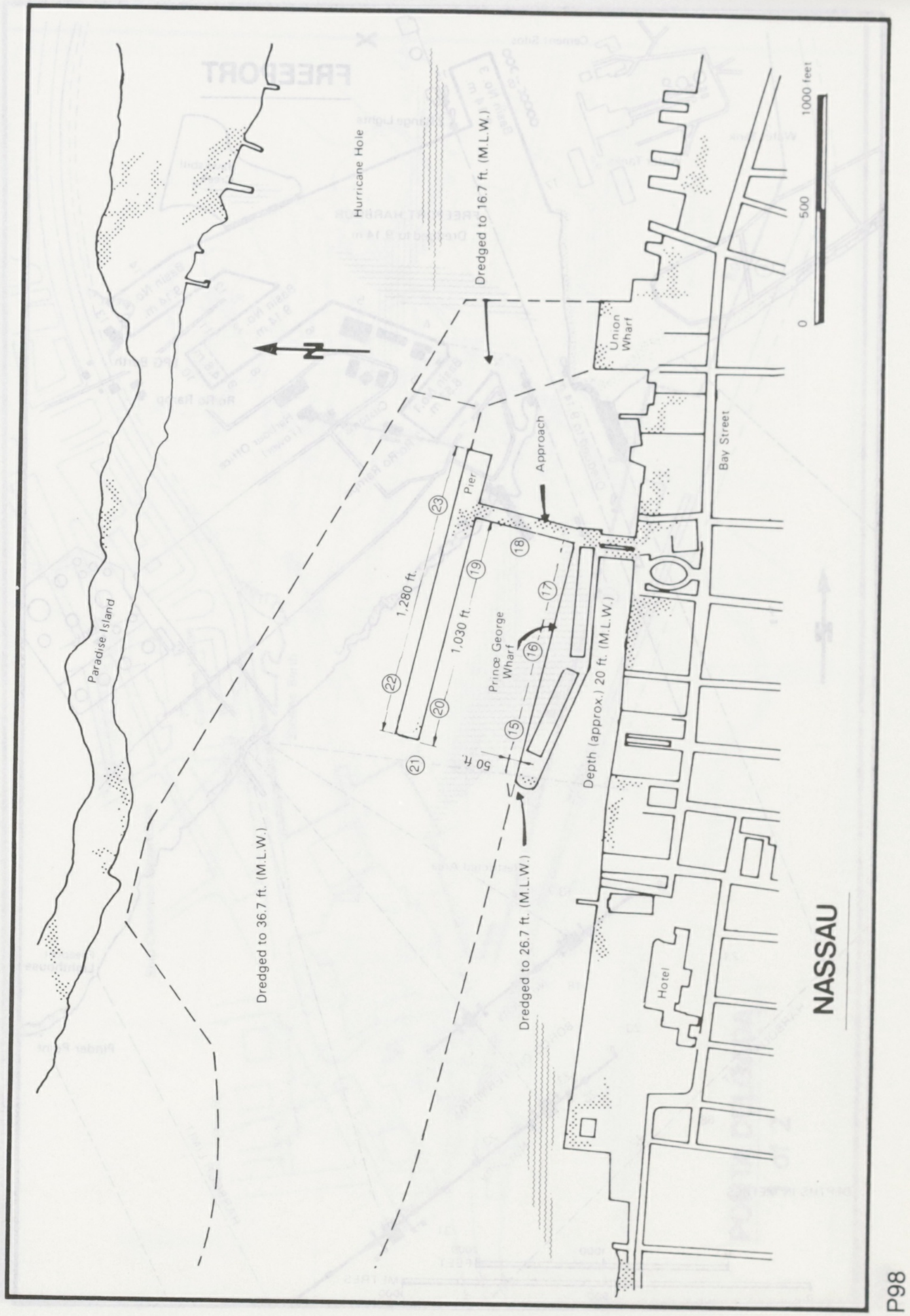


FREEPORT
BORCO MARINE FACILITIES

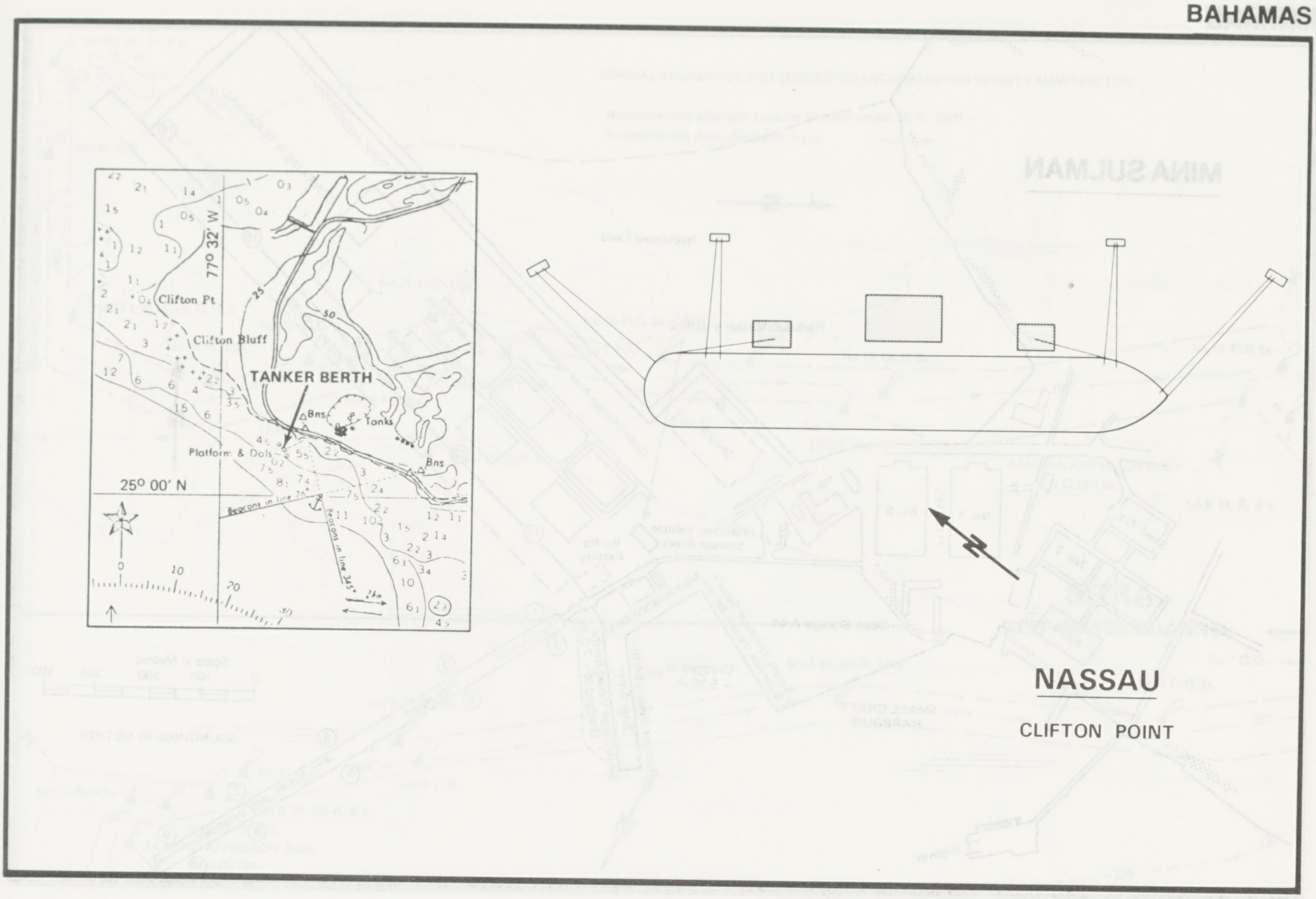
BERTHS 3, 4 & 5 NOT IN USE

NOT TO SCALE
FOR GRAPHICAL PURPOSES ONLY

N
500,000 D.W.T.
312,000 D.W.T.
10
9
6
5
No.1 JETTY
130,000 D.W.T.
90,000 D.W.T.
No.2 JETTY
55,000 D.W.T.
100,000 D.W.T.
4
3
8
7
38,000 D.W.T.
65,000 D.W.T.
Shoreline
Refinery

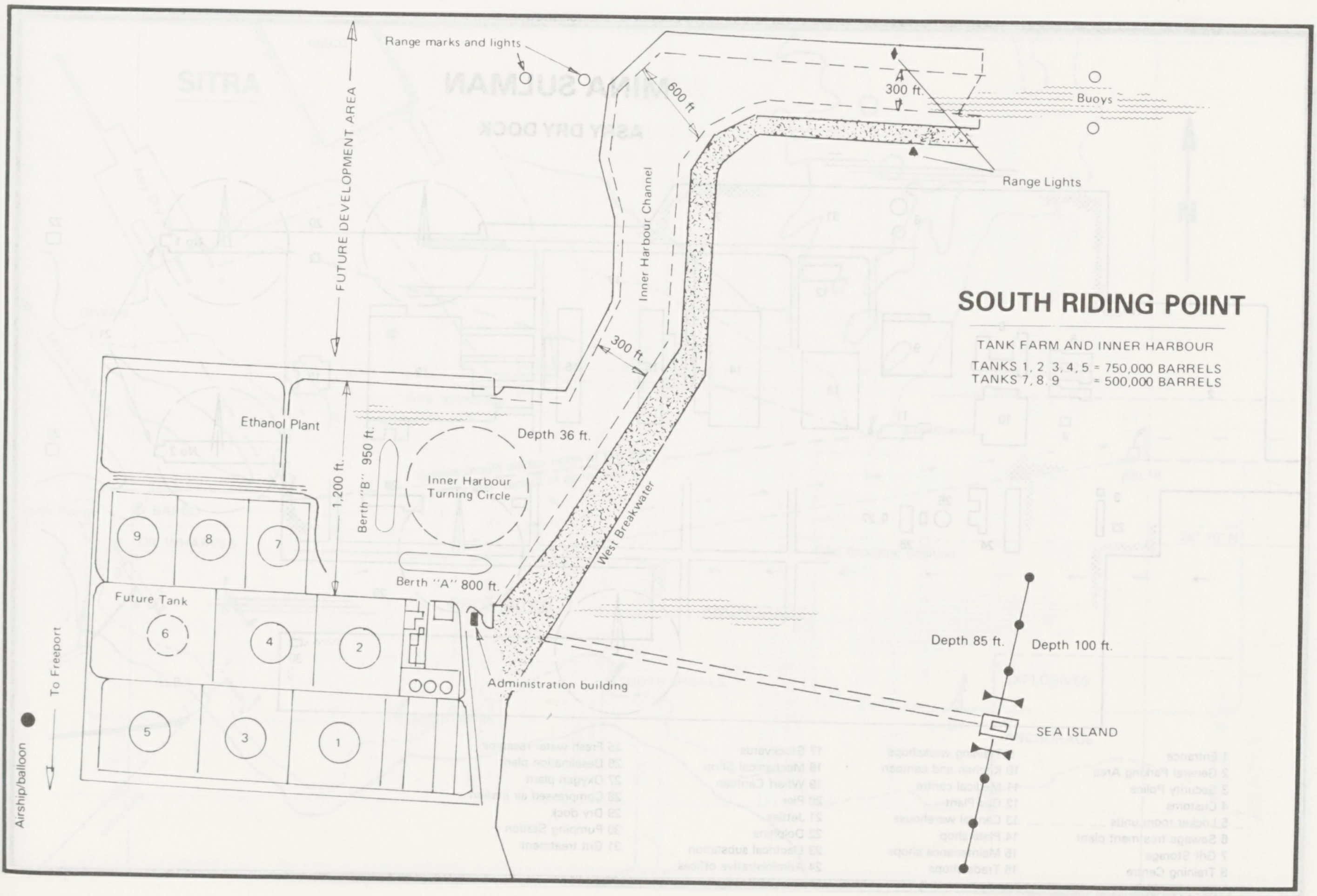


NASSAU
Hurricane Hole
Dredged to 16.7 ft. (M.L.W.)
0
500
1000 feet
N
Union Wharf
Bay Street
Approach
Pier
23
18
1,280 ft.
19
1,030 ft.
17
Prince George Wharf
16
22
20
15
21
50 ft
Depth (approx.) 20 ft. (M.L.W.)
Paradise Island
Dredged to 36.7 ft. (M.L.W.)
Dredged to 26.7 ft. (M.L.W.)
Hotel
N


77° 32' W
Clifton Pt
Clifton Bluff
TANKER BERTH
Bns
Tanks
Platform & Dols
Bns
25° 00' N
Beacons in line 74°
Beacons in line 345°
2kn
0
10
20
30

NASSAU

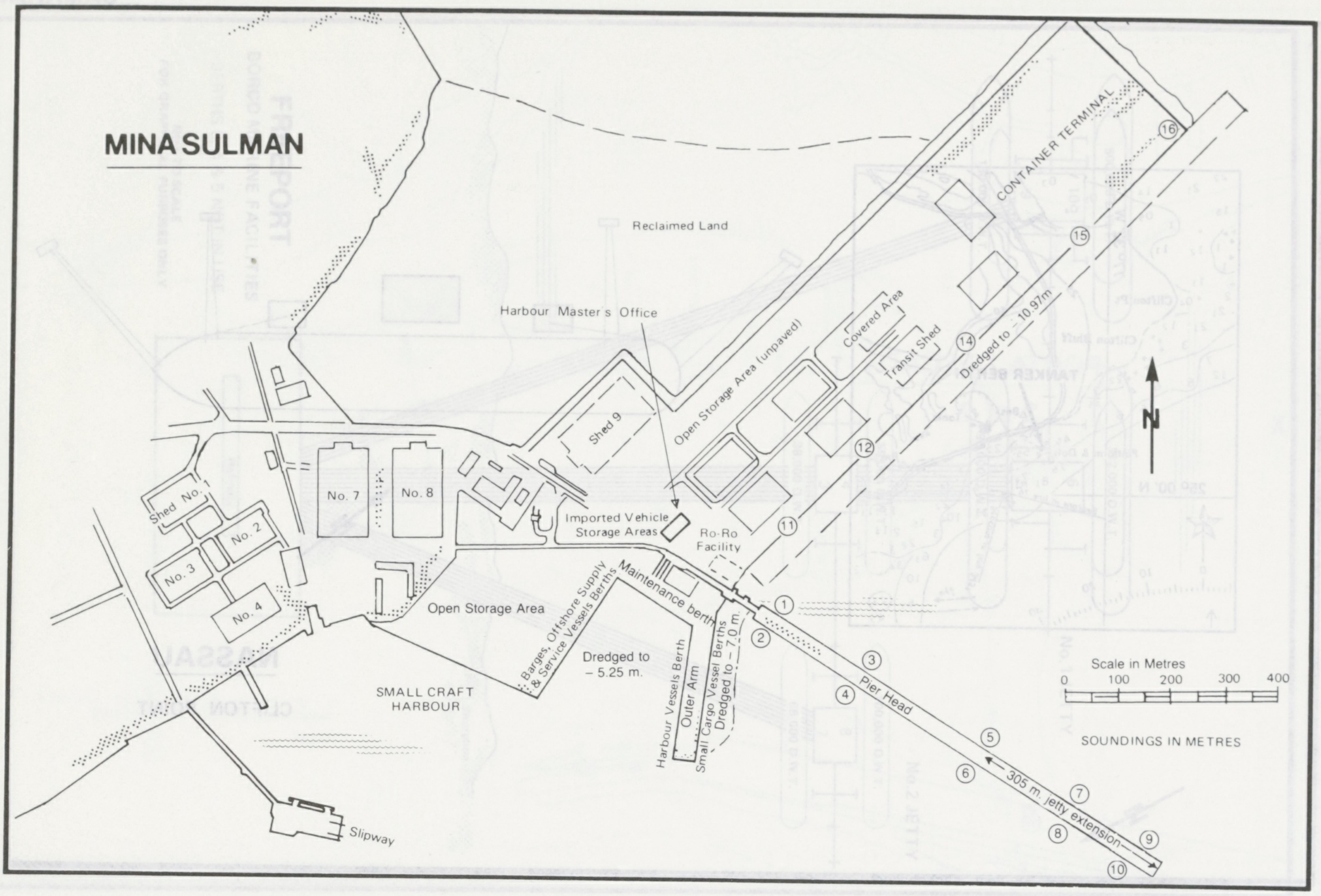
CLIFTON POINT

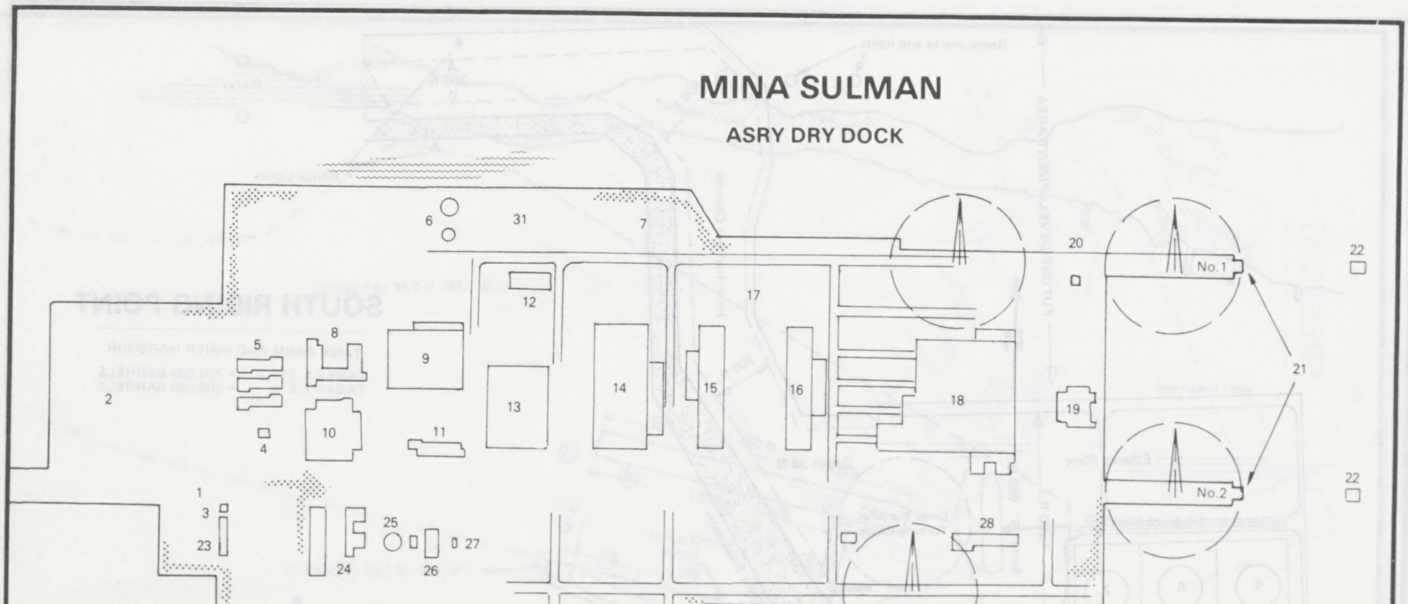

Range marks and lights
600 ft.
300 ft.
Buoys
Range Lights
Inner Harbour Channel
FUTURE DEVELOPMENT AREA
300 ft.
Ethanol Plant
Depth 36 ft.
1,200 ft.
Berth "B" 950 ft.
Inner Harbour Turning Circle
West Breakwater
Berth "A" 800 ft.
Future Tank
9
8
7
6
4
2
5
3
1
Administration building
To Freeport
Airship/balloon
Depth 85 ft.
Depth 100 ft.
SEA ISLAND

SOUTH RIDING POINT

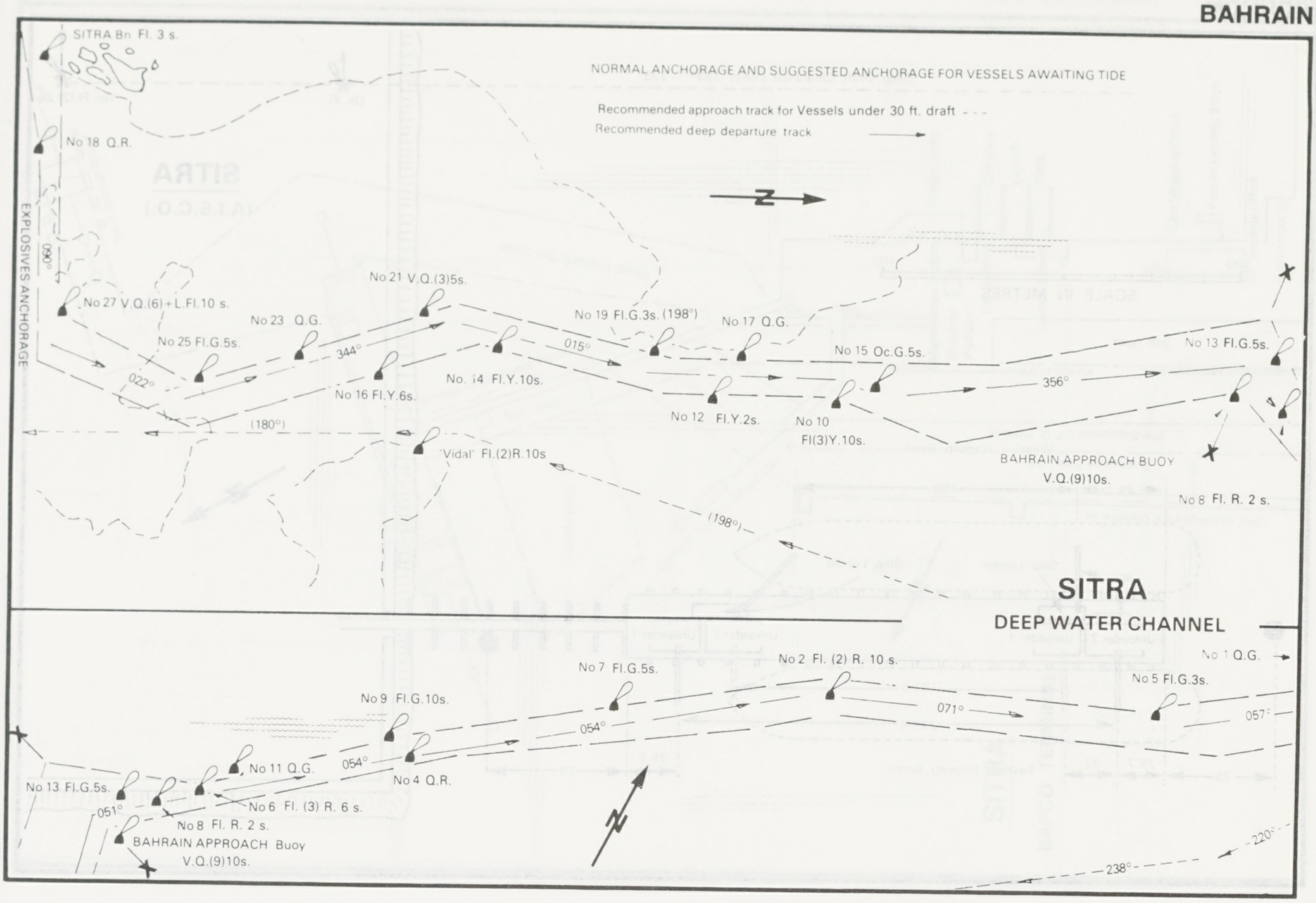
TANK FARM AND INNER HARBOUR

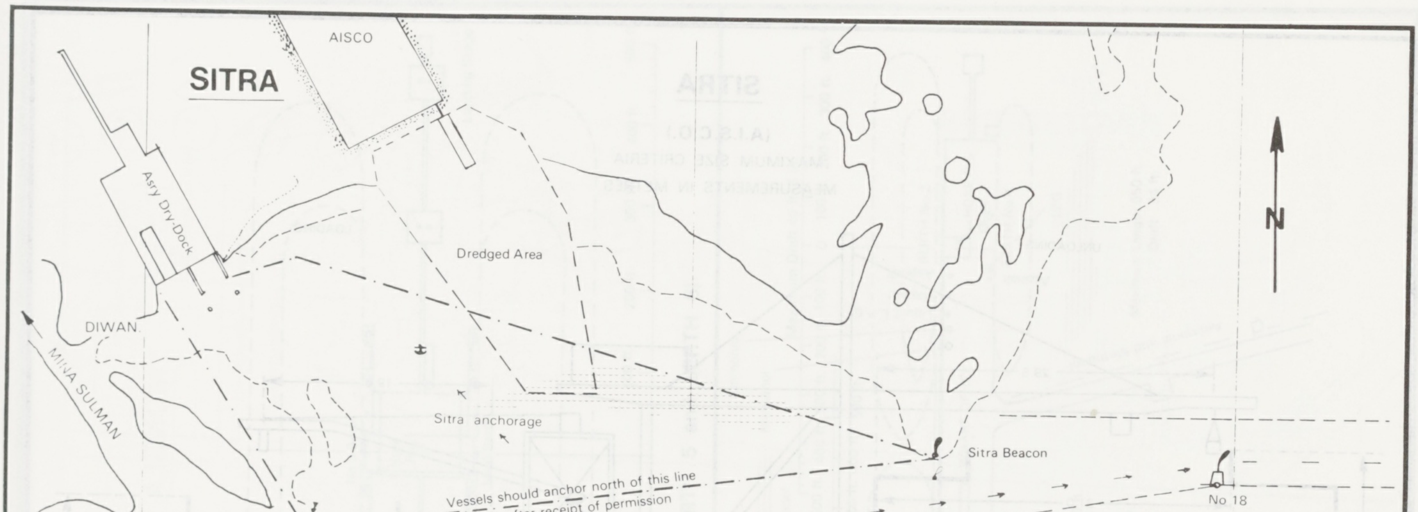
TANKS 1, 2 3, 4, 5 = 750,000 BARRELS
TANKS 7, 8 9 = 500,000 BARRELS

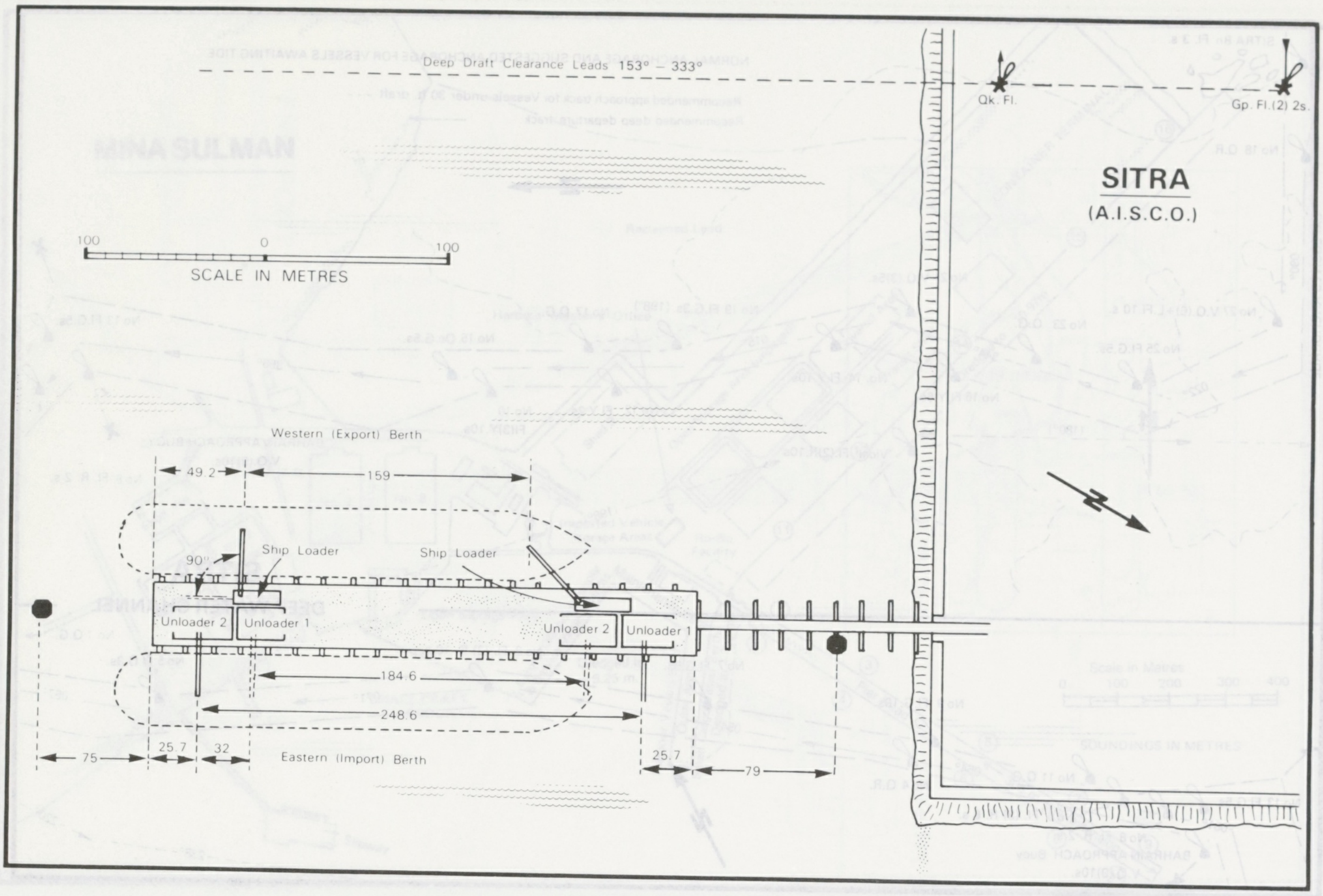

MINA SULMAN
Reclaimed Land
Harbour Master's Office
CONTAINER TERMINAL
Covered Area
Transit Shed
Open Storage Area (unpaved)
Dredged to – 10.97m
Shed 9
Shed No. 1
No. 2
No. 3
No. 4
No. 7
No. 8
Imported Vehicle Storage Areas
Ro-Ro Facility
Maintenance berth
Barges, Offshore Supply & Service Vessels Berths
Open Storage Area
Dredged to – 5.25 m.
SMALL CRAFT HARBOUR
Harbour Vessels Berth
Outer Arm
Small Cargo Vessel Berths
Dredged to – 7.0 m.
Pier Head
305 m. jetty extension
Slipway
N
Scale in Metres
0
100
200
300
400
SOUNDINGS IN METRES
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑭
⑮
⑯

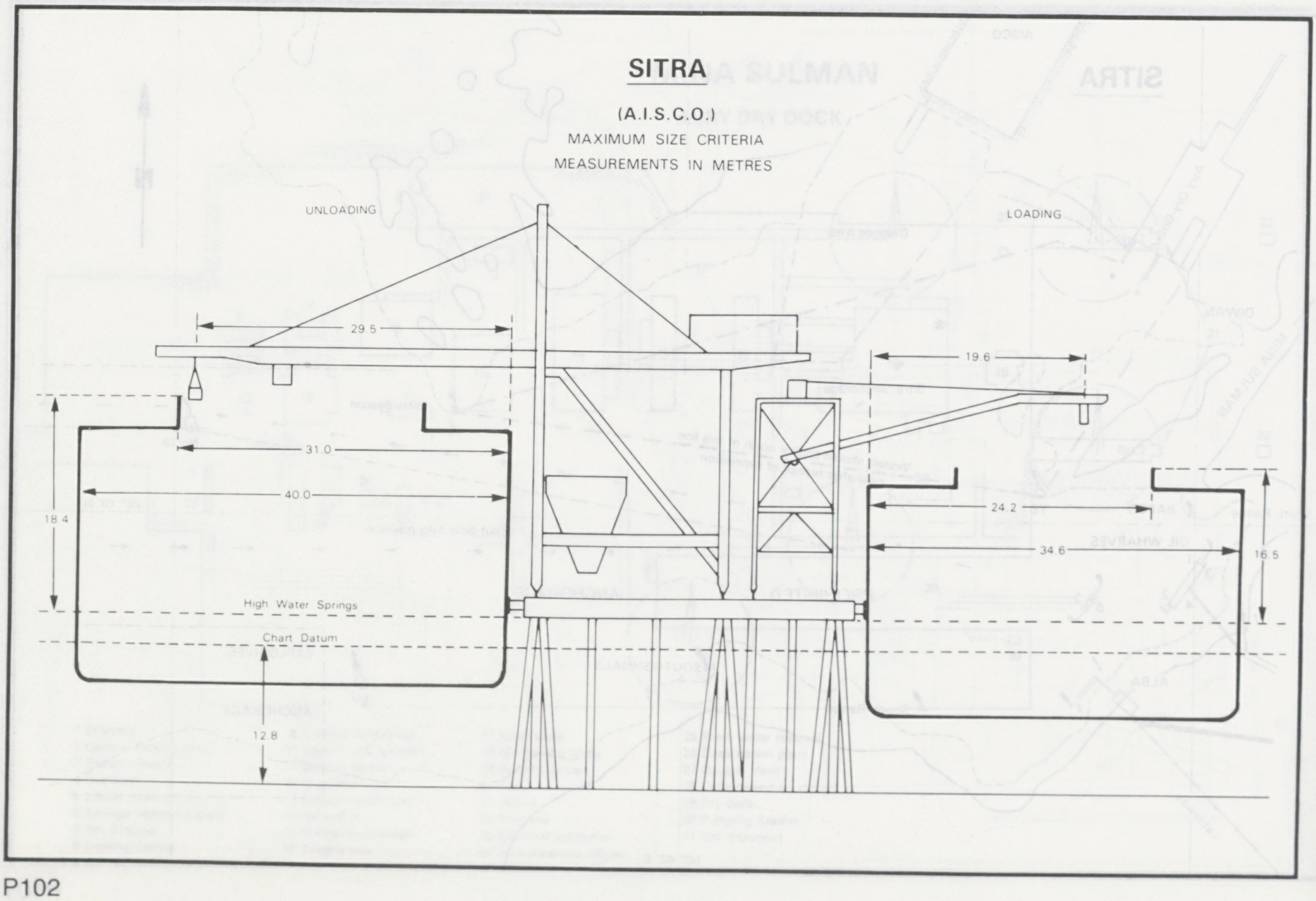

MINA SULMAN
ASRY DRY DOCK
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
No.1
No.2

1 Entrance
2 General Parking Area
3 Security Police
4 Customs
5 Locker room units
6 Sewage treatment plant
7 Grit Storage
8 Training Centre
9 Training workshops
10 Kitchen and canteen
11 Medical centre
12 Gas Plant
13 Central warehouse
14 Plate shop
15 Maintenance shops
16 Trade shops
17 Stockyards
18 Mechanical Shop
19 Wharf Canteen
20 Pier
21 Jetties
22 Dolphins
23 Electrical substation
24 Administrative offices
25 Fresh water reservoir
26 Desalination plant
27 Oxygen plant
28 Compressed air station
29 Dry dock
30 Pumping Station
31 Grit treatment

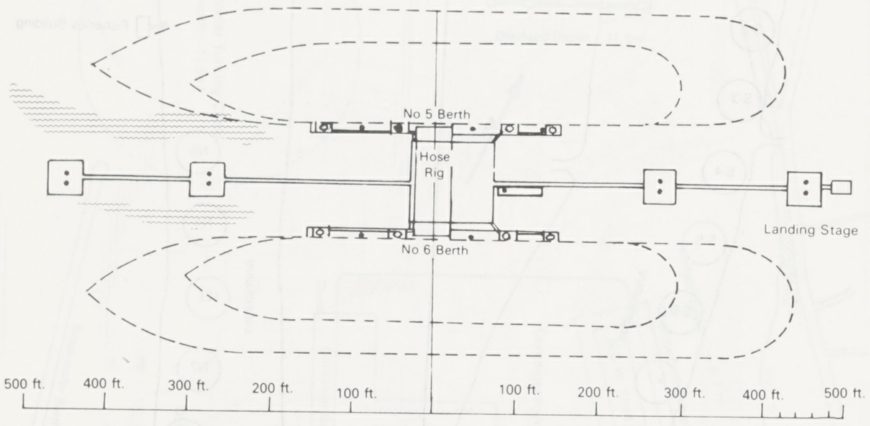

SITRA Bn Fl. 3 s.
NORMAL ANCHORAGE AND SUGGESTED ANCHORAGE FOR VESSELS AWAITING TIDE
Recommended approach track for Vessels under 30 ft. draft - - -
Recommended deep departure track
No 18 Q.R.
N
EXPLOSIVES ANCHORAGE
090°
No 21 V.Q.(3)5s.
No 27 V.Q.(6)+L.Fl.10 s.
No 23 Q.G.
No 19 Fl.G.3s. (198°)
No 17 Q.G.
No 25 Fl.G.5s.
344°
015°
No 15 Oc.G.5s.
No 13 Fl.G.5s.
022°
No 16 Fl.Y.6s.
No. 14 Fl.Y.10s.
No 12 Fl.Y.2s.
No 10
Fl(3)Y.10s.
356°
(180°)
'Vidal' Fl.(2)R.10s
BAHRAIN APPROACH BUOY
V.Q.(9)10s.
No 8 Fl. R. 2 s.
(198°)
SITRA
DEEP WATER CHANNEL
No 1 Q.G.
No 2 Fl. (2) R. 10 s.
No 7 Fl.G.5s.
No 5 Fl.G.3s.
No 9 Fl.G.10s.
071°
057°
054°
054°
No 11 Q.G.
No 4 Q.R.
No 13 Fl.G.5s.
051°
No 6 Fl. (3) R. 6 s.
No 8 Fl. R. 2 s.
BAHRAIN APPROACH Buoy
V.Q.(9)10s.
N
220°
238°


SITRA
AISCO
Asry Dry-Dock
Dredged Area
N
DIWAN
MINA SULMAN
Sitra anchorage
Sitra Beacon
No 18
Vessels should anchor north of this line
only after receipt of permission
North Range
BAPCO
YB
OIL WHARVES
26° 10′ N
Pilot boarding position
1
2
3
4
5
6
7
PROHIBITED
ANCHORAGE
ALBA
SOUTH SHOALS
South Range
EXPLOSIVES
ANCHORAGE
BY
cableway
50° 42′ E

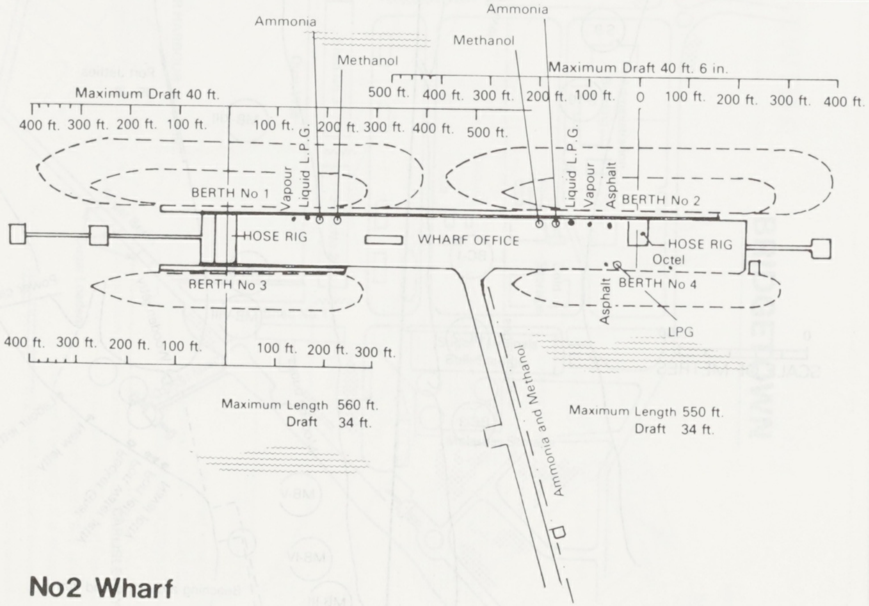

SITRA
(A.I.S.C.O.)
Deep Draft Clearance Leads 153° – 333°
Qk. Fl.
Gp. Fl.(2) 2s.
100
0
100
SCALE IN METRES
Western (Export) Berth
49.2
159
90°
Ship Loader
Ship Loader
Unloader 2
Unloader 1
Unloader 2
Unloader 1
184.6
248.6
75
25.7
32
Eastern (Import) Berth
25.7
79


SITRA
(A.I.S.C.O.)
MAXIMUM SIZE CRITERIA
MEASUREMENTS IN METRES
UNLOADING
LOADING
29.5
31.0
40.0
18.4
High Water Springs
Chart Datum
12.8
19.6
24.2
34.6
16.5

SITRA


No 5 Berth
Hose Rig
No 6 Berth
Landing Stage
500 ft.
400 ft.
300 ft.
200 ft.
100 ft.
100 ft.
200 ft.
300 ft.
400 ft.
500 ft.

No1 Island Wharf (BERTH 5 and BERTH 6)

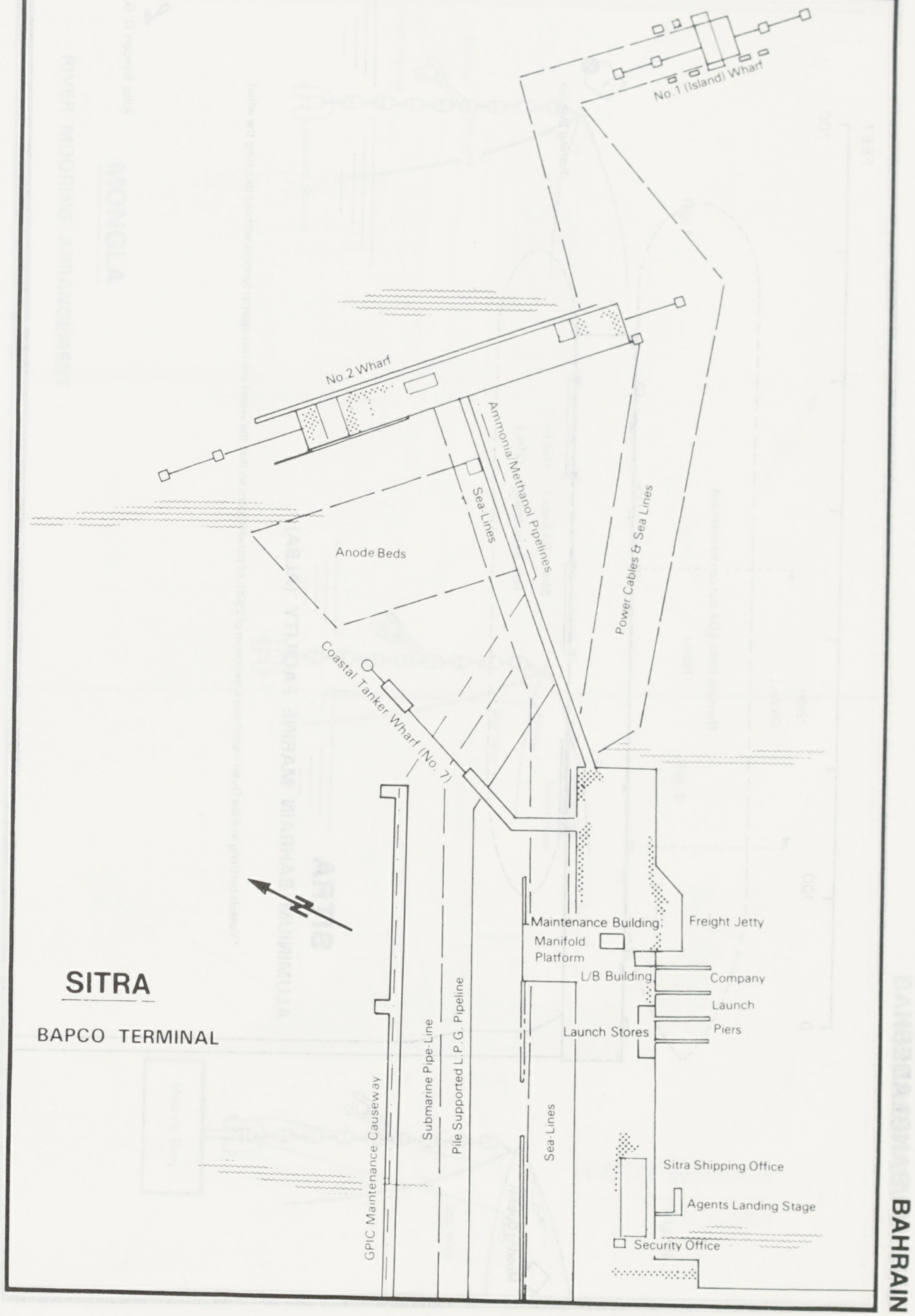

Ammonia
Methanol
Ammonia
Methanol
Maximum Draft 40 ft.
400 ft.
300 ft.
200 ft.
100 ft.
100 ft.
200 ft.
300 ft.
400 ft.
500 ft.
Maximum Draft 40 ft. 6 in.
500 ft.
400 ft.
300 ft.
200 ft.
100 ft.
0
100 ft.
200 ft.
300 ft.
400 ft.
BERTH No 1
Vapour
Liquid L.P.G.
Liquid L.P.G.
Vapour
Asphalt
BERTH No 2
HOSE RIG
WHARF OFFICE
HOSE RIG
Octel
BERTH No 3
BERTH No 4
Asphalt
LPG
400 ft.
300 ft.
200 ft.
100 ft.
100 ft.
200 ft.
300 ft.
Ammonia and Methanol

Maximum Length 560 ft.
Draft 34 ft.

Maximum Length 550 ft.
Draft 34 ft.

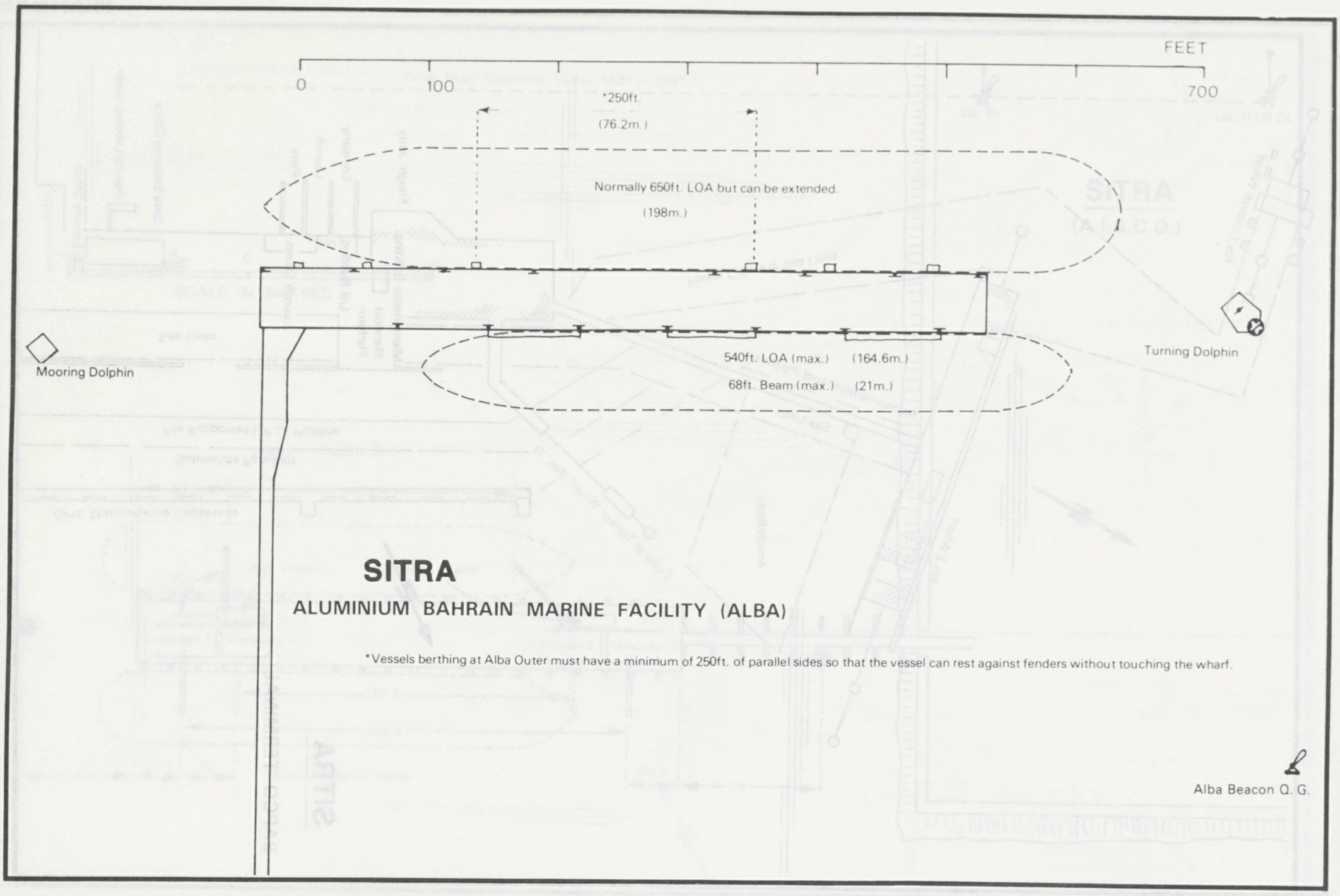
No2 Wharf

(BERTHS 1 – 4)


No.1 (Island) Wharf
No.2 Wharf
Ammonia Methanol Pipelines
Sea Lines
Power Cables & Sea Lines
Anode Beds
Coastal Tanker Wharf (No.7)
Maintenance Building
Manifold Platform
Freight Jetty
L/B Building
Company
Launch
Piers
Launch Stores
GPIC Maintenance Causeway
Submarine Pipe Line
Pile Supported L.P.G. Pipeline
Sea Lines
Sitra Shipping Office
Agents Landing Stage
Security Office

SITRA

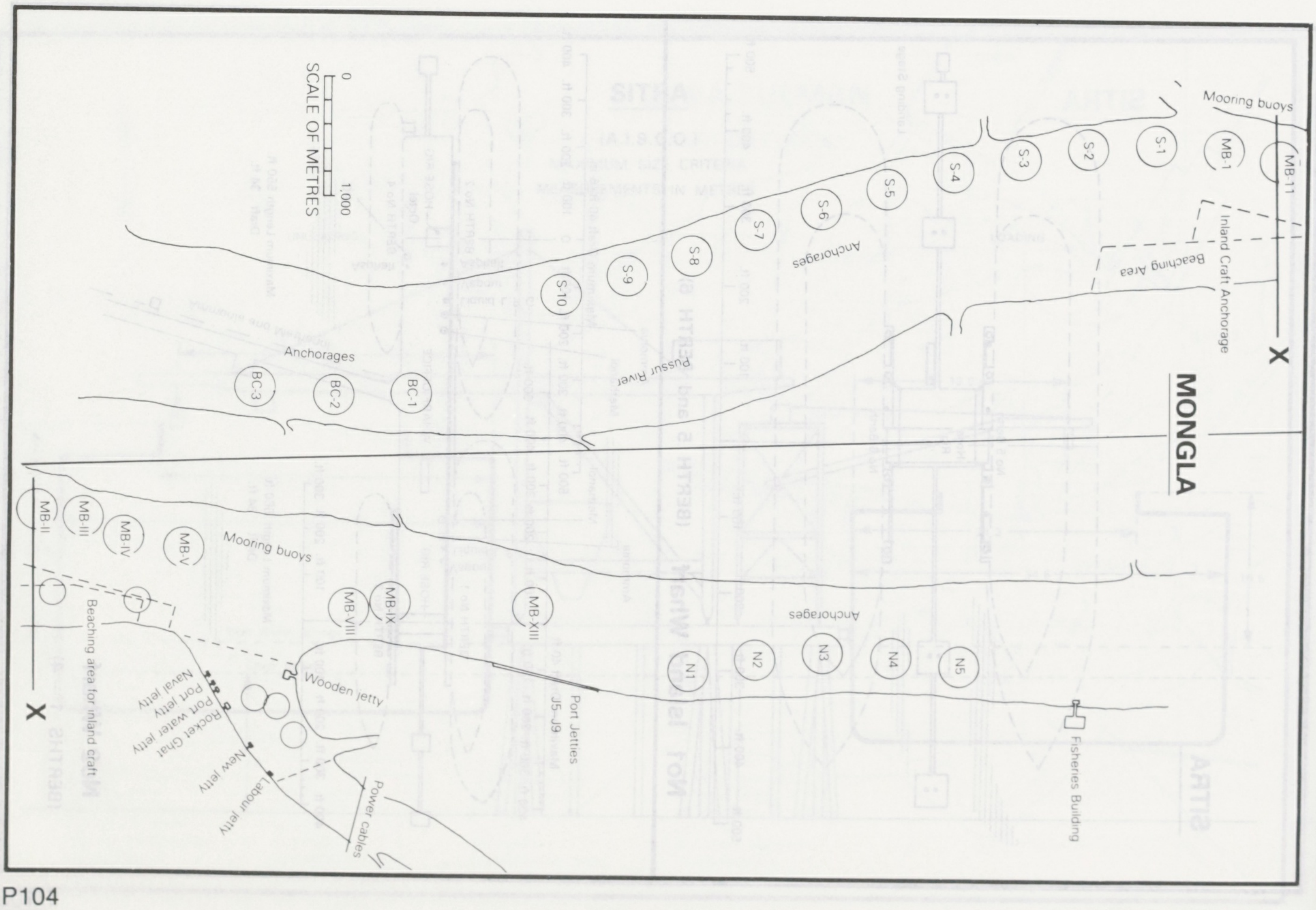
BAPCO TERMINAL


FEET
0
100
700
*250ft.
(76.2m.)
Normally 650ft. LOA but can be extended.
(198m.)
540ft. LOA (max.) (164.6m.)
68ft. Beam (max.) (21m.)
Mooring Dolphin
Turning Dolphin
Alba Beacon Q. G.

SITRA

ALUMINIUM BAHRAIN MARINE FACILITY (ALBA)

*Vessels berthing at Alba Outer must have a minimum of 250ft. of parallel sides so that the vessel can rest against fenders without touching the wharf.


MONGLA
SCALE OF METRES
0
1,000
Mooring buoys
MB-1
MB-11
S-1
S-2
S-3
S-4
S-5
S-6
S-7
S8
S-9
S-10
Anchorages
Inland Craft Anchorage
Beaching Area
X
Pussur River
Anchorages
BC-1
BC-2
BC-3
MB-II
MB-III
MB-IV
MB-V
Mooring buoys
MB-VIII
MB-IX
MB-XIII
Anchorages
N1
N2
N3
N4
N5
Beaching area for inland craft
X
Wooden jetty
Naval jetty
Port jetty
Port water jetty
Rocket Ghat
New jetty
Labour jetty
Power cables
Port Jetties
J5 - J9
Fisheries Building

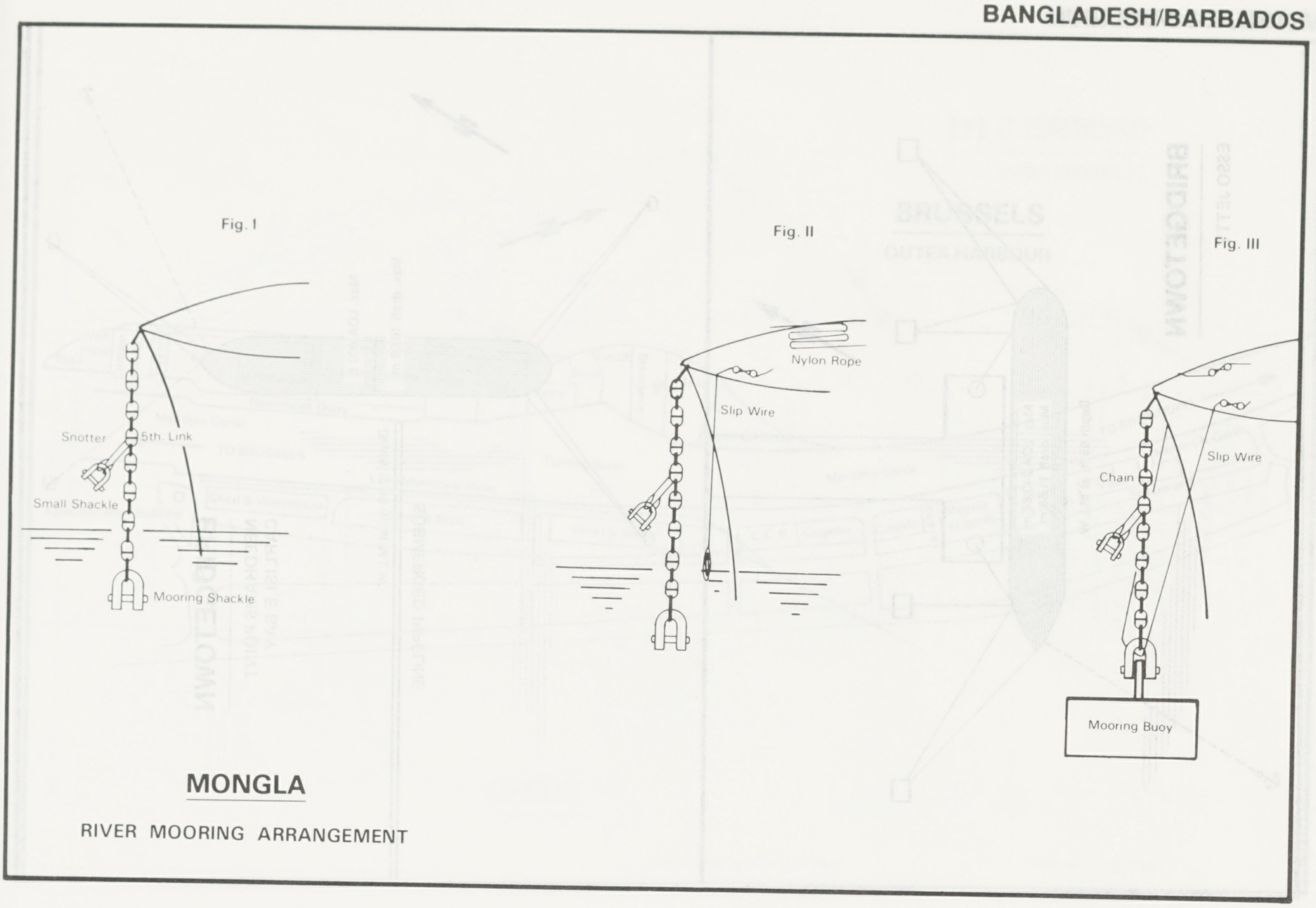
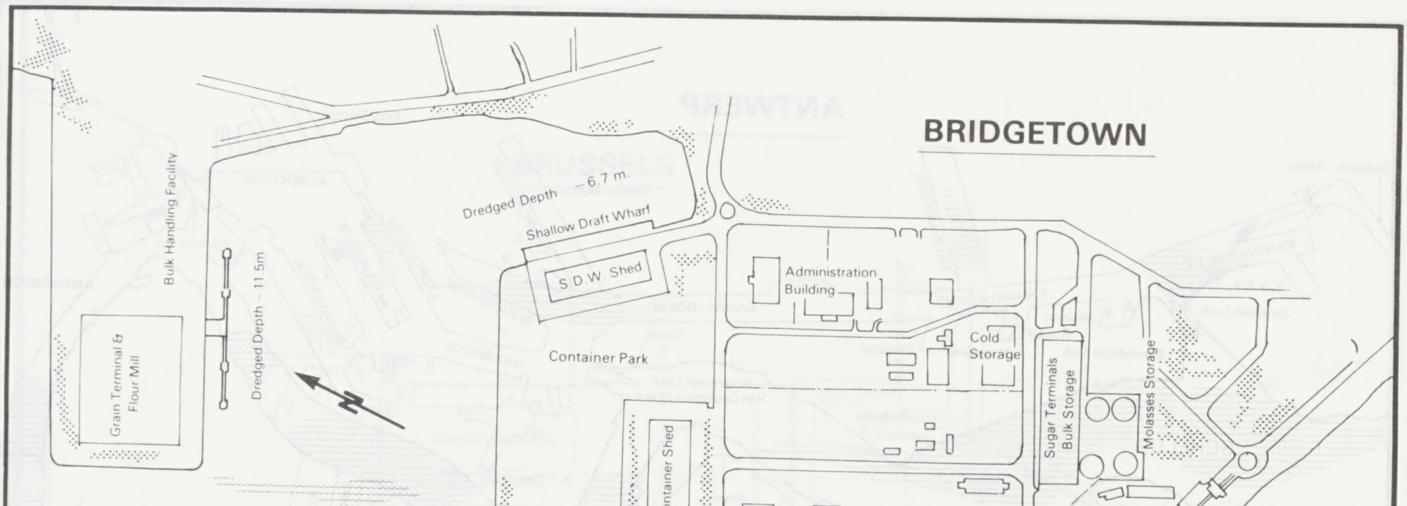
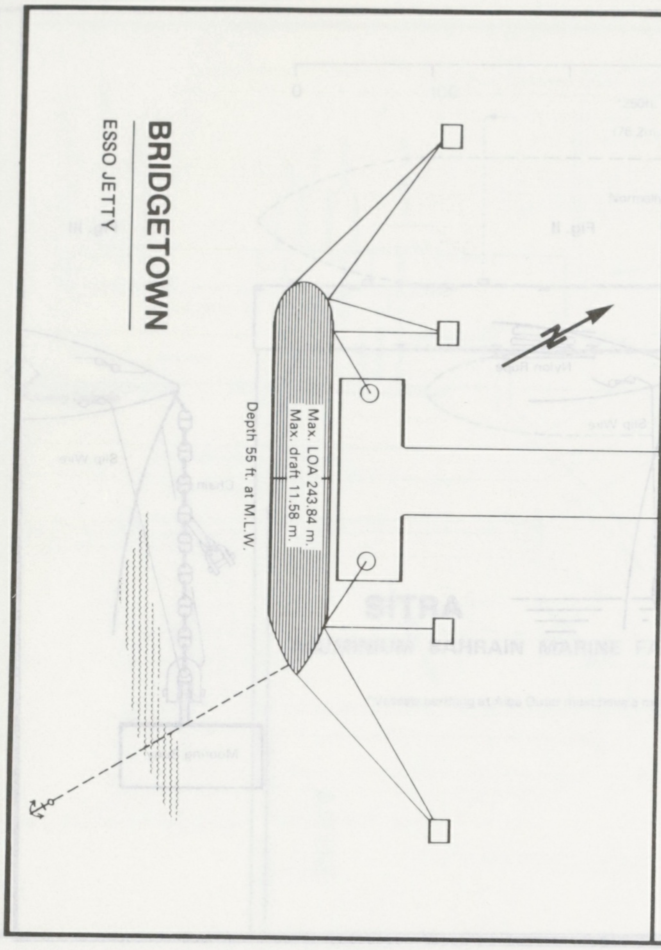


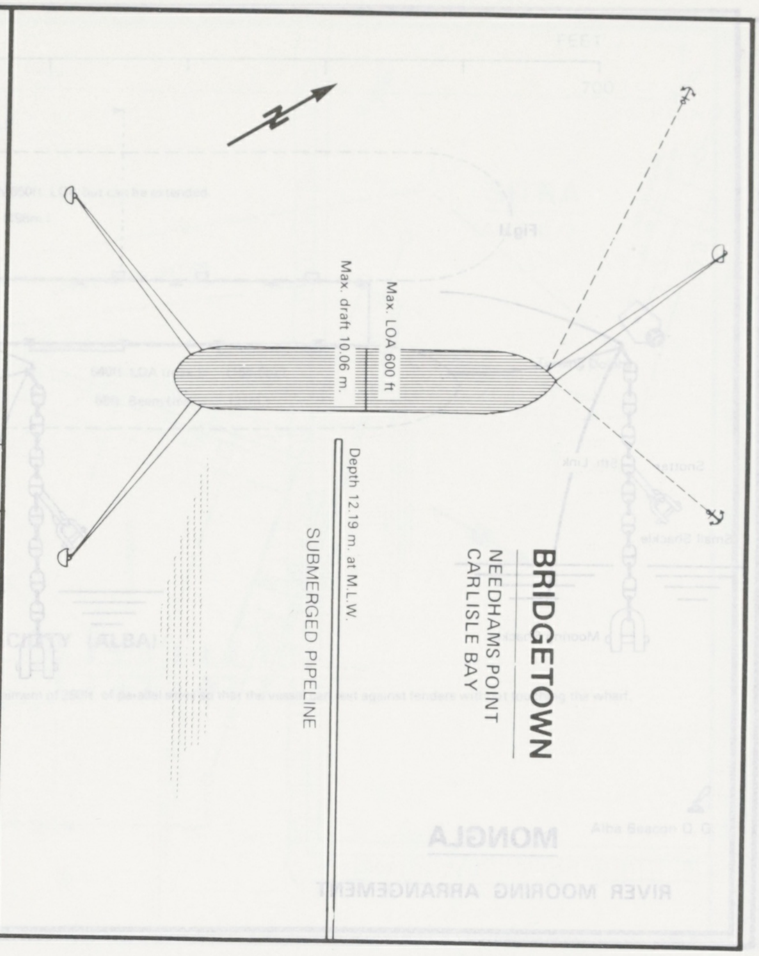
Fig. I
Snotter
5th. Link
Small Shackle
Mooring Shackle
Fig. II
Nylon Rope
Slip Wire
Fig. III
Slip Wire
Chain
Mooring Buoy

MONGLA

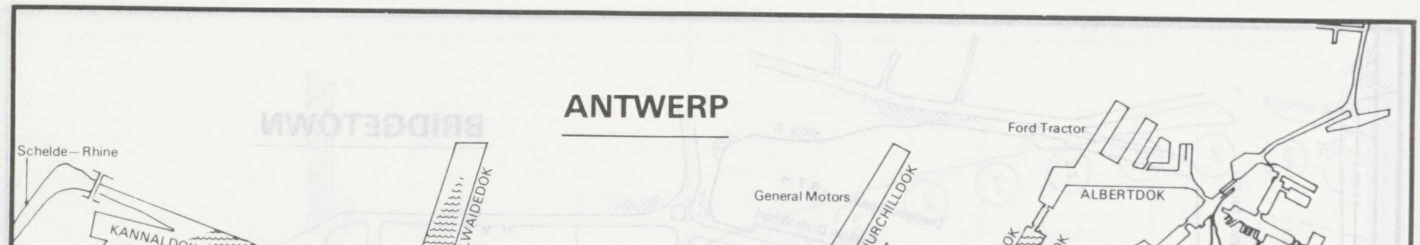
RIVER MOORING ARRANGEMENT


BRIDGETOWN
Dredged Depth – 6.7 m.
Shallow Draft Wharf
S.D.W. Shed
Administration Building
Cold Storage
Container Park
Bulk Handling Facility
Grain Terminal & Flour Mill
Dredged Depth – 11.5m
Container Shed
Sugar Terminals Bulk Storage
Molasses Storage
Shed No.3
Shed No.2
Shed No.1
Container Berth
Quay Wall
Cross Berth
335 m. Diameter Turning Circle (Depth – 11.5m)
DEEP WATER HARBOUR – 9.7 m.
Jetty (ESSO)
CARLISLE BAY
Sugar Berth
Sugar Loaders
Breakwater Berths
Signal Station


BRIDGETOWN
ESSO JETTY
Max. LOA 243.84 m.
Max. draft 11.58 m.
Depth 55 ft. at M.L.W.

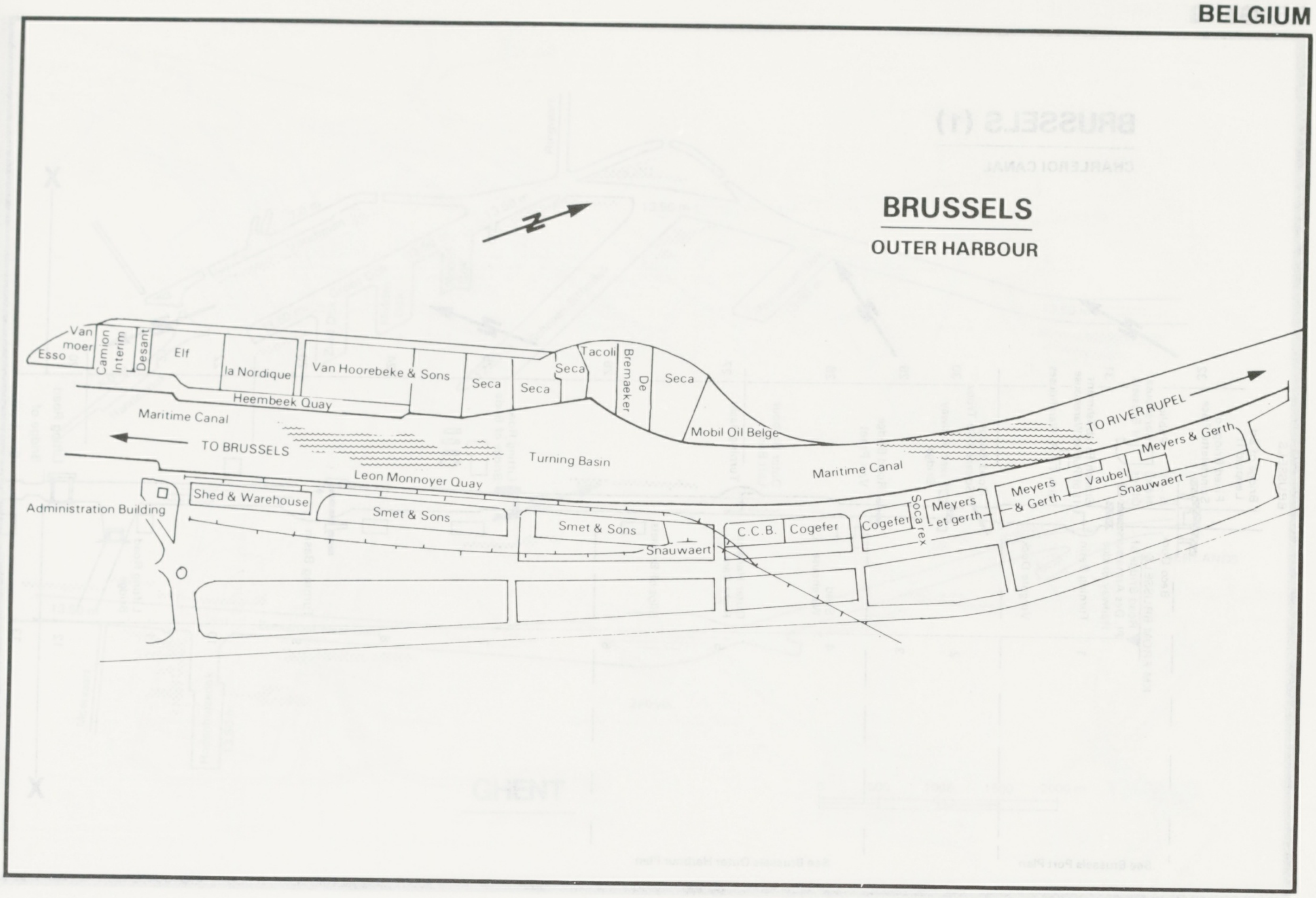

BRIDGETOWN
NEEDHAMS POINT
CARLISLE BAY
Max. LOA 600 ft
Max. draft 10.06 m.
Depth 12.19 m. at M.L.W.
SUBMERGED PIPELINE

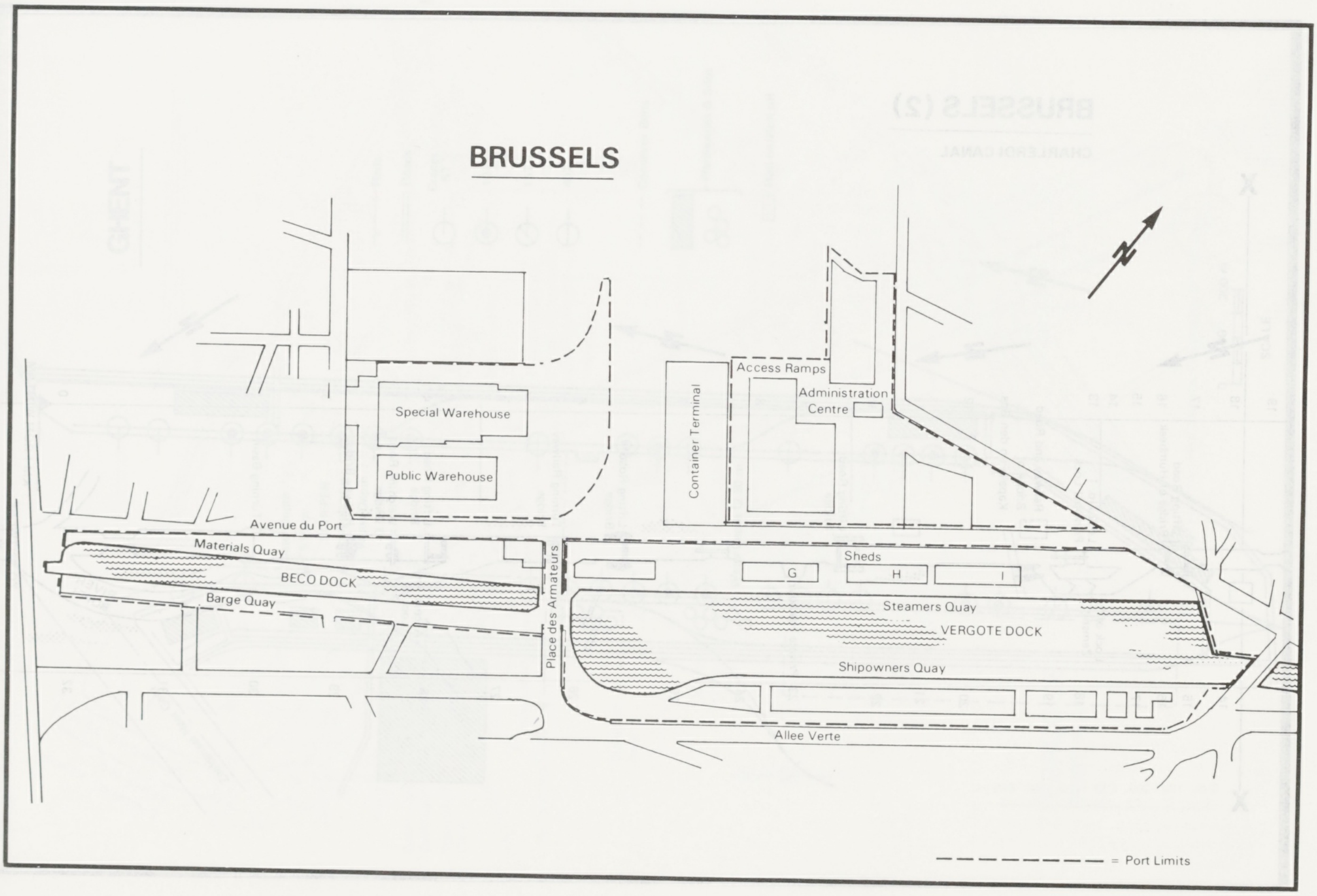
ANTWERP


Schelde – Rhine
KANNALDOK B3
B.A.S.F.
Zandvliet Lock
Albatros
Solvay
Berendrechtlock
Monsanto
Gamatex
KANAALDOK B2
DELWAIDEDOK
KANAALDOK B1
Bayer
Boudewijn Lock
Van Cauwelaert Lock
Degussa
SCHELDE
Kern Centrale
Bayer
J.Halterman
Henkel
Rhone – Poulenc
Progil
Kallo Lock
DOELDOK
WAASLANDKANNAL
VRASENDOK
INSTEEK DOCK
Chevron
Petrochim
B.P. Chemicals
Union Carbide
B.P.Chemicals
Essochem Plastics
Polysar
General Motors
CHURCHILLDOK
A
B
6e HAVENDOK
C
HANSADOK
M
L
K
J
G
F
H
LEOPOLDDOK
4e HAVENDOK
5e HAVENDOK
Ford Tractor
ALBERTDOK
Royers Lock
ANTWERPEN

A – Container Terminal
B – Sobelgra S.A. – Grain Terminal
C – Stocatra S.A. – Bulk Handling

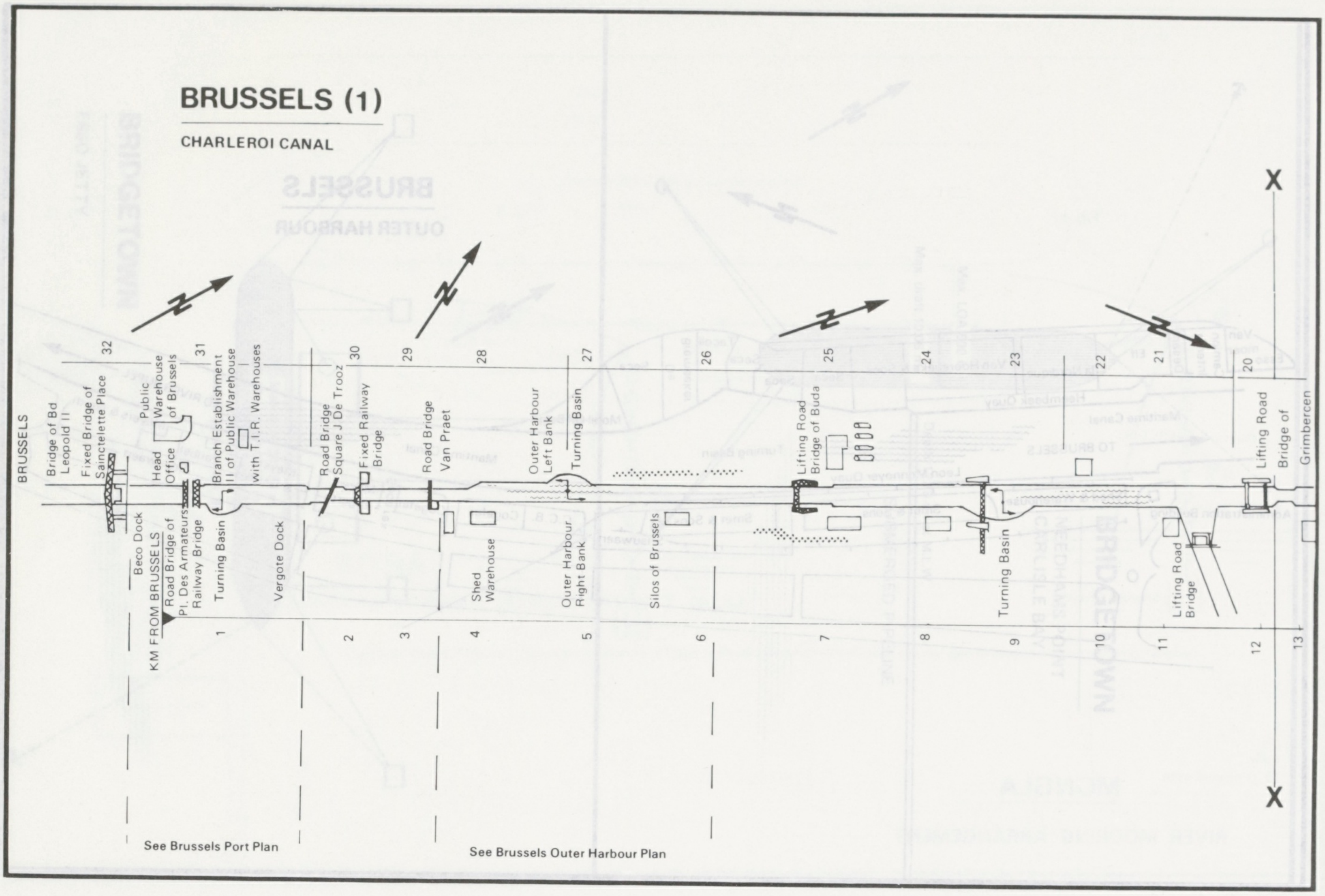
F – Refinery R.B.P.
G – Sibelco N.V. – Silversand
H – Solvay S.A. – Soda Products
J – Eurotank N.V. – Oils and Chemicals
K – Shipyard Mercantile Marine Engineering & Graving Docks Co.
L – Refinery ESSO
M – Refinery S.I.B.P.


BRUSSELS
OUTER HARBOUR
Van moer
Esso
Camion
Interim
Desant
Elf
la Nordique
Van Hoorebeke & Sons
Seca
Seca
Seca
Tacoli
De Bremaeker
Seca
Heembeek Quay
Maritime Canal
TO BRUSSELS
Turning Basin
Mobil Oil Belge
TO RIVER RUPEL
Meyers & Gerth
Maritime Canal
Leon Monnoyer Quay
Administration Building
Shed & Warehouse
Smet & Sons
Smet & Sons
Snauwaert
C.C.B.
Cogefer
Cogefer
Socarex
Meyers et gerth
Meyers & Gerth
Vaubel
Snauwaert


BRUSSELS
Special Warehouse
Public Warehouse
Container Terminal
Access Ramps
Administration Centre
Avenue du Port
Materials Quay
BECO DOCK
Barge Quay
Place des Armateurs
Sheds
G
H
I
Steamers Quay
VERGOTE DOCK
Shipowners Quay
Allee Verte
= Port Limits

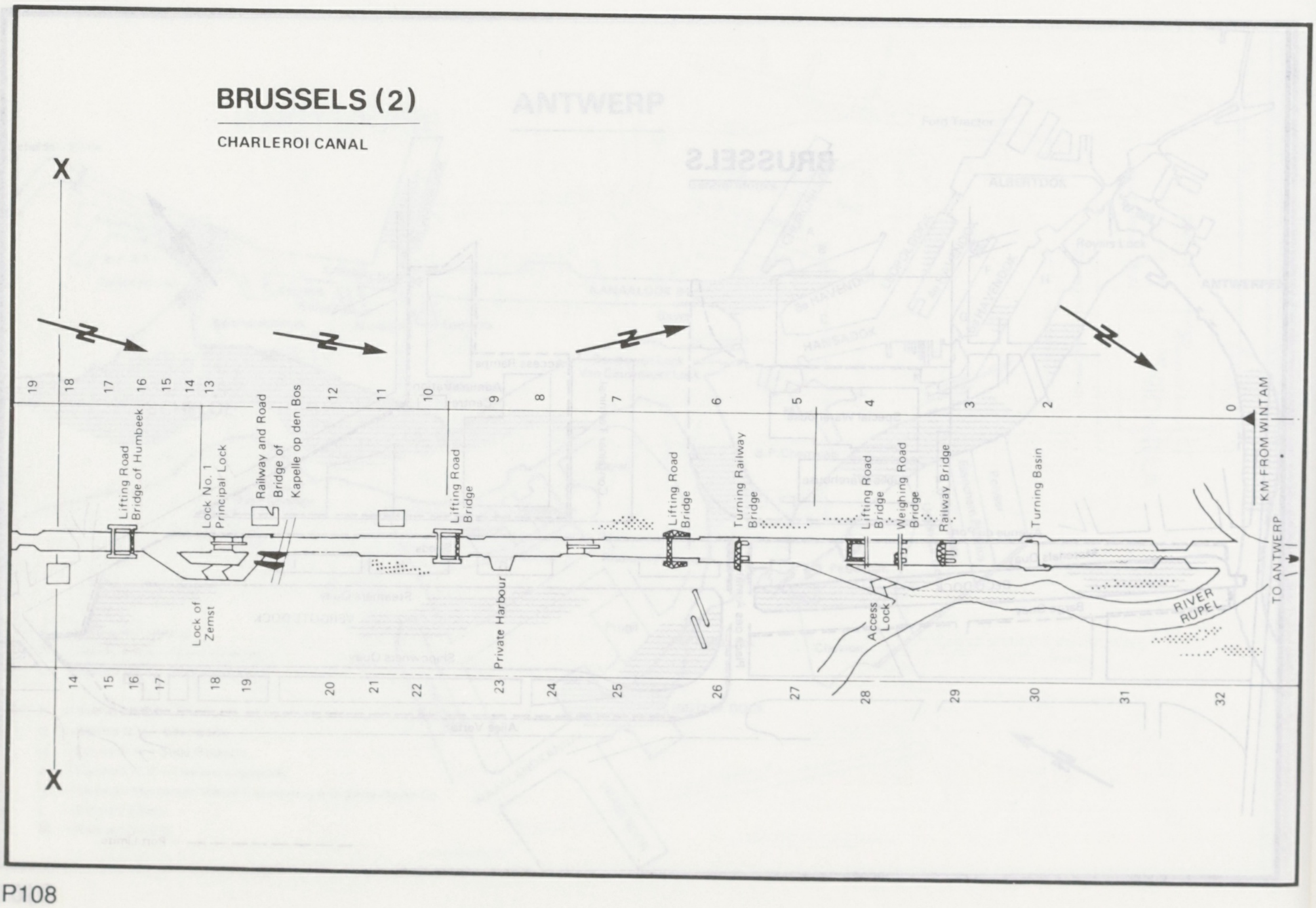
BRUSSELS (1)

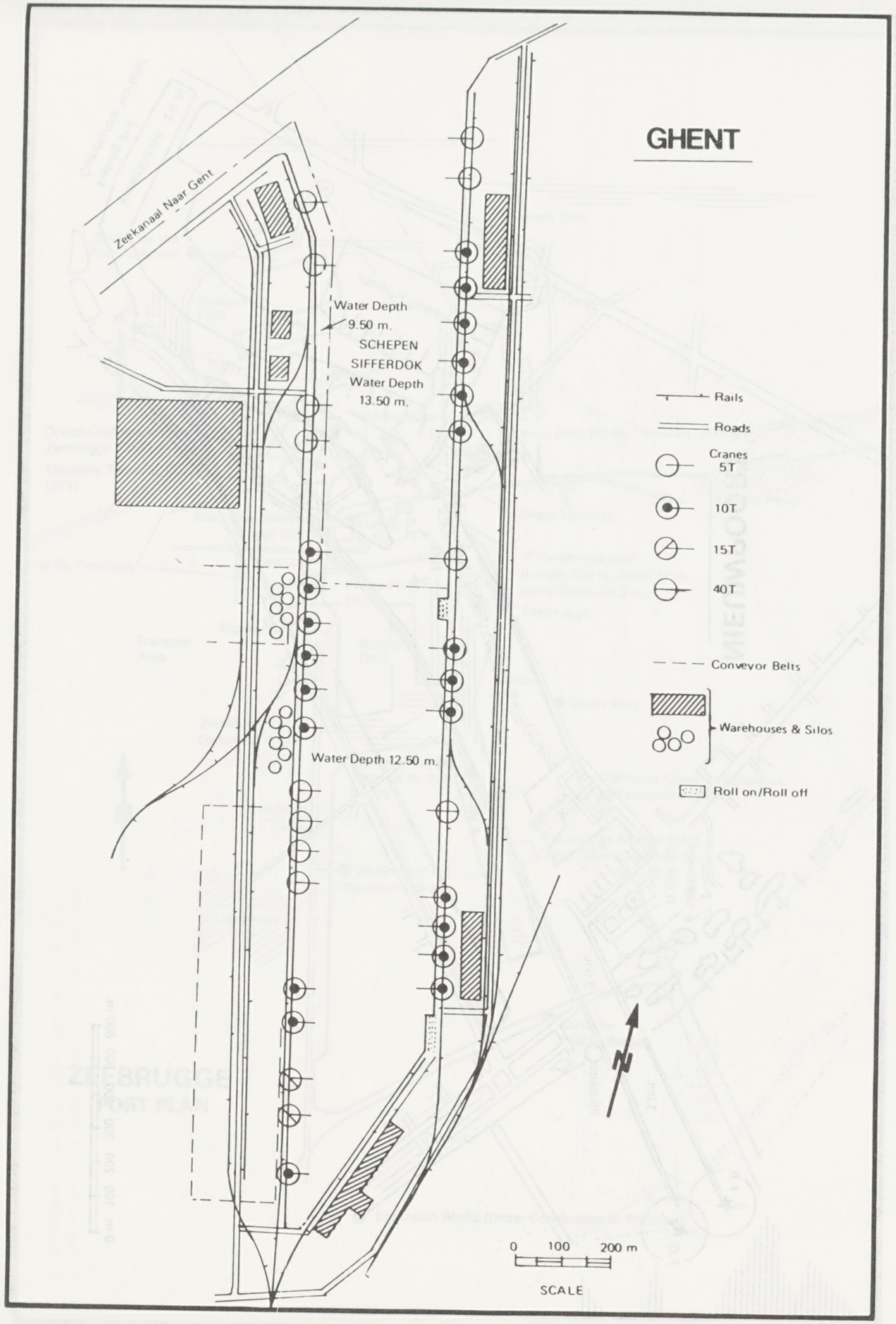
CHARLEROI CANAL

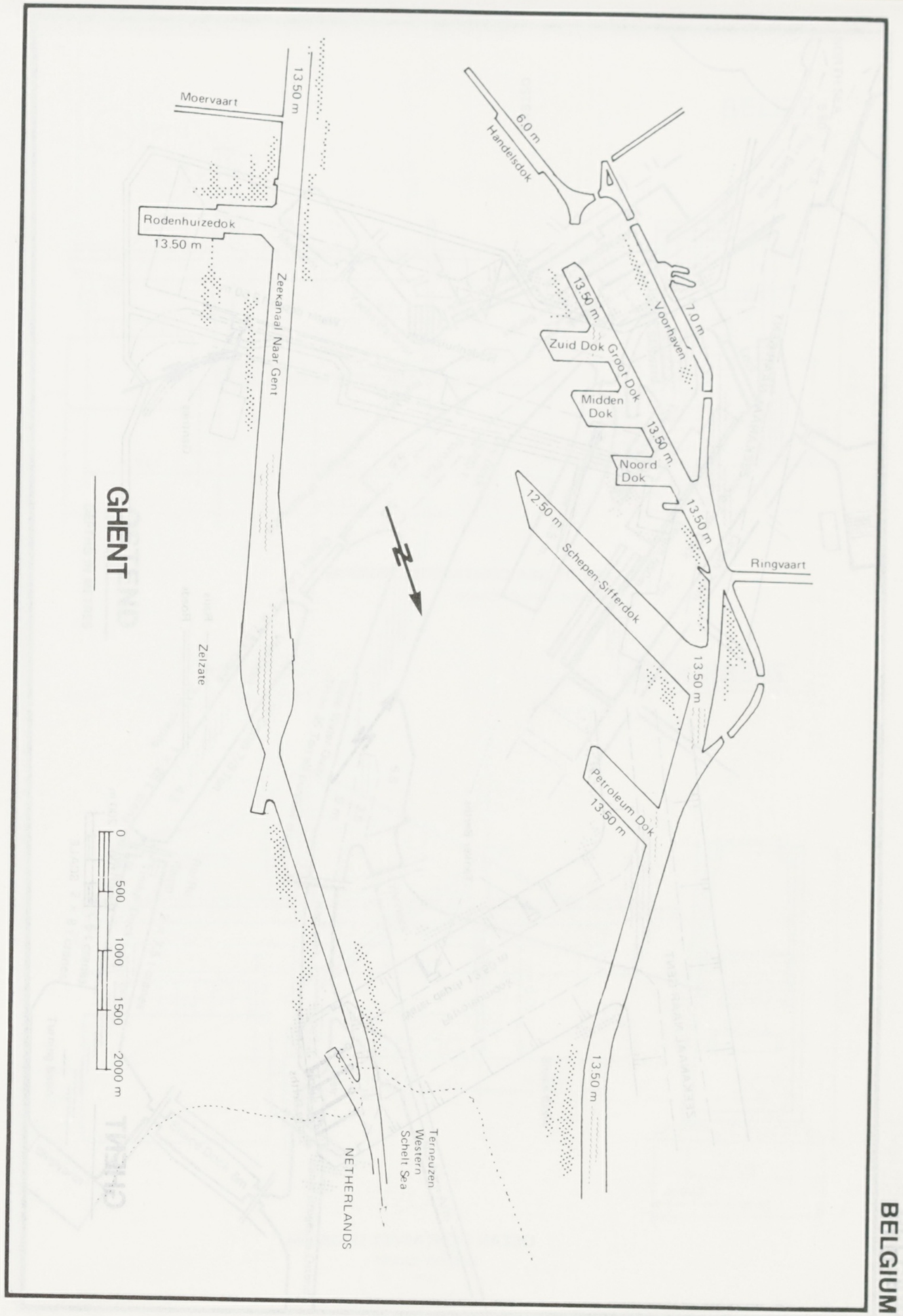

BRUSSELS
Bridge of Bd Leopold II
Fixed Bridge of Sainctelette Place
Beco Dock
Head Office
Public Warehouse of Brussels
KM FROM BRUSSELS
Road Bridge of Pl. Des Armateurs
Railway Bridge
Turning Basin
Branch Establishment II of Public Warehouse with T.I.R. Warehouses
Vergote Dock
Road Bridge Square J De Trooz
Fixed Railway Bridge
Road Bridge Van Praet
Shed Warehouse
Outer Harbour Left Bank
Outer Harbour Right Bank
Turning Basin
Silos of Brussels
Lifting Road Bridge of Buda
Turning Basin
Lifting Road Bridge
Lifting Road Bridge of Grimbercen
See Brussels Port Plan
See Brussels Outer Harbour Plan
1
2
3
4
5
6
7
8
9
10
11
12
13
32
31
30
29
28
27
26
25
24
23
22
21
20
X
X

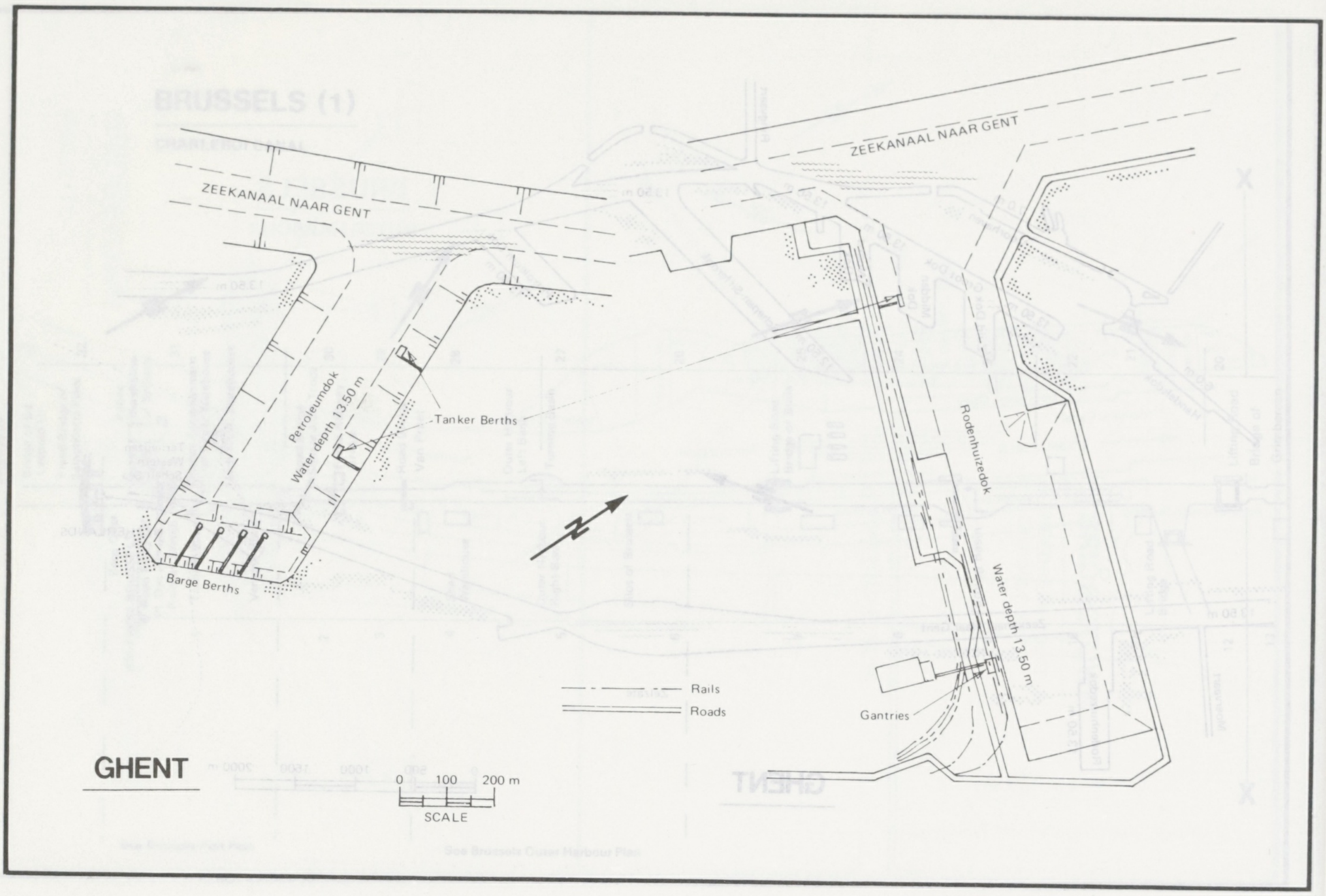
BRUSSELS (2)

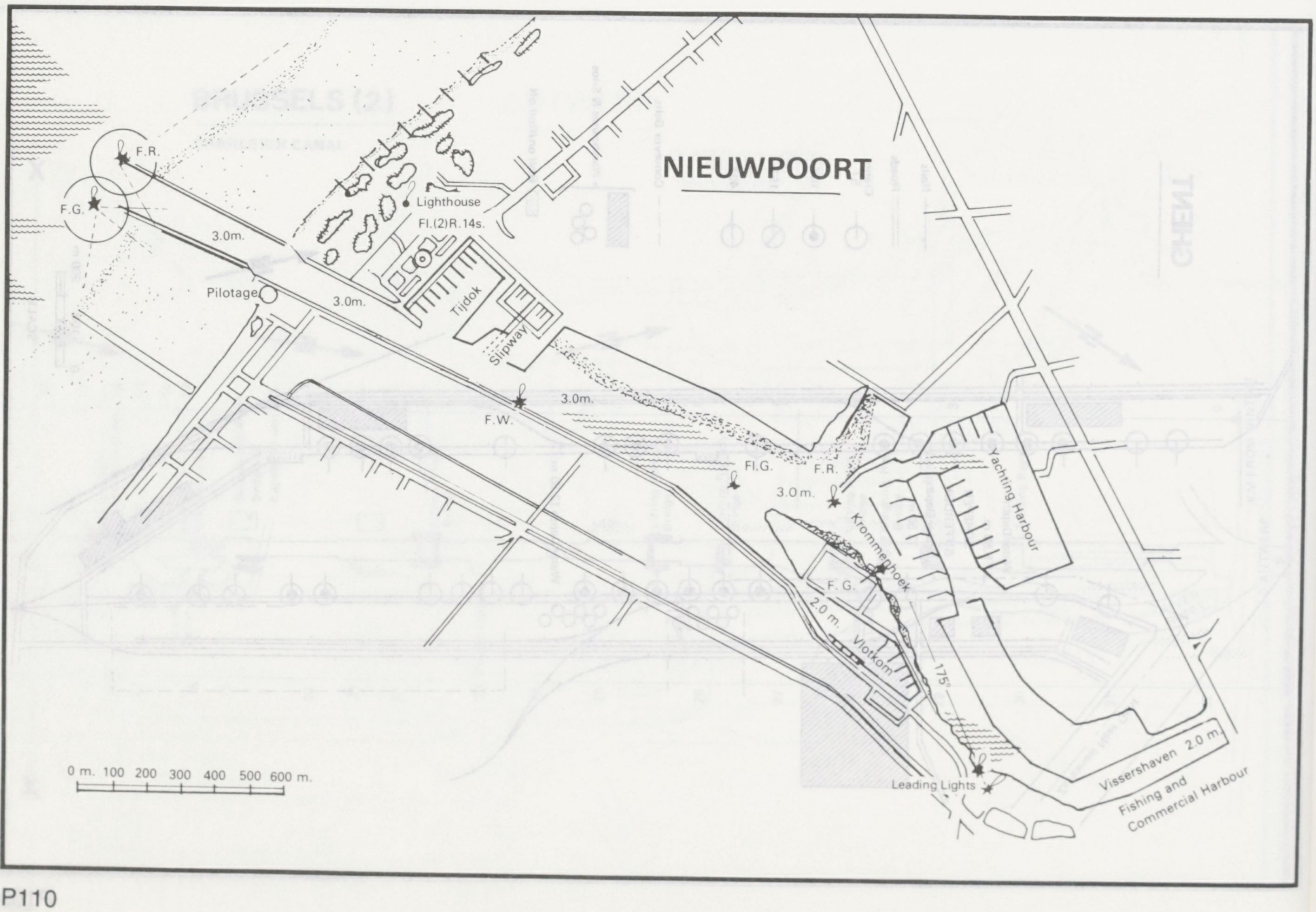
CHARLEROI CANAL

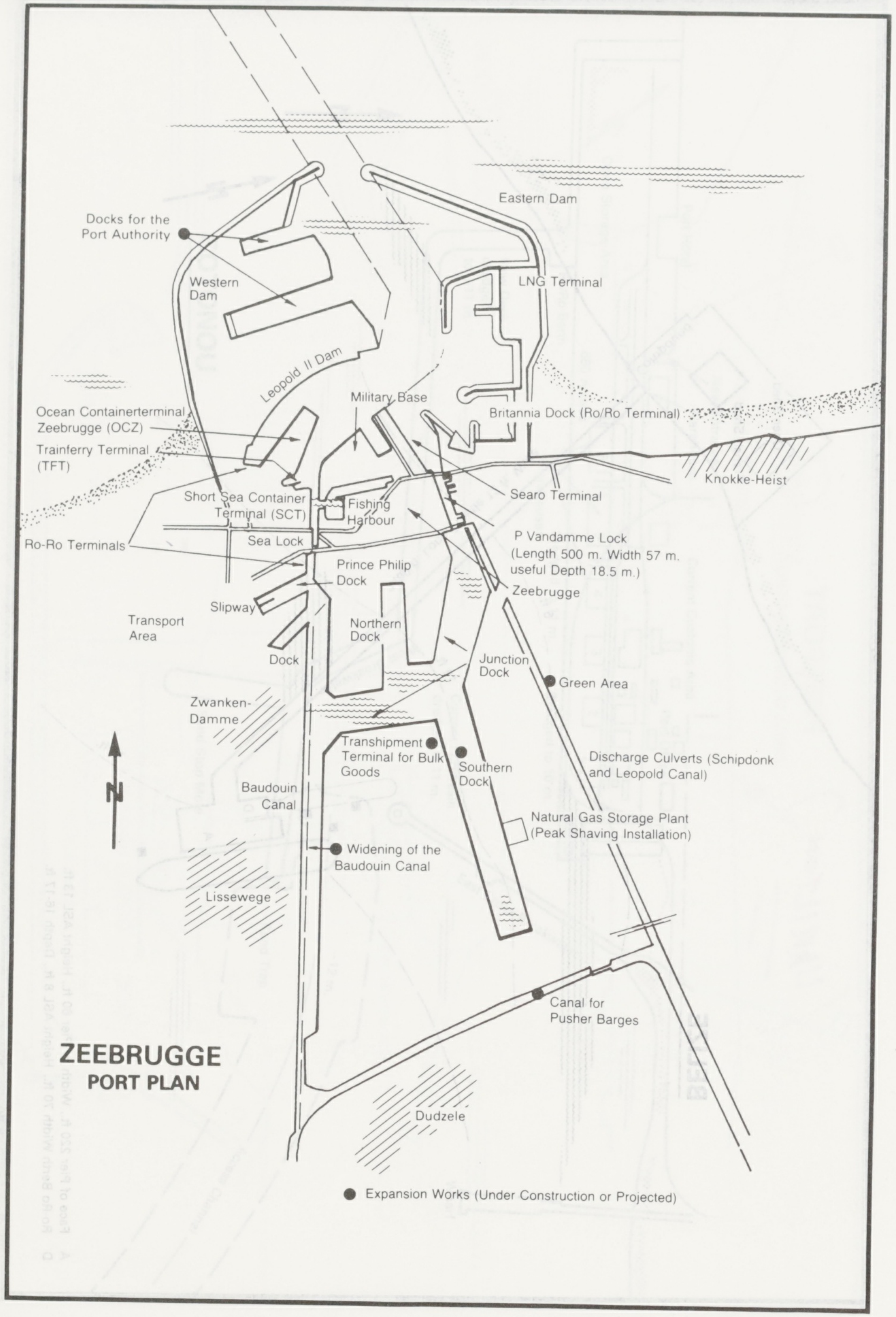

X
X
Lifting Road Bridge of Humbeek
Lock of Zemst
Lock No. 1 Principal Lock
Railway and Road Bridge of Kapelle op den Bos
Lifting Road Bridge
Private Harbour
Lifting Road Bridge
Turning Railway Bridge
Lifting Road Bridge
Access Lock
Weighing Road Bridge
Railway Bridge
Turning Basin
RIVER RUPEL
TO ANTWERP
KM FROM WINTAM
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
0
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32


GHENT
Zeekanaal Naar Gent
Water Depth 9.50 m.
SCHEPEN SIFFERDOK
Water Depth 13.50 m.
Rails
Roads
Cranes
5T
10T
15T
40T
Conveyor Belts
Warehouses & Silos
Roll on/Roll off
Water Depth 12.50 m.
0
100
200 m
SCALE

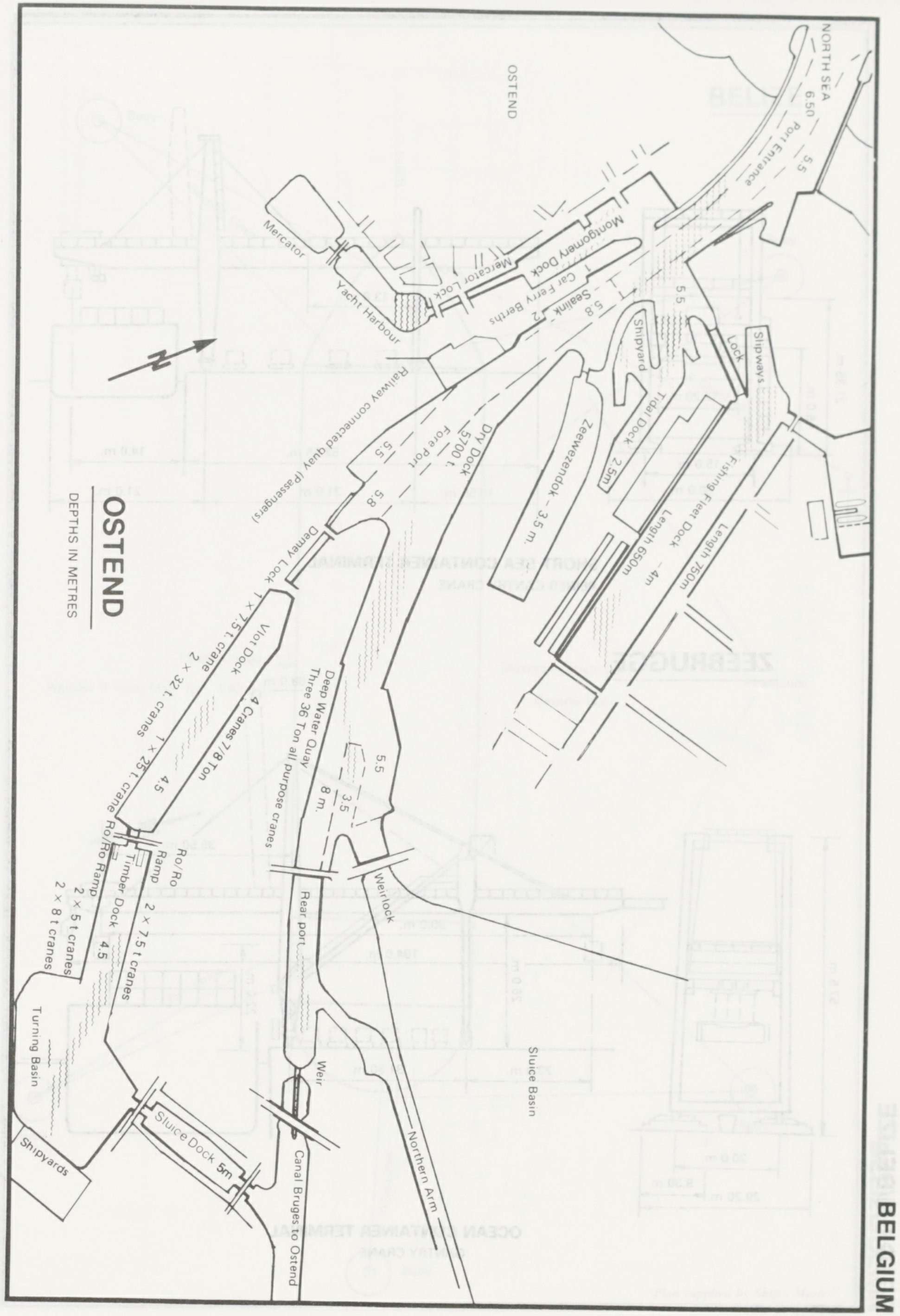

GHENT
Moervaart
13.50 m
Rodenhuizedok
13.50 m
Zeekanaal Naar Gent
Zelzate
6.0 m
Handelsdok
7.0 m
Voorhaven
13.50 m
Zuid Dok
Groot Dok
Midden Dok
13.50 m
Noord Dok
13.50 m
12.50 m
Schepen-Sifferdok
Ringvaart
13.50 m
Petroleum Dok
13.50 m
13.50 m
0
500
1000
1500
2000 m
NETHERLANDS
Terneuzen
Western
Schelt Sea


ZEEKANAAL NAAR GENT
ZEEKANAAL NAAR GENT
Petroleumdok
Water depth 13.50 m
Tanker Berths
Barge Berths
Rodenhuizedok
Water depth 13.50 m
Gantries
Rails
Roads
GHENT
0
100
200 m
SCALE


NIEUWPOORT
F.R.
F.G.
3.0m.
Lighthouse
Fl.(2)R.14s.
Pilotage
3.0m.
Tijdok
Slipway
F.W.
3.0m.
Fl.G.
F.R.
3.0m.
Yachting Harbour
Krommenhoek
F.G.
2.0 m.
Vlotkom
175°
Leading Lights
Vissershaven 2.0 m.
Fishing and Commercial Harbour
0 m. 100 200 300 400 500 600 m.

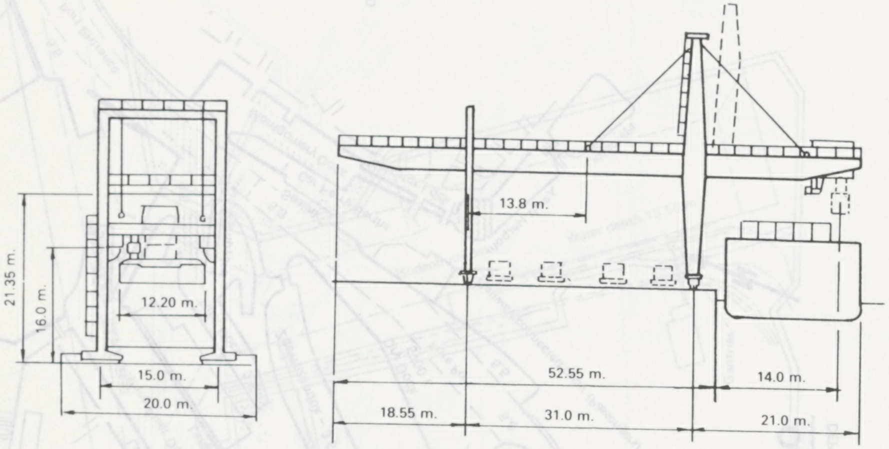

Eastern Dam
Docks for the Port Authority
Western Dam
LNG Terminal
Leopold II Dam
Military Base
Britannia Dock (Ro/Ro Terminal)
Ocean Containerterminal Zeebrugge (OCZ)
Trainferry Terminal (TFT)
Knokke-Heist
Short Sea Container Terminal (SCT)
Fishing Harbour
Searo Terminal
Ro-Ro Terminals
Sea Lock
P Vandamme Lock (Length 500 m. Width 57 m. useful Depth 18.5 m.)
Prince Philip Dock
Zeebrugge
Slipway
Transport Area
Northern Dock
Dock
Junction Dock
Green Area
Zwanken-Damme
Transhipment Terminal for Bulk Goods
Southern Dock
Discharge Culverts (Schipdonk and Leopold Canal)
N
Baudouin Canal
Natural Gas Storage Plant (Peak Shaving Installation)
Widening of the Baudouin Canal
Lissewege
Canal for Pusher Barges
Dudzele
Expansion Works (Under Construction or Projected)

ZEEBRUGGE
PORT PLAN


NORTH SEA
6.50
Port Entrance
5.5
Mercator
Mercator Lock
Montgomery Dock
Car Ferry Berths
Sealink
5.8
5.5
Yacht Harbour
Lock
Slipways
Shipyard
Tidal Dock 2.5m
Fishing Fleet Dock
Length 750m
Zeewezendok – 3.5 m.
Length 650m
4m
N
Railway connected quay (passengers)
Dry Dock 5700 t.
Fore Port
5.5
5.8
Demey Lock
1 × 7.5 t. crane
2 × 32 t. cranes
1 × 25 t. crane
Vlot Dock
4 Cranes 7/8 Ton
4.5
Deep Water Quay
Three 36 Ton all purpose cranes
8 m.
5.5
3.5
Ro/Ro Ramp
Ro/Ro Ramp
Timber Dock
2 × 7.5 t cranes
2 × 5 t cranes
2 × 8 t cranes
4.5
Rear port
Weirlock
Turning Basin
Weir
Sluice Dock
5m
Shipyards
Canal Bruges to Ostend
Northern Arm

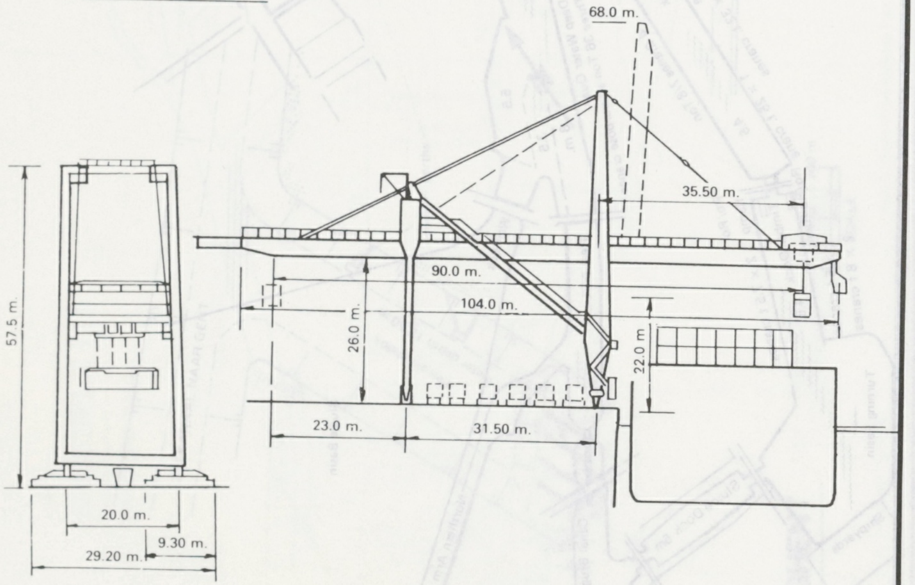
OSTEND

DEPTHS IN METRES


13.8 m.
21.35 m.
16.0 m.
12.20 m.
15.0 m.
20.0 m.
52.55 m.
14.0 m.
18.55 m.
31.0 m.
21.0 m.

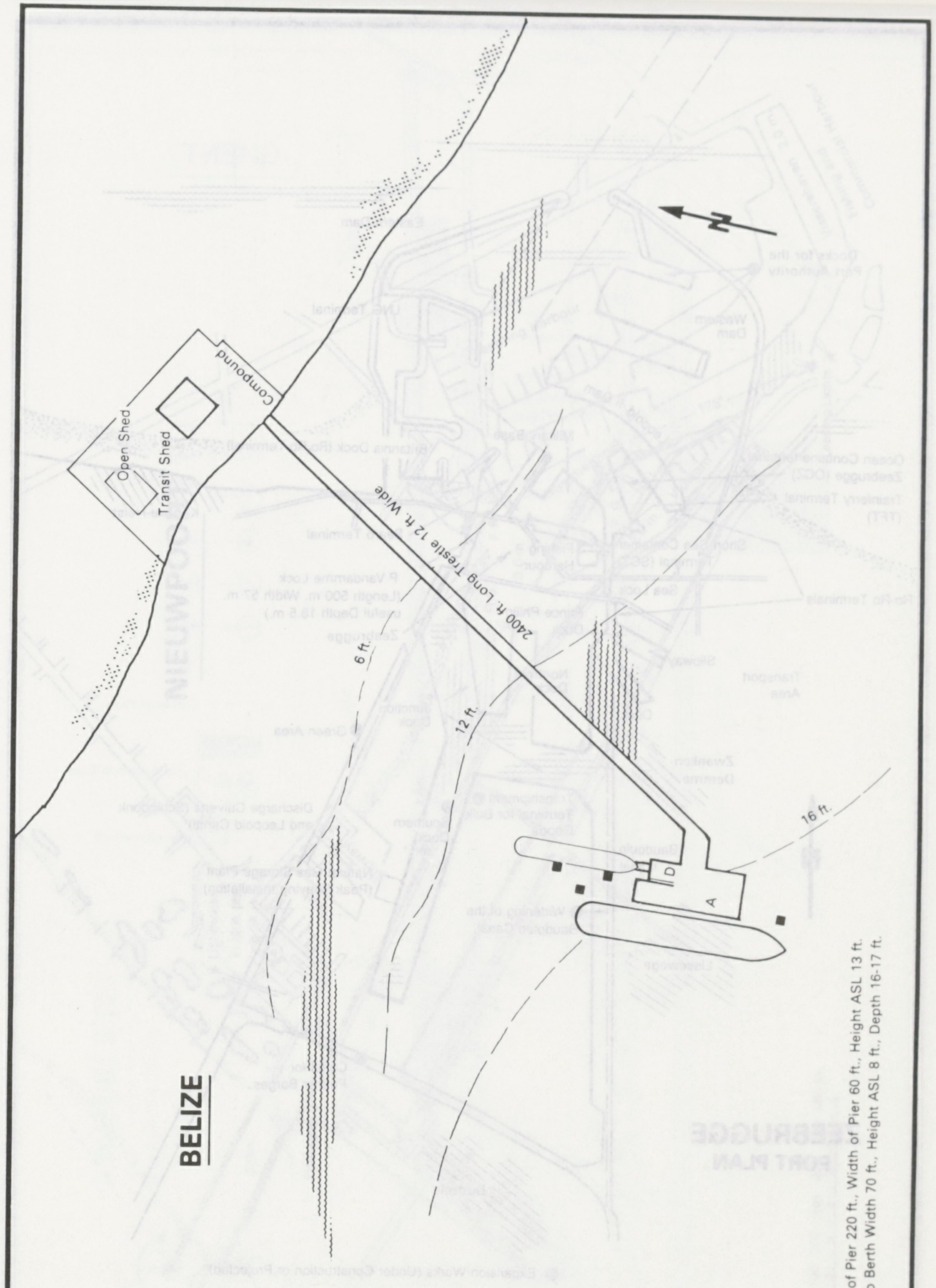
SHORT SEA CONTAINER TERMINAL
PEINER GANTRY CRANE

ZEEBRUGGE

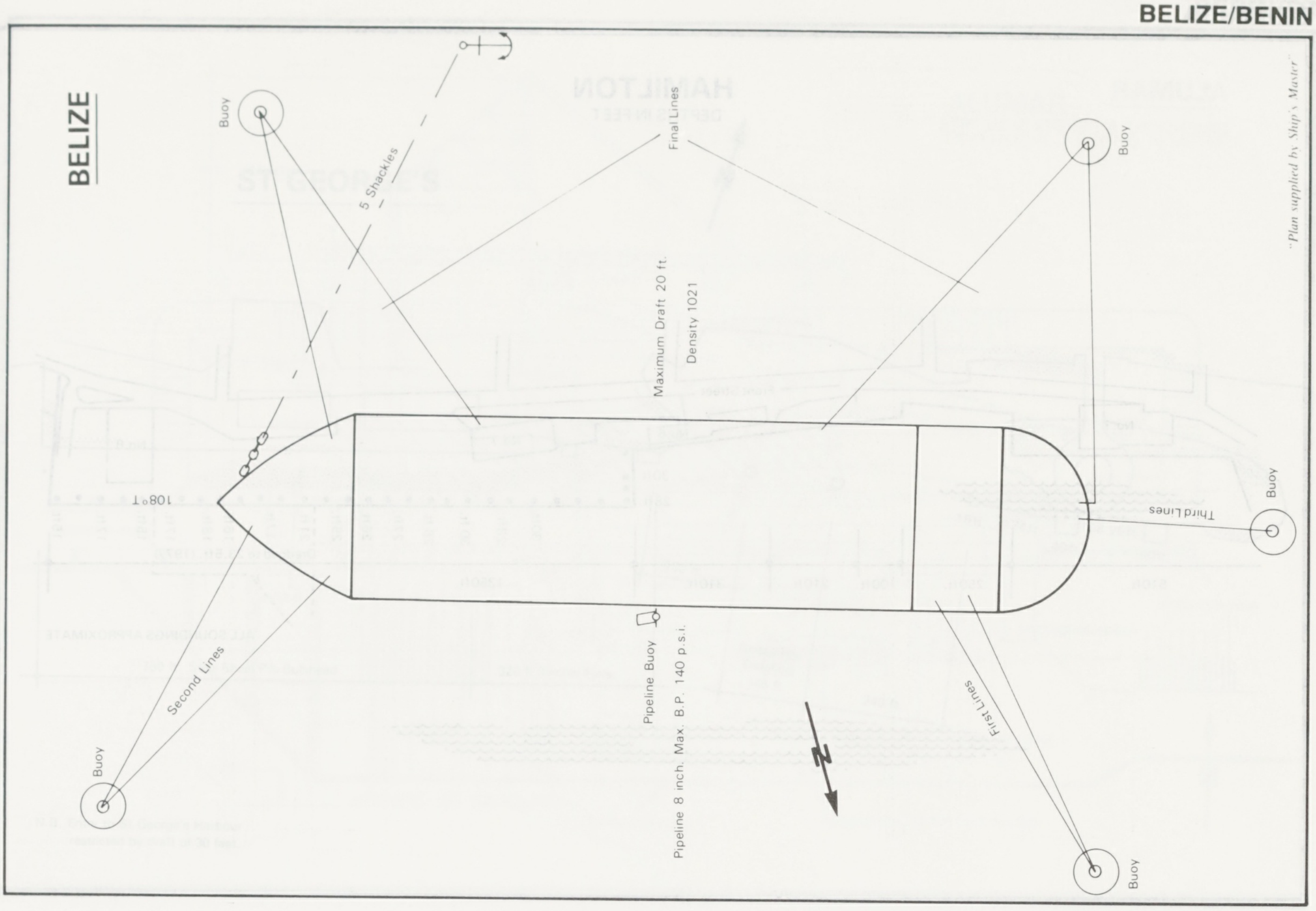

68.0 m.
35.50 m.
90.0 m.
104.0 m.
57.5 m.
26.0 m.
22.0 m.
23.0 m.
31.50 m.
20.0 m.
9.30 m.
29.20 m.

OCEAN CONTAINER TERMINAL
GANTRY CRANE

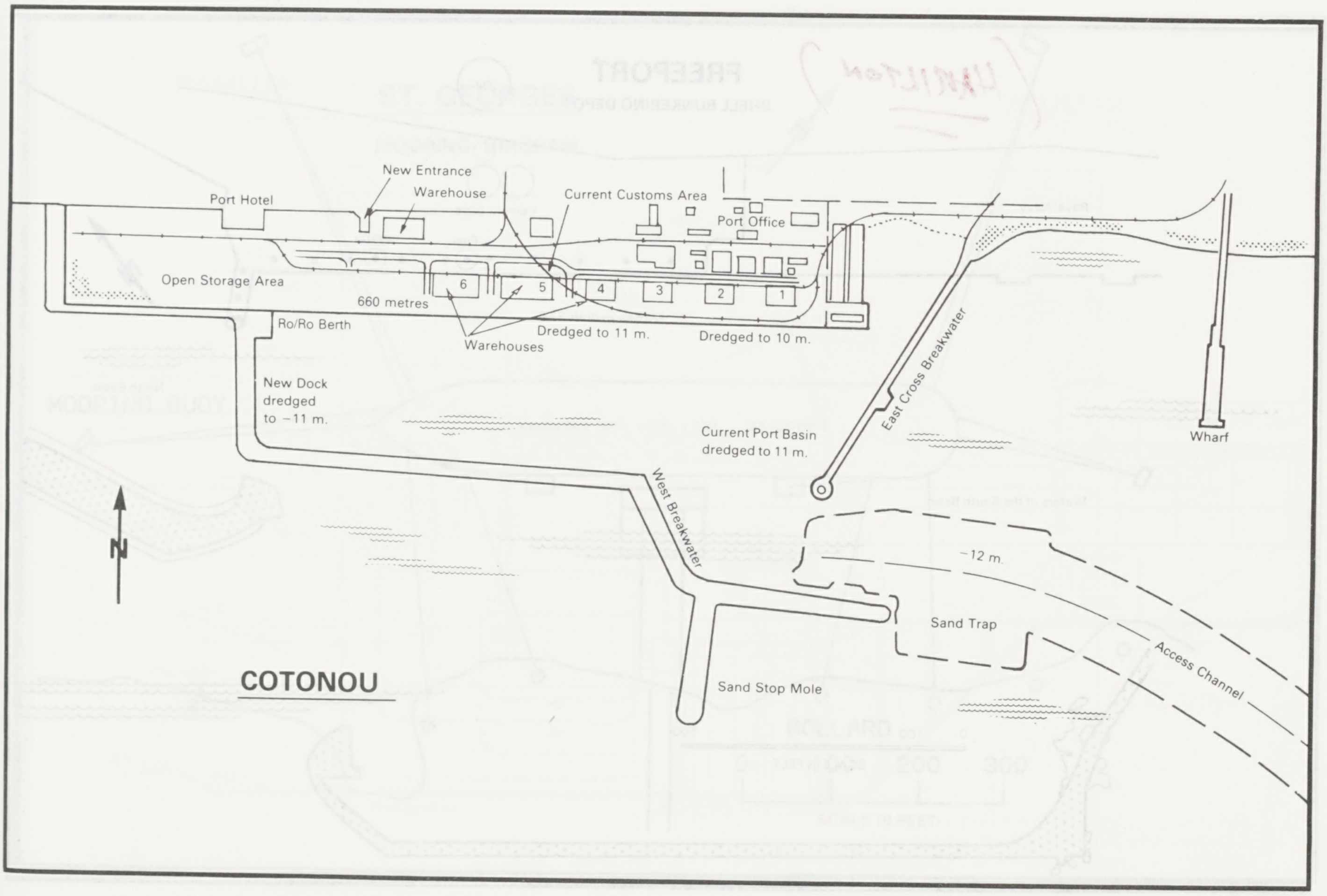
BELIZE

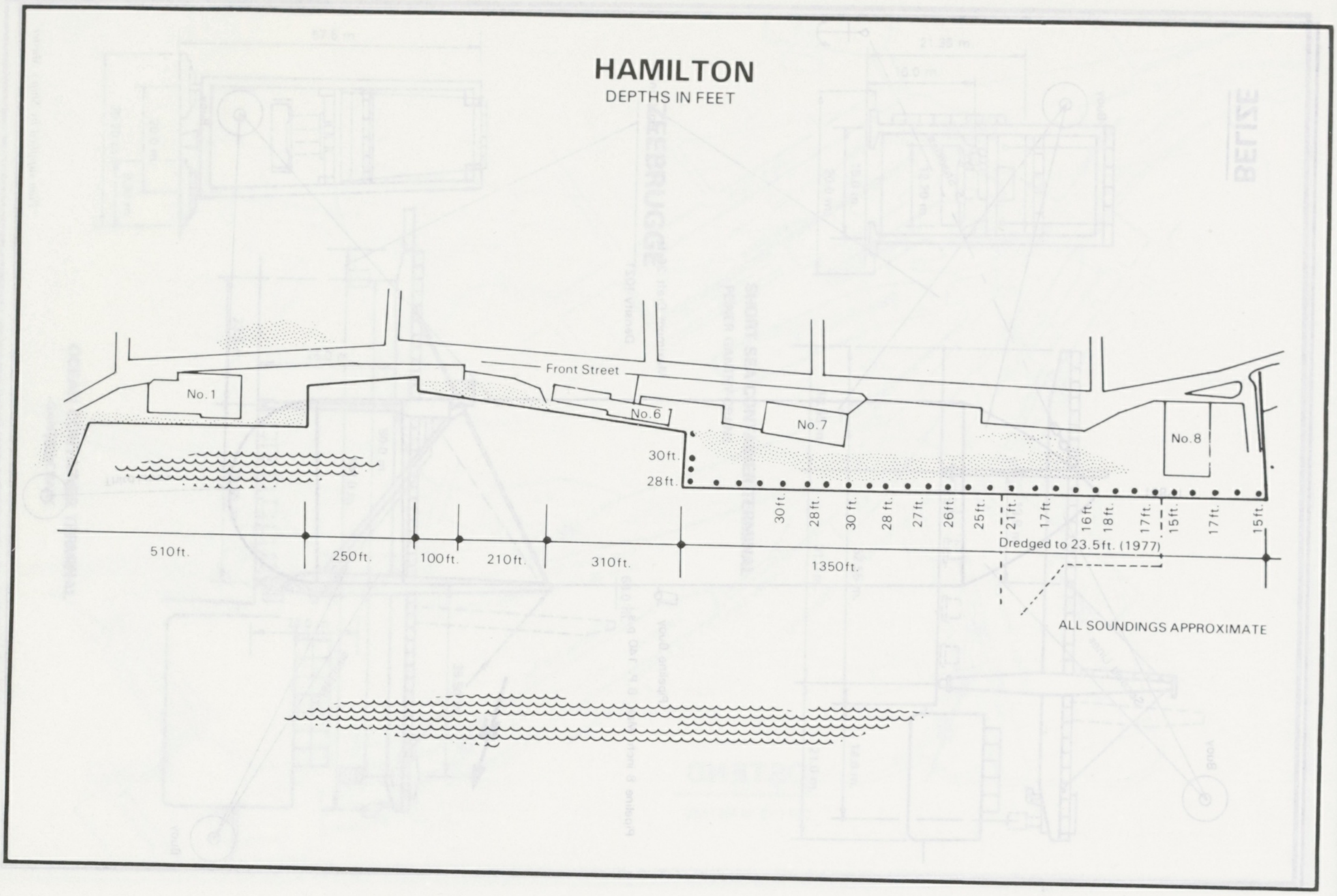

N
Compound
Open Shed
Transit Shed
2400 ft. Long Trestle 12 ft. Wide
6 ft.
12 ft.
16 ft.
A
D

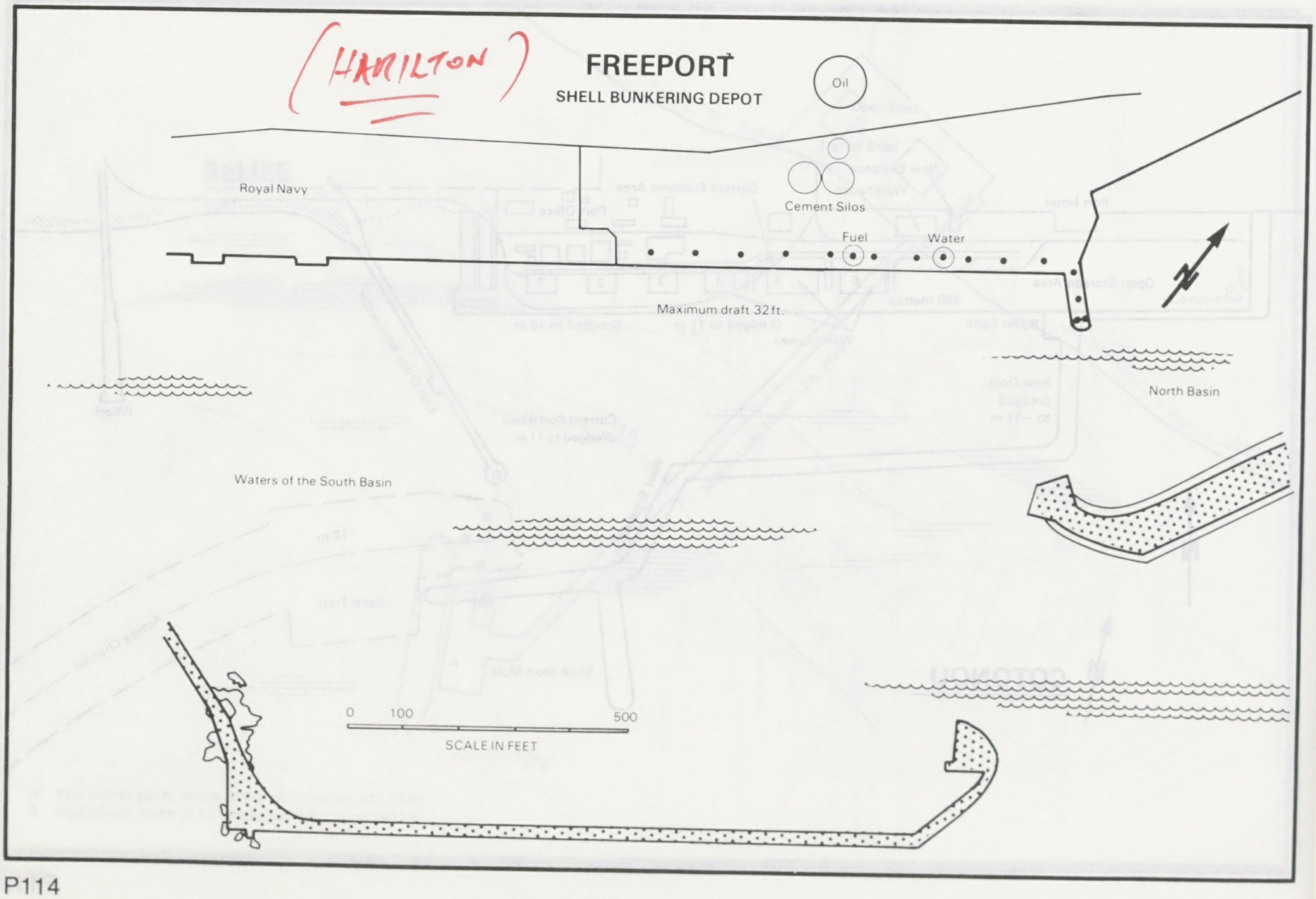
A Face of Pier 220 ft., Width of Pier 60 ft., Height ASL 13 ft.
D Ro-Ro Berth Width 70 ft., Height ASL 8 ft., Depth 16-17 ft.

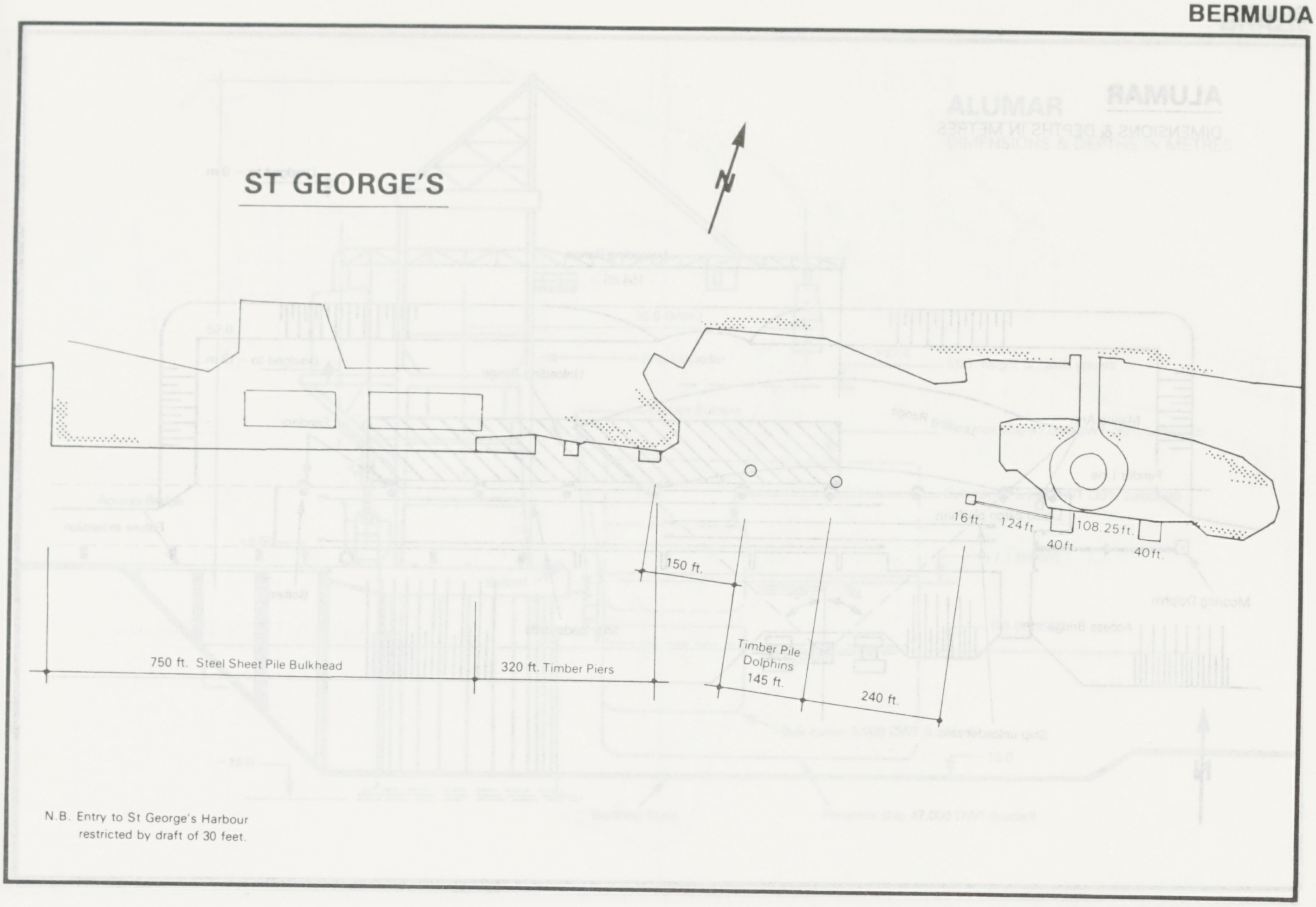

BELIZE
Buoy
5 Shackles
Final Lines
Maximum Draft 20 ft.
Density 1021
108°T
Buoy
Third Lines
Buoy
Pipeline Buoy
Pipeline 8 inch. Max. B.P. 140 p.s.i.
Second Lines
Buoy
N
First Lines
Buoy

"Plan supplied by Ship's Master"

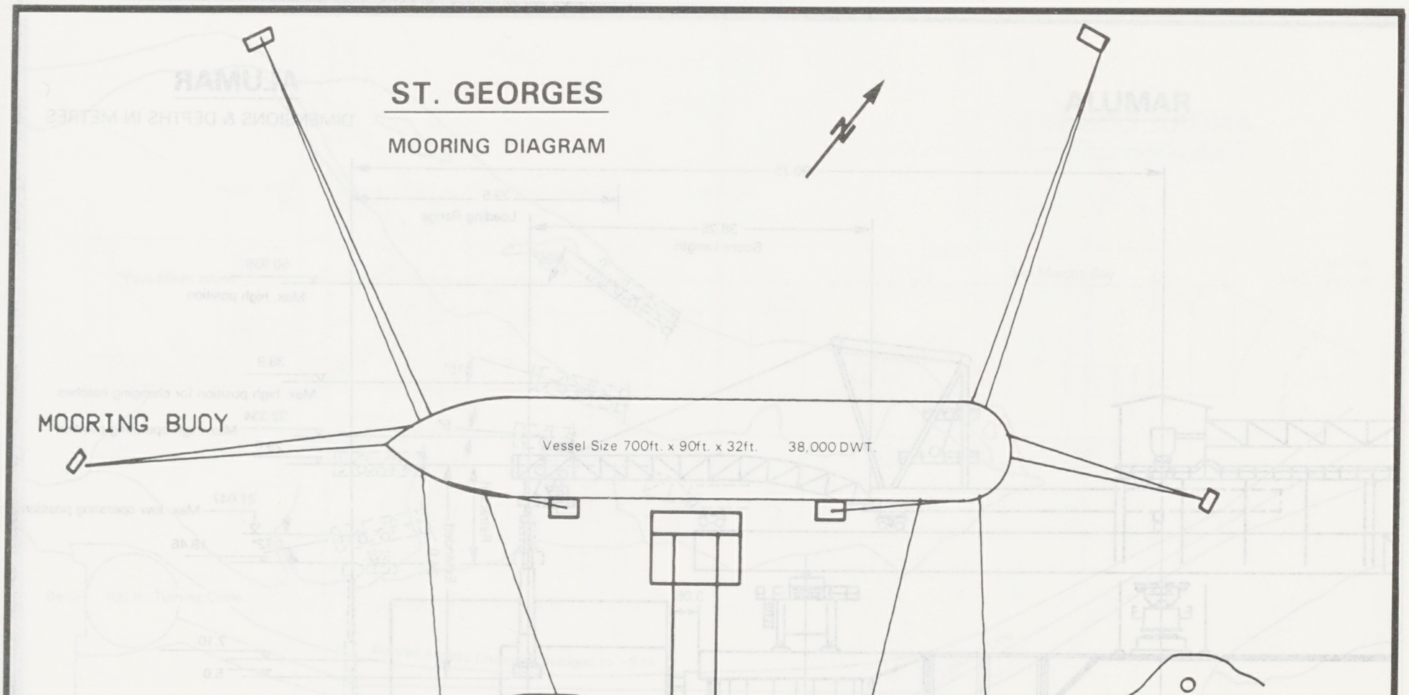

New Entrance
Port Hotel
Warehouse
Current Customs Area
Port Office
Open Storage Area
6
5
4
3
2
1
660 metres
Ro/Ro Berth
Warehouses
Dredged to 11 m.
Dredged to 10 m.
East Cross Breakwater
New Dock dredged to −11 m.
Current Port Basin dredged to 11 m.
Wharf
West Breakwater
N
−12 m.
Sand Trap
Access Channel
COTONOU
Sand Stop Mole


HAMILTON
DEPTHS IN FEET
Front Street
No. 1
No. 6
No. 7
No. 8
30ft.
28ft.
30 ft.
28ft.
30 ft.
28ft.
27ft.
26ft.
25ft.
21ft.
17ft.
16ft.
18ft.
17ft.
15ft.
17ft.
15ft.
510ft.
250ft.
100ft.
210ft.
310ft.
1350ft.
Dredged to 23.5ft. (1977)
ALL SOUNDINGS APPROXIMATE


(HAMILTON)
FREEPORT
SHELL BUNKERING DEPOT
Oil
Royal Navy
Cement Silos
Fuel
Water
Maximum draft 32ft.
North Basin
Waters of the South Basin
0
100
500
SCALE IN FEET

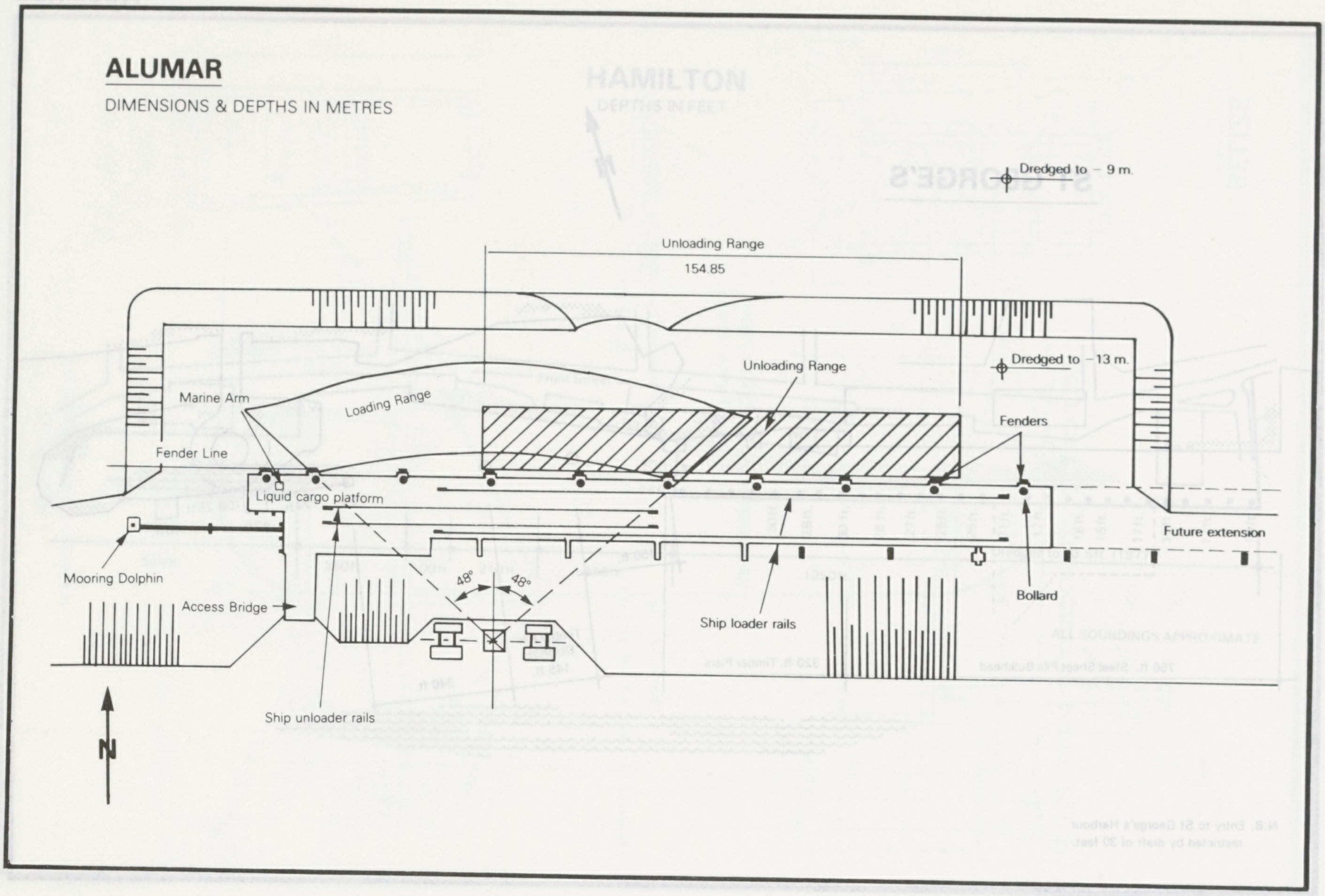

ST GEORGE'S
N
16 ft.
124 ft.
108.25 ft.
40 ft.
40 ft.
150 ft.
Timber Pile Dolphins 145 ft.
240 ft.
750 ft. Steel Sheet Pile Bulkhead
320 ft. Timber Piers

N.B. Entry to St George's Harbour restricted by draft of 30 feet.


ST. GEORGES
MOORING DIAGRAM
N
MOORING BUOY
Vessel Size 700ft. x 90ft. x 32ft. 38,000 DWT.
BOLLARD
0
100
200
300
SCALE IN FEET

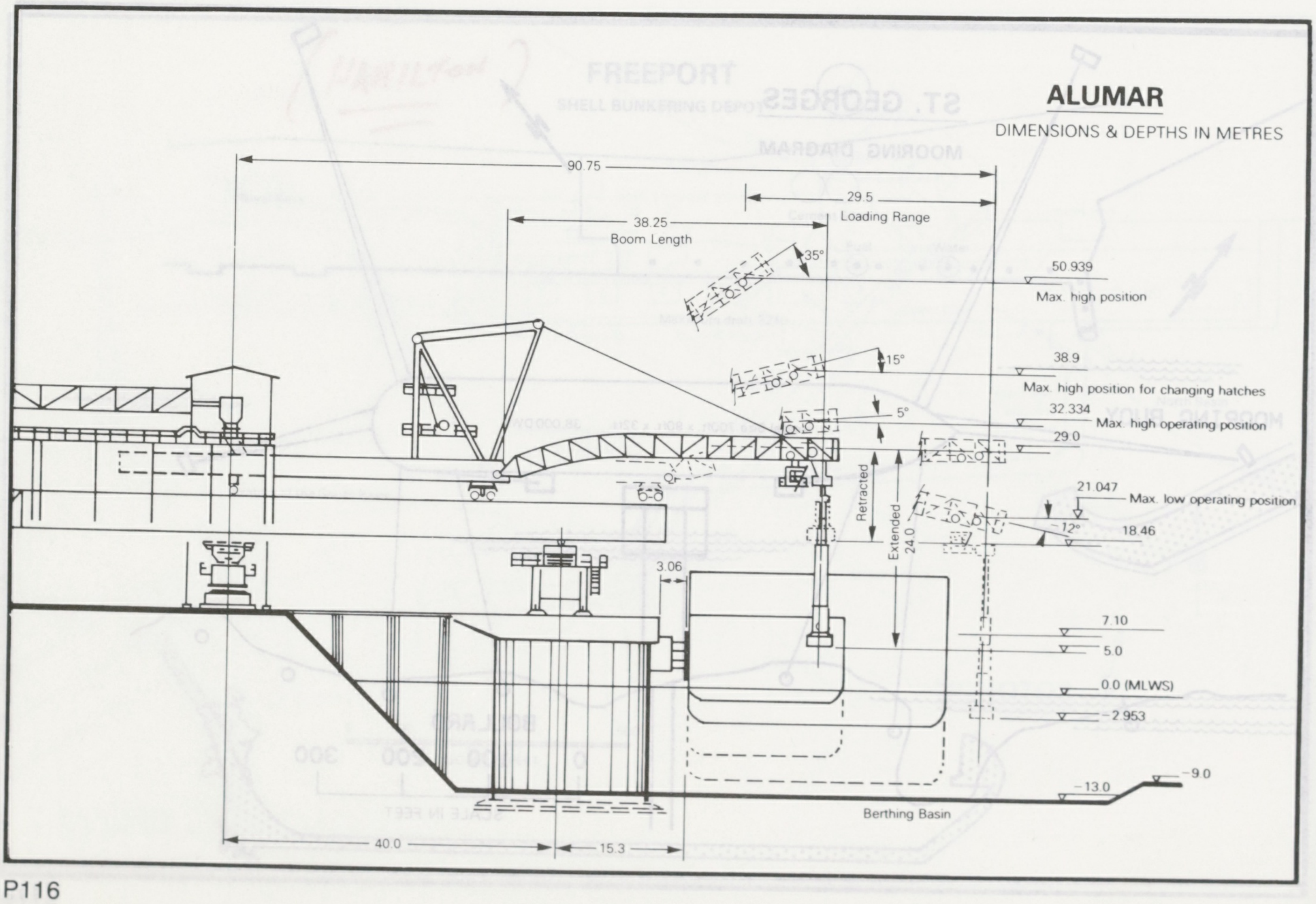
ALUMAR

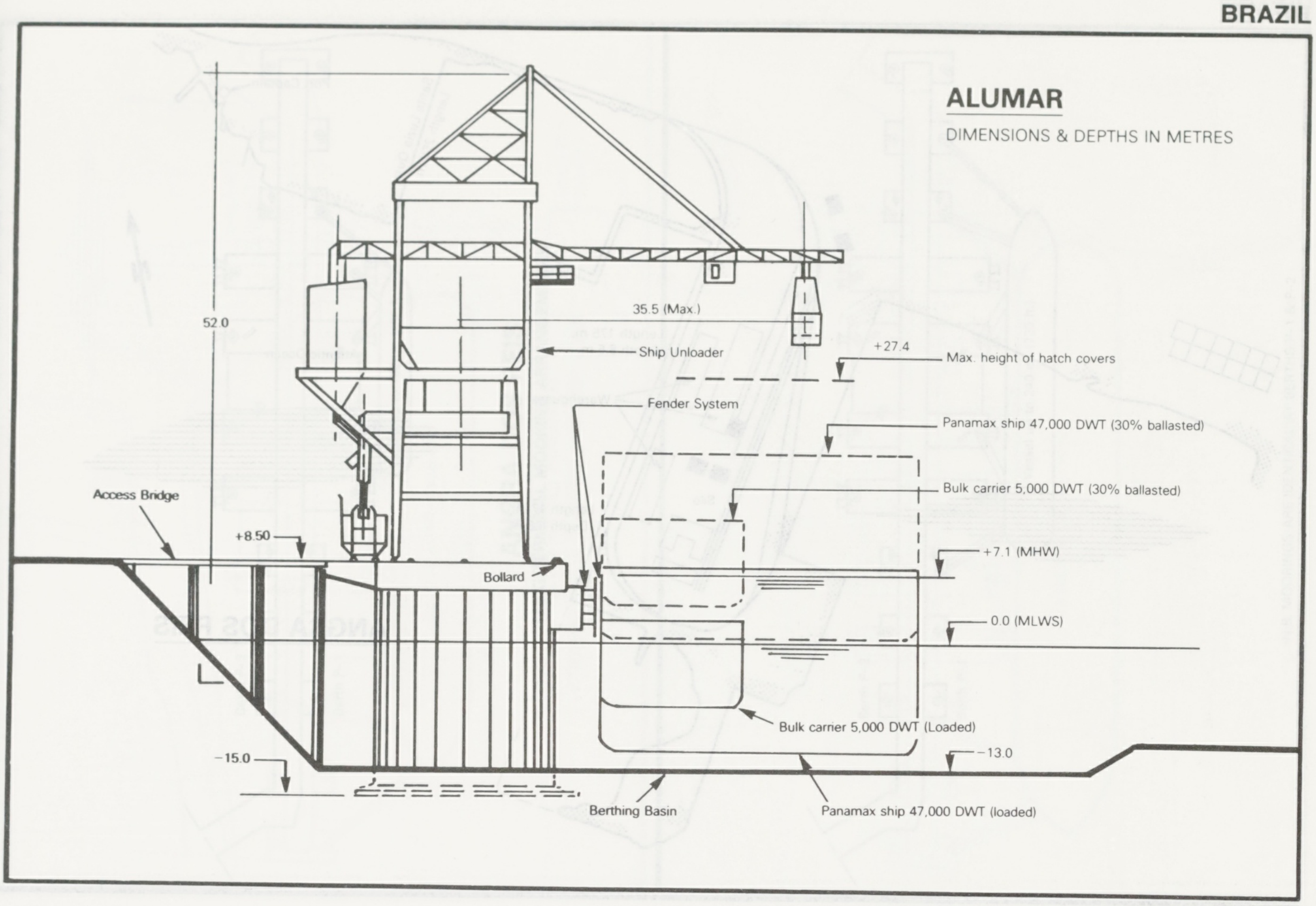
DIMENSIONS & DEPTHS IN METRES


Dredged to – 9 m.
Unloading Range
154.85
Dredged to – 13 m.
Unloading Range
Marine Arm
Loading Range
Fenders
Fender Line
Liquid cargo platform
Future extension
Mooring Dolphin
48°
48°
Bollard
Access Bridge
Ship loader rails
Ship unloader rails
N

ALUMAR

DIMENSIONS & DEPTHS IN METRES

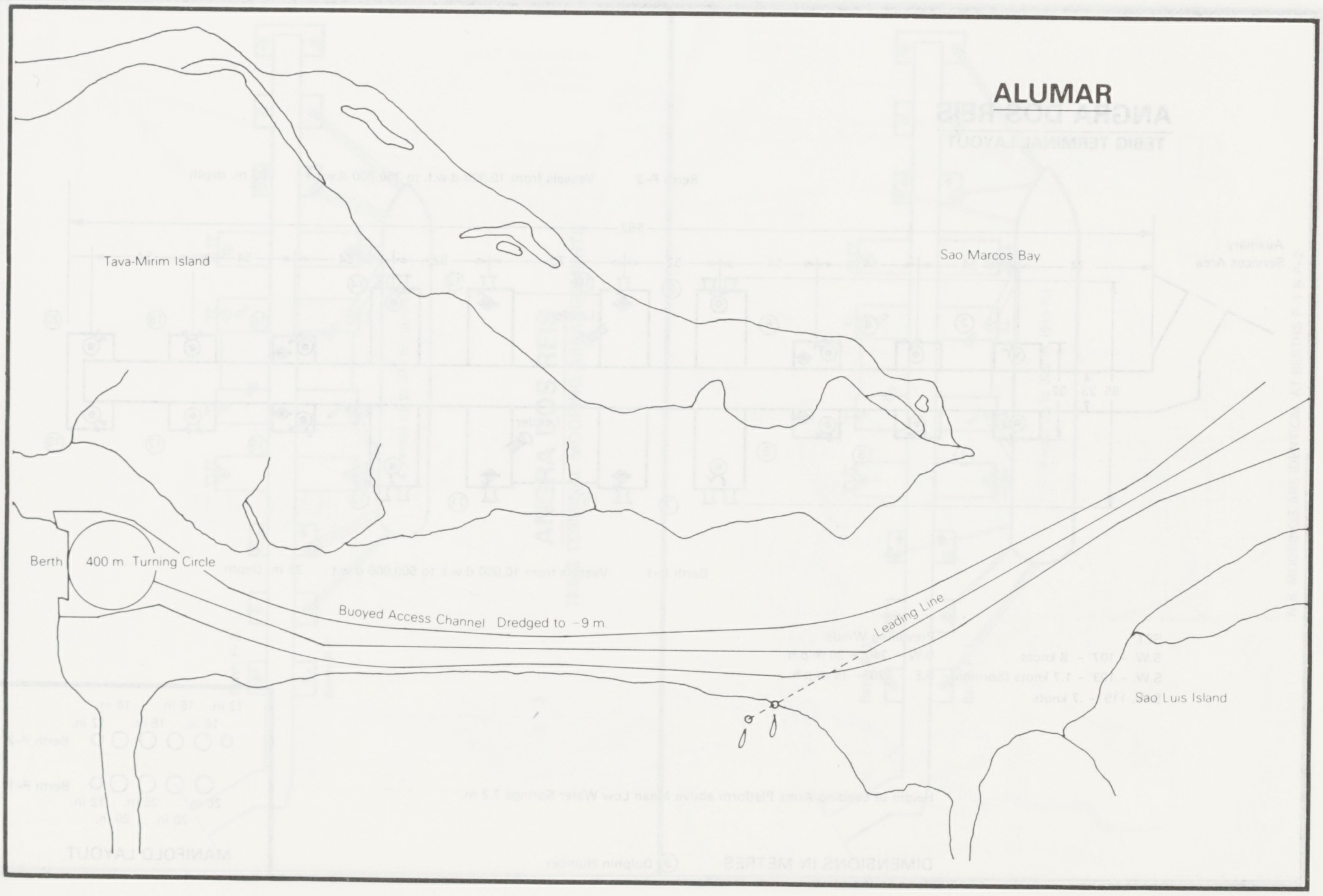

90.75
29.5
Loading Range
38.25
Boom Length
35°
50.939
Max. high position
15°
38.9
Max. high position for changing hatches
5°
32.334
Max. high operating position
29.0
Retracted
Extended
24.0
21.047
Max. low operating position
12°
18.46
3.06
7.10
5.0
0.0 (MLWS)
–2.953
–9.0
–13.0
Berthing Basin
40.0
15.3



ALUMAR

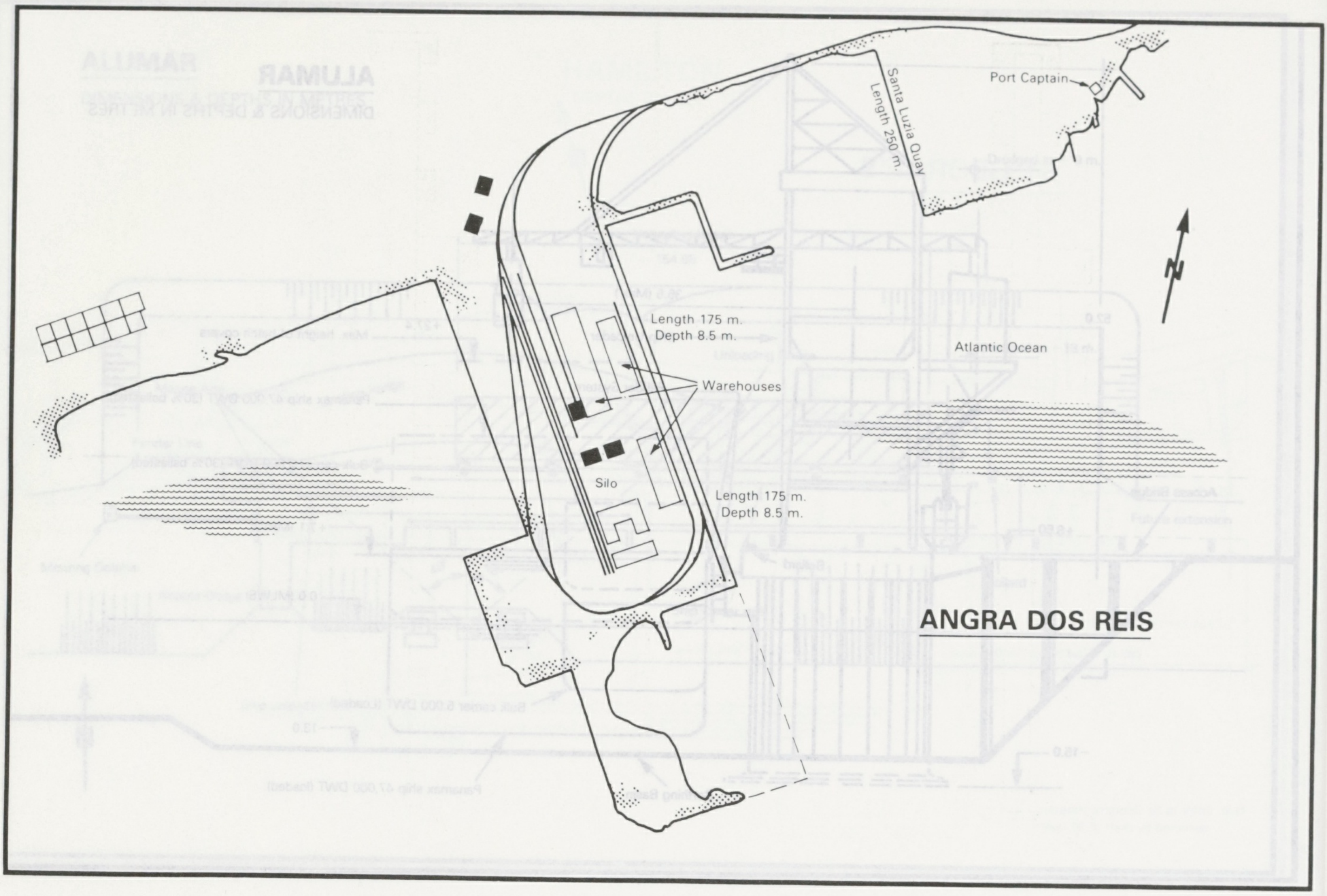
DIMENSIONS & DEPTHS IN METRES

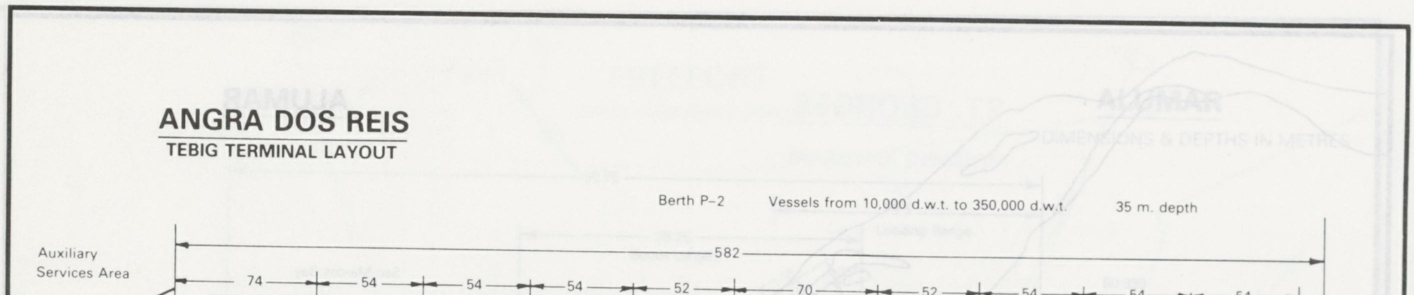
52.0
35.5 (Max.)
Ship Unloader
+27.4
Max. height of hatch covers
Fender System
Panamax ship 47,000 DWT (30% ballasted)
Bulk carrier 5,000 DWT (30% ballasted)
Access Bridge
+8.50
+7.1 (MHW)
Bollard
0.0 (MLWS)
Bulk carrier 5,000 DWT (Loaded)
−15.0
−13.0
Berthing Basin
Panamax ship 47,000 DWT (loaded)



ALUMAR

Tava-Mirim Island
Sao Marcos Bay
Berth
400 m Turning Circle
Buoyed Access Channel Dredged to −9 m
Leading Line
Sao Luis Island


Port Captain
Santa Luzia Quay
Length 250 m.
Length 175 m.
Depth 8.5 m.
Warehouses
Silo
Length 175 m.
Depth 8.5 m.
Atlantic Ocean
ANGRA DOS REIS

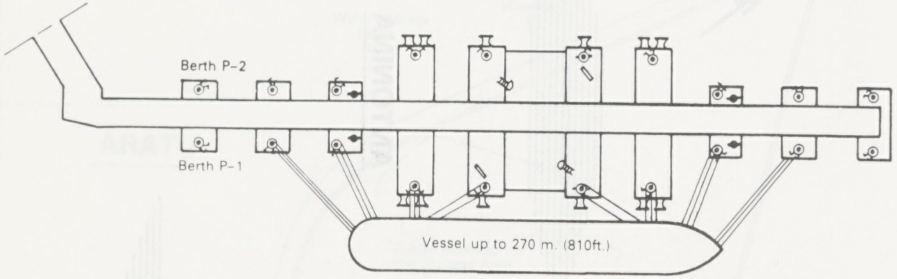

ANGRA DOS REIS
TEBIG TERMINAL LAYOUT
Berth P–2
Vessels from 10,000 d.w.t. to 350,000 d.w.t.
35 m. depth
Auxiliary Services Area
582
74
54
54
54
52
70
52
54
54
54
65
23
32
Ladder
Ladder
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
Berth P–1
Vessels from 10,000 d.w.t. to 500,000 d.w.t
35 m. Depth
12 in.
16 in.
16 in.
16 in.
16 in.
12 in.
Berth P–2
Berth P–1
20 in.
20 in.
12 in.
20 in.
20 in.
MANIFOLD LAYOUT
⑨ Dolphin Number

SET
S.W. – 107° – .8 knots
S.W. – 103° – 1.7 knots (Springs)
S.W. 119° – .7 knots

Prevailing Winds
S.W. – 240° – 20 m.p.h.
S.E. – 120° – 15 m.p.h.

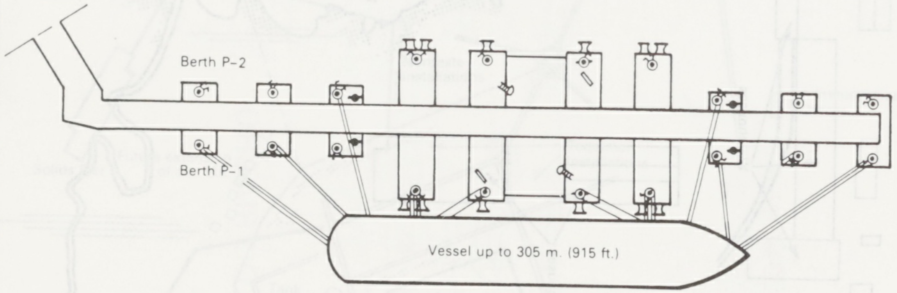
Height of Loading Arms Platform above Mean Low Water Springs 7.2 m.

DIMENSIONS IN METRES

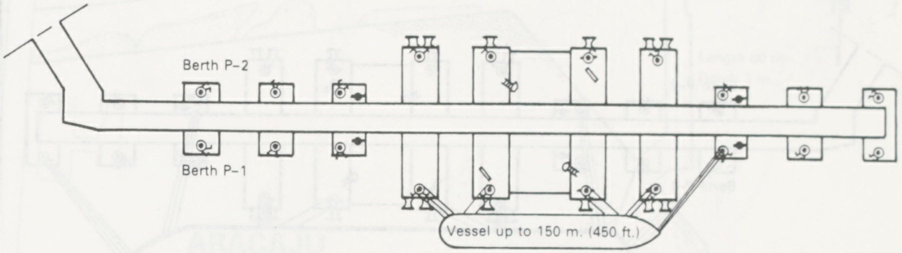

Berth P–2
Berth P–1
Vessel up to 270 m. (810ft.)

ANGRA DOS REIS

TEBIG TERMINAL MOORING ARRANGEMENTS

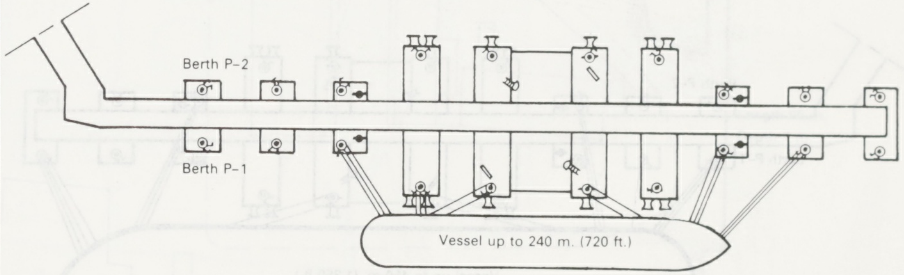

Berth P–2
Berth P–1
Vessel up to 305 m. (915 ft.)

N.B. MOORINGS ARE IDENTICAL AT BERTHS P–1 & P–2

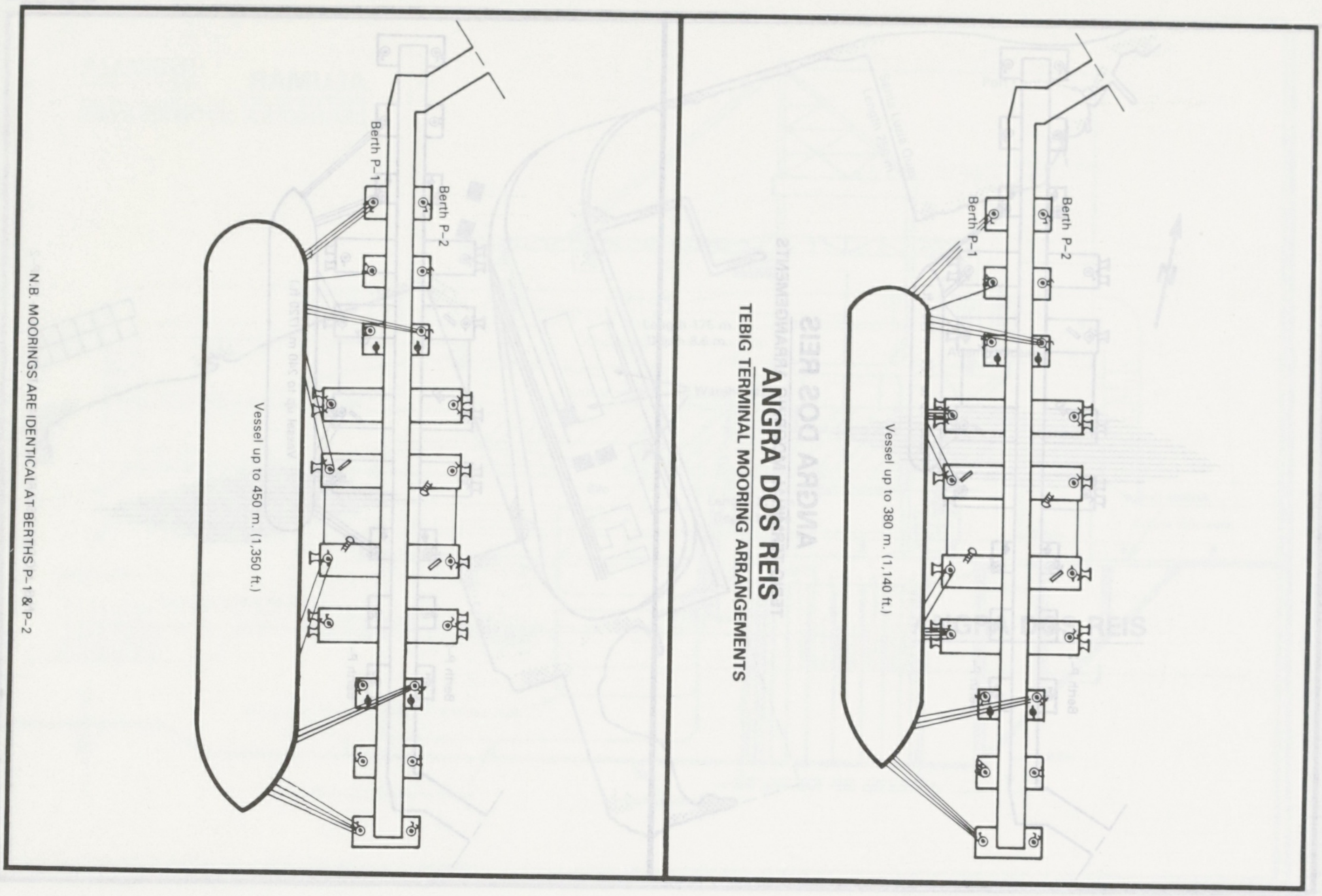

Berth P–2
Berth P–1
Vessel up to 150 m. (450 ft.)

ANGRA DOS REIS

TEBIG TERMINAL MOORING ARRANGEMENTS


Berth P–2
Berth P–1
Vessel up to 240 m. (720 ft.)

N.B. MOORINGS ARE IDENTICAL AT BERTHS P–1 & P–2

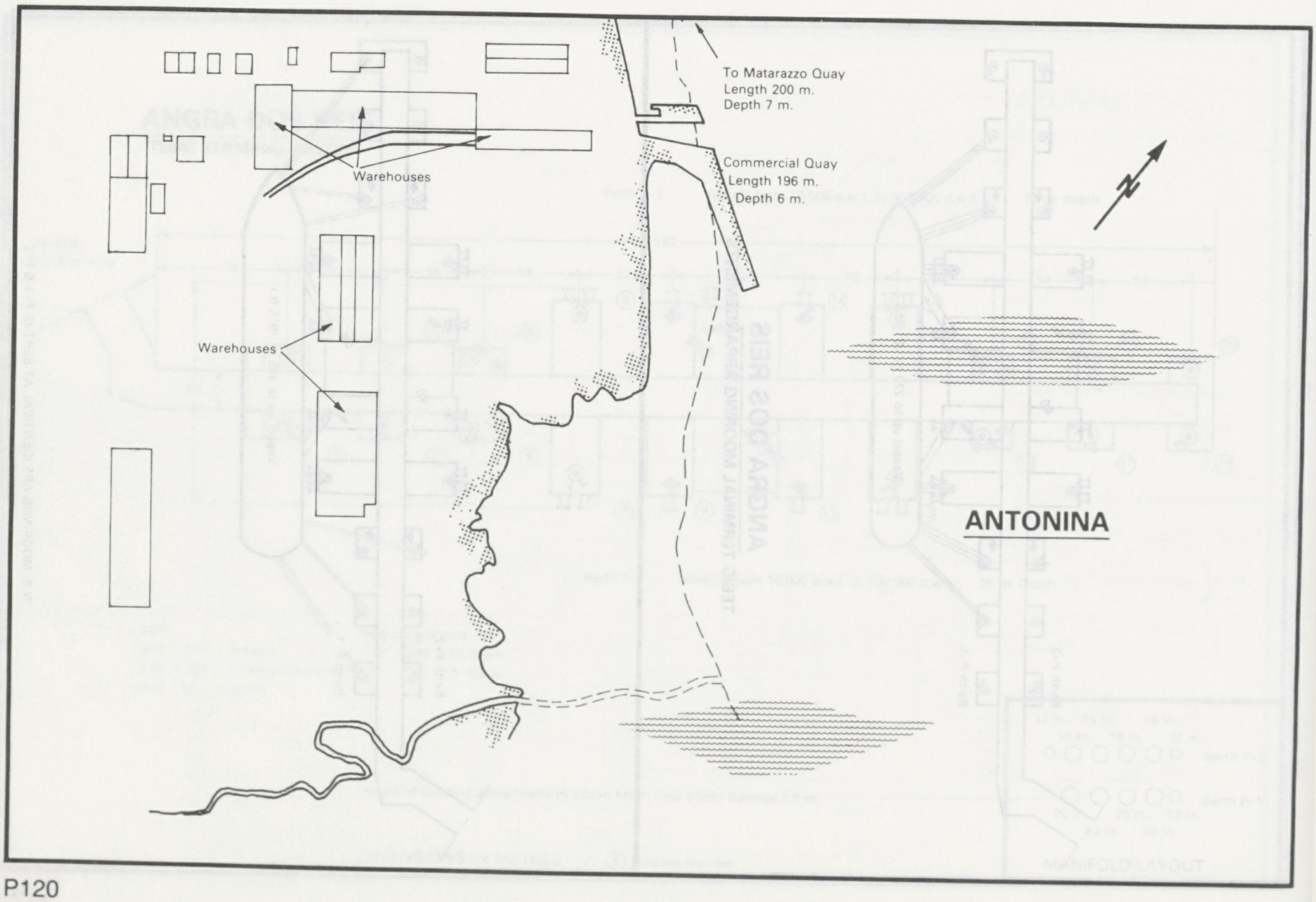


ANGRA DOS REIS

TEBIG TERMINAL MOORING ARRANGEMENTS

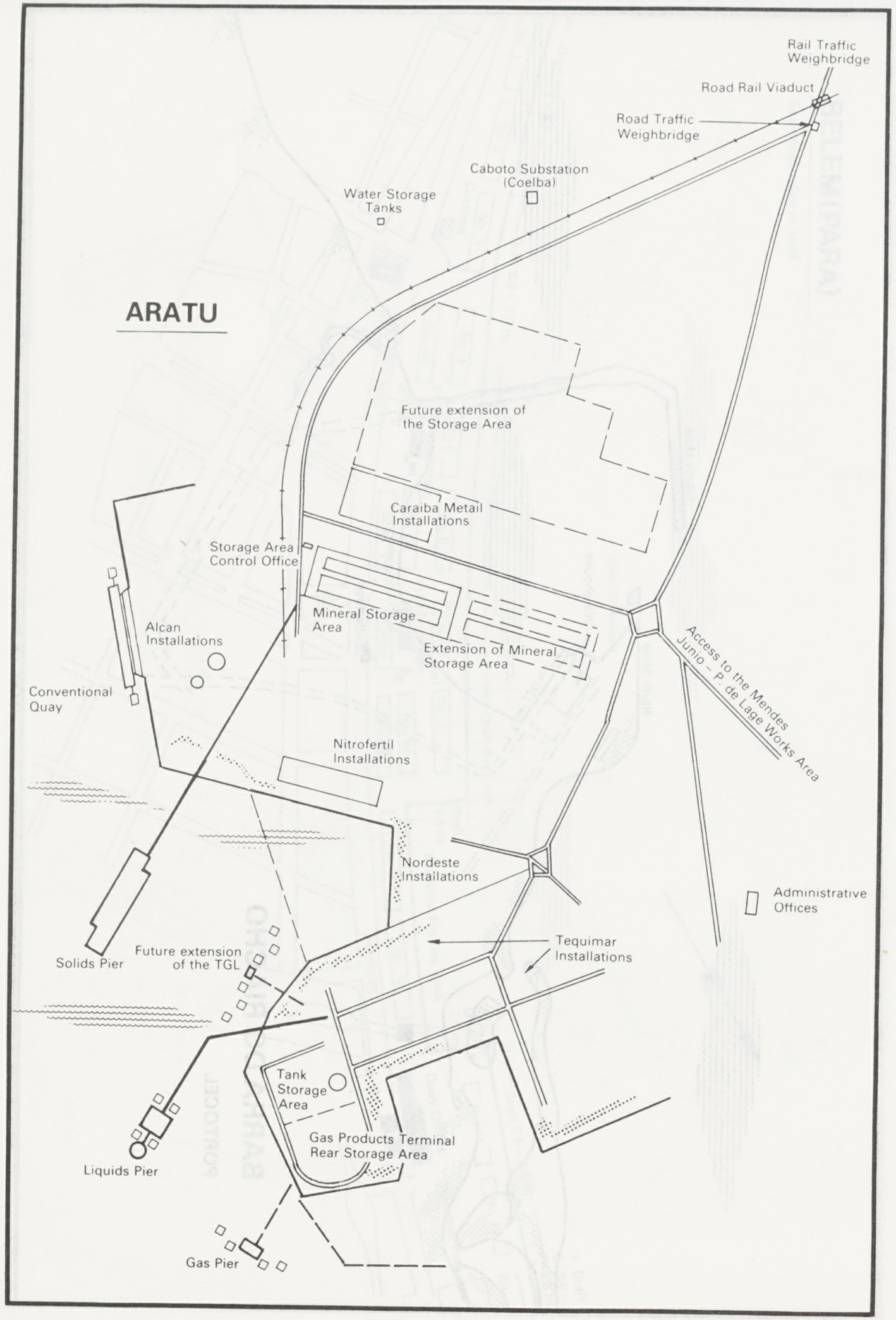
Berth P-1
Berth P-2
Vessel up to 450 m. (1,350 ft.)
Berth P-1
Berth P-2
Vessel up to 380 m. (1,140 ft.)

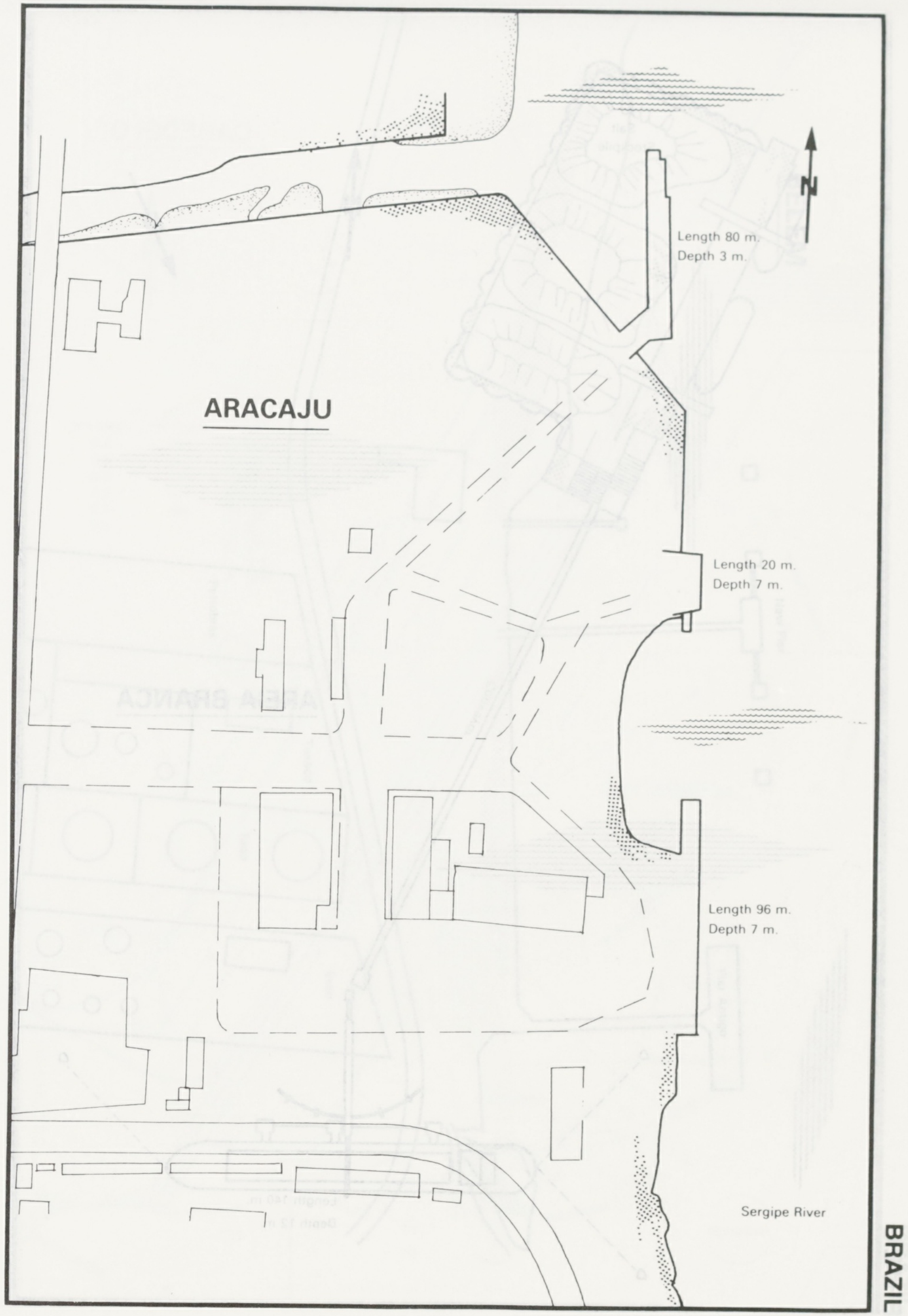
N.B. MOORINGS ARE IDENTICAL AT BERTHS P-1 & P-2

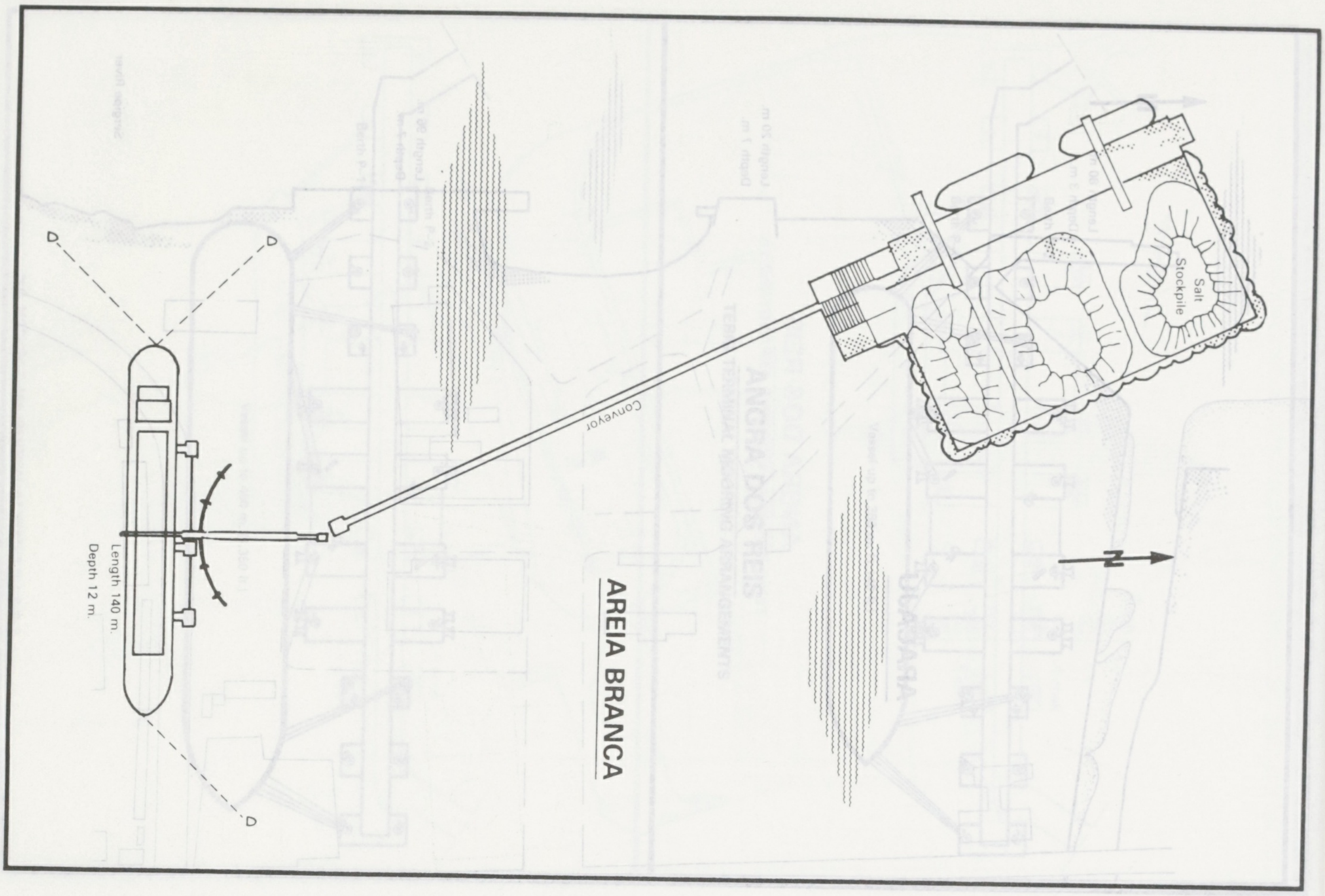


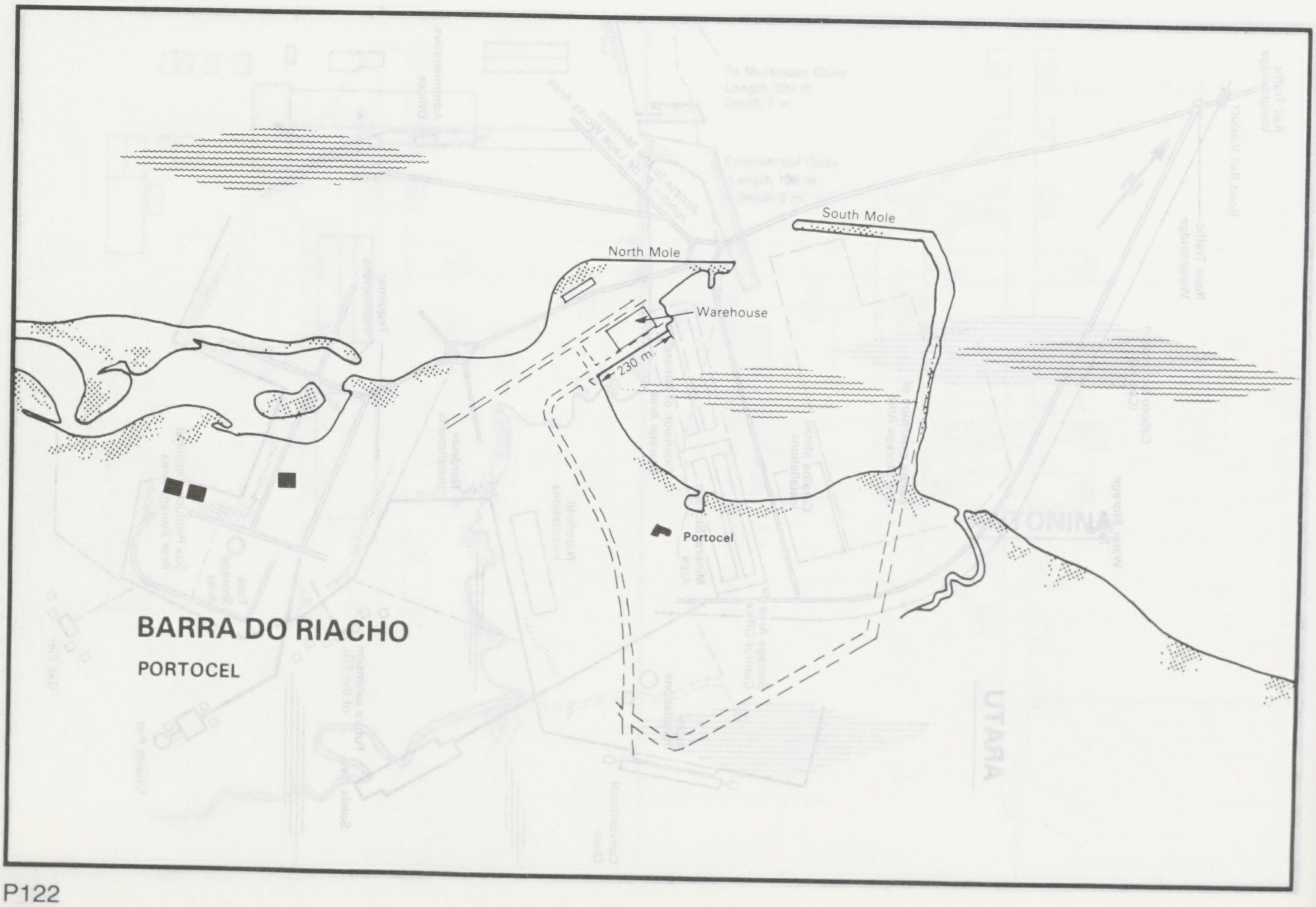
ANTONINA

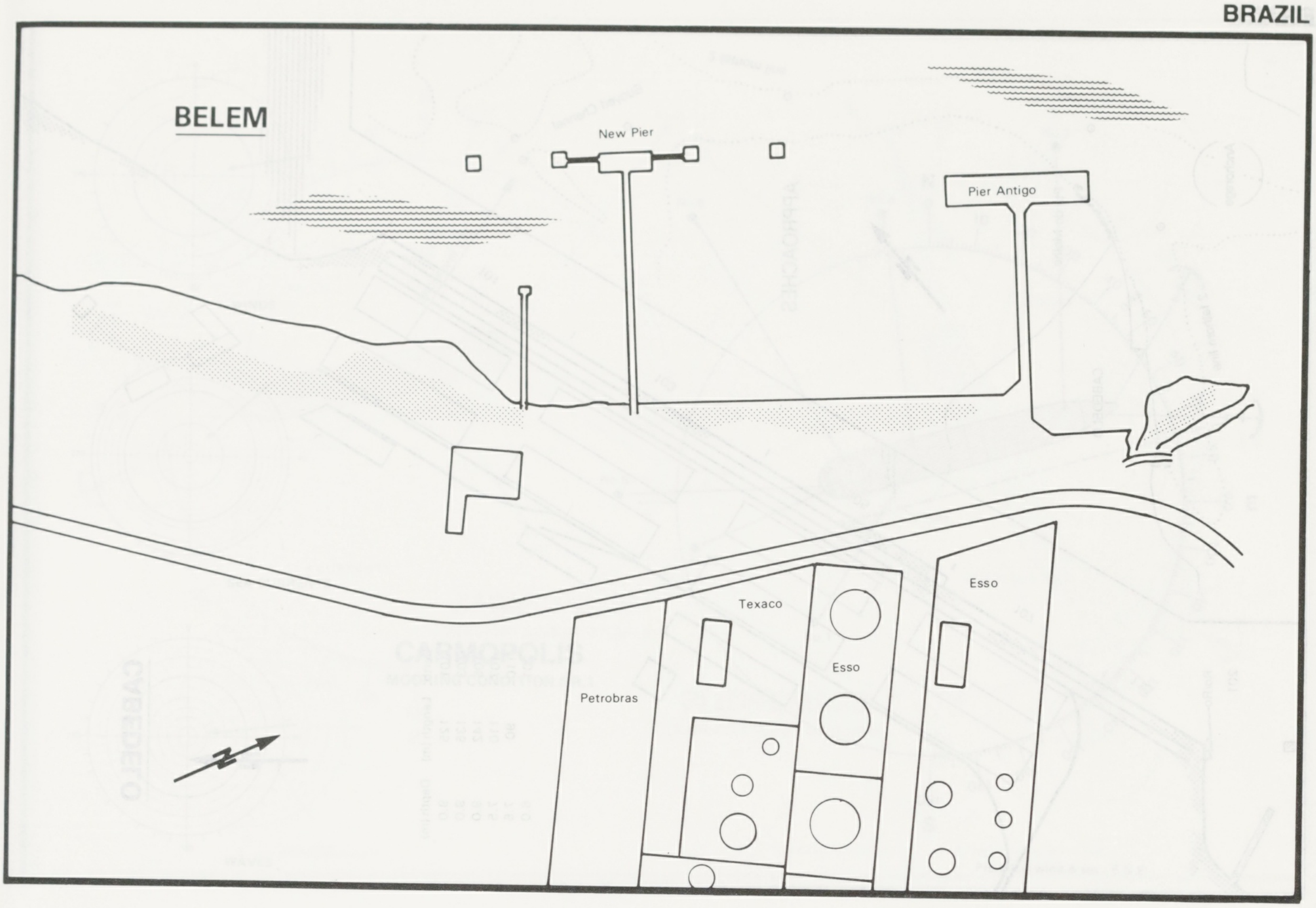
To Matarazzo Quay
Length 200 m.
Depth 7 m.
Commercial Quay
Length 196 m.
Depth 6 m.
Warehouses
Warehouses

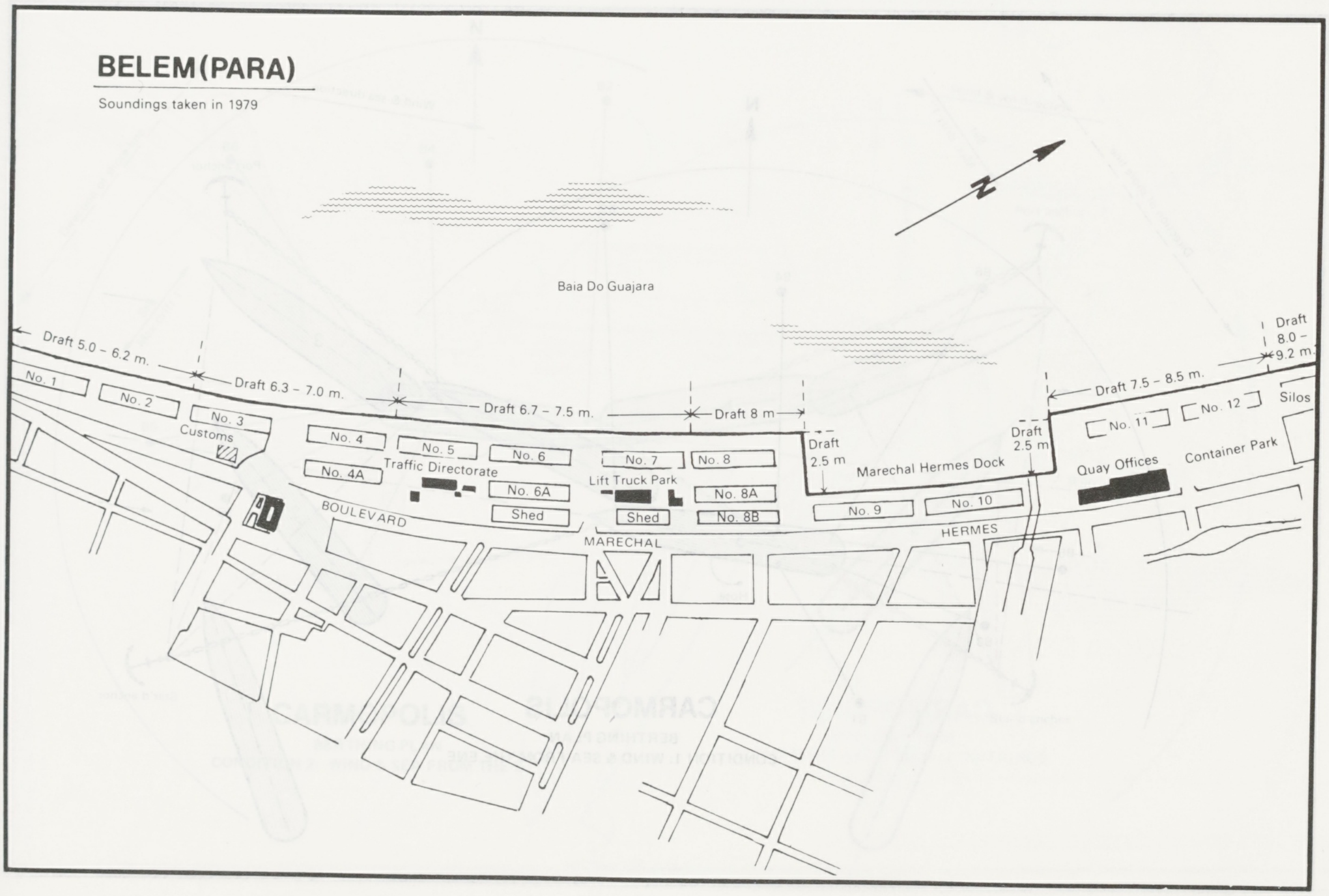

Rail Traffic Weighbridge
Road Rail Viaduct
Road Traffic Weighbridge
Caboto Substation (Coelba)
Water Storage Tanks
ARATU
Future extension of the Storage Area
Caraiba Metail Installations
Storage Area Control Office
Mineral Storage Area
Extension of Mineral Storage Area
Access to the Mendes Junio – P. de Lage Works Area
Alcan Installations
Conventional Quay
Nitrofertil Installations
Nordeste Installations
Administrative Offices
Tequimar Installations
Future extension of the TGL
Solids Pier
Tank Storage Area
Gas Products Terminal Rear Storage Area
Liquids Pier
Gas Pier

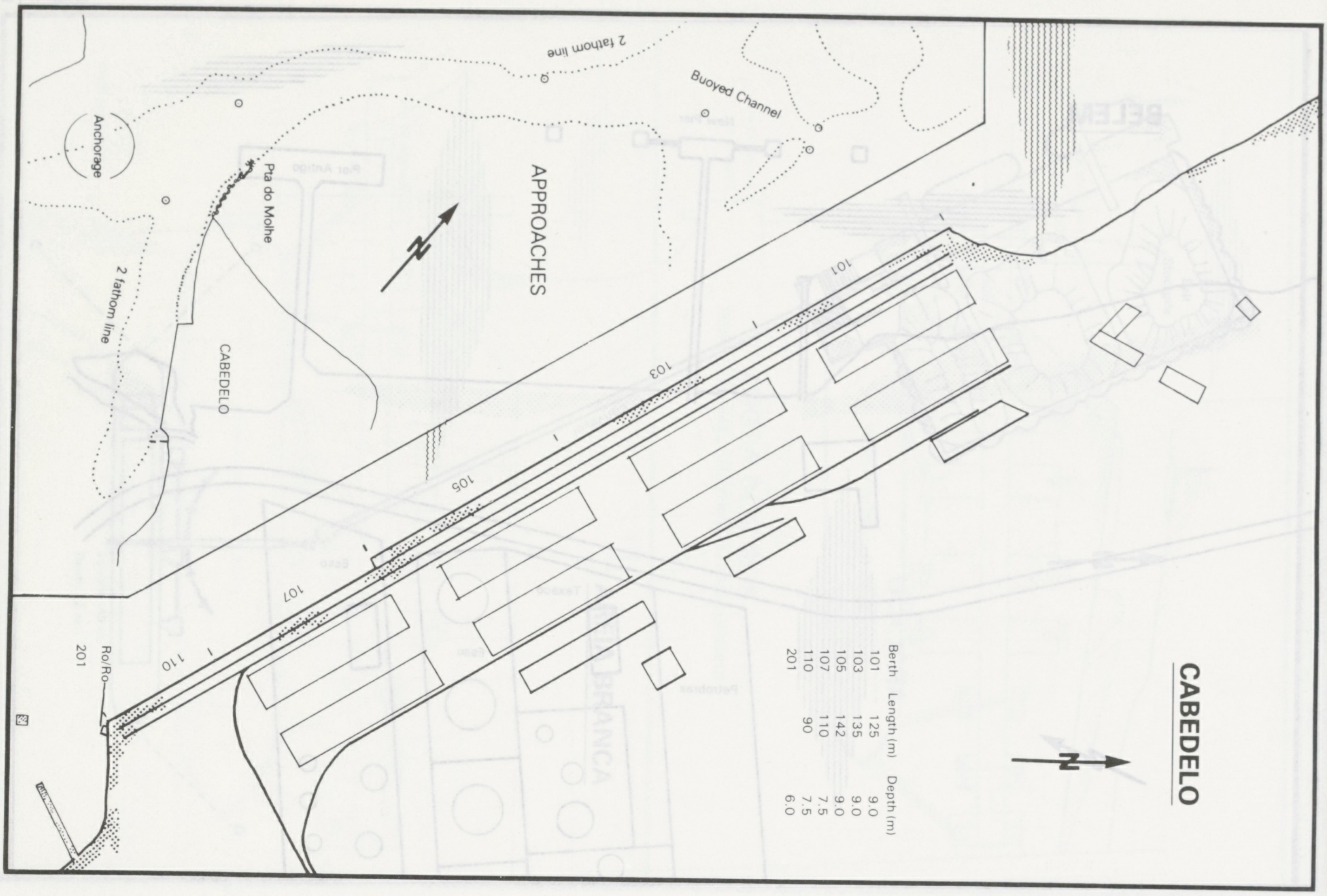

ARACAJU
N
Length 80 m.
Depth 3 m.
Length 20 m.
Depth 7 m.
Length 96 m.
Depth 7 m.
Sergipe River


AREIA BRANCA
Salt Stockpile
Conveyor
Length 140 m.
Depth 12 m.
N


BARRA DO RIACHO
PORTOCEL
North Mole
South Mole
Warehouse
230 m.
Portocel

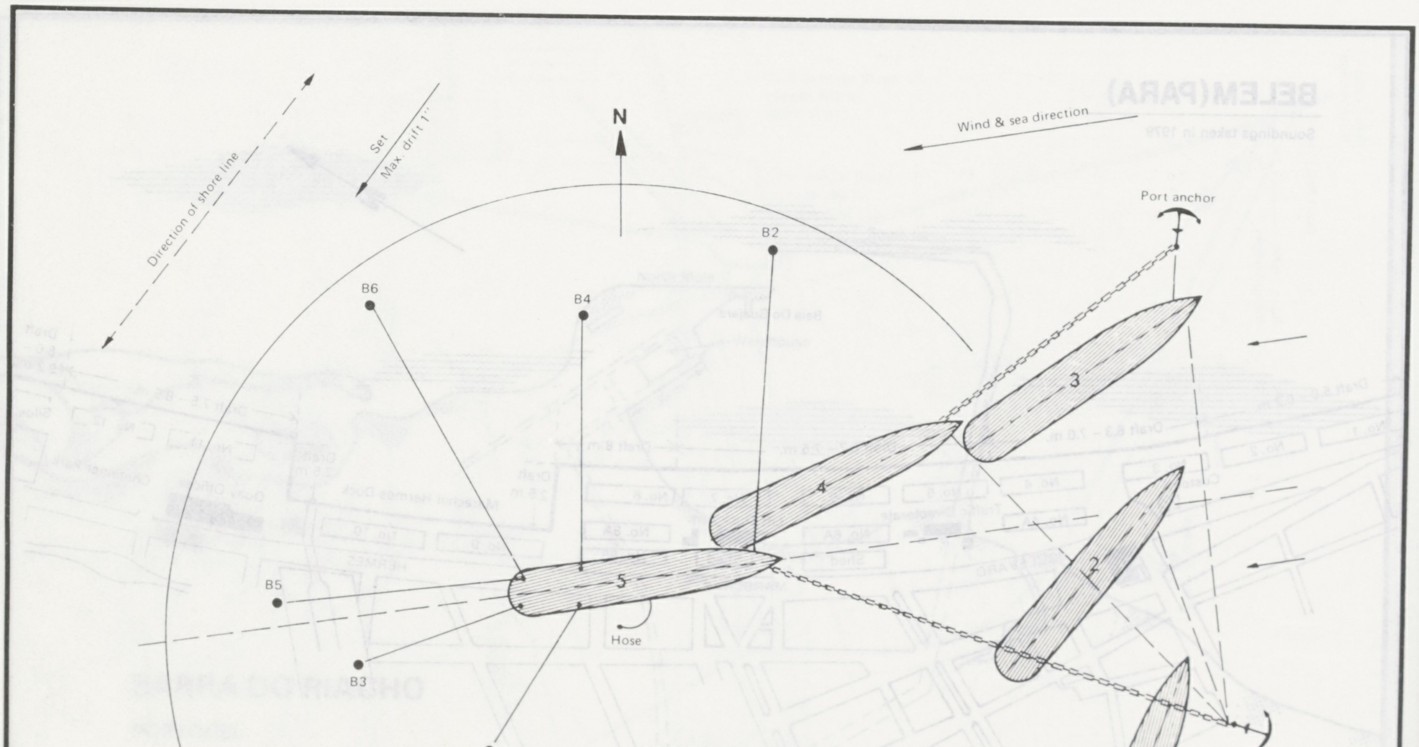

BELEM
New Pier
Pier Antigo
Texaco
Esso
Esso
Petrobras


BELEM(PARA)
Soundings taken in 1979
Baia Do Guajara
Draft 5.0 – 6.2 m.
Draft 6.3 – 7.0 m.
Draft 6.7 – 7.5 m.
Draft 8 m
Draft 2.5 m
Draft 2.5 m
Draft 7.5 – 8.5 m.
Draft 8.0 – 9.2 m.
No. 1
No. 2
No. 3
Customs
No. 4
No. 4A
No. 5
Traffic Directorate
No. 6
No. 6A
Shed
No. 7
Lift Truck Park
Shed
No. 8
No. 8A
No. 8B
No. 9
No. 10
Marechal Hermes Dock
No. 11
No. 12
Silos
Quay Offices
Container Park
BOULEVARD
MARECHAL
HERMES


2 fathom line
Buoyed Channel
Anchorage
Pta do Molhe
APPROACHES
N
2 fathom line
CABEDELO
101
103
105
107
110
Ro/Ro
201
N

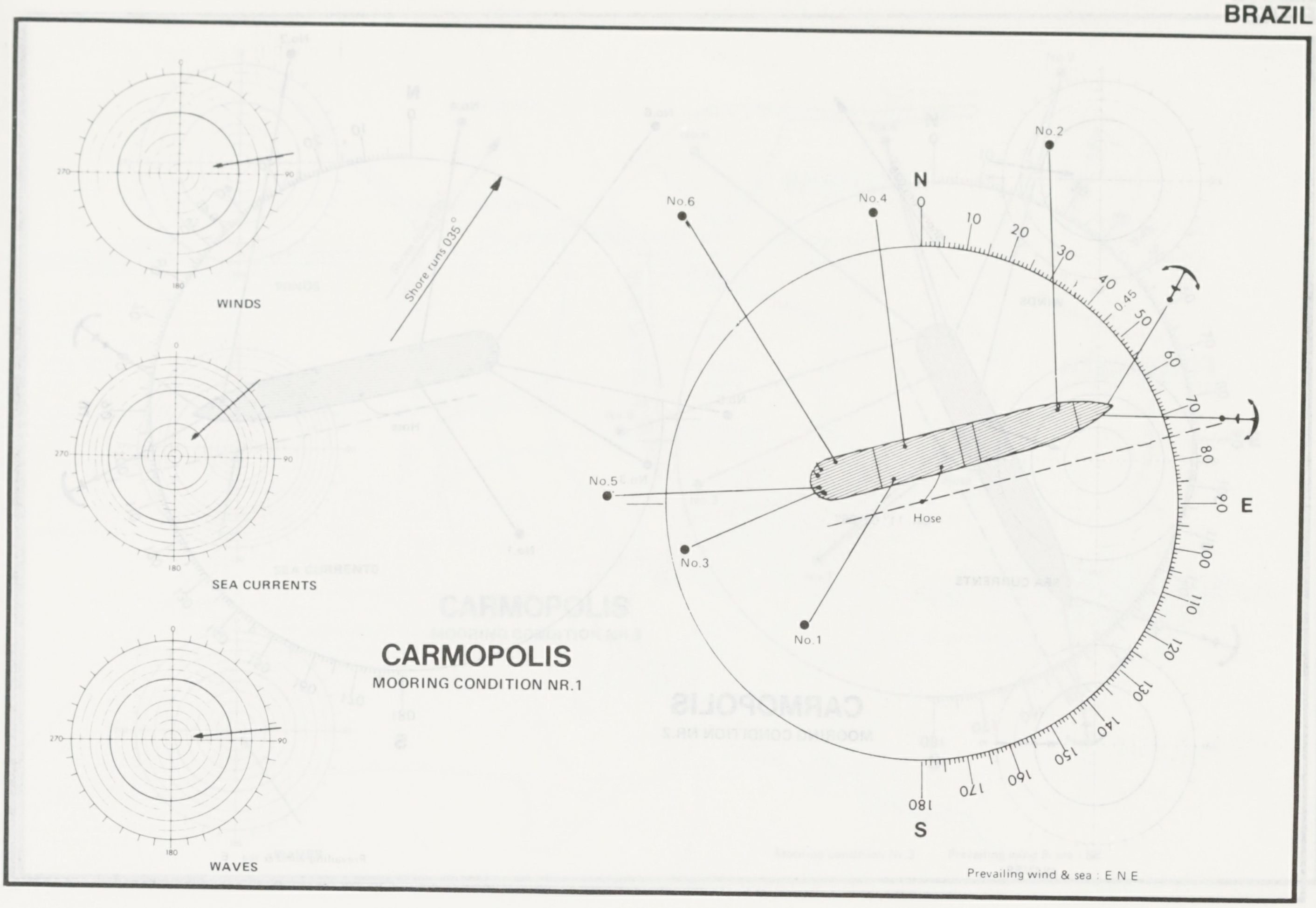
CABEDELO

Berth	Length (m)	Depth (m)
101	125	9.0
103	135	9.0
105	142	9.0
107	110	7.5
110	90	7.5
201		6.0


N
Wind & sea direction
Direction of shore line
Set
Max drift 1''
Port anchor
B2
B6
B4
3
4
5
2
1
B5
B3
B1
Hose
Star'd anchor

CARMOPOLIS

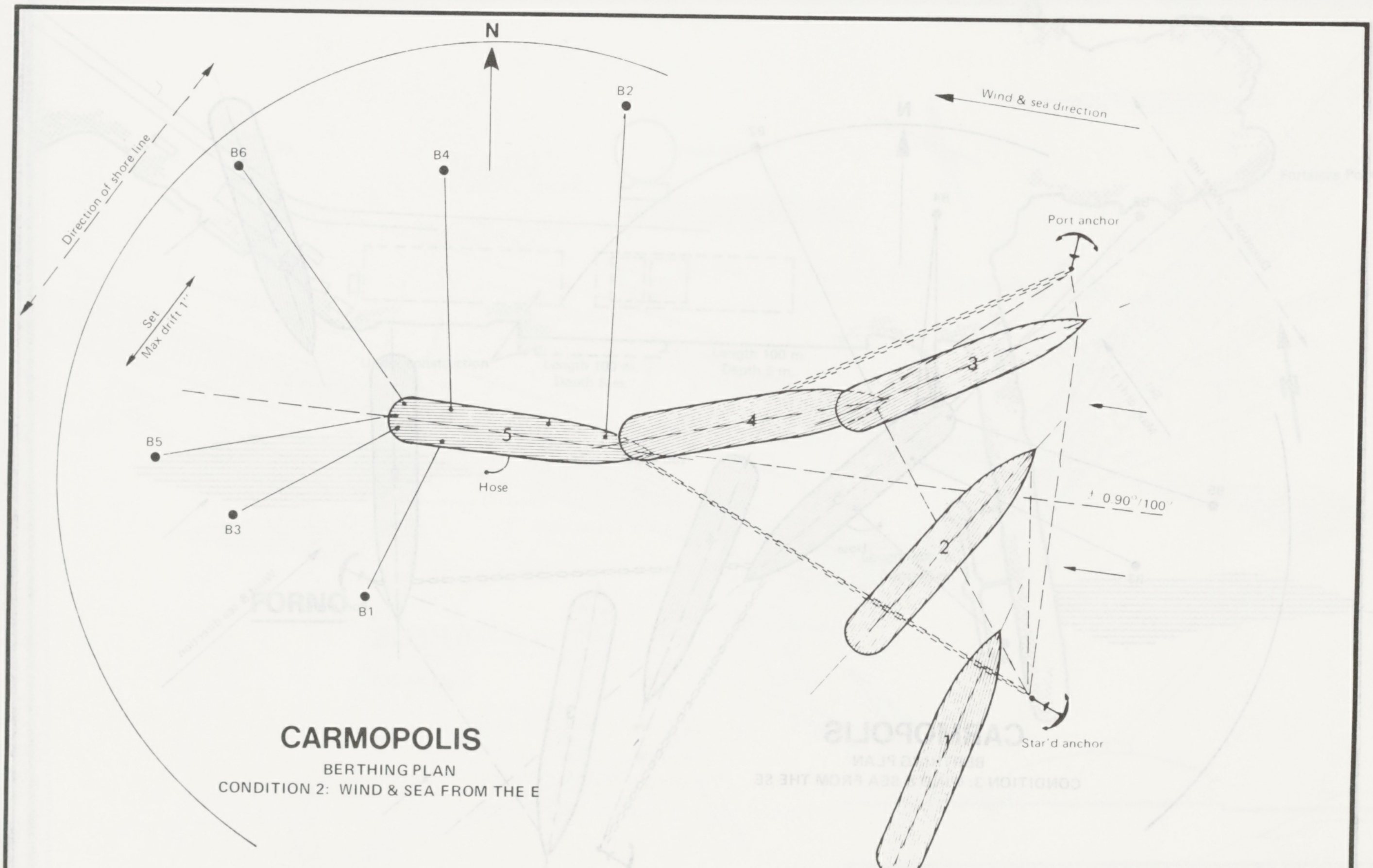
BERTHING PLAN
CONDITION 1: WIND & SEA FROM THE ENE


WINDS
SEA CURRENTS
WAVES
270
90
180
0
Shore runs 035°
N
E
S
No.1
No.2
No.3
No.4
No.5
No.6
Hose
0
10
20
30
40
0.45
50
60
70
80
90
100
110
120
130
140
150
160
170
180

CARMOPOLIS

MOORING CONDITION NR.1

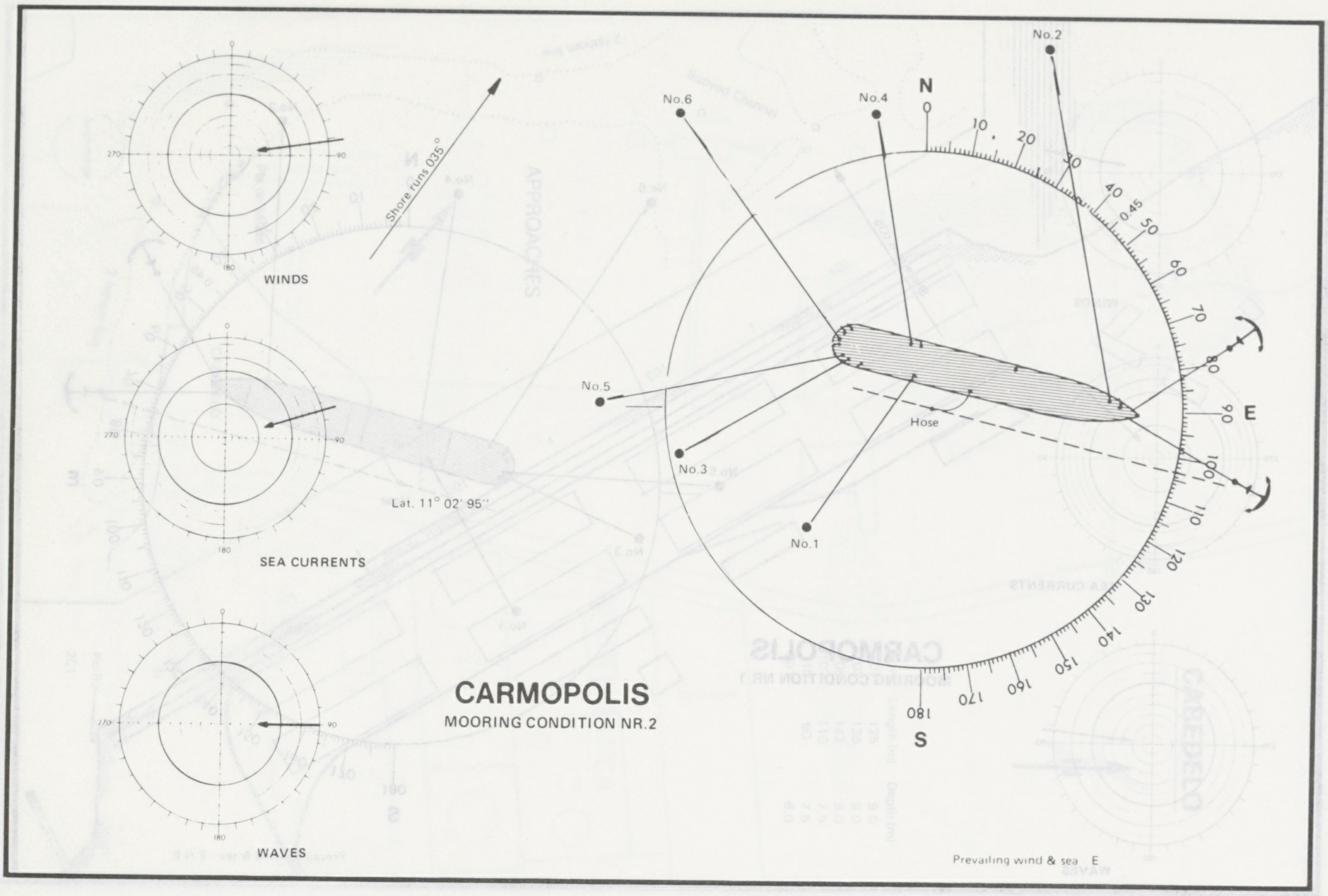
Prevailing wind & sea : E N E


N
Direction of shore line
Set
Max drift 1"
B1
B2
B3
B4
B5
B6
Hose
5
4
3
2
1
Wind & sea direction
Port anchor
Star'd anchor
0 90°/100°

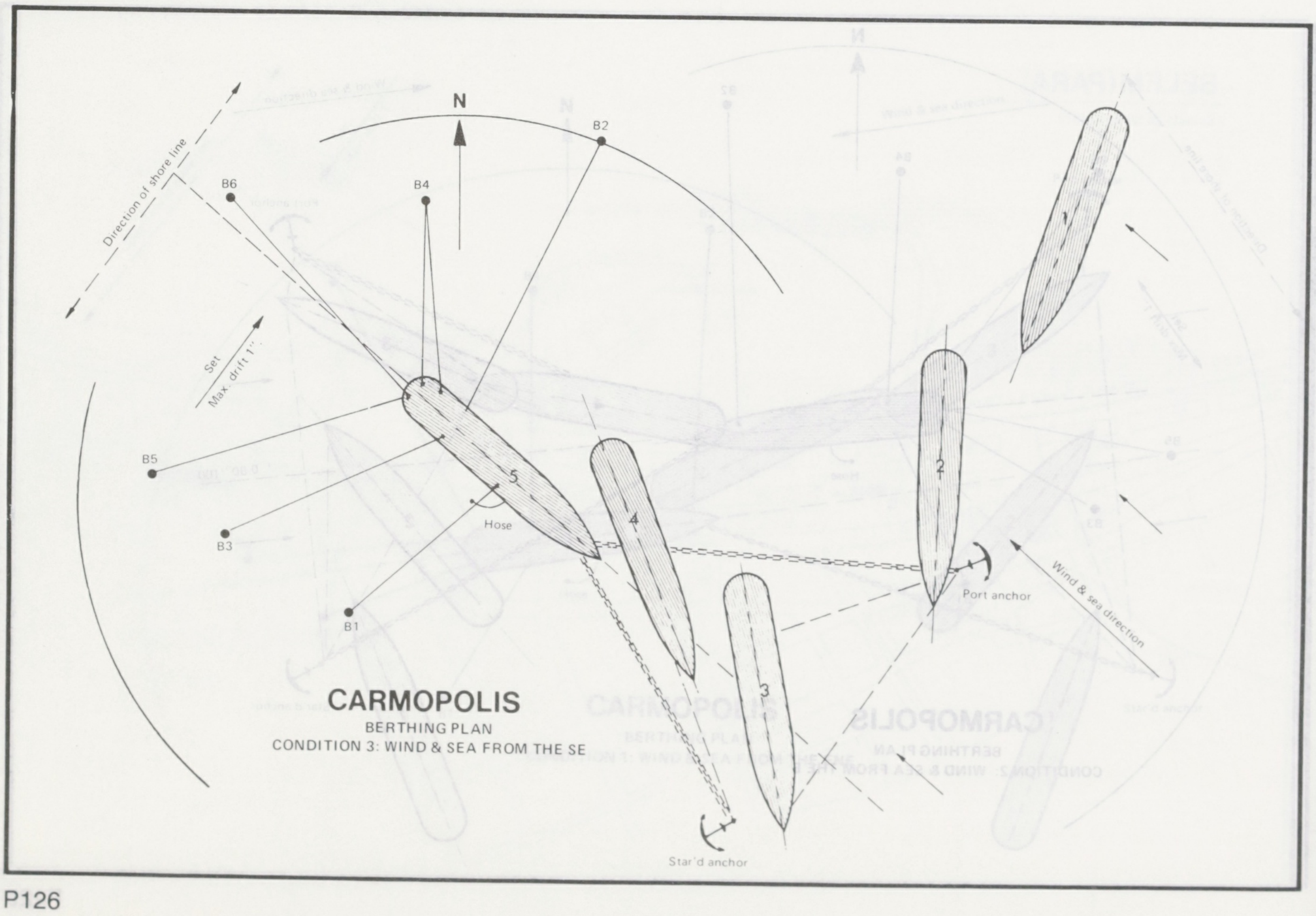
CARMOPOLIS

BERTHING PLAN

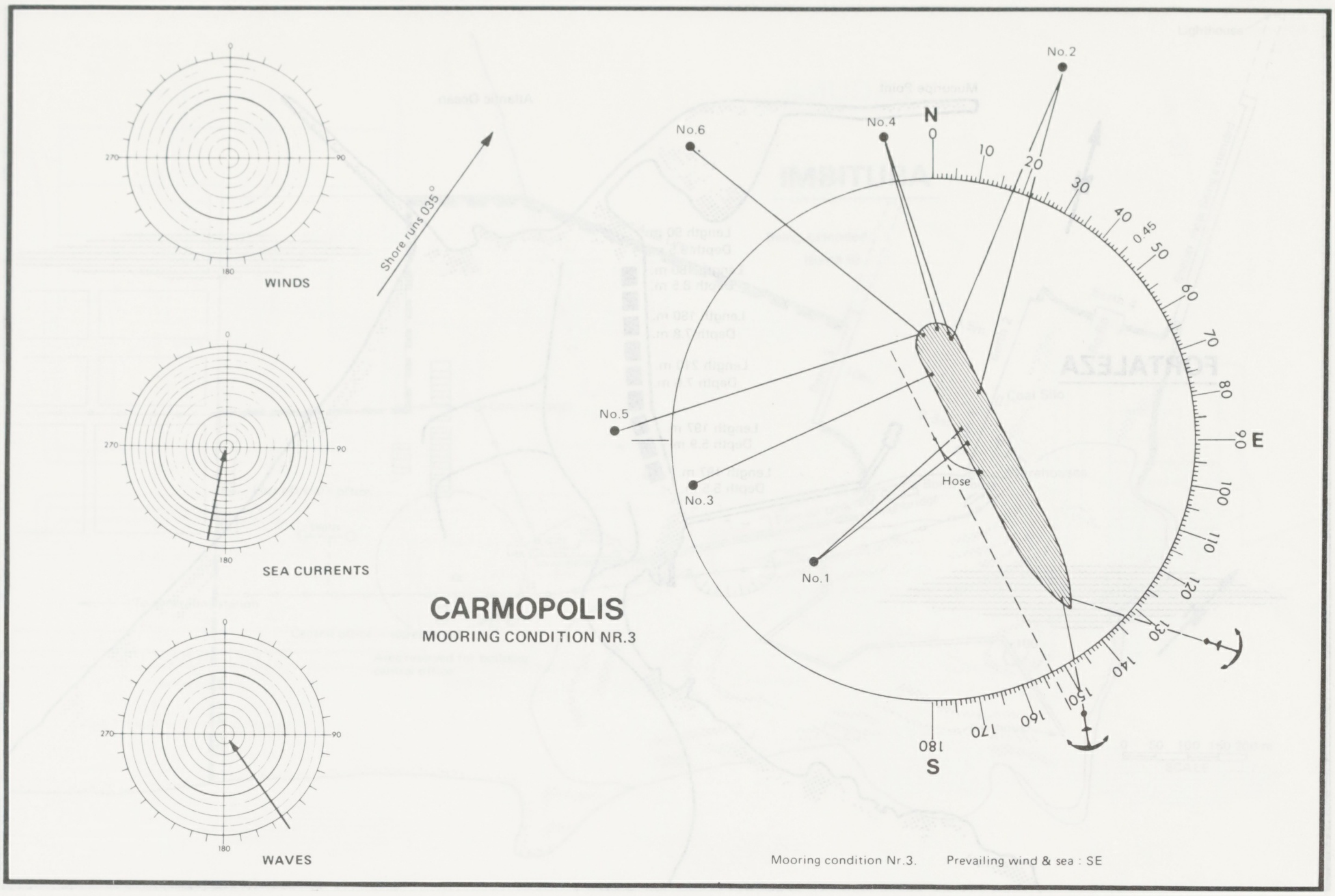
CONDITION 2: WIND & SEA FROM THE E



WINDS
SEA CURRENTS
WAVES
0
90
180
270
Shore runs 035°
Lat. 11° 02' 95''
No.1
No.2
No.3
No.4
No.5
No.6
N
E
S
0
10
20
30
40
45
50
60
70
80
90
100
110
120
130
140
150
160
170
180
Hose
CARMOPOLIS
MOORING CONDITION NR.2
Prevailing wind & sea E



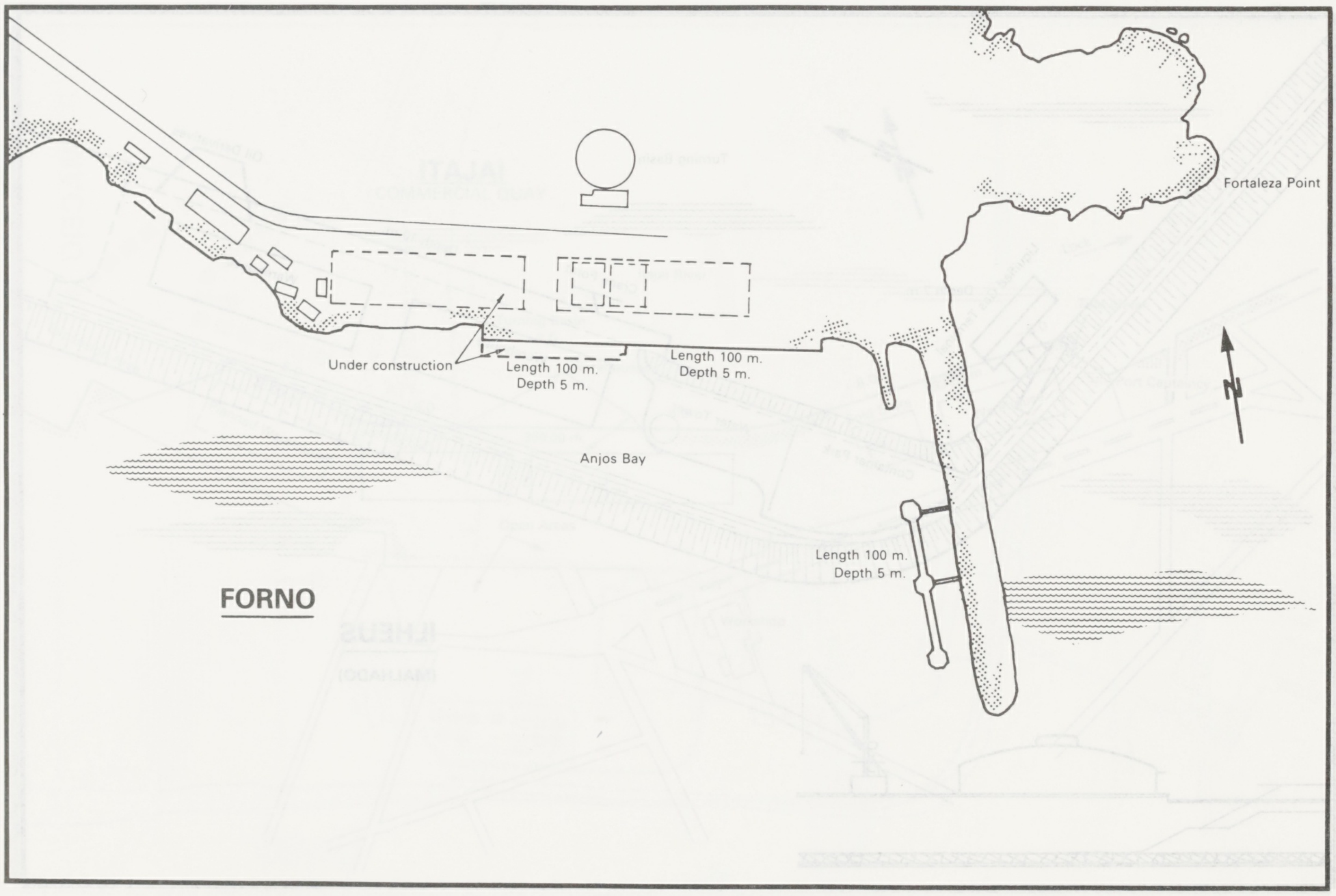
N
B1
B2
B3
B4
B5
B6
Direction of shore line
Set
Max. drift 1''
1
2
3
4
5
Hose
Port anchor
Star'd anchor
Wind & sea direction
CARMOPOLIS
BERTHING PLAN
CONDITION 3: WIND & SEA FROM THE SE


WINDS
SEA CURRENTS
WAVES
0
90
180
270
Shore runs 035°
No.1
No.2
No.3
No.4
No.5
No.6
Hose
N
E
S
0
10
20
30
40
45
50
60
70
80
90
100
110
120
130
140
150
160
170
180

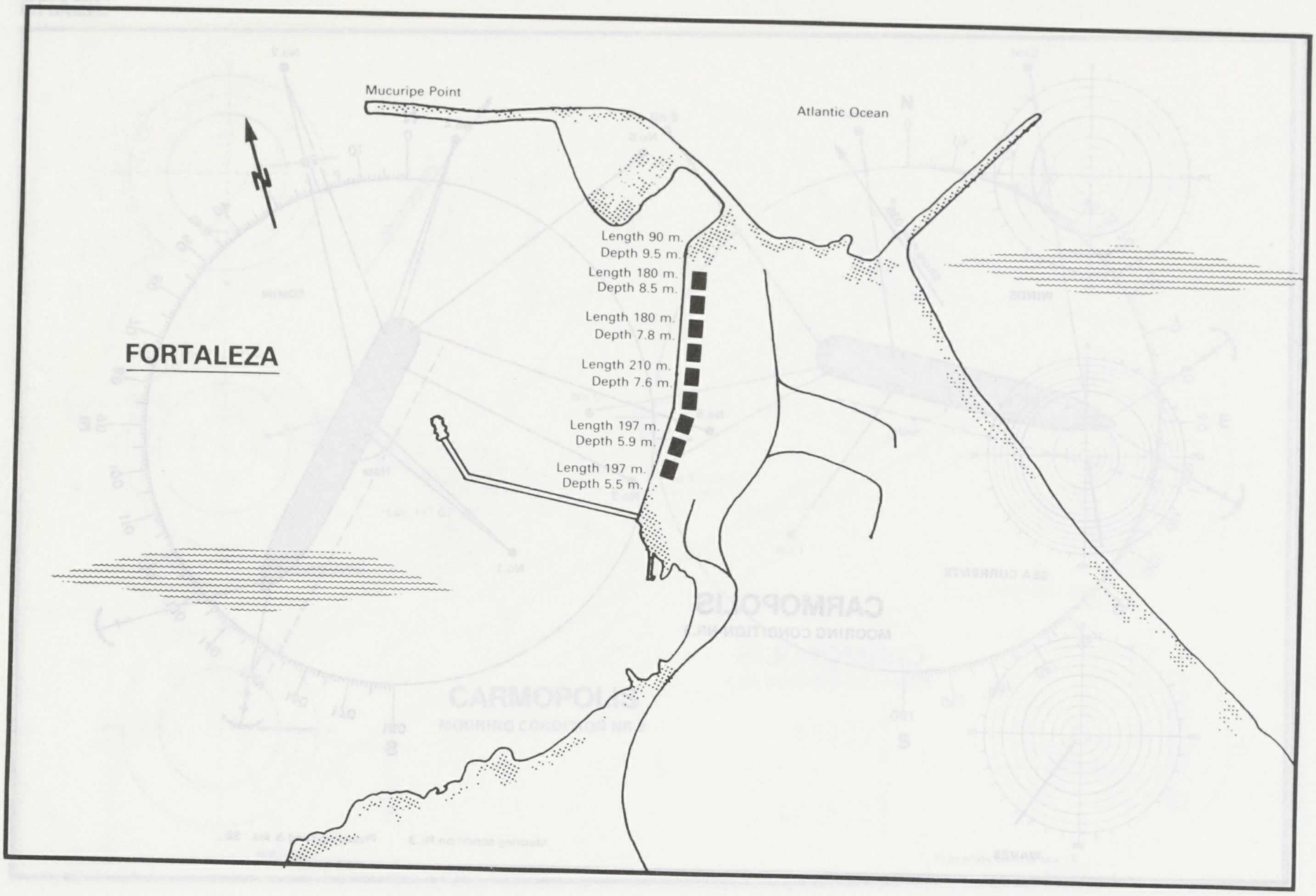
CARMOPOLIS

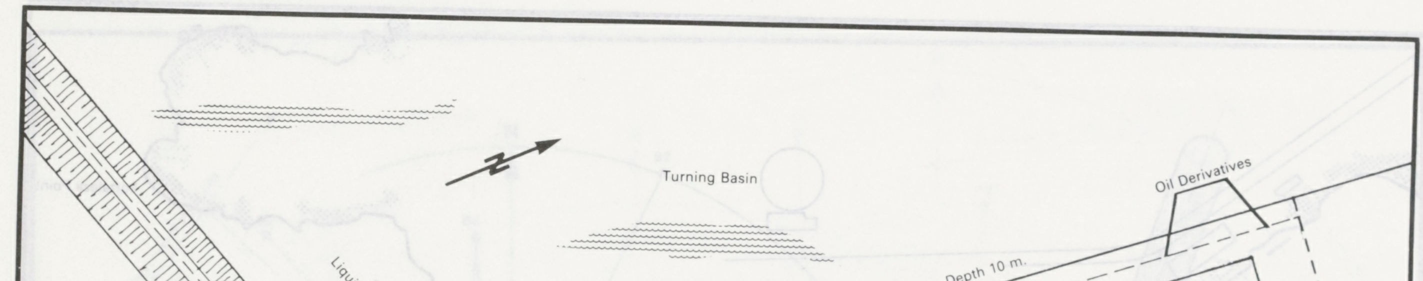
MOORING CONDITION NR.3

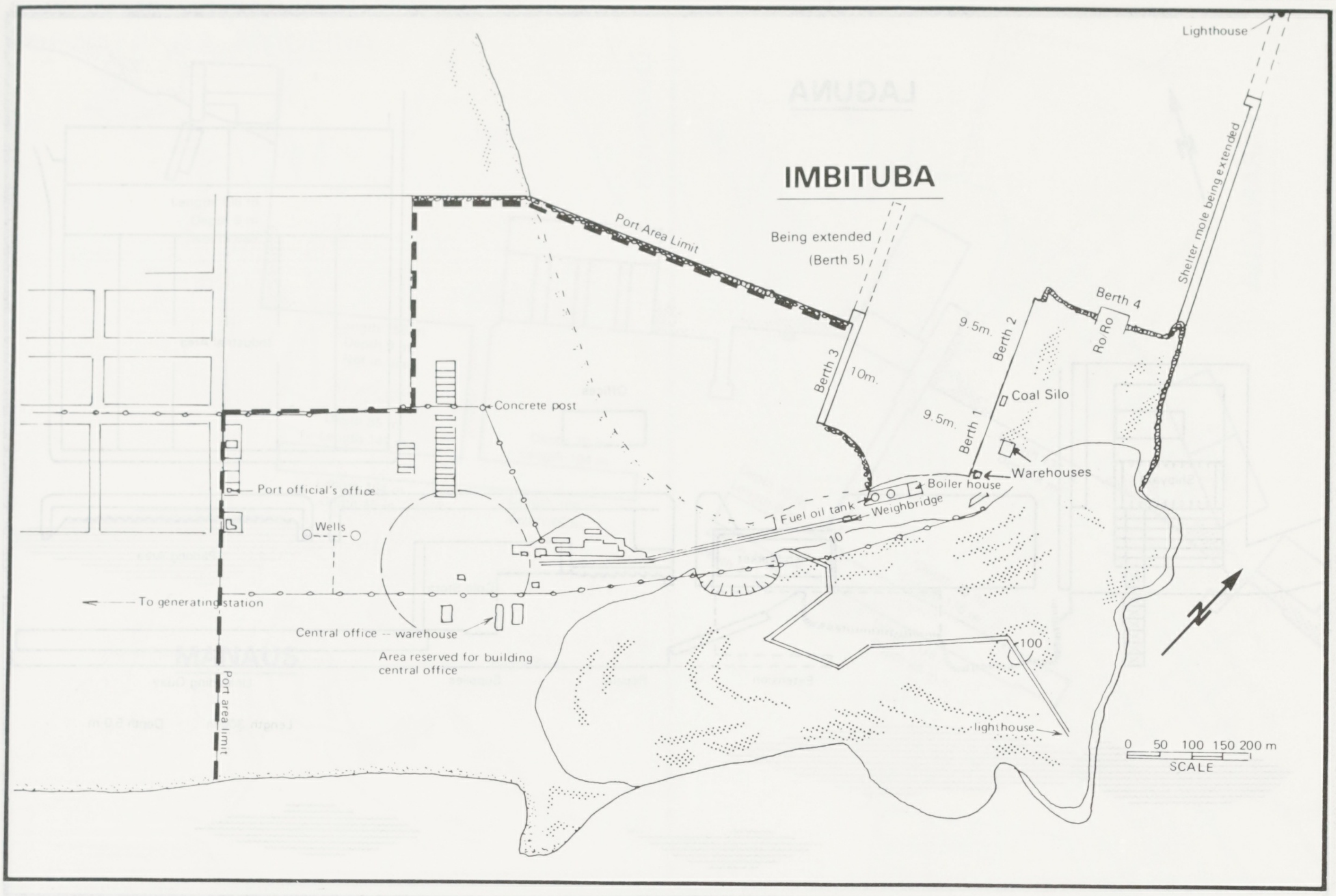
Mooring condition Nr.3.   Prevailing wind & sea : SE

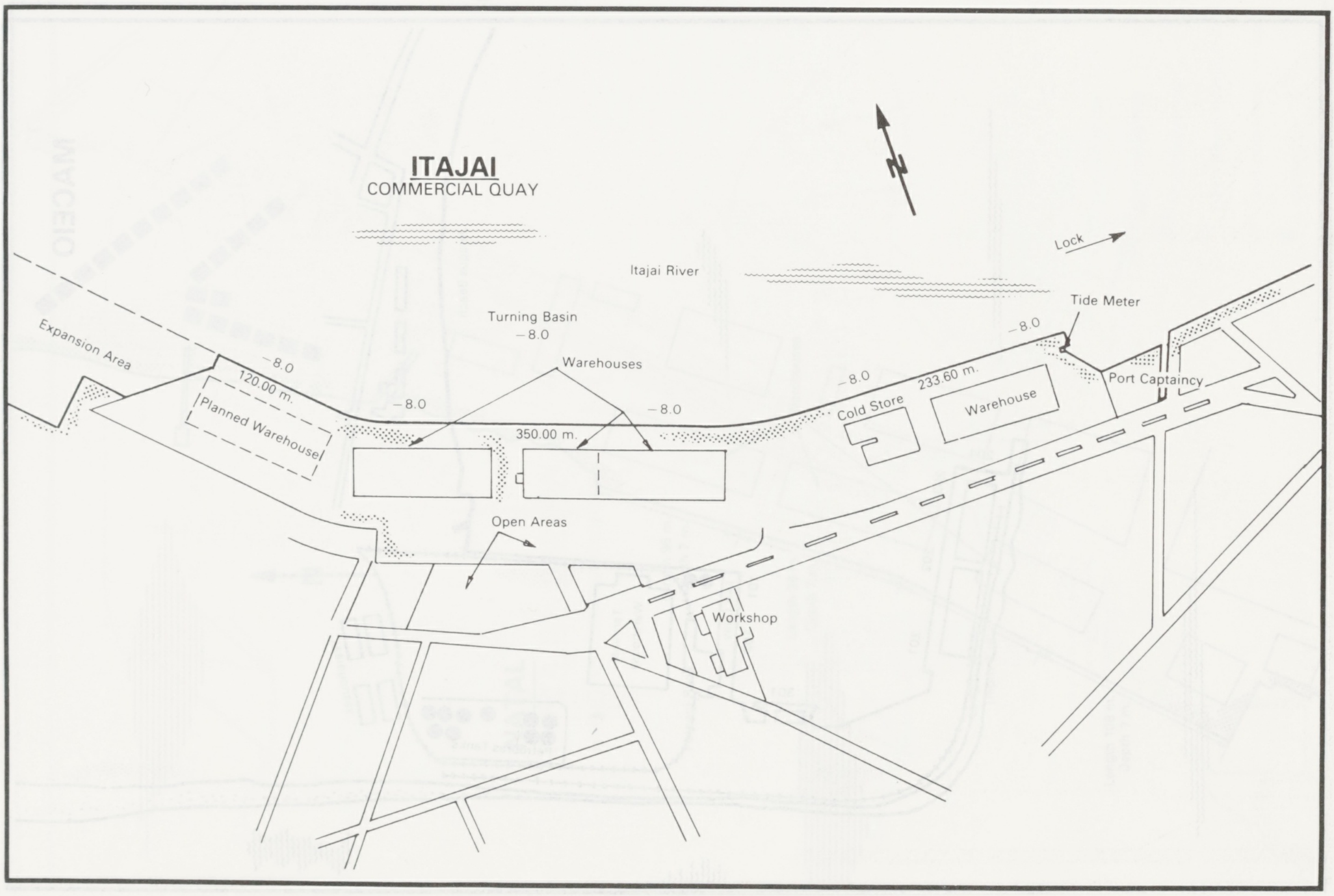

Fortaleza Point
Under construction
Length 100 m.
Depth 5 m.
Length 100 m.
Depth 5 m.
Anjos Bay
Length 100 m.
Depth 5 m.
N

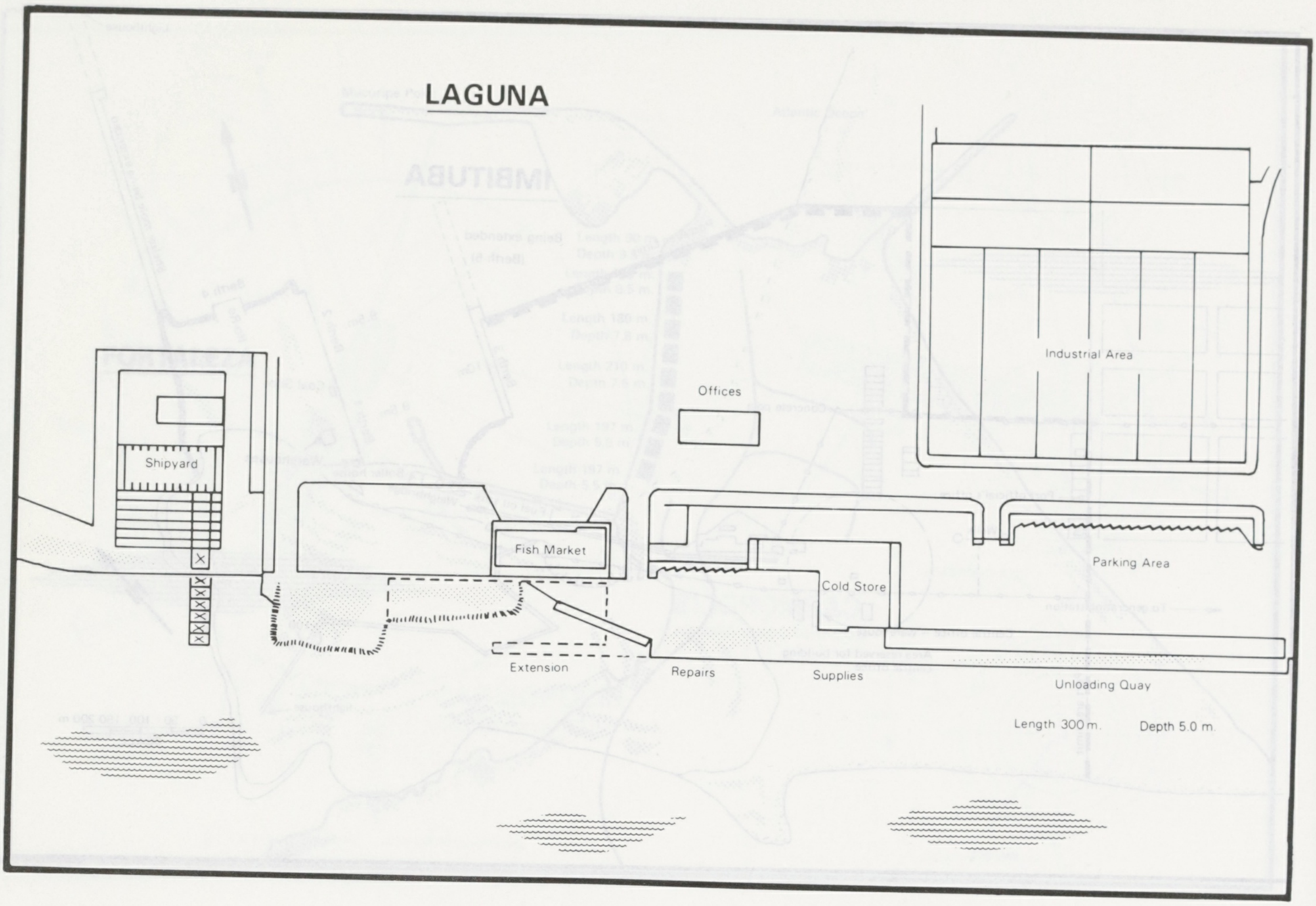
FORNO

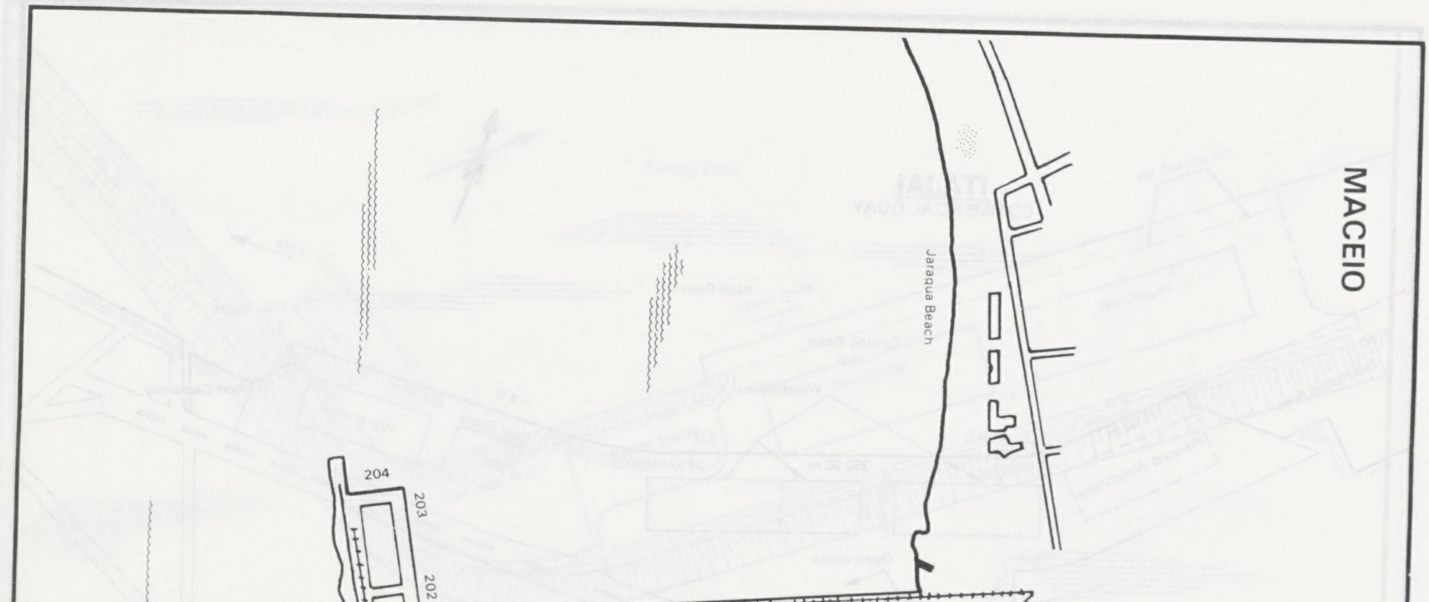

Mucuripe Point
Atlantic Ocean
N
Length 90 m.
Depth 9.5 m.
Length 180 m.
Depth 8.5 m.
Length 180 m.
Depth 7.8 m.
Length 210 m.
Depth 7.6 m.
Length 197 m.
Depth 5.9 m.
Length 197 m.
Depth 5.5 m.
FORTALEZA

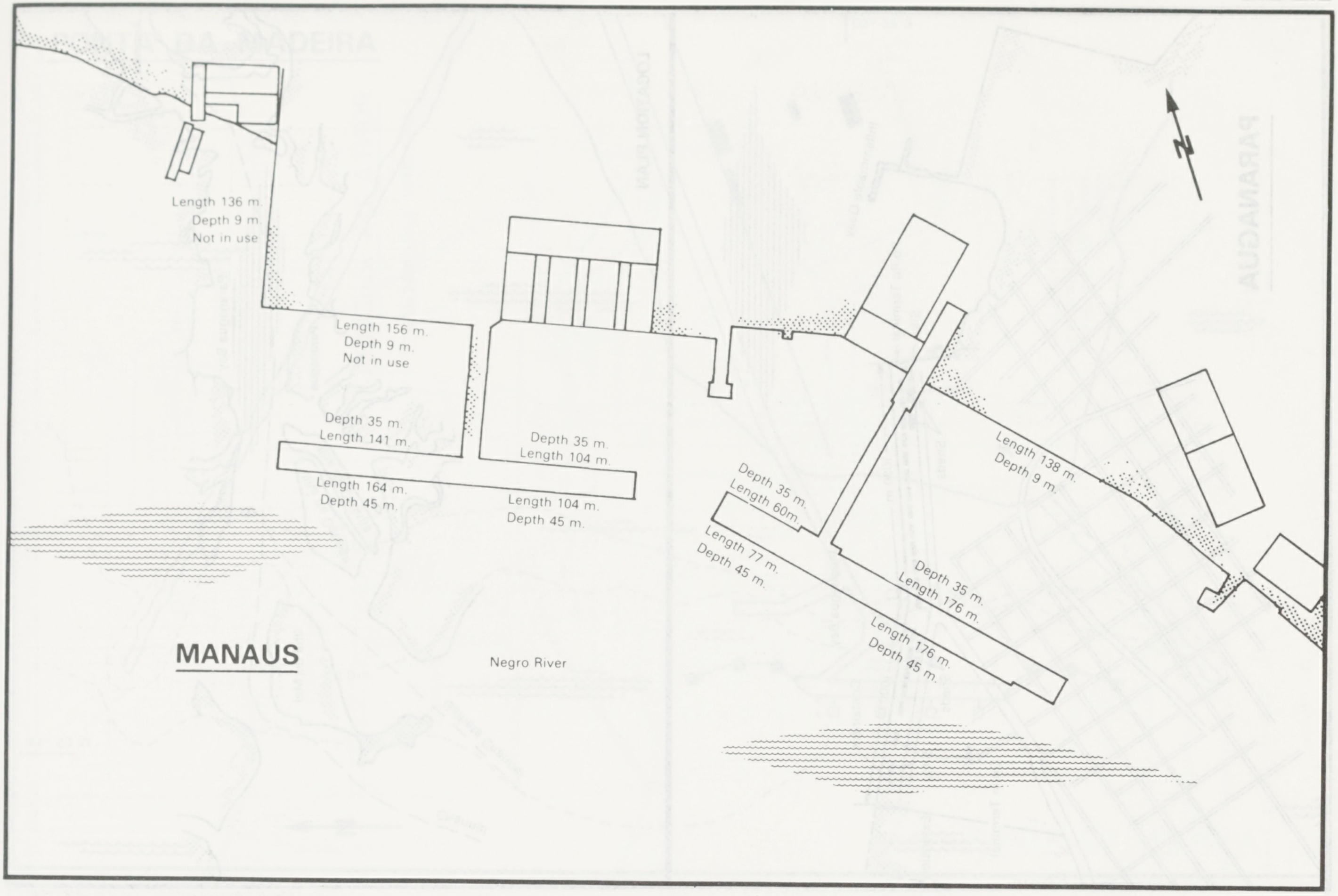

N
Turning Basin
Oil Derivatives
Depth 10 m.
Crane Point
Warehouse
Warehouse
Liquified Gas Terminal
Depth 7 m.
Water Tower
Container Park
ILHEUS
(MALHADO)

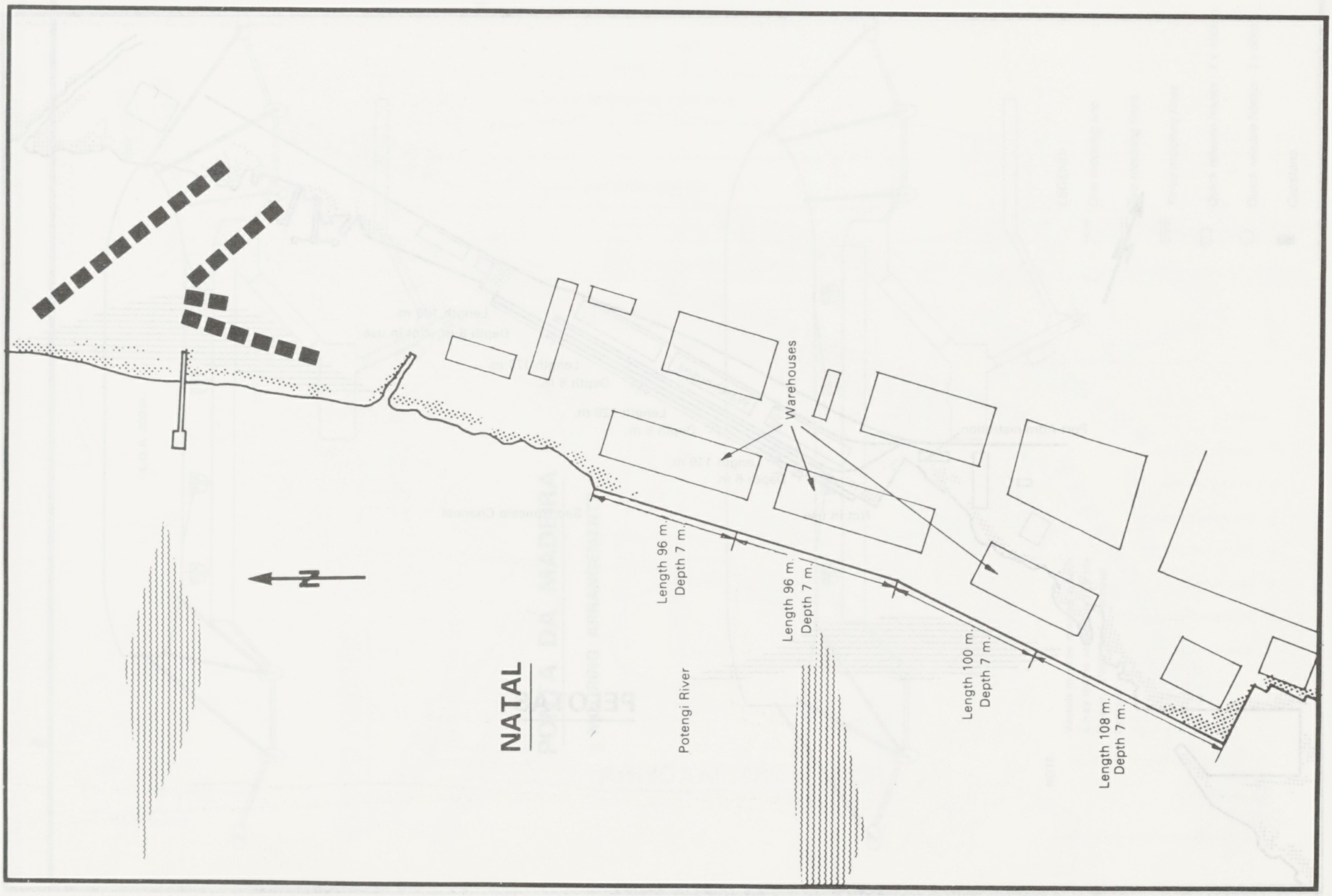

IMBITUBA
Lighthouse
Shelter mole being extended
Being extended
(Berth 5)
Port Area Limit
Berth 4
Ro Ro
9.5m.
Berth 2
Berth 3
10m.
Coal Silo
9.5m.
Berth 1
Warehouses
Boiler house
Weighbridge
Fuel oil tank
10
Concrete post
Port official's office
Wells
To generating station
Central office -- warehouse
Area reserved for building central office
Port area limit
100
lighthouse
0 50 100 150 200 m
SCALE

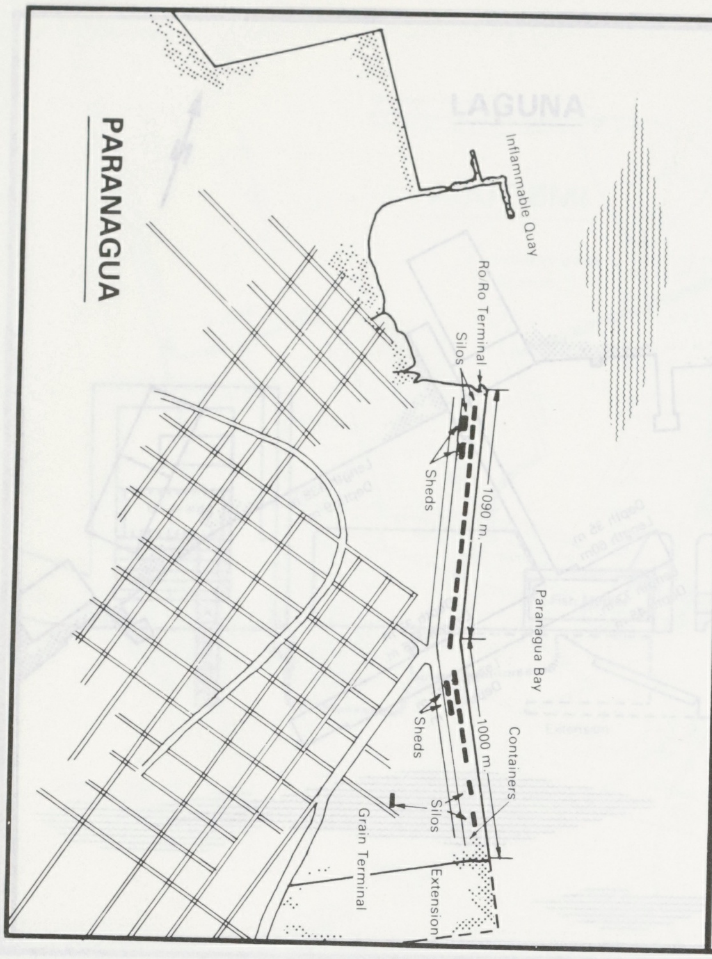

ITAJAI
COMMERCIAL QUAY
Itajai River
Lock
Turning Basin
−8.0
Tide Meter
−8.0
Expansion Area
−8.0
120.00 m.
Planned Warehouse
Warehouses
−8.0
−8.0
350.00 m.
−8.0
Cold Store
233.60 m.
Warehouse
Port Captaincy
Open Areas
Workshop

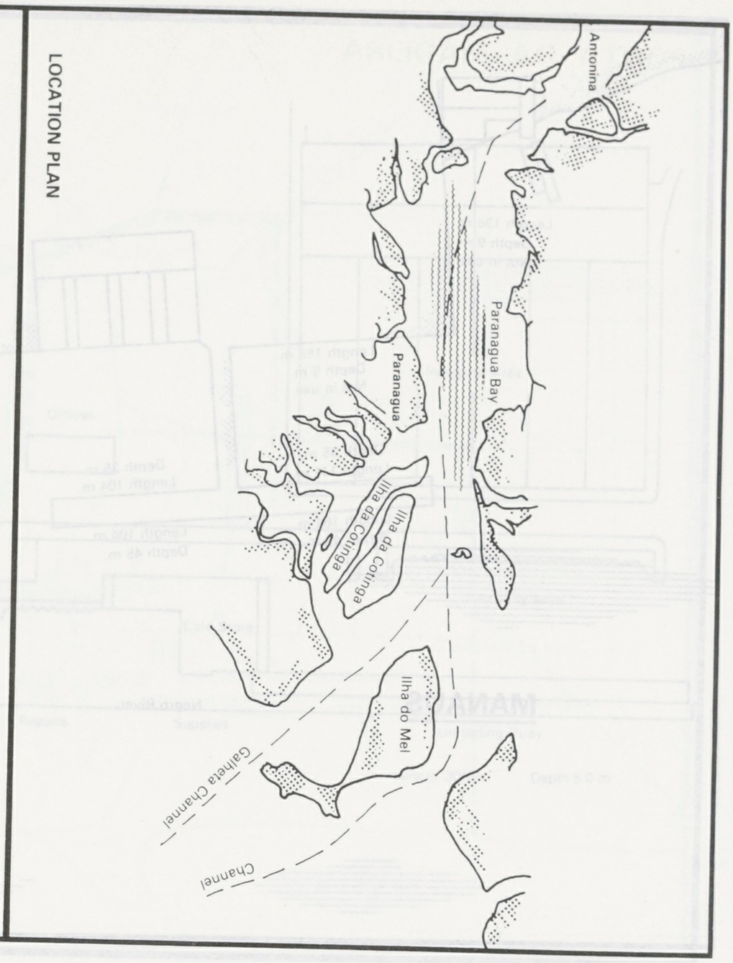

LAGUNA
Industrial Area
Offices
Shipyard
Fish Market
Cold Store
Parking Area
Extension
Repairs
Supplies
Unloading Quay
Length 300 m.
Depth 5.0 m.

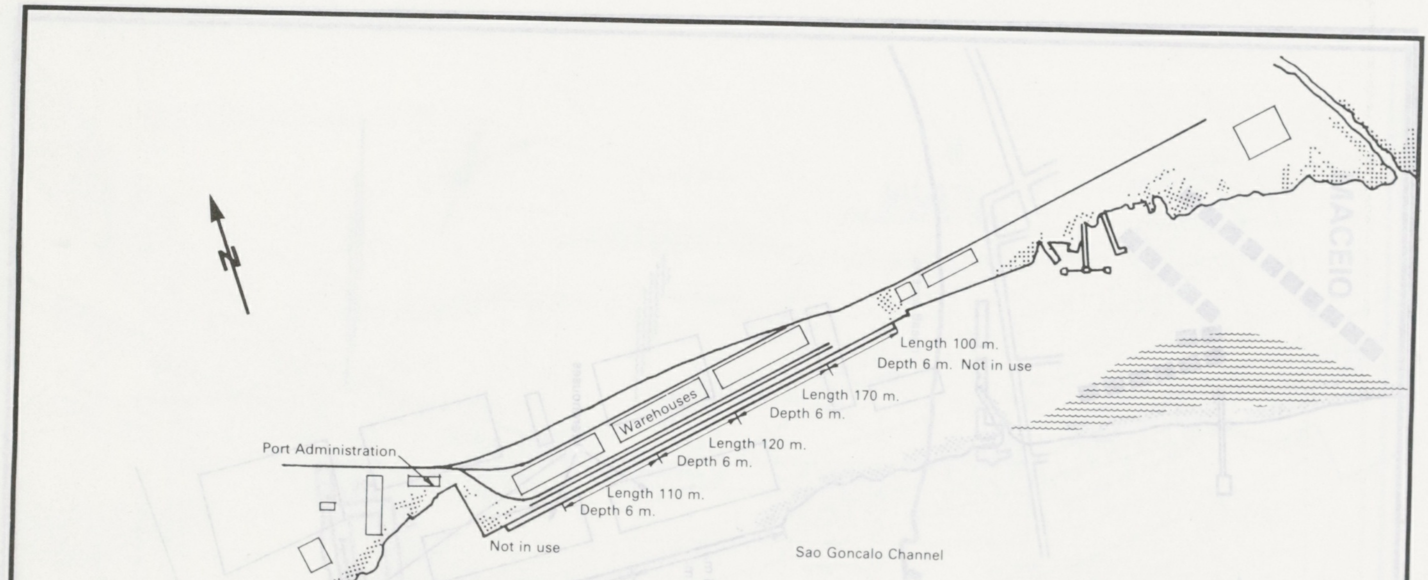

MACEIO
Jaraqua Beach
204
203
202
201
101
IAA Quay
102
301
Terminal Warehouse
Warehouses
Petrobras Tanks

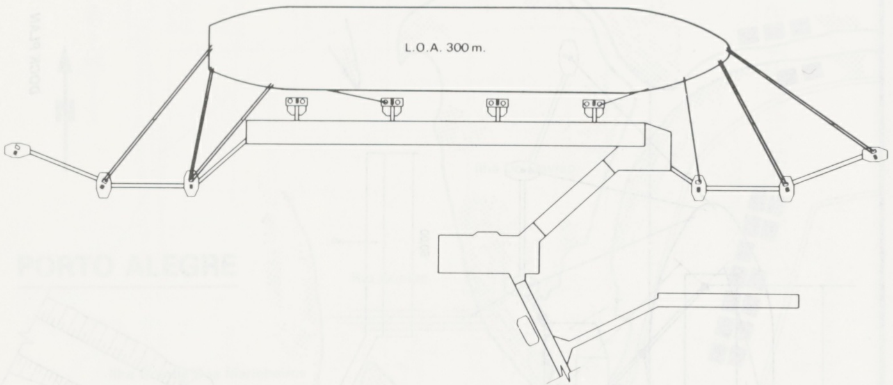

Length 136 m.
Depth 9 m.
Not in use
Length 156 m.
Depth 9 m.
Not in use
Depth 35 m.
Length 141 m.
Depth 35 m.
Length 104 m.
Length 164 m.
Depth 45 m.
Length 104 m.
Depth 45 m.
Depth 35 m.
Length 60m.
Length 77 m.
Depth 45 m.
Length 138 m.
Depth 9 m.
Depth 35 m.
Length 176 m.
Length 176 m.
Depth 45 m.
MANAUS
Negro River
N


Warehouses
N
Length 96 m.
Depth 7 m.
Length 96 m.
Depth 7 m.
Length 100 m.
Depth 7 m.
Length 108 m.
Depth 7 m.
NATAL
Potengi River


PARANAGUA
Inflammable Quay
Ro Ro Terminal
Silos
Sheds
1090 m.
Paranagua Bay
Sheds
1000 m.
Containers
Silos
Grain Terminal
Extension

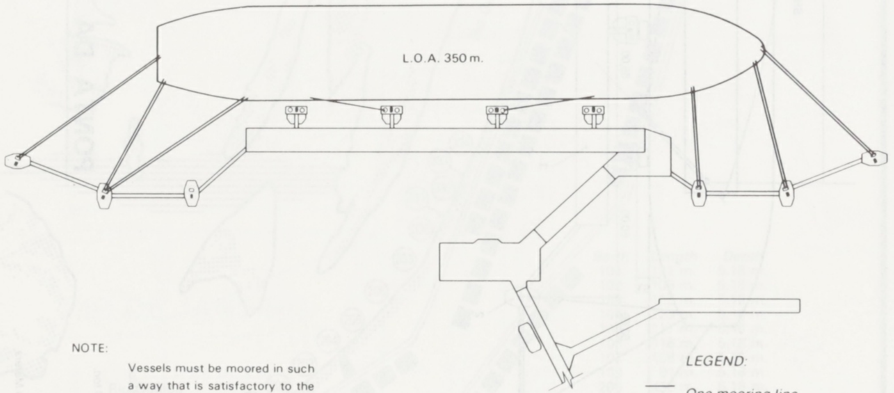

LOCATION PLAN
Antonina
Paranagua Bay
Paranagua
Ilha da Cotinga
Ilha da Cotinga
Ilha do Mel
Galheta Channel
Channel


Port Administration
Warehouses
Length 100 m.
Depth 6 m. Not in use
Length 170 m.
Depth 6 m.
Length 120 m.
Depth 6 m.
Length 110 m.
Depth 6 m.
Not in use
Sao Goncalo Channel
PELOTAS



PONTA DA MADEIRA

MOORING ARRANGEMENTS



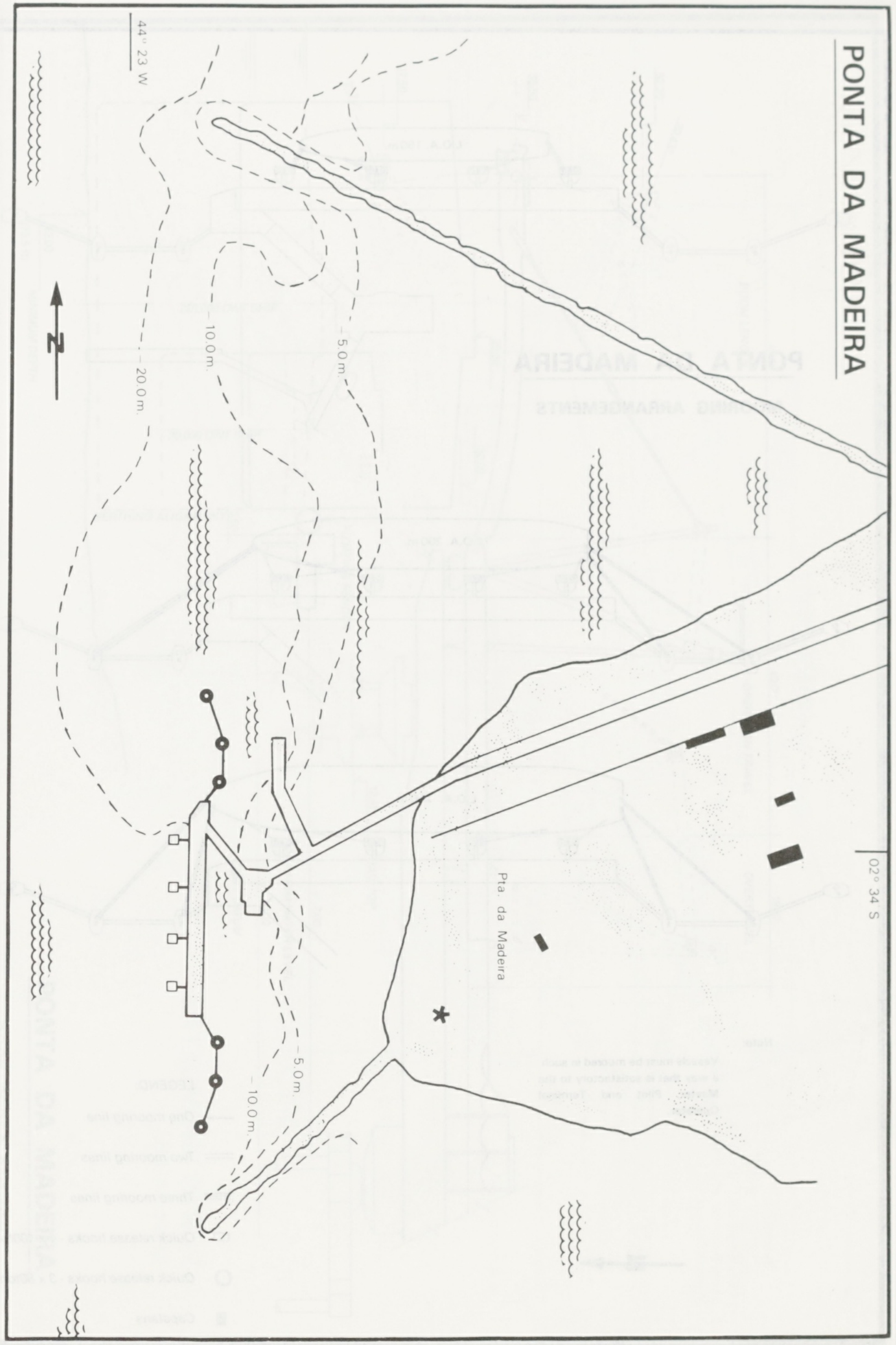
NOTE:

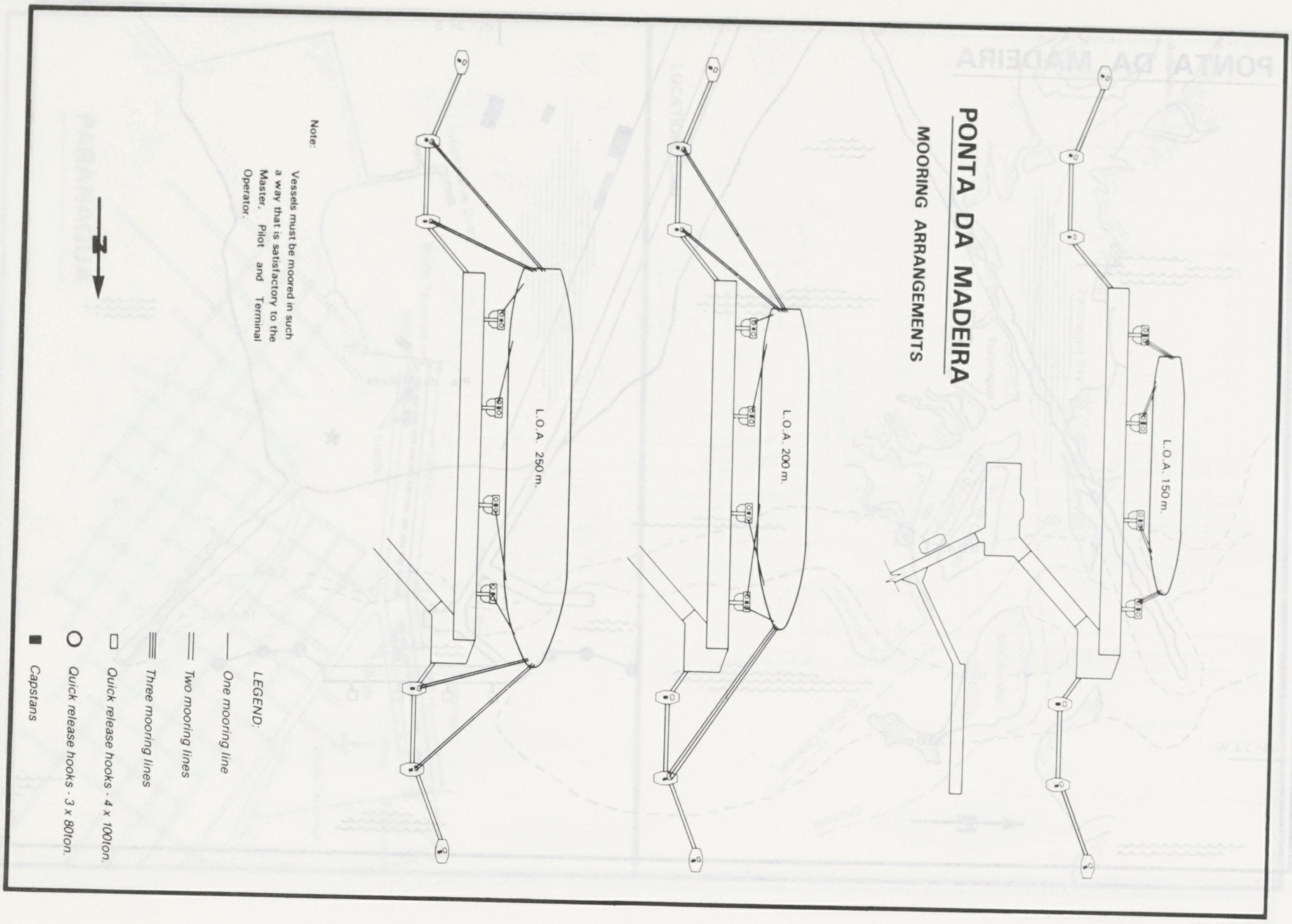
Vessels must be moored in such a way that is satisfactory to the Master, Pilot and Terminal Operator.

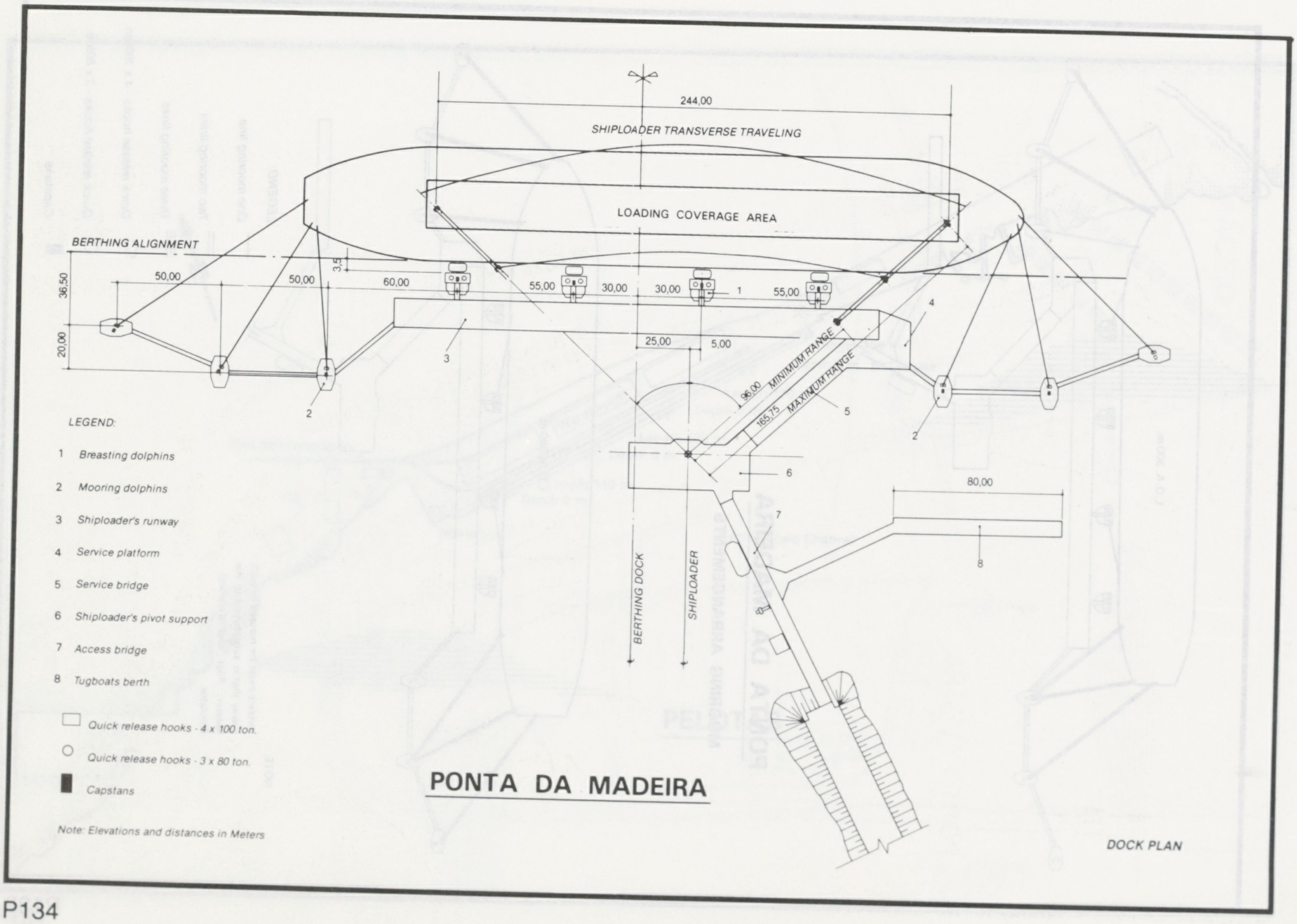
LEGEND:

- — *One mooring line*
- ═ *Two mooring lines*
- ≡ *Three mooring lines*
- □ *Quick release hooks - 4 x 100ton.*
- ○ *Quick release hooks - 3 x 80ton.*
- ▮ *Capstans*

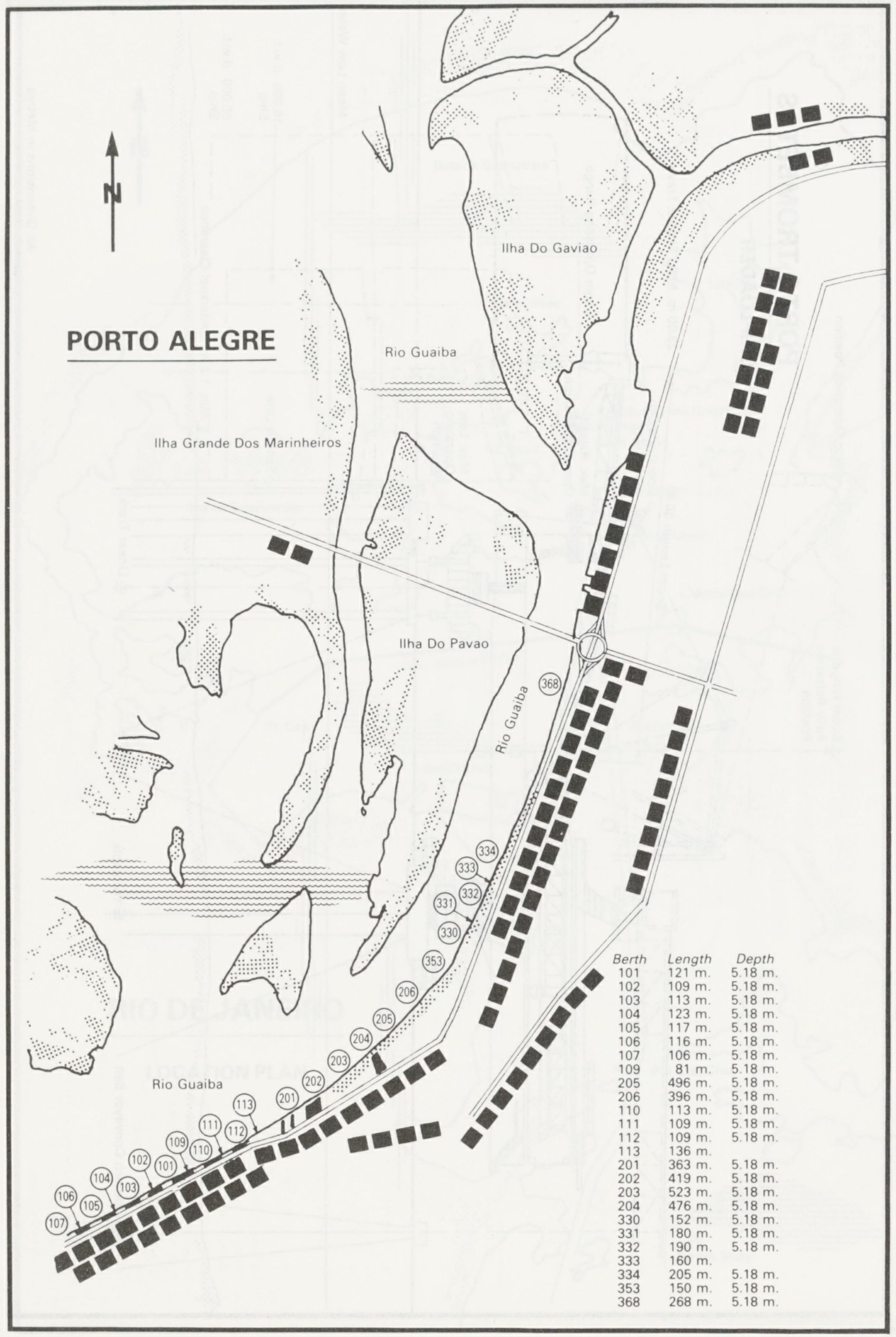
PONTA DA MADEIRA


44° 23 W
N
20.0 m
10.0 m
5.0 m
02° 34 S
Pta da Madeira
5.0 m
10.0 m


PONTA DA MADEIRA
MOORING ARRANGEMENTS
L.O.A. 150 m.
L.O.A. 200 m.
L.O.A. 250 m.
Note:
Vessels must be moored in such a way that is satisfactory to the Master, Pilot and Terminal Operator.
N
LEGEND:
One mooring line
Two mooring lines
Three mooring lines
Quick release hooks - 4 x 100ton.
Quick release hooks - 3 x 80ton.
Capstans


244,00
SHIPLOADER TRANSVERSE TRAVELING
LOADING COVERAGE AREA
BERTHING ALIGNMENT
36,50
20,00
50,00
50,00
3,5
60,00
55,00
30,00
30,00
55,00
25,00
5,00
96,00 MINIMUM RANGE
165,75 MAXIMUM RANGE
80,00
1
2
3
4
5
6
7
8
BERTHING DOCK
SHIPLOADER
LEGEND:
1 Breasting dolphins
2 Mooring dolphins
3 Shiploader's runway
4 Service platform
5 Service bridge
6 Shiploader's pivot support
7 Access bridge
8 Tugboats berth
Quick release hooks - 4 x 100 ton.
Quick release hooks - 3 x 80 ton.
Capstans
PONTA DA MADEIRA
Note: Elevations and distances in Meters
DOCK PLAN

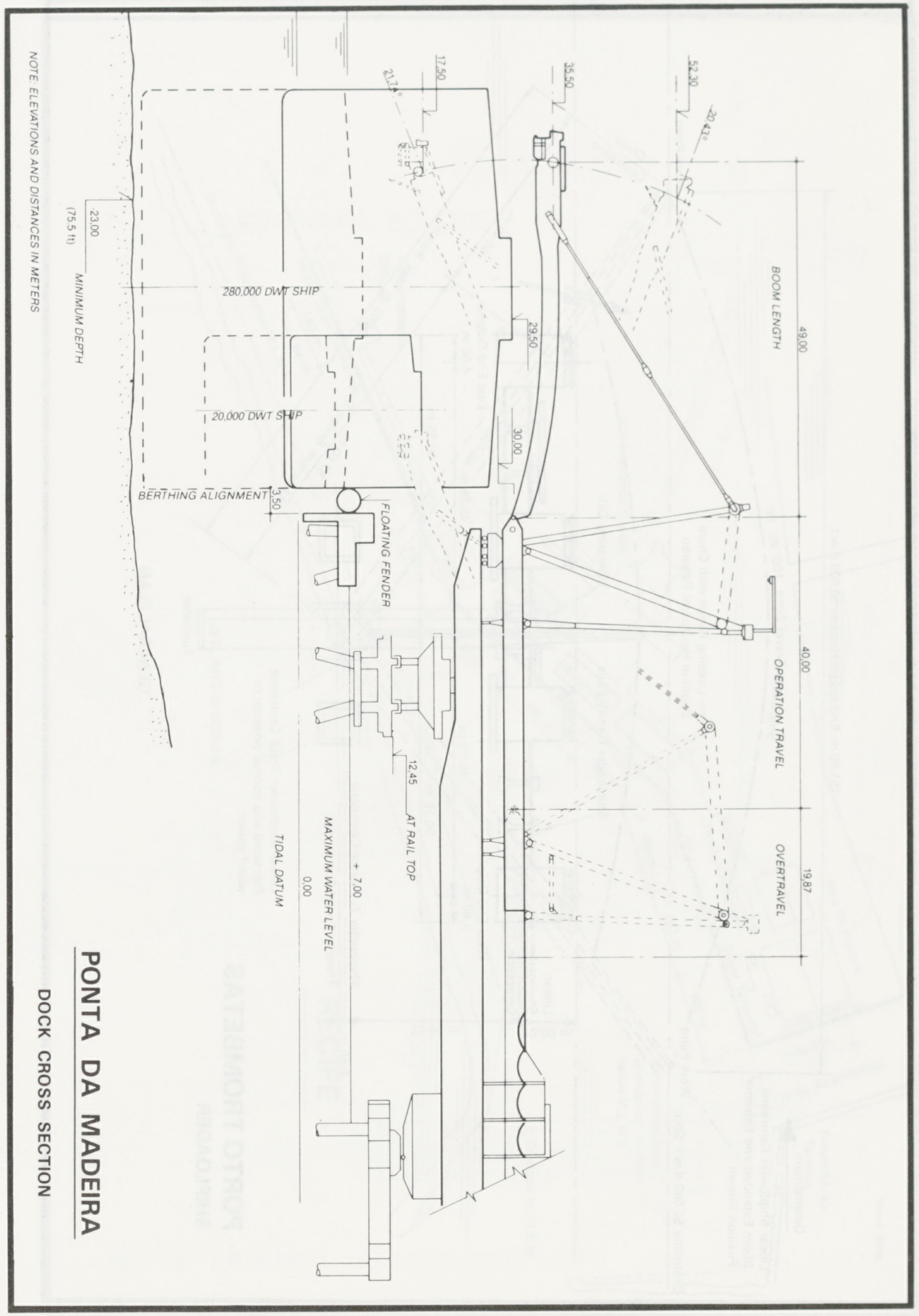
PORTO ALEGRE

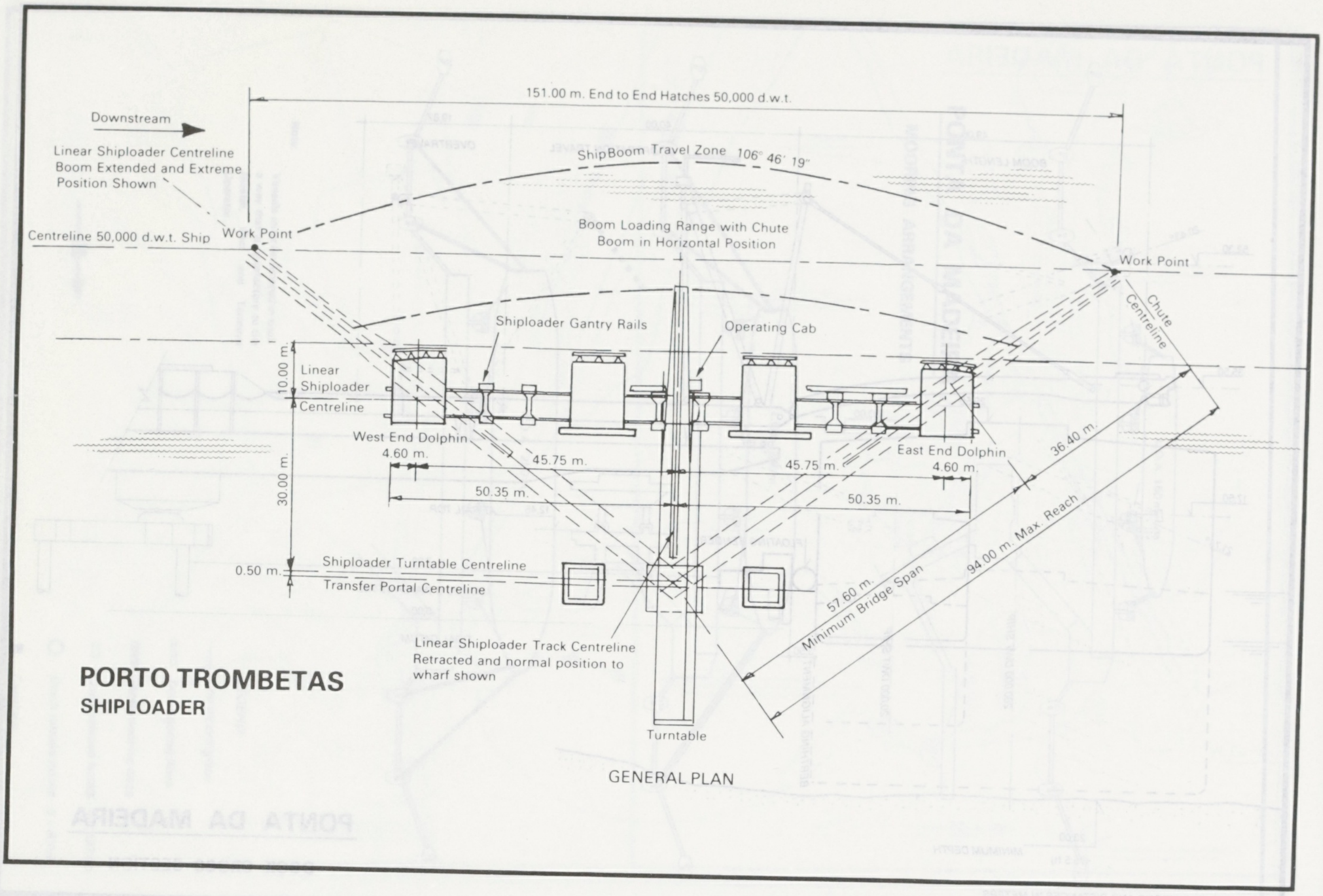

N
Ilha Do Gaviao
Rio Guaiba
Ilha Grande Dos Marinheiros
Ilha Do Pavao
Rio Guaiba
368
334
333
332
331
330
353
206
205
204
203
202
201
113
111
112
109
110
102
101
104
103
106
105
107
Rio Guaiba

Berth	Length	Depth
101	121 m.	5.18 m.
102	109 m.	5.18 m.
103	113 m.	5.18 m.
104	123 m.	5.18 m.
105	117 m.	5.18 m.
106	116 m.	5.18 m.
107	106 m.	5.18 m.
109	81 m.	5.18 m.
205	496 m.	5.18 m.
206	396 m.	5.18 m.
110	113 m.	5.18 m.
111	109 m.	5.18 m.
112	109 m.	5.18 m.
113	136 m.	
201	363 m.	5.18 m.
202	419 m.	5.18 m.
203	523 m.	5.18 m.
204	476 m.	5.18 m.
330	152 m.	5.18 m.
331	180 m.	5.18 m.
332	190 m.	5.18 m.
333	160 m.	
334	205 m.	5.18 m.
353	150 m.	5.18 m.
368	268 m.	5.18 m.

PONTA DA MADEIRA

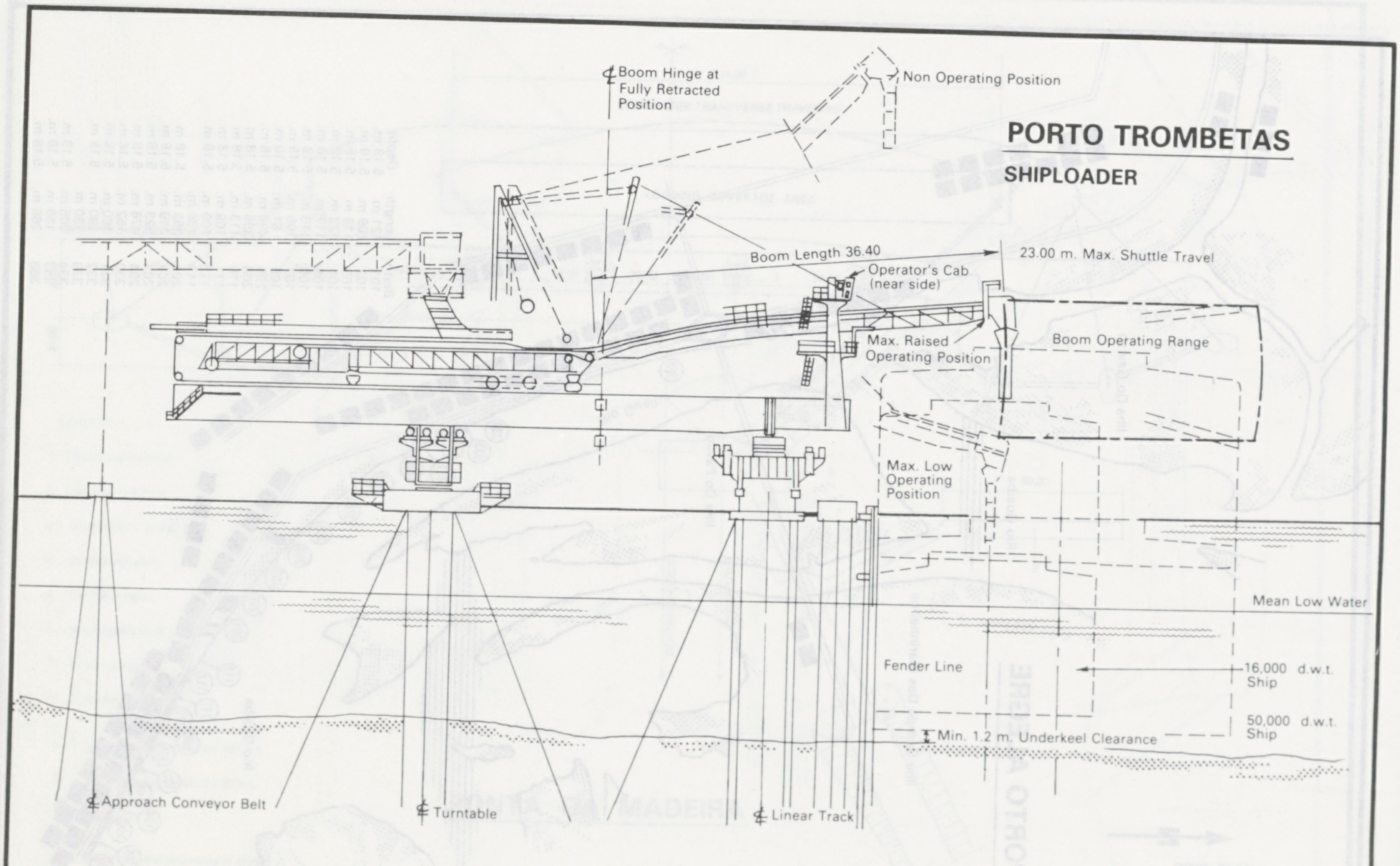
DOCK CROSS SECTION


NOTE ELEVATIONS AND DISTANCES IN METERS
23.00
(75.5 ft)
MINIMUM DEPTH
280,000 DWT SHIP
20,000 DWT SHIP
BERTHING ALIGNMENT
3.50
FLOATING FENDER
12.45
AT RAIL TOP
+ 7.00
MAXIMUM WATER LEVEL
0.00
TIDAL DATUM
17.50
21.74°
29.50
30.00
35.50
52.30
20.43°
BOOM LENGTH
49.00
OPERATION TRAVEL
40.00
OVERTRAVEL
19.87


151.00 m. End to End Hatches 50,000 d.w.t.
Downstream
Linear Shiploader Centreline
Boom Extended and Extreme
Position Shown
ShipBoom Travel Zone 106° 46' 19"
Centreline 50,000 d.w.t. Ship
Work Point
Boom Loading Range with Chute
Boom in Horizontal Position
Work Point
Chute
Centreline
Shiploader Gantry Rails
Operating Cab
10.00 m.
Linear
Shiploader
Centreline
West End Dolphin
East End Dolphin
4.60 m.
4.60 m.
45.75 m.
45.75 m.
36.40 m.
30.00 m.
50.35 m.
50.35 m.
0.50 m.
Shiploader Turntable Centreline
Transfer Portal Centreline
57.60 m.
Minimum Bridge Span
94.00 m. Max. Reach
Linear Shiploader Track Centreline
Retracted and normal position to
wharf shown
Turntable
GENERAL PLAN

PORTO TROMBETAS

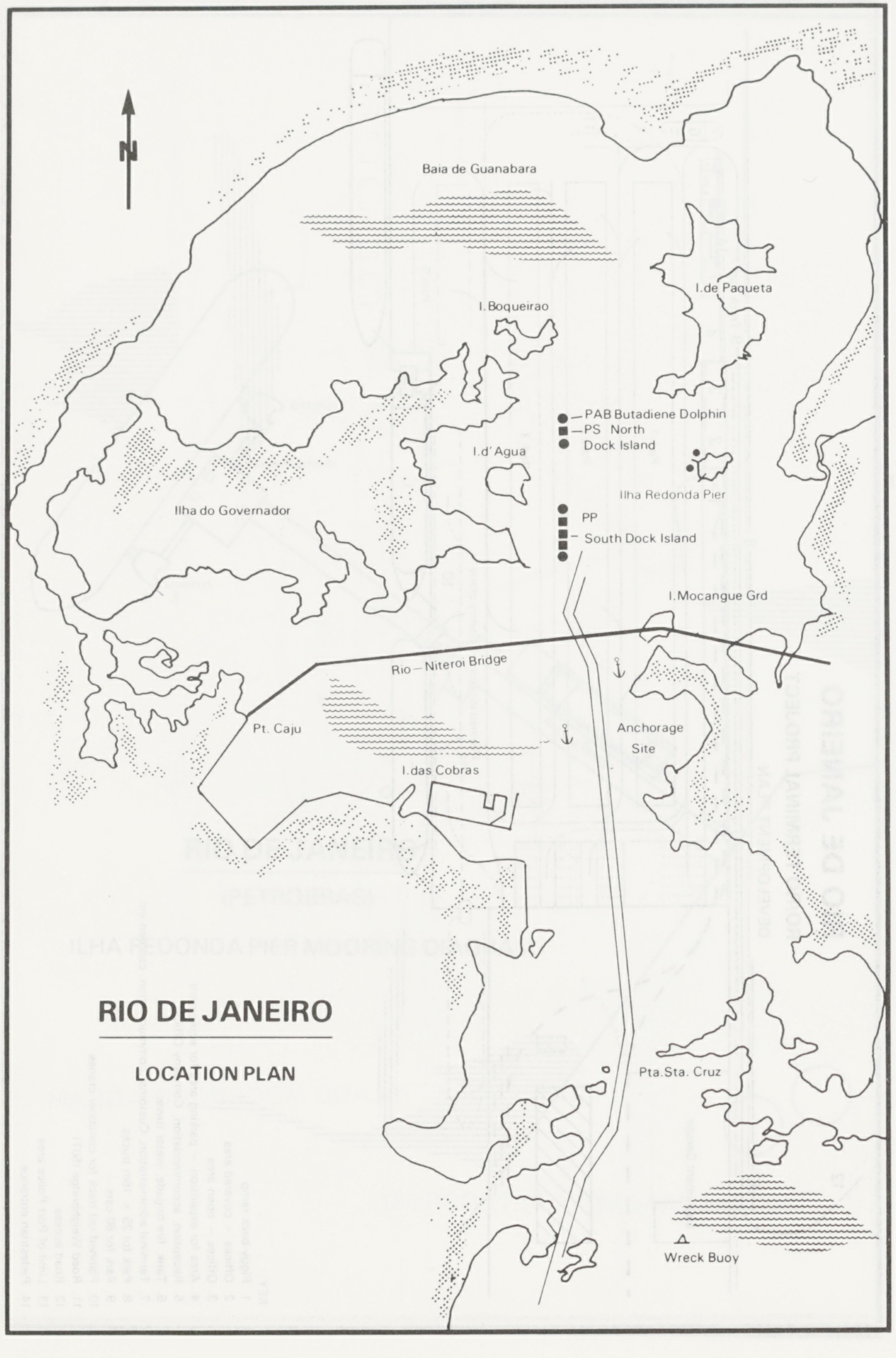
SHIPLOADER


Boom Hinge at
Fully Retracted
Position
Non Operating Position
Boom Length 36.40
23.00 m. Max. Shuttle Travel
Operator's Cab
(near side)
Max. Raised
Operating Position
Boom Operating Range
Max. Low
Operating
Position
Mean Low Water
Fender Line
16,000 d.w.t.
Ship
50,000 d.w.t.
Ship
Min. 1.2 m. Underkeel Clearance
℄ Approach Conveyor Belt
℄ Turntable
℄ Linear Track

PORTO TROMBETAS

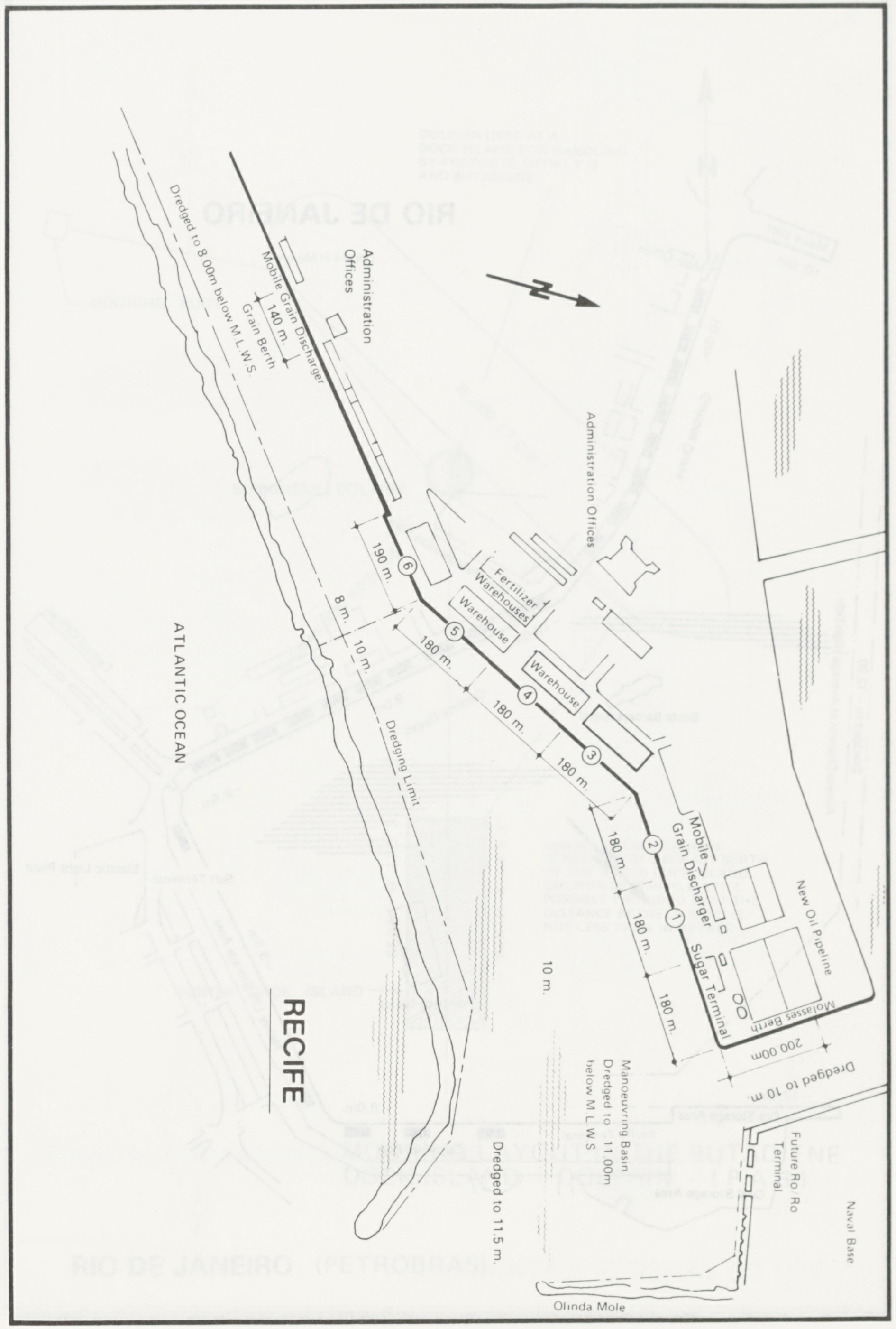
SHIPLOADER

All Dimensions in Metres

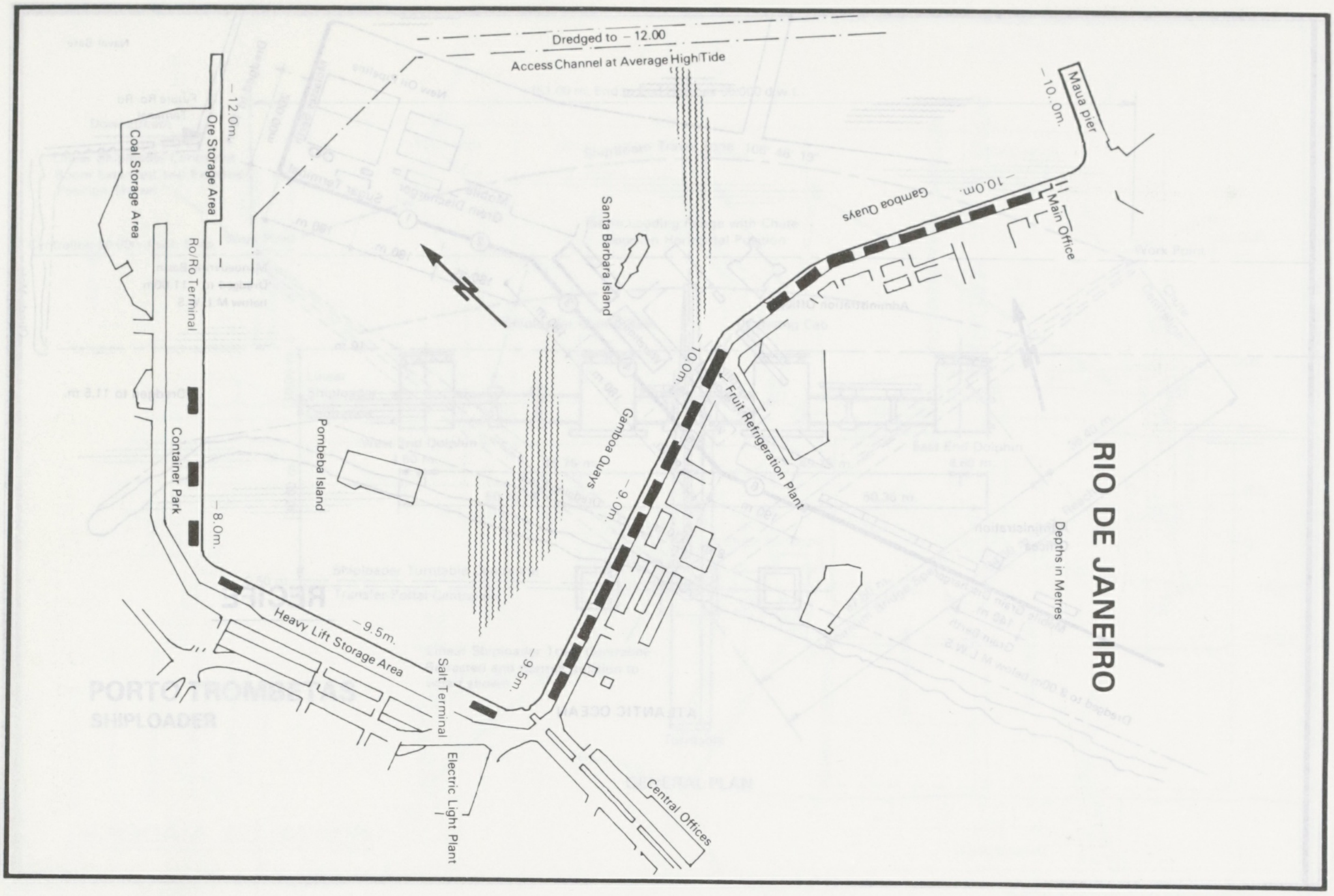

N
Baia de Guanabara
I.de Paqueta
I.Boqueirao
PAB Butadiene Dolphin
PS North
Dock Island
I.d'Agua
Ilha Redonda Pier
Ilha do Governador
PP
South Dock Island
I.Mocangue Grd
Rio – Niteroi Bridge
Pt. Caju
Anchorage
Site
I.das Cobras
Pta.Sta. Cruz
Wreck Buoy

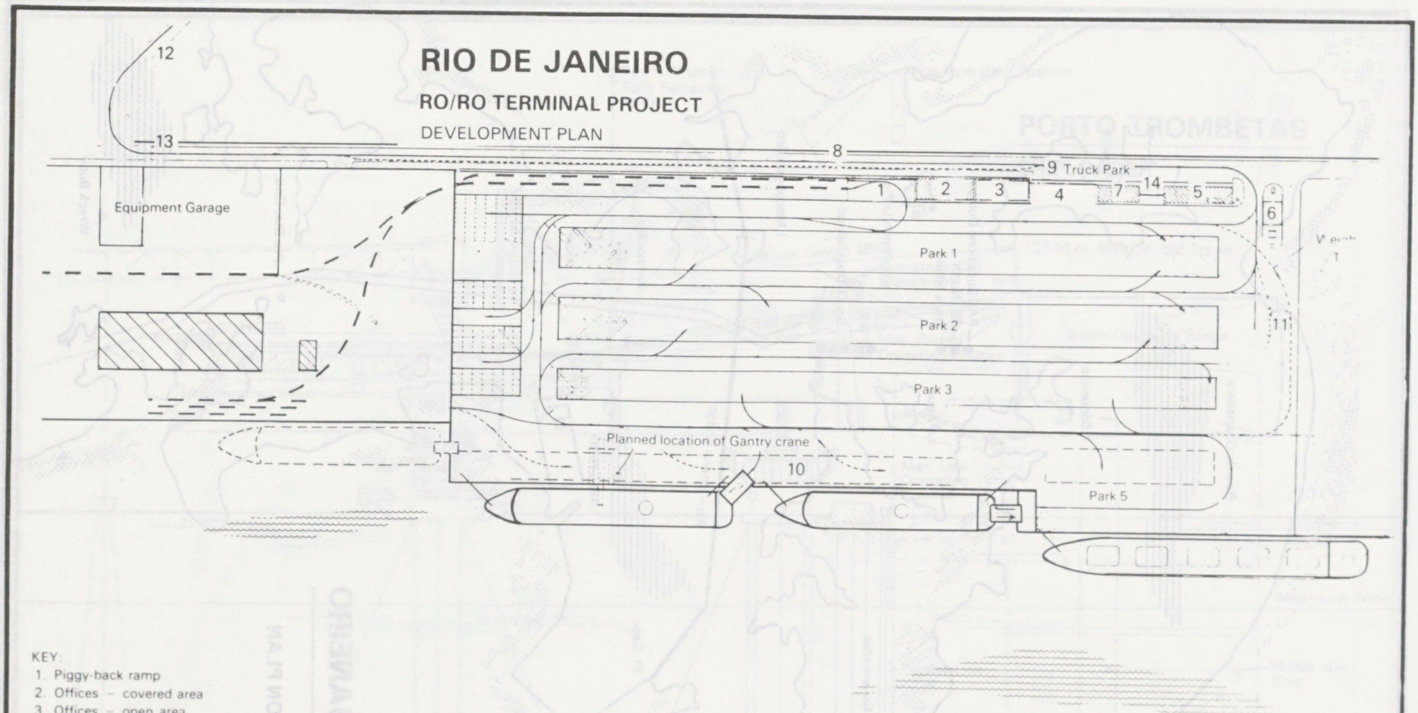
RIO DE JANEIRO

LOCATION PLAN


N
Administration Offices
Mobile Grain Discharger
140 m.
Grain Berth
Dredged to 8.00m below M.L.W.S.
Administration Offices
Fertilizer Warehouses
Warehouse
Warehouse
190 m.
6
5
4
3
2
1
180 m.
180 m.
180 m.
180 m.
180 m.
180 m.
8 m.
10 m.
Dredging Limit
ATLANTIC OCEAN
Mobile Grain Discharger
New Oil Pipeline
Sugar Terminal
Molasses Berth
200.00m
Dredged to 10 m.
10 m.
Manoeuvring Basin Dredged to 11.00m below M L W S
Dredged to 11.5 m.
Future Ro Ro Terminal
Naval Base
Olinda Mole

RECIFE

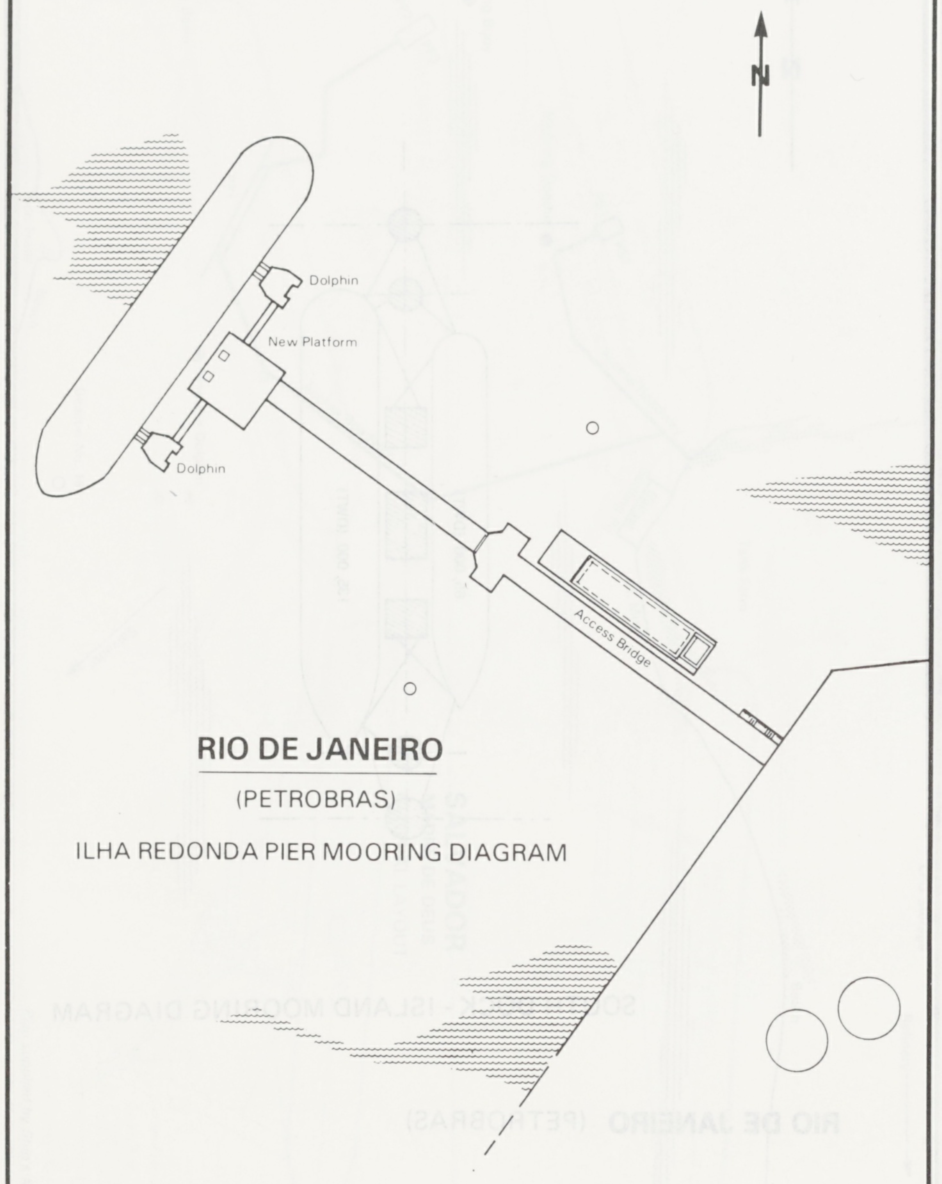

RIO DE JANEIRO
Dredged to – 12.00
Access Channel at Average High Tide
– 12.0m.
Ore Storage Area
Coal Storage Area
Ro/Ro Terminal
Container Park
– 8.0m.
Pombeba Island
Heavy Lift Storage Area
– 9.5m.
Salt Terminal
Electric Light Plant
– 9.5m.
Gamboa Quays
– 9.0m.
– 10.0m.
Santa Barbara Island
Fruit Refrigeration Plant
Central Offices
Gamboa Quays
– 10.0m.
Maua pier
– 10..0m.
Main Office
Depths in Metres



RIO DE JANEIRO
RO/RO TERMINAL PROJECT
DEVELOPMENT PLAN

12
13
Equipment Garage
8
9 Truck Park
1
2
3
4
7
14
5
6
Park 1
Park 2
Park 3
Park 5
11
Planned location of Gantry crane
10

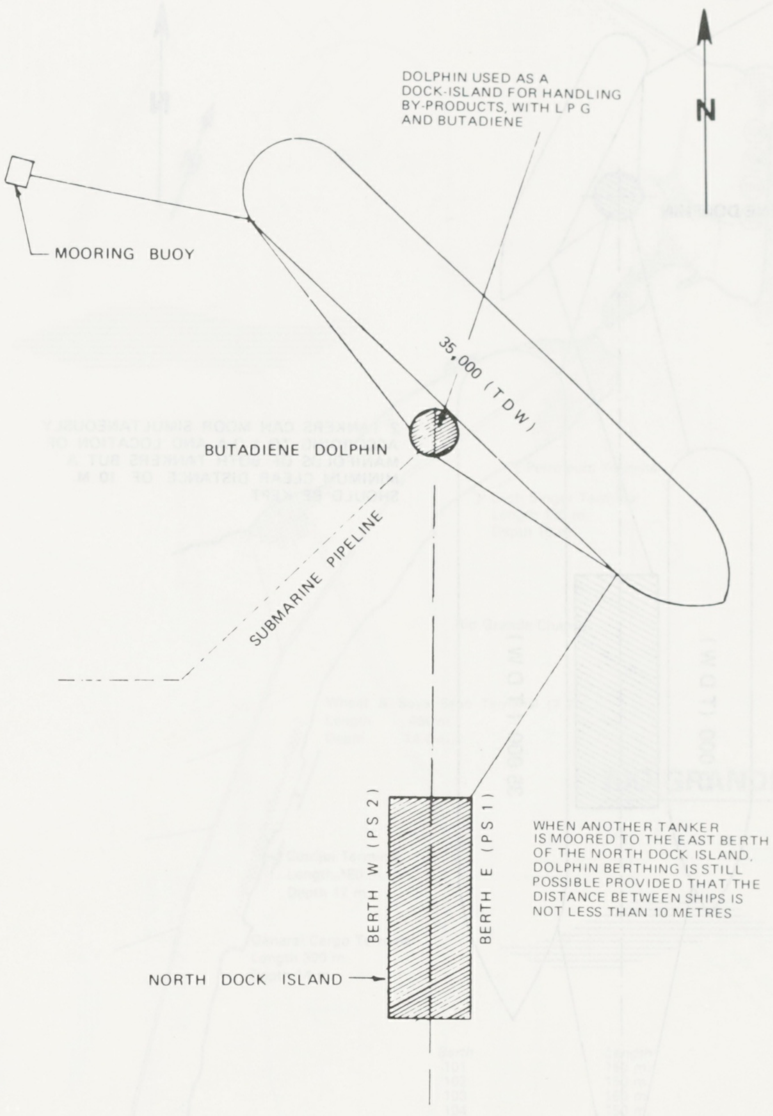
KEY:
1. Piggy-back ramp
2. Offices – covered area
3. Offices – open area
4. Area for expansion – parking area for equipment
5. Reception, accommodation, Company Offices
6. Tank, fire brigade, water tower
7. Terminal administration, Customs, communication, canteen etc.
8. Park for 25 × 16m trucks
9. Park for 60 cars
10. Planned rail track for container cranes
11. Road Weighbridge (50T)
12. Road access
13. Limit of Port Police area
14. Pedestrian entrance


N
Dolphin
New Platform
Dolphin
Access Bridge

RIO DE JANEIRO

(PETROBRAS)

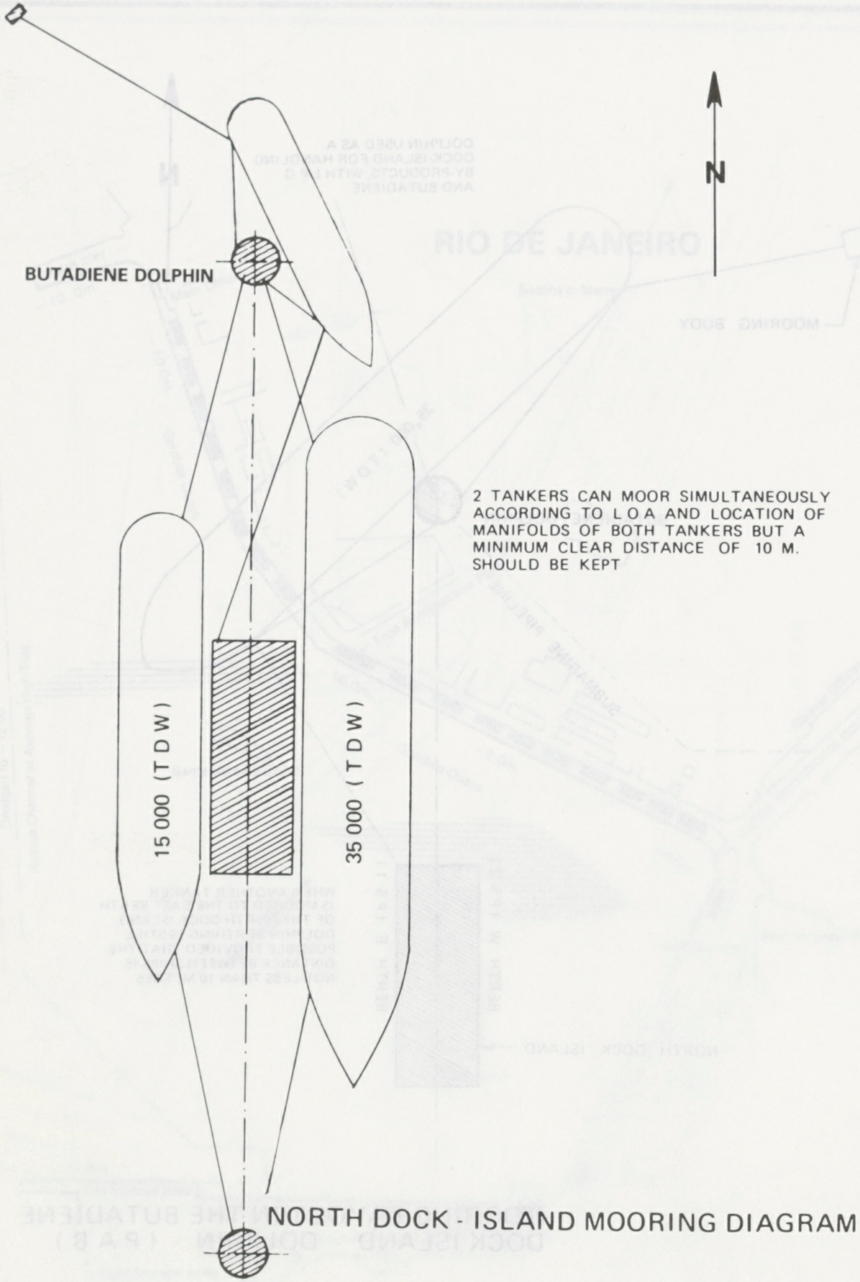
ILHA REDONDA PIER MOORING DIAGRAM


N
DOLPHIN USED AS A DOCK-ISLAND FOR HANDLING BY-PRODUCTS, WITH L P G AND BUTADIENE
MOORING BUOY
35,000 (TDW)
BUTADIENE DOLPHIN
SUBMARINE PIPELINE
BERTH W (PS 2)
BERTH E (PS 1)
NORTH DOCK ISLAND

WHEN ANOTHER TANKER IS MOORED TO THE EAST BERTH OF THE NORTH DOCK ISLAND, DOLPHIN BERTHING IS STILL POSSIBLE PROVIDED THAT THE DISTANCE BETWEEN SHIPS IS NOT LESS THAN 10 METRES

MOORING LAYOUT IN THE BUTADIENE
DOCK ISLAND - DOLPHIN - (PAB)

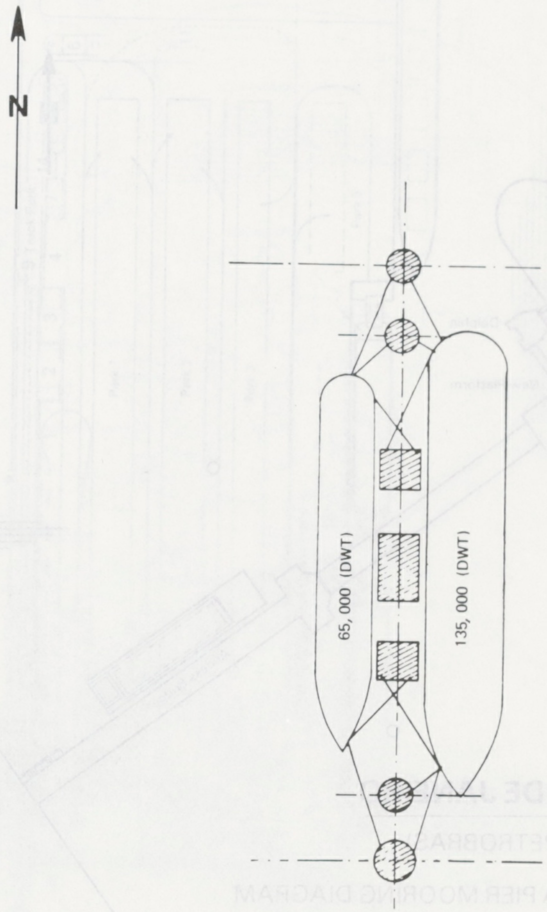
RIO DE JANEIRO (PETROBRAS)


N
BUTADIENE DOLPHIN
15 000 (T D W)
35 000 (T D W)

2 TANKERS CAN MOOR SIMULTANEOUSLY ACCORDING TO L O A AND LOCATION OF MANIFOLDS OF BOTH TANKERS BUT A MINIMUM CLEAR DISTANCE OF 10 M. SHOULD BE KEPT

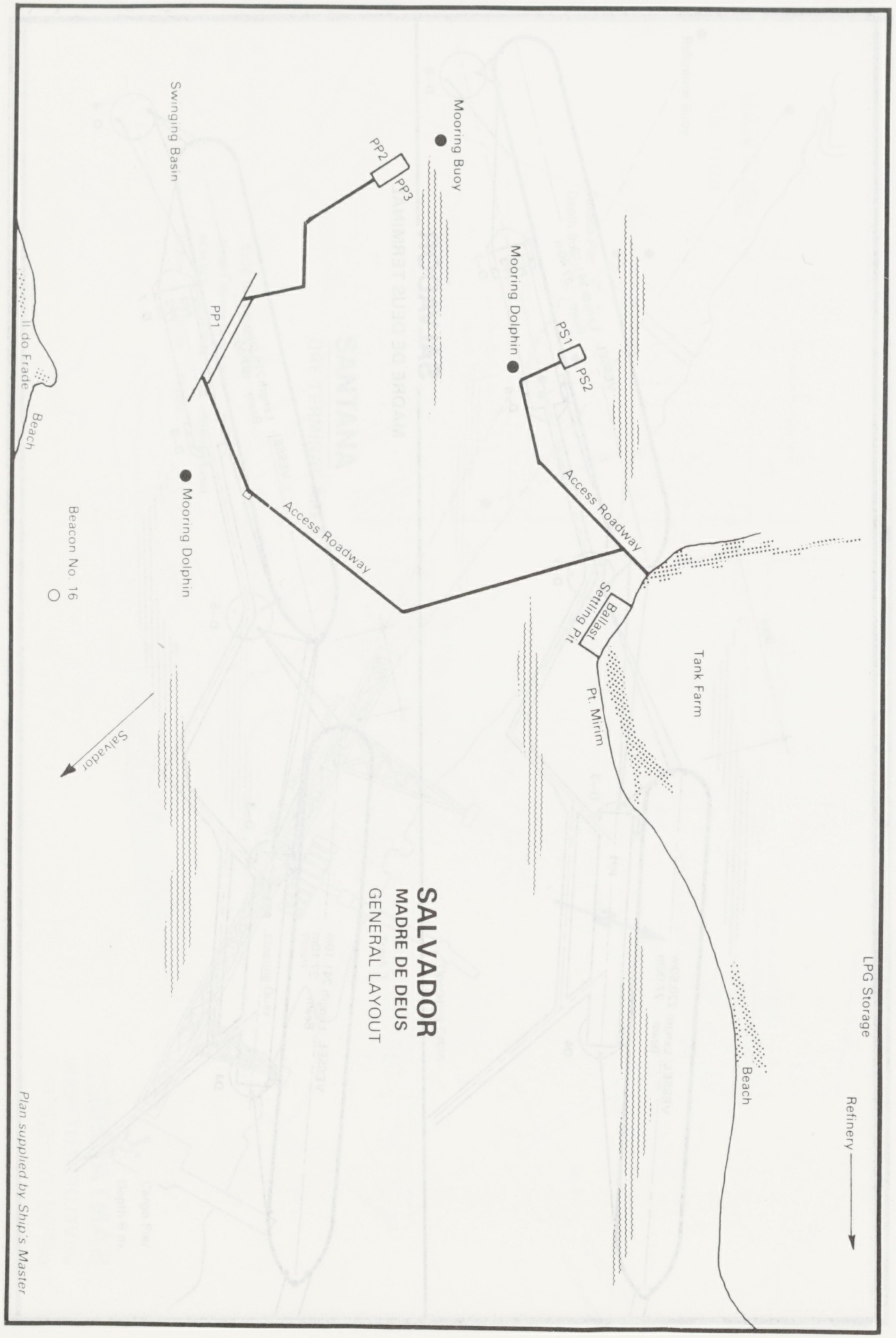
NORTH DOCK - ISLAND MOORING DIAGRAM

RIO DE JANEIRO (PETROBRAS)


N
65, 000 (DWT)
135, 000 (DWT)

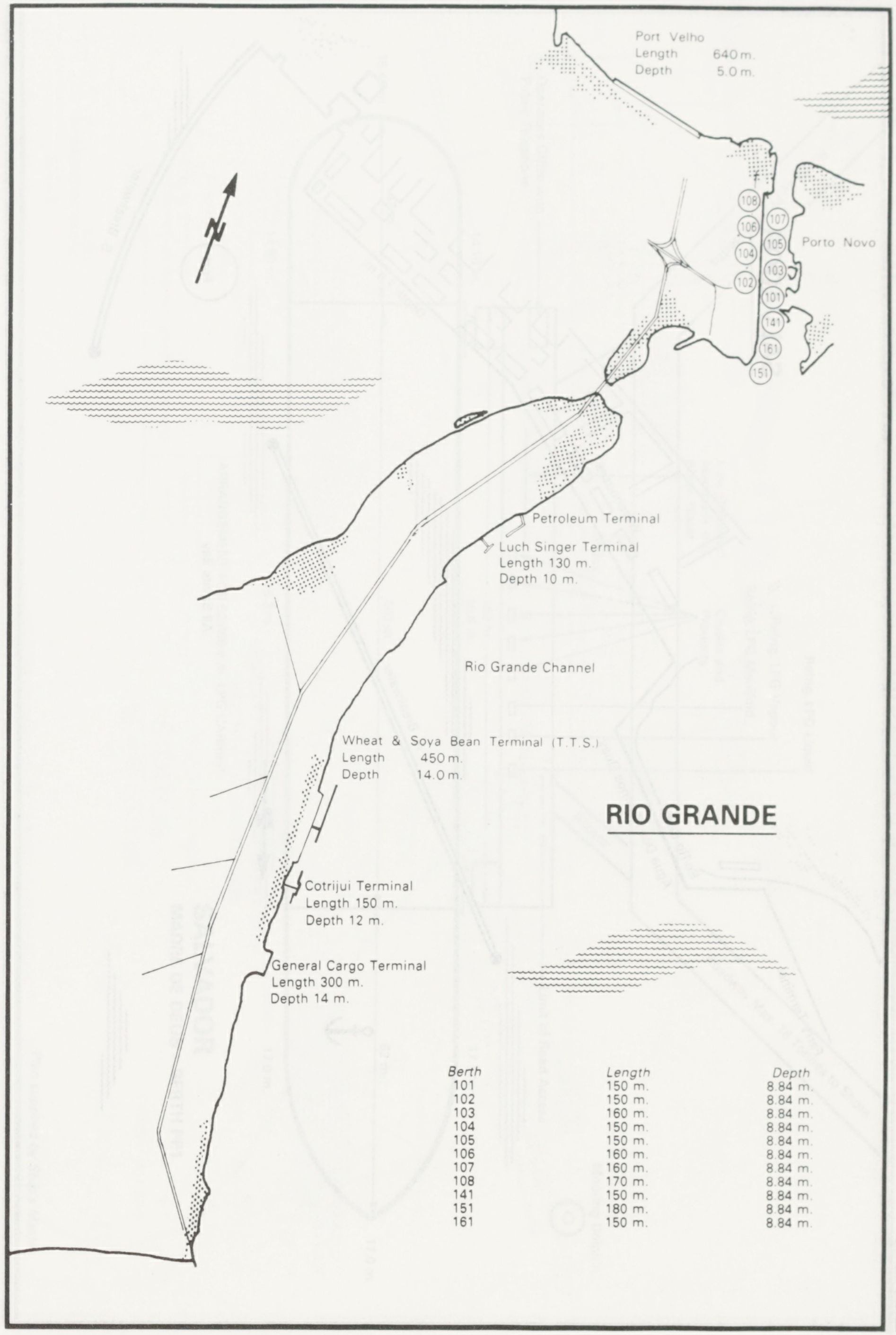
SOUTH DOCK - ISLAND MOORING DIAGRAM

RIO DE JANEIRO (PETROBRAS)


Swinging Basin
Mooring Buoy
PP2
PP3
PP1
Il do Frade
Beach
Mooring Dolphin
PS1
PS2
Access Roadway
Access Roadway
Mooring Dolphin
Beacon No 16
Ballast
Settling Pit
Pt. Mirim
Tank Farm
Salvador
LPG Storage
Beach
Refinery

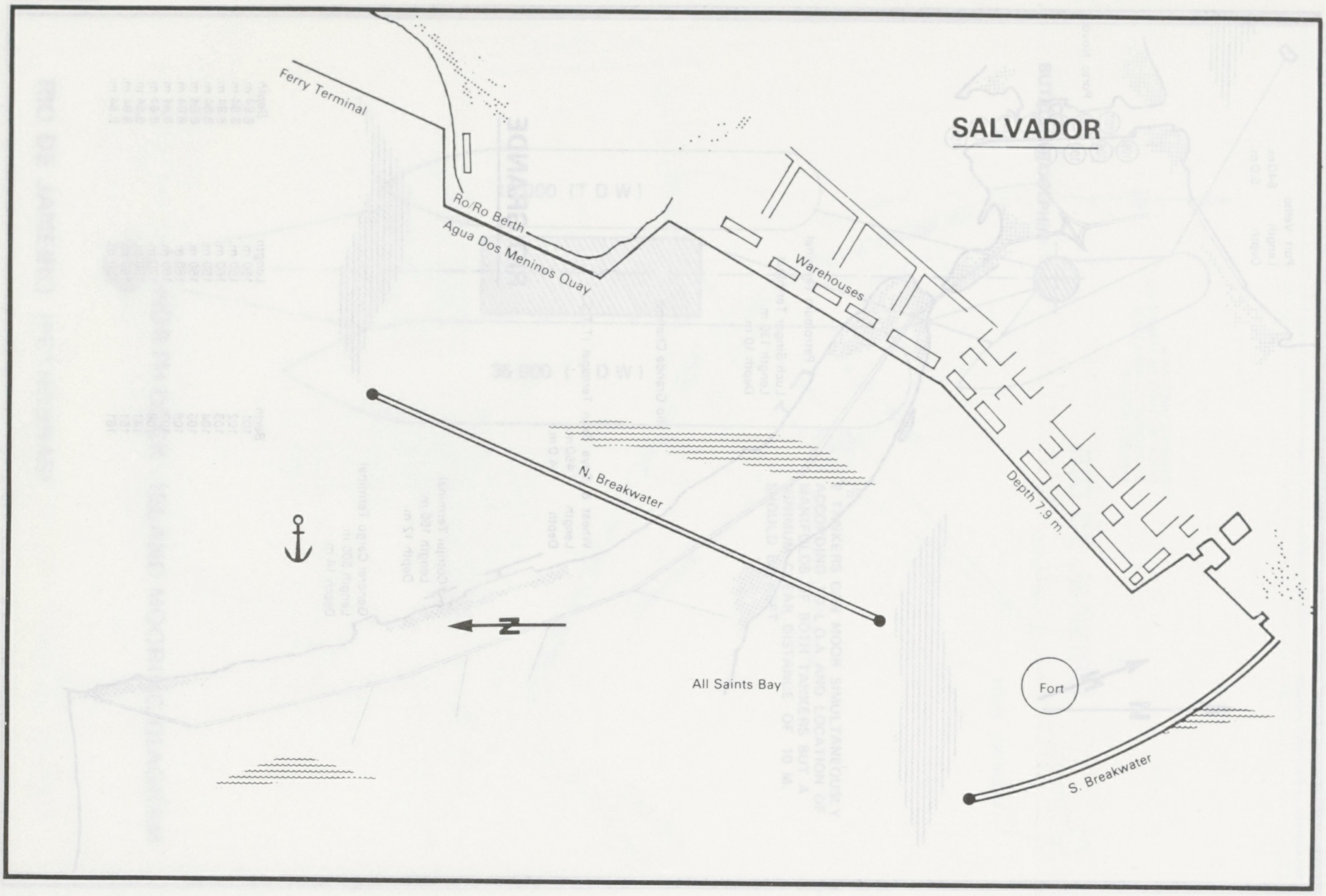
SALVADOR
MADRE DE DEUS
GENERAL LAYOUT

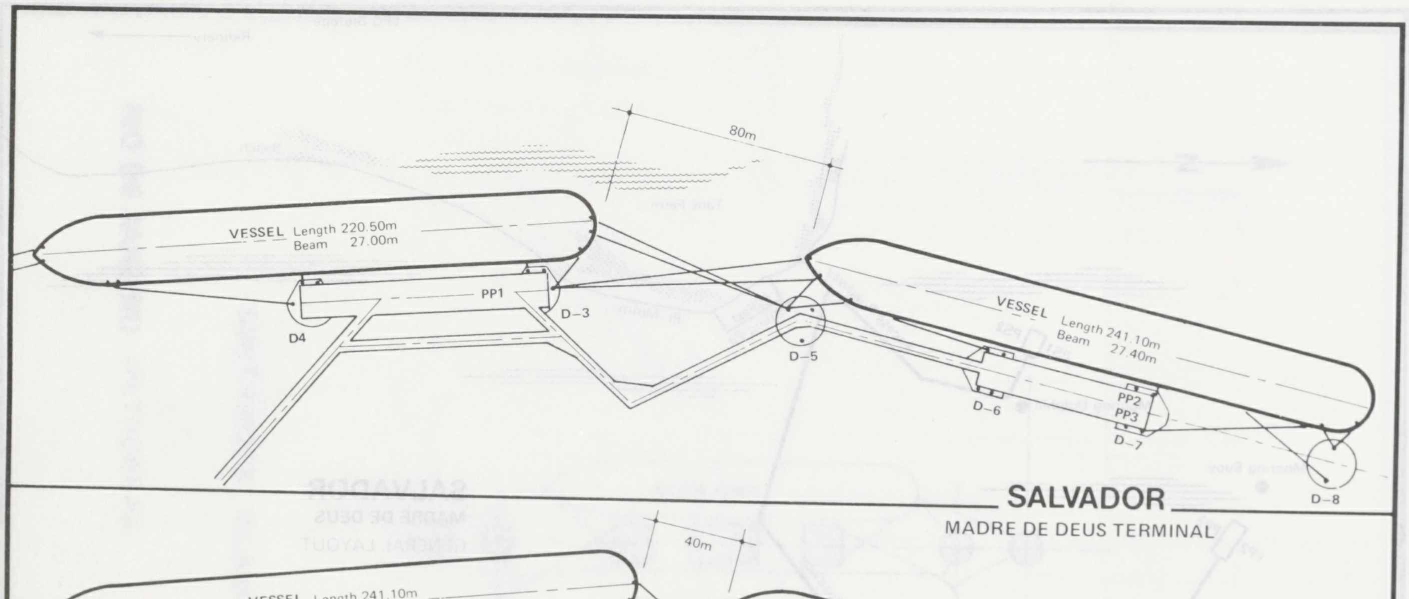
Plan supplied by Ship's Master


Port Velho
Length 640 m.
Depth 5.0 m.
Porto Novo
108
107
106
105
104
103
102
101
141
161
151
Petroleum Terminal
Luch Singer Terminal
Length 130 m.
Depth 10 m.
Rio Grande Channel
Wheat & Soya Bean Terminal (T.T.S.)
Length 450 m.
Depth 14.0 m.
Cotrijui Terminal
Length 150 m.
Depth 12 m.
General Cargo Terminal
Length 300 m.
Depth 14 m.

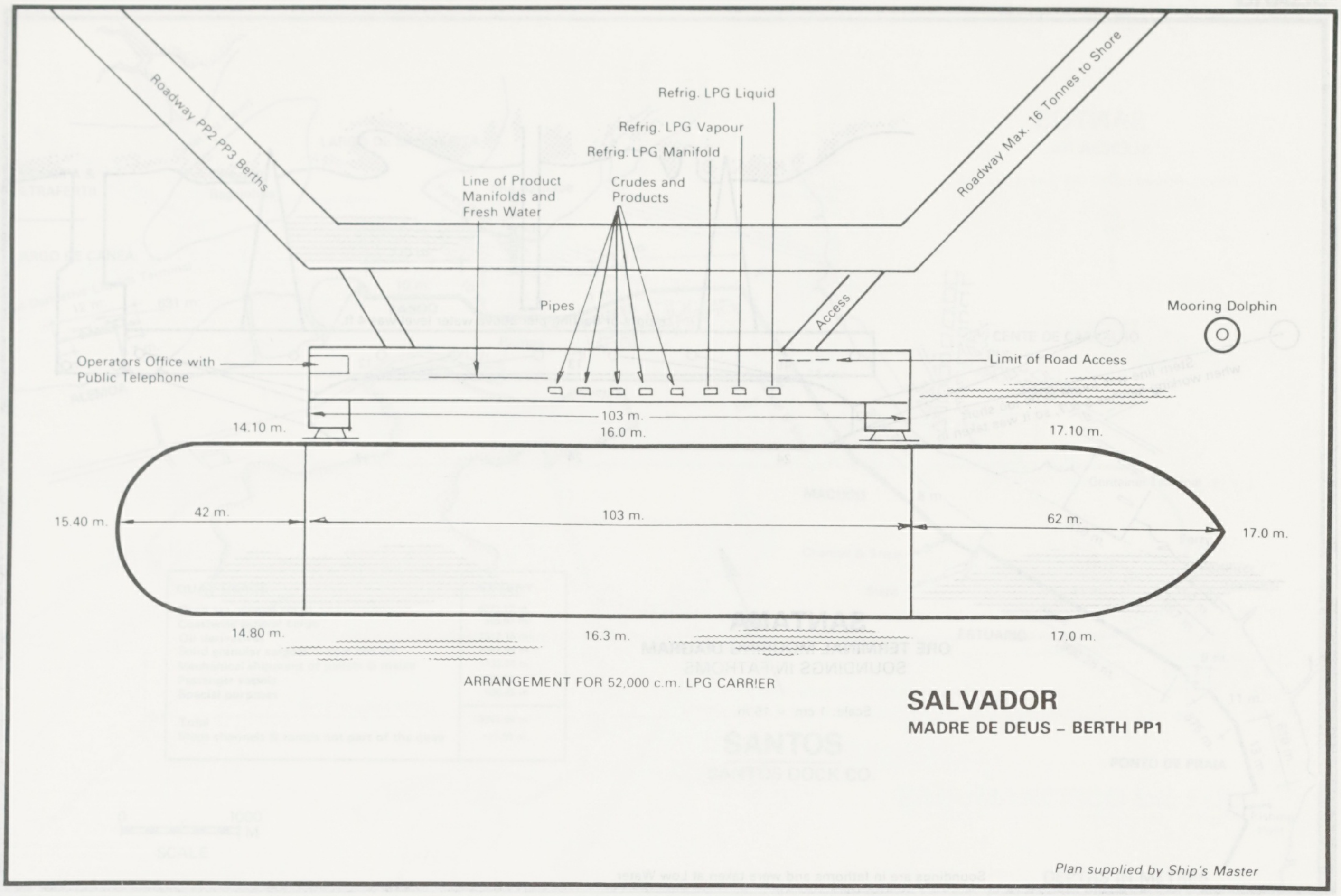
RIO GRANDE

Berth	*Length*	*Depth*
101	150 m.	8.84 m.
102	150 m.	8.84 m.
103	160 m.	8.84 m.
104	150 m.	8.84 m.
105	150 m.	8.84 m.
106	160 m.	8.84 m.
107	160 m.	8.84 m.
108	170 m.	8.84 m.
141	150 m.	8.84 m.
151	180 m.	8.84 m.
161	150 m.	8.84 m.


SALVADOR
Ferry Terminal
Ro/Ro Berth
Agua Dos Meninos Quay
Warehouses
N. Breakwater
Depth 7.9 m.
N
All Saints Bay
Fort
S. Breakwater


80m
VESSEL Length 220.50m
Beam 27.00m
PP1
D4
D–3
D–5
VESSEL Length 241.10m
Beam 27.40m
PP2
PP3
D–6
D–7
D–8
40m
VESSEL Length 241.10m
Beam 27.10m
PP1
D4
D–3
D–5
VESSEL Length 225.50m
Beam 27.00m
PP2
PP3
D–6
D–7
D–8

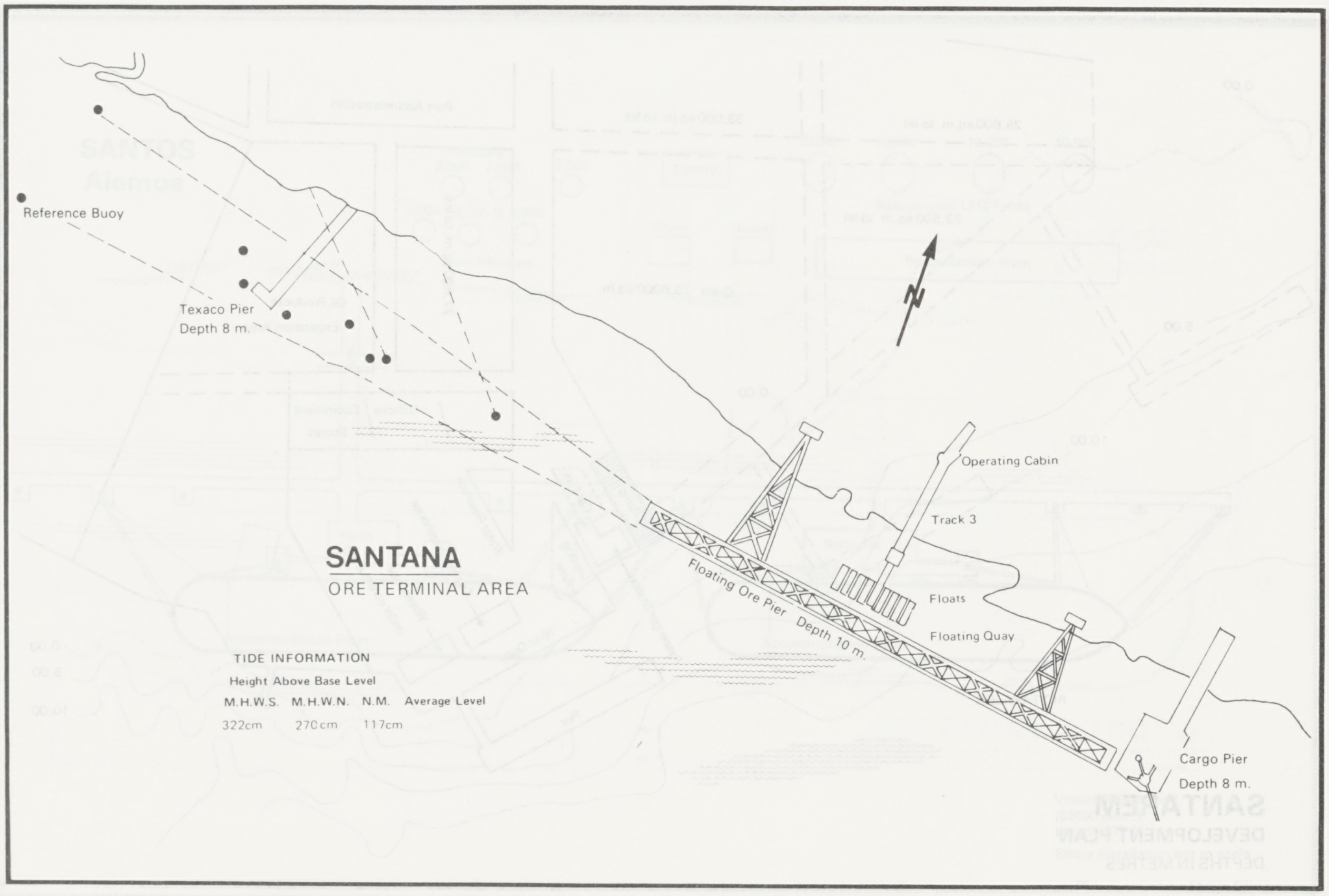
SALVADOR
MADRE DE DEUS TERMINAL


Roadway PP2 PP3 Berths
Roadway Max. 16 Tonnes to Shore
Refrig. LPG Liquid
Refrig. LPG Vapour
Refrig. LPG Manifold
Line of Product Manifolds and Fresh Water
Crudes and Products
Pipes
Access
Mooring Dolphin
Operators Office with Public Telephone
Limit of Road Access
103 m.
14.10 m.
16.0 m.
17.10 m.
15.40 m.
42 m.
103 m.
62 m.
17.0 m.
14.80 m.
16.3 m.
17.0 m.

ARRANGEMENT FOR 52,000 c.m. LPG CARRIER

SALVADOR
MADRE DE DEUS – BERTH PP1

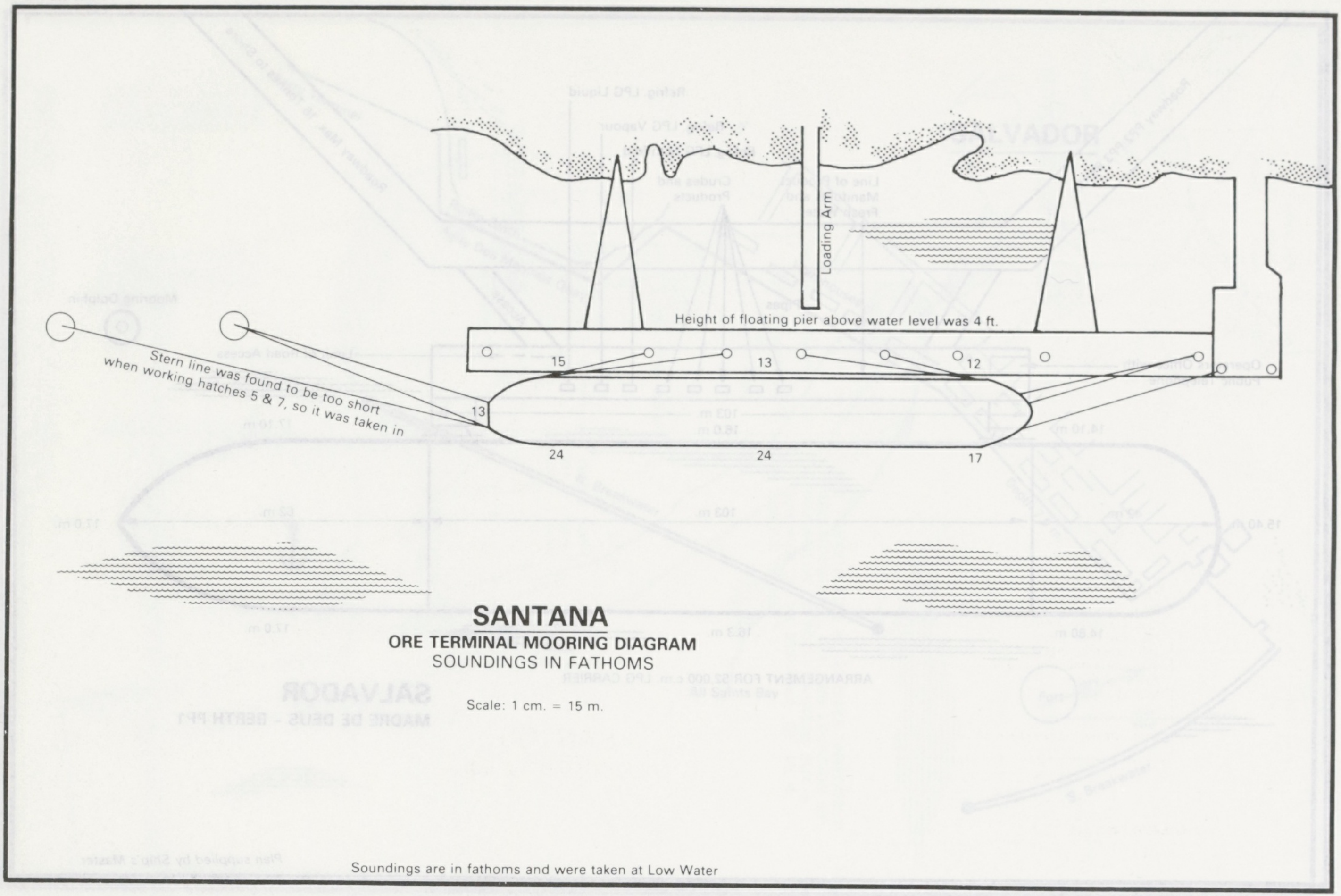
Plan supplied by Ship's Master


Reference Buoy
Texaco Pier
Depth 8 m.
Operating Cabin
Track 3
Floats
Floating Quay
Floating Ore Pier Depth 10 m.
Cargo Pier
Depth 8 m.

SANTANA
ORE TERMINAL AREA

TIDE INFORMATION
Height Above Base Level

M.H.W.S.	M.H.W.N.	N.M. Average Level
322cm	270cm	117cm


Loading Arm
Height of floating pier above water level was 4 ft.
15
13
12
Stern line was found to be too short when working hatches 5 & 7, so it was taken in
13
24
24
17

SANTANA

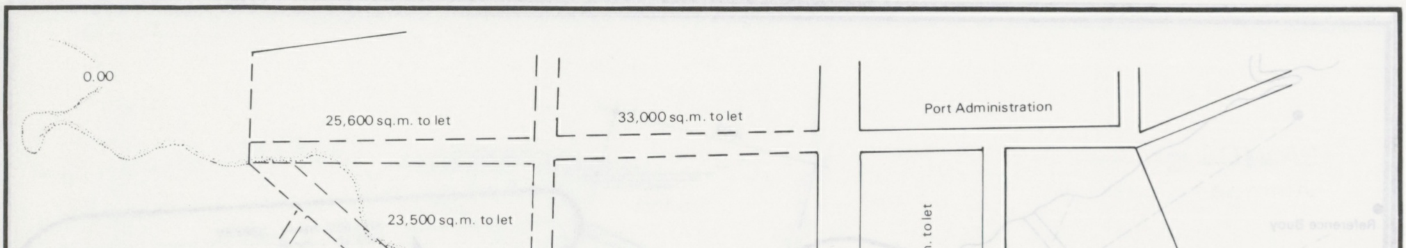
ORE TERMINAL MOORING DIAGRAM

SOUNDINGS IN FATHOMS

Scale: 1 cm. = 15 m.

Soundings are in fathoms and were taken at Low Water

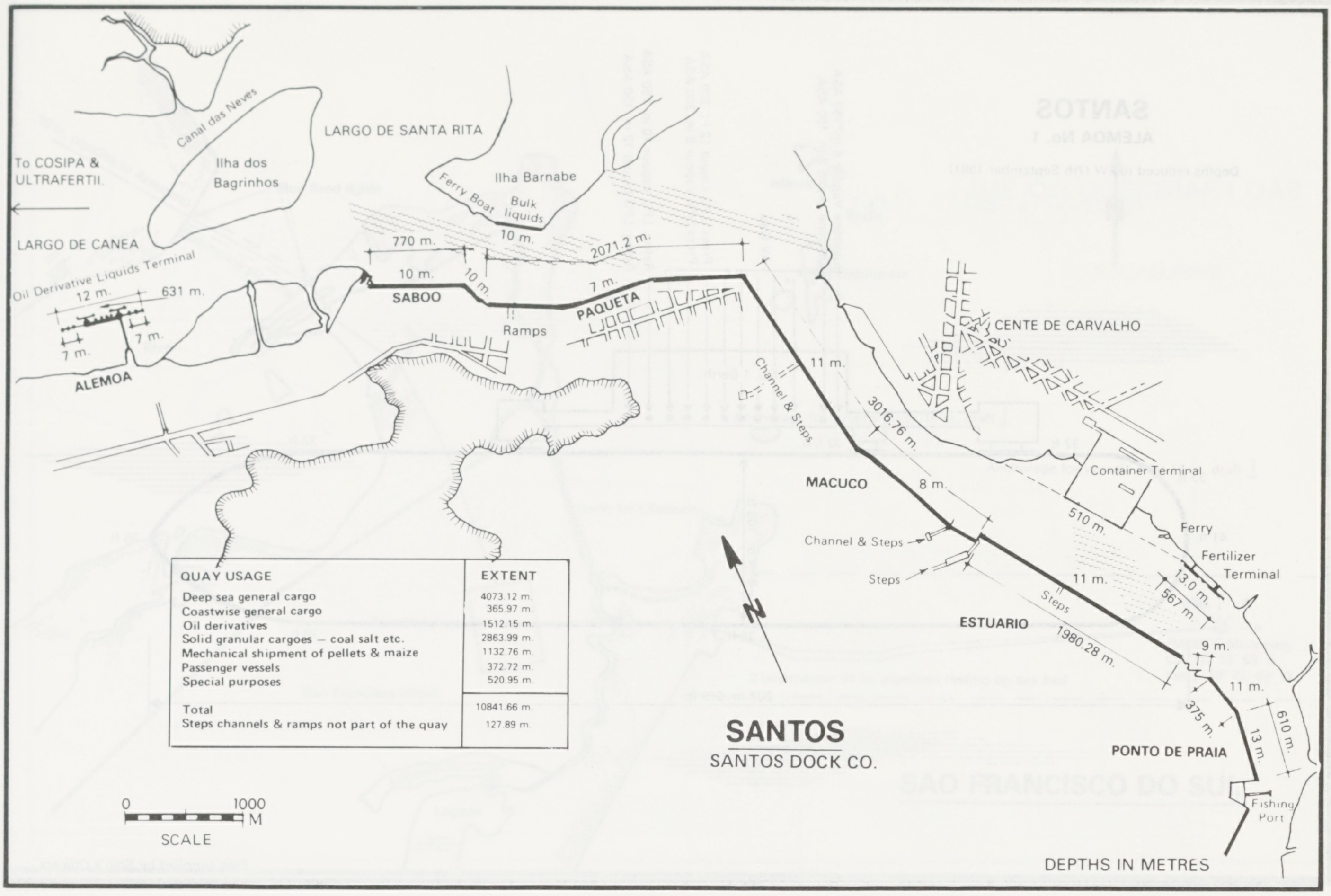
"Plan supplied by Ship's Master"


0.00
25,600 sq.m. to let
33,000 sq.m. to let
Port Administration
23,500 sq.m. to let
27,800 sq.m. to let
Grain 75,6000 sq.m.
Oil Products
Expansion Area
5.00
0.00
10.00
Offices / Equipment
Stores
Ramp
Car Park
Loading Area
Water Reservoir
Existing Warehouse
Warehouse under construction
5.00
Passenger Station
River Quay
Pier
RIO TAPAJOS
0.00
5.00
10.00

SANTAREM

DEVELOPMENT PLAN

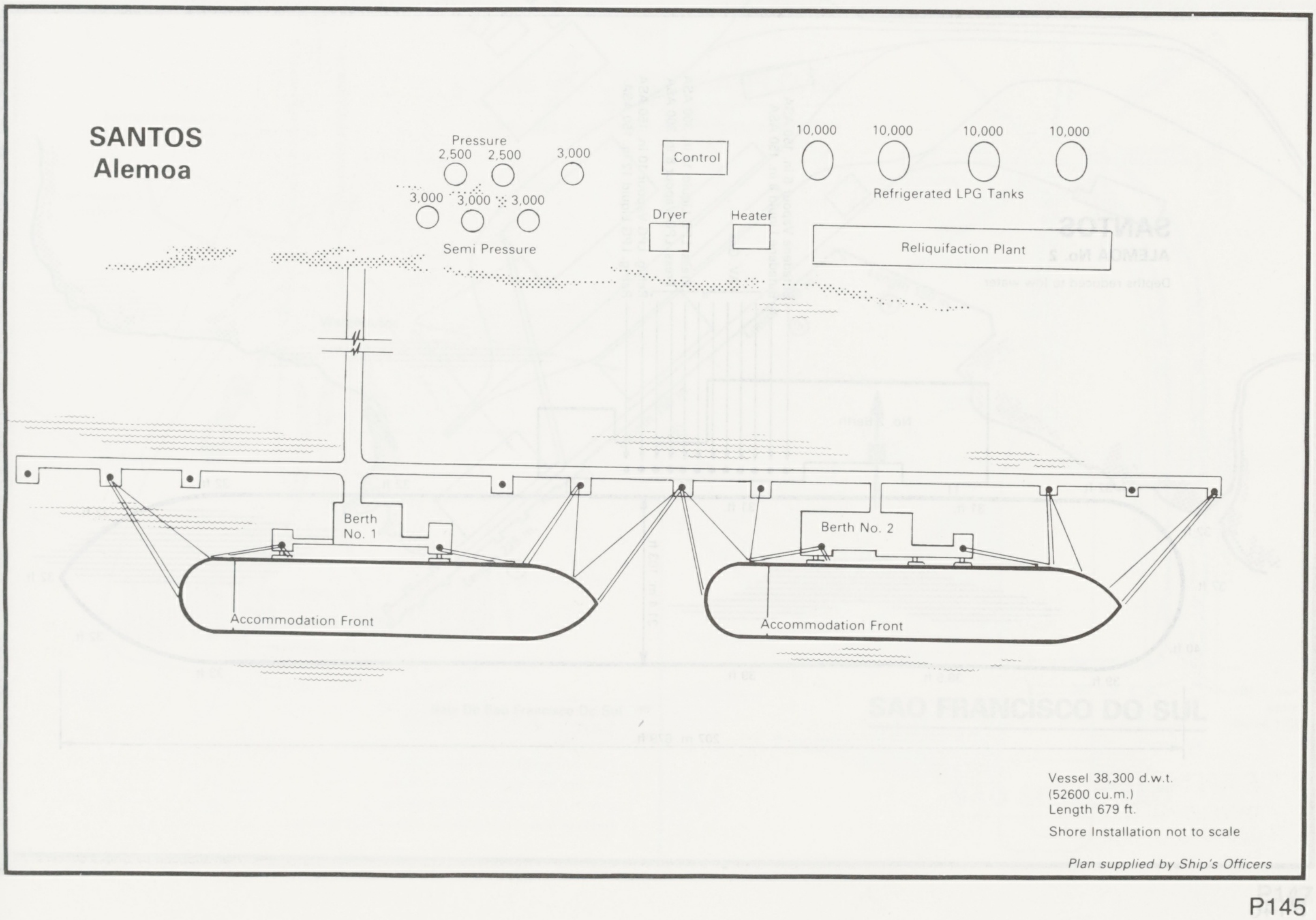
DEPTHS IN METRES


To COSIPA & ULTRAFERTIL
LARGO DE CANEA
Canal das Neves
Ilha dos Bagrinhos
LARGO DE SANTA RITA
Ilha Barnabe
Ferry Boat
Bulk liquids
Oil Derivative Liquids Terminal
12 m.
631 m.
7 m.
7 m.
ALEMOA
770 m.
10 m.
10 m.
10 m.
SABOO
2071.2 m.
7 m.
PAQUETA
Ramps
Channel & Steps
11 m.
3016.76 m.
CENTE DE CARVALHO
Container Terminal
MACUCO
8 m.
510 m.
Channel & Steps
Steps
11 m.
Ferry
Fertilizer Terminal
13.0 m.
567 m.
Steps
ESTUARIO
1980.28 m.
9 m.
11 m.
375 m.
610 m.
13 m.
PONTO DE PRAIA
Fishing Port
N
0
1000 M
SCALE
DEPTHS IN METRES

SANTOS
SANTOS DOCK CO.

QUAY USAGE	EXTENT
Deep sea general cargo	4073.12 m.
Coastwise general cargo	365.97 m.
Oil derivatives	1512.15 m.
Solid granular cargoes — coal salt etc.	2863.99 m.
Mechanical shipment of pellets & maize	1132.76 m.
Passenger vessels	372.72 m.
Special purposes	520.95 m.
Total	10841.66 m.
Steps channels & ramps not part of the quay	127.89 m.

SANTOS
Alemoa


Pressure
2,500
2,500
3,000
3,000
3,000
3,000
Semi Pressure
Control
Dryer
Heater
10,000
10,000
10,000
10,000
Refrigerated LPG Tanks
Reliquifaction Plant
Berth No. 1
Berth No. 2
Accommodation Front
Accommodation Front

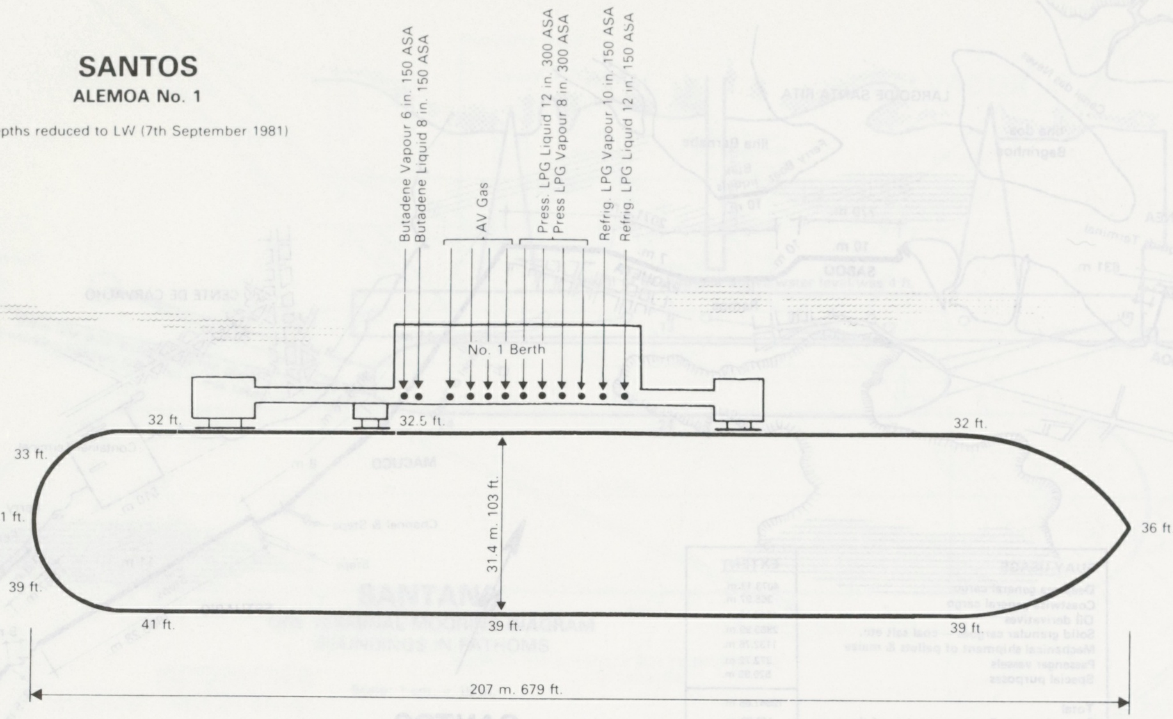
Vessel 38,300 d.w.t.
(52600 cu.m.)
Length 679 ft.
Shore Installation not to scale

Plan supplied by Ship's Officers

SANTOS

ALEMOA No. 1

Depths reduced to LW (7th September 1981)

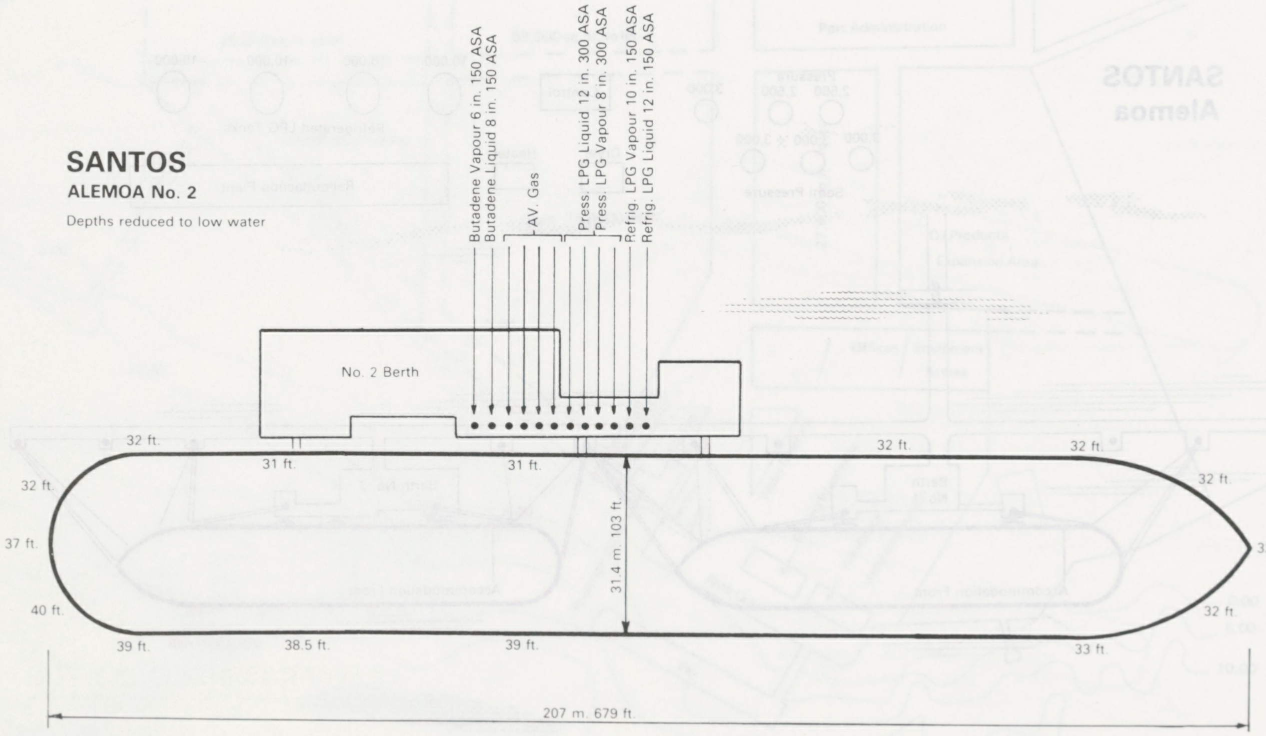

Butadene Vapour 6 in. 150 ASA
Butadene Liquid 8 in. 150 ASA
AV Gas
Press. LPG Liquid 12 in. 300 ASA
Press LPG Vapour 8 in. 300 ASA
Refrig. LPG Vapour 10 in. 150 ASA
Refrig. LPG Liquid 12 in. 150 ASA
No. 1 Berth
32 ft.
32.5 ft.
32 ft.
33 ft.
41 ft.
39 ft.
41 ft.
39 ft.
39 ft.
36 ft.
31.4 m. 103 ft.
207 m. 679 ft.

Plan supplied by Ship's Officers

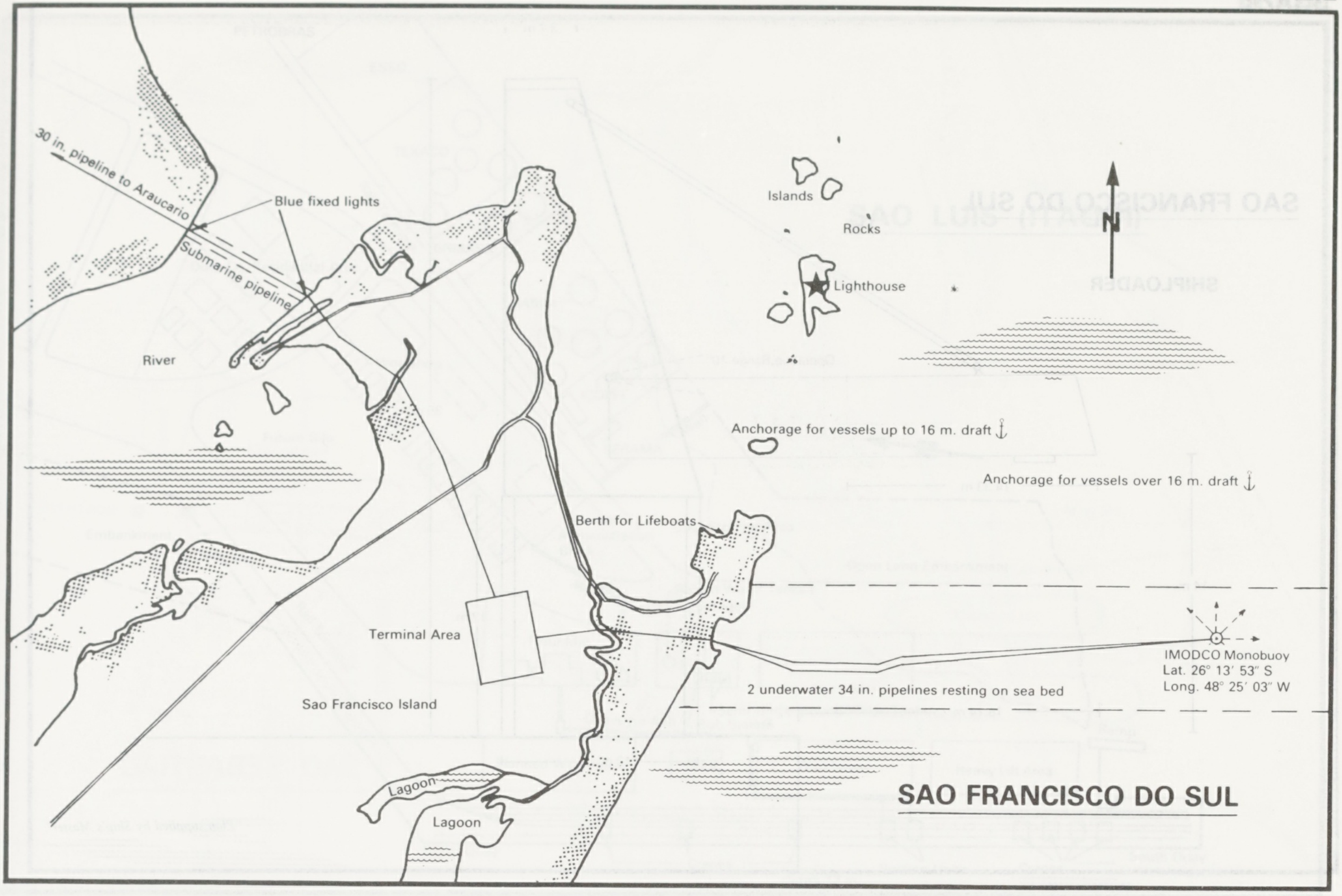
SANTOS

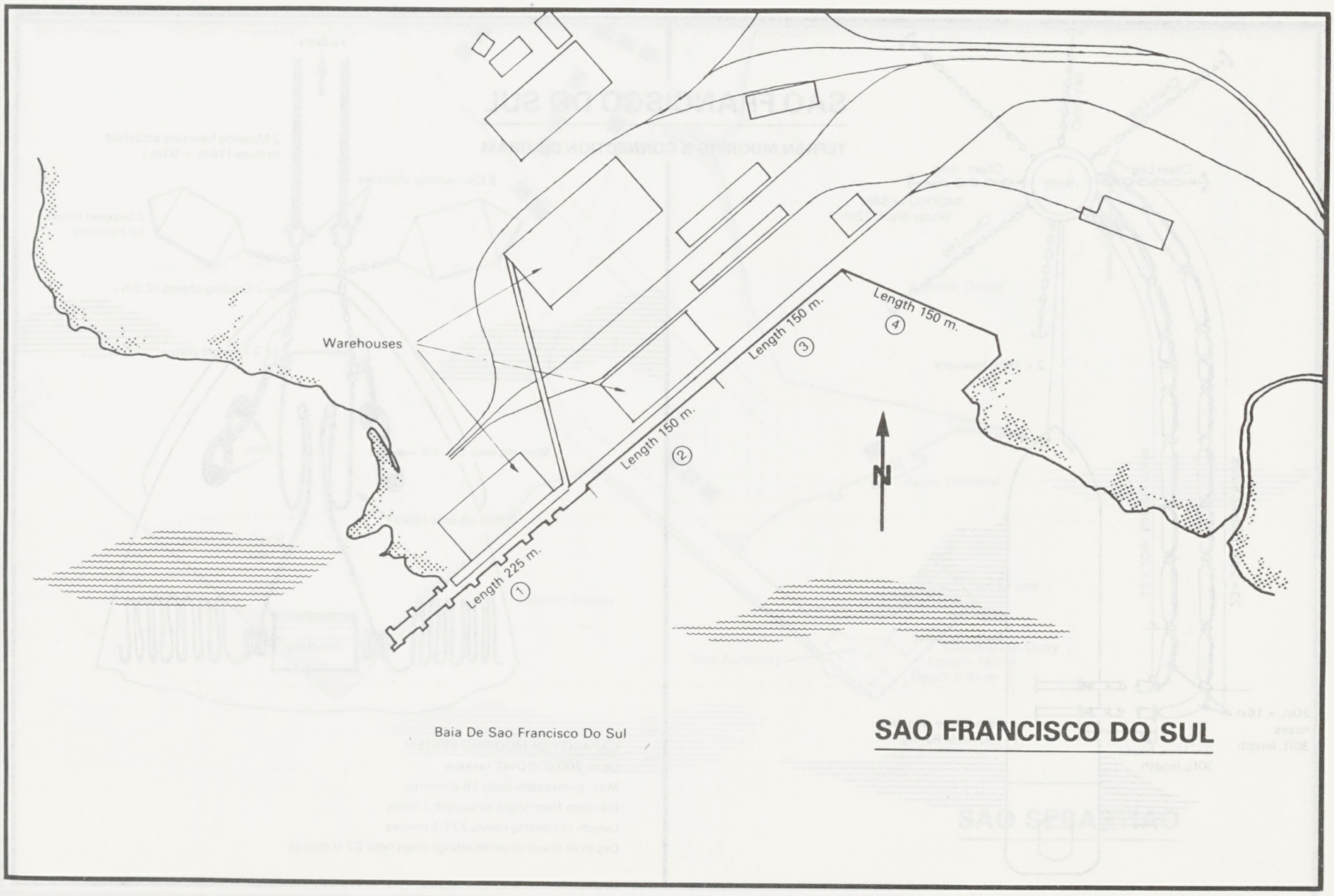
ALEMOA No. 2

Depths reduced to low water


Butadene Vapour 6 in. 150 ASA
Butadene Liquid 8 in. 150 ASA
AV. Gas
Press. LPG Liquid 12 in. 300 ASA
Press. LPG Vapour 8 in. 300 ASA
Refrig. LPG Vapour 10 in. 150 ASA
Refrig. LPG Liquid 12 in. 150 ASA
No. 2 Berth
32 ft.
31 ft.
31 ft.
32 ft.
32 ft.
32 ft.
37 ft.
40 ft.
39 ft.
38.5 ft.
39 ft.
33 ft.
32 ft.
32 ft.
32 ft.
31.4 m. 103 ft.
207 m. 679 ft.

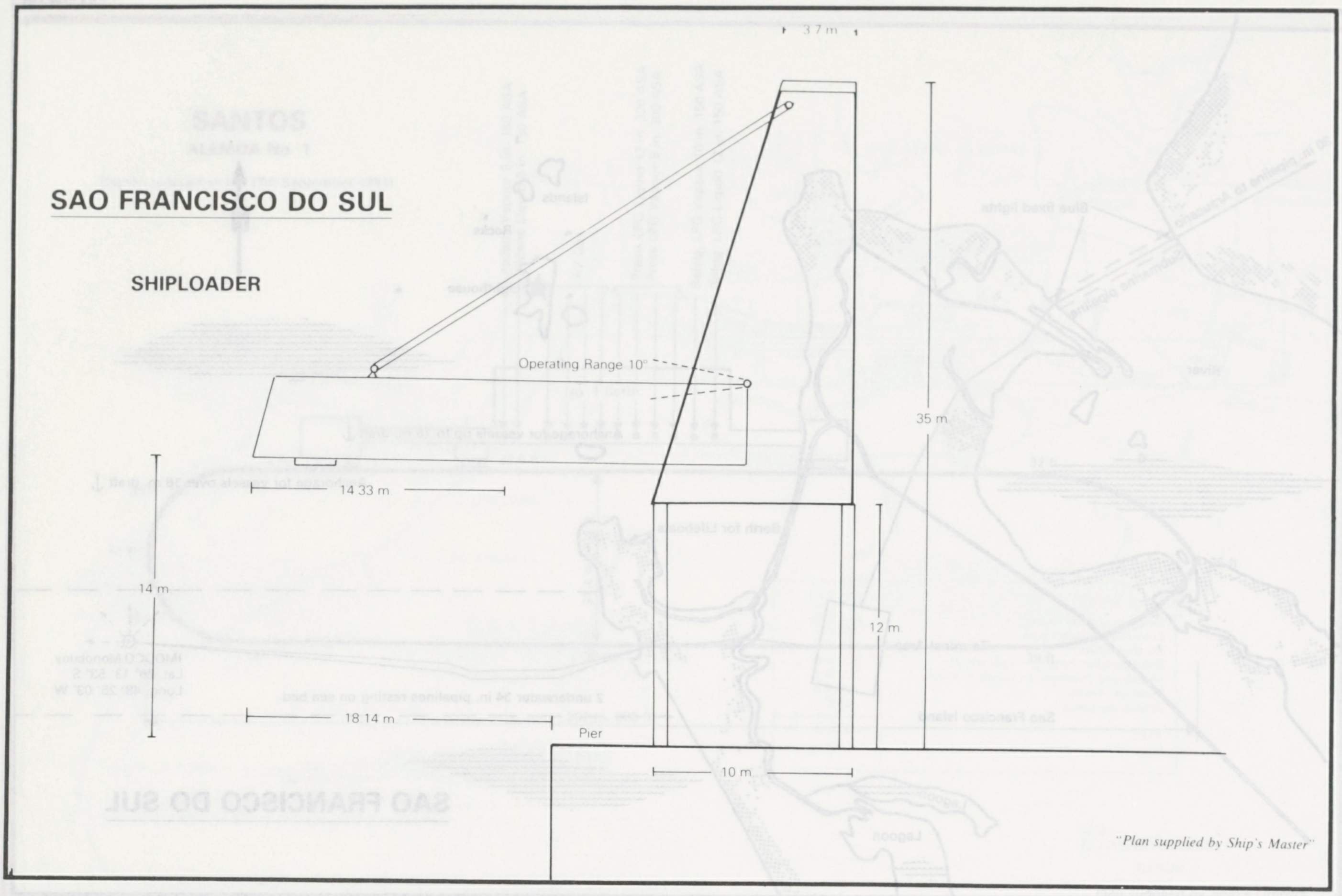
Plan supplied by Ship's Officers


30 in. pipeline to Araucario
Blue fixed lights
Submarine pipeline
River
Islands
Rocks
Lighthouse
N
Anchorage for vessels up to 16 m. draft
Anchorage for vessels over 16 m. draft
Berth for Lifeboats
Terminal Area
Sao Francisco Island
IMODCO Monobuoy
Lat. 26° 13′ 53″ S
Long. 48° 25′ 03″ W
2 underwater 34 in. pipelines resting on sea bed
Lagoon
Lagoon
SAO FRANCISCO DO SUL


Warehouses
Length 150 m.
④
Length 150 m.
③
Length 150 m.
②
Length 225 m.
①
N
Baia De Sao Francisco Do Sul
SAO FRANCISCO DO SUL

SAO FRANCISCO DO SUL

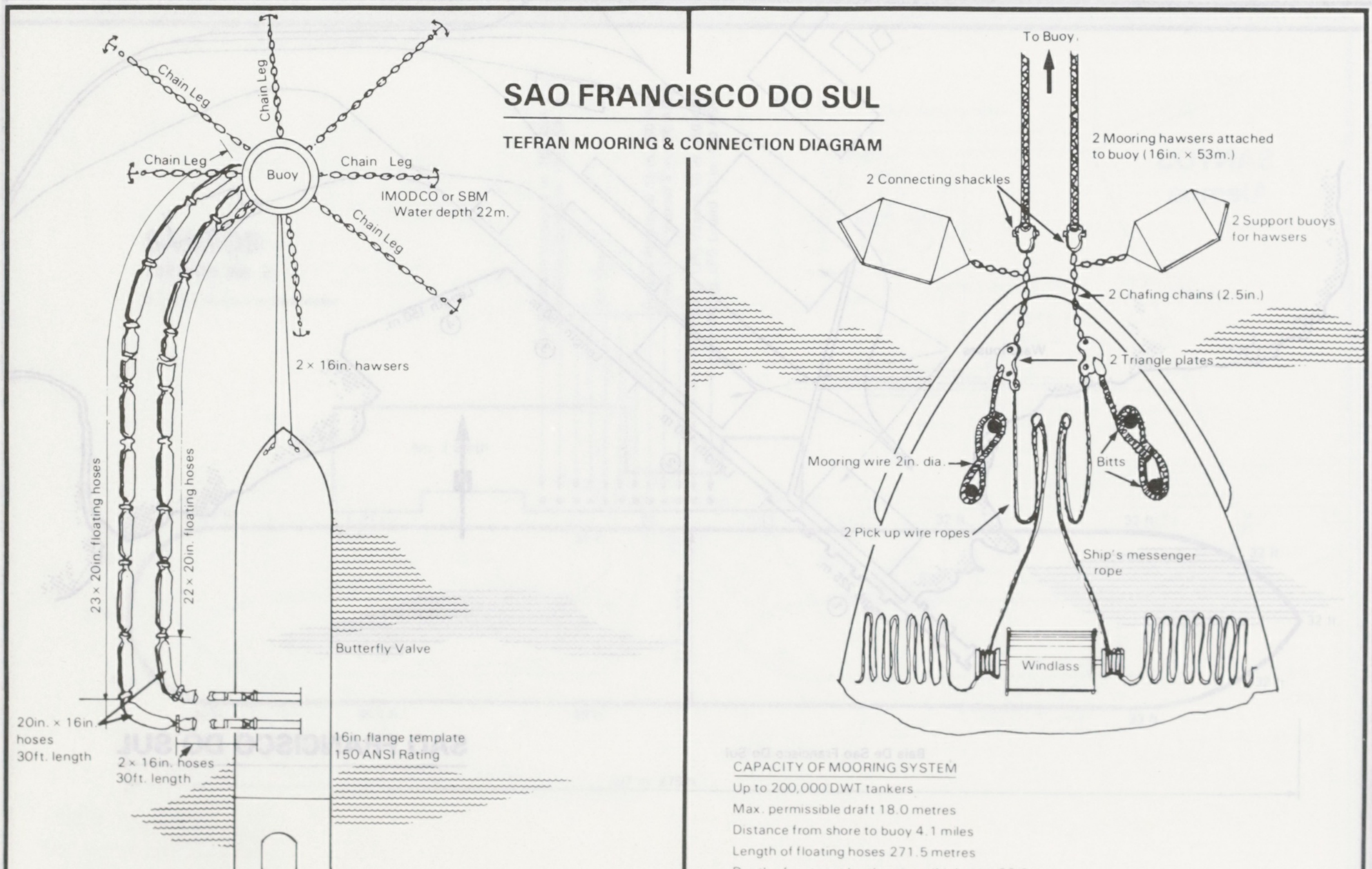
SHIPLOADER


3.7 m
Operating Range 10°
35 m
14.33 m
14 m
12 m
18.14 m
Pier
10 m

"Plan supplied by Ship's Master"

SAO FRANCISCO DO SUL

TEFRAN MOORING & CONNECTION DIAGRAM


Chain Leg
Chain Leg
Chain Leg
Chain Leg
Chain Leg
Buoy
IMODCO or SBM
Water depth 22m.
2 × 16in. hawsers
23 × 20in. floating hoses
22 × 20in. floating hoses
Butterfly Valve
20in. × 16in. hoses 30ft. length
2 × 16in. hoses 30ft. length
16in. flange template 150 ANSI Rating
To Buoy
2 Mooring hawsers attached to buoy (16in. × 53m.)
2 Connecting shackles
2 Support buoys for hawsers
2 Chafing chains (2.5in.)
2 Triangle plates
Mooring wire 2in. dia.
Bitts
2 Pick up wire ropes
Ship's messenger rope
Windlass

CAPACITY OF MOORING SYSTEM

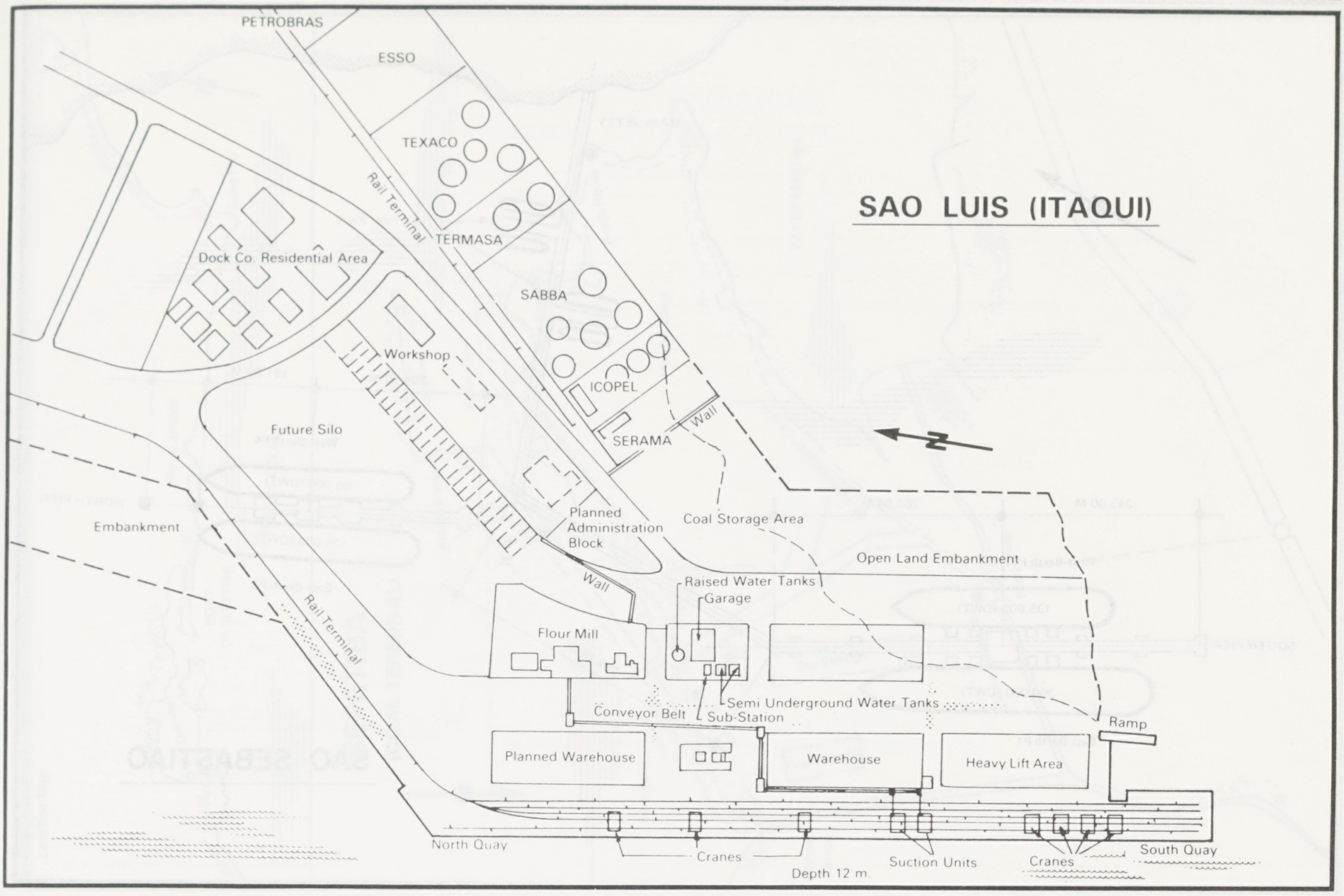
Up to 200,000 DWT tankers

Max. permissible draft 18.0 metres

Distance from shore to buoy 4.1 miles

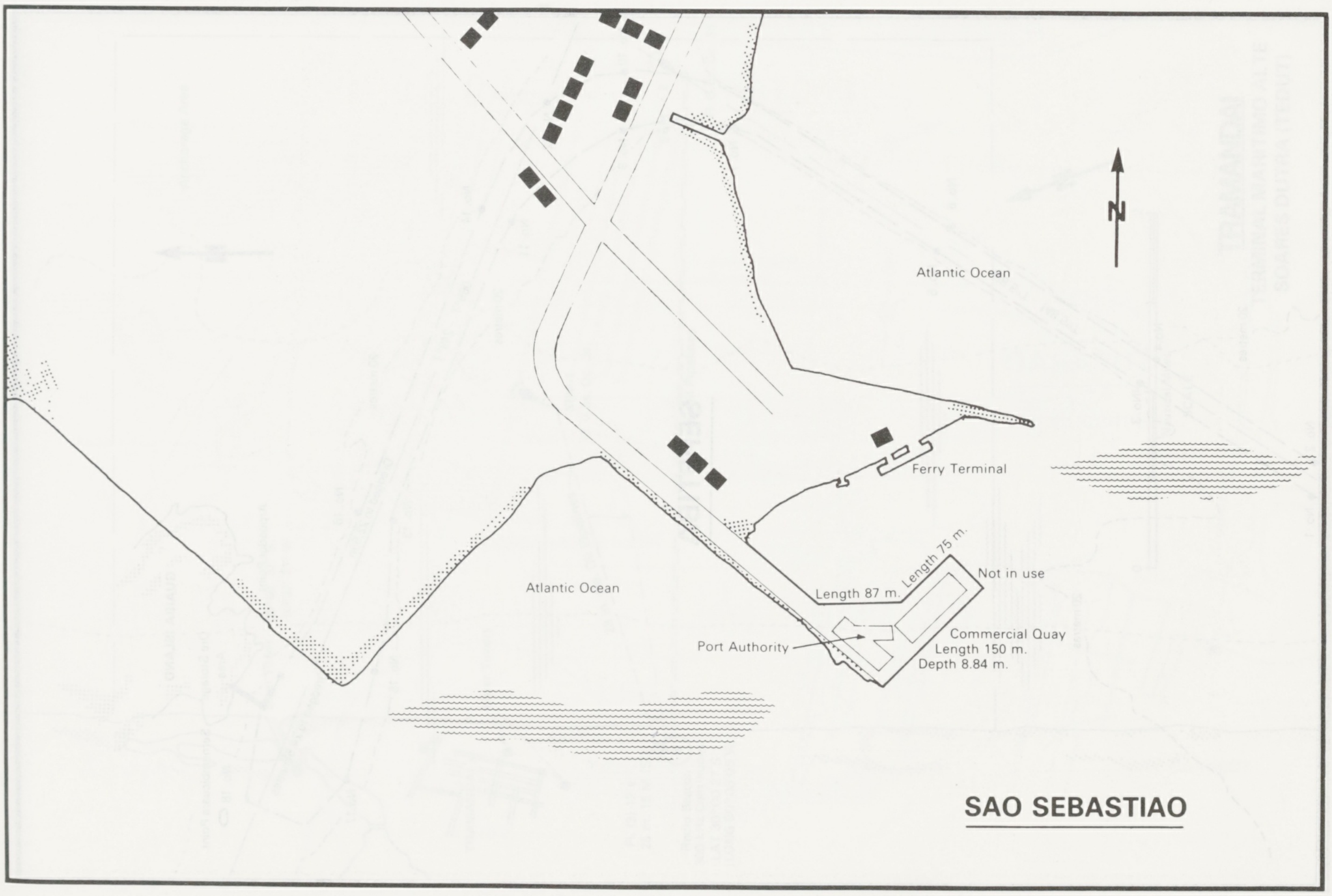
Length of floating hoses 271.5 metres

Depth of water at berth strings (high tide) 22.0 metres



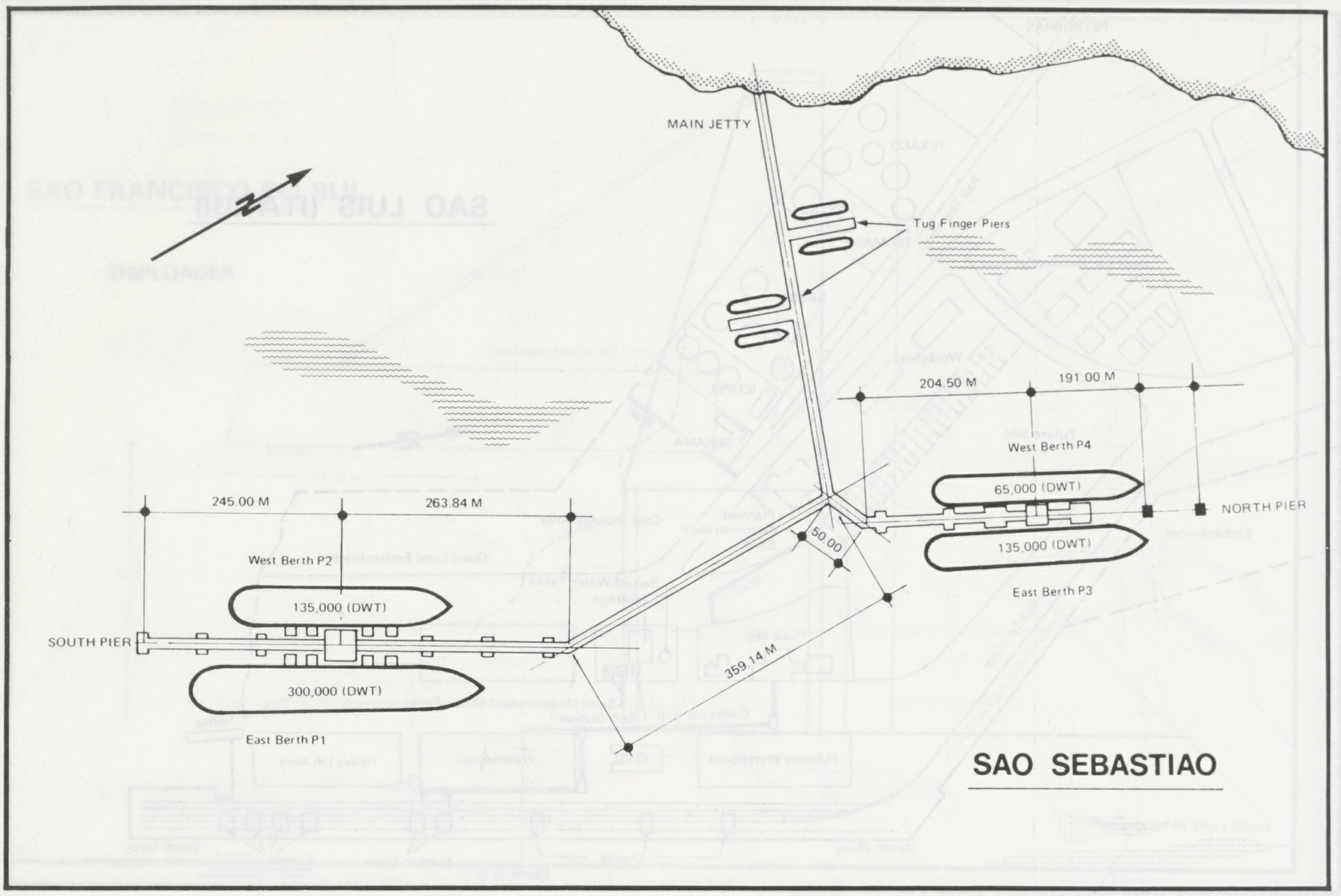
SAO LUIS (ITAQUI)

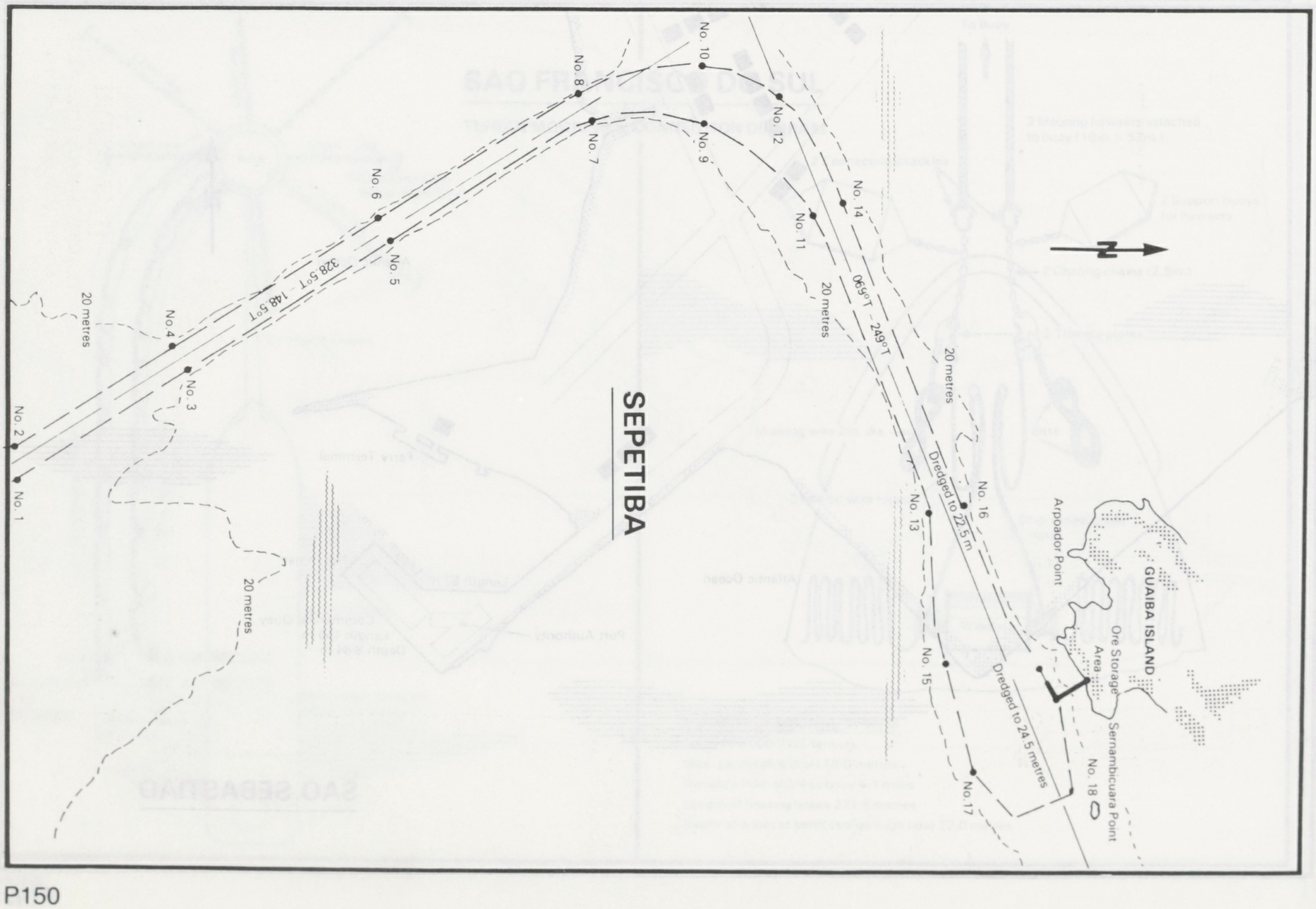
PETROBRAS
ESSO
TEXACO
TERMASA
SABBA
ICOPEL
SERAMA
Rail Terminal
Dock Co. Residential Area
Workshop
Future Silo
Embankment
Wall
N
Planned Administration Block
Coal Storage Area
Open Land Embankment
Wall
Raised Water Tanks
Garage
Rail Terminal
Flour Mill
Semi Underground Water Tanks
Conveyor Belt
Sub-Station
Ramp
Planned Warehouse
Warehouse
Heavy Lift Area
North Quay
Cranes
Suction Units
Cranes
South Quay
Depth 12 m.

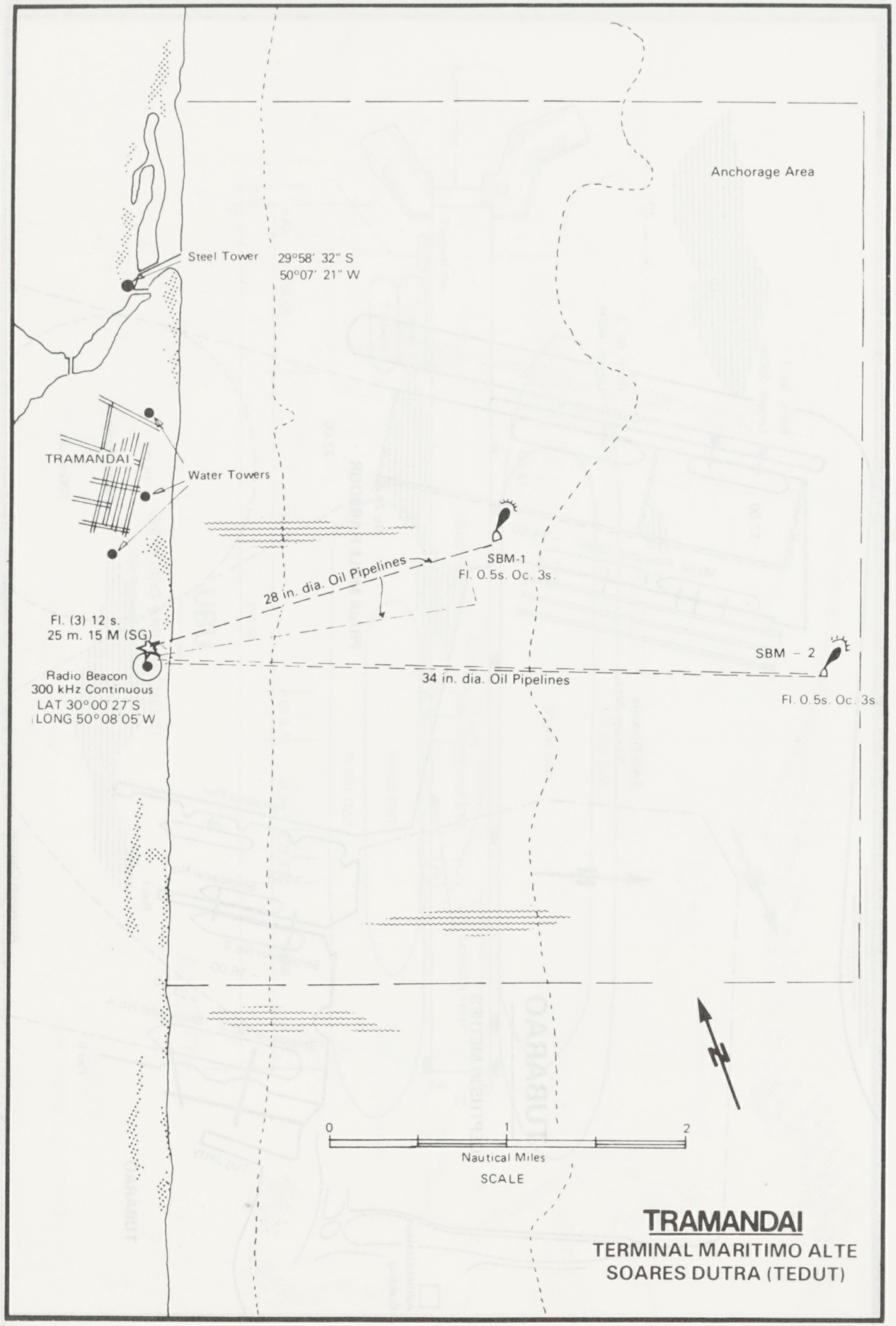


SAO SEBASTIAO

N
Atlantic Ocean
Ferry Terminal
Length 75 m.
Not in use
Length 87 m.
Atlantic Ocean
Commercial Quay
Length 150 m.
Depth 8.84 m.
Port Authority

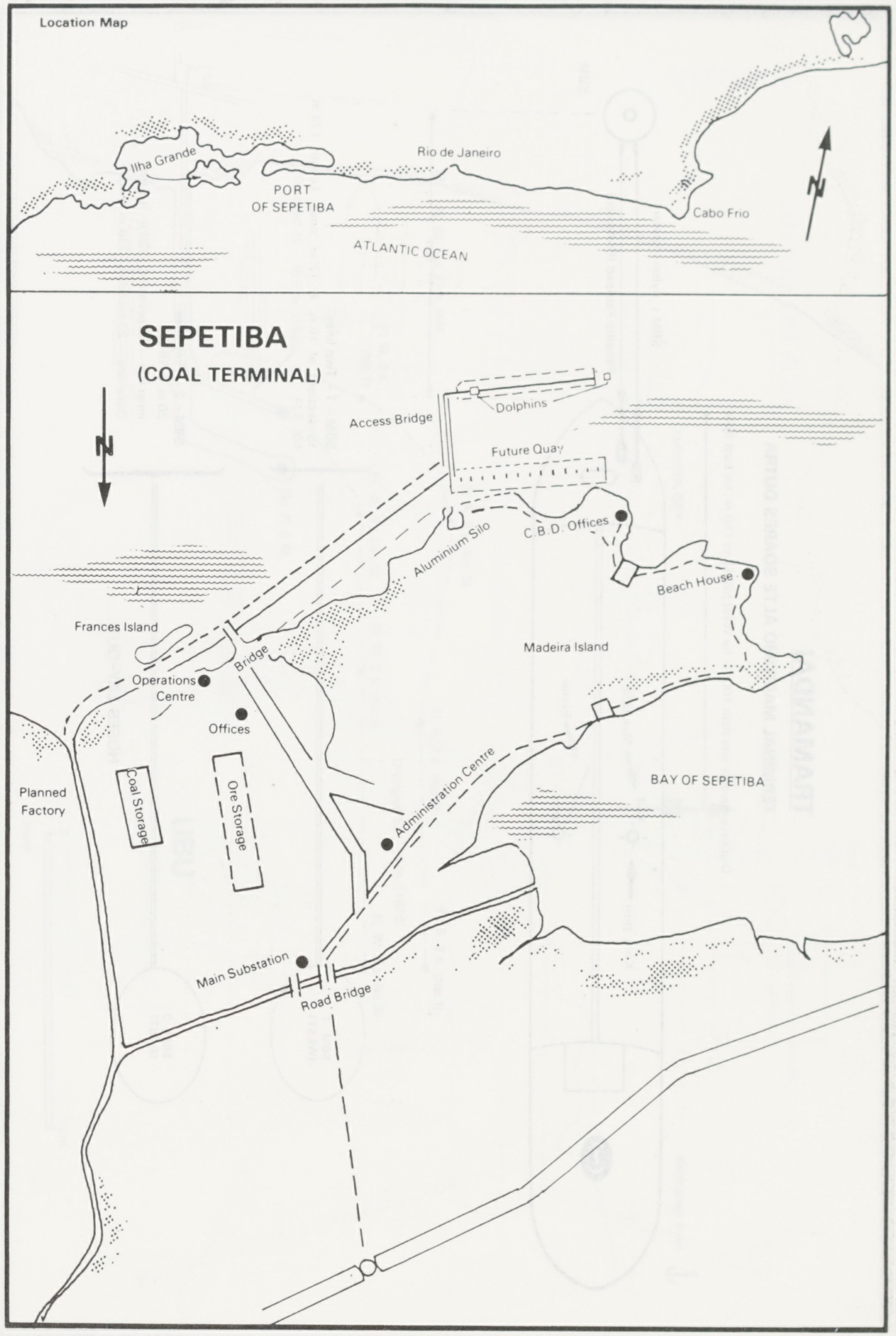

MAIN JETTY
Tug Finger Piers
204.50 M
191.00 M
West Berth P4
65,000 (DWT)
NORTH PIER
135,000 (DWT)
East Berth P3
50.00
245.00 M
263.84 M
West Berth P2
135,000 (DWT)
SOUTH PIER
300,000 (DWT)
East Berth P1
359.14 M
SAO SEBASTIAO


No. 10
No. 8
No. 12
No. 7
No. 9
No. 6
No. 14
No. 11
No. 5
328.5°T – 148.5°T
069°T – 249°T
20 metres
No. 4
No. 3
No. 2
No. 1
20 metres
20 metres
SEPETIBA
Dredged to 22.5 m
No. 16
No. 13
Arpoador Point
GUAIBA ISLAND
Ore Storage Area
No. 15
Dredged to 24.5 metres
Sernambicuara Point
No. 18
No. 17
20 metres


Anchorage Area
Steel Tower
29°58′ 32″ S
50°07′ 21″ W
TRAMANDAI
Water Towers
28 in. dia. Oil Pipelines
SBM-1
Fl. 0.5s. Oc. 3s.
Fl. (3) 12 s.
25 m. 15 M (SG)
Radio Beacon
300 kHz Continuous
LAT 30°00′27″S
LONG 50°08′05″W
34 in. dia. Oil Pipelines
SBM – 2
Fl. 0.5s. Oc. 3s
0
1
2
Nautical Miles
SCALE

TRAMANDAI

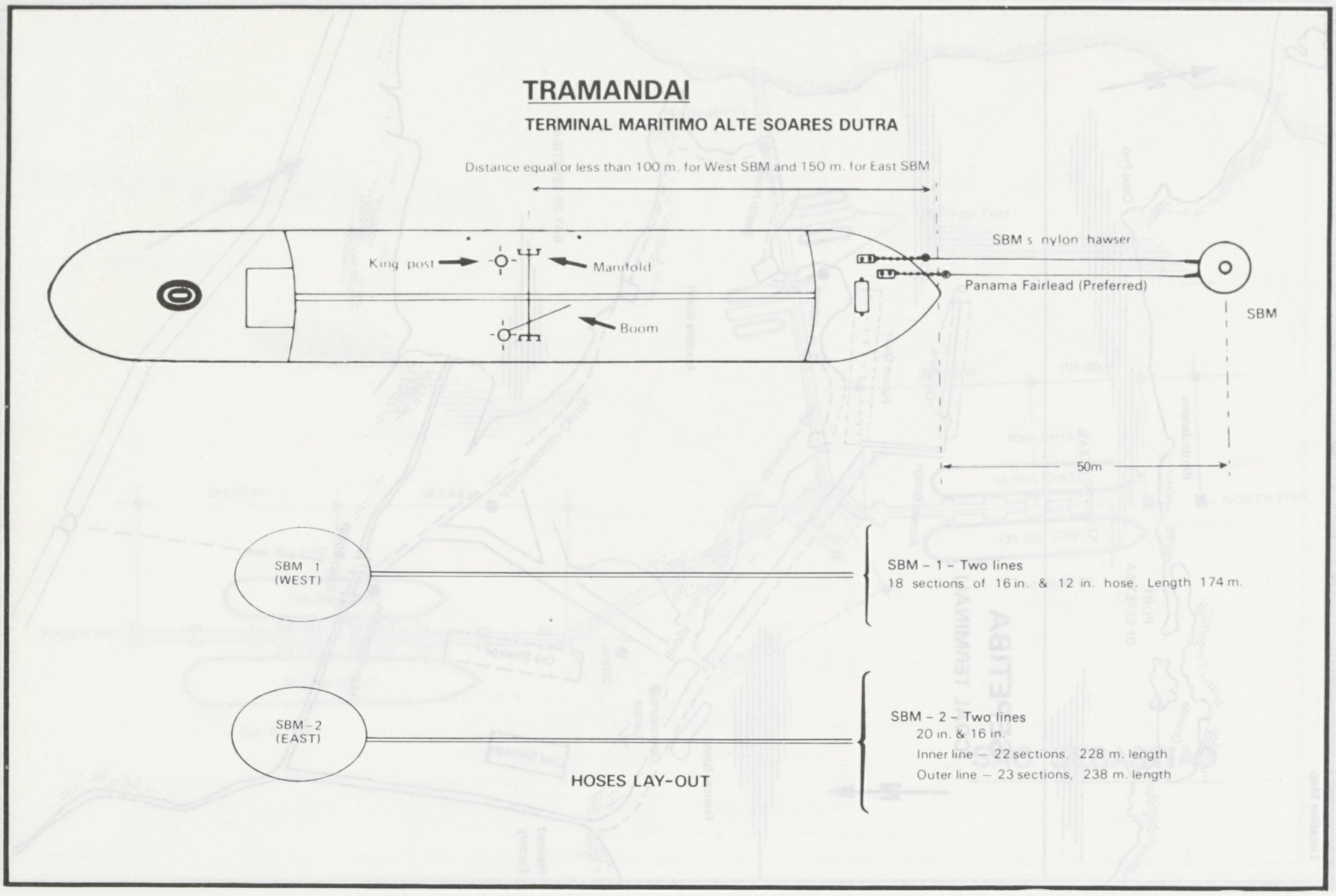
TERMINAL MARITIMO ALTE
SOARES DUTRA (TEDUT)

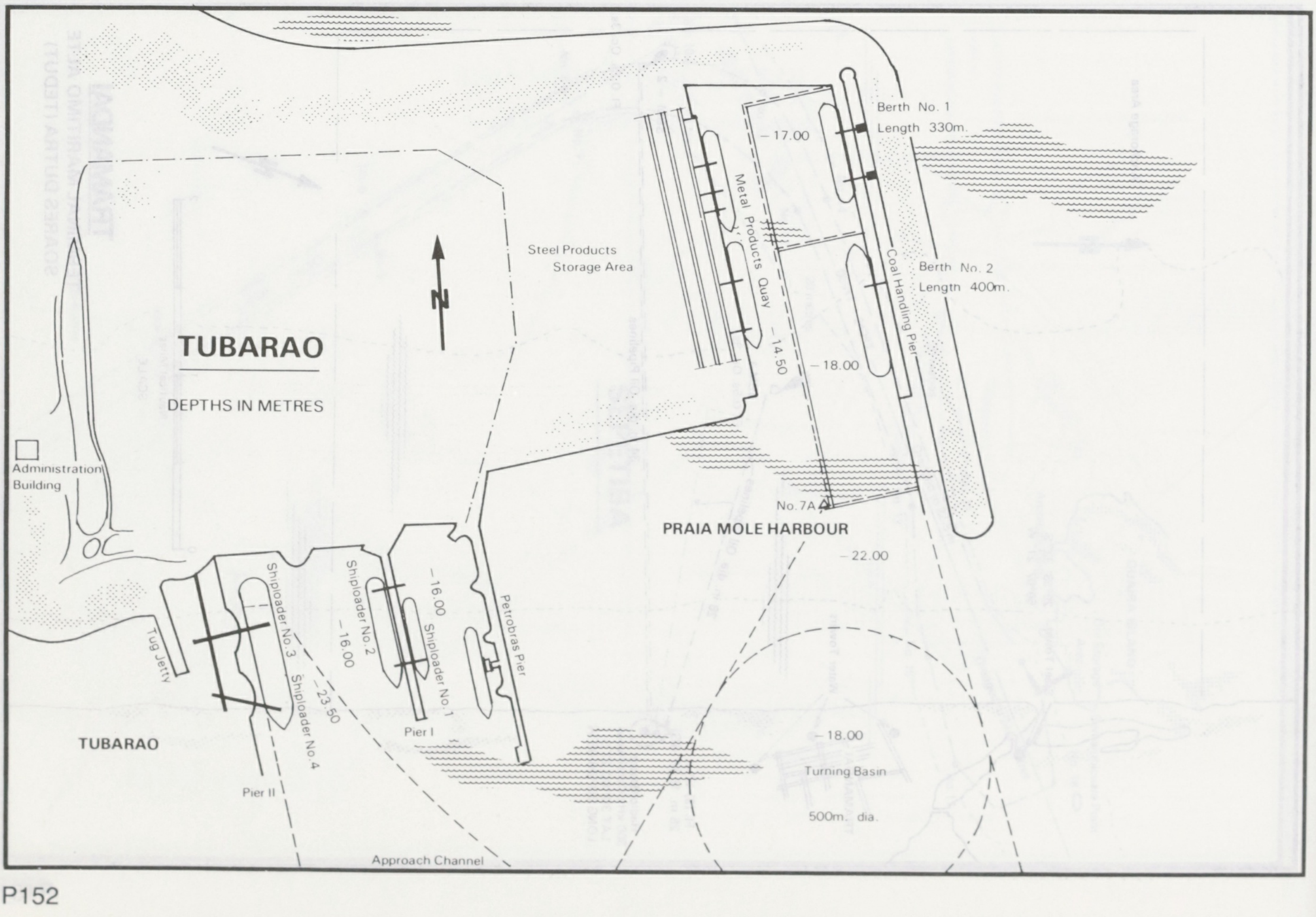

Location Map
Ilha Grande
Rio de Janeiro
PORT
OF SEPETIBA
Cabo Frio
ATLANTIC OCEAN
Access Bridge
Dolphins
Future Quay
Aluminium Silo
C.B.D. Offices
Beach House
Frances Island
Madeira Island
Bridge
Operations
Centre
Offices
Planned
Factory
Coal Storage
Ore Storage
Administration Centre
BAY OF SEPETIBA
Main Substation
Road Bridge

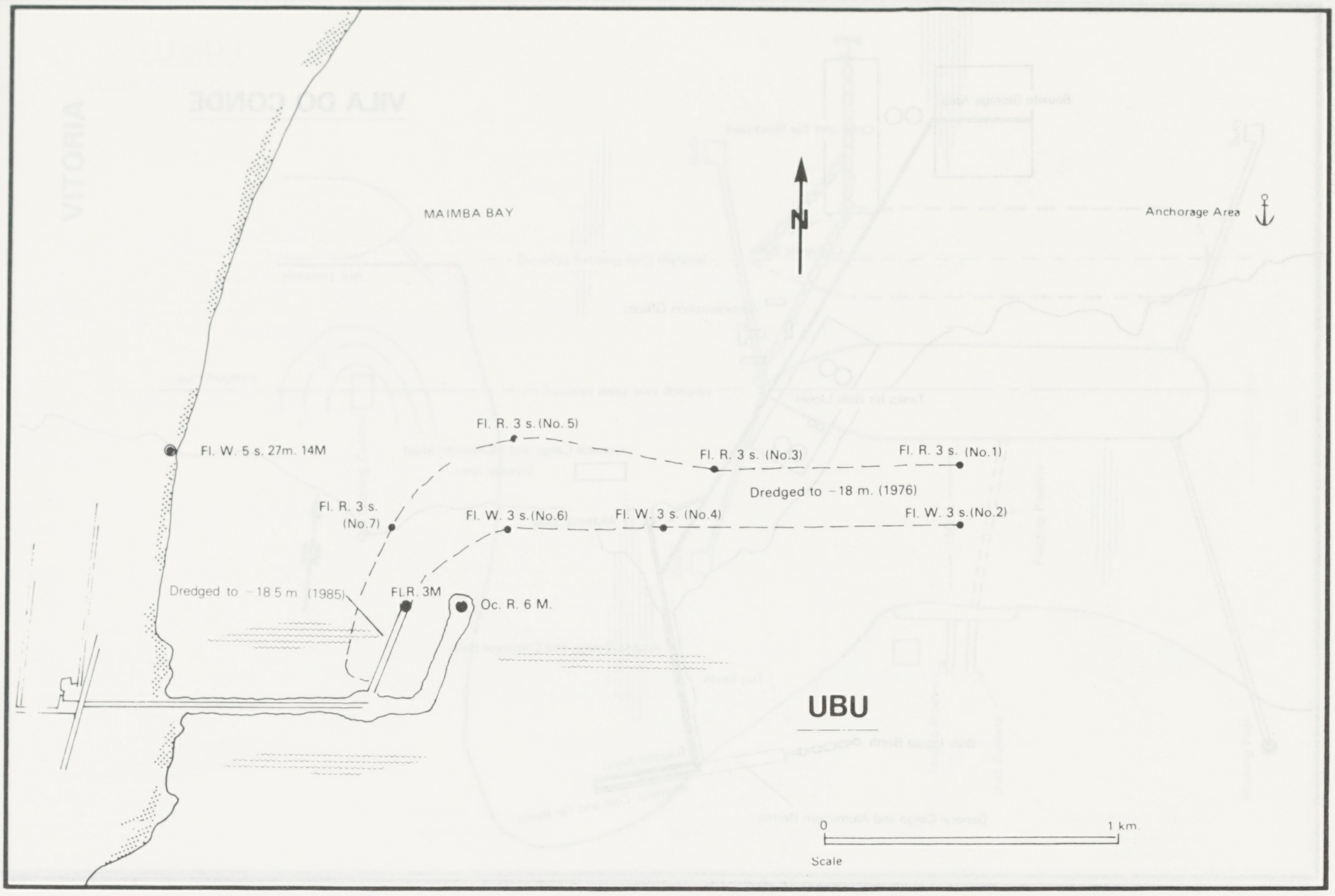
SEPETIBA

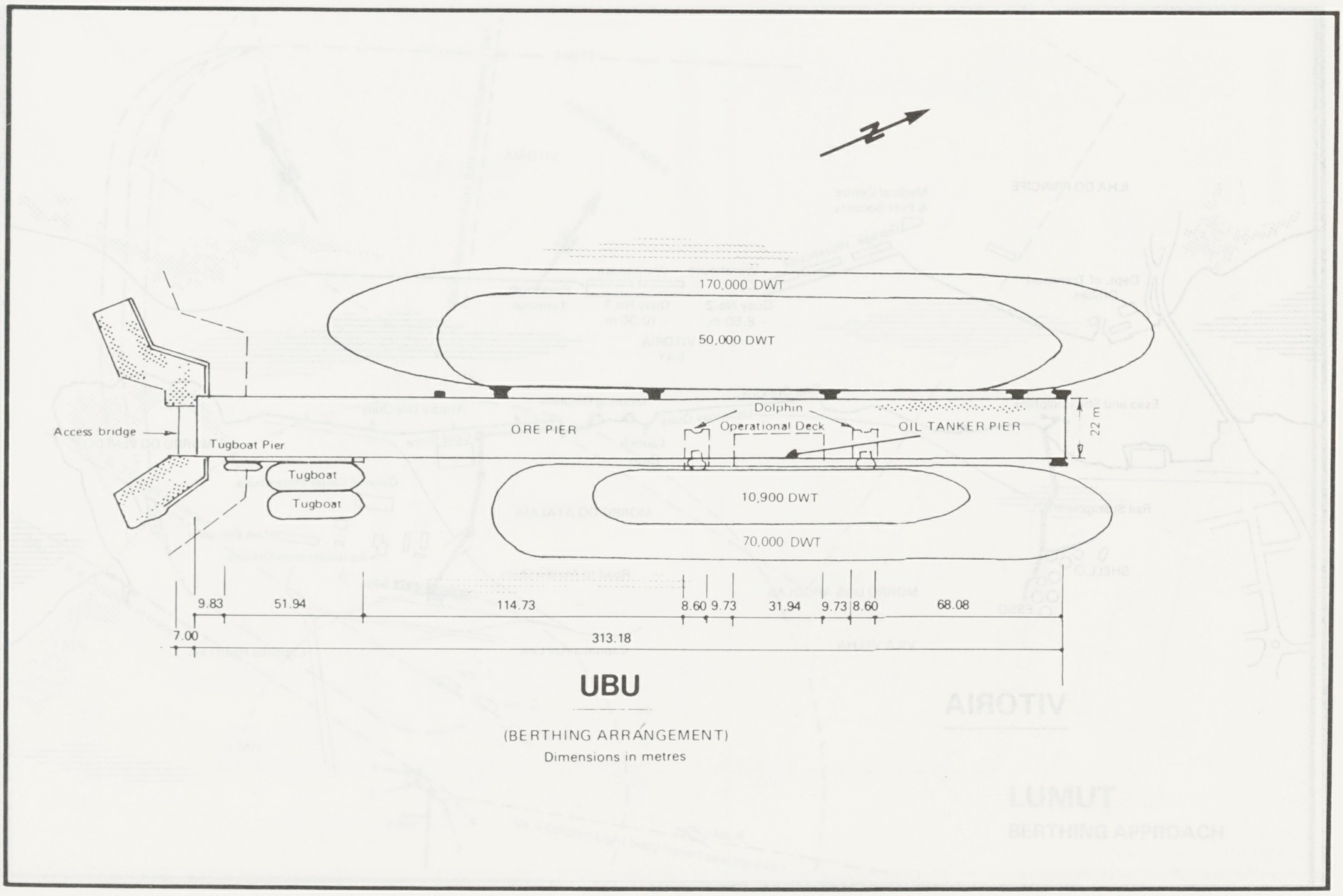
(COAL TERMINAL)

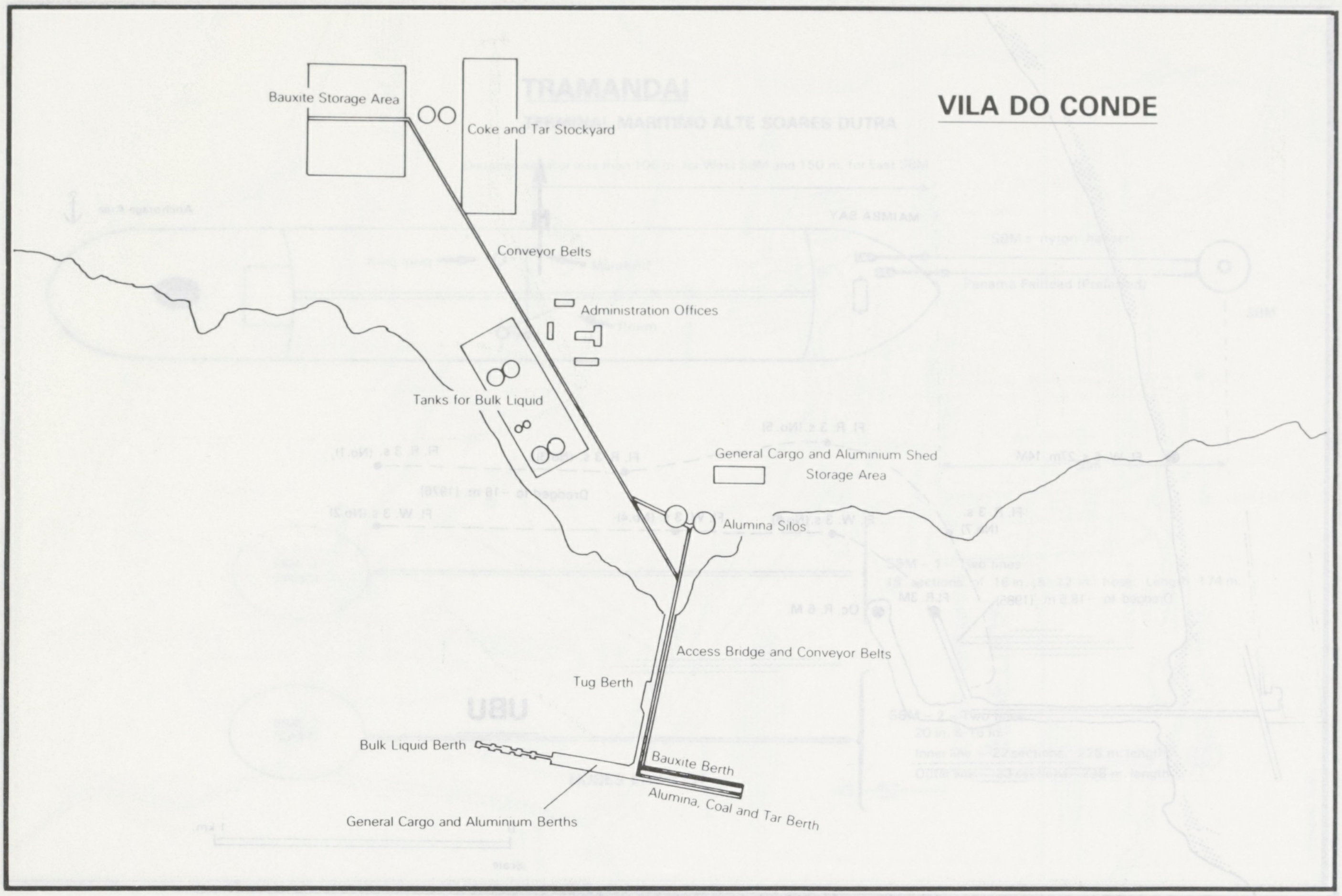
"Plan supplied by Ship's Master"


TRAMANDAI
TERMINAL MARITIMO ALTE SOARES DUTRA
Distance equal or less than 100 m. for West SBM and 150 m. for East SBM
King post
Manifold
Boom
SBM s nylon hawser
Panama Fairlead (Preferred)
SBM
50m
SBM 1 (WEST)
SBM – 1 – Two lines
18 sections of 16 in. & 12 in. hose. Length 174 m.
SBM – 2 (EAST)
SBM – 2 – Two lines
20 in. & 16 in.
Inner line – 22 sections. 228 m. length
Outer line – 23 sections. 238 m. length
HOSES LAY-OUT


TUBARAO
DEPTHS IN METRES
N
Steel Products Storage Area
Metal Products Quay
Berth No. 1
Length 330m.
Berth No. 2
Length 400m.
Coal Handling Pier
– 17.00
– 14.50
– 18.00
No. 7A
PRAIA MOLE HARBOUR
– 22.00
Administration Building
Tug Jetty
Shiploader No. 3
Shiploader No. 4
Shiploader No. 2
Shiploader No. 1
– 16.00
– 16.00
– 23.50
Petrobras Pier
Pier I
Pier II
TUBARAO
– 18.00
Turning Basin
500m. dia.
Approach Channel

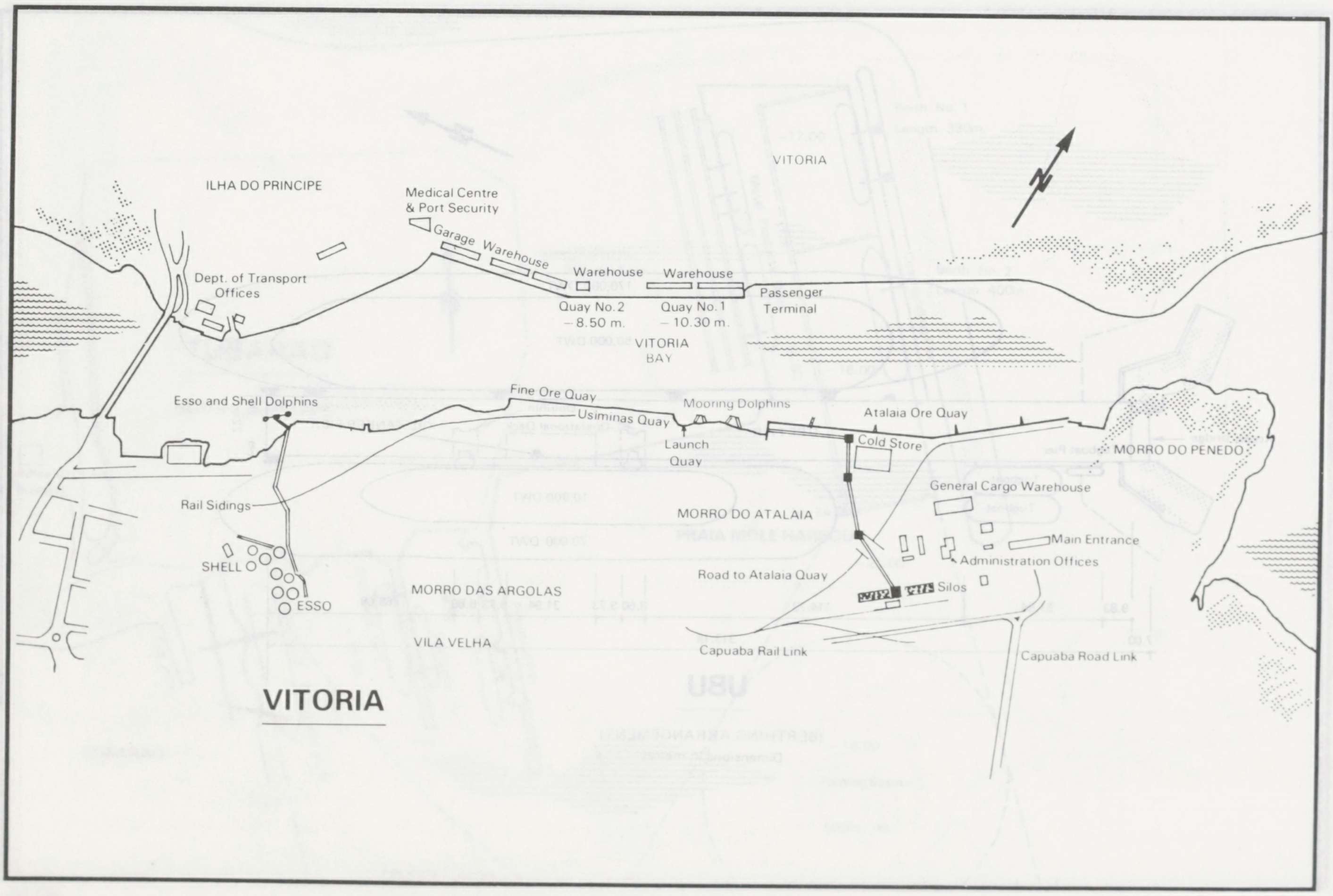

MAIMBA BAY
N
Anchorage Area
Fl. W. 5 s. 27m. 14M
Fl. R. 3 s. (No. 5)
Fl. R. 3 s. (No.3)
Fl. R. 3 s. (No.1)
Dredged to −18 m. (1976)
Fl. R. 3 s. (No.7)
Fl. W. 3 s.(No.6)
Fl. W. 3 s. (No.4)
Fl. W. 3 s.(No.2)
Dredged to −18.5 m. (1985)
Fl.R. 3M
Oc. R. 6 M.
UBU
0
1 km.
Scale


170,000 DWT
50,000 DWT
Dolphin
Operational Deck
OIL TANKER PIER
22 m
ORE PIER
Access bridge
Tugboat Pier
Tugboat
Tugboat
10,900 DWT
70,000 DWT
9.83
51.94
114.73
8.60
9.73
31.94
9.73
8.60
68.08
7.00
313.18
UBU
(BERTHING ARRANGEMENT)
Dimensions in metres



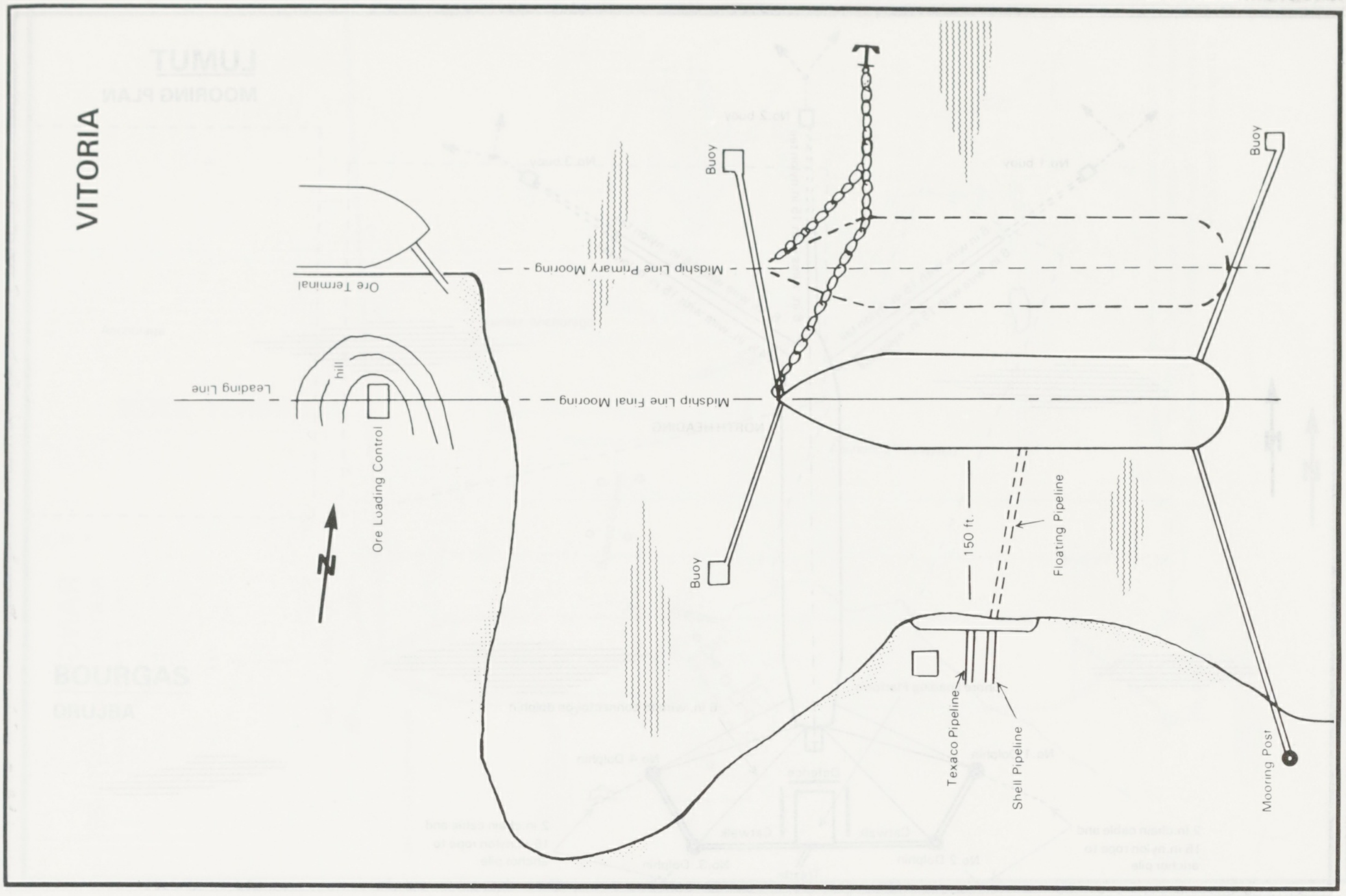
VILA DO CONDE

Bauxite Storage Area
Coke and Tar Stockyard
Conveyor Belts
Administration Offices
Tanks for Bulk Liquid
General Cargo and Aluminium Shed
Storage Area
Alumina Silos
Access Bridge and Conveyor Belts
Tug Berth
Bulk Liquid Berth
Bauxite Berth
Alumina, Coal and Tar Berth
General Cargo and Aluminium Berths

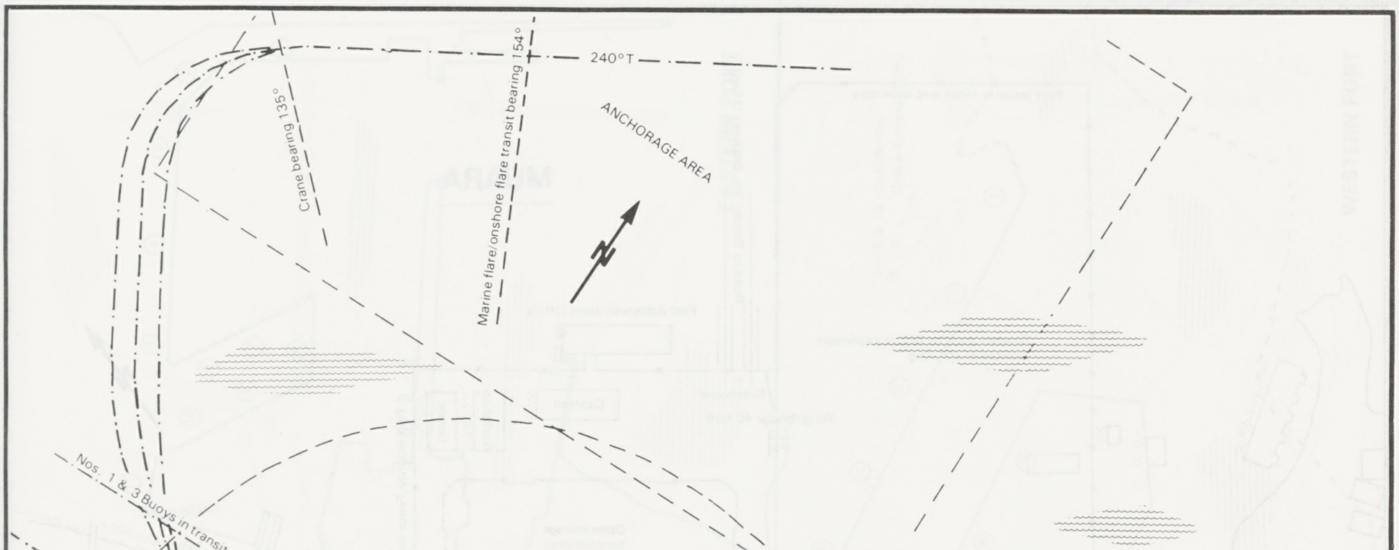


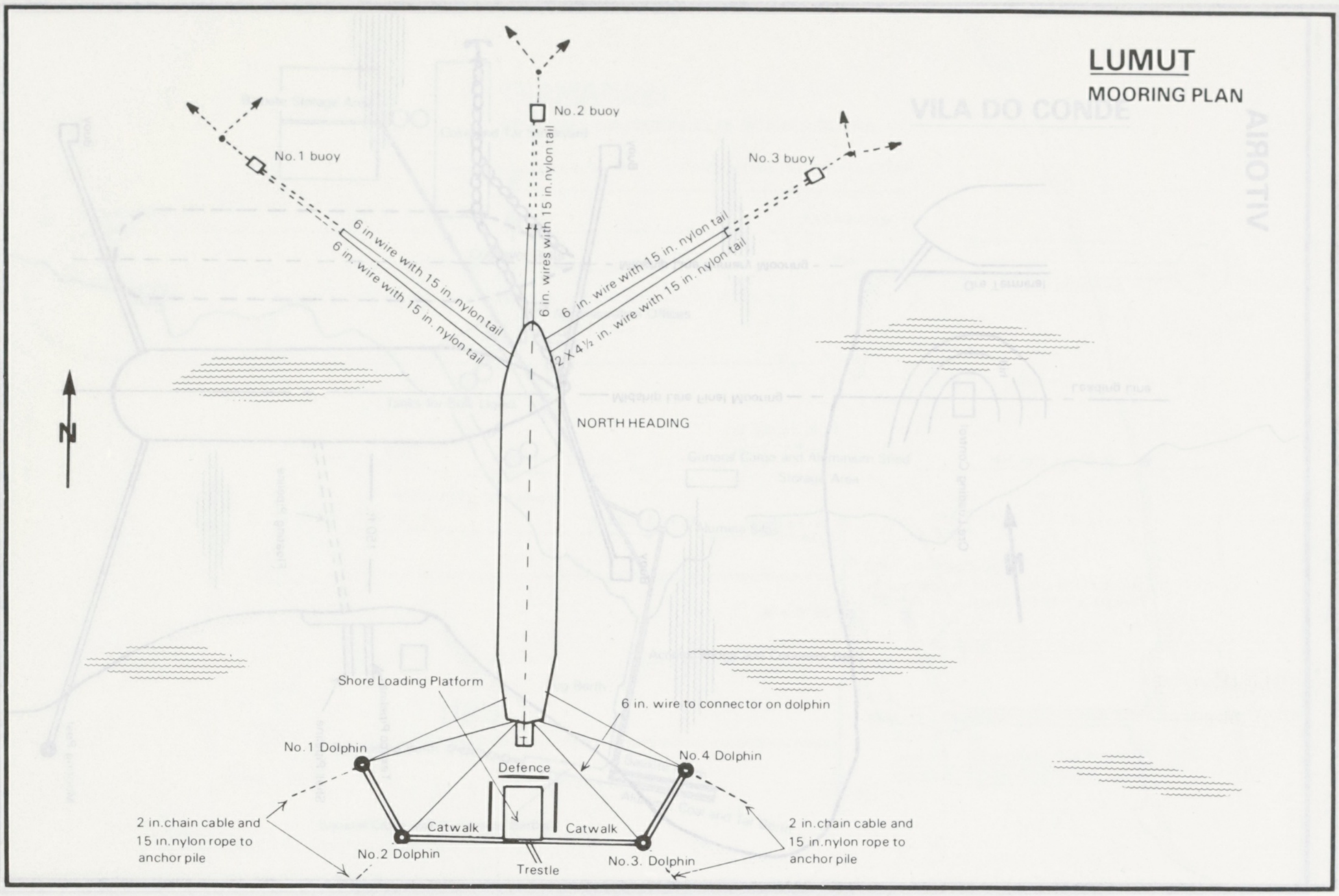
VITORIA

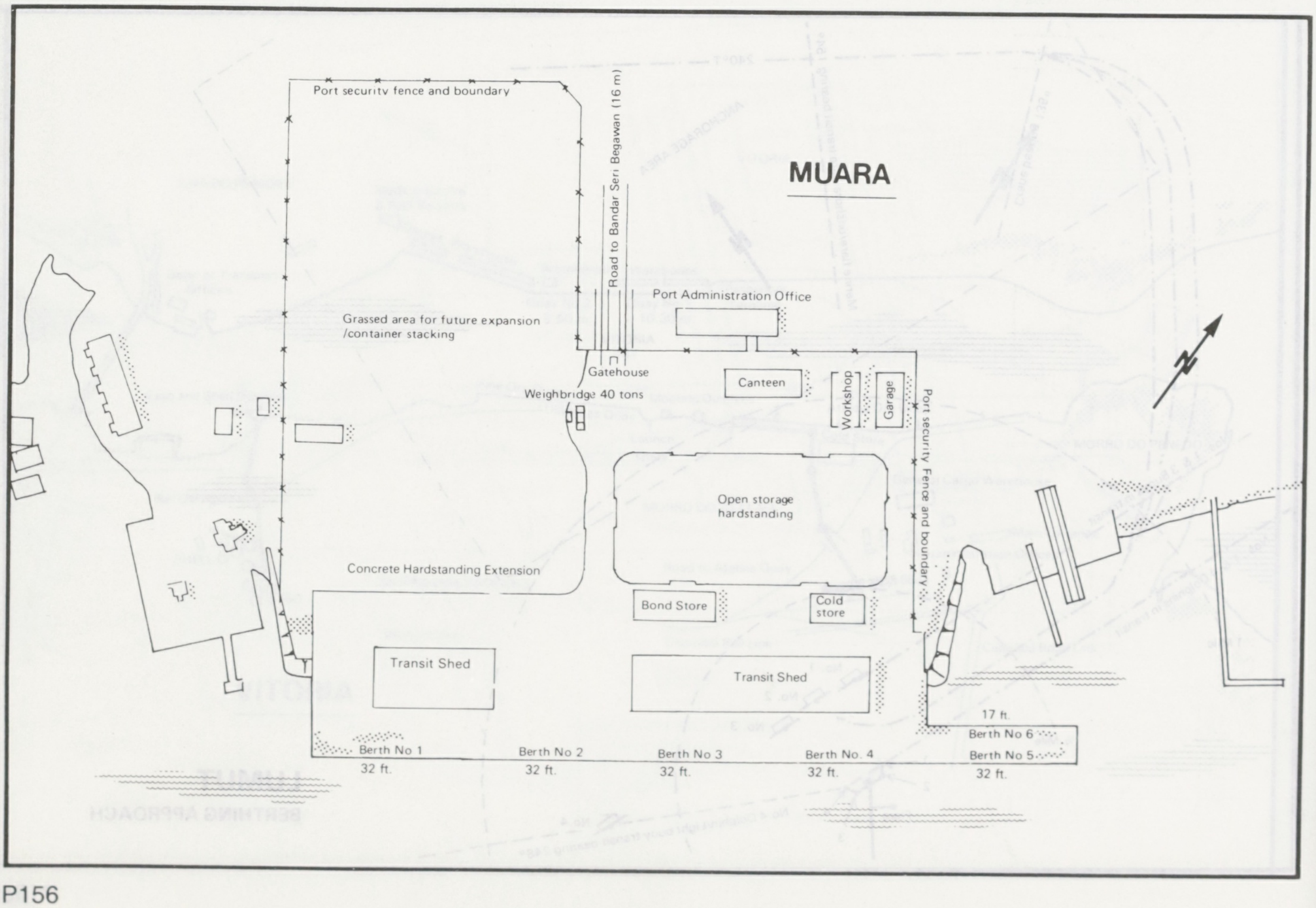
ILHA DO PRINCIPE
Medical Centre
& Port Security
VITORIA
Garage
Warehouse
Dept. of Transport
Offices
Warehouse
Warehouse
Quay No.2
– 8.50 m.
Quay No.1
– 10.30 m.
Passenger
Terminal
VITORIA
BAY
Esso and Shell Dolphins
Fine Ore Quay
Usiminas Quay
Mooring Dolphins
Atalaia Ore Quay
Launch
Quay
Cold Store
MORRO DO PENEDO
General Cargo Warehouse
Rail Sidings
MORRO DO ATALAIA
Main Entrance
Administration Offices
SHELL
Road to Atalaia Quay
Silos
ESSO
MORRO DAS ARGOLAS
VILA VELHA
Capuaba Rail Link
Capuaba Road Link

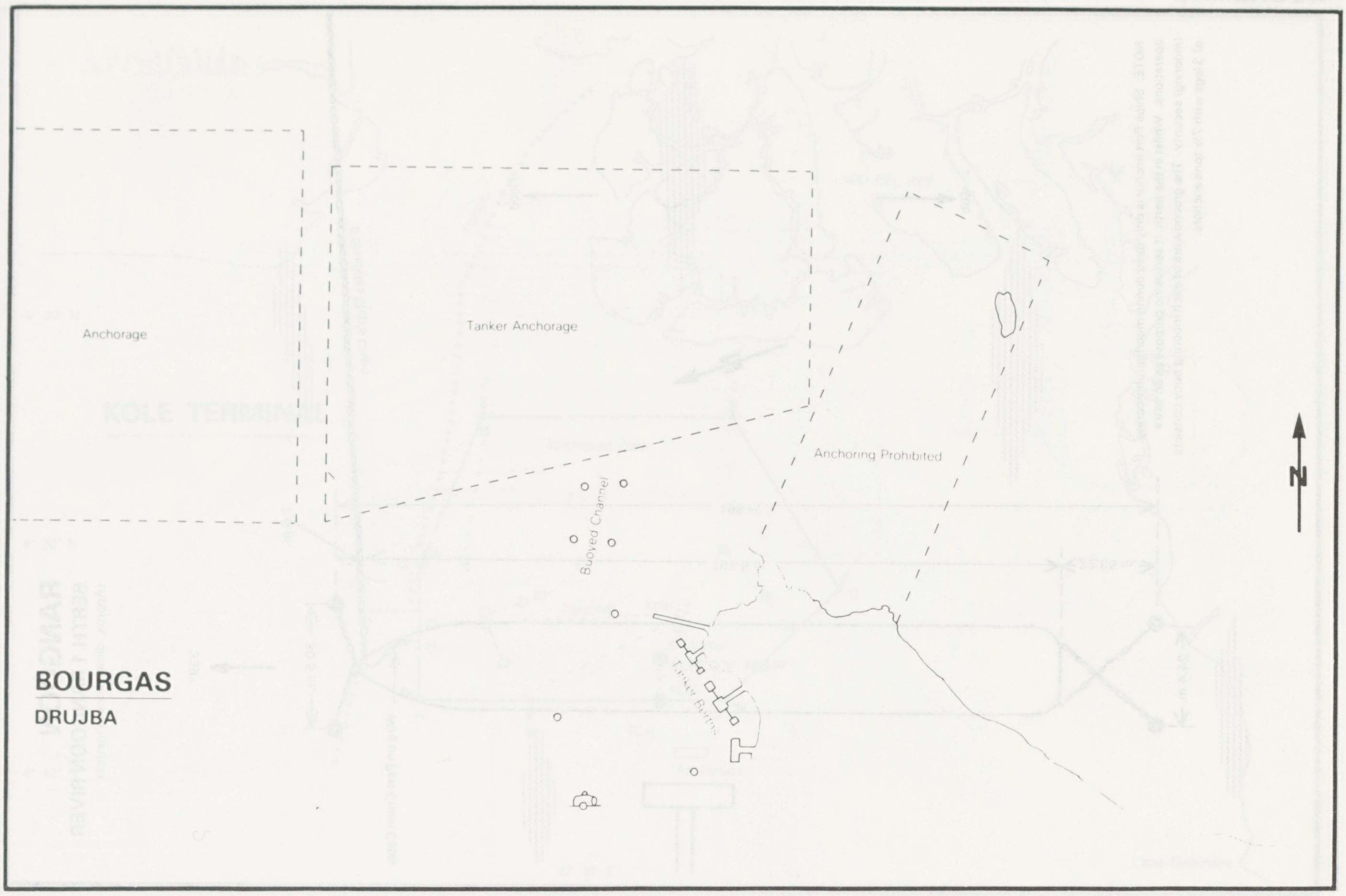

VITORIA
Ore Terminal
Leading Line
hill
Ore Loading Control
N
Midship Line Primary Mooring
Midship Line Final Mooring
Buoy
Buoy
Buoy
Buoy
150 ft.
Floating Pipeline
Texaco Pipeline
Shell Pipeline
Mooring Post

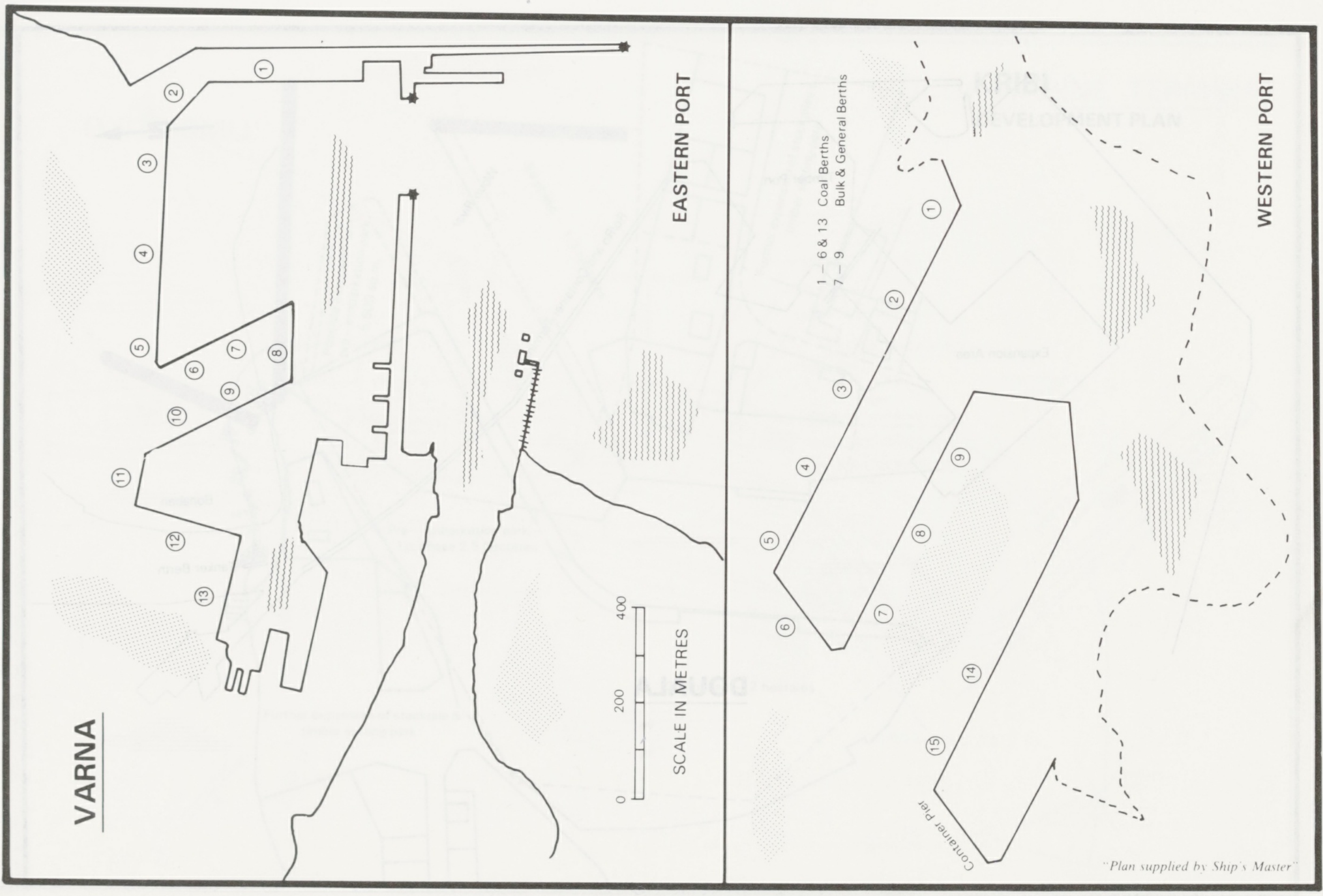
"Plan supplied by Ship's Master"


240°T
Crane bearing 135°
Marine flare/onshore flare transit bearing 154°
ANCHORAGE AREA
N
Nos. 1 & 3 Buoys in transit
Nos. 1 & 4 Dolphins in transit
1 Mile
½ Mile
No. 1
No. 2
No. 3
1
2
Flare
3
4
No.4 Dolphin/Light buoy transit bearing 248°
No.4
LUMUT
BERTHING APPROACH


LUMUT
MOORING PLAN
No.1 buoy
No.2 buoy
No.3 buoy
6 in wire with 15 in. nylon tail
6 in. wire with 15 in. nylon tail
6 in. wires with 15 in. nylon tail
6 in. wire with 15 in. nylon tail
2 X 4½ in. wire with 15 in. nylon tail
N
NORTH HEADING
Shore Loading Platform
6 in. wire to connector on dolphin
No.1 Dolphin
No.4 Dolphin
Defence
Catwalk
Catwalk
2 in.chain cable and 15 in.nylon rope to anchor pile
2 in.chain cable and 15 in.nylon rope to anchor pile
No.2 Dolphin
No.3. Dolphin
Trestle


MUARA
Port security fence and boundary
Road to Bandar Seri Begawan (16 m)
Port Administration Office
Grassed area for future expansion /container stacking
Gatehouse
Weighbridge 40 tons
Canteen
Workshop
Garage
Port security Fence and boundary
Open storage hardstanding
Concrete Hardstanding Extension
Bond Store
Cold store
Transit Shed
Transit Shed
17 ft.
Berth No 6
Berth No 5
Berth No 1
32 ft.
Berth No 2
32 ft.
Berth No 3
32 ft.
Berth No. 4
32 ft.
32 ft.


Anchorage
Tanker Anchorage
Anchoring Prohibited
Buoyed Channel
Tanker Berths
N
BOURGAS
DRUJBA

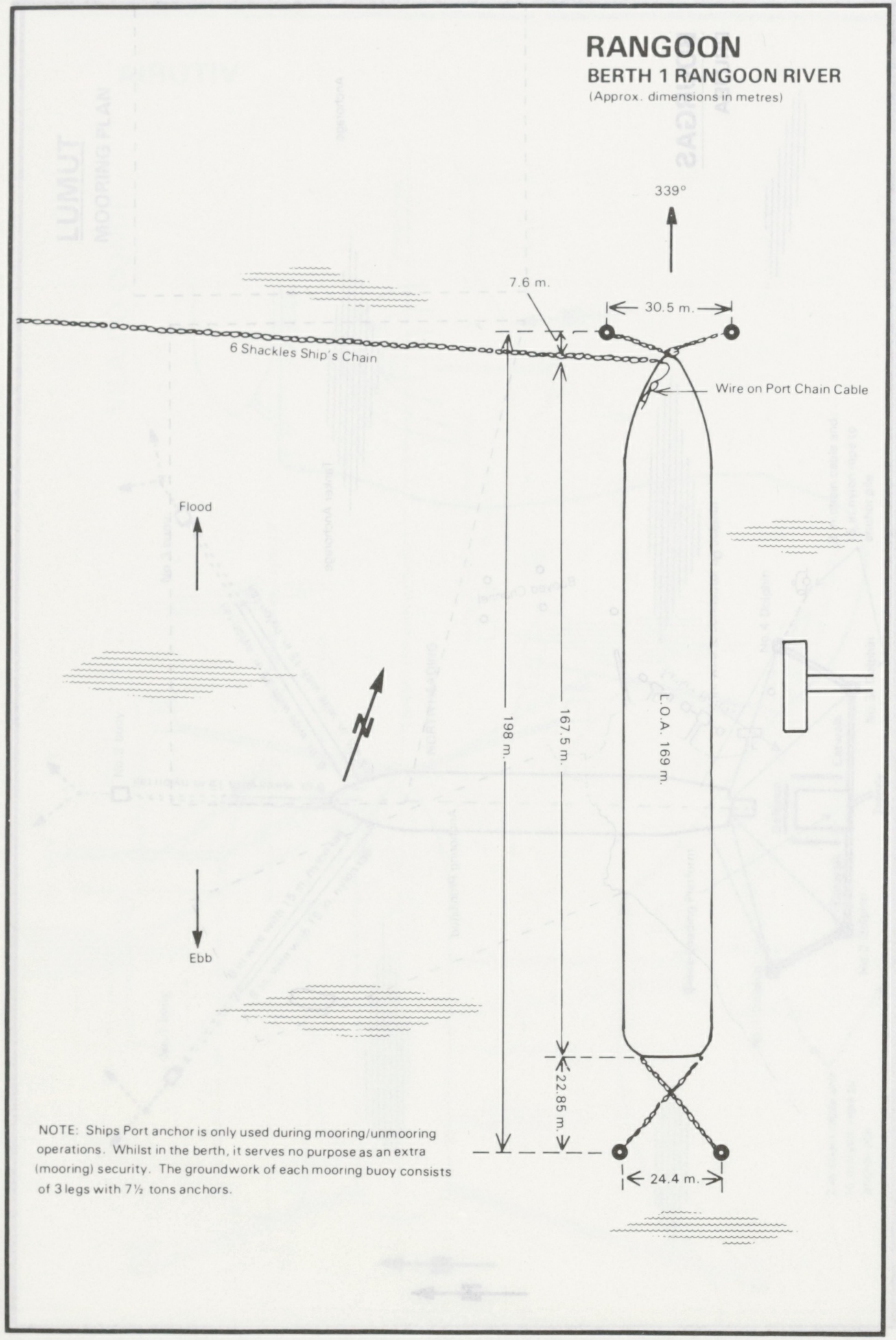

VARNA
EASTERN PORT
WESTERN PORT
1
2
3
4
5
6
7
8
9
10
11
12
13
1 – 6 & 13 Coal Berths
7 – 9 Bulk & General Berths
1
2
3
4
5
6
7
8
9
14
15
Container Pier
SCALE IN METRES
0
200
400

"Plan supplied by Ship's Master"

RANGOON

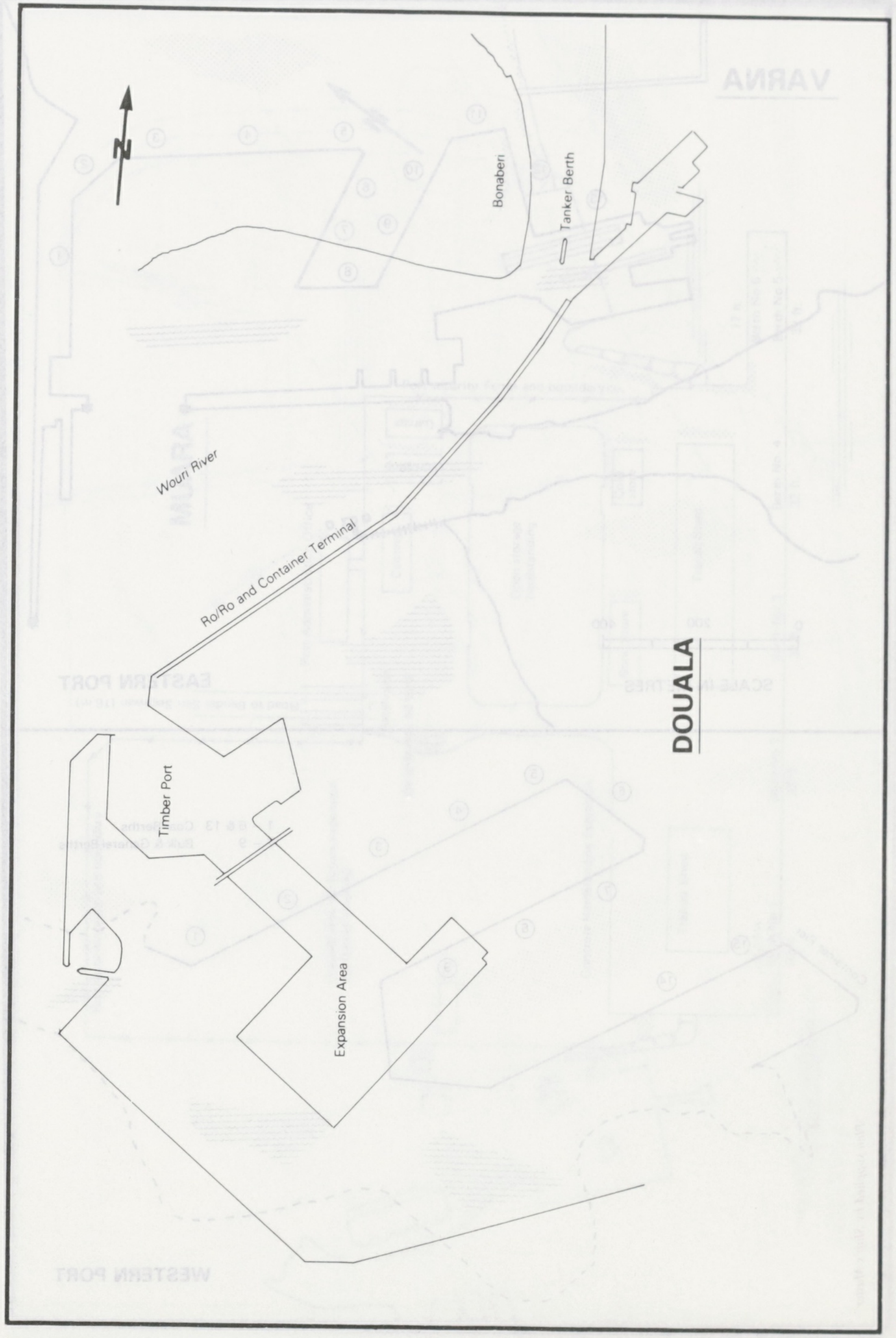
BERTH 1 RANGOON RIVER

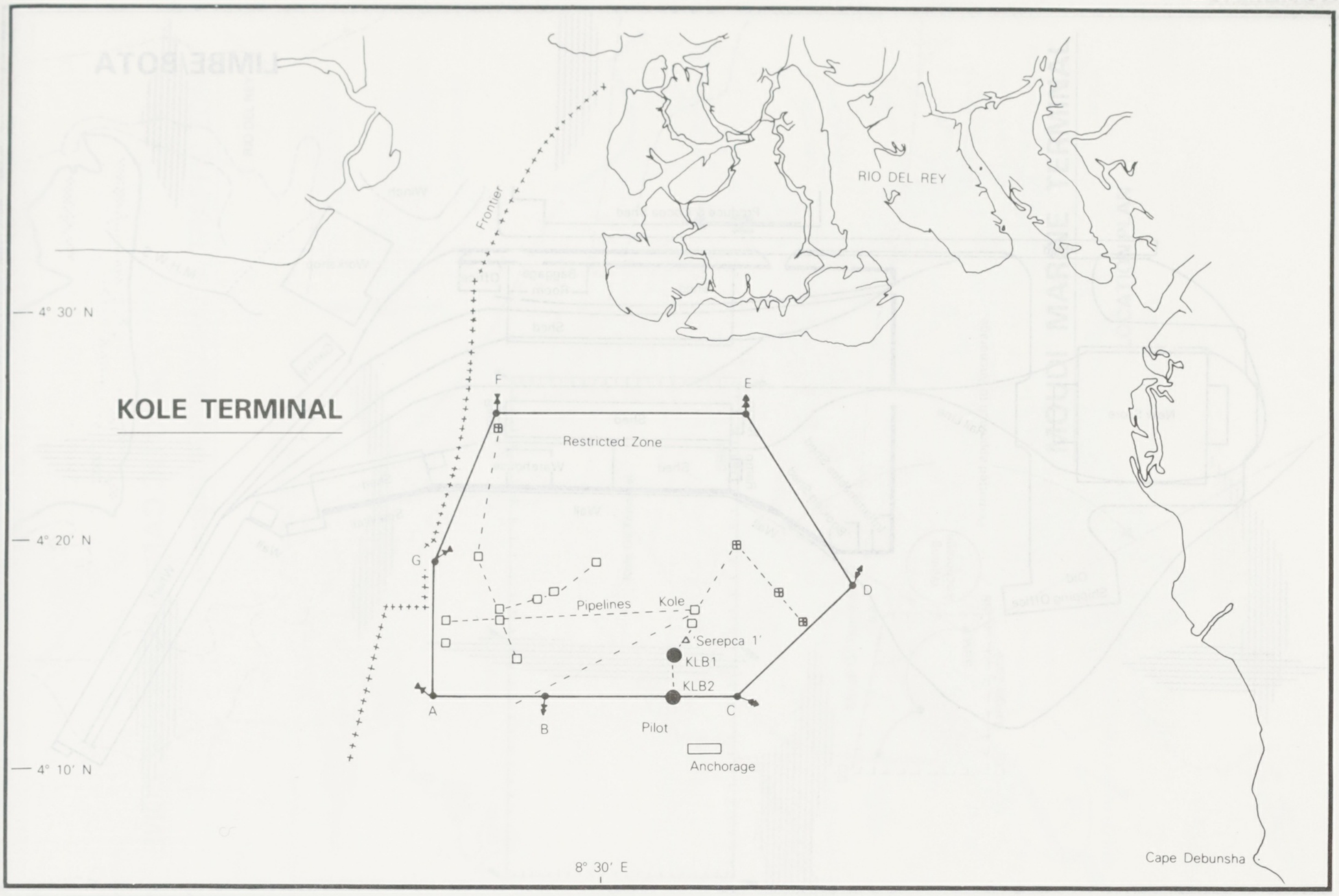
(Approx. dimensions in metres)

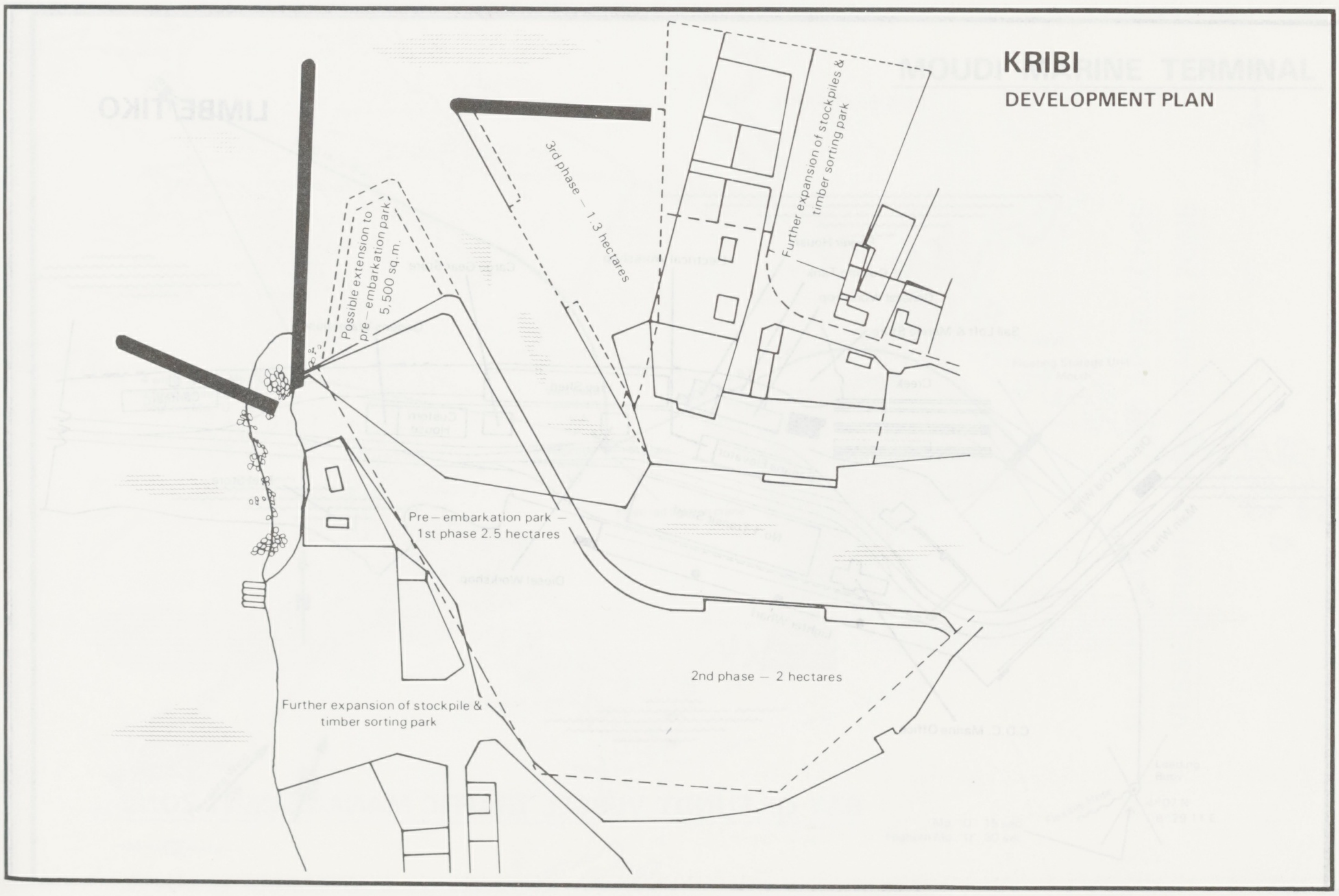

339°
7.6 m.
30.5 m.
6 Shackles Ship's Chain
Wire on Port Chain Cable
Flood
Ebb
198 m.
167.5 m.
L.O.A. 169 m.
22.85 m.
24.4 m.

NOTE: Ships Port anchor is only used during mooring/unmooring operations. Whilst in the berth, it serves no purpose as an extra (mooring) security. The groundwork of each mooring buoy consists of 3 legs with 7½ tons anchors.

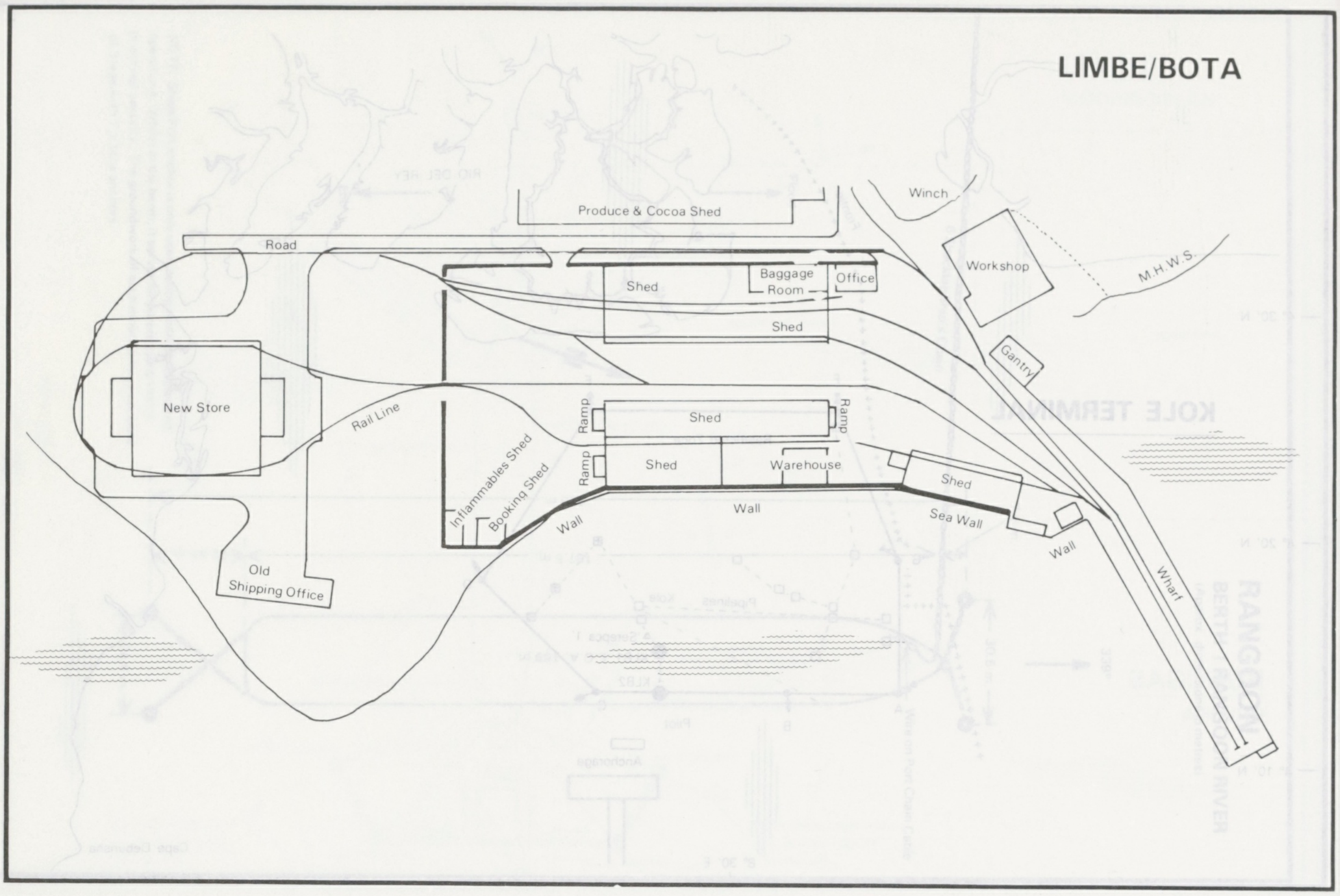
DOUALA


Bonaberi
Tanker Berth
Wouri River
Ro/Ro and Container Terminal
Timber Port
Expansion Area

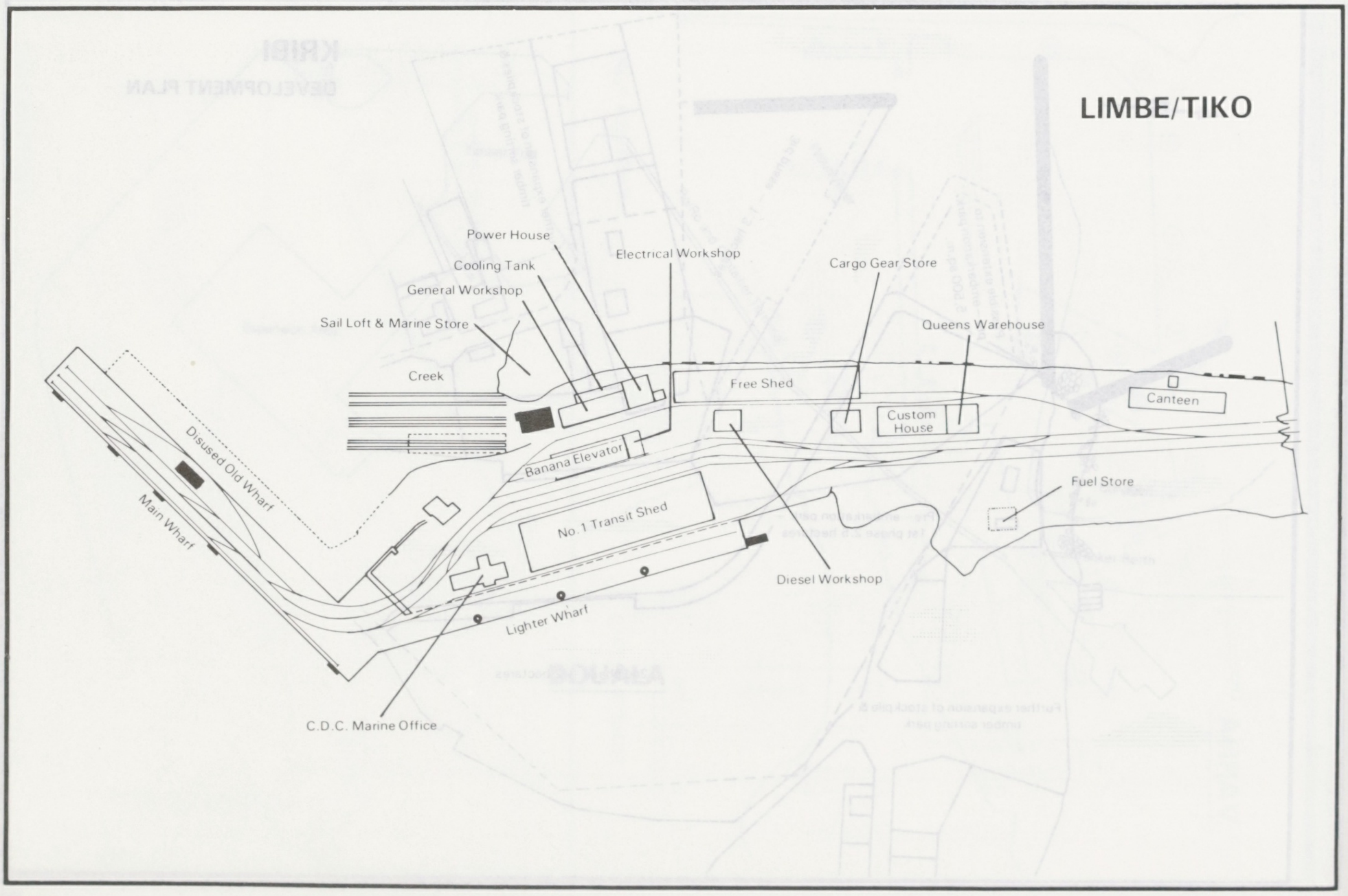

KOLE TERMINAL
RIO DEL REY
Frontier
4° 30′ N
4° 20′ N
4° 10′ N
F
E
Restricted Zone
G
D
Pipelines
Kole
'Serepca 1'
KLB1
KLB2
A
B
C
Pilot
Anchorage
8° 30′ E
Cape Debunsha

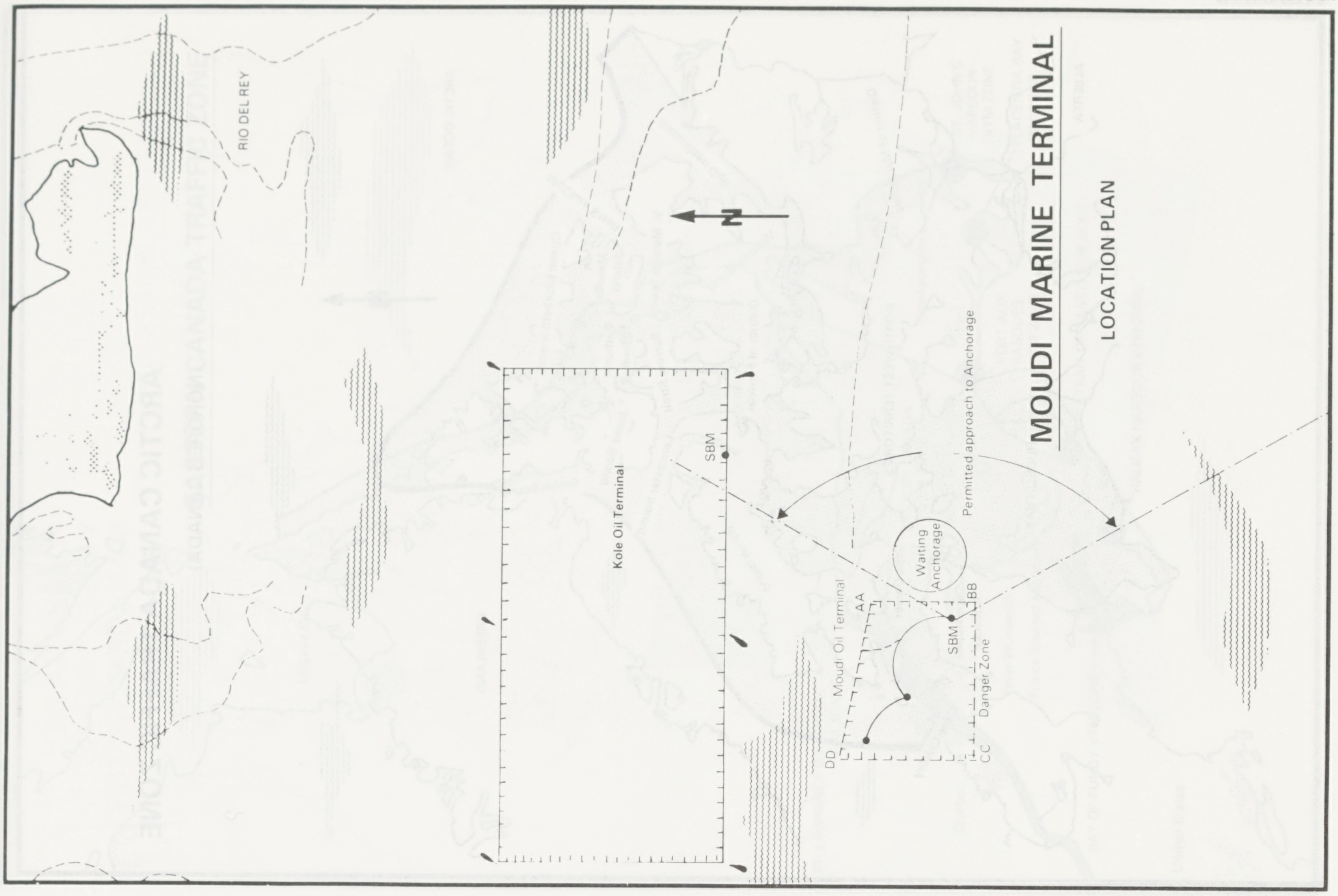

KRIBI
DEVELOPMENT PLAN
3rd phase — 1.3 hectares
Further expansion of stockpiles & timber sorting park
Possible extension to pre — embarkation park 5,500 sq.m.
Pre — embarkation park — 1st phase 2.5 hectares
2nd phase — 2 hectares
Further expansion of stockpile & timber sorting park

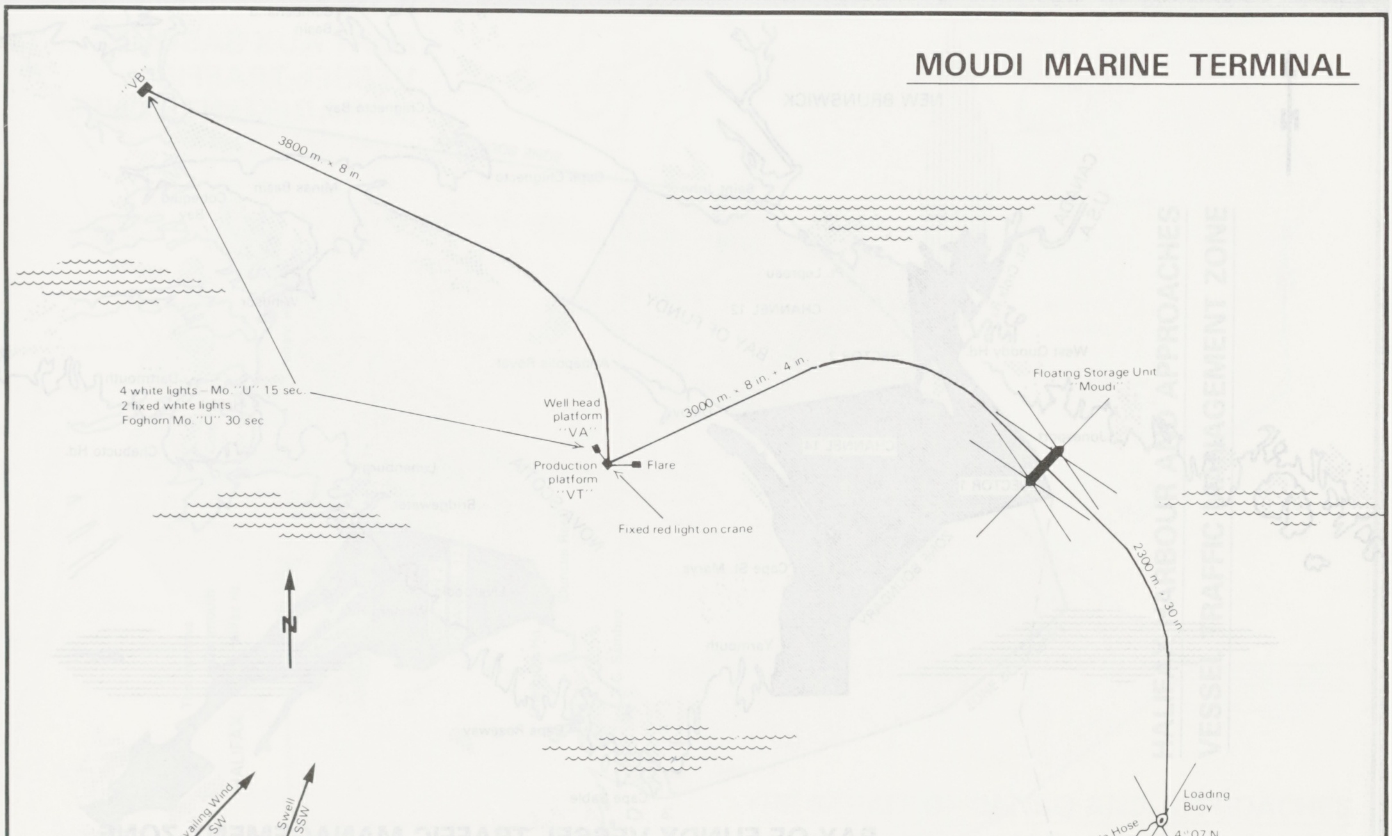
LIMBE/BOTA

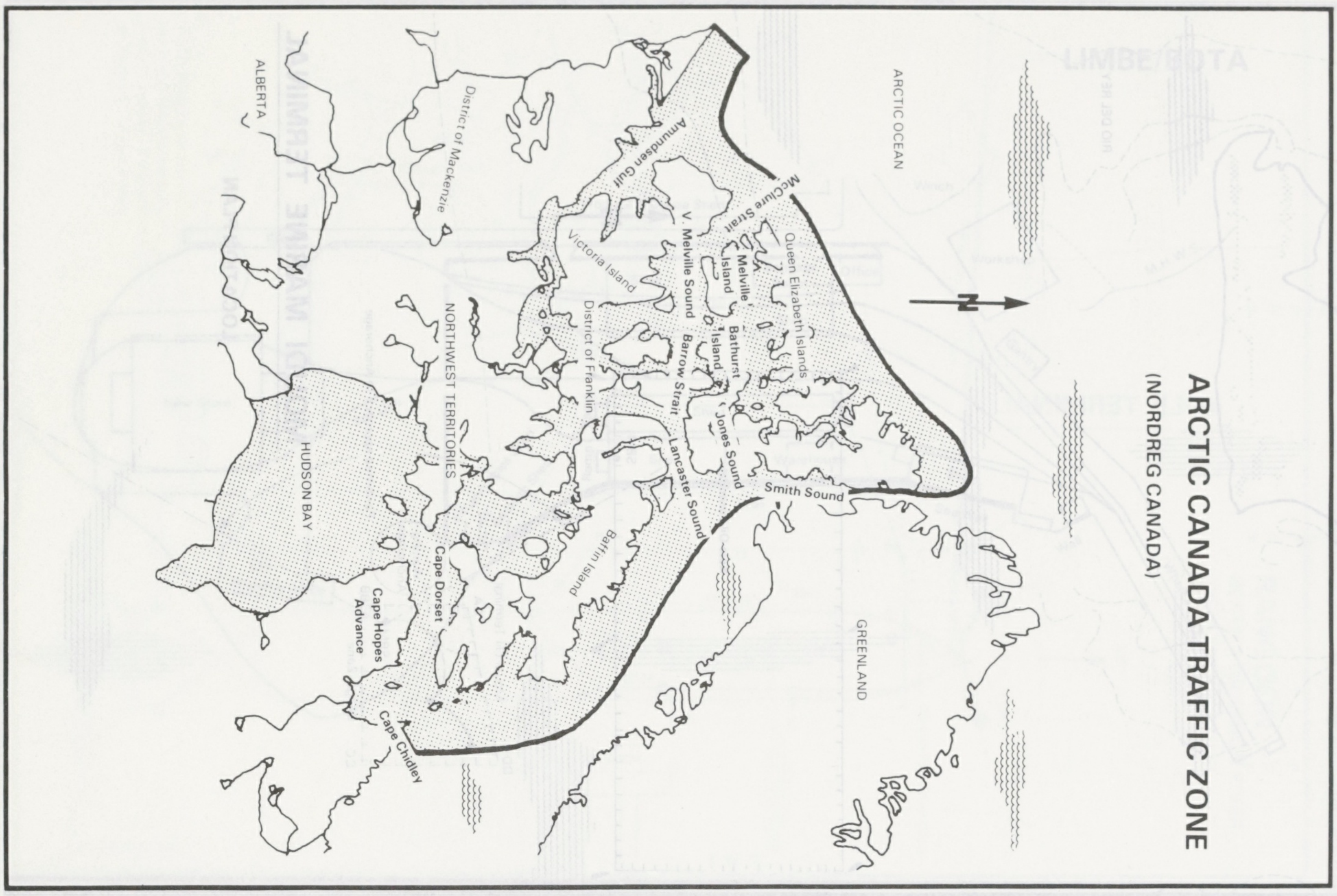

Produce & Cocoa Shed
Winch
Road
Workshop
M.H.W.S.
Shed
Baggage Room
Office
Shed
Gantry
New Store
Shed
Ramp
Rail Line
Ramp
Inflammables Shed
Booking Shed
Ramp
Shed
Warehouse
Shed
Wall
Sea Wall
Wall
Wall
Old Shipping Office
Wharf

LIMBE/TIKO

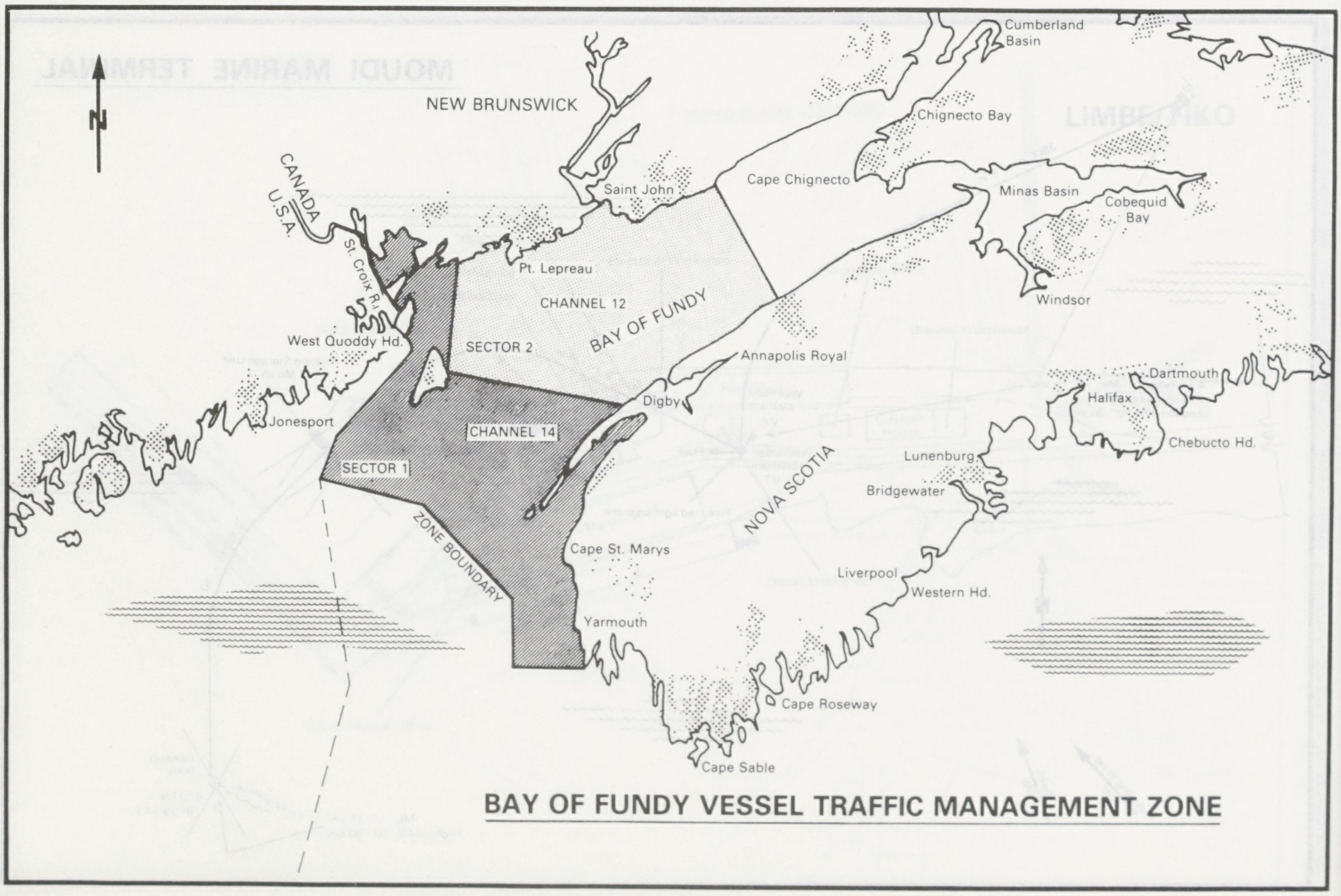

Power House
Cooling Tank
Electrical Workshop
General Workshop
Cargo Gear Store
Sail Loft & Marine Store
Queens Warehouse
Creek
Free Shed
Canteen
Custom House
Disused Old Wharf
Banana Elevator
Fuel Store
Main Wharf
No. 1 Transit Shed
Diesel Workshop
Lighter Wharf
C.D.C. Marine Office


MOUDI MARINE TERMINAL
LOCATION PLAN
RIO DEL REY
N
Kole Oil Terminal
SBM
Permitted approach to Anchorage
Waiting Anchorage
Moudi Oil Terminal
AA
BB
SBM
Danger Zone
DD
CC

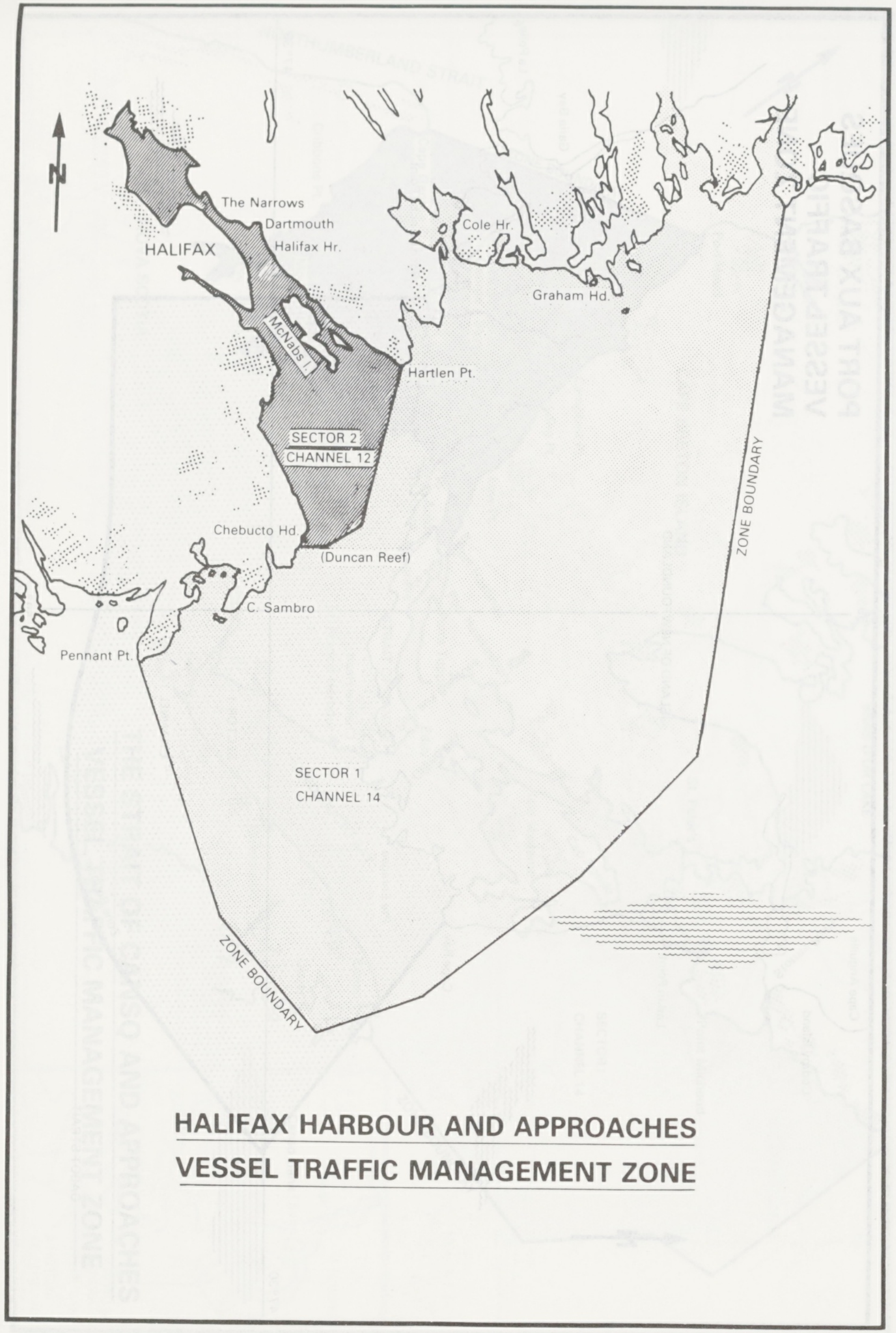

MOUDI MARINE TERMINAL
"VB"
3800 m · 8 in
4 white lights – Mo."U" 15 sec
2 fixed white lights
Foghorn Mo."U" 30 sec
Well head platform "VA"
Production platform "VT"
Flare
Fixed red light on crane
3000 m · 8 in · 4 in
Floating Storage Unit "Moudi"
2300 m · 30 in
N
Loading Buoy
Flexible Hose
4°07 N
8°29 11 E
Mo."U" 15 sec
Foghorn Mo."U" 30 sec
Prevailing Wind SW
Swell SSW


ALBERTA
District of Mackenzie
Amundsen Gulf
ARCTIC OCEAN
McClure Strait
Queen Elizabeth Islands
Melville Island
Bathurst Island
Victoria Island
V. Melville Sound
Barrow Strait
District of Franklin
NORTHWEST TERRITORIES
Jones Sound
Smith Sound
Lancaster Sound
HUDSON BAY
Baffin Island
Cape Dorset
Cape Hopes Advance
Cape Chidley
GREENLAND
N

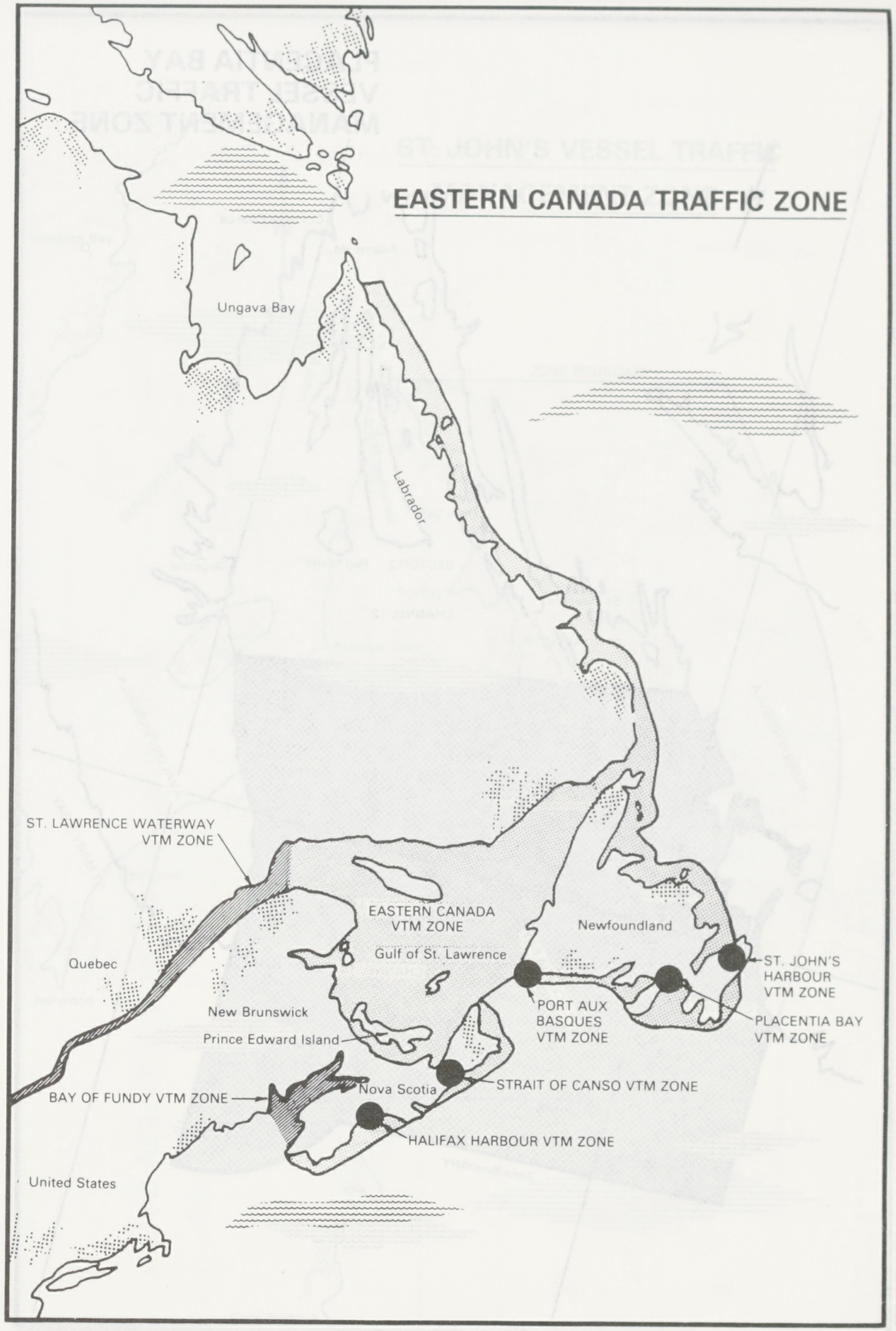
ARCTIC CANADA TRAFFIC ZONE
(NORDREG CANADA)


Cumberland Basin
NEW BRUNSWICK
N
Chignecto Bay
CANADA
U.S.A.
Saint John
Cape Chignecto
Minas Basin
Cobequid Bay
St. Croix R.
Pt. Lepreau
CHANNEL 12
Windsor
BAY OF FUNDY
SECTOR 2
West Quoddy Hd.
Annapolis Royal
Dartmouth
Digby
Halifax
Jonesport
CHANNEL 14
Chebucto Hd.
SECTOR 1
Lunenburg
Bridgewater
NOVA SCOTIA
ZONE BOUNDARY
Cape St. Marys
Liverpool
Western Hd.
Yarmouth
Cape Roseway
Cape Sable

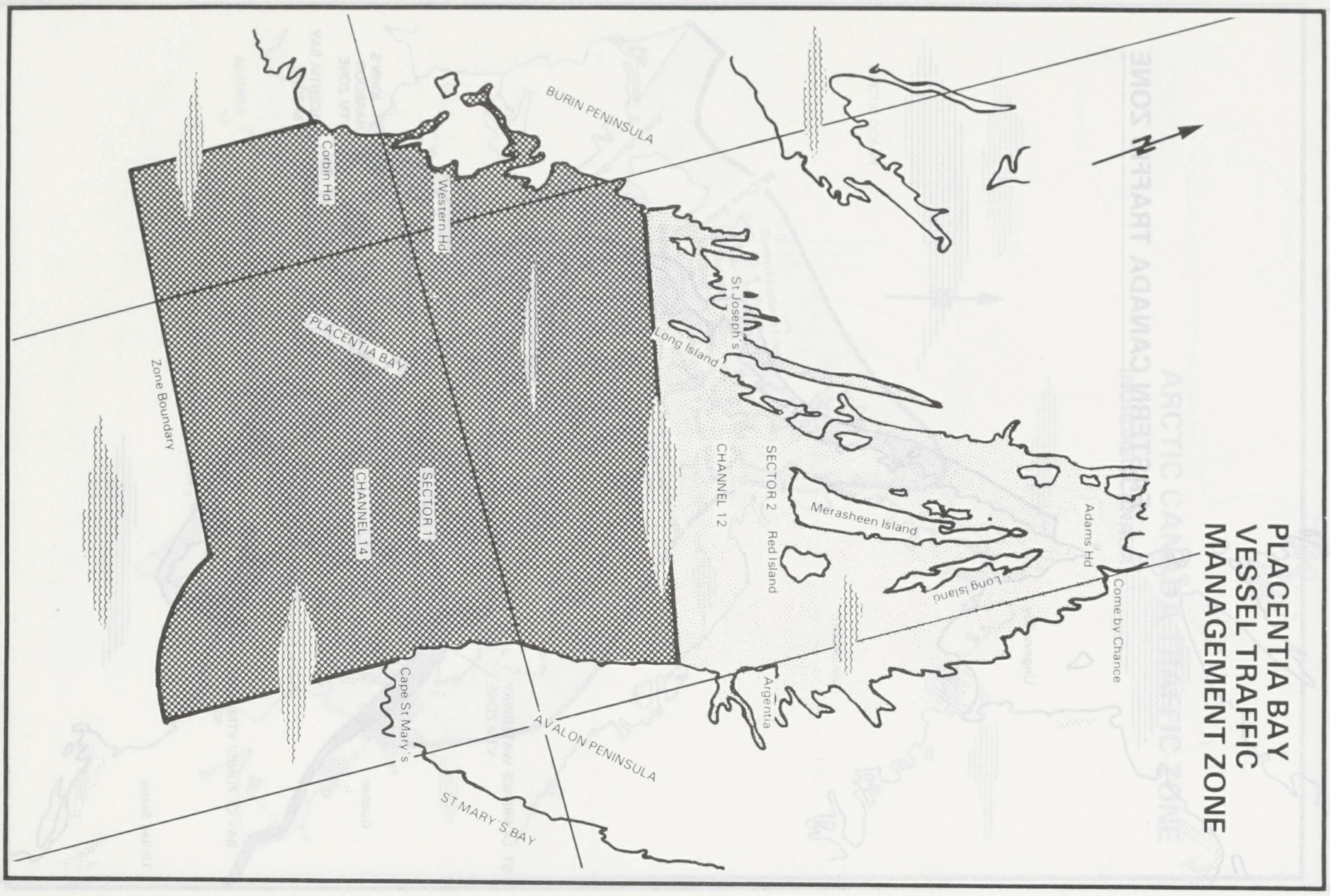
BAY OF FUNDY VESSEL TRAFFIC MANAGEMENT ZONE


N
The Narrows
Dartmouth
Halifax Hr.
HALIFAX
McNabs I.
Cole Hr.
Graham Hd.
Hartlen Pt.
SECTOR 2
CHANNEL 12
Chebucto Hd.
(Duncan Reef)
C. Sambro
Pennant Pt.
ZONE BOUNDARY
SECTOR 1
CHANNEL 14
ZONE BOUNDARY

HALIFAX HARBOUR AND APPROACHES VESSEL TRAFFIC MANAGEMENT ZONE

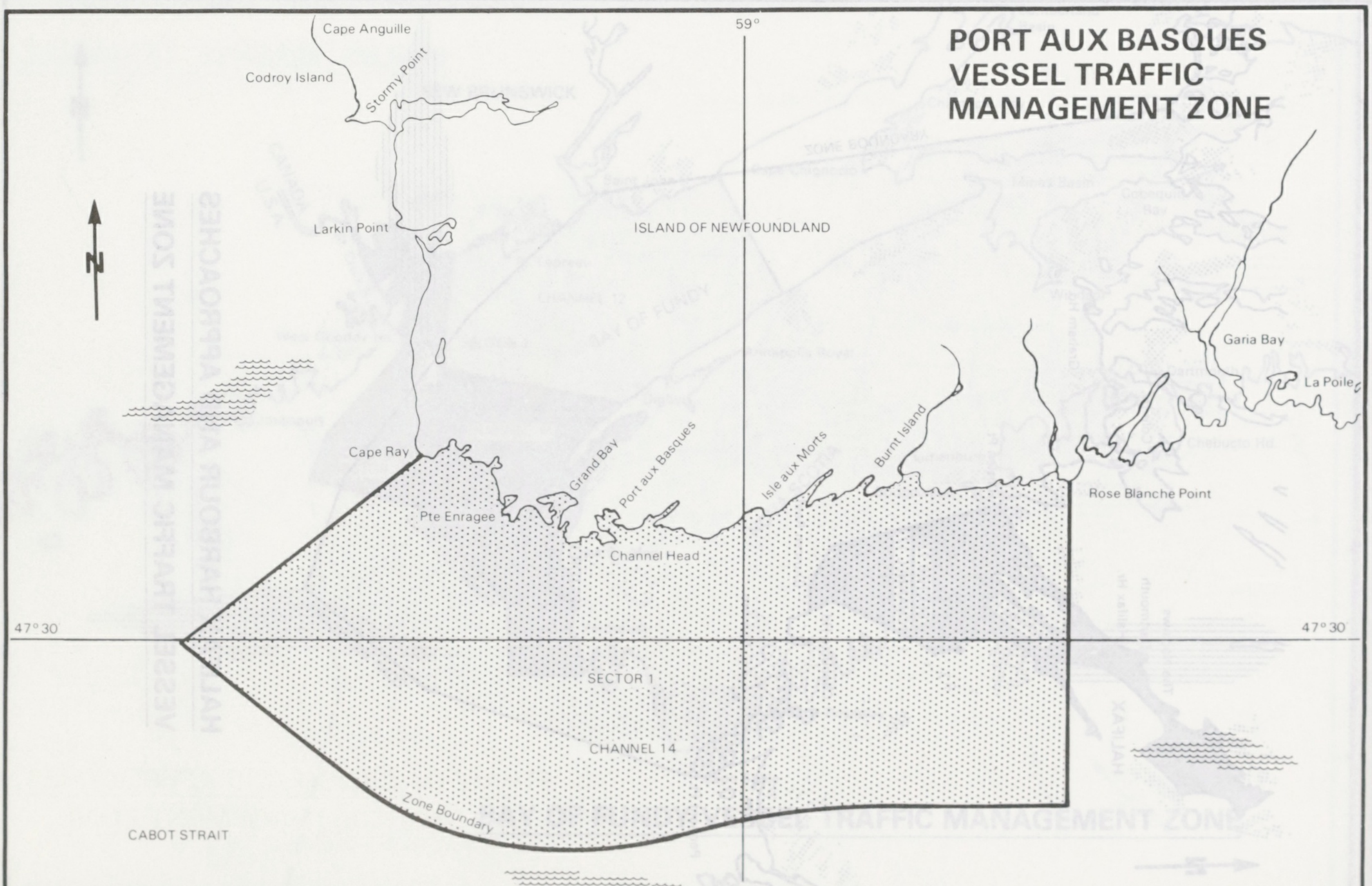

Ungava Bay
Labrador
ST. LAWRENCE WATERWAY VTM ZONE
EASTERN CANADA VTM ZONE
Gulf of St. Lawrence
Newfoundland
Quebec
ST. JOHN'S HARBOUR VTM ZONE
PORT AUX BASQUES VTM ZONE
PLACENTIA BAY VTM ZONE
New Brunswick
Prince Edward Island
STRAIT OF CANSO VTM ZONE
BAY OF FUNDY VTM ZONE
Nova Scotia
HALIFAX HARBOUR VTM ZONE
United States

EASTERN CANADA TRAFFIC ZONE



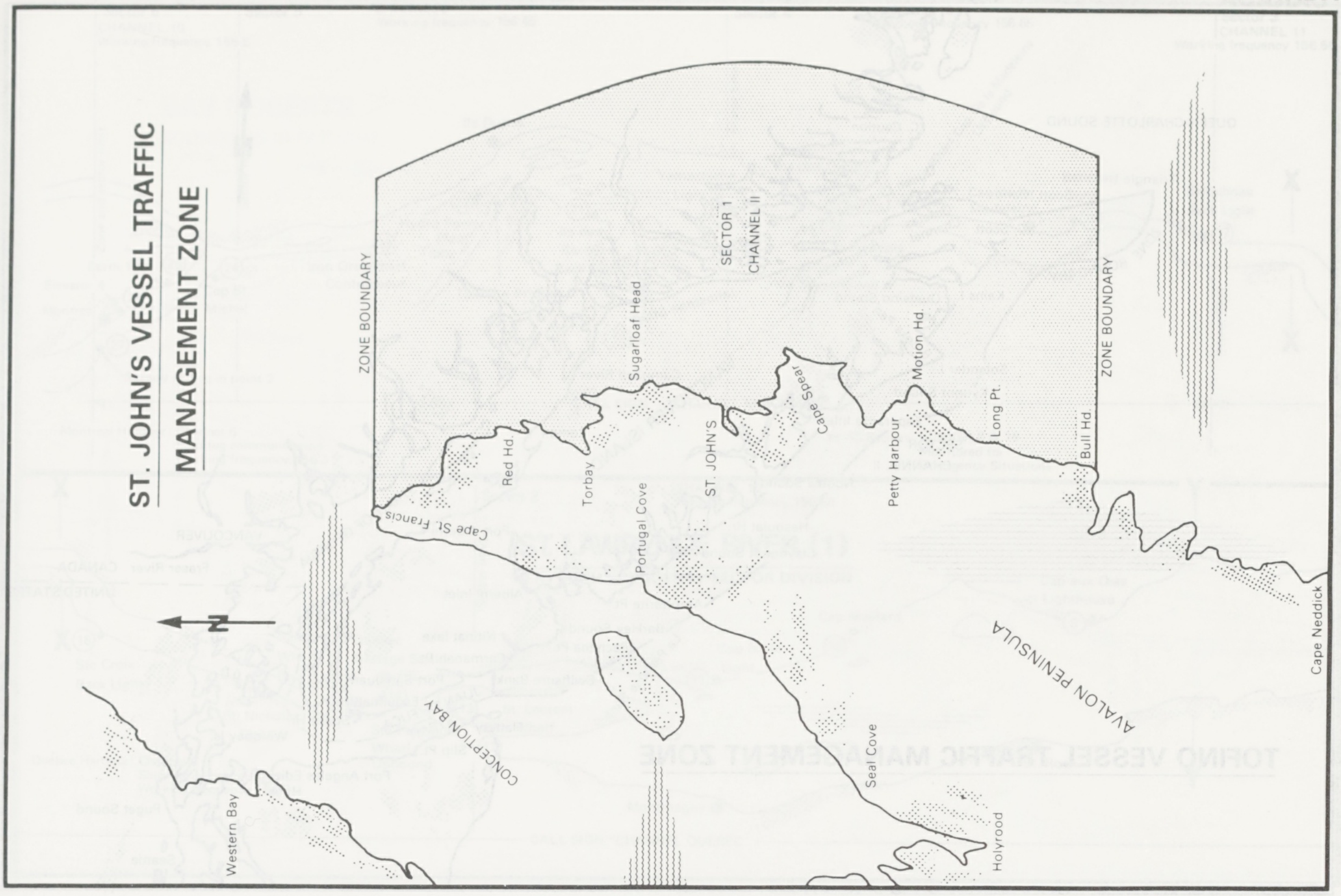
PLACENTIA BAY VESSEL TRAFFIC MANAGEMENT ZONE

N
BURIN PENINSULA
Corbin Hd
Western Hd
PLACENTIA BAY
Zone Boundary
SECTOR 1
CHANNEL 14
St Joseph's
Long Island
SECTOR 2
CHANNEL 12
Red Island
Merasheen Island
Adams Hd
Long Island
Come by Chance
Argentia
Cape St Mary's
AVALON PENINSULA
ST MARY'S BAY



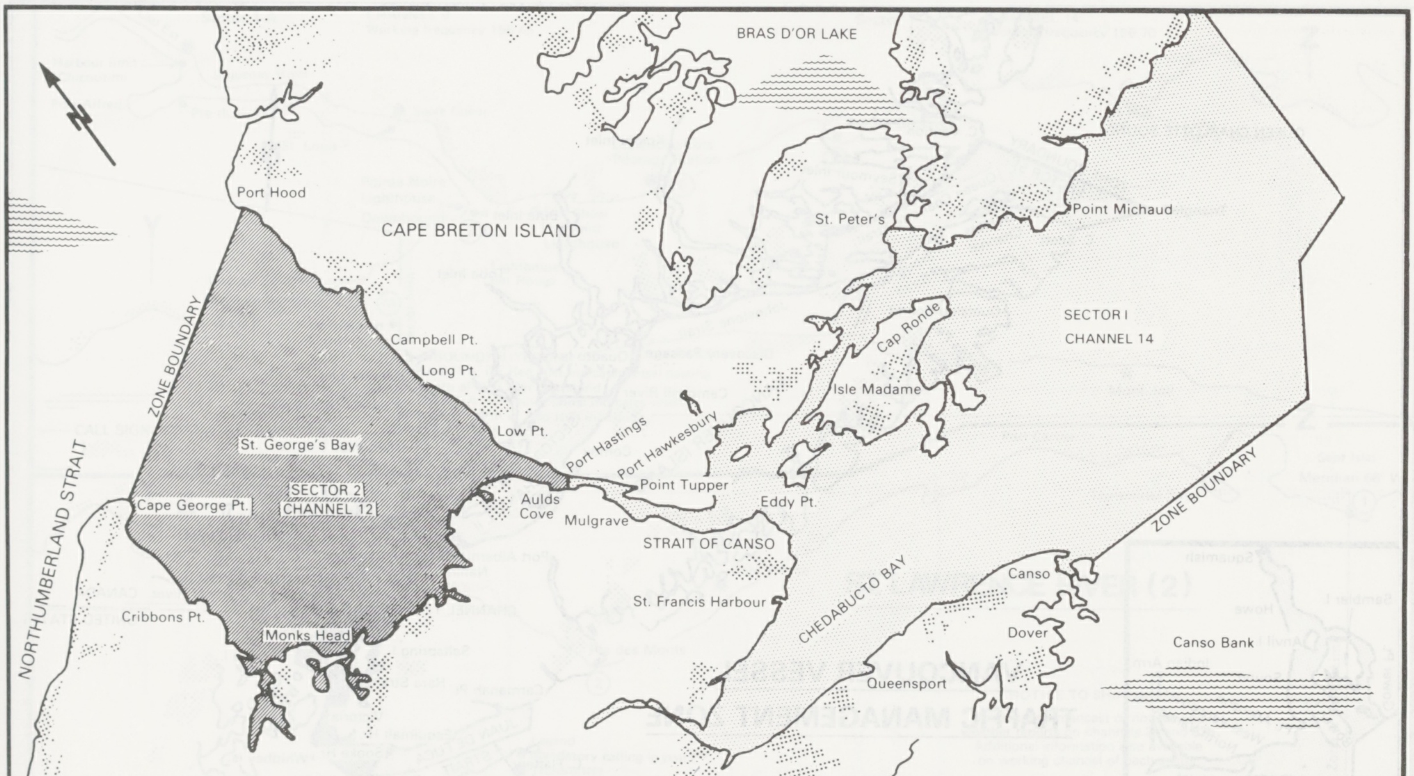
PORT AUX BASQUES VESSEL TRAFFIC MANAGEMENT ZONE

N
59°
Cape Anguille
Codroy Island
Stormy Point
Larkin Point
ISLAND OF NEWFOUNDLAND
Garia Bay
La Poile
Cape Ray
Grand Bay
Port aux Basques
Isle aux Morts
Burnt Island
Rose Blanche Point
Pte Enragee
Channel Head
47° 30
47° 30
SECTOR 1
CHANNEL 14
Zone Boundary
CABOT STRAIT
59°



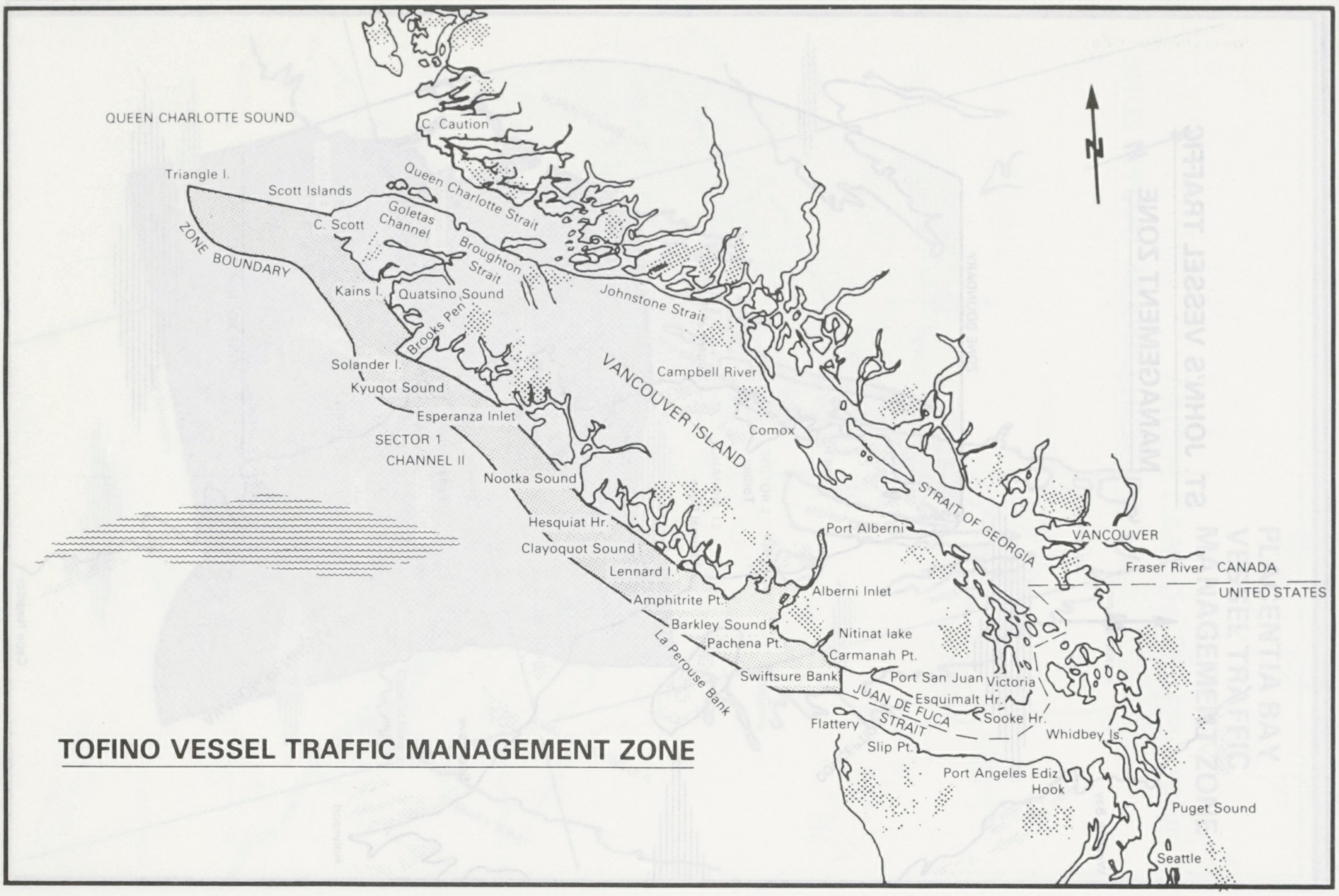
ST. JOHN'S VESSEL TRAFFIC MANAGEMENT ZONE

ZONE BOUNDARY
SECTOR 1
CHANNEL II
Sugarloaf Head
Motion Hd
Cape Spear
Long Pt
Bull Hd
ZONE BOUNDARY
Red Hd
Torbay
ST. JOHN'S
Petty Harbour
Cape St. Francis
Portugal Cove
N
AVALON PENINSULA
Cape Neddick
CONCEPTION BAY
Seal Cove
Western Bay
Holyrood



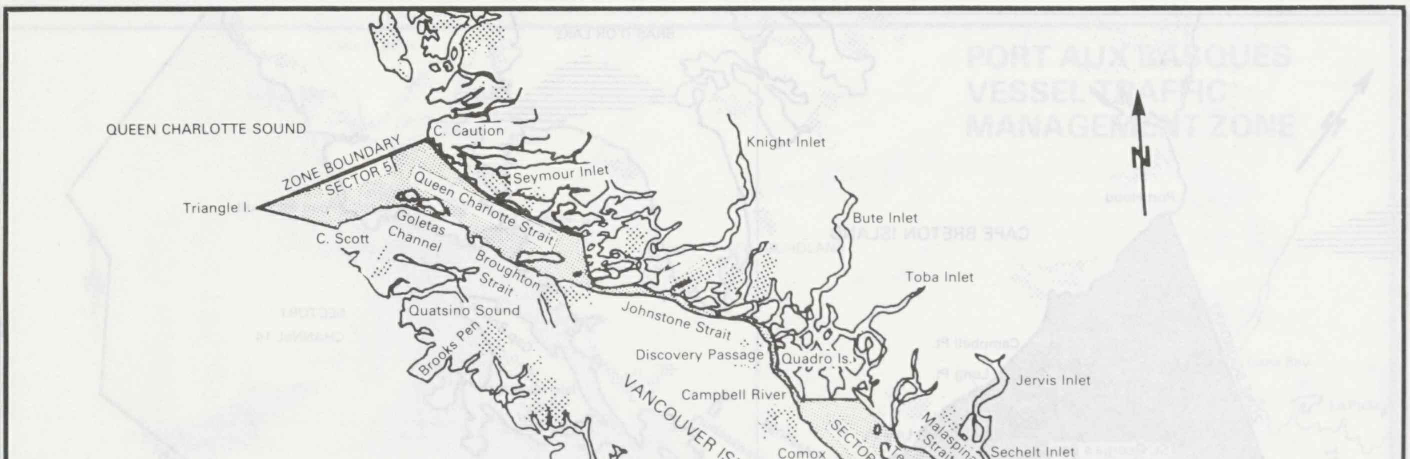
THE STRAIT OF CANSO AND APPROACHES VESSEL TRAFFIC MANAGEMENT ZONE

N
BRAS D'OR LAKE
Port Hood
CAPE BRETON ISLAND
St. Peter's
Point Michaud
SECTOR I
CHANNEL 14
Cap Ronde
Isle Madame
Campbell Pt.
Long Pt.
ZONE BOUNDARY
Low Pt.
St. George's Bay
Port Hastings
Port Hawkesbury
Point Tupper
Eddy Pt.
ZONE BOUNDARY
SECTOR 2
CHANNEL 12
Cape George Pt.
Aulds Cove
Mulgrave
STRAIT OF CANSO
NORTHUMBERLAND STRAIT
Canso
CHEDABUCTO BAY
St. Francis Harbour
Cribbons Pt.
Dover
Monks Head
Canso Bank
Queensport
NOVA SCOTIA



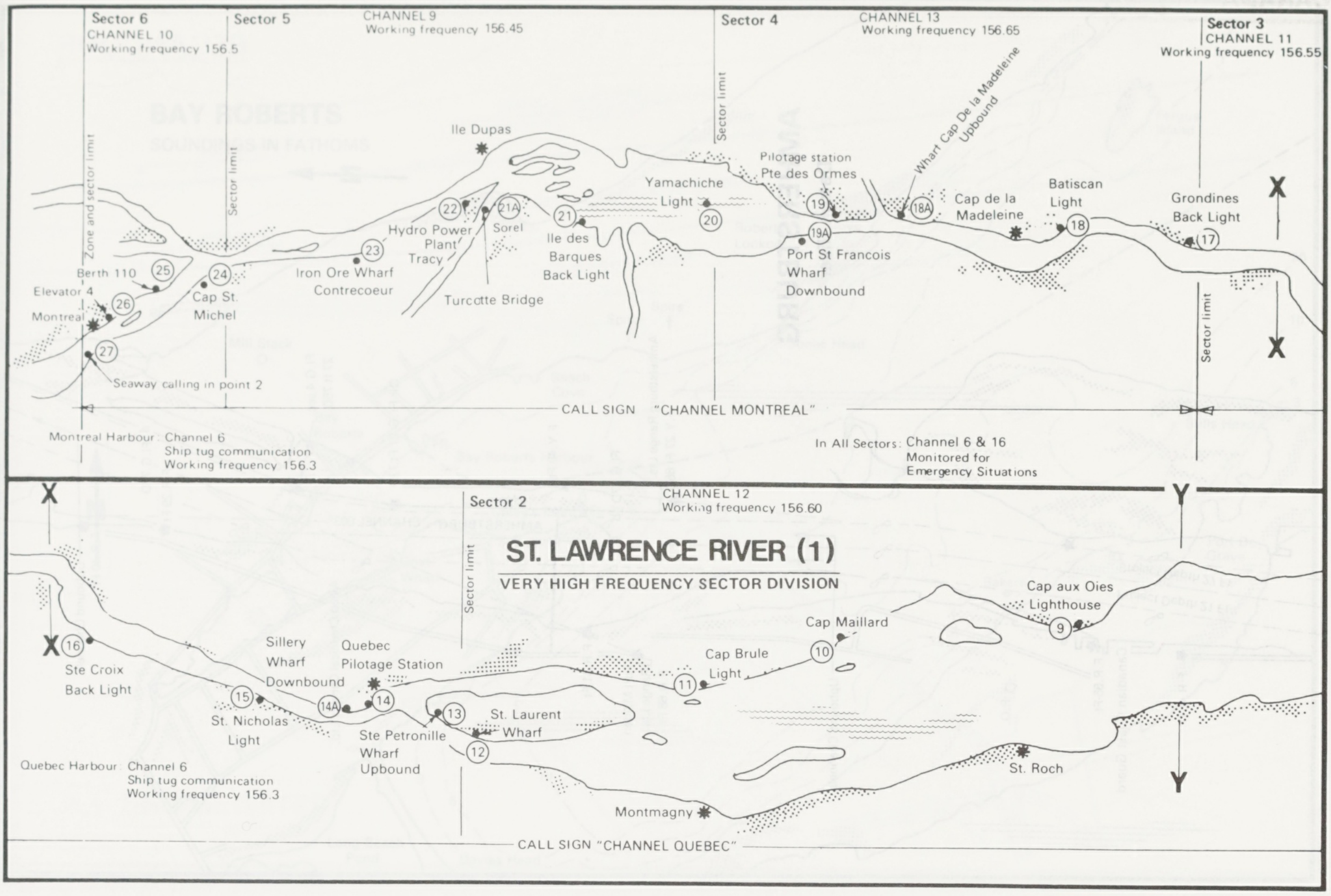
TOFINO VESSEL TRAFFIC MANAGEMENT ZONE

QUEEN CHARLOTTE SOUND
C. Caution
Triangle I.
Scott Islands
Queen Charlotte Strait
C. Scott
Goletas Channel
ZONE BOUNDARY
Broughton Strait
Kains I.
Quatsino Sound
Johnstone Strait
Brooks Pen
Solander I.
Kyuqot Sound
Campbell River
VANCOUVER ISLAND
Esperanza Inlet
SECTOR 1
CHANNEL II
Comox
Nootka Sound
STRAIT OF GEORGIA
Port Alberni
VANCOUVER
Hesquiat Hr.
Clayoquot Sound
Fraser River
CANADA
UNITED STATES
Lennard I.
Alberni Inlet
Amphitrite Pt.
Barkley Sound
Nitinat lake
Pachena Pt.
Carmanah Pt.
La Perouse Bank
Swiftsure Bank
Port San Juan
Victoria
Esquimalt Hr.
JUAN DE FUCA STRAIT
Sooke Hr.
Flattery
Whidbey Is.
Slip Pt.
Port Angeles Ediz Hook
Puget Sound
Seattle
N



VANCOUVER VESSEL TRAFFIC MANAGEMENT ZONE

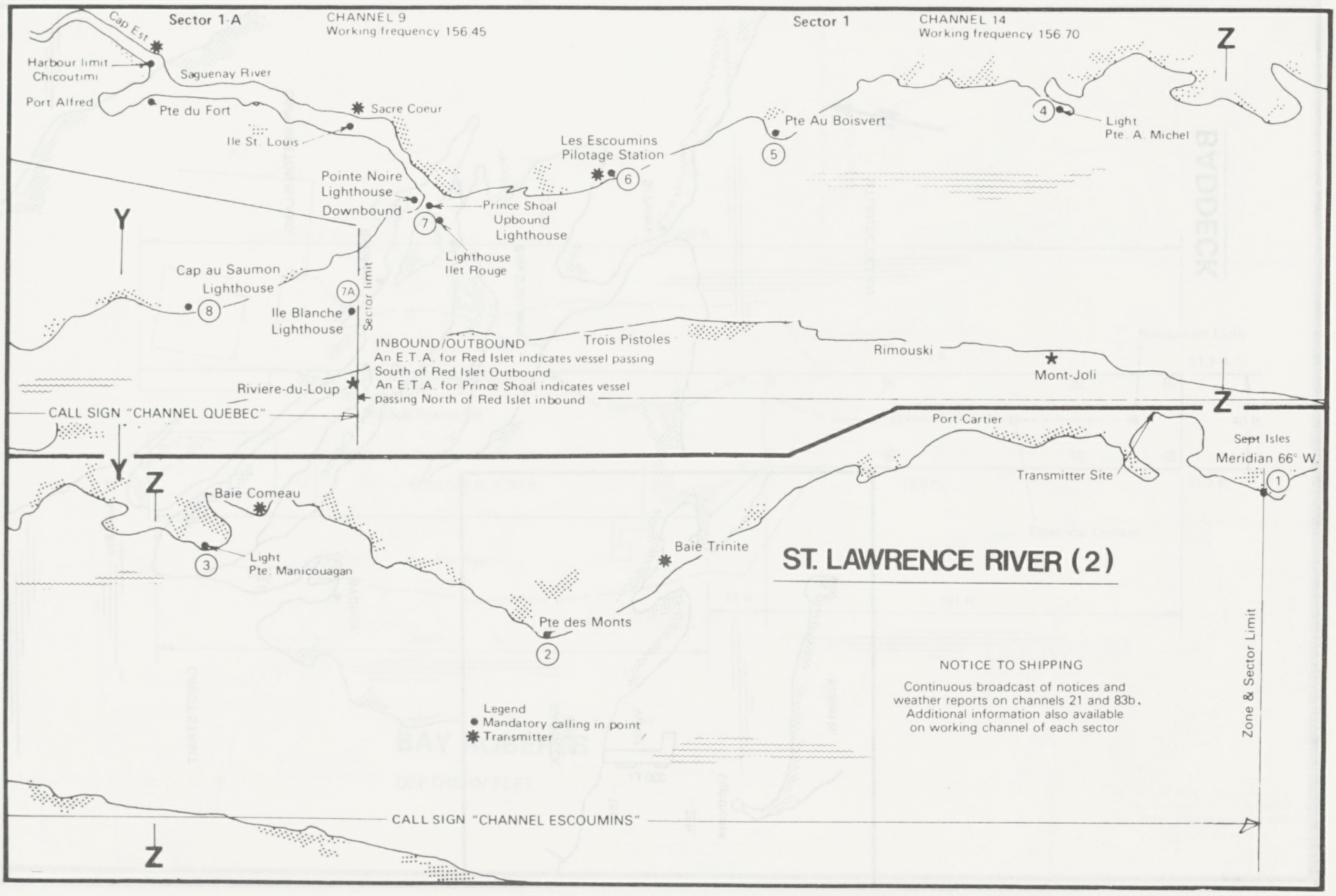
QUEEN CHARLOTTE SOUND
C. Caution
Knight Inlet
ZONE BOUNDARY
SECTOR 5
Seymour Inlet
Triangle I.
Queen Charlotte Strait
Bute Inlet
C. Scott
Goletas Channel
Broughton Strait
Toba Inlet
Quatsino Sound
Johnstone Strait
Brooks Pen
Discovery Passage
Quadro Is.
Jervis Inlet
Campbell River
VANCOUVER ISLAND
Malaspina Strait
Comox
SECTOR 5
CHANNEL II
Texada Is.
Sechelt Inlet
SEE INSET
SECTOR 3
Howe Sound
Burrard Inlet
Pt. Grey
Port Alberni
Vancouver
Nanimo
SECTOR 2
SECTOR 4
CHANNEL 11
Fraser River
CANADA
UNITED STATES
Mayne I.
Saltspring I.
Saturna I.
Hara Strait
Carmanah Pt.
Victoria
Esquimalt Hr.
JUAN DE FUCA STRAIT
Sooke Hr.
Whidbey Is.
C. Flattery
Slip Pt.
ZONE BOUNDARY
SEATTLE TRAFFIC SECTOR 1 CHANNEL 14
Port Angeles Ediz Hook
Puget Sound
Seattle
N
Squamish
Sambier I.
Howe
Anvil I.
Gower Pt.
Sound
Indian Arm
Bowen I.
Pt. Atkinson
West Vancouver
North Vancouver
Burrard Inlet
Pt. Grey
Vancouver
Port Moody
SECTOR 3
CHANNEL 12
Lulu I.
Sand Heads
Fraser River
SECTOR 4
CHANNEL 74



ST. LAWRENCE RIVER (1)

VERY HIGH FREQUENCY SECTOR DIVISION

Sector 6
CHANNEL 10
Working frequency 156.5
Sector 5
CHANNEL 9
Working frequency 156.45
Sector 4
CHANNEL 13
Working frequency 156.65
Sector 3
CHANNEL 11
Working frequency 156.55
Zone and sector limit
Sector limit
Sector limit
Sector limit
Ile Dupas
Wharf Cap De la Madeleine Upbound
Pilotage station Pte des Ormes
Yamachiche Light
Batiscan Light
Grondines Back Light
Cap de la Madeleine
Hydro Power Plant
Sorel
Ile des Barques Back Light
Tracy
Port St Francois Wharf Downbound
Berth 110
Elevator 4
Montreal
Cap St. Michel
Iron Ore Wharf Contrecoeur
Turcotte Bridge
Seaway calling in point 2
X
X
16 17 18 18A 19 19A 20 21 21A 22 23 24 25 26 27
CALL SIGN "CHANNEL MONTREAL"
Montreal Harbour: Channel 6
Ship tug communication
Working frequency 156.3
In All Sectors: Channel 6 & 16
Monitored for
Emergency Situations
X
Sector 2
CHANNEL 12
Working frequency 156.60
Y
Sector limit
Cap aux Oies Lighthouse
Cap Maillard
Cap Brule Light
X
Ste Croix Back Light
Sillery Wharf Downbound
Quebec Pilotage Station
St. Nicholas Light
St. Laurent Wharf
Ste Petronille Wharf Upbound
St. Roch
Montmagny
Y
9 10 11 12 13 14 14A 15 16
Quebec Harbour: Channel 6
Ship tug communication
Working frequency 156.3
CALL SIGN "CHANNEL QUEBEC"

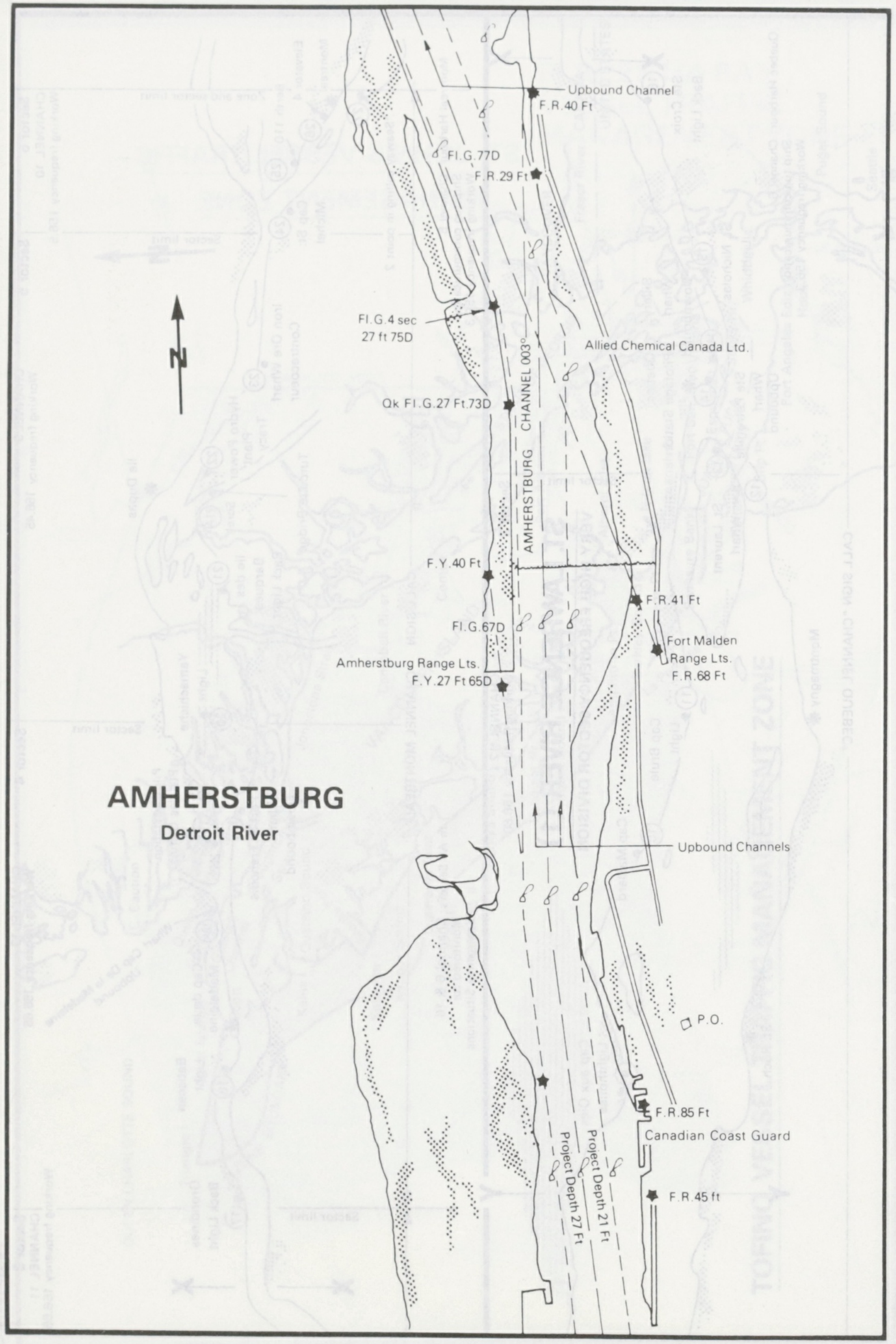


ST. LAWRENCE RIVER (2)

Cap Est
Sector 1-A
CHANNEL 9
Working frequency 156.45
Sector 1
CHANNEL 14
Working frequency 156.70
Z
Harbour limit Chicoutimi
Saguenay River
Port Alfred
Pte du Fort
Sacre Coeur
Ile St. Louis
Pte Au Boisvert
Light Pte. A. Michel
Les Escoumins Pilotage Station
Pointe Noire Lighthouse Downbound
Prince Shoal Upbound Lighthouse
Lighthouse Ilet Rouge
Y
Cap au Saumon Lighthouse
Ile Blanche Lighthouse
Sector limit
INBOUND/OUTBOUND
An E.T.A. for Red Islet indicates vessel passing
South of Red Islet Outbound
An E.T.A. for Prince Shoal indicates vessel
passing North of Red Islet inbound
Trois Pistoles
Rimouski
Mont-Joli
Riviere-du-Loup
CALL SIGN "CHANNEL QUEBEC"
Z
Port Cartier
Sept Isles
Meridian 66° W.
Transmitter Site
Y
Z
Baie Comeau
Light Pte. Manicouagan
Baie Trinite
Pte des Monts
Zone & Sector Limit
1 2 3 4 5 6 7 7A 8
Legend
Mandatory calling in point
Transmitter
CALL SIGN "CHANNEL ESCOUMINS"
Z

NOTICE TO SHIPPING

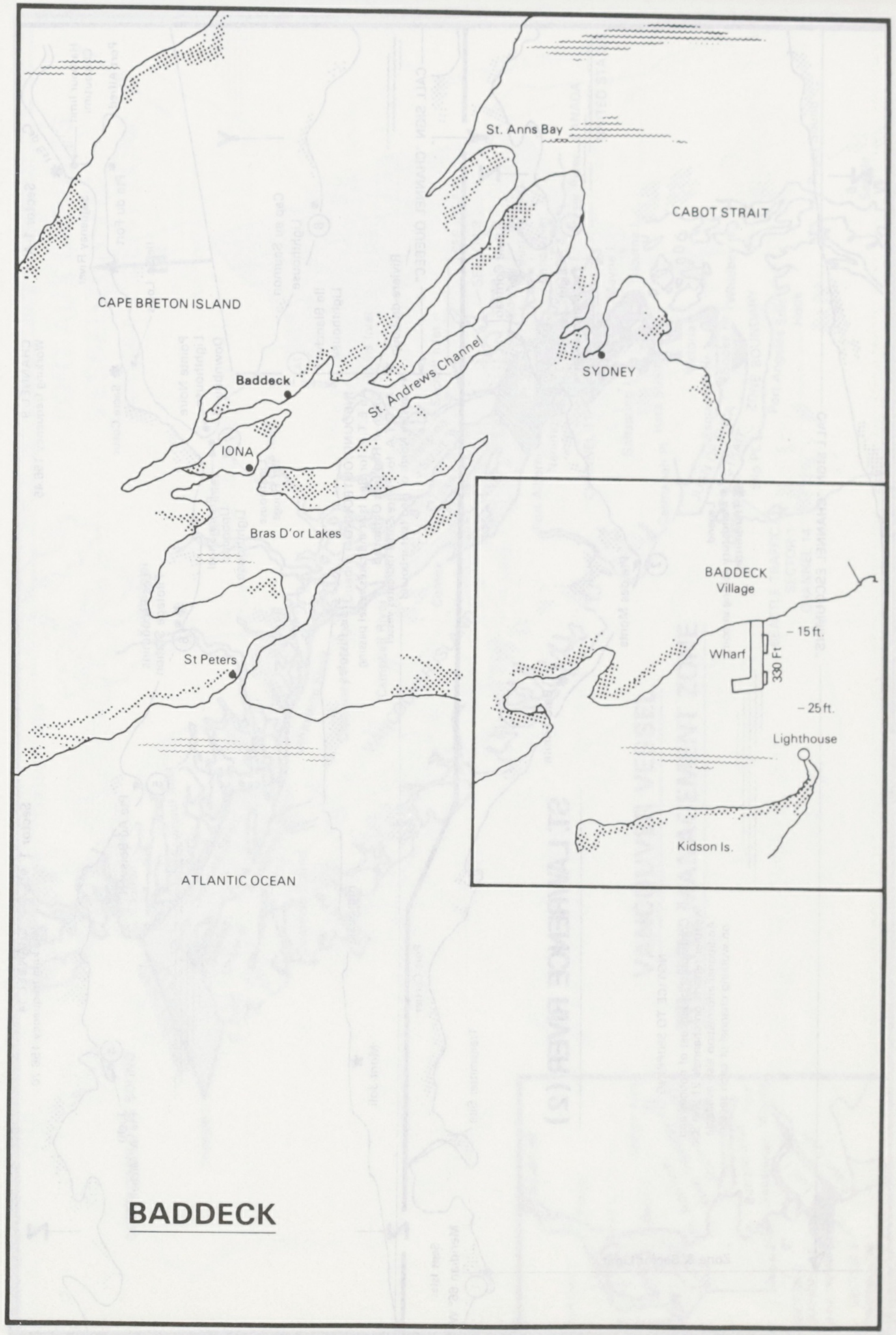
Continuous broadcast of notices and weather reports on channels 21 and 83b. Additional information also available on working channel of each sector



AMHERSTBURG

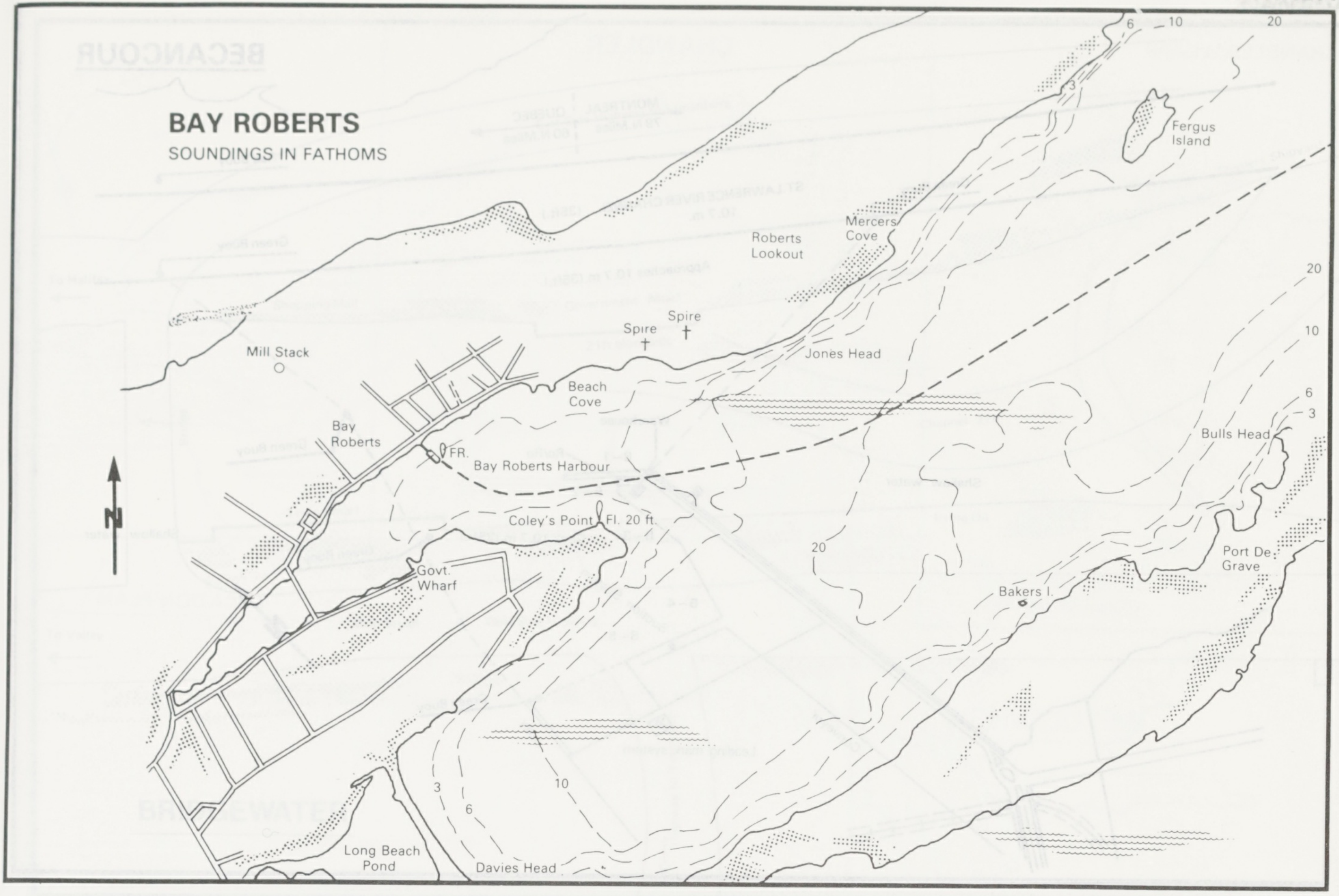
Detroit River

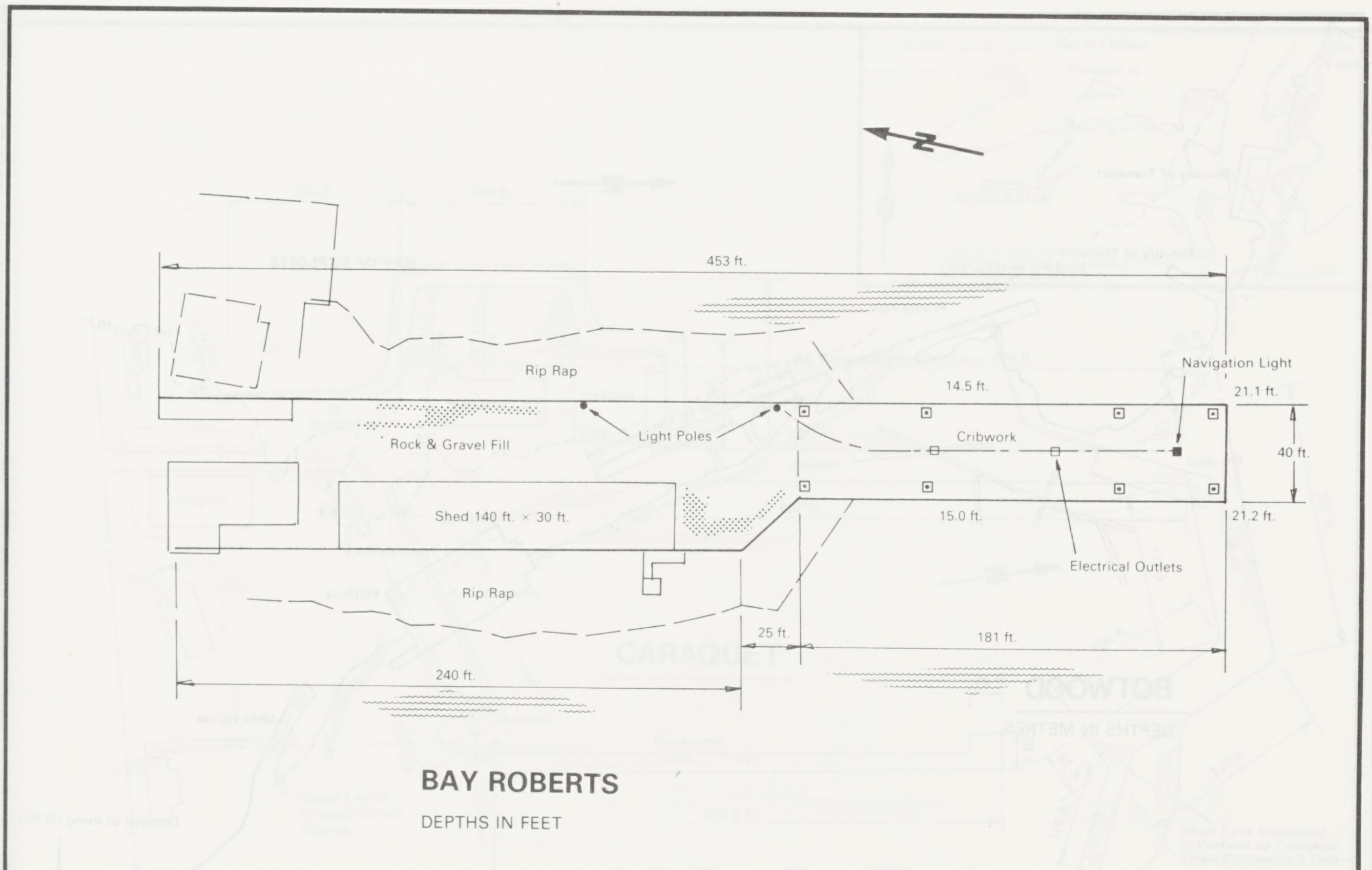
N
Upbound Channel
F.R.40 Ft
Fl.G.77D
F.R.29 Ft
Fl.G.4 sec
27 ft 75D
Allied Chemical Canada Ltd.
Qk Fl.G.27 Ft.73D
AMHERSTBURG CHANNEL 003°
F.Y.40 Ft
F.R.41 Ft
Fl.G.67D
Fort Malden
Range Lts.
F.R.68 Ft
Amherstburg Range Lts.
F.Y.27 Ft 65D
Upbound Channels
P.O.
F.R.85 Ft
Canadian Coast Guard
Project Depth 21 Ft
Project Depth 27 Ft
F.R.45 ft

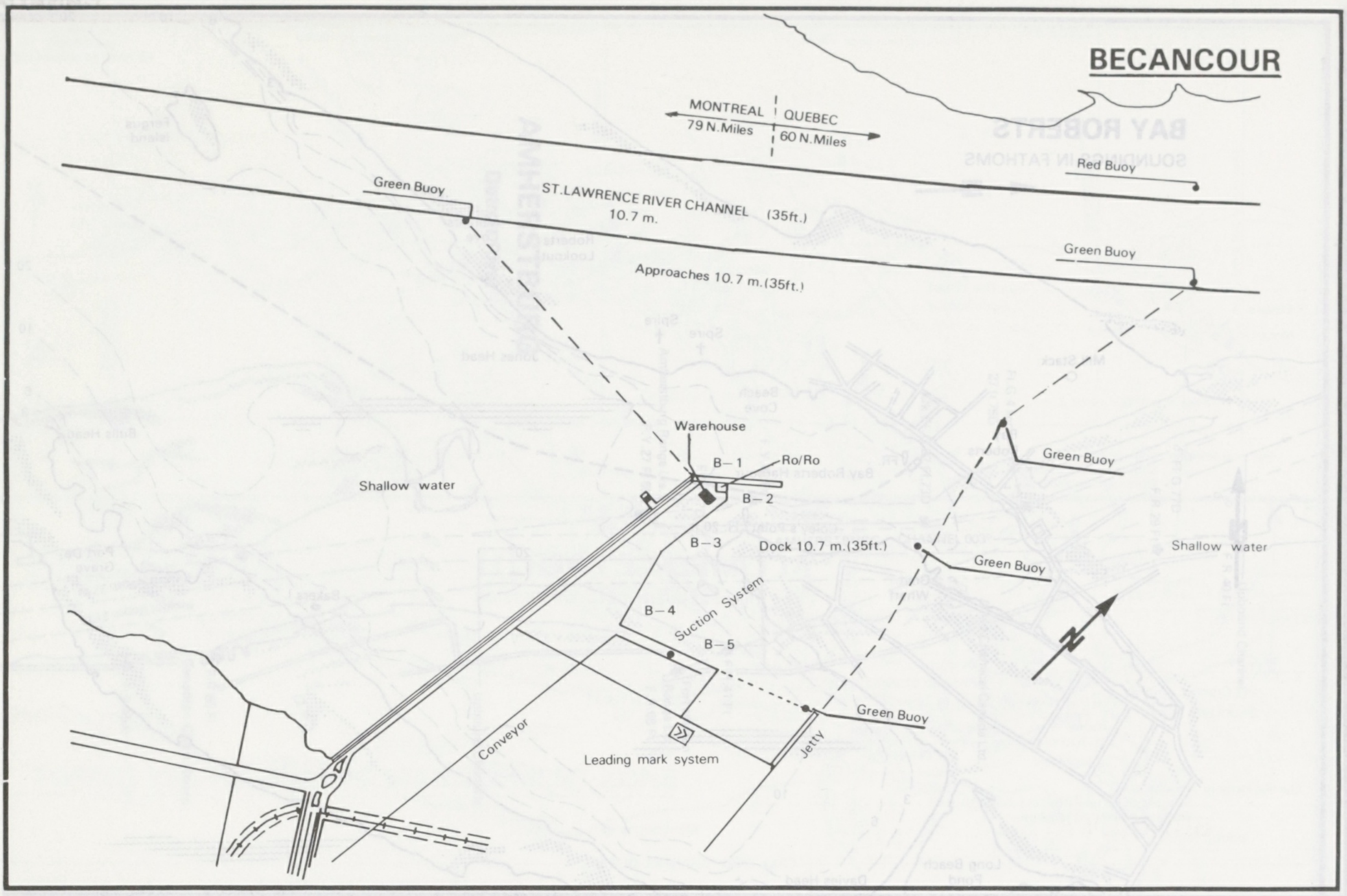


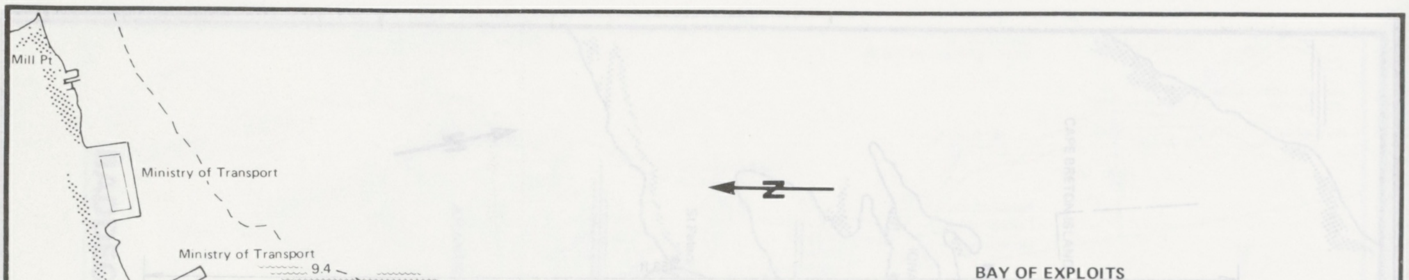
BADDECK

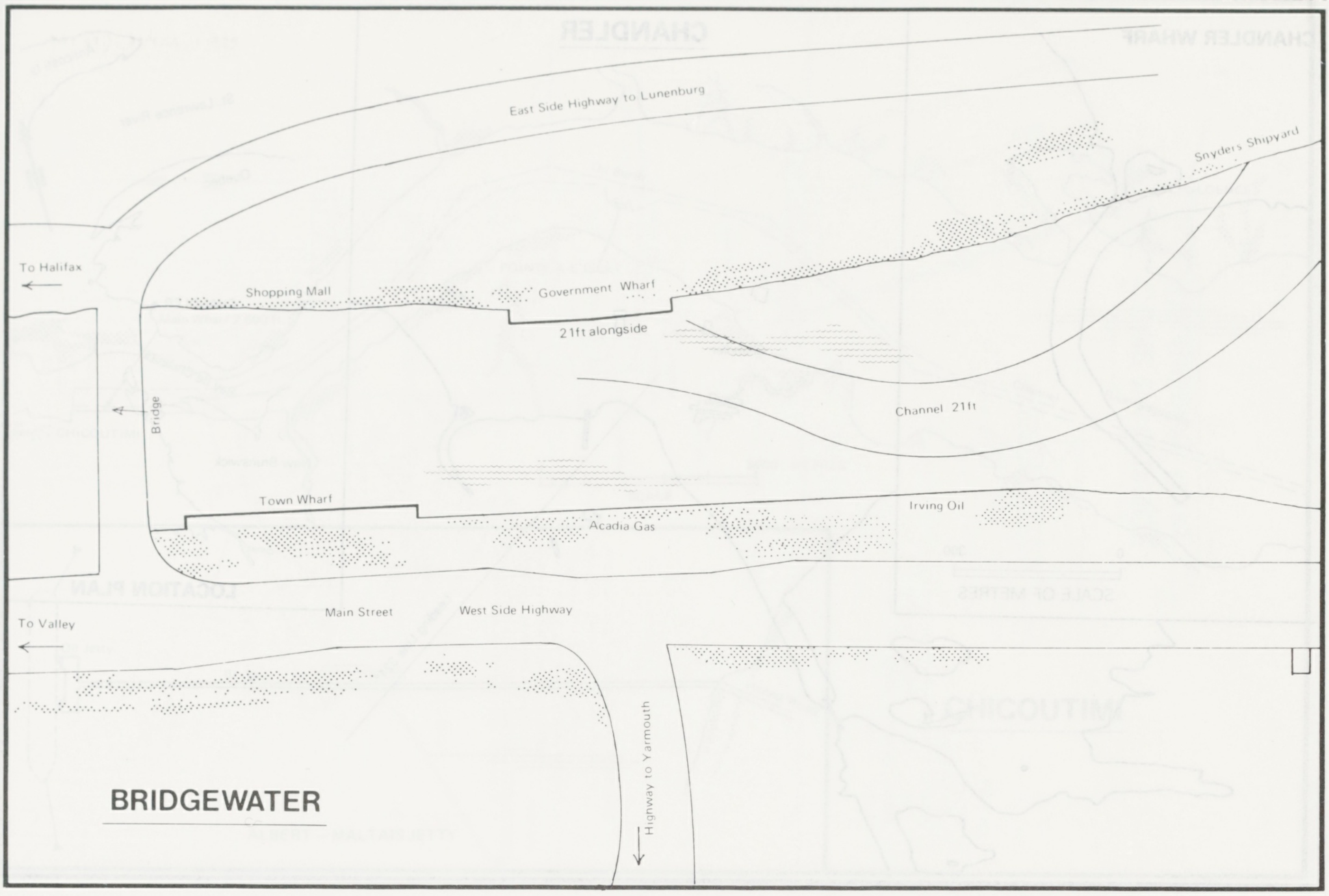
St. Anns Bay
CABOT STRAIT
CAPE BRETON ISLAND
St. Andrews Channel
SYDNEY
Baddeck
IONA
Bras D'or Lakes
St Peters
ATLANTIC OCEAN
BADDECK
Village
Wharf
330 Ft
– 15 ft.
– 25 ft.
Lighthouse
Kidson Is.


BAY ROBERTS
SOUNDINGS IN FATHOMS
6
10
20
3
Fergus Island
Mercers Cove
Roberts Lookout
20
10
6
3
Spire
Spire
Mill Stack
Jones Head
Beach Cove
Bay Roberts
Bulls Head
FR.
Bay Roberts Harbour
Coley's Point
Fl. 20 ft.
N
20
Port De Grave
Govt. Wharf
Bakers I.
10
3
6
Long Beach Pond
Davies Head


N
453 ft.
Navigation Light
Rip Rap
14.5 ft.
21.1 ft.
Light Poles
Cribwork
40 ft.
Rock & Gravel Fill
Shed 140 ft. × 30 ft.
15.0 ft.
21.2 ft.
Electrical Outlets
Rip Rap
25 ft.
181 ft.
240 ft.
BAY ROBERTS
DEPTHS IN FEET

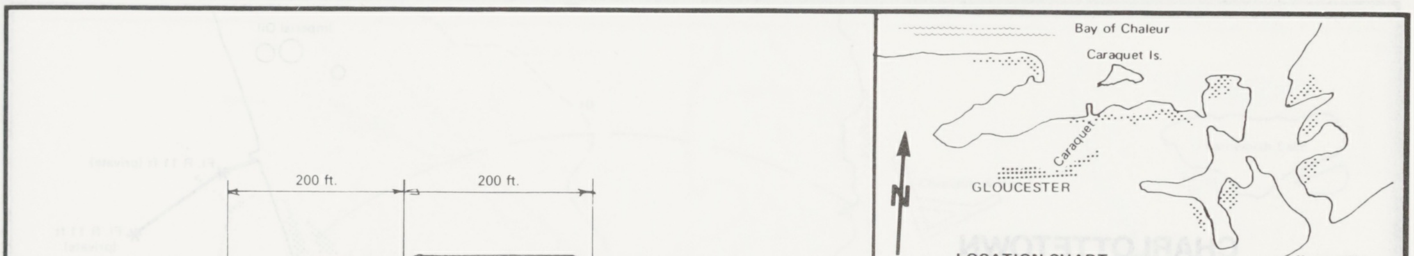

BECANCOUR
MONTREAL
79 N.Miles
QUEBEC
60 N.Miles
Red Buoy
Green Buoy
ST.LAWRENCE RIVER CHANNEL 10.7 m. (35ft.)
Green Buoy
Approaches 10.7 m.(35ft.)
Warehouse
B – 1
Ro/Ro
B – 2
Green Buoy
Shallow water
B – 3
Dock 10.7 m.(35ft.)
Green Buoy
Shallow water
B – 4
Suction System
B – 5
Green Buoy
Jetty
Conveyor
Leading mark system


Mill Pt
Ministry of Transport
Ministry of Transport
9.4
10.5
Private Pier
9.5
Unfit for Use
10.2
9.4
BAY OF EXPLOITS
10
10
11
9.4
Ore shed
FR(Priv)
Price Pier No 1
FR(Priv)
BOTWOOD
DEPTHS IN METRES
Unfit for use
Location of Irving Oil Pier



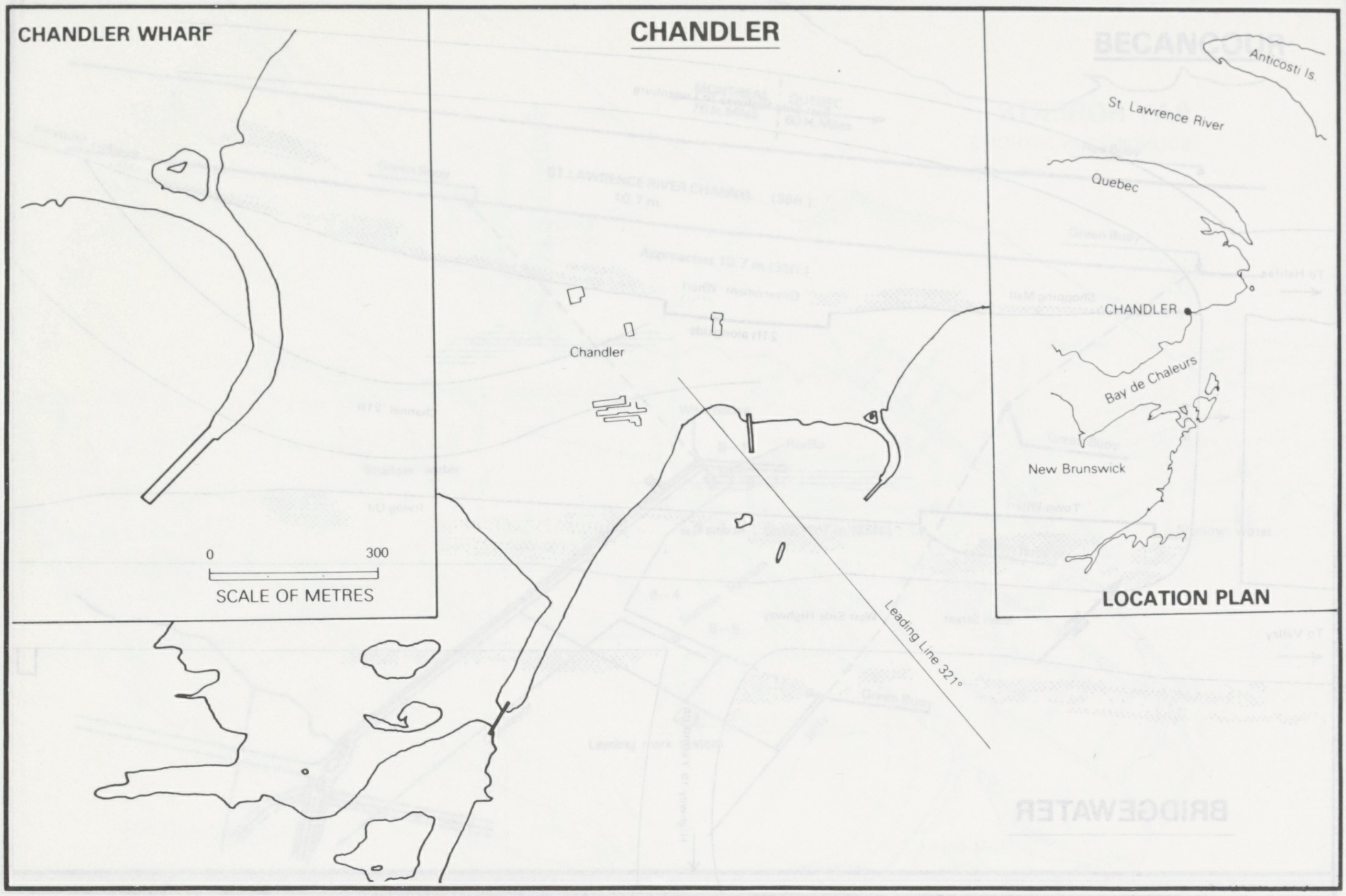
BRIDGEWATER

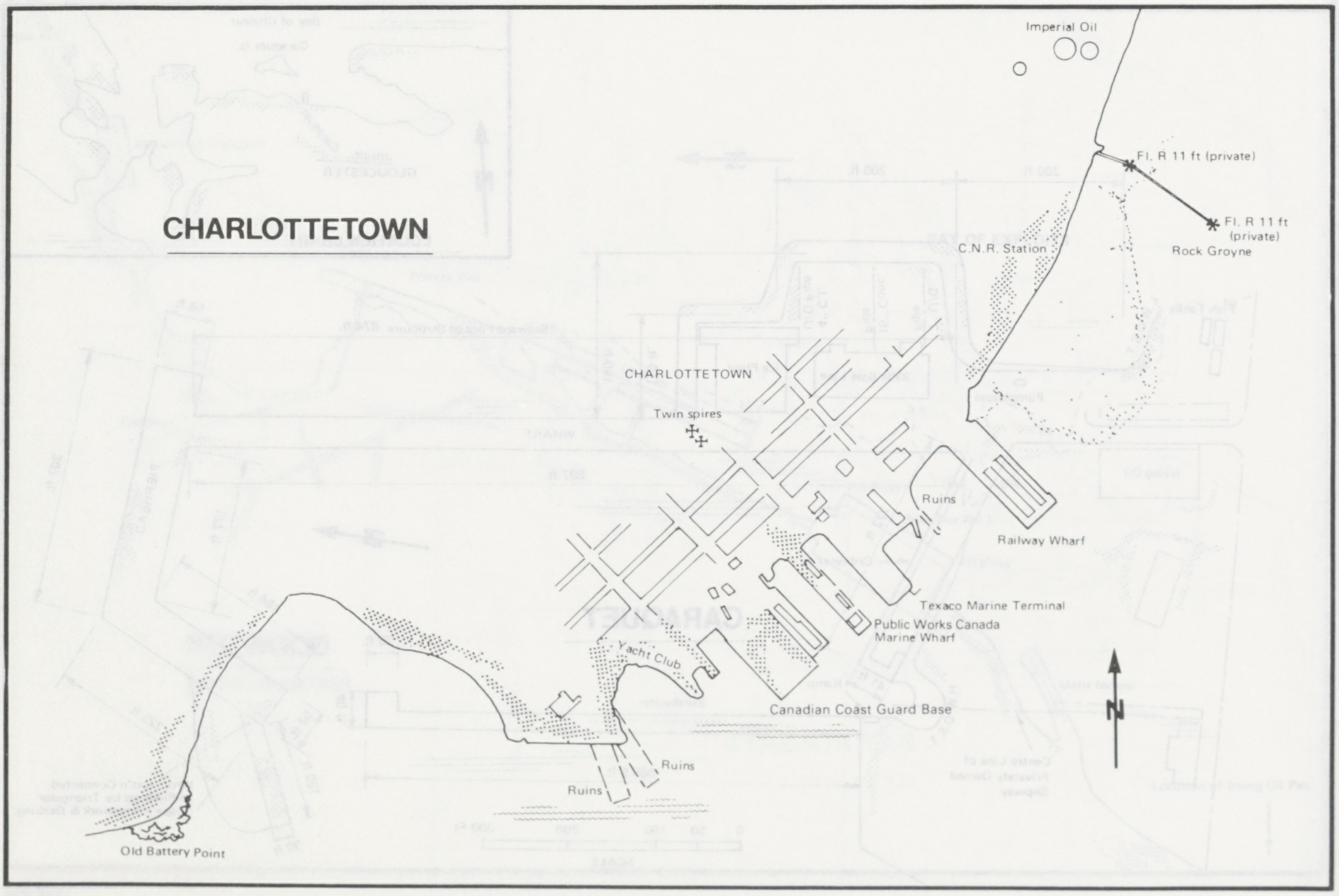
East Side Highway to Lunenburg
Snyders Shipyard
To Halifax
Shopping Mall
Government Wharf
21ft alongside
Bridge
Channel 21ft
Town Wharf
Irving Oil
Acadia Gas
Main Street
West Side Highway
To Valley
Highway to Yarmouth

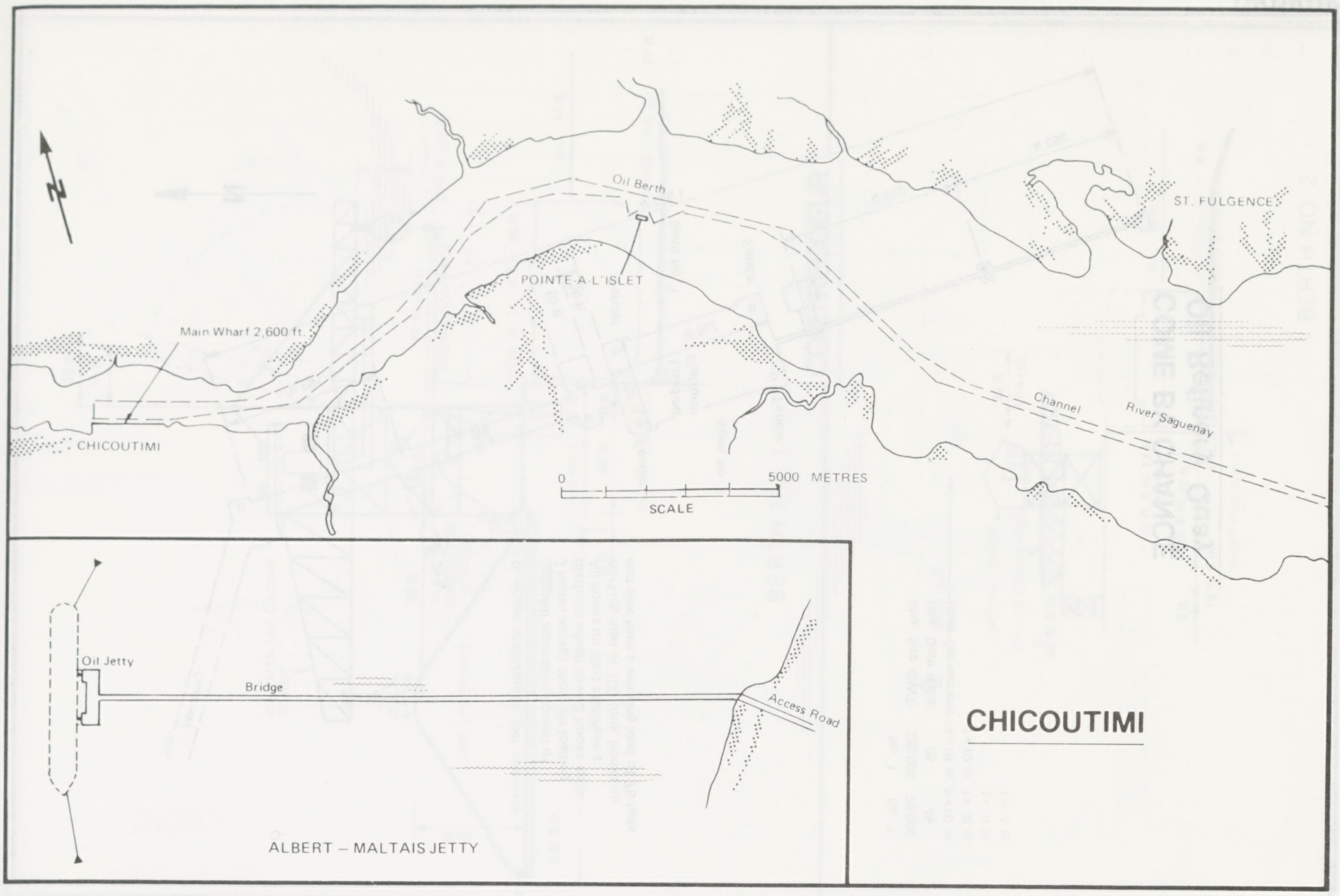


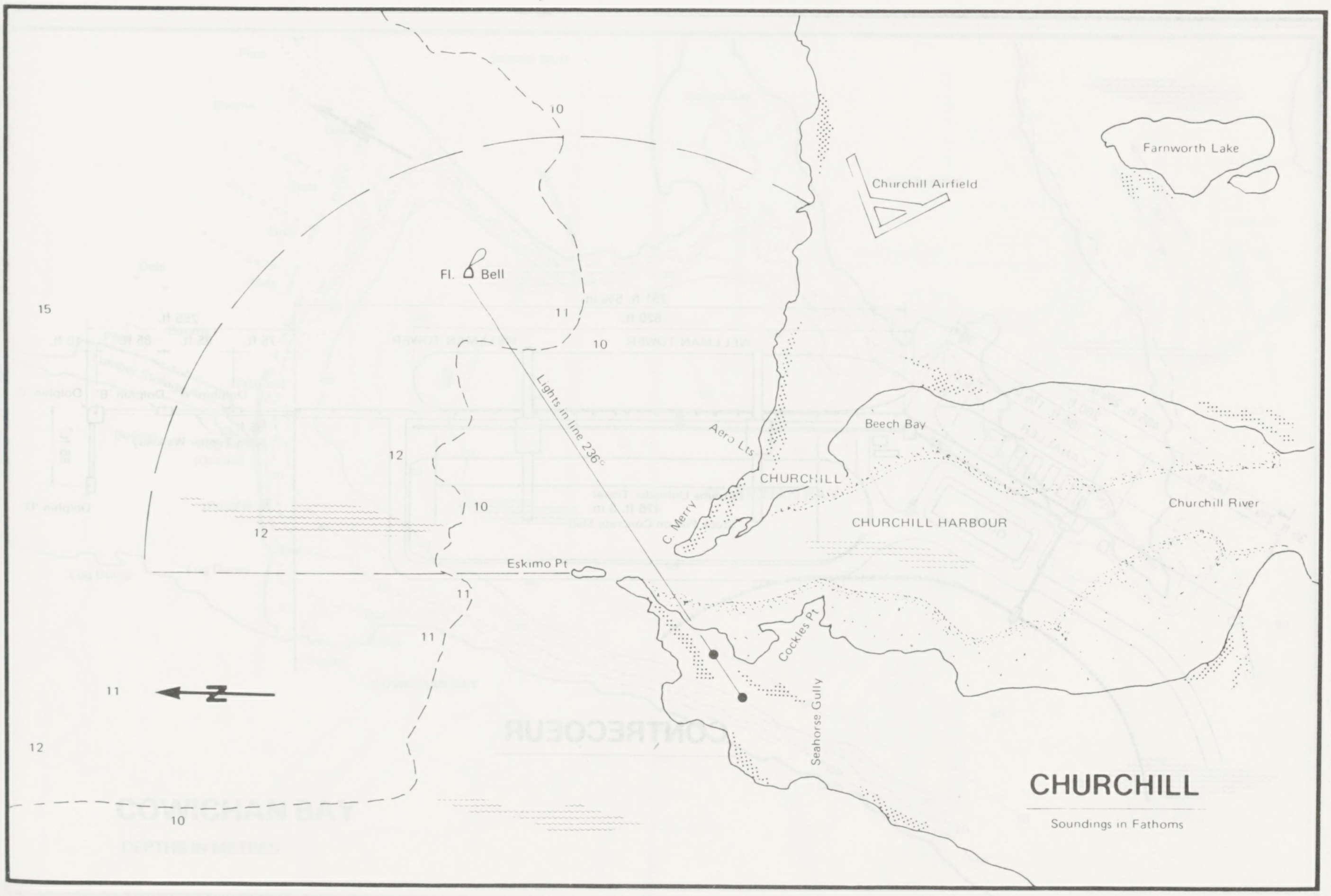
CARAQUET

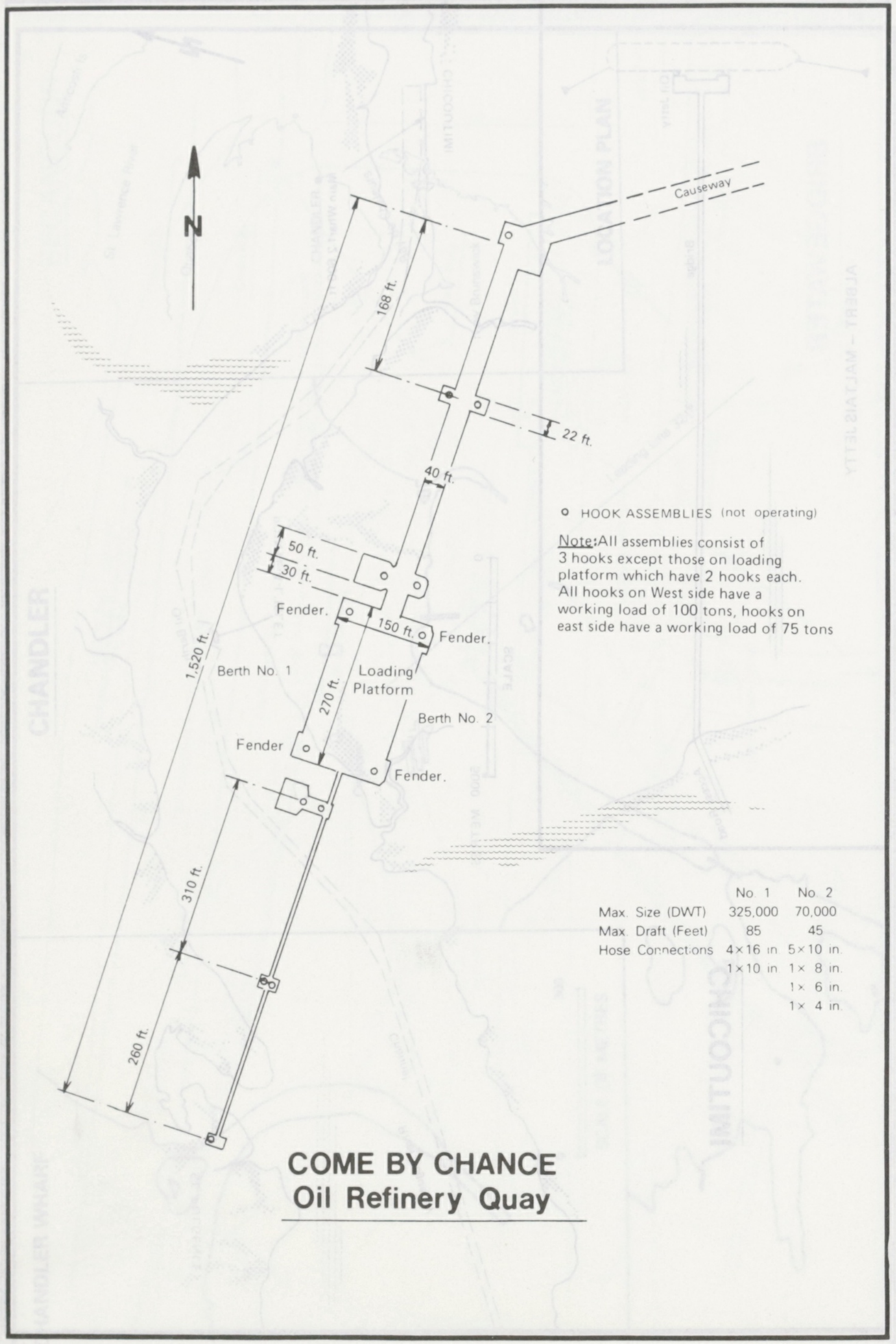
Bay of Chaleur
Caraquet Is.
Caraquet
GLOUCESTER
N
LOCATION CHART
200 ft.
200 ft.
Fish Tanks
L.W.O.S.T.
2" U/G Pipe
15" Conc. Pipe
4" C.I. U/G Pipe
Belle Baie Ltee
Ice Plant
110 ft.
180 ft.
Seaward Face of Structure 874 ft.
58 ft.
Pumphouse
WHARF
Irving Oil
887 ft.
307 ft.
PIERHEAD
177 ft.
272 ft.
Cribwork
N
184 ft.
35 ft.
H.W.O.S.T.
41 ft.
Ramp
Breakwater
40 ft.
52 ft.
225 ft.
Centre Line of Privately Owned Slipway
565.5 ft.
120 ft.
Wharf Ext'n Connected to Pierhead by Triangular Shape Bridgework & Decking
0
50
100
200
300 Ft
SCALE
30 ft.


CHANDLER WHARF
CHANDLER
0
300
SCALE OF METRES
Chandler
Leading Line 321°
Anticosti Is.
St. Lawrence River
Quebec
CHANDLER
Bay de Chaleurs
New Brunswick
LOCATION PLAN


CHARLOTTETOWN
Imperial Oil
Fl. R 11 ft (private)
Fl. R 11 ft (private)
Rock Groyne
C.N.R. Station
CHARLOTTETOWN
Twin spires
Ruins
Railway Wharf
Texaco Marine Terminal
Public Works Canada Marine Wharf
Yacht Club
Canadian Coast Guard Base
N
Ruins
Ruins
Old Battery Point


N
Oil Berth
ST. FULGENCE
POINTE-A-L'ISLET
Main Wharf 2,600 ft.
CHICOUTIMI
Channel
River Saguenay
0
5000 METRES
SCALE
Oil Jetty
Bridge
Access Road
ALBERT – MALTAIS JETTY
CHICOUTIMI


10
Farnworth Lake
Churchill Airfield
Fl. Bell
15
11
10
Lights in line 236°
Aero Lts
Beech Bay
12
CHURCHILL
C. Merry
10
12
CHURCHILL HARBOUR
Churchill River
Eskimo Pt
11
11
Cockles Pt
11
N
Seahorse Gully
12
10
CHURCHILL
Soundings in Fathoms


N
Causeway
168 ft.
22 ft.
40 ft.
50 ft.
30 ft.
Fender.
150 ft.
Fender.
1,520 ft.
Berth No. 1
Loading Platform
270 ft.
Berth No. 2
Fender
Fender.
310 ft.
260 ft.

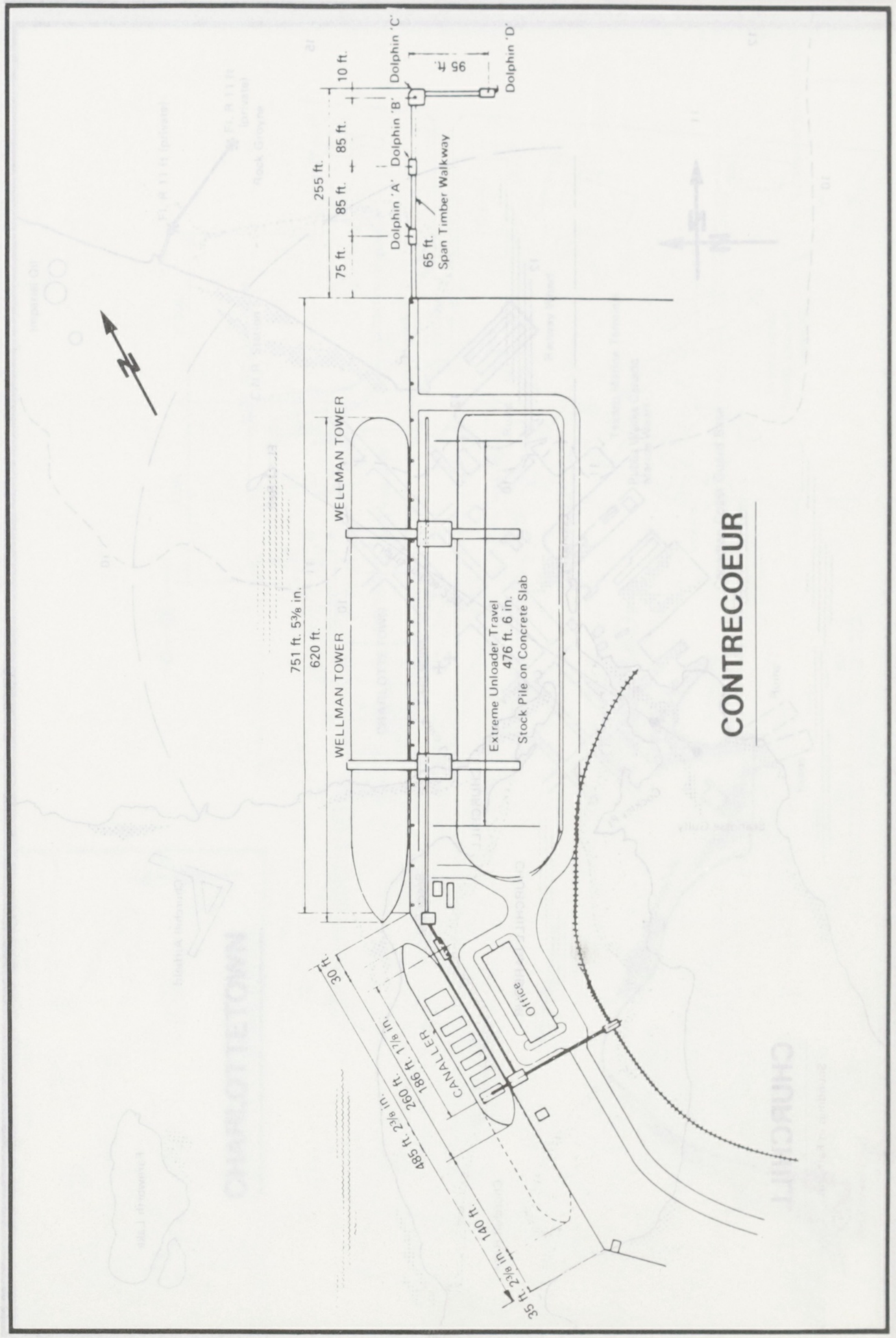
COME BY CHANCE
Oil Refinery Quay

○ HOOK ASSEMBLIES (not operating)

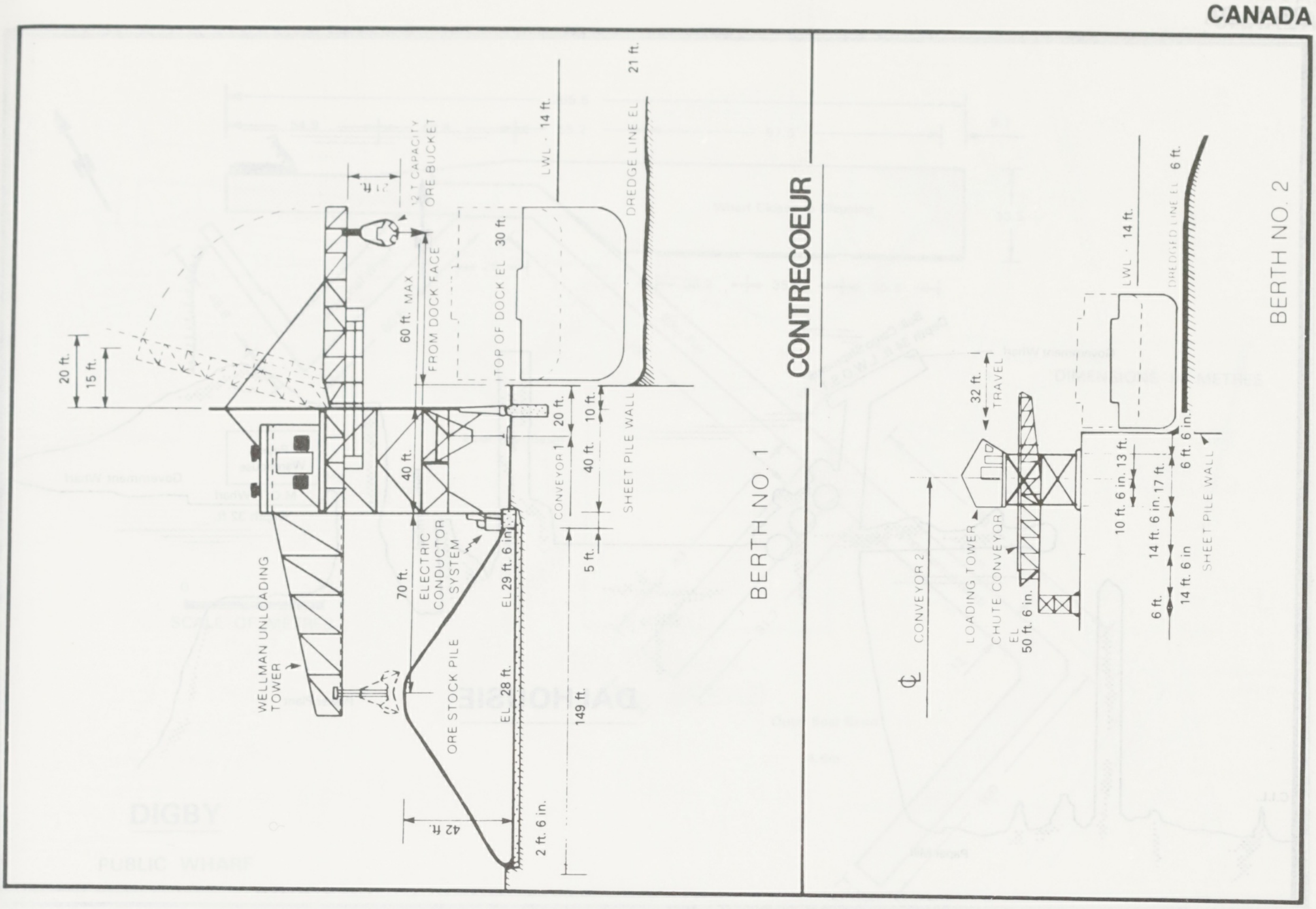
Note: All assemblies consist of 3 hooks except those on loading platform which have 2 hooks each. All hooks on West side have a working load of 100 tons, hooks on east side have a working load of 75 tons

	No. 1	No. 2
Max. Size (DWT)	325,000	70,000
Max. Draft (Feet)	85	45
Hose Connections	4×16 in. 1×10 in.	5×10 in. 1× 8 in. 1× 6 in. 1× 4 in.

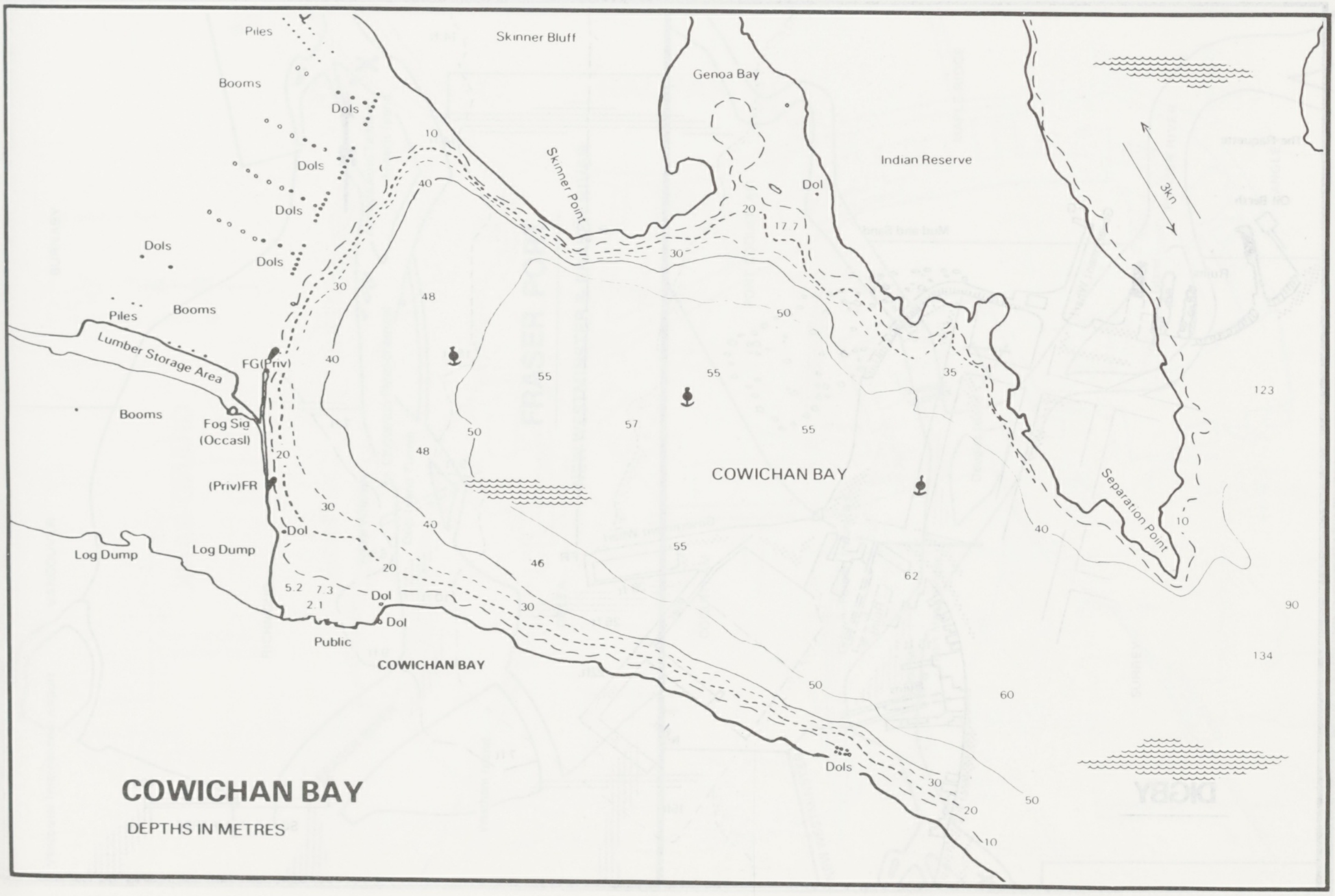
Plan supplied by Ship's Officer.


N
Dolphin 'C'
Dolphin 'D'
95 ft.
10 ft.
Dolphin 'B'
85 ft.
255 ft.
85 ft.
Dolphin 'A'
Span Timber Walkway
75 ft.
65 ft.
WELLMAN TOWER
WELLMAN TOWER
751 ft. 5⅝ in.
620 ft.
Extreme Unloader Travel
476 ft. 6 in.
Stock Pile on Concrete Slab
30 ft.
Office
CANALLER
186 ft. 1⅞ in.
260 ft.
485 ft. 2⅜ in.
140 ft.
35 ft. 2⅜ in.

CONTRECOEUR



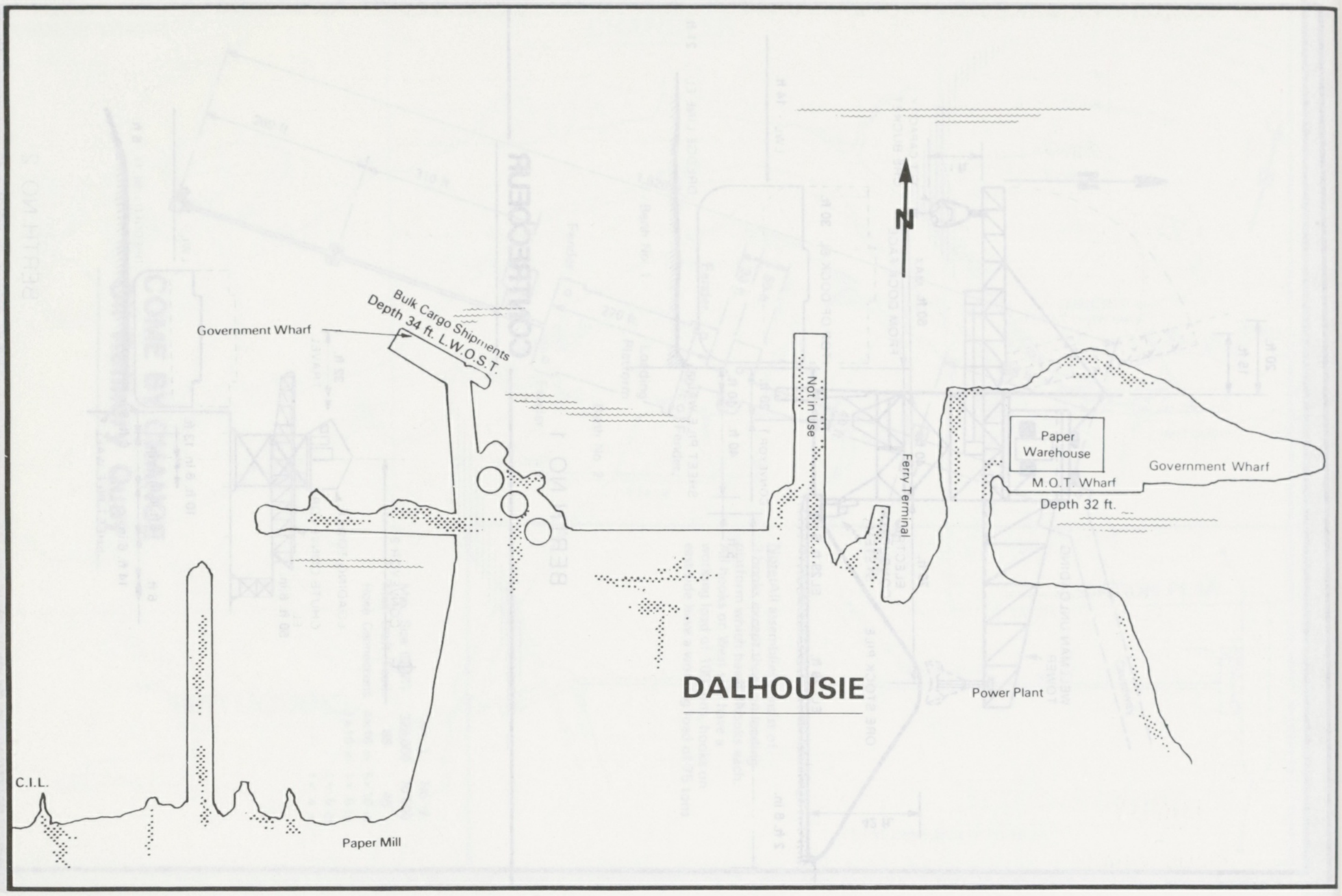
CONTRECOEUR
BERTH NO. 1
BERTH NO 2
WELLMAN UNLOADING TOWER
12 T CAPACITY ORE BUCKET
60 ft. MAX FROM DOCK FACE
TOP OF DOCK EL 30 ft.
LWL - 14 ft.
DREDGE LINE EL 21 ft.
20 ft.
15 ft.
40 ft.
70 ft.
ELECTRIC CONDUCTOR SYSTEM
ORE STOCK PILE
EL 29 ft. 6 in.
EL 28 ft.
CONVEYOR 1
20 ft.
10 ft.
40 ft.
5 ft.
149 ft.
42 ft.
2 ft. 6 in.
SHEET PILE WALL
CONVEYOR 2
LOADING TOWER
CHUTE CONVEYOR
EL 50 ft. 6 in.
32 ft. TRAVEL
LWL - 14 ft.
DREDGED LINE EL 6 ft.
10 ft. 6 in. 13 ft.
14 ft. 6 in. 17 ft.
14 ft. 6 in
6 ft.
6 ft. 6 in.
SHEET PILE WALL



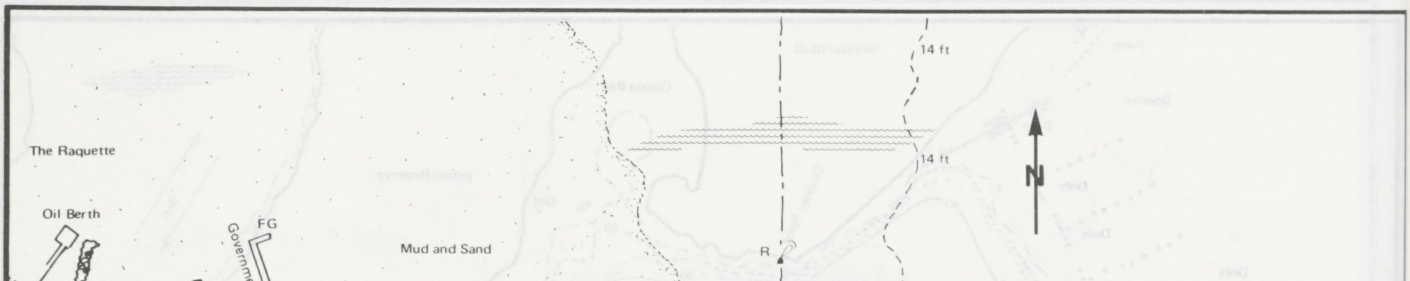
Piles
Skinner Bluff
Booms
Dols
Genoa Bay
Indian Reserve
Skinner Point
Dol
Lumber Storage Area
FG(Priv)
Fog Sig (Occasl)
(Priv)FR
Log Dump
Public
COWICHAN BAY
Separation Point
3kn
10
20
30
40
48
50
55
57
46
35
62
60
123
90
134
5.2
7.3
2.1
17.7

COWICHAN BAY

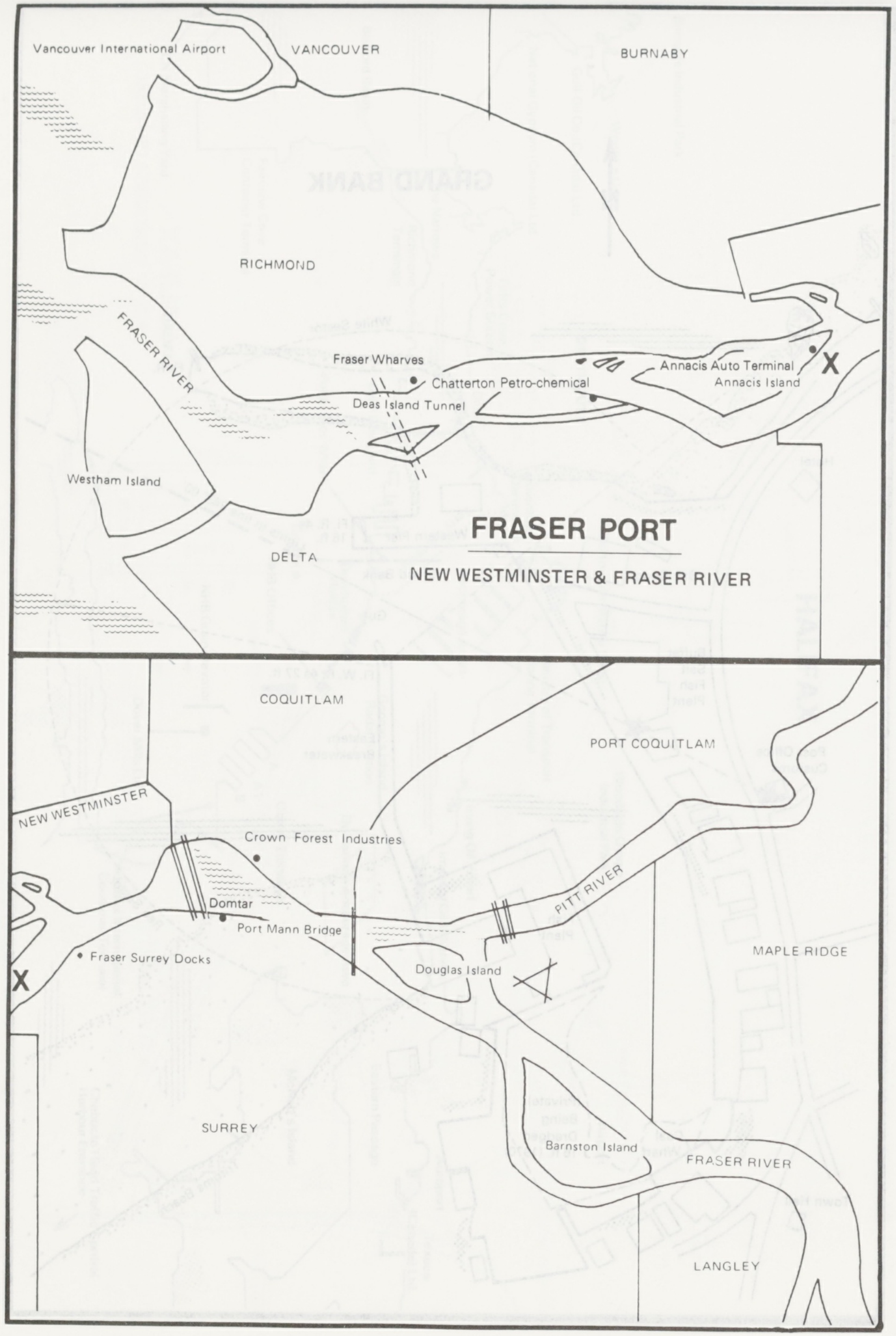
DEPTHS IN METRES


Government Wharf
Bulk Cargo Shipments
Depth 34 ft. L.W.O.S.T.
N
Not in Use
Ferry Terminal
Paper Warehouse
M.O.T. Wharf
Depth 32 ft.
Government Wharf
Power Plant
C.I.L.
Paper Mill

DALHOUSIE


The Raquette
Oil Berth
Ruins
FG
Government Wharf
Mud and Sand
14 ft
14 ft
N
R
18 ft
7 ft
19 ft
Government Wharf
FR
6 ft
28 ft
25 ft
10 ft
Ruins
15 ft
Pier
22ft.
Ruins
9 ft
4.6m.
7 ft
15ft.
0
200
SCALE IN METRES

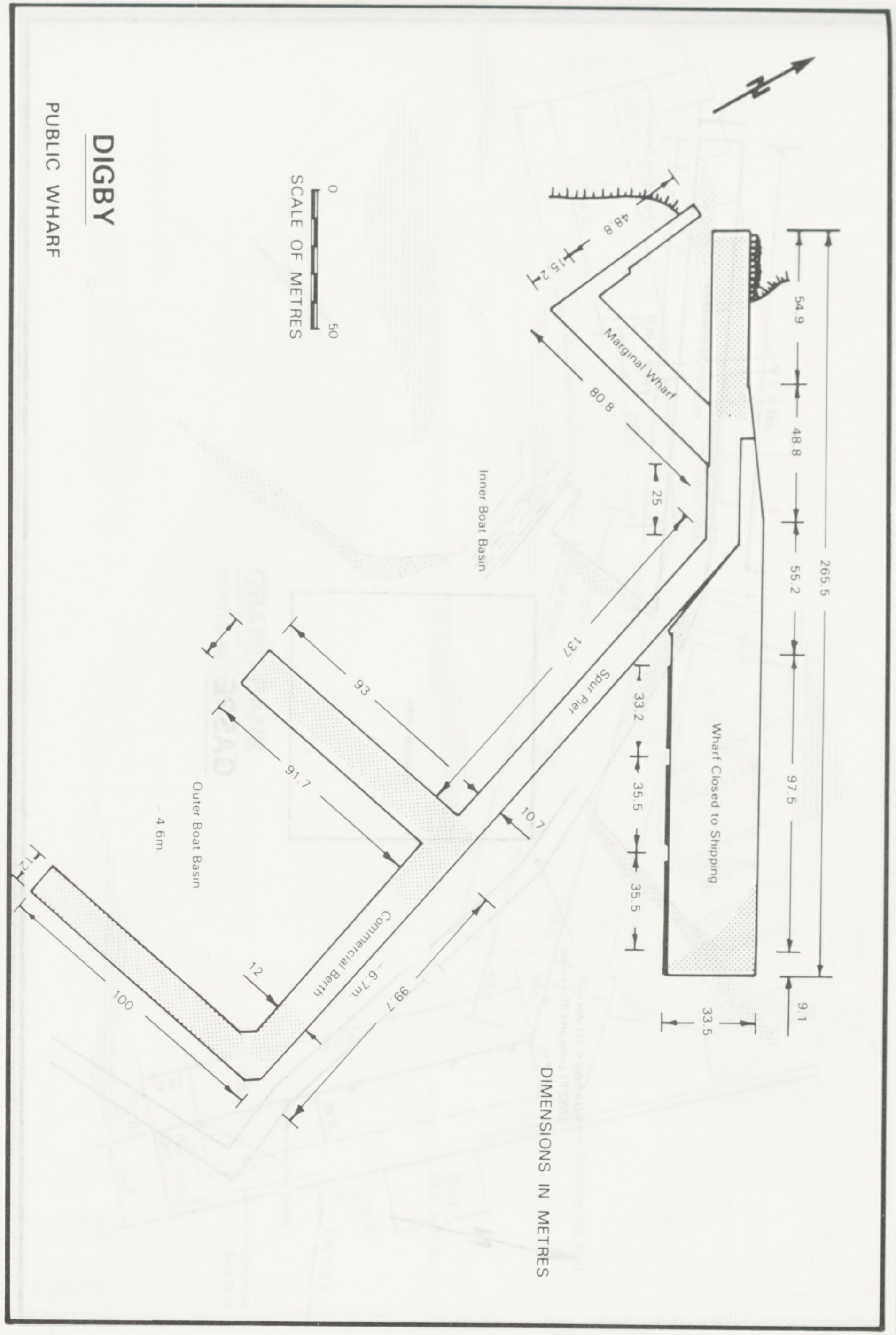
DIGBY



FRASER PORT

NEW WESTMINSTER & FRASER RIVER

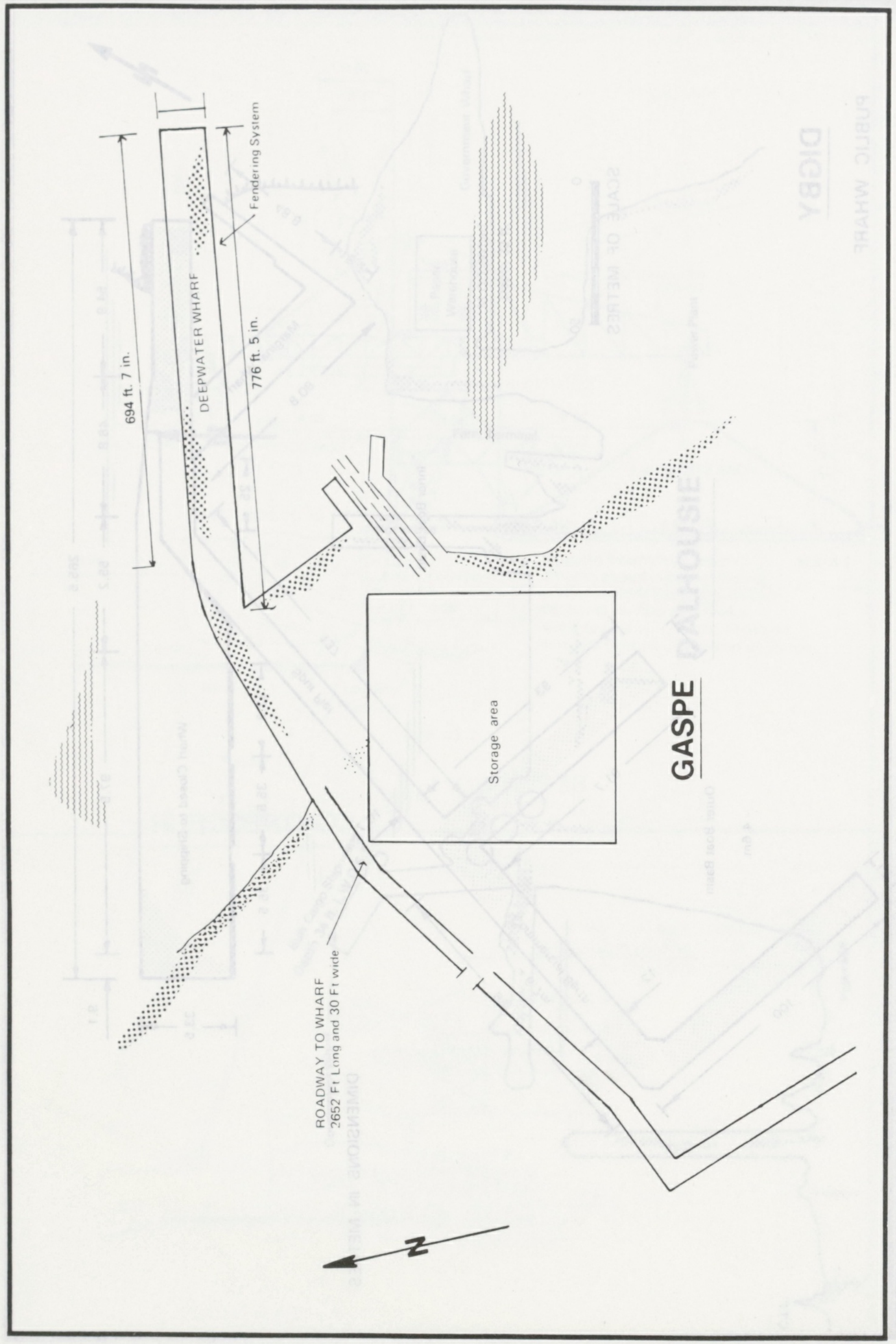
Vancouver International Airport
VANCOUVER
BURNABY
RICHMOND
FRASER RIVER
Fraser Wharves
Chatterton Petro-chemical
Deas Island Tunnel
Annacis Auto Terminal
Annacis Island
X
Westham Island
DELTA
COQUITLAM
PORT COQUITLAM
NEW WESTMINSTER
Crown Forest Industries
Domtar
Port Mann Bridge
PITT RIVER
Fraser Surrey Docks
X
Douglas Island
MAPLE RIDGE
SURREY
Barnston Island
FRASER RIVER
LANGLEY

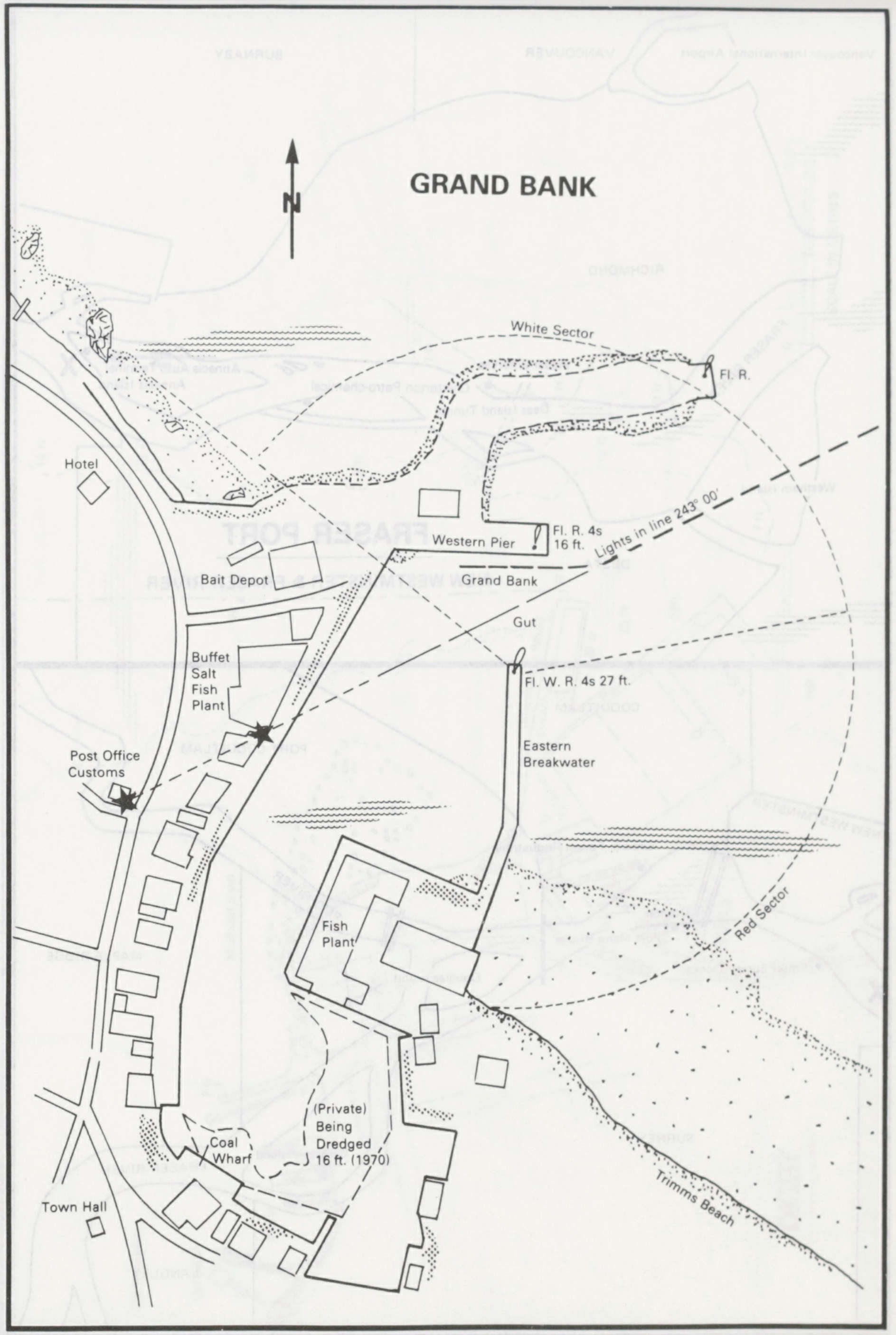


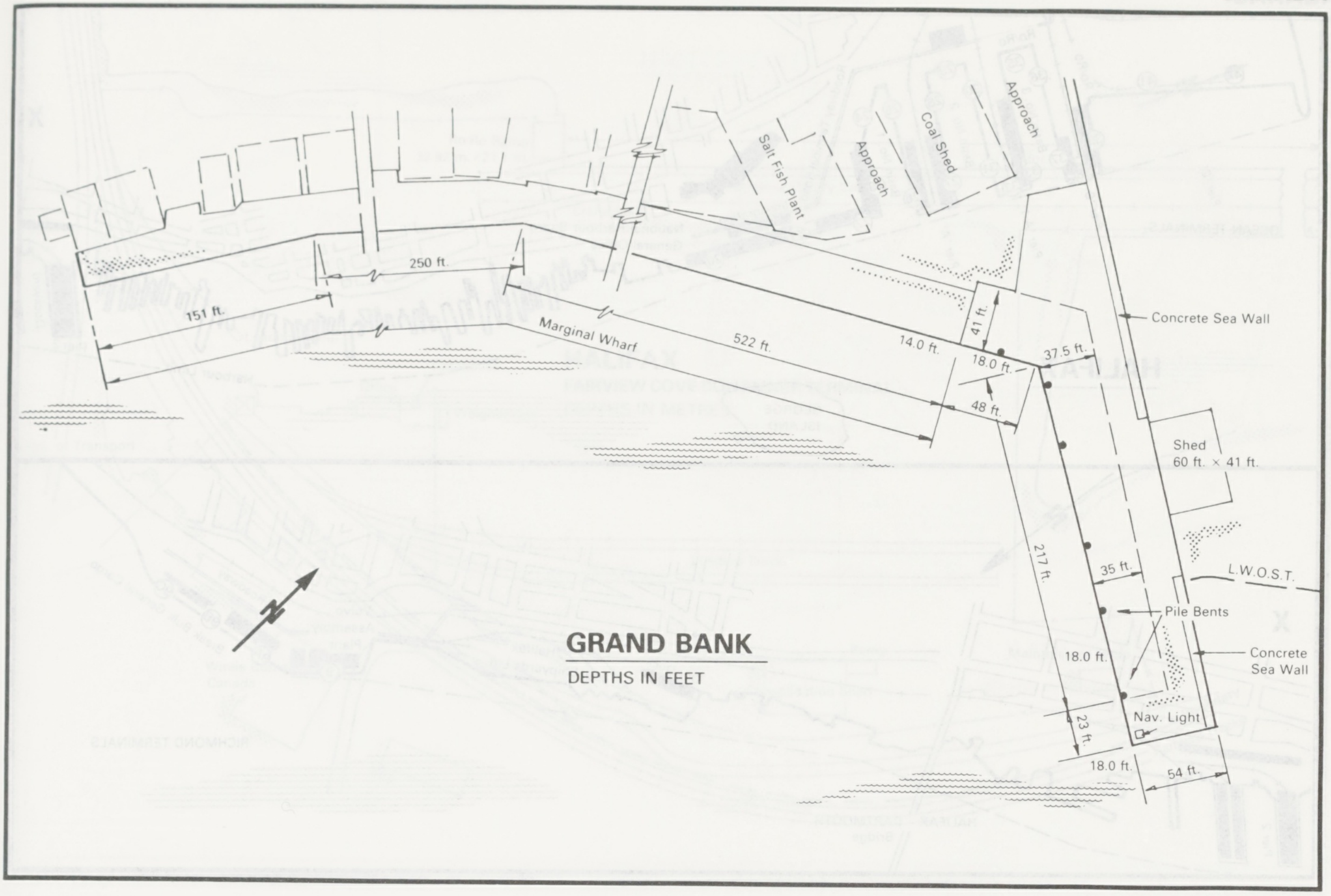
DIGBY

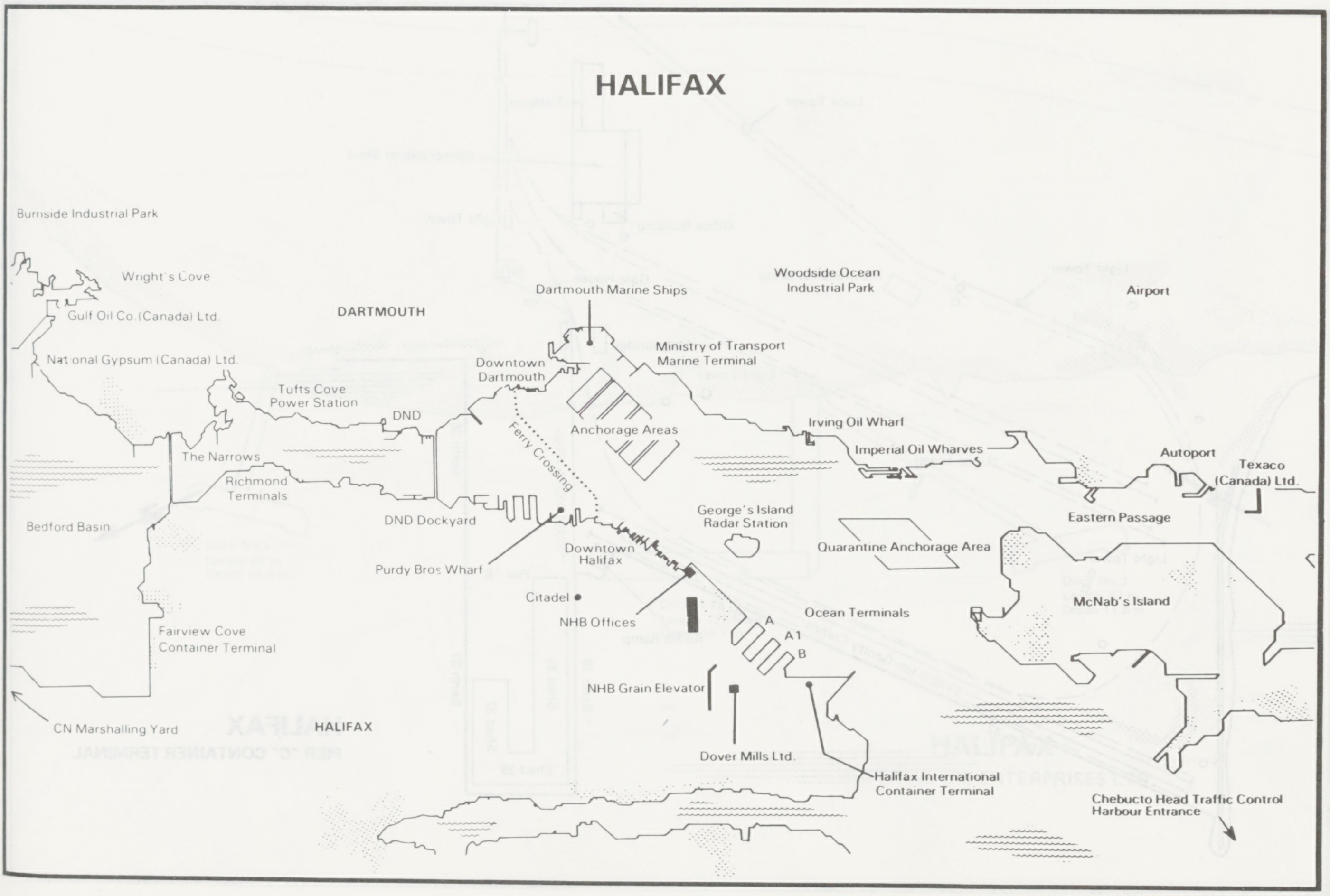
PUBLIC WHARF

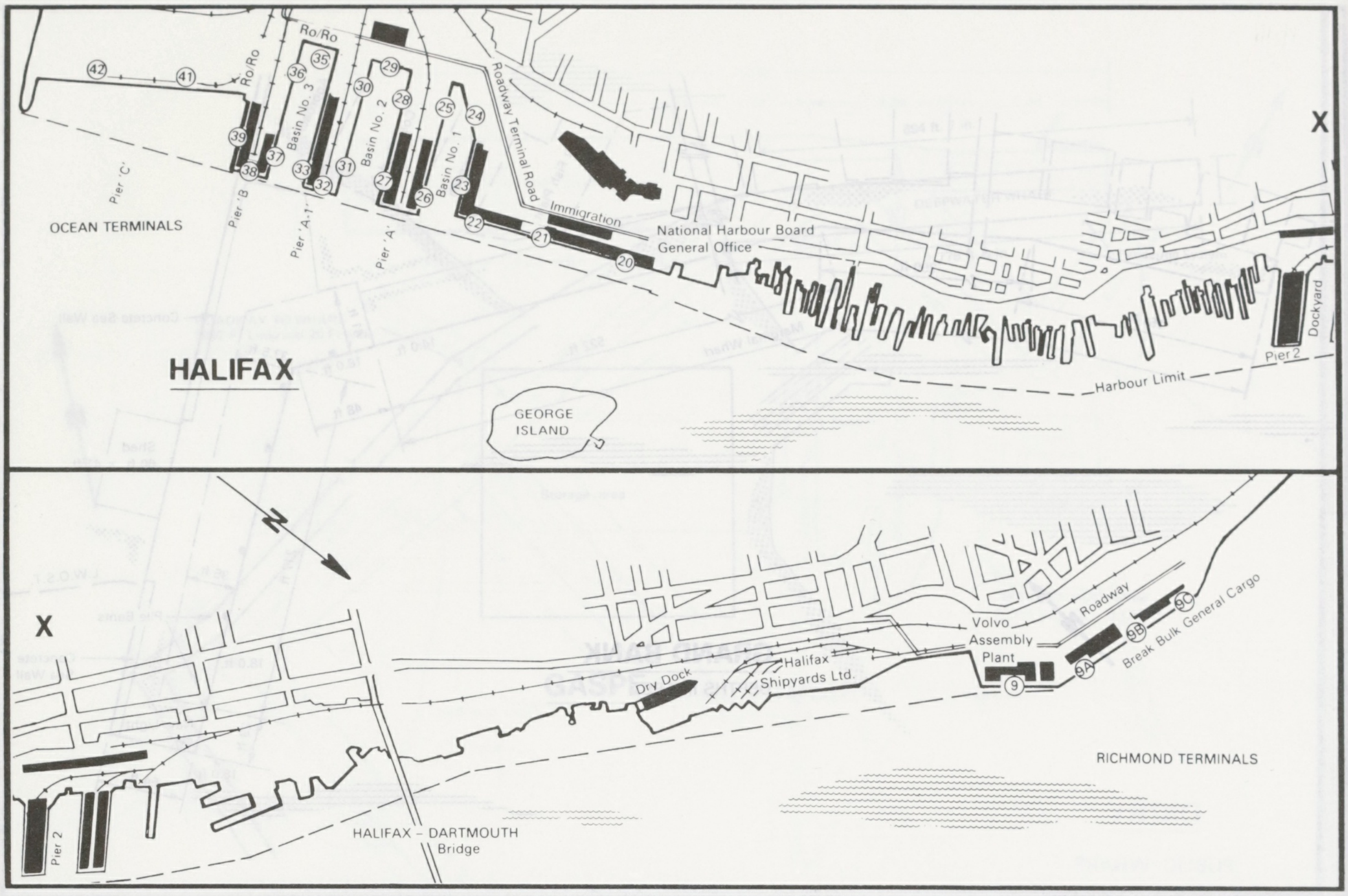
SCALE OF METRES
0
50
Marginal Wharf
48.8
15.2
80.8
Inner Boat Basin
25
137
Spur Pier
93
91.7
10.7
Outer Boat Basin
4.6m.
12
12
100
Commercial Berth
6.7m.
99.7
Wharf Closed to Shipping
265.5
54.9
48.8
55.2
97.5
9.1
33.5
33.2
35.5
35.5
DIMENSIONS IN METRES

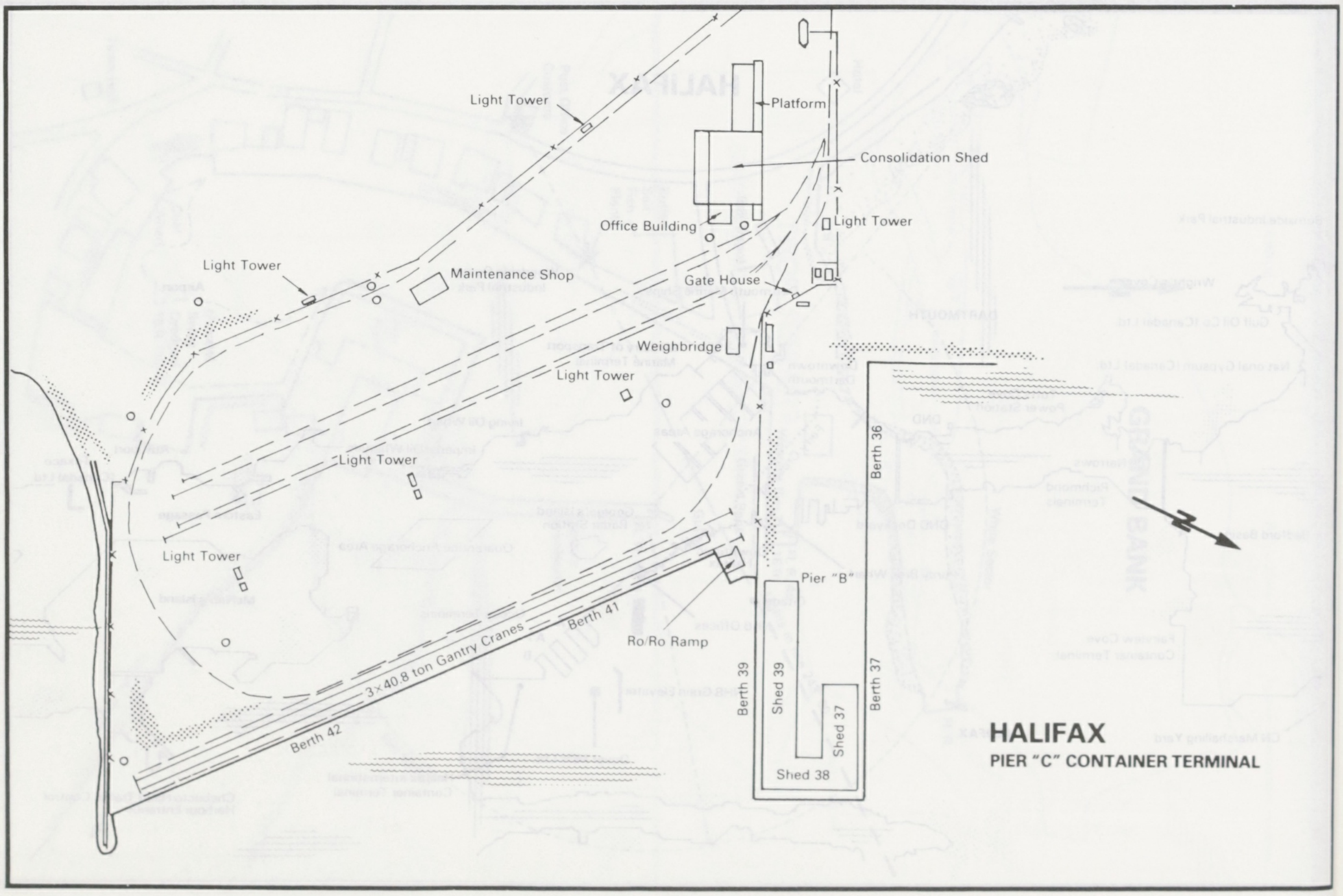

GASPE
DEEPWATER WHARF
694 ft. 7 in.
776 ft. 5 in.
Fendering System
Storage area
ROADWAY TO WHARF
2652 Ft Long and 30 Ft wide
N

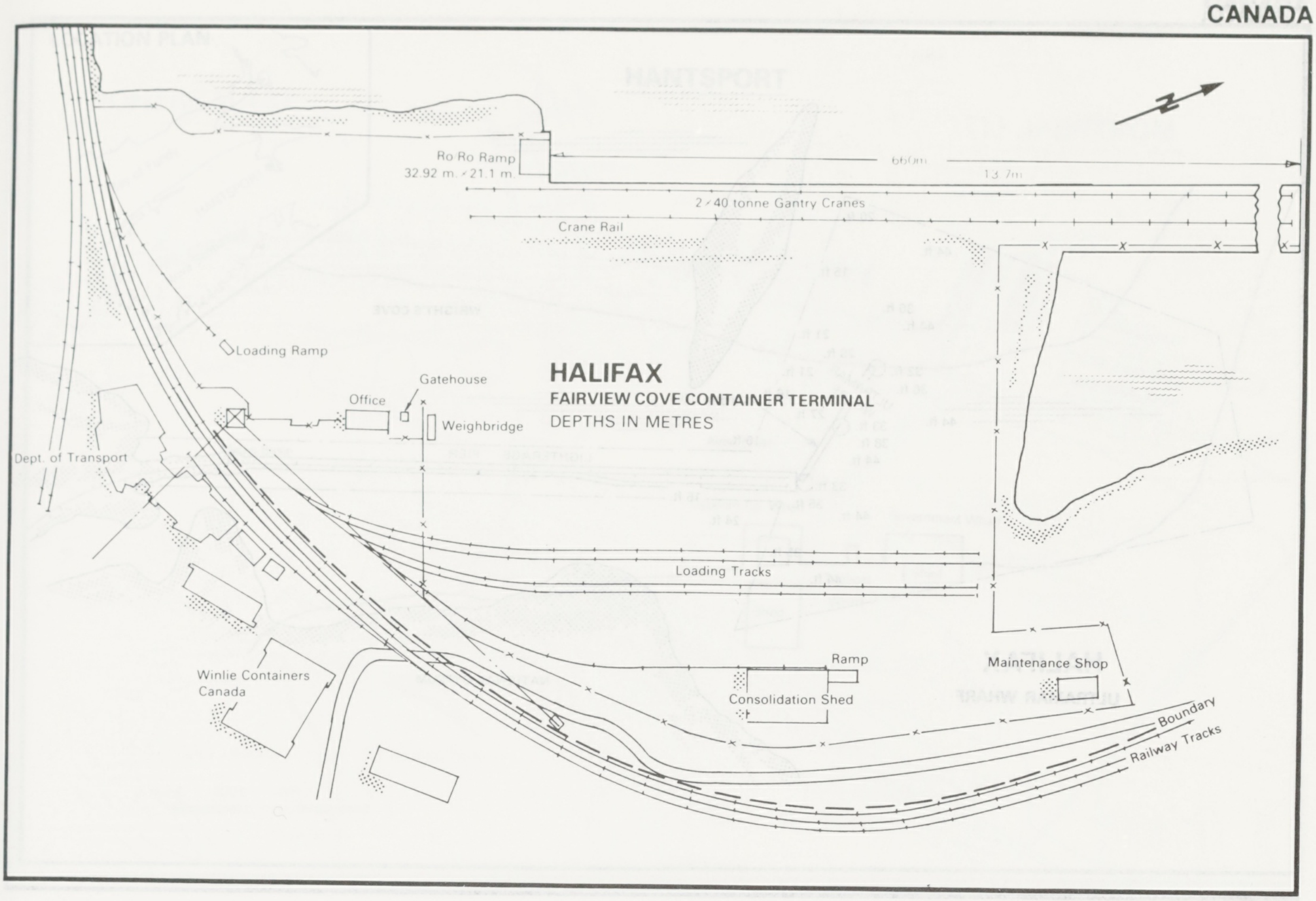

GRAND BANK
N
White Sector
Fl. R.
Hotel
Fl. R. 4s
16 ft.
Western Pier
Lights in line 243° 00'
Grand Bank
Bait Depot
Gut
Fl. W. R. 4s 27 ft.
Buffet
Salt
Fish
Plant
Eastern
Breakwater
Post Office
Customs
Fish
Plant
Red Sector
(Private)
Being
Dredged
16 ft. (1970)
Coal
Wharf
Town Hall
Trimms Beach


GRAND BANK
DEPTHS IN FEET
Salt Fish Plant
Approach
Coal Shed
Approach
Concrete Sea Wall
151 ft.
250 ft.
Marginal Wharf
522 ft.
14.0 ft.
41 ft.
18.0 ft.
37.5 ft.
48 ft.
Shed
60 ft. × 41 ft.
217 ft.
35 ft.
L.W.O.S.T.
Pile Bents
18.0 ft.
Concrete
Sea Wall
Nav. Light
23 ft.
18.0 ft.
54 ft.


HALIFAX
Burnside Industrial Park
Wright's Cove
Gulf Oil Co.(Canada) Ltd.
National Gypsum (Canada) Ltd.
DARTMOUTH
Dartmouth Marine Ships
Woodside Ocean
Industrial Park
Airport
Ministry of Transport
Marine Terminal
Downtown
Dartmouth
Tufts Cove
Power Station
DND
Anchorage Areas
Irving Oil Wharf
Imperial Oil Wharves
Autoport
Texaco
(Canada) Ltd.
The Narrows
Ferry Crossing
Richmond
Terminals
Bedford Basin
DND Dockyard
George's Island
Radar Station
Eastern Passage
Quarantine Anchorage Area
Downtown
Halifax
Purdy Bros Wharf
Citadel
NHB Offices
Ocean Terminals
A
A1
B
McNab's Island
Fairview Cove
Container Terminal
NHB Grain Elevator
CN Marshalling Yard
HALIFAX
Dover Mills Ltd.
Halifax International
Container Terminal
Chebucto Head Traffic Control
Harbour Entrance


HALIFAX
Ro/Ro
Ro/Ro
42
41
36
35
29
30
28
25
24
39
37
38
33
32
31
27
26
23
22
21
20
Basin No. 3
Basin No. 2
Basin No. 1
Pier 'C'
Pier 'B'
Pier "A-1"
Pier 'A'
Roadway Terminal Road
Immigration
National Harbour Board
General Office
OCEAN TERMINALS
GEORGE
ISLAND
Harbour Limit
Dockyard
Pier 2
X
X
Pier 2
HALIFAX - DARTMOUTH
Bridge
Dry Dock
Halifax
Shipyards Ltd.
Volvo
Assembly
Plant
9
9A
9B
9C
Roadway
Break Bulk General Cargo
RICHMOND TERMINALS


HALIFAX
PIER "C" CONTAINER TERMINAL
Light Tower
Platform
Consolidation Shed
Office Building
Light Tower
Light Tower
Maintenance Shop
Gate House
Weighbridge
Light Tower
Light Tower
Light Tower
Berth 36
Pier "B"
Berth 41
Ro/Ro Ramp
3×40.8 ton Gantry Cranes
Berth 42
Berth 39
Shed 39
Shed 37
Berth 37
Shed 38

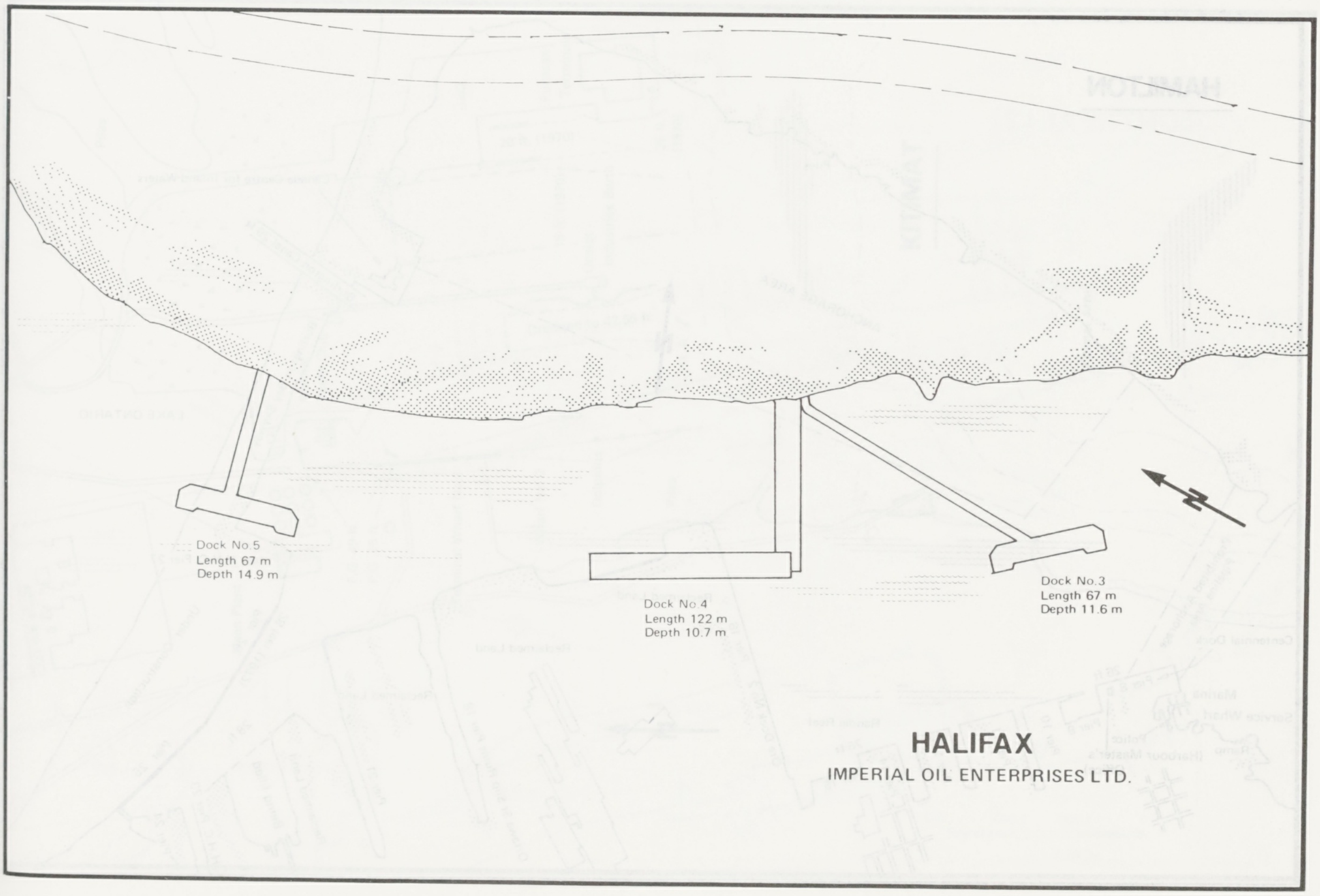


HALIFAX

FAIRVIEW COVE CONTAINER TERMINAL

DEPTHS IN METRES

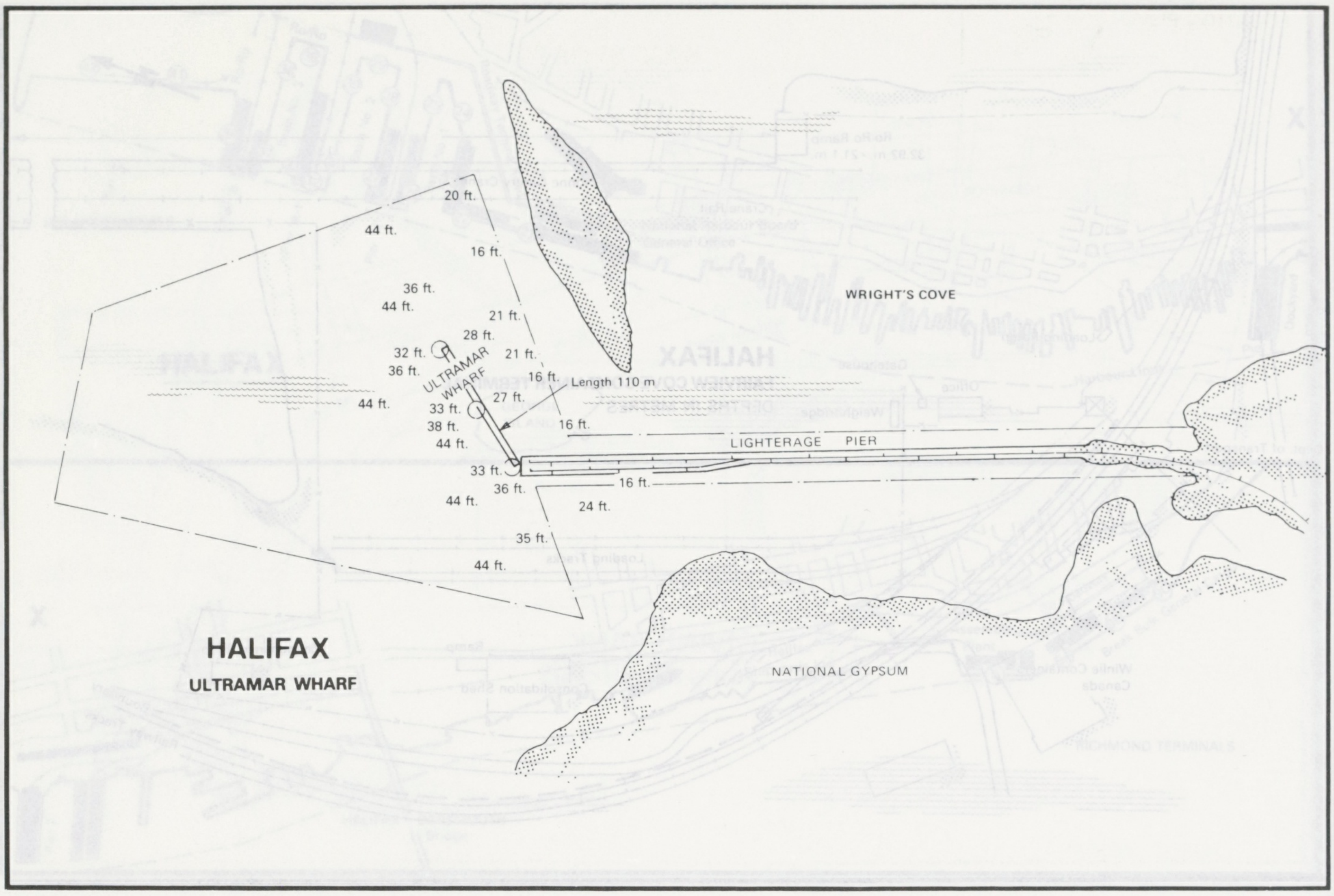
Ro Ro Ramp
32.92 m. × 21.1 m.
660m
13.7m
2 × 40 tonne Gantry Cranes
Crane Rail
Loading Ramp
Gatehouse
Office
Weighbridge
Dept. of Transport
Loading Tracks
Ramp
Maintenance Shop
Consolidation Shed
Winlie Containers
Canada
Boundary
Railway Tracks

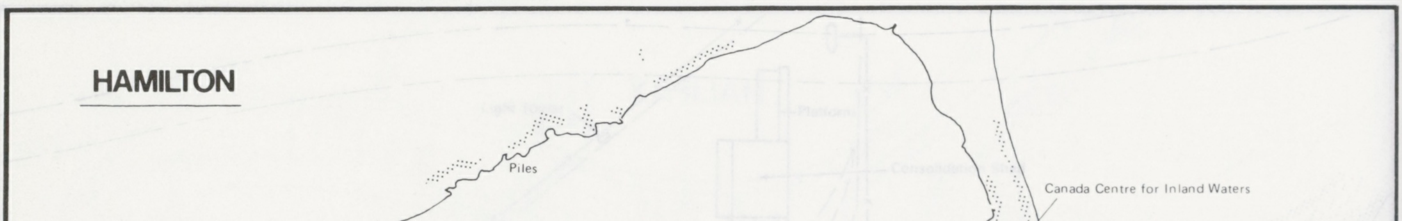


HALIFAX

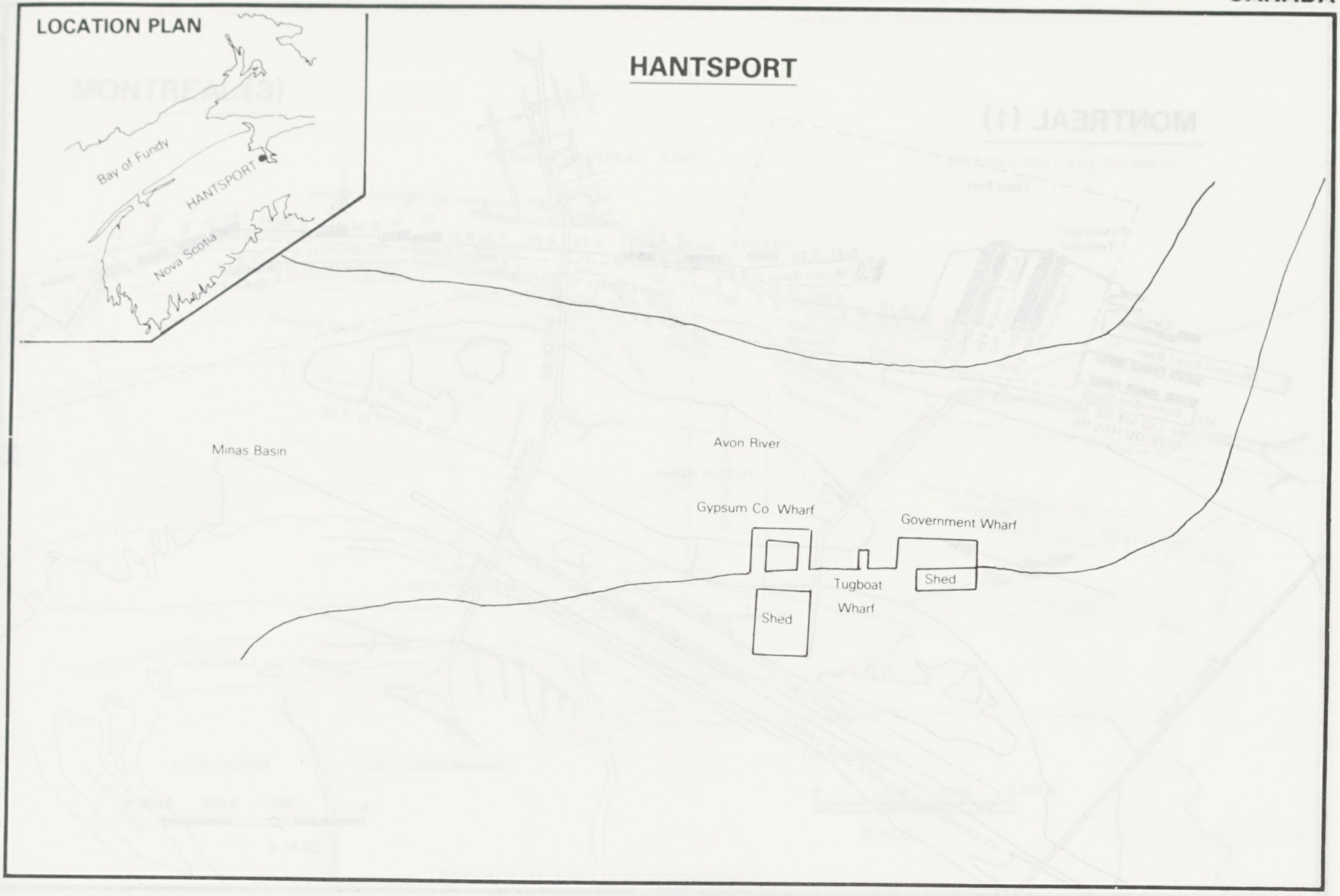
IMPERIAL OIL ENTERPRISES LTD.

Dock No.5
Length 67 m
Depth 14.9 m
Dock No.4
Length 122 m
Depth 10.7 m
Dock No.3
Length 67 m
Depth 11.6 m

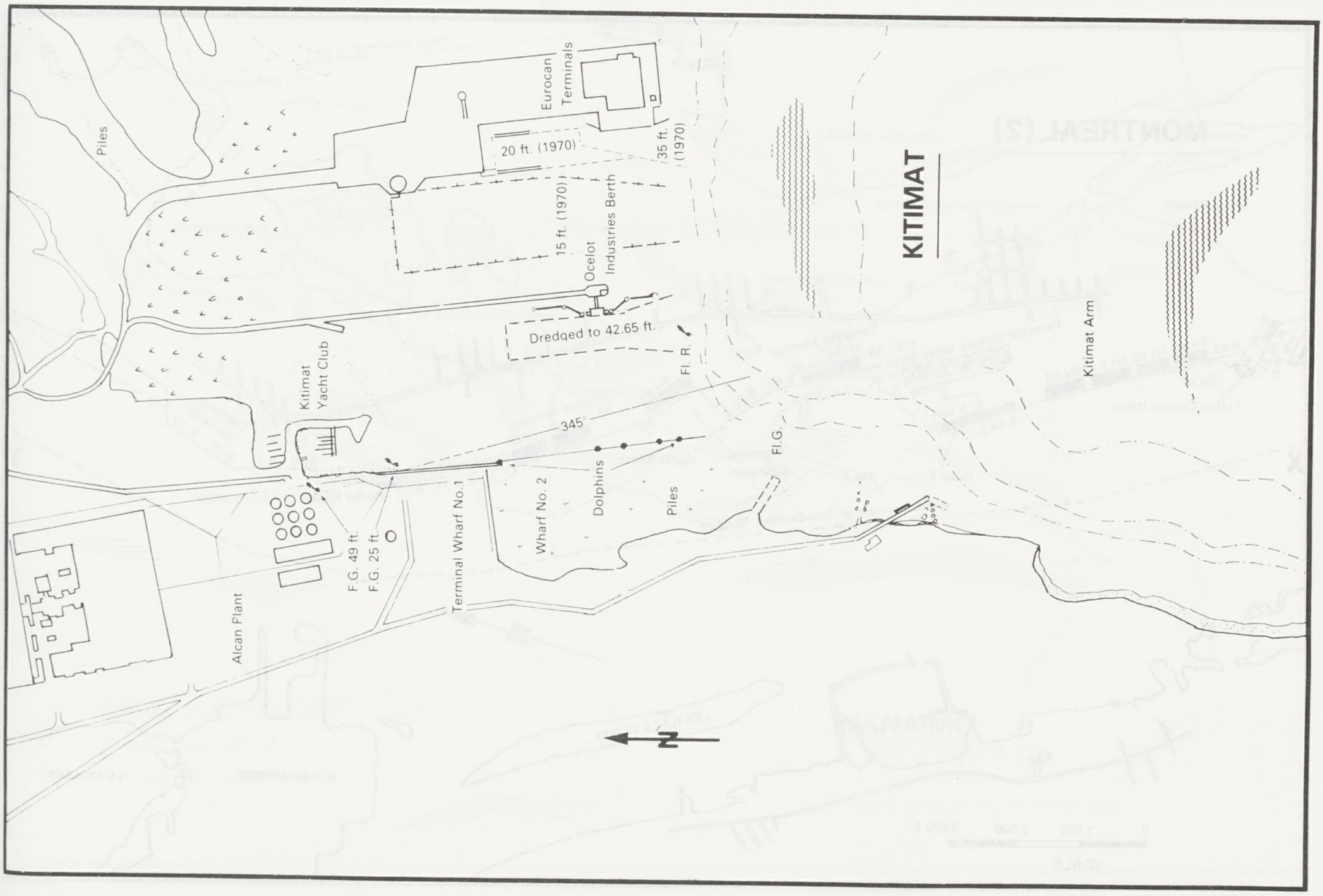

20 ft.
44 ft.
16 ft.
36 ft.
44 ft.
21 ft.
28 ft.
32 ft.
21 ft.
36 ft.
ULTRAMAR WHARF
16 ft.
Length 110 m
27 ft.
44 ft.
33 ft.
38 ft.
16 ft.
44 ft.
33 ft.
36 ft.
16 ft.
44 ft.
24 ft.
35 ft.
44 ft.
WRIGHT'S COVE
LIGHTERAGE PIER
NATIONAL GYPSUM
HALIFAX
ULTRAMAR WHARF

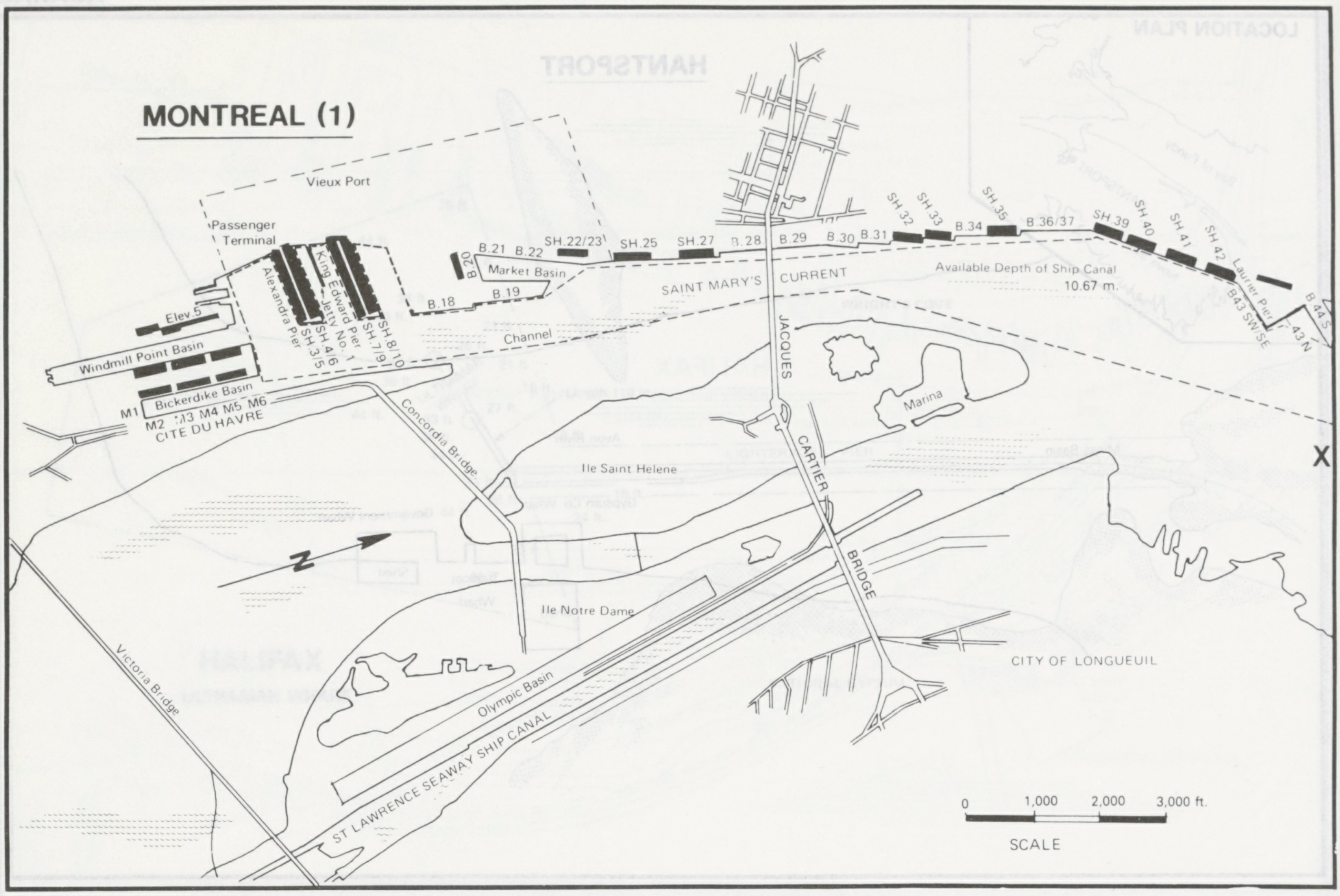

HAMILTON
Piles
ANCHORAGE AREA
N
Canada Centre for Inland Waters
Burlington Canal 29 ft
Burlington Bay Skyway
LAKE ONTARIO
Prohibited Anchorage Pipeline Area
Centennial Dock
Marina
Service Wharf
Ramp
Police (Harbour Master's Office)
26 ft
Pier 8
Pier 9
Pier 10
Pier 11
Pier 12
Randle Reef
26 ft
Pier 14
Pier 15
Ore Dock No 2
Pier 16
Reclaimed Land
Reclaimed Land
Ottawa St Slip Ruins Pier 18
Reclaimed Land
Pier 21
Reclaimed Land
Being filled
H.H.C. Pier 23
Pier 24
Pier 25
28 ft.
Pier 26
28 feet (1972)
Future H.H.C. Pier 27
Under Construction

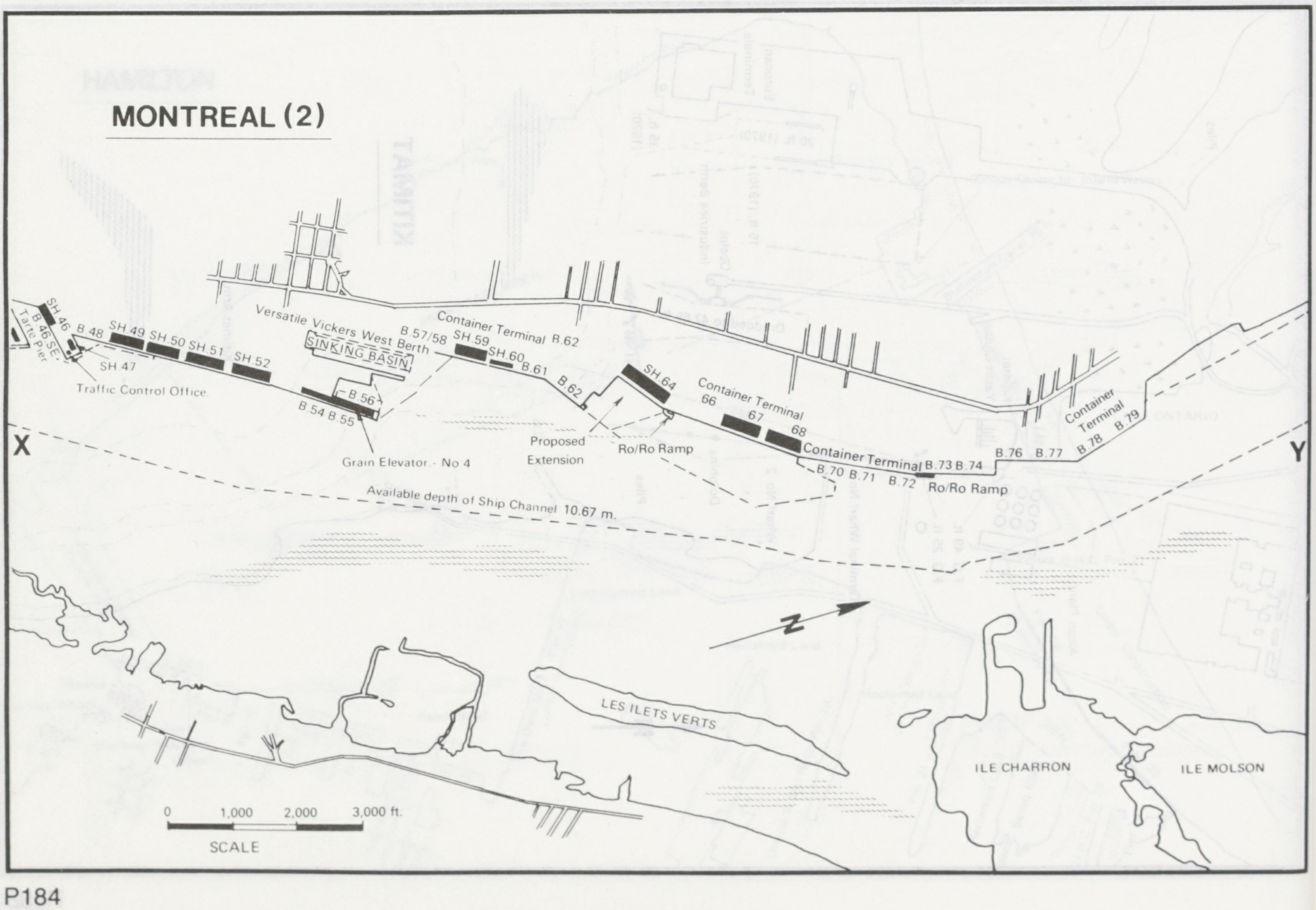
HANTSPORT

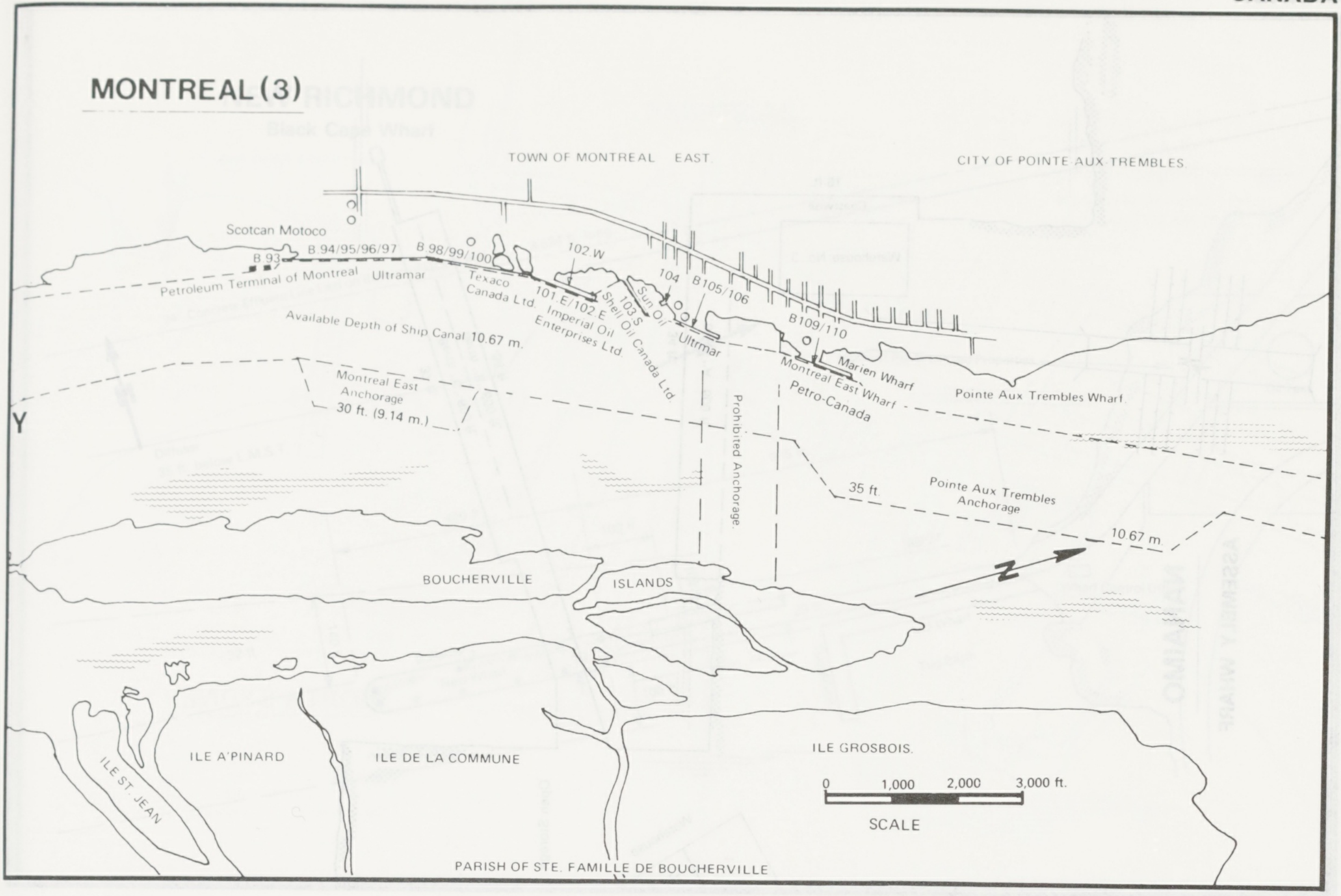

LOCATION PLAN
Bay of Fundy
HANTSPORT
Nova Scotia
Minas Basin
Avon River
Gypsum Co. Wharf
Government Wharf
Tugboat Wharf
Shed
Shed

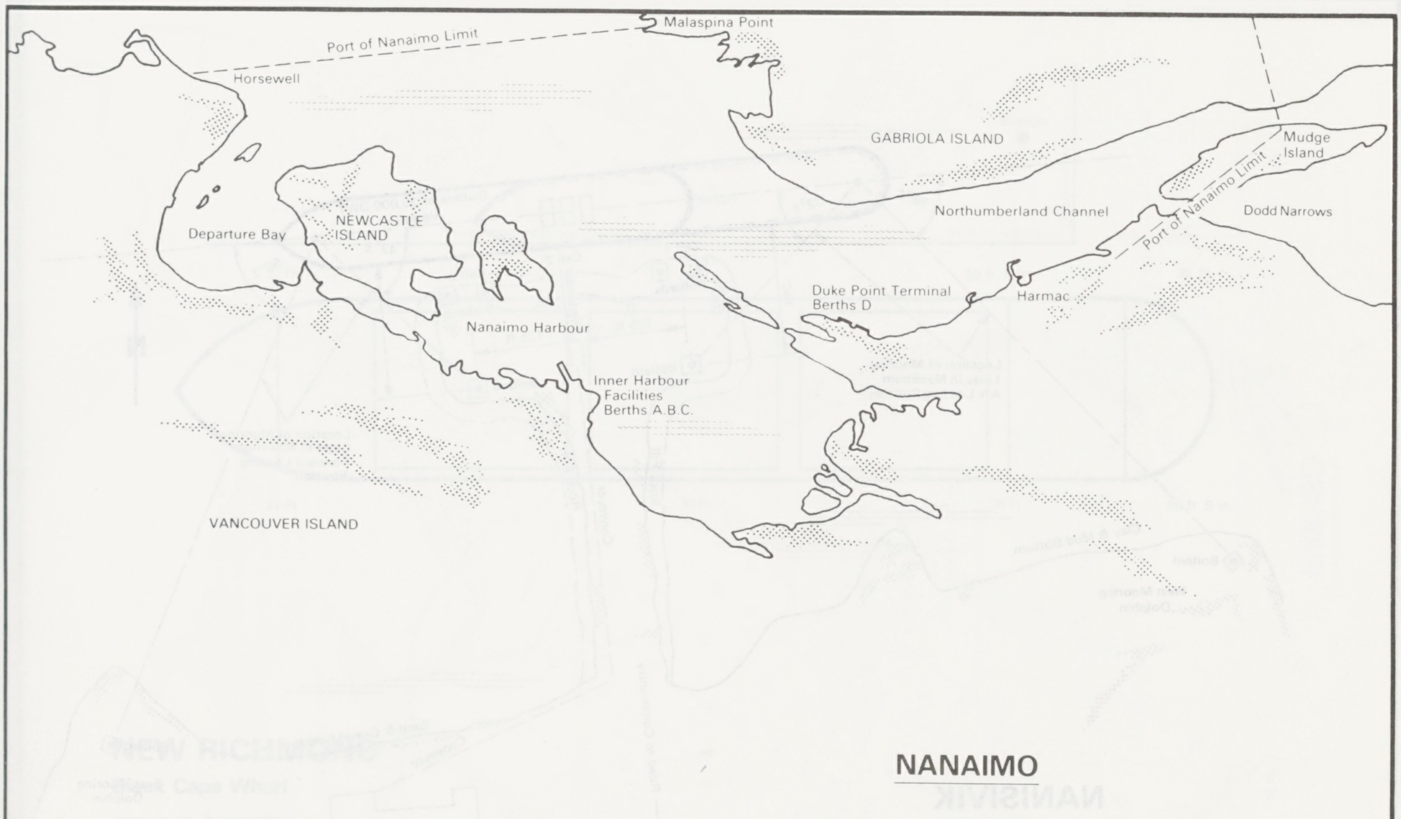
KITIMAT

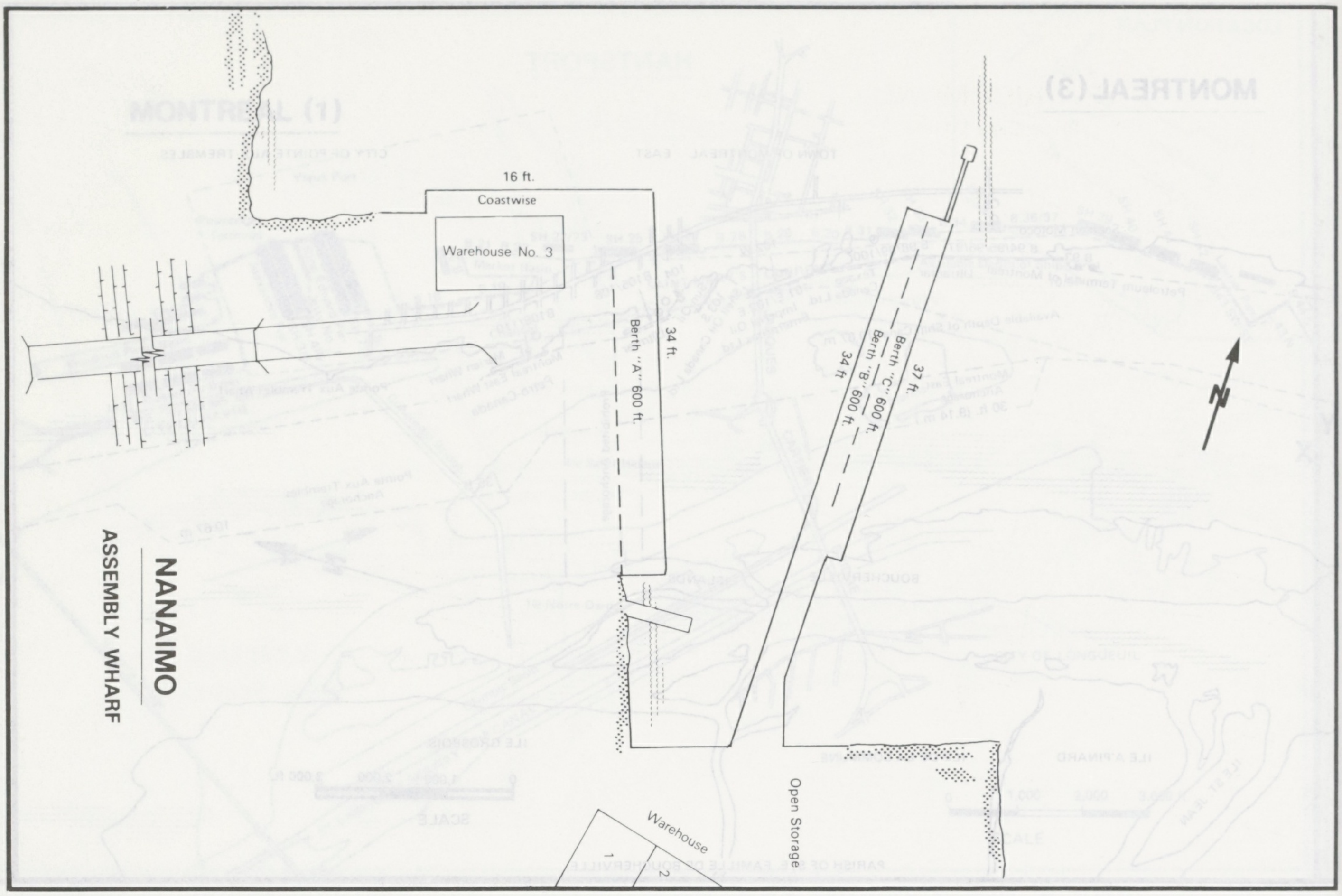

Eurocan Terminals
20 ft. (1970)
35 ft. (1970)
15 ft. (1970)
Ocelot Industries Berth
Dredged to 42.65 ft.
Fl. R.
Piles
Kitimat Yacht Club
345°
Fl. G.
Wharf No. 2
Dolphins
Piles
Terminal Wharf No.1
F.G. 49 ft.
F.G. 25 ft.
Alcan Plant
Kitimat Arm
N


MONTREAL (1)
Vieux Port
Passenger Terminal
Elev 5
Windmill Point Basin
Bickerdike Basin
M1
M2 M3 M4 M5 M6
CITE DU HAVRE
Alexandra Pier
SH.3/5
SH.4/6
King Edward Pier
Jetty No. 1
SH.7/9
SH.8/10
B.18
B.19
B.20
B.21
B.22
Market Basin
SH.22/23
SH.25
SH.27
B.28
B.29
B.30
B.31
SH.32
SH.33
B.34
SH.35
B.36/37
SH.39
SH.40
SH.41
SH.42
Laurier Pier
B43 SW/SE
43 N
B.44 S
Available Depth of Ship Canal 10.67 m.
SAINT MARY'S CURRENT
Channel
JACQUES CARTIER BRIDGE
Marina
X
Concordia Bridge
Ile Saint Helene
Ile Notre Dame
Olympic Basin
ST LAWRENCE SEAWAY SHIP CANAL
Victoria Bridge
CITY OF LONGUEUIL
N
0
1,000
2,000
3,000 ft.
SCALE


MONTREAL (2)
SH.46
B.46 SE
Tarte Pier
B.48
SH 47
Traffic Control Office
SH.49
SH.50
SH.51
SH.52
Versatile Vickers West Berth
SINKING BASIN
B.54
B.55
B.56
Grain Elevator - No 4
B.57/58
SH.59
SH.60
Container Terminal
B.62
B.61
B.62
SH.64
Proposed Extension
Ro/Ro Ramp
Container Terminal
66
67
68
Container Terminal
B.70
B.71
B.72
B.73
B.74
Ro/Ro Ramp
B.76
B.77
B.78
B.79
Container Terminal
X
Y
Available depth of Ship Channel 10.67 m.
N
LES ILETS VERTS
ILE CHARRON
ILE MOLSON
0
1,000
2,000
3,000 ft.
SCALE

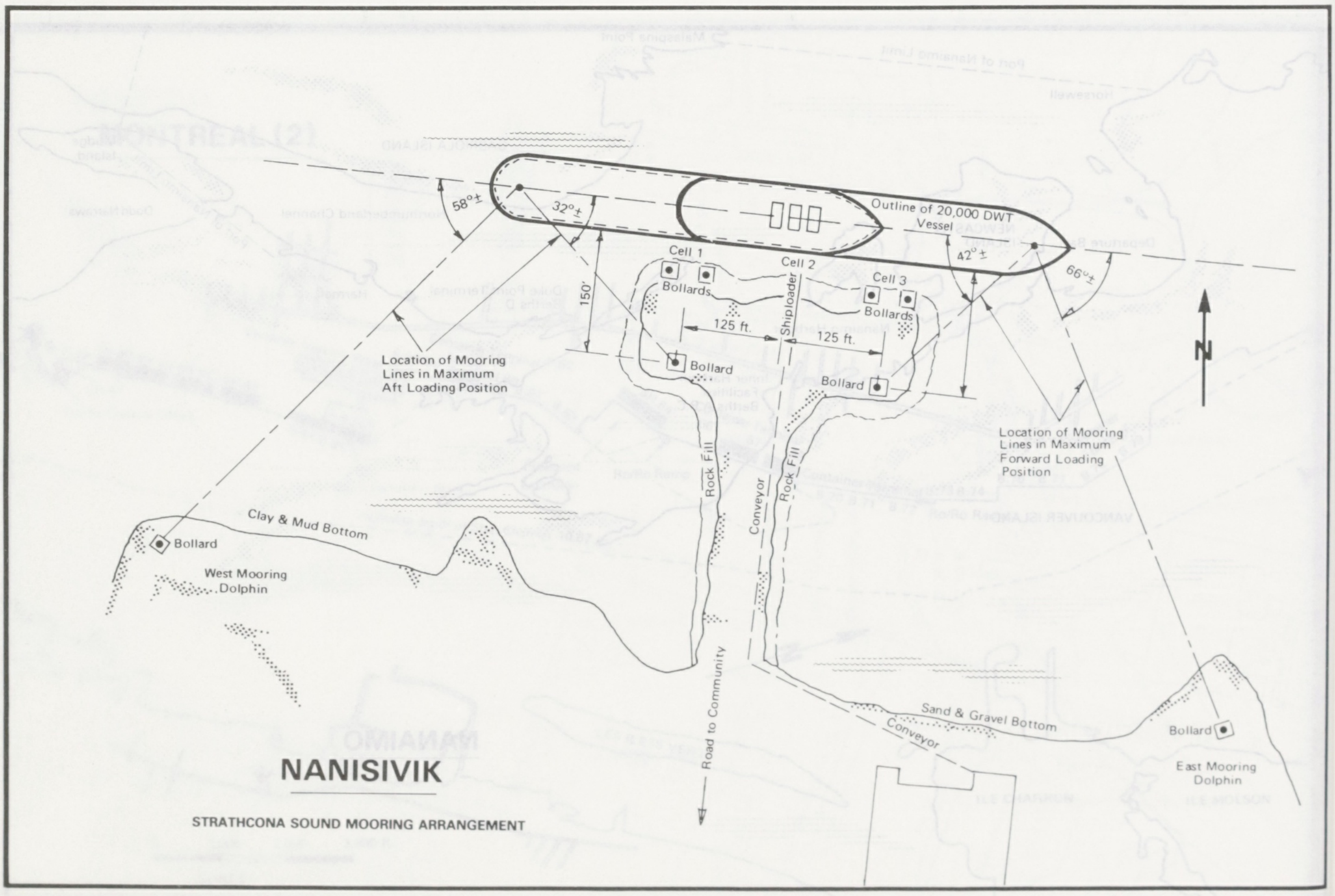

MONTREAL (3)
TOWN OF MONTREAL EAST
CITY OF POINTE AUX TREMBLES
Scotcan Motoco
B.93
B.94/95/96/97
B.98/99/100
102 W
Petroleum Terminal of Montreal
Ultramar
Texaco Canada Ltd.
101 E/102 E Imperial Oil Enterprises Ltd.
103 S Shell Oil Canada Ltd
Sun Oil
104
B105/106
Ultramar
B109/110
Marien Wharf
Montreal East Wharf
Petro-Canada
Pointe Aux Trembles Wharf
Available Depth of Ship Canal 10.67 m.
Montreal East Anchorage 30 ft. (9.14 m.)
Prohibited Anchorage.
35 ft.
Pointe Aux Trembles Anchorage
10.67 m.
N
BOUCHERVILLE
ISLANDS
ILE A'PINARD
ILE DE LA COMMUNE
ILE GROSBOIS.
ILE ST JEAN
0
1,000
2,000
3,000 ft.
SCALE
PARISH OF STE. FAMILLE DE BOUCHERVILLE
Y


Malaspina Point
Port of Nanaimo Limit
Horsewell
GABRIOLA ISLAND
Mudge Island
Port of Nanaimo Limit
Dodd Narrows
Northumberland Channel
Departure Bay
NEWCASTLE ISLAND
Nanaimo Harbour
Duke Point Terminal Berths D
Harmac
Inner Harbour Facilities Berths A B C.
VANCOUVER ISLAND
NANAIMO


16 ft.
Coastwise
Warehouse No. 3
Berth "A" 600 ft.
34 ft.
37 ft.
Berth "C" 600 ft.
Berth "B" 600 ft.
34 ft.
Open Storage
Warehouse
1
2
N

NANAIMO

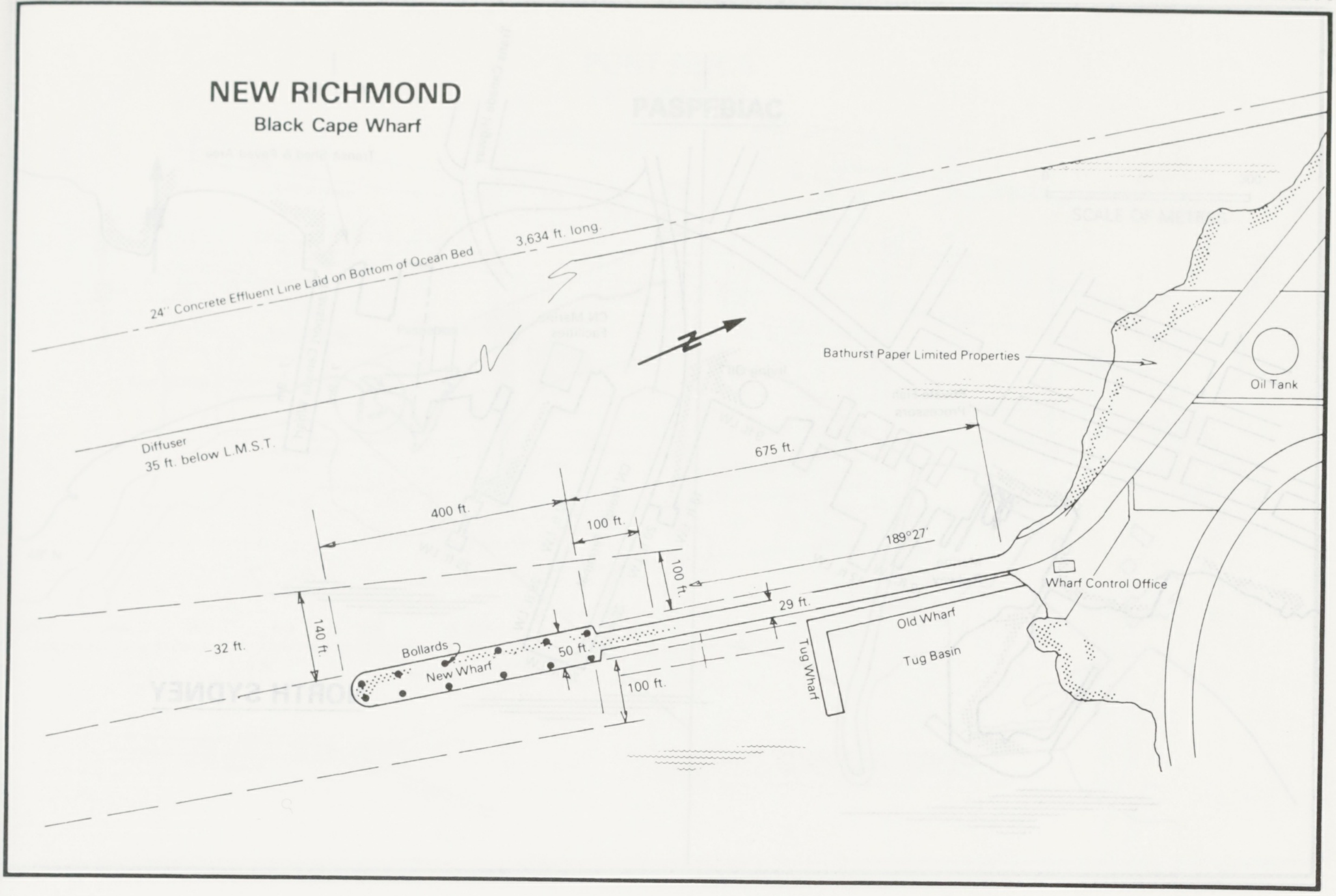
ASSEMBLY WHARF

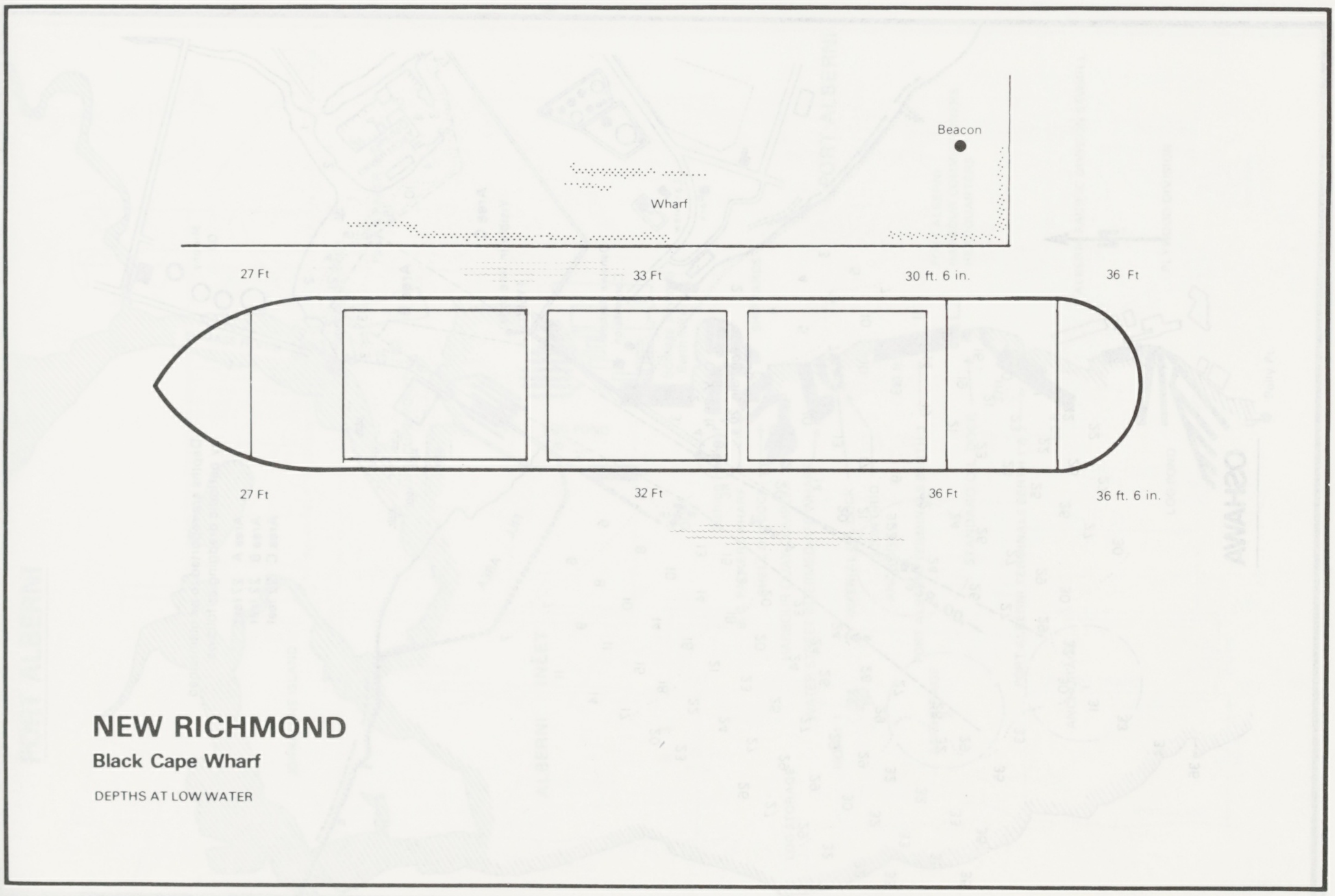

58°±
32°±
Outline of 20,000 DWT Vessel
42°±
66°±
Cell 1
Bollards
Cell 2
Shiploader
Cell 3
Bollards
150'
125 ft.
125 ft.
Bollard
Bollard
Location of Mooring Lines in Maximum Aft Loading Position
Location of Mooring Lines in Maximum Forward Loading Position
N
Rock Fill
Conveyor
Rock Fill
Clay & Mud Bottom
Bollard
West Mooring Dolphin
Road to Community
Sand & Gravel Bottom
Conveyor
Bollard
East Mooring Dolphin

NANISIVIK

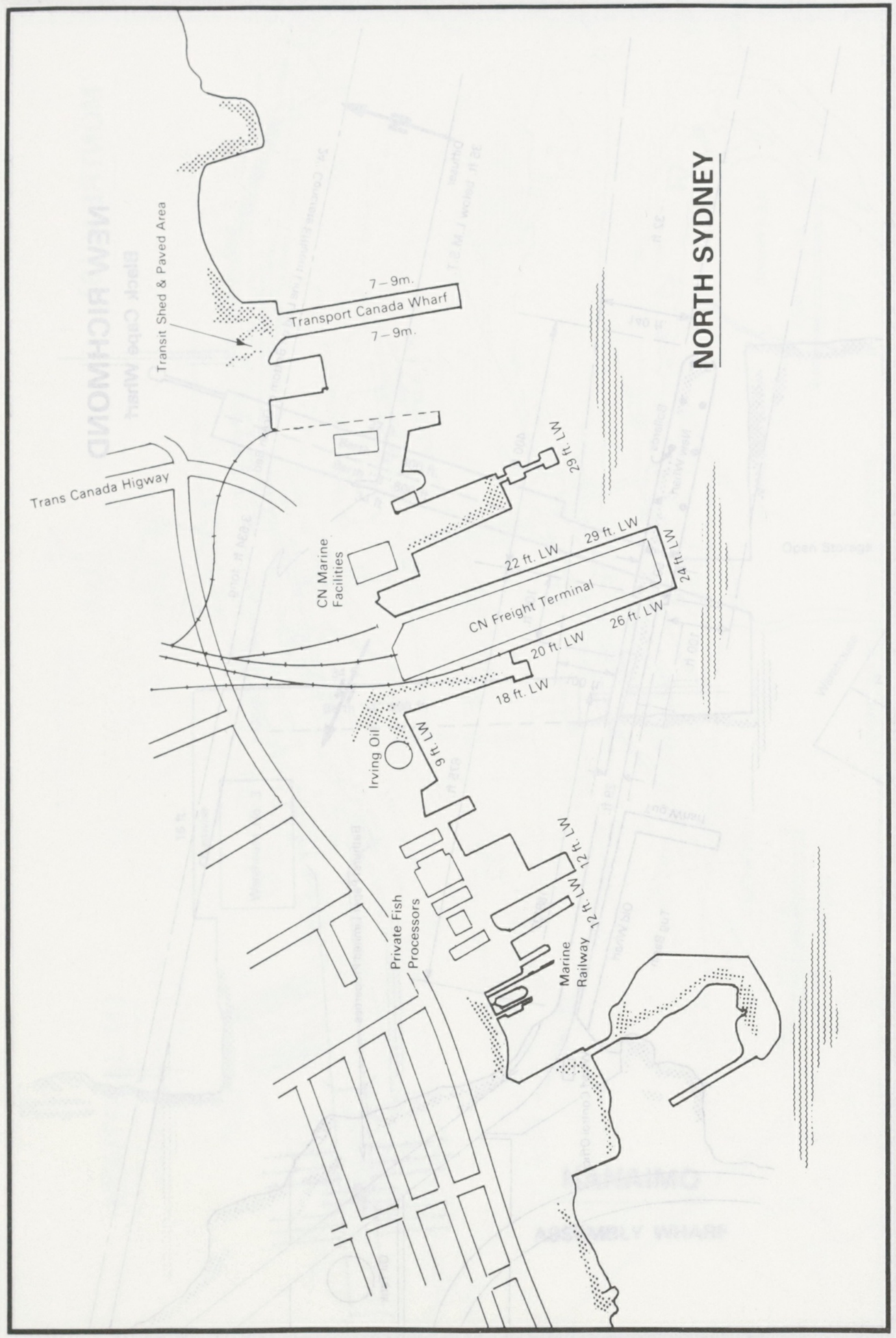
STRATHCONA SOUND MOORING ARRANGEMENT

Plan supplied by Ship's Officer


NEW RICHMOND
Black Cape Wharf
24" Concrete Effluent Line Laid on Bottom of Ocean Bed
3,634 ft. long
Diffuser
35 ft. below L.M.S.T.
Bathurst Paper Limited Properties
Oil Tank
675 ft.
400 ft.
100 ft.
100 ft.
189°27'
29 ft.
140 ft.
-32 ft.
Bollards
New Wharf
50 ft.
100 ft.
Tug Wharf
Old Wharf
Tug Basin
Wharf Control Office

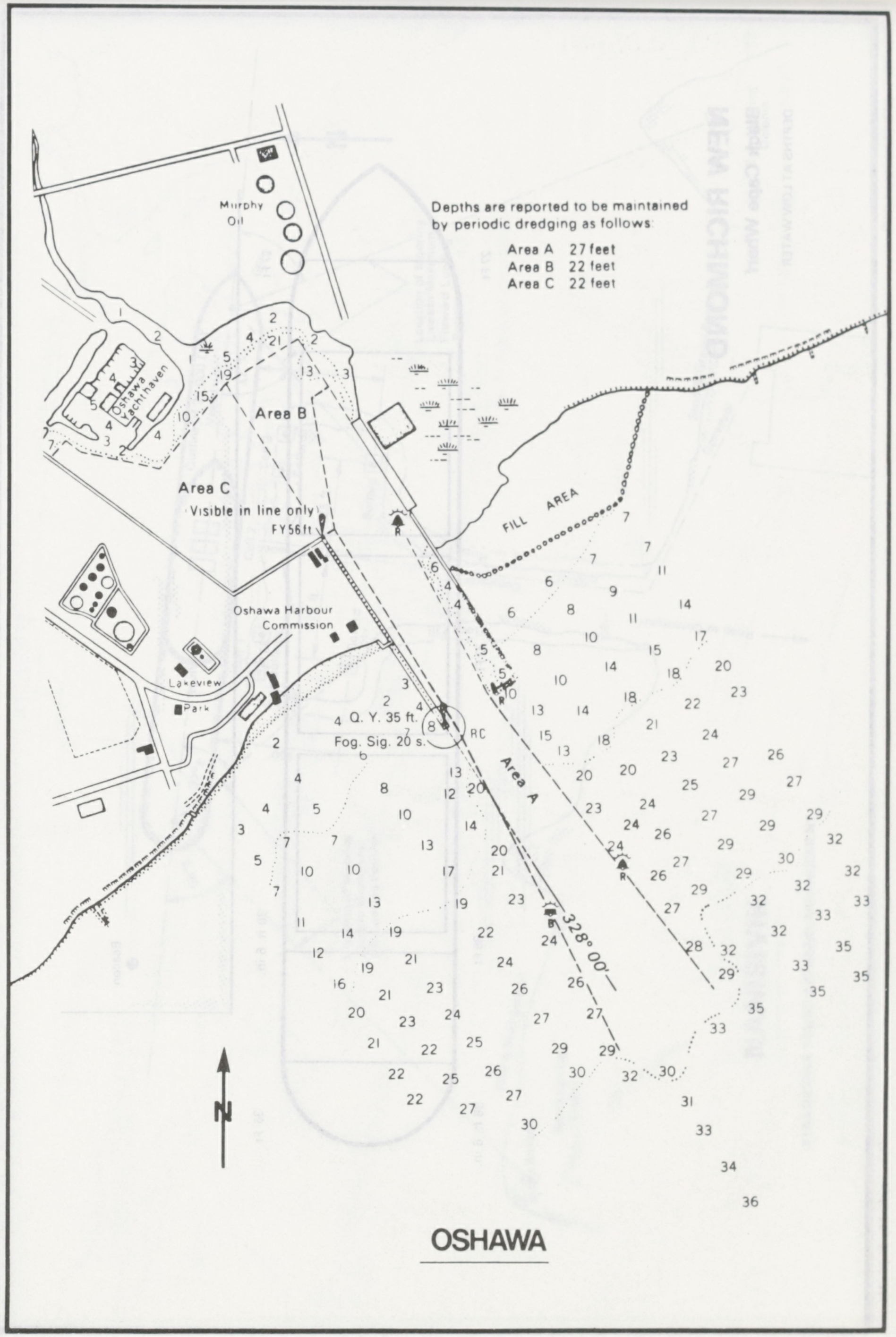

Beacon
Wharf
27 Ft
33 Ft
30 ft. 6 in.
36 Ft
27 Ft
32 Ft
36 Ft
36 ft. 6 in.
NEW RICHMOND
Black Cape Wharf
DEPTHS AT LOW WATER

"Plan supplied by Ship's Master"



NORTH SYDNEY

Transport Canada Wharf
7 – 9m.
7 – 9m.
Transit Shed & Paved Area
Trans Canada Higway
29 ft. LW
29 ft. LW
22 ft. LW
24 ft. LW
CN Marine Facilities
CN Freight Terminal
26 ft. LW
20 ft. LW
18 ft. LW
Irving Oil
9 ft. LW
12 ft. LW
12 ft. LW
Private Fish Processors
Marine Railway



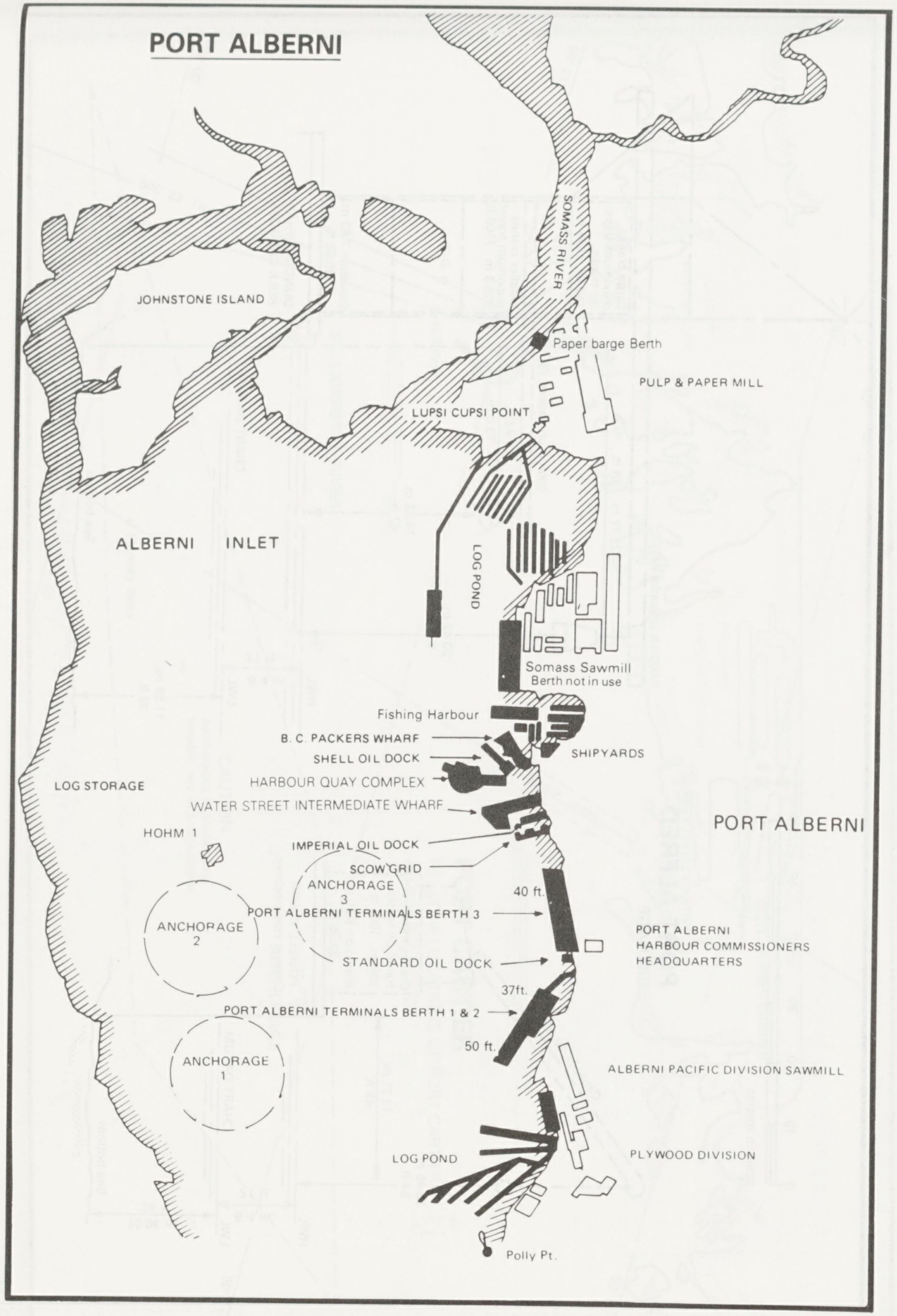
Depths are reported to be maintained by periodic dredging as follows:

Area A	27 feet
Area B	22 feet
Area C	22 feet

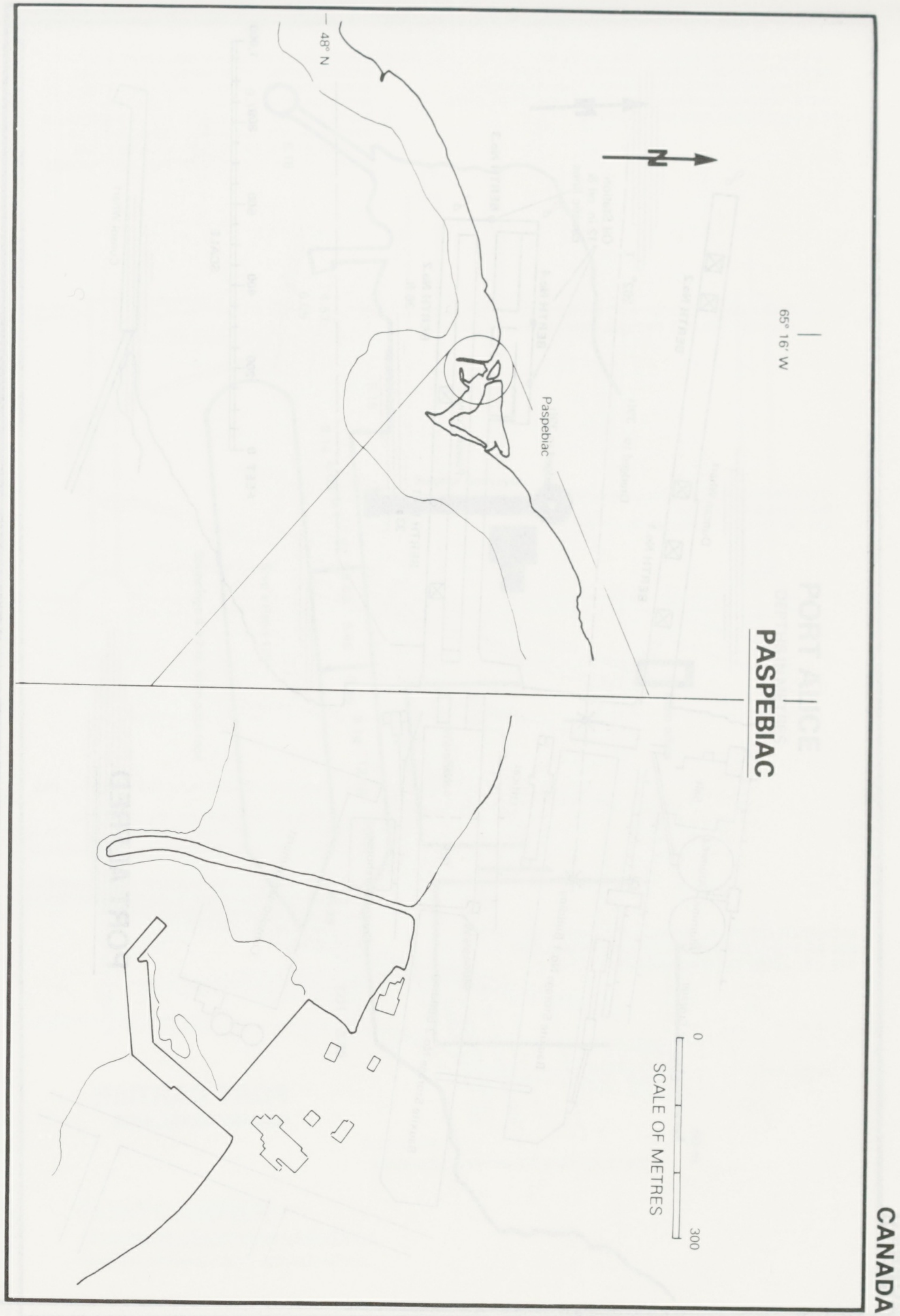
OSHAWA

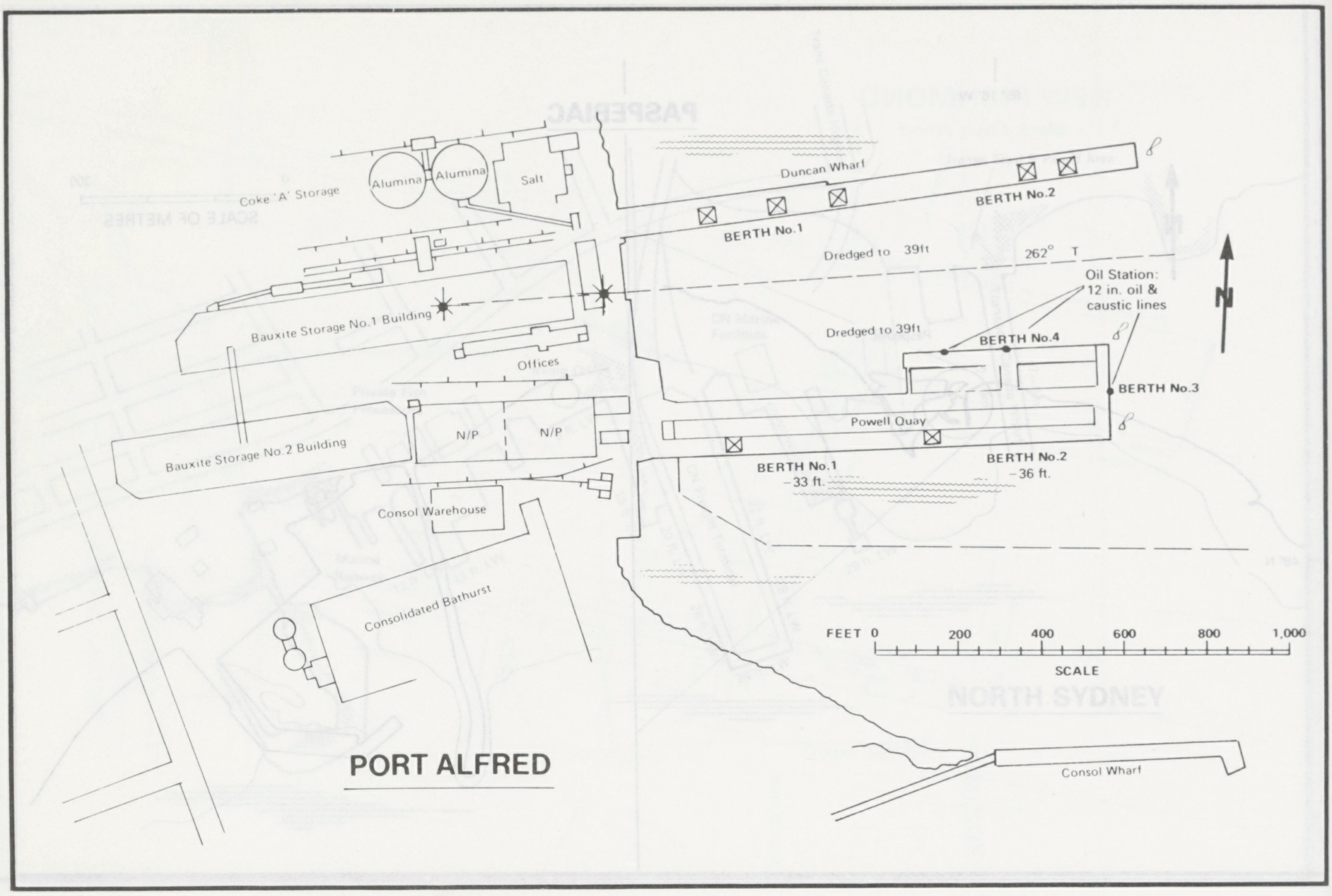
Murphy Oil
Oshawa Yachthaven
Area B
Area C
Visible in line only
FY56ft
FILL AREA
Oshawa Harbour Commission
Lakeview Park
Q. Y. 35 ft.
Fog. Sig. 20 s.
RC
Area A
328° 00'
R
N

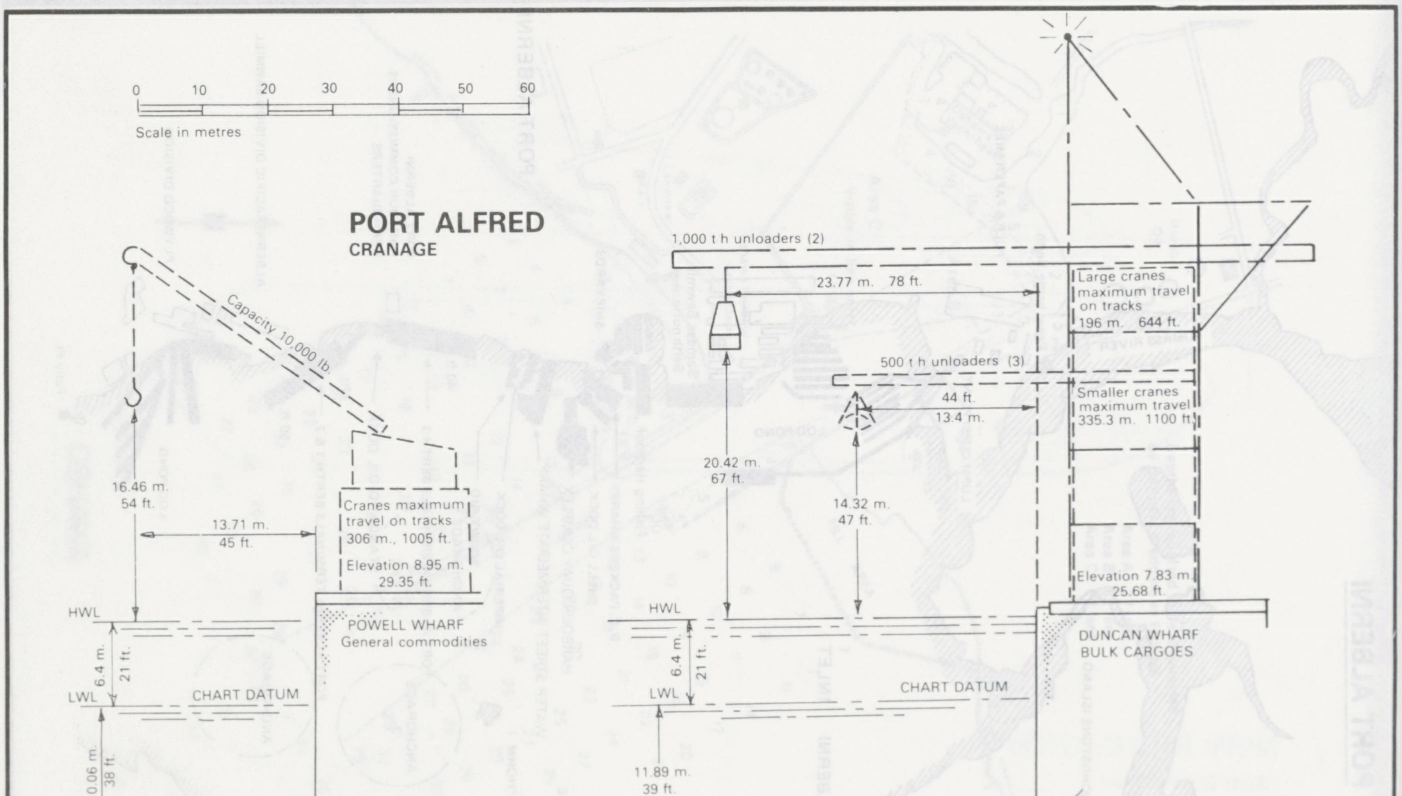
PORT ALBERNI

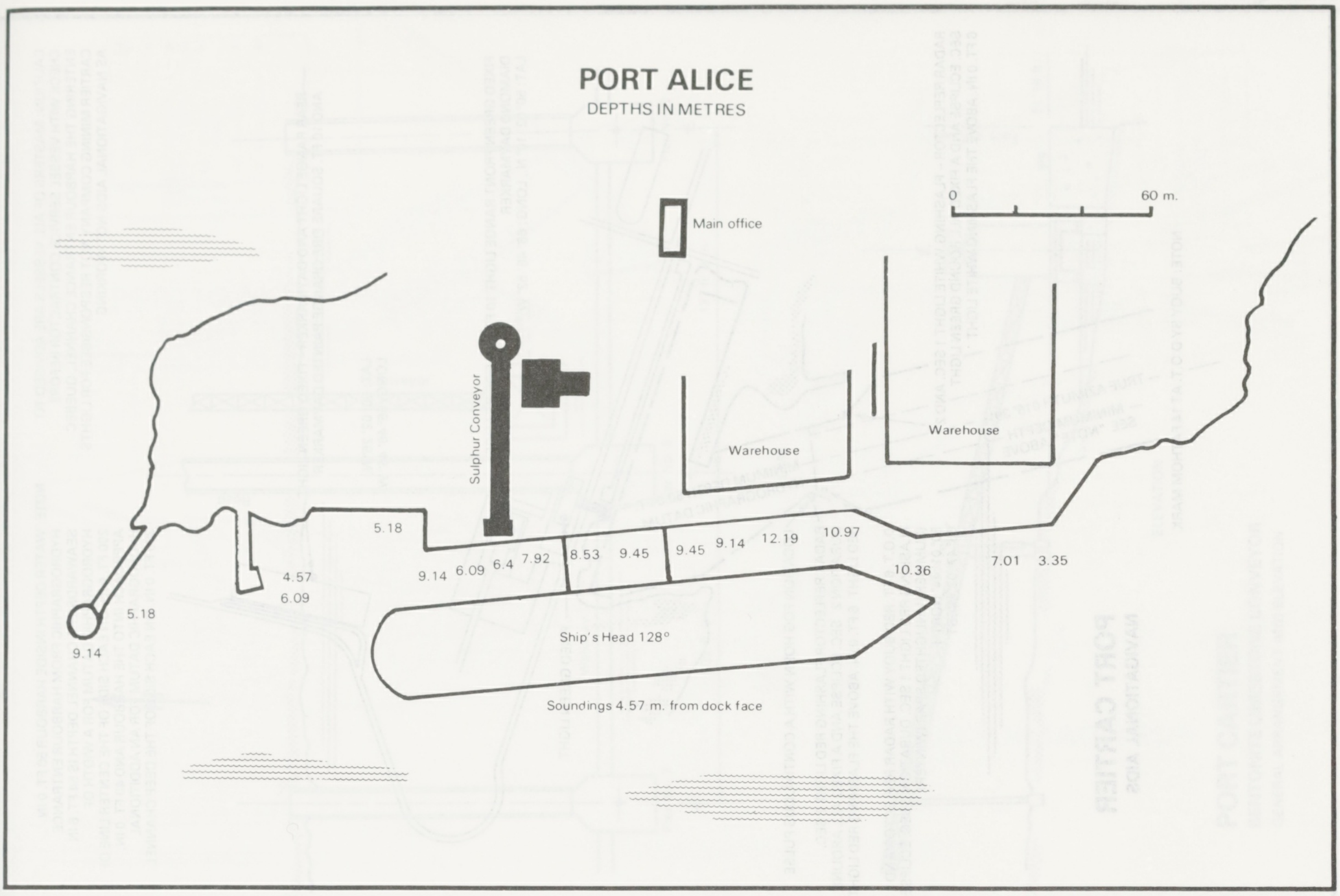

JOHNSTONE ISLAND
SOMASS RIVER
Paper barge Berth
PULP & PAPER MILL
LUPSI CUPSI POINT
ALBERNI INLET
LOG POND
Somass Sawmill
Berth not in use
Fishing Harbour
B. C. PACKERS WHARF
SHELL OIL DOCK
HARBOUR QUAY COMPLEX
SHIPYARDS
LOG STORAGE
WATER STREET INTERMEDIATE WHARF
PORT ALBERNI
HOHM 1
IMPERIAL OIL DOCK
SCOW GRID
ANCHORAGE 3
40 ft.
ANCHORAGE 2
PORT ALBERNI TERMINALS BERTH 3
PORT ALBERNI HARBOUR COMMISSIONERS HEADQUARTERS
STANDARD OIL DOCK
37ft.
PORT ALBERNI TERMINALS BERTH 1 & 2
50 ft.
ANCHORAGE 1
ALBERNI PACIFIC DIVISION SAWMILL
LOG POND
PLYWOOD DIVISION
Polly Pt.

PASPEBIAC


48° N
65° 16' W
N
Paspebiac
SCALE OF METRES
0
300


Coke 'A' Storage
Alumina
Alumina
Salt
Duncan Wharf
BERTH No.1
BERTH No.2
Dredged to 39ft
262° T
Oil Station:
12 in. oil &
caustic lines
Bauxite Storage No.1 Building
Dredged to 39ft
BERTH No.4
BERTH No.3
Offices
N/P
N/P
Powell Quay
Bauxite Storage No.2 Building
BERTH No.1
−33 ft.
BERTH No.2
−36 ft.
Consol Warehouse
Consolidated Bathurst
FEET 0 200 400 600 800 1,000
SCALE
PORT ALFRED
Consol Wharf
N

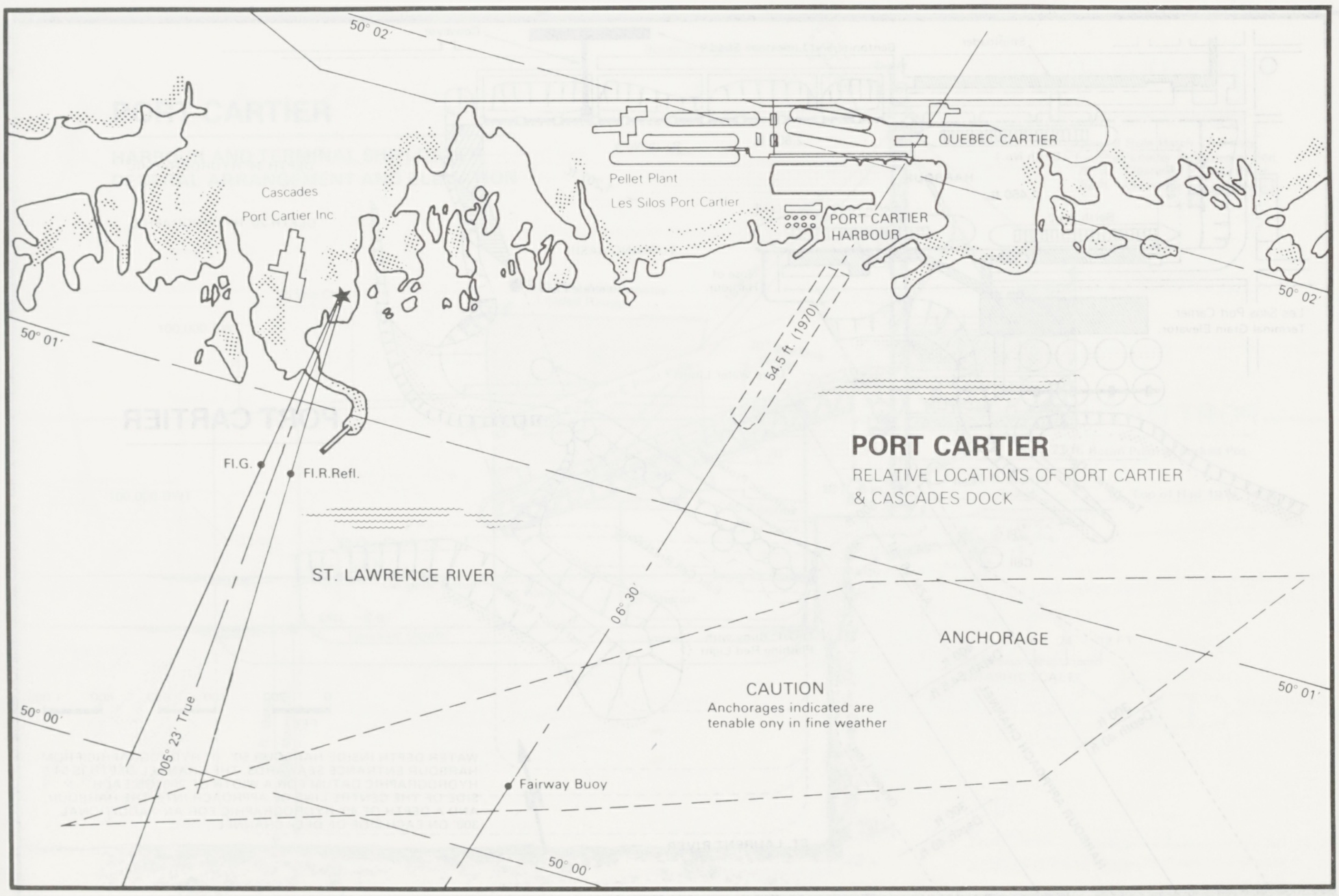

0 10 20 30 40 50 60
Scale in metres
PORT ALFRED
CRANAGE
Capacity 10,000 lb
16.46 m.
54 ft.
13.71 m.
45 ft.
Cranes maximum travel on tracks 306 m., 1005 ft.
Elevation 8.95 m. 29.35 ft.
HWL
POWELL WHARF
General commodities
6.4 m.
21 ft.
LWL
CHART DATUM
10.06 m.
38 ft.
Sea bottom
1,000 t h unloaders (2)
23.77 m. 78 ft.
Large cranes maximum travel on tracks 196 m. 644 ft.
500 t h unloaders (3)
44 ft.
13.4 m.
Smaller cranes maximum travel 335.3 m. 1100 ft.
20.42 m.
67 ft.
14.32 m.
47 ft.
Elevation 7.83 m.
25.68 ft.
HWL
DUNCAN WHARF
BULK CARGOES
6.4 m.
21 ft.
LWL
CHART DATUM
11.89 m.
39 ft.
Sea bottom



PORT ALICE

DEPTHS IN METRES

0
60 m.
Main office
Sulphur Conveyor
Warehouse
Warehouse
5.18
4.57
6.09
9.14
6.09
6.4
7.92
8.53
9.45
9.45
9.14
12.19
10.97
10.36
7.01
3.35
5.18
9.14
Ship's Head 128°
Soundings 4.57 m. from dock face



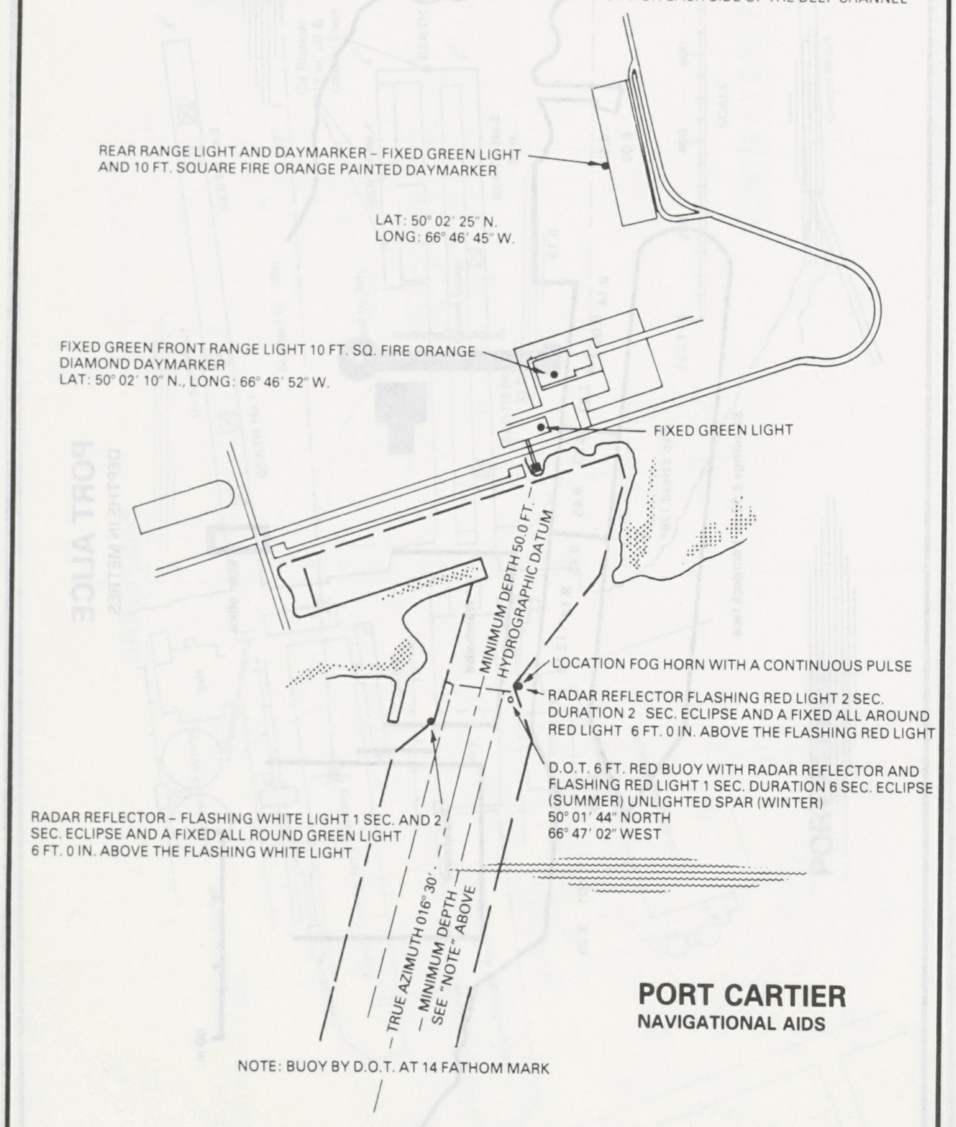
PORT CARTIER

RELATIVE LOCATIONS OF PORT CARTIER & CASCADES DOCK

50° 02'
QUEBEC CARTIER
Pellet Plant
Les Silos Port Cartier
Cascades
Port Cartier Inc
PORT CARTIER
HARBOUR
50° 02'
50° 01'
54.5 ft. (1970)
Fl.G.
Fl.R.Refl.
ST. LAWRENCE RIVER
06° 30'
ANCHORAGE
CAUTION
Anchorages indicated are tenable ony in fine weather
50° 01'
50° 00'
005° 23' True
Fairway Buoy
50° 00'

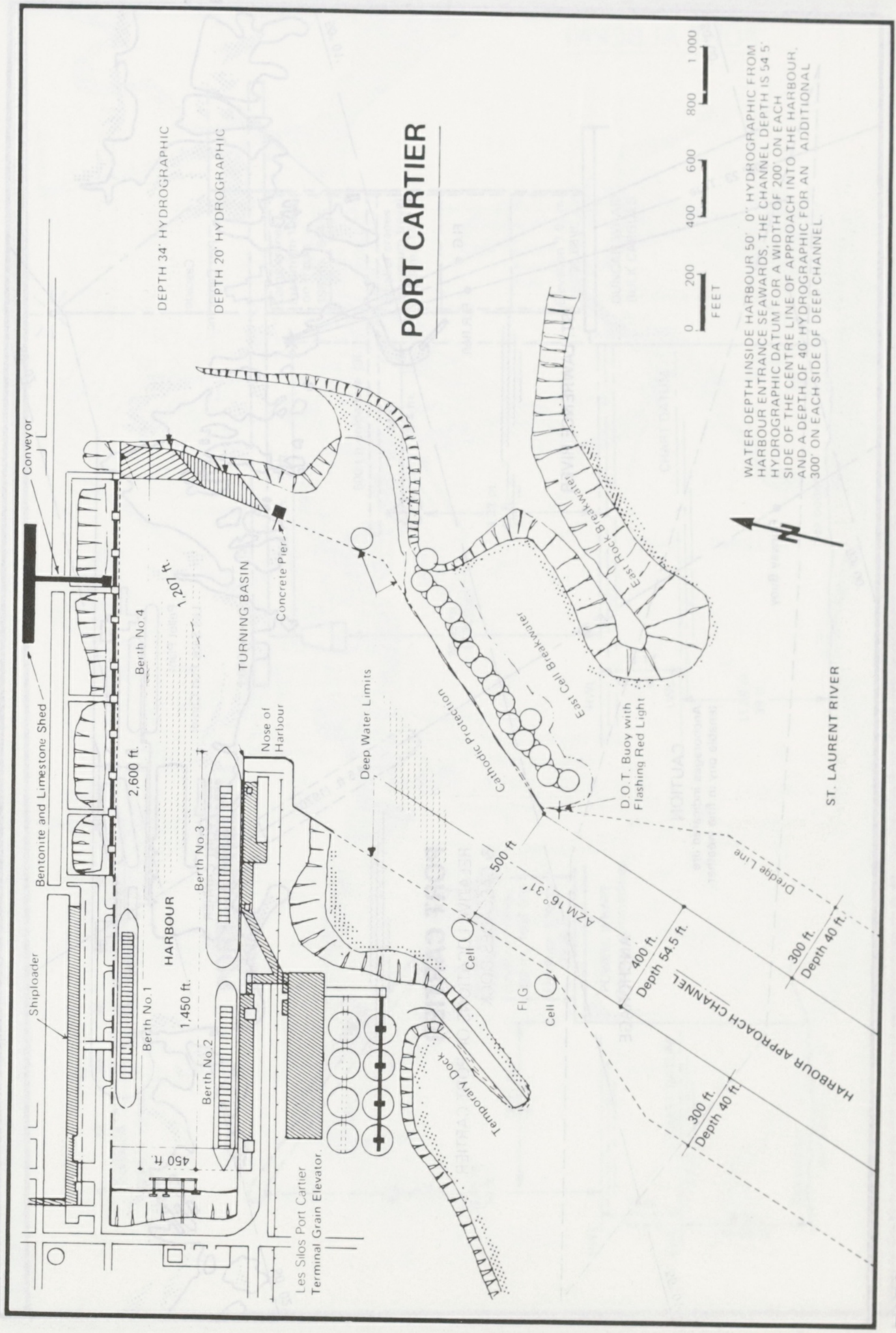
CAUTION: MASTERS OF ALL VESSELS ARE ADVISED TO CHECK WITH VESSEL SERVICE CONTRACTOR BEFORE ENTERING THE HARBOUR ENTRANCE CHANNEL, QUEBEC CARTIER MINING COMPANY NOT RESPONSIBLE FOR LIGHTS AS NAVIGATIONAL AIDS NOT WORKING

NOTE: WATER DEPTH INSIDE HARBOUR 50 FT. 0 IN. HYDROGRAPHIC FROM HARBOUR ENTRANCE SEAWARDS THE CHANNEL DEPTH IS 54 FT. 6 IN. HYDROGRAPHIC DATUM FOR A WIDTH OF 200 FT. 0 IN. ON EACH SIDE OF THE CENTER LINE OF APPROACH INTO THE HARBOUR AND 40 FT. 0 IN. HYDROGRAPHIC DATUM FOR AN ADDITIONAL 300 FT. 0 IN. ON EACH SIDE OF THE DEEP CHANNEL

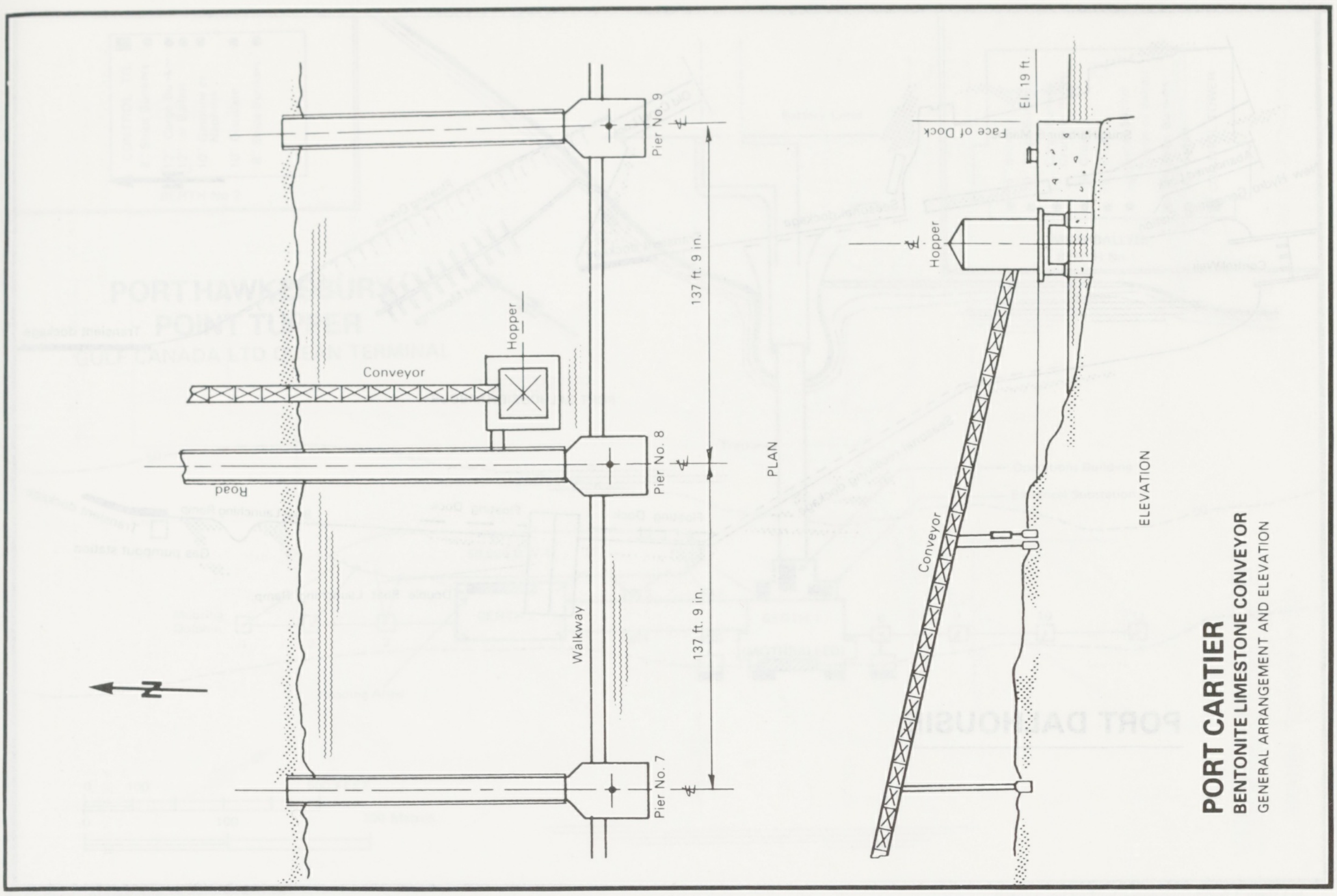

REAR RANGE LIGHT AND DAYMARKER – FIXED GREEN LIGHT AND 10 FT. SQUARE FIRE ORANGE PAINTED DAYMARKER
LAT: 50° 02′ 25″ N.
LONG: 66° 46′ 45″ W.
FIXED GREEN FRONT RANGE LIGHT 10 FT. SQ. FIRE ORANGE DIAMOND DAYMARKER
LAT: 50° 02′ 10″ N., LONG: 66° 46′ 52″ W.
FIXED GREEN LIGHT
MINIMUM DEPTH 50.0 FT. HYDROGRAPHIC DATUM
LOCATION FOG HORN WITH A CONTINUOUS PULSE
RADAR REFLECTOR FLASHING RED LIGHT 2 SEC. DURATION 2 SEC. ECLIPSE AND A FIXED ALL AROUND RED LIGHT 6 FT. 0 IN. ABOVE THE FLASHING RED LIGHT
D.O.T. 6 FT. RED BUOY WITH RADAR REFLECTOR AND FLASHING RED LIGHT 1 SEC. DURATION 6 SEC. ECLIPSE (SUMMER) UNLIGHTED SPAR (WINTER)
50° 01′ 44″ NORTH
66° 47′ 02″ WEST
RADAR REFLECTOR – FLASHING WHITE LIGHT 1 SEC. AND 2 SEC. ECLIPSE AND A FIXED ALL ROUND GREEN LIGHT 6 FT. 0 IN. ABOVE THE FLASHING WHITE LIGHT
– TRUE AZIMUTH 016° 30′
– MINIMUM DEPTH SEE "NOTE" ABOVE

PORT CARTIER
NAVIGATIONAL AIDS

NOTE: BUOY BY D.O.T. AT 14 FATHOM MARK


PORT CARTIER
0 200 400 600 800 1000
FEET
DEPTH 34′ HYDROGRAPHIC
DEPTH 20′ HYDROGRAPHIC
Conveyor
Bentonite and Limestone Shed
Berth No 4
1,201 ft.
TURNING BASIN
Concrete Piers
2,600 ft.
Nose of Harbour
Deep Water Limits
Cathodic Protection
East Cell Breakwater
East Rock Breakwater
D.O.T. Buoy with Flashing Red Light
ST. LAURENT RIVER
Berth No 3
HARBOUR
Berth No 1
1,450 ft.
Berth No 2
450 ft
Shiploader
Les Silos Port Cartier Terminal Grain Elevator.
Temporary Dock
Cell
Cell
Fl G
500 ft.
AZM 16° 31′
400 ft.
Depth 54.5 ft.
300 ft.
Depth 40 ft.
300 ft.
Depth 40 ft.
Dredge Line
HARBOUR APPROACH CHANNEL

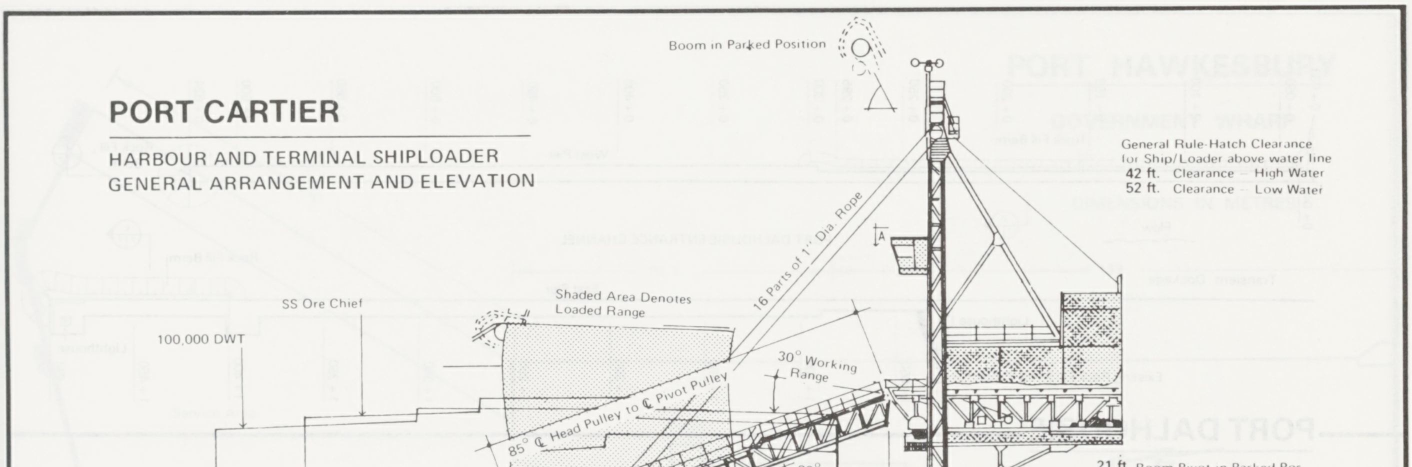
WATER DEPTH INSIDE HARBOUR 50′ 0″ HYDROGRAPHIC FROM HARBOUR ENTRANCE SEAWARDS, THE CHANNEL DEPTH IS 54.5′ HYDROGRAPHIC DATUM FOR A WIDTH OF 200′ ON EACH SIDE OF THE CENTRE LINE OF APPROACH INTO THE HARBOUR, AND A DEPTH OF 40′ HYDROGRAPHIC FOR AN ADDITIONAL 300′ ON EACH SIDE OF DEEP CHANNEL

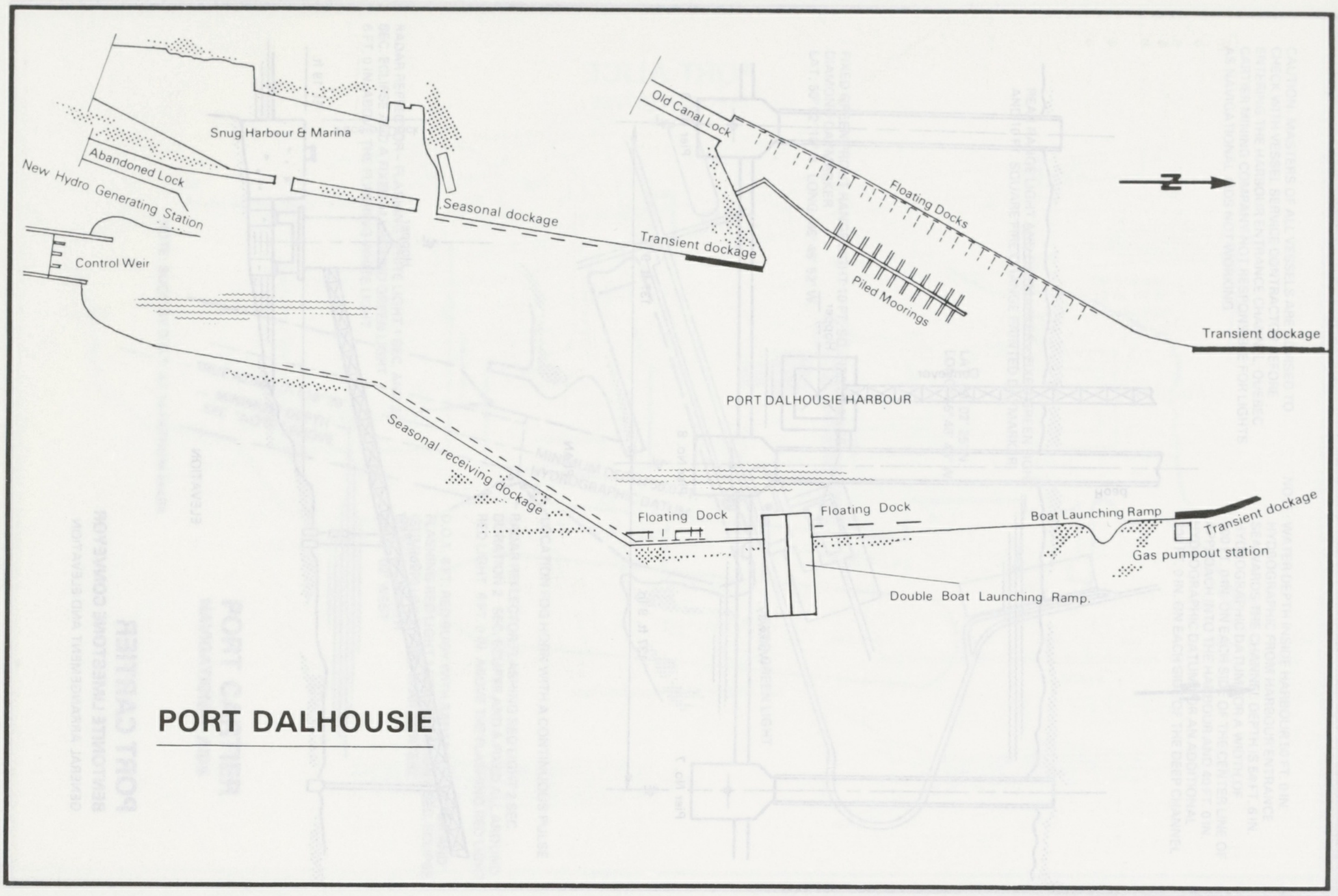

Pier No. 9
Pier No. 8
Pier No. 7
137 ft. 9 in.
137 ft. 9 in.
Hopper
Conveyor
Road
Walkway
PLAN
N
El. 19 ft.
Face of Dock
Hopper
Conveyor
ELEVATION

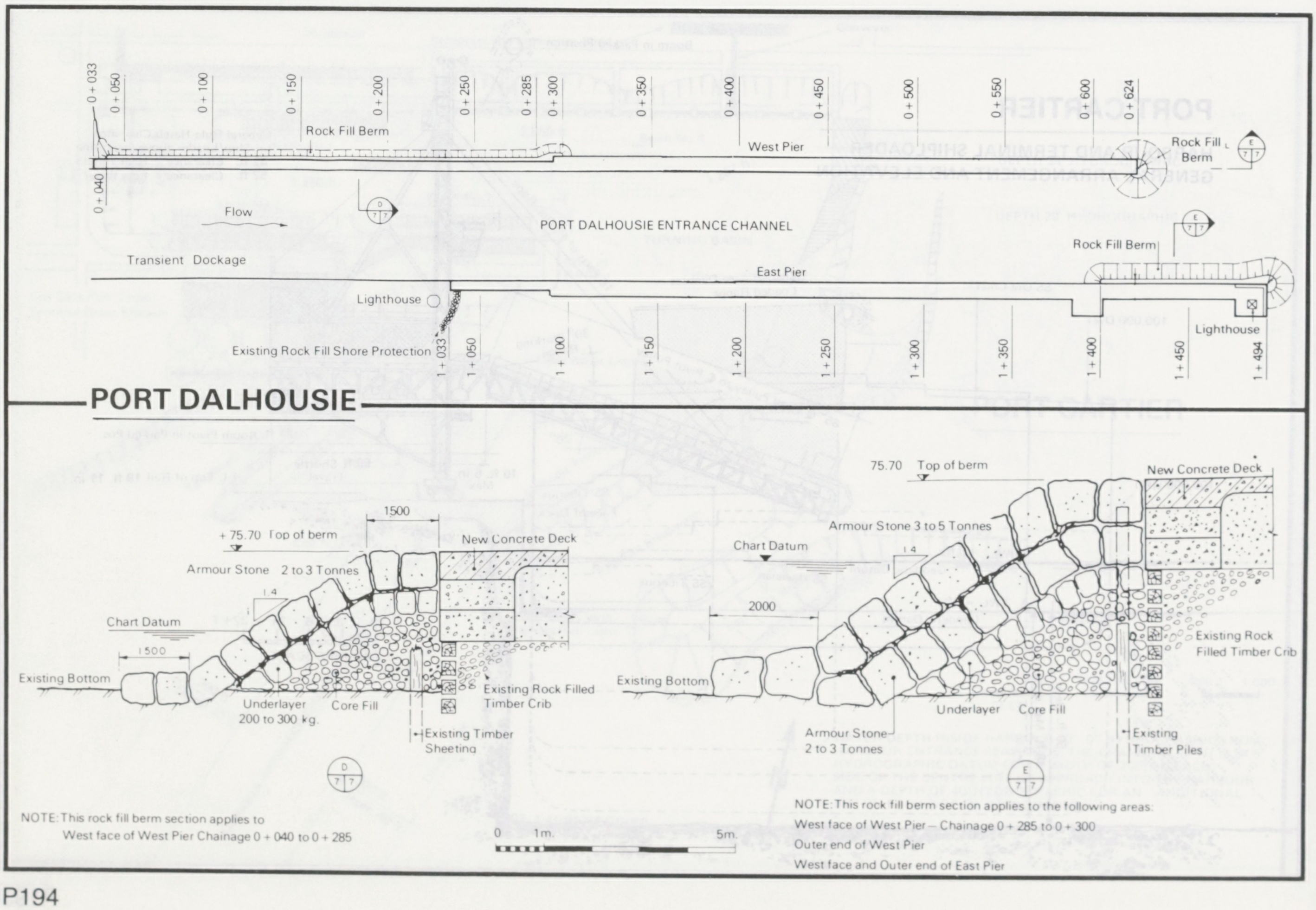
PORT CARTIER
BENTONITE LIMESTONE CONVEYOR
GENERAL ARRANGEMENT AND ELEVATION

PORT CARTIER

HARBOUR AND TERMINAL SHIPLOADER
GENERAL ARRANGEMENT AND ELEVATION

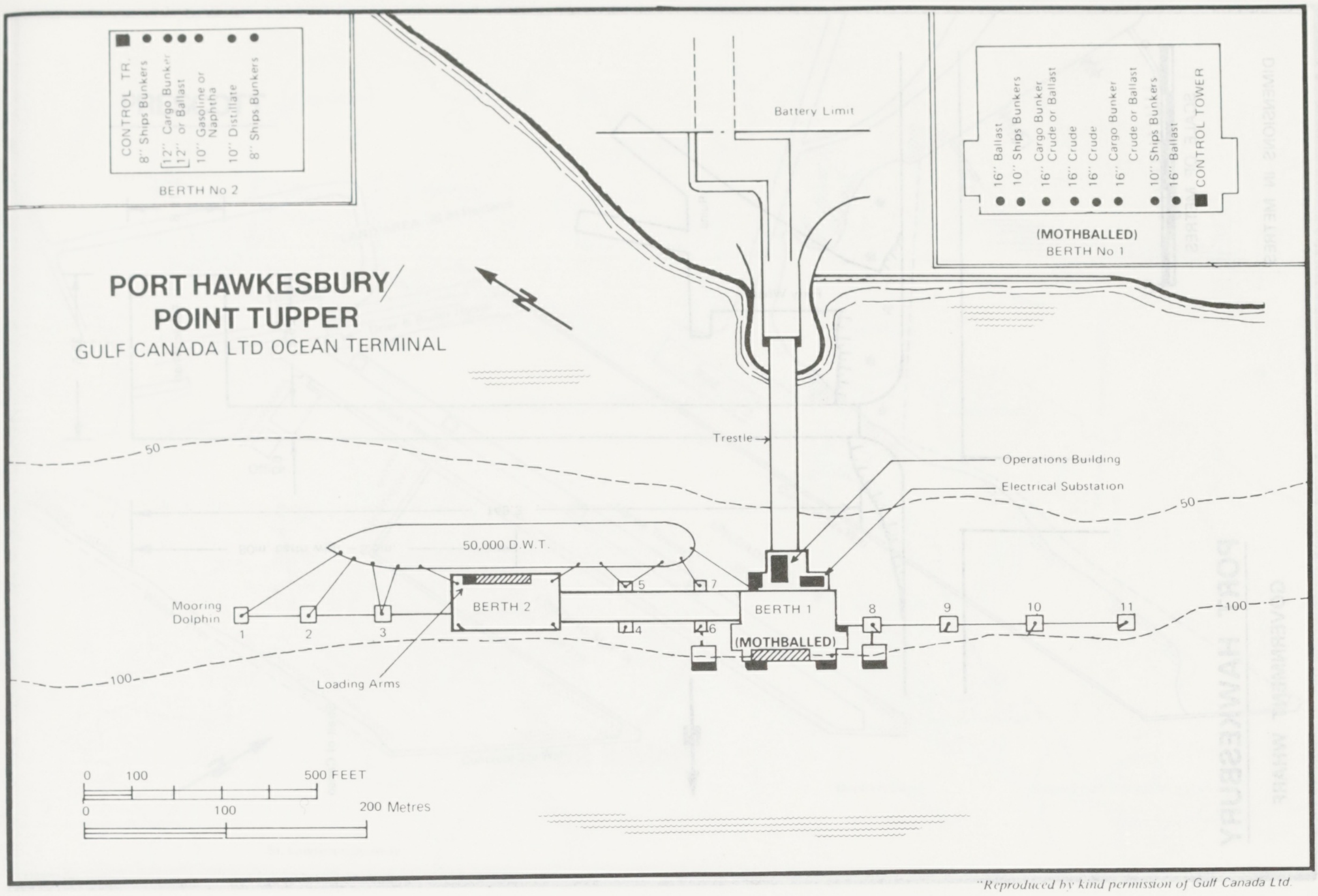

Boom in Parked Position
General Rule-Hatch Clearance for Ship/Loader above water line
42 ft. Clearance – High Water
52 ft. Clearance – Low Water
16 Parts of 1" Dia. Rope
A
Shaded Area Denotes Loaded Range
SS Ore Chief
100,000 DWT
30° Working Range
85° ℄ Head Pulley to ℄ Pivot Pulley
20°
21 ft. Boom Pivot in Parked Pos.
50 ft. Shuttle Travel
10 ft. 6 in. Max
EL Top of Rail 19 ft. 11 in.
100,000 DWT
SS Tiberius
Face of Dock
SS Ore Chief
HWL +6 ft.
Geodetic Datum
SS Hawaian
SS Tiberius
LWL −6 ft.
Geodetic Datum
0
8
16
24
32 FT
GRAPHIC SCALE
50 ft. Deep
48 ft. Max draft


Snug Harbour & Marina
Abandoned Lock
New Hydro Generating Station
Control Weir
Seasonal dockage
Transient dockage
Old Canal Lock
Floating Docks
Piled Moorings
N
Transient dockage
PORT DALHOUSIE HARBOUR
Seasonal receiving dockage
Floating Dock
Floating Dock
Boat Launching Ramp
Transient dockage
Gas pumpout station
Double Boat Launching Ramp.
PORT DALHOUSIE

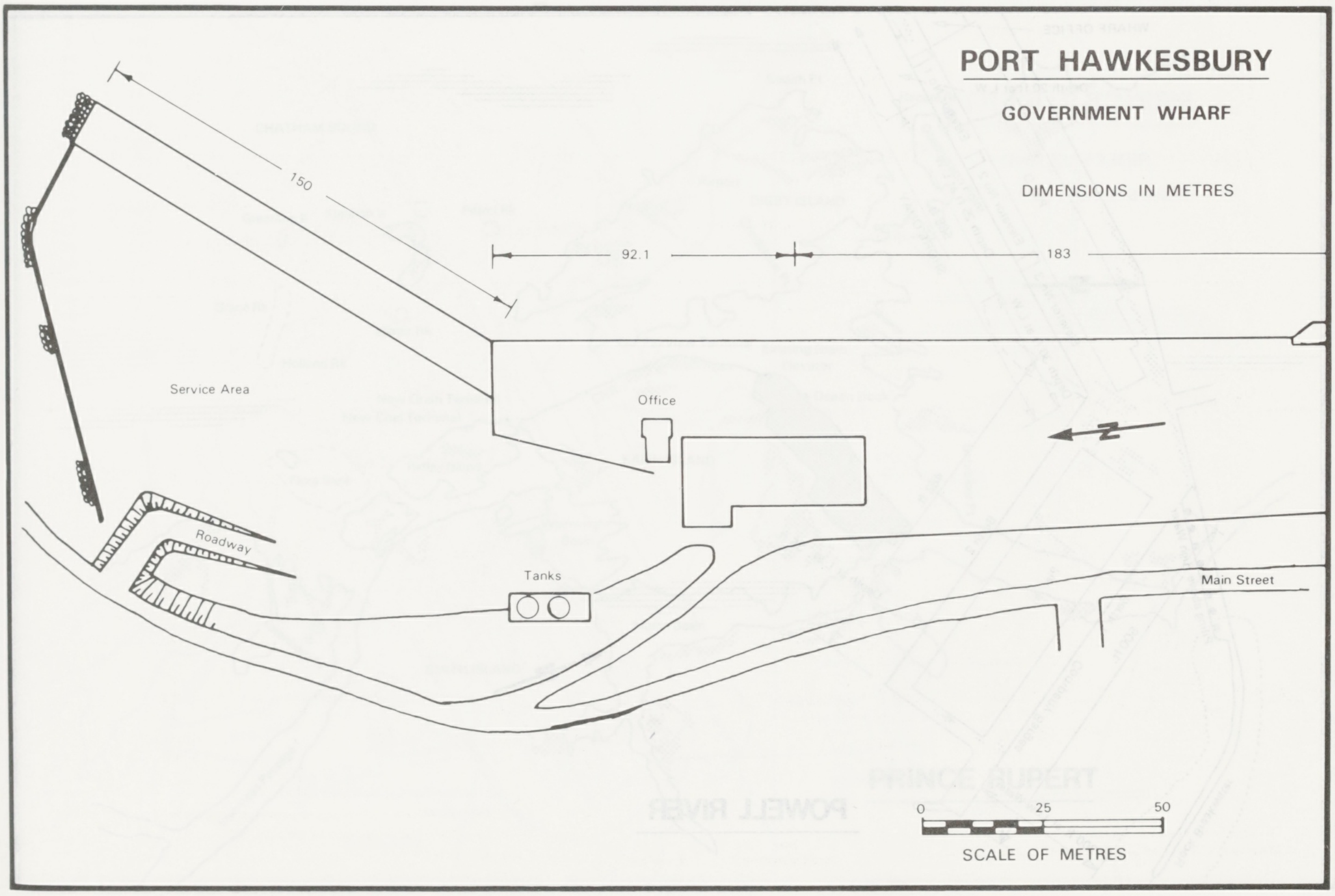

0 + 033
0 + 050
0 + 100
0 + 150
0 + 200
0 + 250
0 + 285
0 + 300
0 + 350
0 + 400
0 + 450
0 + 500
0 + 550
0 + 600
0 + 624
0 + 040
Rock Fill Berm
West Pier
Rock Fill Berm
E 7|7
D 7|7
Flow
PORT DALHOUSIE ENTRANCE CHANNEL
Transient Dockage
Rock Fill Berm
E 7|7
East Pier
Lighthouse
Lighthouse
Existing Rock Fill Shore Protection
1 + 033
1 + 050
1 + 100
1 + 150
1 + 200
1 + 250
1 + 300
1 + 350
1 + 400
1 + 450
1 + 494
PORT DALHOUSIE
1500
+ 75.70 Top of berm
New Concrete Deck
Armour Stone 2 to 3 Tonnes
1:4
Chart Datum
1500
Existing Bottom
Underlayer 200 to 300 kg.
Core Fill
Existing Rock Filled Timber Crib
Existing Timber Sheeting
D 7|7
75.70 Top of berm
New Concrete Deck
Armour Stone 3 to 5 Tonnes
Chart Datum
1:4
2000
Existing Bottom
Existing Rock Filled Timber Crib
Underlayer
Core Fill
Armour Stone 2 to 3 Tonnes
Existing Timber Piles
E 7|7
0
1m.
5m.

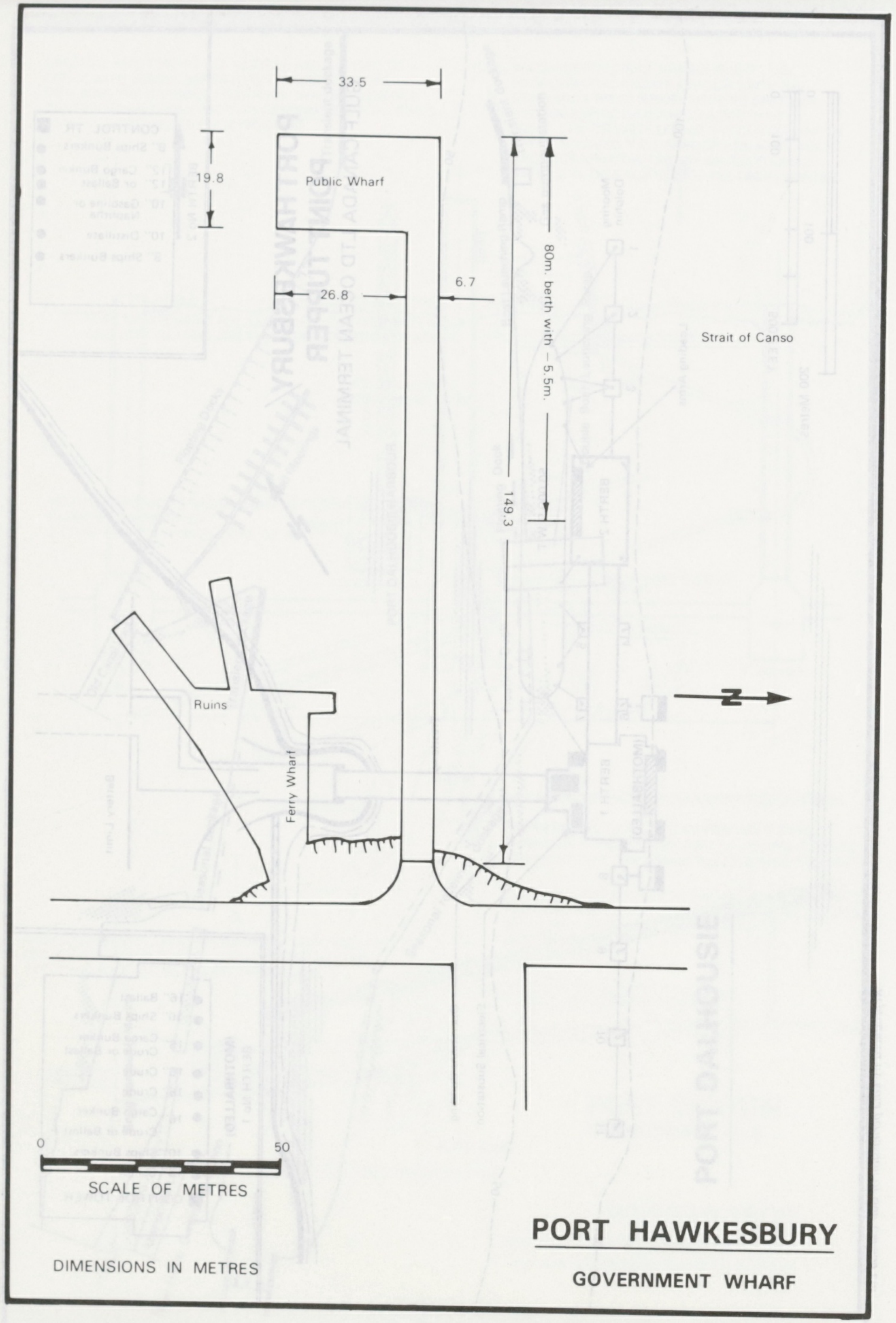
NOTE: This rock fill berm section applies to
West face of West Pier Chainage 0 + 040 to 0 + 285

NOTE: This rock fill berm section applies to the following areas:
West face of West Pier – Chainage 0 + 285 to 0 + 300
Outer end of West Pier
West face and Outer end of East Pier


CONTROL TR.
8'' Ships Bunkers
12'' Cargo Bunker
12'' or Ballast
10'' Gasoline or Naphtha
10'' Distillate
8'' Ships Bunkers
BERTH No 2
Battery Limit
16'' Ballast
10'' Ships Bunkers
16'' Cargo Bunker Crude or Ballast
16'' Crude
16'' Crude
16'' Cargo Bunker Crude or Ballast
10'' Ships Bunkers
16'' Ballast
CONTROL TOWER
(MOTHBALLED)
BERTH No 1
PORT HAWKESBURY/
POINT TUPPER
GULF CANADA LTD OCEAN TERMINAL
Trestle
Operations Building
Electrical Substation
50
50
50,000 D.W.T.
Mooring Dolphin
BERTH 2
BERTH 1
(MOTHBALLED)
1
2
3
4
5
6
7
8
9
10
11
100
100
Loading Arms
0
100
500 FEET
0
100
200 Metres

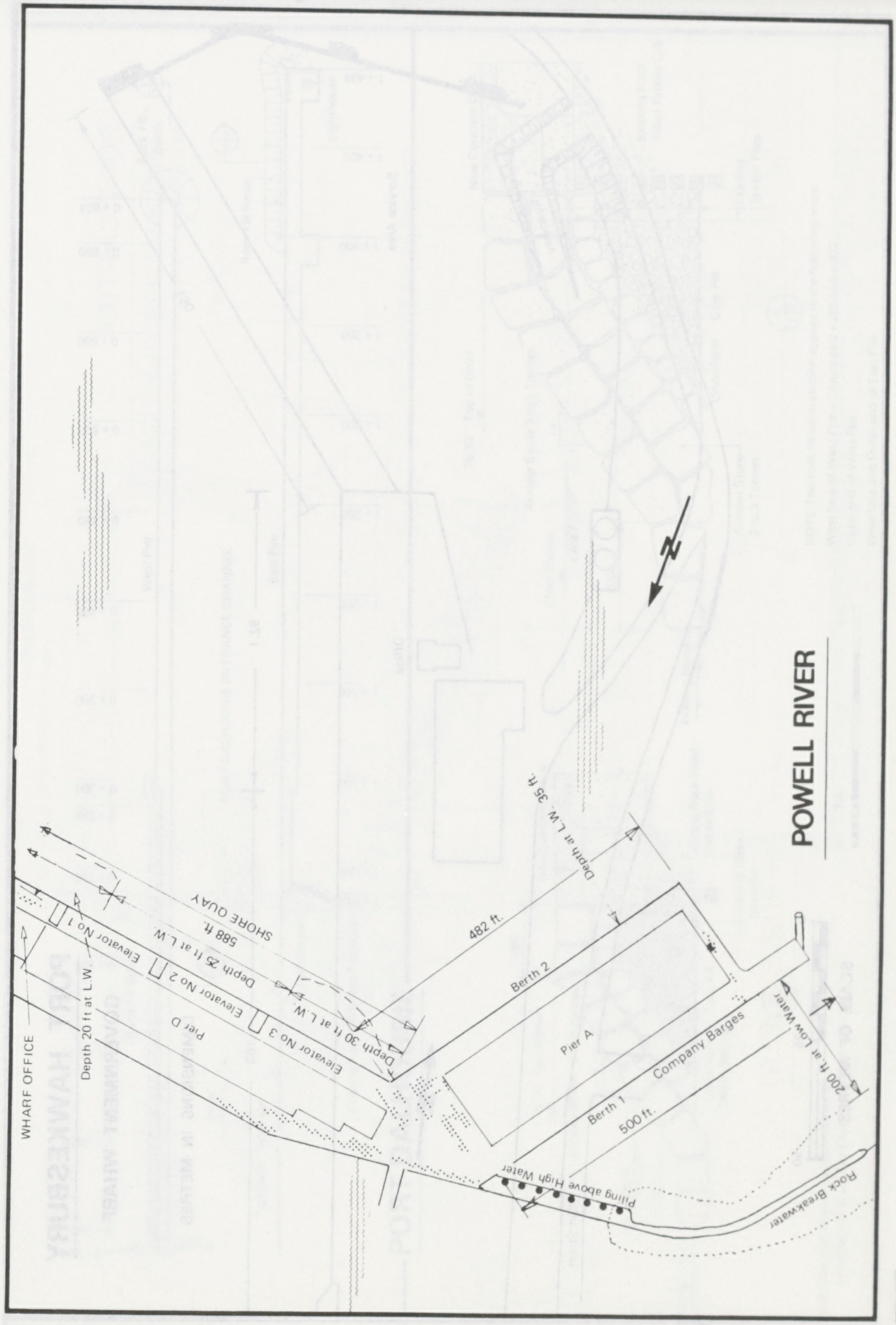
"Reproduced by kind permission of Gulf Canada Ltd.


PORT HAWKESBURY
GOVERNMENT WHARF
DIMENSIONS IN METRES
150
92.1
183
Service Area
Office
Roadway
Tanks
Main Street
0
25
50
SCALE OF METRES

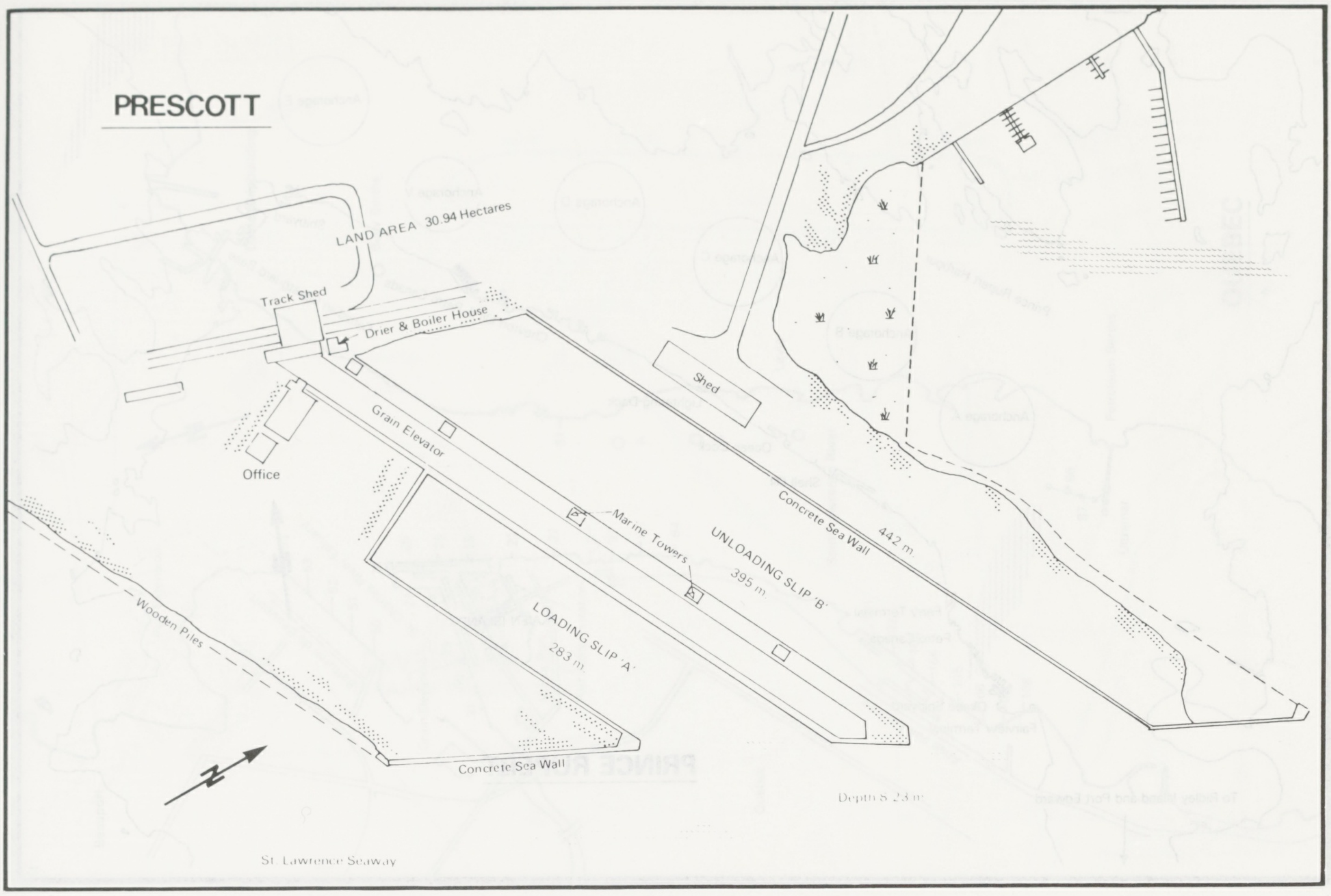

33.5
19.8
Public Wharf
26.8
6.7
80m. berth with −5.5m.
149.3
Strait of Canso
N
Ruins
Ferry Wharf
0
50
SCALE OF METRES
DIMENSIONS IN METRES

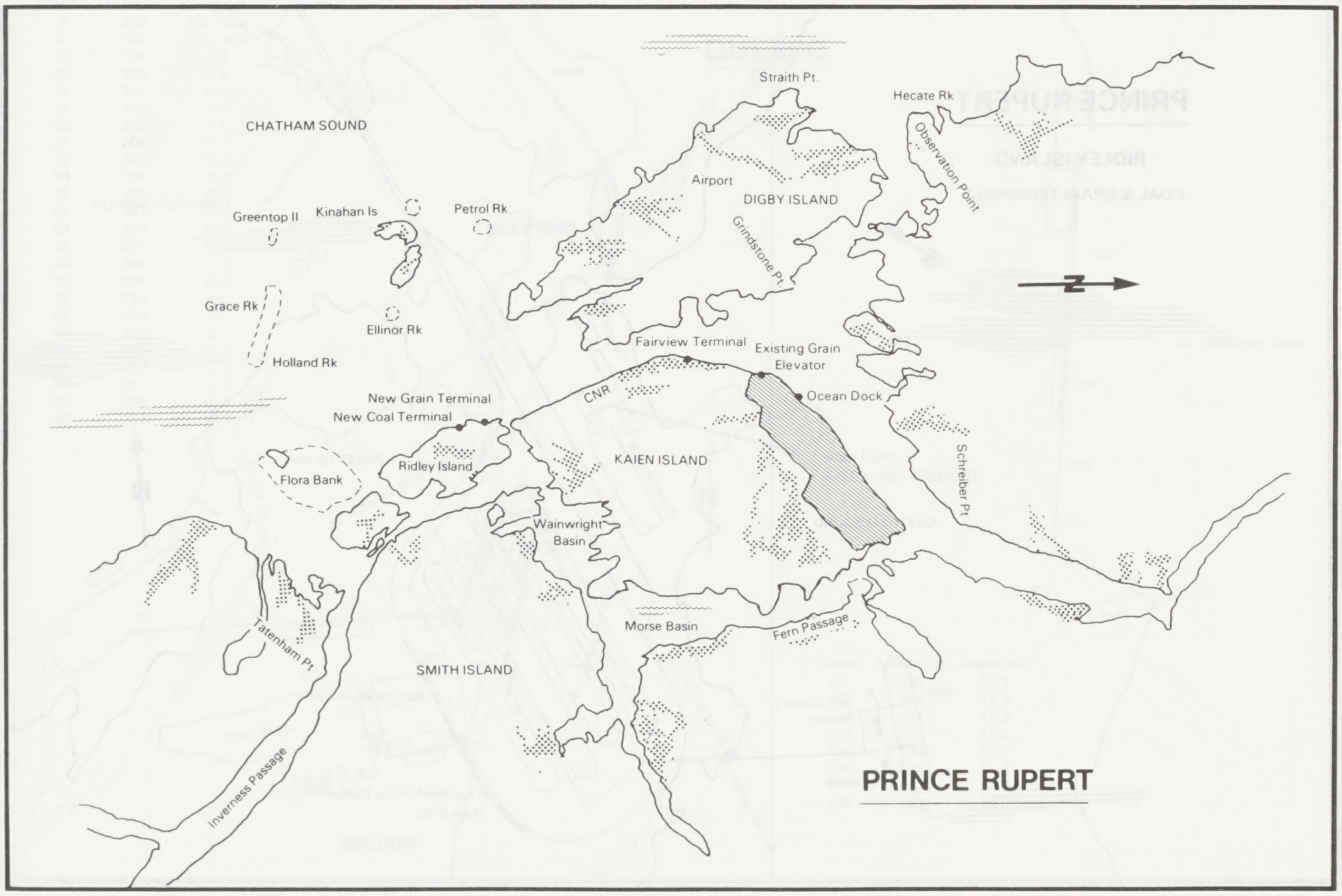
PORT HAWKESBURY

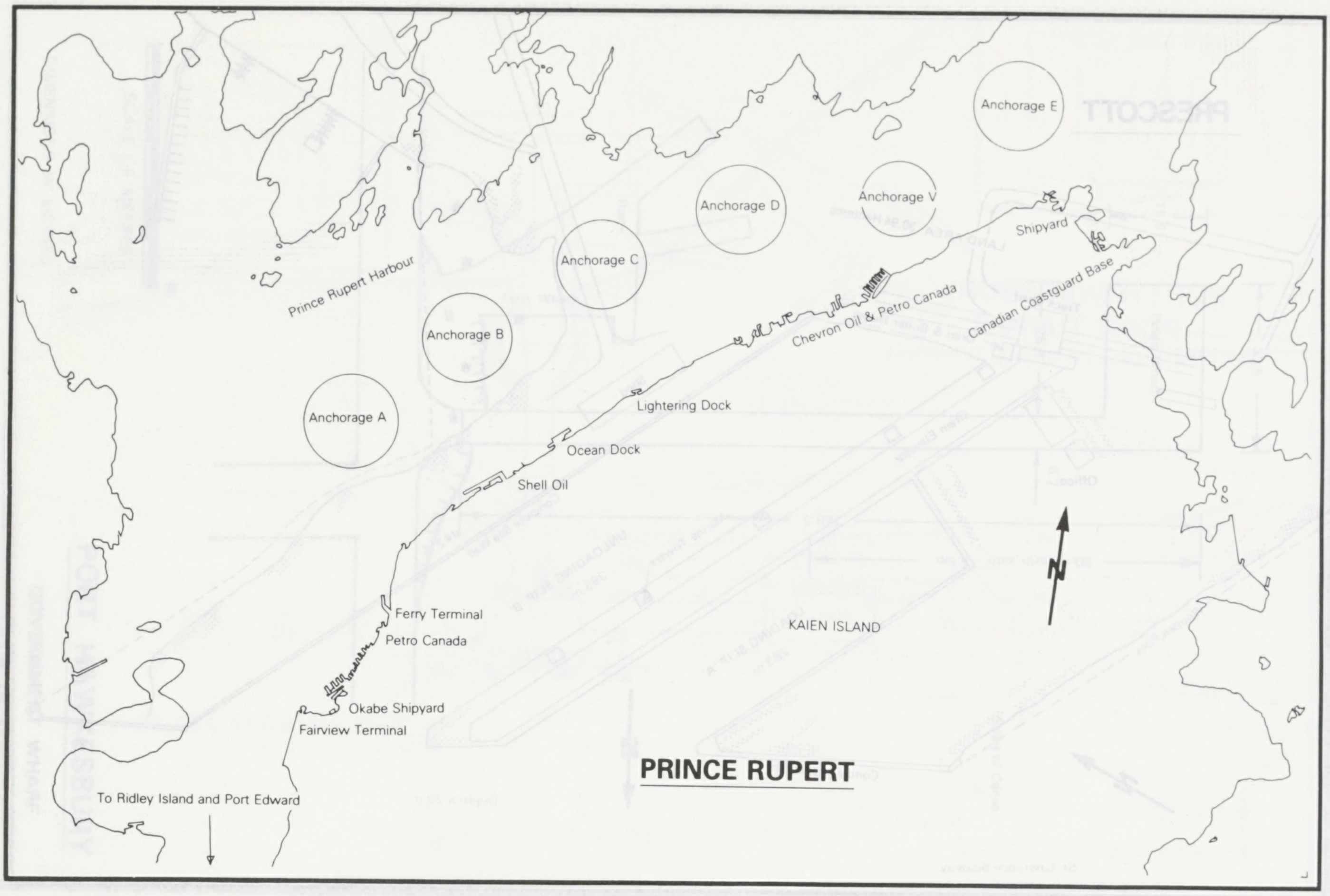
GOVERNMENT WHARF

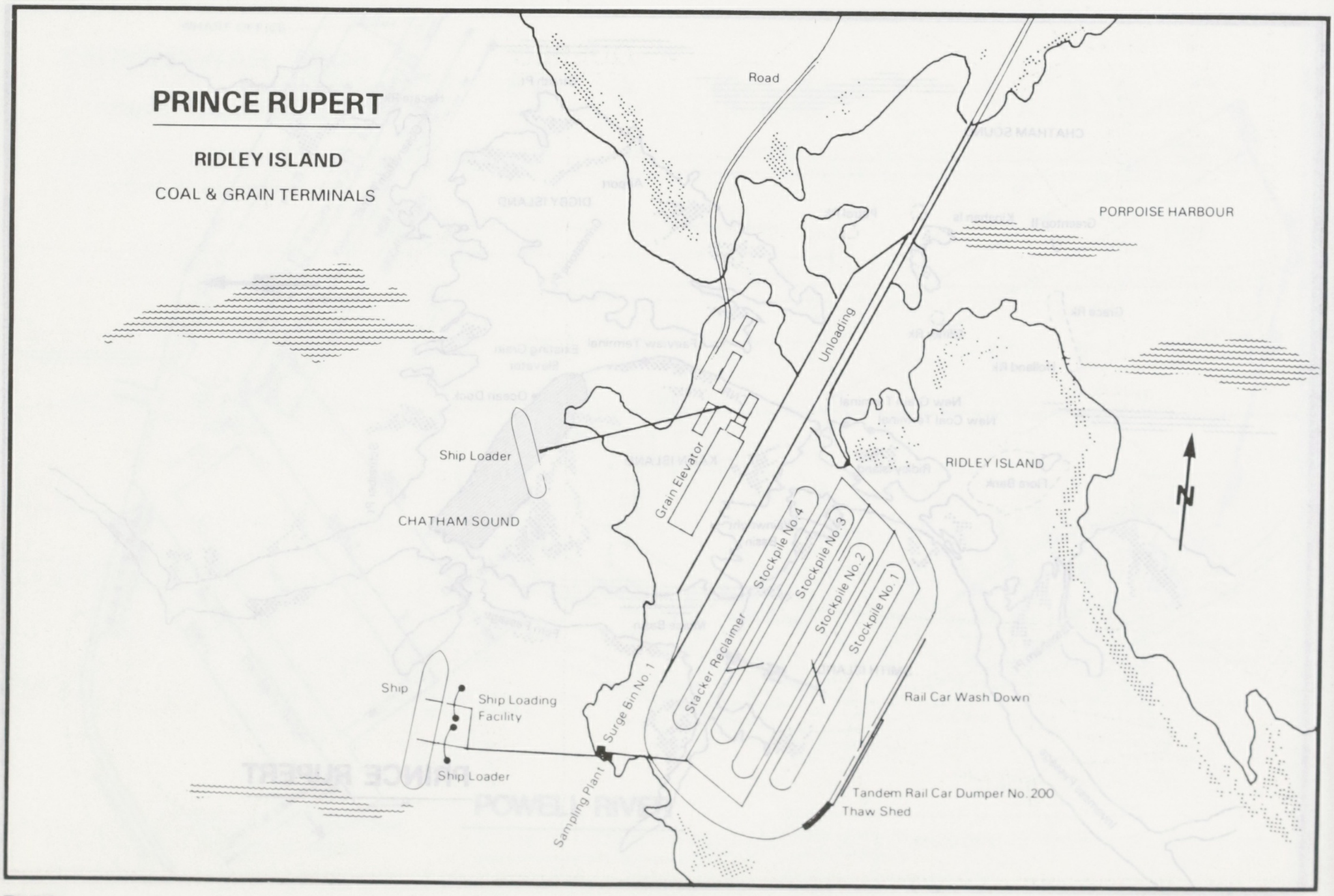

WHARF OFFICE
Depth 20 ft at L.W.
Elevator No 1
Elevator No 2
Elevator No 3
Depth 25 ft at L.W
Depth 30 ft at L.W
588 ft.
SHORE QUAY
Pier D
482 ft.
Depth at L.W. 35 ft
Berth 2
Pier A
Company Barges
Berth 1
500 ft.
200 ft at Low Water
Piling above High Water
Rock Breakwater
N

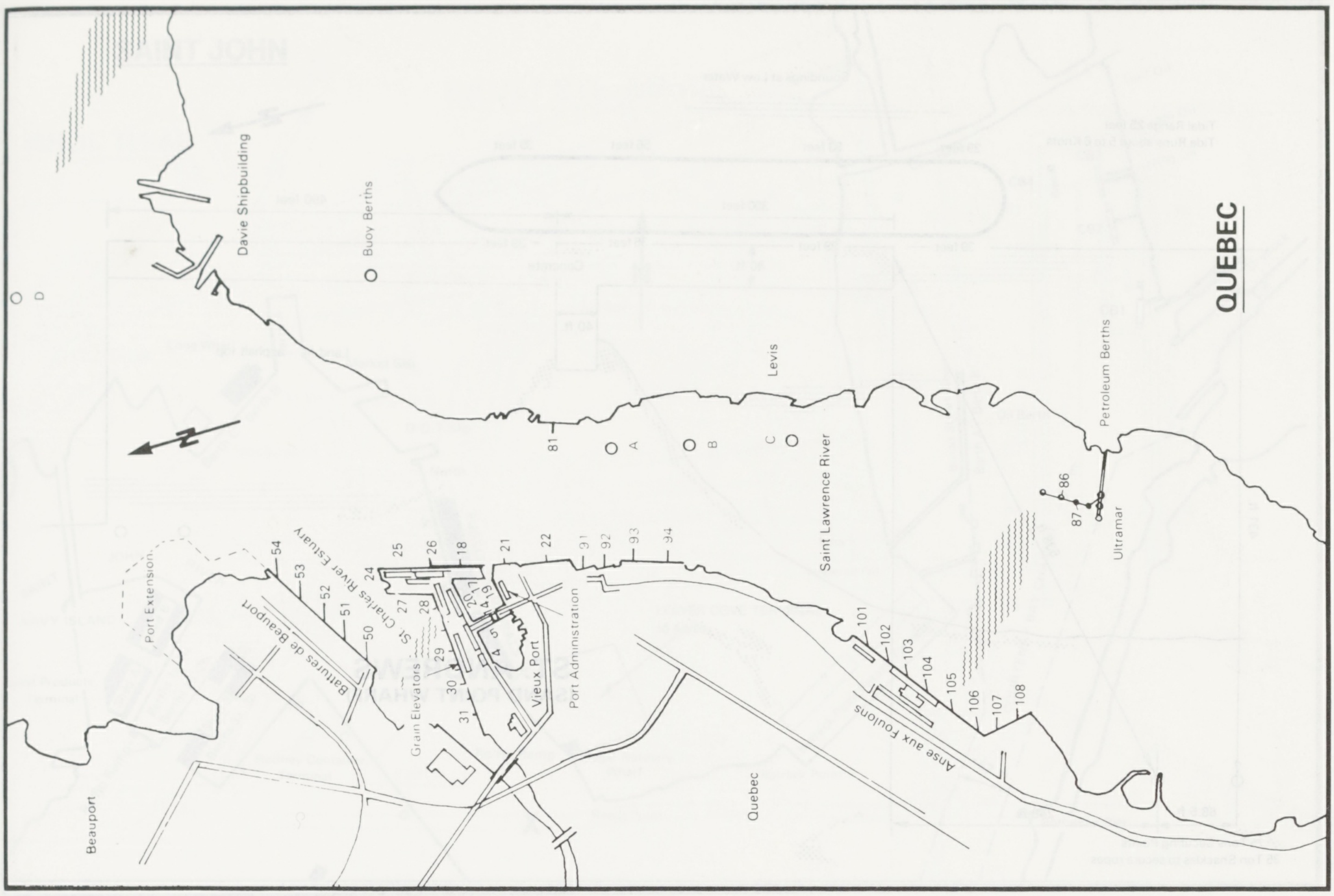
POWELL RIVER

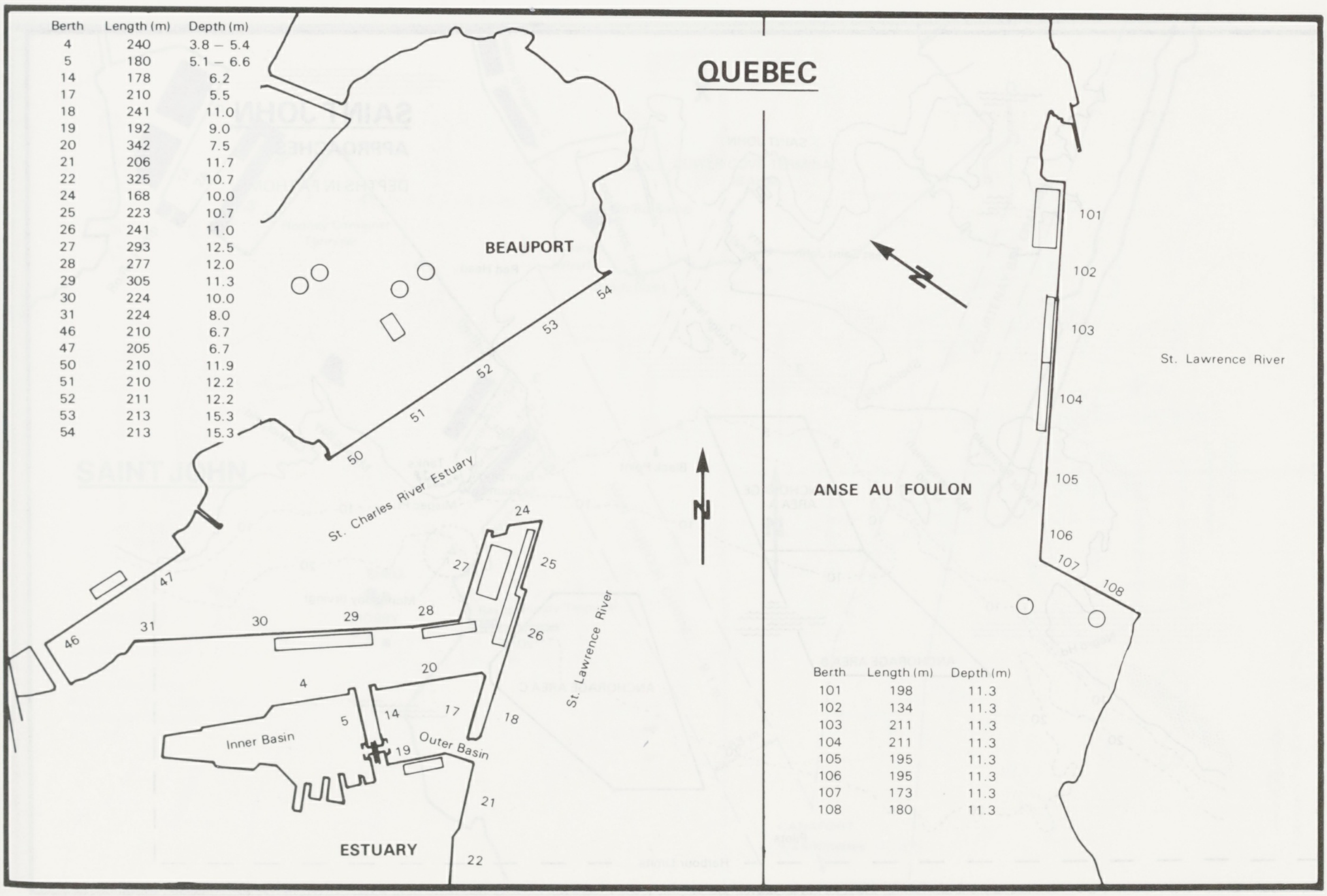

PRESCOTT
LAND AREA 30.94 Hectares
Track Shed
Drier & Boiler House
Shed
Grain Elevator
Office
Marine Towers
UNLOADING SLIP 'B'
395 m
Concrete Sea Wall
442 m
LOADING SLIP 'A'
283 m
Wooden Piles
Concrete Sea Wall
N
Depth 8.23 m
St. Lawrence Seaway


CHATHAM SOUND
Straith Pt.
Hecate Rk
Observation Point
Airport
DIGBY ISLAND
Grindstone Pt.
Greentop II
Kinahan Is
Petrol Rk
Grace Rk
Ellinor Rk
Holland Rk
N
Fairview Terminal
Existing Grain Elevator
Ocean Dock
CNR
New Grain Terminal
New Coal Terminal
KAIEN ISLAND
Schreiber Pt
Flora Bank
Ridley Island
Wainwright Basin
Morse Basin
Fern Passage
Tatenham Pt
SMITH ISLAND
Inverness Passage
PRINCE RUPERT


Anchorage E
Anchorage D
Anchorage V
Anchorage C
Anchorage B
Anchorage A
Prince Rupert Harbour
Shipyard
Canadian Coastguard Base
Chevron Oil & Petro Canada
Lightering Dock
Ocean Dock
Shell Oil
Ferry Terminal
Petro Canada
Okabe Shipyard
Fairview Terminal
KAIEN ISLAND
PRINCE RUPERT
To Ridley Island and Port Edward
N

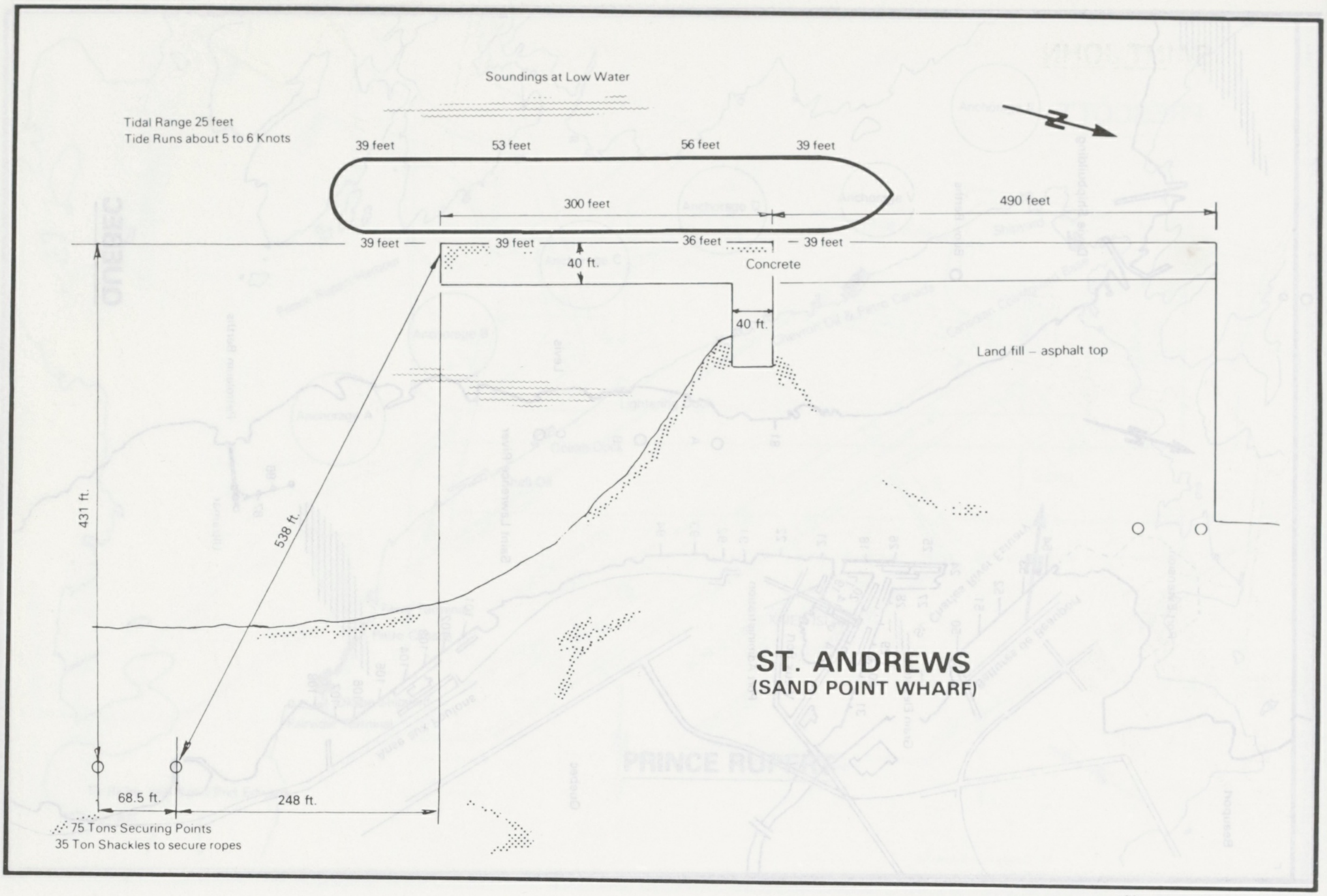

PRINCE RUPERT
RIDLEY ISLAND
COAL & GRAIN TERMINALS
Road
PORPOISE HARBOUR
Unloading
Grain Elevator
Ship Loader
CHATHAM SOUND
RIDLEY ISLAND
Stockpile No.4
Stockpile No.3
Stockpile No.2
Stockpile No.1
Stacker Reclaimer
Ship
Ship Loading Facility
Surge Bin No.1
Rail Car Wash Down
Ship Loader
Sampling Plant
Tandem Rail Car Dumper No. 200
Thaw Shed
N


QUEBEC
Davie Shipbuilding
Buoy Berths
D
Levis
Petroleum Berths
81
A
B
C
Saint Lawrence River
86
87
Ultramar
Port Extension
54
53
52
51
50
St. Charles River Estuary
Battures de Beauport
24
25
26
18
21
22
91
92
93
94
27
28
20
17
4
19
5
29
30
31
Grain Elevators
Vieux Port
Port Administration
101
102
103
104
105
106
107
108
Anse aux Foulons
Quebec
Beauport

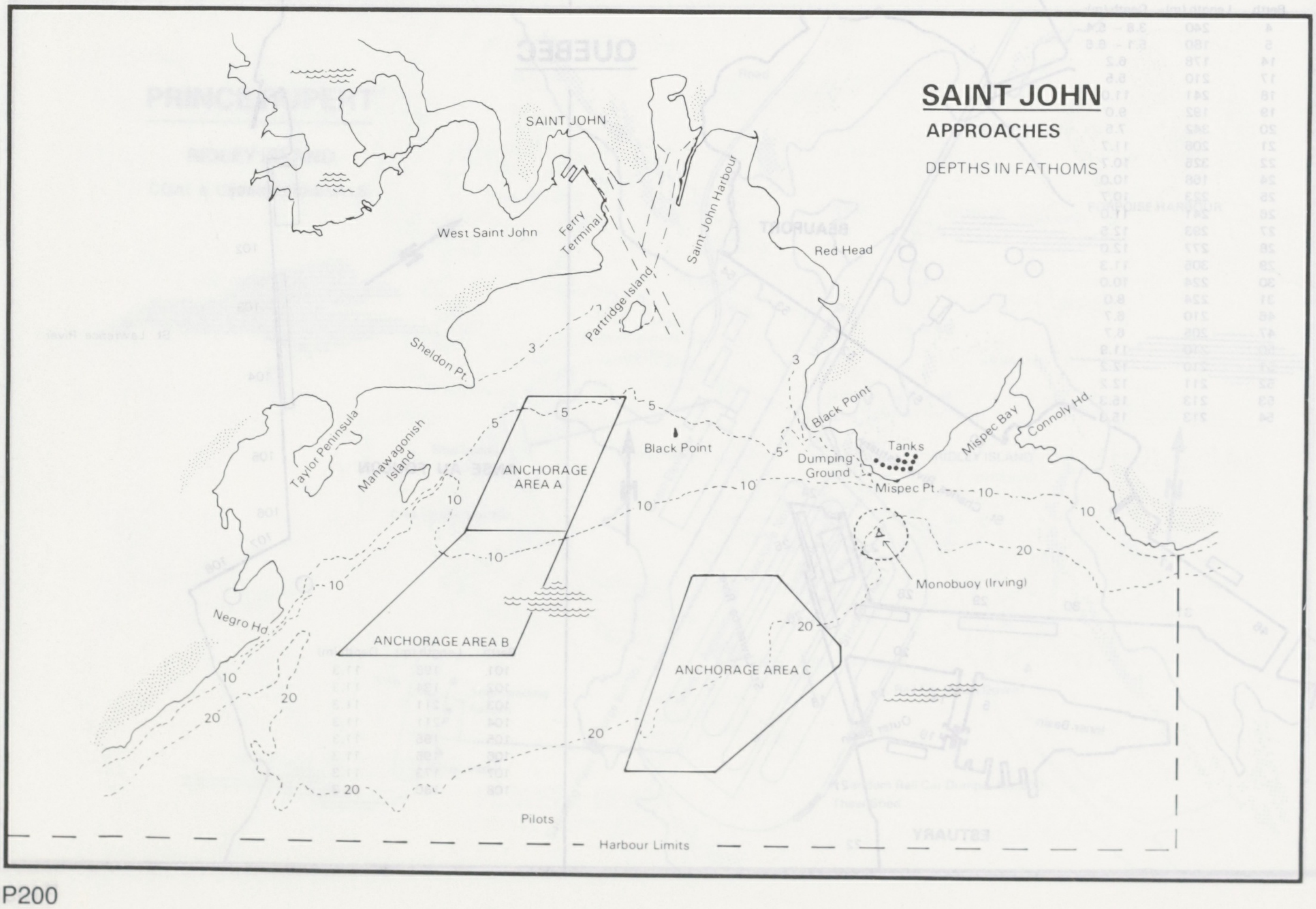

QUEBEC
BEAUPORT
St. Charles River Estuary
St. Lawrence River
Inner Basin
Outer Basin
ESTUARY
ANSE AU FOULON
St. Lawrence River
54
53
52
51
50
47
46
31
30
29
28
27
24
25
26
20
4
5
14
17
18
19
21
22
101
102
103
104
105
106
107
108

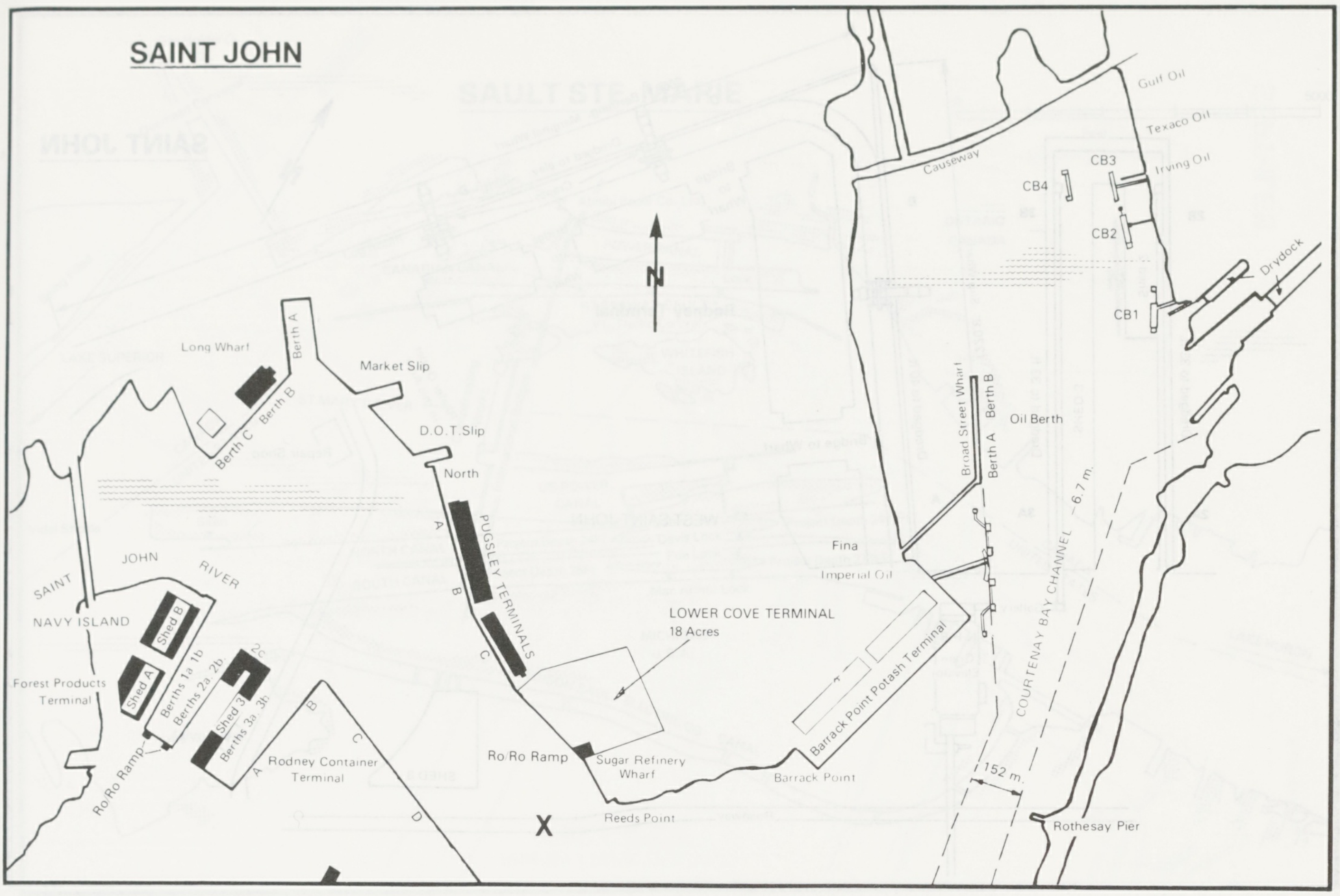
Berth	Length (m)	Depth (m)
4	240	3.8 – 5.4
5	180	5.1 – 6.6
14	178	6.2
17	210	5.5
18	241	11.0
19	192	9.0
20	342	7.5
21	206	11.7
22	325	10.7
24	168	10.0
25	223	10.7
26	241	11.0
27	293	12.5
28	277	12.0
29	305	11.3
30	224	10.0
31	224	8.0
46	210	6.7
47	205	6.7
50	210	11.9
51	210	12.2
52	211	12.2
53	213	15.3
54	213	15.3

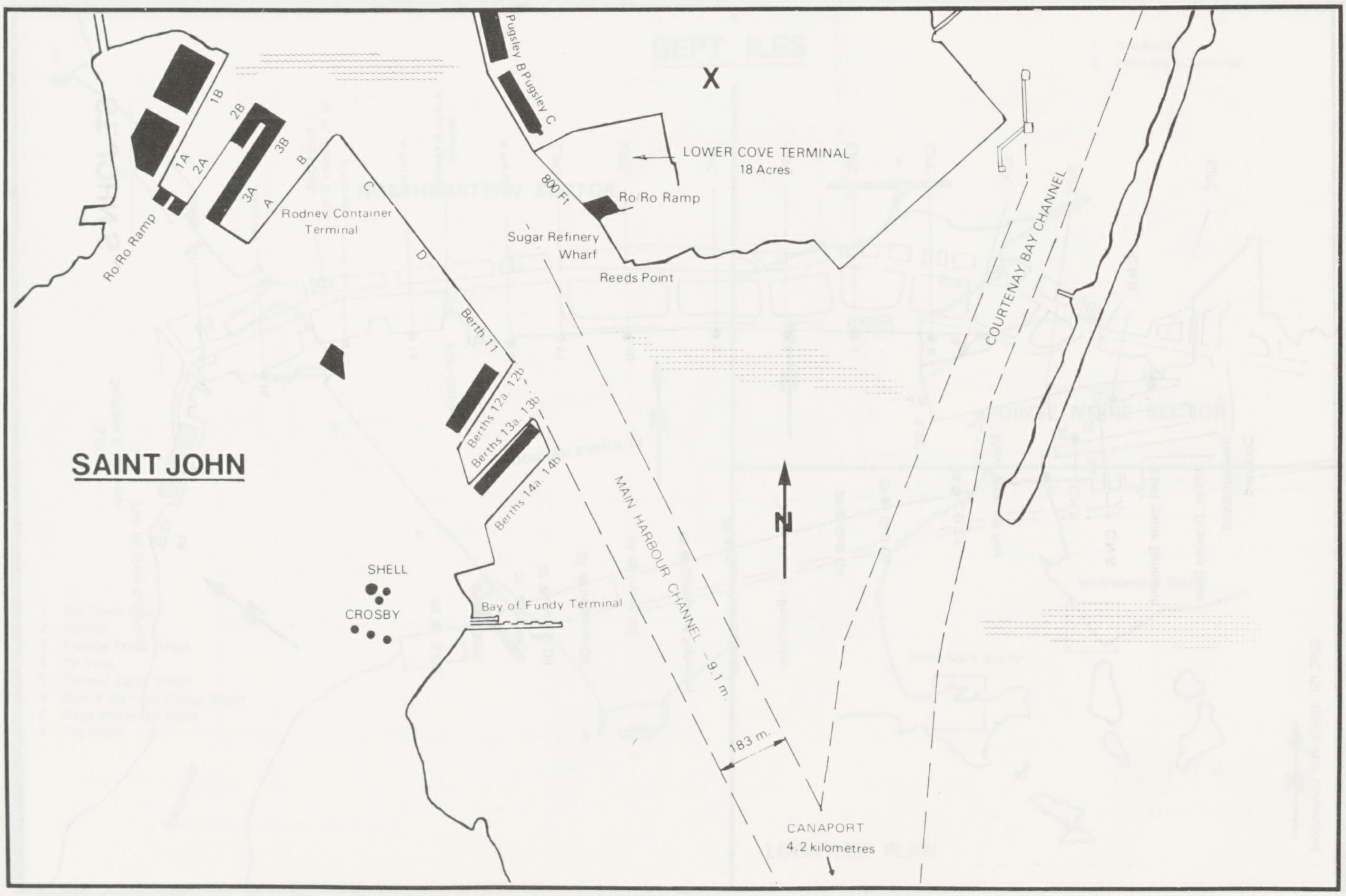
Berth	Length (m)	Depth (m)
101	198	11.3
102	134	11.3
103	211	11.3
104	211	11.3
105	195	11.3
106	195	11.3
107	173	11.3
108	180	11.3

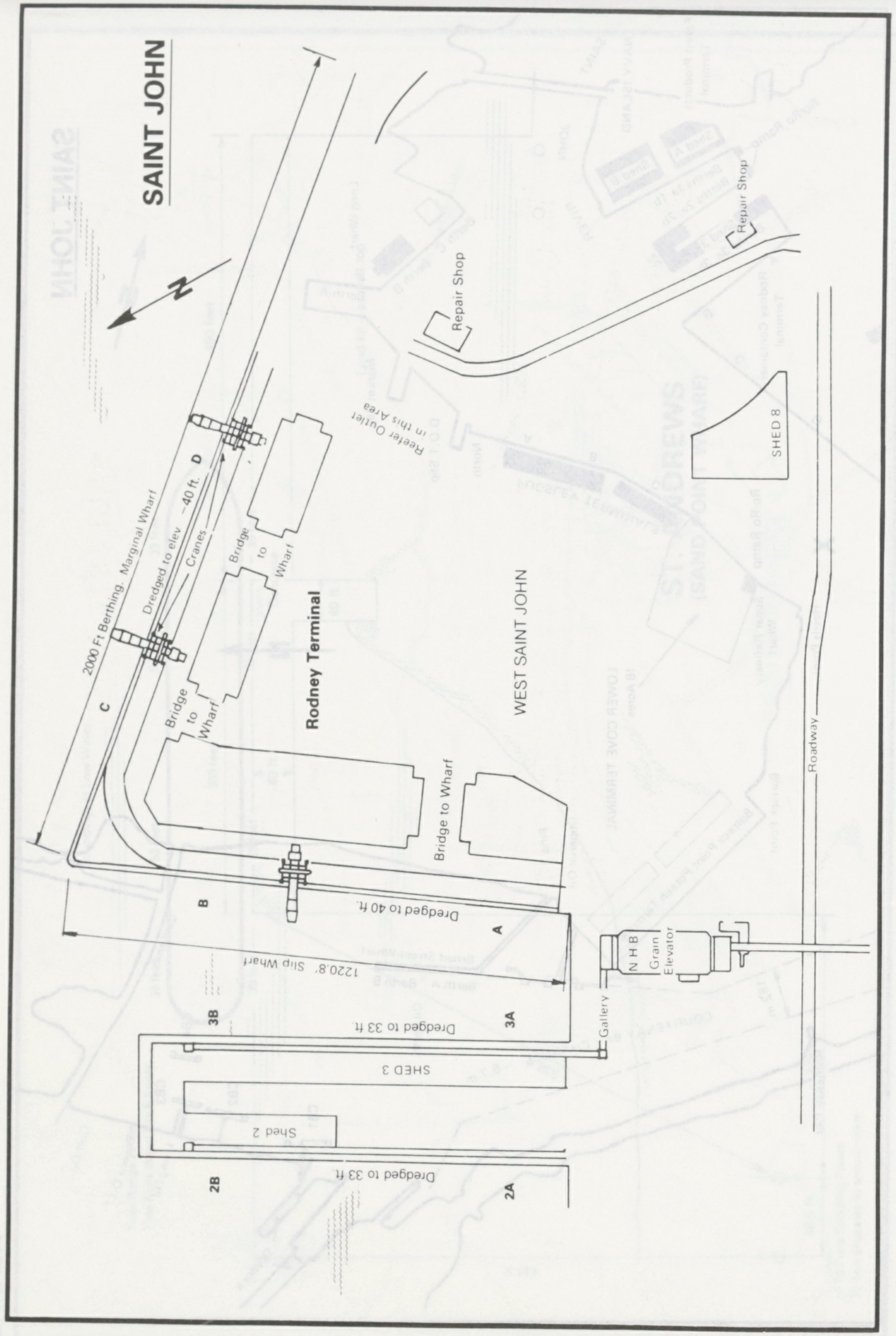

Soundings at Low Water
Tidal Range 25 feet
Tide Runs about 5 to 6 Knots
39 feet
53 feet
56 feet
39 feet
300 feet
490 feet
39 feet
39 feet
36 feet
39 feet
40 ft.
Concrete
40 ft.
Land fill – asphalt top
431 ft.
538 ft.
ST. ANDREWS
(SAND POINT WHARF)
68.5 ft.
248 ft.
75 Tons Securing Points
35 Ton Shackles to secure ropes

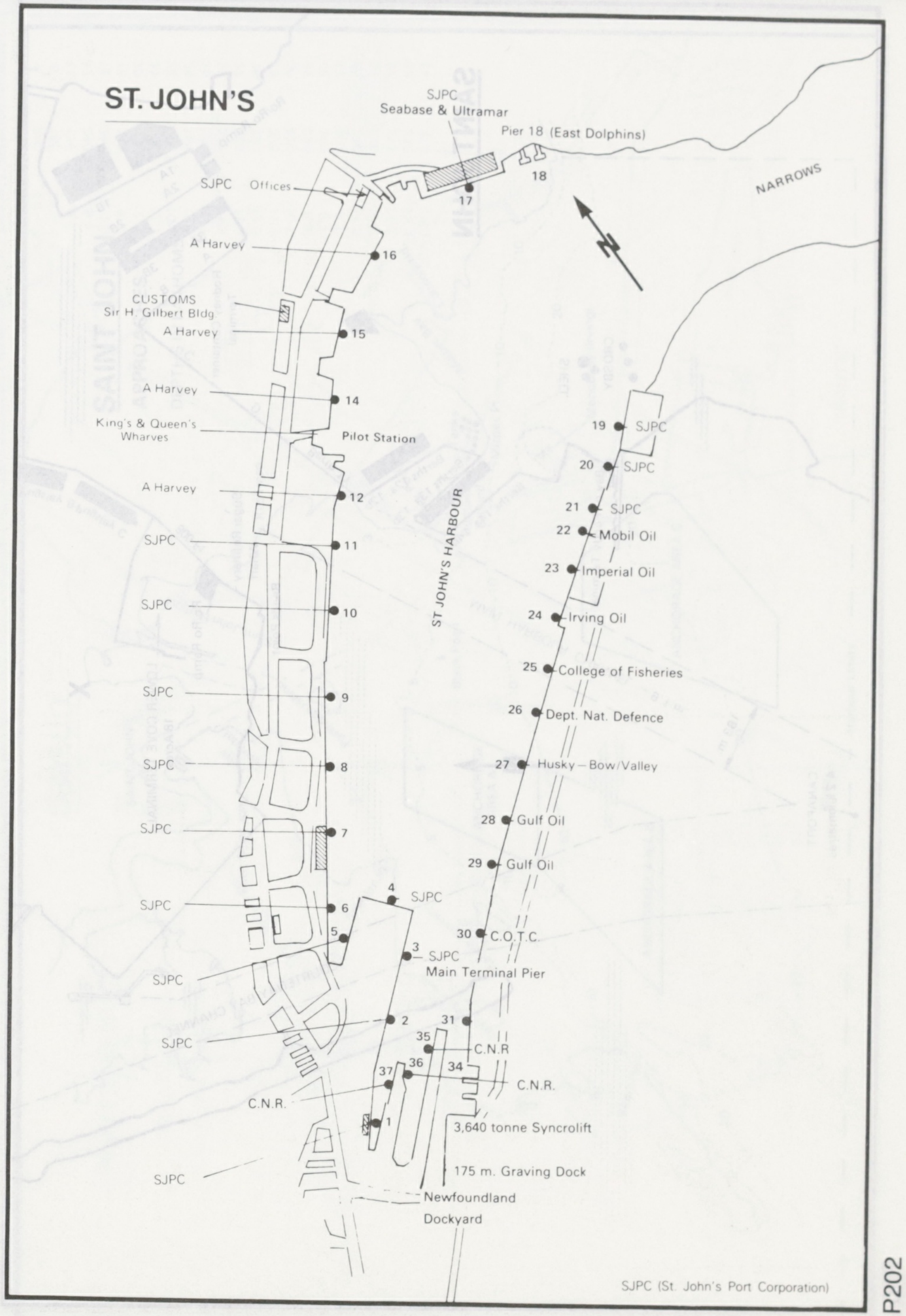
"Plan supplied by Ship's Master


SAINT JOHN
APPROACHES
DEPTHS IN FATHOMS
SAINT JOHN
West Saint John
Ferry Terminal
Saint John Harbour
Partridge Island
Red Head
Sheldon Pt.
3
3
5
5
5
5
Black Point
Black Point
Taylor Peninsula
Manawagonish Island
ANCHORAGE AREA A
10
10
10
10
10
10
Dumping Ground
Tanks
Mispec Pt.
Mispec Bay
Connoly Hd.
Monobuoy (Irving)
20
20
ANCHORAGE AREA B
ANCHORAGE AREA C
Negro Hd.
10
20
20
20
20
Pilots
Harbour Limits

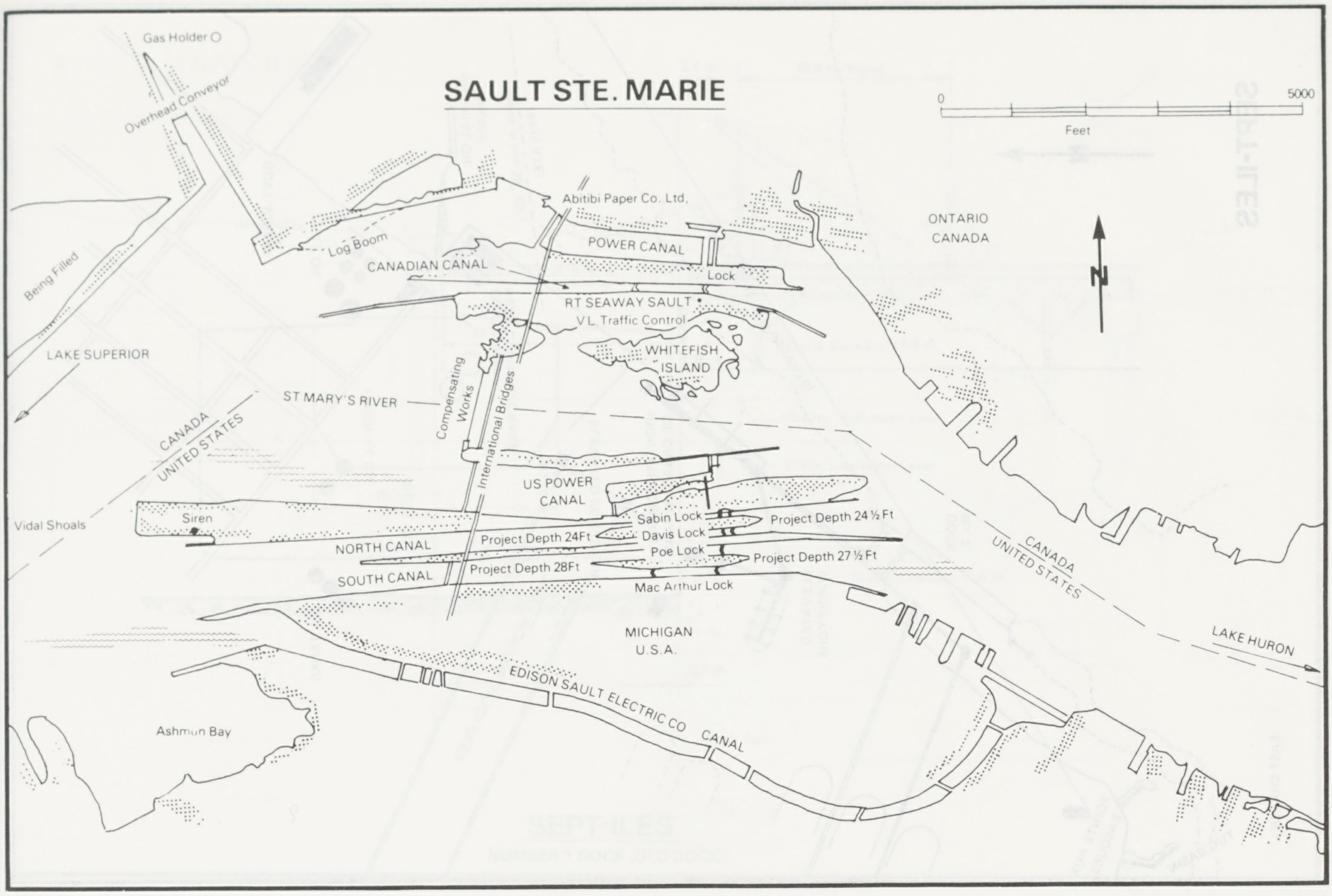

SAINT JOHN
Gulf Oil
Texaco Oil
Irving Oil
Causeway
CB3
CB4
CB2
CB1
Drydock
N
Long Wharf
Berth A
Berth B
Berth C
Market Slip
D.O.T. Slip
North
A
B
C
PUGSLEY TERMINALS
Broad Street Wharf
Berth A
Berth B
Oil Berth
6.7 m.
COURTENAY BAY CHANNEL
Fina
Imperial Oil
LOWER COVE TERMINAL
18 Acres
Barrack Point Potash Terminal
SAINT
JOHN
RIVER
NAVY ISLAND
Shed B
Shed A
Shed 3
2c
Forest Products Terminal
Berths 1a 1b
Berths 2a 2b
Berths 3a 3b
Ro/Ro Ramp
A
B
C
D
Rodney Container Terminal
Ro/Ro Ramp
Sugar Refinery Wharf
Barrack Point
152 m.
X
Reeds Point
Rothesay Pier


Pugsley B
Pugsley C
X
LOWER COVE TERMINAL
18 Acres
1B
2B
3B
1A
2A
3A
A
B
C
D
Rodney Container Terminal
Ro/Ro Ramp
800 Ft
Ro/Ro Ramp
Sugar Refinery Wharf
Reeds Point
COURTENAY BAY CHANNEL
Berth 11
Berths 12a 12b
Berths 13a 13b
Berths 14a 14b
SAINT JOHN
N
SHELL
CROSBY
Bay of Fundy Terminal
MAIN HARBOUR CHANNEL
9.1 m.
183 m.
CANAPORT
4.2 kilometres

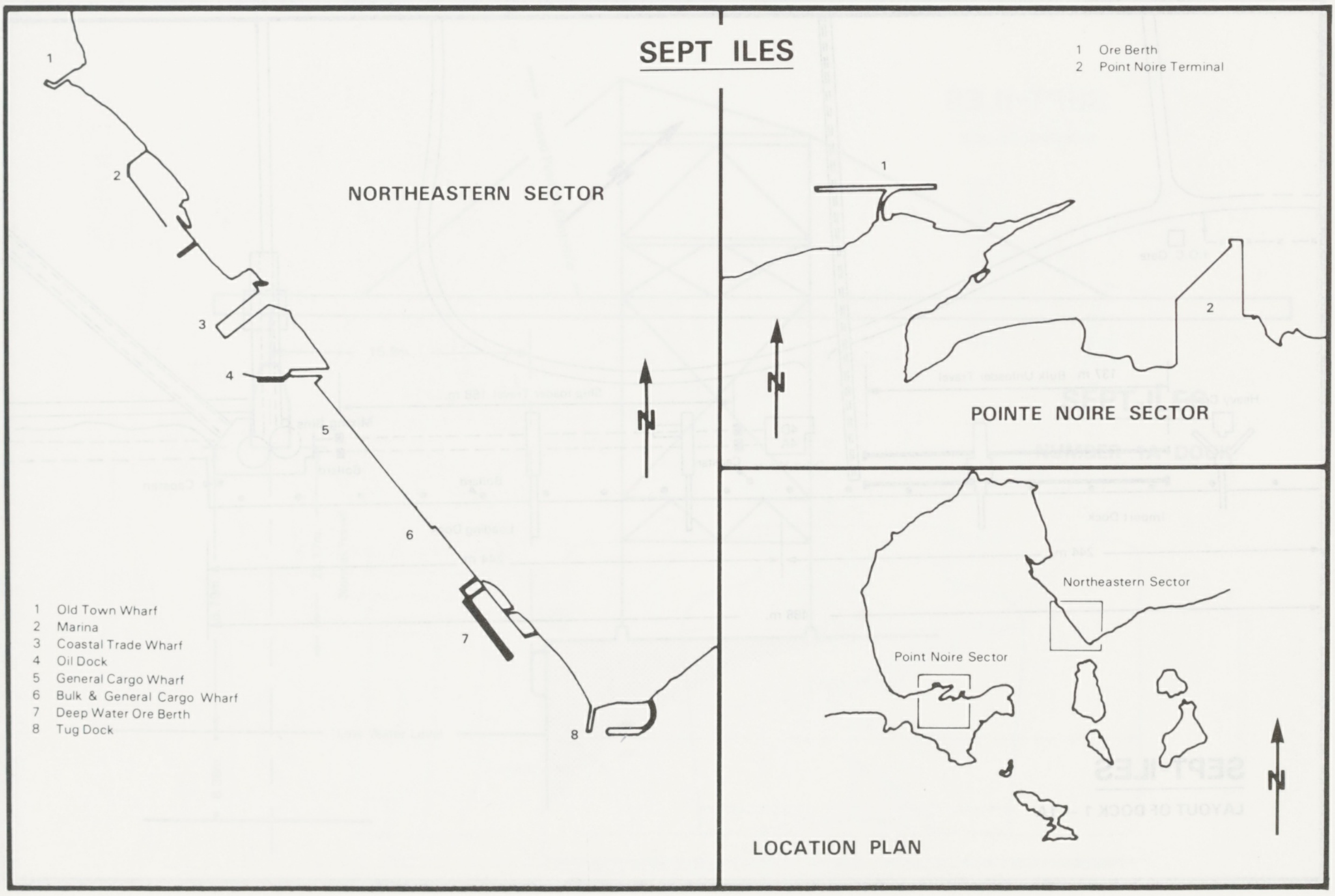

SAINT JOHN
N
Repair Shop
Repair Shop
Reefer Outlet in this Area
SHED 8
2000 Ft Berthing, Marginal Wharf
Dredged to elev -40 ft.
Cranes
D
C
Bridge to Wharf
Bridge to Wharf
Rodney Terminal
WEST SAINT JOHN
Bridge to Wharf
Roadway
B
A
Dredged to 40 ft.
1220.8' Slip Wharf
N H B Grain Elevator
Gallery
3B
3A
Dredged to 33 ft.
SHED 3
Shed 2
Dredged to 33 ft.
2B
2A


ST. JOHN'S
SJPC Seabase & Ultramar
Pier 18 (East Dolphins)
17
18
NARROWS
SJPC Offices
A Harvey
16
CUSTOMS Sir H. Gilbert Bldg
A Harvey
15
A Harvey
14
King's & Queen's Wharves
Pilot Station
A Harvey
12
SJPC
11
SJPC
10
SJPC
9
SJPC
8
SJPC
7
SJPC
6
5
4
SJPC
3
SJPC Main Terminal Pier
SJPC
2
SJPC
ST JOHN'S HARBOUR
19 SJPC
20 SJPC
21 SJPC
22 Mobil Oil
23 Imperial Oil
24 Irving Oil
25 College of Fisheries
26 Dept. Nat. Defence
27 Husky – Bow/Valley
28 Gulf Oil
29 Gulf Oil
30 C.O.T.C.
31
35 C.N.R
37
36
34 C.N.R.
C.N.R.
1
3,640 tonne Syncrolift
175 m. Graving Dock
SJPC
Newfoundland Dockyard
SJPC (St. John's Port Corporation)

SAULT STE. MARIE

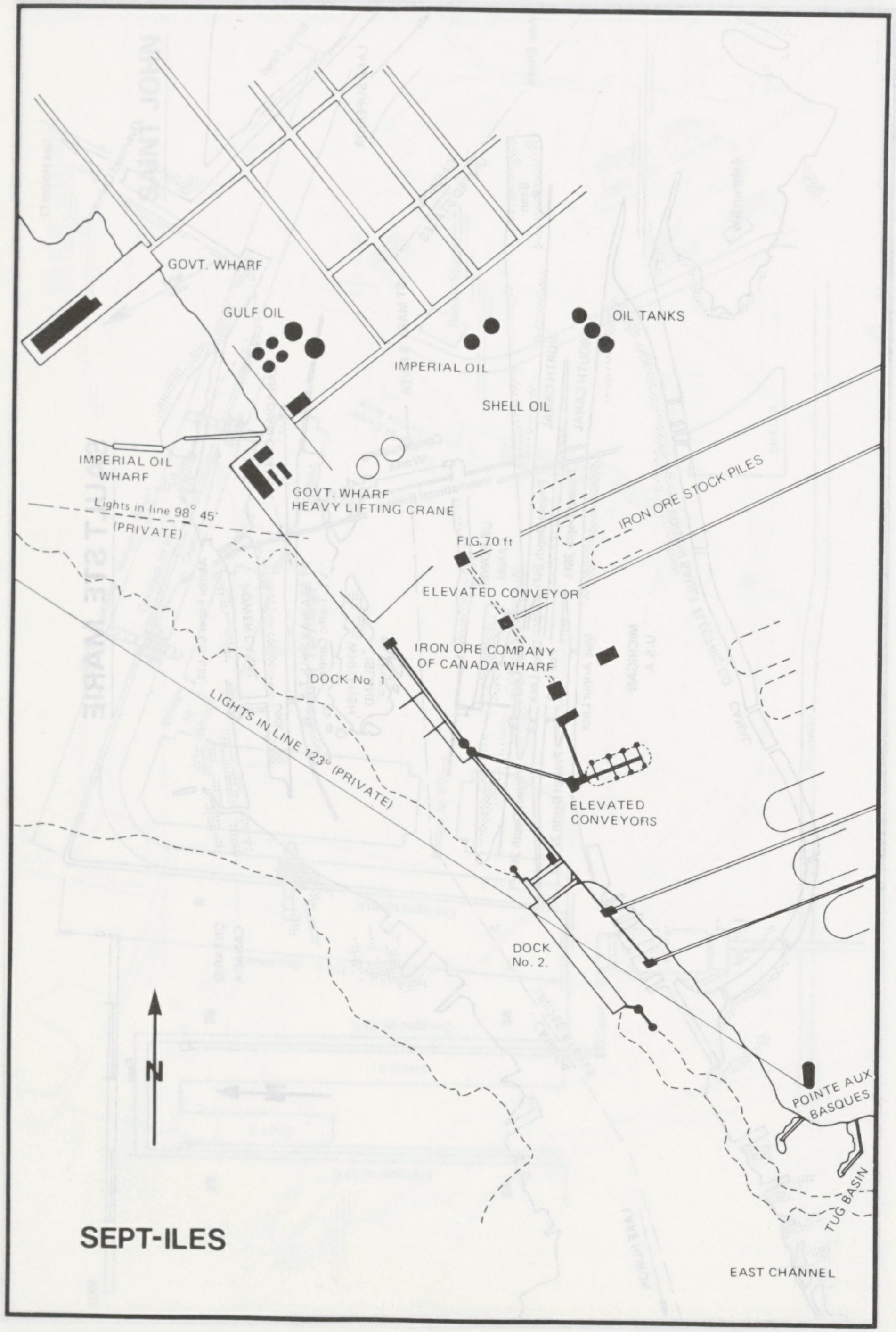

Gas Holder
Overhead Conveyor
Being Filled
Log Boom
LAKE SUPERIOR
Abitibi Paper Co. Ltd.
POWER CANAL
CANADIAN CANAL
Lock
RT SEAWAY SAULT
V.L. Traffic Control
WHITEFISH ISLAND
ST MARY'S RIVER
Compensating Works
International Bridges
CANADA
UNITED STATES
0
5000
Feet
ONTARIO
CANADA
N
US POWER CANAL
Vidal Shoals
Siren
Sabin Lock
Project Depth 24½ Ft
Davis Lock
Project Depth 24Ft
NORTH CANAL
Poe Lock
Project Depth 27½ Ft
SOUTH CANAL
Project Depth 28Ft
Mac Arthur Lock
MICHIGAN
U.S.A.
CANADA
UNITED STATES
LAKE HURON
EDISON SAULT ELECTRIC CO CANAL
Ashmun Bay

SEPT ILES

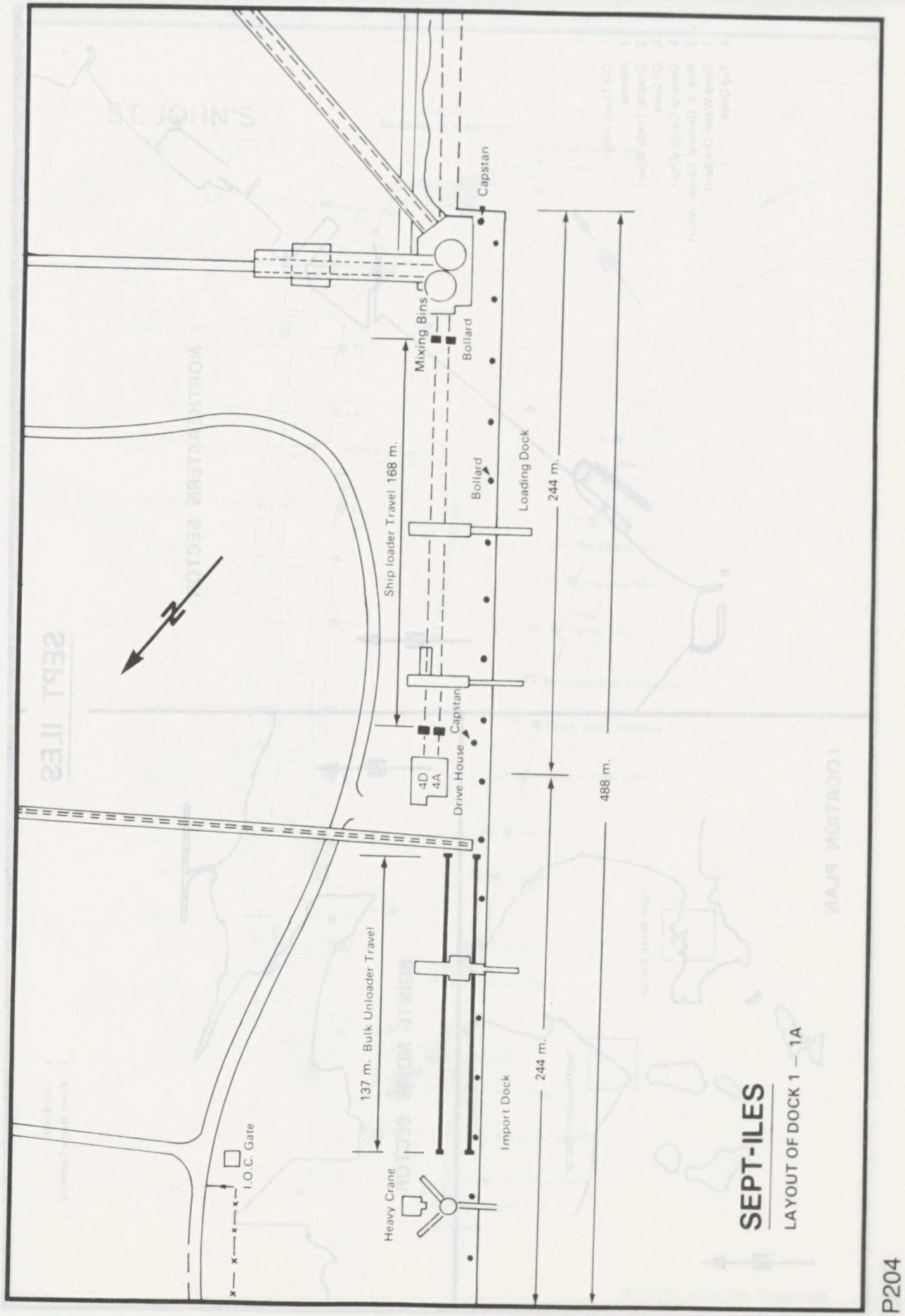

NORTHEASTERN SECTOR
1
2
3
4
5
6
7
8
N
POINTE NOIRE SECTOR
1
2
LOCATION PLAN
Northeastern Sector
Point Noire Sector

1 Old Town Wharf
2 Marina
3 Coastal Trade Wharf
4 Oil Dock
5 General Cargo Wharf
6 Bulk & General Cargo Wharf
7 Deep Water Ore Berth
8 Tug Dock

1 Ore Berth
2 Point Noire Terminal

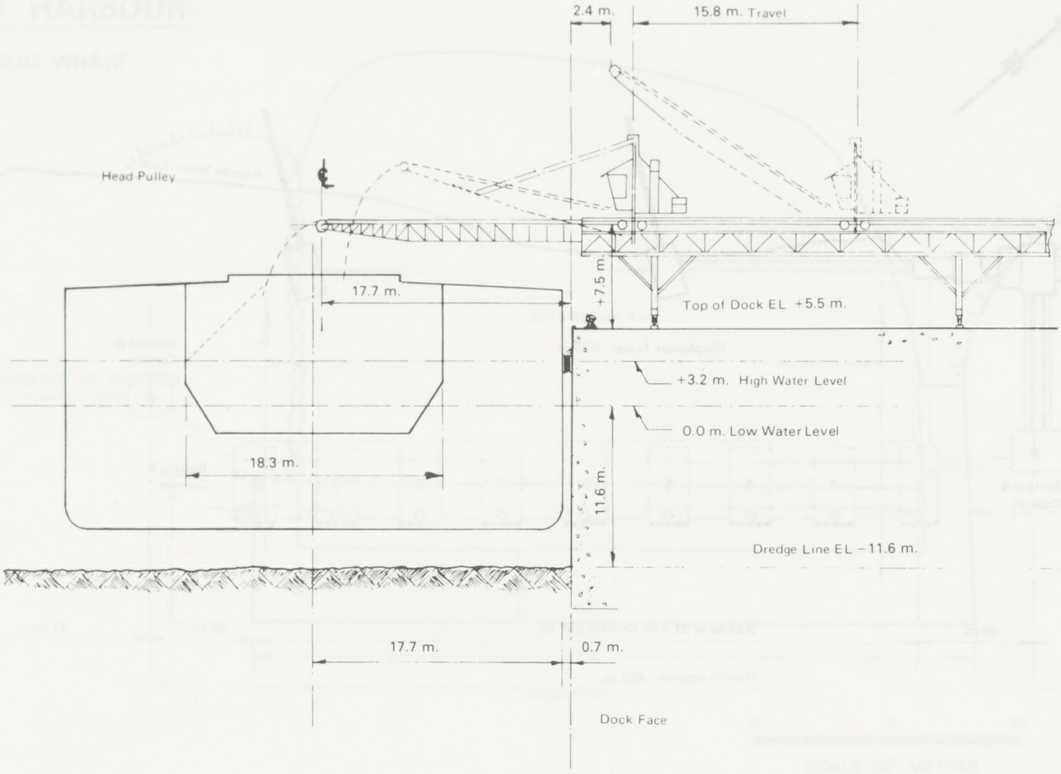

GOVT. WHARF
GULF OIL
OIL TANKS
IMPERIAL OIL
SHELL OIL
IMPERIAL OIL WHARF
GOVT. WHARF HEAVY LIFTING CRANE
Lights in line 98° 45' (PRIVATE)
F.G.70 ft
IRON ORE STOCK PILES
ELEVATED CONVEYOR
IRON ORE COMPANY OF CANADA WHARF
DOCK No. 1
LIGHTS IN LINE 123° (PRIVATE)
ELEVATED CONVEYORS
DOCK No. 2.
POINTE AUX BASQUES
TUG BASIN
EAST CHANNEL
N

SEPT-ILES


Capstan
Mixing Bins
Bollard
Ship loader Travel 168 m.
Bollard
Loading Dock
244 m.
488 m.
Capstan
Drive House
4D
4A
137 m. Bulk Unloader Travel
244 m.
Import Dock
I.O.C. Gate
Heavy Crane
N

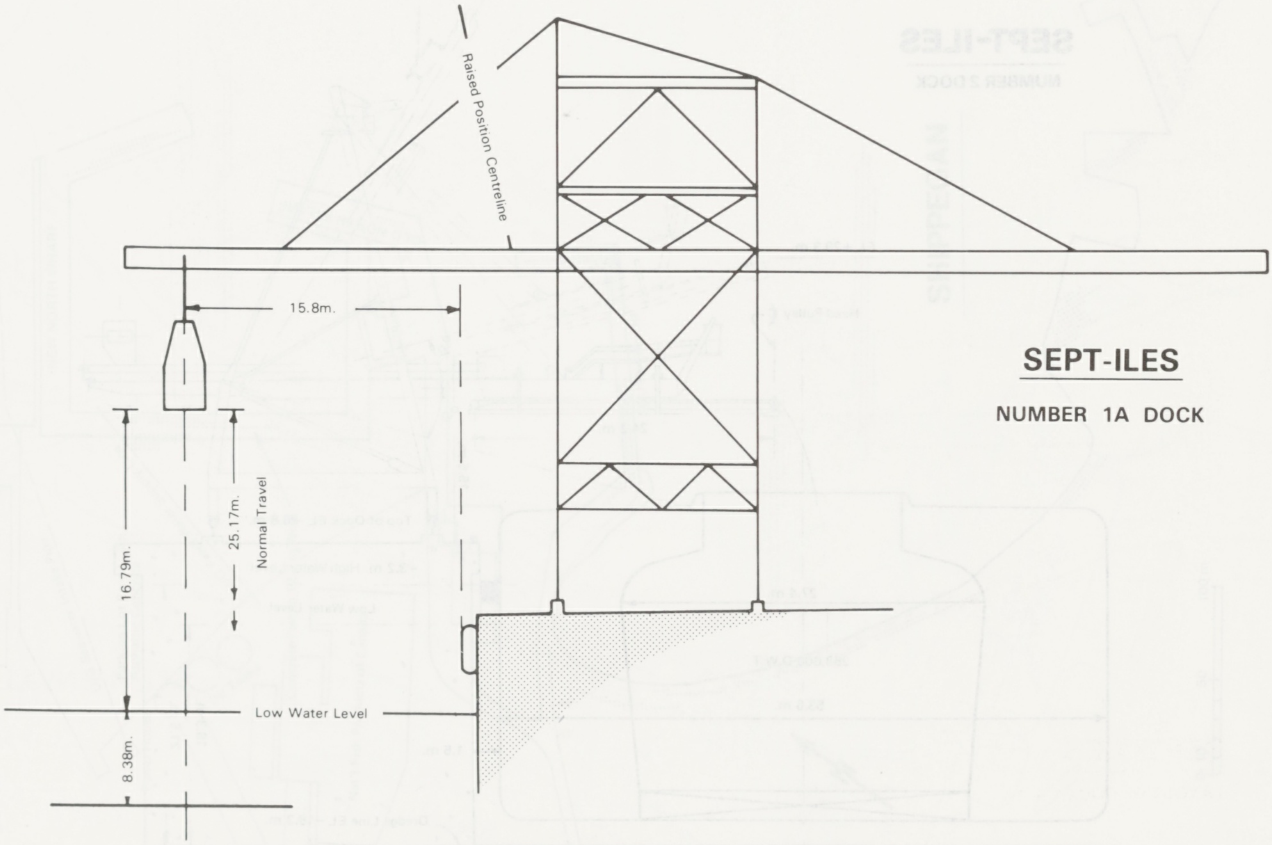
SEPT-ILES

LAYOUT OF DOCK 1 — 1A


2.4 m.
15.8 m. Travel
Head Pulley
℄
17.7 m.
+7.5 m.
Top of Dock EL +5.5 m.
+3.2 m. High Water Level
0.0 m. Low Water Level
18.3 m.
11.6 m.
Dredge Line EL −11.6 m.
17.7 m.
0.7 m.
Dock Face

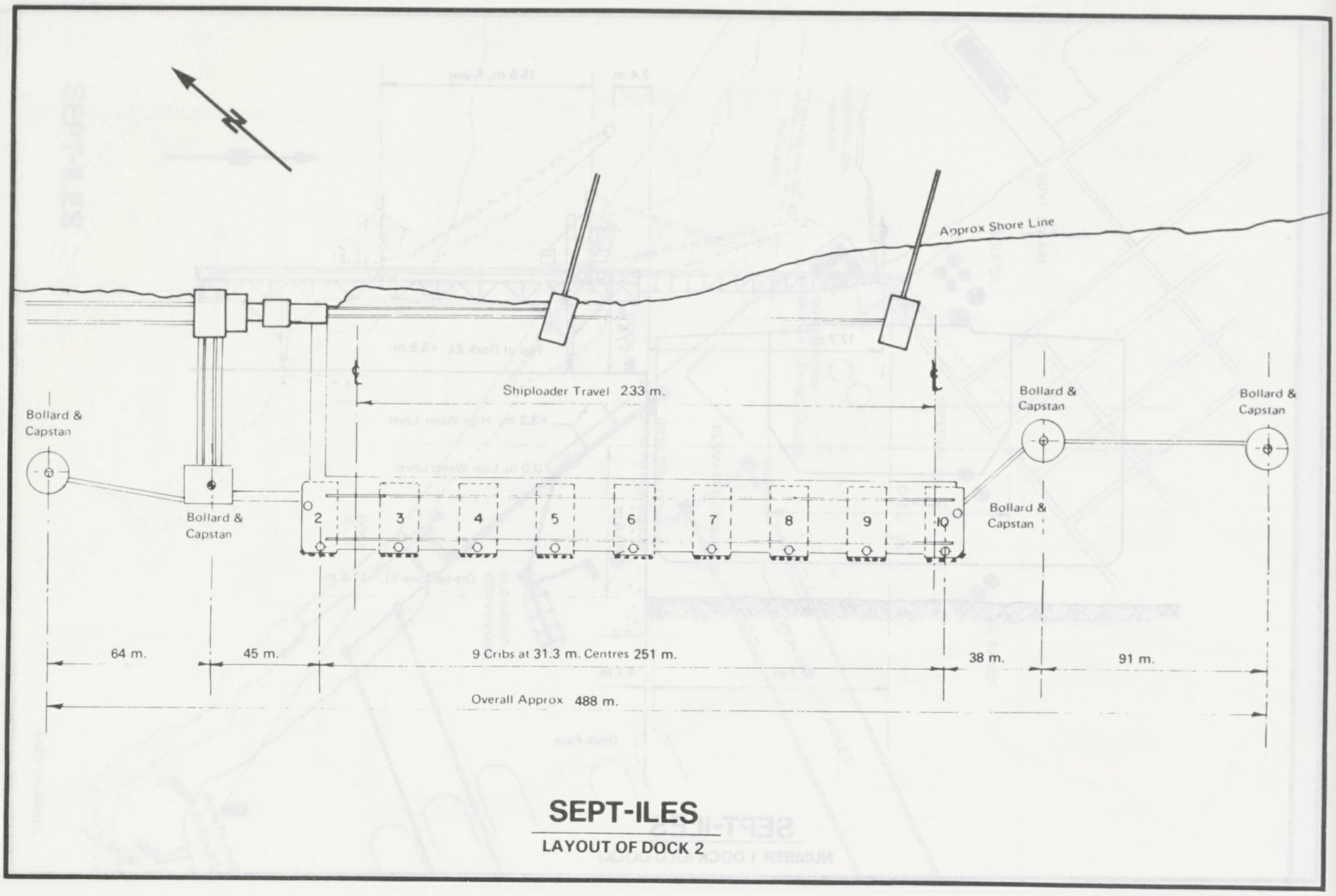
SEPT-ILES

NUMBER 1 DOCK (OLD DOCK)


Raised Position Centreline
15.8m.
16.79m.
25.17m.
Normal Travel
Low Water Level
8.38m.

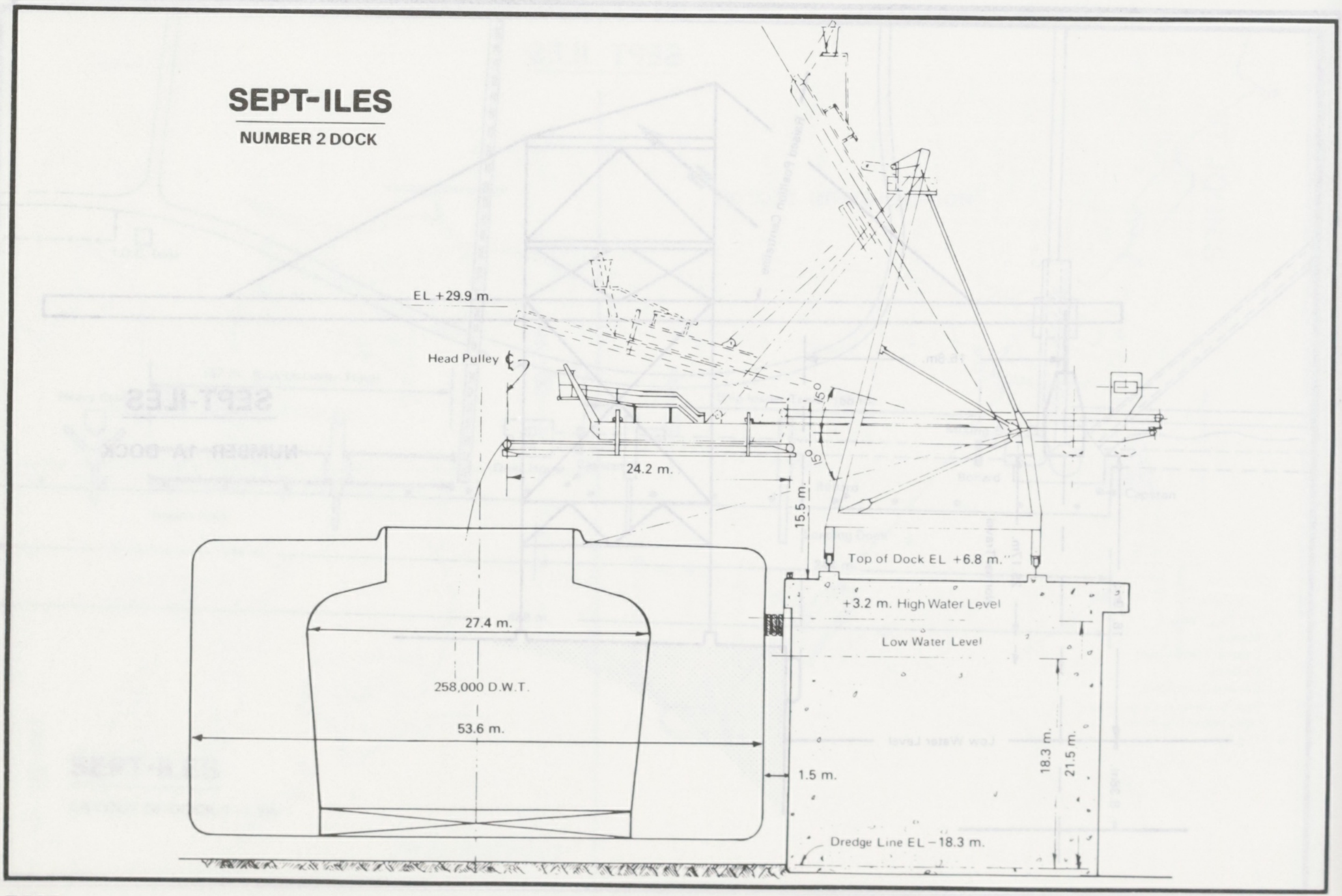
SEPT-ILES

NUMBER 1A DOCK


Approx Shore Line
Shiploader Travel 233 m.
Bollard & Capstan
Bollard & Capstan
Bollard & Capstan
Bollard & Capstan
Bollard & Capstan
2
3
4
5
6
7
8
9
10
64 m.
45 m.
9 Cribs at 31.3 m. Centres 251 m.
38 m.
91 m.
Overall Approx 488 m.

SEPT-ILES

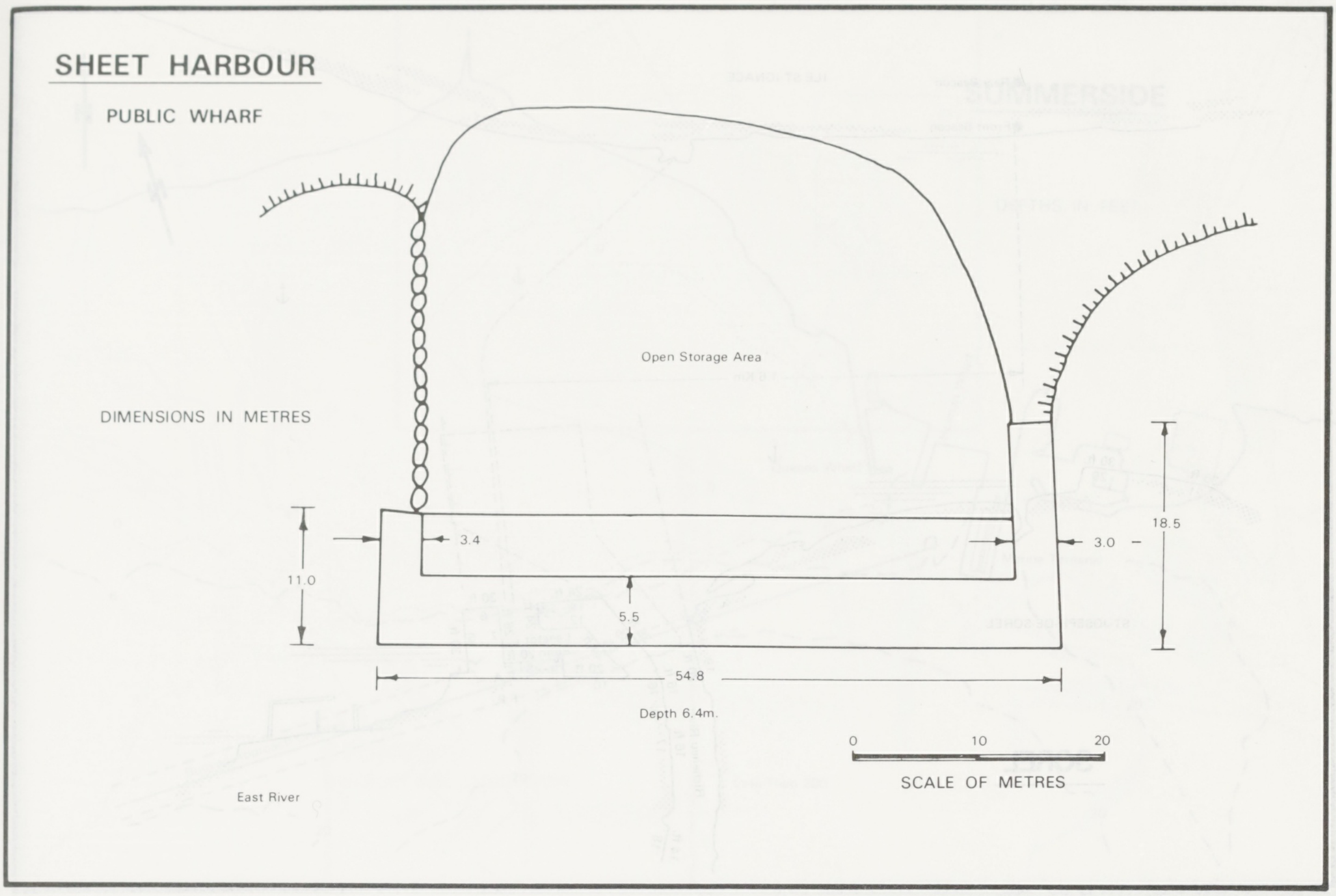
LAYOUT OF DOCK 2

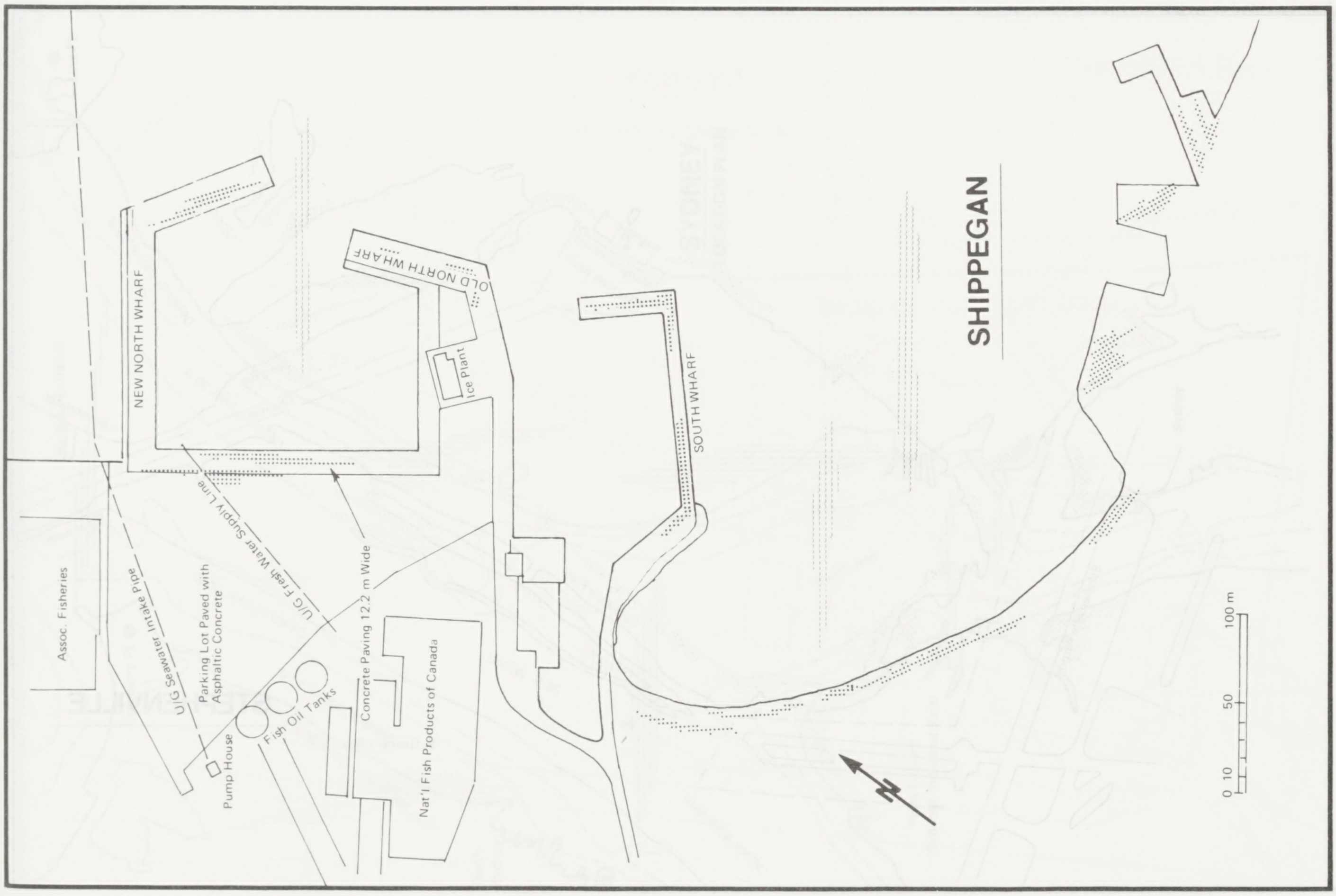


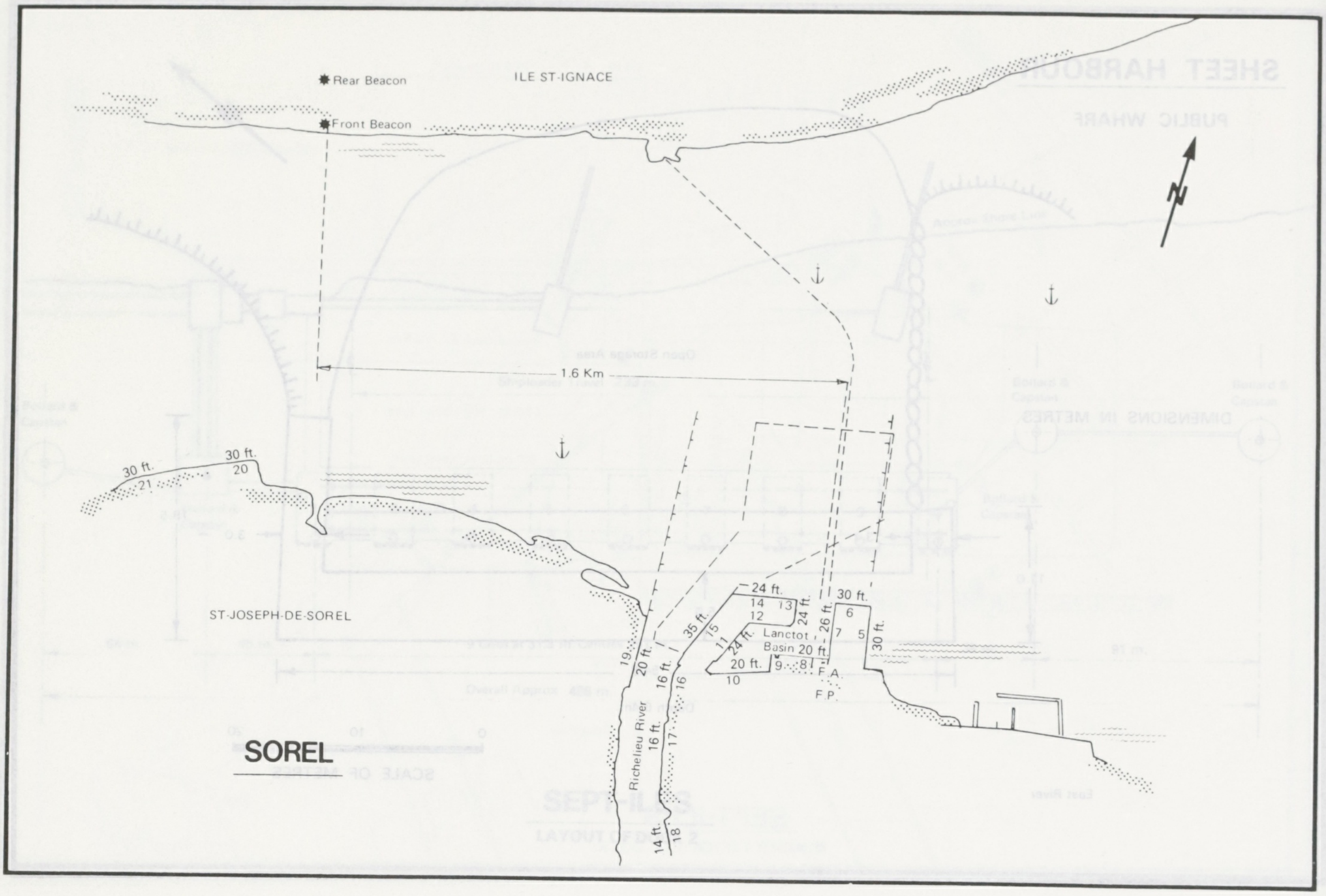
SEPT-ILES

NUMBER 2 DOCK

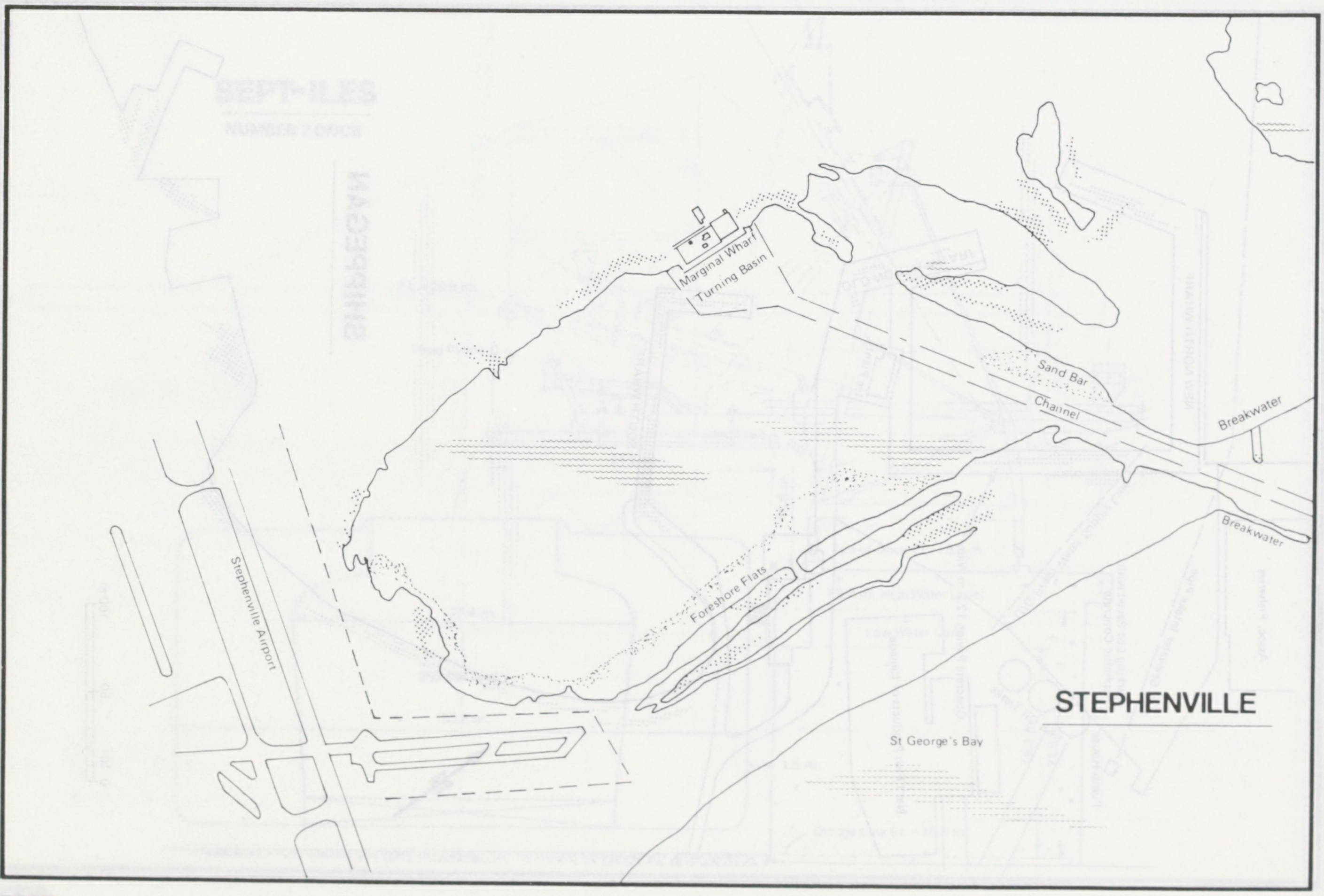
EL +29.9 m.
Head Pulley ℄
15°
15°
24.2 m.
15.5 m.
Top of Dock EL +6.8 m.
+3.2 m. High Water Level
Low Water Level
27.4 m.
258,000 D.W.T.
53.6 m.
1.5 m.
18.3 m.
21.5 m.
Dredge Line EL −18.3 m.


SHEET HARBOUR
PUBLIC WHARF
Open Storage Area
DIMENSIONS IN METRES
3.4
3.0
11.0
18.5
5.5
54.8
Depth 6.4m.
0
10
20
SCALE OF METRES
East River

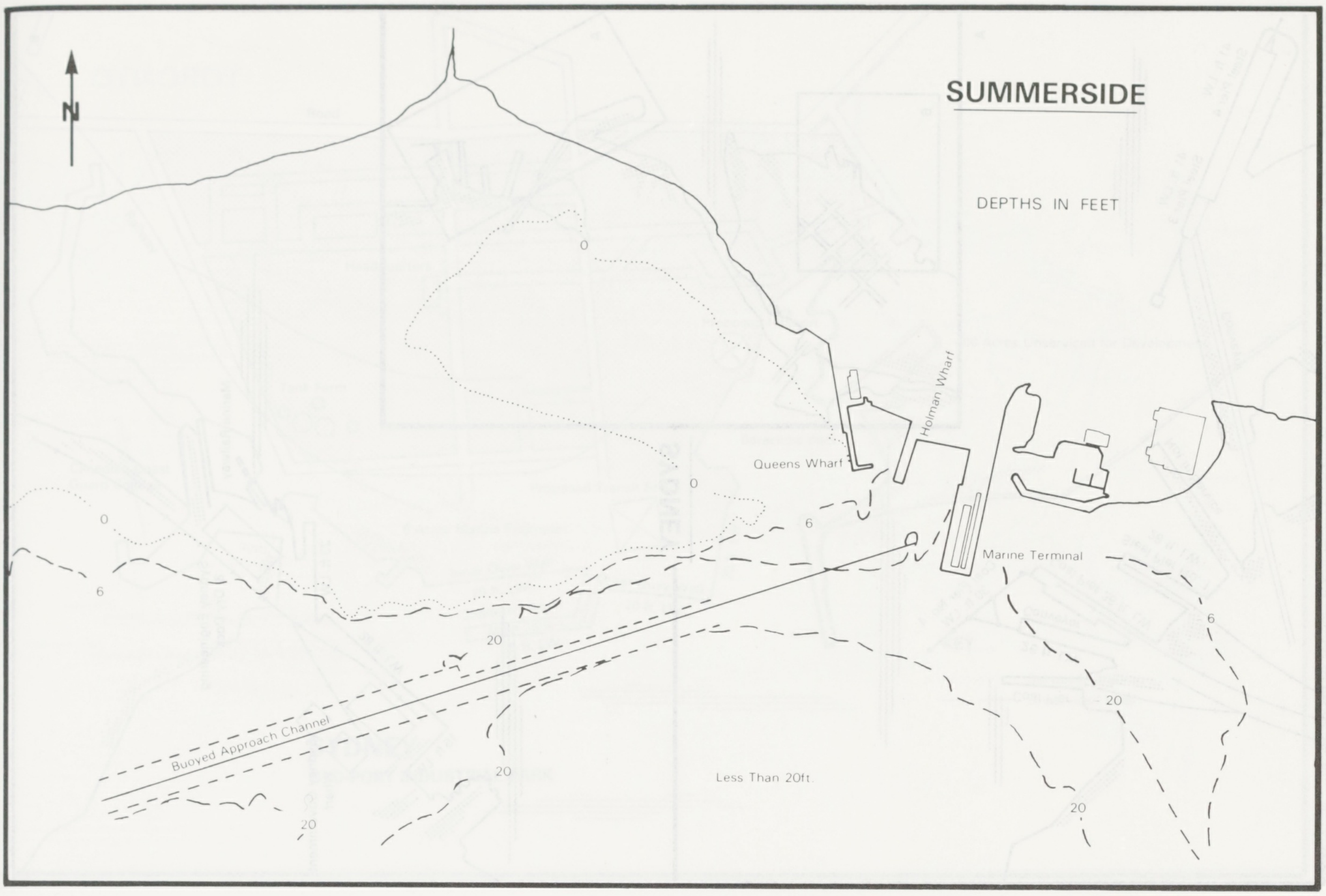

SHIPPEGAN
NEW NORTH WHARF
OLD NORTH WHARF
Ice Plant
SOUTH WHARF
Assoc. Fisheries
U/G Seawater Intake Pipe
Parking Lot Paved with Asphaltic Concrete
U/G Fresh Water Supply Line
Concrete Paving 12.2 m Wide
Pump House
Fish Oil Tanks
Nat'l Fish Products of Canada
0
10
50
100 m

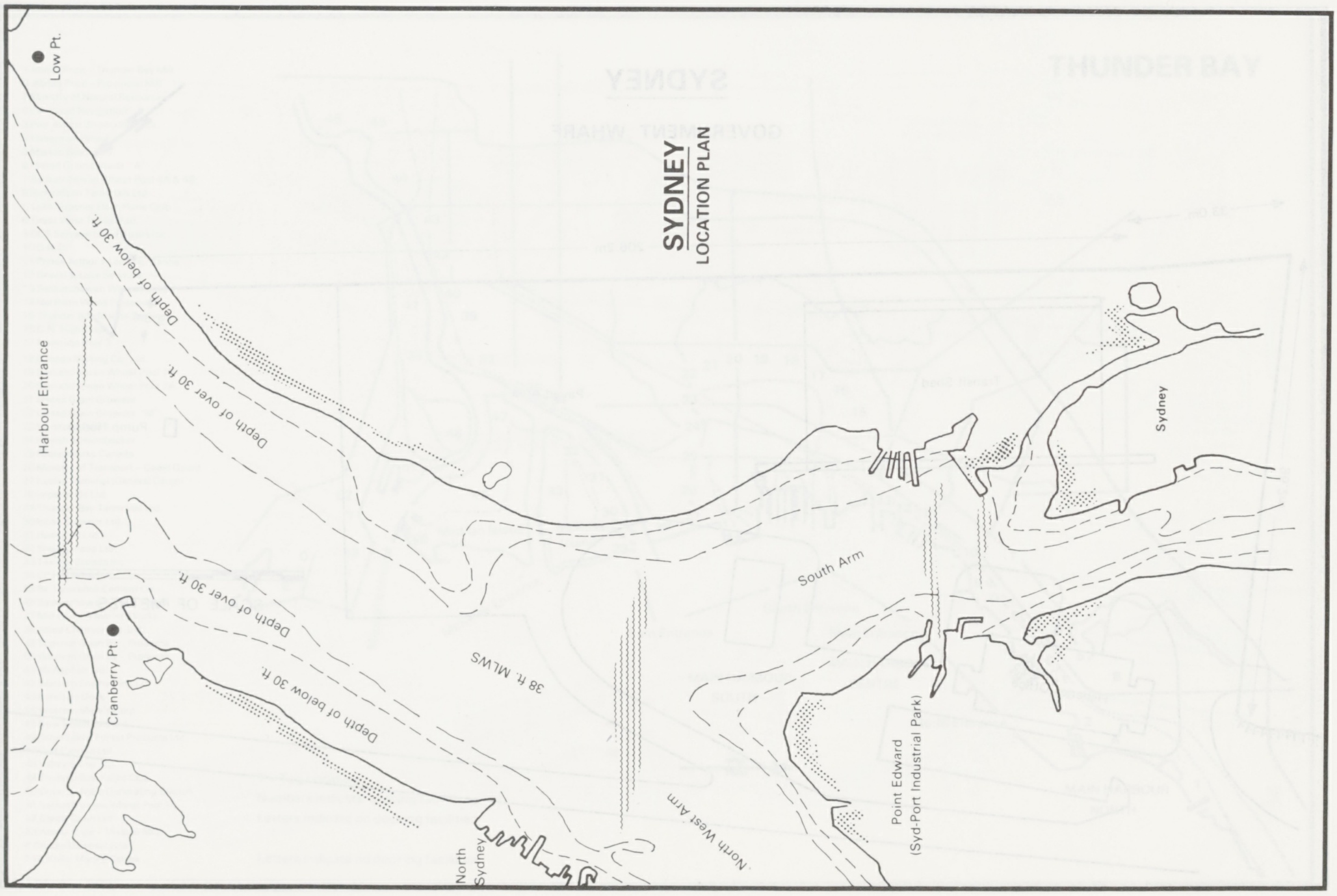

Rear Beacon
ILE ST-IGNACE
Front Beacon
1.6 Km
30 ft.
21
30 ft.
20
ST-JOSEPH-DE-SOREL
24 ft.
14
13
12
24 ft.
26 ft.
30 ft.
6
7
5
30 ft.
35 ft.
15
11
24 ft.
Lanctot
Basin
20 ft.
20 ft.
9
8
10
F.A.
F.P.
19
20 ft.
16 ft.
16
Richelieu River
16 ft.
17
14 ft.
18

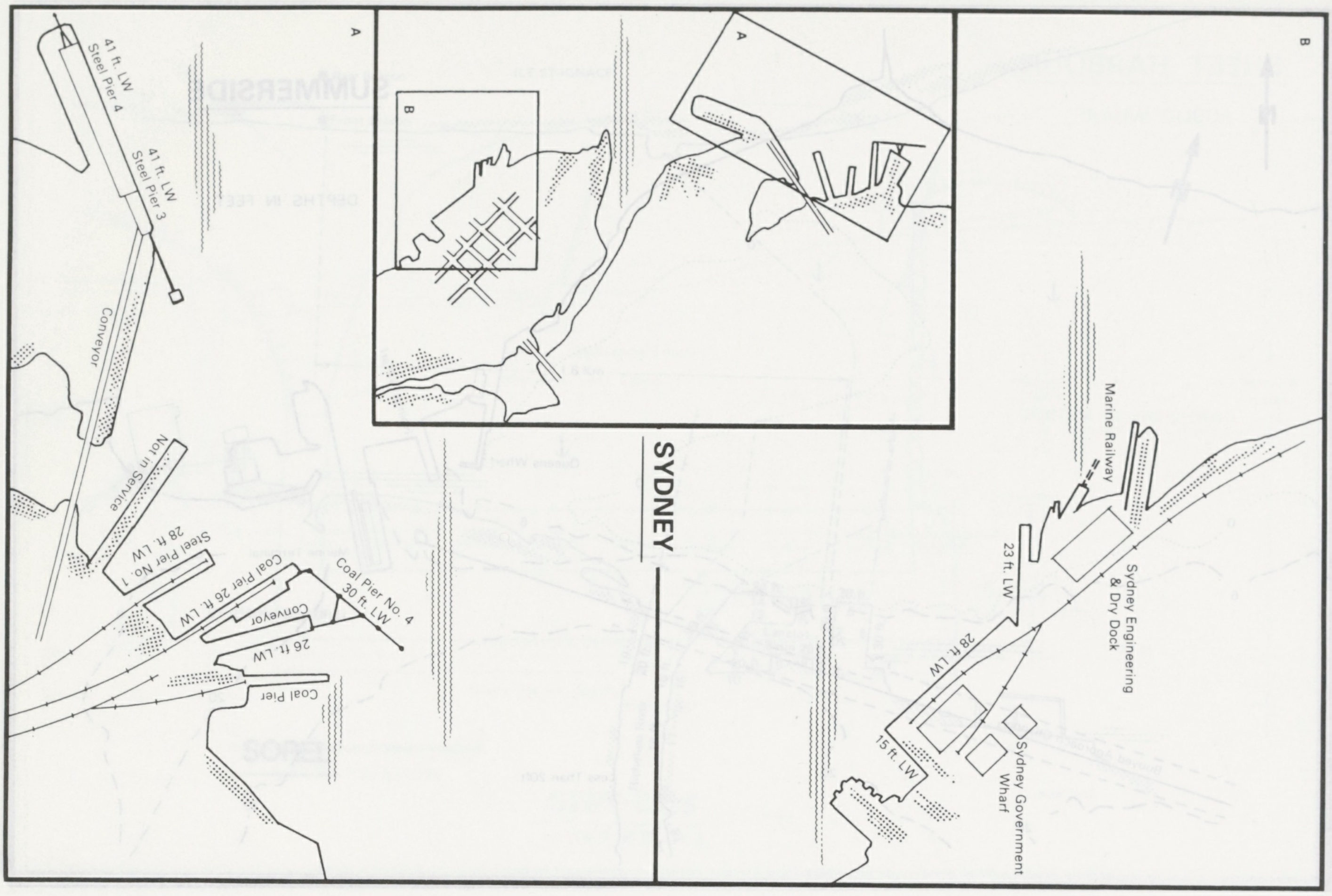
SOREL

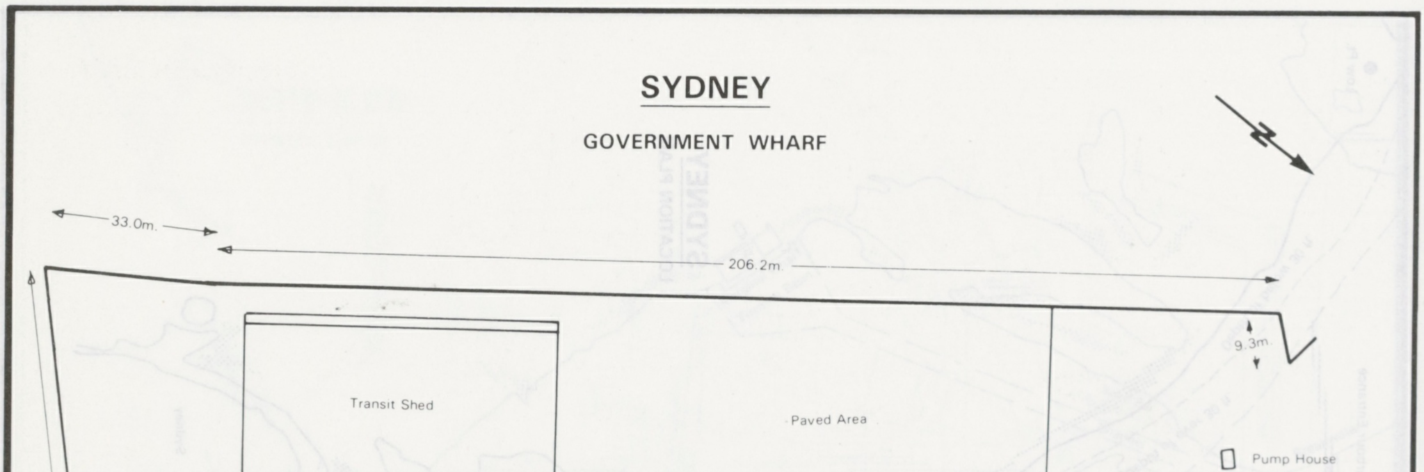

Marginal Wharf
Turning Basin
Sand Bar
Channel
Breakwater
Breakwater
Stephenville Airport
Foreshore Flats
St George's Bay

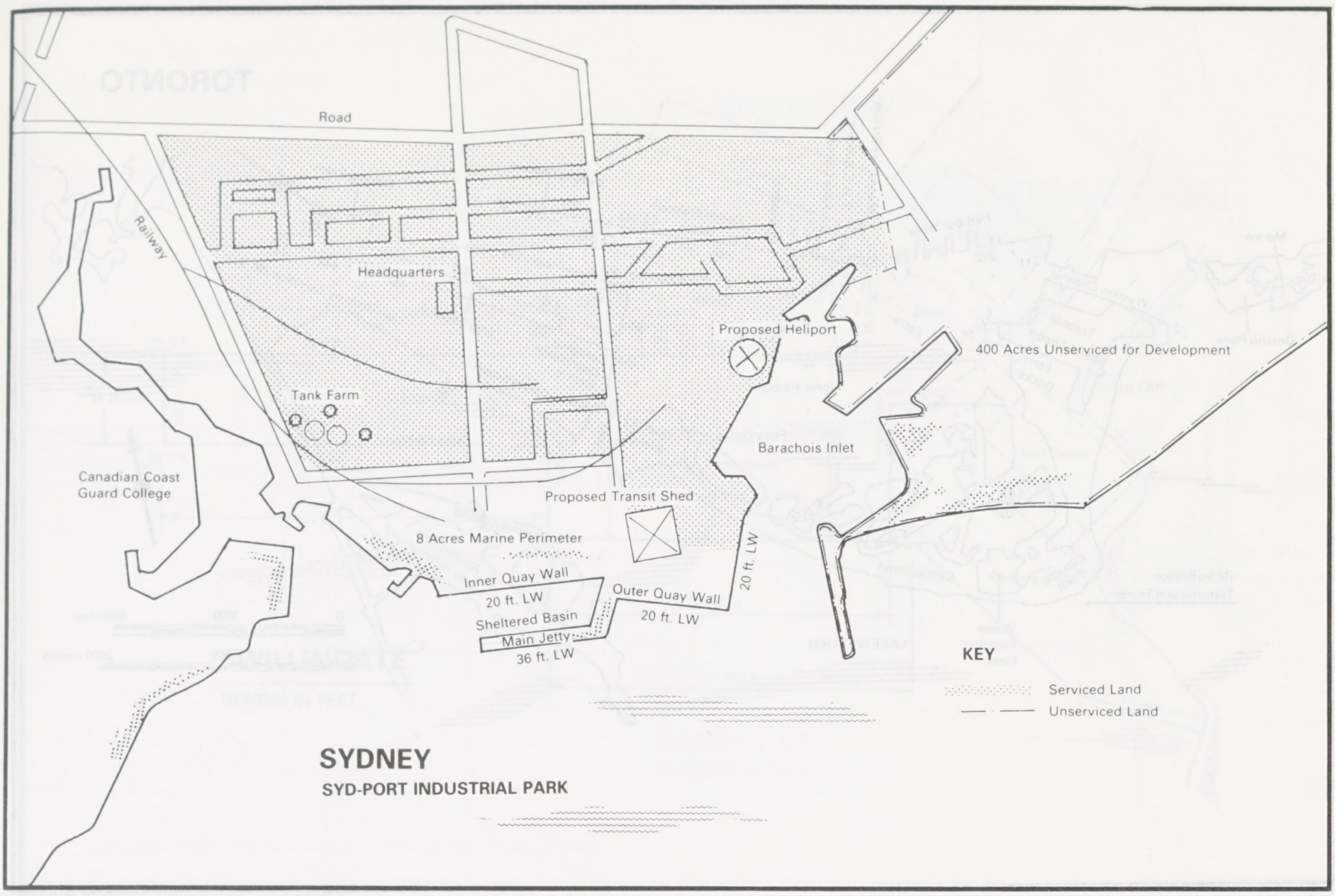
STEPHENVILLE


N
SUMMERSIDE
DEPTHS IN FEET
0
0
0
6
6
6
Holman Wharf
Queens Wharf
Marine Terminal
20
20
20
20
20
Buoyed Approach Channel
Less Than 20ft


Low Pt.
SYDNEY
LOCATION PLAN
Depth of below 30 ft.
Depth of over 30 ft.
Harbour Entrance
Cranberry Pt.
Depth of over 30 ft.
Depth of below 30 ft.
38 ft. MLWS
South Arm
Sydney
North West Arm
North Sydney
Point Edward
(Syd-Port Industrial Park)

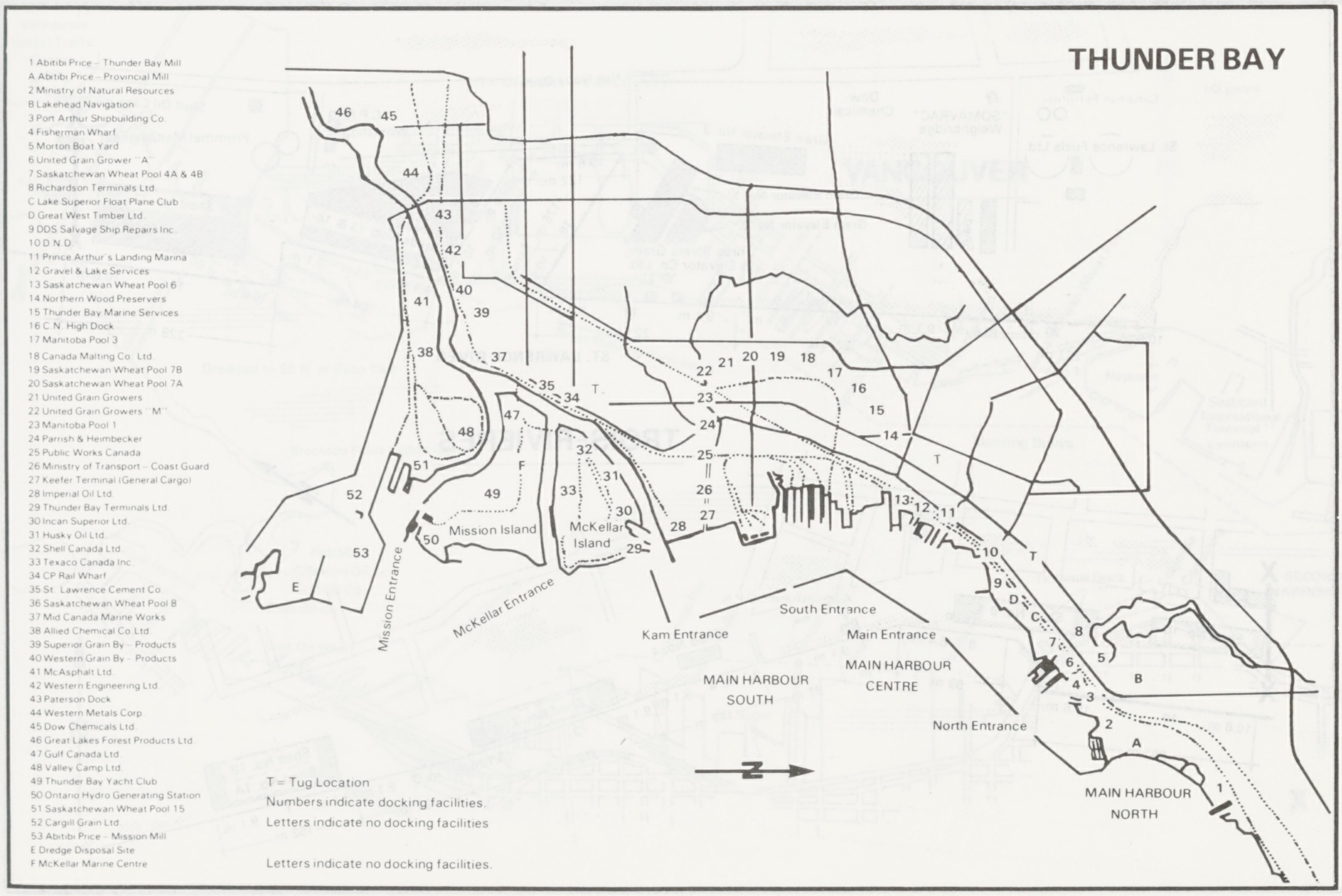

A
B
A
B
41 ft. LW
Steel Pier 4
41 ft. LW
Steel Pier 3
Conveyor
Not in Service
28 ft. LW
Steel Pier No. 1
Coal Pier 26 ft. LW
Conveyor
Coal Pier No. 4
30 ft. LW
26 ft. LW
Coal Pier
SYDNEY
Marine Railway
Sydney Engineering
& Dry Dock
23 ft. LW
28 ft. LW
15 ft. LW
Sydney Government
Wharf


SYDNEY
GOVERNMENT WHARF
N
33.0m.
206.2m.
96.2m.
9.3m.
Transit Shed
Paved Area
Pump House
Fisheries Office
0
50
SCALE OF METRES

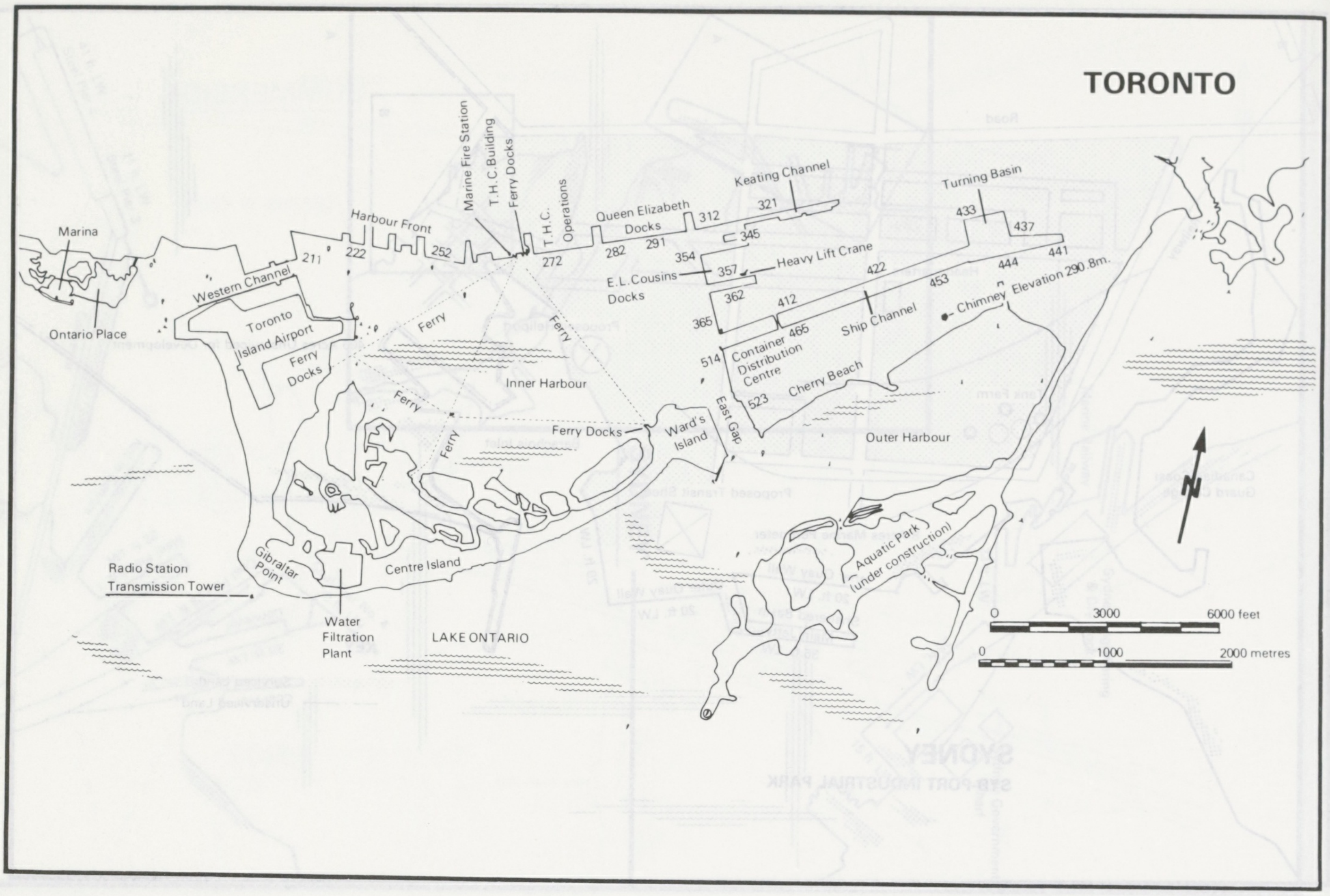

Road
Railway
Headquarters
Proposed Heliport
400 Acres Unserviced for Development
Tank Farm
Barachois Inlet
Canadian Coast Guard College
Proposed Transit Shed
8 Acres Marine Perimeter
Inner Quay Wall
20 ft. LW
Outer Quay Wall
20 ft. LW
20 ft. LW
Sheltered Basin
Main Jetty
36 ft. LW
KEY
Serviced Land
Unserviced Land

SYDNEY

SYD-PORT INDUSTRIAL PARK

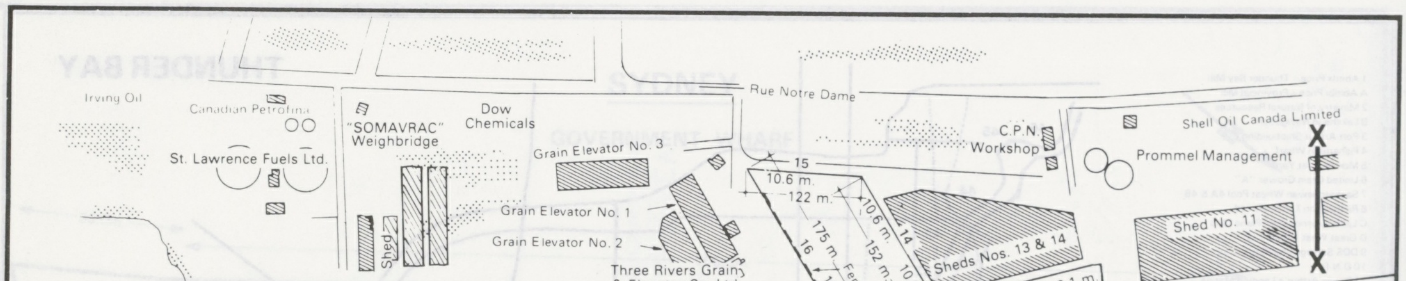

1 Abitibi Price – Thunder Bay Mill
A Abitibi Price – Provincial Mill
2 Ministry of Natural Resources
B Lakehead Navigation
3 Port Arthur Shipbuilding Co.
4 Fisherman Wharf
5 Morton Boat Yard
6 United Grain Grower "A"
7 Saskatchewan Wheat Pool 4A & 4B
8 Richardson Terminals Ltd.
C Lake Superior Float Plane Club
D Great West Timber Ltd.
9 DDS Salvage Ship Repairs Inc.
10 D.N.D.
11 Prince Arthur's Landing Marina
12 Gravel & Lake Services
13 Saskatchewan Wheat Pool 6
14 Northern Wood Preservers
15 Thunder Bay Marine Services
16 C.N. High Dock
17 Manitoba Pool 3
18 Canada Malting Co. Ltd.
19 Saskatchewan Wheat Pool 7B
20 Saskatchewan Wheat Pool 7A
21 United Grain Growers
22 United Grain Growers "M"
23 Manitoba Pool 1
24 Parrish & Heimbecker
25 Public Works Canada
26 Ministry of Transport – Coast Guard
27 Keefer Terminal (General Cargo)
28 Imperial Oil Ltd.
29 Thunder Bay Terminals Ltd.
30 Incan Superior Ltd.
31 Husky Oil Ltd.
32 Shell Canada Ltd.
33 Texaco Canada Inc.
34 CP Rail Wharf
35 St. Lawrence Cement Co.
36 Saskatchewan Wheat Pool 8
37 Mid Canada Marine Works
38 Allied Chemical Co. Ltd.
39 Superior Grain By – Products
40 Western Grain By – Products
41 McAsphalt Ltd.
42 Western Engineering Ltd.
43 Paterson Dock
44 Western Metals Corp.
45 Dow Chemicals Ltd.
46 Great Lakes Forest Products Ltd.
47 Gulf Canada Ltd.
48 Valley Camp Ltd.
49 Thunder Bay Yacht Club
50 Ontario Hydro Generating Station
51 Saskatchewan Wheat Pool 15
52 Cargill Grain Ltd.
53 Abitibi Price – Mission Mill
E Dredge Disposal Site
F McKellar Marine Centre
Mission Island
McKellar Island
Mission Entrance
McKellar Entrance
Kam Entrance
South Entrance
Main Entrance
North Entrance
MAIN HARBOUR SOUTH
MAIN HARBOUR CENTRE
MAIN HARBOUR NORTH
N
T = Tug Location
Numbers indicate docking facilities.
Letters indicate no docking facilities.
Letters indicate no docking facilities.

THUNDER BAY



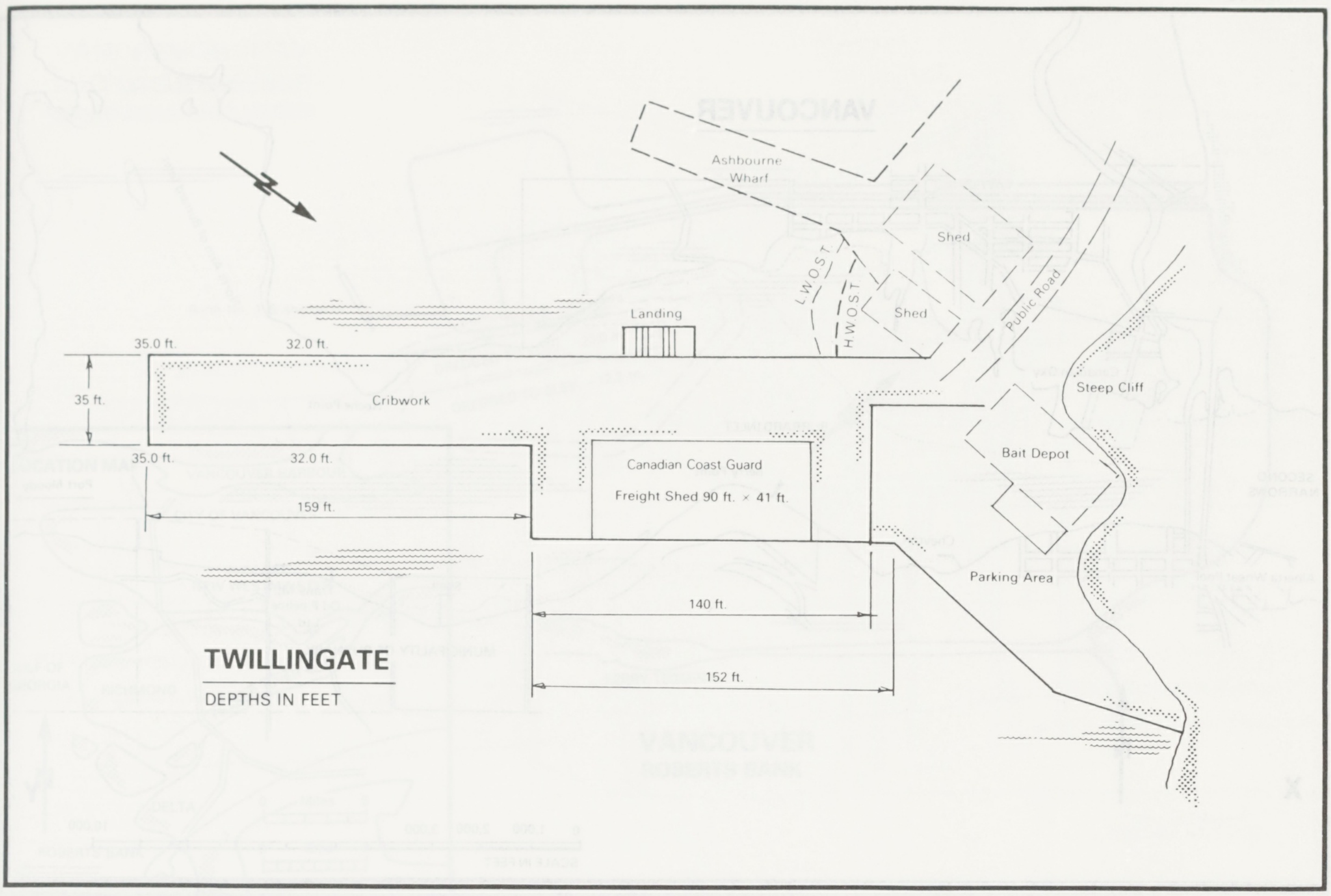
TORONTO

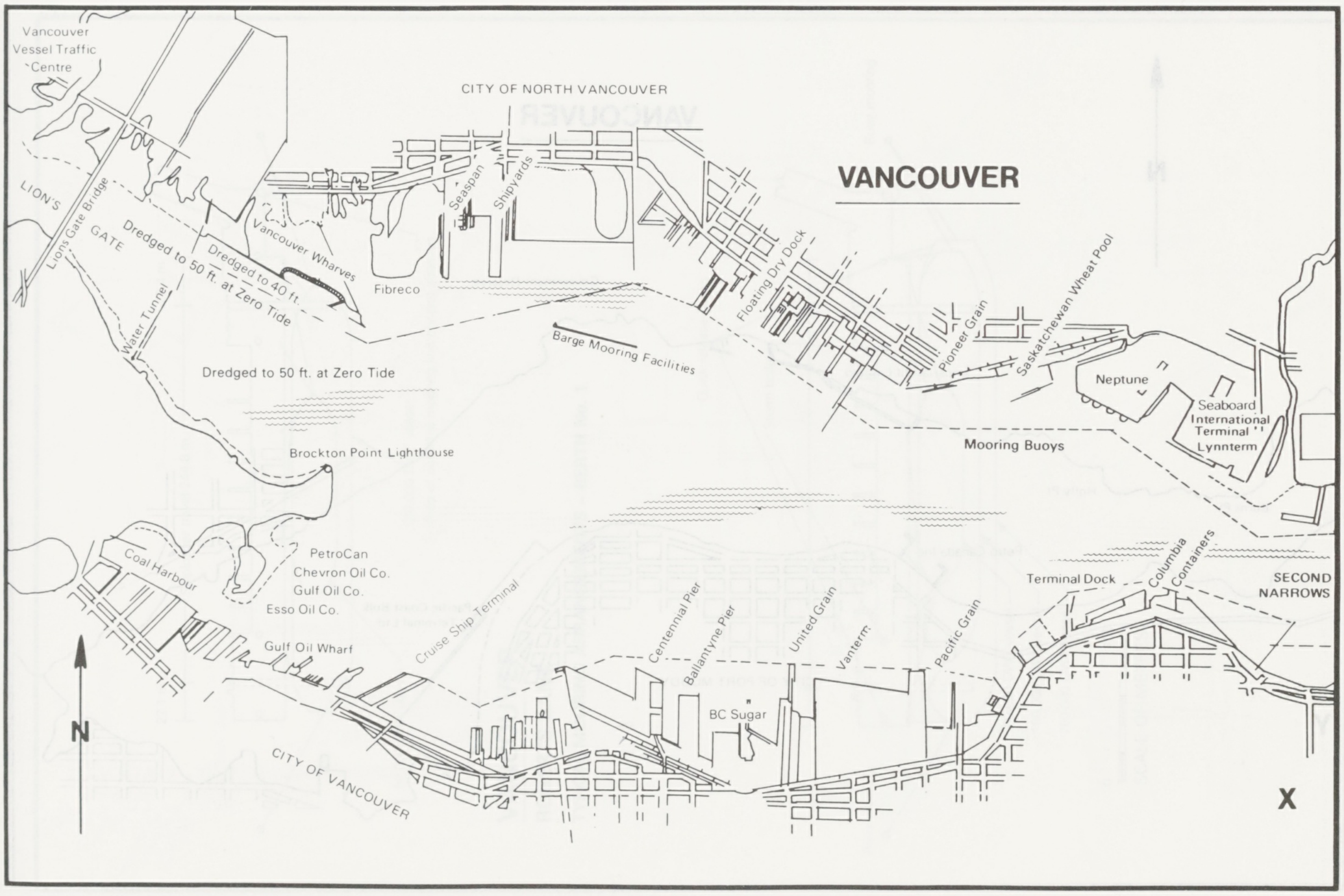
Marina
Ontario Place
Western Channel
211
222
Harbour Front
252
Marine Fire Station
T.H.C Building
Ferry Docks
T.H.C. Operations
272
282
Queen Elizabeth Docks
291
312
Keating Channel
321
345
354
357
Heavy Lift Crane
E.L.Cousins Docks
362
412
422
365
Turning Basin
433
437
441
444
453
Chimney Elevation 290.8m.
Ship Channel
Toronto Island Airport
Ferry Docks
Ferry
Ferry
Ferry
Ferry
Inner Harbour
514
Container Distribution Centre
465
523
Cherry Beach
East Gap
Ward's Island
Ferry Docks
Outer Harbour
Aquatic Park (under construction)
Radio Station Transmission Tower
Gibraltar Point
Centre Island
Water Filtration Plant
LAKE ONTARIO
0 3000 6000 feet
0 1000 2000 metres
N

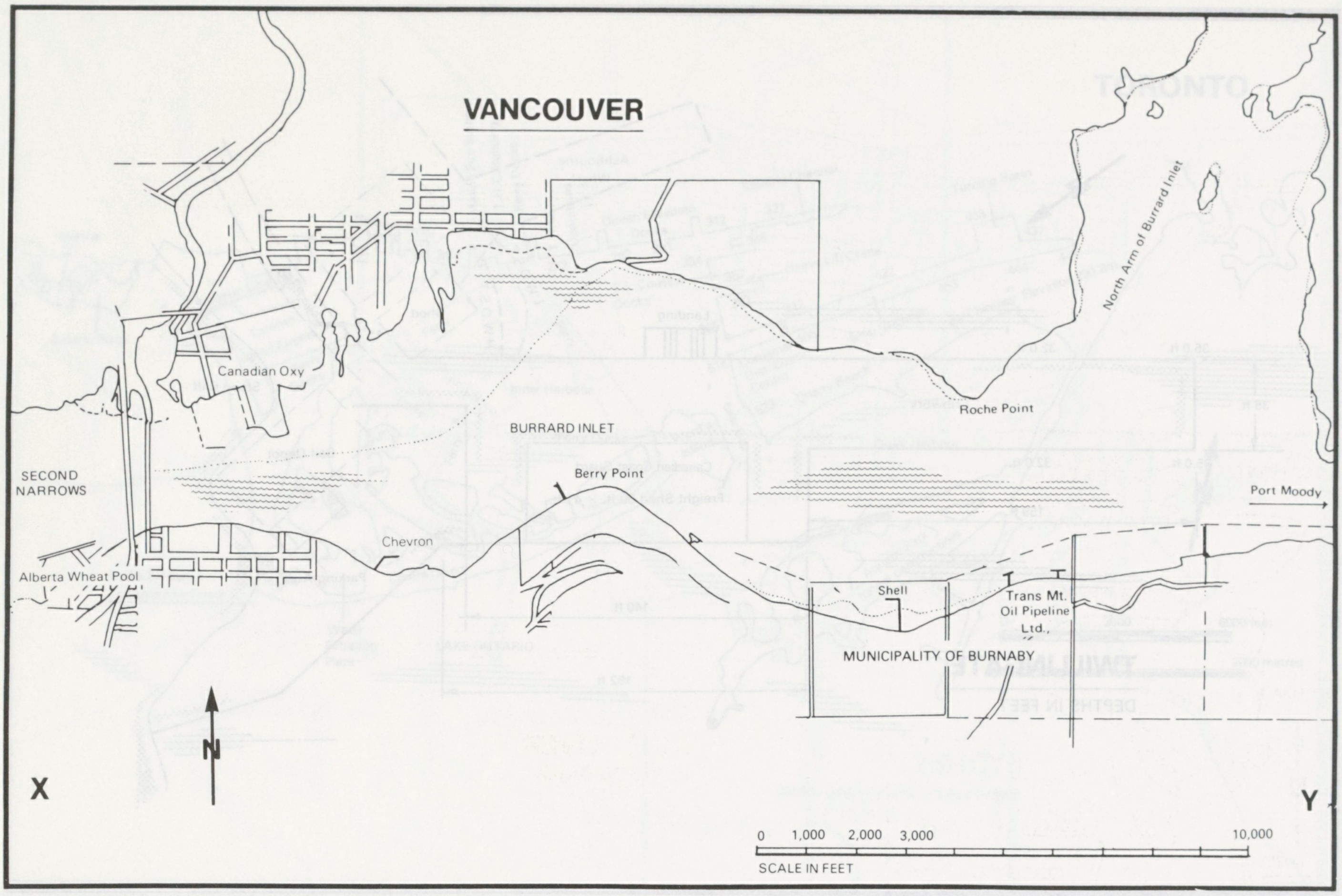


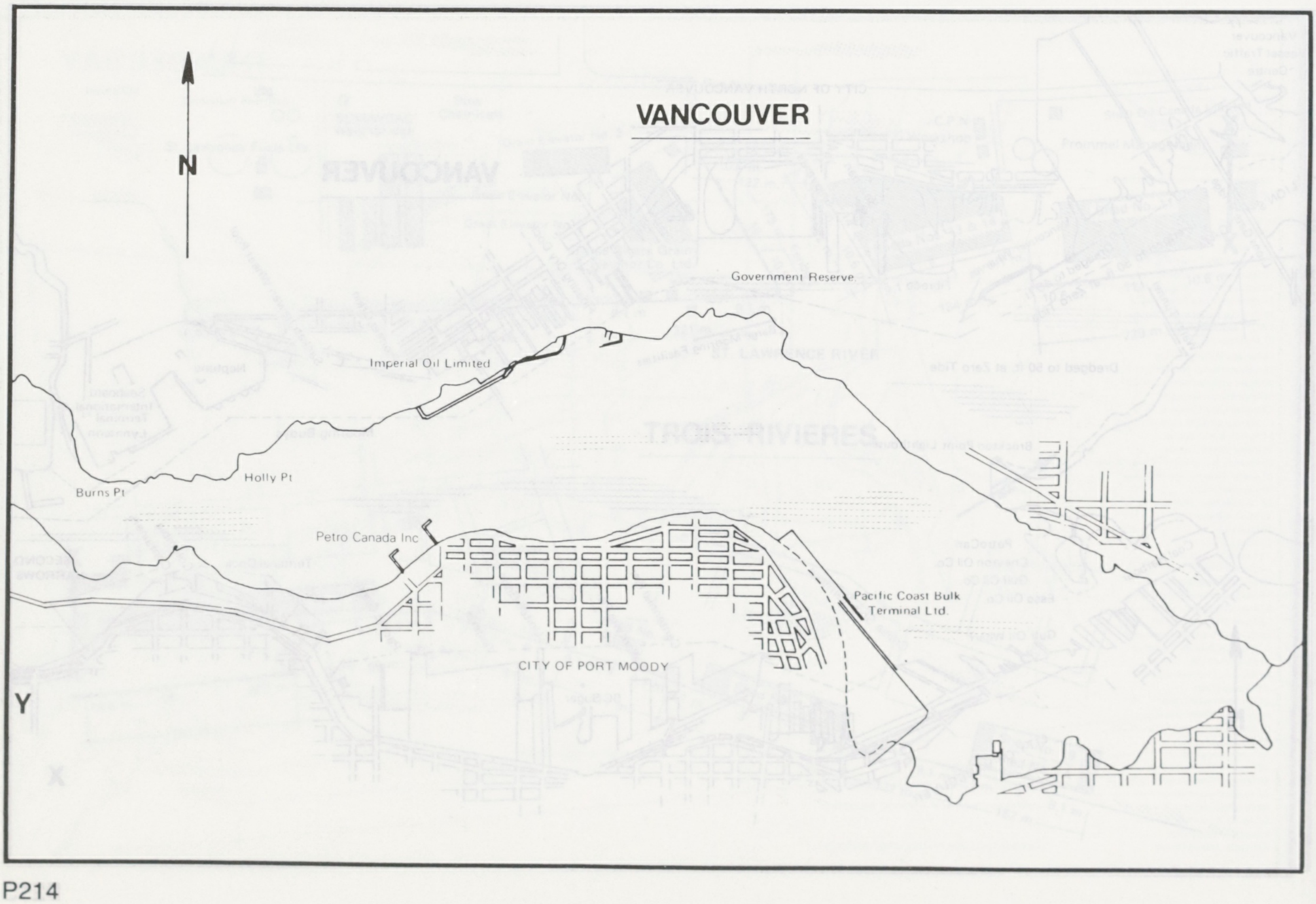
TROIS-RIVIERES

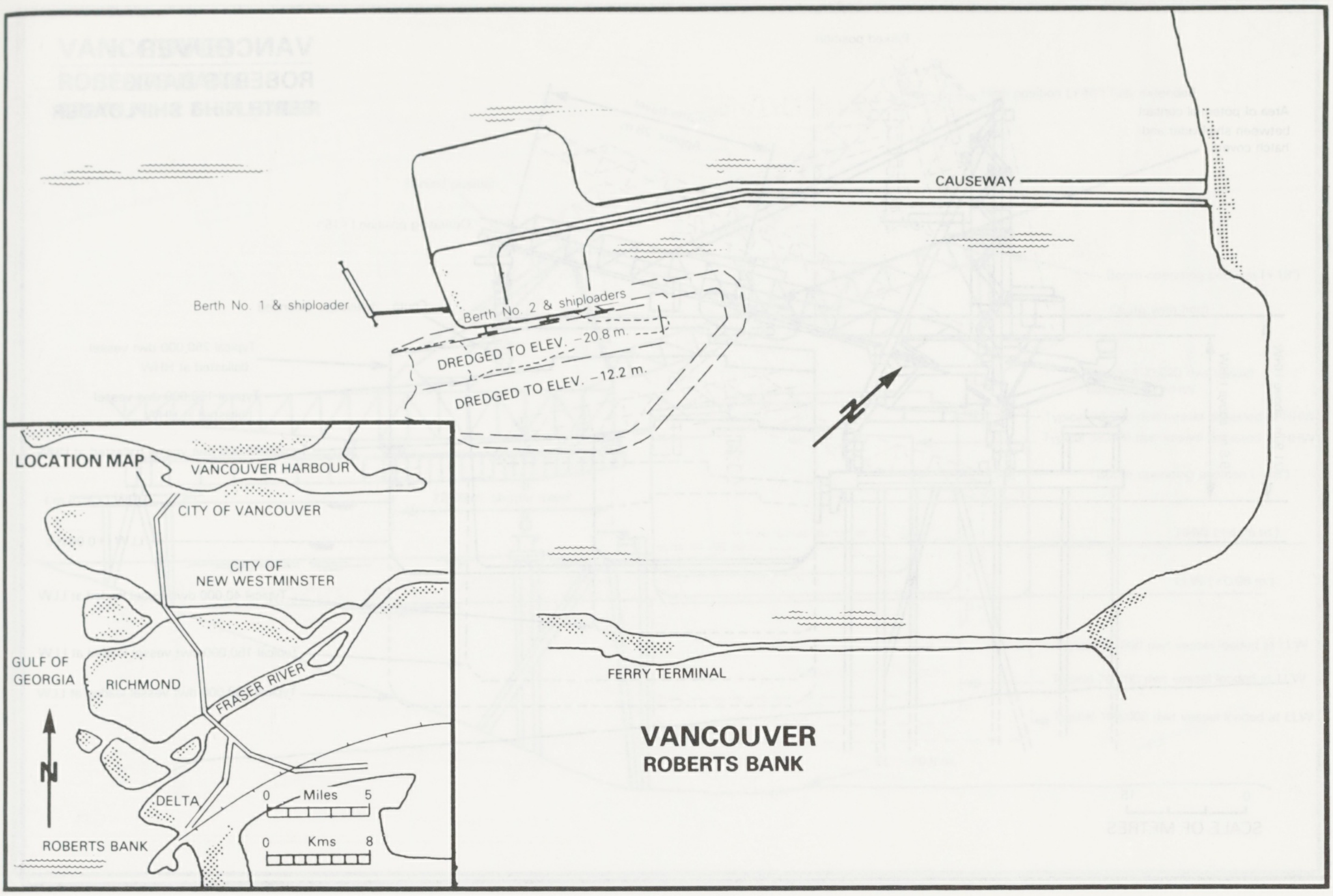
Irving Oil
Canadian Petrofina
"SOMAVRAC" Weighbridge
Dow Chemicals
St. Lawrence Fuels Ltd.
Shed
Grain Elevator No. 3
Rue Notre Dame
Grain Elevator No. 1
Grain Elevator No. 2
Three Rivers Grain & Elevator Co. Ltd.
15
10.6 m.
122 m.
175 m.
16
10.6 m.
152 m.
Fenders
14
10.6 m.
10.6 m.
Sheds Nos. 13 & 14
C.P.N. Workshop
Shell Oil Canada Limited
Prommel Management
X
X
Shed No. 11
9.1 m.
13
9.1 m.
184 m.
10.6 m.
11
10.6 m.
229 m.
10.6 m.
20
10.6 m.
9.1 m.
221 m.
Fenders
19
9.1 m.
221 m.
9.1 m.
17
9.1 m.
221 m.
ST. LAWRENCE RIVER
N
C.P.N.
X
Shed No. 10
Shed No. 9
X
Administration C.P.N.
9
6.4 m.
7
9.1 m
6
91 m.
99 m.
91 m.
Shed No. 4
9.1 m. 4
9.1 m
9.1 m.
Shed No. 3
117 m.
10.6 m.
10
10.6 m.
251 m.
3
218 m.
9.1 m.
9.1 m. 2
9.1 m
9.1 m.
1
Shed No. 1B
Shed No. 1A
122 m.
152 m.
9.1 m.


Ashbourne Wharf
Shed
Shed
LWOST
HWOST
Public Road
Landing
35.0 ft.
32.0 ft.
35 ft.
Cribwork
35.0 ft.
32.0 ft.
159 ft.
Canadian Coast Guard
Freight Shed 90 ft. × 41 ft.
Steep Cliff
Bait Depot
Parking Area
140 ft.
152 ft.
TWILLINGATE
DEPTHS IN FEET

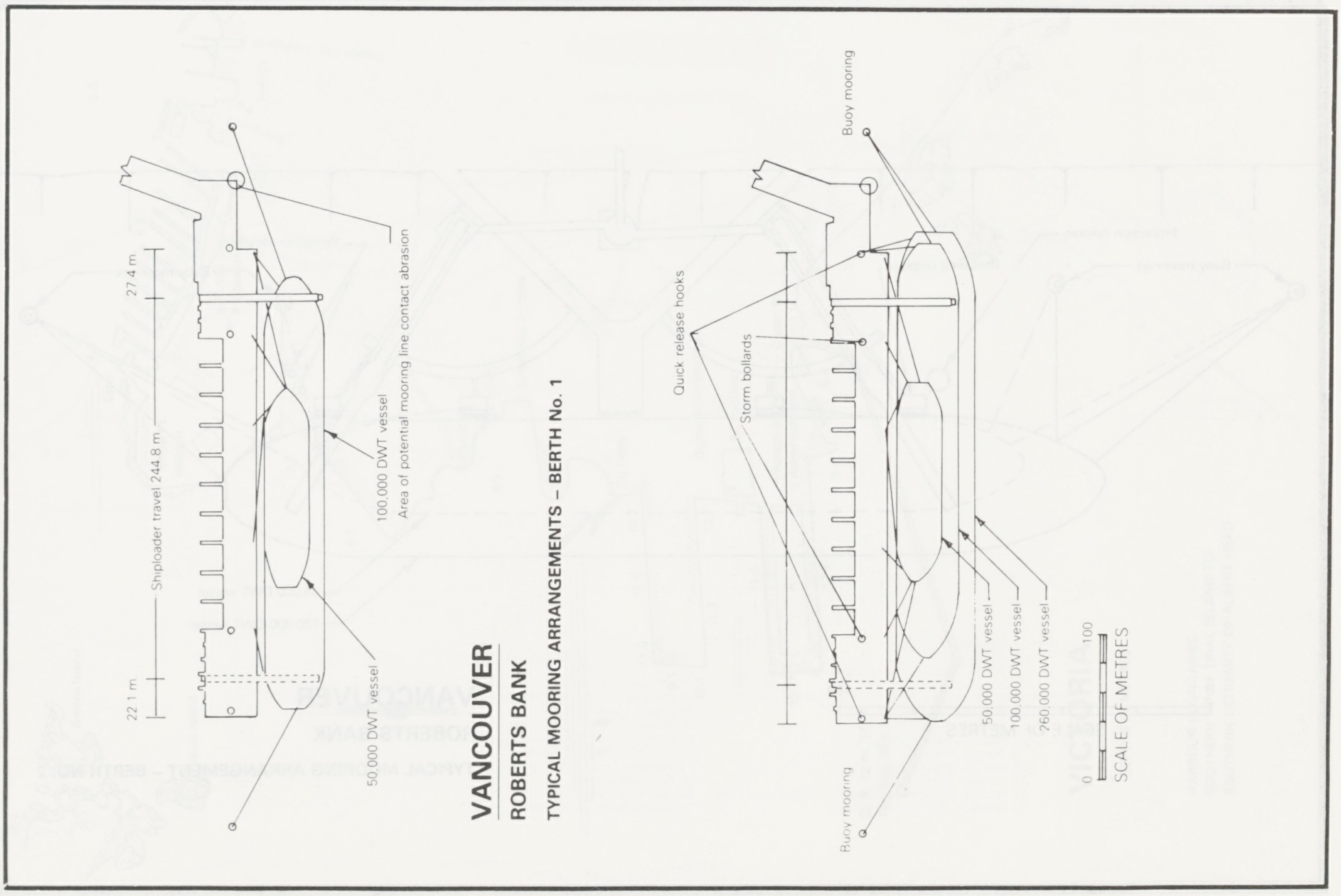

Vancouver Vessel Traffic Centre
CITY OF NORTH VANCOUVER
VANCOUVER
LION'S GATE
Lions Gate Bridge
Dredged to 50 ft. at Zero Tide
Dredged to 40 ft.
Vancouver Wharves
Seaspan
Shipyards
Fibreco
Floating Dry Dock
Pioneer Grain
Saskatchewan Wheat Pool
Barge Mooring Facilities
Water Tunnel
Dredged to 50 ft. at Zero Tide
Neptune
Seaboard International Terminal
Lynnterm
Mooring Buoys
Brockton Point Lighthouse
Coal Harbour
PetroCan
Chevron Oil Co.
Gulf Oil Co.
Esso Oil Co.
Gulf Oil Wharf
Cruise Ship Terminal
Centennial Pier
Ballantyne Pier
United Grain
Vanterm
Pacific Grain
Terminal Dock
Columbia Containers
SECOND NARROWS
BC Sugar
N
CITY OF VANCOUVER
X


VANCOUVER
Canadian Oxy
North Arm of Burrard Inlet
Roche Point
BURRARD INLET
SECOND NARROWS
Berry Point
Port Moody
Chevron
Alberta Wheat Pool
Shell
Trans Mt. Oil Pipeline Ltd.
MUNICIPALITY OF BURNABY
N
X
Y
0
1,000
2,000
3,000
10,000
SCALE IN FEET

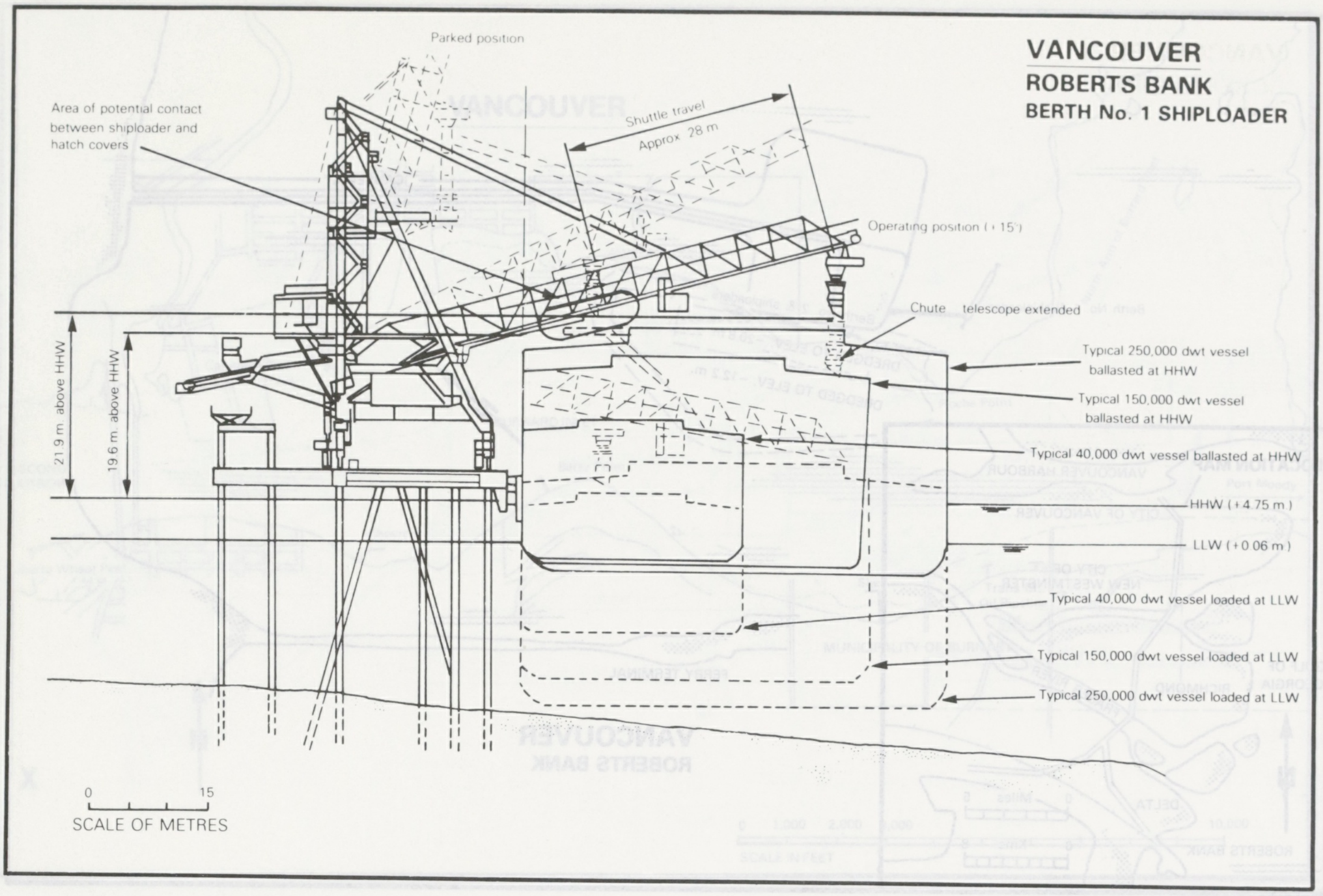

N
VANCOUVER
Government Reserve
Imperial Oil Limited
Burns Pt
Holly Pt
Petro Canada Inc
Pacific Coast Bulk Terminal Ltd.
CITY OF PORT MOODY
Y


CAUSEWAY
Berth No. 1 & shiploader
Berth No. 2 & shiploaders
DREDGED TO ELEV. –20.8 m.
DREDGED TO ELEV. –12.2 m.
N
FERRY TERMINAL
LOCATION MAP
VANCOUVER HARBOUR
CITY OF VANCOUVER
CITY OF NEW WESTMINSTER
GULF OF GEORGIA
RICHMOND
FRASER RIVER
N
DELTA
ROBERTS BANK
0 Miles 5
0 Kms 8

VANCOUVER
ROBERTS BANK

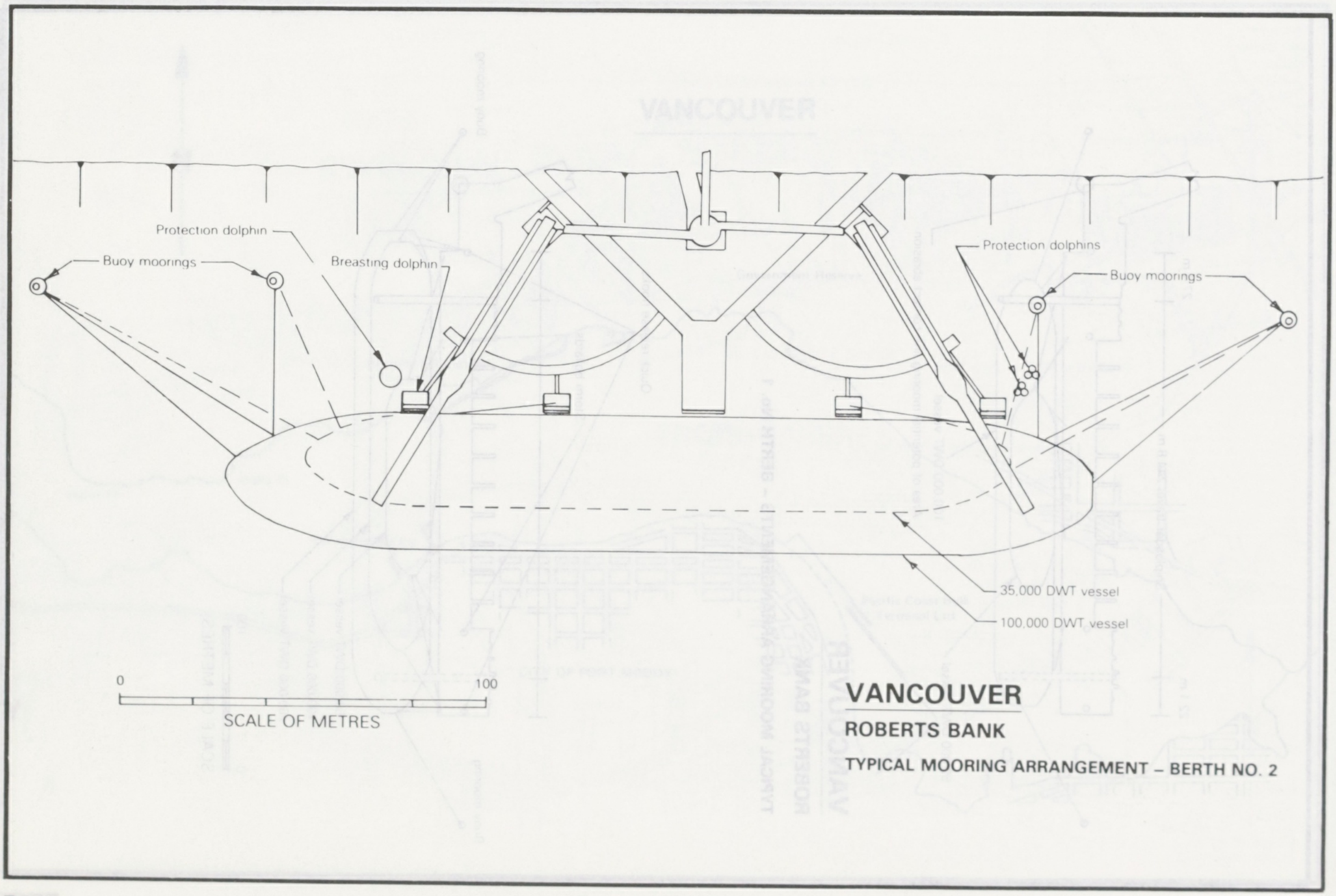

27.4 m
Shiploader travel 244.8 m
22.1 m
100,000 DWT vessel
Area of potential mooring line contact abrasion
50,000 DWT vessel
Quick release hooks
Storm bollards
Buoy mooring
Buoy mooring
50,000 DWT vessel
100,000 DWT vessel
260,000 DWT vessel
0 100
SCALE OF METRES

VANCOUVER
ROBERTS BANK
TYPICAL MOORING ARRANGEMENTS – BERTH No. 1



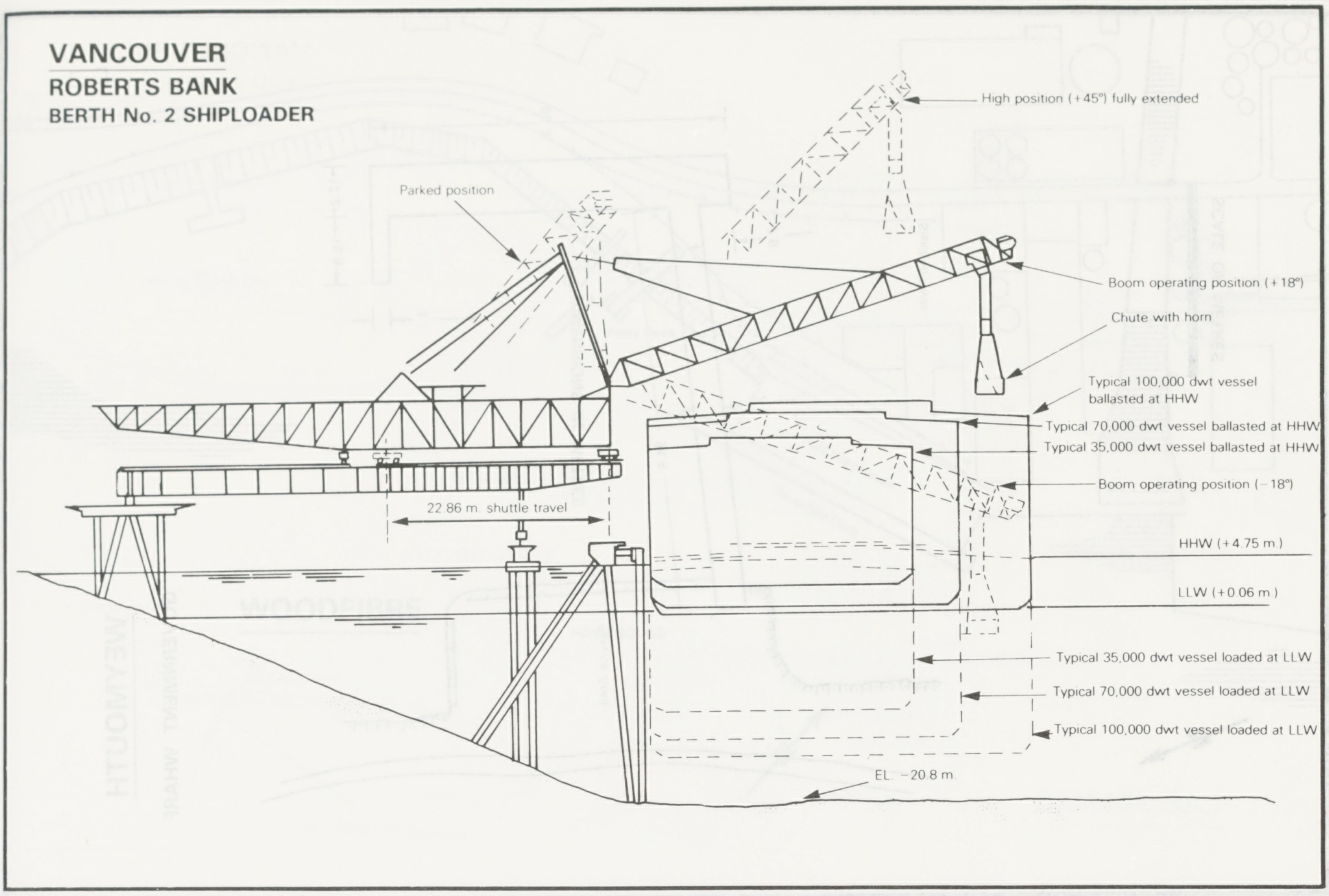
VANCOUVER
ROBERTS BANK
BERTH No. 1 SHIPLOADER

Parked position
Area of potential contact between shiploader and hatch covers
Shuttle travel
Approx. 28 m
Operating position (+15°)
Chute
telescope extended
Typical 250,000 dwt vessel ballasted at HHW
Typical 150,000 dwt vessel ballasted at HHW
Typical 40,000 dwt vessel ballasted at HHW
HHW (+4.75 m)
LLW (+0.06 m)
Typical 40,000 dwt vessel loaded at LLW
Typical 150,000 dwt vessel loaded at LLW
Typical 250,000 dwt vessel loaded at LLW
21.9 m. above HHW
19.6 m. above HHW
0
15
SCALE OF METRES



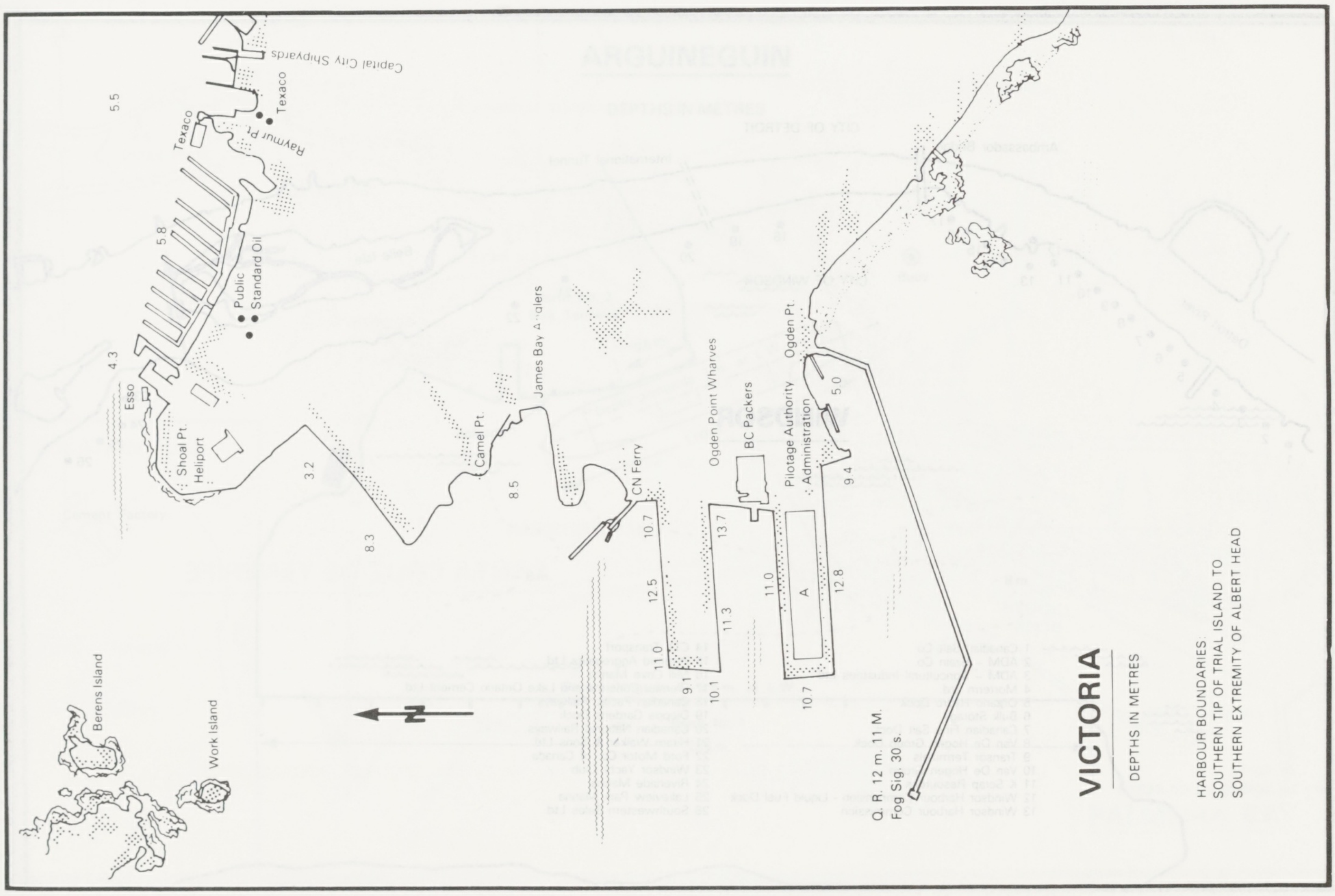
VANCOUVER
ROBERTS BANK
TYPICAL MOORING ARRANGEMENT – BERTH NO. 2

Protection dolphin
Buoy moorings
Breasting dolphin
Protection dolphins
Buoy moorings
35,000 DWT vessel
100,000 DWT vessel
0
100
SCALE OF METRES



VANCOUVER
ROBERTS BANK
BERTH No. 2 SHIPLOADER

High position (+45°) fully extended
Parked position
Boom operating position (+18°)
Chute with horn
Typical 100,000 dwt vessel ballasted at HHW
Typical 70,000 dwt vessel ballasted at HHW
Typical 35,000 dwt vessel ballasted at HHW
Boom operating position (−18°)
22.86 m. shuttle travel
HHW (+4.75 m.)
LLW (+0.06 m.)
Typical 35,000 dwt vessel loaded at LLW
Typical 70,000 dwt vessel loaded at LLW
Typical 100,000 dwt vessel loaded at LLW
EL. −20.8 m.

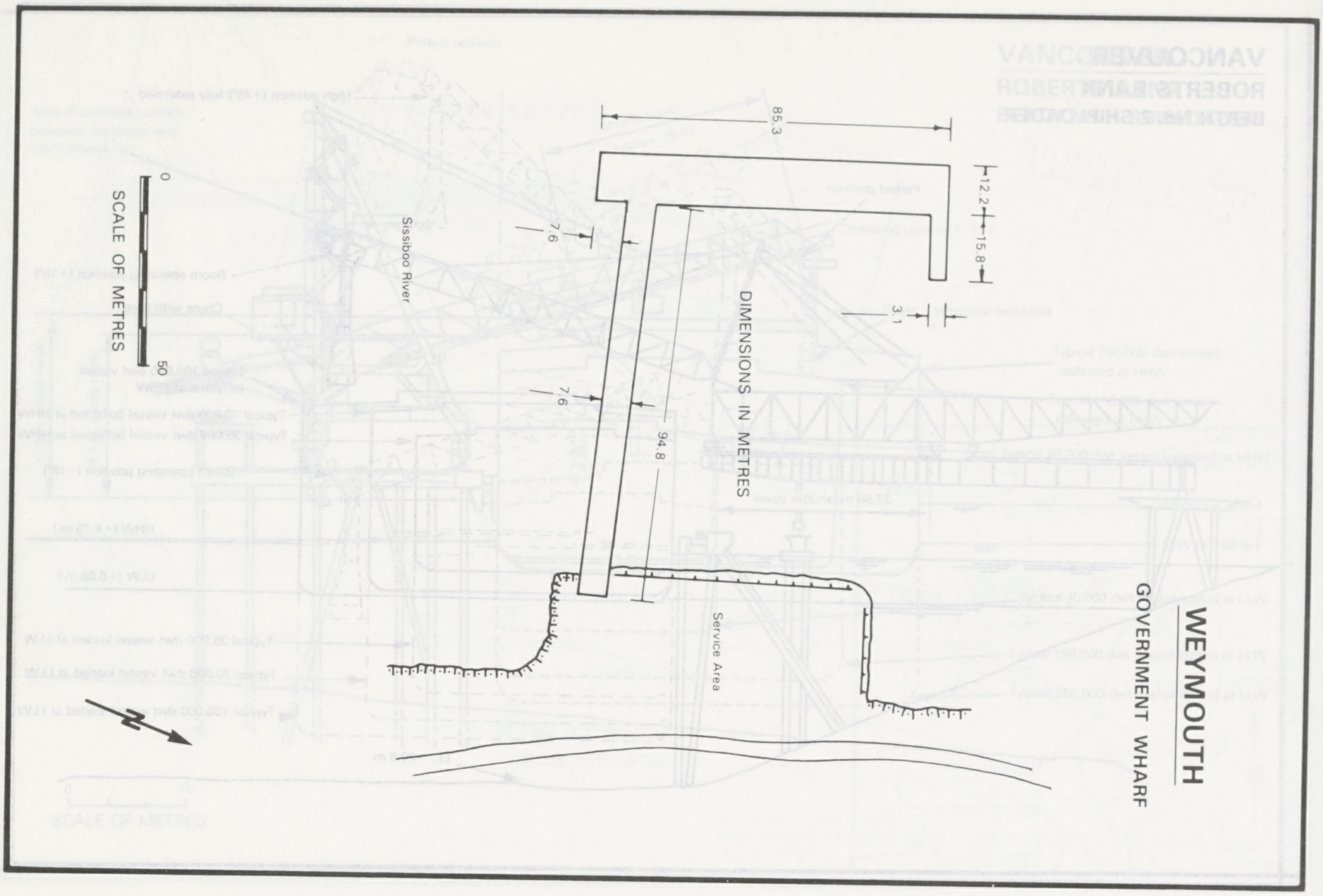


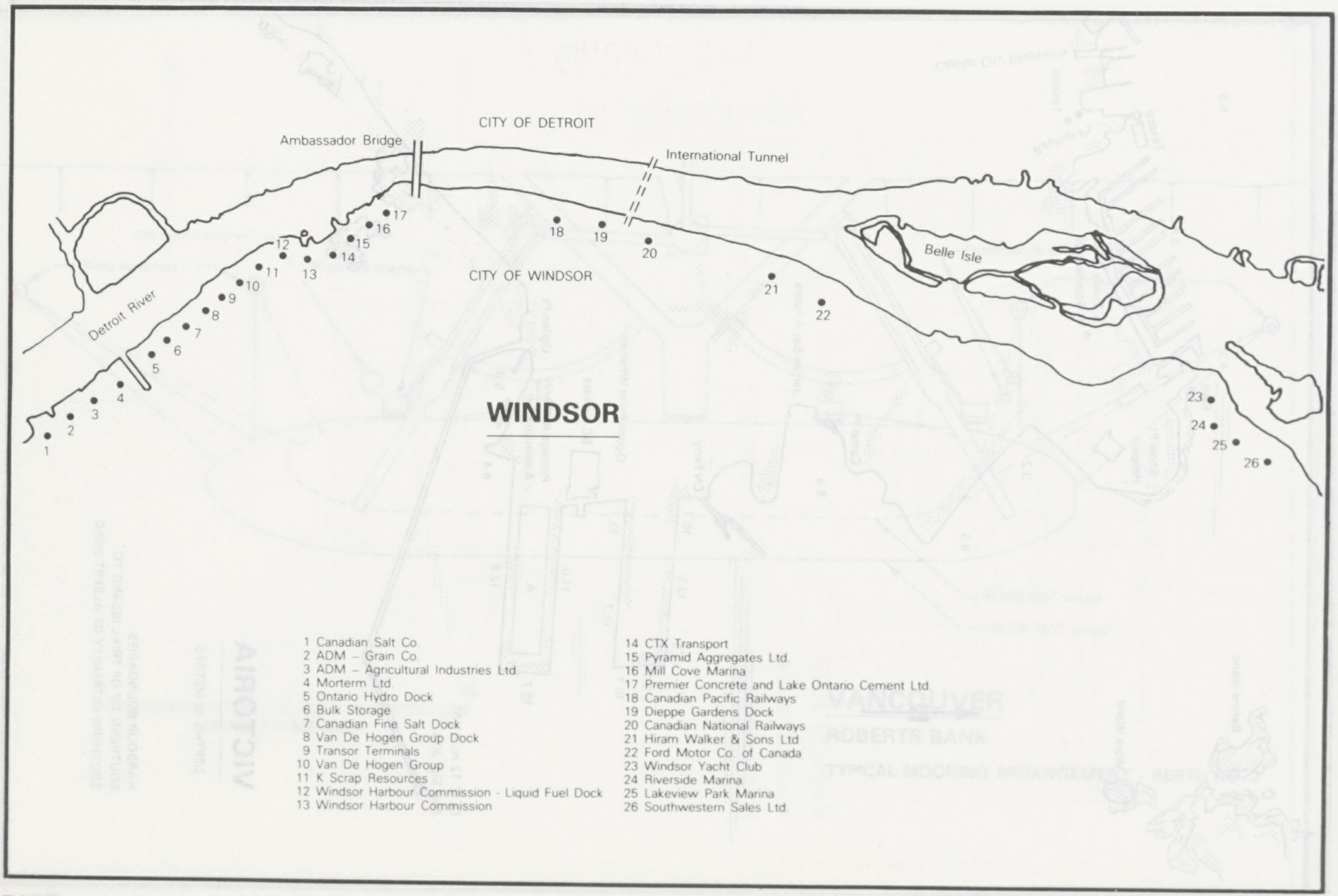
VICTORIA

DEPTHS IN METRES

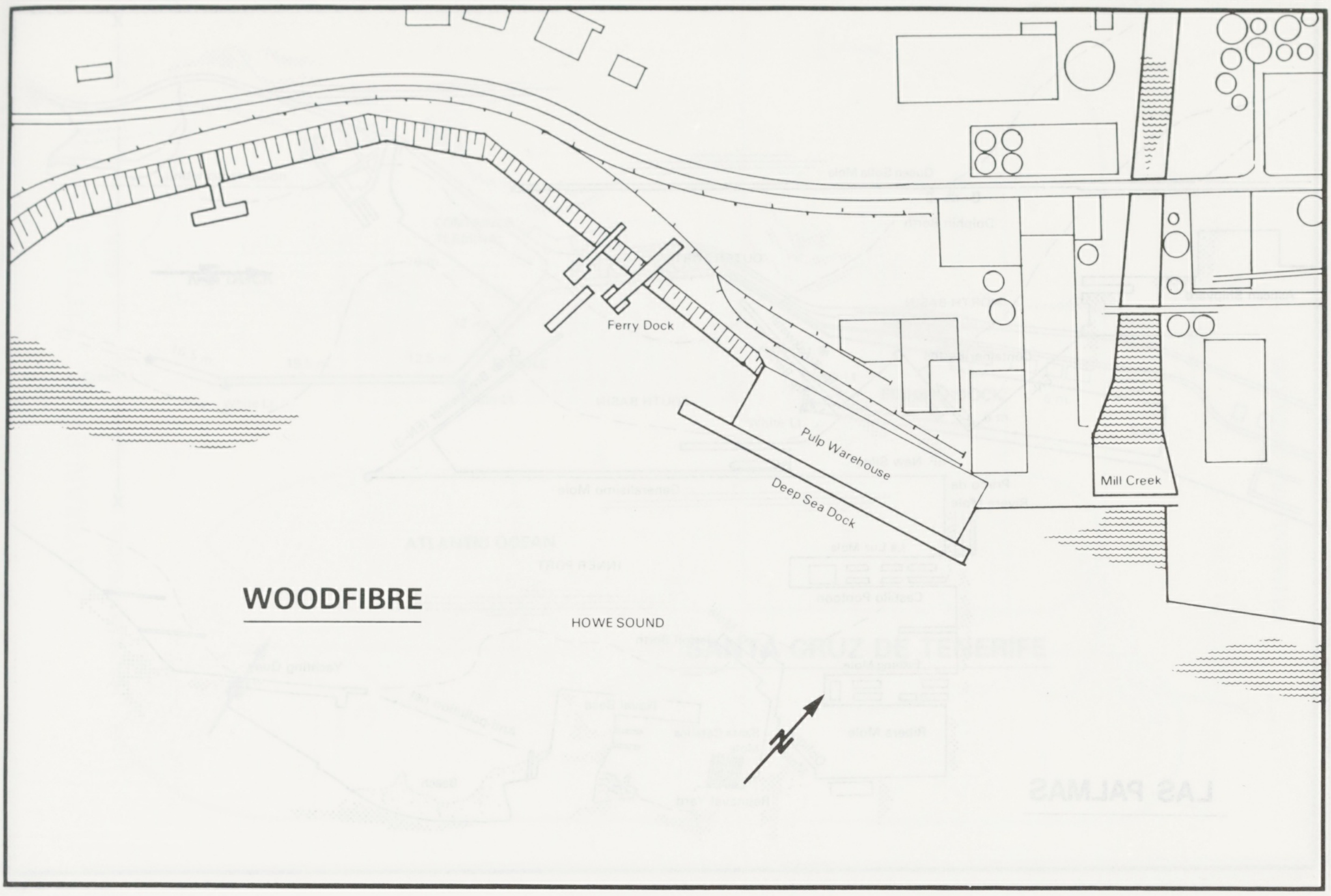
HARBOUR BOUNDARIES:
SOUTHERN TIP OF TRIAL ISLAND TO
SOUTHERN EXTREMITY OF ALBERT HEAD

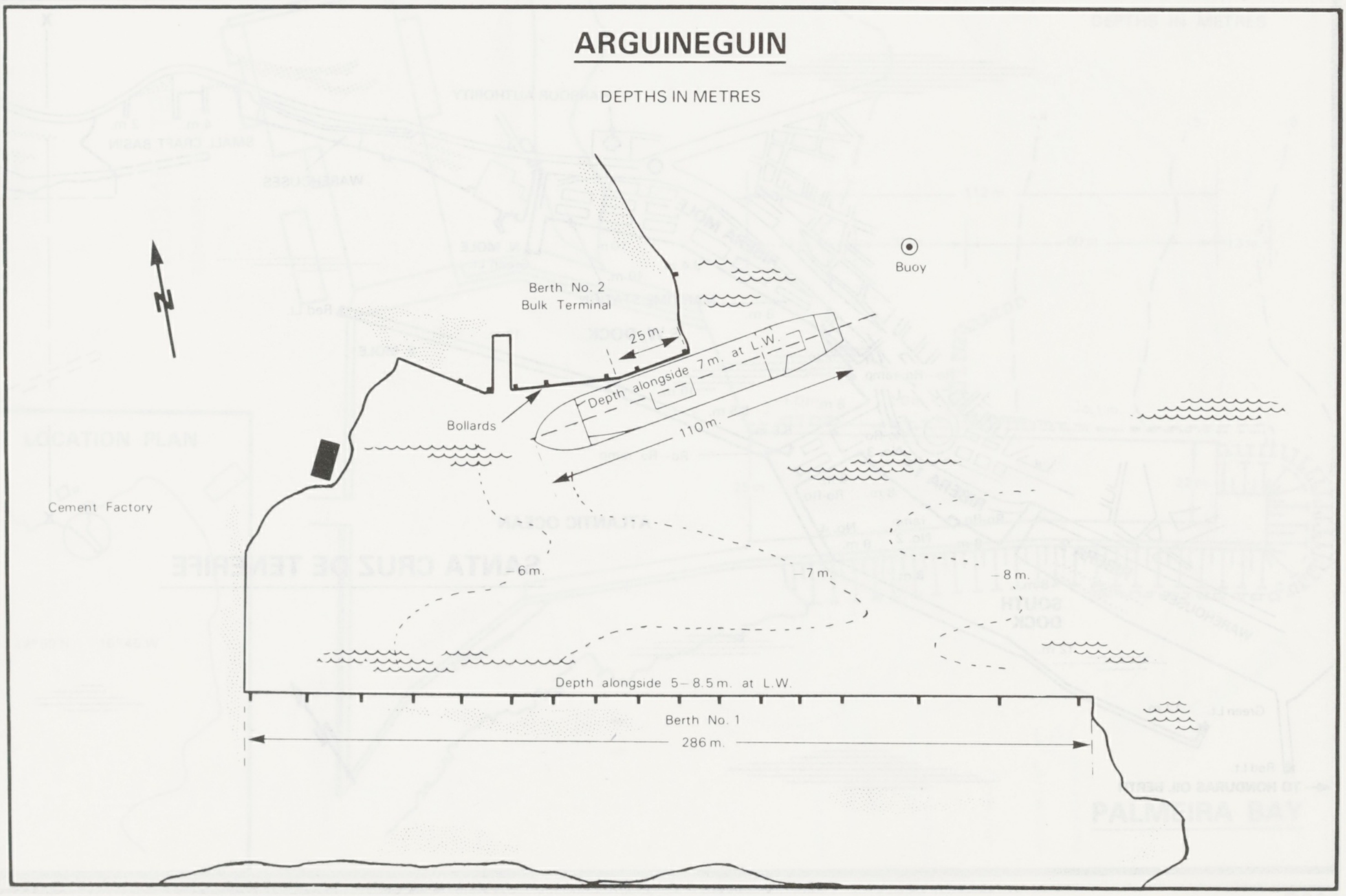
Capital City Shipyards
Texaco
Raymur Pt.
Texaco
5.5
5.8
Public
Standard Oil
4.3
Esso
Shoal Pt.
Heliport
3.2
8.3
Camel Pt.
8.5
James Bay Anglers
CN Ferry
10.7
12.5
11.0
9.1
Ogden Point Wharves
13.7
11.3
10.1
BC Packers
Pilotage Authority
Administration
11.0
A
10.7
12.8
9.4
Ogden Pt.
5.0
Q. R. 12 m. 11 M.
Fog Sig. 30 s.
N
Berens Island
Work Island

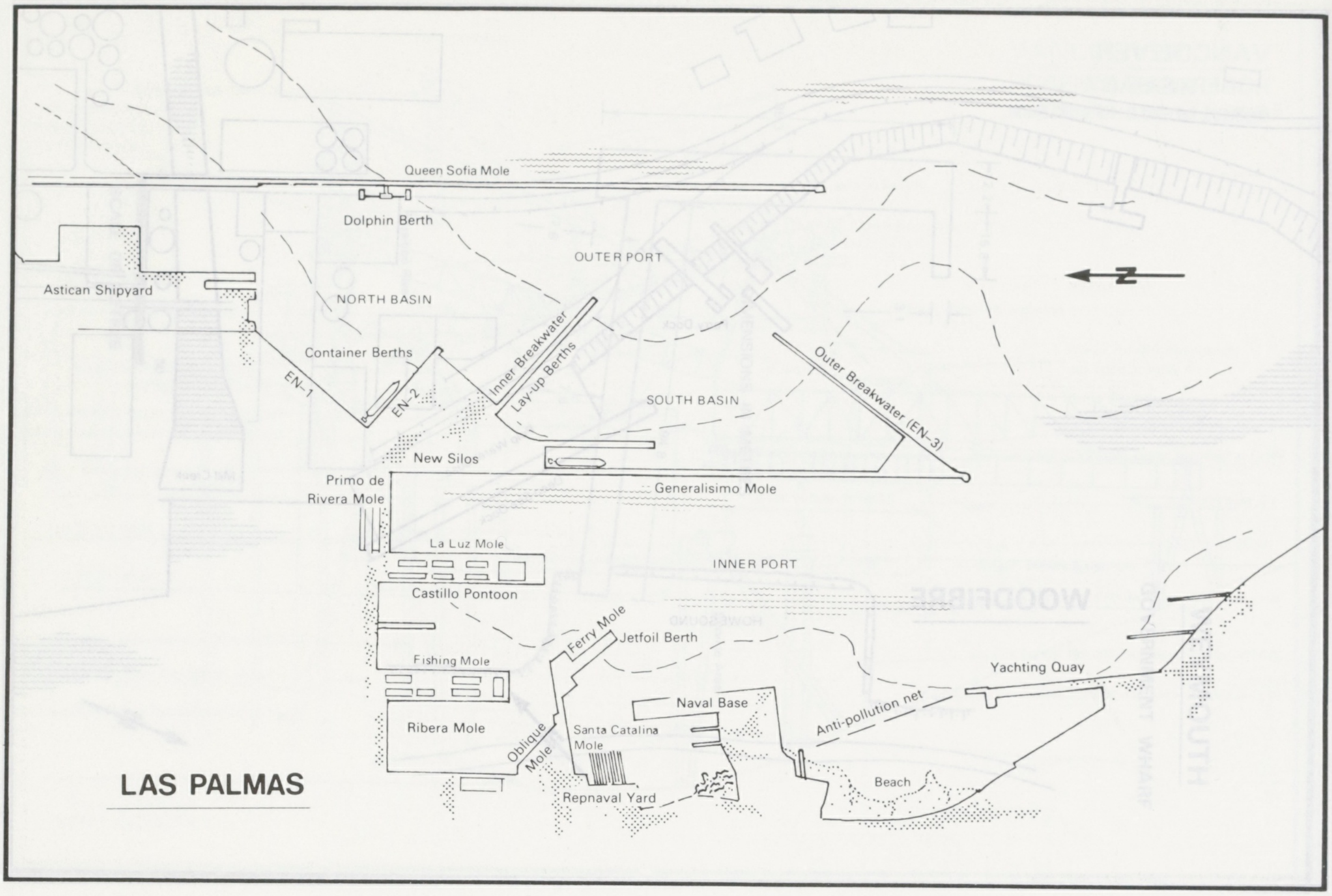

WEYMOUTH
GOVERNMENT WHARF
DIMENSIONS IN METRES
SCALE OF METRES
0
50
85.3
12.2
15.8
3.1
7.6
7.6
94.8
Sissiboo River
Service Area

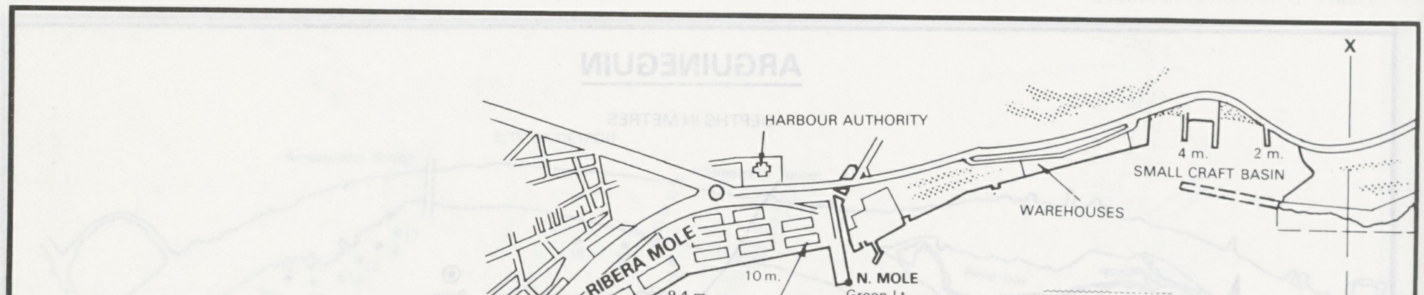

WINDSOR
CITY OF DETROIT
Ambassador Bridge
International Tunnel
CITY OF WINDSOR
Detroit River
Belle Isle
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

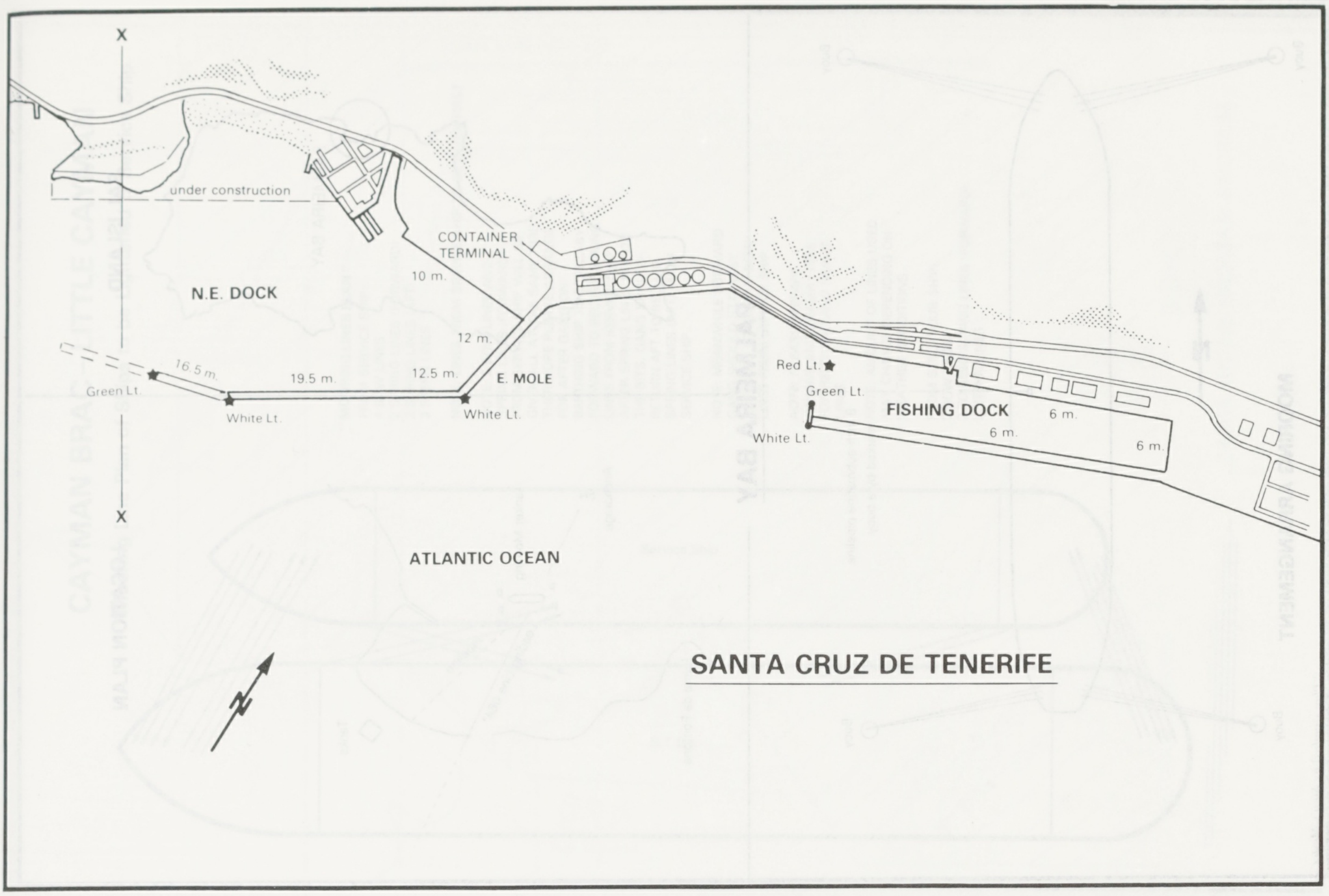
1 Canadian Salt Co.
2 ADM – Grain Co.
3 ADM – Agricultural Industries Ltd.
4 Morterm Ltd.
5 Ontario Hydro Dock
6 Bulk Storage
7 Canadian Fine Salt Dock
8 Van De Hogen Group Dock
9 Transor Terminals
10 Van De Hogen Group
11 K Scrap Resources
12 Windsor Harbour Commission - Liquid Fuel Dock
13 Windsor Harbour Commission
14 CTX Transport
15 Pyramid Aggregates Ltd.
16 Mill Cove Marina
17 Premier Concrete and Lake Ontario Cement Ltd.
18 Canadian Pacific Railways
19 Dieppe Gardens Dock
20 Canadian National Railways
21 Hiram Walker & Sons Ltd
22 Ford Motor Co. of Canada
23 Windsor Yacht Club
24 Riverside Marina
25 Lakeview Park Marina
26 Southwestern Sales Ltd.

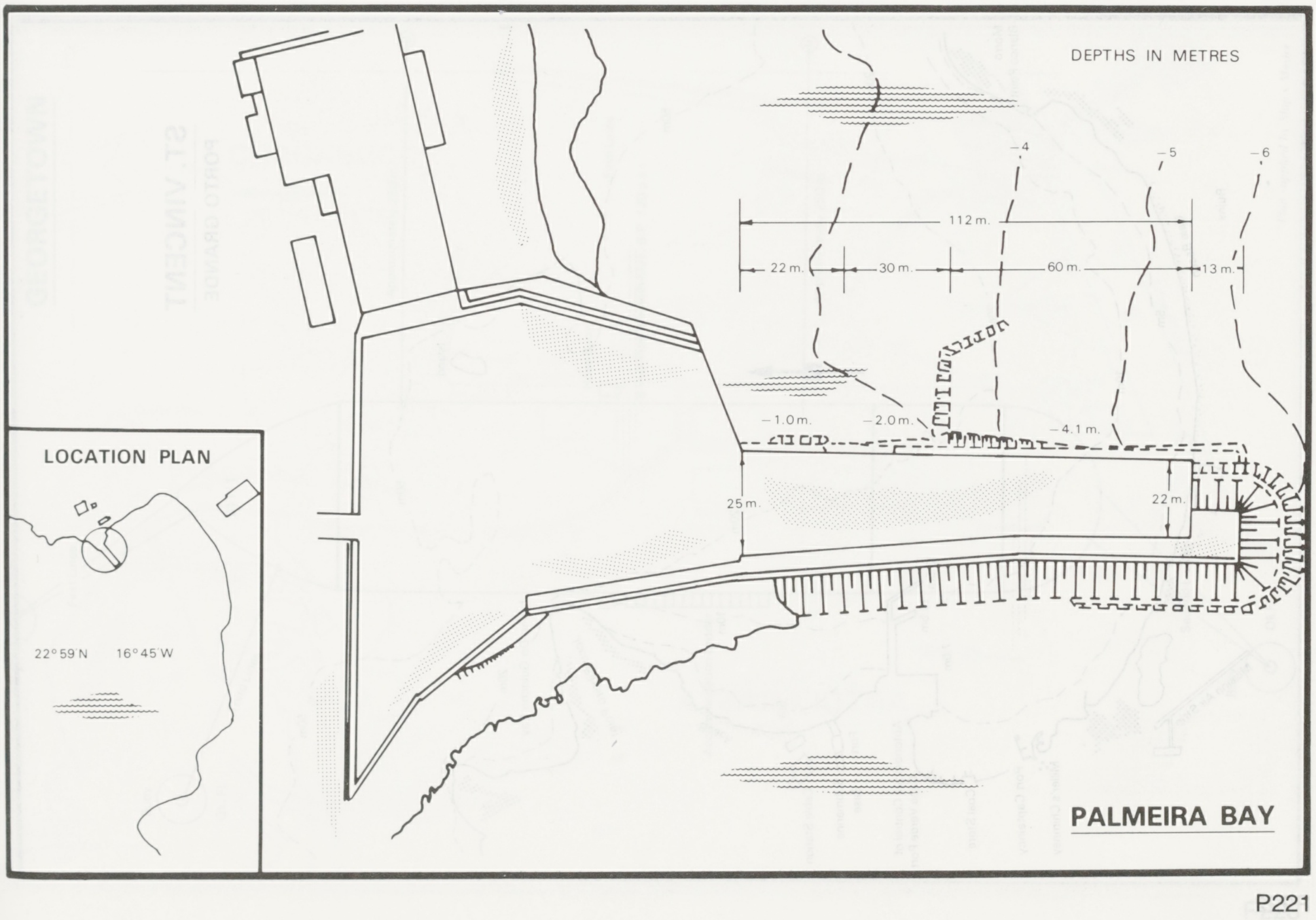

WOODFIBRE
HOWE SOUND
Ferry Dock
Pulp Warehouse
Deep Sea Dock
Mill Creek
N


ARGUINEGUIN
DEPTHS IN METRES
Buoy
Berth No. 2
Bulk Terminal
25 m.
Depth alongside 7 m. at L.W.
110 m.
Bollards
Cement Factory
6 m.
7 m.
8 m.
Depth alongside 5–8.5 m. at L.W.
Berth No. 1
286 m.
N

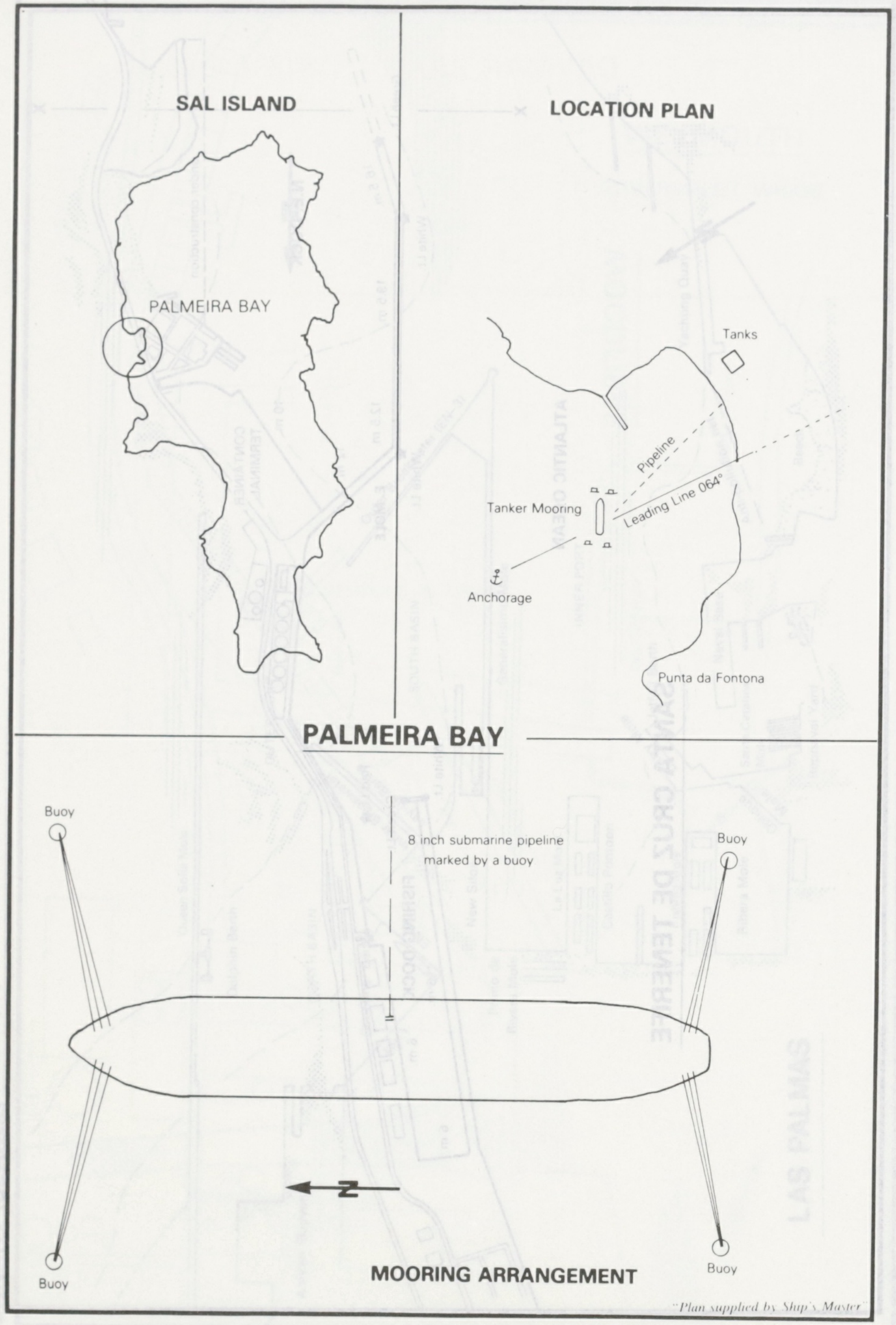

Queen Sofia Mole
Dolphin Berth
OUTER PORT
Astican Shipyard
NORTH BASIN
Container Berths
EN-1
EN-2
Inner Breakwater
Lay-up Berths
Outer Breakwater (EN-3)
SOUTH BASIN
New Silos
Primo de Rivera Mole
Generalisimo Mole
La Luz Mole
INNER PORT
Castillo Pontoon
Ferry Mole
Jetfoil Berth
Fishing Mole
Yachting Quay
Naval Base
Anti-pollution net
Ribera Mole
Oblique Mole
Santa Catalina Mole
Beach
Repnaval Yard
N
LAS PALMAS


X
HARBOUR AUTHORITY
4 m.
2 m.
SMALL CRAFT BASIN
WAREHOUSES
RIBERA MOLE
10 m.
N. MOLE
Green Lt.
9.4 m.
10 m.
MARITIME STATION
8 m.
Red Lt.
S.W. DOCK
12 m.
S. MOLE
7 m.
Ro-Ro ramp
10 m.
8 m.
8.5 m.
6.5 m.
Ro-Ro No. 3
Ro-Ro ramp
RIBERA 1
8 m.
8 m.
Ro-Ro
Ro-Ro
ramp No. 2
No. 4
8 m.
8 m.
ATLANTIC OCEAN
X
RIBERA 2
8 m.
SOUTH DOCK
WAREHOUSES
12 m.
SANTA CRUZ DE TENERIFE
Green Lt.
12 m.
Red Lt.
TO HONDURAS OIL BERTH
N


X
under construction
N.E. DOCK
CONTAINER TERMINAL
10 m.
12 m.
12.5 m.
19.5 m.
16.5 m.
Green Lt.
White Lt.
White Lt.
E. MOLE
Red Lt.
Green Lt.
White Lt.
FISHING DOCK
6 m.
6 m.
6 m.
X
ATLANTIC OCEAN
SANTA CRUZ DE TENERIFE


DEPTHS IN METRES
−4
−5
−6
112 m.
22 m.
30 m.
60 m.
13 m.
−1.0 m.
−2.0 m.
−4.1 m.
25 m.
22 m.
LOCATION PLAN
22° 59′ N
16° 45′ W
PALMEIRA BAY

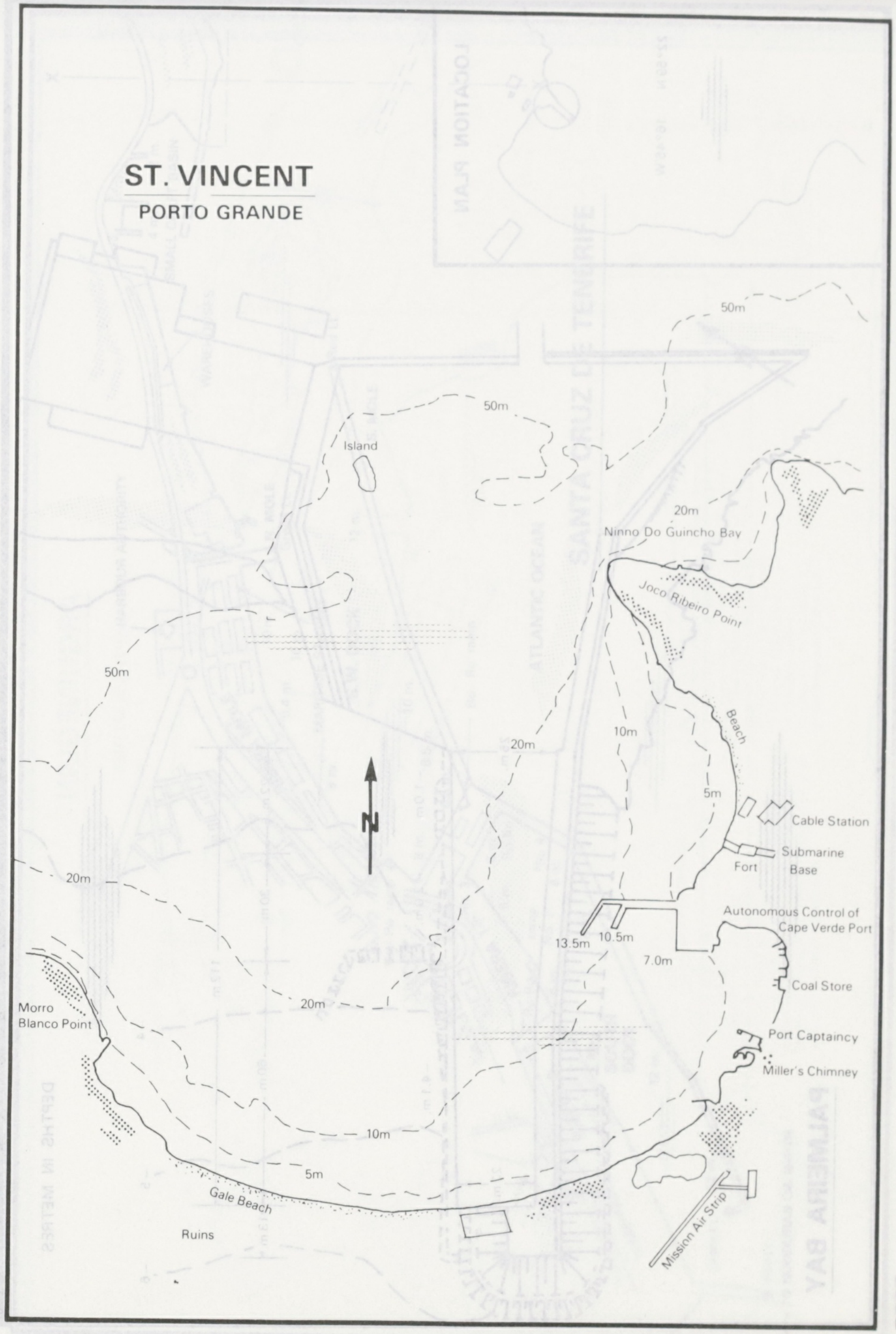
PALMEIRA BAY


SAL ISLAND
PALMEIRA BAY
LOCATION PLAN
Tanks
Pipeline
Leading Line 064°
Tanker Mooring
Anchorage
Punta da Fontona
Buoy
Buoy
8 inch submarine pipeline
marked by a buoy
N
Buoy
Buoy
MOORING ARRANGEMENT

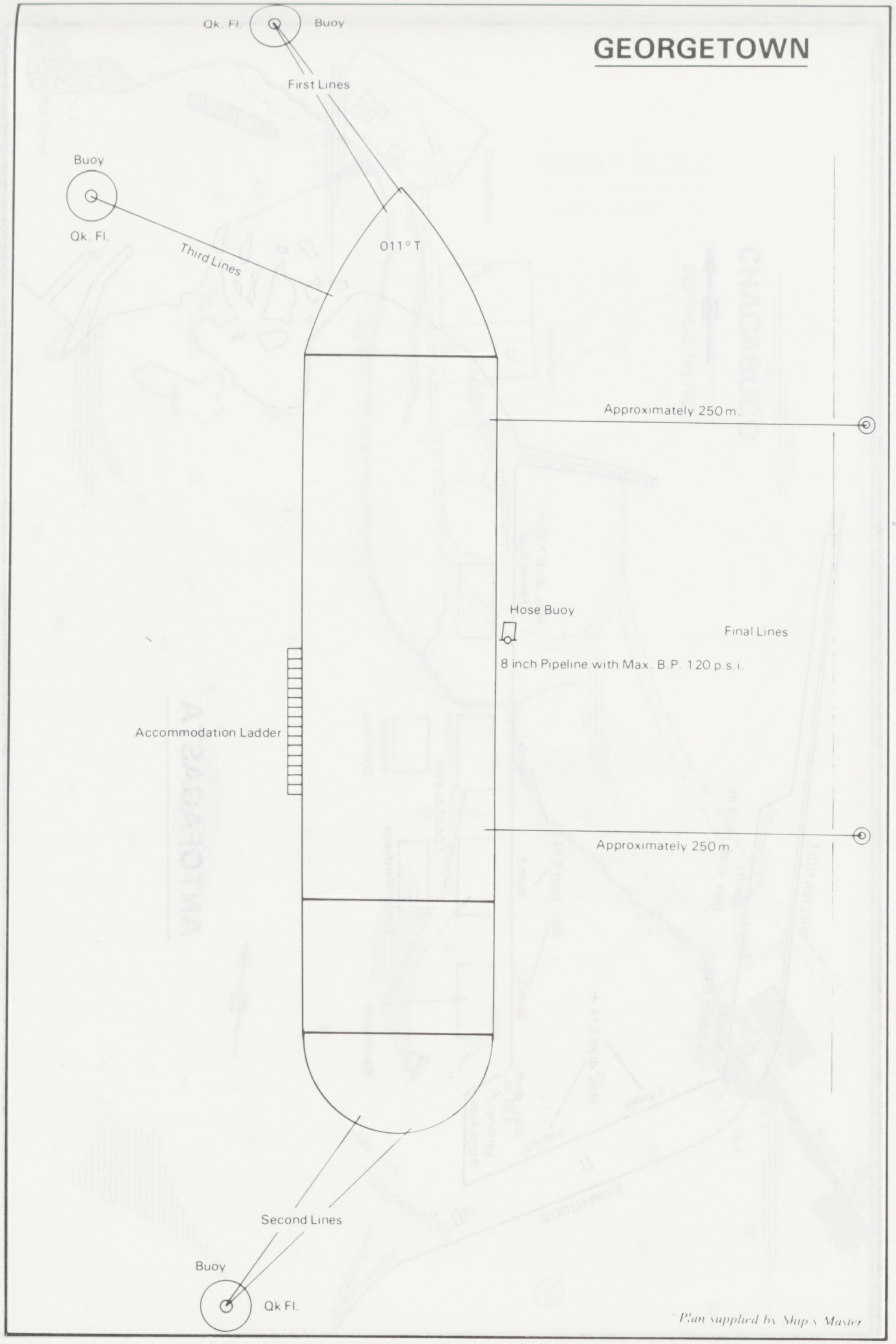
Plan supplied by Ship's Master

ST. VINCENT

PORTO GRANDE


50m
50m
Island
20m
Ninno Do Guincho Bay
Joco Ribeiro Point
50m
Beach
10m
20m
N
5m
Cable Station
Submarine Base
Fort
20m
Autonomous Control of Cape Verde Port
13.5m
10.5m
7.0m
Coal Store
Morro Blanco Point
20m
Port Captaincy
Miller's Chimney
10m
5m
Gale Beach
Ruins
Mission Air Strip

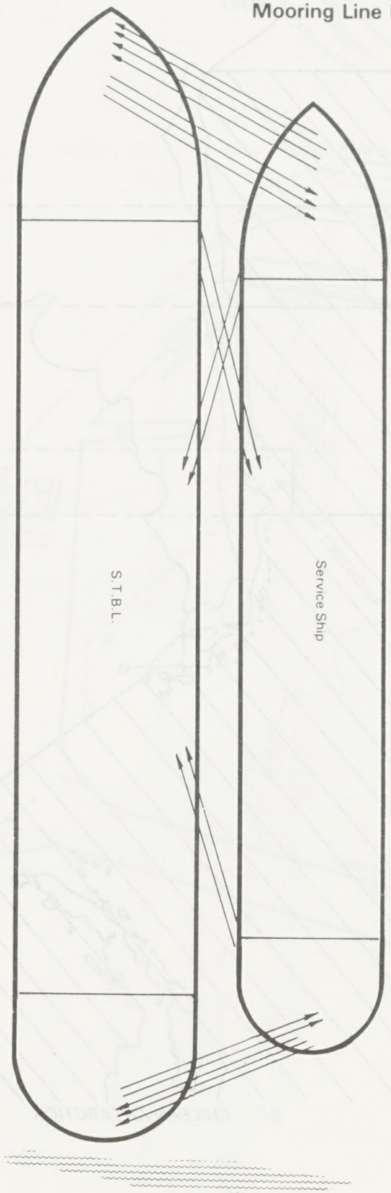
GEORGETOWN


Qk. Fl.
Buoy
First Lines
Buoy
Qk. Fl.
Third Lines
011° T
Approximately 250 m.
Hose Buoy
Final Lines
8 inch Pipeline with Max. B.P. 120 p.s.i.
Accommodation Ladder
Approximately 250 m.
Second Lines
Buoy
Qk Fl.

Plan supplied by Ship's Master

CAYMAN BRAC – LITTLE CAYMAN

Mooring Line Plan of Ships to be Lightened & Service Ship


S.T.B.L.
Service Ship

" MOORING LINES PLAN "

FROM SERVICE SHIP:
4 BOW LINES
2 SPRING LINES (FORWARD)
2 SPRING LINES (AFT)
3 STERN LINES

NOTE: LINES FROM SERVICE SHIP TO BE GIVEN FIRST

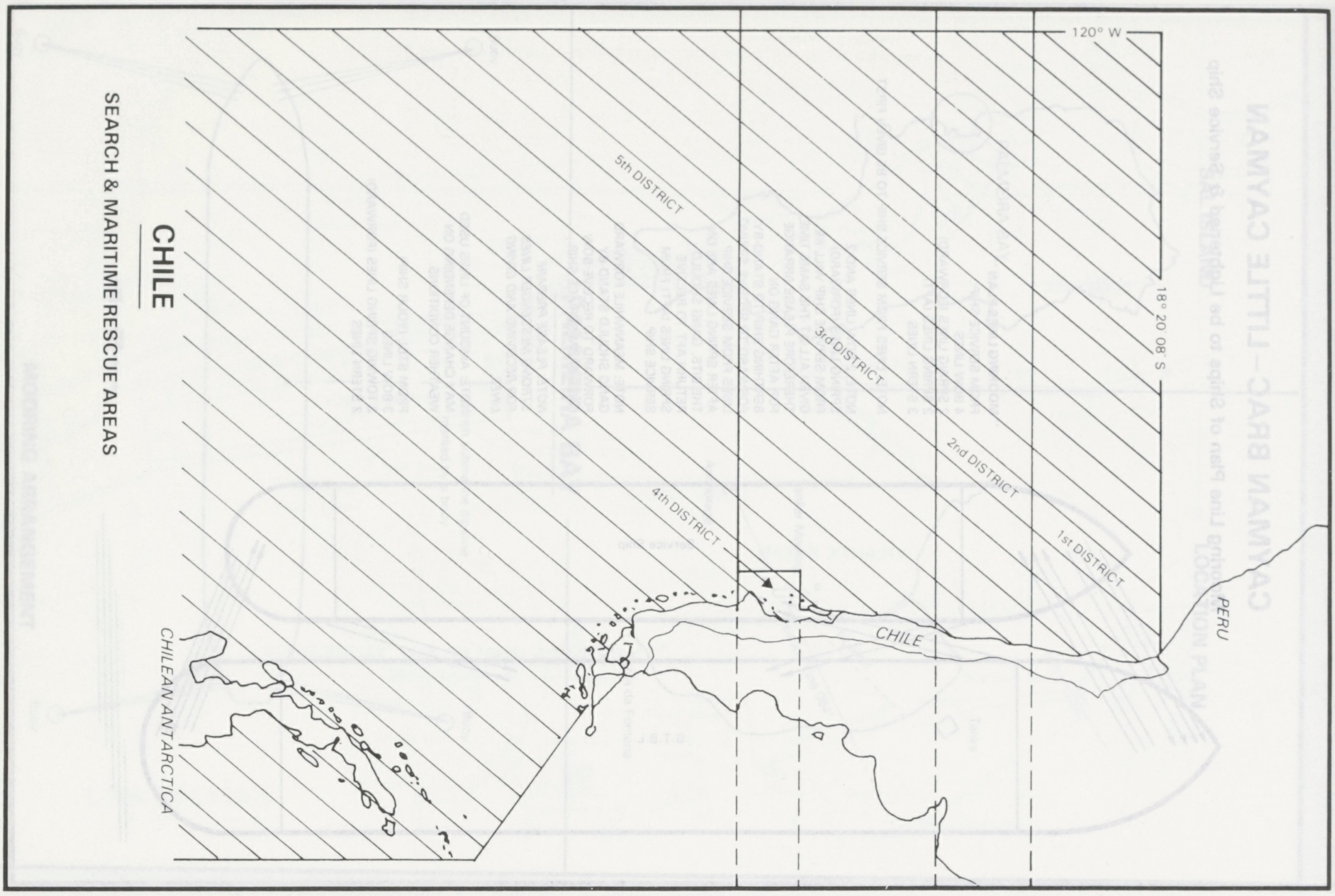
NOTE: 2 BOW LINES AND 2 SPRING LINES (FORWARD) FROM SERVICE SHIP WILL BE GIVEN ALL AT THE SAME TIME; THEREFORE PLEASE ARRANGE FOR AFTER GANG ON BERTHING SHIP TO STAND-BY FORWARD TO RECEIVE SPRING LINES FROM SERVICE SHIP. AFTER SPRING LINES ARE ON THE BITS, GANG SHOULD RETURN AFT TO RECEIVE SPRING LINES (AFT) FROM SERVICE SHIP.

NOTE: MEANWHILE FORWARD GANG SHOULD STAND-BY FORWARD TO RECEIVE BOW LINES FROM SERVICE SHIP

NOTE: PLEASE PREPARE STRONG MESSENGER LINES FOR RECEIVING AND GIVING LINES.

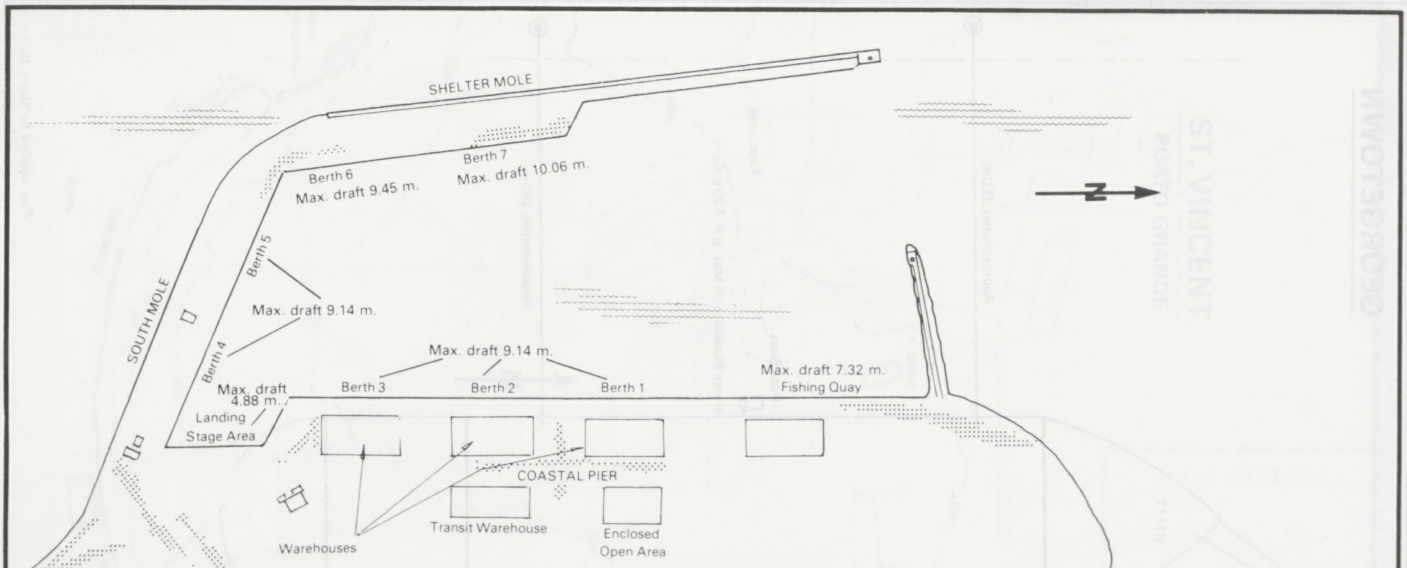
NOTE: AMOUNT OF LINES USED MAY CHANGE DEPENDING ON WEATHER CONDITIONS.

FROM STBL (YOUR SHIP)
3 BOW LINES
2 TOWING SPRING LINES (FORWARD)
2 STERN LINES

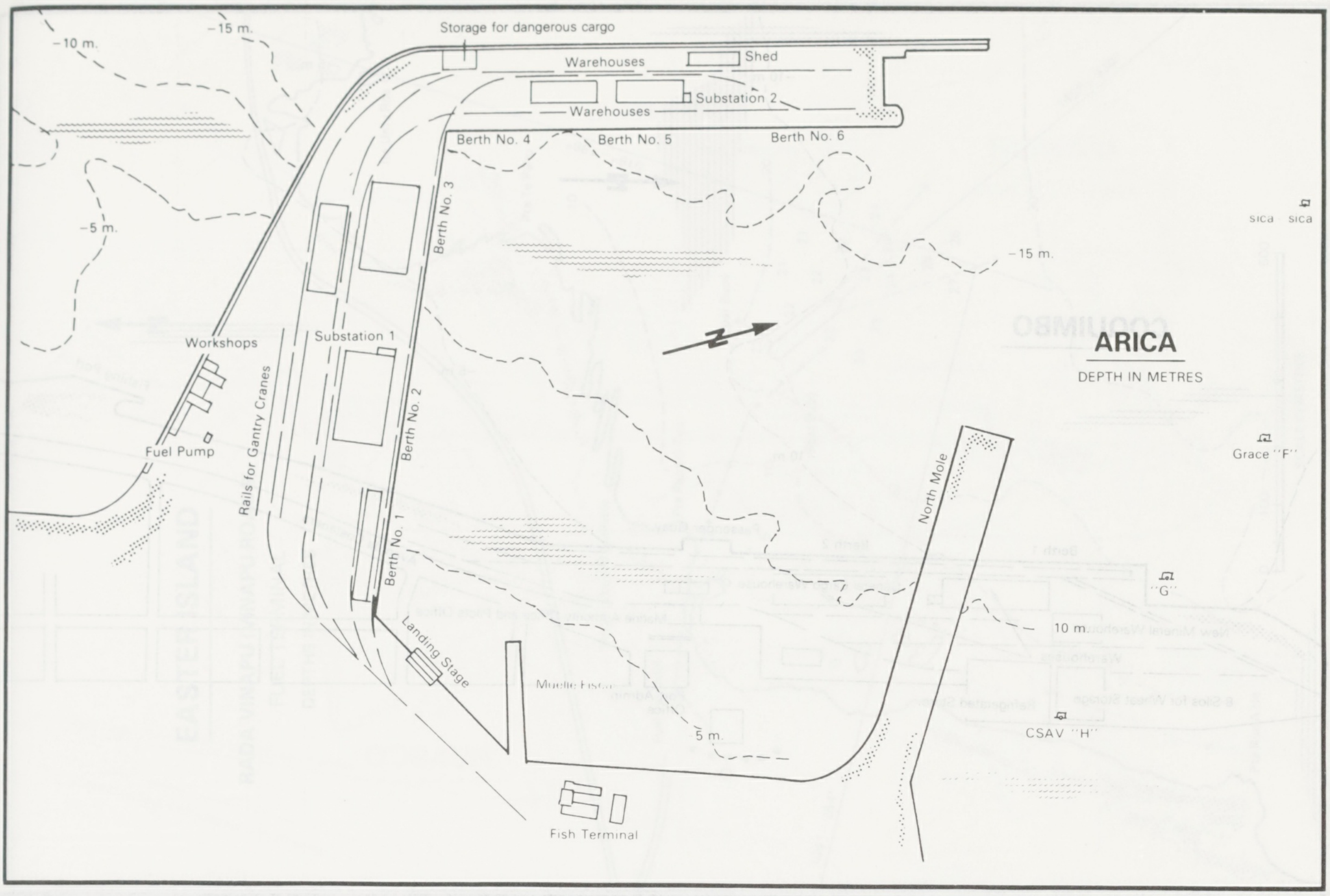

120° W
18° 20' 08" S
PERU
1st DISTRICT
2nd DISTRICT
3rd DISTRICT
4th DISTRICT
5th DISTRICT
CHILE
CHILEAN ANTARCTICA

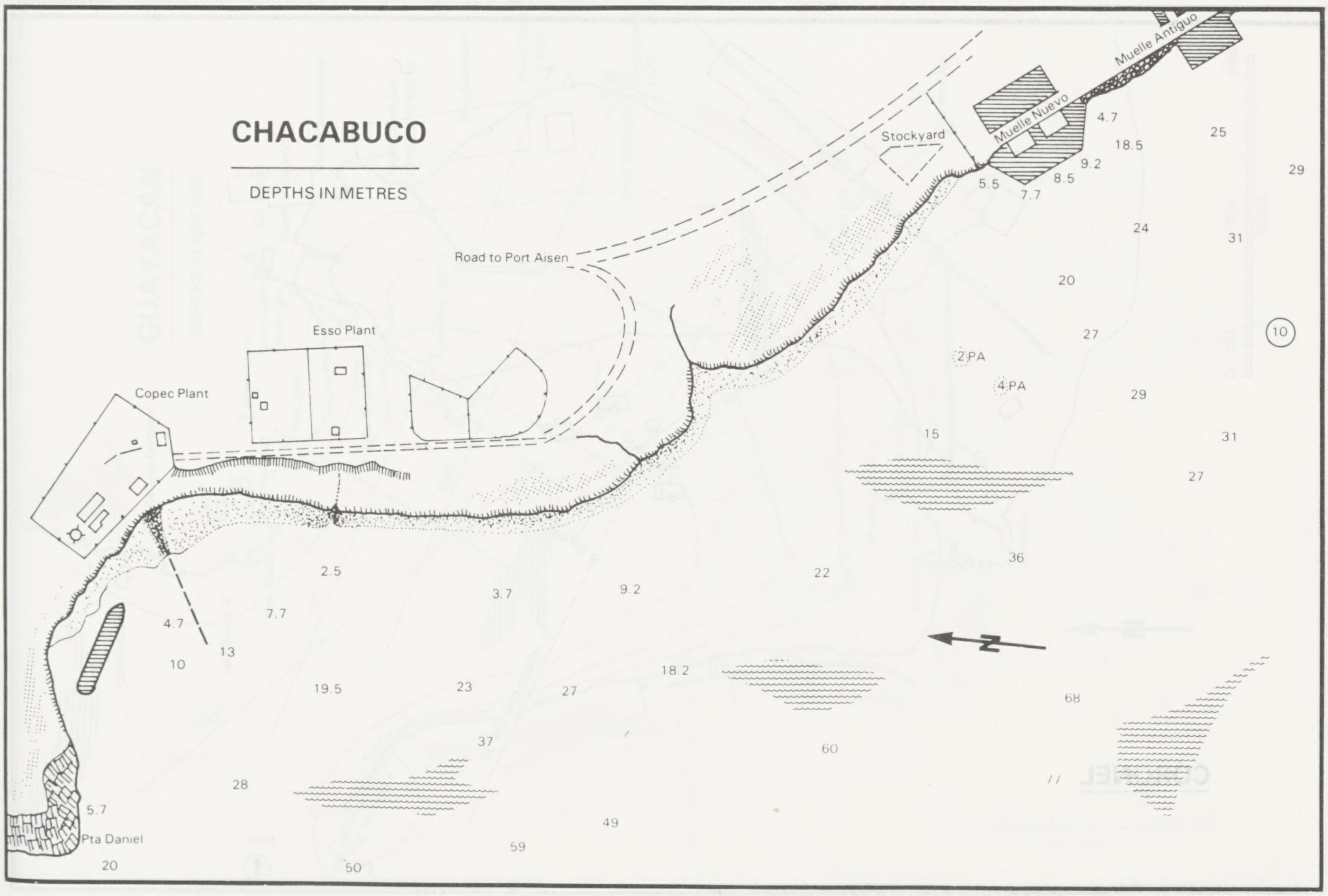
CHILE

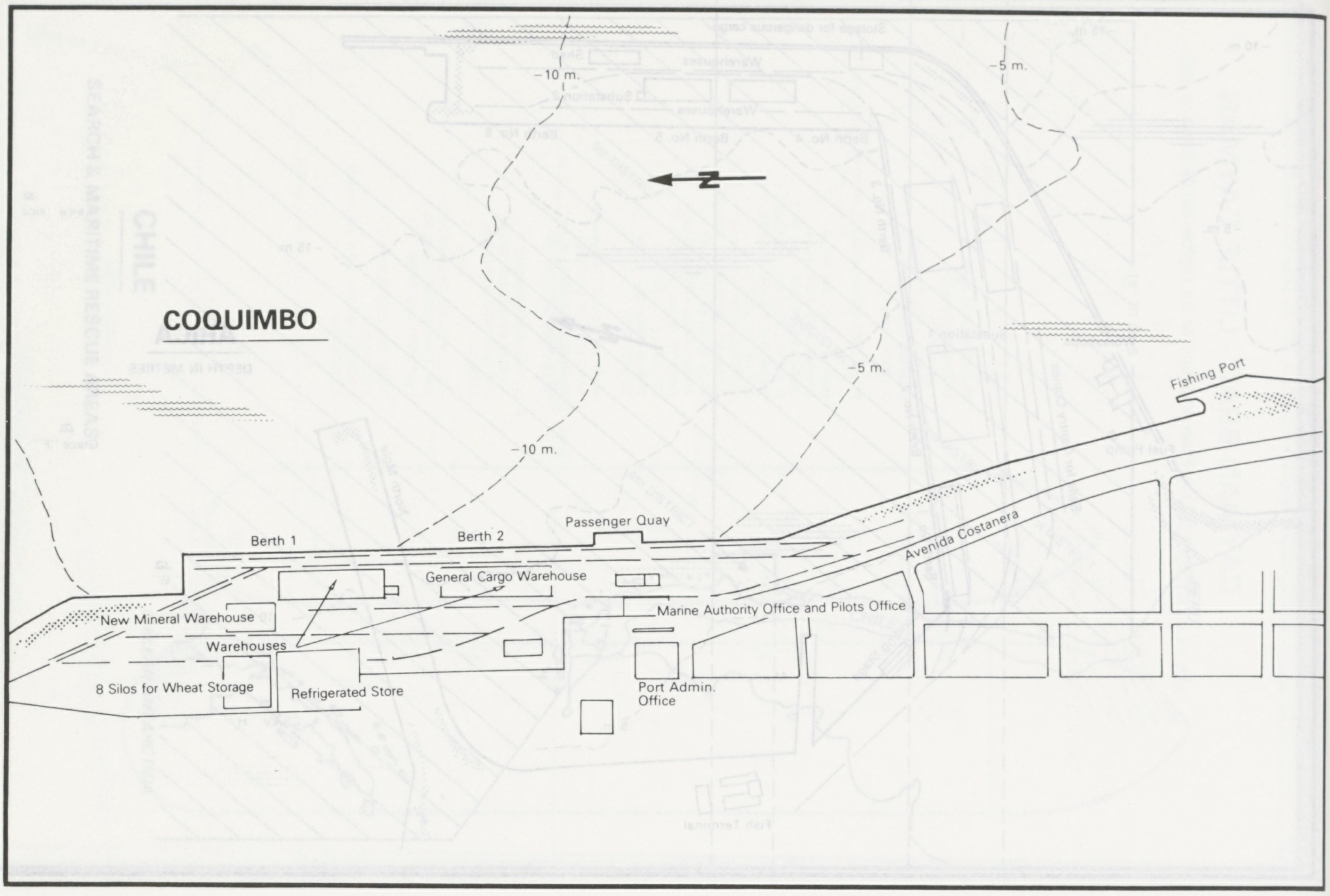
SEARCH & MARITIME RESCUE AREAS


SHELTER MOLE
Berth 6
Max. draft 9.45 m.
Berth 7
Max. draft 10.06 m.
N
Berth 5
Max. draft 9.14 m.
SOUTH MOLE
Berth 4
Max. draft 9.14 m.
Berth 3
Berth 2
Berth 1
Max. draft 7.32 m.
Fishing Quay
Max. draft 4.88 m.
Landing Stage Area
COASTAL PIER
Warehouses
Transit Warehouse
Enclosed Open Area
Hotel

ANTOFAGASTA

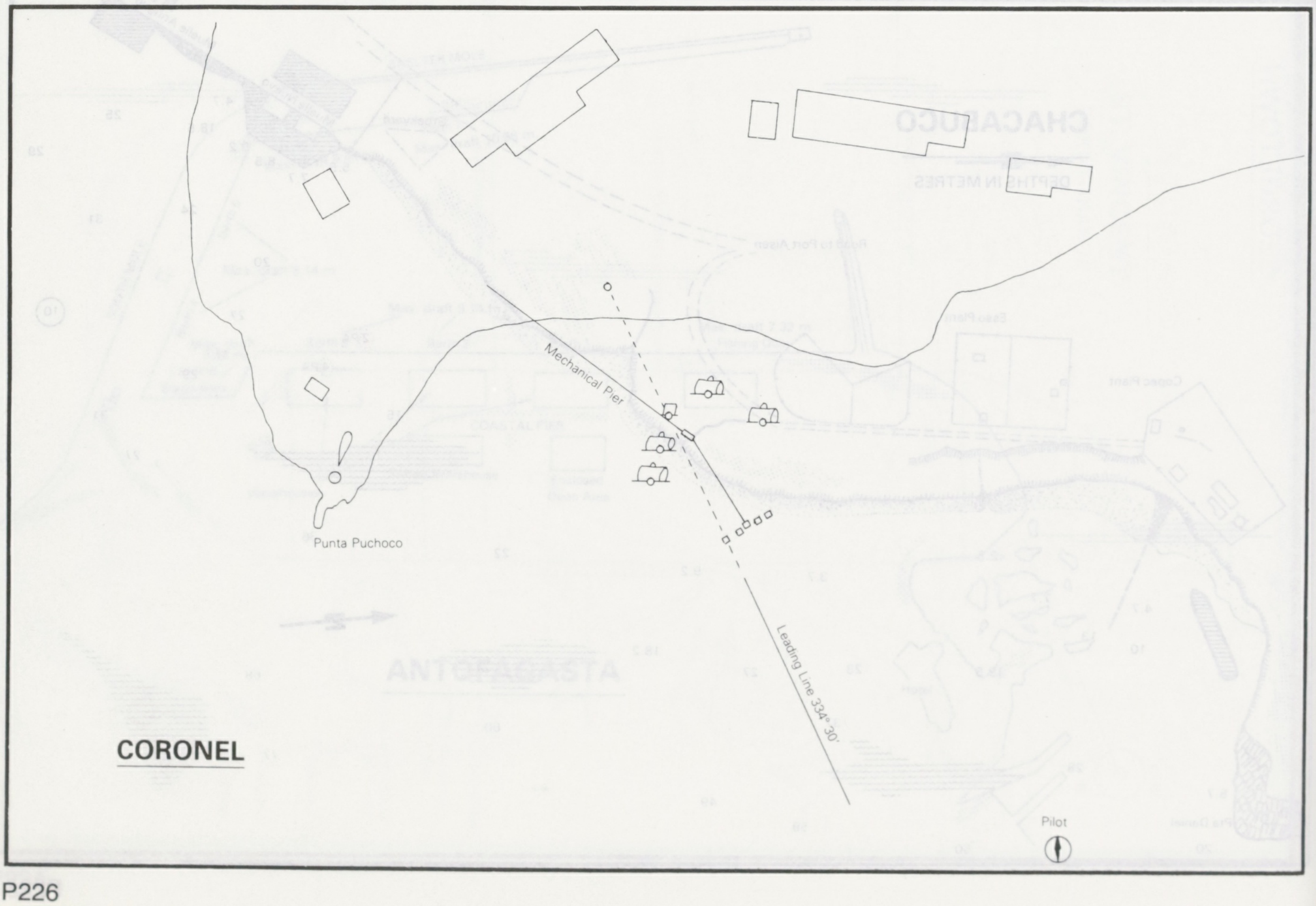

ARICA
DEPTH IN METRES
−10 m.
−15 m.
−5 m.
Storage for dangerous cargo
Warehouses
Shed
Substation 2
Warehouses
Berth No. 4
Berth No. 5
Berth No. 6
Berth No. 3
Berth No. 2
Berth No. 1
Substation 1
Workshops
Fuel Pump
Rails for Gantry Cranes
Landing Stage
Muelle Fiscal
Fish Terminal
North Mole
−15 m.
10 m.
5 m.
sica sica
Grace "F"
"G"
CSAV "H"


CHACABUCO
DEPTHS IN METRES
Muelle Antiguo
Muelle Nuevo
Stockyard
Road to Port Aisen
Esso Plant
Copec Plant
Pta Daniel
4.7
18.5
25
29
9.2
8.5
5.5
7.7
24
31
20
27
10
2 PA
4 PA
29
15
31
27
36
22
2.5
3.7
9.2
7.7
4.7
13
10
19.5
23
27
18.2
68
37
60
28
5.7
49
59
20
50



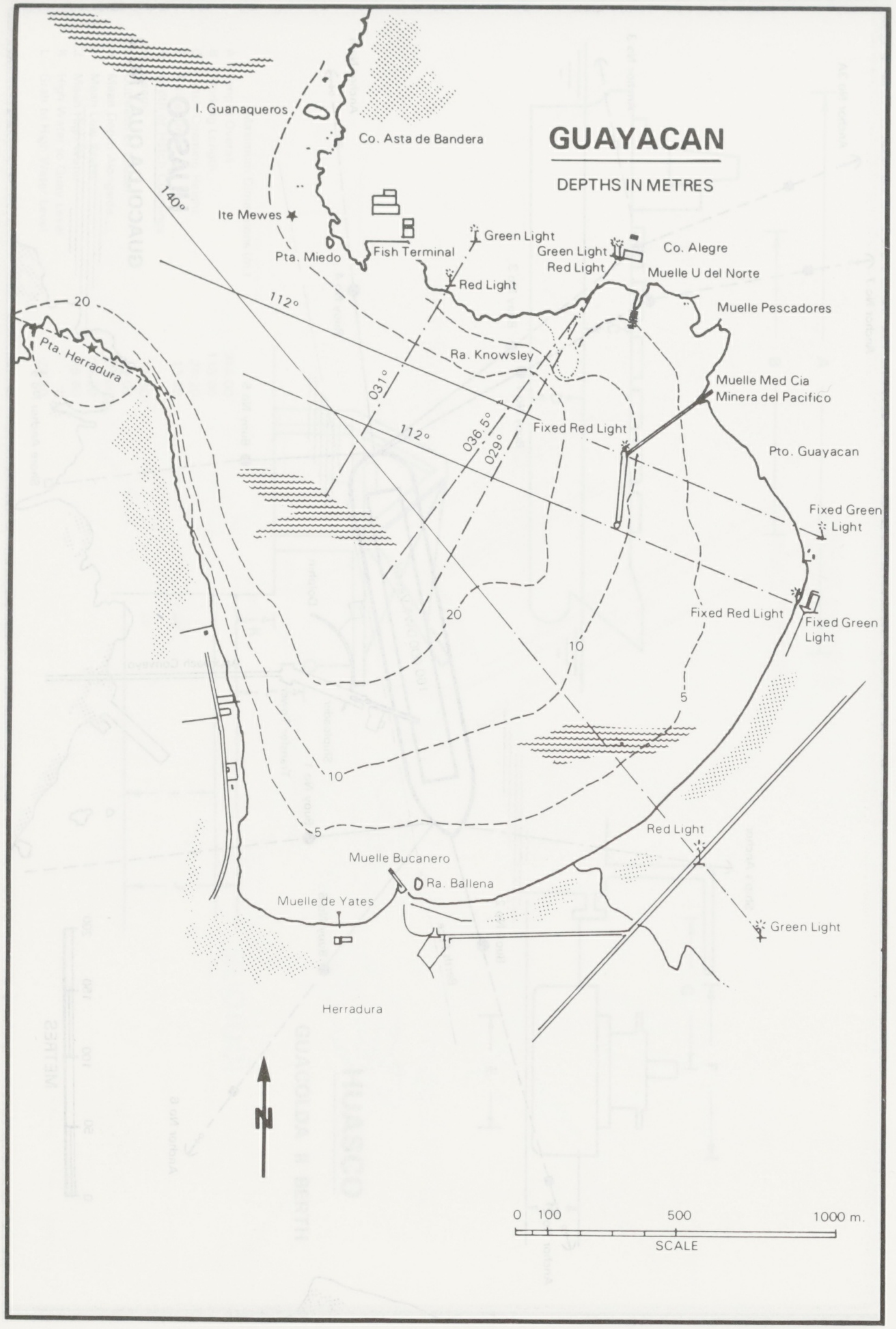
COQUIMBO

N
−10 m.
−5 m.
−5 m.
−10 m.
Fishing Port
Passenger Quay
Berth 1
Berth 2
Avenida Costanera
General Cargo Warehouse
New Mineral Warehouse
Marine Authority Office and Pilots Office
Warehouses
8 Silos for Wheat Storage
Refrigerated Store
Port Admin. Office



CORONEL

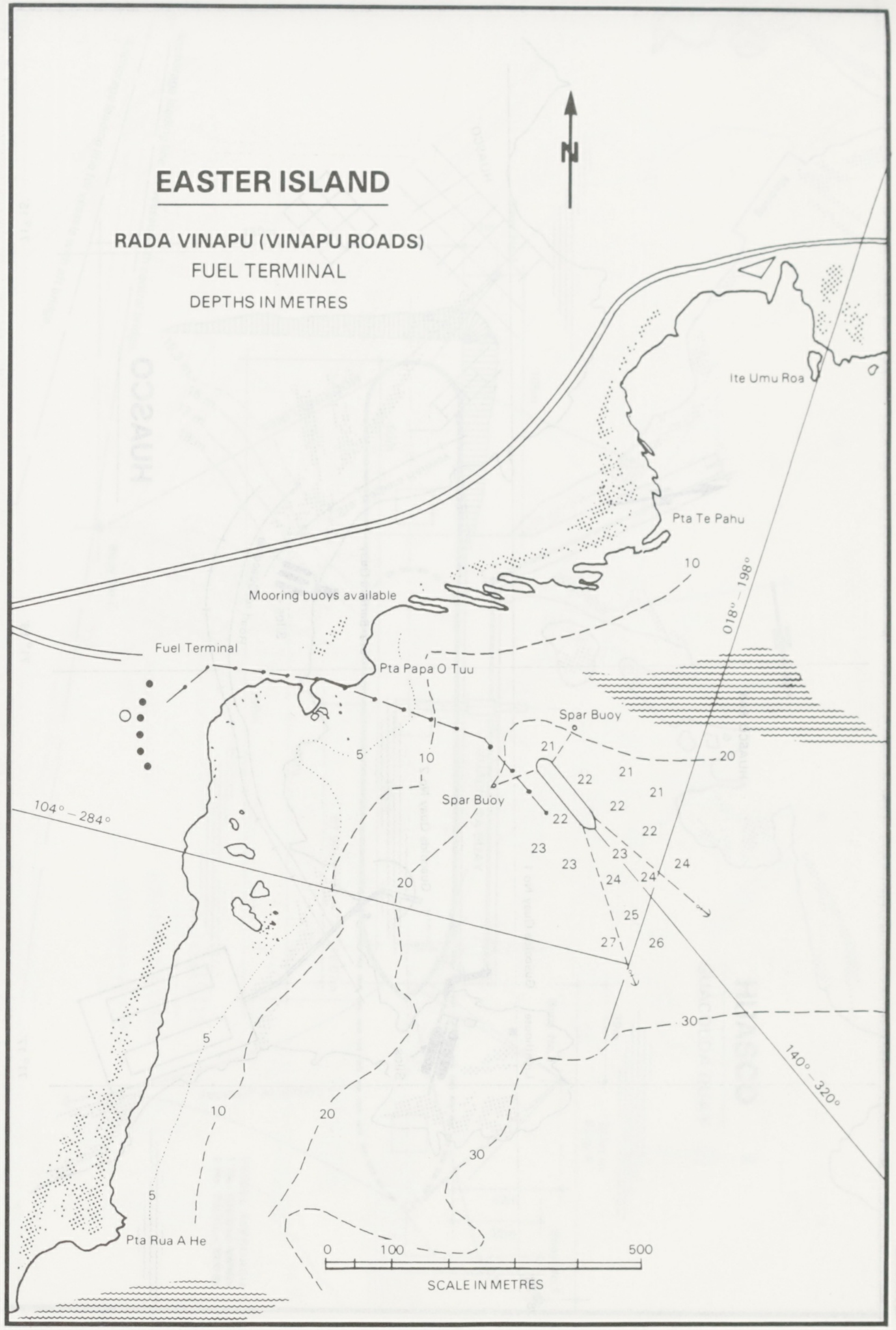
Mechanical Pier
Punta Puchoco
Leading Line 334° 30'
Pilot



GUAYACAN

DEPTHS IN METRES

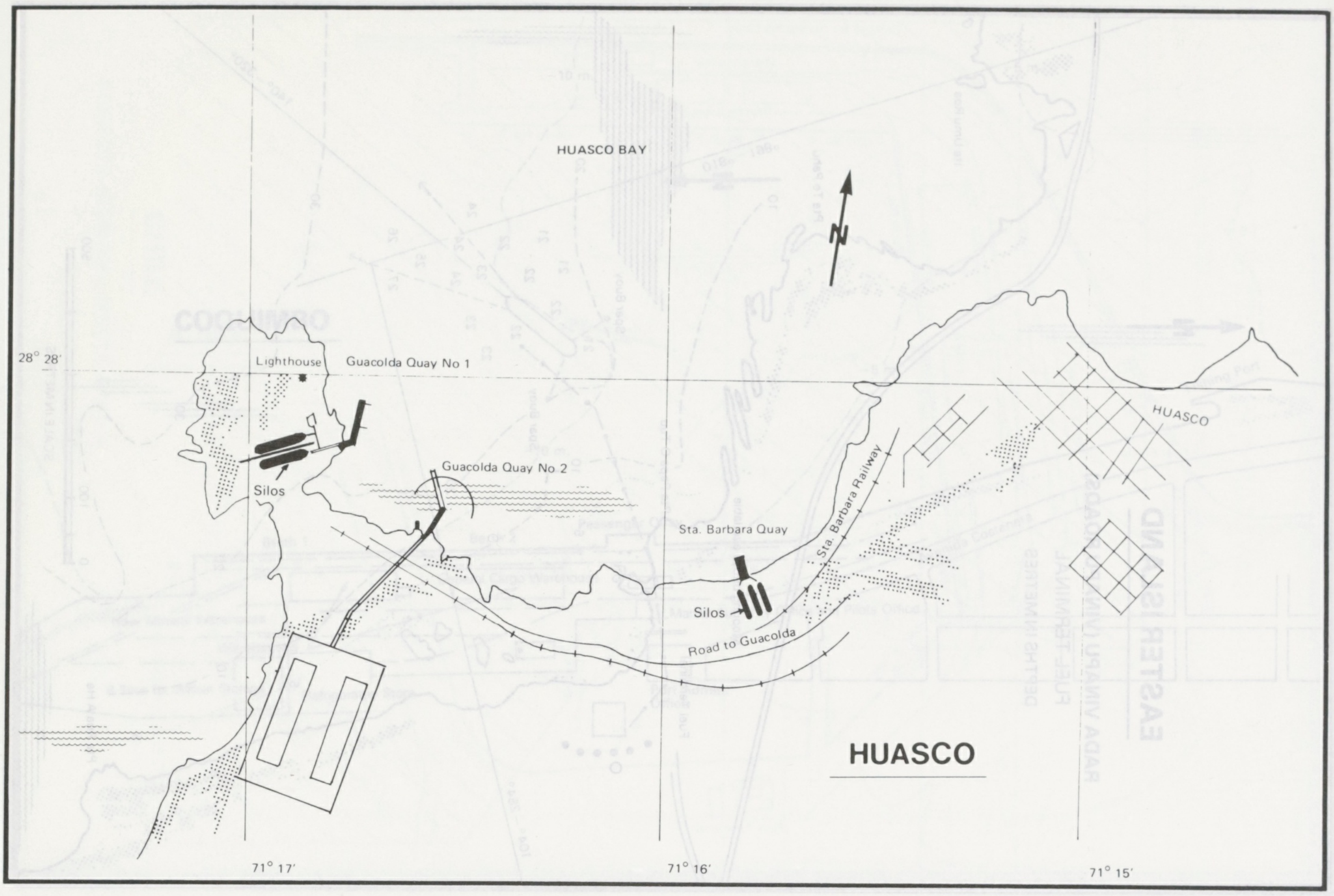
I. Guanaqueros
Co. Asta de Bandera
Ite Mewes
Pta. Miedo
Fish Terminal
Green Light
Green Light
Red Light
Co. Alegre
Muelle U del Norte
Red Light
Muelle Pescadores
140°
112°
20
Pta. Herradura
Ra. Knowsley
031°
112°
036.5°
029°
Fixed Red Light
Muelle Med Cia
Minera del Pacifico
Pto. Guayacan
Fixed Green
Light
Fixed Red Light
Fixed Green
Light
20
10
5
10
5
Red Light
Muelle Bucanero
Ra. Ballena
Muelle de Yates
Green Light
Herradura
N
0
100
500
1000 m.
SCALE

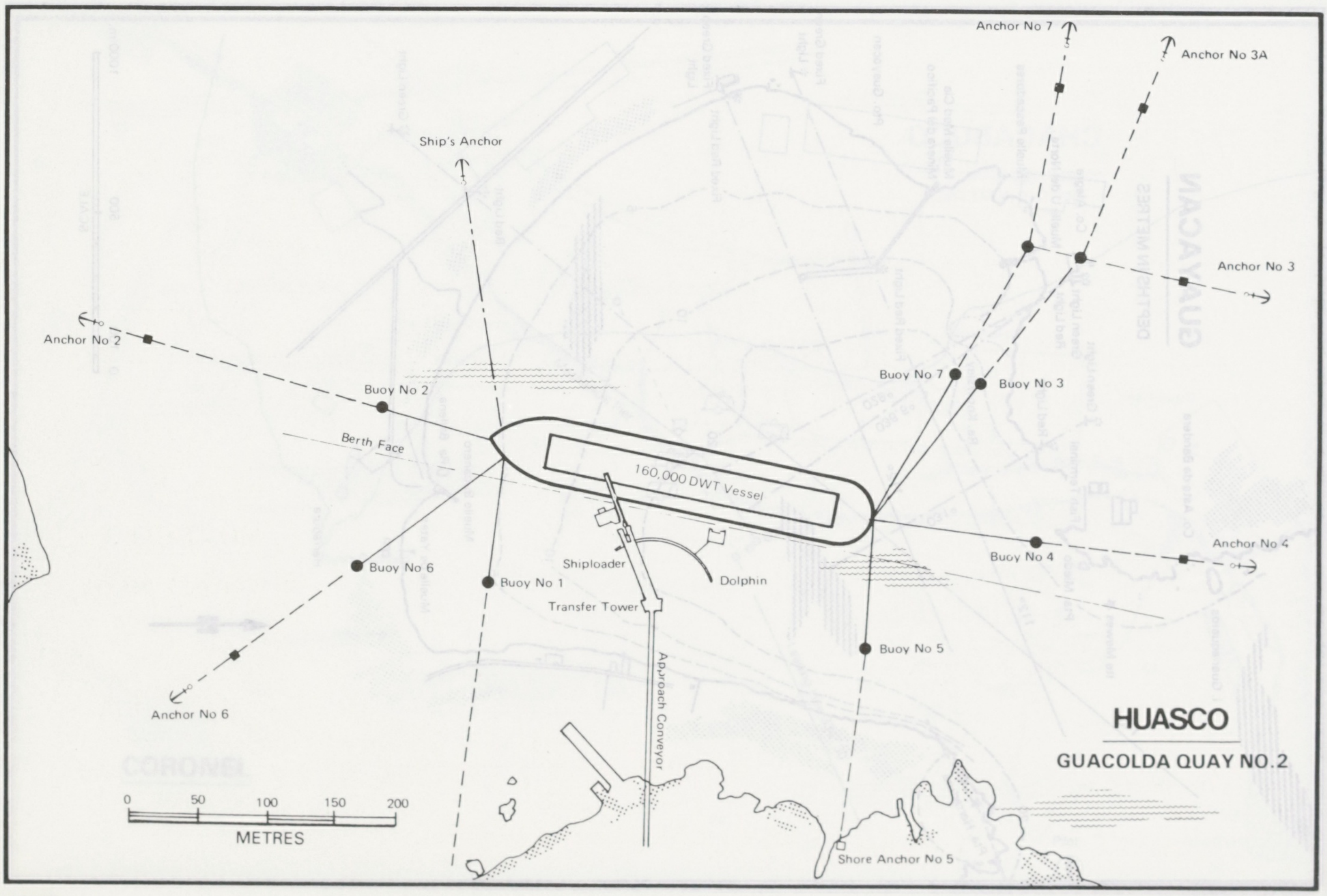


EASTER ISLAND

RADA VINAPU (VINAPU ROADS)
FUEL TERMINAL
DEPTHS IN METRES

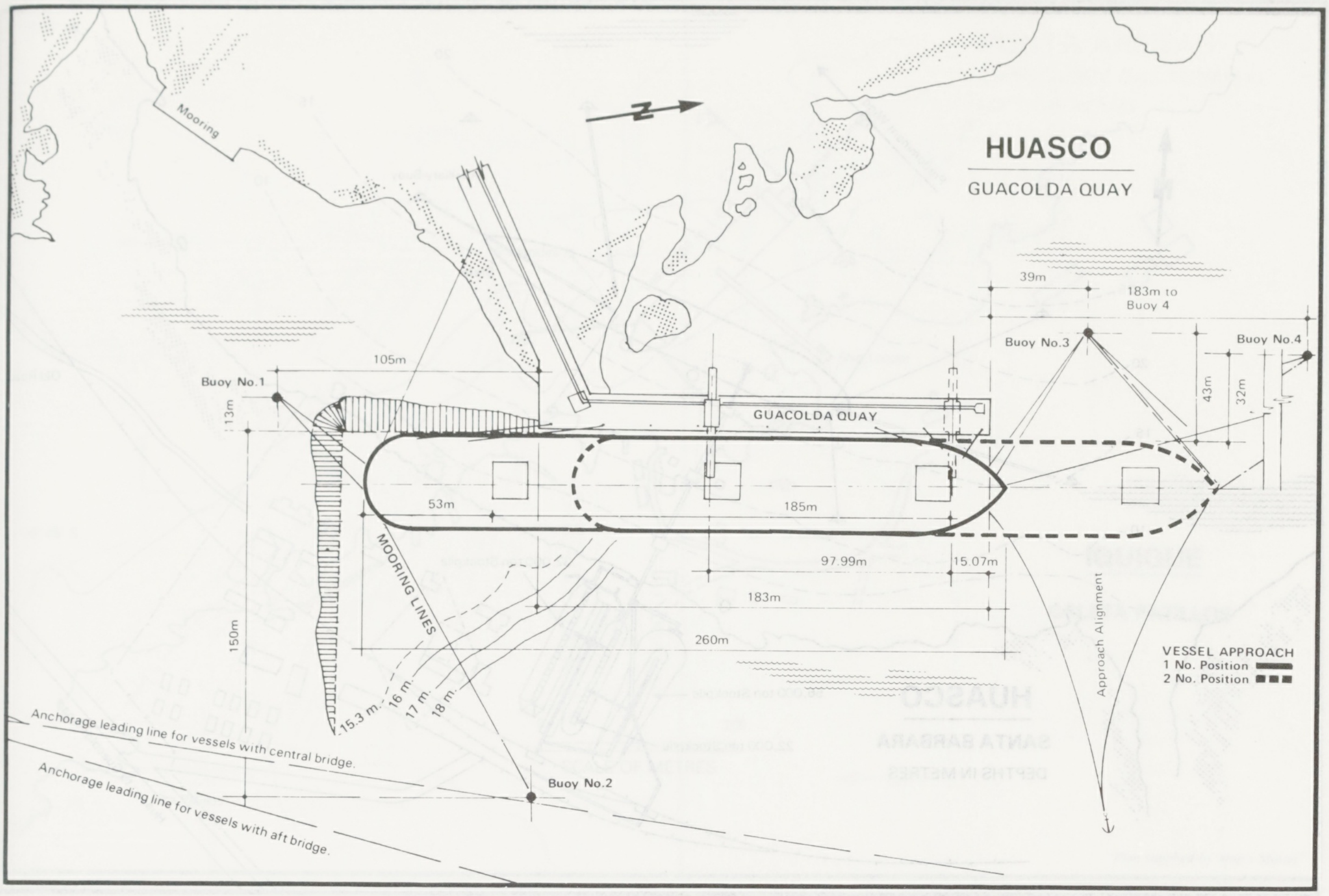
N
Ite Umu Roa
Pta Te Pahu
10
018° – 198°
Mooring buoys available
Fuel Terminal
Pta Papa O Tuu
Spar Buoy
5
10
21
20
22
21
21
Spar Buoy
22
22
22
104° – 284°
23
23
23
24
24
24
20
25
27
26
30
140° – 320°
5
10
20
30
5
Pta Rua A He
0
100
500
SCALE IN METRES


HUASCO BAY
N
28° 28′
Lighthouse
Guacolda Quay No 1
Silos
Guacolda Quay No 2
Sta. Barbara Quay
Sta. Barbara Railway
Silos
Road to Guacolda
HUASCO
HUASCO
71° 17′
71° 16′
71° 15′


Anchor No 7
Anchor No 3A
Ship's Anchor
Anchor No 3
Anchor No 2
Buoy No 7
Buoy No 3
Buoy No 2
Berth Face
160,000 DWT Vessel
Anchor No 4
Buoy No 4
Buoy No 6
Buoy No 1
Shiploader
Dolphin
Transfer Tower
Buoy No 5
Approach Conveyor
Anchor No 6
HUASCO
GUACOLDA QUAY NO.2
0
50
100
150
200
METRES
Shore Anchor No 5

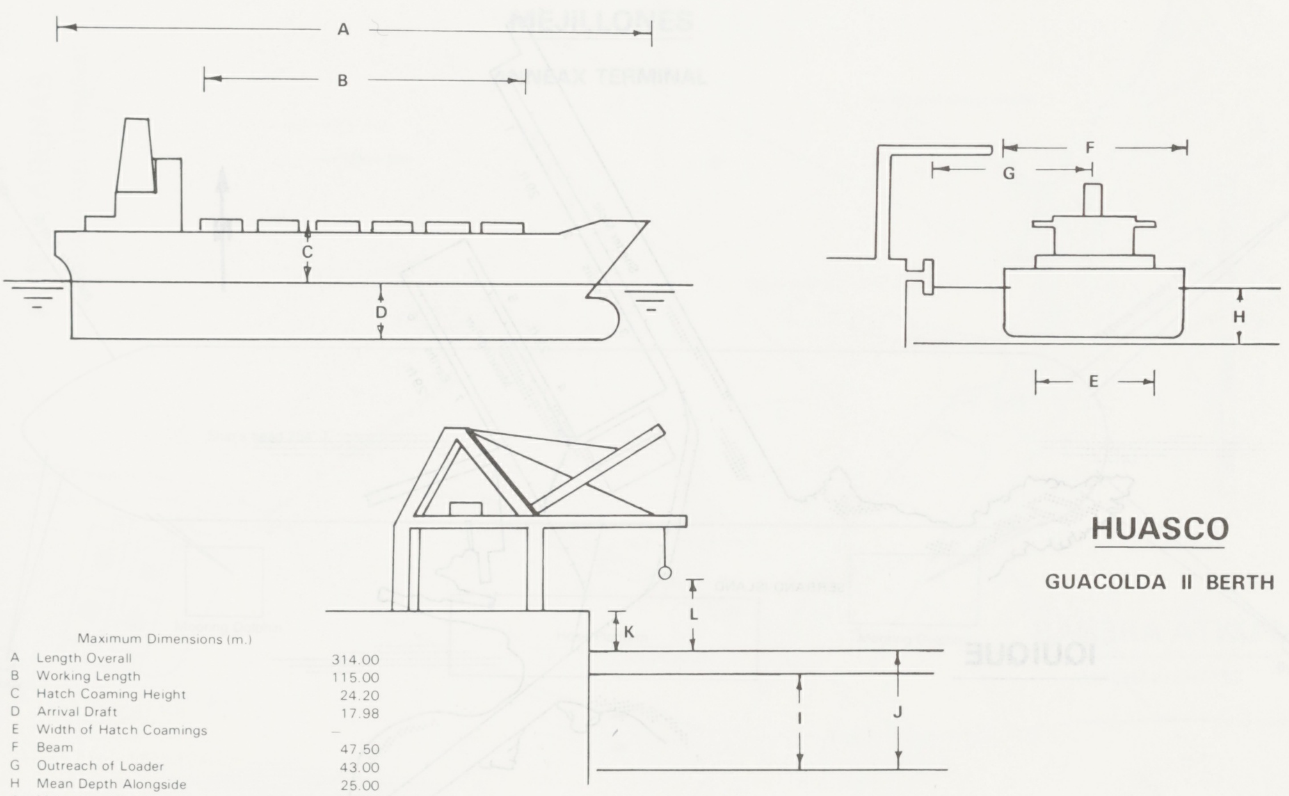
HUASCO

GUACOLDA QUAY


Mooring
N
Buoy No.1
105m
13m
GUACOLDA QUAY
53m
185m
97.99m
15.07m
183m
260m
150m
MOORING LINES
15.3 m.
16 m.
17 m.
18 m.
Anchorage leading line for vessels with central bridge.
Anchorage leading line for vessels with aft bridge.
Buoy No.2
39m
183m to Buoy 4
Buoy No.3
Buoy No.4
43m
32m
Approach Alignment
VESSEL APPROACH
1 No. Position
2 No. Position

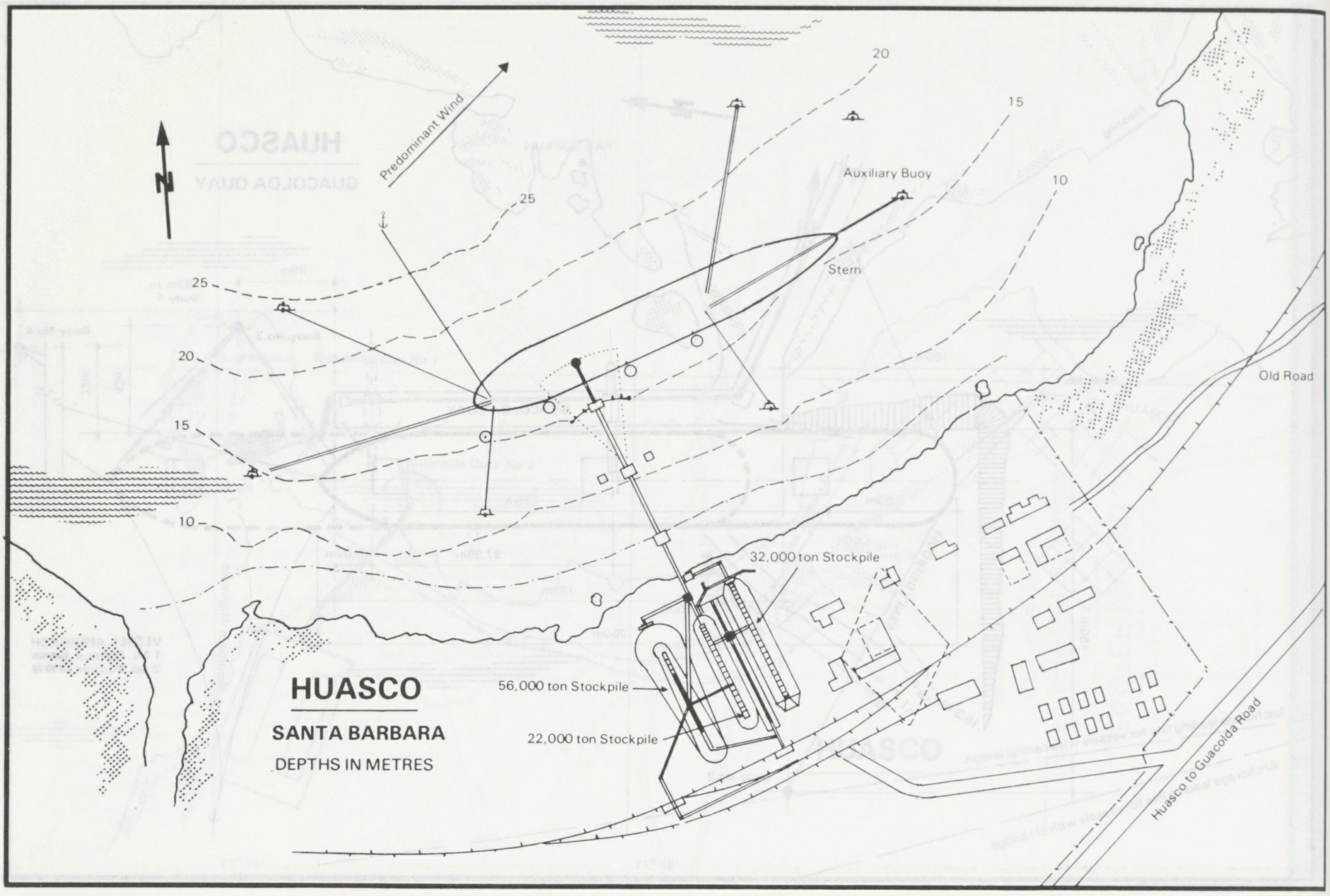
HUASCO

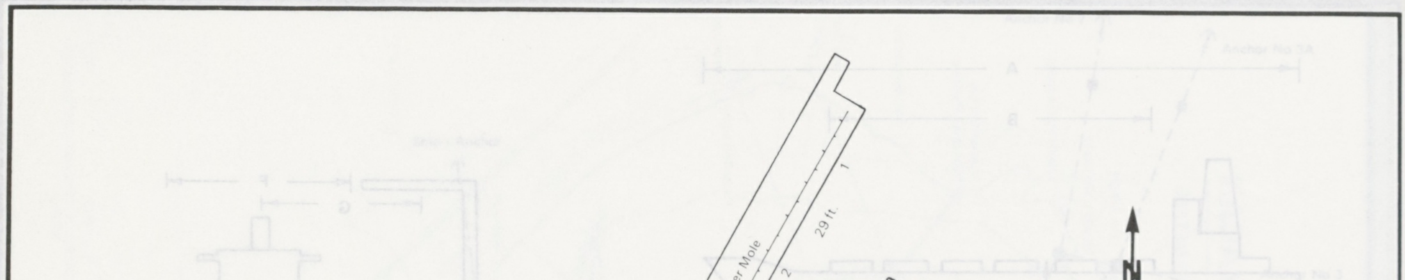
GUACOLDA II BERTH

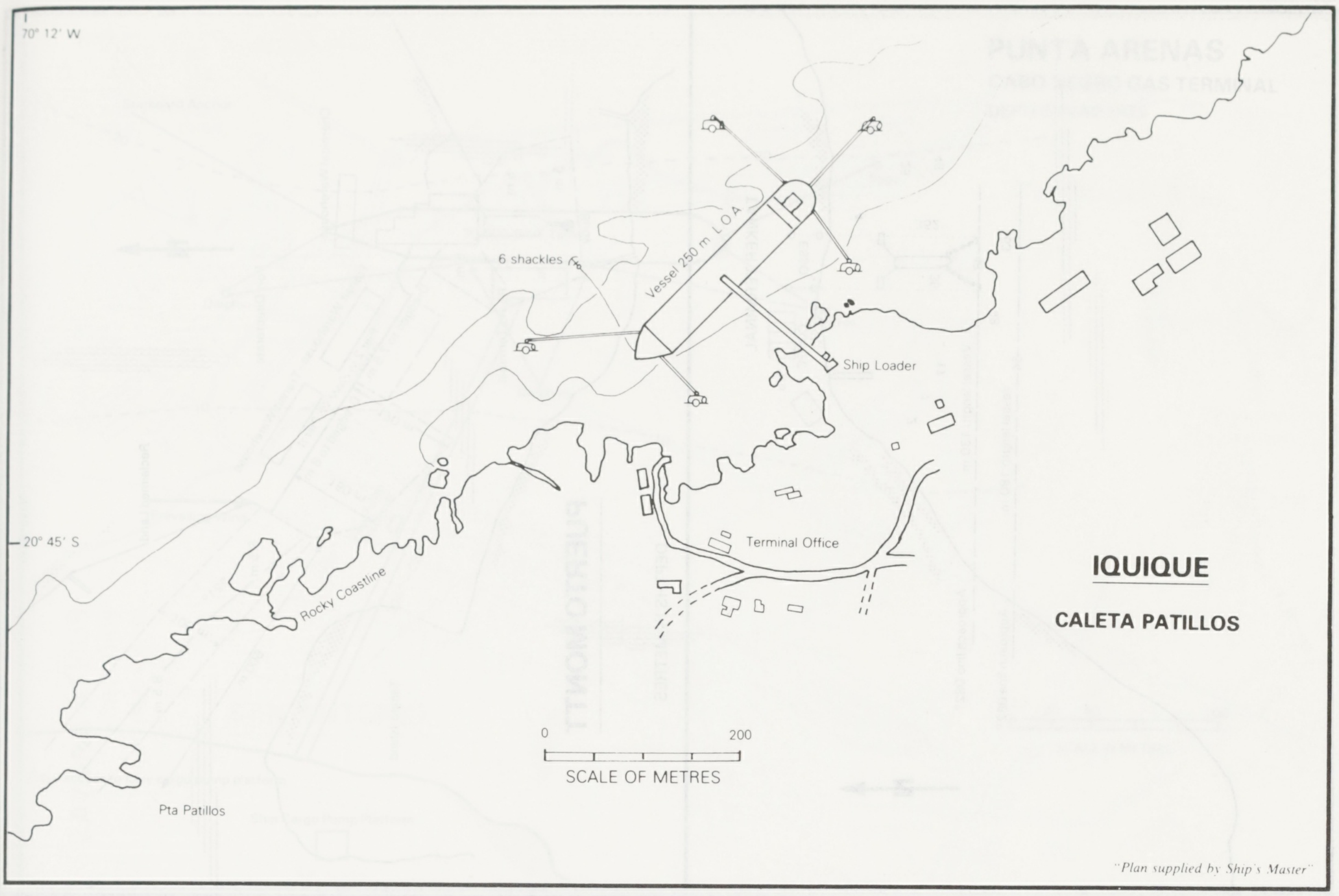

A
B
C
D
F
G
H
E
L
K
I
J

Maximum Dimensions (m.)

A	Length Overall	314.00
B	Working Length	115.00
C	Hatch Coaming Height	24.20
D	Arrival Draft	17.98
E	Width of Hatch Coamings	–
F	Beam	47.50
G	Outreach of Loader	43.00
H	Mean Depth Alongside	25.00
I	Mean Low Water	24.20
J	Mean High Water	25.80
K	High Water to Quay Level	–
L	Grab to High Water Level	22.80


Predominant Wind
N
25
20
15
10
Auxiliary Buoy
Stern
Old Road
32,000 ton Stockpile
56,000 ton Stockpile
22,000 ton Stockpile
Huasco to Guacolda Road
HUASCO
SANTA BARBARA
DEPTHS IN METRES


Shelter Mole
1
29 ft.
2
Berths
3
5
29 ft.
4
Mooring Pier
6
Berths
7
29 ft.
N
SERRANO ISLAND
IQUIQUE

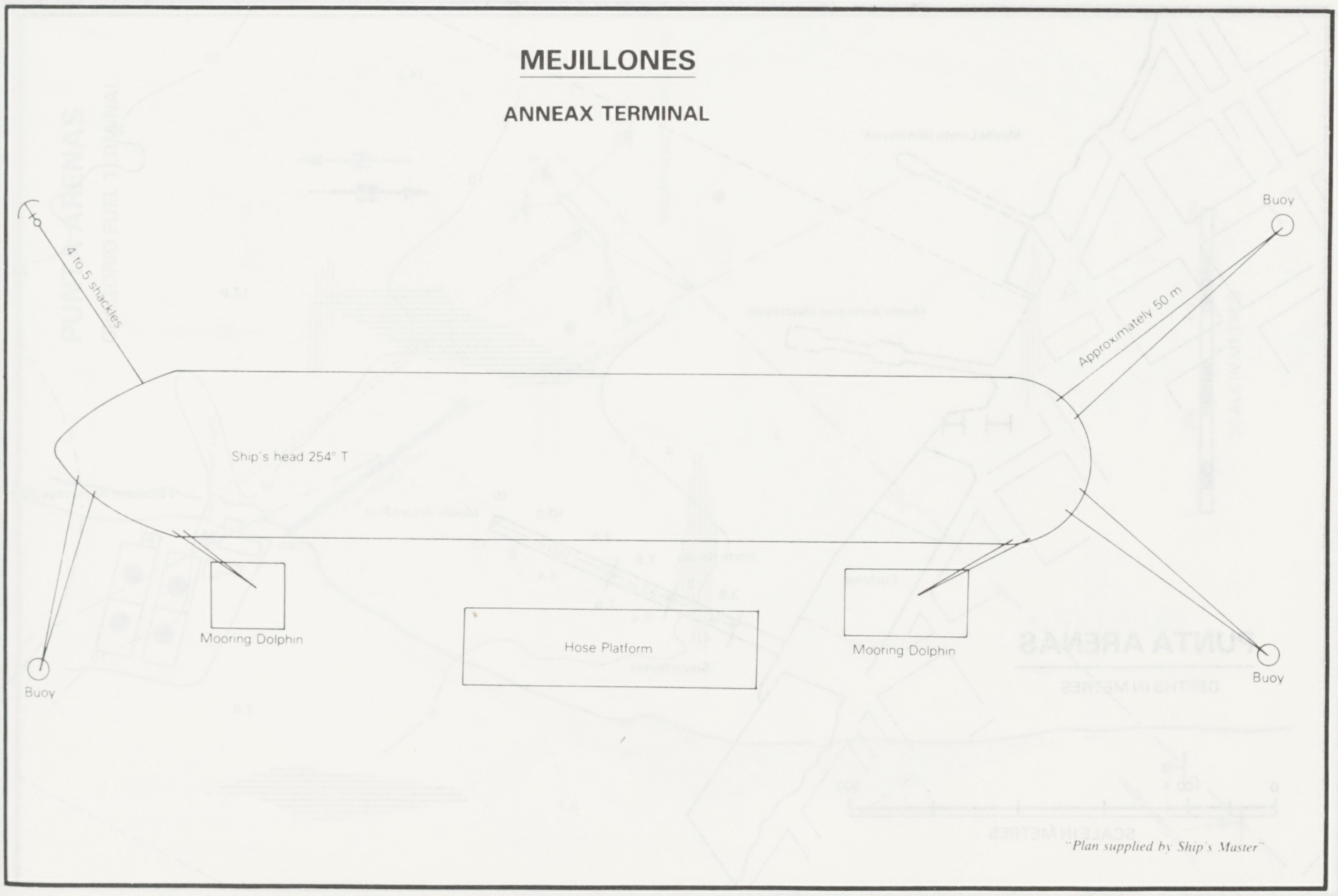


IQUIQUE

CALETA PATILLOS

70° 12' W
20° 45' S
6 shackles
Vessel 250 m L O A
Ship Loader
Terminal Office
Rocky Coastline
Pta Patillos
0
200
SCALE OF METRES

"Plan supplied by Ship's Master"

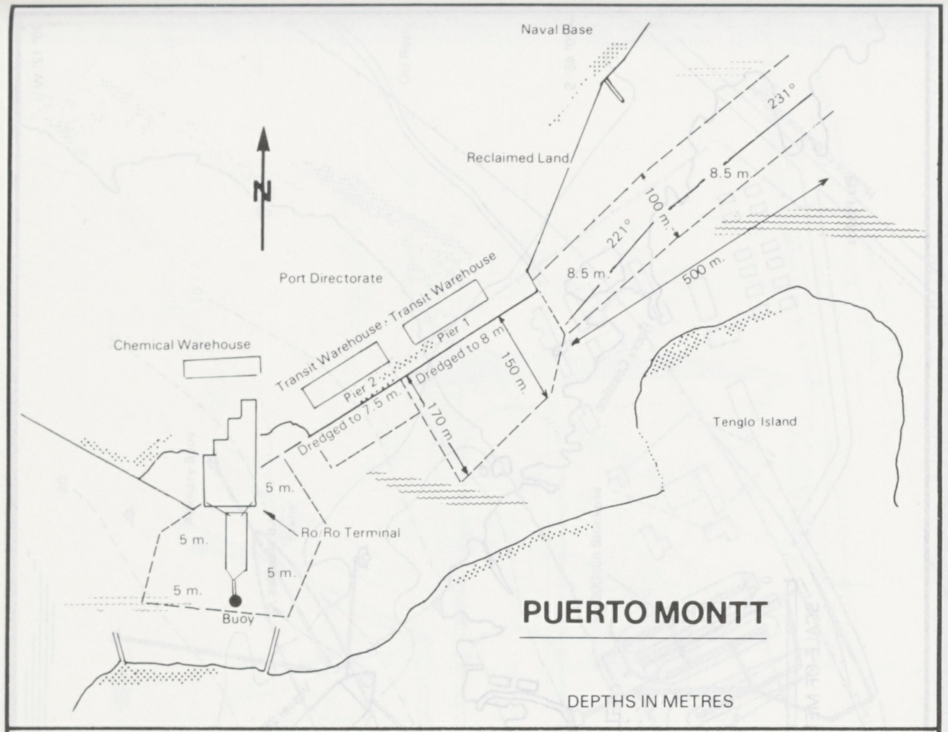


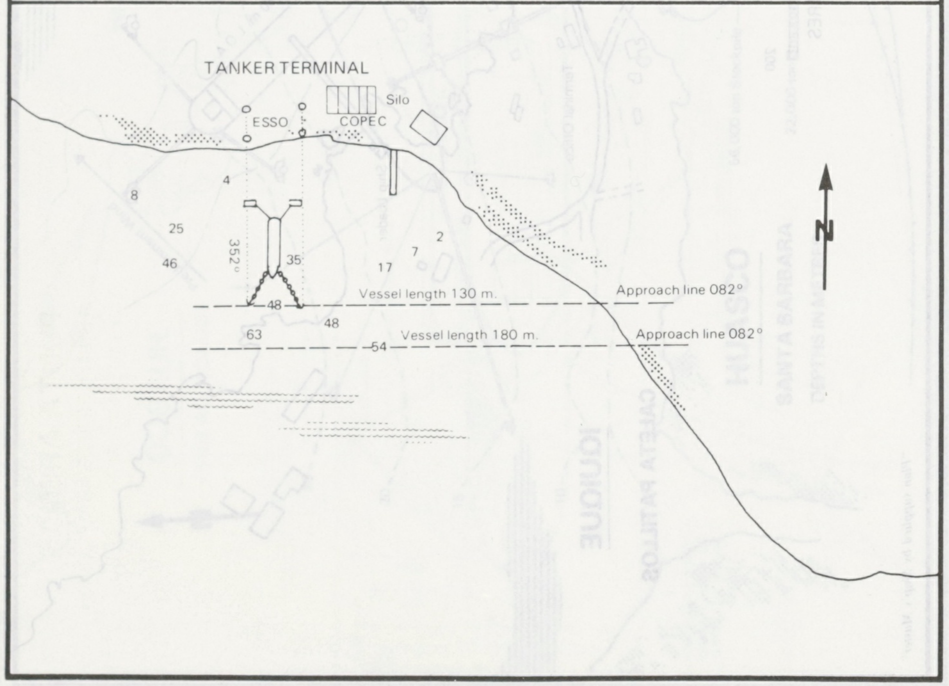
MEJILLONES

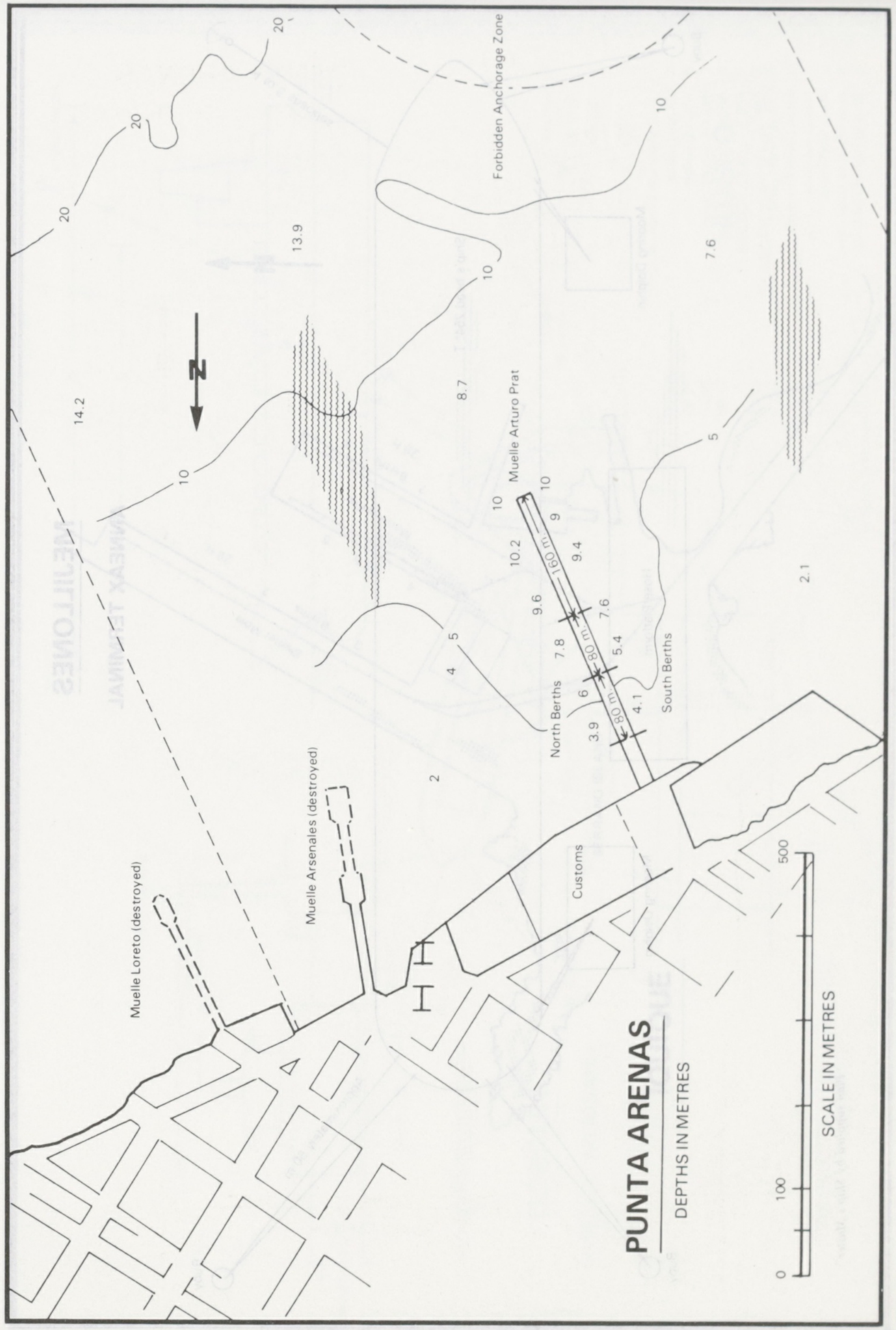
ANNEAX TERMINAL

4 to 5 shackles
Buoy
Approximately 50 m
Ship's head 254° T
Mooring Dolphin
Hose Platform
Mooring Dolphin
Buoy
Buoy

"Plan supplied by Ship's Master"

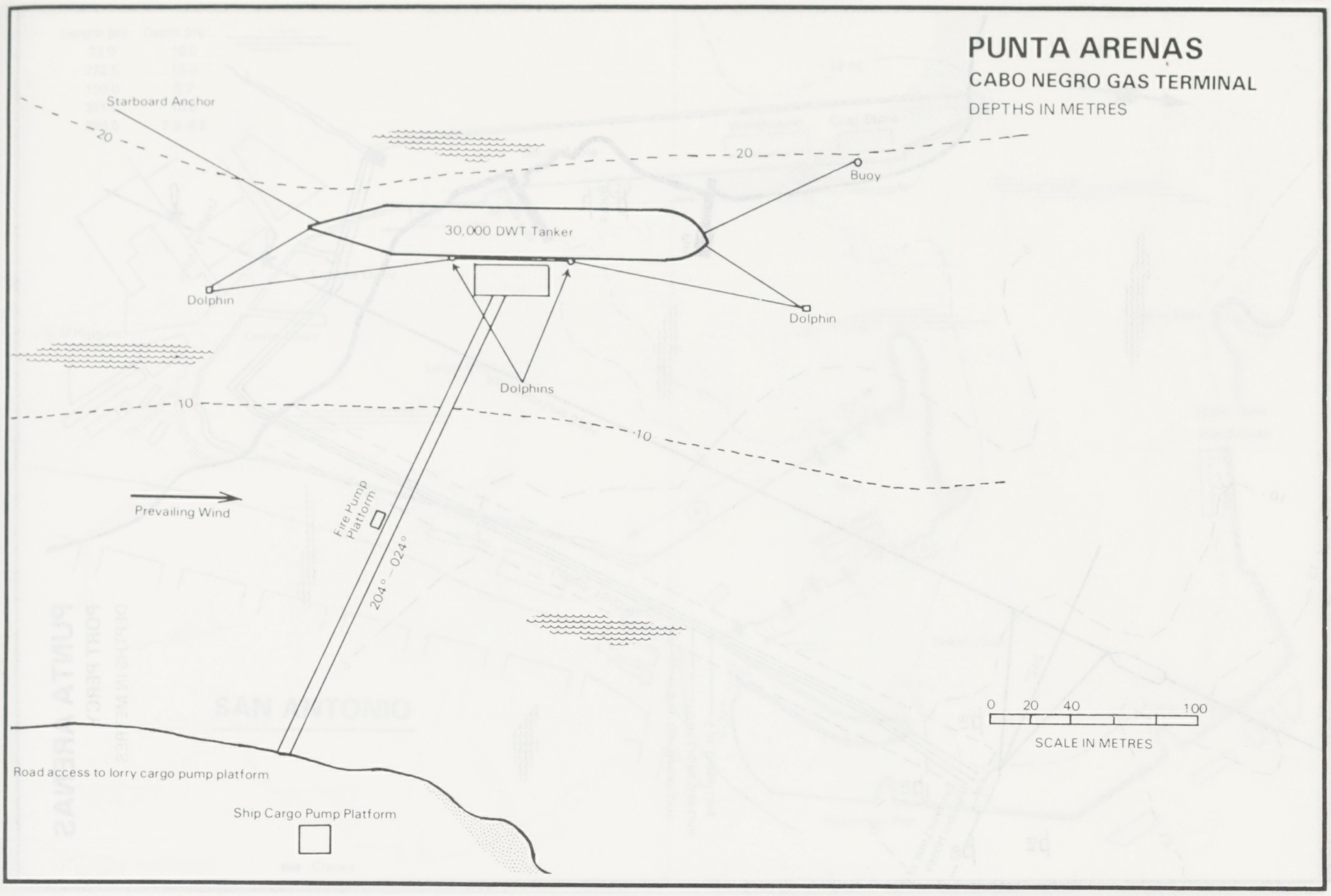

PUERTO MONTT
DEPTHS IN METRES
Naval Base
Reclaimed Land
231°
8.5 m.
100 m.
221°
8.5 m.
500 m.
Port Directorate
Transit Warehouse
Transit Warehouse
Pier 1
Pier 2
Chemical Warehouse
Dredged to 8 m.
Dredged to 7.5 m.
150 m.
170 m.
Tenglo Island
5 m.
5 m.
5 m.
5 m.
Ro Ro Terminal
Buoy
N


TANKER TERMINAL
ESSO
COPEC
Silo
8
4
25
46
352°
35
17
7
2
48
48
63
54
Vessel length 130 m.
Approach line 082°
Vessel length 180 m.
Approach line 082°
N

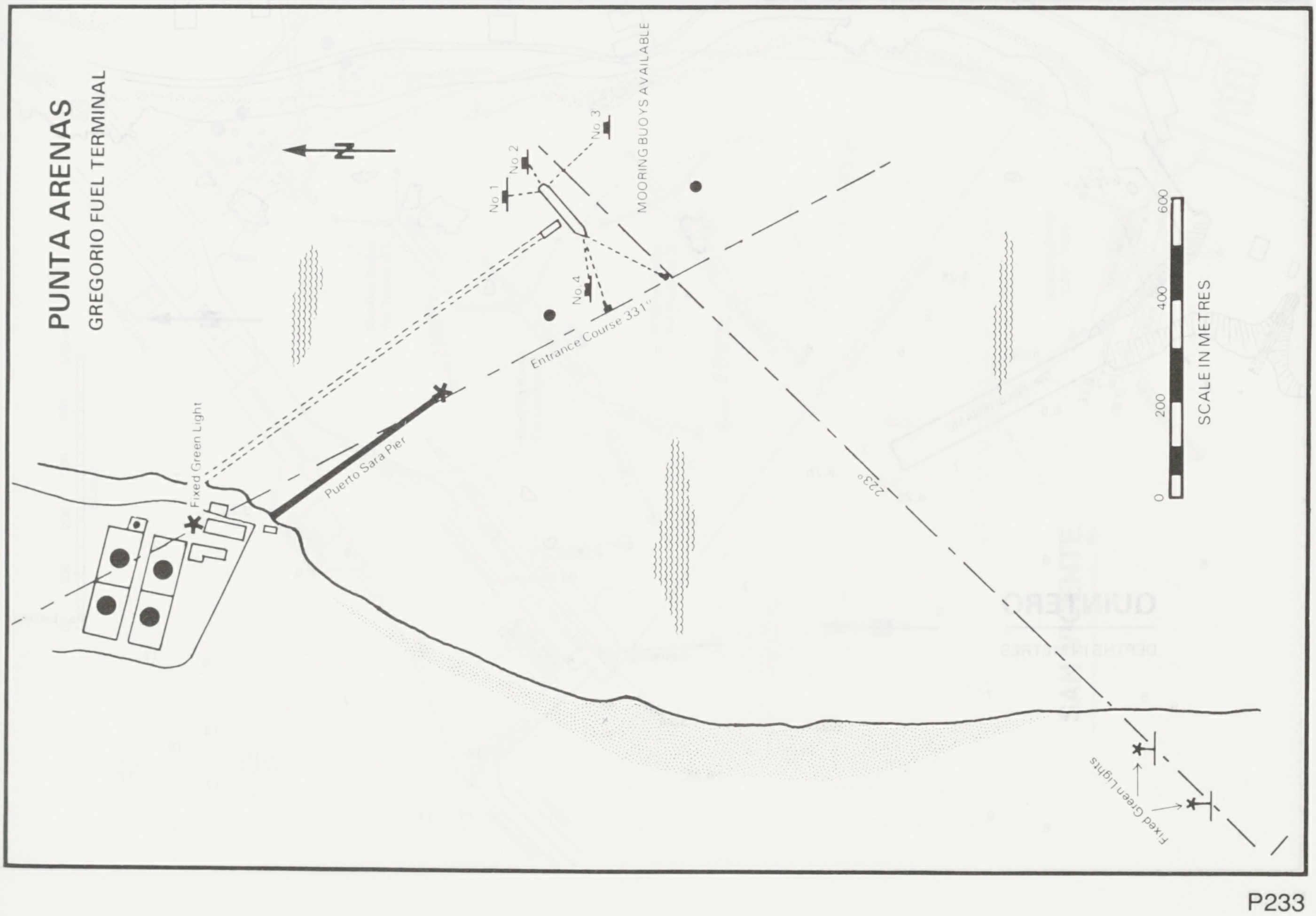

PUNTA ARENAS
DEPTHS IN METRES
SCALE IN METRES
0
100
500
Forbidden Anchorage Zone
Muelle Arturo Prat
North Berths
South Berths
Customs
Muelle Arsenales (destroyed)
Muelle Loreto (destroyed)
160 m.
80 m.
80 m.
20
20
20
20
13.9
14.2
10
10
10
10
10
8.7
7.6
5
5
4
2
2.1
10.2
9
9.4
9.6
7.6
7.8
5.4
6
4.1
3.9
N

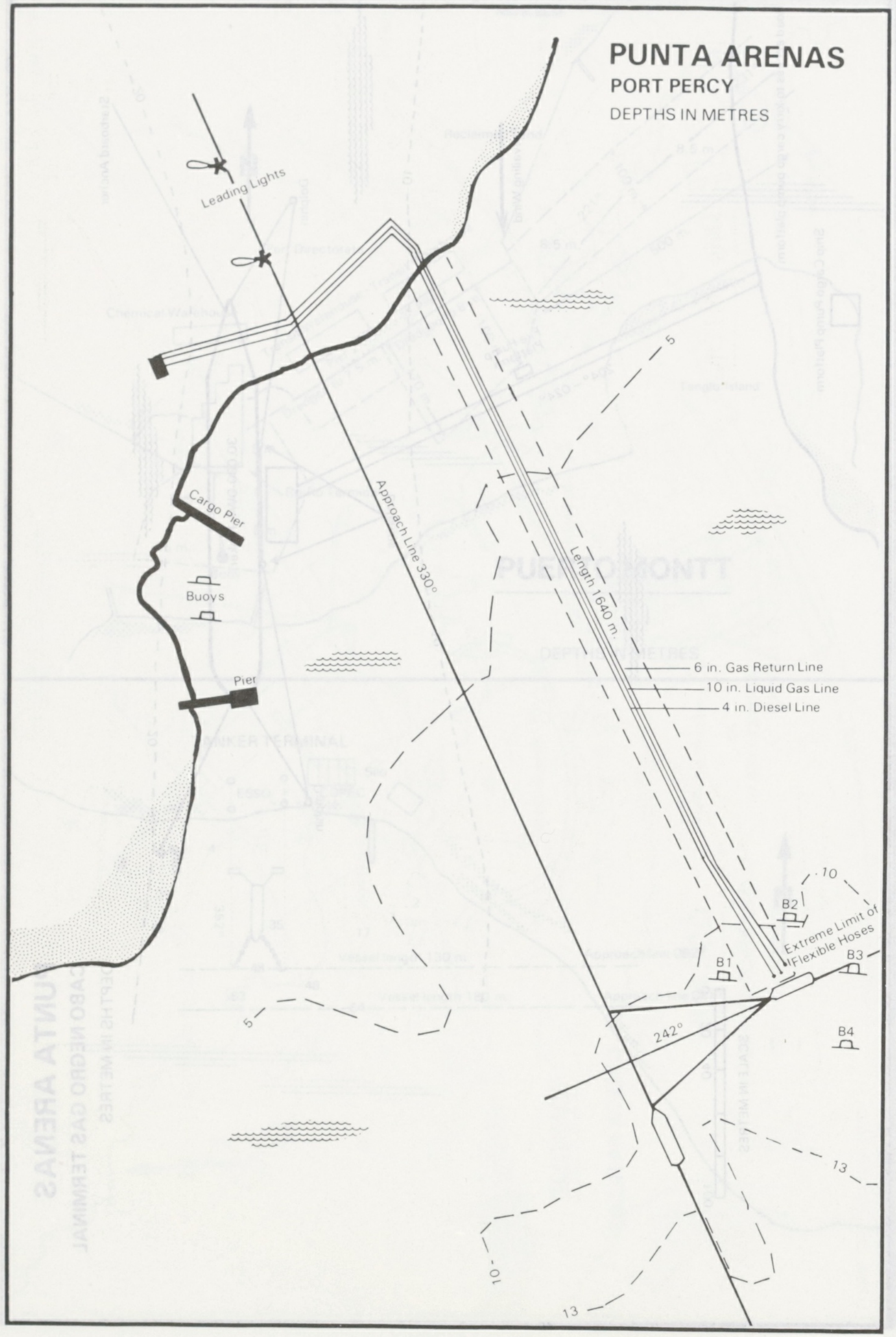
PUNTA ARENAS
CABO NEGRO GAS TERMINAL

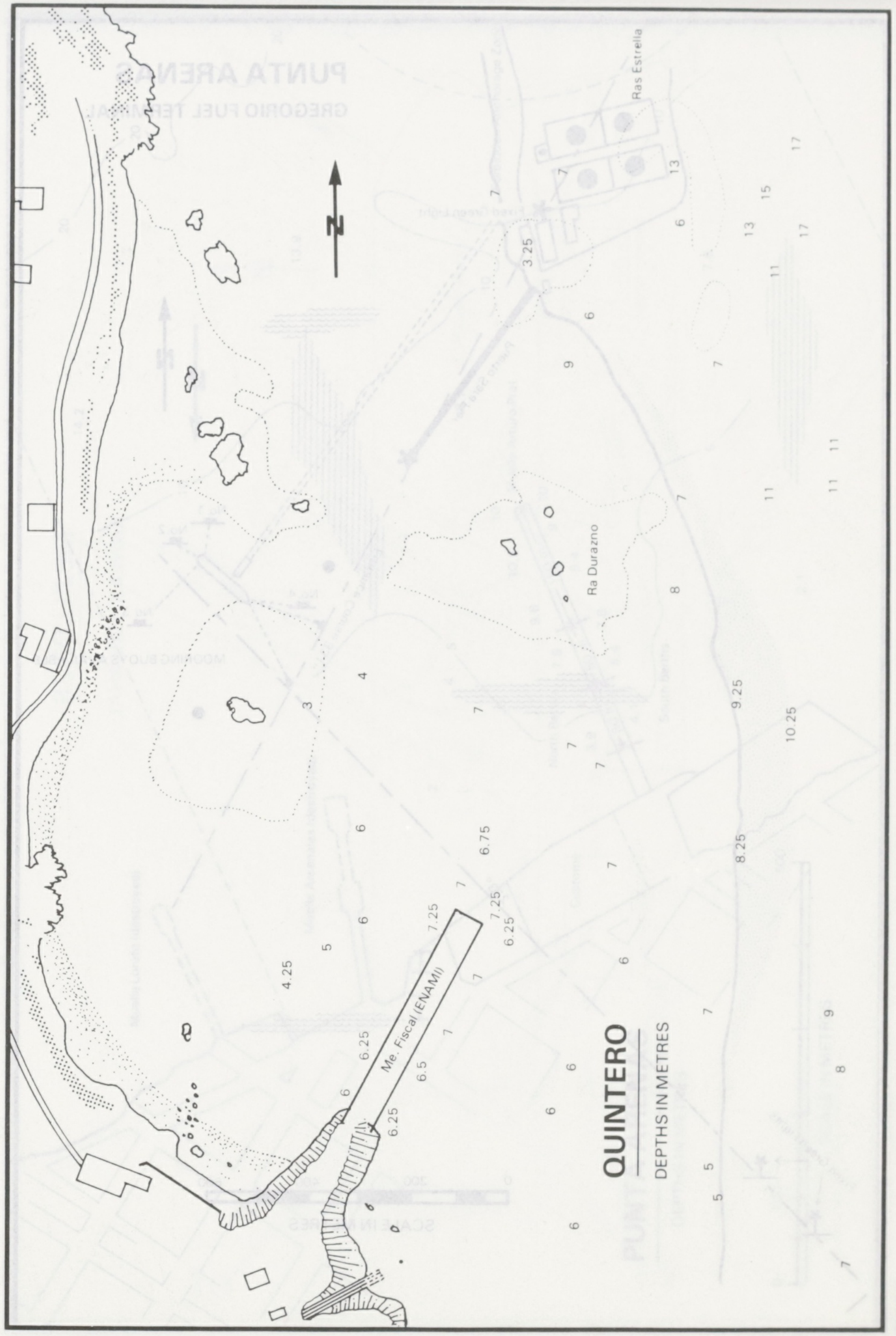
DEPTHS IN METRES

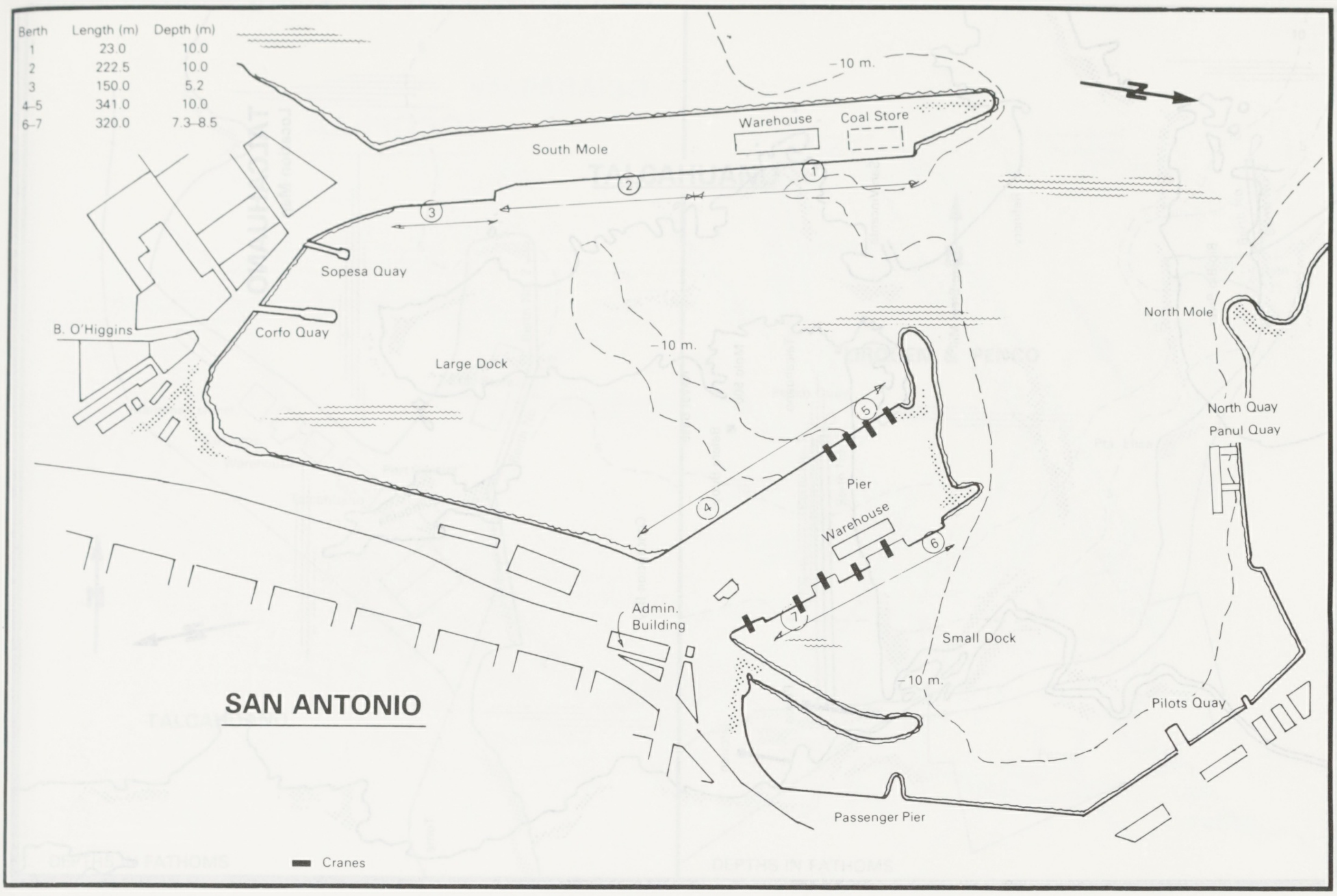

Starboard Anchor
20
20
Buoy
30,000 DWT Tanker
Dolphin
Dolphin
Dolphins
10
10
Prevailing Wind
Fire Pump Platform
204° – 024°
0 20 40 100
SCALE IN METRES
Road access to lorry cargo pump platform
Ship Cargo Pump Platform

PUNTA ARENAS
GREGORIO FUEL TERMINAL


N
No 3
No 2
No 1
MOORING BUOYS AVAILABLE
No 4
Entrance Course 331°
Puerto Sara Pier
Fixed Green Light
223°
0 200 400 600
SCALE IN METRES
Fixed Green Lights


PUNTA ARENAS
PORT PERCY
DEPTHS IN METRES
Leading Lights
Cargo Pier
Buoys
Pier
Approach Line 330°
Length 1640 m
6 in. Gas Return Line
10 in. Liquid Gas Line
4 in. Diesel Line
Extreme Limit of Flexible Hoses
B1
B2
B3
B4
242°
5
10
13

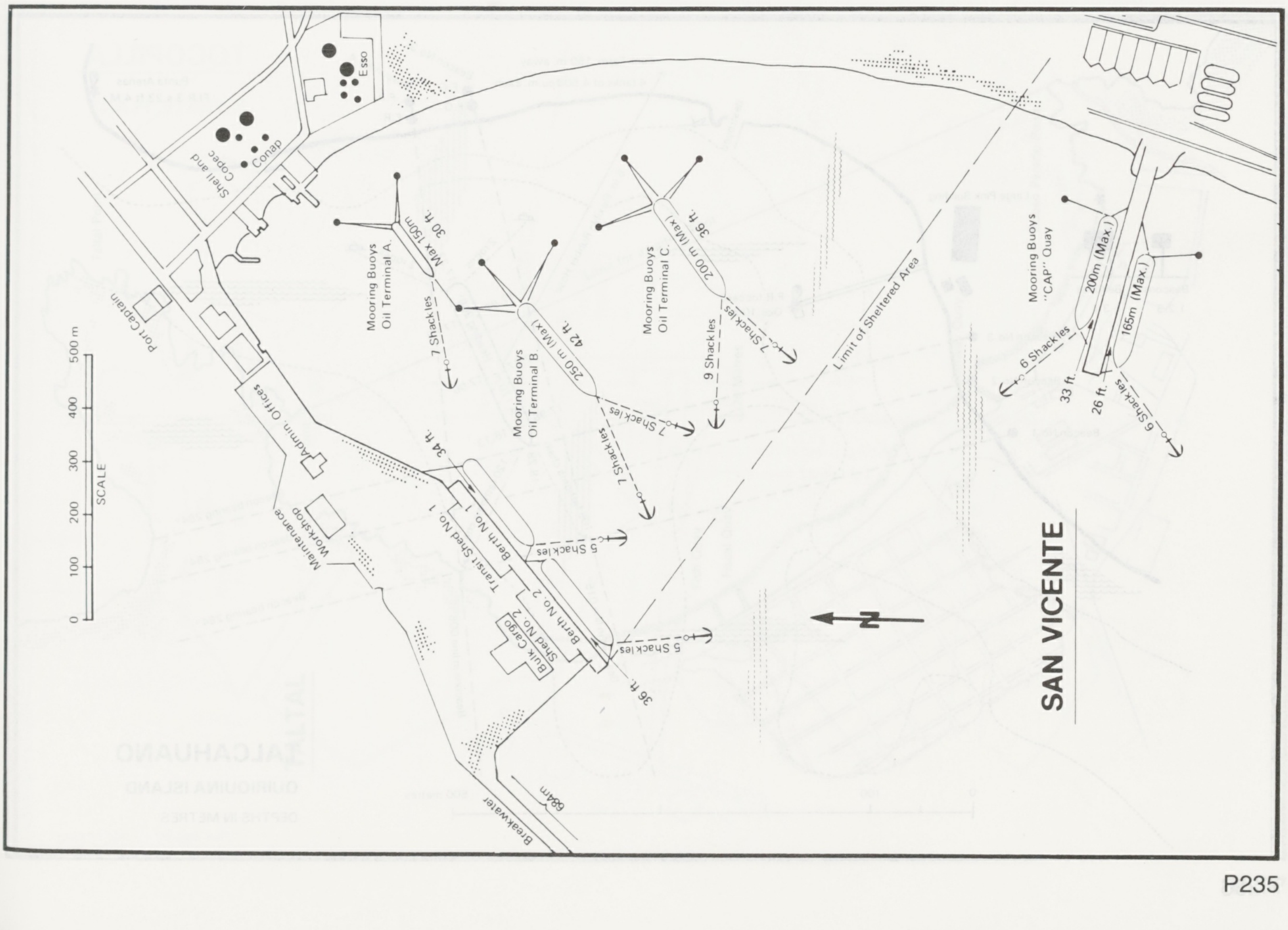

QUINTERO
DEPTHS IN METRES
Me. Fiscal (ENAMI)
Ra Durazno
Ras Estrella
N
3.25
3
4
4.25
5
6
6.25
6.5
6.75
7
7.25
8
8.25
9
9.25
10.25
11
13
15
17



SAN ANTONIO

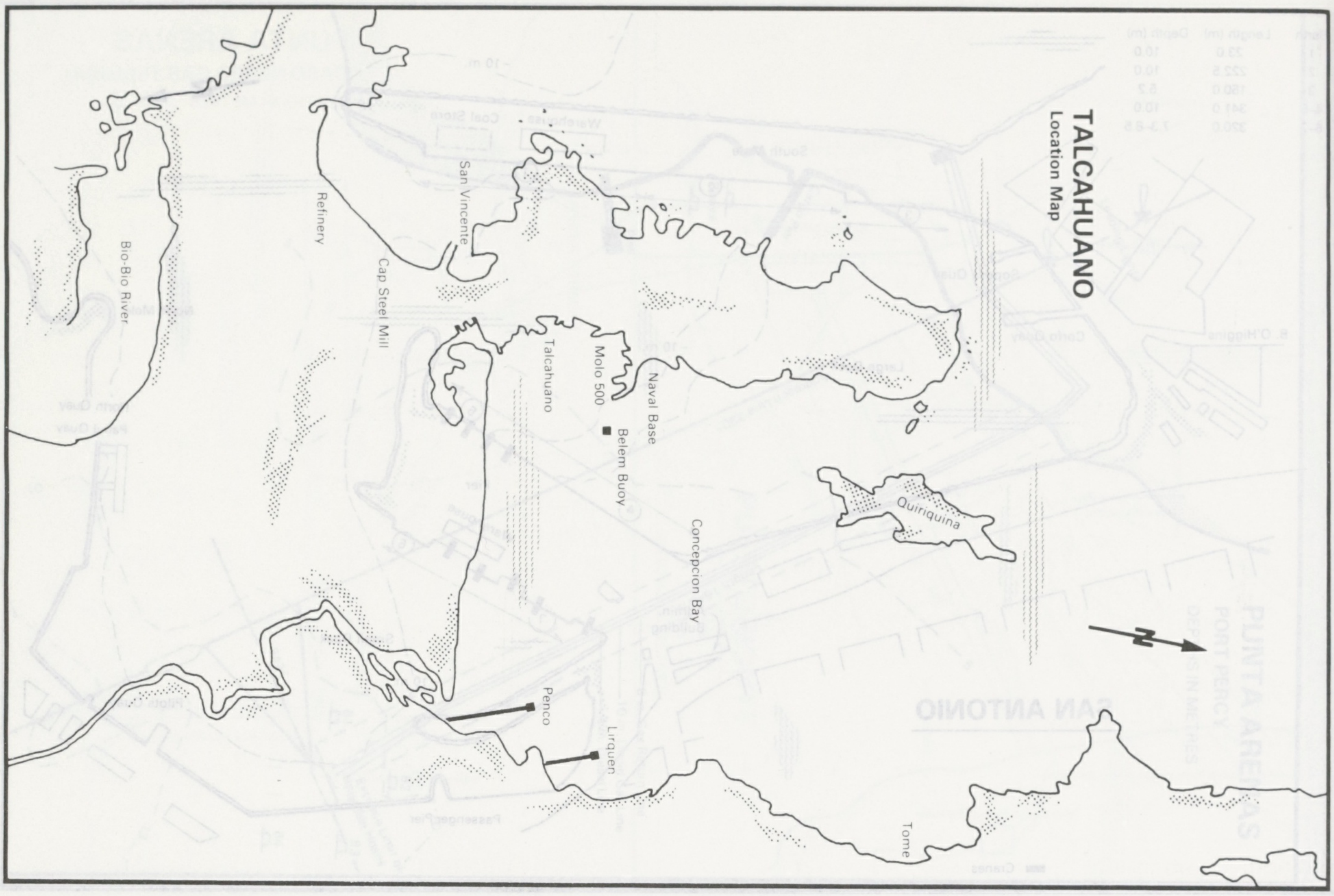
Berth	Length (m)	Depth (m)
1	23.0	10.0
2	222.5	10.0
3	150.0	5.2
4–5	341.0	10.0
6–7	320.0	7.3–8.5

N
–10 m.
Warehouse
Coal Store
South Mole
1
2
3
Sopesa Quay
Corfo Quay
B. O'Higgins
Large Dock
–10 m.
North Mole
North Quay
Panul Quay
5
4
Pier
Warehouse
6
7
Admin. Building
Small Dock
–10 m.
Pilots Quay
Passenger Pier
Cranes



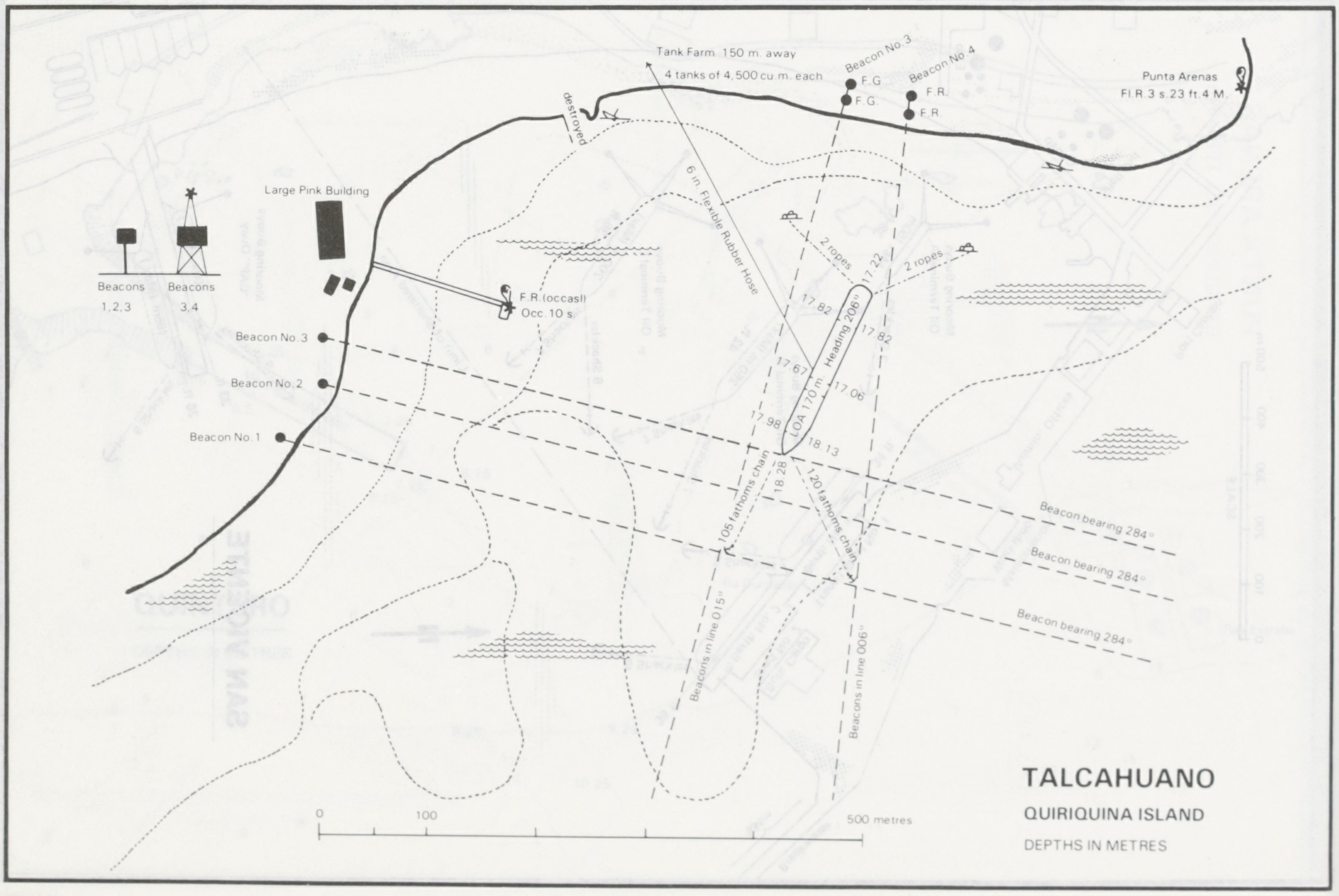
SAN VICENTE

Esso
Shell and Copec
Conap
Port Captain
Admn. Offices
Maintenance Workshop
Mooring Buoys Oil Terminal A
Max 150m
30 ft.
7 Shackles
Mooring Buoys Oil Terminal B
250 m (Max)
42 ft.
7 Shackles
7 Shackles
Mooring Buoys Oil Terminal C
200 m (Max)
36 ft.
9 Shackles
7 Shackles
Limit of Sheltered Area
Mooring Buoys "CAP" Quay
200m (Max.)
165m (Max.)
6 Shackles
6 Shackles
33 ft.
26 ft.
34 ft.
Berth No. 1
Transit Shed No. 1
5 Shackles
Berth No. 2
Shed No. 2
Bulk Cargo
5 Shackles
36 ft.
Breakwater
684m
N
SCALE
0
100
200
300
400
500 m



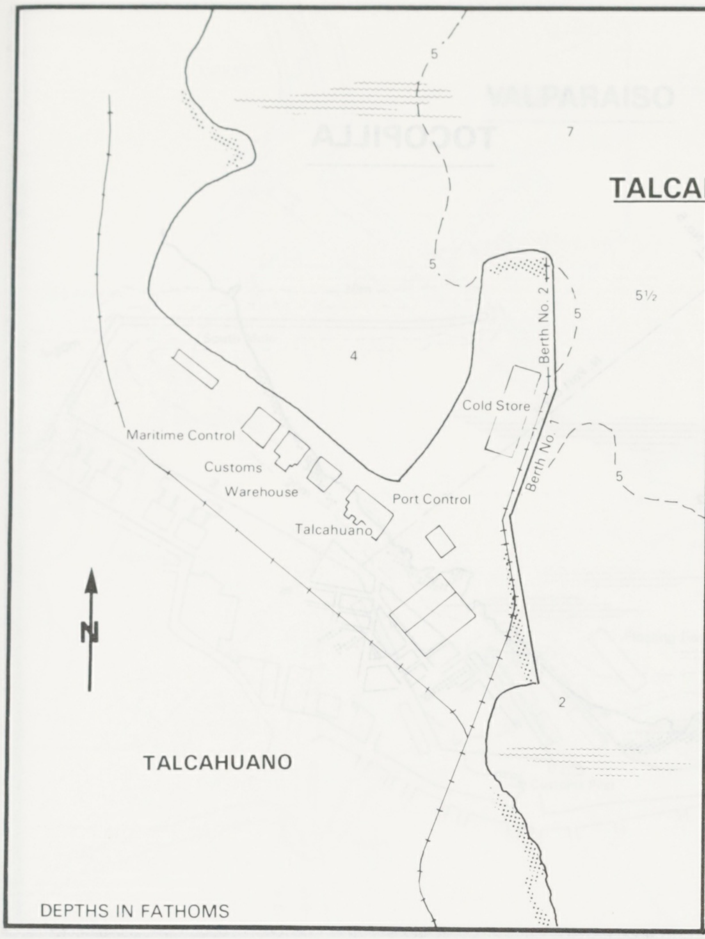
TALCAHUANO
Location Map

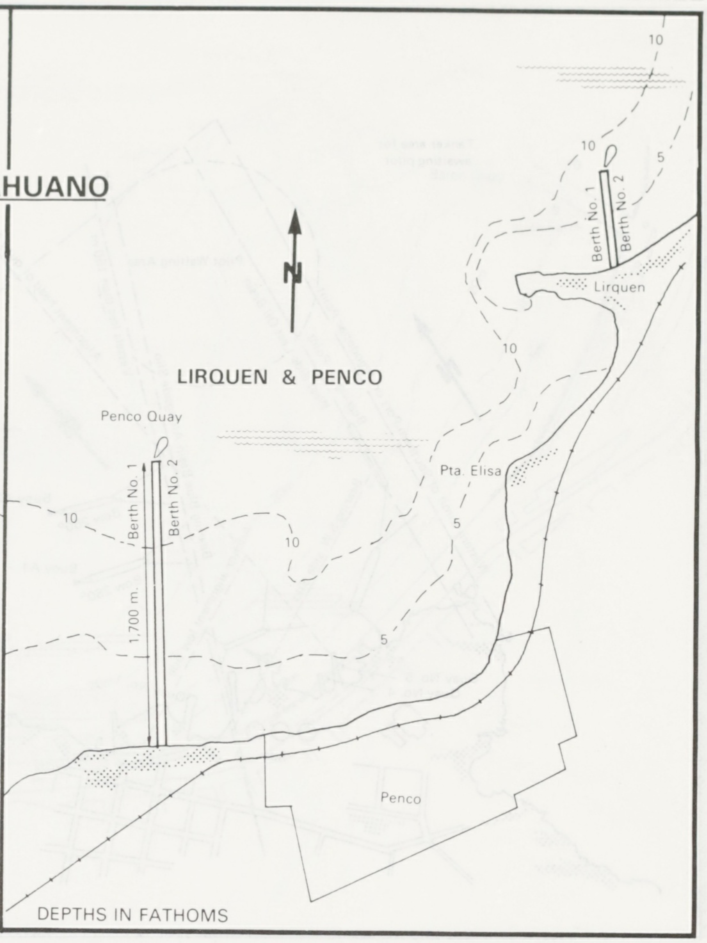
Bio-Bio River
Refinery
San Vincente
Cap Steel Mill
Talcahuano
Molo 500
Naval Base
Belem Buoy
Concepcion Bay
Quiriquina
Penco
Lirquen
Tome
N

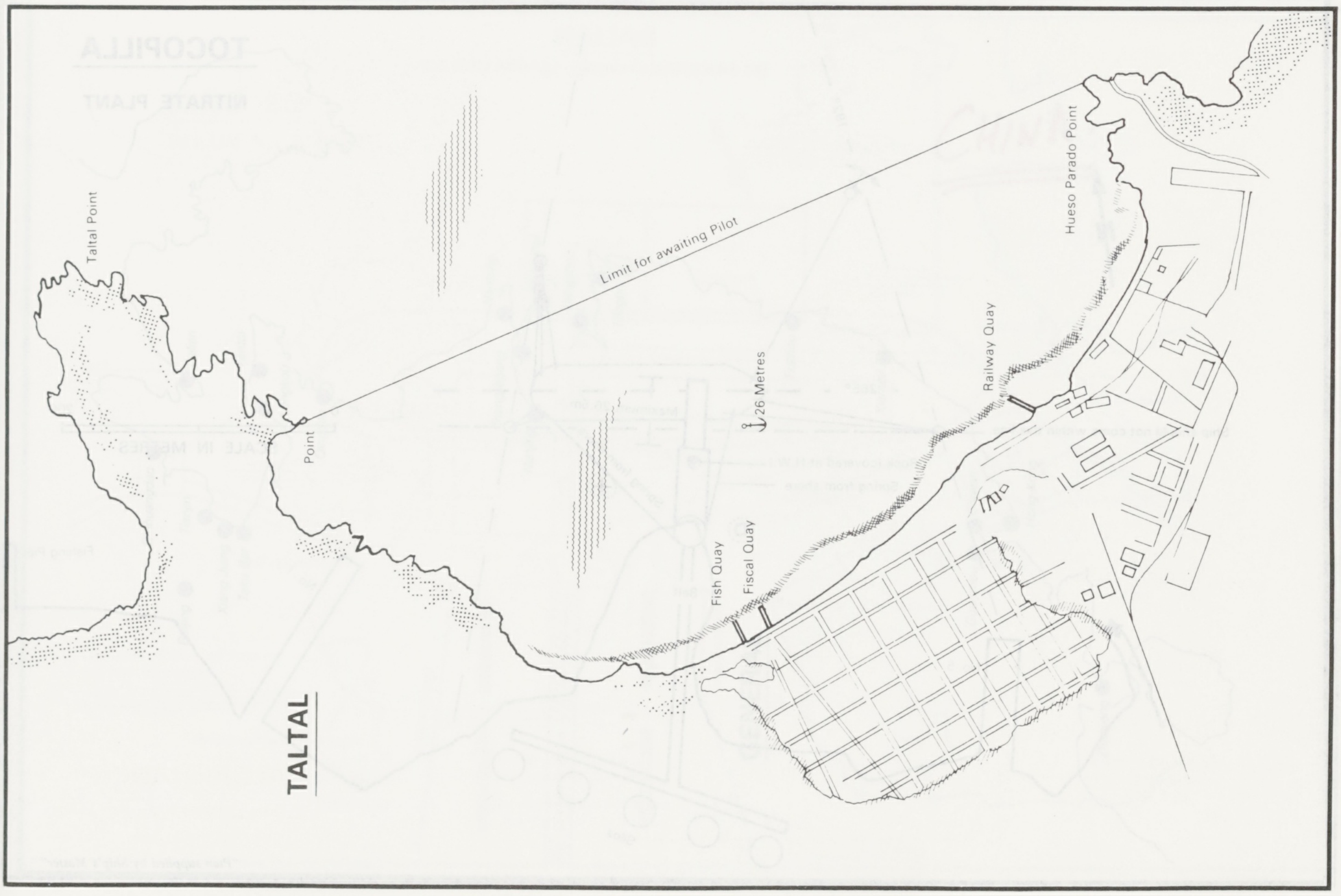


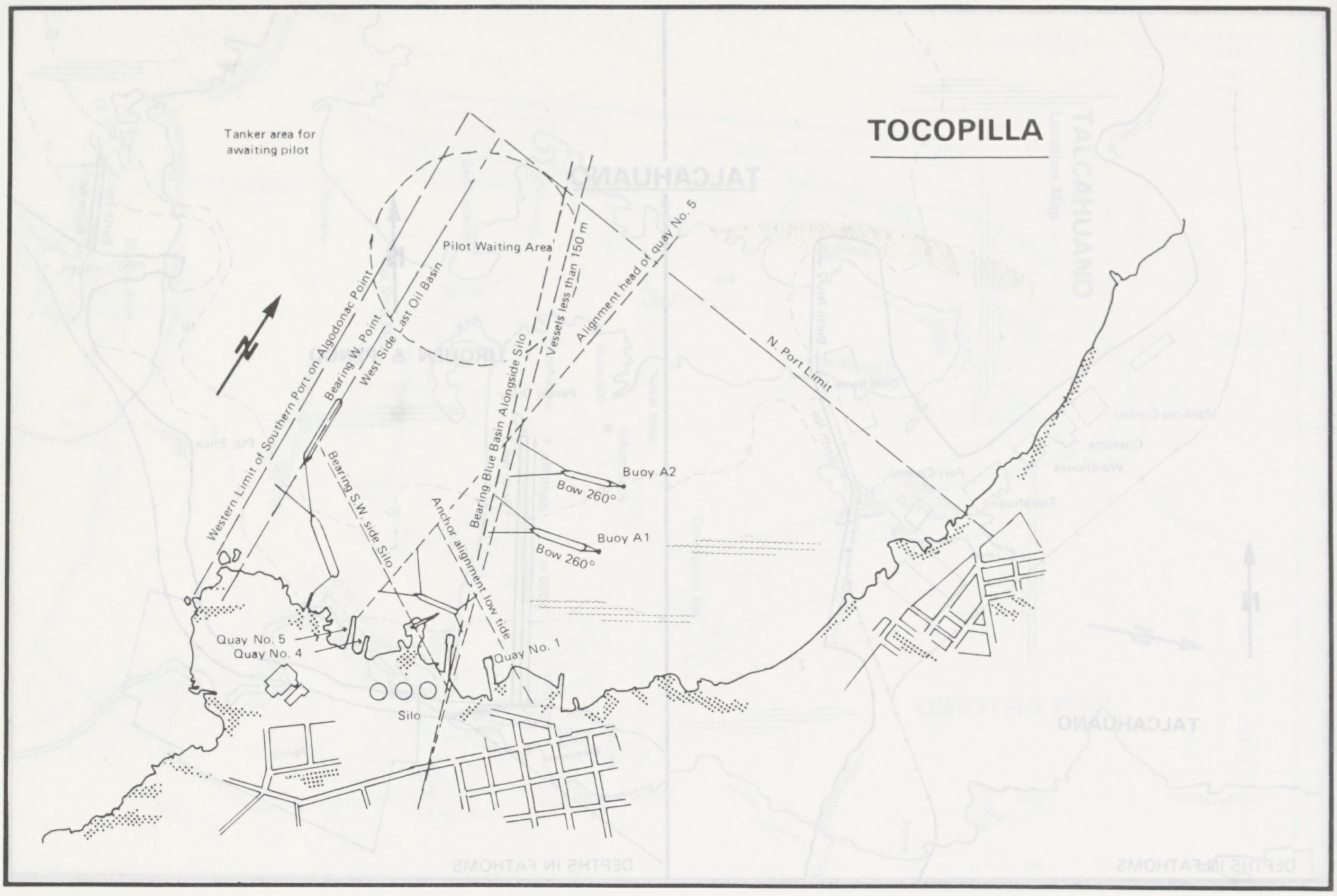
TALCAHUANO
QUIRIQUINA ISLAND
DEPTHS IN METRES

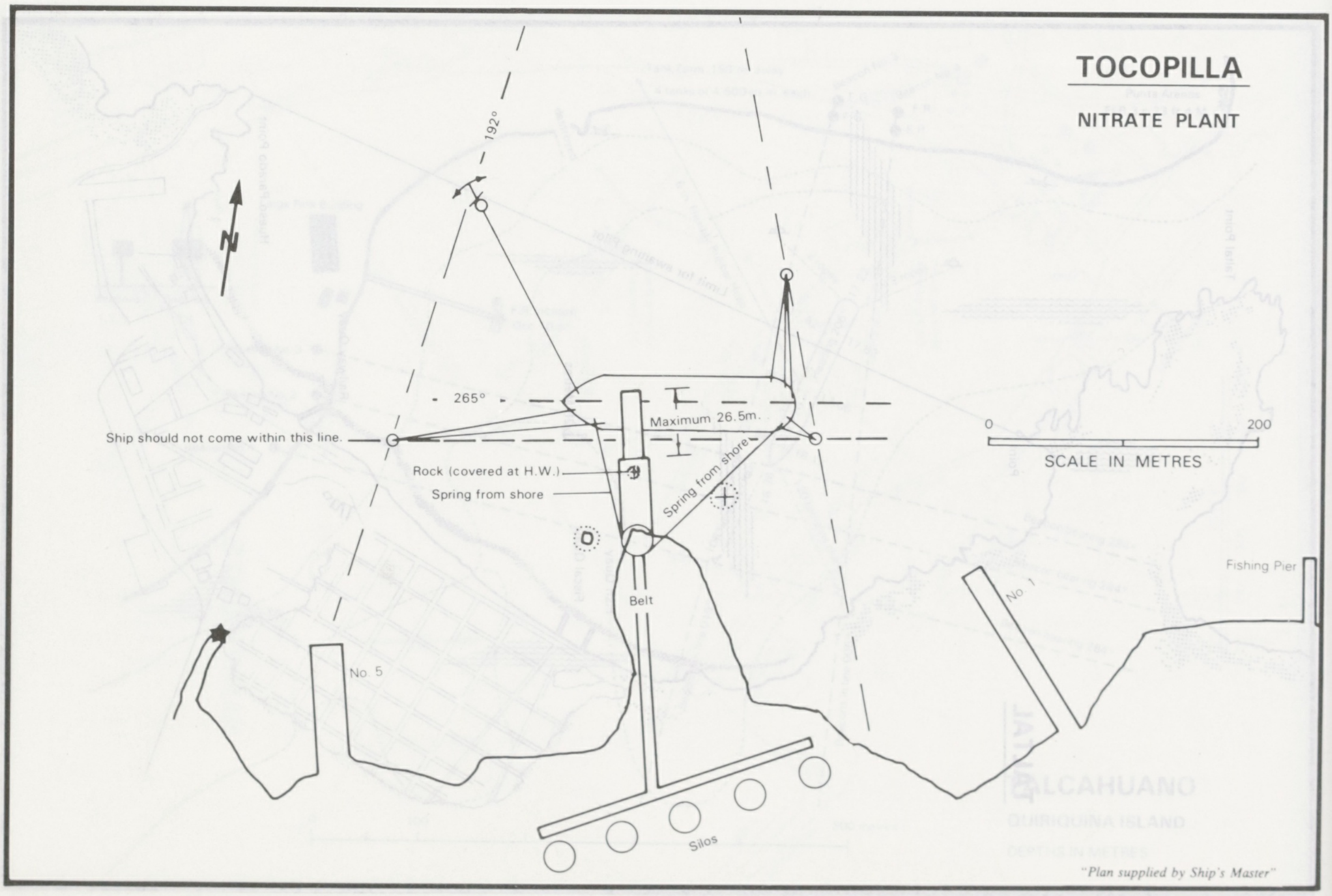
Tank Farm 150 m. away
4 tanks of 4,500 cu.m. each
Beacon No.3
Beacon No.4
F.G.
F.G.
F.R.
F.R.
Punta Arenas
Fl.R.3 s.23 ft.4 M.
destroyed
Large Pink Building
Beacons
1,2,3
Beacons
3,4
6 in. Flexible Rubber Hose
2 ropes
2 ropes
F.R.(occasl)
Occ.10 s.
Beacon No.3
Beacon No.2
Beacon No.1
17.22
17.82
17.82
Heading 206°
17.67
LOA 170 m
17.06
17.98
18.13
18.28
105 fathoms chain
120 fathoms chain
Beacon bearing 284°
Beacon bearing 284°
Beacon bearing 284°
Beacons in line 015°
Beacons in line 006°
0
100
500 metres


TALCAHUANO
5
7
5
5½
5
4
Berth No. 2
Cold Store
Berth No. 1
Maritime Control
Customs
Warehouse
Port Control
Talcahuano
5
N
2
TALCAHUANO
DEPTHS IN FATHOMS

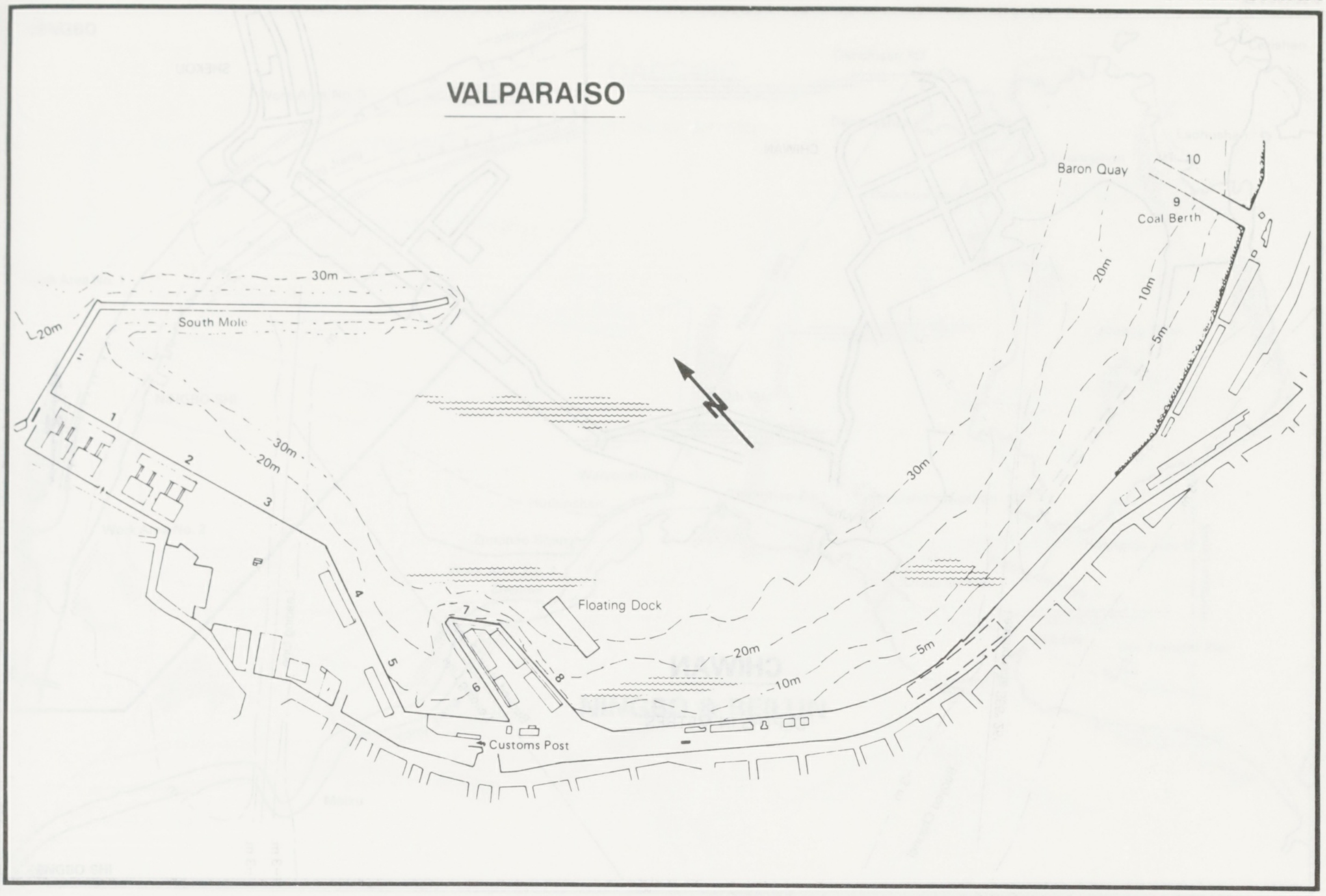

10
10
5
Berth No. 1
Berth No. 2
Lirquen
N
10
LIRQUEN & PENCO
Penco Quay
Pta. Elisa
Berth No. 1
Berth No. 2
10
10
5
1,700 m.
5
Penco
DEPTHS IN FATHOMS


Hueso Parado Point
Taltal Point
Limit for awaiting Pilot
Railway Quay
Point
26 Metres
Fish Quay
Fiscal Quay
TALTAL

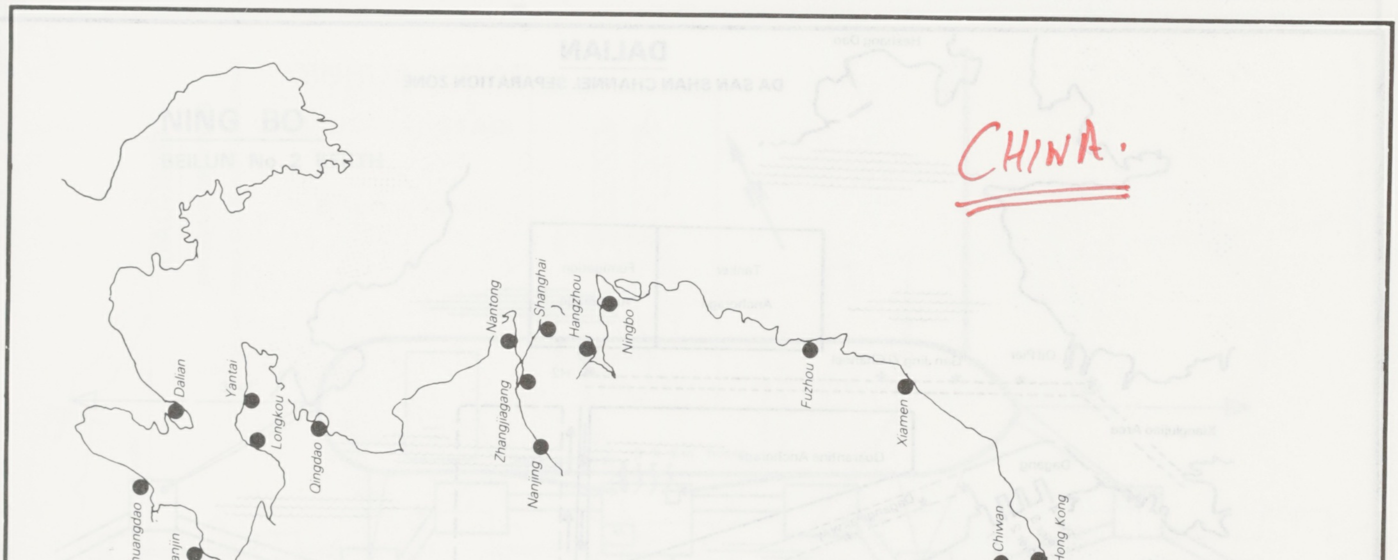

TOCOPILLA
Tanker area for awaiting pilot
Pilot Waiting Area
N
Western Limit of Southern Port on Algodonac Point
Bearing W. Point
West Side Last Oil Basin
Bearing S.W. side Silo
Anchor alignment low tide
Bearing Blue Basin Alongside Silo
Vessels less than 150 m
Alignment head of quay No. 5
N. Port Limit
Buoy A2
Bow 260°
Buoy A1
Bow 260°
Quay No. 5
Quay No. 4
Quay No. 1
Silo

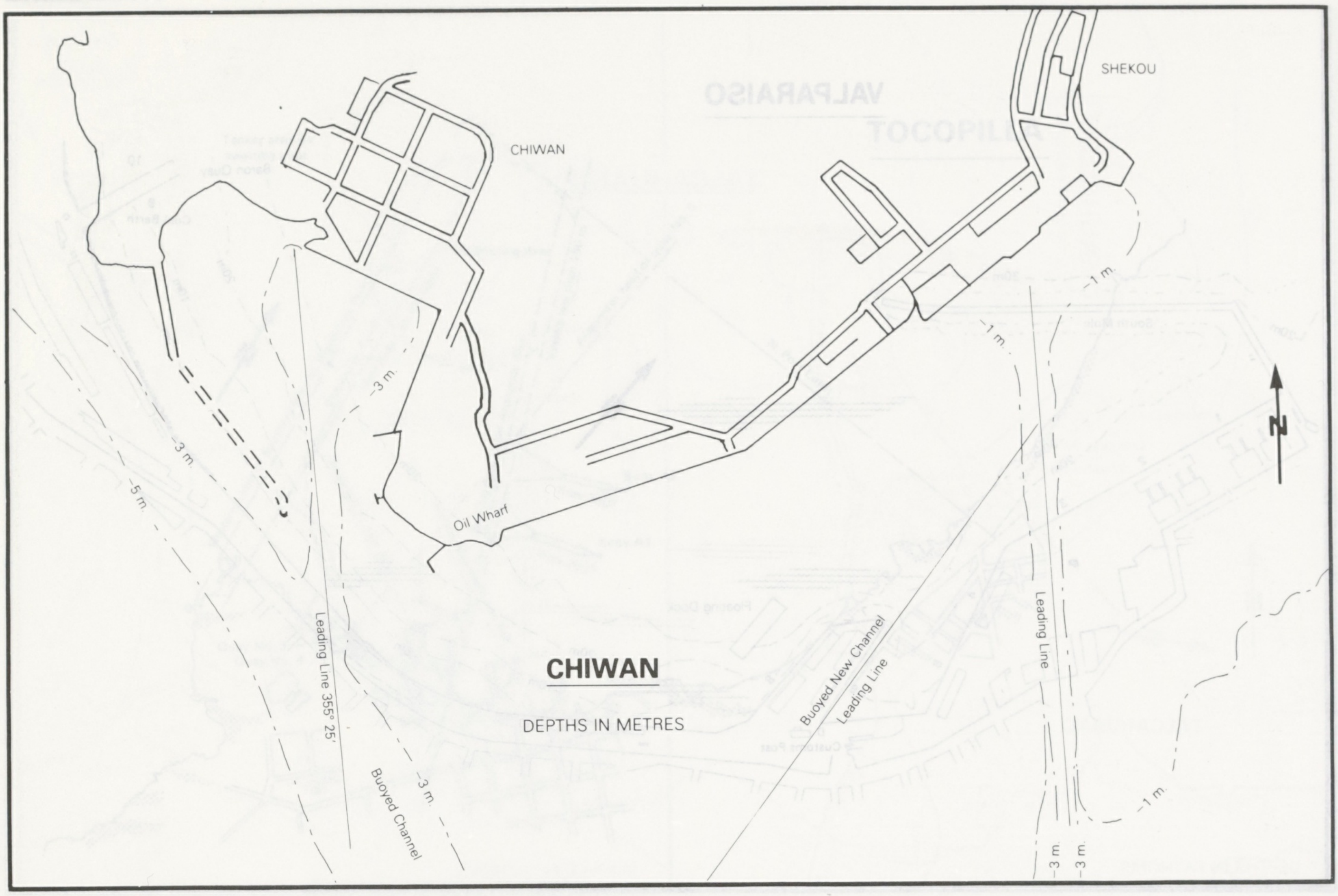

TOCOPILLA
NITRATE PLANT
N
192°
265°
Maximum 26.5m.
Ship should not come within this line.
Rock (covered at H.W.)
Spring from shore
Spring from shore
0
200
SCALE IN METRES
Belt
No. 5
No. 1
Fishing Pier
Silos

"Plan supplied by Ship's Master"


VALPARAISO
30m
20m
South Mole
1
2
3
30m
20m
4
5
6
7
8
Floating Dock
Customs Post
N
20m
10m
5m
30m
Baron Quay
10
9
Coal Berth
20m
10m
5m

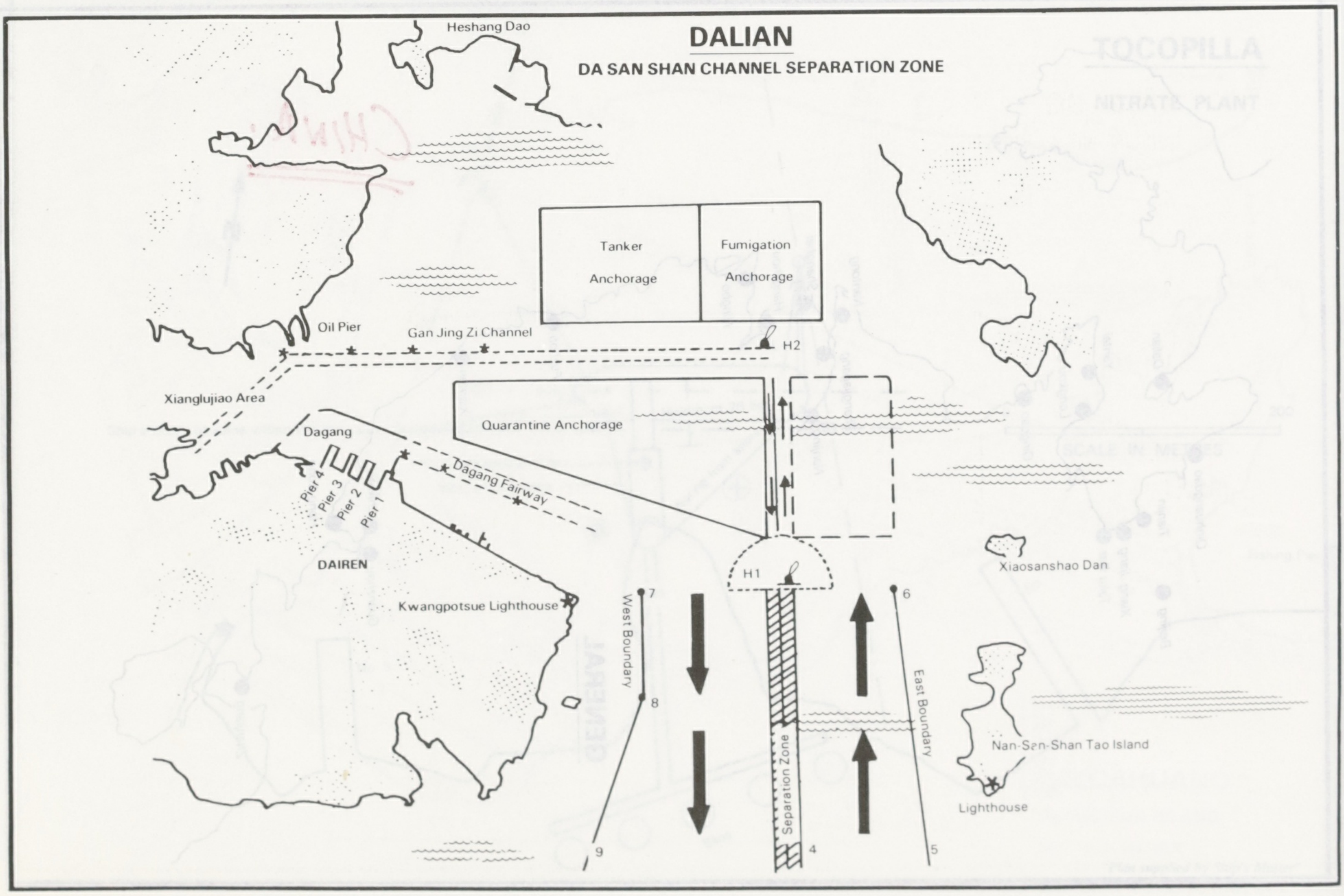
CHINA.


Dalian
Yantai
Longkou
Qingdao
Qinhuangdao
Tianjin
Xiang Jiang
Taku Bar
Beijing
Nantong
Shanghai
Hangzhou
Ningbo
Zhangjiagang
Nanjing
Fuzhou
Xiamen
Chiwan
Hong Kong
Guanzhou
Zhanjiang
GENERAL


CHIWAN

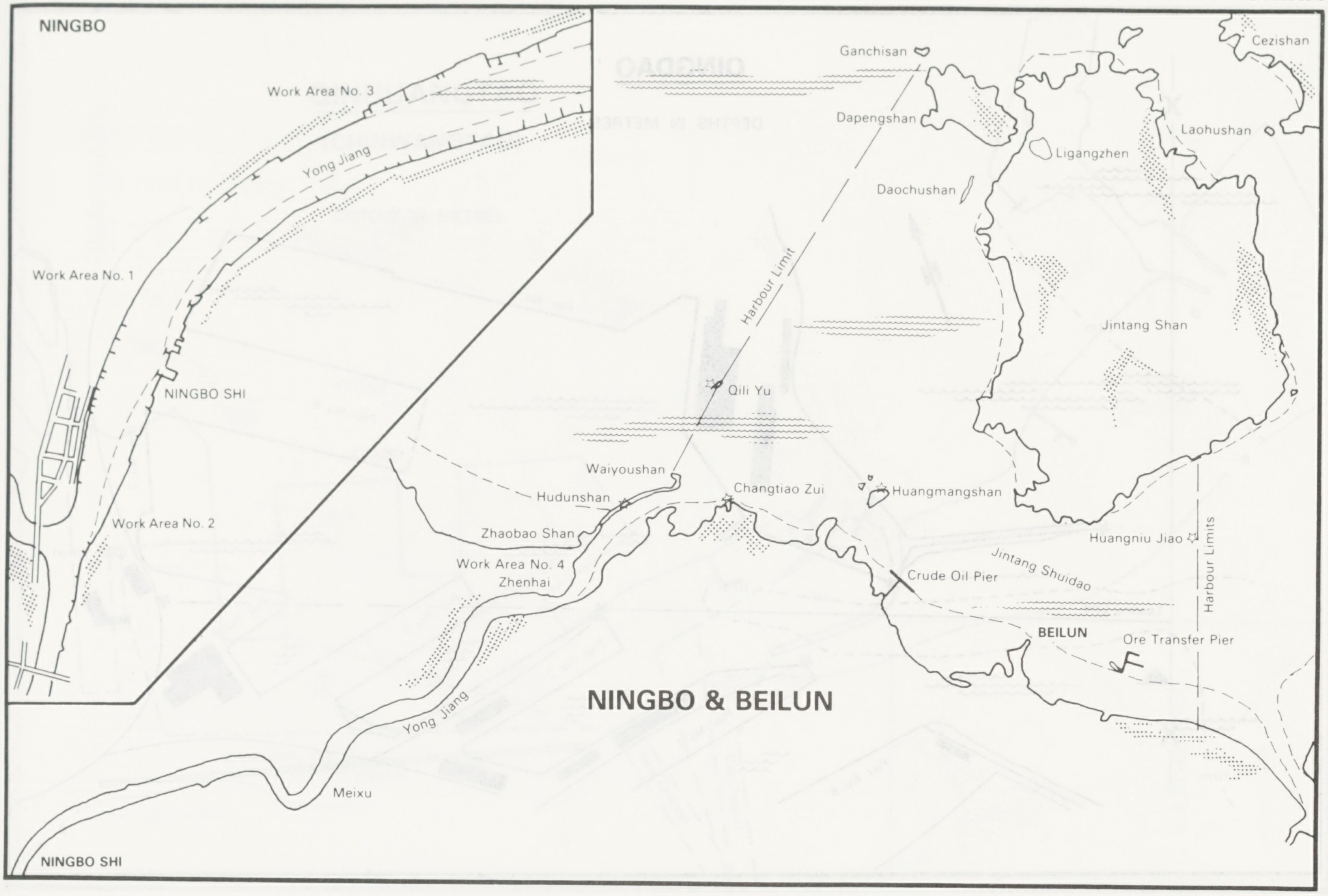
DEPTHS IN METRES

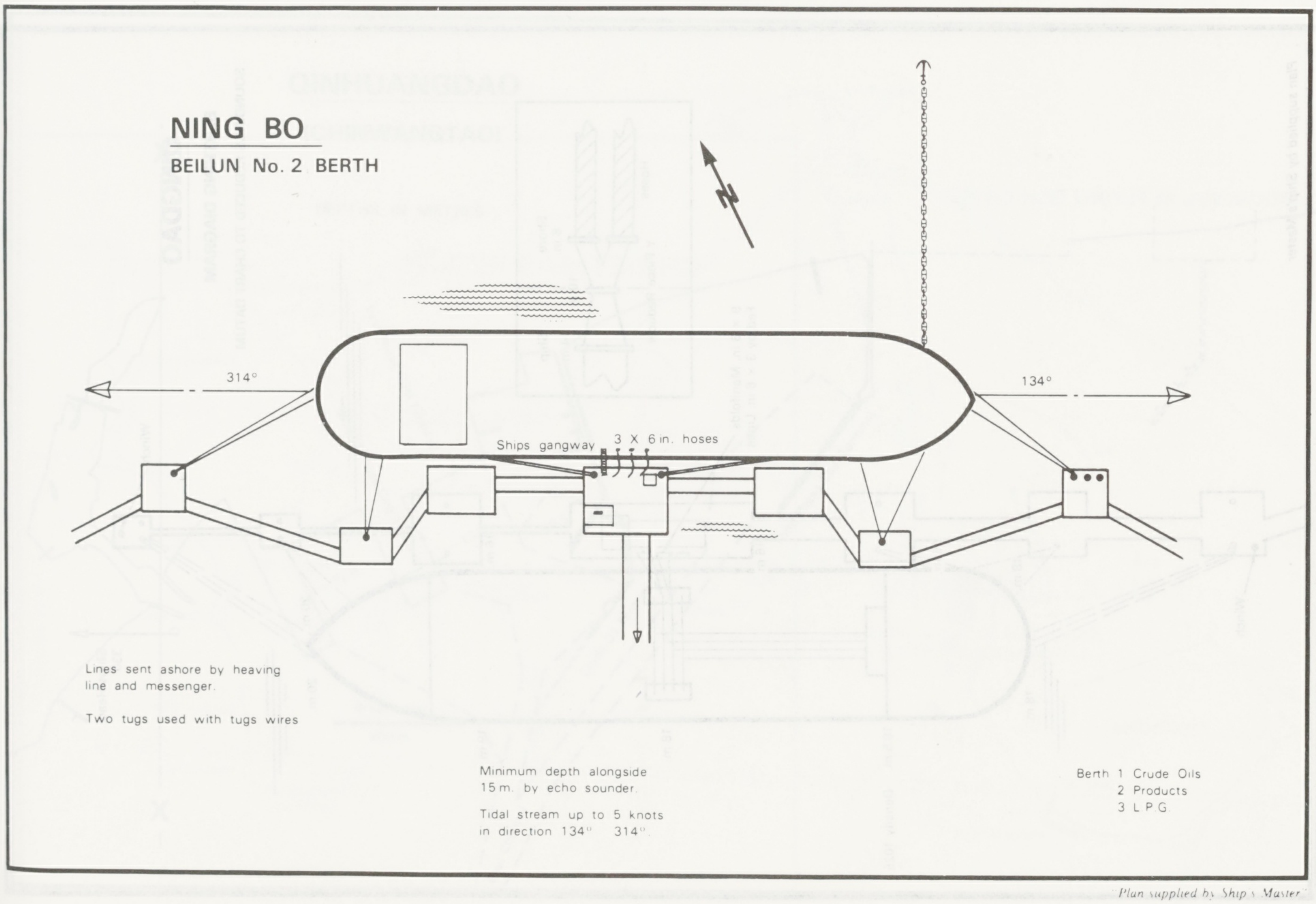
CHIWAN
SHEKOU
Oil Wharf
Leading Line 355° 25'
Buoyed Channel
Buoyed New Channel Leading Line
Leading Line
3 m
5 m
-3 m
-1 m
N


DALIAN

DA SAN SHAN CHANNEL SEPARATION ZONE

Heshang Dao
Tanker Anchorage
Fumigation Anchorage
Oil Pier
Gan Jing Zi Channel
H2
Xianglujiao Area
Quarantine Anchorage
Dagang
Dagang Fairway
Pier 4
Pier 3
Pier 2
Pier 1
DAIREN
Kwangpotsue Lighthouse
H1
West Boundary
East Boundary
Separation Zone
Xiaosanshao Dan
Nan-San-Shan Tao Island
Lighthouse
4
5
6
7
8
9


NINGBO
Work Area No. 3
Yong Jiang
Work Area No. 1
NINGBO SHI
Work Area No. 2
Ganchisan
Cezishan
Dapengshan
Laohushan
Ligangzhen
Daochushan
Harbour Limit
Jintang Shan
Qili Yu
Waiyoushan
Hudunshan
Changtiao Zui
Huangmangshan
Zhaobao Shan
Huangniu Jiao
Harbour Limits
Work Area No. 4
Zhenhai
Jintang Shuidao
Crude Oil Pier
BEILUN
Ore Transfer Pier
NINGBO & BEILUN
Yong Jiang
Meixu
NINGBO SHI


NING BO
BEILUN No. 2 BERTH
N
314°
134°
Ships gangway
3 X 6 in. hoses

Lines sent ashore by heaving line and messenger.

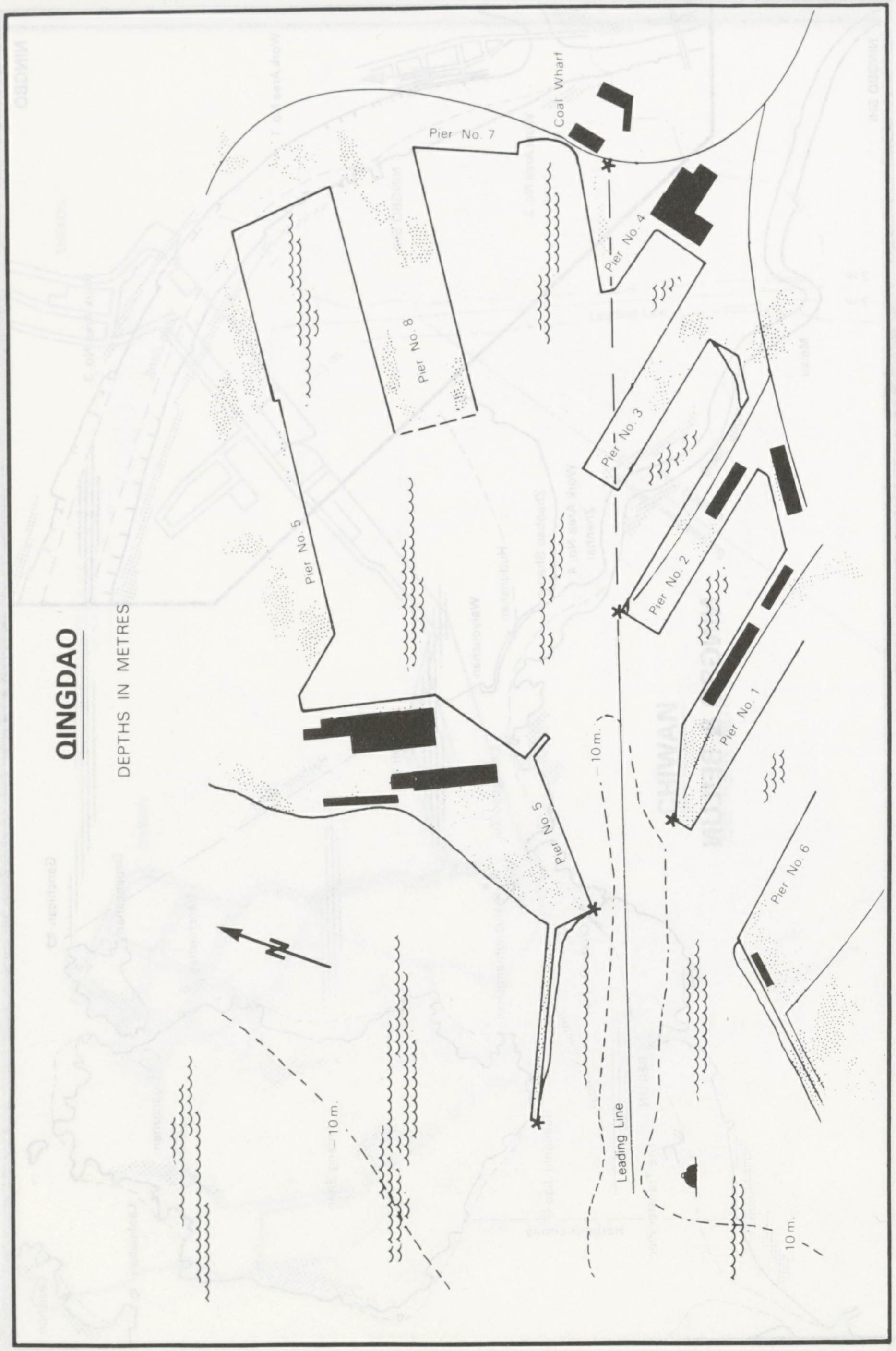
Two tugs used with tugs wires

Minimum depth alongside 15 m. by echo sounder.

Tidal stream up to 5 knots in direction 134° 314°.

Berth 1 Crude Oils
2 Products
3 L P G

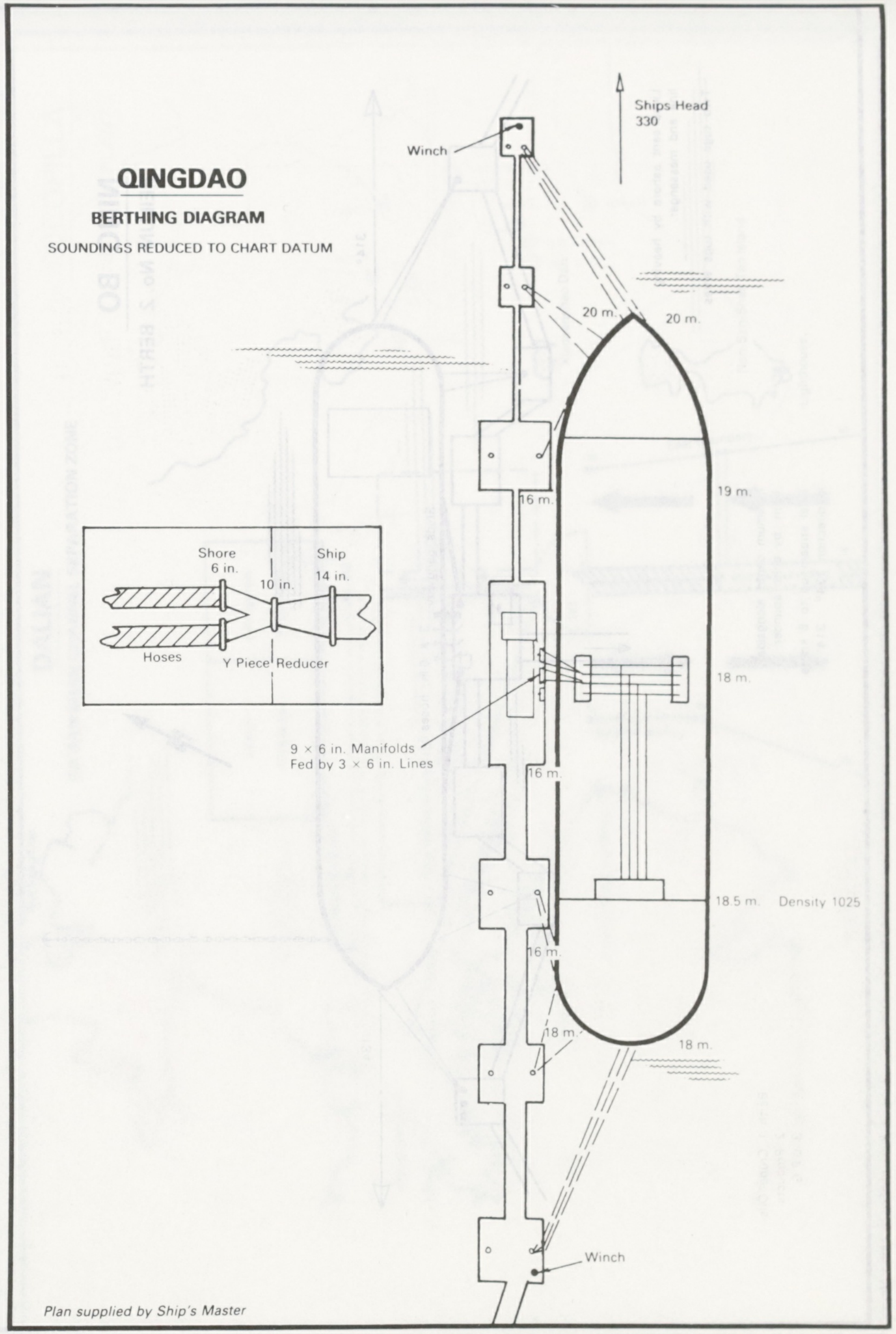
Plan supplied by Ship's Master.



QINGDAO

DEPTHS IN METRES

Pier No. 7
Coal Wharf
Pier No. 4
Pier No. 8
Pier No. 3
Pier No. 5
Pier No. 2
Pier No. 1
Pier No. 5
Pier No. 6
10 m.
Leading Line
10 m.
10 m.
N



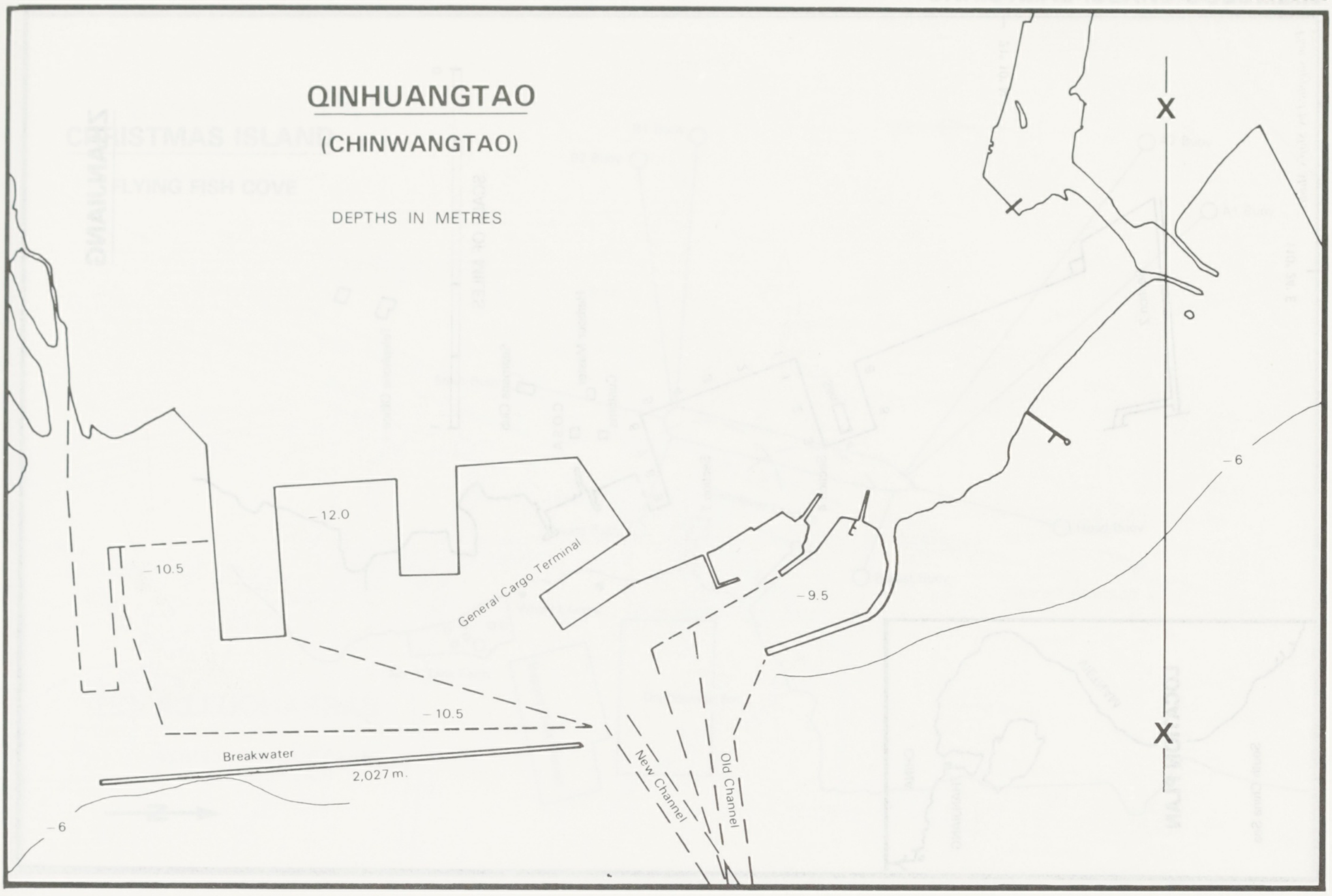
QINGDAO

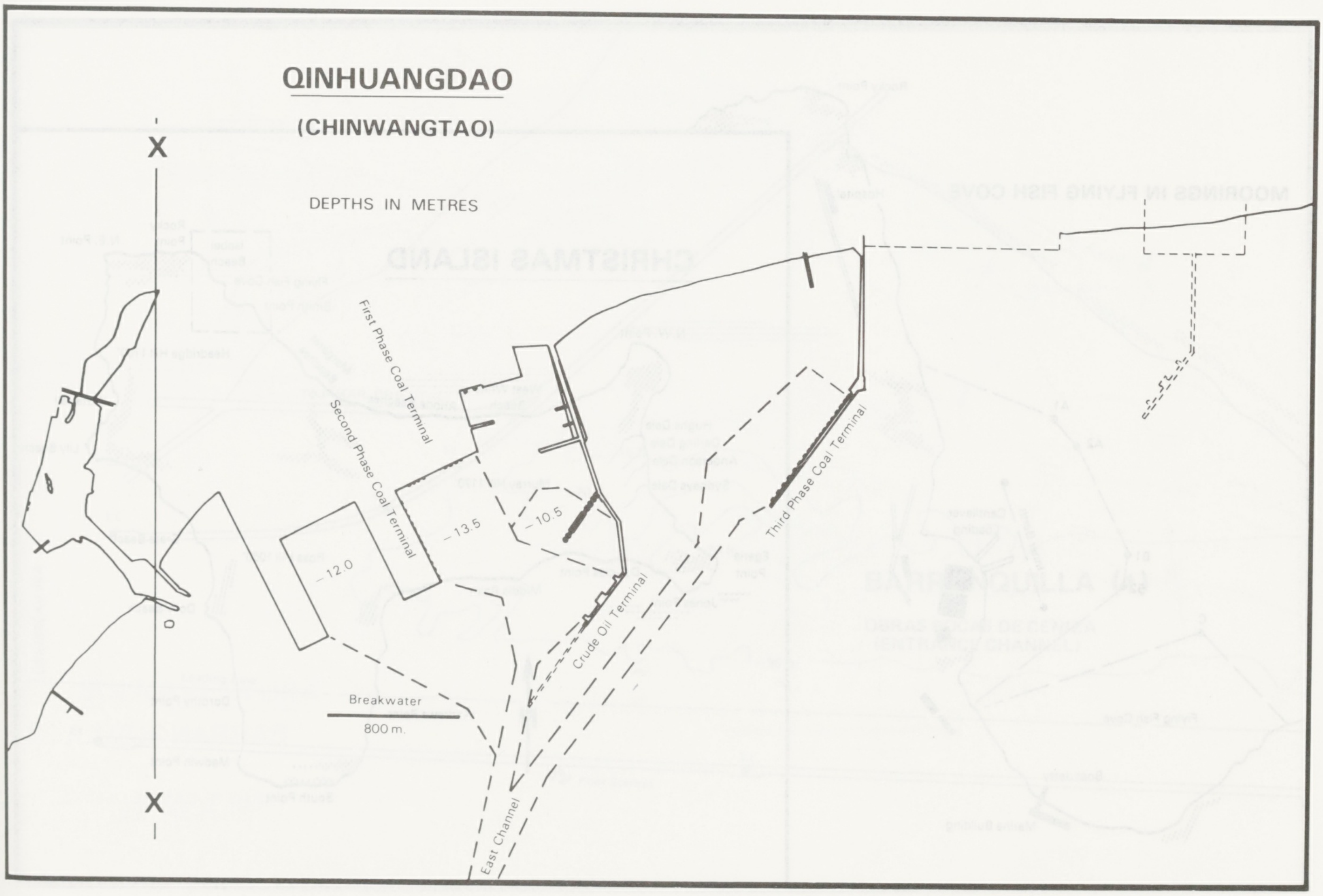
BERTHING DIAGRAM

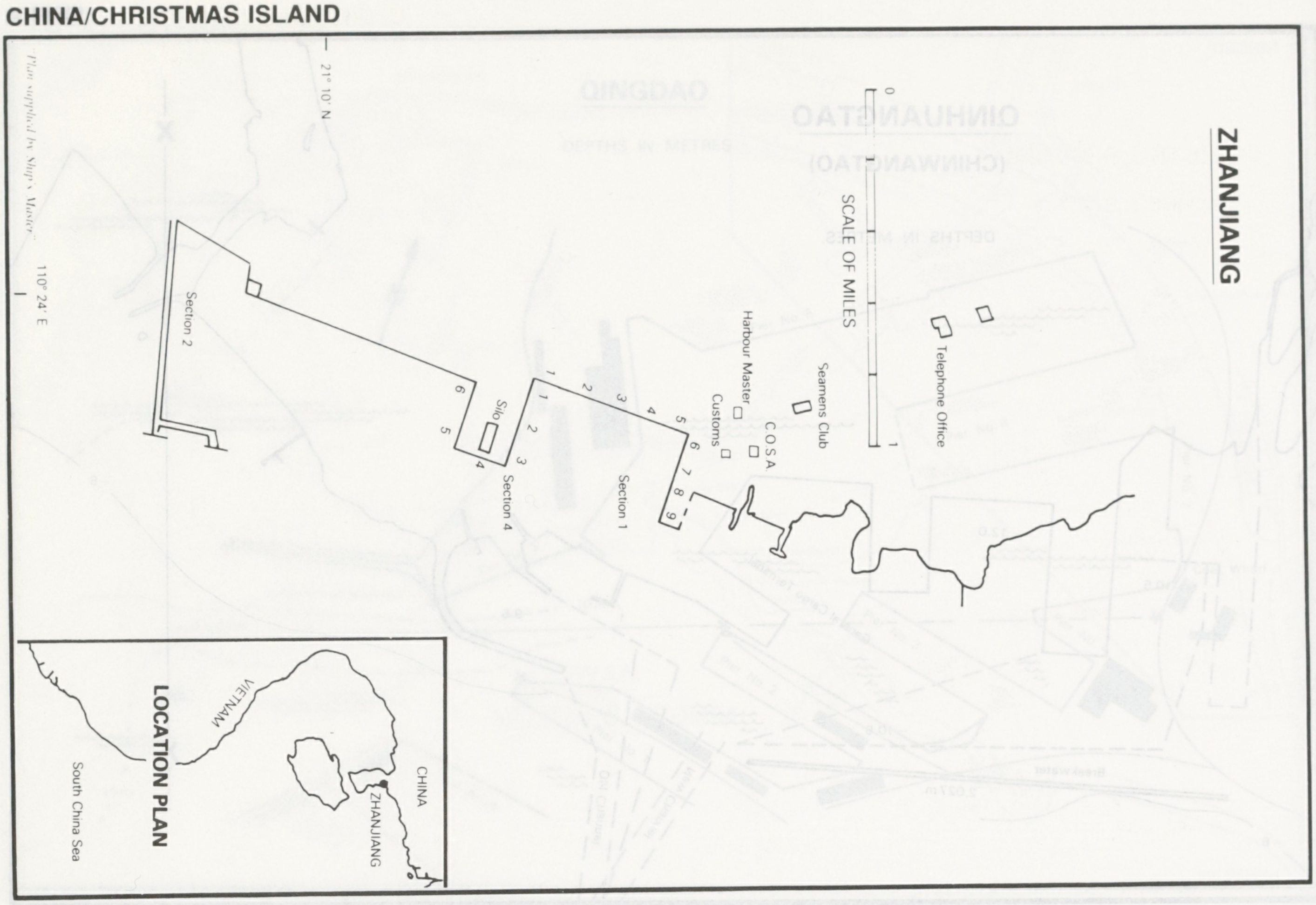
SOUNDINGS REDUCED TO CHART DATUM

Ships Head 330
Winch
20 m.
20 m.
16 m.
19 m.
Shore 6 in.
Ship 14 in.
10 in.
Hoses
Y Piece Reducer
18 m.
9 × 6 in. Manifolds Fed by 3 × 6 in. Lines
16 m.
18.5 m.
Density 1025
16 m.
18 m.
18 m.
Winch

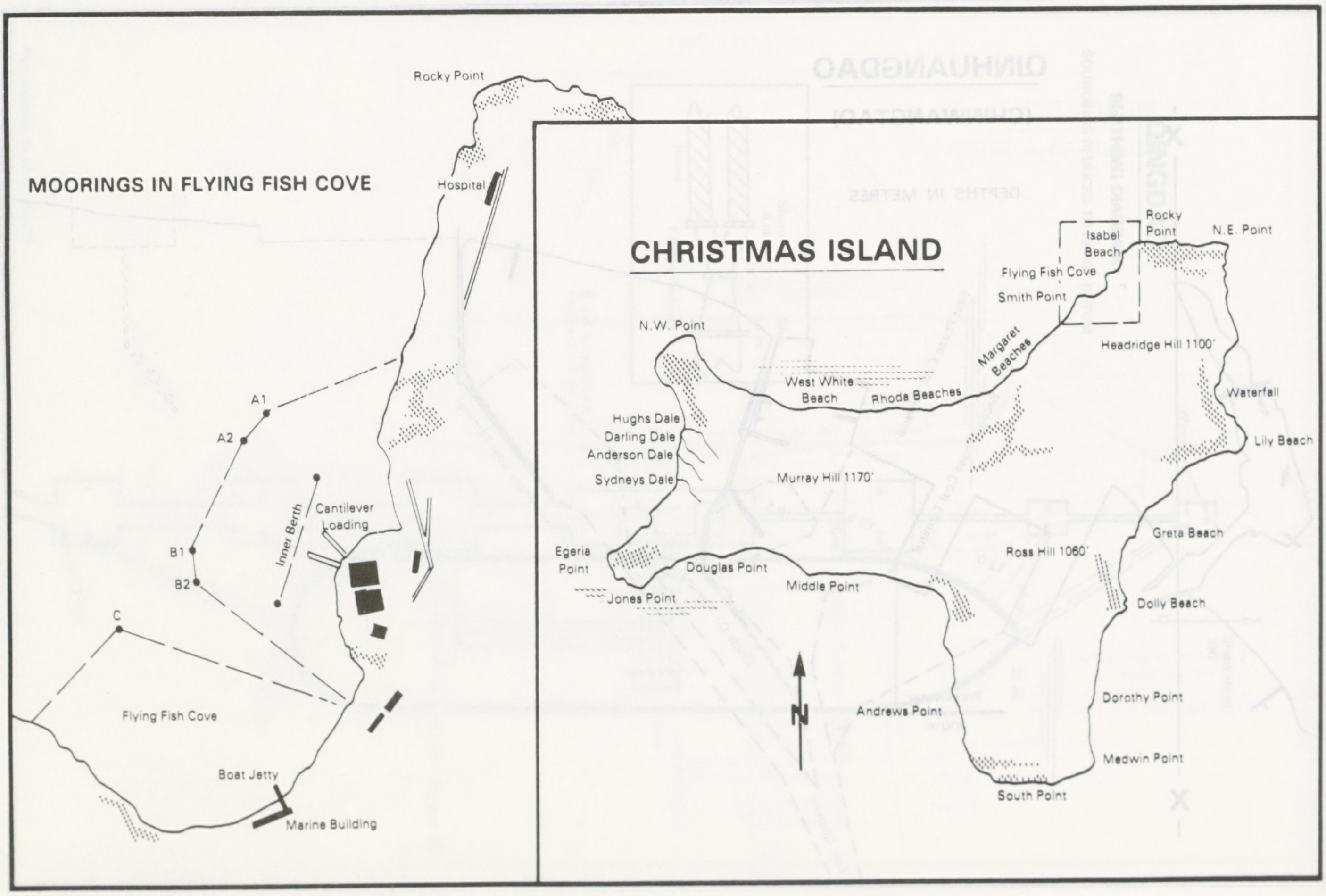
Plan supplied by Ship's Master

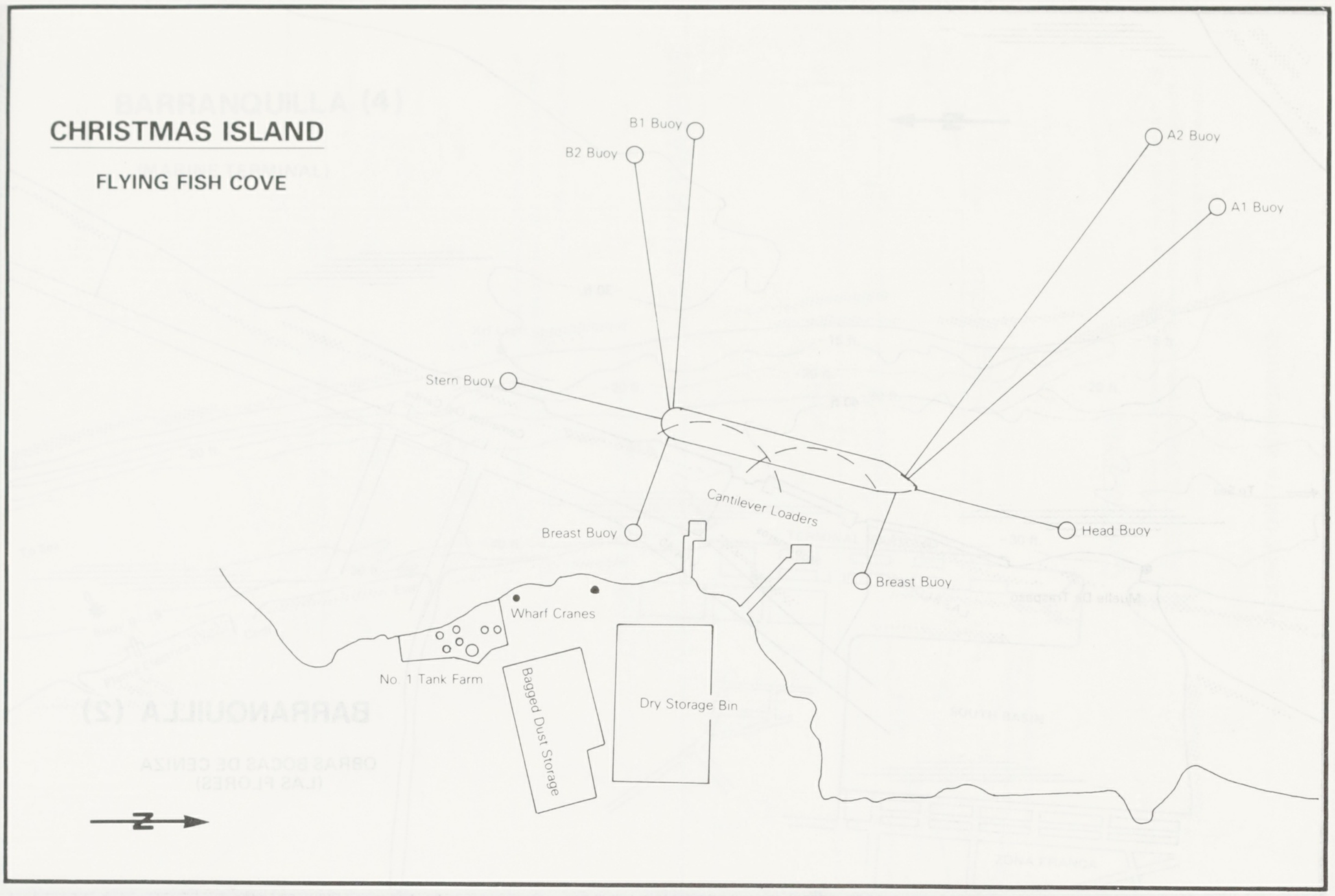

QINHUANGTAO
(CHINWANGTAO)
DEPTHS IN METRES
X
X
−12.0
−10.5
General Cargo Terminal
−9.5
−6
−10.5
Breakwater
2,027 m.
−6
New Channel
Old Channel

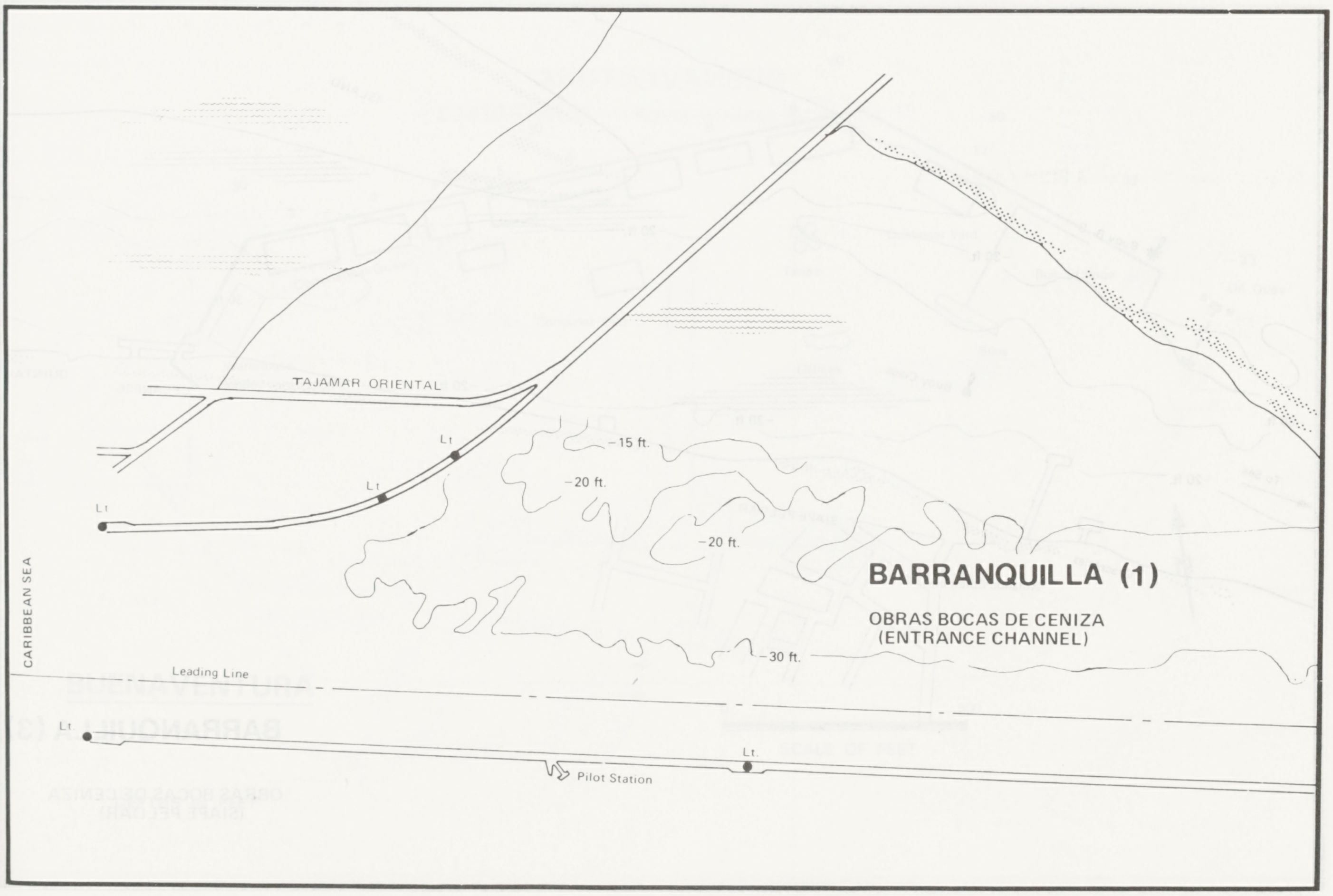

QINHUANGDAO
(CHINWANGTAO)
DEPTHS IN METRES
X
First Phase Coal Terminal
Second Phase Coal Terminal
−13.5
−10.5
−12.0
Third Phase Coal Terminal
Crude Oil Terminal
Breakwater
800 m.
X
East Channel

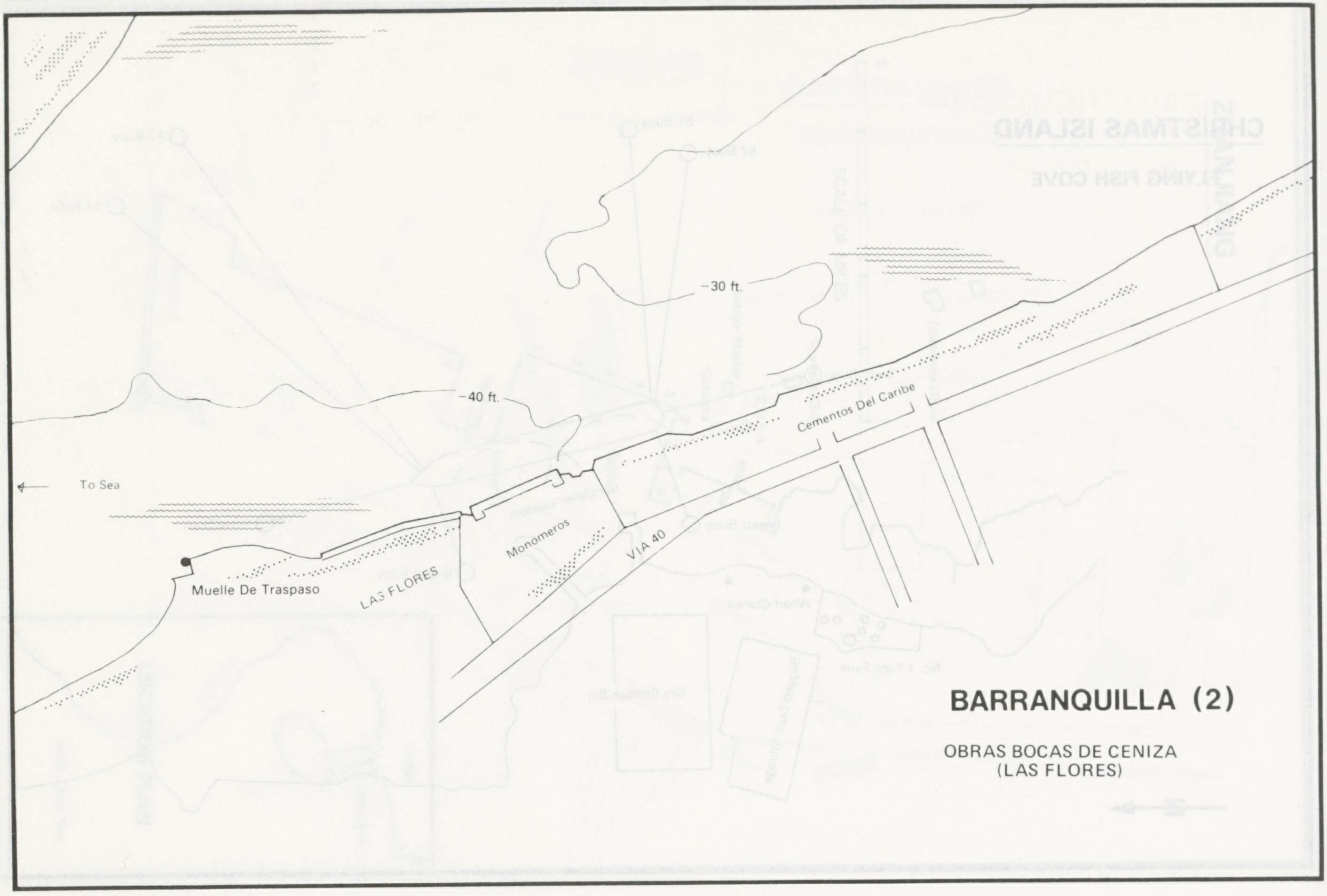

ZHANJIANG
SCALE OF MILES
0
1
21° 10' N
110° 24' E
Telephone Office
Seamens Club
Harbour Master
Customs
C O S A
Silo
Section 1
Section 2
Section 4
1
2
3
4
5
6
7
8
9
1
2
3
4
5
6
LOCATION PLAN
VIETNAM
CHINA
ZHANJIANG
South China Sea

Plan supplied by Ship's Master


MOORINGS IN FLYING FISH COVE
Rocky Point
Hospital
A1
A2
Inner Berth
Cantilever Loading
B1
B2
C
Flying Fish Cove
Boat Jetty
Marine Building
CHRISTMAS ISLAND
Rocky Point
N.E. Point
Isabel Beach
Flying Fish Cove
Smith Point
N.W. Point
Margaret Beaches
Headridge Hill 1100'
West White Beach
Rhoda Beaches
Waterfall
Hughs Dale
Darling Dale
Anderson Dale
Sydneys Dale
Murray Hill 1170'
Lily Beach
Egeria Point
Douglas Point
Jones Point
Middle Point
Ross Hill 1060'
Greta Beach
Dolly Beach
N
Andrews Point
Dorothy Point
Medwin Point
South Point

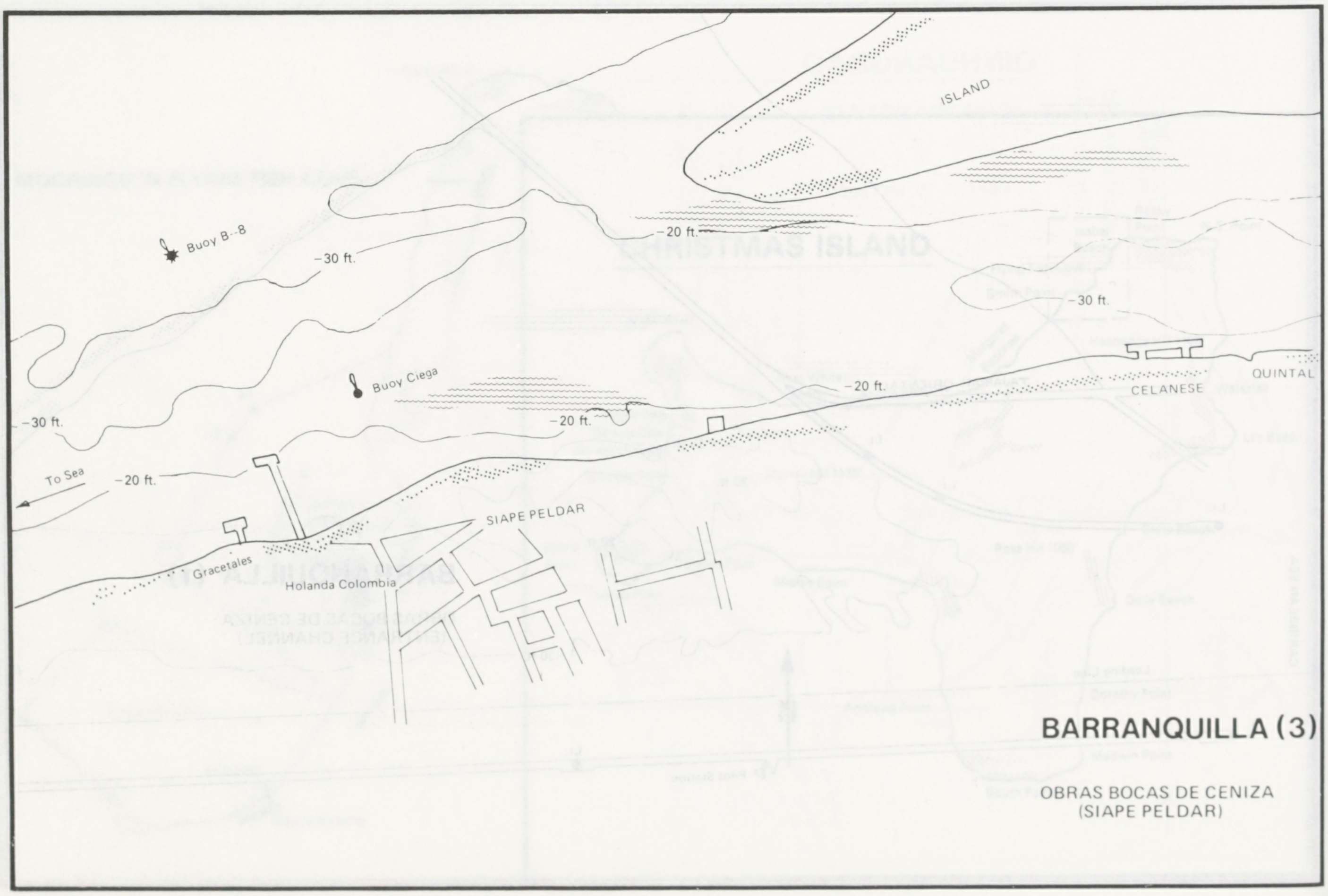

CHRISTMAS ISLAND
FLYING FISH COVE
B1 Buoy
B2 Buoy
A2 Buoy
A1 Buoy
Stern Buoy
Cantilever Loaders
Breast Buoy
Head Buoy
Breast Buoy
Wharf Cranes
No. 1 Tank Farm
Bagged Dust Storage
Dry Storage Bin
N


TAJAMAR ORIENTAL
Lt
Lt
Lt
–15 ft.
–20 ft.
–20 ft.
BARRANQUILLA (1)
OBRAS BOCAS DE CENIZA
(ENTRANCE CHANNEL)
–30 ft.
CARIBBEAN SEA
Leading Line
Lt
Pilot Station
Lt.


-30 ft.
-40 ft.
To Sea
Cementos Del Caribe
Monomeros
VIA 40
LAS FLORES
Muelle De Traspaso

BARRANQUILLA (2)

OBRAS BOCAS DE CENIZA
(LAS FLORES)

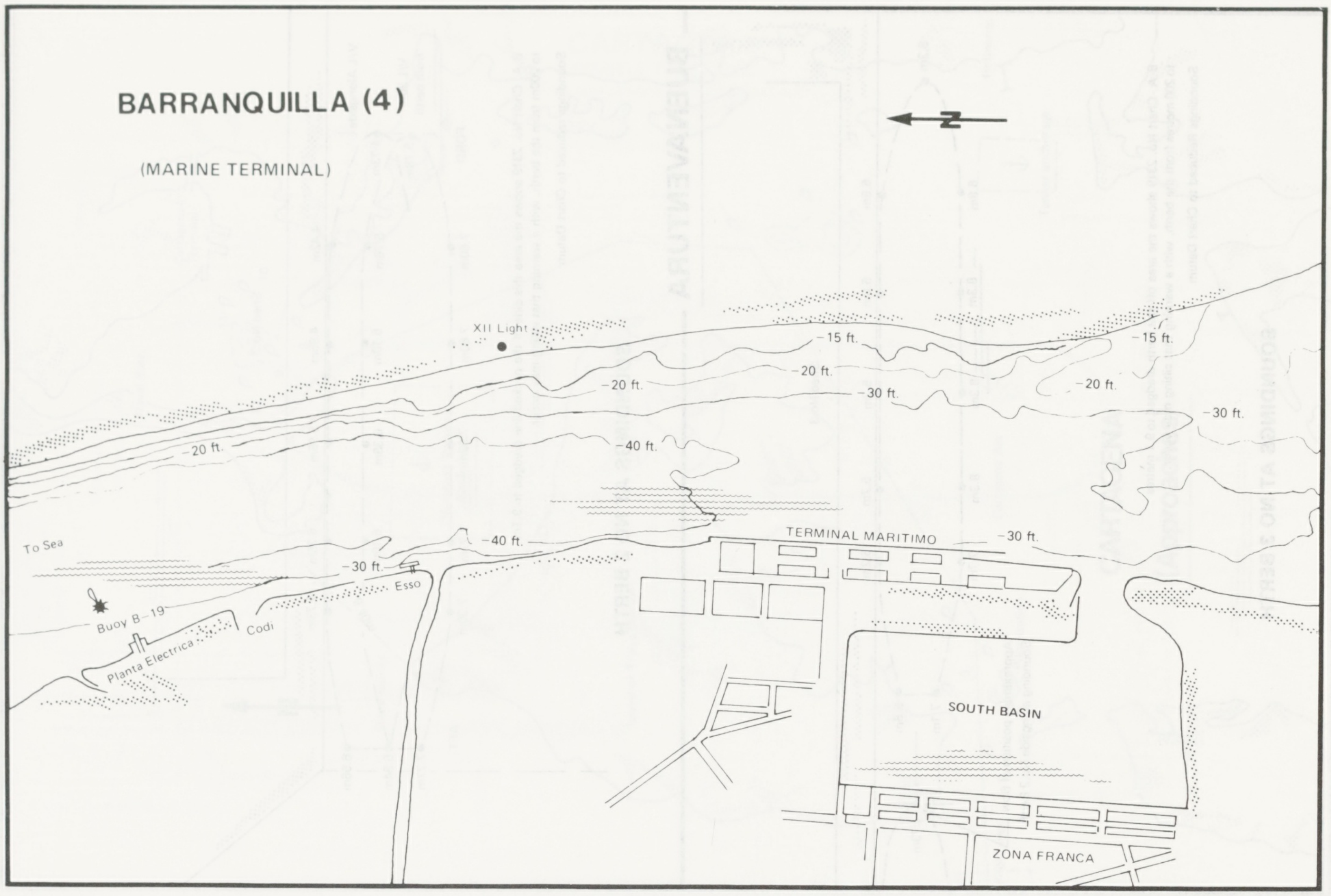

ISLAND
Buoy B-8
-30 ft.
-20 ft.
-30 ft.
Buoy Ciega
-20 ft.
-20 ft.
-30 ft.
QUINTAL
CELANESE
To Sea
-20 ft.
SIAPE PELDAR
Gracetales
Holanda Colombia

BARRANQUILLA (3)

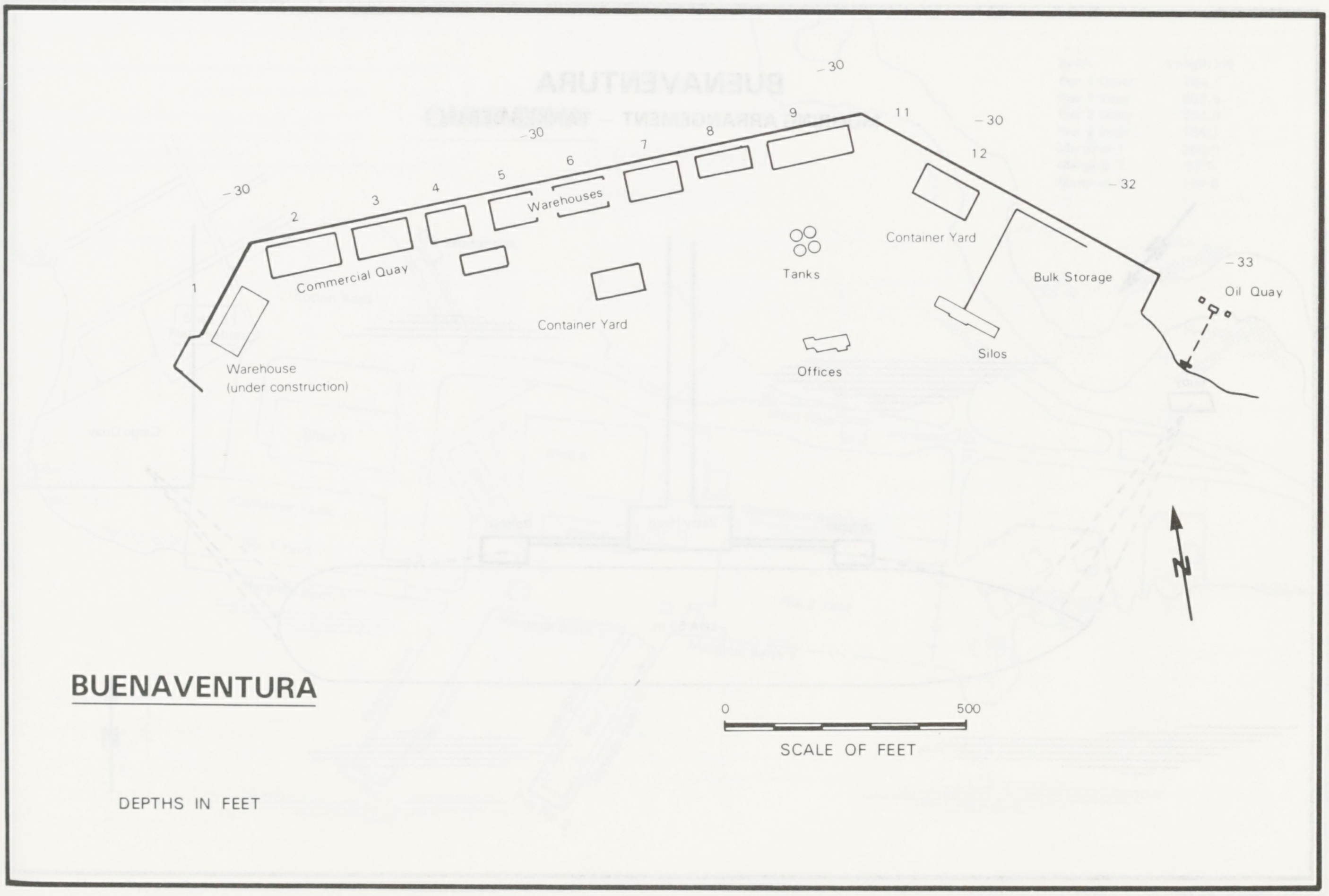
OBRAS BOCAS DE CENIZA
(SIAPE PELDAR)

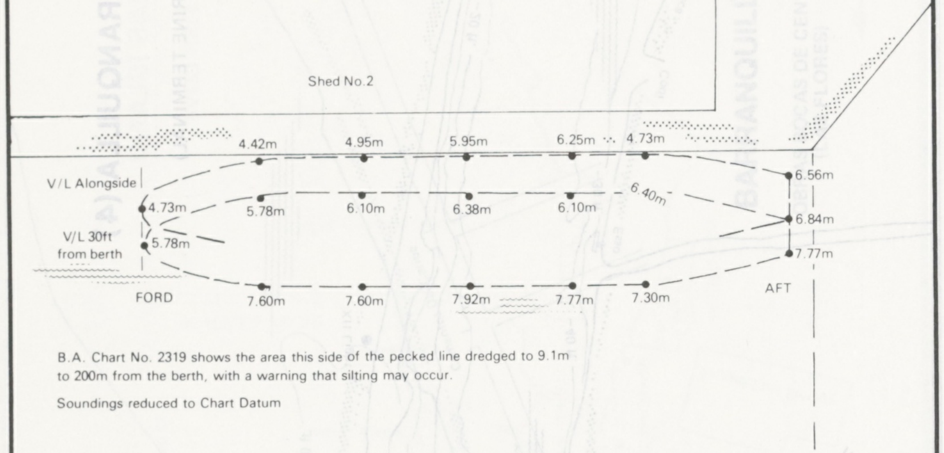
BARRANQUILLA (4)

(MARINE TERMINAL)


N
XII Light
-15 ft.
-15 ft.
-20 ft.
-20 ft.
-20 ft.
-20 ft.
-30 ft.
-30 ft.
-40 ft.
To Sea
-40 ft.
-30 ft.
Esso
TERMINAL MARITIMO
-30 ft.
Buoy B-19
Codi
Planta Electrica
SOUTH BASIN
ZONA FRANCA

BUENAVENTURA


-30
9
11
-30
-30
7
8
12
6
-30
5
4
3
Warehouses
-32
2
Container Yard
Tanks
Commercial Quay
1
Bulk Storage
-33
Oil Quay
Container Yard
Silos
Warehouse
(under construction)
Offices
N
0
500
SCALE OF FEET
DEPTHS IN FEET

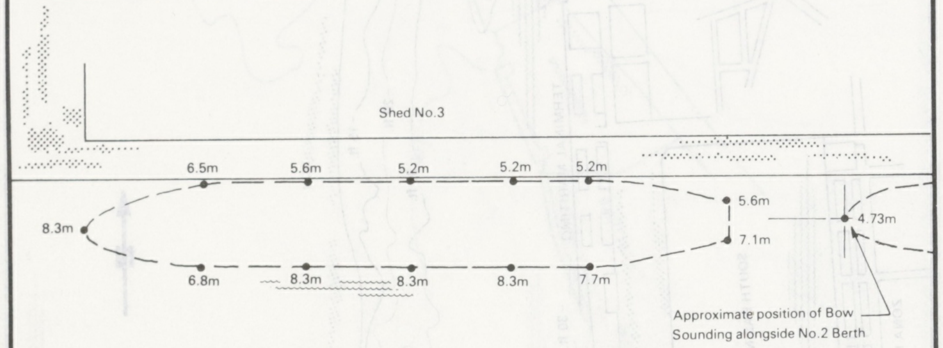

Shed No.2
4.42m
4.95m
5.95m
6.25m
4.73m
V/L Alongside
4.73m
5.78m
6.10m
6.38m
6.10m
6.40m
6.56m
6.84m
V/L 30ft from berth
5.78m
7.77m
FORD
7.60m
7.60m
7.92m
7.77m
7.30m
AFT

B.A. Chart No. 2319 shows the area this side of the pecked line dredged to 9.1m to 200m from the berth, with a warning that silting may occur.

Soundings reduced to Chart Datum

SOUNDINGS AT NO 2 BERTH

BUENAVENTURA


Shed No.3
6.5m
5.6m
5.2m
5.2m
5.2m
5.6m
8.3m
7.1m
4.73m
6.8m
8.3m
8.3m
8.3m
7.7m
Approximate position of Bow Sounding alongside No.2 Berth

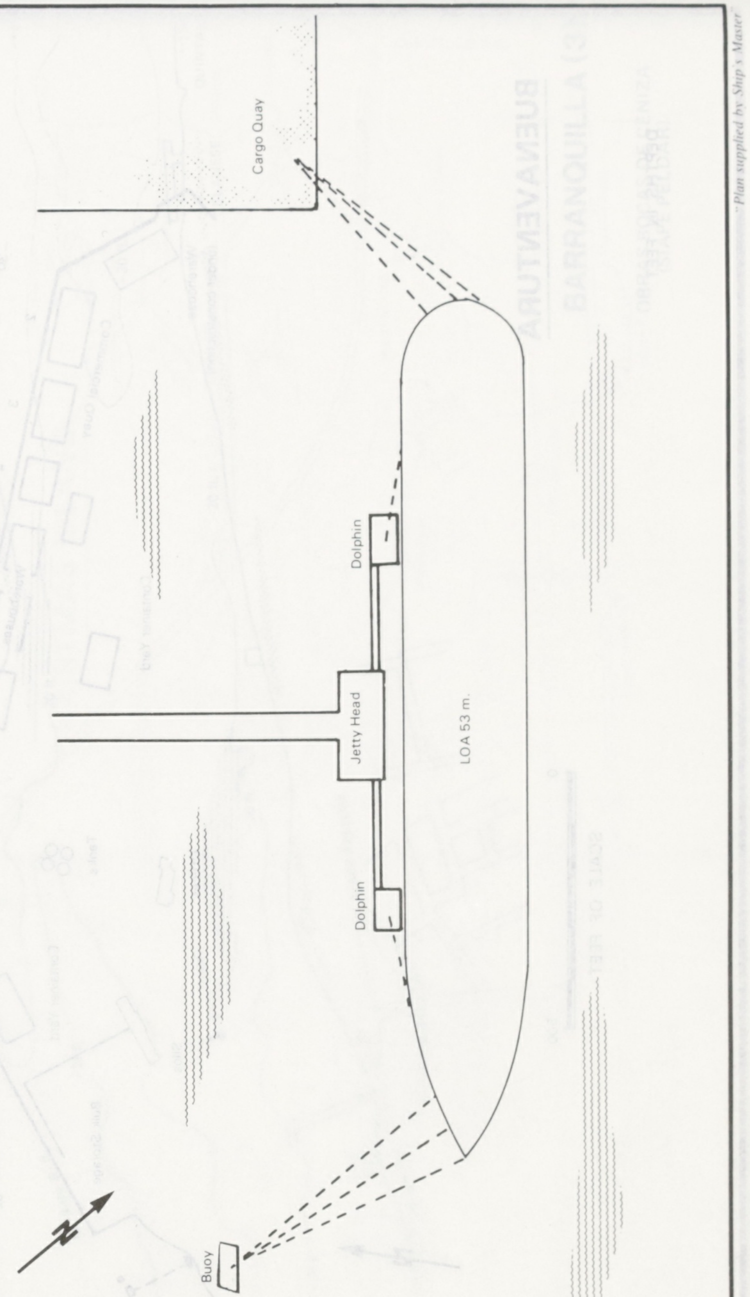
B.A. Chart No. 2319 shows the area off the berth dredged to 9.1 metres to 200 metres from the berth, with a warning that silting may occur.

Soundings Reduced to Chart Datum

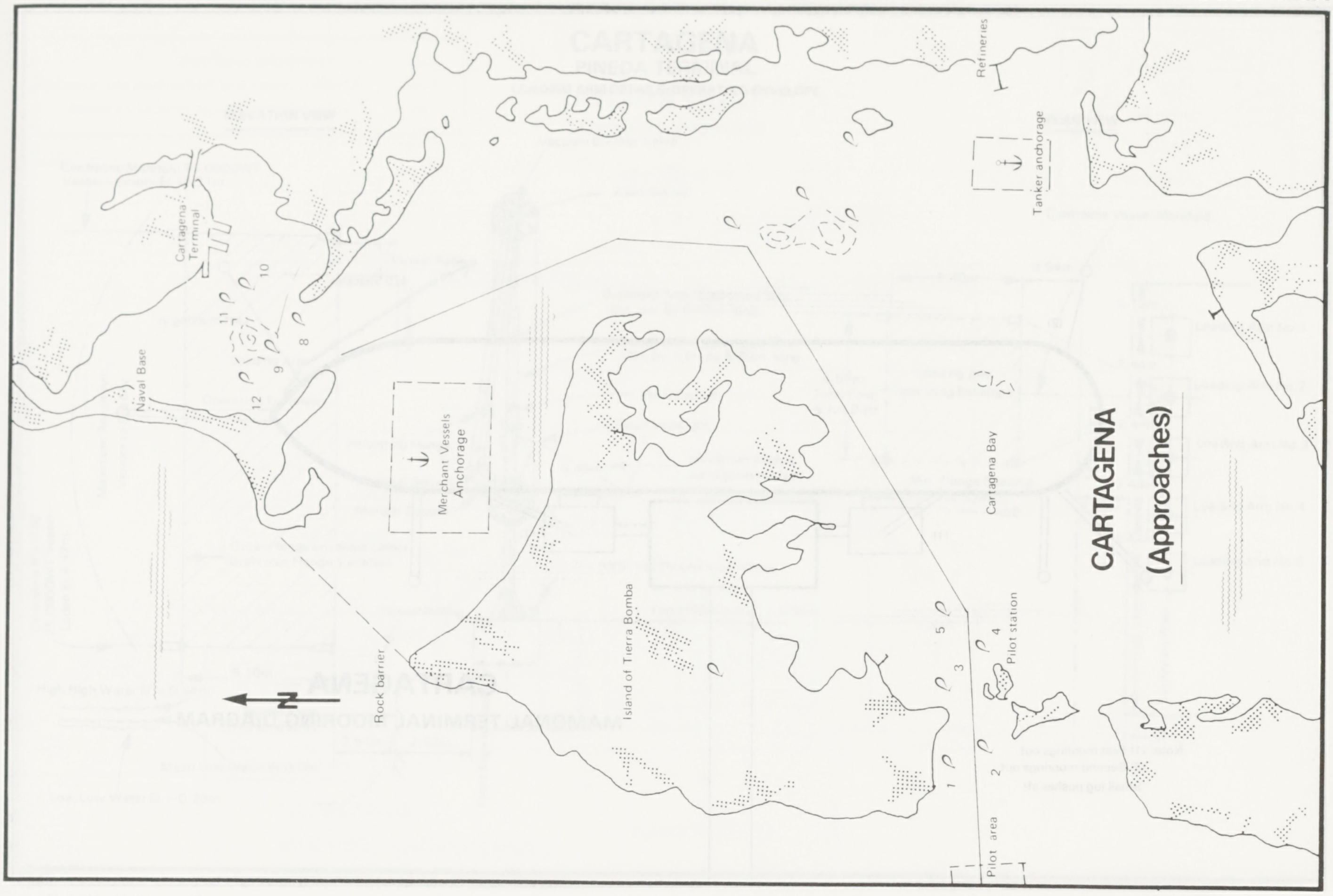
SOUNDINGS AT NO 3 BERTH

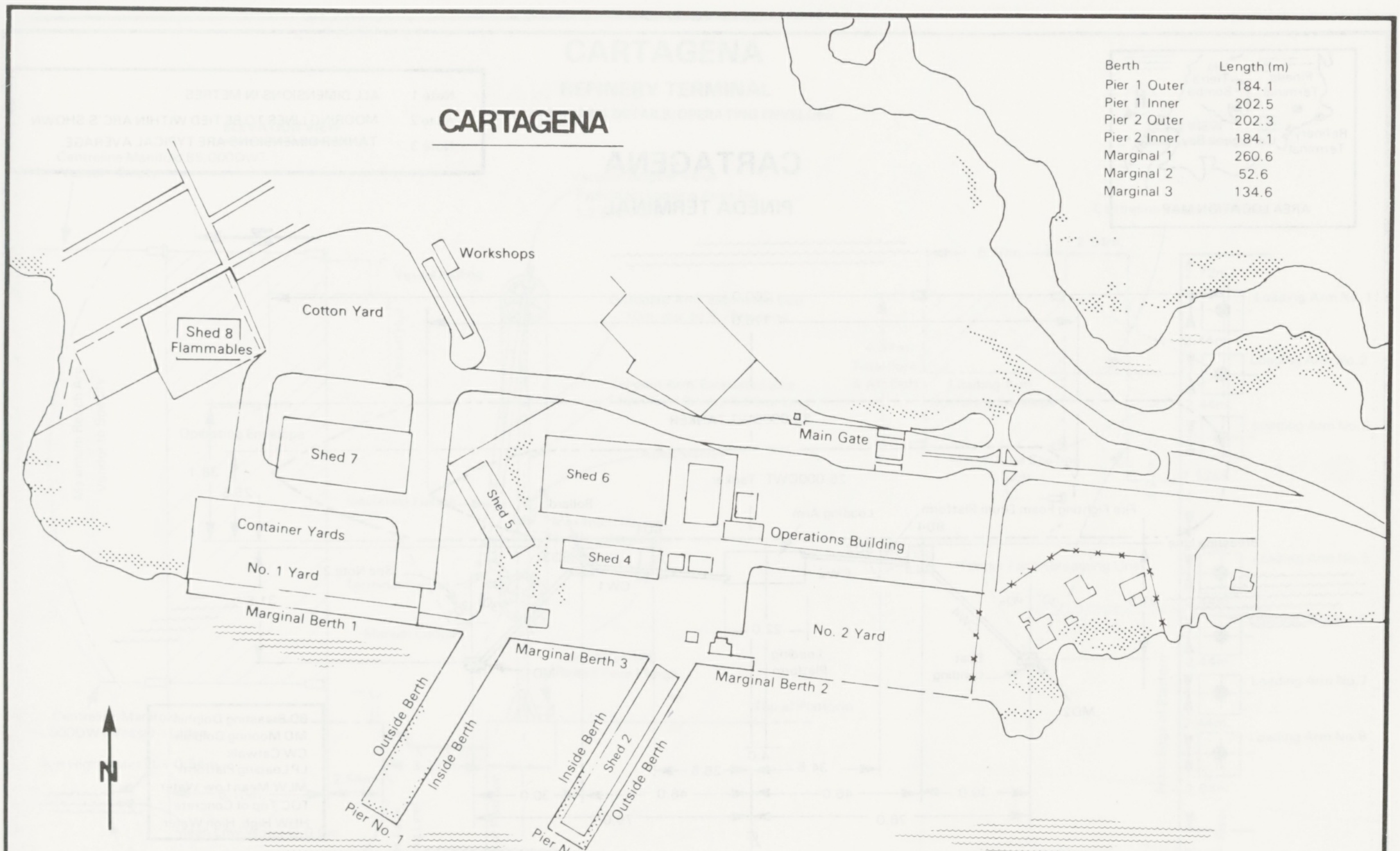
BUENAVENTURA

MOORING ARRANGEMENT — TANKER BERTH

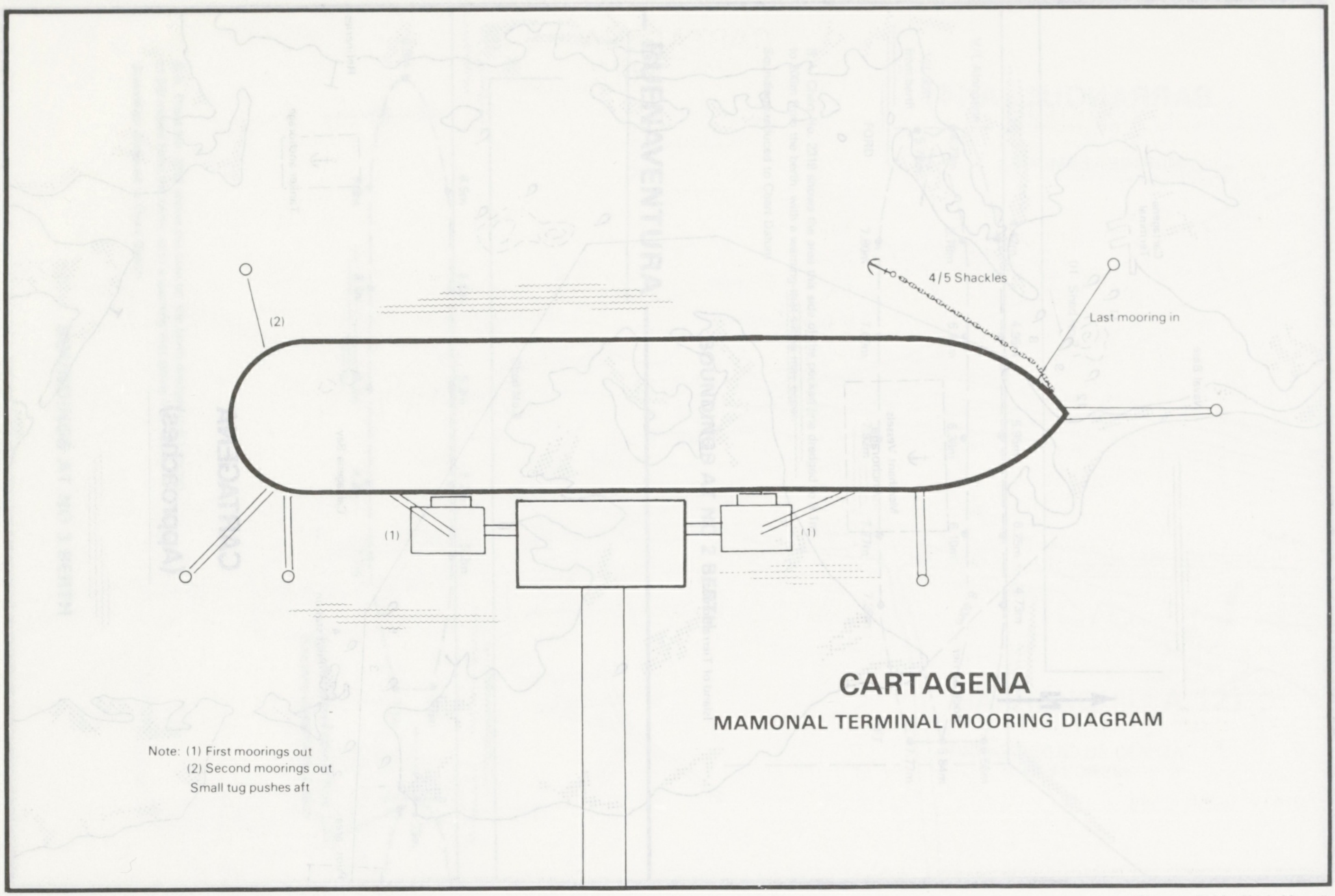

Cargo Quay
Dolphin
Jetty Head
LOA 53 m.
Dolphin
Buoy

Plan supplied by Ship's Master


CARTAGENA
(Approaches)
Refineries
Tanker anchorage
Cartagena Terminal
Naval Base
Merchant Vessels Anchorage
Rock barrier
Island of Tierra Bomba
Cartagena Bay
Pilot station
Pilot area
1
2
3
4
5
8
9
10
11
12
N


CARTAGENA
Workshops
Cotton Yard
Shed 8 Flammables
Shed 7
Shed 6
Shed 5
Shed 4
Main Gate
Operations Building
Container Yards
No. 1 Yard
No. 2 Yard
Marginal Berth 1
Marginal Berth 2
Marginal Berth 3
Outside Berth
Inside Berth
Pier No. 1
Inside Berth
Shed 2
Outside Berth
Pier No. 2
N

Berth	Length (m)
Pier 1 Outer	184.1
Pier 1 Inner	202.5
Pier 2 Outer	202.3
Pier 2 Inner	184.1
Marginal 1	260.6
Marginal 2	52.6
Marginal 3	134.6



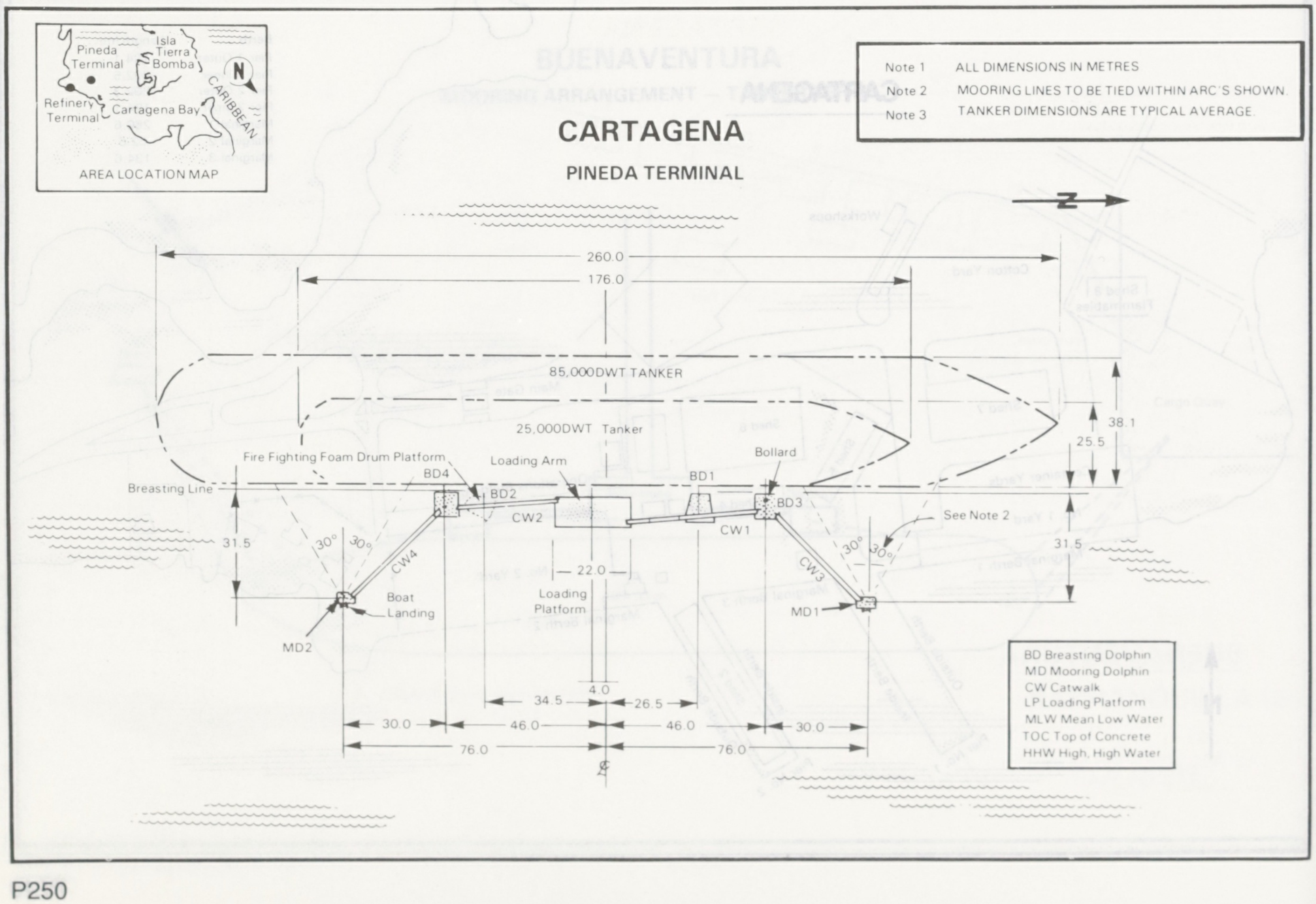
CARTAGENA

MAMONAL TERMINAL MOORING DIAGRAM

Note: (1) First moorings out
(2) Second moorings out
Small tug pushes aft

4/5 Shackles
Last mooring in
(2)
(1)
(1)

"Plan supplied by Ship's Master"



CARTAGENA

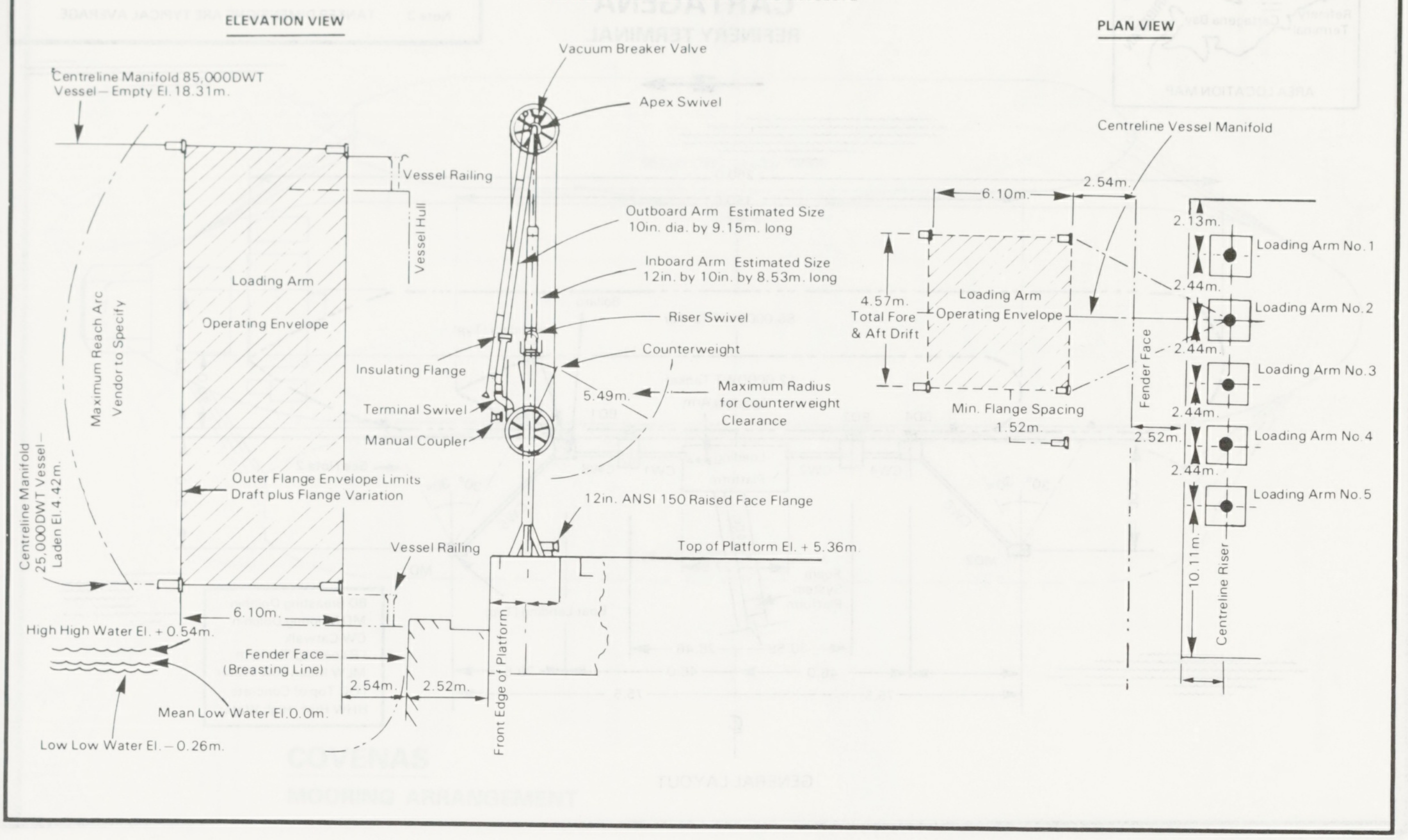
PINEDA TERMINAL

Note 1	ALL DIMENSIONS IN METRES
Note 2	MOORING LINES TO BE TIED WITHIN ARC'S SHOWN.
Note 3	TANKER DIMENSIONS ARE TYPICAL AVERAGE.

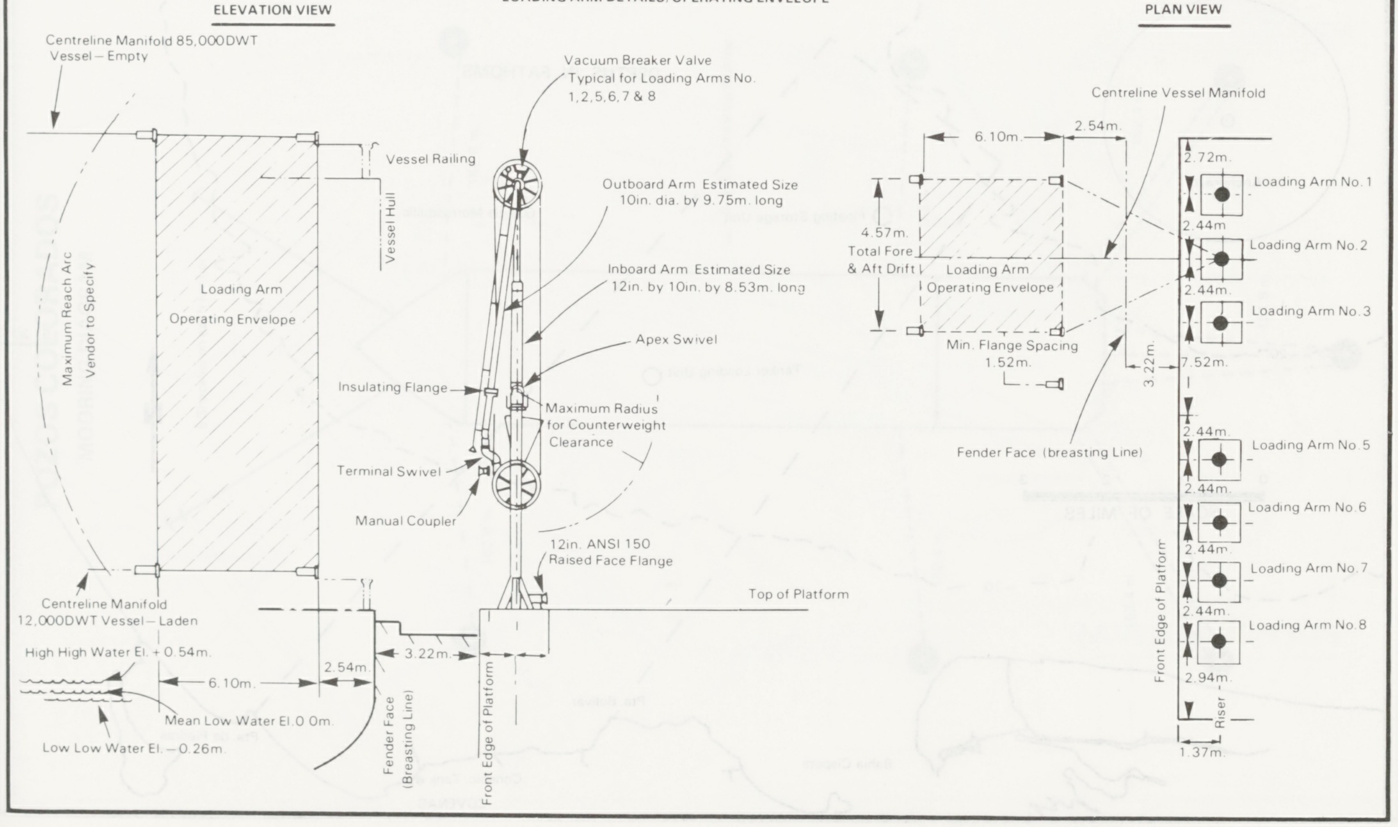
BD Breasting Dolphin
MD Mooring Dolphin
CW Catwalk
LP Loading Platform
MLW Mean Low Water
TOC Top of Concrete
HHW High, High Water

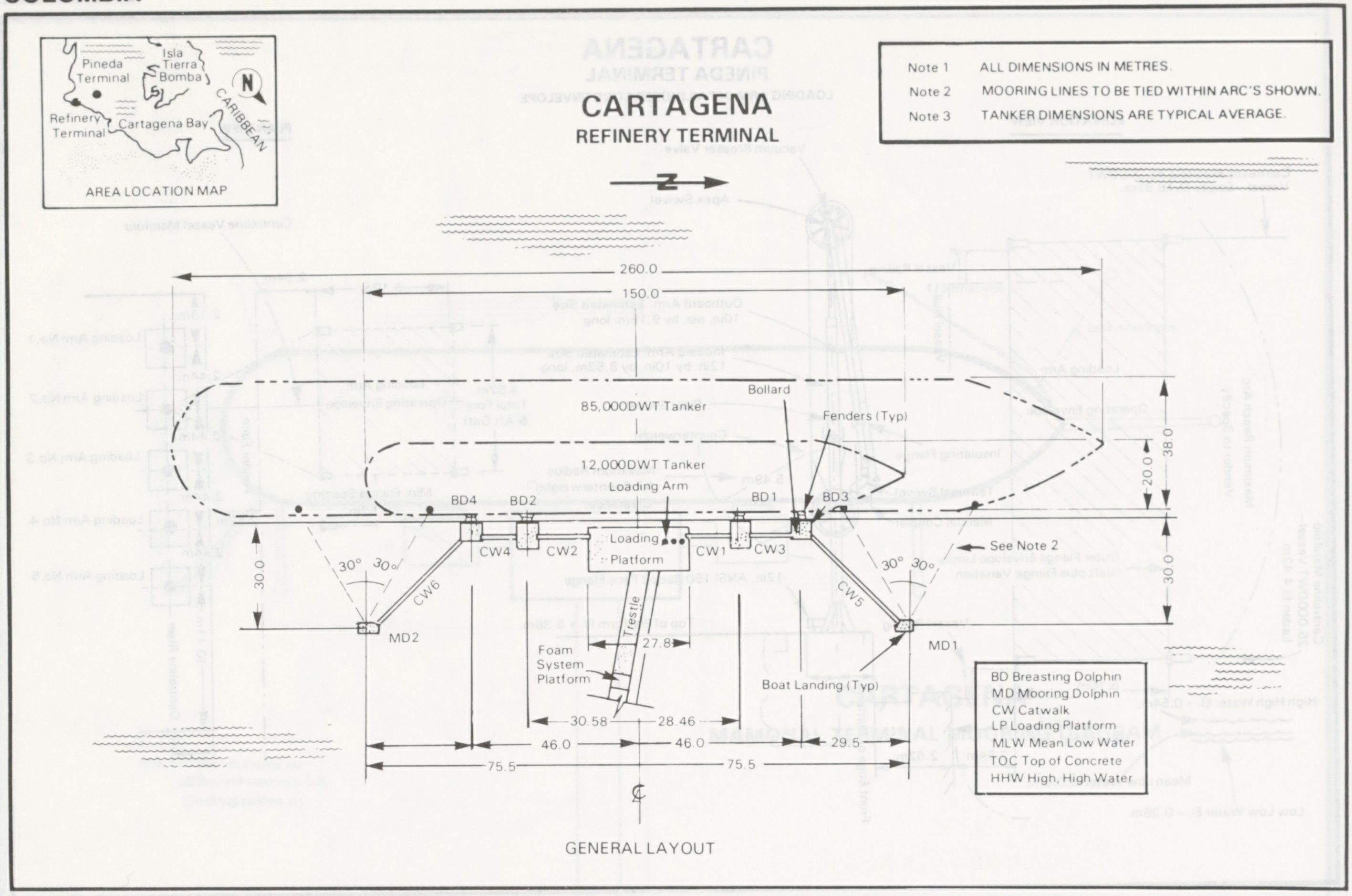
Pineda Terminal
Isla Tierra Bomba
N
Refinery Terminal
Cartagena Bay
CARIBBEAN
AREA LOCATION MAP
N
260.0
176.0
85,000DWT TANKER
25,000DWT Tanker
38.1
25.5
Fire Fighting Foam Drum Platform
BD4
Loading Arm
BD1
Bollard
Breasting Line
BD2
CW2
BD3
CW1
See Note 2
31.5
30°
30°
CW4
30°
30°
CW3
31.5
22.0
Boat Landing
Loading Platform
MD1
MD2
34.5
4.0
26.5
30.0
46.0
46.0
30.0
76.0
76.0

CARTAGENA
PINEDA TERMINAL
LOADING ARM DETAILS/OPERATING ENVELOPE


ELEVATION VIEW
Centreline Manifold 85,000DWT Vessel – Empty El. 18.31m.
Vessel Railing
Vessel Hull
Loading Arm
Operating Envelope
Maximum Reach Arc Vendor to Specify
Centreline Manifold 25,000DWT Vessel– Laden El. 4.42m.
Outer Flange Envelope Limits Draft plus Flange Variation
Vessel Railing
6.10m.
High High Water El. + 0.54m.
Fender Face (Breasting Line)
2.54m.
2.52m.
Mean Low Water El. 0.0m.
Low Low Water El. – 0.26m.
Front Edge of Platform
Vacuum Breaker Valve
Apex Swivel
Outboard Arm Estimated Size 10in. dia. by 9.15m. long
Inboard Arm Estimated Size 12in. by 10in. by 8.53m. long
Riser Swivel
Insulating Flange
Counterweight
Terminal Swivel
5.49m.
Maximum Radius for Counterweight Clearance
Manual Coupler
12in. ANSI 150 Raised Face Flange
Top of Platform El. + 5.36m.
PLAN VIEW
Centreline Vessel Manifold
6.10m.
2.54m.
2.13m.
Loading Arm No. 1
4.57m. Total Fore & Aft Drift
Loading Arm Operating Envelope
2.44m.
Loading Arm No. 2
2.44m.
Loading Arm No. 3
Fender Face
Min. Flange Spacing 1.52m.
2.44m.
2.52m.
Loading Arm No. 4
2.44m.
Loading Arm No. 5
10.11m.
Centreline Riser

CARTAGENA
REFINERY TERMINAL
LOADING ARM DETAILS/OPERATING ENVELOPE

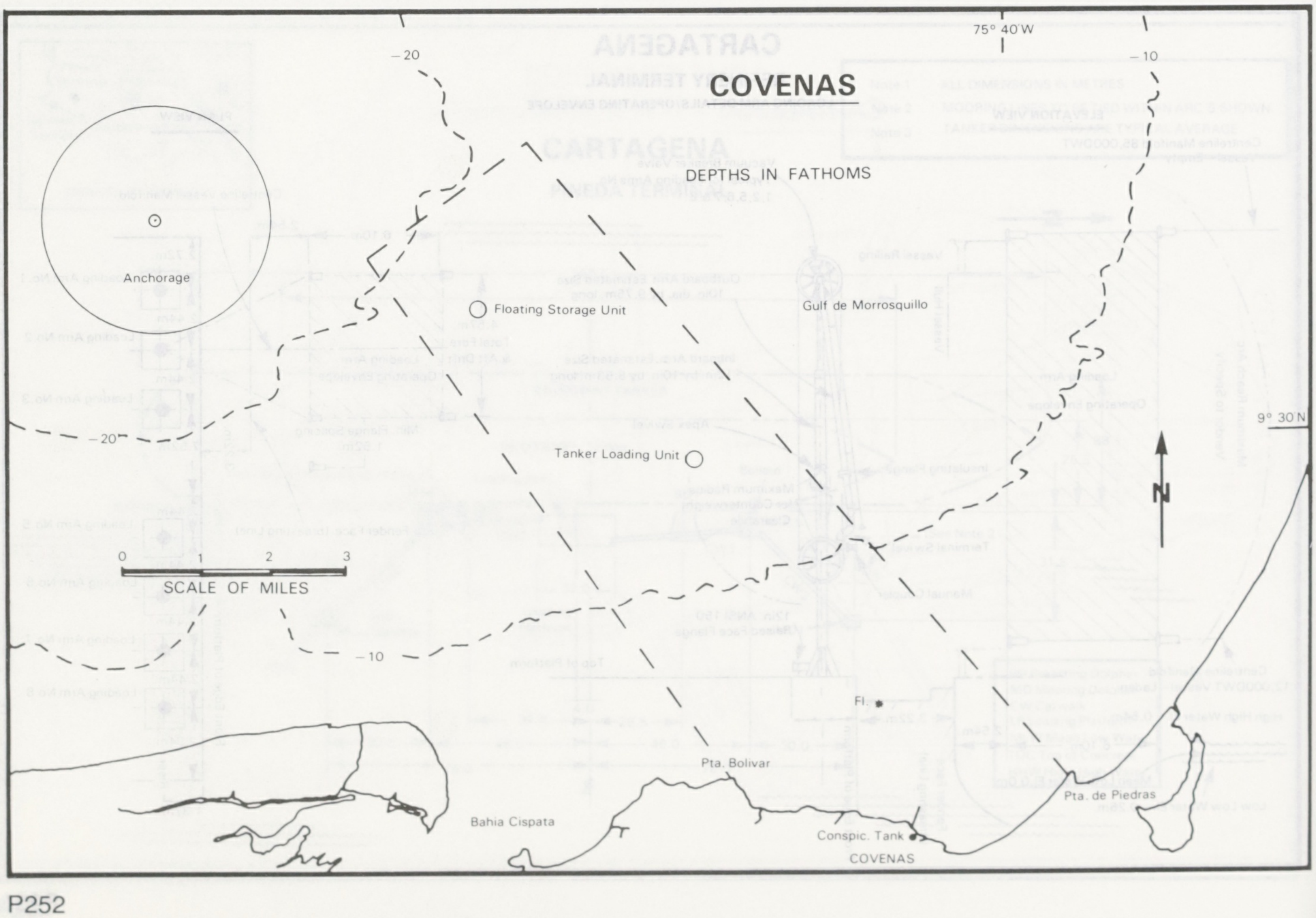

ELEVATION VIEW
Centreline Manifold 85,000DWT Vessel – Empty
Vessel Railing
Vessel Hull
Loading Arm
Operating Envelope
Maximum Reach Arc Vendor to Specify
Centreline Manifold 12,000DWT Vessel – Laden
High High Water El. + 0.54m.
6.10m.
2.54m.
3.22m.
Mean Low Water El. 0.0m.
Low Low Water El. – 0.26m.
Fender Face (Breasting Line)
Front Edge of Platform
Vacuum Breaker Valve Typical for Loading Arms No. 1,2,5,6,7 & 8
Outboard Arm Estimated Size 10in. dia. by 9.75m. long
Inboard Arm Estimated Size 12in. by 10in. by 8.53m. long
Apex Swivel
Insulating Flange
Maximum Radius for Counterweight Clearance
Terminal Swivel
Manual Coupler
12in. ANSI 150 Raised Face Flange
Top of Platform
PLAN VIEW
Centreline Vessel Manifold
6.10m.
2.54m.
2.72m.
Loading Arm No. 1
4.57m. Total Fore & Aft Drift
Loading Arm Operating Envelope
2.44m.
Loading Arm No. 2
2.44m.
Loading Arm No. 3
Min. Flange Spacing 1.52m.
3.22m.
7.52m.
Fender Face (breasting Line)
2.44m.
Loading Arm No. 5
2.44m.
Loading Arm No. 6
2.44m.
Loading Arm No. 7
2.44m.
Loading Arm No. 8
Front Edge of Platform
2.94m.
Riser
1.37m.

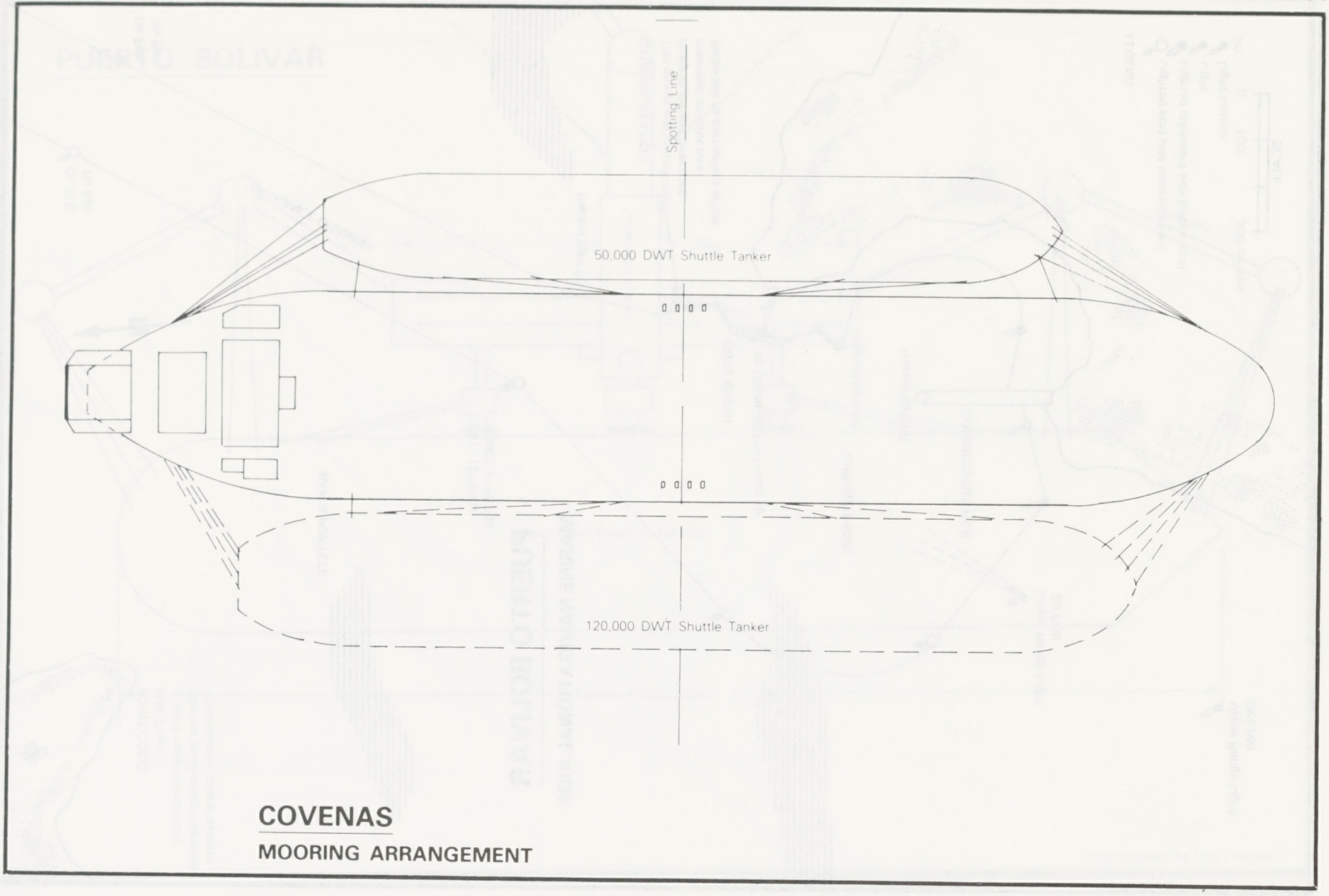

CARTAGENA
REFINERY TERMINAL

Note 1 ALL DIMENSIONS IN METRES.
Note 2 MOORING LINES TO BE TIED WITHIN ARC'S SHOWN.
Note 3 TANKER DIMENSIONS ARE TYPICAL AVERAGE.

BD Breasting Dolphin
MD Mooring Dolphin
CW Catwalk
LP Loading Platform
MLW Mean Low Water
TOC Top of Concrete
HHW High, High Water

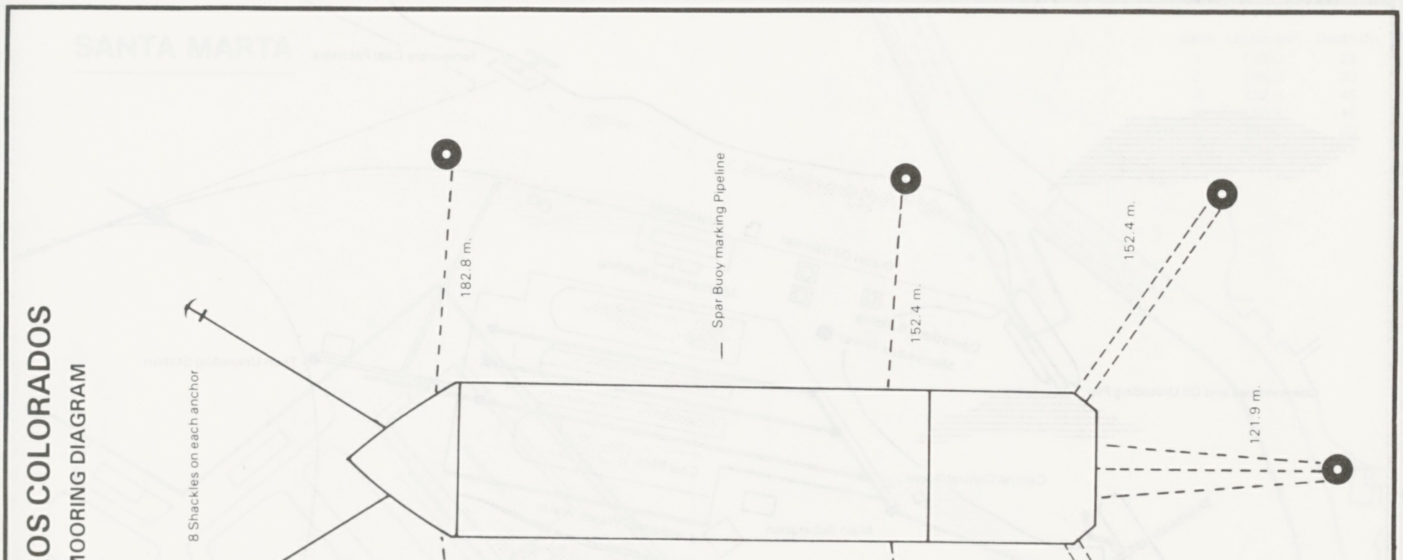
GENERAL LAYOUT
Isla Tierra Bomba
Pineda Terminal
N
CARIBBEAN
Refinery Terminal
Cartagena Bay
AREA LOCATION MAP
N
260.0
150.0
85,000DWT Tanker
Bollard
Fenders (Typ)
12,000DWT Tanker
Loading Arm
BD4
BD2
BD1
BD3
See Note 2
Loading Platform
CW4
CW2
CW1
CW3
30°
30°
CW6
CW5
30.0
20.0
38.0
MD2
MD1
Trestle
27.8
Foam System Platform
Boat Landing (Typ)
30.58
28.46
46.0
46.0
29.5
75.5
75.5
℄


COVENAS
75° 40'W
-20
-10
DEPTHS IN FATHOMS
Anchorage
Floating Storage Unit
Gulf de Morrosquillo
9° 30'N
-20
Tanker Loading Unit
N
0
1
2
3
SCALE OF MILES
-10
Fl.
Pta. Bolivar
Bahia Cispata
Conspic. Tank
COVENAS
Pta. de Piedras


Spotting Line
50,000 DWT Shuttle Tanker
120,000 DWT Shuttle Tanker

COVENAS

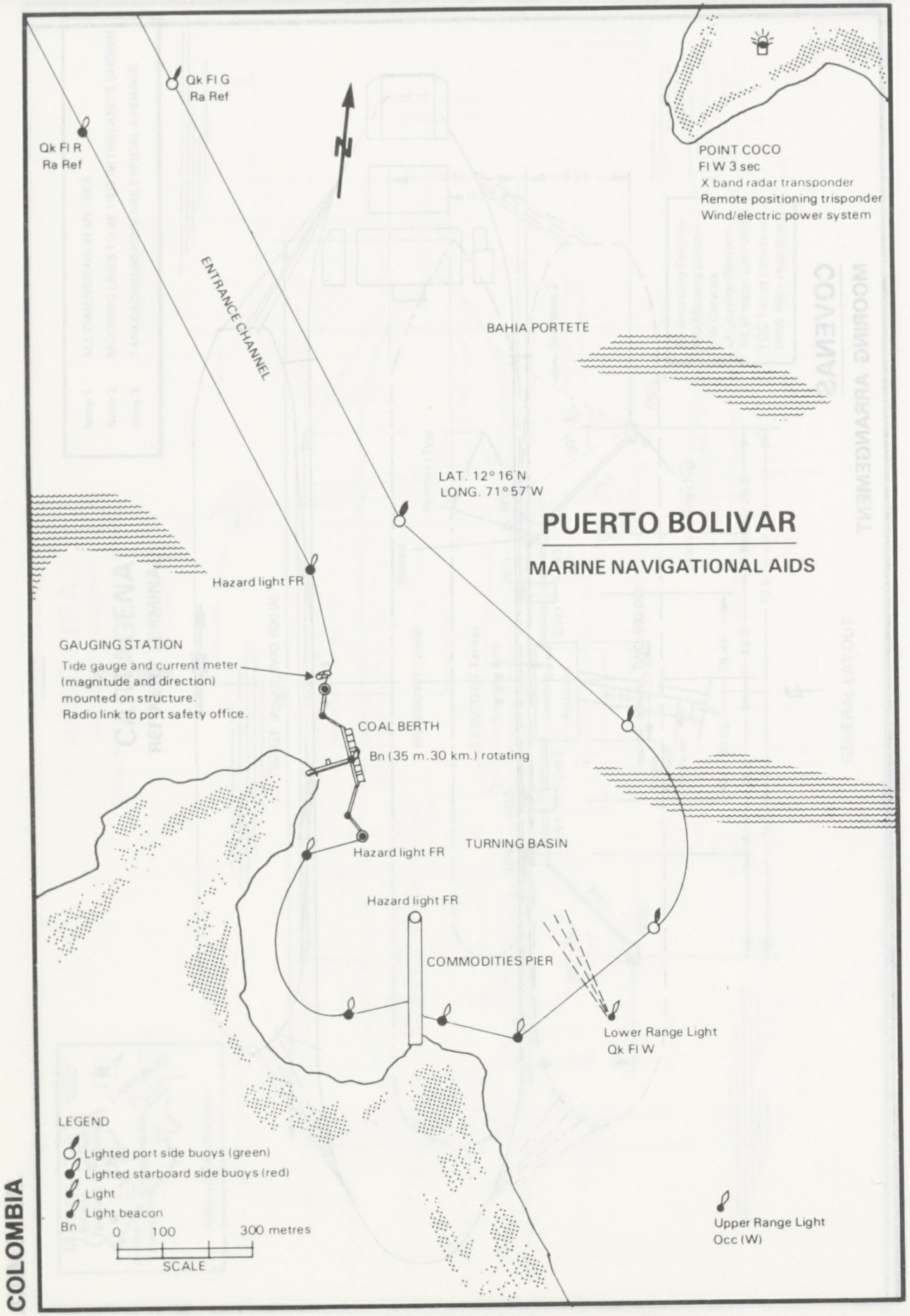
MOORING ARRANGEMENT

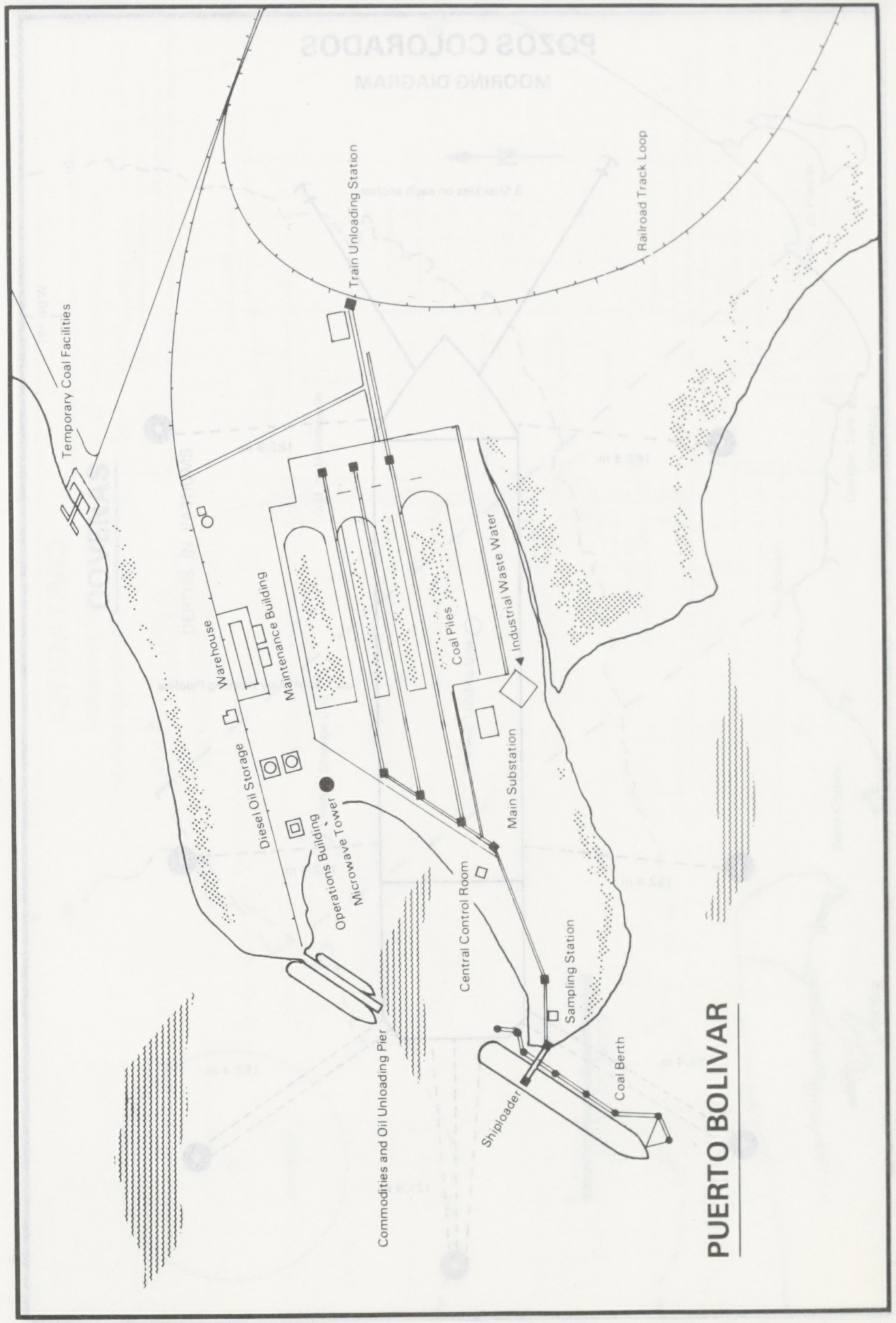

Spar Buoy marking Pipeline
8 Shackles on each anchor
182.8 m.
152.4 m.
152.4 m.
121.9 m.
182.8 m.
152.4 m.
152.4 m.

POZOS COLORADOS

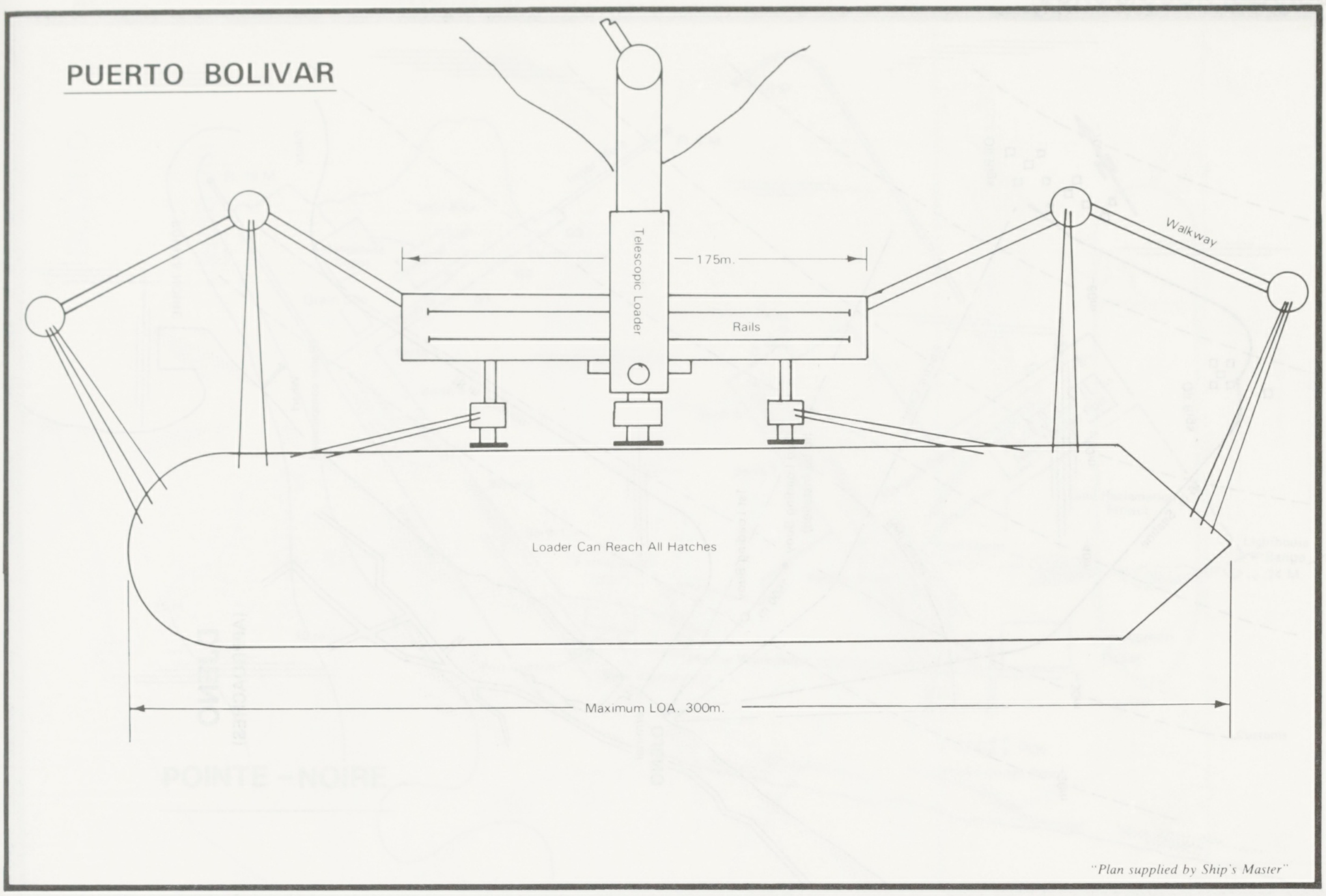
MOORING DIAGRAM

"Plan supplied by Ship's Master"


PUERTO BOLIVAR
MARINE NAVIGATIONAL AIDS
Qk Fl G
Ra Ref
Qk Fl R
Ra Ref
POINT COCO
Fl W 3 sec
X band radar transponder
Remote positioning trisponder
Wind/electric power system
ENTRANCE CHANNEL
BAHIA PORTETE
LAT. 12° 16' N
LONG. 71° 57' W
Hazard light FR
GAUGING STATION
Tide gauge and current meter
(magnitude and direction)
mounted on structure.
Radio link to port safety office.
COAL BERTH
Bn (35 m. 30 km.) rotating
Hazard light FR
TURNING BASIN
Hazard light FR
COMMODITIES PIER
Lower Range Light
Qk Fl W
Upper Range Light
Occ (W)
LEGEND
Lighted port side buoys (green)
Lighted starboard side buoys (red)
Light
Light beacon
Bn
0
100
300 metres
SCALE

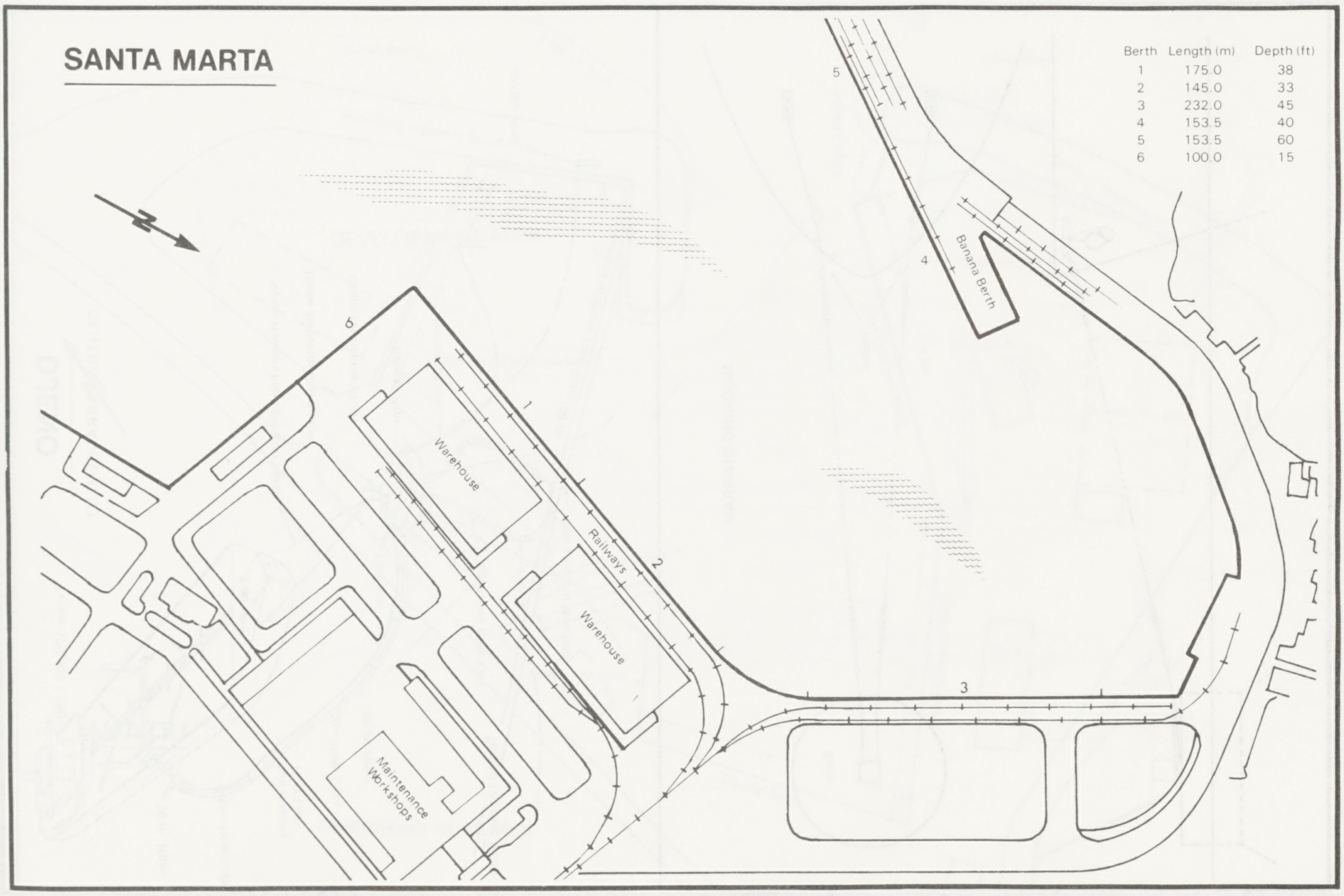

PUERTO BOLIVAR
Temporary Coal Facilities
Train Unloading Station
Railroad Track Loop
Warehouse
Maintenance Building
Coal Piles
Industrial Waste Water
Diesel Oil Storage
Operations Building
Microwave Tower
Main Substation
Central Control Room
Commodities and Oil Unloading Pier
Sampling Station
Shiploader
Coal Berth

PUERTO BOLIVAR

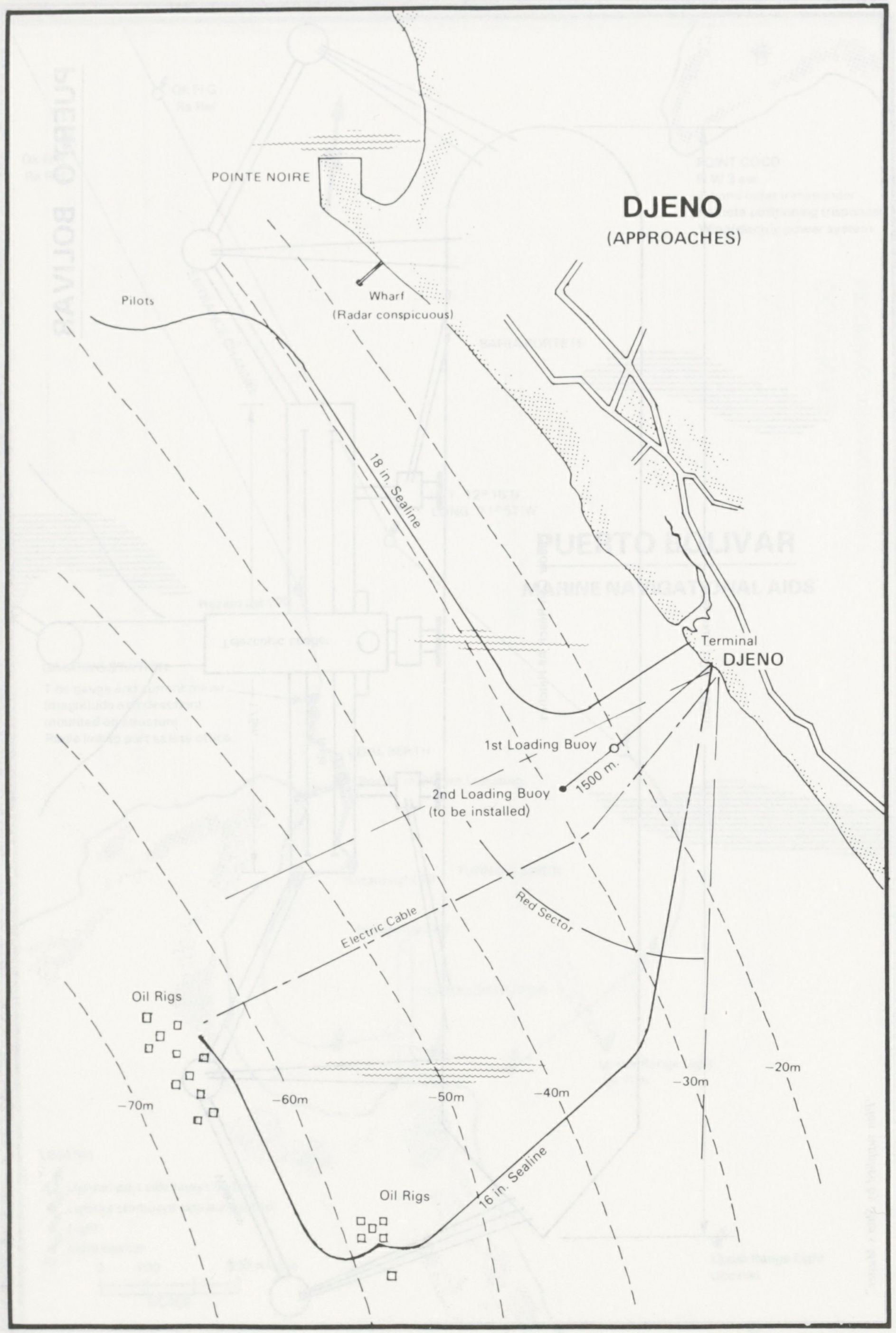

Telescopic Loader
175m.
Rails
Walkway
Loader Can Reach All Hatches
Maximum LOA. 300m.

"Plan supplied by Ship's Master"

SANTA MARTA


5
4
Banana Berth
6
1
Warehouse
Railways
2
Warehouse
Maintenance Workshops
3

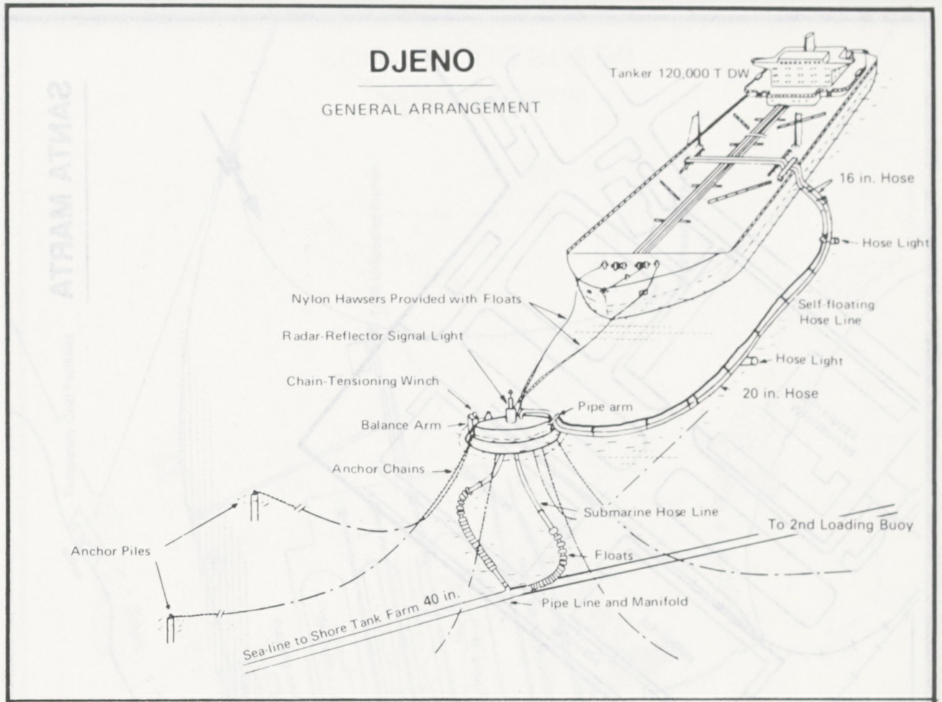
Berth	Length (m)	Depth (ft)
1	175.0	38
2	145.0	33
3	232.0	45
4	153.5	40
5	153.5	60
6	100.0	15



DJENO

(APPROACHES)

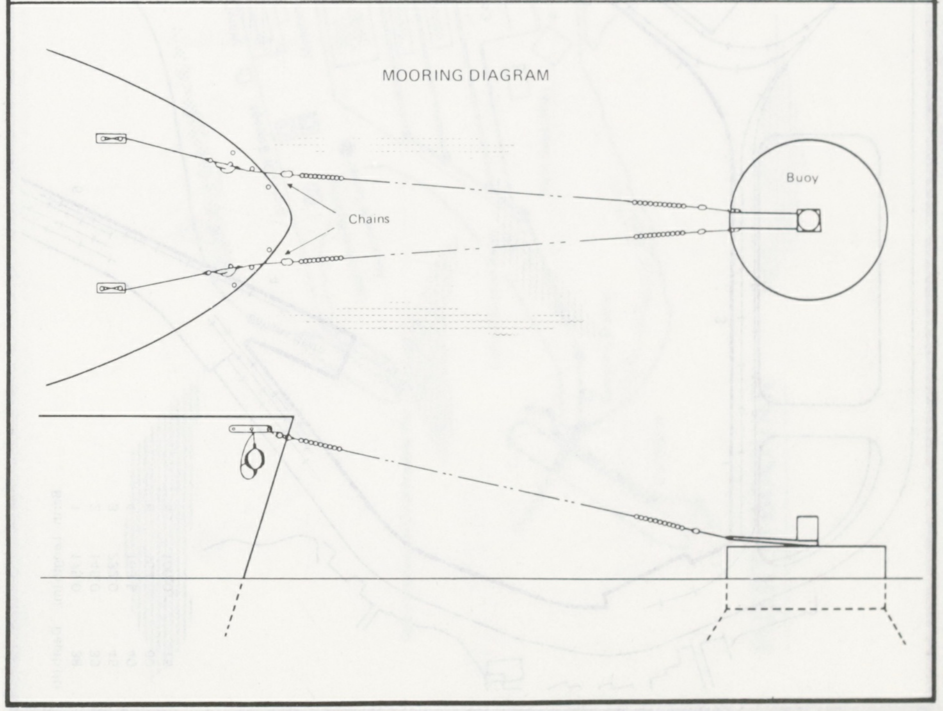
POINTE NOIRE
Wharf
(Radar conspicuous)
Pilots
18 in. Sealine
Terminal
DJENO
1st Loading Buoy
1500 m.
2nd Loading Buoy
(to be installed)
Electric Cable
Red Sector
Oil Rigs
-70m
-60m
-50m
-40m
-30m
-20m
Oil Rigs
16 in. Sealine



DJENO

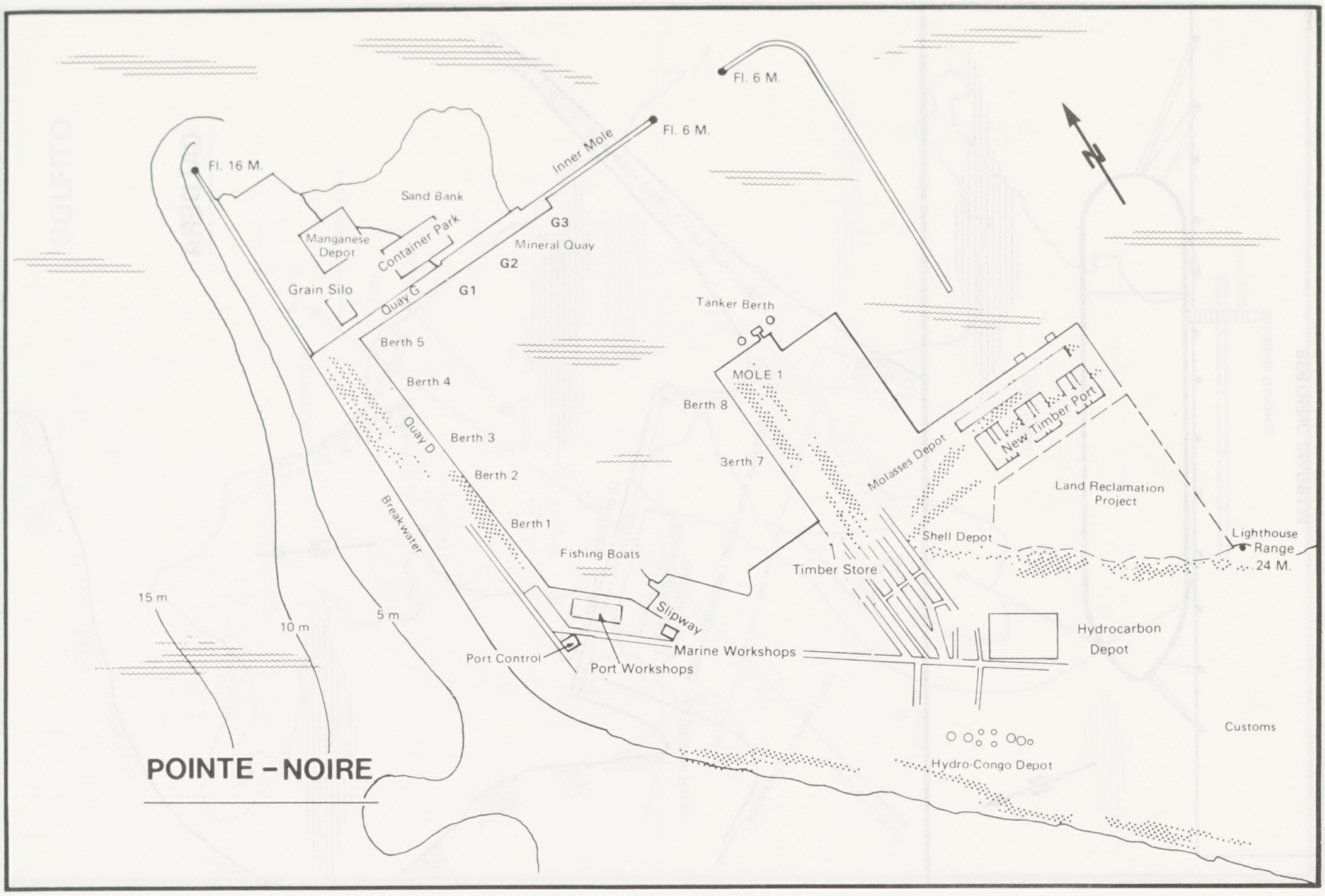
GENERAL ARRANGEMENT

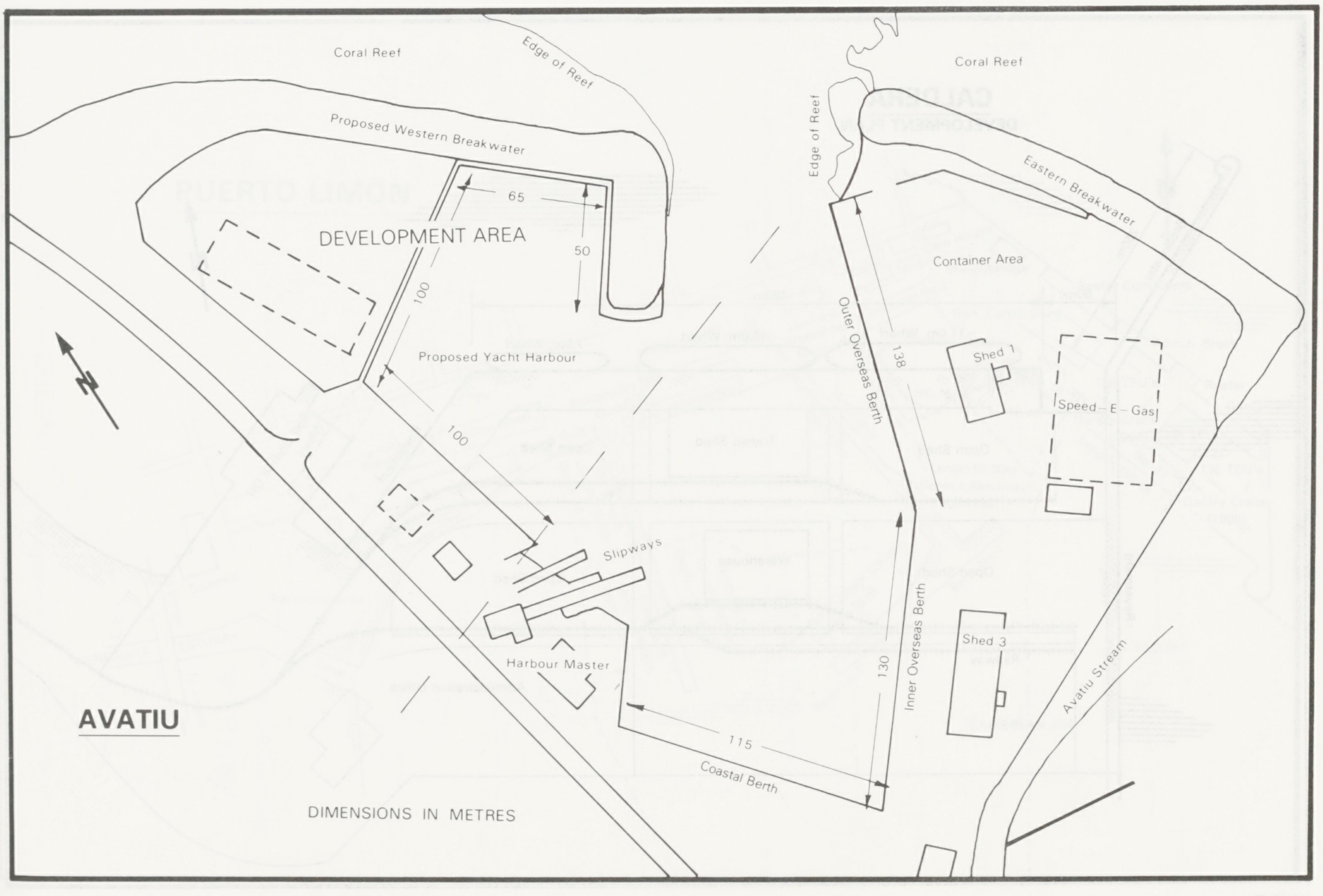
Tanker 120,000 T DW
16 in. Hose
Hose Light
Self-floating
Hose Line
Hose Light
20 in. Hose
Nylon Hawsers Provided with Floats
Radar-Reflector Signal Light
Chain-Tensioning Winch
Pipe arm
Balance Arm
Anchor Chains
Submarine Hose Line
To 2nd Loading Buoy
Anchor Piles
Floats
Pipe Line and Manifold
Sea-line to Shore Tank Farm 40 in.

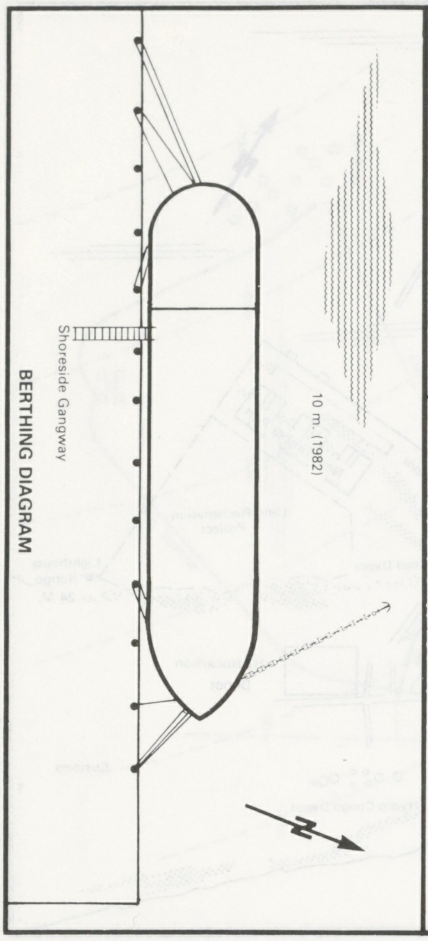


MOORING DIAGRAM

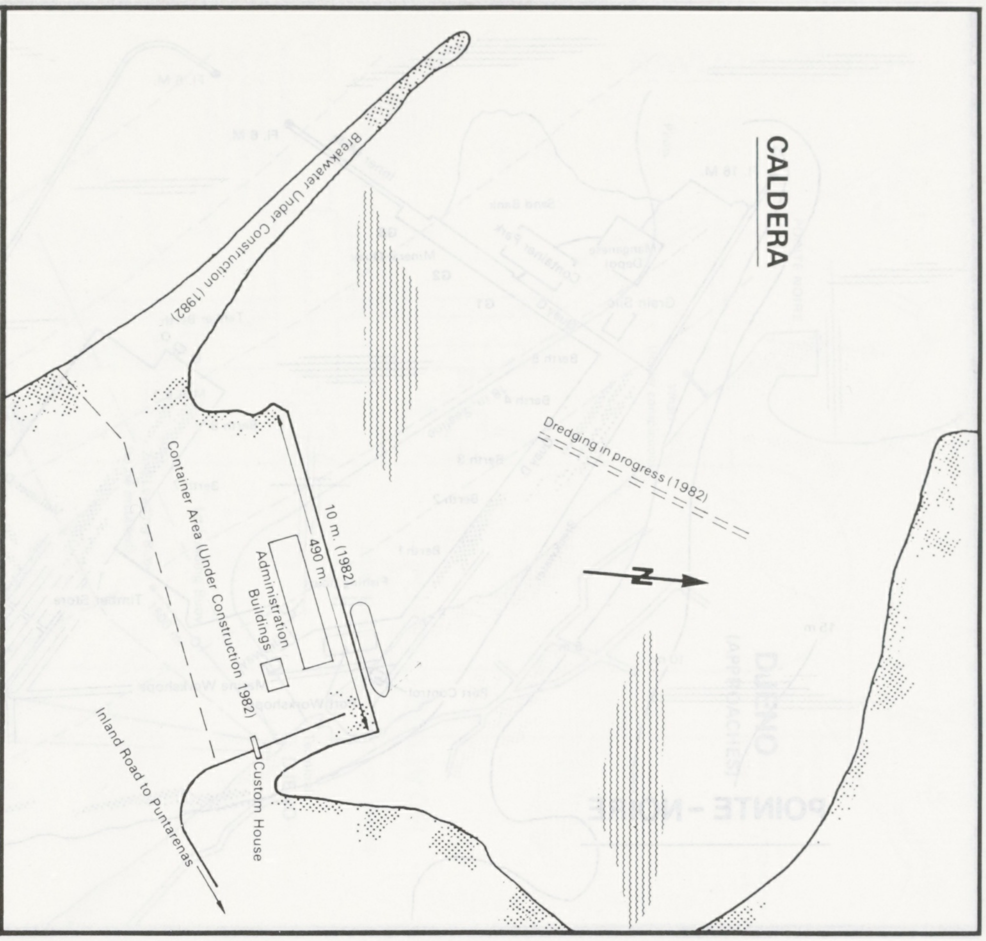
Buoy
Chains

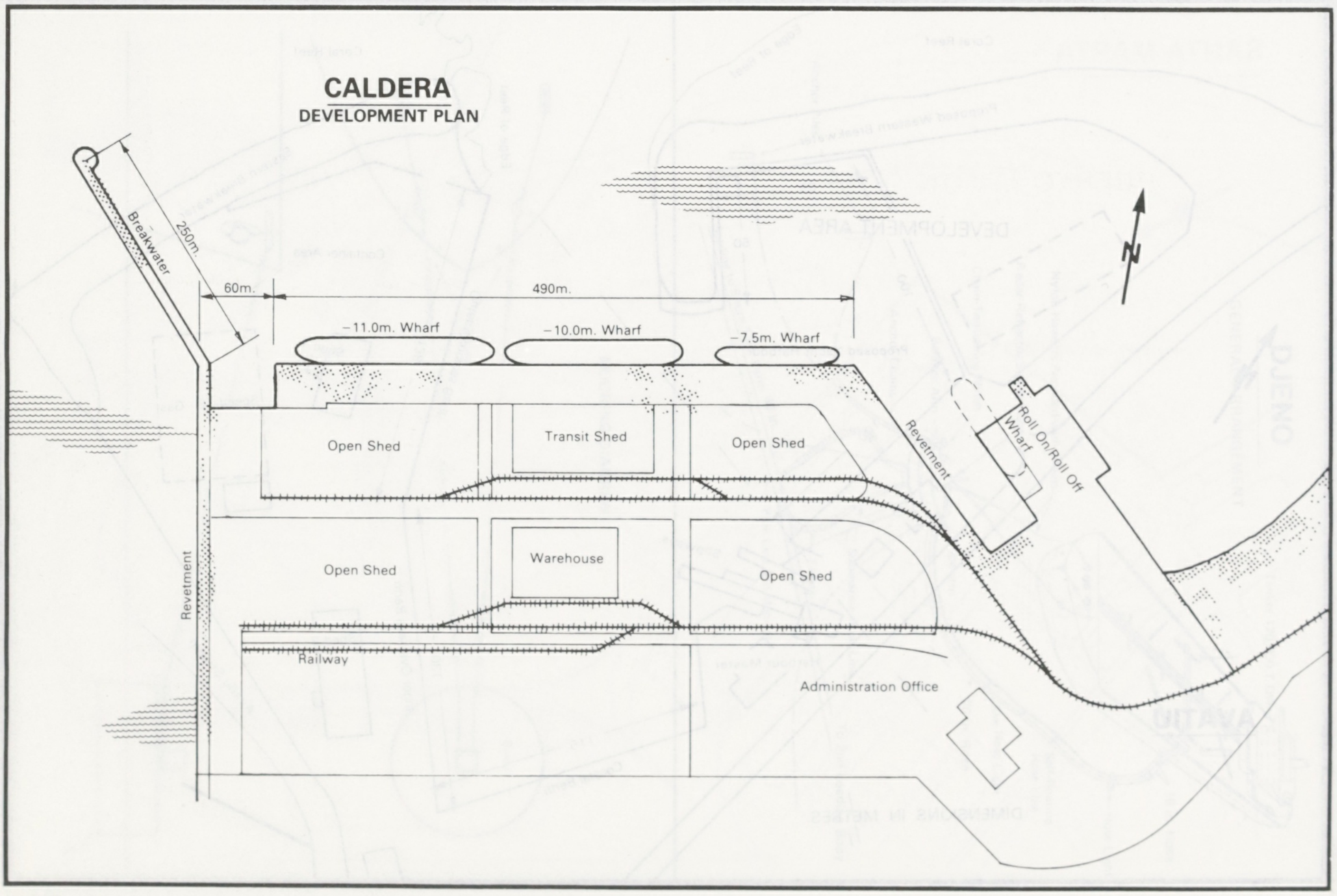

Fl. 6 M.
Fl. 6 M.
Fl. 16 M.
Inner Mole
Sand Bank
Manganese Depot
Container Park
G3
Mineral Quay
G2
G1
Grain Silo
Quay G
Berth 5
Berth 4
Quay D
Berth 3
Berth 2
Berth 1
Breakwater
Tanker Berth
MOLE 1
Berth 8
Berth 7
Molasses Depot
New Timber Port
Land Reclamation Project
Shell Depot
Timber Store
Fishing Boats
Slipway
Lighthouse Range 24 M.
Hydrocarbon Depot
Marine Workshops
Port Control
Port Workshops
15 m
10 m
5 m
Customs
Hydro-Congo Depot
POINTE – NOIRE


Coral Reef
Edge of Reef
Coral Reef
Edge of Reef
Proposed Western Breakwater
65
50
DEVELOPMENT AREA
100
Eastern Breakwater
Container Area
Outer Overseas Berth
138
Proposed Yacht Harbour
Shed 1
Speed – E – Gas
100
Slipways
Harbour Master
Inner Overseas Berth
130
Shed 3
Avatiu Stream
115
Coastal Berth
AVATIU
DIMENSIONS IN METRES

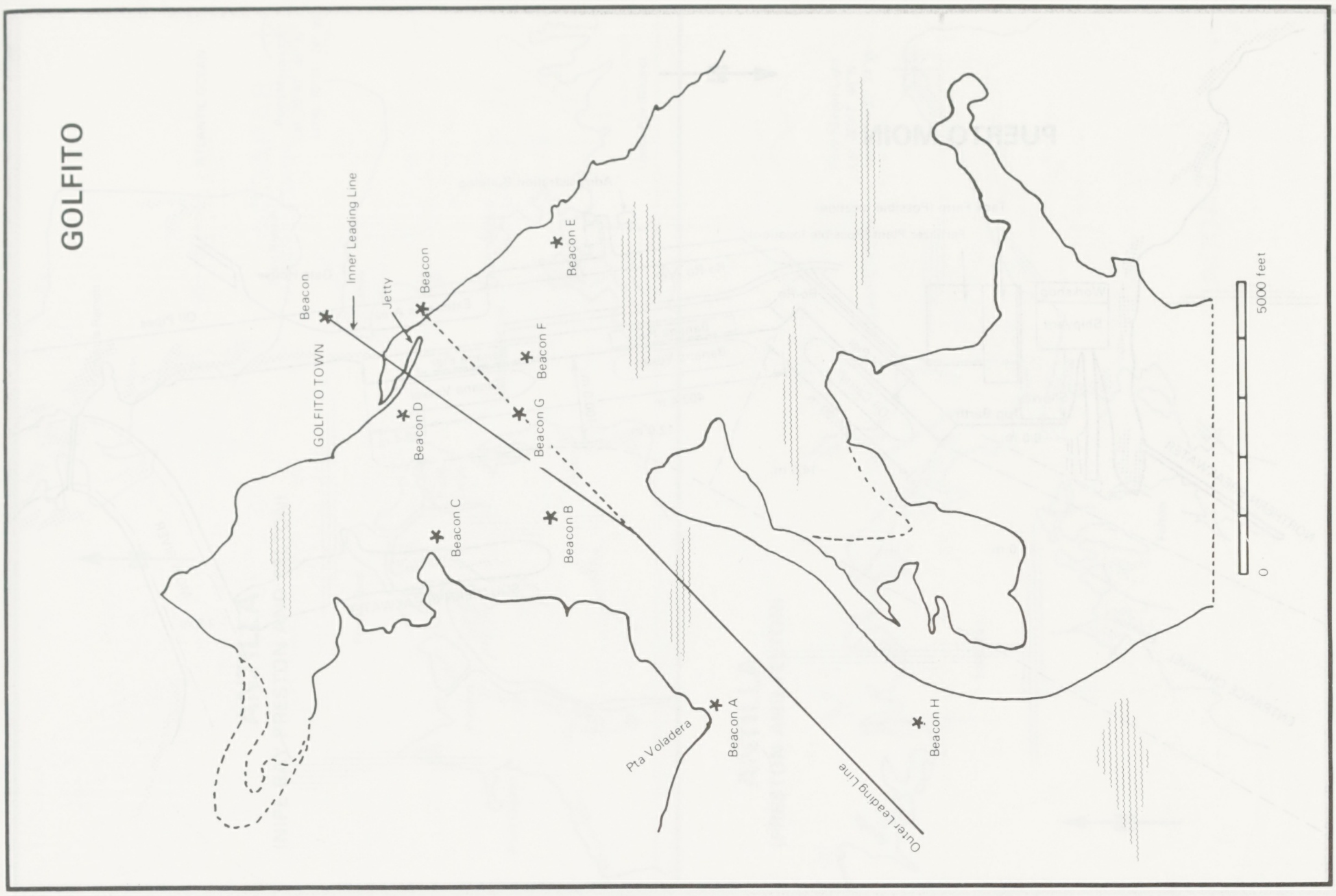

BERTHING DIAGRAM
Shoreside Gangway
10 m. (1982)
N

Plan supplied by Ship's Officers

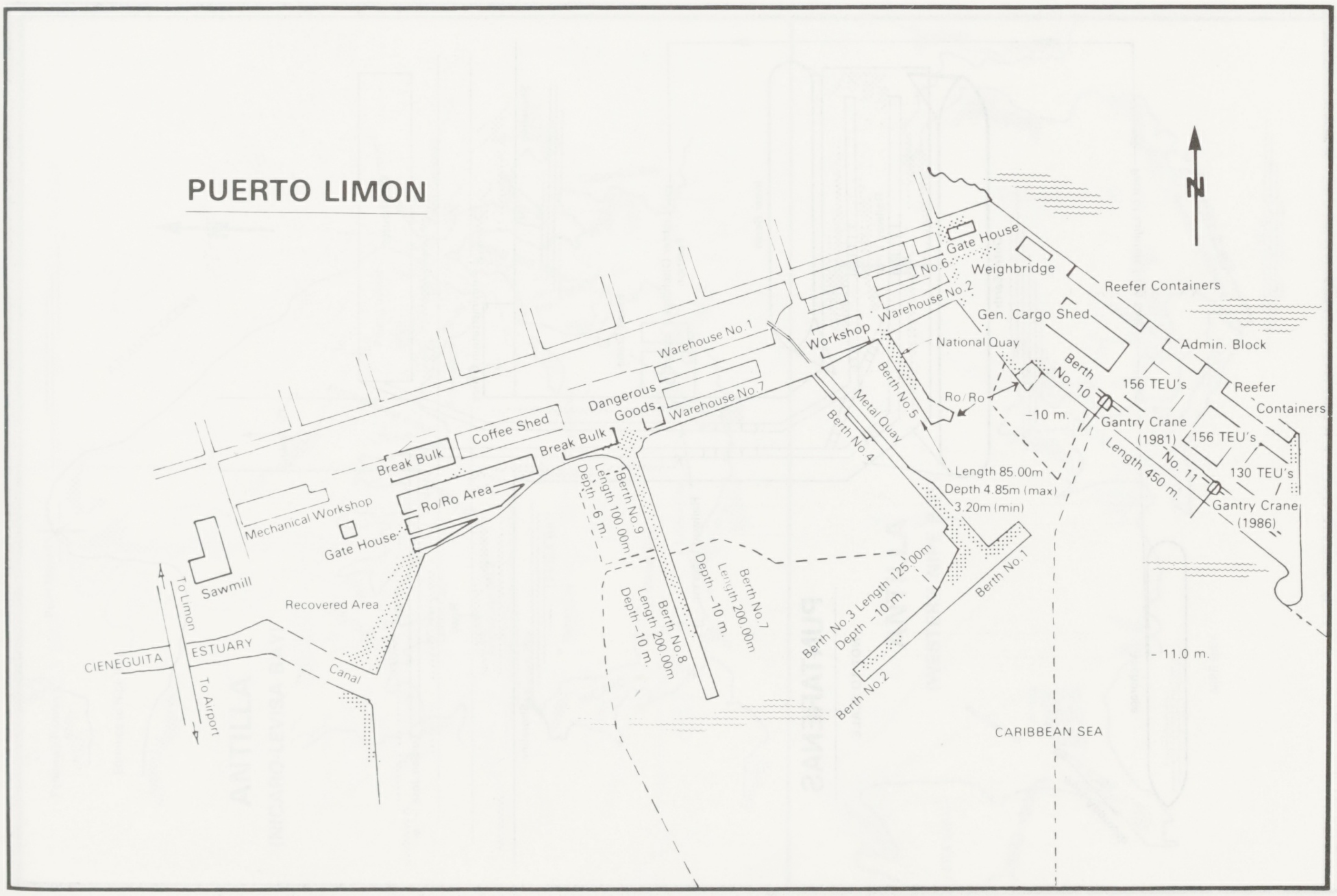

CALDERA
Breakwater Under Construction (1982)
Container Area (Under Construction 1982)
10 m. (1982)
490 m.
Administration Buildings
Custom House
Inland Road to Puntarenas
Dredging in progress (1982)
N

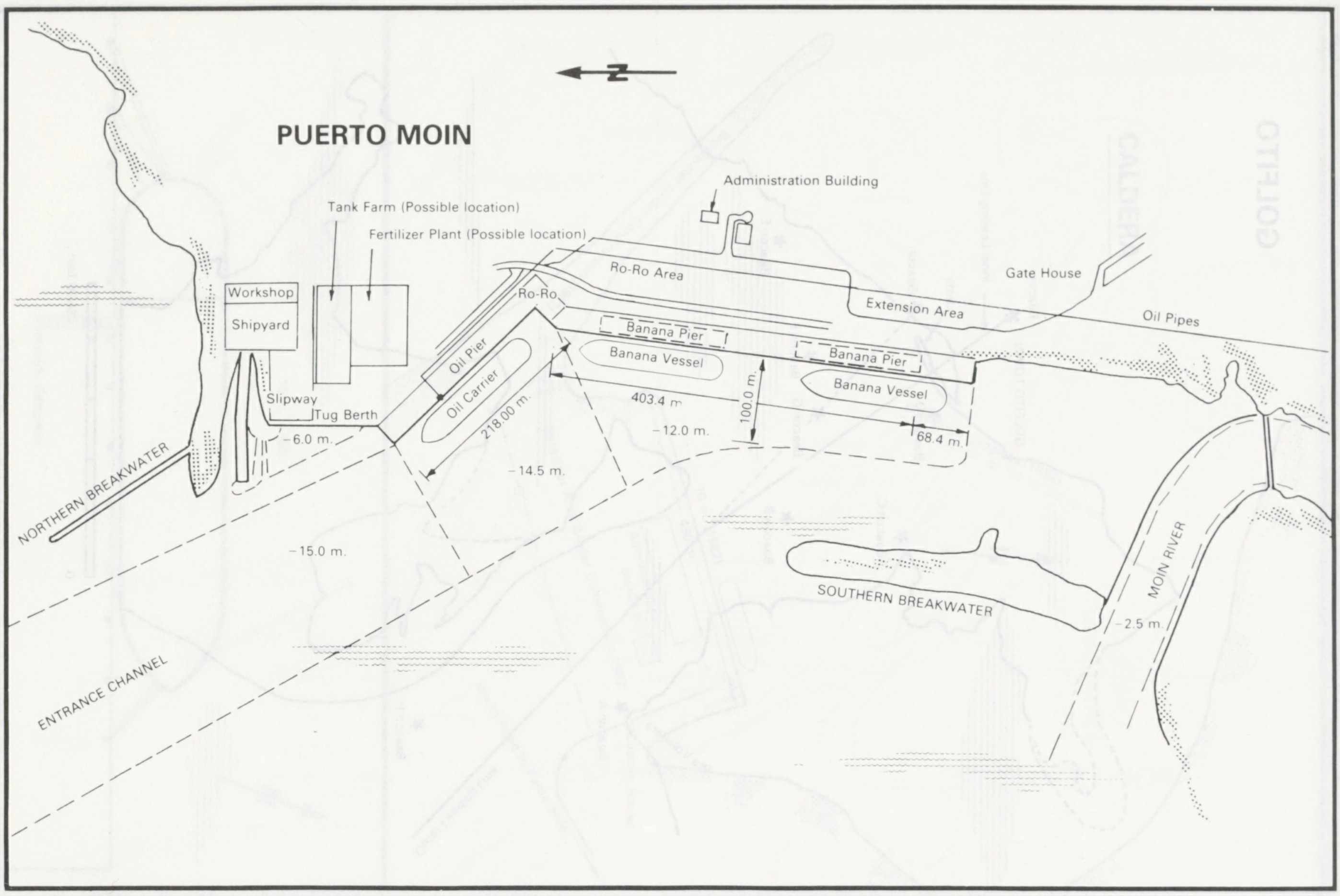

CALDERA
DEVELOPMENT PLAN
Breakwater
250m.
60m.
490m.
-11.0m. Wharf
-10.0m. Wharf
-7.5m. Wharf
Open Shed
Transit Shed
Open Shed
Revetment
Roll On/Roll Off Wharf
Open Shed
Warehouse
Open Shed
Revetment
Railway
Administration Office
N

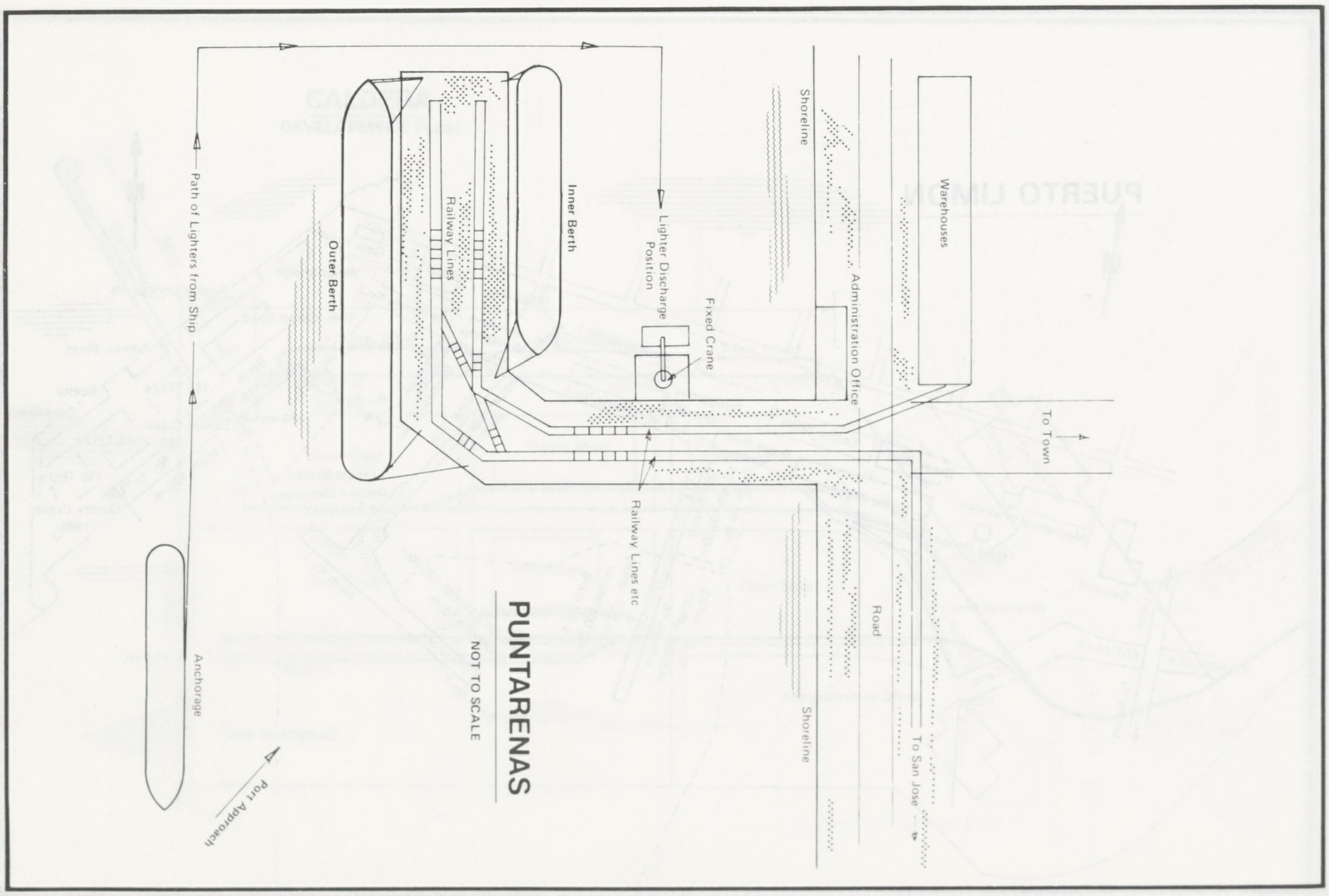
GOLFITO


Beacon
Inner Leading Line
Jetty
Beacon
GOLFITO TOWN
Beacon D
Beacon E
Beacon F
Beacon G
Beacon C
Beacon B
Beacon A
Pta Voladera
Outer Leading Line
Beacon H
5000 feet
0

PUERTO LIMON

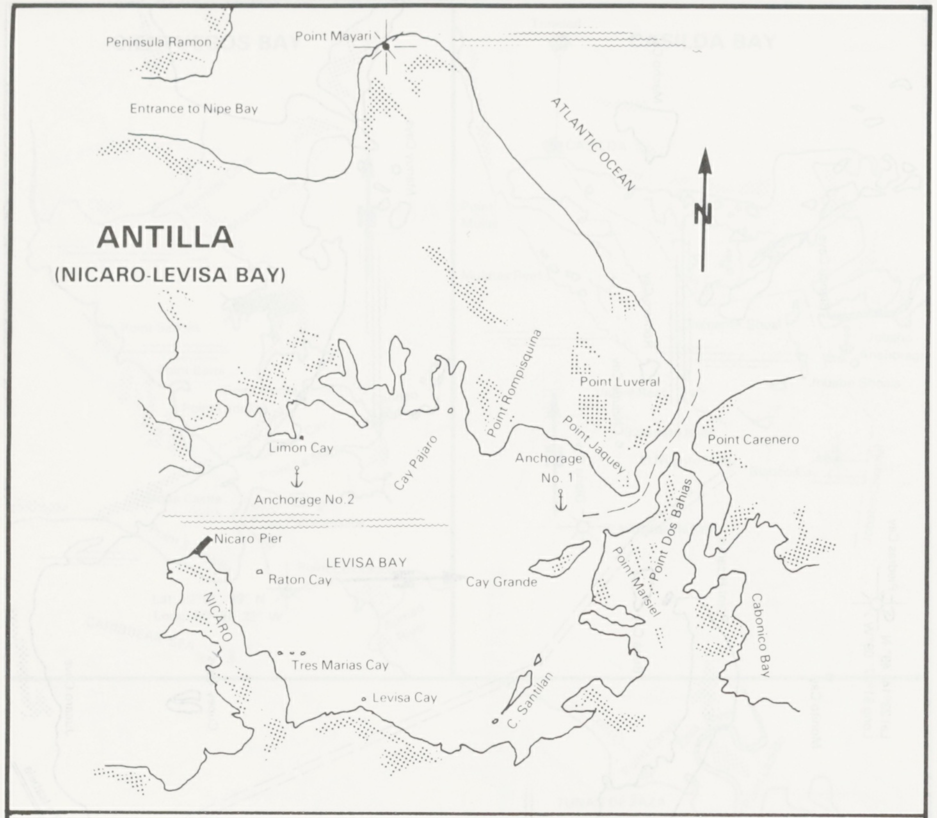

N
Gate House
No 6
Weighbridge
Reefer Containers
Warehouse No. 2
Gen. Cargo Shed
Admin. Block
Workshop
National Quay
Warehouse No. 1
Berth No. 10
156 TEU's
Reefer Containers
Berth No 5
Ro Ro
-10 m.
Gantry Crane (1981)
156 TEU's
Dangerous Goods
Warehouse No 7
Metal Quay
Berth No. 4
No. 11
Length 450 m.
130 TEU's
Gantry Crane (1986)
Coffee Shed
Break Bulk
Break Bulk
Length 85.00m
Depth 4.85m (max)
3.20m (min)
Ro/Ro Area
Mechanical Workshop
Gate House
Berth No 9
Length 100.00m
Depth -6 m.
Sawmill
Recovered Area
Berth No 8
Length 200.00m
Depth -10 m.
Berth No 7
Length 200.00m
Depth -10 m.
Berth No.3 Length 125.00m
Depth -10 m.
Berth No 1
Berth No 2
To Limon
CIENEGUITA
ESTUARY
Canal
To Airport
- 11.0 m.
CARIBBEAN SEA


N
PUERTO MOIN
Administration Building
Tank Farm (Possible location)
Fertilizer Plant (Possible location)
Ro-Ro Area
Gate House
Workshop
Shipyard
Ro-Ro
Extension Area
Oil Pipes
Banana Pier
Banana Vessel
Banana Pier
Banana Vessel
Oil Pier
Oil Carrier
Slipway
Tug Berth
403.4 m.
100.0 m.
−6.0 m.
218.00 m.
−12.0 m.
68.4 m.
−14.5 m.
NORTHERN BREAKWATER
−15.0 m.
SOUTHERN BREAKWATER
MOIN RIVER
−2.5 m.
ENTRANCE CHANNEL

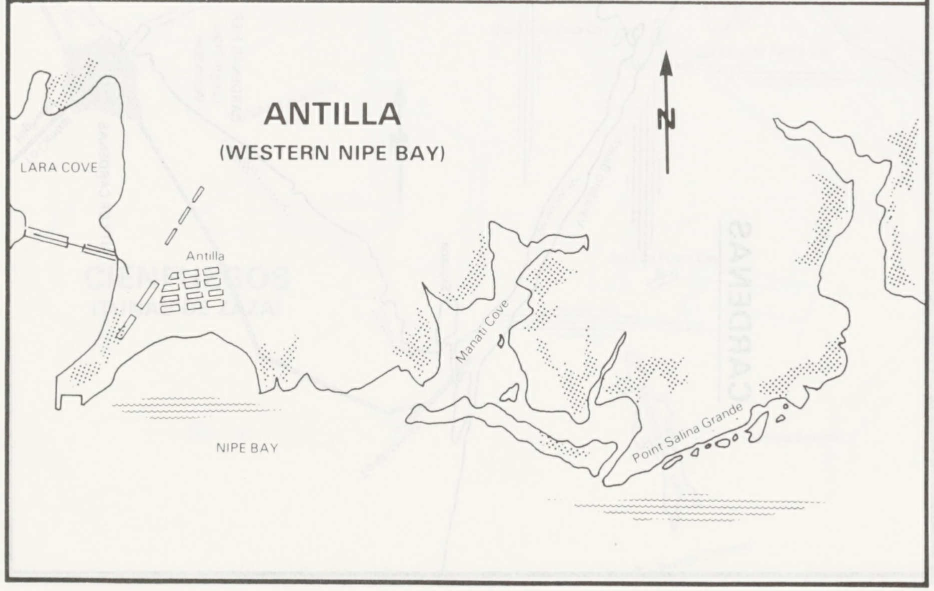

Path of Lighters from Ship
Outer Berth
Railway Lines
Inner Berth
Lighter Discharge Position
Fixed Crane
Shoreline
Administration Office
Warehouses
To Town
Railway Lines etc
Road
Shoreline
To San Jose
Anchorage
Port Approach
PUNTARENAS
NOT TO SCALE

"Plan supplied by Supercargo"

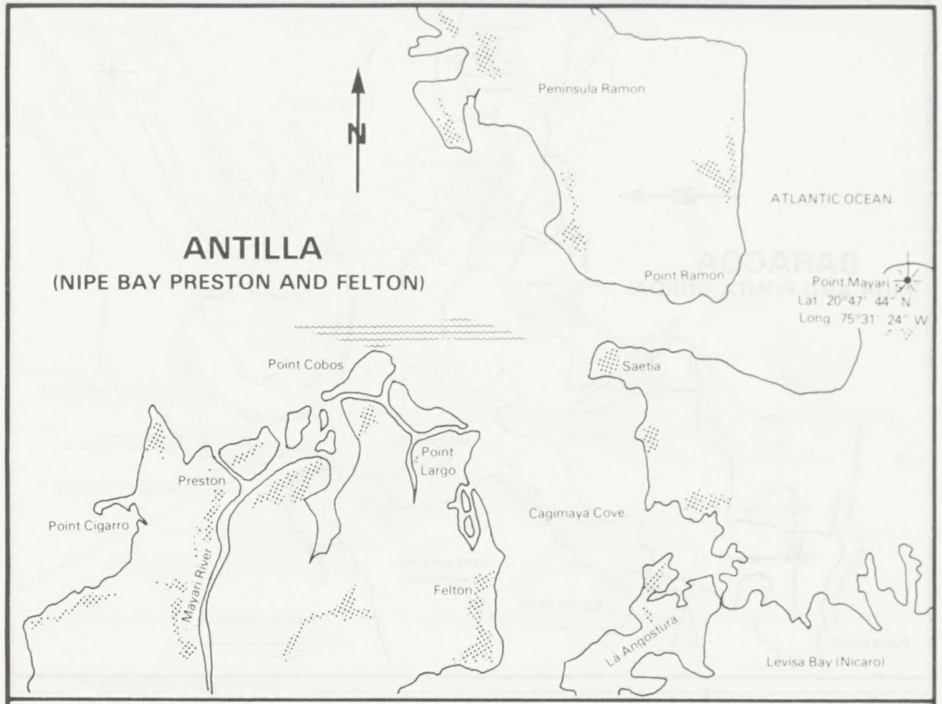
ANTILLA
(NICARO-LEVISA BAY)


Peninsula Ramon
Point Mayari
Entrance to Nipe Bay
ATLANTIC OCEAN
N
Point Rompisquina
Point Luveral
Point Jaquey
Point Carenero
Limon Cay
Cay Pajaro
Anchorage
No. 1
Anchorage No 2
Nicaro Pier
LEVISA BAY
Raton Cay
Cay Grande
Point Dos Bahias
Point Marsiel
NICARO
Cabonico Bay
Tres Marias Cay
Levisa Cay
C. Santilan

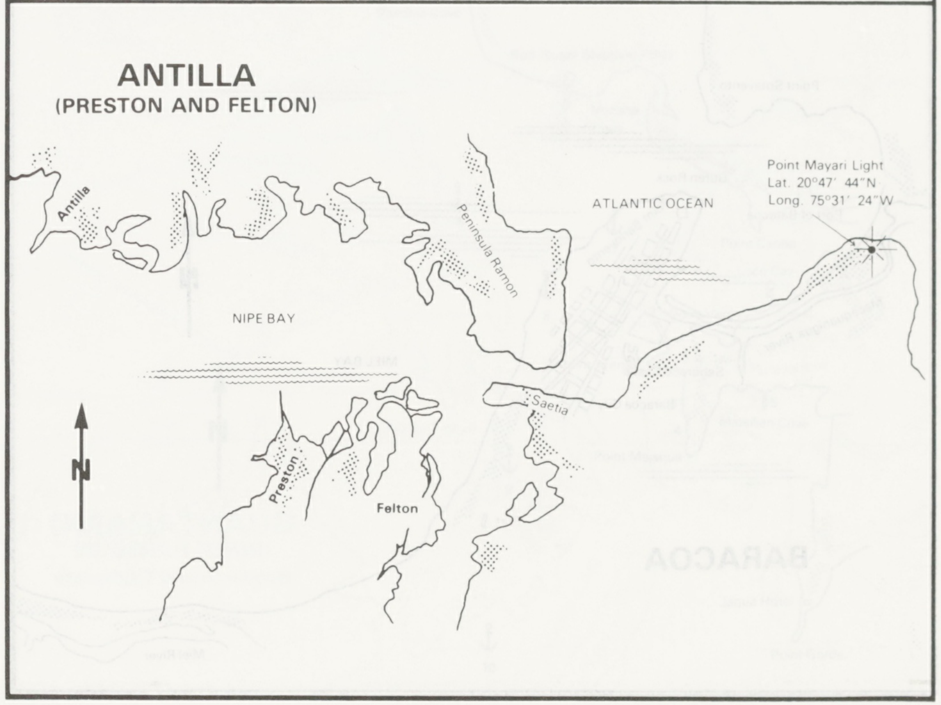
ANTILLA
(WESTERN NIPE BAY)

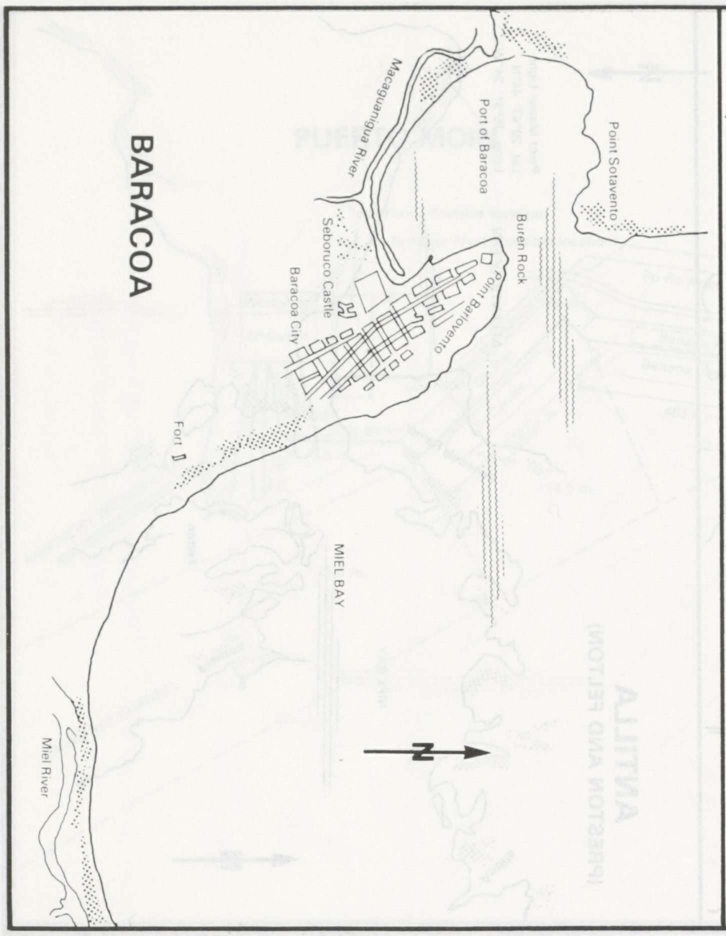

N
LARA COVE
Antilla
Manati Cove
Point Salina Grande
NIPE BAY

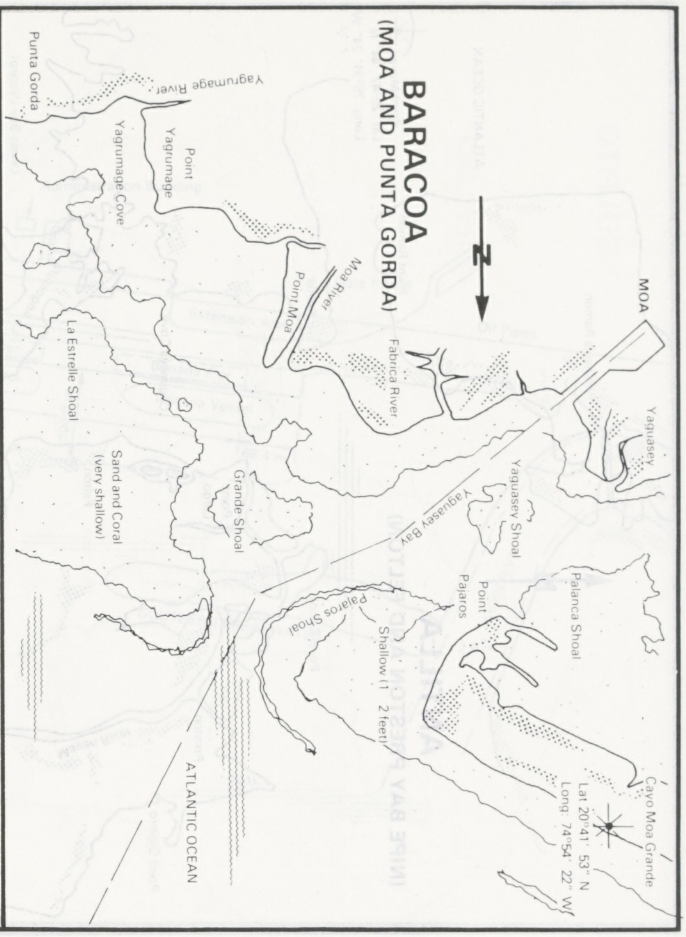
ANTILLA
(NIPE BAY PRESTON AND FELTON)

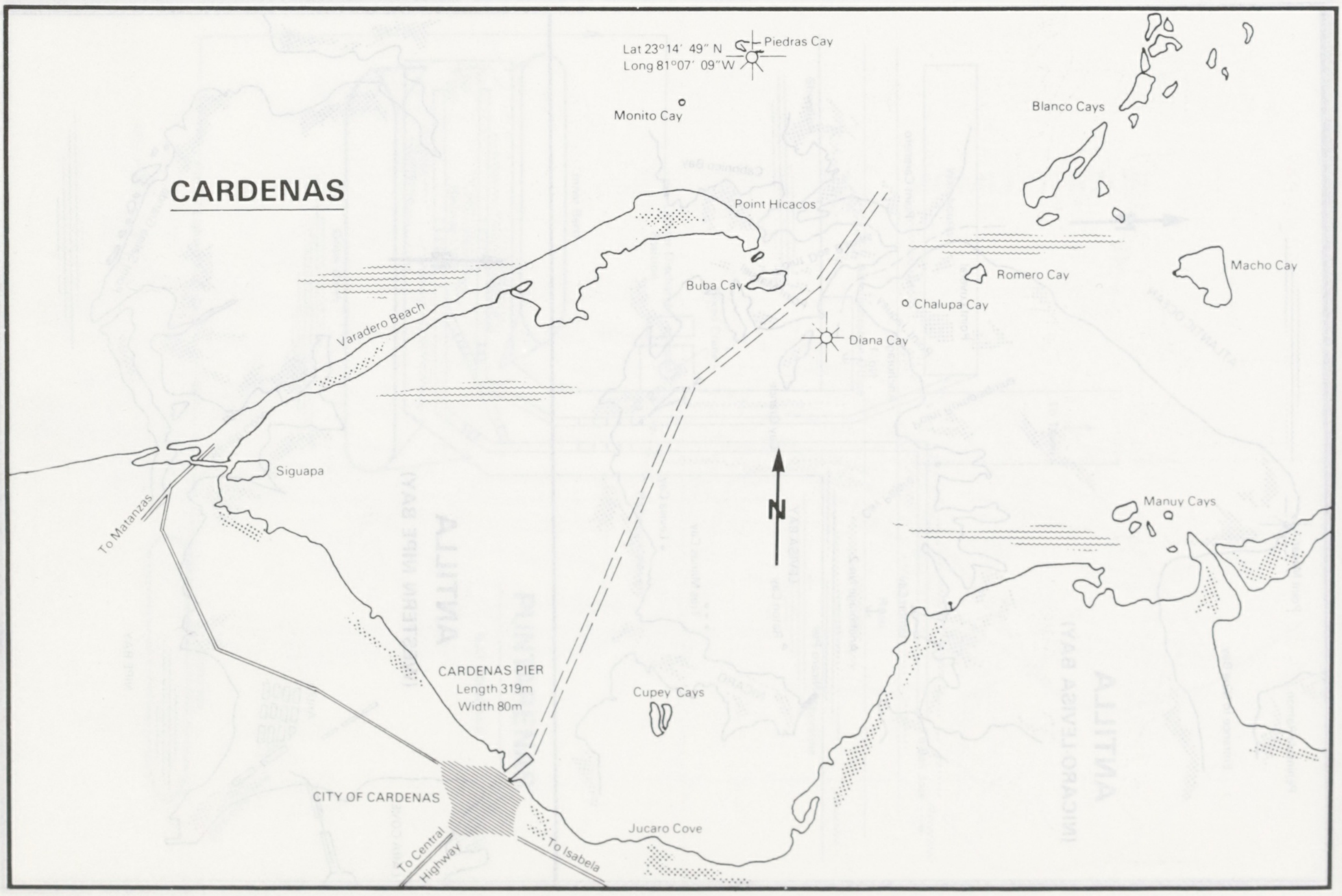

N
Peninsula Ramon
ATLANTIC OCEAN
Point Ramon
Point Mayari
Lat. 20°47' 44" N
Long. 75°31' 24" W
Point Cobos
Saetia
Point
Largo
Preston
Point Cigarro
Cagimaya Cove
Mayari River
Felton
La Angostura
Levisa Bay (Nicaro)

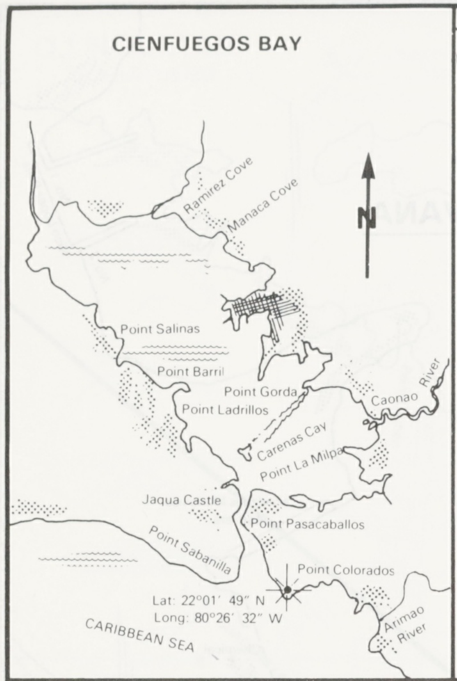
ANTILLA
(PRESTON AND FELTON)


Point Mayari Light
Lat. 20°47' 44"N
Long. 75°31' 24"W
ATLANTIC OCEAN
Antilla
Peninsula Ramon
NIPE BAY
Saetia
N
Preston
Felton


BARACOA
Macaguanigua River
Port of Baracoa
Point Sotavento
Buren Rock
Point Barlovento
Seboruco Castle
Baracoa City
Fort
MIEL BAY
Miel River
N

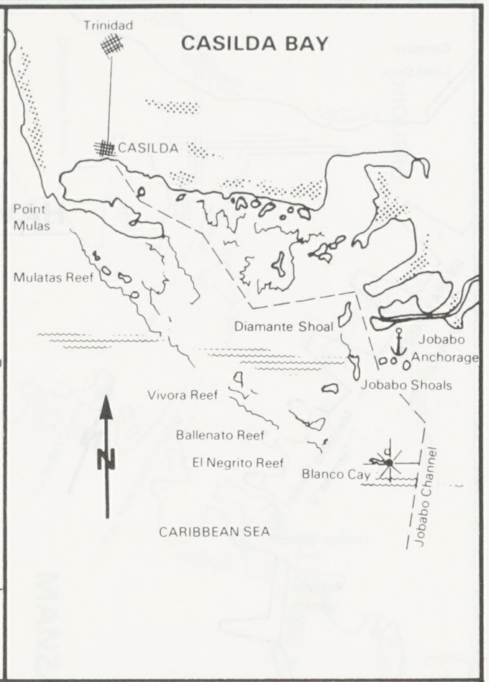

BARACOA
(MOA AND PUNTA GORDA)
MOA
Yaguasey
Yaguasey Shoal
Yaguasey Bay
Fabrica River
Moa River
Point Moa
Point Yagrumage
Yagrumage River
Punta Gorda
Yagrumage Cove
La Estrelle Shoal
Grande Shoal
Sand and Coral (very shallow)
Pajaros Shoal
Point Pajaros
Palanca Shoal
Shallow (1 2 feet)
Cayo Moa Grande
Lat 20°41' 53" N
Long 74°54' 22" W
ATLANTIC OCEAN
N


CARDENAS
Lat 23°14' 49" N
Long 81°07' 09" W
Piedras Cay
Monito Cay
Blanco Cays
Point Hicacos
Buba Cay
Romero Cay
Macho Cay
Chalupa Cay
Diana Cay
Varadero Beach
Siguapa
To Matanzas
N
Manuy Cays
CARDENAS PIER
Length 319m
Width 80m
Cupey Cays
CITY OF CARDENAS
Jucaro Cove
To Central Highway
To Isabela



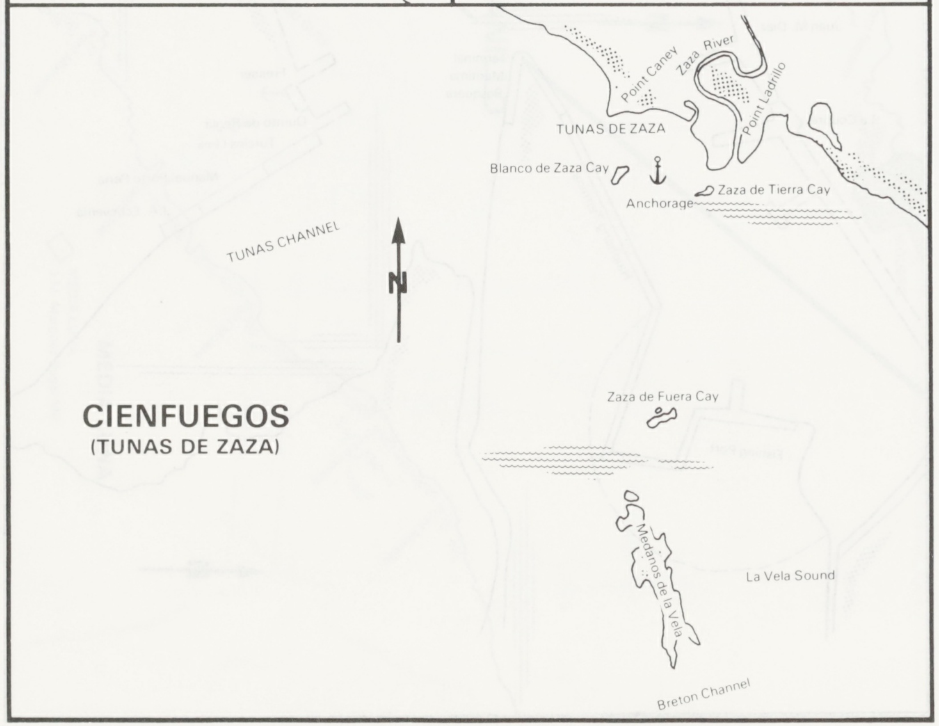
CIENFUEGOS BAY

Ramirez Cove
Manaca Cove
N
Point Salinas
Point Barril
Point Gorda
Point Ladrillos
Caonao River
Carenas Cay
Point La Milpa
Jaqua Castle
Point Pasacaballos
Point Sabanilla
Point Colorados
Lat: 22°01′ 49″ N
Long: 80°26′ 32″ W
CARIBBEAN SEA
Arimao River



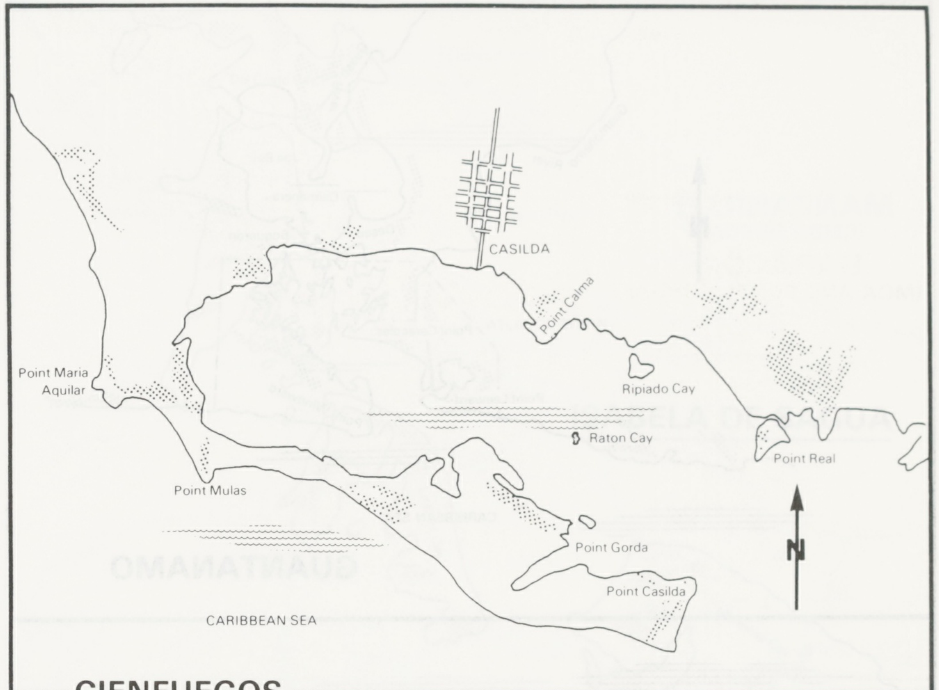
CASILDA BAY

Trinidad
CASILDA
Point Mulas
Mulatas Reef
Diamante Shoal
Jobabo Anchorage
Jobabo Shoals
Vivora Reef
Ballenato Reef
El Negrito Reef
Blanco Cay
Jobabo Channel
N
CARIBBEAN SEA



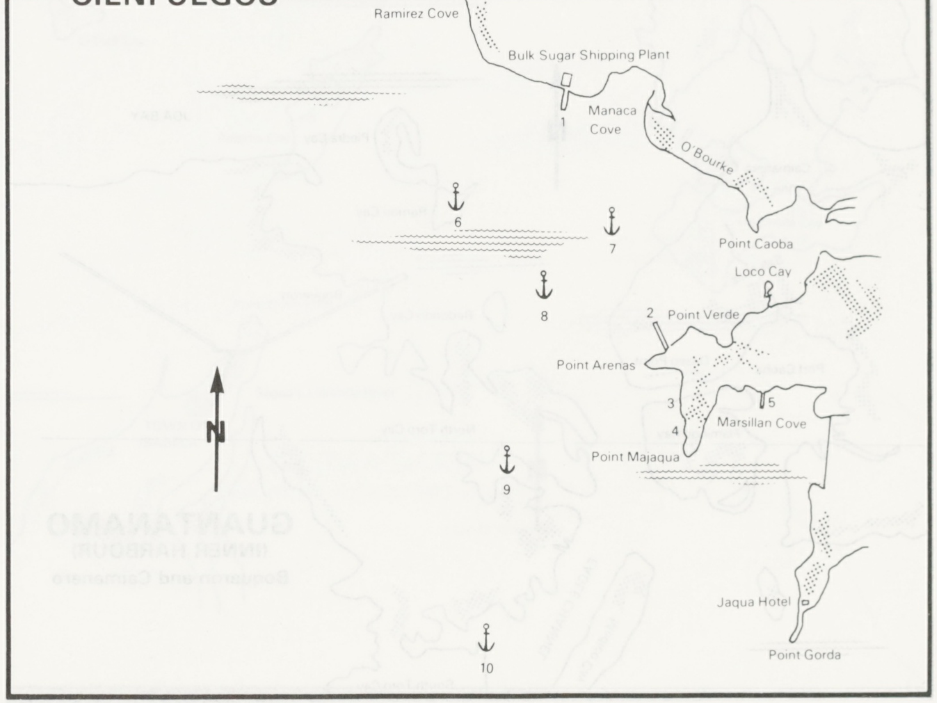
CIENFUEGOS
(TUNAS DE ZAZA)

Point Caney
Zaza River
Point Ladrillo
TUNAS DE ZAZA
Blanco de Zaza Cay
Zaza de Tierra Cay
Anchorage
TUNAS CHANNEL
N
Zaza de Fuera Cay
Medanos de la Vela
La Vela Sound
Breton Channel

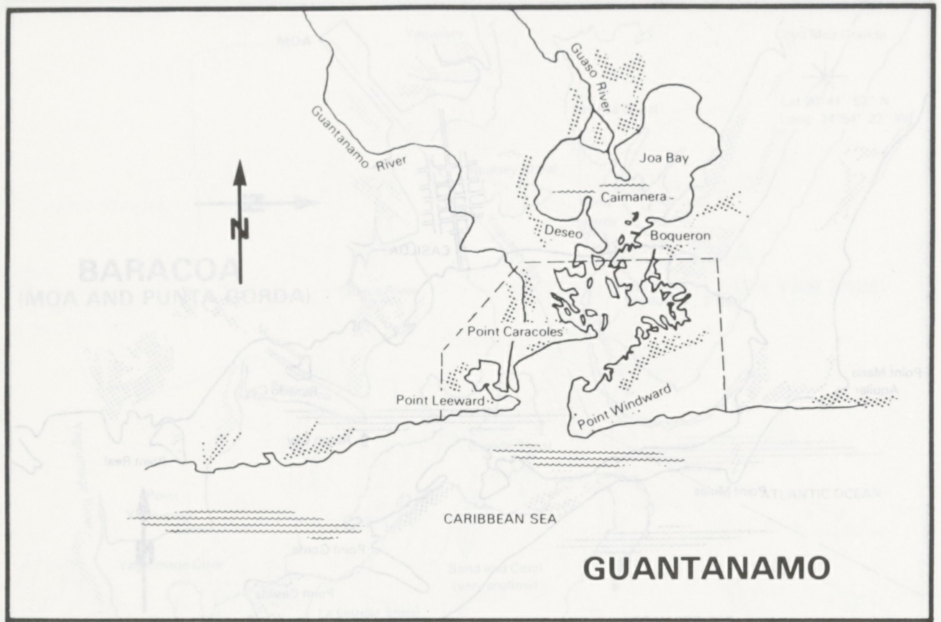


CASILDA
Point Calma
Point Maria Aquilar
Ripiado Cay
Raton Cay
Point Real
Point Mulas
Point Gorda
Point Casilda
N
CARIBBEAN SEA

CIENFUEGOS

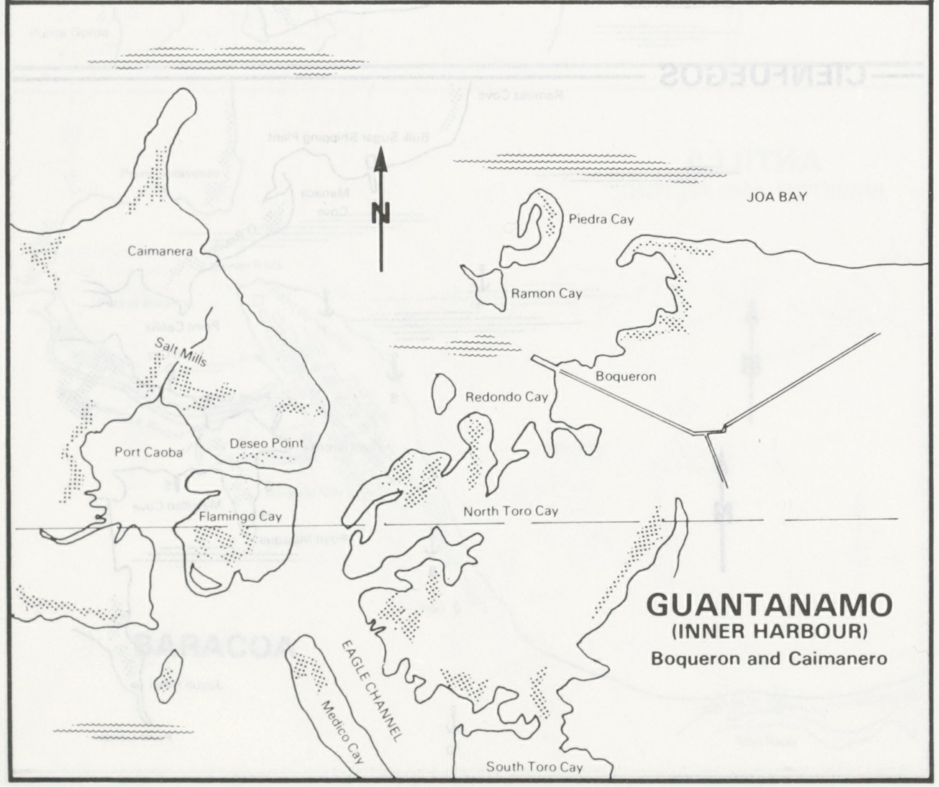


Ramirez Cove
Bulk Sugar Shipping Plant
1
Manaca Cove
O'Bourke
6
7
8
Point Caoba
Loco Cay
2
Point Verde
Point Arenas
3
4
5
Marsillan Cove
Point Majaqua
N
9
Jaqua Hotel
10
Point Gorda



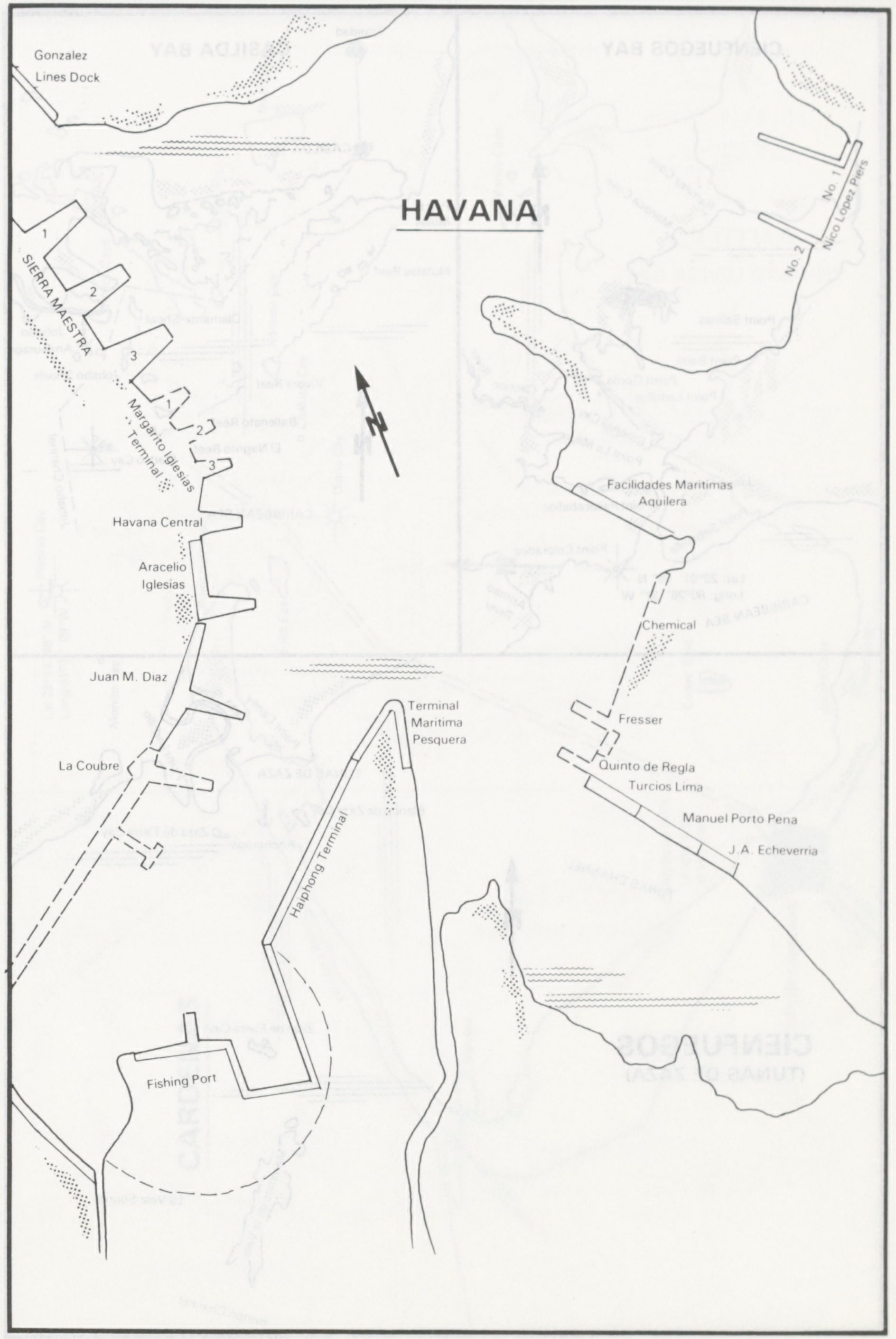
GUANTANAMO

N
Guaso River
Guantanamo River
Joa Bay
Caimanera
Deseo
Boqueron
Point Caracoles
Point Leeward
Point Windward
CARIBBEAN SEA



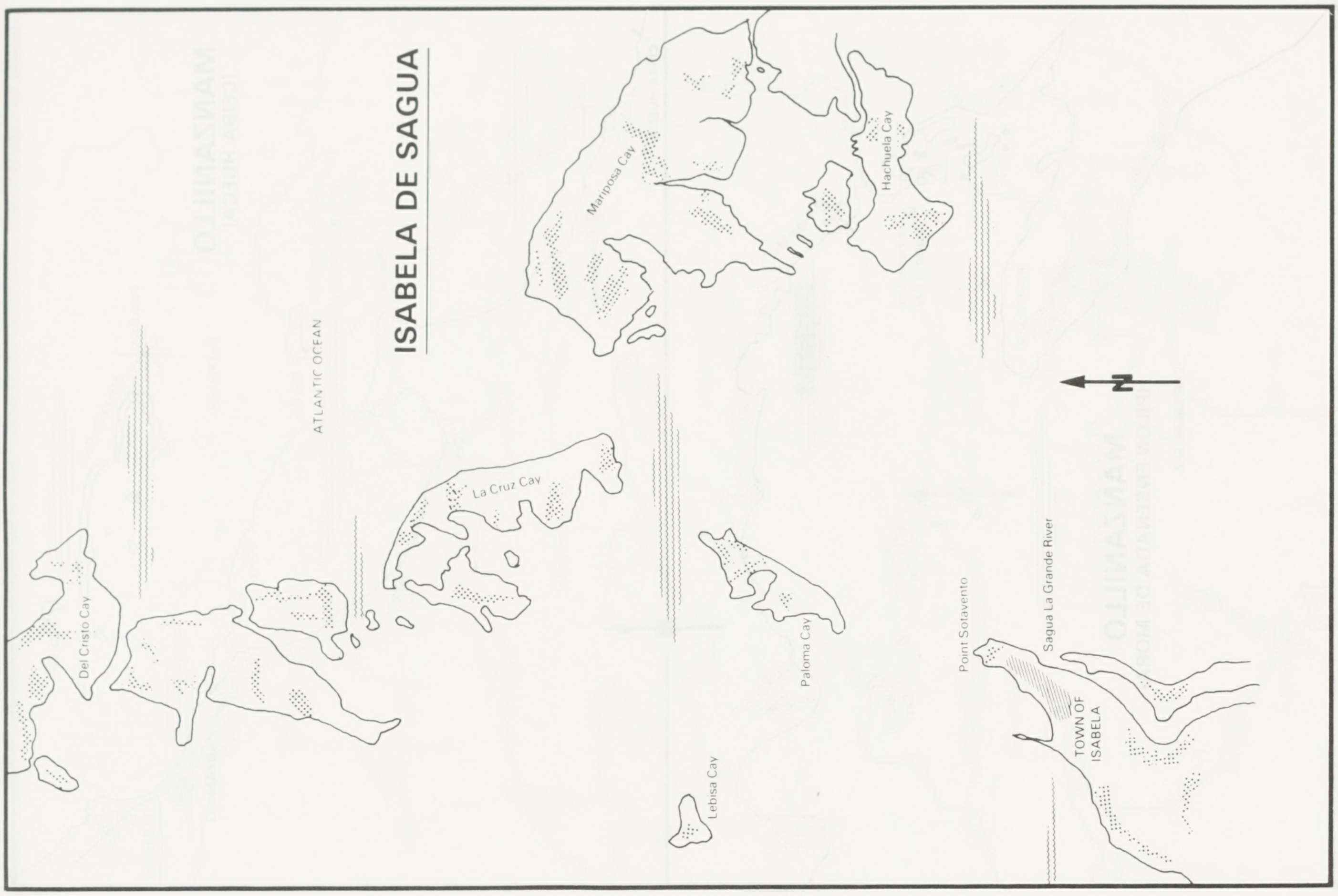
GUANTANAMO
(INNER HARBOUR)
Boqueron and Caimanero

N
JOA BAY
Piedra Cay
Ramon Cay
Caimanera
Salt Mills
Boqueron
Redondo Cay
Port Caoba
Deseo Point
Flamingo Cay
North Toro Cay
EAGLE CHANNEL
Medico Cay
South Toro Cay

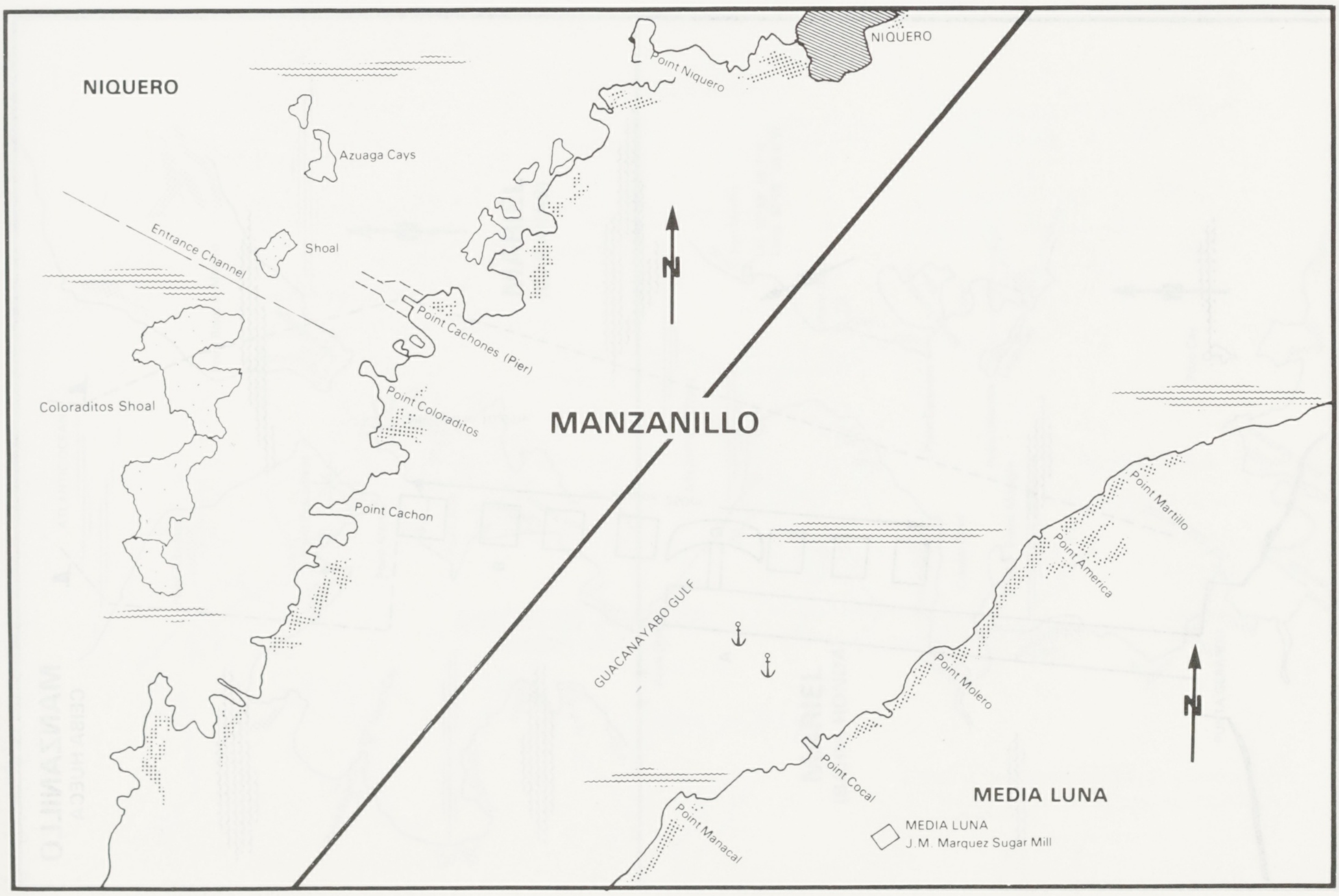


HAVANA

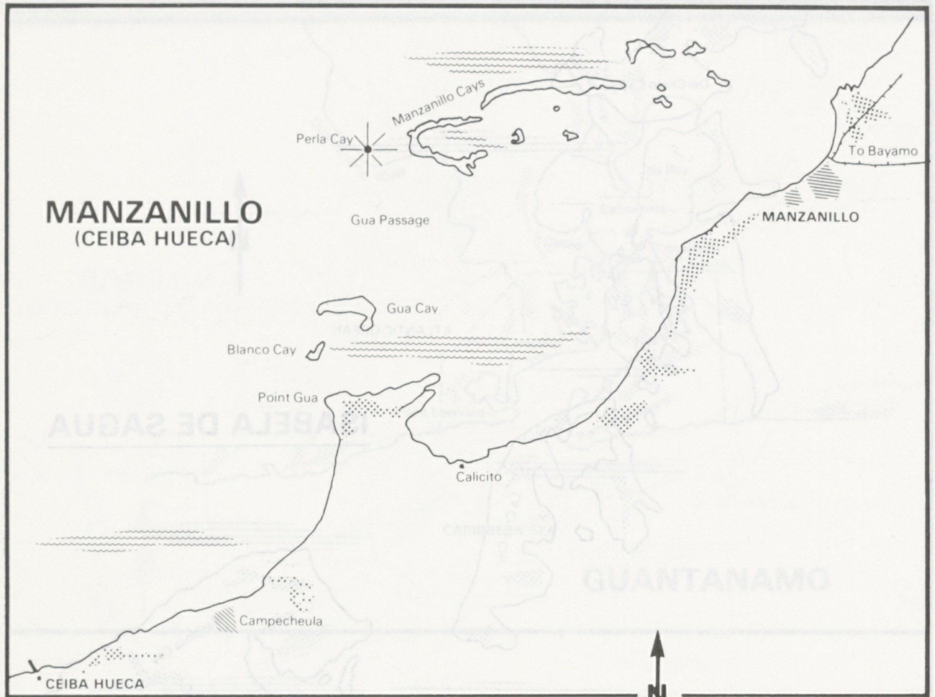
Gonzalez Lines Dock
N
1
2
3
SIERRA MAESTRA
1
2
3
Margarito Iglesias Terminal
Havana Central
Aracelio Iglesias
Juan M. Diaz
La Coubre
Terminal Maritima Pesquera
Haiphong Terminal
Fishing Port
No. 1
No. 2
Nico Lopez Piers
Facilidades Maritimas Aquilera
Chemical
Fresser
Quinto de Regla
Turcios Lima
Manuel Porto Pena
J.A. Echeverria

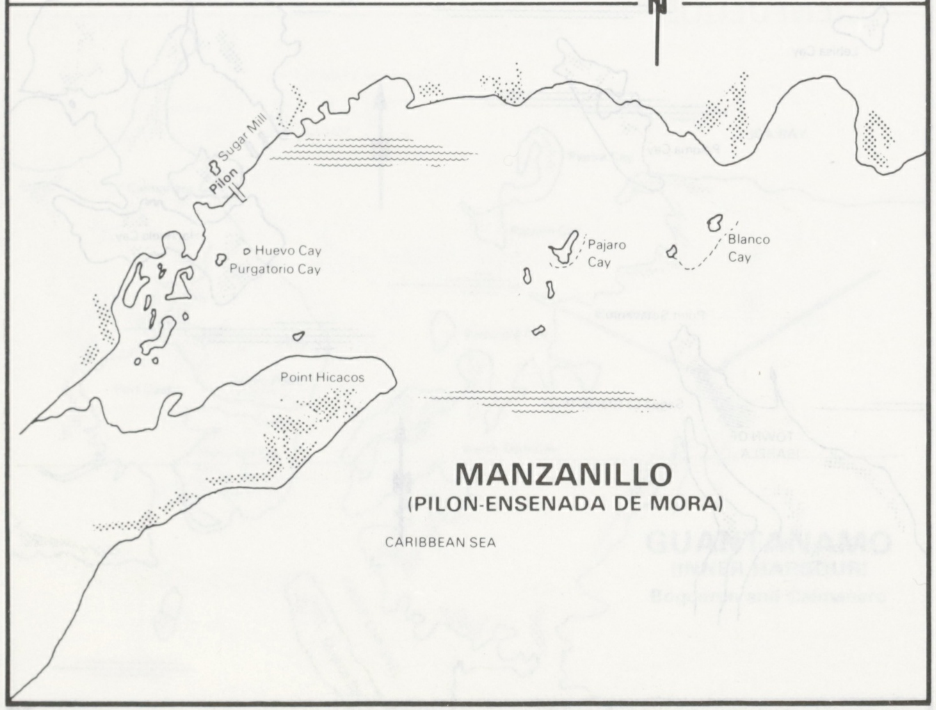

ISABELA DE SAGUA

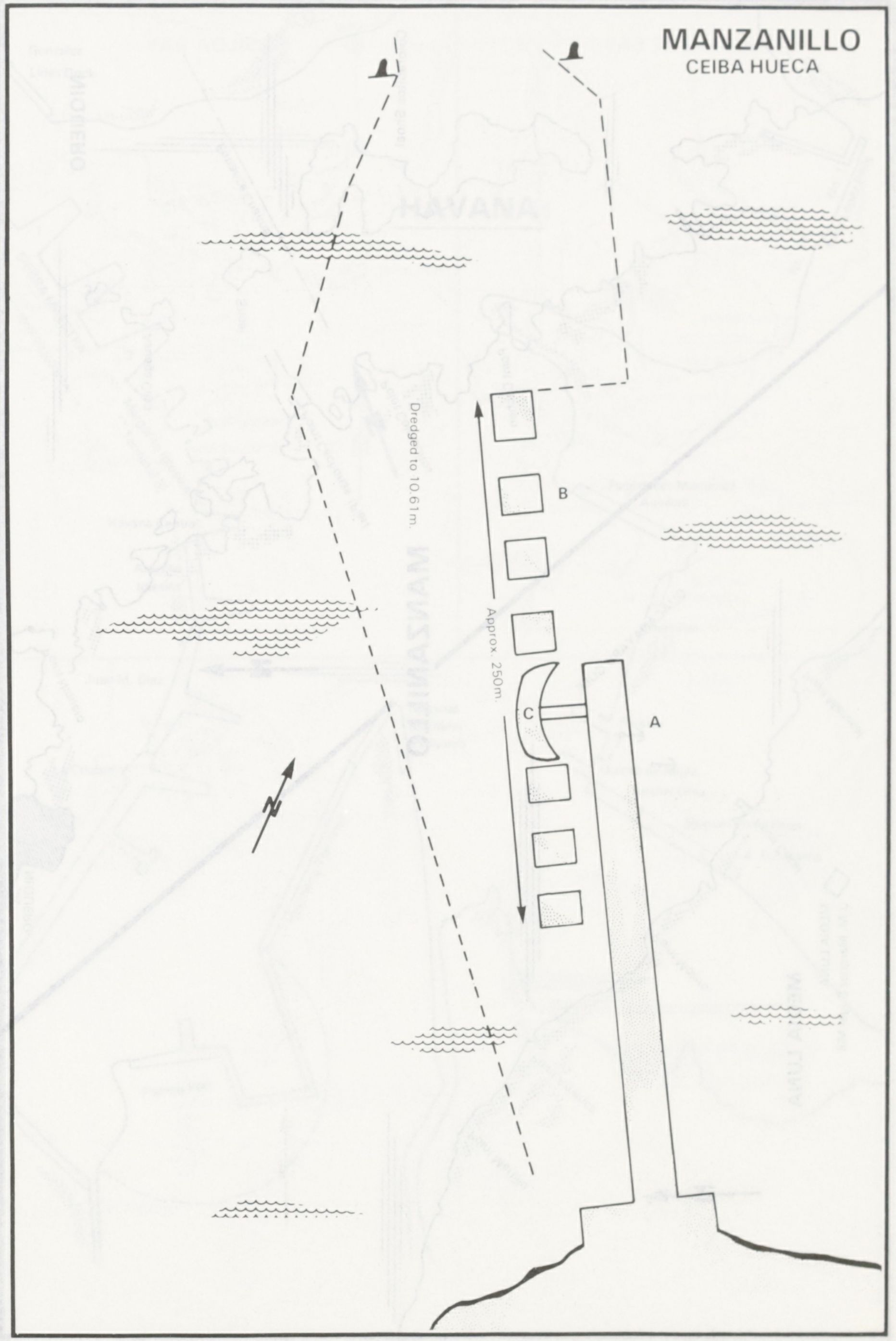
Mariposa Cay
Hachuela Cay
ATLANTIC OCEAN
La Cruz Cay
Del Cristo Cay
Paloma Cay
Lebisa Cay
Point Sotavento
Sagua La Grande River
TOWN OF ISABELA
N


MANZANILLO

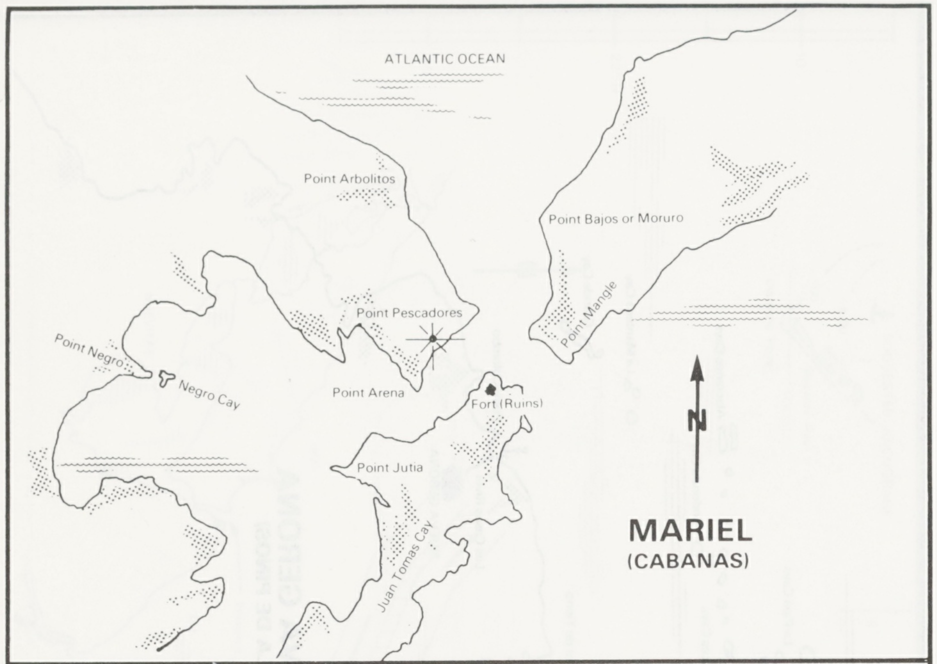
NIQUERO
NIQUERO
Point Niquero
Azuaga Cays
Shoal
Entrance Channel
Point Cachones (Pier)
Coloraditos Shoal
Point Coloraditos
Point Cachon
N
GUACANAYABO GULF
Point Martillo
Point America
Point Molero
Point Cocal
Point Manacal
MEDIA LUNA
MEDIA LUNA
J.M. Marquez Sugar Mill
N

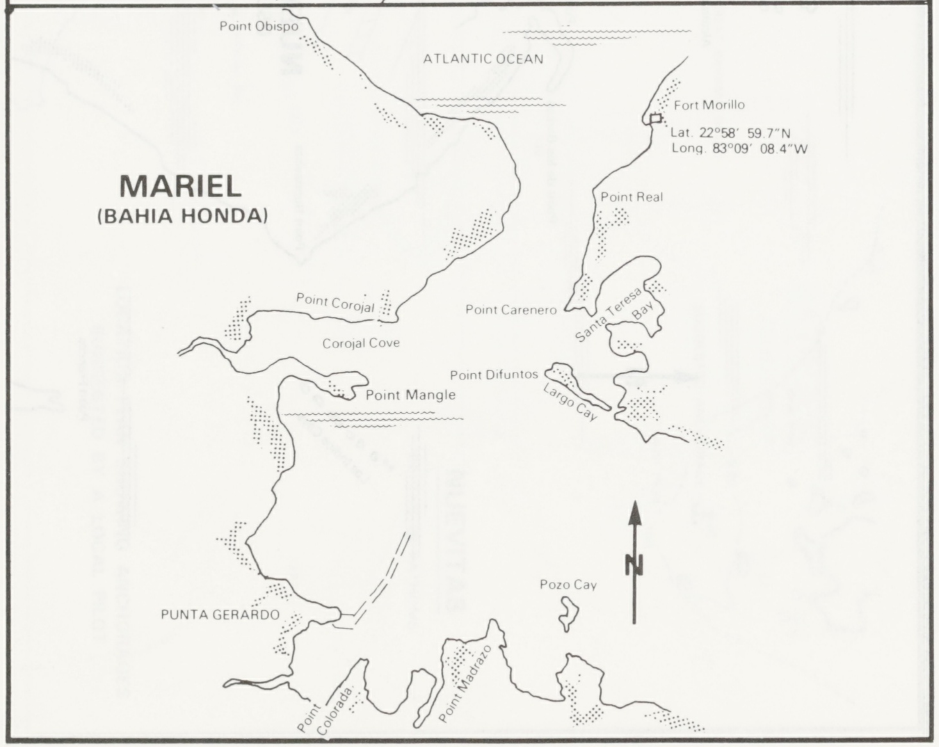

MANZANILLO
(CEIBA HUECA)
Manzanillo Cays
Perla Cay
To Bayamo
MANZANILLO
Gua Passage
Gua Cay
Blanco Cay
Point Gua
Calicito
Campecheula
CEIBA HUECA

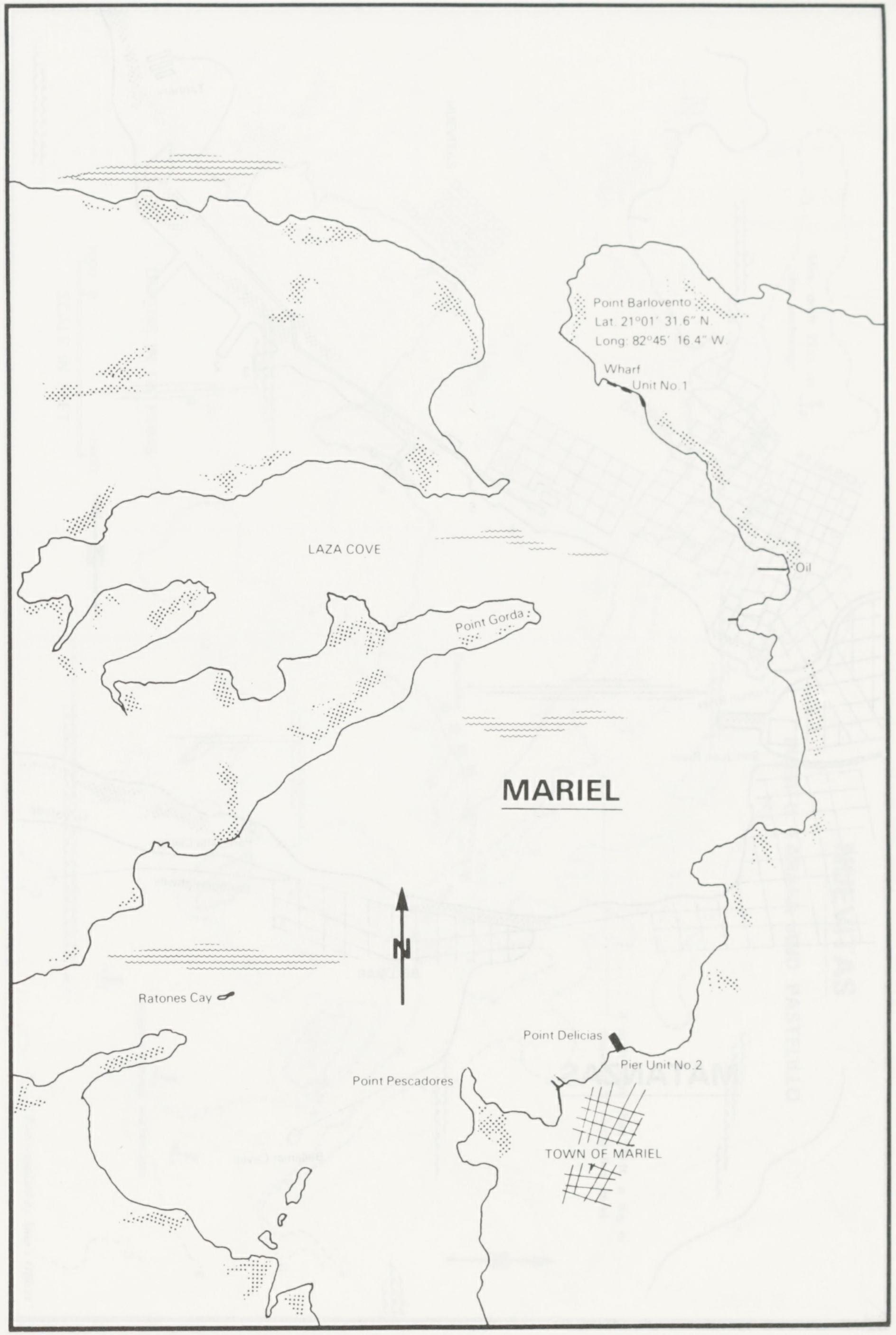

N
Sugar Mill
Pilon
Huevo Cay
Purgatorio Cay
Pajaro Cay
Blanco Cay
Point Hicacos
MANZANILLO
(PILON-ENSENADA DE MORA)
CARIBBEAN SEA

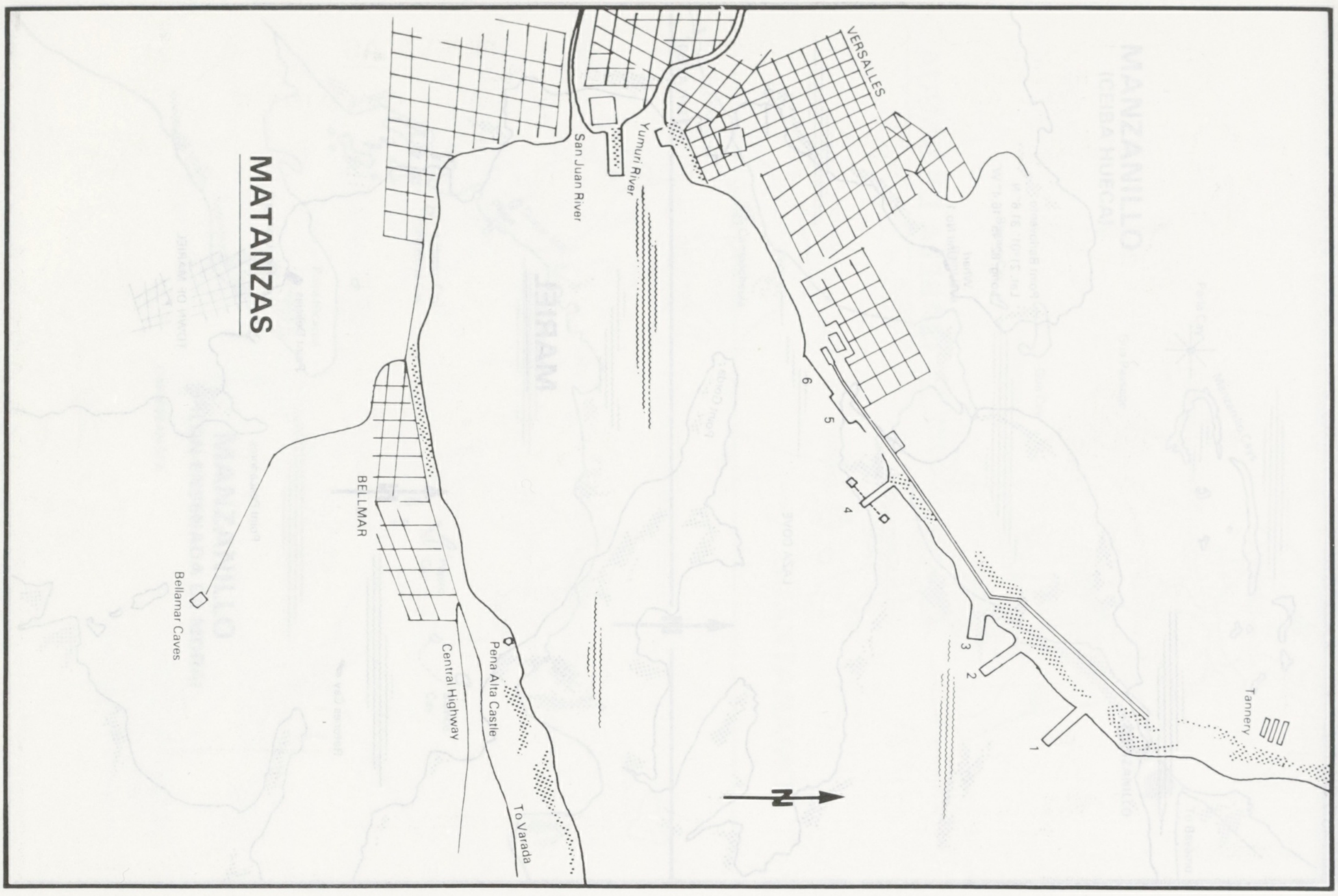

MANZANILLO
CEIBA HUECA
Dredged to 10.61m.
Approx. 250m.
B
C
A
N

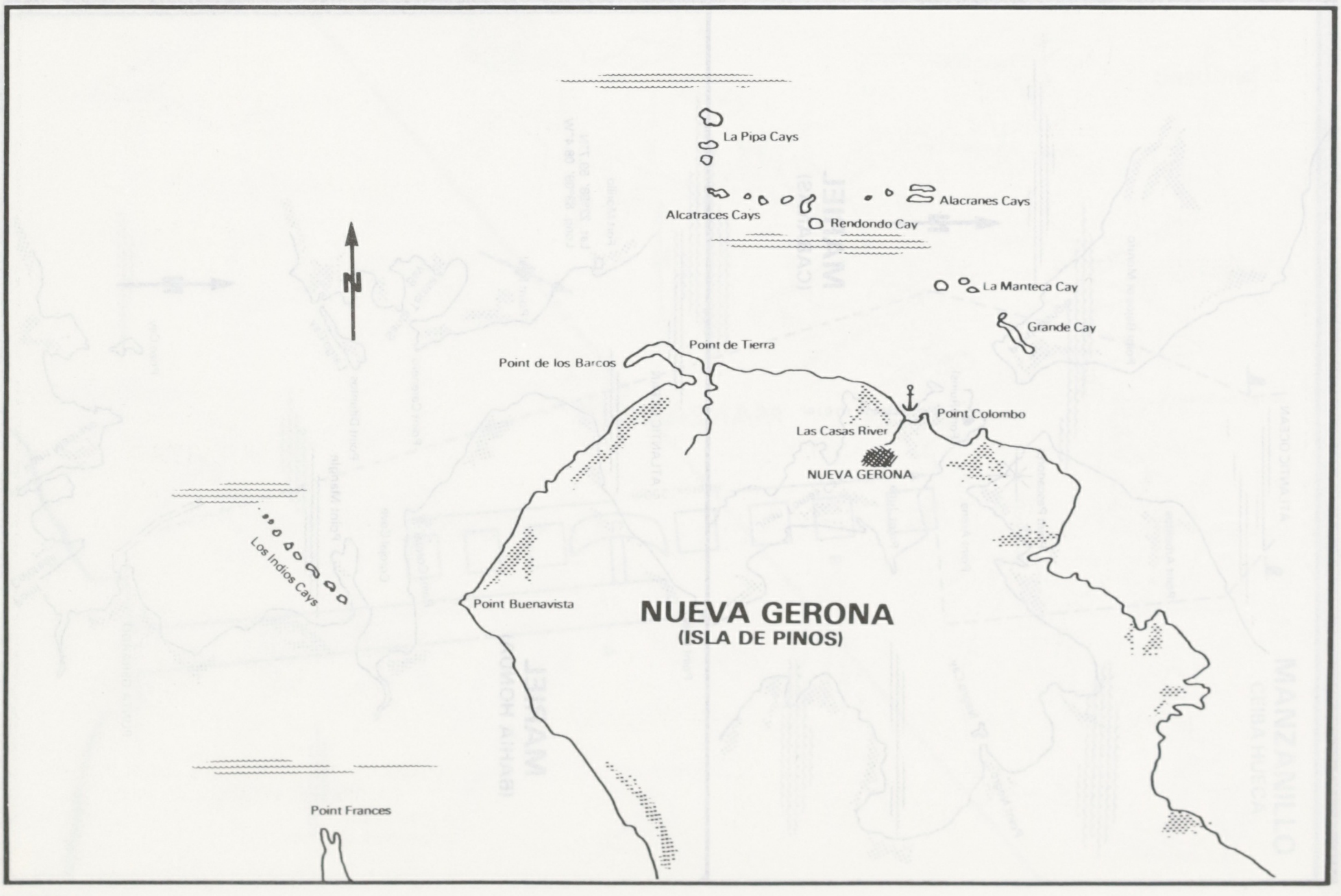
"Plan supplied by Ship's Master"

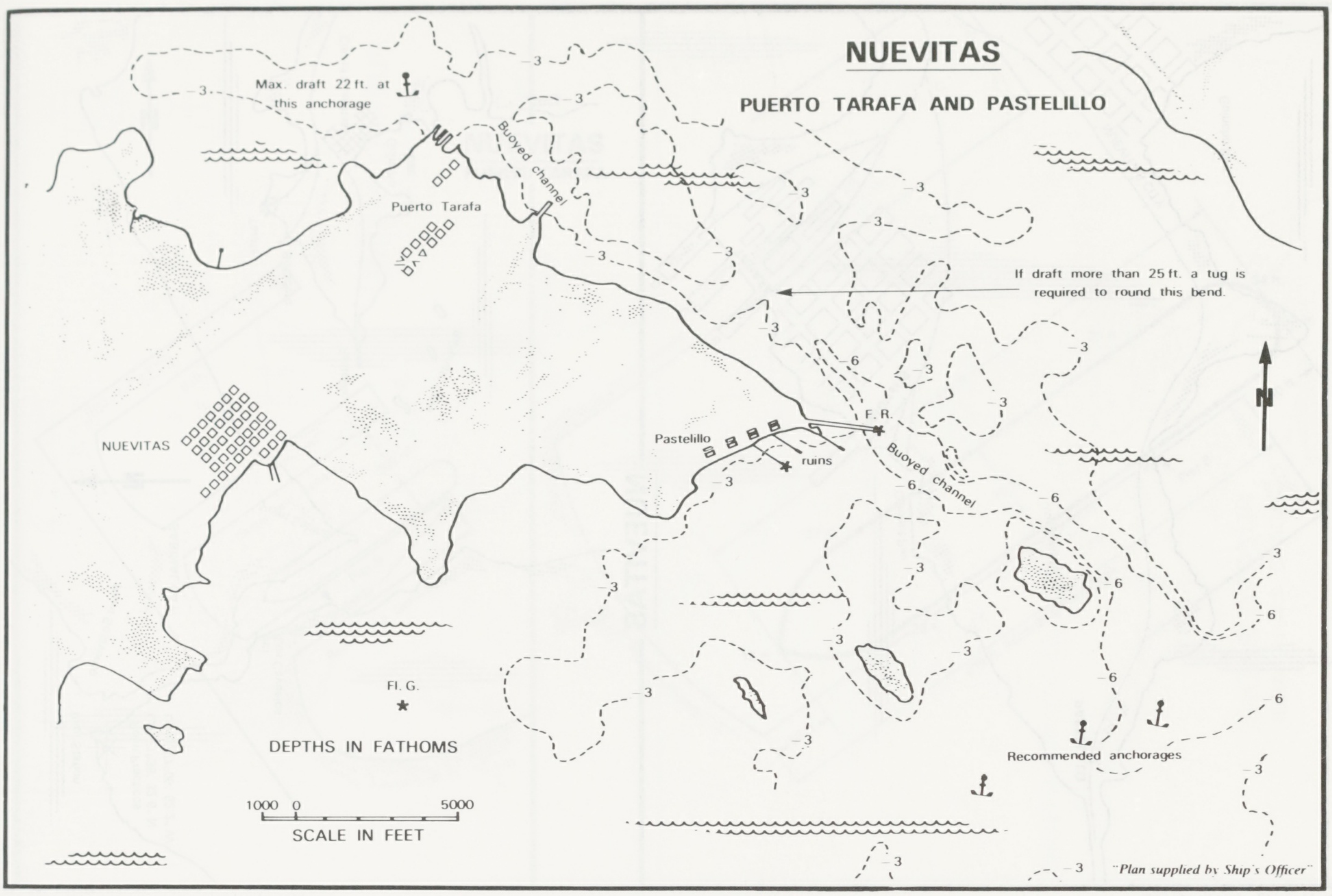

ATLANTIC OCEAN
Point Arbolitos
Point Bajos or Moruro
Point Pescadores
Point Mangle
Point Negro
Negro Cay
Point Arena
Fort (Ruins)
N
Point Jutia
Juan Tomas Cay
MARIEL
(CABANAS)


Point Obispo
ATLANTIC OCEAN
Fort Morillo
Lat. 22°58' 59.7"N
Long. 83°09' 08.4"W
MARIEL
(BAHIA HONDA)
Point Real
Point Corojal
Point Carenero
Santa Teresa Bay
Corojal Cove
Point Difuntos
Point Mangle
Largo Cay
N
Pozo Cay
PUNTA GERARDO
Point Colorada
Point Madrazo


Point Barlovento
Lat. 21°01' 31.6" N
Long. 82°45' 16.4" W
Wharf
Unit No. 1
LAZA COVE
Oil
Point Gorda
MARIEL
N
Ratones Cay
Point Delicias
Pier Unit No. 2
Point Pescadores
TOWN OF MARIEL


MATANZAS
VERSALLES
San Juan River
Yumuri River
BELLMAR
Bellamar Caves
Central Highway
Pena Alta Castle
To Varada
Tannery
1
2
3
4
5
6
N


La Pipa Cays
Alcatraces Cays
Rendondo Cay
Alacranes Cays
La Manteca Cay
Grande Cay
N
Point de Tierra
Point de los Barcos
Point Colombo
Las Casas River
NUEVA GERONA
Los Indios Cays
Point Buenavista
NUEVA GERONA
(ISLA DE PINOS)
Point Frances

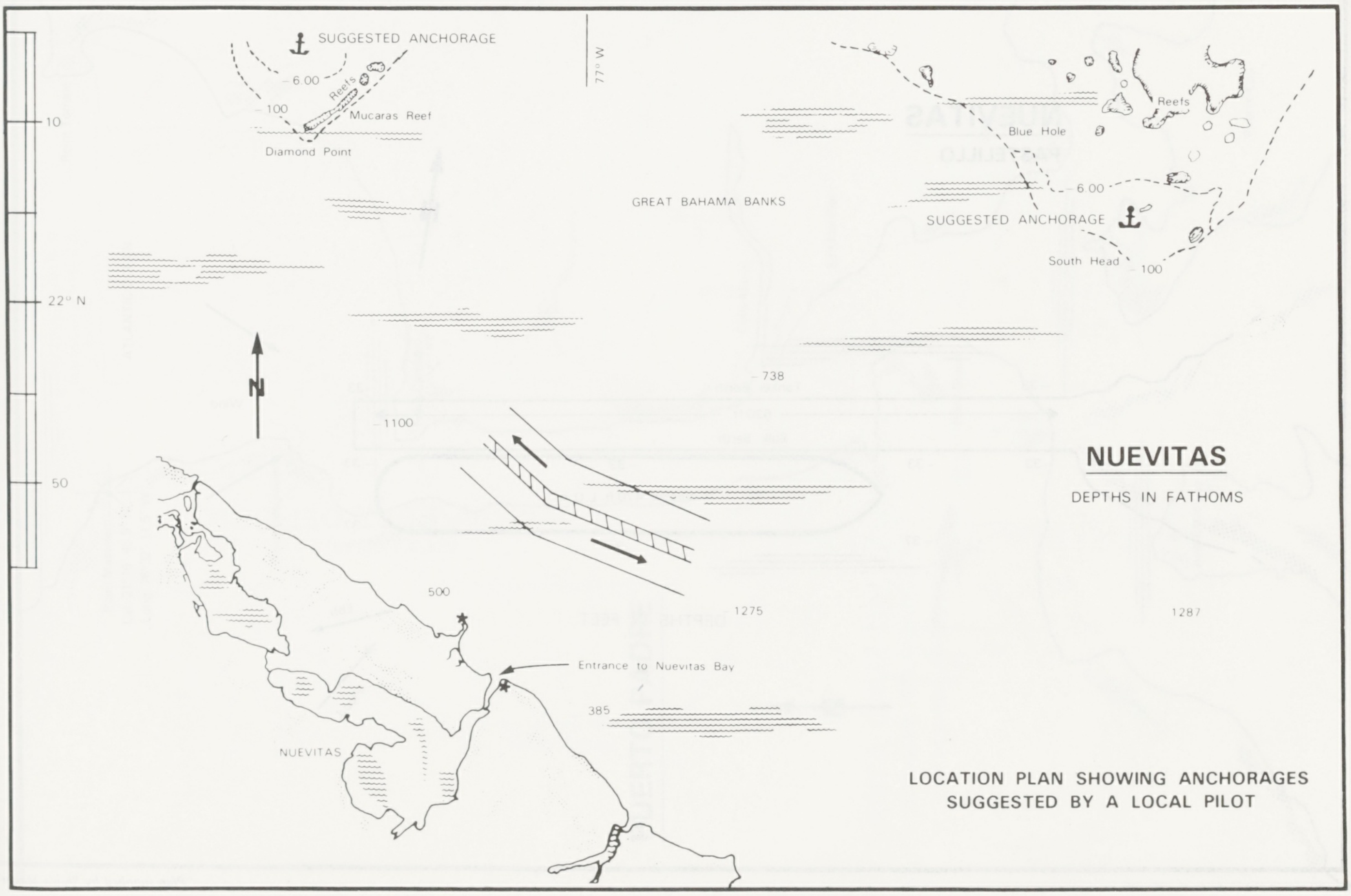


NUEVITAS

PUERTO TARAFA AND PASTELILLO

Max. draft 22 ft. at this anchorage
Puerto Tarafa
Buoyed channel
If draft more than 25 ft. a tug is required to round this bend.
NUEVITAS
Pastelillo
ruins
F. R.
Buoyed channel
Fl. G.
Recommended anchorages
DEPTHS IN FATHOMS
1000 0 5000
SCALE IN FEET
N
3
6

"Plan supplied by Ship's Officer"

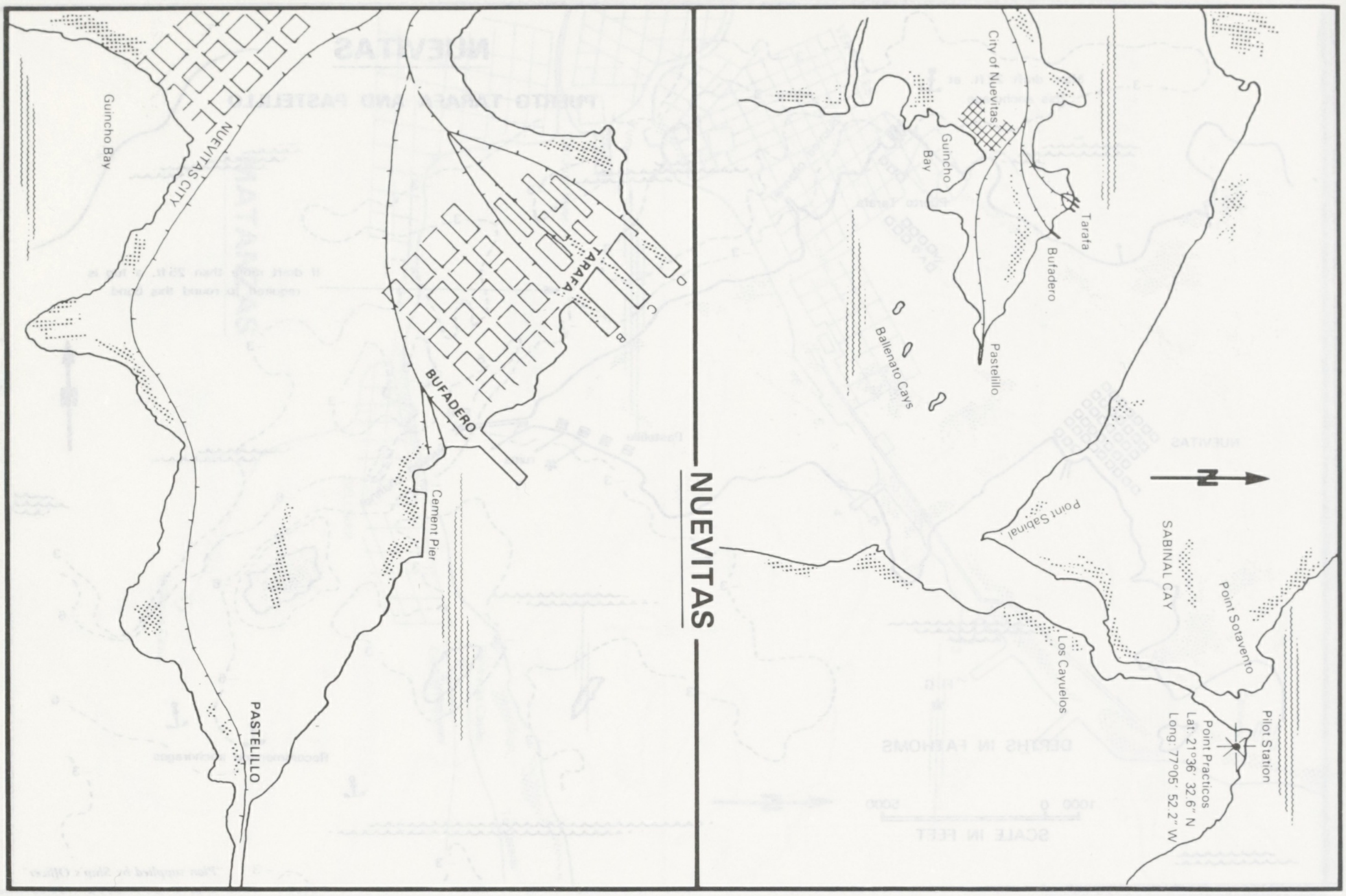


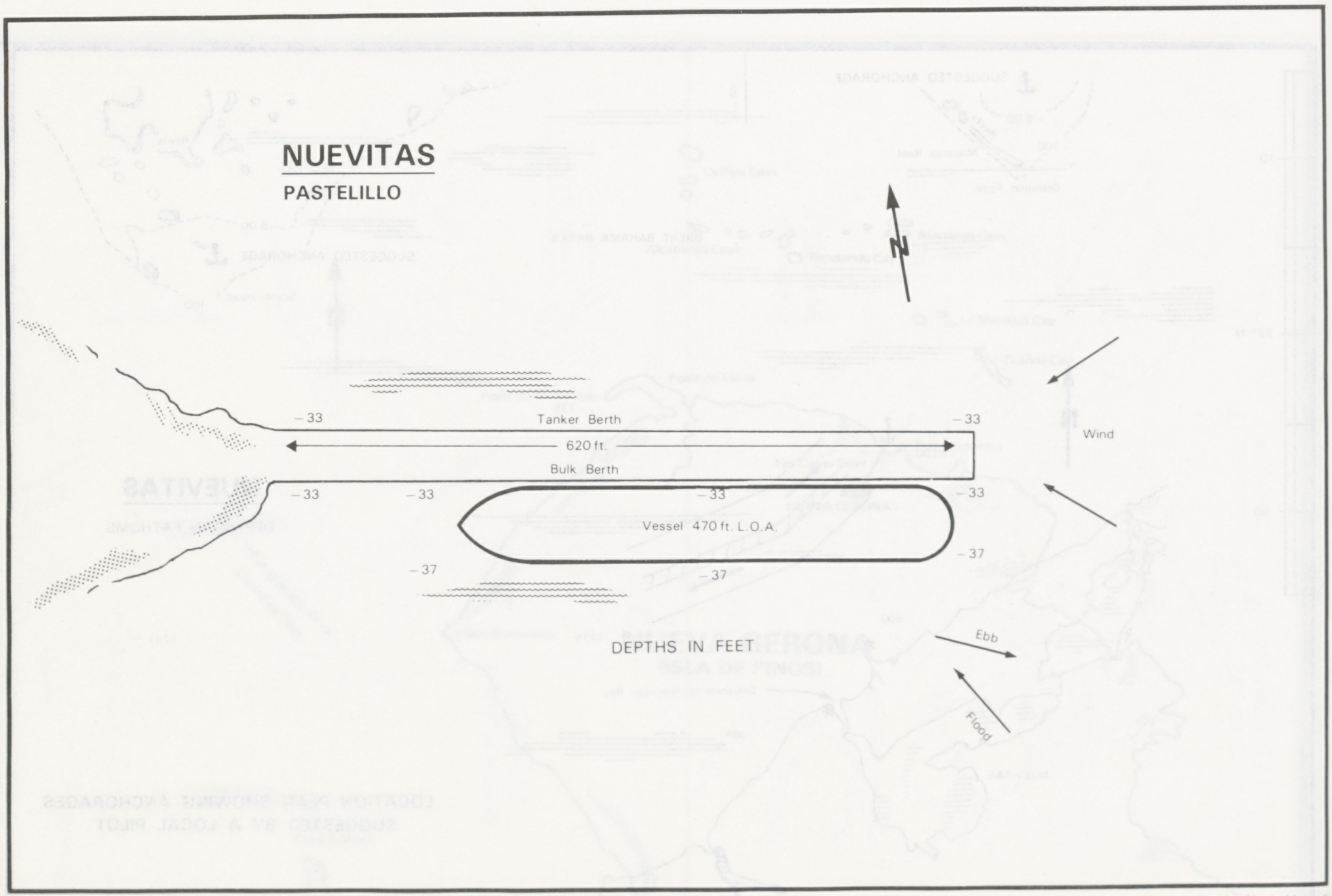
SUGGESTED ANCHORAGE
6.00
Reefs
100
Mucaras Reef
Diamond Point
77° W
10
22° N
50
GREAT BAHAMA BANKS
Reefs
Blue Hole
6.00
SUGGESTED ANCHORAGE
South Head
100
738
1100
N
500
1275
1287
Entrance to Nuevitas Bay
385
NUEVITAS

NUEVITAS

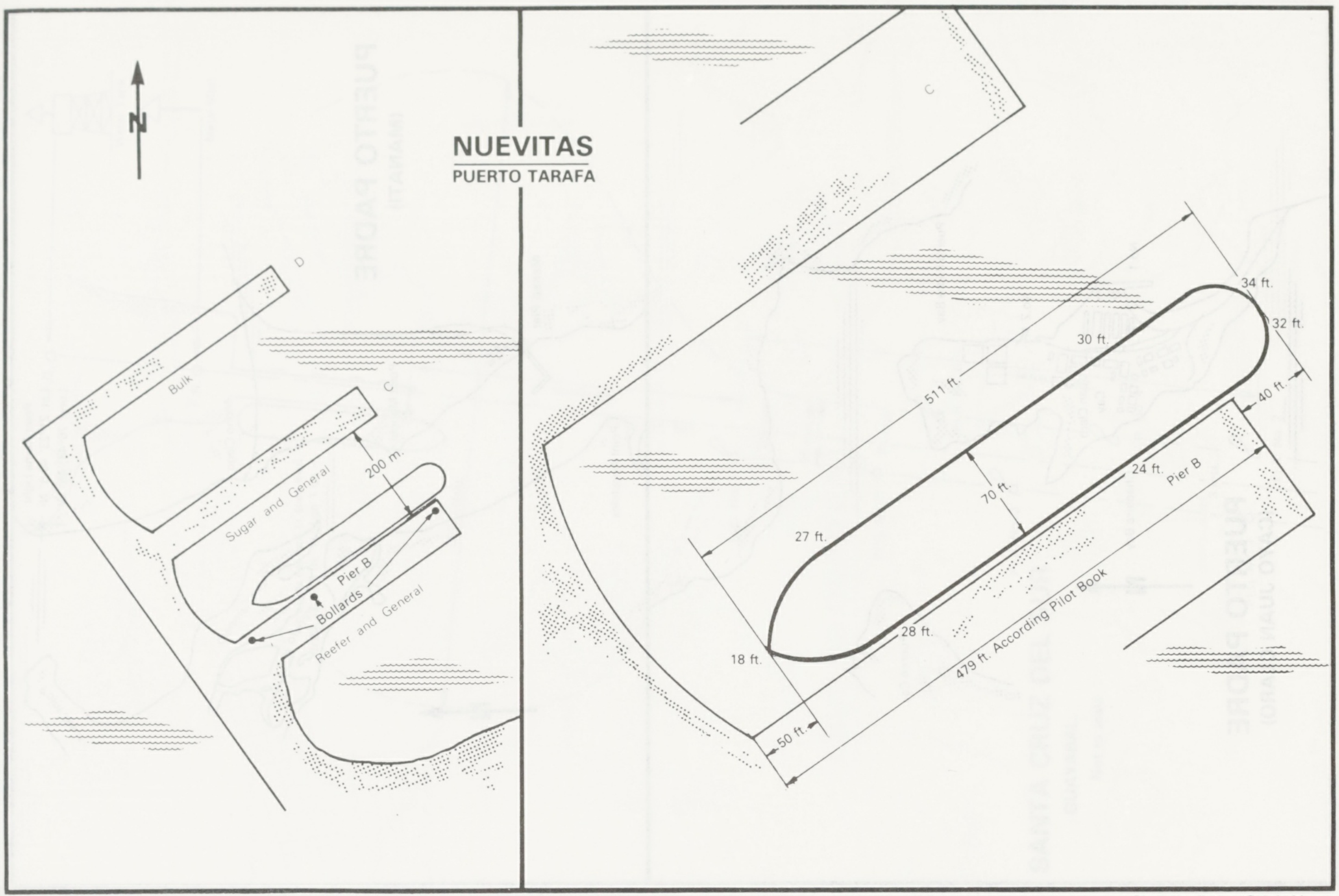
DEPTHS IN FATHOMS

LOCATION PLAN SHOWING ANCHORAGES SUGGESTED BY A LOCAL PILOT

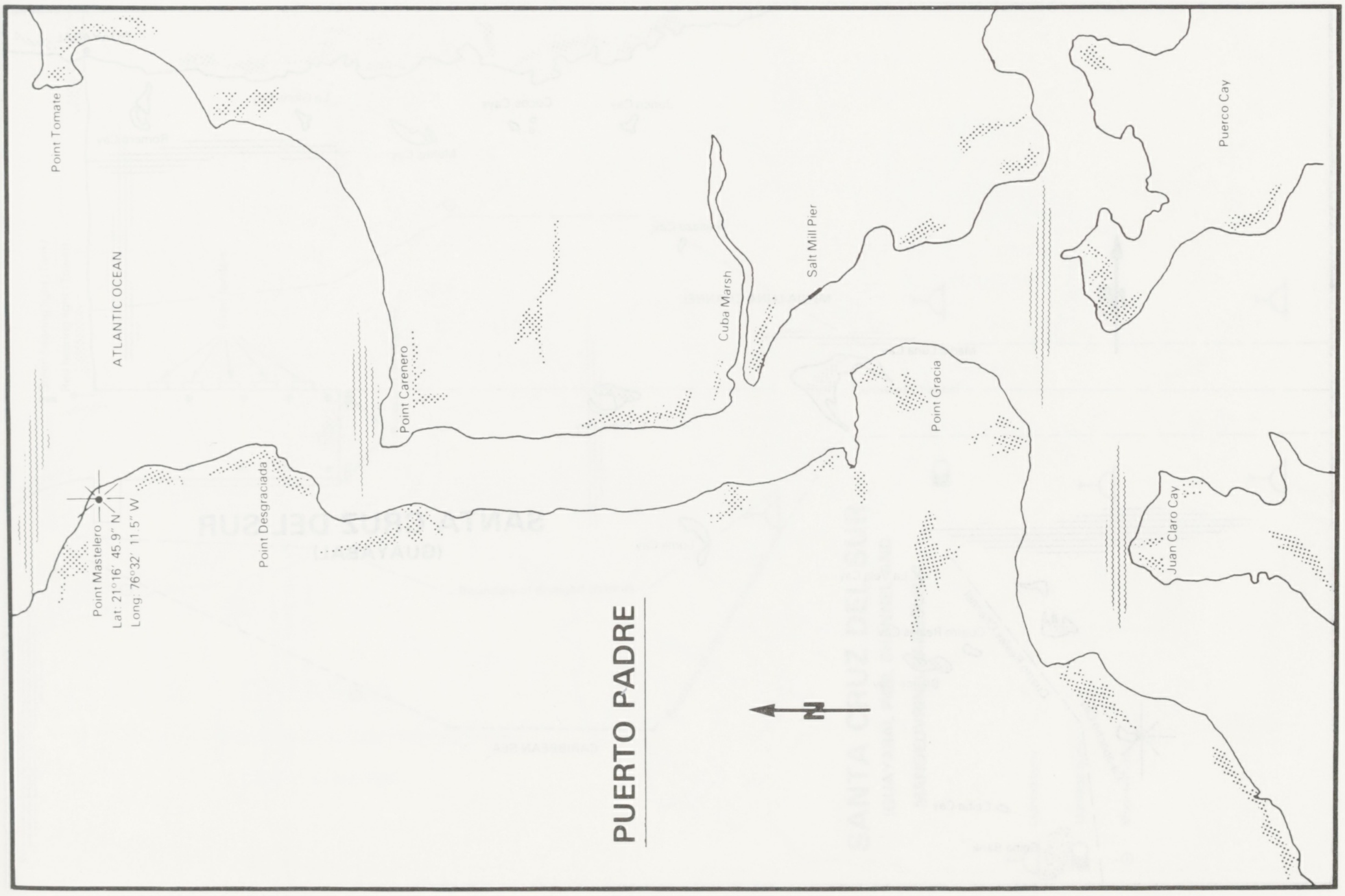

NUEVITAS
Guincho Bay
NUEVITAS CITY
TARAFA
A
B
C
D
BUFADERO
Cement Pier
PASTELILLO
City of Nuevitas
Guincho Bay
Tarafa
Bufadero
Pastelillo
Ballenato Cays
Point Sabinal
SABINAL CAY
Point Sotavento
Los Cayuelos
Pilot Station
Point Practicos
Lat: 21°36' 32.6" N
Long: 77°05' 52.2" W
N

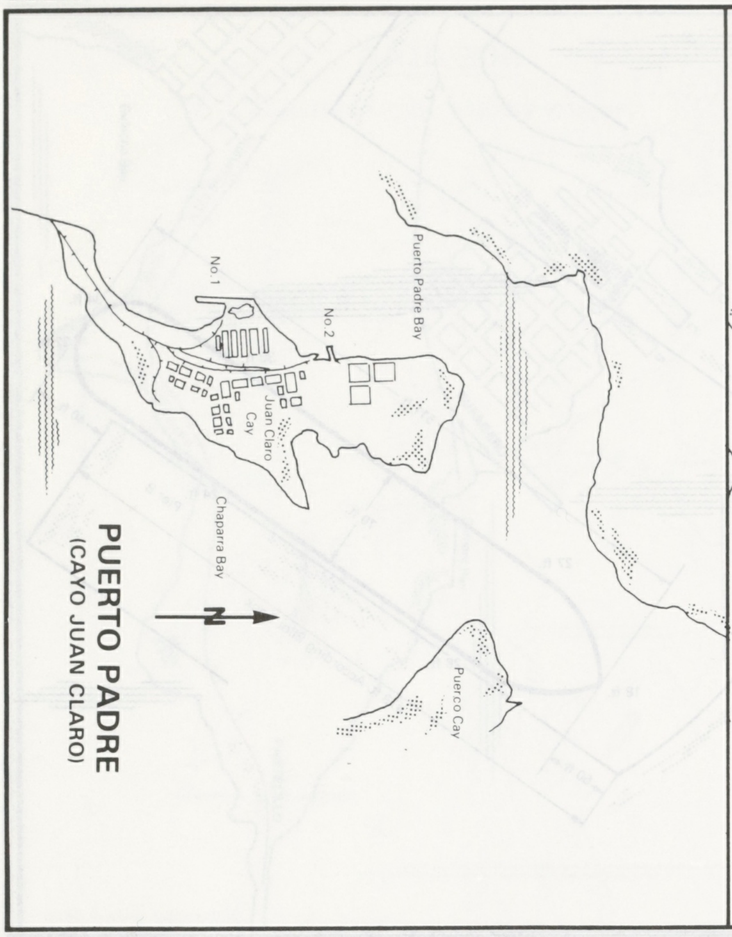

NUEVITAS
PASTELILLO
N
– 33
– 33
Tanker Berth
620 ft.
Bulk Berth
– 33
– 33
– 33
– 33
Vessel 470 ft. L.O.A.
– 37
– 37
– 37
DEPTHS IN FEET
Wind
Ebb
Flood

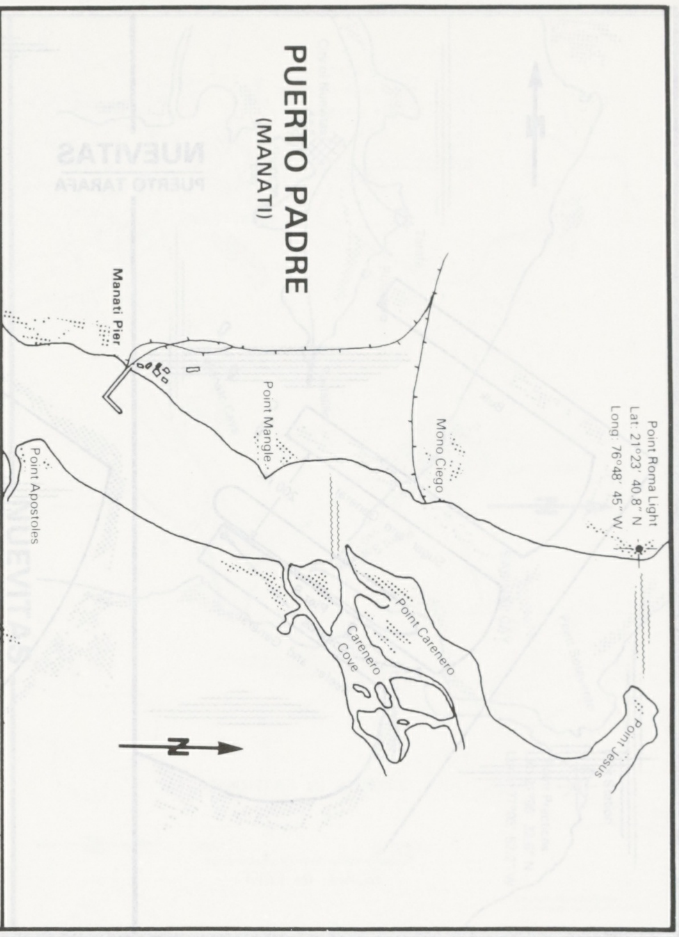
"Plan supplied by Ship's Master"

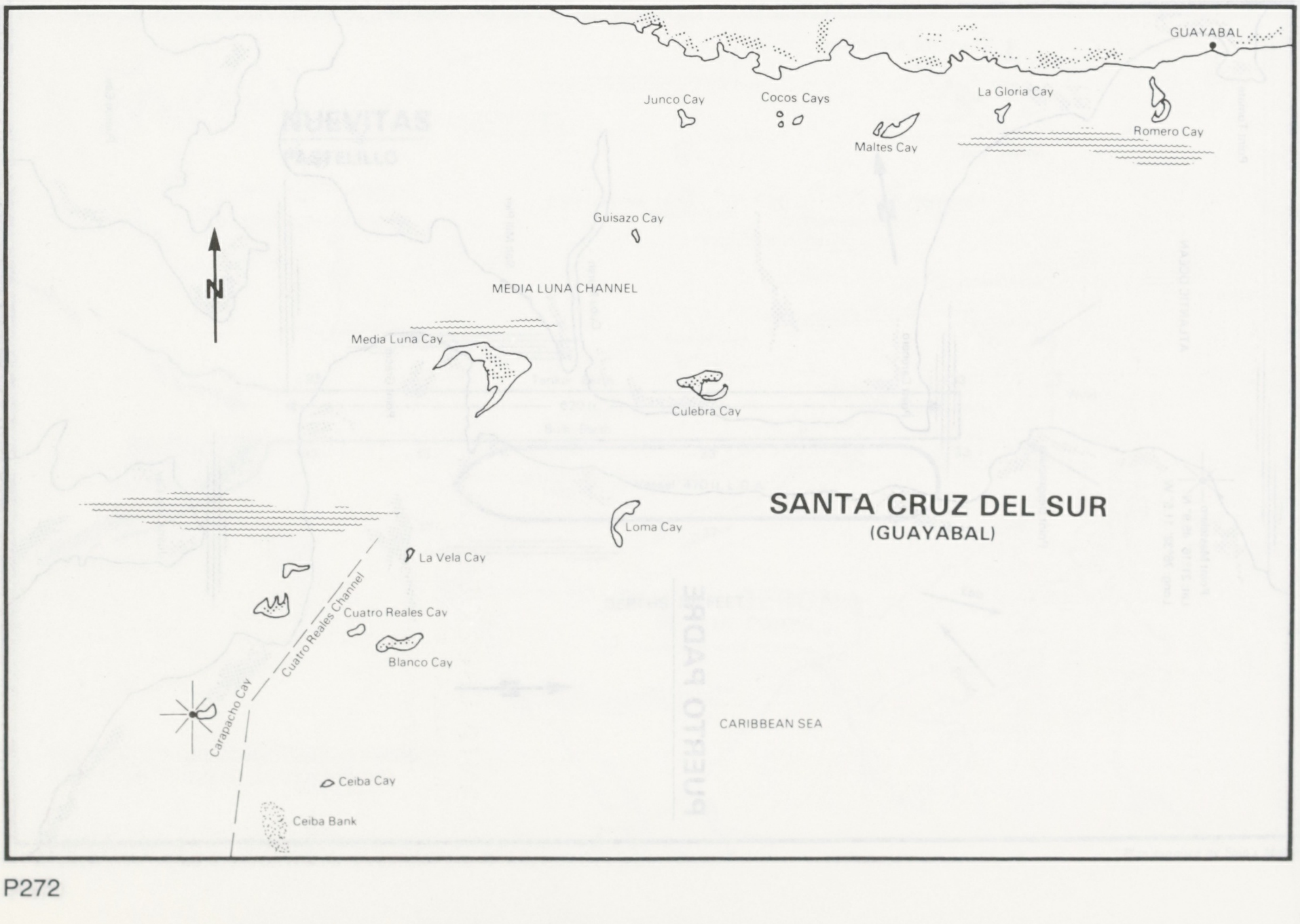

NUEVITAS
PUERTO TARAFA
N
D
Bulk
C
Sugar and General
200 m.
Pier B
Bollards
Reefer and General
C
511 ft.
34 ft.
32 ft.
30 ft.
40 ft.
24 ft.
Pier B
70 ft.
27 ft.
28 ft.
18 ft.
479 ft. According Pilot Book
50 ft.

Plan supplied by Ship's Master


Point Tomate
ATLANTIC OCEAN
Point Carenero
Cuba Marsh
Salt Mill Pier
Puerco Cay
Point Gracia
Point Desgraciada
Point Mastelero
Lat 21°16' 45.9" N
Long 76°32' 11.5" W
Juan Claro Cay
PUERTO PADRE
N

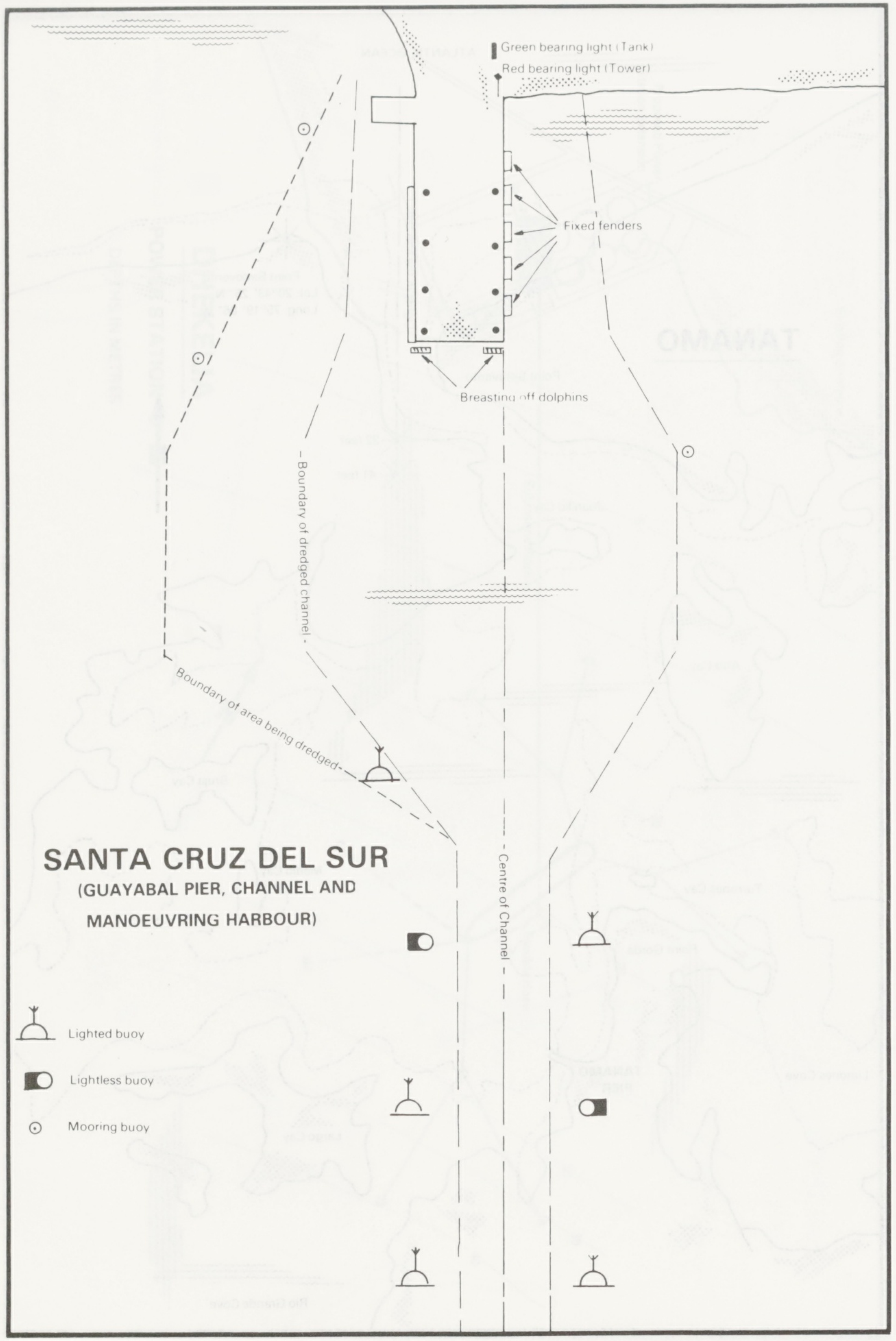

PUERTO PADRE
(CAYO JUAN CLARO)
No. 1
No 2
Juan Claro Cay
Chaparra Bay
Puerto Padre Bay
Puerco Cay
N


PUERTO PADRE
(MANATI)
Manati Pier
Point Mangle
Mono Ciego
Point Roma Light
Lat: 21°23' 40.8" N
Long: 76°48' 45" W
Point Apostoles
Point Carenero
Carenero Cove
Point Jesus
N


GUAYABAL
Junco Cay
Cocos Cays
La Gloria Cay
Maltes Cay
Romero Cay
Guisazo Cay
MEDIA LUNA CHANNEL
Media Luna Cay
Culebra Cay
N
SANTA CRUZ DEL SUR
(GUAYABAL)
Loma Cay
La Vela Cay
Cuatro Reales Channel
Cuatro Reales Cay
Blanco Cay
Carapacho Cay
CARIBBEAN SEA
Ceiba Cay
Ceiba Bank

SANTA CRUZ DEL SUR

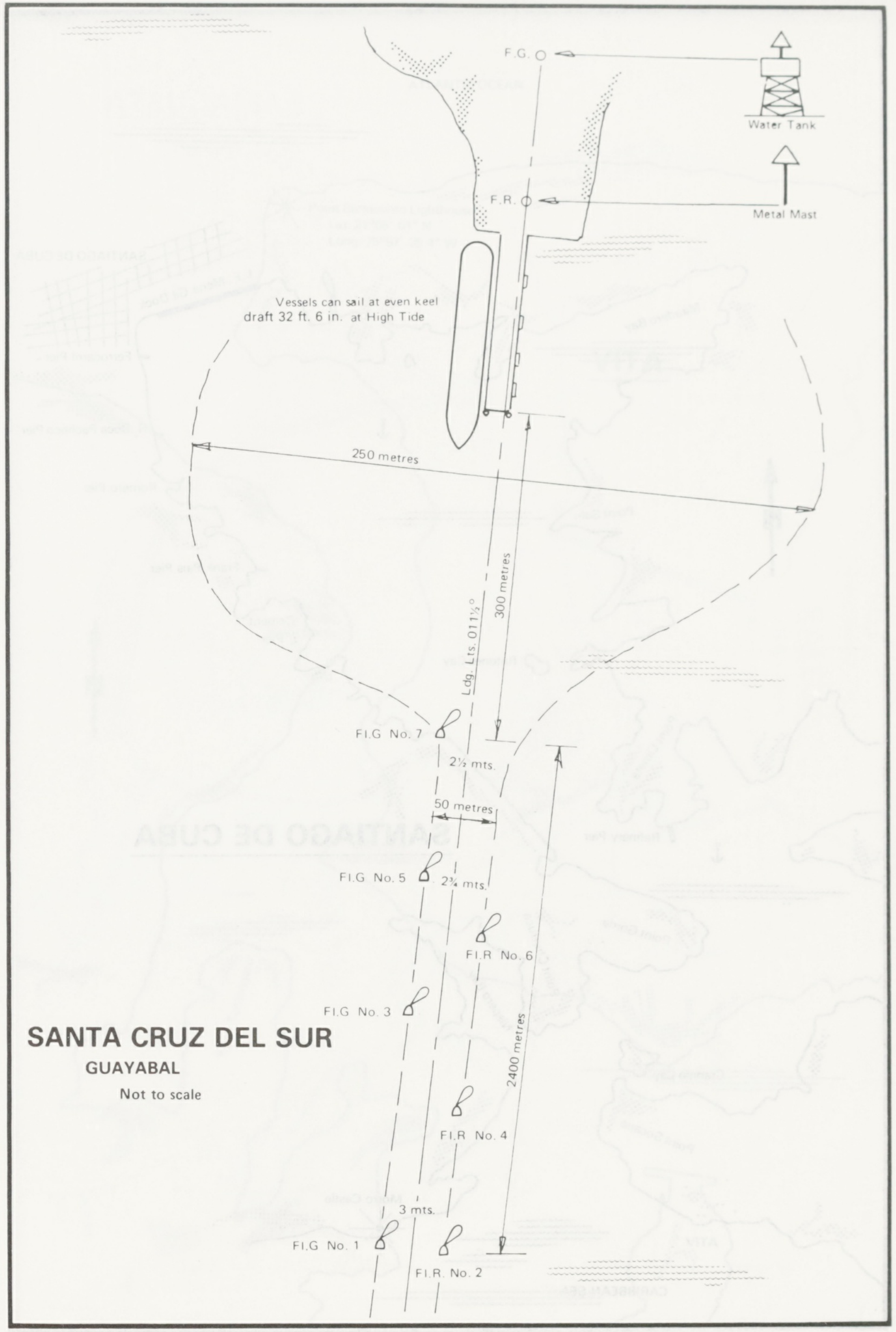
(GUAYABAL PIER, CHANNEL AND MANOEUVRING HARBOUR)


Green bearing light (Tank)
Red bearing light (Tower)
Fixed fenders
Breasting off dolphins
Boundary of dredged channel
Boundary of area being dredged
Centre of Channel
Lighted buoy
Lightless buoy
Mooring buoy

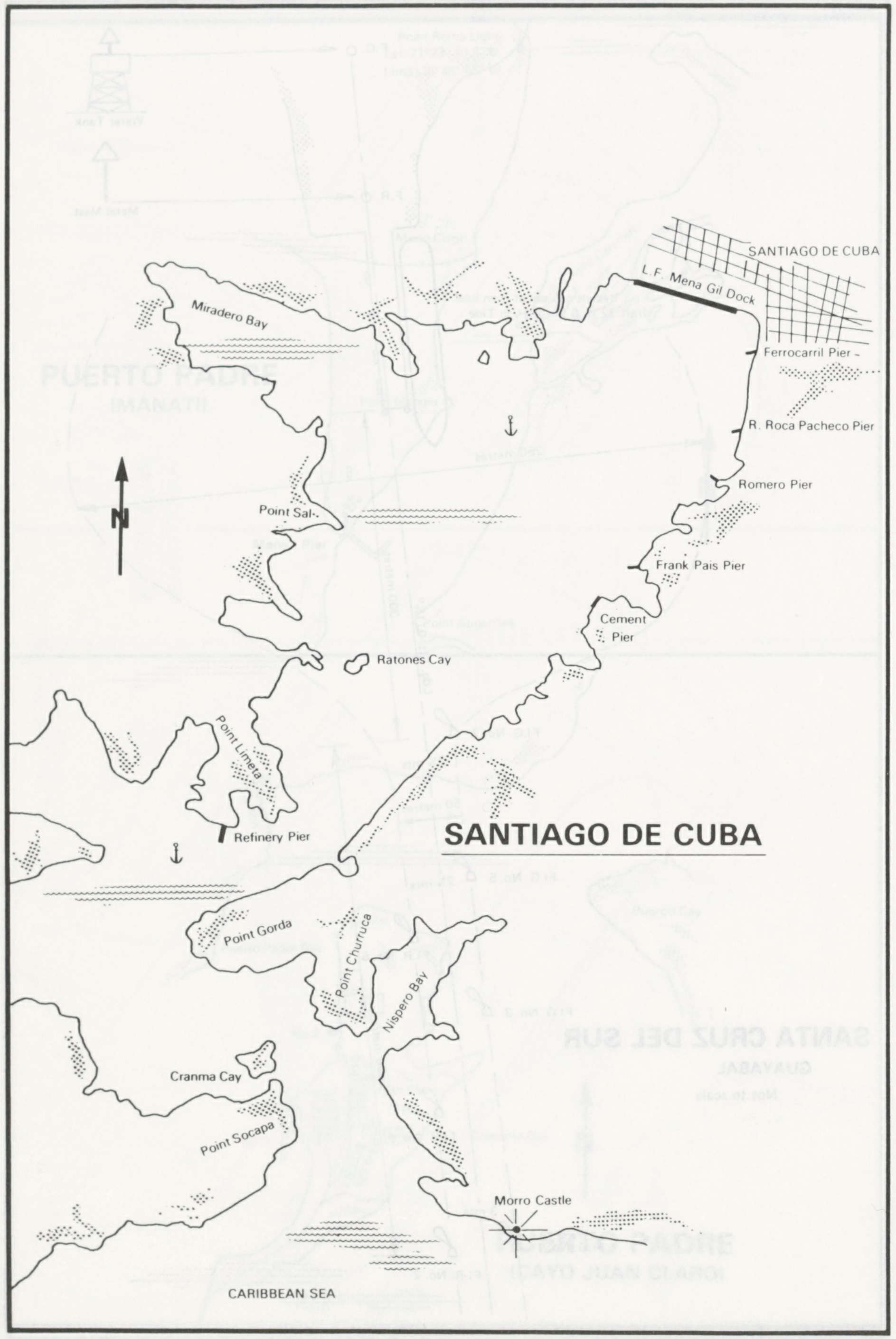
SANTA CRUZ DEL SUR

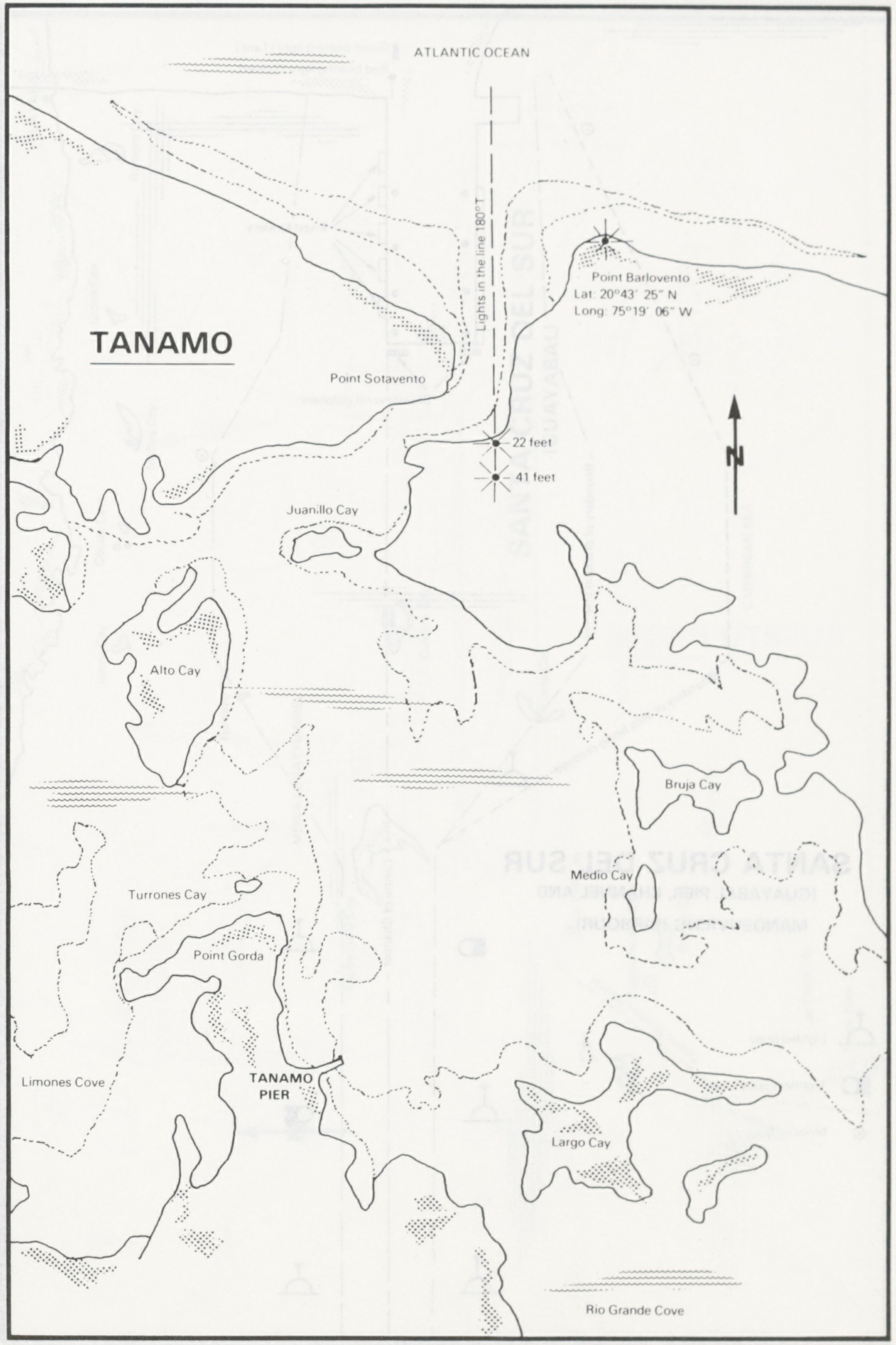
GUAYABAL

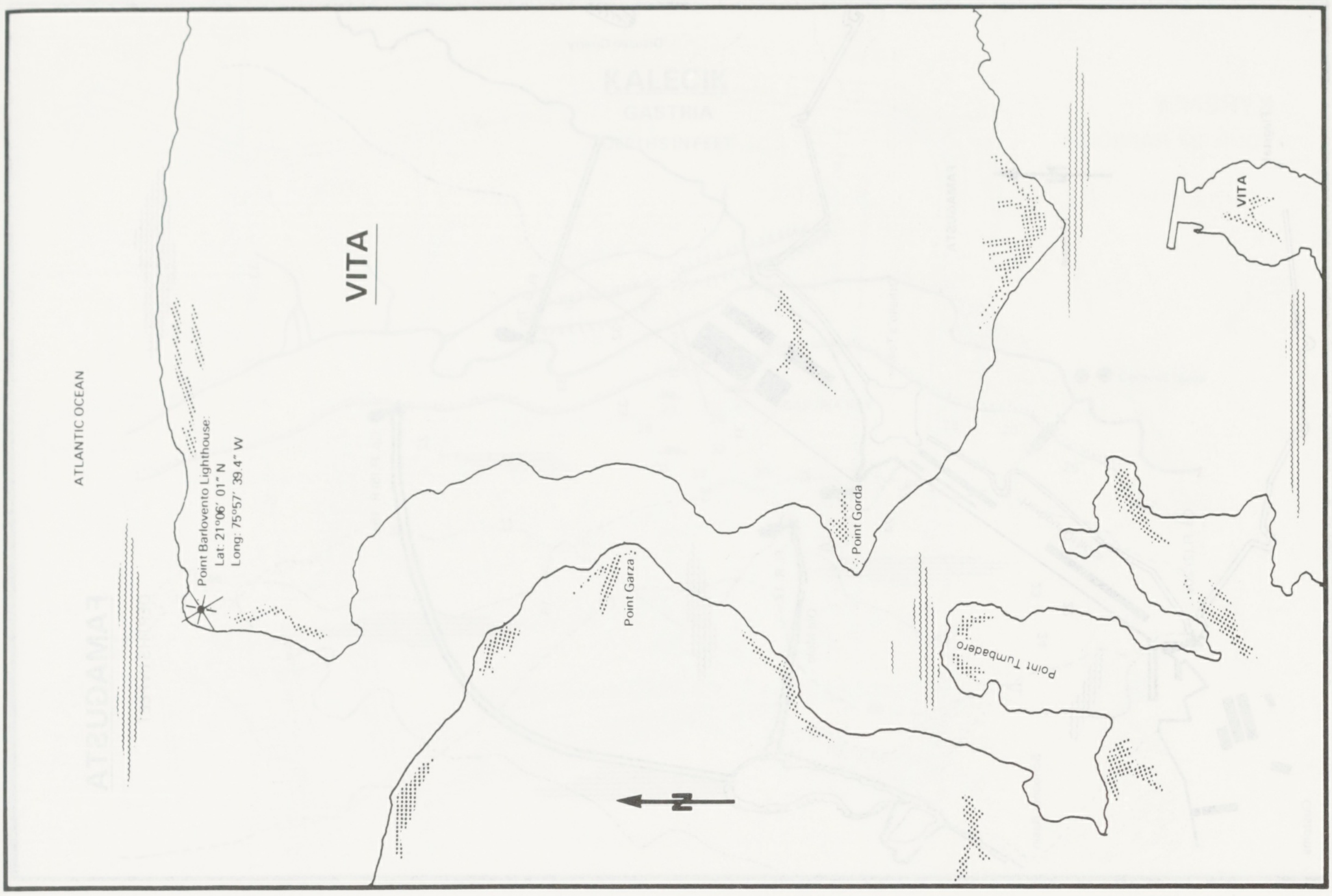
Not to scale

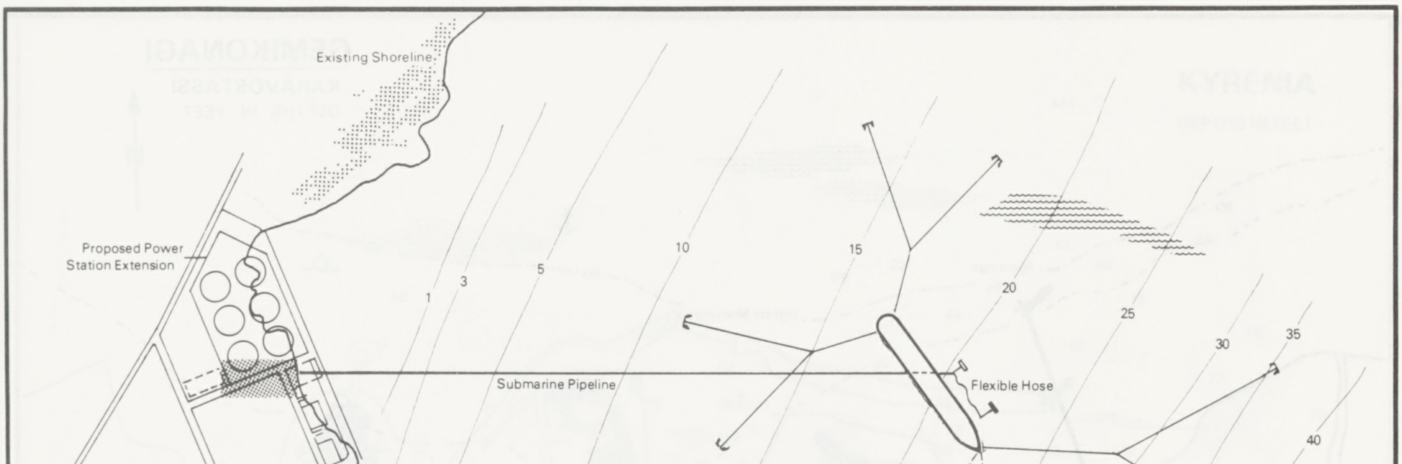

F.G.
Water Tank
F.R.
Metal Mast
Vessels can sail at even keel
draft 32 ft. 6 in. at High Tide
250 metres
300 metres
Ldg. Lts. 011½°
Fl.G No. 7
2½ mts.
50 metres
Fl.G No. 5
2¾ mts.
Fl.R No. 6
Fl.G No. 3
2400 metres
Fl.R No. 4
3 mts.
Fl.G No. 1
Fl.R. No. 2

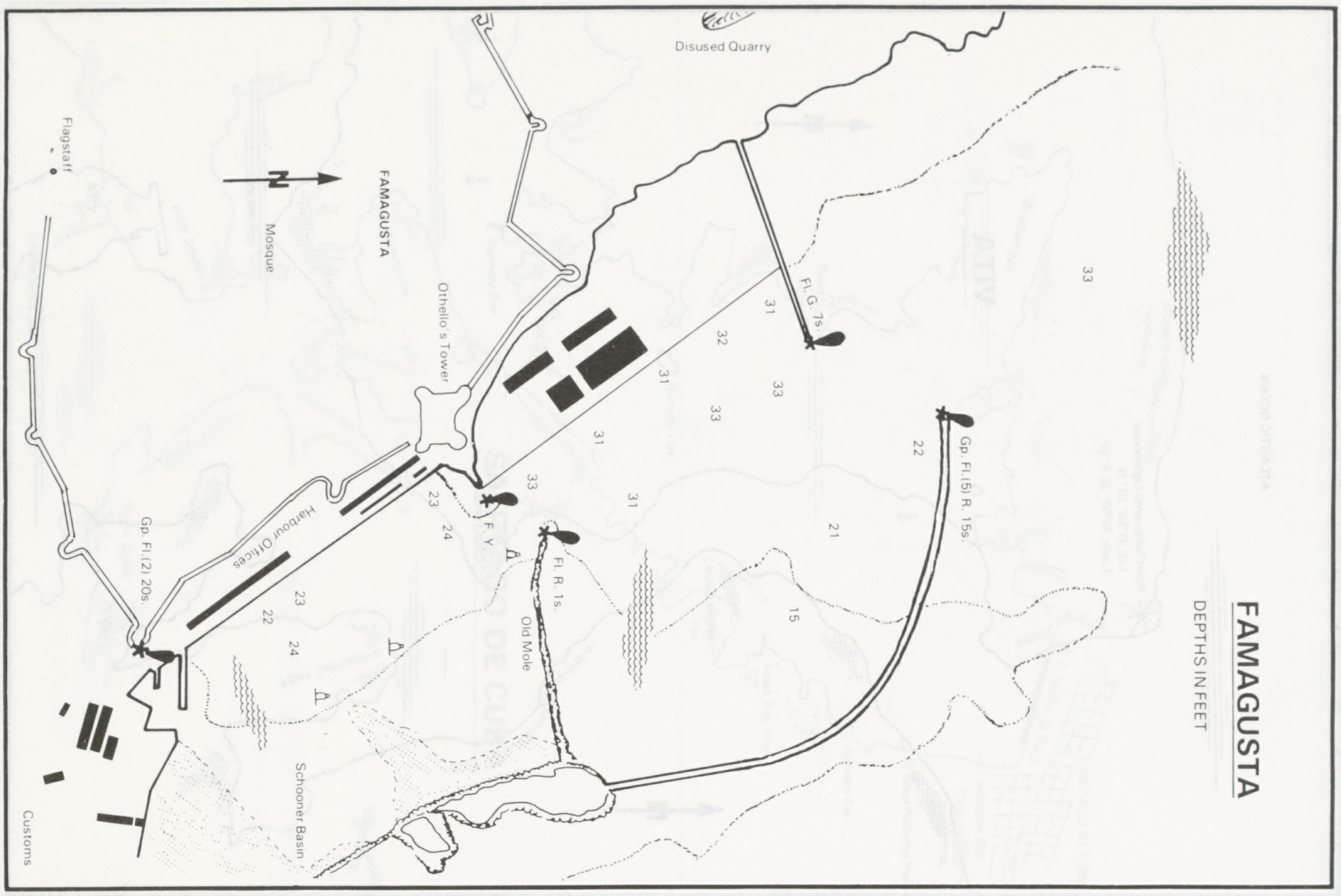
"Plan supplied by Ship's Master"

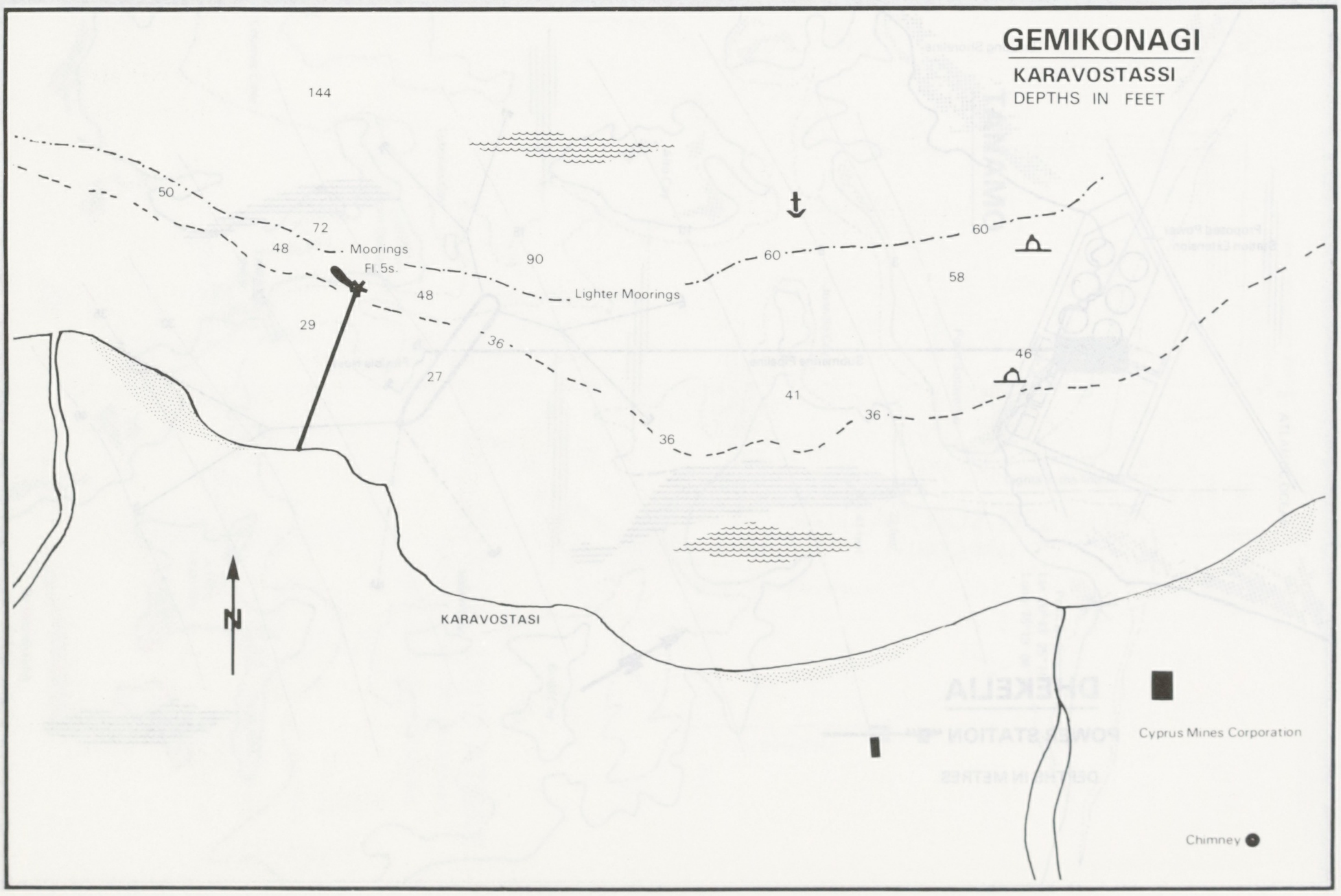

SANTIAGO DE CUBA
L.F. Mena Gil Dock
Ferrocarril Pier
Miradero Bay
R. Roca Pacheco Pier
Romero Pier
N
Point Sal
Frank Pais Pier
Cement Pier
Ratones Cay
Point Limeta
Refinery Pier
SANTIAGO DE CUBA
Point Gorda
Point Churruca
Nispero Bay
Cranma Cay
Point Socapa
Morro Castle
CARIBBEAN SEA

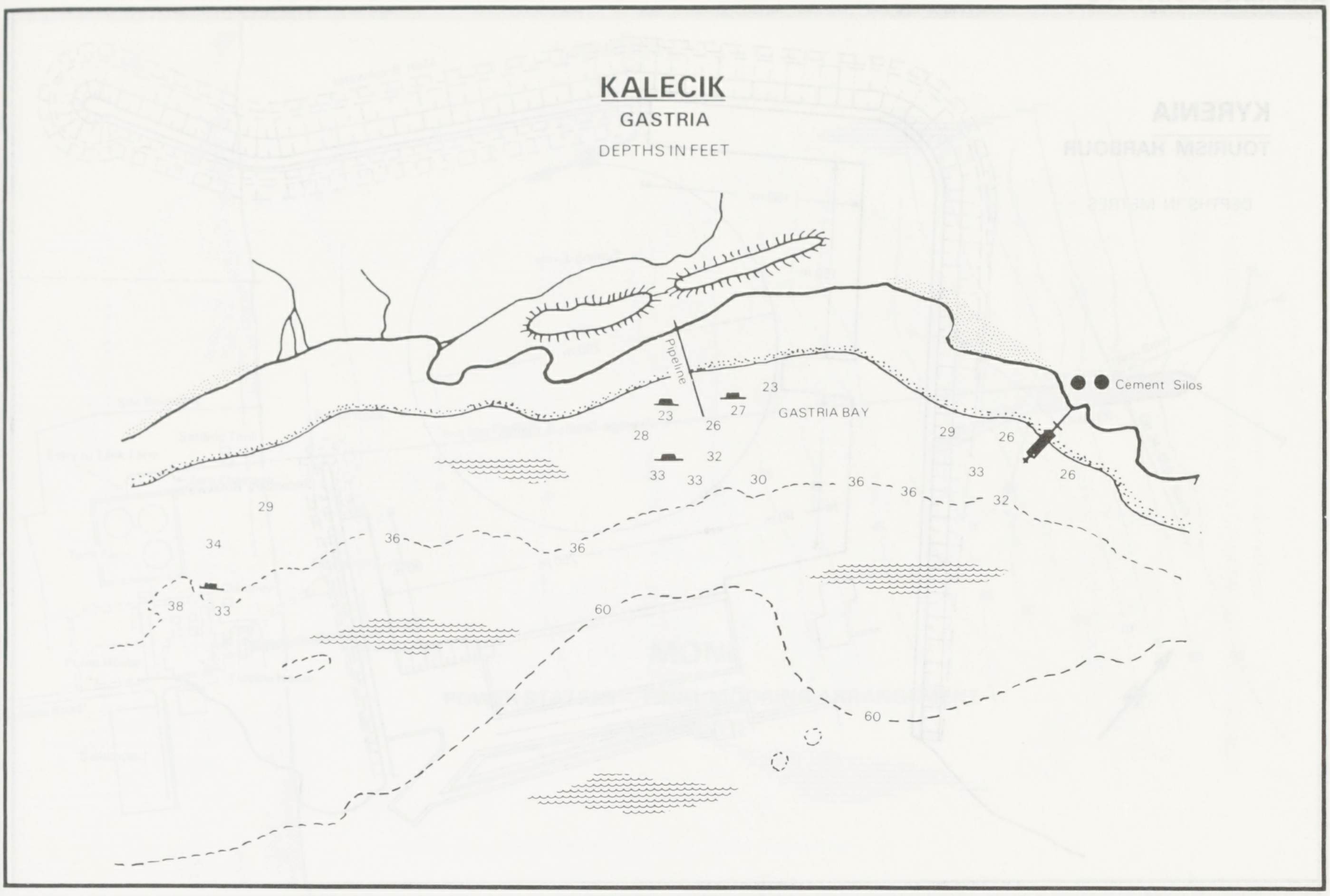

ATLANTIC OCEAN
Lights in the line 180° T
Point Barlovento
Lat: 20°43′ 25″ N
Long: 75°19′ 06″ W
TANAMO
Point Sotavento
22 feet
41 feet
N
Juanillo Cay
Alto Cay
Bruja Cay
Medio Cay
Turrones Cay
Point Gorda
Limones Cove
TANAMO PIER
Largo Cay
Rio Grande Cove

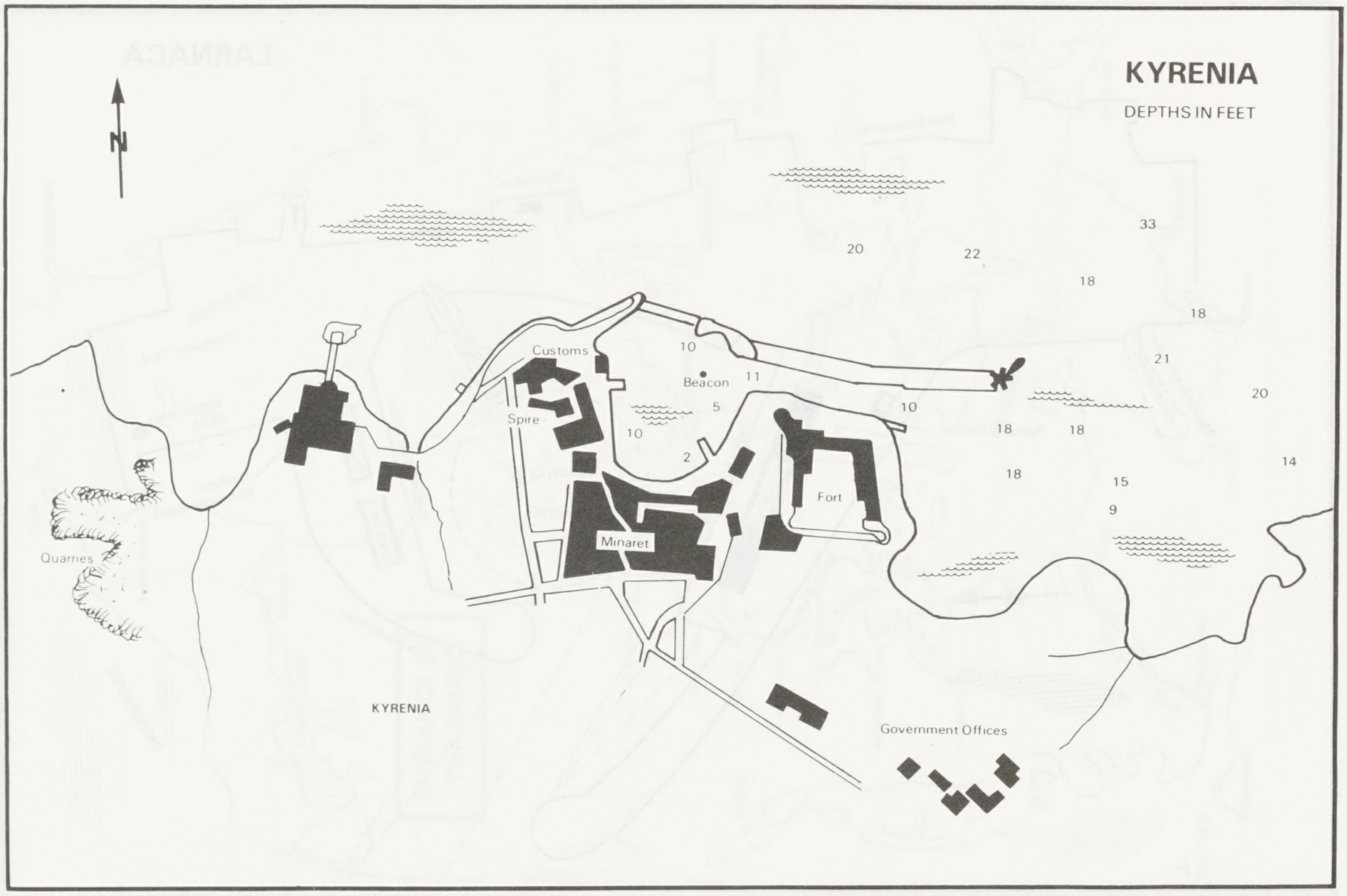

VITA
ATLANTIC OCEAN
Point Barlovento Lighthouse
Lat: 21°06' 01" N
Long: 75°57' 39.4" W
Point Garza
Point Gorda
Point Tumbadero
VITA
N

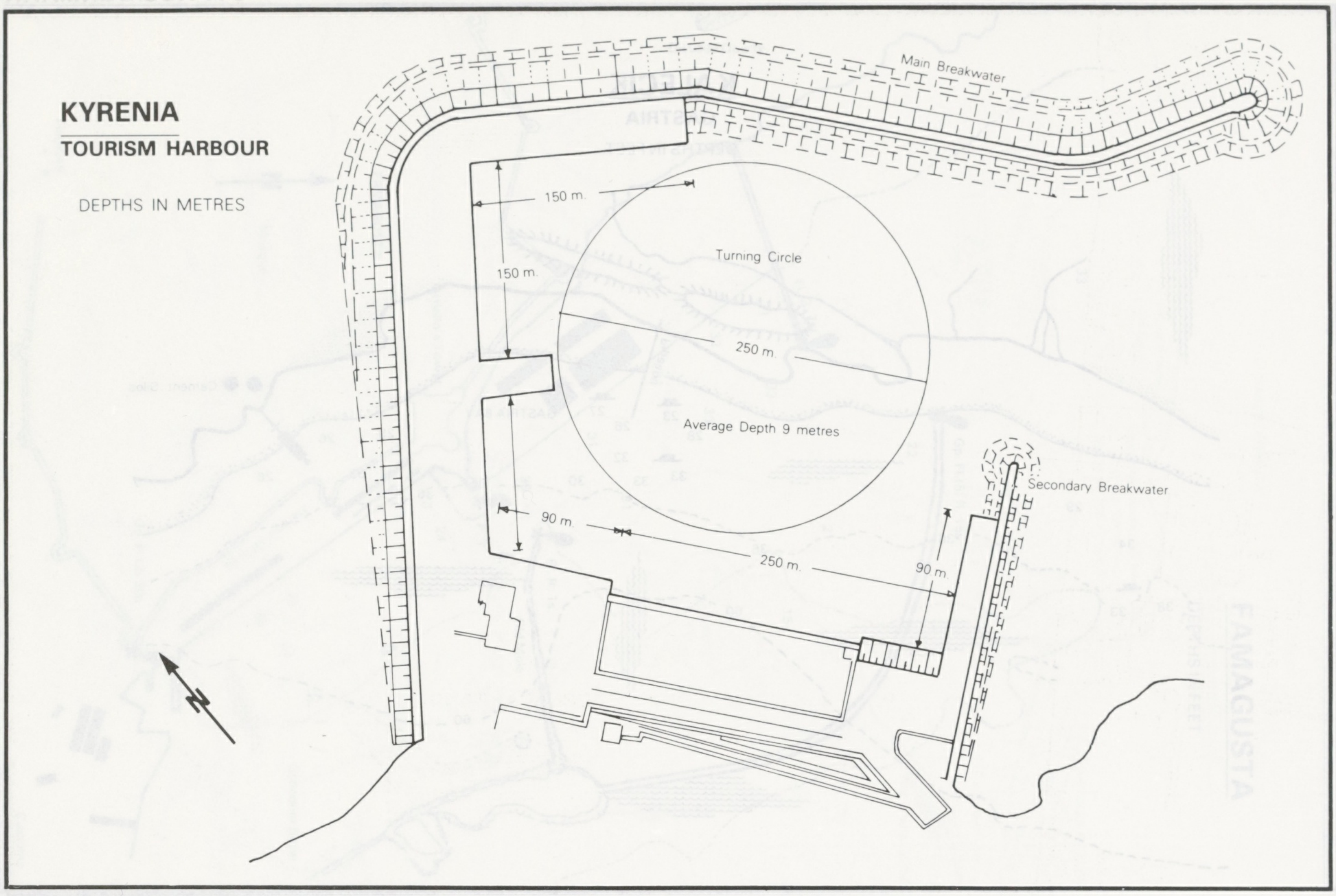

Existing Shoreline
Proposed Power Station Extension
1
3
5
10
15
20
25
30
35
40
Submarine Pipeline
Flexible Hose
N
DHEKELIA
POWER STATION "B"
DEPTHS IN METRES

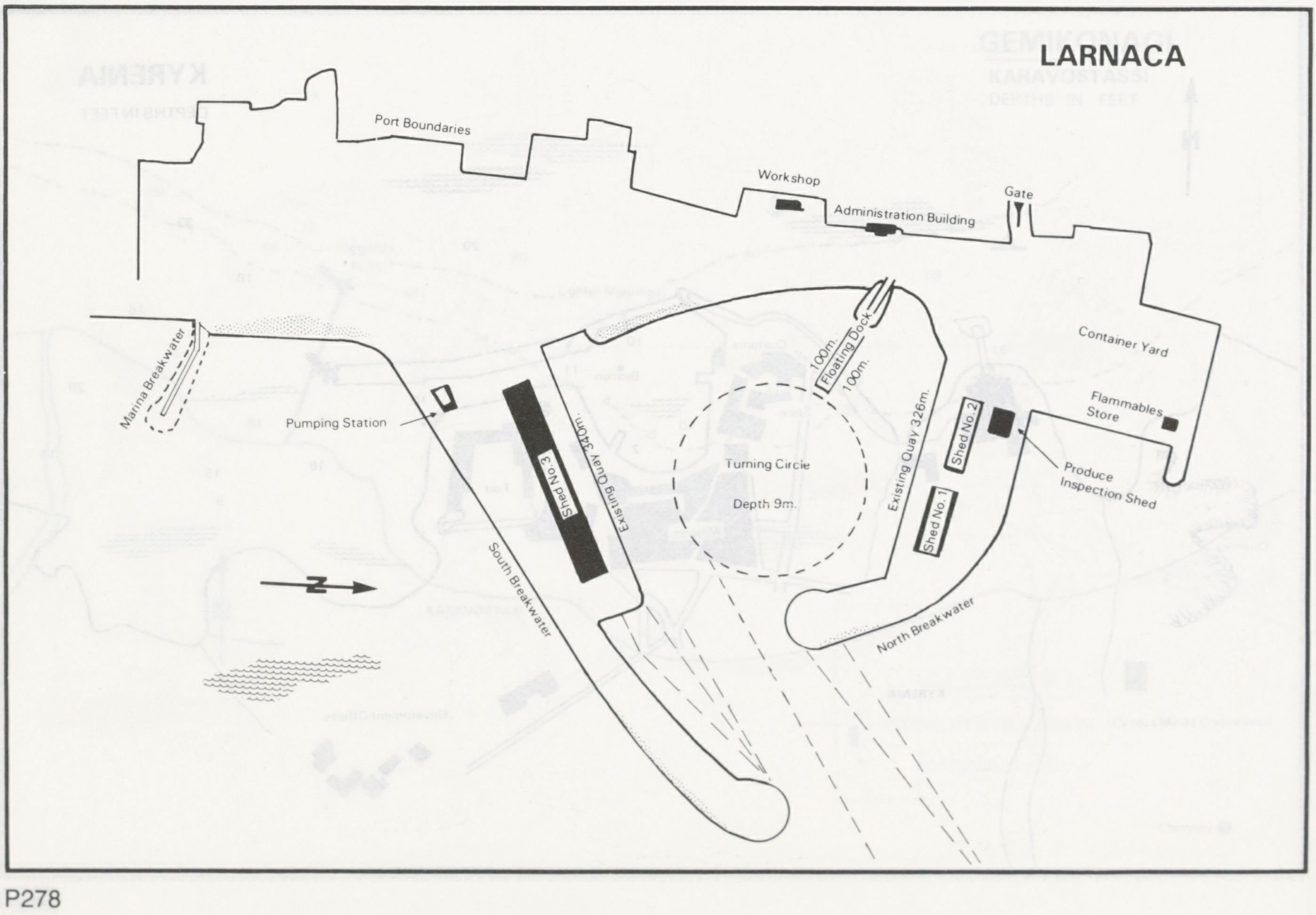

FAMAGUSTA
DEPTHS IN FEET
Disused Quarry
Flagstaff
FAMAGUSTA
Mosque
Othello's Tower
Harbour Offices
Gp. Fl.(2) 20s.
Fl. G. 7s.
Gp. Fl.(5) R. 15s.
F.Y.
Fl. R. 1s.
Old Mole
Schooner Basin
Customs
33
31
32
31
33
33
31
33
31
22
21
15
23
24
23
22
24

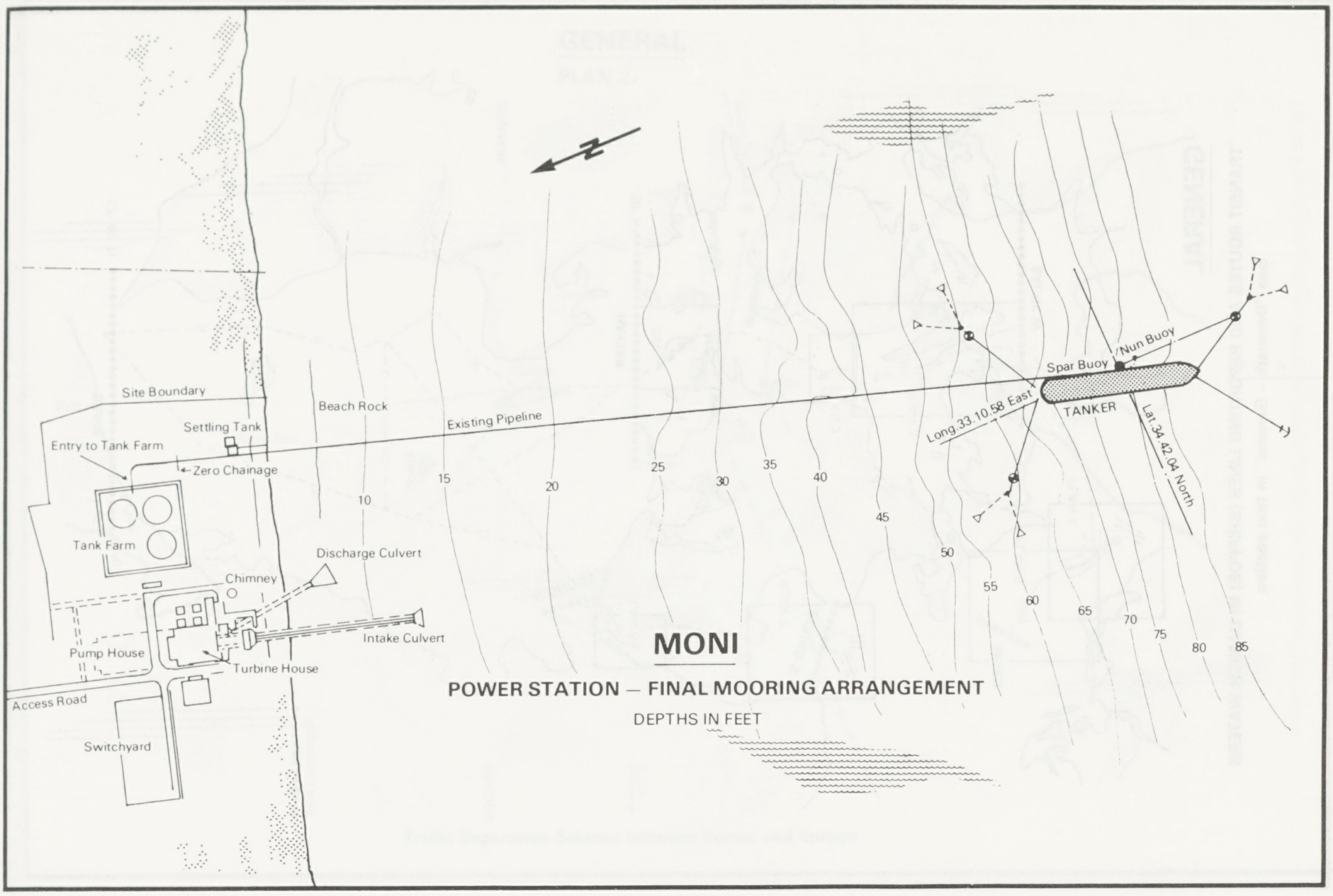

GEMIKONAGI
KARAVOSTASSI
DEPTHS IN FEET
144
50
72
48
Moorings
Fl. 5s.
90
48
Lighter Moorings
60
60
58
29
36
27
46
41
36
36
KARAVOSTASI
Cyprus Mines Corporation
Chimney


KALECIK
GASTRIA
DEPTHS IN FEET
Pipeline
Cement Silos
GASTRIA BAY
23
27
23
26
28
32
33
33
30
36
36
29
26
33
32
26
29
34
36
36
38
33
60
60


KYRENIA
DEPTHS IN FEET
N
33
20
22
18
18
21
20
14
Customs
10
Beacon
11
Spire
5
10
10
2
18
18
18
15
9
Fort
Minaret
Quarries
KYRENIA
Government Offices


KYRENIA
TOURISM HARBOUR
DEPTHS IN METRES
Main Breakwater
150 m.
150 m.
Turning Circle
250 m.
Average Depth 9 metres
Secondary Breakwater
90 m.
250 m.
90 m.
N


LARNACA
Port Boundaries
Workshop
Administration Building
Gate
Container Yard
Flammables Store
Produce Inspection Shed
Shed No.2
Shed No.1
Existing Quay 326m.
100m.
Floating Dock
100m.
Turning Circle
Depth 9m.
Shed No.3
Existing Quay 340m.
Pumping Station
Marina Breakwater
South Breakwater
North Breakwater
N

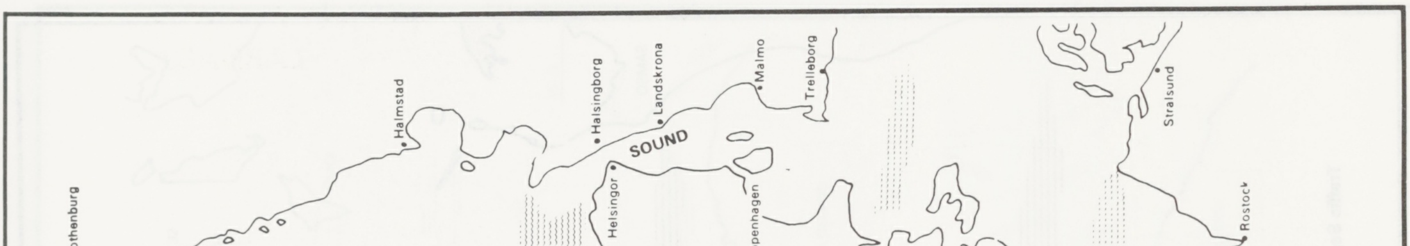


MONI

POWER STATION — FINAL MOORING ARRANGEMENT

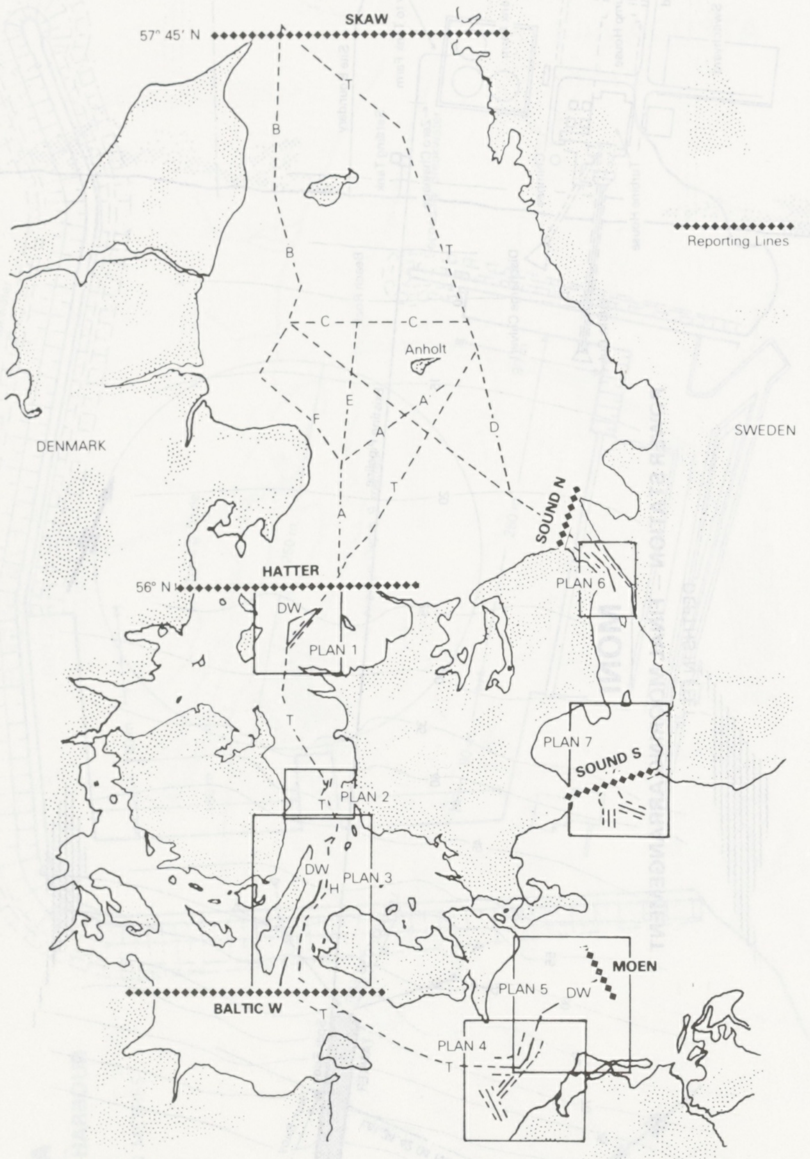
DEPTHS IN FEET

Site Boundary
Settling Tank
Entry to Tank Farm
Zero Chainage
Tank Farm
Beach Rock
Existing Pipeline
Discharge Culvert
Chimney
Intake Culvert
Pump House
Turbine House
Access Road
Switchyard
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
Spar Buoy
Nun Buoy
TANKER
Long.33.10.58 East
Lat.34.42.04 North



ENTRANCE TO THE BALTIC

Gothenburg
Halmstad
Halsingborg
Landskrona
Malmo
Trelleborg
Stralsund
KATTEGAT
SOUND
Helsingor
Copenhagen
Rostock
Wismar
Kalundborg
Gulfhavn
GREAT BELT
FEHMARN BELT
Lubeck
Skaw
Frederikshavn
Aalborg
LIMNFJORD
SKAGERRAK
Arhus
Horsens
Fredericia
Kolding
Haderslev
Odense
Nyborg
Bridge
Vertical clearance of 104 ft
LITTLE BELT
Aabenraa
Flensburg
Kiel
KIEL CANAL
Brunsbuttel
Cuxhaven
Elbe 1-L/V
Esbjerg


57° 45' N
SKAW
B
T
C
Anholt
E
A
F
D
Reporting Lines
DENMARK
SWEDEN
SOUND N
56° N
HATTER
DW
PLAN 1
PLAN 6
PLAN 7
SOUND S
PLAN 2
DW
H
PLAN 3
MOEN
PLAN 5
DW
BALTIC W
PLAN 4
T

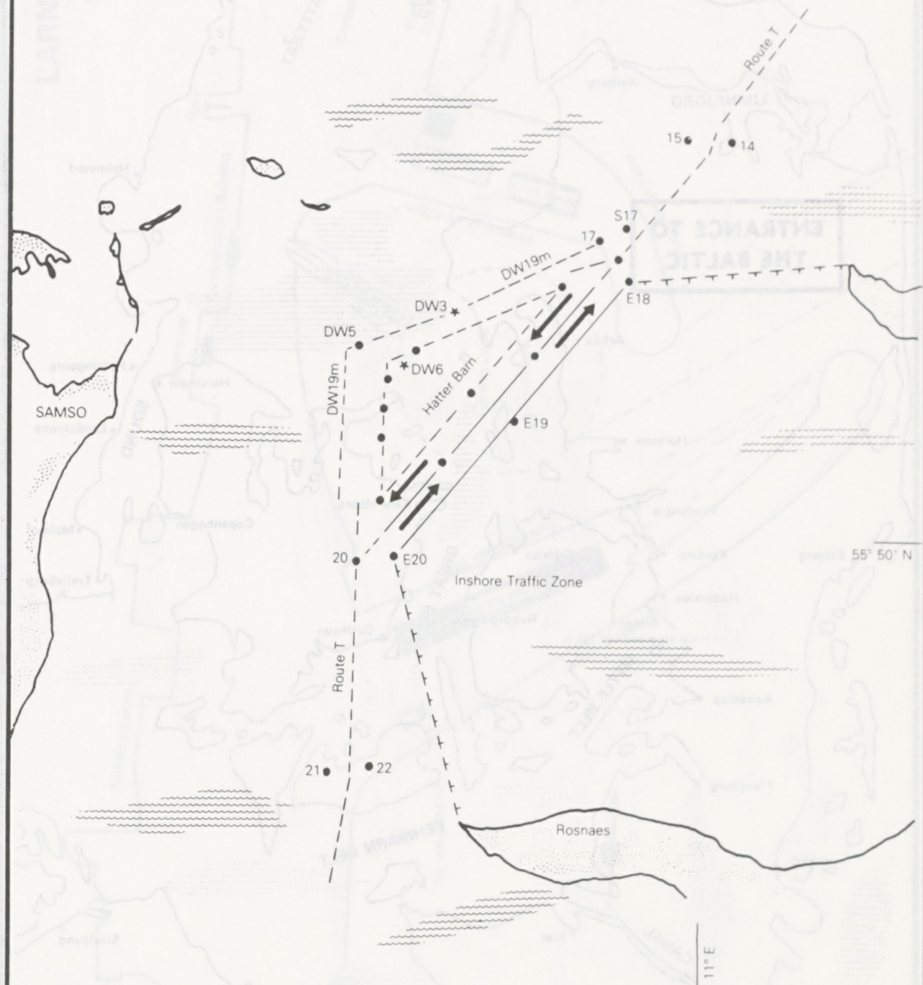
GENERAL

TRANSIT ROUTES AND REPORTING LINES (SHIPPOS) IN DANISH WATERS

See "Denmark – General" in text section

GENERAL

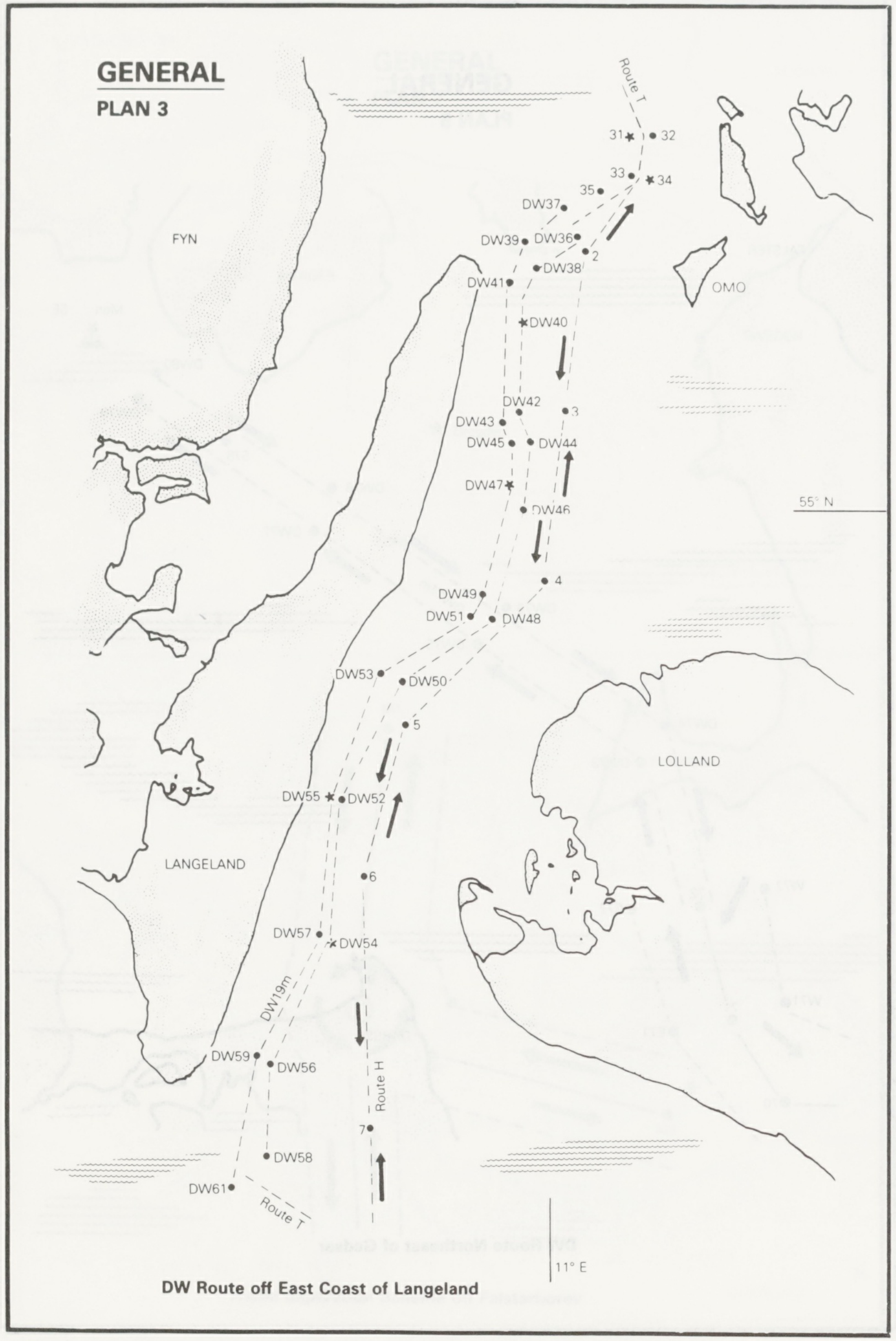
PLAN 1


Route T
15
14
S17
17
E18
DW19m
DW3
DW5
DW6
Hatter Barn
E19
SAMSO
DW19m
20
E20
Inshore Traffic Zone
55° 50' N
Route T
21
22
Rosnaes
11° E

Traffic Separation Scheme and DW Route   Hatter Barn – Hatterrev

GENERAL

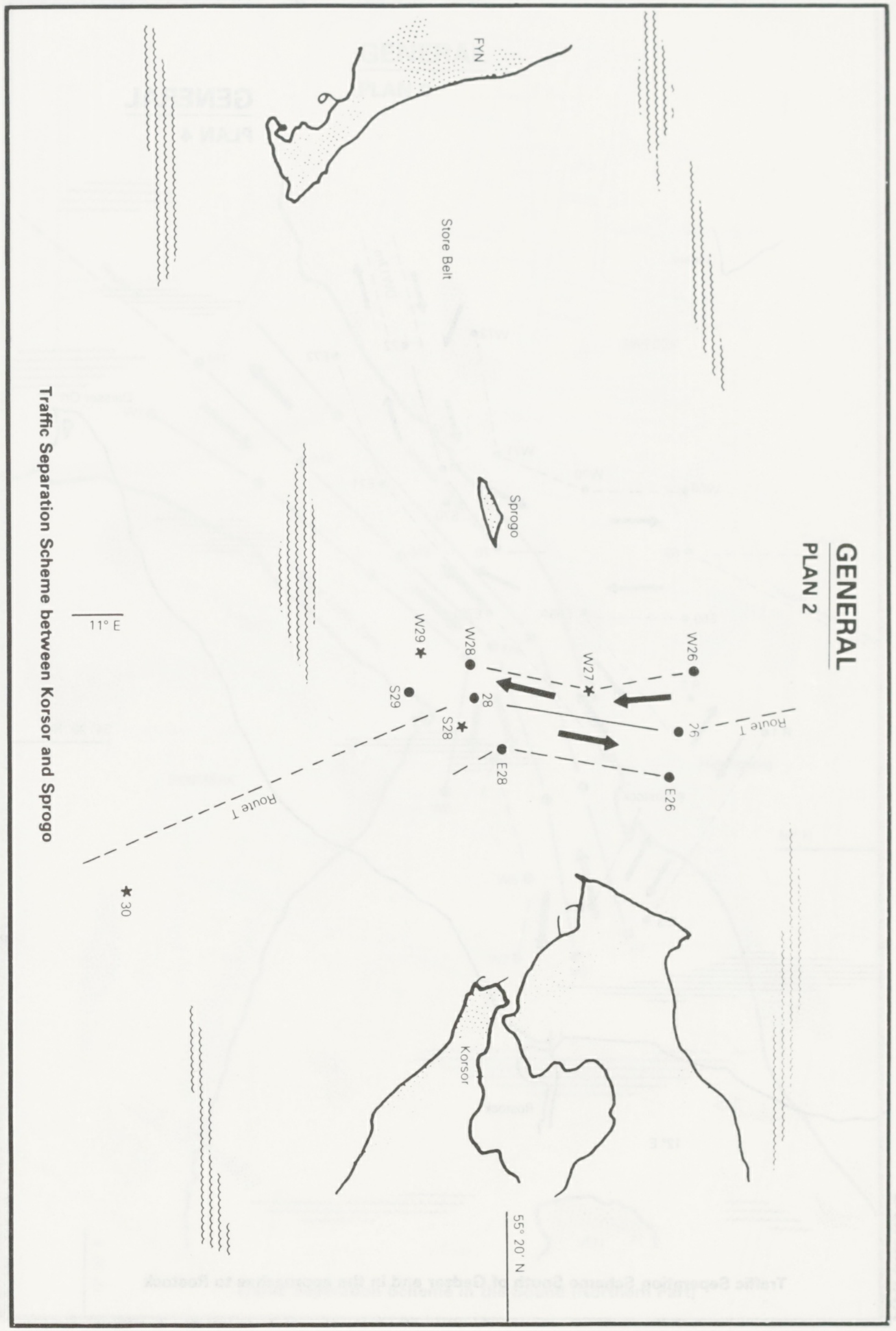
PLAN 3


Route T
31
32
33
34
35
DW37
DW39
DW36
2
DW38
DW41
FYN
OMO
DW40
DW42
3
DW43
DW45
DW44
DW47
DW46
55° N
4
DW49
DW51
DW48
DW53
DW50
5
LOLLAND
DW55
DW52
LANGELAND
6
DW57
DW54
DW19m
DW59
DW56
Route H
7
DW58
DW61
Route T
11° E

DW Route off East Coast of Langeland

GENERAL

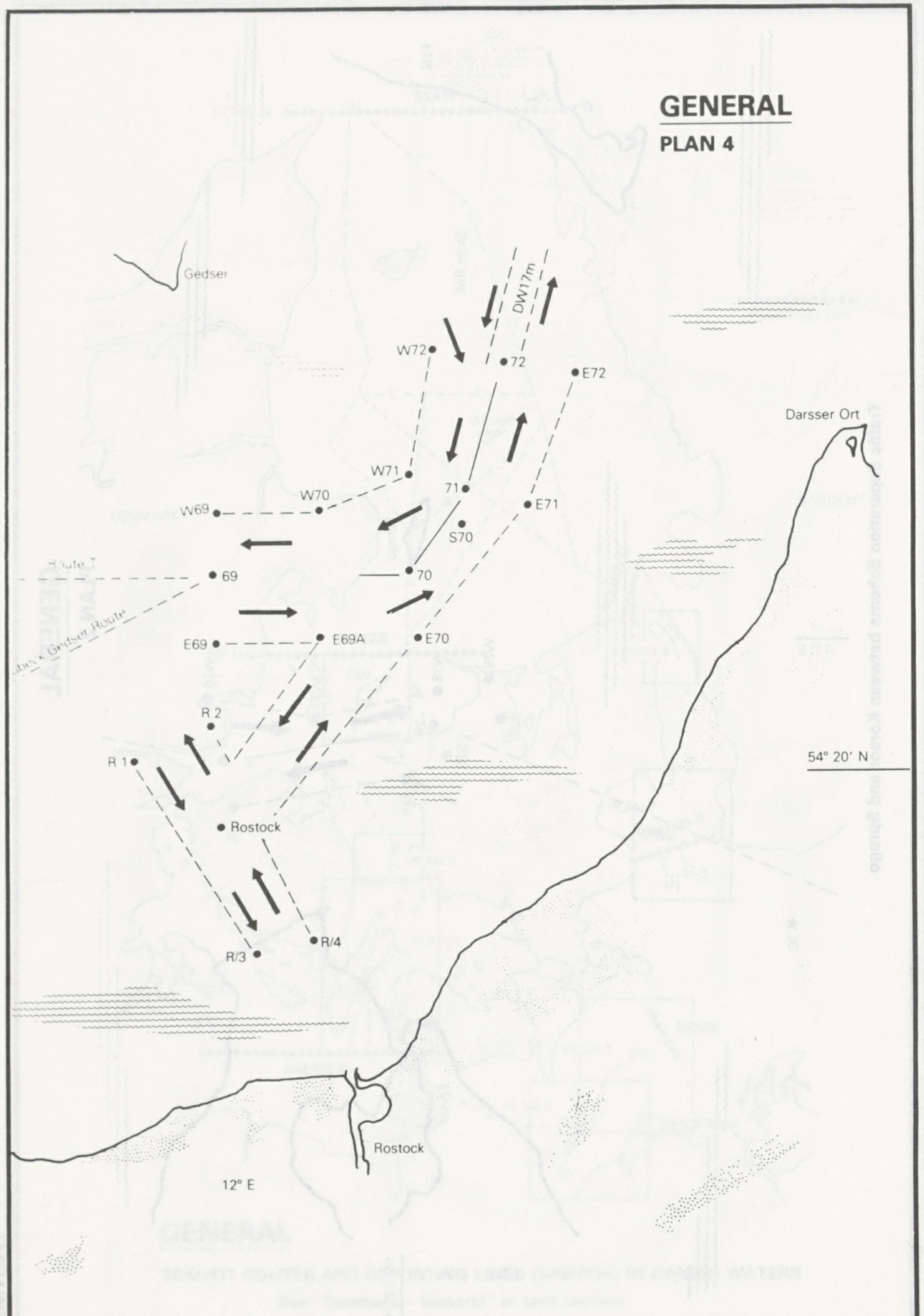
PLAN 2


FYN
Store Belt
Sprogo
11° E
W29
W28
W27
W26
S29
28
S28
26
Route T
E28
E26
Route T
30
Korsor
55° 20' N

Traffic Separation Scheme between Korsor and Sprogo

GENERAL

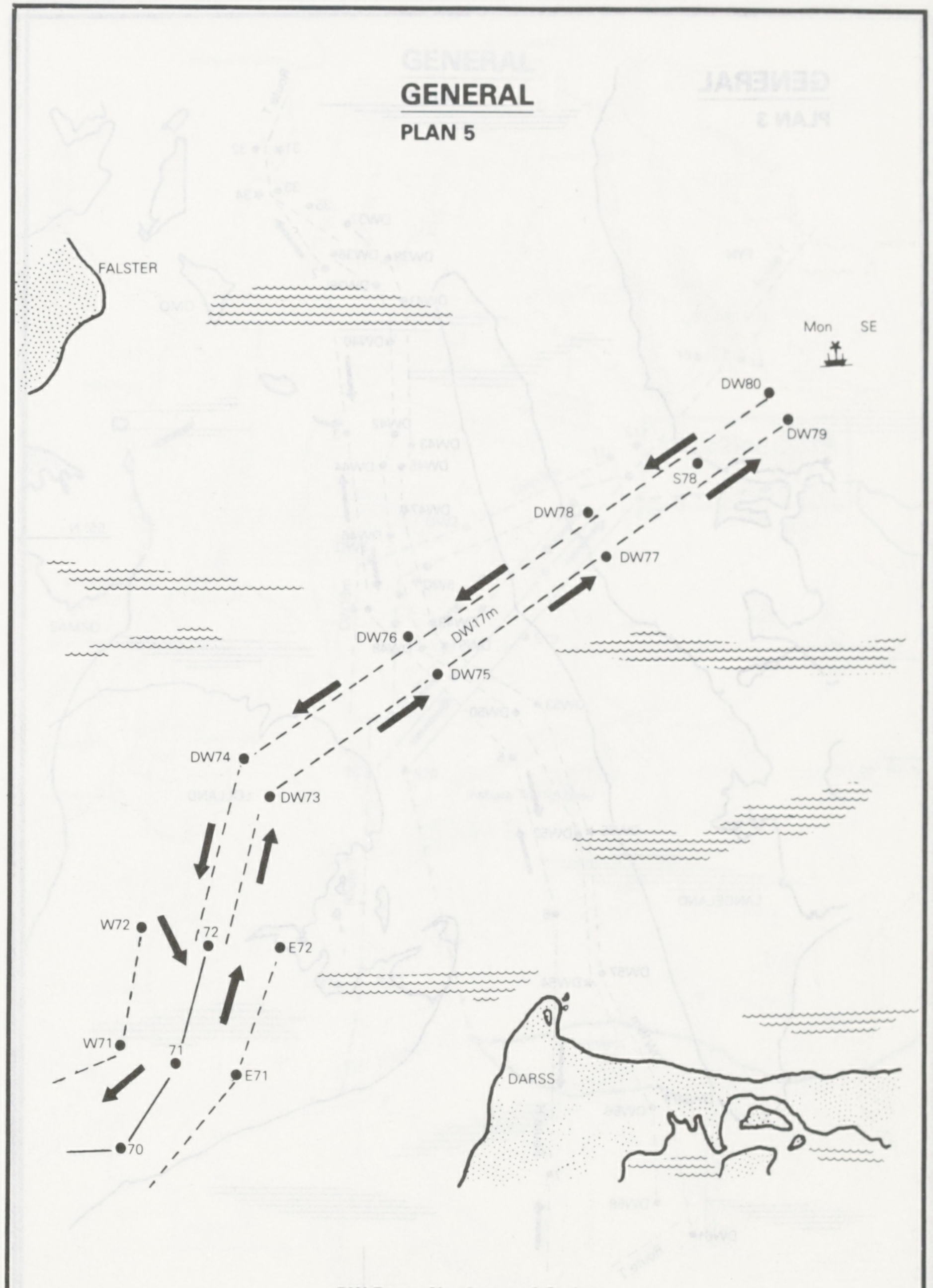
PLAN 4


Gedser
DW17m
W72
72
E72
Darsser Ort
W71
71
W70
W69
E71
S70
Route T
69
70
Gedser Route
E69
E69A
E70
R 2
R 1
Rostock
54° 20′ N
R/3
R/4
Rostock
12° E

Traffic Separation Scheme South of Gedser and in the approaches to Rostock

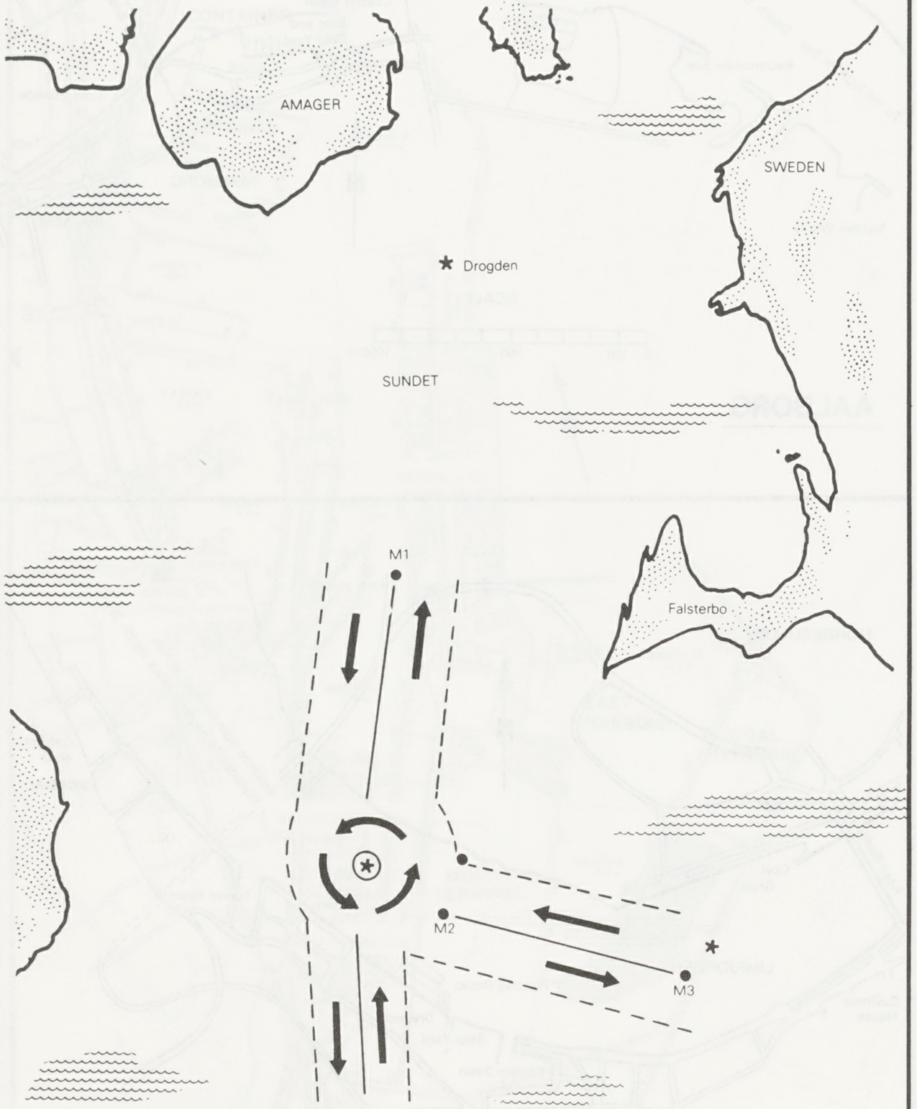
GENERAL

PLAN 5


FALSTER
Mon
SE
DW80
DW79
S78
DW78
DW77
DW76
DW17m
DW75
DW74
DW73
W72
72
E72
W71
71
E71
70
DARSS

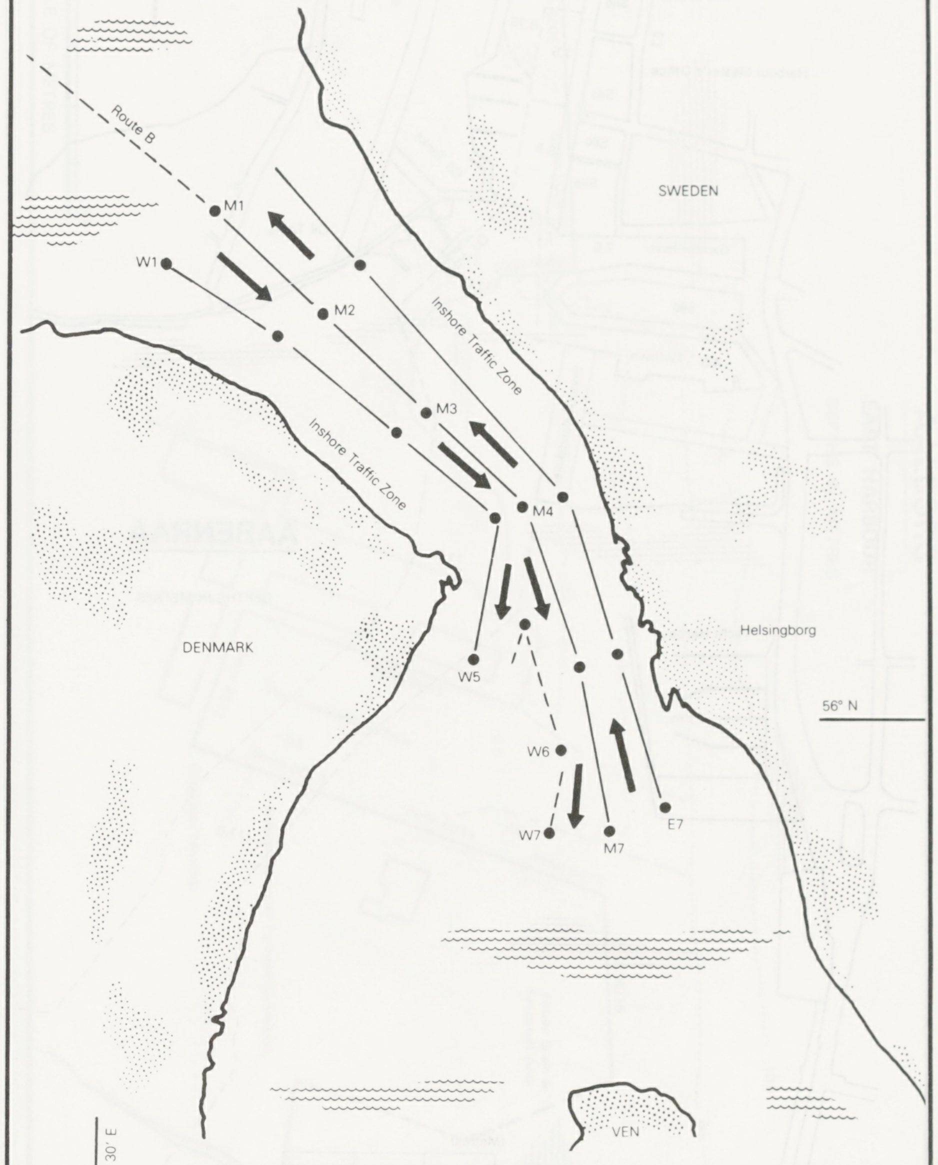
DW Route Northeast of Gedser

GENERAL
PLAN 7

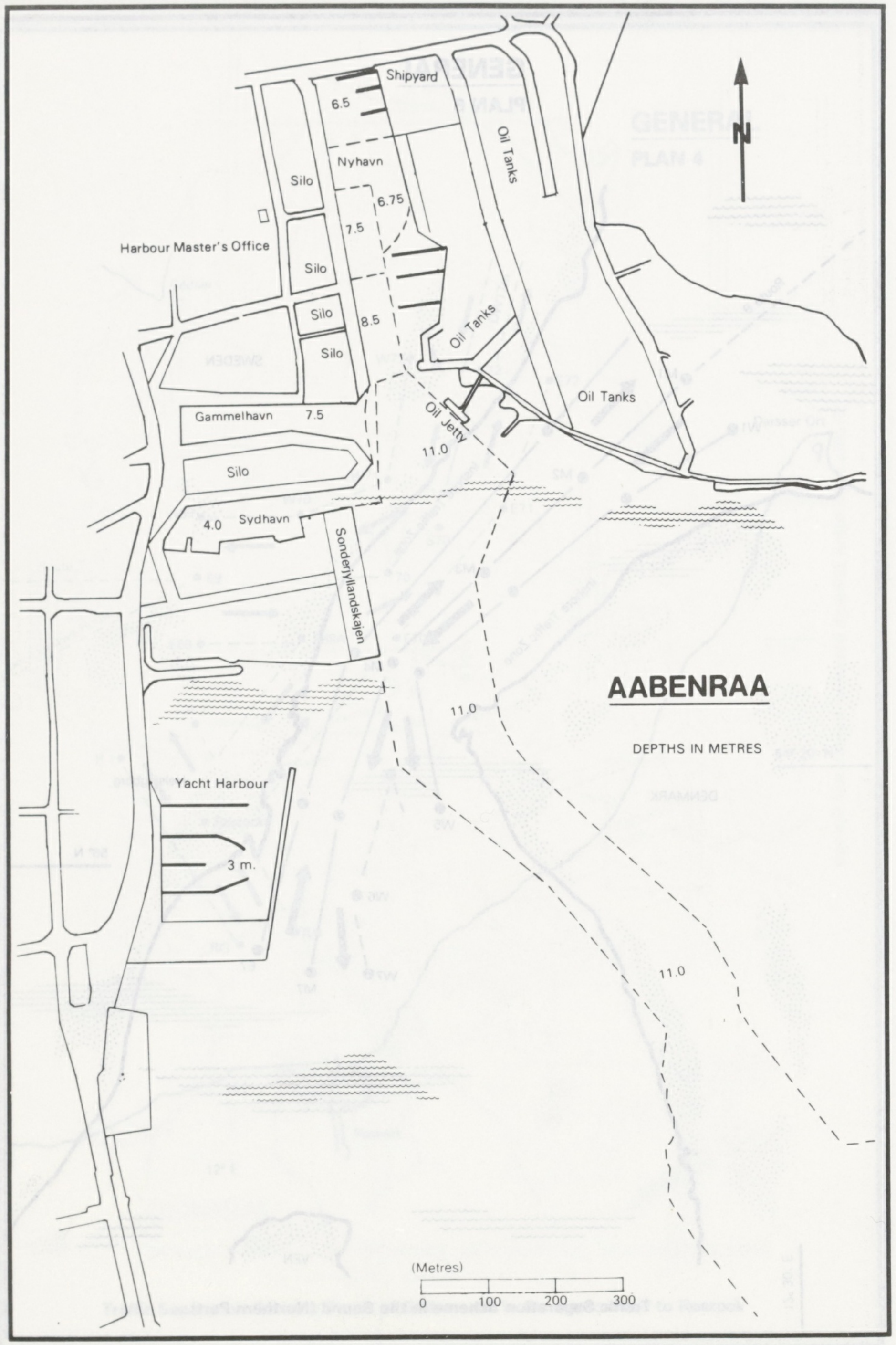

AMAGER
SWEDEN
Drogden
SUNDET
Falsterbo
M1
M2
M3

Traffic Separation Scheme off Falsterborev

GENERAL
PLAN 6


Route B
M1
W1
M2
Inshore Traffic Zone
M3
Inshore Traffic Zone
M4
SWEDEN
DENMARK
Helsingborg
W5
W6
W7
M7
E7
56° N
12° 30' E
VEN

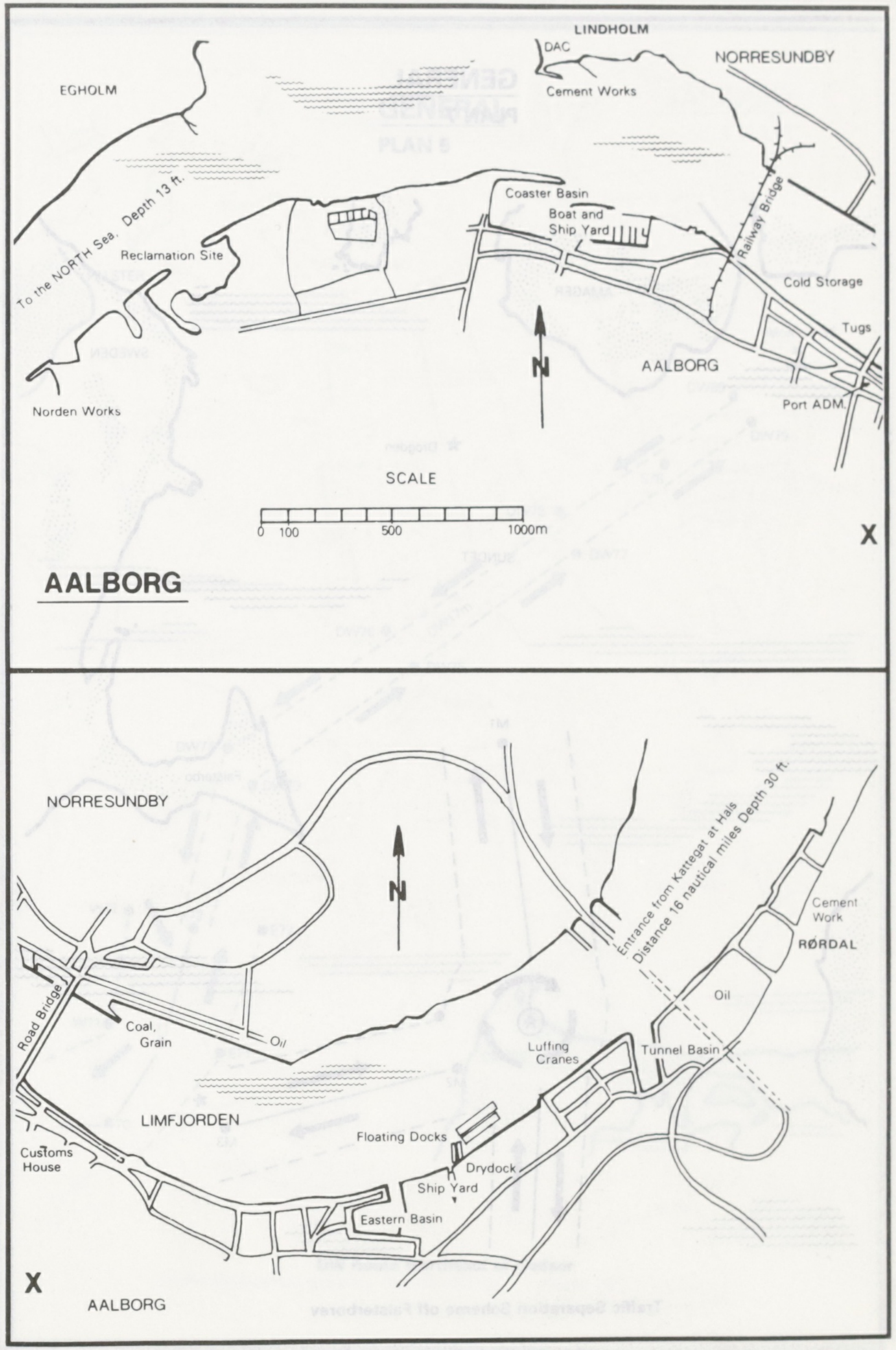
Traffic Separation Scheme in the Sound (Northern Part)



AABENRAA

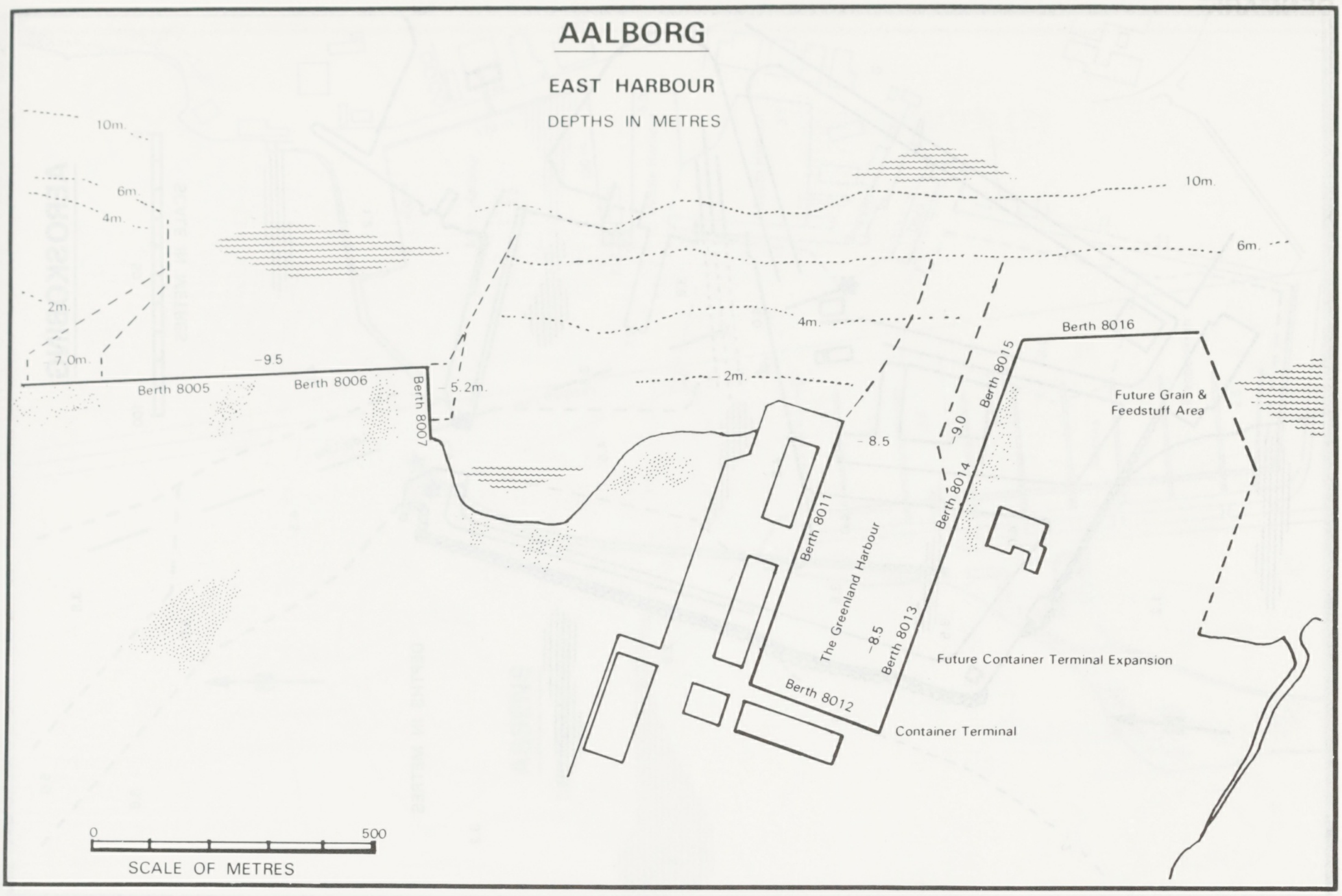
DEPTHS IN METRES

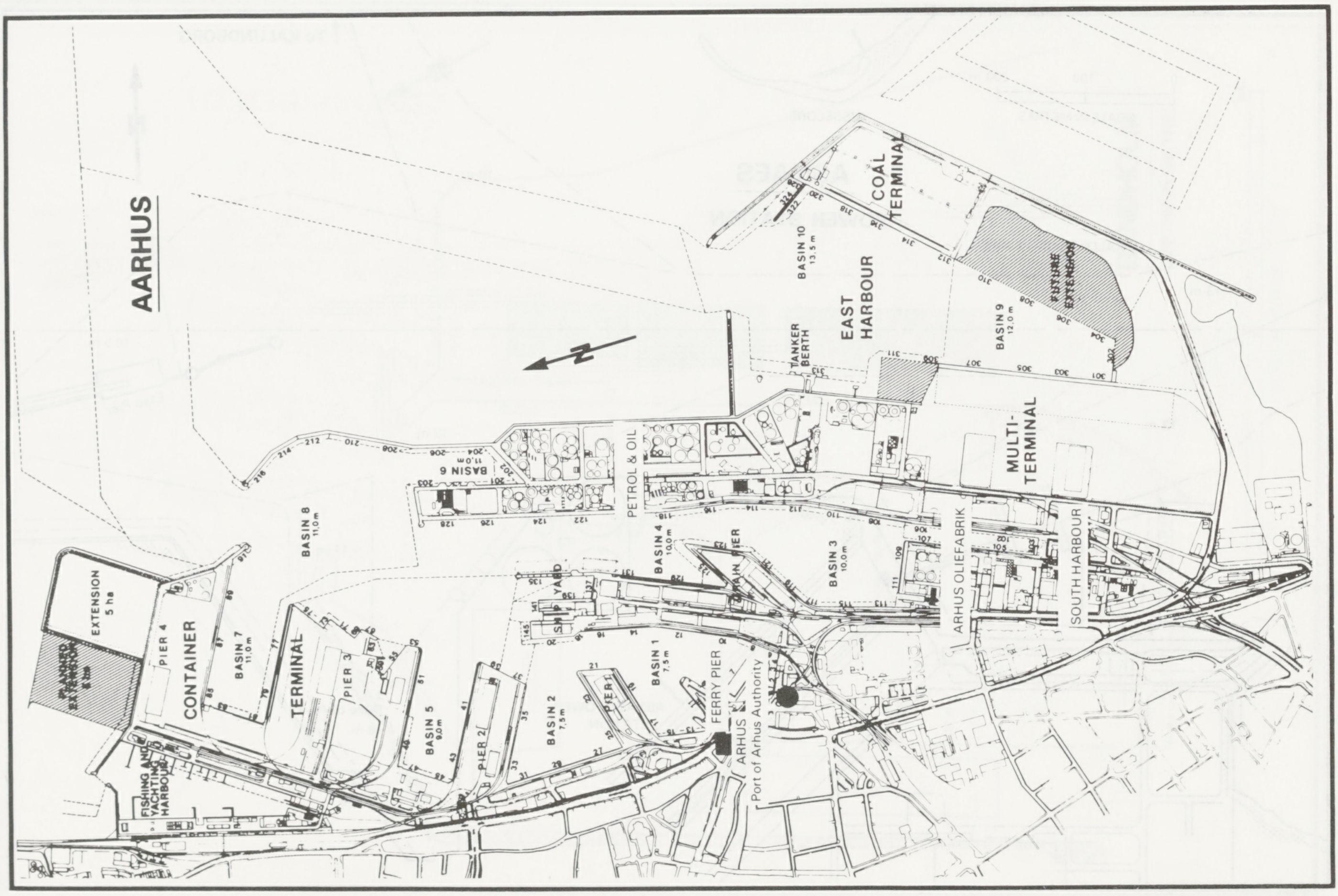
Shipyard
6.5
Oil Tanks
Nyhavn
Silo
6.75
7.5
Harbour Master's Office
Silo
Silo
8.5
Oil Tanks
Silo
Oil Tanks
Gammelhavn
7.5
Oil Jetty
11.0
Silo
Sydhavn
4.0
Sonderjyllandskajen
11.0
Yacht Harbour
3 m.
11.0
N
(Metres)
0
100
200
300

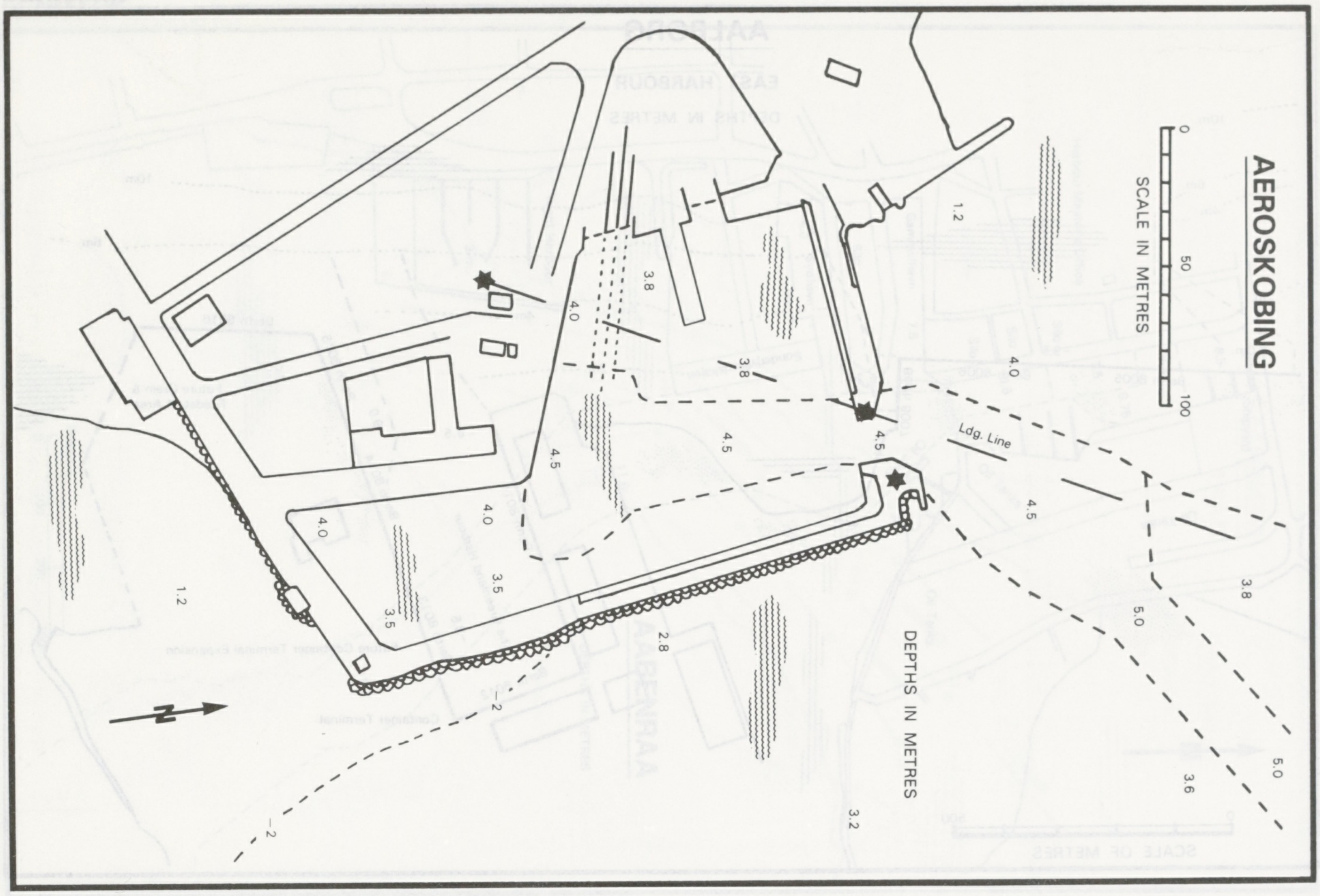


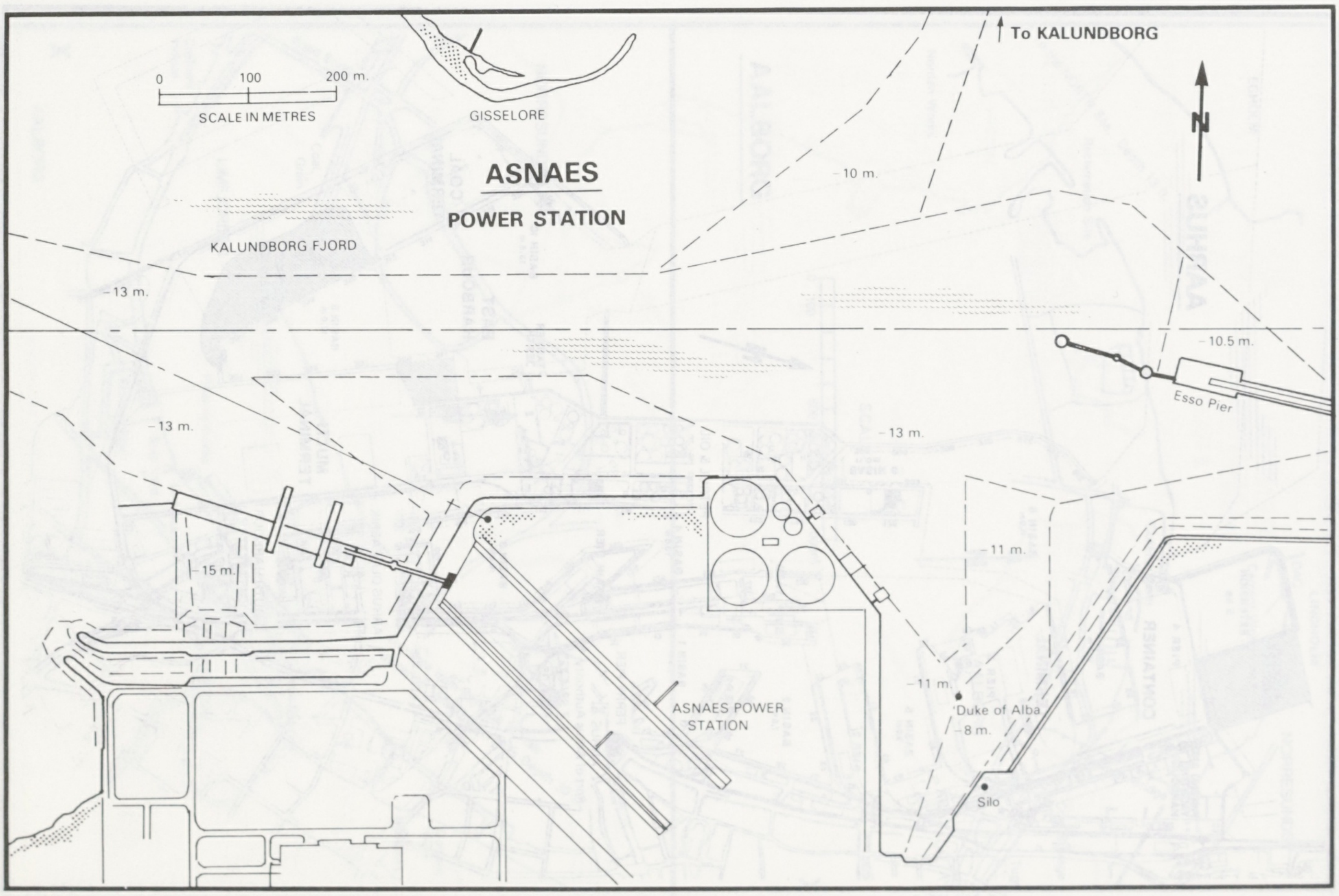
AALBORG

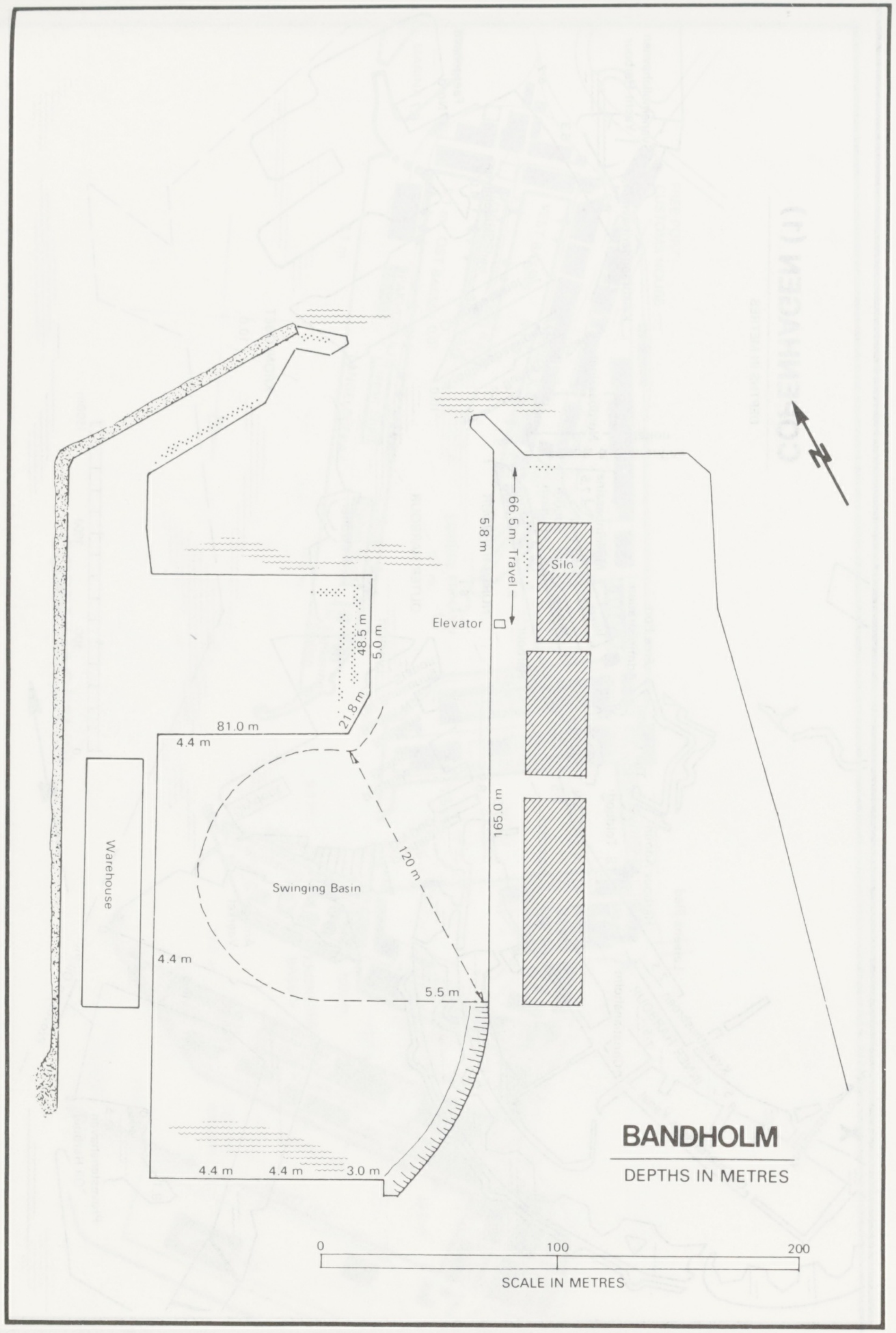
LINDHOLM
DAC
NORRESUNDBY
EGHOLM
Cement Works
Coaster Basin
Boat and Ship Yard
Railway Bridge
To the NORTH Sea. Depth 13 ft.
Reclamation Site
Cold Storage
Tugs
AALBORG
Port ADM.
Norden Works
N
SCALE
0
100
500
1000m
X
NORRESUNDBY
N
Entrance from Kattegat at Hals
Distance 16 nautical miles Depth 30 ft.
Cement Work
RØRDAL
Oil
Road Bridge
Coal, Grain
Oil
Luffing Cranes
Tunnel Basin
LIMFJORDEN
Floating Docks
Customs House
Drydock
Ship Yard
Eastern Basin
X
AALBORG

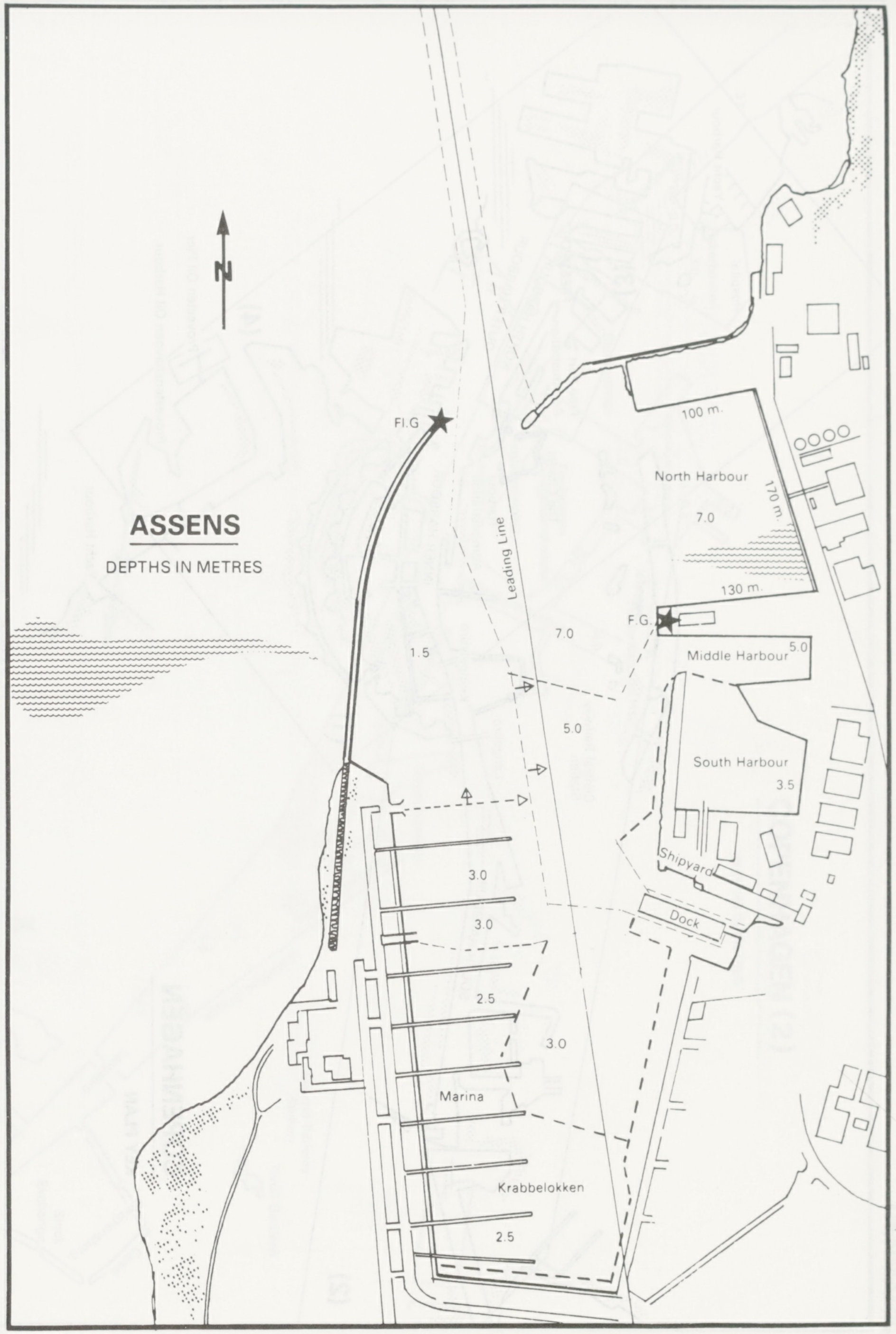

AALBORG
EAST HARBOUR
DEPTHS IN METRES
10m.
6m.
4m.
2m.
7.0m.
-9.5
Berth 8005
Berth 8006
Berth 8007
-5.2m.
10m.
6m.
4m.
2m.
Berth 8016
Berth 8015
-9.0
-8.5
Berth 8014
Berth 8011
The Greenland Harbour
-8.5
Berth 8013
Berth 8012
Future Grain & Feedstuff Area
Future Container Terminal Expansion
Container Terminal
0
500
SCALE OF METRES

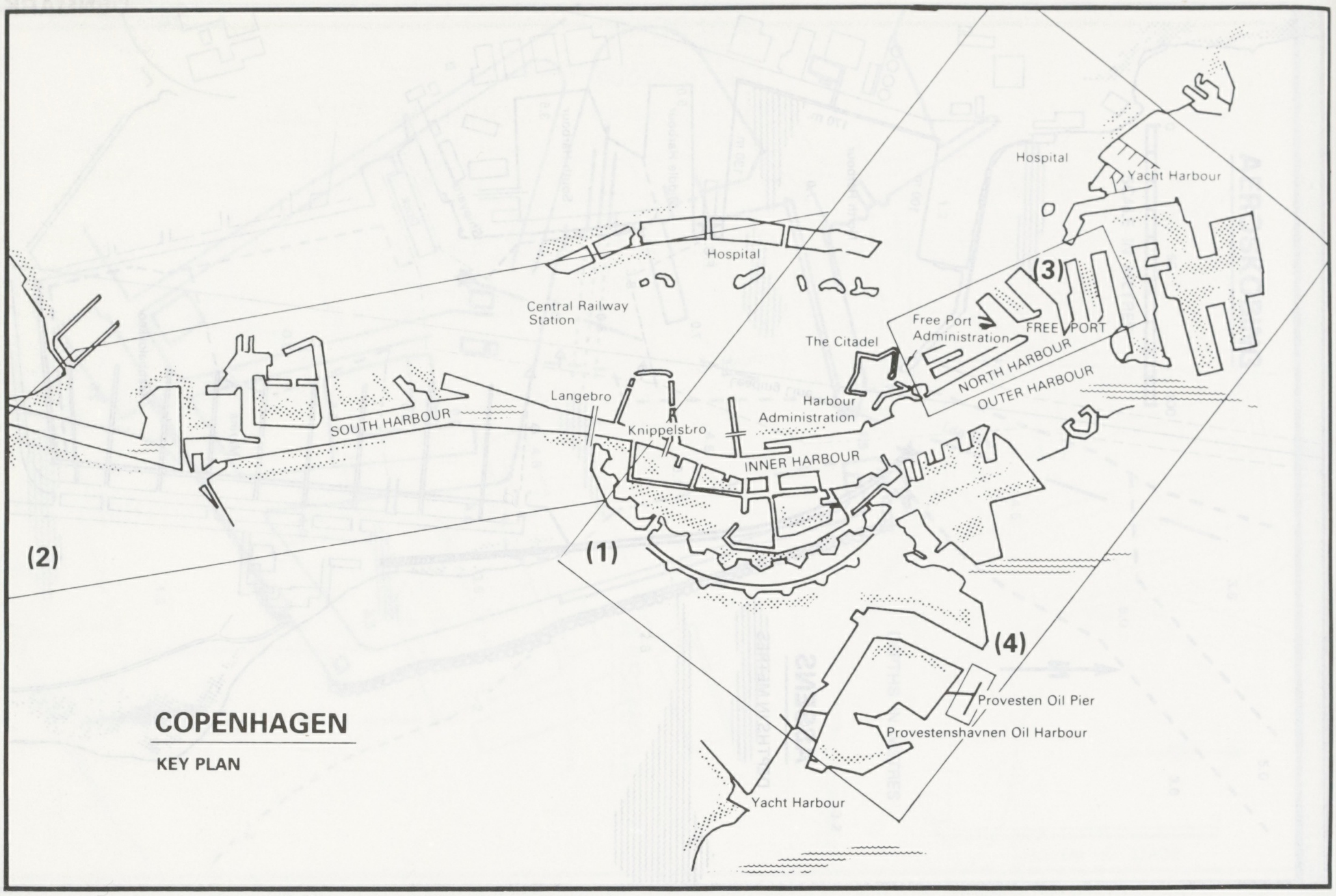

AARHUS
N
COAL TERMINAL
BASIN 10 13,5 m
EAST HARBOUR
TANKER BERTH
FUTURE EXTENSION
BASIN 9 12,0 m
MULTI-TERMINAL
PETROL & OIL
BASIN 6 11,0 m
BASIN 8 11,0 m
EXTENSION 5 ha
PLANNED EXTENSION 8 ha
PIER 4
CONTAINER
BASIN 7 11,0 m
TERMINAL
PIER 3
BASIN 5 9,0 m
PIER 2
BASIN 2 7,5 m
SHIP YARD
BASIN 4 10,0 m
GRAIN PIER
BASIN 1 7,5 m
PIER 1
FERRY PIER
BASIN 3 10,0 m
ARHUS OLIEFABRIK
SOUTH HARBOUR
FISHING AND YACHTING HARBOUR
ARHUS
Port of Arhus Authority

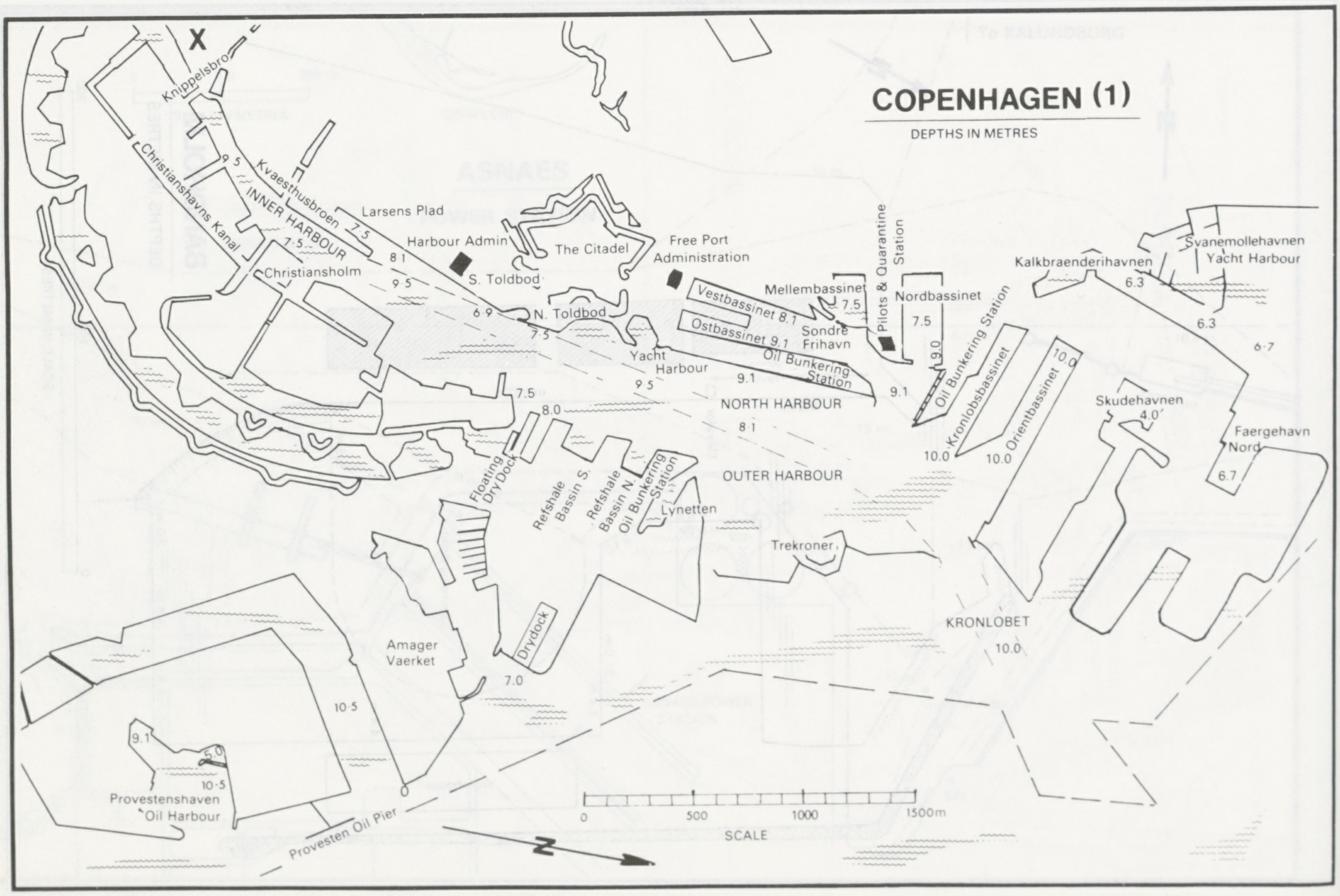

AEROSKOBING
SCALE IN METRES
0
50
100
DEPTHS IN METRES
Ldg. Line
N
1.2
4.0
3.8
4.0
3.8
4.5
4.5
4.5
4.0
4.0
3.5
3.5
1.2
2.8
–2
–2
4.5
5.0
3.8
3.6
5.0
3.2

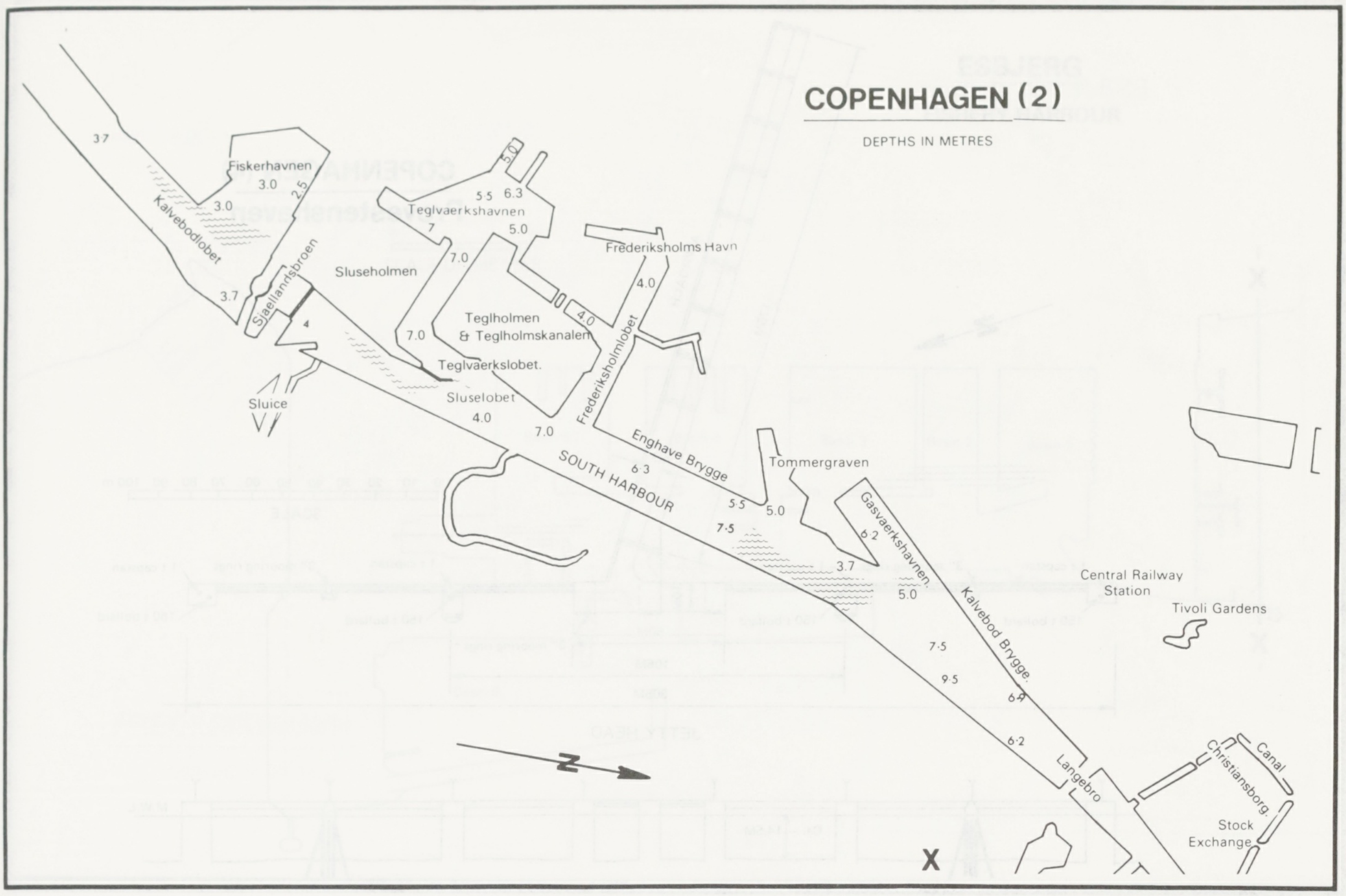

To KALUNDBORG
0
100
200 m.
SCALE IN METRES
GISSELORE
ASNAES
POWER STATION
KALUNDBORG FJORD
N
–10 m.
–13 m.
–10.5 m.
Esso Pier
–13 m.
–13 m.
–15 m.
–11 m.
–11 m.
ASNAES POWER STATION
Duke of Alba
–8 m.
Silo


BANDHOLM
DEPTHS IN METRES
N
Warehouse
Swinging Basin
120 m
81.0 m
4.4 m
21.8 m
48.5 m
5.0 m
4.4 m
5.5 m
4.4 m
4.4 m
3.0 m
Elevator
66.5 m Travel
5.8 m
Silo
165.0 m
0
100
200
SCALE IN METRES


ASSENS
DEPTHS IN METRES
N
Fl.G
Leading Line
1.5
7.0
F.G.
100 m.
North Harbour
170 m.
7.0
130 m.
Middle Harbour
5.0
5.0
South Harbour
3.5
Shipyard
Dock
3.0
3.0
2.5
3.0
Marina
Krabbelokken
2.5


COPENHAGEN
KEY PLAN
Hospital
Yacht Harbour
Hospital
(3)
Central Railway Station
Free Port Administration
FREE PORT
The Citadel
NORTH HARBOUR
OUTER HARBOUR
Harbour Administration
Langebro
Knippelsbro
SOUTH HARBOUR
INNER HARBOUR
(2)
(1)
(4)
Provesten Oil Pier
Provestenshavnen Oil Harbour
Yacht Harbour

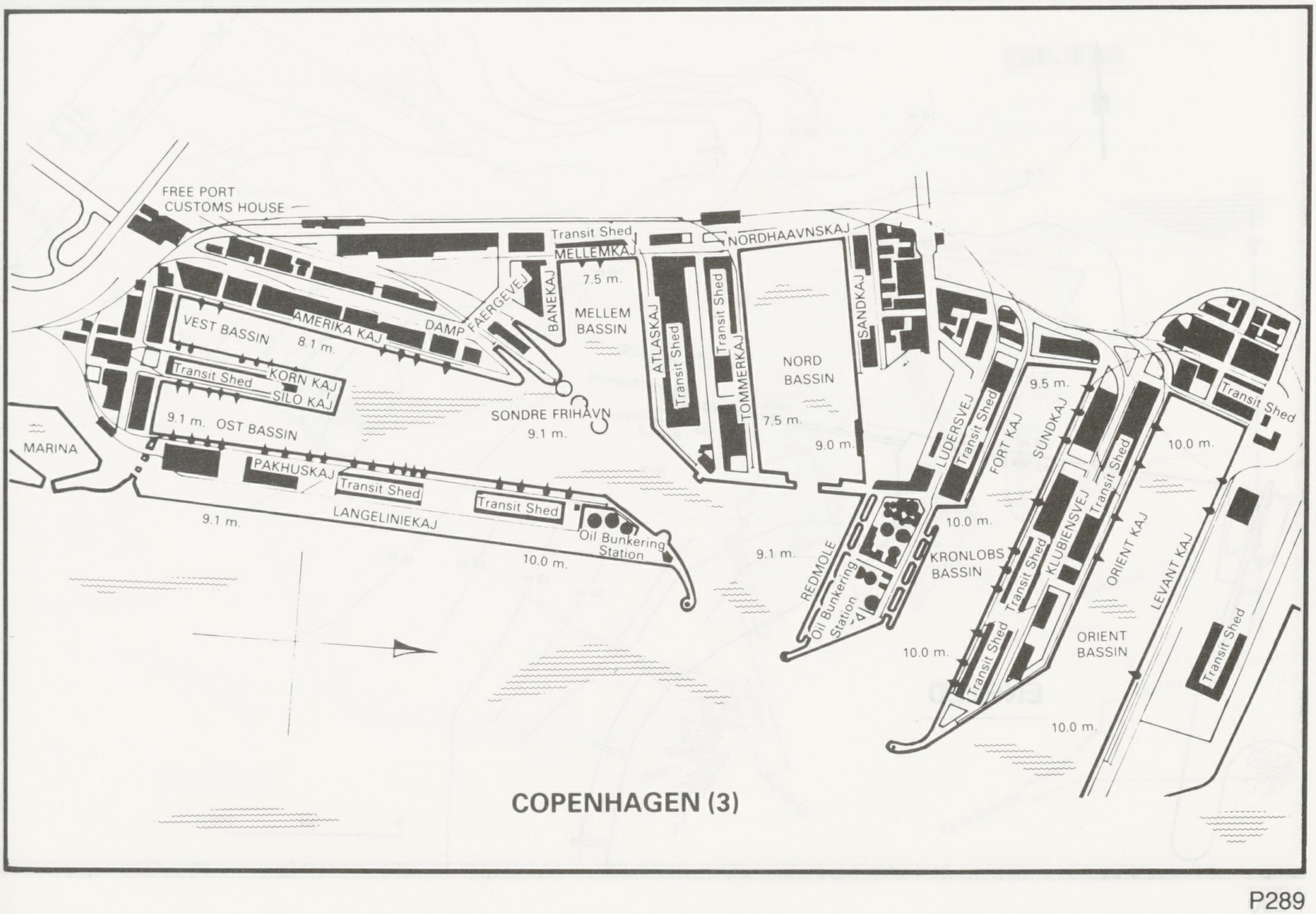

X
Knippelsbro
COPENHAGEN (1)
DEPTHS IN METRES
Christianshavns Kanal
Kvaesthusbroen
9.5
INNER HARBOUR
7.5
7.5
Larsens Plad
Harbour Admin
8.1
Christiansholm
9.5
S. Toldbod
The Citadel
Free Port Administration
Pilots & Quarantine Station
6.9
N. Toldbod
Vestbassinet 8.1
Mellembassinet
7.5
Nordbassinet
7.5
Kalkbraenderihavnen
Svanemollehavnen Yacht Harbour
6.3
6.3
6·7
Ostbassinet 9.1
Sondre Frihavn
9.0
Oil Bunkering Station
Oil Bunkering Station
Kronlobsbassinet
Orientbassinet
10.0
Yacht Harbour
9.5
9.1
9.1
7.5
8.0
NORTH HARBOUR
8.1
Skudehavnen
4.0
Faergehavn Nord
6.7
10.0
10.0
Floating Dry Dock
Refshale Bassin S.
Refshale Bassin N.
Oil Bunkering Station
Lynetten
OUTER HARBOUR
Trekroner
KRONLOBET
10.0
Amager Vaerket
Drydock
7.0
10·5
9.1
5.0
10·5
Provestenshaven Oil Harbour
Provesten Oil Pier
0
500
1000
1500m
SCALE
N



COPENHAGEN (2)

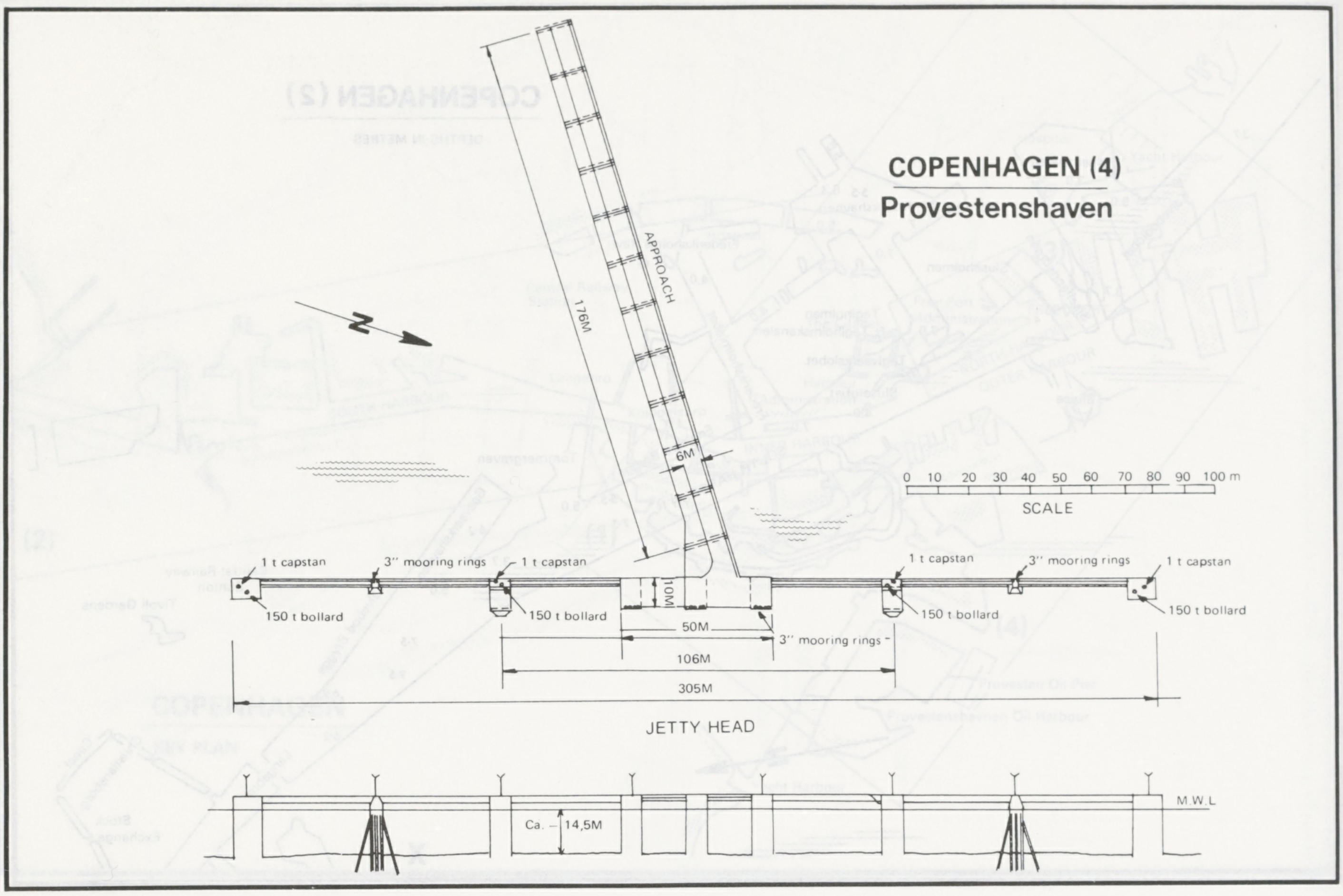
DEPTHS IN METRES

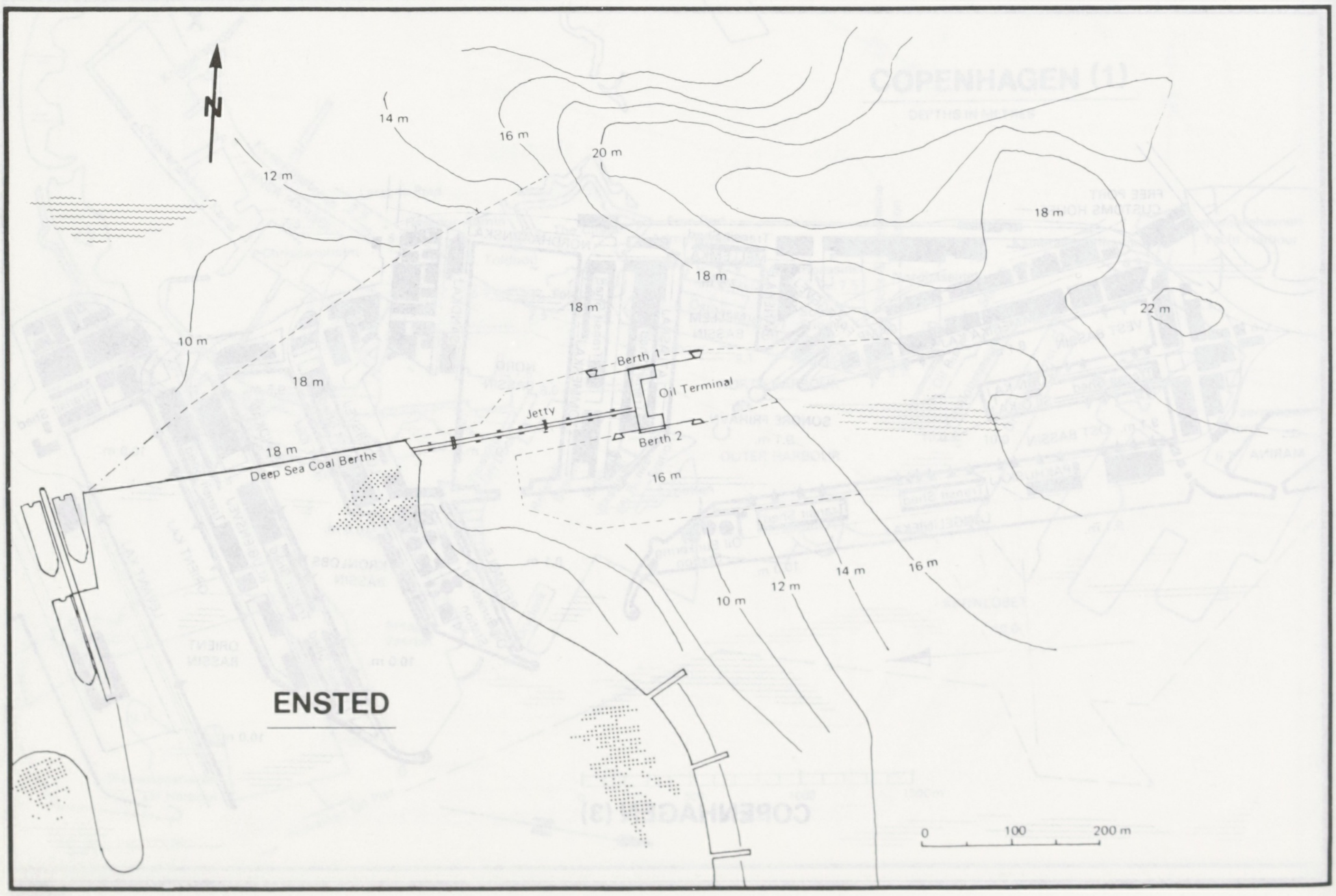
3.7
Fiskerhavnen
3.0
2.5
3.0
Kalvebodlobet
5.0
5.5 6.3
Teglvaerkshavnen
7
5.0
Frederiksholms Havn
Sluseholmen
7.0
4.0
Sjaellandsbroen
3.7
4
Teglholmen
& Teglholmskanalen
4.0
7.0
Frederiksholmlobet
Teglvaerkslobet.
Sluice
Sluselobet
4.0
7.0
Enghave Brygge
6.3
SOUTH HARBOUR
Tommergraven
5.5
5.0
7.5
Gasvaerkshavnen
6.2
3.7
5.0
Kalvebod Brygge.
Central Railway Station
Tivoli Gardens
7.5
9.5
6.9
6.2
N
Langebro
Christiansborg
Canal
Stock Exchange
X

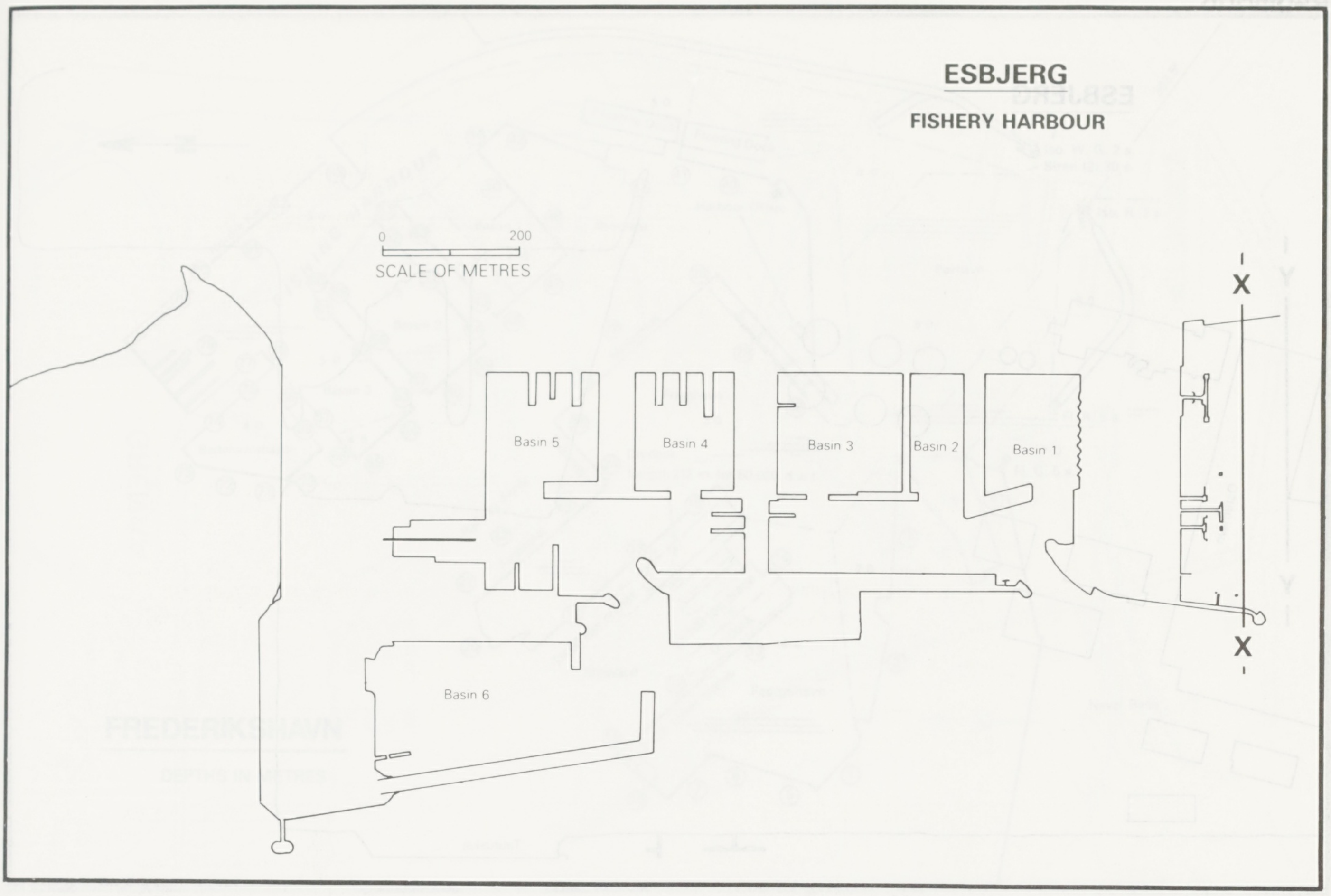


COPENHAGEN (3)

FREE PORT
CUSTOMS HOUSE
Transit Shed
MELLEMKAJ
NORDHAAVNSKAJ
7.5 m.
MELLEM BASSIN
BANEKAJ
FAERGEVEJ
DAMP
AMERIKA KAJ
VEST BASSIN
8.1 m.
Transit Shed
KORN KAJ
SILO KAJ
9.1 m.
OST BASSIN
ATLASKAJ
Transit Shed
Transit Shed
TOMMERKAJ
NORD BASSIN
SANDKAJ
7.5 m.
9.0 m.
SONDRE FRIHAVN
9.1 m.
MARINA
PAKHUSKAJ
Transit Shed
Transit Shed
LANGELINIEKAJ
9.1 m.
Oil Bunkering Station
10.0 m.
LUDERSVEJ
Transit Shed
FORT KAJ
9.5 m.
SUNDKAJ
Transit Shed
Transit Shed
10.0 m.
10.0 m.
KRONLOBS BASSIN
KLUBIENSVEJ
Transit Shed
ORIENT KAJ
LEVANT KAJ
Transit Shed
9.1 m.
REDMOLE
Oil Bunkering Station
Transit Shed
10.0 m.
ORIENT BASSIN
Transit Shed
10.0 m.


COPENHAGEN (4)
Provestenshaven
N
APPROACH
176M
6M
0 10 20 30 40 50 60 70 80 90 100 m
SCALE
1 t capstan
3" mooring rings
1 t capstan
150 t bollard
150 t bollard
10M
50M
106M
305M
3" mooring rings
1 t capstan
3" mooring rings
1 t capstan
150 t bollard
150 t bollard
JETTY HEAD
M.W.L
Ca. 14,5M

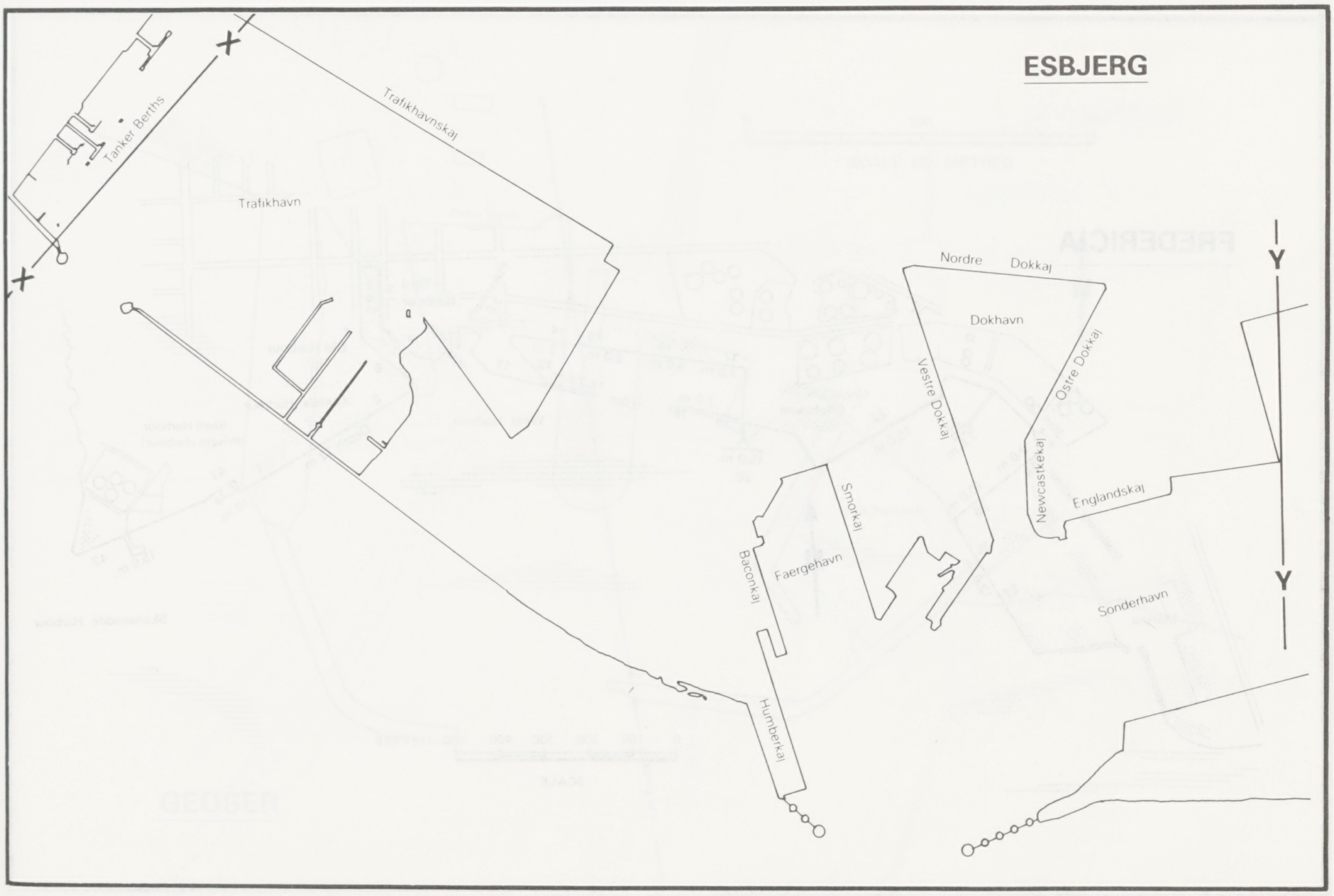

N
14 m
16 m
20 m
12 m
18 m
18 m
18 m
22 m
10 m
18 m
Berth 1
Oil Terminal
Jetty
Berth 2
18 m
Deep Sea Coal Berths
16 m
10 m
12 m
14 m
16 m
ENSTED
0 100 200 m



ESBJERG

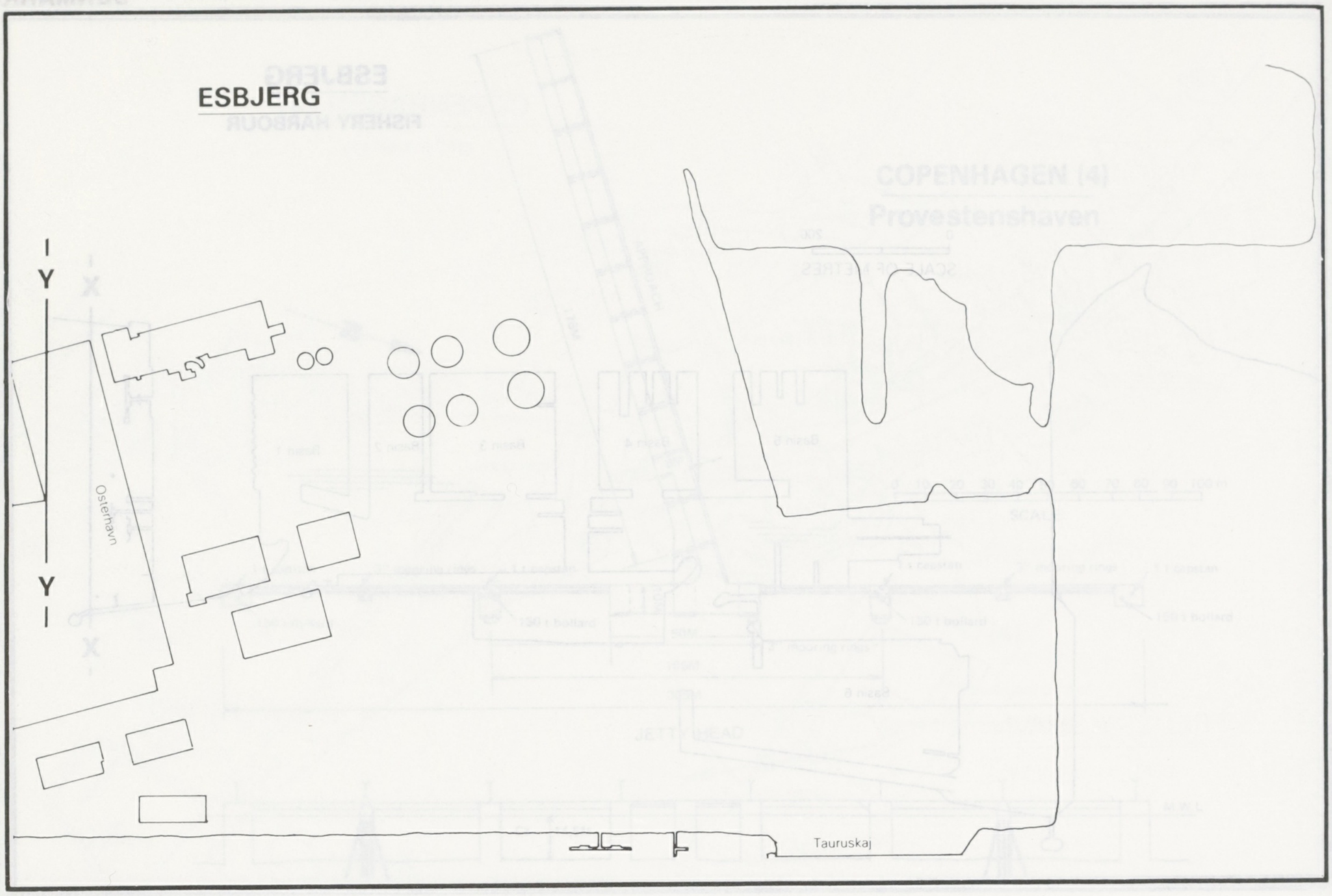
FISHERY HARBOUR

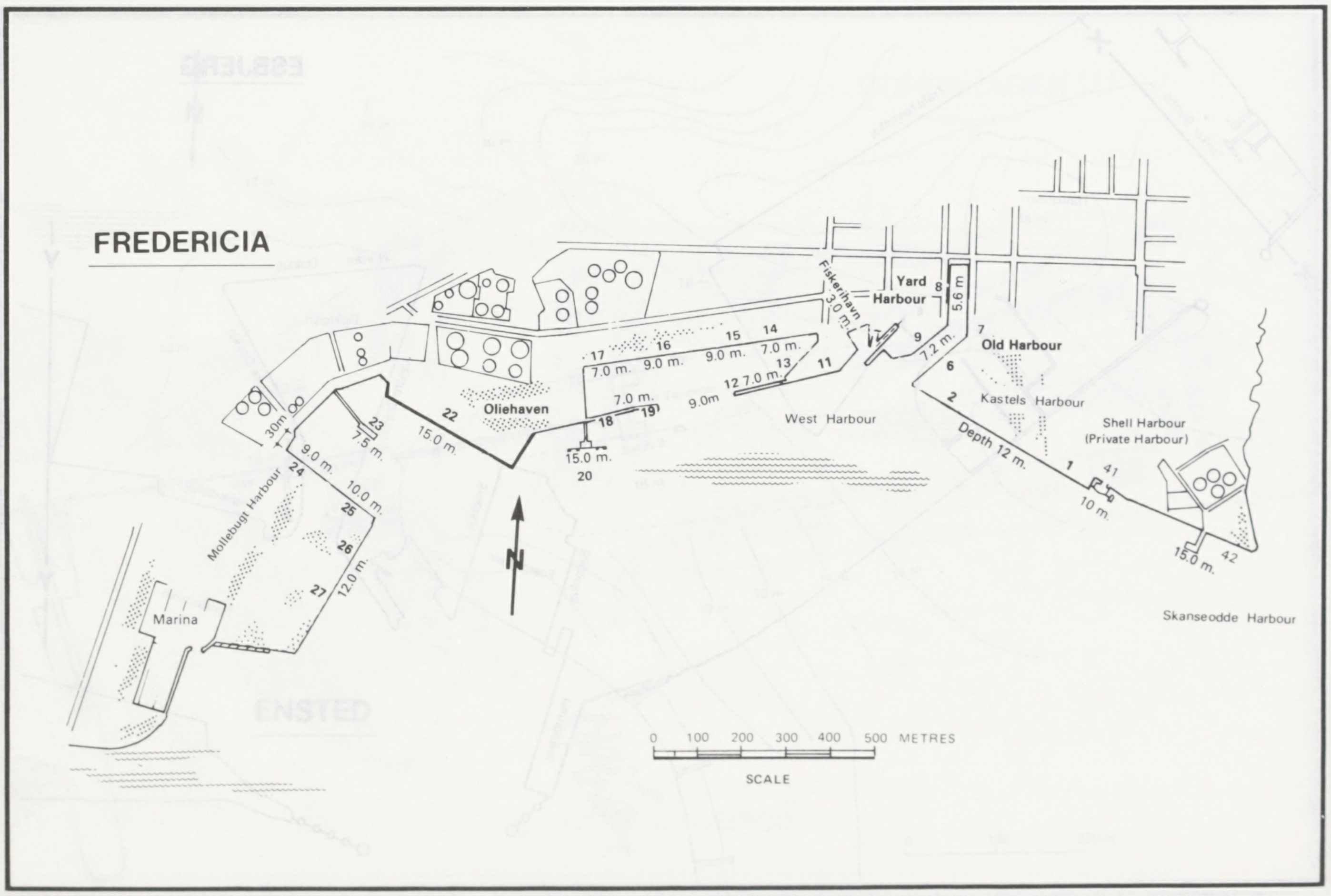
0
200
SCALE OF METRES
X
X
Basin 5
Basin 4
Basin 3
Basin 2
Basin 1
Basin 6

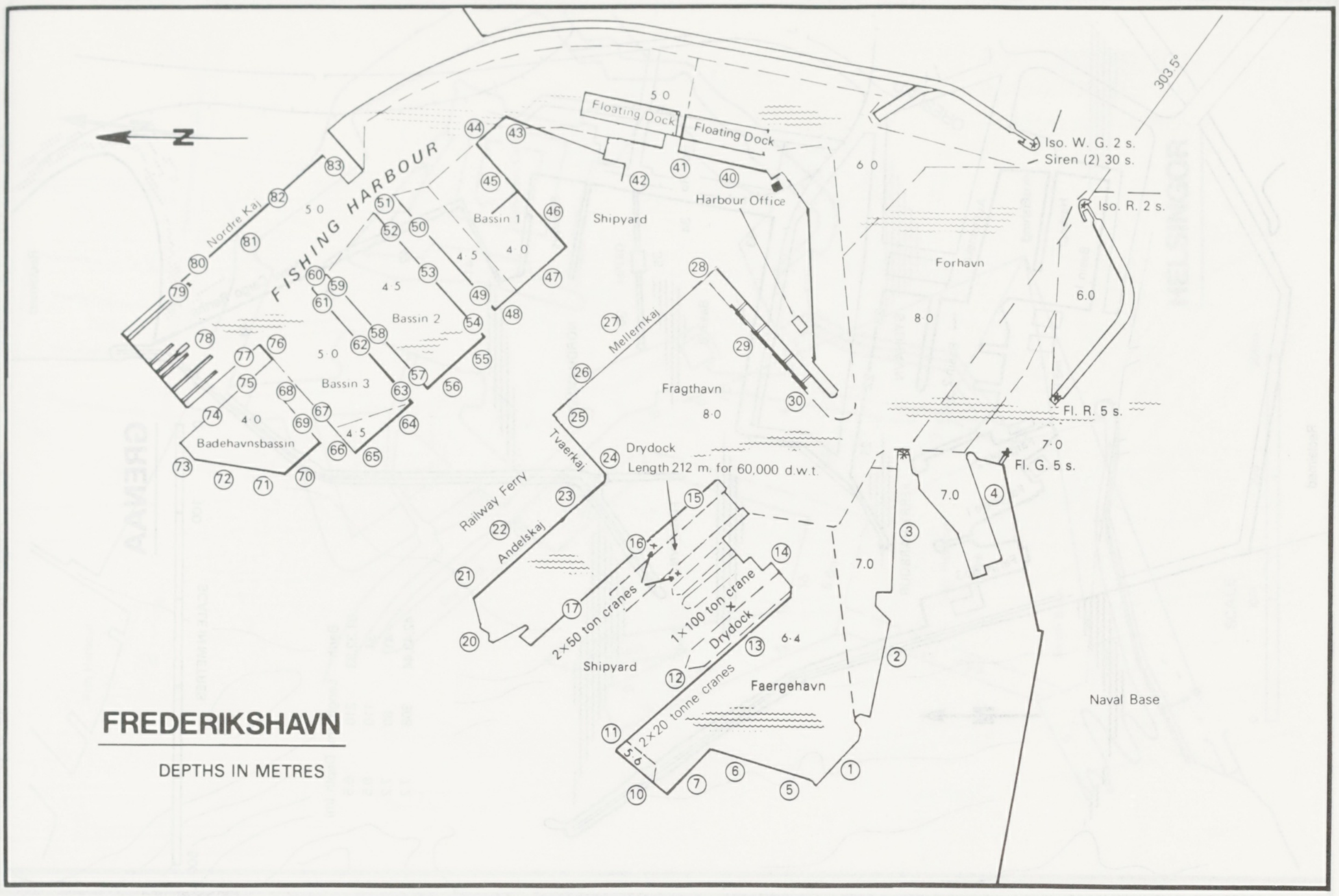


ESBJERG

X
X
Tanker Berths
Trafikhavnskaj
Trafikhavn
Nordre Dokkaj
Dokhavn
Vestre Dokkaj
Ostre Dokkaj
Newcastlekaj
Englandskaj
Smorkaj
Faergehavn
Baconkaj
Humberkaj
Sonderhavn
Y
Y


ESBJERG
Y
X
Osterhavn
Y
X
Tauruskaj

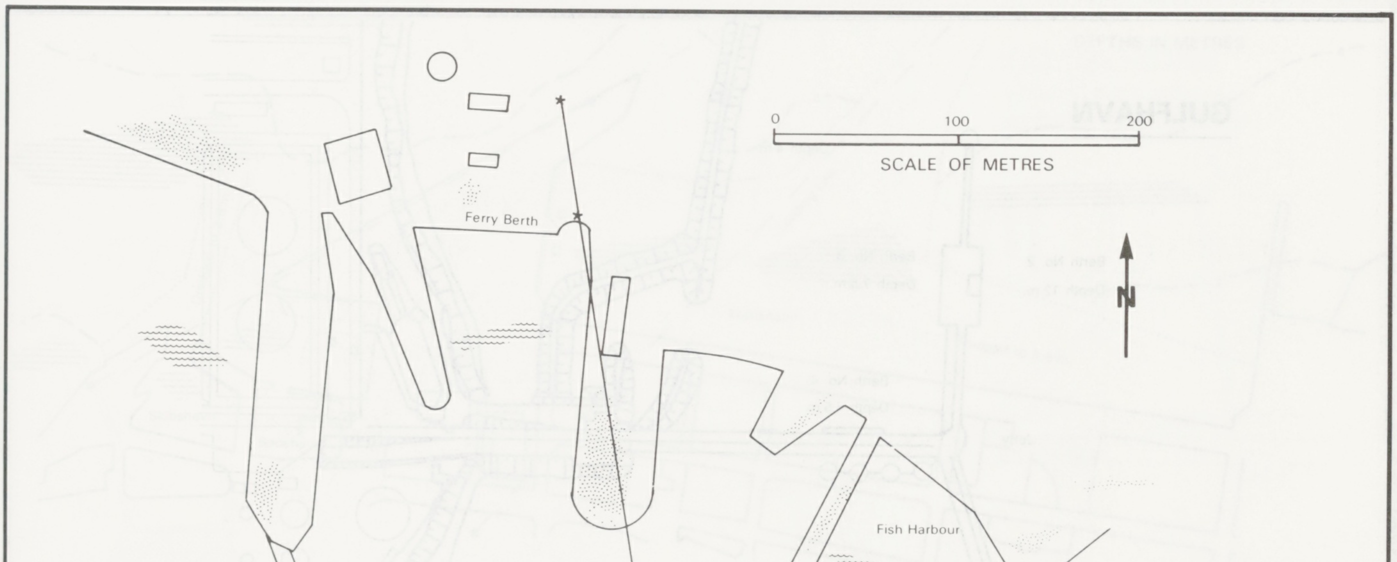

FREDERICIA
Fiskerihavn 3.0 m.
Yard Harbour
8
5.6 m
7
Old Harbour
9
7.2 m.
6
Kastels Harbour
2
Depth 12 m.
1
41
10 m.
Shell Harbour (Private Harbour)
15.0 m.
42
Skanseodde Harbour
17
16
15
14
7.0 m.
9.0 m.
9.0 m.
7.0 m.
13
11
12 7.0 m.
9.0m
7.0 m.
18
19
15.0 m.
20
West Harbour
Oliehaven
22
15.0 m.
23
7.5 m.
30m
9.0 m.
24
10.0 m.
25
26
27
12.0 m.
Mollebugt Harbour
Marina
N
0 100 200 300 400 500 METRES
SCALE



FREDERIKSHAVN

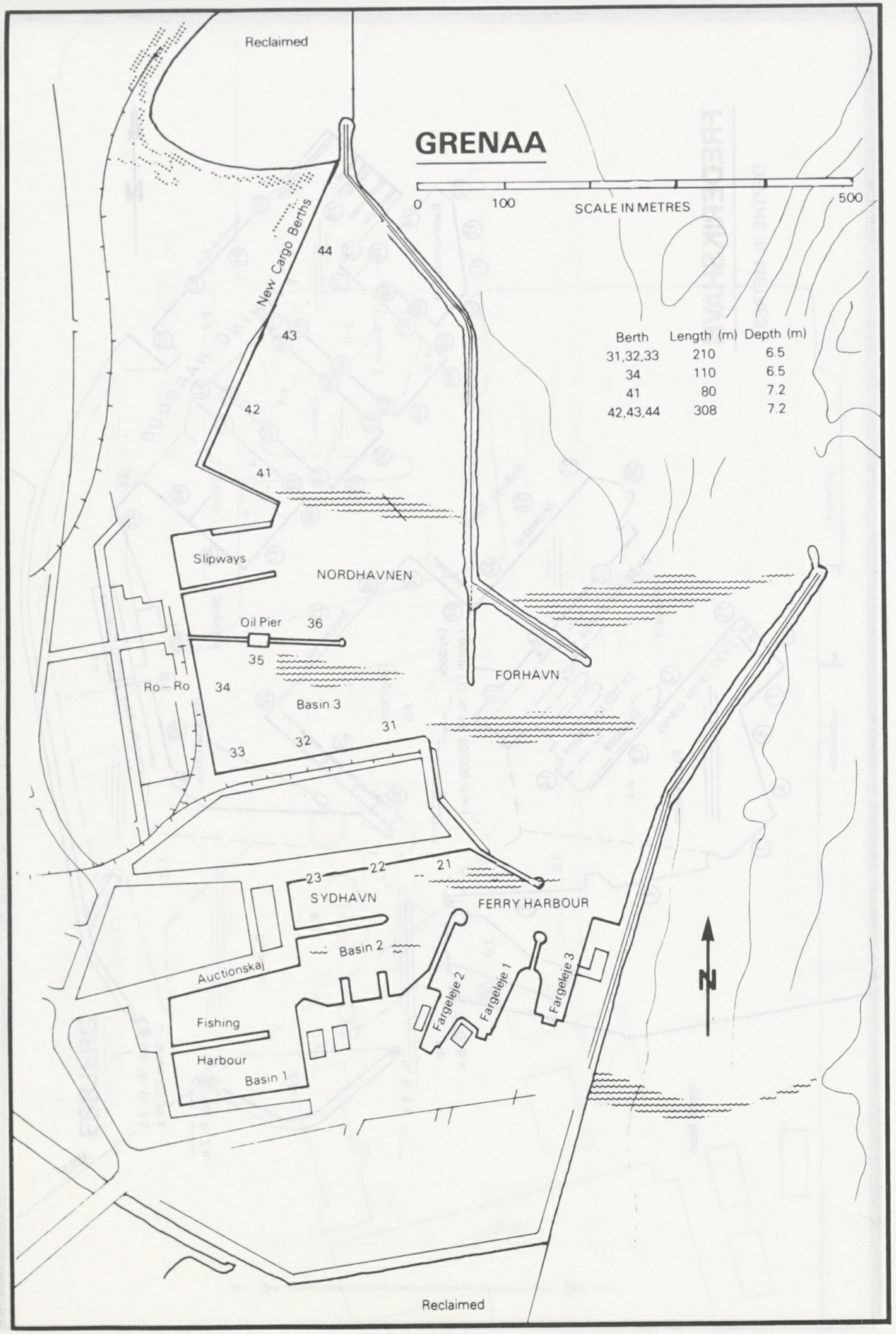
DEPTHS IN METRES

N
Floating Dock
Floating Dock
5 0
Iso. W. G. 2 s.
Siren (2) 30 s.
303.5°
Iso. R. 2 s.
FISHING HARBOUR
Nordre Kaj
Bassin 1
Bassin 2
Bassin 3
Badehavnsbassin
Shipyard
Harbour Office
Forhavn
6.0
8 0
Mellemkaj
Fragthavn
8 0
Tvaerkaj
Drydock
Length 212 m. for 60,000 d.w.t.
Railway Ferry
Andelskaj
2×50 ton cranes
1×100 ton crane
Drydock
2×20 tonne cranes
Shipyard
Faergehavn
6·4
5·6
7.0
7.0
7·0
Fl. R. 5 s.
Fl. G. 5 s.
Naval Base
5 0
4 5
4 0
4 5
5 0
4 0
4 5
6 0

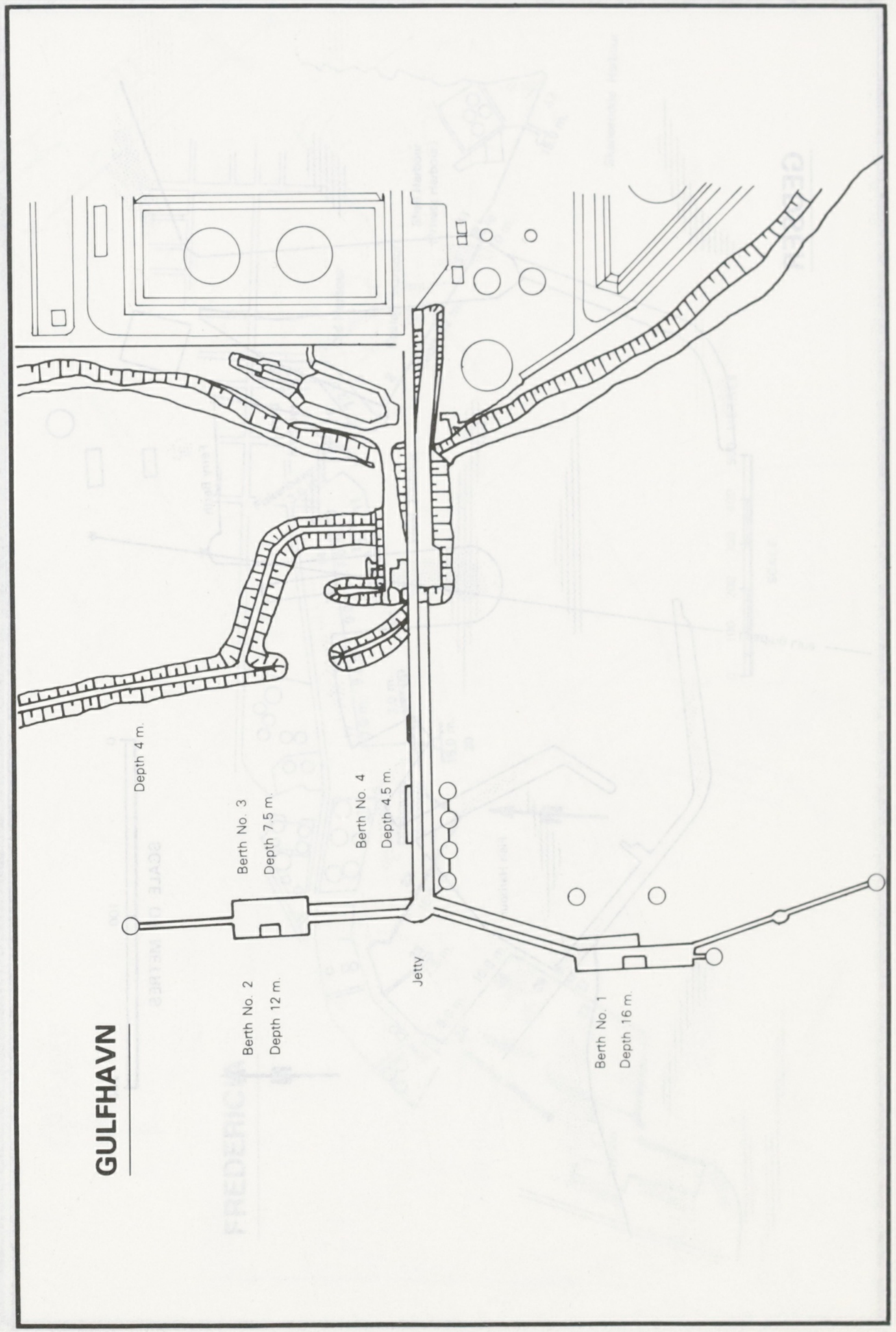


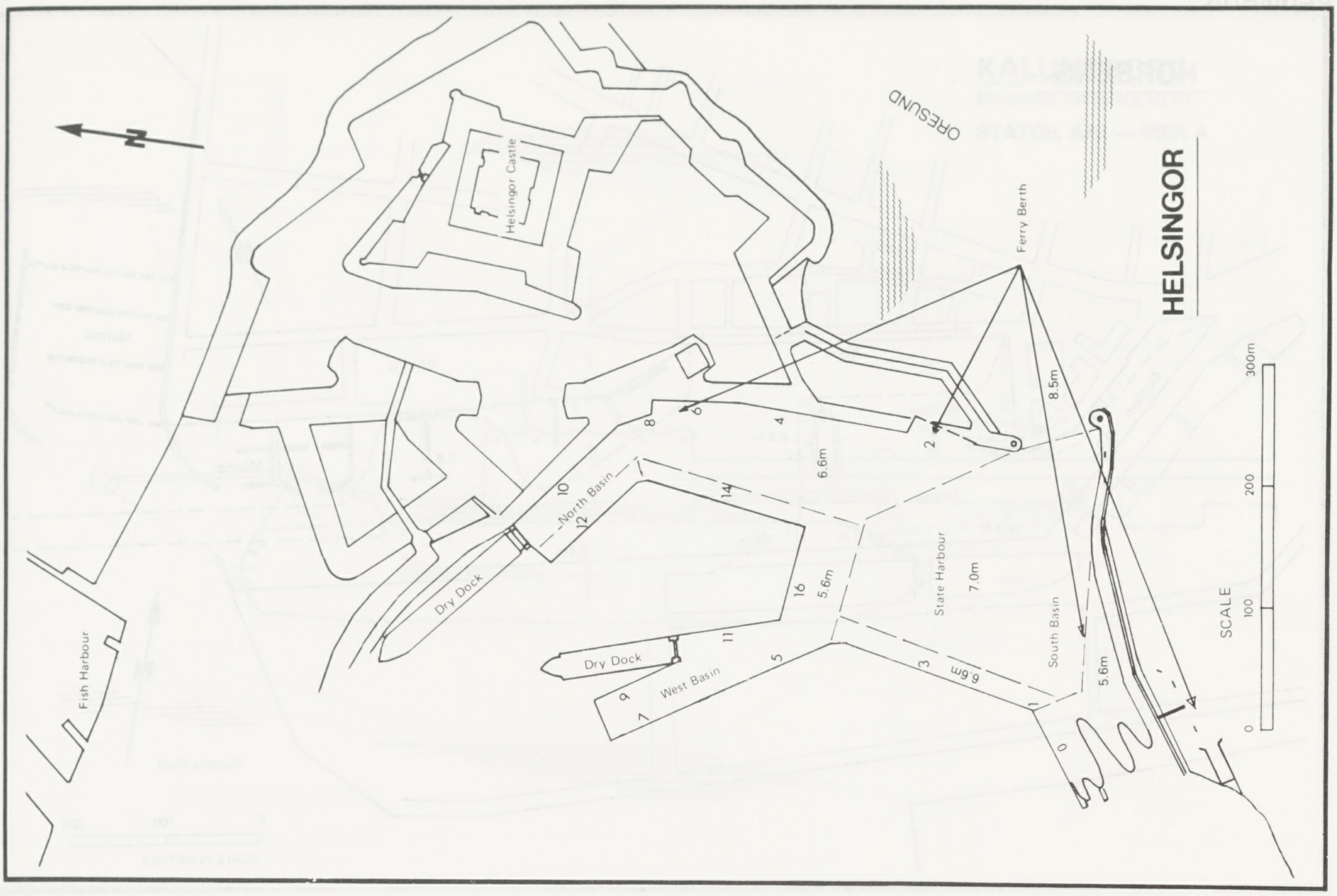
GEDSER

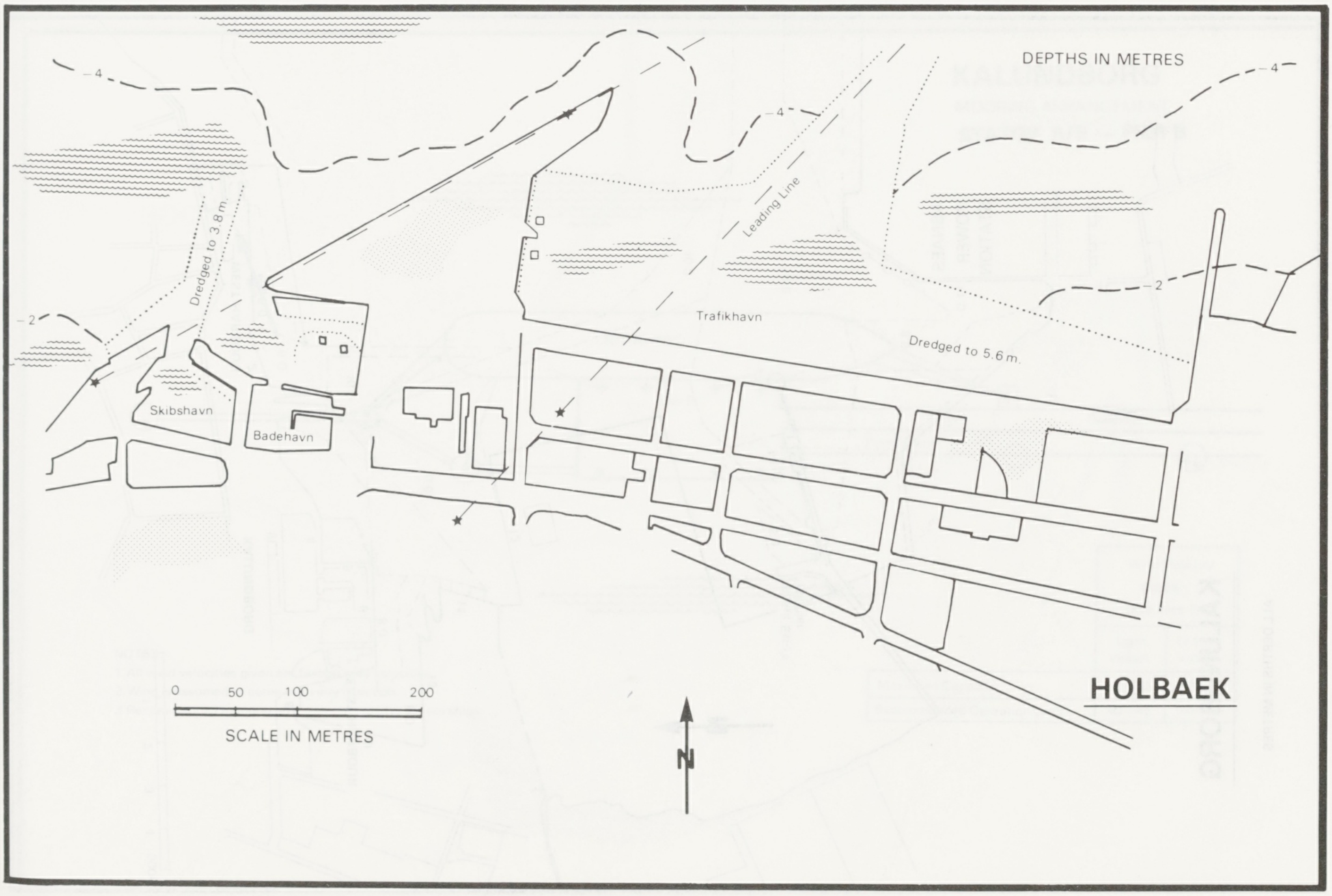
Ferry Berth
0
100
200
SCALE OF METRES
N
Fish Harbour
Leading Line

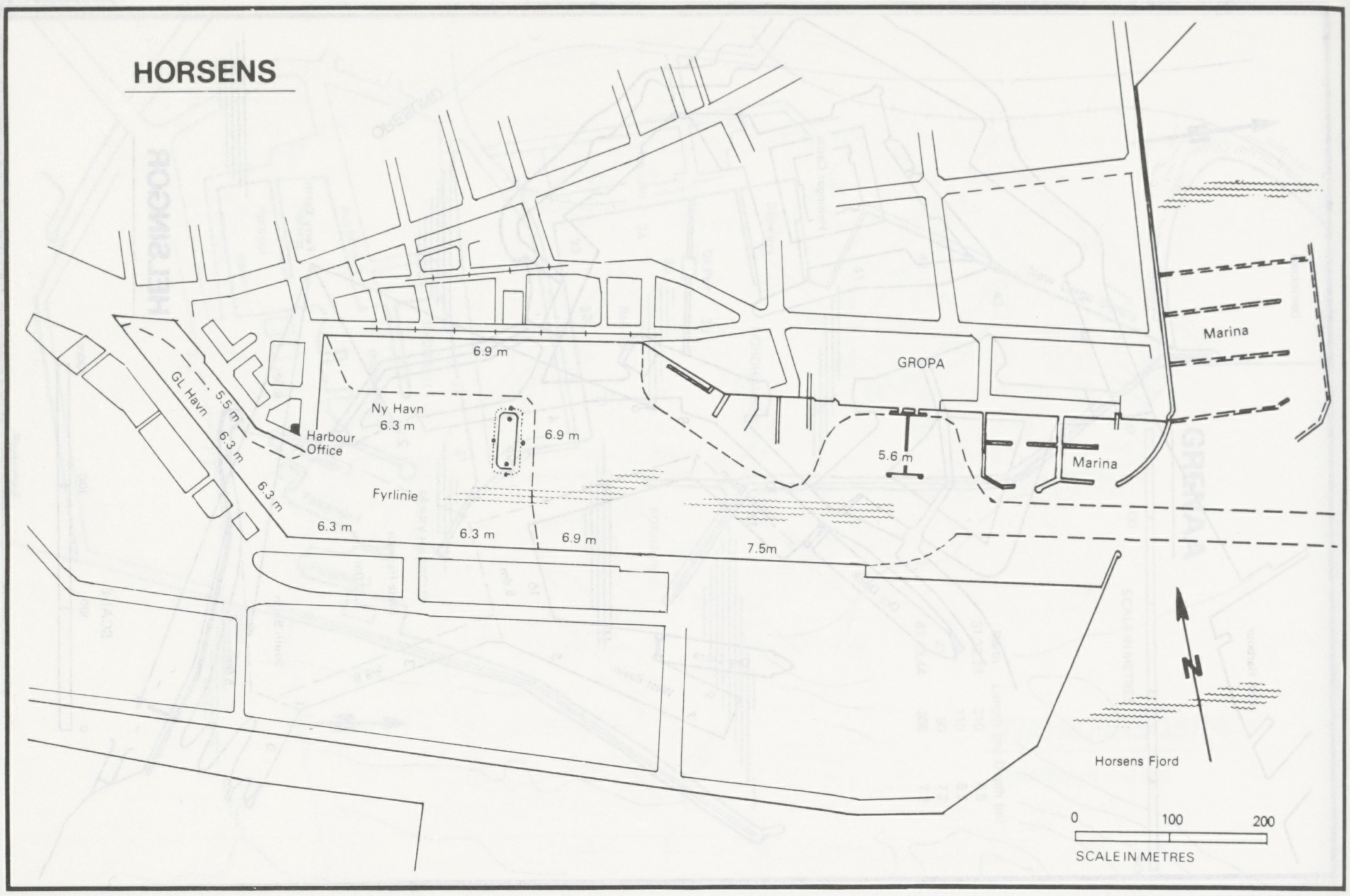

GRENAA
0
100
500
SCALE IN METRES
Reclaimed
New Cargo Berths
44
43
42
41
Slipways
NORDHAVNEN
Oil Pier
36
35
Ro—Ro
34
Basin 3
33
32
31
FORHAVN
23
22
21
SYDHAVN
FERRY HARBOUR
Basin 2
Auctionskaj
Fishing
Harbour
Basin 1
Fargeleje 2
Fargeleje 1
Fargeleje 3
N
Reclaimed

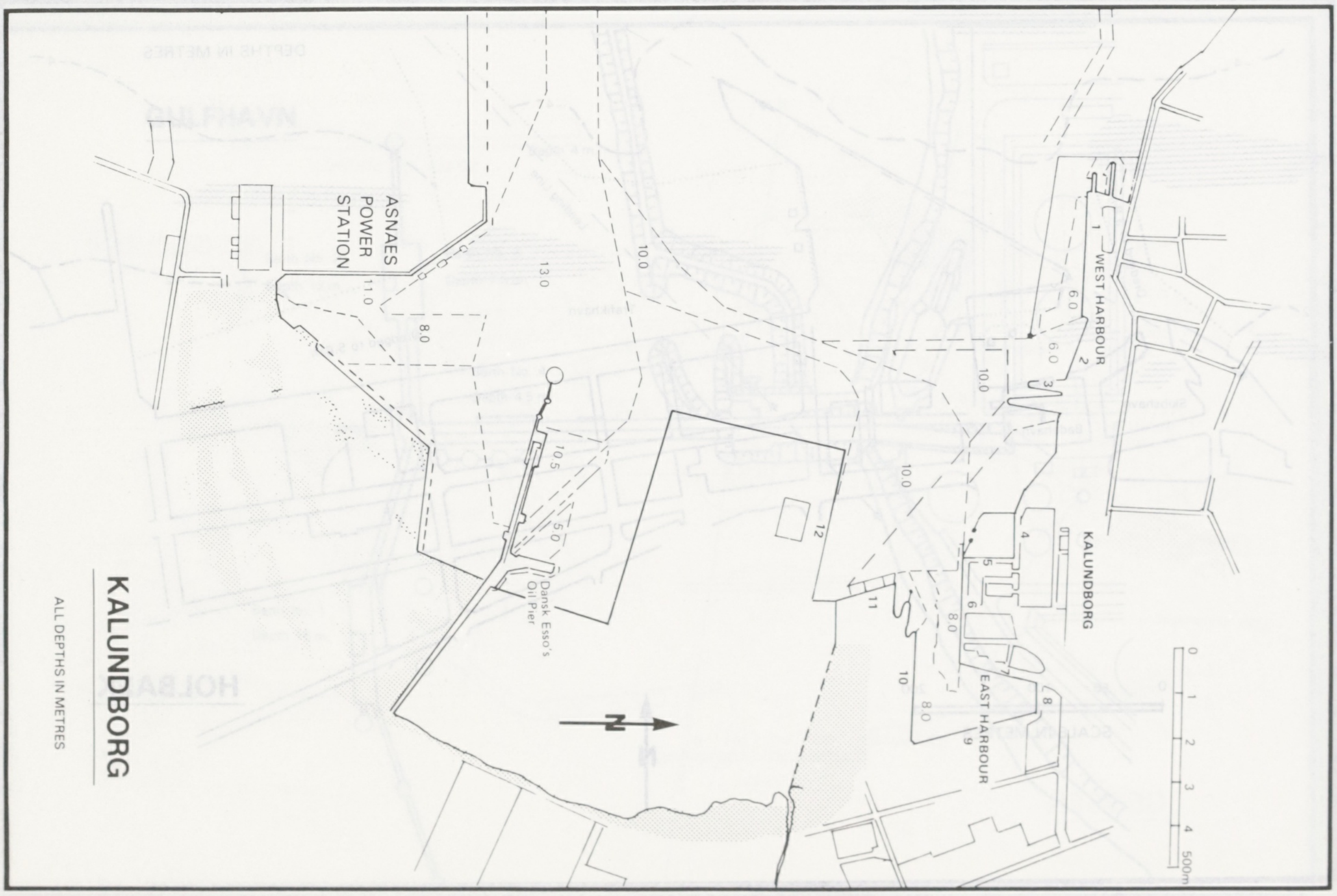
Berth	Length (m)	Depth (m)
31,32,33	210	6.5
34	110	6.5
41	80	7.2
42,43,44	308	7.2


GULFHAVN
Depth 4 m.
Berth No. 3
Depth 7.5 m.
Berth No. 4
Depth 4.5 m.
Berth No. 2
Depth 12 m.
Jetty
Berth No. 1
Depth 16 m.


HELSINGOR
ORESUND
N
Helsingor Castle
Ferry Berth
North Basin
Dry Dock
Dry Dock
West Basin
State Harbour
South Basin
Fish Harbour
8.5m
6.6m
5.6m
7.0m
6.6m
5.6m
8
6
4
2
10
12
14
16
11
5
3
1
0
9
7
SCALE
0
100
200
300m


DEPTHS IN METRES
– 4
– 4
– 4
– 2
– 2
Dredged to 3.8 m.
Leading Line
Trafikhavn
Dredged to 5.6 m.
Skibshavn
Badehavn
0
50
100
200
SCALE IN METRES
N
HOLBAEK

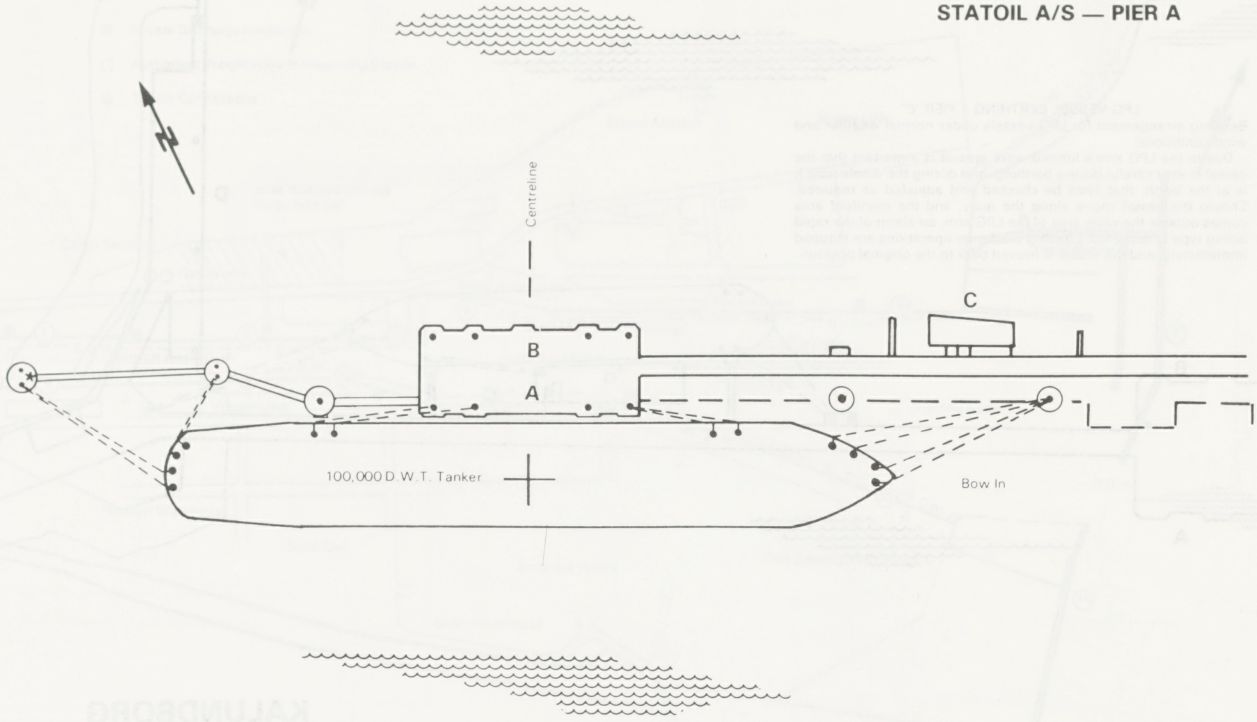

HORSENS
GL Havn
5.5 m
6.3 m
6.3 m
Harbour Office
6.9 m
Ny Havn
6.3 m
6.9 m
Fyrlinie
6.3 m
6.3 m
6.9 m
7.5m
GROPA
5.6 m
Marina
Marina
N
Horsens Fjord
0
100
200
SCALE IN METRES


ASNAES POWER STATION
11.0
13.0
10.0
8.0
10.5
5.0
Dansk Esso's Oil Pier
12
11
10.0
10.0
WEST HARBOUR
1
6.0
6.0
2
3
4
5
6
KALUNDBORG
8.0
10
8.0
EAST HARBOUR
8
9
N
KALUNDBORG
ALL DEPTHS IN METRES
0
1
2
3
4
500m

KALUNDBORG

MOORING ARRANGEMENT

STATOIL A/S — PIER A

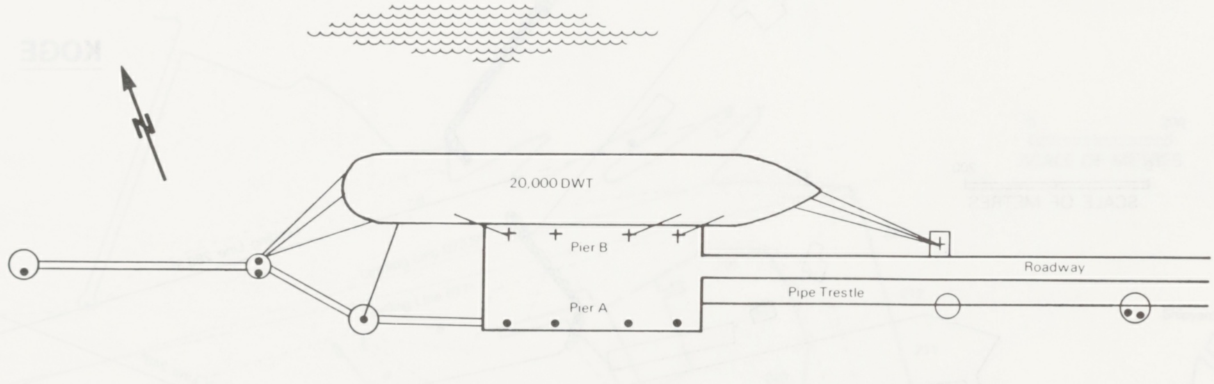


N
Centreline
C
B
A
100,000 D.W.T. Tanker
Bow In

KALUNDBORG

MOORING ARRANGEMENT

STATOIL A/S — PIER B

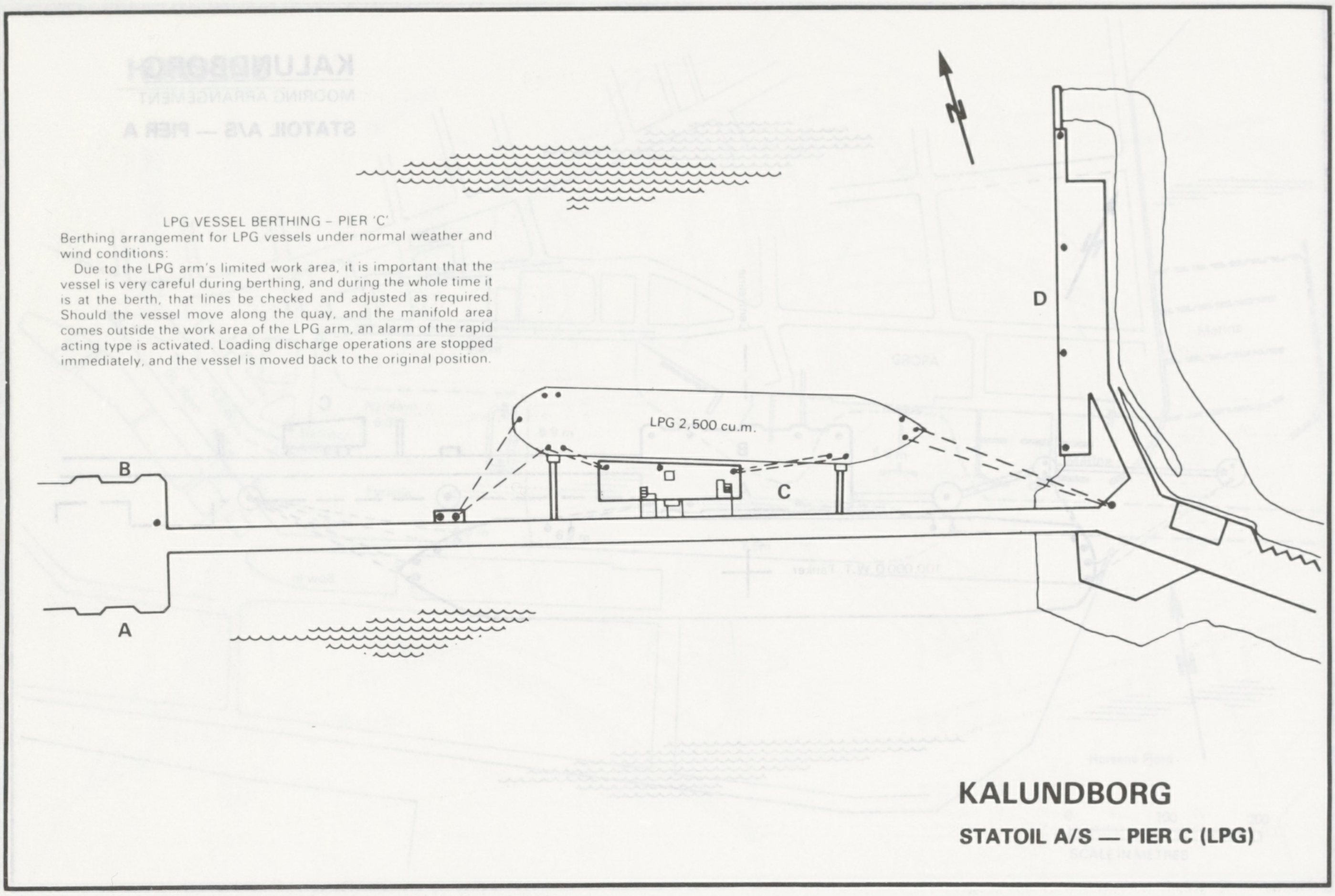


N
20,000 DWT
Pier B
Pier A
Roadway
Pipe Trestle

NOTES:

1. All wind velocities given are fastest mile velocities.
2. Wind is assumed to come from any direction.
3. Recommended mooring arrangements are for all size ships.

	Wind Velocity (MPH) (See note 1)	
	Light Vessel	Loaded Vessel
Maximum Capacity	50 – 55	70 – 75
Recommended Operation Limit	40 – 45	55 – 60


N
D
LPG 2,500 cu.m.
B
C
A

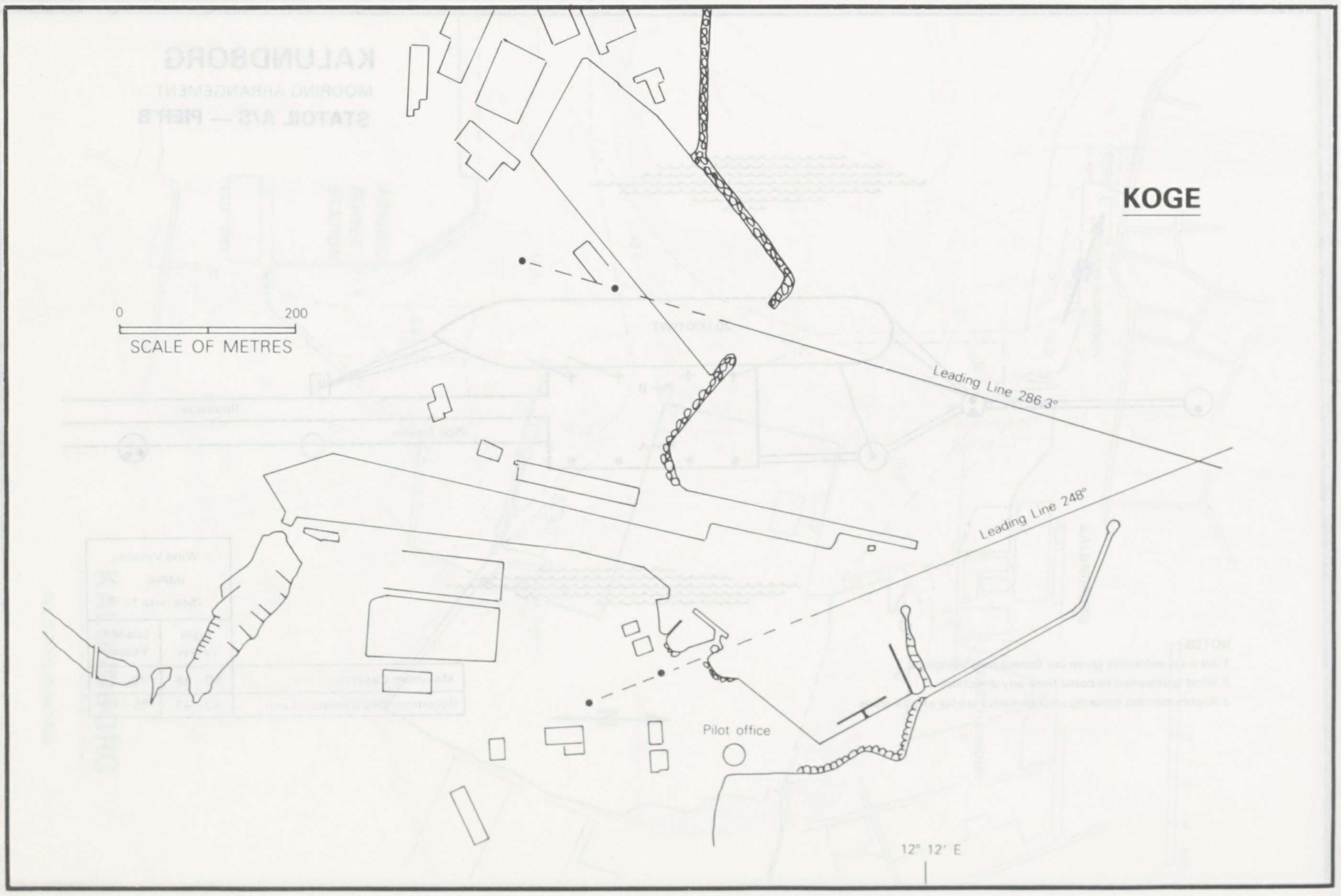
LPG VESSEL BERTHING – PIER 'C'

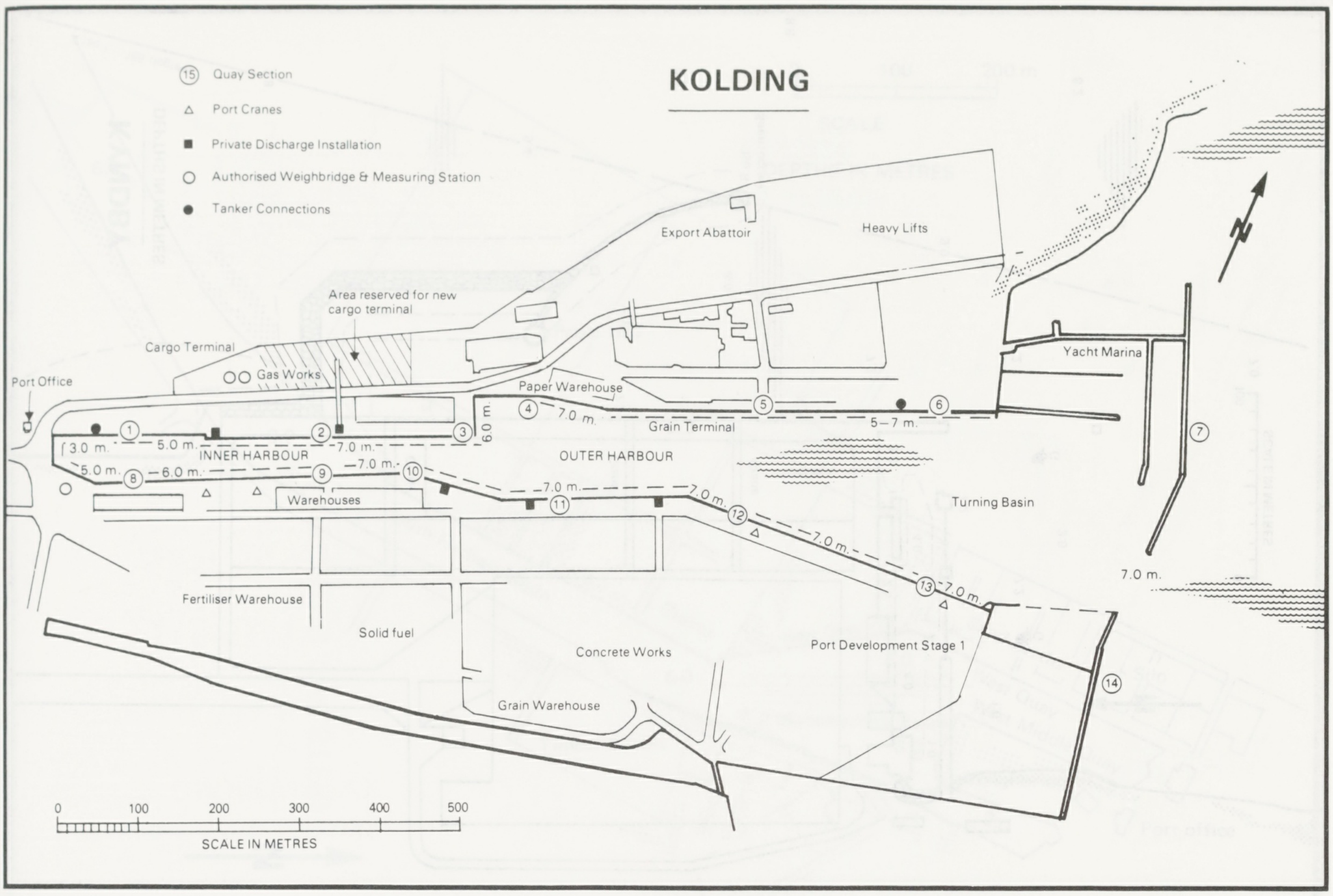
Berthing arrangement for LPG vessels under normal weather and wind conditions:

Due to the LPG arm's limited work area, it is important that the vessel is very careful during berthing, and during the whole time it is at the berth, that lines be checked and adjusted as required. Should the vessel move along the quay, and the manifold area comes outside the work area of the LPG arm, an alarm of the rapid acting type is activated. Loading discharge operations are stopped immediately, and the vessel is moved back to the original position.

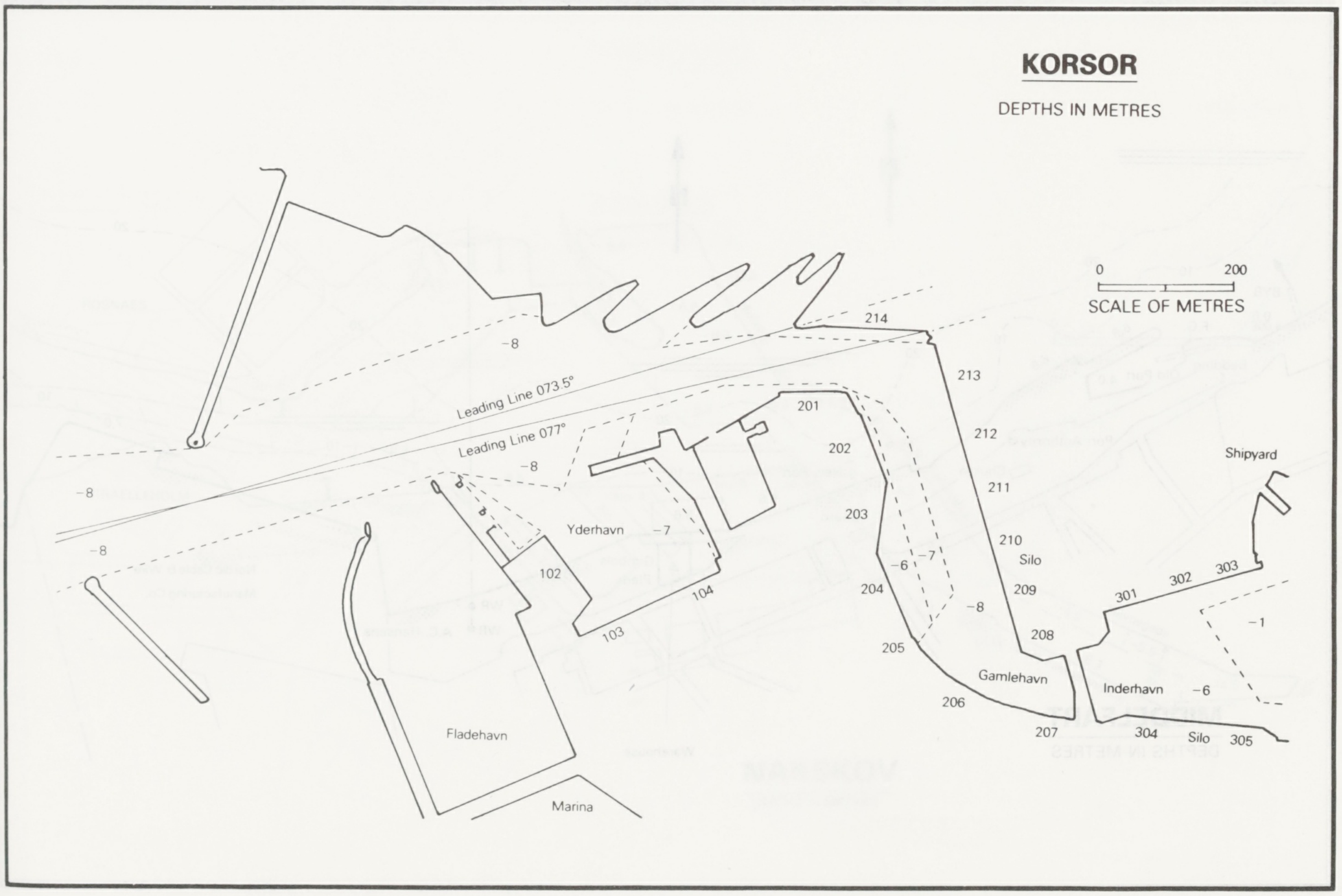
KALUNDBORG

STATOIL A/S — PIER C (LPG)


KOGE
0
200
SCALE OF METRES
Leading Line 286.3°
Leading Line 248°
Pilot office
12° 12' E

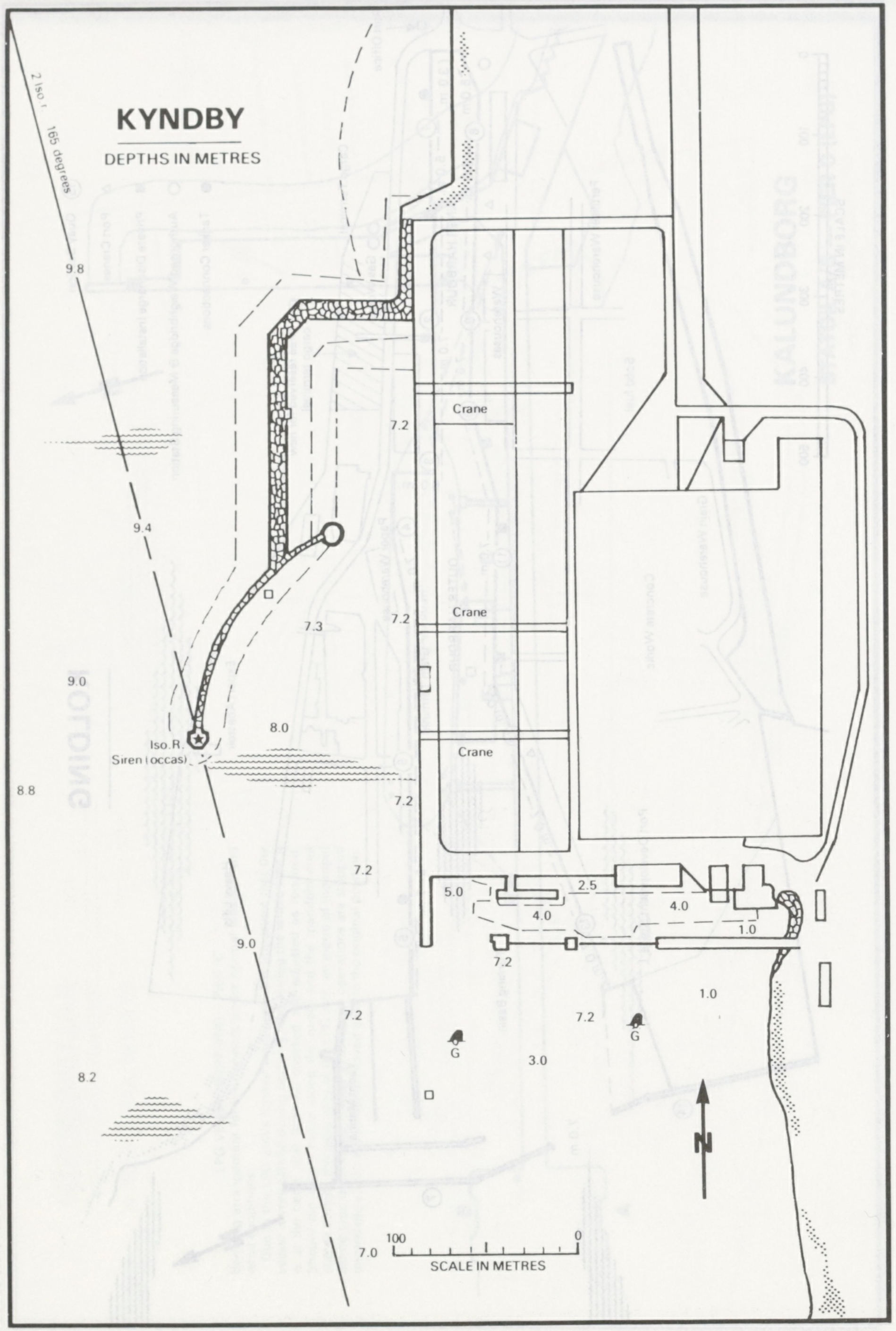

KOLDING

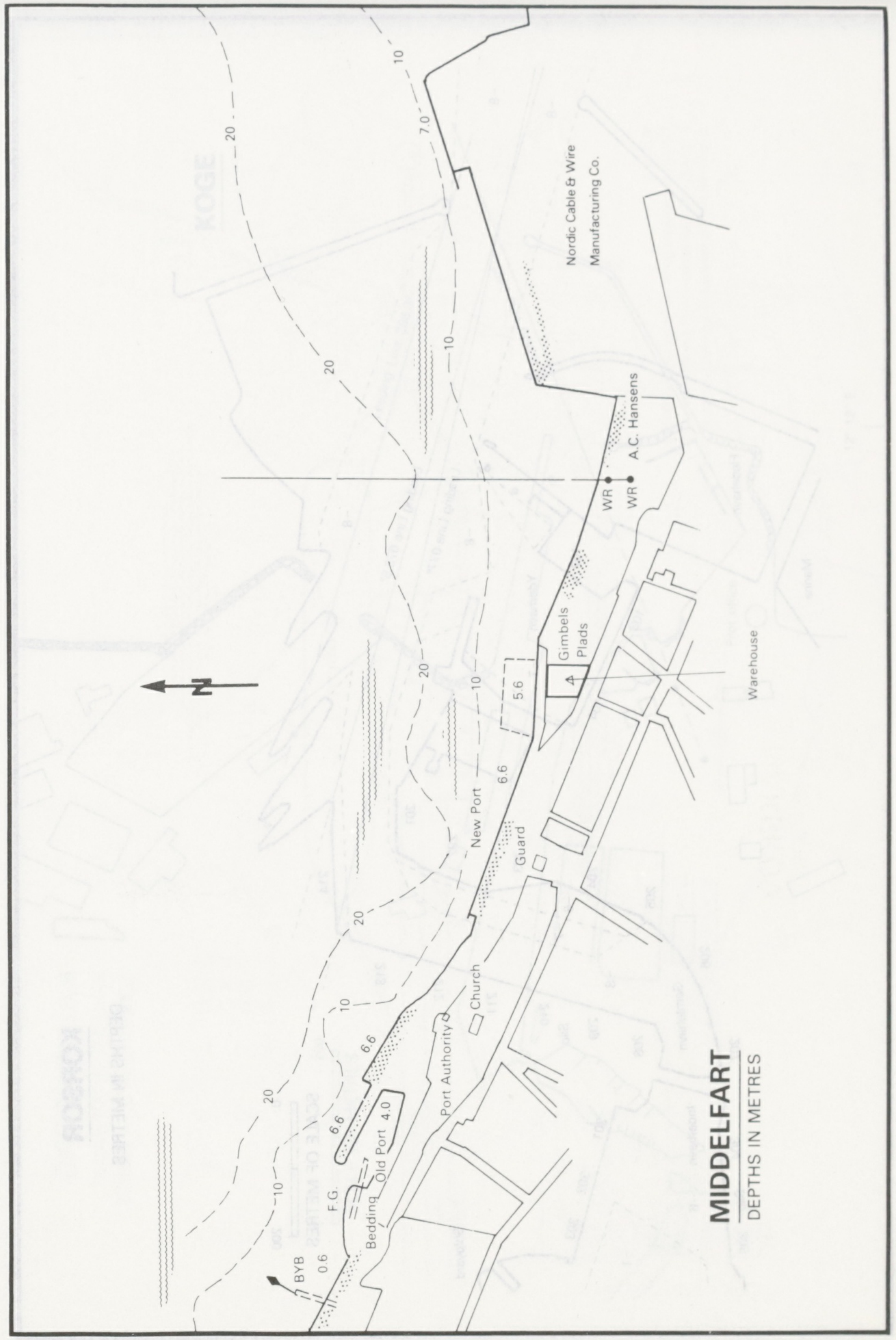
⑮ Quay Section
△ Port Cranes
■ Private Discharge Installation
○ Authorised Weighbridge & Measuring Station
● Tanker Connections
Export Abattoir
Heavy Lifts
Area reserved for new cargo terminal
Cargo Terminal
Gas Works
Port Office
Paper Warehouse
Grain Terminal
Yacht Marina
INNER HARBOUR
OUTER HARBOUR
Warehouses
Turning Basin
Fertiliser Warehouse
Solid fuel
Concrete Works
Port Development Stage 1
Grain Warehouse
3.0 m.
5.0 m.
7.0 m.
6.0 m.
5–7 m.
1
2
3
4
5
6
7
8
9
10
11
12
13
14
0
100
200
300
400
500
SCALE IN METRES

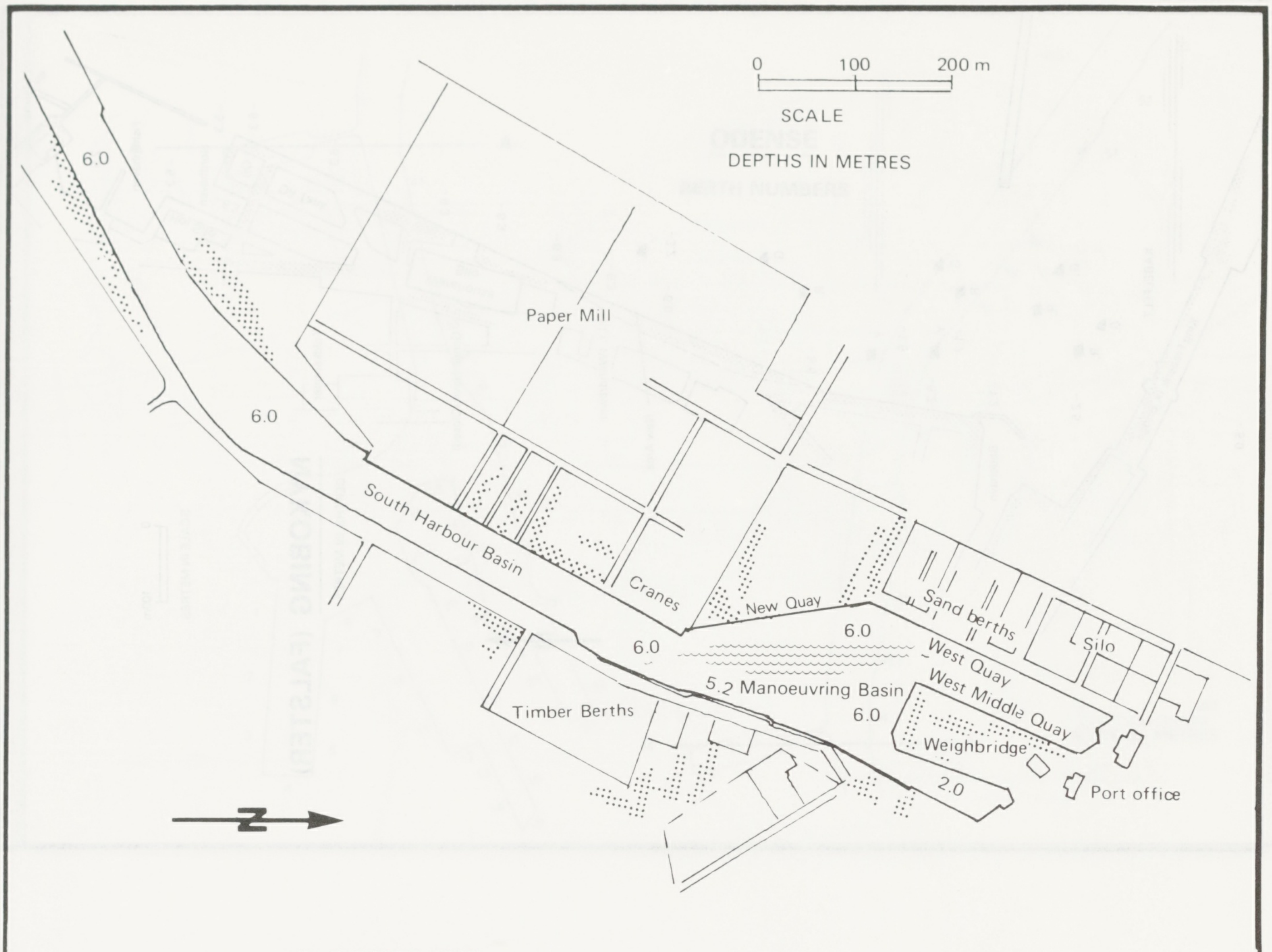

KORSOR

DEPTHS IN METRES

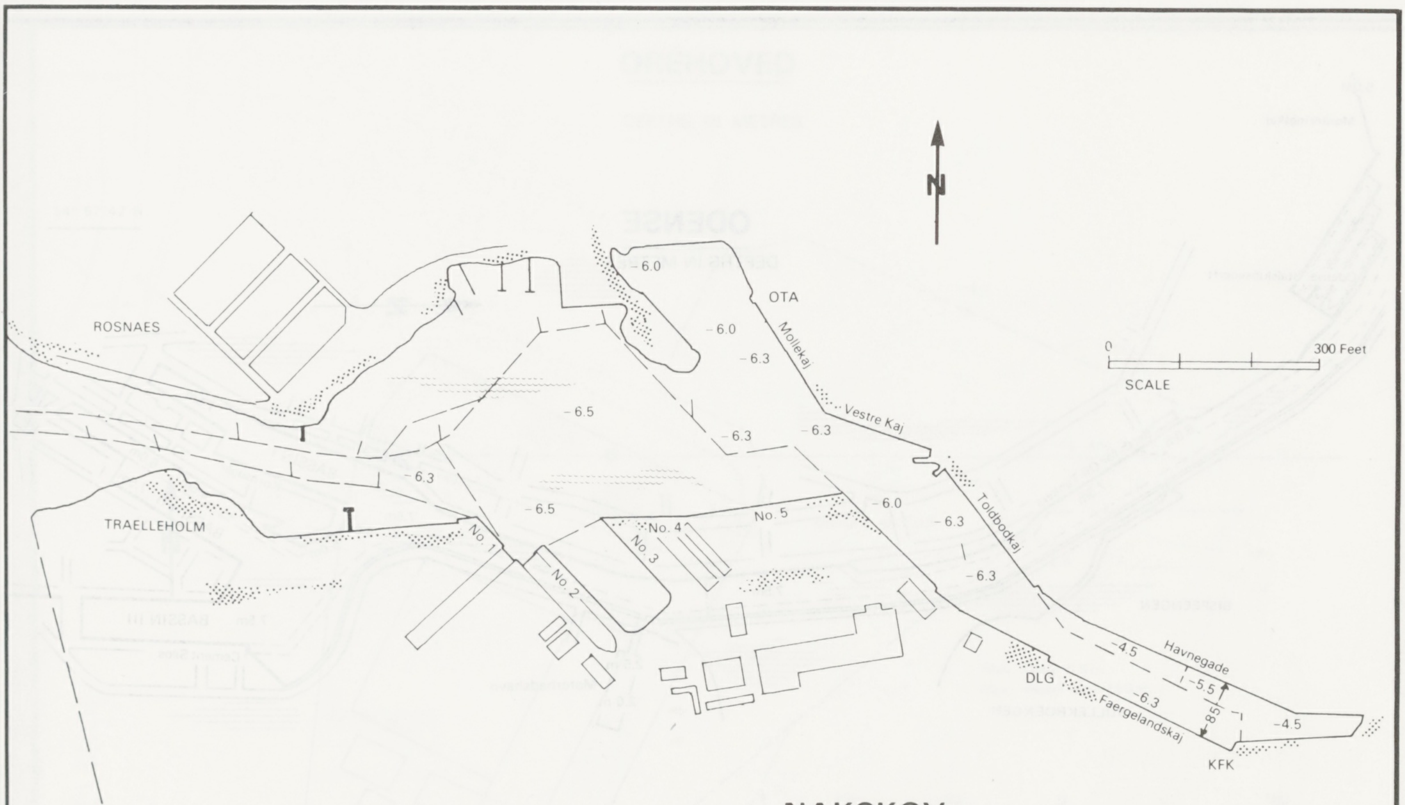
0
200
SCALE OF METRES
Leading Line 073.5°
Leading Line 077°
−8
−7
−6
−1
Yderhavn
Fladehavn
Marina
Gamlehavn
Inderhavn
Silo
Shipyard
102
103
104
201
202
203
204
205
206
207
208
209
210
211
212
213
214
301
302
303
304
305


KYNDBY
DEPTHS IN METRES
2 Iso 1
165 degrees
9.8
9.4
9.0
8.8
8.2
9.0
7.0
7.2
7.3
8.0
Iso.R.
Siren (occas)
Crane
Crane
Crane
7.2
7.2
7.2
5.0
2.5
4.0
4.0
1.0
7.2
7.2
7.2
1.0
3.0
G
G
N
100
0
SCALE IN METRES


MIDDELFART
DEPTHS IN METRES
N
20
10
7.0
Nordic Cable & Wire Manufacturing Co.
A.C. Hansens
WR
WR
Gimbels Plads
Warehouse
5.6
10
20
6.6
New Port
Guard
Church
Port Authority
6.6
6.6
4.0
Old Port
F.G.
Bedding
BYB
0.6

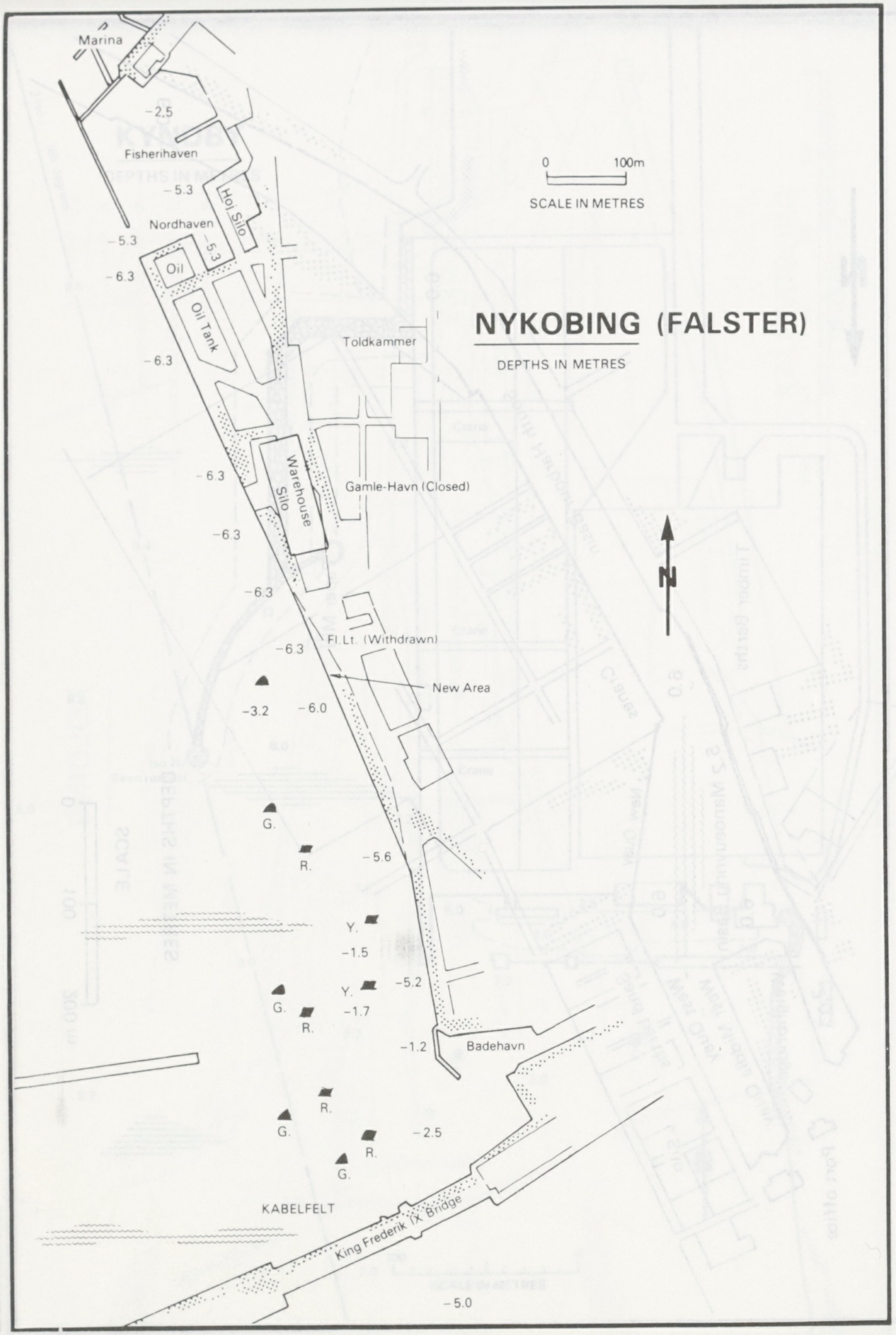

0
100
200 m
SCALE
DEPTHS IN METRES
6.0
6.0
Paper Mill
South Harbour Basin
Cranes
New Quay
Sand berths
Silo
6.0
6.0
West Quay
5.2 Manoeuvring Basin
West Middle Quay
6.0
Timber Berths
Weighbridge
2.0
Port office
N

NAESTVED


N
6.0
OTA
Møllekaj
-6.0
-6.3
ROSNAES
0
300 Feet
SCALE
-6.5
Vestre Kaj
-6.3
-6.3
-6.3
-6.5
TRAELLEHOLM
No. 1
No. 4
No. 5
-6.0
No. 3
-6.3
Toldbodkaj
No. 2
-6.3
-4.5
Havnegade
DLG
-6.3
-5.5
8.5
Faergelandskaj
-4.5
KFK

NAKSKOV

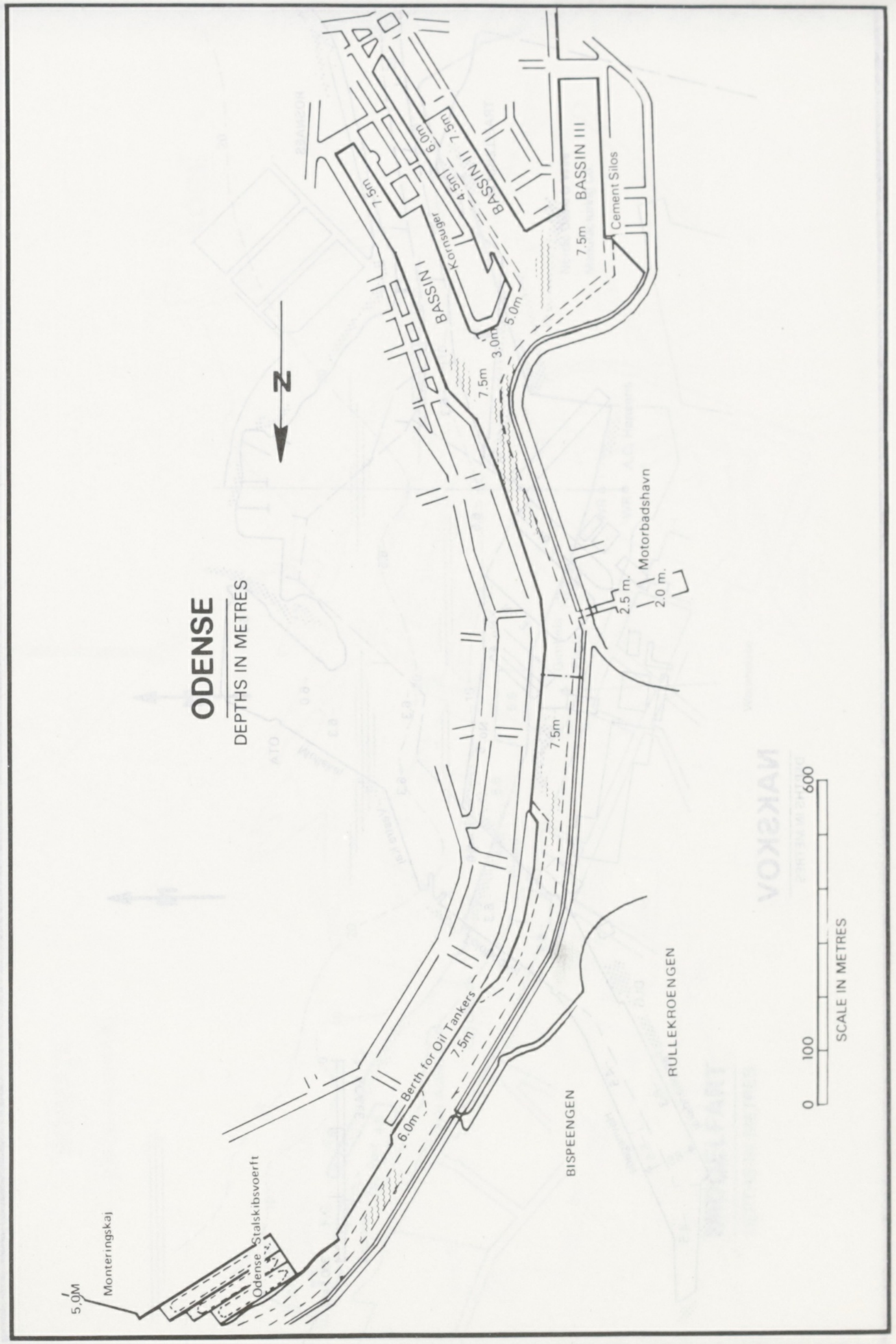
DEPTHS IN METRES



NYKOBING (FALSTER)

DEPTHS IN METRES

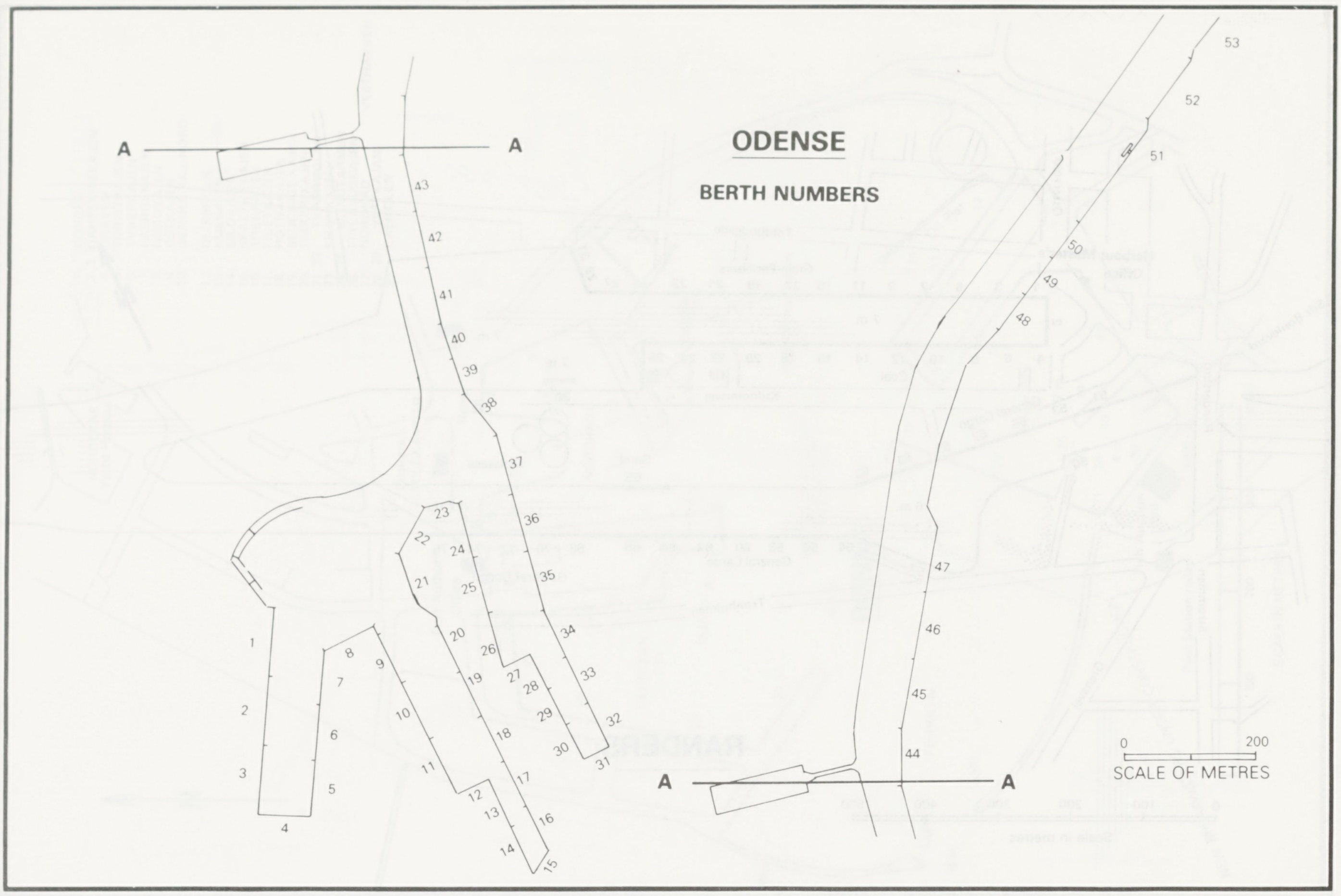
Marina
-2.5
Fisherihaven
-5.3
Hol Silo
Nordhaven
-5.3
-5.3
-6.3
Oil
Oil Tank
-6.3
0 100m
SCALE IN METRES
Toldkammer
-6.3
Warehouse
Silo
Gamle-Havn (Closed)
-6.3
N
-6.3
-6.3
Fl.Lt. (Withdrawn)
New Area
-3.2
-6.0
G.
R.
-5.6
Y.
-1.5
Y.
-5.2
G.
-1.7
R.
-1.2
Badehavn
R.
G.
-2.5
R.
G.
KABELFELT
King Frederik IX Bridge
-5.0

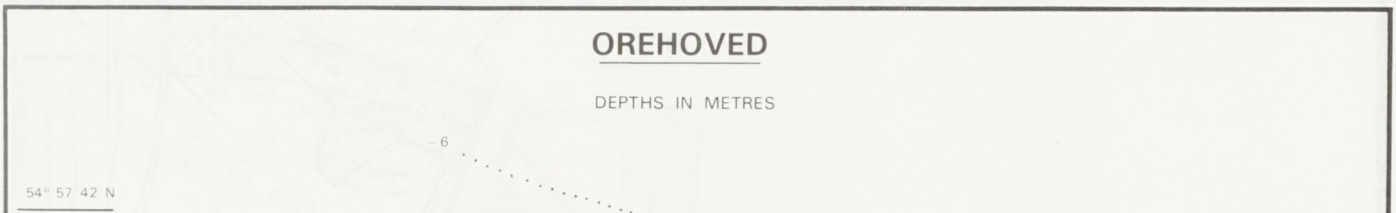


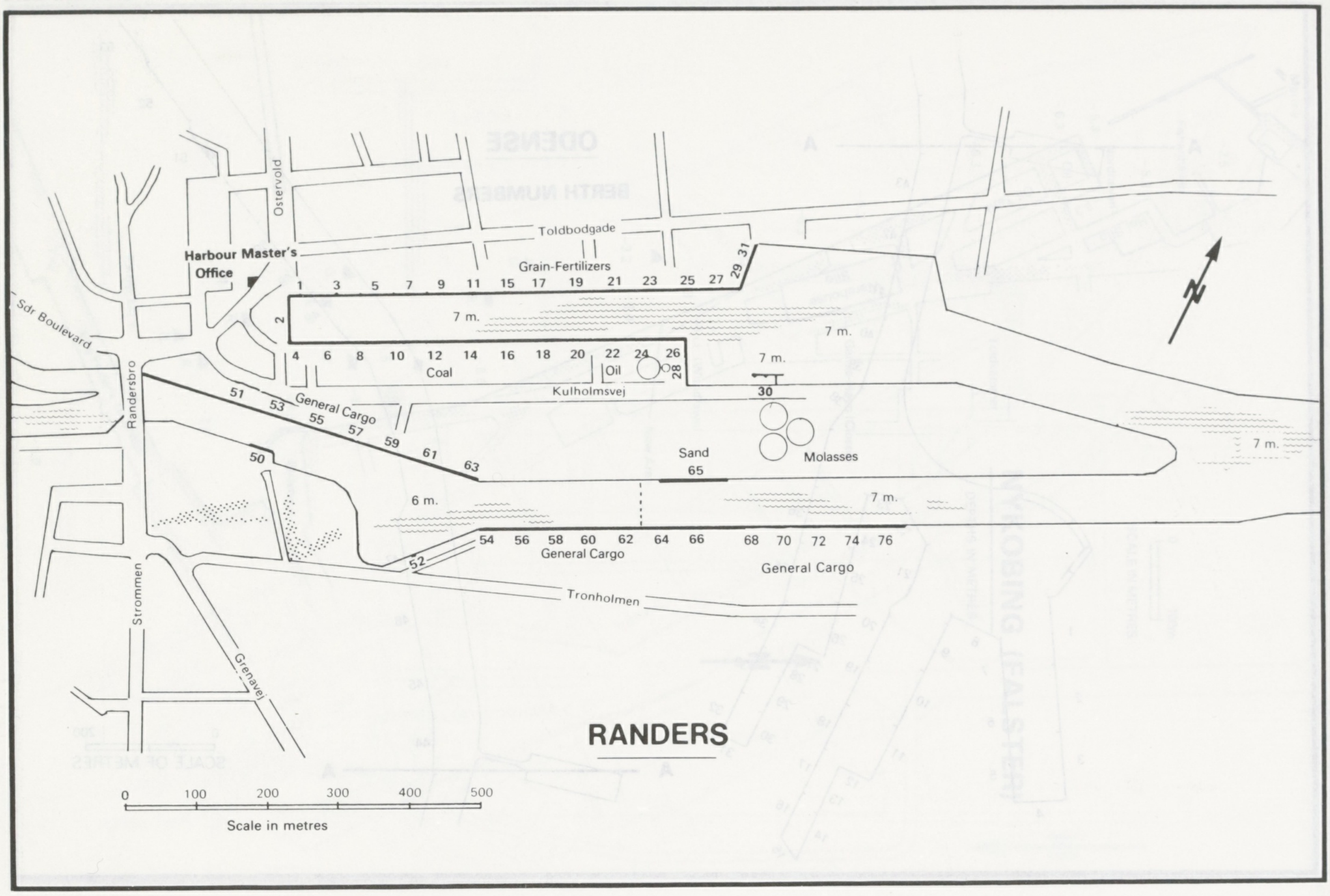
ODENSE

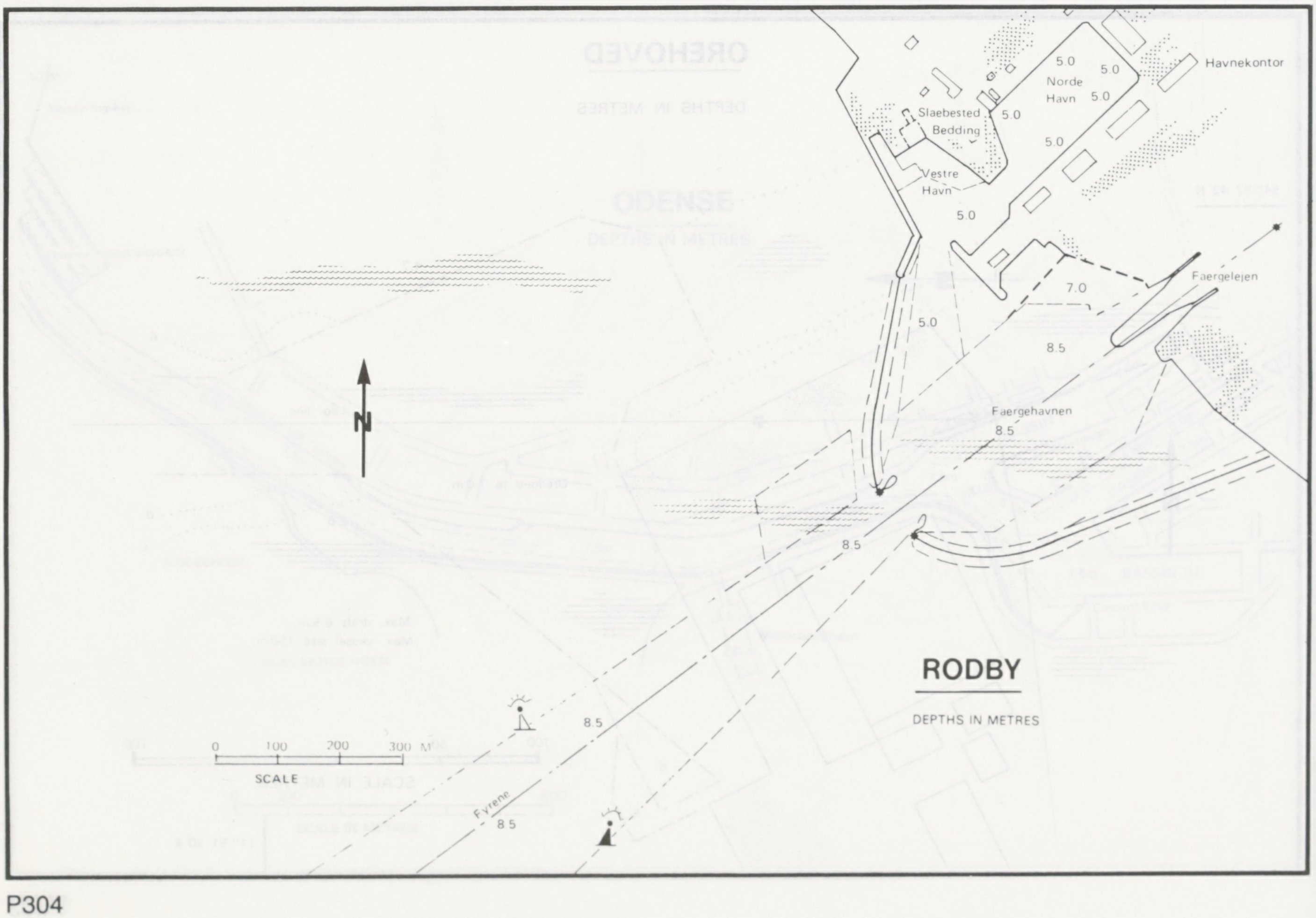
DEPTHS IN METRES

N
7.5m
7.5m
6.0m
7.5m
4.5m
BASSIN II
BASSIN III
Cement Silos
Korsuger
BASSIN I
7.5m
3.0m
5.0m
7.5m
Motorbadshavn
2.5 m.
2.0 m.
7.5m
Berth for Oil Tankers
7.5m
6.0m
BISPEENGEN
RULLEKROENGEN
0
100
600
SCALE IN METRES
Monteringskaj
5.0M
Odense Stalskibsvoerft

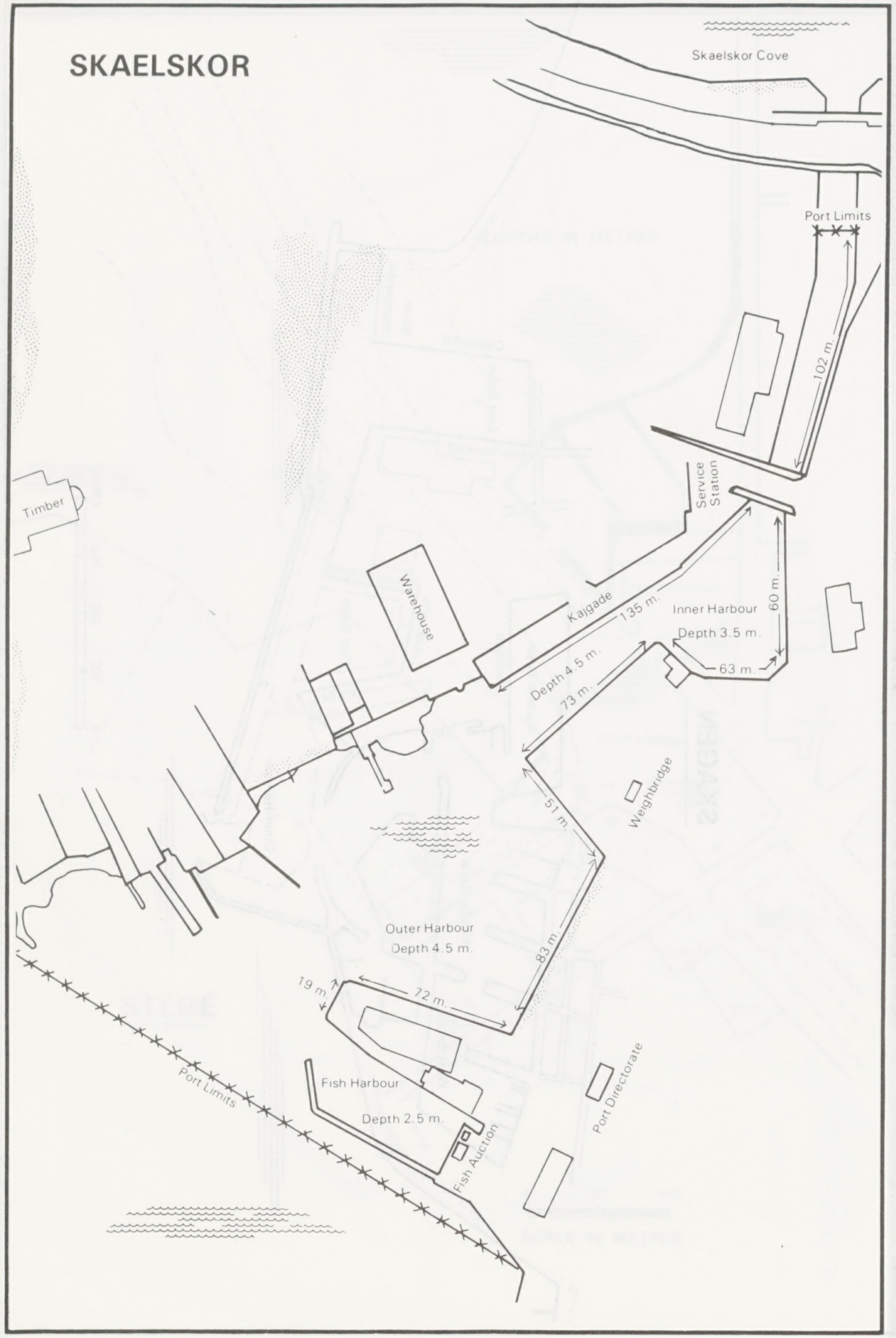

ODENSE
BERTH NUMBERS
A
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
A
A
44
45
46
47
48
49
50
51
52
53
0
200
SCALE OF METRES


OREHOVED
DEPTHS IN METRES
-6
54° 57 42 N
-6
-4
-4.7
-6
Ldg. line
N
Dredged to 7.0 m.
-2.6
-6
-4
Max. draft 6.5 m.
Max. vessel size 150 m.
100
50
0
100
SCALE IN METRES
-6
5
11° 51 30 E

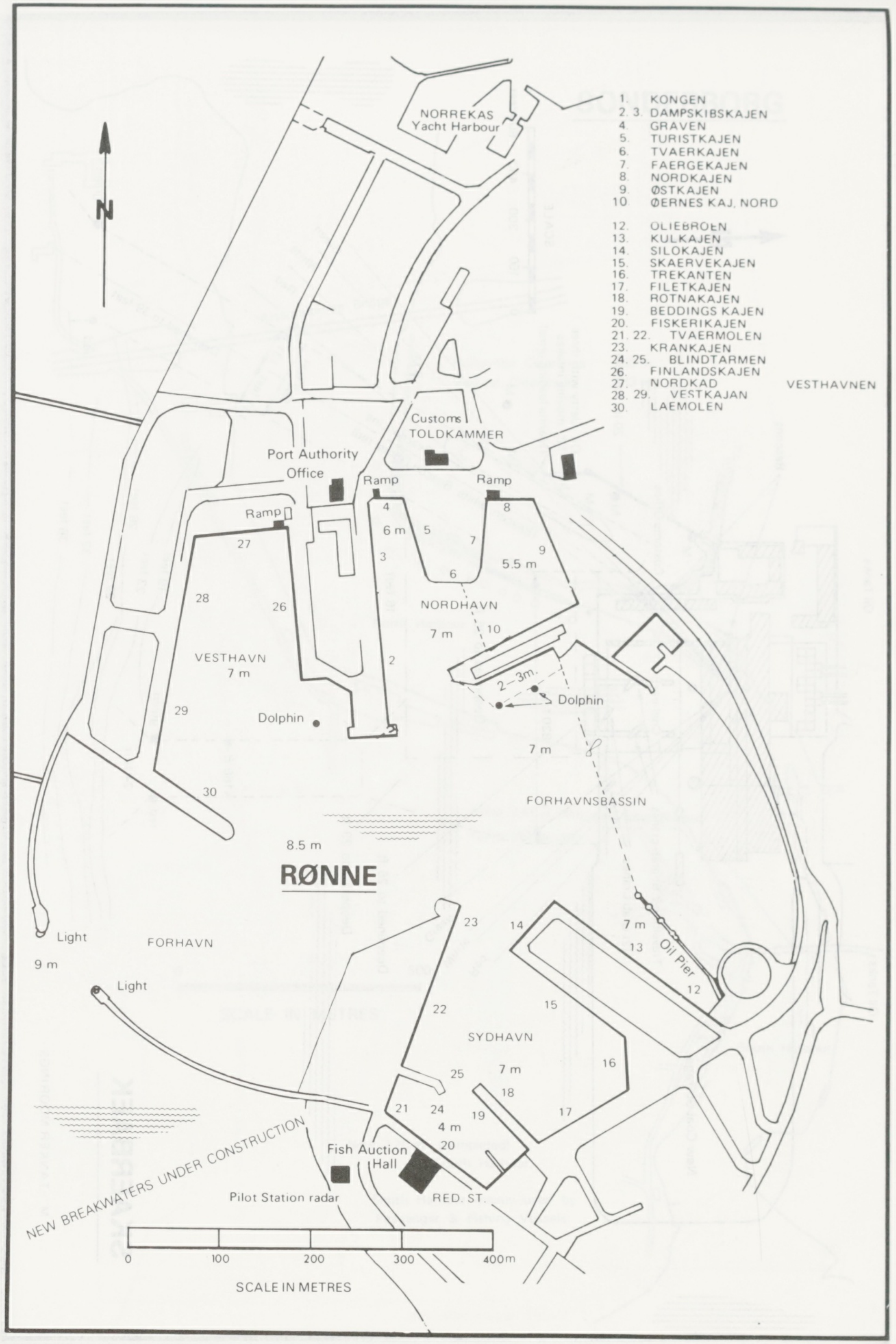

Toldbodgade
Ostervold
Harbour Master's Office
Grain-Fertilizers
1 3 5 7 9 11 15 17 19 21 23 25 27 29 31
2
7 m.
4 6 8 10 12 14 16 18 20 22 24 26 28
Coal
Oil
Kulholmsvej
7 m.
30
Sdr Boulevard
Randersbro
51 53 55 57 59 61 63
General Cargo
50
Sand
65
Molasses
6 m.
7 m.
7 m.
54 56 58 60 62 64 66 68 70 72 74 76
General Cargo
General Cargo
52
Tronholmen
Strommen
Grenavej
RANDERS
0 100 200 300 400 500
Scale in metres


Havnekontor
5.0
5.0
Norde Havn
5.0
Slaebested Bedding
5.0
5.0
Vestre Havn
5.0
7.0
Faergelejen
5.0
8.5
Faergehavnen
8.5
8.5
8.5
Fyrene
8.5
0 100 200 300 M
SCALE
RODBY
DEPTHS IN METRES

SKAELSKOR

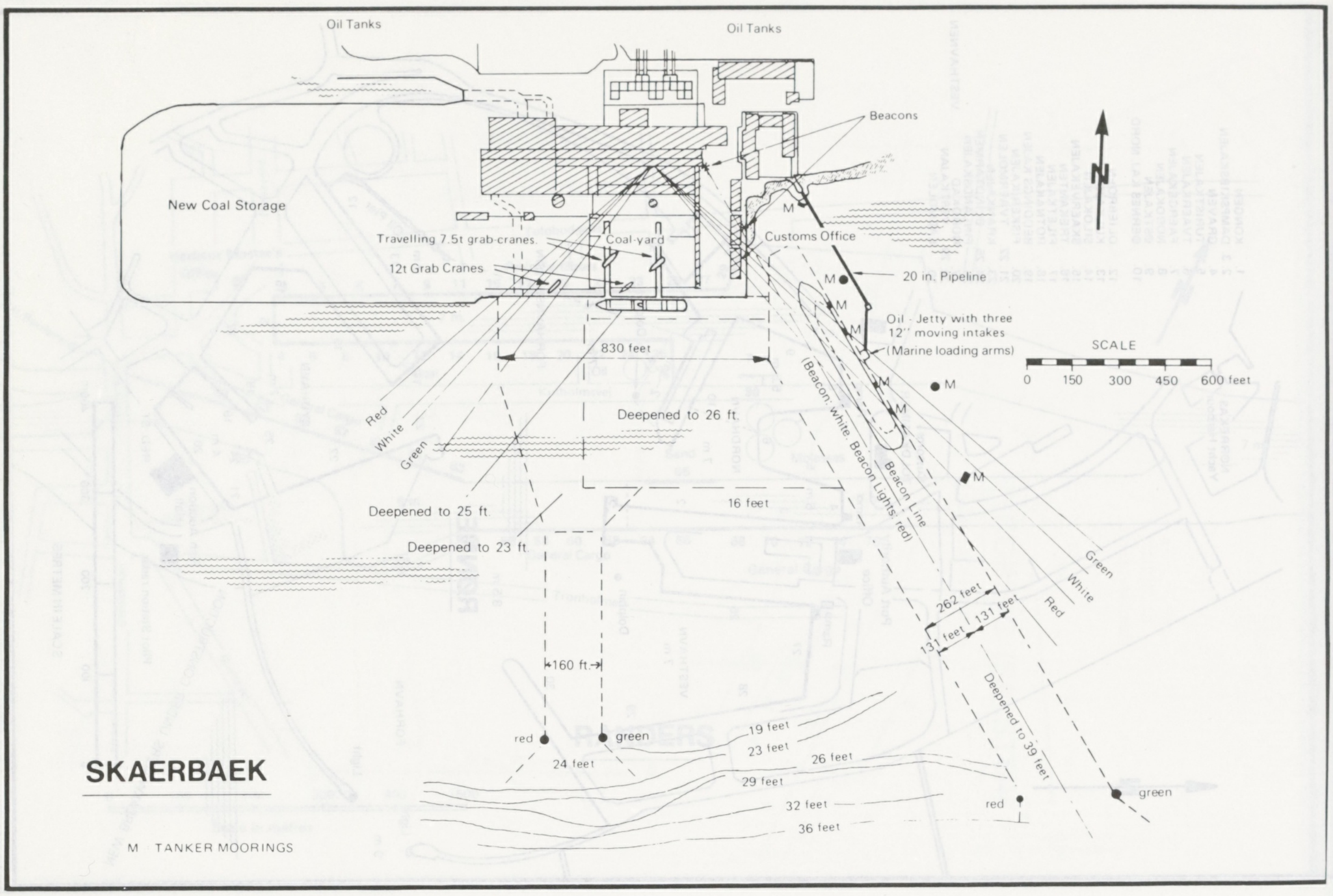

Skaelskor Cove
Port Limits
102 m.
Service Station
Timber
Warehouse
Kajgade
135 m.
Inner Harbour
Depth 3.5 m.
60 m.
63 m.
Depth 4.5 m.
73 m.
51 m.
Weighbridge
Outer Harbour
Depth 4.5 m.
83 m.
19 m.
72 m.
Fish Harbour
Depth 2.5 m.
Fish Auction
Port Directorate
Port Limits

RØNNE


N
NORREKAS Yacht Harbour
Customs TOLDKAMMER
Port Authority Office
Ramp
Ramp
Ramp
27
4
6 m
5
7
8
3
5.5 m
9
6
28
26
NORDHAVN
7 m
10
VESTHAVN
7 m
2
2–3m.
Dolphin
Dolphin
29
7 m
30
FORHAVNSBASSIN
8.5 m
23
14
7 m
13
Oil Pier
12
Light
9 m
FORHAVN
Light
22
15
SYDHAVN
25
7 m
16
18
21
24
4 m
19
17
20
Fish Auction Hall
Pilot Station radar
RED. ST.
NEW BREAKWATERS UNDER CONSTRUCTION
0
100
200
300
400m
SCALE IN METRES

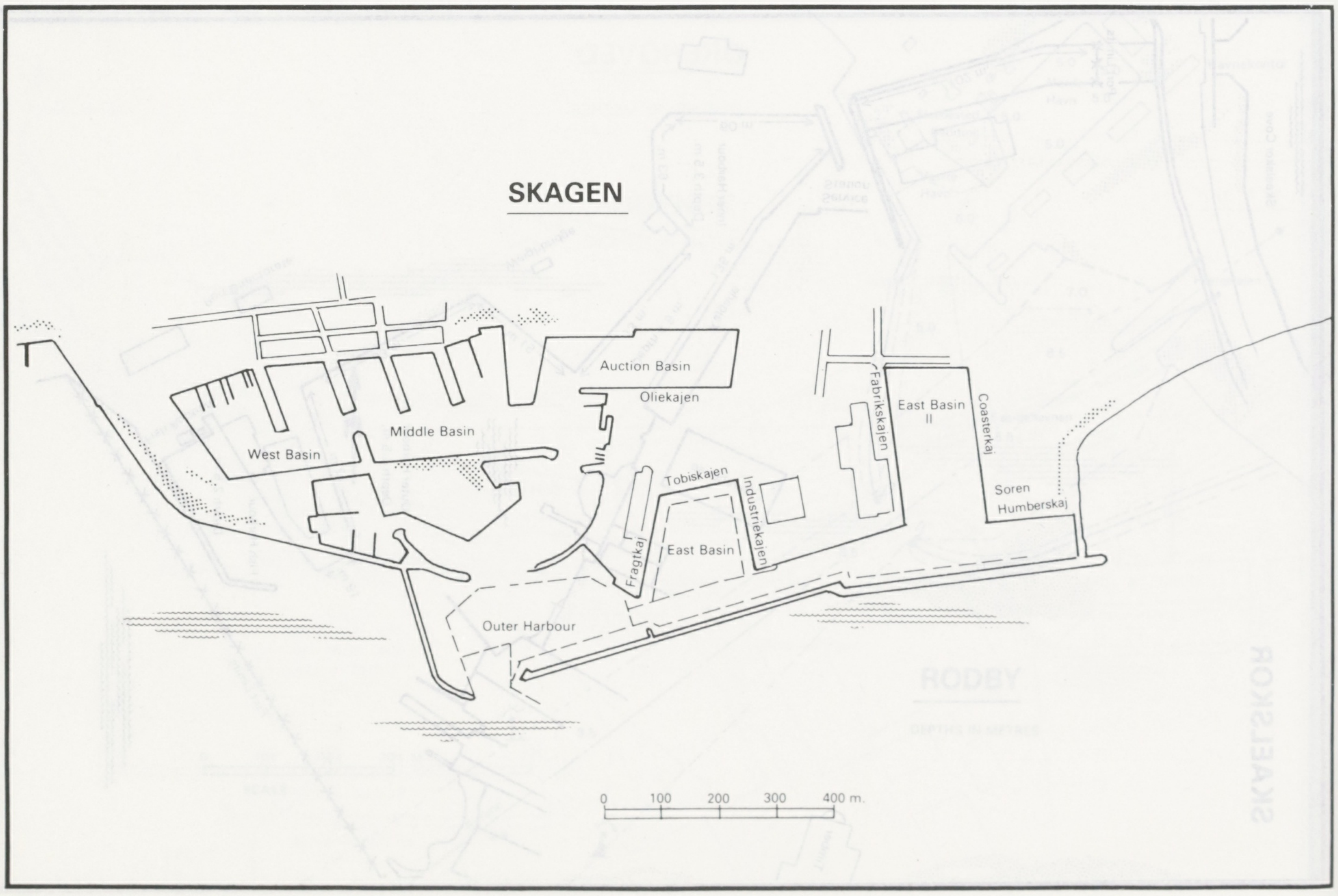
1. KONGEN
2. 3. DAMPSKIBSKAJEN
4. GRAVEN
5. TURISTKAJEN
6. TVAERKAJEN
7. FAERGEKAJEN
8. NORDKAJEN
9. ØSTKAJEN
10. ØERNES KAJ, NORD

12. OLIEBROEN
13. KULKAJEN
14. SILOKAJEN
15. SKAERVEKAJEN
16. TREKANTEN
17. FILETKAJEN
18. ROTNAKAJEN
19. BEDDINGS KAJEN
20. FISKERIKAJEN
21. 22. TVAERMOLEN
23. KRANKAJEN
24. 25. BLINDTARMEN
26. FINLANDSKAJEN
27. NORDKAD VESTHAVNEN
28. 29. VESTKAJAN
30. LAEMOLEN



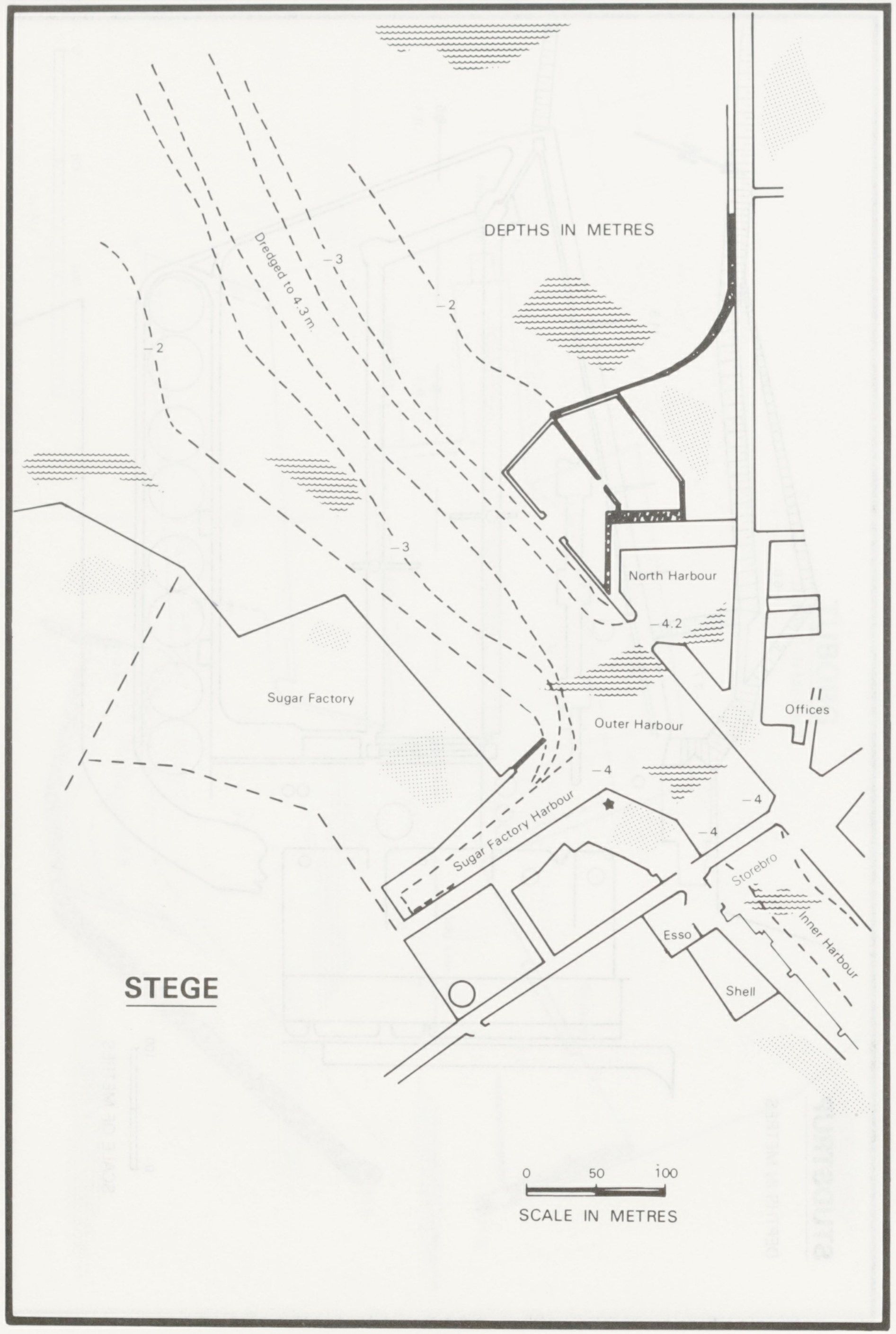
SKAERBAEK

Oil Tanks
Oil Tanks
Beacons
New Coal Storage
Travelling 7.5t grab-cranes
Coal-yard
12t Grab Cranes
Customs Office
20 in. Pipeline
Oil - Jetty with three 12" moving intakes (Marine loading arms)
SCALE
0 150 300 450 600 feet
830 feet
Deepened to 26 ft.
Red
White
Green
16 feet
Deepened to 25 ft.
Deepened to 23 ft.
(Beacon: white, Beacon Lights: red)
Beacon Line
Green
White
Red
262 feet
131 feet
131 feet
160 ft.
Deepened to 39 feet
red
green
19 feet
23 feet
24 feet
26 feet
29 feet
32 feet
36 feet
red
green
M
M - TANKER MOORINGS

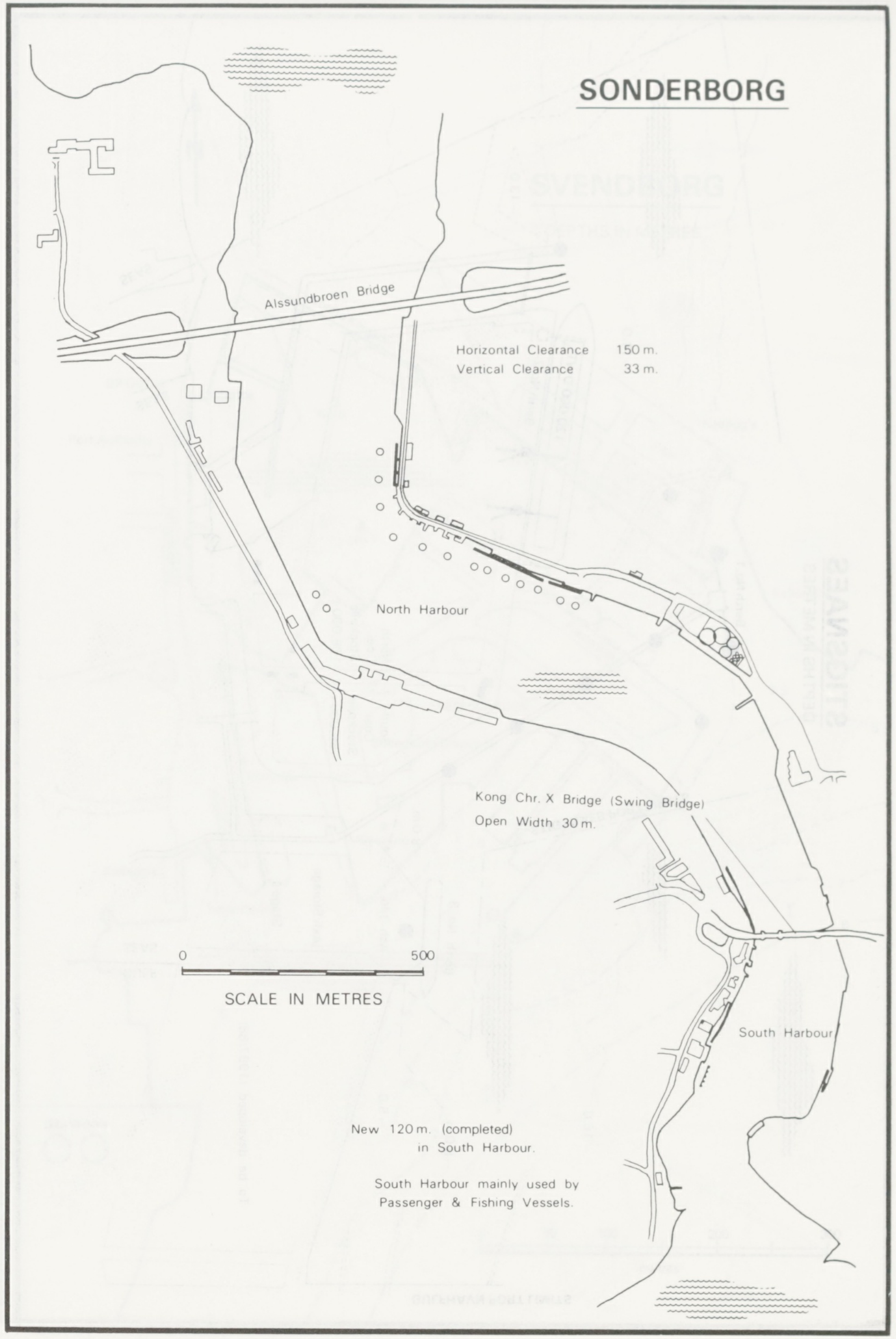


SKAGEN

Auction Basin
Oliekajen
Middle Basin
West Basin
Fabrikskajen
East Basin II
Coasterkaj
Soren Humberskaj
Tobiskajen
Industriekajen
East Basin
Fragtkaj
Outer Harbour
0 100 200 300 400 m.


STEGE

DEPTHS IN METRES
Dredged to 4.3 m.
-3
-2
-2
-3
North Harbour
-4.2
Sugar Factory
Outer Harbour
Offices
-4
-4
-4
Sugar Factory Harbour
Storebro
Inner Harbour
Esso
Shell
0
50
100
SCALE IN METRES


SONDERBORG

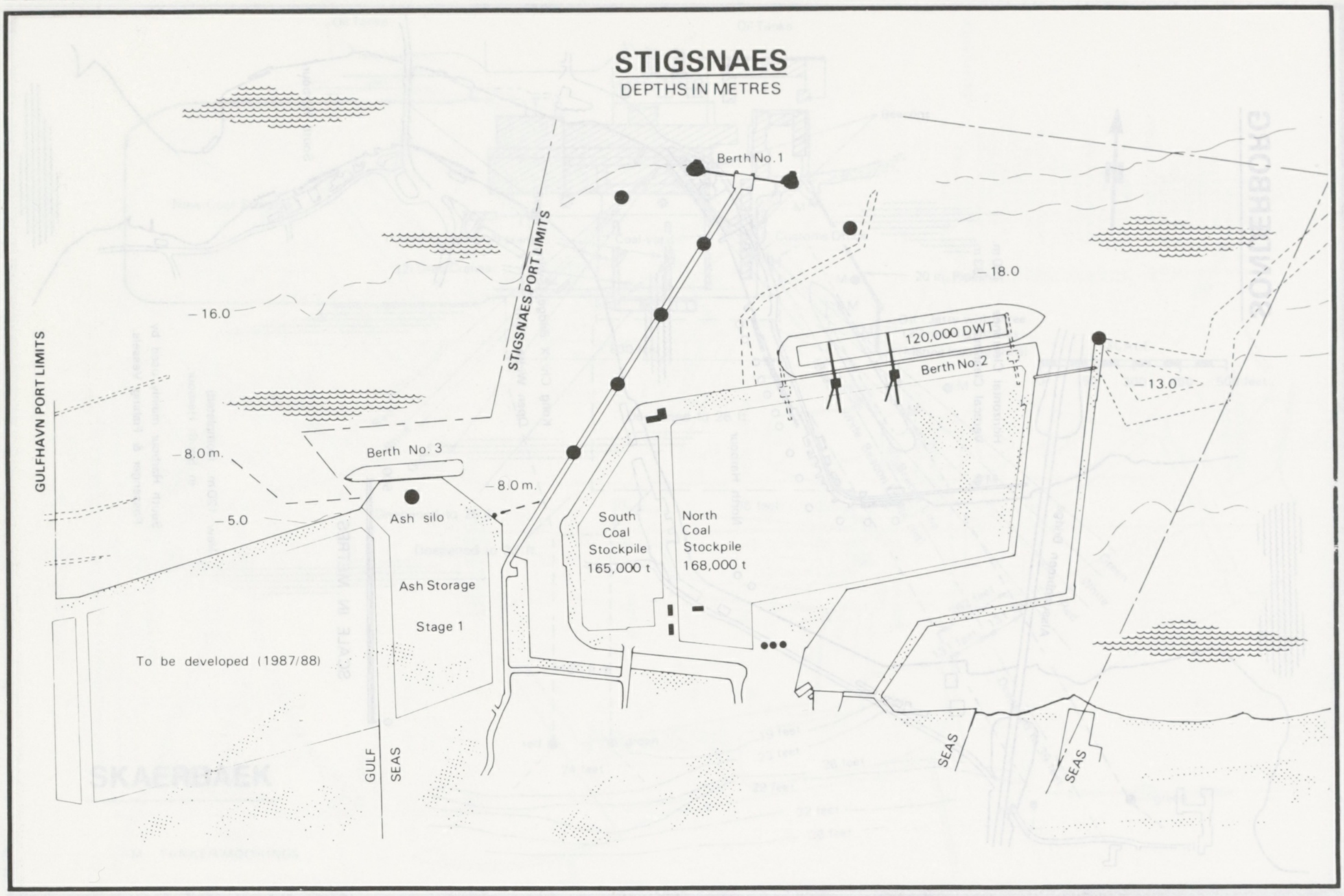
Alssundbroen Bridge
North Harbour
South Harbour
0
500
SCALE IN METRES

Horizontal Clearance 150 m.
Vertical Clearance 33 m.

Kong Chr. X Bridge (Swing Bridge)
Open Width 30 m.

New 120 m. (completed)
in South Harbour.

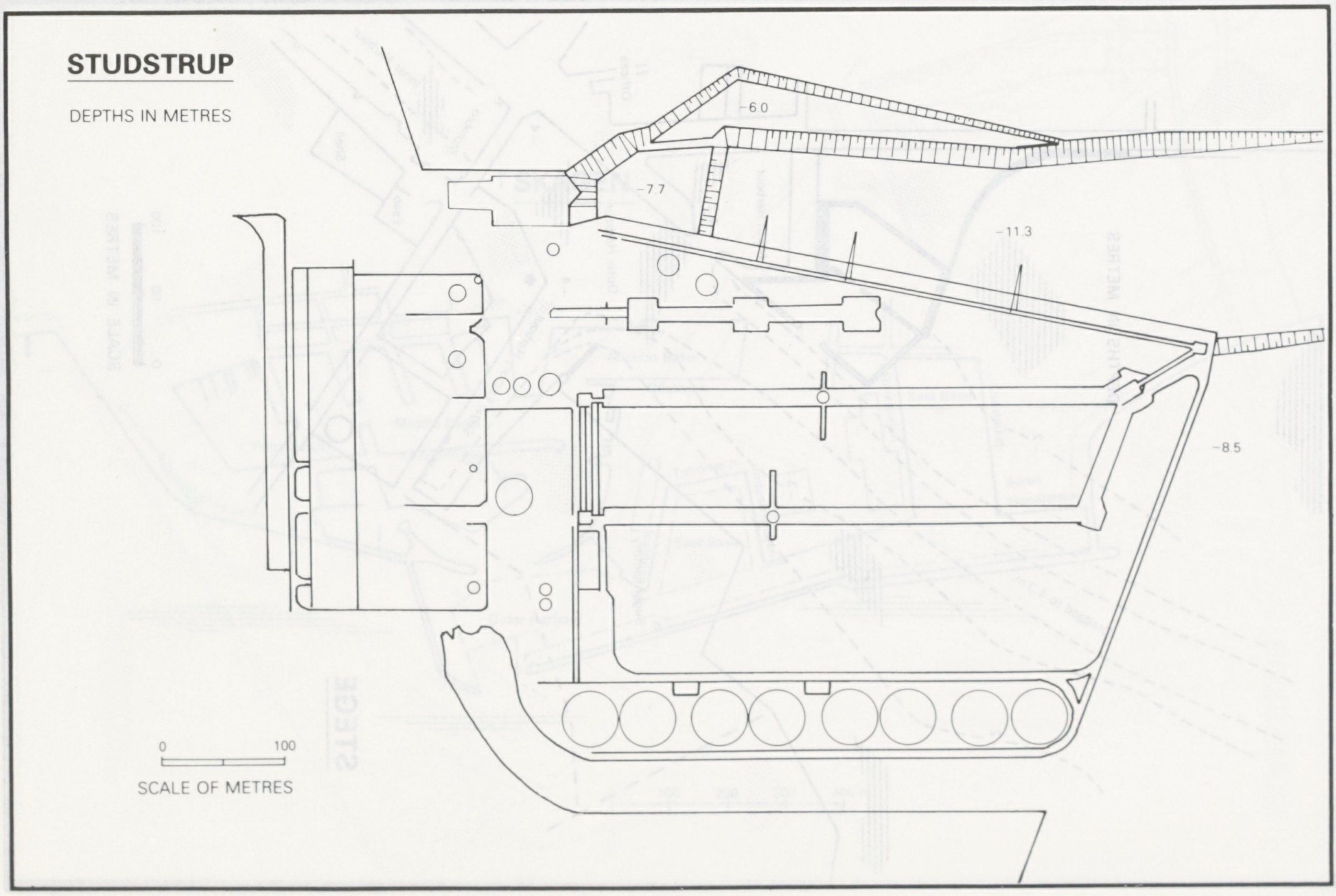
South Harbour mainly used by
Passenger & Fishing Vessels.



STIGSNAES

DEPTHS IN METRES

Berth No. 1
– 18.0
– 16.0
120,000 DWT
Berth No. 2
– 13.0
STIGSNAES PORT LIMITS
GULFHAVN PORT LIMITS
– 8.0 m.
Berth No. 3
– 8.0 m.
– 5.0
Ash silo
South Coal Stockpile 165,000 t
North Coal Stockpile 168,000 t
Ash Storage
Stage 1
To be developed (1987/88)
GULF
SEAS
SEAS
SEAS



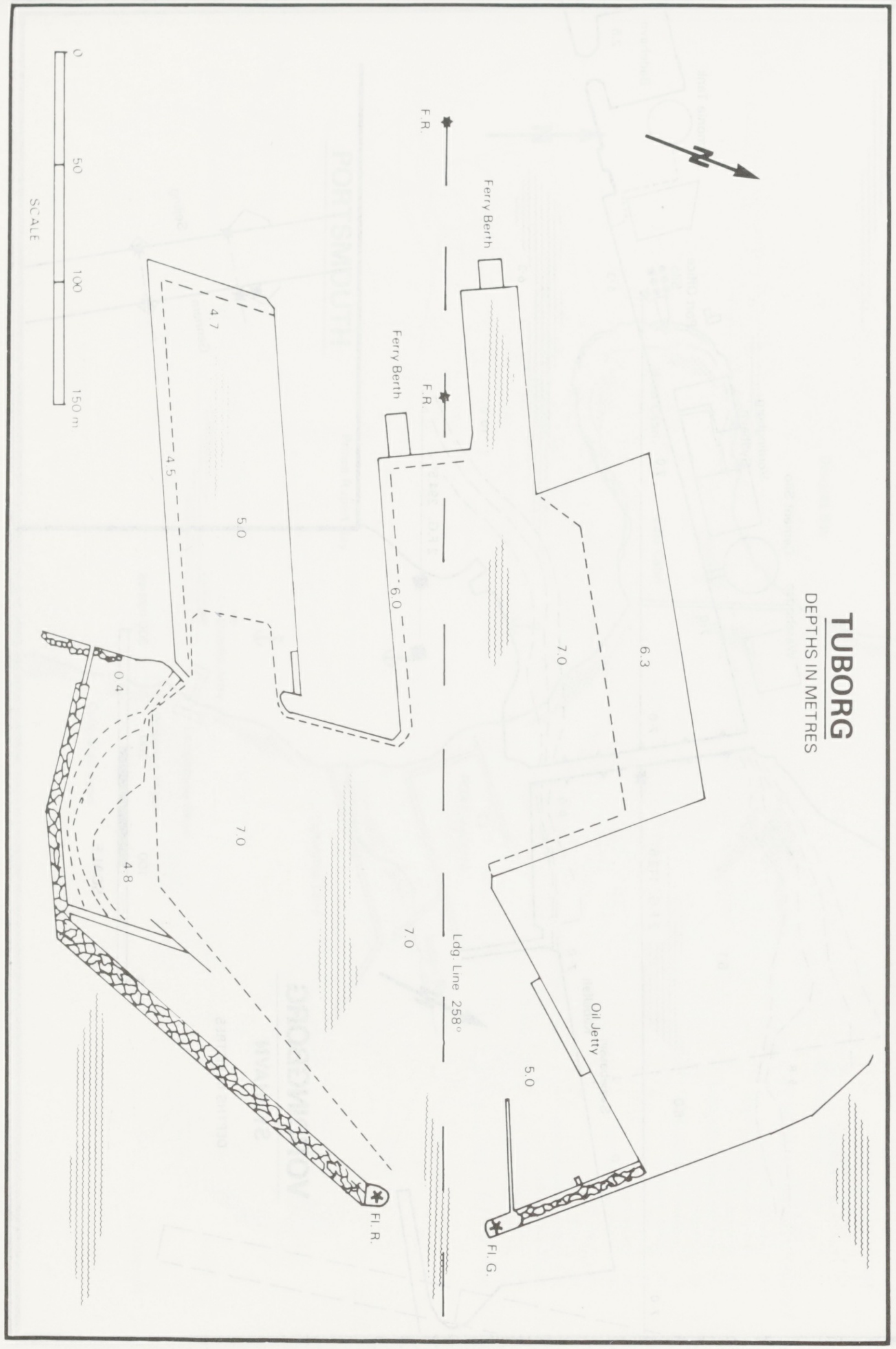
STUDSTRUP

DEPTHS IN METRES

– 6.0
– 7.7
– 11.3
– 8.5
0
100
SCALE OF METRES

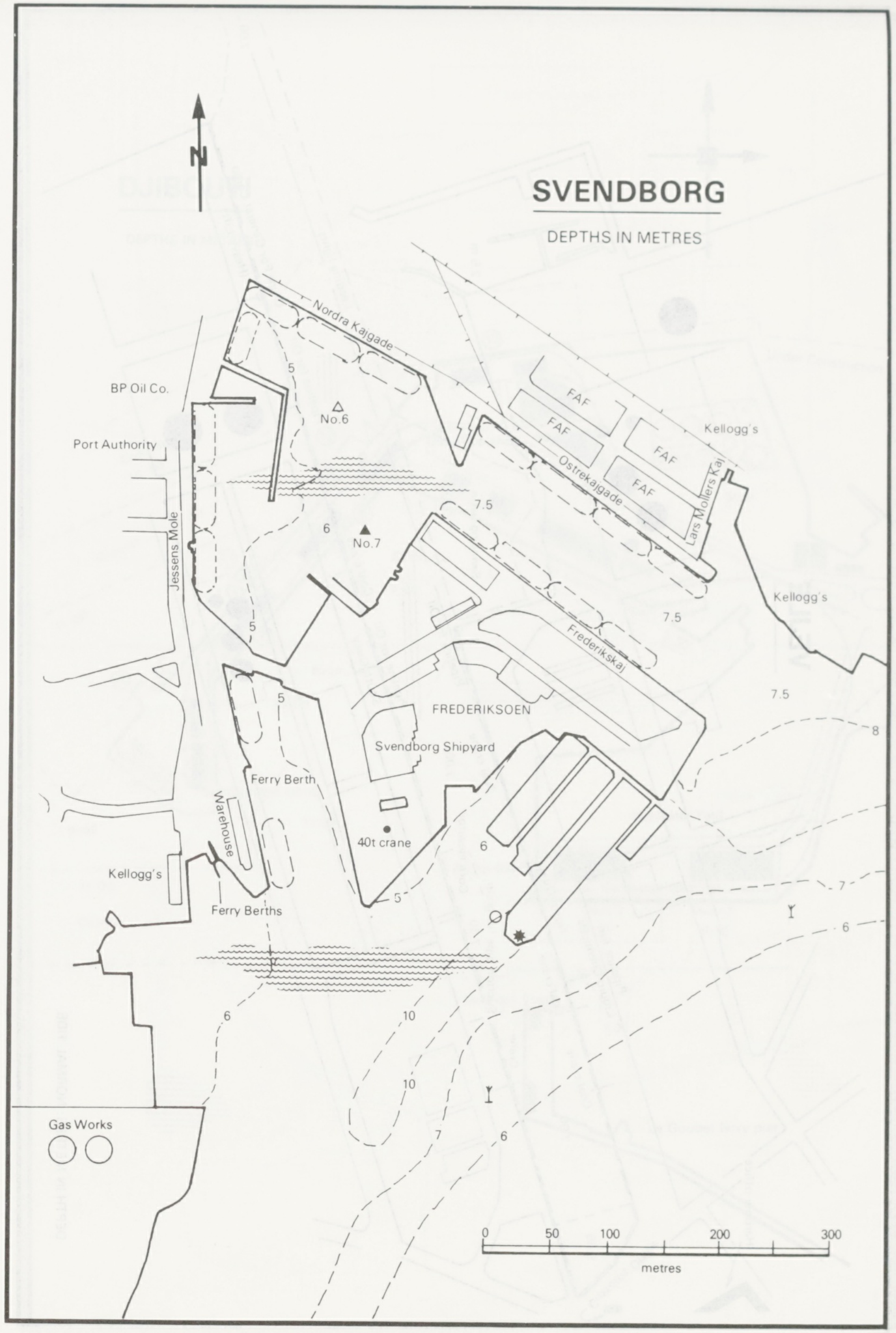
TUBORG

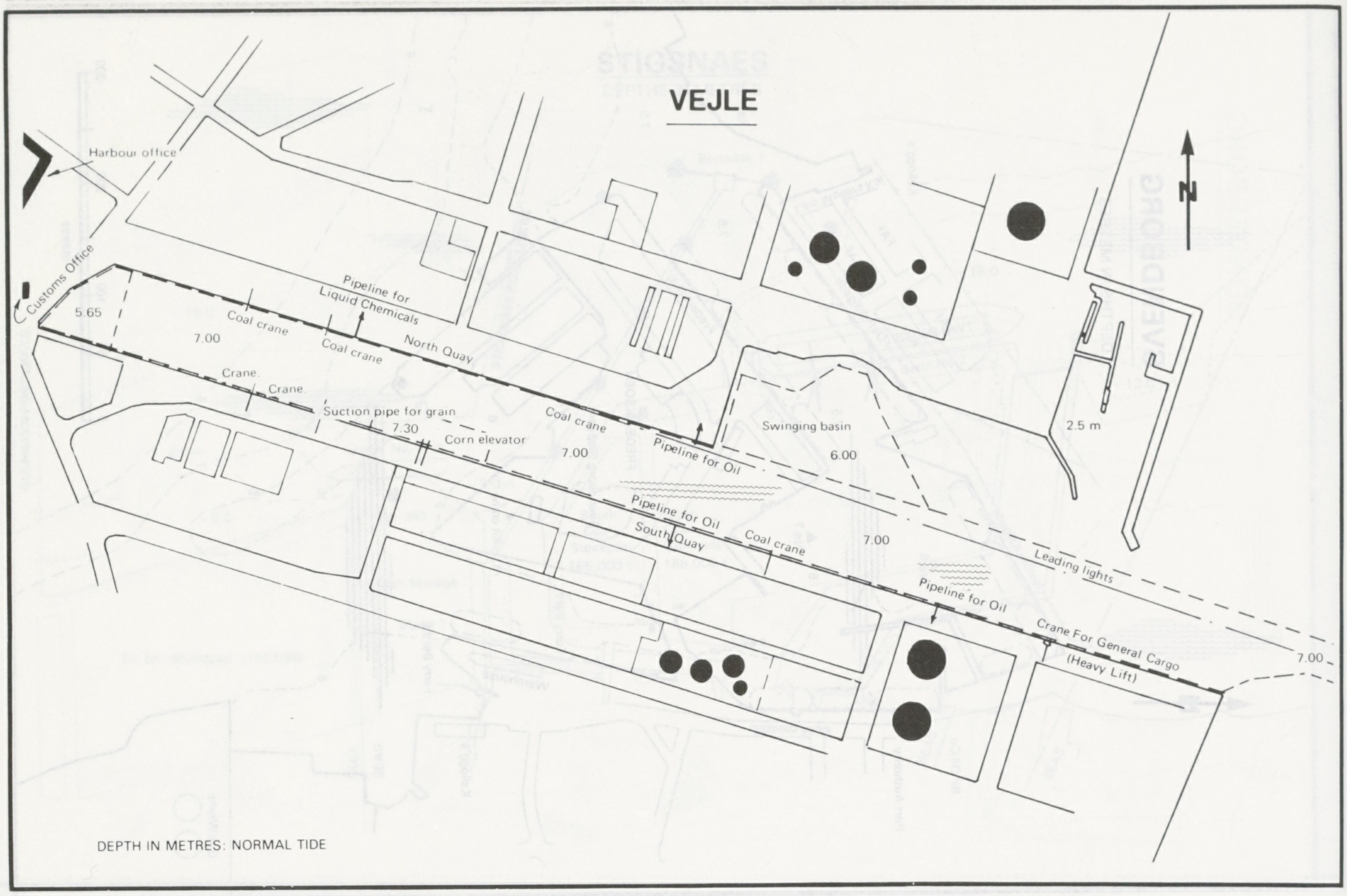
DEPTHS IN METRES

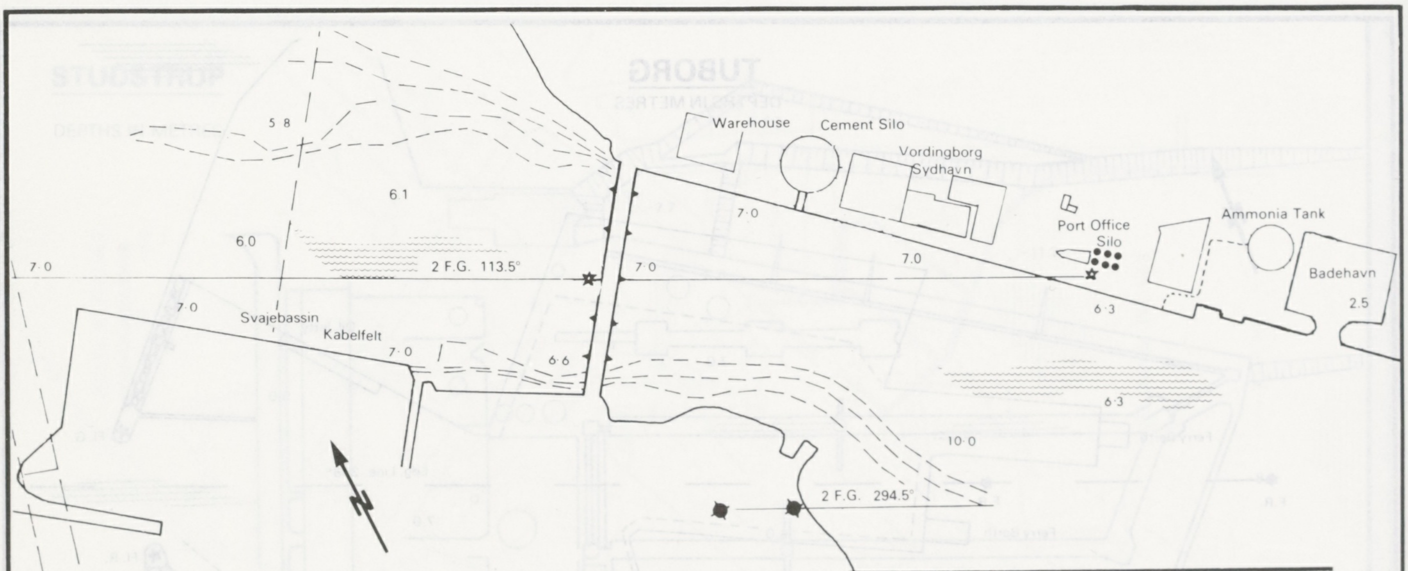

N
SCALE
0
50
100
150 m
F.R.
Ferry Berth
F.R.
Ferry Berth
4.7
4.5
5.0
6.0
7.0
6.3
0.4
7.0
4.8
7.0
Ldg Line 258°
Oil Jetty
5.0
Fl.R.
Fl.G.

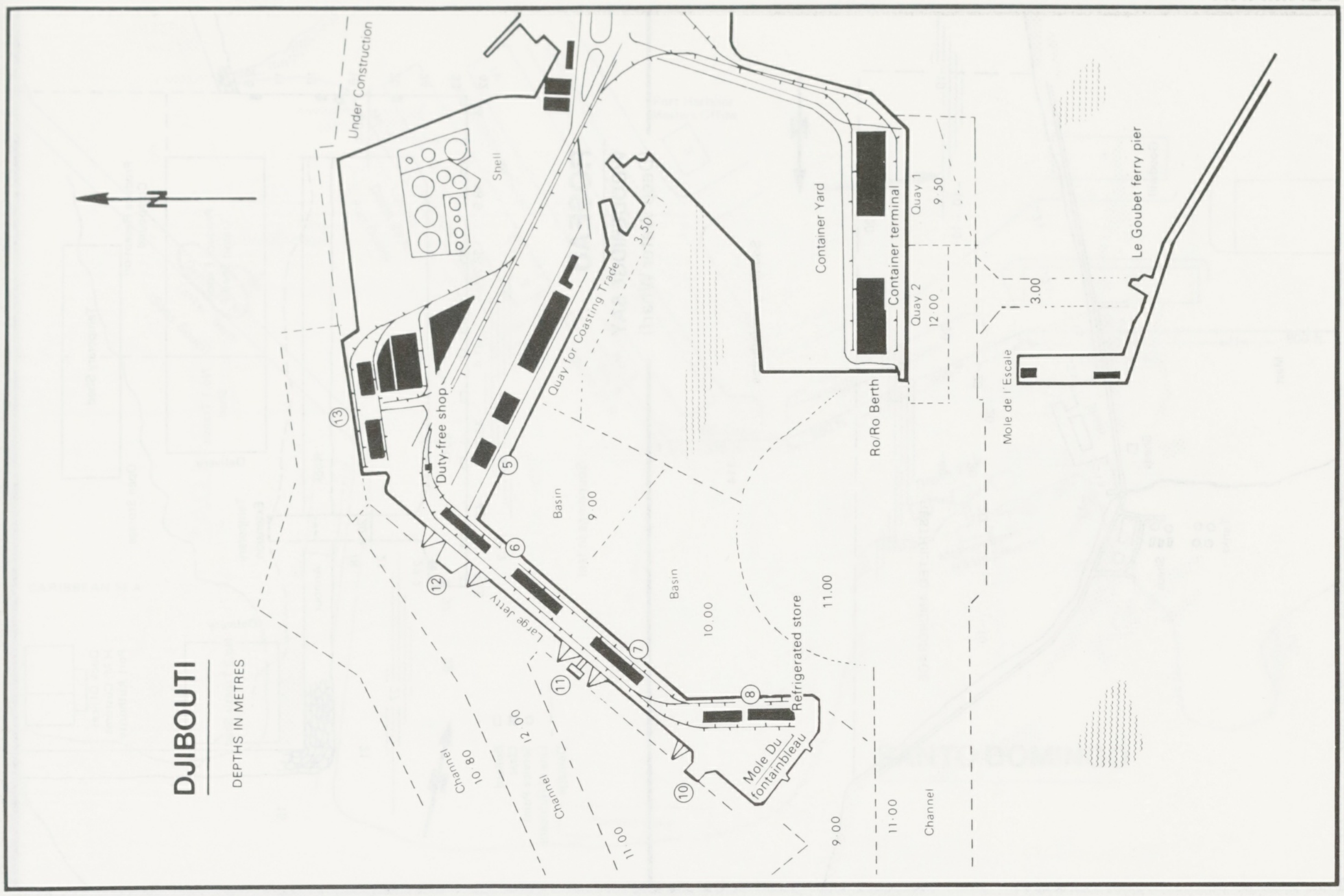
SVENDBORG

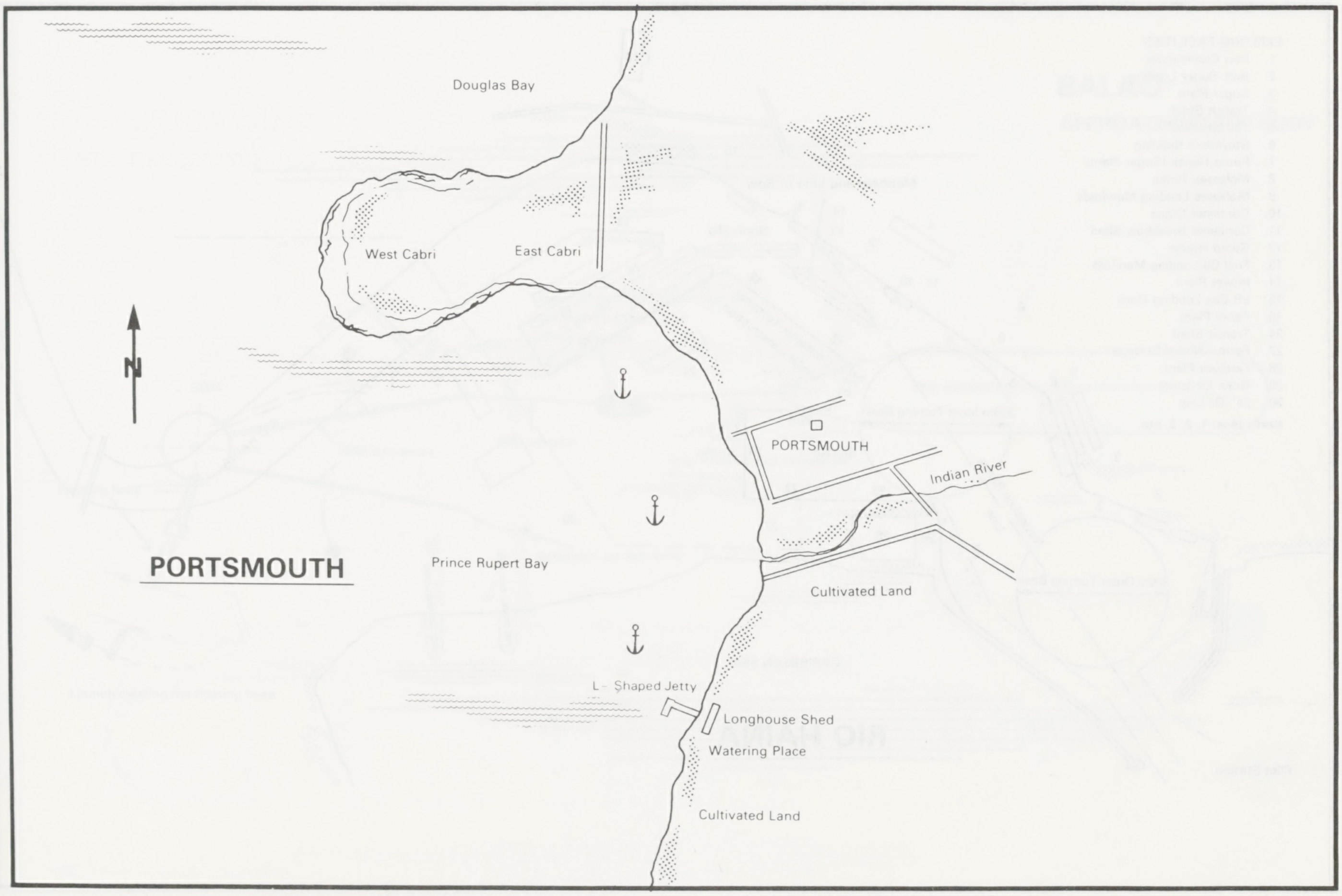
DEPTHS IN METRES

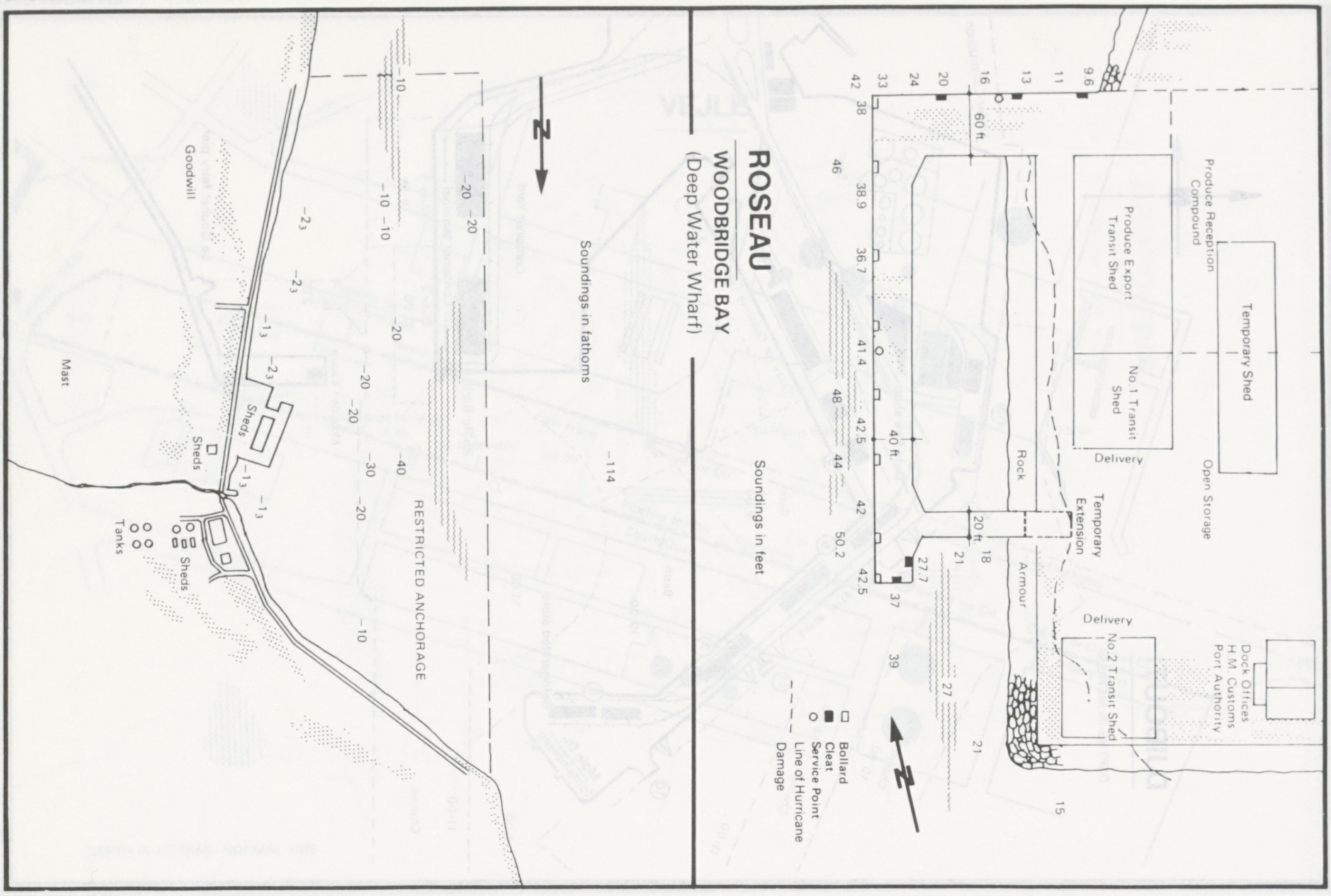

N
Nordra Kajgade
BP Oil Co.
No.6
Port Authority
5
FAF
FAF
FAF
FAF
Kellogg's
Ostrekajgade
Lars Mollers Kaj
7.5
6
No.7
Jessens Mole
Kellogg's
5
7.5
Frederikskaj
5
7.5
FREDERIKSOEN
8
Svendborg Shipyard
Ferry Berth
Warehouse
40t crane
6
Kellogg's
5
7
Ferry Berths
6
6
10
10
Gas Works
7
6
0
50
100
200
300
metres

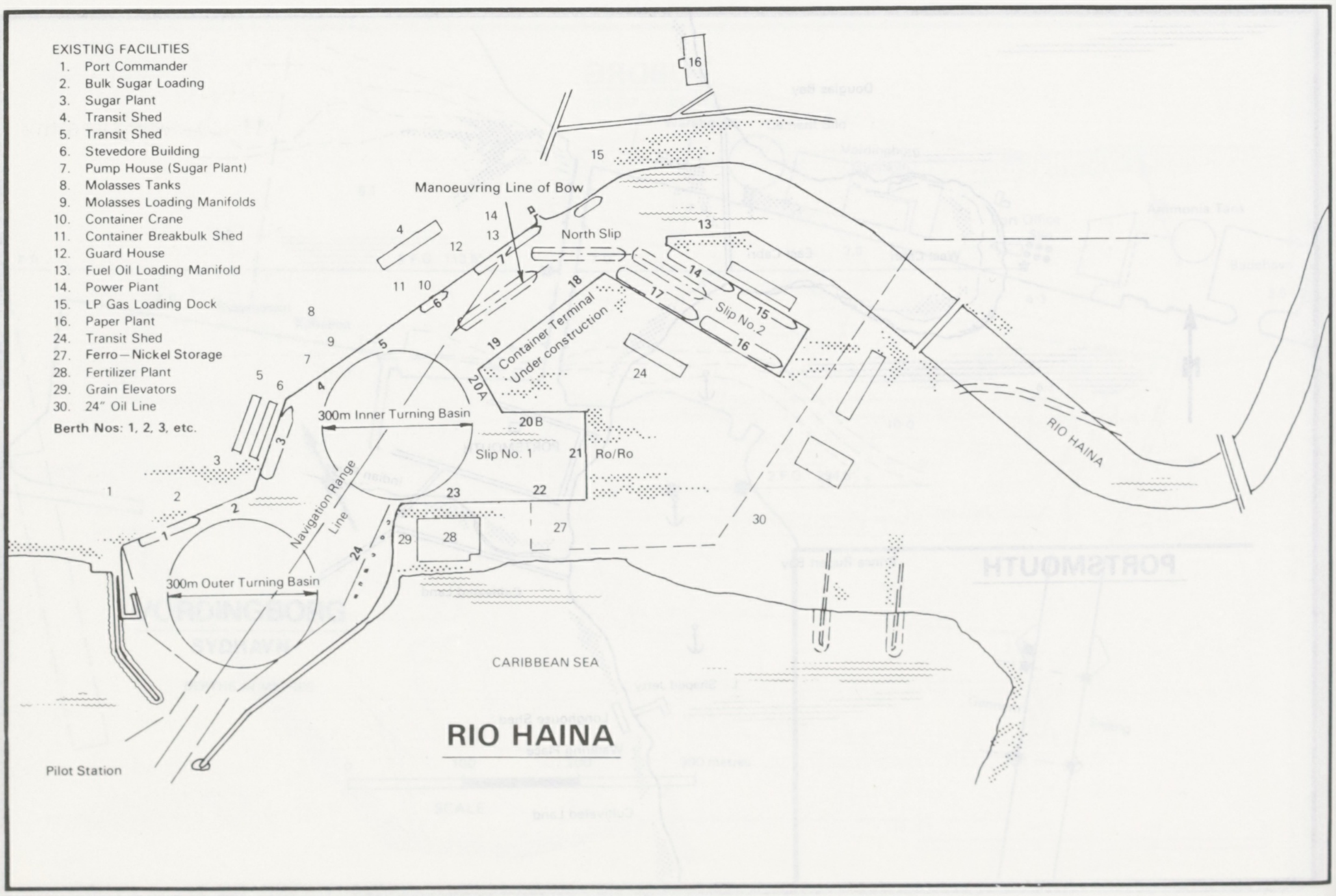

VEJLE
Harbour office
Customs Office
5.65
7.00
Pipeline for Liquid Chemicals
Coal crane
Coal crane
North Quay
Crane.
Crane
Suction pipe for grain
7.30
Corn elevator
Coal crane
7.00
Pipeline for Oil
Swinging basin
6.00
2.5 m
N
Pipeline for Oil
South Quay
Coal crane
7.00
Leading lights
Pipeline for Oil
Crane For General Cargo
(Heavy Lift)
7.00
DEPTH IN METRES: NORMAL TIDE

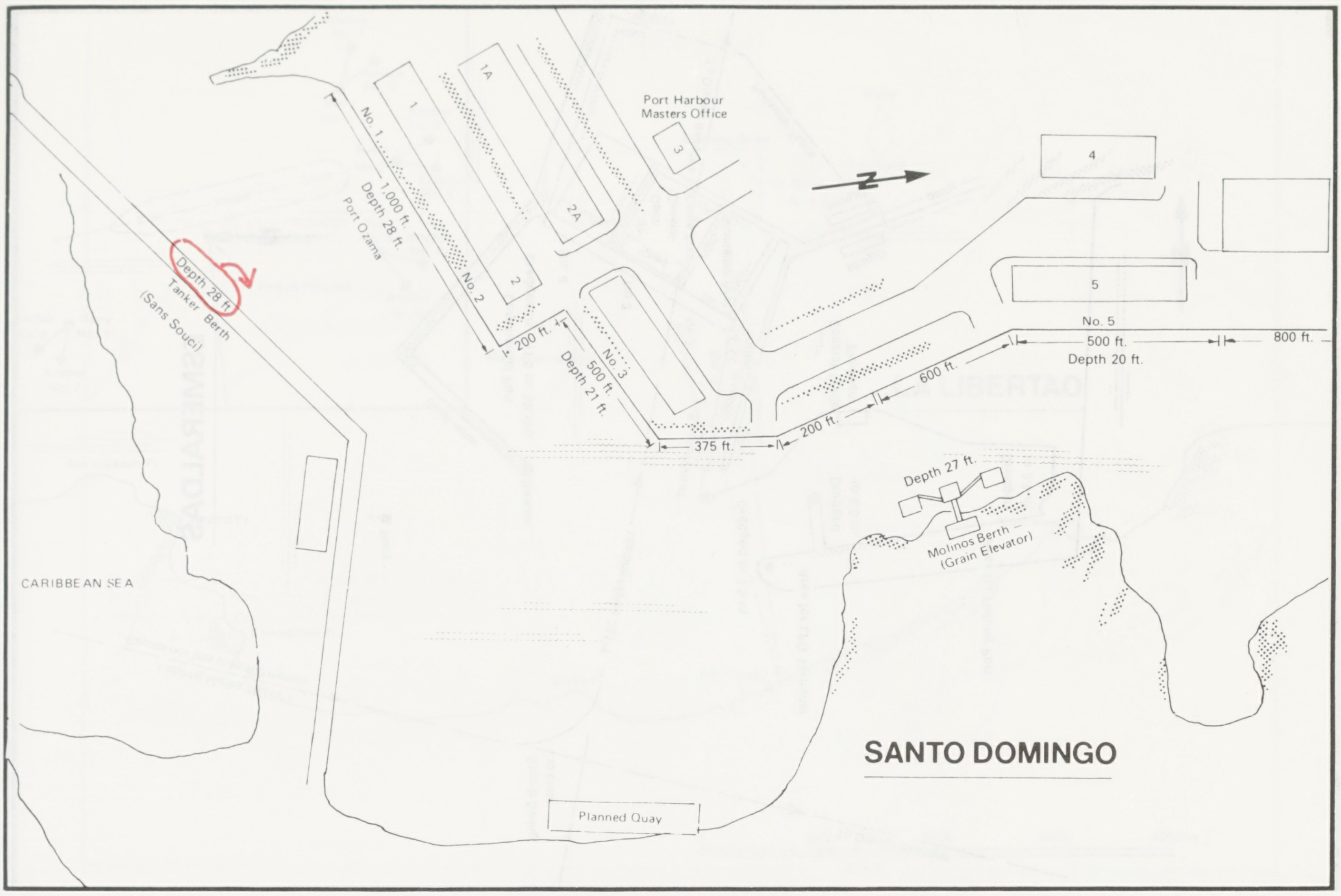

5 8
6·1
6.0
7·0
2 F.G. 113.5°
7·0
Warehouse
Cement Silo
Vordingborg Sydhavn
7·0
7.0
Port Office
Silo
Ammonia Tank
Badehavn
2.5
6·3
7·0
Svajebassin
Kabelfelt
7·0
6·6
6·3
10·0
2 F.G. 294.5°
N
VORDINGBORG
SYDHAVN
DEPTHS IN METRES
0
100
200
300 metres
SCALE
Gennem
Sejling


DJIBOUTI
DEPTHS IN METRES
N
Under Construction
Shell
Container Yard
Container terminal
Quay 1
9 50
Quay 2
12 00
Le Goubet ferry pier
3.00
Mole de l'Escale
Ro/Ro Berth
Quay for Coasting Trade
3 50
Duty-free shop
13
5
6
12
Basin
9 00
Basin
10 00
11.00
Large Jetty
7
11
8
Refrigerated store
Mole Du fontainbleau
10
Channel
10 80
12 00
Channel
11 00
9 00
11 00
Channel


Douglas Bay
West Cabri
East Cabri
N
PORTSMOUTH
Indian River
PORTSMOUTH
Prince Rupert Bay
Cultivated Land
L- Shaped Jetty
Longhouse Shed
Watering Place
Cultivated Land

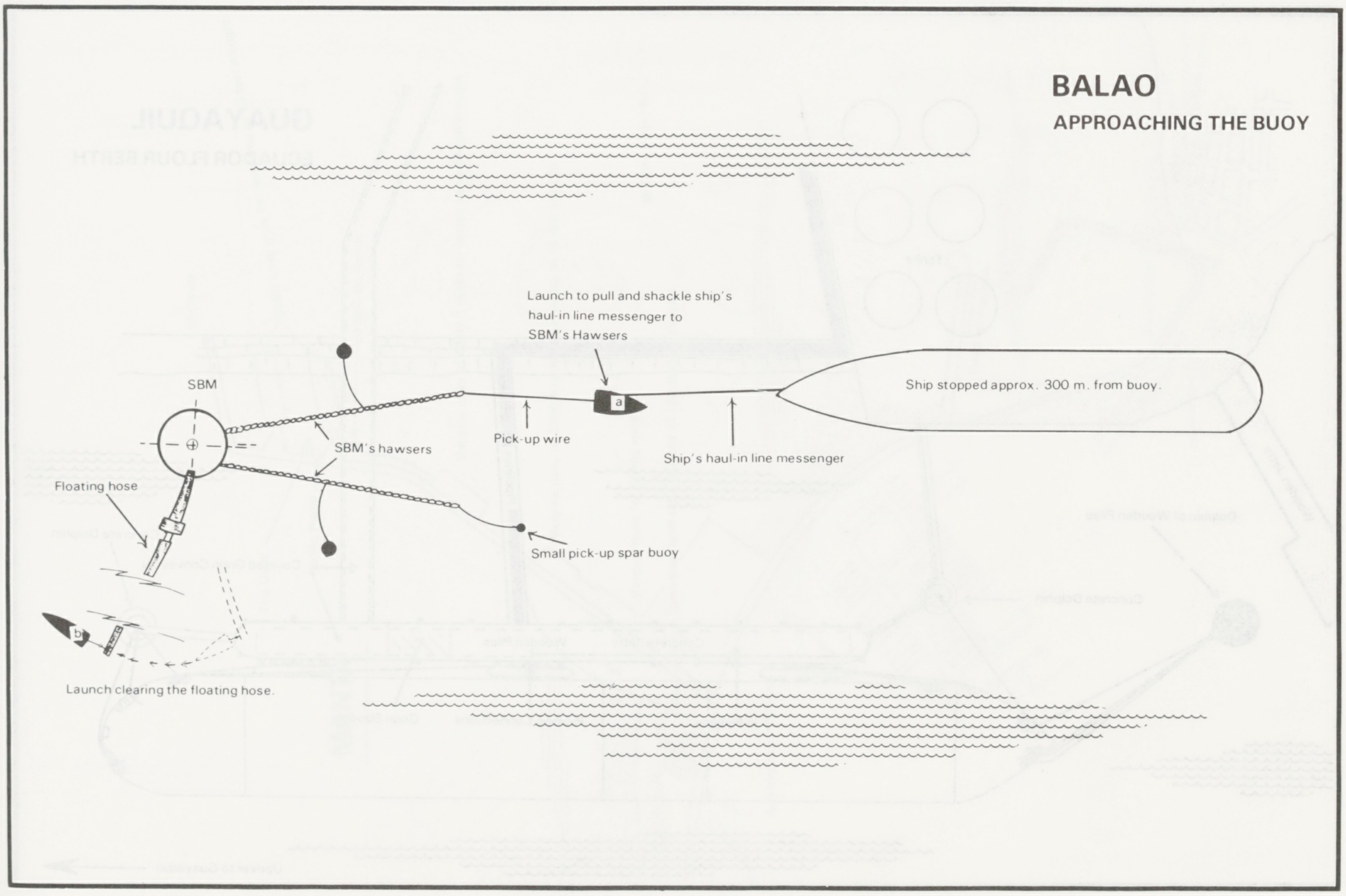

ROSEAU
WOODBRIDGE BAY
(Deep Water Wharf)
Soundings in fathoms
Soundings in feet
RESTRICTED ANCHORAGE
Goodwill
Mast
Sheds
Sheds
Tanks
Produce Reception Compound
Produce Export Transit Shed
Temporary Shed
No 1 Transit Shed
Delivery
Open Storage
Rock
Armour
Temporary Extension
Delivery
No 2 Transit Shed
Dock Offices
H M Customs
Port Authority
60 ft.
40 ft.
20 ft.
Bollard
Cleat
Service Point
Line of Hurricane Damage


EXISTING FACILITIES
1. Port Commander
2. Bulk Sugar Loading
3. Sugar Plant
4. Transit Shed
5. Transit Shed
6. Stevedore Building
7. Pump House (Sugar Plant)
8. Molasses Tanks
9. Molasses Loading Manifolds
10. Container Crane
11. Container Breakbulk Shed
12. Guard House
13. Fuel Oil Loading Manifold
14. Power Plant
15. LP Gas Loading Dock
16. Paper Plant
24. Transit Shed
27. Ferro—Nickel Storage
28. Fertilizer Plant
29. Grain Elevators
30. 24" Oil Line
Berth Nos: 1, 2, 3, etc.
Manoeuvring Line of Bow
North Slip
Slip No. 2
Container Terminal Under construction
300m Inner Turning Basin
Slip No. 1
Ro/Ro
Navigation Range Line
300m Outer Turning Basin
RIO HAINA
CARIBBEAN SEA
Pilot Station
RIO HAINA



SANTO DOMINGO

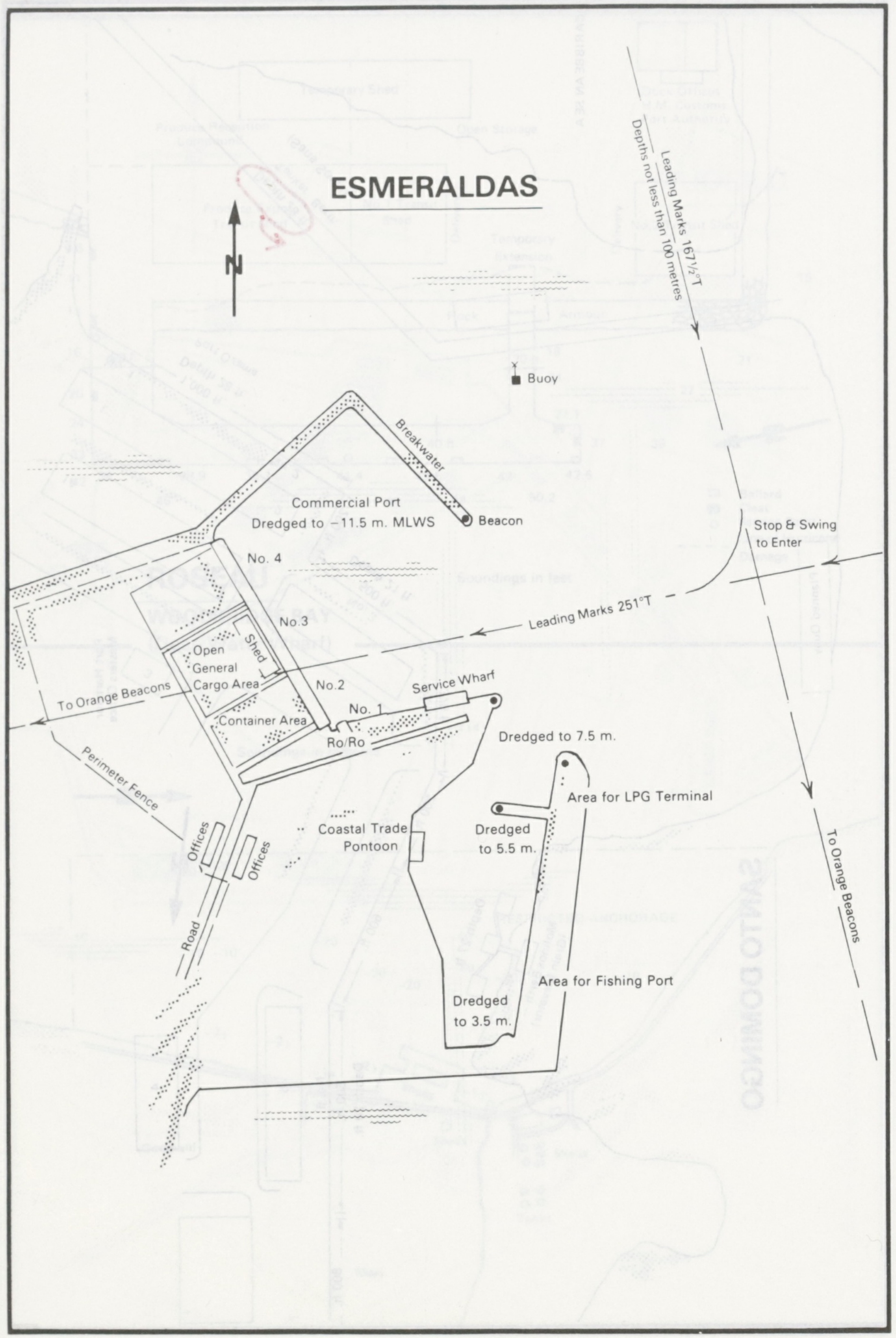
Port Harbour
Masters Office
N
1
1A
2
2A
3
4
5
No. 1
1,000 ft.
Depth 28 ft.
Port Ozama
No. 2
200 ft.
No. 3
500 ft.
Depth 21 ft.
375 ft.
200 ft.
600 ft.
No. 5
500 ft.
Depth 20 ft.
800 ft.
Depth 28 ft.
Tanker Berth
(Sans Souci)
Depth 27 ft.
Molinos Berth –
(Grain Elevator)
CARIBBEAN SEA
Planned Quay

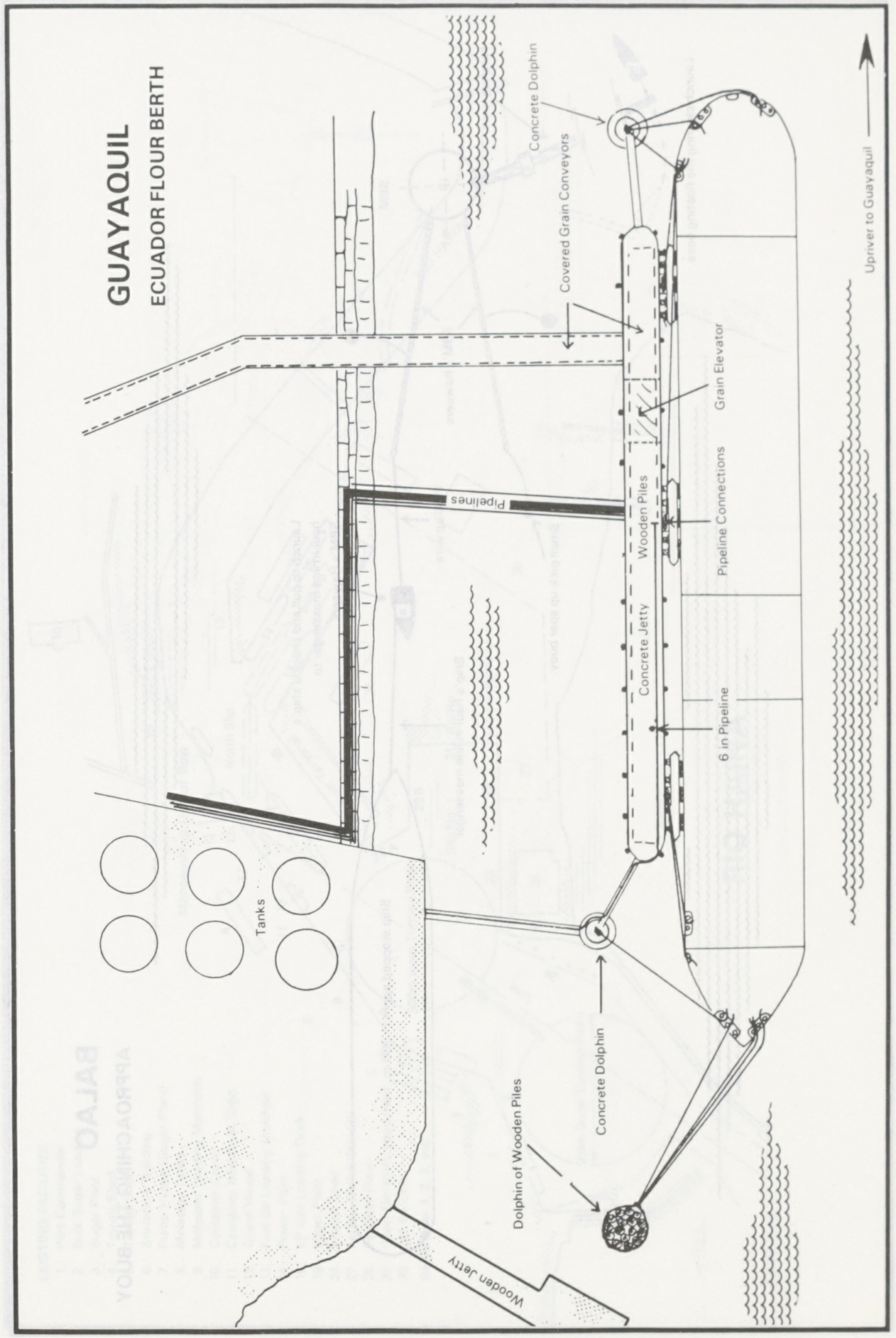


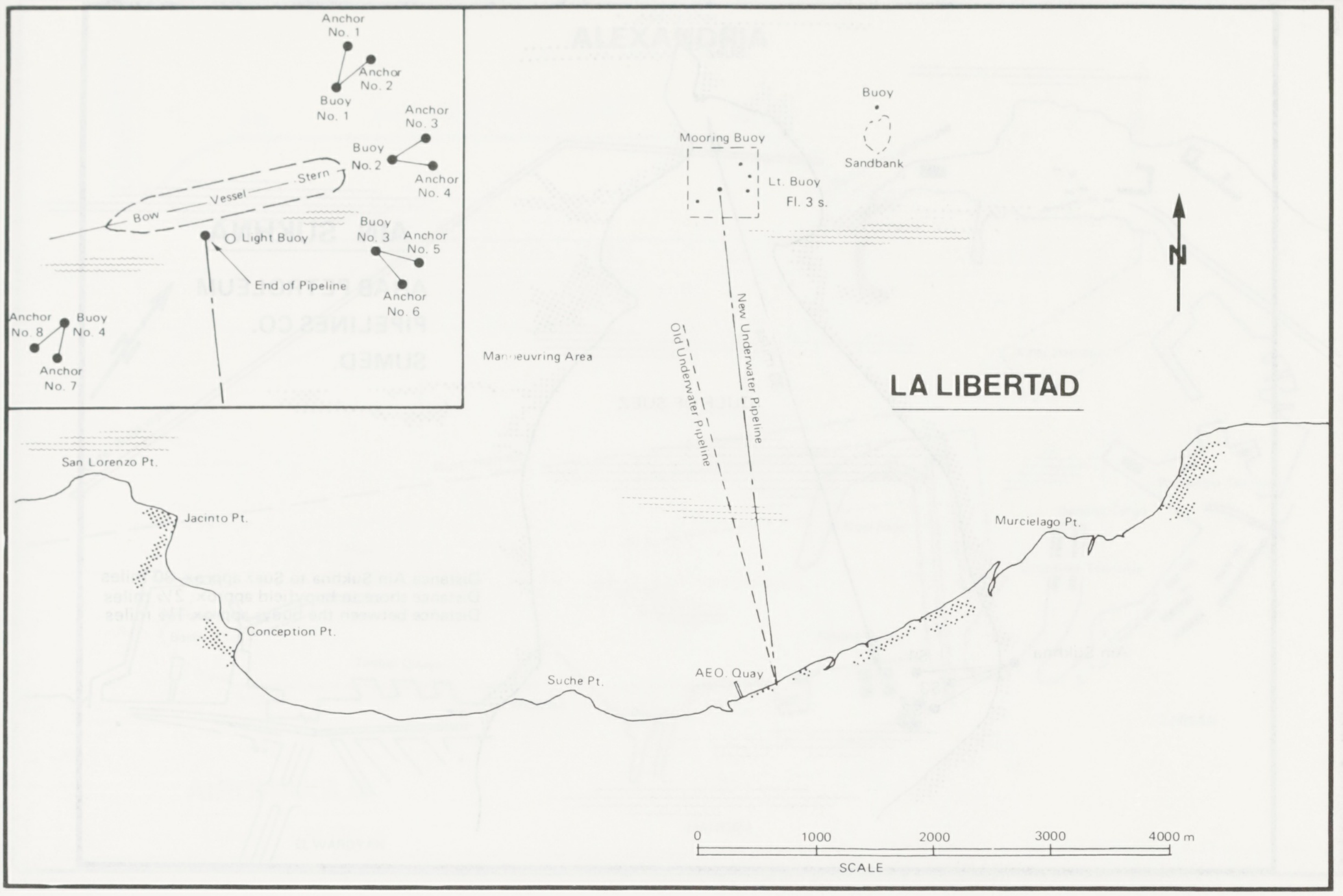
BALAO

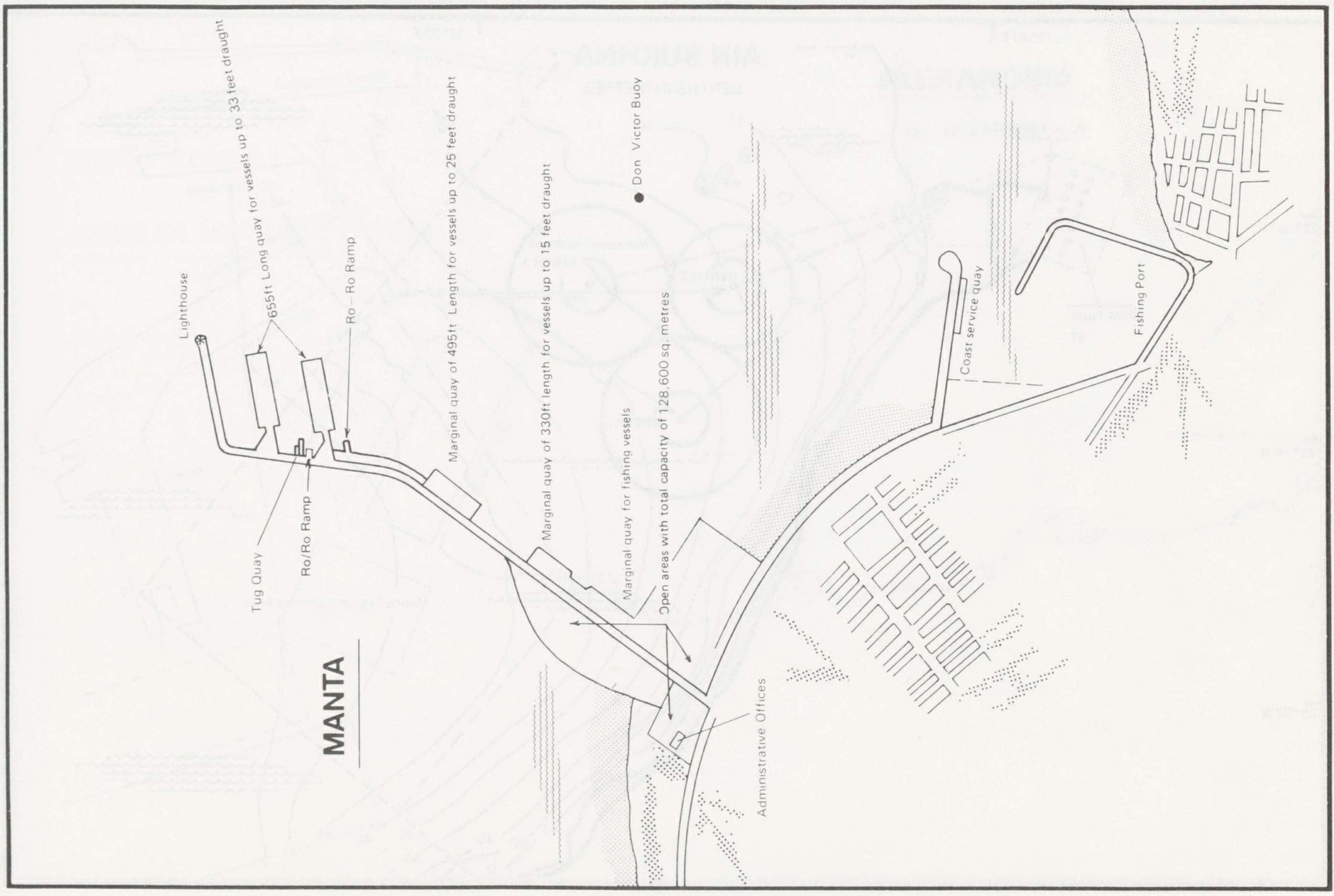
APPROACHING THE BUOY

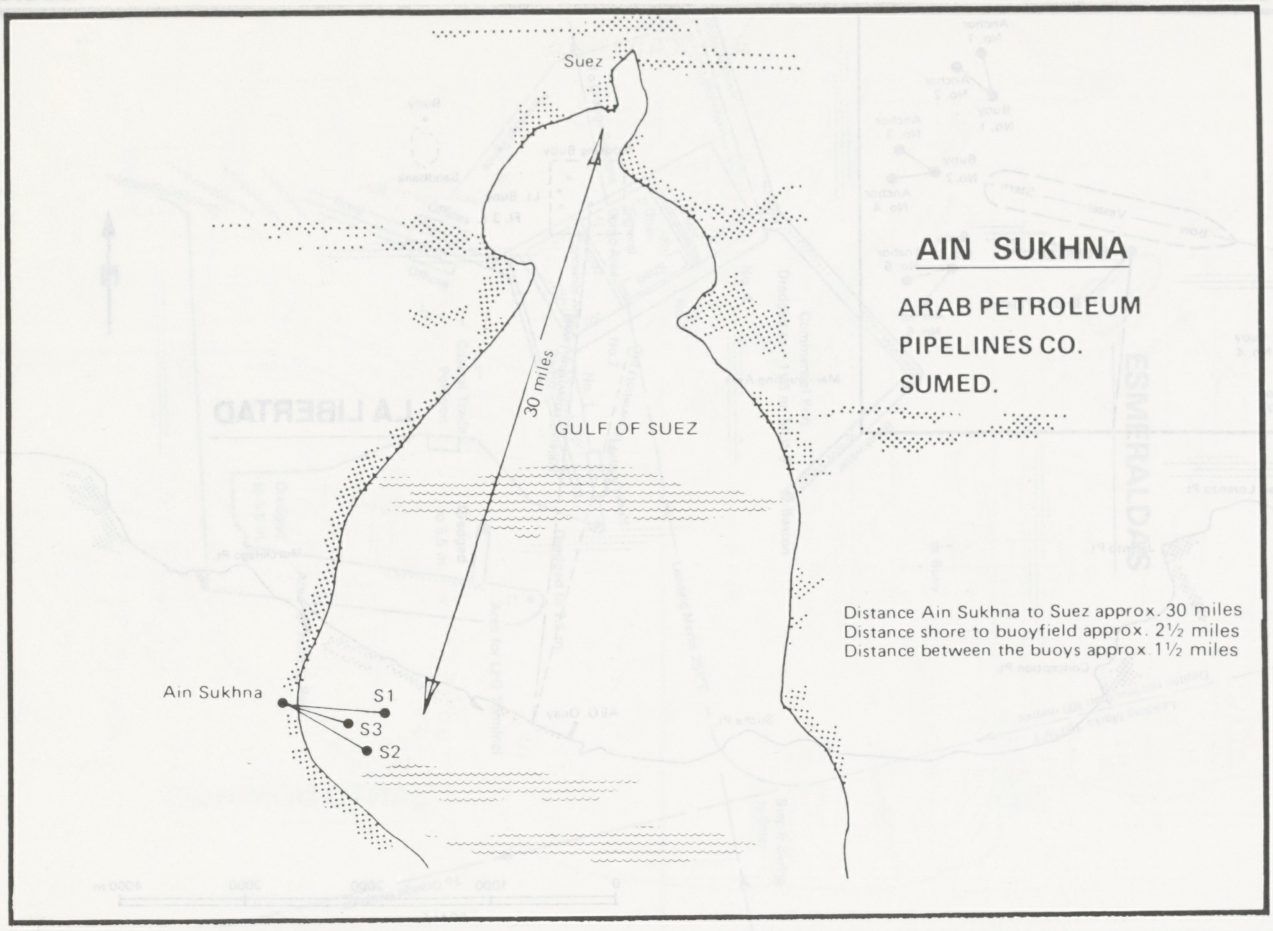
Launch to pull and shackle ship's
haul-in line messenger to
SBM's Hawsers
SBM
a
Ship stopped approx. 300 m. from buoy.
SBM's hawsers
Pick-up wire
Ship's haul-in line messenger
Floating hose
Small pick-up spar buoy
b
Launch clearing the floating hose.

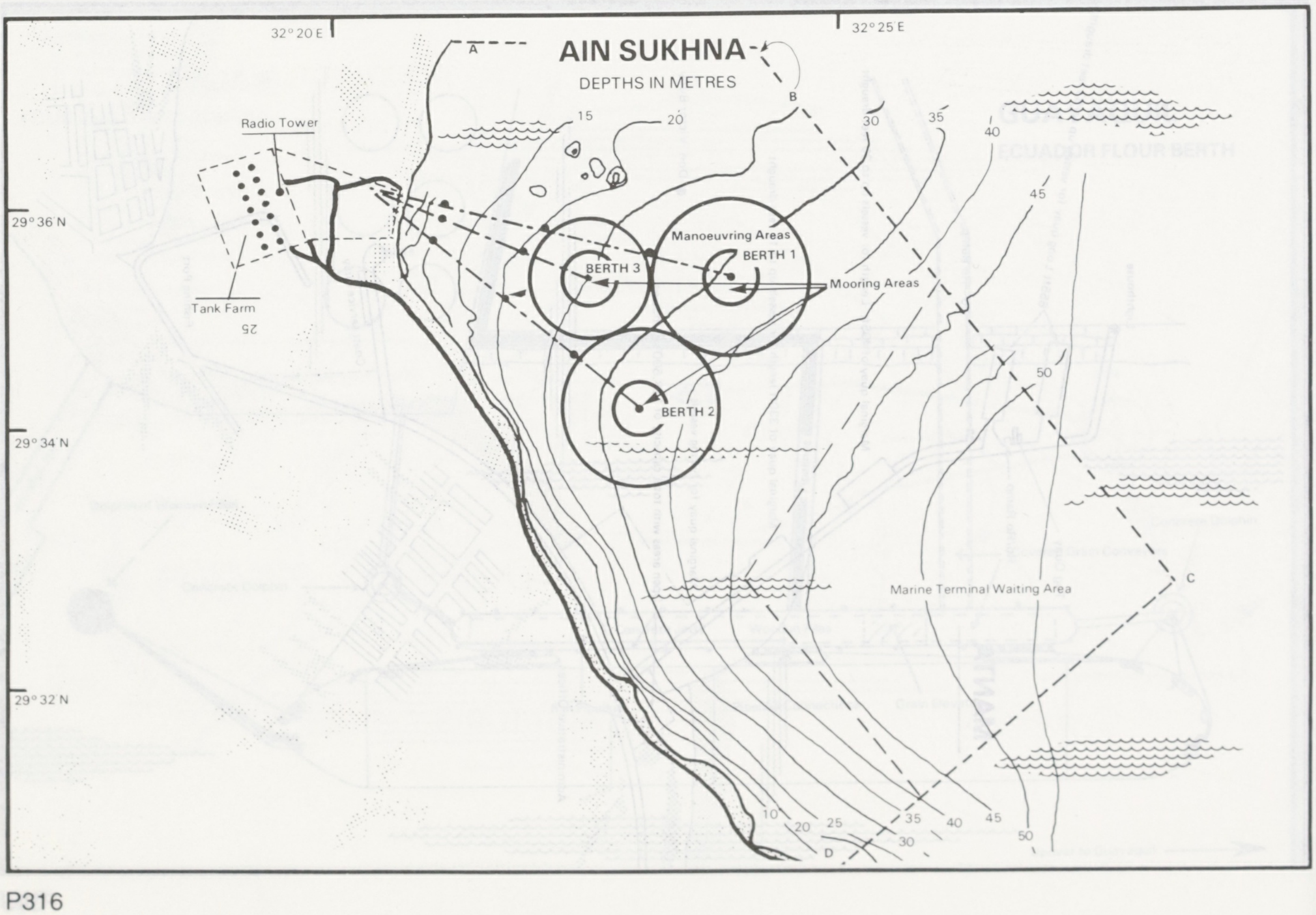

ESMERALDAS
N
Leading Marks 167½°T
Depths not less than 100 metres
Buoy
Breakwater
Beacon
Commercial Port
Dredged to −11.5 m. MLWS
Stop & Swing to Enter
No. 4
No.3
Shed
Open General Cargo Area
Leading Marks 251°T
To Orange Beacons
No.2
Service Wharf
No. 1
Container Area
Ro/Ro
Dredged to 7.5 m.
Perimeter Fence
Area for LPG Terminal
Offices
Offices
Coastal Trade Pontoon
Dredged to 5.5 m.
To Orange Beacons
Road
Area for Fishing Port
Dredged to 3.5 m.

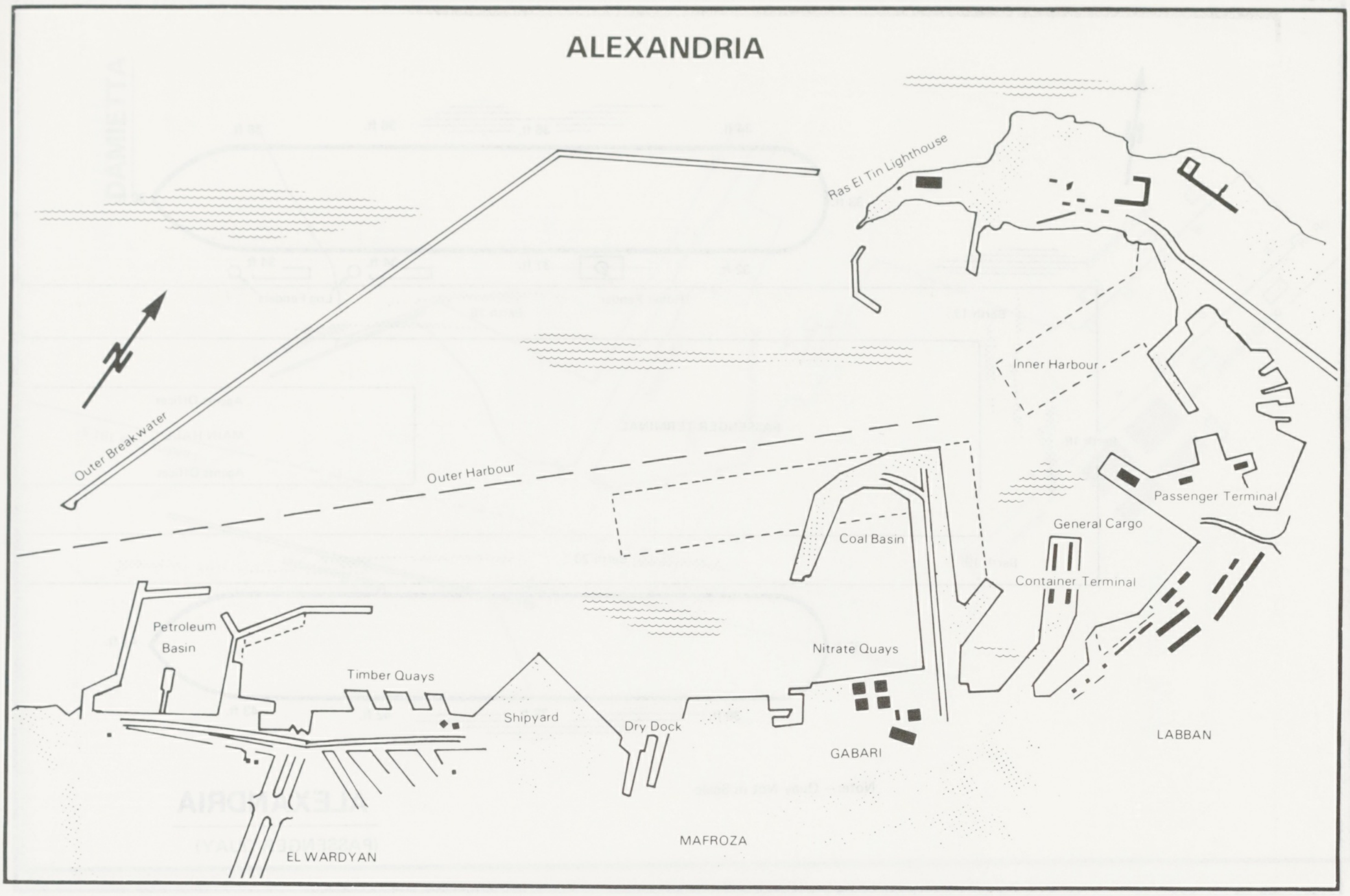

GUAYAQUIL
ECUADOR FLOUR BERTH
Concrete Dolphin
Covered Grain Conveyors
Grain Elevator
Wooden Piles
Pipeline Connections
Pipelines
Concrete Jetty
6 in Pipeline
Tanks
Concrete Dolphin
Dolphin of Wooden Piles
Wooden Jetty
Upriver to Guayaquil

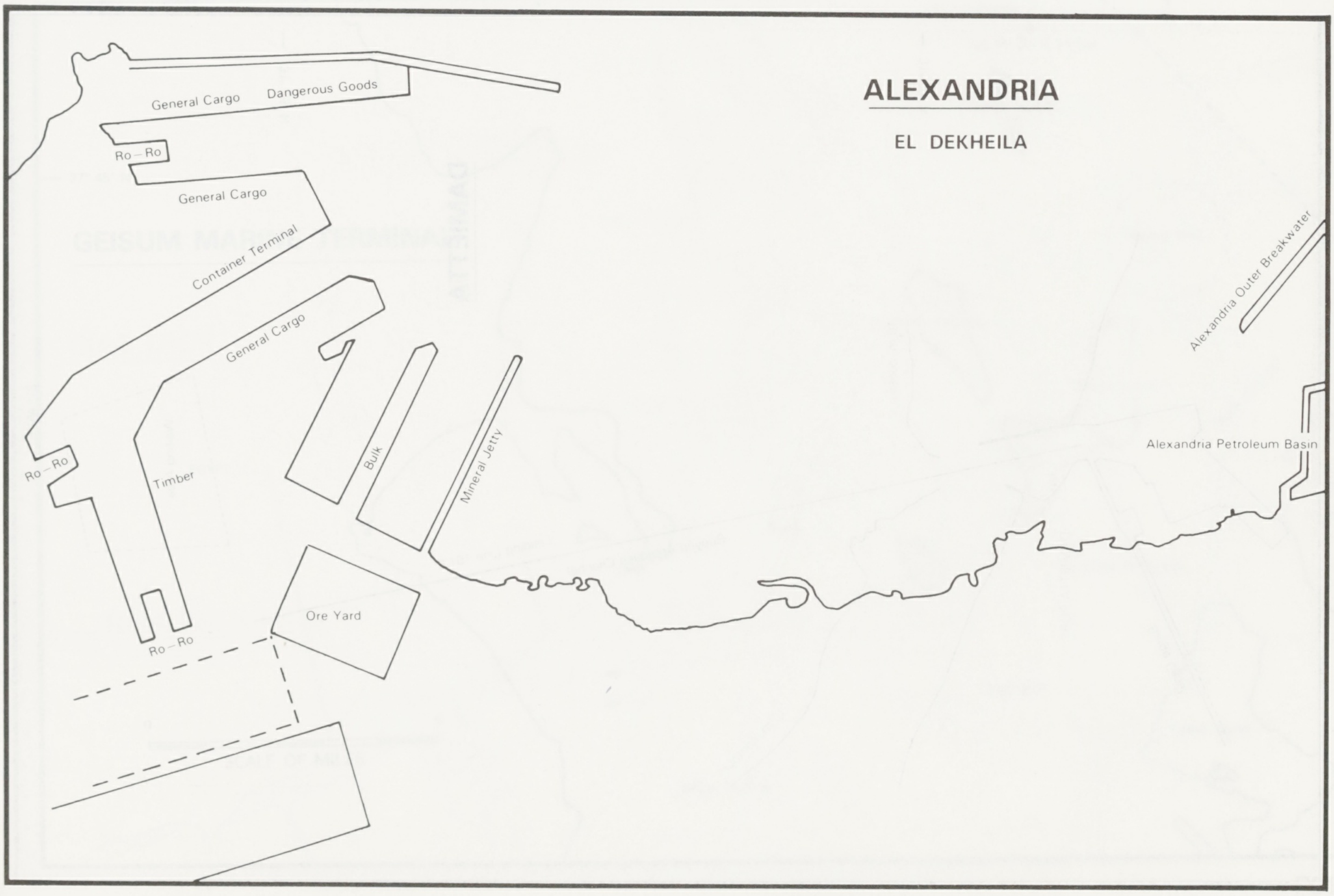

Anchor No. 1
Anchor No. 2
Buoy No. 1
Anchor No. 3
Buoy No. 2
Anchor No. 4
Bow
Vessel
Stern
Light Buoy
Buoy No. 3
Anchor No. 5
End of Pipeline
Anchor No. 6
Anchor No. 8
Buoy No. 4
Anchor No. 7
Buoy
Sandbank
Mooring Buoy
Lt. Buoy
Fl. 3 s.
N
New Underwater Pipeline
Old Underwater Pipeline
Manoeuvring Area
LA LIBERTAD
San Lorenzo Pt.
Jacinto Pt.
Conception Pt.
Suche Pt.
AEO. Quay
Murcielago Pt.
0
1000
2000
3000
4000 m
SCALE

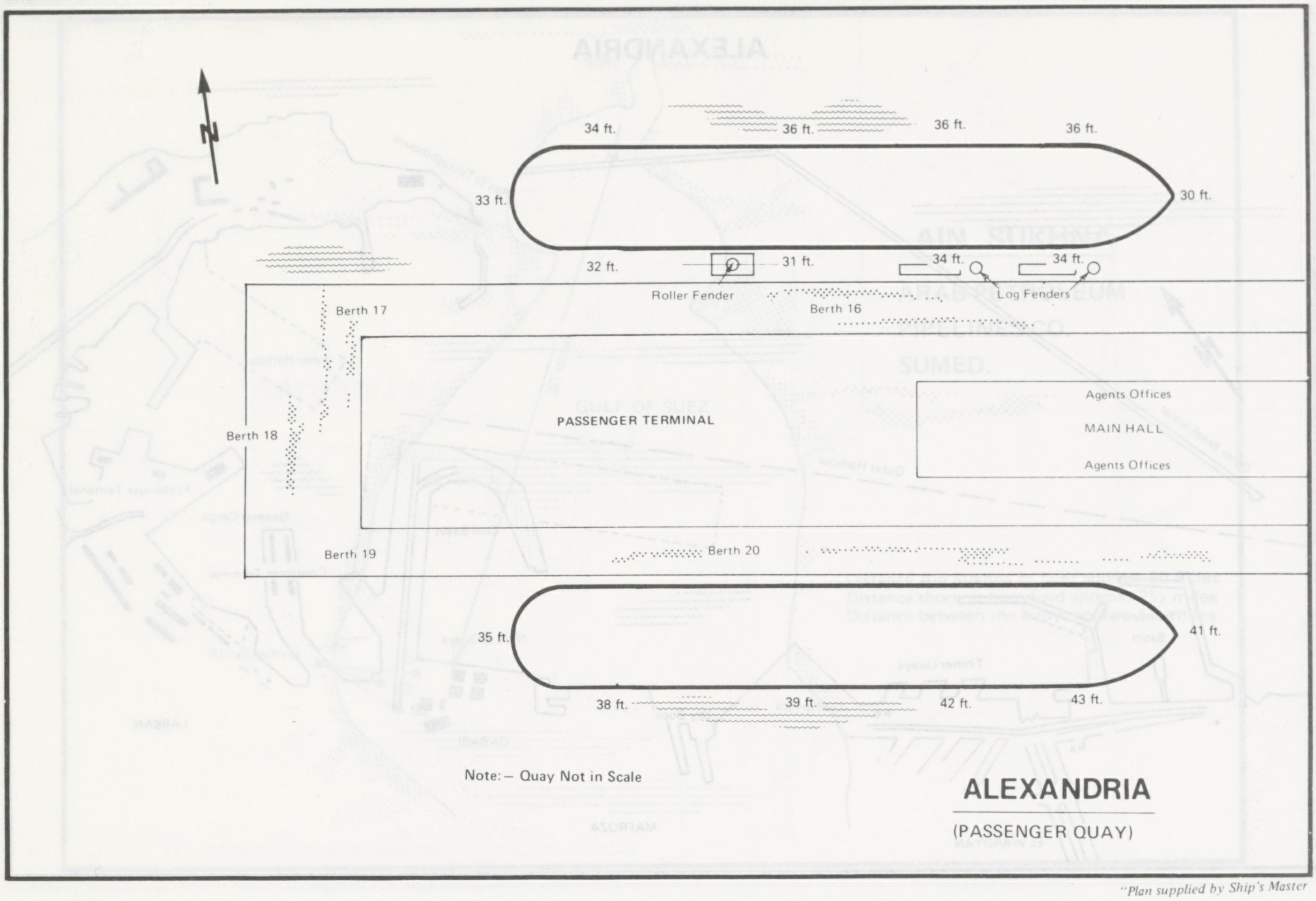

Lighthouse
655ft Long quay for vessels up to 33 feet draught
Ro – Ro Ramp
Tug Quay
Ro/Ro Ramp
Marginal quay of 495ft Length for vessels up to 25 feet draught
Marginal quay of 330ft length for vessels up to 15 feet draught
Don Victor Buoy
Marginal quay for fishing vessels
Open areas with total capacity of 128,600 sq. metres
Administrative Offices
Coast service quay
Fishing Port
MANTA


Suez
30 miles
GULF OF SUEZ
AIN SUKHNA
ARAB PETROLEUM
PIPELINES CO.
SUMED.
Distance Ain Sukhna to Suez approx. 30 miles
Distance shore to buoyfield approx. 2½ miles
Distance between the buoys approx. 1½ miles
Ain Sukhna
S1
S3
S2

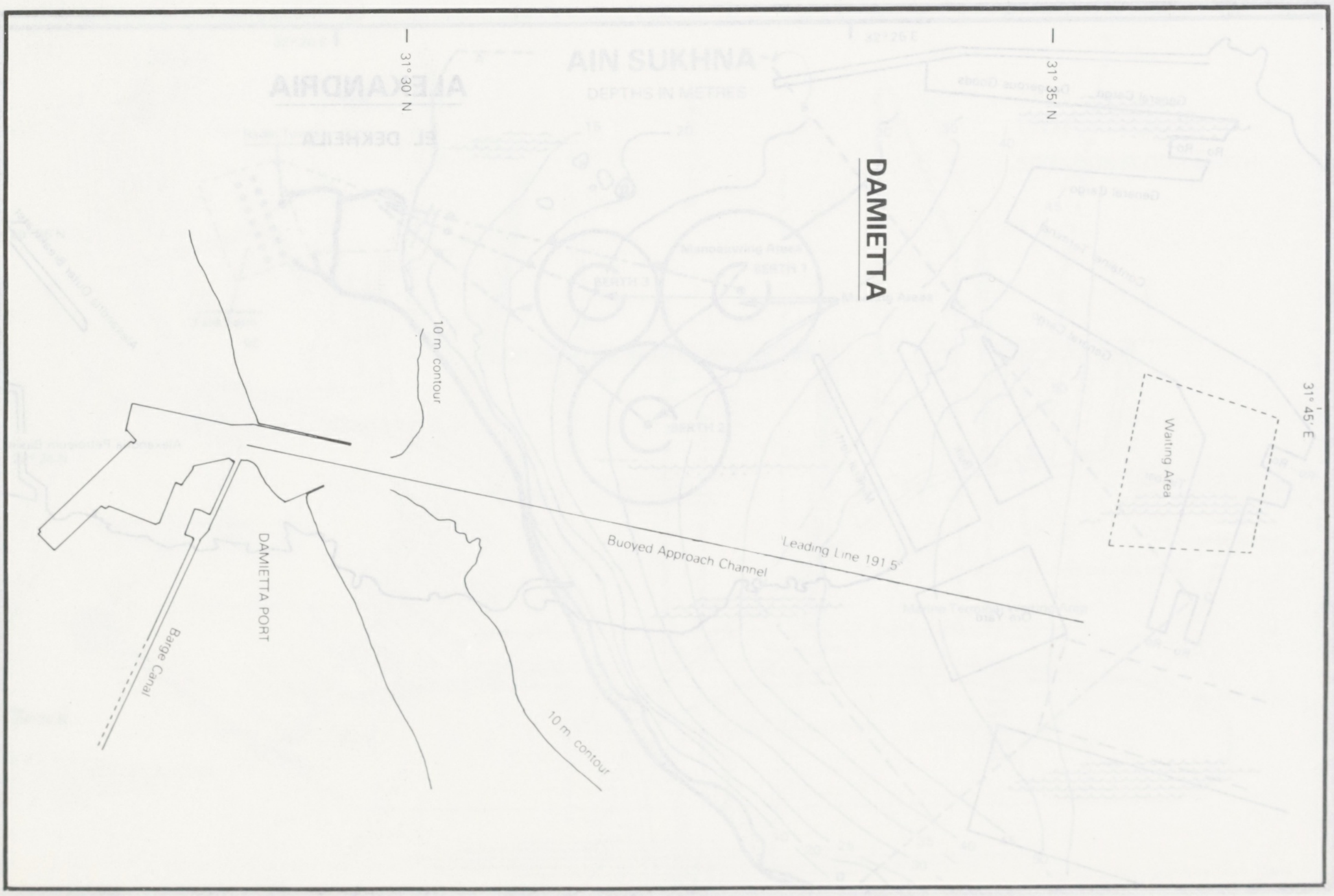

32° 20 E
32° 25 E
A
AIN SUKHNA
DEPTHS IN METRES
B
15
20
30
35
40
45
Radio Tower
29° 36 N
Manoeuvring Areas
BERTH 3
BERTH 1
Mooring Areas
Tank Farm
25
BERTH 2
29° 34 N
50
Marine Terminal Waiting Area
C
29° 32 N
10
20
25
35
40
45
30
50
D


ALEXANDRIA
Ras El Tin Lighthouse
Inner Harbour
Outer Breakwater
Outer Harbour
Passenger Terminal
General Cargo
Coal Basin
Container Terminal
Petroleum Basin
Nitrate Quays
Timber Quays
Shipyard
Dry Dock
GABARI
LABBAN
MAFROZA
EL WARDYAN

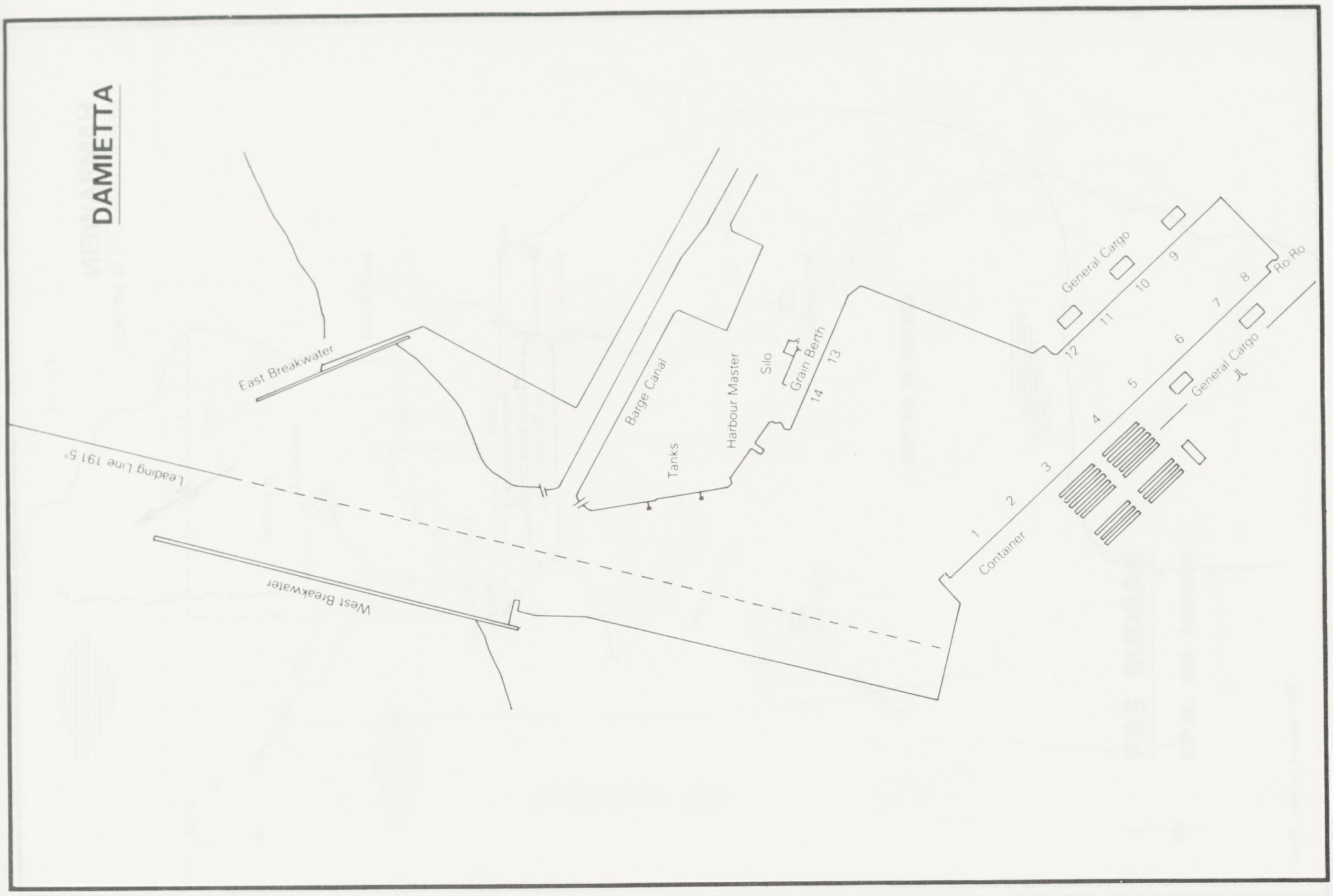

ALEXANDRIA
EL DEKHEILA
General Cargo
Dangerous Goods
Ro – Ro
General Cargo
Container Terminal
General Cargo
Ro – Ro
Timber
Bulk
Mineral Jetty
Ro – Ro
Ore Yard
Alexandria Outer Breakwater
Alexandria Petroleum Basin


N
34 ft.
36 ft.
36 ft.
36 ft.
33 ft.
30 ft.
32 ft.
31 ft.
34 ft.
34 ft.
Roller Fender
Log Fenders
Berth 16
Berth 17
Berth 18
PASSENGER TERMINAL
Agents Offices
MAIN HALL
Agents Offices
Berth 19
Berth 20
35 ft.
41 ft.
38 ft.
39 ft.
42 ft.
43 ft.
Note:– Quay Not in Scale
ALEXANDRIA
(PASSENGER QUAY)

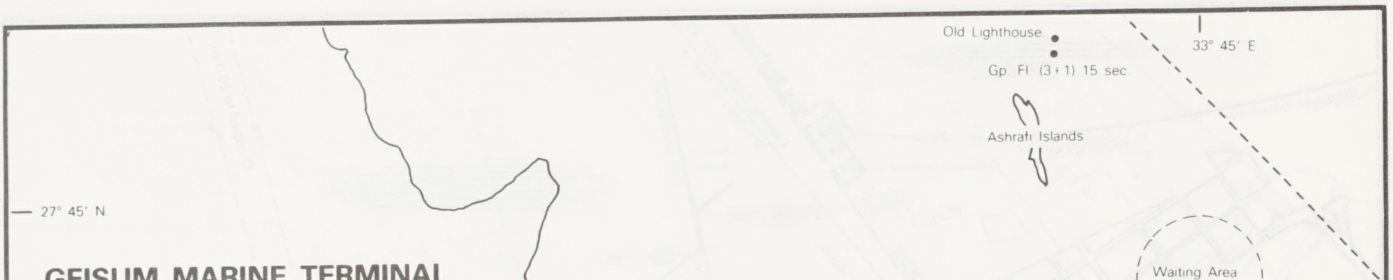
"Plan supplied by Ship's Master

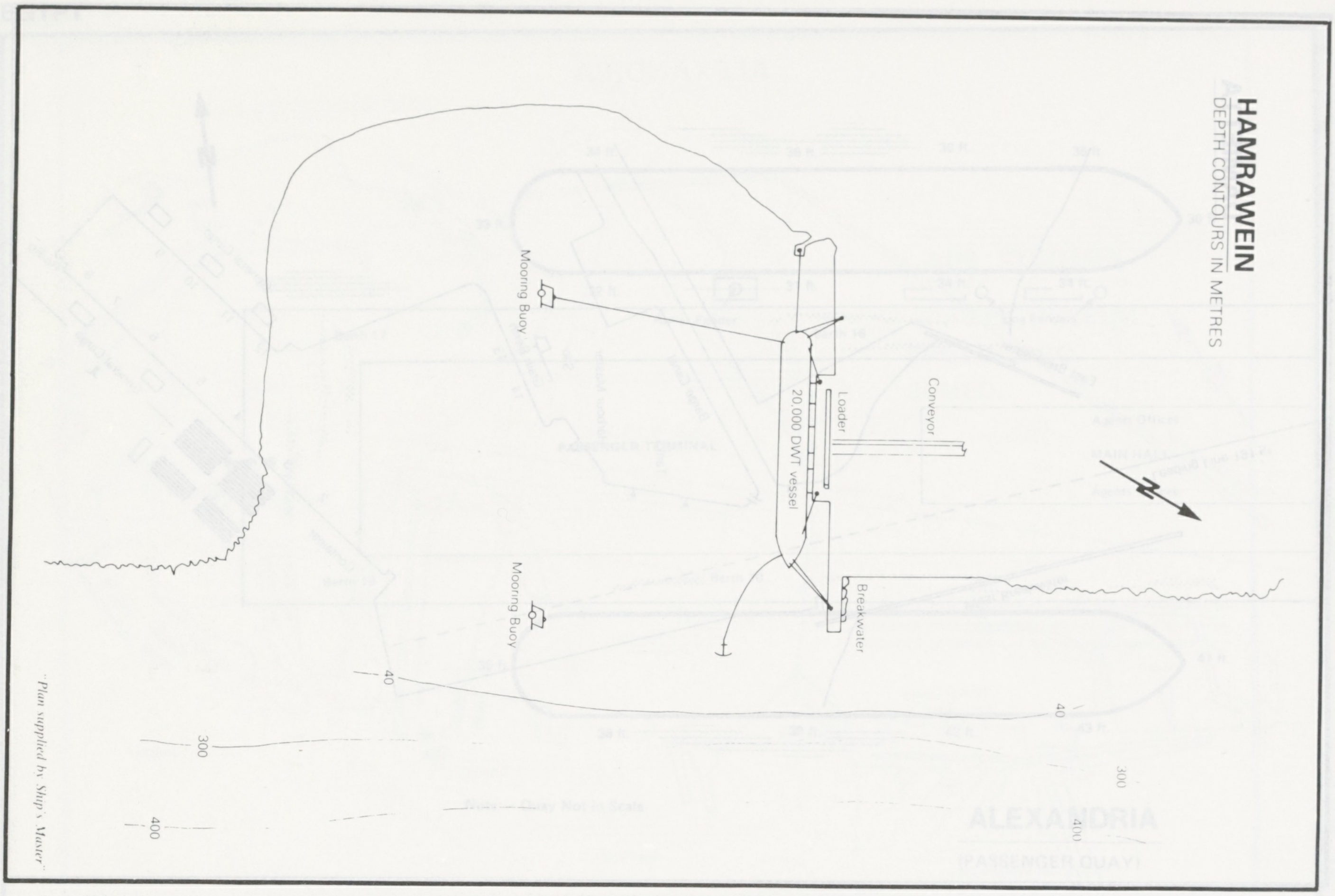

31° 30' N
31° 35' N
DAMIETTA
10 m contour
31° 45' E
Waiting Area
Leading Line 191.5°
Buoyed Approach Channel
DAMIETTA PORT
Barge Canal
10 m contour

DAMIETTA

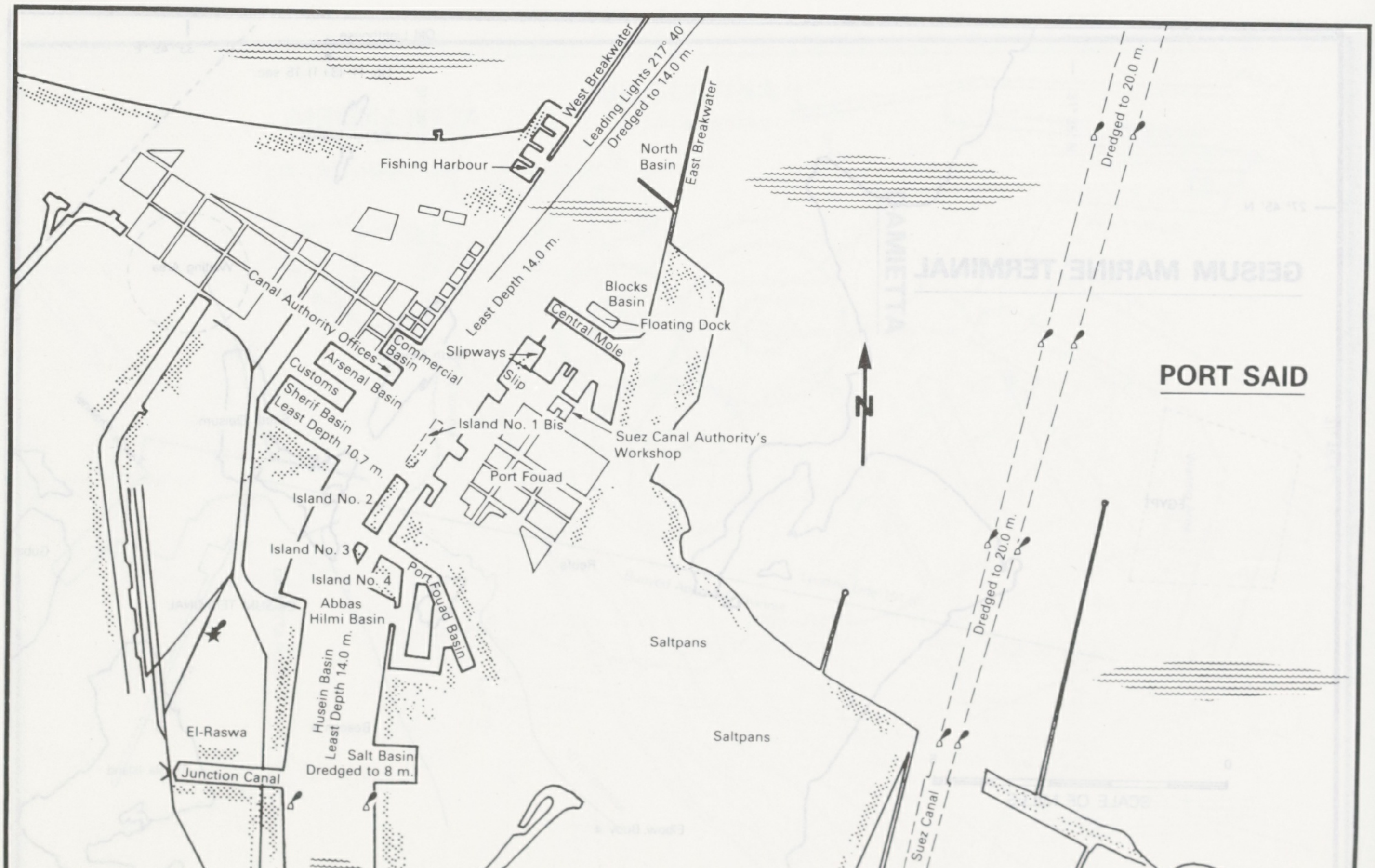

East Breakwater
Leading Line 191.5°
West Breakwater
Barge Canal
Tanks
Harbour Master
Silo
Grain Berth
13
14
General Cargo
12
11
10
9
Ro Ro
8
7
6
5
4
3
2
1
Container
General Cargo

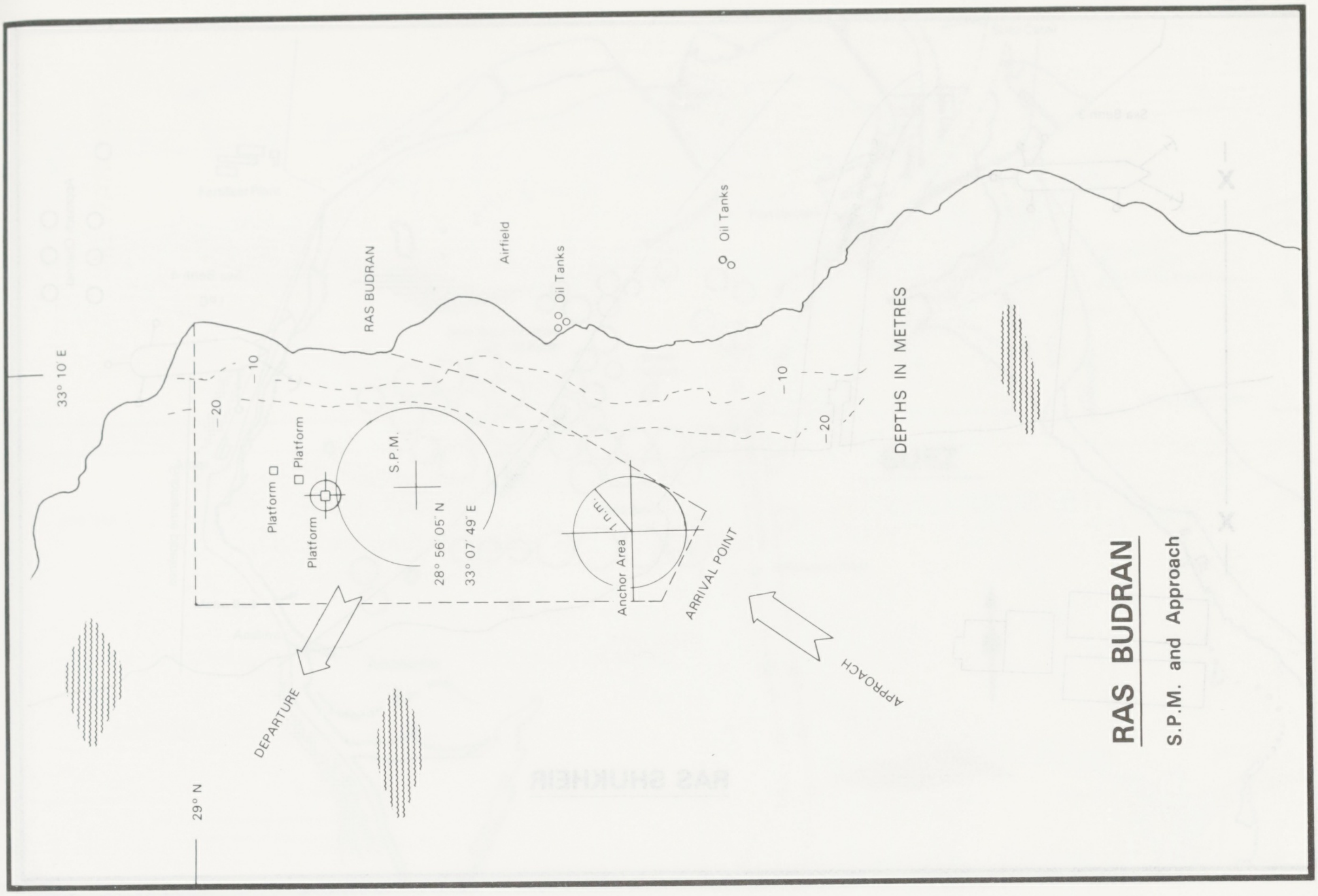
GEISUM MARINE TERMINAL


Old Lighthouse
Gp Fl (3+1) 15 sec
33° 45′ E
Ashrafi Islands
27° 45′ N
Waiting Area
North Qeisum
South Qeisum
Tawila Channel
EGYPT
Reefs
Gubal
GEISUM TERMINAL
Beacon
0
5
SCALE OF MILES
Tawila Island
Elbow Buoy


HAMRAWEIN
DEPTH CONTOURS IN METRES
Mooring Buoy
Conveyor
Loader
20,000 DWT vessel
Mooring Buoy
Breakwater
N
40
40
300
300
400
400

"Plan supplied by Ship's Master"

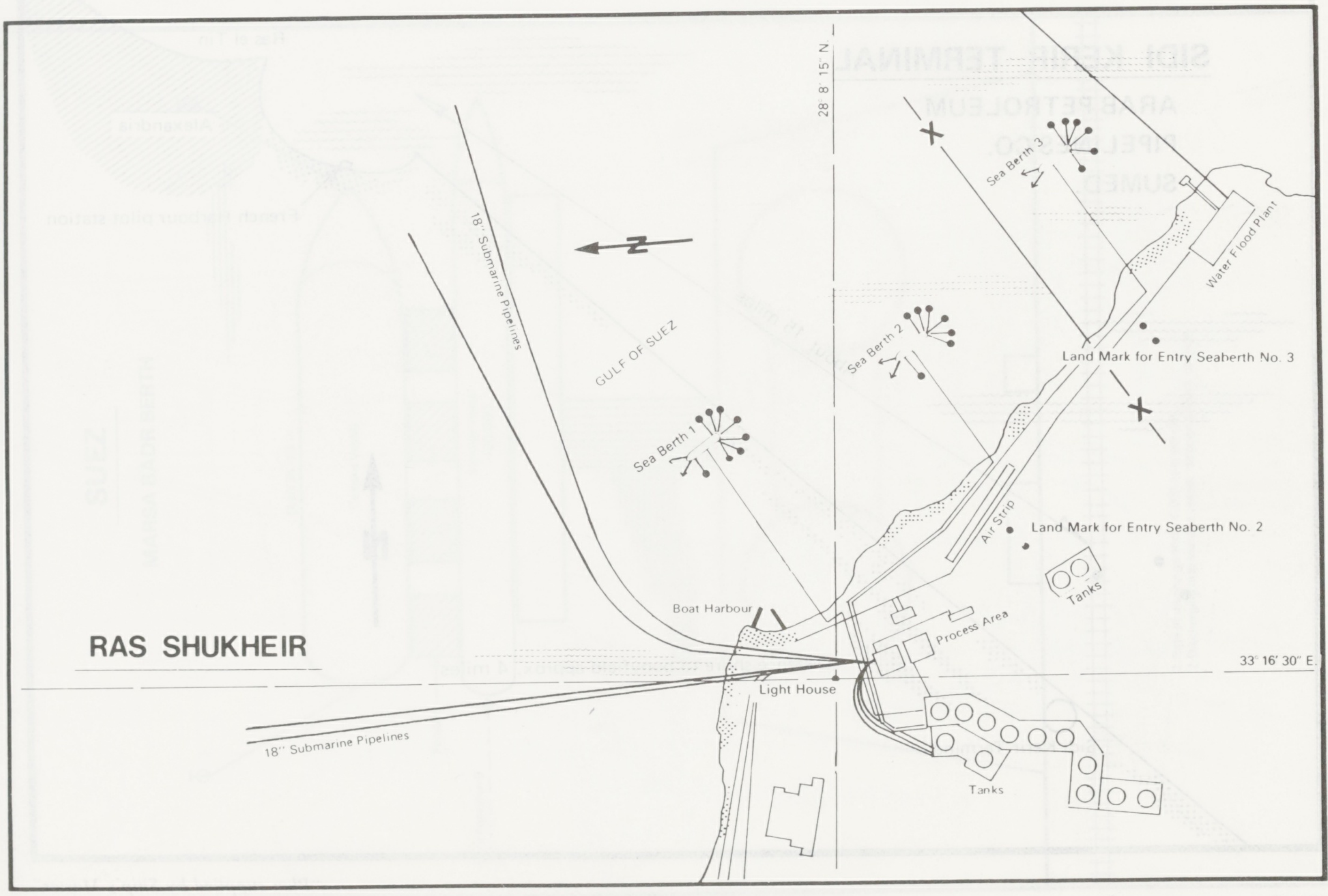

PORT SAID
West Breakwater
Leading Lights 217° 40'
Dredged to 14.0 m.
North Basin
East Breakwater
Fishing Harbour
Dredged to 20.0 m.
Least Depth 14.0 m.
Blocks Basin
Floating Dock
Central Mole
Canal Authority Offices
Commercial Basin
Slipways
Slip
Customs
Arsenal Basin
Sherif Basin
Least Depth 10.7 m.
Island No. 1 Bis
Suez Canal Authority's Workshop
N
Port Fouad
Island No. 2
Island No. 3
Island No. 4
Port Fouad Basin
Abbas Hilmi Basin
Dredged to 20.0 m.
Saltpans
Husein Basin
Least Depth 14.0 m.
El-Raswa
Saltpans
Salt Basin
Dredged to 8 m.
Junction Canal
Suez Canal
Saltpans



RAS BUDRAN

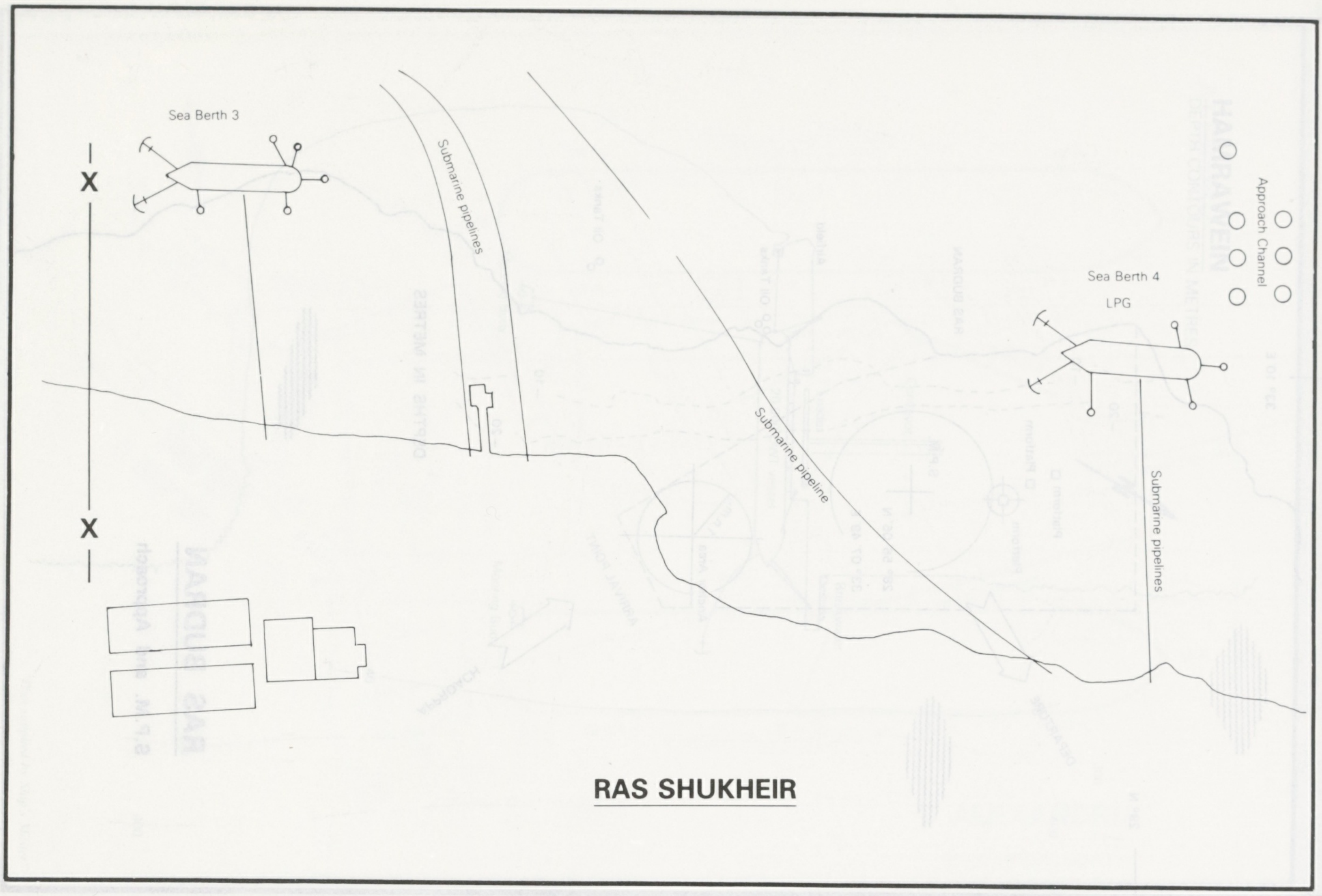
S.P.M. and Approach

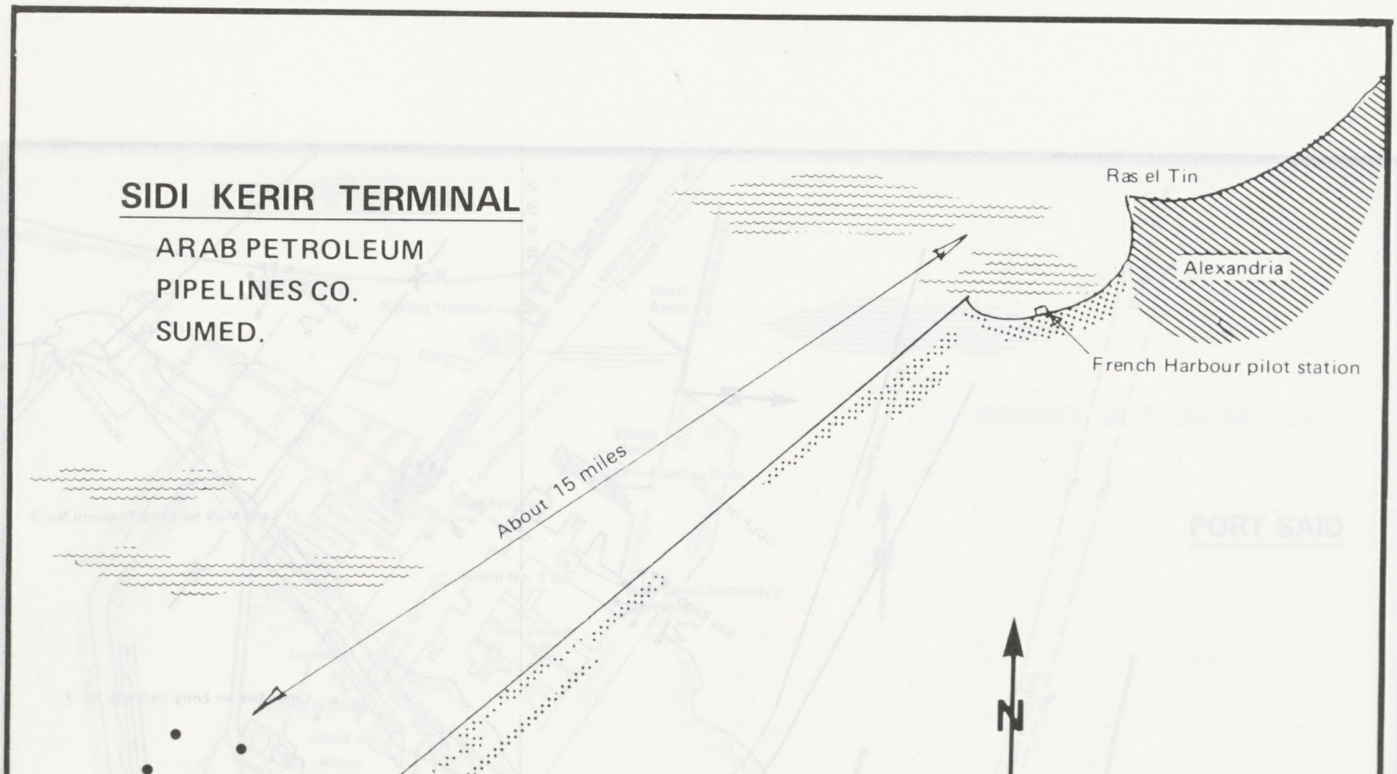
33° 10' E
29° N
RAS BUDRAN
Airfield
Oil Tanks
Oil Tanks
-10
-20
-10
-20
DEPTHS IN METRES
Platform
Platform
Platform
S.P.M.
28° 56' 05" N
33° 07' 49" E
1 n.m.
Anchor Area
ARRIVAL POINT
APPROACH
DEPARTURE



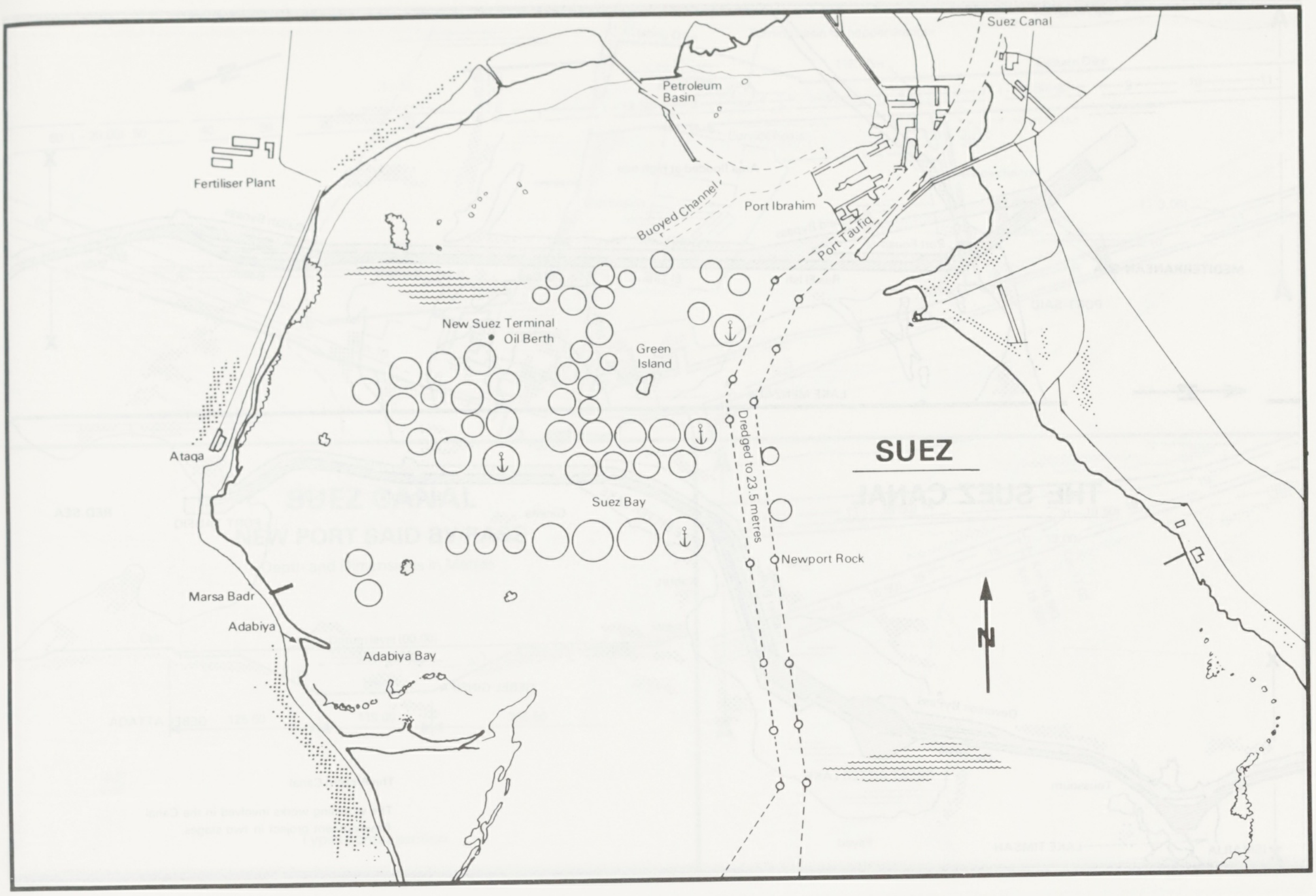
RAS SHUKHEIR

28° 8' 15" N
33° 16' 30" E
N
18" Submarine Pipelines
18" Submarine Pipelines
GULF OF SUEZ
Sea Berth 1
Sea Berth 2
Sea Berth 3
Water Flood Plant
Land Mark for Entry Seaberth No. 3
Land Mark for Entry Seaberth No. 2
Air Strip
Tanks
Boat Harbour
Process Area
Light House
Tanks

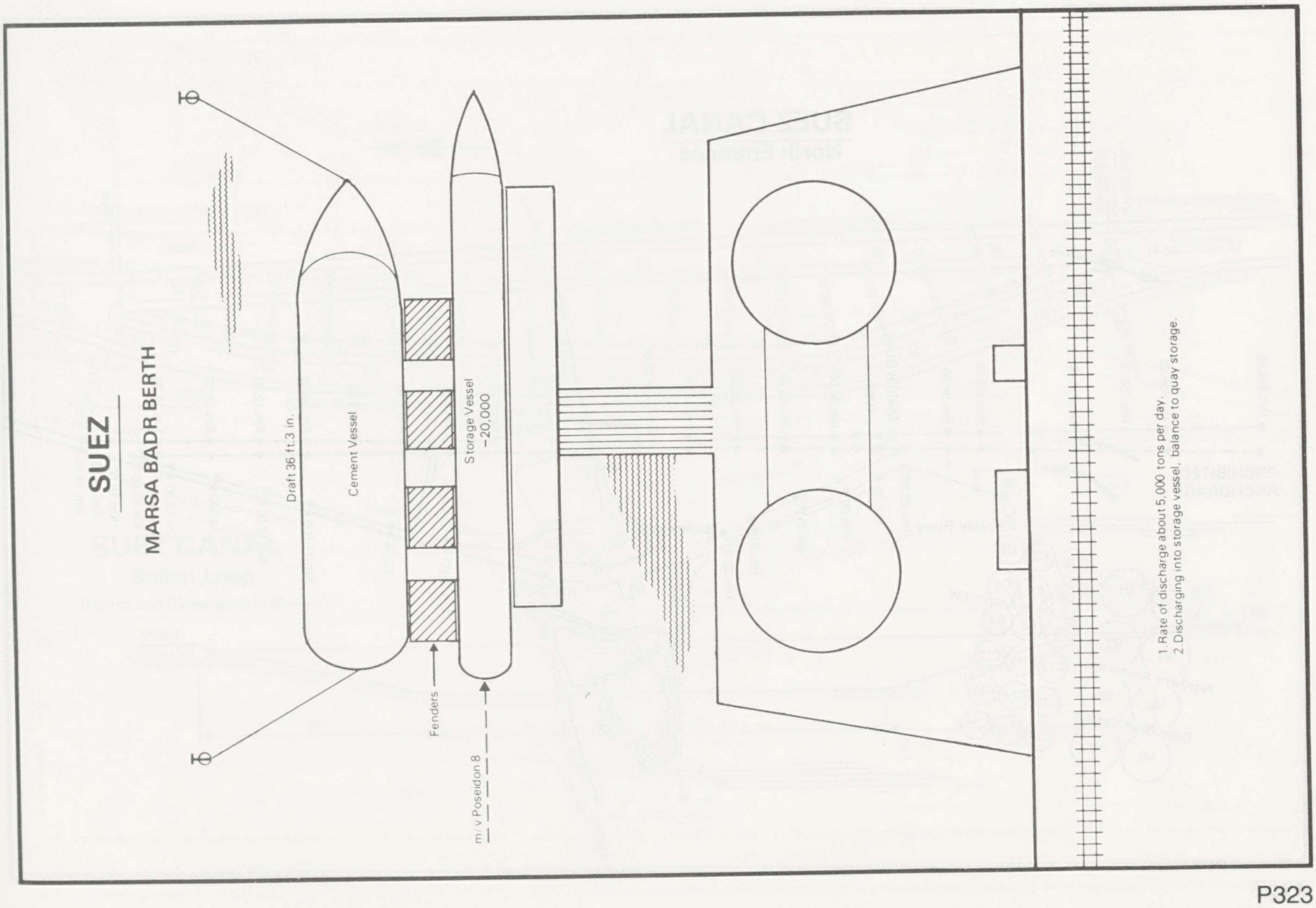

Sea Berth 3
X
X
Submarine pipelines
Submarine pipeline
Approach Channel
Sea Berth 4
LPG
Submarine pipelines
RAS SHUKHEIR


SIDI KERIR TERMINAL
ARAB PETROLEUM
PIPELINES CO.
SUMED.
Ras el Tin
Alexandria
French Harbour pilot station
About 15 miles
N
Distance shore to buoyfield approx. 4 miles
Sidi Kerir Terminal

"Plan supplied by Ship's Master"

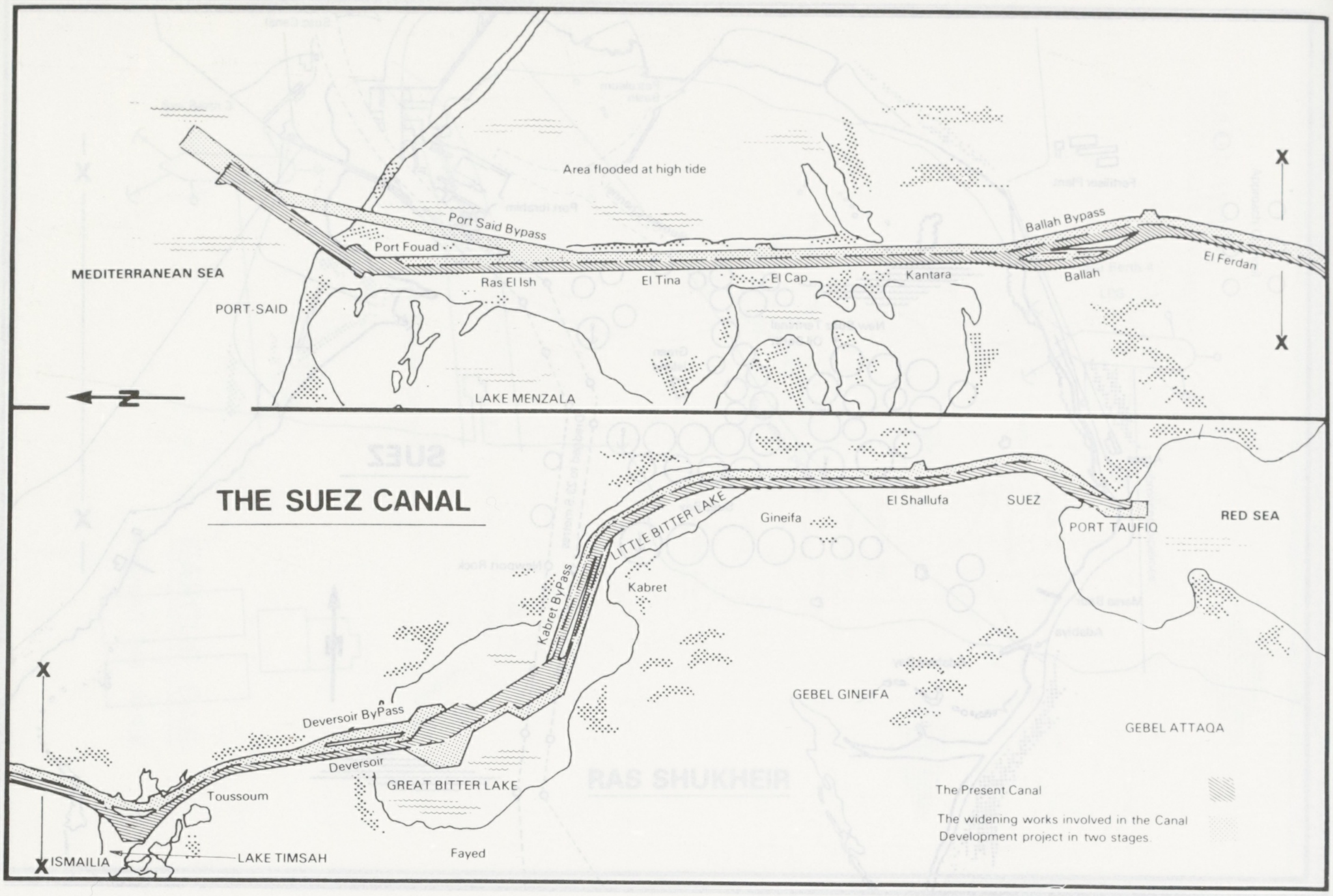

Suez Canal
Petroleum Basin
Fertiliser Plant
Buoyed Channel
Port Ibrahim
Port Taufiq
New Suez Terminal
Oil Berth
Green Island
Ataqa
Suez Bay
Dredged to 23.5 metres
Newport Rock
Marsa Badr
Adabiya
Adabiya Bay
N

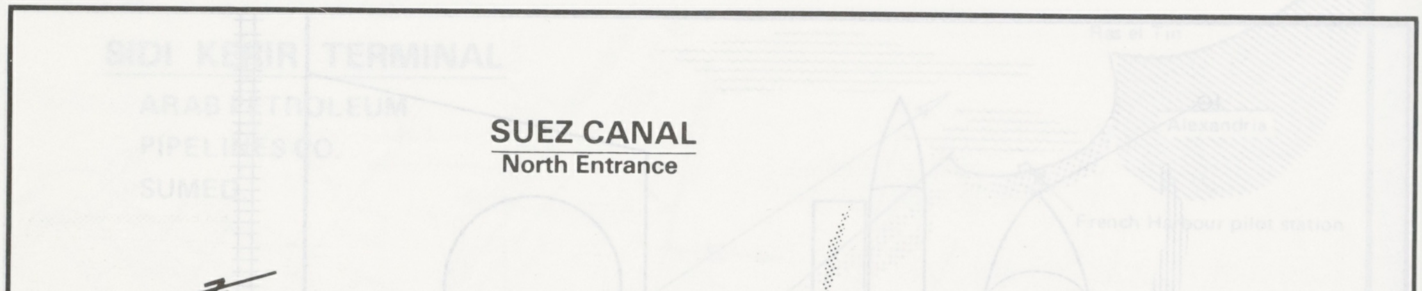
SUEZ

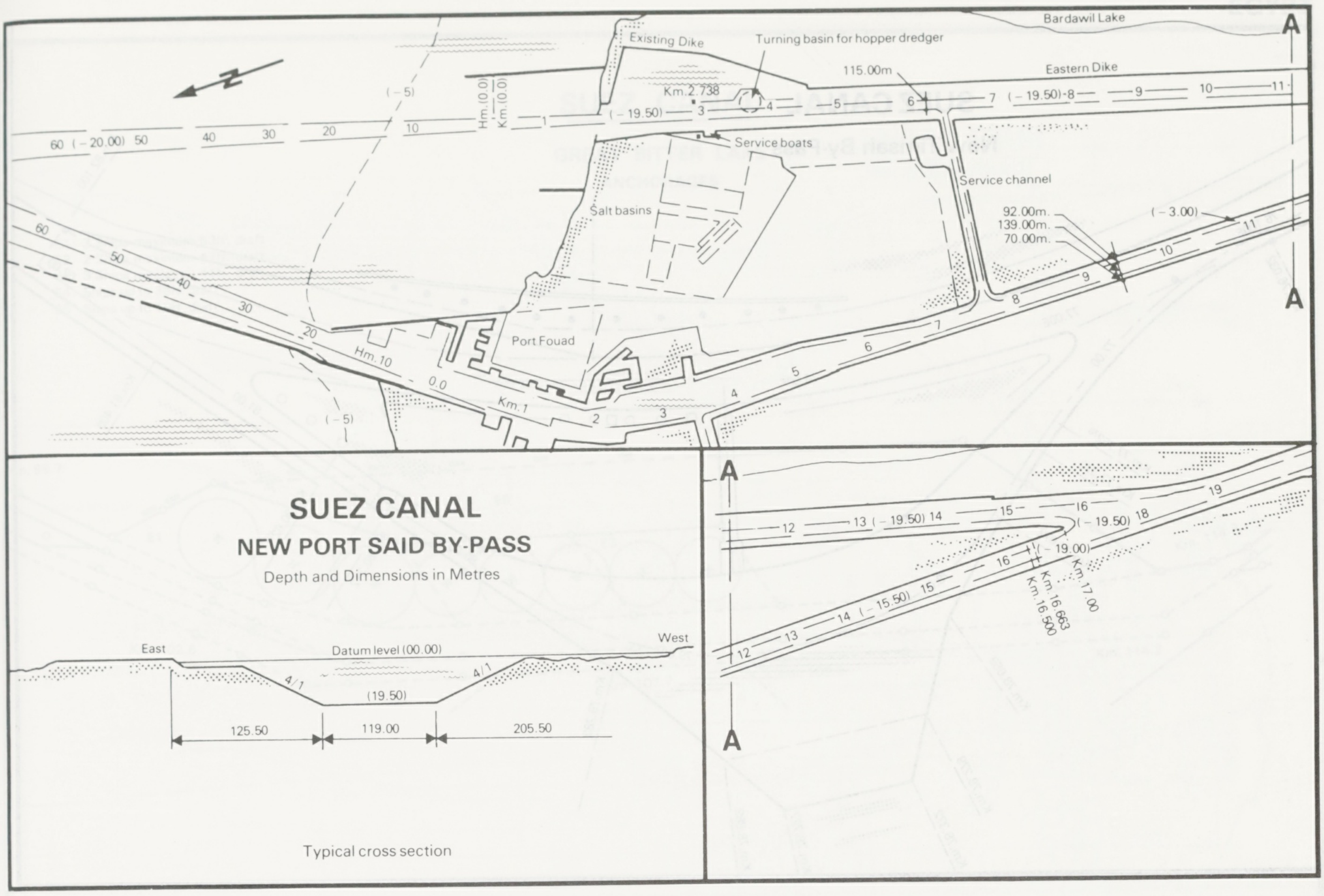

Draft 36 ft 3 in.
Cement Vessel
Storage Vessel
–20,000
Fenders
m/v Poseidon 8

SUEZ
MARSA BADR BERTH

1. Rate of discharge about 5,000 tons per day.
2. Discharging into storage vessel, balance to quay storage.


THE SUEZ CANAL
Area flooded at high tide
Port Said Bypass
Port Fouad
Ballah Bypass
MEDITERRANEAN SEA
PORT SAID
Ras El Ish
El Tina
El Cap
Kantara
Ballah
El Ferdan
LAKE MENZALA
X
X
El Shallufa
SUEZ
PORT TAUFIQ
RED SEA
Gineifa
LITTLE BITTER LAKE
Kabret ByPass
Kabret
GEBEL GINEIFA
GEBEL ATTAQA
Deversoir ByPass
Deversoir
GREAT BITTER LAKE
Toussoum
ISMAILIA
LAKE TIMSAH
Fayed
X
X
The Present Canal
The widening works involved in the Canal Development project in two stages

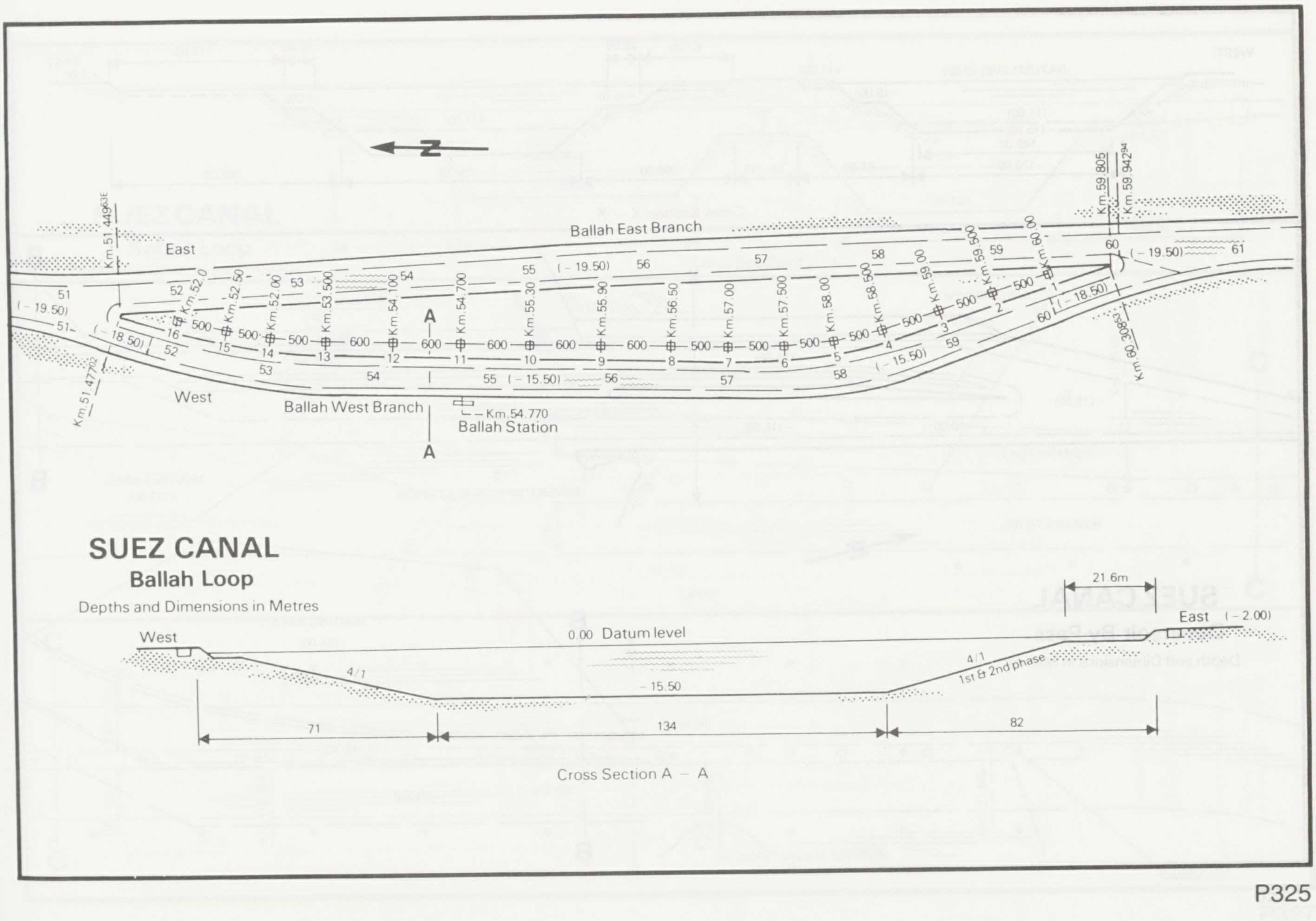

SUEZ CANAL
North Entrance
Hm. 195.00
Hm. 165.00
Hm. 150.00
Hm. 135.00
Hm. 105.00
Hm. 94.90
Middle Buoy (yellow)
83
Hm. 60.00
Hm. 45.00
Hm. 30.00
Hm. 15.00
Hm. /Km. 00.00
Km. 2.900
Km. 4.50
Km. 6.00
Km. 7.50
Km. 9.00
Km. 10.50
Km. 12.00
Km. 13.50
Km. 15.70
Km. 16.00
Km. 16.663
Km. 17.00
Km. 18.00
Km. 18.50
Km. 19.00
PROHIBITED ANCHORAGE
8
7
6
Fairway Buoy
Hm. 80 N5
Hm. 75
Hm. 60
Hm. 45
Hm. 30
Hm. 22.0
Km. 3.718
Km. 4.900
Km. 7.077
Km. 8
Km. 11.500
Km. 13.00
Km. 14.500
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C11
C12
C13
C14
C15
C16
C17
C18
Southern Anchorage
V1
V2
V3
V4
V5
V6
V7
V8
Northern Anchorage
Deep Draft Vessels



SUEZ CANAL
NEW PORT SAID BY-PASS

Depth and Dimensions in Metres

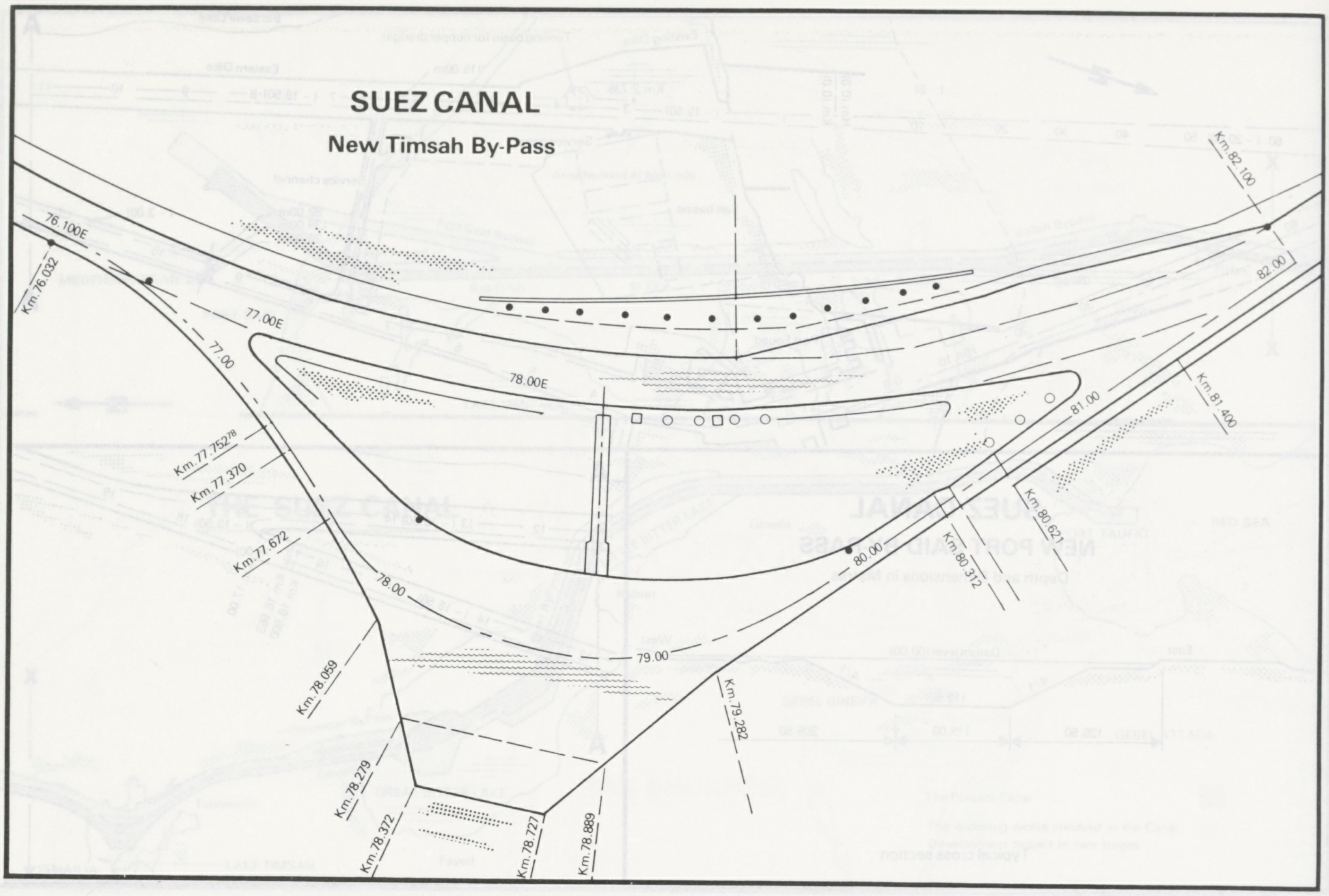
Bardawil Lake
Existing Dike
Turning basin for hopper dredger
Eastern Dike
115.00m
Km.2.738
Hm.(0.0)
Km.(0.0)
(−19.50)
(−5)
60 (−20.00) 50
40
30
20
10
Service boats
Service channel
Salt basins
92.00m.
139.00m.
70.00m.
(−3.00)
Port Fouad
Hm.10
0.0
Km.1
(−5)
A
A
12
13 (−19.50) 14
15
16
(−19.50) 18
19
(−19.00)
16
Km.16.663
Km.16.500
Km.17.00
14 (−15.50) 15
13
12
A
A
East
Datum level (00.00)
West
4/1
4/1
(19.50)
125.50
119.00
205.50
Typical cross section



SUEZ CANAL
Ballah Loop

Depths and Dimensions in Metres

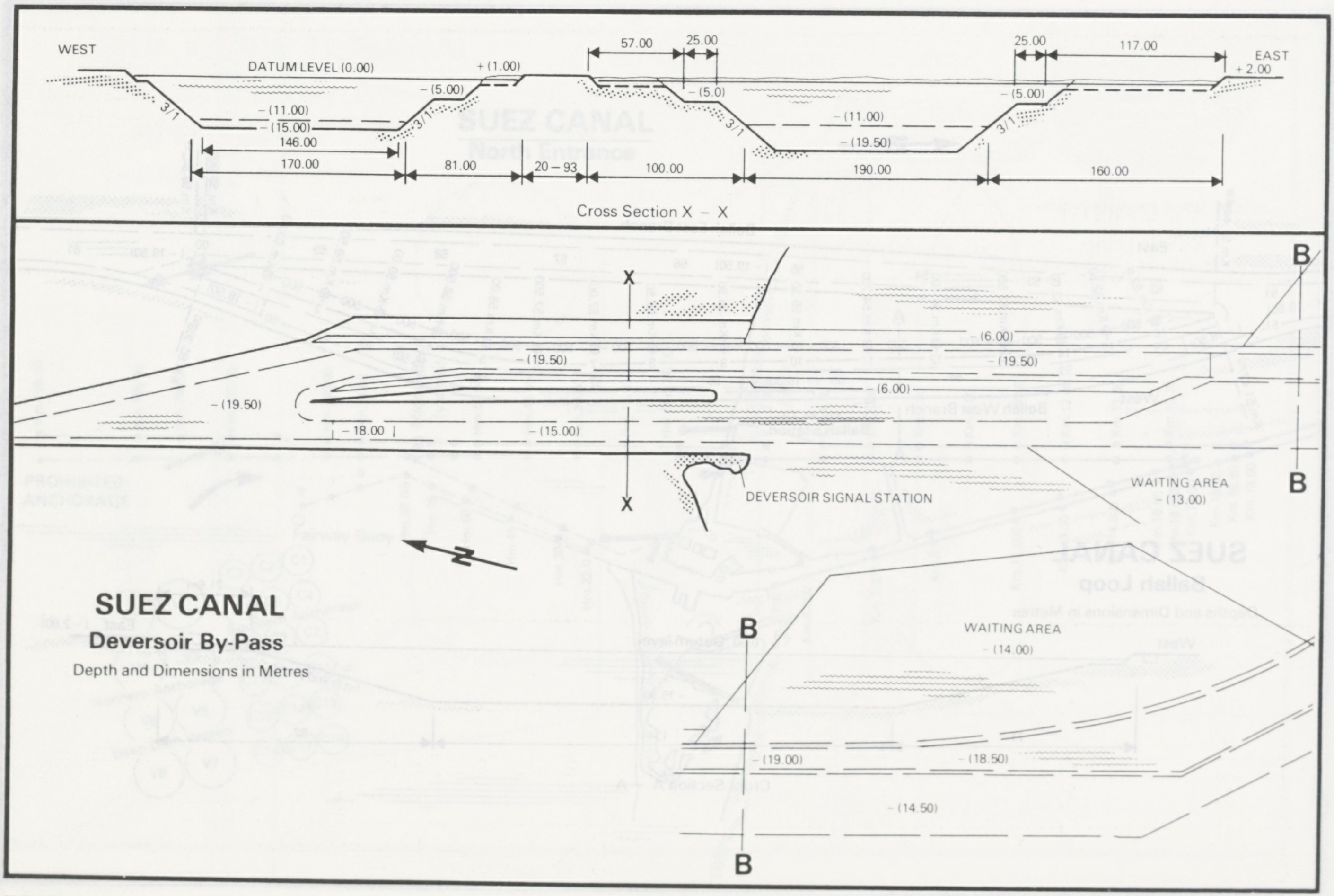
Ballah East Branch
East
Km.51.449
Km.59.805
Km.59.942
51
(−19.50)
52
53
54
55 (−19.50) 56
57
58
59
60
(−19.50)
61
Km.52.0
Km.52.50
Km.52.00
Km.53.500
Km.54.100
Km.54.700
Km.55.30
Km.55.90
Km.56.50
Km.57.00
Km.57.500
Km.58.00
Km.58.500
Km.59.00
Km.59.500
Km.60.00
500
600
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
(−18.50)
(−18.50)
Km.60.308
(−15.50)
52
53
54
55 (−15.50) 56
57
58
59
60
51
West
Ballah West Branch
Km.51.477
Km.54.770
Ballah Station
A
A
West
0.00 Datum level
East
(−2.00)
21.6m
4/1
4/1
1st & 2nd phase
−15.50
71
134
82
Cross Section A – A



SUEZ CANAL

New Timsah By-Pass

76.100E
Km.76.032
77.00E
77.00
78.00E
Km.77.752/78
Km.77.370
Km.77.672
78.00
Km.78.059
79.00
Km.79.282
Km.78.279
Km.78.372
Km.78.727
Km.78.889
80.00
Km.80.312
Km.80.621
81.00
Km.81.400
82.00
Km.82.100

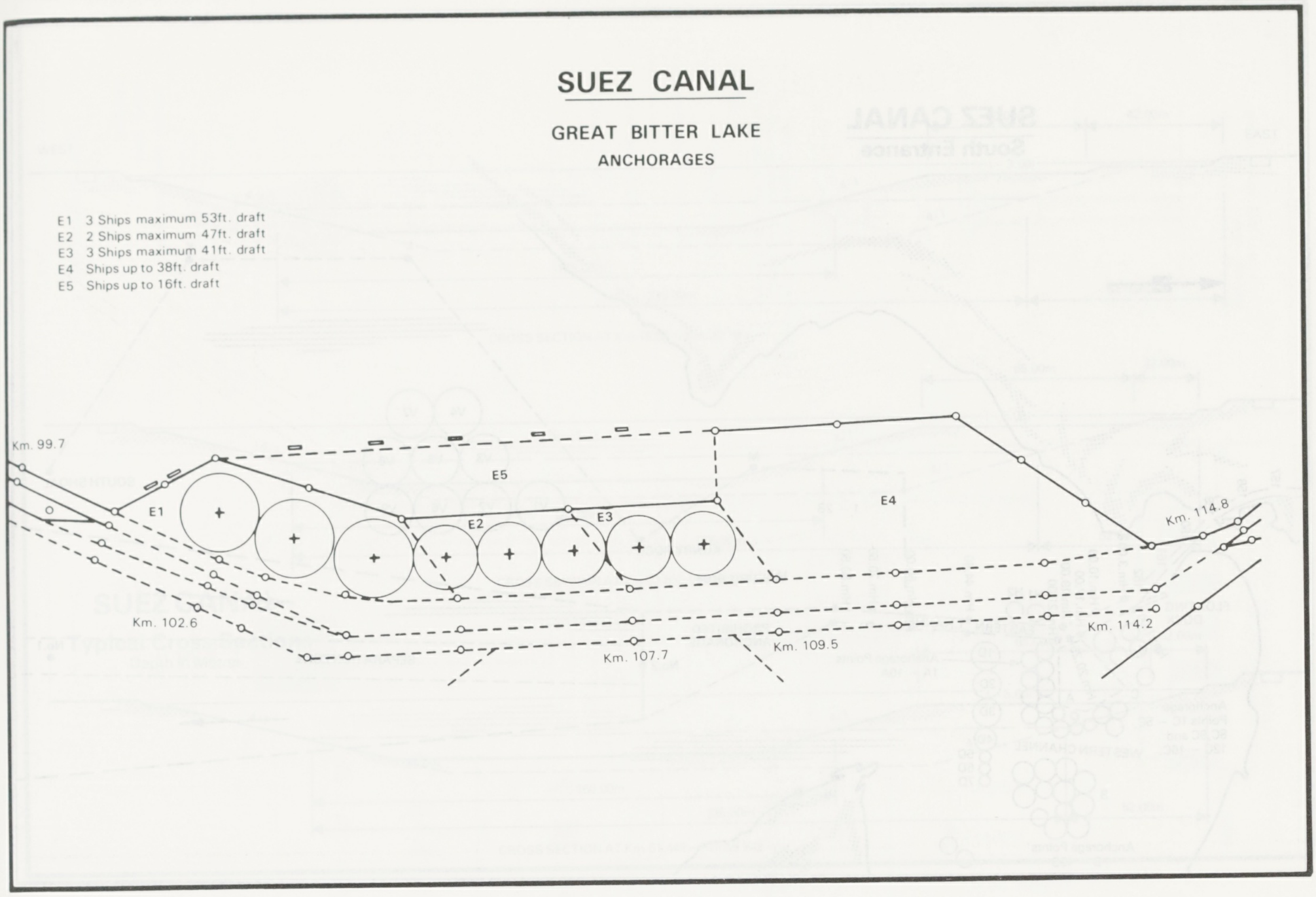


SUEZ CANAL

Deversoir By-Pass

Depth and Dimensions in Metres

WEST
DATUM LEVEL (0.00)
+ (1.00)
– (5.00)
3/1
– (11.00)
– (15.00)
146.00
170.00
81.00
20 – 93
57.00
25.00
– (5.0)
100.00
– (11.00)
– (19.50)
190.00
25.00
117.00
EAST
+ 2.00
– (5.00)
160.00
Cross Section X – X
X
X
B
B
– (6.00)
– (19.50)
– (19.50)
– (19.50)
– (6.00)
– 18.00
– (15.00)
DEVERSOIR SIGNAL STATION
WAITING AREA
– (13.00)
N
B
WAITING AREA
– (14.00)
– (19.00)
– (18.50)
– (14.50)
B

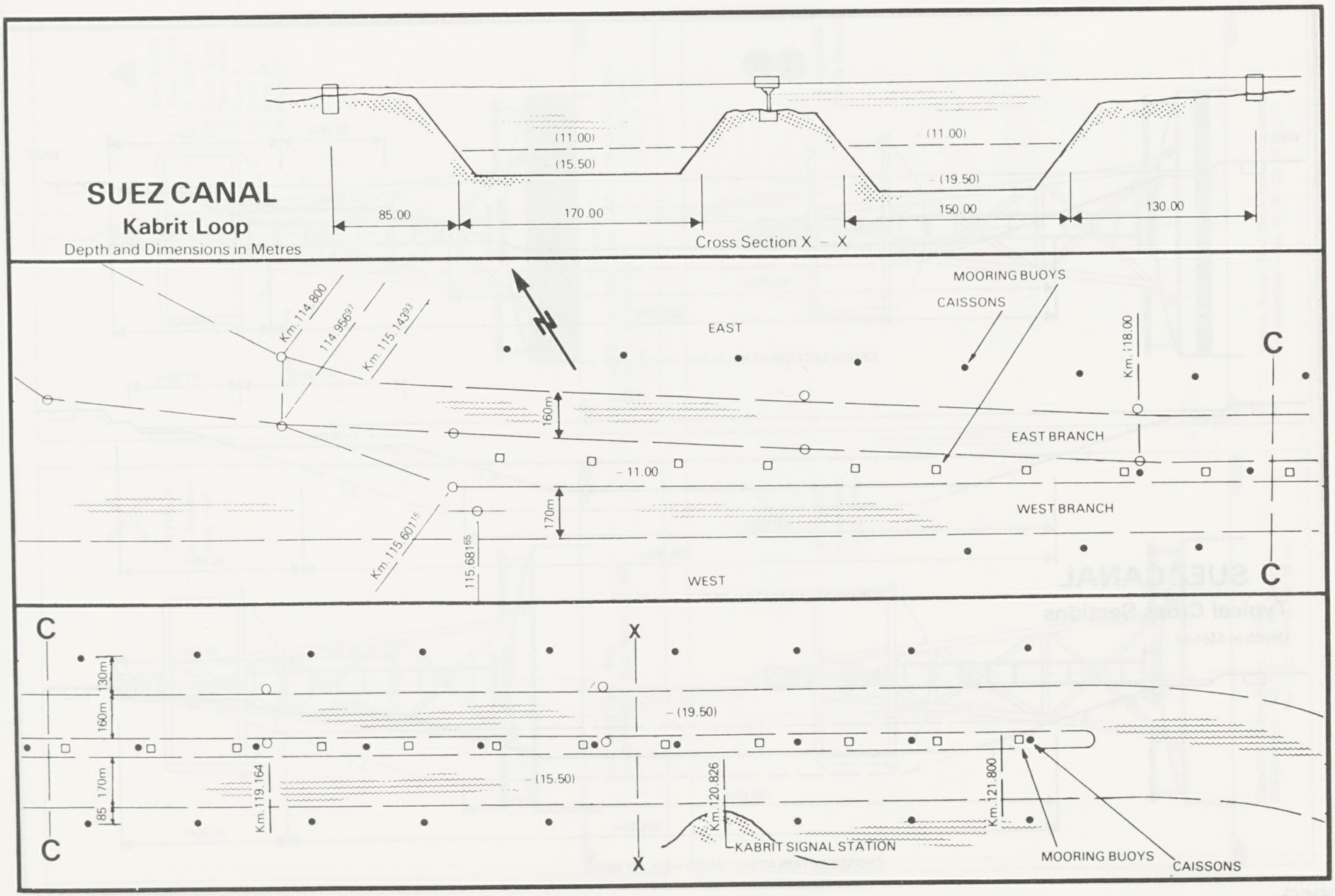


SUEZ CANAL

GREAT BITTER LAKE
ANCHORAGES

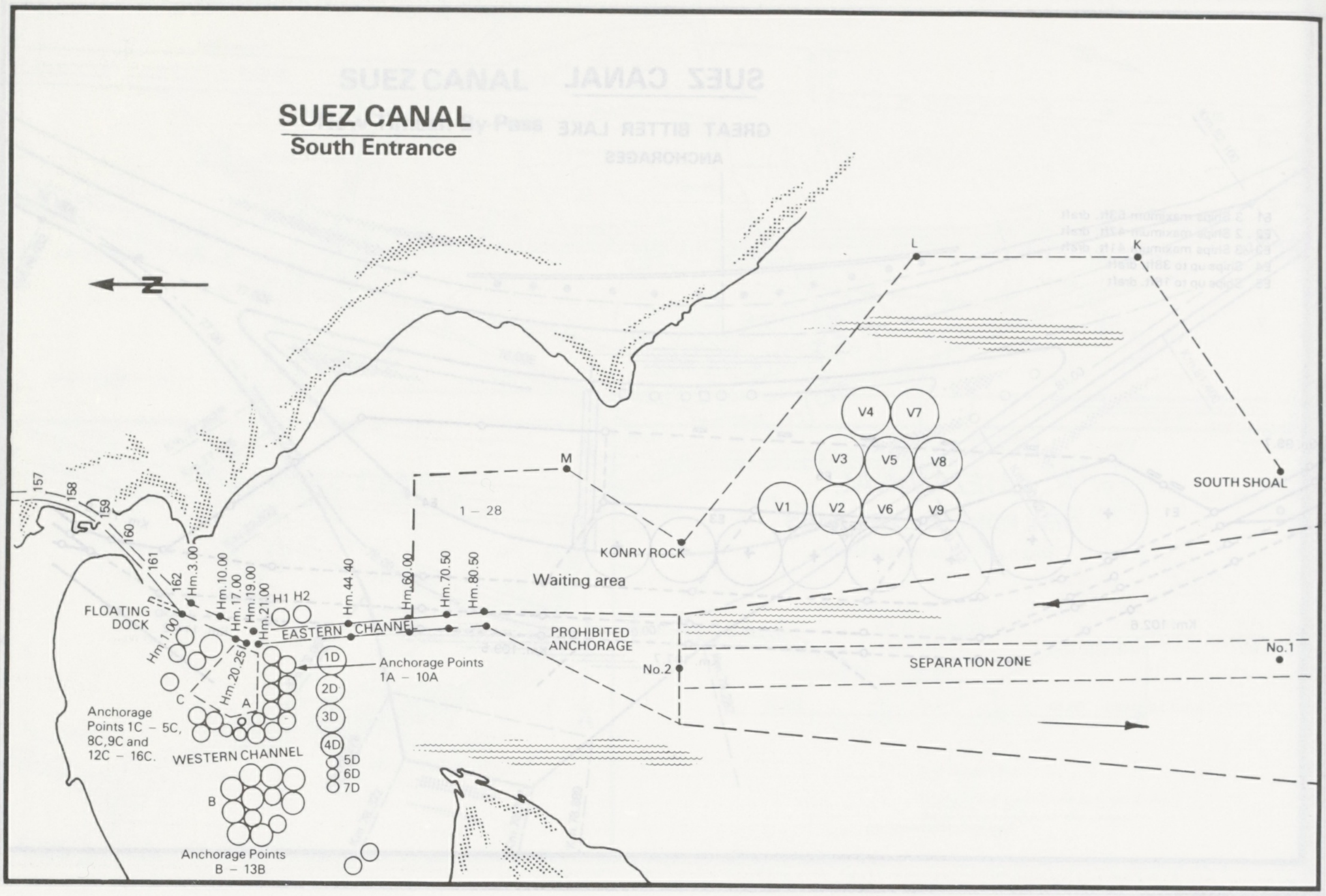
E1 3 Ships maximum 53ft. draft
E2 2 Ships maximum 47ft. draft
E3 3 Ships maximum 41ft. draft
E4 Ships up to 38ft. draft
E5 Ships up to 16ft. draft

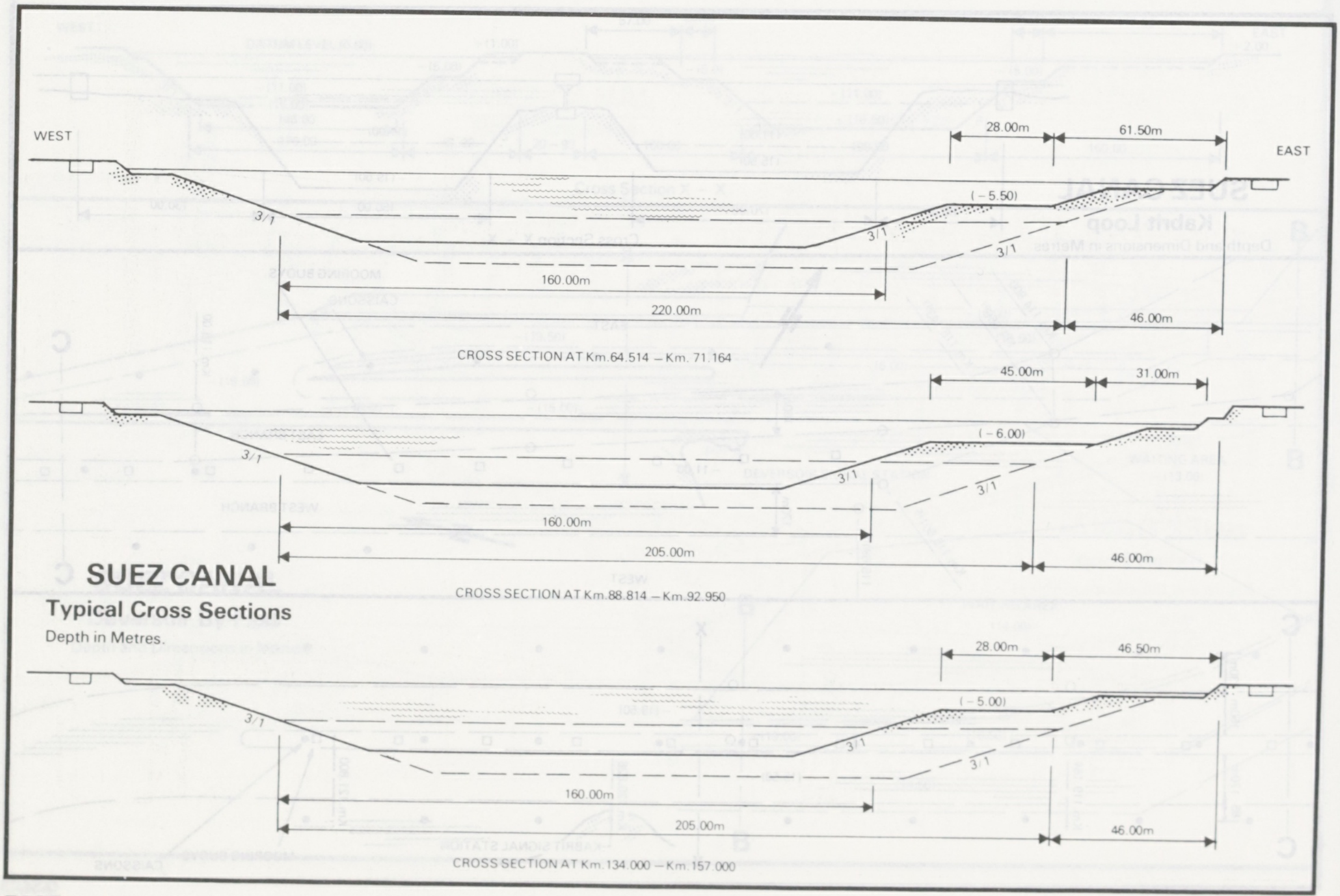
Km. 99.7
E1
E5
E2
E3
E4
Km. 114.8
Km. 102.6
Km. 107.7
Km. 109.5
Km. 114.2



SUEZ CANAL
Kabrit Loop
Depth and Dimensions in Metres

(11.00)
– (15.50)
– (11.00)
– (19.50)
85.00
170.00
150.00
130.00
Cross Section X – X
MOORING BUOYS
CAISSONS
EAST
Km. 114.800
114.956^{97}
Km. 115.143^{93}
Km. 118.00
C
160m
EAST BRANCH
– 11.00
170m
WEST BRANCH
Km. 115.601^{15}
115.681^{65}
WEST
C
C
X
130m
160m
170m
85
– (19.50)
– (15.50)
Km. 119.164
Km. 120.826
Km. 121.800
KABRIT SIGNAL STATION
MOORING BUOYS
CAISSONS
C
X

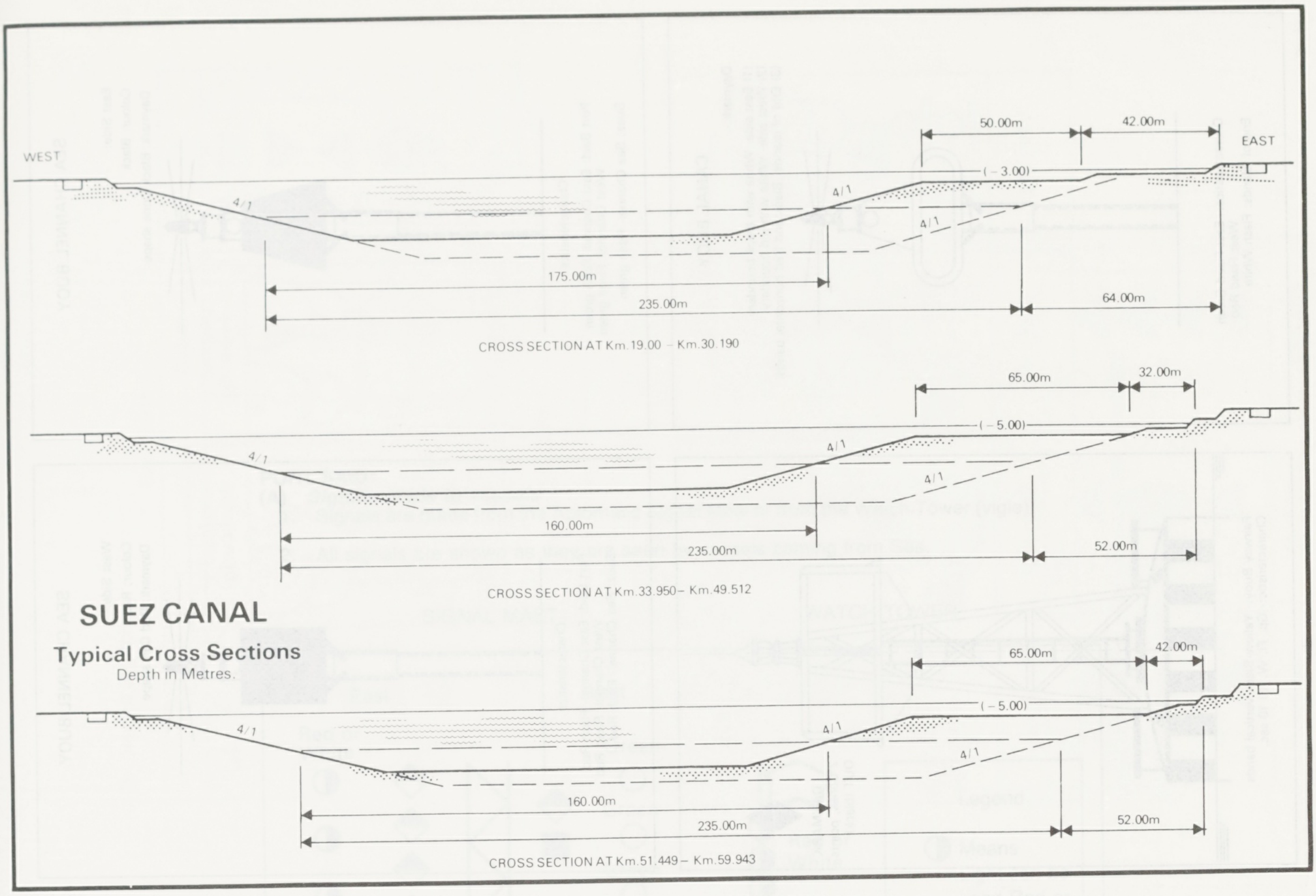

SUEZ CANAL
South Entrance
N
L
K
M
1 – 28
KONRY ROCK
V1
V2
V3
V4
V5
V6
V7
V8
V9
SOUTH SHOAL
Waiting area
PROHIBITED ANCHORAGE
No.2
No.1
SEPARATION ZONE
157
158
159
160
161
162
Hm.3.00
Hm.10.00
Hm.17.00
Hm.19.00
Hm.21.00
Hm.44.40
Hm.60.00
Hm.70.50
Hm.80.50
Hm.1.00
Hm.20.25
FLOATING DOCK
H1
H2
EASTERN CHANNEL
1D
2D
3D
4D
5D
6D
7D
Anchorage Points 1A – 10A
A
C
Anchorage Points 1C – 5C, 8C,9C and 12C – 16C.
WESTERN CHANNEL
B
Anchorage Points B – 13B

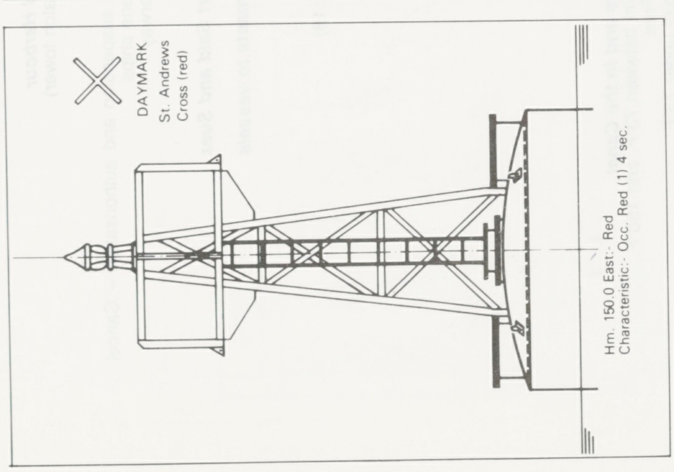

SUEZ CANAL
Typical Cross Sections
Depth in Metres.
WEST
EAST
28.00m
61.50m
(– 5.50)
3/1
3/1
3/1
160.00m
220.00m
46.00m
CROSS SECTION AT Km.64.514 – Km. 71.164
45.00m
31.00m
(– 6.00)
3/1
3/1
3/1
160.00m
205.00m
46.00m
CROSS SECTION AT Km.88.814 – Km.92.950
28.00m
46.50m
(– 5.00)
3/1
3/1
3/1
160.00m
205.00m
46.00m
CROSS SECTION AT Km.134.000 – Km.157.000

SUEZ CANAL

Typical Cross Sections

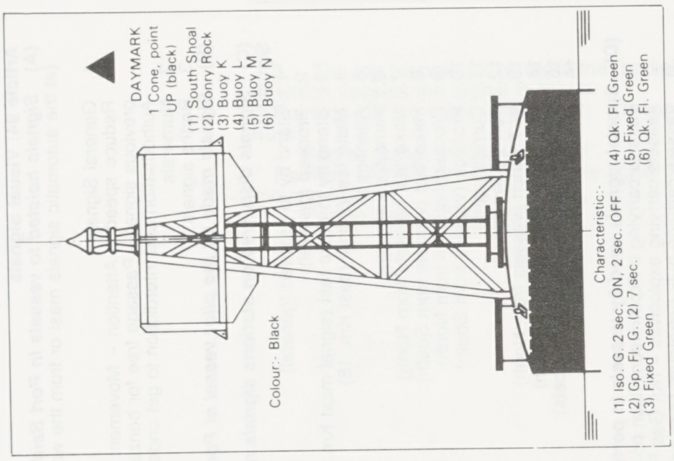
Depth in Metres.


WEST
EAST
50.00m
42.00m
(– 3.00)
4/1
4/1
4/1
175.00m
235.00m
64.00m
CROSS SECTION AT Km.19.00 – Km.30.190
65.00m
32.00m
(– 5.00)
4/1
4/1
4/1
160.00m
235.00m
52.00m
CROSS SECTION AT Km.33.950– Km.49.512
65.00m
42.00m
(– 5.00)
4/1
4/1
4/1
160.00m
235.00m
52.00m
CROSS SECTION AT Km.51.449– Km.59.943



DAYMARK
St. Andrews
Cross (red)

Hm. 150.0 East:- Red
Characteristic:- Occ. Red (1) 4 sec.

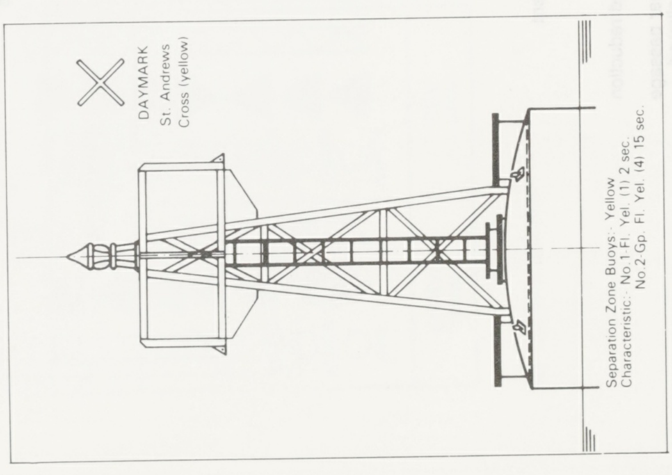


DAYMARK
1 Cone, point
UP (black)

(1) South Shoal
(2) Conry Rock
(3) Buoy K
(4) Buoy L
(5) Buoy M
(6) Buoy N

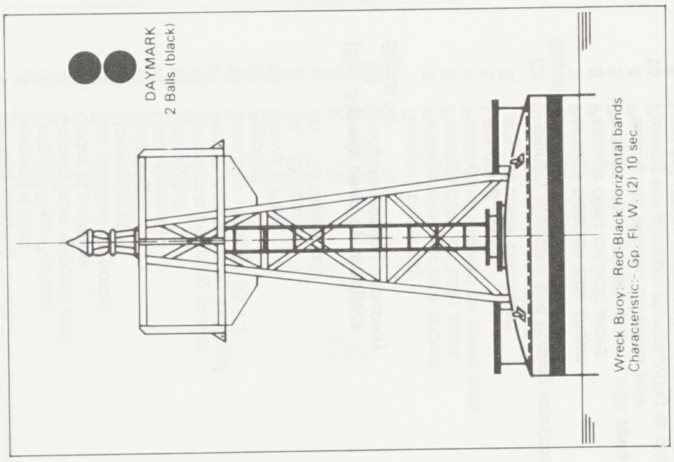
Colour:- Black

Characteristic:-
(1) Iso. G. 2 sec. ON, 2 sec. OFF
(2) Gp. Fl. G. (2) 7 sec.
(3) Fixed Green
(4) Qk. Fl. Green
(5) Fixed Green
(6) Qk. Fl. Green



DAYMARK
St. Andrews
Cross (yellow)

Separation Zone Buoys:- Yellow
Characteristic:- No.1-Fl. Yel. (1) 2 sec.
No.2-Gp. Fl. Yel. (4) 15 sec.

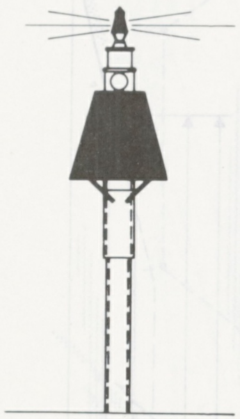


DAYMARK
2 Balls (black)

Wreck Buoy:- Red-Black horizontal bands
Characteristic:- Gp. Fl. W. (2) 10 sec.

SEA CHANNEL BUOY

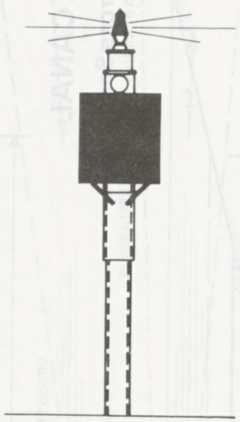
East Side:-
Colour: Black
Daymark: Black Cone shape



Characteristics
Port Said: East Channel- Flash green
West Channel- Fixed green
Suez: Sea Channel- Flash green

SEA CHANNEL BUOY

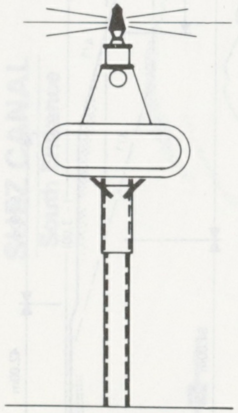
West Side:-
Colour; Red
Daymark: Red Can shape



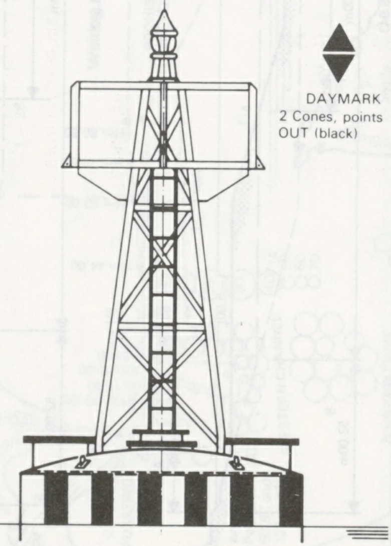
Characteristics
Port Said: East Channel- Flash Red
West Channel- Fixed Red
Suez: Sea Channel- Flash Red

CANAL BUOY

Daymark:-
(1) East side- White with black boundary
(2) West side- White with red boundary
(3) End of islands- Black and Red horizontal bands



Characteristics:- East-Fixed Green
West-Fixed Red
End of Islands: Flash White



Fairway Buoy:- Yellow-Black vertical bands
Characteristic:- Gp. Fl. W. (3) 10 sec.

Article 94: Visual Signals

(A) ***Signals hoisted to vessels in Port Said Harbour***
(at the automatic signals mast or from the watch tower)

1. General Signals
Reduce speed – Attention – Movement suspension and authorisation – Cancel previous signal – Passage free for benzene ships
Authorisation and interdiction to get underway
2. Numerals
3. Berths signals

(B) ***Signals made by the pilot vessel at Port Said and Suez***

(C) ***Signals displayed on stations signals masts to vessels***
Signal No.
1. Stand by to proceed (general)
2. Proceed (general)
3. Stand by to make fast (signal mast Km. 18)
4. Make fast (signal mast Km. 18)
5. Attention
6. Immediate stopping
7. Make fast (vessels from North)
8. Make fast (vessels from South)
9. Proceed (vessels from North)
10. Proceed (vessels from South)
11. Current signal
12. Port closed
13. W/T watch (vessels from North)
14. W/T watch (vessels from South)
15. Passage authorisation (ferry boats)
16. Isolated signal station

(D) ***Special signals used by vessels in ports and in the Canal***
1. Vessels carrying bulkpetroleum flash point between 73°F. and 150°F.
2. Vessels carrying explosives – Not Gas Free
3. Vessels carrying bulk petroleum flash point under 73°F.
4. Vessels carrying radioactive substances
5. I require a Pilot
6. I require Free Pratique
7. Coming from infected port
8. Under quarantine
9. Tug required (in ports)
10. Mooring boats
11. Searchlight
12. Last in convoy
13. Making fast
14. Vessel manoeuvring to sea
15. Vessel manoeuvring to Canal
16. Voluntary stopping (G.V.)
17. Aground
18. I have a Pilot
    a. On board
    b. To disembark

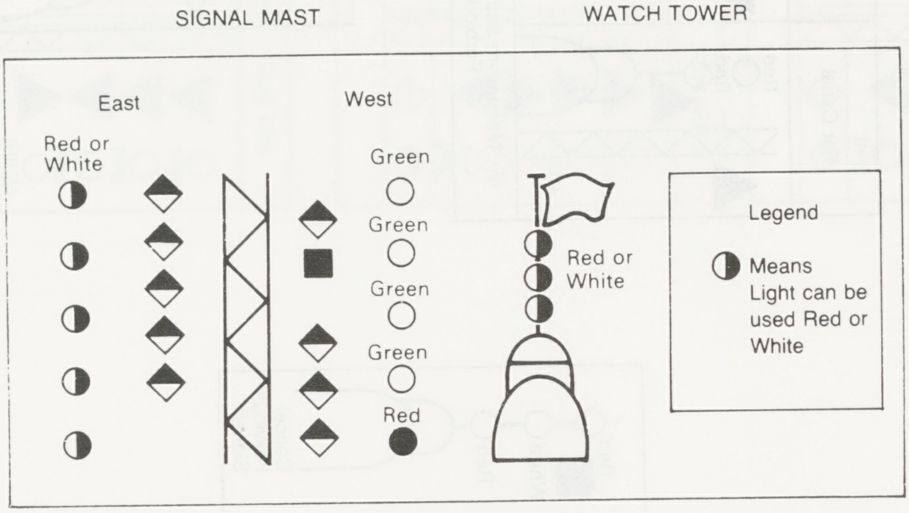
(E) ***Signals used by dredgers***
(1) Dredgers working underway
Signal No.
1. Dredging underway
2. Passage clear on side shown
3. Passage clear on both sides
4. Passing not allowed on either side
5. I am going about
6. I am not under command

(2) Stationary dredgers and floating equipment
Signal No.
7. Passage clear on side shown
8. Passage clear on both sides
9. Passage clear on side shown, with speed reduction
4. Passing not allowed on either side
10. Passing not allowed: manoeuvring to clear passage
6. I am not under command – passing not allowed

PORT SAID:

(A) *Signals made to vessels*

1. Signals are made from the Automatic Signal Mast or from the Watch Tower (vigie).
2. All signals are shown as they are seen by vessels coming from Sea.


SIGNAL MAST
WATCH TOWER
East
West
Red or White
Green
Green
Green
Green
Red
Red or White
Legend
◑ Means Light can be used Red or White

3. The top triangle (or by night the top light) of the Eastern Side of the mast indicates to which vessels the signal is made.

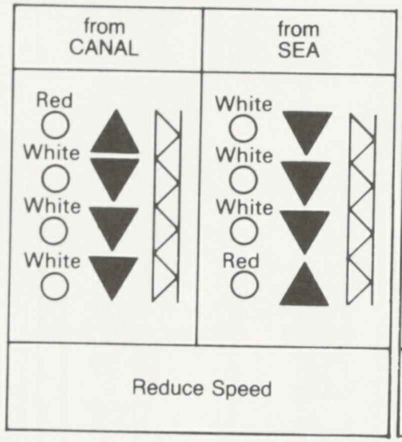
Pointing UP (by night a Red light). It means that the signal is made to vessels moving from:

"Port to Canal or Canal to Port".

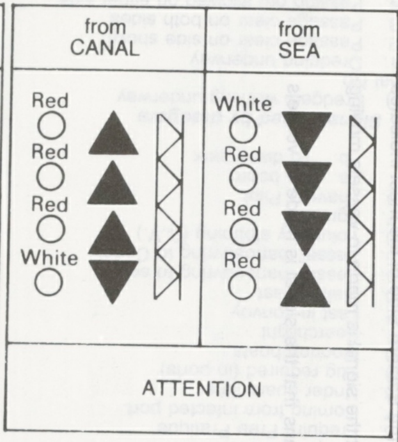
Pointing DOWN (by night a White light). It means that the signal is made to vessels moving from:

"Port to Sea or Sea to Port".

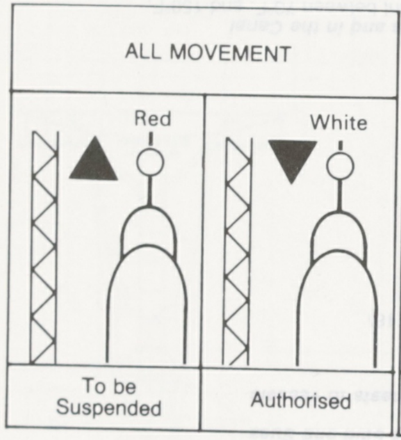
(1) General Signals


from CANAL
from SEA
Red
White
White
White
White
White
White
Red

Reduce Speed


from CANAL
from SEA
Red
Red
Red
White
White
Red
Red
Red

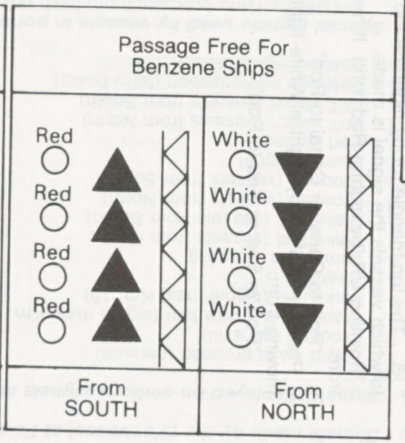
ATTENTION



ALL MOVEMENT

To be Suspended

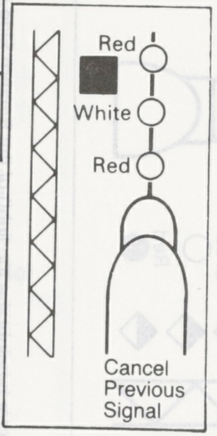
Authorised


Red
Red
Red
Red
White
White
White
White

Passage Free For Benzene Ships

From SOUTH

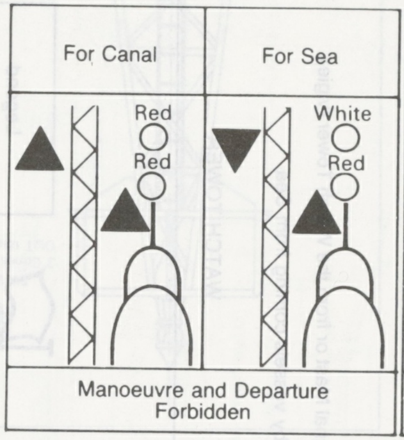
From NORTH


Red
White
Red

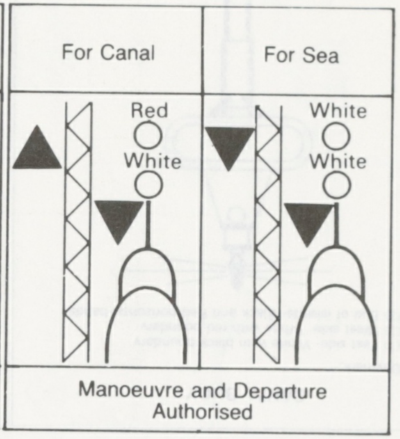
Cancel Previous Signal

(1) General Signals – *continued*

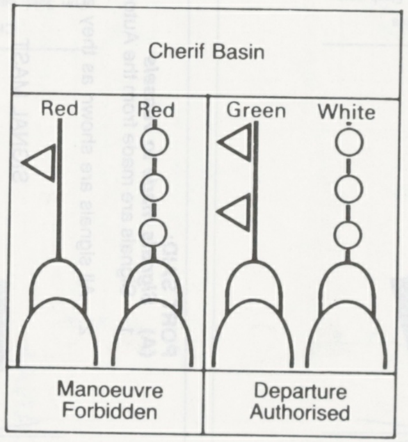
Authorisation and Interdiction to Get Underway


For Canal
For Sea
Red
Red
White
Red

Manoeuvre and Departure Forbidden


For Canal
For Sea
Red
White
White
White

Manoeuvre and Departure Authorised

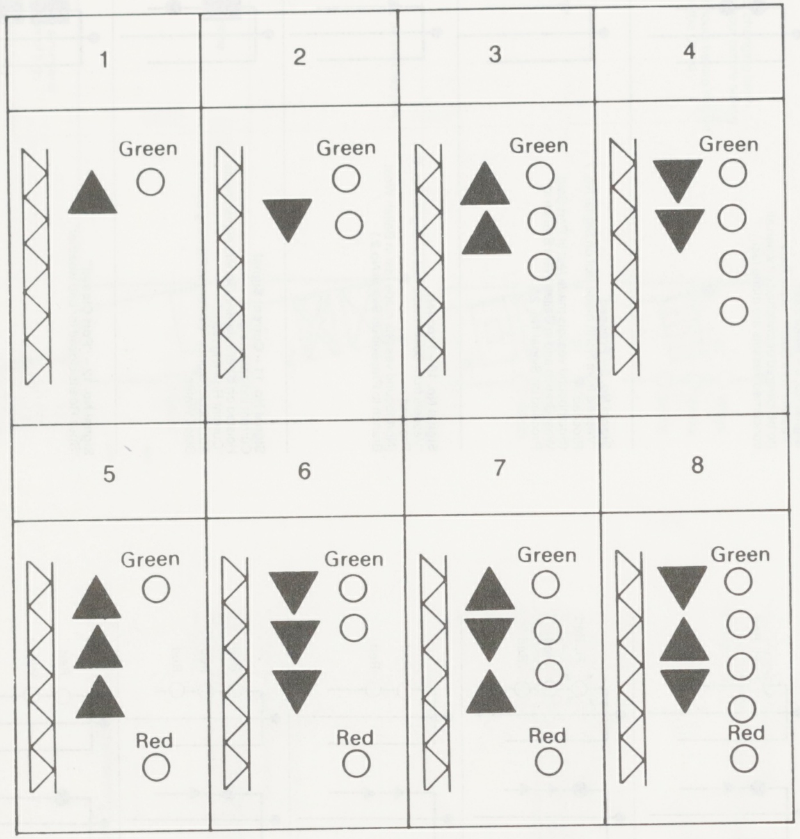

Red
Red
Green
White

Cherif Basin

Manoeuvre Forbidden

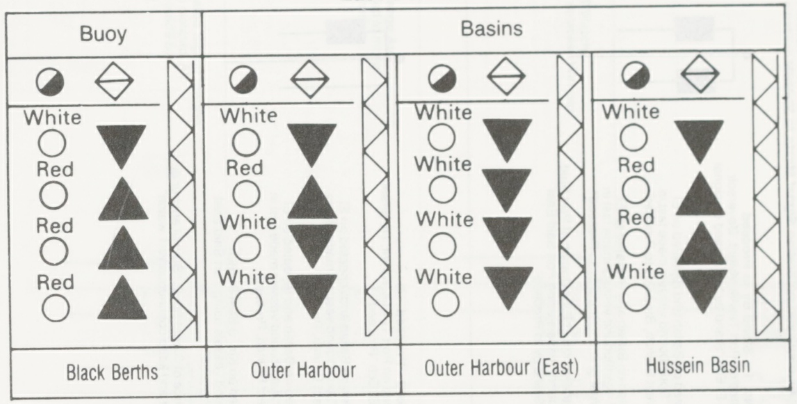
Departure Authorised

(2) Numerals

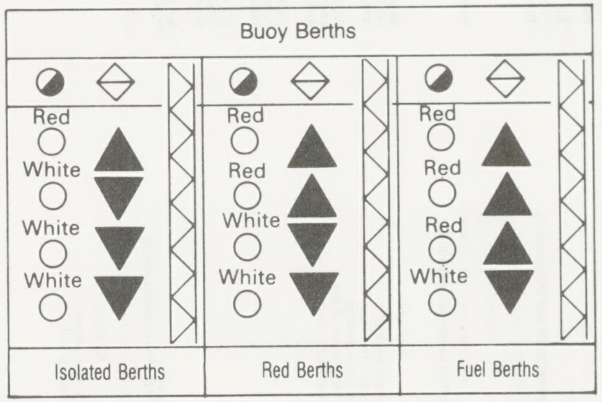

1
Green
2
Green
3
Green
4
Green
5
Green
Red
6
Green
Red
7
Green
Red
8
Green
Red

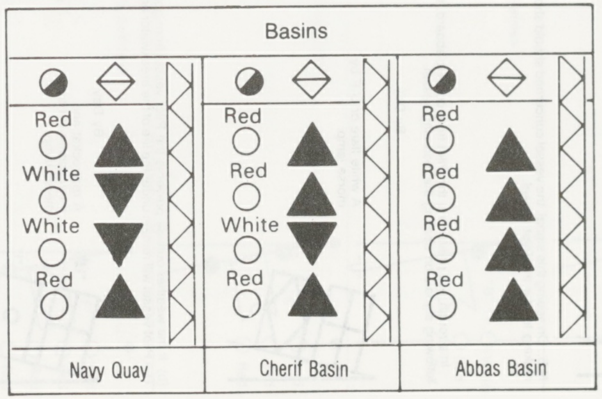
(3) Berths Signals

East Berths

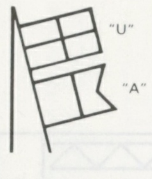

Buoy
Basins
White
Red
Red
Red
White
Red
White
White
White
White
White
White
White
Red
Red
White
Black Berths
Outer Harbour
Outer Harbour (East)
Hussein Basin

West Berths


Buoy Berths
Red
White
White
White
Red
Red
White
White
Red
Red
Red
White
Isolated Berths
Red Berths
Fuel Berths


Basins
Red
White
White
Red
Red
Red
White
Red
Red
Red
Red
Red
Navy Quay
Cherif Basin
Abbas Basin

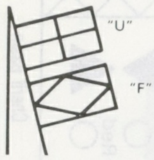
(B) ***Signals to be made in Port Said and Port of Suez by the Pilot vessel***
(a) If the weather outside does not prevent the Pilot vessel from going out.



By Day	By Night
A white rocket or U A flashed in morse.	A Pilot vessel is going out to you.

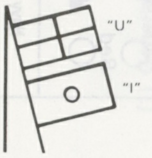
N.B.: On seeing this signal, the vessel concerned should shorten her cable and endeavour to make a lee for the Pilot vessel.

In a rough sea preventing the Pilot from coming aboard, the Pilot vessel will make the following signals on nearing the incoming vessel.



By Day	By Night
A white flare or U F by morse lamp.	Follow the Pilot vessel. The Pilot will come aboard under the lee of the breakwater.

(b) If the weather outside prevents the Pilot vessel from going out.
The Pilot vessel will remain under the lee of the breakwater and make the following signals.



By Day	By Night
A red rocket and if necessary U I by morse lamp.	The Pilot vessel cannot go out.

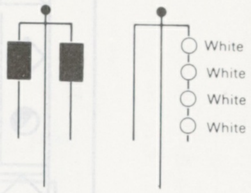
(C) ***Signals displayed on Station Signal Masts to Vessels***

Signal No. 1 – Stand by to Proceed
(a) Hoisted on Port Tewfik, Kabrit, Deversoir and Ras El Ech "Stand by to Proceed on signal No. 2".

(b) Hoisted on Ballah and repeated on El Ferdan. "Southbound vessels made fast in Ballah West Branch, Stand by to Proceed".

(c) Hoisted on Ballah and repeated on El Kantara. "Northbound vessels made fast in Ballah West Branch, Stand by to Proceed".

(d) Hoisted on Km. 3 East Branch of Port Said. "Southbound Vessels using Port Said East Branch, Stand by to Proceed".



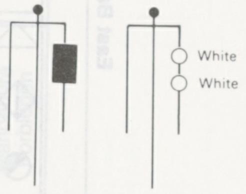
Signal No. 2 – Proceed
(a) Hoisted on Port Tewfik, Kabrit, Deversoir and Ras El Ech "Proceed".

(b) Hoisted on Ballah and repeated on El Ferdan. "Southbound vessels made fast in Ballah West Branch, Proceed".

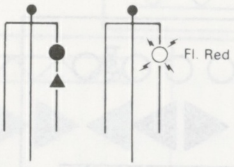
(c) Hoisted on Ballah and repeated on El Kantara. "Northbound vessels made fast in Ballah West Branch, Proceed".

(d) Hoisted on Km. 3 East Branch. "Southbound vessels using Port Said East Branch, Proceed".

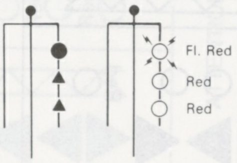
(e) Absence of Signal No. 2: "Stay at anchor or made fast and keep continuous W/T watch".



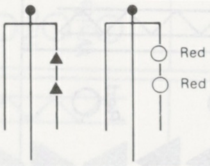
Signal No. 3 – Stand by to Make Fast
Hoisted at Km. 18 mast. "Southbound vessels made fast in West Branch Km. 4 to 14 and Northbound vessels already passed Tineh station, Stand by to make fast".



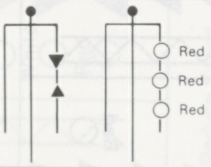
Signal No. 4 – Make Fast
Hoisted at Km. 18 mast. "Southbound vessels in Port Said East or West By-pass and Northbound vessels already passed Tineh station, Make Fast".



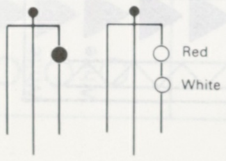
Signal No. 5 – "Attention"
"Southbound and Northbound vessels stand by to make fast or manoeuvre. Keep W/T watch immediately".



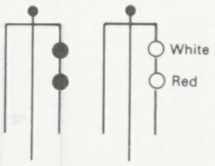
Signal No. 6 – Immediate Stopping
"Southbound and Northbound vessels make fast immediately".
Vessels may proceed when signal is lowered or switched off.



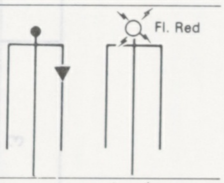
Signal No. 7 – Make Fast
"Vessels from North : Make Fast".
(to be lowered or switched off when all concerned vessels are made fast.)



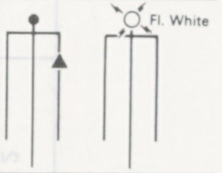
Signal No. 8 – Make Fast
"Vessels from South : Make Fast".
(to be lowered or switched off when all concerned vessels are made fast.)



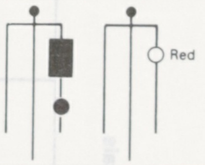
Signal No. 9 – Proceed
"Vessels from North made fast on Signal No. 7 : Proceed".
(Southbound vessels made fast in Port Said West Branch and in Ballah West Branch to Proceed on Signal No. 2.)



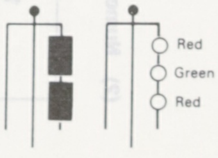
Signal No. 10 – Proceed
"Vessels from South made fast on Signal No. 8: Proceed".
(Northbound vessels made fast in Ballah West Branch to Proceed on Signal No.2.)



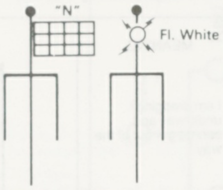
Signal No. 11 – Current Signal
Current indication signal.
Hoisted on Challoufa and Genefa signal masts: "Current Running North"
Absence of signal: "Current is Running South or Slack Water."



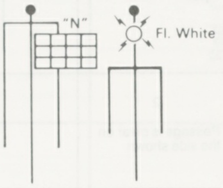
Signal No. 12 – "Port Closed"
"Suez Roads closed for bad weather".



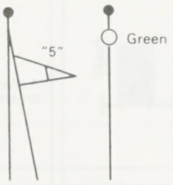
***Signal No. 13 – W/T Watch**
"Vessels from North establish Wireless Telegraphy Watch".



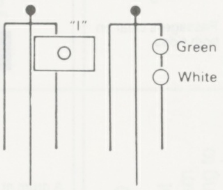
***Signal No. 14 – W/T Watch**
"Vessels from South establish Wireless Telegraphy Watch".



Signal No. 15 – Passage Authorisation
"Ferry Boat not allowed to move".
(By night: Light on wharf.)



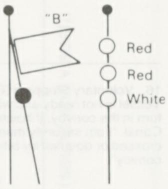
Signal No. 16 – Isolated Signal Station
"This signal station is isolated. All communications are made by Wireless Telegraphy".



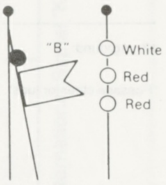
*Signals No. 13 and 14 can be used at the same time addressing both convoys from North and South.

(D) *Special Signals Used by Vessels in Ports and in the Canal*

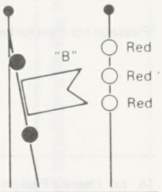
1. Oil tanker carrying bulk petroleum (flash point between 73° and 150°F).



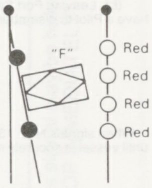
2. Vessels carrying 1st group dangerous goods.
Not Gas Free tankers.
LPG – LNG.
Dangerous chemicals in bulk.



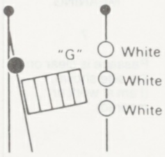
3. Petroleum in bulk. (Flash point below 73°F).



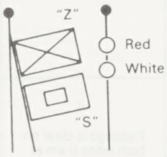
4. Vessels carrying Radio Active substances.



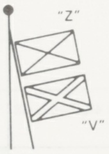
5. I require a Pilot.
N.B. 1. From port to Sea or changing berth, signal to be hoisted half an hour before sailing time.
2. For the Canal at least 2 hours before the 1st Vessel is expected to enter the Canal.



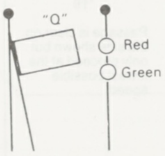
6. I require free pratique.



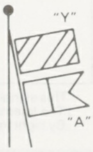
7. My vessel is coming from an infected port.



8. My vessel is under Quarantine.



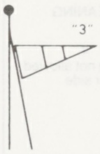
9. I require a tug (followed by a numeral pendant to indicate the number of tugs required).
By Night: A long blast on the whistle and letters "YA" flashed by morse lamp several times.



N.B. Signals Nos. 6, 7, 8, 9, 10 and 11 are to be used in Ports only.

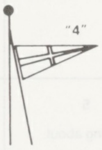
10. I have no mooring boats.

By Night: Numeral 3 flashed by morse lamp several times.

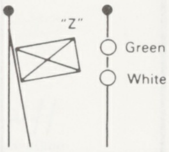


11. I have no shore searchlight.

By Night: Numeral 4 flashed by morse lamp several times. (Signals 10 and 11 can be used in ONE hoist if vessel has no mooring boats and searchlight).

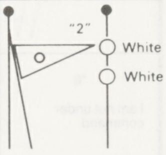


12. Last vessel in the convoy.

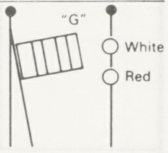


*13. The vessel is making fast.

N.B. In the Canal when made fast the 2 white lights are extinguished and a RED light put on aft all the time the vessel is moored until actually underway.

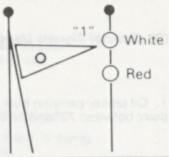


*14. The vessel is manoeuvring to get underway to sea.

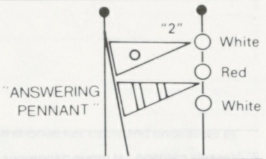


* When signals Nos. 13, 14 and 15 are hoisted, vessels are not authorised to overtake or cross until vessel is securely made fast and Signal No. 16 (G.V.) hoisted.
N.B. Signals Nos. 6, 7, 9, 10 and 11 are to be used in Ports only.

*15. The vessel is manoeuvring to get underway to the Canal.

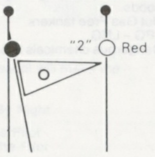


16. Voluntary Stopping (Garage Volontaire). Vessel is not ready and will not maintain her turn in the convoy. If hoisted by a vessel in the Canal: "I am securely made fast and can be crossed or doubled by other vessels in the convoy".

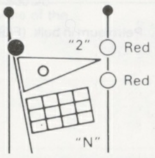


17. Aground:

"Passage clear for tugs".

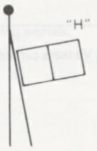


"Passage not clear for tugs"



18. (a) I have a Pilot on board.

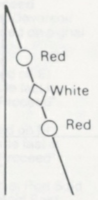
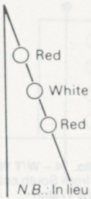
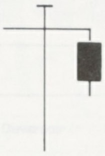
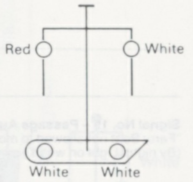
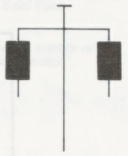
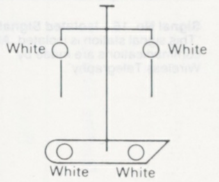
(b) Leaving Port Said and Port of Suez: "I have a Pilot to disembark".



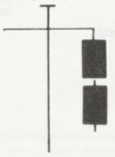
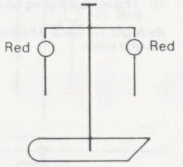
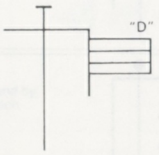
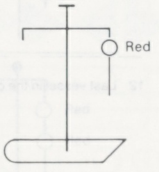
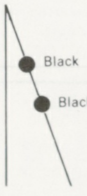
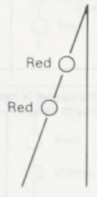
* When signals Nos. 13, 14 and 15 are hoisted, vessels are not authorised to overtake or cross until vessel is securely made fast and Signal No. 16 (G.V.) hoisted.

(E) *Signals used by dredgers in Canal Waters*

(1) Dredgers working underway

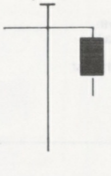
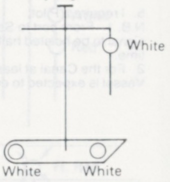
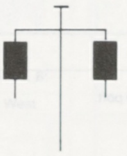
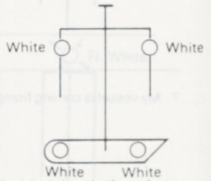
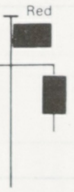
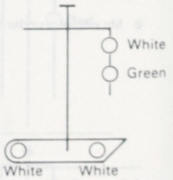
MEANING	by Day	by Night
1 I am dredging underway and cannot get out of the way.	 International Signal	 *N.B.*: In lieu of the white masthead light.
2 Passage is clear on the side shown	 A drum at the yard arm on the side on which the passage is clear.	 A white light at the yard arm on which the passage is clear. A red light at the yard arm on which the passage is not clear. Two white lights along the bulwark where passage is clear.
3 Passage is clear on both sides.	 A drum at both yard arms.	 A white light at both yard arms and two white lights along the bulwark on both sides.

(1) Dredgers working underway – *continued*

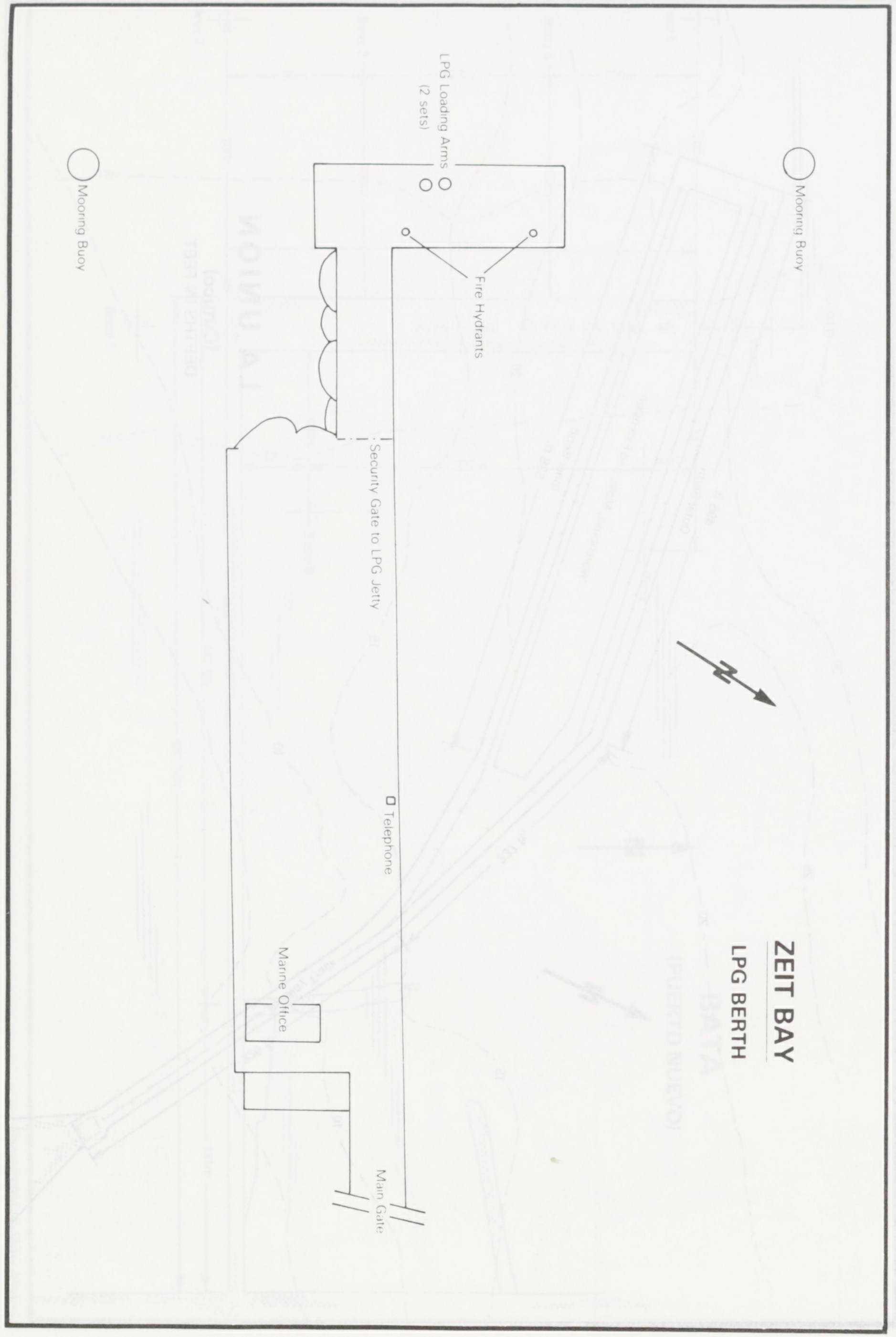
MEANING	by Day	by Night
4 Passing not allowed on either side.	 Two drums one over the other at the yard arm.	 A red light at both yard arms.
5 I am going about.	 Flag D hoisted at the yard arm on the side to which she is turning.	 A red light shown at the yard arm on the side to which she is turning. Signal IP by morse lamp.
*6 I am not under command.		
	International Signal	

*This signal may be hoisted together with the International signal K (sound and visual) meaning: "STOP IMMEDIATELY"

(2) Stationary dredgers, floating cranes, etc.

MEANING	by Day	by Night
7 Passage is clear on the side shown. (I am at work or moored).	 A drum at the yard arm on the side on which the passage is clear.	 A white light at the yard arm on the side on which the passage is clear. Two white lights along the bulwark on the side on which the passage is clear.
8 Passage is clear on both sides (I am at work).	 A drum at both yard arms.	 A white light at both yard arms. Two white lights along the bulwark on both sides.
*†9 Passage is clear on the side shown but only proceed at the lowest possible speed.	 A red flag at the masthead. A drum at the yard arm on the side on which the passage is clear.	 A white light over a green light on the side on which the passage is clear. Two white lights along the bulwark on the side on which the passage is clear.

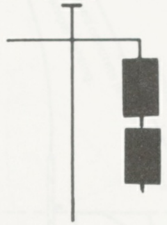
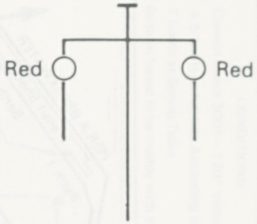
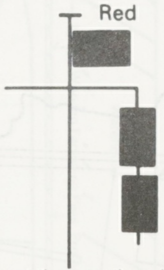
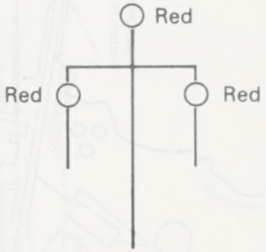
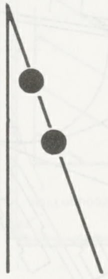
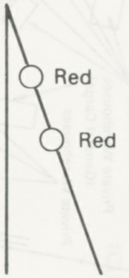
*This signal is also used by "Warehouse" string of barges.
†The International Signal TE may also be hoisted. In this case the decrease of speed is imperative. By night the imperative decrease of speed is shown on the Pilot's embarkation order.


LPG Loading Arms
(2 sets)
Mooring Buoy
Mooring Buoy
Fire Hydrants
Security Gate to LPG Jetty
Telephone
Marine Office
Main Gate
N

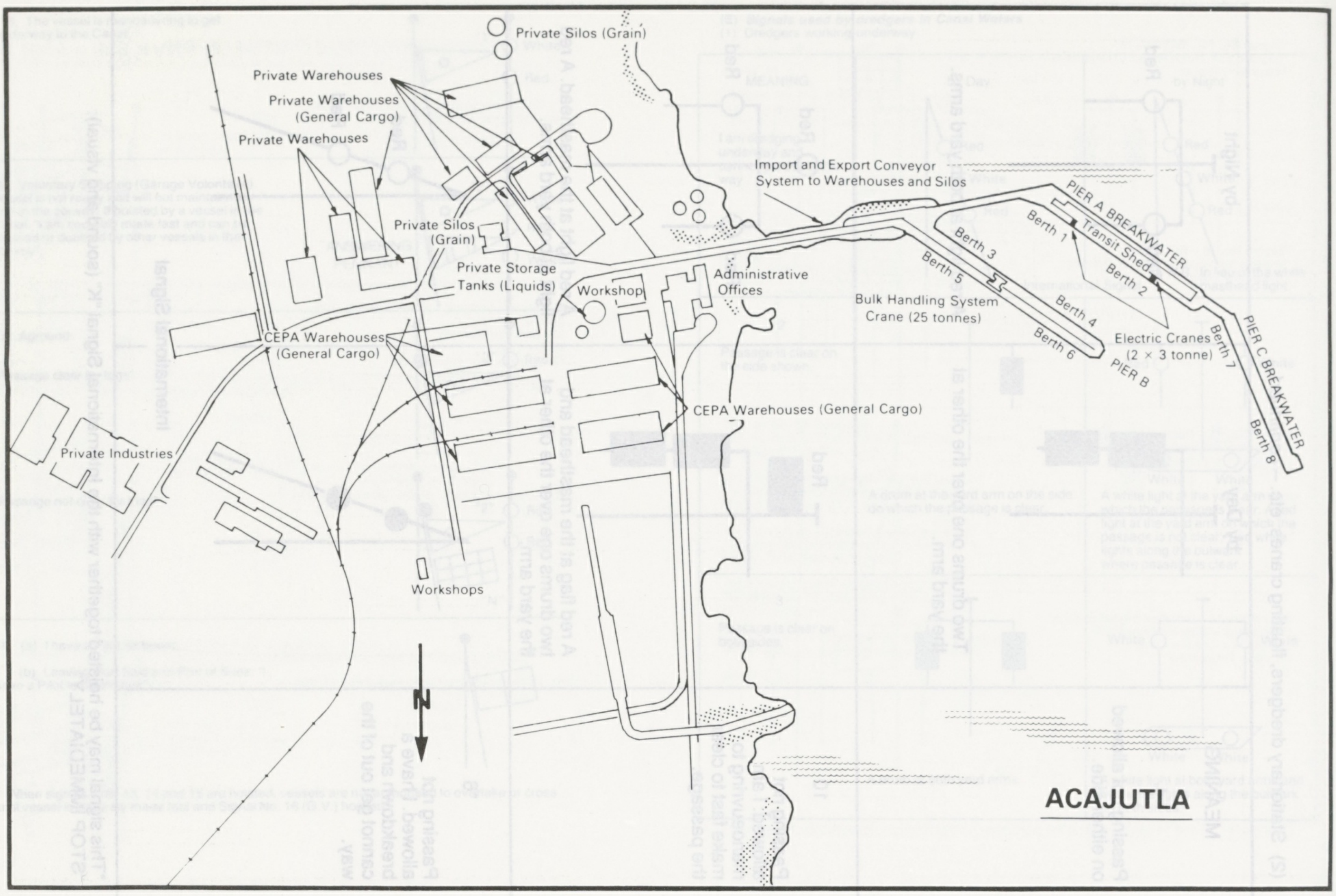
ZEIT BAY

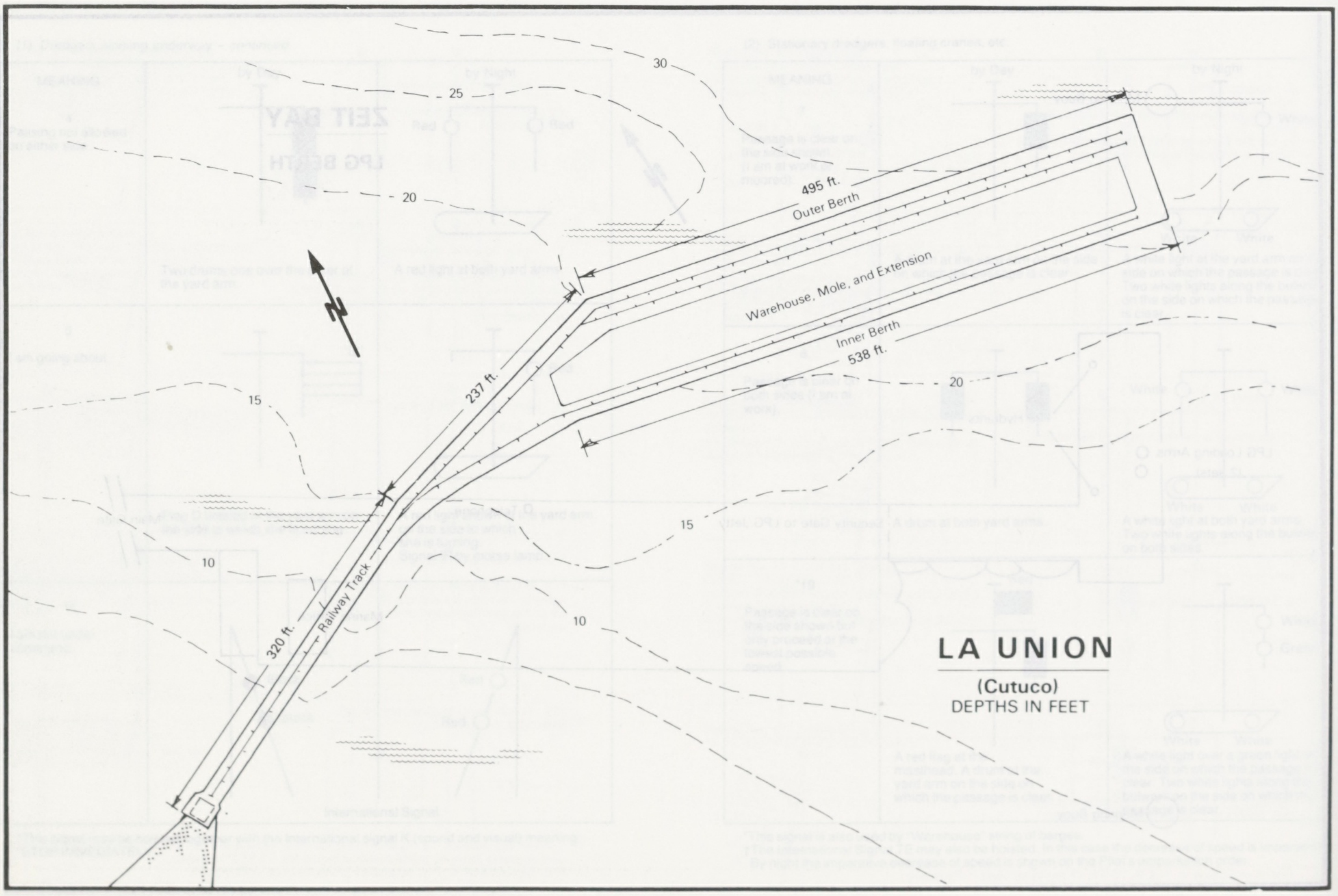
LPG BERTH

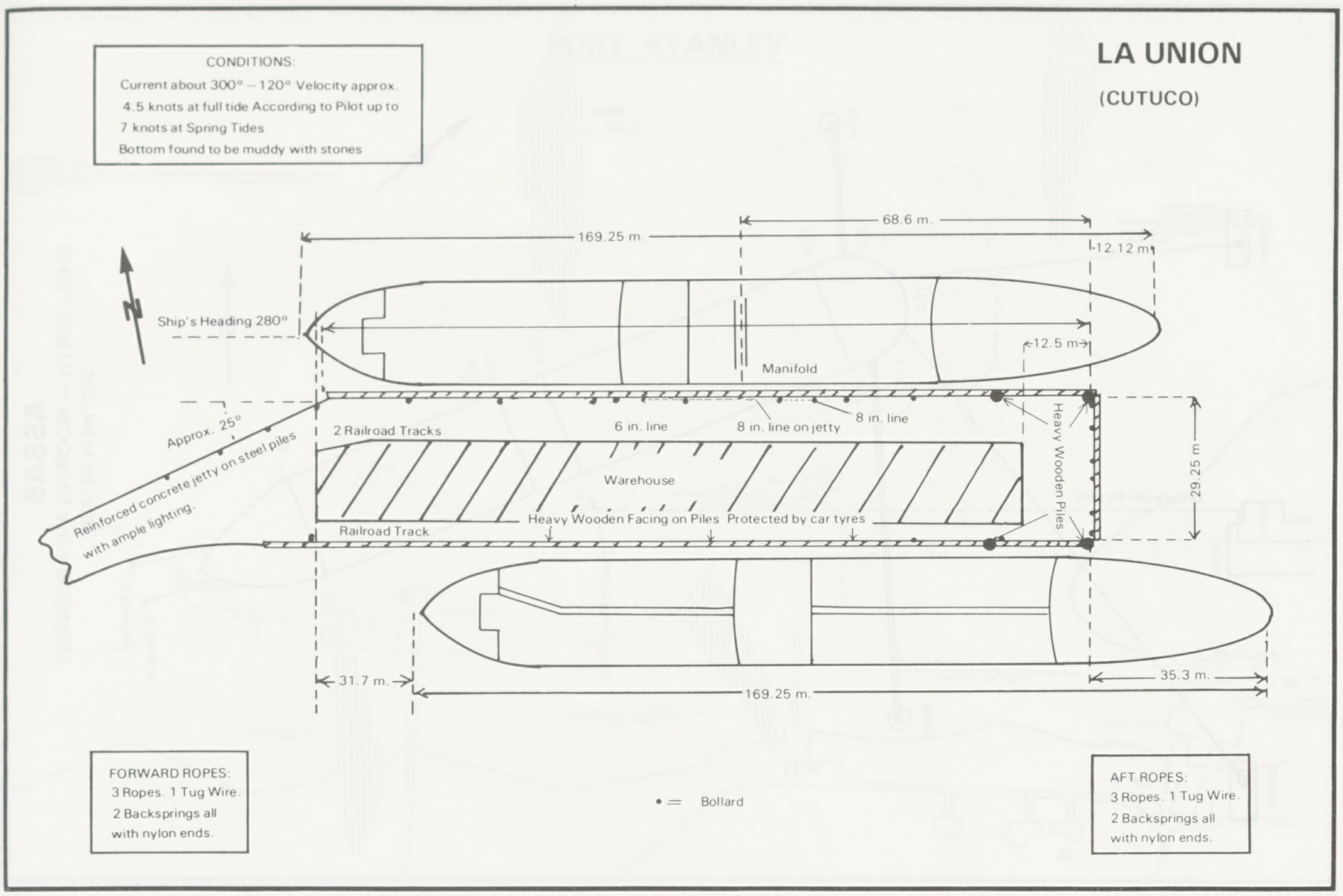
(2) Stationary dredgers, floating cranes, etc. – *continued*

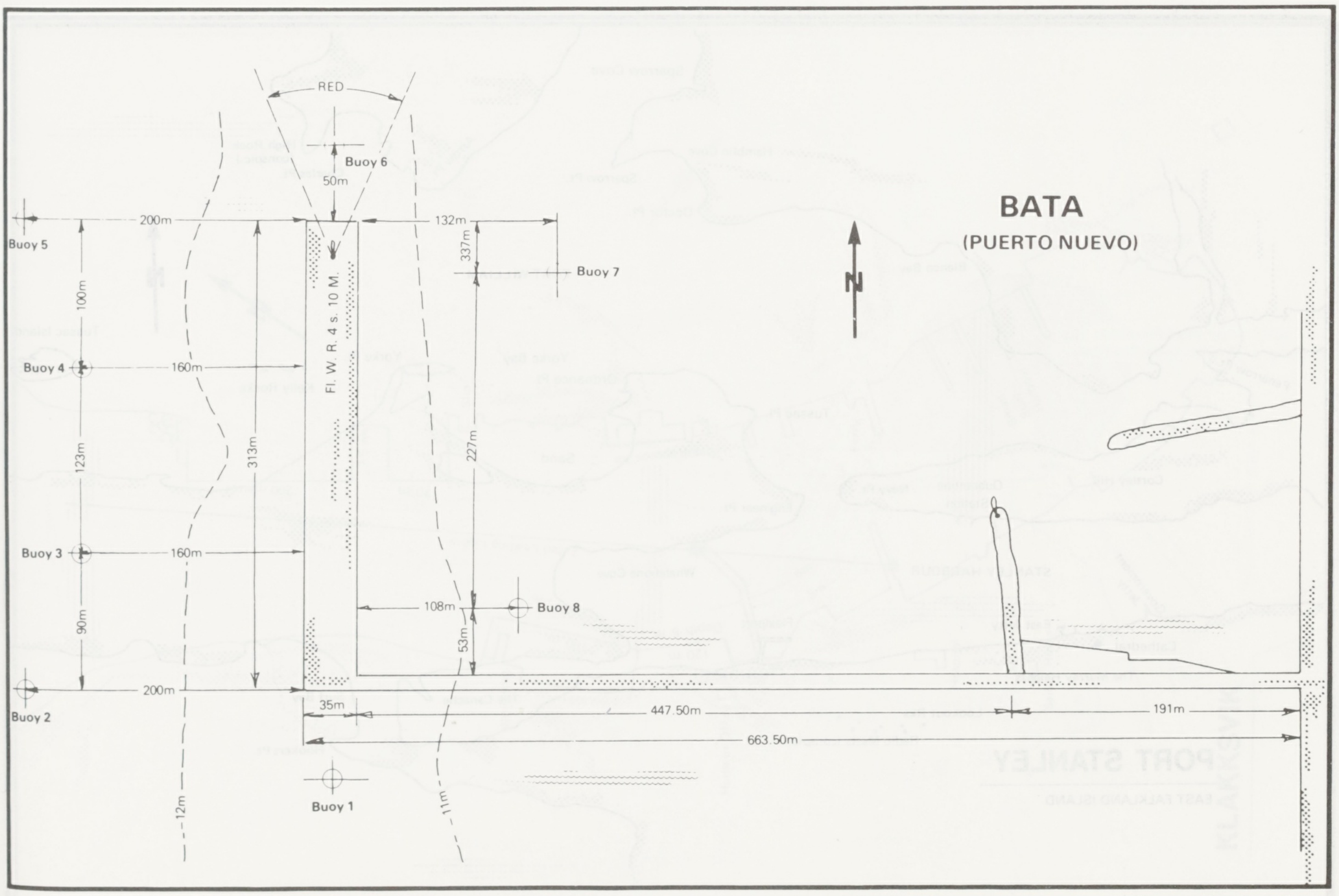
MEANING	by Day	by Night
4 Passing not allowed on either side.	 Two drums one over the other at the yard arm.	 A red light at both yard arms.
10 Passing not allowed: I am manoeuvring to make fast to clear the passage.	 A red flag at the masthead and two drums one over the other at the yard arm.	 A red light at the masthead. A red light at both yard arms.
*6 Passing not allowed. I have a breakdown and cannot get out of the way.		
	International Signal	

*This signal may be hoisted together with the International Signal "K" (sound and visual): "STOP IMMEDIATELY".

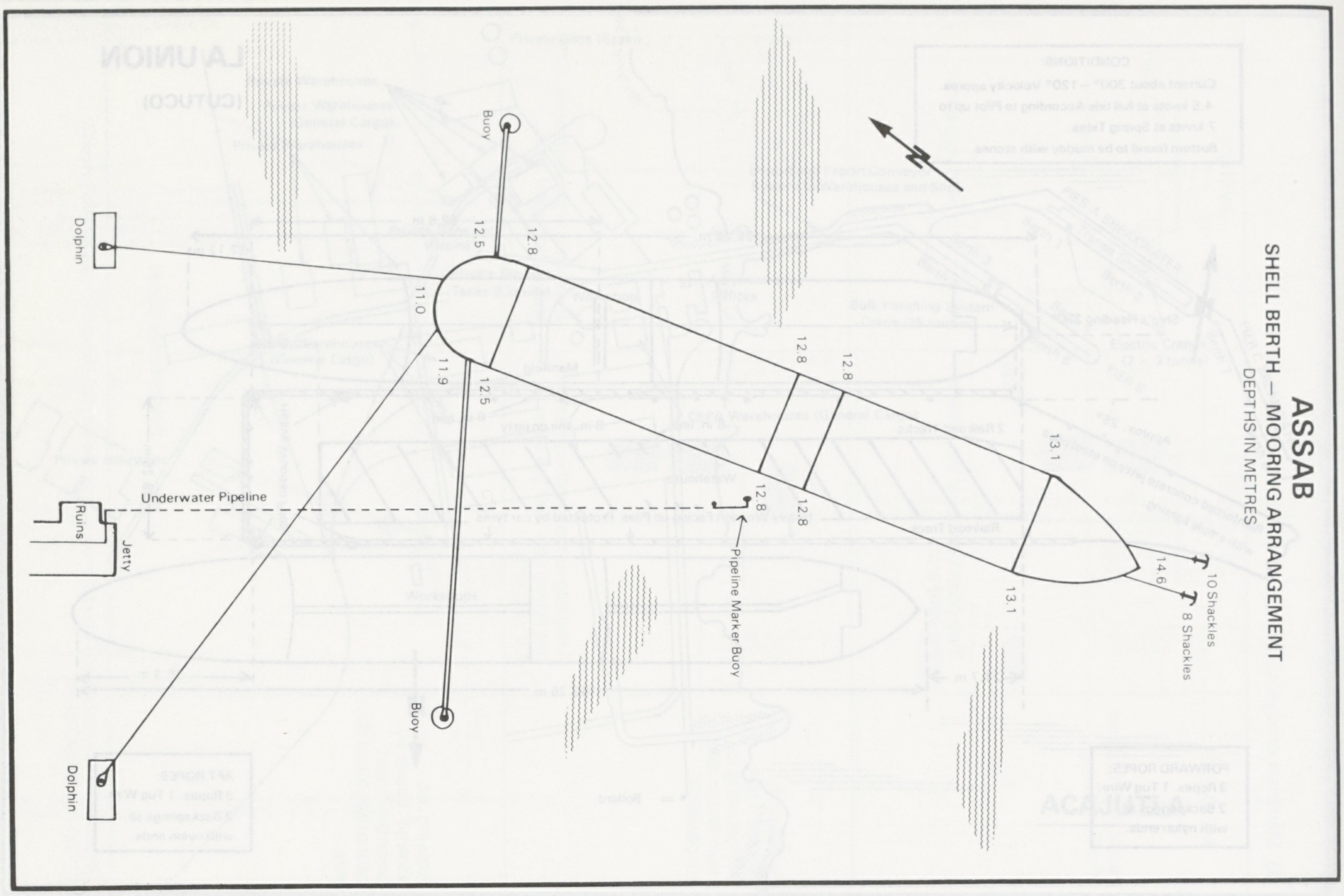

Private Silos (Grain)
Private Warehouses
Private Warehouses (General Cargo)
Private Warehouses
Import and Export Conveyor System to Warehouses and Silos
PIER A BREAKWATER
Berth 1
Transit Shed
Berth 2
Berth 3
Berth 5
Berth 4
Berth 6
PIER B
Electric Cranes (2 × 3 tonne)
Berth 7
PIER C BREAKWATER
Berth 8
Private Silos (Grain)
Private Storage Tanks (Liquids)
Workshop
Administrative Offices
Bulk Handling System Crane (25 tonnes)
CEPA Warehouses (General Cargo)
CEPA Warehouses (General Cargo)
Private Industries
Workshops
N
ACAJUTLA


30
25
20
495 ft.
Outer Berth
Warehouse, Mole, and Extension
Inner Berth
538 ft.
20
N
237 ft.
15
15
10
Railway Track
320 ft.
10
LA UNION
(Cutuco)
DEPTHS IN FEET


LA UNION
(CUTUCO)
CONDITIONS:
Current about 300° – 120° Velocity approx. 4.5 knots at full tide According to Pilot up to 7 knots at Spring Tides
Bottom found to be muddy with stones
169.25 m.
68.6 m.
12.12 m
Ship's Heading 280°
N
12.5 m
Manifold
Approx. 25°
2 Railroad Tracks
6 in. line
8 in. line on jetty
8 in. line
Heavy Wooden Piles
29.25 m
Reinforced concrete jetty on steel piles with ample lighting.
Warehouse
Heavy Wooden Facing on Piles Protected by car tyres
Railroad Track
31.7 m.
169.25 m.
35.3 m.
FORWARD ROPES:
3 Ropes. 1 Tug Wire.
2 Backsprings all with nylon ends.
• = Bollard
AFT ROPES:
3 Ropes. 1 Tug Wire.
2 Backsprings all with nylon ends.


BATA
(PUERTO NUEVO)
N
RED
Buoy 6
50m
200m
132m
Buoy 5
337m
Buoy 7
100m
Buoy 4
160m
Fl. W. R. 4 s. 10 M.
123m
313m
227m
Buoy 3
160m
108m
Buoy 8
90m
53m
200m
Buoy 2
35m
447.50m
191m
663.50m
Buoy 1
12m
11m

"Plan supplied by Ship's Master"

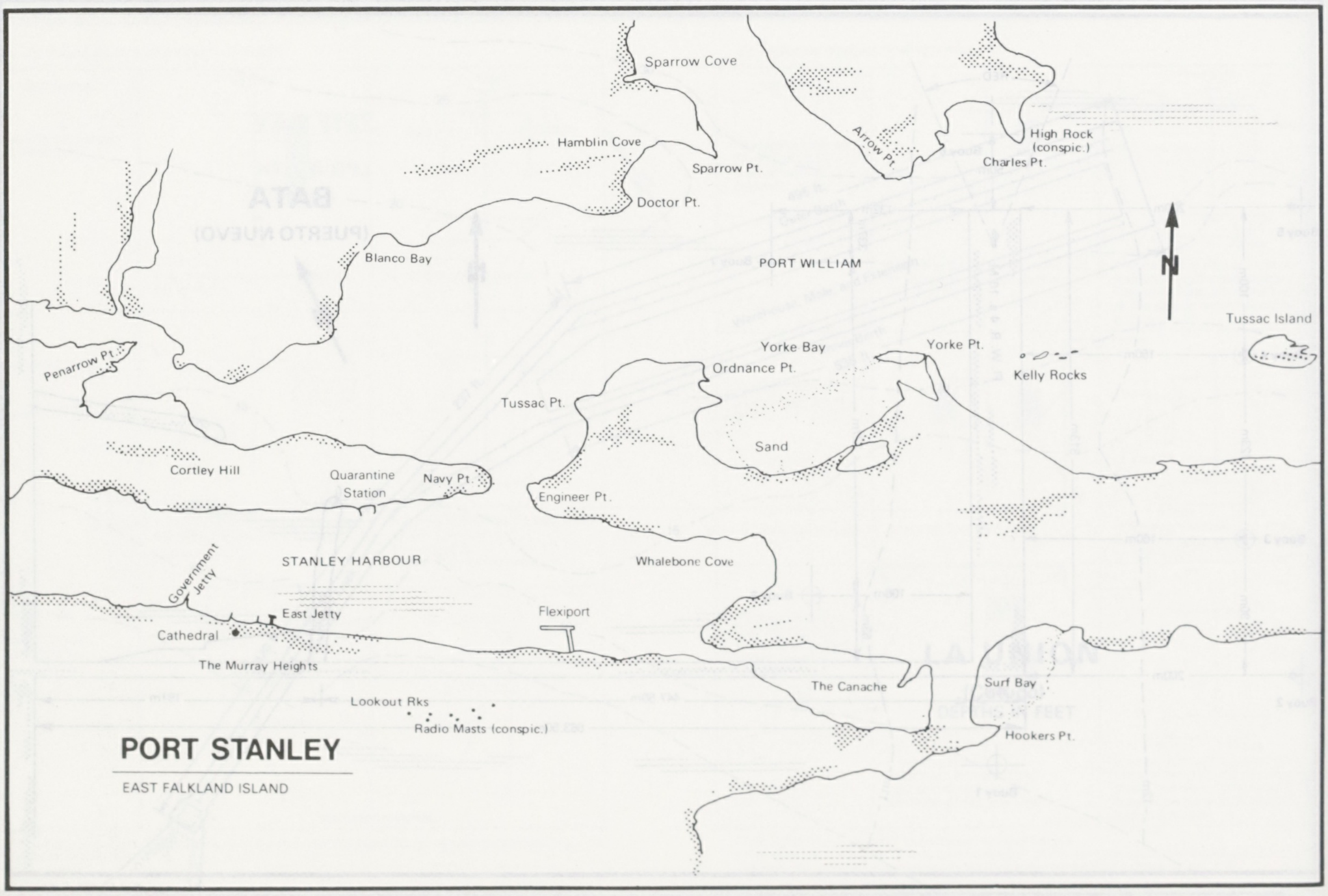


ASSAB

SHELL BERTH – MOORING ARRANGEMENT

DEPTHS IN METRES

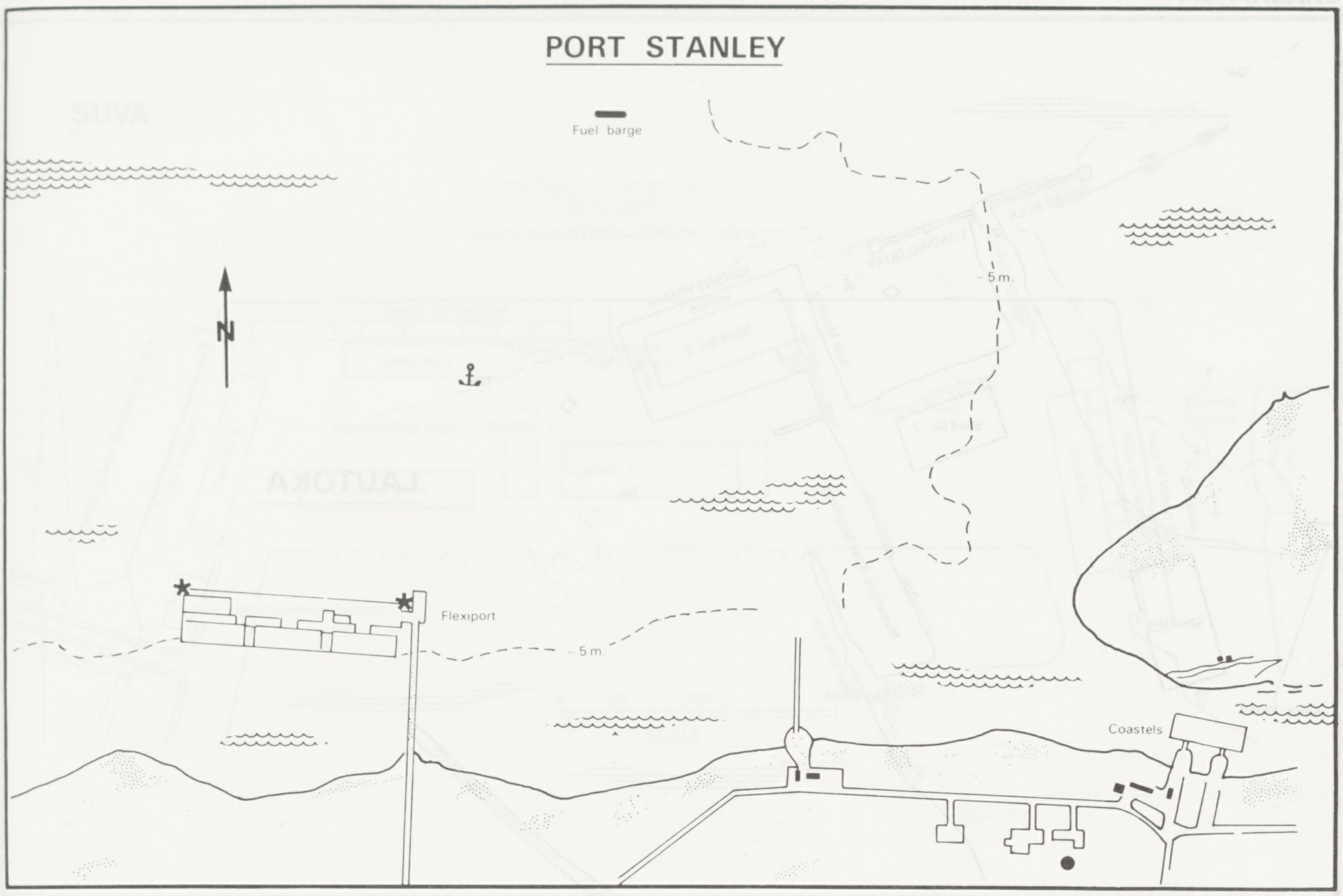
Buoy
Dolphin
12.5
12.8
11.0
11.9
12.5
12.8
12.8
13.1
Underwater Pipeline
Ruins
Jetty
12.8
12.8
Pipeline Marker Buoy
13.1
14.6
10 Shackles
8 Shackles
Buoy
Dolphin

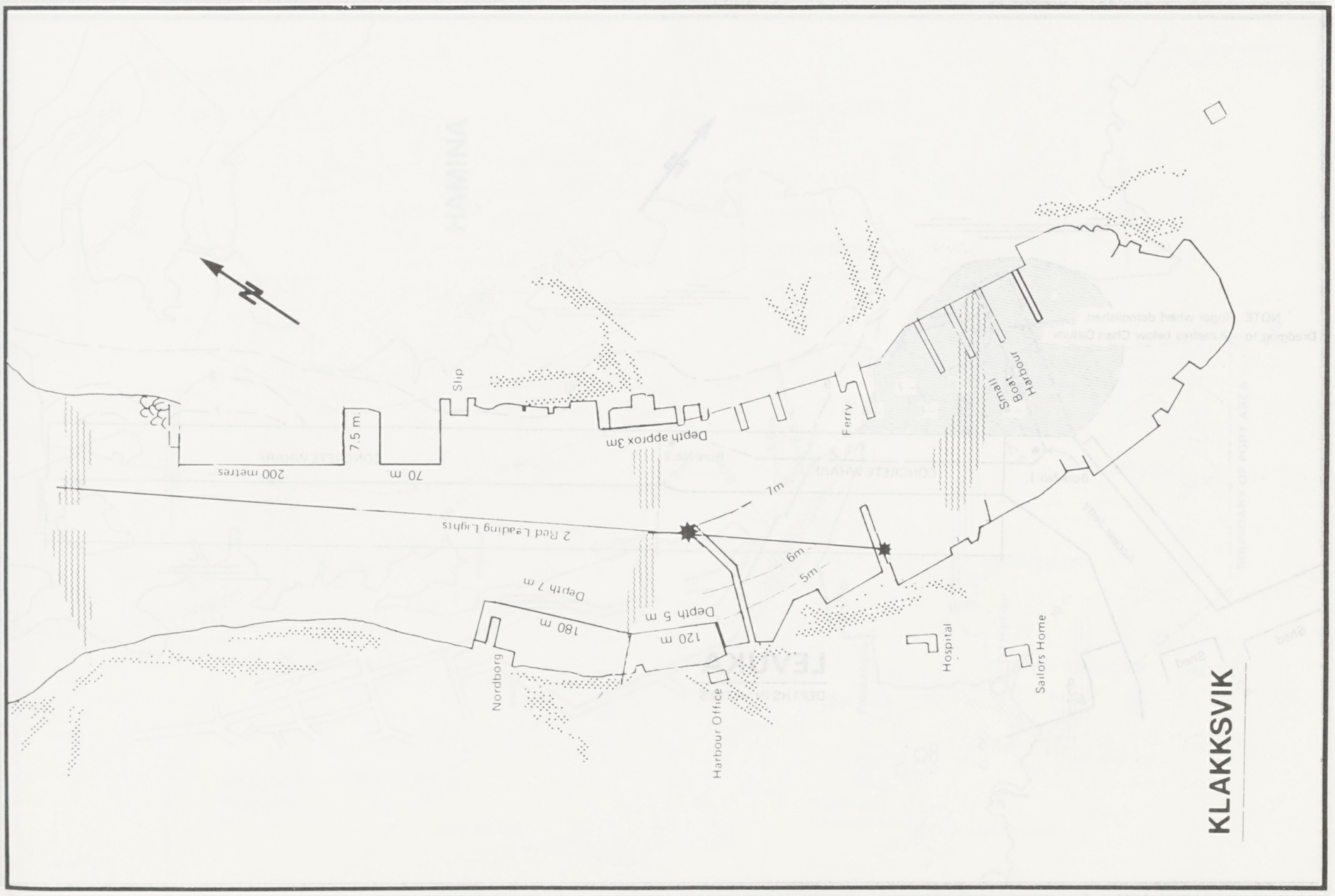


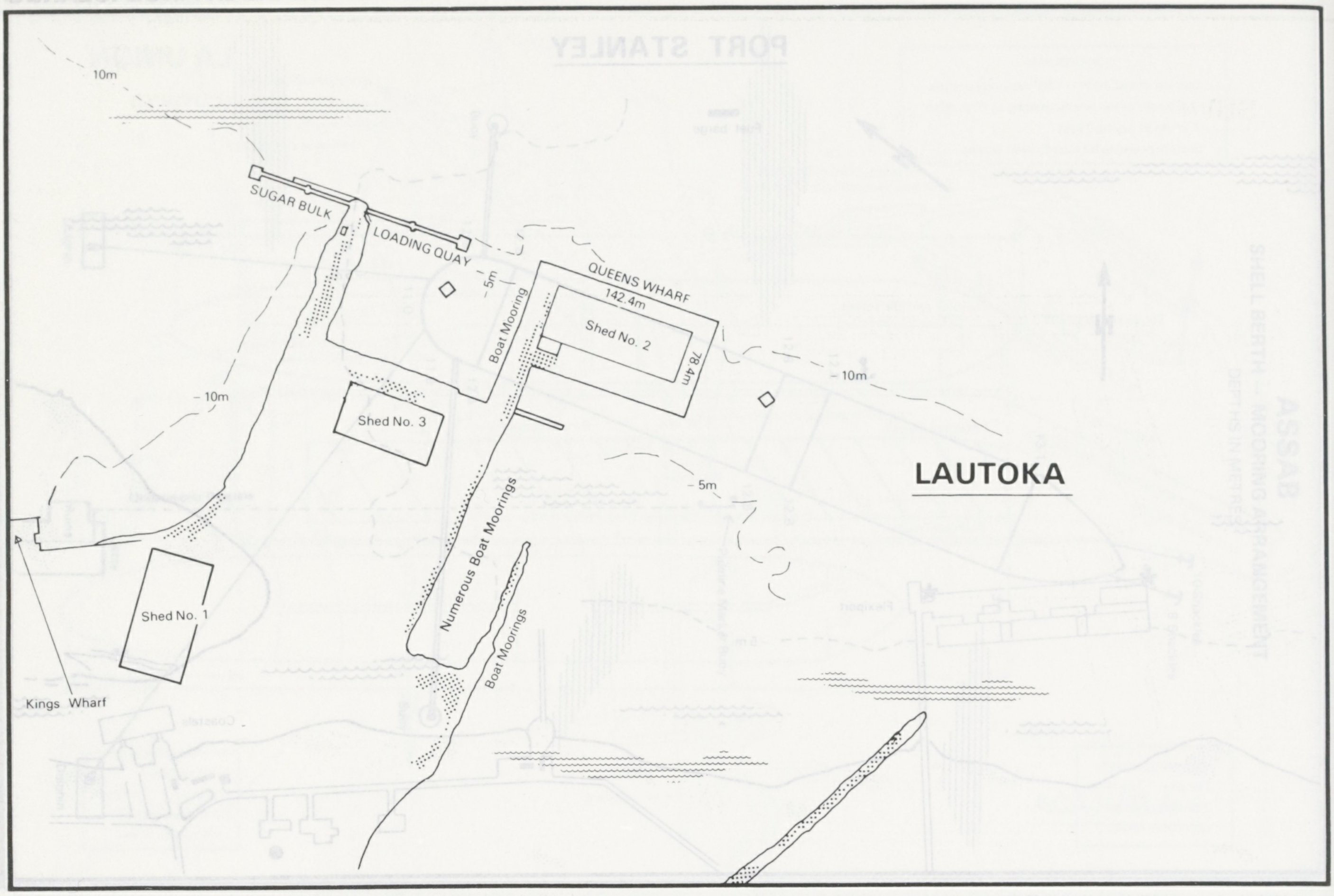
PORT STANLEY

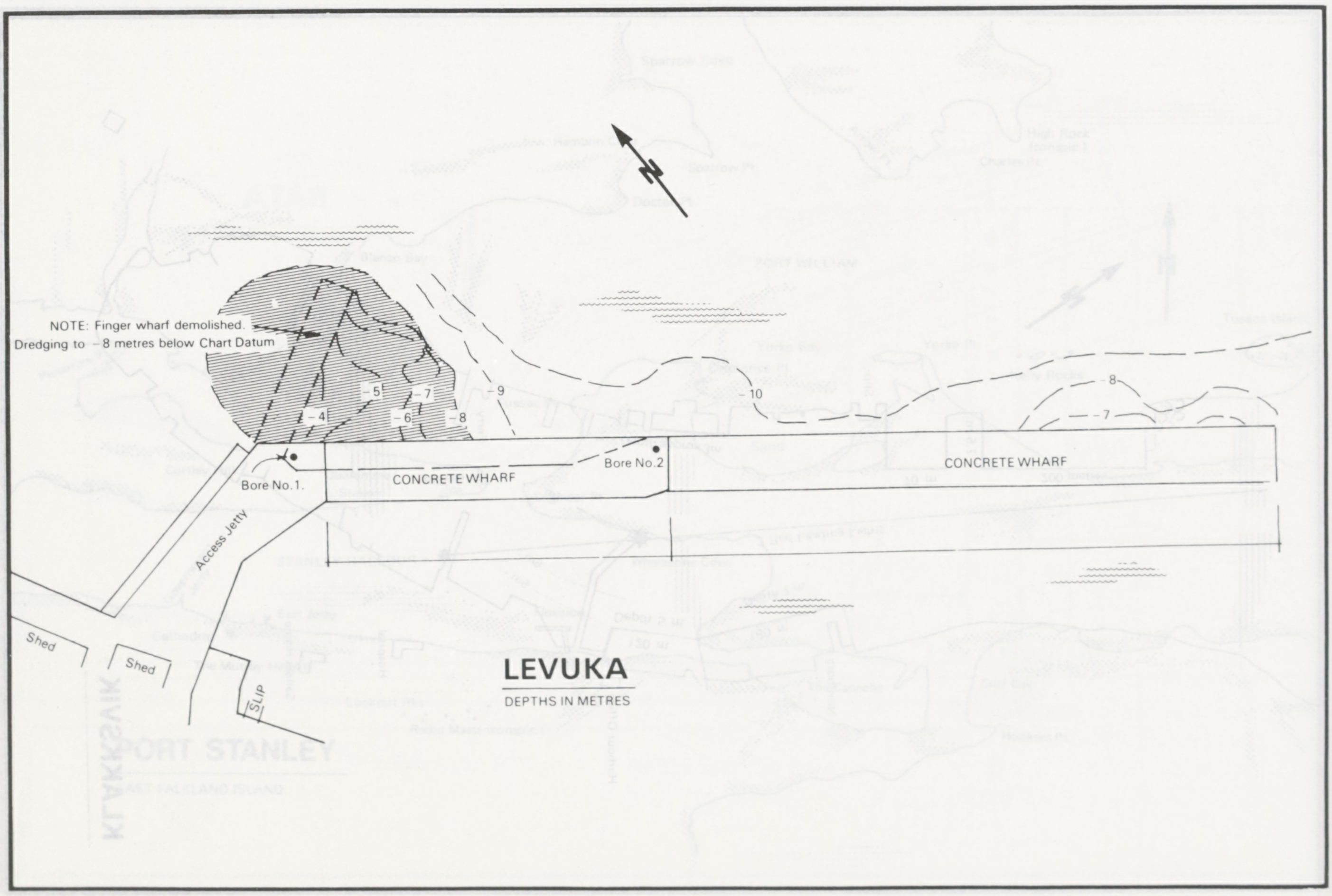
EAST FALKLAND ISLAND

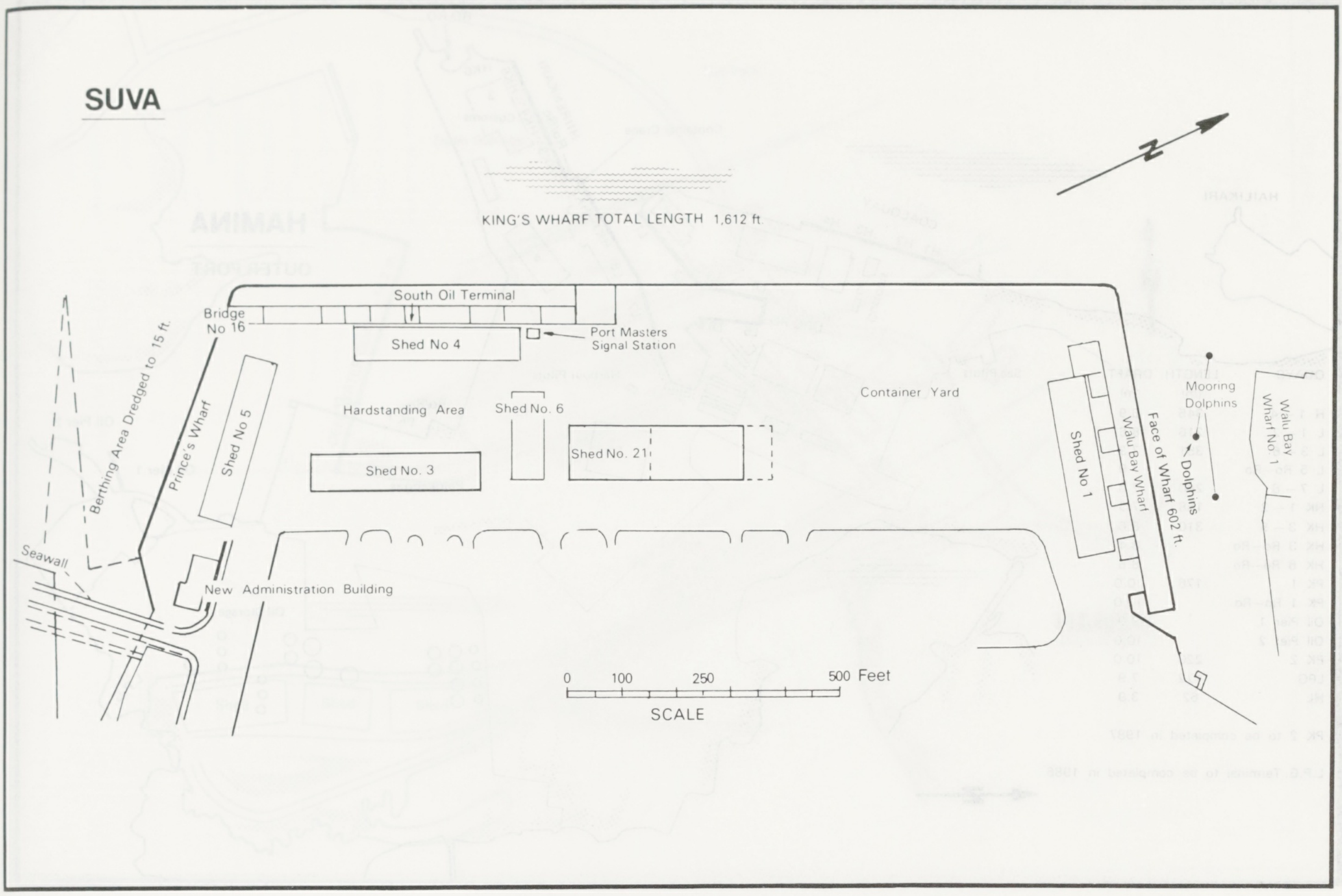
Sparrow Cove
Hamblin Cove
Sparrow Pt.
Doctor Pt.
Arrow Pt.
High Rock (conspic.)
Charles Pt.
Blanco Bay
PORT WILLIAM
N
Tussac Island
Penarrow Pt.
Yorke Bay
Ordnance Pt.
Yorke Pt.
Kelly Rocks
Tussac Pt.
Sand
Cortley Hill
Quarantine Station
Navy Pt.
Engineer Pt.
STANLEY HARBOUR
Whalebone Cove
Government Jetty
East Jetty
Flexiport
Cathedral
The Murray Heights
The Canache
Surf Bay
Lookout Rks
Radio Masts (conspic.)
Hookers Pt.

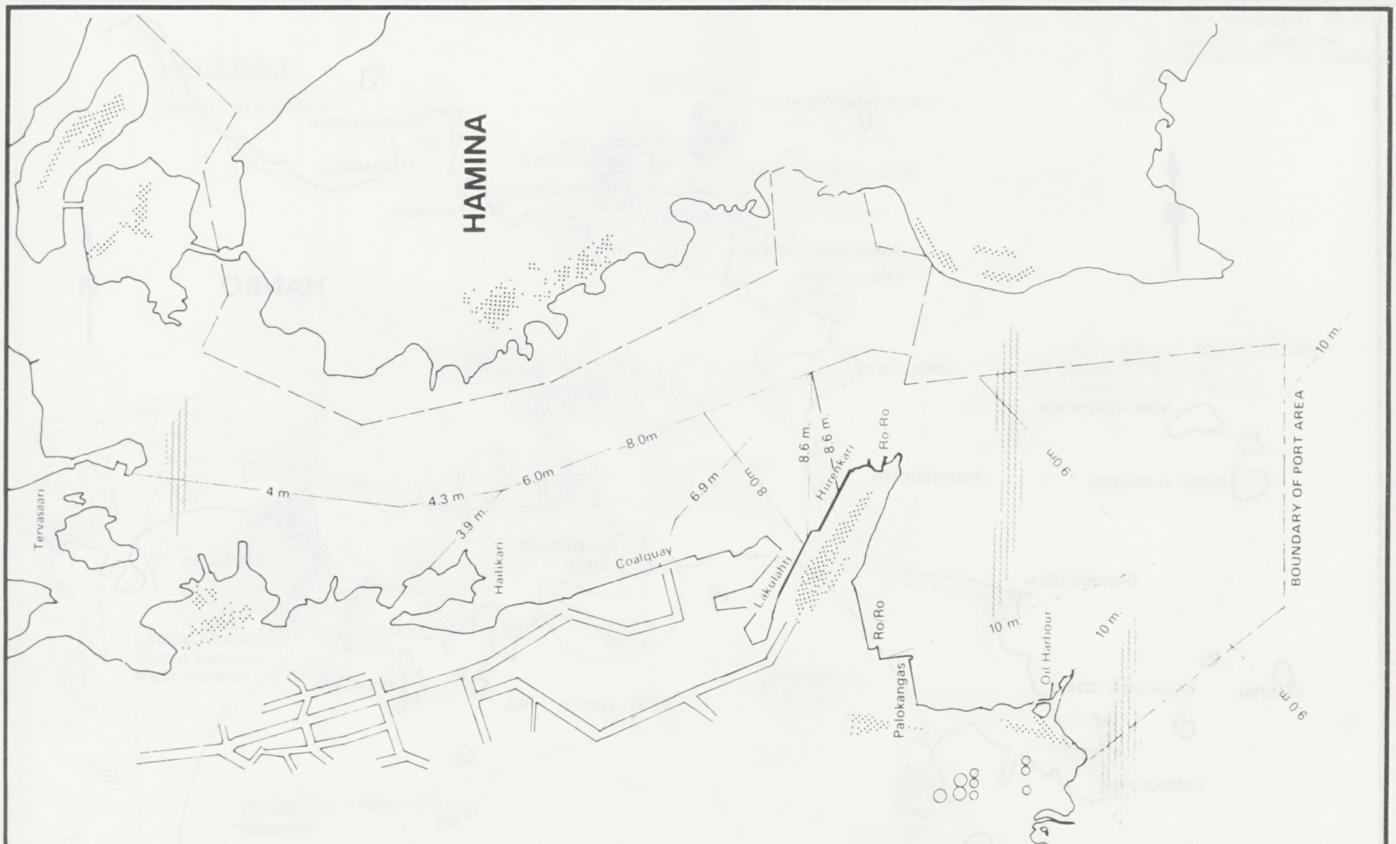

PORT STANLEY
Fuel barge
N
– 5 m.
Flexiport
– 5 m.
Coastels

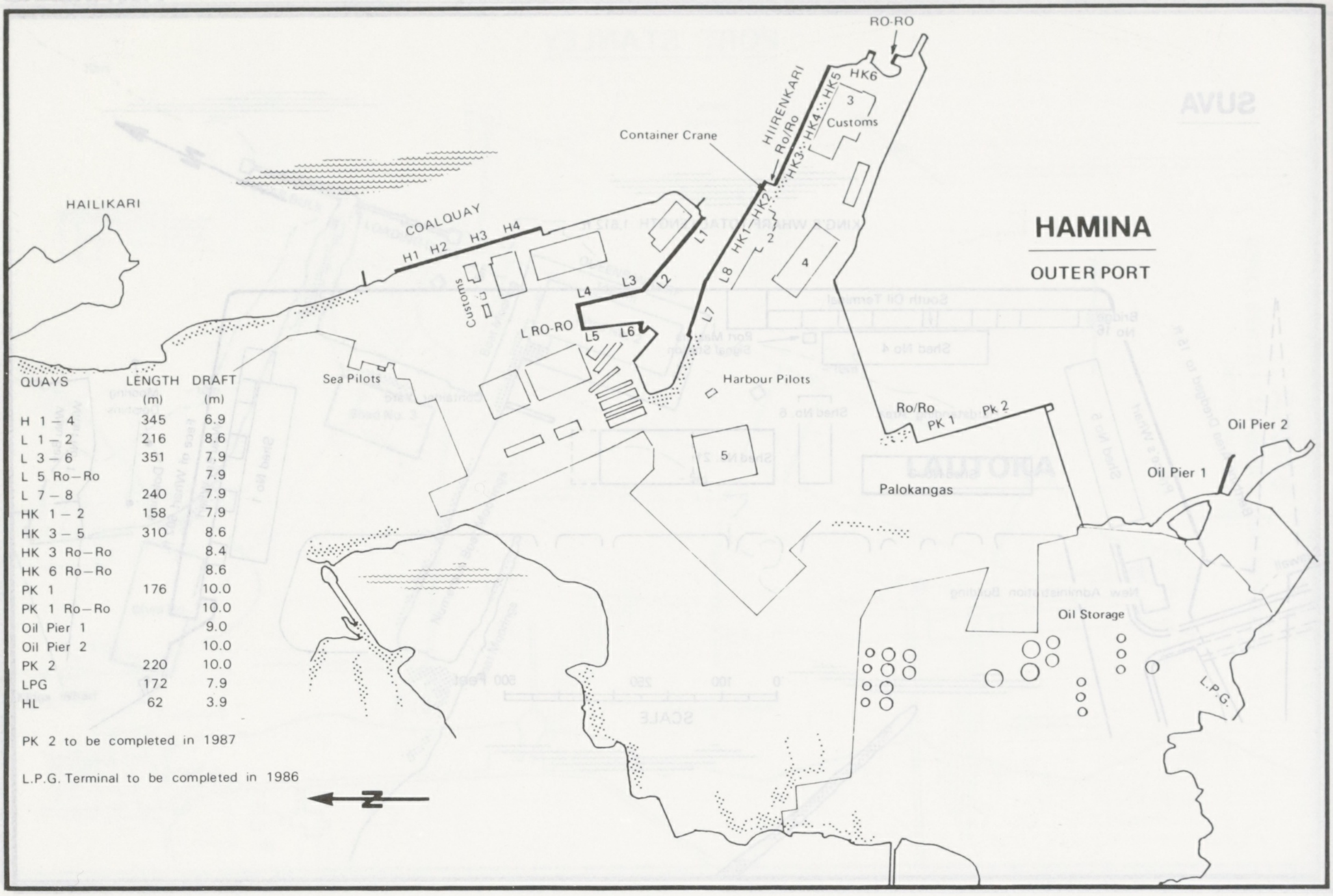

N
Slip
7.5 m.
70 m
200 metres
Depth approx 3m
Ferry
Small Boat Harbour
7m
2 Red Leading Lights
6m
5m
Depth 7 m
180 m
Depth 5 m
120 m
Nordborg
Harbour Office
Hospital
Sailors Home
KLAKKSVIK


10m
SUGAR BULK
LOADING QUAY
– 5m
QUEENS WHARF
142.4m
Shed No. 2
78.4m
Boat Mooring
– 10m
– 10m
Shed No. 3
LAUTOKA
– 5m
Numerous Boat Moorings
Boat Moorings
Shed No. 1
Kings Wharf


NOTE: Finger wharf demolished.
Dredging to – 8 metres below Chart Datum
– 4
– 5
– 6
– 7
– 8
– 9
– 10
– 8
– 7
Bore No.1.
Bore No.2
CONCRETE WHARF
CONCRETE WHARF
Access Jetty
Shed
Shed
SLIP
LEVUKA
DEPTHS IN METRES


SUVA
N
KING'S WHARF TOTAL LENGTH 1,612 ft.
South Oil Terminal
Bridge No 16
Shed No 4
Port Masters Signal Station
Hardstanding Area
Shed No. 6
Container Yard
Berthing Area Dredged to 15 ft.
Prince's Wharf
Shed No 5
Shed No. 3
Shed No. 21
Seawall
New Administration Building
Shed No 1
Walu Bay Wharf
Face of Wharf 602 ft.
Dolphins
Mooring Dolphins
Walu Bay Wharf No 1
0 100 250 500 Feet
SCALE

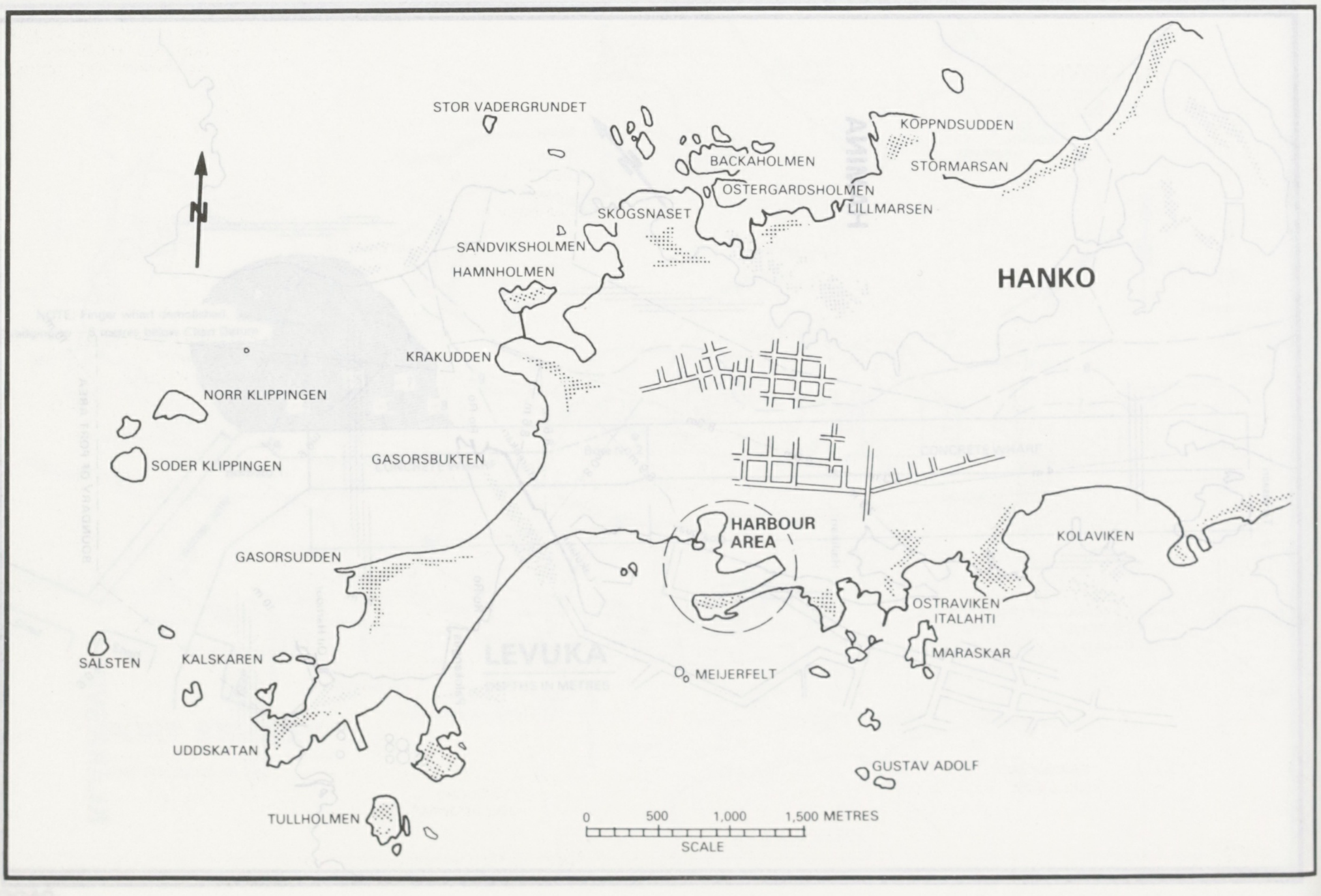

HAMINA
Tervasaari
4 m
4.3 m
6.0m
8.0m
3.9 m
6.9 m
8.0m
8.6 m
8.6 m
Hiirenkari
Ro-Ro
Haiikari
Coalquay
Lakulahti
Ro Ro
Palokangas
9.0m
10 m.
Oil Harbour
10 m.
9.0 m
BOUNDARY OF PORT AREA
10 m.

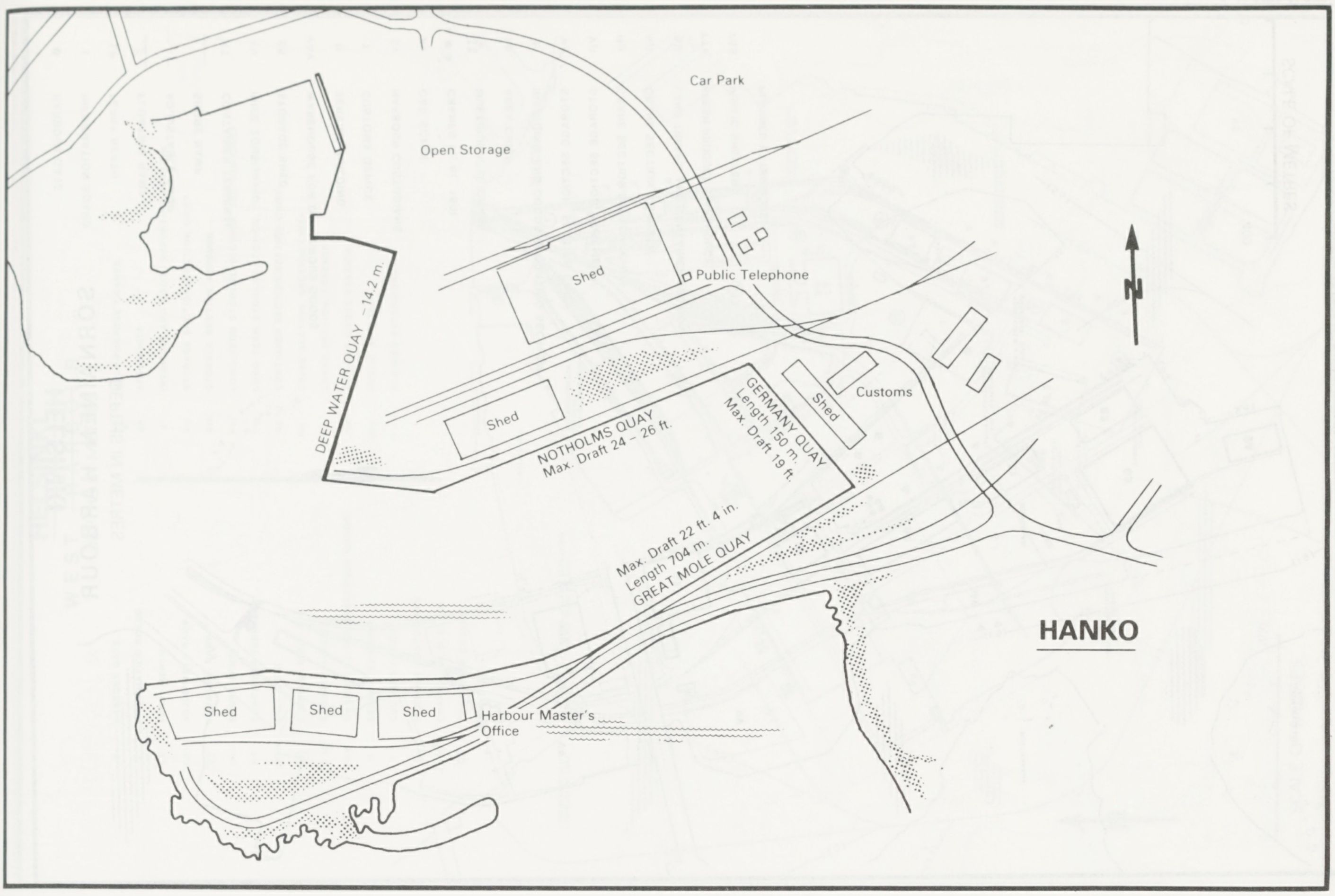

HAMINA
OUTER PORT
RO-RO
HK6
HIIRENKARI
HK5
HK4
HK3
Ro/Ro
3
Customs
Container Crane
HK1–HK2
2
4
HAILIKARI
COALQUAY
H1
H2
H3
H4
L1
L2
L3
L4
L5
L6
L7
L8
L RO-RO
Customs
Sea Pilots
Harbour Pilots
5
Ro/Ro
PK 1
Pk 2
Palokangas
Oil Pier 1
Oil Pier 2
Oil Storage
L.P.G.
N

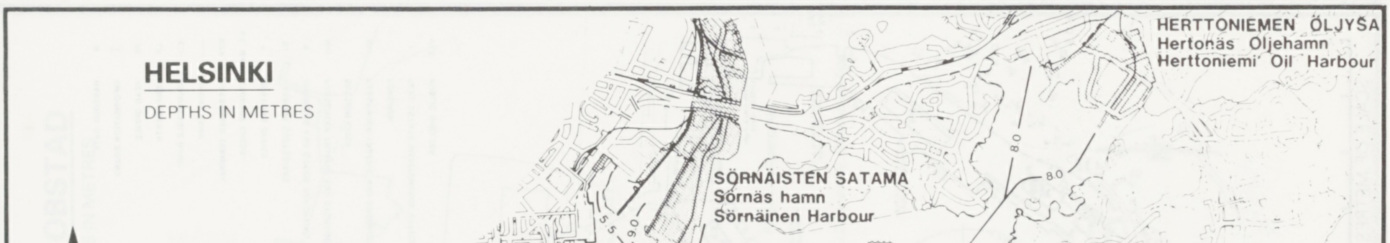
QUAYS	LENGTH (m)	DRAFT (m)
H 1 – 4	345	6.9
L 1 – 2	216	8.6
L 3 – 6	351	7.9
L 5 Ro–Ro		7.9
L 7 – 8	240	7.9
HK 1 – 2	158	7.9
HK 3 – 5	310	8.6
HK 3 Ro–Ro		8.4
HK 6 Ro–Ro		8.6
PK 1	176	10.0
PK 1 Ro–Ro		10.0
Oil Pier 1		9.0
Oil Pier 2		10.0
PK 2	220	10.0
LPG	172	7.9
HL	62	3.9

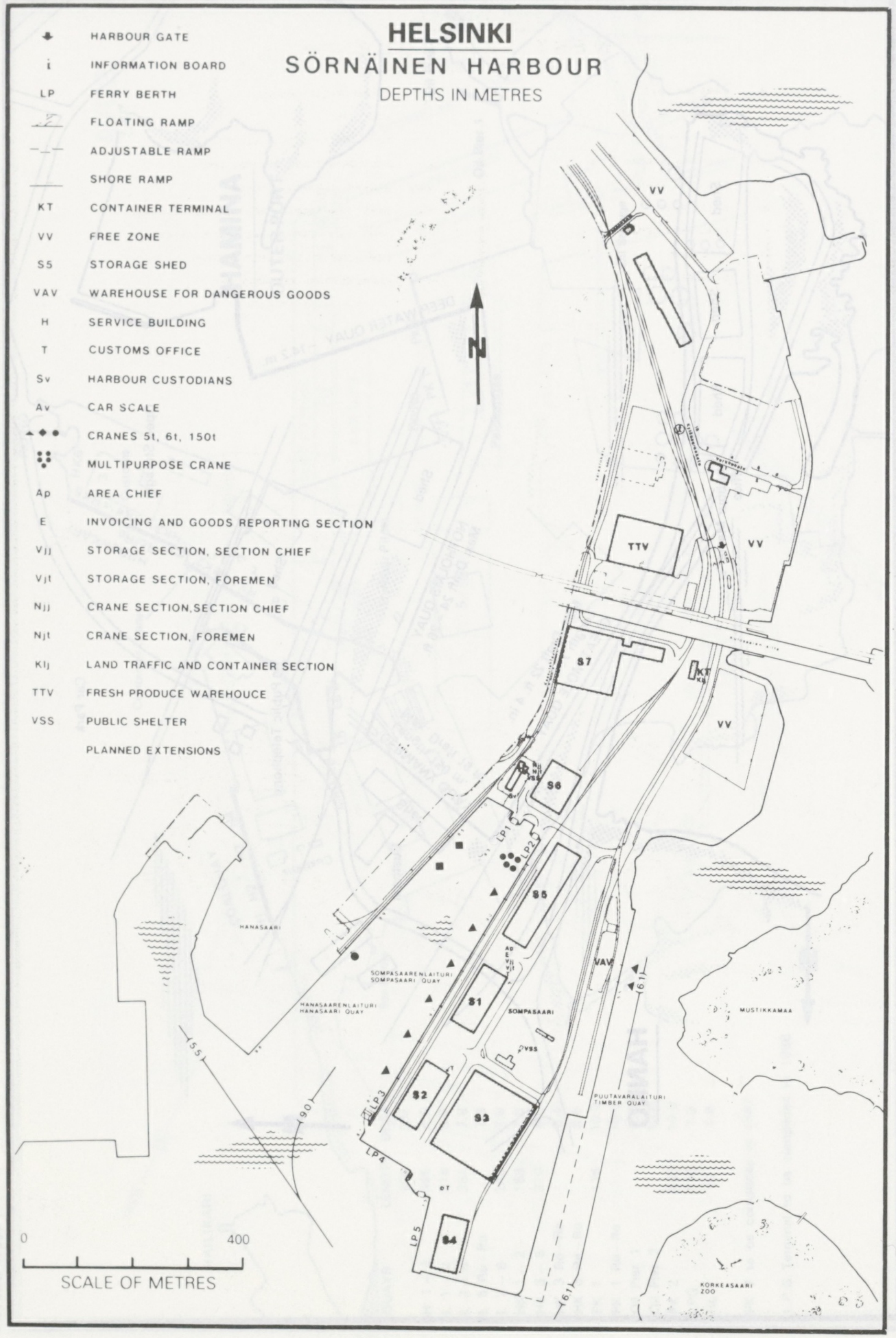
PK 2 to be completed in 1987

L.P.G. Terminal to be completed in 1986


HANKO
N
STOR VADERGRUNDET
BACKAHOLMEN
KOPPNDSUDDEN
STORMARSAN
OSTERGARDSHOLMEN
LILLMARSEN
SKOGSNASET
SANDVIKSHOLMEN
HAMNHOLMEN
KRAKUDDEN
NORR KLIPPINGEN
SODER KLIPPINGEN
GASORSBUKTEN
HARBOUR AREA
KOLAVIKEN
GASORSUDDEN
OSTRAVIKEN
ITALAHTI
MARASKAR
SALSTEN
KALSKAREN
MEIJERFELT
UDDSKATAN
GUSTAV ADOLF
TULLHOLMEN
0
500
1,000
1,500 METRES
SCALE

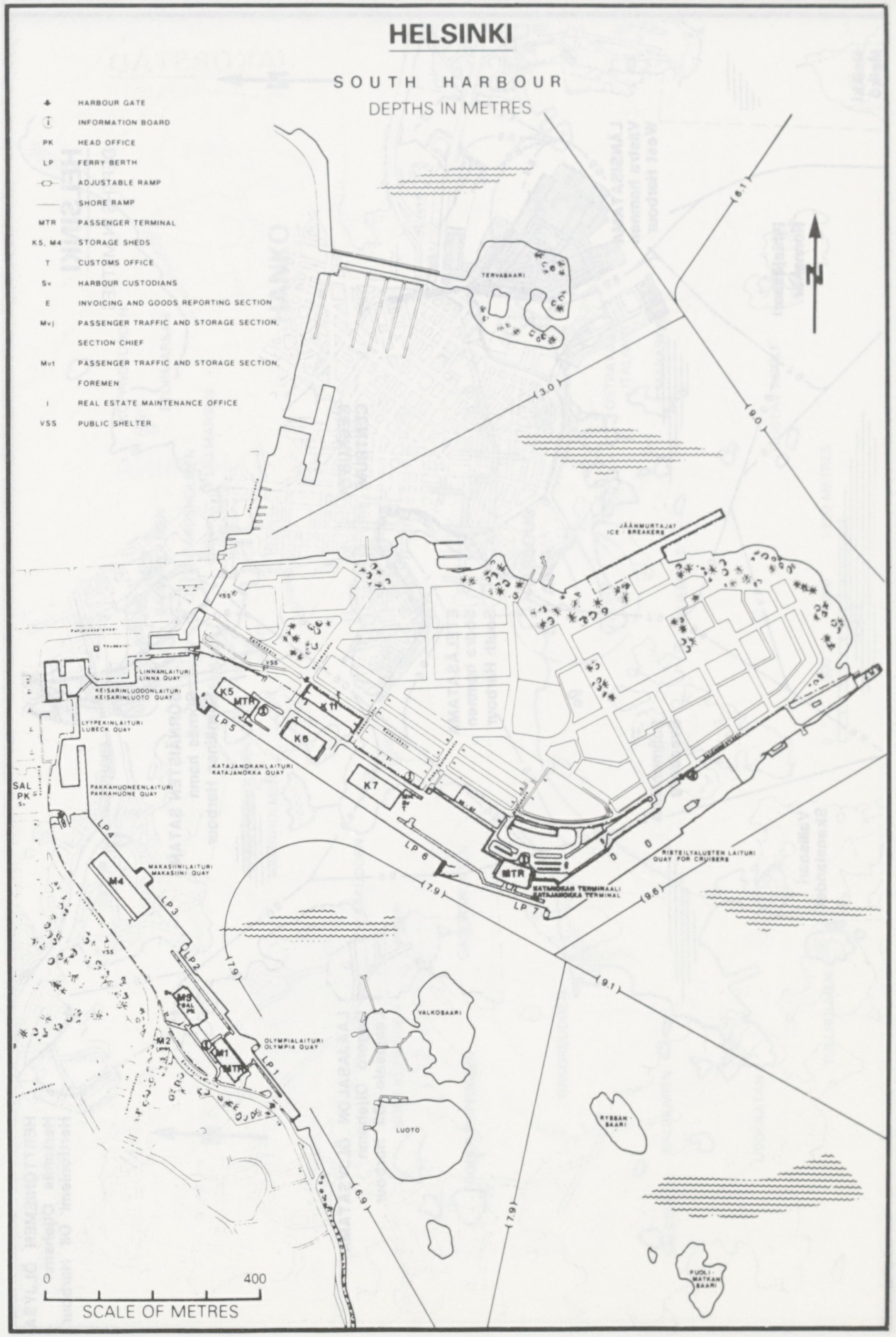

Car Park
Open Storage
Shed
Public Telephone
DEEP WATER QUAY –14.2 m.
Shed
NOTHOLMS QUAY
Max. Draft 24 – 26 ft.
GERMANY QUAY
Length 150 m.
Max. Draft 19 ft.
Shed
Customs
Max. Draft 22 ft. 4 in.
Length 704 m.
GREAT MOLE QUAY
N
HANKO
Shed
Shed
Shed
Harbour Master's
Office


HELSINKI
DEPTHS IN METRES
N
HERTTONIEMEN ÖLJYSA
Hertonäs Oljehamn
Herttoniemi Oil Harbour
SÖRNÄISTEN SATAMA
Sörnäs hamn
Sörnäinen Harbour
8.0
8.0
8.0
5.5
9.0
8.1
9.0
6.9
9.6
LAAJASALON ÖLJYSATAMA
Degerö Oljehamn
Laajasalo Oil Harbour
KESKUSTA
CENTRUM
7.3
7.9
9.6
ETELÄSATAMA
Södra hamnen
South Harbour
6.9
8.9
7.3
8.9
6.9
7.9
9.1
9.6
9.6
8.9
LÄNSISATAMA
Västra hamnen
West Harbour
8.9
7.9
9.6
Suomenlinna
Sveaborg
8.9
8.9
7.9
8.9
7.9
Pihlajasaari
Rönnskär
Vallisaari
Skanslandet
9.6
Melkki
Melkö



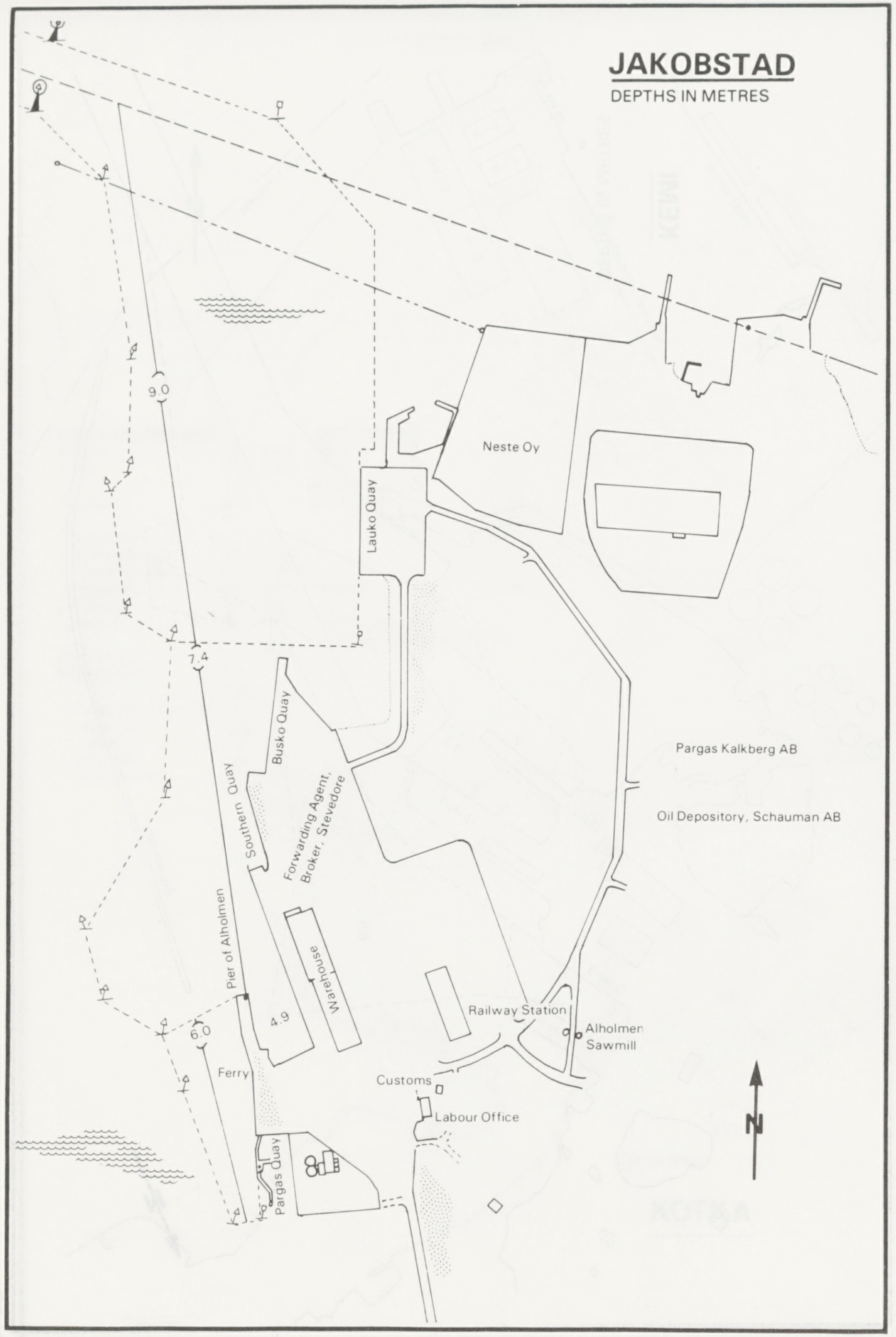
HELSINKI
SÖRNÄINEN HARBOUR
DEPTHS IN METRES

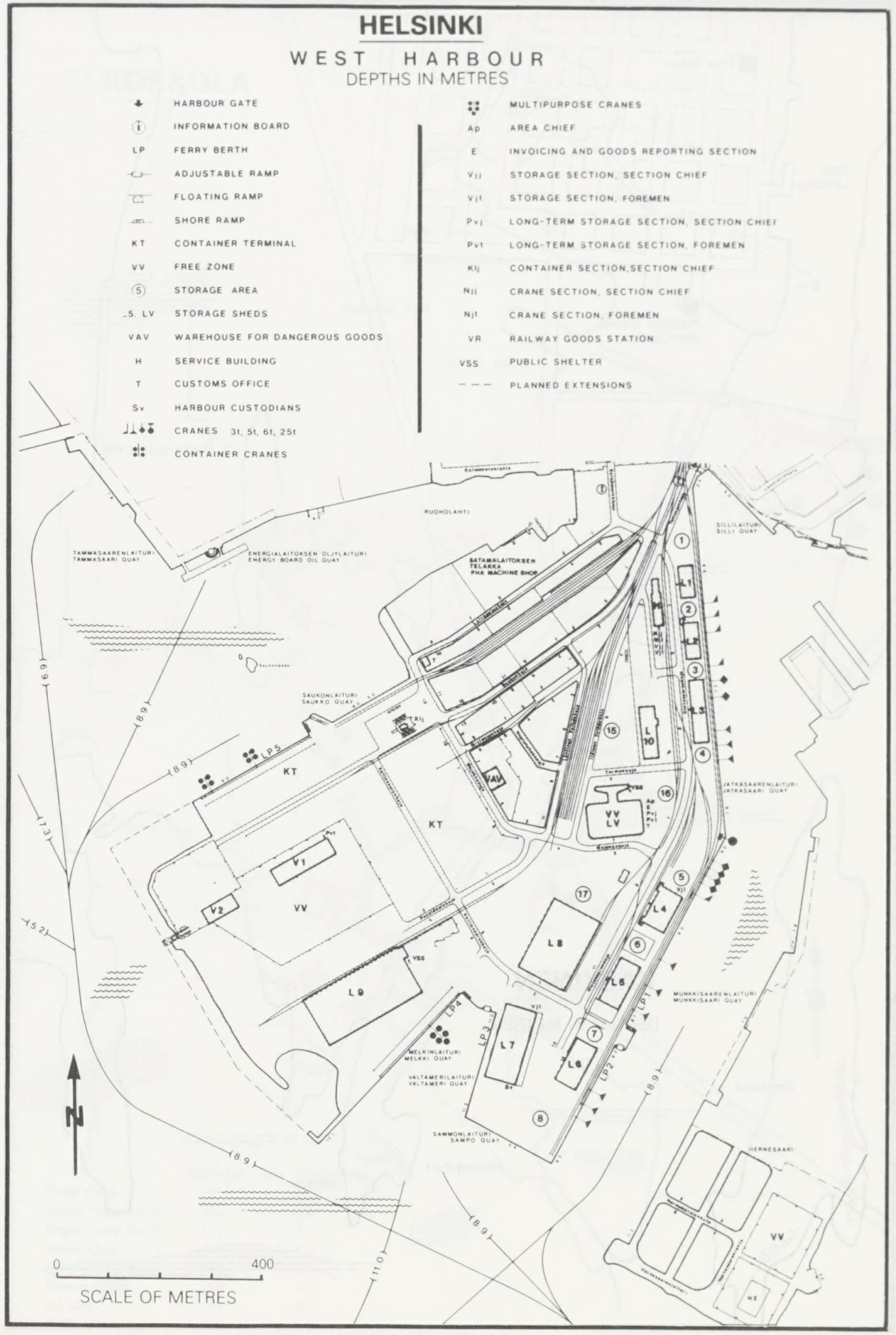
HARBOUR GATE
i INFORMATION BOARD
LP FERRY BERTH
FLOATING RAMP
ADJUSTABLE RAMP
SHORE RAMP
KT CONTAINER TERMINAL
VV FREE ZONE
S5 STORAGE SHED
VAV WAREHOUSE FOR DANGEROUS GOODS
H SERVICE BUILDING
T CUSTOMS OFFICE
Sv HARBOUR CUSTODIANS
Av CAR SCALE
CRANES 5t, 6t, 150t
MULTIPURPOSE CRANE
Ap AREA CHIEF
E INVOICING AND GOODS REPORTING SECTION
Vjj STORAGE SECTION, SECTION CHIEF
Vjt STORAGE SECTION, FOREMEN
Njj CRANE SECTION,SECTION CHIEF
Njt CRANE SECTION, FOREMEN
Klj LAND TRAFFIC AND CONTAINER SECTION
TTV FRESH PRODUCE WAREHOUCE
VSS PUBLIC SHELTER
PLANNED EXTENSIONS
N
VV
TTV
VV
S7
KT
VV
S6
LP1
LP2
S5
HANASAARI
SOMPASAARENLAITURI
SOMPASAARI QUAY
HANASAARENLAITURI
HANASAARI QUAY
S1
SOMPASAARI
VAV
(6.1)
MUSTIKKAMAA
VSS
S2
S3
LP3
PUUTAVARALAITURI
TIMBER QUAY
(9.0)
(5.5)
LP4
T
LP5
S4
(6.1)
KORKEASAARI
ZOO
0
400
SCALE OF METRES

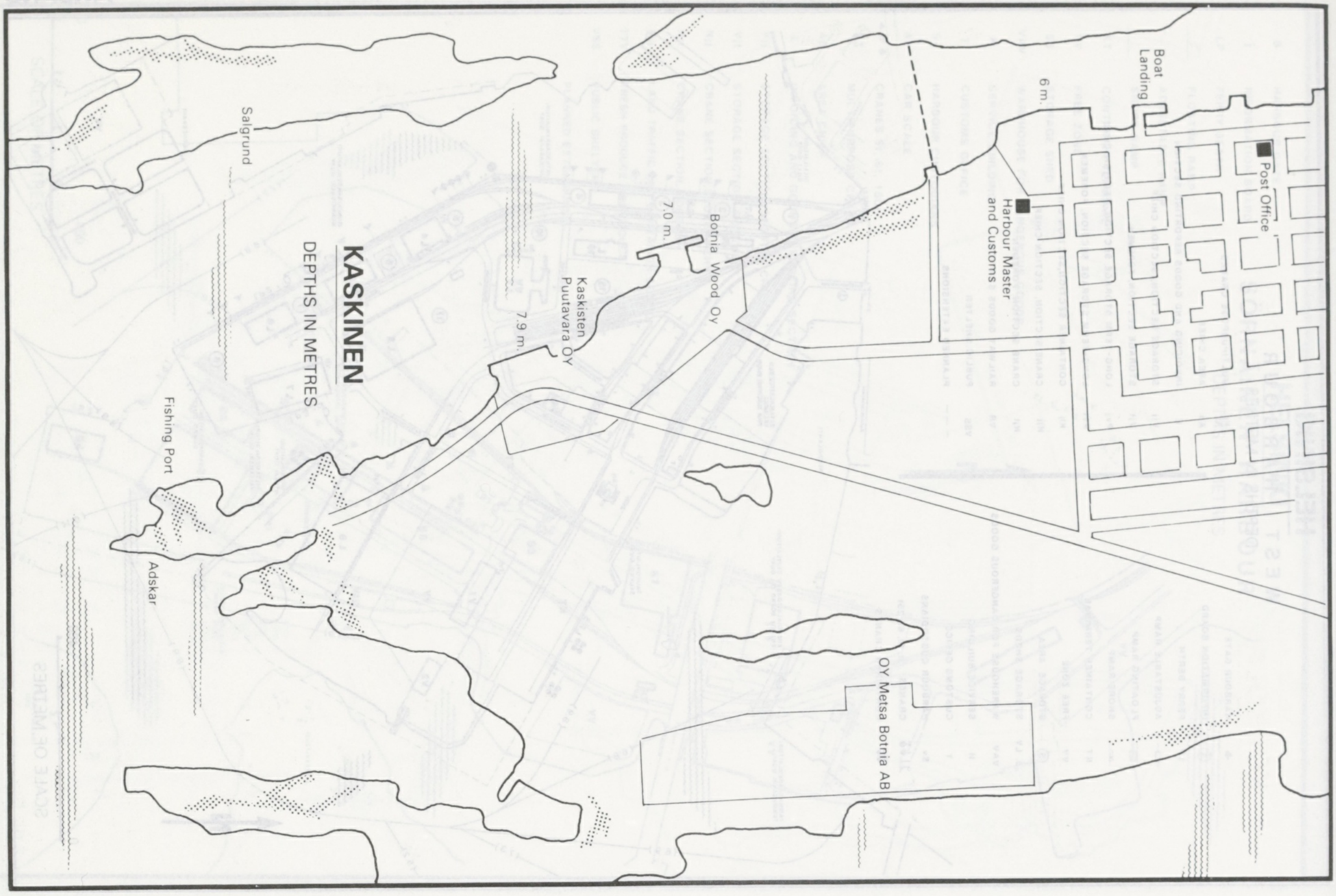


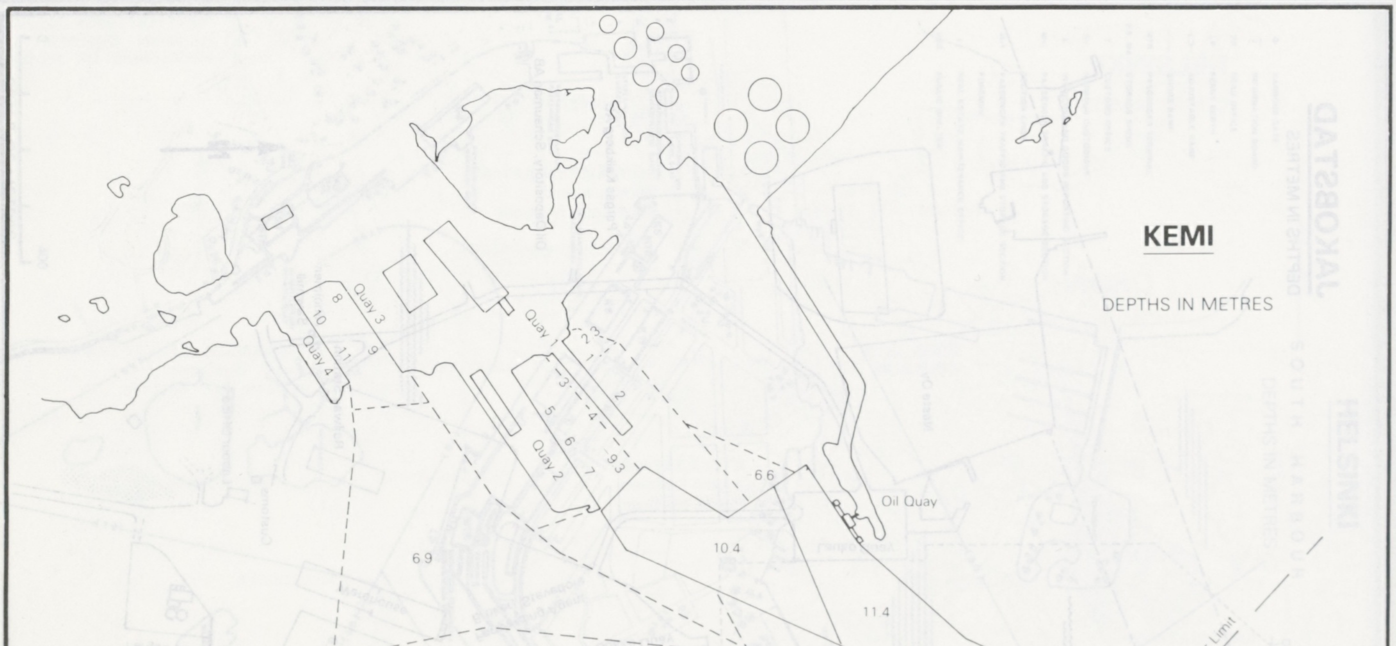
HELSINKI
SOUTH HARBOUR
DEPTHS IN METRES

HARBOUR GATE
INFORMATION BOARD
PK HEAD OFFICE
LP FERRY BERTH
ADJUSTABLE RAMP
SHORE RAMP
MTR PASSENGER TERMINAL
K5, M4 STORAGE SHEDS
T CUSTOMS OFFICE
Sv HARBOUR CUSTODIANS
E INVOICING AND GOODS REPORTING SECTION
Mvj PASSENGER TRAFFIC AND STORAGE SECTION, SECTION CHIEF
Mvt PASSENGER TRAFFIC AND STORAGE SECTION, FOREMEN
I REAL ESTATE MAINTENANCE OFFICE
VSS PUBLIC SHELTER
N
TERVASAARI
(6.1)
(3.0)
(9.0)
JÄÄNMURTAJAT
ICE · BREAKERS
VSS
LINNANLAITURI
LINNA QUAY
KEISARINLUODONLAITURI
KEISARINLUOTO QUAY
LYYPEKINLAITURI
LUBECK QUAY
K5
MTR
K11
LP 5
K6
KATAJANOKANLAITURI
KATAJANOKKA QUAY
K7
SAL
PK
Sv
PAKKAHUONEENLAITURI
PAKKAHUONE QUAY
LP 4
LP 6
MTR
KATANOKAN TERMINAALI
KATAJANOKKA TERMINAL
RISTEILYALUSTEN LAITURI
QUAY FOR CRUISERS
(7.9)
LP 7
(9.6)
M4
MAKASIINILAITURI
MAKASIINI QUAY
LP 3
VSS
LP2
(7.9)
(9.1)
M3
SAL
PK
M2
M1
MTR
OLYMPIALAITURI
OLYMPIA QUAY
LP 1
VALKOSAARI
LUOTO
RYSSAN SAARI
(6.9)
(7.9)
PUOLI-MATKAN SAARI
0
400
SCALE OF METRES

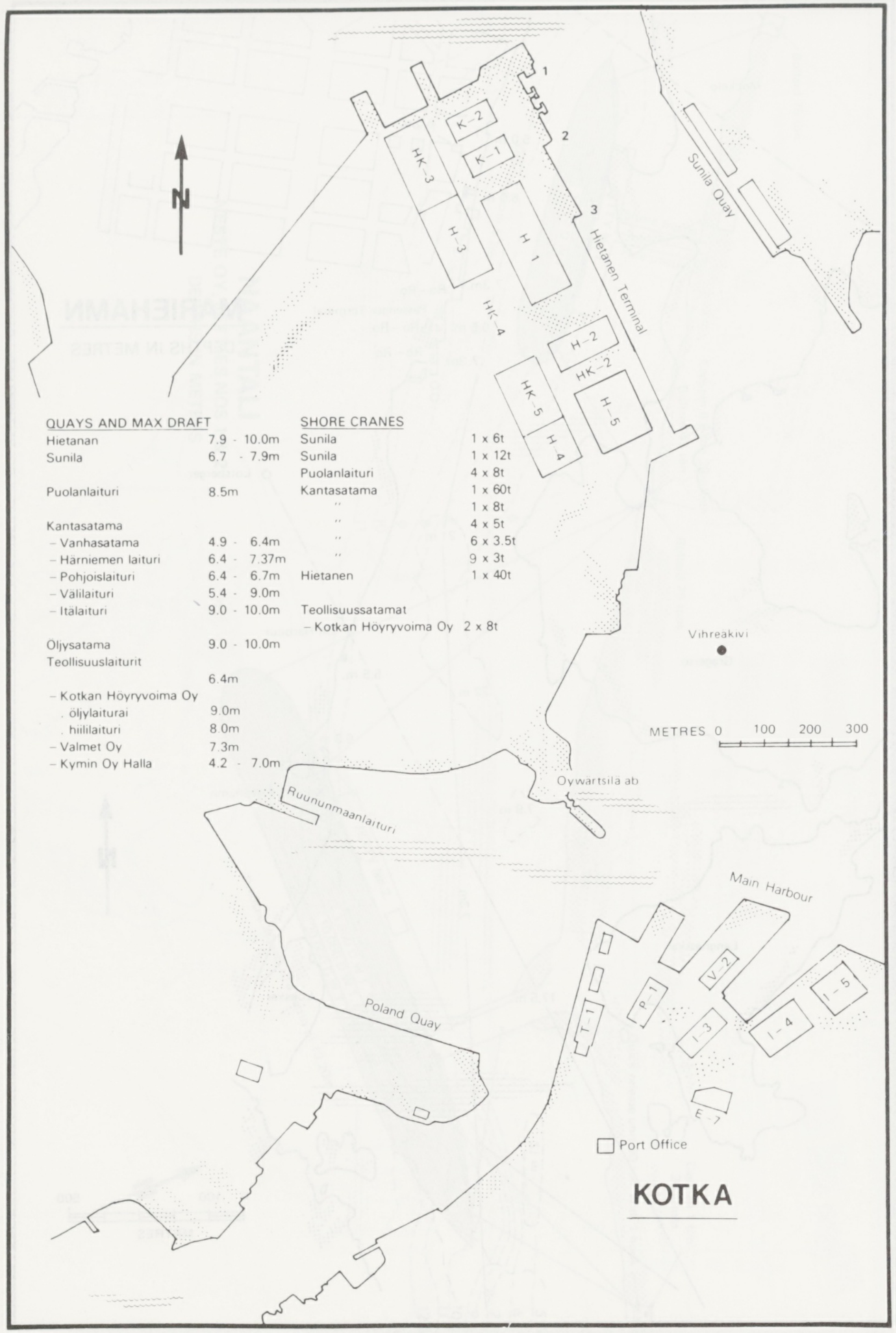

JAKOBSTAD
DEPTHS IN METRES
9.0
7.4
6.0
4.9
Neste Oy
Lauko Quay
Busko Quay
Southern Quay
Forwarding Agent, Broker, Stevedore
Pier of Alholmen
Warehouse
Ferry
Pargas Quay
Pargas Kalkberg AB
Oil Depository, Schauman AB
Railway Station
Alholmen Sawmill
Customs
Labour Office
N


HELSINKI
WEST HARBOUR
DEPTHS IN METRES
HARBOUR GATE
INFORMATION BOARD
LP FERRY BERTH
ADJUSTABLE RAMP
FLOATING RAMP
SHORE RAMP
KT CONTAINER TERMINAL
VV FREE ZONE
⑤ STORAGE AREA
.5. LV STORAGE SHEDS
VAV WAREHOUSE FOR DANGEROUS GOODS
H SERVICE BUILDING
T CUSTOMS OFFICE
Sv HARBOUR CUSTODIANS
CRANES 3t, 5t, 6t, 25t
CONTAINER CRANES
MULTIPURPOSE CRANES
Ap AREA CHIEF
E INVOICING AND GOODS REPORTING SECTION
Vjj STORAGE SECTION, SECTION CHIEF
Vjt STORAGE SECTION, FOREMEN
Pvj LONG-TERM STORAGE SECTION, SECTION CHIEF
Pvt LONG-TERM STORAGE SECTION, FOREMEN
Klj CONTAINER SECTION, SECTION CHIEF
Njj CRANE SECTION, SECTION CHIEF
Njt CRANE SECTION, FOREMEN
VR RAILWAY GOODS STATION
VSS PUBLIC SHELTER
— — — PLANNED EXTENSIONS
RUOHOLAHTI
TAMMASAARENLAITURI TAMMASAARI QUAY
ENERGIALAITOKSEN ÖLJYLAITURI ENERGY BOARD OIL QUAY
SATAMALAITOKSEN TELAKKA PHA MACHINE SHOP
SILLILAITURI SILLI QUAY
SAUKONLAITURI SAUKKO QUAY
JATKASAARENLAITURI JATKASAARI QUAY
MUNKKISAARENLAITURI MUNKKISAARI QUAY
MELKINLAITURI MELKKI QUAY
VALTAMERILAITURI VALTAMERI QUAY
SAMMONLAITURI SAMPO QUAY
HERNESAARI
KT
LP5
LP4
LP3
LP2
LP1
V1
V2
VV
L1
L2
L3
L4
L5
L6
L7
L8
L9
L10
VV LV
(9.0)
(8.9)
(7.3)
(5.2)
(11.0)
0
400
SCALE OF METRES
N


KASKINEN
DEPTHS IN METRES
Saigrund
Fishing Port
Adskar
Botnia Wood Oy
7.0 m.
Kaskisten Puutavara OY
7.9 m.
Boat Landing
6 m.
Post Office
Harbour Master and Customs
OY Metsa Botnia AB


KEMI
DEPTHS IN METRES
Quay 3
Quay 4
8
10
11
9
Quay 1
2
3
4
5
6
7
9.3
Quay 2
6.6
Oil Quay
6.9
10.4
11.4
7.9
6.9
Harbour Limit
Breakwater

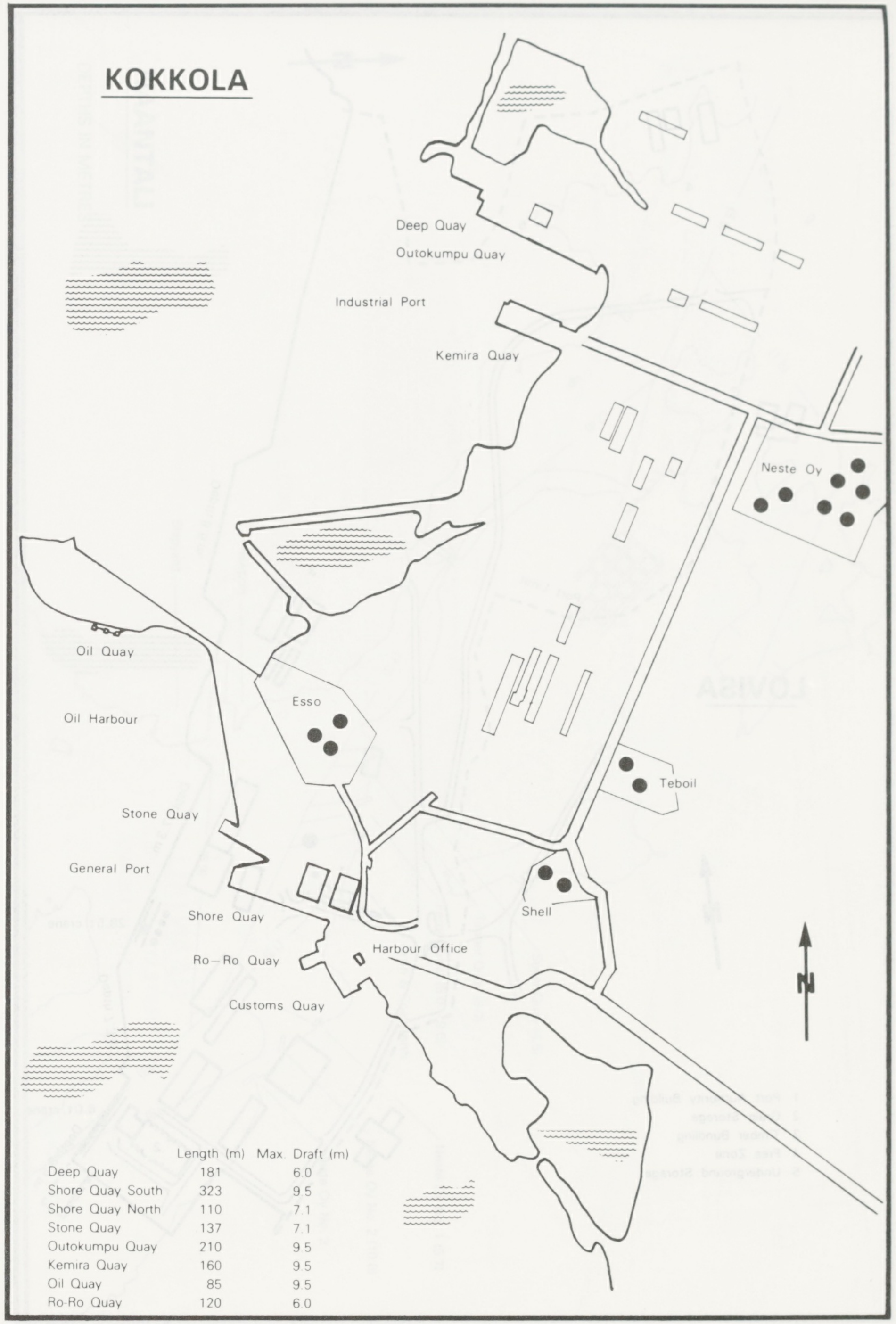
KOTKA


1
2
3
K–2
K–1
HK–3
H–3
H 1
HK–4
Sunila Quay
Hietanen Terminal
H–2
HK–2
HK–5
H–5
H–4
N
Vihreakivi
METRES 0 100 200 300
Oywartsila ab
Ruununmaanlaituri
Main Harbour
Poland Quay
V–2
P–1
T–1
I–3
I–4
I–5
E–7
Port Office

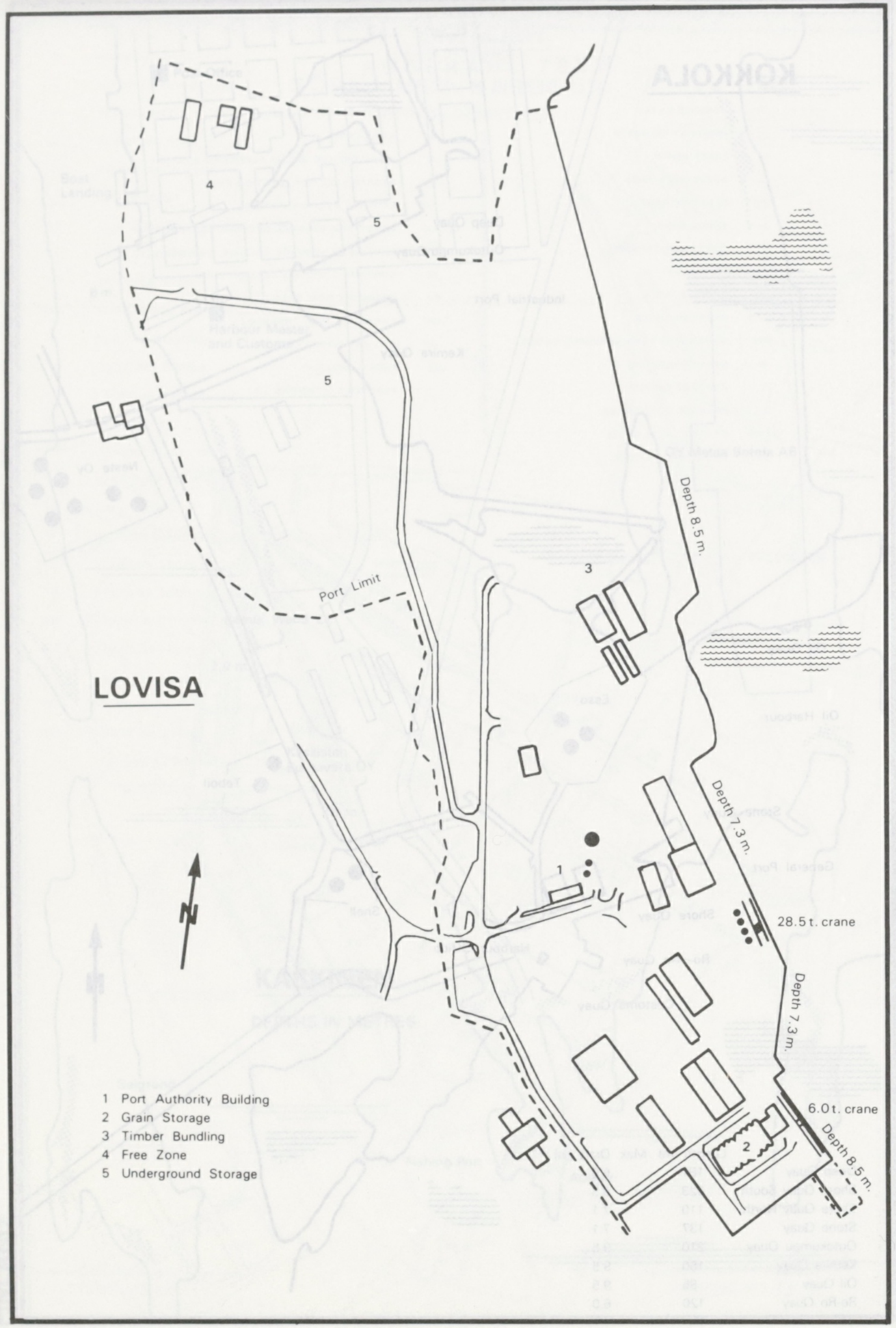
QUAYS AND MAX DRAFT	
Hietanan	7.9 - 10.0m
Sunila	6.7 - 7.9m
Puolanlaituri	8.5m
Kantasatama	
– Vanhasatama	4.9 - 6.4m
– Härniemen laituri	6.4 - 7.37m
– Pohjoislaituri	6.4 - 6.7m
– Välilaituri	5.4 - 9.0m
– Itälaituri	9.0 - 10.0m
Öljysatama	9.0 - 10.0m
Teollisuuslaiturit	6.4m
– Kotkan Höyryvoima Oy	
. öljylaiturai	9.0m
. hiililaituri	8.0m
– Valmet Oy	7.3m
– Kymin Oy Halla	4.2 - 7.0m

SHORE CRANES	
Sunila	1 x 6t
Sunila	1 x 12t
Puolanlaituri	4 x 8t
Kantasatama	1 x 60t
,,	1 x 8t
,,	4 x 5t
,,	6 x 3.5t
,,	9 x 3t
Hietanen	1 x 40t
Teollisuussatamat	
– Kotkan Höyryvoima Oy	2 x 8t

KOKKOLA


Deep Quay
Outokumpu Quay
Industrial Port
Kemira Quay
Neste Oy
Oil Quay
Oil Harbour
Esso
Teboil
Stone Quay
General Port
Shore Quay
Shell
Harbour Office
Ro–Ro Quay
Customs Quay
N

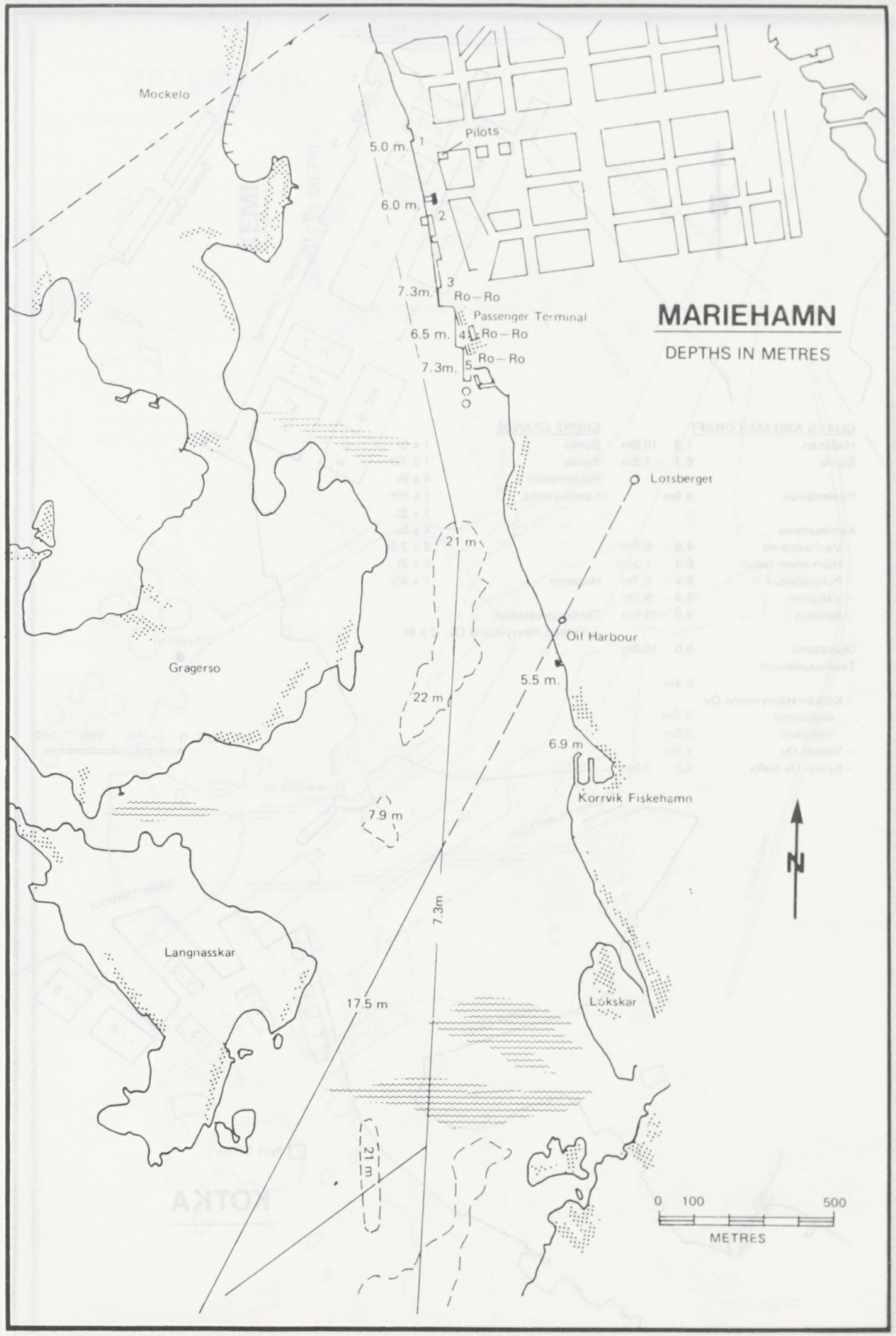
	Length (m)	Max. Draft (m)
Deep Quay	181	6.0
Shore Quay South	323	9.5
Shore Quay North	110	7.1
Stone Quay	137	7.1
Outokumpu Quay	210	9.5
Kemira Quay	160	9.5
Oil Quay	85	9.5
Ro-Ro Quay	120	6.0



LOVISA

1. Port Authority Building
2. Grain Storage
3. Timber Bundling
4. Free Zone
5. Underground Storage

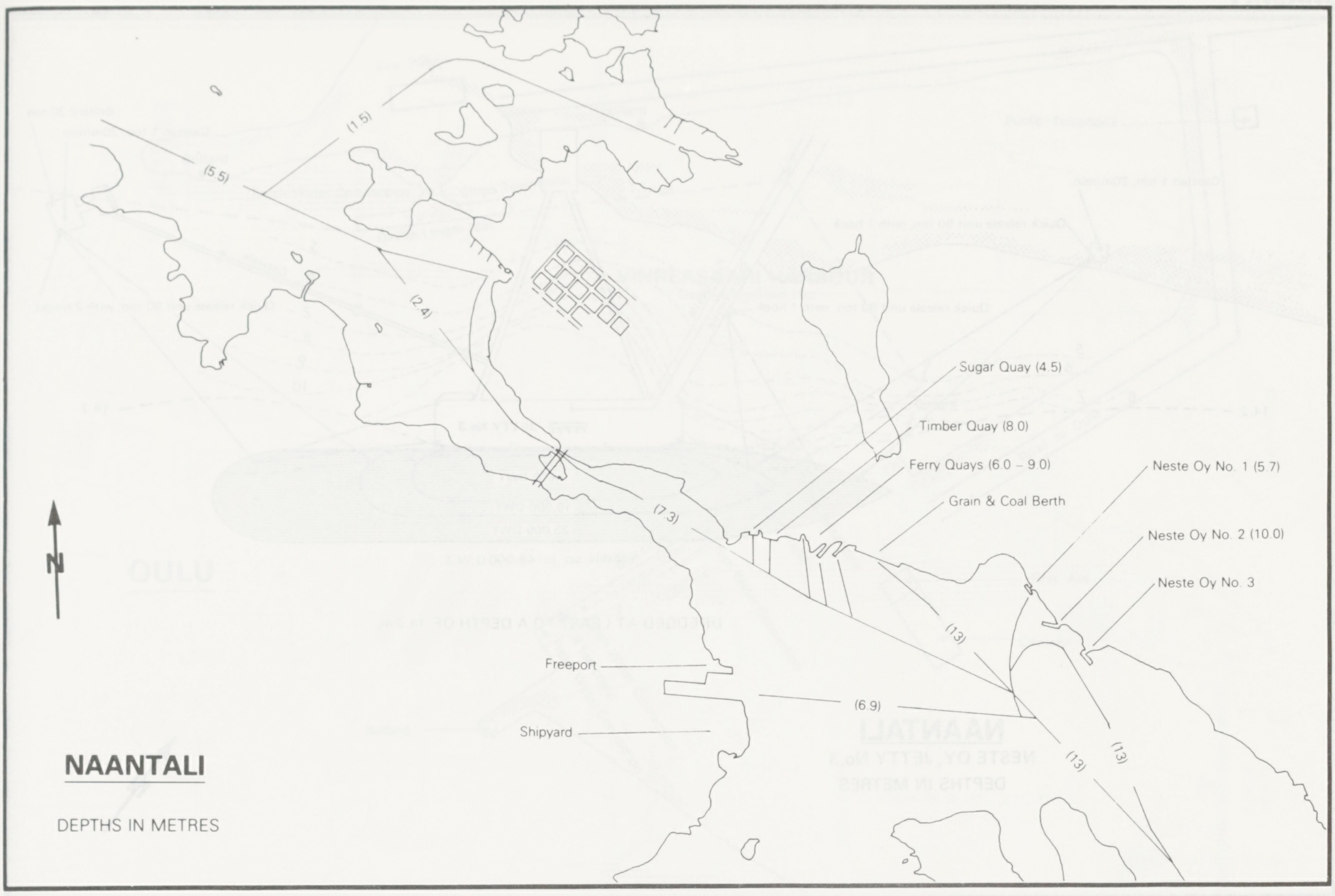
4
5
5
Port Limit
3
Depth 8.5 m.
Depth 7.3 m.
1
28.5 t. crane
Depth 7.3 m.
6.0 t. crane
Depth 8.5 m.
2
N



MARIEHAMN

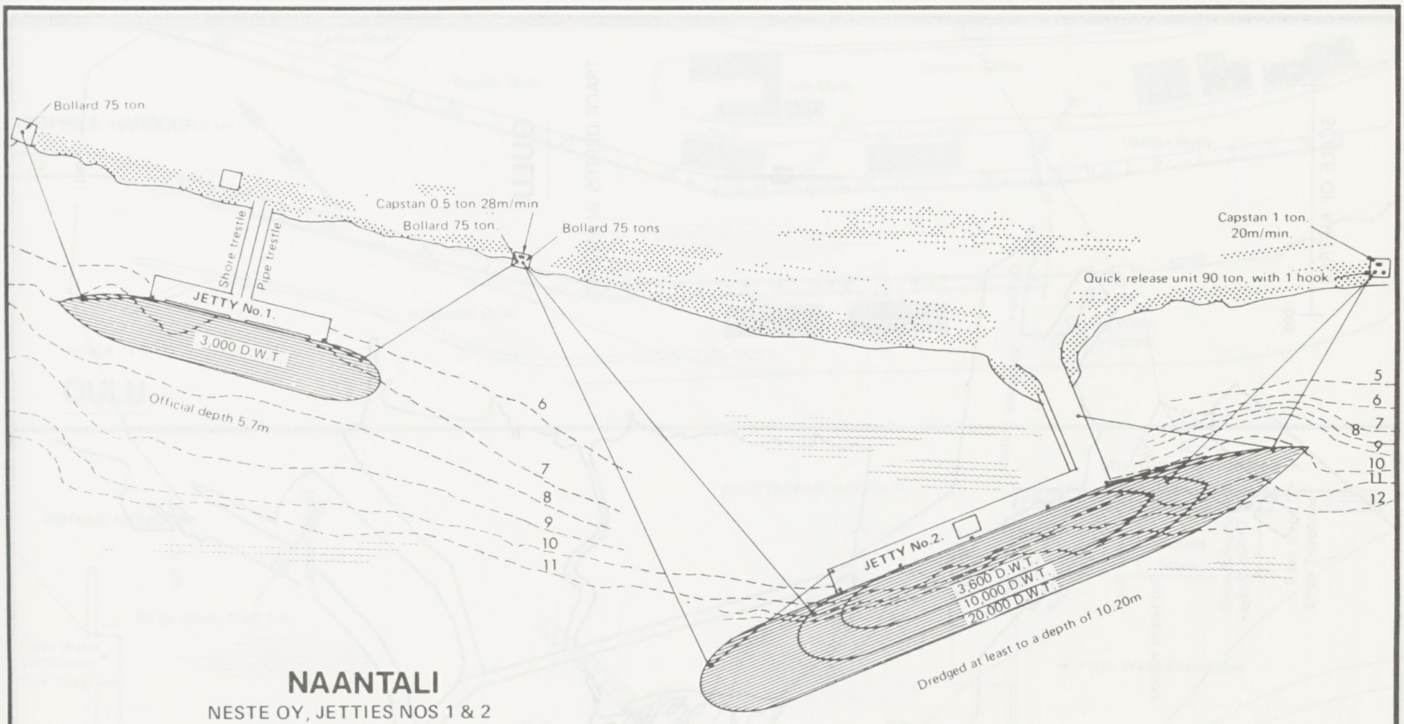
DEPTHS IN METRES

Mockelo
Pilots
5.0 m. 1
6.0 m. 2
7.3 m. 3 Ro–Ro
Passenger Terminal
6.5 m. 4 Ro–Ro
7.3 m. 5 Ro–Ro
C
C
Lotsberget
21 m
Oil Harbour
Gragerso
22 m
5.5 m.
6.9 m
Korrvik Fiskehamn
7.9 m
N
7.3 m
Langnasskar
17.5 m
Lokskar
21 m
0
100
500
METRES


(1.5)
(5.5)
(2.4)
(7.3)
(13)
(6.9)
(13)
(13)
Sugar Quay (4.5)
Timber Quay (8.0)
Ferry Quays (6.0 – 9.0)
Grain & Coal Berth
Neste Oy No. 1 (5.7)
Neste Oy No. 2 (10.0)
Neste Oy No. 3
Freeport
Shipyard
N

NAANTALI

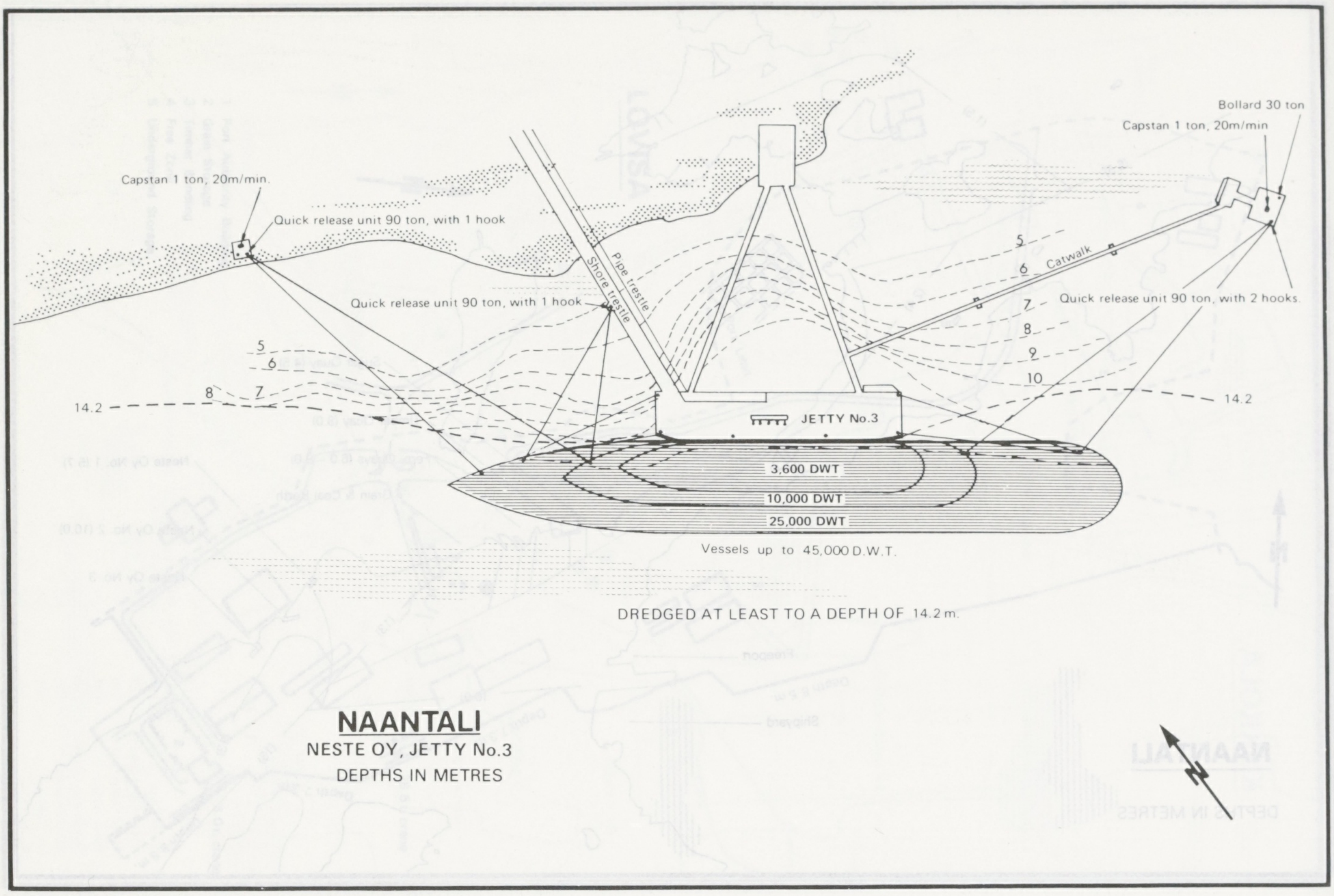
DEPTHS IN METRES


Bollard 75 ton
Shore trestle
Pipe trestle
JETTY No.1.
3,000 D.W.T.
Official depth 5.7m
Capstan 0.5 ton 28m/min
Bollard 75 ton.
Bollard 75 tons
Capstan 1 ton.
20m/min.
Quick release unit 90 ton, with 1 hook
5
6
7
8
9
10
11
12
6
7
8
9
10
11
JETTY No.2.
3,600 D.W.T.
10,000 D.W.T.
20,000 D.W.T.
Dredged at least to a depth of 10.20m
N

NAANTALI

NESTE OY, JETTIES NOS 1 & 2

DEPTHS IN METRES

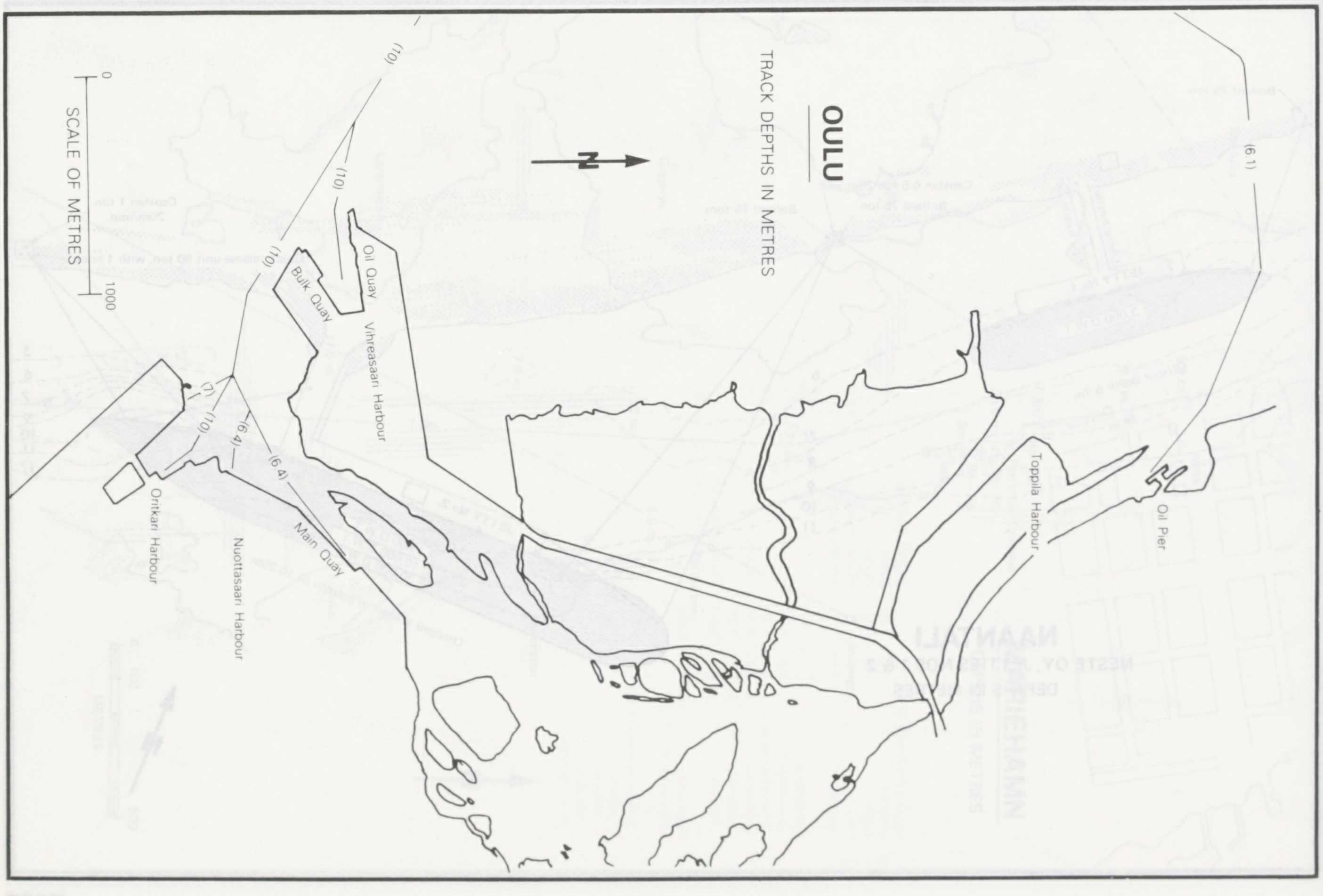


NAANTALI

NESTE OY, JETTY No.3

DEPTHS IN METRES

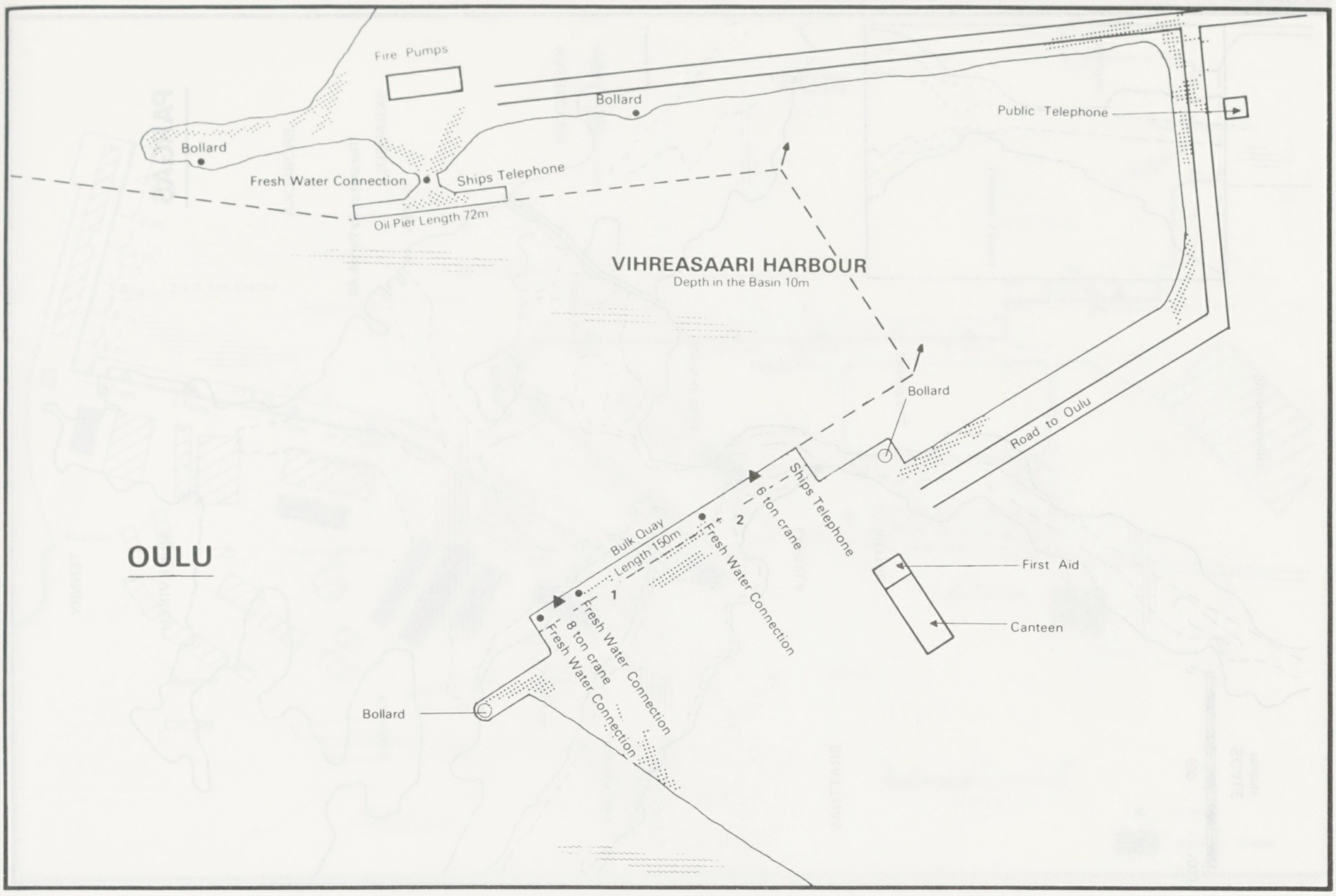
Capstan 1 ton, 20m/min.
Quick release unit 90 ton, with 1 hook
Pipe trestle
Shore trestle
Quick release unit 90 ton, with 1 hook
Bollard 30 ton
Capstan 1 ton, 20m/min
Catwalk
Quick release unit 90 ton, with 2 hooks.
5
6
7
8
9
10
14.2
5
6
7
8
14.2
JETTY No.3
3,600 DWT
10,000 DWT
25,000 DWT
Vessels up to 45,000 D.W.T.
DREDGED AT LEAST TO A DEPTH OF 14.2 m.
N

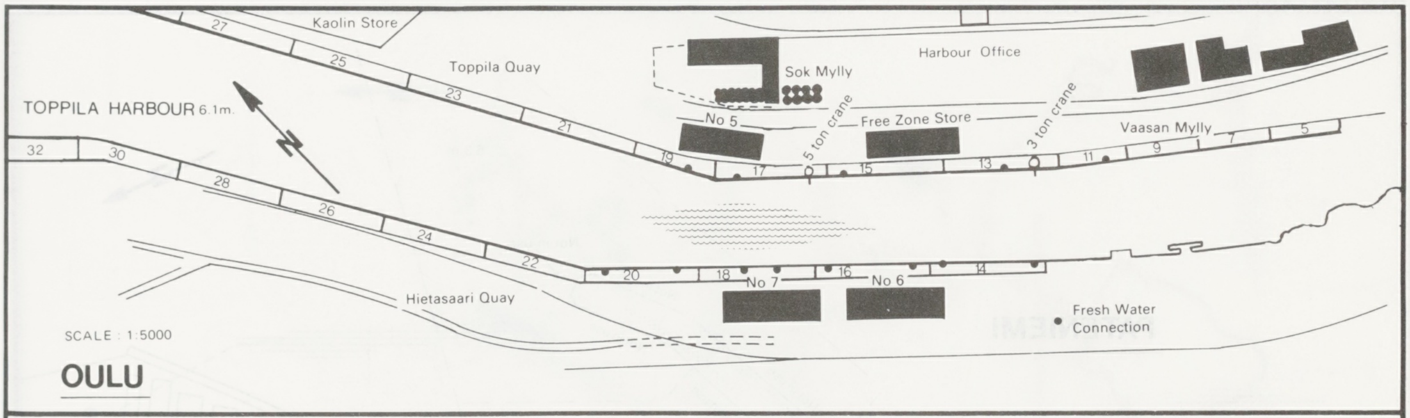


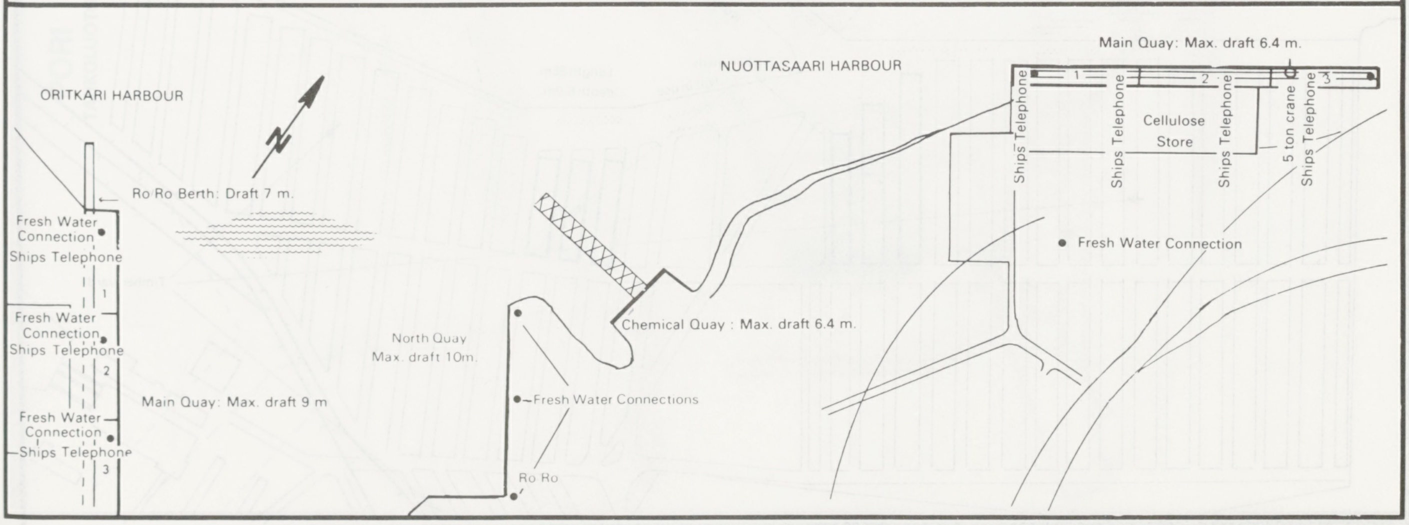
OULU

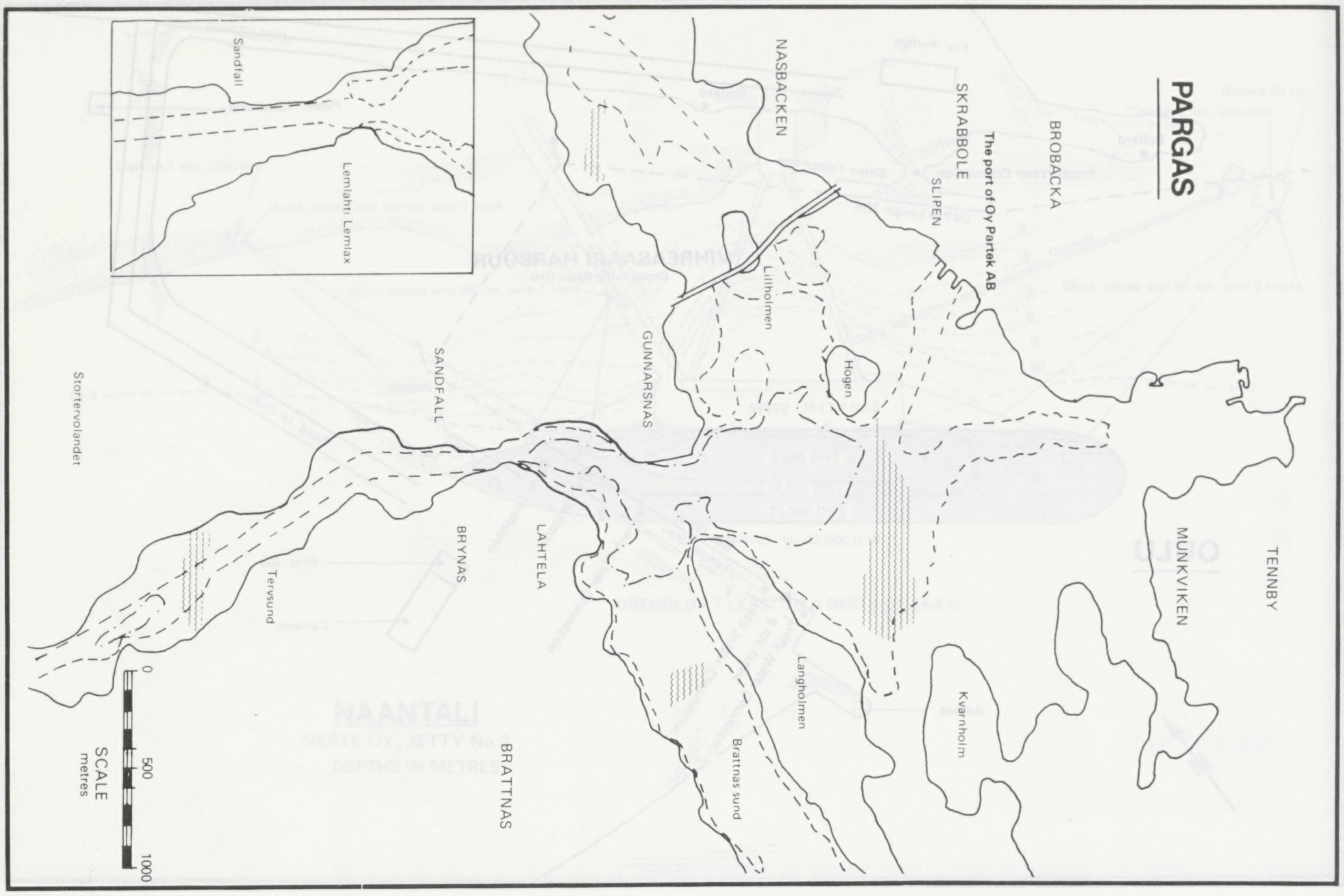
TRACK DEPTHS IN METRES

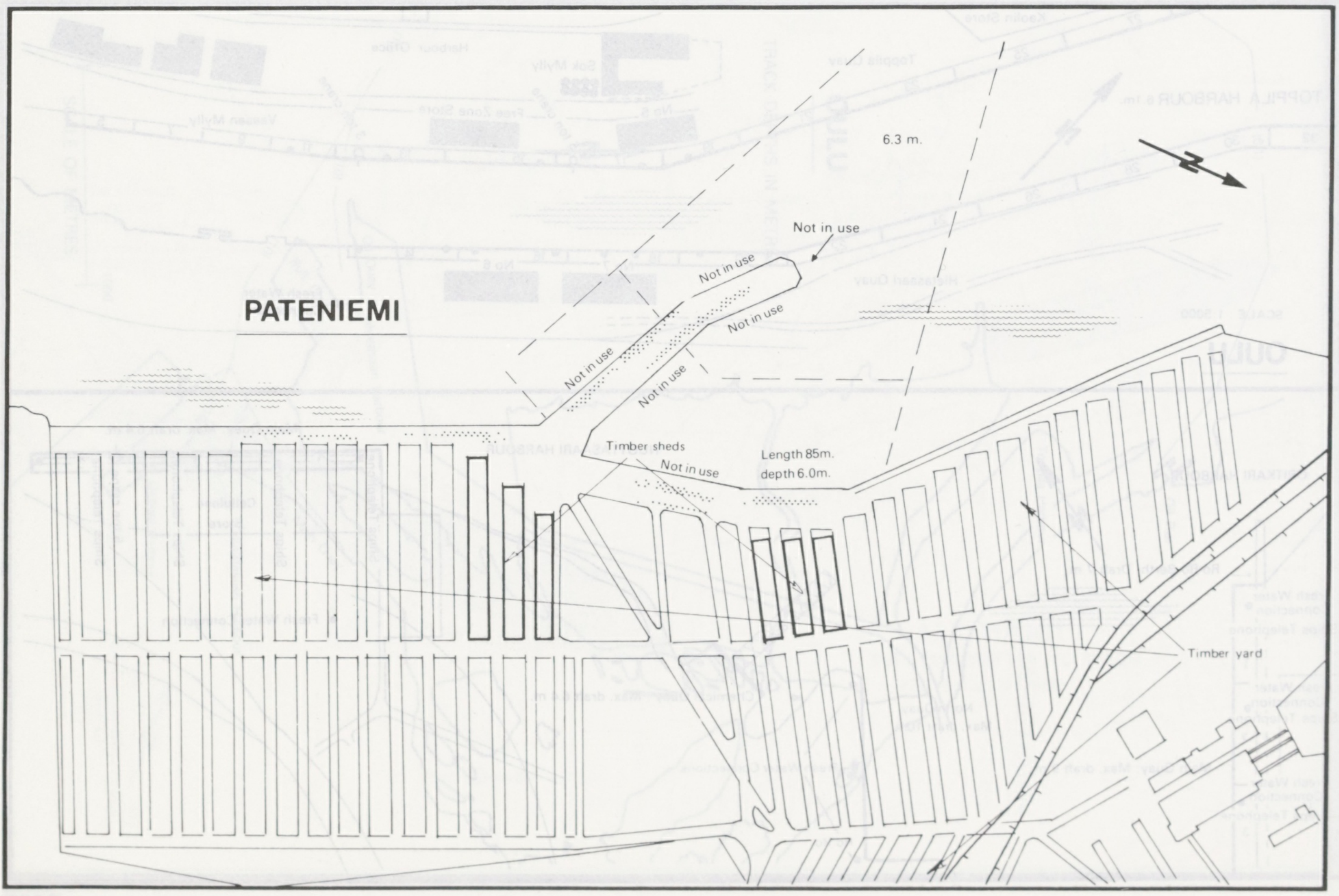
SCALE OF METRES
0
1000
N
(10)
(10)
(10)
(7)
(10)
(6.4)
(6.4)
(6.1)
Bulk Quay
Oil Quay
Vihreasaari Harbour
Main Quay
Oritkari Harbour
Nuottasaari Harbour
Toppila Harbour
Oil Pier

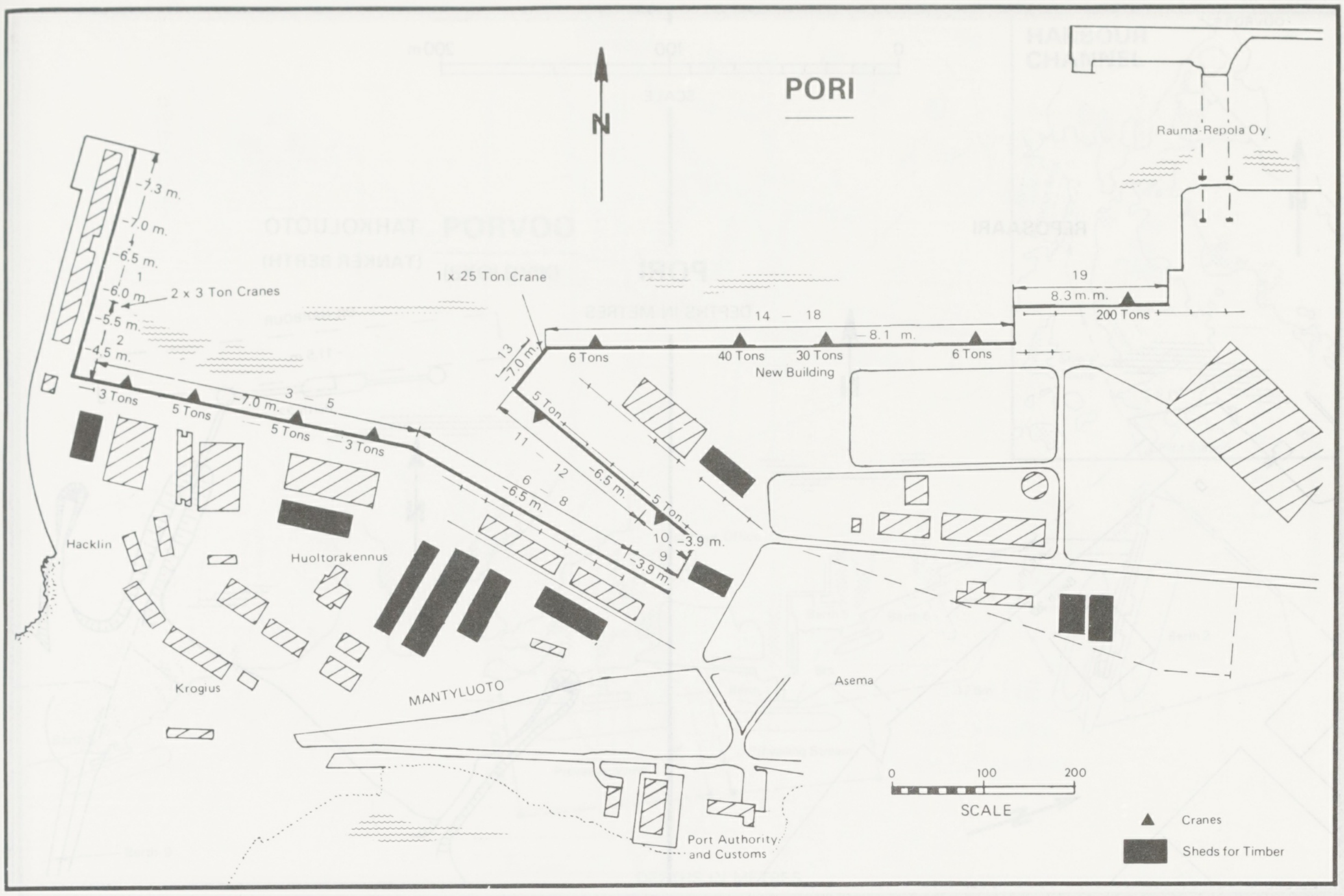

Fire Pumps
Bollard
Bollard
Fresh Water Connection
Ships Telephone
Oil Pier Length 72m
Public Telephone
VIHREASAARI HARBOUR
Depth in the Basin 10m
Bollard
Road to Oulu
Ships Telephone
6 ton crane
2
Bulk Quay
Length 150m
Fresh Water Connection
1
Fresh Water Connection
8 ton crane
Fresh Water Connection
First Aid
Canteen
Bollard
OULU

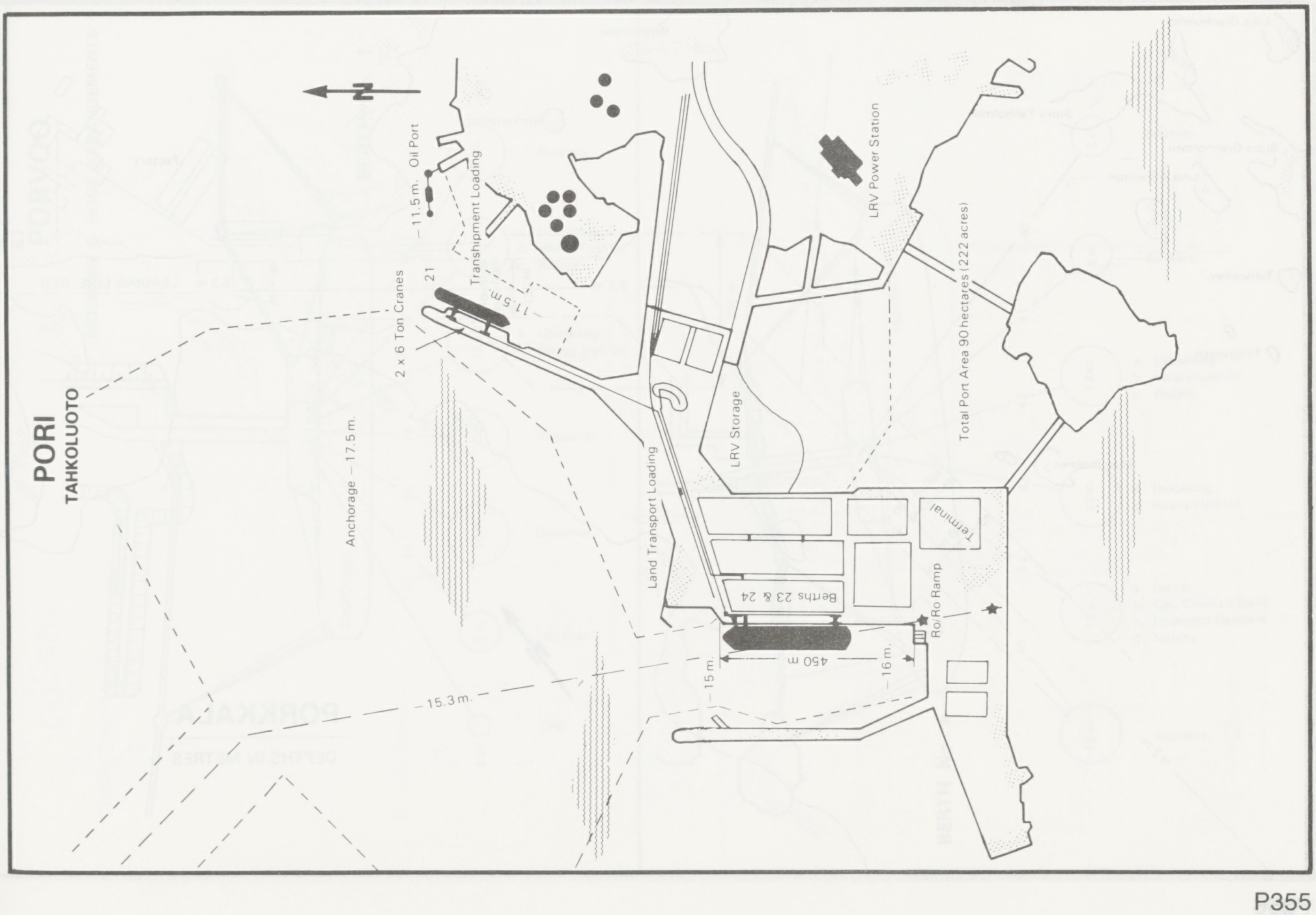

Kaolin Store
27
25
Toppila Quay
23
21
19
17
Sok Mylly
Harbour Office
No 5
5 ton crane
Free Zone Store
3 ton crane
15
13
Vaasan Mylly
11
9
7
5
TOPPILA HARBOUR 6.1m.
32
30
28
26
24
22
20
18
No 7
16
No 6
14
Hietasaari Quay
Fresh Water Connection
SCALE : 1:5000
OULU

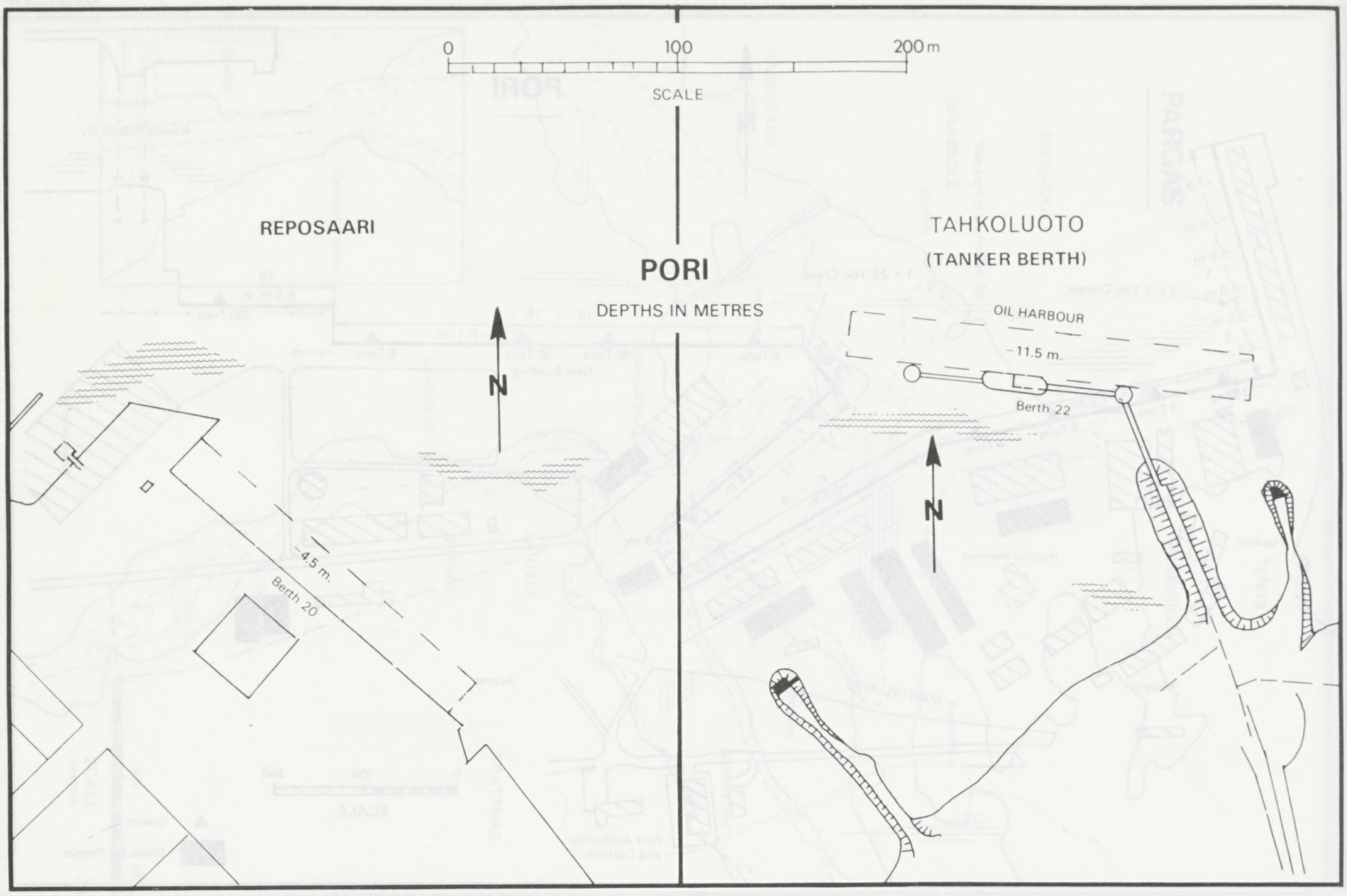

ORITKARI HARBOUR
NUOTTASAARI HARBOUR
Main Quay: Max. draft 6.4 m.
1
2
3
Ships Telephone
Ships Telephone
Cellulose Store
Ships Telephone
5 ton crane
Ships Telephone
Ro Ro Berth: Draft 7 m.
Fresh Water Connection
Ships Telephone
1
Fresh Water Connection
Ships Telephone
2
Fresh Water Connection
Ships Telephone
3
Main Quay: Max. draft 9 m
North Quay
Max. draft 10m.
Chemical Quay : Max. draft 6.4 m.
Fresh Water Connection
Fresh Water Connections
Ro Ro

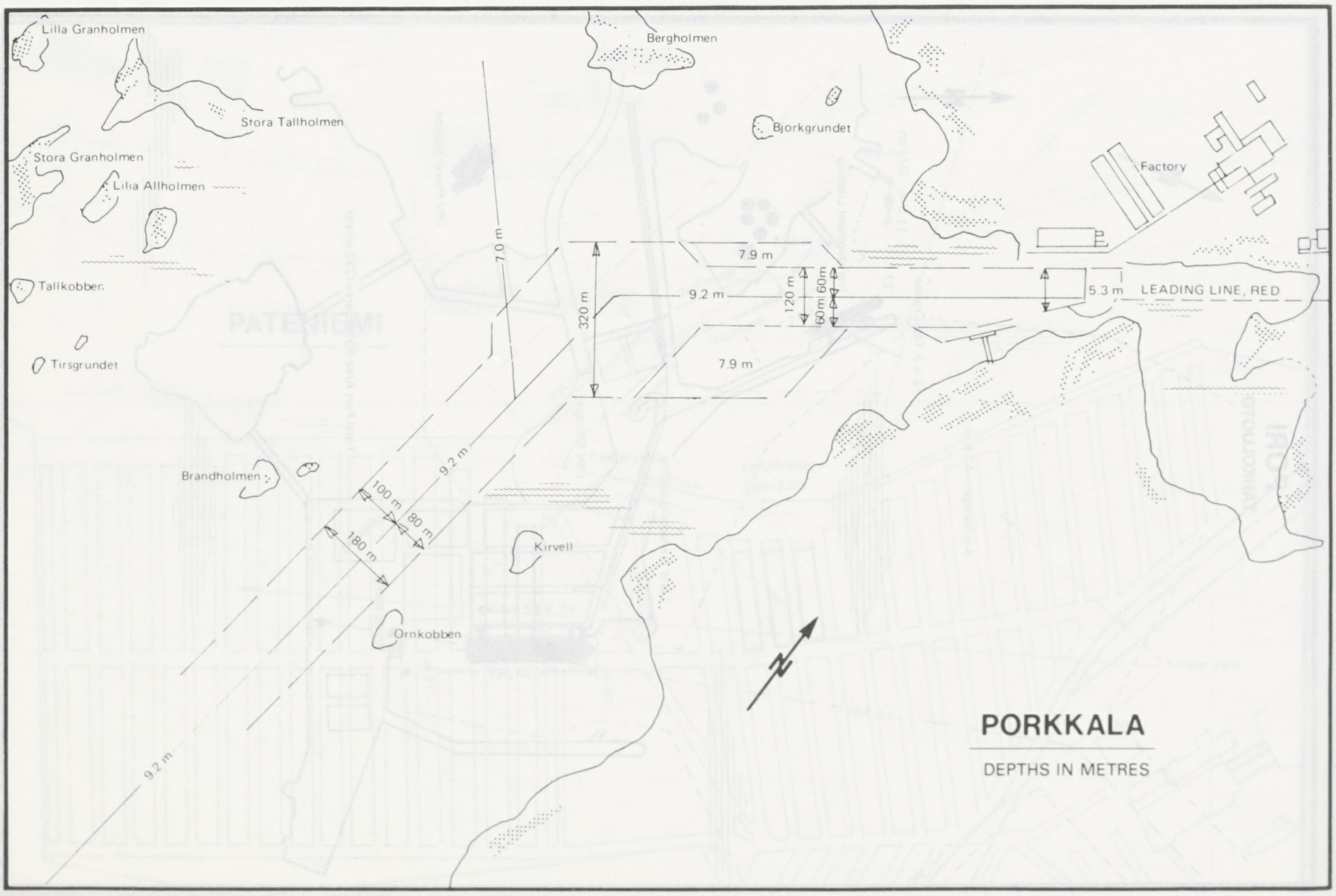

PARGAS
NASBACKEN
SKRABBOLE
BROBACKA
The port of Oy Partek AB
SLIPEN
Lillholmen
Hogen
GUNNARSNAS
SANDFALL
Stortervolandet
BRYNAS
LAHTELA
Tervsund
Langholmen
Brattnas sund
Kvarnholm
MUNKVIKEN
TENNBY
BRATTNAS
SCALE
metres
0
500
1000
Sandfall
Lemlahti Lemlax

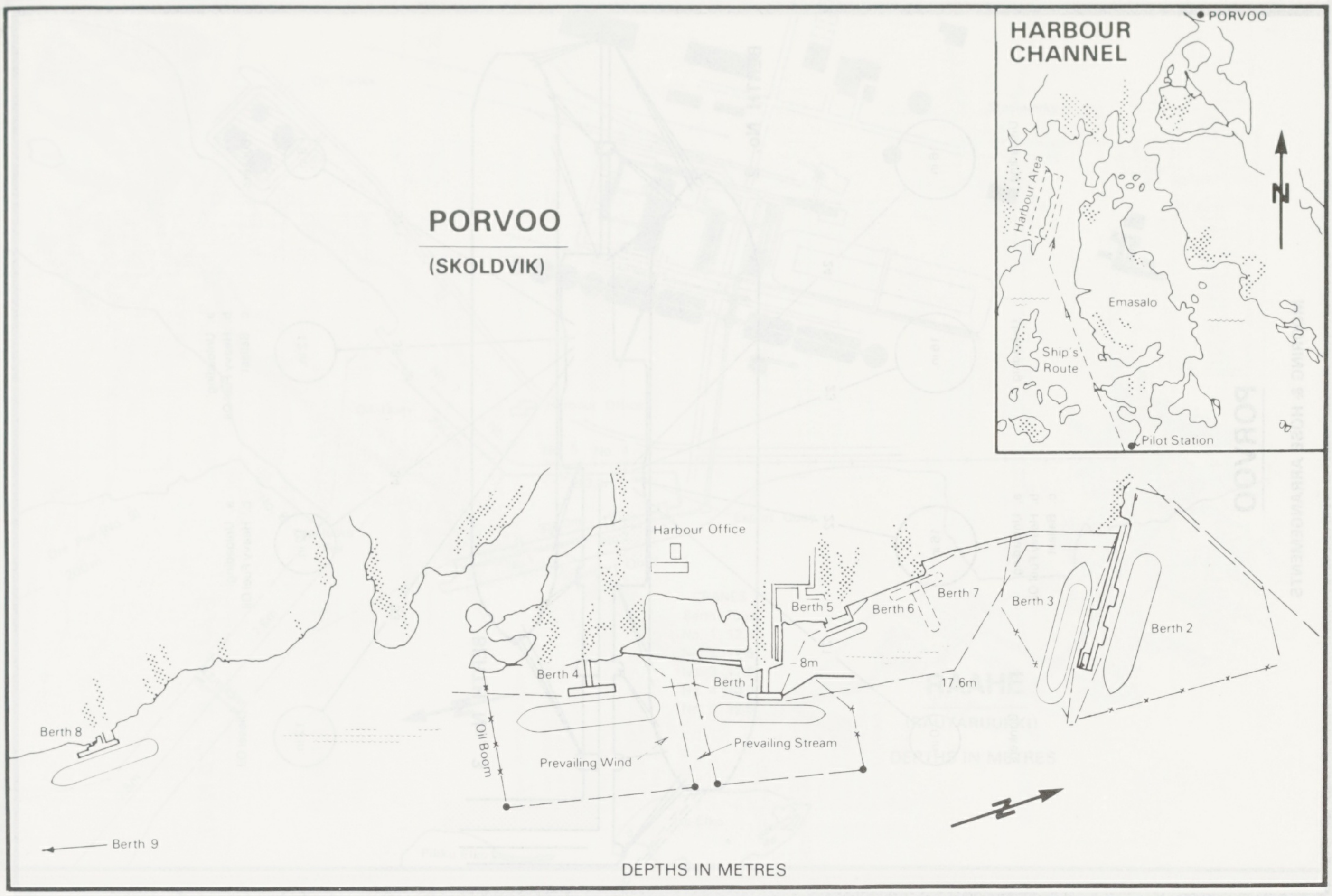

PATENIEMI
6.3 m.
Not in use
Not in use
Not in use
Not in use
Not in use
Timber sheds
Not in use
Length 85m.
depth 6.0m.
Timber yard

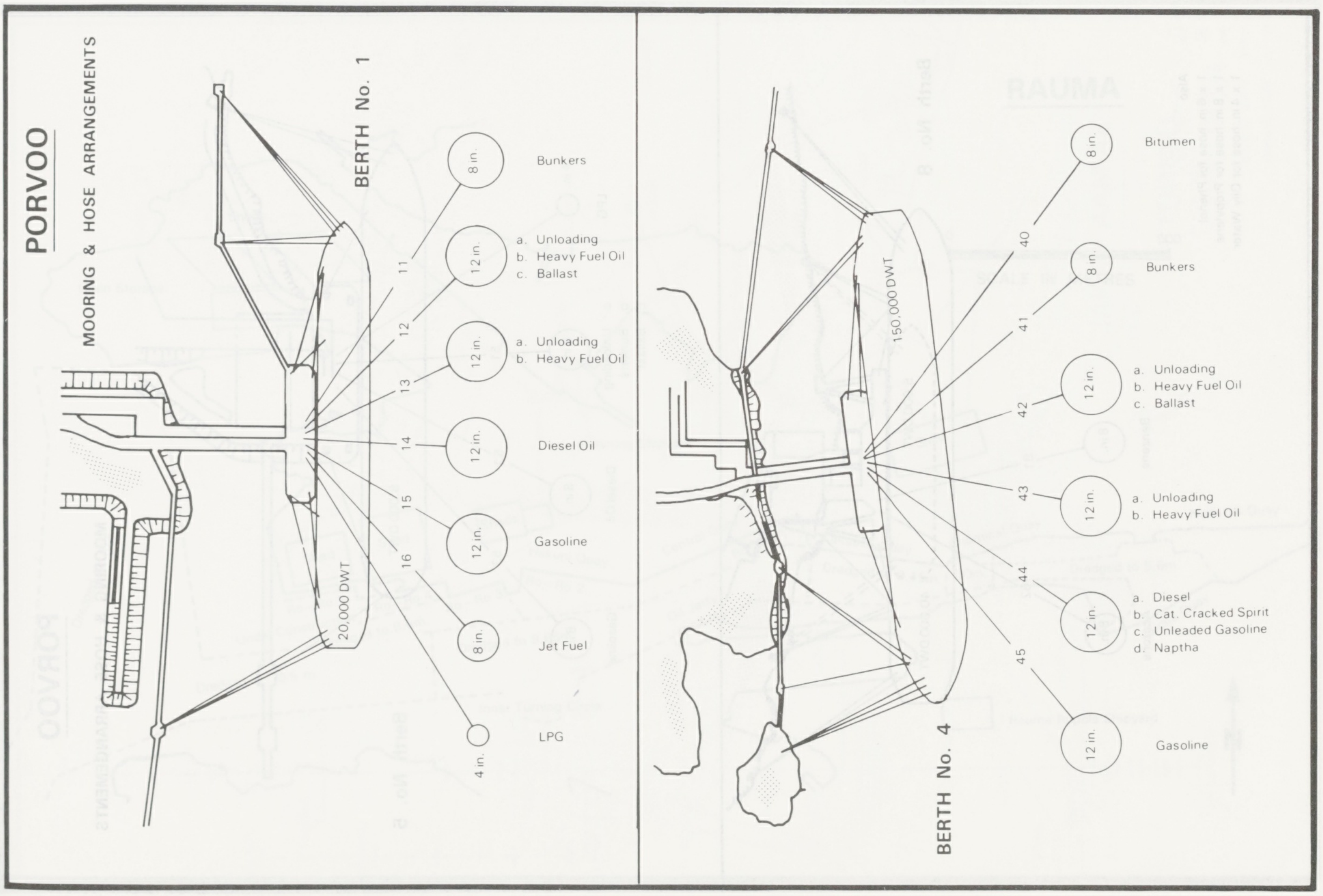

PORI
N
-7.3 m.
-7.0 m.
-6.5 m.
1
-6.0 m.
-5.5 m.
2
-4.5 m.
2 x 3 Ton Cranes
3 Tons
5 Tons
-7.0 m.
3 – 5
5 Tons
3 Tons
1 x 25 Ton Crane
13
-7.0 m.
5 Ton
11 – 12
-6.5 m.
5 Ton
6 – 8
-6.5 m.
10
-3.9 m.
9
-3.9 m.
6 Tons
14 – 18
40 Tons
30 Tons
-8.1 m.
6 Tons
New Building
19
8.3 m. m.
200 Tons
Rauma-Repola Oy
Hacklin
Huoltorakennus
Krogius
MANTYLUOTO
Asema
Port Authority and Customs
0
100
200
SCALE
Cranes
Sheds for Timber

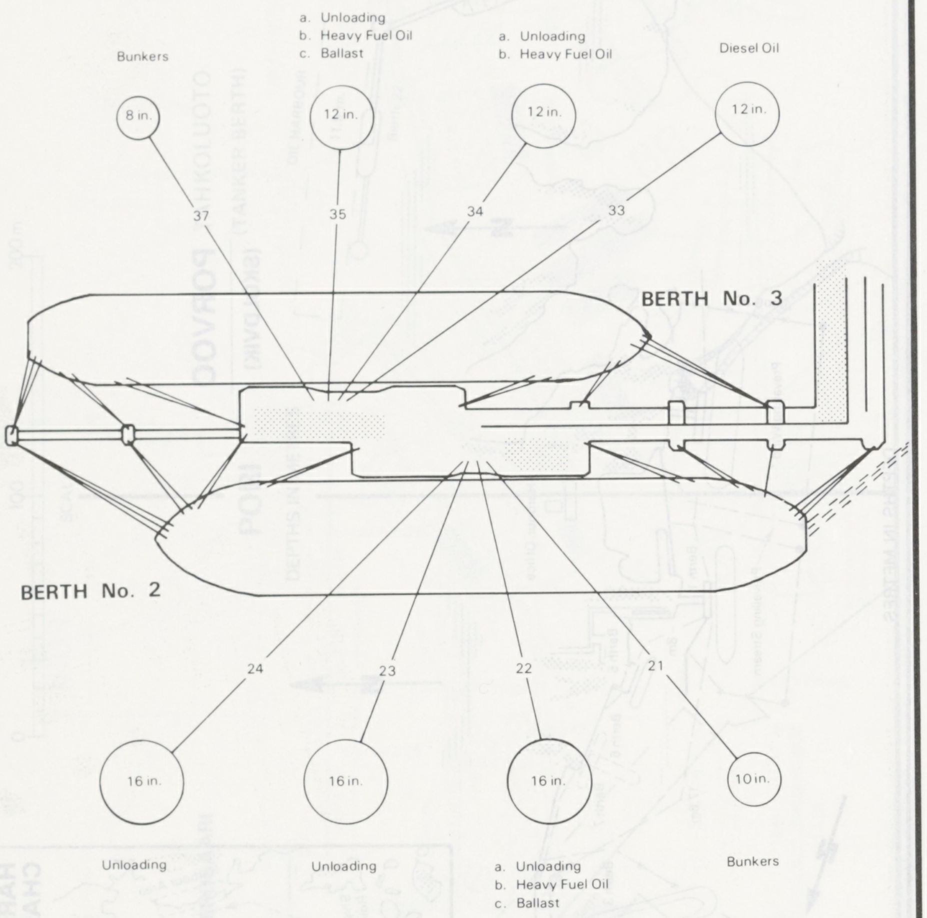

PORI
TAHKOLUOTO
N
Oil Port
-11.5 m.
Transhipment Loading
21
-11.5 m.
2 x 6 Ton Cranes
Anchorage -17.5 m.
LRV Power Station
Total Port Area 90 hectares (222 acres)
LRV Storage
Land Transport Loading
Terminal
Berths 23 & 24
Ro/Ro Ramp
450 m
-15 m.
-16 m.
15.3 m.


0
100
200 m
SCALE
REPOSAARI
PORI
DEPTHS IN METRES
TAHKOLUOTO
(TANKER BERTH)
OIL HARBOUR
11.5 m.
Berth 22
N
N
4.5 m.
Berth 20


Lilla Granholmen
Stora Tallholmen
Stora Granholmen
Lilla Allholmen
Tallkobben
Tirsgrundet
Bergholmen
Bjorkgrundet
Factory
7.0 m
7.9 m
9.2 m
320 m
120 m
60 m
60 m
5.3 m
LEADING LINE, RED
7.9 m
Brandholmen
100 m
80 m
180 m
9.2 m
Kirvell
Ornkobben
9.2 m
PORKKALA
DEPTHS IN METRES


PORVOO
(SKOLDVIK)
HARBOUR CHANNEL
PORVOO
Harbour Area
Emasalo
Ship's Route
Pilot Station
N
Harbour Office
Berth 5
Berth 6
Berth 7
Berth 3
Berth 2
Berth 4
Berth 1
8m
17.6m
Berth 8
Oil Boom
Prevailing Wind
Prevailing Stream
N
Berth 9
DEPTHS IN METRES


PORVOO
MOORING & HOSE ARRANGEMENTS
BERTH No. 1
20,000 DWT
11
12
13
14
15
16
8 in.
Bunkers
12 in.
a. Unloading
b. Heavy Fuel Oil
c. Ballast
12 in.
a. Unloading
b. Heavy Fuel Oil
12 in.
Diesel Oil
12 in.
Gasoline
8 in.
Jet Fuel
4 in.
LPG
BERTH No. 4
150,000 DWT
40
41
42
43
44
45
8 in.
Bitumen
8 in.
Bunkers
12 in.
a. Unloading
b. Heavy Fuel Oil
c. Ballast
12 in.
a. Unloading
b. Heavy Fuel Oil
12 in.
a. Diesel
b. Cat. Cracked Spirit
c. Unleaded Gasoline
d. Naptha
12 in.
Gasoline

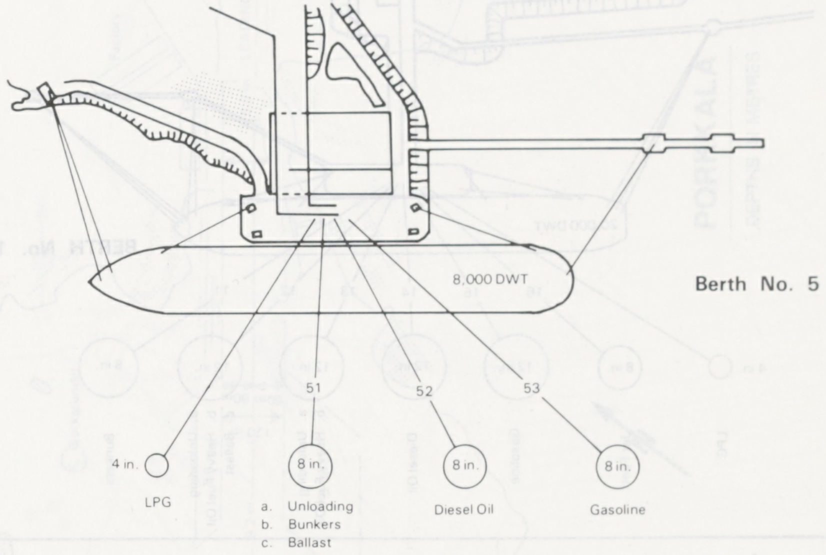

Bunkers
8 in.
37
a. Unloading
b. Heavy Fuel Oil
c. Ballast
12 in.
35
a. Unloading
b. Heavy Fuel Oil
12 in.
34
Diesel Oil
12 in.
33
BERTH No. 3
BERTH No. 2
24
23
22
21
16 in.
16 in.
16 in.
10 in.
Unloading
Unloading
a. Unloading
b. Heavy Fuel Oil
c. Ballast
Bunkers

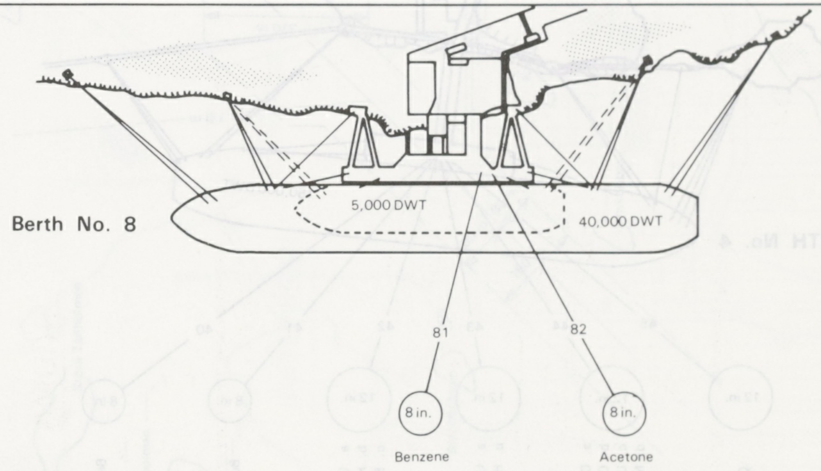
PORVOO

MOORING & HOSE ARRANGEMENTS

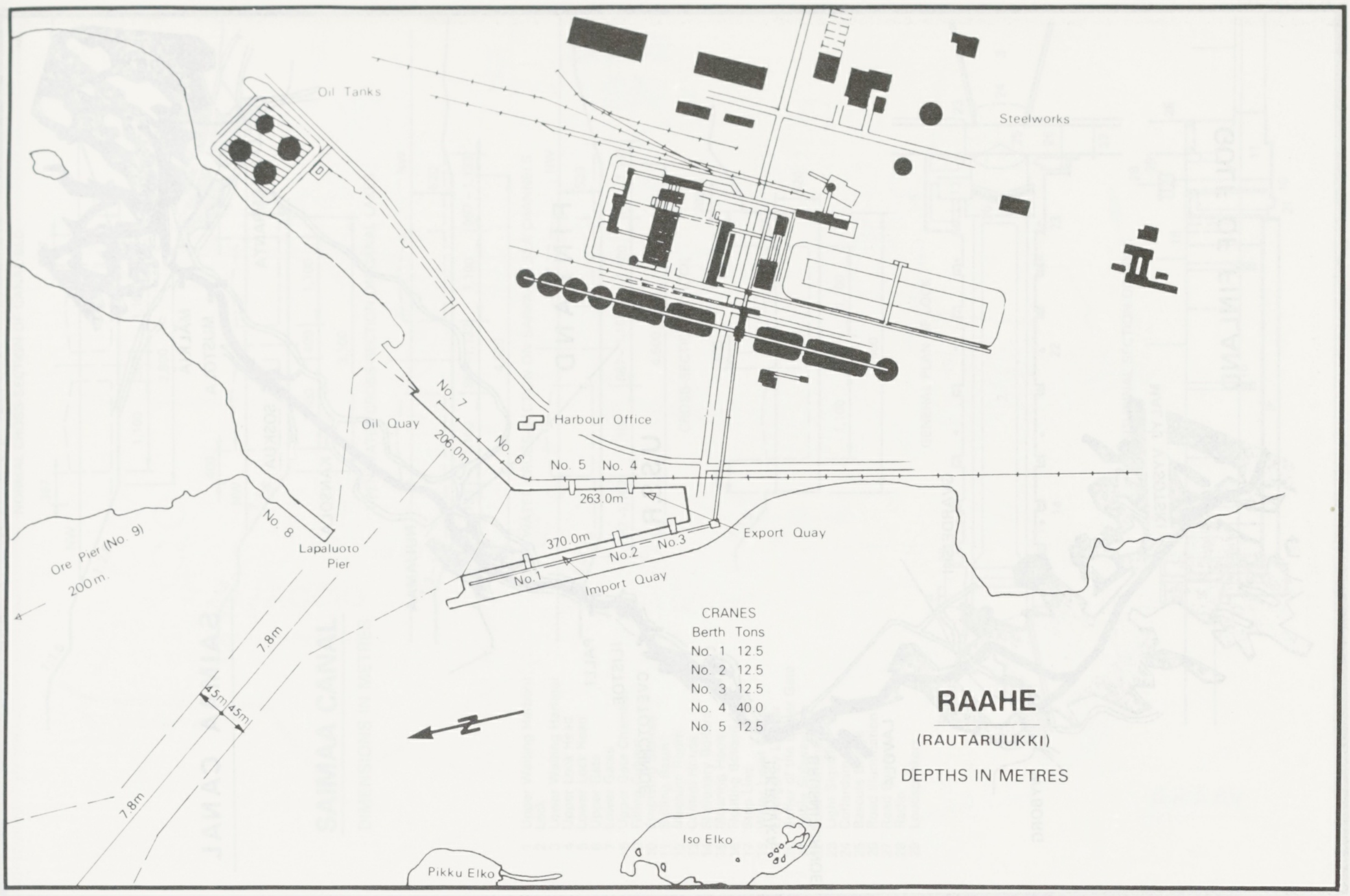
PORVOO

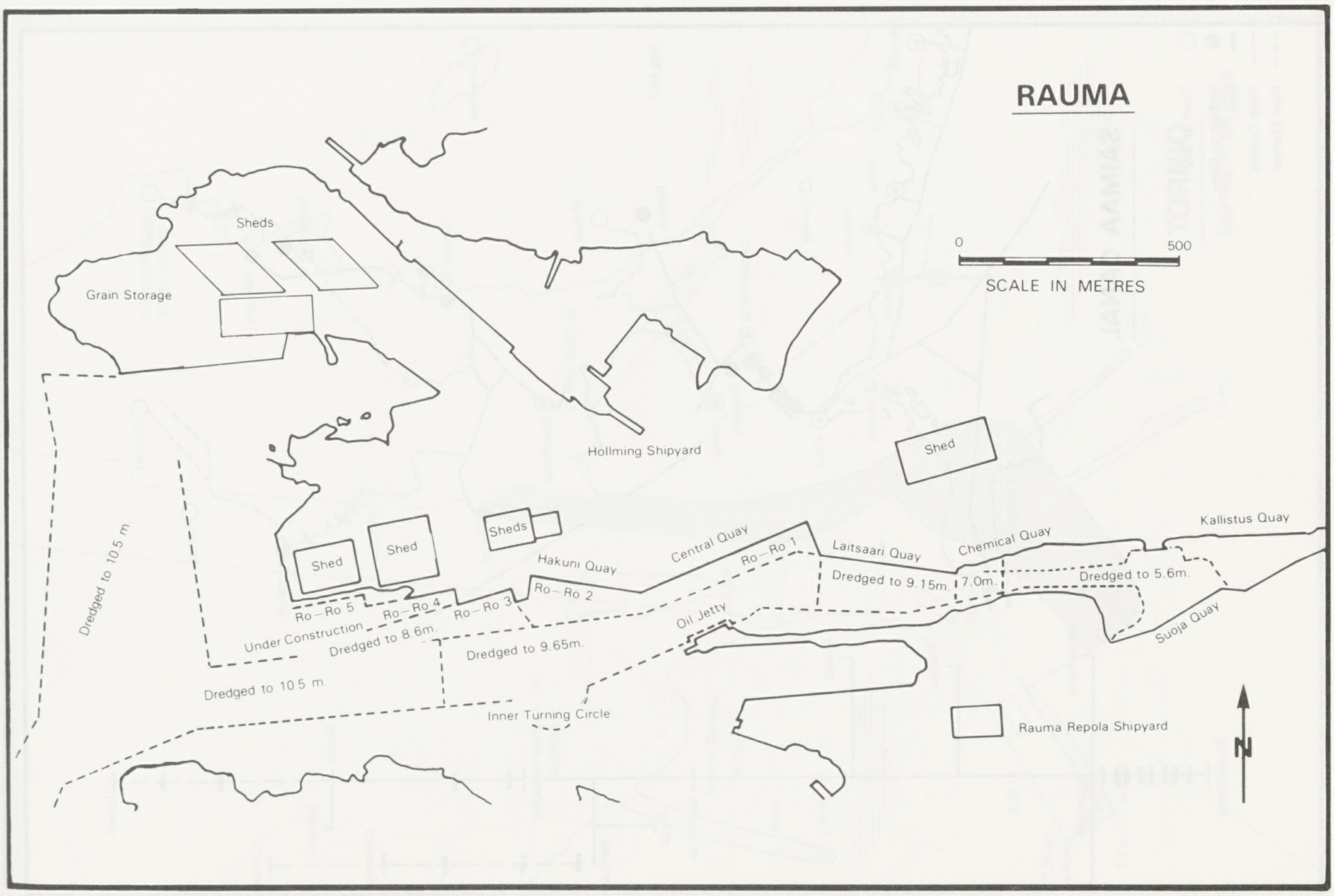
MOORING & HOSE ARRANGEMENTS

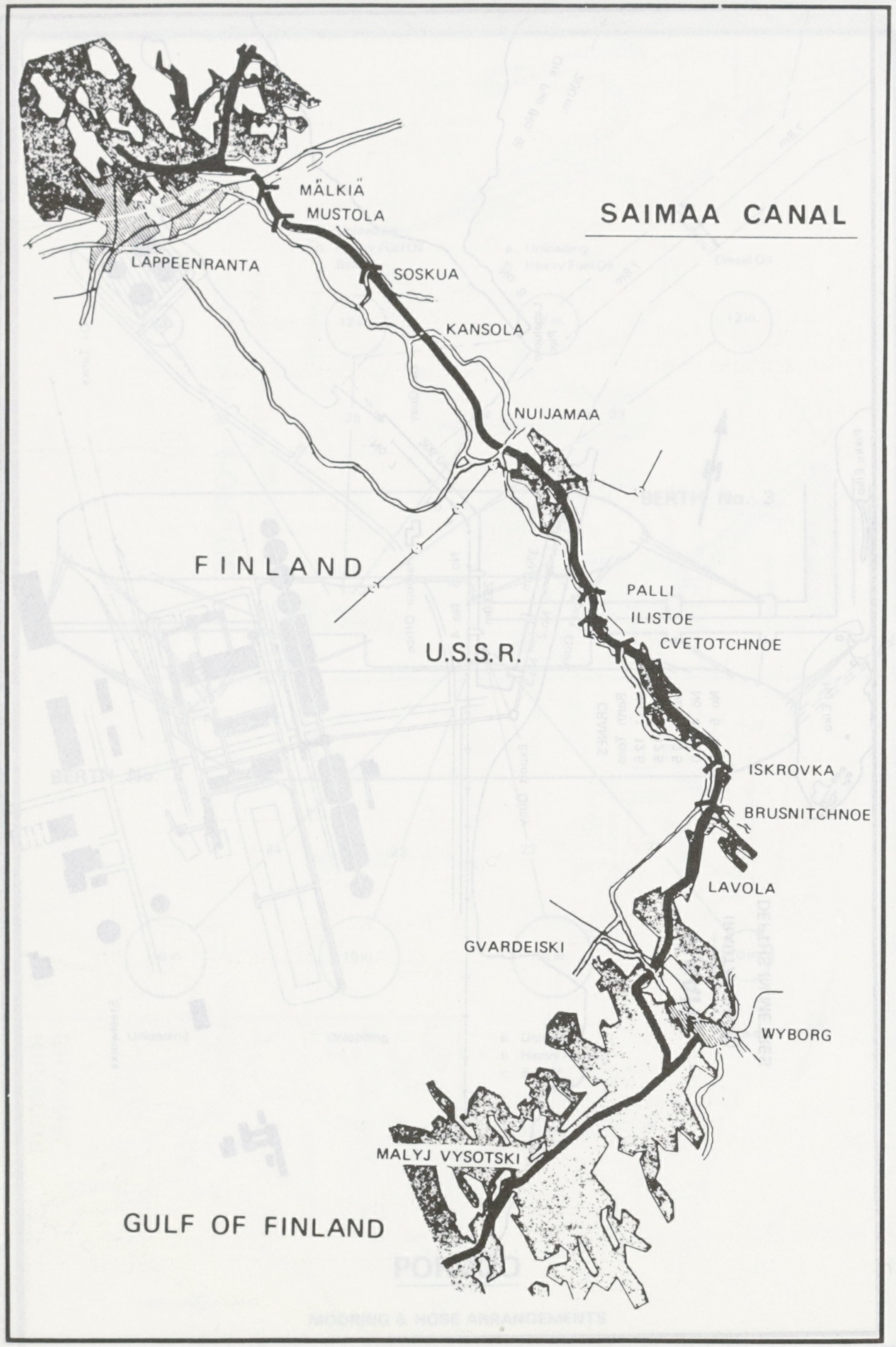

8,000 DWT
Berth No. 5
51
52
53
4 in.
8 in.
8 in.
8 in.
LPG
a. Unloading
b. Bunkers
c. Ballast
Diesel Oil
Gasoline

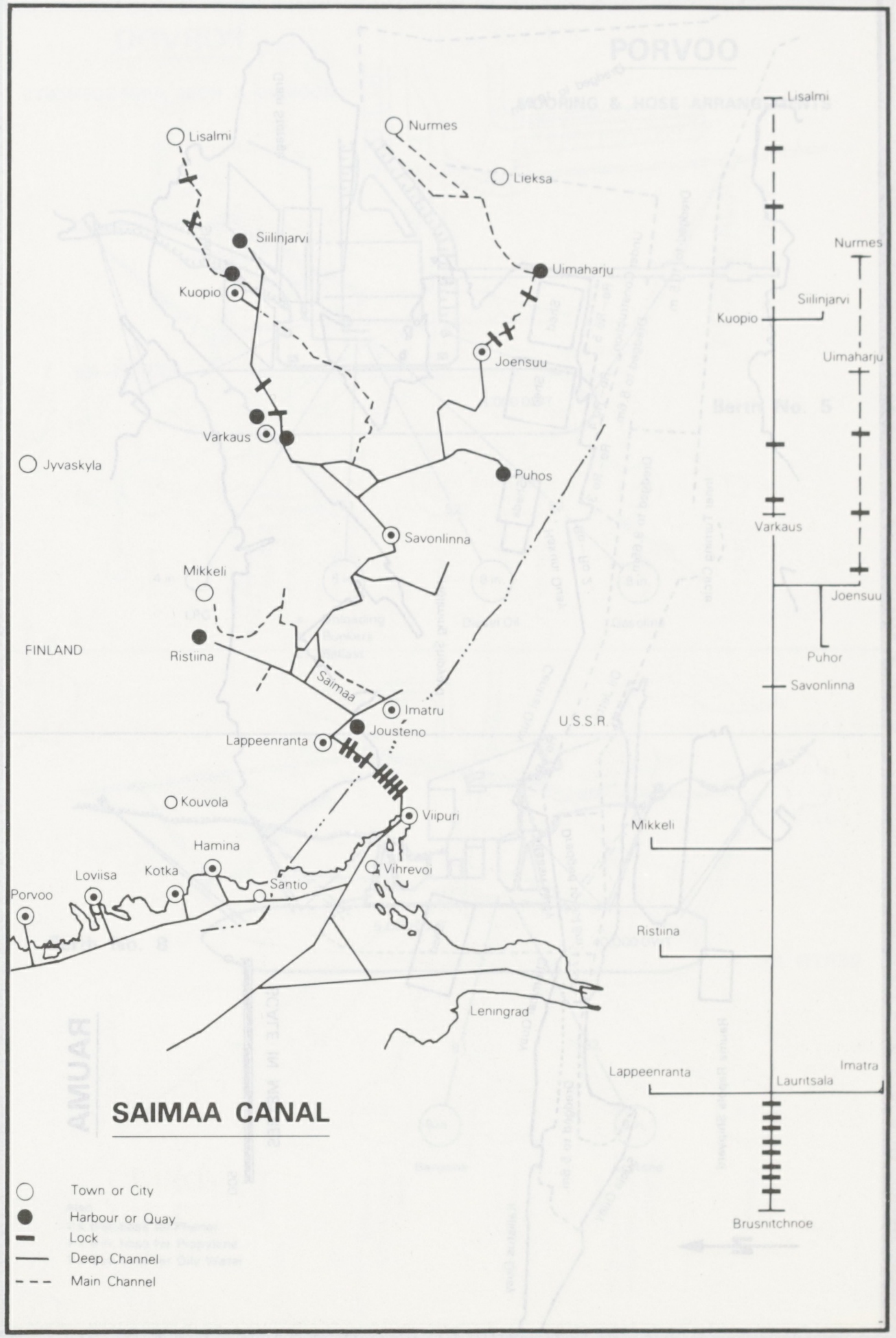

Berth No. 8
5,000 DWT
40,000 DWT
81
82
8 in.
8 in.
Benzene
Acetone

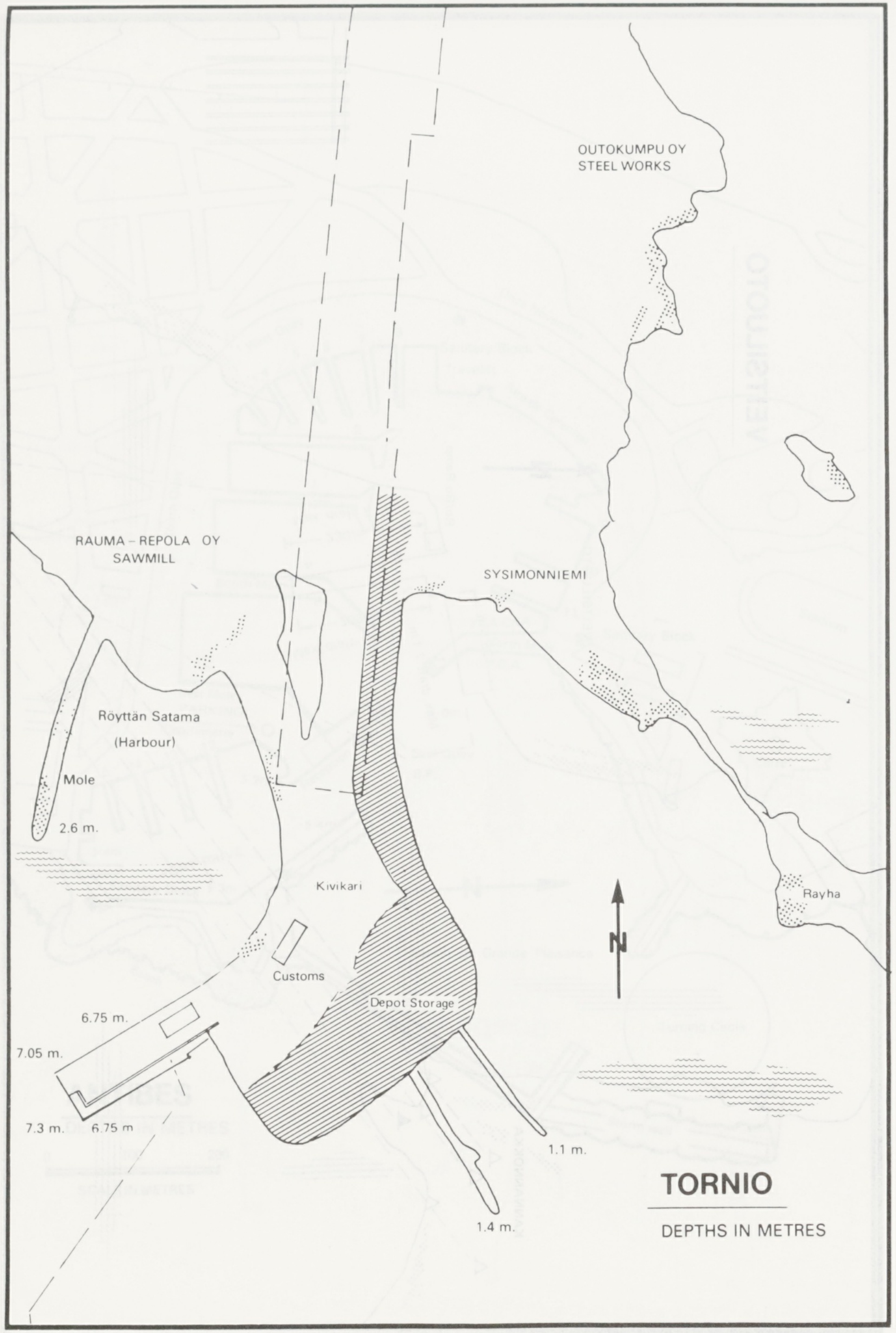
Also
1 x 6 in. hose for Phenol
1 x 8 in. hose for Propylene
1 x 4 in. hose for Oily Water


RAAHE
(RAUTARUUKKI)
DEPTHS IN METRES
Oil Tanks
Steelworks
Harbour Office
Oil Quay
No. 7
No. 6
206.0m
No. 5
No. 4
263.0m
Export Quay
370.0m
No.1
No.2
No.3
Import Quay
No. 8
Lapaluoto Pier
Ore Pier (No 9)
200m
7.8m
45m
45m
7.8m
N
CRANES
Berth Tons
No. 1 12.5
No. 2 12.5
No. 3 12.5
No. 4 40.0
No. 5 12.5
Iso Elko
Pikku Elko


RAUMA
0
500
SCALE IN METRES
Sheds
Grain Storage
Hollming Shipyard
Shed
Shed
Shed
Sheds
Shed
Hakuni Quay
Central Quay
Ro–Ro 1
Laitsaari Quay
Chemical Quay
Kallistus Quay
Dredged to 9.15m.
7.0m.
Dredged to 5.6m.
Suoja Quay
Ro–Ro 2
Ro–Ro 3
Ro–Ro 4
Ro–Ro 5
Under Construction
Dredged to 8.6m.
Dredged to 9.65m.
Oil Jetty
Dredged to 10.5 m.
Dredged to 10.5 m.
Inner Turning Circle
Rauma Repola Shipyard
N


SAIMAA CANAL
MÄLKIÄ
MUSTOLA
LAPPEENRANTA
SOSKUA
KANSOLA
NUIJAMAA
FINLAND
U.S.S.R.
PALLI
ILISTOE
CVETOTCHNOE
ISKROVKA
BRUSNITCHNOE
LAVOLA
GVARDEISKI
WYBORG
MALYJ VYSOTSKI
GULF OF FINLAND


Lisalmi
Nurmes
Lieksa
Siilinjarvi
Uimaharju
Kuopio
Joensuu
Varkaus
Jyvaskyla
Puhos
Savonlinna
Mikkeli
FINLAND
Ristiina
Saimaa
Imatru
Jousteno
Lappeenranta
U.S.S.R
Kouvola
Viipuri
Hamina
Vihrevoi
Kotka
Loviisa
Santio
Porvoo
Leningrad
Lisalmi
Nurmes
Siilinjarvi
Kuopio
Uimaharju
Varkaus
Joensuu
Puhor
Savonlinna
Mikkeli
Ristiina
Lappeenranta
Imatra
Launtsala
Brusnitchnoe
SAIMAA CANAL
○ Town or City
● Harbour or Quay
Lock
Deep Channel
Main Channel


OUTOKUMPU OY
STEEL WORKS
RAUMA – REPOLA OY
SAWMILL
SYSIMONNIEMI
Röyttän Satama
(Harbour)
Mole
2.6 m.
Kivikari
Customs
Depot Storage
6.75 m.
7.05 m.
7.3 m.
6.75 m
1.1 m.
1.4 m.
Rayha
N

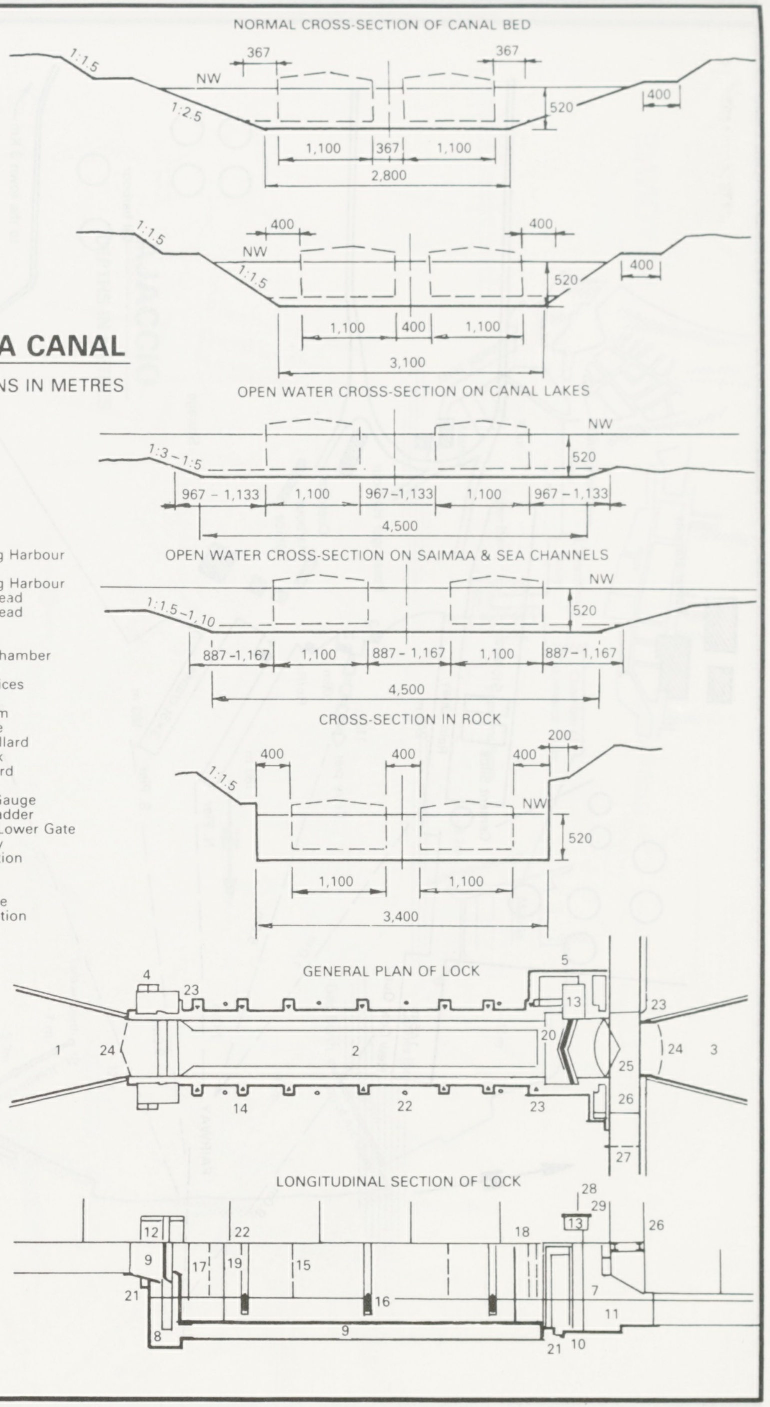
TORNIO

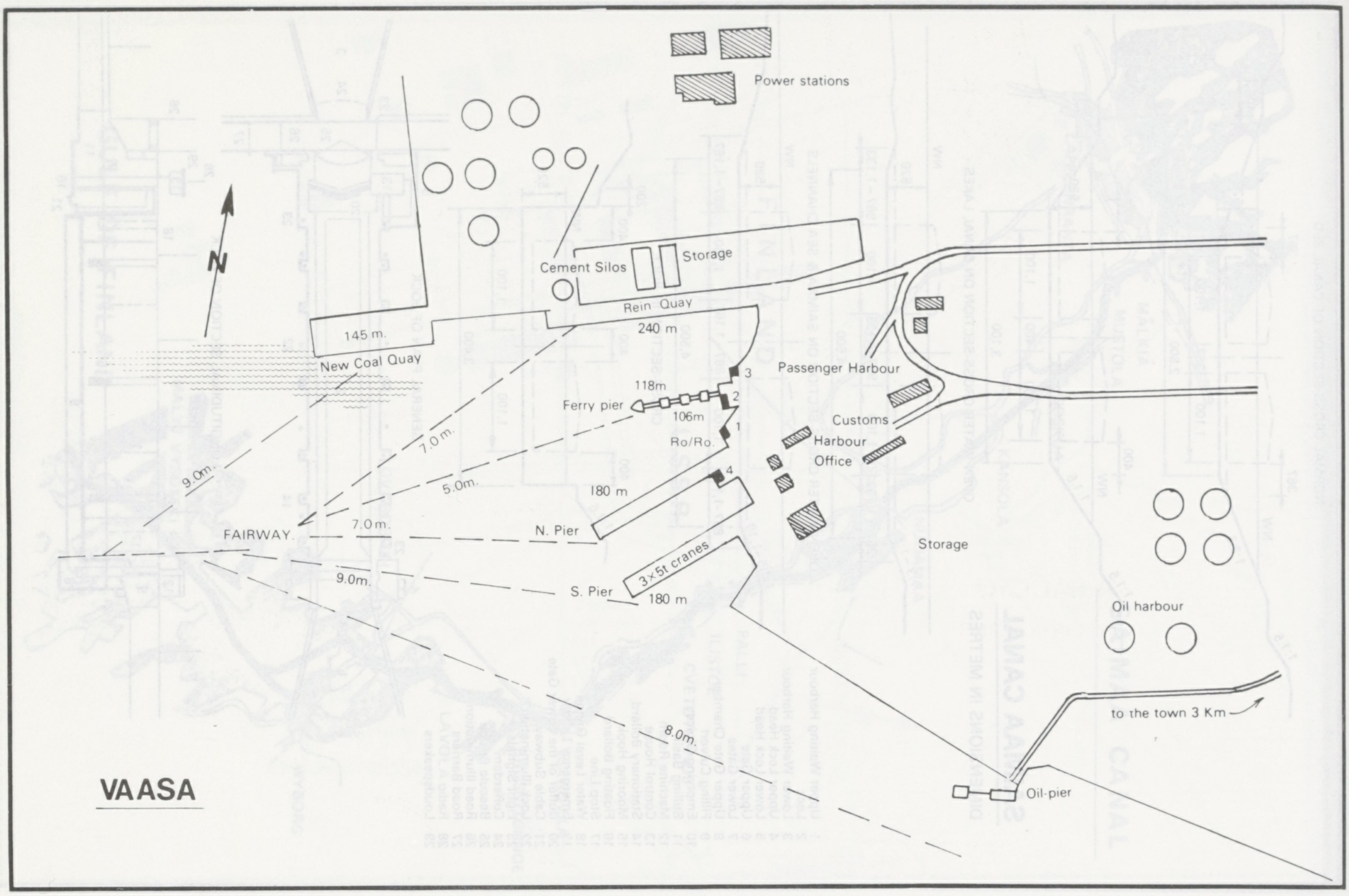
DEPTHS IN METRES

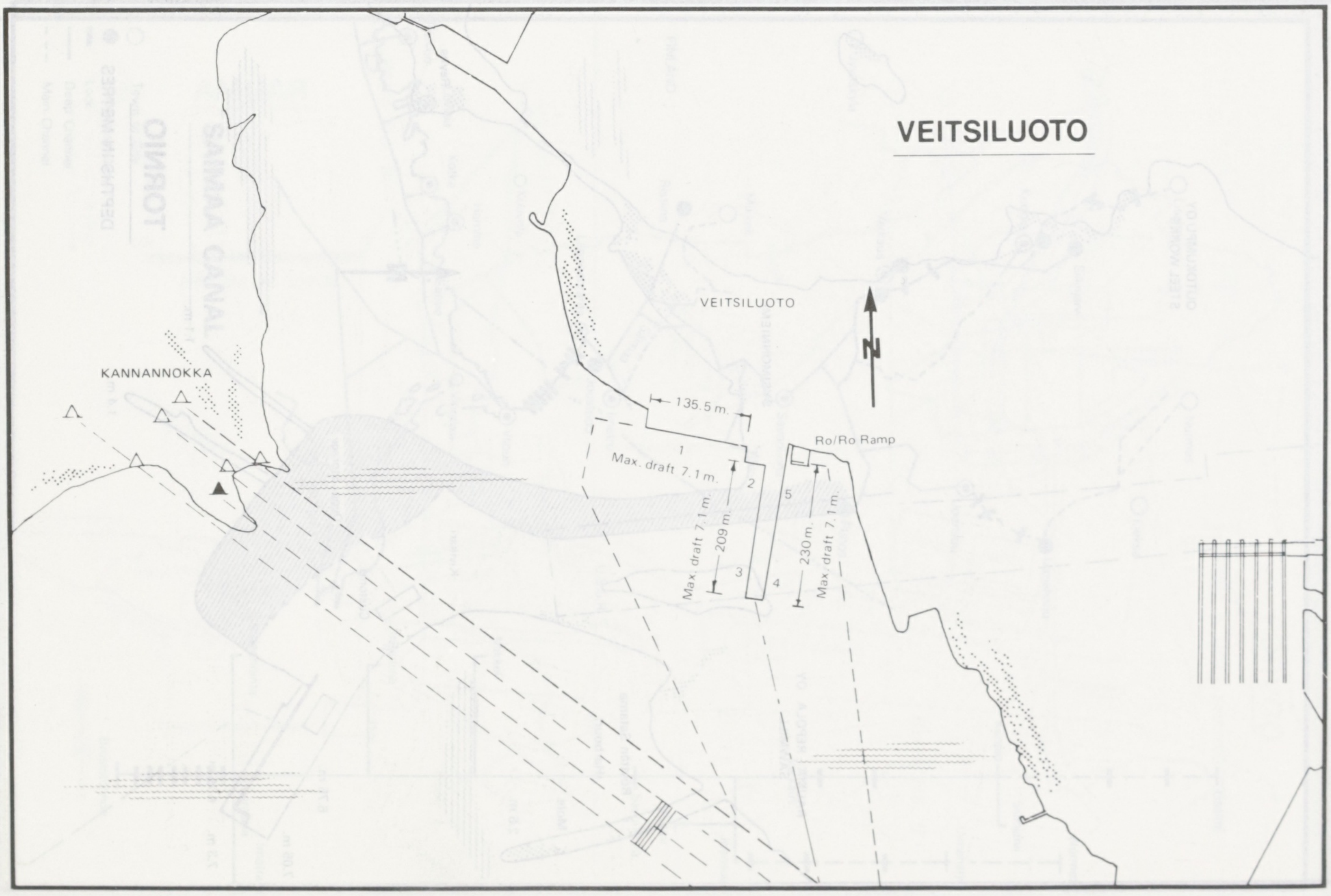
SAIMAA CANAL

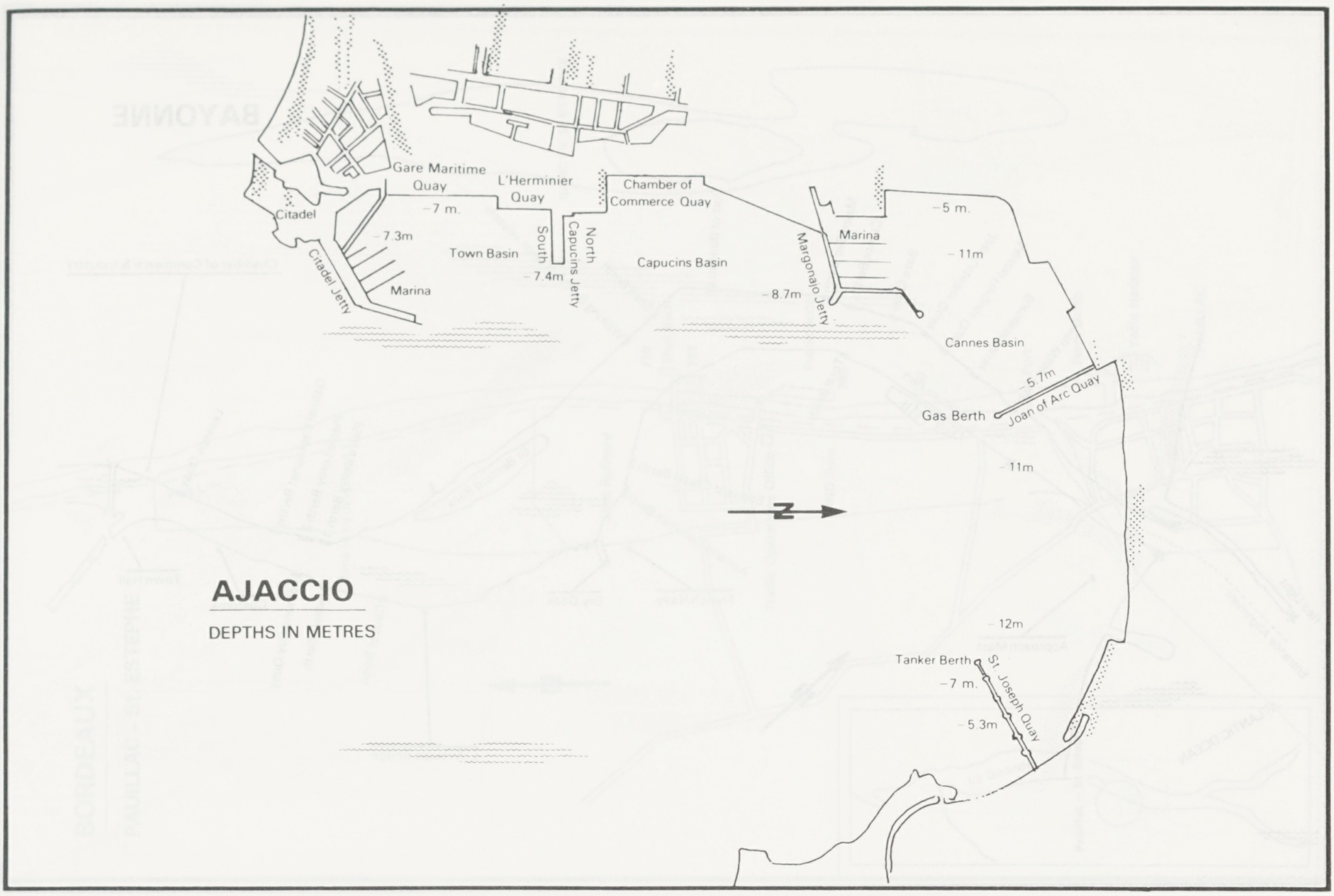
DIMENSIONS IN METRES

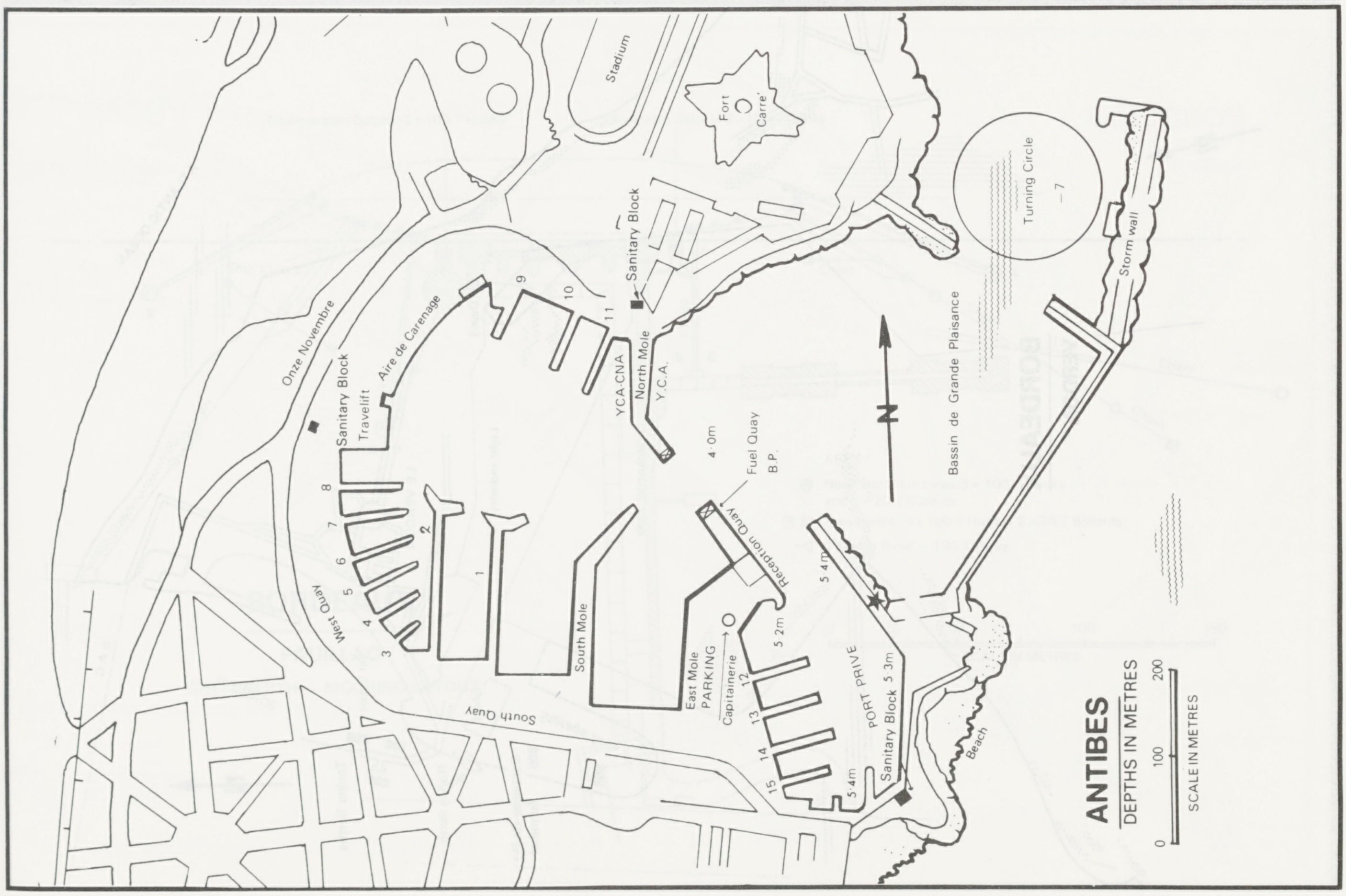
1 Upper Waiting Harbour
2 Lock
3 Lower Waiting Harbour
4 Upper Lock Head
5 Lower Lock Head
6 Upper Gate
7 Lower Gates
8 Upper Gate Chamber
9 Filling Culvert
10 Emptying Sluices
11 Stilling Basin
12 Machine Room
13 Control House
14 Stationary Bollard
15 Mooring Hook
16 Floating Bollard
17 Stop Line
18 Water Level Gauge
19 Emergency Ladder
20 Buffer of the Lower Gate
21 Cable Subway
22 Lock Illumination
23 Light Signals
24 Cofferdam
25 Bascule Bridge
26 Road Illumination
27 Road Barriers
28 Radio
29 Loudspeakers

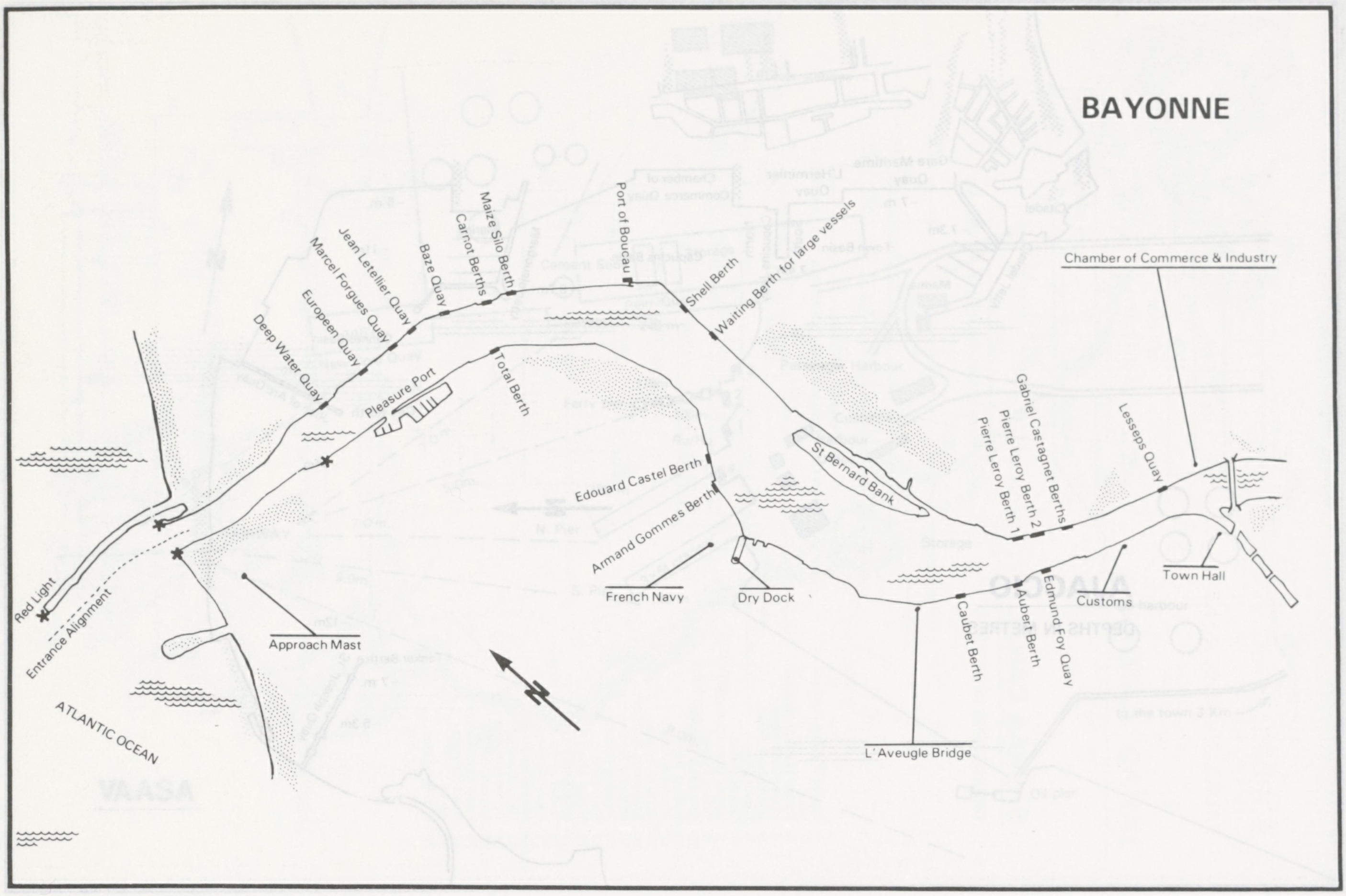

NORMAL CROSS-SECTION OF CANAL BED
1:1.5
367
367
NW
1:2.5
520
400
1,100
367
1,100
2,800
1:1.5
400
400
NW
1:1.5
520
400
1,100
400
1,100
3,100
OPEN WATER CROSS-SECTION ON CANAL LAKES
NW
1:3 – 1:5
520
967 – 1,133
1,100
967–1,133
1,100
967 – 1,133
4,500
OPEN WATER CROSS-SECTION ON SAIMAA & SEA CHANNELS
NW
1:1.5–1.10
520
887 –1,167
1,100
887 – 1,167
1,100
887 – 1,167
4,500
CROSS-SECTION IN ROCK
200
400
400
400
1:1.5
NW
520
1,100
1,100
3,400
GENERAL PLAN OF LOCK
1
2
3
4
5
13
14
20
22
23
24
25
26
27
LONGITUDINAL SECTION OF LOCK
7
8
9
10
11
12
13
15
16
17
18
19
21
22
26
28
29

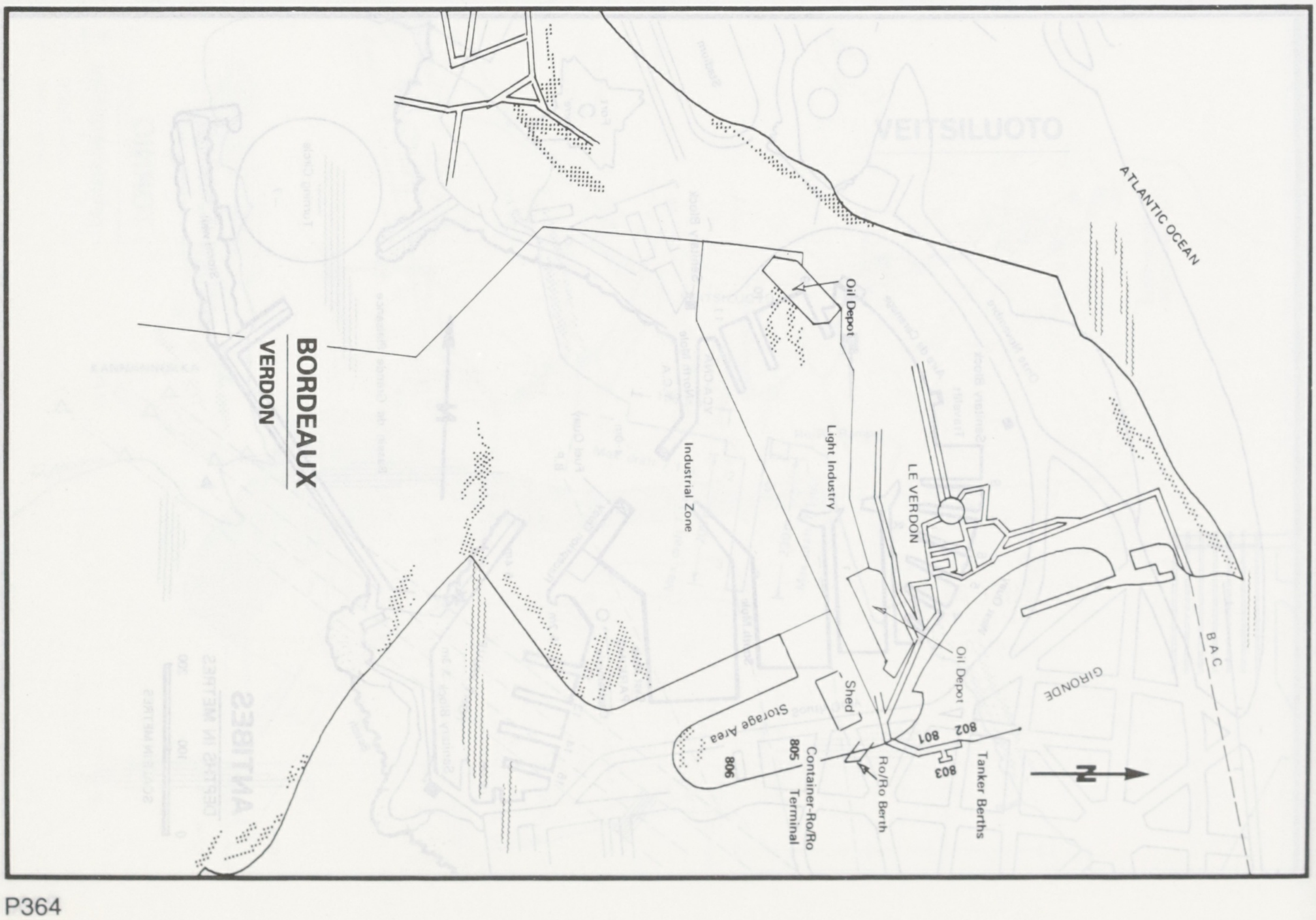

Power stations
Cement Silos
Storage
Rein Quay
240 m
145 m.
New Coal Quay
N
Passenger Harbour
3
118m
2
Ferry pier
106m
1
Ro/Ro
Customs
Harbour
Office
4
180 m
7.0 m.
9.0m.
5.0m.
FAIRWAY
7.0m.
N. Pier
9.0m.
3×5t cranes
S. Pier
180 m
Storage
Oil harbour
to the town 3 Km
8.0m.
Oil-pier
VAASA

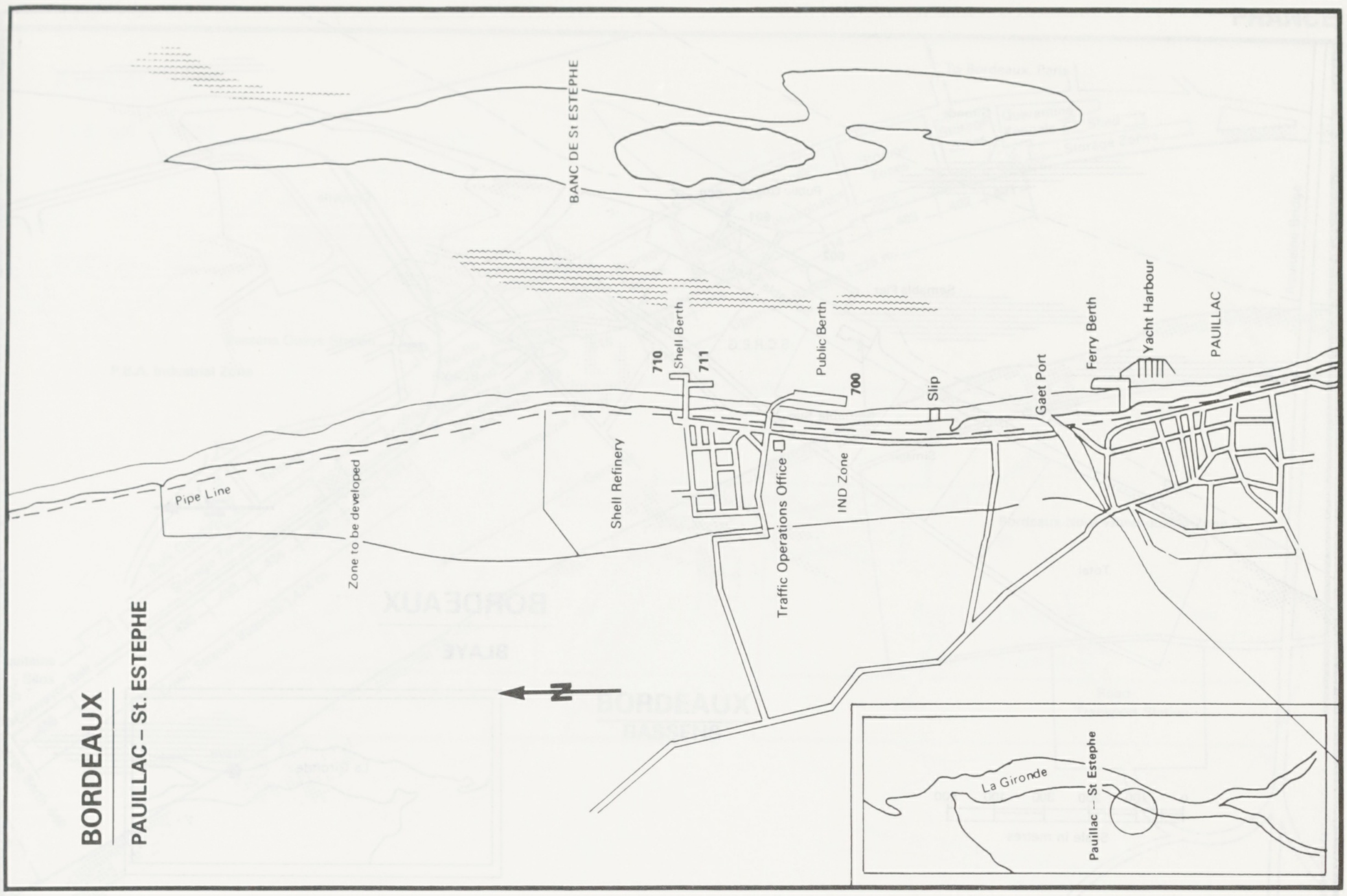

VEITSILUOTO
VEITSILUOTO
N
KANNANNOKKA
135.5 m.
Ro/Ro Ramp
1
Max. draft 7.1 m.
2
5
Max. draft 7.1 m.
209 m.
3
4
230 m.
Max. draft 7.1 m.


AJACCIO
DEPTHS IN METRES
Citadel
Citadel Jetty
Marina
7.3m
Gare Maritime Quay
7 m.
Town Basin
L'Herminier Quay
South
North Capucins Jetty
7.4m
Chamber of Commerce Quay
Capucins Basin
8.7m
Margonajo Jetty
Marina
5 m.
11m
Cannes Basin
5.7m
Joan of Arc Quay
Gas Berth
11m
N
12m
Tanker Berth
St. Joseph Quay
7 m.
5.3m


ANTIBES
DEPTHS IN METRES
0
100
200
SCALE IN METRES
Stadium
Fort Carre'
Turning Circle
7
Storm wall
Bassin de Grande Plaisance
N
Sanitary Block
9
10
11
North Mole
YCA-CNA
Y.C.A.
Onze Novembre
Sanitary Block
Travelift
Aire de Carenage
4·0m
Fuel Quay
B.P.
Reception Quay
5·4m
8
7
6
5
4
3
2
1
West Quay
South Mole
South Quay
East Mole
PARKING
Capitainerie
5·2m
12
13
14
15
PORT PRIVE
5·3m
Sanitary Block
5·4m
Beach

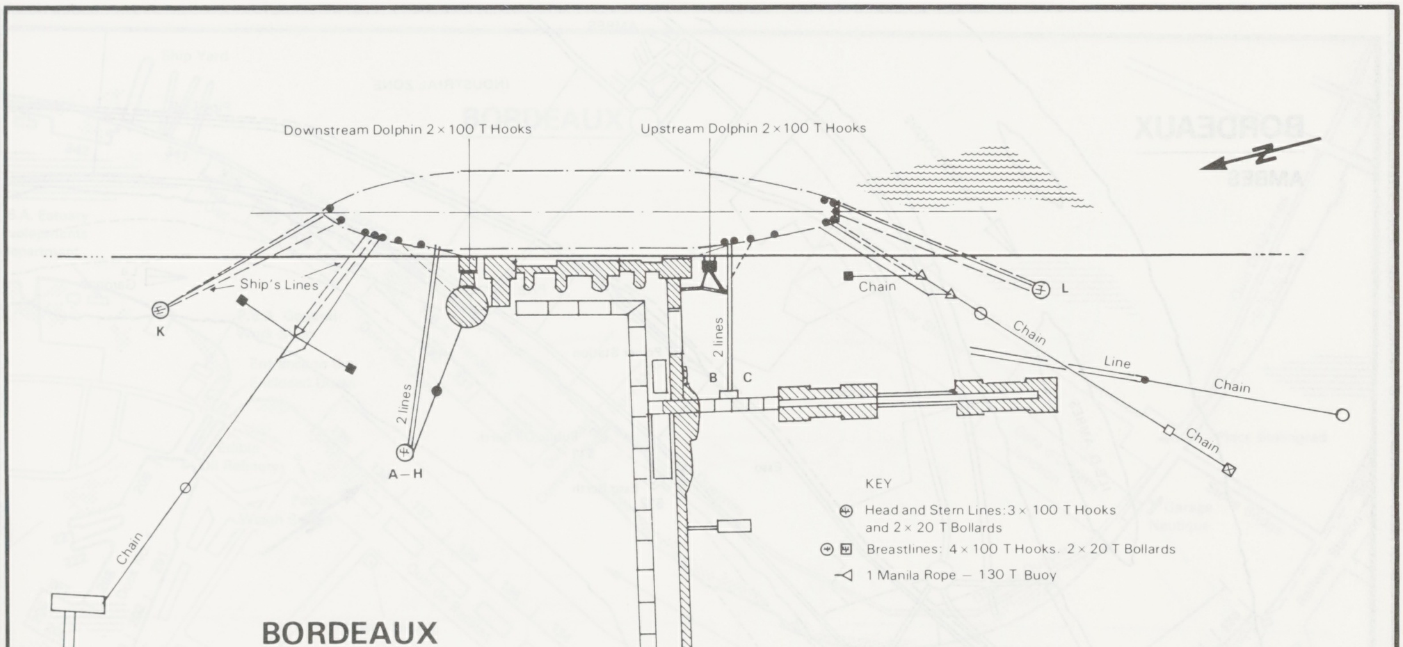

BAYONNE
Chamber of Commerce & Industry
Port of Boucau
Maize Silo Berth
Carnot Berths
Baze Quay
Jean Letellier Quay
Marcel Forgues Quay
Europeen Quay
Deep Water Quay
Pleasure Port
Total Berth
Shell Berth
Waiting Berth for large vessels
Edouard Castel Berth
Armand Gommes Berth
French Navy
Dry Dock
St Bernard Bank
Gabriel Castagnet Berths
Pierre Leroy Berth 2
Pierre Leroy Berth 1
Lesseps Quay
Town Hall
Customs
Edmund Foy Quay
Aubert Berth
Caubet Berth
L'Aveugle Bridge
Red Light
Entrance Alignment
Approach Mast
ATLANTIC OCEAN
N


BORDEAUX
VERDON
Oil Depot
Light Industry
Industrial Zone
LE VERDON
ATLANTIC OCEAN
Oil Depot
Shed
Storage Area
801
802
803
805
806
Tanker Berths
Ro/Ro Berth
Container-Ro/Ro Terminal
GIRONDE
BAC
N


BANC DE St ESTEPHE
710
Shell Berth
711
Public Berth
700
Slip
Gaet Port
Ferry Berth
Yacht Harbour
PAUILLAC
Pipe Line
Zone to be developed
Shell Refinery
Traffic Operations Office
IND Zone
N
La Gironde
Pauillac – St Estephe

BORDEAUX

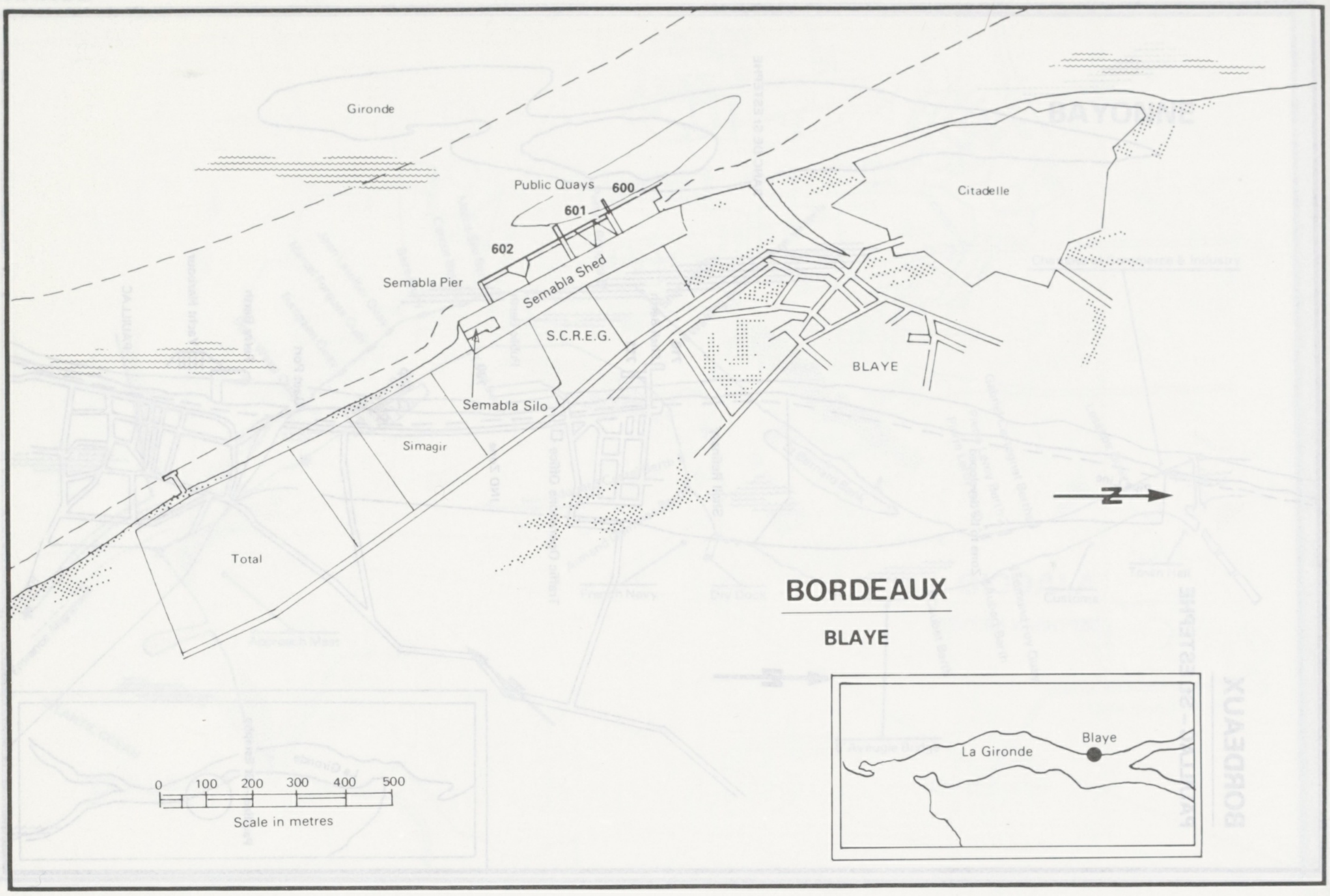
PAUILLAC – St. ESTEPHE

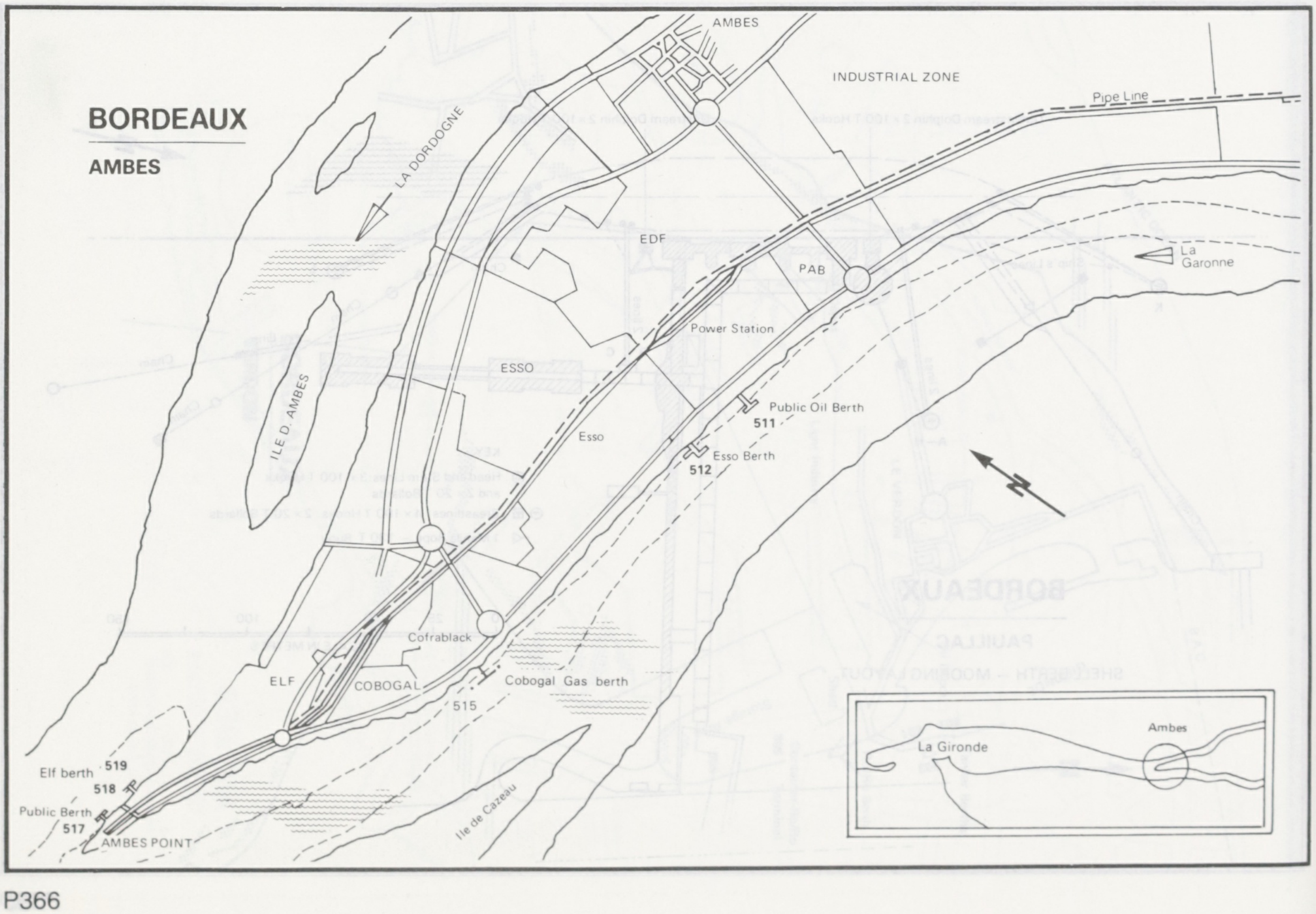

Downstream Dolphin 2 × 100 T Hooks
Upstream Dolphin 2 × 100 T Hooks
N
Ship's Lines
K
2 lines
A – H
2 lines
B
C
Chain
L
Chain
Line
Chain
Chain
Chain
KEY
Head and Stern Lines: 3 × 100 T Hooks and 2 × 20 T Bollards
Breastlines: 4 × 100 T Hooks. 2 × 20 T Bollards
1 Manila Rope — 130 T Buoy
0
25
50
100
150
SCALE IN METRES

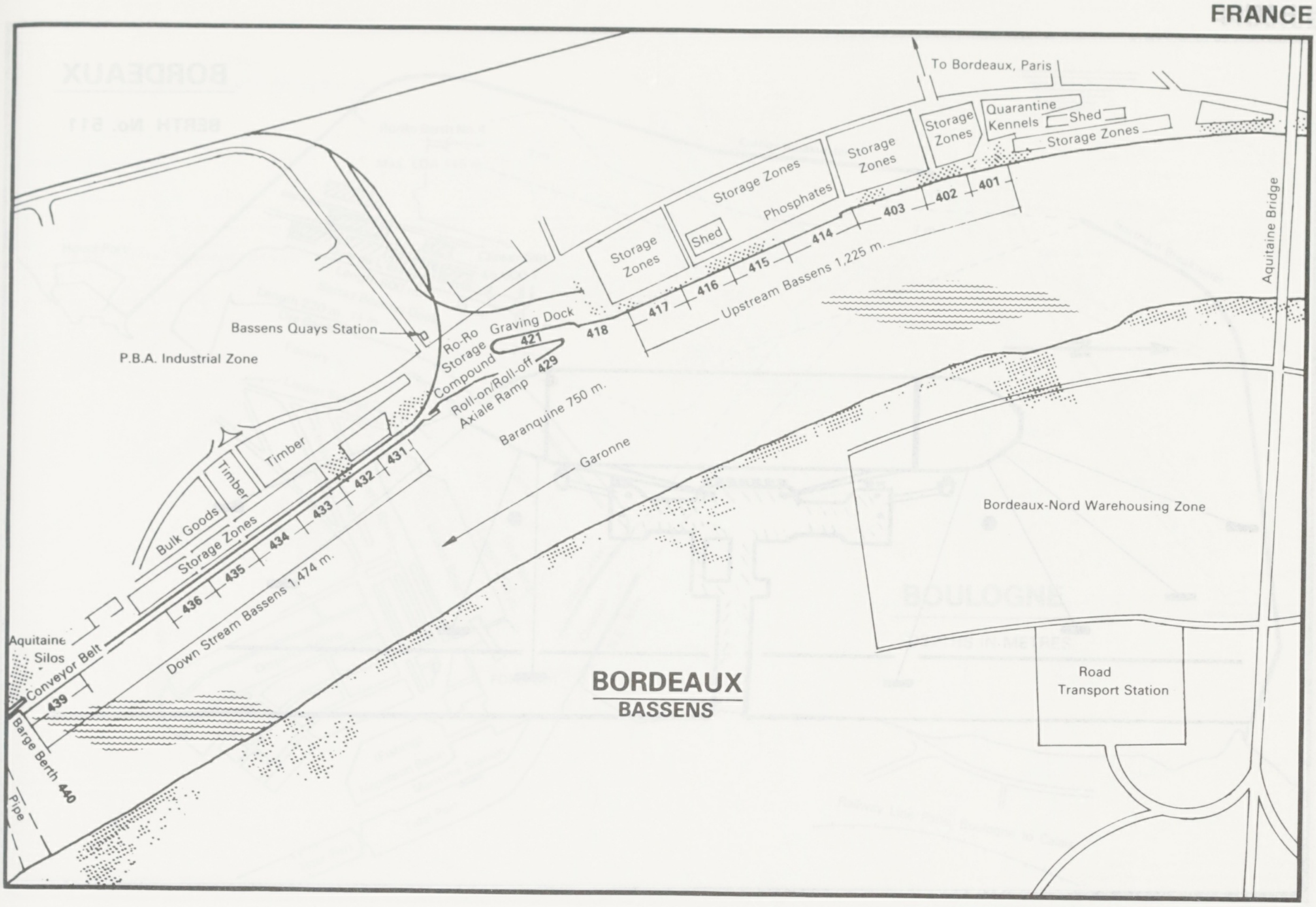
BORDEAUX

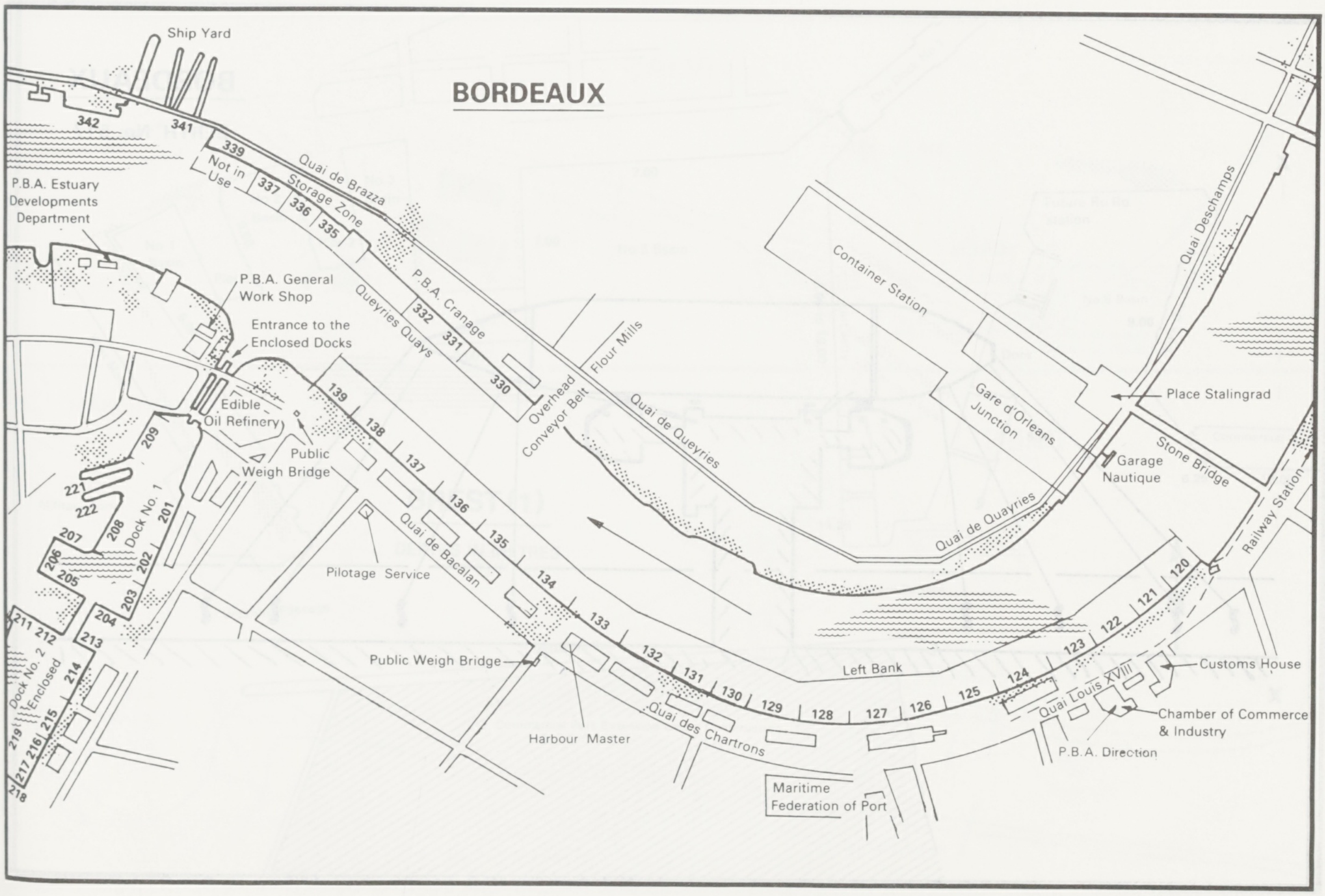
PAUILLAC

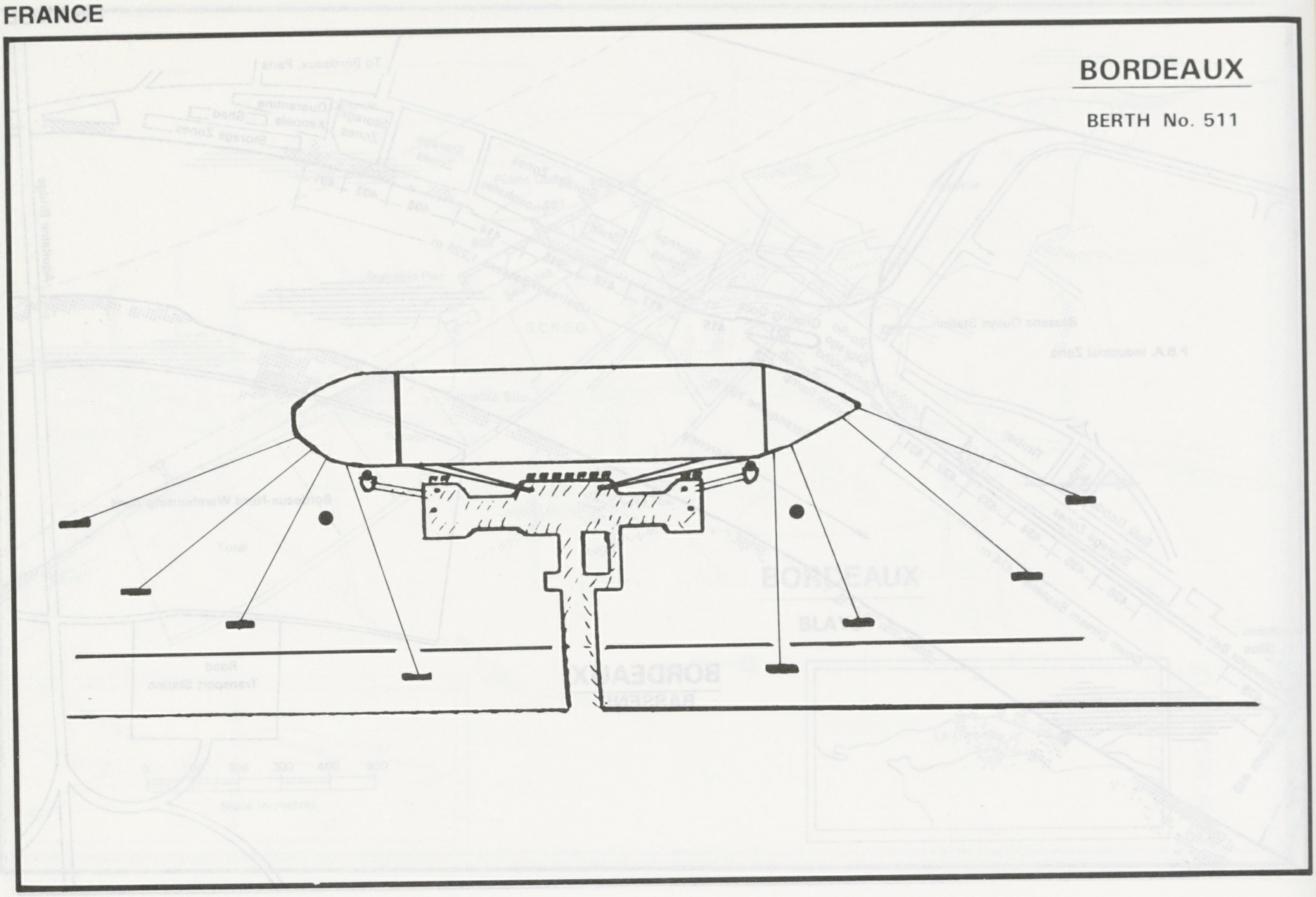
SHELL BERTH — MOORING LAYOUT


Gironde
Public Quays
600
601
602
Semabla Pier
Semabla Shed
S.C.R.E.G.
Semabla Silo
Simagir
Total
Citadelle
BLAYE
N
BORDEAUX
BLAYE
La Gironde
Blaye
0
100
200
300
400
500
Scale in metres


AMBES
INDUSTRIAL ZONE
Pipe Line
BORDEAUX
AMBES
LA DORDOGNE
EDF
PAB
La Garonne
Power Station
ESSO
ILE D. AMBES
Public Oil Berth
511
Esso
Esso Berth
512
N
Cofrablack
ELF
COBOGAL
Cobogal Gas berth
515
Elf berth
519
518
Public Berth
517
AMBES POINT
Ile de Cazeau
La Gironde
Ambes

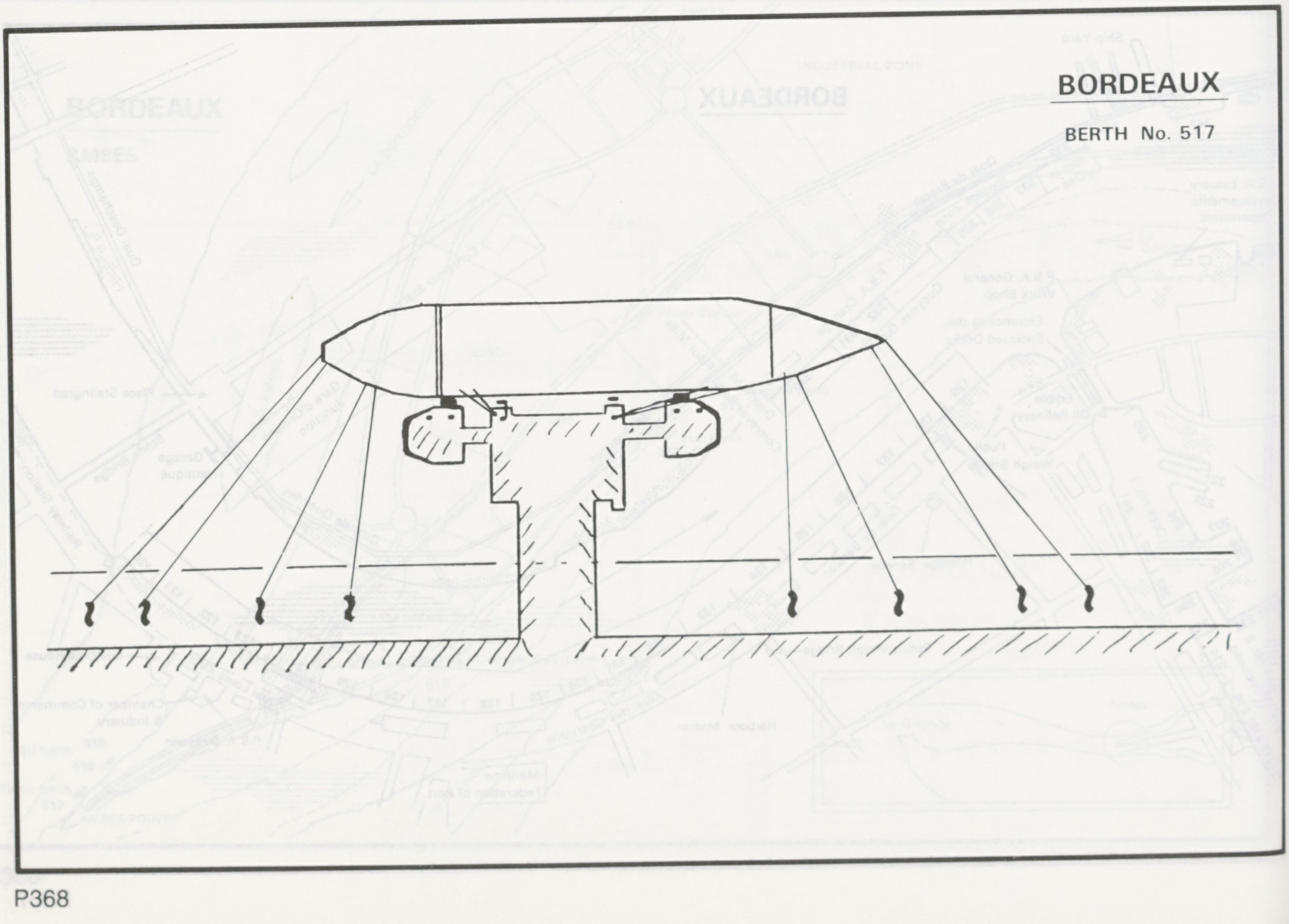

To Bordeaux, Paris
Quarantine
Kennels
Shed
Storage Zones
Storage Zones
Storage Zones
Storage Zones
Phosphates
Shed
Storage Zones
Aquitaine Bridge
401
402
403
414
415
416
417
418
Upstream Bassens 1,225 m.
Graving Dock
421
429
Ro-Ro Storage Compound
Roll-on/Roll-off Axiale Ramp
Bassens Quays Station
P.B.A. Industrial Zone
Baranquine 750 m.
Garonne
Timber
Timber
Bulk Goods
Storage Zones
431
432
433
434
435
436
Down Stream Bassens 1,474 m.
Aquitaine Silos
Conveyor Belt
439
Barge Berth 440
Pipe
Bordeaux-Nord Warehousing Zone
Road Transport Station
BORDEAUX
BASSENS


Ship Yard
BORDEAUX
342
341
339
Quai de Brazza
Not in Use
337
336
335
Storage Zone
P.B.A. Estuary Developments Department
P.B.A. General Work Shop
Entrance to the Enclosed Docks
P.B.A. Cranage
332
331
330
Queyries Quays
Flour Mills
Overhead Conveyor Belt
Quai de Queyries
Container Station
Gare d'Orleans Junction
Quai Deschamps
Place Stalingrad
Garage Nautique
Stone Bridge
Railway Station
Edible Oil Refinery
Public Weigh Bridge
139
138
137
136
135
134
133
132
131
130
129
128
127
126
125
124
123
122
121
120
Quai de Bacalan
Pilotage Service
Public Weigh Bridge
Harbour Master
Quai des Chartrons
Left Bank
Quai de Quayries
Quai Louis XVIII
Customs House
Chamber of Commerce & Industry
P.B.A. Direction
Maritime Federation of Port
209
221
222
208
207
Dock No. 1
201
206
205
202
203
204
211
212
213
214
Dock No. 2 Enclosed
215
216
219
217
218



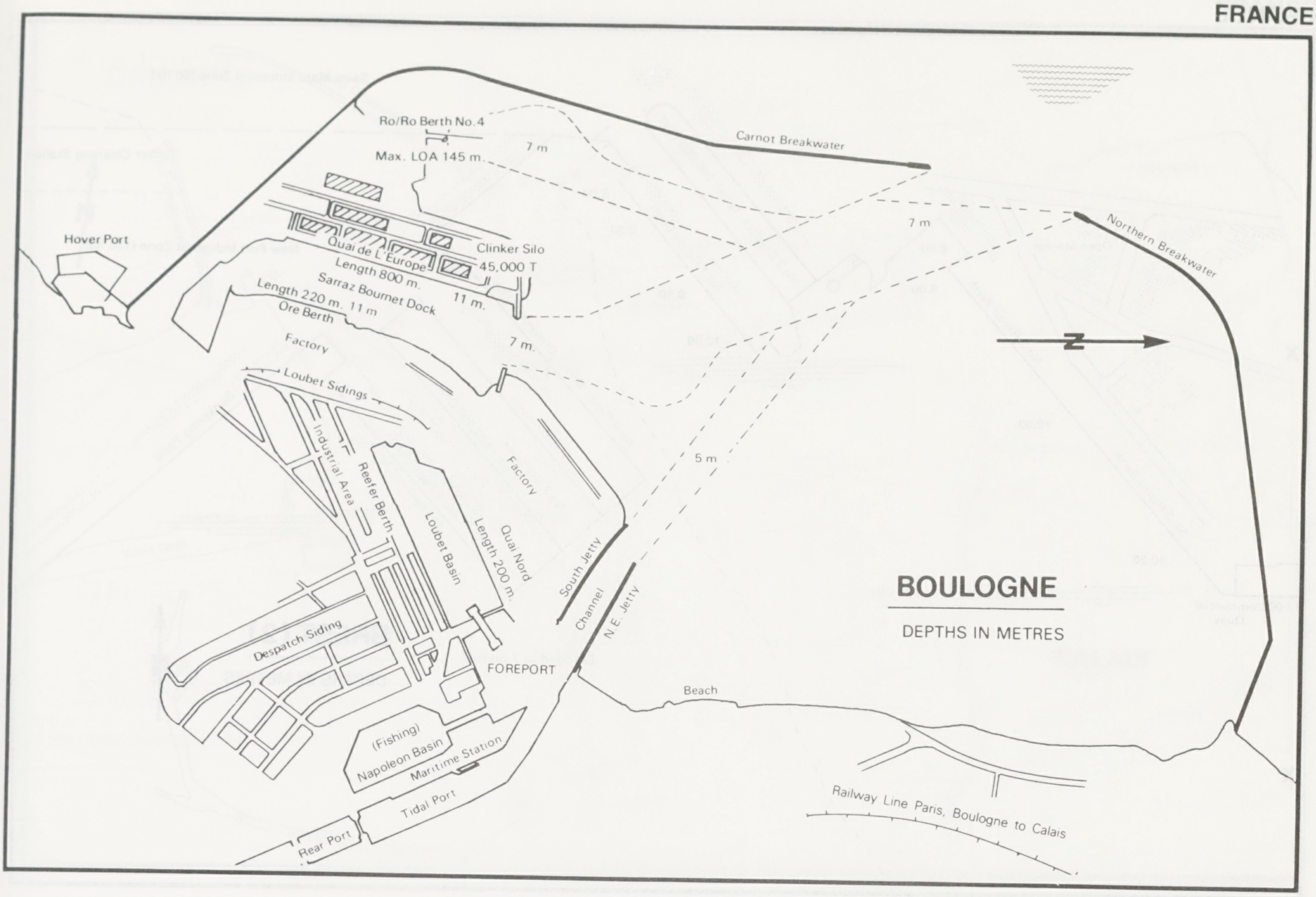
BORDEAUX

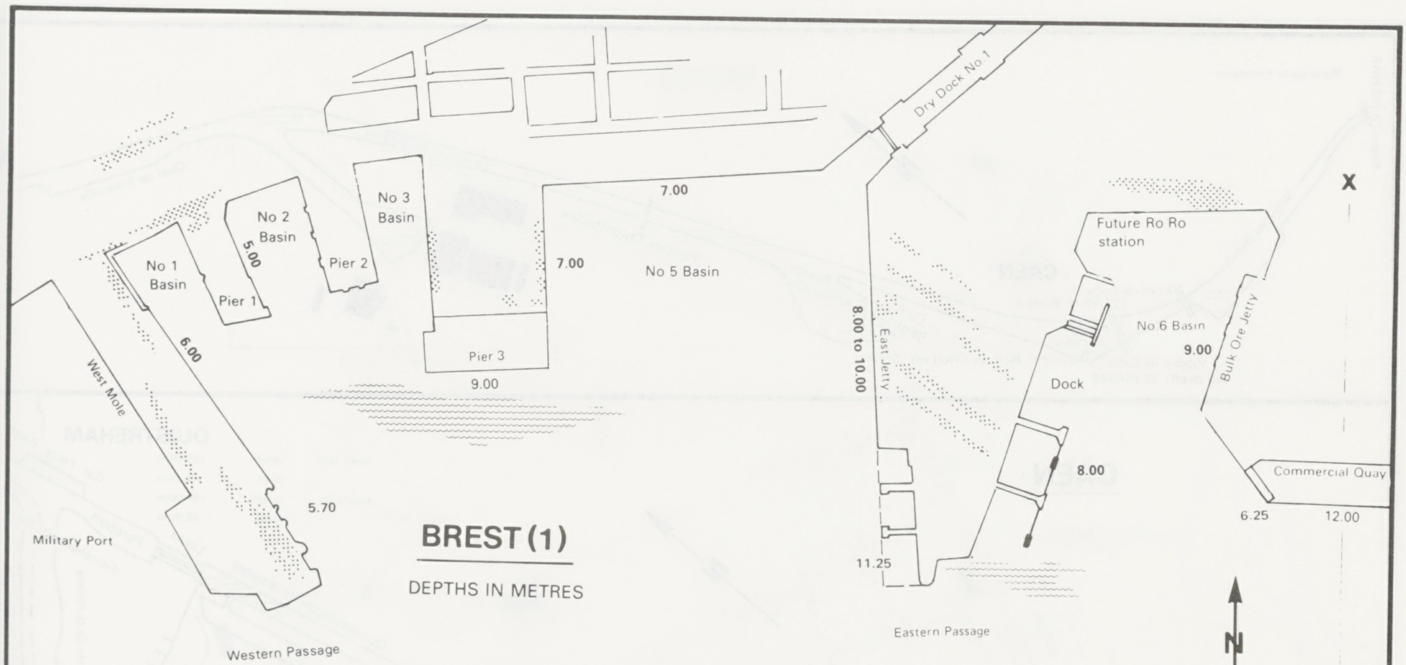
BERTH No. 511

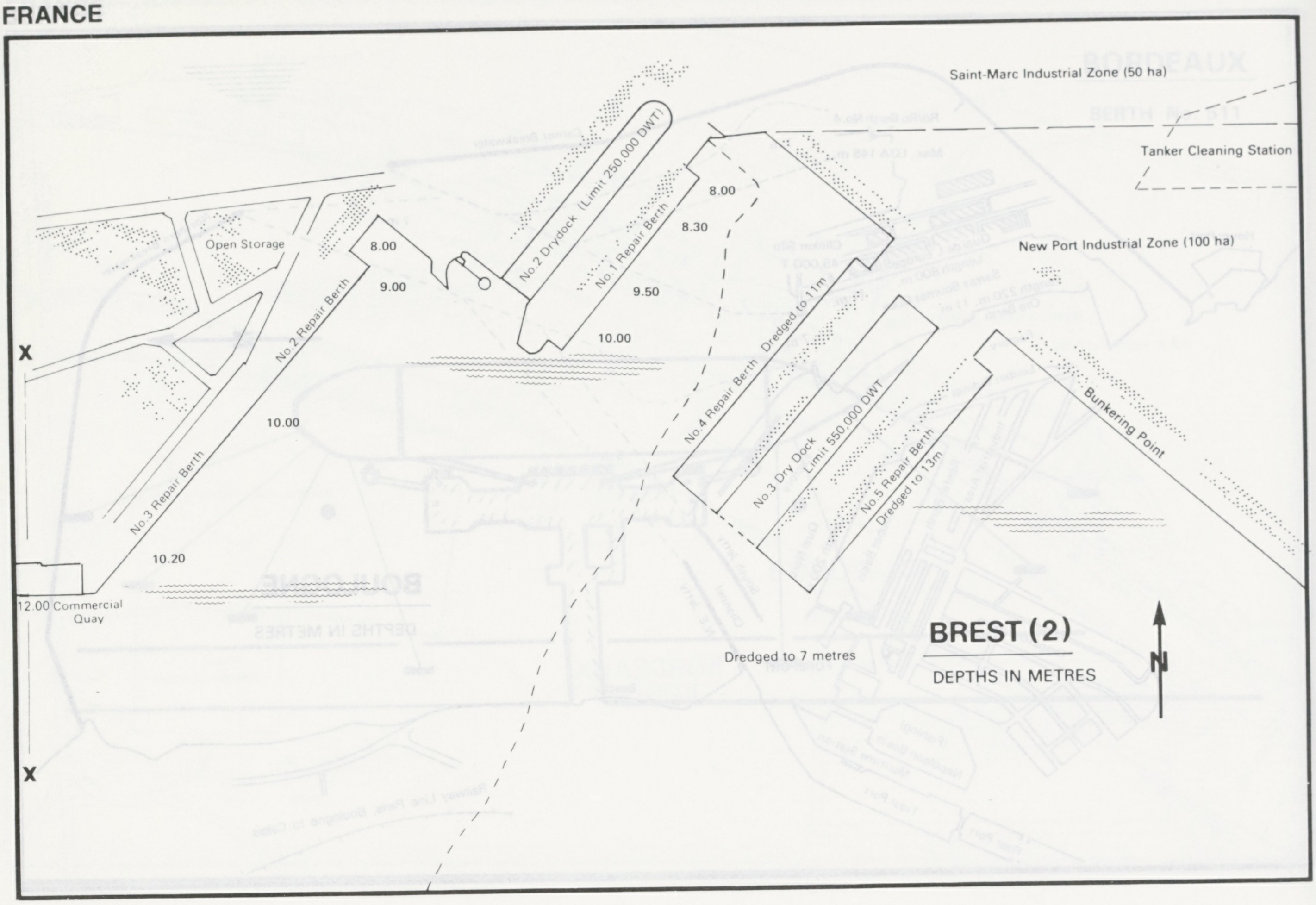


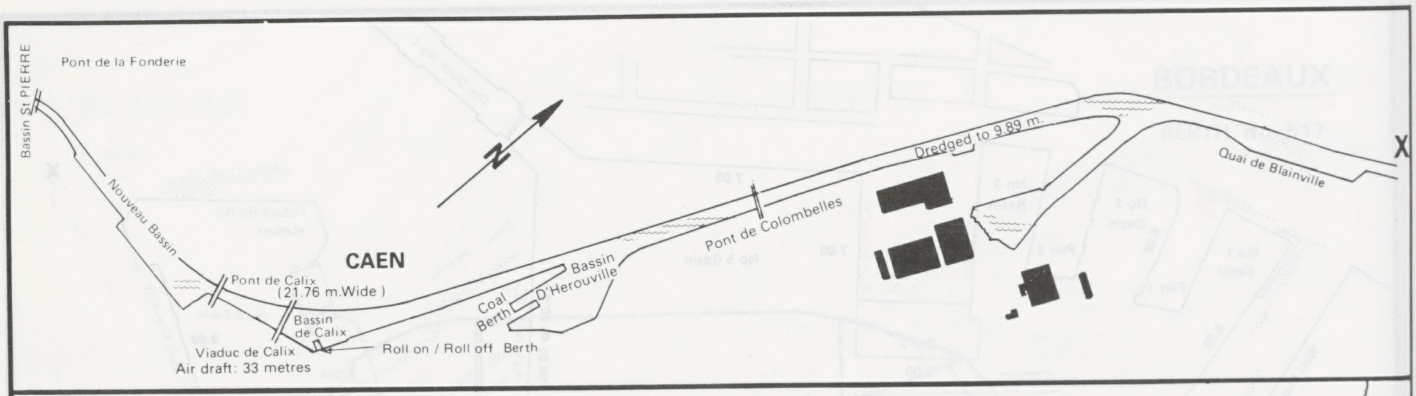
BORDEAUX

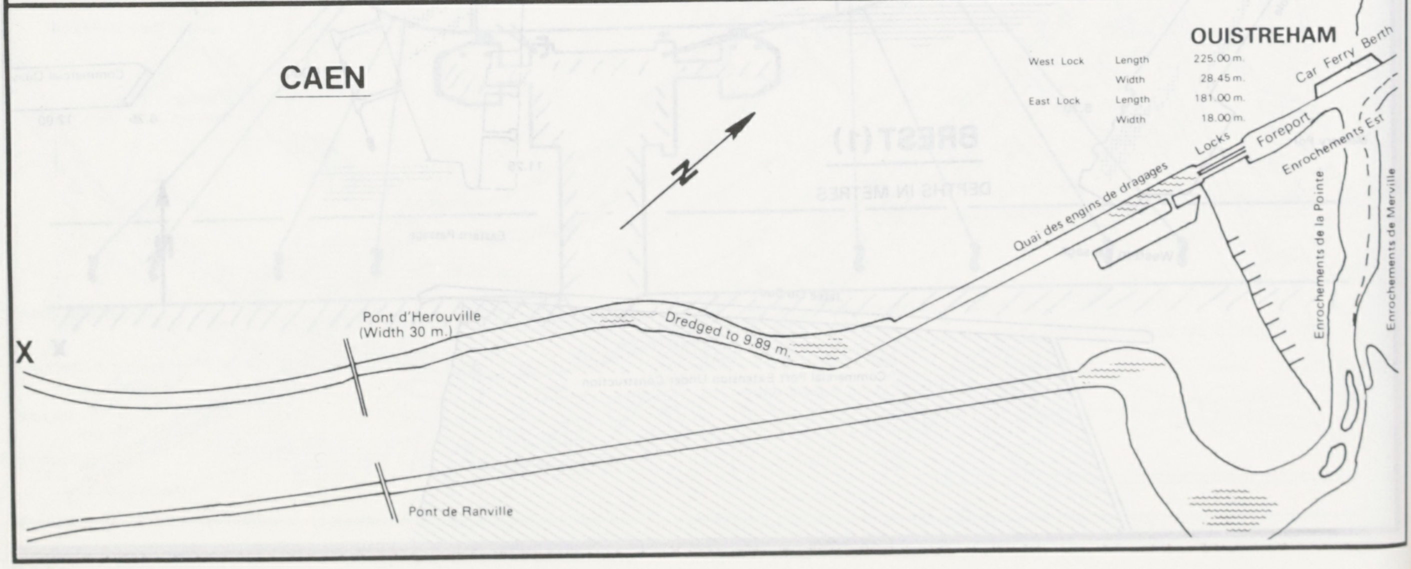
BERTH No. 517


Ro/Ro Berth No.4
Max. LOA 145 m.
7 m
Carnot Breakwater
Hover Port
Clinker Silo
45,000 T
Quai de L'Europe
Length 800 m.
Sarraz Bournet Dock
11 m.
Length 220 m. 11 m
Ore Berth
7 m
Northern Breakwater
7 m.
Factory
Loubet Sidings
Industrial Area
Reefer Berth
Loubet Basin
Length 200 m.
Quai Nord
Factory
5 m
South Jetty
Channel
N.E. Jetty
Despatch Siding
FOREPORT
(Fishing)
Napoleon Basin
Maritime Station
Tidal Port
Rear Port
Beach
Railway Line Paris, Boulogne to Calais
BOULOGNE
DEPTHS IN METRES

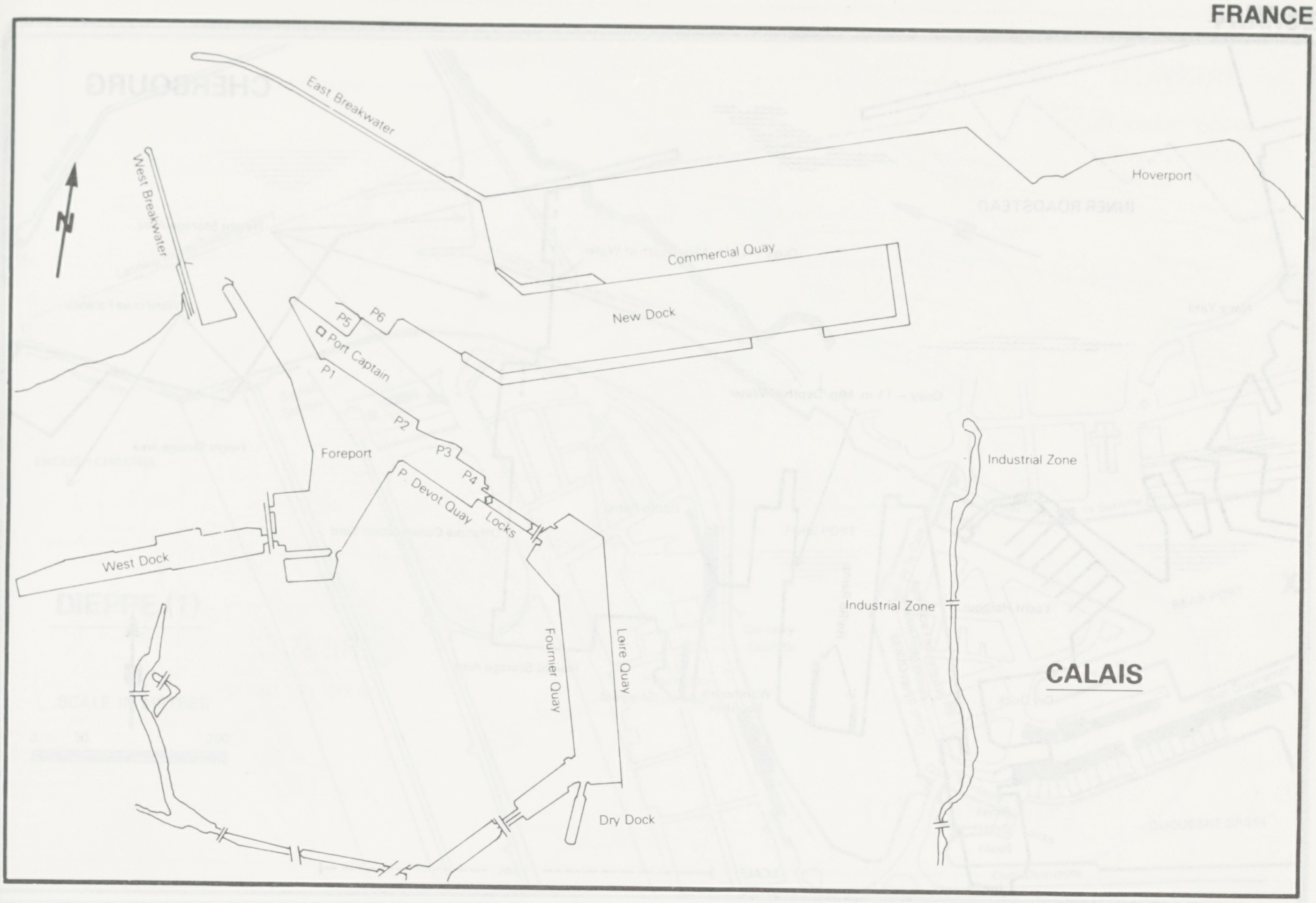

Dry Dock No 1
No 1
Basin
No 2
Basin
5.00
Pier 1
No 3
Basin
Pier 2
7.00
7.00
No 5 Basin
Pier 3
9.00
6.00
West Mole
5.70
Military Port
BREST (1)
DEPTHS IN METRES
Western Passage
8.00 to 10.00
East Jetty
11.25
Future Ro Ro
station
No 6 Basin
9.00
Bulk Ore Jetty
Dock
8.00
Commercial Quay
6.25
12.00
X
X
N
Eastern Passage
Jeteè Du Sud
Commercial Port Extension Under Construction


Saint-Marc Industrial Zone (50 ha)
Tanker Cleaning Station
New Port Industrial Zone (100 ha)
No.2 Drydock (Limit 250,000 DWT)
No.1 Repair Berth
Open Storage
No.2 Repair Berth
No.3 Repair Berth
No.4 Repair Berth Dredged to 11m
No.3 Dry Dock Limit 550,000 DWT
No.5 Repair Berth Dredged to 13m
Bunkering Point
8.00
9.00
8.00
8.30
9.50
10.00
10.00
10.20
12.00 Commercial Quay
X
X
Dredged to 7 metres
BREST (2)
DEPTHS IN METRES
N


Pont de la Fonderie
Bassin St PIERRE
Nouveau Bassin
Pont de Calix (21.76 m.Wide)
Viaduc de Calix
Air draft: 33 metres
Bassin de Calix
Roll on / Roll off Berth
Coal Berth
Bassin D'Herouville
CAEN
N
Pont de Colombelles
Dredged to 9.89 m.
Quai de Blainville
X

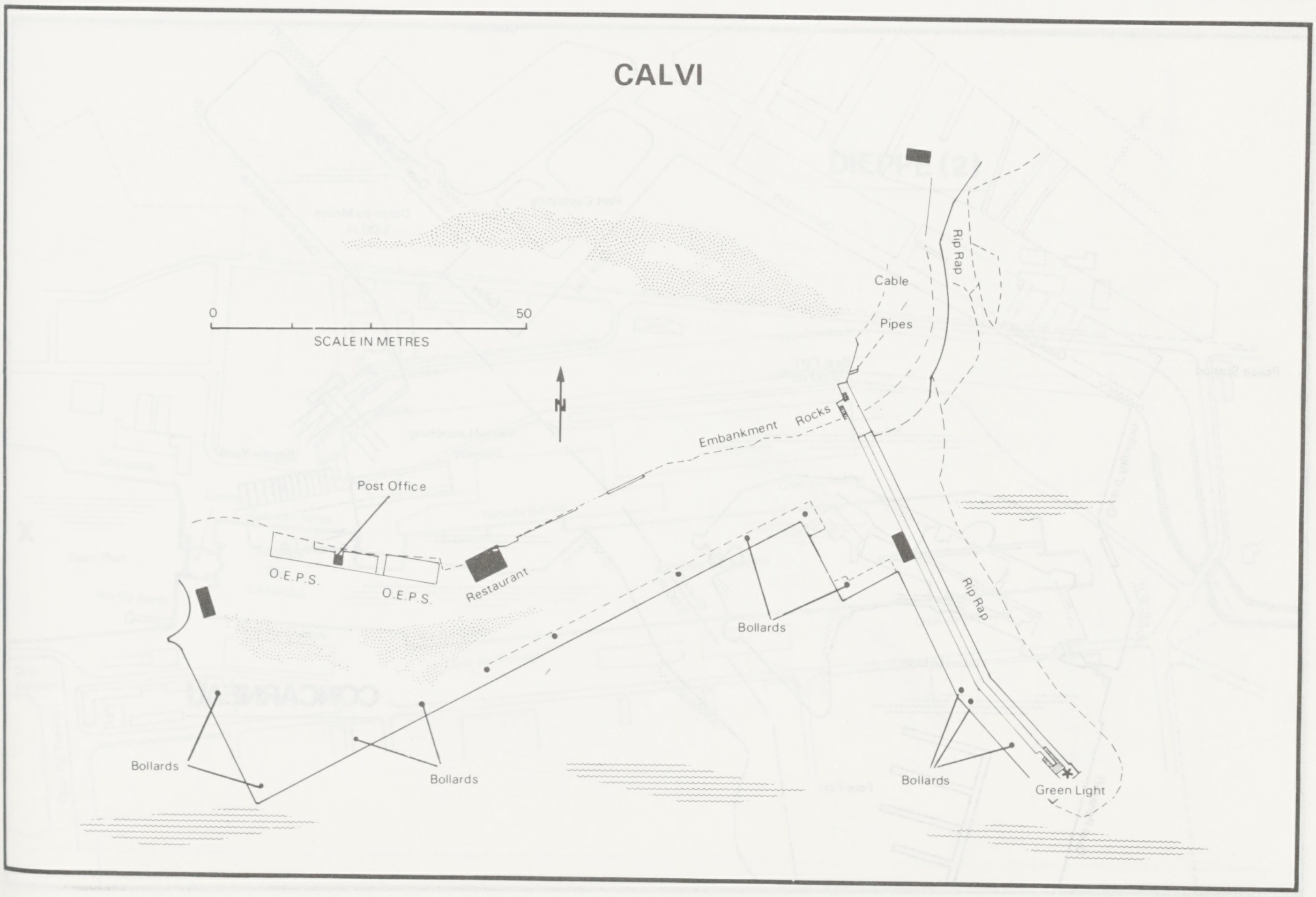

CAEN
OUISTREHAM
N
X
Pont d'Herouville (Width 30 m.)
Dredged to 9.89 m.
Pont de Ranville
Quai des engins de dragages
Locks
Foreport
Car Ferry Berth
Enrochements Est
Enrochements de la Pointe
Enrochements de Merville

West Lock	Length	225.00 m.
	Width	28.45 m.
East Lock	Length	181.00 m.
	Width	18.00 m.



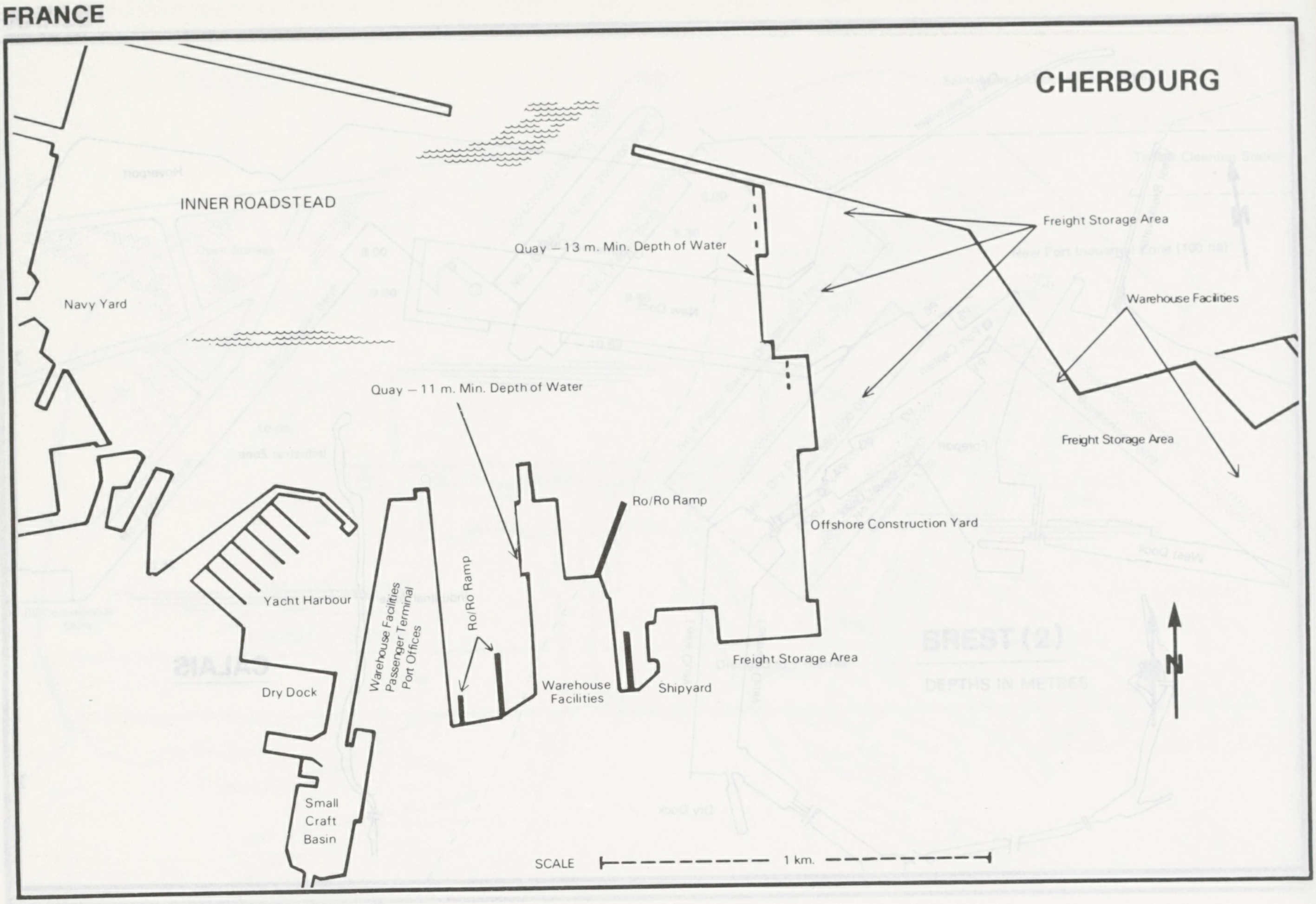
CALAIS

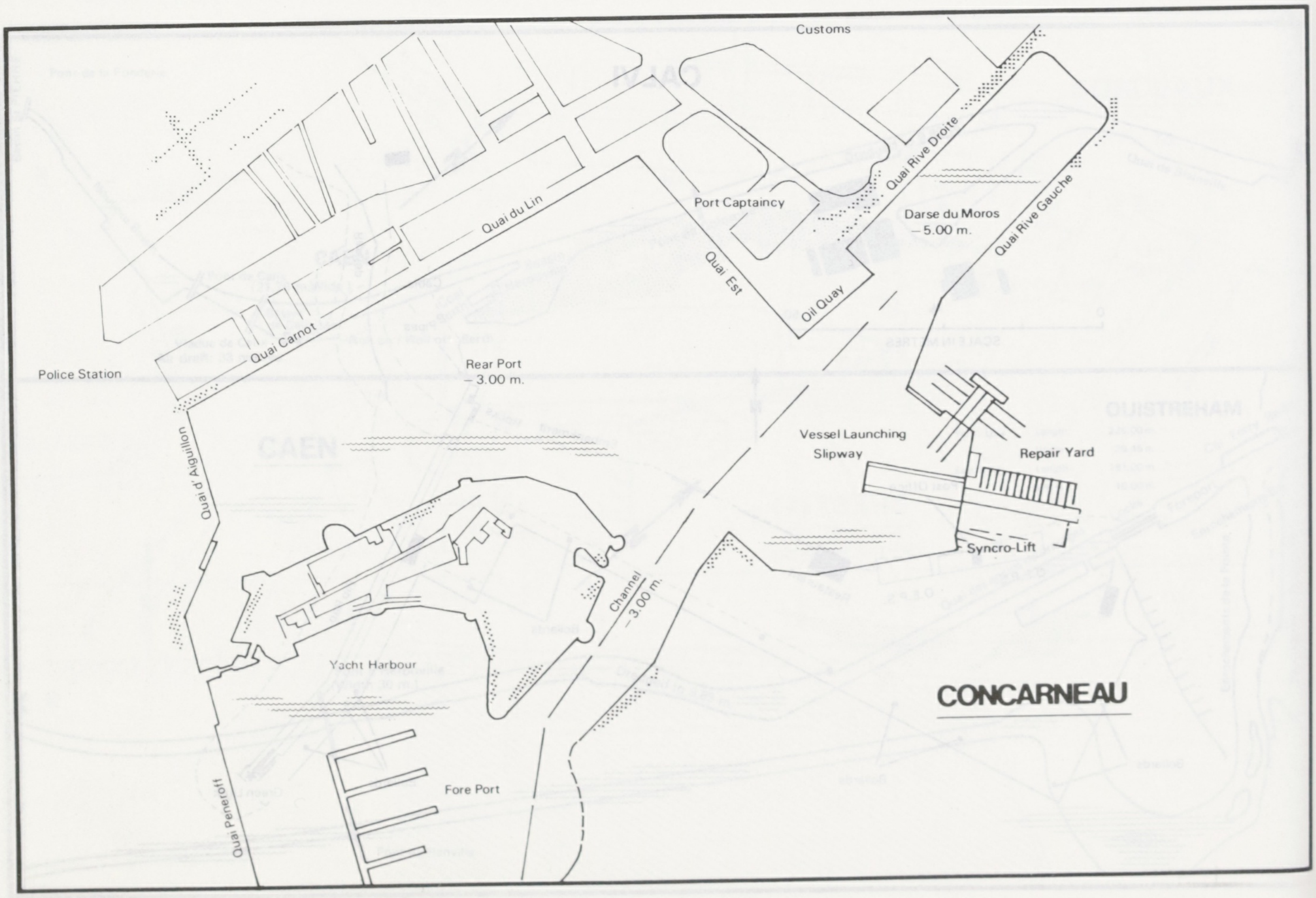
East Breakwater
West Breakwater
N
Hoverport
Commercial Quay
New Dock
P5
P6
Port Captain
P1
P2
P3
P4
Foreport
P
Devot Quay
Locks
West Dock
Industrial Zone
Industrial Zone
Fournier Quay
Loire Quay
Dry Dock

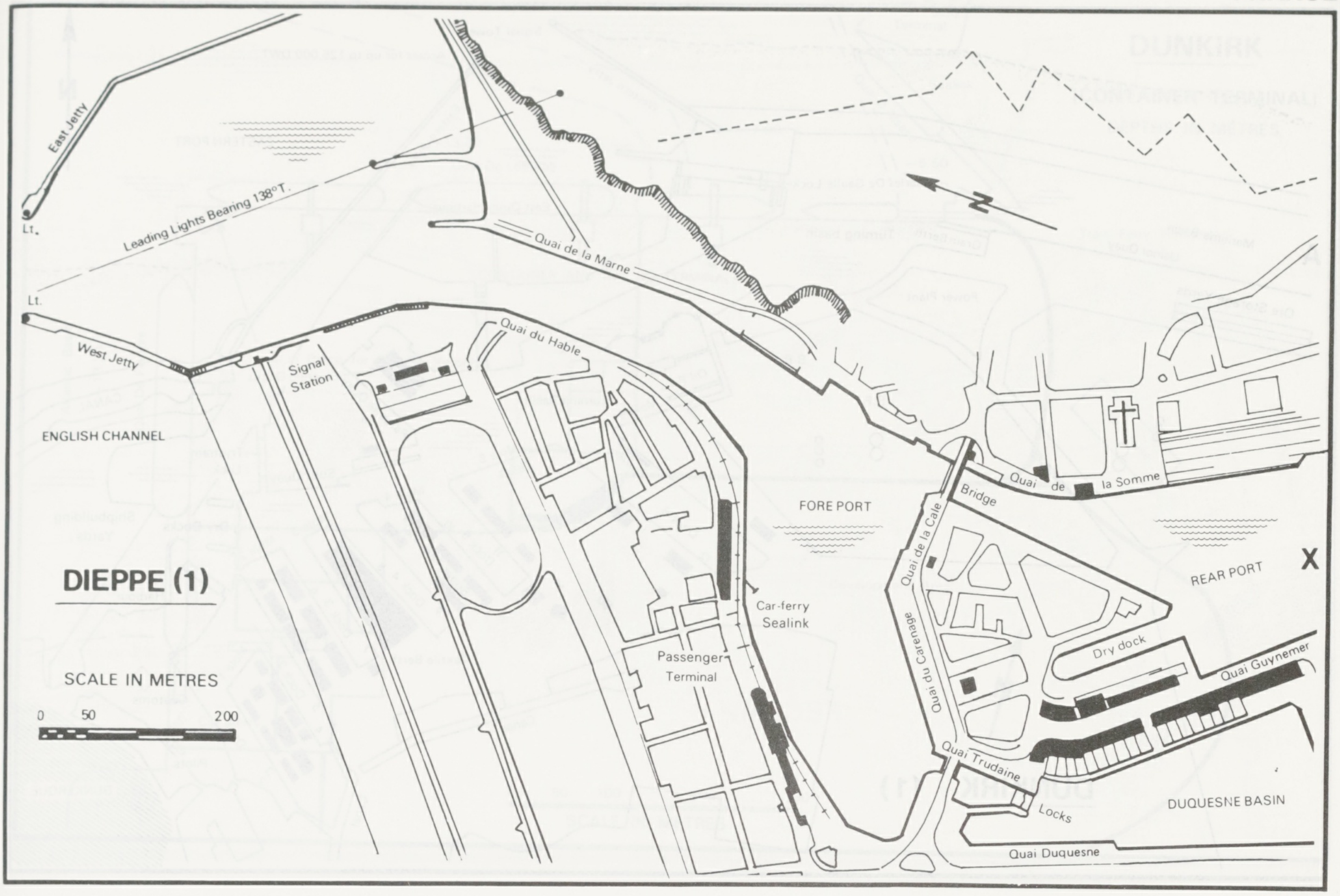


CALVI

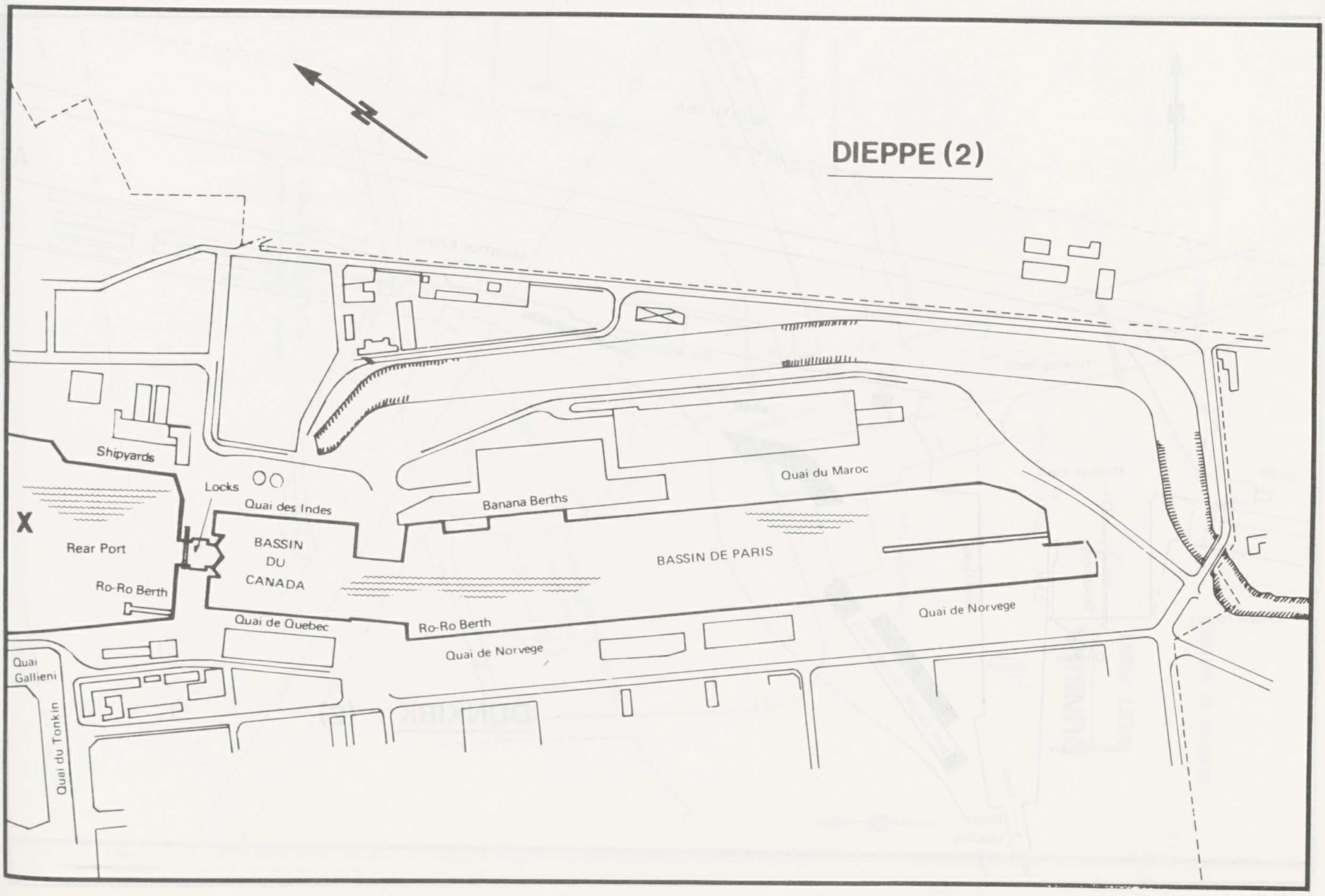
0
50
SCALE IN METRES
N
Rip Rap
Cable
Pipes
Embankment
Rocks
Post Office
O.E.P.S.
O.E.P.S.
Restaurant
Bollards
Rip Rap
Bollards
Bollards
Bollards
Green Light


CHERBOURG
INNER ROADSTEAD
Navy Yard
Quay – 13 m. Min. Depth of Water
Freight Storage Area
Warehouse Facilities
Quay – 11 m. Min. Depth of Water
Freight Storage Area
Ro/Ro Ramp
Offshore Construction Yard
Yacht Harbour
Warehouse Facilities
Passenger Terminal
Port Offices
Ro/Ro Ramp
Dry Dock
Warehouse Facilities
Shipyard
Freight Storage Area
Small Craft Basin
N
SCALE
1 km.

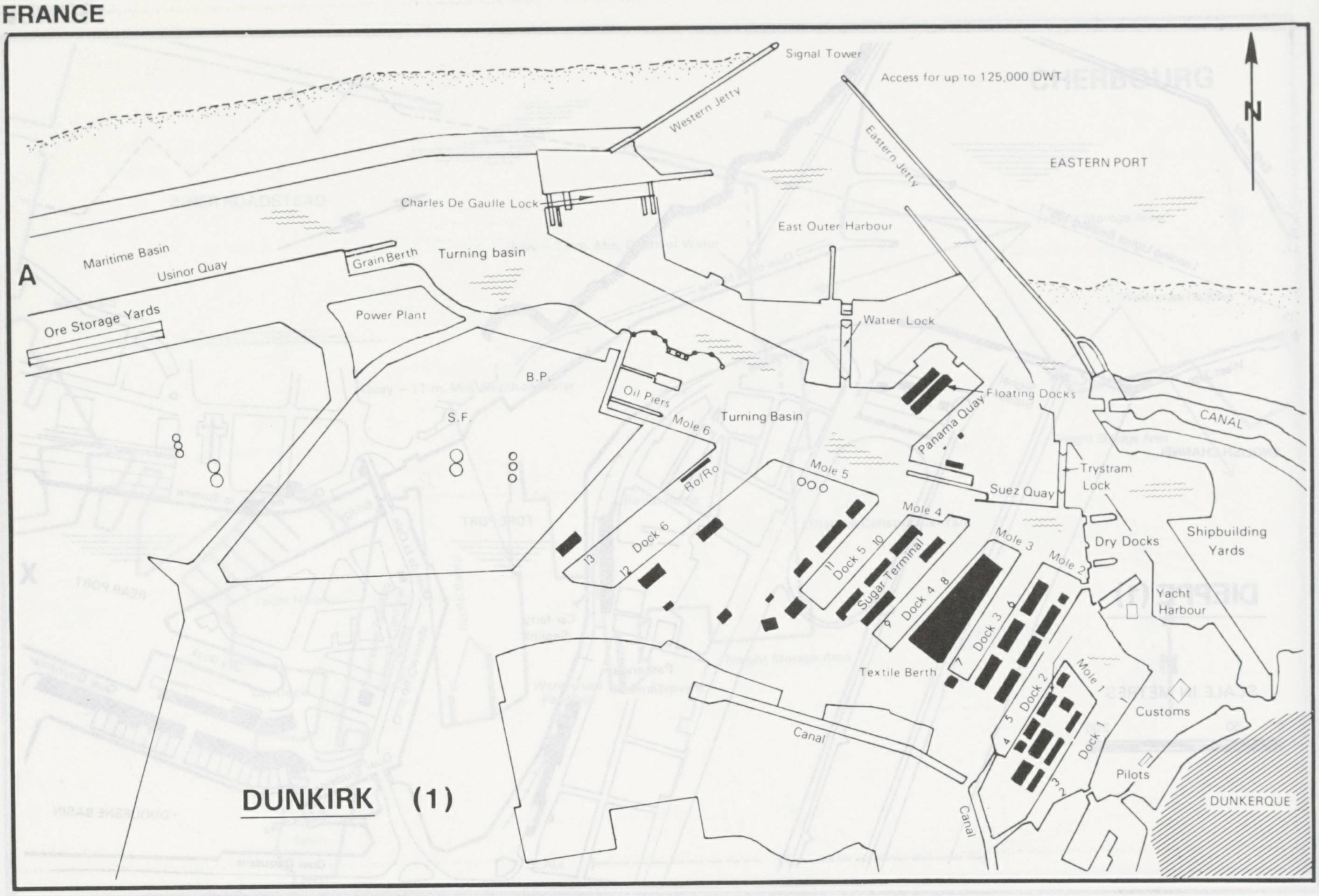

Customs
Quai Rive Droite
Quai du Lin
Port Captaincy
Darse du Moros
– 5.00 m.
Quai Rive Gauche
Quai Est
Oil Quay
Quai Carnot
Police Station
Rear Port
– 3.00 m.
Vessel Launching
Slipway
Repair Yard
Quai d'Aiguillon
Syncro-Lift
Channel
– 3.00 m.
Yacht Harbour
CONCARNEAU
Fore Port
Quai Peneroff

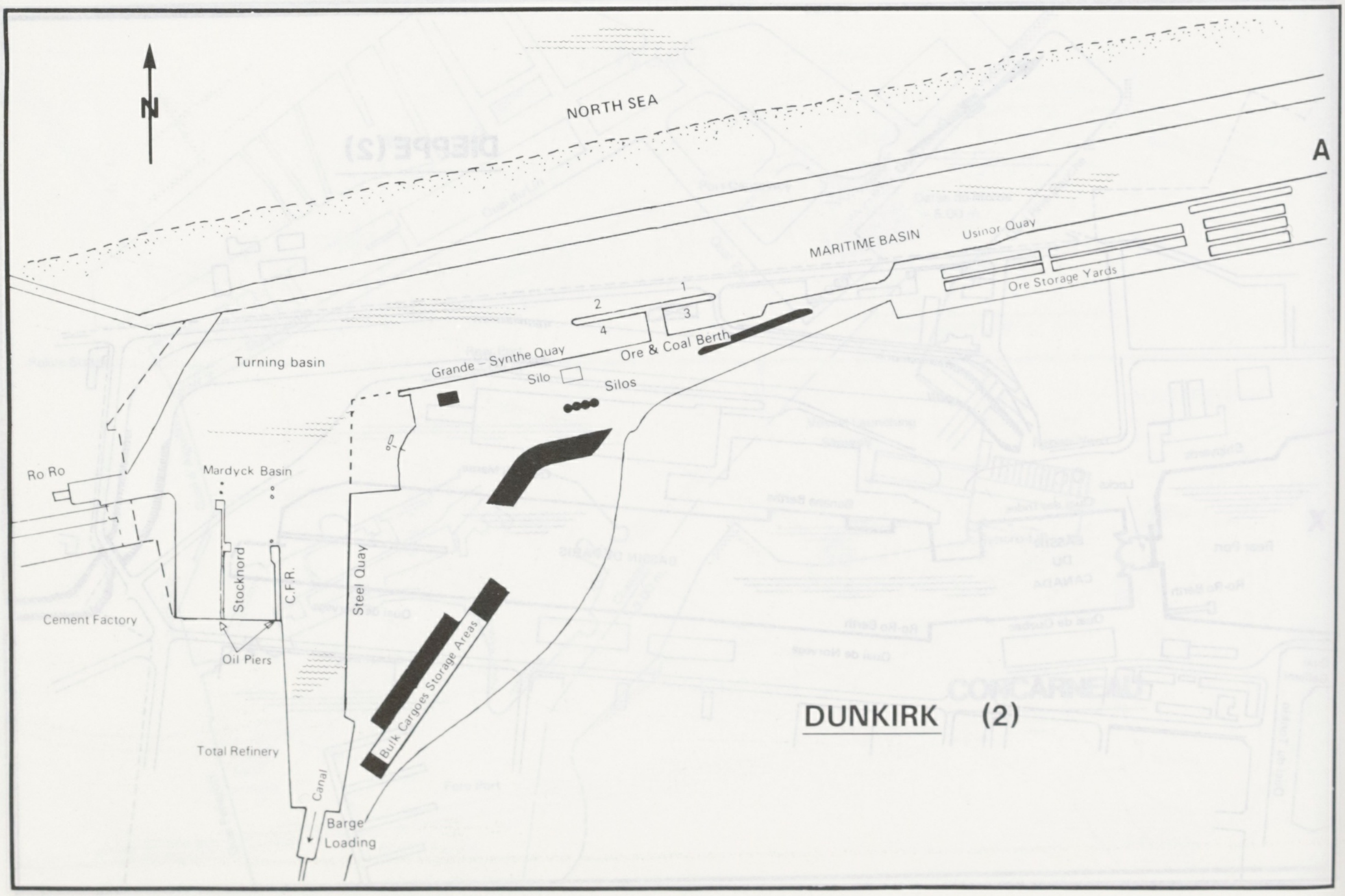

East Jetty
Lt.
Leading Lights Bearing 138°T.
Quai de la Marne
Lt.
West Jetty
Signal Station
Quai du Hable
ENGLISH CHANNEL
FORE PORT
Quai de la Somme
Bridge
Quai de la Cale
REAR PORT
X
Quai du Carenage
Car-ferry Sealink
Passenger Terminal
Dry dock
Quai Guynemer
Quai Trudaine
Locks
DUQUESNE BASIN
Quai Duquesne
SCALE IN METRES
0
50
200

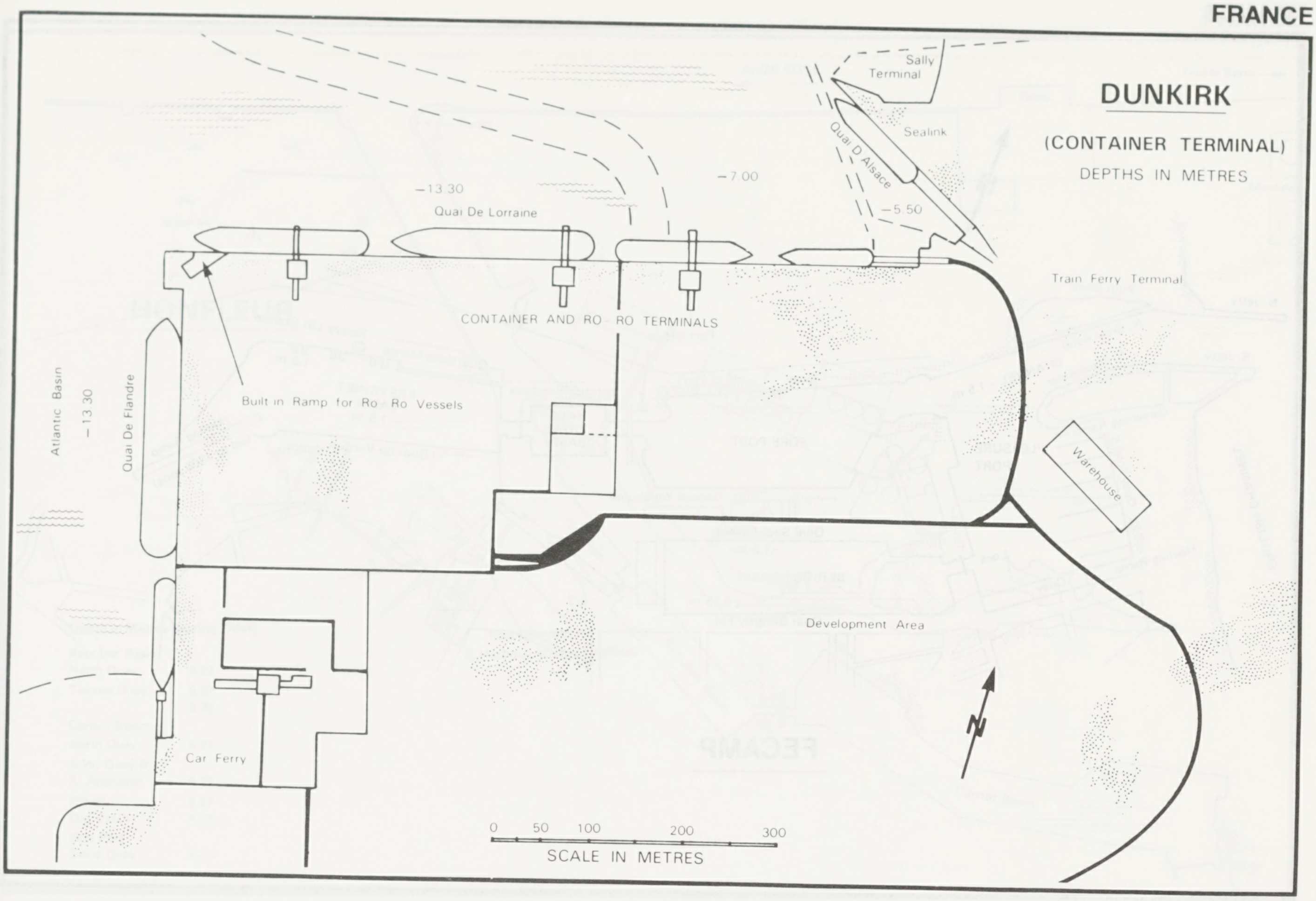
DIEPPE (1)


X
Shipyards
Locks
Quai des Indes
Rear Port
BASSIN DU CANADA
Ro-Ro Berth
Quai de Quebec
Ro-Ro Berth
Quai de Norvege
Banana Berths
Quai du Maroc
BASSIN DE PARIS
Quai de Norvege
Quai Gallieni
Quai du Tonkin

DIEPPE (2)


Signal Tower
Access for up to 125,000 DWT
N
Western Jetty
Eastern Jetty
EASTERN PORT
Charles De Gaulle Lock
East Outer Harbour
Maritime Basin
Usinor Quay
Grain Berth
Turning basin
A
Ore Storage Yards
Power Plant
Watier Lock
B.P.
Oil Piers
S.F.
Turning Basin
Floating Docks
Mole 6
Panama Quay
CANAL
Ro/Ro
Mole 5
Suez Quay
Trystram Lock
Mole 4
Mole 3
Dry Docks
Shipbuilding Yards
13
Dock 6
12
11
Dock 5
10
Sugar Terminal
9
Dock 4
8
Mole 2
Yacht Harbour
6
Dock 3
7
Textile Berth
Mole 1
5
Dock 2
4
Dock 1
3
2
Customs
Pilots
Canal
Canal
DUNKERQUE
DUNKIRK (1)


N
NORTH SEA
A
MARITIME BASIN
Usinor Quay
Ore Storage Yards
1
2
3
4
Ore & Coal Berth
Turning basin
Grande – Synthe Quay
Silo
Silos
Ro Ro
Mardyck Basin
Stocknord
C.F.R.
Steel Quay
Cement Factory
Oil Piers
Bulk Cargoes Storage Areas
Total Refinery
Canal
Barge Loading
DUNKIRK (2)

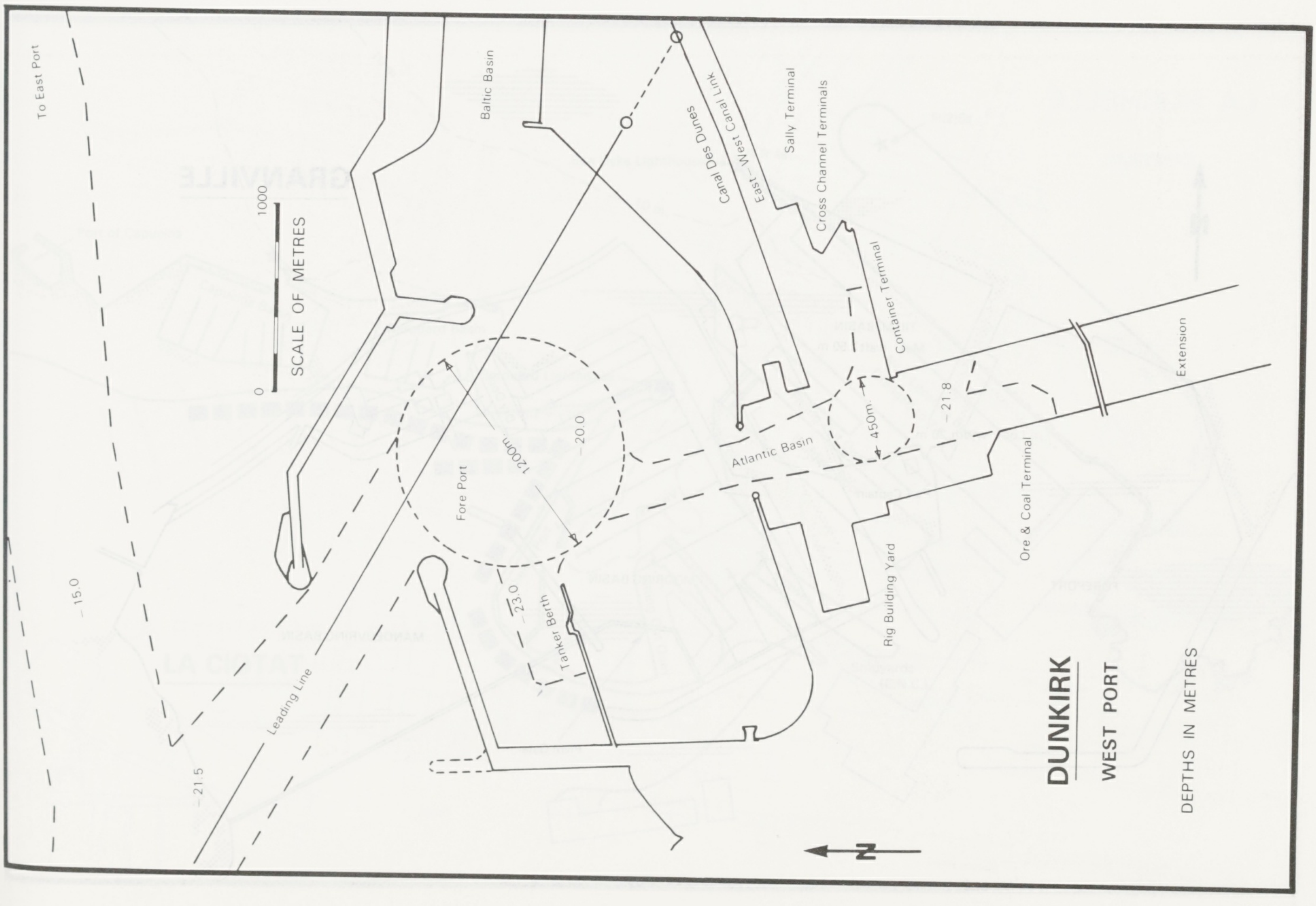


DUNKIRK

(CONTAINER TERMINAL)

DEPTHS IN METRES

Sally Terminal
Sealink
Quai D Alsace
−5.50
−7.00
−13.30
Quai De Lorraine
Train Ferry Terminal
CONTAINER AND RO RO TERMINALS
Built in Ramp for Ro Ro Vessels
Atlantic Basin
−13.30
Quai De Flandre
Warehouse
Development Area
Car Ferry
N
0
50
100
200
300
SCALE IN METRES

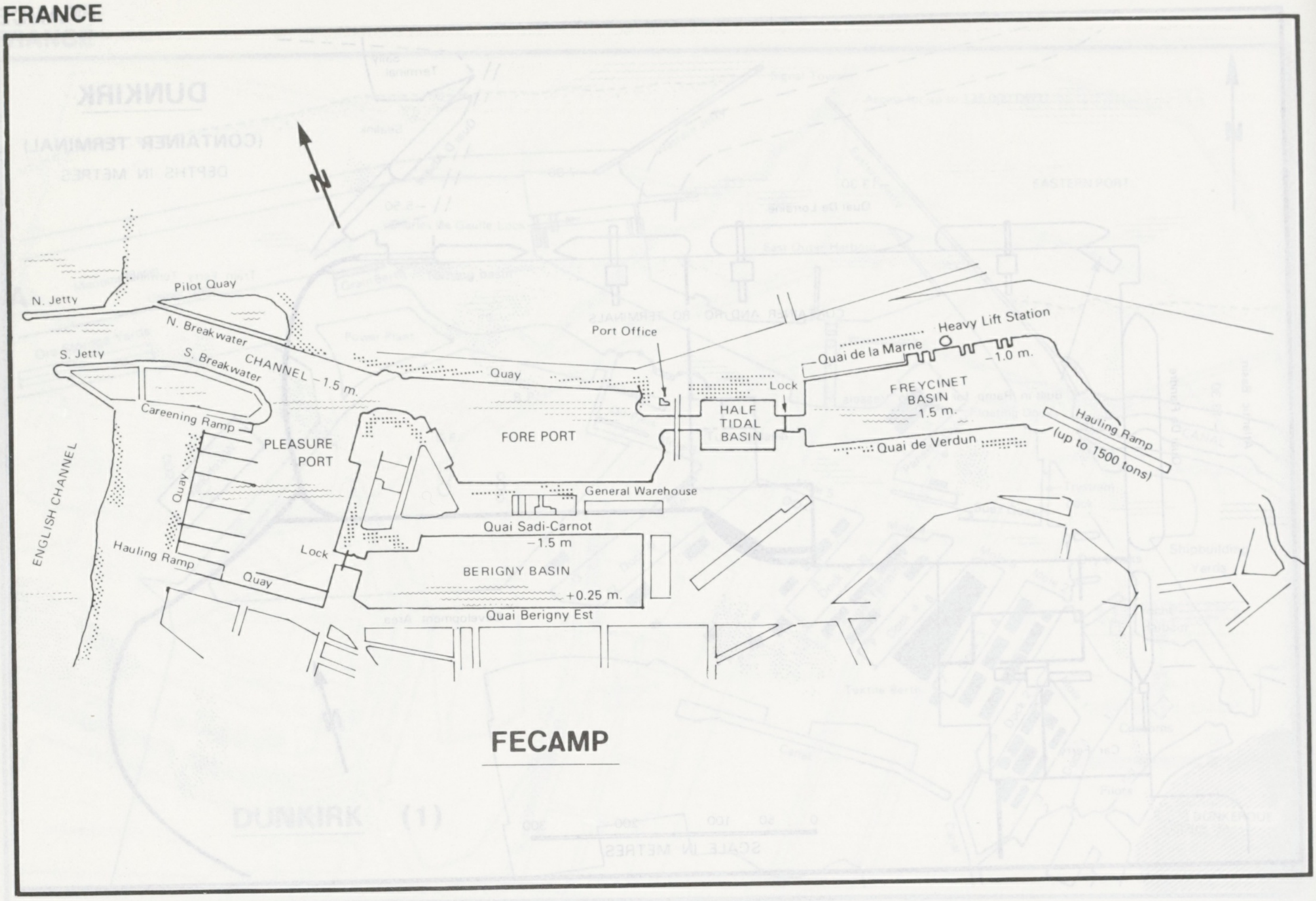


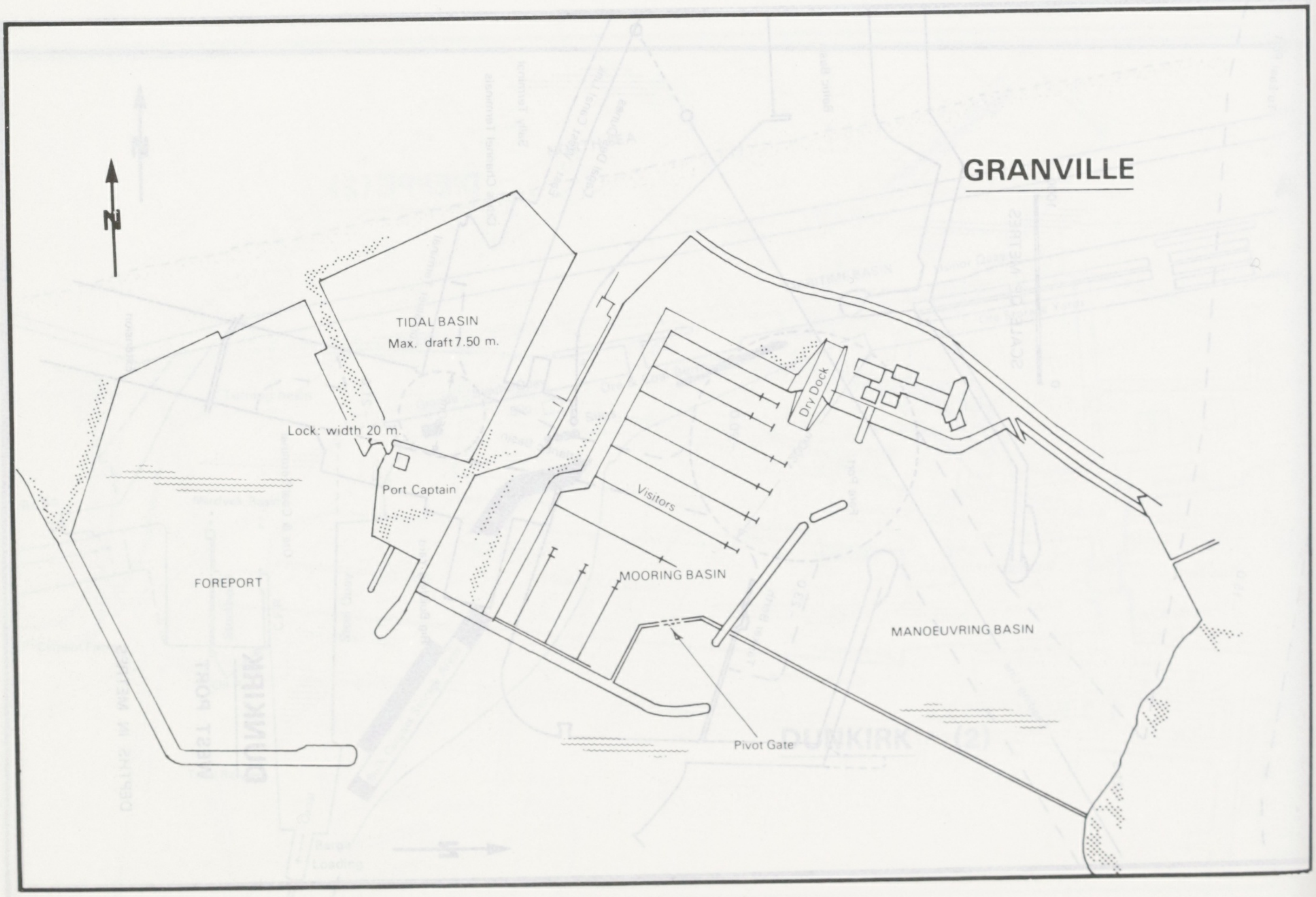
DUNKIRK

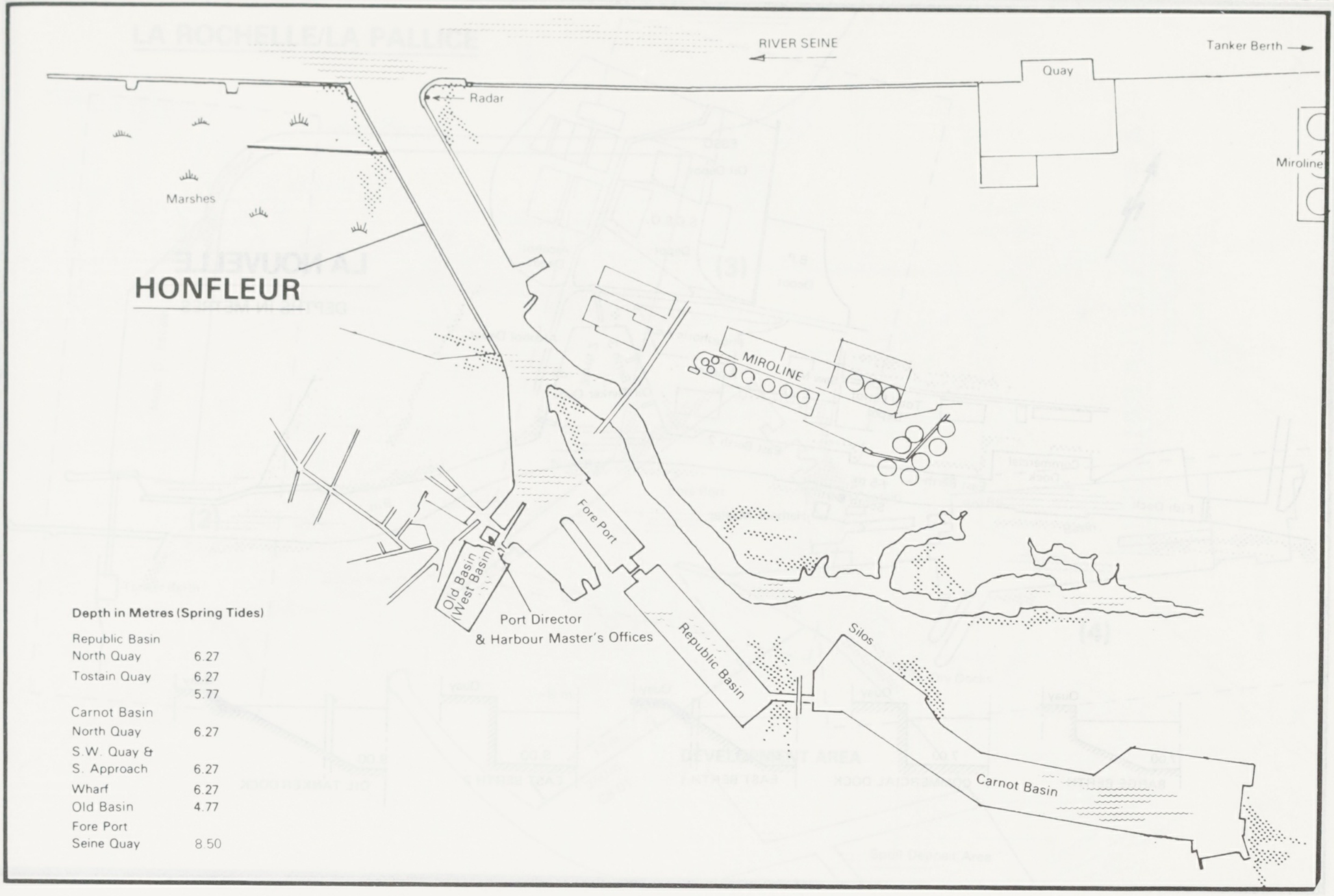
WEST PORT

DEPTHS IN METRES

To East Port
Baltic Basin
Canal Des Dunes
East–West Canal Link
Sally Terminal
Cross Channel Terminals
Container Terminal
Extension
1000
0
SCALE OF METRES
−20.0
1200m
Fore Port
Atlantic Basin
450m
−21.8
Ore & Coal Terminal
Rig Building Yard
−23.0
Tanker Berth
−15.0
Leading Line
−21.5
N

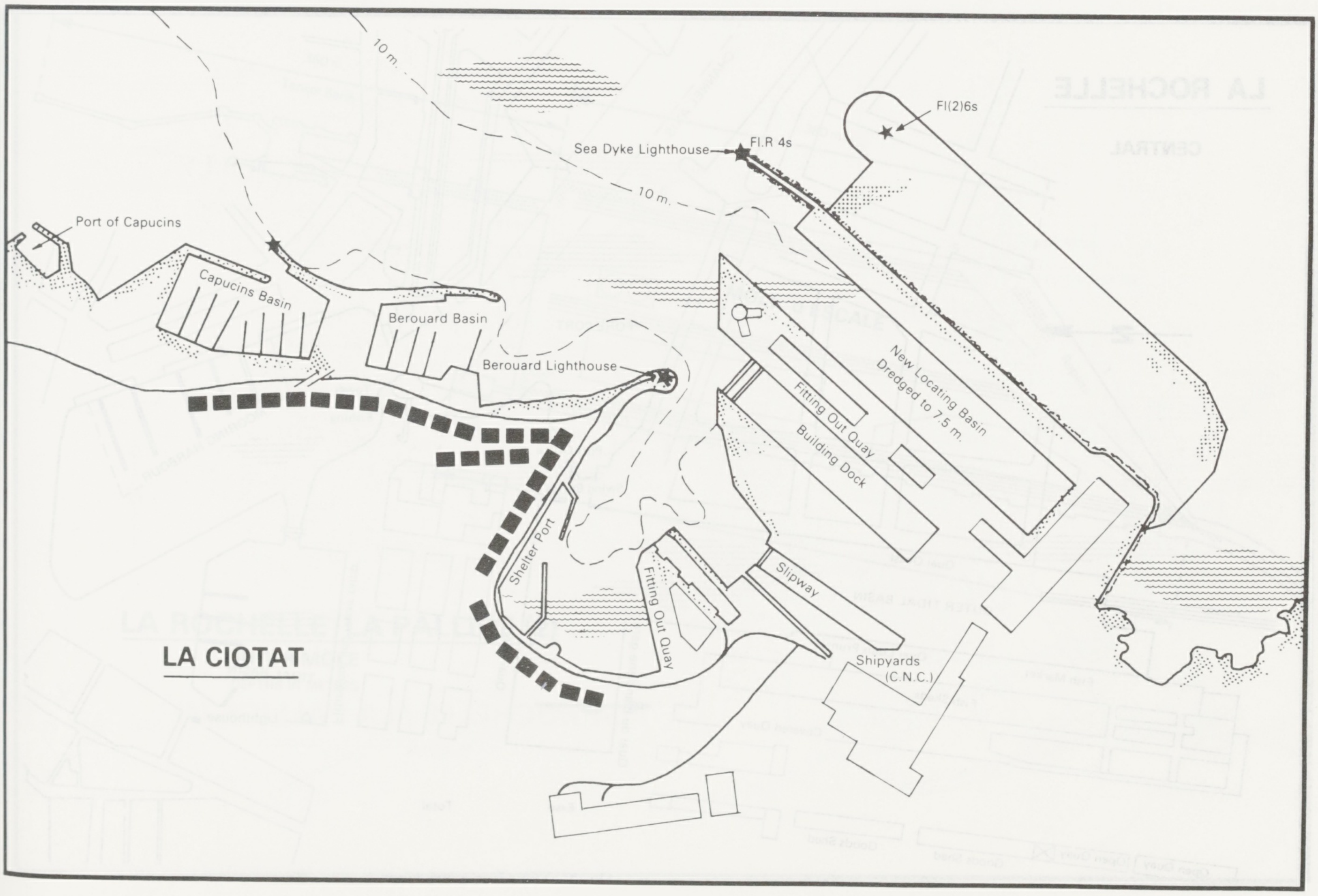

N
N. Jetty
Pilot Quay
N. Breakwater
S. Jetty
S. Breakwater
CHANNEL –1.5 m.
Quay
Port Office
Lock
HALF TIDAL BASIN
Quai de la Marne
Heavy Lift Station
–1.0 m.
FREYCINET BASIN 1.5 m.
Quai de Verdun
Hauling Ramp (up to 1500 tons)
Careening Ramp
PLEASURE PORT
FORE PORT
General Warehouse
Quai Sadi-Carnot –1.5 m
Quay
ENGLISH CHANNEL
Hauling Ramp
Lock
Quay
BERIGNY BASIN
+0.25 m.
Quai Berigny Est
FECAMP

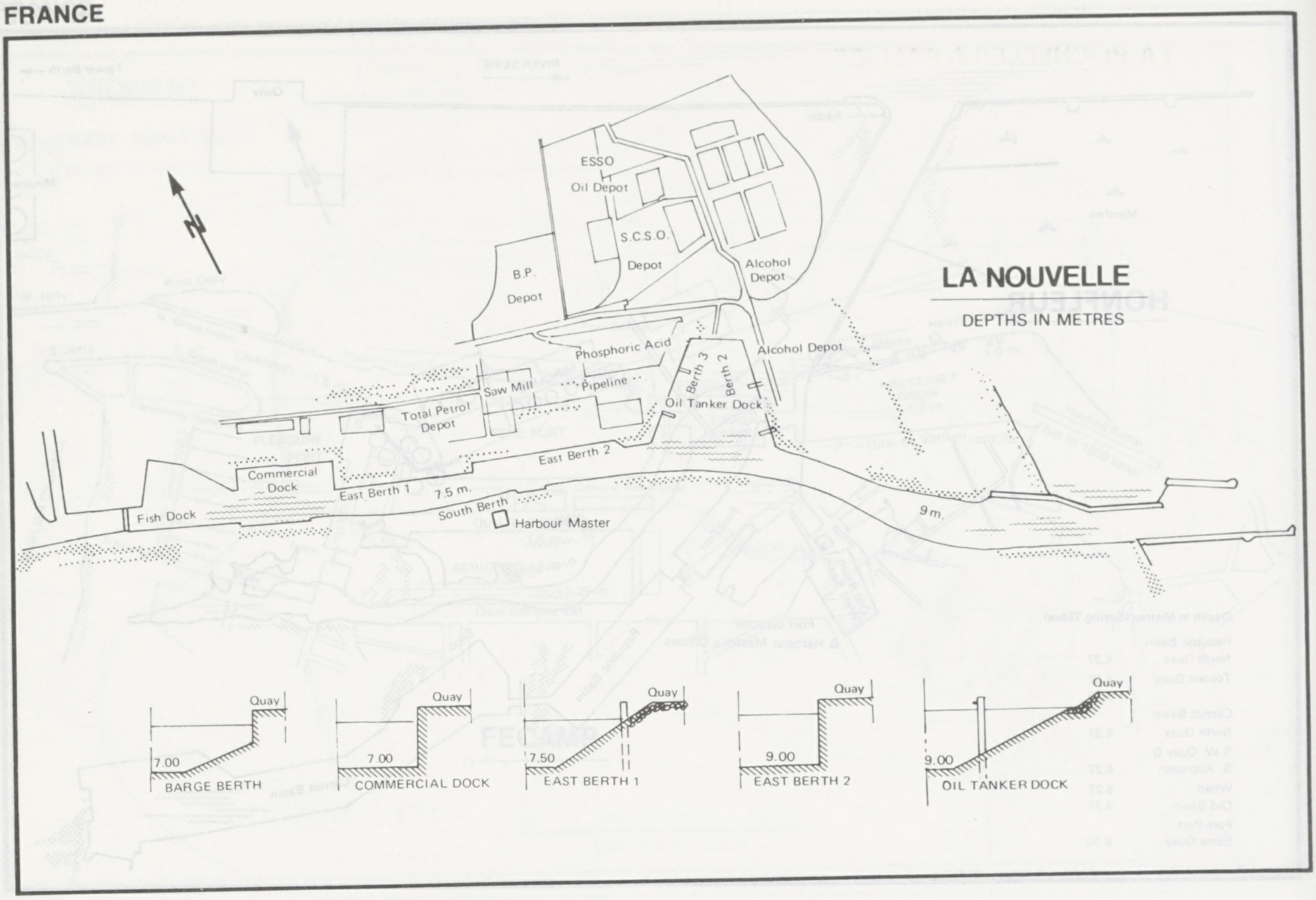

GRANVILLE
N
TIDAL BASIN
Max. draft 7.50 m.
Lock: width 20 m.
Port Captain
Dry Dock
Visitors
FOREPORT
MOORING BASIN
MANOEUVRING BASIN
Pivot Gate

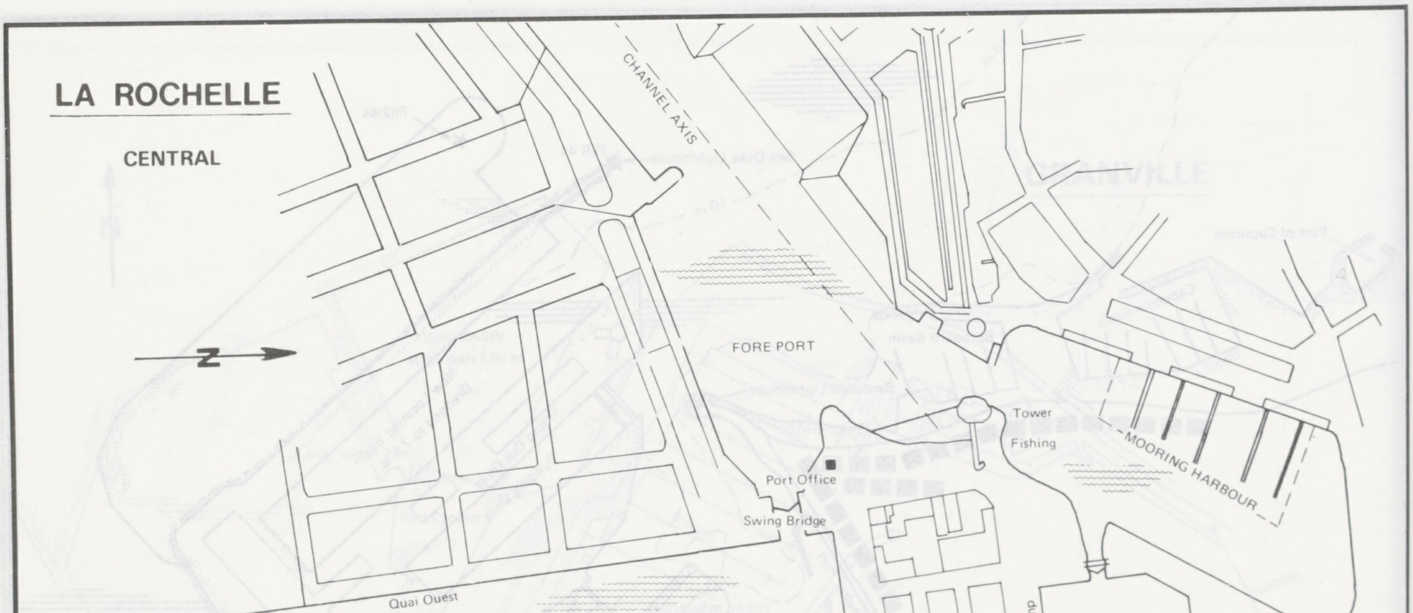

RIVER SEINE
Tanker Berth
Quay
Radar
Miroline
Marshes
HONFLEUR
MIROLINE
Fore Port
Old Basin (West Basin)
Port Director & Harbour Master's Offices
Republic Basin
Silos
Carnot Basin

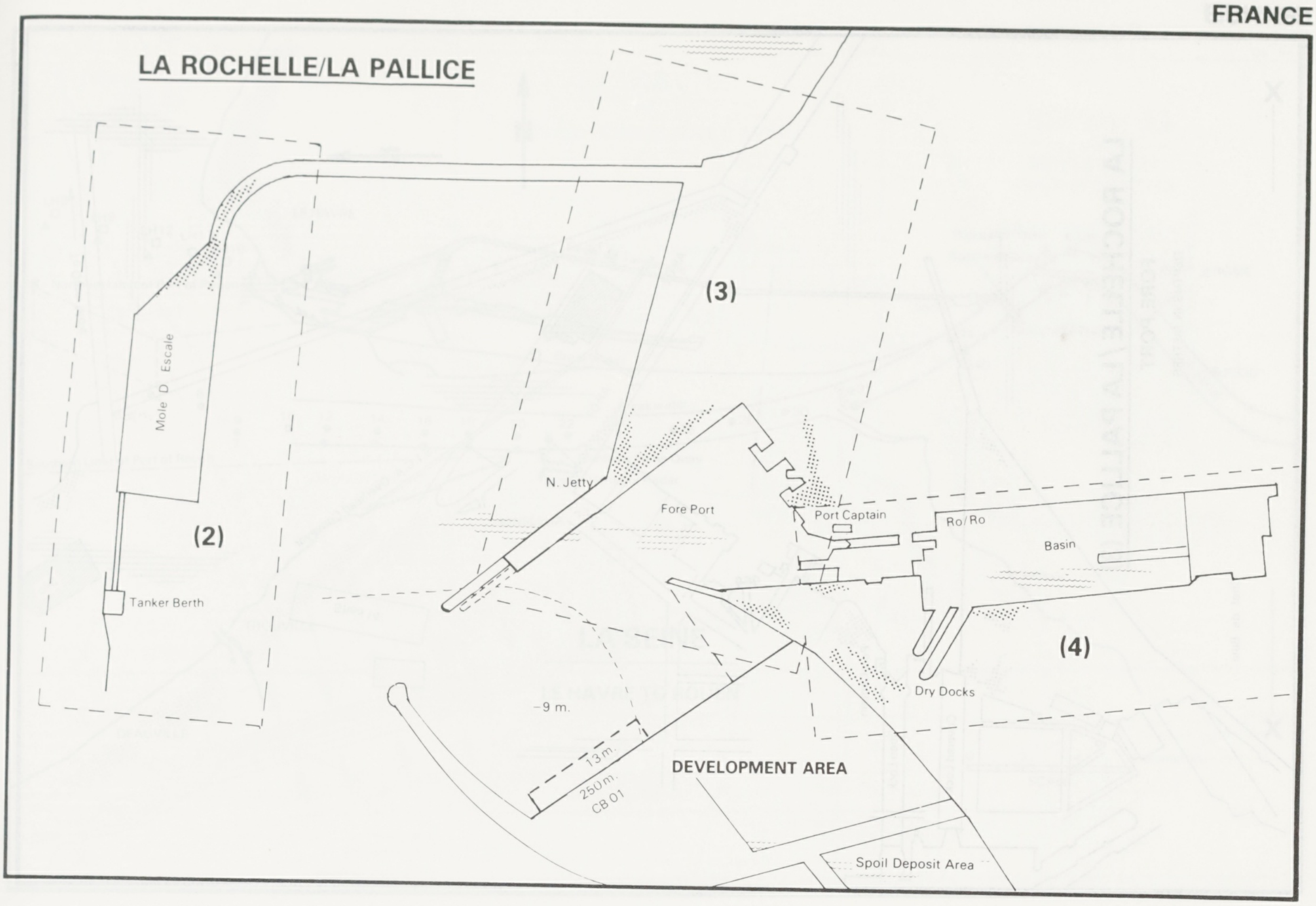
Depth in Metres (Spring Tides)

Republic Basin	
North Quay	6.27
Tostain Quay	6.27 5.77
Carnot Basin	
North Quay	6.27
S.W. Quay & S. Approach	6.27
Wharf	6.27
Old Basin	4.77
Fore Port	
Seine Quay	8.50


10 m.
Fl(2)6s
Sea Dyke Lighthouse
Fl.R 4s
10 m.
Port of Capucins
Capucins Basin
Berouard Basin
Berouard Lighthouse
New Locating Basin Dredged to 7.5 m.
Fitting Out Quay
Building Dock
Slipway
Shelter Port
Fitting Out Quay
Shipyards (C.N.C.)
LA CIOTAT

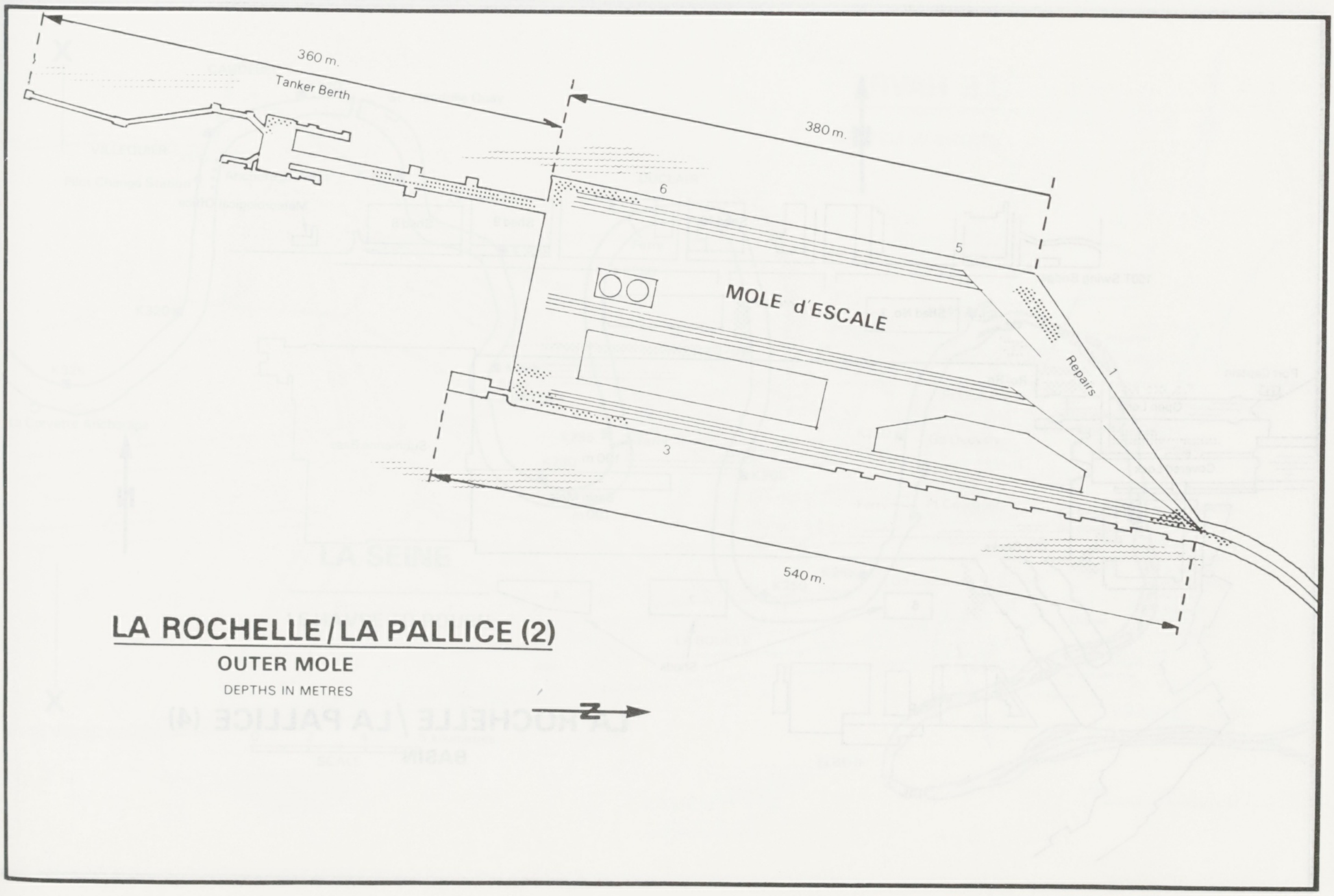

LA NOUVELLE
DEPTHS IN METRES
N
ESSO
Oil Depot
S.C.S.O.
Depot
B.P.
Depot
Alcohol
Depot
Phosphoric Acid
Alcohol Depot
Saw Mill
Pipeline
Berth 3
Berth 2
Oil Tanker Dock
Total Petrol
Depot
East Berth 2
Commercial
Dock
East Berth 1
7.5 m.
South Berth
Fish Dock
Harbour Master
9 m.
Quay
7.00
BARGE BERTH
Quay
7.00
COMMERCIAL DOCK
Quay
7.50
EAST BERTH 1
Quay
9.00
EAST BERTH 2
Quay
9.00
OIL TANKER DOCK


LA ROCHELLE
CENTRAL
N
CHANNEL AXIS
FORE PORT
Tower
Fishing
MOORING HARBOUR
Port Office
Swing Bridge
Quai Ouest
OUTER TIDAL BASIN
Quai Louis Prunier
Fish Market
Fish Sheds
Covered Quay
Quai de L'anciene gare
Quai Nord
Fitting out and repair ramp
INNER
TIDAL BASIN
Lighthouse
Esso
Total
Open Quay
Open Quay
Goods Shed
Goods Shed



LA ROCHELLE/LA PALLICE

(2)
(3)
(4)
Mole D Escale
Tanker Berth
N. Jetty
Fore Port
Port Captain
Ro/Ro
Basin
Dry Docks
-9 m.
13 m.
250 m.
CB 01
DEVELOPMENT AREA
Spoil Deposit Area

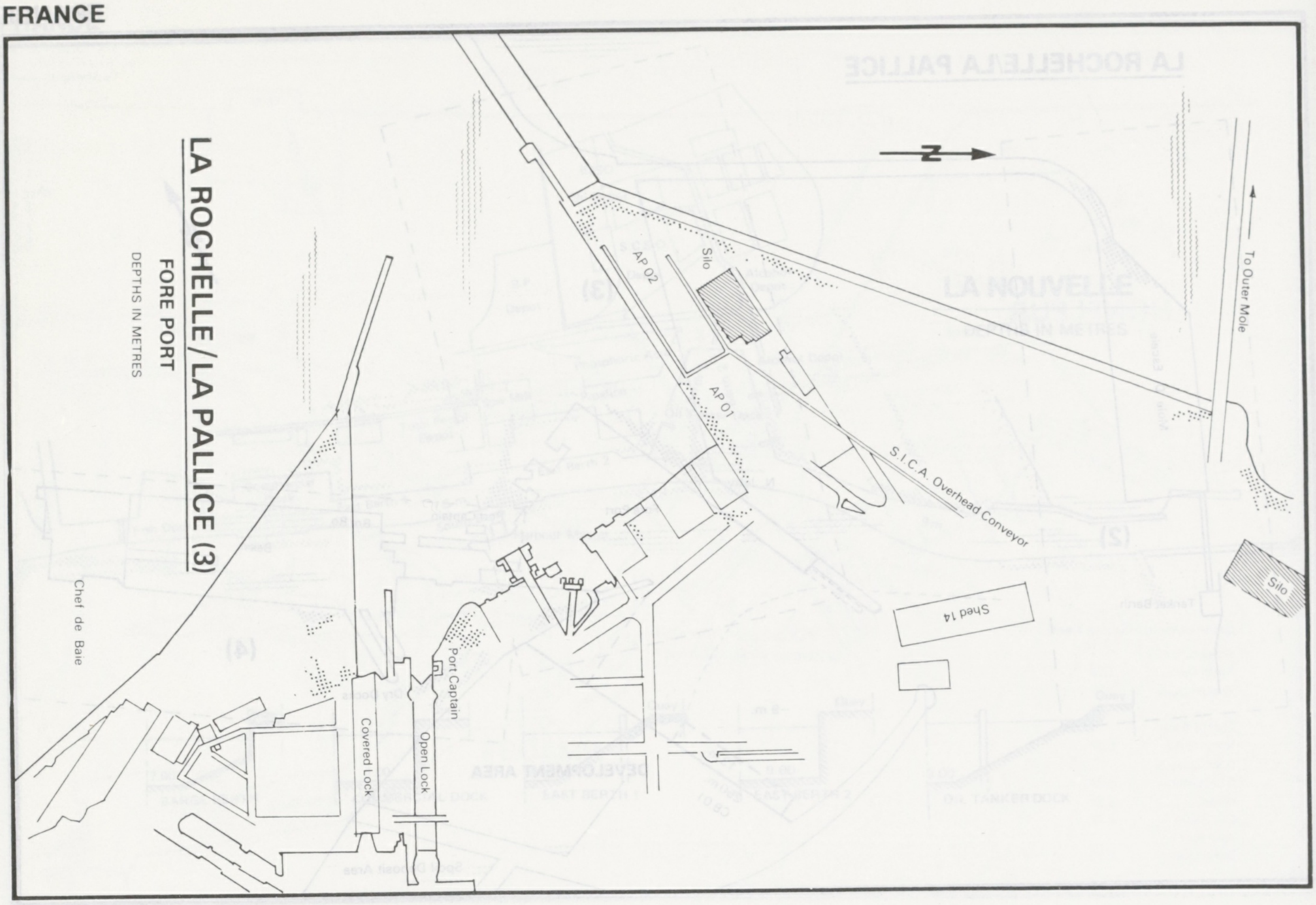


LA ROCHELLE/LA PALLICE (2)

OUTER MOLE

DEPTHS IN METRES

360 m.
Tanker Berth
380 m.
6
5
MOLE d'ESCALE
Repairs
1
3
540 m.
N

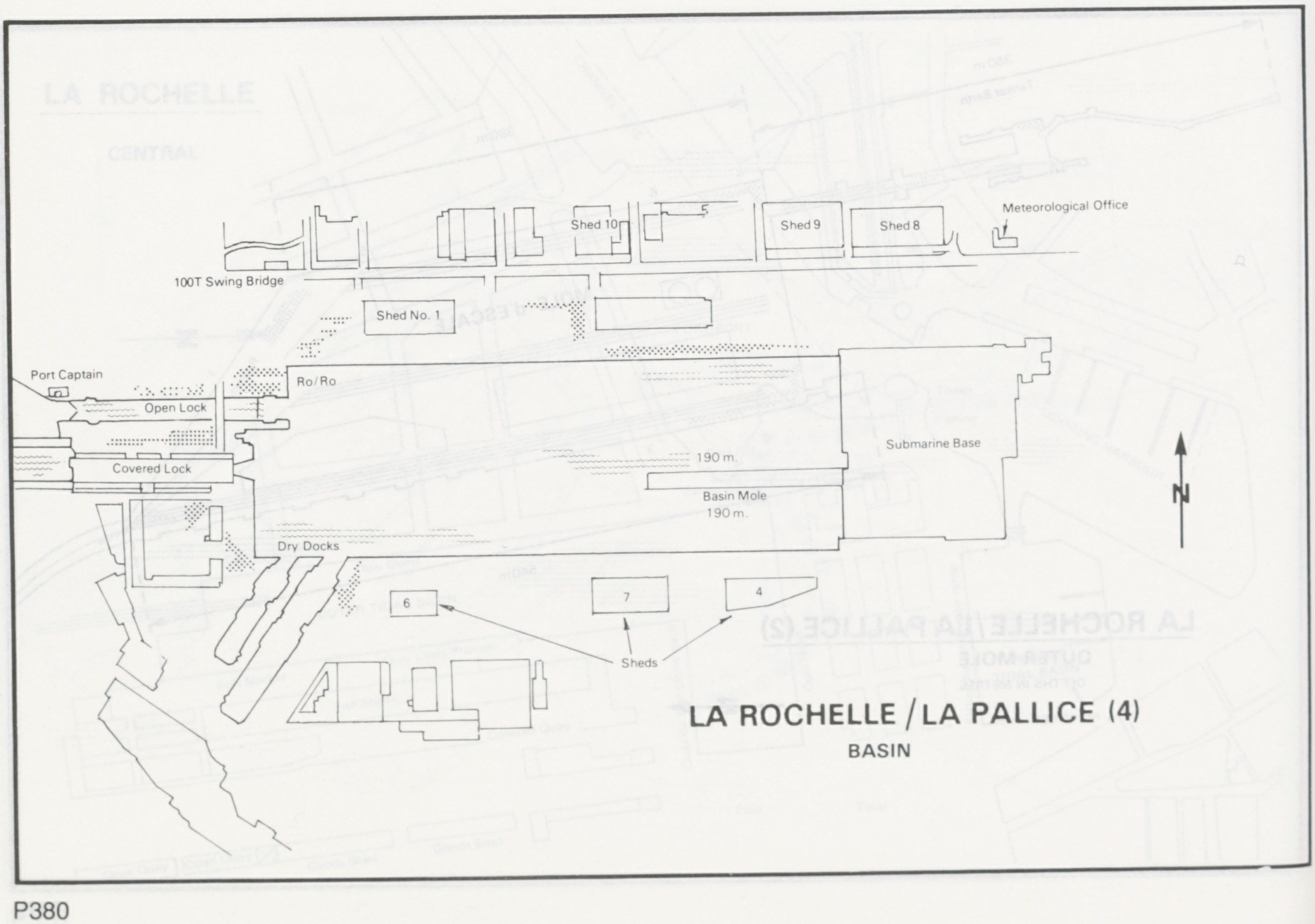


LA ROCHELLE/LA PALLICE (3)

FORE PORT

DEPTHS IN METRES

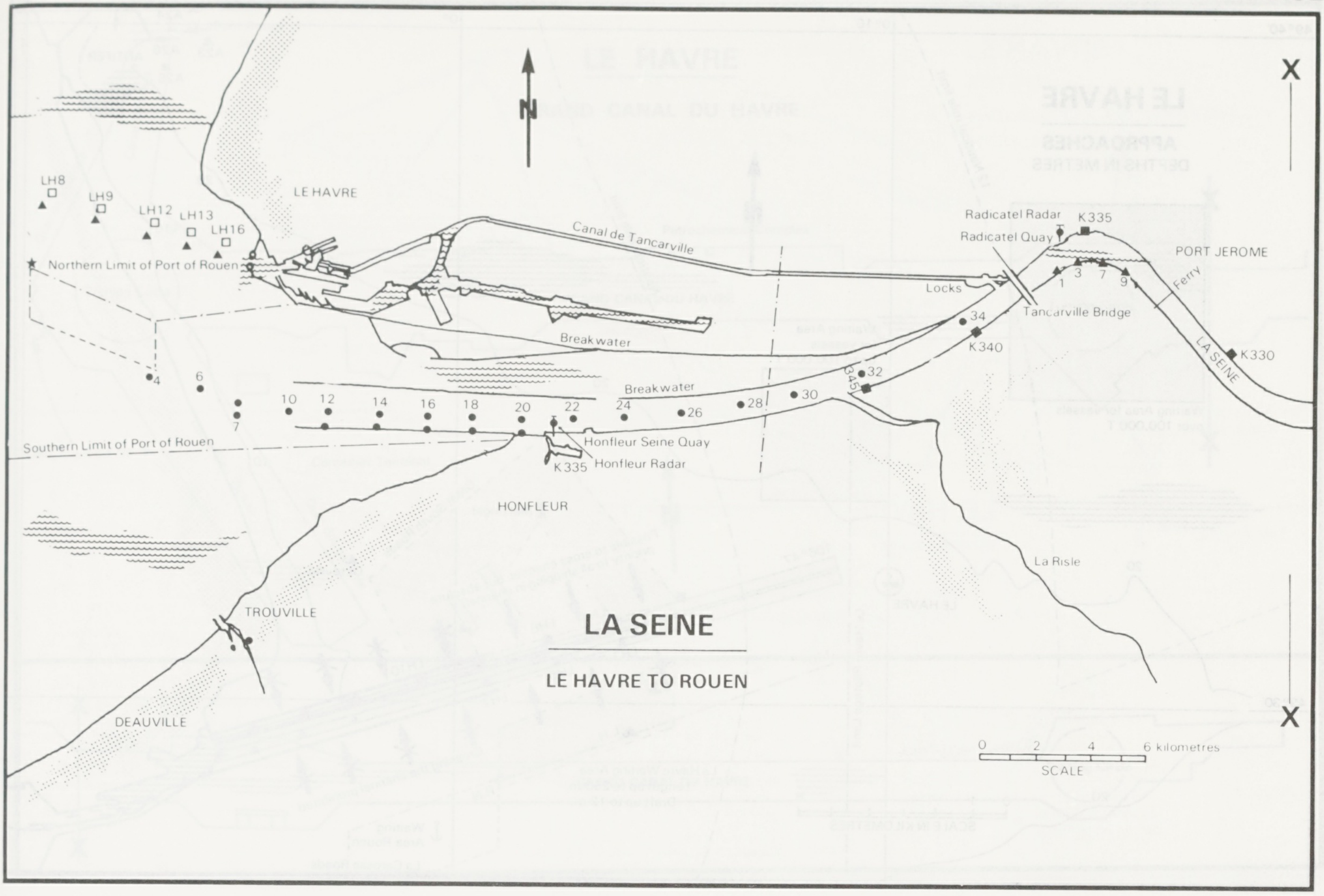
N
Silo
AP 02
AP 01
S.I.C.A. Overhead Conveyor
To Outer Mole
Silo
Shed 14
Port Captain
Open Lock
Covered Lock
Chef de Baie

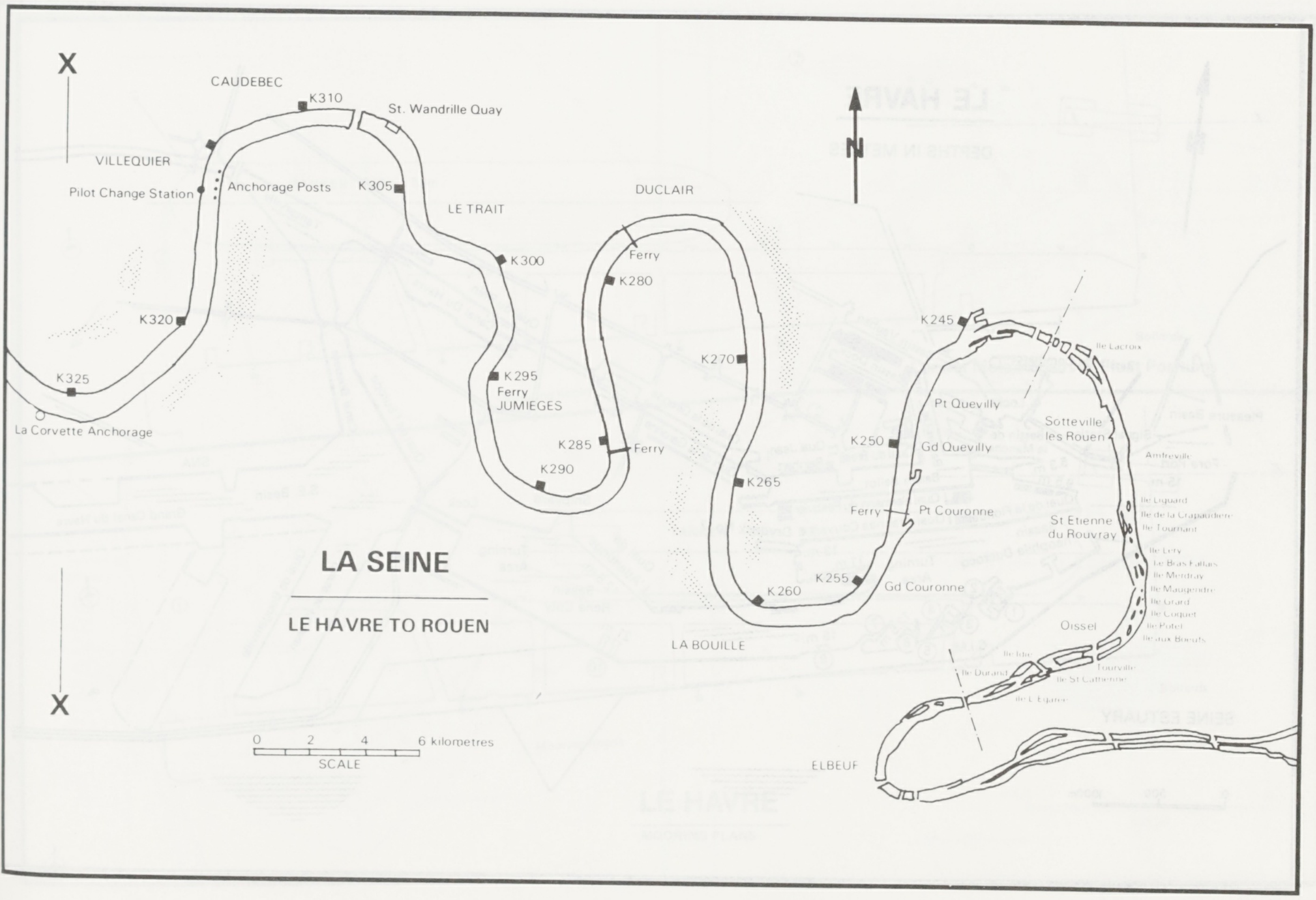


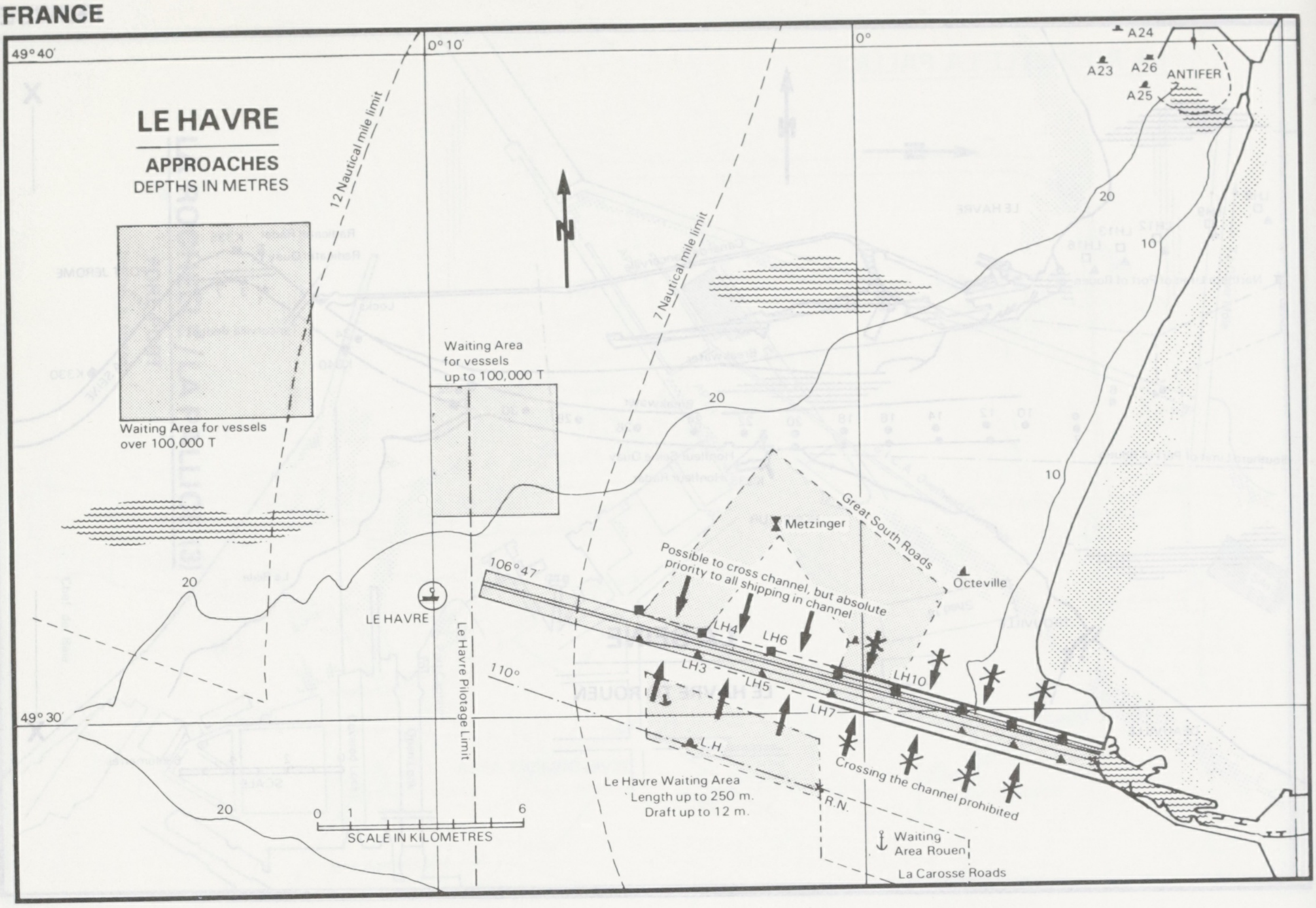
LA ROCHELLE / LA PALLICE (4)

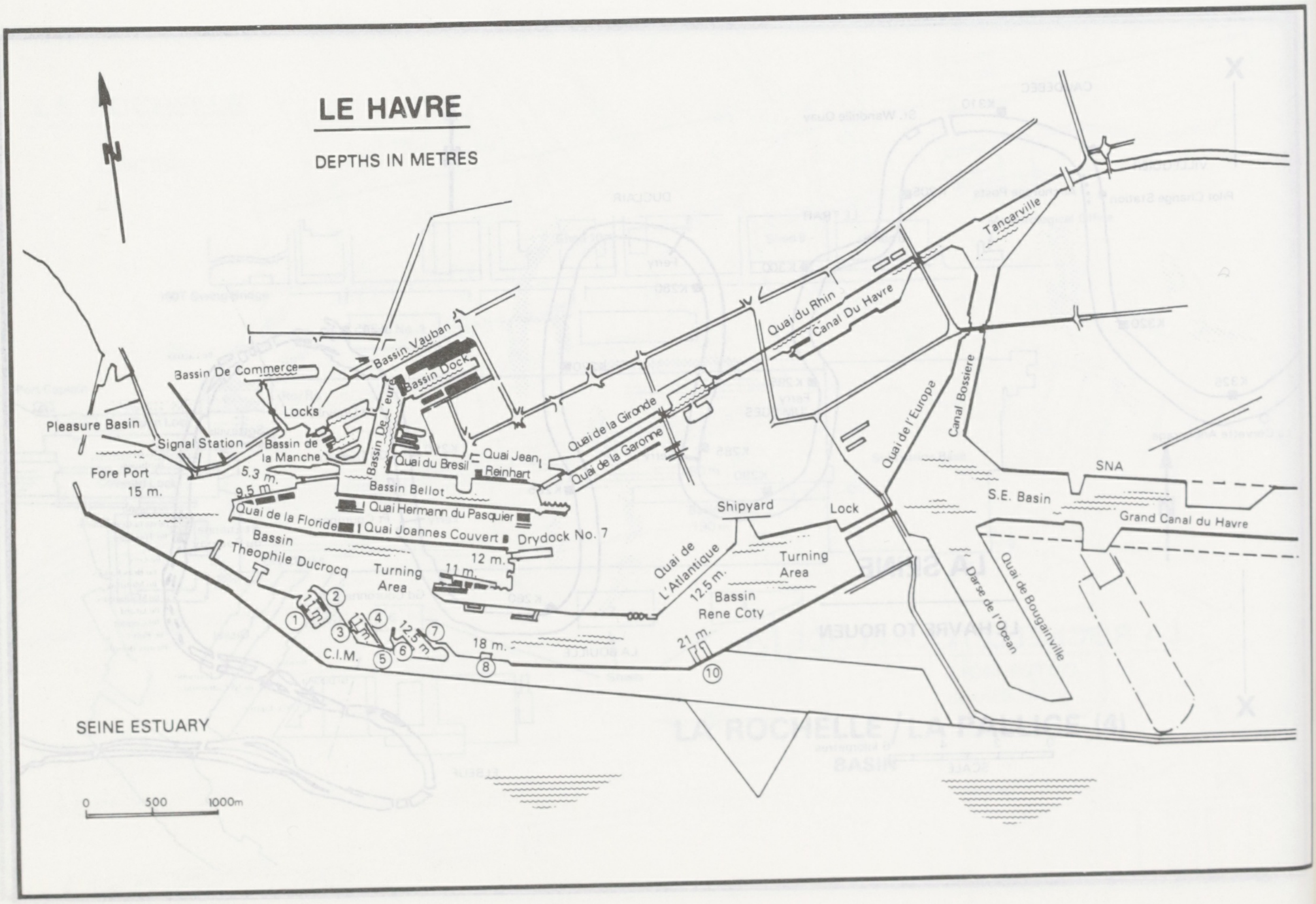
BASIN

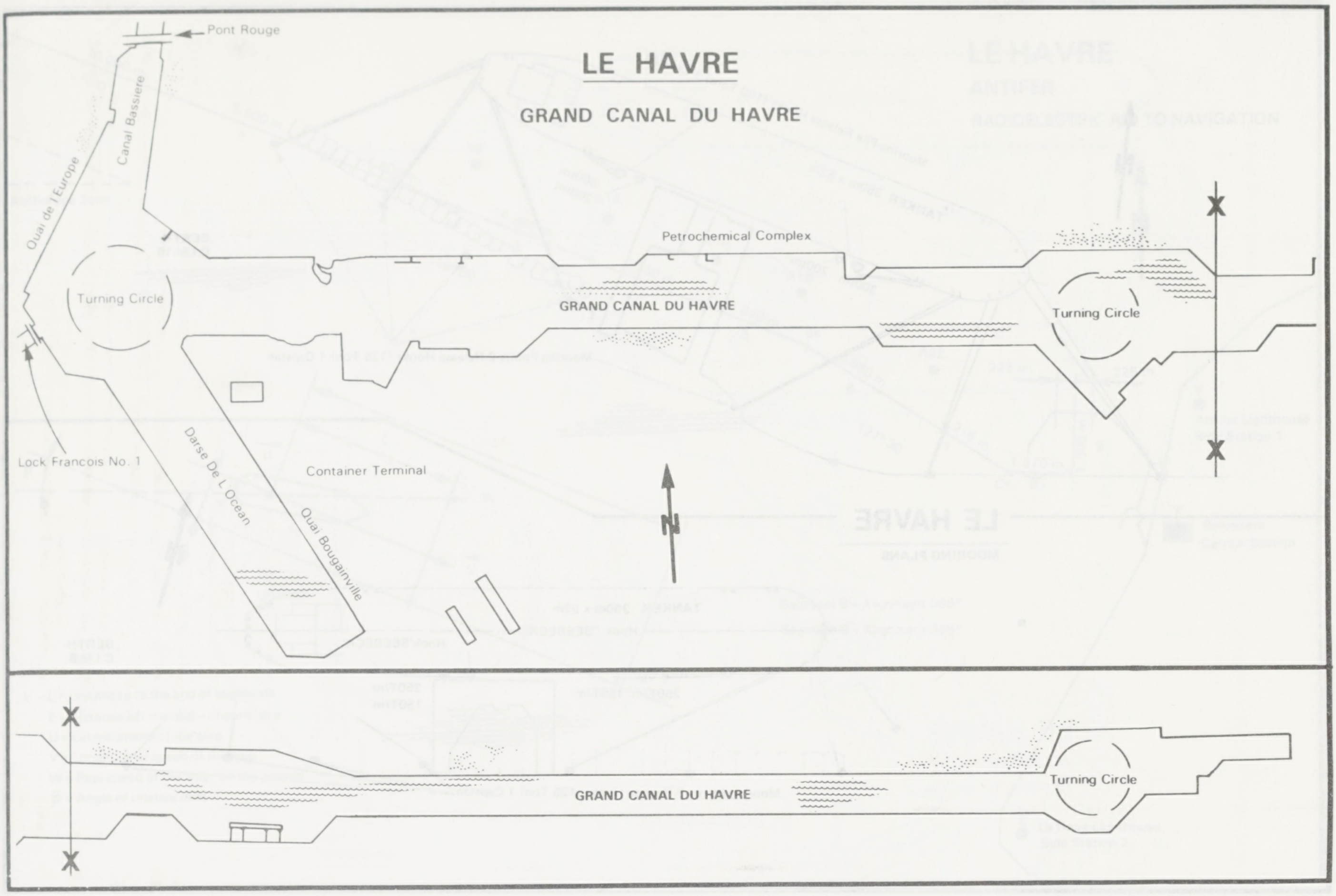
Shed 10
5
Shed 9
Shed 8
Meteorological Office
100T Swing Bridge
Shed No. 1
Port Captain
Ro/Ro
Open Lock
Covered Lock
190 m.
Basin Mole
190 m.
Submarine Base
N
Dry Docks
6
7
4
Sheds

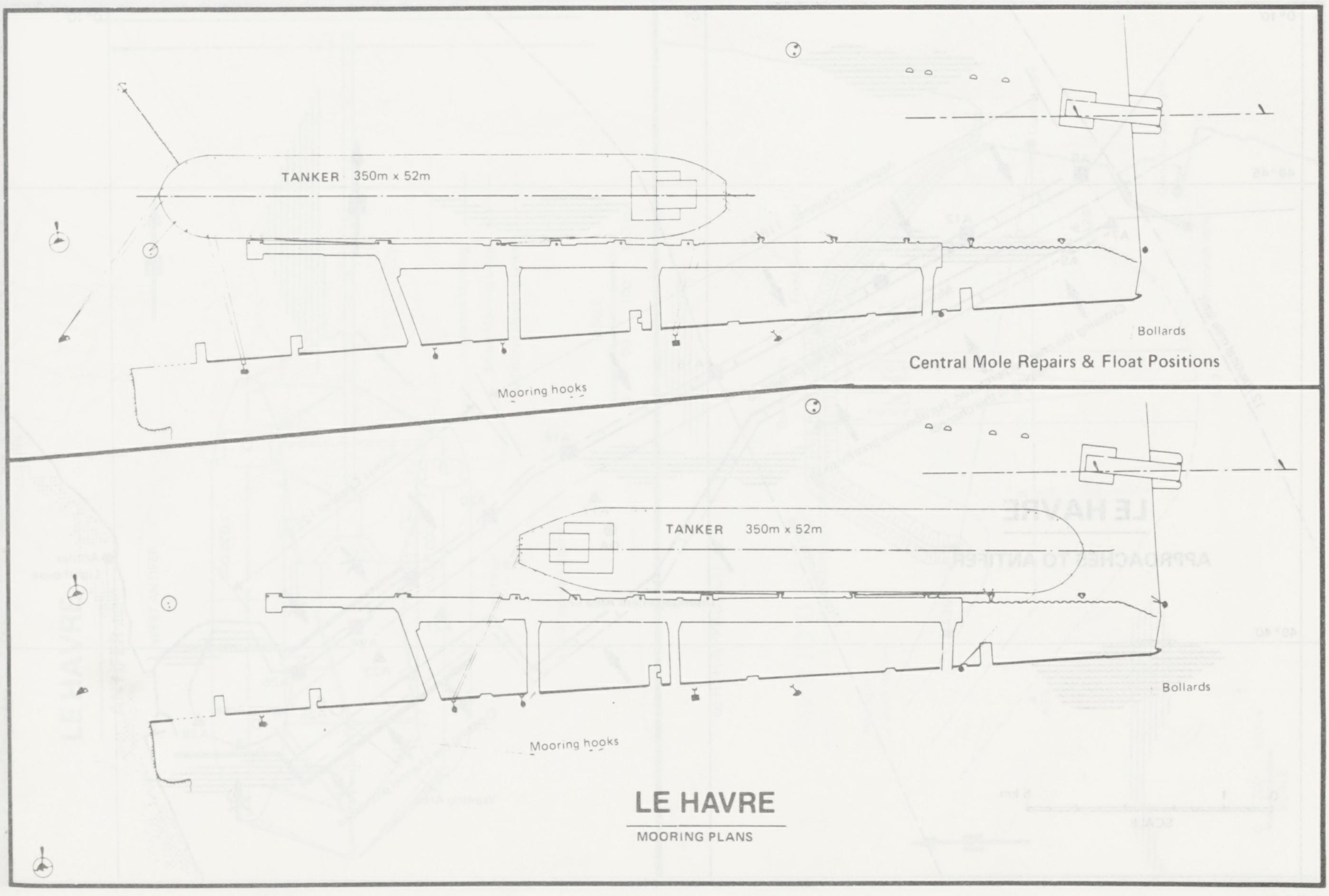

N
X
X
LH8
LH9
LH12
LH13
LH16
LE HAVRE
Northern Limit of Port of Rouen
Canal de Tancarville
Breakwater
Breakwater
Southern Limit of Port of Rouen
4
6
7
10
12
14
16
18
20
22
24
26
28
30
32
34
345
K340
Honfleur Seine Quay
Honfleur Radar
K335
HONFLEUR
TROUVILLE
DEAUVILLE
Radicatel Radar
Radicatel Quay
K335
PORT JEROME
1
3
7
9
Ferry
Locks
Tancarville Bridge
LA SEINE
K330
La Risle
LA SEINE
LE HAVRE TO ROUEN
0
2
4
6 kilometres
SCALE

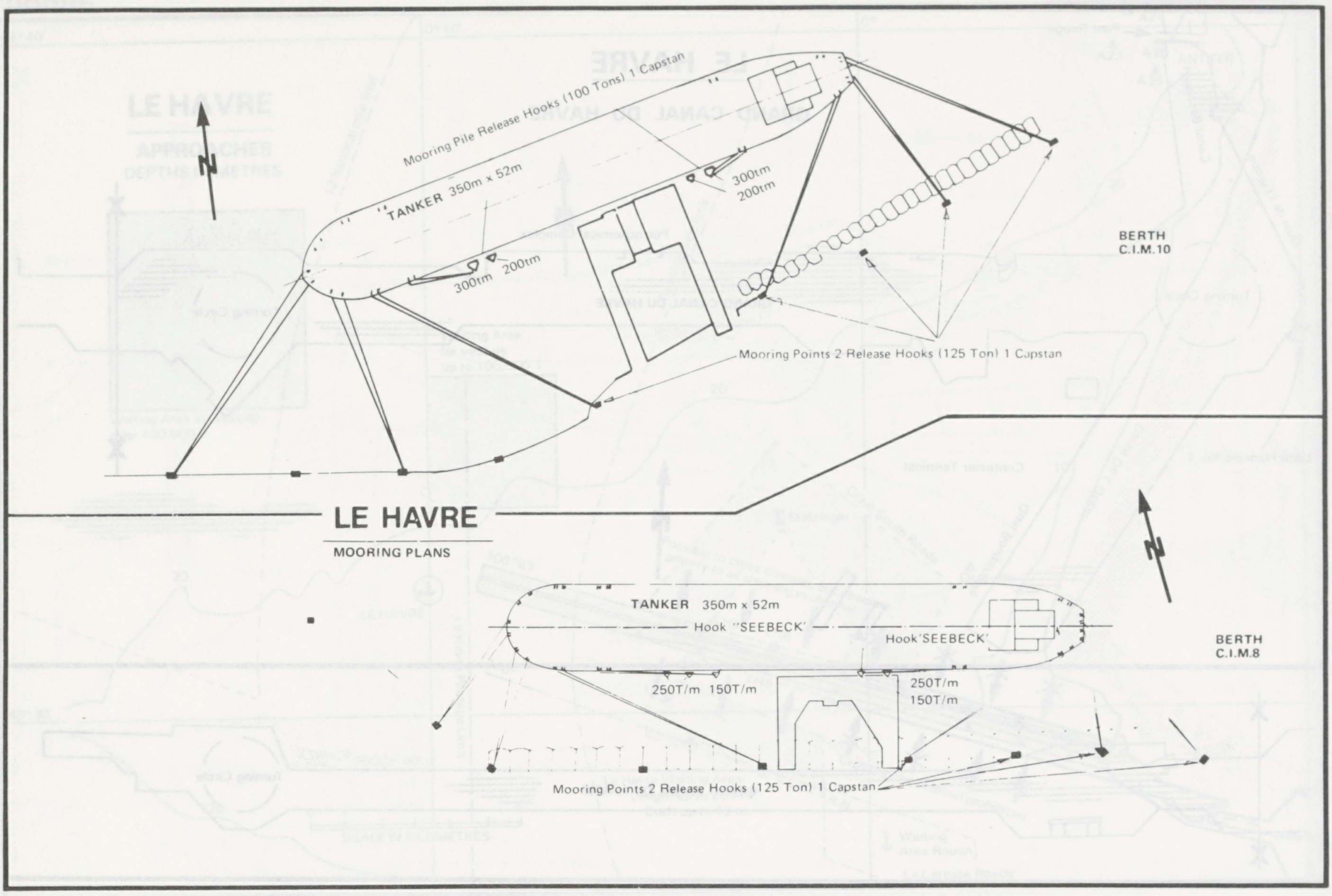

X
X
N
CAUDEBEC
K310
St. Wandrille Quay
VILLEQUIER
Pilot Change Station
Anchorage Posts
K305
LE TRAIT
DUCLAIR
K300
Ferry
K280
K320
K325
La Corvette Anchorage
K295
Ferry
JUMIEGES
K285
Ferry
K290
K270
K265
K260
LA BOUILLE
K245
Ile Lacroix
Pt Quevilly
Sotteville les Rouen
K250
Gd Quevilly
Amfreville
Ferry
Pt Couronne
St Etienne du Rouvray
Ile Liguard
Ile de la Crapaudiere
Ile Tournant
Ile Lery
Le Bras Fallais
Ile Merdray
Ile Maugendre
Ile Grard
Ile Coquet
Ile Potel
Ile aux Boeufs
K255
Gd Couronne
Oissel
Ile Idie
Ile Durand
Tourville
Ile St Catherine
Ile L Eguree
ELBEUF
LA SEINE
LE HAVRE TO ROUEN
0
2
4
6 kilometres
SCALE


LE HAVRE
APPROACHES
DEPTHS IN METRES
49° 40'
0° 10'
0°
49° 30'
N
12 Nautical mile limit
7 Nautical mile limit
Waiting Area for vessels over 100,000 T
Waiting Area for vessels up to 100,000 T
A24
A23
A26
A25
ANTIFER
20
10
Metzinger
Great South Roads
Octeville
Possible to cross channel, but absolute priority to all shipping in channel
106° 47'
110°
LE HAVRE
Le Havre Pilotage Limit
LH3
LH4
LH5
LH6
LH7
LH10
L.H.
R.N.
Crossing the channel prohibited
Le Havre Waiting Area
Length up to 250 m.
Draft up to 12 m.
Waiting Area Rouen
La Carosse Roads
0 1 6
SCALE IN KILOMETRES


LE HAVRE
DEPTHS IN METRES
N
Bassin De Commerce
Pleasure Basin
Signal Station
Locks
Bassin de la Manche
Fore Port
15 m.
5.3 m.
9.5 m.
Bassin Vauban
Bassin Dock
Bassin De L'eure
Quai du Bresil
Quai Jean Reinhart
Bassin Bellot
Quai Hermann du Pasquier
Quai de la Floride
Quai Joannes Couvert
Drydock No. 7
Bassin Theophile Ducrocq
12 m.
Turning Area
11 m.
12.5 m.
18 m.
C.I.M.
1
2
3
4
5
6
7
8
10
Quai de la Gironde
Quai de la Garonne
Quai du Rhin
Canal Du Havre
Tancarville
Quai de l'Europe
Canal Bossiere
Shipyard
Lock
Quai de L'Atlantique
12.5 m.
Bassin Rene Coty
Turning Area
21 m.
S.E. Basin
SNA
Grand Canal du Havre
Quai de Bouganville
Darse de l'Ocean
SEINE ESTUARY
0 500 1000m

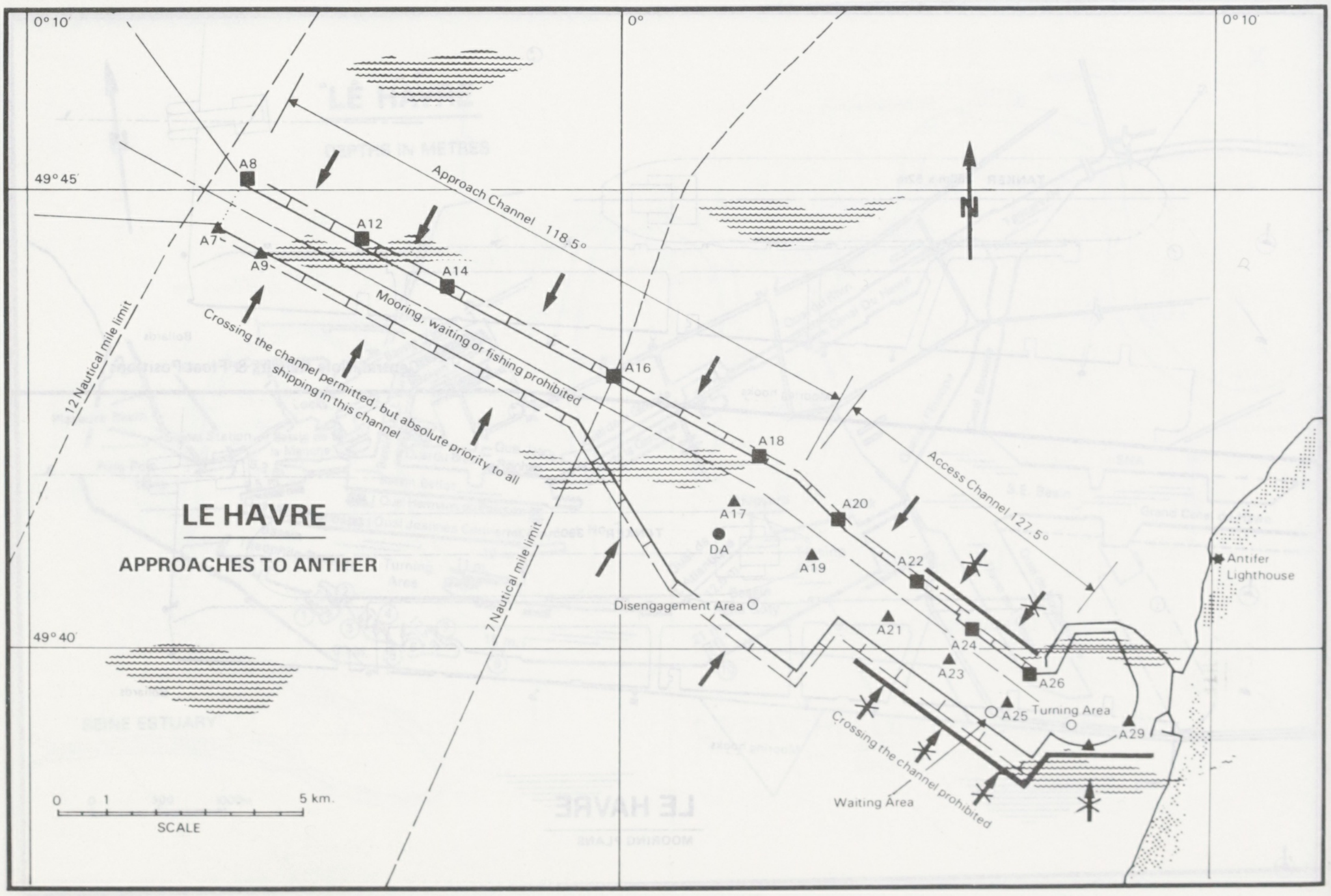

LE HAVRE
GRAND CANAL DU HAVRE
Pont Rouge
Canal Bassiere
Quai de l'Europe
Turning Circle
Lock Francois No. 1
Darse De L Ocean
Container Terminal
Quai Bougainville
Petrochemical Complex
GRAND CANAL DU HAVRE
Turning Circle
N
X
X
X
X
GRAND CANAL DU HAVRE
Turning Circle


TANKER 350m x 52m
Bollards
Central Mole Repairs & Float Positions
Mooring hooks
TANKER 350m x 52m
Bollards
Mooring hooks
LE HAVRE
MOORING PLANS


Mooring Pile Release Hooks (100 Tons) 1 Capstan
TANKER 350m x 52m
300tm
200tm
300tm 200tm
BERTH
C.I.M.10
Mooring Points 2 Release Hooks (125 Ton) 1 Capstan
TANKER 350m x 52m
Hook "SEEBECK"
Hook 'SEEBECK'
250T/m 150T/m
250T/m
150T/m
BERTH
C.I.M.8
Mooring Points 2 Release Hooks (125 Ton) 1 Capstan

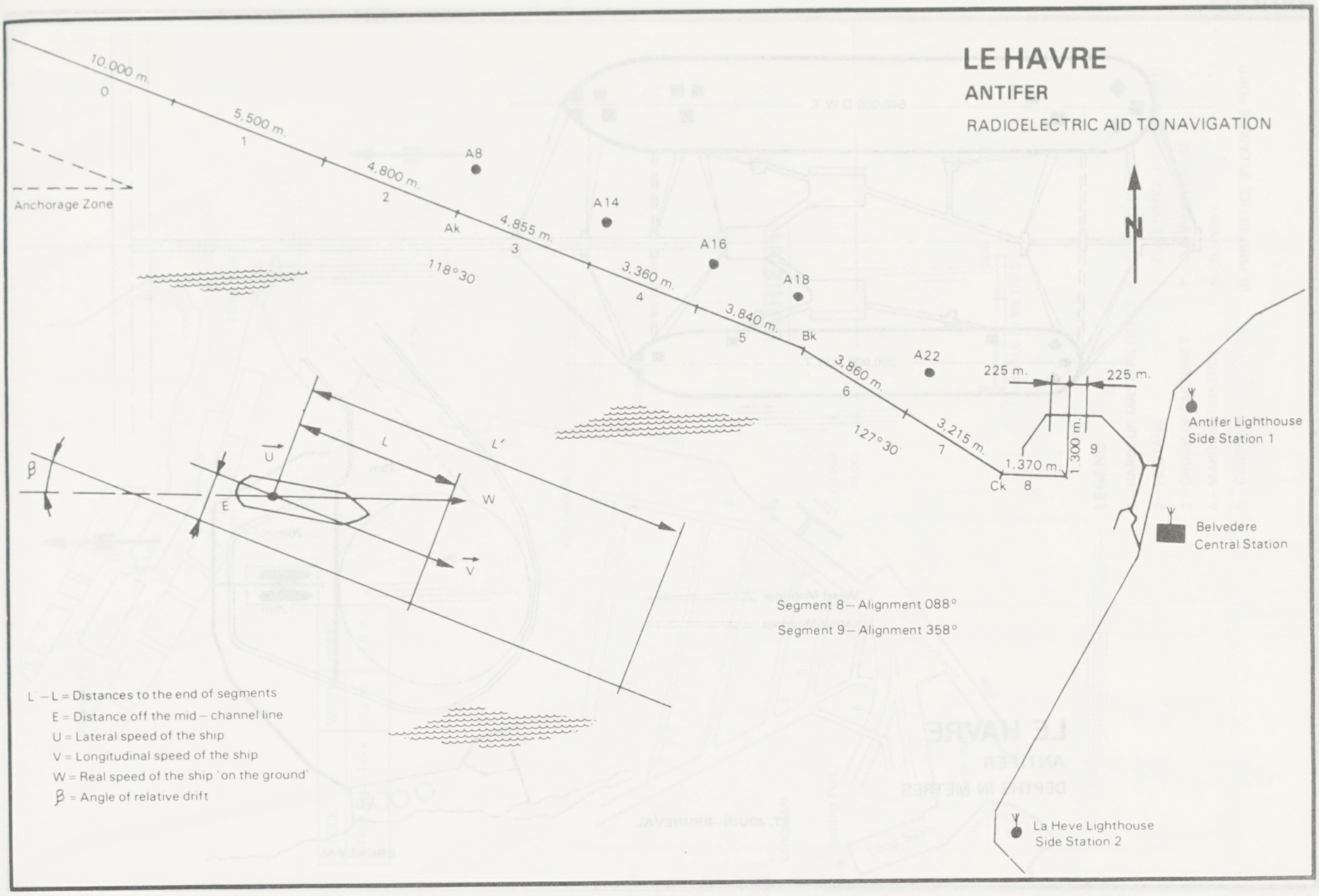
LE HAVRE

MOORING PLANS

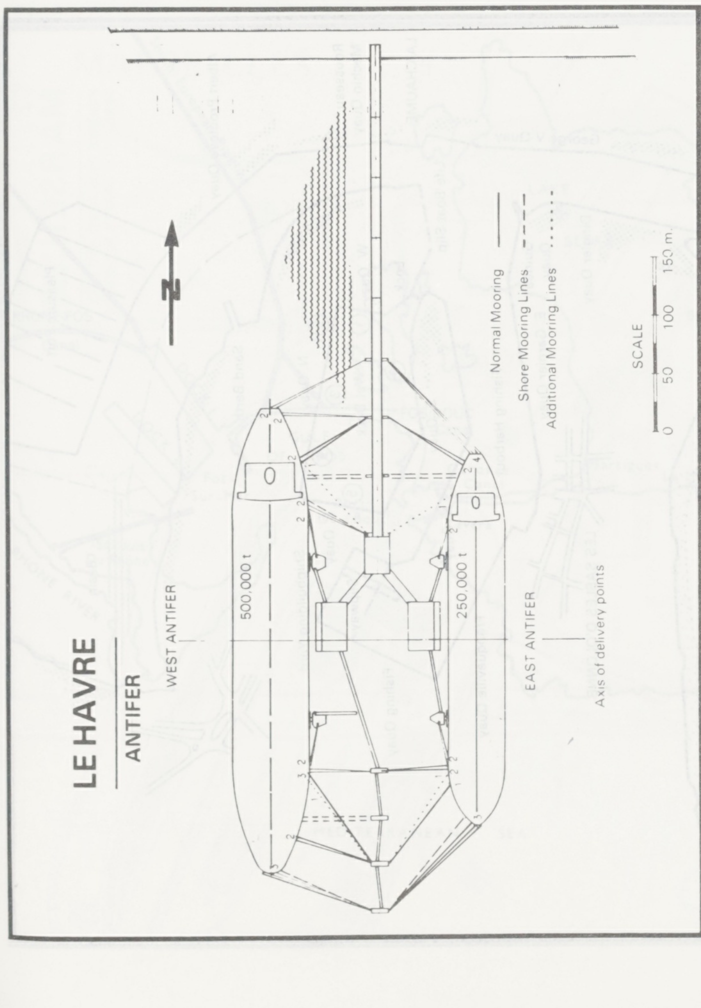

0° 10'
0°
0° 10'
49° 45'
49° 40'
A8
A7
A9
A12
A14
A16
A18
A20
A22
A24
A26
A17
DA
A19
A21
A23
A25
A29
Approach Channel 118.5°
Mooring, waiting or fishing prohibited
Crossing the channel permitted, but absolute priority to all shipping in this channel
12 Nautical mile limit
7 Nautical mile limit
Access Channel 127.5°
Disengagement Area
Turning Area
Waiting Area
Crossing the channel prohibited
Antifer Lighthouse
0 1 5 km.
SCALE

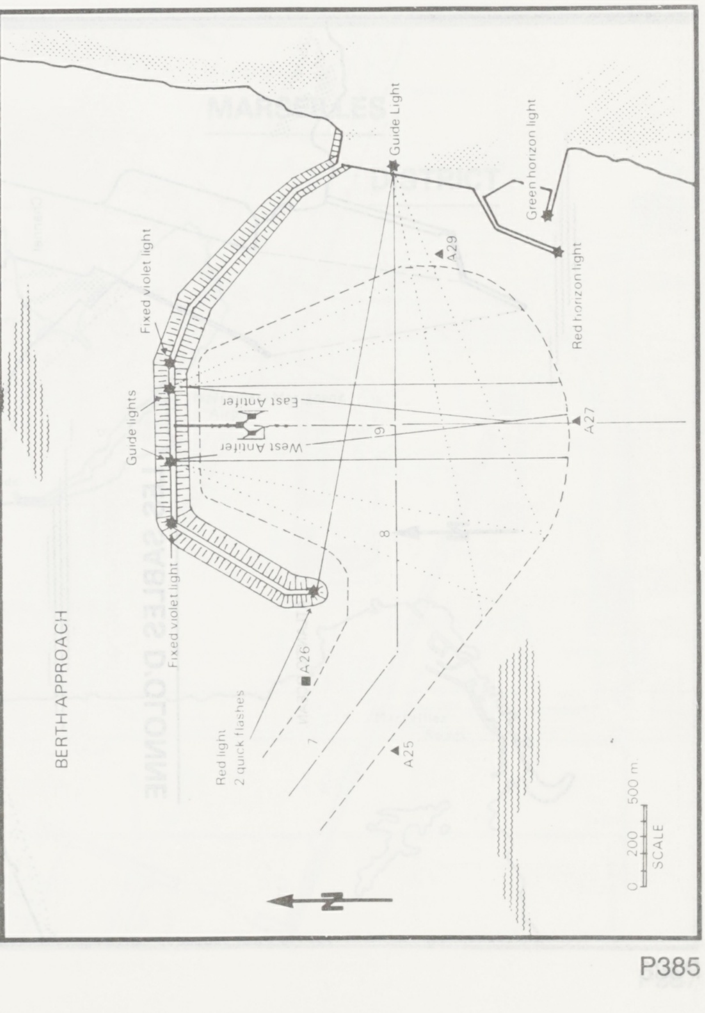
LE HAVRE

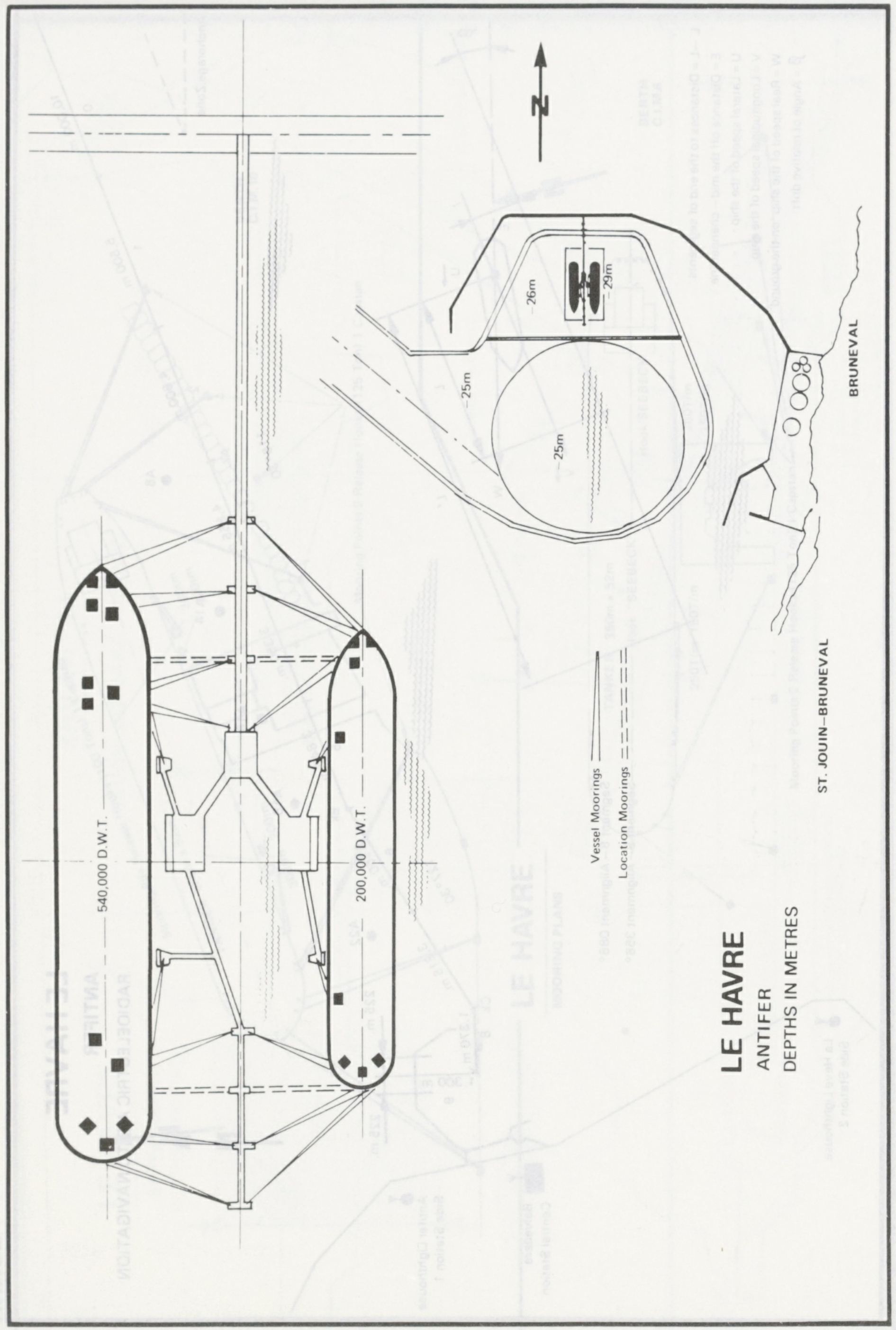
APPROACHES TO ANTIFER


LE HAVRE
ANTIFER
RADIOELECTRIC AID TO NAVIGATION
N
10,000 m.
0
5,500 m.
1
4,800 m.
2
Ak
4,855 m.
3
118°30
3,360 m.
4
3,840 m.
5
Bk
3,860 m.
6
127°30
3,215 m.
7
Ck
1,370 m.
8
1,300 m.
9
225 m.
225 m.
A8
A14
A16
A18
A22
Anchorage Zone
Antifer Lighthouse Side Station 1
Belvedere Central Station
La Heve Lighthouse Side Station 2
Segment 8 – Alignment 088°
Segment 9 – Alignment 358°
β
E
U
L
L'
W
V

L' – L = Distances to the end of segments
E = Distance off the mid – channel line
U = Lateral speed of the ship
V = Longitudinal speed of the ship
W = Real speed of the ship 'on the ground'
β = Angle of relative drift

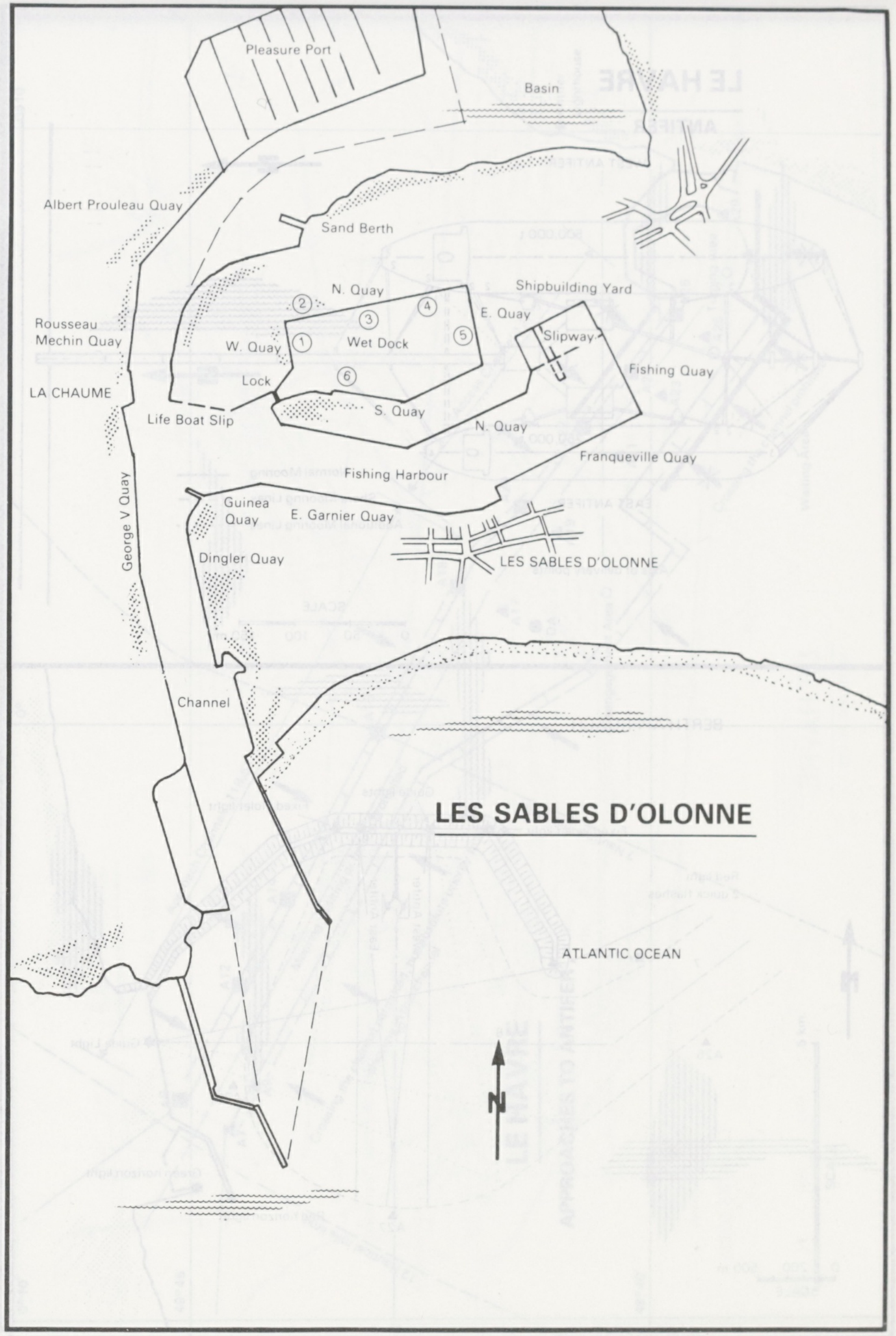

LE HAVRE
ANTIFER
N
WEST ANTIFER
500,000 t
250,000 t
EAST ANTIFER
Axis of delivery points
Normal Mooring
Shore Mooring Lines
Additional Mooring Lines
SCALE
0
50
100
150 m


BERTH APPROACH
Guide Light
Green horizon light
Red horizon light
A29
Fixed violet light
Guide lights
East Antifer
West Antifer
A27
9
8
Fixed violet light
A26
Red light 2 quick flashes
A25
7
N
SCALE
0
200
500 m


N
-26m
-29m
-25m
-25m
-25m
540,000 D.W.T.
200,000 D.W.T.
Vessel Moorings
Location Moorings
BRUNEVAL
ST. JOUIN–BRUNEVAL

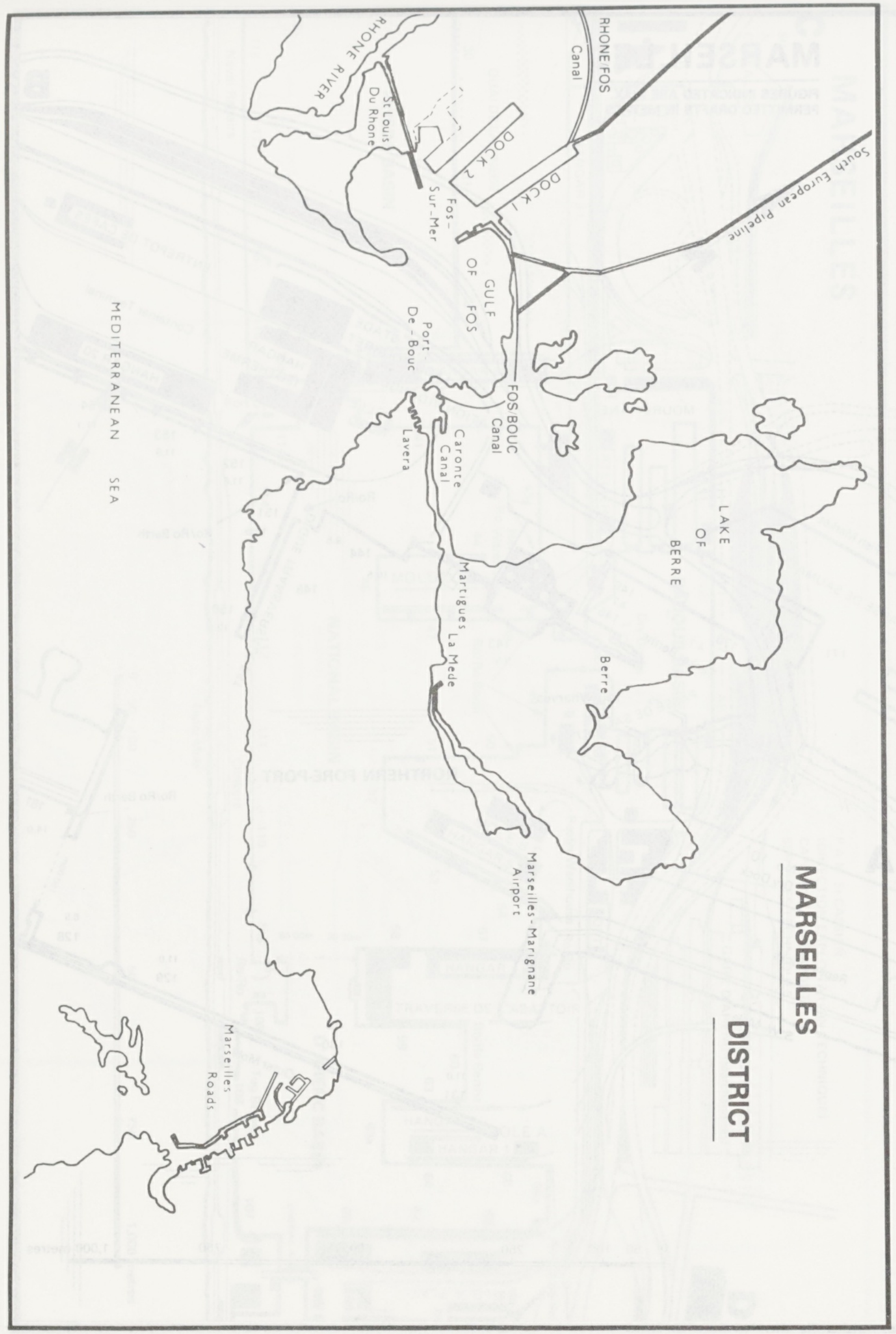
LE HAVRE

ANTIFER
DEPTHS IN METRES

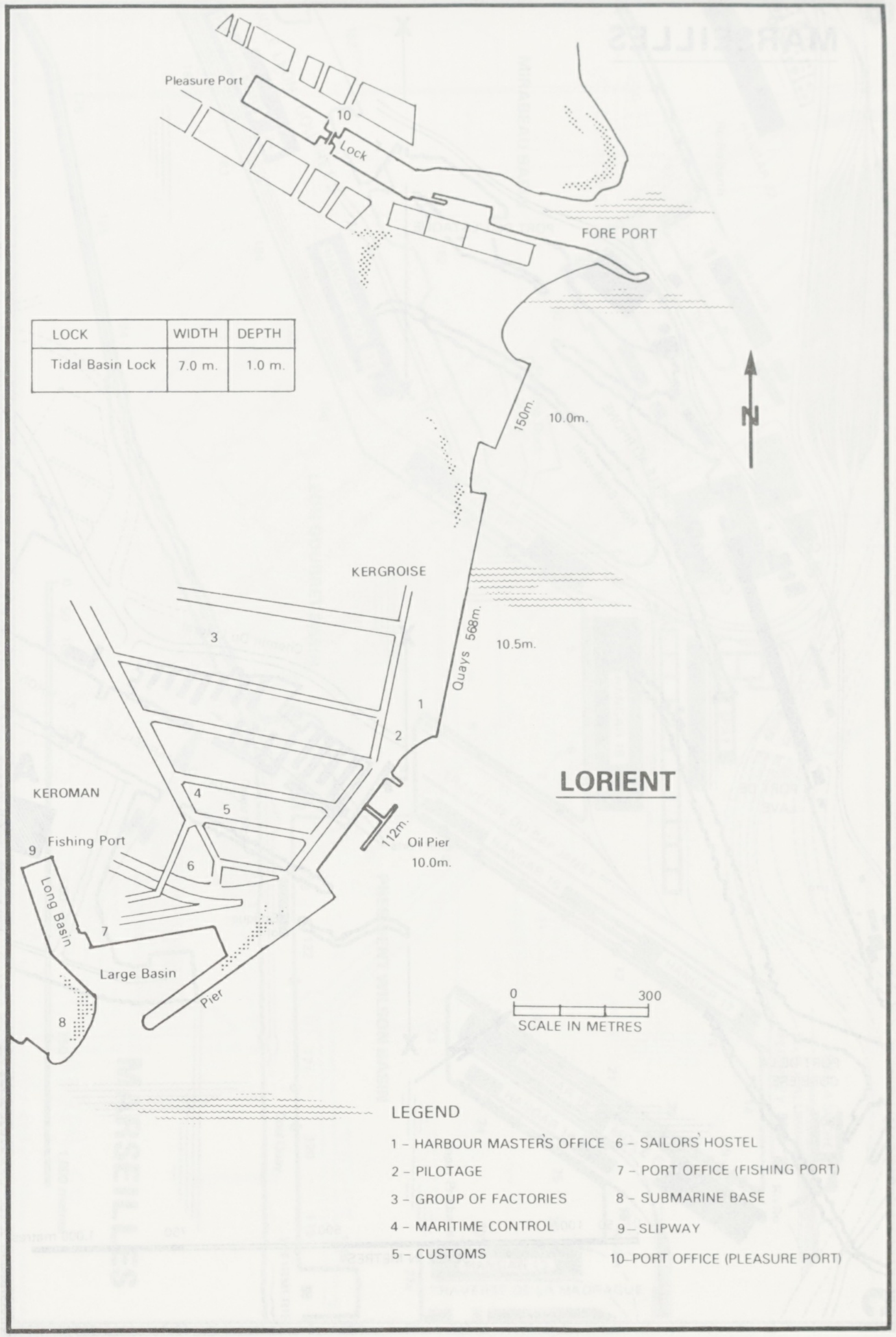

Pleasure Port
Basin
Albert Prouleau Quay
Sand Berth
Rousseau Mechin Quay
N. Quay
Shipbuilding Yard
②
③
④
⑤
E. Quay
W. Quay
①
Wet Dock
Slipway
Fishing Quay
Lock
⑥
LA CHAUME
Life Boat Slip
S. Quay
N. Quay
Franqueville Quay
Fishing Harbour
George V Quay
Guinea Quay
E. Garnier Quay
Dingler Quay
LES SABLES D'OLONNE
Channel
ATLANTIC OCEAN
N

LES SABLES D'OLONNE

MARSEILLES DISTRICT


RHONE RIVER
St Louis Du Rhone
RHONE FOS Canal
DOCK 2
DOCK 1
South European Pipeline
Fos-Sur-Mer
GULF OF FOS
Port De-Bouc
FOS/BOUC Canal
Lavera
Caronte Canal
MEDITERRANEAN SEA
LAKE OF BERRE
Martigues
La Mede
Berre
Marseilles-Marignane Airport
Marseilles Roads

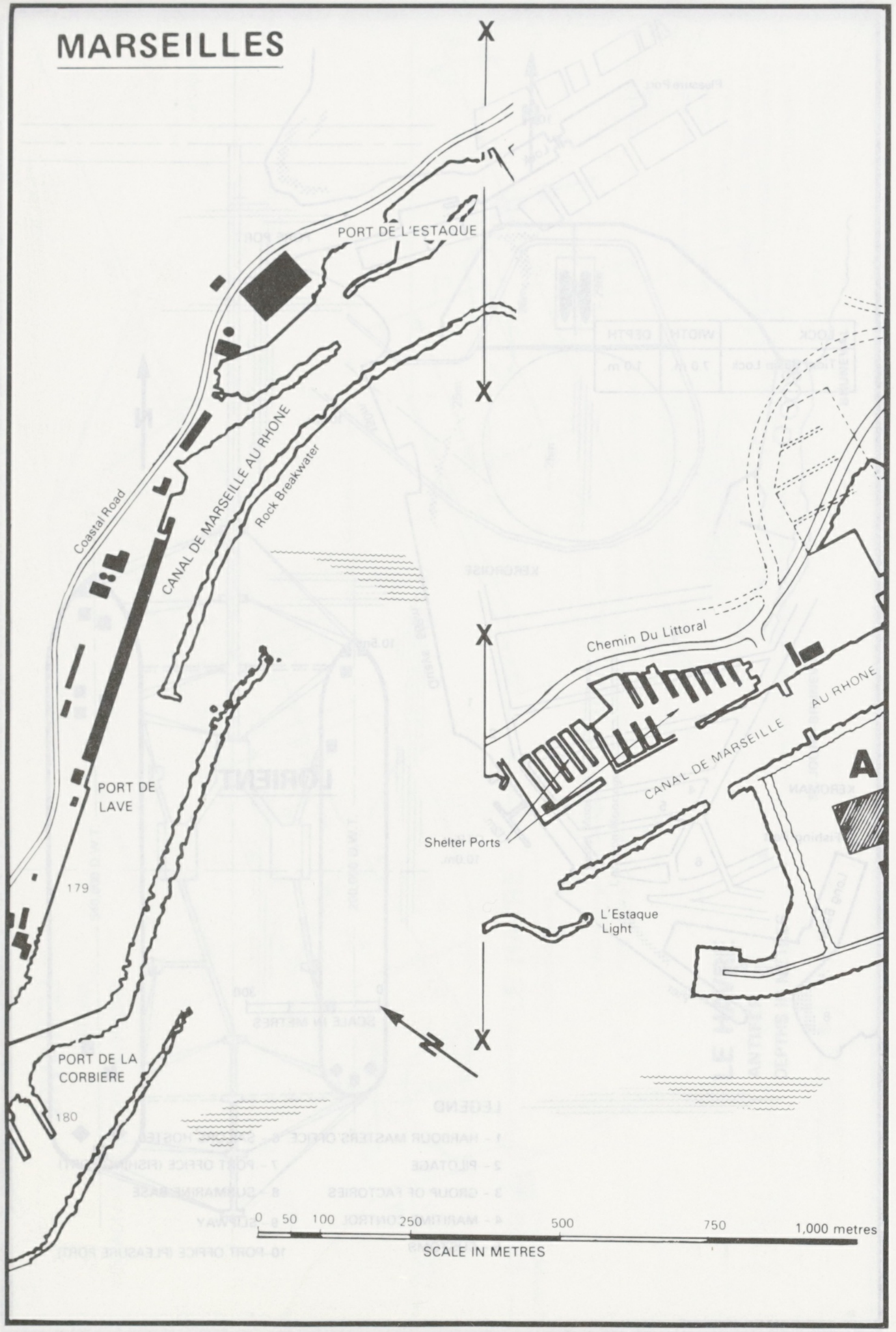
LORIENT

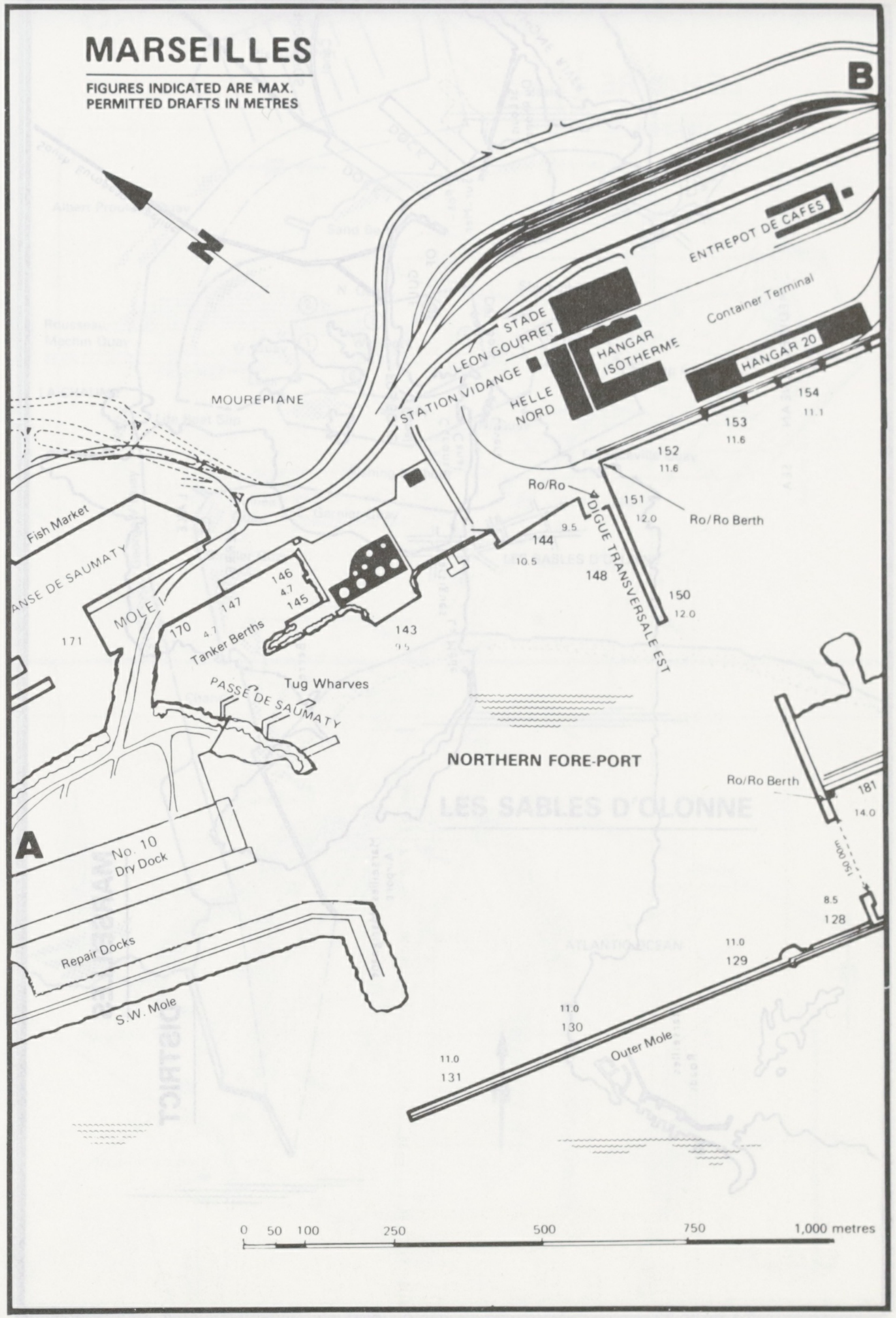

Pleasure Port
10
Lock
FORE PORT
N
150m.
10.0m.
KERGROISE
3
Quays 568m.
10.5m.
1
2
KEROMAN
4
5
112m.
Oil Pier
10.0m.
9
Fishing Port
6
Long Basin
7
Large Basin
Pier
8
0
300
SCALE IN METRES

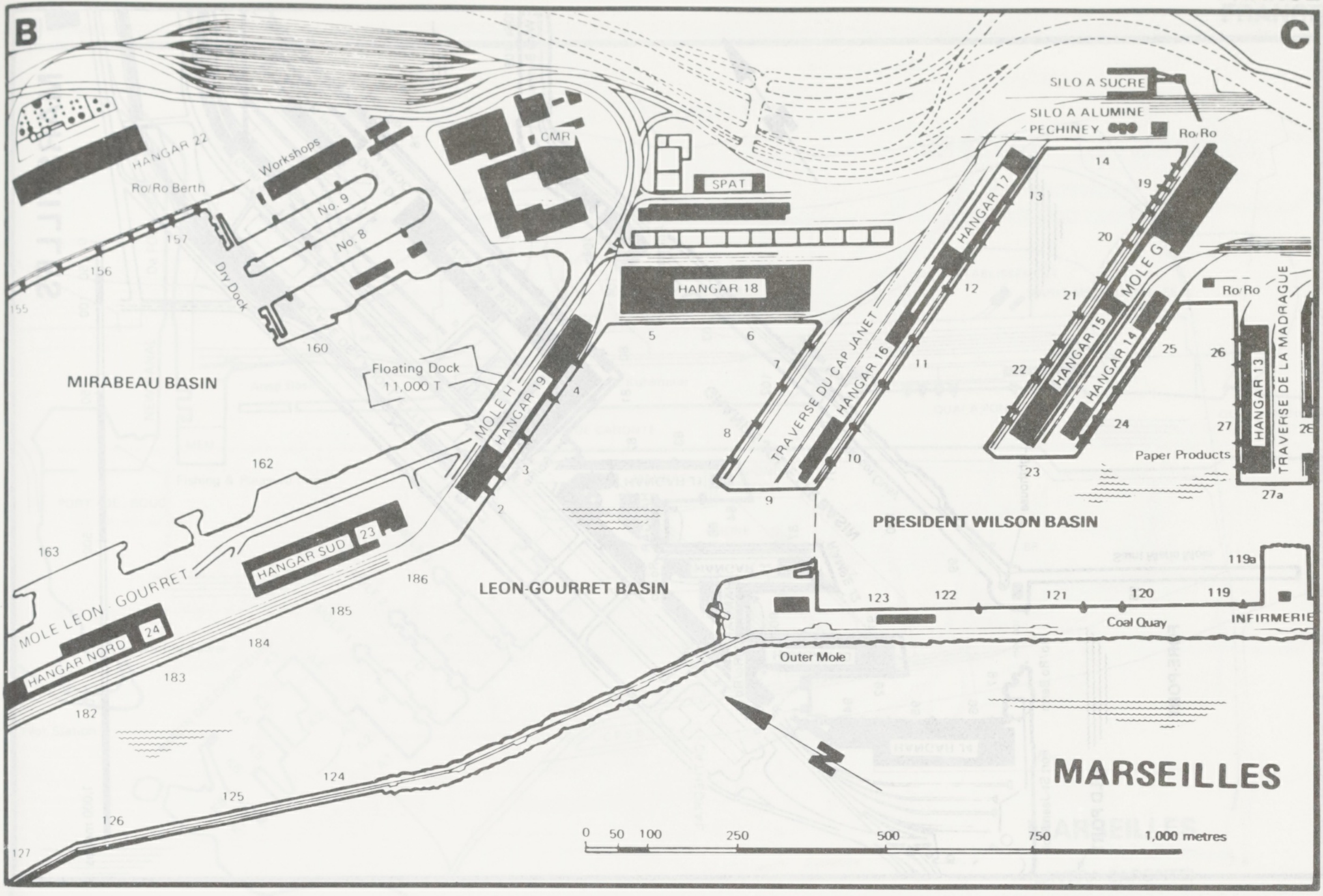
LOCK	WIDTH	DEPTH
Tidal Basin Lock	7.0 m.	1.0 m.

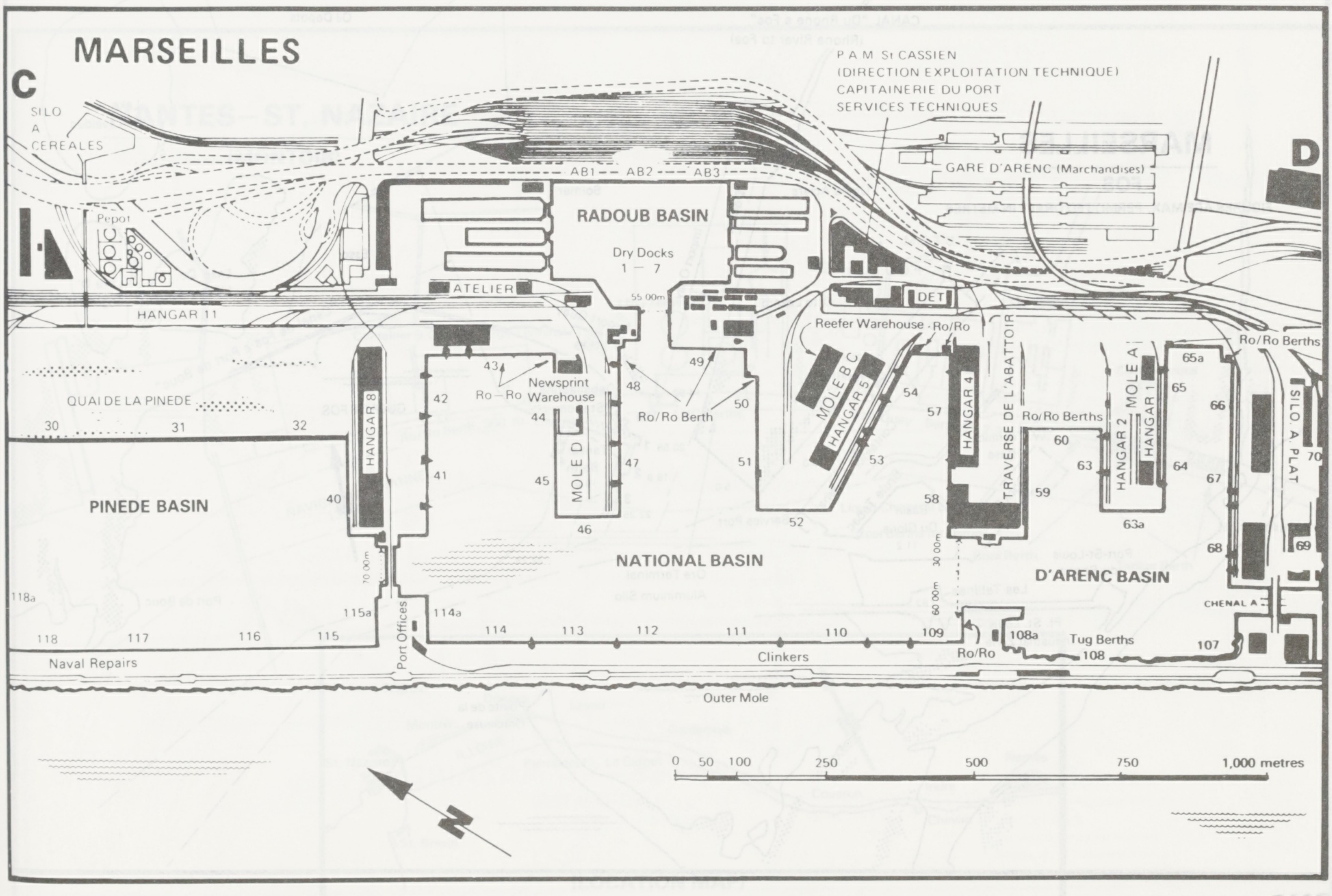
LEGEND

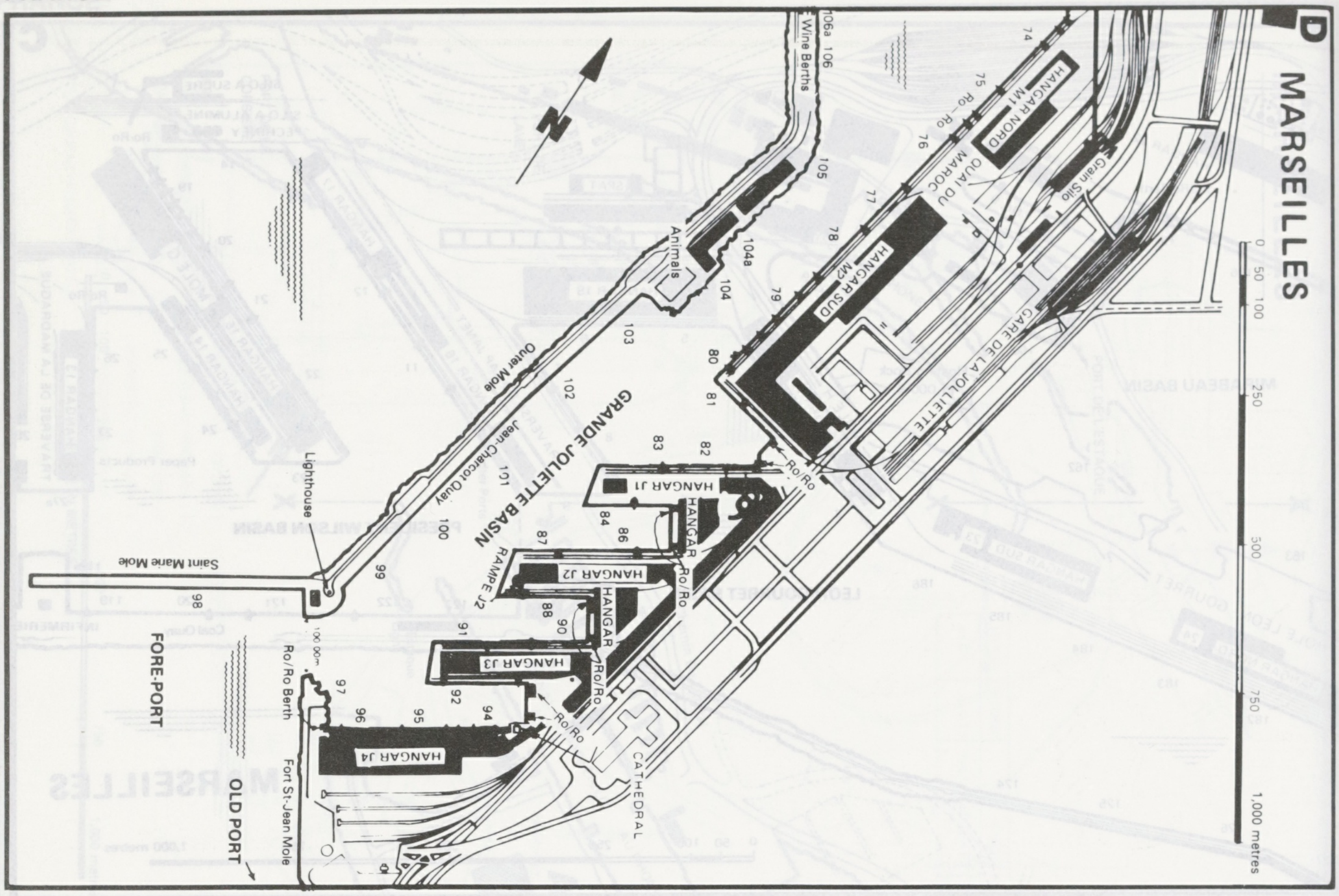
1 – HARBOUR MASTER'S OFFICE
2 – PILOTAGE
3 – GROUP OF FACTORIES
4 – MARITIME CONTROL
5 – CUSTOMS
6 – SAILORS' HOSTEL
7 – PORT OFFICE (FISHING PORT)
8 – SUBMARINE BASE
9 – SLIPWAY
10 – PORT OFFICE (PLEASURE PORT)

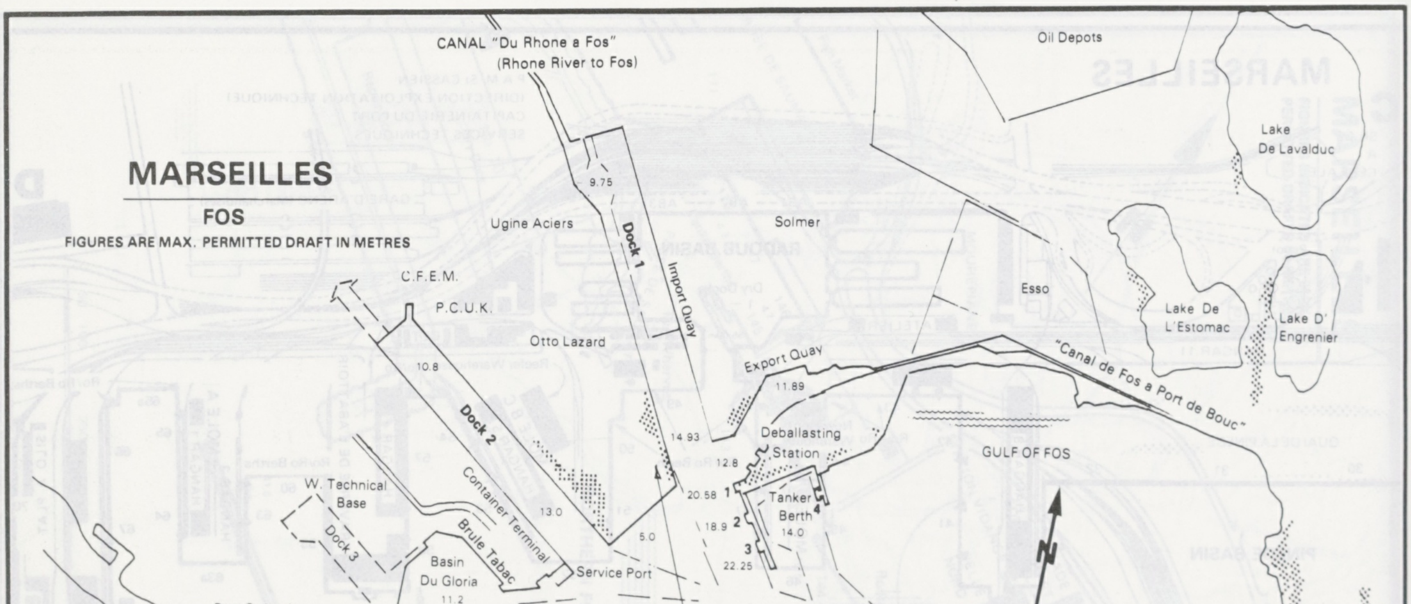

MARSEILLES
X
PORT DE L'ESTAQUE
X
Coastal Road
CANAL DE MARSEILLE AU RHONE
Rock Breakwater
X
Chemin Du Littoral
CANAL DE MARSEILLE AU RHONE
A
Shelter Ports
L'Estaque Light
PORT DE LAVE
179
N
X
PORT DE LA CORBIERE
180
0
50
100
250
500
750
1,000 metres
SCALE IN METRES


MARSEILLES
FIGURES INDICATED ARE MAX. PERMITTED DRAFTS IN METRES
B
N
ENTREPOT DE CAFES
Container Terminal
STADE LEON GOURRET
HANGAR ISOTHERME
HANGAR 20
STATION VIDANGE
HELLE NORD
MOUREPIANE
154
11.1
153
11.6
152
11.6
Ro/Ro
151
12.0
Ro/Ro Berth
DIGUE TRANSVERSALE EST
9.5
144
10.5
148
150
12.0
Fish Market
ANSE DE SAUMATY
MOLE 1
171
170
4.7
147
146
4.7
145
Tanker Berths
143
9.5
PASSE DE SAUMATY
Tug Wharves
NORTHERN FORE-PORT
Ro/Ro Berth
181
14.0
A
No. 10 Dry Dock
Repair Docks
S.W. Mole
8.5
128
11.0
129
11.0
130
Outer Mole
11.0
131
0
50
100
250
500
750
1,000 metres


B
C
HANGAR 22
Ro/Ro Berth
Workshops
No. 9
No. 8
Dry Dock
CMR
SPAT
HANGAR 18
SILO A SUCRE
SILO A ALUMINE
PECHINEY
Ro/Ro
HANGAR 17
MOLE G
HANGAR 15
HANGAR 14
HANGAR 16
TRAVERSE DU CAP JANET
HANGAR 13
TRAVERSE DE LA MADRAGUE
Ro/Ro
MOLE H
HANGAR 19
MIRABEAU BASIN
Floating Dock 11,000 T
Paper Products
PRESIDENT WILSON BASIN
LEON-GOURRET BASIN
HANGAR SUD
23
MOLE LEON GOURRET
HANGAR NORD
24
INFIRMERIE
Coal Quay
Outer Mole
N
MARSEILLES
155
156
157
160
162
163
186
185
184
183
182
127
126
125
124
2
3
4
5
6
7
8
9
10
11
12
13
14
19
20
21
22
23
24
25
26
27
27a
28
119a
119
120
121
122
123
0 50 100 250 500 750 1,000 metres


MARSEILLES
C
D
SILO A CEREALES
Pepot
P.A.M. St CASSIEN
(DIRECTION EXPLOITATION TECHNIQUE)
CAPITAINERIE DU PORT
SERVICES TECHNIQUES
GARE D'ARENC (Marchandises)
AB1
AB2
AB3
RADOUB BASIN
Dry Docks 1 — 7
ATELIER
HANGAR 11
55.00m
DET
Reefer Warehouse
Ro/Ro
Ro/Ro Berths
QUAI DE LA PINEDE
HANGAR 8
Ro—Ro
Newsprint Warehouse
MOLE D
Ro/Ro Berth
MOLE B C
HANGAR 5
HANGAR 4
TRAVERSE DE L'ABATTOIR
Ro/Ro Berths
HANGAR 2
MOLE A
HANGAR 1
SILO A PLAT
PINEDE BASIN
NATIONAL BASIN
D'ARENC BASIN
70.00m
30.00m
60.00m
CHENAL A
Port Offices
Naval Repairs
Clinkers
Ro/Ro
Tug Berths
Outer Mole
N
30
31
32
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
57
58
59
60
63
63a
64
65
65a
66
67
68
69
70
107
108
108a
109
110
111
112
113
114
114a
115
115a
116
117
118
118a
0 50 100 250 500 750 1,000 metres


D
MARSEILLES
0
50
100
250
500
750
1,000 metres
HANGAR NORD M1
QUAI DU MAROC
Grain Silo
Ro–Ro
74
75
76
77
78
79
80
81
82
83
84
86
87
88
90
91
92
94
95
96
97
98
99
100
101
102
103
104
104a
105
106a
106
Wine Berths
Animals
HANGAR SUD M2
GARE DE LA JOLIETTE
GRANDE JOLIETTE BASIN
Outer Mole
Jean-Charcot Quay
Lighthouse
Saint Marie Mole
HANGAR J1
HANGAR
HANGAR J2
RAMPE J2
HANGAR
HANGAR J3
HANGAR J4
Ro/Ro
CATHEDRAL
100.00m
Ro/Ro Berth
Fort St-Jean Mole
OLD PORT
FORE-PORT

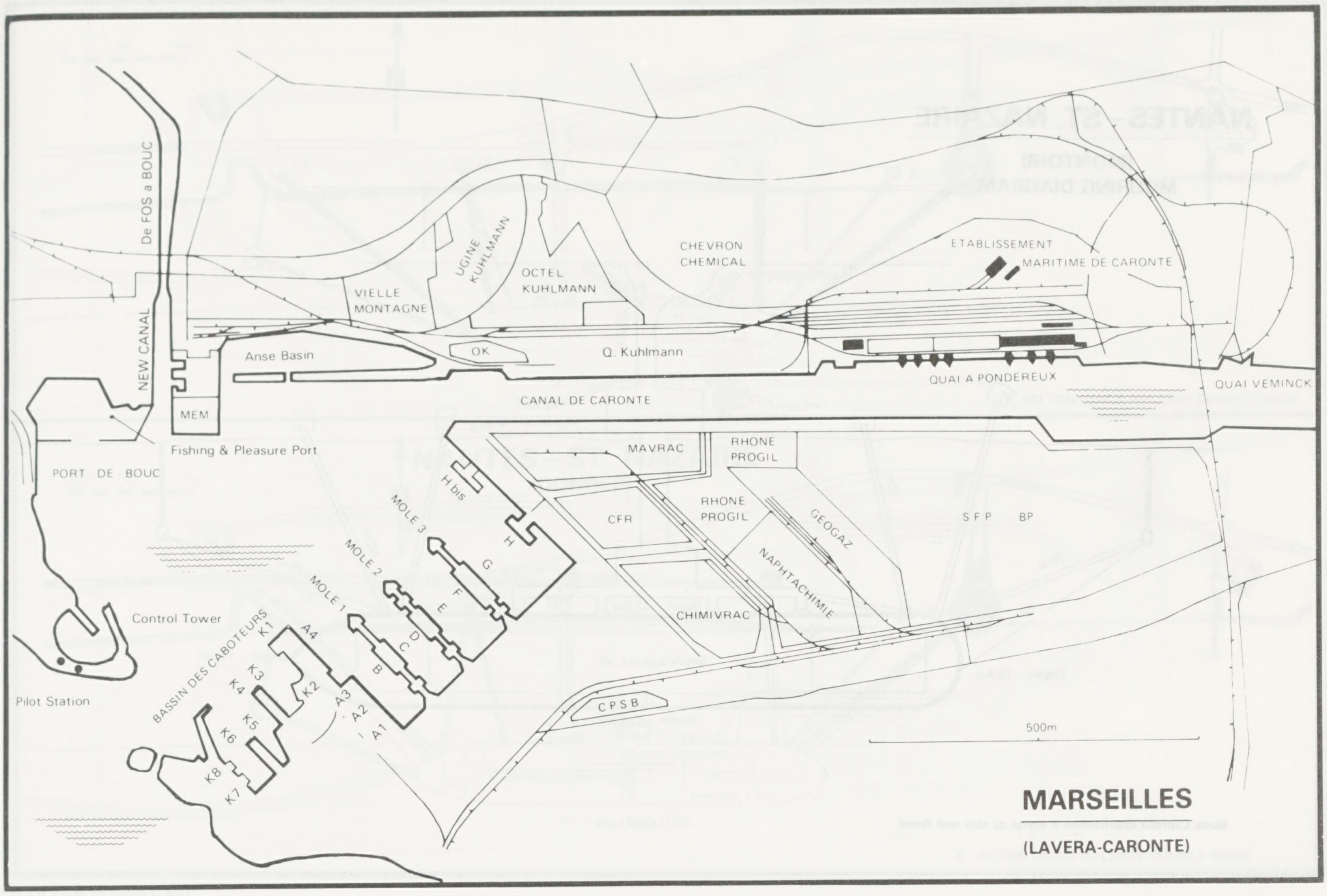


MARSEILLES

FOS

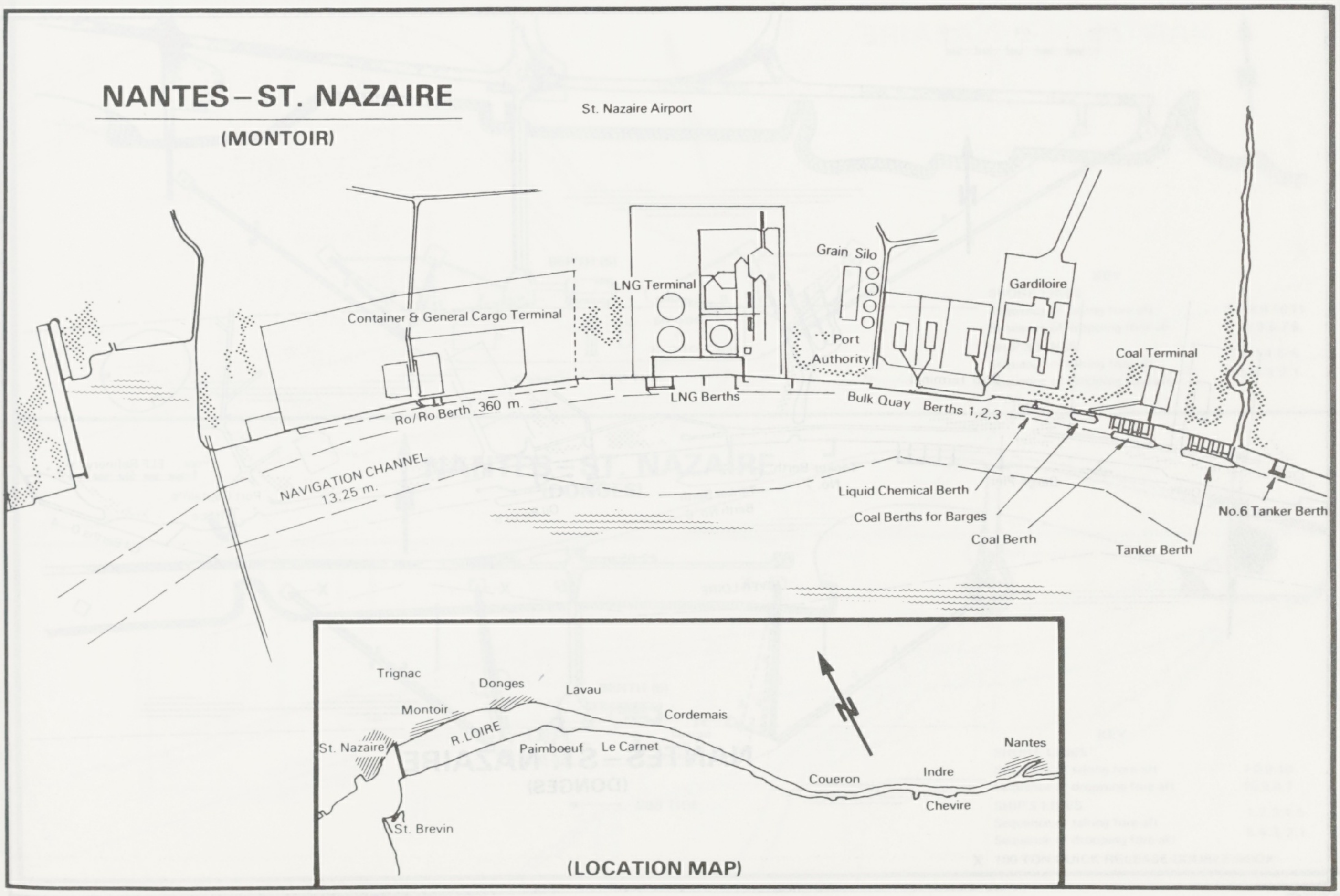
FIGURES ARE MAX. PERMITTED DRAFT IN METRES

CANAL "Du Rhone a Fos"
(Rhone River to Fos)
Oil Depots
Lake De Lavalduc
9.75
Ugine Aciers
Dock 1
Solmer
Import Quay
C.F.E.M.
P.C.U.K.
Otto Lazard
Esso
Lake De L'Estomac
Lake D' Engrenier
10.8
Export Quay
11.89
"Canal de Fos a Port de Bouc"
Dock 2
14.93
Deballasting Station
12.8
GULF OF FOS
W. Technical Base
Container Terminal
13.0
20.58
1
2
18.9
Tanker Berth
14.0
Dock 3
Brule Tabac
5.0
3
22.25
Basin Du Gloria
11.2
Service Port
22.25
Port-St-Louis du-Rhone
Ore Terminal
Aluminium Silo
Port de Bouc
Les Tellines
7.92
Pt. St. Louis Industrial Zone
Pointe de la Gracieuse



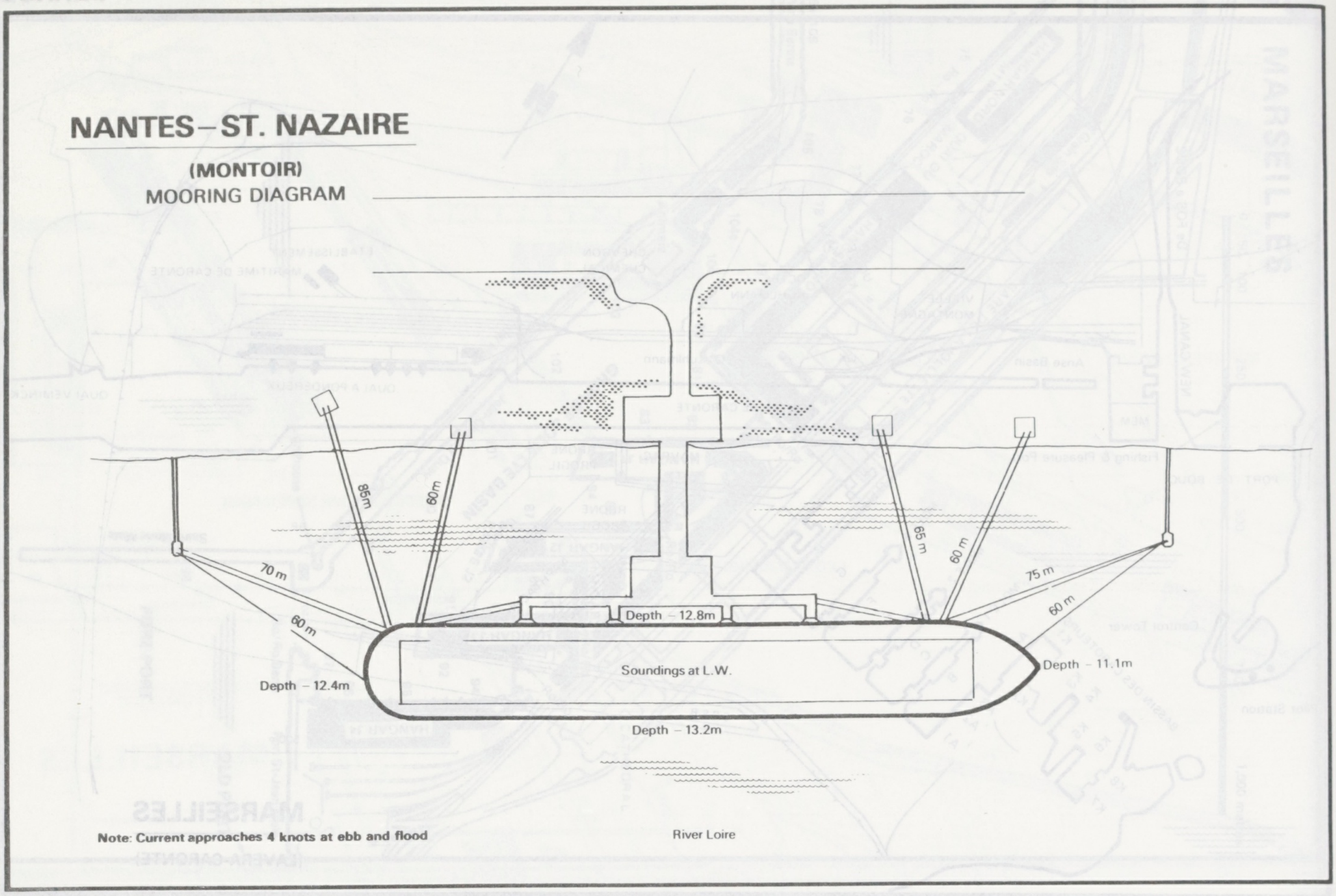
MARSEILLES
(LAVERA-CARONTE)

De FOS a BOUC
NEW CANAL
MEM
Fishing & Pleasure Port
PORT DE BOUC
Control Tower
Pilot Station
Anse Basin
VIELLE MONTAGNE
UGINE KUHLMANN
OCTEL KUHLMANN
OK
CHEVRON CHEMICAL
Q. Kuhlmann
ETABLISSEMENT MARITIME DE CARONTE
QUAI A PONDEREUX
QUAI VEMINCK
CANAL DE CARONTE
MAVRAC
RHONE PROGIL
CFR
RHONE PROGIL
GEOGAZ
NAPHTACHIMIE
CHIMIVRAC
S F P
BP
CPSB
H bis
H
G
F
E
D
C
B
MOLE 3
MOLE 2
MOLE 1
BASSIN DES CABOTEURS
A4
A3
A2
A1
K1
K2
K3
K4
K5
K6
K7
K8
500m



NANTES – ST. NAZAIRE
(MONTOIR)

St. Nazaire Airport
Container & General Cargo Terminal
LNG Terminal
Grain Silo
Port Authority
Gardiloire
Coal Terminal
Ro/Ro Berth 360 m.
LNG Berths
Bulk Quay Berths 1,2,3
NAVIGATION CHANNEL 13.25 m.
Liquid Chemical Berth
Coal Berths for Barges
Coal Berth
Tanker Berth
No.6 Tanker Berth
Trignac
Donges
Lavau
Montoir
R. LOIRE
Cordemais
St. Nazaire
Paimboeuf
Le Carnet
Nantes
Coueron
Indre
Chevire
St. Brevin
N
(LOCATION MAP)



NANTES–ST. NAZAIRE

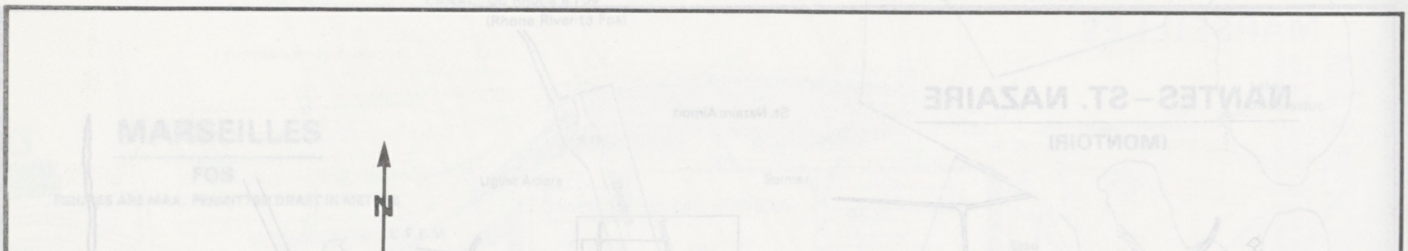
(MONTOIR)

MOORING DIAGRAM

85m
60m
65m
60m
70m
60m
75m
60m
Depth – 12.8m
Soundings at L.W.
Depth – 12.4m
Depth – 11.1m
Depth – 13.2m
River Loire

Note: Current approaches 4 knots at ebb and flood

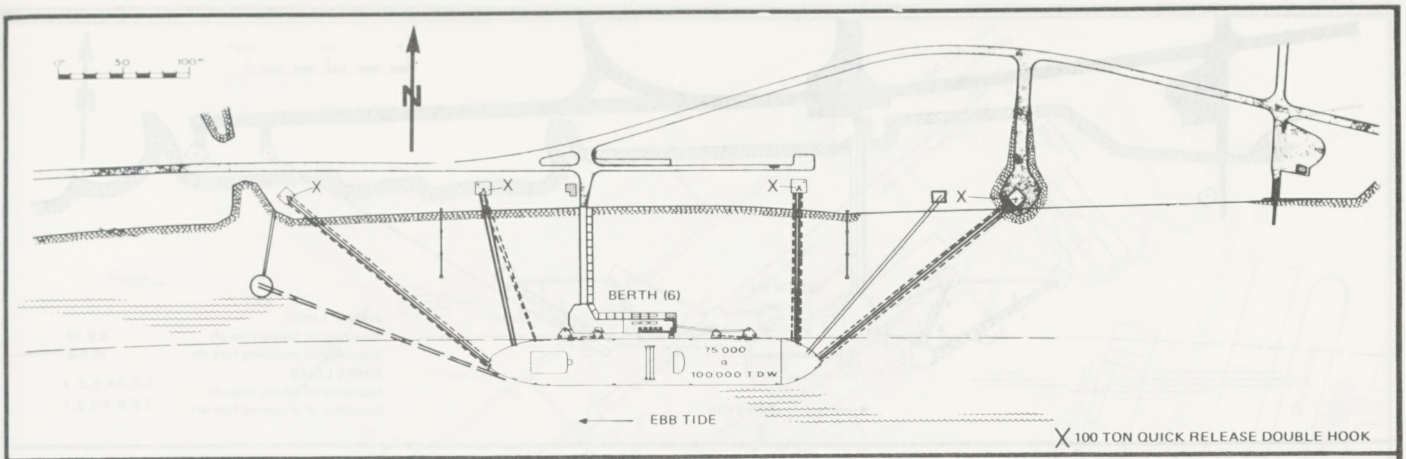
"Plan supplied by Ship's Master"



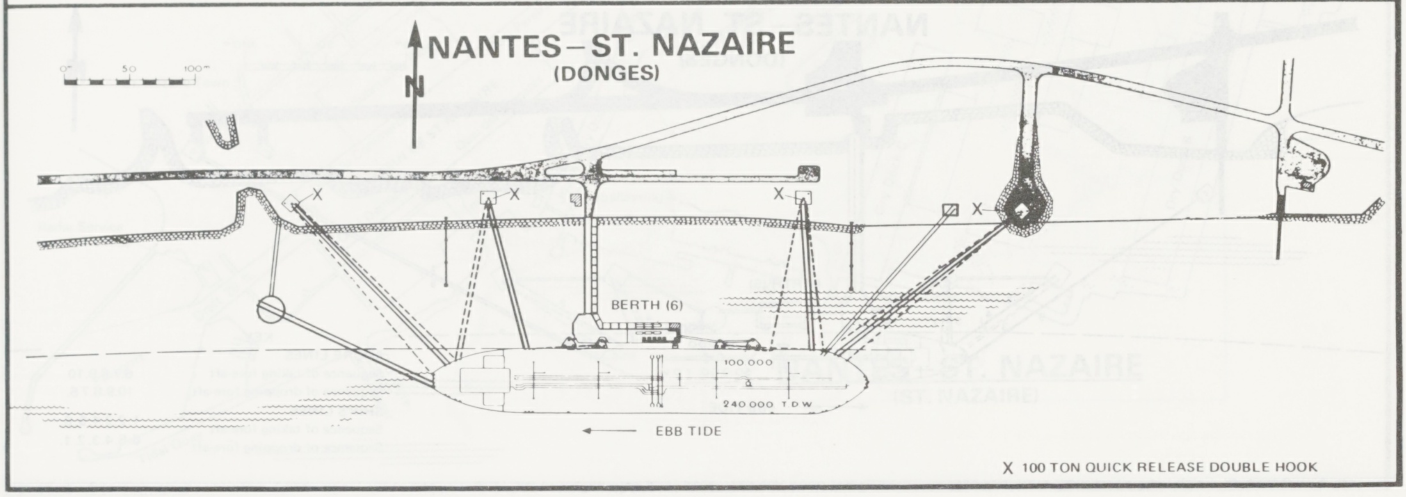
N
Coal Terminal
Barge Pier
Montoir Quay
Tanker Berth No. 7
Tanker Berth Berth No. 6
Oil Berth 5
Port Captain's Office
ELF Refinery
Oil Berths 0–4
12.65 m.
RIVER LOIRE

NANTES–ST. NAZAIRE

(DONGES)


0m
50
100m
N
X
X
X
X
BERTH (6)
75 000
a
100 000 T D W
EBB TIDE

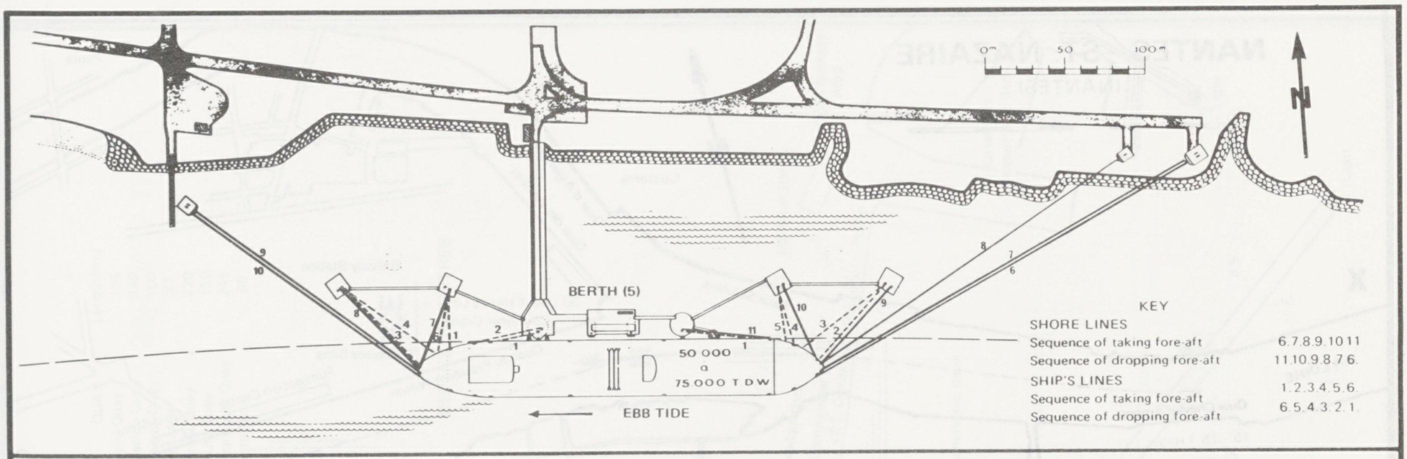
X 100 TON QUICK RELEASE DOUBLE HOOK



NANTES–ST. NAZAIRE
(DONGES)

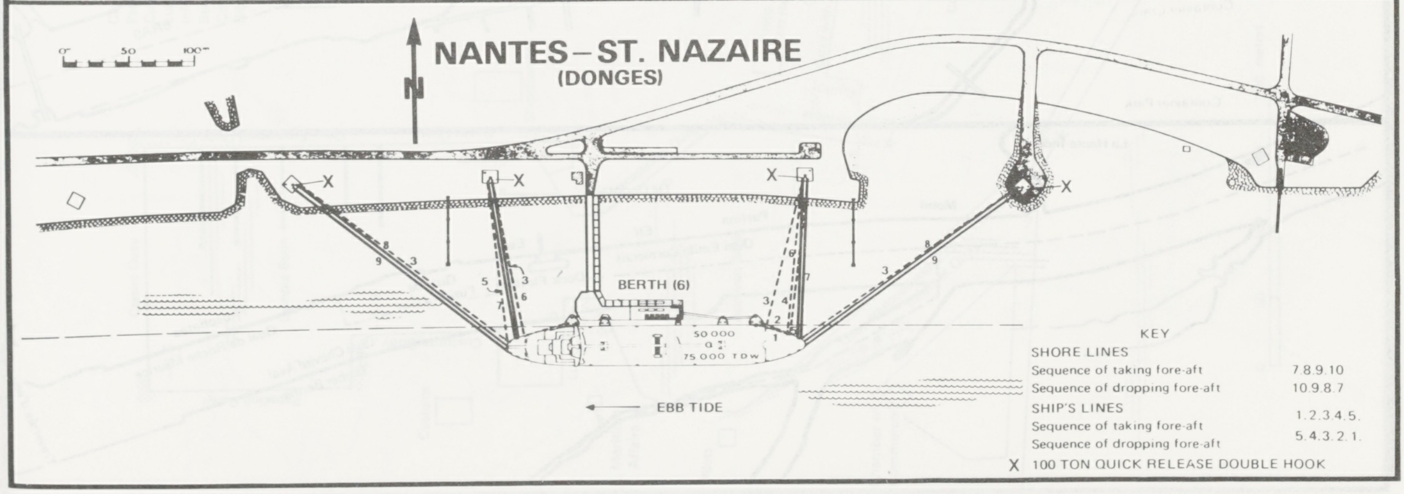
0m
50
100m
N
X
X
X
X
BERTH (6)
100 000
a
240 000 T D W
EBB TIDE

X 100 TON QUICK RELEASE DOUBLE HOOK


0m
50
100m
N
BERTH (5)
50 000
a
75 000 T D W
EBB TIDE

KEY

SHORE LINES	
Sequence of taking fore-aft	6.7.8.9.10.11
Sequence of dropping fore-aft	11.10.9.8.7.6.
SHIP'S LINES	
Sequence of taking fore-aft	1.2.3.4.5.6.
Sequence of dropping fore-aft	6.5.4.3.2.1.



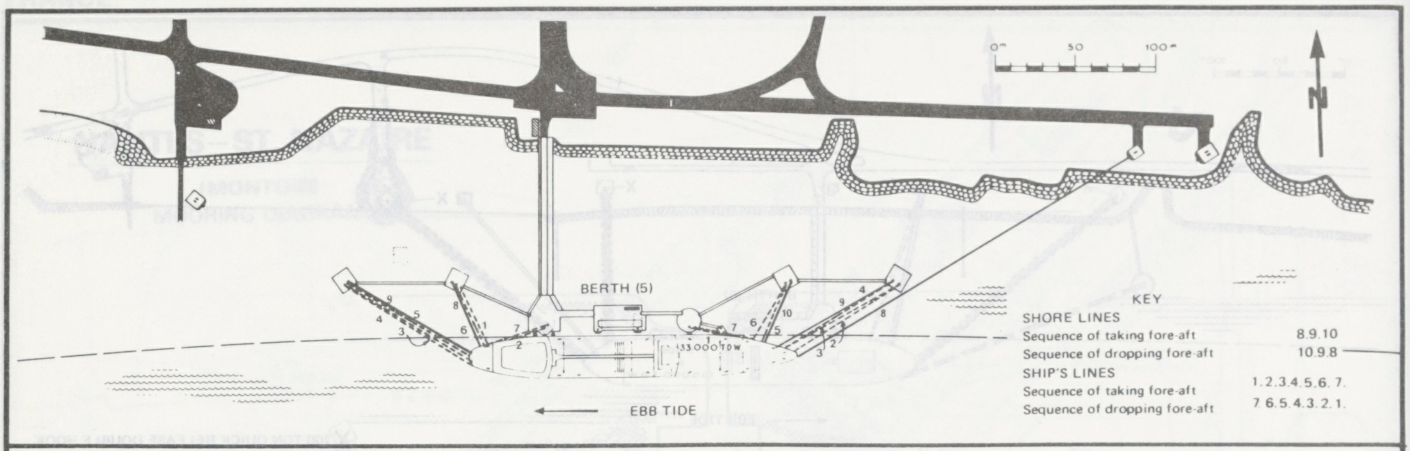
NANTES–ST. NAZAIRE
(DONGES)

0m
50
100m
N
X
X
X
X
BERTH (6)
50 000
a
75 000 T D W
EBB TIDE

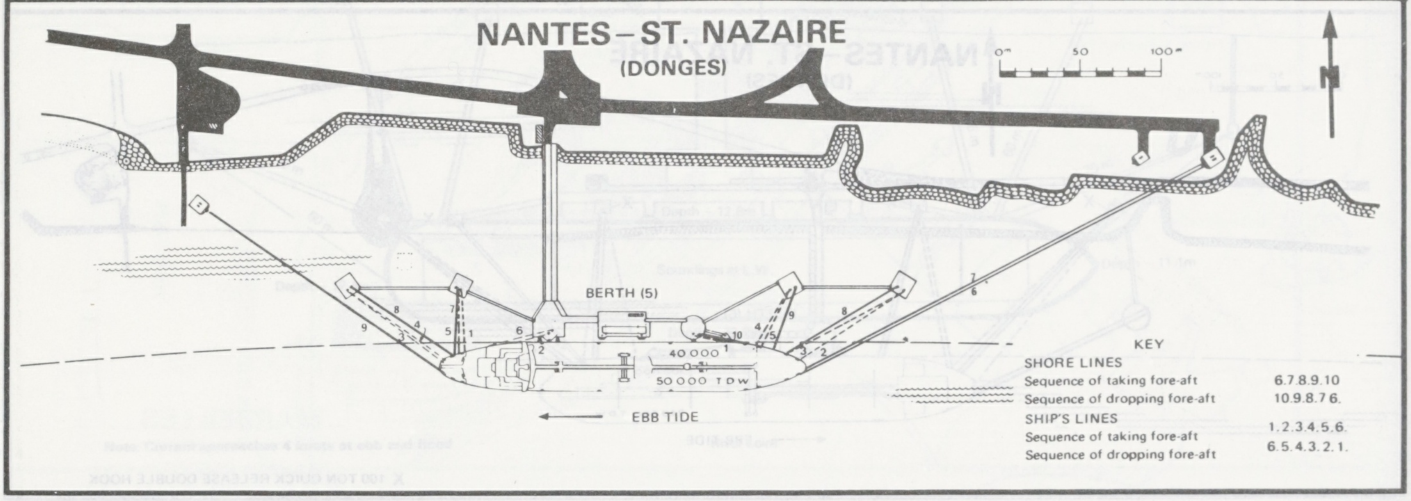
KEY

SHORE LINES	
Sequence of taking fore-aft	7.8.9.10
Sequence of dropping fore-aft	10.9.8.7
SHIP'S LINES	
Sequence of taking fore-aft	1.2.3.4.5.
Sequence of dropping fore-aft	5.4.3.2.1.

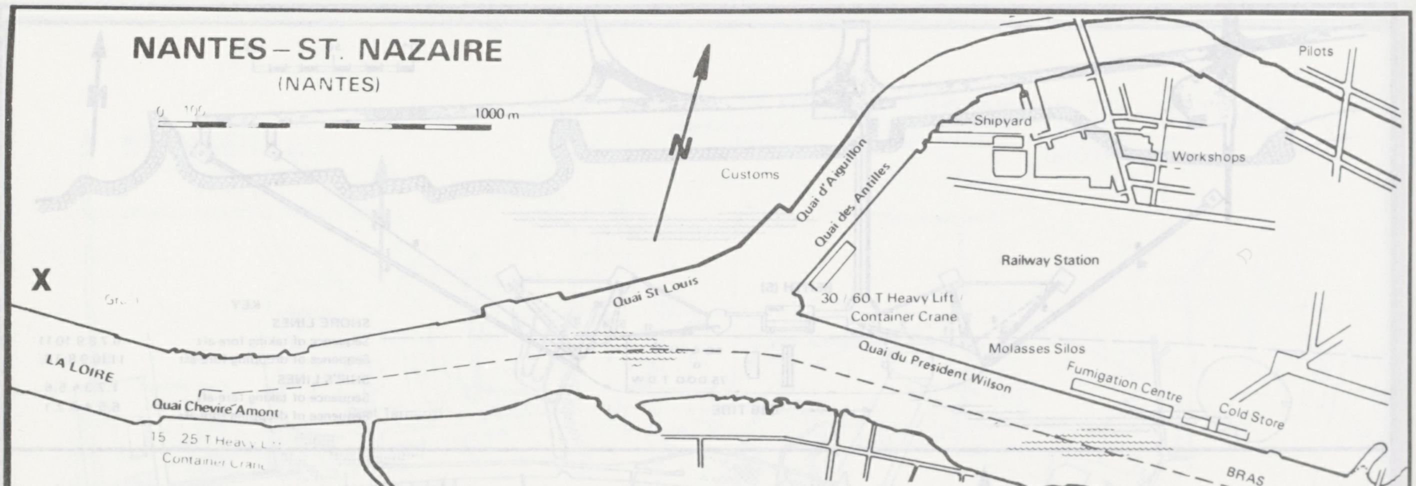
X 100 TON QUICK RELEASE DOUBLE HOOK

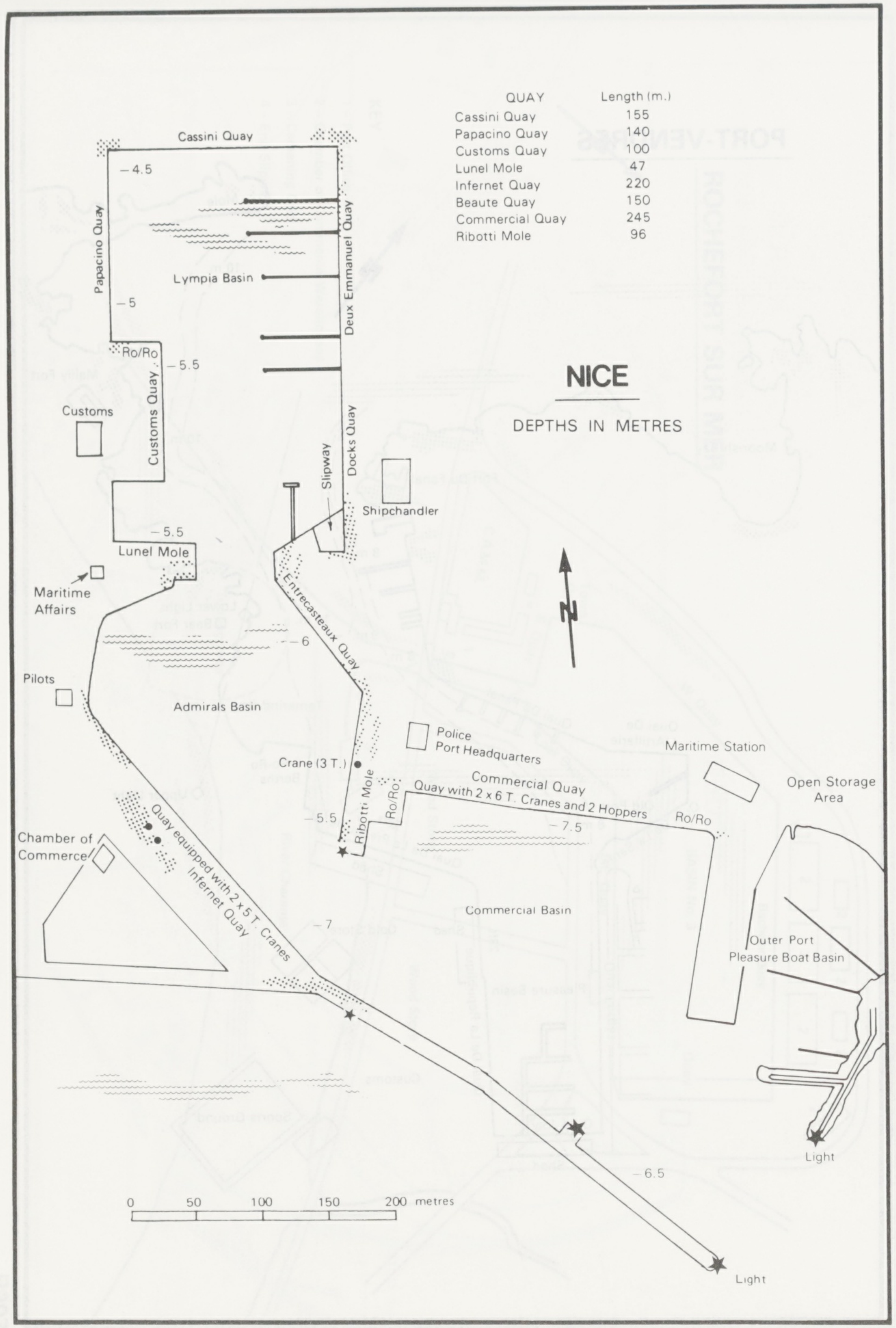

0m 50 100m
N
BERTH (5)
33 000 TDW
EBB TIDE
1 2 3 4 5 6 7 8 9 10
KEY
SHORE LINES
Sequence of taking fore-aft 8.9.10
Sequence of dropping fore-aft 10.9.8
SHIP'S LINES
Sequence of taking fore-aft 1.2.3.4.5.6.7.
Sequence of dropping fore-aft 7.6.5.4.3.2.1.

NANTES–ST. NAZAIRE
(DONGES)


0m 50 100m
N
BERTH (5)
40 000
50 000 TDW
EBB TIDE
1 2 3 4 5 6 7 8 9 10
KEY
SHORE LINES
Sequence of taking fore-aft 6.7.8.9.10
Sequence of dropping fore-aft 10.9.8.7.6.
SHIP'S LINES
Sequence of taking fore-aft 1.2.3.4.5.6.
Sequence of dropping fore-aft 6.5.4.3.2.1.

NANTES–ST. NAZAIRE
(NANTES)


0 100 1000 m
N
Customs
Pilots
Shipyard
Workshops
Quai d'Aiguillon
Quai des Antilles
Railway Station
X
Quai St Louis
30 / 60 T Heavy Lift
Container Crane
Molasses Silos
Quai du President Wilson
Fumigation Centre
Cold Store
LA LOIRE
Quai Chevire Amont
15 25 T Heavy Lift
Container Crane
BRAS
Container Park
La Haute-Indre
Mobil
Oil Depots
Purfina
Elf
Quai Emile Cormerais
Esso
Dock Flottant
Quai de l'usine a Gaz
Phosphates
Quai de Roche Maurice
Quai Chevire Aval
Timber Berths
X
Traversée d'eau

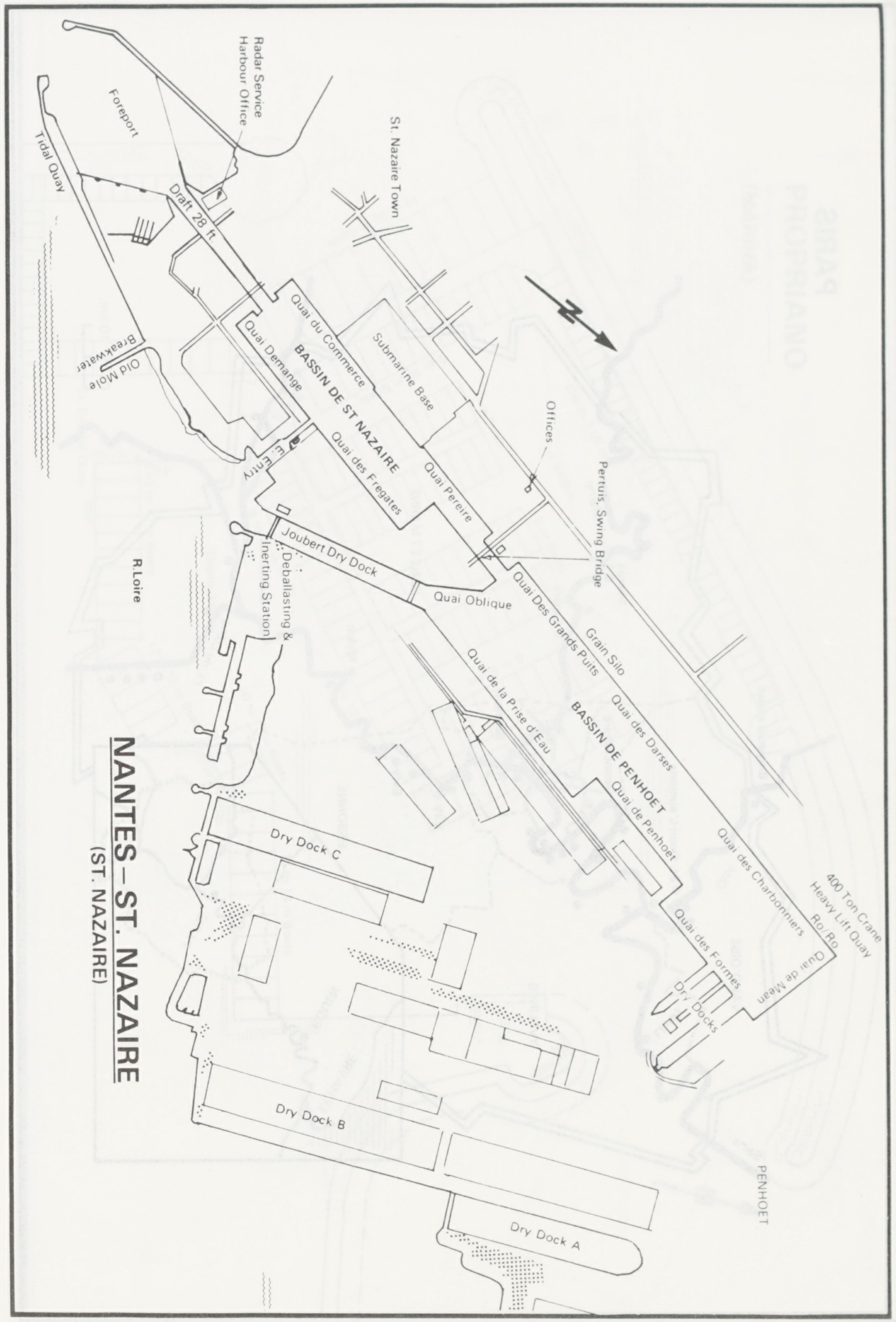


NICE

DEPTHS IN METRES

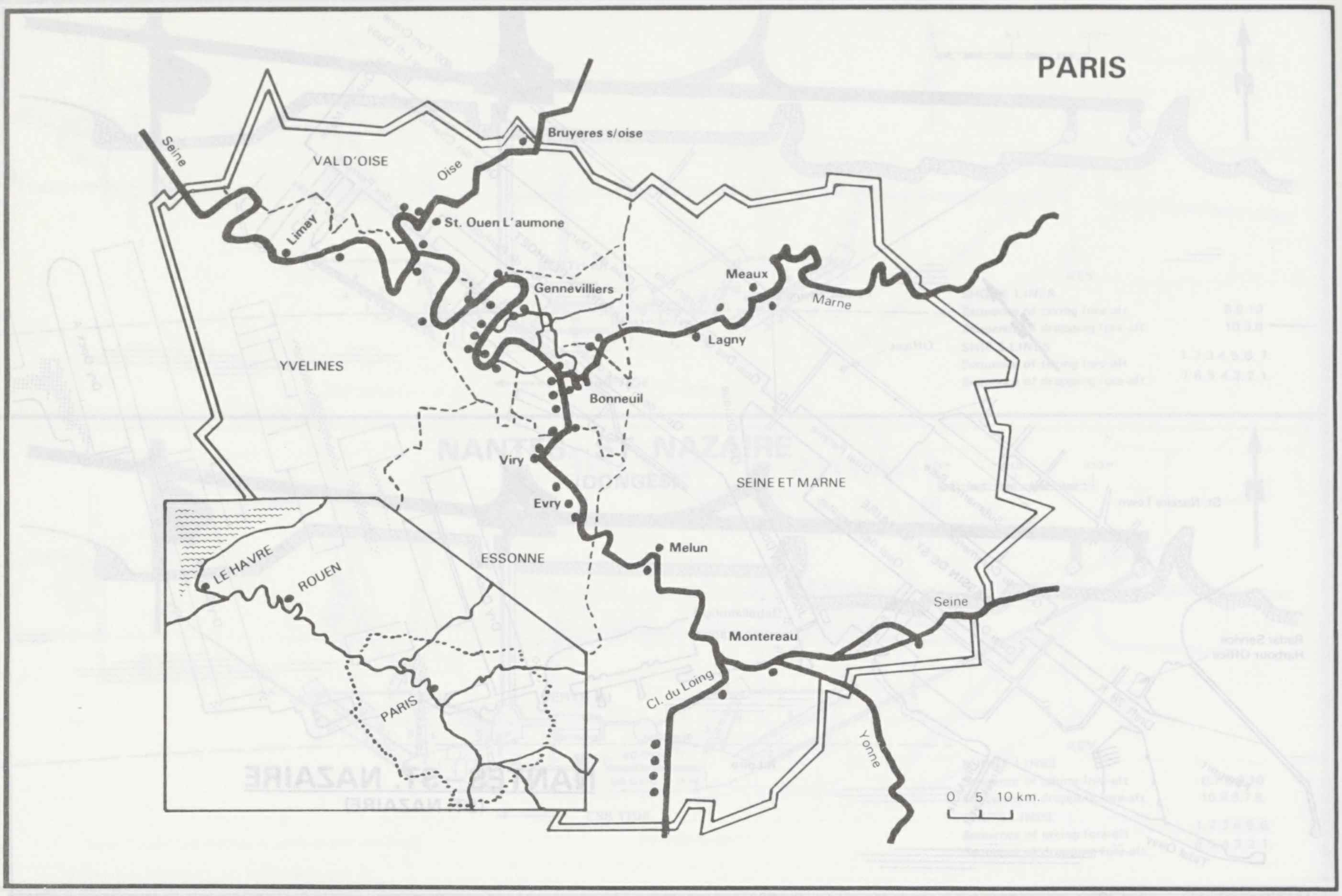
QUAY	Length (m.)
Cassini Quay	155
Papacino Quay	140
Customs Quay	100
Lunel Mole	47
Infernet Quay	220
Beaute Quay	150
Commercial Quay	245
Ribotti Mole	96

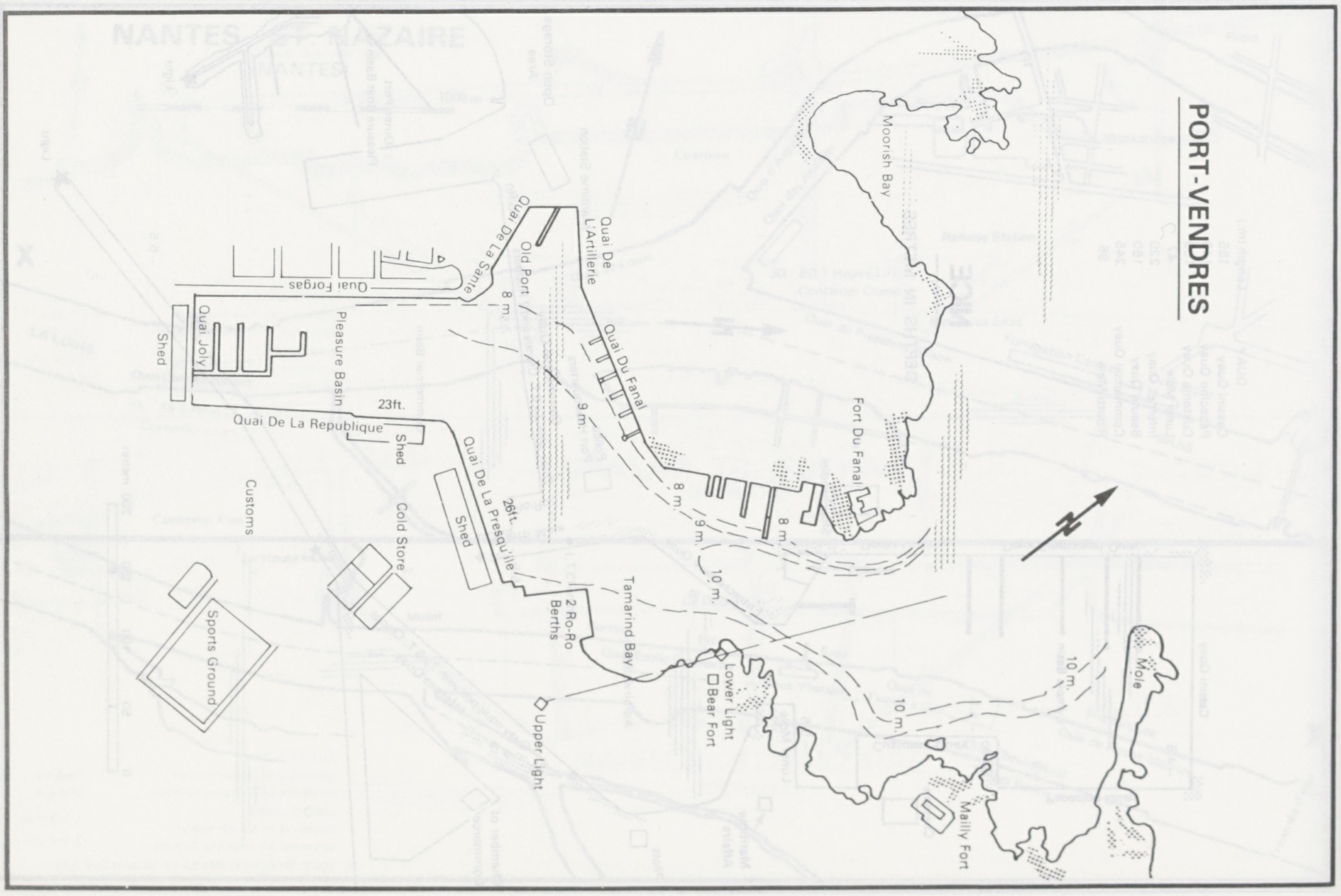
Cassini Quay
–4.5
Papacino Quay
Lympia Basin
Deux Emmanuel Quay
–5
Ro/Ro
–5.5
Customs
Customs Quay
Slipway
Docks Quay
Shipchandler
–5.5
Lunel Mole
Maritime Affairs
Entrecasteaux Quay
–6
Pilots
Admirals Basin
Police Port Headquarters
Maritime Station
Crane (3 T.)
Commercial Quay
Quay with 2 x 6 T. Cranes and 2 Hoppers
Open Storage Area
Ro/Ro
–5.5
Ribotti Mole
Ro/Ro
–7.5
Chamber of Commerce
Quay equipped with 2 x 5 T. Cranes
Infernet Quay
Commercial Basin
–7
Outer Port
Pleasure Boat Basin
Light
–6.5
0
50
100
150
200 metres
Light
N



NANTES–ST. NAZAIRE
(ST. NAZAIRE)

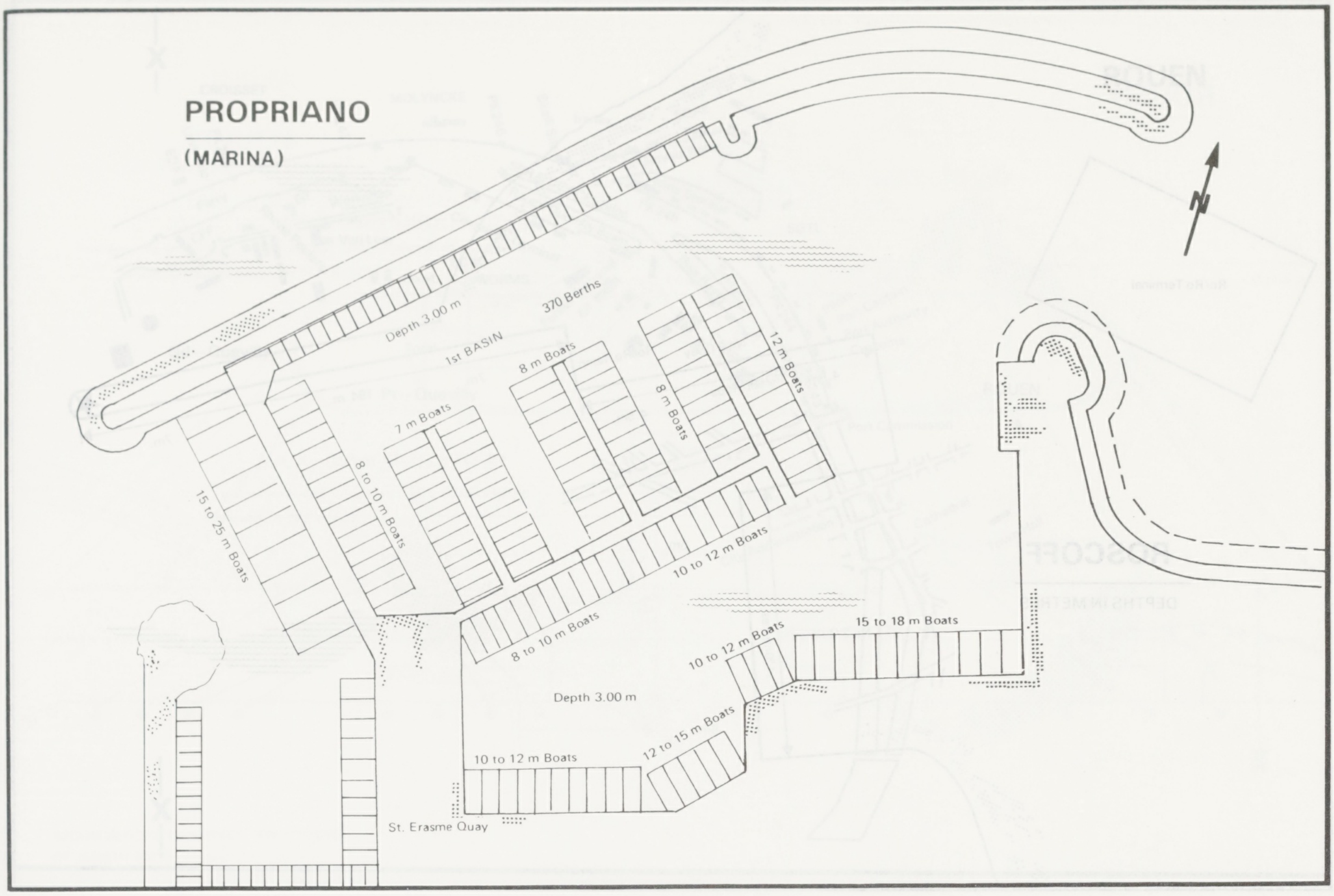
Radar Service
Harbour Office
Foreport
Tidal Quay
Draft 28 ft
St. Nazaire Town
Breakwater
Old Mole
Quai du Commerce
Quai Demange
BASSIN DE ST NAZAIRE
Submarine Base
Quai des Fregates
Quai Pereire
Offices
E. Entry
Pertuis, Swing Bridge
Joubert Dry Dock
Deballasting & Inerting Station
R.Loire
Quai Oblique
Quai Des Grands Puits
Grain Silo
Quai de la Prise d'Eau
BASSIN DE PENHOET
Quai des Darses
Quai de Penhoet
Dry Dock C
Quai des Charbonniers
400 Ton Crane
Heavy Lift Quay
Ro/Ro
Quai de Mean
Quai des Formes
Dry Docks
Dry Dock B
Dry Dock A
PENHOET
N


PARIS
Seine
VAL D'OISE
Oise
Bruyeres s/oise
St. Ouen L'aumone
Limay
Gennevilliers
Meaux
Marne
Lagny
YVELINES
Bonneuil
Viry
Evry
SEINE ET MARNE
ESSONNE
Melun
LE HAVRE
ROUEN
PARIS
Seine
Montereau
Cl. du Loing
Yonne
0 5 10 km.

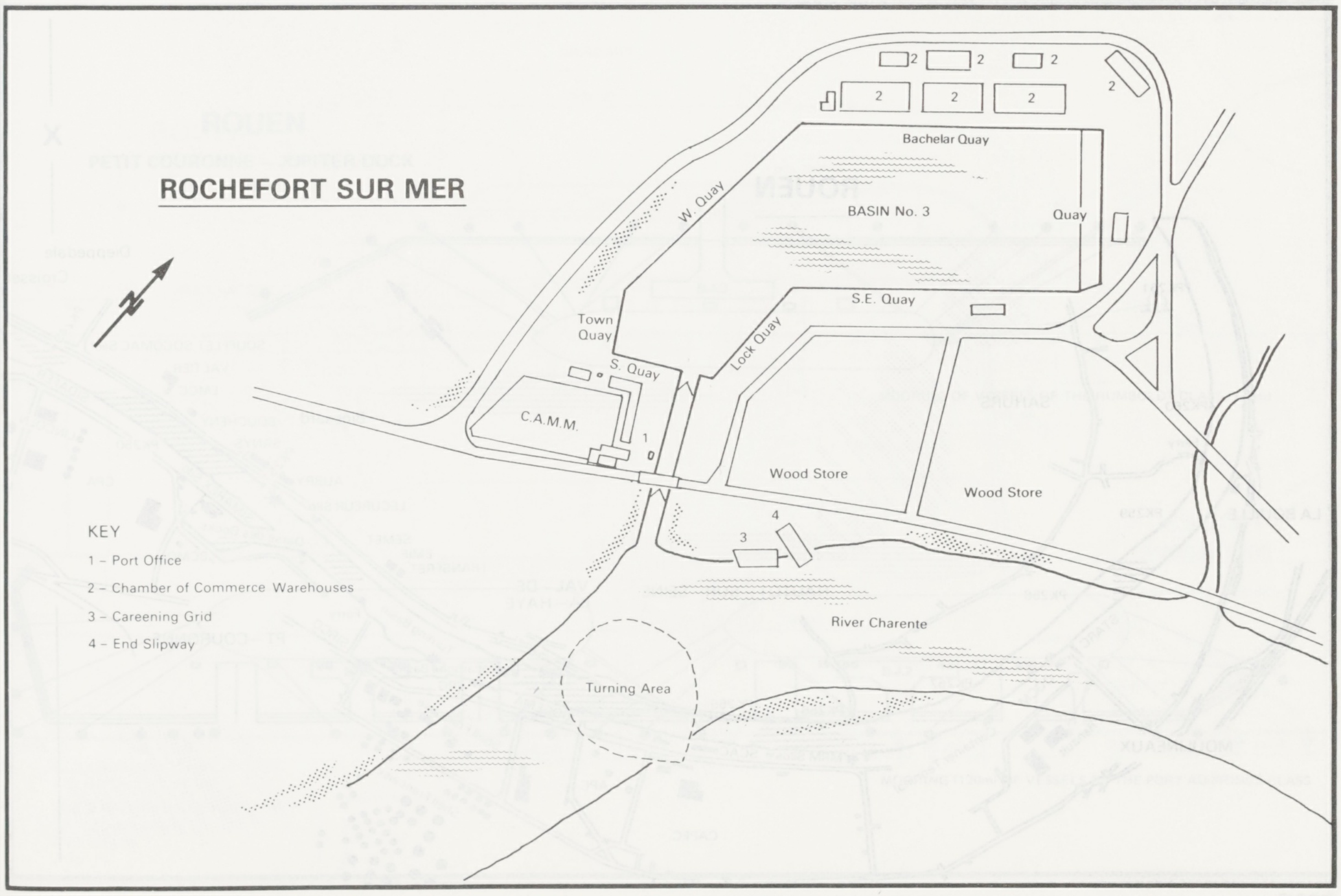

PORT-VENDRES
Moorish Bay
Quai De L'Artillerie
Quai De La Sante
Old Port
Quai Forgas
8 m.
Quai Joly
Shed
Pleasure Basin
23ft.
Quai De La Republique
Shed
Quai Du Fanal
9 m.
Fort Du Fanal
8 m.
9 m.
8 m.
10 m.
Customs
Cold Store
Quai De La Presqu'ile
26ft.
Shed
2 Ro-Ro Berths
Tamarind Bay
Lower Light
Bear Fort
Upper Light
Sports Ground
10 m.
10 m.
Mole
Mailly Fort

PROPRIANO

(MARINA)


Depth 3.00 m
370 Berths
1st BASIN
8 m Boats
7 m Boats
8 m Boats
12 m Boats
15 to 25 m Boats
8 to 10 m Boats
10 to 12 m Boats
8 to 10 m Boats
15 to 18 m Boats
10 to 12 m Boats
Depth 3.00 m
12 to 15 m Boats
10 to 12 m Boats
St. Erasme Quay

ROCHEFORT SUR MER


2
2
2
2
2
2
2
Bachelar Quay
W. Quay
BASIN No. 3
Quay
S.E. Quay
Town Quay
S. Quay
Lock Quay
C.A.M.M.
1
Wood Store
Wood Store
3
4
River Charente
Turning Area

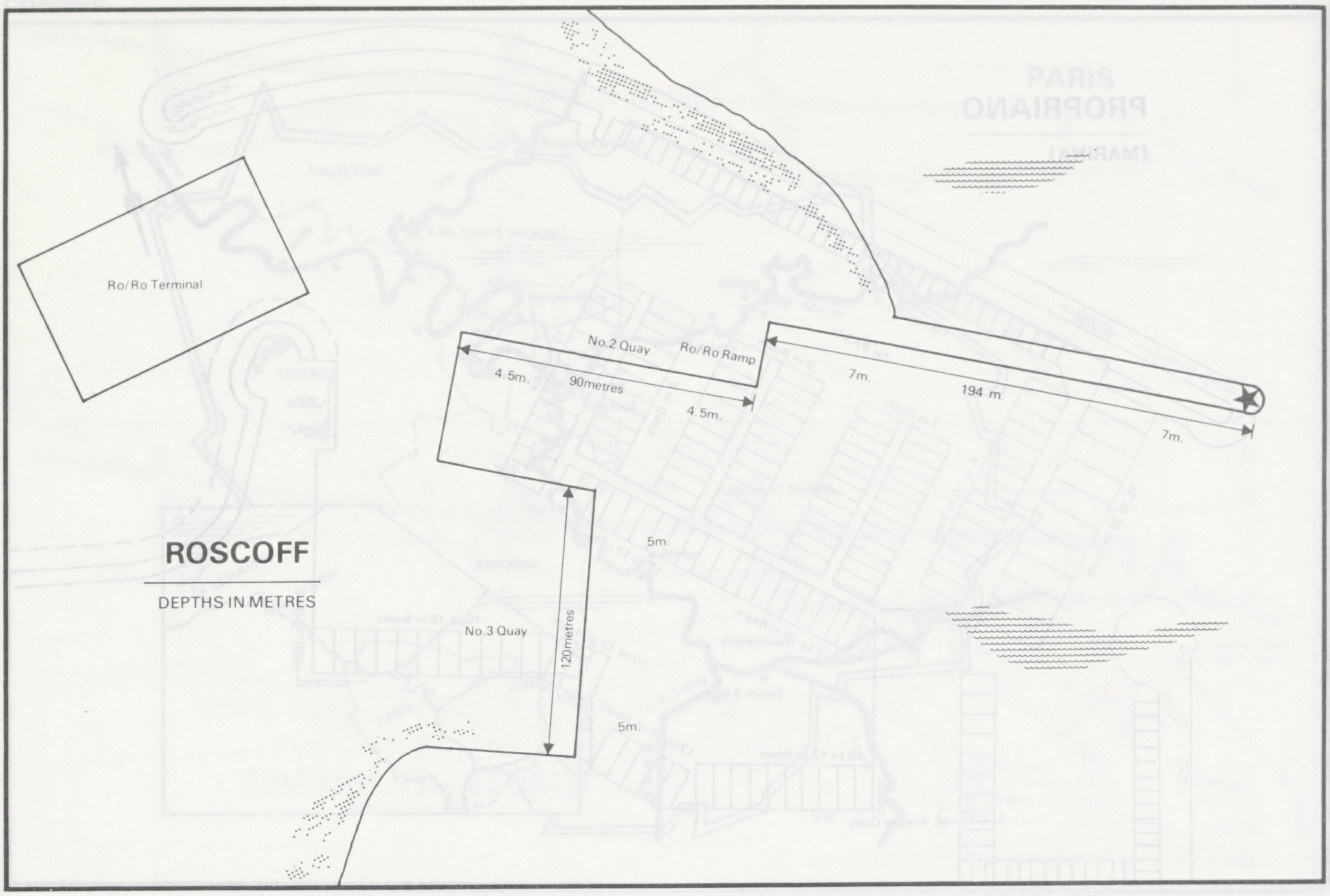
KEY

1 – Port Office

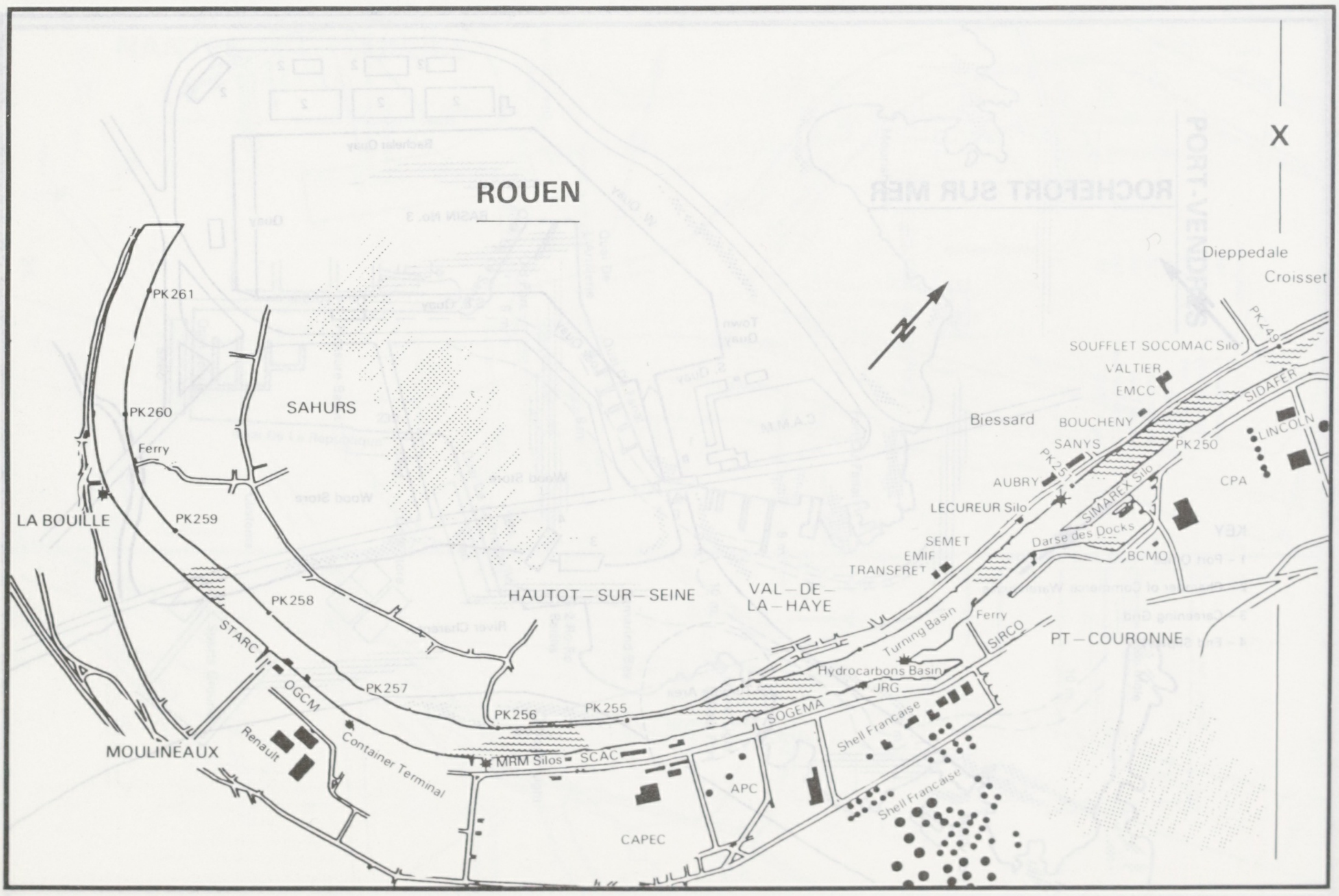
2 – Chamber of Commerce Warehouses

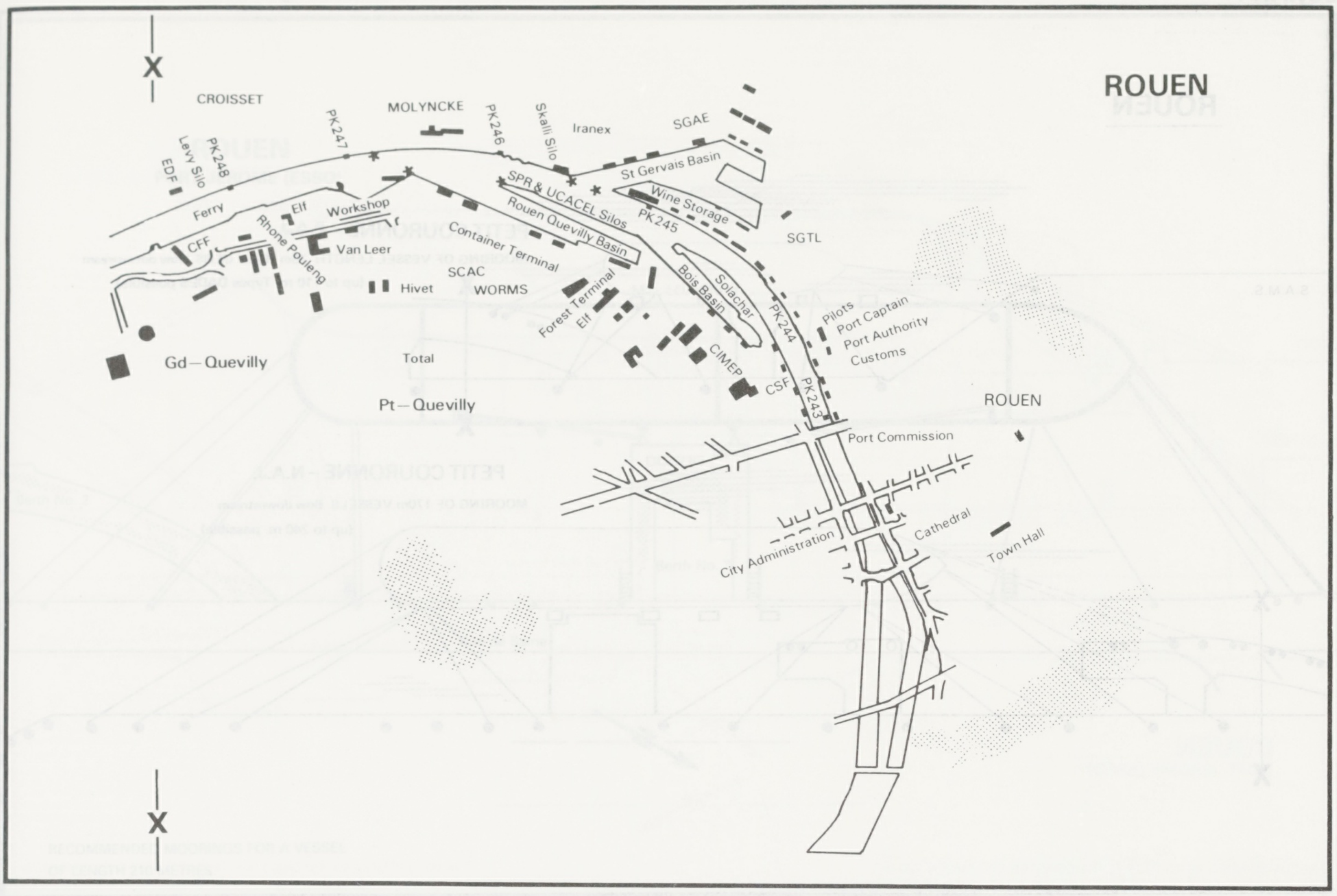
3 – Careening Grid

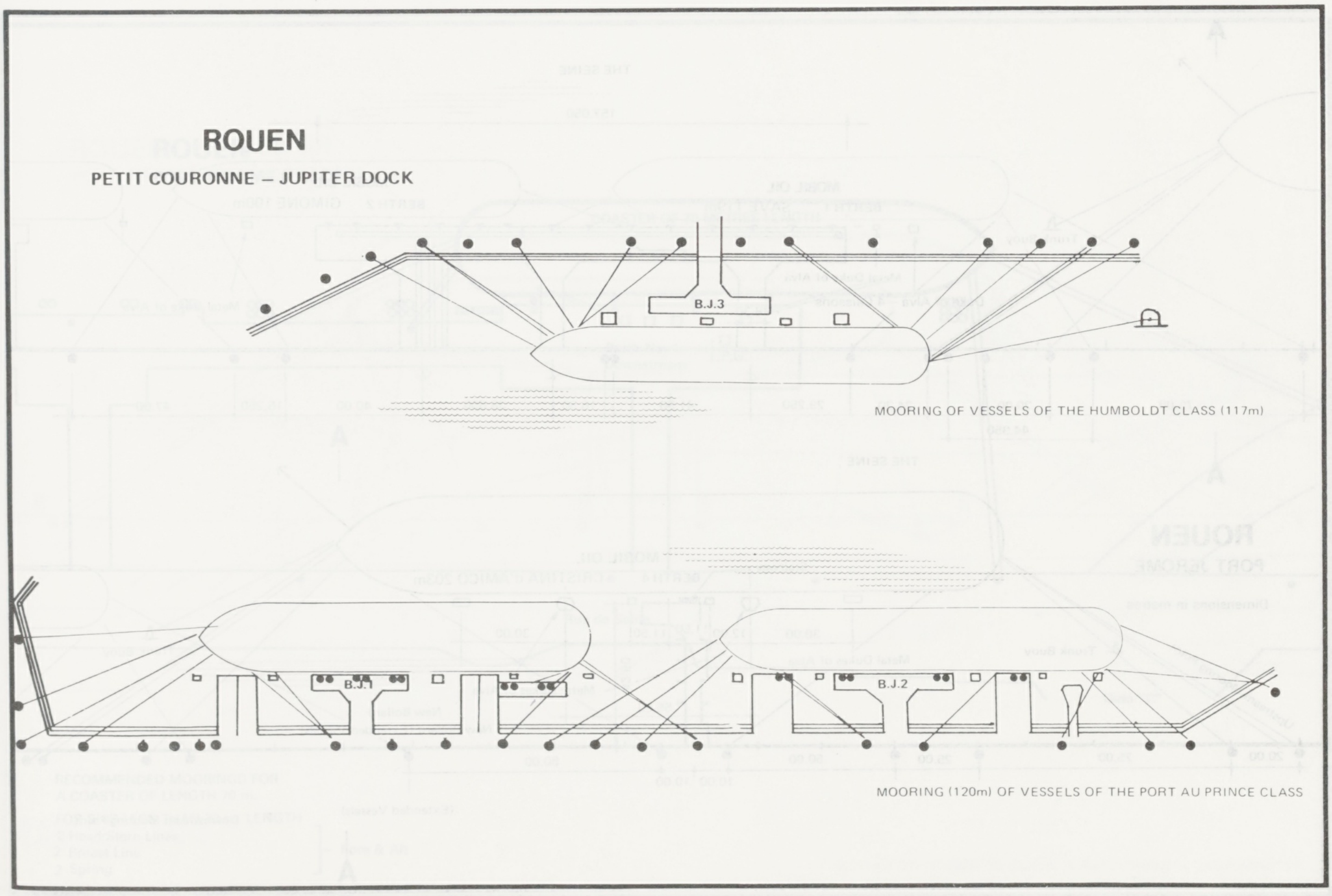
4 – End Slipway

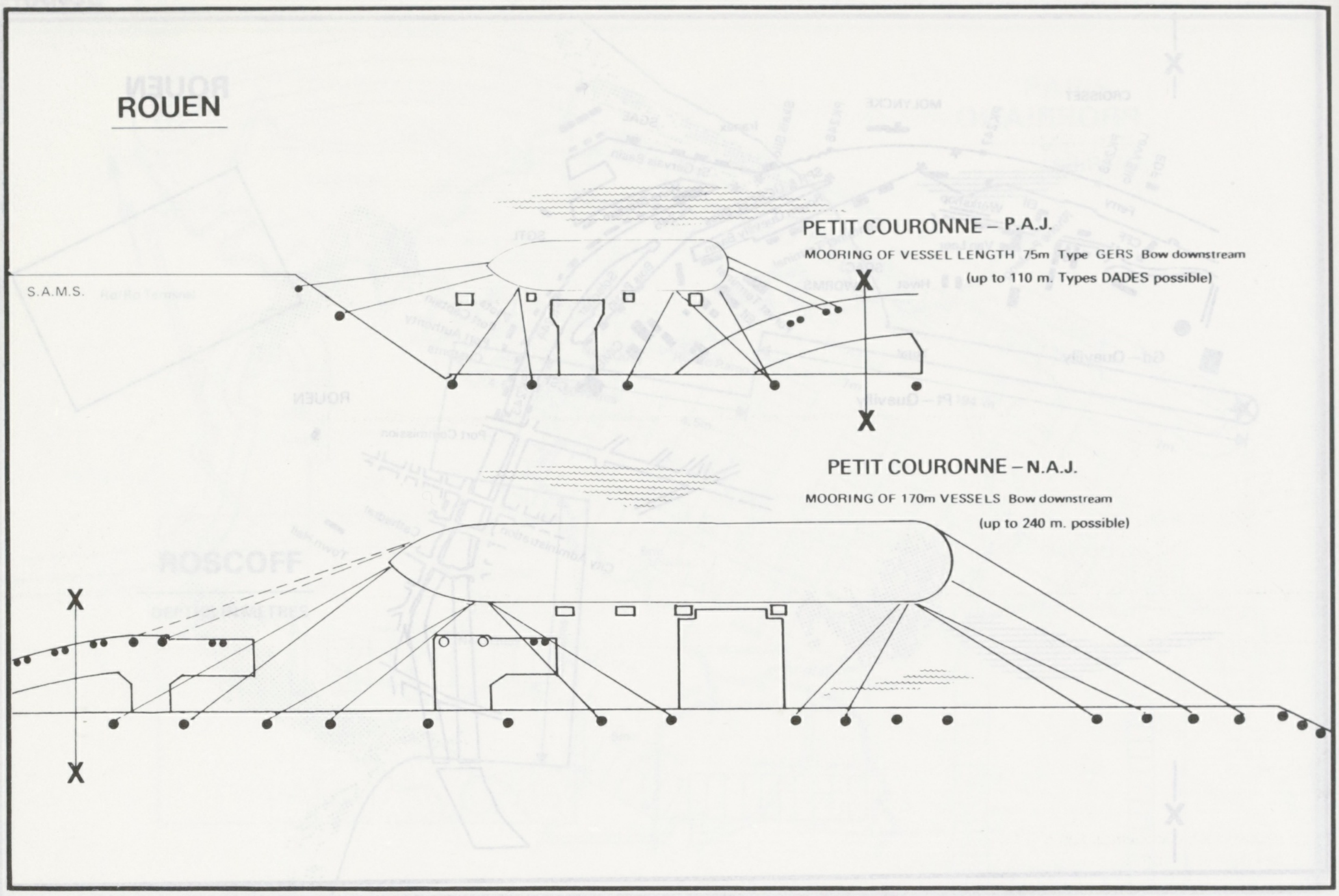

Ro/Ro Terminal
No.2 Quay
Ro/Ro Ramp
4.5m.
90metres
4.5m.
7m.
194 m.
7m.
5m.
ROSCOFF
DEPTHS IN METRES
No.3 Quay
120metres
5m.

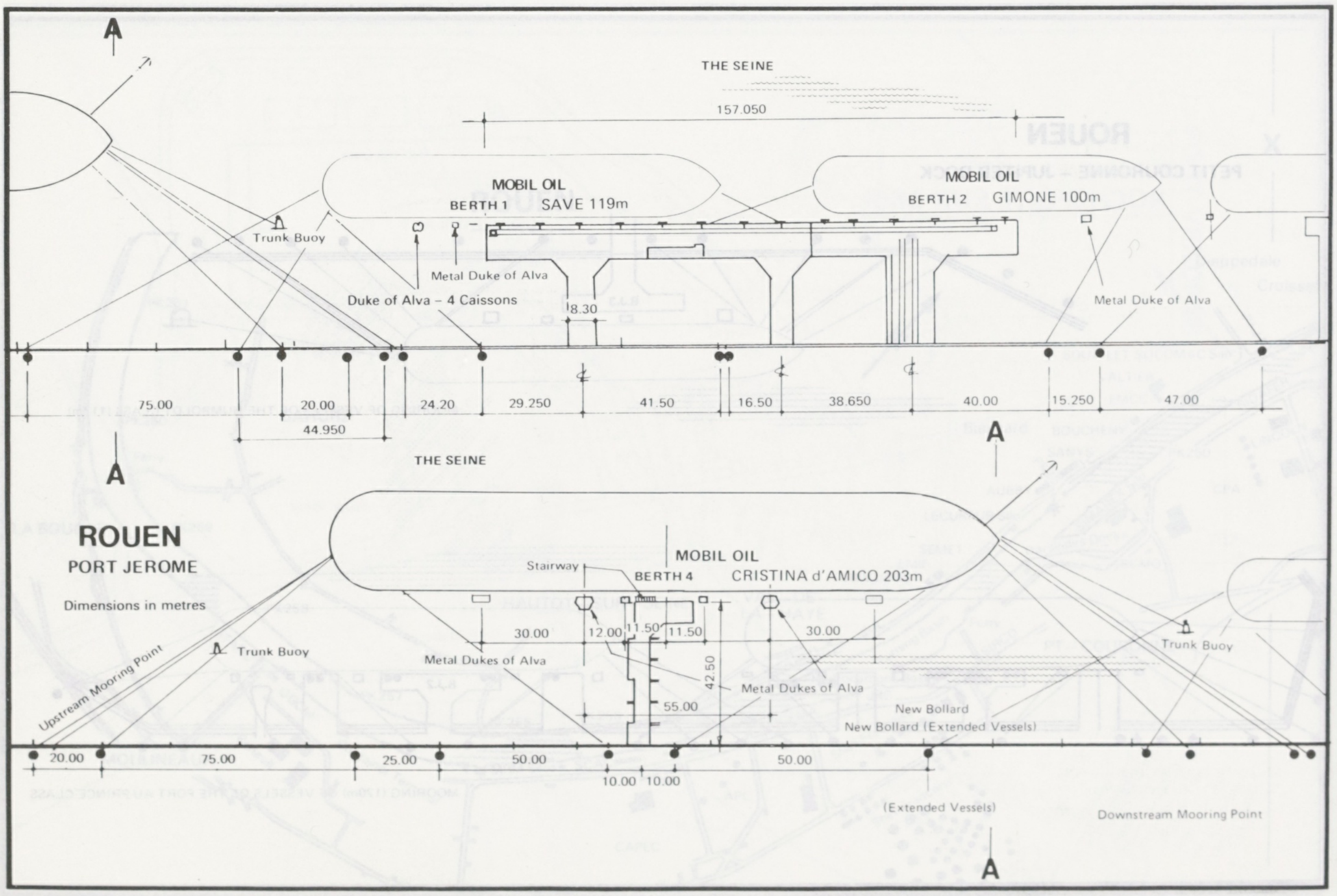
"Plan supplied by Ship's Master"

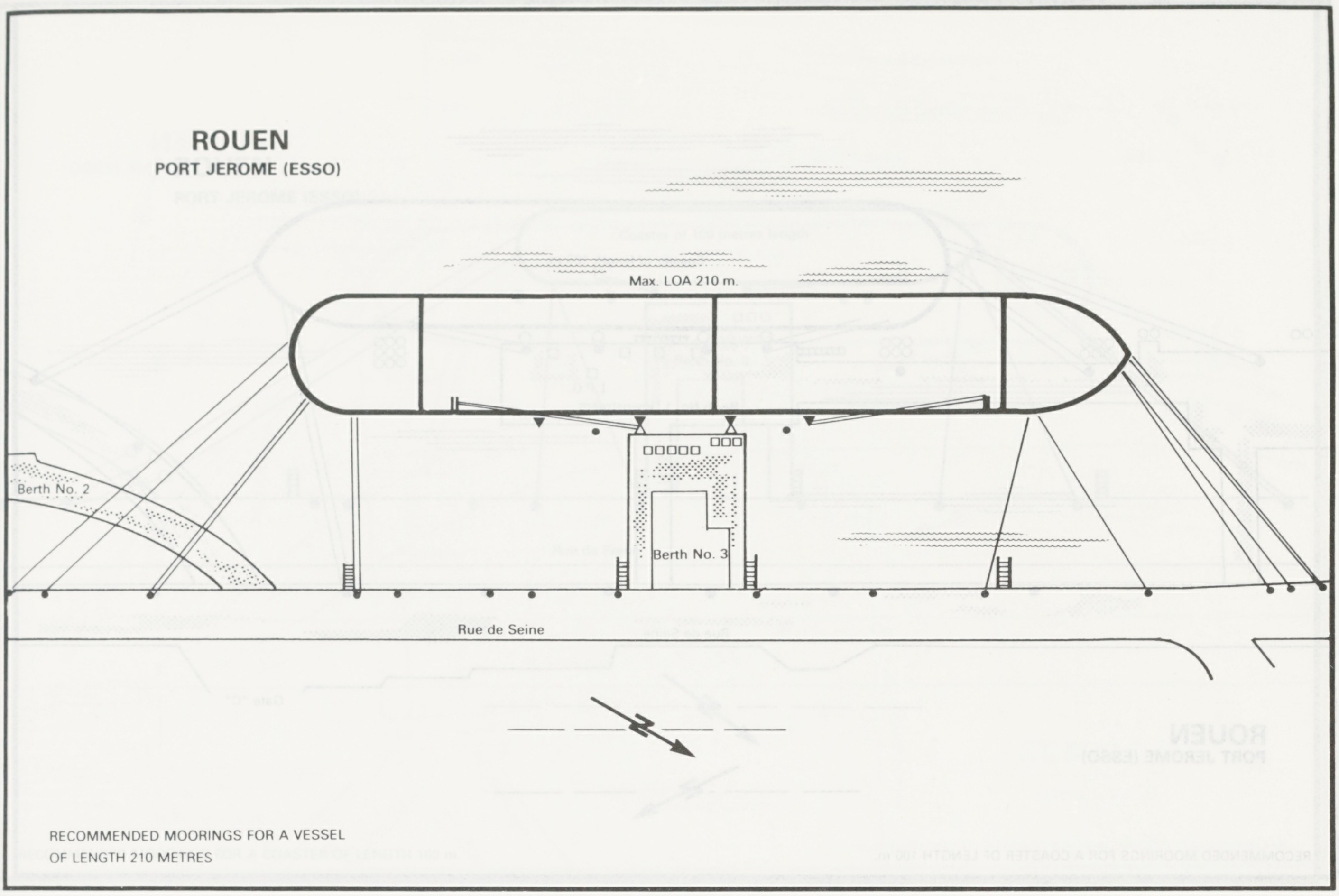

ROUEN
X
Dieppedale
Croisset
PK249
SOUFFLET SOCOMAC Silo
VALTIER
EMCC
SIDAFER
Biessard
BOUCHENY
SANYS
PK250
LINCOLN
AUBRY
PK251
SIMAREX Silo
CPA
LECUREUR Silo
SEMET
EMIF
TRANSFRET
Darse des Docks
BCMO
PK261
PK260
SAHURS
Ferry
LA BOUILLE
PK259
PK258
HAUTOT–SUR–SEINE
VAL–DE–LA–HAYE
Turning Basin
Ferry
SIRCO
PT–COURONNE
Hydrocarbons Basin
JRG
STARC
OGCM
PK257
PK256
PK255
SOGEMA
Shell Francaise
MOULINEAUX
Renault
Container Terminal
MRM Silos
SCAC
APC
Shell Francaise
CAPEC


ROUEN
X
CROISSET
MOLYNCKE
PK247
PK246
PK248
Levy Silo
EDF
Skalli Silo
Iranex
SGAE
St Gervais Basin
SPR & UCACEL Silos
Wine Storage
PK 245
Rouen Quevilly Basin
Container Terminal
Ferry
Elf
Workshop
CFF
Rhone Pouleng
Van Leer
SCAC
Hivet
WORMS
Forest Terminal
Elf
Bois Basin
Solachar
SGTL
PK244
Pilots
Port Captain
Port Authority
Customs
CIMEP
CSF
PK243
Gd–Quevilly
Total
Pt–Quevilly
ROUEN
Port Commission
City Administration
Cathedral
Town Hall
X


ROUEN
PETIT COURONNE – JUPITER DOCK
B.J.3
MOORING OF VESSELS OF THE HUMBOLDT CLASS (117m)
B.J.1
B.J.2
MOORING (120m) OF VESSELS OF THE PORT AU PRINCE CLASS


ROUEN
PETIT COURONNE – P.A.J.
MOORING OF VESSEL LENGTH 75m Type GERS Bow downstream
(up to 110 m. Types DADES possible)
S.A.M.S.
X
X
PETIT COURONNE – N.A.J.
MOORING OF 170m VESSELS Bow downstream
(up to 240 m. possible)
X
X


A
THE SEINE
157.050
MOBIL OIL
BERTH 1 SAVE 119m
MOBIL OIL
BERTH 2 GIMONE 100m
Trunk Buoy
Metal Duke of Alva
Duke of Alva – 4 Caissons
8.30
Metal Duke of Alva
75.00
20.00
24.20
29.250
41.50
16.50
38.650
40.00
15.250
47.00
44.950
A
THE SEINE
A
ROUEN
PORT JEROME
Dimensions in metres
MOBIL OIL
Stairway
BERTH 4 CRISTINA d'AMICO 203m
30.00
12.00
11.50
11.50
30.00
Metal Dukes of Alva
42.50
Metal Dukes of Alva
55.00
Trunk Buoy
Upstream Mooring Point
Trunk Buoy
New Bollard
New Bollard (Extended Vessels)
20.00
75.00
25.00
50.00
10.00
10.00
50.00
(Extended Vessels)
Downstream Mooring Point
A

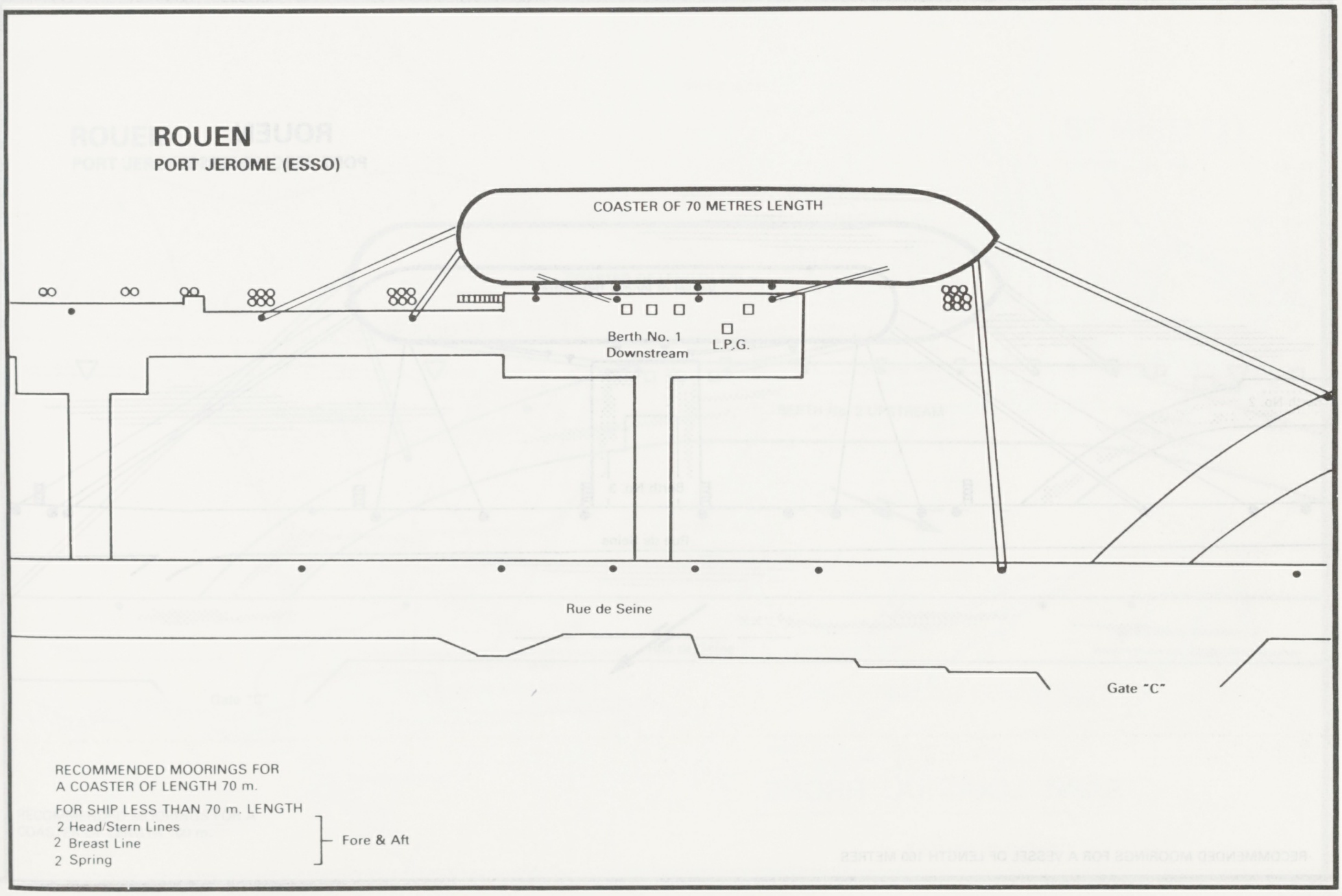


ROUEN

PORT JEROME (ESSO)

RECOMMENDED MOORINGS FOR A VESSEL OF LENGTH 210 METRES

Max. LOA 210 m.
Berth No. 2
Berth No. 3
Rue de Seine



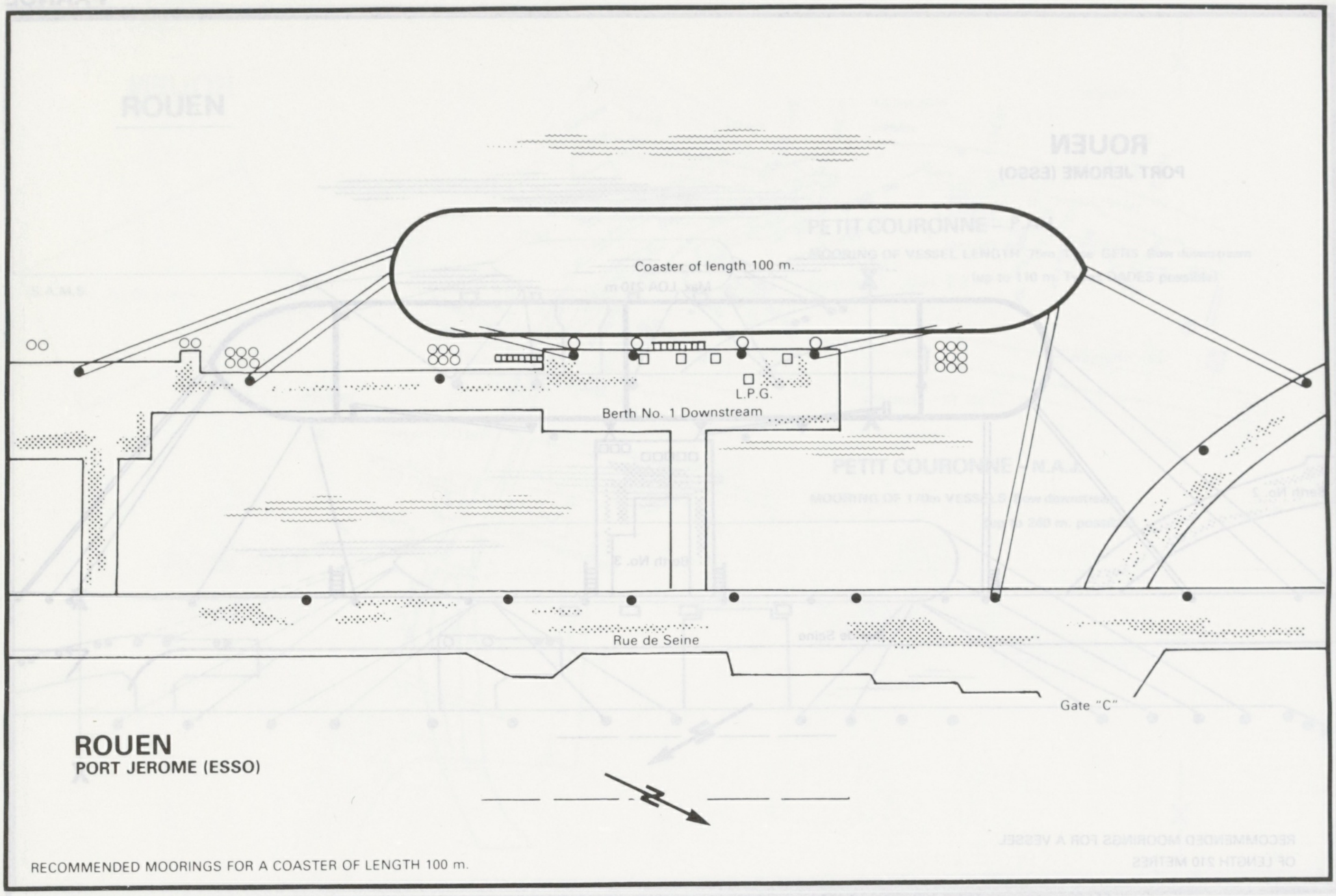
ROUEN

PORT JEROME (ESSO)

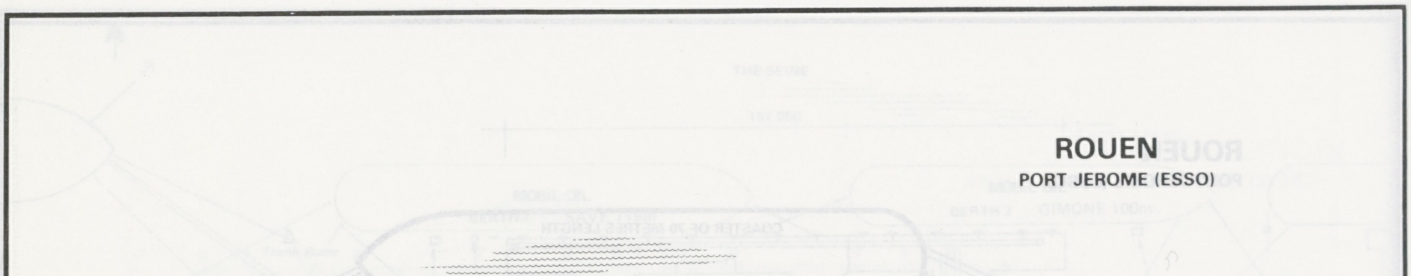
RECOMMENDED MOORINGS FOR A COASTER OF LENGTH 70 m.

FOR SHIP LESS THAN 70 m. LENGTH
2 Head/Stern Lines
2 Breast Line
2 Spring
Fore & Aft

COASTER OF 70 METRES LENGTH
Berth No. 1
Downstream
L.P.G.
Rue de Seine
Gate "C"


Coaster of length 100 m.
L.P.G.
Berth No. 1 Downstream
Rue de Seine
Gate "C"
ROUEN
PORT JEROME (ESSO)

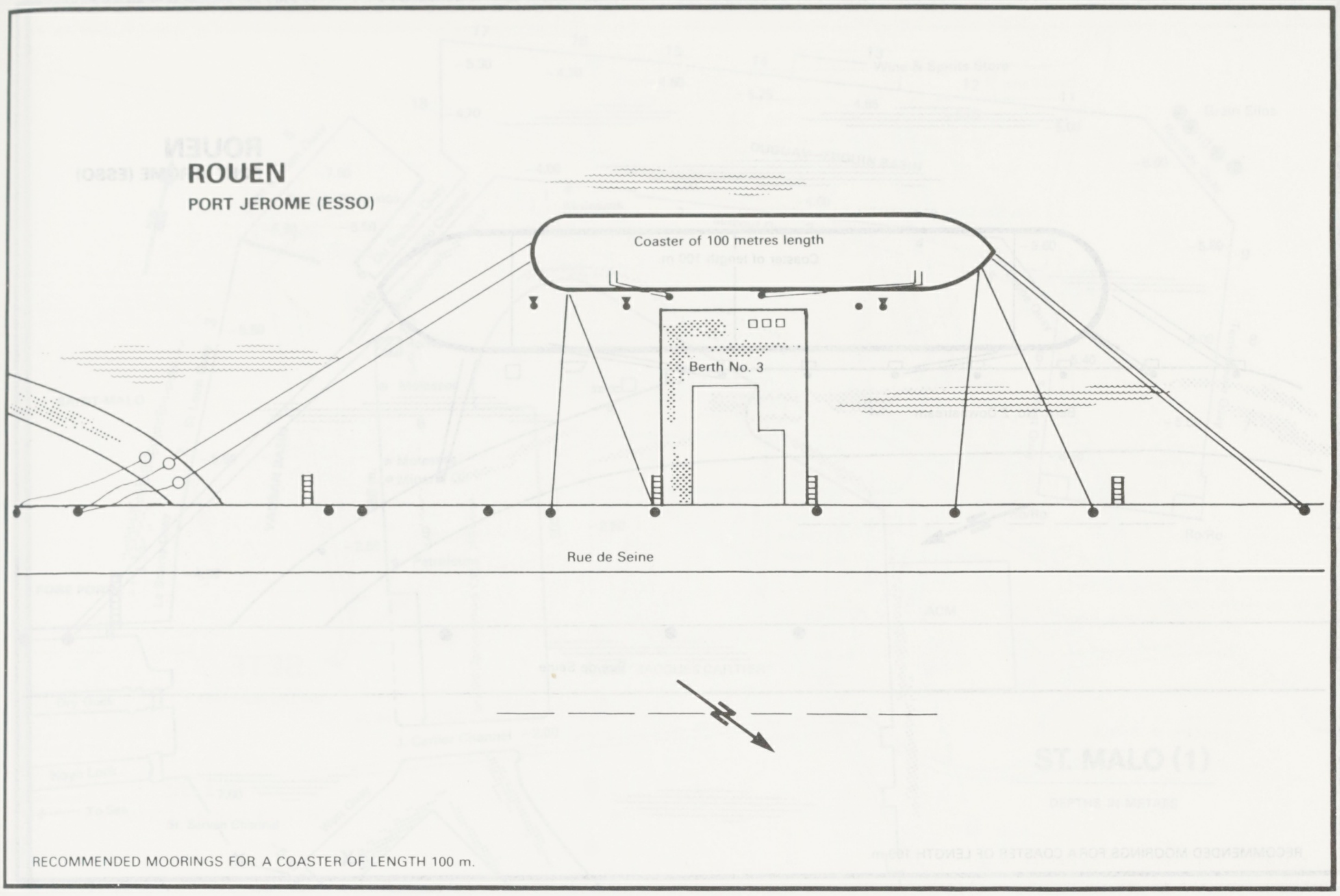
RECOMMENDED MOORINGS FOR A COASTER OF LENGTH 100 m.


ROUEN
PORT JEROME (ESSO)
Vessel of length 160 metres
Berth No. 2
Berth No. 3
Rue de Seine

RECOMMENDED MOORINGS FOR A VESSEL OF LENGTH 160 METRES

ROUEN

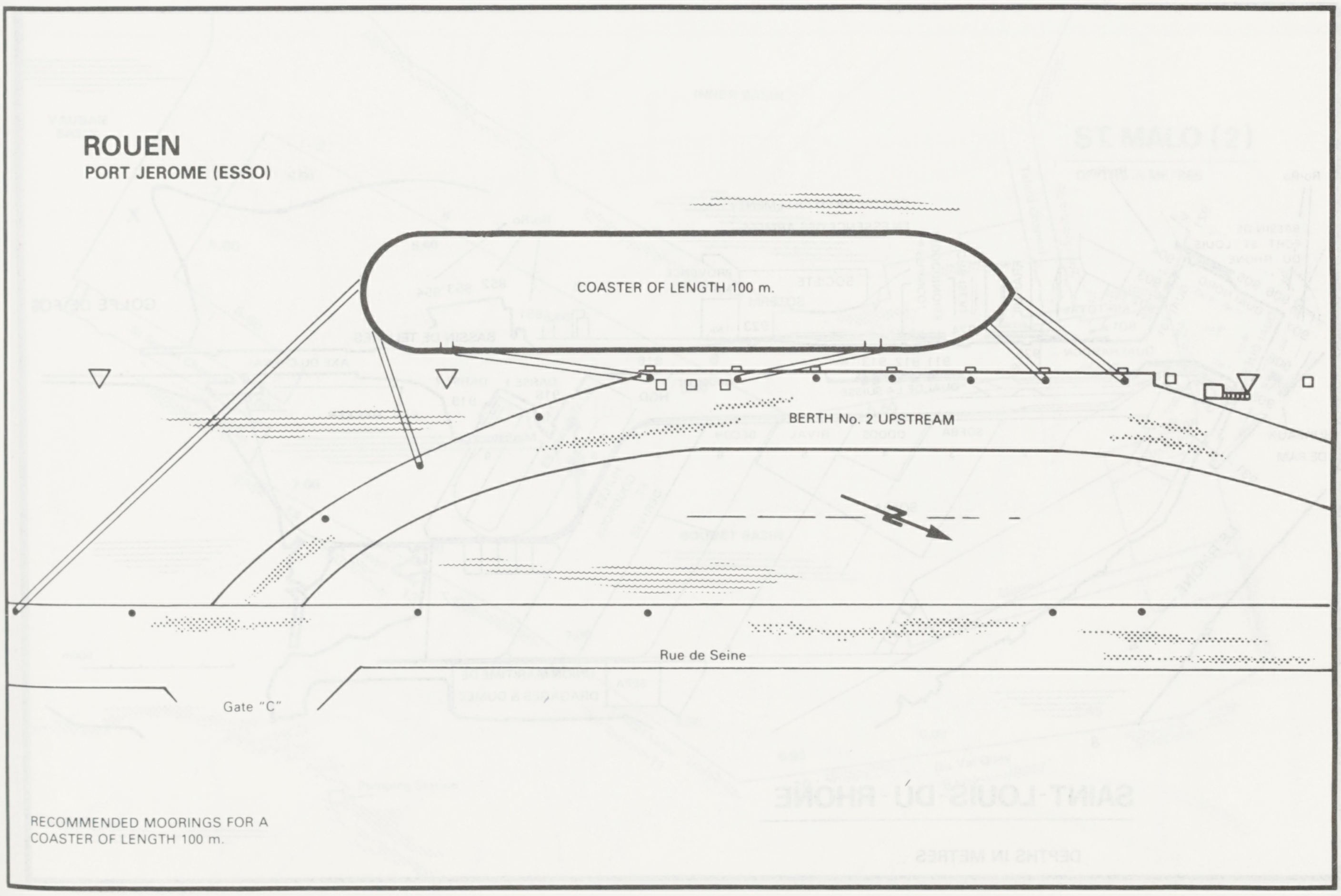
PORT JEROME (ESSO)


Coaster of 100 metres length
Berth No. 3
Rue de Seine

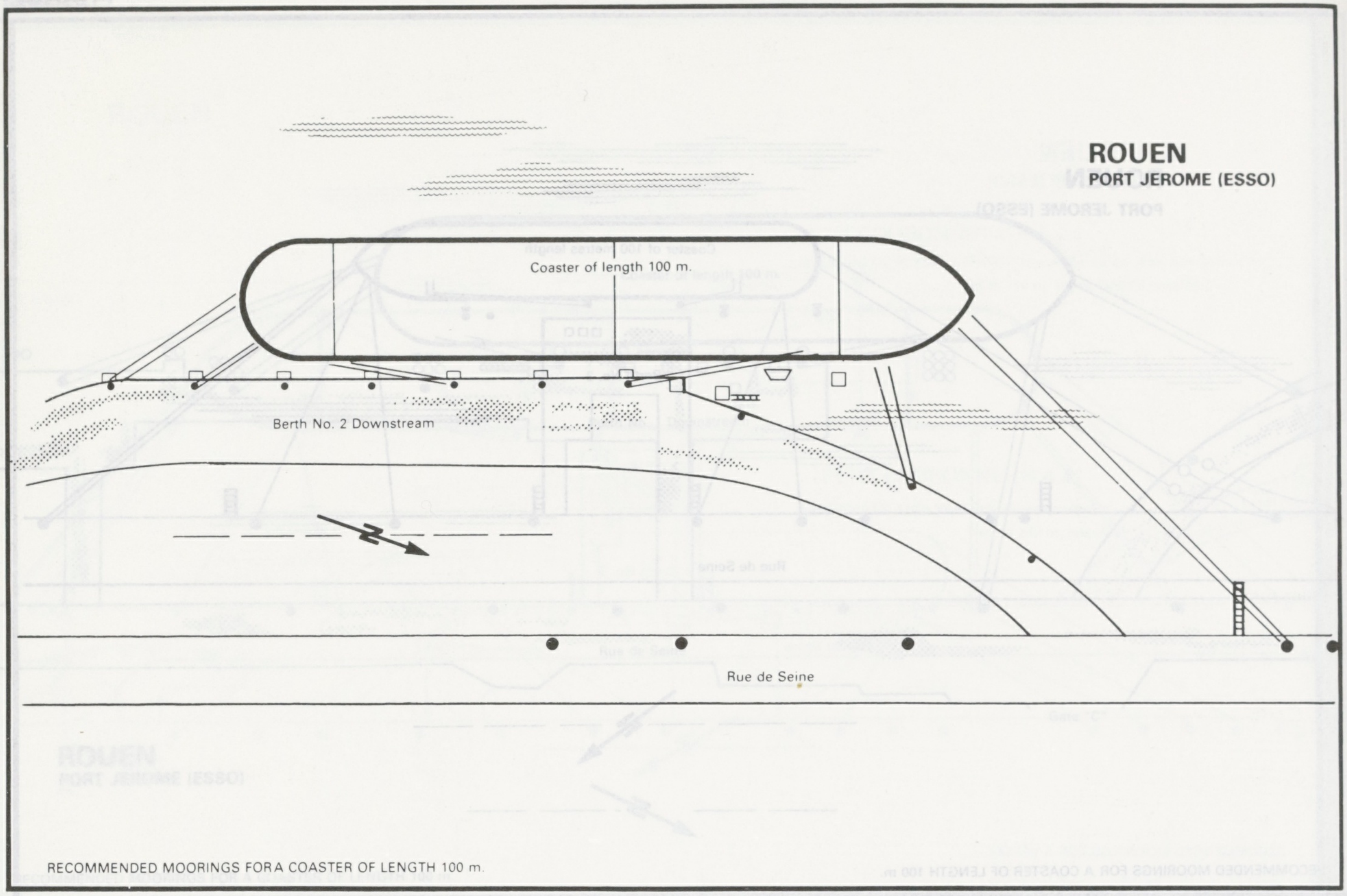
RECOMMENDED MOORINGS FOR A COASTER OF LENGTH 100 m.

ROUEN

PORT JEROME (ESSO)


COASTER OF LENGTH 100 m.
BERTH No. 2 UPSTREAM
Rue de Seine
Gate "C"

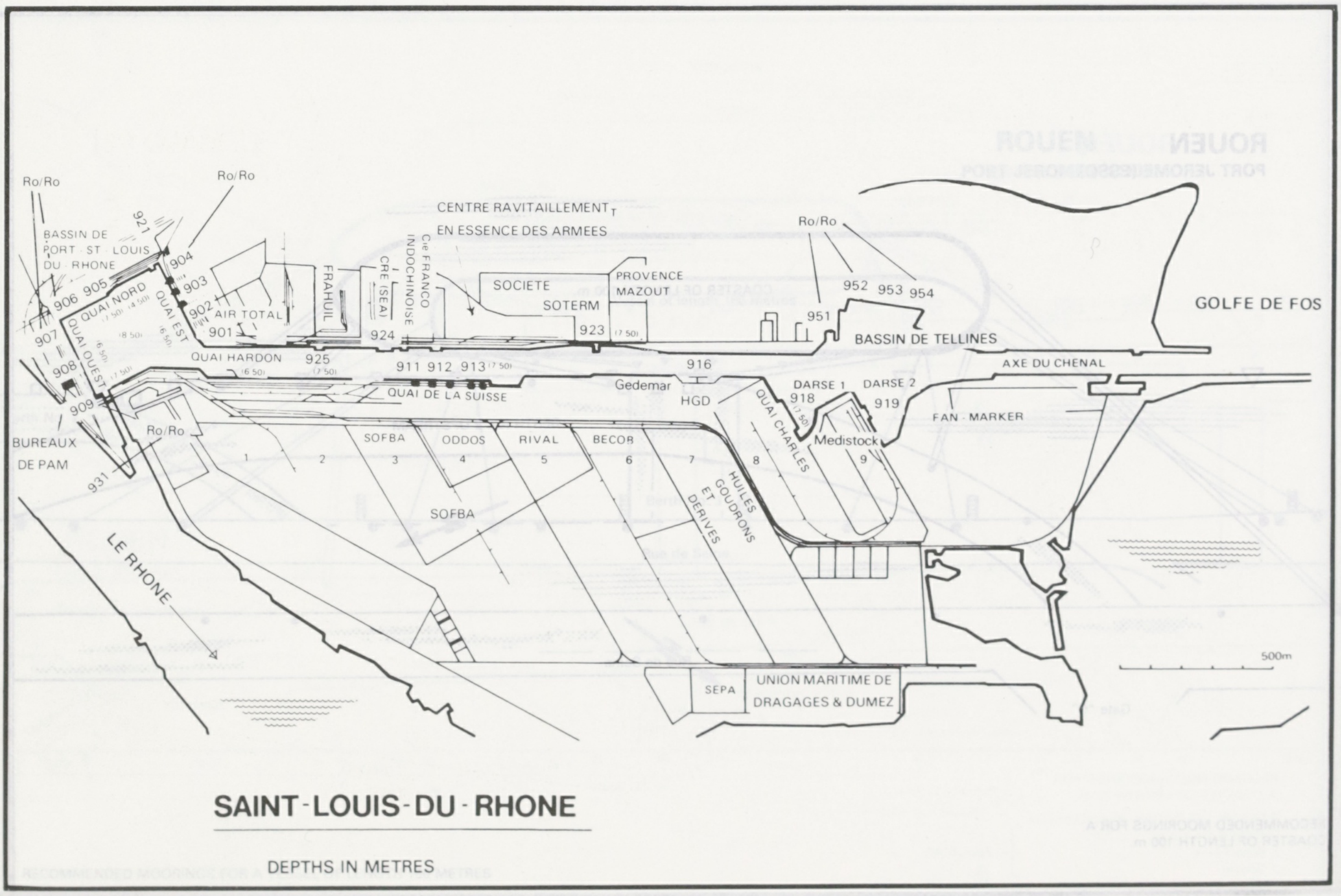
RECOMMENDED MOORINGS FOR A COASTER OF LENGTH 100 m.



ROUEN
PORT JEROME (ESSO)

Coaster of length 100 m.
Berth No. 2 Downstream
Rue de Seine

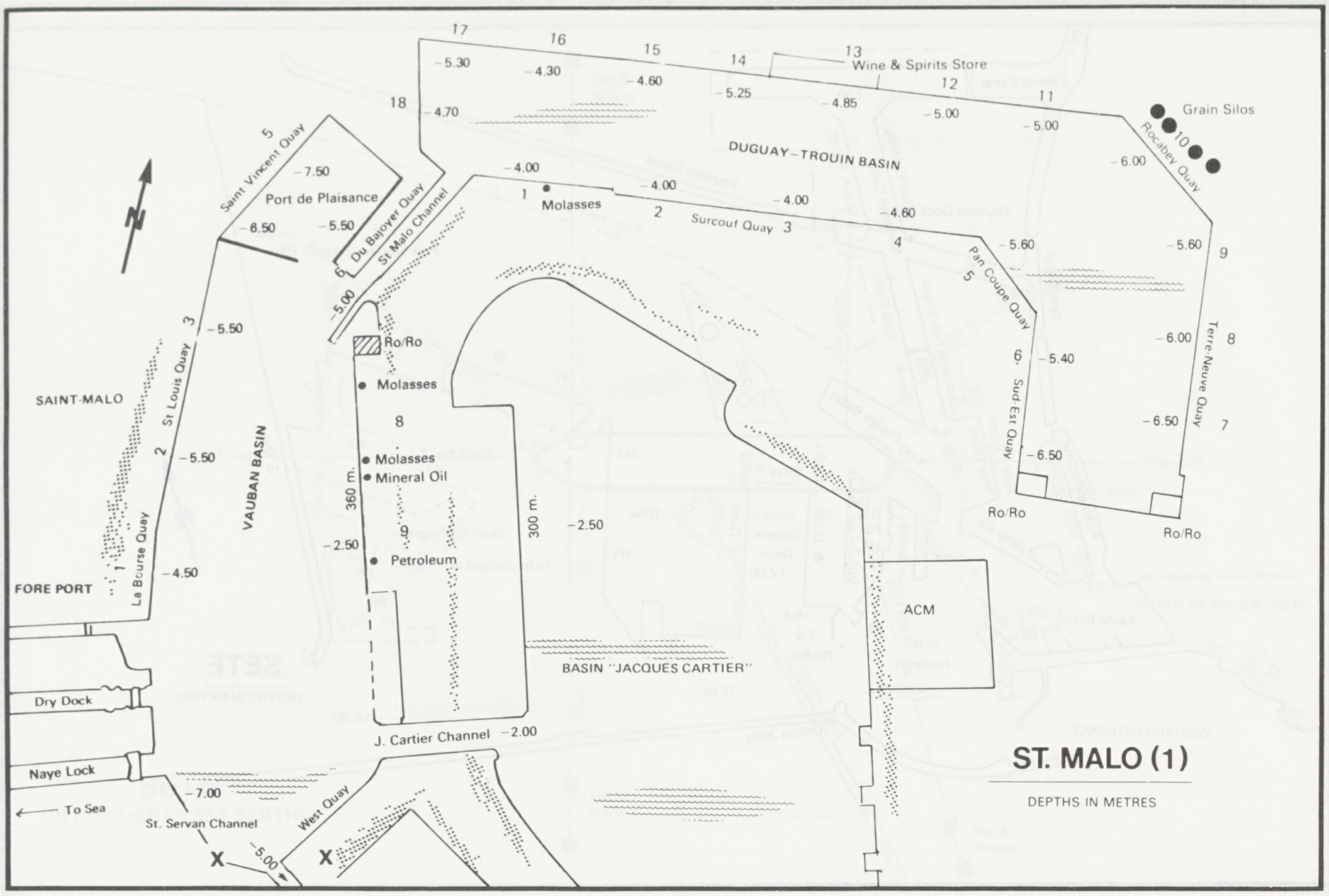
RECOMMENDED MOORINGS FOR A COASTER OF LENGTH 100 m.



SAINT-LOUIS-DU-RHONE

DEPTHS IN METRES

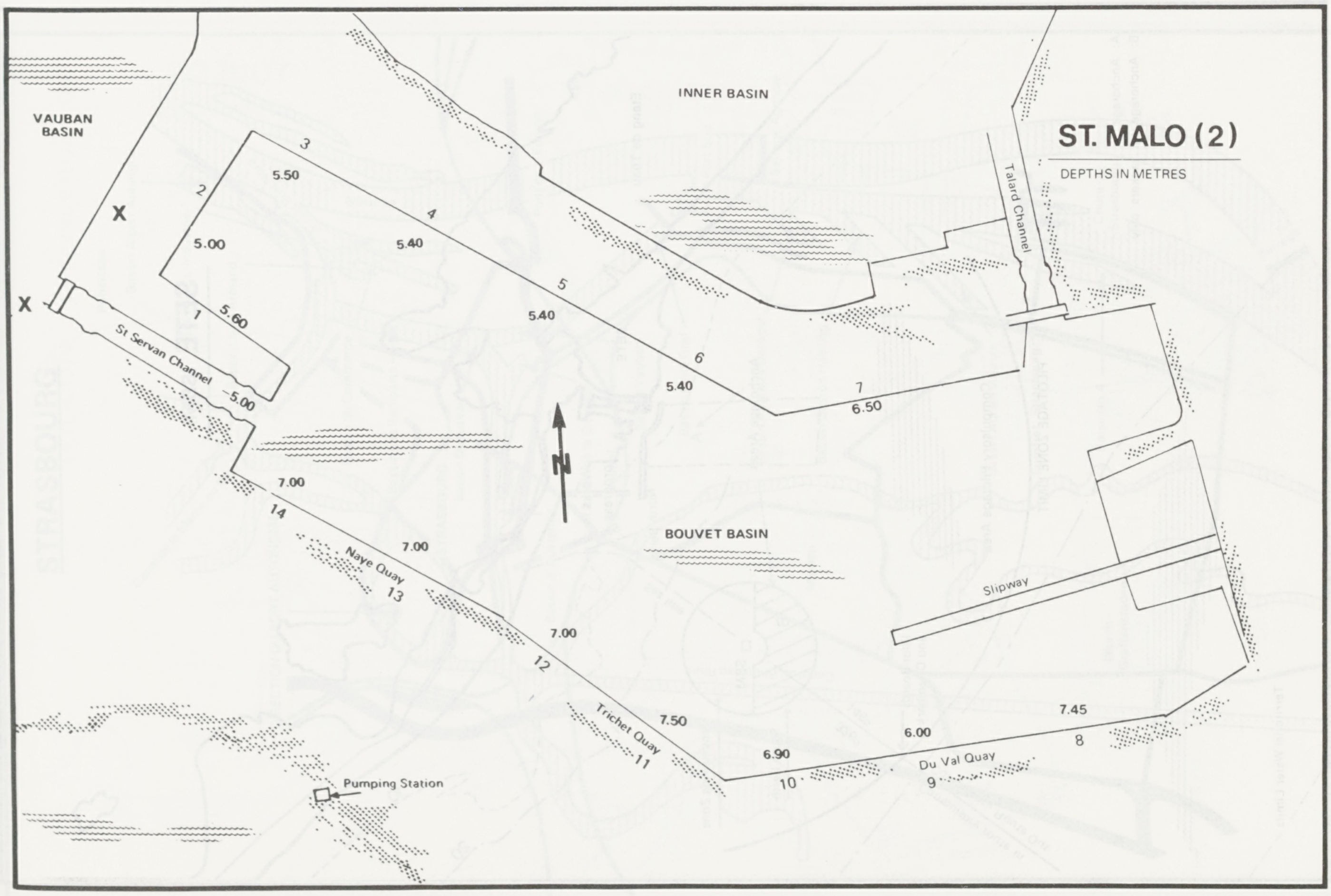
Ro/Ro
Ro/Ro
BASSIN DE PORT ST LOUIS DU RHONE
921
904
903
902
901
905
906
907
908
909
QUAI NORD
QUAI EST
QUAI OUEST
AIR TOTAL
FRAHUIL
Cie FRANCO INDOCHINOISE
CRE (SEA)
CENTRE RAVITAILLEMENT EN ESSENCE DES ARMEES
SOCIETE
SOTERM
PROVENCE MAZOUT
923
924
925
QUAI HARDON
911 912 913
QUAI DE LA SUISSE
Gedemar
916
HGD
Ro/Ro
952 953 954
951
BASSIN DE TELLINES
GOLFE DE FOS
AXE DU CHENAL
DARSE 1
DARSE 2
918
919
QUAI CHARLES
Medistock
FAN - MARKER
BUREAUX DE PAM
Ro/Ro
931
SOFBA
ODDOS
RIVAL
BECOR
1 2 3 4 5 6 7 8 9
SOFBA
HUILES GOUDRONS ET DERIVES
LE RHONE
SEPA
UNION MARITIME DE DRAGAGES & DUMEZ
500m



ST. MALO (1)

DEPTHS IN METRES

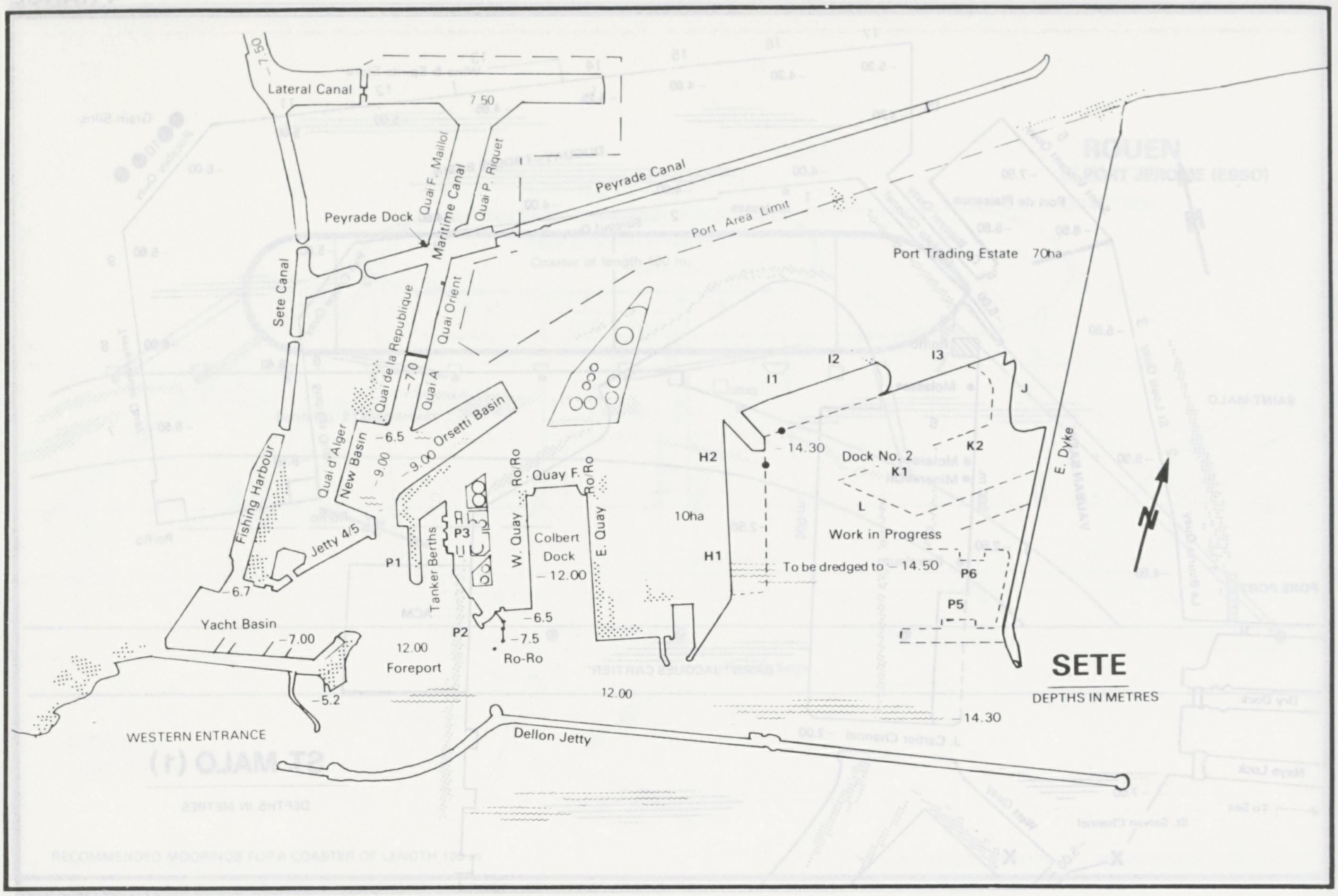
17
16
15
14
13
Wine & Spirits Store
12
11
Grain Silos
10
Rocabey Quay
-5.30
-4.30
-4.60
-5.25
-4.85
-5.00
-5.00
-6.00
18
-4.70
DUGUAY-TROUIN BASIN
-4.00
1
Molasses
-4.00
2
Surcouf Quay
3
-4.00
-4.60
4
Pan Coupe Quay
5
-5.60
-5.60
9
Terre Neuve Quay
-6.00
8
-6.50
7
6
-5.40
Sud Est Quay
-6.50
Ro/Ro
Ro/Ro
5
Saint Vincent Quay
-7.50
Port de Plaisance
-6.50
-5.50
Du Baioyer Quay
St Malo Channel
6
-5.00
Ro/Ro
Molasses
8
Molasses
Mineral Oil
360 m.
9
Petroleum
-2.50
300 m.
-2.50
SAINT-MALO
3
-5.50
St Louis Quay
2
-5.50
VAUBAN BASIN
La Bourse Quay
1
-4.50
FORE PORT
Dry Dock
Naye Lock
To Sea
-7.00
St. Servan Channel
X
-5.00
X
West Quay
J. Cartier Channel
-2.00
BASIN "JACQUES CARTIER"
ACM
N

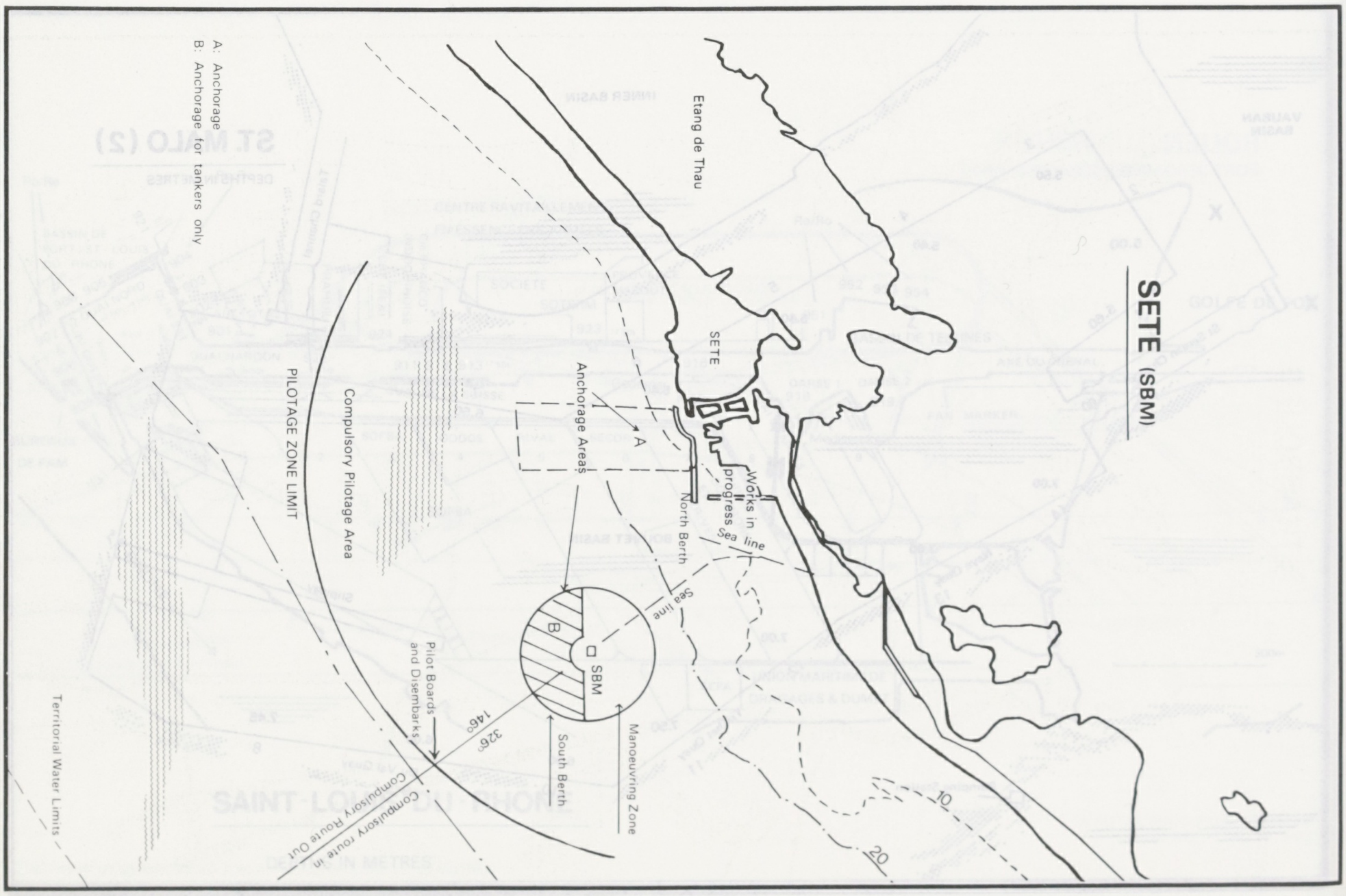


ST. MALO (2)

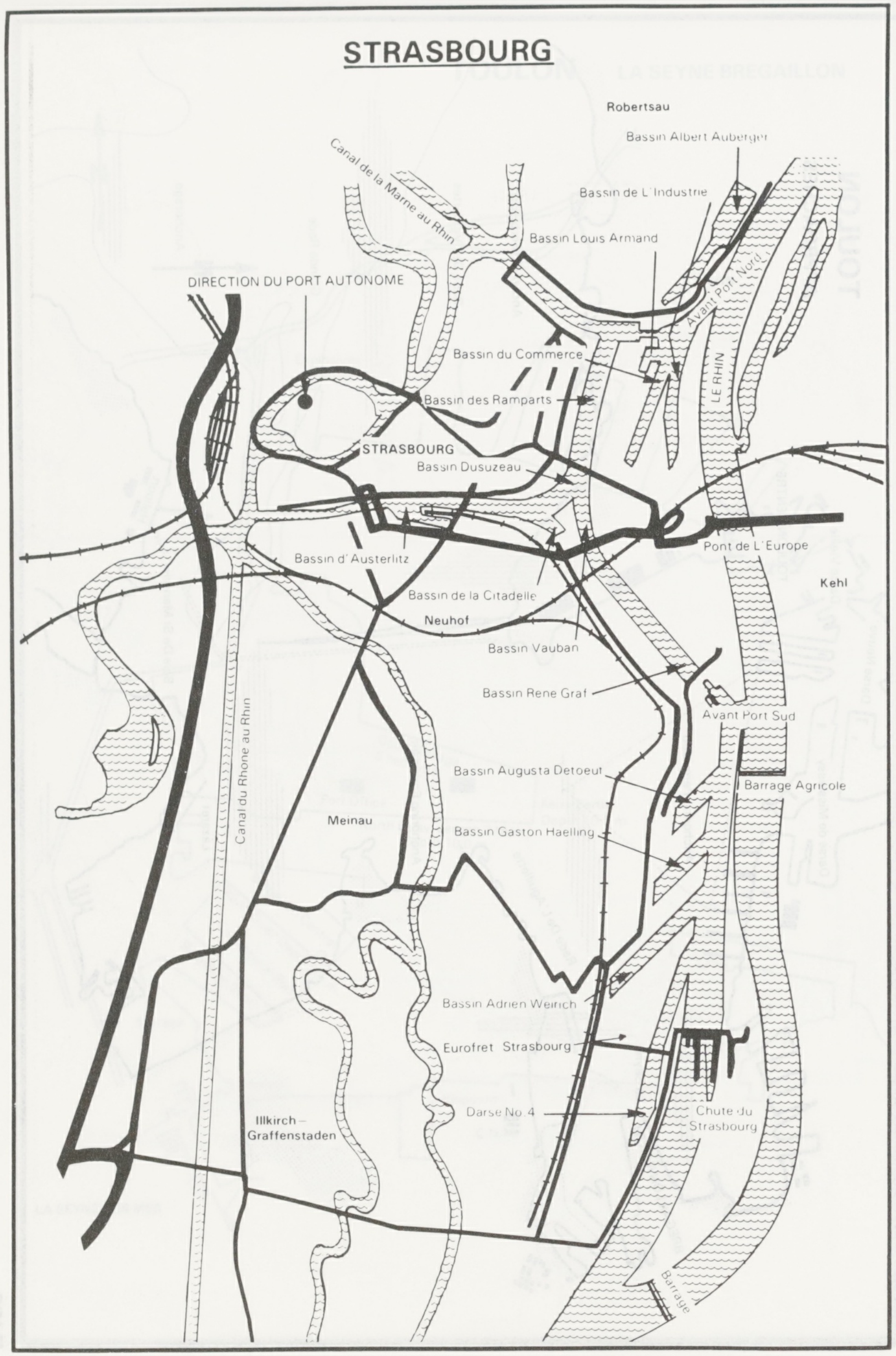
DEPTHS IN METRES

VAUBAN BASIN
INNER BASIN
3
5.50
2
X
5.00
4
5.40
X
1
5.60
5
5.40
St Servan Channel
5.00
6
5.40
7
6.50
Talard Channel
N
7.00
14
7.00
Naye Quay
13
BOUVET BASIN
7.00
12
Slipway
Trichet Quay
7.50
11
6.90
10
6.00
9
Du Val Quay
7.45
8
Pumping Station

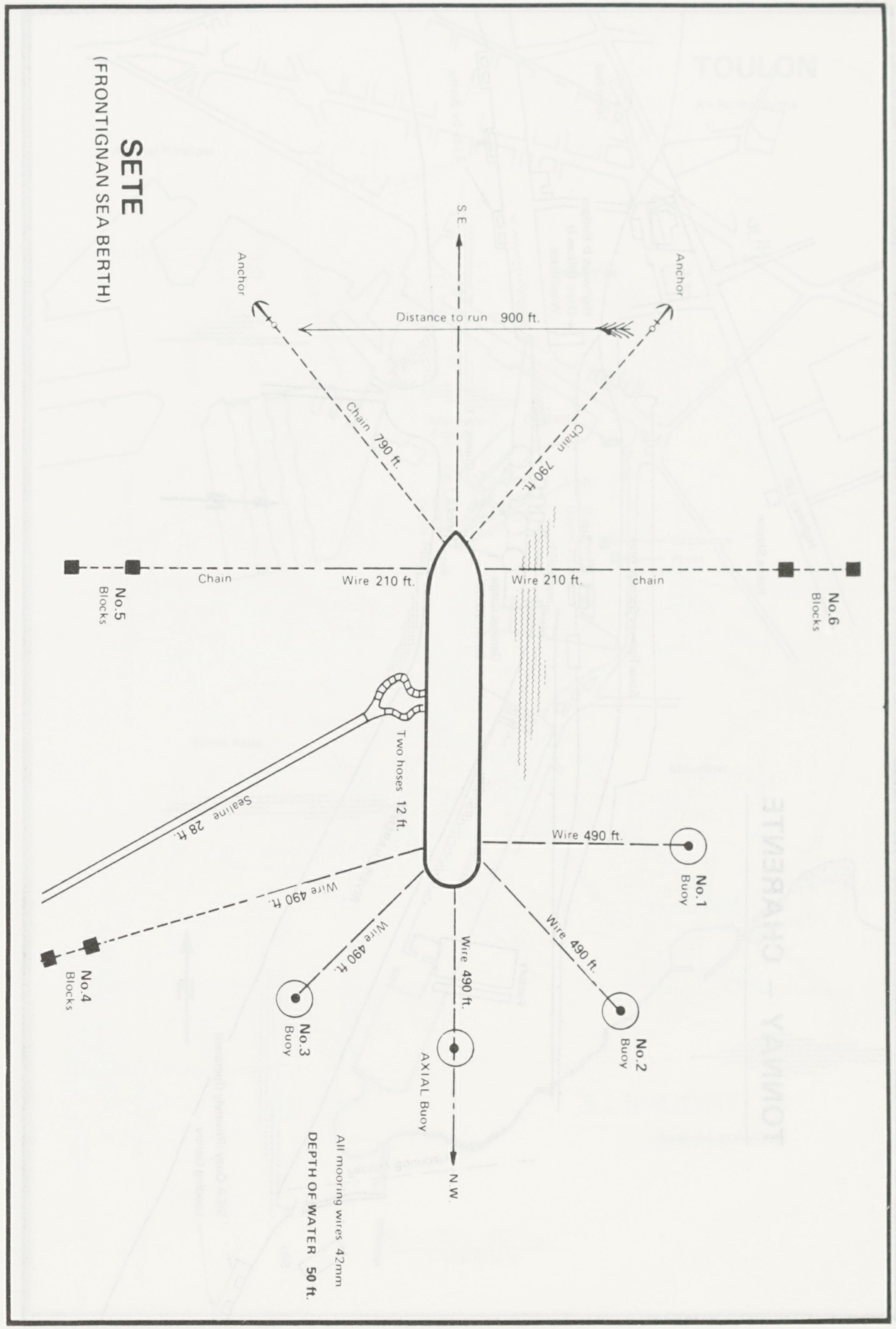

SETE
DEPTHS IN METRES
Lateral Canal
7.50
7.50
Quai F. Maillol
Quai P. Riquet
Peyrade Canal
Peyrade Dock
Maritime Canal
Port Area Limit
Port Trading Estate 70ha
Sete Canal
Quai de la Republique
Quai Orient
Quai A
-7.0
I1
I2
I3
J
E. Dyke
Orsetti Basin
-6.5
-9.00
-9.00
Quai d'Alger
New Basin
Fishing Harbour
Jetty 4/5
P1
P3
Tanker Berths
W. Quay
Ro-Ro
Quay F.
Ro-Ro
E. Quay
Colbert Dock
-12.00
10ha
H2
H1
-14.30
Dock No. 2
K1
K2
L
Work in Progress
To be dredged to -14.50
P6
P5
-6.7
Yacht Basin
-7.00
-5.2
P2
-6.5
-7.5
Ro-Ro
12.00
Foreport
12.00
-14.30
WESTERN ENTRANCE
Dellon Jetty


SETE (SBM)
A. Anchorage
B. Anchorage for tankers only
Etang de Thau
SETE
Anchorage Areas
A
Works in progress
North Berth
Sea line
Sea line
SBM
B
Manoeuvring Zone
South Berth
Pilot Boards and Disembarks
146°
326°
Compulsory route in
Compulsory Route Out
PILOTAGE ZONE LIMIT
Compulsory Pilotage Area
Territorial Water Limits
10
20

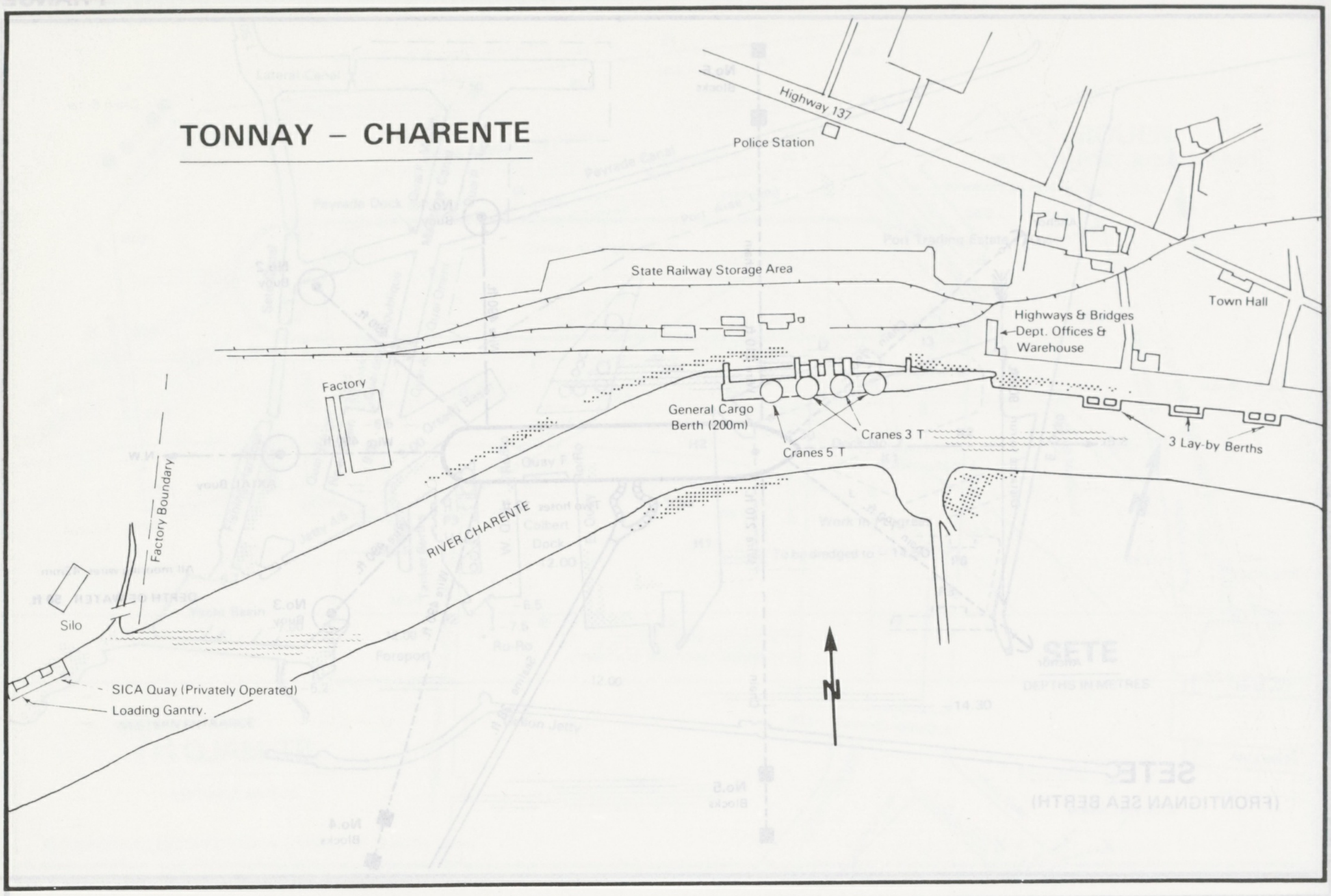
STRASBOURG


Robertsau
Bassin Albert Auberger
Canal de la Marne au Rhin
Bassin de L'Industrie
Bassin Louis Armand
DIRECTION DU PORT AUTONOME
Avant Port Nord
LE RHIN
Bassin du Commerce
Bassin des Remparts
STRASBOURG
Bassin Dusuzeau
Pont de L'Europe
Bassin d'Austerlitz
Kehl
Bassin de la Citadelle
Neuhof
Bassin Vauban
Bassin Rene Graf
Avant Port Sud
Canal du Rhone au Rhin
Bassin Augusta Detoeuf
Barrage Agricole
Meinau
Bassin Gaston Haelling
Bassin Adrien Weirich
Eurofret Strasbourg
Darse No.4
Chute du Strasbourg
Illkirch-Graffenstaden
Barrage

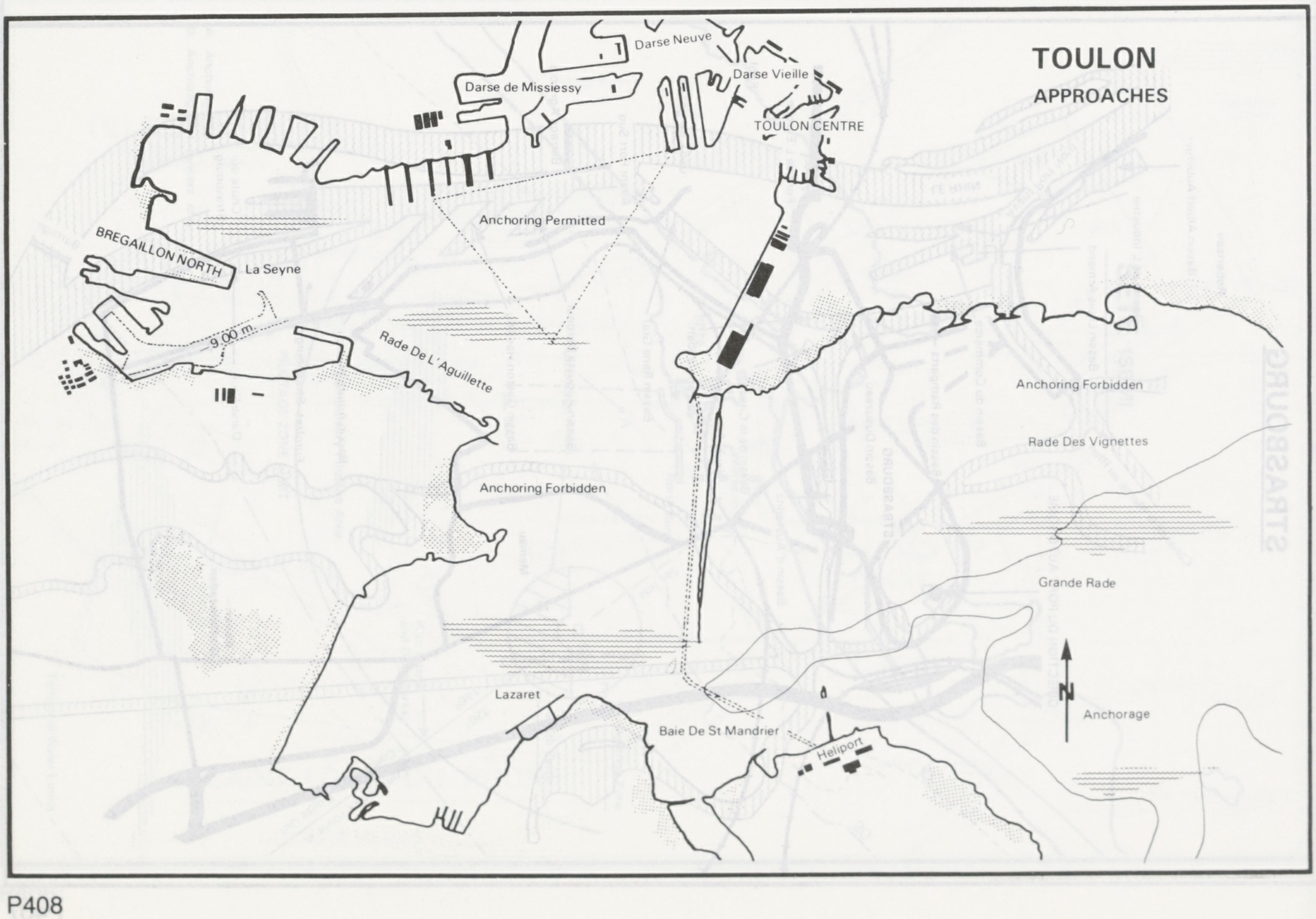
SETE
(FRONTIGNAN SEA BERTH)

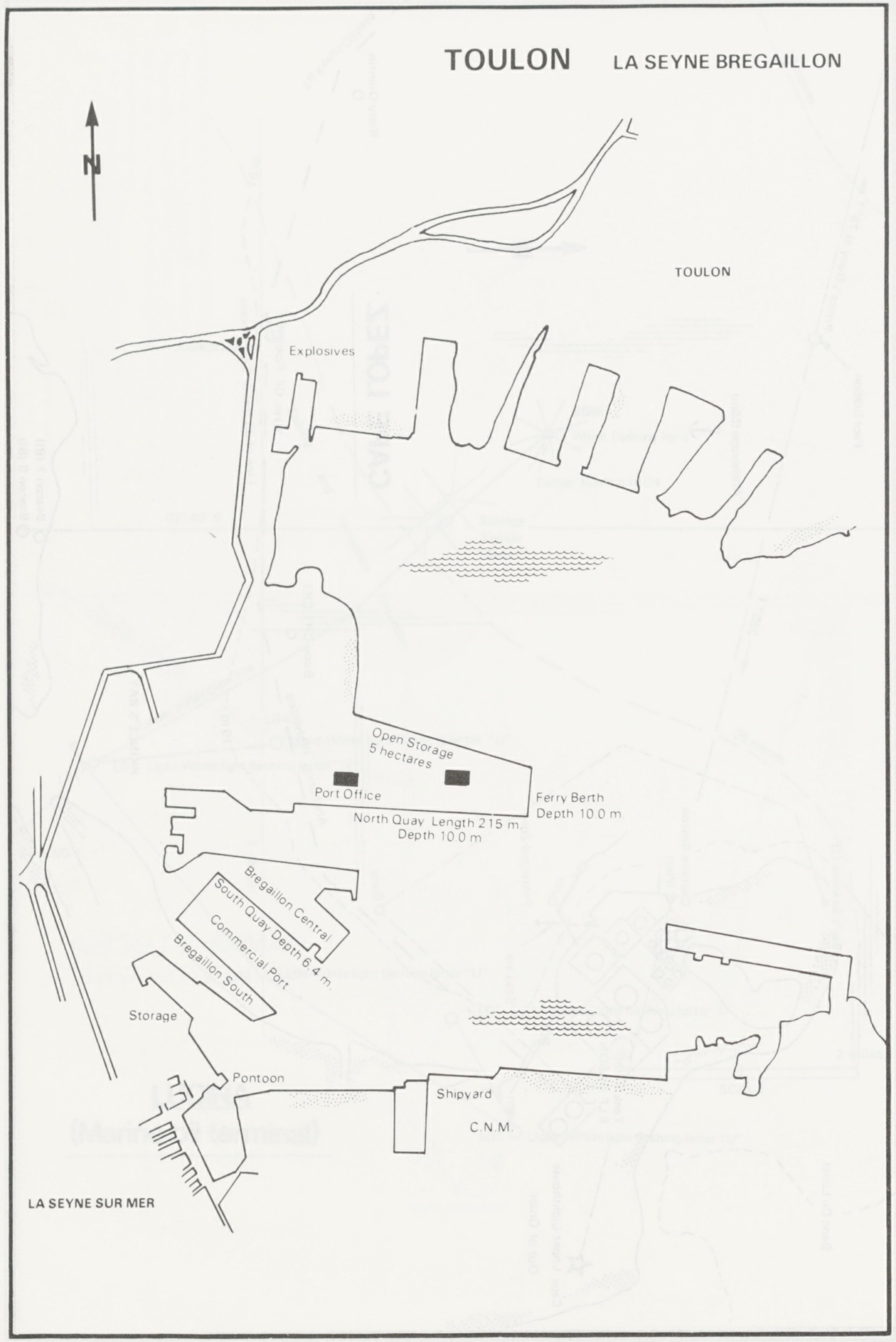

S.E.
Anchor
Anchor
Distance to run 900 ft.
Chain 790 ft.
Chain 790 ft.
No.5 Blocks
Chain
Wire 210 ft.
Wire 210 ft.
chain
No.6 Blocks
Two hoses 12 ft.
Sealine 28 ft.
Wire 490 ft.
No.1 Buoy
Wire 490 ft.
No.4 Blocks
Wire 490 ft.
Wire 490 ft.
Wire 490 ft.
No.3 Buoy
No.2 Buoy
AXIAL Buoy
N.W.
All mooring wires 42mm
DEPTH OF WATER 50 ft.

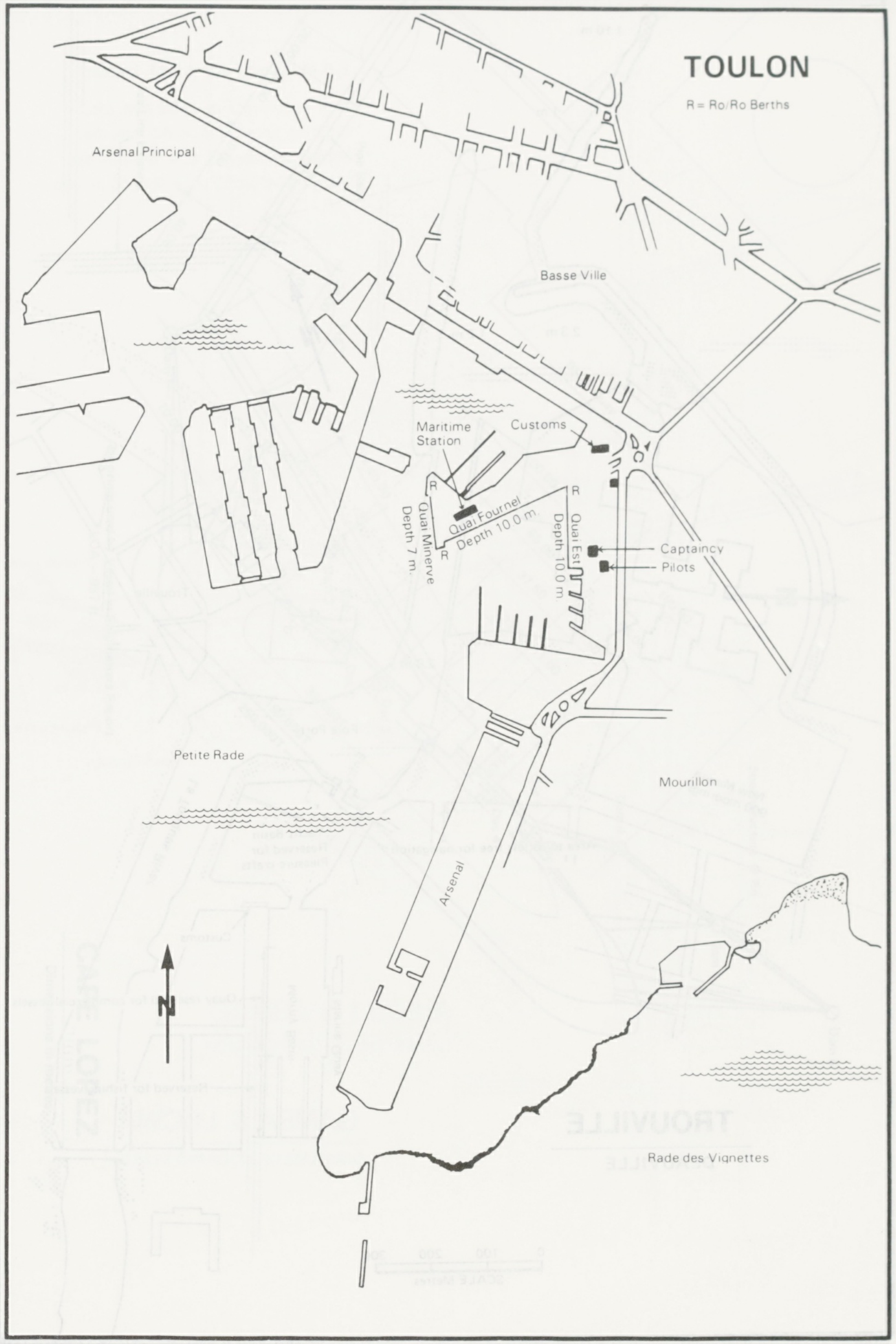
TONNAY – CHARENTE

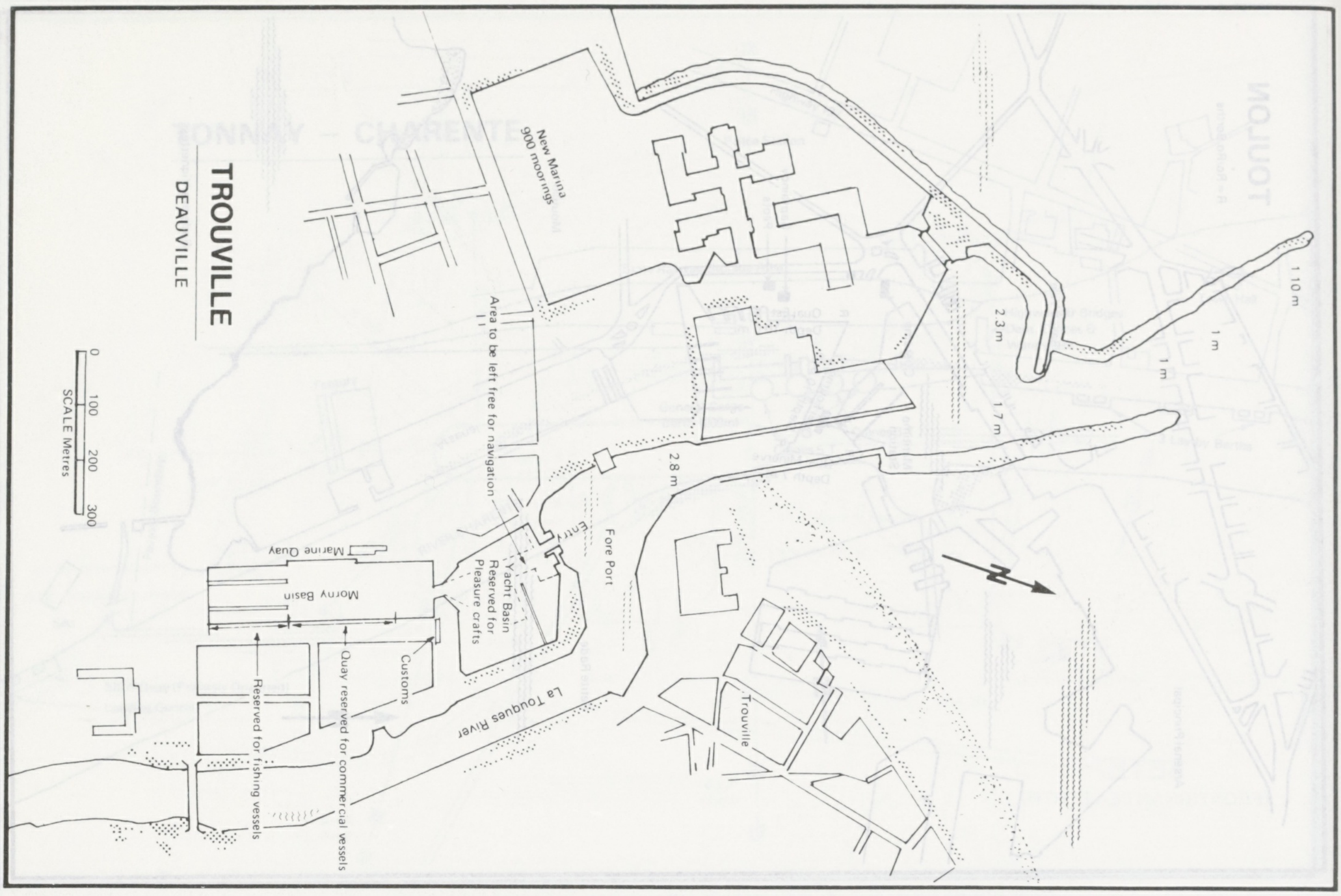

Highway 137
Police Station
State Railway Storage Area
Highways & Bridges Dept. Offices & Warehouse
Town Hall
Factory
General Cargo Berth (200m)
Cranes 3 T
Cranes 5 T
3 Lay-by Berths
Factory Boundary
RIVER CHARENTE
Silo
SICA Quay (Privately Operated)
Loading Gantry.
N

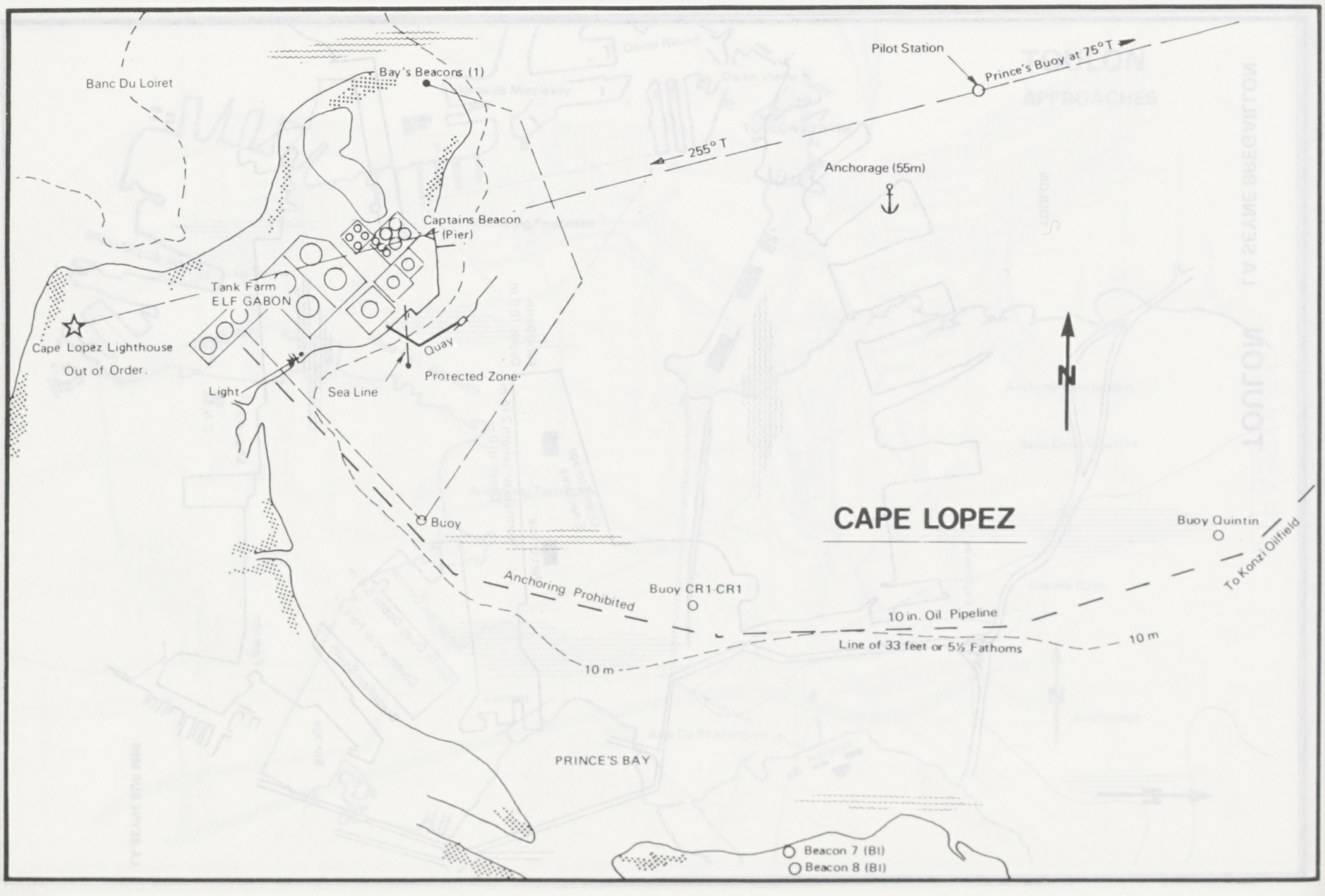
TOULON
APPROACHES

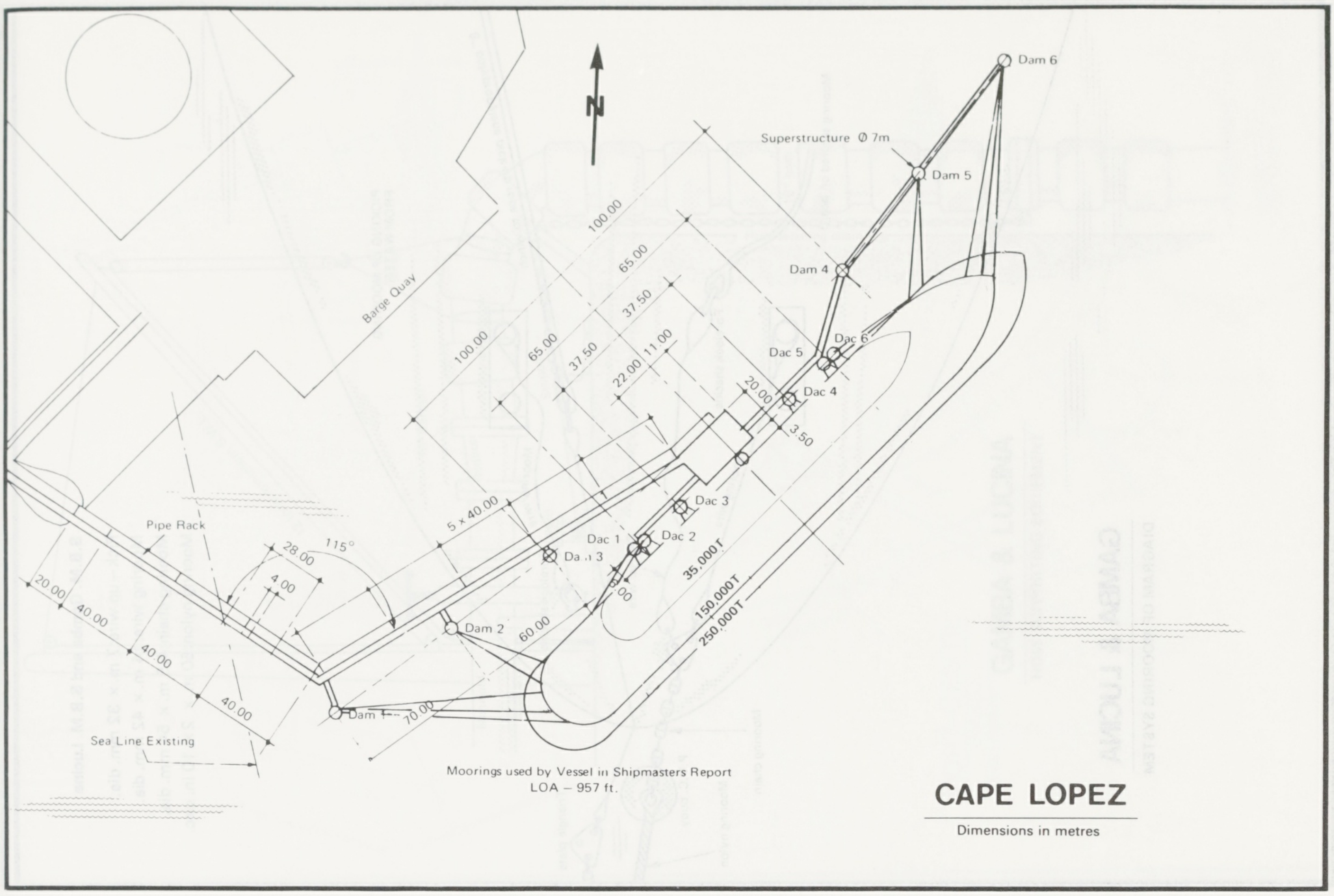

Darse Neuve
Darse Vieille
Darse de Missiessy
TOULON CENTRE
Anchoring Permitted
BREGAILLON NORTH
La Seyne
9.00 m.
Rade De L'Aguillette
Anchoring Forbidden
Rade Des Vignettes
Anchoring Forbidden
Grande Rade
Lazaret
Baie De St Mandrier
Heliport
Anchorage
N

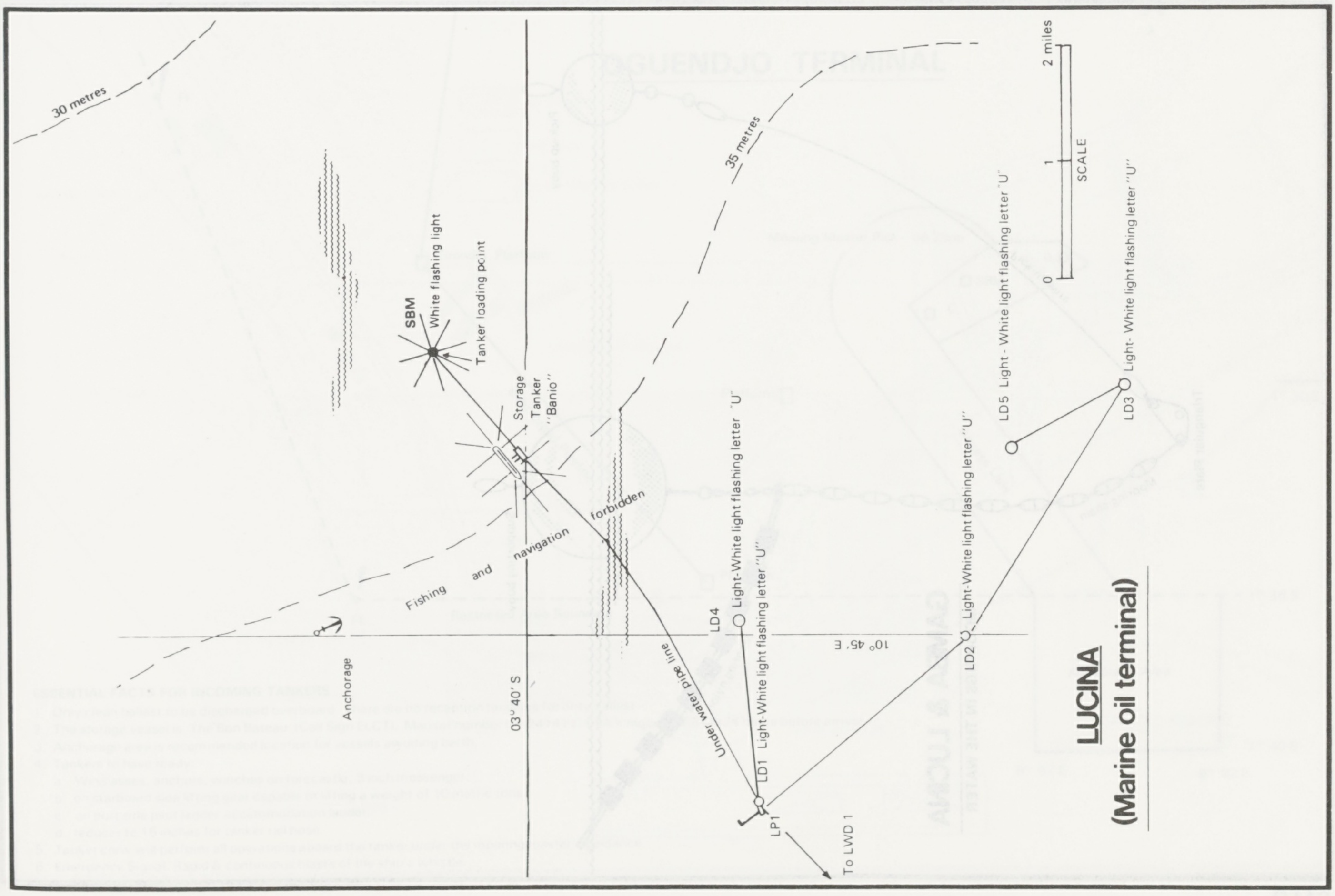

TOULON
LA SEYNE BREGAILLON
N
TOULON
Explosives
Open Storage 5 hectares
Port Office
Ferry Berth Depth 10.0 m
North Quay Length 215 m. Depth 10.0 m
Bregaillon Central
South Quay Depth 6.4 m.
Commercial Port
Bregaillon South
Storage
Pontoon
Shipyard
C.N.M.
LA SEYNE SUR MER


TOULON
R = Ro/Ro Berths
Arsenal Principal
Basse Ville
Maritime Station
Customs
R
Quai Fournel Depth 10.0 m
Quai Minerve Depth 7 m.
Quai Est Depth 10.0 m
Captaincy
Pilots
Petite Rade
Mourillon
Arsenal
N
Rade des Vignettes


TROUVILLE
DEAUVILLE
0
100
200
300
SCALE Metres
New Marina
900 moorings
Area to be left free for navigation
Entry
Fore Port
Yacht Basin
Reserved for
Pleasure crafts
Marine Quay
Morny Basin
Customs
Quay reserved for commercial vessels
Reserved for fishing vessels
La Touques River
Trouville
2.8 m
2.3 m
1.7 m
1 m
1 m
1.10 m
N

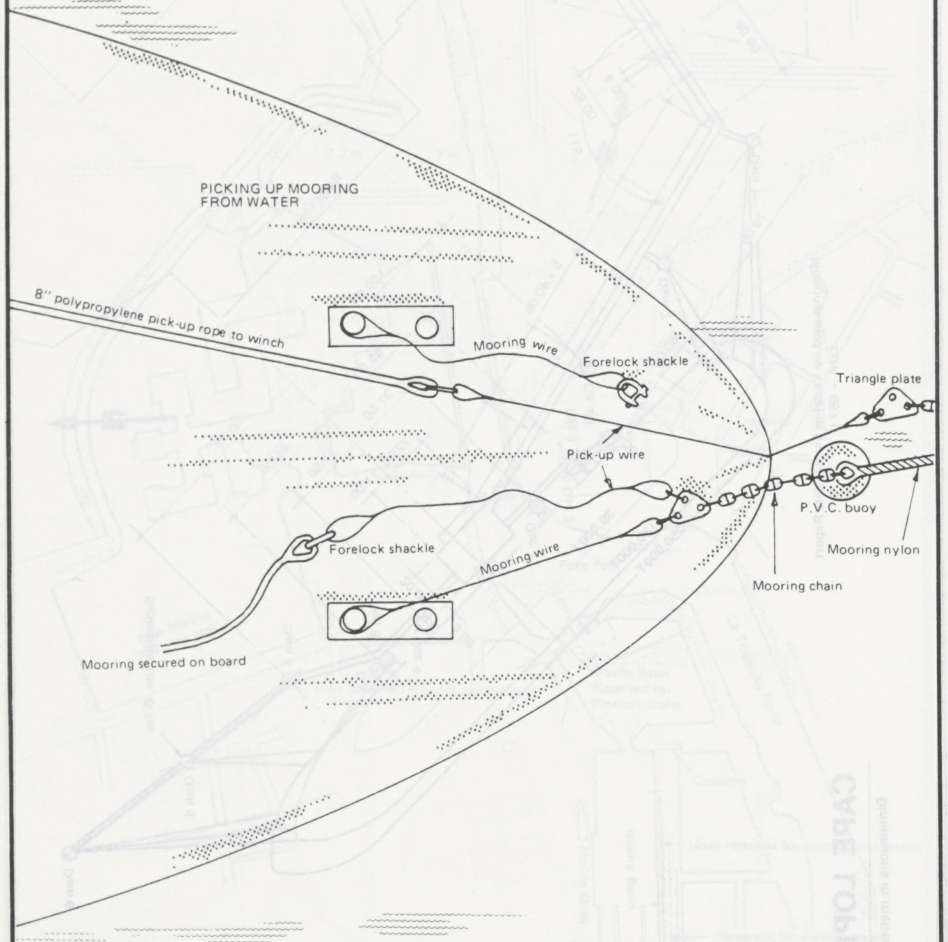

CAPE LOPEZ
Banc Du Loiret
Bay's Beacons (1)
Pilot Station
Prince's Buoy at 75° T
255° T
Anchorage (55m)
Captains Beacon
(Pier)
Tank Farm
ELF GABON
Cape Lopez Lighthouse
Out of Order.
Quay
Protected Zone
Light
Sea Line
N
Buoy
Buoy Quintin
To Konzi Oilfield
Anchoring Prohibited
Buoy CR1-CR1
10 in. Oil Pipeline
Line of 33 feet or 5½ Fathoms
10 m
10 m
PRINCE'S BAY
Beacon 7 (Bl)
Beacon 8 (Bl)


N
Dam 6
Superstructure Ø 7m
Dam 5
Dam 4
Dac 6
Dac 5
Dac 4
Dac 3
Dac 2
Dac 1
Dam 3
Dam 2
Dam 1
Barge Quay
Pipe Rack
Sea Line Existing
100.00
65.00
37.50
22.00
11.00
20.00
3.50
5 × 40.00
28.00
4.00
115°
20.00
40.00
40.00
40.00
60.00
70.00
35,000T
150,000T
250,000T
Moorings used by Vessel in Shipmasters Report
LOA – 957 ft.
CAPE LOPEZ
Dimensions in metres


30 metres
35 metres
SBM
White flashing light
Tanker loading point
Storage Tanker "Banio"
Fishing and navigation forbidden
Anchorage
03° 40' S
10° 45' E
Under water pipe line
LD4 Light-White light flashing letter "U"
LD1 Light-White light flashing letter "U"
LP1
To LWD 1
LD2 Light-White light flashing letter "U"
LD5 Light - White light flashing letter "U"
LD3 Light- White light flashing letter "U"
0
1
2 miles
SCALE
LUCINA
(Marine oil terminal)

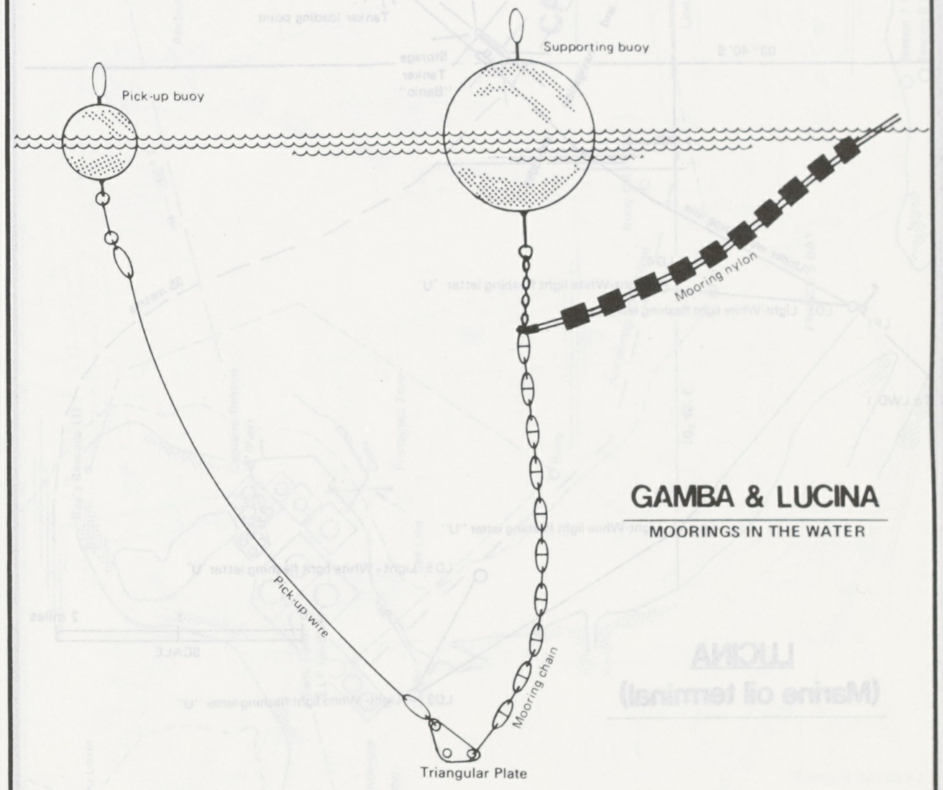
S.B.M. Gamba and S.B.M. Lucina

Pick–up wire:	7 m. × 32 mm. dia.
Mooring wire:	14 m. × 42 mm. dia.
Mooring chain:	4.5 m. × 54 mm. dia.
Mooring nylon:	50 m. × 2× 10 in. circ.


PICKING UP MOORING FROM WATER
8" polypropylene pick-up rope to winch
Mooring wire
Forelock shackle
Triangle plate
Pick-up wire
P.V.C. buoy
Mooring nylon
Forelock shackle
Mooring wire
Mooring chain
Mooring secured on board

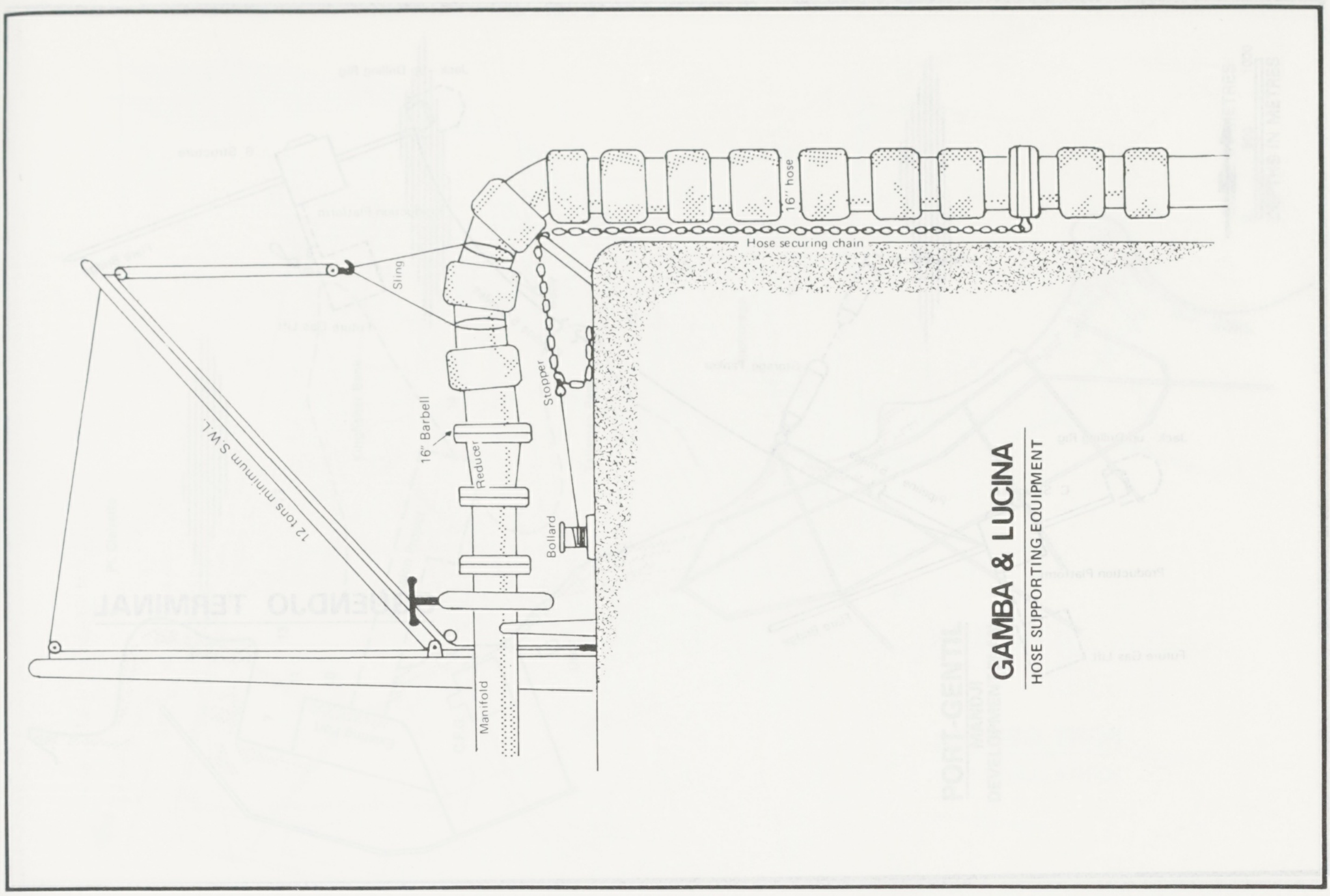
GAMBA & LUCINA

DIAGRAM OF MOORING SYSTEM


Supporting buoy
Pick-up buoy
Mooring nylon
Pick-up wire
Mooring chain
Triangular Plate

GAMBA & LUCINA

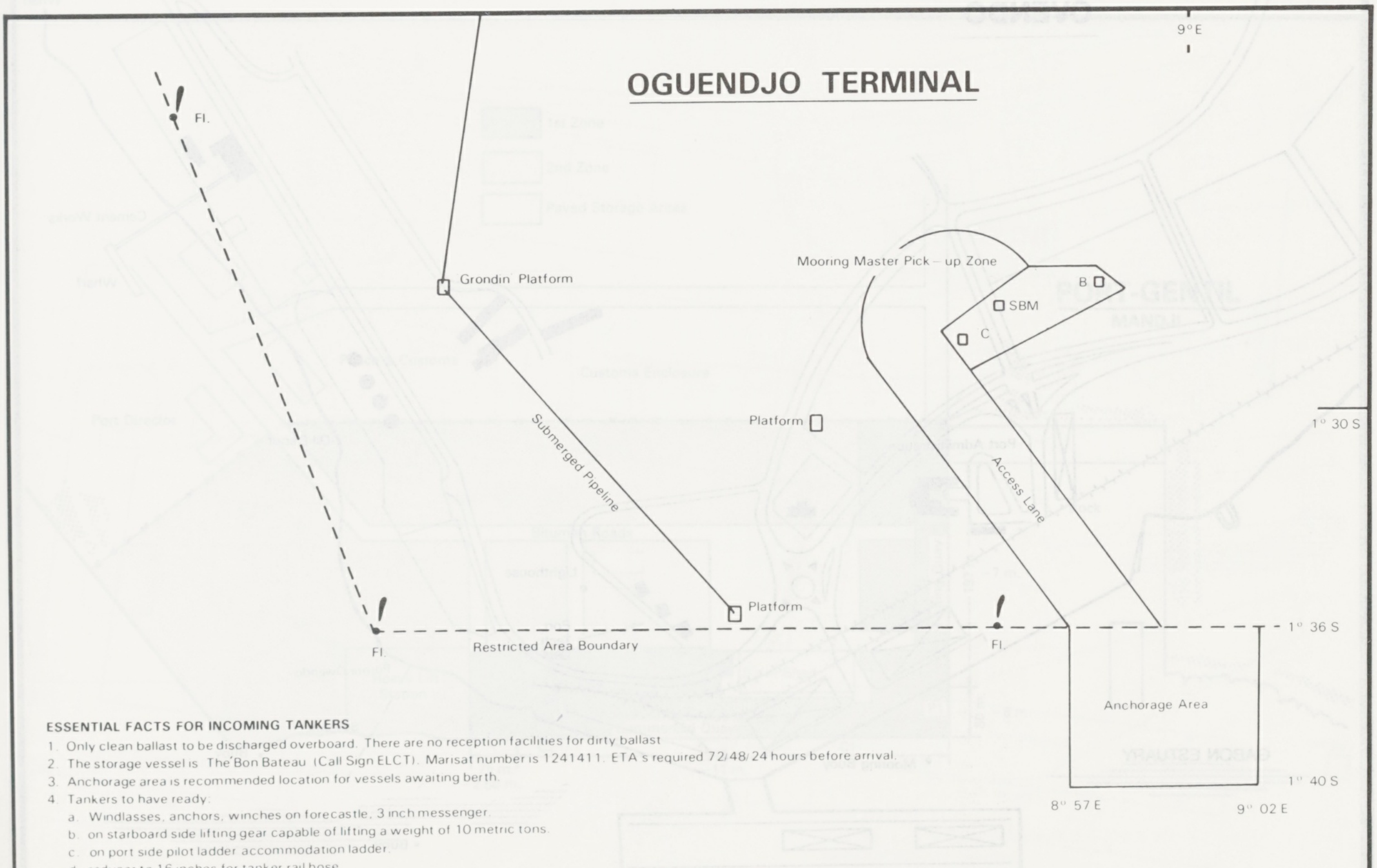
MOORINGS IN THE WATER


16" hose
Hose securing chain
Sling
12 tons minimum S.W.L.
16" Barbell
Stopper
Reducer
Bollard
Manifold

GAMBA & LUCINA

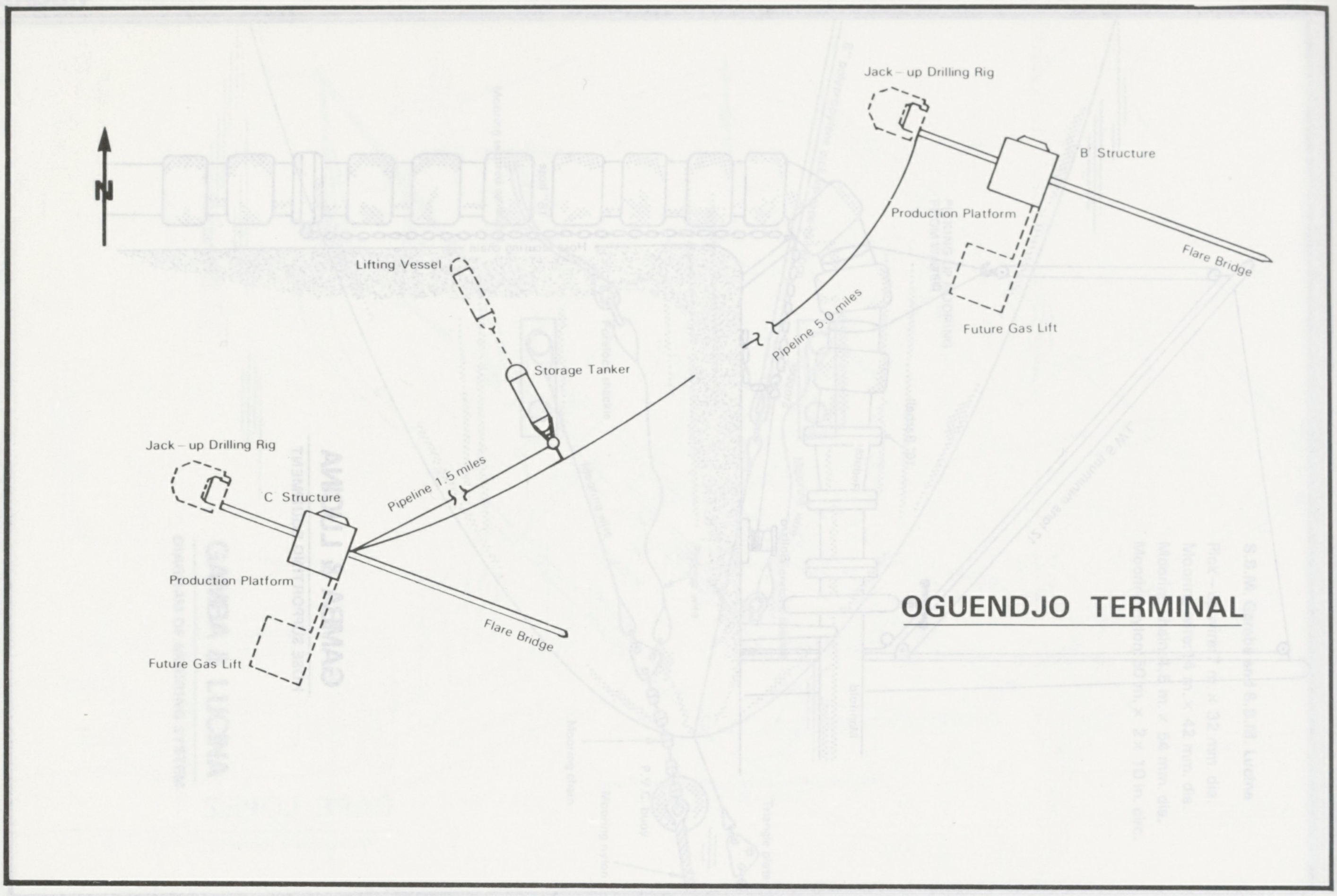
HOSE SUPPORTING EQUIPMENT

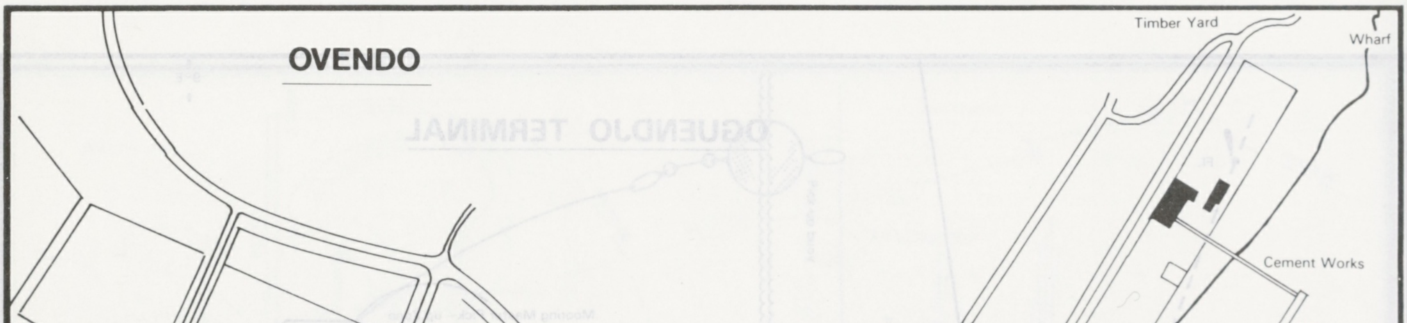
OGUENDJO TERMINAL

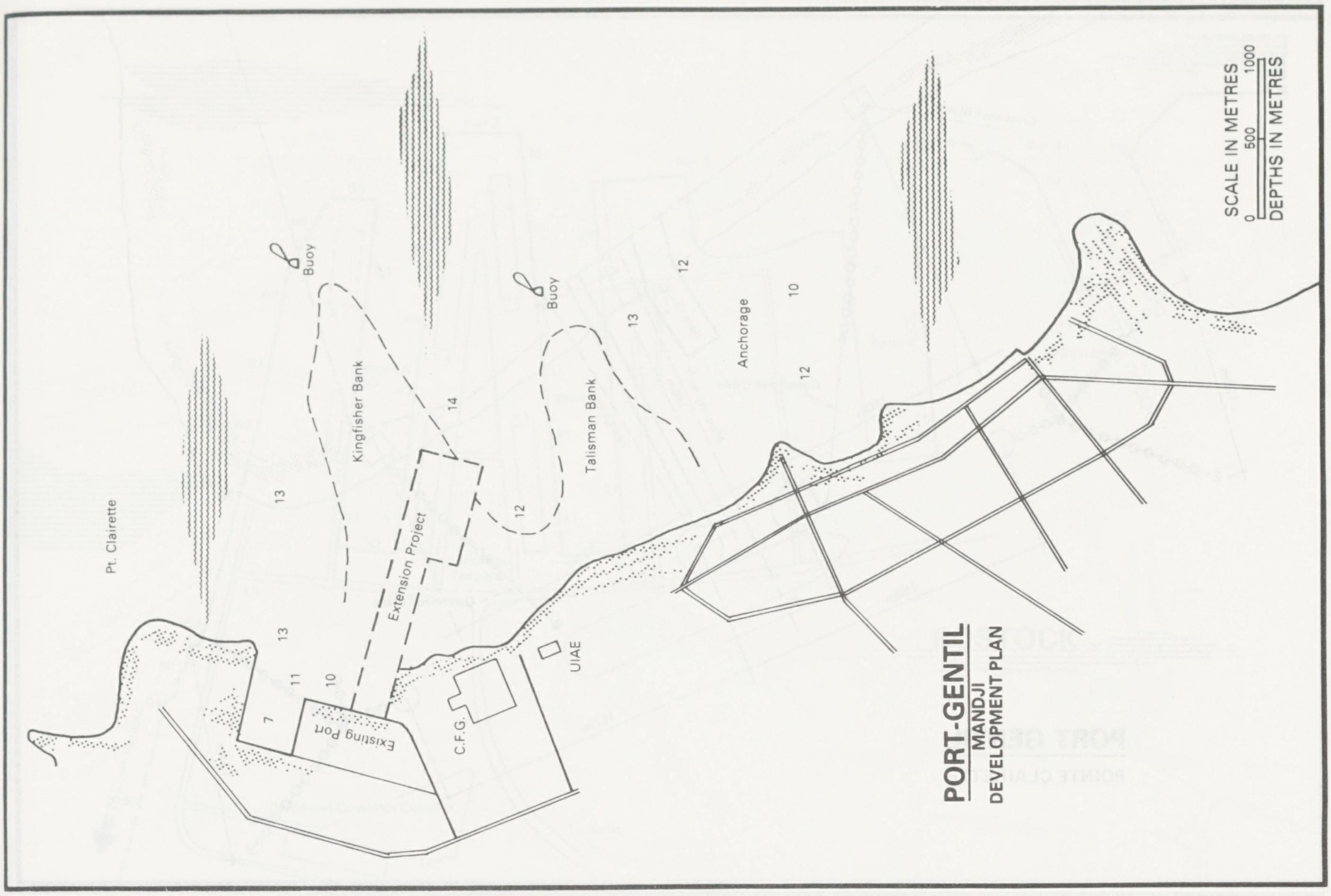

9° E
Fl.
Grondin Platform
Submerged Pipeline
Platform
Platform
Mooring Master Pick – up Zone
B
SBM
C
Access Lane
1° 30 S
Fl.
Restricted Area Boundary
Fl.
1° 36 S
Anchorage Area
1° 40 S
8° 57 E
9° 02 E

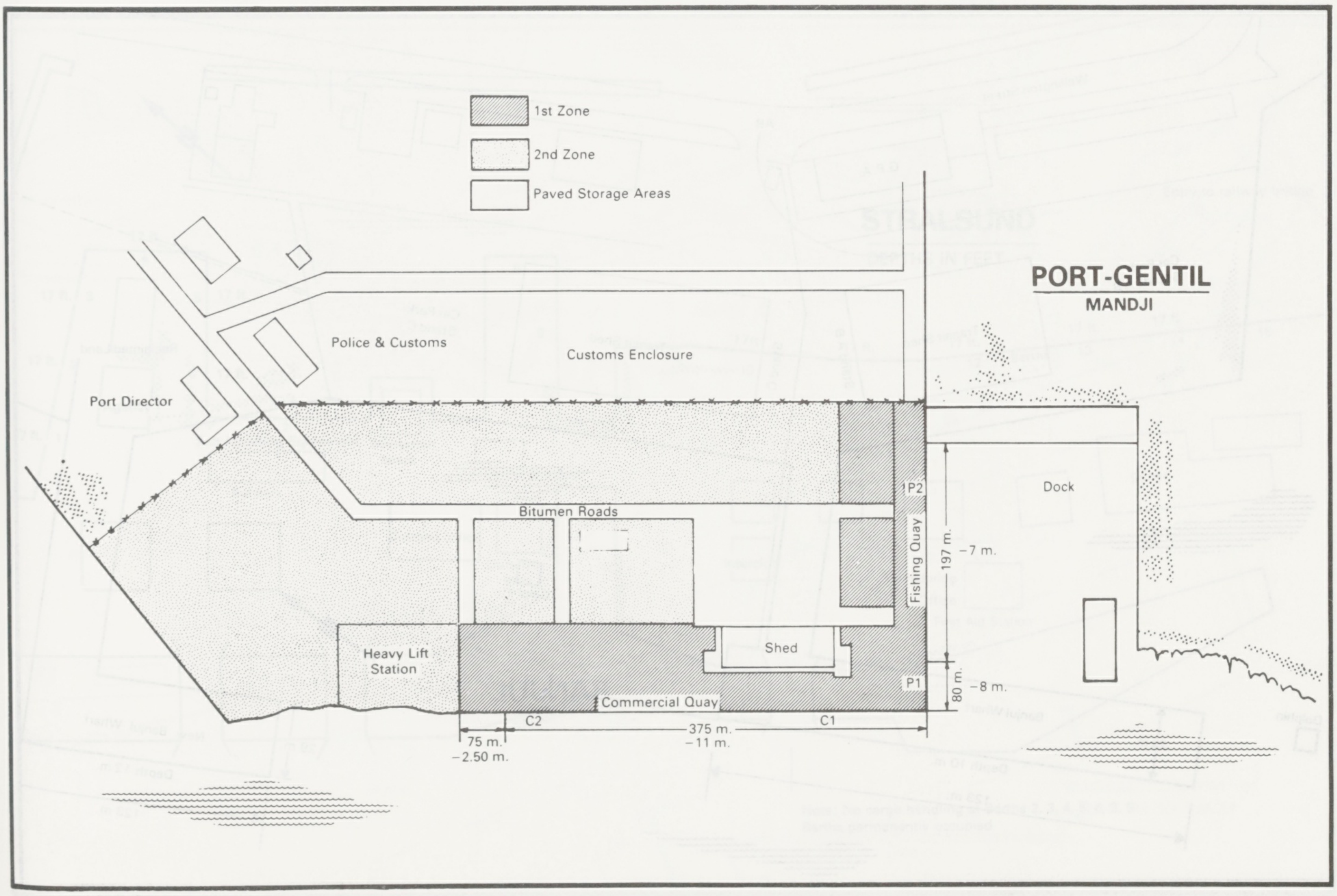
ESSENTIAL FACTS FOR INCOMING TANKERS

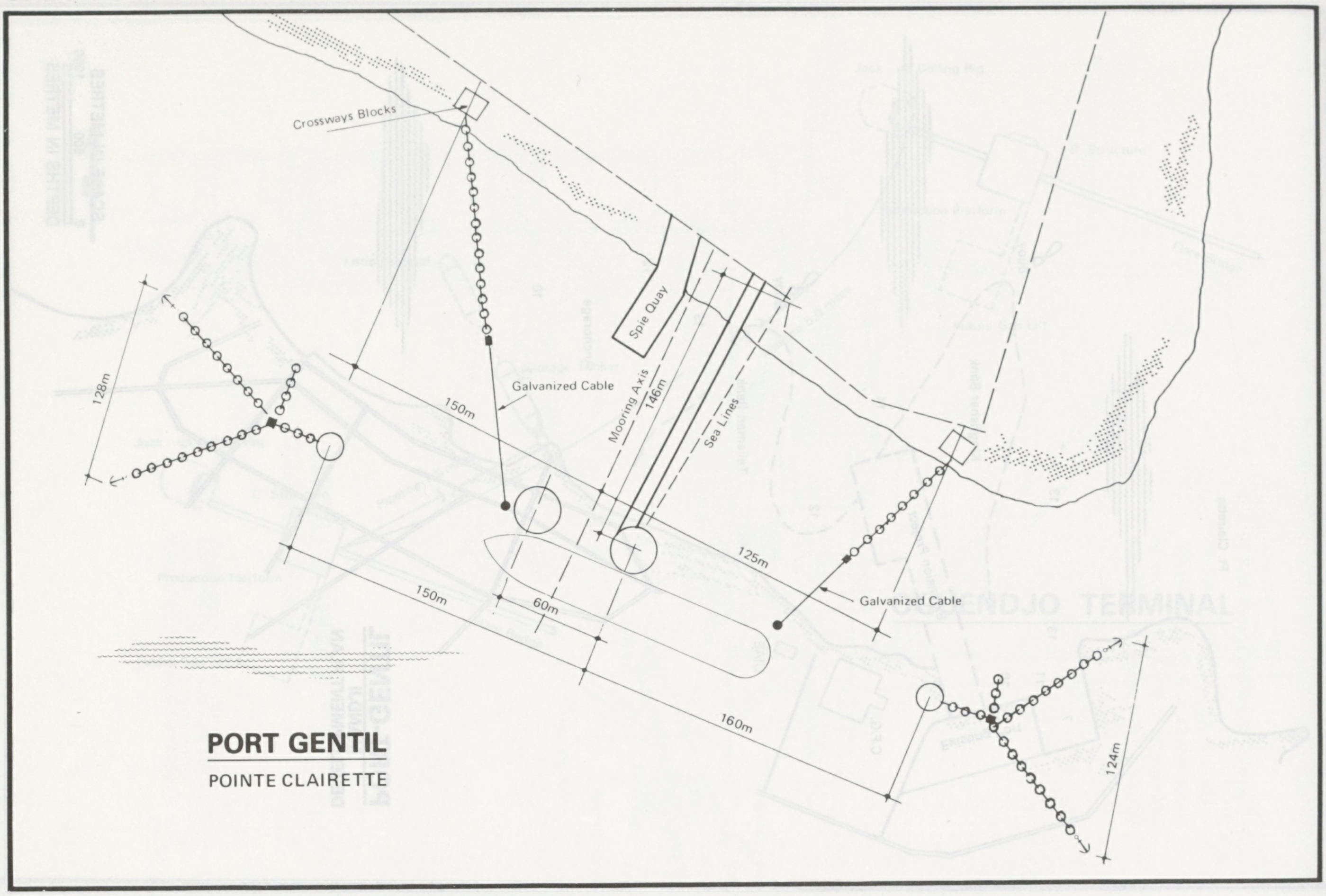
1. Only clean ballast to be discharged overboard. There are no reception facilities for dirty ballast
2. The storage vessel is The'Bon Bateau (Call Sign ELCT). Marisat number is 1241411. ETA s required 72/48/24 hours before arrival.
3. Anchorage area is recommended location for vessels awaiting berth.
4. Tankers to have ready:
    a. Windlasses, anchors, winches on forecastle, 3 inch messenger.
    b. on starboard side lifting gear capable of lifting a weight of 10 metric tons.
    c. on port side pilot ladder accommodation ladder.
    d. reducer to 16 inches for tanker rail hose.
5. Tanker crew will perform all operations aboard the tanker under the mooring master s guidance.
6. Emergency Signal: Rapid & continuous blasts of the ship s whistle.

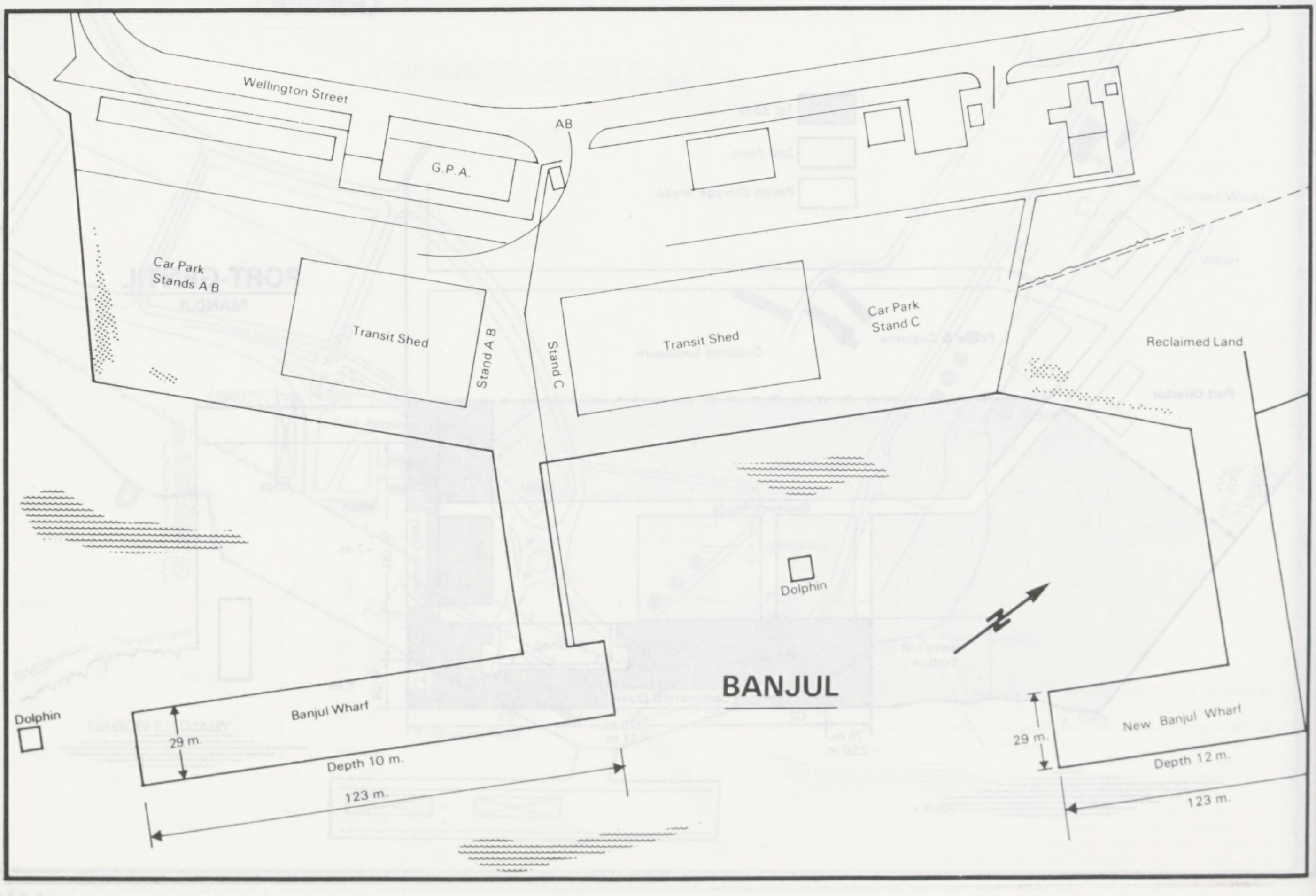

N
Jack – up Drilling Rig
B Structure
Production Platform
Flare Bridge
Future Gas Lift
Pipeline 5.0 miles
Lifting Vessel
Storage Tanker
Jack – up Drilling Rig
C Structure
Pipeline 1.5 miles
Production Platform
Flare Bridge
Future Gas Lift
OGUENDJO TERMINAL

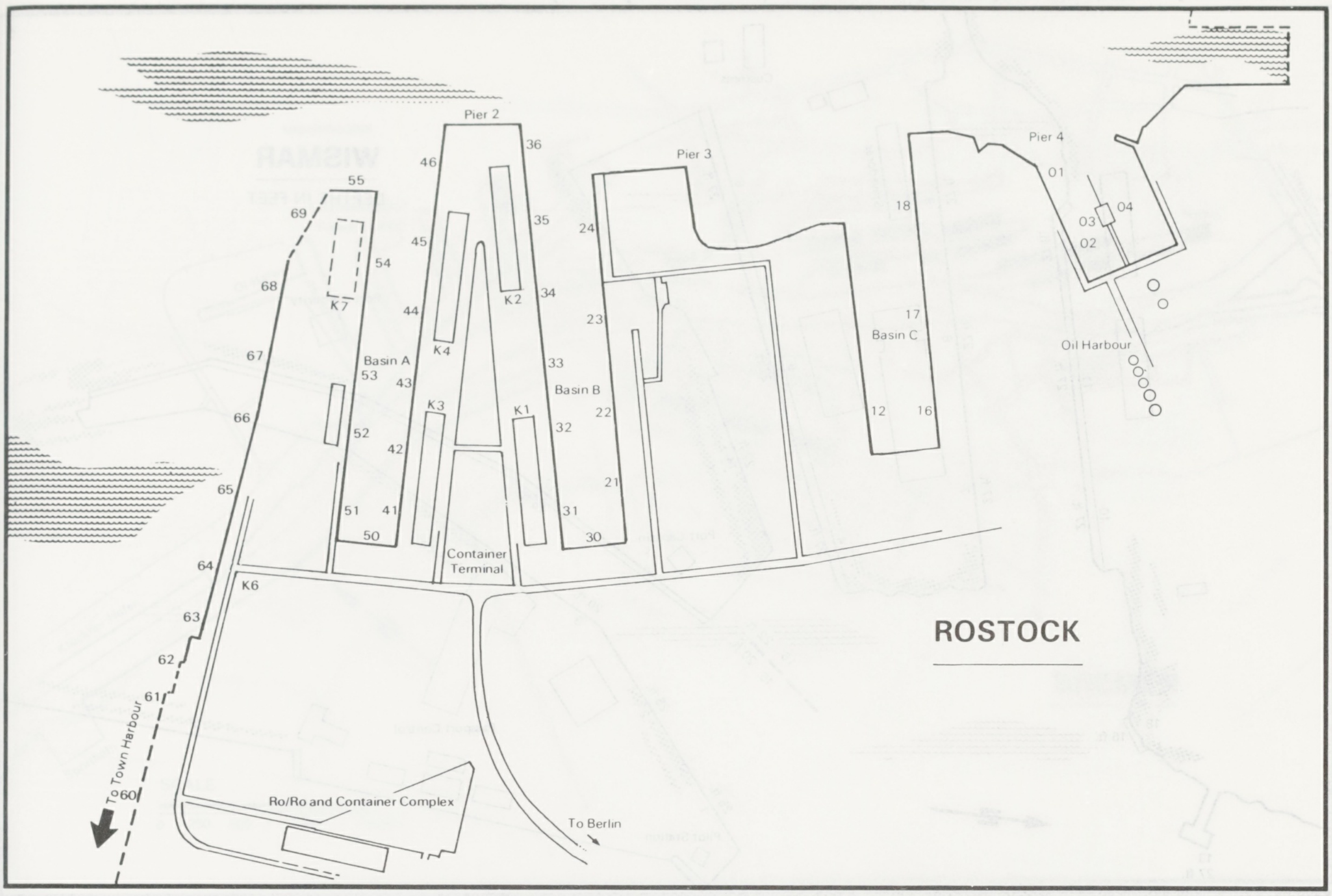

OVENDO
Timber Yard
Wharf
Cement Works
Wharf
Oil Depot
Port Administration
Lighthouse
Port Tech. Dept
Pointe Owendo
Sea Line
Buoy
Buoy
GABON ESTUARY
Mooring Buoy


PORT-GENTIL
MANDJI
DEVELOPMENT PLAN
SCALE IN METRES
0
500
1000
DEPTHS IN METRES
Pt. Clairette
Buoy
Kingfisher Bank
Buoy
Talisman Bank
Extension Project
Existing Port
C.F.G.
UIAE
Anchorage
13
13
11
10
7
14
12
13
12
10
12


1st Zone
2nd Zone
Paved Storage Areas
PORT-GENTIL
MANDJI
Police & Customs
Customs Enclosure
Port Director
Bitumen Roads
Dock
P2
Fishing Quay
197 m.
−7 m.
Heavy Lift Station
Shed
P1
80 m.
−8 m.
Commercial Quay
C2
C1
75 m.
−2.50 m.
375 m.
−11 m.

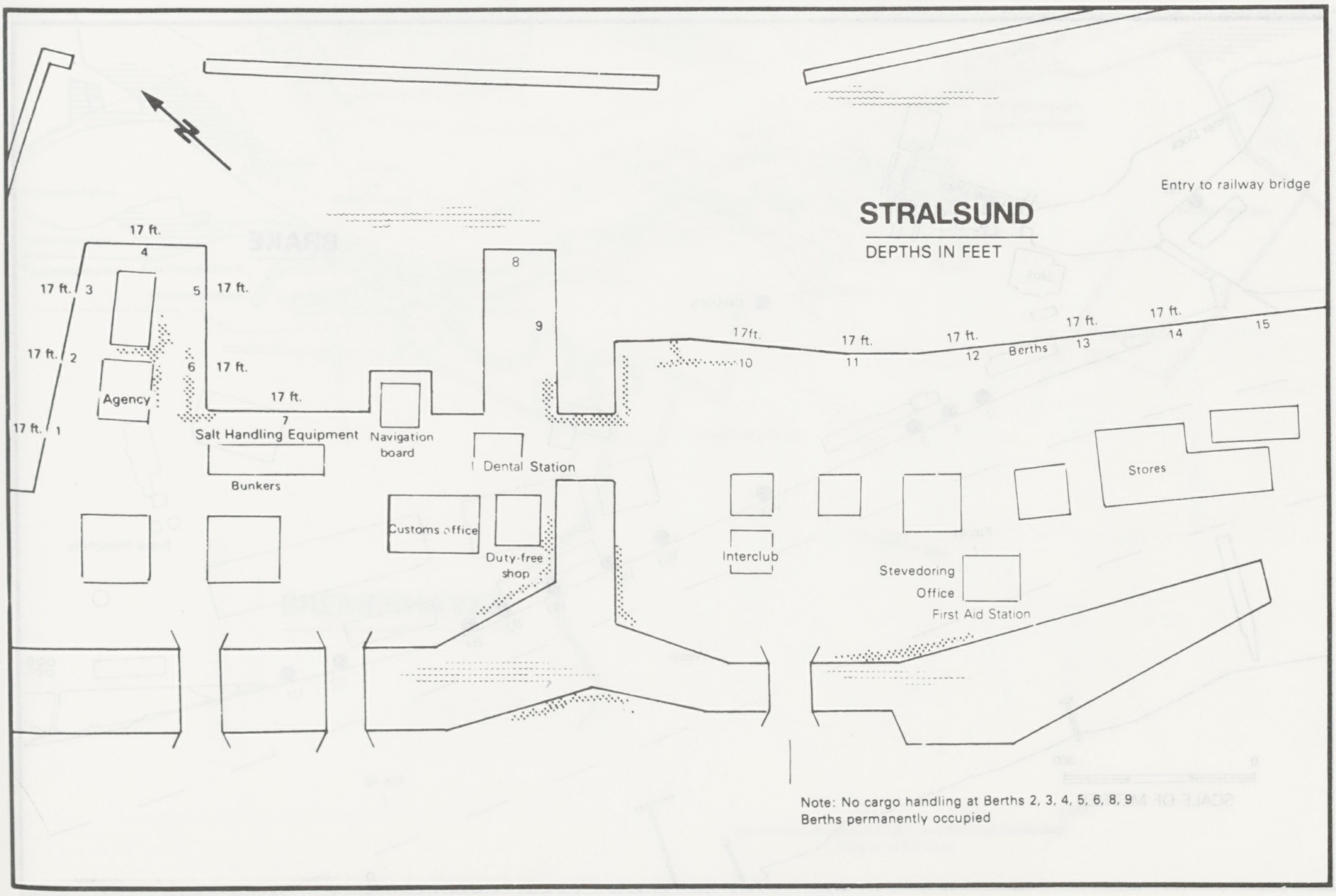

Crossways Blocks
Spie Quay
Galvanized Cable
128m
150m
Mooring Axis
146m
Sea Lines
125m
150m
60m
Galvanized Cable
160m
124m
PORT GENTIL
POINTE CLAIRETTE


Wellington Street
AB
G.P.A.
Car Park
Stands A B
Transit Shed
Stand A B
Stand C
Transit Shed
Car Park
Stand C
Reclaimed Land
Dolphin
Dolphin
Banjul Wharf
29 m.
Depth 10 m.
123 m.
BANJUL
29 m.
New Banjul Wharf
Depth 12 m.
123 m.



ROSTOCK

Pier 2
36
46
55
69
Pier 3
Pier 4
01
35
24
18
03
04
02
45
54
68
K7
K2
34
44
23
17
Basin C
K4
Oil Harbour
67
Basin A
53
43
33
Basin B
K3
K1
22
12
16
66
52
32
42
21
65
51
41
31
50
30
Container Terminal
64
K6
63
62
61
To Town Harbour
60
Ro/Ro and Container Complex
To Berlin

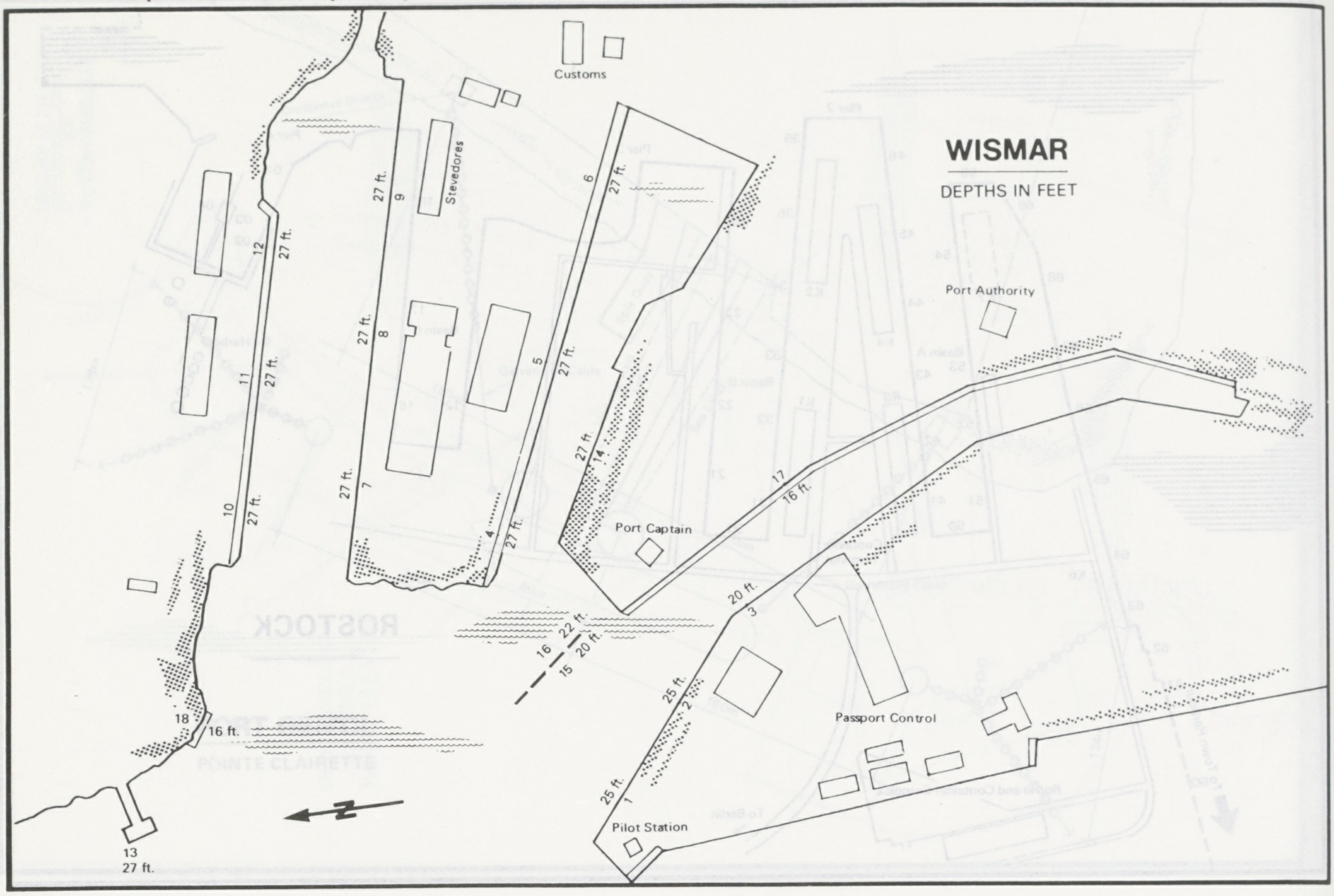


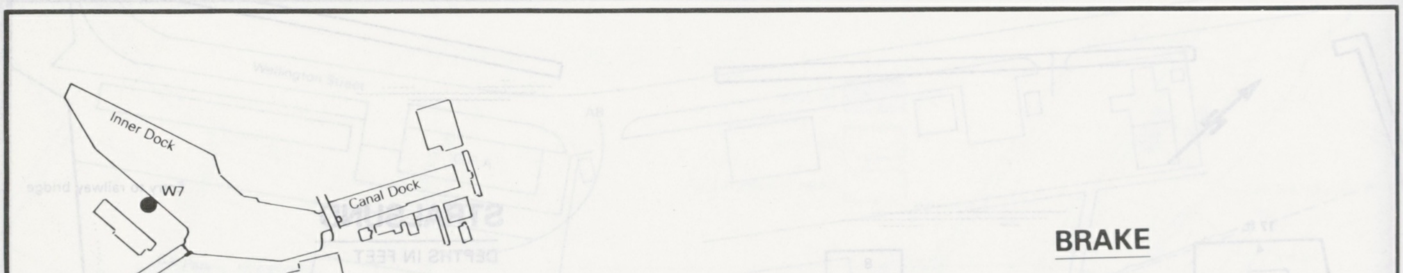
STRALSUND

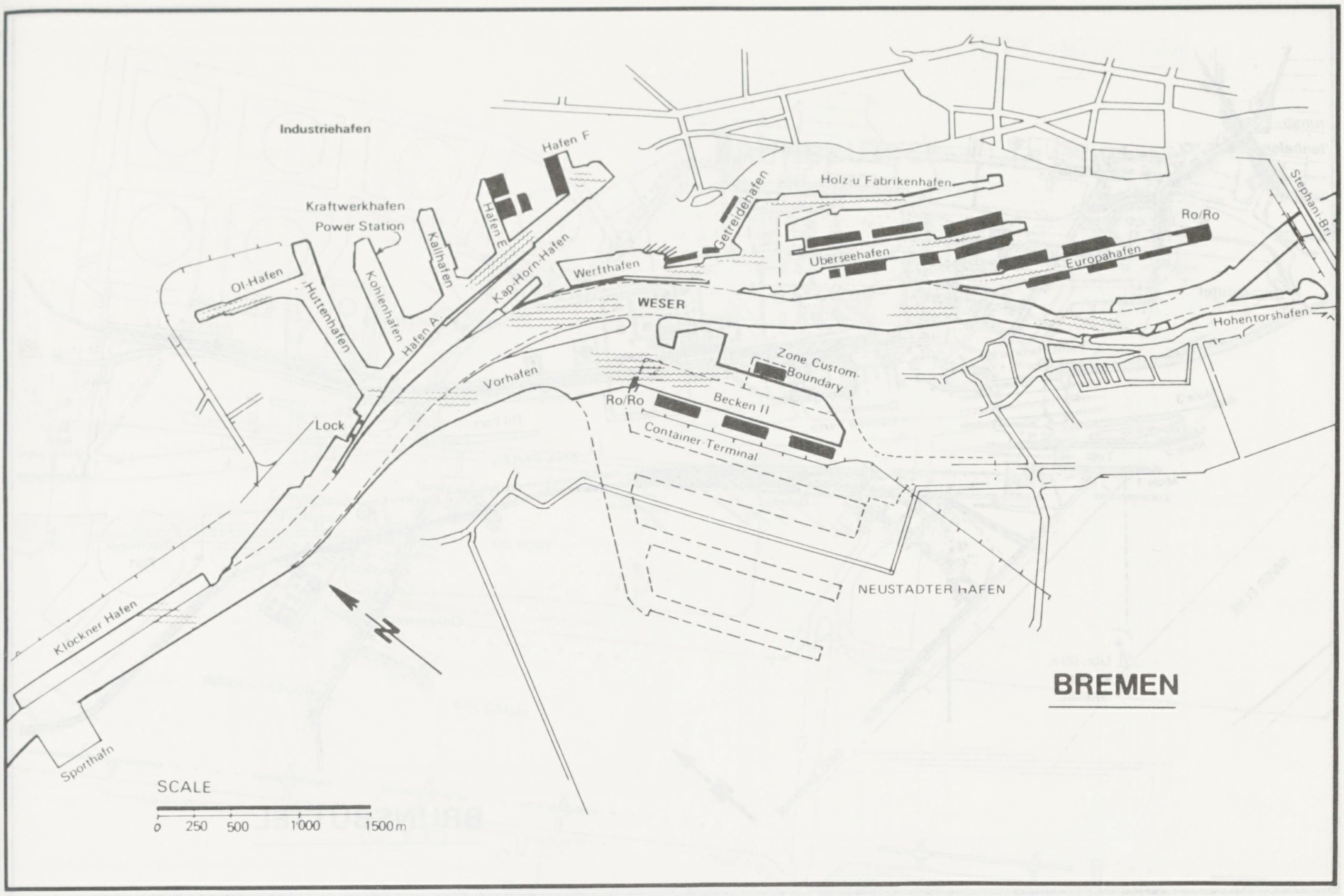
DEPTHS IN FEET

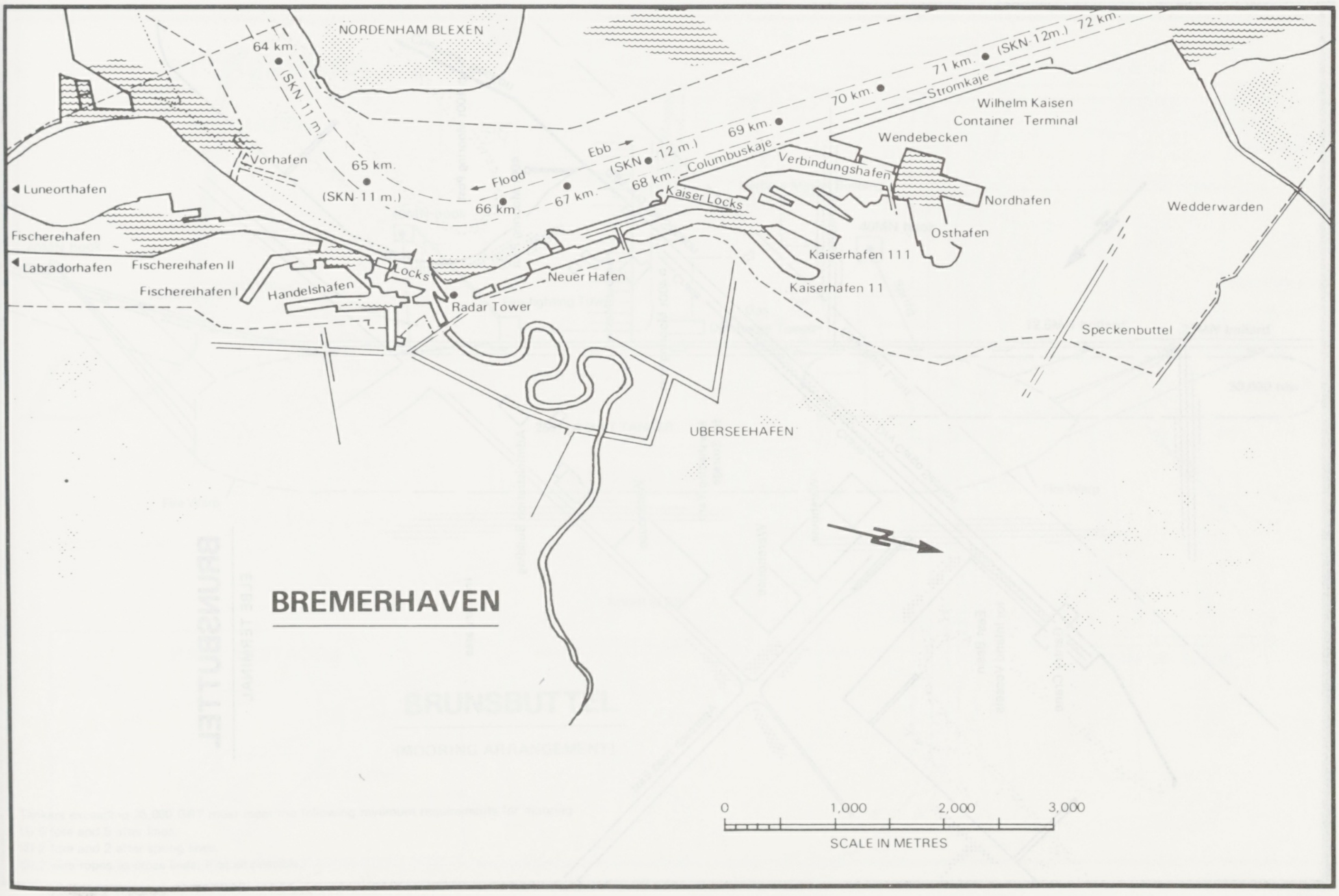
Entry to railway bridge
17 ft.
4
17 ft.
3
5
17 ft.
8
17 ft.
2
6
17 ft.
9
17ft.
10
17 ft.
11
17 ft.
12
Berths
17 ft.
13
17 ft.
14
15
Agency
17 ft.
17 ft.
1
7
Salt Handling Equipment
Navigation board
Bunkers
Dental Station
Stores
Customs office
Duty-free shop
Interclub
Stevedoring Office
First Aid Station

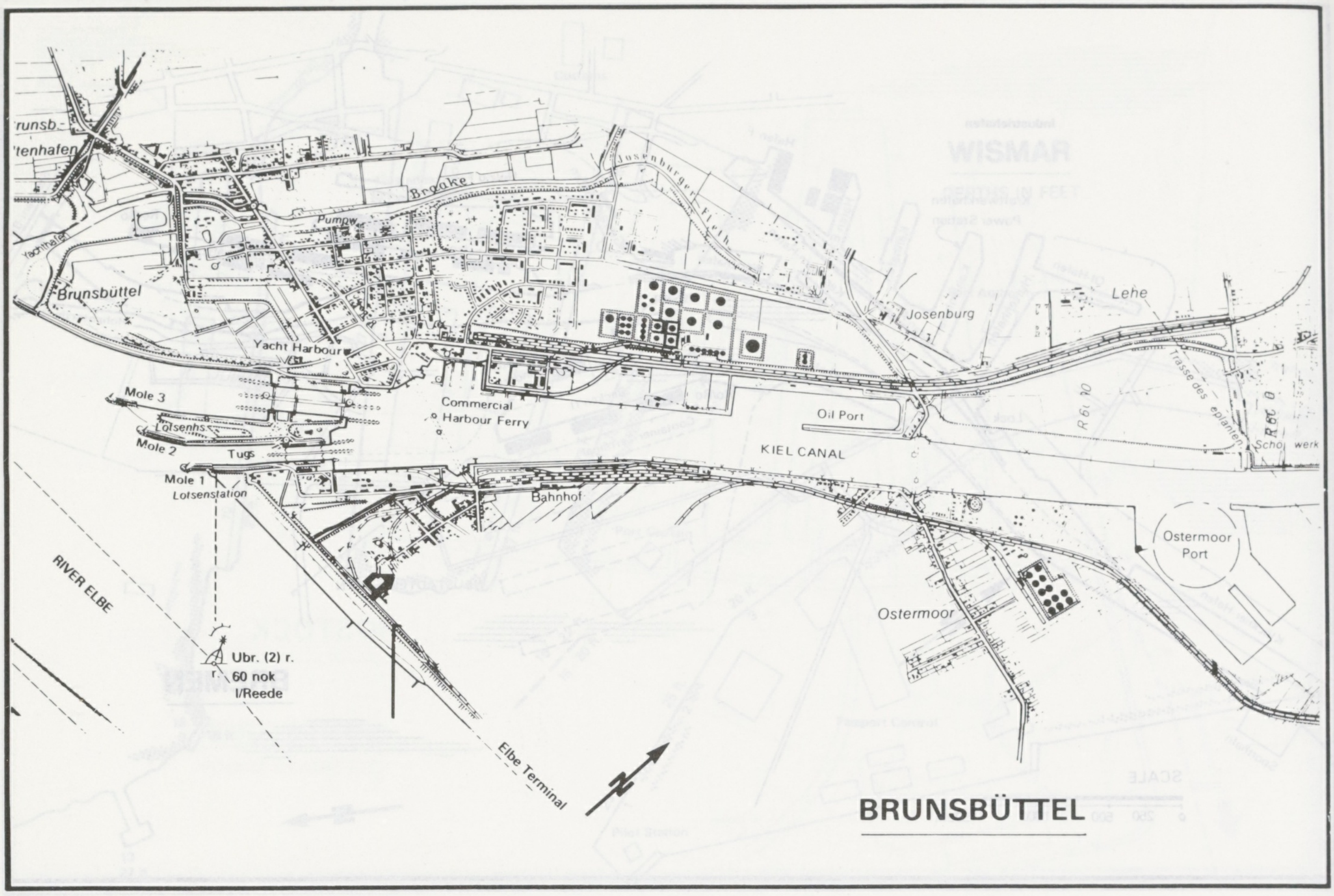
Note: No cargo handling at Berths 2, 3, 4, 5, 6, 8, 9
Berths permanently occupied


WISMAR
DEPTHS IN FEET
Customs
Stevedores
Port Authority
Port Captain
Passport Control
Pilot Station
12 27 ft.
11 27 ft.
10 27 ft.
9 27 ft.
8 27 ft.
7 27 ft.
6 27 ft.
5 27 ft.
4 27 ft.
14 27 ft.
17 16 ft.
16 22 ft.
15 20 ft.
3 20 ft.
2 25 ft.
1 25 ft.
18 16 ft.
13 27 ft.
N

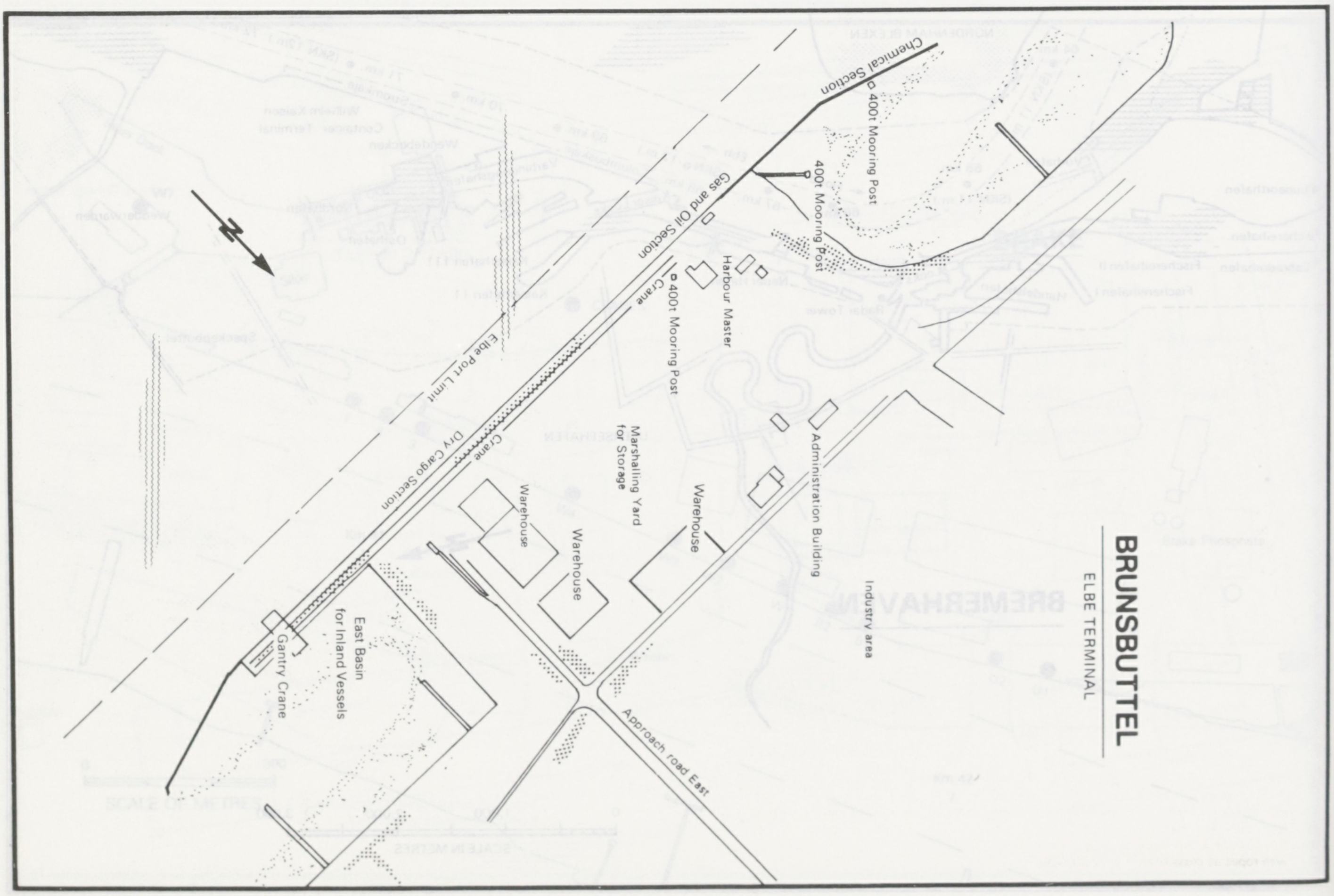

BRAKE
Inner Dock
W7
Canal Dock
Silos
● CRANES
1
4
3
W4
Km 41
W3
W2
W1
B2
B1
Weser
U2
U1
Brake Phosphate
Km 42
0
300
SCALE OF METRES


Industriehafen
Hafen F
Hafen E
Kraftwerkhafen
Power Station
Kalihafen
Kohlenhafen
Hafen A
Kap-Horn-Hafen
Ol-Hafen
Huttenhafen
Werfthafen
Getreidehafen
Holz u Fabrikenhafen
Uberseehafen
Europahafen
Ro/Ro
Stephani-Br.
WESER
Hohentorshafen
Zone Custom-Boundary
Becken II
Ro/Ro
Container Terminal
Vorhafen
Lock
NEUSTADTER HAFEN
Klockner Hafen
Sporthafn
BREMEN
SCALE
0
250
500
1000
1500 m

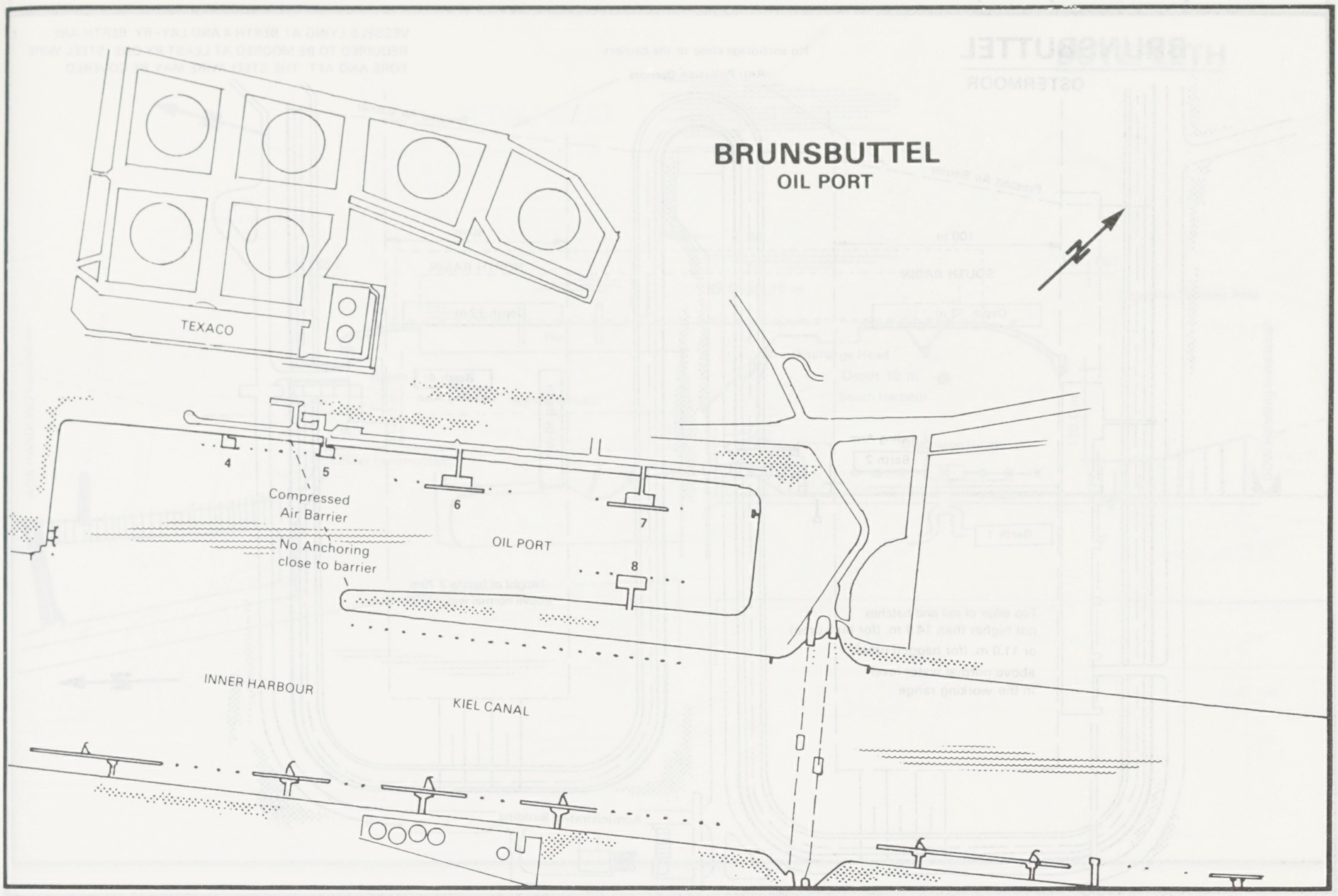

NORDENHAM BLEXEN
64 km.
(SKN 11 m.)
65 km.
(SKN 11 m.)
66 km.
67 km.
68 km.
69 km.
70 km.
71 km.
(SKN 12 m.)
72 km.
Flood
Ebb
(SKN 12 m.)
Columbuskaje
Stromkaje
Wilhelm Kaisen
Container Terminal
Wendebecken
Verbindungshafen
Nordhafen
Osthafen
Kaiser Locks
Kaiserhafen 111
Kaiserhafen 11
Wedderwarden
Speckenbuttel
Vorhafen
Luneorthafen
Fischereihafen
Labradorhafen
Fischereihafen II
Fischereihafen I
Handelshafen
Locks
Neuer Hafen
Radar Tower
UBERSEEHAFEN
BREMERHAVEN
0
1,000
2,000
3,000
SCALE IN METRES

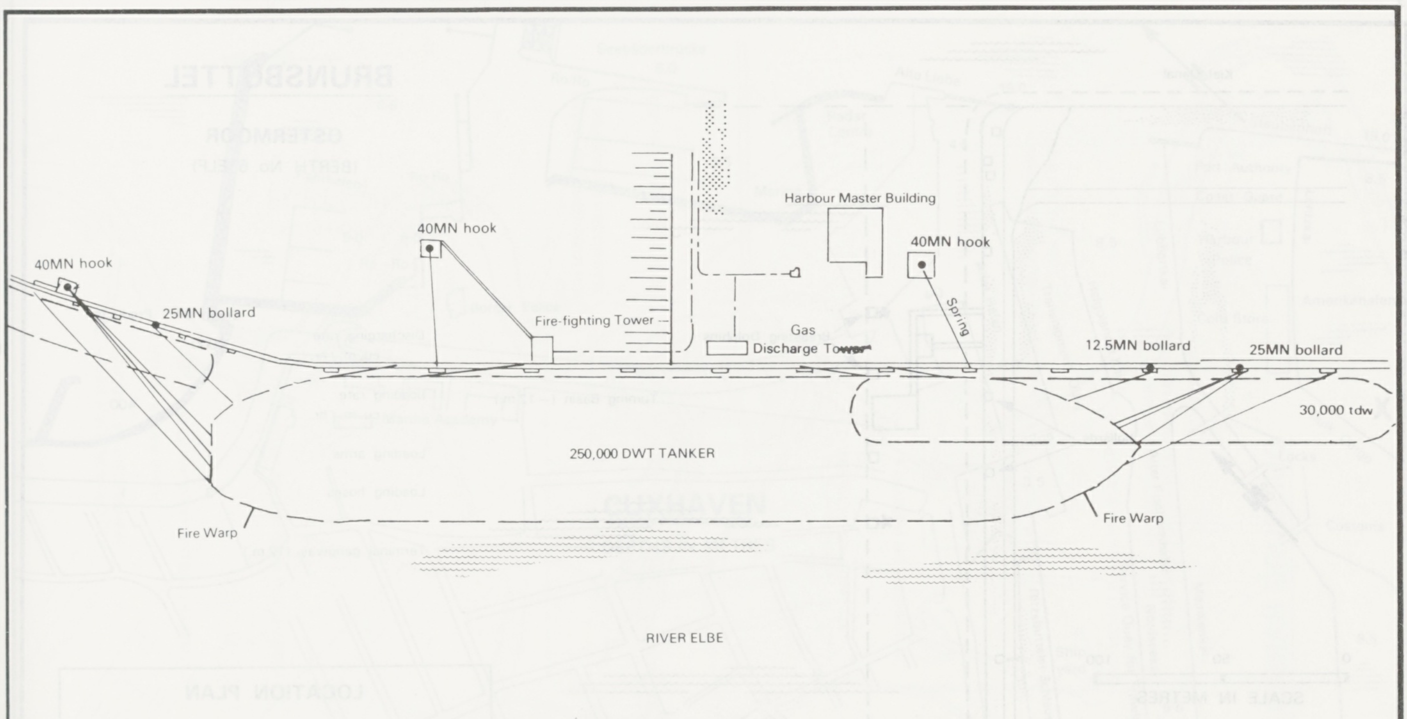

runsb
tenhafen
Brooke
Pump
Josenburger Fleth
Brunsbüttel
Yacht Harbour
Mole 3
Lotsenhs
Mole 2
Tugs
Mole 1
Lotsenstation
Commercial Harbour Ferry
Bahnhof
KIEL CANAL
Oil Port
Josenburg
Lehe
Ostermoor Port
Ostermoor
RIVER ELBE
Ubr. (2) r.
60 nok
I/Reede
Elbe Terminal
N

BRUNSBÜTTEL


Chemical Section
400t Mooring Post
400t Mooring Post
Gas and Oil Section
Harbour Master
Crane
400t Mooring Post
Elbe Port Limit
Crane
Dry Cargo Section
Marshalling Yard for Storage
Warehouse
Warehouse
Warehouse
Administration Building
Industry area
East Basin for Inland Vessels
Gantry Crane
Approach road East
N

BRUNSBUTTEL
ELBE TERMINAL

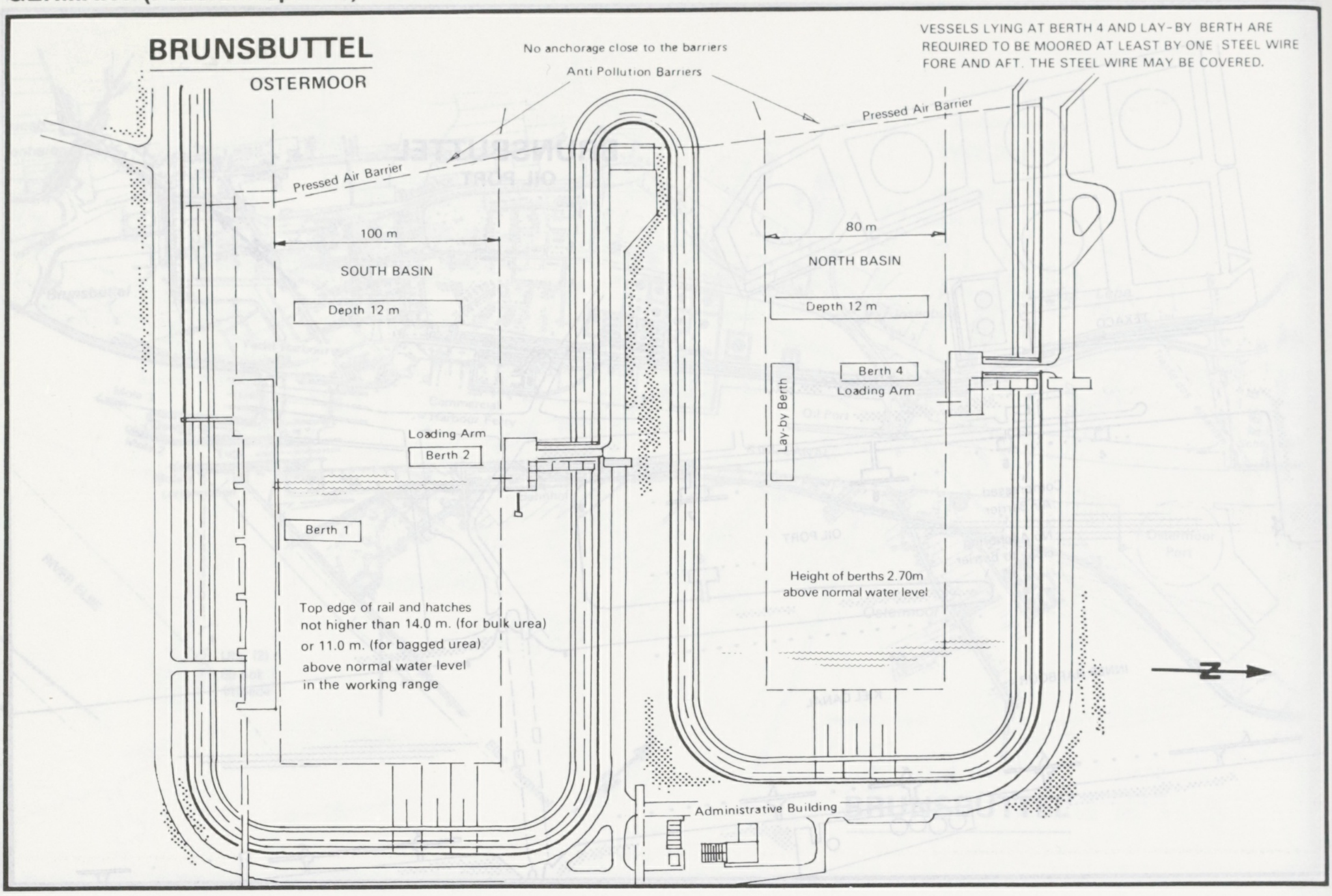

BRUNSBUTTEL
OIL PORT
TEXACO
4
5
6
7
8
Compressed Air Barrier
No Anchoring close to barrier
OIL PORT
INNER HARBOUR
KIEL CANAL

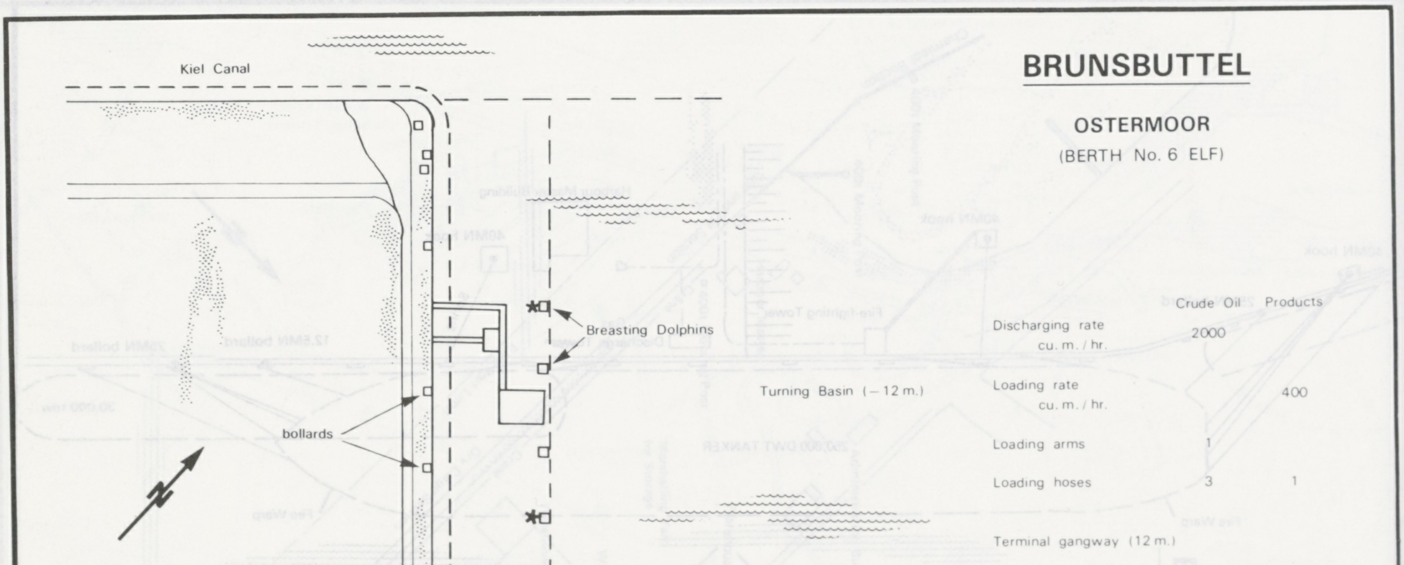

40MN hook
25MN bollard
40MN hook
Harbour Master Building
40MN hook
Fire-fighting Tower
Gas Discharge Tower
Spring
12.5MN bollard
25MN bollard
30,000 tdw
250,000 DWT TANKER
Fire Warp
Fire Warp
RIVER ELBE

BRUNSBUTTEL

(MOORING ARRANGEMENT)

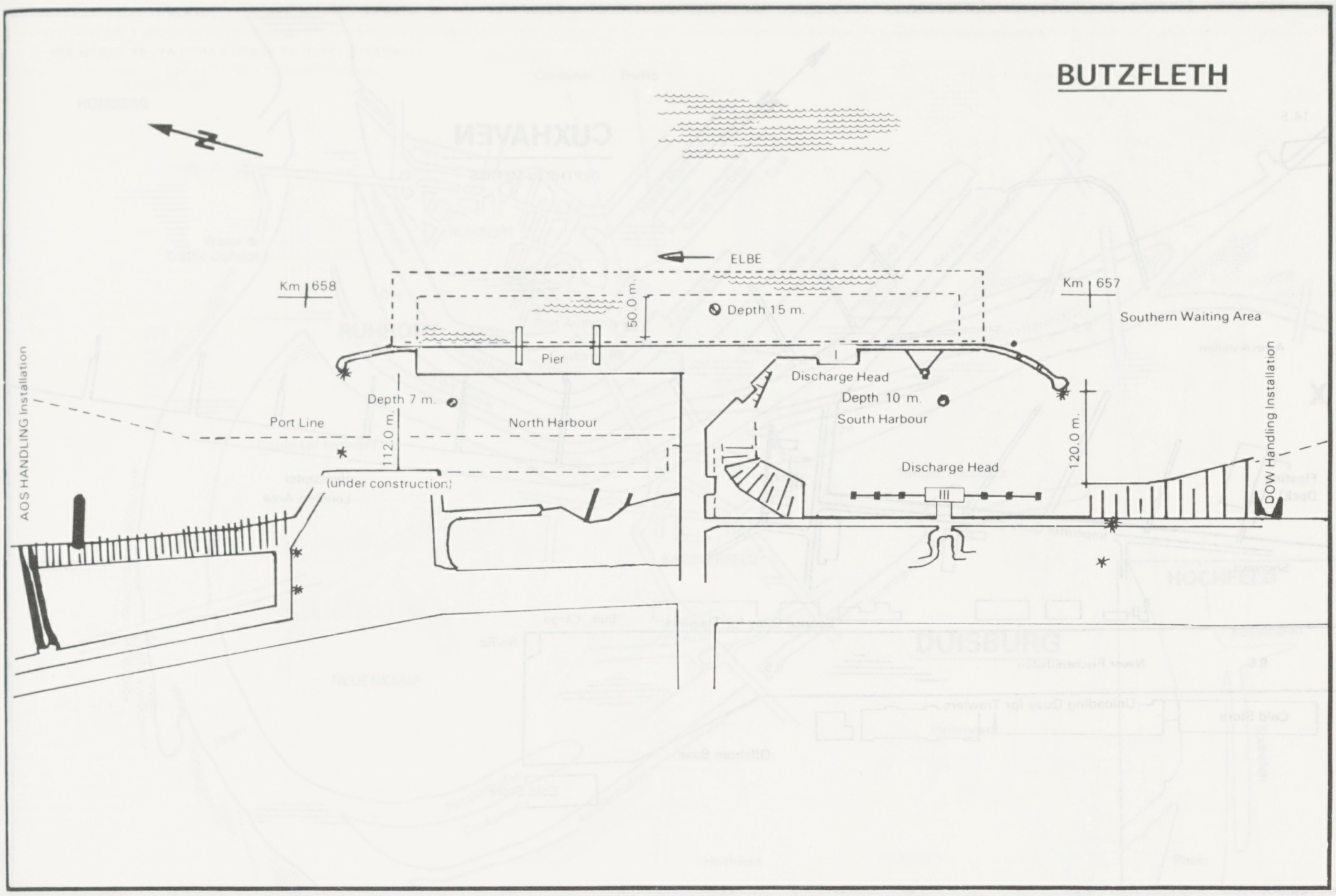
Tankers exceeding 35,000 GRT must meet the following minimum requirements for mooring
(1) 5 fore and 5 after lines.
(2) 2 fore and 2 after spring lines.
(3) 2 wire ropes as cross lines, if at all possible.

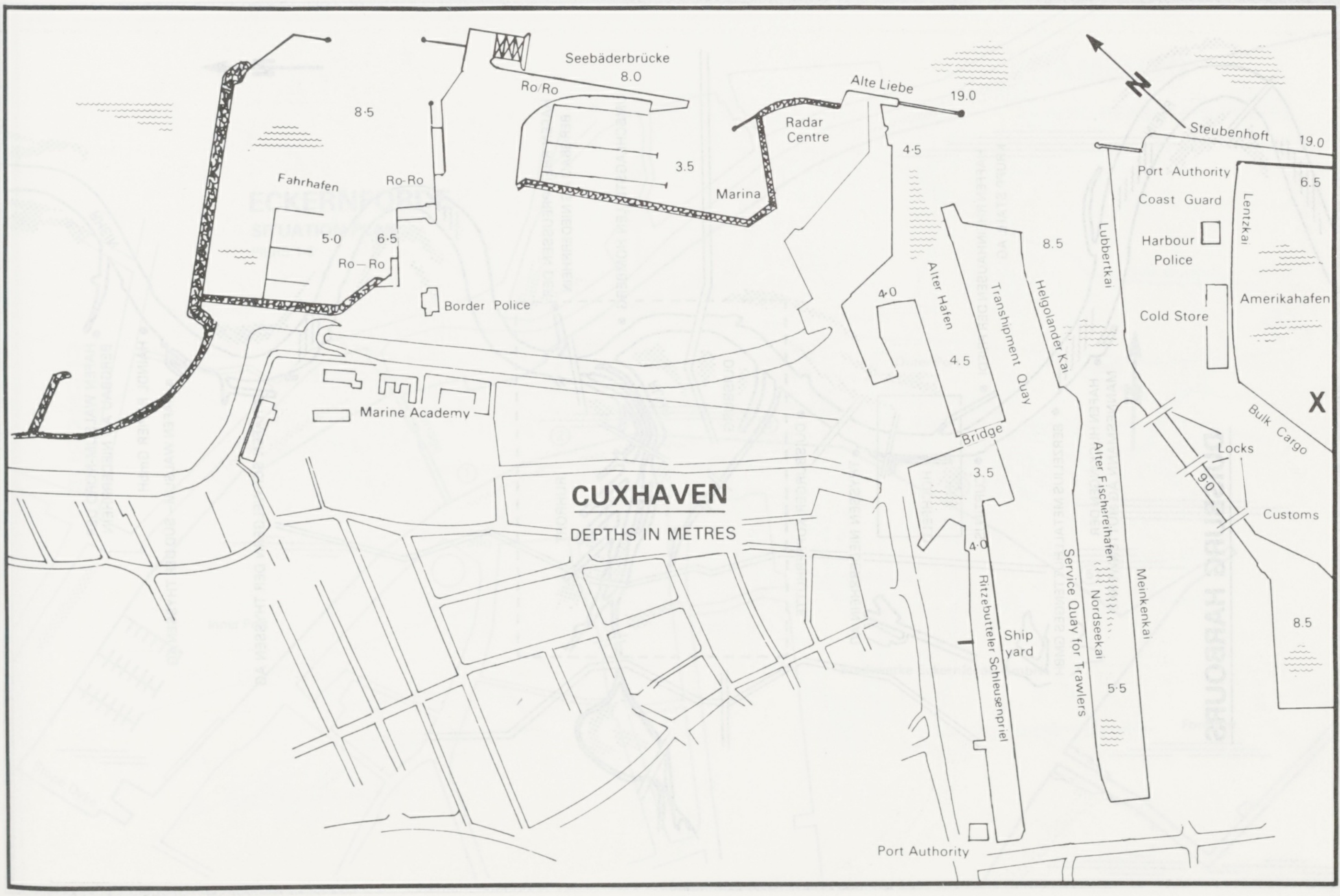

BRUNSBUTTEL
OSTERMOOR
No anchorage close to the barriers
Anti Pollution Barriers
VESSELS LYING AT BERTH 4 AND LAY-BY BERTH ARE REQUIRED TO BE MOORED AT LEAST BY ONE STEEL WIRE FORE AND AFT. THE STEEL WIRE MAY BE COVERED.
Pressed Air Barrier
Pressed Air Barrier
100 m
SOUTH BASIN
Depth 12 m
80 m
NORTH BASIN
Depth 12 m
Berth 4
Loading Arm
Lay-by Berth
Loading Arm
Berth 2
Berth 1
Height of berths 2.70m above normal water level
Top edge of rail and hatches not higher than 14.0 m. (for bulk urea) or 11.0 m. (for bagged urea) above normal water level in the working range
Administrative Building
N

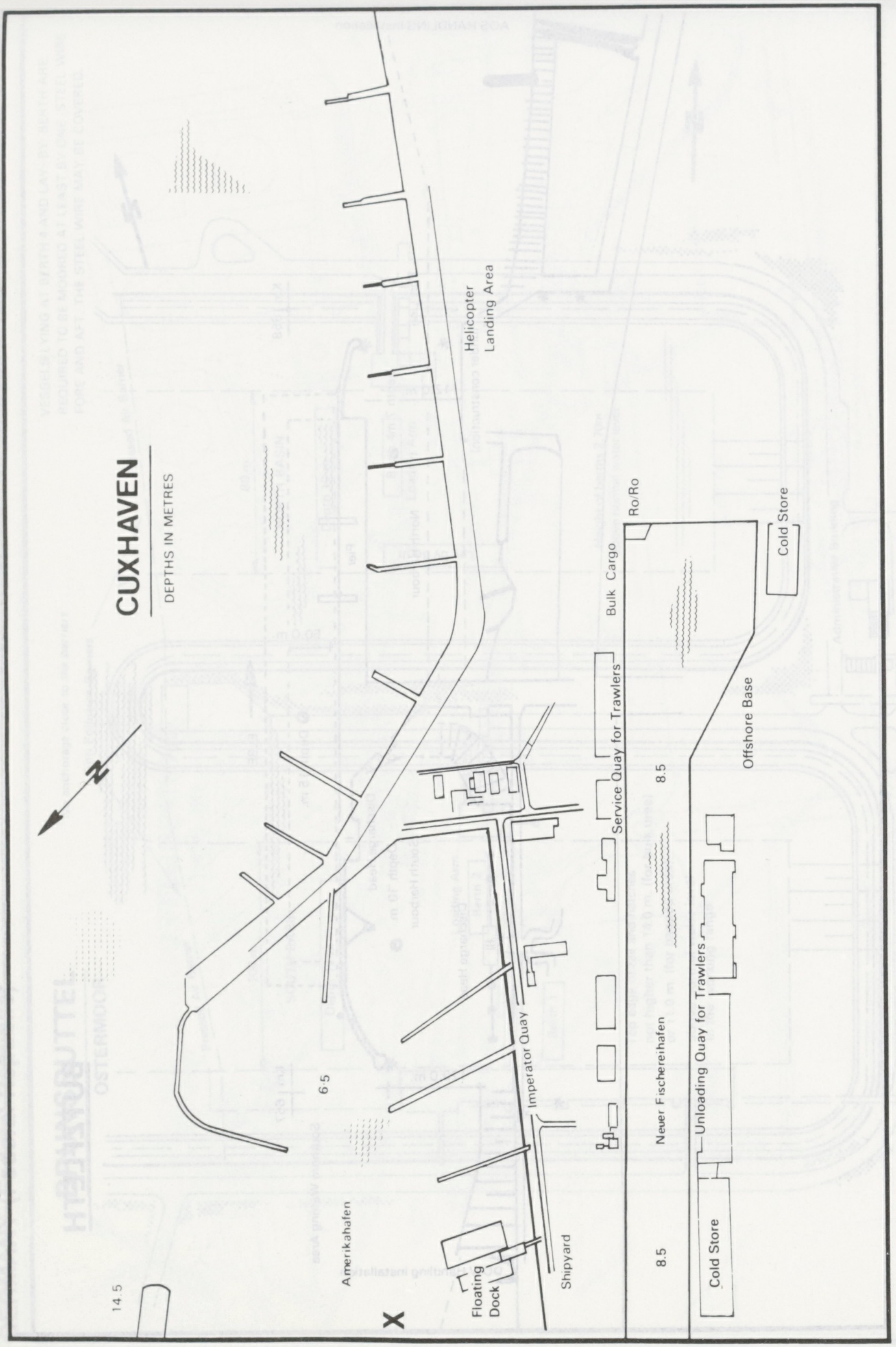

BRUNSBUTTEL
OSTERMOOR
(BERTH No. 6 ELF)
Kiel Canal
Breasting Dolphins
bollards
Turning Basin (– 12 m.)
N
0
50
100
SCALE IN METRES
LOCATION PLAN
Berth No. 6
Berth No. 5

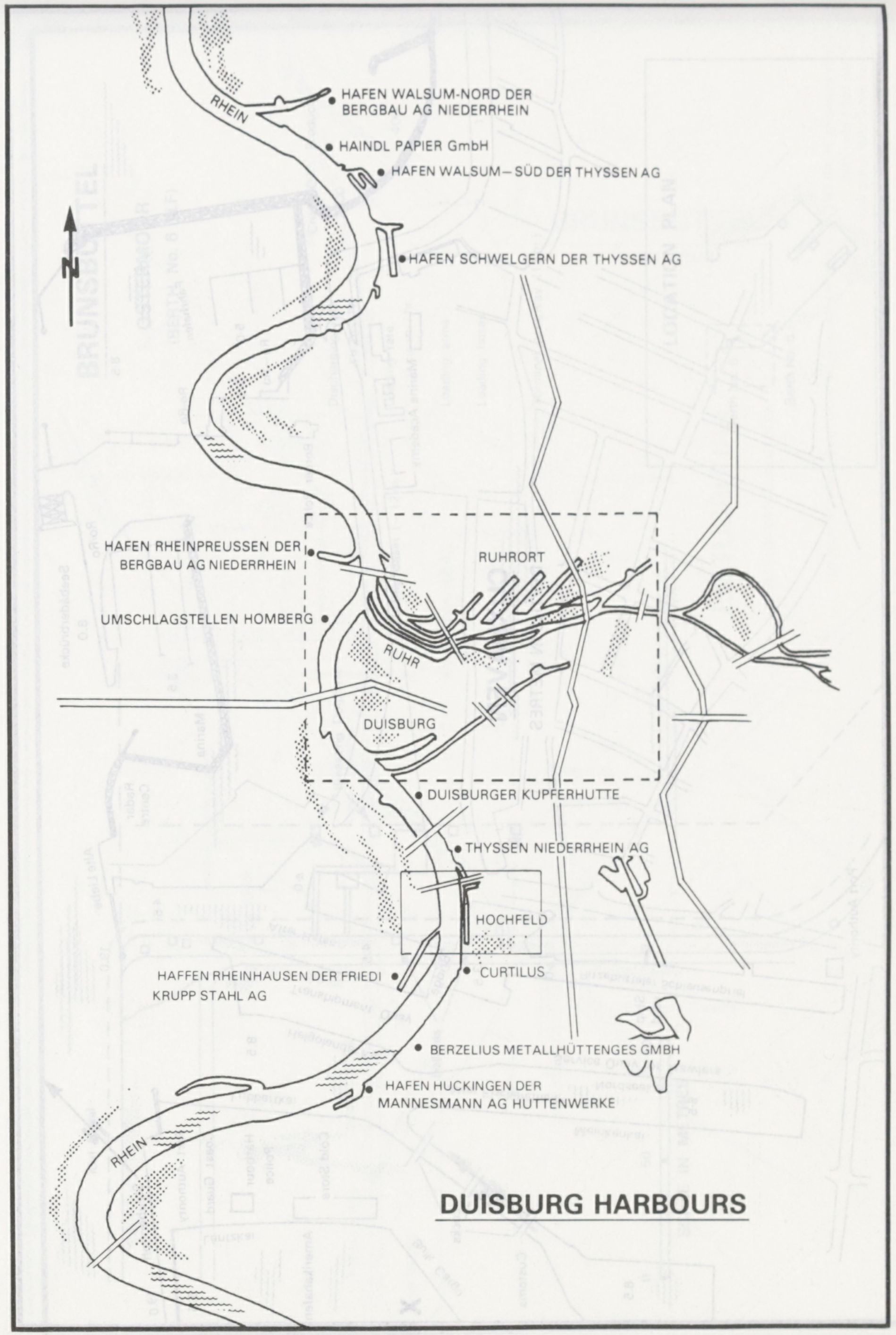
	Crude Oil	Products
Discharging rate cu. m. / hr.	2000	
Loading rate cu. m. / hr.		400
Loading arms	1	
Loading hoses	3	1

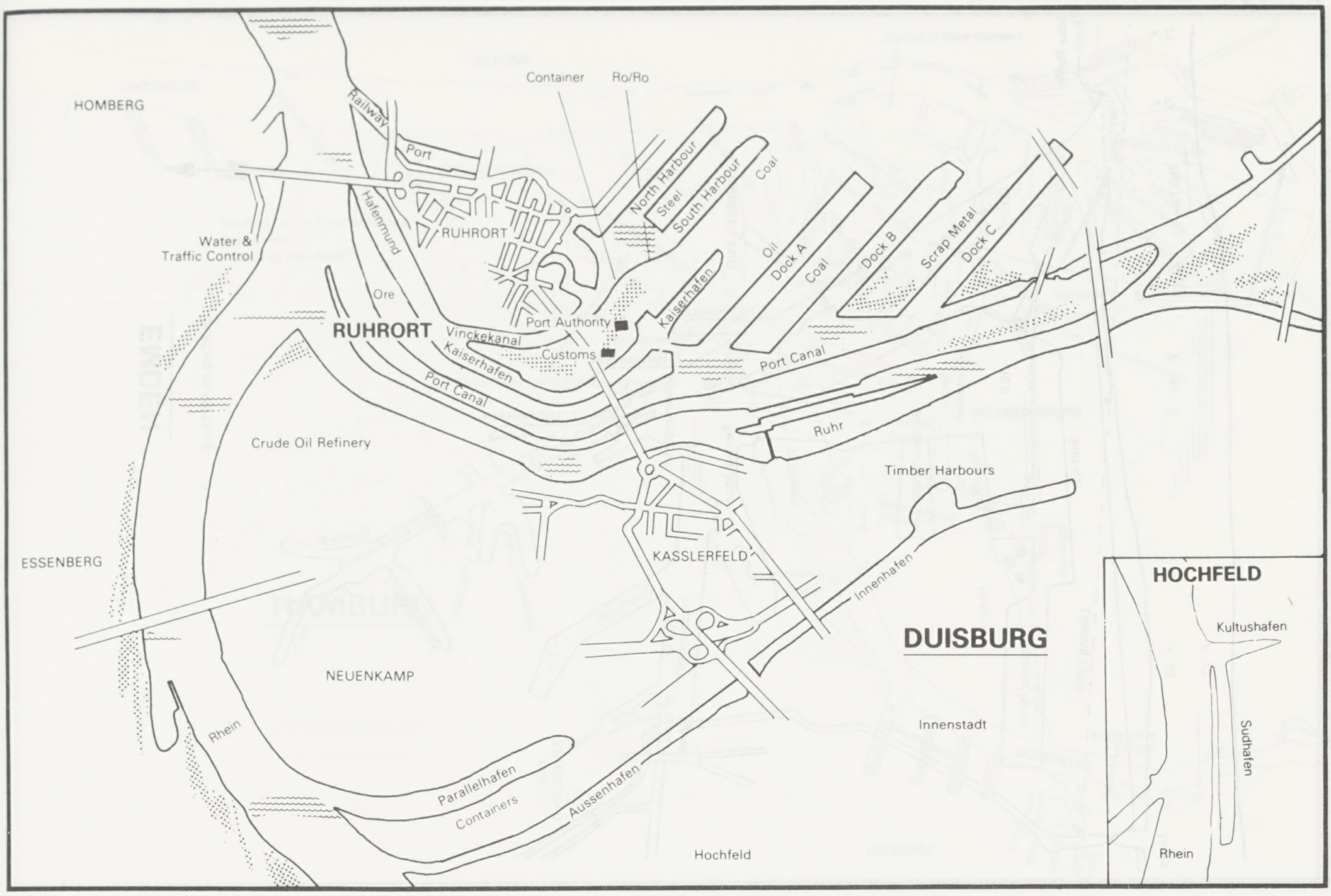
Terminal gangway (12 m.)

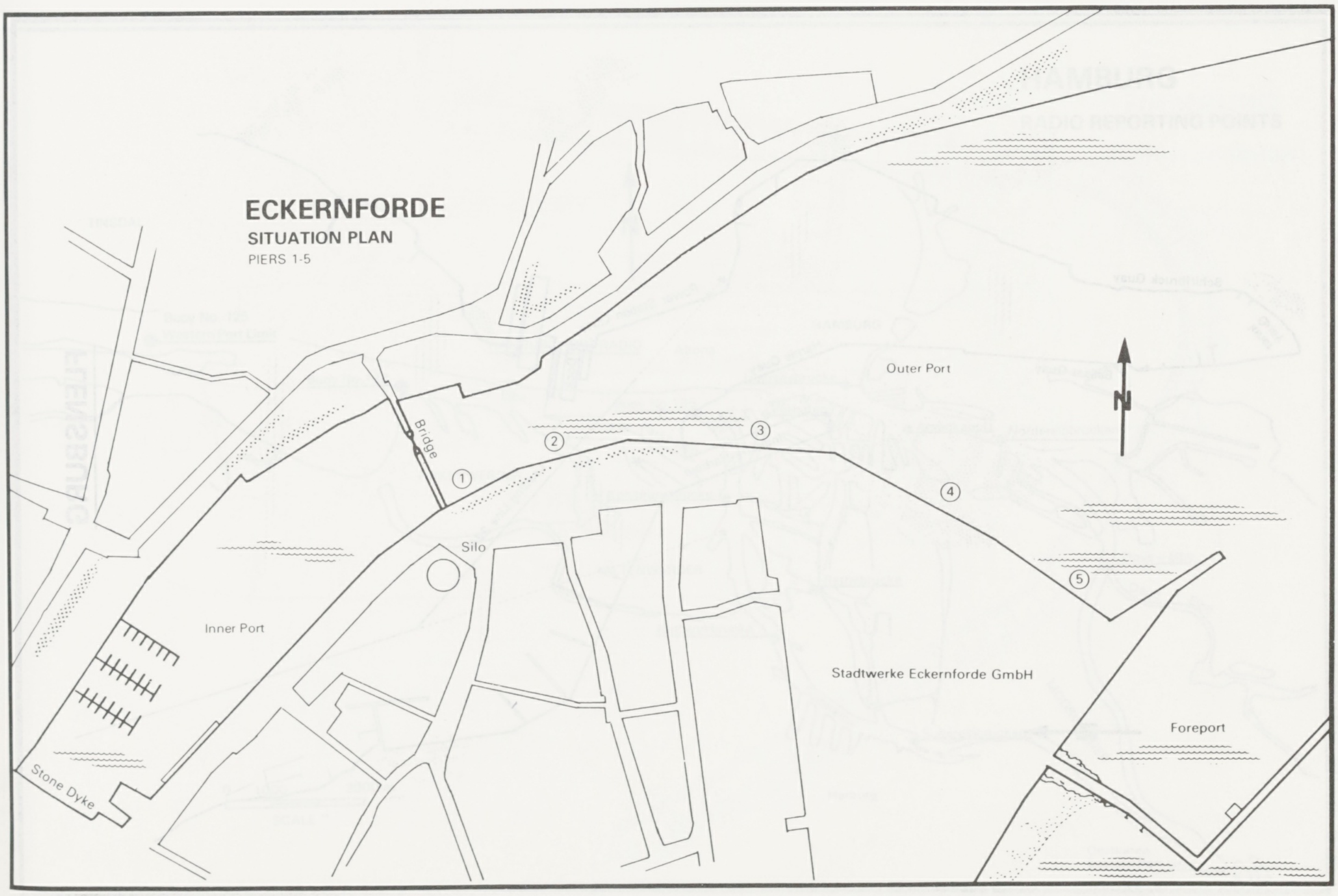

BUTZFLETH
N
ELBE
Km 658
Km 657
Depth 15 m.
50.0 m.
Southern Waiting Area
Pier
Discharge Head
Depth 7 m.
Depth 10 m.
South Harbour
Port Line
North Harbour
112.0 m.
120.0 m.
(under construction)
Discharge Head
AOS HANDLING Installation
DOW Handling Installation

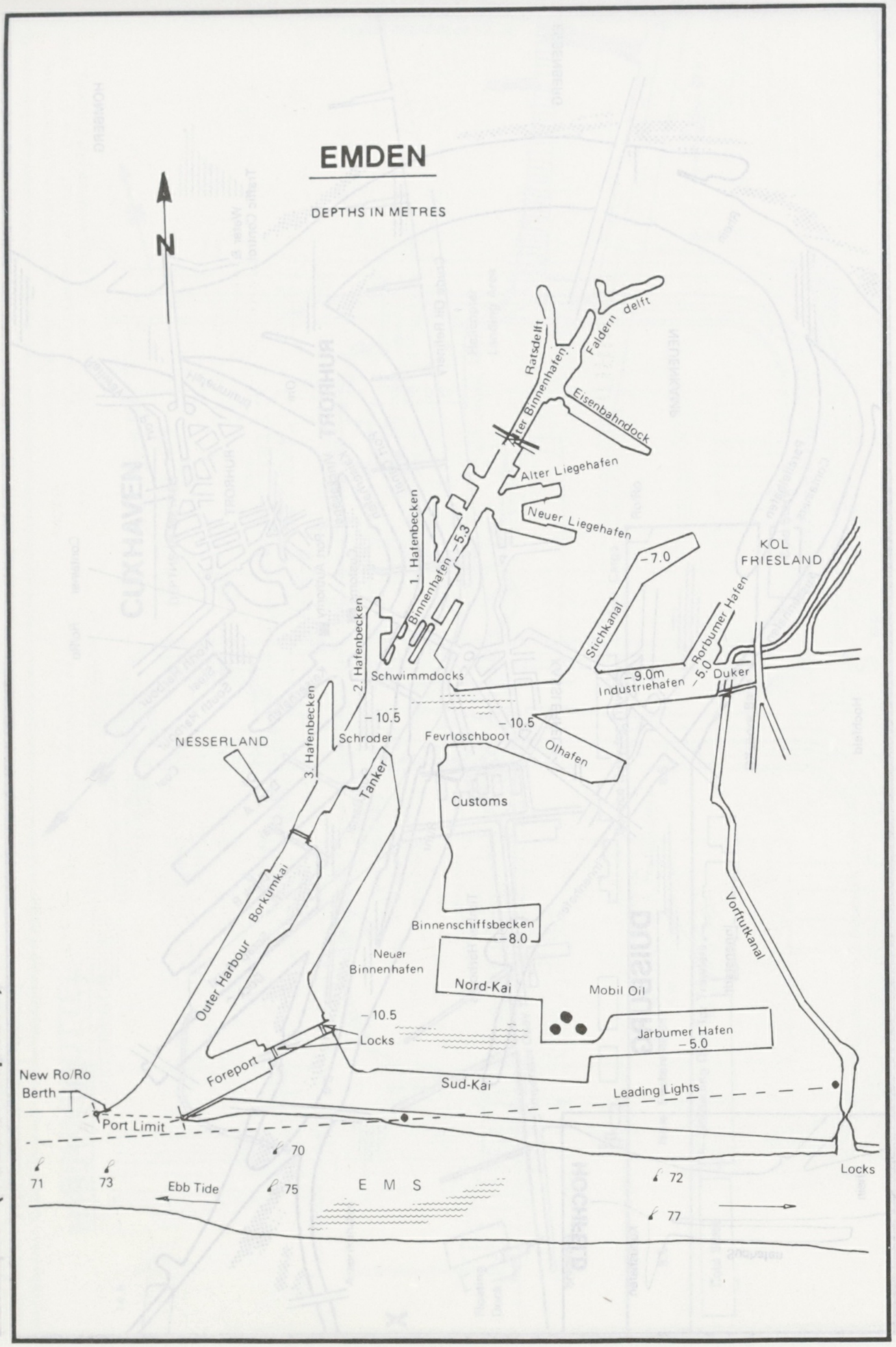

Seebäderbrücke
8.0
Ro/Ro
Alte Liebe
19.0
N
Steubenhoft
19.0
8·5
Radar Centre
4·5
Port Authority
6.5
Coast Guard
3.5
Fahrhafen
Ro-Ro
Marina
Harbour Police
Lentzkai
8.5
Lubbertkai
5·0
6·5
Ro—Ro
Amerikahafen
Border Police
4·0
Alter Hafen
Transhipment Quay
Helgolander Kai
Cold Store
4.5
X
Marine Academy
Bulk Cargo
Bridge
Locks
3.5
9.0
CUXHAVEN
DEPTHS IN METRES
4·0
Alter Fischereihafen
Nordseekai
Service Quay for Trawlers
Meinkenkai
Customs
Ship yard
Ritzebutteler Schleusenpriel
8.5
5·5
Port Authority

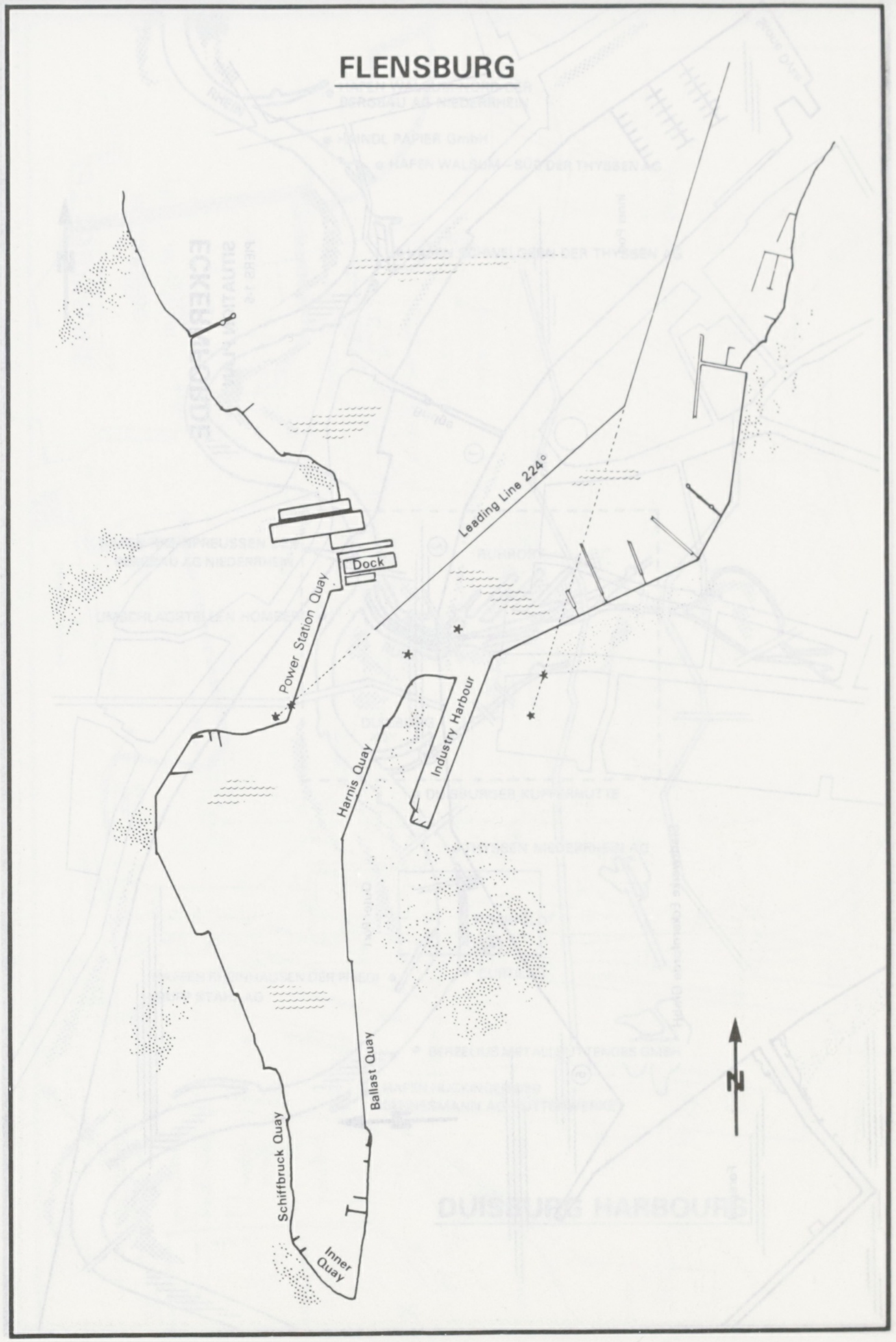

CUXHAVEN
DEPTHS IN METRES
Helicopter Landing Area
Bulk Cargo
Ro/Ro
Cold Store
Service Quay for Trawlers
8.5
Offshore Base
Neuer Fischereihafen
Unloading Quay for Trawlers
Imperator Quay
6.5
Amerikahafen
Floating Dock
Shipyard
Cold Store
8.5
14.5
X
N

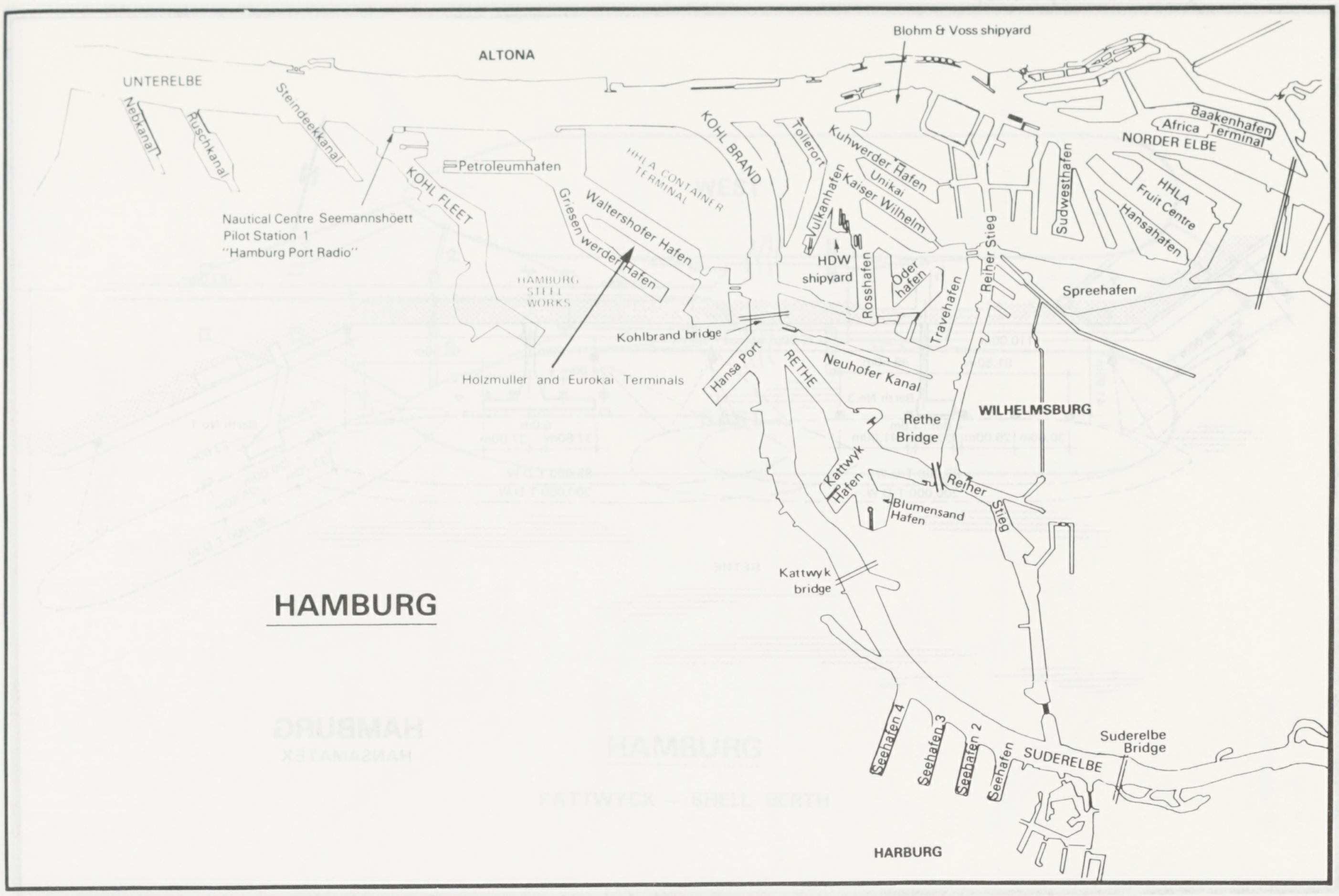

HAFEN WALSUM-NORD DER BERGBAU AG NIEDERRHEIN
RHEIN
HAINDL PAPIER GmbH
HAFEN WALSUM – SÜD DER THYSSEN AG
N
HAFEN SCHWELGERN DER THYSSEN AG
HAFEN RHEINPREUSSEN DER BERGBAU AG NIEDERRHEIN
RUHRORT
UMSCHLAGSTELLEN HOMBERG
RUHR
DUISBURG
DUISBURGER KUPFERHUTTE
THYSSEN NIEDERRHEIN AG
HOCHFELD
HAFFEN RHEINHAUSEN DER FRIEDI KRUPP STAHL AG
CURTILUS
BERZELIUS METALLHÜTTENGES GMBH
HAFEN HUCKINGEN DER MANNESMANN AG HUTTENWERKE
RHEIN
DUISBURG HARBOURS

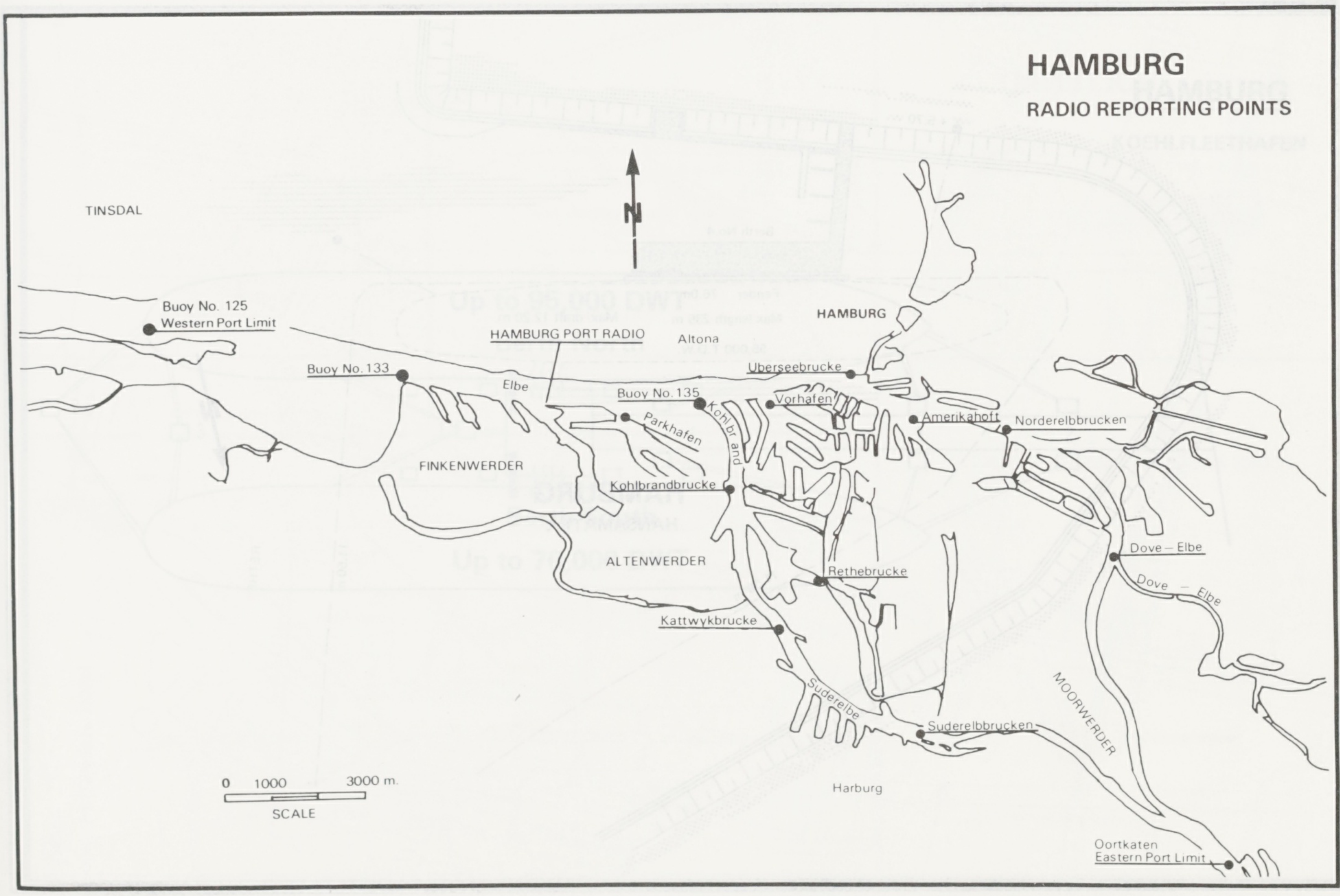

HOMBERG
Container
Ro/Ro
Railway
Port
North Harbour
Steel
South Harbour
Coal
Hafenmund
RUHRORT
Water &
Traffic Control
Oil
Dock A
Coal
Dock B
Scrap Metal
Dock C
Ore
Kaiserhafen
Port Authority
RUHRORT
Vinckekanal
Kaiserhafen
Customs
Port Canal
Port Canal
Ruhr
Crude Oil Refinery
Timber Harbours
ESSENBERG
KASSLERFELD
HOCHFELD
Kultushafen
Innenhafen
DUISBURG
NEUENKAMP
Rhein
Innenstadt
Sudhafen
Parallelhafen
Containers
Aussenhafen
Hochfeld
Rhein

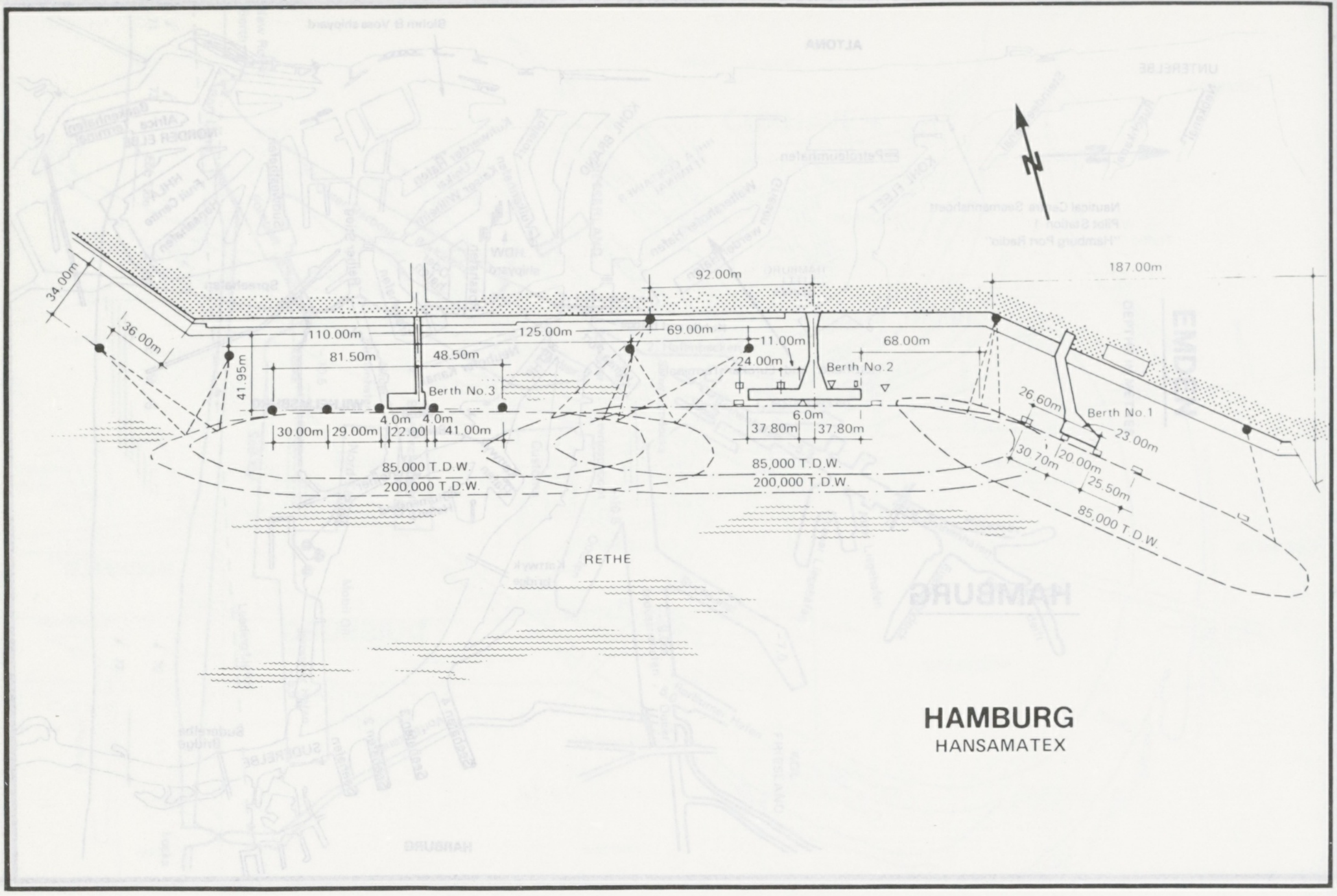

ECKERNFORDE
SITUATION PLAN
PIERS 1-5
Outer Port
N
Bridge
②
③
①
④
Silo
⑤
Inner Port
Stadtwerke Eckernforde GmbH
Foreport
Stone Dyke

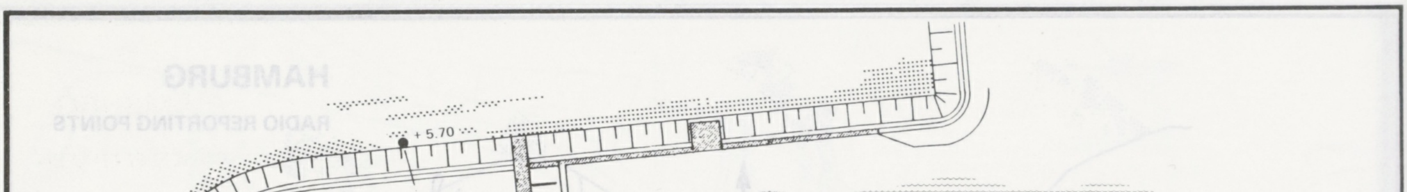

EMDEN
DEPTHS IN METRES
N
Ratsdelft
Faldern delft
Alter Binnenhafen
Eisenbahndock
Alter Liegehafen
Neuer Liegehafen
1. Hafenbecken
Binnenhafen −5.3
2. Hafenbecken
Schwimmdocks
−7.0
Strichkanal
Rorbumer Hafen
−5.0
−9.0m
Industriehafen
Duker
KOL
FRIESLAND
3. Hafenbecken
−10.5
Schroder
Fevrloschboot
−10.5
Olhafen
NESSERLAND
Tanker
Customs
Borkumkai
Outer Harbour
Binnenschiffsbecken
−8.0
Neuer
Binnenhafen
Nord-Kai
Mobil Oil
Vorflutkanal
−10.5
Locks
Jarbumer Hafen
−5.0
Foreport
New Ro/Ro
Berth
Port Limit
Sud-Kai
Leading Lights
70
71
73
75
Ebb Tide
E M S
72
77
Locks

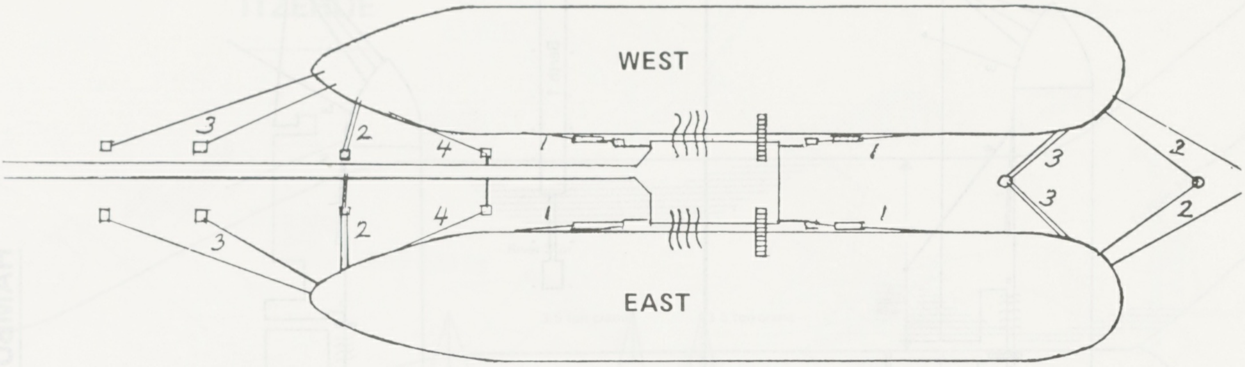

FLENSBURG
Dock
Power Station Quay
Leading Line 224°
Harnis Quay
Industry Harbour
Ballast Quay
Schiffbruck Quay
Inner
Quay
N


HAMBURG
ALTONA
Blohm & Voss shipyard
UNTERELBE
Nebkanal
Ruschkanal
Steindeekkanal
KOHL FLEET
Nautical Centre Seemannshoett
Pilot Station 1
"Hamburg Port Radio"
Petroleumhafen
HHLA CONTAINER TERMINAL
Griesen werder Hafen
Waltershofer Hafen
HAMBURG STEEL WORKS
Holzmuller and Eurokai Terminals
KOHL BRAND
Tollerort
Kuhwerder Hafen
Unikai
Kaiser Wilhelm
Vulkanhafen
HDW shipyard
Rosshafen
Oder hafen
Travehafen
Reiher Stieg
Sudwesthafen
Baakenhafen
Africa Terminal
NORDER ELBE
HHLA Fruit Centre
Hansahafen
Spreehafen
Kohlbrand bridge
Hansa Port
RETHE
Neuhofer Kanal
WILHELMSBURG
Rethe Bridge
Kattwyk Hafen
Blumensand Hafen
Reiher Stieg
Kattwyk bridge
Seehafen 4
Seehafen 3
Seehafen 2
Seehafen
SUDERELBE
Suderelbe Bridge
HARBURG


HAMBURG
RADIO REPORTING POINTS
N
TINSDAL
Buoy No. 125
Western Port Limit
Buoy No. 133
HAMBURG PORT RADIO
Altona
HAMBURG
Elbe
Buoy No. 135
Ueberseebrucke
Vorhafen
Parkhafen
Kohlbrand
Amerikahoft
Norderelbbrucken
FINKENWERDER
Kohlbrandbrucke
ALTENWERDER
Rethebrucke
Dove – Elbe
Dove – Elbe
Kattwykbrucke
Suderelbe
Suderelbbrucken
MOORWERDER
Harburg
0
1000
3000 m.
SCALE
Oortkaten
Eastern Port Limit


HAMBURG
HANSAMATEX
N
34.00m
36.00m
110.00m
81.50m
48.50m
41.95m
125.00m
92.00m
69.00m
11.00m
24.00m
68.00m
187.00m
Berth No.3
Berth No.2
Berth No.1
4.0m
4.0m
30.00m
29.00m
22.00
41.00m
6.0m
37.80m
37.80m
26.60m
23.00m
30.70m
20.00m
25.50m
85,000 T.D.W.
200,000 T.D.W.
85,000 T.D.W.
200,000 T.D.W.
85,000 T.D.W.
RETHE


HAMBURG
HANSAMATEX
+ 5.70
N
Berth No.4
Fender 76.0m
Max length 235 m
Max. draft 12.20 m.
55,000 T.D.W.
11.50 m
11.50 m
RETHE

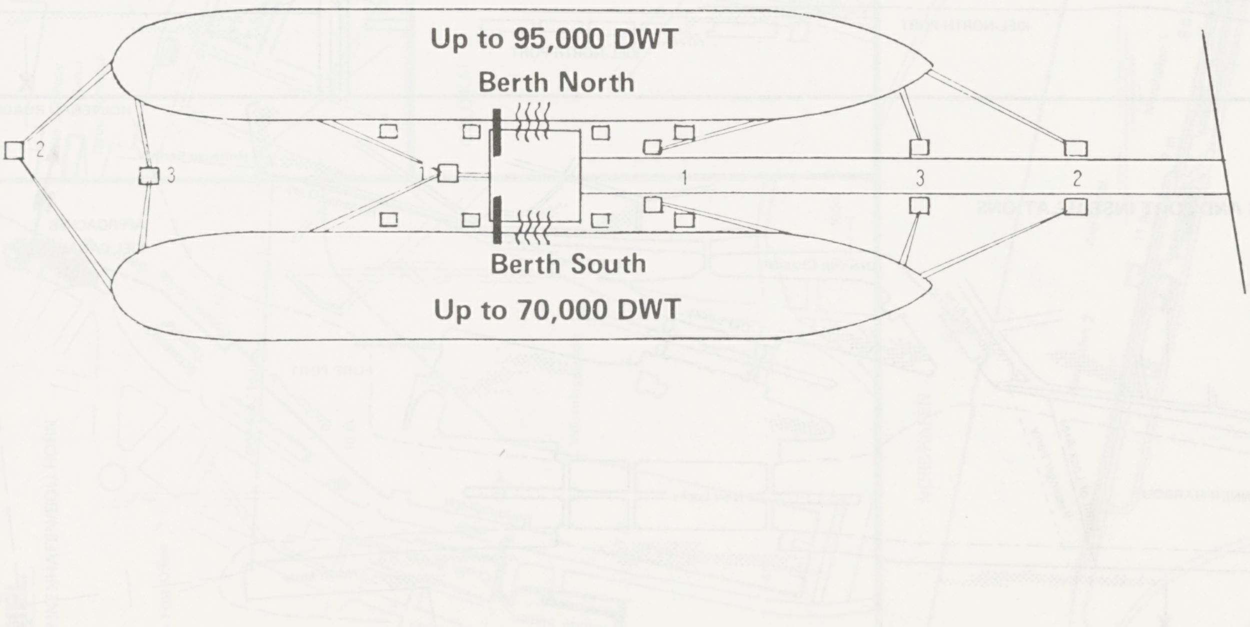

WEST
EAST
1
2
3
4

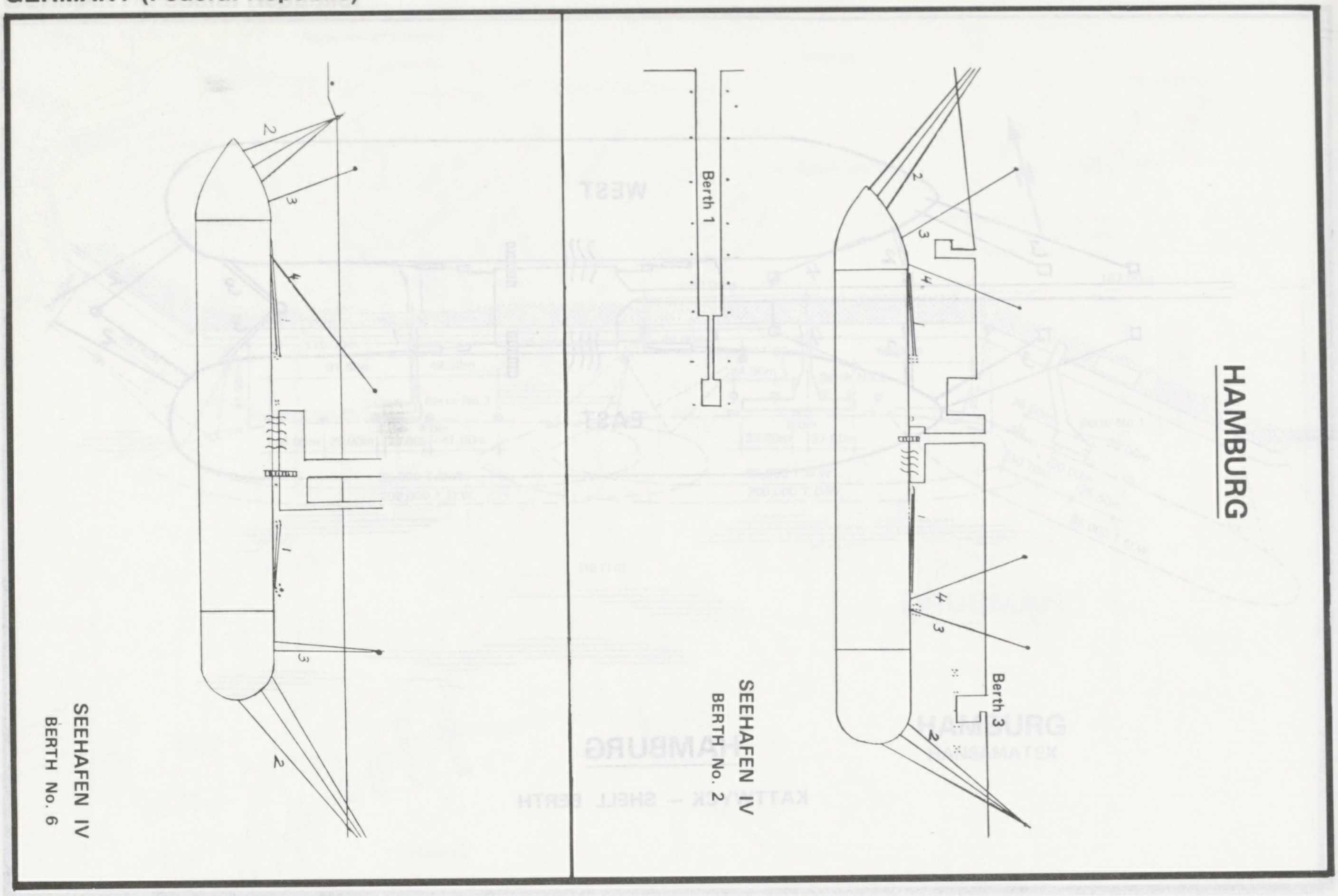
HAMBURG

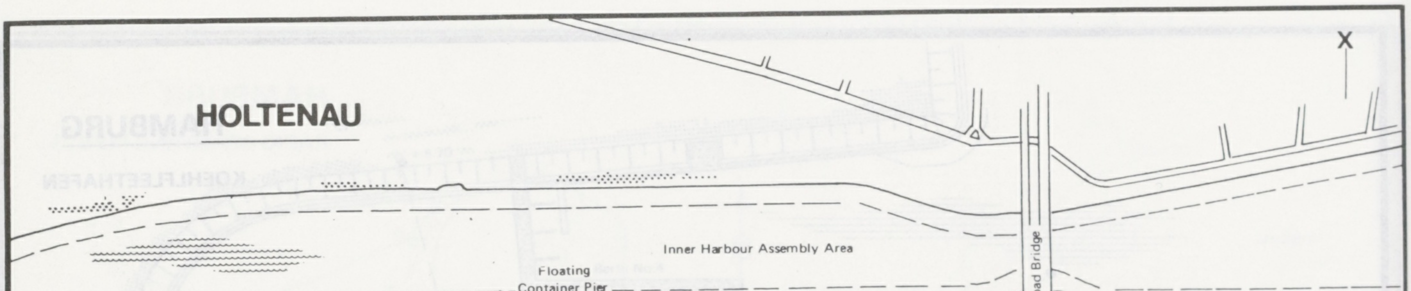
KATTWYCK — SHELL BERTH

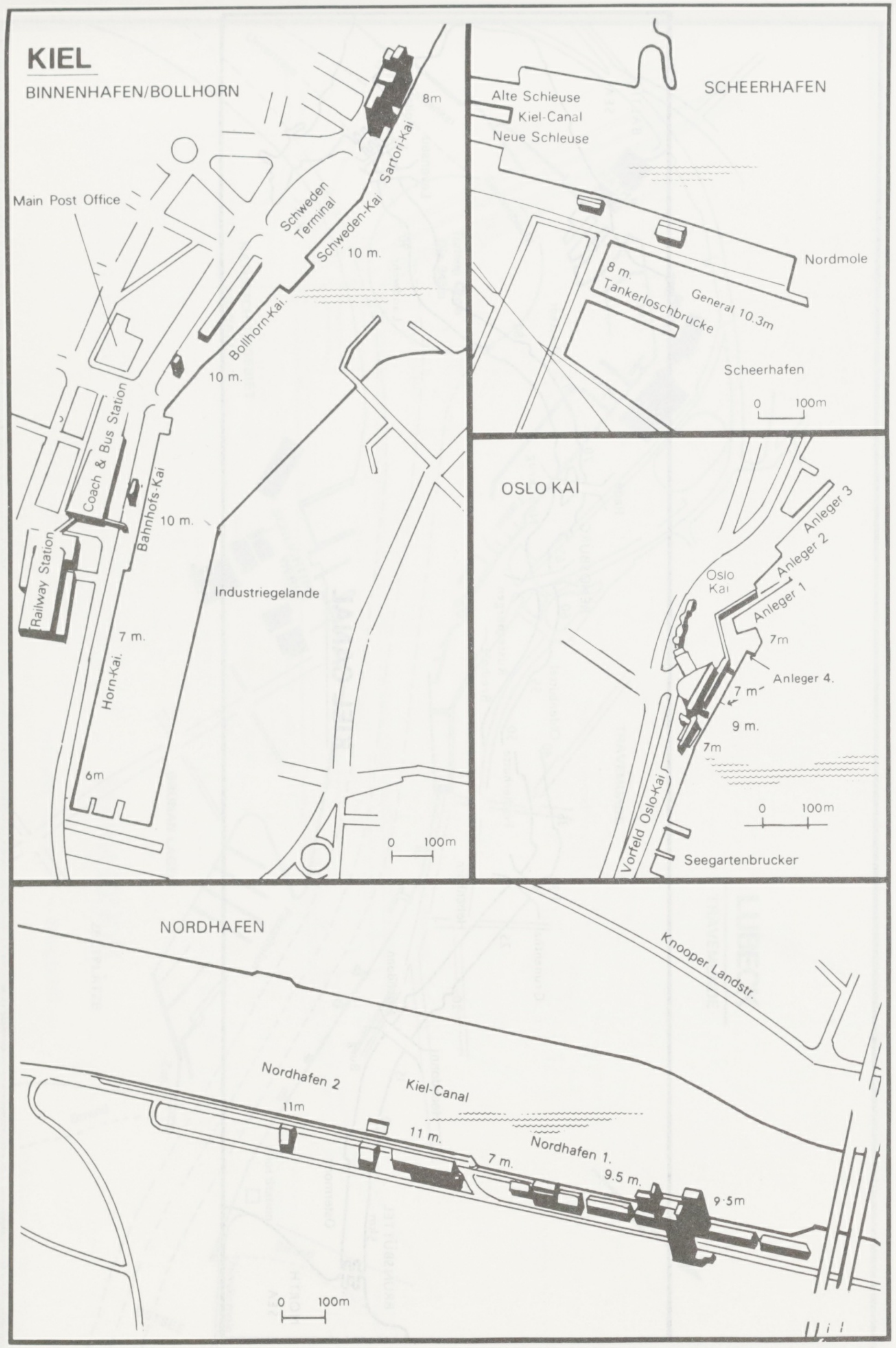
HAMBURG

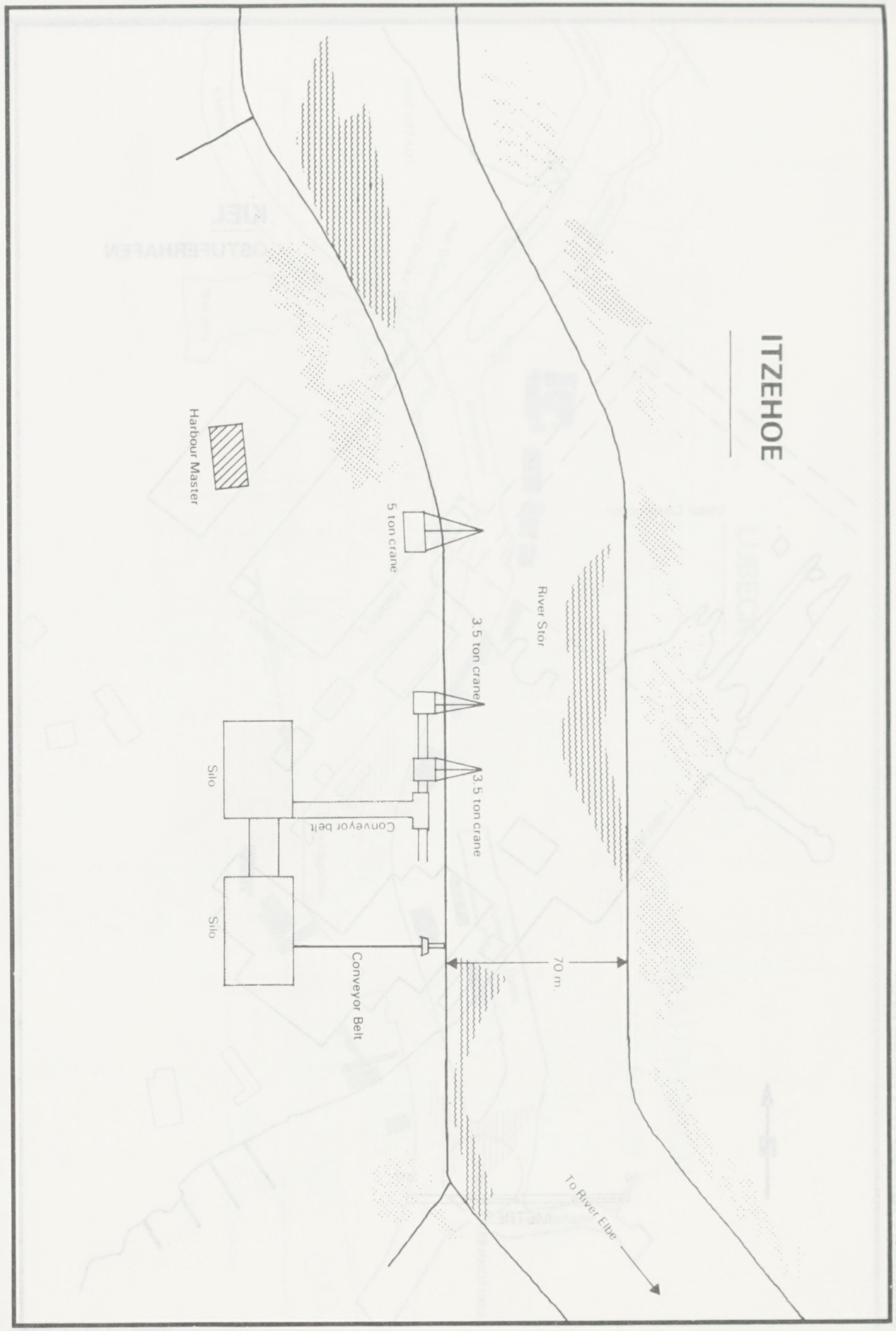
KOEHLFLEETHAFEN

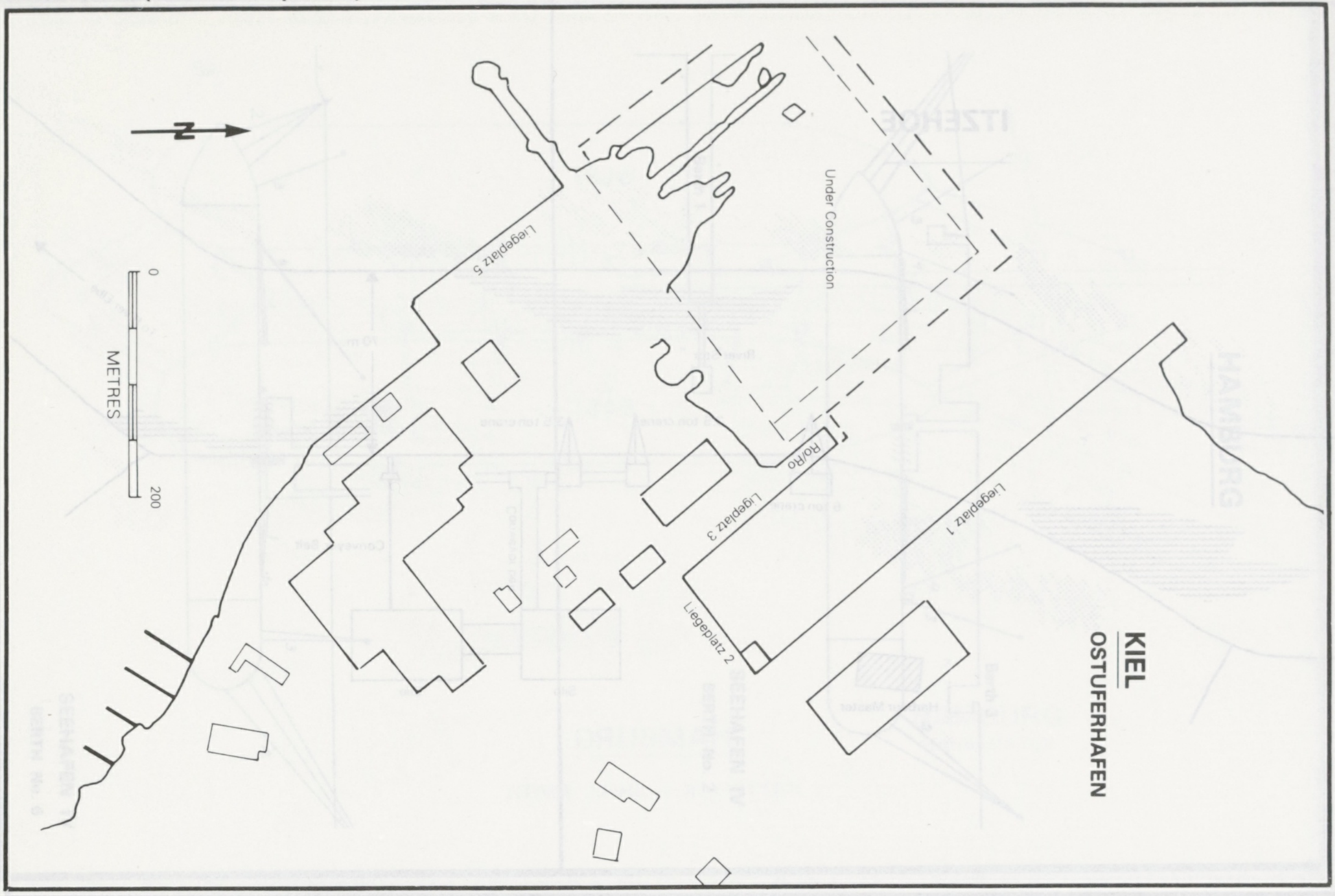

Up to 95,000 DWT
Berth North
Berth South
Up to 70,000 DWT
1
2
3

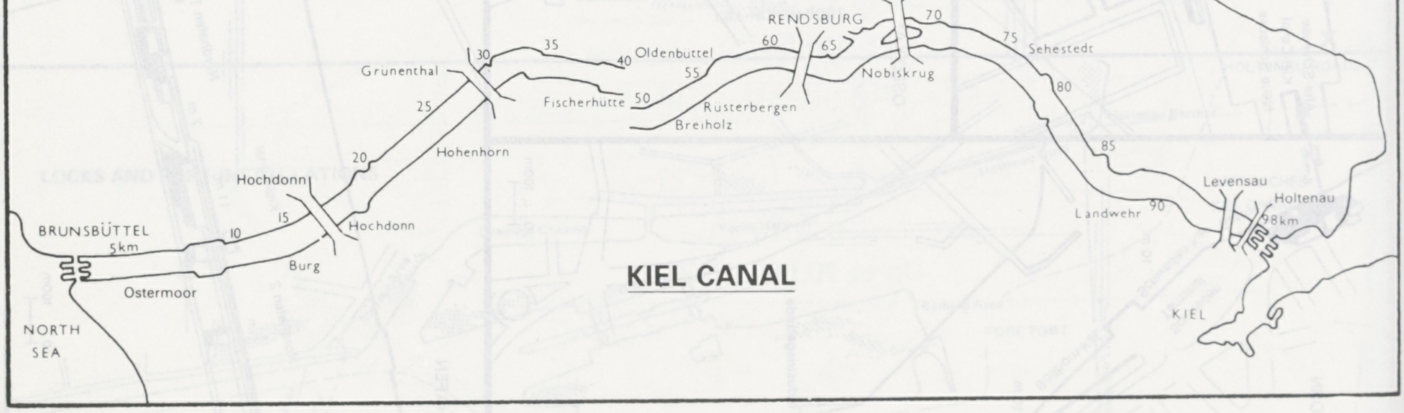

HAMBURG
SEEHAFEN IV
BERTH No. 6
SEEHAFEN IV
BERTH No. 2
Berth 1
Berth 3
2
3
4
1

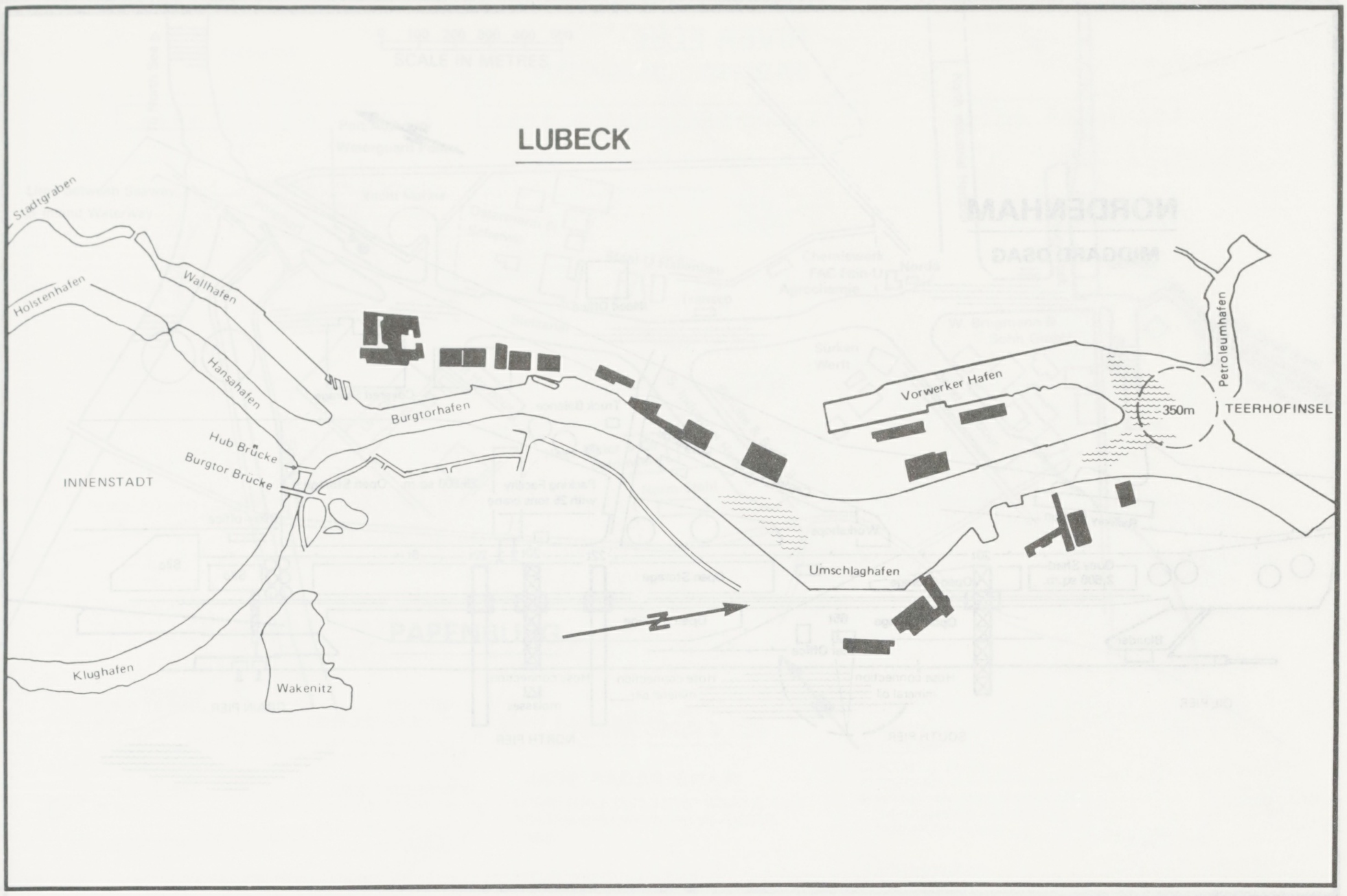

HOLTENAU
Inner Harbour Assembly Area
Floating
Container Pier
KIEL-NORTH PORT
KIEL-NORTH PORT
Road Bridge
X
X
HOLTENAU ROADS
Holtenau Berths
Holtenau Quay
LOCKS AND PORT INSTALLATIONS
APPROACHES
KIEL CANAL
Drainage Channel
Yacht Harbour
Storage Area
Old Locks
Bathing Area
FORE PORT
Limit of Lock Area
X
INNER HARBOUR
Limit of Lock Area
Passenger Ferry
New Locks
North Mole
X
10
Kiel

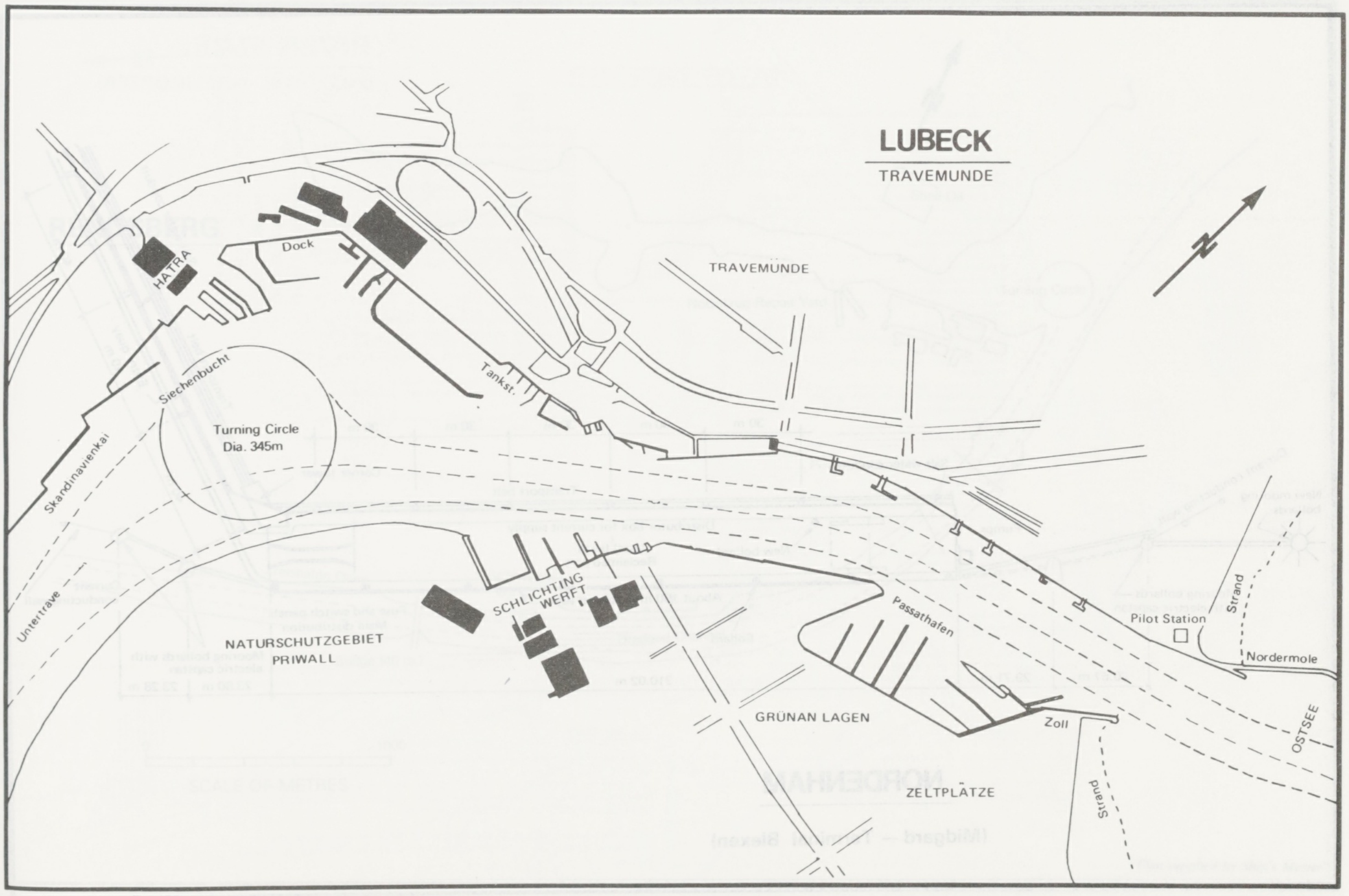

KIEL
BINNENHAFEN/BOLLHORN
Main Post Office
Schweden Terminal
Schweden-Kai
Sartori-Kai
8m
10 m.
Bollhorn-Kai.
10 m.
Coach & Bus Station
Bahnhofs-Kai
10 m.
Railway Station
Industriegelande
7 m.
Horn-Kai.
6m
0 100m
SCHEERHAFEN
Alte Schleuse
Kiel-Canal
Neue Schleuse
Nordmole
8 m.
Tankerloschbrucke
General 10.3m
Scheerhafen
0 100m
OSLO KAI
Oslo Kai
Anleger 3
Anleger 2
Anleger 1
7m
Anleger 4.
7 m
9 m.
7m
Vorfeld Oslo-Kai
Seegartenbrucker
0 100m
NORDHAFEN
Knooper Landstr.
Nordhafen 2
Kiel-Canal
11m
11 m.
7 m.
Nordhafen 1.
9.5 m.
9·5m
0 100m

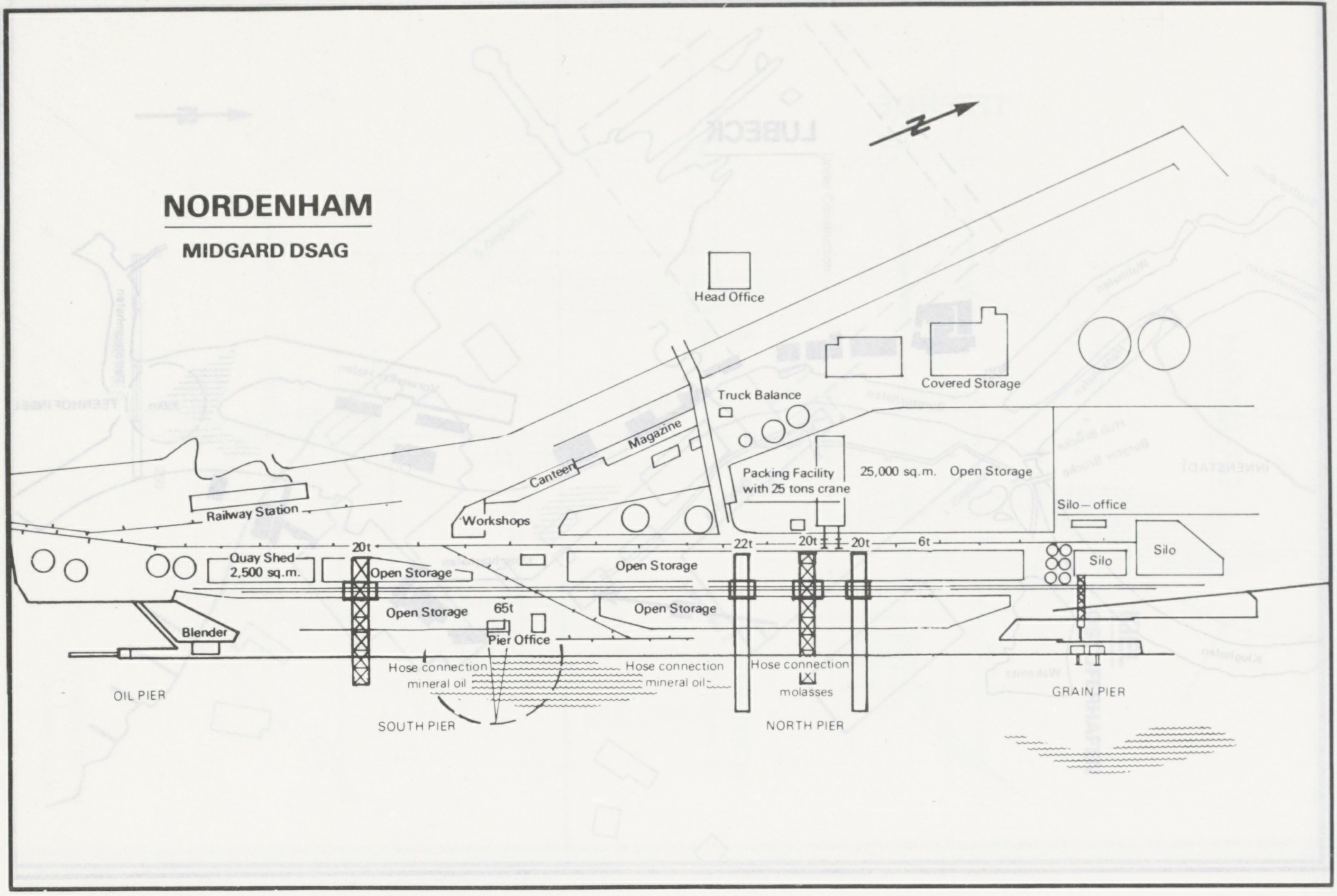

ITZEHOE
Harbour Master
5 ton crane
River Stor
3.5 ton crane
3.5 ton crane
Silo
Silo
Conveyor belt
Conveyor Belt
70 m.
To River Elbe

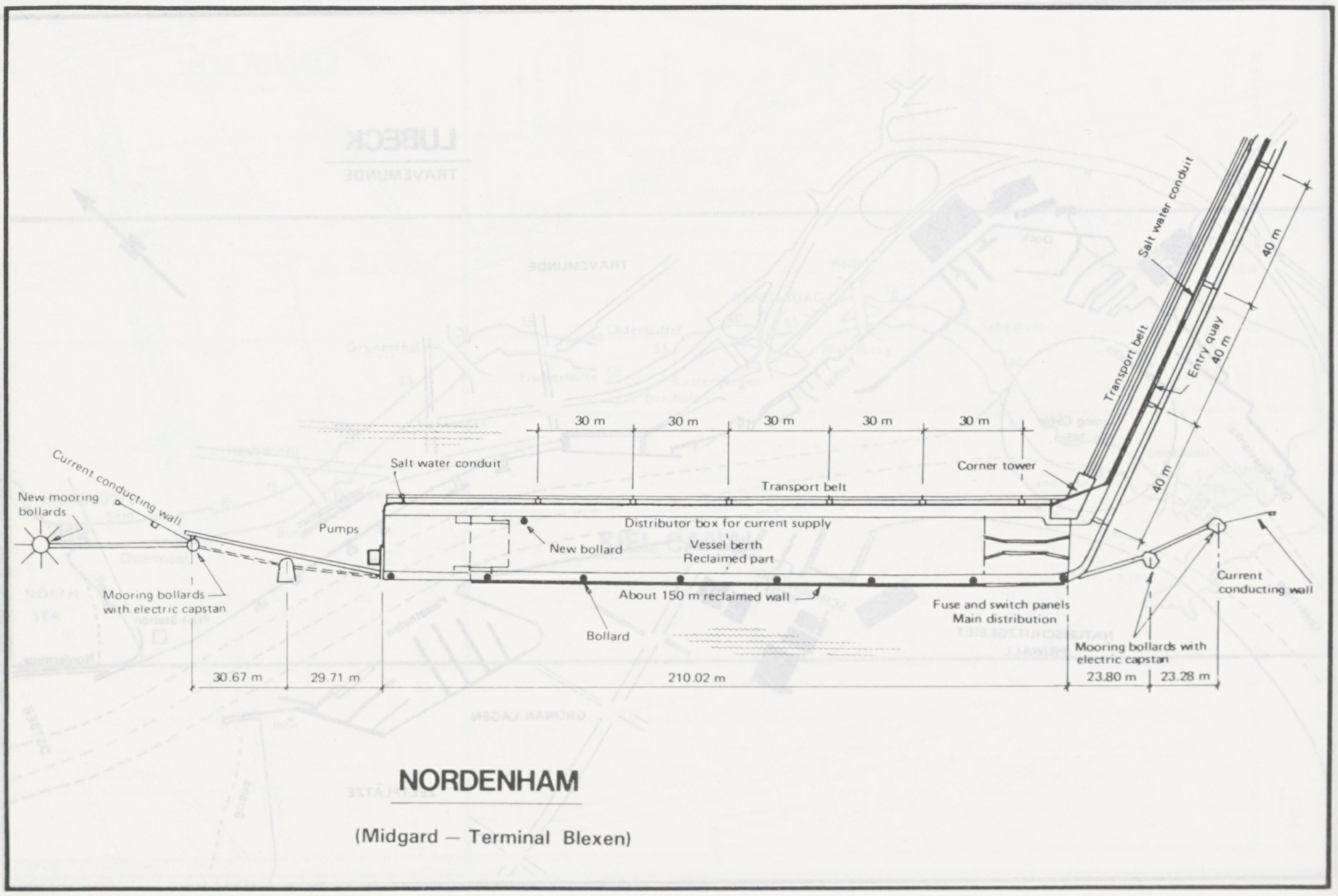

KIEL
OSTUFERHAFEN
N
0
METRES
200
Liegeplatz 5
Under Construction
RoRo
Liegeplatz 3
Liegeplatz 1
Liegeplatz 2

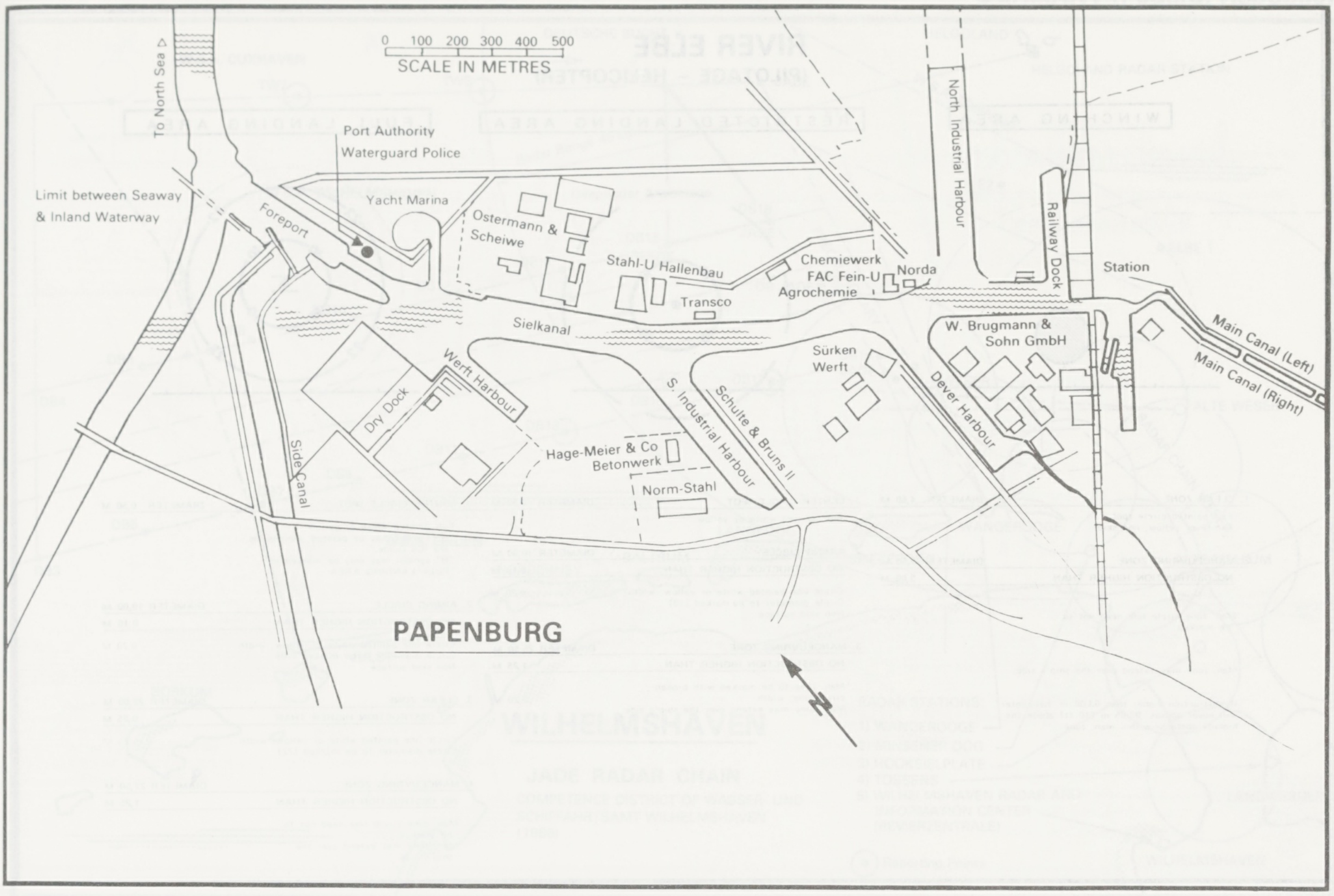

KIEL CANAL
BALTIC SEA
NORTH SEA
BRUNSBÜTTEL
5km
Ostermoor
10
Burg
15
Hochdonn
Hochdonn
20
Hohenhorn
25
Grunenthal
30
35
40
Oldenbuttel
Fischerhutte
50
55
Rusterbergen
Breiholz
60
RENDSBURG
65
Rade
70
Nobiskrug
75
Sehestedt
80
85
Landwehr
90
Levensau
Holtenau
98km
KIEL

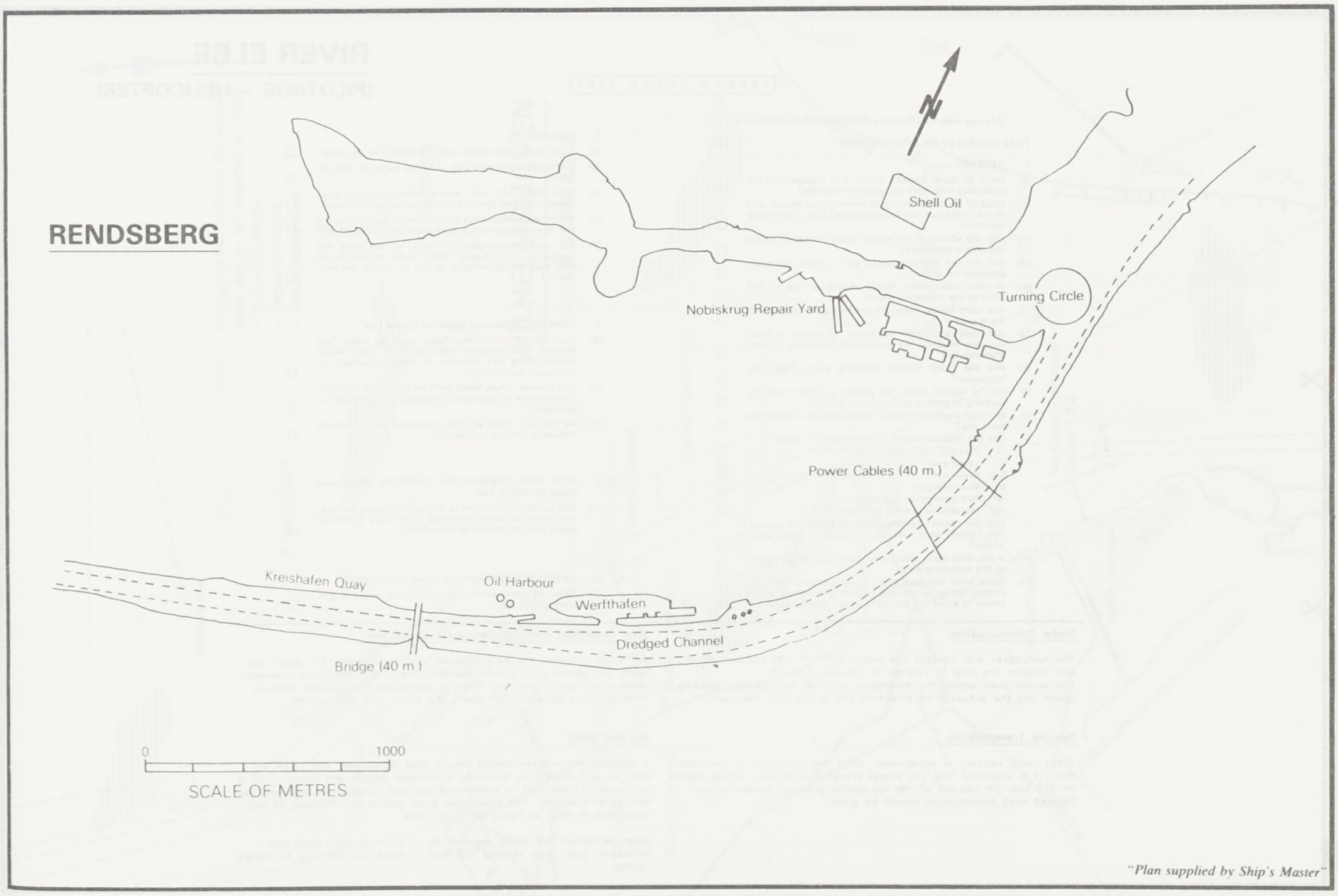

LUBECK
Stadtgraben
Holstenhafen
Wallhafen
Hansahafen
Burgtorhafen
Hub Brücke
Burgtor Brücke
INNENSTADT
Klughafen
Wakenitz
Vorwerker Hafen
Petroleumhafen
350m
TEERHOFINSEL
Umschlaghafen
N


LUBECK
TRAVEMUNDE
TRAVEMUNDE
HATRA
Dock
Tankst.
Siechenbucht
Turning Circle
Dia. 345m
Skandinavienkai
Untertrave
NATURSCHUTZGEBIET
PRIWALL
SCHLICHTING
WERFT
Passathafen
GRÜNAN LAGEN
ZELTPLÄTZE
Zoll
Strand
Pilot Station
Strand
Nordermole
OSTSEE
N


NORDENHAM
MIDGARD DSAG
N
Head Office
Covered Storage
Truck Balance
Magazine
Canteen
Packing Facility
with 25 tons crane
25,000 sq.m. Open Storage
Silo — office
Railway Station
Workshops
20t
22t
20t
20t
6t
Quay Shed
2,500 sq.m.
Open Storage
Open Storage
Silo
Silo
Open Storage
65t
Open Storage
Blender
Pier Office
Hose connection
mineral oil
Hose connection
mineral oil
Hose connection
molasses
OIL PIER
SOUTH PIER
NORTH PIER
GRAIN PIER


Salt water conduit
Transport belt
Entry quay
40 m
40 m
40 m
30 m
30 m
30 m
30 m
30 m
Corner tower
Salt water conduit
Transport belt
Current conducting wall
New mooring bollards
Pumps
Distributor box for current supply
New bollard
Vessel berth
Reclaimed part
Mooring bollards with electric capstan
About 150 m reclaimed wall
Bollard
Fuse and switch panels
Main distribution
Current conducting wall
Mooring bollards with electric capstan
30.67 m
29.71 m
210.02 m
23.80 m
23.28 m
NORDENHAM
(Midgard — Terminal Blexen)

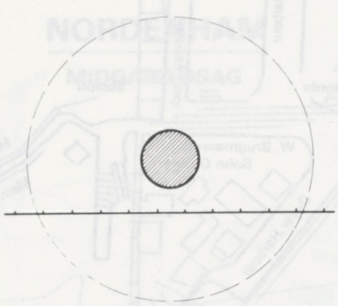

0 100 200 300 400 500
SCALE IN METRES
To North Sea
Port Authority
Waterguard Police
Limit between Seaway
& Inland Waterway
Foreport
Yacht Marina
Ostermann &
Scheiwe
Stahl-U Hallenbau
Transco
Chemiewerk
FAC Fein-U
Agrochemie
Norda
North Industrial Harbour
Railway Dock
Station
Main Canal (Left)
Main Canal (Right)
W. Brugmann &
Sohn GmbH
Sielkanal
Sürken
Werft
Dever Harbour
Dry Dock
Werft Harbour
S. Industrial Harbour
Schulte & Bruns II
Hage-Meier & Co
Betonwerk
Norm-Stahl
Side Canal
PAPENBURG


RENDSBERG
Shell Oil
Nobiskrug Repair Yard
Turning Circle
Power Cables (40 m.)
Kreishafen Quay
Oil Harbour
Werfthafen
Dredged Channel
Bridge (40 m.)
0
1000
SCALE OF METRES

"Plan supplied by Ship's Master"

RIVER ELBE
(PILOTAGE – HELICOPTER)

WINCHING AREA



1. CLEAR ZONE — DIAMETER 4,60 M

Full painted circle spot
(white or yellow, non-skid)

2. MANOEUVRING ZONE — DIAMETER 30,50 M

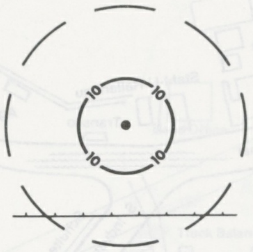
NO OBSTRUCTION HIGHER THAN — 3,00 M

Man. zone circle line need not to be marked

Man. zone may extend over the ship's side.

If obstruction higher than 03,00 m, helicopter will hover approx. 03,05 m (10 ft) above the highest obstacle within man. zone.

RESTRICTED LANDING AREA



1. CENTER CIRCLE SPOT — DIAMETER 0,50 M

Full painted white or yellow

2. AIMING CIRCLE — DIAMETER 10,00 M

NO OBSTRUCTION HIGHER THAN — 0,10 M

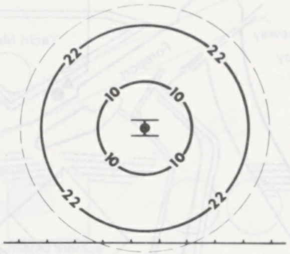
Circle line painted white or yellow, width — 0,20 M
Circle diameter to be marked (10)
Non skid surface

3. MANOEUVRING ZONE — DIAMETER 25,50 M

NO OBSTRUCTION HIGHER THAN — 1,25 M

Man. zone to be marked with broken circle line, width — 0,20 M
Man. zone may extend over the ship's side

FULL LANDING AREA



1. CENTER CIRCLE SPOT — DIAMETER 0,50 M

Full painted white or yellow.
"H" symbol may be painted, dimensions see ICS Guide.
"H" symbol may only be marked in FULL LANDING AREA

2. AIMING CIRCLE — DIAMETER 10,00 M

NO OBSTRUCTION HIGHER THAN — 0,10 M

Circle line painted white or yellow, width — 0,20 M
Circle diameter to be marked (10)
Non skid surface

3. CLEAR ZONE — DIAMETER 22,00 M

NO OBSTRUCTION HIGHER THAN — 0,25 M

Circle line painted white or yellow, width — 0,20 M
Circle diameter to be marked (22)

4. MANOEUVRING ZONE — DIAMETER 27,50 M

NO OBSTRUCTION HIGHER THAN — 1,25 M

Man. zone circle line need not to be marked
Man. zone may extend over the ship's side

RIVER ELBE
(PILOTAGE – HELICOPTER)

SAFETY CHECK LIST

For use with ICS Guide to Helicopter/Ship Operations

To be checked by the officer in charge ☐

1. GENERAL

- (a) Have all loose objects within and adjacent to the operating area been secured or removed? ☐
- (b) Have all aerials, standing or running gear above, and in the vicinity of, the operating area been lowered or secured? ☐
- (c) Has the officer of the watch been consulted about the ship's readiness? ☐
- (d) Are the fire pumps running and is there adequate pressure on deck? ☐
- (e) Are fire hoses ready, (hoses should be near to, but clear of the operating area)? ☐
- (f) Are foam hoses, monitors and portable foam equipment ready? ☐
- (g) Are foam equipment operators, of whom at least two are wearing the prescribed firemen's outfits, standing by? ☐
- (h) Are the foam nozzles pointing away from the helicopter? ☐
- (i) Has a rescue party, of whom at least two are wearing firemen's outfits, been detailed? ☐
- (j) Is a man overboard rescue boat ready for immediate lowering? ☐
- (k) Are the following items of equipment to hand?
  - (i) Portable fire extinguishers? ☐
  - (ii) Large axe? ☐
  - (iii) Crow bar? ☐
  - (iv) Wire cutters? ☐
  - (v) Red emergency signal/torch? ☐
  - (vi) Marshalling batons (at night)? ☐
- (l) Has the correct lighting, (including special navigation lights), been switched on prior to night operations? ☐
- (m) Is the deck party ready, and are all passengers clear of the operating area? ☐
- (n) Have hook handlers been equipped with helmets, strong rubber or suitable gloves and rubber soled shoes to avoid the danger of static discharge? ☐

2. LANDING ON

- (a) Is the deck party aware that a landing is to be made? ☐
- (b) Is the operating area free of heavy spray or seas on deck? ☐
- (c) Have side rails and, where necessary, awnings, stanchions and derricks been lowered or removed? ☐
- (d) Where applicable, have portable pipes been removed and have the remaining apex ends been blanked off? ☐
- (e) Are rope messengers to hand for securing the helicopter, if necessary? (Note: only the helicopter pilot may decide whether or not to secure the helicopter) ☐

3. TANKERS: Additional Items for Check List

- (a) Gas control, ships not fitted with an Inert Gas System: has pressure been released from tanks within thirty (30) minutes of commencement of helicopter operations? ☐
- (b) Gas control, ships fitted with an Inert Gas System: has pressure in cargo tanks reduced to slight positive pressure? ☐
- (c) All tankers: have all tank openings been secured following venting operations? ☐

4. BULK AND COMBINATION CARRIERS: Additional Items for Check List

- (a) Has surface ventilation to dry bulk cargoes ceased, and have all hatch openings been fully battened down prior to helicopter operations? ☐

5. GAS CARRIERS: Additional Items for Check List

- (a) Have all precautions been taken to prevent gas emission on deck? ☐

Radio Communication

The helicopter will contact the vessel on VHF-FM channel 16 and will request the ship to change to channel 9 or 70.
The vessel shall advise the helicopter pilot of its position, heading, speed and the actual wind direction and speed over the deck.

Bearing Transmissions

After radio contact is established, until the helicopter is over the ship, it is essential that the vessel transmit direction finding signals on 410 kcs. On request of the helicopter pilot an uninterrupted (locked key) transmission should be given.

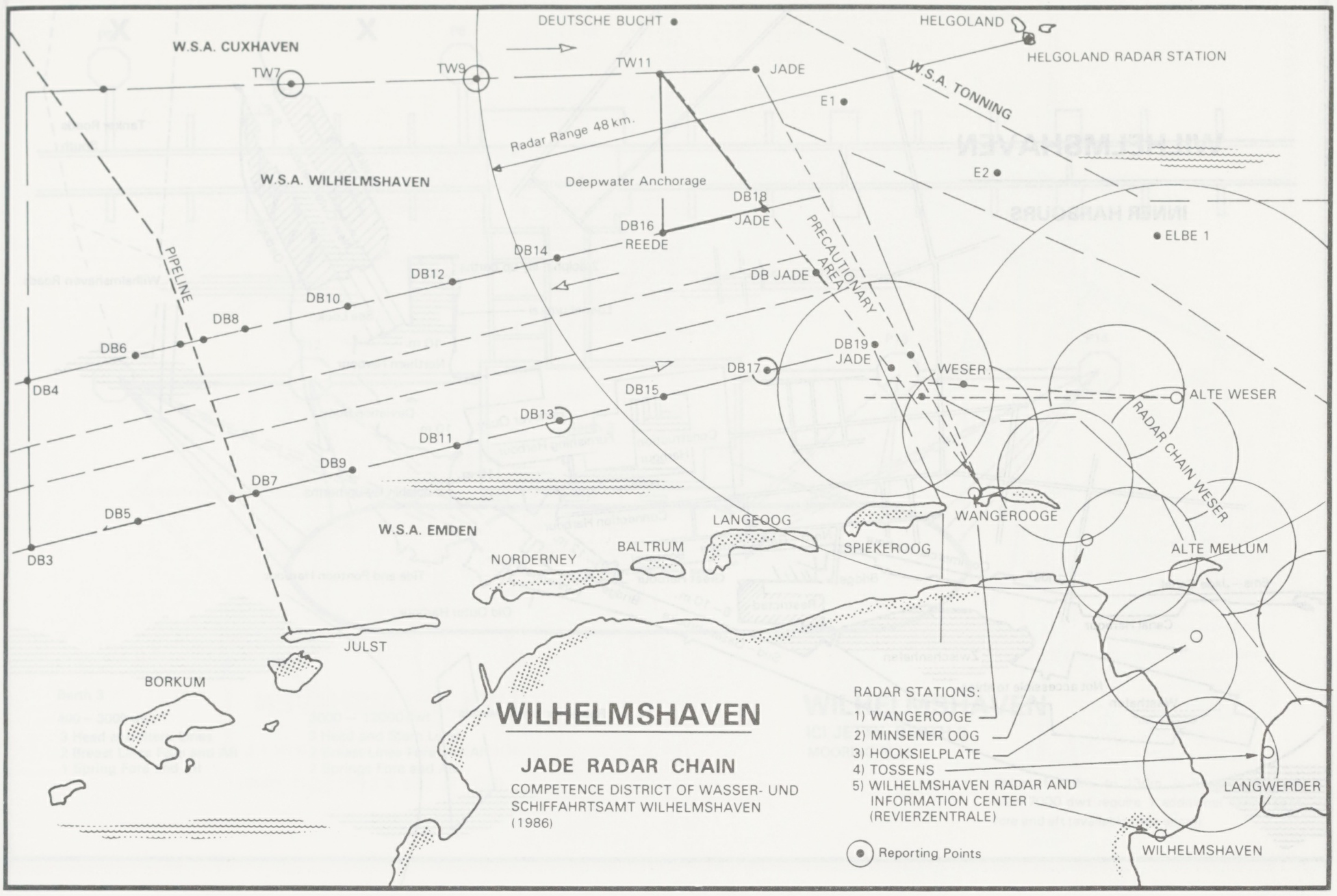
Wind Conditions Limiting Helicopter Operations

For most purposes the best relative wind is between 35° abaft the beam and ahead with speeds normally from 10 – 50 knots. However, certain sea conditions may make it necessary to obtain a relative wind which is between 35° abaft the beam and dead astern.

Sea and Swell

If possible the master should ensure that spray, roll and pitch are kept to a minimum by selecting a suitable course and speed. This is particularly important in preventing sea and spray from entering the helicopter's engine. The helicopter pilot should be informed of any likelihood of seas or heavy spray on deck.

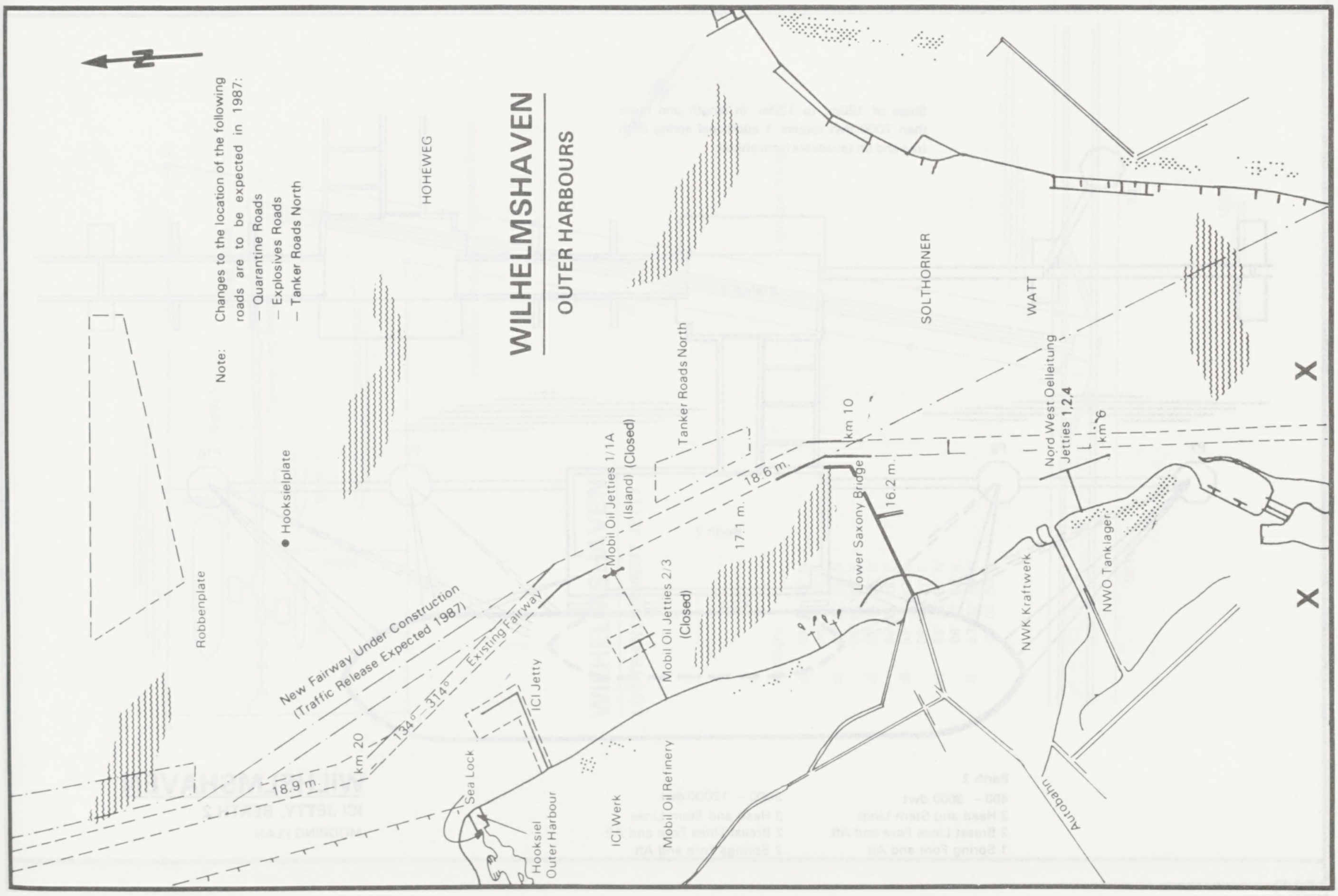
When personnel are being winched to or from smaller ships the helicopter pilot may request the ship to head into the sea to reduce rolling.


W.S.A. CUXHAVEN
TW7
TW9
TW11
DEUTSCHE BUCHT
JADE
HELGOLAND
HELGOLAND RADAR STATION
W.S.A. TONNING
E1
E2
ELBE 1
Radar Range 48 km.
Deepwater Anchorage
W.S.A. WILHELMSHAVEN
DB18
JADE
DB16
REEDE
PRECAUTIONARY AREA
DB14
DB12
DB JADE
DB10
DB8
PIPELINE
DB6
DB4
DB19
JADE
WESER
ALTE WESER
DB17
DB15
DB13
RADAR CHAIN WESER
DB11
DB9
DB7
DB5
DB3
W.S.A. EMDEN
LANGEOOG
WANGEROOGE
BALTRUM
NORDERNEY
SPIEKEROOG
ALTE MELLUM
JULST
BORKUM
RADAR STATIONS:
1) WANGEROOGE
2) MINSENER OOG
3) HOOKSIELPLATE
4) TOSSENS
5) WILHELMSHAVEN RADAR AND INFORMATION CENTER (REVIERZENTRALE)
LANGWERDER
WILHELMSHAVEN
Reporting Points

WILHELMSHAVEN

JADE RADAR CHAIN

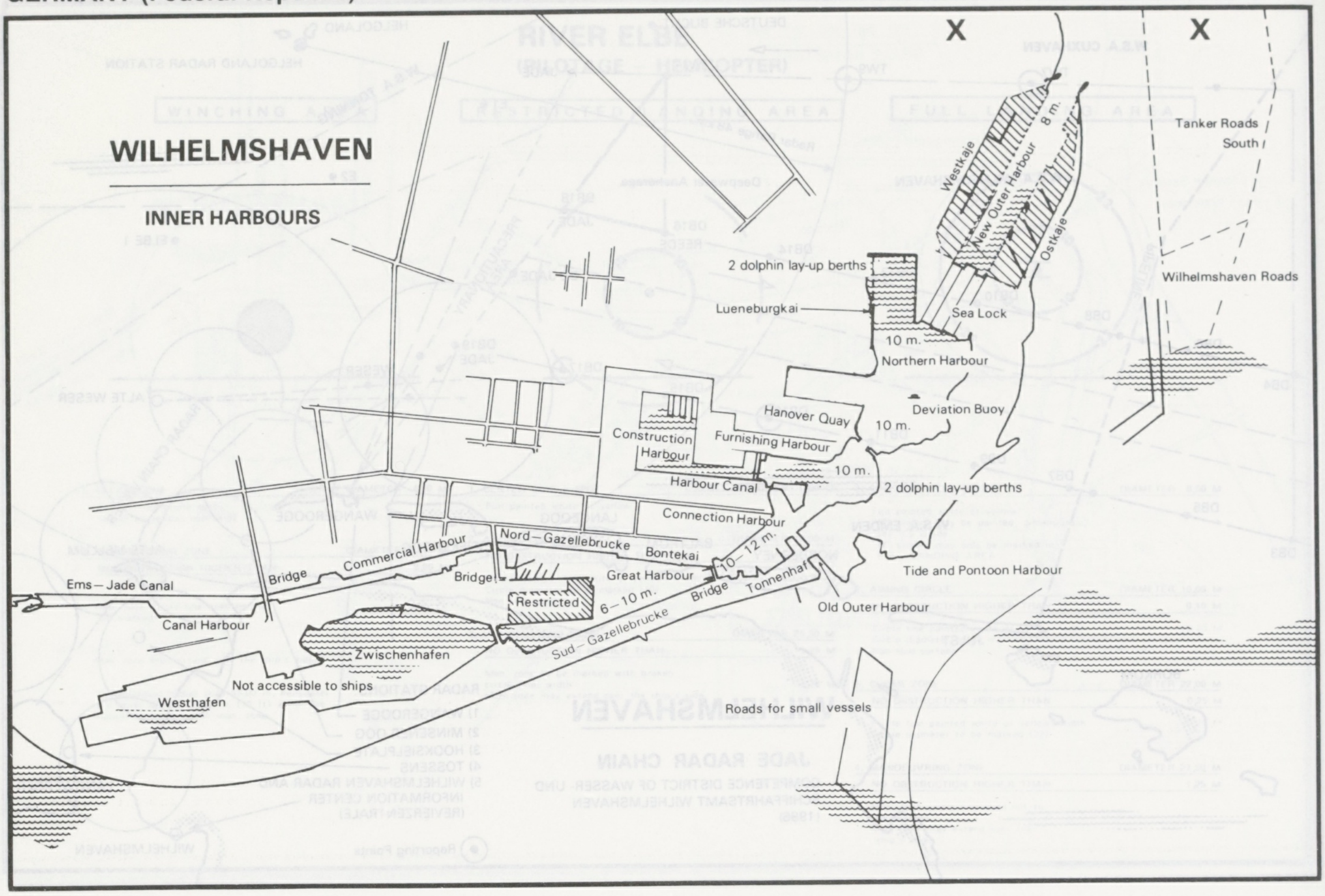
COMPETENCE DISTRICT OF WASSER- UND SCHIFFAHRTSAMT WILHELMSHAVEN (1986)

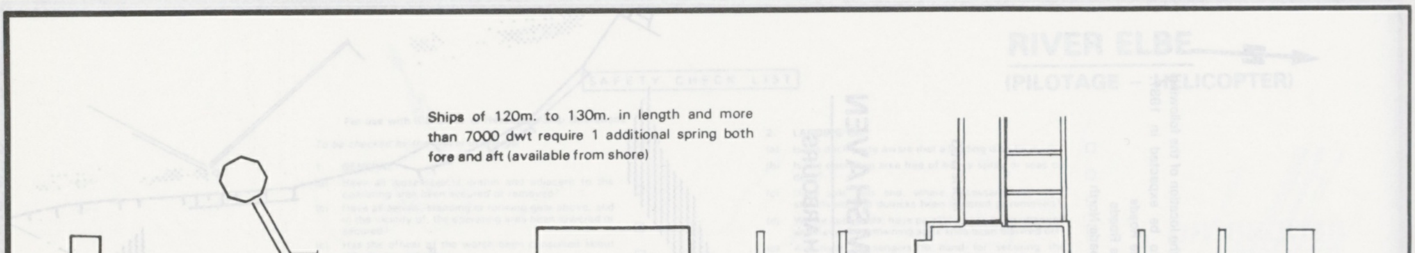

N
HOHEWEG
Hooksielplate
Robbenplate
New Fairway Under Construction (Traffic Release Expected 1987)
Existing Fairway
18.9 m
km 20
134°
314°
Sea Lock
Hooksiel Outer Harbour
ICI Werk
ICI Jetty
Mobil Oil Refinery
Mobil Oil Jetties 2/3 (Closed)
Mobil Oil Jetties 1/1A (Island) (Closed)
Tanker Roads North
17.1 m
18.6 m
Lower Saxony Bridge
16.2 m
km 10
SOLTHORNER
WATT
Nord West Oelleitung Jetties 1,2,4
km 6
NWK Kraftwerk
NWO Tanklager
Autobahn
X
X

WILHELMSHAVEN

OUTER HARBOURS

Note: Changes to the location of the following roads are to be expected in 1987:
– Quarantine Roads
– Explosives Roads
– Tanker Roads North

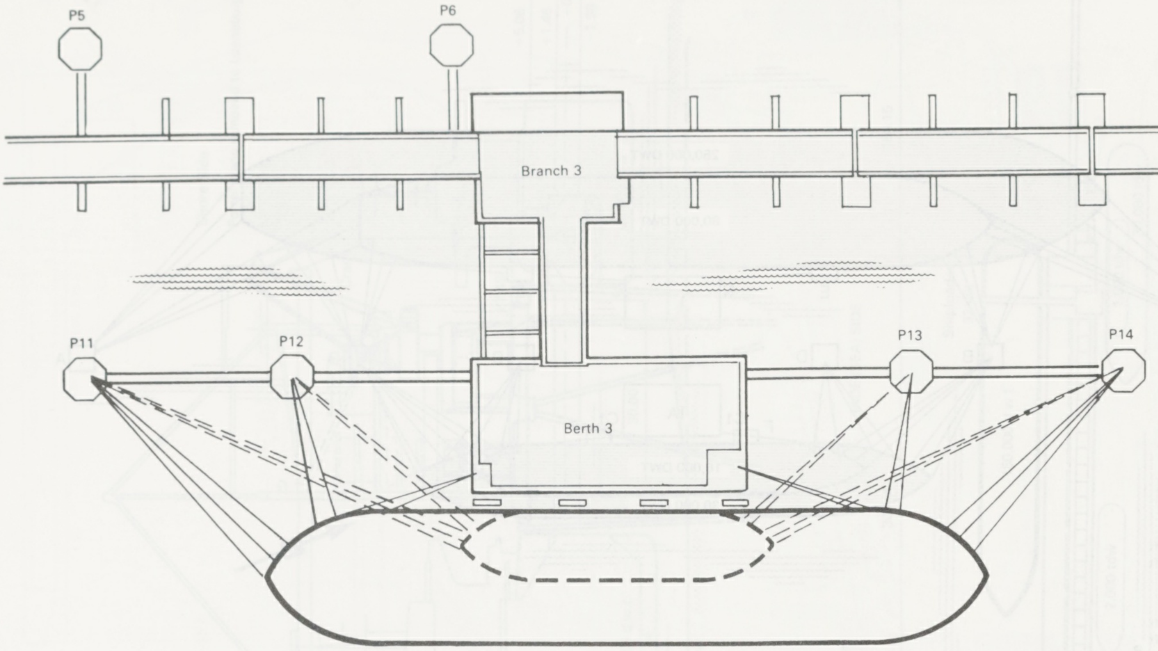

X
X
WILHELMSHAVEN
INNER HARBOURS
Tanker Roads South
Westkaje
New Outer Harbour
8 m.
Ostkaje
Wilhelmshaven Roads
2 dolphin lay-up berths
Lueneburgkai
Sea Lock
10 m.
Northern Harbour
Deviation Buoy
Hanover Quay
10 m.
Construction Harbour
Furnishing Harbour
10 m.
Harbour Canal
2 dolphin lay-up berths
Connection Harbour
Nord-Gazellebrucke
Bontekai
10-12 m.
Tonnenhaf
Tide and Pontoon Harbour
Commercial Harbour
Bridge
Bridge
Great Harbour
Ems-Jade Canal
Restricted
6-10 m.
Bridge
Old Outer Harbour
Sud-Gazellebrucke
Canal Harbour
Zwischenhafen
Not accessible to ships
Westhafen
Roads for small vessels


Branch 2
P7
P8
P9
P10
Berth 2
WILHELMSHAVEN
ICI JETTY, BERTH 2
MOORING PLAN

Ships of 120m. to 130m. in length and more than 7000 dwt require 1 additional spring both fore and aft (available from shore)

Berth 2
400 - 3000 dwt
3 Head and Stern Lines
2 Breast Lines Fore and Aft
1 Spring Fore and Aft

3000 - 12000 dwt
3 Head and Stern Lines
2 Breast Lines Fore and Aft
2 Springs Fore and Aft


P5
P6
Branch 3
P11
P12
P13
P14
Berth 3

Berth 3

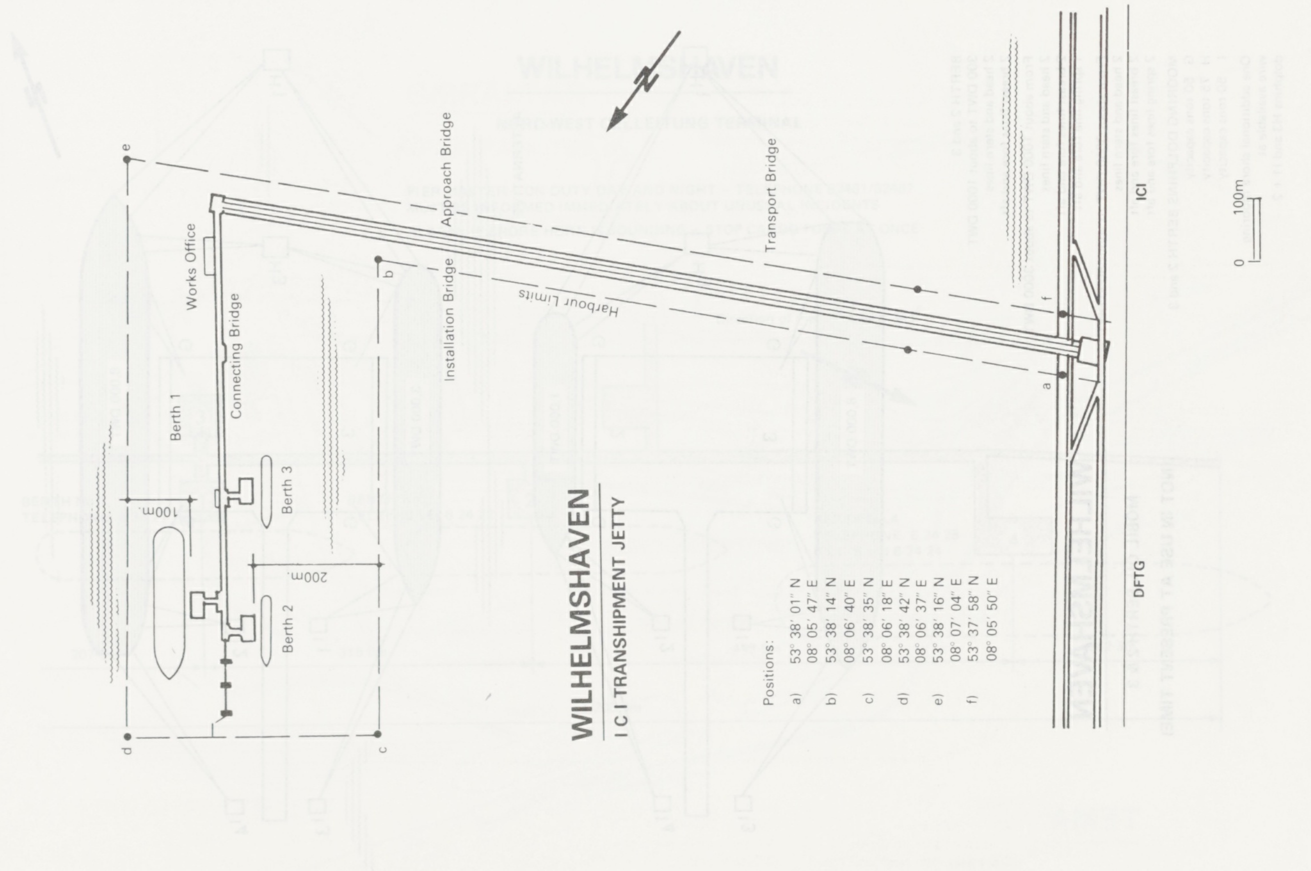
400 – 3000 dwt	3000 – 12000 dwt
3 Head and Stern Lines	3 Head and Stern Lines
2 Breast Lines Fore and Aft	2 Breast Lines Fore and Aft
1 Spring Fore and Aft	2 Springs Fore and Aft

WILHELMSHAVEN

ICI JETTY, BERTH 3

MOORING PLAN

Ships of 120m. to 130m. in length and more than 7000 dwt require 1 additional spring both fore and aft (available from shore)

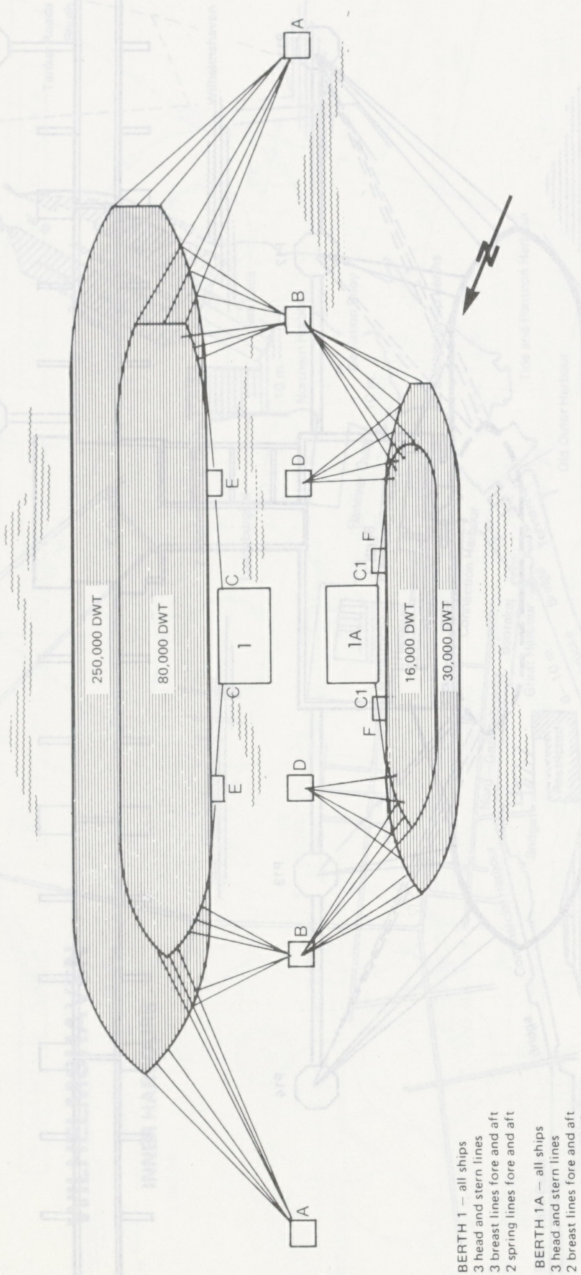

e
Approach Bridge
Transport Bridge
ICI
0
100m
Works Office
b
Installation Bridge
Harbour Limits
f
a
Connecting Bridge
Berth 1
Berth 3
100m.
200m.
Berth 2
d
c
DFTG

WILHELMSHAVEN

I C I TRANSHIPMENT JETTY

Positions:

a)	53° 38′ 01″ N 08° 05′ 47″ E
b)	53° 38′ 14″ N 08° 06′ 40″ E
c)	53° 38′ 35″ N 08° 06′ 18″ E
d)	53° 38′ 42″ N 08° 06′ 37″ E
e)	53° 38′ 16″ N 08° 07′ 04″ E
f)	53° 37′ 58″ N 08° 05′ 50″ E


A
B
D
E
C
F
C1
1
1A
250,000 DWT
80,000 DWT
16,000 DWT
30,000 DWT
D
E
C1
F
B
A

WILHELMSHAVEN

MOBIL OIL, SEA ISLAND, BERTH 1 & 1A

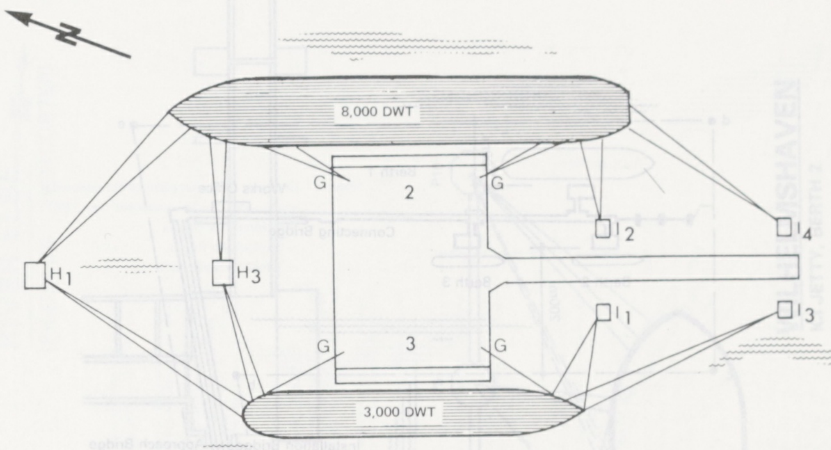
(NOT IN USE AT PRESENT TIME)

BERTH 1 – all ships
3 head and stern lines
3 breast lines fore and aft
2 spring lines fore and aft

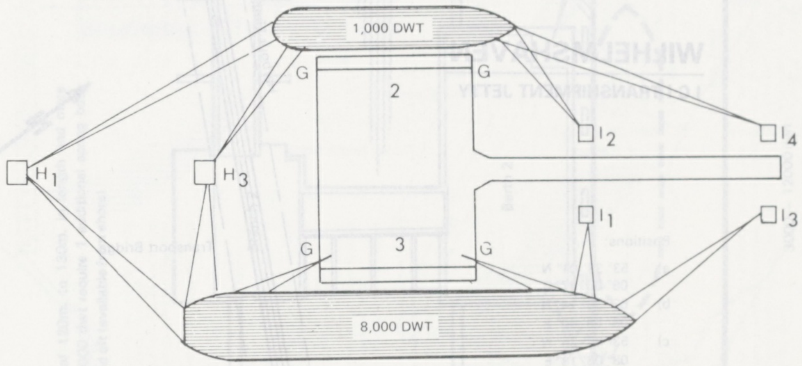
BERTH 1A – all ships
3 head and stern lines
2 breast lines fore and aft
2 spring lines fore and aft

MOORING DOLPHINS BERTHS 1 & 1A
A 3 × 125 tons hooks
B 3 × 125 tons hooks
C 2 × 100 tons hooks
D 2 × 50 tons hooks
2 × 75 tons hooks

One additional shore mooring wire available at dolphins B and D


8,000 DWT
G
2
G
I_2
I_4
H_1
H_3
I_1
I_3
G
3
G
3,000 DWT

ALTERNATIVE


1,000 DWT
G
G
2
I_2
I_4
H_1
H_3
I_1
I_3
G
3
G
8,000 DWT

BERTH 2 and 3
300 DWT to about 1000 DWT
2 head and stern lines
2 breast lines fore and aft

From about 1000 DWT to about 3000 DWT
2 head and stern lines
2 breast lines fore and aft
1 spring line fore and aft

From about 3000 DWT to about 8000 DWT
2 head and stern lines
2 breast lines fore and aft
2 spring lines fore and aft

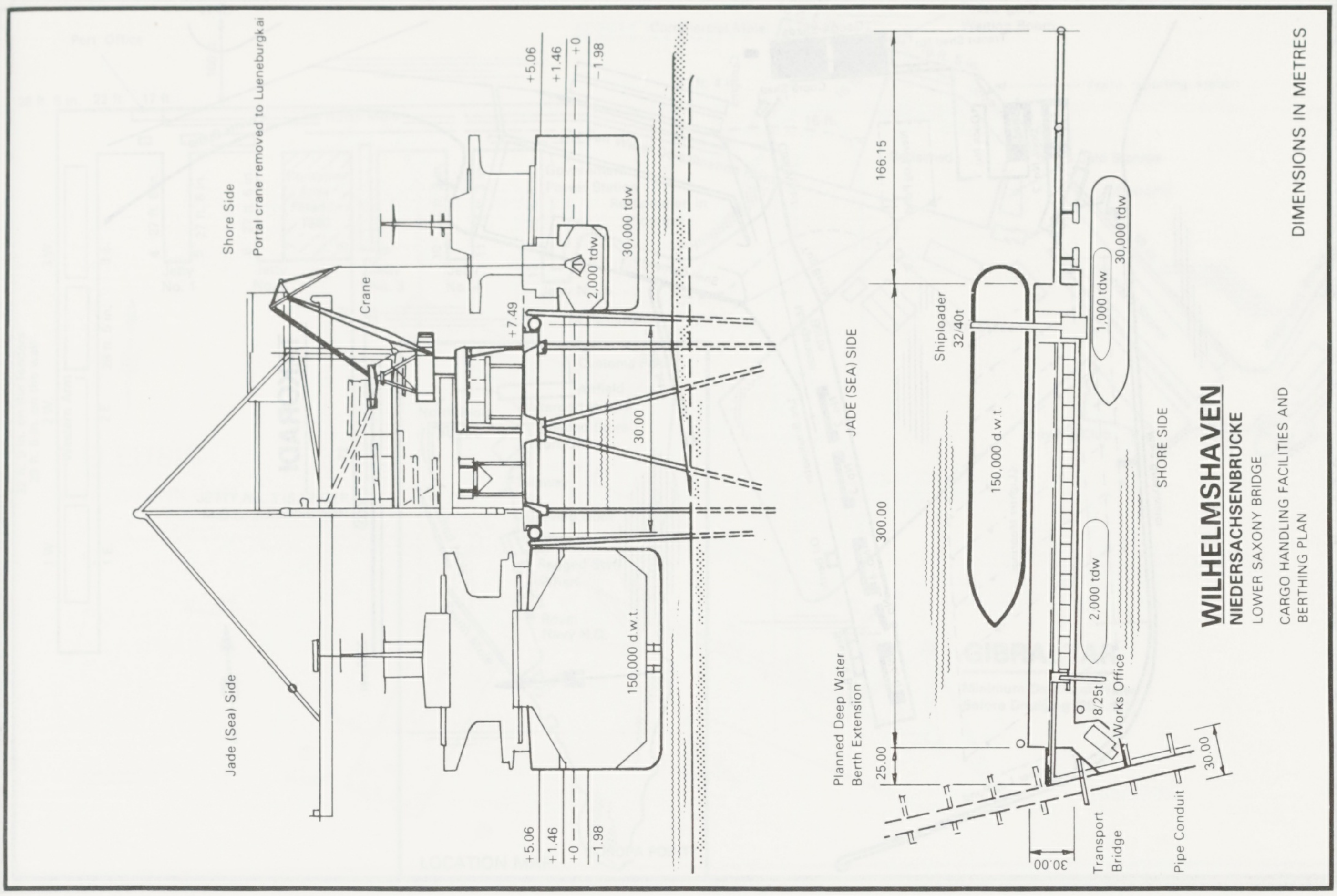
MOORING DOLPHINS BERTH 2 and 3
G 50 tons capacity
H 75 tons capacity
I 50 tons capacity

One additional shore mooring wire available at dolphins H3 and I1 + 2

WILHELMSHAVEN

MOBIL OIL BERTH 2 & 3

(NOT IN USE AT PRESENT TIME)



WILHELMSHAVEN

NIEDERSACHSENBRUCKE

LOWER SAXONY BRIDGE

CARGO HANDLING FACILITIES AND BERTHING PLAN

DIMENSIONS IN METRES

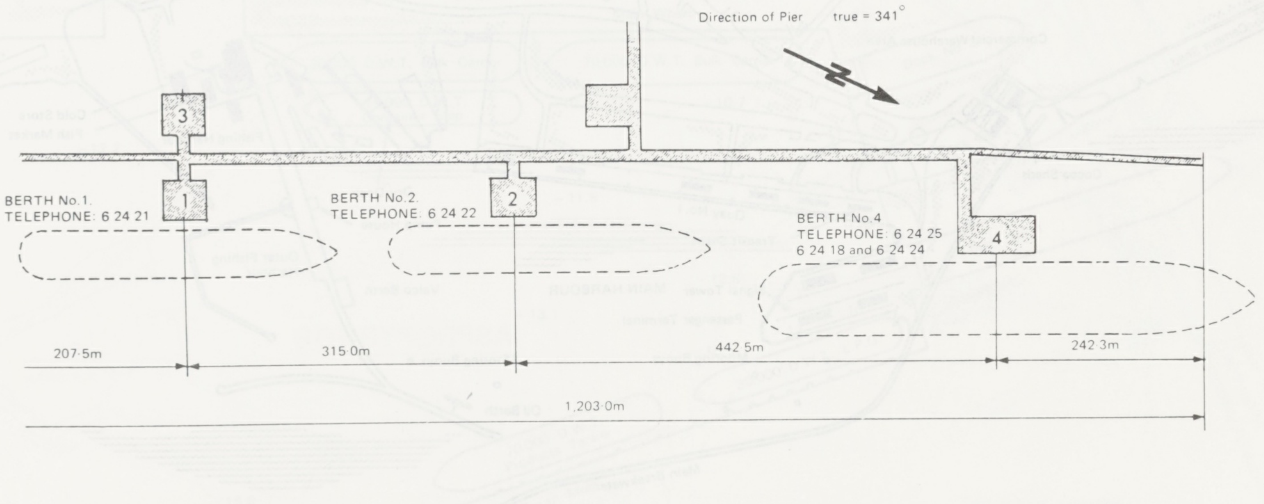
Shore Side
Portal crane removed to Lueneburgkai
Crane
Jade (Sea) Side
+5.06
+1.46
+0
−1.98
+7.49
2,000 tdw
30,000 tdw
30.00
150,000 d.w.t.
166.15
300.00
25.00
JADE (SEA) SIDE
Shiploader 32/40t
1,000 tdw
30,000 tdw
150,000 d.w.t.
2,000 tdw
SHORE SIDE
Planned Deep Water Berth Extension
8/25t
Works Office
Transport Bridge
Pipe Conduit
30.00

WILHELMSHAVEN

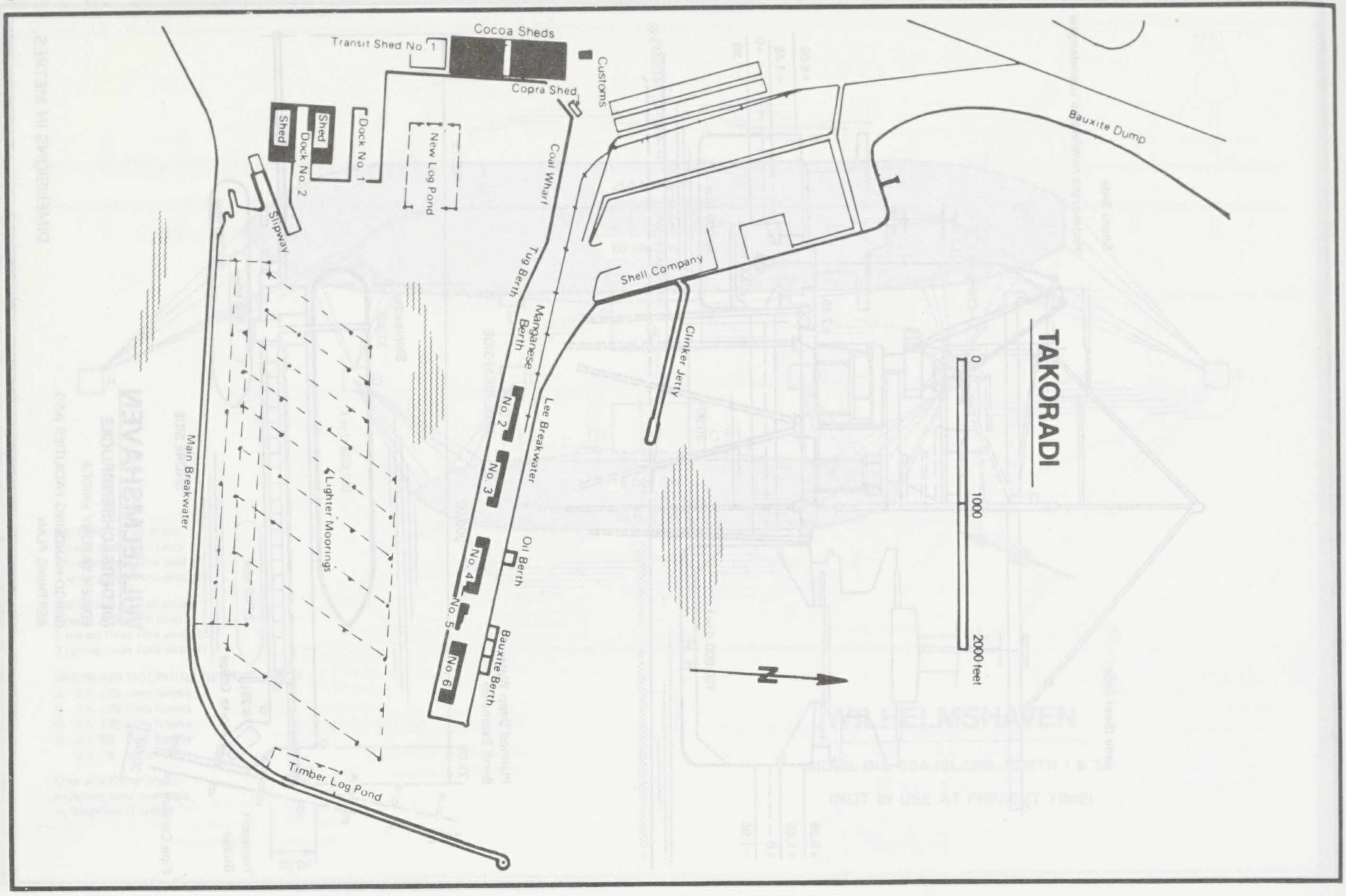
NORD-WEST OELLEITUNG TERMINAL

PIER MASTER – ON DUTY DAY AND NIGHT – TELEPHONE 62461/62462
MUST BE INFORMED IMMEDIATELY ABOUT UNUSUAL INCIDENTS

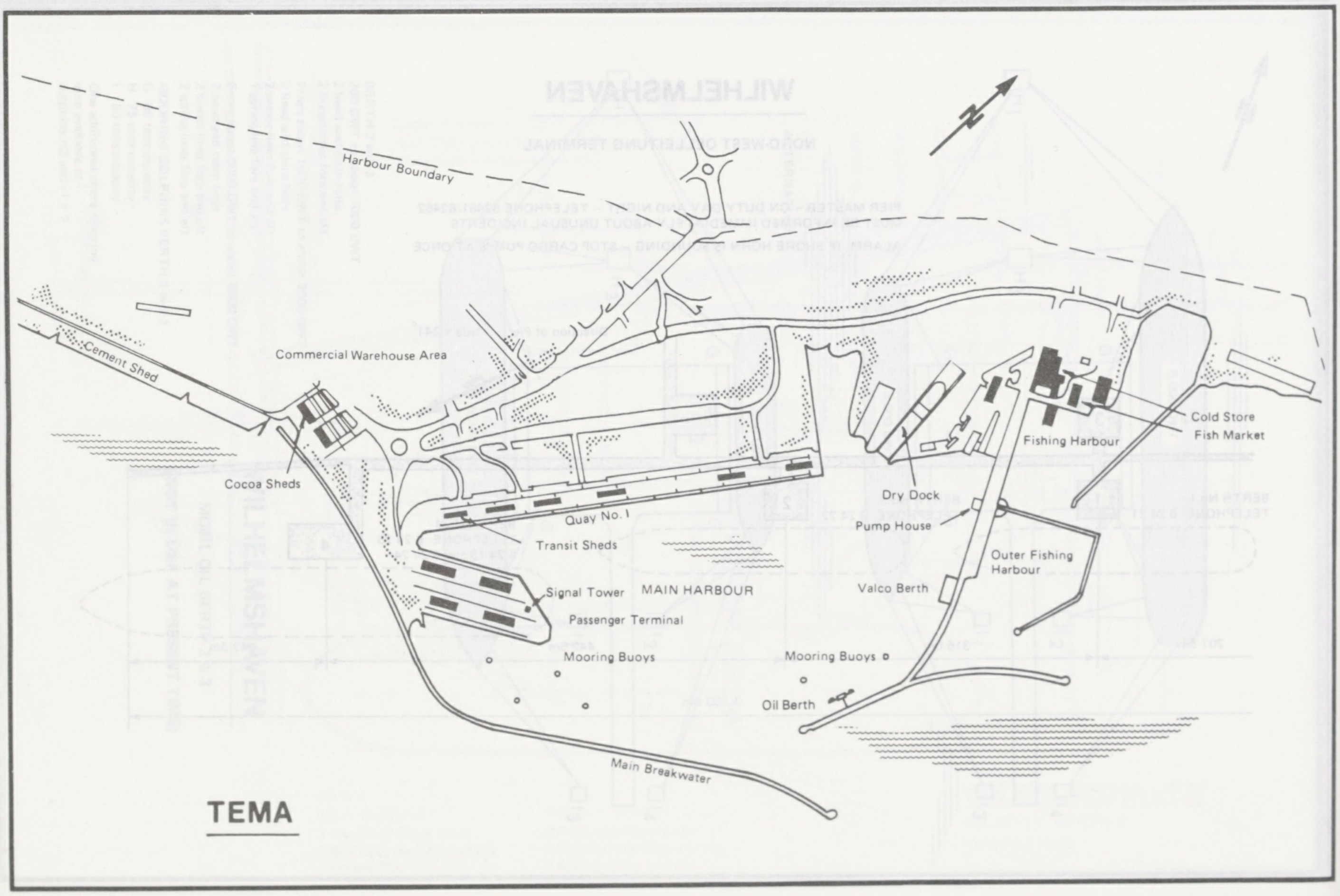
ALARM: IF SHORE HORN IS SOUNDING – STOP CARGO PUMPS AT ONCE



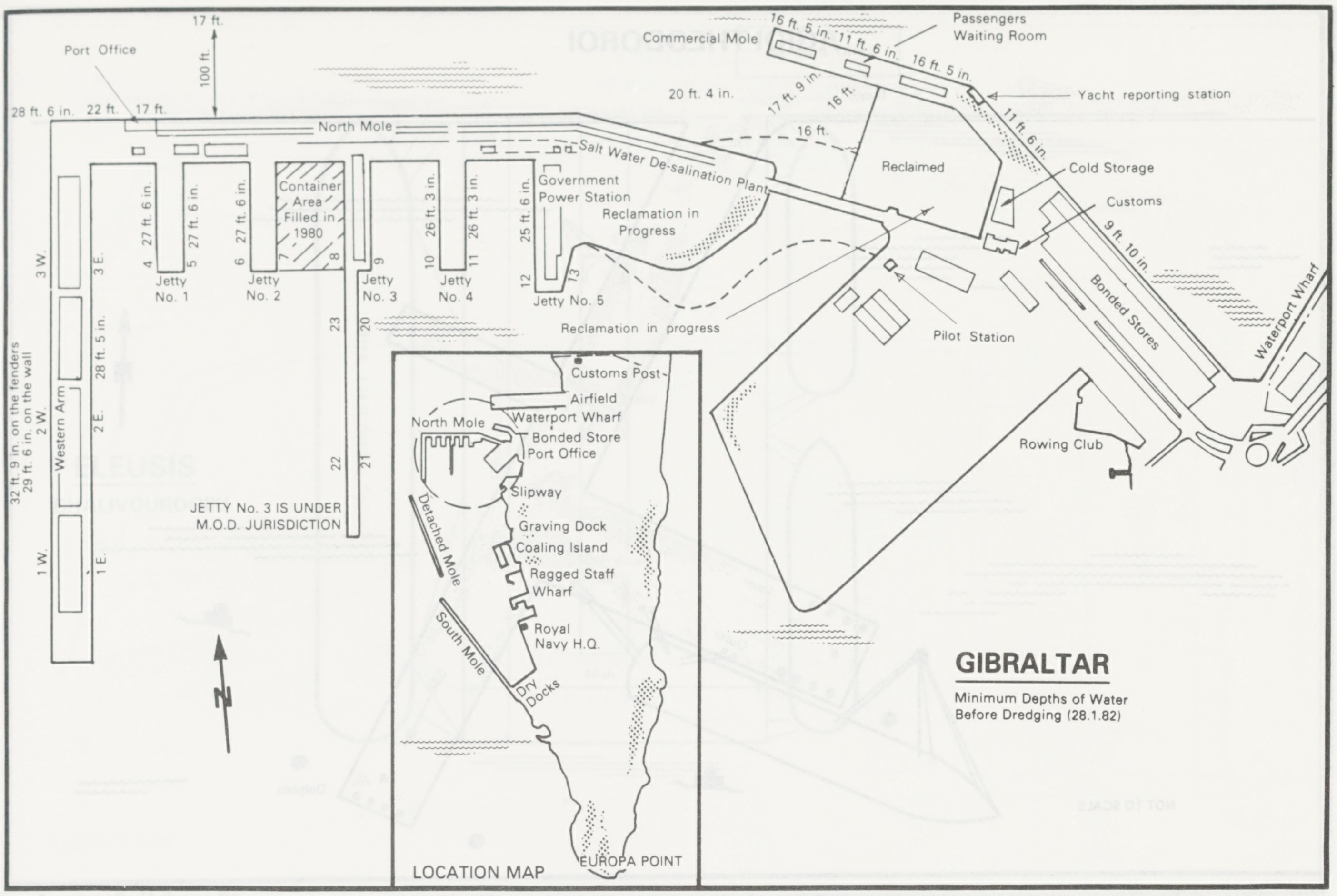
Direction of Pier true = 341°
3
1
2
4
BERTH No.1.
TELEPHONE: 6 24 21
BERTH No.2.
TELEPHONE: 6 24 22
BERTH No.4
TELEPHONE: 6 24 25
6 24 18 and 6 24 24
207·5m
315·0m
442·5m
242·3m
1,203·0m

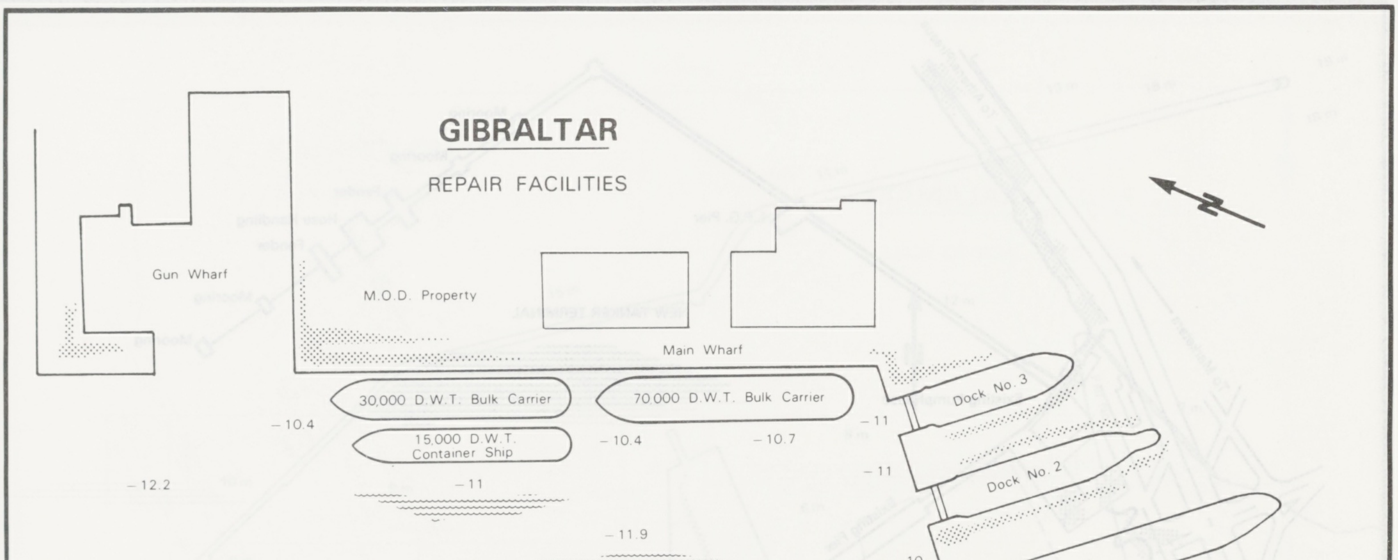

Cocoa Sheds
Transit Shed No. 1
Customs
Copra Shed
Shed
Shed
Dock No. 2
Dock No. 1
New Log Pond
Coal Wharf
Slipway
Tug Berth
Manganese Berth
Lee Breakwater
No. 2
No. 3
Oil Berth
No. 4
No. 5
No. 6
Bauxite Berth
Main Breakwater
Lighter Moorings
Timber Log Pond
Shell Company
Clinker Jetty
Bauxite Dump
0
1000
2000 feet
N

TAKORADI

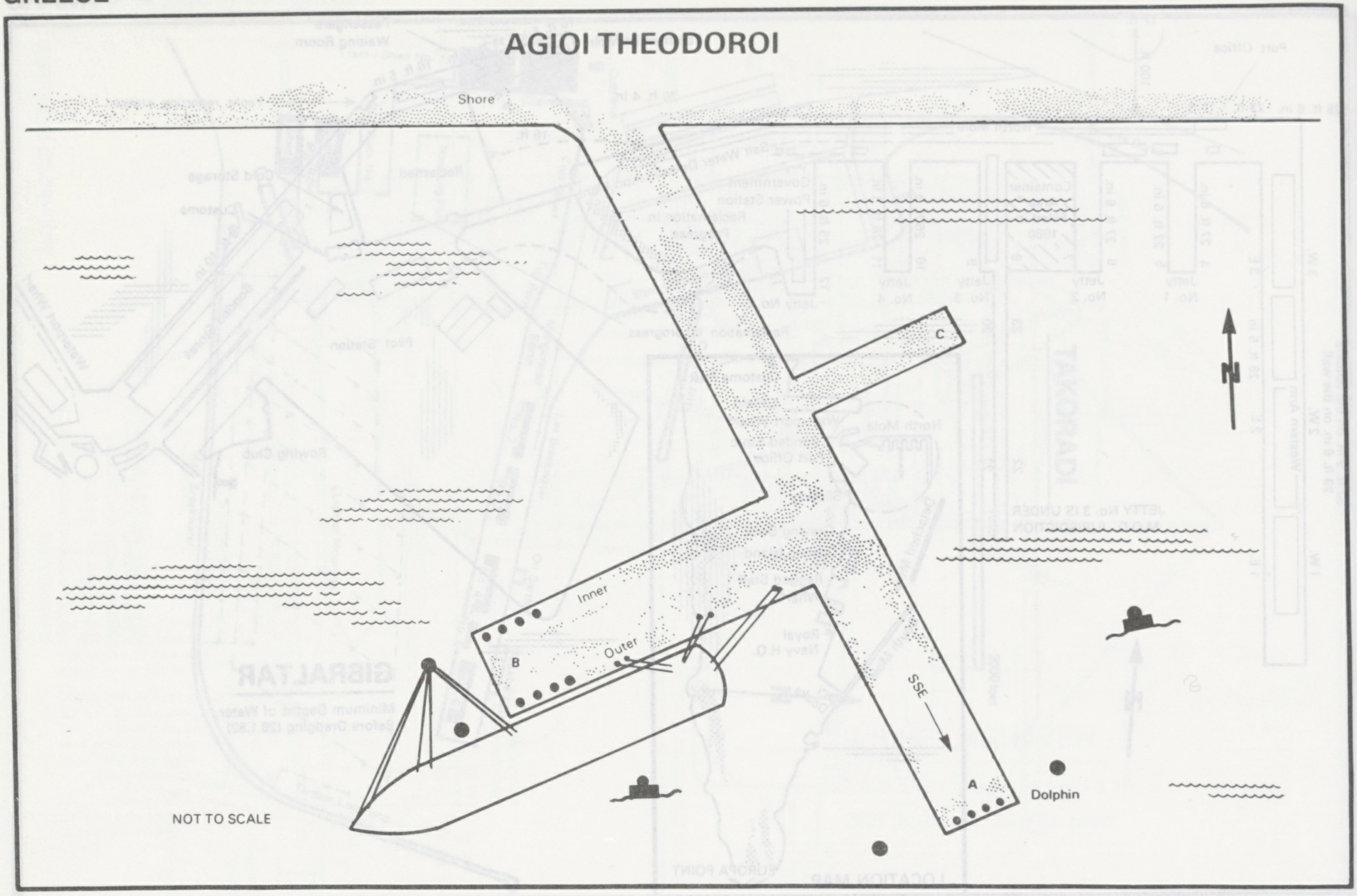

N
Harbour Boundary
Cement Shed
Commercial Warehouse Area
Cocoa Sheds
Quay No. 1
Transit Sheds
Signal Tower
MAIN HARBOUR
Passenger Terminal
Mooring Buoys
Mooring Buoys
Oil Berth
Valco Berth
Outer Fishing Harbour
Pump House
Dry Dock
Fishing Harbour
Cold Store
Fish Market
Main Breakwater

TEMA


Port Office
17 ft.
100 ft.
28 ft. 6 in.
22 ft.
17 ft.
North Mole
Commercial Mole
16 ft. 5 in.
11 ft. 6 in.
16 ft. 5 in.
Passengers
Waiting Room
Yacht reporting station
20 ft. 4 in.
17 ft. 9 in.
16 ft.
16 ft.
11 ft. 6 in.
Salt Water De-salination Plant
Reclaimed
Cold Storage
Customs
9 ft. 10 in.
Bonded Stores
Waterport Wharf
Container Area Filled in 1980
Government Power Station
Reclamation in Progress
Reclamation in progress
Pilot Station
Rowing Club
27 ft. 6 in.
27 ft. 6 in.
27 ft. 6 in.
26 ft. 3 in.
26 ft. 3 in.
25 ft. 6 in.
4
5
6
7
8
9
10
11
12
13
Jetty No. 1
Jetty No. 2
Jetty No. 3
Jetty No. 4
Jetty No. 5
3 W.
3 E.
28 ft. 5 in.
2 W.
2 E.
1 W.
1 E.
Western Arm
32 ft. 9 in. on the fenders
29 ft. 6 in. on the wall
23
20
22
21
JETTY No. 3 IS UNDER M.O.D. JURISDICTION
N
Customs Post
Airfield
North Mole
Waterport Wharf
Bonded Store
Port Office
Slipway
Detached Mole
Graving Dock
Coaling Island
Ragged Staff Wharf
Royal Navy H.Q.
South Mole
Dry Docks
EUROPA POINT
LOCATION MAP
GIBRALTAR
Minimum Depths of Water Before Dredging (28.1.82)

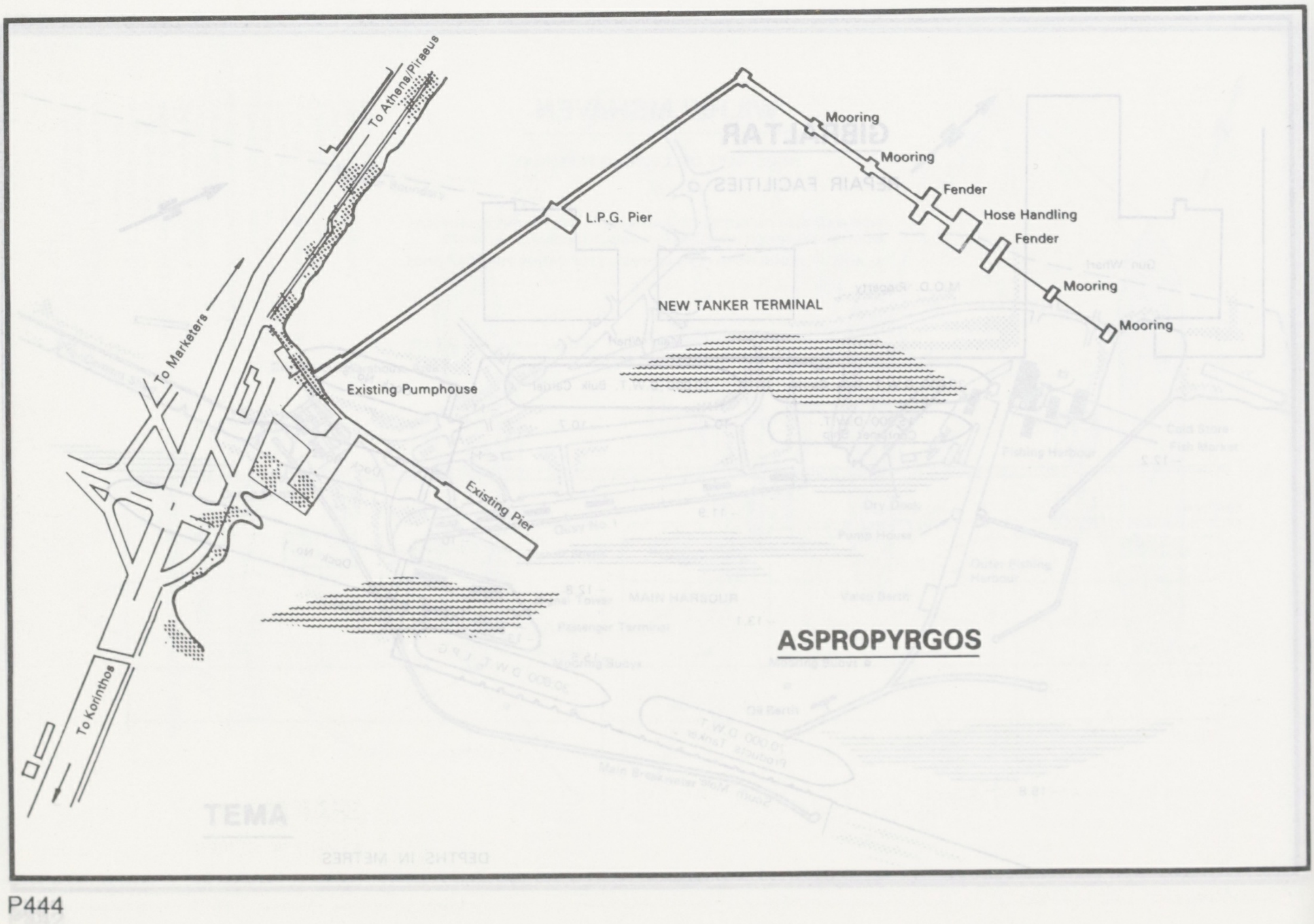

GIBRALTAR
REPAIR FACILITIES
N
Gun Wharf
M.O.D. Property
Main Wharf
30,000 D.W.T. Bulk Carrier
70,000 D.W.T. Bulk Carrier
15,000 D.W.T. Container Ship
Dock No. 3
Dock No. 2
Dock No. 1
30,000 D.W.T. L.P.G.
70,000 D.W.T. Products Tanker
South Mole
– 10.4
– 10.4
– 10.7
– 11
– 11
– 11
– 12.2
– 11.9
– 10
– 12.8
– 13.1
– 10
– 13
– 15.5
– 15.8
DEPTHS IN METRES

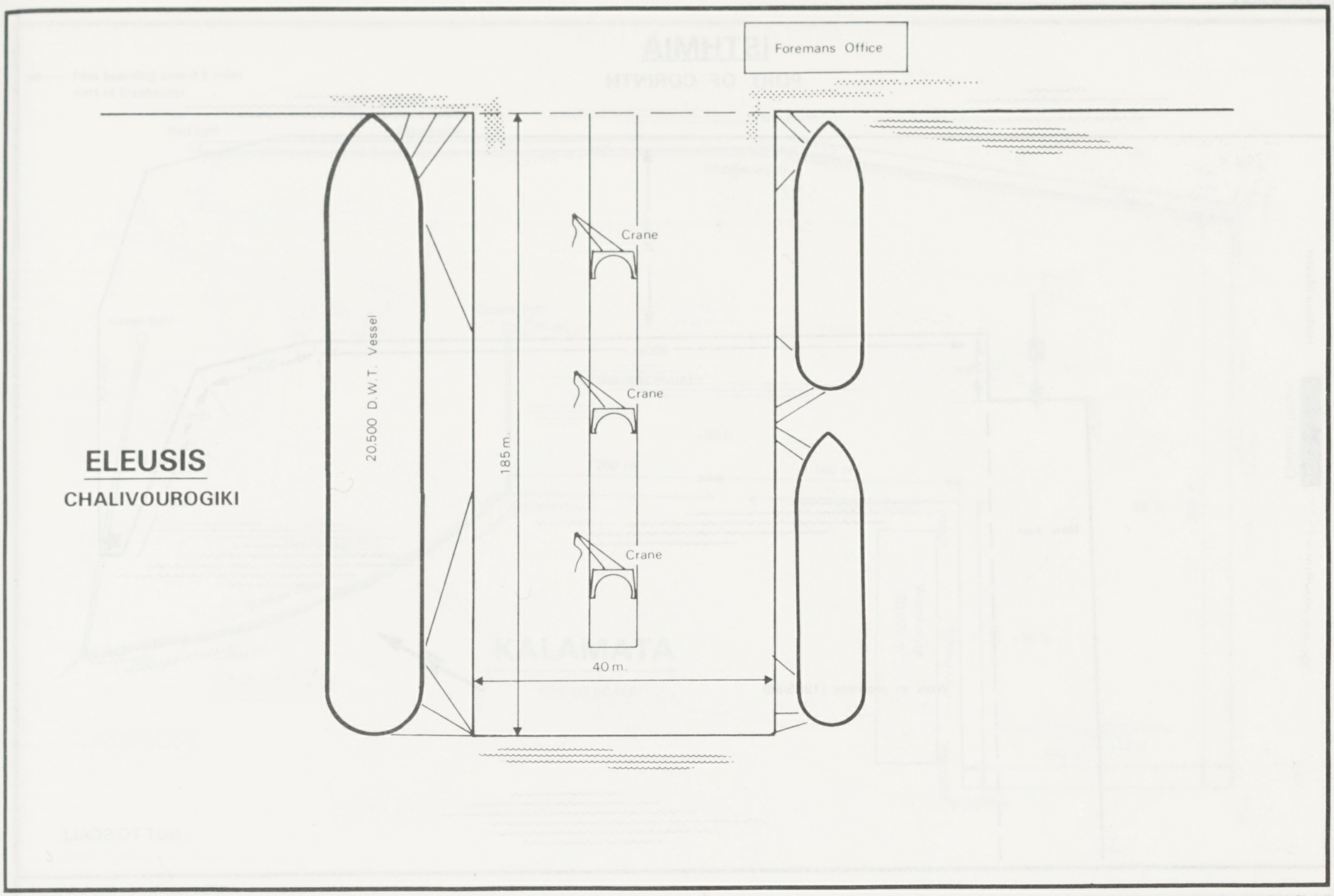
AGIOI THEODOROI


Shore
N
C
Inner
Outer
B
SSE
A
Dolphin
NOT TO SCALE

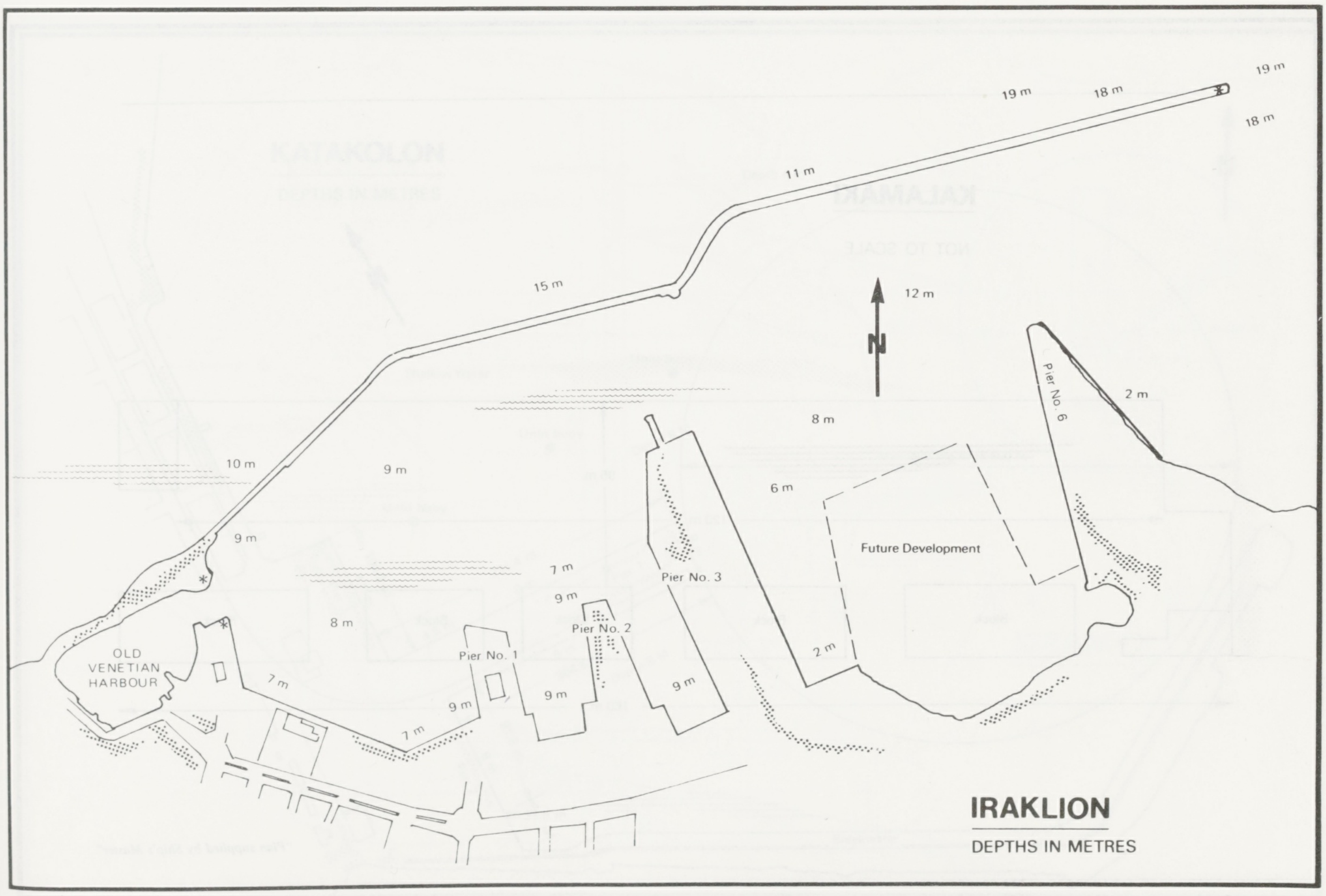
"Plan supplied by Ship's Master"

ASPROPYRGOS


To Athens/Piraeus
To Marketers
To Korinthos
L.P.G. Pier
Mooring
Mooring
Fender
Hose Handling
Fender
Mooring
Mooring
NEW TANKER TERMINAL
Existing Pumphouse
Existing Pier

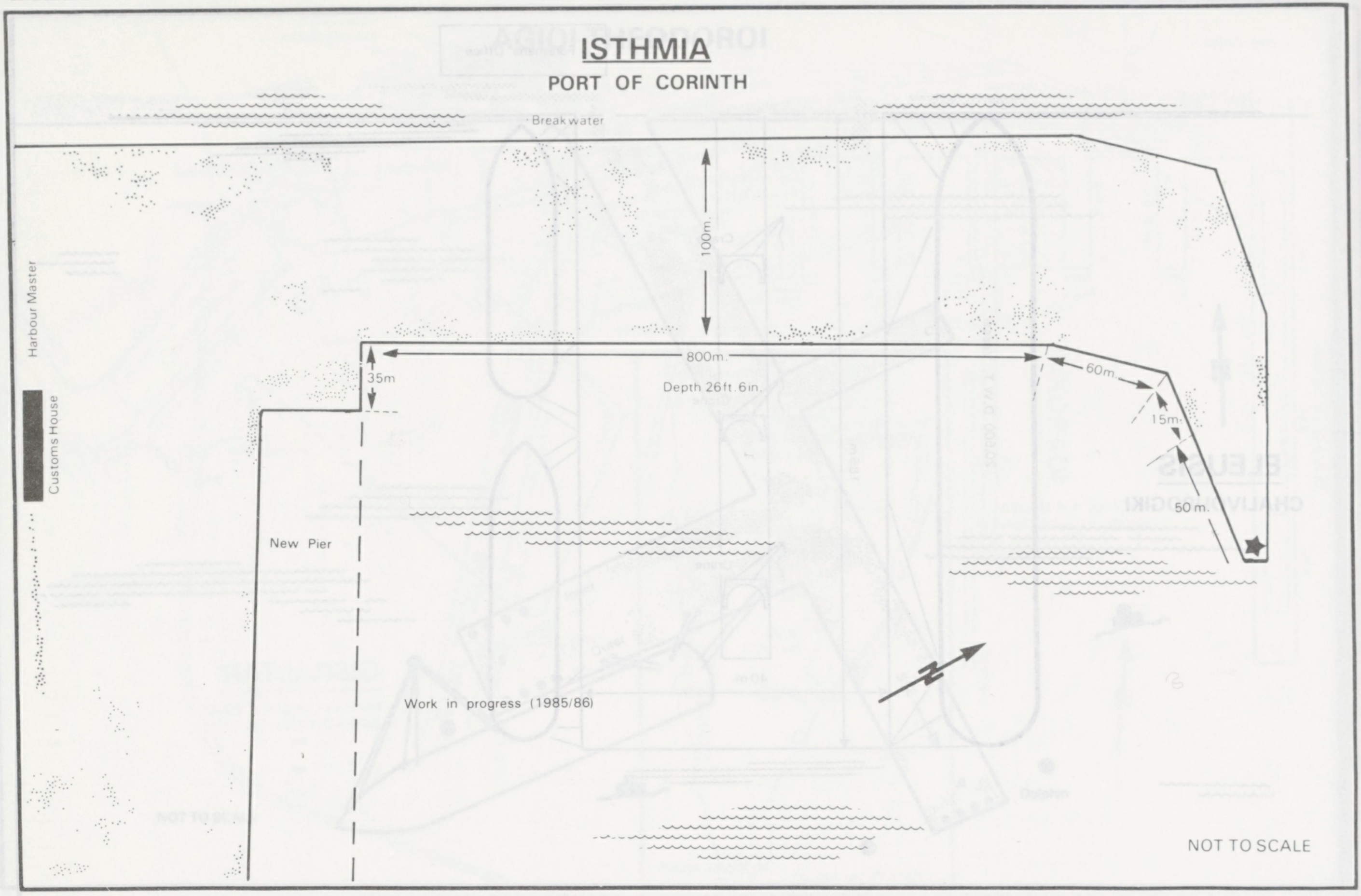

Foremans Office
Crane
Crane
Crane
20.500 D.W.T. Vessel
185 m.
40 m.
ELEUSIS
CHALIVOUROGIKI

"Plan supplied by Ship's Officer"


19 m
19 m
18 m
18 m
11 m
15 m
12 m
N
Pier No. 6
2 m
8 m
10 m
9 m
6 m
9 m
Future Development
7 m
Pier No. 3
9 m
Pier No. 2
8 m
OLD
VENETIAN
HARBOUR
Pier No. 1
2 m
7 m
9 m
9 m
9 m
7 m
IRAKLION
DEPTHS IN METRES

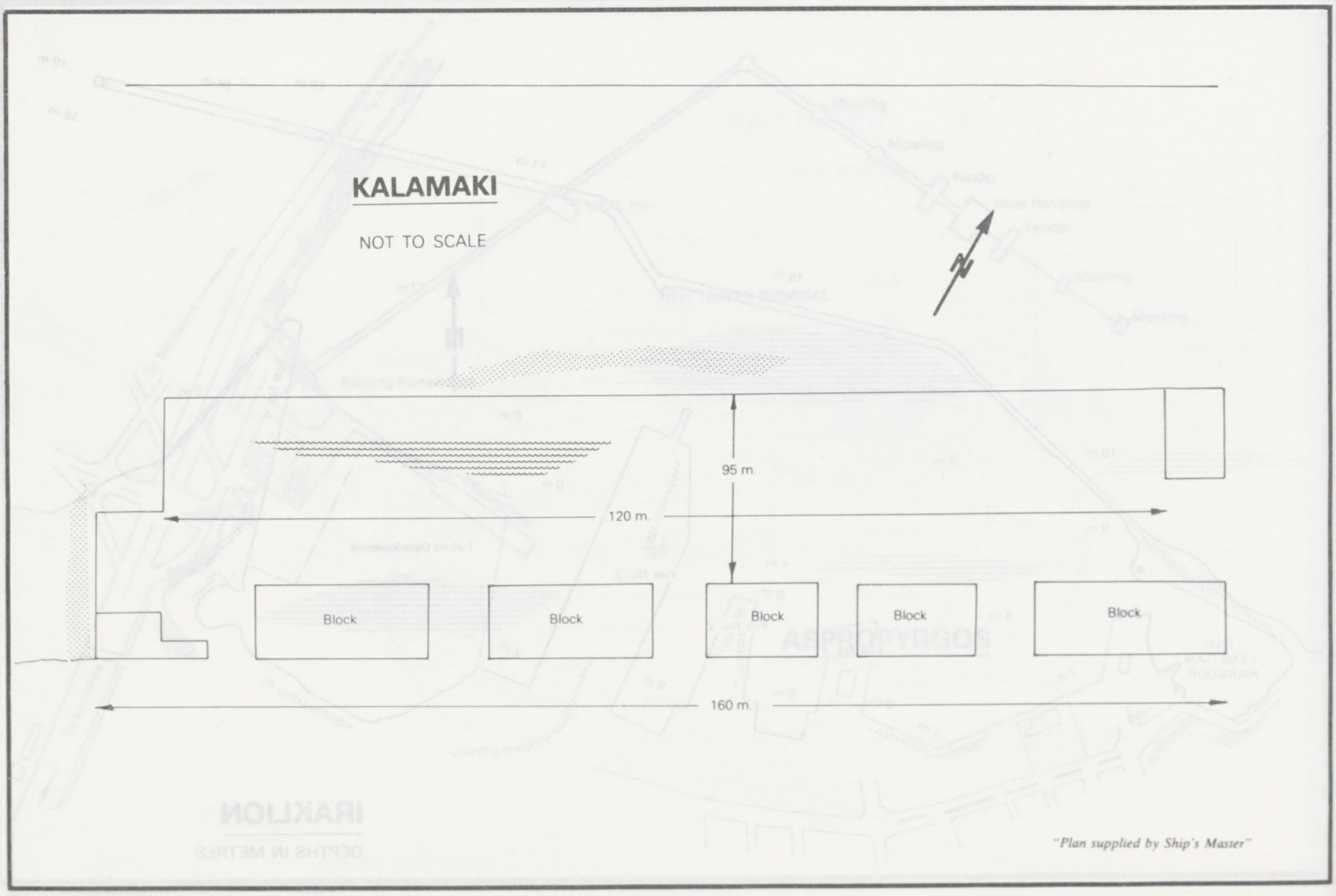
ISTHMIA

PORT OF CORINTH

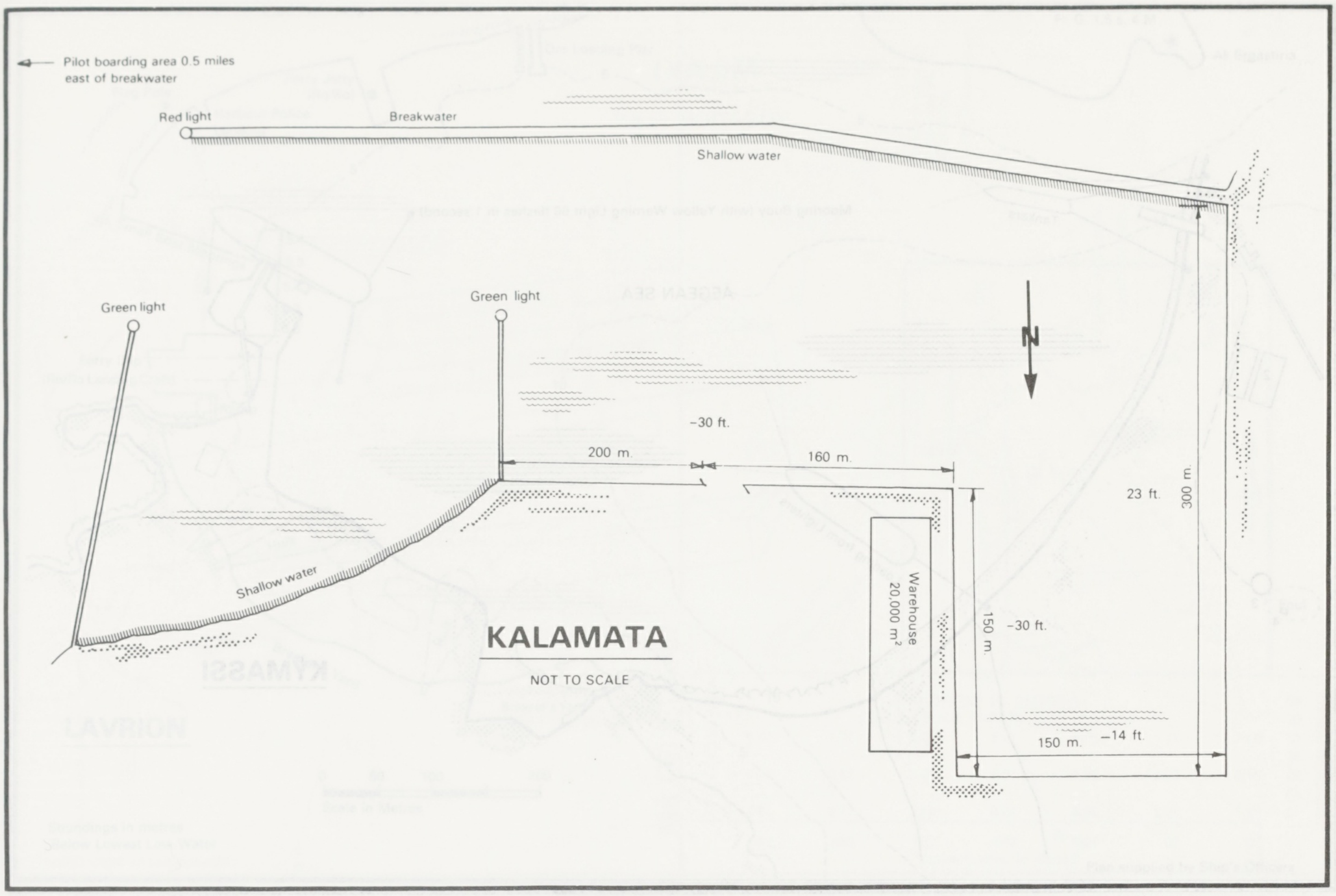

Breakwater
100m.
Harbour Master
Customs House
35m
800m.
Depth 26ft. 6in.
60m.
15m.
50m.
New Pier
Work in progress (1985/86)
NOT TO SCALE

"Plan supplied by Ship's Master"

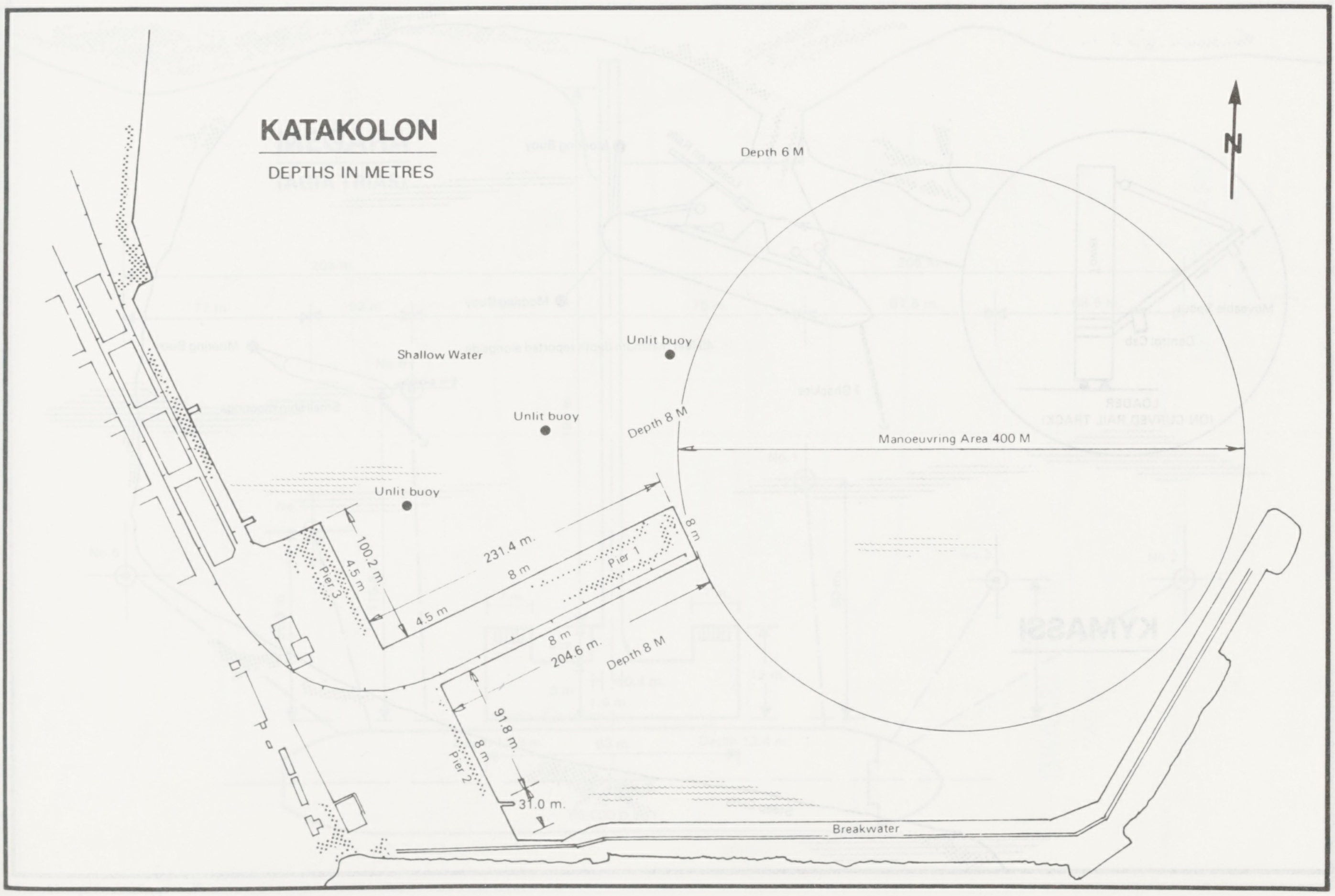
KALAMAKI

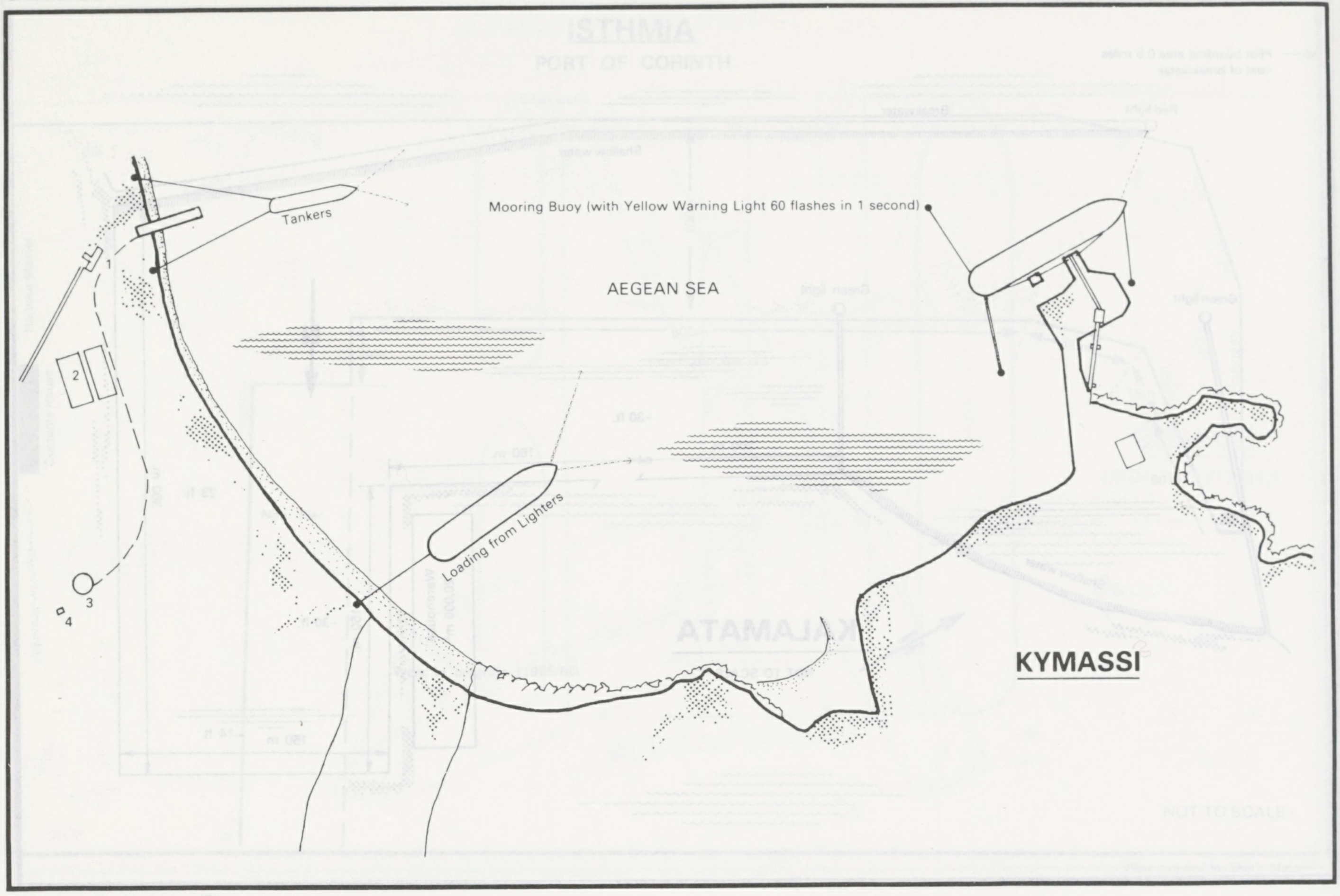

NOT TO SCALE
95 m.
120 m.
Block
Block
Block
Block
Block
160 m.

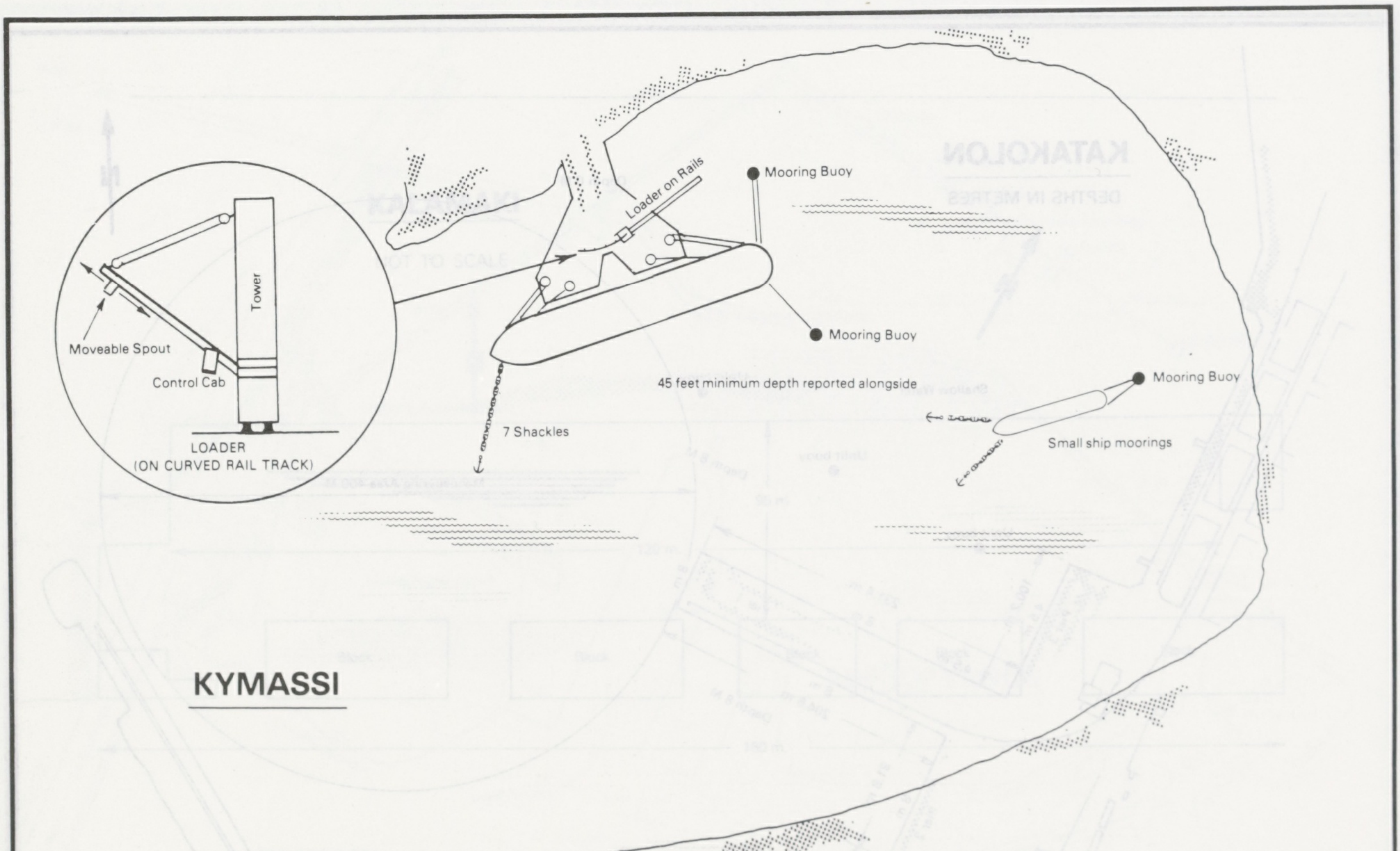
"Plan supplied by Ship's Master"


Pilot boarding area 0.5 miles east of breakwater
Red light
Breakwater
Shallow water
Green light
Green light
N
−30 ft.
200 m.
160 m.
23 ft.
300 m.
Warehouse 20,000 m^2
150 m
−30 ft.
Shallow water
KALAMATA
NOT TO SCALE
150 m.
−14 ft.

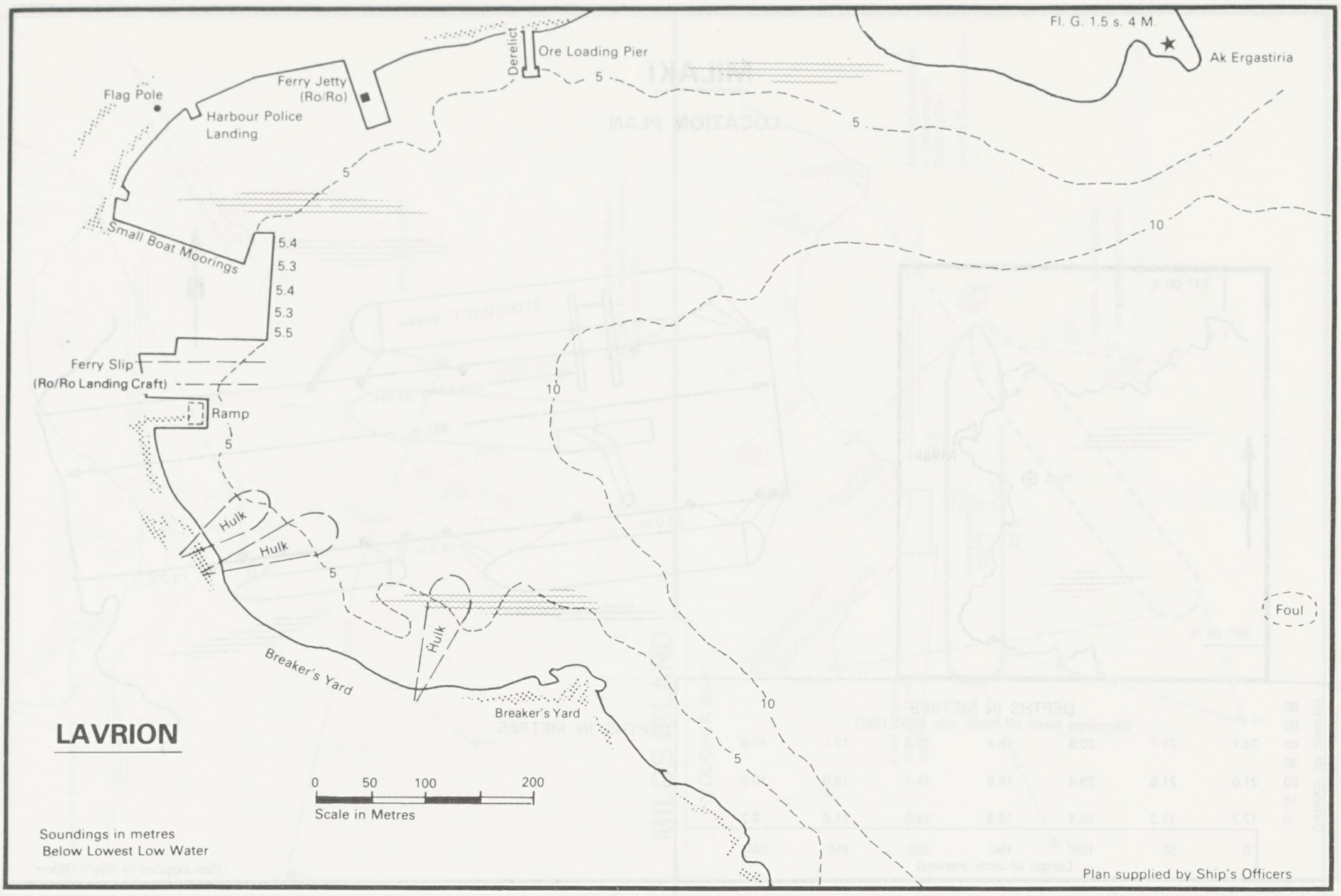
"Plan supplied by Ship's Master"

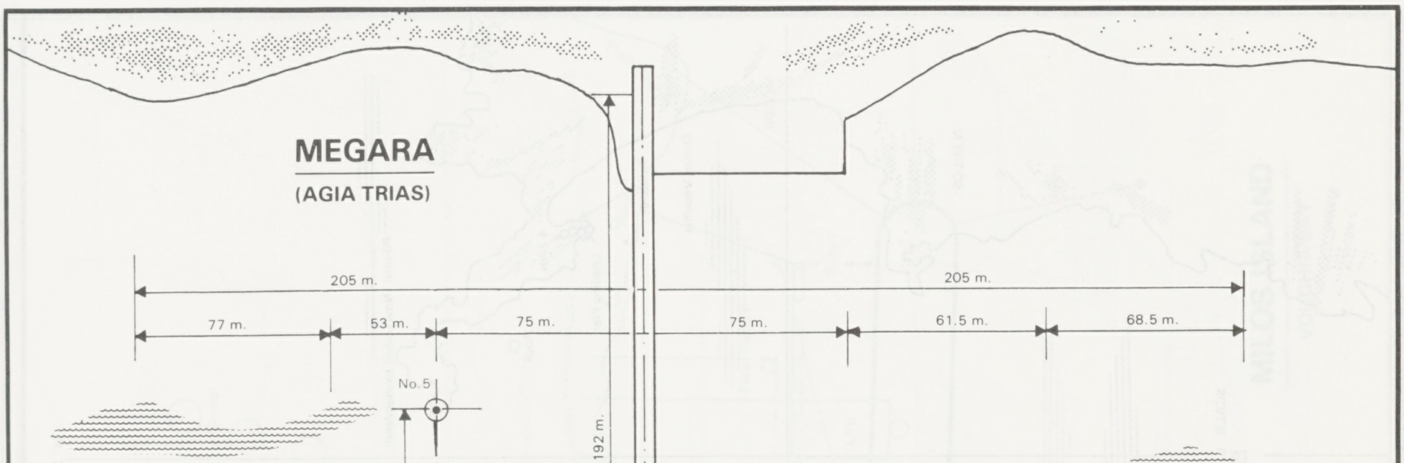

KATAKOLON
DEPTHS IN METRES
Depth 6 M
N
Unlit buoy
Shallow Water
Unlit buoy
Depth 8 M
Manoeuvring Area 400 M
Unlit buoy
100.2 m.
4.5 m
Pier 3
231.4 m.
8 m
Pier 1
8 m
4.5 m
8 m
204.6 m.
Depth 8 M
91.8 m.
8 m
Pier 2
31.0 m.
Breakwater

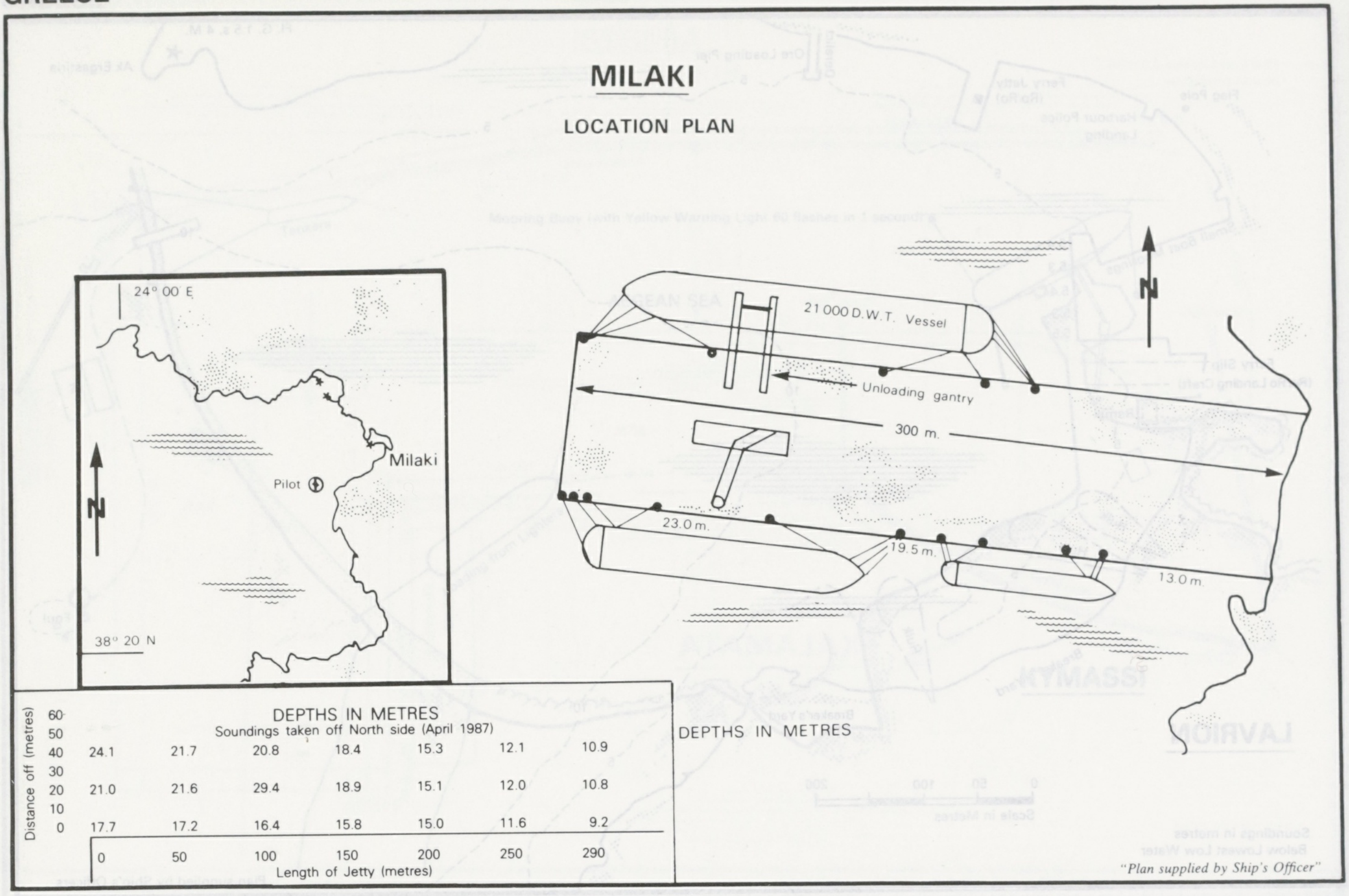

Tankers
1
2
3
4
Mooring Buoy (with Yellow Warning Light 60 flashes in 1 second)
AEGEAN SEA
Loading from Lighters
KYMASSI


Mooring Buoy
Loader on Rails
Mooring Buoy
Tower
Moveable Spout
Control Cab
LOADER
(ON CURVED RAIL TRACK)
45 feet minimum depth reported alongside
7 Shackles
Mooring Buoy
Small ship moorings
KYMASSI
Steep Cliffs

"Plan supplied by Ship's Master"


Fl. G. 1.5 s. 4 M.
Ak Ergastiria
Derelict
Ore Loading Pier
Ferry Jetty (Ro/Ro)
Flag Pole
Harbour Police Landing
Small Boat Moorings
5.4
5.3
5.4
5.3
5.5
Ferry Slip
(Ro/Ro Landing Craft)
Ramp
Hulk
Hulk
Hulk
Breaker's Yard
Breaker's Yard
Foul
5
10
LAVRION
0 50 100 200
Scale in Metres
Soundings in metres
Below Lowest Low Water
Plan supplied by Ship's Officers


MEGARA
(AGIA TRIAS)
205 m.
205 m.
77 m.
53 m.
75 m.
75 m.
61.5 m.
68.5 m.
No.5
No.4
No.6
No.1
No.3
No.2
192 m.
115.5 m.
56.5 m.
80 m.
37 m.
7 m.
7 m.
4 m.
8 m.
0.4 m.
1.4 m.
12 m.
Depth 12.8 m.
63 m.
Depth 13.4 m.
TANKER
65,000 D.W.T.


MILAKI
LOCATION PLAN
24° 00 E
38° 20 N
Milaki
Pilot
N
21 000 D.W.T. Vessel
Unloading gantry
300 m.
23.0 m.
19.5 m.
13.0 m.
DEPTHS IN METRES

DEPTHS IN METRES

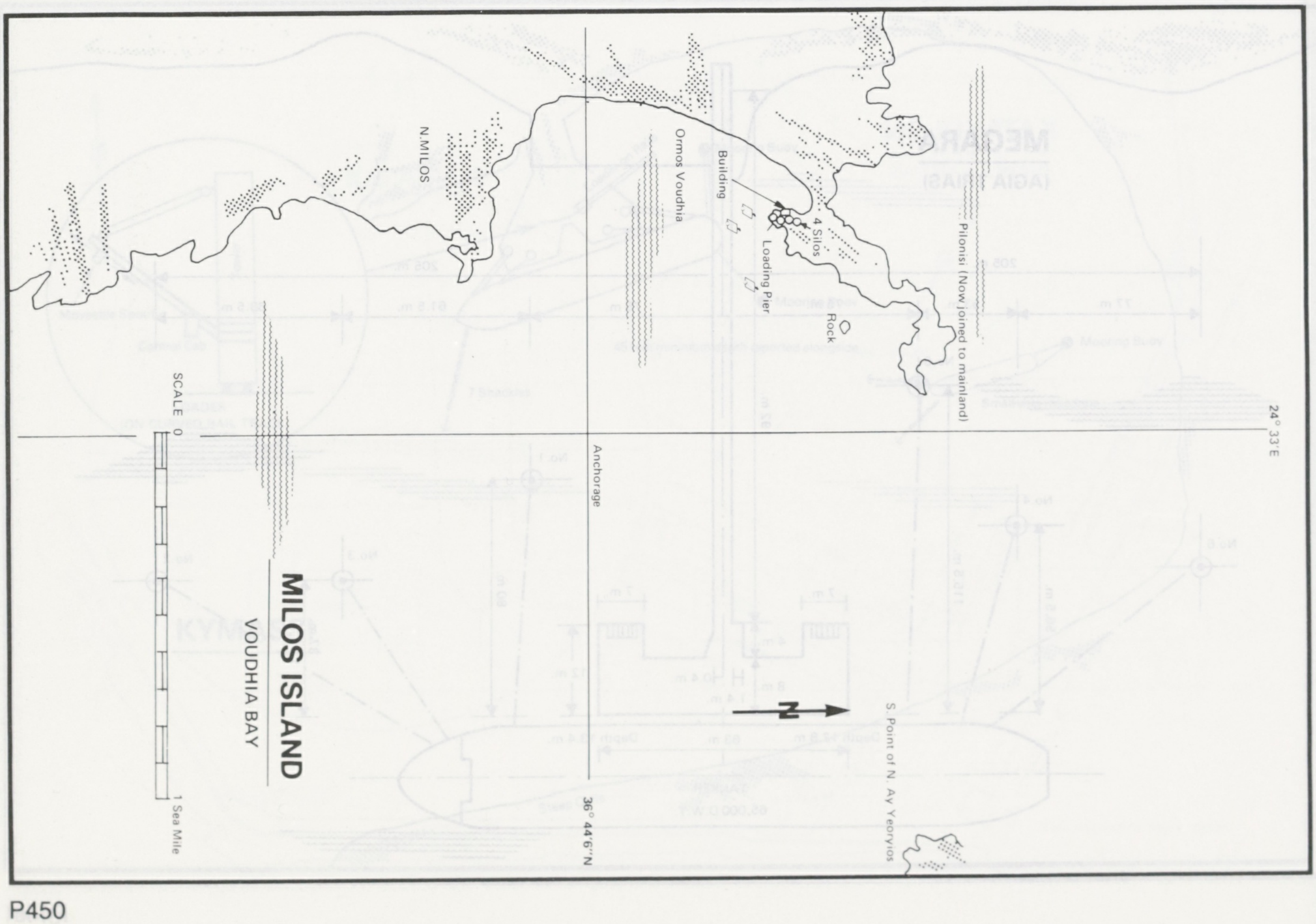
Soundings taken off North side (April 1987)

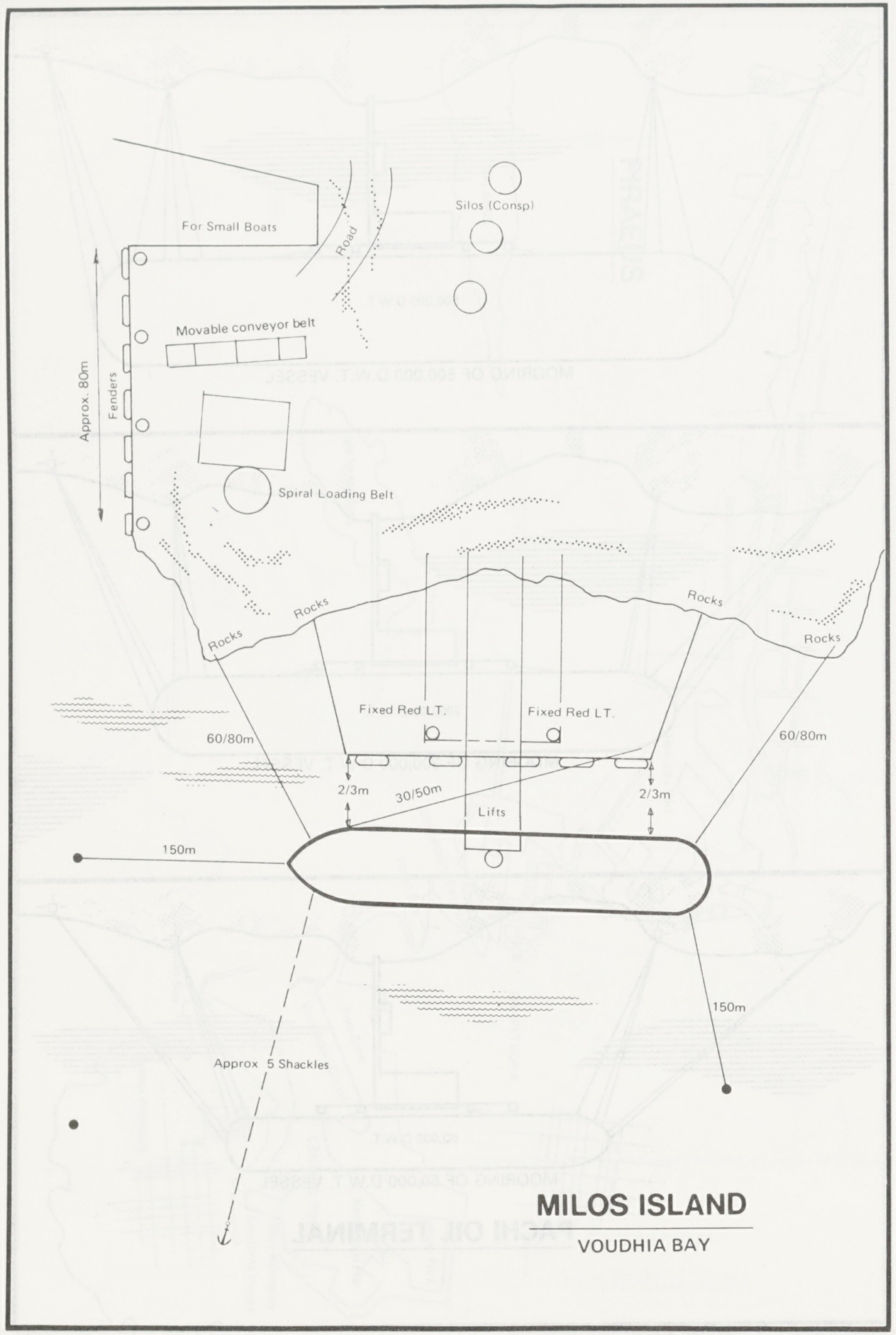
Distance off (metres)	0	50	100	150	200	250	290
60							
50							
40	24.1	21.7	20.8	18.4	15.3	12.1	10.9
30							
20	21.0	21.6	29.4	18.9	15.1	12.0	10.8
10							
0	17.7	17.2	16.4	15.8	15.0	11.6	9.2

Length of Jetty (metres)

"Plan supplied by Ship's Officer"

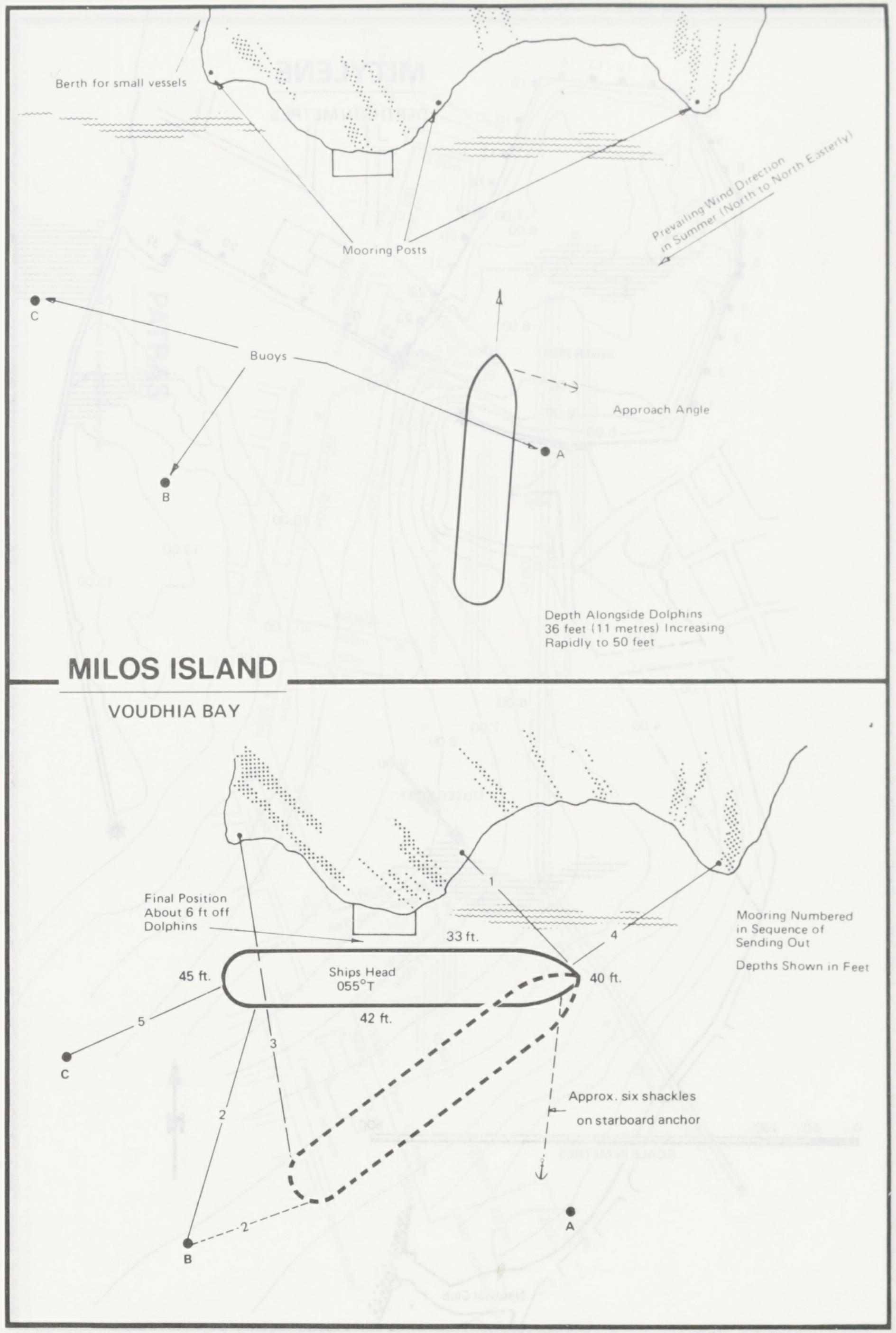
"Plan supplied by Ship's Cadet"


MILOS ISLAND
VOUDHIA BAY
N.MILOS
Ormos Voudhia
Building
4 Silos
Loading Pier
Rock
Pilonisi (Now joined to mainland)
S. Point of N. Ay Yeoryios
Anchorage
36° 44.6'N
24° 33'E
N
SCALE 0
1 Sea Mile


For Small Boats
Road
Silos (Consp)
Movable conveyor belt
Approx. 80m
Fenders
Spiral Loading Belt
Rocks
Rocks
Rocks
Rocks
Fixed Red LT.
Fixed Red LT.
60/80m
60/80m
2/3m
30/50m
2/3m
Lifts
150m
150m
Approx 5 Shackles

MILOS ISLAND
VOUDHIA BAY

"Plan supplied by Ship's Master"


Berth for small vessels
Mooring Posts
Prevailing Wind Direction in Summer (North to North Easterly)
C
Buoys
B
A
Approach Angle
Final Position About 6 ft off Dolphins
33 ft.
1
4
45 ft.
Ships Head 055°T
40 ft.
42 ft.
5
3
C
2
2
B
A
Approx. six shackles on starboard anchor

Depth Alongside Dolphins 36 feet (11 metres) Increasing Rapidly to 50 feet

MILOS ISLAND
VOUDHIA BAY

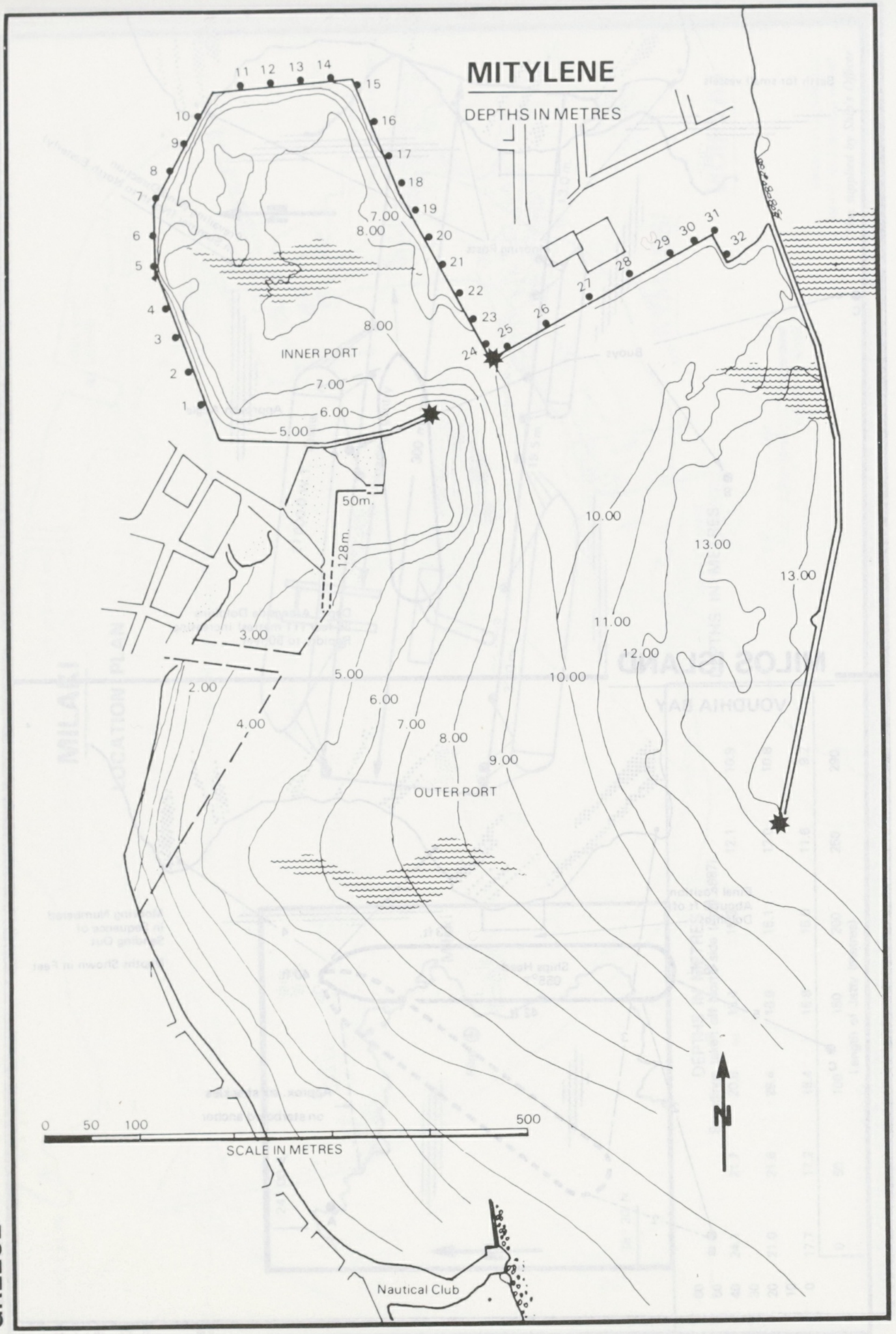
Mooring Numbered in Sequence of Sending Out

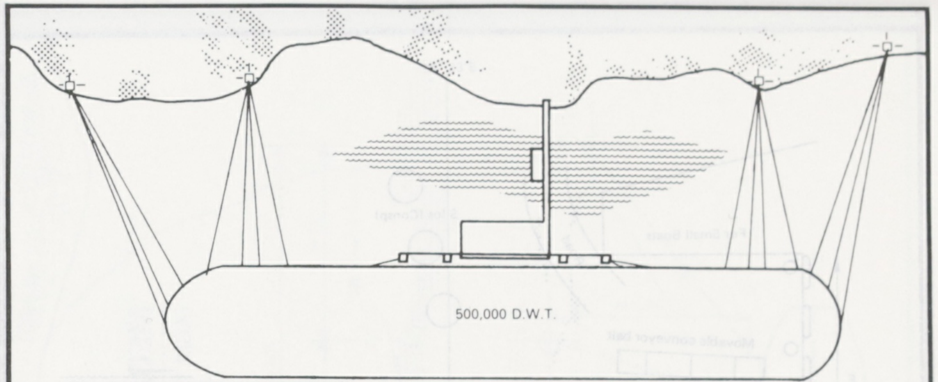
Depths Shown in Feet

"Plan supplied by Ship's Master"

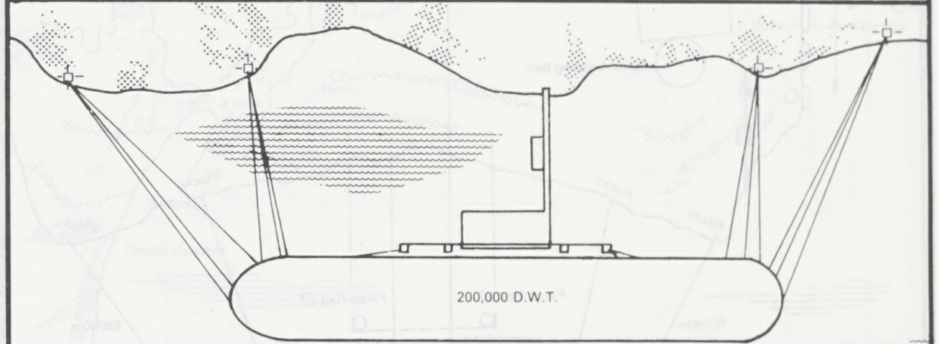
MITYLENE

DEPTHS IN METRES

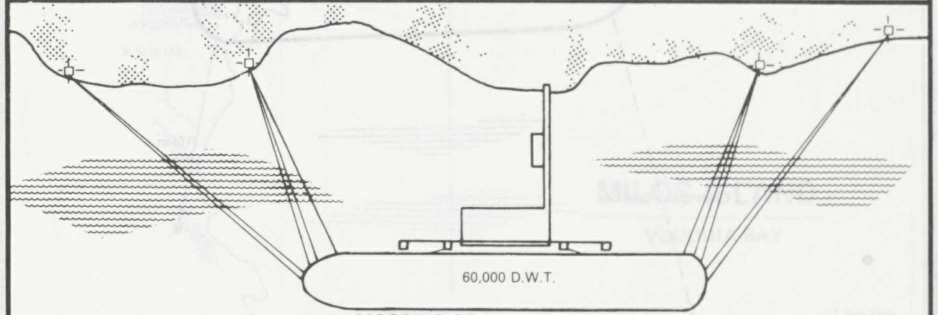

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
7.00
8.00
8.00
INNER PORT
7.00
6.00
5.00
50m.
128m.
10.00
13.00
13.00
11.00
3.00
12.00
10.00
2.00
5.00
6.00
4.00
7.00
8.00
9.00
OUTER PORT
0
50
100
500
SCALE IN METRES
N
Nautical Club



MOORING OF 500,000 D.W.T. VESSEL

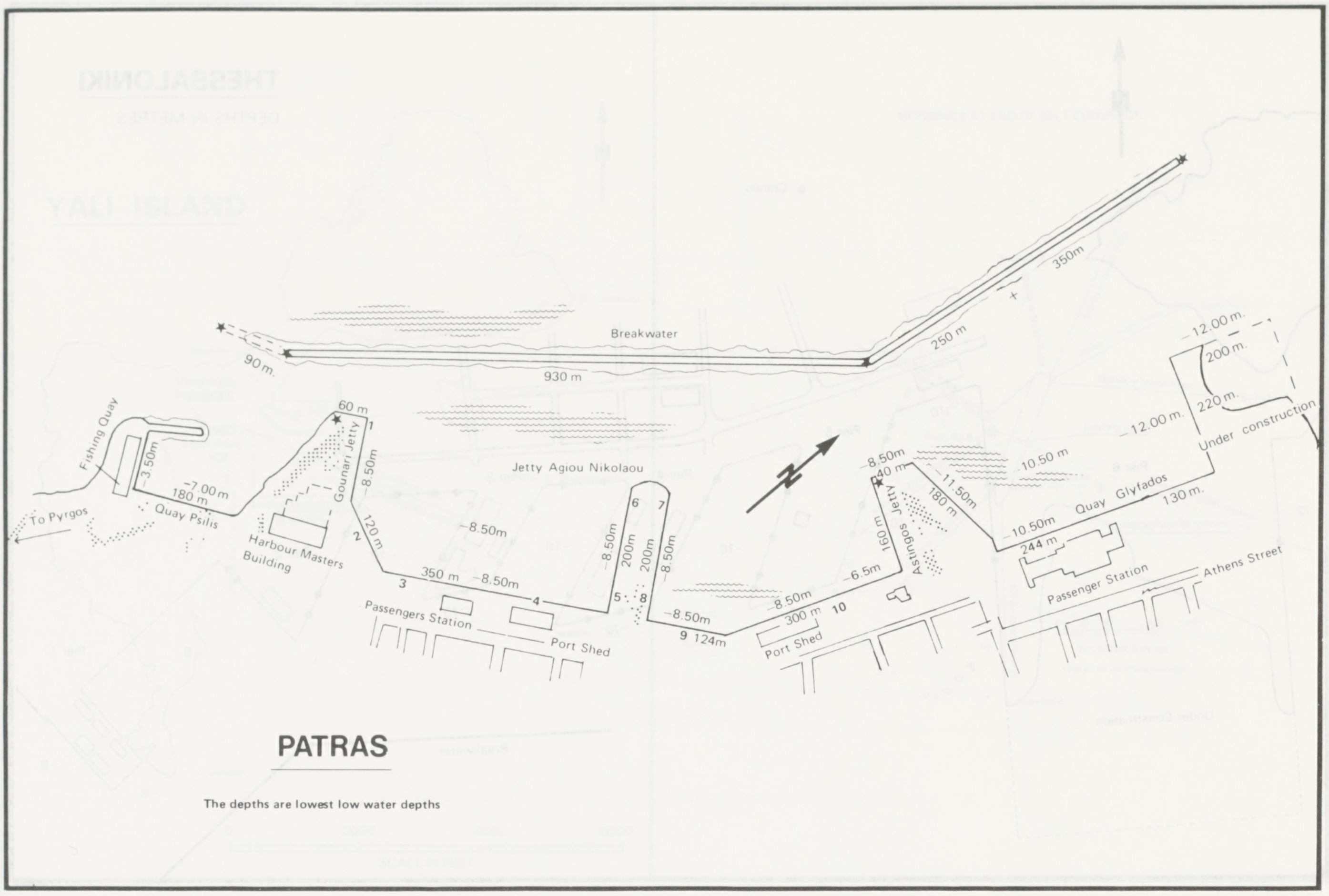


MOORING OF 200,000 D.W.T. VESSEL

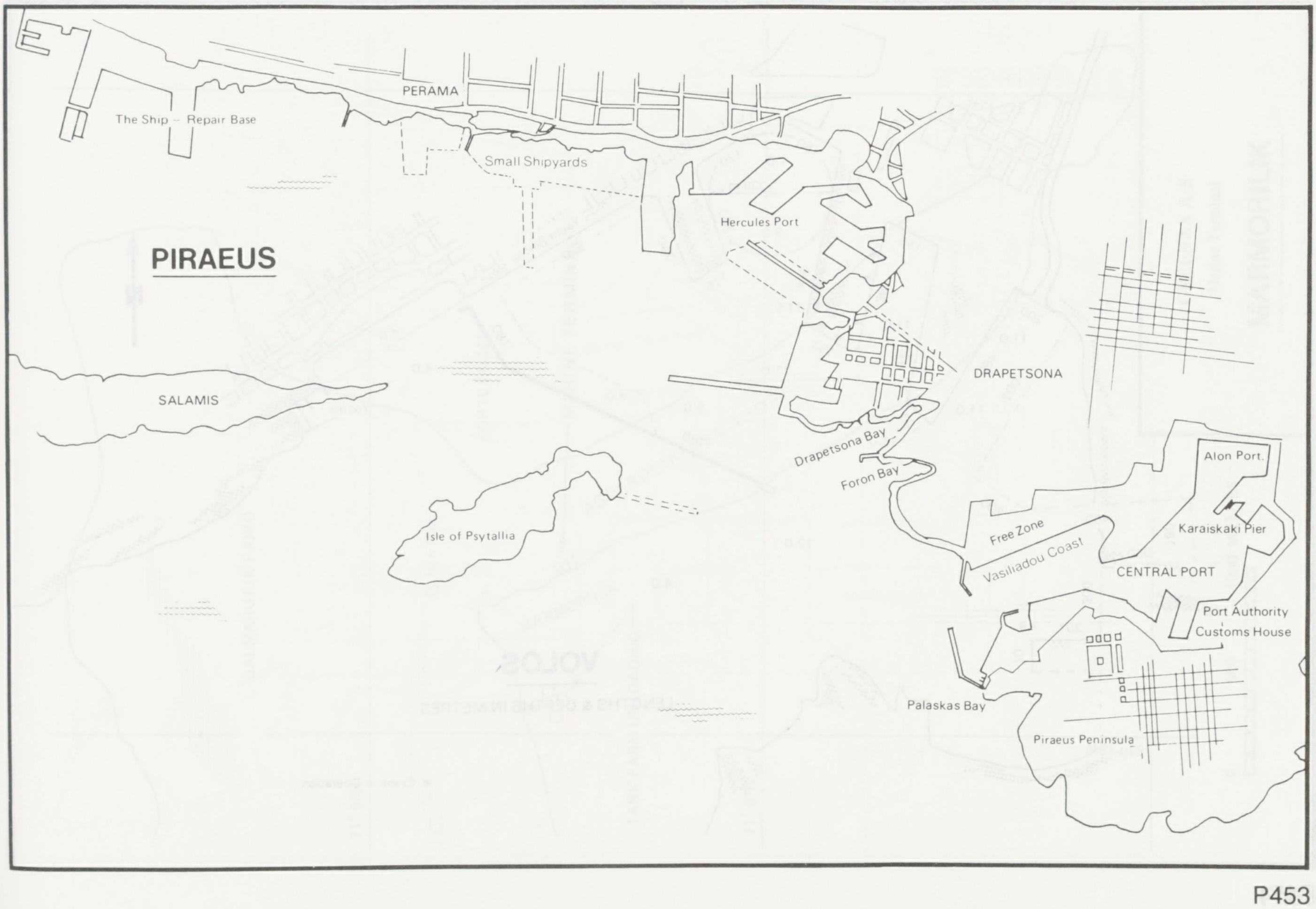


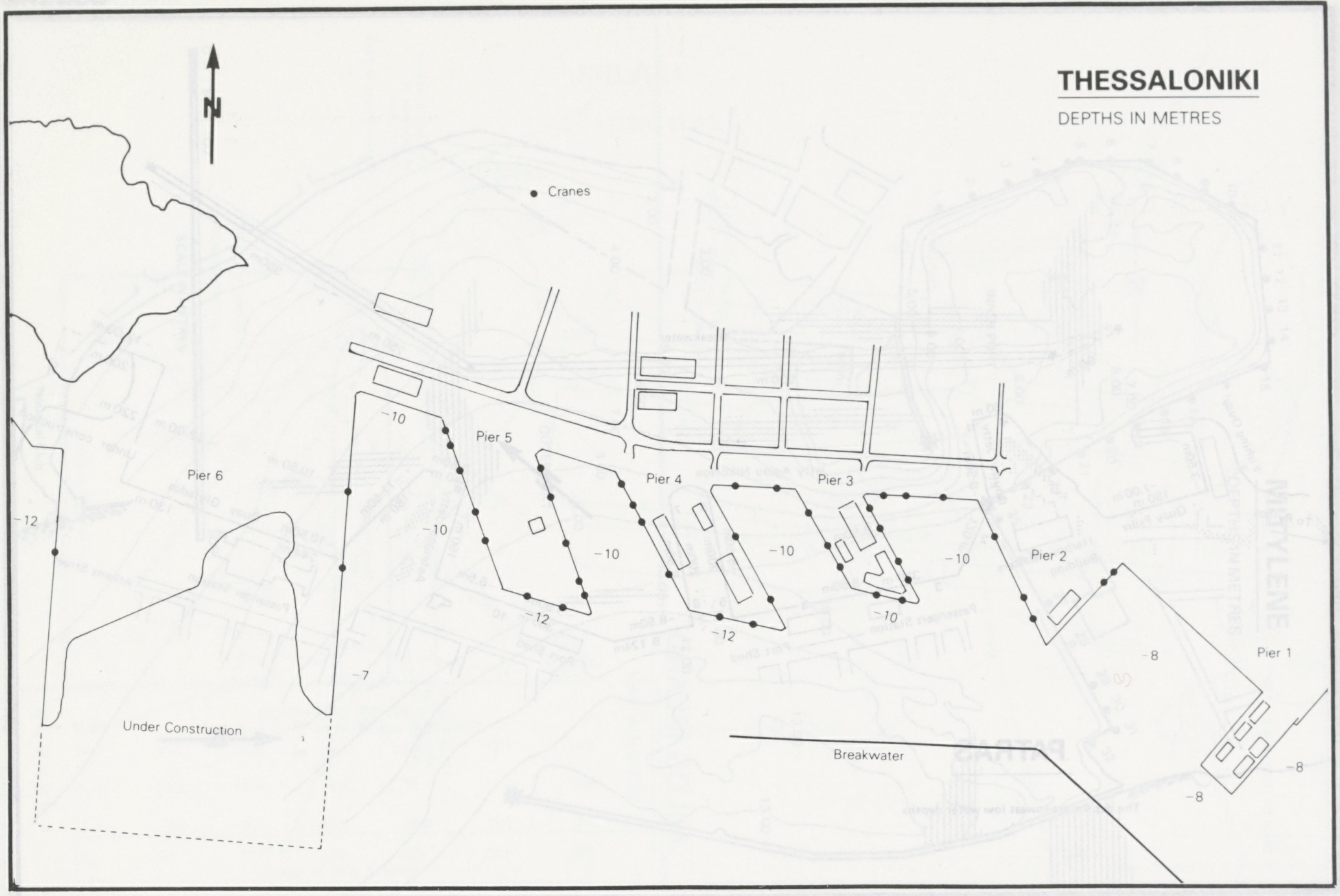
MOORING OF 60,000 D.W.T. VESSEL

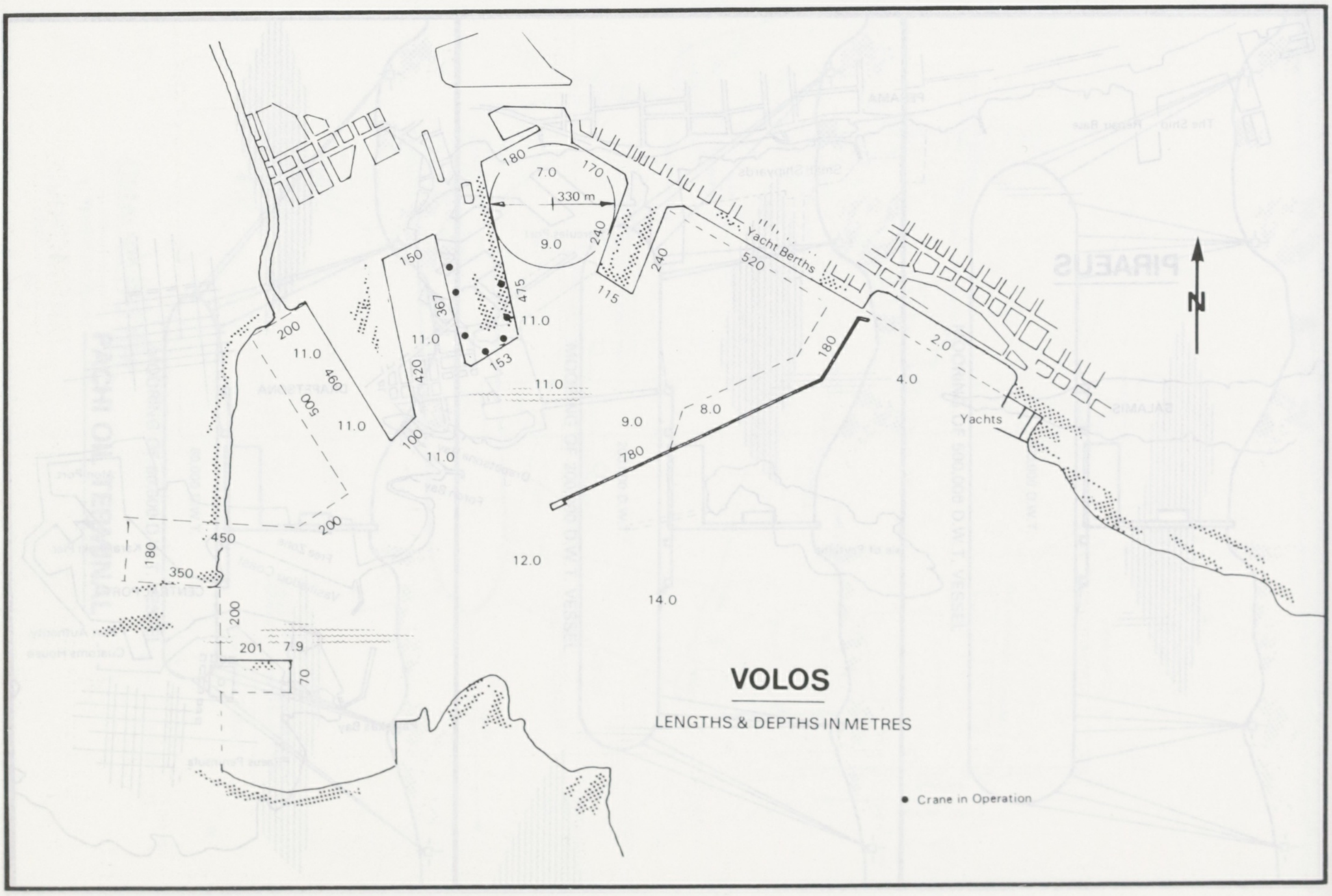
PACHI OIL TERMINAL


PATRAS
Breakwater
930 m
90 m.
250 m
350m
12.00 m.
200 m.
220 m.
12.00 m.
Under construction
10.50 m
Quay Glyfados
130 m.
10.50m
244 m
Passenger Station
Athens Street
8.50m
40 m
11.50m
180 m
Astingos Jetty
160 m
6.5m
8.50m
300 m
10
Port Shed
9 124m
8.50m
Jetty Agiou Nikolaou
6
7
8.50m
200m
200m
8.50m
5
8
4
350 m
8.50m
3
Passengers Station
Port Shed
8.50m
120 m
2
Gounari Jetty
8.50m
60 m
1
Harbour Masters Building
Fishing Quay
3.50m
7.00 m
180 m
Quay Psilis
To Pyrgos

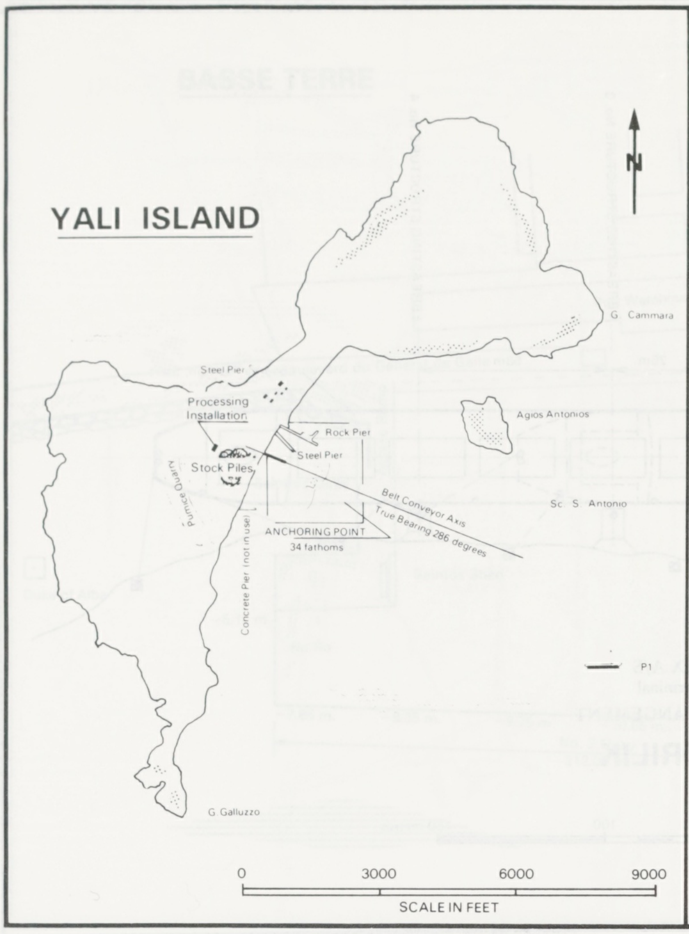
The depths are lowest low water depths

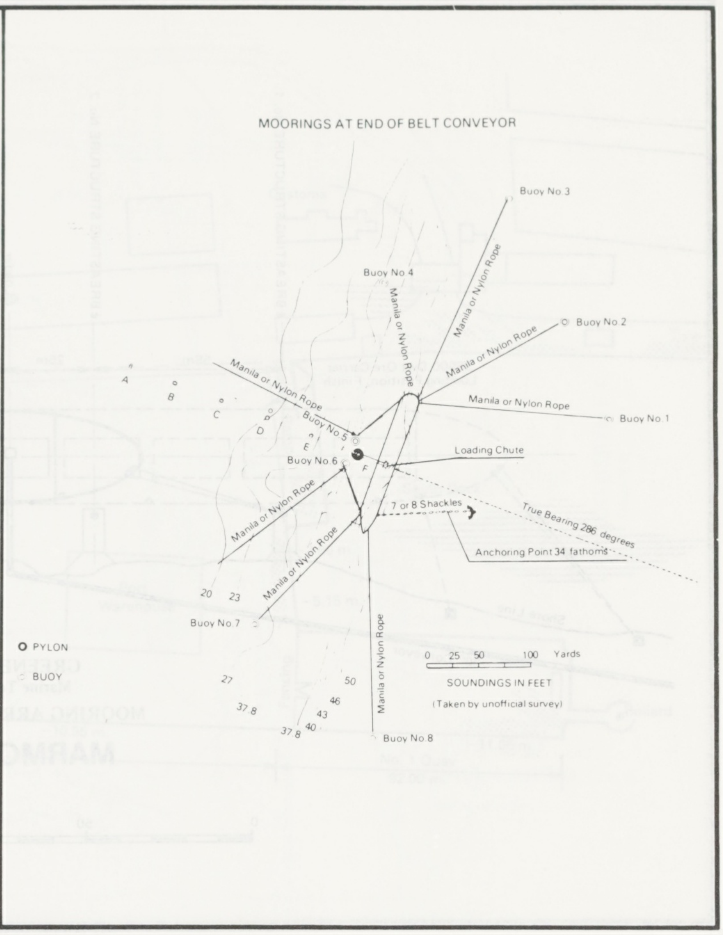

PIRAEUS
PERAMA
The Ship – Repair Base
Small Shipyards
Hercules Port
DRAPETSONA
SALAMIS
Drapetsona Bay
Foron Bay
Isle of Psytallia
Alon Port.
Karaiskaki Pier
Free Zone
Vasiliadou Coast
CENTRAL PORT
Port Authority
Customs House
Palaskas Bay
Piraeus Peninsula

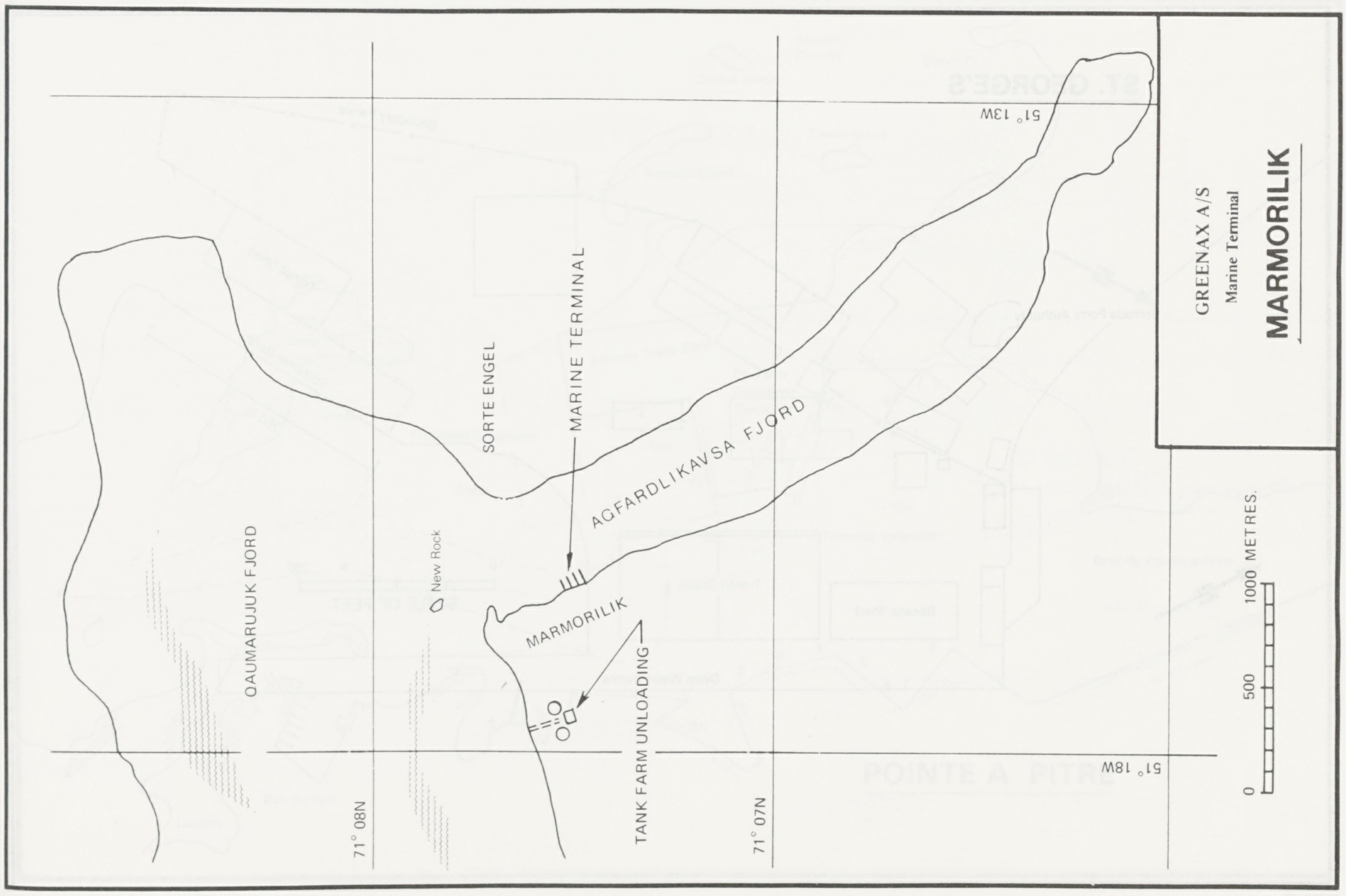

THESSALONIKI
DEPTHS IN METRES
N
Cranes
Pier 6
Pier 5
Pier 4
Pier 3
Pier 2
Pier 1
−12
−10
−10
−10
−12
−10
−12
−10
−10
−10
−7
−8
−8
−8
Under Construction
Breakwater


VOLOS
LENGTHS & DEPTHS IN METRES
● Crane in Operation
N
180
7.0
170
330 m
9.0
240
240
115
Yacht Berths
520
150
367
475
11.0
11.0
153
420
100
200
11.0
460
500
11.0
11.0
11.0
180
2.0
4.0
Yachts
8.0
9.0
780
12.0
14.0
450
200
180
350
200
201
7.9
70

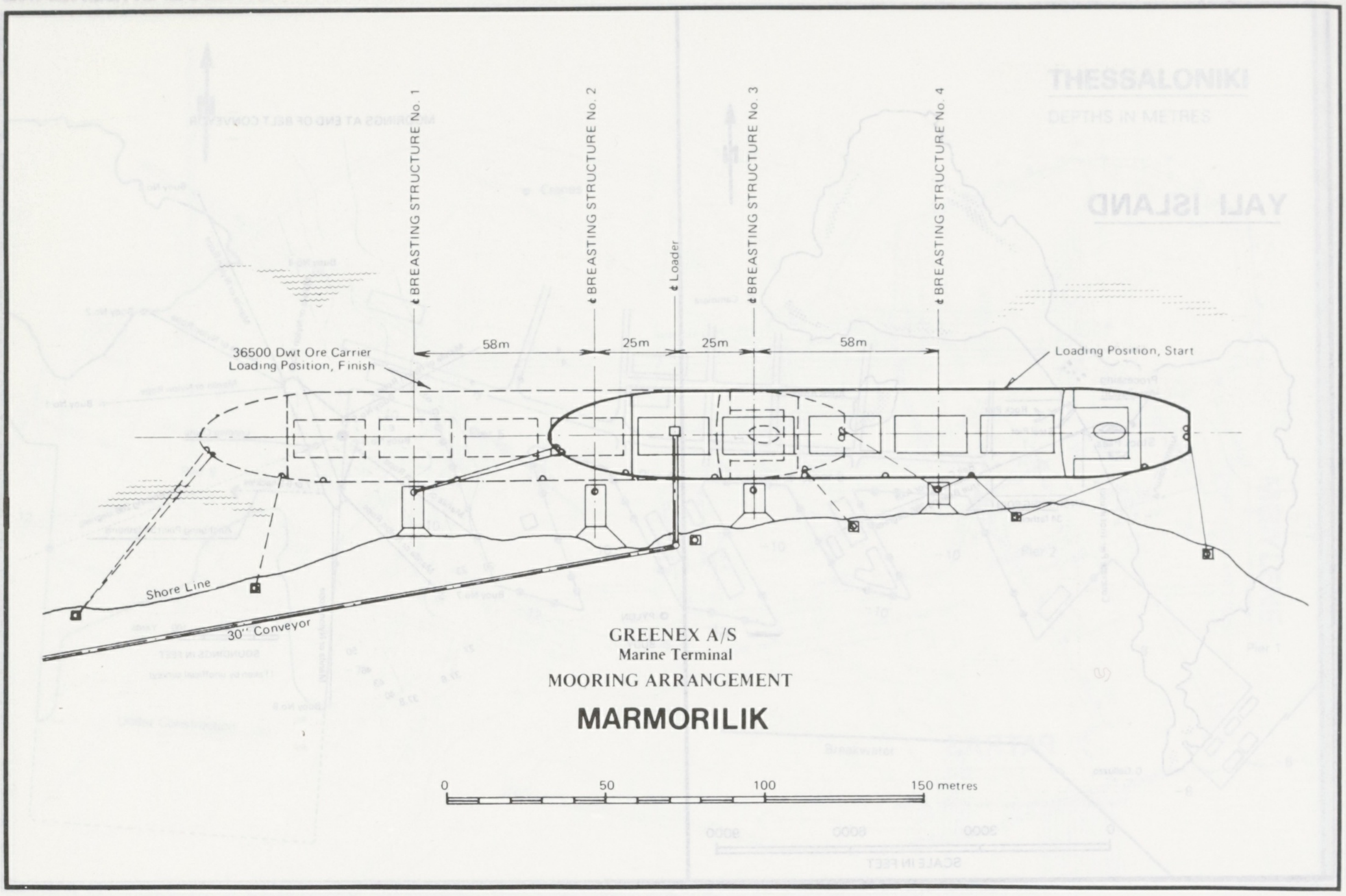
YALI ISLAND

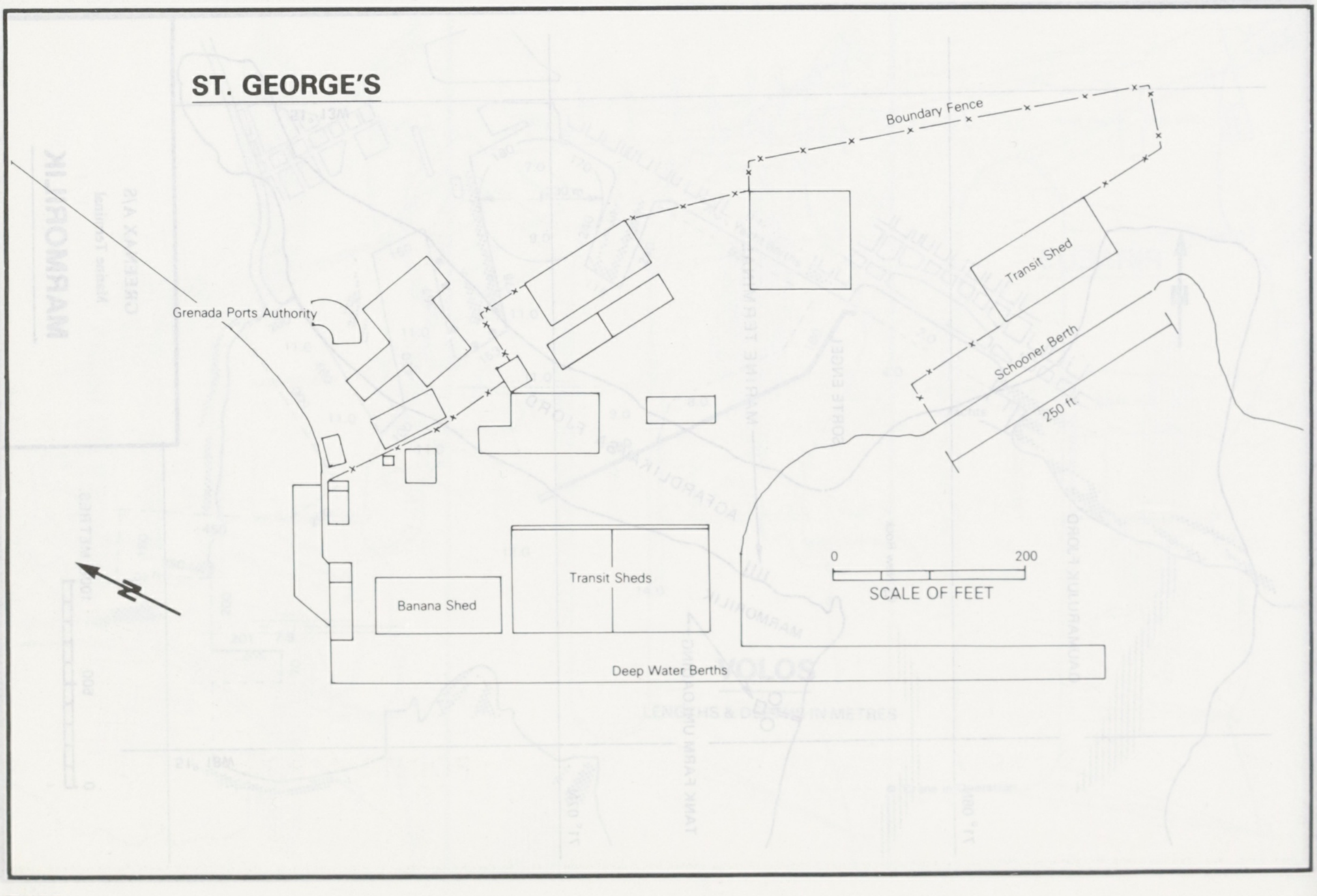

N
G. Cammara
Steel Pier
Processing Installation
Agios Antonios
Rock Pier
Steel Pier
Stock Piles
Pumice Quarry
Sc. S. Antonio
Belt Conveyor Axis
True Bearing 286 degrees
ANCHORING POINT
34 fathoms
Concrete Pier (not in use)
P1
G. Galluzzo
0
3000
6000
9000
SCALE IN FEET

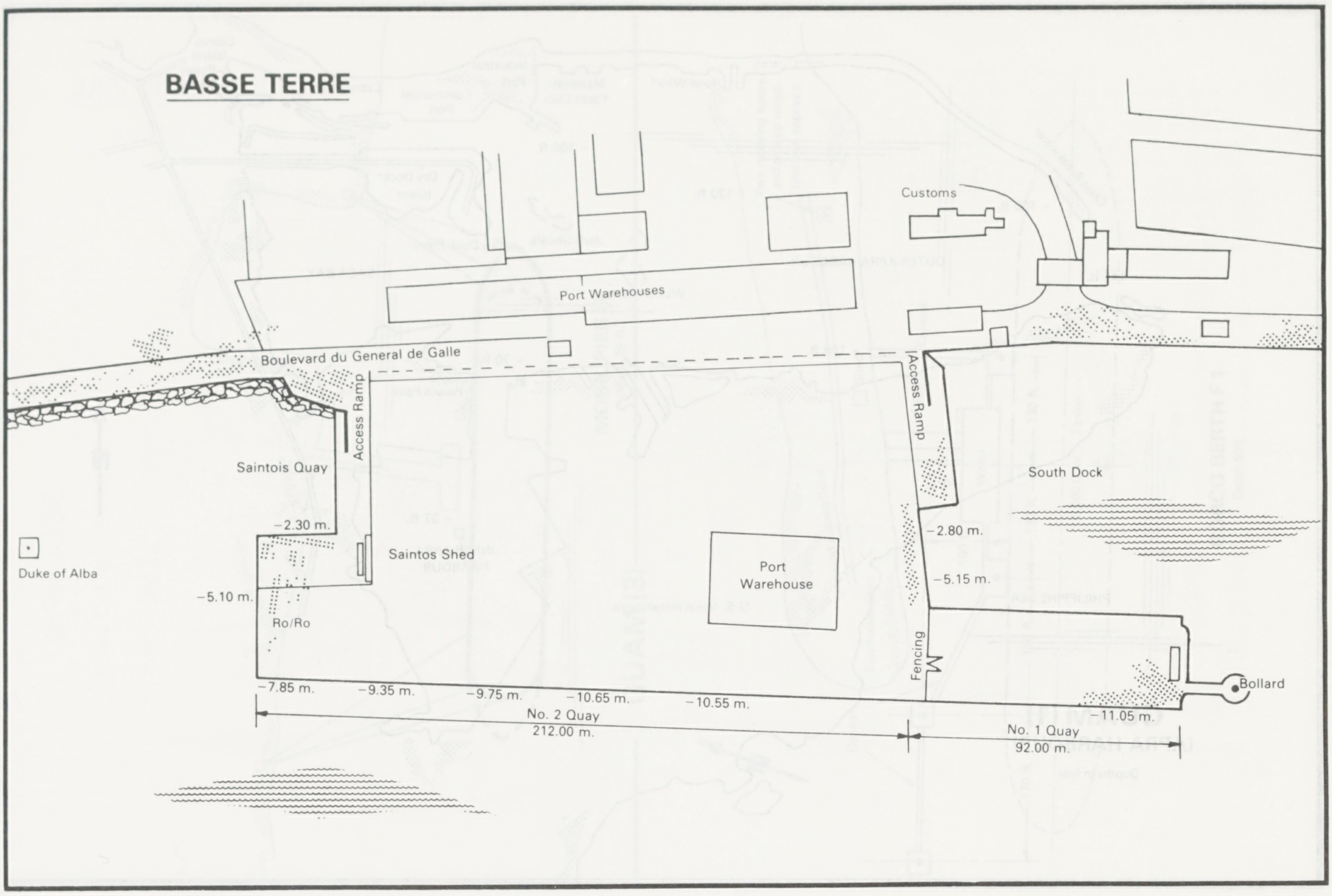

MOORINGS AT END OF BELT CONVEYOR
Buoy No.3
Buoy No.4
Manila or Nylon Rope
Manila or Nylon Rope
Buoy No.2
Manila or Nylon Rope
Manila or Nylon Rope
Manila or Nylon Rope
Buoy No.1
A
B
C
D
Buoy No.5
E
Buoy No.6
F
Loading Chute
7 or 8 Shackles
True Bearing 286 degrees
Anchoring Point 34 fathoms
Manila or Nylon Rope
Manila or Nylon Rope
20
23
Buoy No.7
Manila or Nylon Rope
0
25
50
100
Yards
SOUNDINGS IN FEET
(Taken by unofficial survey)
27
50
46
37.8
43
40
37.8
Buoy No.8
PYLON
BUOY

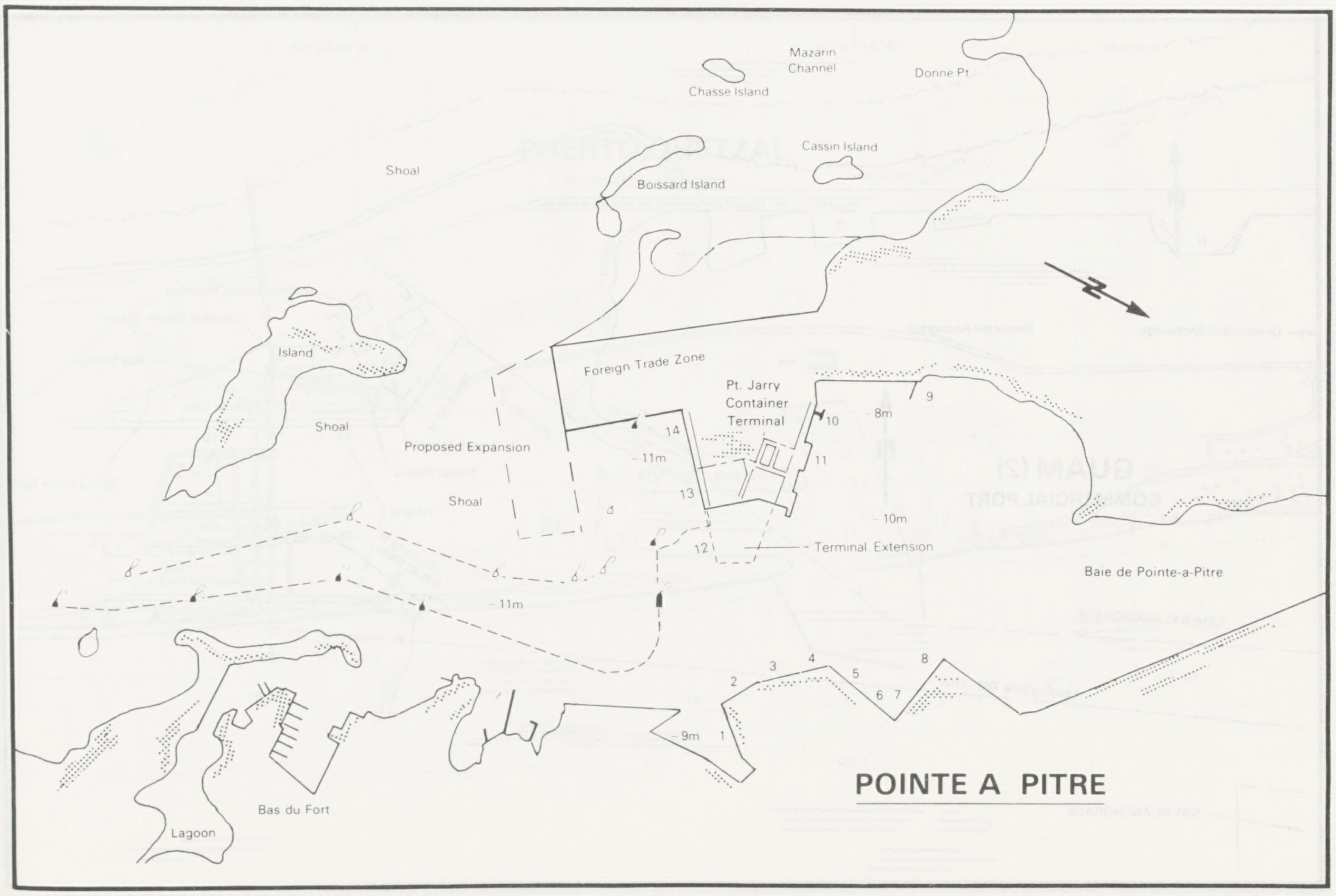

51° 13W
SORTE ENGEL
MARINE TERMINAL
AGFARDLIKAVSA FJORD
QAUMARUJUK FJORD
New Rock
MARMORILIK
TANK FARM UNLOADING
71° 08N
71° 07N
51° 18W
0
500
1000 METRES.

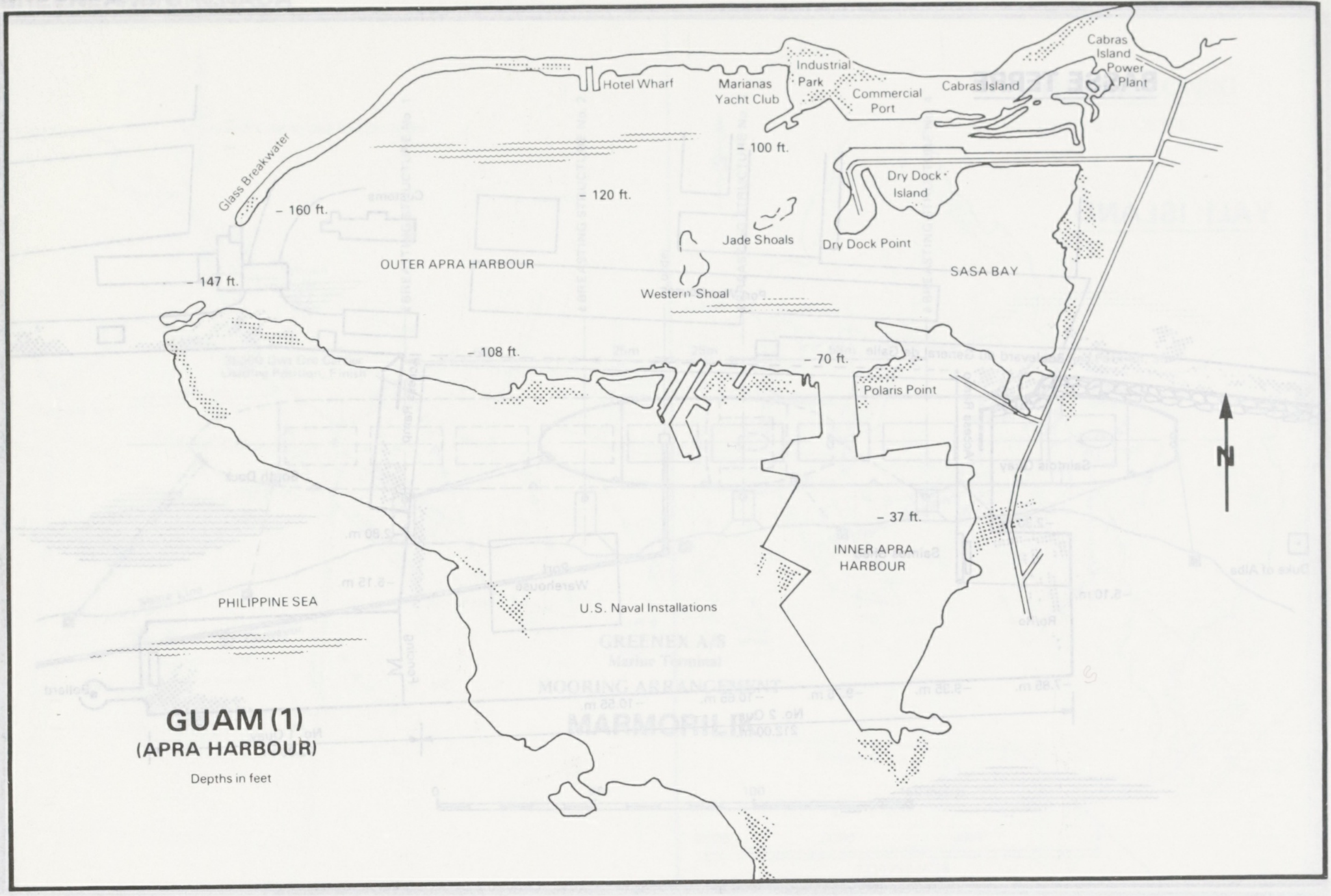
GREENAX A/S
Marine Terminal
MARMORILIK


℄ BREASTING STRUCTURE No. 1
℄ BREASTING STRUCTURE No. 2
℄ Loader
℄ BREASTING STRUCTURE No. 3
℄ BREASTING STRUCTURE No. 4
58m
25m
25m
58m
36500 Dwt Ore Carrier
Loading Position, Finish
Loading Position, Start
Shore Line
30" Conveyor
GREENEX A/S
Marine Terminal
MOORING ARRANGEMENT
MARMORILIK
0
50
100
150 metres

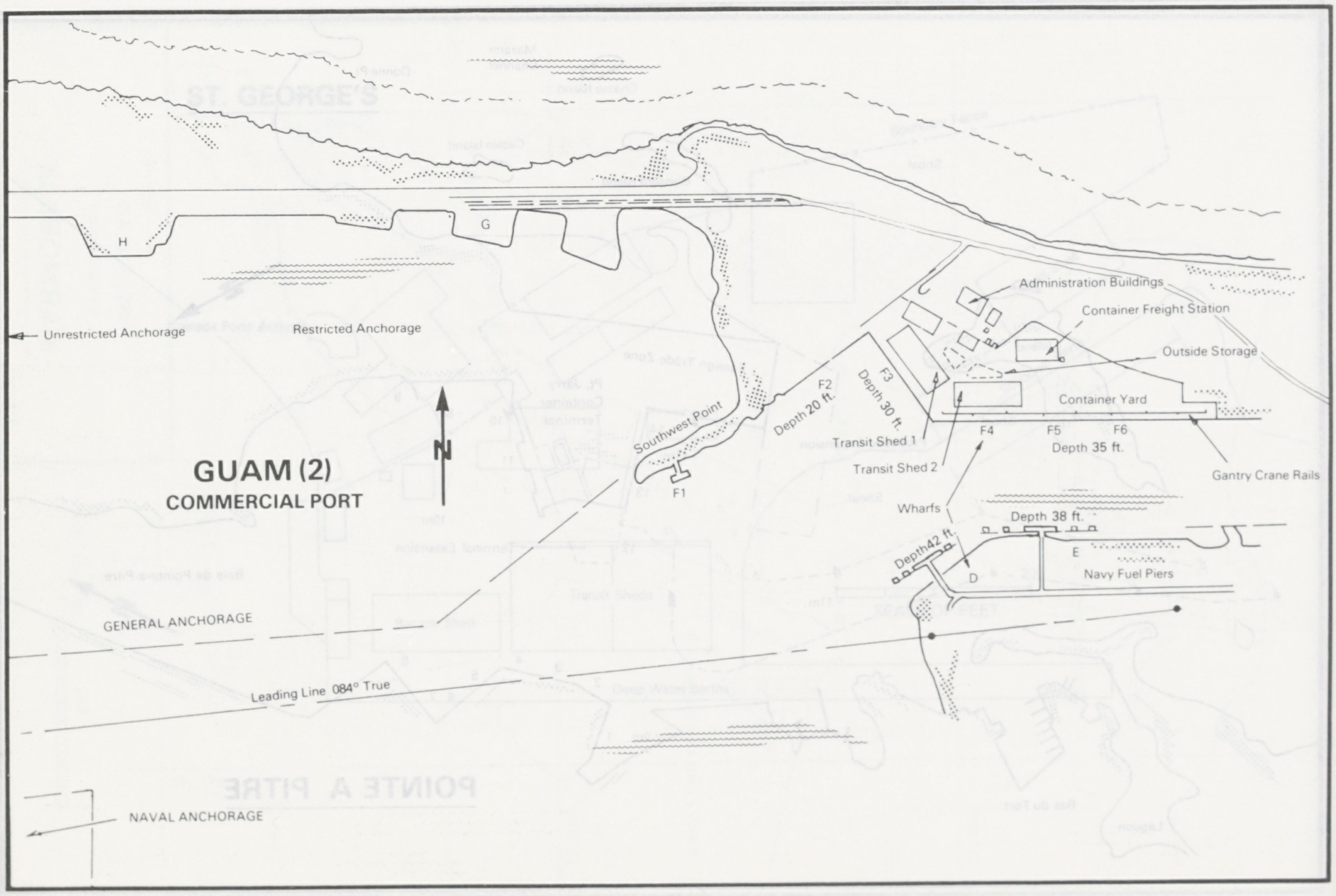

ST. GEORGE'S
Boundary Fence
Transit Shed
Schooner Berth
250 ft.
Grenada Ports Authority
Transit Sheds
Banana Shed
Deep Water Berths
0
200
SCALE OF FEET


BASSE TERRE
Customs
Port Warehouses
Boulevard du General de Galle
Access Ramp
Saintois Quay
−2.30 m.
Saintos Shed
Duke of Alba
−5.10 m.
Ro/Ro
Port Warehouse
Access Ramp
South Dock
−2.80 m.
−5.15 m.
Fencing
Bollard
−7.85 m.
−9.35 m.
−9.75 m.
−10.65 m.
−10.55 m.
−11.05 m.
No. 2 Quay
212.00 m.
No. 1 Quay
92.00 m.

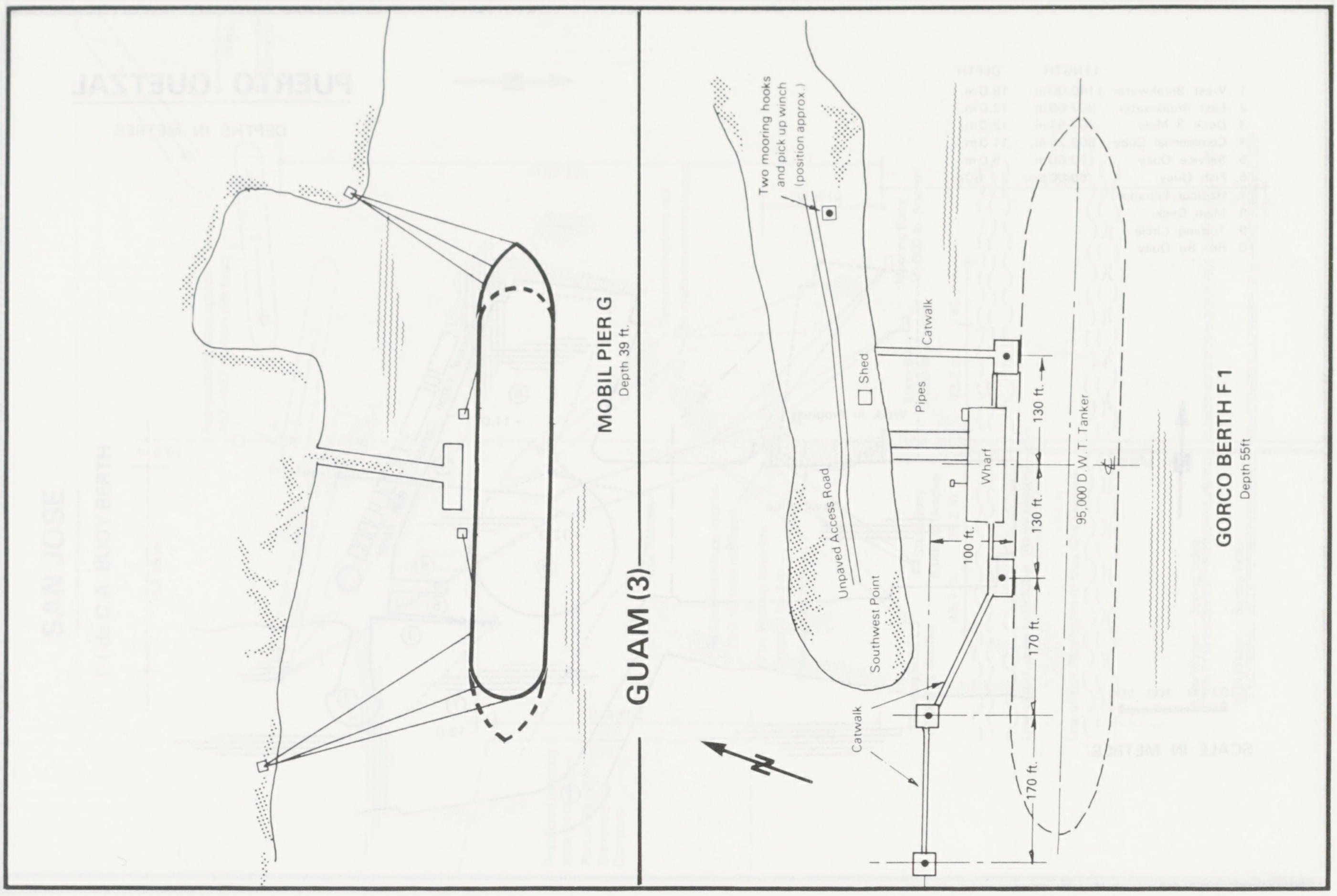

Mazarin Channel
Donne Pt
Chasse Island
Cassin Island
Shoal
Boissard Island
Island
Shoal
Foreign Trade Zone
Pt. Jarry Container Terminal
9
8m
10
14
11
−11m
Proposed Expansion
Shoal
13
−10m
12
Terminal Extension
Baie de Pointe-a-Pitre
−11m
3
4
8
2
5
6
7
−9m
1
Bas du Fort
Lagoon
POINTE A PITRE


Glass Breakwater
Hotel Wharf
Marianas Yacht Club
Industrial Park
Commercial Port
Cabras Island
Cabras Island Power Plant
– 100 ft.
– 120 ft.
– 160 ft.
– 147 ft.
OUTER APRA HARBOUR
Jade Shoals
Dry Dock Island
Dry Dock Point
SASA BAY
Western Shoal
– 108 ft.
– 70 ft.
Polaris Point
N
– 37 ft.
INNER APRA HARBOUR
PHILIPPINE SEA
U.S. Naval Installations

GUAM (1)
(APRA HARBOUR)
Depths in feet


H
G
Administration Buildings
Container Freight Station
Outside Storage
Unrestricted Anchorage
Restricted Anchorage
F3
Depth 30 ft.
F2
Depth 20 ft.
Container Yard
N
Southwest Point
Transit Shed 1
F4
F5
F6
Depth 35 ft.
F1
Transit Shed 2
Gantry Crane Rails
Wharfs
Depth 38 ft.
Depth42 ft.
D
E
Navy Fuel Piers
GENERAL ANCHORAGE
Leading Line 084° True
NAVAL ANCHORAGE

GUAM (2)
COMMERCIAL PORT

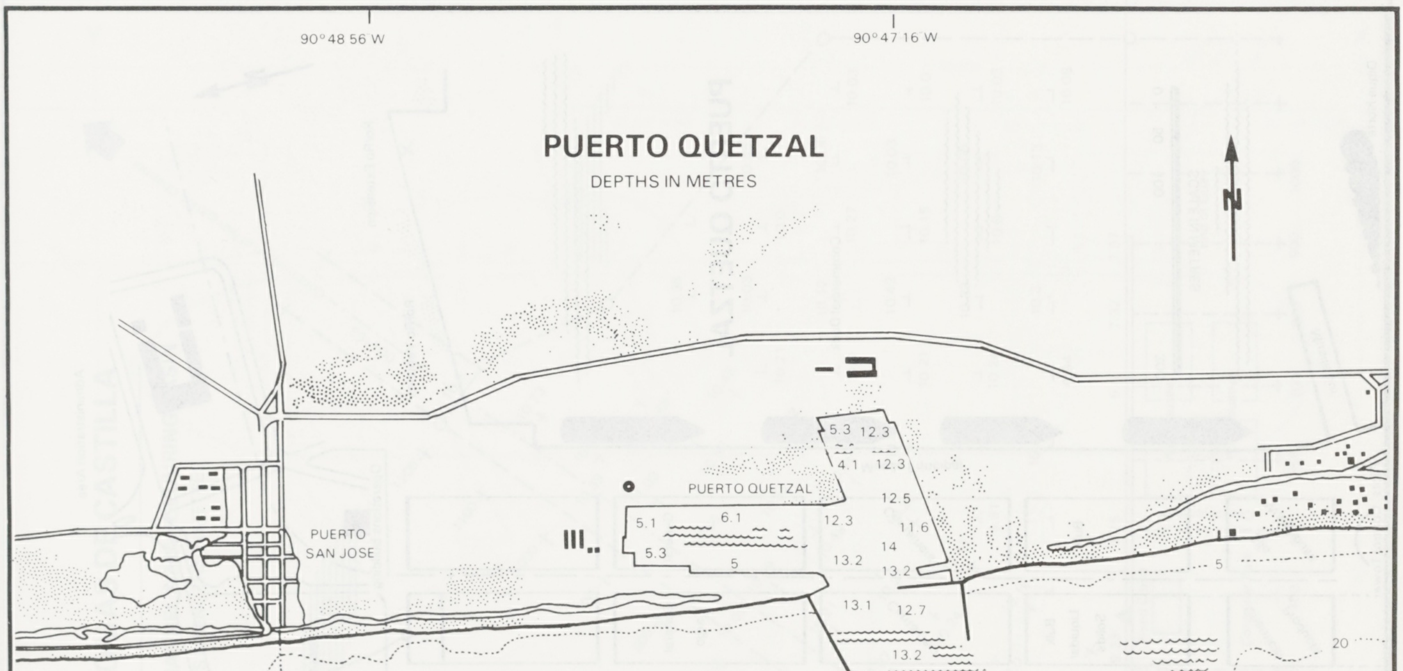


GUAM (3)

MOBIL PIER G
Depth 39 ft.

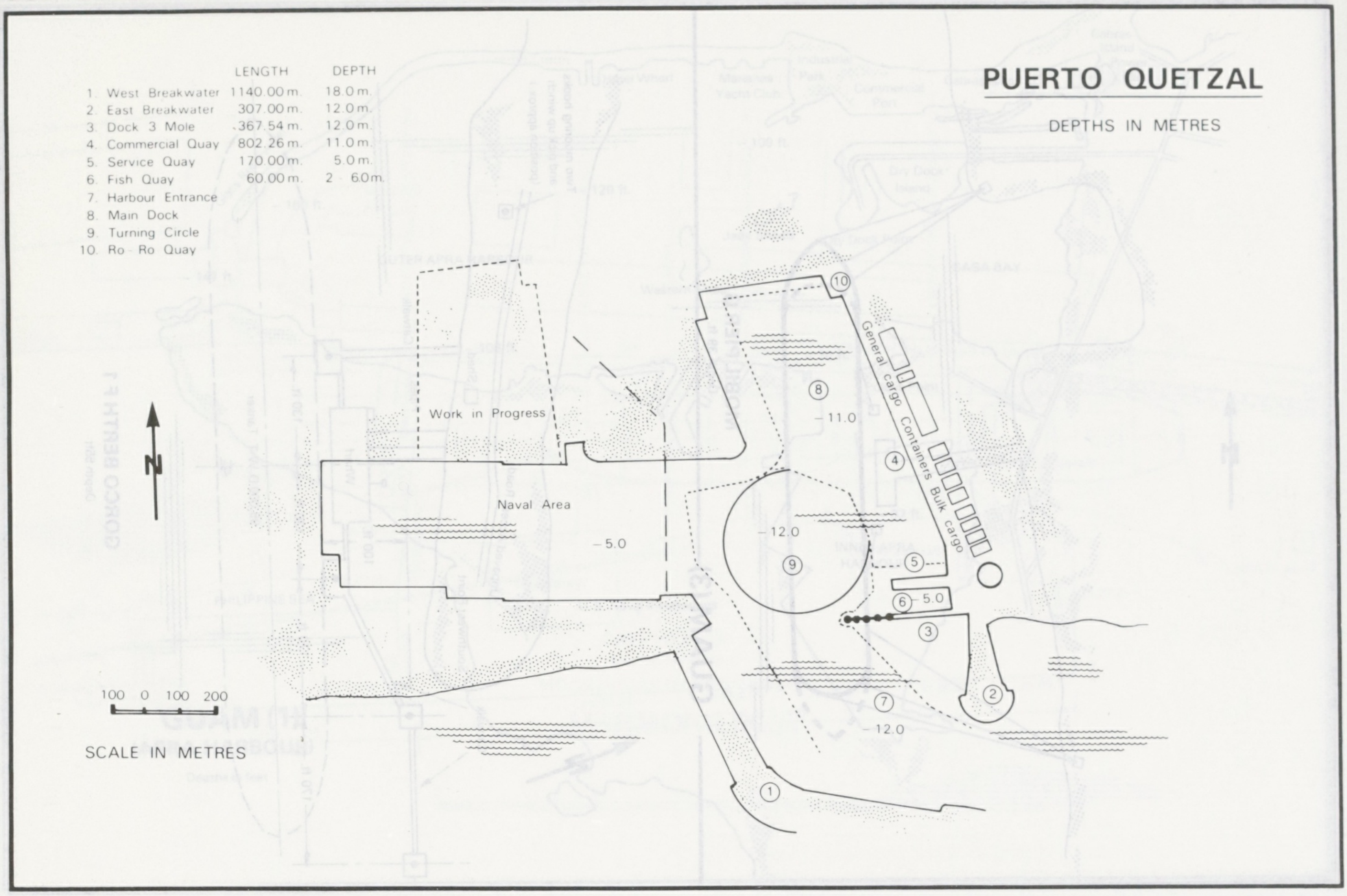
GORCO BERTH F 1
Depth 55ft

Two mooring hooks and pick up winch (position approx.)
Shed
Catwalk
Pipes
Wharf
Unpaved Access Road
Southwest Point
Catwalk
100 ft.
130 ft.
130 ft.
170 ft.
170 ft.
95,000 D.W.T. Tanker
N



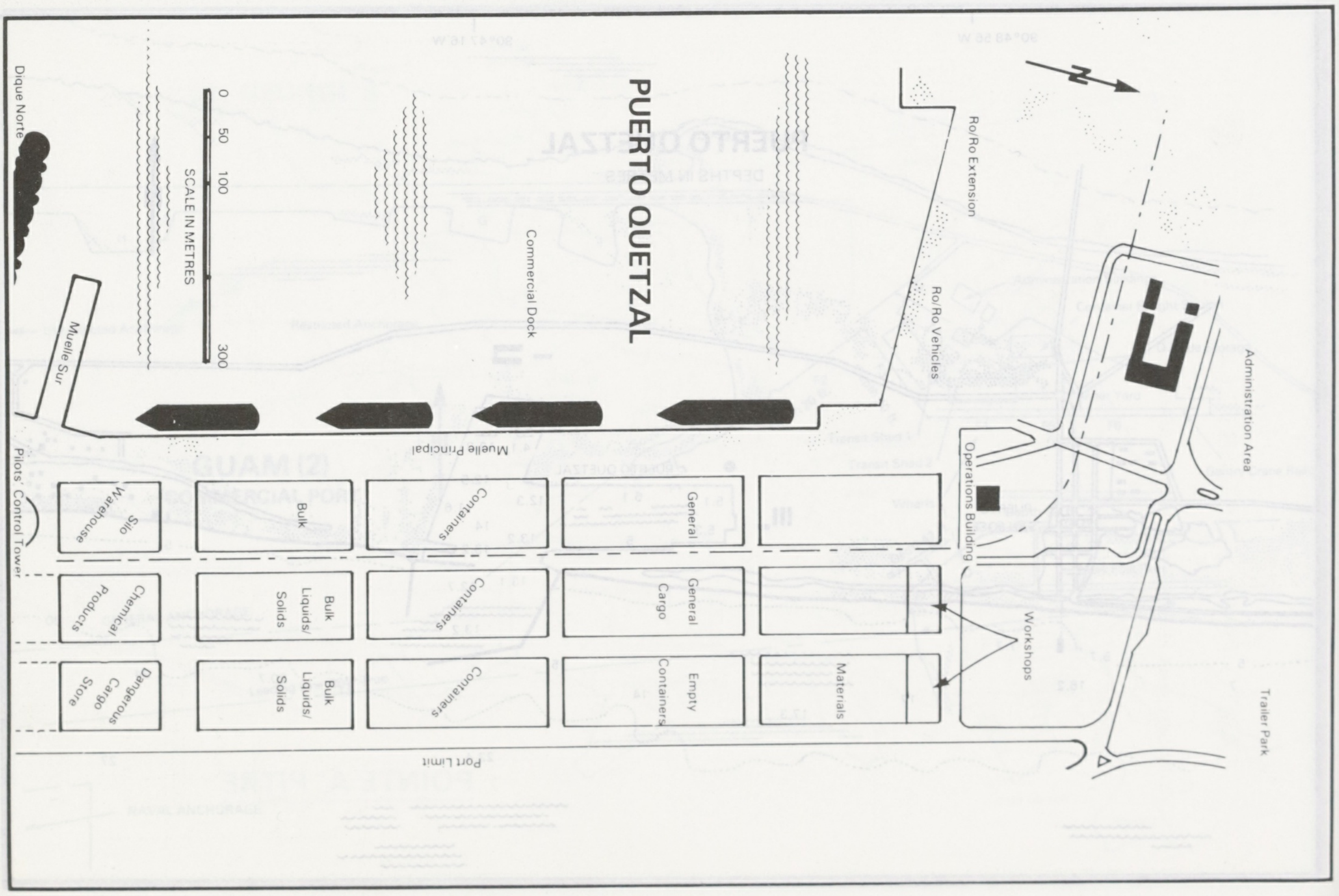
PUERTO QUETZAL
DEPTHS IN METRES

90° 48 56 W
90° 47 16 W
N
PUERTO QUETZAL
PUERTO SAN JOSE
5.3
12.3
4.1
12.3
12.5
5.1
6.1
12.3
11.6
5.3
5
14
13.2
13.2
13.1
12.7
13.2
5
20
5.7
7.2
5
7
16.2
17
17.3
14
15
21
20.7
24
22.4
27



	LENGTH	DEPTH
1. West Breakwater	1140.00 m.	18.0 m.
2. East Breakwater	307.00 m.	12.0 m.
3. Dock 3 Mole	367.54 m.	12.0 m.
4. Commercial Quay	802.26 m.	11.0 m.
5. Service Quay	170.00 m.	5.0 m.
6. Fish Quay	60.00 m.	2 - 6.0 m.
7. Harbour Entrance		
8. Main Dock		
9. Turning Circle		
10. Ro - Ro Quay		

PUERTO QUETZAL
DEPTHS IN METRES
N
Work in Progress
Naval Area
-5.0
-12.0
-11.0
-5.0
-12.0
General cargo
Containers
Bulk cargo
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
100 0 100 200
SCALE IN METRES

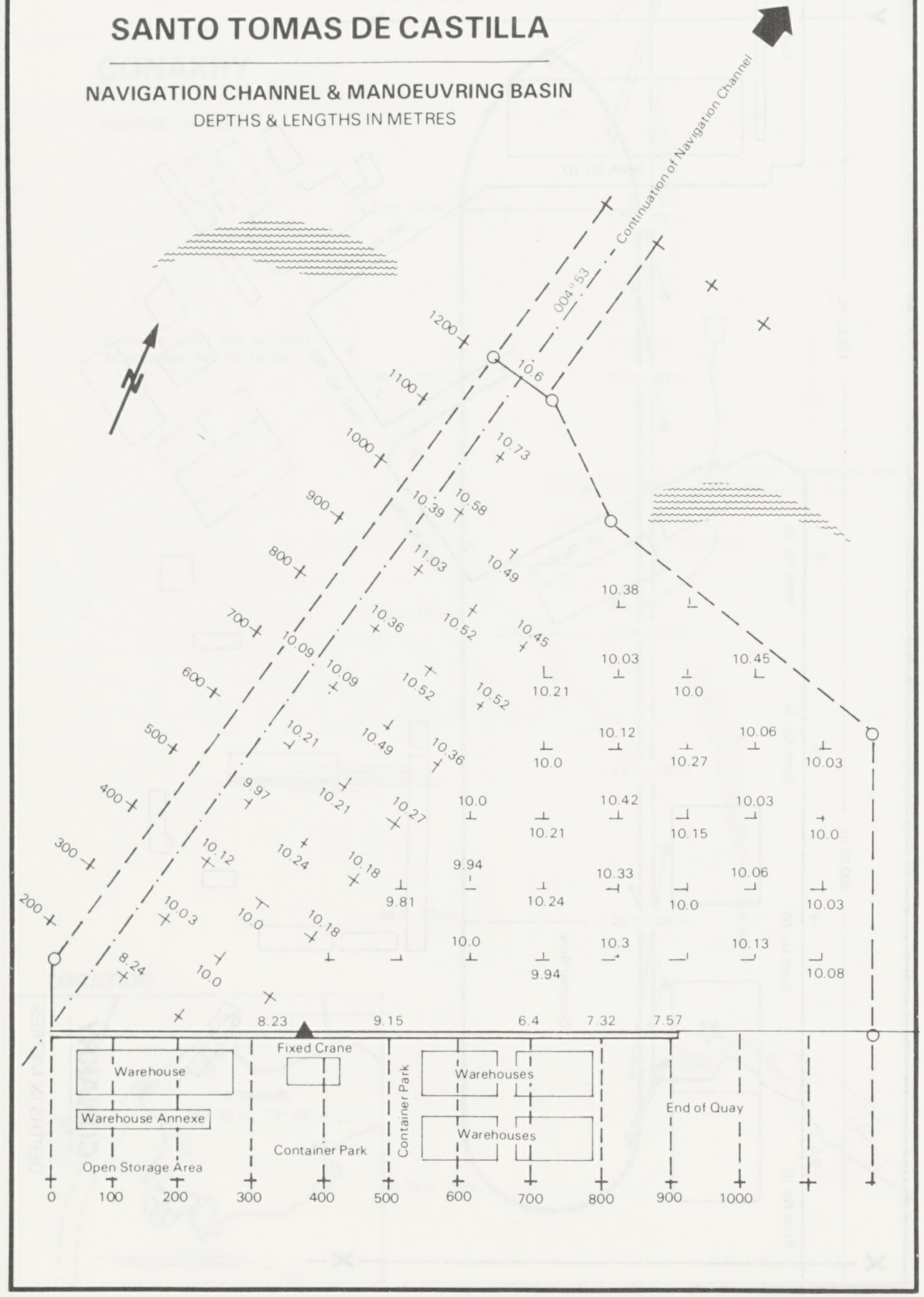


PUERTO QUETZAL
N
0 50 100 300
SCALE IN METRES
Dique Norte
Muelle Sur
Commercial Dock
Ro/Ro Extension
Ro/Ro Vehicles
Muelle Principal
Administration Area
Operations Building
Pilots' Control Tower
Silo Warehouse
Bulk
Containers
General
Chemical Products
Bulk Liquids/ Solids
Containers
General Cargo
Dangerous Cargo Store
Bulk Liquids/ Solids
Containers
Empty Containers
Materials
Workshops
Trailer Park
Port Limit

SANTO TOMAS DE CASTILLA

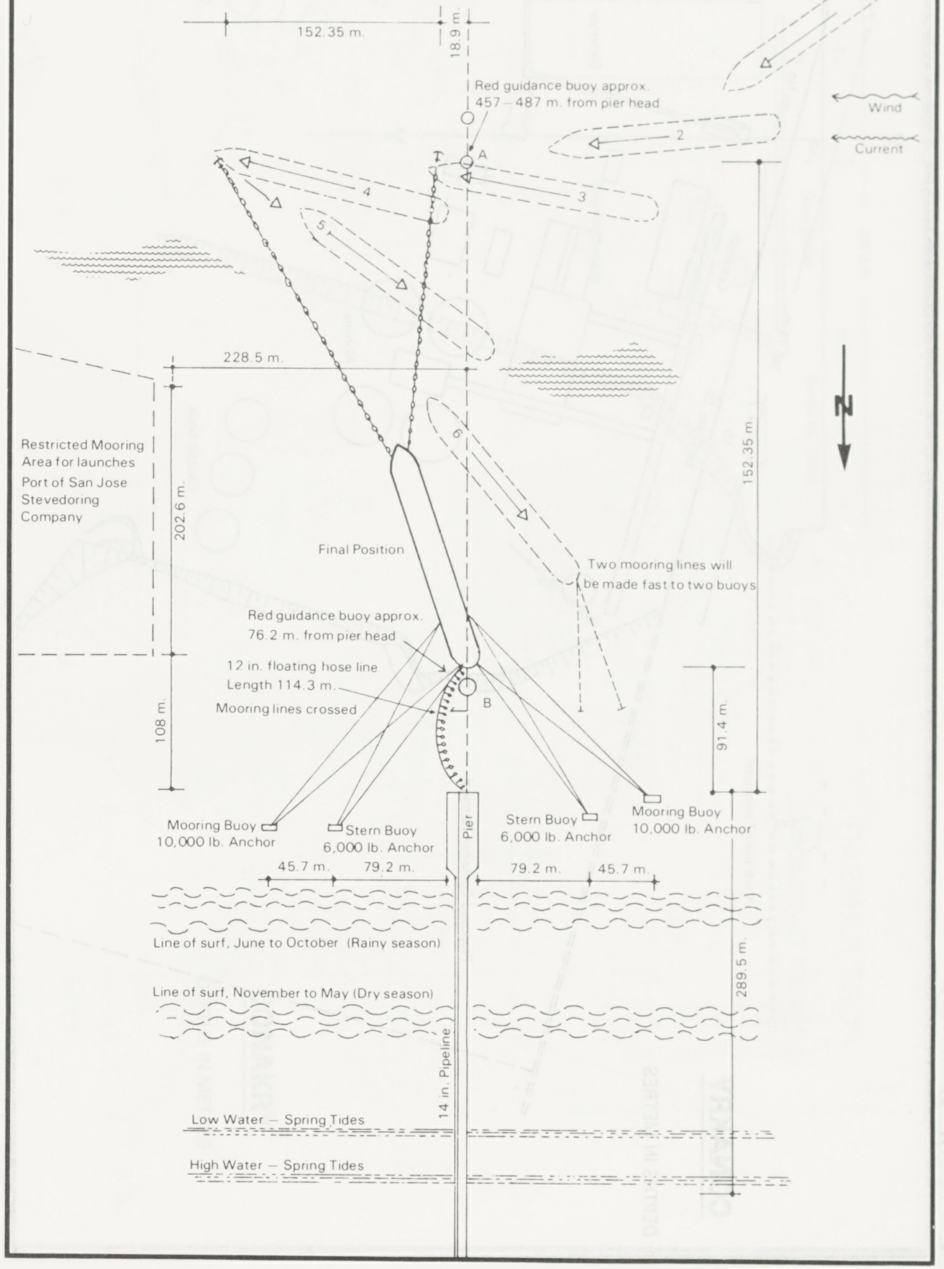
NAVIGATION CHANNEL & MANOEUVRING BASIN

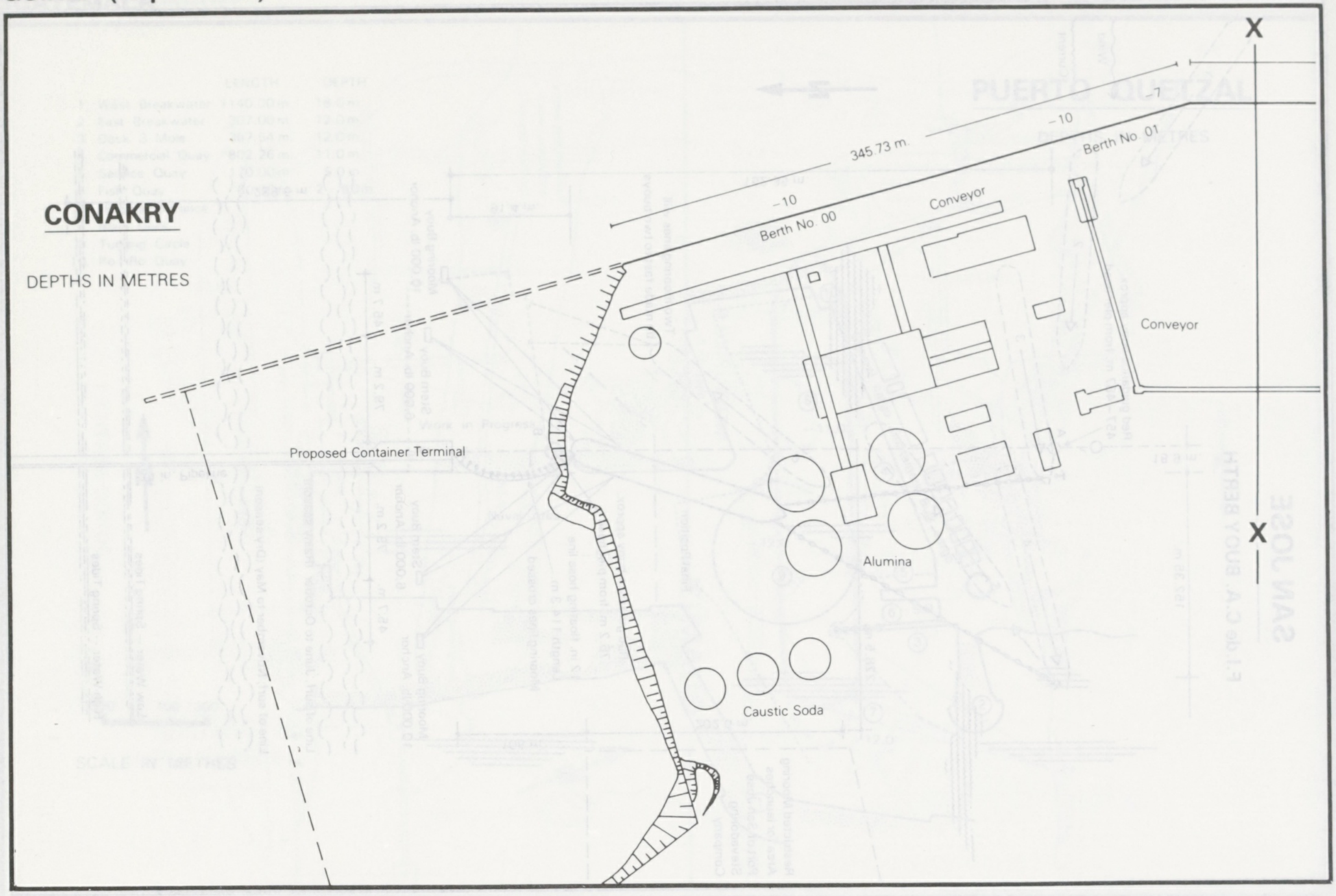
DEPTHS & LENGTHS IN METRES

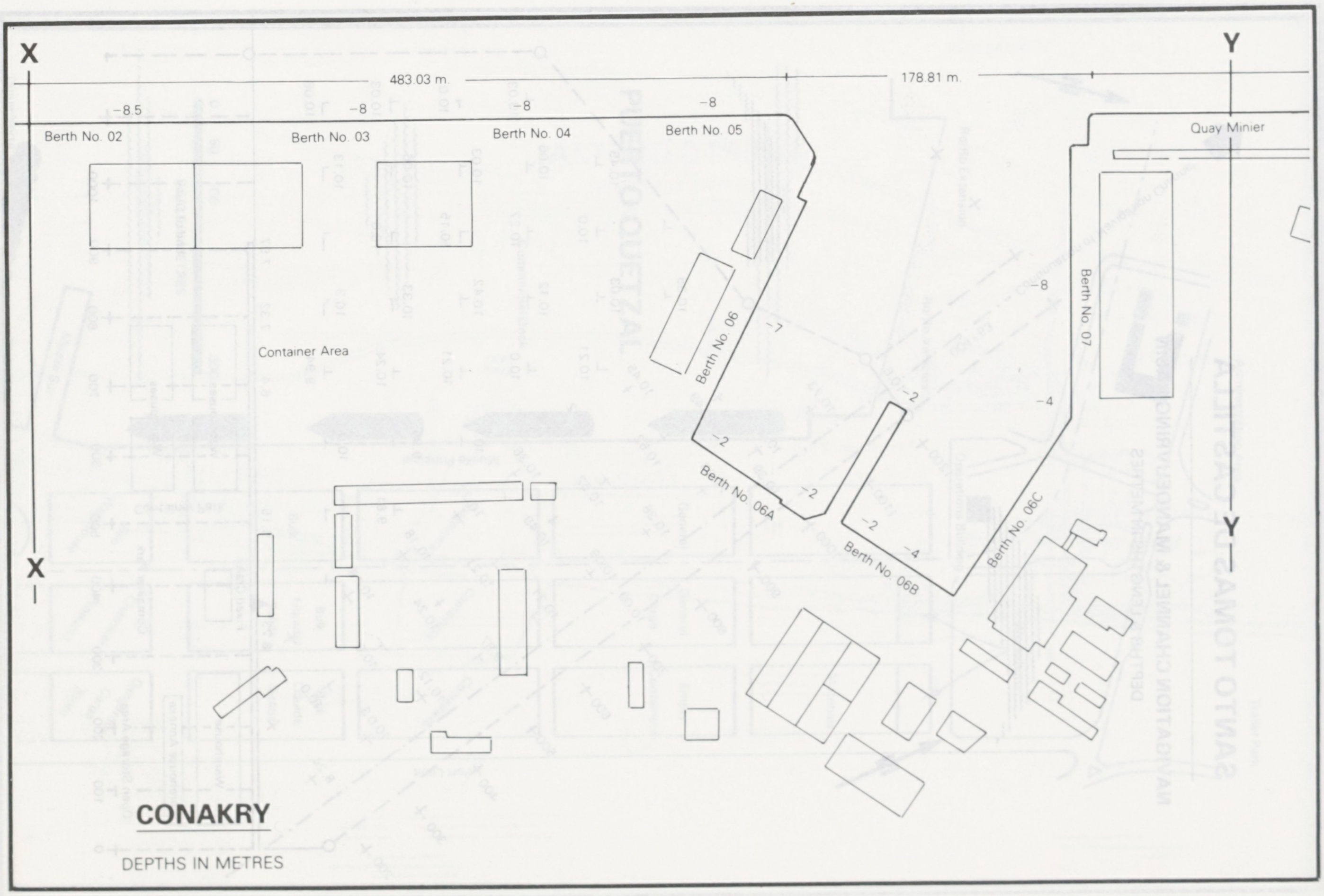

Continuation of Navigation Channel
004°53
1200
1100
1000
900
800
700
600
500
400
300
200
10.6
10.73
10.58
10.39
11.03
10.49
10.38
10.36
10.52
10.45
10.03
10.45
10.09
10.09
10.52
10.52
10.21
10.0
10.21
10.12
10.06
10.49
10.36
10.0
10.27
10.03
9.97
10.21
10.27
10.0
10.42
10.03
10.21
10.15
10.0
10.12
10.24
10.18
9.94
10.33
10.06
9.81
10.24
10.0
10.03
10.03
10.0
10.18
10.0
10.3
10.13
10.08
8.24
10.0
9.94
8.23
9.15
6.4
7.32
7.57
Fixed Crane
Warehouse
Warehouse Annexe
Open Storage Area
Container Park
Container Park
Warehouses
Warehouses
End of Quay
0
100
200
300
400
500
600
700
800
900
1000

SAN JOSE

F.I.de C.A. BUOY BERTH


152.35 m.
18.9 m.
Red guidance buoy approx. 457 – 487 m. from pier head
A
1
2
3
4
5
6
Wind
Current
228.5 m.
Restricted Mooring Area for launches
Port of San Jose Stevedoring Company
202.6 m.
152.35 m.
Final Position
Two mooring lines will be made fast to two buoys
Red guidance buoy approx. 76.2 m. from pier head
12 in. floating hose line Length 114.3 m.
Mooring lines crossed
B
108 m.
91.4 m.
Mooring Buoy 10,000 lb. Anchor
Stern Buoy 6,000 lb. Anchor
Pier
Stern Buoy 6,000 lb. Anchor
Mooring Buoy 10,000 lb. Anchor
45.7 m.
79.2 m.
79.2 m.
45.7 m.
Line of surf, June to October (Rainy season)
Line of surf, November to May (Dry season)
289.5 m.
14 in. Pipeline
Low Water – Spring Tides
High Water – Spring Tides

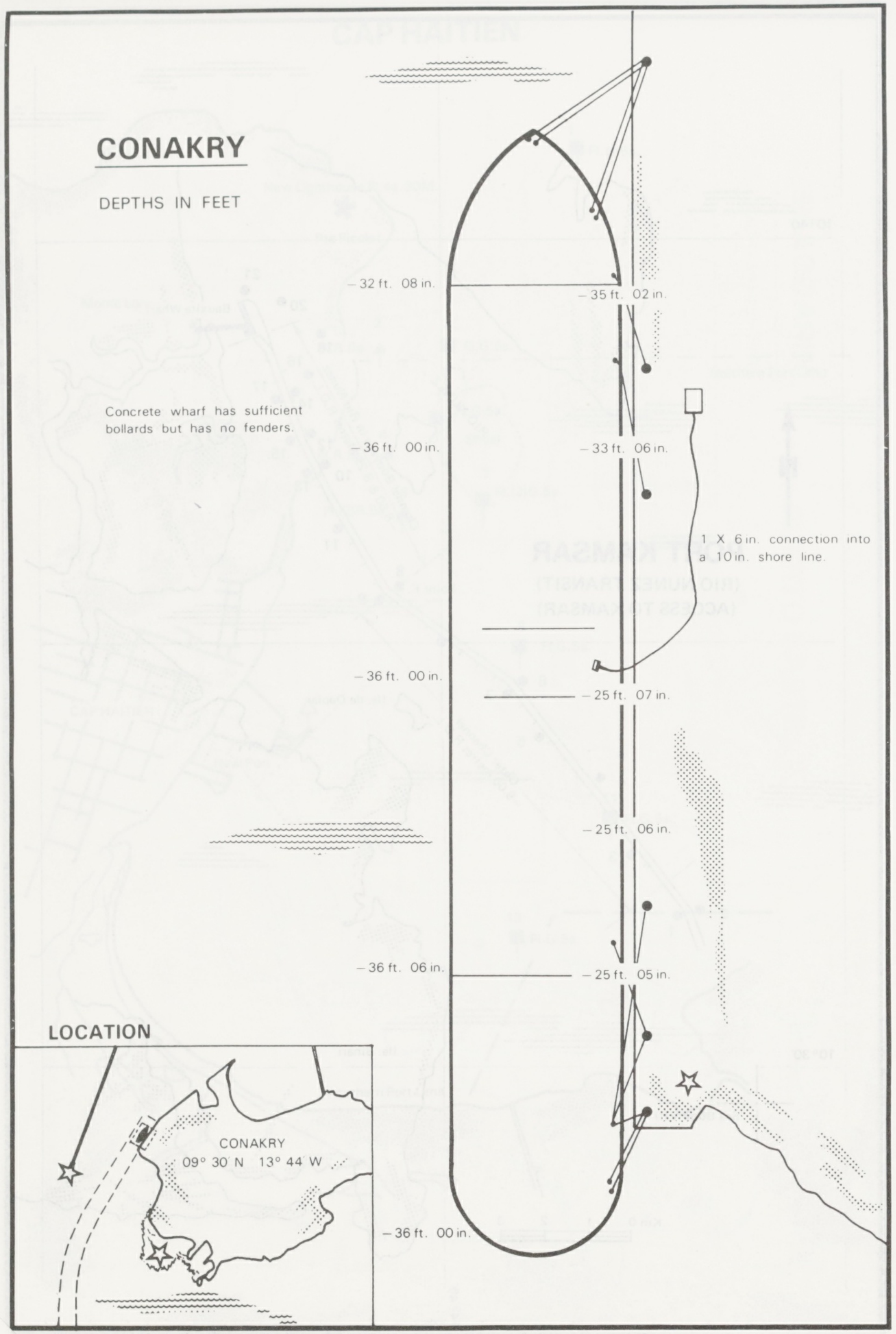

X
X
345.73 m.
–10
–10
Berth No. 01
Berth No. 00
Conveyor
Conveyor
CONAKRY
DEPTHS IN METRES
Proposed Container Terminal
Alumina
Caustic Soda


X
Y
483.03 m.
178.81 m.
–8.5
–8
–8
–8
Berth No. 02
Berth No. 03
Berth No. 04
Berth No. 05
Quay Minier
Container Area
Berth No. 06
–7
–2
Berth No. 06A
–2
–2
–4
Berth No. 06B
Berth No. 06C
–8
Berth No. 07
–4
Y
X
CONAKRY
DEPTHS IN METRES

CONAKRY

DEPTHS IN FEET

Concrete wharf has sufficient bollards but has no fenders.

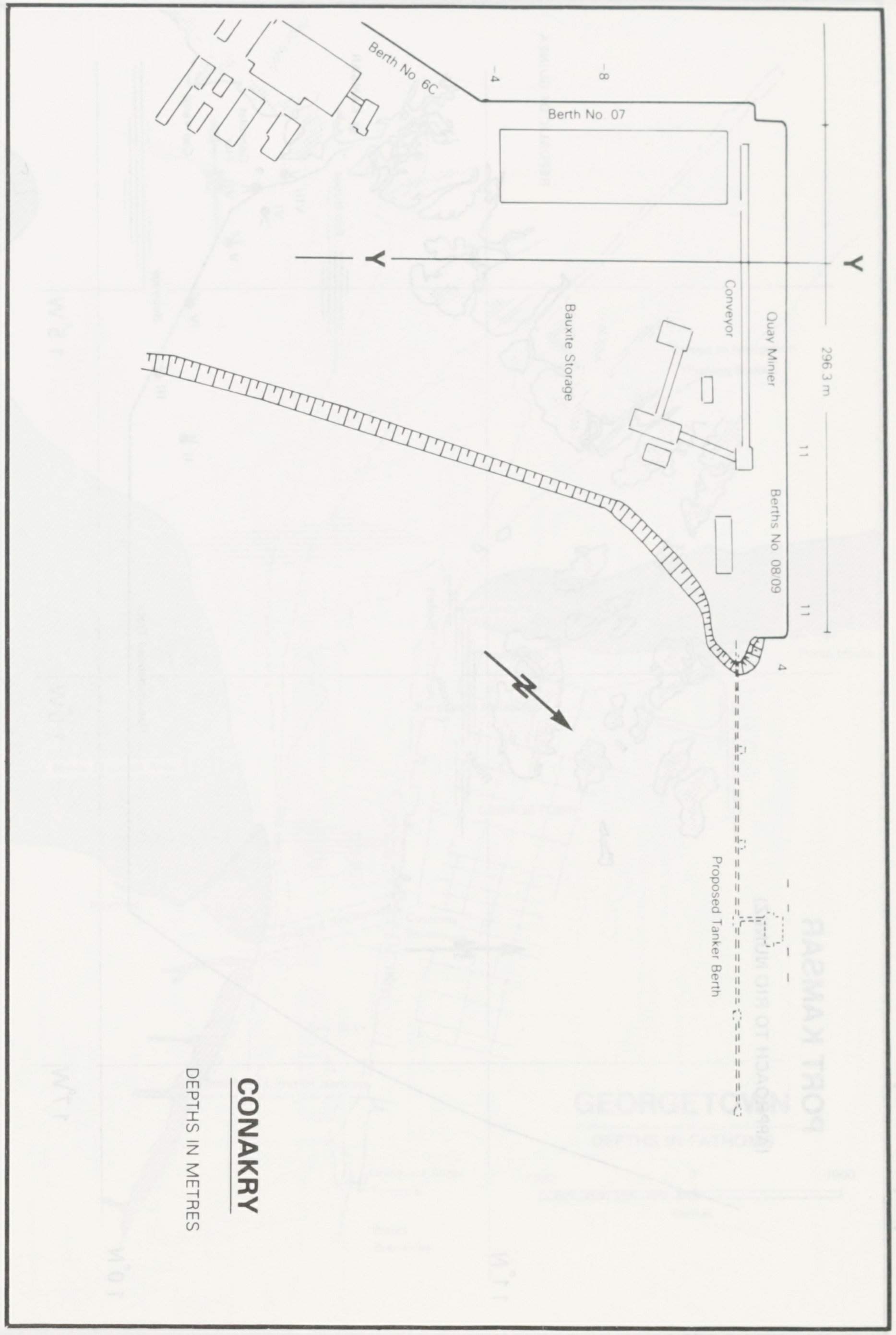


– 32 ft. 08 in.
– 35 ft. 02 in.
– 36 ft. 00 in.
– 33 ft. 06 in.
1 X 6 in. connection into a 10 in. shore line.
– 36 ft. 00 in.
– 25 ft. 07 in.
– 25 ft. 06 in.
– 36 ft. 06 in.
– 25 ft. 05 in.
– 36 ft. 00 in.
LOCATION
CONAKRY
09° 30' N 13° 44' W

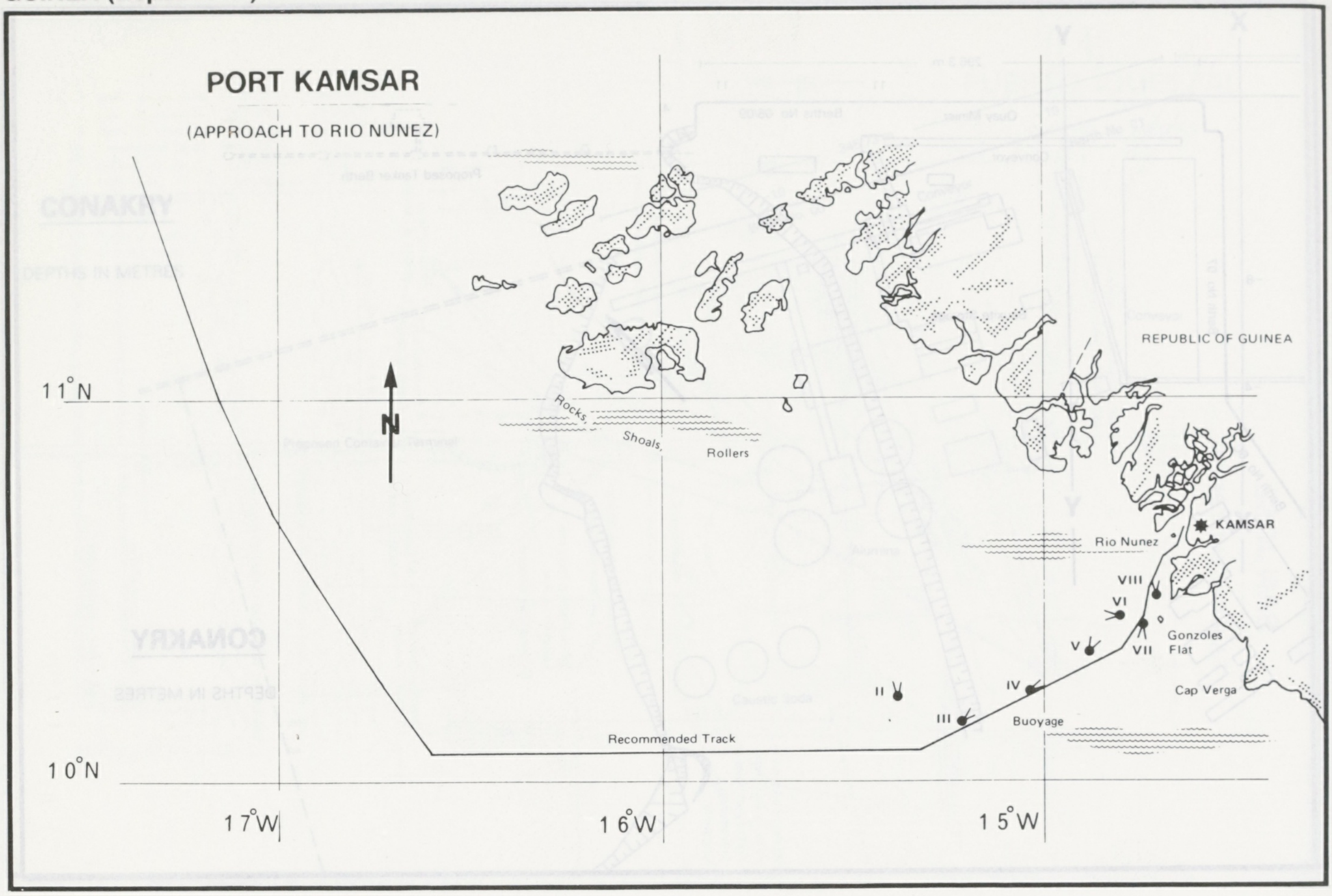
"Plan supplied by Ship's Master"

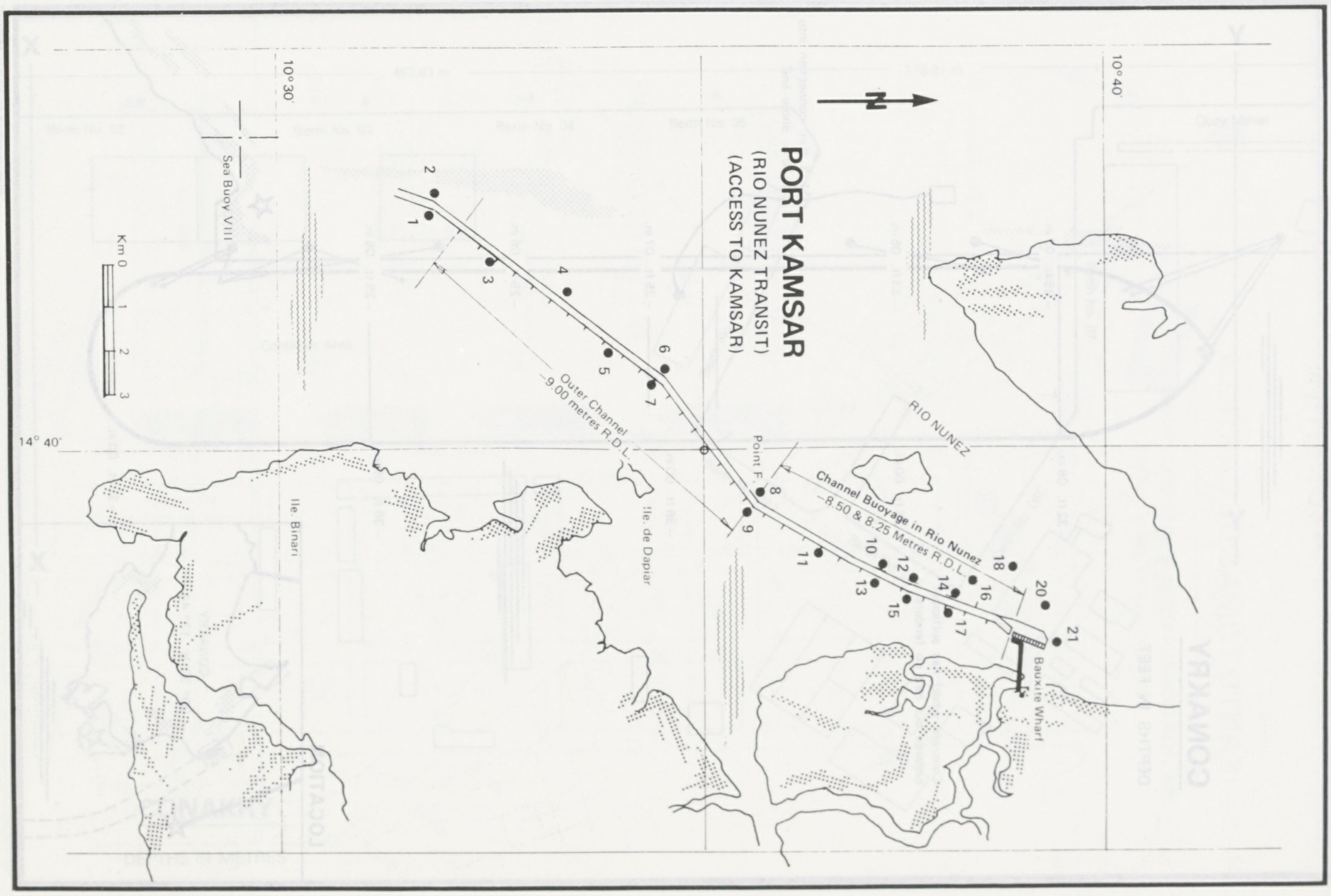
CONAKRY

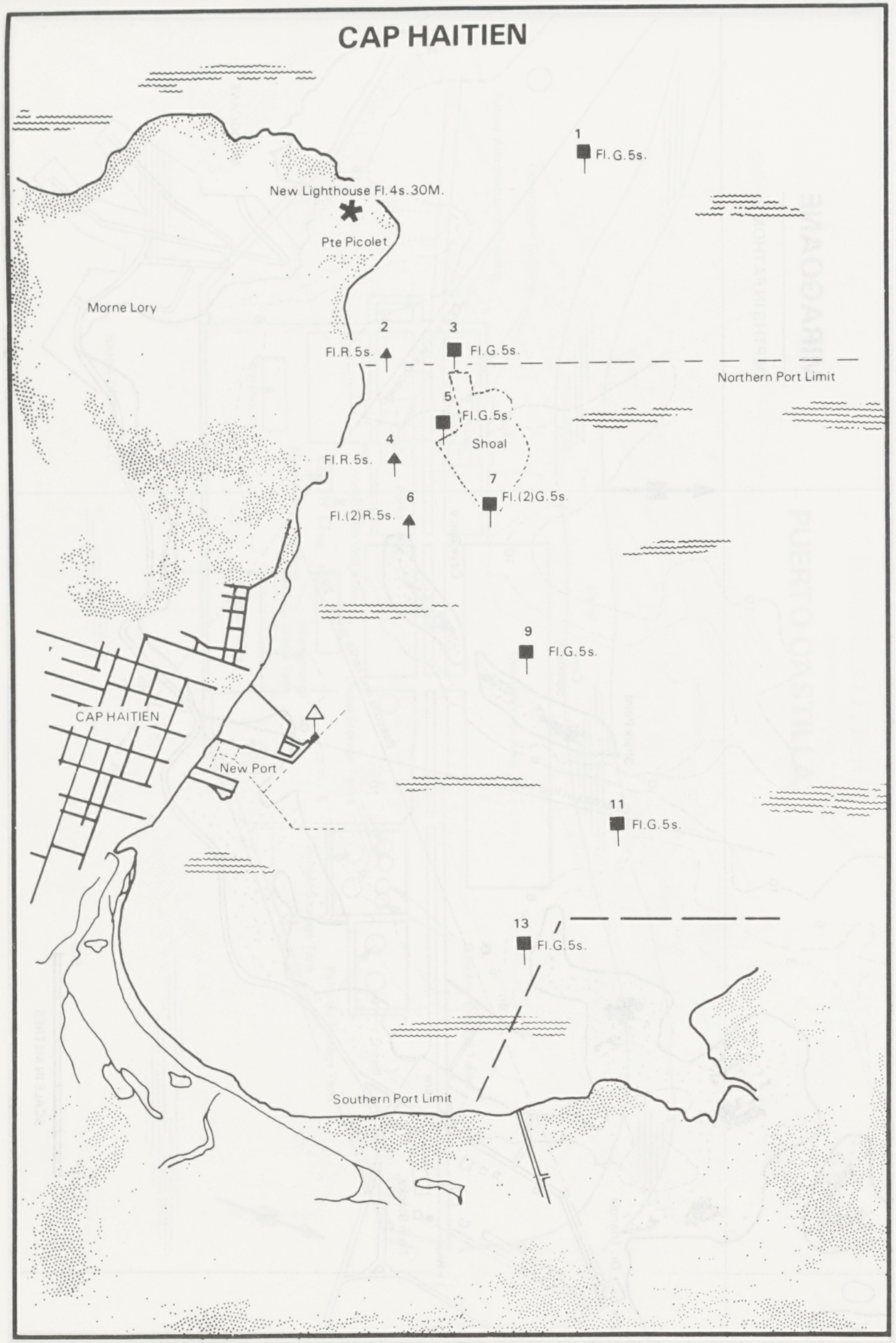
DEPTHS IN METRES

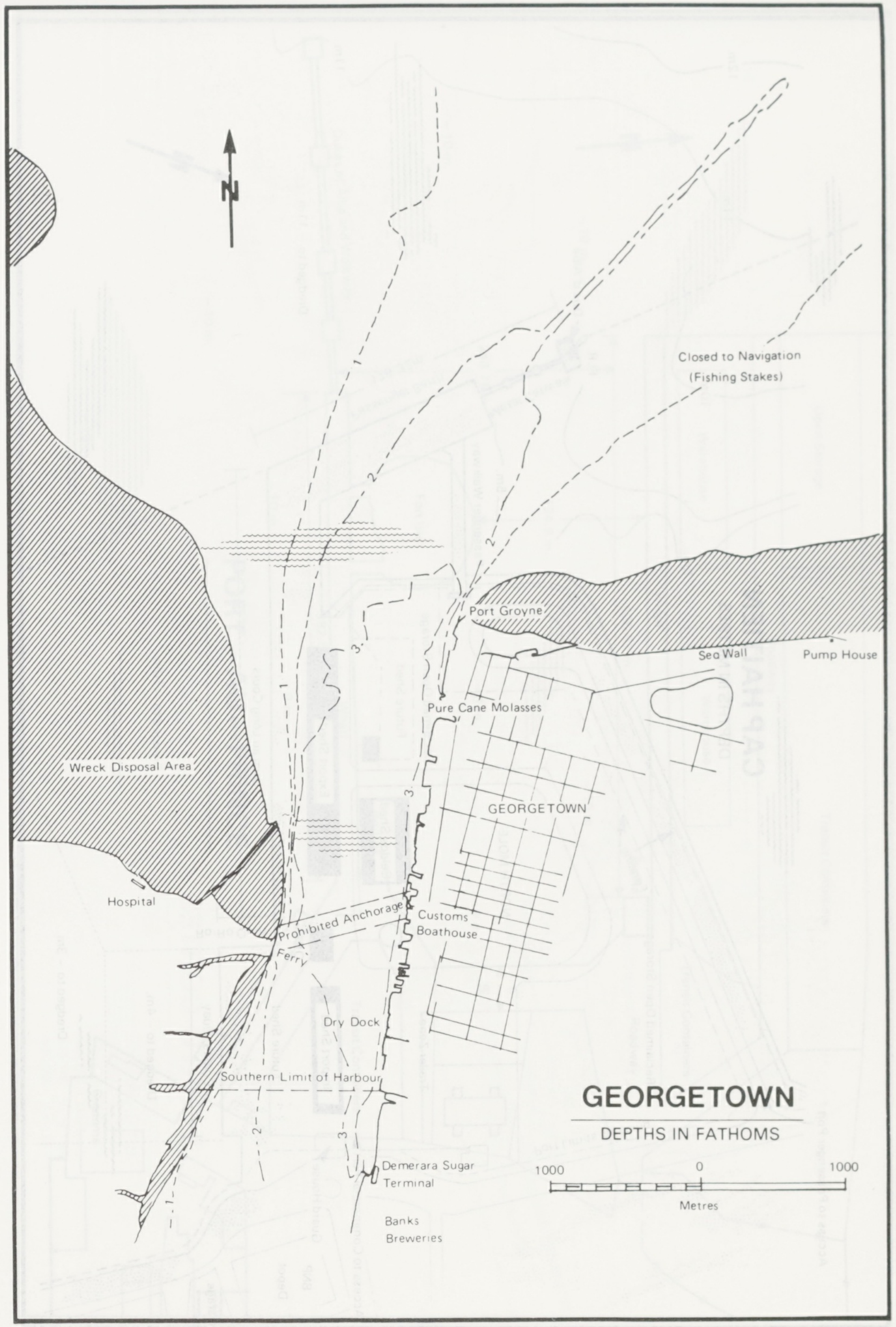


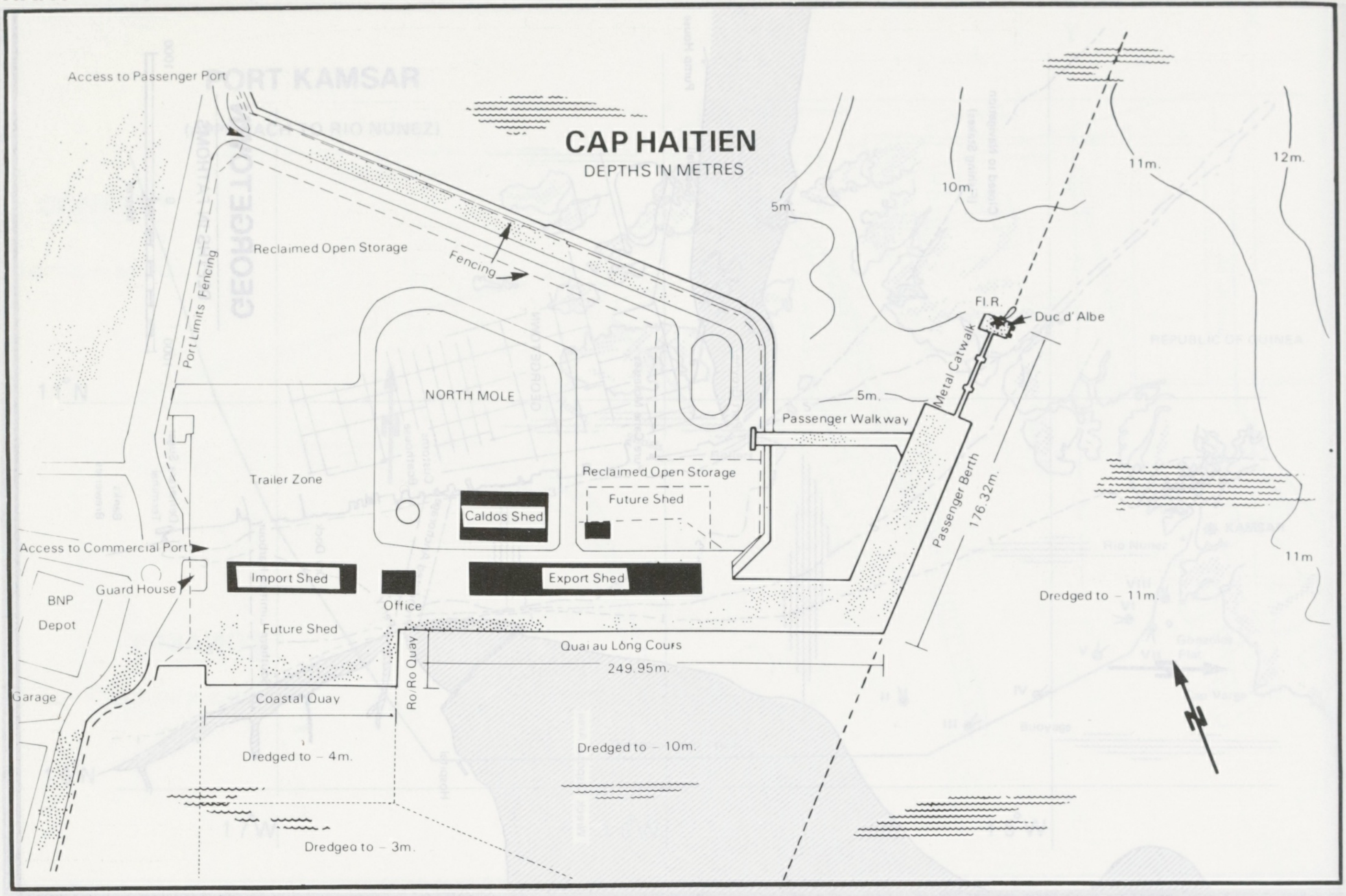
Berth No 6C
–4
–8
Berth No 07
Y
Y
Conveyor
Quay Minier
Bauxite Storage
296.3 m
11
Berths No 08/09
11
4
Proposed Tanker Berth

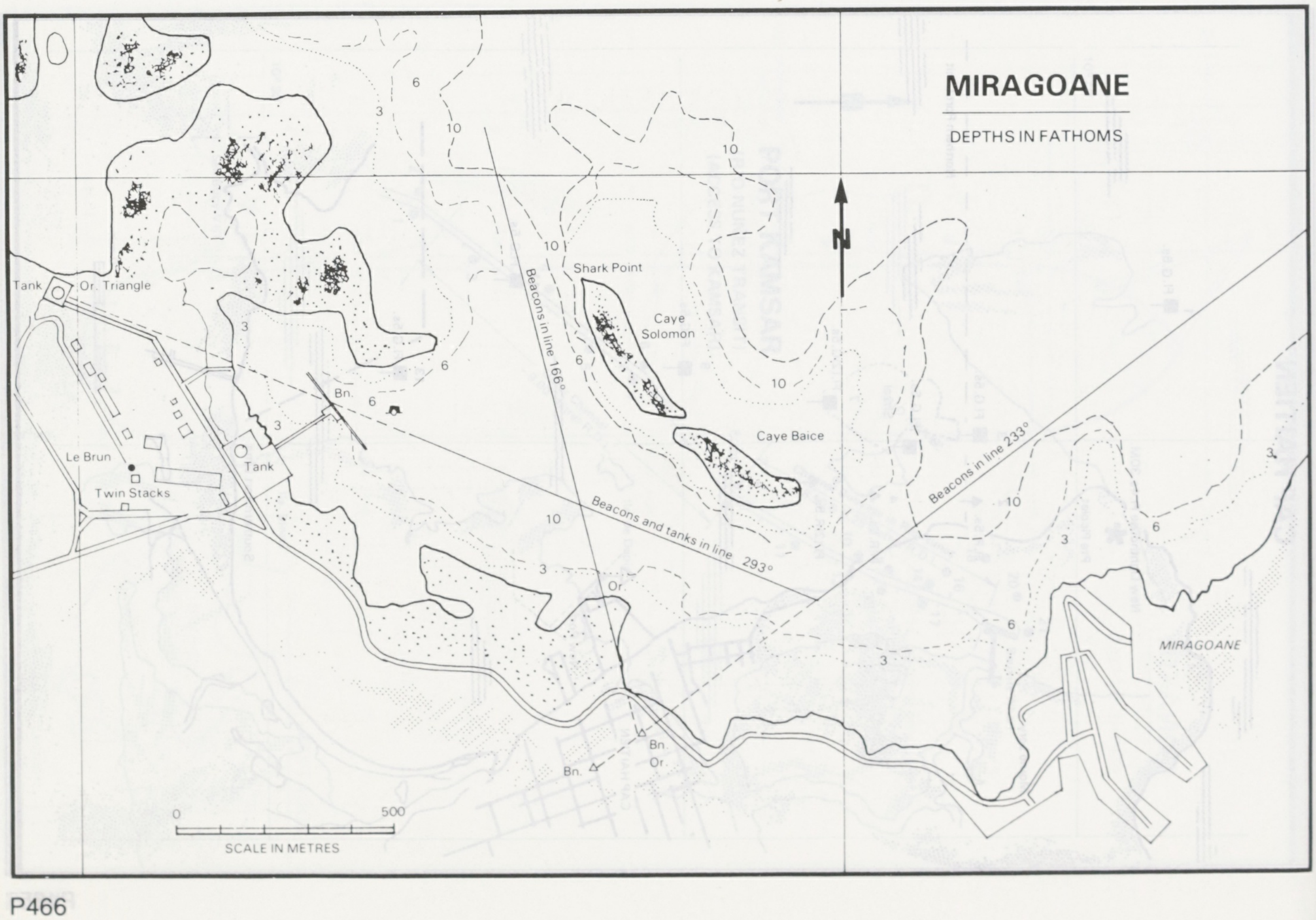

PORT KAMSAR
(APPROACH TO RIO NUNEZ)
N
11°N
10°N
17°W
16°W
15°W
Rocks
Shoals
Rollers
REPUBLIC OF GUINEA
KAMSAR
Rio Nunez
VIII
VI
VII
V
Gonzoles Flat
Cap Verga
IV
II
III
Buoyage
Recommended Track

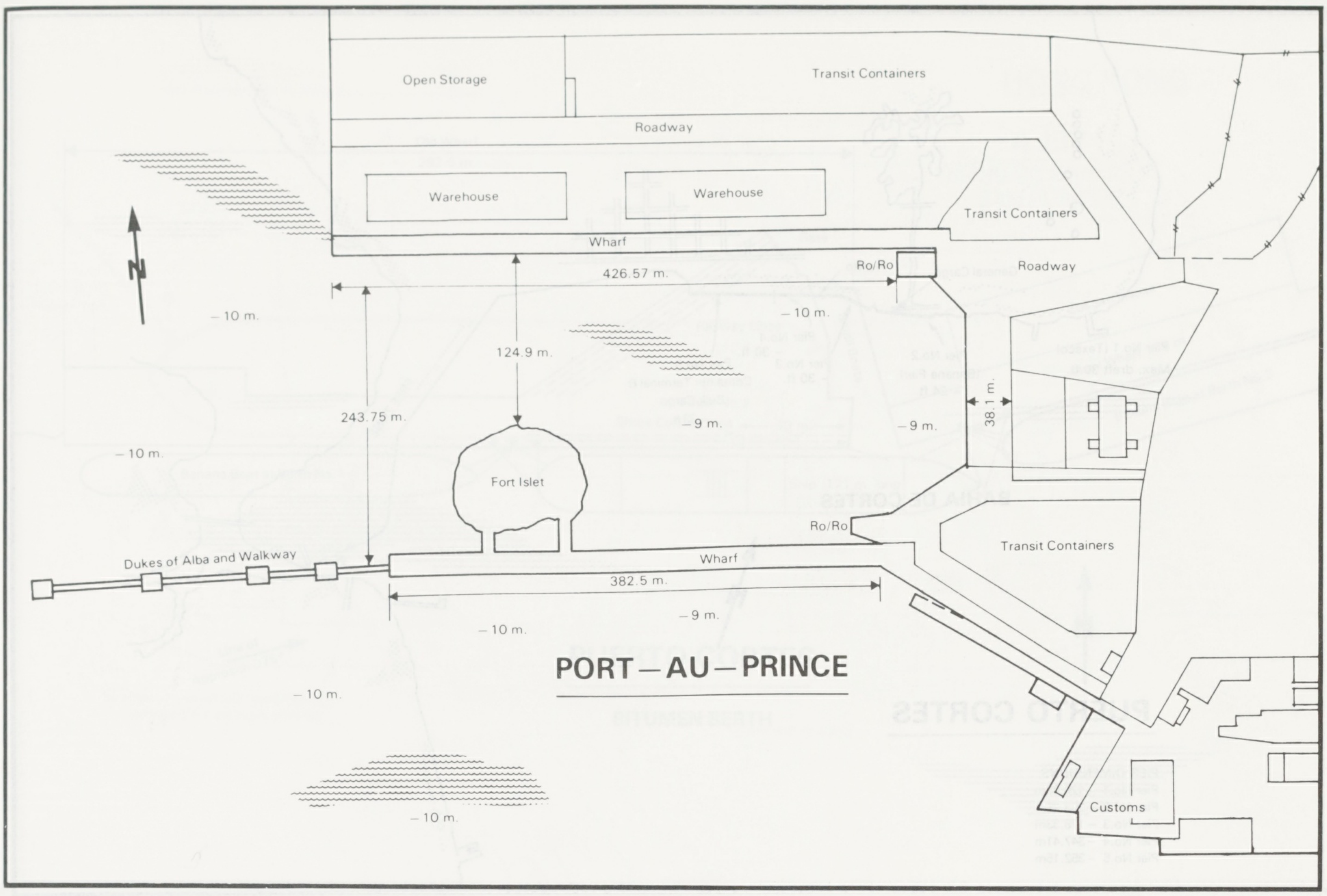

PORT KAMSAR
(RIO NUNEZ TRANSIT)
(ACCESS TO KAMSAR)
N
10°30'
10°40'
14°40'
Sea Buoy VIII
Km 0 1 2 3
1
2
3
4
5
6
7
Outer Channel
-9.00 metres R.D.L.
Point F
8
9
RIO NUNEZ
Channel Buoyage in Rio Nunez
-8.50 & 8.25 Metres R.D.L.
10
11
12
13
14
15
16
17
18
20
21
Ile. Binari
Ile. de Dapiar
Bauxite Wharf

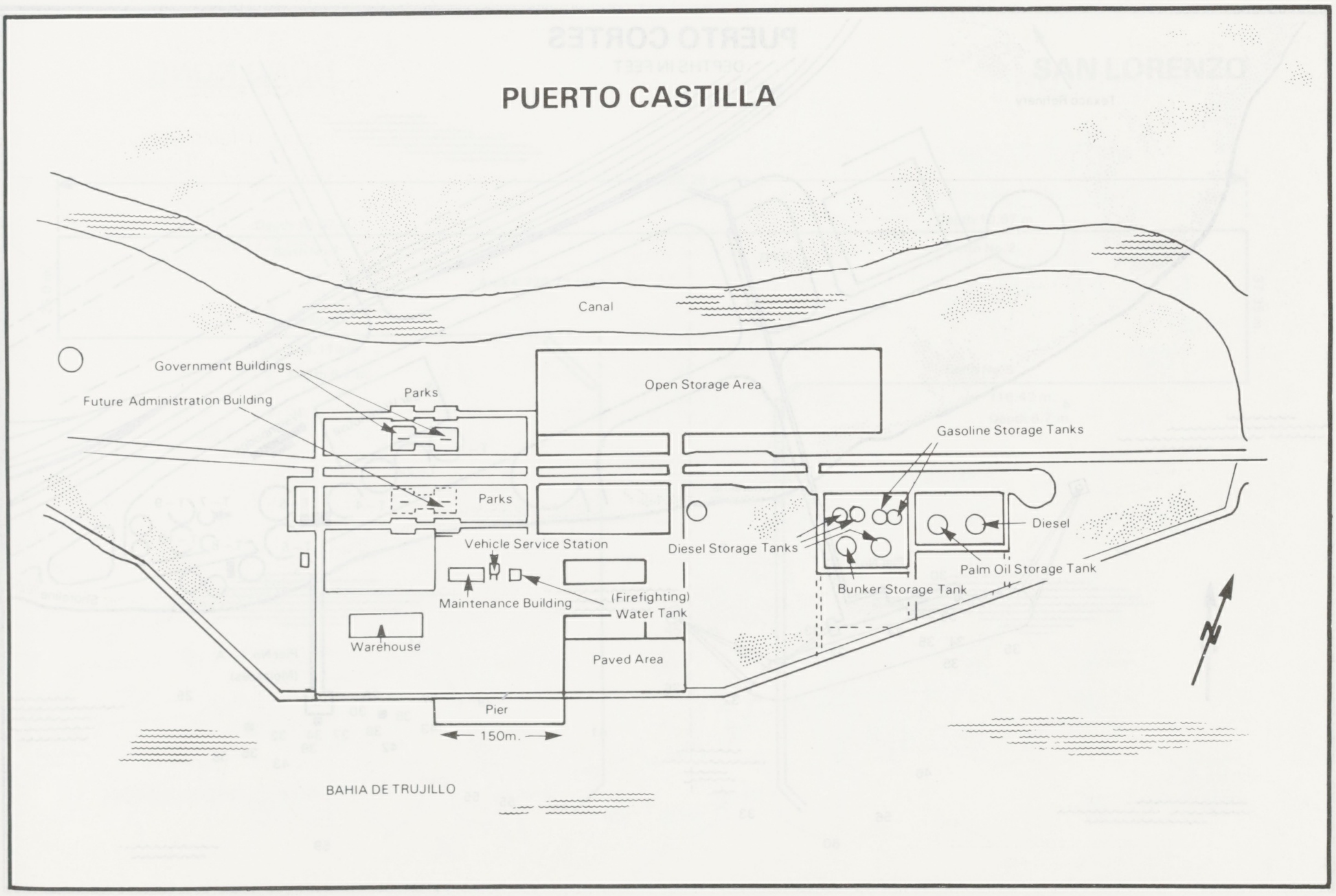

CAP HAITIEN
1
Fl. G. 5s.
New Lighthouse Fl. 4s. 30M.
Pte Picolet
Morne Lory
2
Fl. R. 5s.
3
Fl. G. 5s.
Northern Port Limit
5
Fl. G. 5s.
Shoal
4
Fl. R. 5s.
6
Fl. (2) R. 5s.
7
Fl. (2) G. 5s.
9
Fl. G. 5s.
CAP HAITIEN
New Port
11
Fl. G. 5s.
13
Fl. G. 5s.
Southern Port Limit

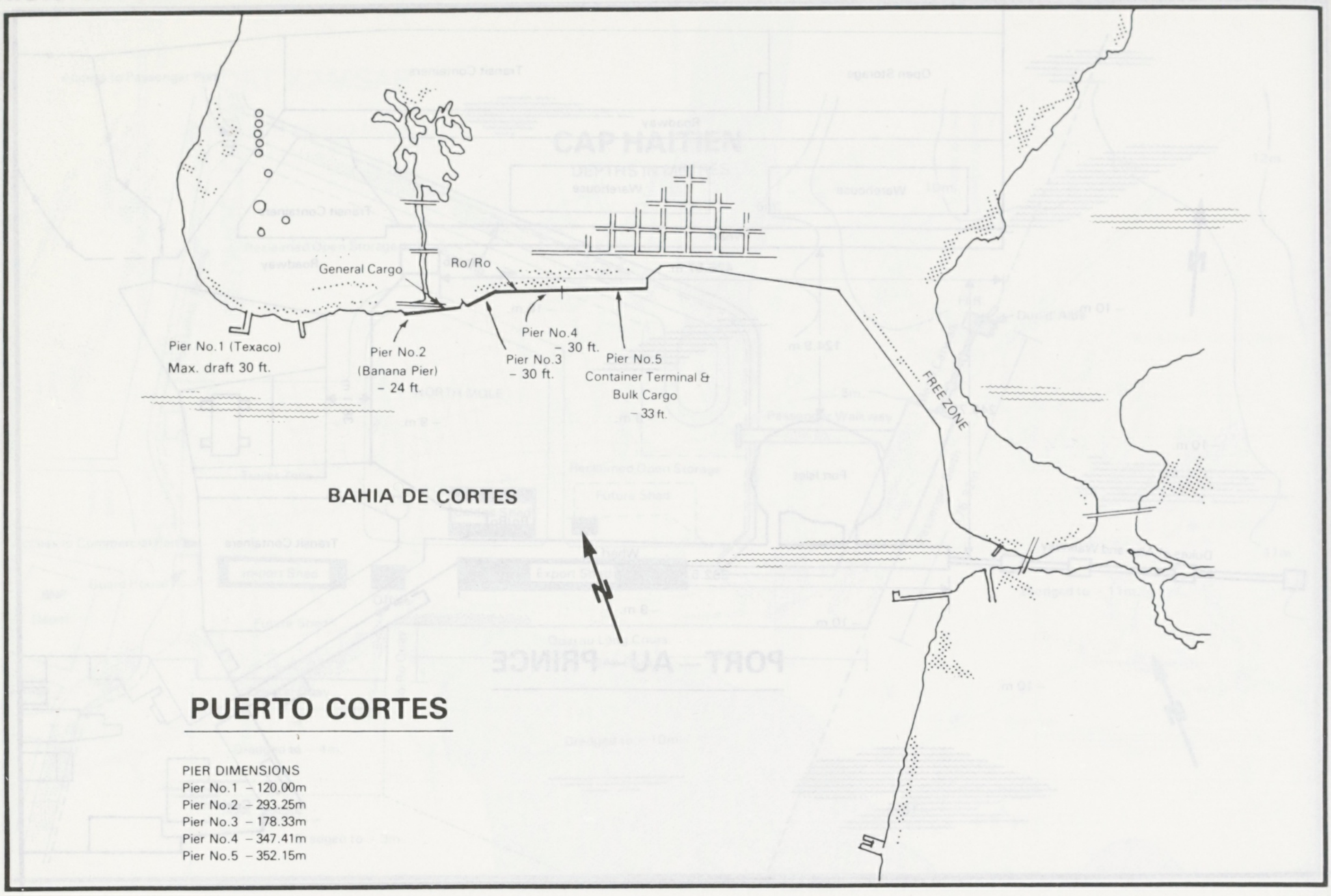

N
Closed to Navigation
(Fishing Stakes)
Port Groyne
Sea Wall
Pump House
Pure Cane Molasses
Wreck Disposal Area
GEORGETOWN
Hospital
Prohibited Anchorage
Customs
Boathouse
Ferry
Dry Dock
Southern Limit of Harbour
Demerara Sugar
Terminal
Banks
Breweries
GEORGETOWN
DEPTHS IN FATHOMS
1000
0
1000
Metres
1
2
3

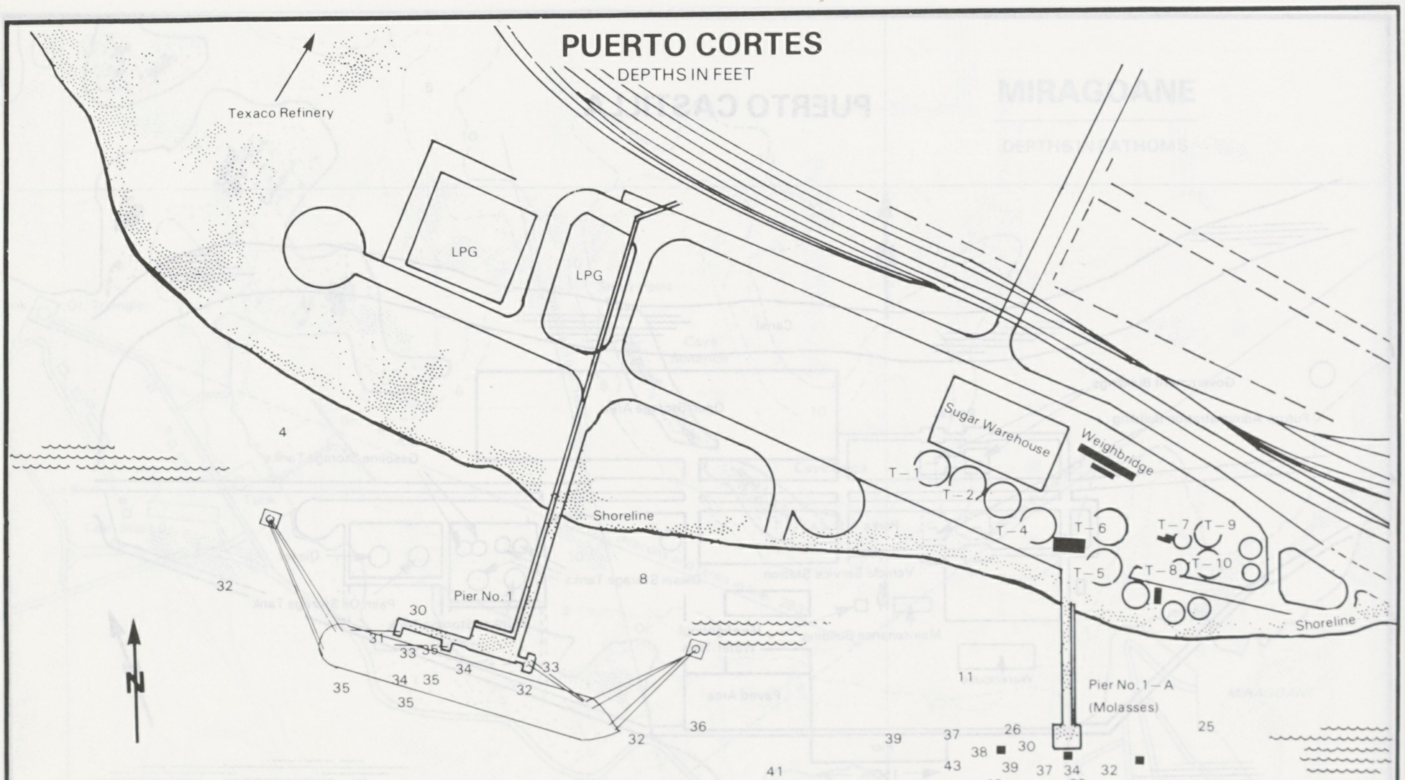

CAP HAITIEN
DEPTHS IN METRES
Access to Passenger Port
Reclaimed Open Storage
Fencing
Port Limits Fencing
NORTH MOLE
Trailer Zone
Caldos Shed
Reclaimed Open Storage
Future Shed
Access to Commercial Port
Guard House
BNP
Depot
Import Shed
Office
Export Shed
Future Shed
Garage
Coastal Quay
Ro Ro Quay
Quai au Long Cours
249.95m.
Dredged to – 4m.
Dredged to – 10m.
Dredged to – 3m.
Passenger Walkway
Metal Catwalk
Fl.R.
Duc d'Albe
Passenger Berth
176.32m.
5m.
5m.
10m.
11m.
12m.
11m
Dredged to – 11m.
N

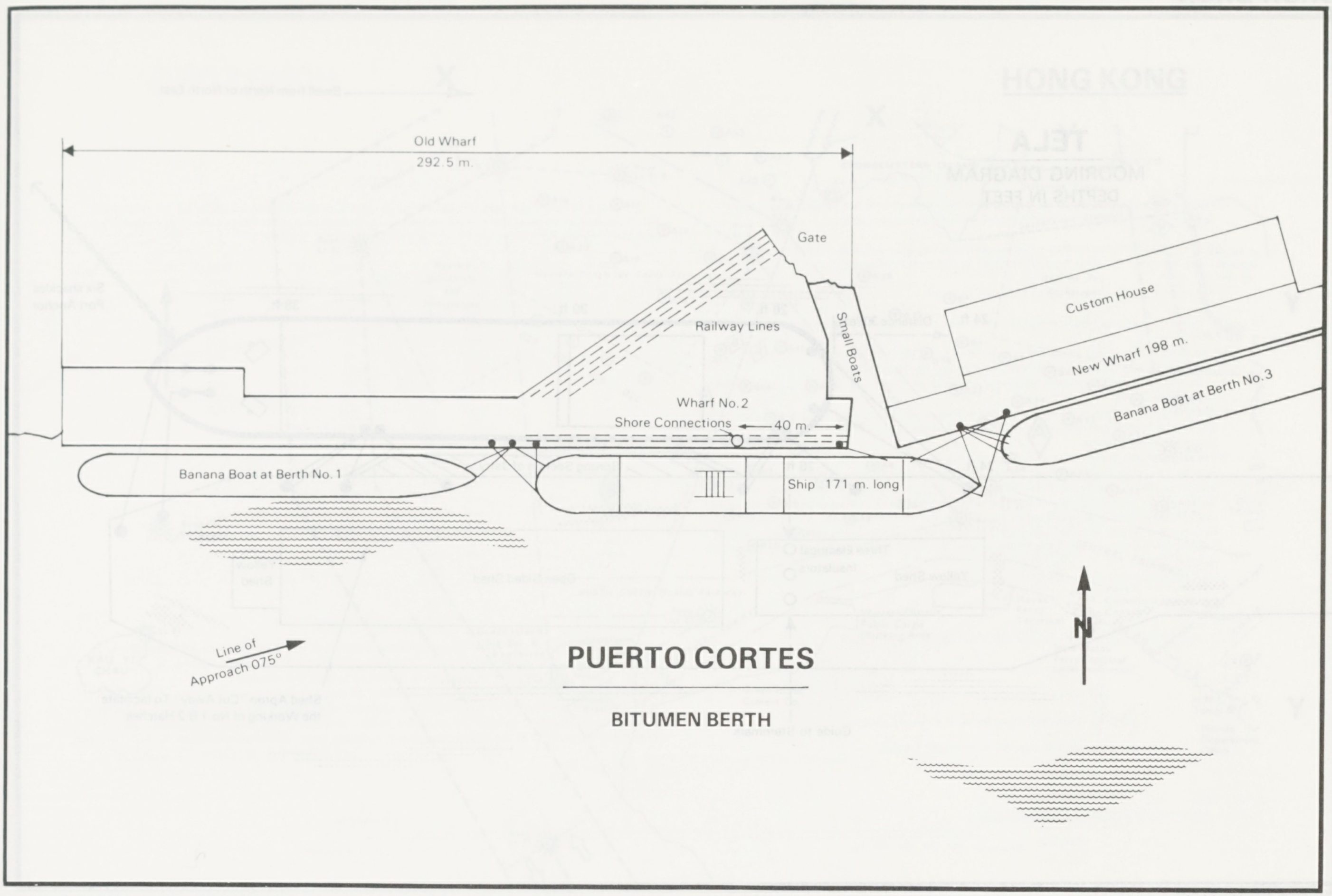

MIRAGOANE
DEPTHS IN FATHOMS
N
Tank
Or. Triangle
Le Brun
Twin Stacks
Tank
Bn.
Shark Point
Caye Solomon
Caye Baice
Beacons in line 166°
Beacons and tanks in line 293°
Beacons in line 233°
Or.
Bn.
Or.
Bn.
MIRAGOANE
3
6
10
10
10
3
6
6
3
6
10
10
3
10
3
6
3
6
3
0
500
SCALE IN METRES


PORT – AU – PRINCE
Open Storage
Transit Containers
Roadway
Warehouse
Warehouse
Transit Containers
Wharf
Ro/Ro
Roadway
426.57 m.
– 10 m.
– 10 m.
124.9 m.
243.75 m.
38.1 m.
– 9 m.
– 9 m.
– 10 m.
Fort Islet
Ro/Ro
Transit Containers
Dukes of Alba and Walkway
Wharf
382.5 m.
– 9 m.
– 10 m.
– 10 m.
– 10 m.
Customs
N


PUERTO CASTILLA
Canal
Government Buildings
Parks
Open Storage Area
Future Administration Building
Gasoline Storage Tanks
Parks
Diesel
Vehicle Service Station
Diesel Storage Tanks
Palm Oil Storage Tank
Bunker Storage Tank
Maintenance Building
(Firefighting)
Water Tank
Warehouse
Paved Area
Pier
150m.
BAHIA DE TRUJILLO
N


General Cargo
Ro/Ro
Pier No.1 (Texaco)
Max. draft 30 ft.
Pier No.2
(Banana Pier)
– 24 ft.
Pier No.3
– 30 ft.
Pier No.4
– 30 ft.
Pier No.5
Container Terminal & Bulk Cargo
– 33 ft.
FREE ZONE
BAHIA DE CORTES
PUERTO CORTES
PIER DIMENSIONS
Pier No.1 – 120.00m
Pier No.2 – 293.25m
Pier No.3 – 178.33m
Pier No.4 – 347.41m
Pier No.5 – 352.15m

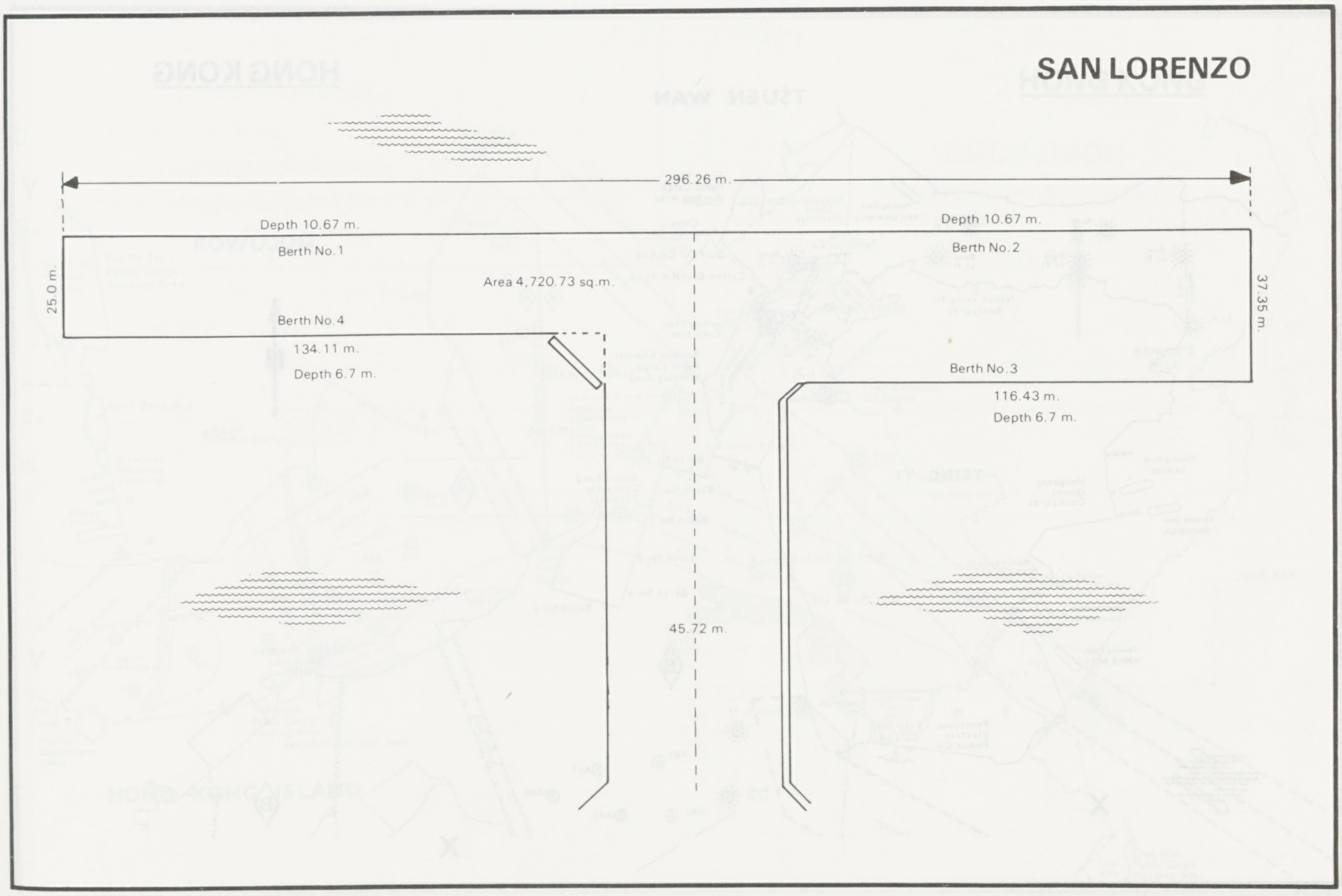

PUERTO CORTES
DEPTHS IN FEET
Texaco Refinery
LPG
LPG
Sugar Warehouse
Weighbridge
T – 1
T – 2
T – 4
T – 6
T – 5
T – 7
T – 9
T – 8
T – 10
Shoreline
Shoreline
Pier No.1
Pier No.1 – A
(Molasses)
4
32
30
31
33
36
34
33
35
34
35
35
32
8
32
36
11
39
37
26
30
38
43
39
37
34
32
42
39
43
36
38
25
41
46
55
55
55
56
33
60
59


Old Wharf
292.5 m.
Gate
Railway Lines
Small Boats
Custom House
New Wharf 198 m.
Banana Boat at Berth No.3
Wharf No.2
Shore Connections
40 m.
Banana Boat at Berth No.1
Ship 171 m. long
Line of Approach 075°
N

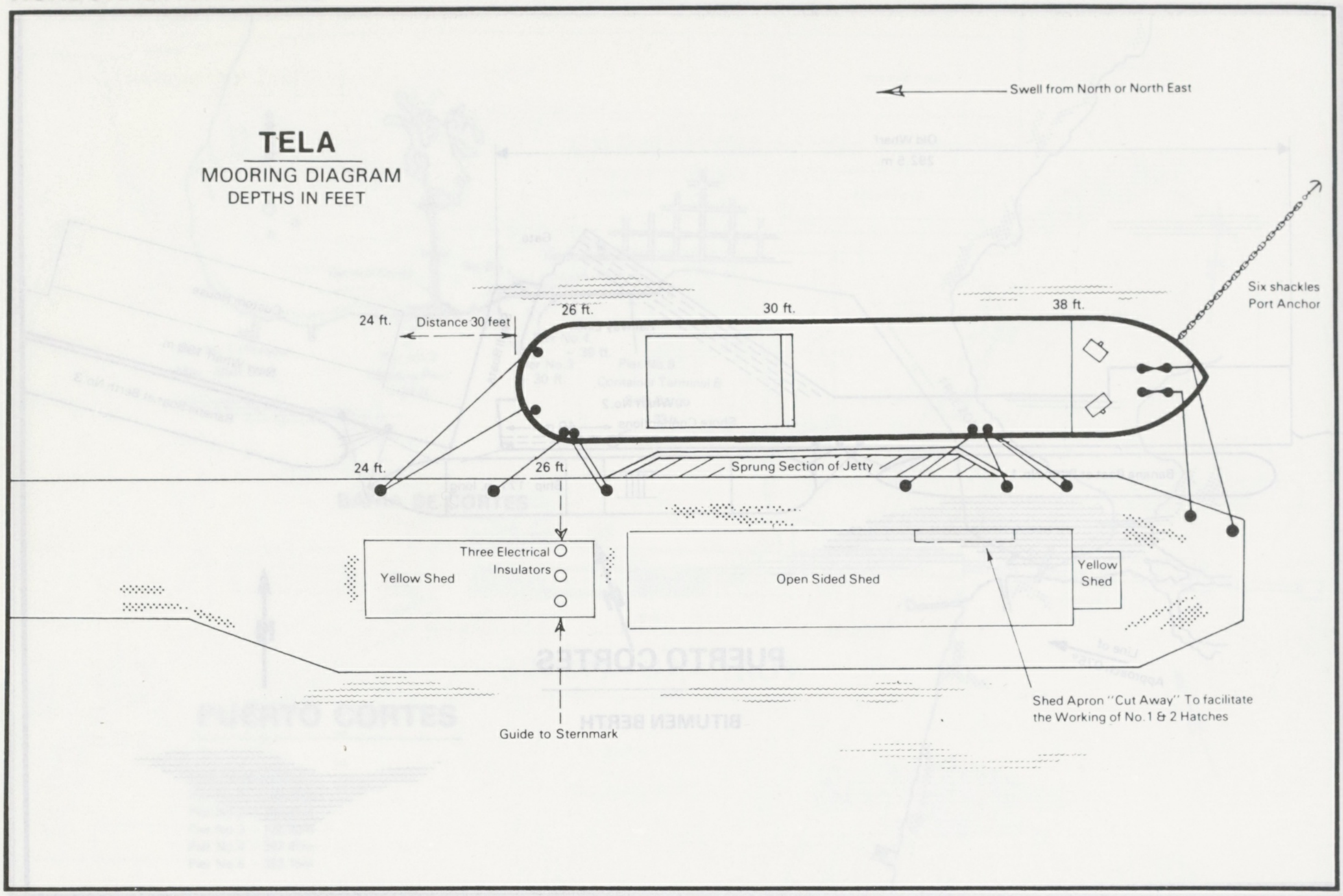
PUERTO CORTES

BITUMEN BERTH

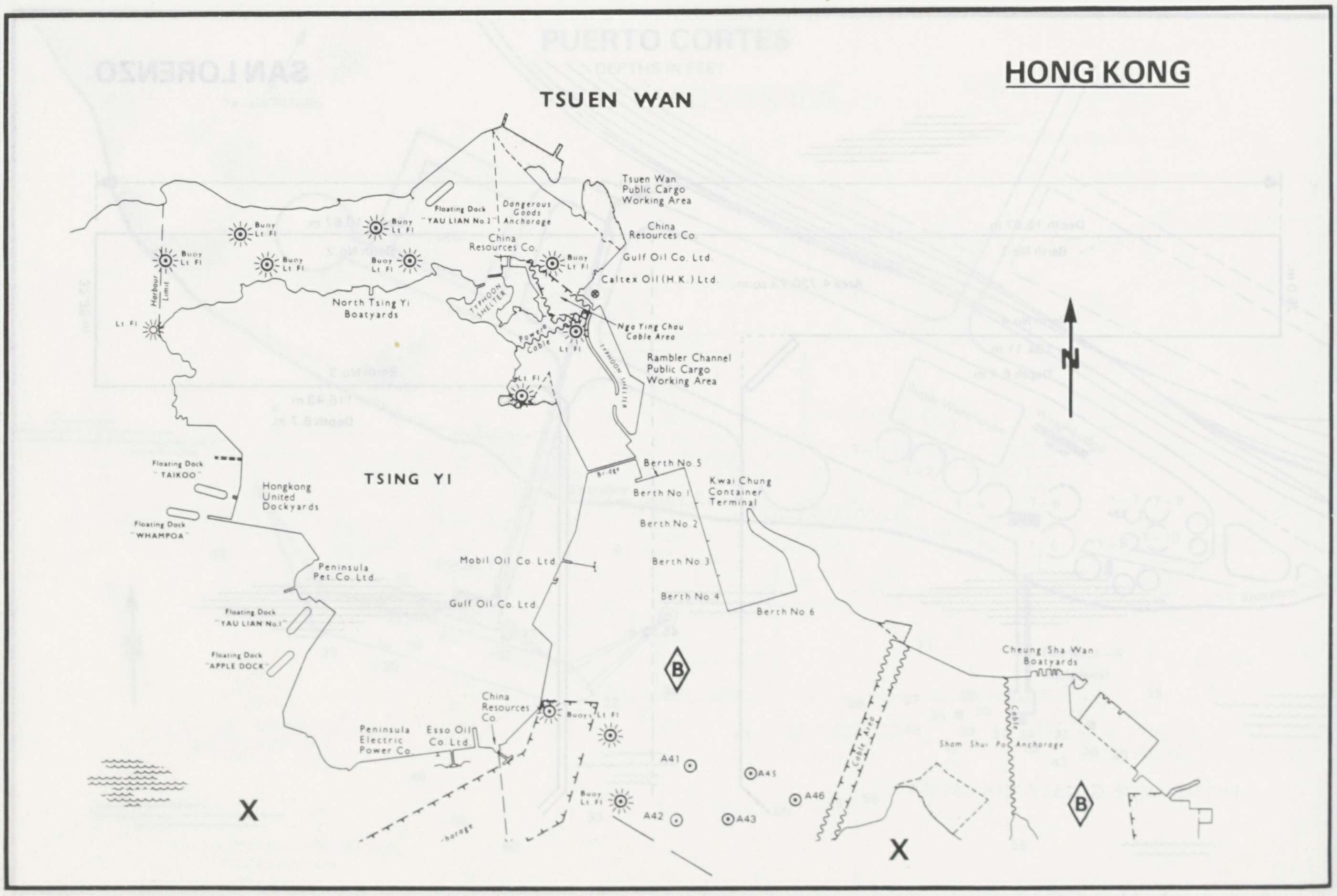
"Plan supplied by Ship's Master"

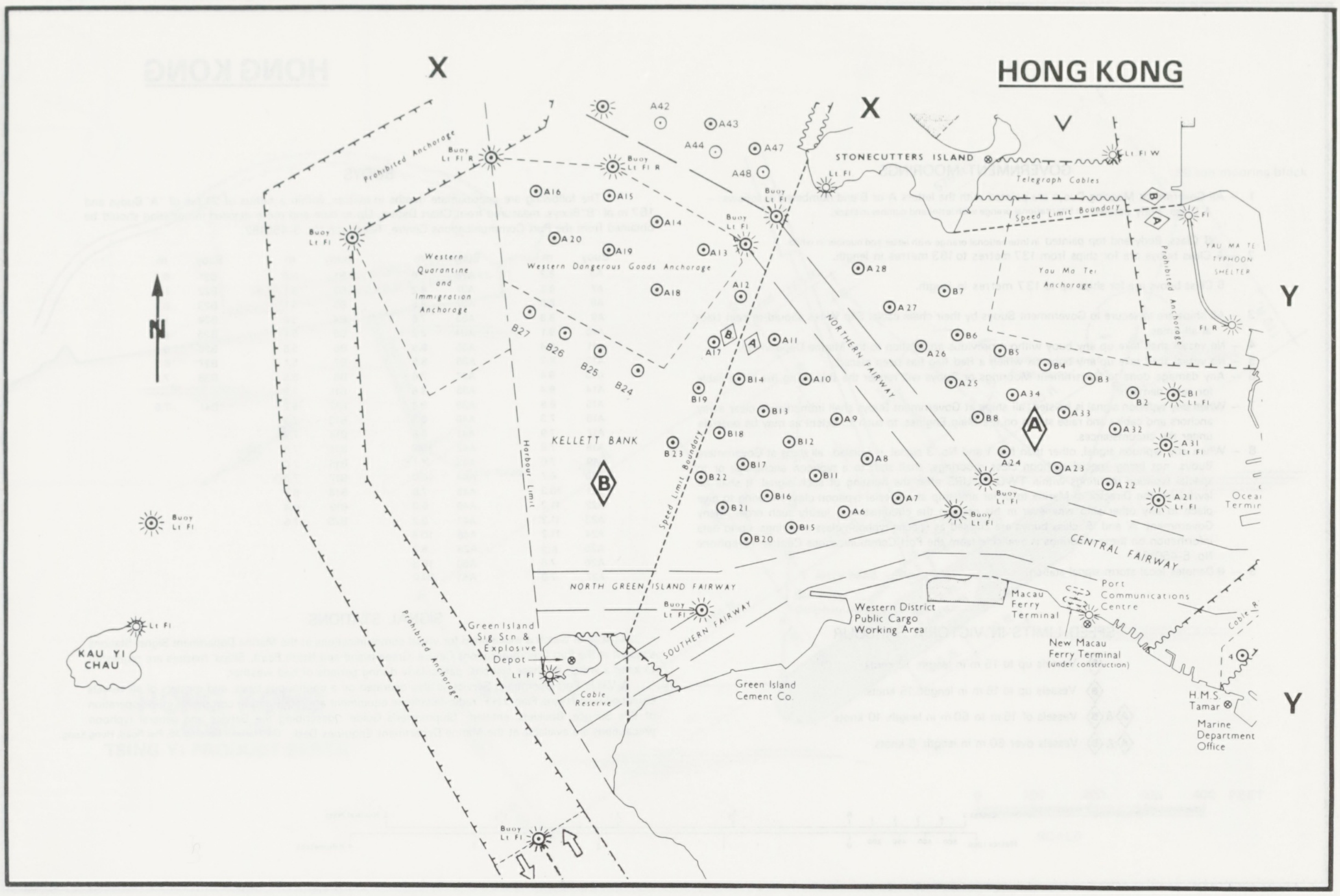

296.26 m.
Depth 10.67 m.
Berth No.1
Depth 10.67 m.
Berth No.2
25.0 m.
Area 4,720.73 sq.m.
37.35 m.
Berth No.4
134.11 m.
Depth 6.7 m.
Berth No.3
116.43 m.
Depth 6.7 m.
45.72 m.

SAN LORENZO


TELA
MOORING DIAGRAM
DEPTHS IN FEET
Swell from North or North East
Six shackles
Port Anchor
24 ft.
Distance 30 feet
26 ft.
30 ft.
38 ft.
24 ft.
26 ft.
Sprung Section of Jetty
Three Electrical
Insulators
Yellow Shed
Open Sided Shed
Yellow
Shed
Shed Apron "Cut Away" To facilitate
the Working of No.1 & 2 Hatches
Guide to Sternmark

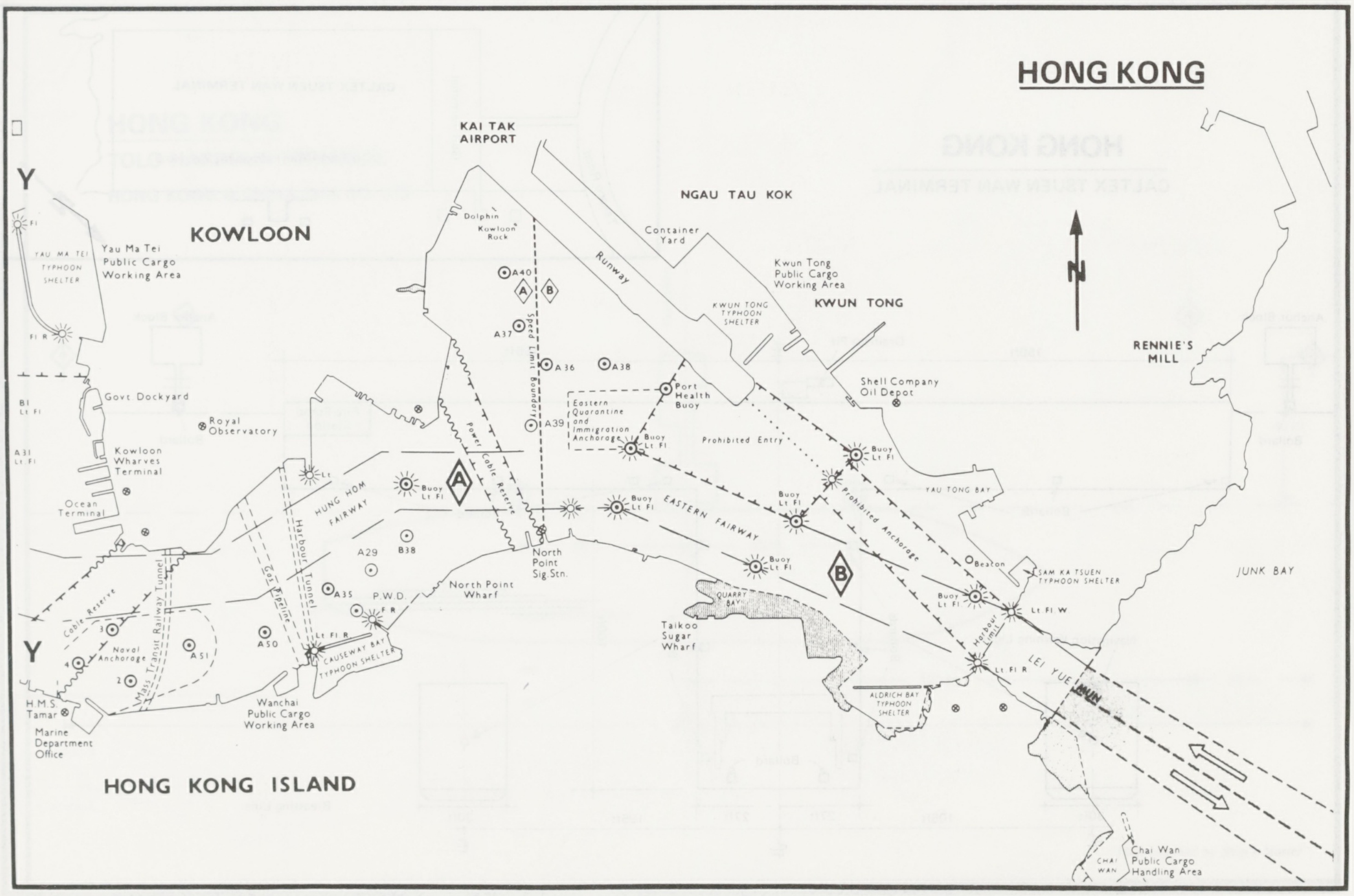
"Plan supplied by Ship's Master"


HONG KONG
TSUEN WAN
N
Tsuen Wan
Public Cargo
Working Area
Floating Dock
"YAU LIAN No.2"
Dangerous
Goods
Anchorage
China
Resources Co.
China
Resources Co.
Gulf Oil Co. Ltd.
Caltex Oil (H.K.) Ltd.
Buoy
Lt Fl
Harbour
Limit
Lt Fl
North Tsing Yi
Boatyards
Typhoon
Shelter
Power
Cable
Nga Ying Chau
Cable Area
Rambler Channel
Public Cargo
Working Area
Typhoon
Shelter
TSING YI
Floating Dock
"TAIKOO"
Hongkong
United
Dockyards
Floating Dock
"WHAMPOA"
Bridge
Berth No.5
Berth No.1
Kwai Chung
Container
Terminal
Berth No.2
Berth No.3
Berth No.4
Berth No.6
Peninsula
Pet. Co. Ltd.
Mobil Oil Co. Ltd.
Gulf Oil Co. Ltd.
Floating Dock
"YAU LIAN No.1"
Floating Dock
"APPLE DOCK"
B
China
Resources
Co.
Buoys Lt Fl
Peninsula
Electric
Power Co.
Esso Oil
Co. Ltd.
A41
A45
A42
A43
A46
Anchorage
Cable Area
Cheung Sha Wan
Boatyards
Sham Shui Po Anchorage
Cable
B
X
X



HONG KONG

X
X
Y
Y
N
STONECUTTERS ISLAND
Telegraph Cables
Speed Limit Boundary
You Ma Tei Anchorage
Prohibited Anchorage
YAU MA TEI TYPHOON SHELTER
Western Quarantine and Immigration Anchorage
Western Dangerous Goods Anchorage
KELLETT BANK
Harbour Limit
Speed Limit Boundary
NORTHERN FAIRWAY
CENTRAL FAIRWAY
NORTH GREEN ISLAND FAIRWAY
SOUTHERN FAIRWAY
Green Island Sig Stn & Explosive Depot
Cable Reserve
Green Island Cement Co.
Western District Public Cargo Working Area
Macau Ferry Terminal
Port Communications Centre
New Macau Ferry Terminal (under construction)
H.M.S. Tamar
Marine Department Office
Ocean Terminal
Cable R
KAU YI CHAU
Buoy Lt Fl
Buoy Lt Fl R
Lt Fl
Lt Fl W
Fl
Fl R
A
B
A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17 A18 A19 A20 A21 A22 A23 A24 A25 A26 A27 A28 A31 A32 A33 A34 A42 A43 A44 A47 A48
B1 B2 B3 B4 B5 B6 B7 B8 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23 B24 B25 B26 B27
4



HONG KONG

Y
Y
N
KAI TAK AIRPORT
NGAU TAU KOK
KOWLOON
Yau Ma Tei Public Cargo Working Area
YAU MA TEI TYPHOON SHELTER
Govt. Dockyard
Royal Observatory
Kowloon Wharves Terminal
Ocean Terminal
Dolphin
Kowloon Rock
Runway
Container Yard
Kwun Tong Public Cargo Working Area
KWUN TONG TYPHOON SHELTER
KWUN TONG
Shell Company Oil Depot
RENNIE'S MILL
JUNK BAY
Speed Limit Boundary
Eastern Quarantine and Immigration Anchorage
Port Health Buoy
Prohibited Entry
Prohibited Anchorage
Power Cable Reserve
HUNG HOM FAIRWAY
EASTERN FAIRWAY
Harbour Tunnel
Gas Pipeline
Mass Transit Railway Tunnel
Cable Reserve
Naval Anchorage
North Point Sig. Stn.
North Point Wharf
P.W.D.
CAUSEWAY BAY TYPHOON SHELTER
Wanchai Public Cargo Working Area
H.M.S. Tamar
Marine Department Office
HONG KONG ISLAND
QUARRY BAY
Taikoo Sugar Wharf
ALDRICH BAY TYPHOON SHELTER
YAU TONG BAY
Beacon
SAM KA TSUEN TYPHOON SHELTER
Harbour Limit
LEI YUE MUN
Chai Wan Public Cargo Handling Area
CHAI WAN
Buoy Lt Fl
Lt Fl W
Lt Fl R
Fl
Fl R
F R
B1 Lt Fl
A31 Lt Fl
A
B
A29 A35 A36 A37 A38 A39 A40 A50 A51 B38
2 3 4

HONG KONG

GOVERNMENT MOORINGS

1 — All Government Mooring Buoys are painted with the letters A or B and numbered as follows: —
A Class. Body painted in International orange with letter and number in black,

B Class. Body and top painted in International orange with letter and number in white.

2 — A Class buoys are for ships from 137 metres to 183 metres in length.

B Class buoys are for ships up to 137 metres in length.

3 — All ships are to secure to Government Buoys by their chain cable. Slip Wires should remain slack at all times.

4 — No vessel shall take up any buoy without previous application to the Marine Department.

5 — No vessel shall take up any buoy on which a Red flag has been placed.

6 — Any damage done to Government Moorings or Buoys will render the ship using the same liable for such damage.

7 — When any typhoon signal is hoisted, all ships at Government Buoys shall immediately clear away anchors and cables and raise steam on the Main Engines, to such an extent as may be possible under the circumstances.

8 — When any typhoon signal, other than No. 1 and No. 3 signal, is hoisted, all ships at Government Buoys, not being special typhoon class moorings, shall shift to a typhoon anchorage or to special typhoon moorings within TWO HOURS after the hoisting of such signal. It shall be lawful for the Director of Marine to order any ship at a special typhoon class mooring to give place to any other ship whenever in his opinion the circumstances justify such order. Many Government 'A' and 'B' class buoys are classed as special typhoon class moorings, up-to-date information on these moorings is available from the Port Communications Centre, Telephone No. 5-450182.

9 — ⊗ Denotes local storm signal station.

SPEED LIMITS IN VICTORIA HARBOUR

Ⓐ Vessels up to 15 m in length, 10 knots.

Ⓑ Vessels up to 15 m in length, 15 knots.

Ⓐ & Ⓑ Vessels of 15 m to 60 m in length, 10 knots.

Ⓐ & Ⓑ Vessels over 60 m in length, 8 knots.

BUOYS

The following are approximate depths in metres, within a radius of 213 m of "A" Buoys and 167 m of "B" Buoys, measured from Chart Datum. Up to date and more detailed information should be obtained from the Port Communications Centre, Telephone No. 5-450182.

Buoy	m	Buoy	m	Buoy	m	Buoy	m
A6	8.2	A28	7.6	B1	5.8	B21	6.7
A7	8.2	A31	8.2	B2	6.1	B22	6.4
A8	8.5	A32	8.5	B3	5.1	B23	6.4
A9	8.8	A33	7.6	B4	5.8	B24	5.8
A10	9.1	A34	8.2	B5	5.1	B25	6.0
A11	9.4	A35	9.8	B6	5.8	B26	6.2
A12	9.2	A36	8.5	B7	5.1	B27	6.6
A13	9.4	A37	7.6	B8	8.5	B38	7.6
A14	9.4	A38	8.8	B11	7.9		
A15	8.8	A39	9.1	B12	8.2	B41	7.6
A16	7.3	A40	6.7	B13	7.9		
A17	7.9	A41	8.8	B14	7.3		
A18	7.9	A42	10.9	B15	7.6		
A19	7.0	A43	9.1	B16	7.6		
A20	6.7	A44	10.0	B17	7.3		
A21	10.3	A45	7.6	B18	6.7		
A22	11.2	A46	6.8	B19	6.4		
A23	11.2	A47	8.2	B20	7.6		
A24	11.2	A48	10.5				
A25	8.2	A29	8.2				
A26	7.6	A50	10.3				
A27	7.0	A51	10.0				

SIGNAL STATIONS

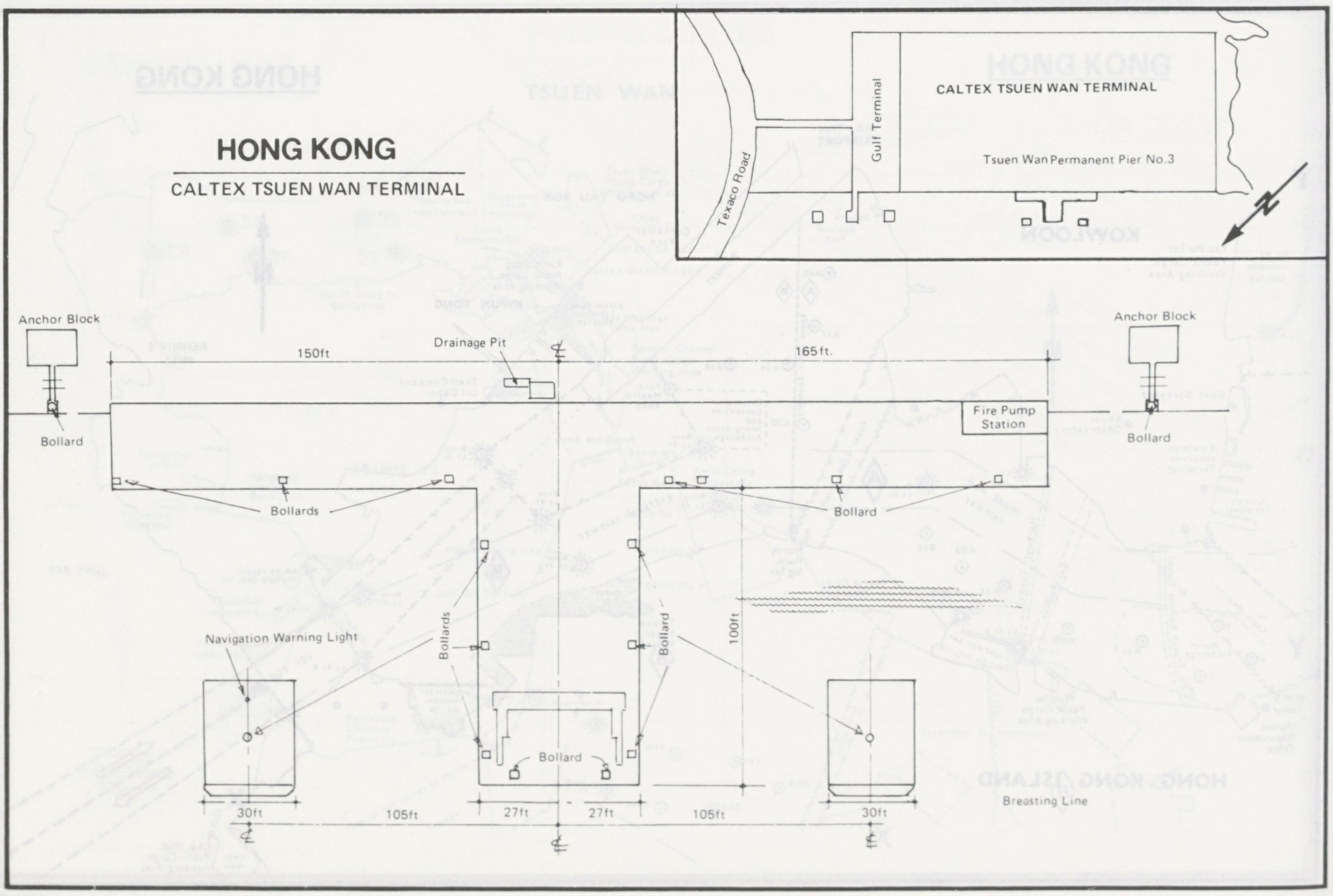
A 24-hour watch is maintained for visual communications at the Marine Department Signal Stations situated at the Port Communications Centre, Green Island and North Point. Ships' masters are requested to keep a watch on these stations, particularly during periods of bad weather.

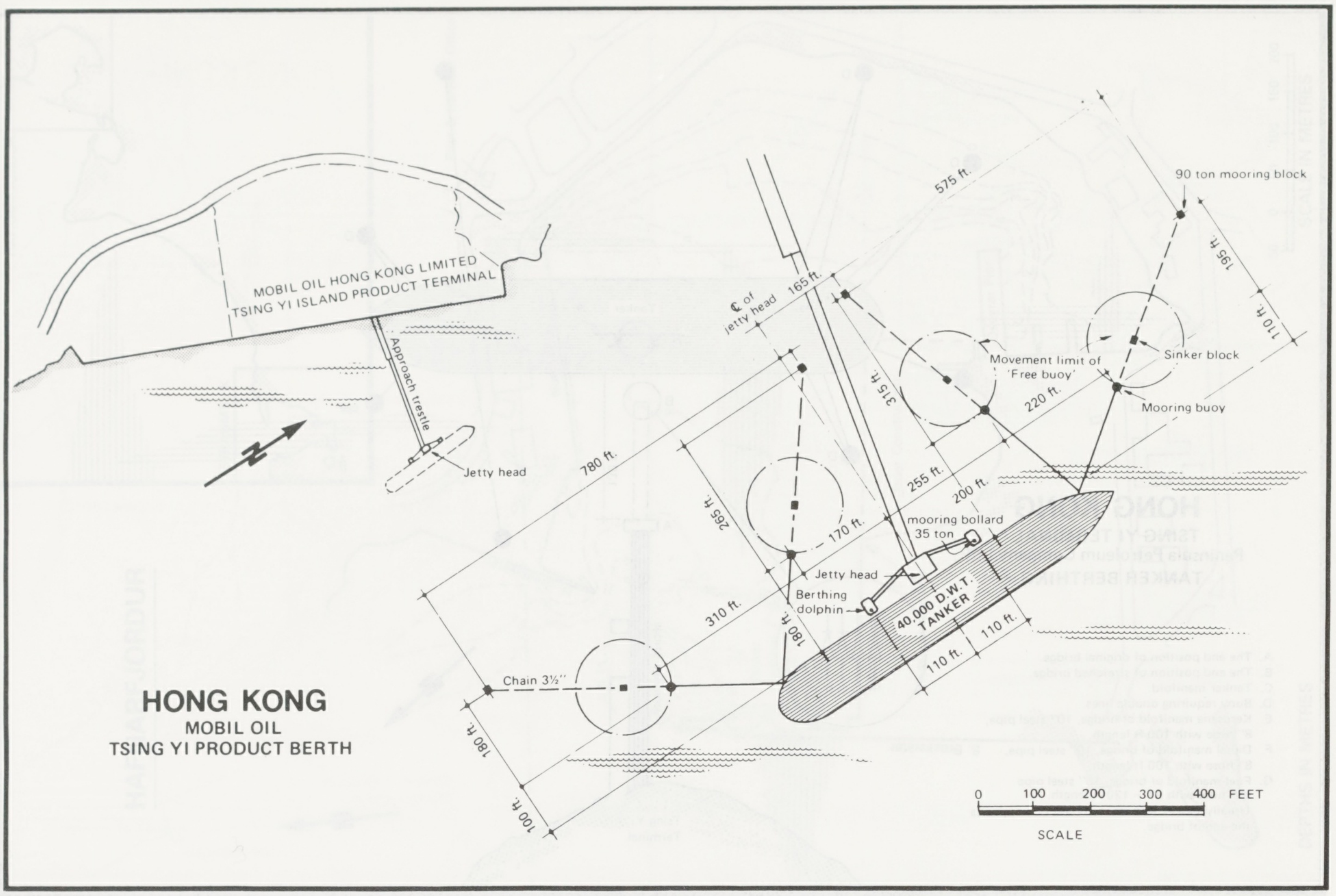
A V.H.F. Port Operations Service is also operated on a continuous basis, and masters of all vessels equipped with Hague Plan V.H.F. radio-telephone equipment are requested to co-operate in the operation of this Service. Booklets, entitled "Shipmaster's Guide", describing the Service and general typhoon precautions are available at the Marine Department Enquiries Desk, G/F Harbour Building 38, Pier Road, Hong Kong.

Cables 5 4 3 2 1 0 ½ 1 1½ 2 Nautical Miles
Metres 1000 800 600 400 200 0 1 2 3 4 Kilometres

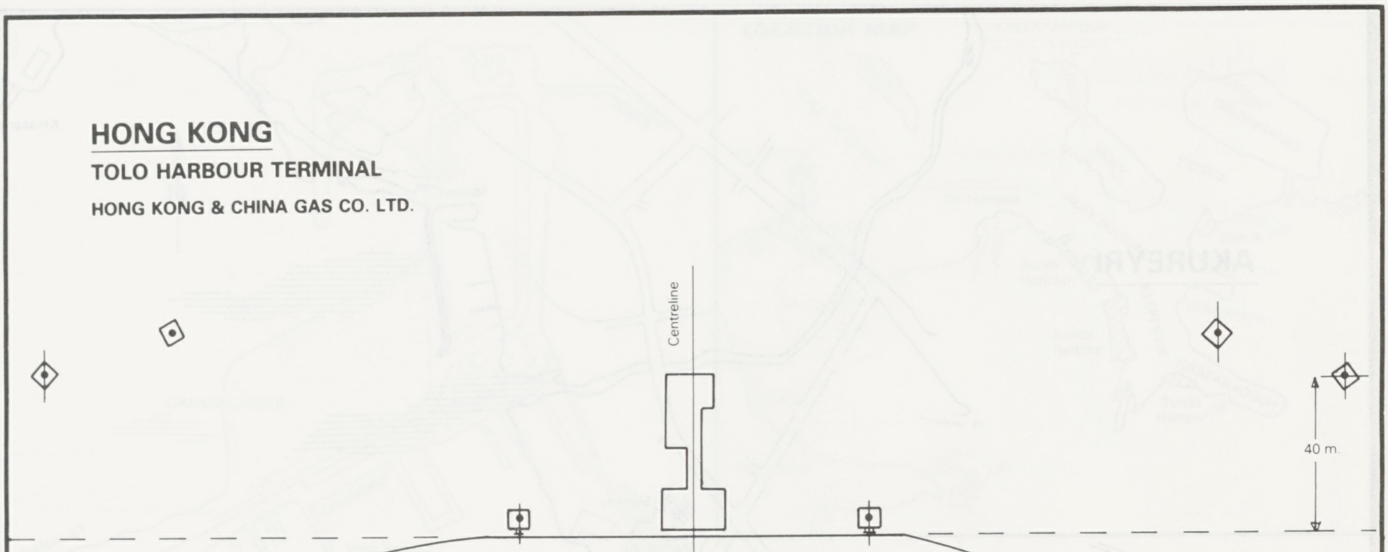
HONG KONG

CALTEX TSUEN WAN TERMINAL


Texaco Road
Gulf Terminal
CALTEX TSUEN WAN TERMINAL
Tsuen Wan Permanent Pier No.3
Anchor Block
Bollard
150ft
Drainage Pit
165ft.
Fire Pump Station
Anchor Block
Bollard
Bollards
Bollard
Navigation Warning Light
Bollards
Bollard
100ft
Bollard
Breasting Line
30ft
105ft
27ft
27ft
105ft
30ft

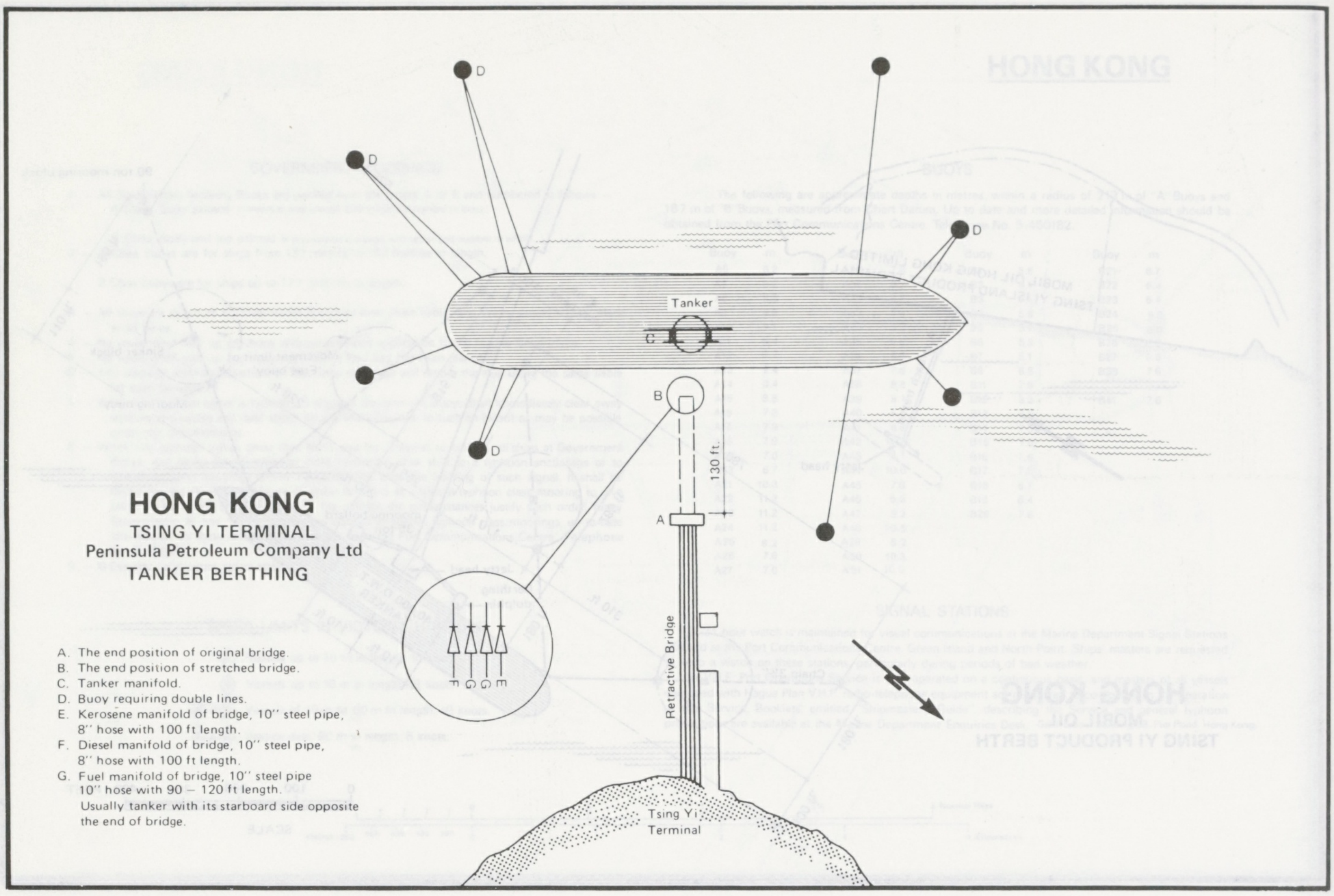

MOBIL OIL HONG KONG LIMITED
TSING YI ISLAND PRODUCT TERMINAL
Approach trestle
Jetty head
575 ft.
90 ton mooring block
195 ft.
110 ft.
℄ of jetty head
165 ft.
315 ft.
Movement limit of 'Free buoy'
Sinker block
220 ft.
Mooring buoy
780 ft.
265 ft.
255 ft.
200 ft.
mooring bollard 35 ton
170 ft.
Jetty head
Berthing dolphin
310 ft.
180 ft.
40,000 D.W.T. TANKER
110 ft.
110 ft.
Chain 3½''
180 ft.
100 ft.
0
100
200
300
400
FEET
SCALE

HONG KONG
MOBIL OIL
TSING YI PRODUCT BERTH


Centreline
40 m.
40 m.
40 m.
Vessel LOA 174 m.
120 m.
30 m.
300 m.

HONG KONG
TOLO HARBOUR TERMINAL
HONG KONG & CHINA GAS CO. LTD.

"Plan supplied by Ship's Master"

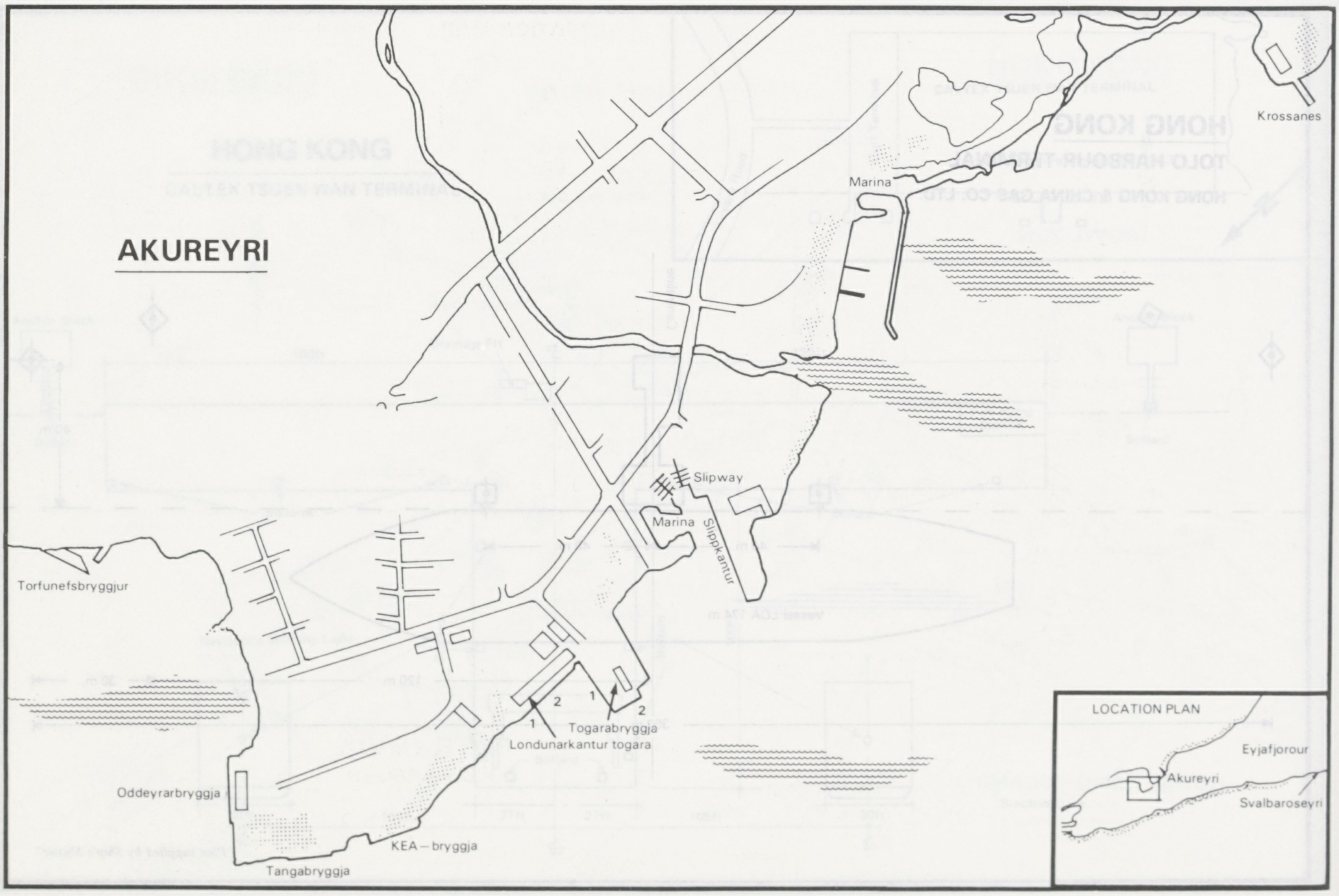


HONG KONG

TSING YI TERMINAL
Peninsula Petroleum Company Ltd
TANKER BERTHING

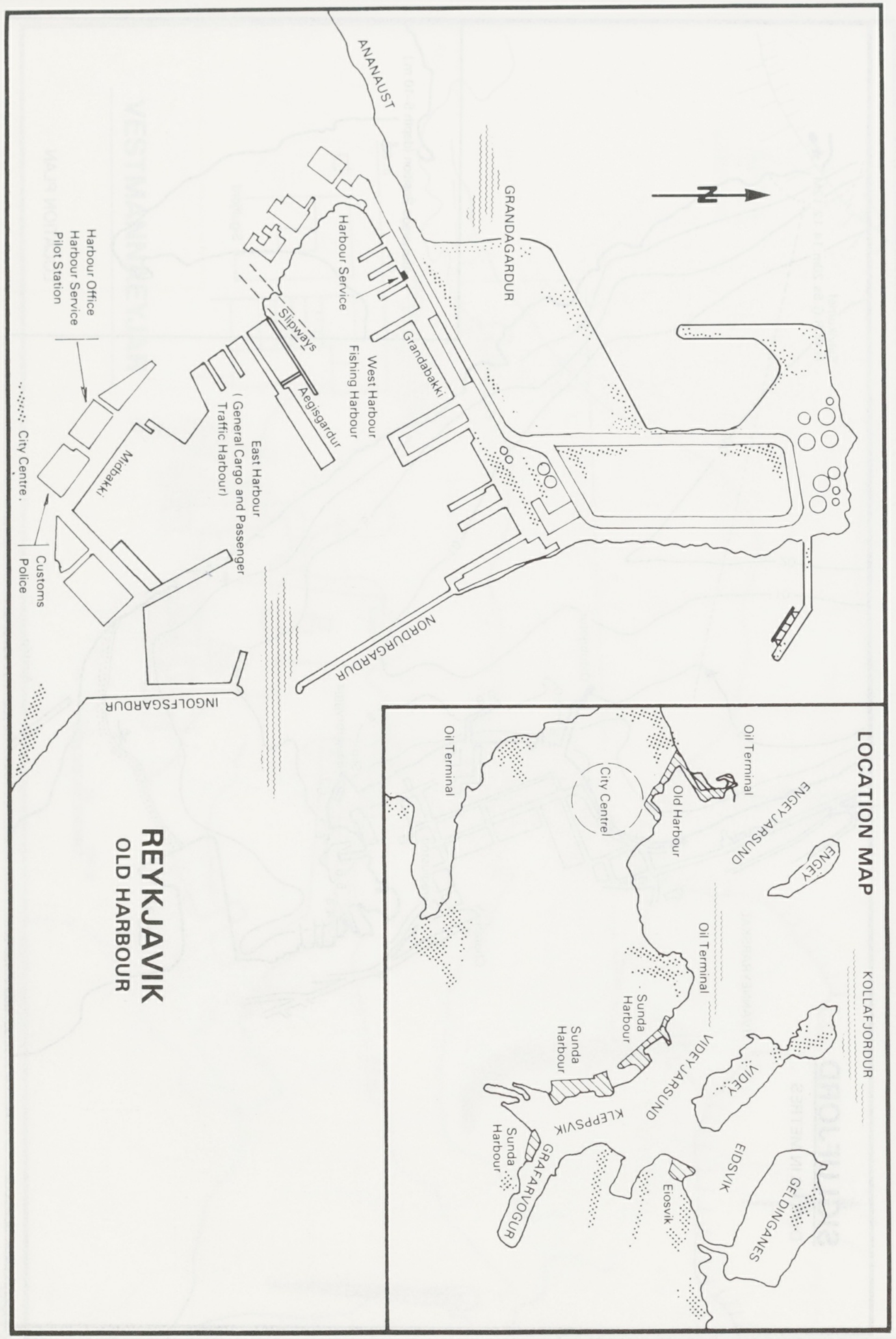
A. The end position of original bridge.
B. The end position of stretched bridge.
C. Tanker manifold.
D. Buoy requiring double lines.
E. Kerosene manifold of bridge, 10'' steel pipe, 8'' hose with 100 ft length.
F. Diesel manifold of bridge, 10'' steel pipe, 8'' hose with 100 ft length.
G. Fuel manifold of bridge, 10'' steel pipe 10'' hose with 90 – 120 ft length. Usually tanker with its starboard side opposite the end of bridge.

D
D
D
Tanker
C
B
130 ft.
A
Retractive Bridge
E
G
F
Tsing Yi Terminal



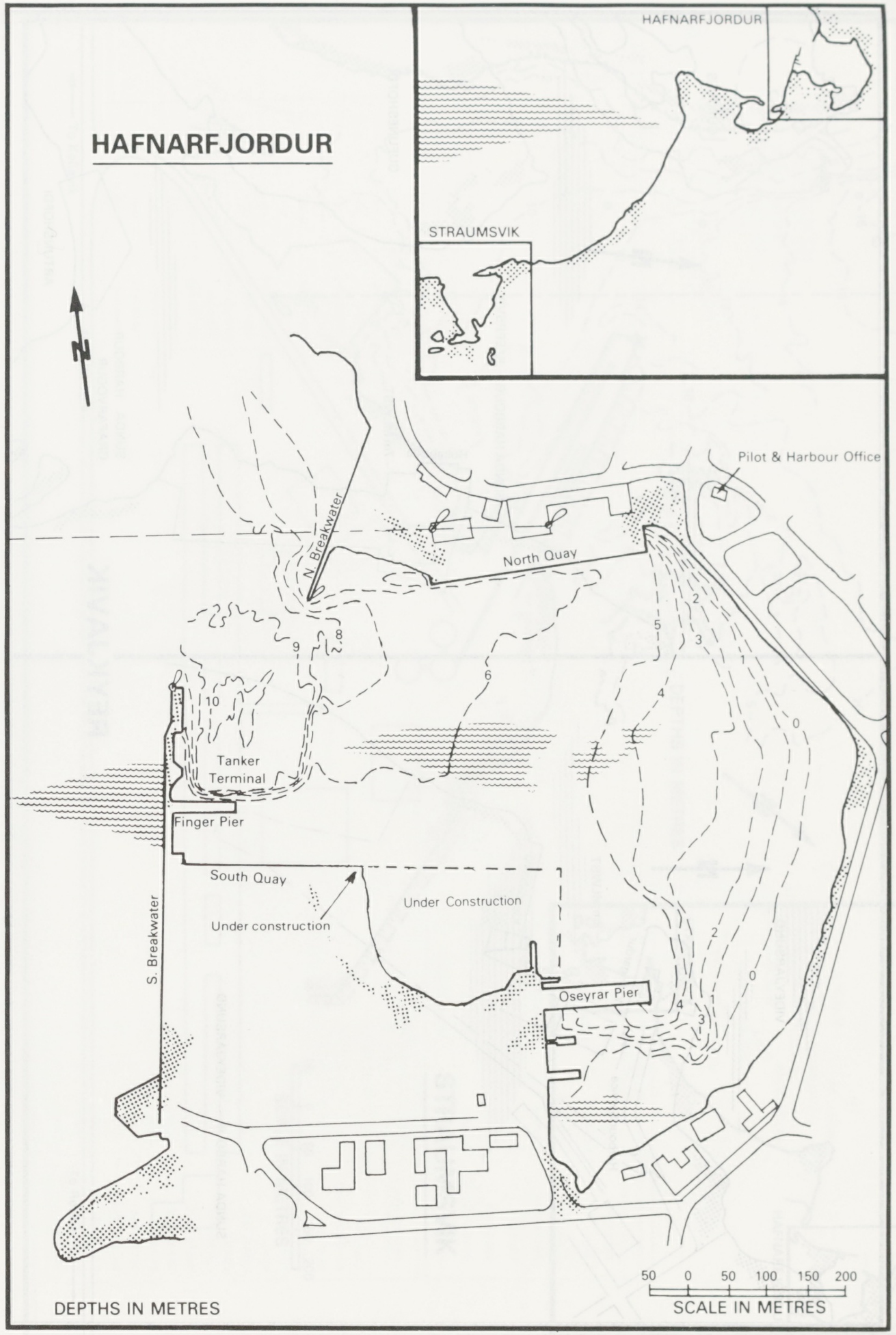
AKUREYRI

Krossanes
Marina
Slipway
Marina
Slippkantur
Torfunefsbryggjur
2
1
1
2
Togarabryggja
Londunarkantur togara
Oddeyrarbryggja
KEA – bryggja
Tangabryggja
LOCATION PLAN
Eyjafjorour
Akureyri
Svalbaroseyri



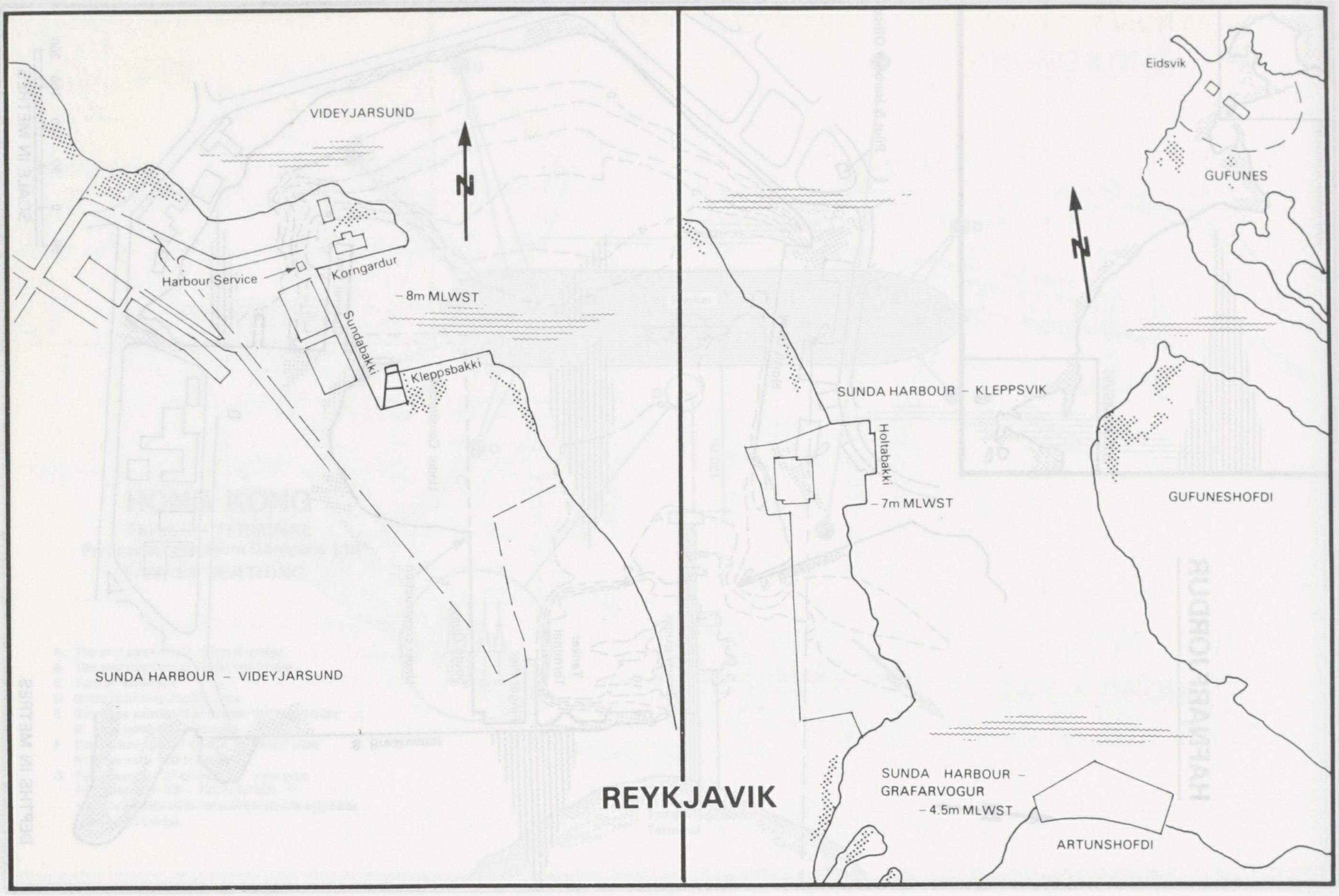
REYKJAVIK
OLD HARBOUR

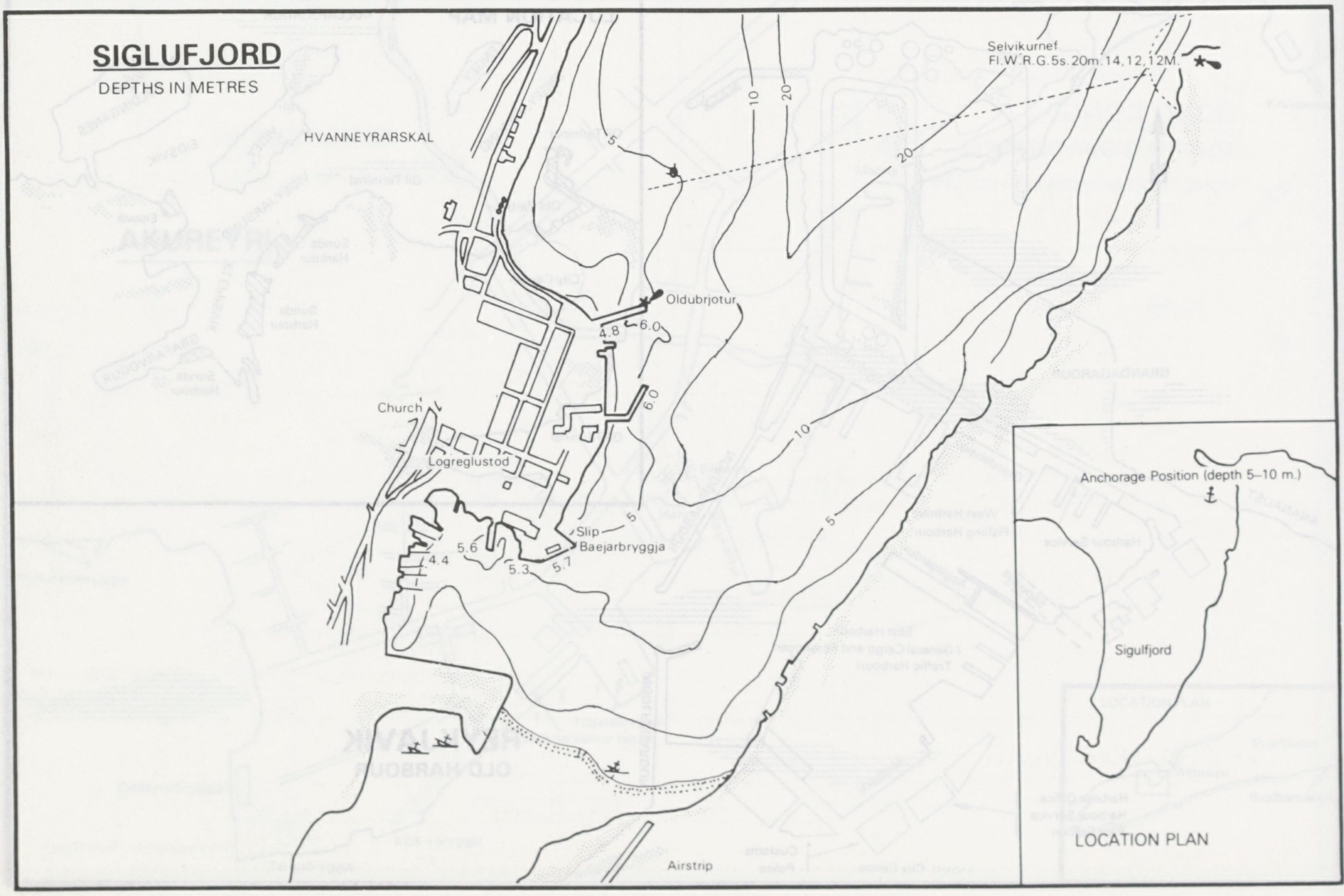
ANANAUST
GRANDAGARDUR
Harbour Office
Harbour Service
Pilot Station
Harbour Service
Slipways
West Harbour
Fishing Harbour
Grandabakki
Aegisgardur
East Harbour
(General Cargo and Passenger
Traffic Harbour)
Midbakki
City Centre.
Customs
Police
NORDURGARDUR
INGOLFSGARDUR
N
LOCATION MAP
Oil Terminal
Oil Terminal
City Centre
Old Harbour
ENGEYJARSUND
ENGEY
KOLLAFJORDUR
Oil Terminal
Sunda
Harbour
Sunda
Harbour
VIDEYJARSUND
VIDEY
KLEPPSVIK
Sunda
Harbour
GRAFARVOGUR
Eiosvik
EIDSVIK
GELDINGANES

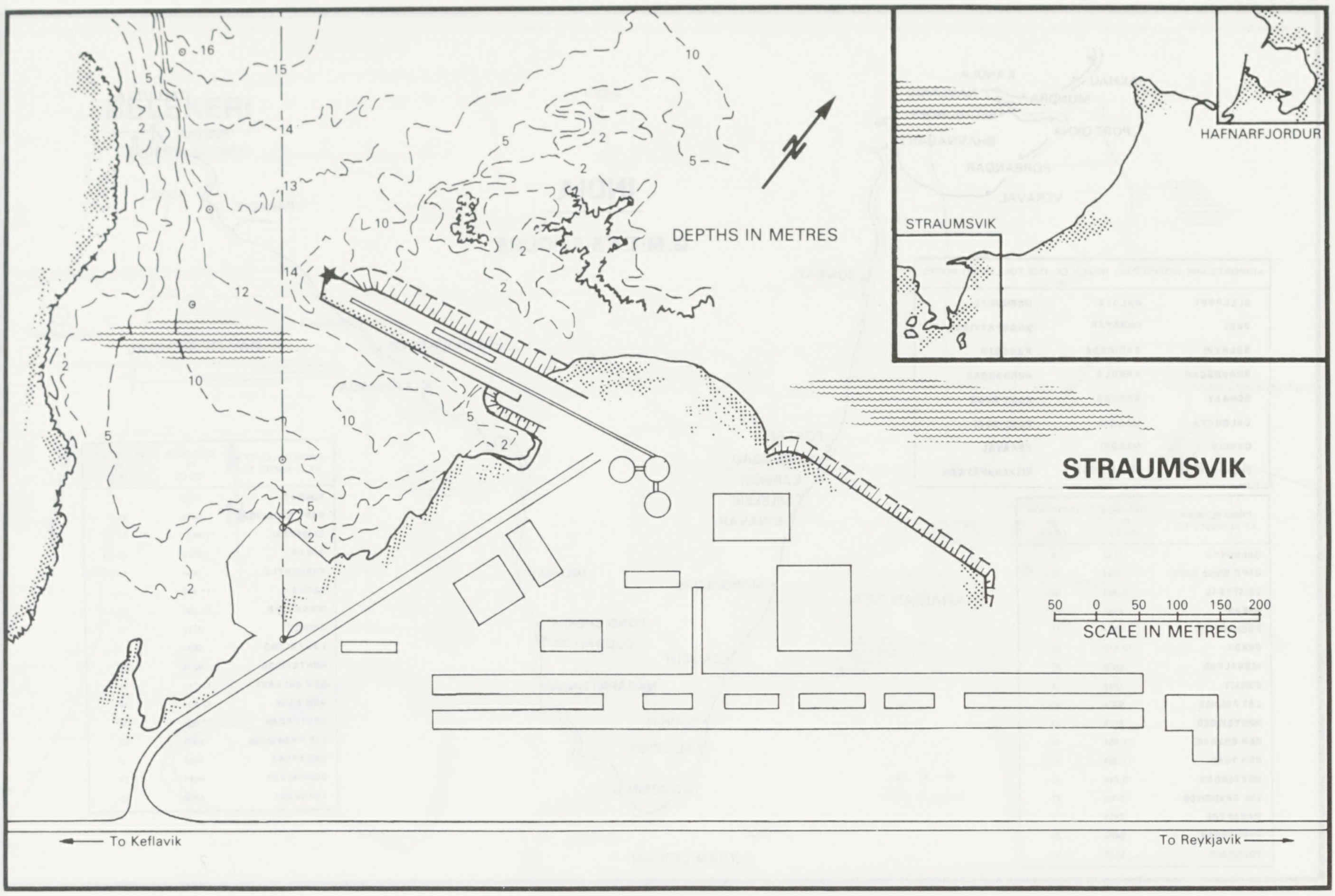


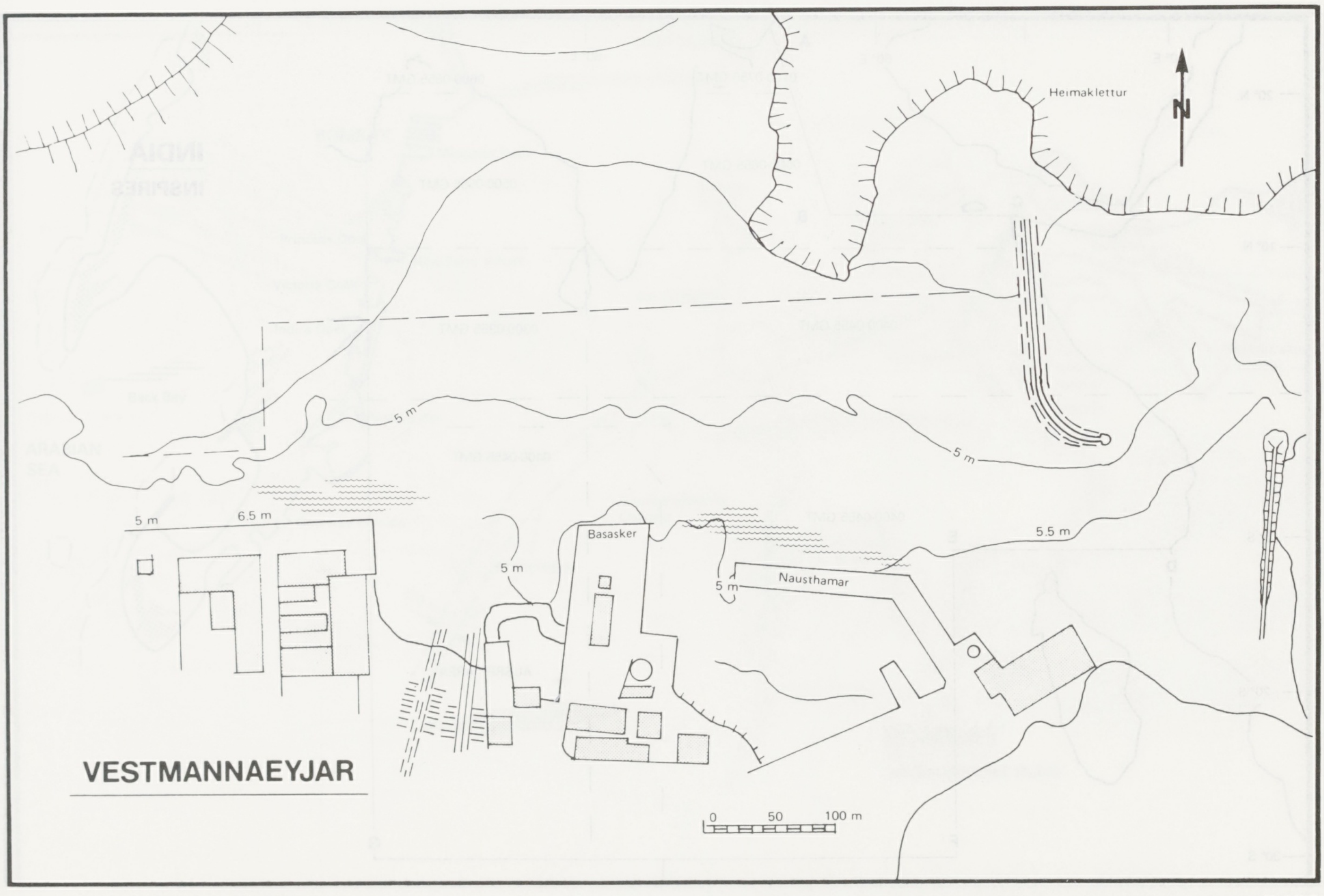
HAFNARFJORDUR

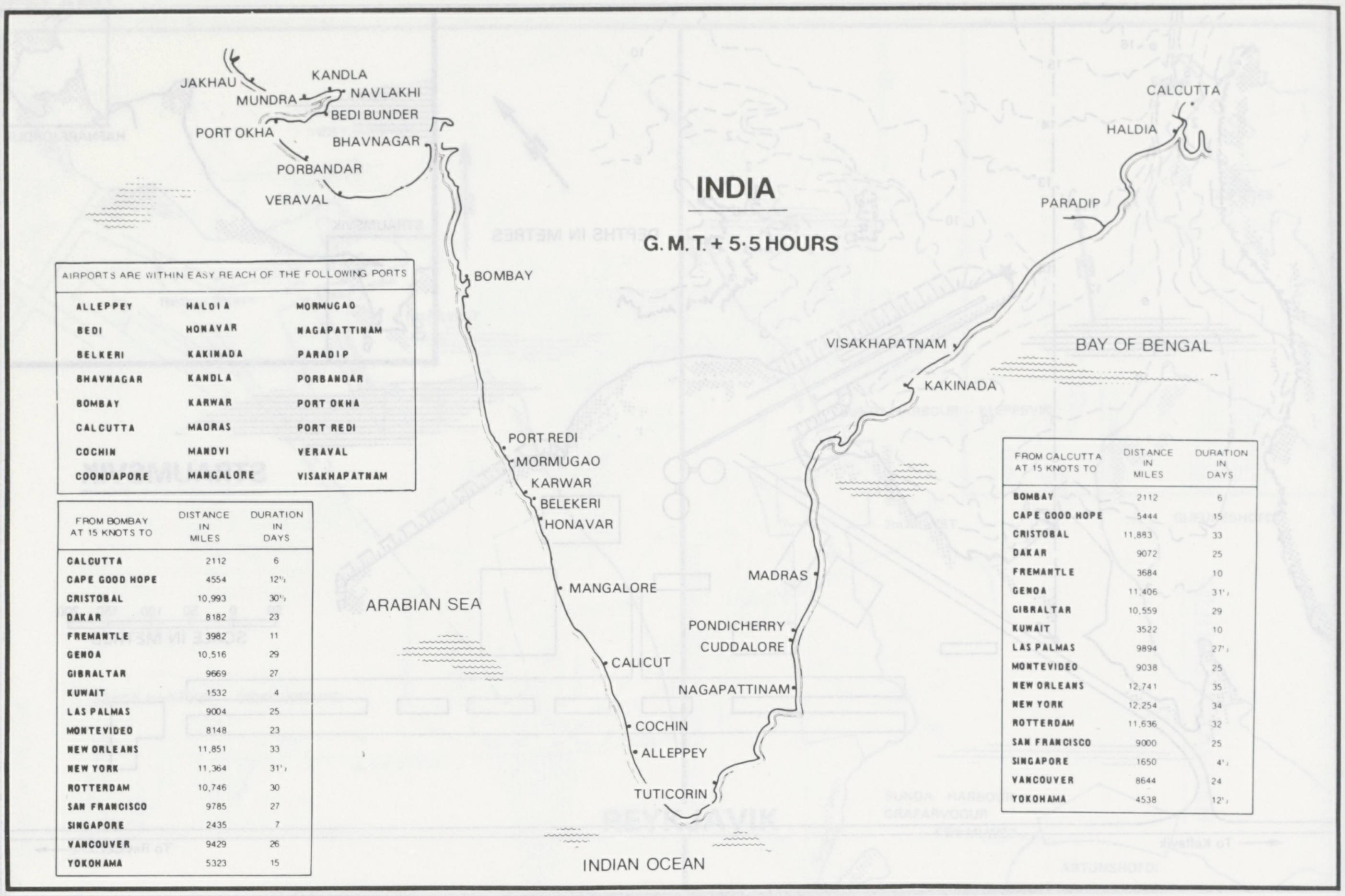
HAFNARFJORDUR
STRAUMSVIK
N
Pilot & Harbour Office
N. Breakwater
North Quay
Tanker
Terminal
Finger Pier
South Quay
Under construction
Under Construction
S. Breakwater
Oseyrar Pier
10
9
8
6
5
4
3
2
0
DEPTHS IN METRES
50 0 50 100 150 200
SCALE IN METRES


VIDEYJARSUND
N
Harbour Service
Korngardur
Sundabakki
–8m MLWST
Kleppsbakki
SUNDA HARBOUR – VIDEYJARSUND
REYKJAVIK
Eidsvik
GUFUNES
N
SUNDA HARBOUR – KLEPPSVIK
Holtabakki
–7m MLWST
GUFUNESHOFDI
SUNDA HARBOUR – GRAFARVOGUR
–4.5m MLWST
ARTUNSHOFDI


SIGLUFJORD
DEPTHS IN METRES
HVANNEYRARSKAL
Selvikurnef
Fl.W.R.G.5s.20m.14,12,12M.
10
20
20
5
Oldubrjotur
4.8
6.0
6.0
Church
Logreglustod
10
5
Slip
Baejarbryggja
5.6
4.4
5.3
5.7
5
Airstrip
Anchorage Position (depth 5–10 m.)
Sigulfjord
LOCATION PLAN


STRAUMSVIK
DEPTHS IN METRES
HAFNARFJORDUR
STRAUMSVIK
50 0 50 100 150 200
SCALE IN METRES
To Keflavik
To Reykjavik
16
15
14
13
14
12
10
10
10
10
5
5
2
2
2
2
2
5
5
2
2
5
2
2


Heimaklettur
N
5 m
5 m
5.5 m
5 m
6.5 m
Basasker
5 m
5 m
Nausthamar
0 50 100 m
VESTMANNAEYJAR

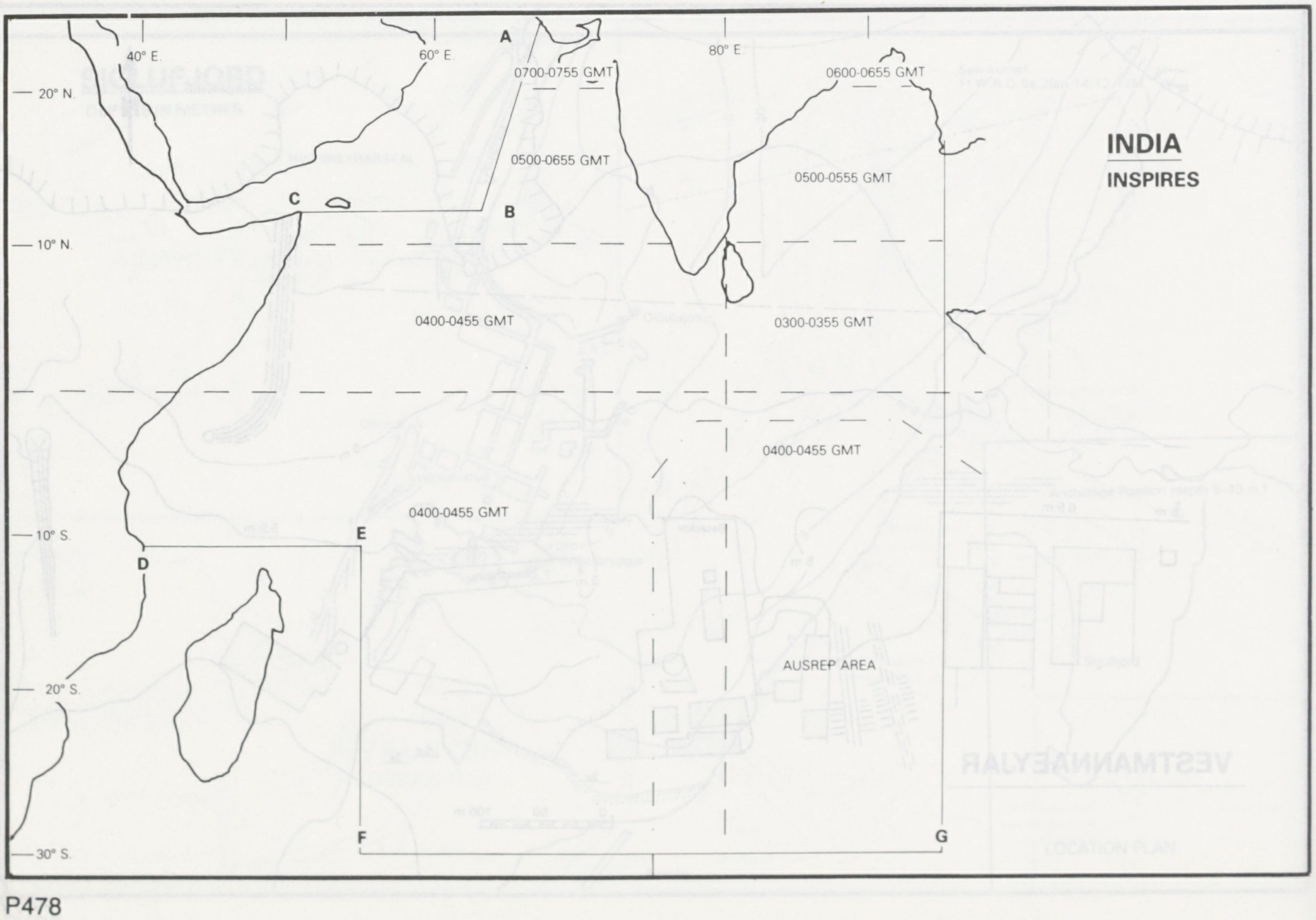

INDIA
G.M.T. + 5·5 HOURS
JAKHAU
KANDLA
NAVLAKHI
MUNDRA
BEDI BUNDER
PORT OKHA
BHAVNAGAR
PORBANDAR
VERAVAL
BOMBAY
PORT REDI
MORMUGAO
KARWAR
BELEKERI
HONAVAR
MANGALORE
CALICUT
COCHIN
ALLEPPEY
TUTICORIN
ARABIAN SEA
INDIAN OCEAN
CALCUTTA
HALDIA
PARADIP
VISAKHAPATNAM
BAY OF BENGAL
KAKINADA
MADRAS
PONDICHERRY
CUDDALORE
NAGAPATTINAM

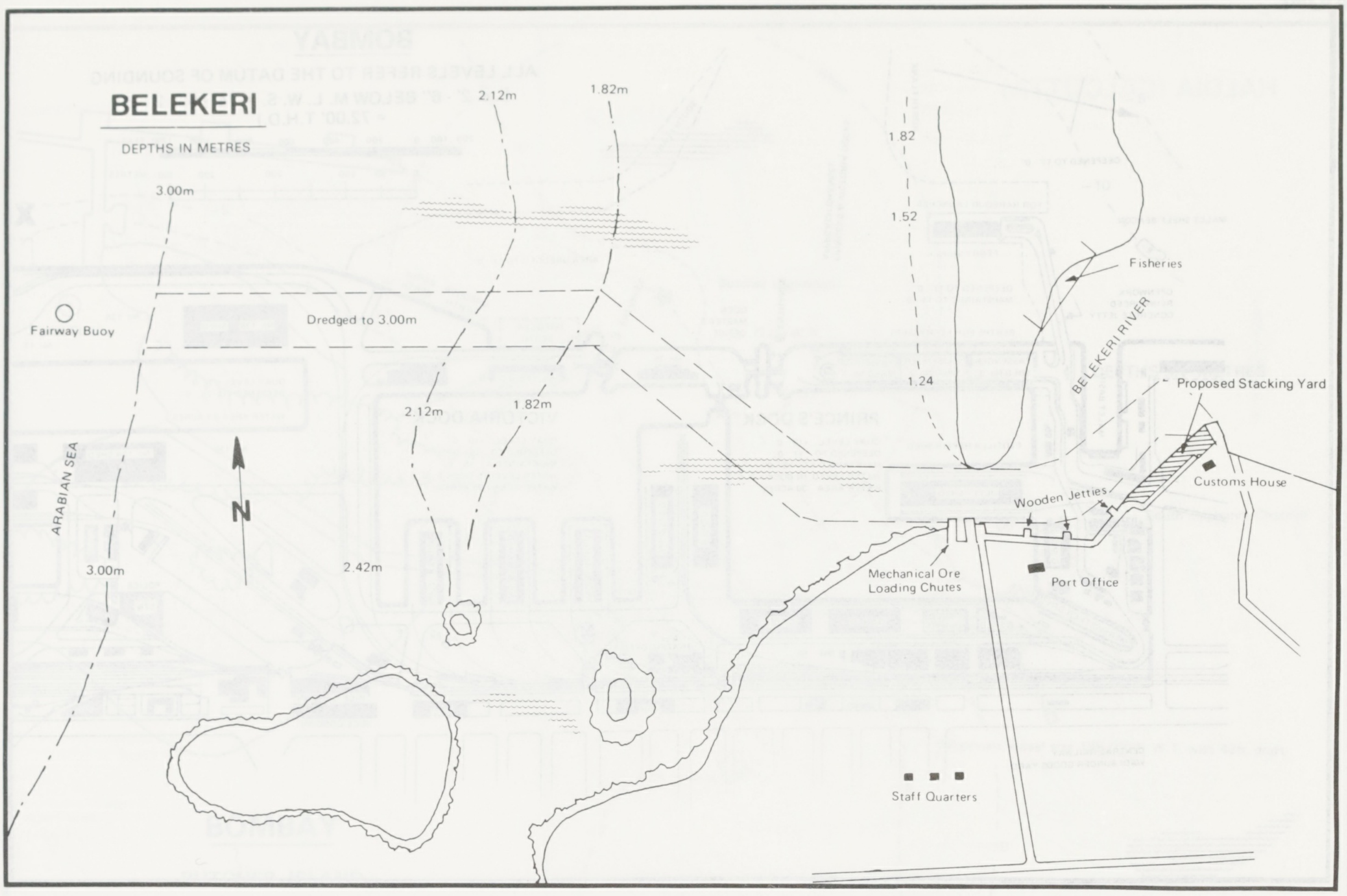
AIRPORTS ARE WITHIN EASY REACH OF THE FOLLOWING PORTS

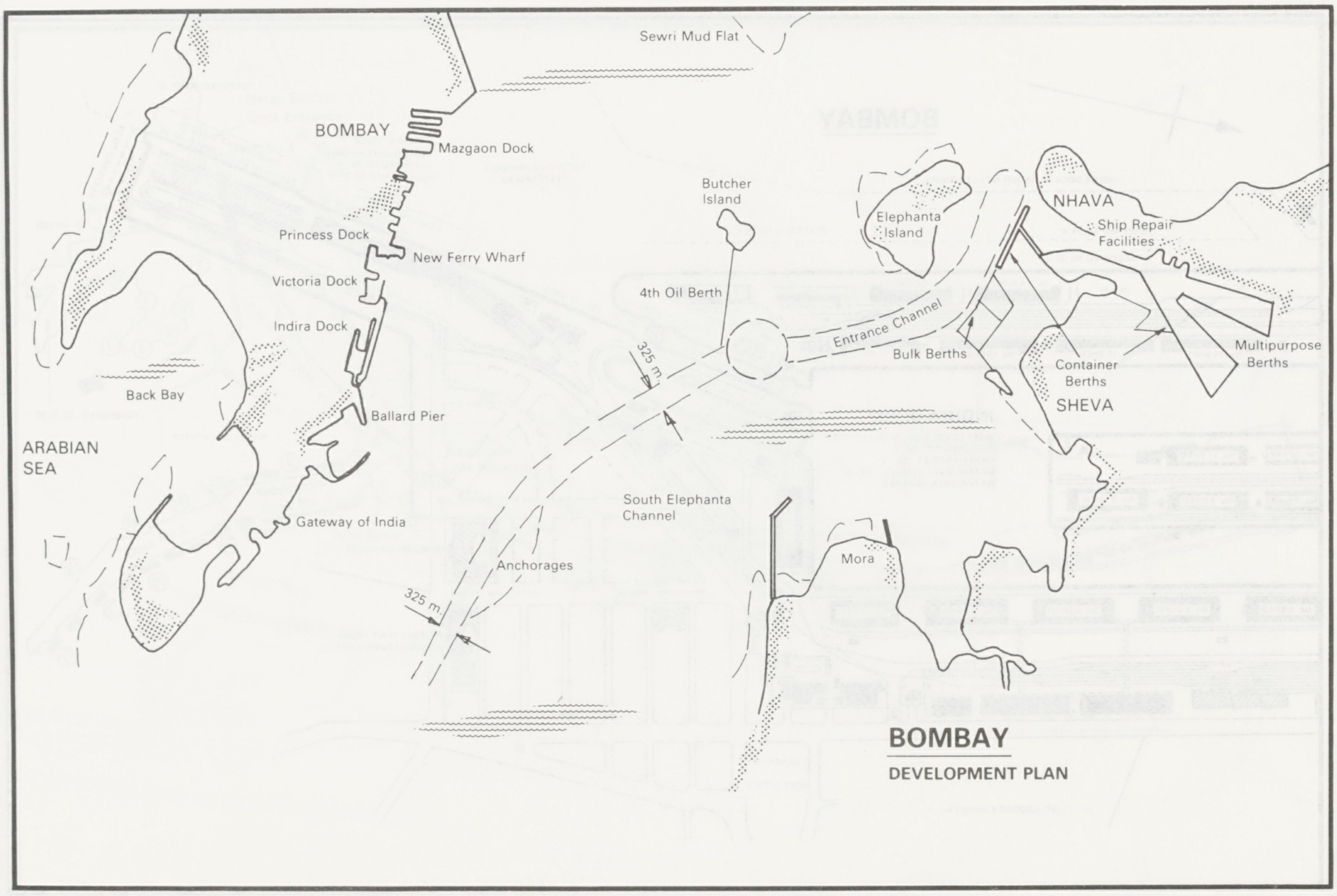
ALLEPPEY
BEDI
BELEKERI
BHAVNAGAR
BOMBAY
CALCUTTA
COCHIN
COONDAPORE
HALDIA
HONAVAR
KAKINADA
KANDLA
KARWAR
MADRAS
MANDVI
MANGALORE
MORMUGAO
NAGAPATTINAM
PARADIP
PORBANDAR
PORT OKHA
PORT REDI
VERAVAL
VISAKHAPATNAM

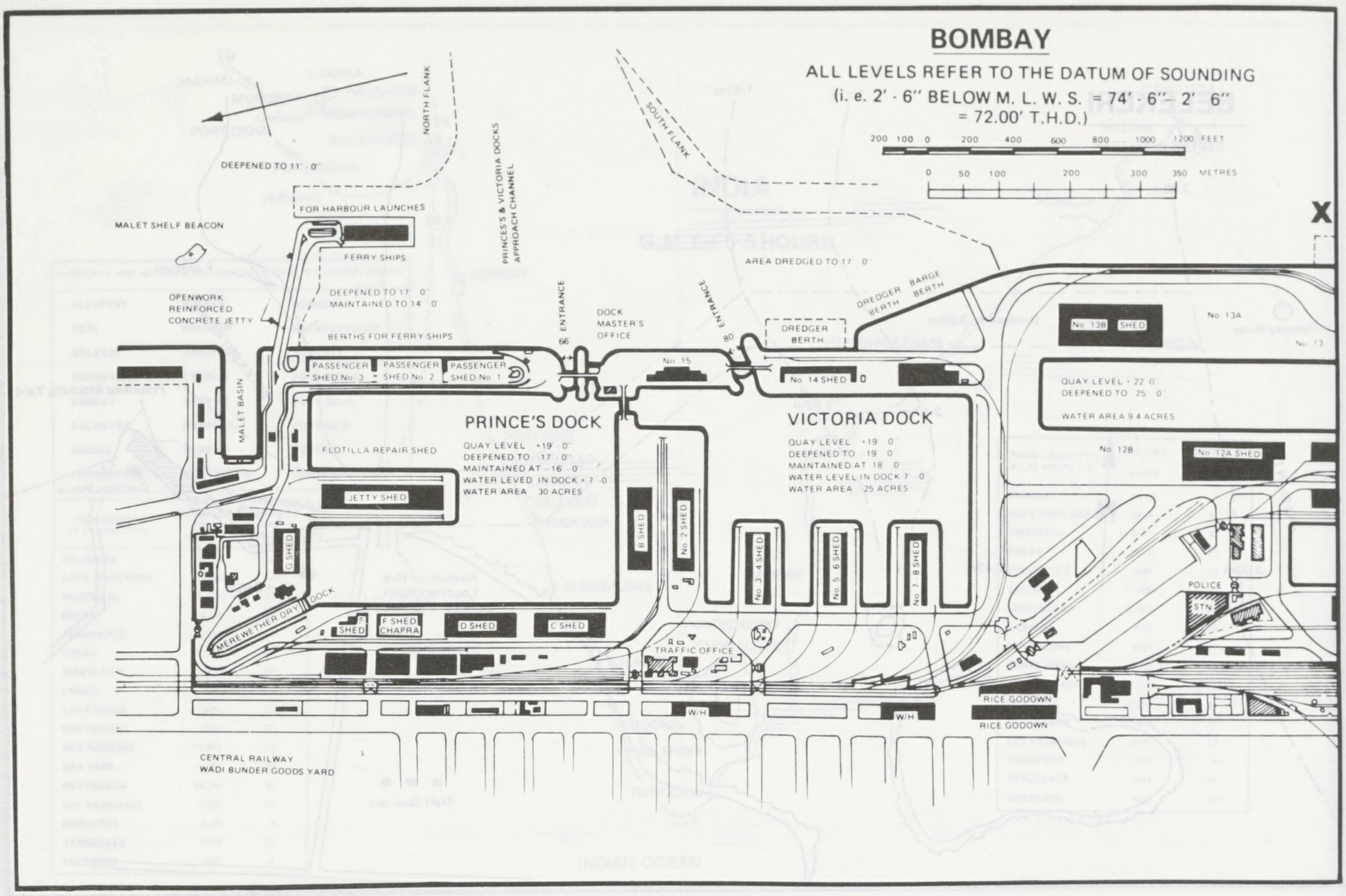
FROM BOMBAY AT 15 KNOTS TO	DISTANCE IN MILES	DURATION IN DAYS
CALCUTTA	2112	6
CAPE GOOD HOPE	4554	12½
CRISTOBAL	10,993	30½
DAKAR	8182	23
FREMANTLE	3982	11
GENOA	10,516	29
GIBRALTAR	9669	27
KUWAIT	1532	4
LAS PALMAS	9004	25
MONTEVIDEO	8148	23
NEW ORLEANS	11,851	33
NEW YORK	11,364	31½
ROTTERDAM	10,746	30
SAN FRANCISCO	9785	27
SINGAPORE	2435	7
VANCOUVER	9429	26
YOKOHAMA	5323	15

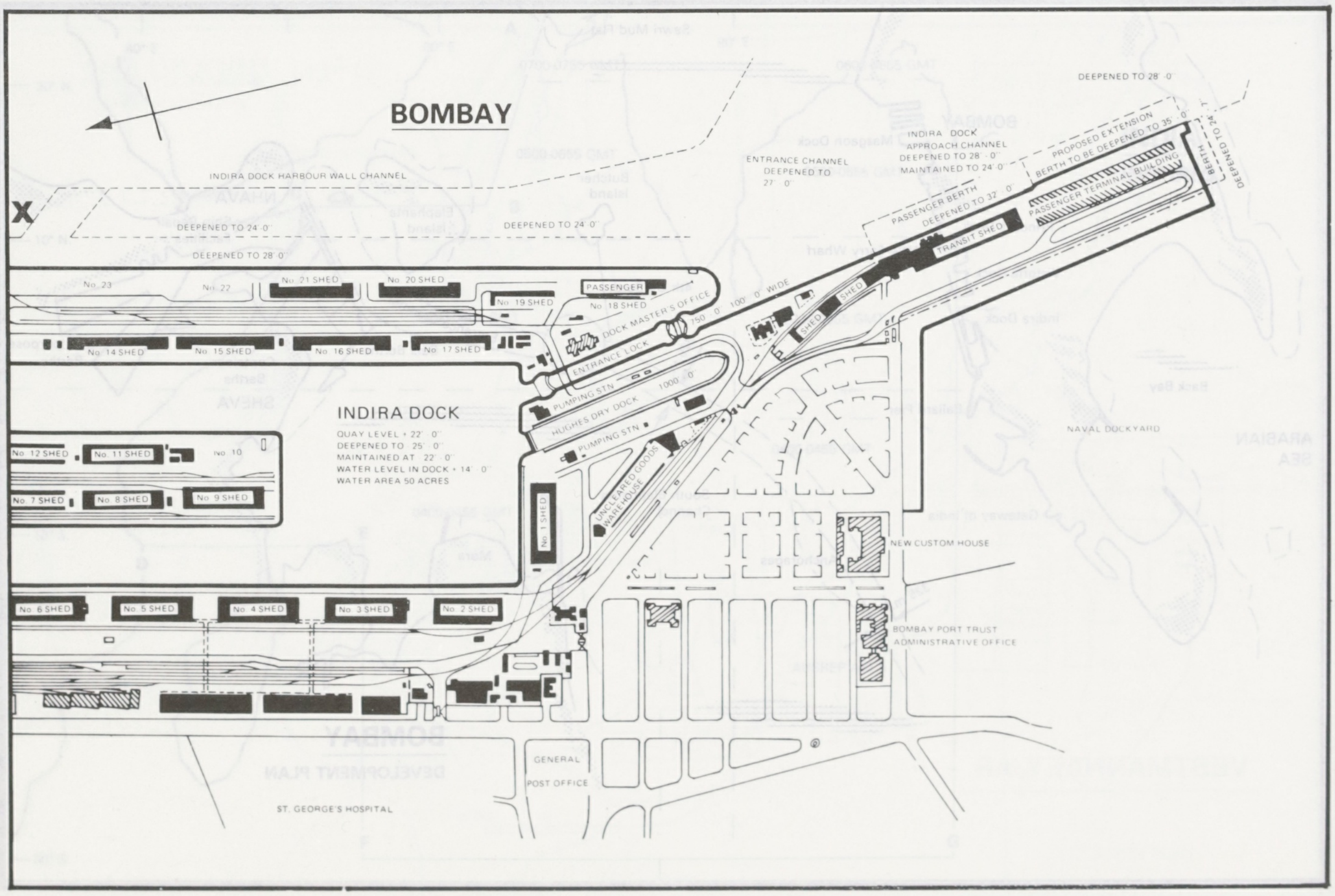
FROM CALCUTTA AT 15 KNOTS TO	DISTANCE IN MILES	DURATION IN DAYS
BOMBAY	2112	6
CAPE GOOD HOPE	5444	15
CRISTOBAL	11,883	33
DAKAR	9072	25
FREMANTLE	3684	10
GENOA	11,406	31½
GIBRALTAR	10,559	29
KUWAIT	3522	10
LAS PALMAS	9894	27½
MONTEVIDEO	9038	25
NEW ORLEANS	12,741	35
NEW YORK	12,254	34
ROTTERDAM	11,636	32
SAN FRANCISCO	9000	25
SINGAPORE	1650	4½
VANCOUVER	8644	24
YOKOHAMA	4538	12½

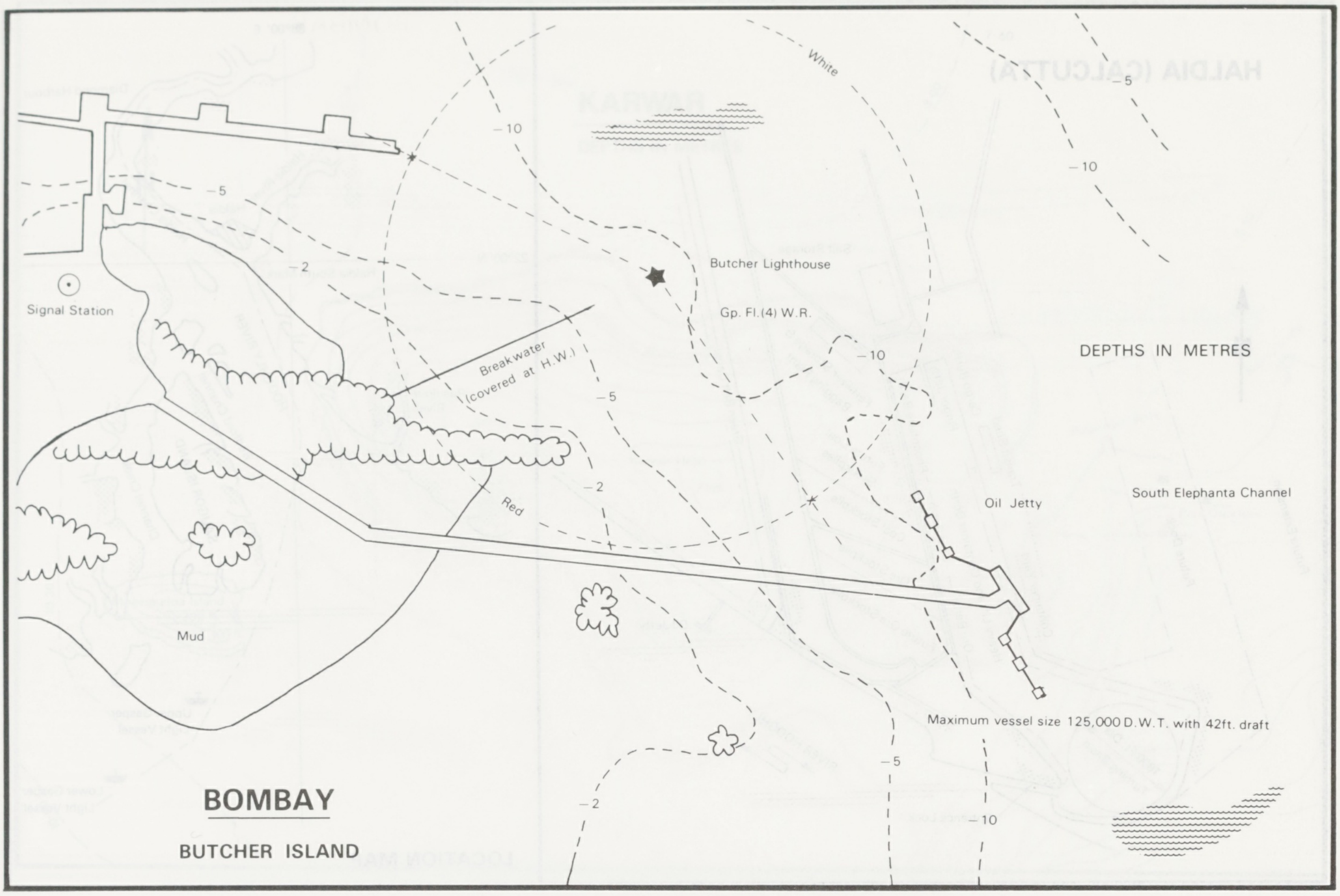

INDIA
INSPIRES
40° E.
60° E.
80° E.
20° N.
10° N.
10° S.
20° S.
30° S.
A
B
C
D
E
F
G
0700-0755 GMT
0600-0655 GMT
0500-0655 GMT
0500-0555 GMT
0400-0455 GMT
0300-0355 GMT
0400-0455 GMT
0400-0455 GMT
AUSREP AREA


BELEKERI
DEPTHS IN METRES
2.12m
1.82m
3.00m
Fairway Buoy
Dredged to 3.00m
2.12m
1.82m
ARABIAN SEA
N
3.00m
2.42m
1.82
1.52
1.24
Fisheries
BELEKERI RIVER
Proposed Stacking Yard
Customs House
Wooden Jetties
Mechanical Ore
Loading Chutes
Port Office
Staff Quarters


Sewri Mud Flat
BOMBAY
Mazgaon Dock
Butcher
Island
Elephanta
Island
NHAVA
Ship Repair
Facilities
Princess Dock
New Ferry Wharf
Victoria Dock
4th Oil Berth
Entrance Channel
Indira Dock
325 m.
Bulk Berths
Container
Berths
Multipurpose
Berths
Back Bay
SHEVA
Ballard Pier
ARABIAN
SEA
South Elephanta
Channel
Gateway of India
Mora
Anchorages
325 m.
BOMBAY
DEVELOPMENT PLAN


BOMBAY
ALL LEVELS REFER TO THE DATUM OF SOUNDING
(i. e. 2' - 6'' BELOW M. L. W. S. = 74' - 6''– 2' 6''
= 72.00' T.H.D.)
200 100 0 200 400 600 800 1000 1200 FEET
0 50 100 200 300 350 METRES
X
NORTH FLANK
SOUTH FLANK
DEEPENED TO 11' - 0''
FOR HARBOUR LAUNCHES
MALET SHELF BEACON
FERRY SHIPS
PRINCE'S & VICTORIA DOCKS APPROACH CHANNEL
OPENWORK REINFORCED CONCRETE JETTY
DEEPENED TO 17' 0''
MAINTAINED TO 14' 0'
BERTHS FOR FERRY SHIPS
ENTRANCE
66'
DOCK MASTER'S OFFICE
ENTRANCE
80'
AREA DREDGED TO 17' 0''
DREDGER BERTH
BARGE BERTH
DREDGER BERTH
No 13B SHED
No 13A
No 13
PASSENGER SHED No 3
PASSENGER SHED No 2
PASSENGER SHED No 1
No 15
No 14 SHED
MALET BASIN
PRINCE'S DOCK
QUAY LEVEL +19' - 0''
DEEPENED TO -17' - 0''
MAINTAINED AT –16' - 0''
WATER LEVED IN DOCK + 7' -0''
WATER AREA 30 ACRES
VICTORIA DOCK
QUAY LEVEL +19' 0''
DEEPENED TO -19' 0'
MAINTAINED AT 18' 0'
WATER LEVEL IN DOCK 7' - 0''
WATER AREA 25 ACRES
QUAY LEVEL + 22' 0'
DEEPENED TO 25' 0'
WATER AREA 9 4 ACRES
No 12B
No 12A SHED
FLOTILLA REPAIR SHED
JETTY SHED
G SHED
B SHED
No 2 SHED
No 3 4 SHED
No 5 6 SHED
No 7 8 SHED
MEREWETHER DRY DOCK
E SHED
F SHED CHAPRA
D SHED
C SHED
TRAFFIC OFFICE
POLICE STN
W/H
W/H
RICE GODOWN
RICE GODOWN
CENTRAL RAILWAY
WADI BUNDER GOODS YARD

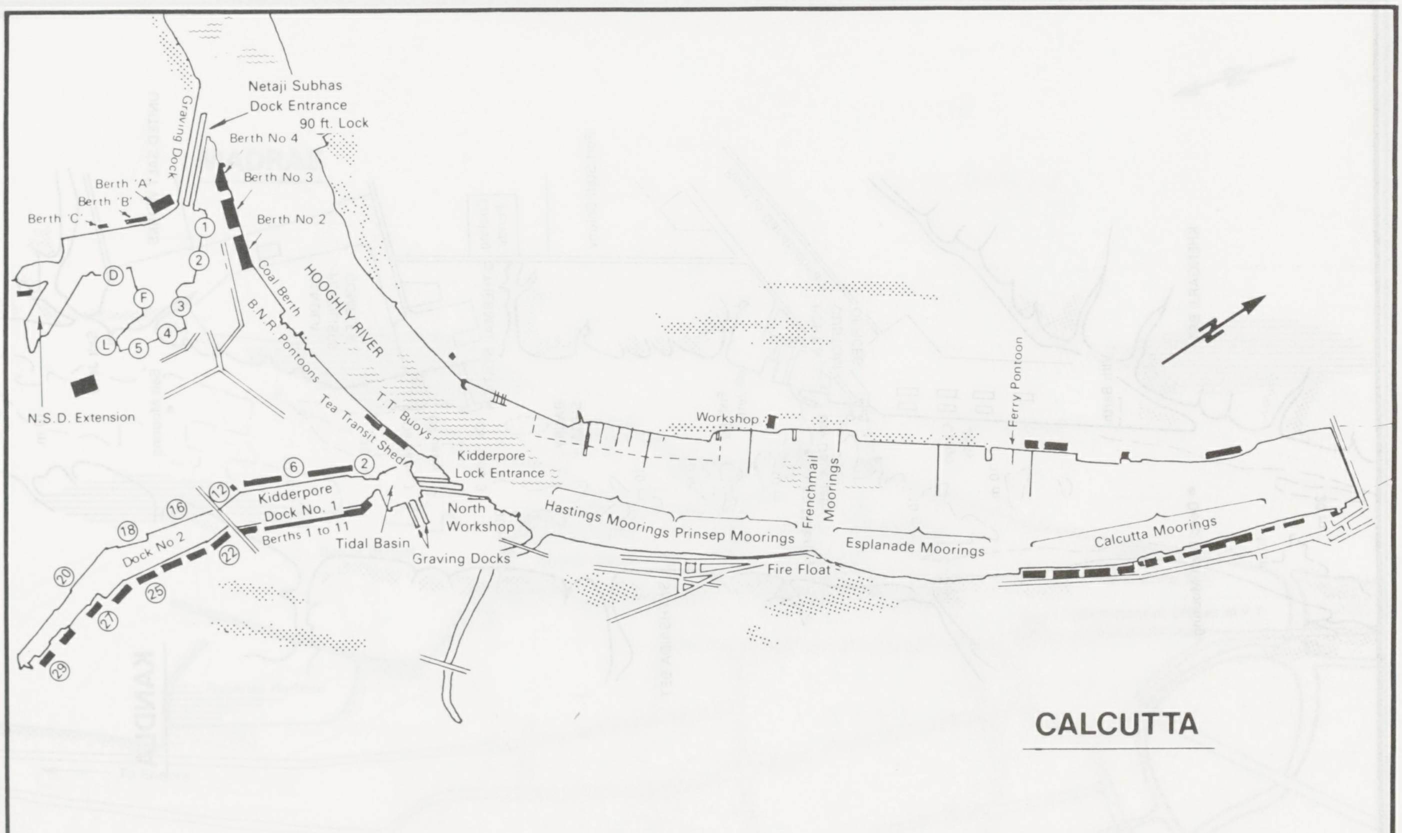

BOMBAY
X
INDIRA DOCK HARBOUR WALL CHANNEL
DEEPENED TO 24'-0''
DEEPENED TO 24'-0''
DEEPENED TO 28'-0''
ENTRANCE CHANNEL DEEPENED TO 27' 0''
INDIRA DOCK APPROACH CHANNEL
DEEPENED TO 28' - 0''
MAINTAINED TO 24'-0''
DEEPENED TO 28' -0''
PROPOSED EXTENSION
BERTH TO BE DEEPENED TO 35' - 0''
BERTH
DEEPENED TO 24' 0''
PASSENGER BERTH
DEEPENED TO 32' - 0''
PASSENGER TERMINAL BUILDING
TRANSIT SHED
SHED
SHED
No 23
No 22
No 21 SHED
No 20 SHED
No 19 SHED
PASSENGER
No 18 SHED
DOCK MASTER'S OFFICE
750' 0'' 100' 0'' WIDE
ENTRANCE LOCK
No 14 SHED
No 15 SHED
No 16 SHED
No 17 SHED
PUMPING STN
HUGHES DRY DOCK
1000' 0''
PUMPING STN
INDIRA DOCK
QUAY LEVEL + 22' - 0''
DEEPENED TO 25' - 0''
MAINTAINED AT 22' - 0''
WATER LEVEL IN DOCK + 14' - 0''
WATER AREA 50 ACRES
No 12 SHED
No. 11 SHED
No 10
No. 7 SHED
No. 8 SHED
No 9 SHED
No 1 SHED
UNCLEARED GOODS WAREHOUSE
NAVAL DOCKYARD
NEW CUSTOM HOUSE
No 6 SHED
No 5 SHED
No 4 SHED
No 3 SHED
No 2 SHED
BOMBAY PORT TRUST ADMINISTRATIVE OFFICE
GENERAL POST OFFICE
ST. GEORGE'S HOSPITAL



BOMBAY

BUTCHER ISLAND

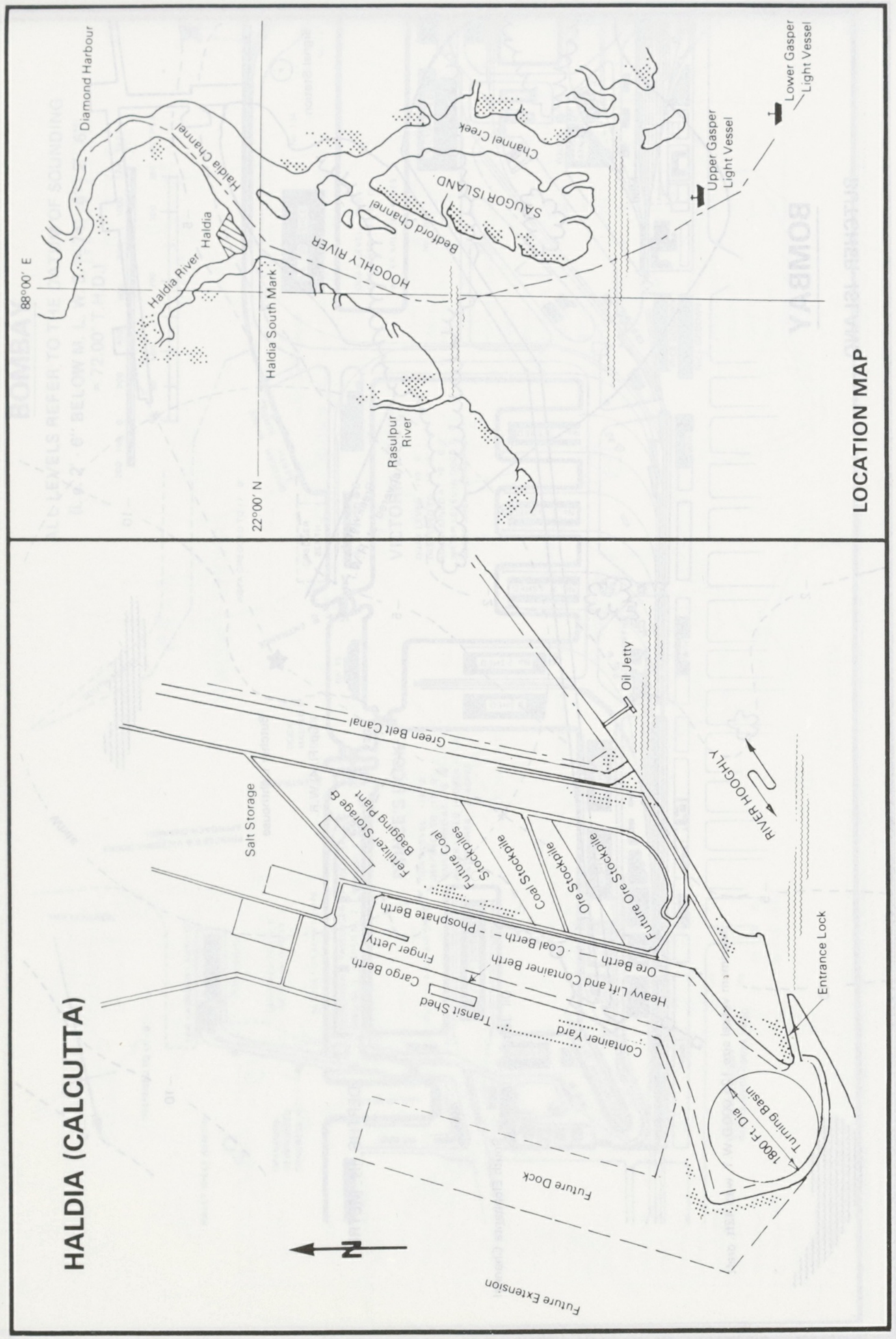
Signal Station
White
−10
−5
−2
Butcher Lighthouse
Gp. Fl.(4) W.R.
Breakwater (covered at H.W.)
−5
−10
DEPTHS IN METRES
Red
−2
Oil Jetty
South Elephanta Channel
Mud
Maximum vessel size 125,000 D.W.T. with 42ft. draft
−5
−2
−10
−5
−10



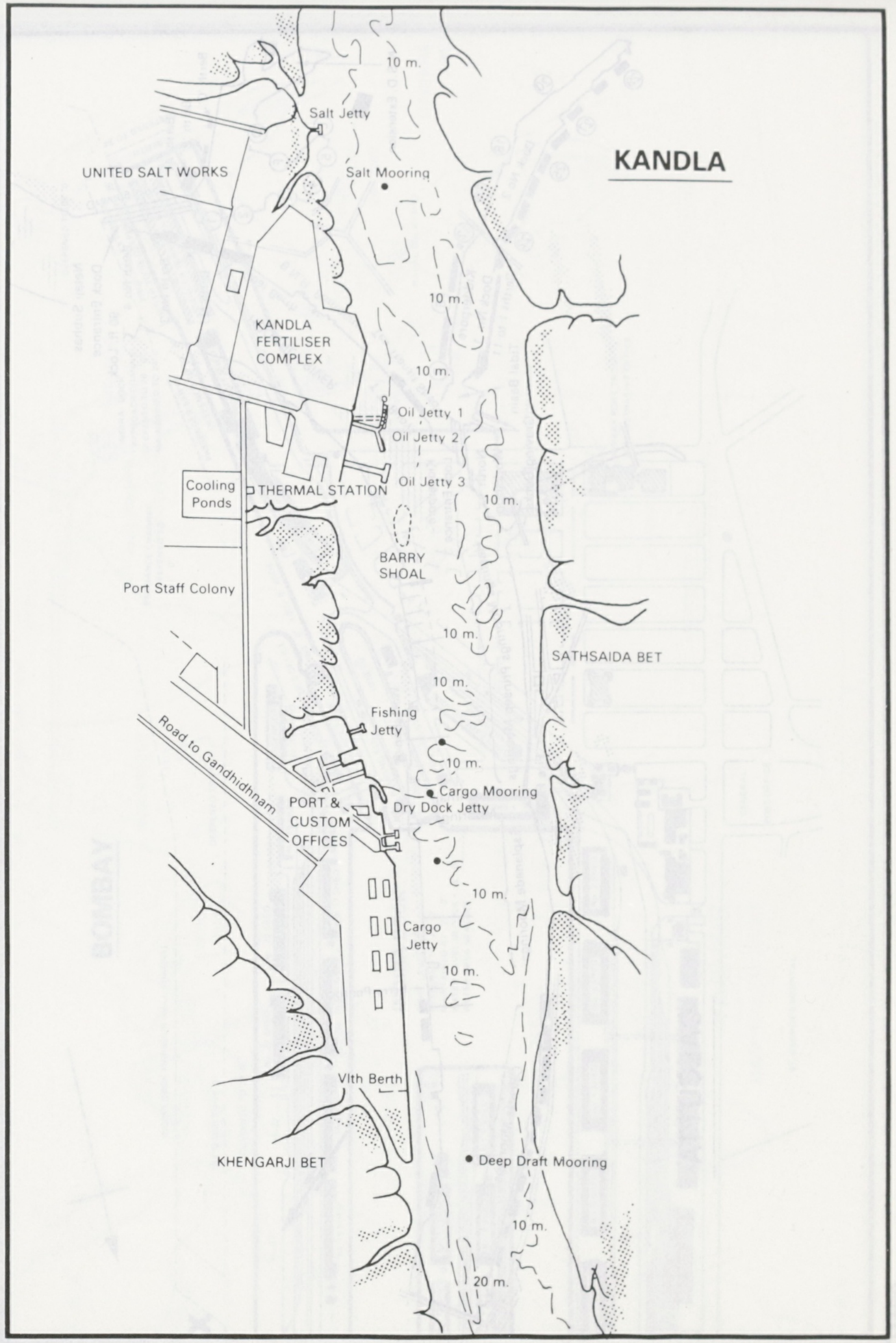
CALCUTTA

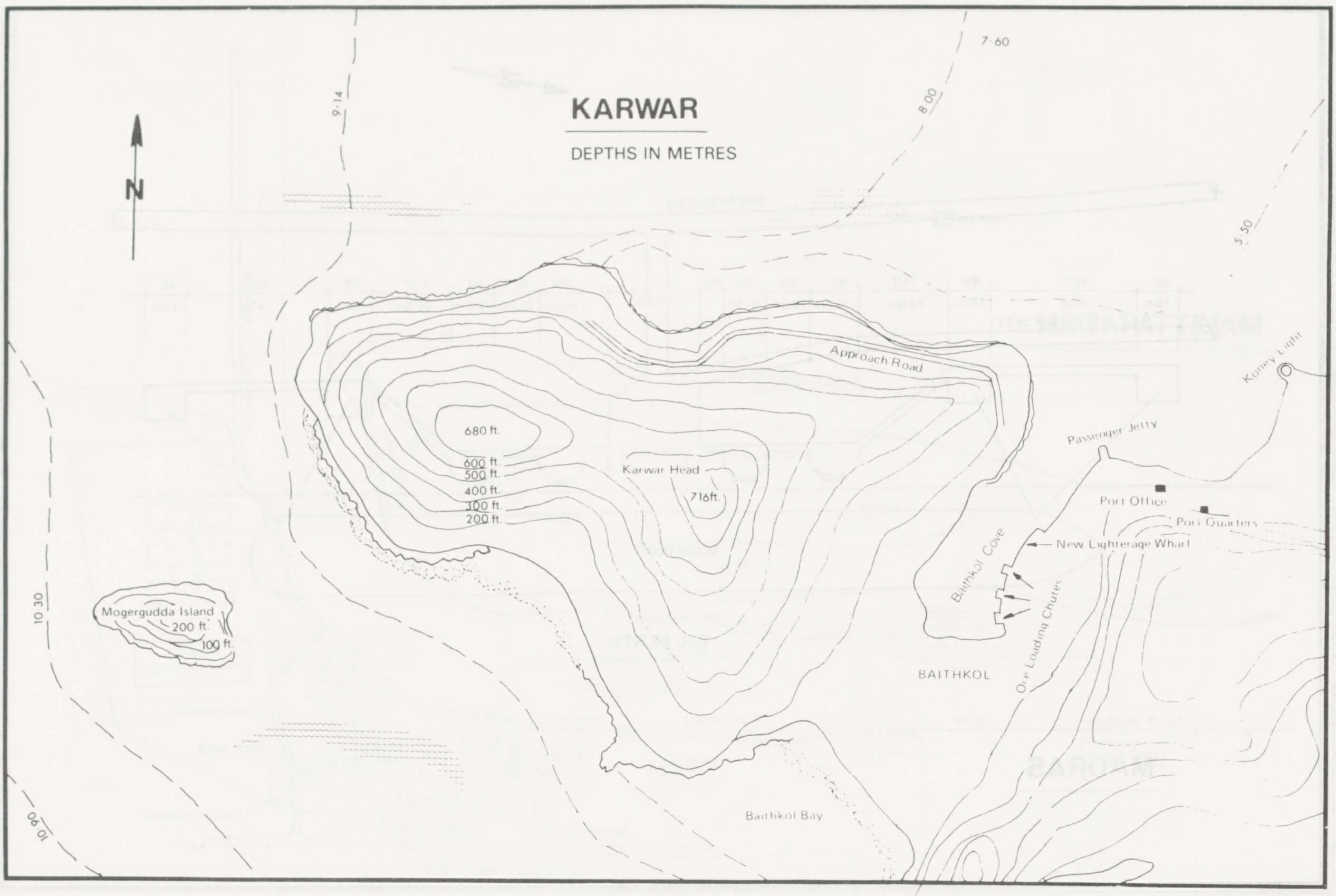
Netaji Subhas Dock Entrance
90 ft. Lock
Graving Dock
Berth No 4
Berth No 3
Berth No 2
Berth 'A'
Berth 'B'
Berth 'C'
①
②
③
④
⑤
Ⓓ
Ⓕ
Ⓛ
Coal Berth
B.N.R. Pontoons
HOOGHLY RIVER
N.S.D. Extension
Tea Transit Shed
T.T. Buoys
Kidderpore Lock Entrance
Workshop
Ferry Pontoon
Frenchmail Moorings
⑥
②
⑫
⑯
⑱
⑳
㉒
㉕
㉗
㉙
Kidderpore Dock No. 1
Berths 1 to 11
Dock No 2
Tidal Basin
North Workshop
Graving Docks
Hastings Moorings
Prinsep Moorings
Esplanade Moorings
Fire Float
Calcutta Moorings

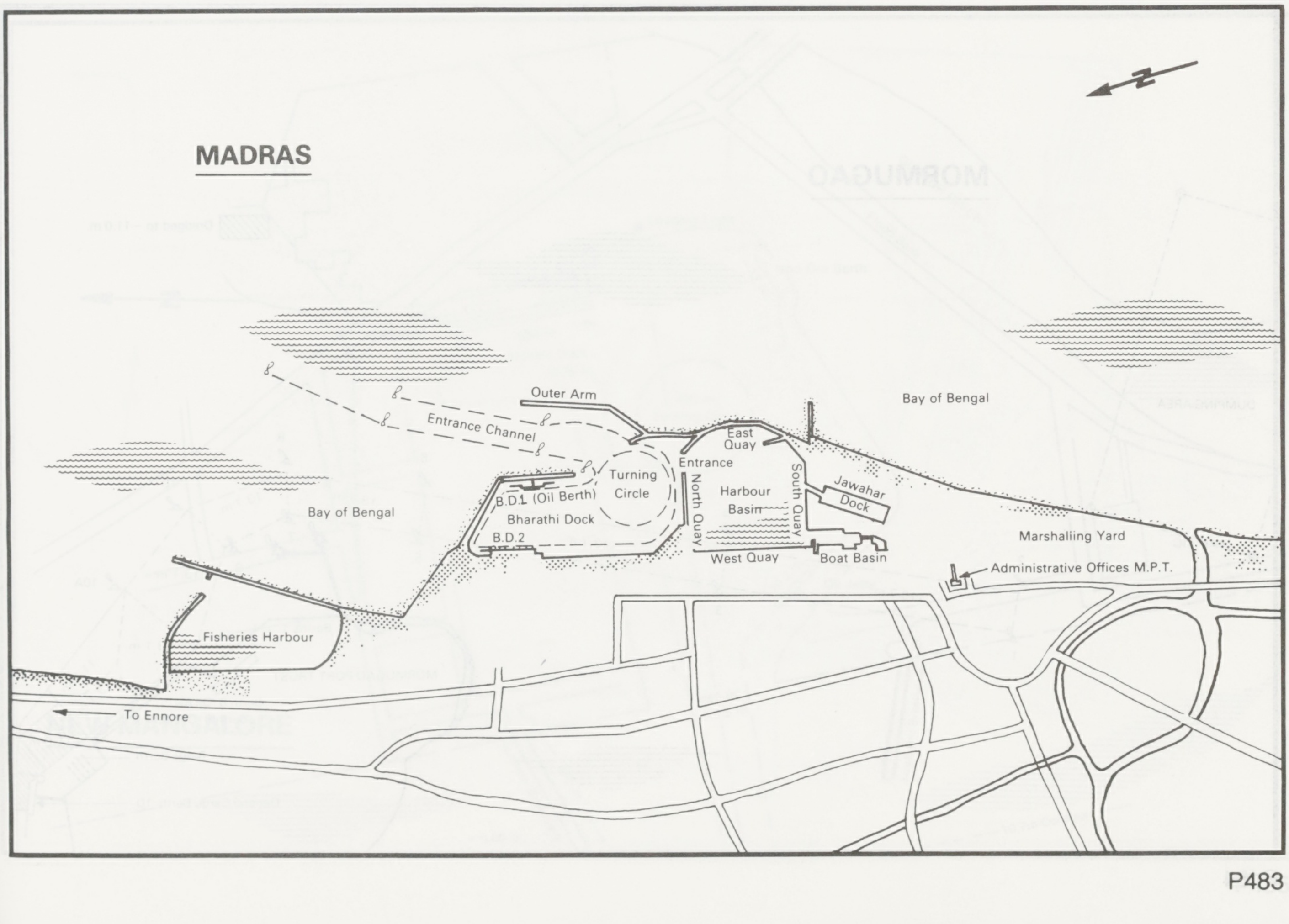
HALDIA (CALCUTTA)

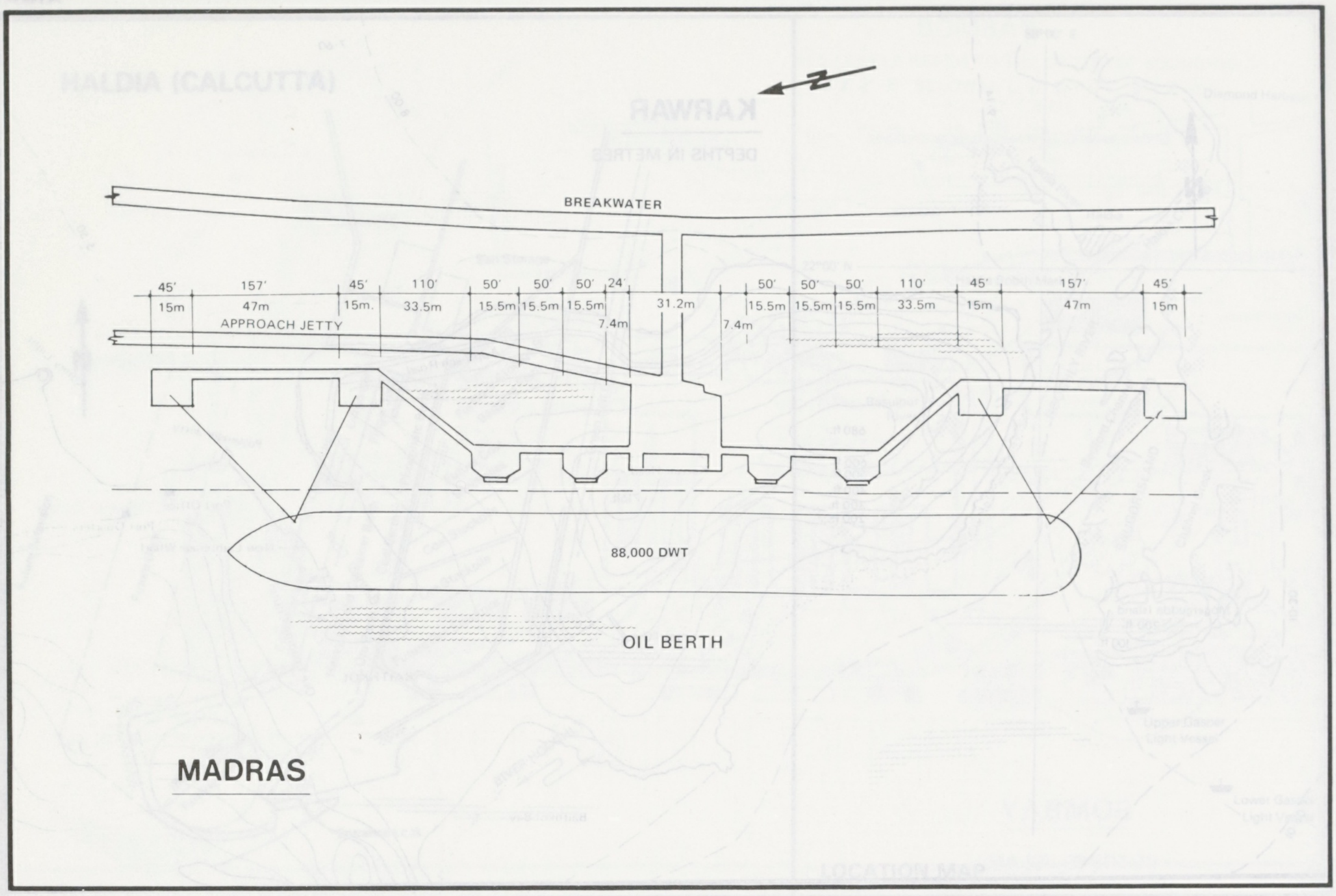

LOCATION MAP
Diamond Harbour
Haldia Channel
Channel Creek
SAGOR ISLAND
Bedford Channel
HOOGHLY RIVER
Haldia River
Haldia
88°00' E
Haldia South Mark
Rasulpur River
22°00' N
Upper Gasper Light Vessel
Lower Gasper Light Vessel
Green Belt Canal
Oil Jetty
RIVER HOOGHLY
Salt Storage
Fertilizer Storage & Bagging Plant
Future Coal Stockpiles
Coal Stockpile
Ore Stockpile
Future Ore Stockpile
Phosphate Berth
Coal Berth
Ore Berth
Finger Jetty
Cargo Berth
Heavy Lift and Container Berth
Transit Shed
Container Yard
Entrance Lock
Turning Basin
1800 Ft. Dia
Future Dock
Future Extension
N

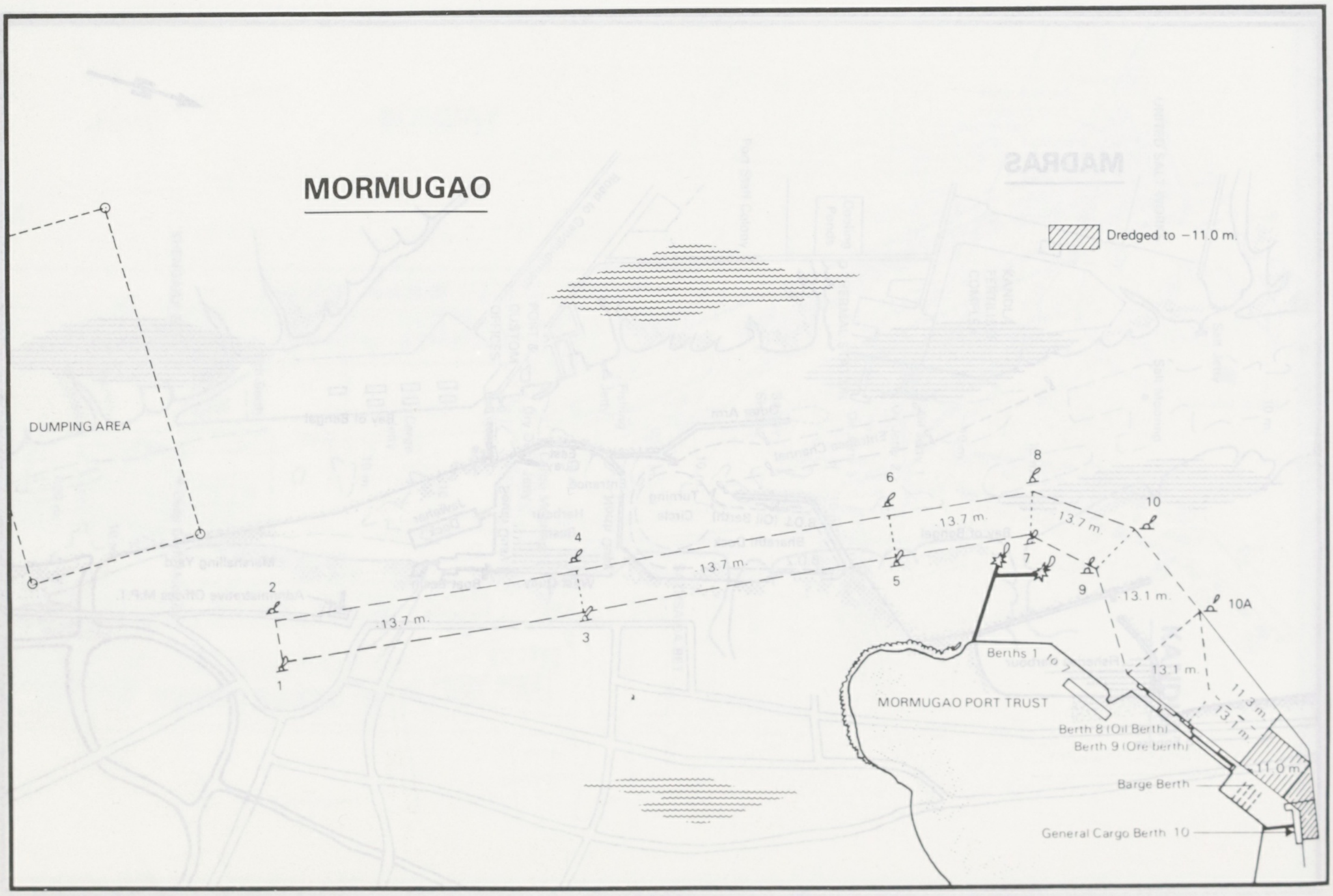
KANDLA

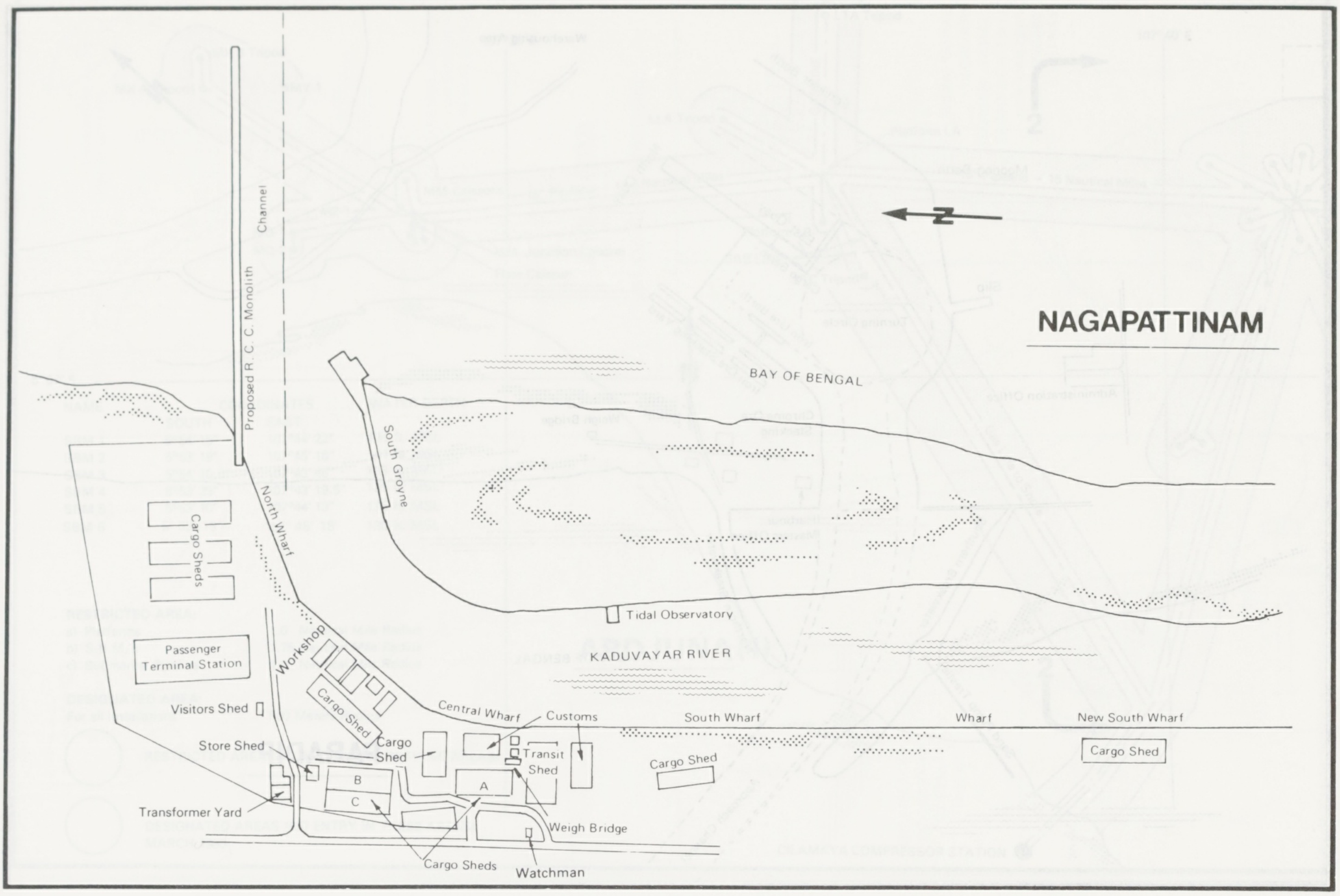

Salt Jetty
10 m.
UNITED SALT WORKS
Salt Mooring
KANDLA FERTILISER COMPLEX
10 m.
10 m.
Oil Jetty 1
Oil Jetty 2
Oil Jetty 3
Cooling Ponds
THERMAL STATION
10 m.
BARRY SHOAL
Port Staff Colony
10 m.
SATHSAIDA BET
10 m.
Fishing Jetty
Road to Gandhidhnam
10 m.
Cargo Mooring
Dry Dock Jetty
PORT & CUSTOM OFFICES
10 m.
Cargo Jetty
10 m.
VIth Berth
KHENGARJI BET
Deep Draft Mooring
10 m.
20 m.

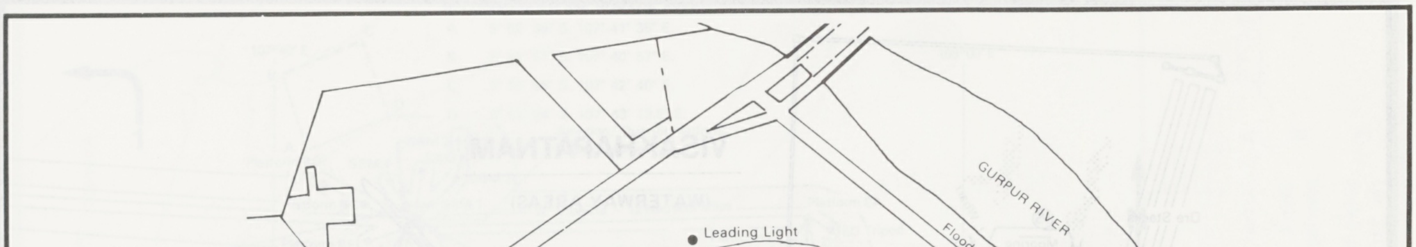

KARWAR
DEPTHS IN METRES
N
7·60
8.00
9·14
5.50
10.30
10.90
Approach Road
680 ft.
600 ft.
500 ft.
400 ft.
300 ft.
200 ft.
Karwar Head
716ft.
Mogergudda Island
200 ft.
100 ft.
Kaney Light
Passenger Jetty
Port Office
Port Quarters
New Lighterage Wharf
Baithkol Cove
Ore Loading Chutes
BAITHKOL
Baithkol Bay

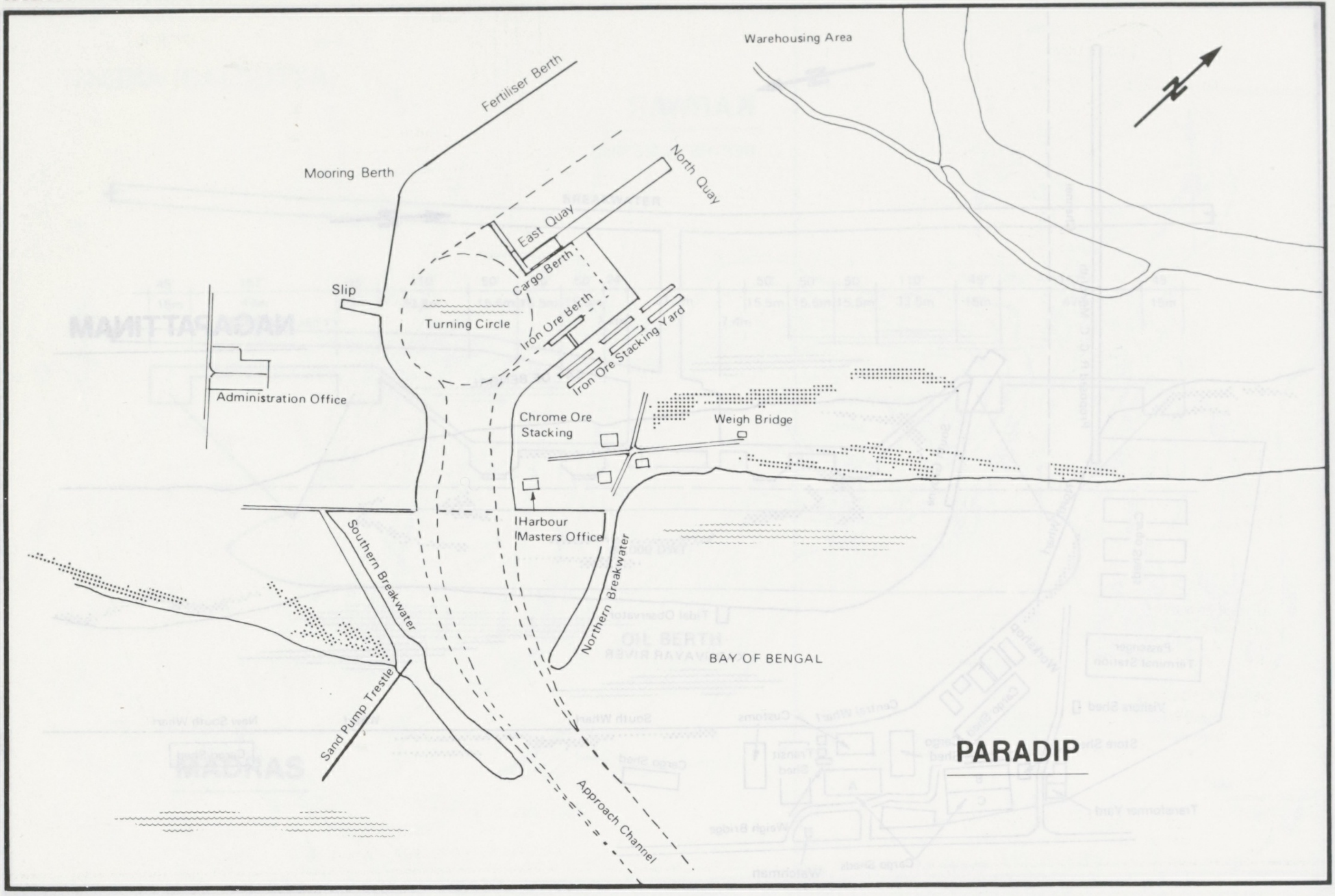

MADRAS
N
Outer Arm
Entrance Channel
East Quay
Entrance
Turning Circle
B.D.1 (Oil Berth)
Bharathi Dock
B.D.2
North Quay
Harbour Basin
South Quay
Jawahar Dock
West Quay
Boat Basin
Bay of Bengal
Bay of Bengal
Marshalling Yard
Administrative Offices M.P.T.
Fisheries Harbour
To Ennore


BREAKWATER
45'
15m
157'
47m
45'
15m.
110'
33.5m
50'
15.5m
50'
15.5m
50'
15.5m
24'
7.4m
31.2m
7.4m
50'
15.5m
50'
15.5m
50'
15.5m
110'
33.5m
45'
15m
157'
47m
45'
15m
APPROACH JETTY
88,000 DWT
OIL BERTH
MADRAS


MORMUGAO
Dredged to −11.0 m.
DUMPING AREA
1
2
3
4
5
6
7
8
9
10
10A
13.7 m.
13.7 m.
13.7 m.
13.7 m.
13.1 m.
13.1 m.
11.3 m.
13.1 m.
11.0 m.
Berths 1 to 7
MORMUGAO PORT TRUST
Berth 8 (Oil Berth)
Berth 9 (Ore berth)
Barge Berth
General Cargo Berth 10

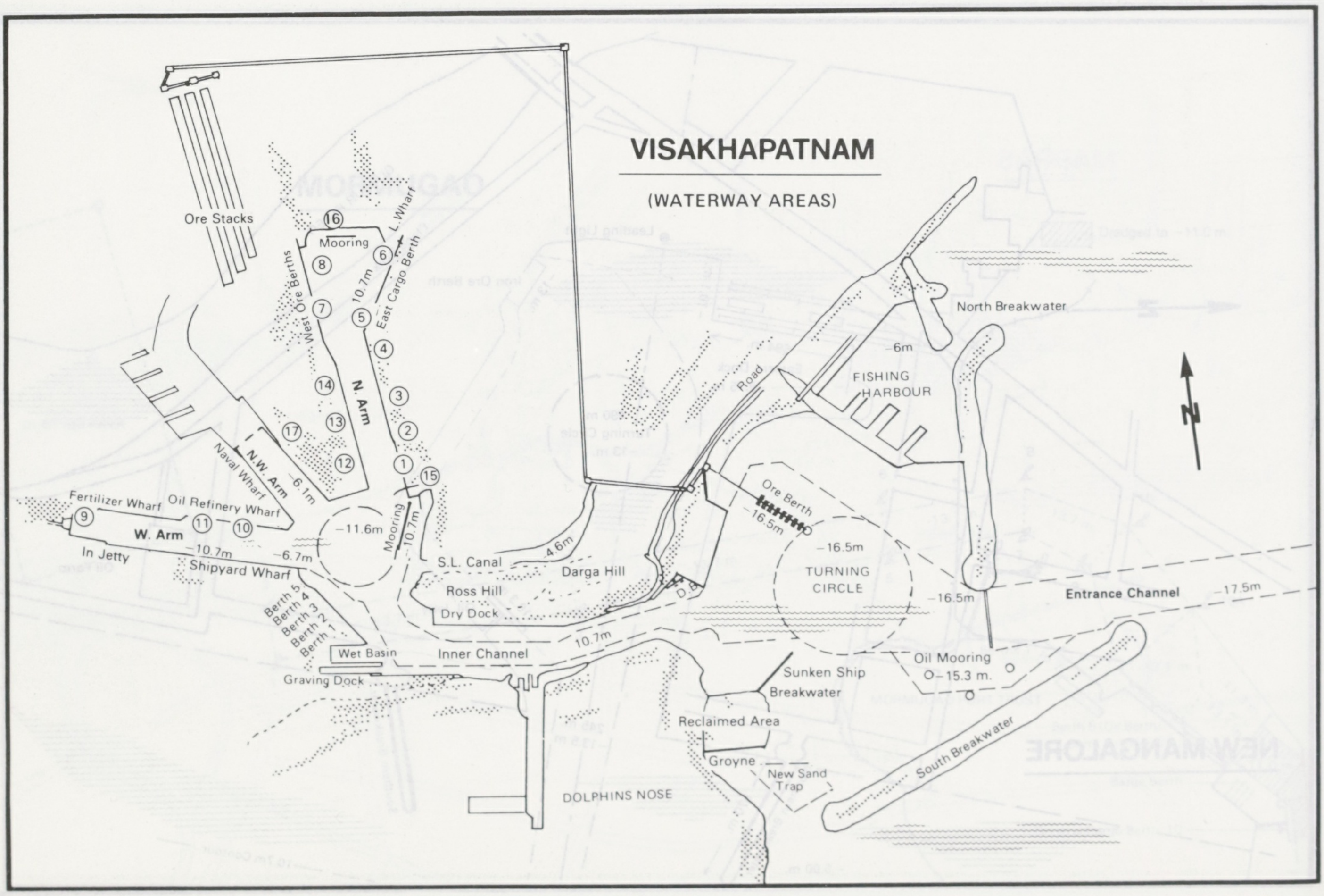

NAGAPATTINAM
N
BAY OF BENGAL
Proposed R. C. C. Monolith
Channel
South Groyne
North Wharf
Cargo Sheds
Passenger Terminal Station
Workshop
Cargo Shed
Visitors Shed
Store Shed
Transformer Yard
Cargo Shed
B
C
A
Cargo Sheds
Central Wharf
Customs
Transit Shed
Weigh Bridge
Watchman
Tidal Observatory
KADUVAYAR RIVER
South Wharf
Cargo Shed
Wharf
New South Wharf
Cargo Shed


N
Leading Light
-10.1 m.
Iron Ore Berth
-13 m.
594 m.
Eastern Dock
-9.75 m.
490 m.
Turning Circle
-13 m.
GURPUR RIVER
Flood Bank
Oil Farm
-10.3 m.
Oil Jetty
245 m.
-13.5 m.
Southern Breakwater
Northern Breakwater
570 m.
- 5.00 m.
10.7m Contour
NEW MANGALORE



PARADIP

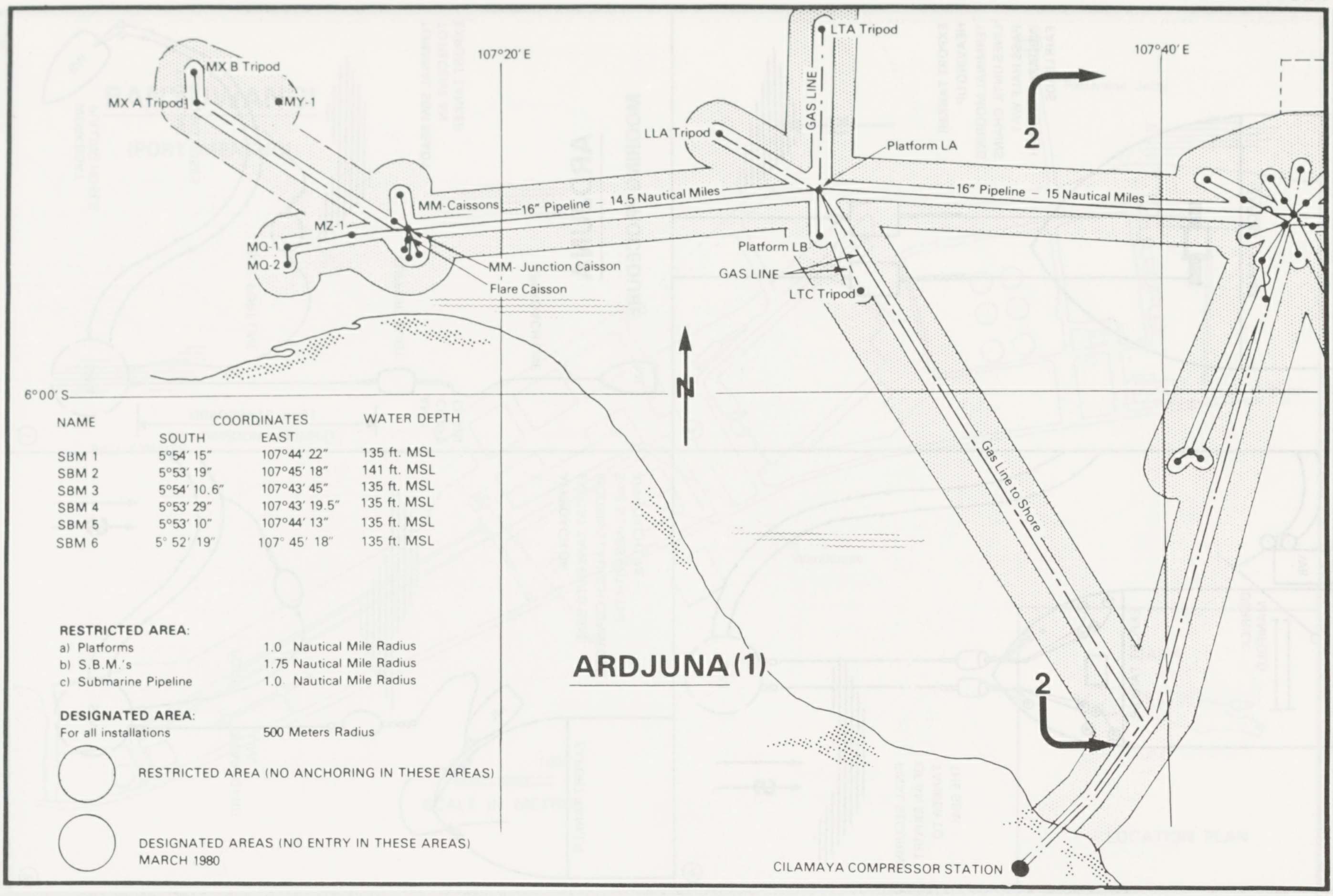
Warehousing Area
Fertiliser Berth
Mooring Berth
North Quay
East Quay
Cargo Berth
Slip
Turning Circle
Iron Ore Berth
Iron Ore Stacking Yard
Administration Office
Chrome Ore Stacking
Weigh Bridge
Harbour Masters Office
Southern Breakwater
Northern Breakwater
Sand Pump Trestle
BAY OF BENGAL
Approach Channel
N



VISAKHAPATNAM

(WATERWAY AREAS)

Ore Stacks
16
Mooring
L. Wharf
6
8
West Ore Berths
10.7m
East Cargo Berth
7
5
4
N. Arm
14
3
13
2
17
12
1
15
N.W. Arm
Naval Wharf
6.1m
Fertilizer Wharf
Oil Refinery Wharf
9
11
10
W. Arm
−11.6m
Mooring
10.7m
In Jetty
−10.7m
−6.7m
Shipyard Wharf
Berth 5
Berth 4
Berth 3
Berth 2
Berth 1
S.L. Canal
4.6m
Darga Hill
Ross Hill
Dry Dock
Wet Basin
Inner Channel
10.7m
Graving Dock
DOLPHINS NOSE
Road
FISHING HARBOUR
−6m
North Breakwater
Ore Berth
−16.5m
−16.5m
TURNING CIRCLE
−16.5m
Entrance Channel
−17.5m
Oil Mooring
−15.3 m.
Sunken Ship Breakwater
Reclaimed Area
Groyne
New Sand Trap
South Breakwater
N


MX B Tripod
MX A Tripod
MY-1
MZ-1
MQ-1
MQ-2
MM-Caissons
16" Pipeline – 14.5 Nautical Miles
MM- Junction Caisson
Flare Caisson
107°20′ E
LTA Tripod
GAS LINE
LLA Tripod
Platform LA
16" Pipeline – 15 Nautical Miles
Platform LB
GAS LINE
LTC Tripod
107°40′ E
2
N
6°00′ S
Gas Line to Shore
2
CILAMAYA COMPRESSOR STATION

NAME	COORDINATES SOUTH	COORDINATES EAST	WATER DEPTH
SBM 1	5°54′ 15″	107°44′ 22″	135 ft. MSL
SBM 2	5°53′ 19″	107°45′ 18″	141 ft. MSL
SBM 3	5°54′ 10.6″	107°43′ 45″	135 ft. MSL
SBM 4	5°53′ 29″	107°43′ 19.5″	135 ft. MSL
SBM 5	5°53′ 10″	107°44′ 13″	135 ft. MSL
SBM 6	5° 52′ 19″	107° 45′ 18″	135 ft. MSL

RESTRICTED AREA:

a) Platforms	1.0 Nautical Mile Radius
b) S.B.M.'s	1.75 Nautical Mile Radius
c) Submarine Pipeline	1.0 Nautical Mile Radius

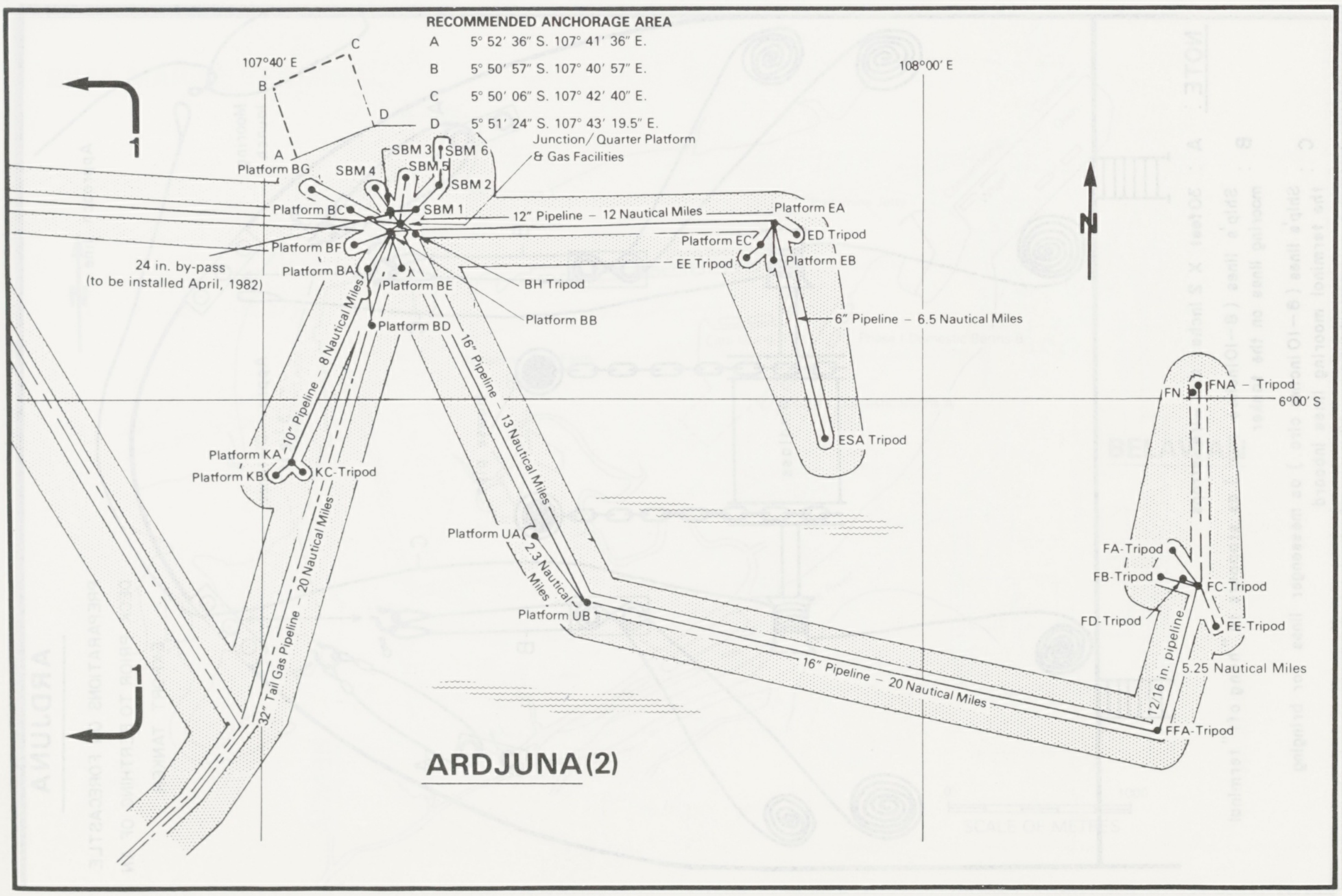
DESIGNATED AREA:

For all installations 500 Meters Radius

RESTRICTED AREA (NO ANCHORING IN THESE AREAS)

DESIGNATED AREAS (NO ENTRY IN THESE AREAS)
MARCH 1980

ARDJUNA (1)


107°40′ E
A
B
C
D
1
Platform BG
SBM 4
SBM 3
SBM 5
SBM 6
SBM 2
SBM 1
Junction/ Quarter Platform & Gas Facilities
Platform BC
Platform BF
24 in. by-pass (to be installed April, 1982)
Platform BA
Platform BE
BH Tripod
Platform BB
Platform BD
12" Pipeline – 12 Nautical Miles
108°00′ E
Platform EA
ED Tripod
Platform EC
EE Tripod
Platform EB
6" Pipeline – 6.5 Nautical Miles
N
ESA Tripod
FN
FNA – Tripod
6°00′ S
10" Pipeline – 8 Nautical Miles
16" Pipeline – 13 Nautical Miles
Platform KA
Platform KB
KC-Tripod
Platform UA
2.3 Nautical Miles
Platform UB
32" Tail Gas Pipeline – 20 Nautical Miles
16" Pipeline – 20 Nautical Miles
FA-Tripod
FB-Tripod
FC-Tripod
FD-Tripod
FE-Tripod
12/16 in. pipeline
5.25 Nautical Miles
FFA-Tripod
1

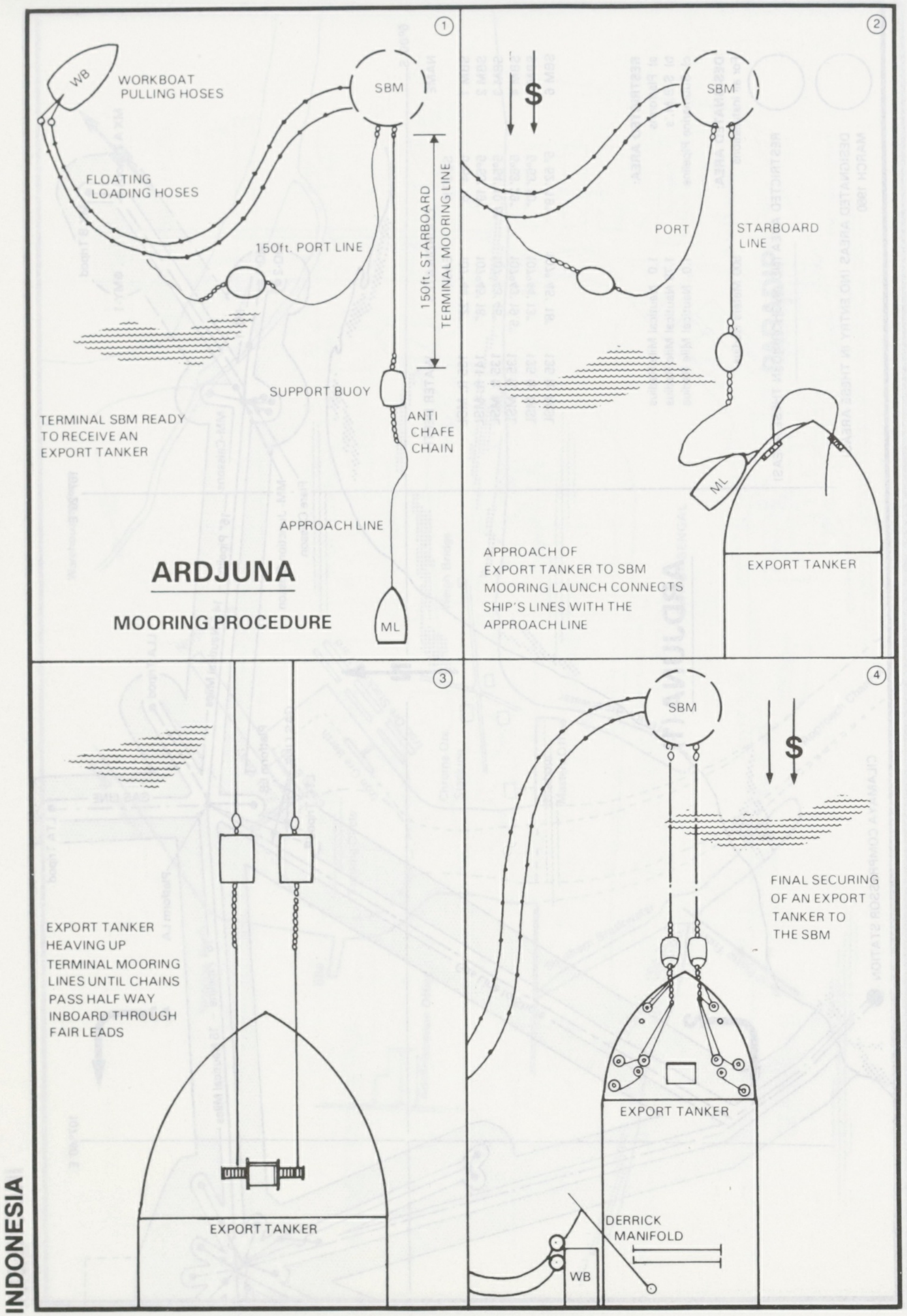
RECOMMENDED ANCHORAGE AREA

A	5° 52′ 36″ S. 107° 41′ 36″ E.
B	5° 50′ 57″ S. 107° 40′ 57″ E.
C	5° 50′ 06″ S. 107° 42′ 40″ E.
D	5° 51′ 24″ S. 107° 43′ 19.5″ E.

ARDJUNA (2)

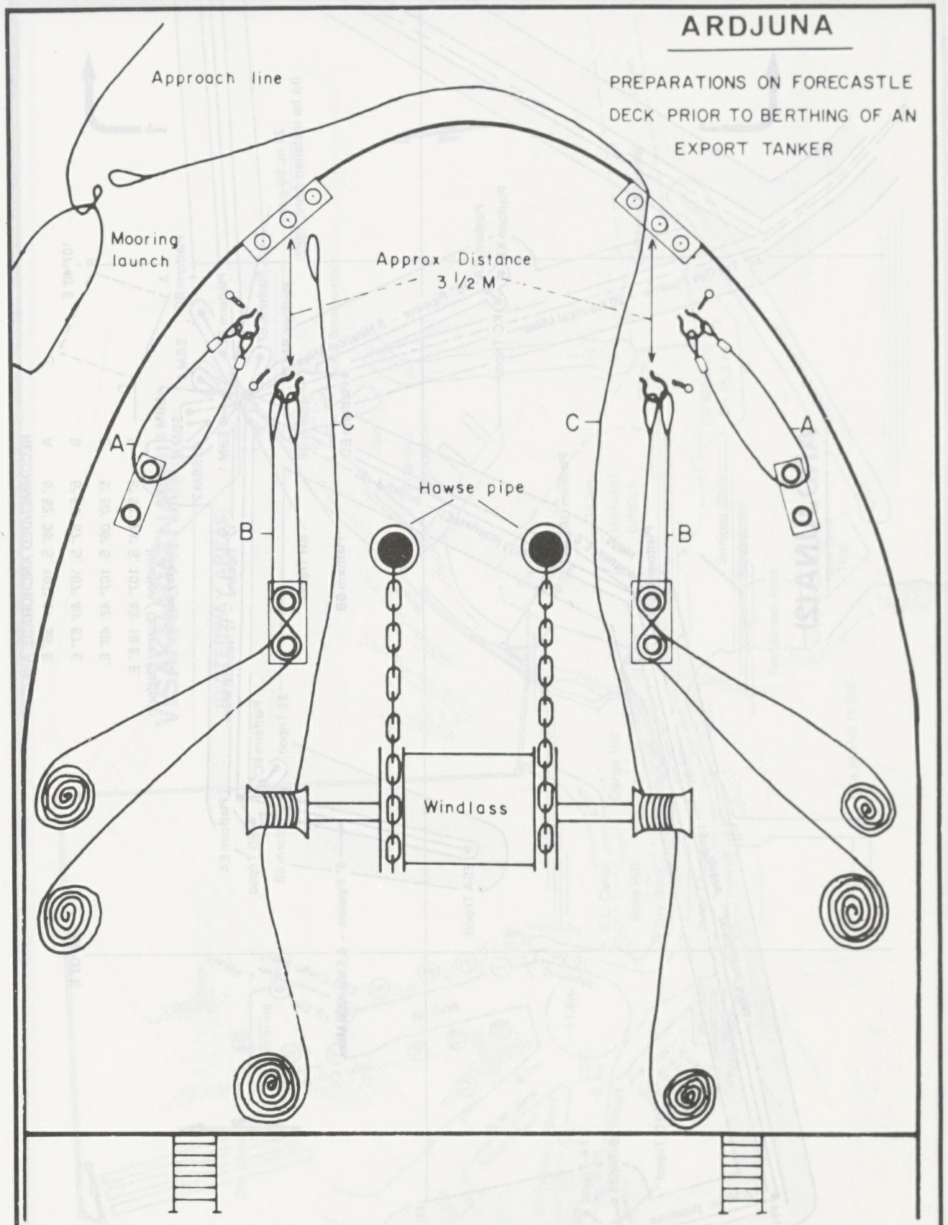
ARDJUNA

MOORING PROCEDURE


①
WB
WORKBOAT PULLING HOSES
SBM
FLOATING LOADING HOSES
150ft. PORT LINE
150ft. STARBOARD TERMINAL MOORING LINE
SUPPORT BUOY
ANTI CHAFE CHAIN
TERMINAL SBM READY TO RECEIVE AN EXPORT TANKER
APPROACH LINE
ML
②
$
SBM
PORT
STARBOARD LINE
ML
EXPORT TANKER
APPROACH OF EXPORT TANKER TO SBM MOORING LAUNCH CONNECTS SHIP'S LINES WITH THE APPROACH LINE
③
EXPORT TANKER HEAVING UP TERMINAL MOORING LINES UNTIL CHAINS PASS HALF WAY INBOARD THROUGH FAIR LEADS
EXPORT TANKER
④
SBM
$
FINAL SECURING OF AN EXPORT TANKER TO THE SBM
EXPORT TANKER
DERRICK MANIFOLD
WB

ARDJUNA

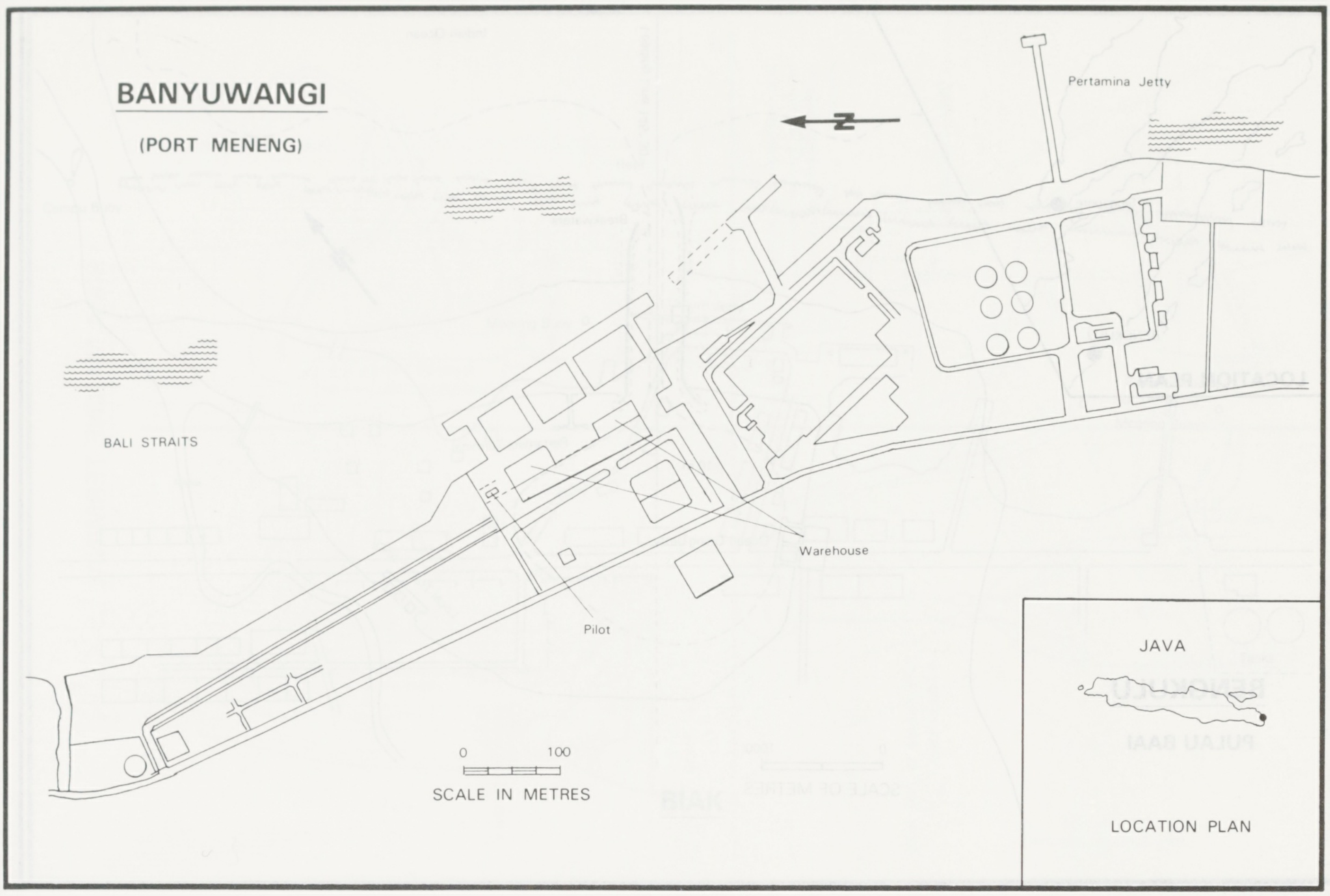
PREPARATIONS ON FORECASTLE DECK PRIOR TO BERTHING OF AN EXPORT TANKER


Approach line
Mooring launch
Approx Distance 3 1/2 M
A
C
B
Hawse pipe
Windlass
C
A
B

NOTE : A : 30 feet X 2 inches dia. wire strops.

B : Ship's lines (8–10 inches circ.) as stoppers to "hang off" terminal mooring lines on the tanker

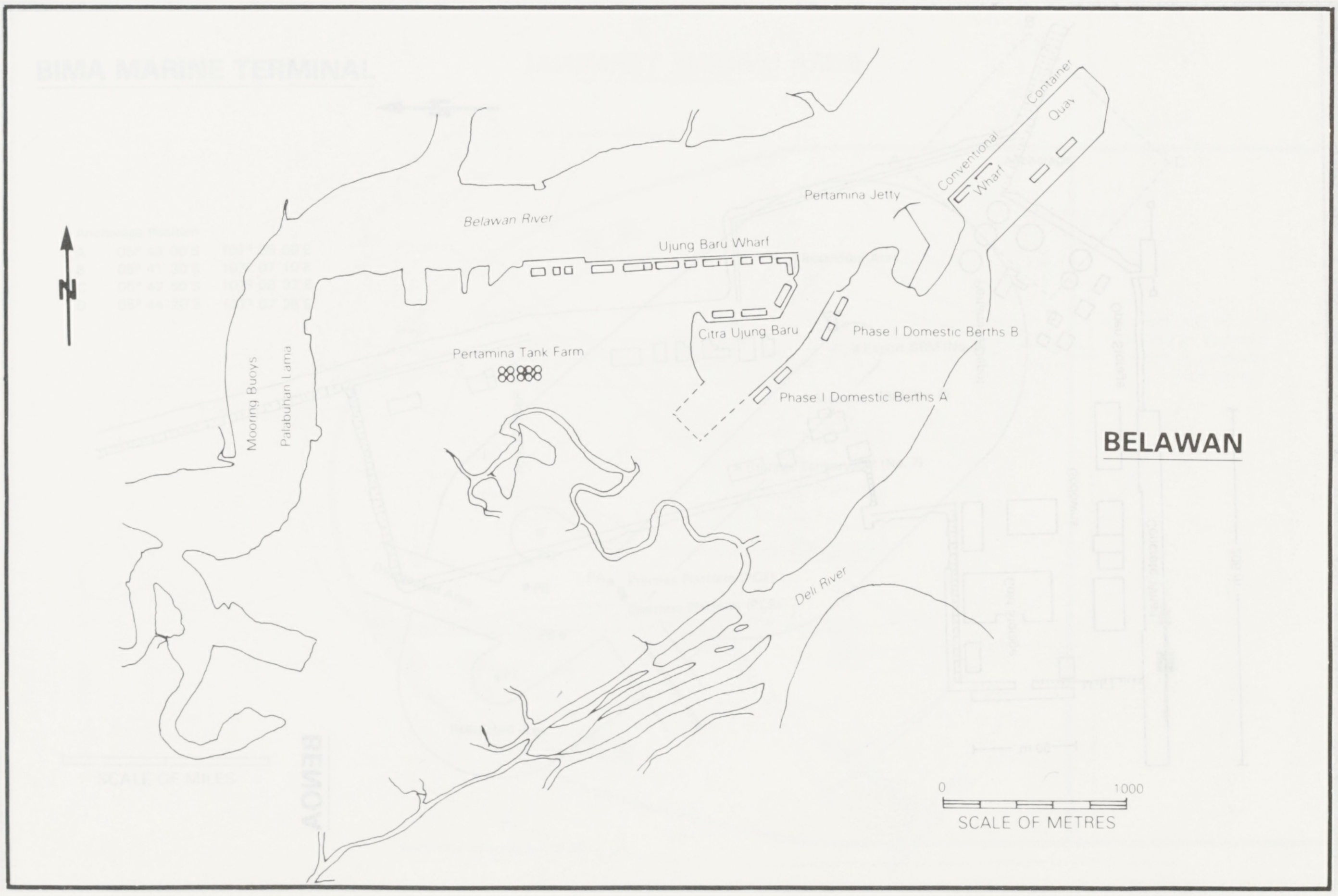
C : Ship's lines (8–10 inches circ.) as messenger lines for bringing the terminal mooring lines inboard



BANYUWANGI

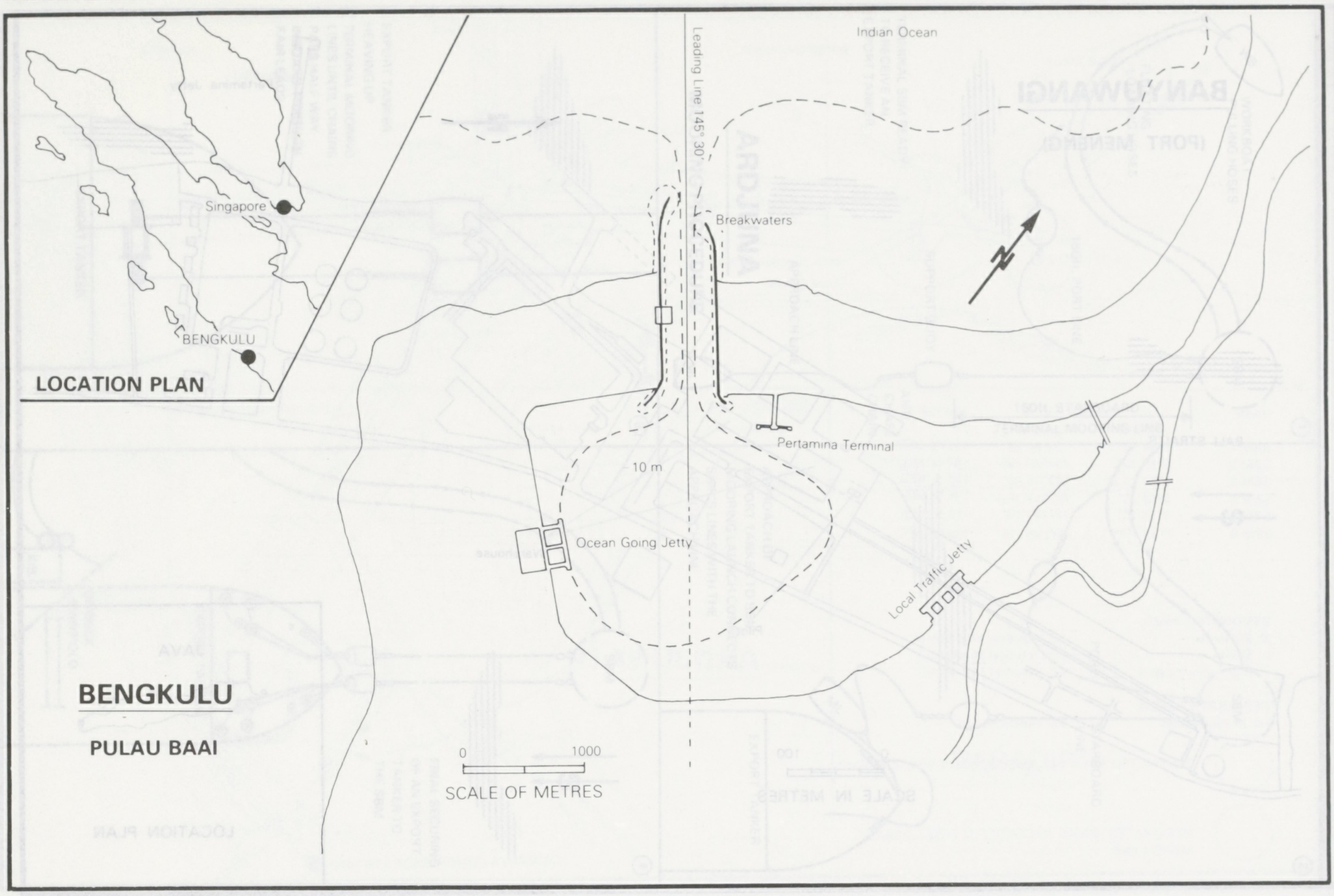
(PORT MENENG)

N
Pertamina Jetty
BALI STRAITS
Warehouse
Pilot
0
100
SCALE IN METRES
JAVA
LOCATION PLAN



BELAWAN

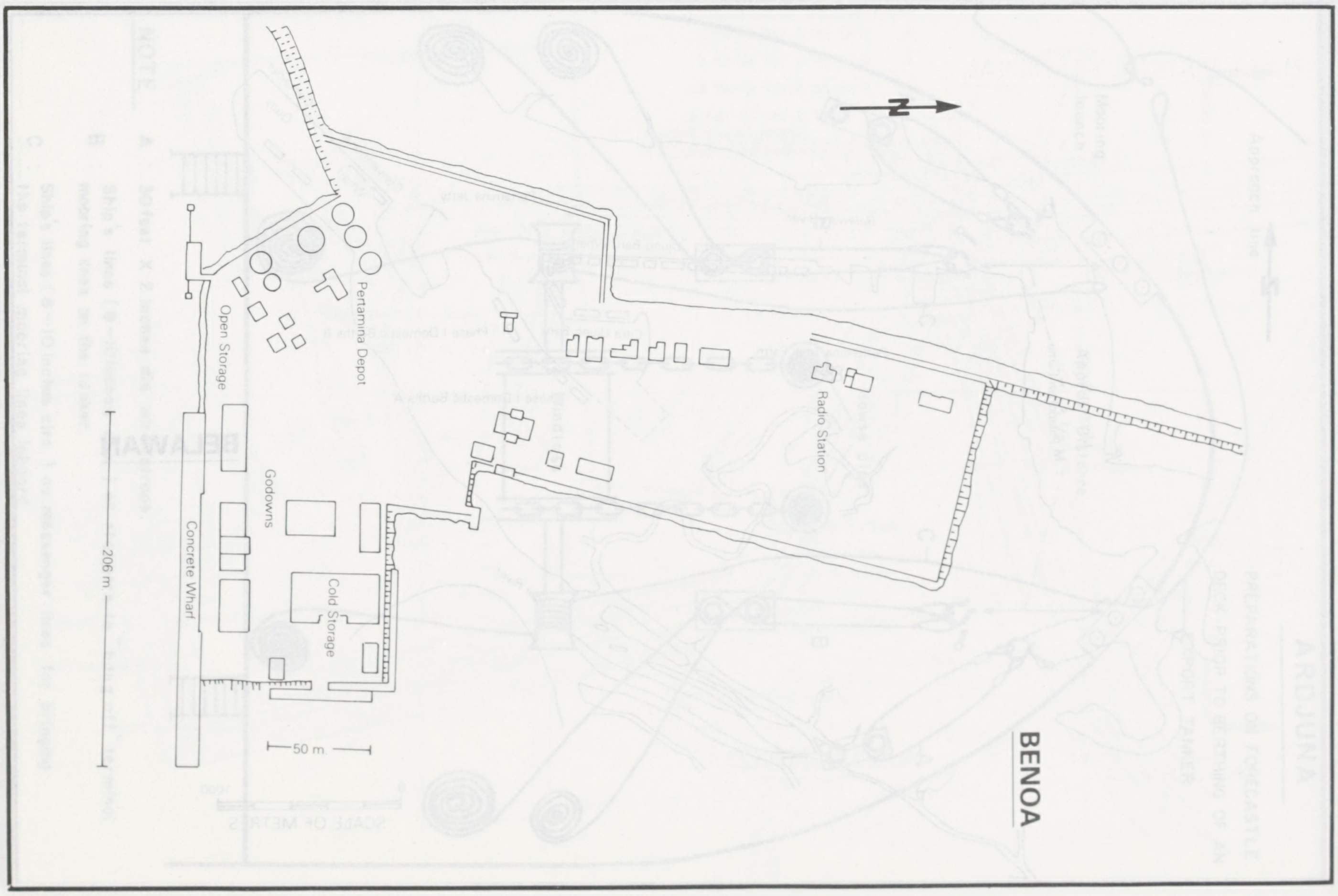
N
Belawan River
Pertamina Jetty
Conventional Wharf
Container Quay
Ujung Baru Wharf
Citra Ujung Baru
Phase I Domestic Berths B
Phase I Domestic Berths A
Pertamina Tank Farm
Mooring Buoys
Palabuhan Lama
Deli River
0
1000
SCALE OF METRES



BENGKULU

PULAU BAAI

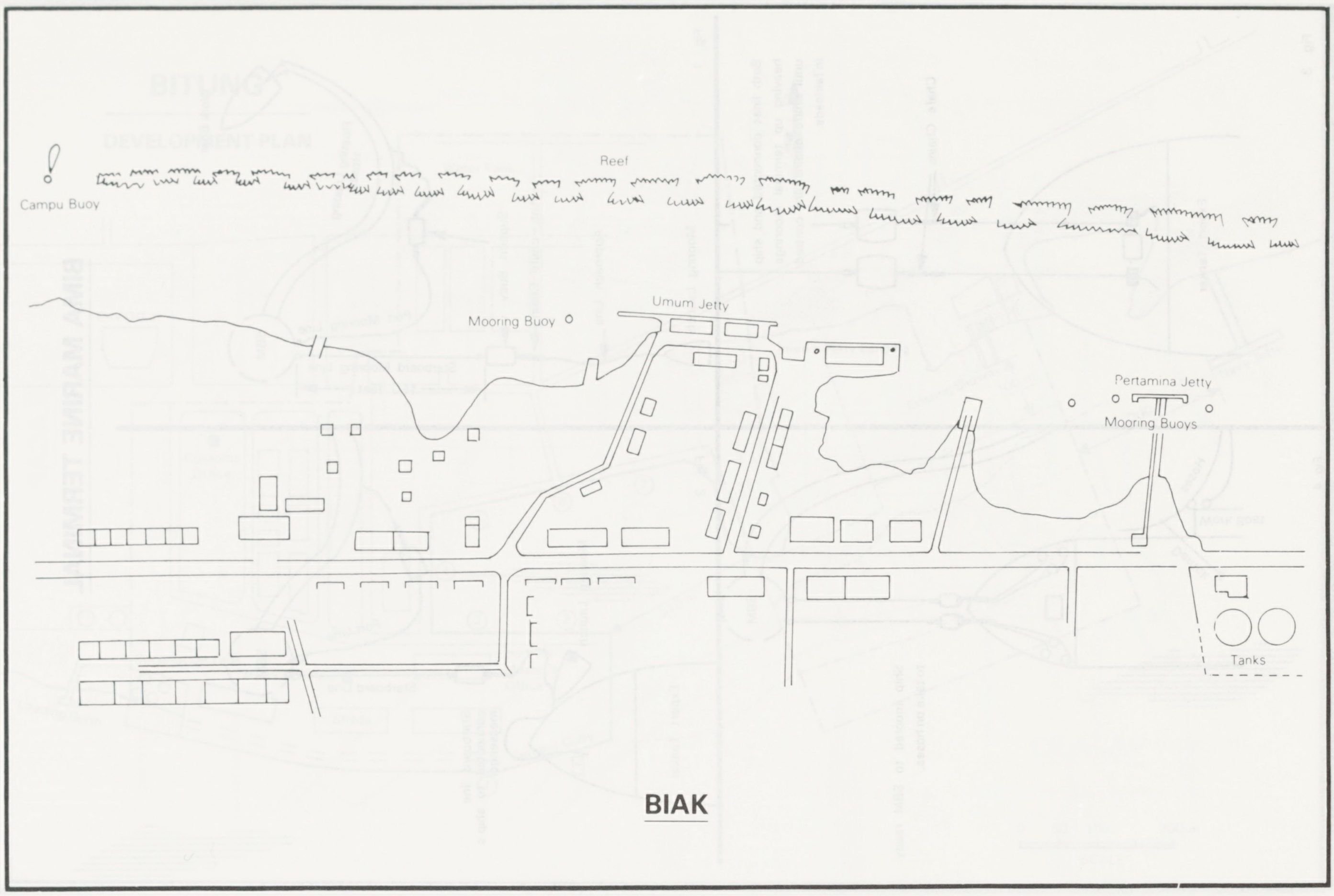
LOCATION PLAN
Singapore
BENGKULU
Indian Ocean
Leading Line 145° 30'
Breakwaters
N
Pertamina Terminal
10 m
Ocean Going Jetty
Local Traffic Jetty
0
1000
SCALE OF METRES



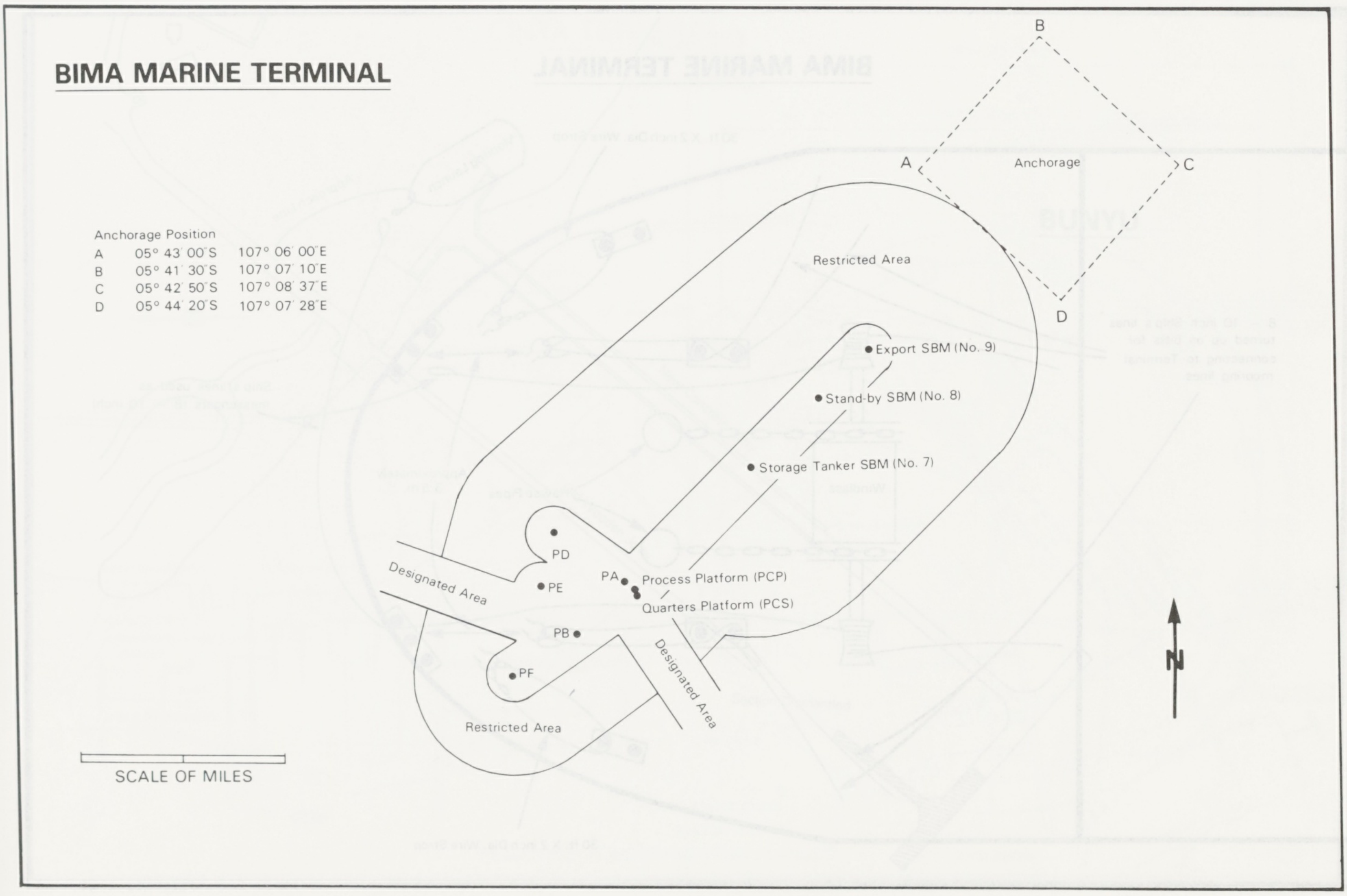
BENOA

N
Pertamina Depot
Open Storage
Godowns
Concrete Wharf
Cold Storage
206 m
50 m.
Radio Station

BIAK


Campu Buoy
Reef
Umum Jetty
Mooring Buoy
Pertamina Jetty
Mooring Buoys
Tanks

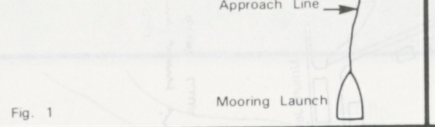
BIMA MARINE TERMINAL


B
A
Anchorage
C
D
Restricted Area
Export SBM (No. 9)
Stand-by SBM (No. 8)
Storage Tanker SBM (No. 7)
PD
PE
PA
Process Platform (PCP)
Quarters Platform (PCS)
Designated Area
PB
PF
Designated Area
Restricted Area
N
SCALE OF MILES

Anchorage Position

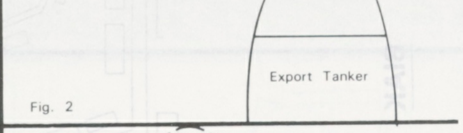
A	05° 43′ 00″S	107° 06′ 00″E
B	05° 41′ 30″S	107° 07′ 10″E
C	05° 42′ 50″S	107° 08′ 37″E
D	05° 44′ 20″S	107° 07′ 28″E

INDONESIA



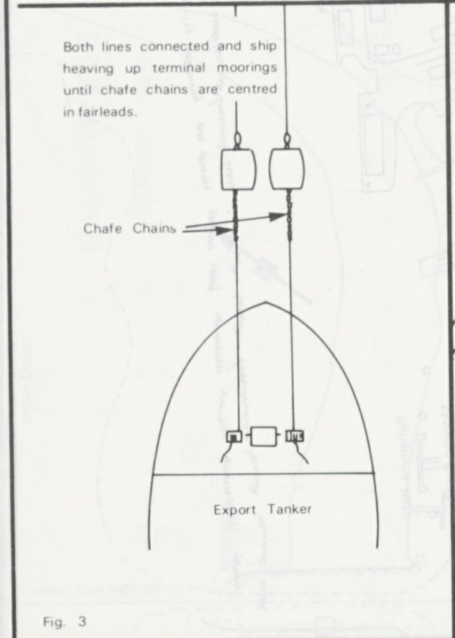
Approach Line
Mooring Launch

Fig. 1



Export Tanker

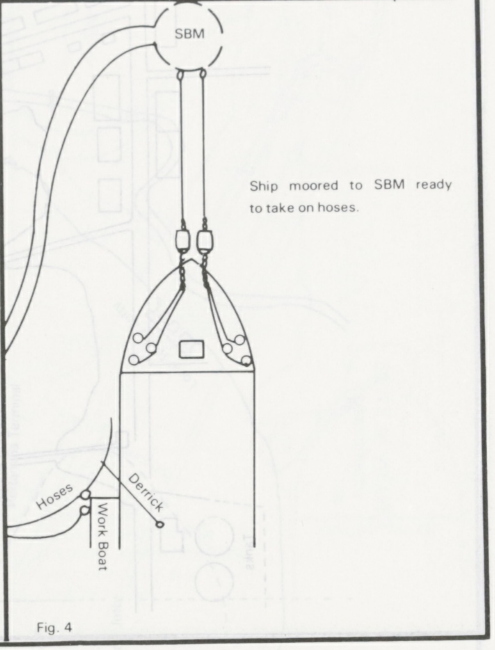
Fig. 2



Both lines connected and ship heaving up terminal moorings until chafe chains are centred in fairleads.

Chafe Chains
Export Tanker

Fig. 3

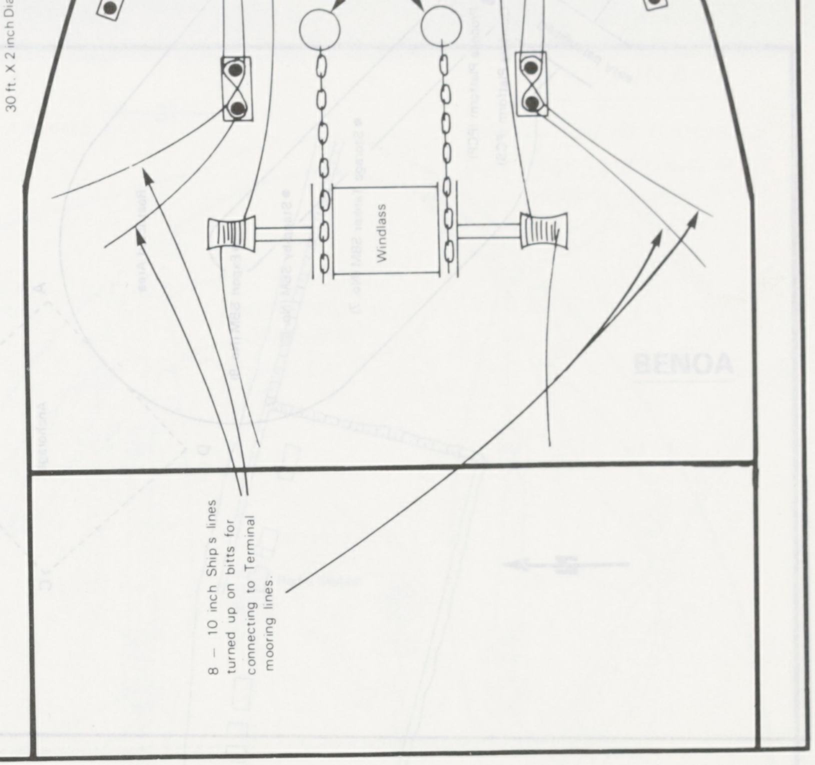


Ship moored to SBM ready to take on hoses.

SBM
Hoses
Derrick
Work Boat

Fig. 4

BIMA MARINE TER

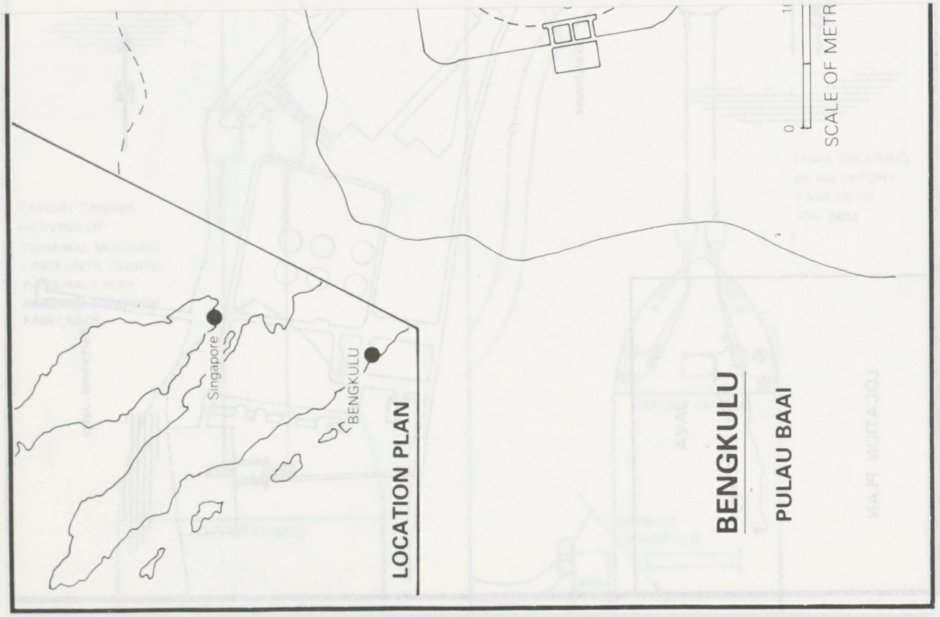


30 ft. X 2 inch Dia
Windlass

8 – 10 inch Ship's lines turned up on bitts for connecting to Terminal mooring lines.

INDONESIA

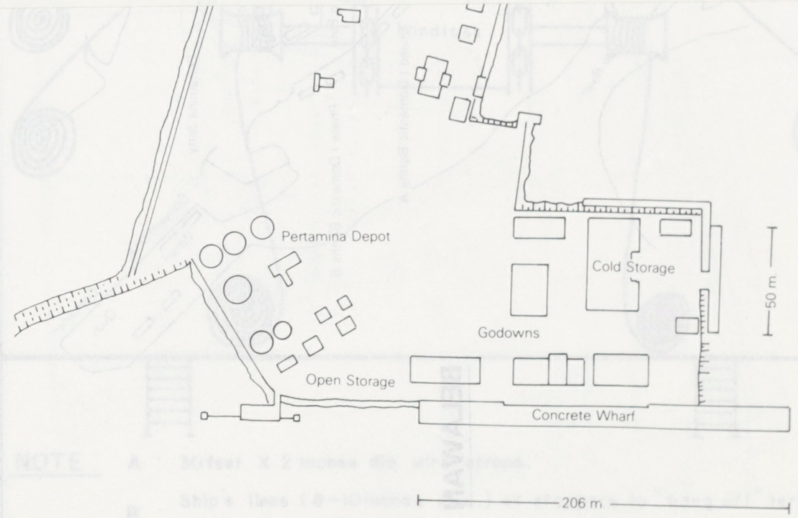
LOCATION PLAN



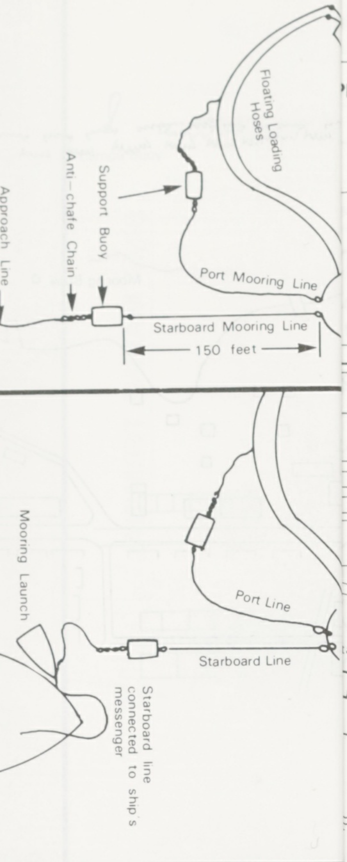
Singapore
BENGKULU
SCALE OF METR
0

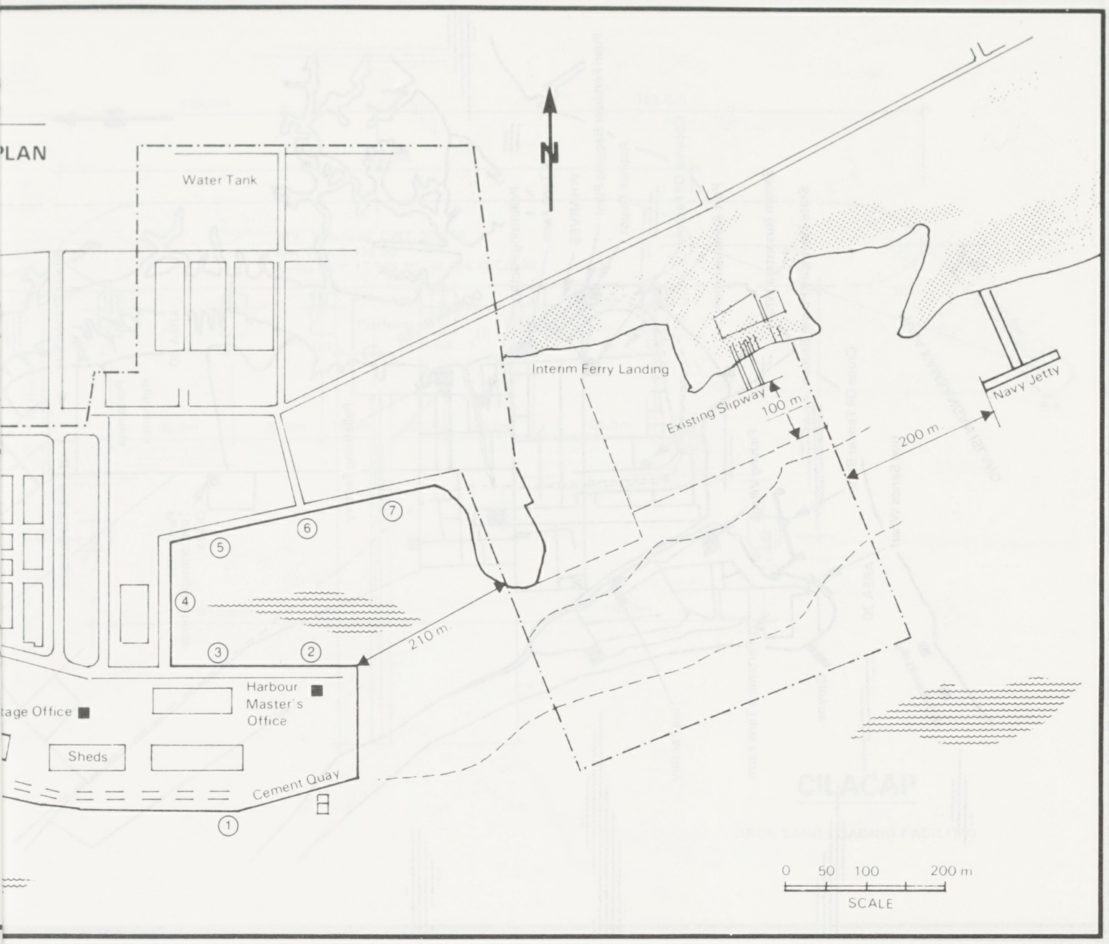
BENGKULU

PULAU BAAI

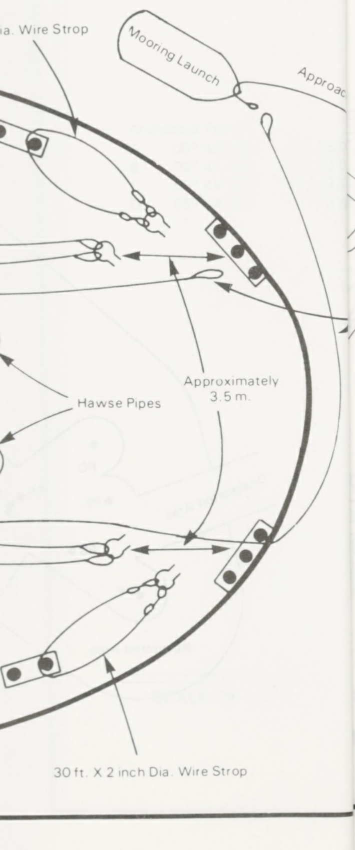


Pertamina Depot
Cold Storage
Godowns
Open Storage
Concrete Wharf
50 m
206 m

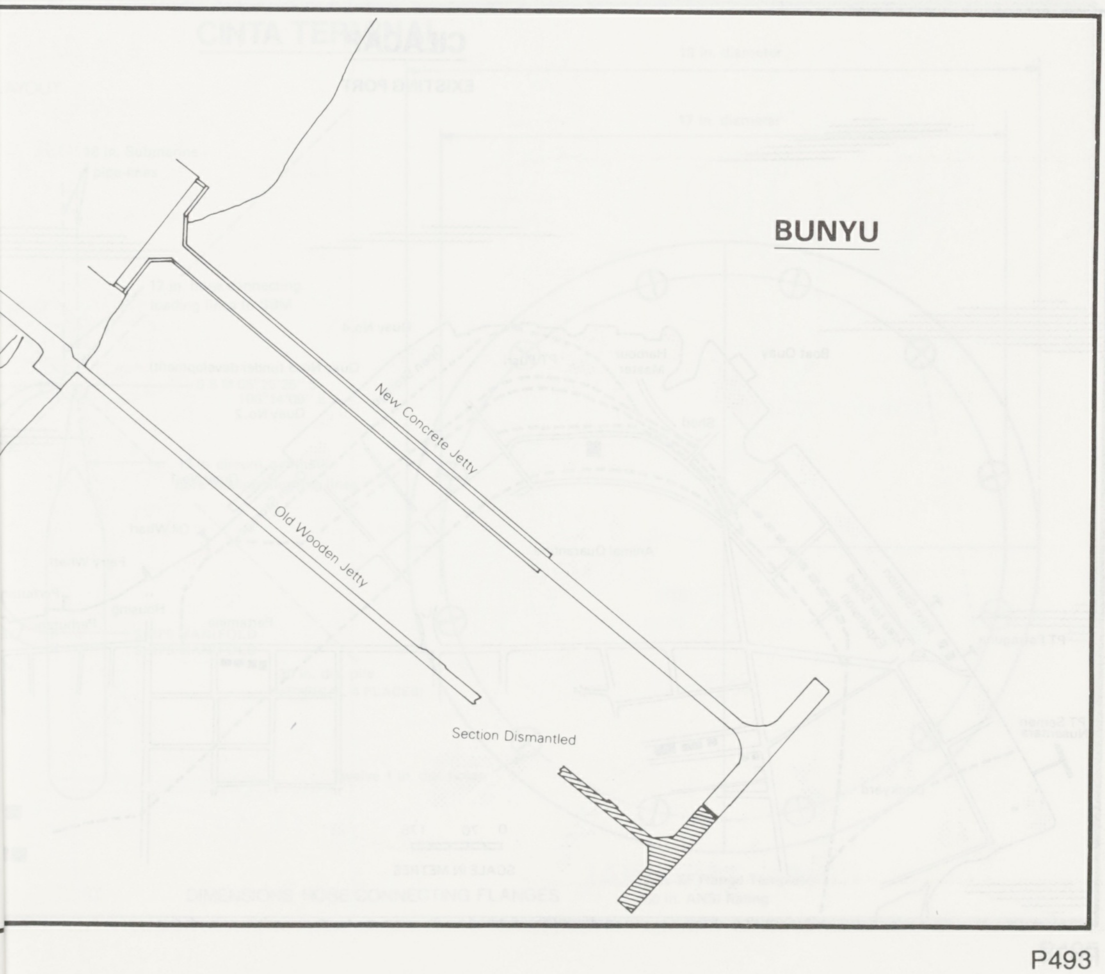

Floating Loading Hoses
Support Buoy
Anti-chafe Chain
Approach Line
Port Mooring Line
Starboard Mooring Line
150 feet
Mooring Launch
Port Line
Starboard Line
Starboard line connected to ship's messenger


PLAN
N
Water Tank
Interim Ferry Landing
Existing Slipway
100 m
200 m
Navy Jetty
⑤
⑥
⑦
④
③
②
①
210 m
Harbour Master's Office
Stage Office
Sheds
Cement Quay
0
50
100
200 m
SCALE

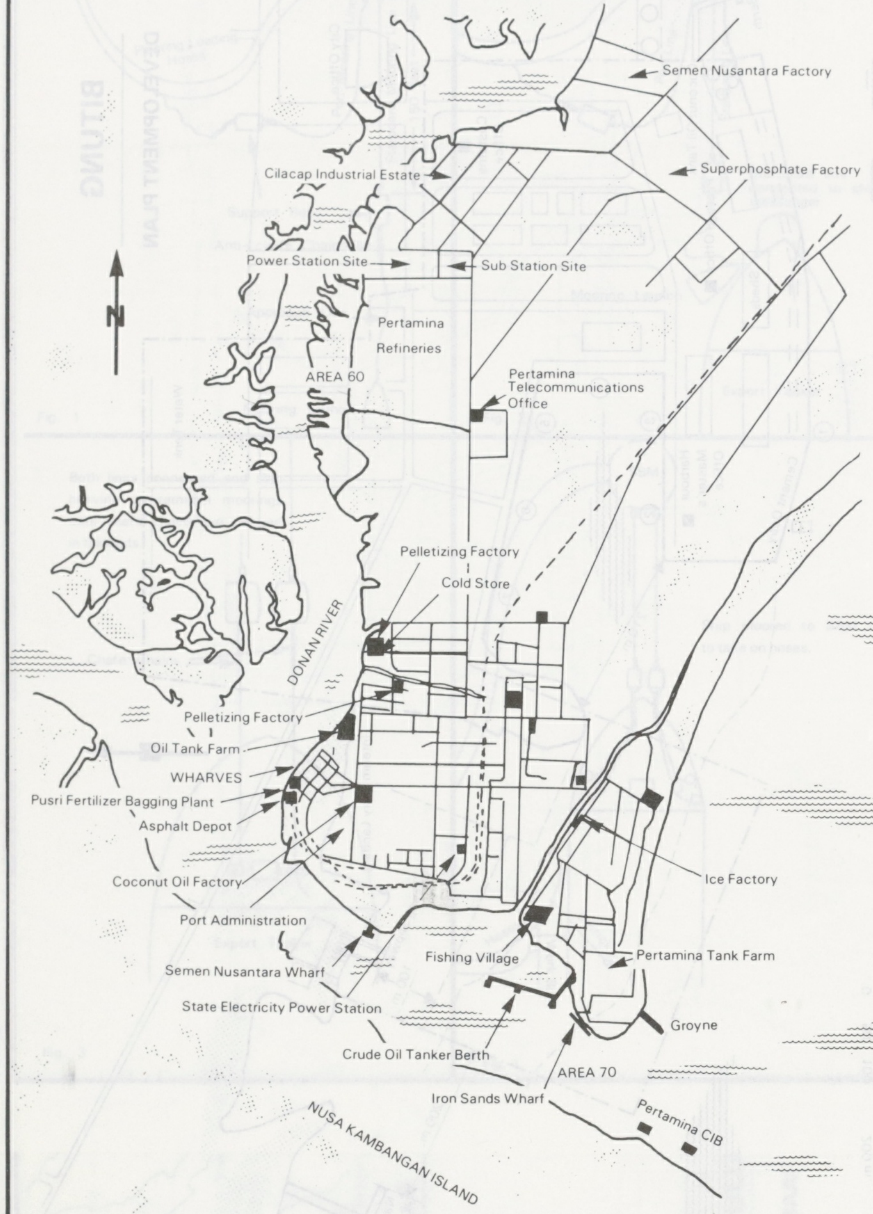
RMINAL


Dia. Wire Strop
Mooring Launch
Approach
Hawse Pipes
Approximately 3.5 m.
30 ft. X 2 inch Dia. Wire Strop

BUNYU

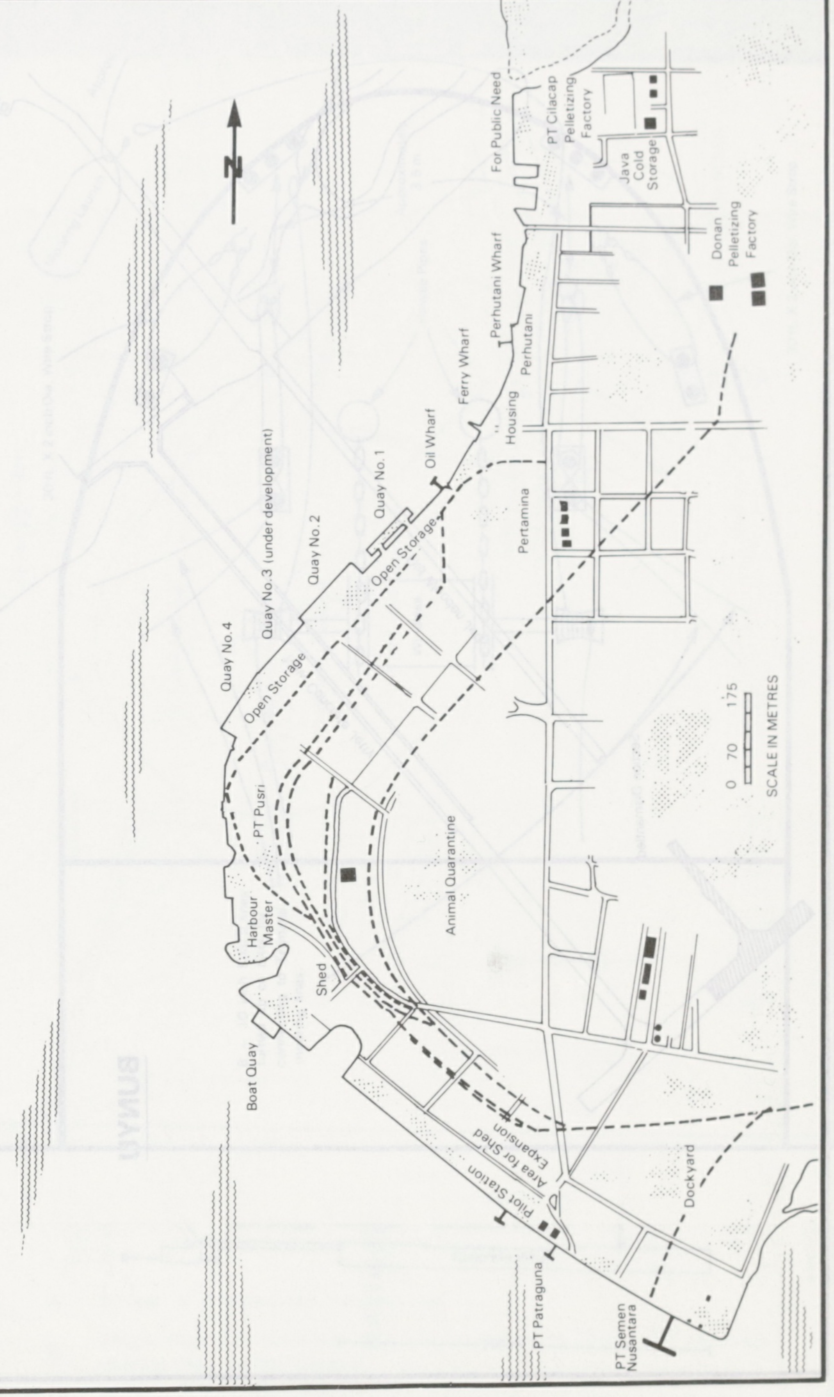

New Concrete Jetty
Old Wooden Jetty
Section Dismantled

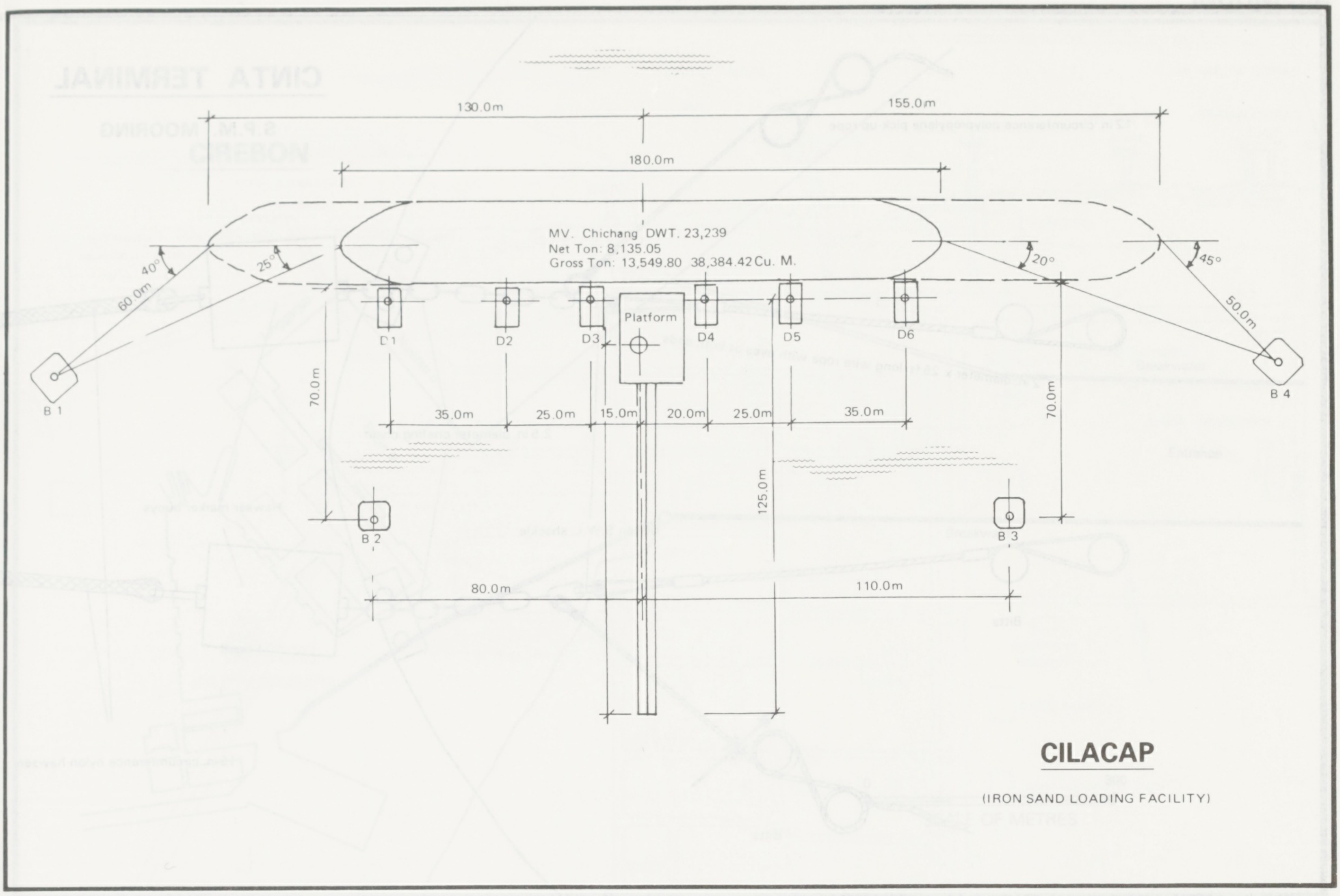
CILACAP


N
Semen Nusantara Factory
Superphosphate Factory
Cilacap Industrial Estate
Power Station Site
Sub Station Site
Pertamina Refineries
AREA 60
Pertamina Telecommunications Office
Pelletizing Factory
Cold Store
DONAN RIVER
Pelletizing Factory
Oil Tank Farm
WHARVES
Pusri Fertilizer Bagging Plant
Asphalt Depot
Coconut Oil Factory
Port Administration
Semen Nusantara Wharf
State Electricity Power Station
Fishing Village
Ice Factory
Pertamina Tank Farm
Groyne
Crude Oil Tanker Berth
AREA 70
Iron Sands Wharf
Pertamina CIB
NUSA KAMBANGAN ISLAND

CILACAP

EXISTING PORT

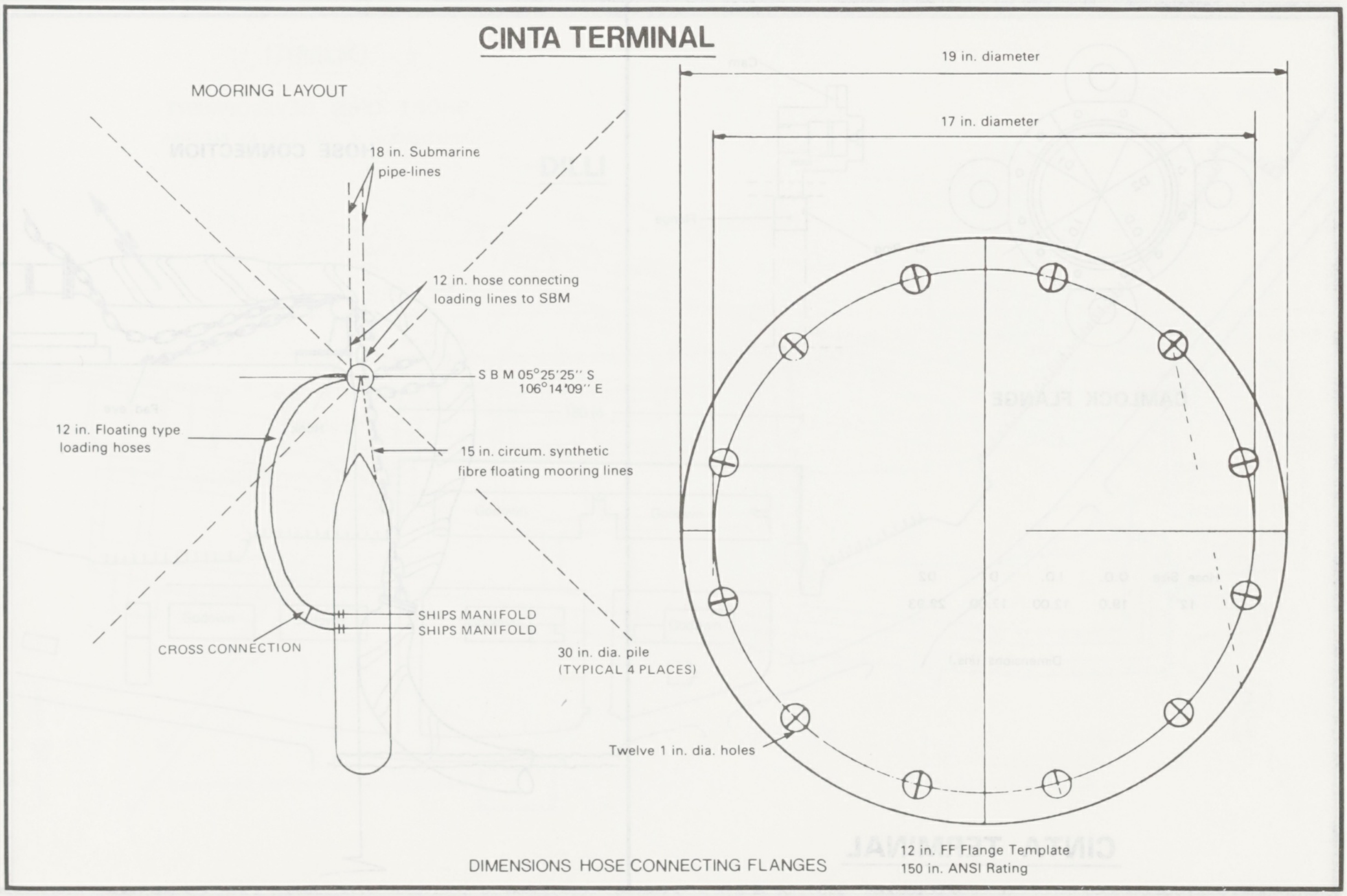

N
Quay No.4
Open Storage
Quay No.3 (under development)
Quay No.2
Open Storage
Quay No.1
Oil Wharf
Ferry Wharf
Perhutani Wharf
For Public Need
PT Cilacap Pelletizing Factory
Java Cold Storage
Donan Pelletizing Factory
Perhutani
Housing
Pertamina
PT Pusri
Harbour Master
Shed
Boat Quay
Animal Quarantine
Area for Shed Expansion
Pilot Station
Dockyard
PT Patraguna
PT Semen Nusantara
0 70 175
SCALE IN METRES


130.0m
155.0m
180.0m
MV. Chichang DWT. 23,239
Net Ton: 8,135.05
Gross Ton: 13,549.80 38,384.42 Cu. M.
40°
25°
20°
45°
60.0m
50.0m
B 1
B 2
B 3
B 4
D1
D2
D3
D4
D5
D6
Platform
70.0m
70.0m
35.0m
25.0m
15.0m
20.0m
25.0m
35.0m
125.0m
80.0m
110.0m

CILACAP

(IRON SAND LOADING FACILITY)

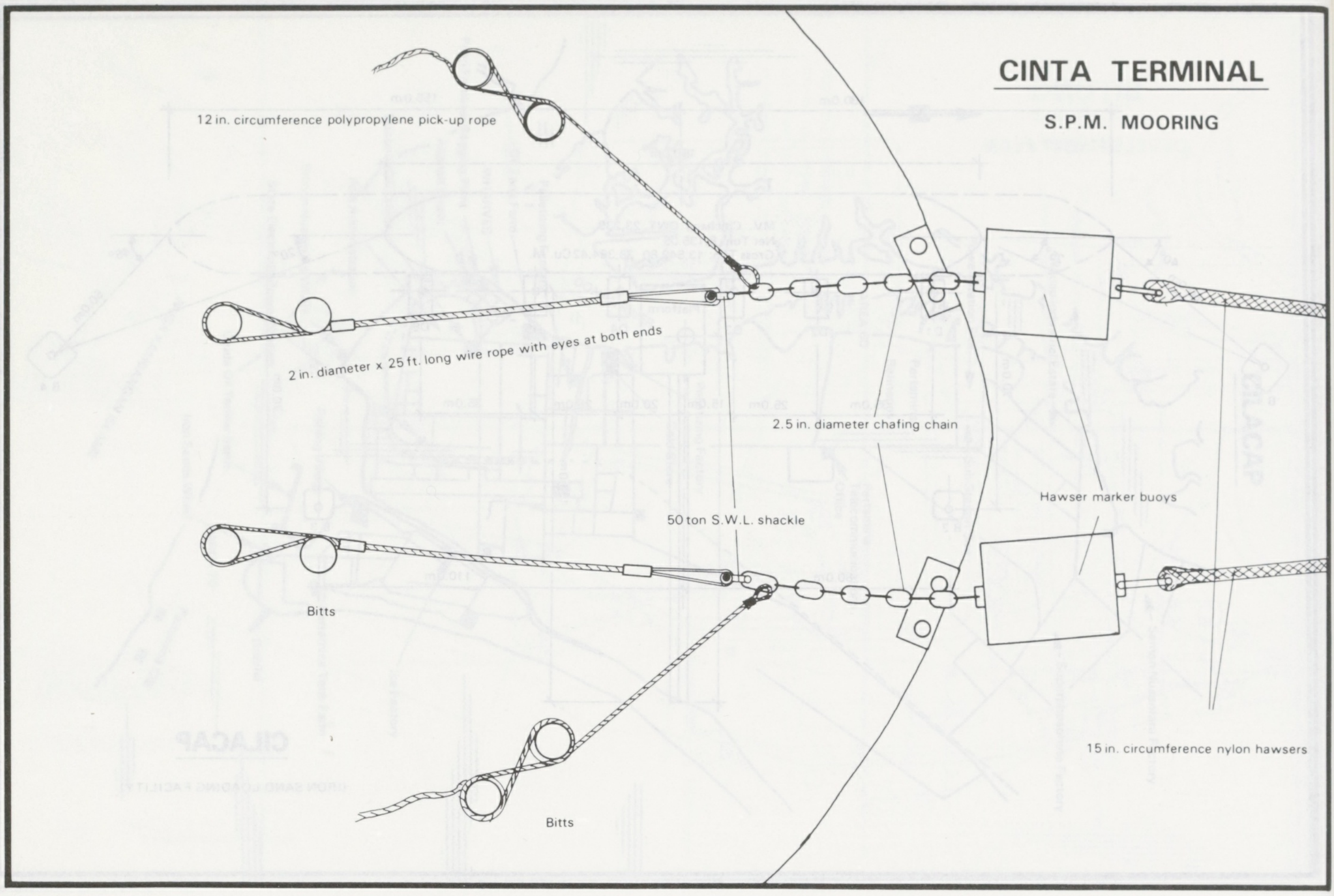
CINTA TERMINAL

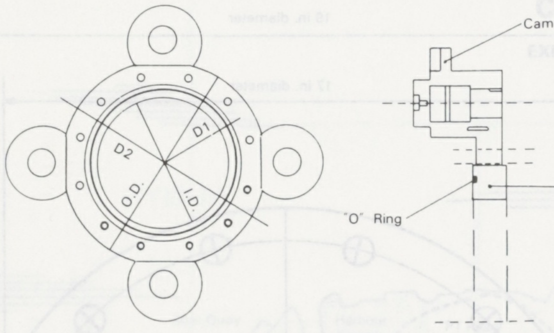

MOORING LAYOUT
18 in. Submarine pipe-lines
12 in. hose connecting loading lines to SBM
S B M 05°25'25" S 106°14'09" E
12 in. Floating type loading hoses
15 in. circum. synthetic fibre floating mooring lines
SHIPS MANIFOLD
SHIPS MANIFOLD
CROSS CONNECTION
30 in. dia. pile (TYPICAL 4 PLACES)
19 in. diameter
17 in. diameter
Twelve 1 in. dia. holes
12 in. FF Flange Template
150 in. ANSI Rating

DIMENSIONS HOSE CONNECTING FLANGES

CINTA TERMINAL

S.P.M. MOORING


12 in. circumference polypropylene pick-up rope
2 in. diameter x 25 ft. long wire rope with eyes at both ends
2.5 in. diameter chafing chain
Hawser marker buoys
50 ton S.W.L. shackle
Bitts
Bitts
15 in. circumference nylon hawsers


Cam
Flange
"O" Ring
D1
D2
O.D.
I.D.

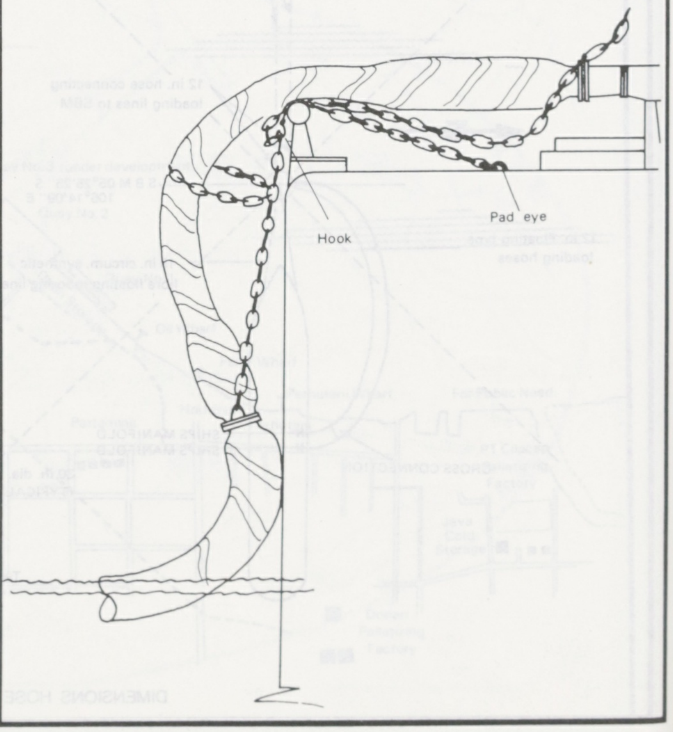
CAMLOCK FLANGE

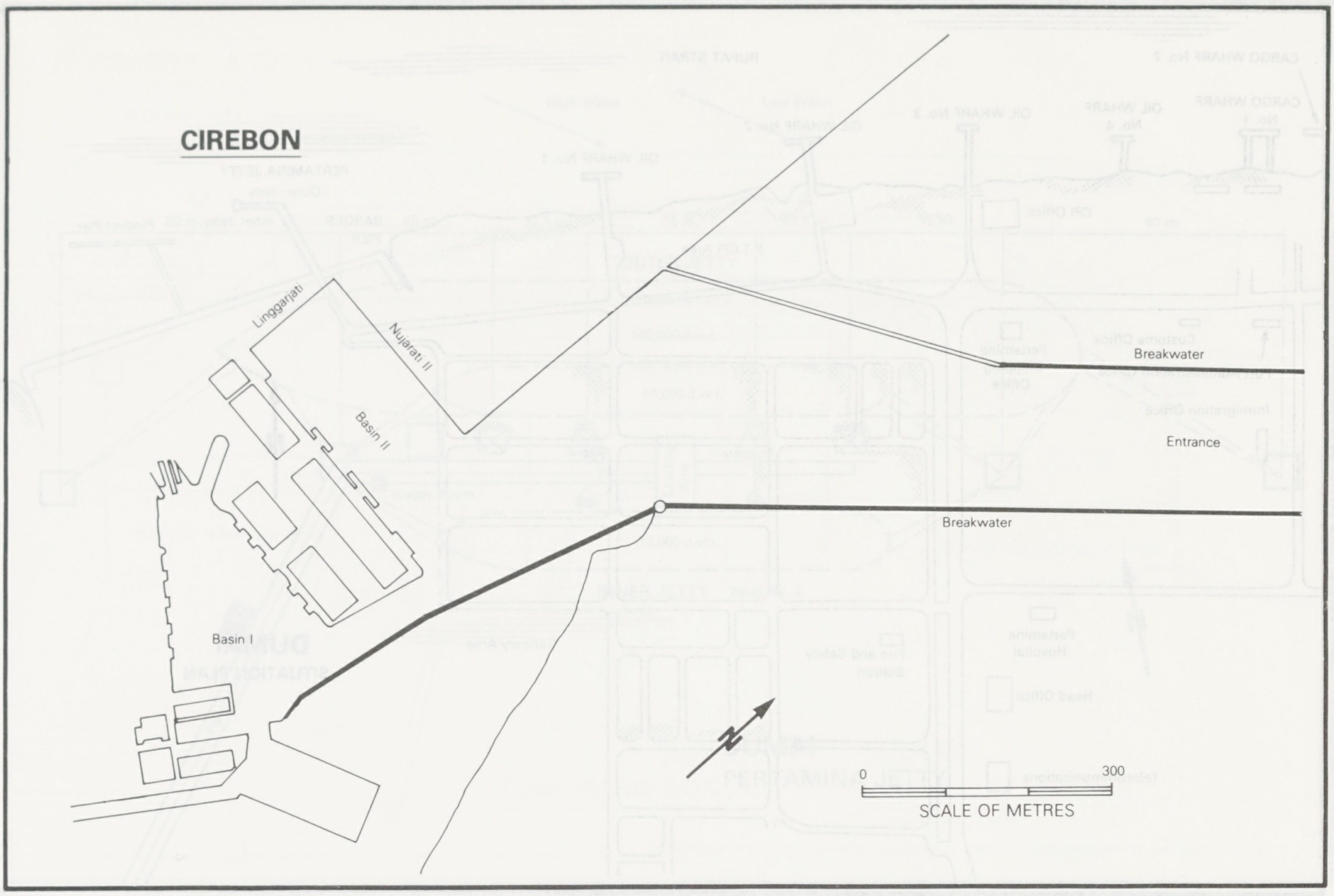
Hose Size	O.D.	I.D.	D1	D2
12"	19.0	12.00	17.00	22.93

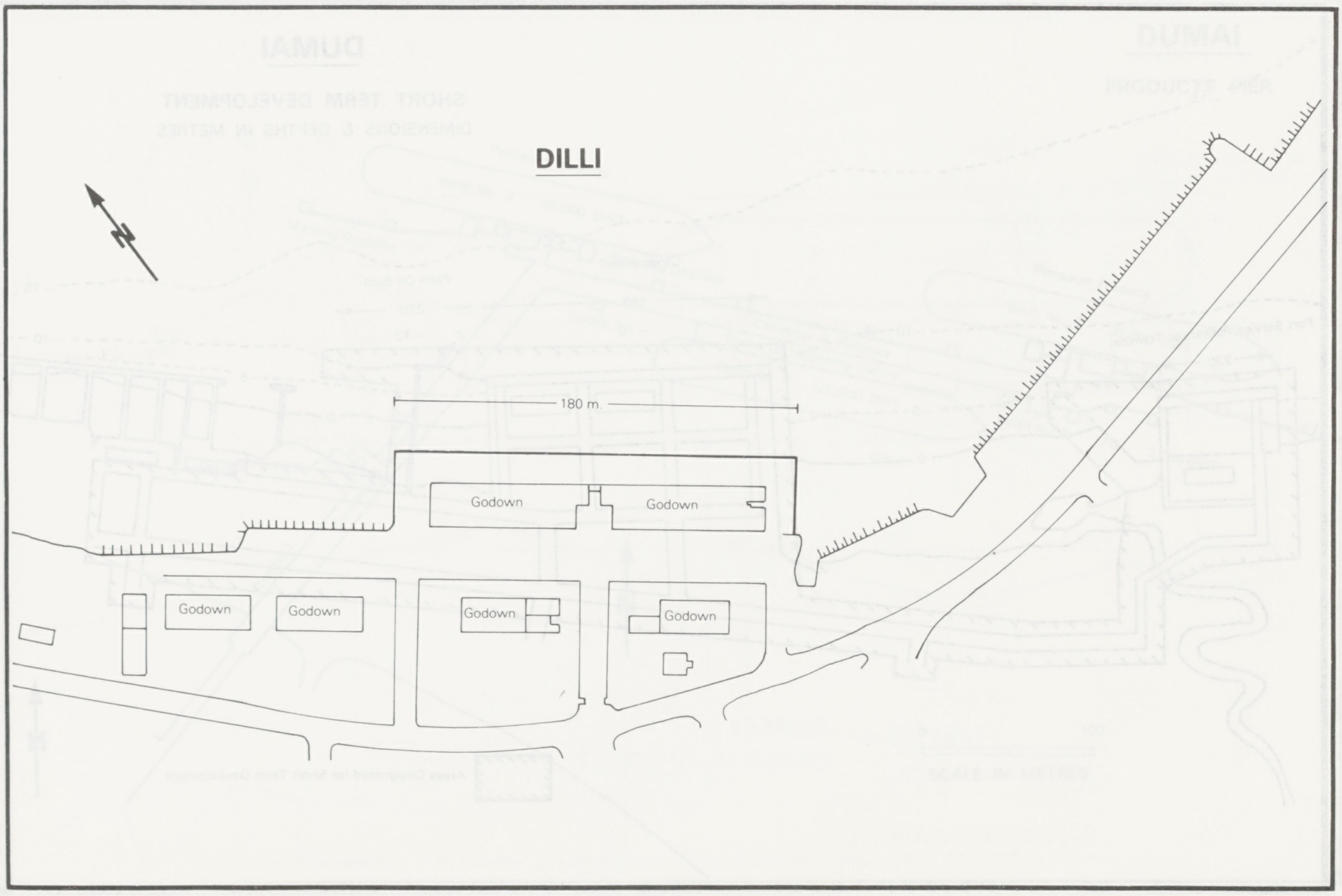
Dimensions (ins.)

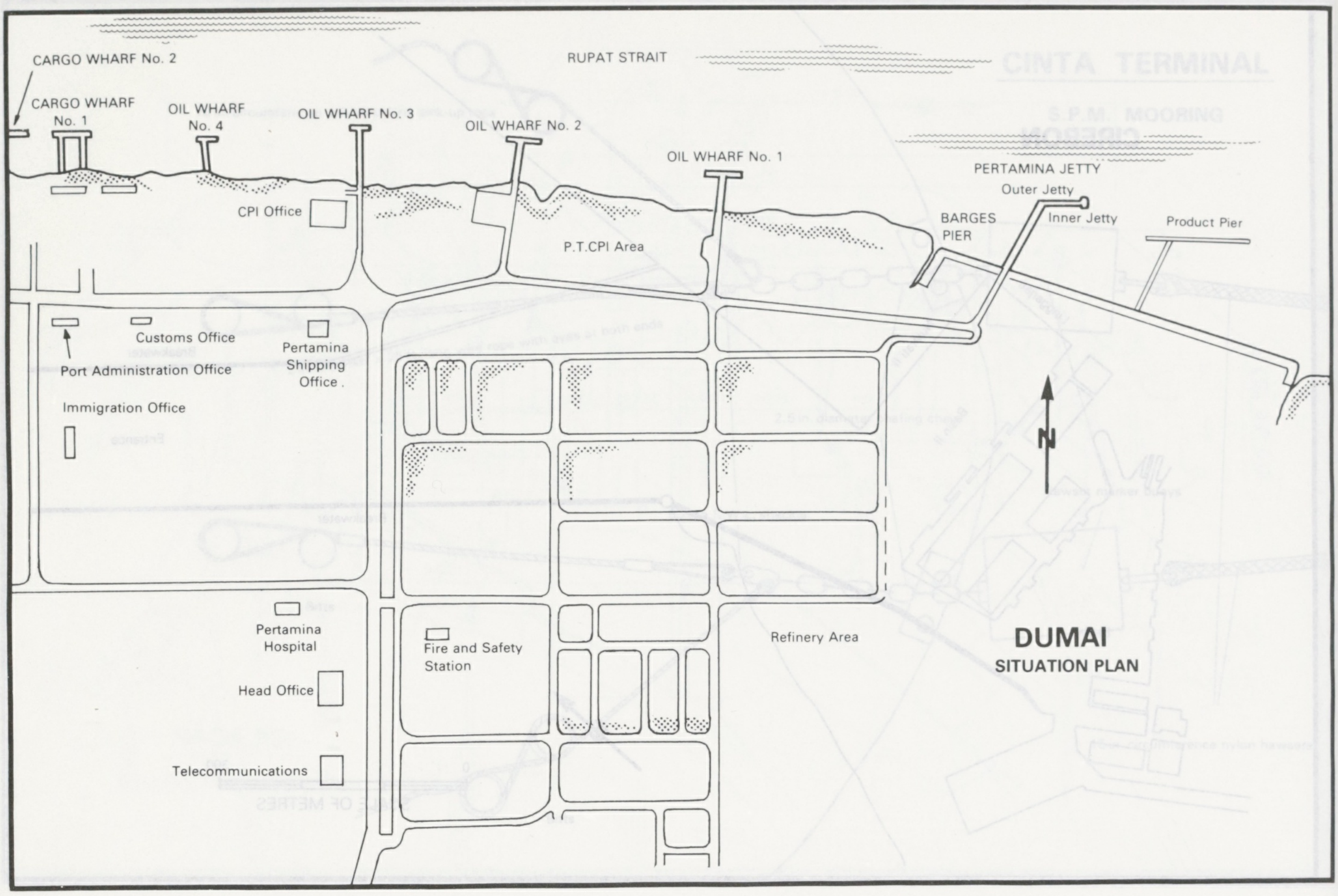
CINTA TERMINAL

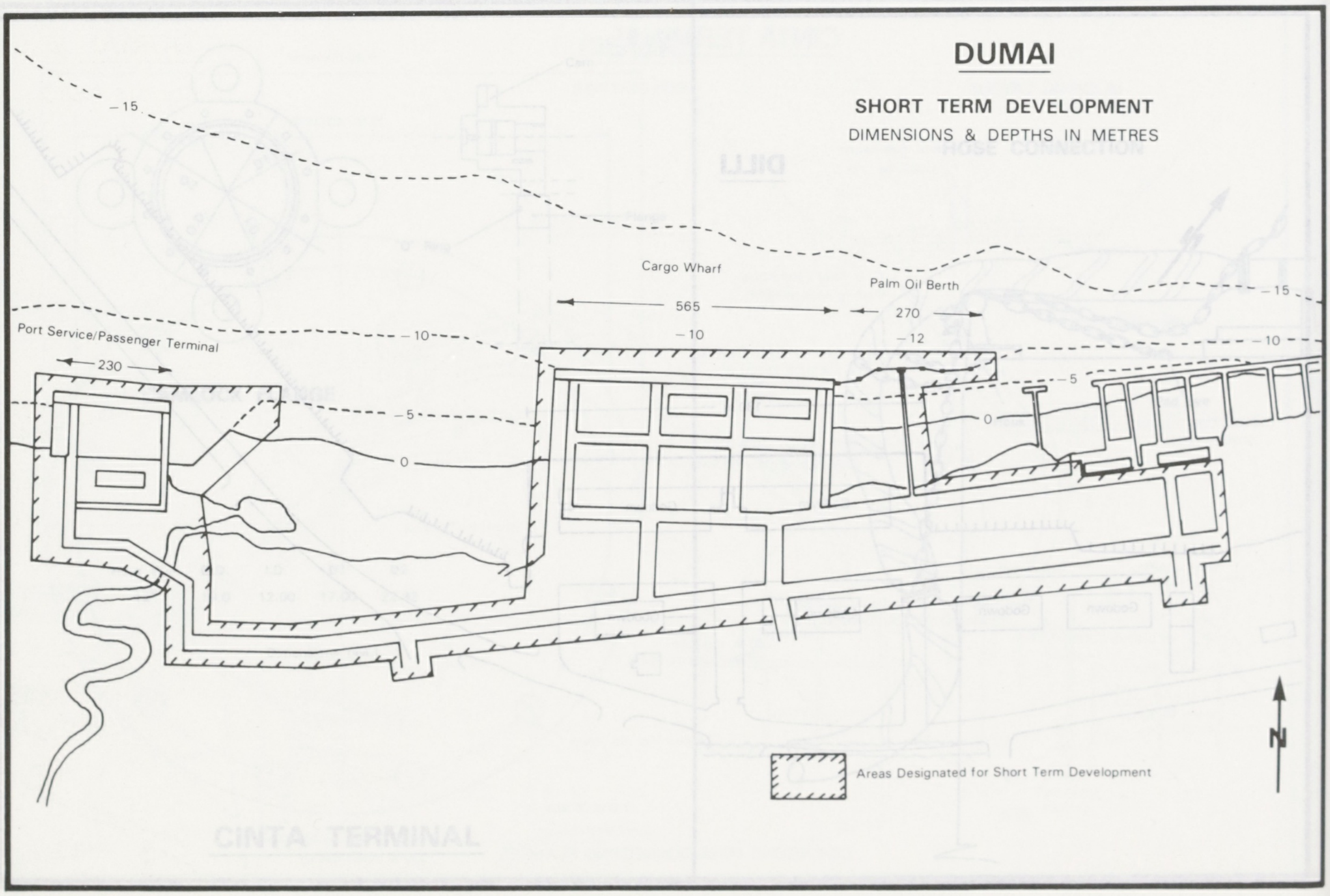
HOSE CONNECTION

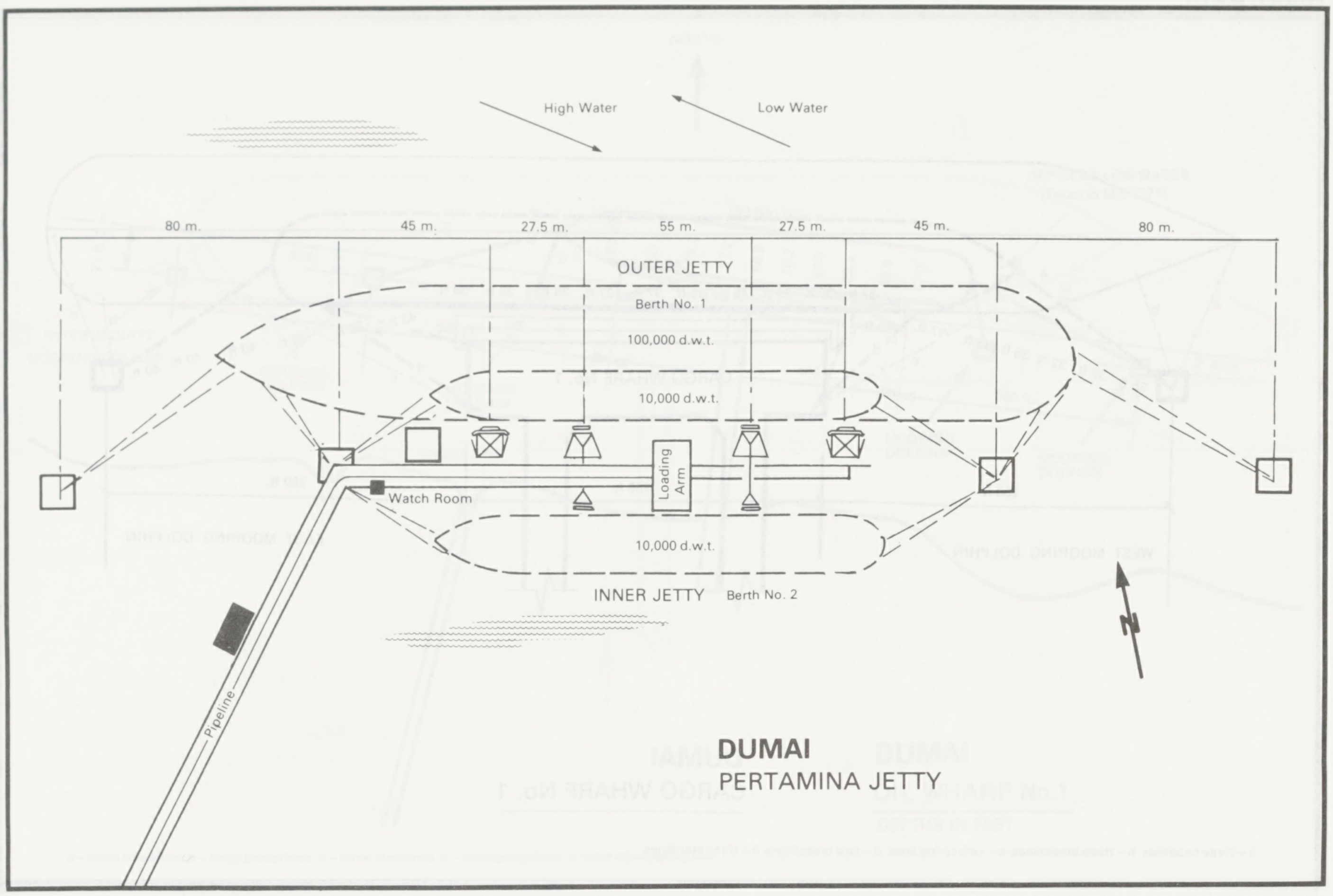

Hook
Pad eye


CIREBON
Linggarjati
Nujarati II
Basin II
Basin I
Breakwater
Entrance
Breakwater
N
0
300
SCALE OF METRES

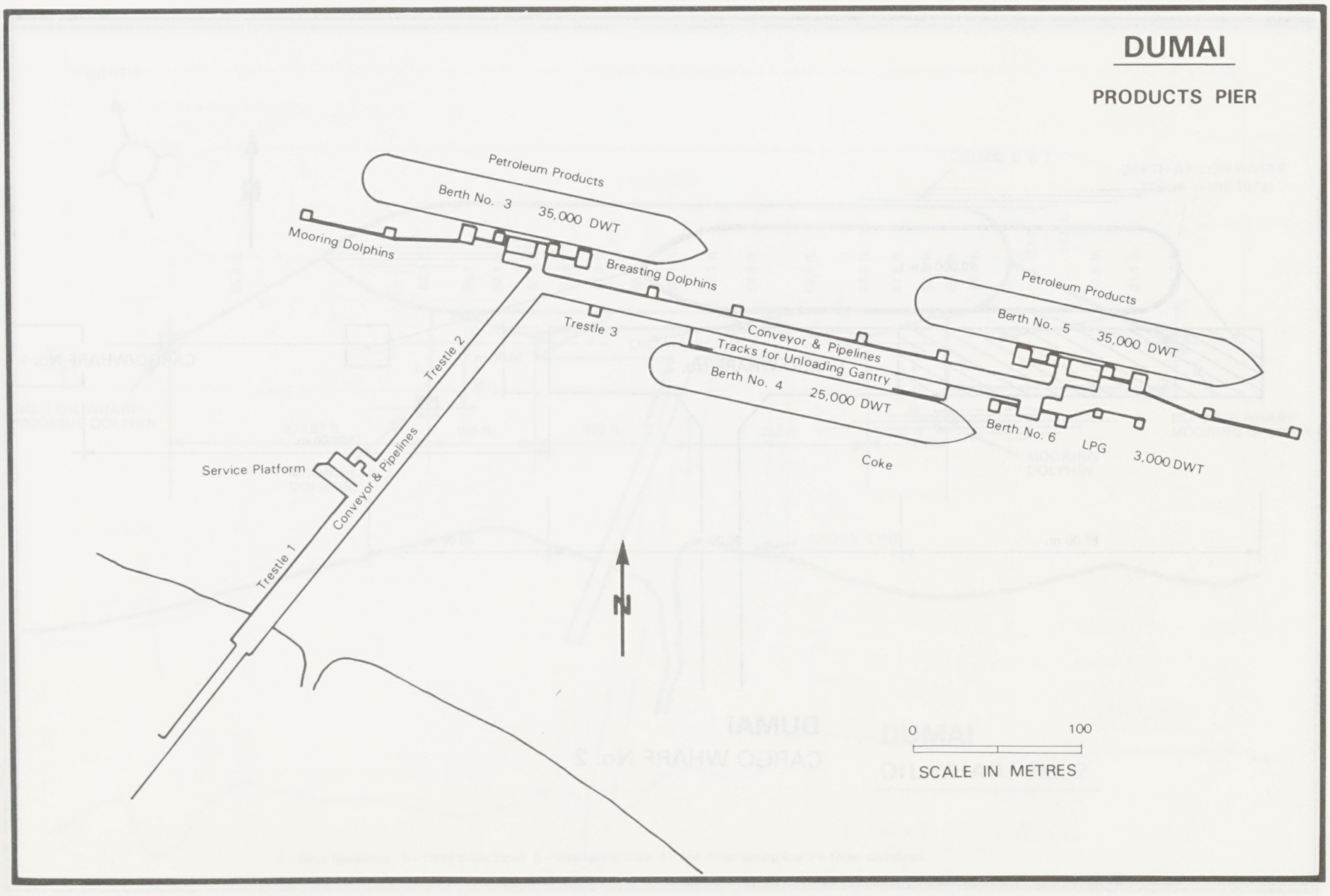

DILLI
N
180 m.
Godown
Godown
Godown
Godown
Godown
Godown


RUPAT STRAIT
CARGO WHARF No. 2
CARGO WHARF No. 1
OIL WHARF No. 4
OIL WHARF No. 3
OIL WHARF No. 2
OIL WHARF No. 1
PERTAMINA JETTY
Outer Jetty
Inner Jetty
BARGES PIER
Product Pier
CPI Office
P.T.CPI Area
Customs Office
Port Administration Office
Pertamina Shipping Office
Immigration Office
N
Pertamina Hospital
Fire and Safety Station
Refinery Area
Head Office
Telecommunications
DUMAI
SITUATION PLAN

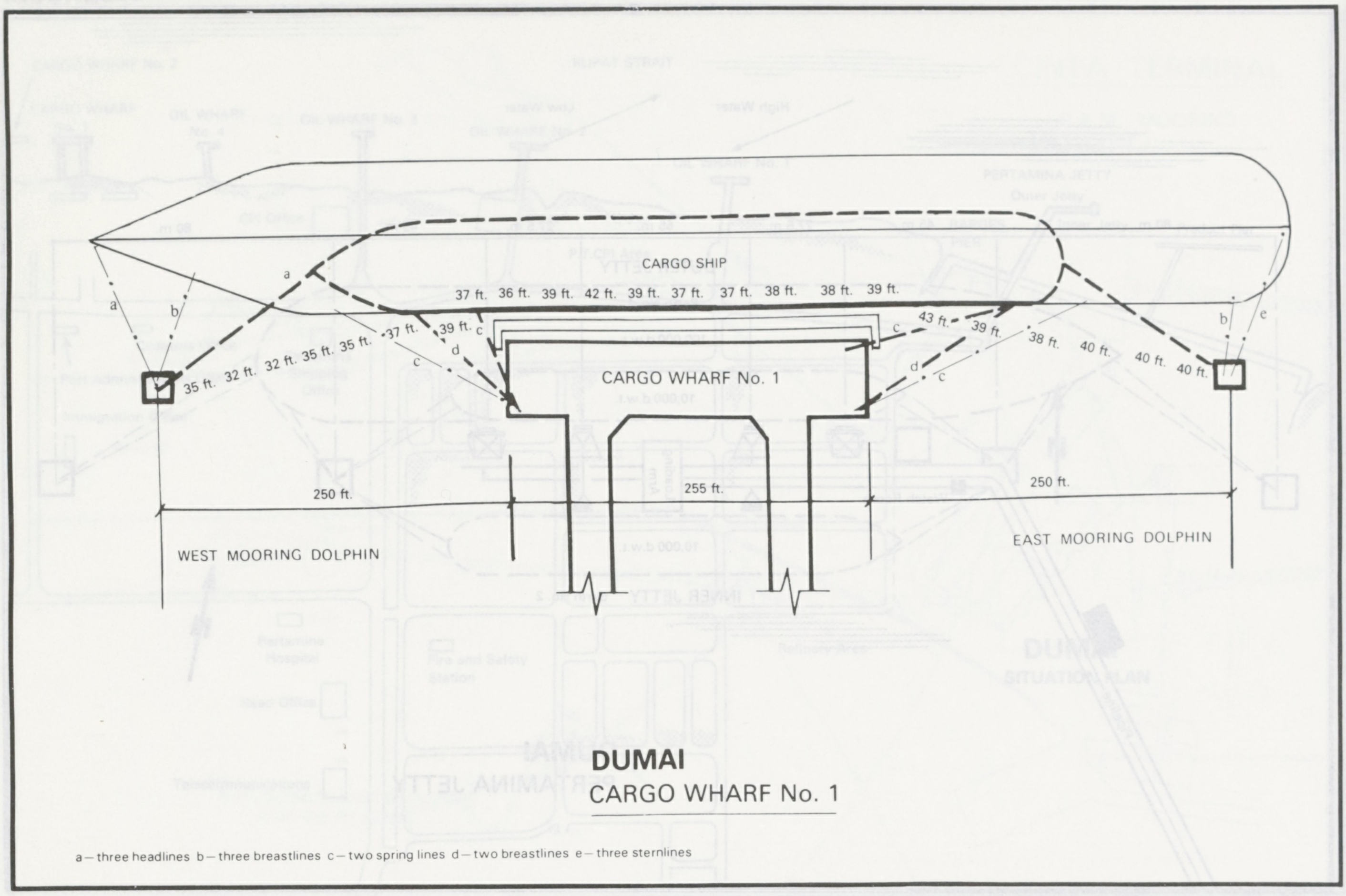

DUMAI
SHORT TERM DEVELOPMENT
DIMENSIONS & DEPTHS IN METRES
–15
Cargo Wharf
565
–10
Palm Oil Berth
270
–12
–15
–10
Port Service/Passenger Terminal
230
–10
–5
0
–5
0
N
Areas Designated for Short Term Development


High Water
Low Water
80 m.
45 m.
27.5 m.
55 m.
27.5 m.
45 m.
80 m.
OUTER JETTY
Berth No. 1
100,000 d.w.t.
10,000 d.w.t.
Loading Arm
Watch Room
10,000 d.w.t.
INNER JETTY
Berth No. 2
Pipeline
N

DUMAI
PERTAMINA JETTY


Petroleum Products
Berth No. 3
35,000 DWT
Mooring Dolphins
Breasting Dolphins
Trestle 3
Trestle 2
Conveyor & Pipelines
Tracks for Unloading Gantry
Berth No. 4
25,000 DWT
Petroleum Products
Berth No. 5
35,000 DWT
Berth No. 6
LPG
3,000 DWT
Coke
Service Platform
Conveyor & Pipelines
Trestle 1
N
0
100
SCALE IN METRES

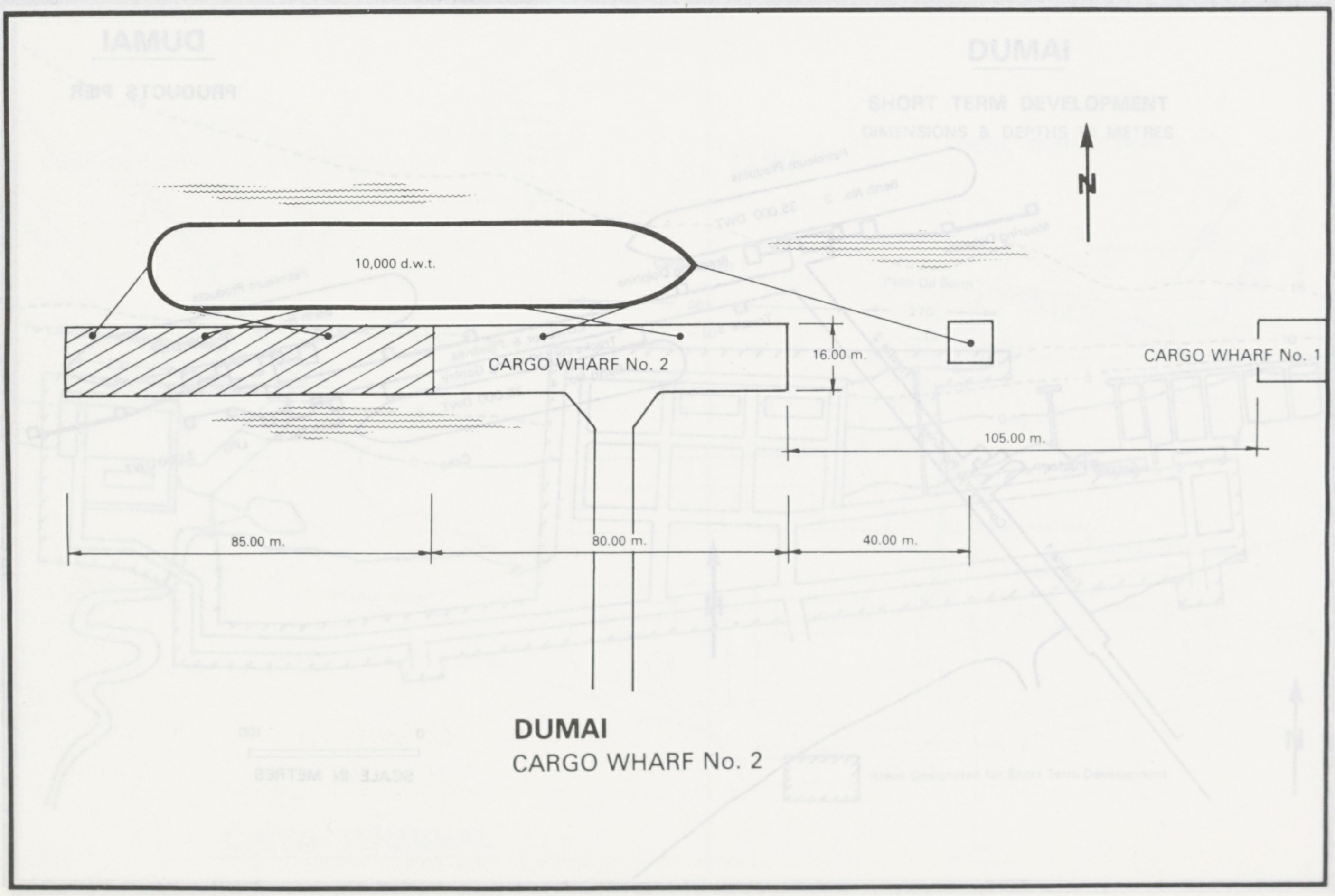
DUMAI
PRODUCTS PIER


CARGO SHIP
a
b
a
c
d
c
37 ft.
36 ft.
39 ft.
42 ft.
39 ft.
37 ft.
37 ft.
38 ft.
38 ft.
39 ft.
35 ft.
32 ft.
32 ft.
35 ft.
35 ft.
37 ft.
39 ft.
c
c
43 ft.
39 ft.
38 ft.
40 ft.
40 ft.
40 ft.
d
c
b
e
CARGO WHARF No. 1
250 ft.
255 ft.
250 ft.
WEST MOORING DOLPHIN
EAST MOORING DOLPHIN

DUMAI

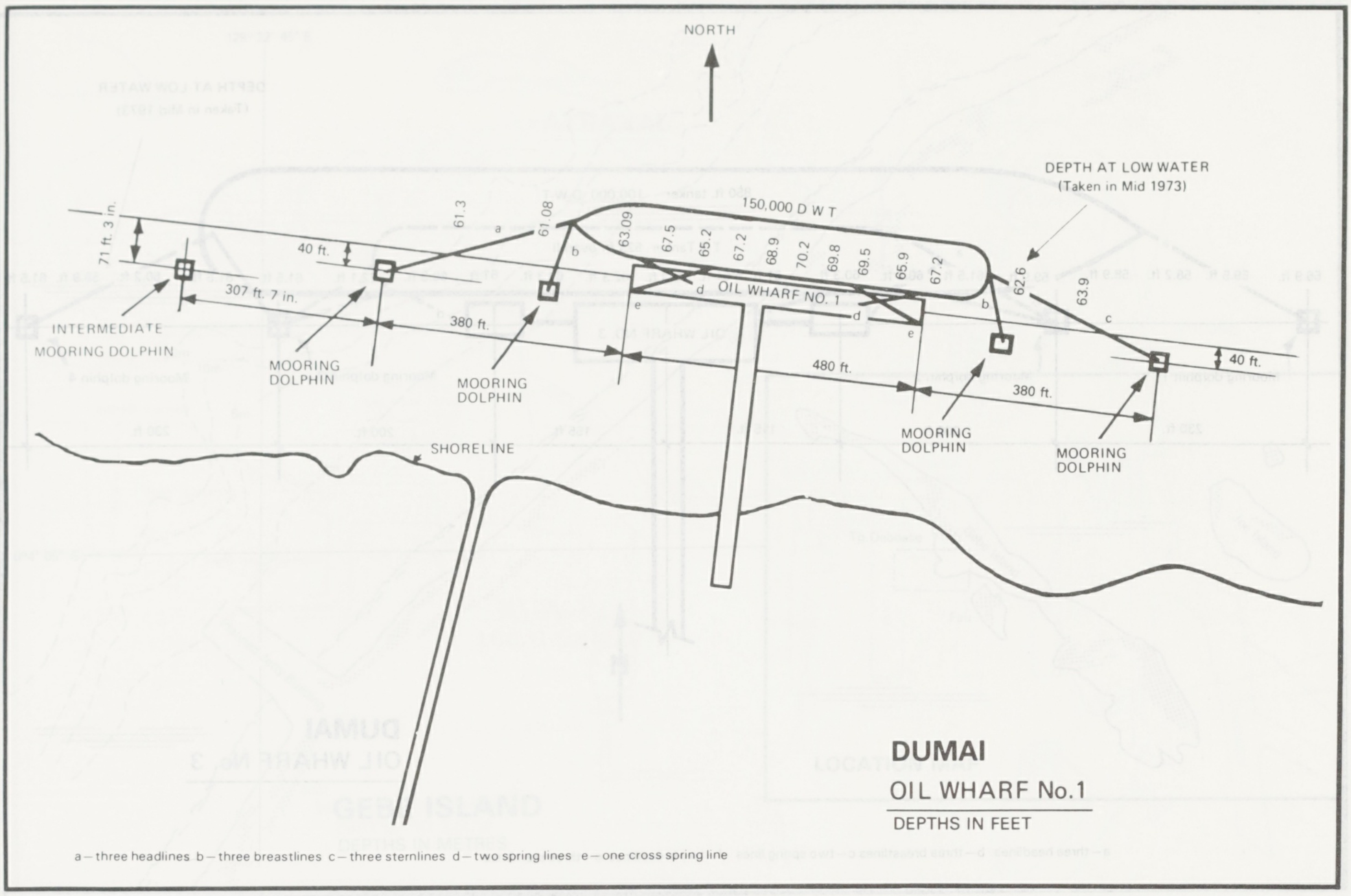
CARGO WHARF No. 1

a—three headlines b—three breastlines c—two spring lines d—two breastlines e—three sternlines


N
10,000 d.w.t.
CARGO WHARF No. 2
16.00 m.
CARGO WHARF No. 1
105.00 m.
85.00 m.
80.00 m.
40.00 m.

DUMAI

CARGO WHARF No. 2

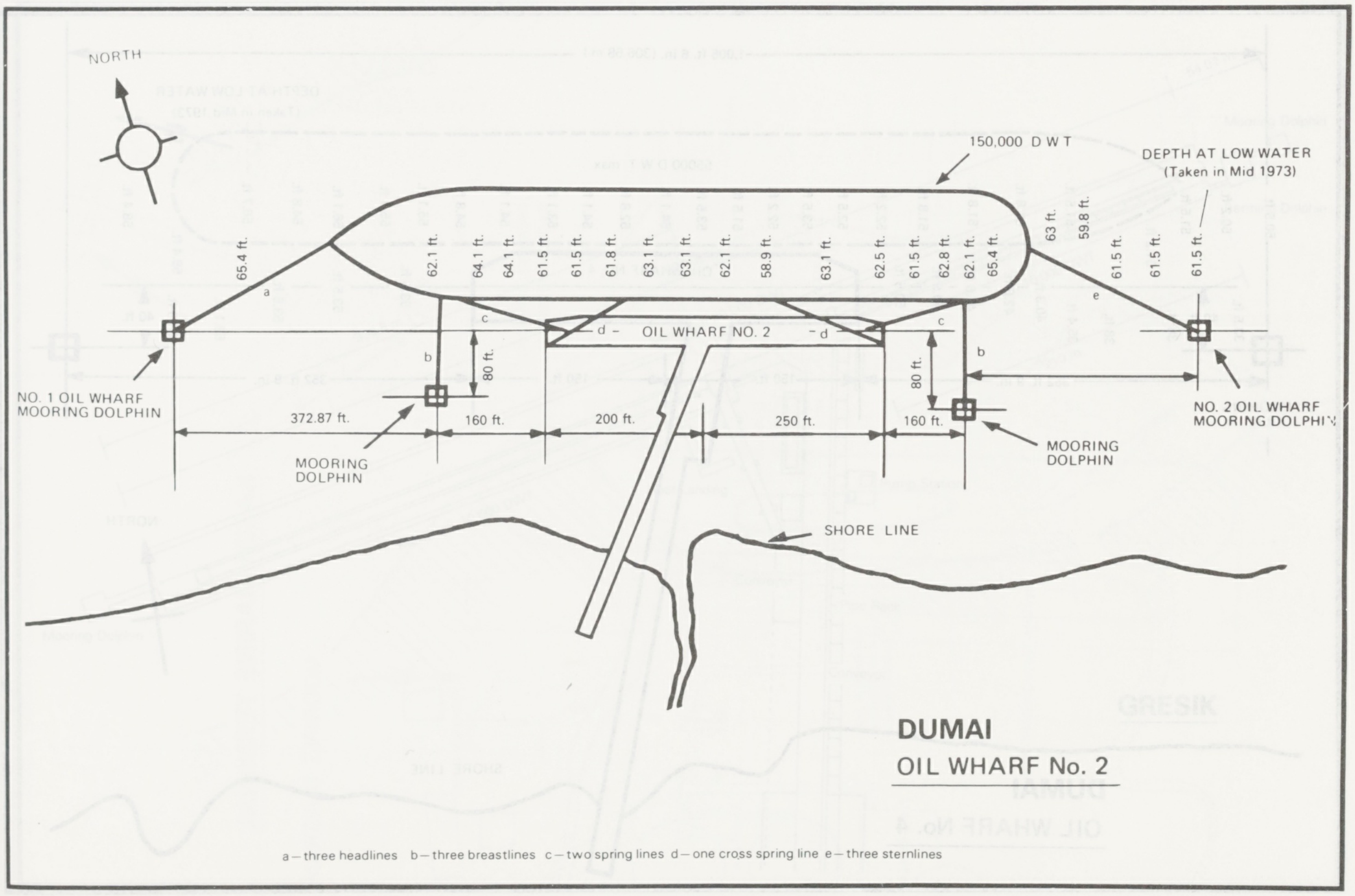

NORTH
DEPTH AT LOW WATER
(Taken in Mid 1973)
150,000 D W T
71 ft. 3 in.
40 ft.
307 ft. 7 in.
380 ft.
480 ft.
380 ft.
40 ft.
61.3
61.08
63.09
67.5
65.2
67.2
68.9
70.2
69.8
69.5
65.9
67.2
62.6
63.9
a
b
c
d
e
OIL WHARF NO. 1
INTERMEDIATE
MOORING DOLPHIN
MOORING
DOLPHIN
MOORING
DOLPHIN
MOORING
DOLPHIN
MOORING
DOLPHIN
SHORELINE

DUMAI

OIL WHARF No.1

DEPTHS IN FEET

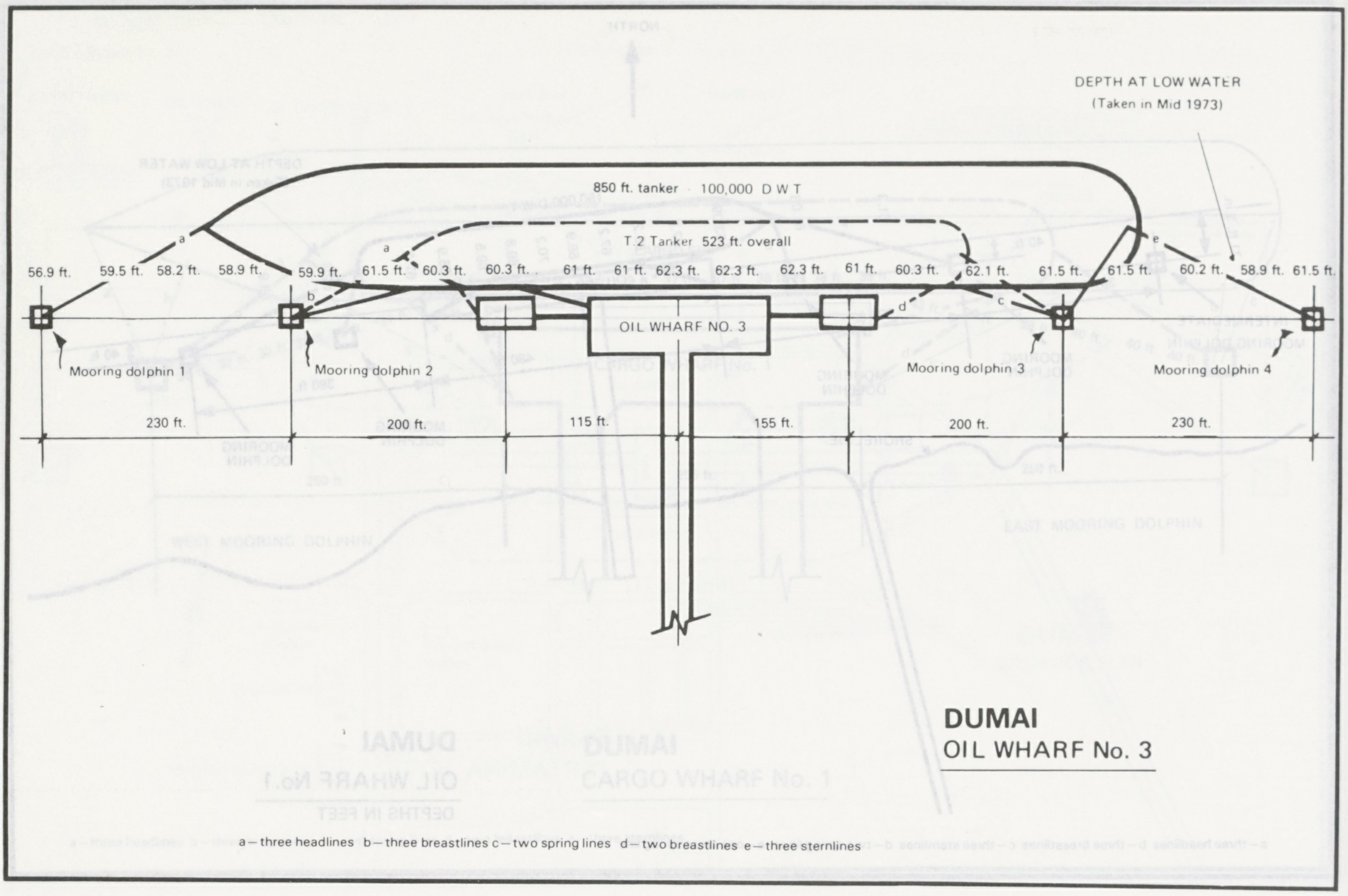
a – three headlines b – three breastlines c – three sternlines d – two spring lines e – one cross spring line


NORTH
150,000 D W T
DEPTH AT LOW WATER
(Taken in Mid 1973)
65.4 ft.
62.1 ft.
64.1 ft.
64.1 ft.
61.5 ft.
61.5 ft.
61.8 ft.
63.1 ft.
63.1 ft.
62.1 ft.
58.9 ft.
63.1 ft.
62.5 ft.
61.5 ft.
62.8 ft.
62.1 ft.
65.4 ft.
63 ft.
59.8 ft.
61.5 ft.
61.5 ft.
61.5 ft.
a
b
c
d
e
OIL WHARF NO. 2
80 ft.
80 ft.
372.87 ft.
160 ft.
200 ft.
250 ft.
160 ft.
NO. 1 OIL WHARF
MOORING DOLPHIN
MOORING
DOLPHIN
MOORING
DOLPHIN
NO. 2 OIL WHARF
MOORING DOLPHIN
SHORE LINE

DUMAI

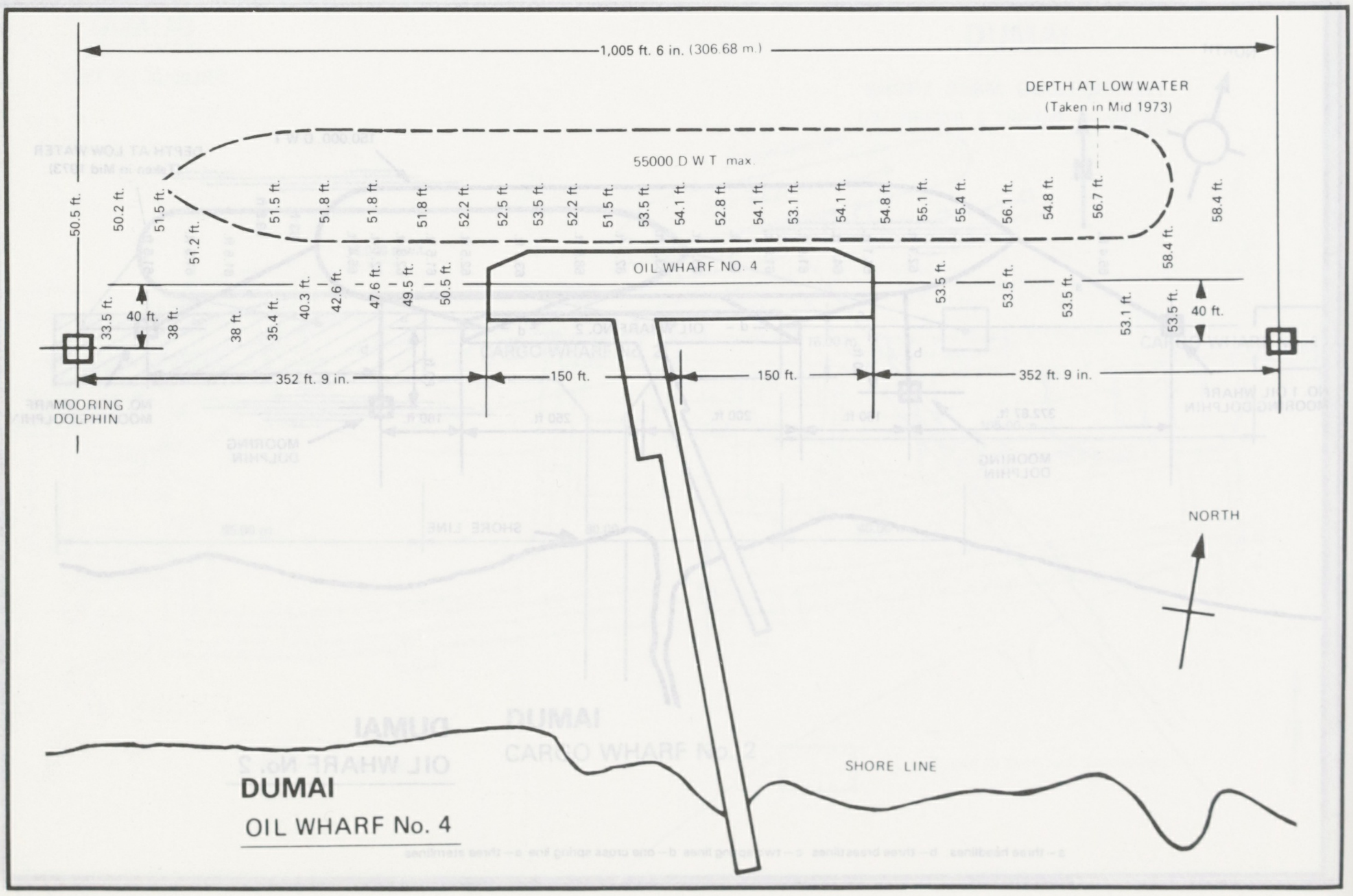
OIL WHARF No. 2

a – three headlines b – three breastlines c – two spring lines d – one cross spring line e – three sternlines

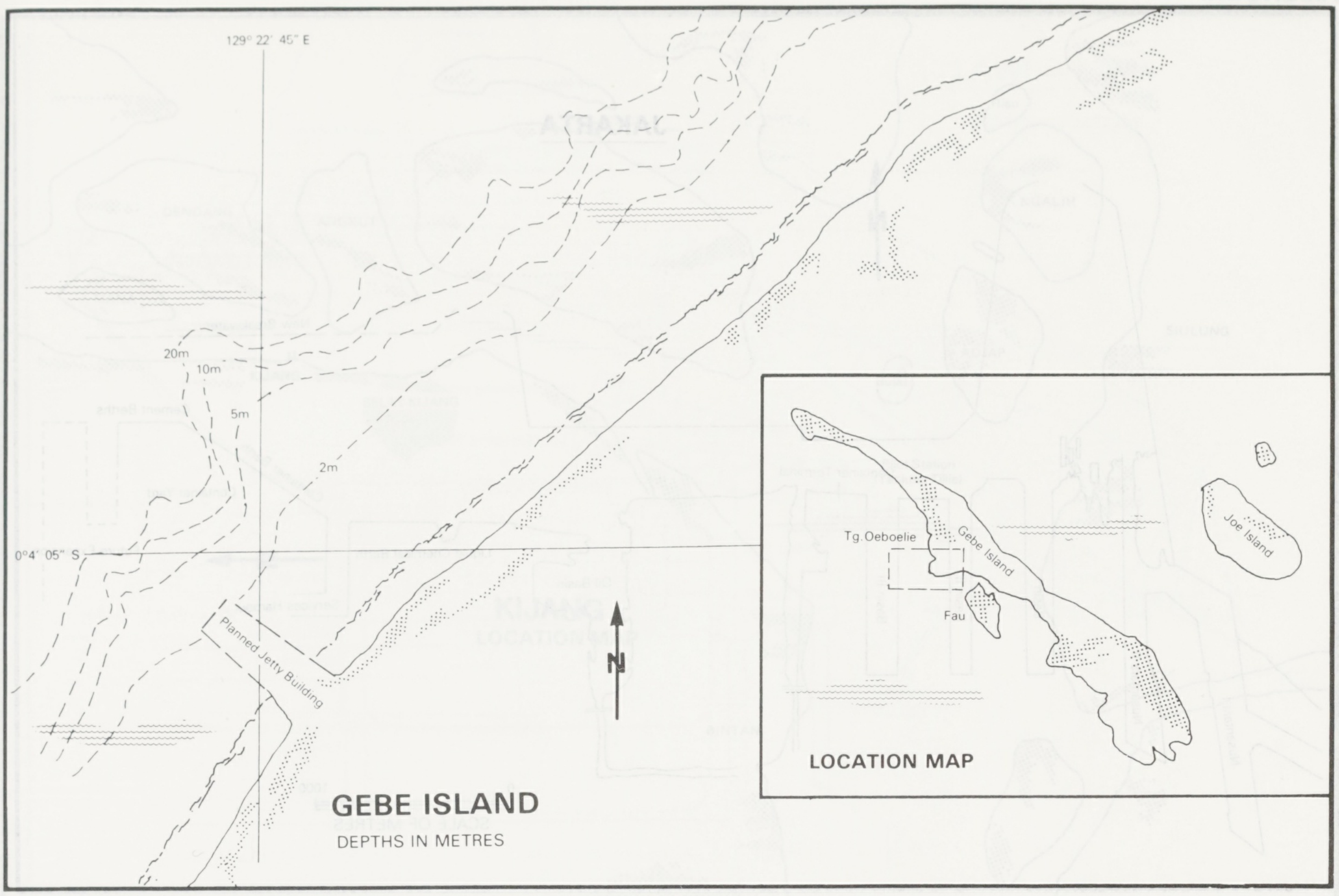

DEPTH AT LOW WATER
(Taken in Mid 1973)
850 ft. tanker 100,000 D W T
T 2 Tanker 523 ft. overall
a
a
b
c
d
e
56.9 ft.
59.5 ft.
58.2 ft.
58.9 ft.
59.9 ft.
61.5 ft.
60.3 ft.
60.3 ft.
61 ft.
61 ft.
62.3 ft.
62.3 ft.
62.3 ft.
61 ft.
60.3 ft.
62.1 ft.
61.5 ft.
61.5 ft.
60.2 ft.
58.9 ft.
61.5 ft.
OIL WHARF NO. 3
Mooring dolphin 1
Mooring dolphin 2
Mooring dolphin 3
Mooring dolphin 4
230 ft.
200 ft.
115 ft.
155 ft.
200 ft.
230 ft.

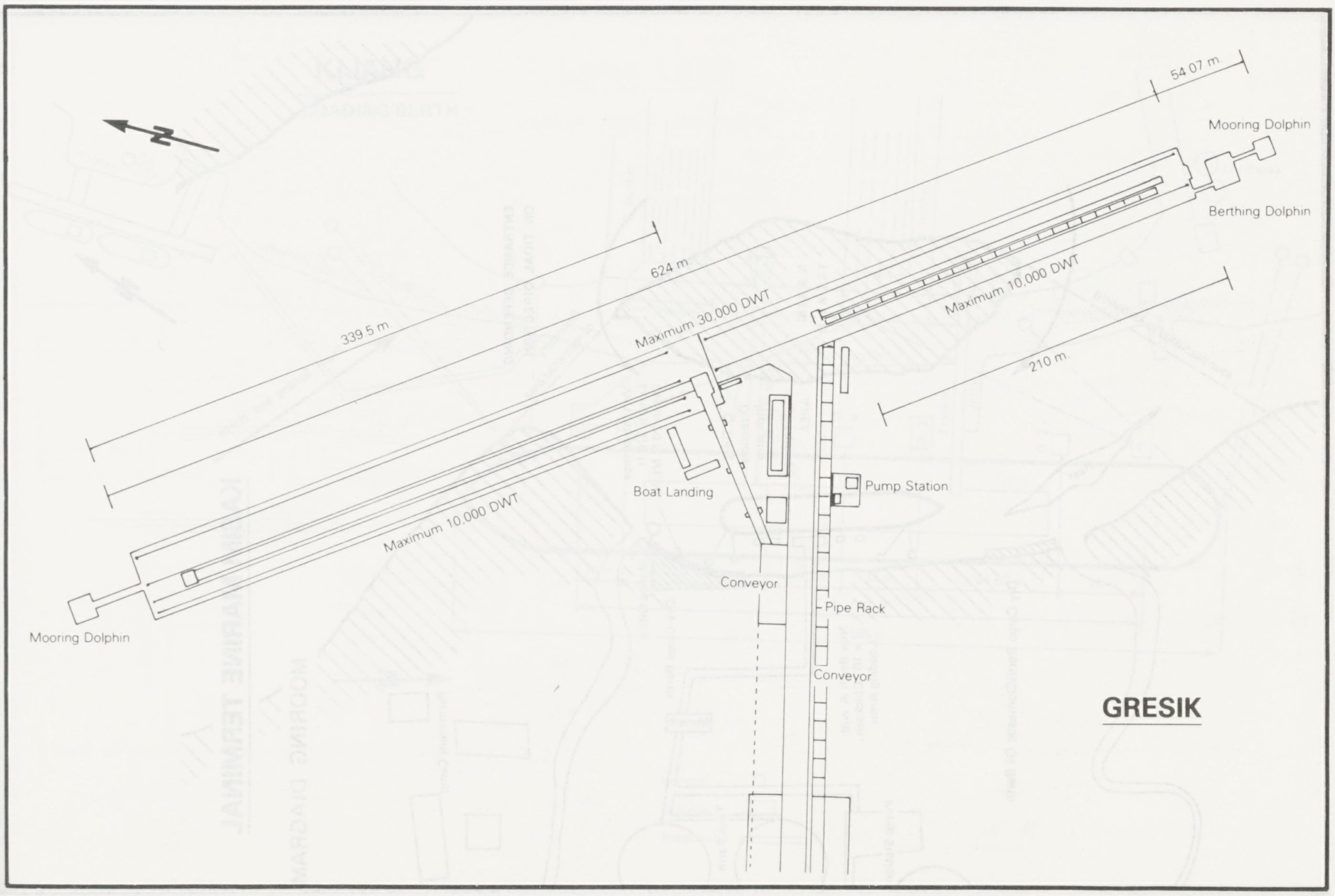
DUMAI
OIL WHARF No. 3

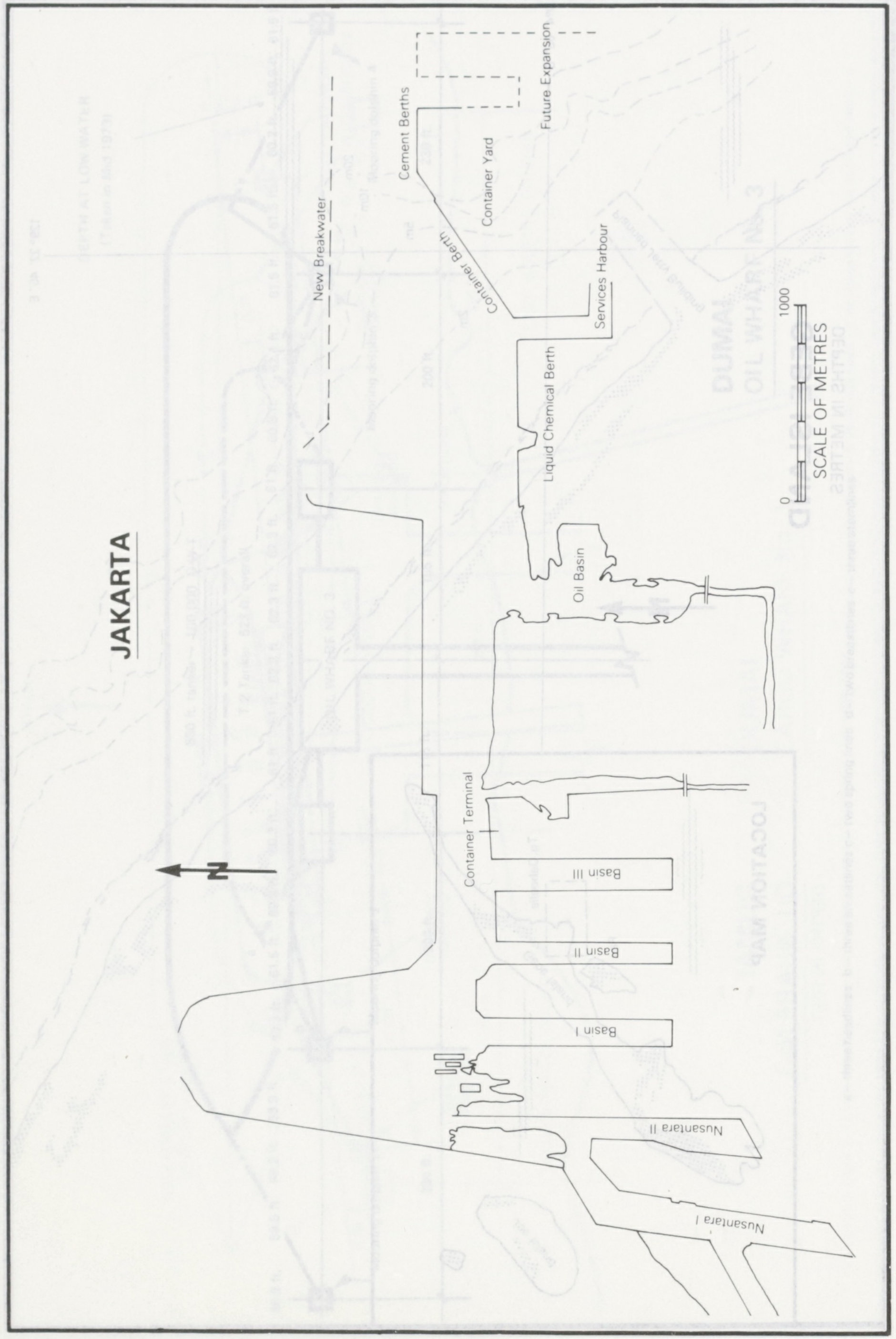
a—three headlines b—three breastlines c—two spring lines d—two breastlines e—three sternlines


1,005 ft. 6 in. (306.68 m.)
DEPTH AT LOW WATER
(Taken in Mid 1973)
55000 D W T max.
50.5 ft.
50.2 ft.
51.5 ft.
51.2 ft.
51.5 ft.
51.8 ft.
51.8 ft.
51.8 ft.
52.2 ft.
52.5 ft.
53.5 ft.
52.2 ft.
51.5 ft.
53.5 ft.
54.1 ft.
52.8 ft.
54.1 ft.
53.1 ft.
54.1 ft.
54.8 ft.
55.1 ft.
55.4 ft.
56.1 ft.
54.8 ft.
56.7 ft.
58.4 ft.
33.5 ft.
40 ft.
38 ft.
38 ft.
35.4 ft.
40.3 ft.
42.6 ft.
47.6 ft.
49.5 ft.
50.5 ft.
OIL WHARF NO. 4
53.5 ft.
53.5 ft.
53.5 ft.
53.1 ft.
58.4 ft.
53.5 ft.
40 ft.
352 ft. 9 in.
150 ft.
150 ft.
352 ft. 9 in.
MOORING DOLPHIN
NORTH
SHORE LINE

DUMAI
OIL WHARF No. 4

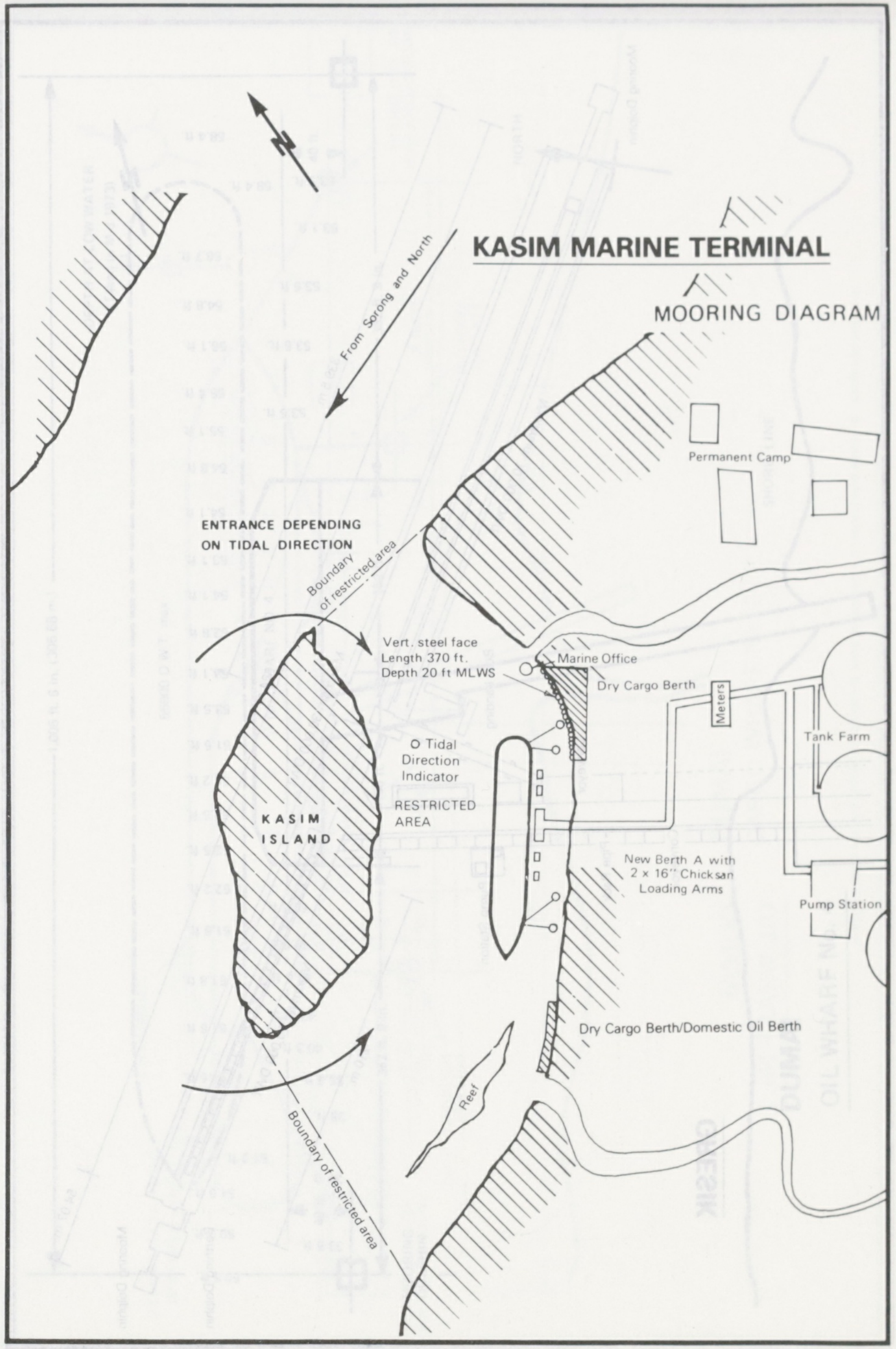

129° 22' 45" E
0°4' 05" S
20m
10m
5m
2m
Planned Jetty Building
N
GEBE ISLAND
DEPTHS IN METRES
Tg. Oeboelie
Gebe Island
Fau
Joe Island
LOCATION MAP


N
54.07 m
Mooring Dolphin
Berthing Dolphin
624 m
339.5 m
Maximum 30,000 DWT
Maximum 10,000 DWT
210 m
Boat Landing
Pump Station
Maximum 10,000 DWT
Conveyor
Pipe Rack
Conveyor
Mooring Dolphin
GRESIK



JAKARTA

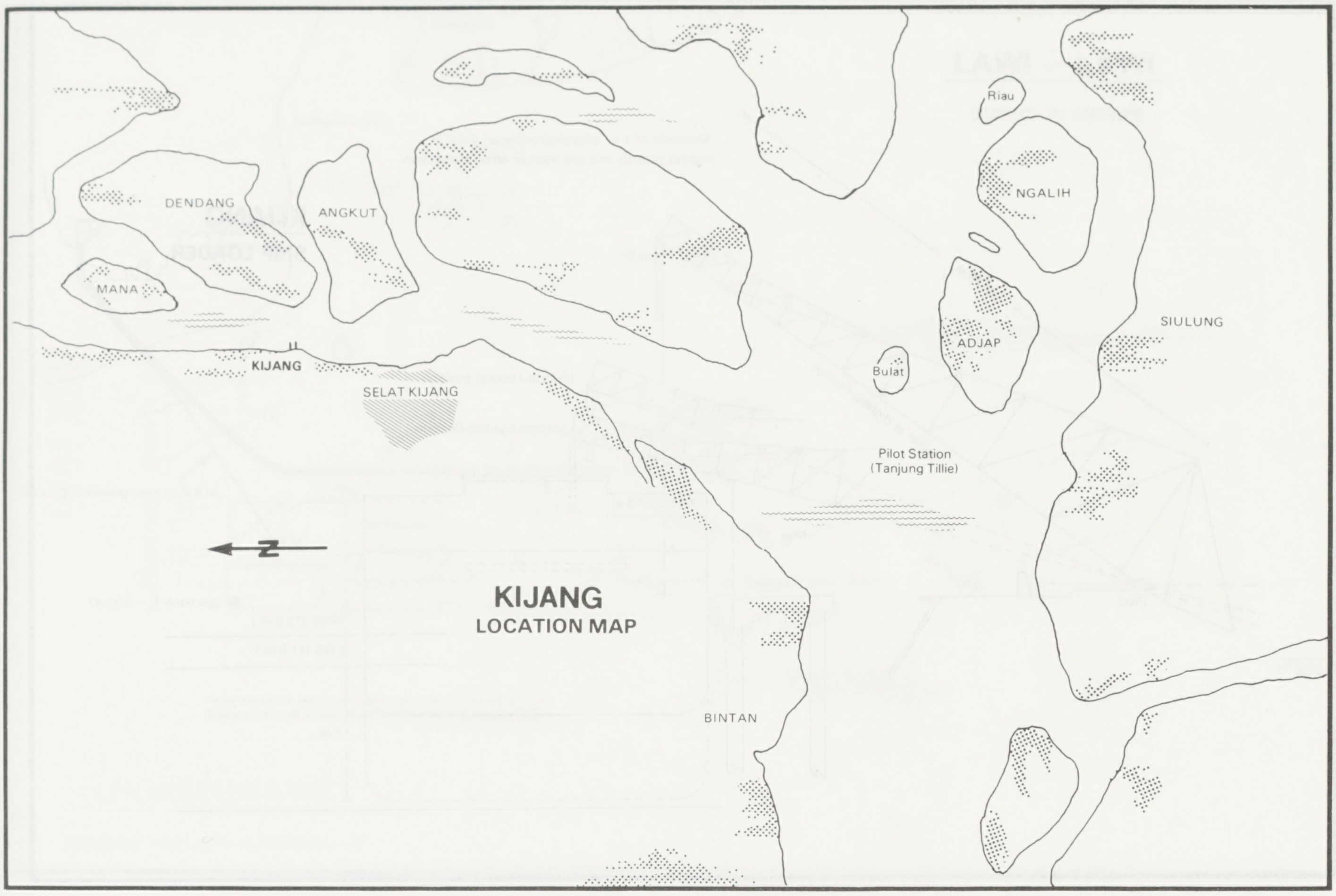
N
New Breakwater
Cement Berths
Container Yard
Future Expansion
Container Berth
Services Harbour
Liquid Chemical Berth
Oil Basin
Container Terminal
Basin III
Basin II
Basin I
Nusantara II
Nusantara I
0
1000
SCALE OF METRES



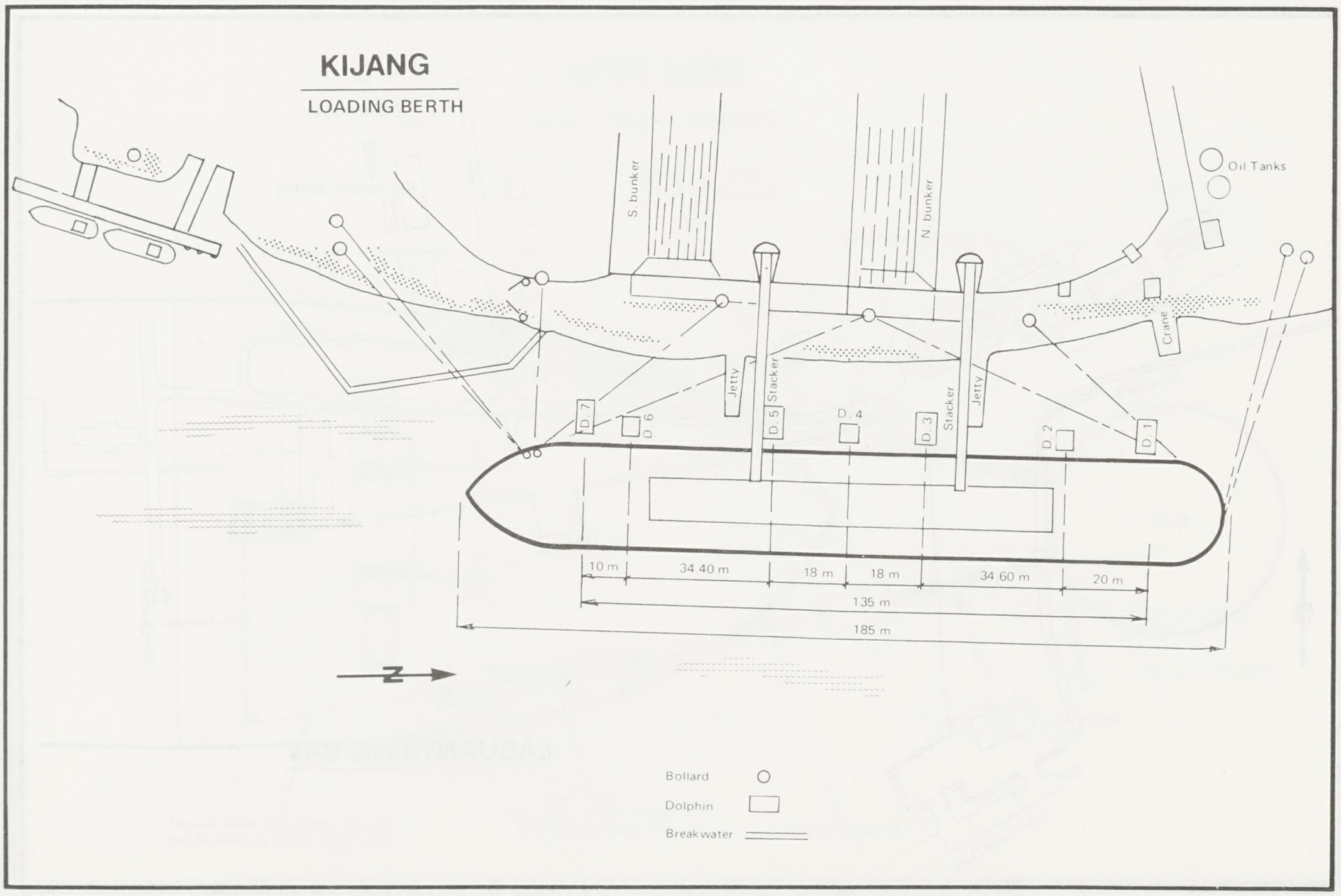
KASIM MARINE TERMINAL

MOORING DIAGRAM

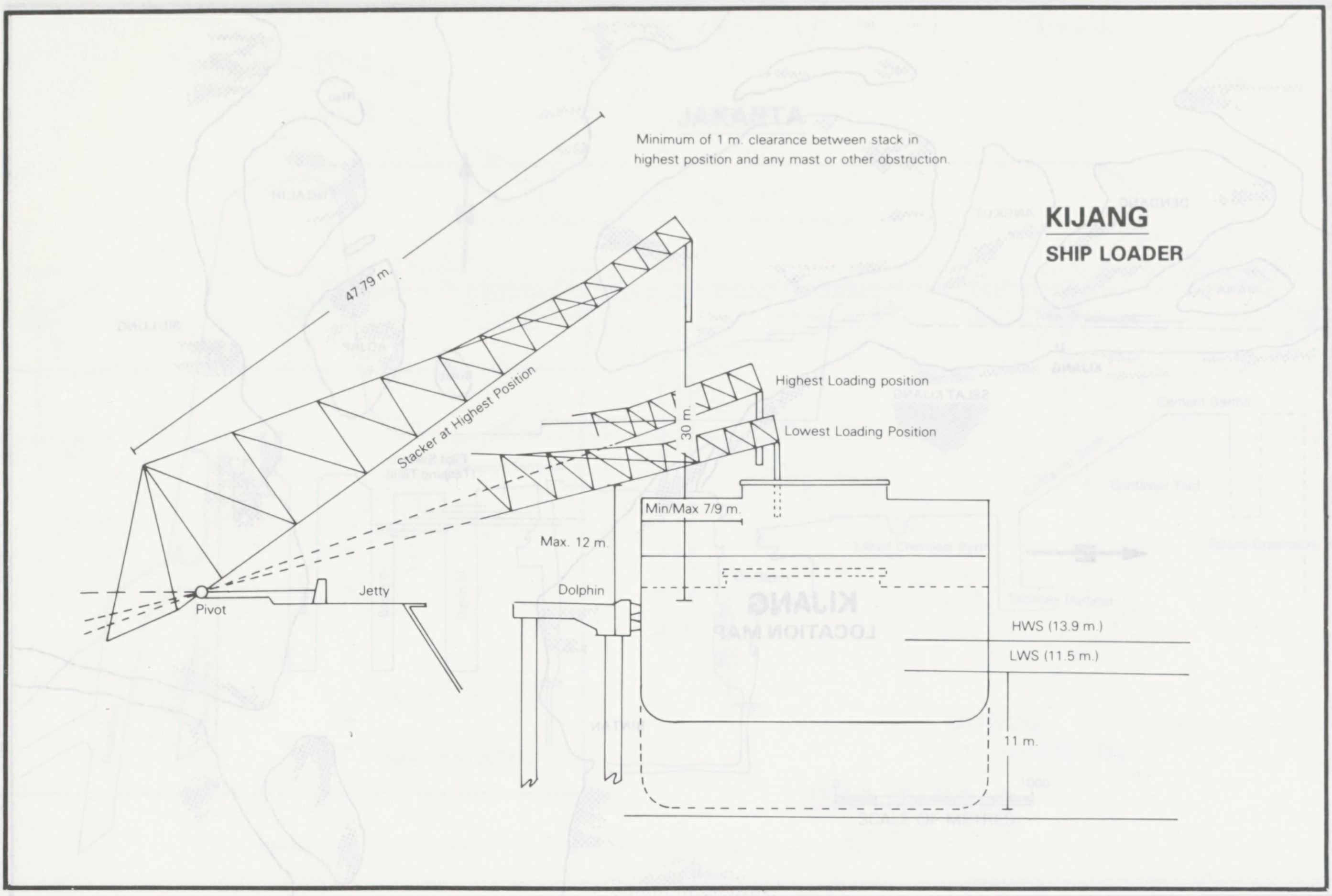
N
From Sorong and North
ENTRANCE DEPENDING ON TIDAL DIRECTION
Boundary of restricted area
Vert. steel face
Length 370 ft.
Depth 20 ft MLWS
Marine Office
Dry Cargo Berth
Meters
Tank Farm
Permanent Camp
Tidal Direction Indicator
RESTRICTED AREA
KASIM ISLAND
New Berth A with 2 x 16" Chicksan Loading Arms
Pump Station
Dry Cargo Berth/Domestic Oil Berth
Reef
Boundary of restricted area


DENDANG
ANGKUT
MANA
KIJANG
SELAT KIJANG
Riau
NGALIH
SIULUNG
ADJAP
Bulat
Pilot Station
(Tanjung Tillie)
BINTAN
N

KIJANG
LOCATION MAP

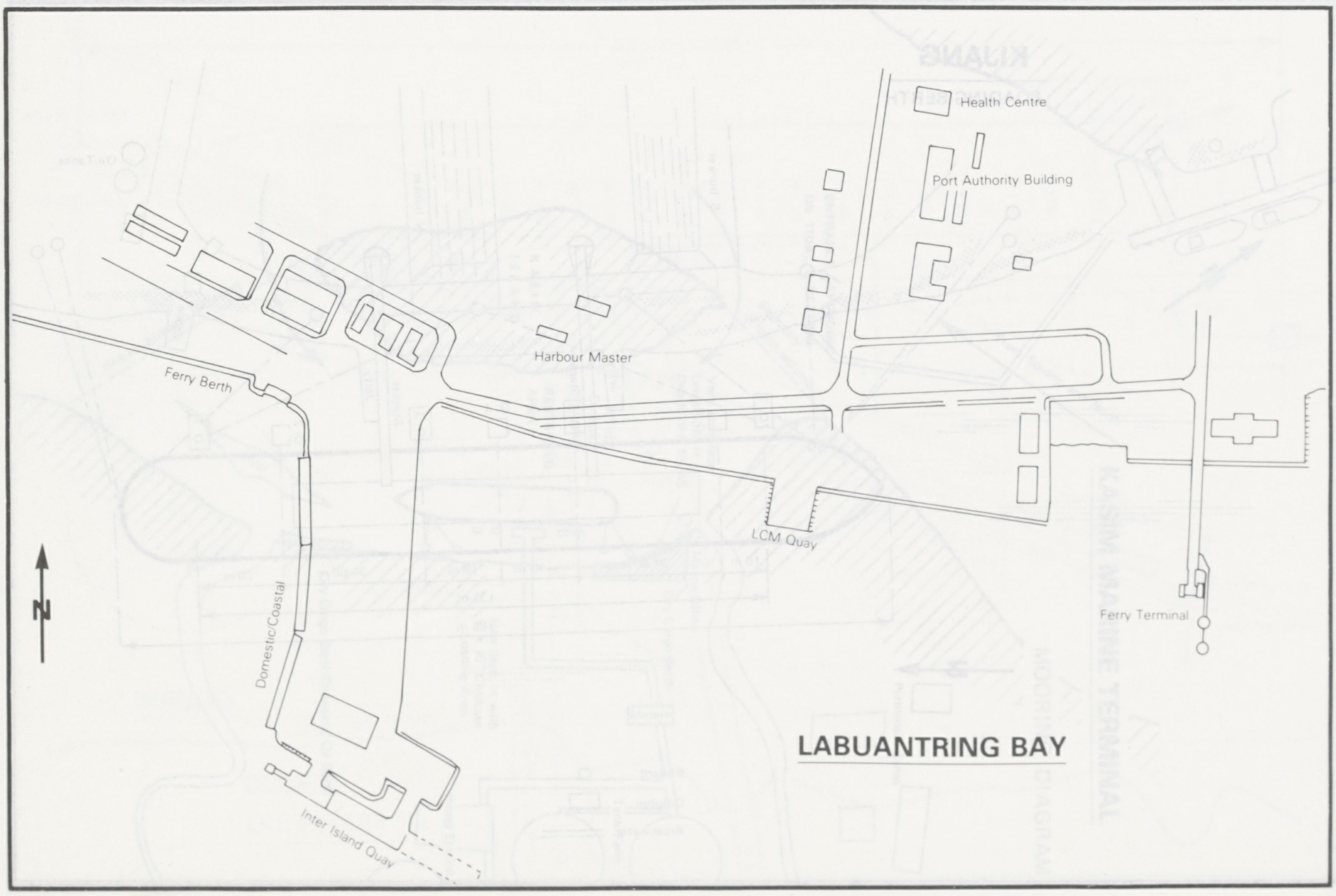

S. bunker
N. bunker
Oil Tanks
Crane
Jetty
Stacker
Stacker
Jetty
D. 7
D. 6
D. 5
D. 4
D. 3
D. 2
D. 1
10 m
34.40 m
18 m
18 m
34.60 m
20 m
135 m
185 m
N
Bollard ○
Dolphin ▭
Breakwater

KIJANG
LOADING BERTH



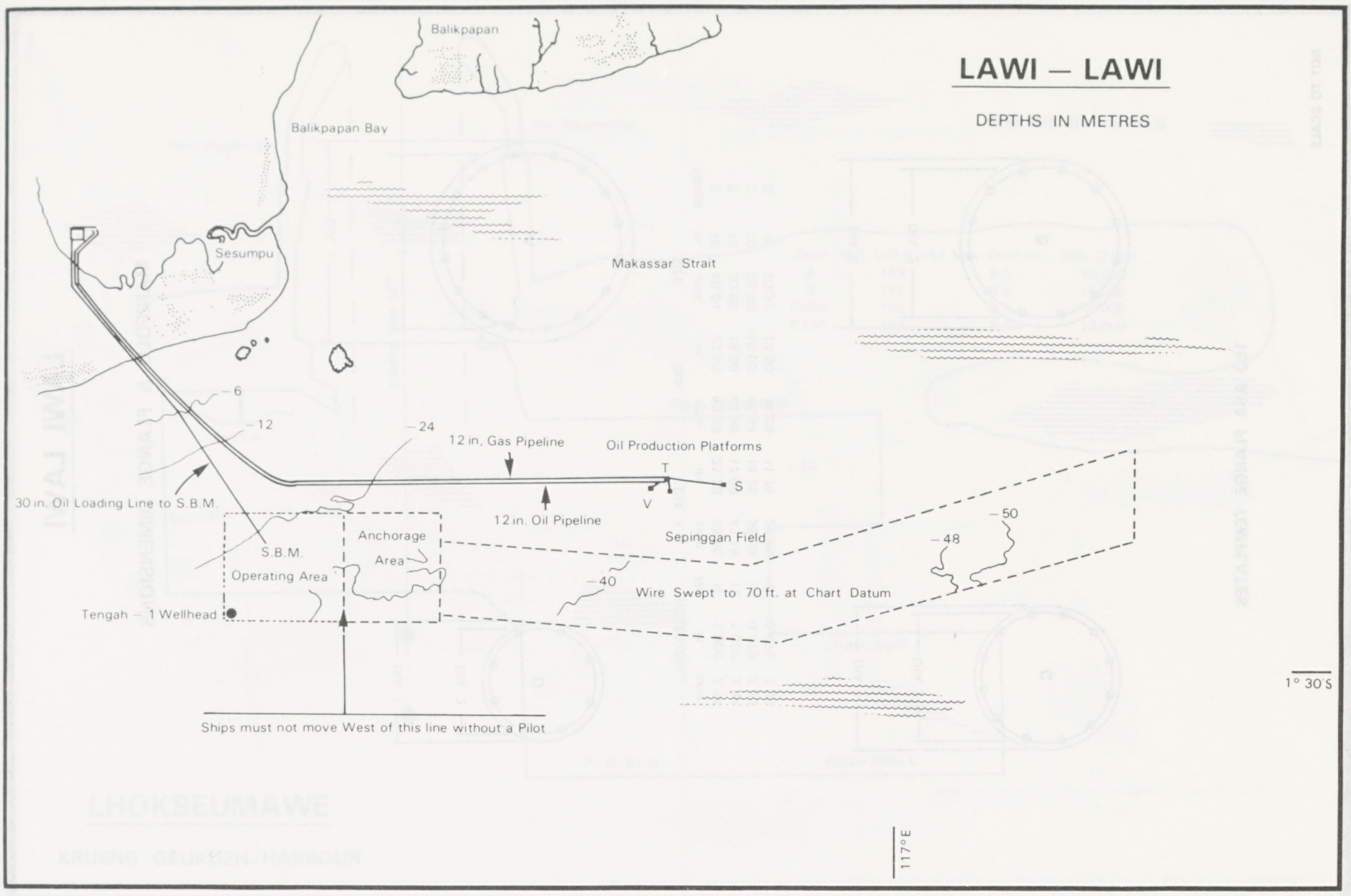
KIJANG
SHIP LOADER

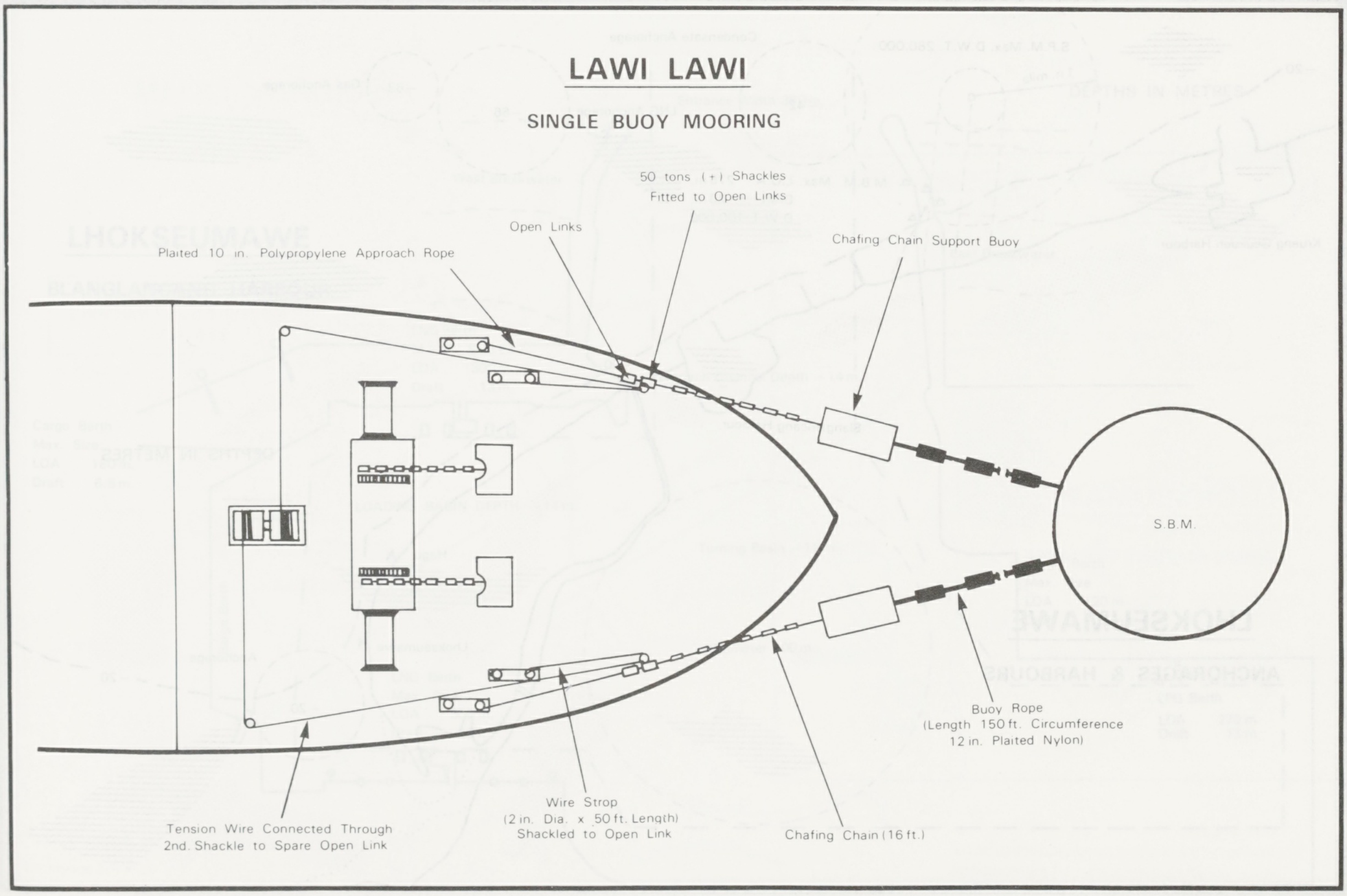
Minimum of 1 m. clearance between stack in highest position and any mast or other obstruction.
47.79 m.
Stacker at Highest Position
Highest Loading position
Lowest Loading Position
30 m.
Min/Max 7/9 m.
Max. 12 m.
Jetty
Dolphin
Pivot
HWS (13.9 m.)
LWS (11.5 m.)
11 m.



LABUANTRING BAY

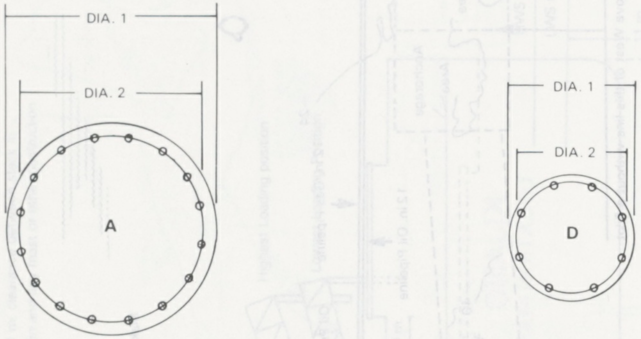
Health Centre
Port Authority Building
Harbour Master
Ferry Berth
LCM Quay
Ferry Terminal
Domestic/Coastal
Inter Island Quay
N


LAWI – LAWI
DEPTHS IN METRES
Balikpapan
Balikpapan Bay
Sesumpu
Makassar Strait
-6
-12
-24
12 in. Gas Pipeline
Oil Production Platforms
T
S
V
30 in. Oil Loading Line to S.B.M.
12 in. Oil Pipeline
Sepinggan Field
-50
-48
S.B.M.
Operating Area
Anchorage
Area
-40
Wire Swept to 70 ft. at Chart Datum
Tengah - 1 Wellhead
Ships must not move West of this line without a Pilot
1° 30' S
117° E

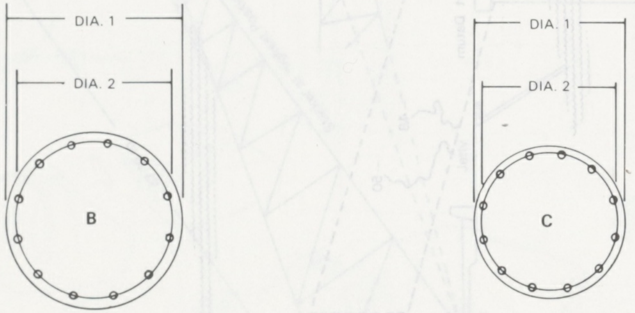

LAWI LAWI
SINGLE BUOY MOORING
50 tons (+) Shackles
Fitted to Open Links
Open Links
Plaited 10 in. Polypropylene Approach Rope
Chafing Chain Support Buoy
S.B.M.
Buoy Rope
(Length 150 ft. Circumference
12 in. Plaited Nylon)
Wire Strop
(2 in. Dia. x 50 ft. Length)
Shackled to Open Link
Tension Wire Connected Through
2nd. Shackle to Spare Open Link
Chafing Chain (16 ft.)

LAWI LAWI

MANIFOLD & FLANGE DIMENSIONS

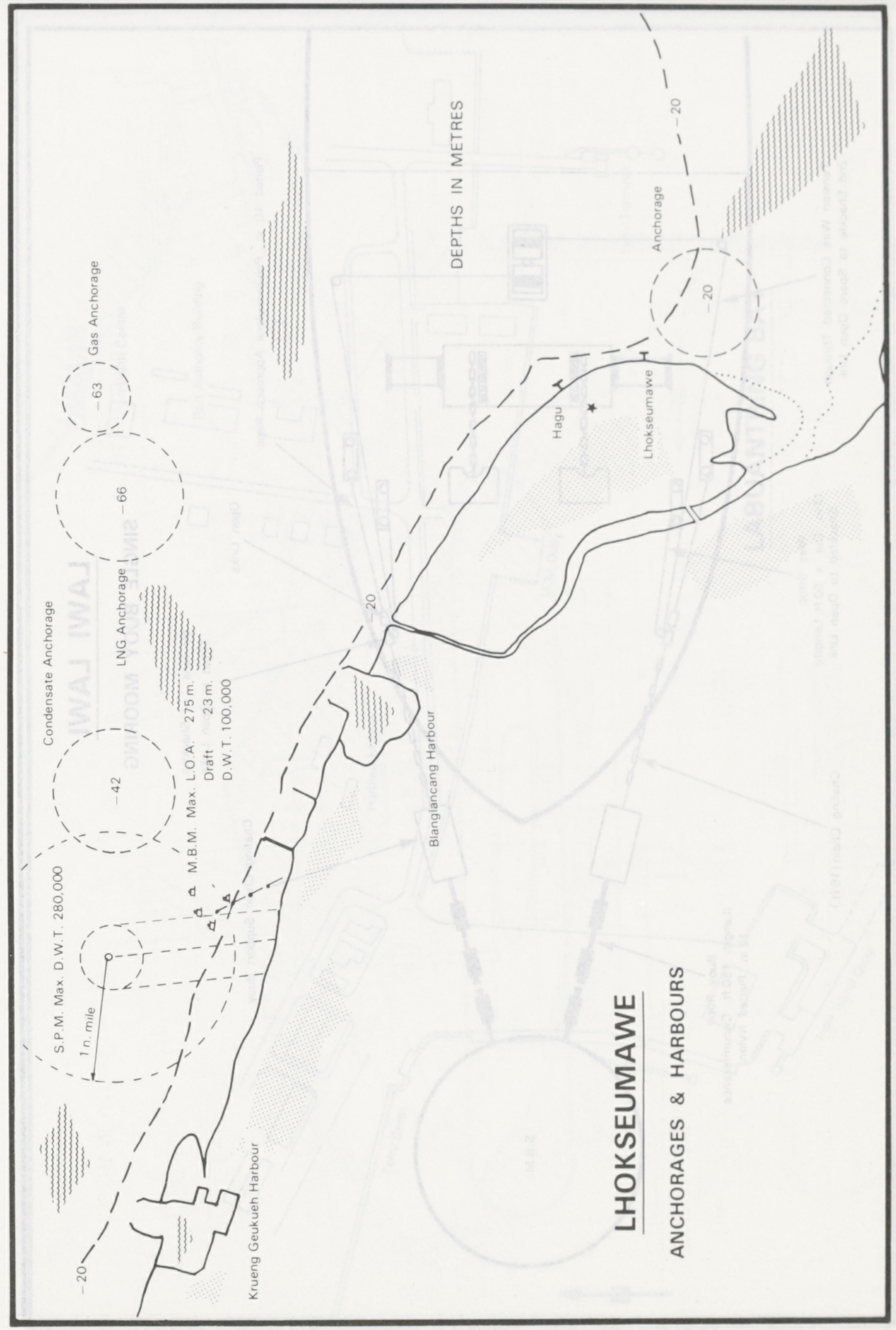

DIA. 1
DIA. 2
A
DIA. 1
DIA. 2
D

	SIZE		DIA. 1		DIA. 2		HOLES (DIA.)		
Flange	in.	cms.	in.	cms.	in.	cms.	No.	in.	cms.
A	16	40.64	23.50	59.69	21.25	53.98	16	1.000	2.54
B	12	30.50	19.00	48.26	17.00	43.18	12	1.000	2.54
C	10	25.40	16.00	40.64	14.25	36.19	12	0.875	2.23
D	8	20.32	13.50	34.29	11.75	29.85	8	0.875	2.23


DIA. 1
DIA. 2
B
DIA. 1
DIA. 2
C

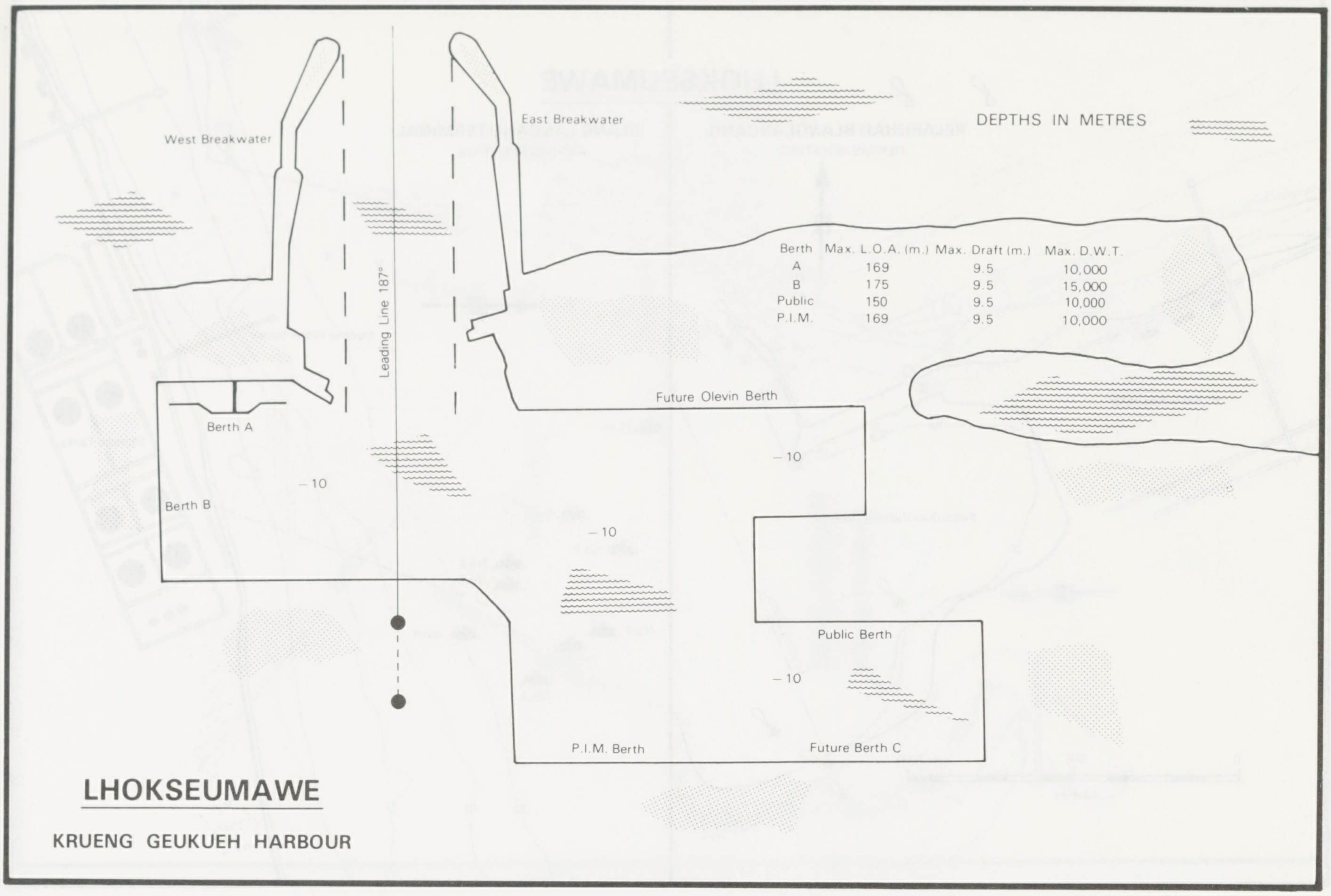
150 ASA FLANGE TEMPLATES

NOT TO SCALE


DEPTHS IN METRES
–20
Anchorage
–20
Hagu
Lhokseumawe
Gas Anchorage
–63
–66
LNG Anchorage
Condensate Anchorage
–42
20
M.B.M. Max. L.O.A. 275 m.
Draft 23 m.
D.W.T. 100,000
S.P.M. Max. D.W.T. 280,000
1 n. mile
Blanglancang Harbour
Krueng Geukueh Harbour
–20

LHOKSEUMAWE

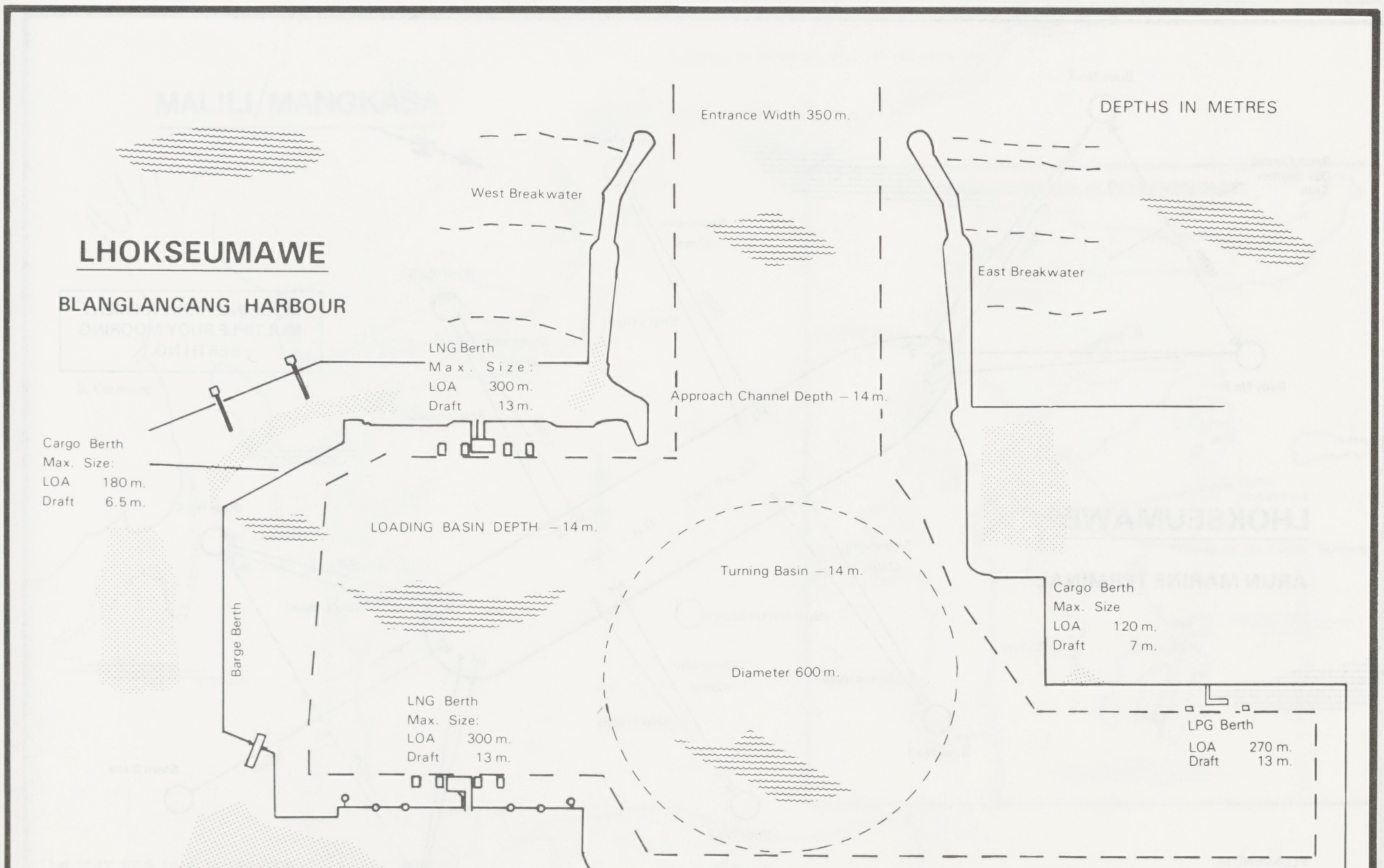
ANCHORAGES & HARBOURS


West Breakwater
East Breakwater
DEPTHS IN METRES
Leading Line 187°
Berth A
Berth B
−10
−10
−10
−10
Future Olevin Berth
Public Berth
P.I.M. Berth
Future Berth C

Berth	Max. L.O.A. (m.)	Max. Draft (m.)	Max. D.W.T.
A	169	9.5	10,000
B	175	9.5	15,000
Public	150	9.5	10,000
P.I.M.	169	9.5	10,000

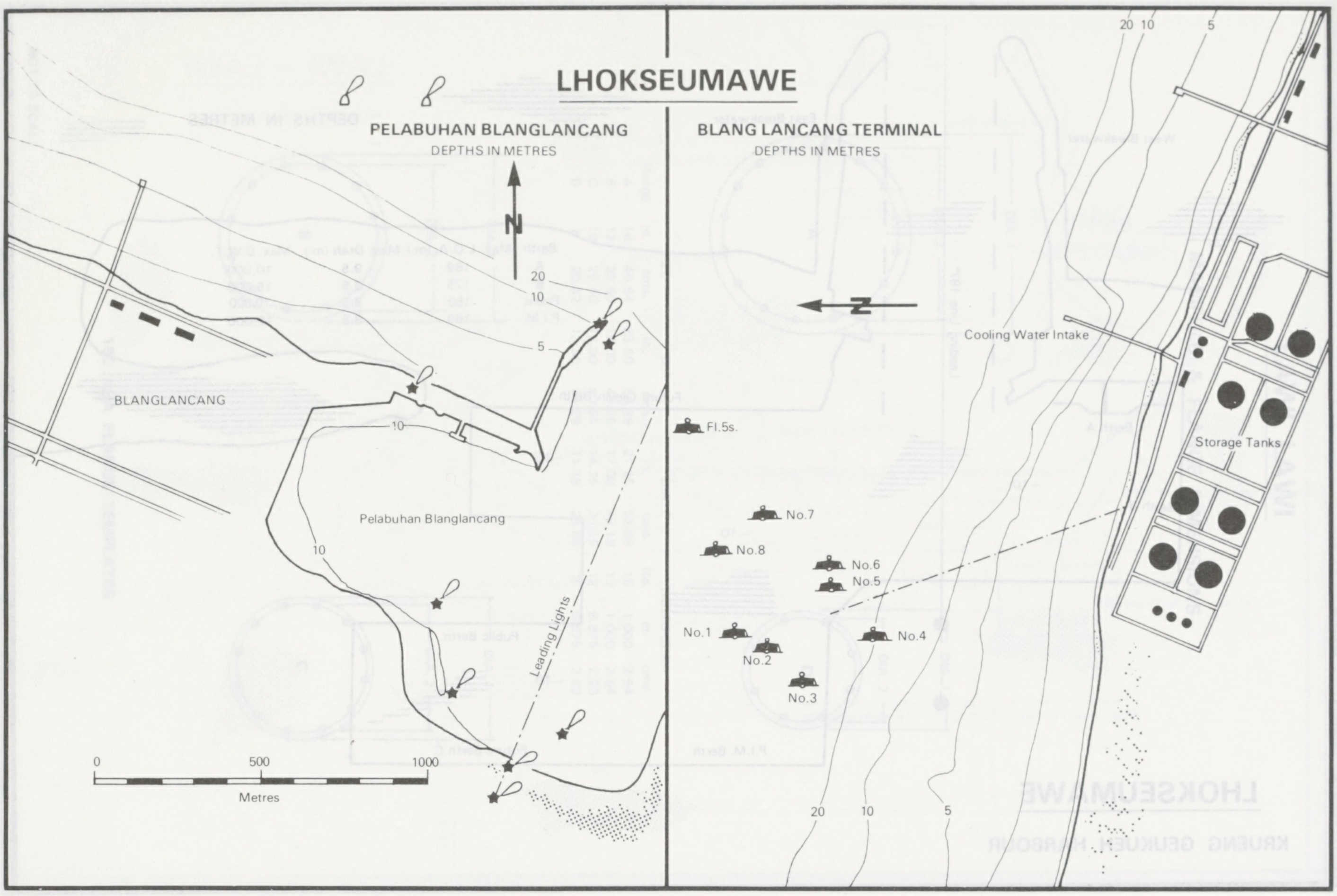
LHOKSEUMAWE

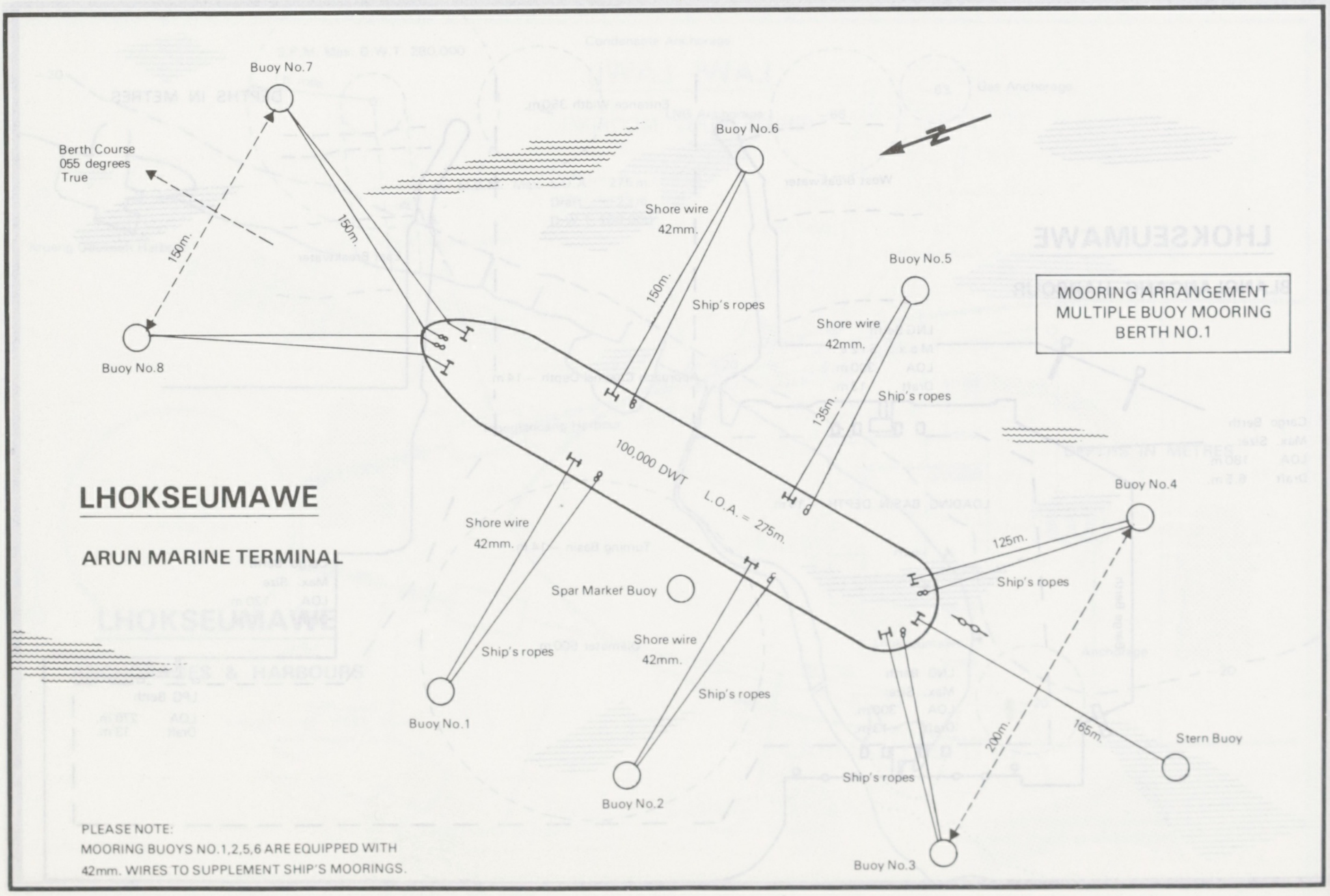
KRUENG GEUKUEH HARBOUR


Entrance Width 350 m.
DEPTHS IN METRES
West Breakwater
East Breakwater
LNG Berth
Max. Size:
LOA 300 m.
Draft 13 m.
Approach Channel Depth − 14 m.
Cargo Berth
Max. Size:
LOA 180 m.
Draft 6.5 m.
LOADING BASIN DEPTH − 14 m.
Turning Basin − 14 m.
Diameter 600 m.
Barge Berth
LNG Berth
Max. Size:
LOA 300 m.
Draft 13 m.
Cargo Berth
Max. Size
LOA 120 m.
Draft 7 m.
LPG Berth
LOA 270 m.
Draft 13 m.

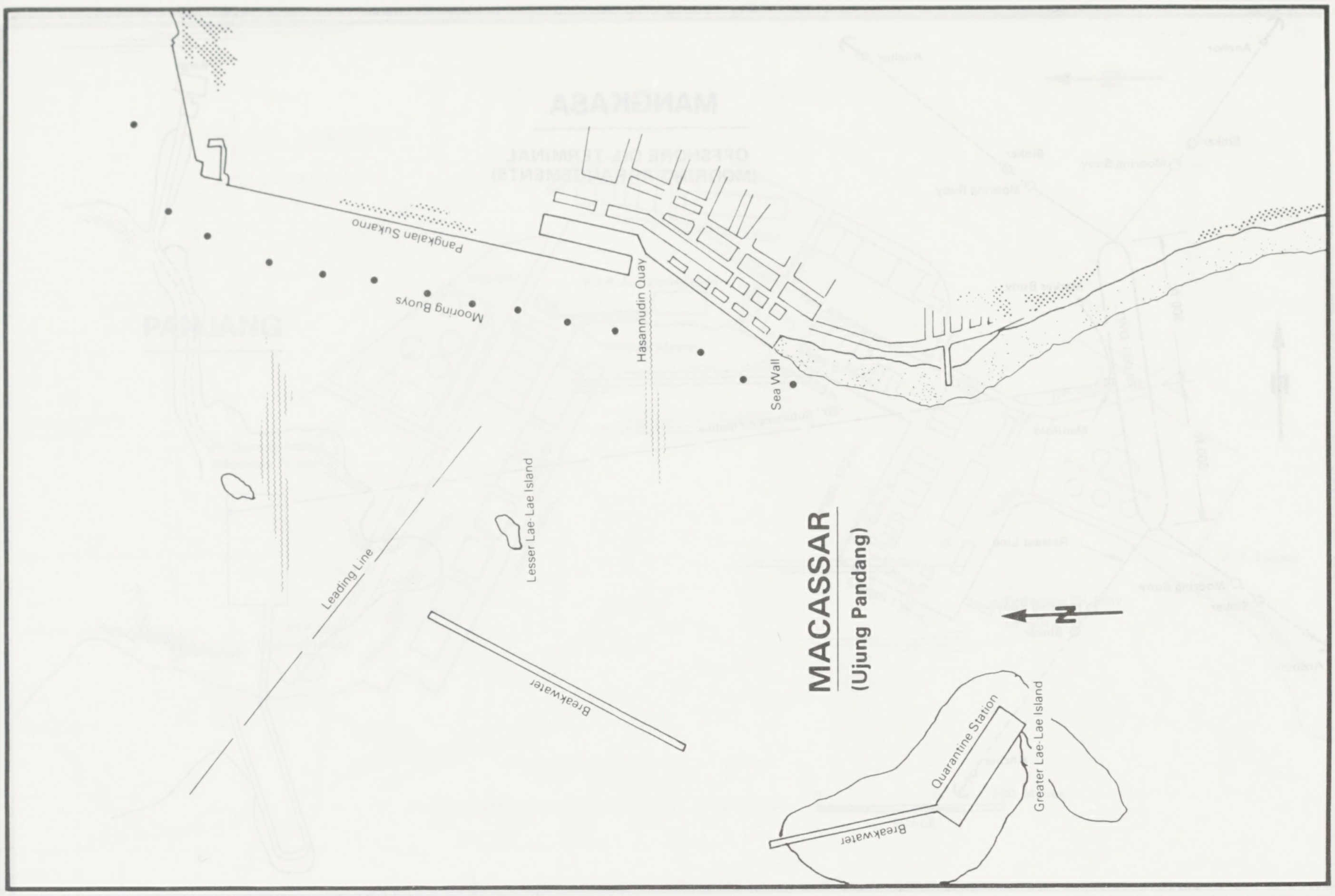
LHOKSEUMAWE

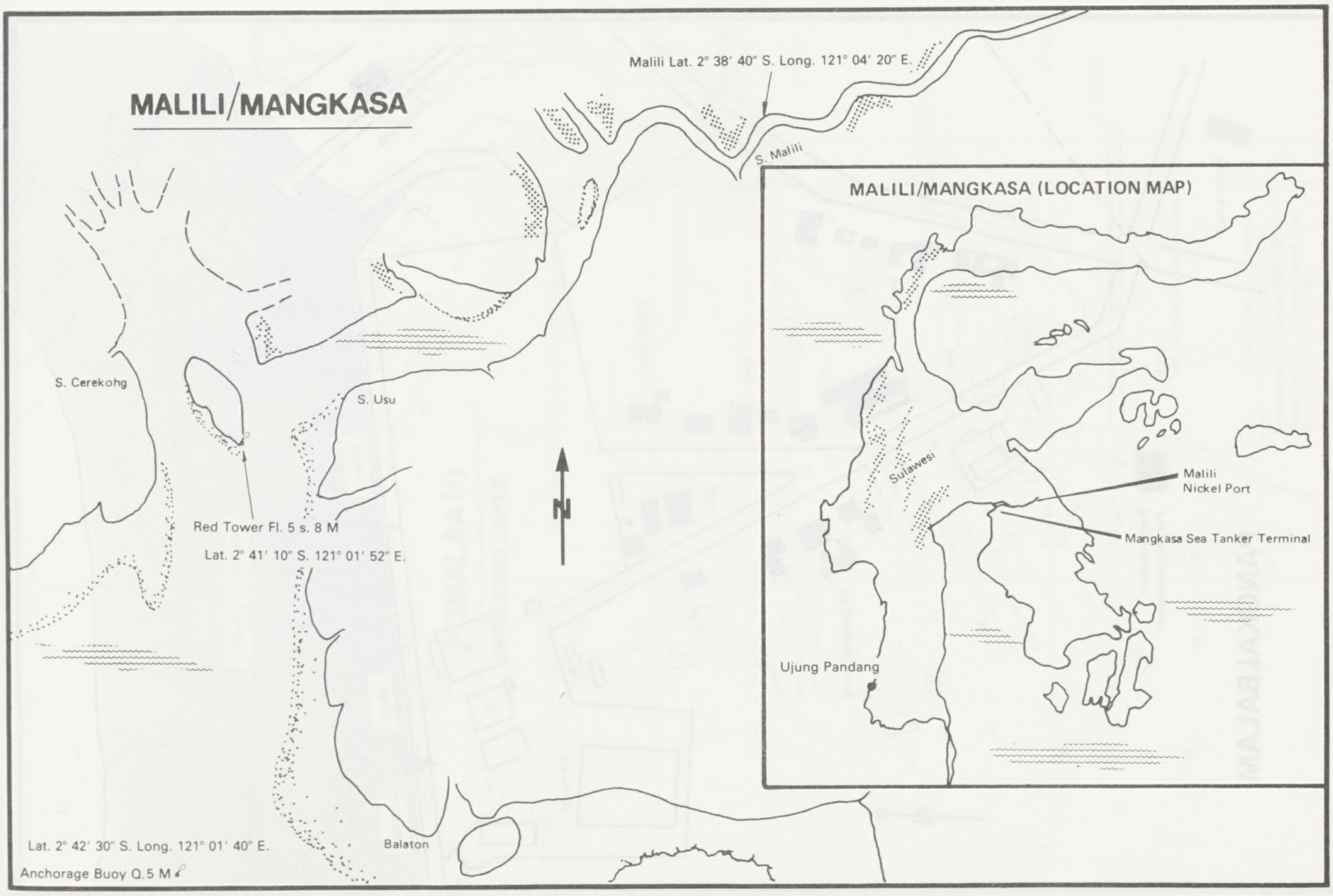
BLANGLANCANG HARBOUR

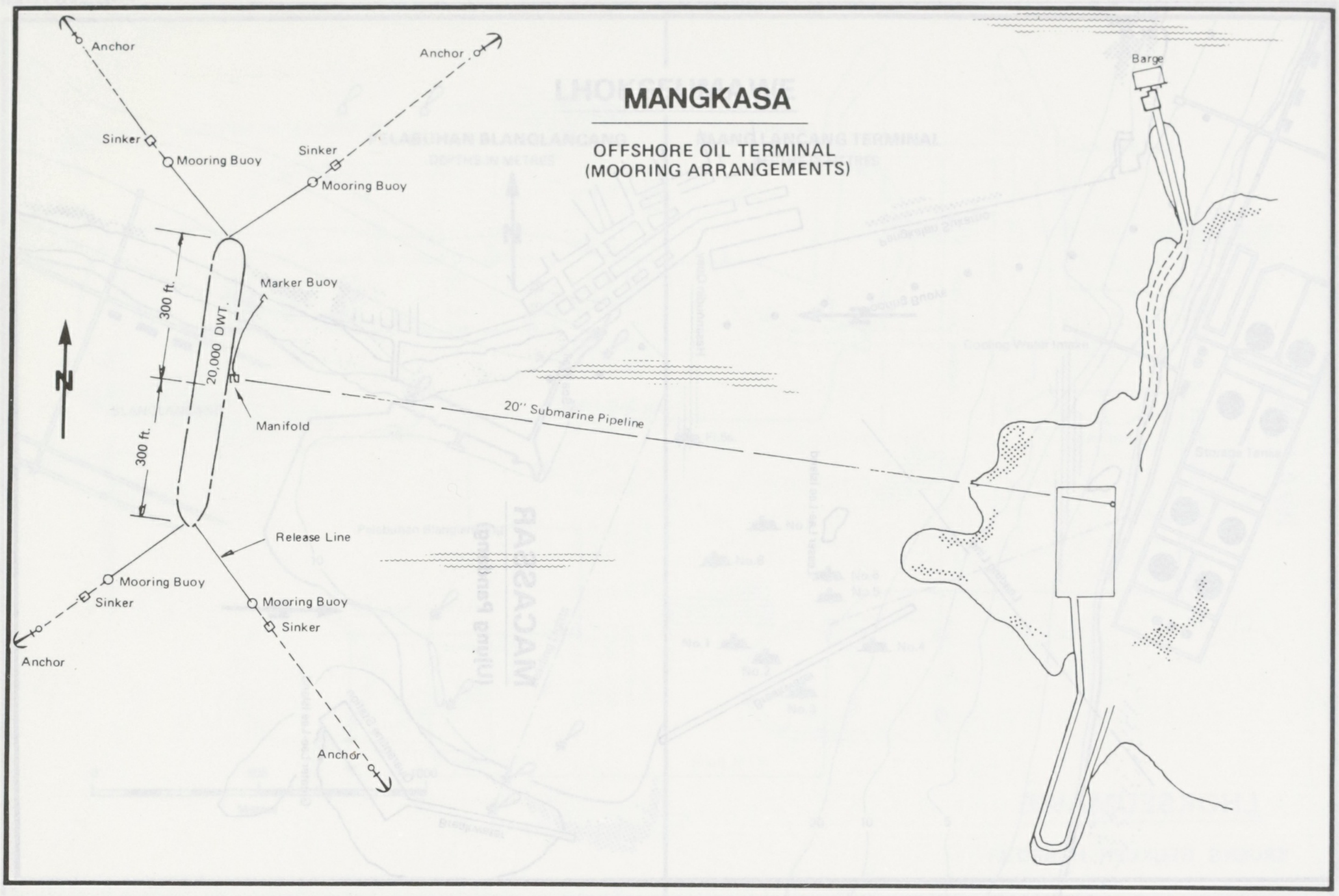

LHOKSEUMAWE
PELABUHAN BLANGLANCANG
DEPTHS IN METRES
BLANG LANCANG TERMINAL
DEPTHS IN METRES
N
N
20
10
5
BLANGLANCANG
10
Pelabuhan Blanglancang
10
Leading Lights
Fl.5s.
No.7
No.8
No.6
No.5
No.1
No.2
No.4
No.3
0
500
1000
Metres
20 10 5
Cooling Water Intake
Storage Tanks
20
10
5

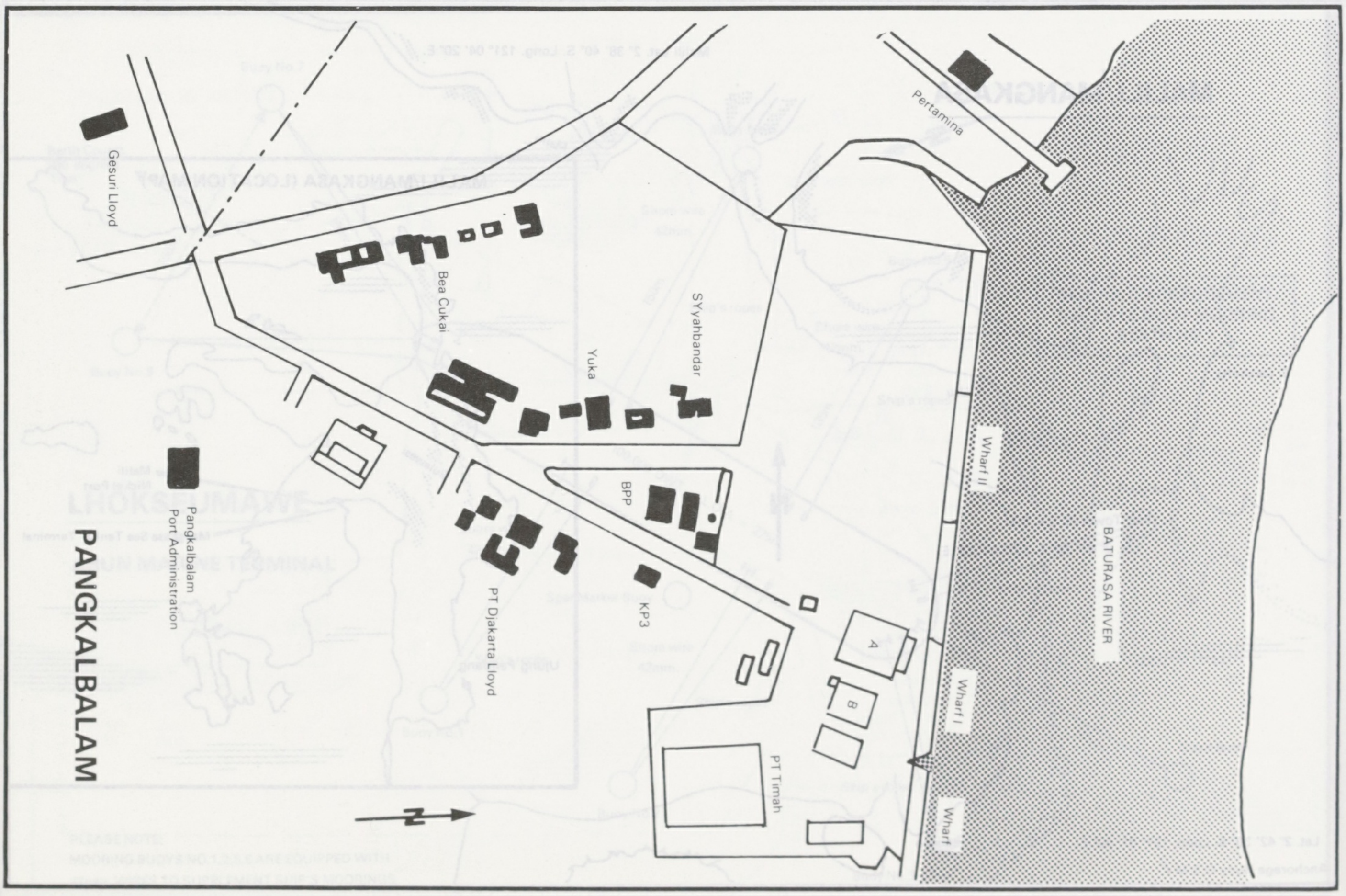

Buoy No.7
Berth Course
055 degrees
True
150m.
150m.
Buoy No.8
Buoy No.6
Shore wire
42mm.
150m.
Ship's ropes
N
Buoy No.5
Shore wire
42mm.
135m.
Ship's ropes
MOORING ARRANGEMENT
MULTIPLE BUOY MOORING
BERTH NO.1
LHOKSEUMAWE
ARUN MARINE TERMINAL
100,000 DWT
L.O.A. = 275m.
Shore wire
42mm.
Spar Marker Buoy
Ship's ropes
Shore wire
42mm.
Ship's ropes
Buoy No.1
Buoy No.2
Buoy No.4
125m.
Ship's ropes
165m.
200m.
Stern Buoy
Ship's ropes
Buoy No.3

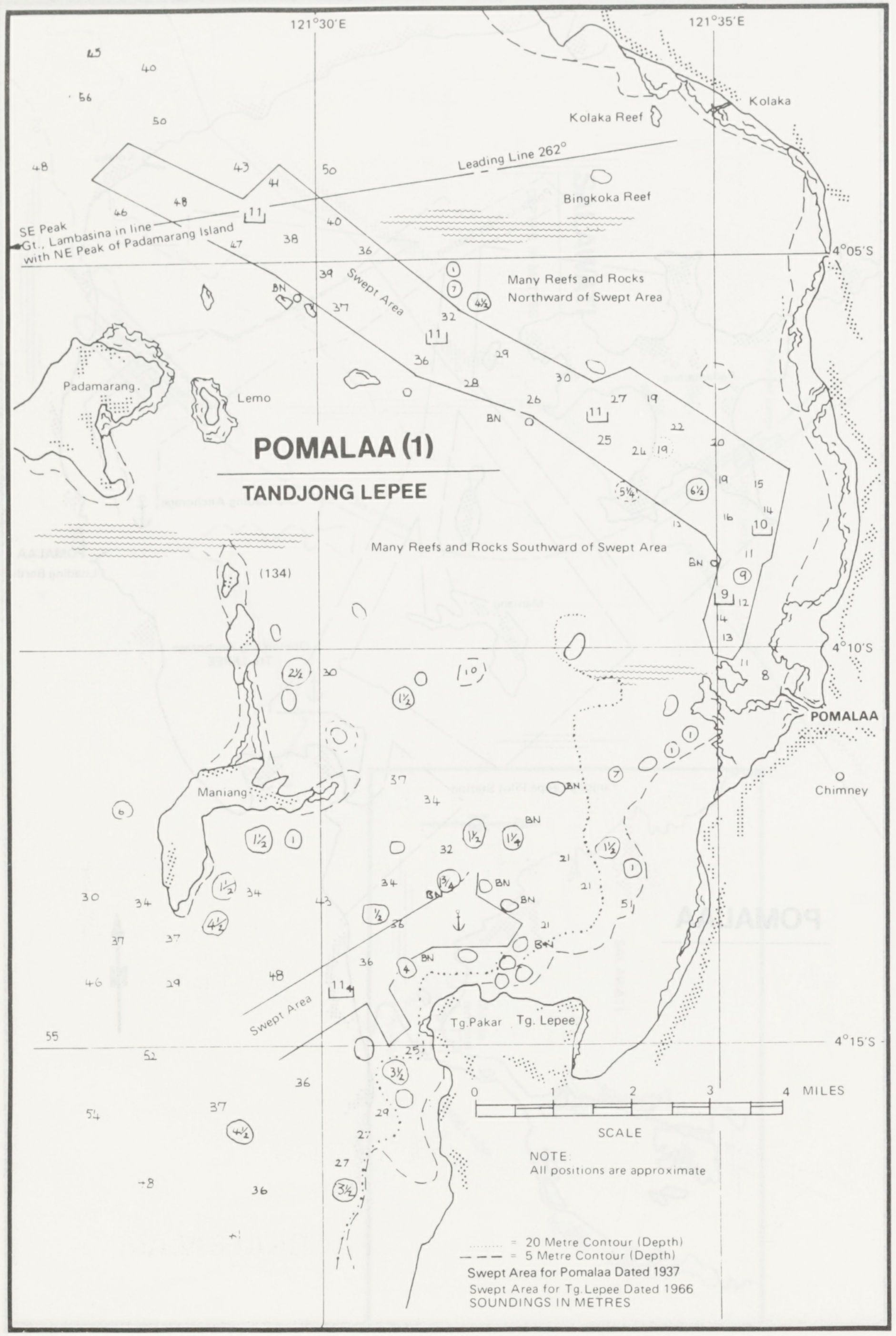
PLEASE NOTE:
MOORING BUOYS NO.1,2,5,6 ARE EQUIPPED WITH
42mm. WIRES TO SUPPLEMENT SHIP'S MOORINGS.


Pangkalan Sukarno
Mooring Buoys
Hasannudin Quay
Sea Wall
Leading Line
Lesser Lae-Lae Island
Breakwater
MACASSAR
(Ujung Pandang)
N
Quarantine Station
Greater Lae-Lae Island
Breakwater


MALILI/MANGKASA
Malili Lat. 2° 38' 40" S. Long. 121° 04' 20" E.
S. Malili
MALILI/MANGKASA (LOCATION MAP)
S. Cerekohg
S. Usu
N
Red Tower Fl. 5 s. 8 M
Lat. 2° 41' 10" S. 121° 01' 52" E.
Sulawesi
Malili
Nickel Port
Mangkasa Sea Tanker Terminal
Ujung Pandang
Lat. 2° 42' 30" S. Long. 121° 01' 40" E.
Anchorage Buoy Q.5 M
Balaton


MANGKASA
OFFSHORE OIL TERMINAL
(MOORING ARRANGEMENTS)
Anchor
Anchor
Sinker
Mooring Buoy
Sinker
Mooring Buoy
300 ft.
20,000 DWT.
Marker Buoy
N
300 ft.
Manifold
20" Submarine Pipeline
Release Line
Mooring Buoy
Sinker
Mooring Buoy
Sinker
Anchor
Anchor
Barge


Gesuri Lloyd
Pertamina
Bea Cukai
SYahbandar
Yuka
Wharf II
Pangkalbalam Port Administration
BPP
KP3
PT Djakarta Lloyd
A
B
PT Timah
BATURASA RIVER
Wharf I
Wharf
N
PANGKALBALAM

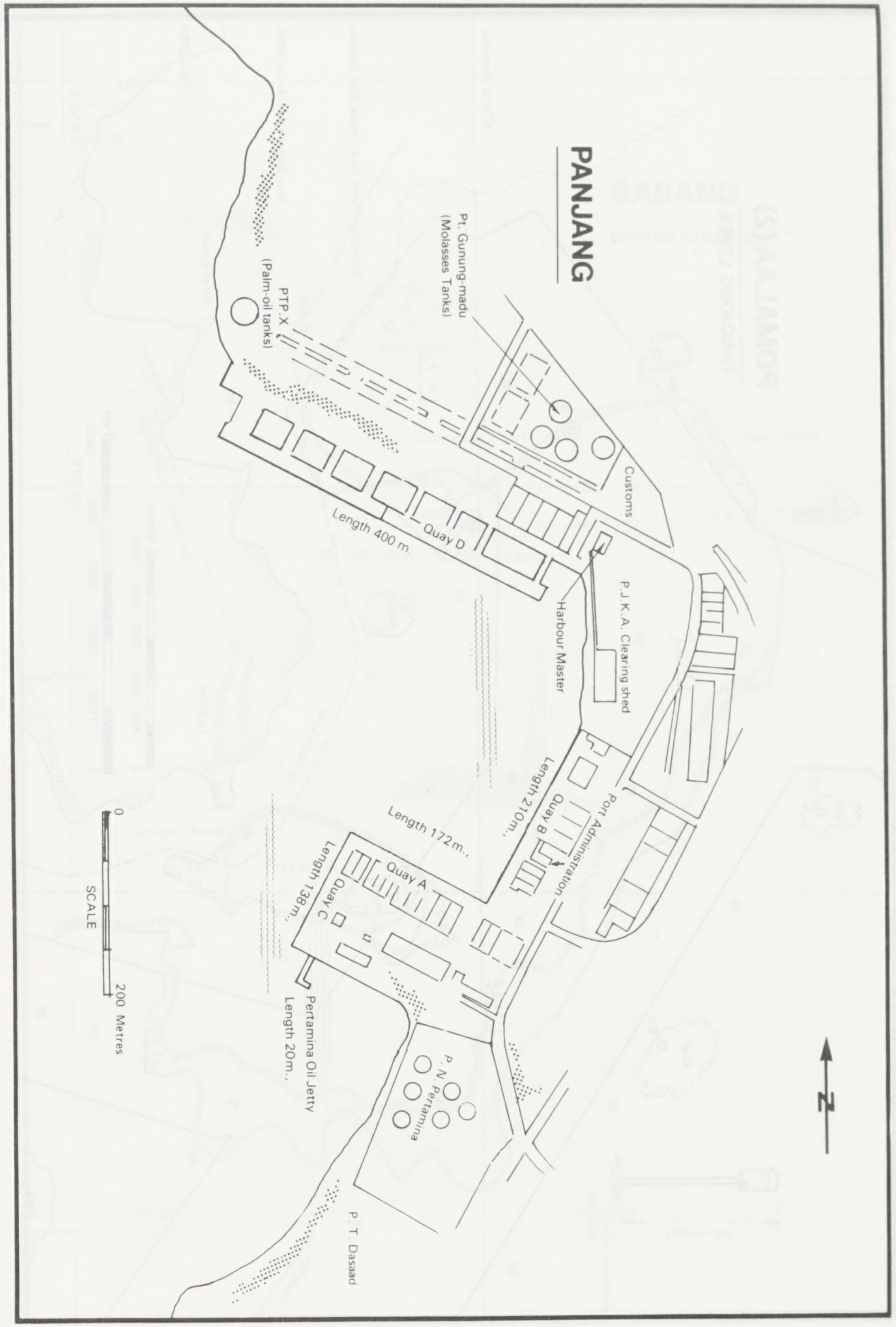


POMALAA (1)

TANDJONG LEPEE

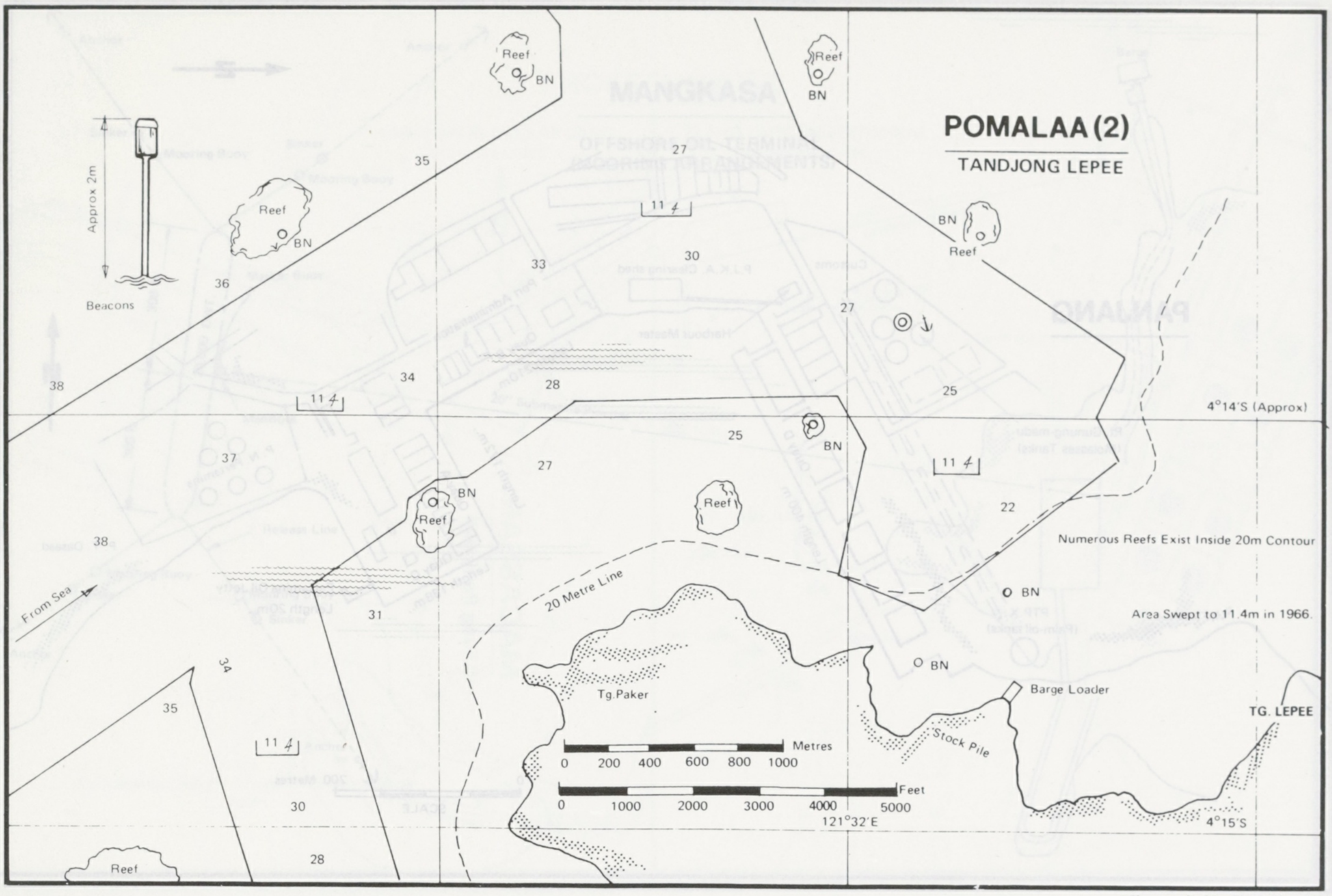
121°30'E
121°35'E
4°05'S
4°10'S
4°15'S
Kolaka
Kolaka Reef
Bingkoka Reef
Leading Line 262°
SE Peak Gt., Lambasina in line with NE Peak of Padamarang Island
Padamarang
Lemo
Swept Area
Many Reefs and Rocks Northward of Swept Area
Many Reefs and Rocks Southward of Swept Area
BN
(134)
POMALAA
Chimney
Maniang
Tg.Pakar
Tg. Lepee
Swept Area
0 1 2 3 4 MILES
SCALE
NOTE
All positions are approximate
= 20 Metre Contour (Depth)
= 5 Metre Contour (Depth)
Swept Area for Pomalaa Dated 1937
Swept Area for Tg. Lepee Dated 1966
SOUNDINGS IN METRES

"Plan supplied by Ship's Master"

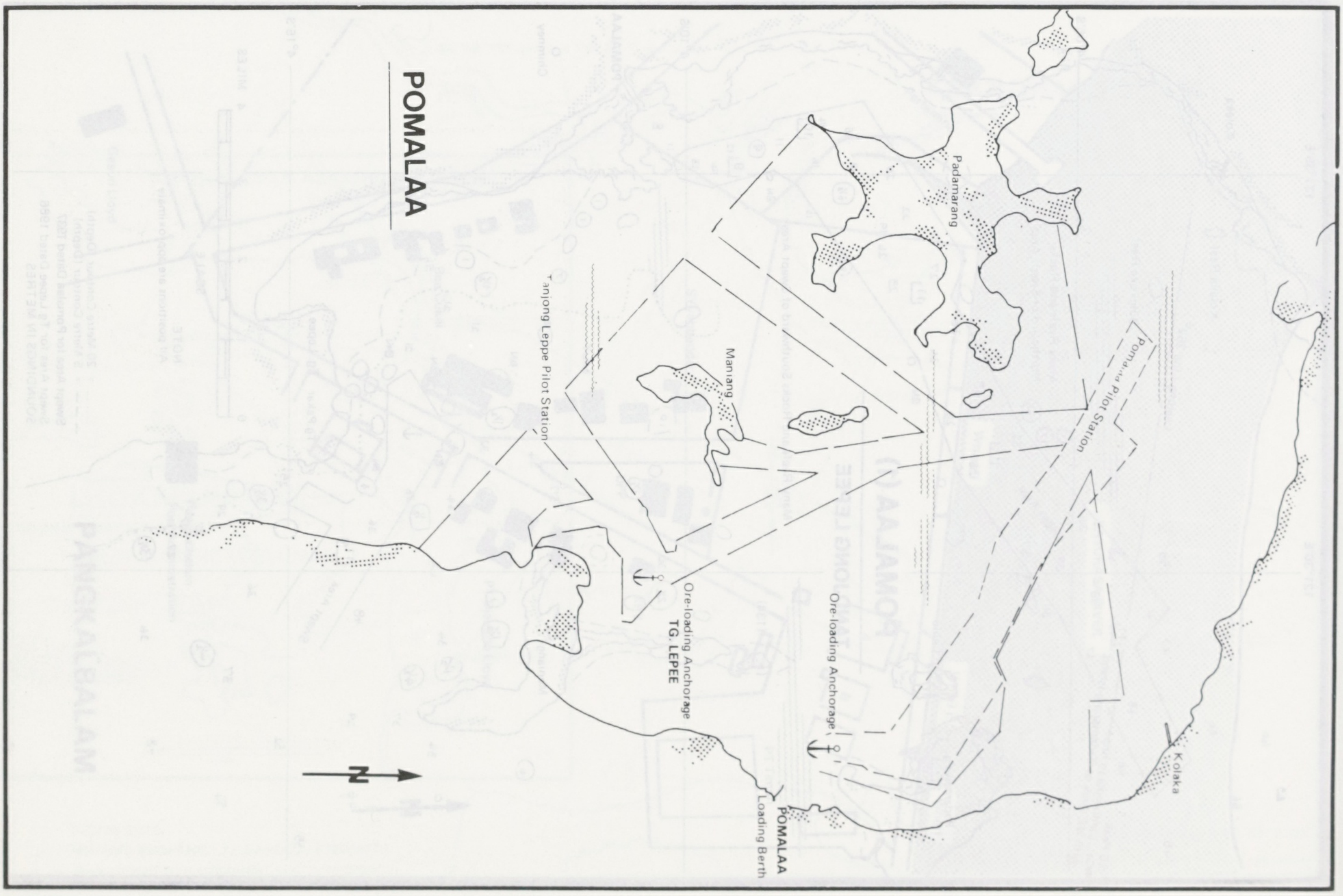


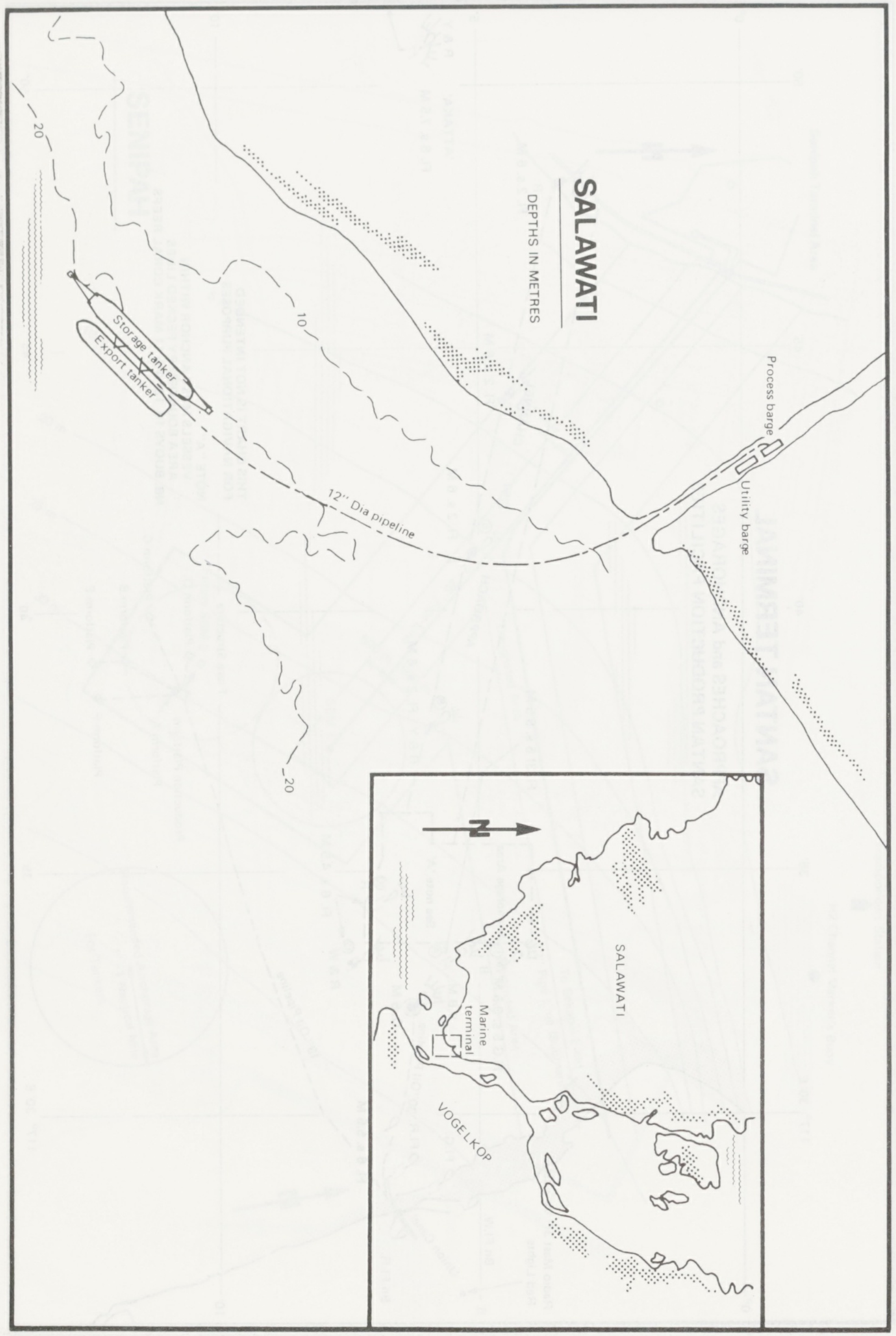
PANJANG

Pt. Gunung-madu (Molasses Tanks)
PTP. X (Palm-oil tanks)
Customs
Quay D
Length 400 m.
P.J.K.A. Clearing shed
Harbour Master
Length 210m.
Quay B
Port Administration
Length 172m.
Quay A
Quay C
Length 138m.
Pertamina Oil Jetty
Length 20m.
P. N. Pertamina
P. T. Dasaad
0
200 Metres
SCALE
N


POMALAA (2)
TANDJONG LEPEE
Approx 2m
Beacons
Reef
BN
35
27
11
30
33
36
38
34
28
37
25
22
4°14'S (Approx)
Numerous Reefs Exist Inside 20m Contour
Area Swept to 11.4m in 1966.
From Sea
20 Metre Line
31
Tg.Paker
Stock Pile
Barge Loader
TG. LEPEE
Metres
0 200 400 600 800 1000
Feet
0 1000 2000 3000 4000 5000
121°32'E
4°15'S

"Plan supplied by Ship's Master"

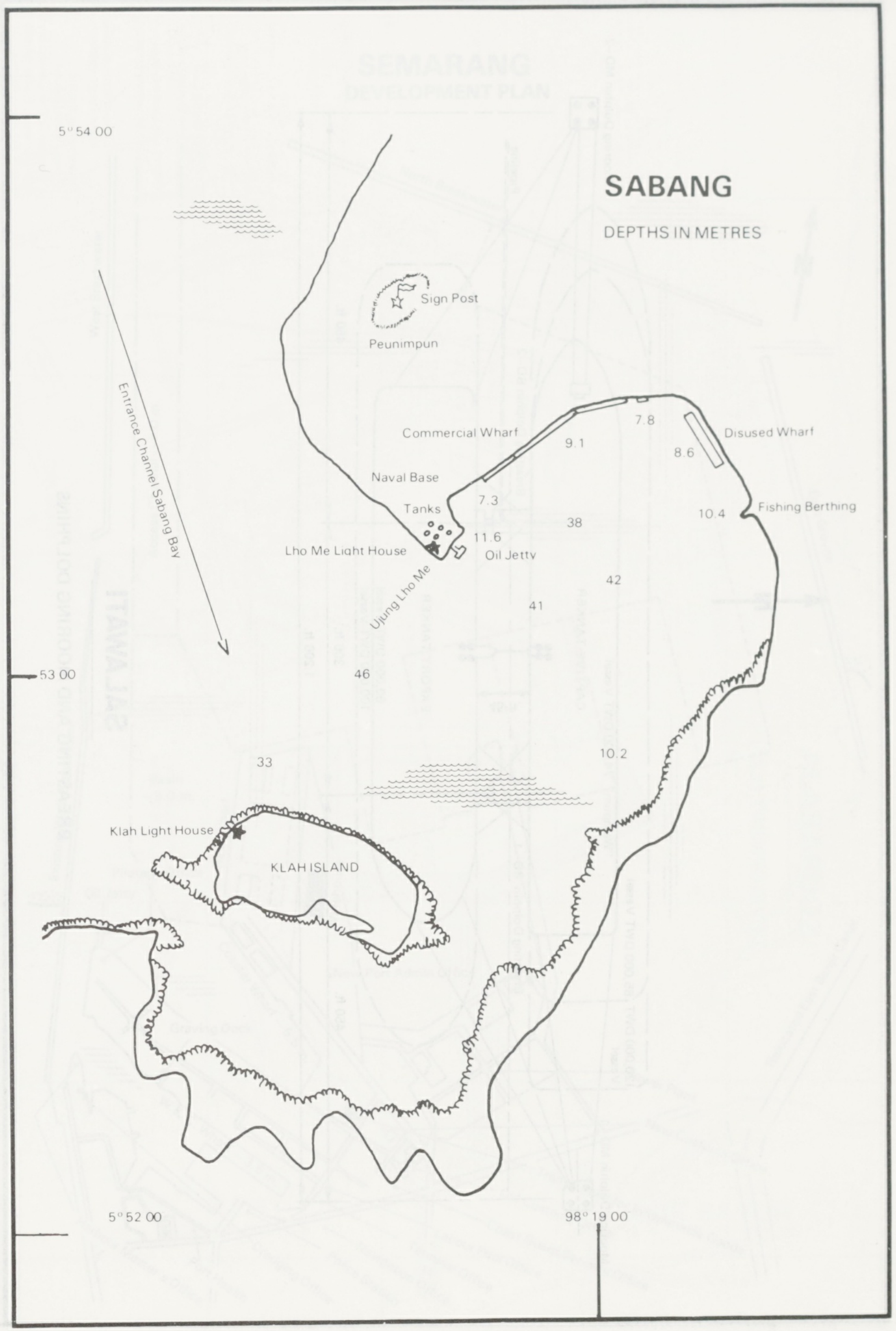

POMALAA
Padamarang
Maniang
Tanjong Leppe Pilot Station
Pomalaa Pilot Station
Ore-loading Anchorage
TG. LEPEE
Ore-loading Anchorage
POMALAA
Loading Berth
Kolaka
N



SALAWATI

DEPTHS IN METRES

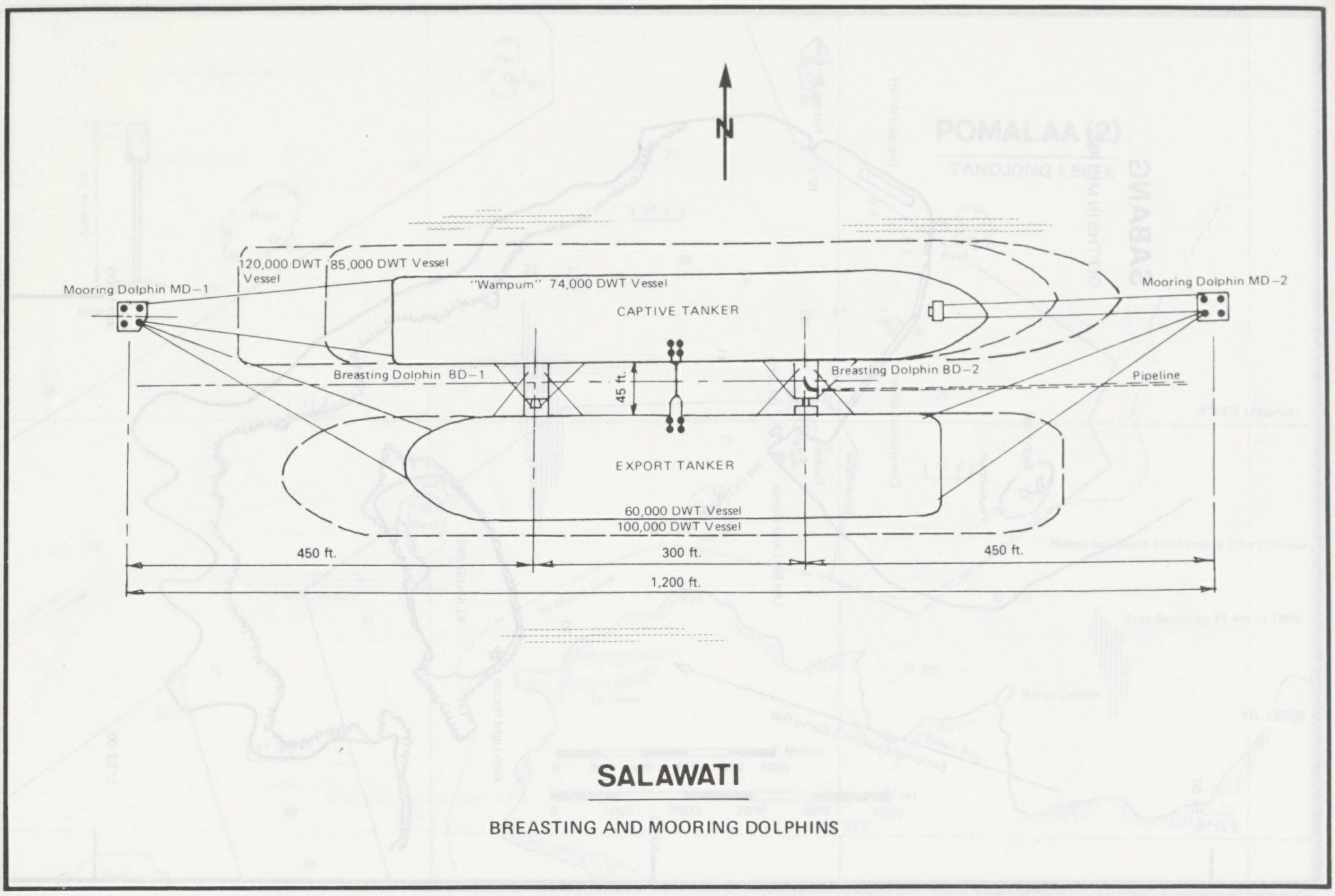
20
10
20
Storage tanker
Export tanker
12" Dia pipeline
Process barge
Utility barge
N
SALAWATI
Marine terminal
VOGELKOP



SABANG

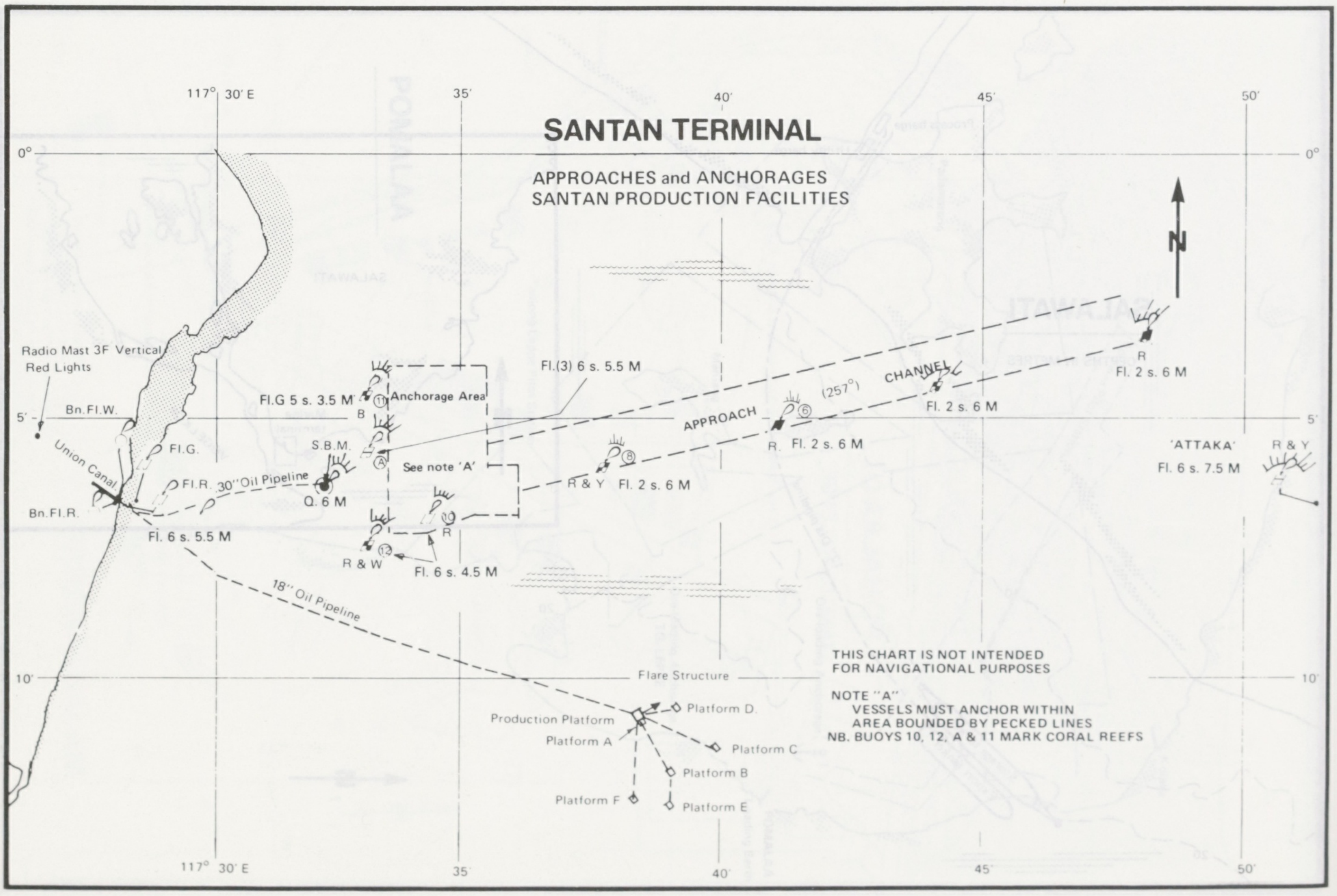
DEPTHS IN METRES

5° 54 00
53 00
5° 52 00
98° 19 00
Sign Post
Peunimpun
Entrance Channel Sabang Bay
Commercial Wharf
7.8
9.1
8.6
Disused Wharf
Naval Base
7.3
Tanks
38
10.4
Fishing Berthing
11.6
Lho Me Light House
Oil Jetty
Ujung Lho Me
42
41
46
10.2
33
Klah Light House
KLAH ISLAND


N
120,000 DWT Vessel
85,000 DWT Vessel
"Wampum" 74,000 DWT Vessel
Mooring Dolphin MD–1
Mooring Dolphin MD–2
CAPTIVE TANKER
Breasting Dolphin BD–1
Breasting Dolphin BD–2
Pipeline
45 ft.
EXPORT TANKER
60,000 DWT Vessel
100,000 DWT Vessel
450 ft.
300 ft.
450 ft.
1,200 ft.

SALAWATI

BREASTING AND MOORING DOLPHINS



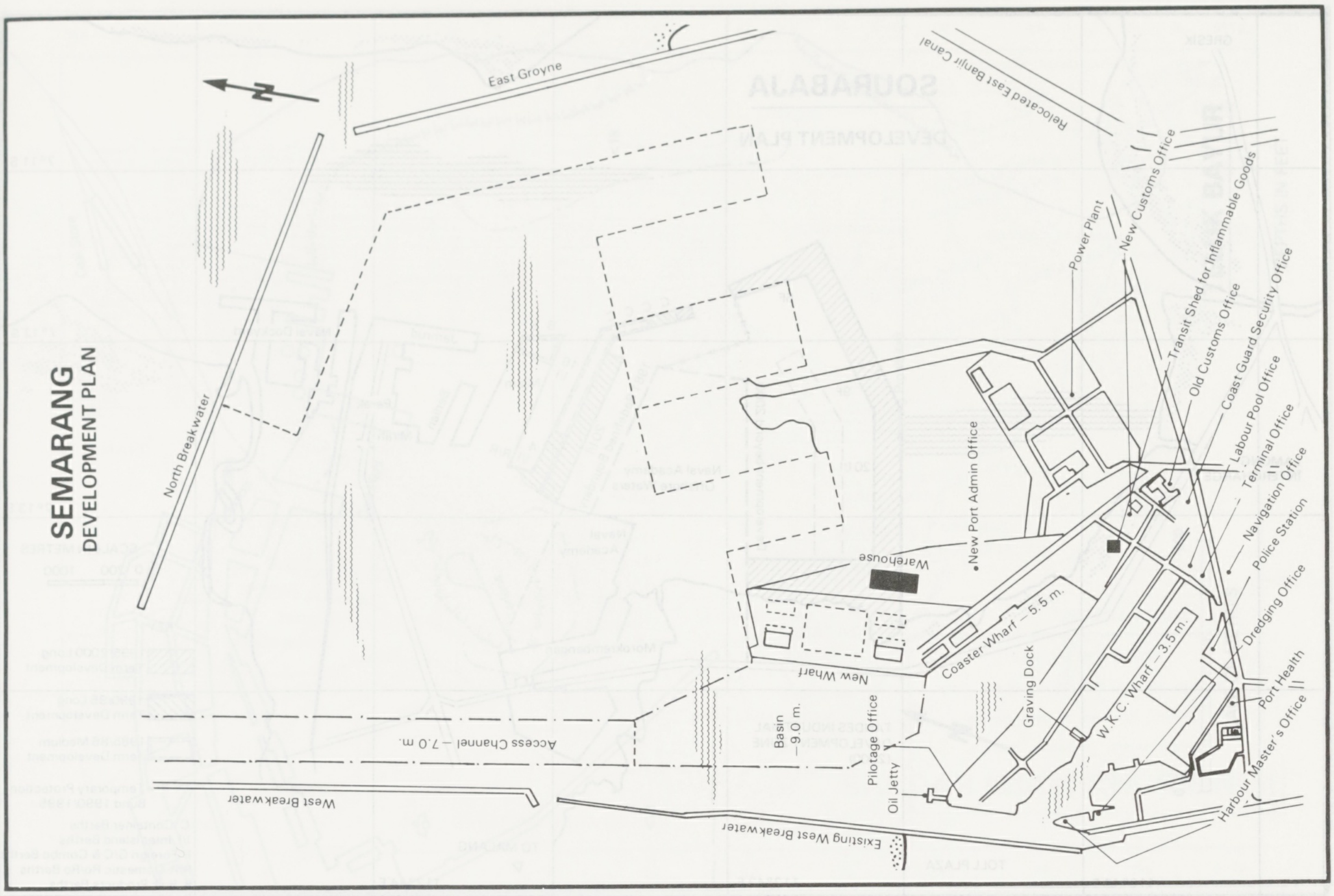
SANTAN TERMINAL

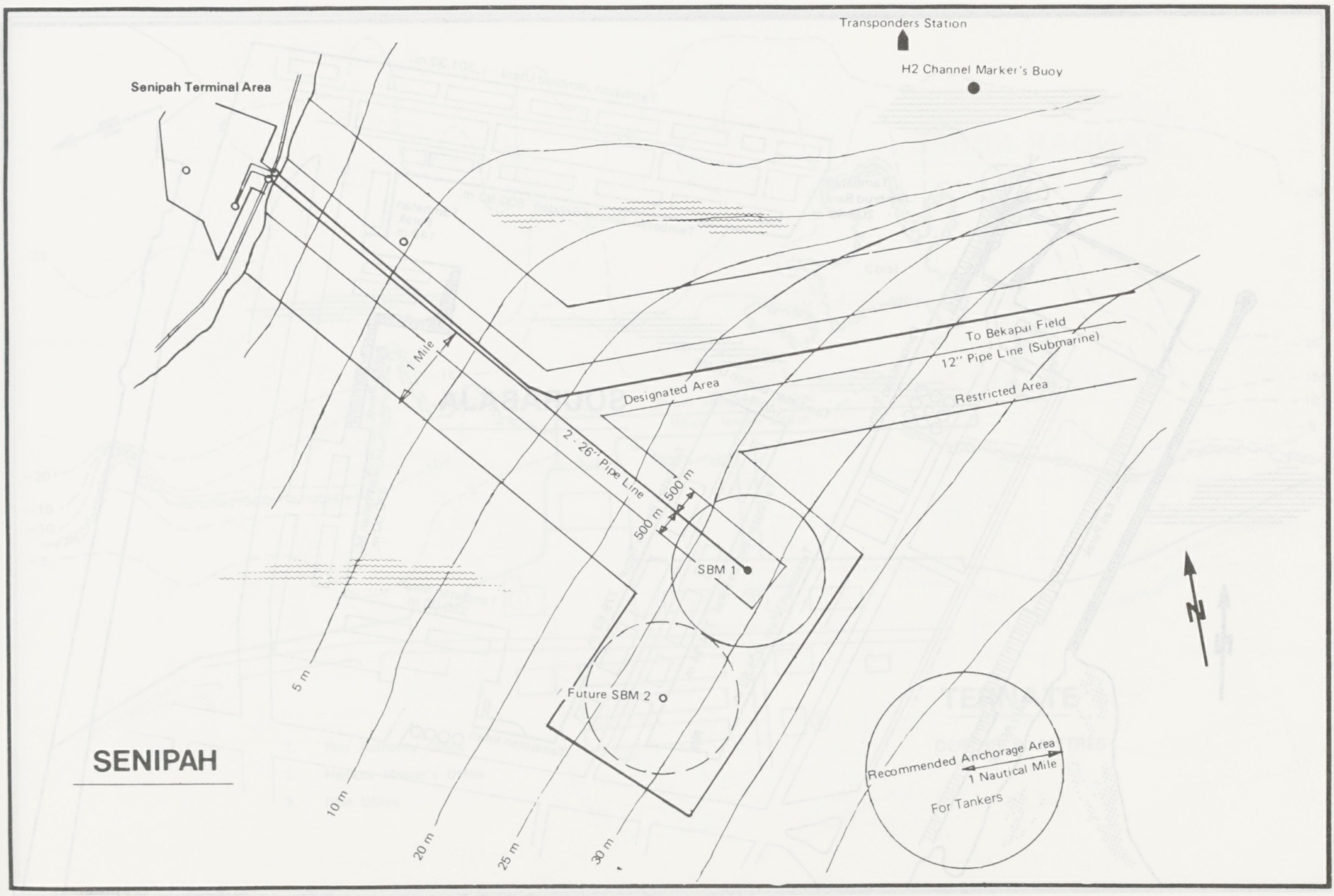
APPROACHES and ANCHORAGES
SANTAN PRODUCTION FACILITIES

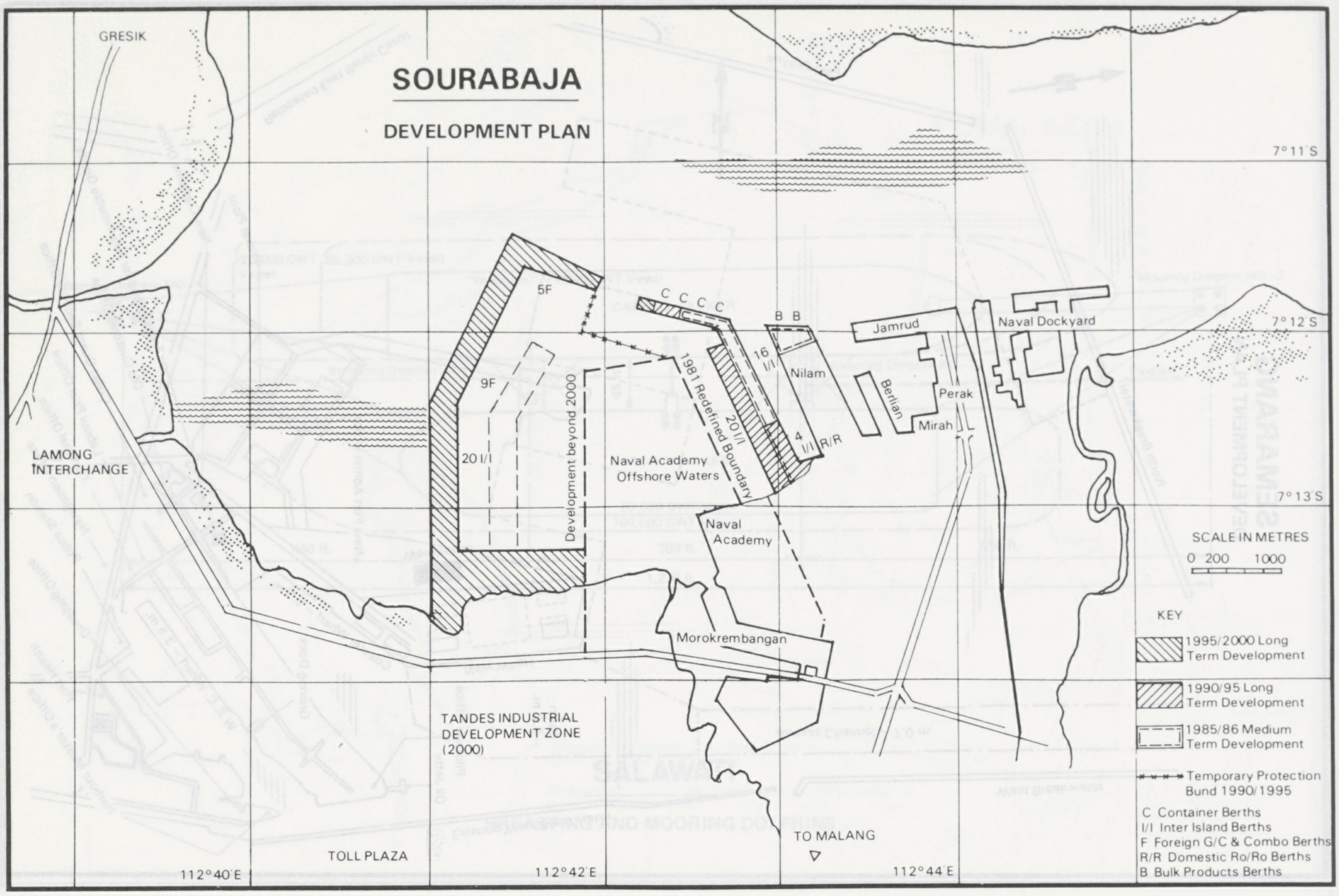
117° 30' E
35'
40'
45'
50'
0°
5'
10'
N
Radio Mast 3F Vertical Red Lights
Bn.Fl.W.
Union Canal
Fl.G.
Fl.R.
30" Oil Pipeline
Bn.Fl.R.
Fl. 6 s. 5.5 M
Fl.G 5 s. 3.5 M
⑪
B
Anchorage Area
S.B.M.
Ⓐ
Q. 6 M
See note 'A'
R
R & W
⑫
Fl. 6 s. 4.5 M
Fl.(3) 6 s. 5.5 M
⑧
R & Y
Fl. 2 s. 6 M
APPROACH
(257°)
CHANNEL
⑥
R.
Fl. 2 s. 6 M
Fl. 2 s. 6 M
R
Fl. 2 s. 6 M
'ATTAKA'
R & Y
Fl. 6 s. 7.5 M
18" Oil Pipeline
Flare Structure
Production Platform
Platform A
Platform D
Platform C
Platform B
Platform F
Platform E

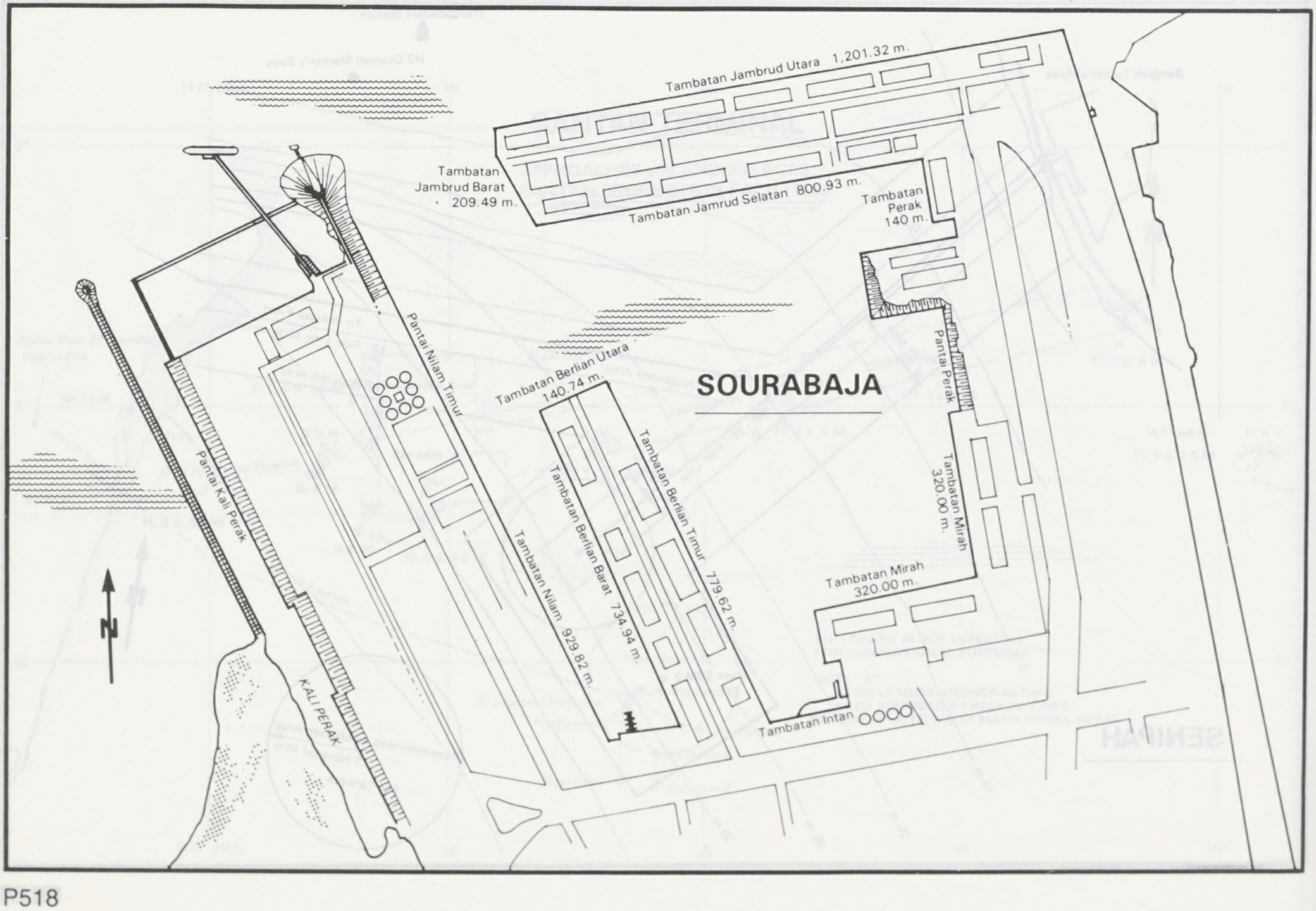
THIS CHART IS NOT INTENDED FOR NAVIGATIONAL PURPOSES

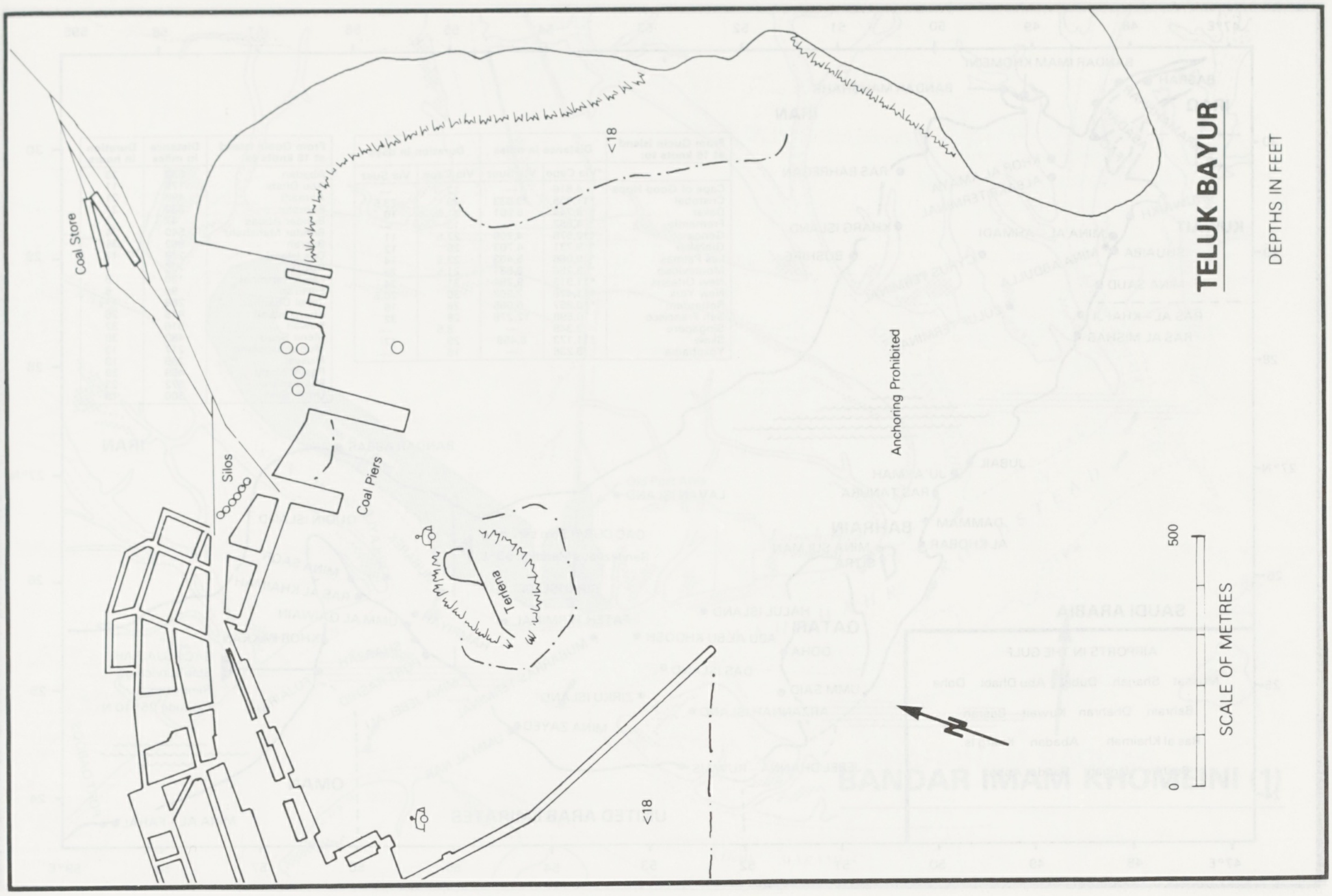
NOTE "A"
VESSELS MUST ANCHOR WITHIN AREA BOUNDED BY PECKED LINES
NB. BUOYS 10, 12, A & 11 MARK CORAL REEFS


SEMARANG
DEVELOPMENT PLAN
East Groyne
North Breakwater
Relocated East Banjir Canal
New Customs Office
Power Plant
Transit Shed for Inflammable Goods
Old Customs Office
Coast Guard Security Office
Labour Pool Office
Terminal Office
Navigation Office
Police Station
Dredging Office
Port Health
Harbour Master's Office
New Port Admin Office
Warehouse
Coaster Wharf – 5.5 m.
Graving Dock
W.K.C. Wharf – 3.5 m.
New Wharf
Basin – 9.0 m.
Pilotage Office
Oil Jetty
Access Channel – 7.0 m.
West Breakwater
Existing West Breakwater


Transponders Station
H2 Channel Marker's Buoy
Senipah Terminal Area
1 Mile
To Bekapai Field
12" Pipe Line (Submarine)
Designated Area
Restricted Area
2 · 26" Pipe Line
500 m
500 m
SBM 1
Future SBM 2
N
5 m
10 m
20 m
25 m
30 m
Recommended Anchorage Area
1 Nautical Mile
For Tankers
SENIPAH


SOURABAJA
DEVELOPMENT PLAN
GRESIK
LAMONG INTERCHANGE
5F
9F
20 I/I
Development beyond 2000
C C C C
B B
16 I/I
Nilam
1981 Redefined Boundary
20 I/I
4 I/I R/R
Jamrud
Berlian
Perak
Mirah
Naval Dockyard
Naval Academy Offshore Waters
Naval Academy
Morokrembangan
TANDES INDUSTRIAL DEVELOPMENT ZONE (2000)
TOLL PLAZA
TO MALANG
7°11'S
7°12'S
7°13'S
112°40'E
112°42'E
112°44'E
SCALE IN METRES
0 200 1000
KEY
1995/2000 Long Term Development
1990/95 Long Term Development
1985/86 Medium Term Development
Temporary Protection Bund 1990/1995
C Container Berths
I/I Inter Island Berths
F Foreign G/C & Combo Berths
R/R Domestic Ro/Ro Berths
B Bulk Products Berths

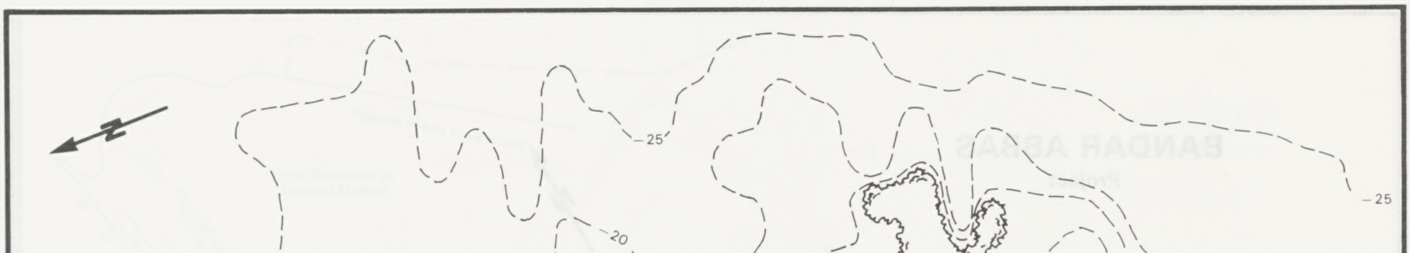

Tambatan Jambrud Utara 1,201.32 m.
Tambatan Jambrud Barat 209.49 m.
Tambatan Jamrud Selatan 800.93 m.
Tambatan Perak 140 m.
Pantai Perak
Pantai Nilam Timur
SOURABAJA
Tambatan Berlian Utara 140.74 m.
Tambatan Berlian Timur 779.62 m.
Tambatan Berlian Barat 734.94 m.
Tambatan Nilam 929.82 m.
Tambatan Mirah 320.00 m.
Tambatan Mirah 320.00 m.
Tambatan Intan
Pantai Kali Perak
KALI PERAK
N



TELUK BAYUR

DEPTHS IN FEET

Coal Store
Silos
Coal Piers
Terlena
<18
<18
Anchoring Prohibited
SCALE OF METRES
0
500

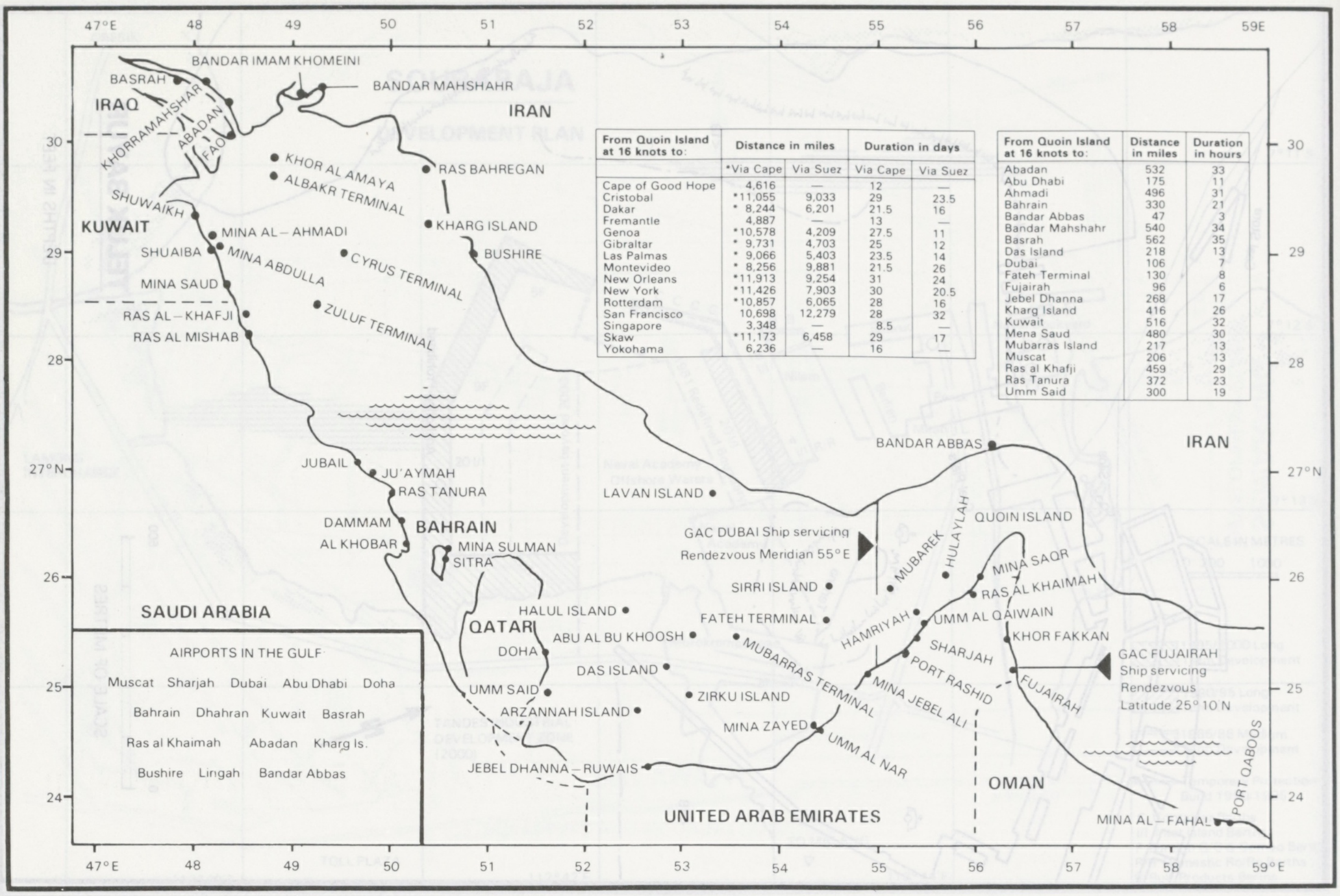


TERNATE

DEPTHS IN METRES

1. Port Authority Office
2. Harbour Master's Office
3. Pilot Office

Coral
Depth alongside 10.0 m.
Wharf length 248 m.
25
20
15
10
5
①
②
③

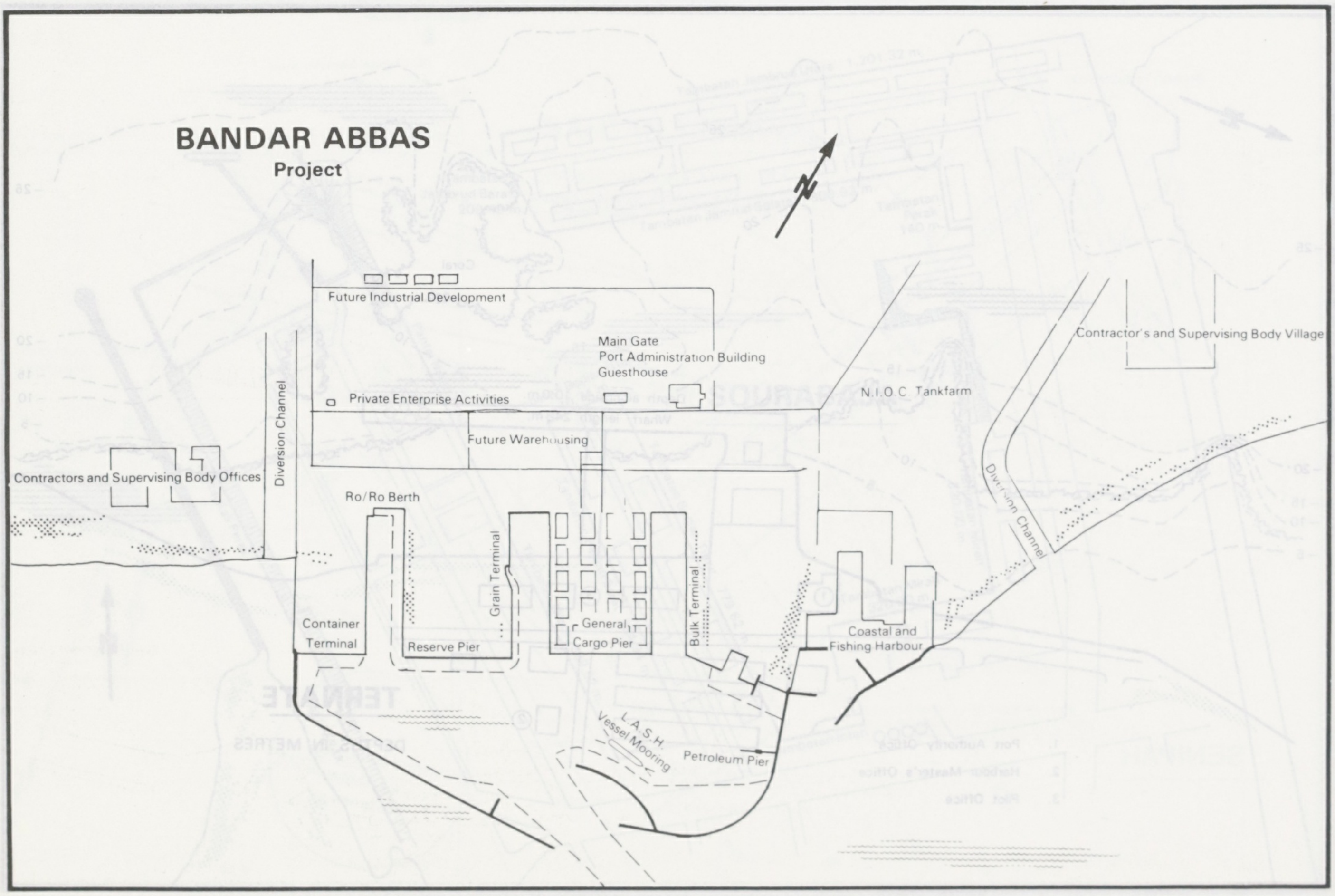

IRAQ
BASRAH
BANDAR IMAM KHOMEINI
BANDAR MAHSHAHR
KHORRAMSHAHR
ABADAN
FAO
IRAN
KHOR AL AMAYA
ALBAKR TERMINAL
RAS BAHREGAN
KHARG ISLAND
BUSHIRE
SHUWAIKH
KUWAIT
MINA AL – AHMADI
SHUAIBA
MINA ABDULLA
CYRUS TERMINAL
MINA SAUD
RAS AL – KHAFJI
RAS AL MISHAB
ZULUF TERMINAL
JUBAIL
JU'AYMAH
RAS TANURA
DAMMAM
AL KHOBAR
BAHRAIN
MINA SULMAN
SITRA
SAUDI ARABIA
QATAR
HALUL ISLAND
DOHA
ABU AL BU KHOOSH
UMM SAID
DAS ISLAND
ARZANNAH ISLAND
JEBEL DHANNA – RUWAIS
LAVAN ISLAND
GAC DUBAI Ship servicing
Rendezvous Meridian 55°E
SIRRI ISLAND
FATEH TERMINAL
MUBARRAS TERMINAL
ZIRKU ISLAND
MINA ZAYED
UMM AL NAR
MINA JEBEL ALI
PORT RASHID
SHARJAH
HAMRIYAH
UMM AL QAIWAIN
MUBAREK
HULAYLAH
BANDAR ABBAS
QUOIN ISLAND
MINA SAQR
RAS AL KHAIMAH
KHOR FAKKAN
FUJAIRAH
GAC FUJAIRAH
Ship servicing
Rendezvous
Latitude 25°10 N
OMAN
PORT QABOOS
MINA AL – FAHAL
UNITED ARAB EMIRATES
AIRPORTS IN THE GULF
Muscat Sharjah Dubai Abu Dhabi Doha
Bahrain Dhahran Kuwait Basrah
Ras al Khaimah Abadan Kharg Is.
Bushire Lingah Bandar Abbas
47°E 48 49 50 51 52 53 54 55 56 57 58 59E
30 29 28 27°N 26 25 24

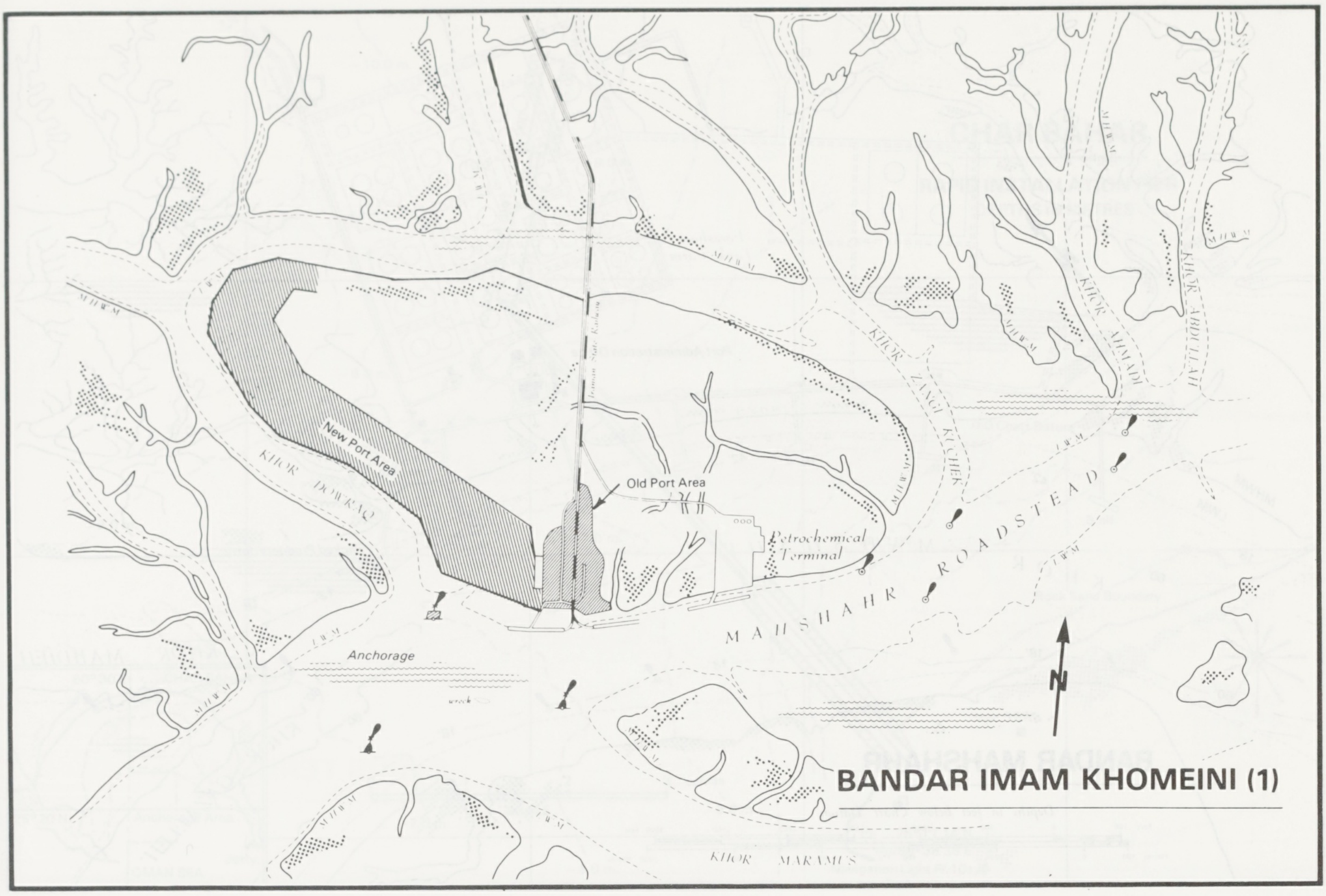
From Quoin Island at 16 knots to:	Distance in miles		Duration in days	
	*Via Cape	Via Suez	Via Cape	Via Suez
Cape of Good Hope	4,616	—	12	—
Cristobal	*11,055	9,033	29	23.5
Dakar	* 8,244	6,201	21.5	16
Fremantle	4,887	—	13	—
Genoa	*10,578	4,209	27.5	11
Gibraltar	* 9,731	4,703	25	12
Las Palmas	* 9,066	5,403	23.5	14
Montevideo	* 8,256	9,881	21.5	26
New Orleans	*11,913	9,254	31	24
New York	*11,426	7,903	30	20.5
Rotterdam	*10,857	6,065	28	16
San Francisco	10,698	12,279	28	32
Singapore	3,348	—	8.5	—
Skaw	*11,173	6,458	29	17
Yokohama	6,236	—	16	—

From Quoin Island at 16 knots to:	Distance in miles	Duration in hours
Abadan	532	33
Abu Dhabi	175	11
Ahmadi	496	31
Bahrain	330	21
Bandar Abbas	47	3
Bandar Mahshahr	540	34
Basrah	562	35
Das Island	218	13
Dubai	106	7
Fateh Terminal	130	8
Fujairah	96	6
Jebel Dhanna	268	17
Kharg Island	416	26
Kuwait	516	32
Mena Saud	480	30
Mubarras Island	217	13
Muscat	206	13
Ras al Khafji	459	29
Ras Tanura	372	23
Umm Said	300	19

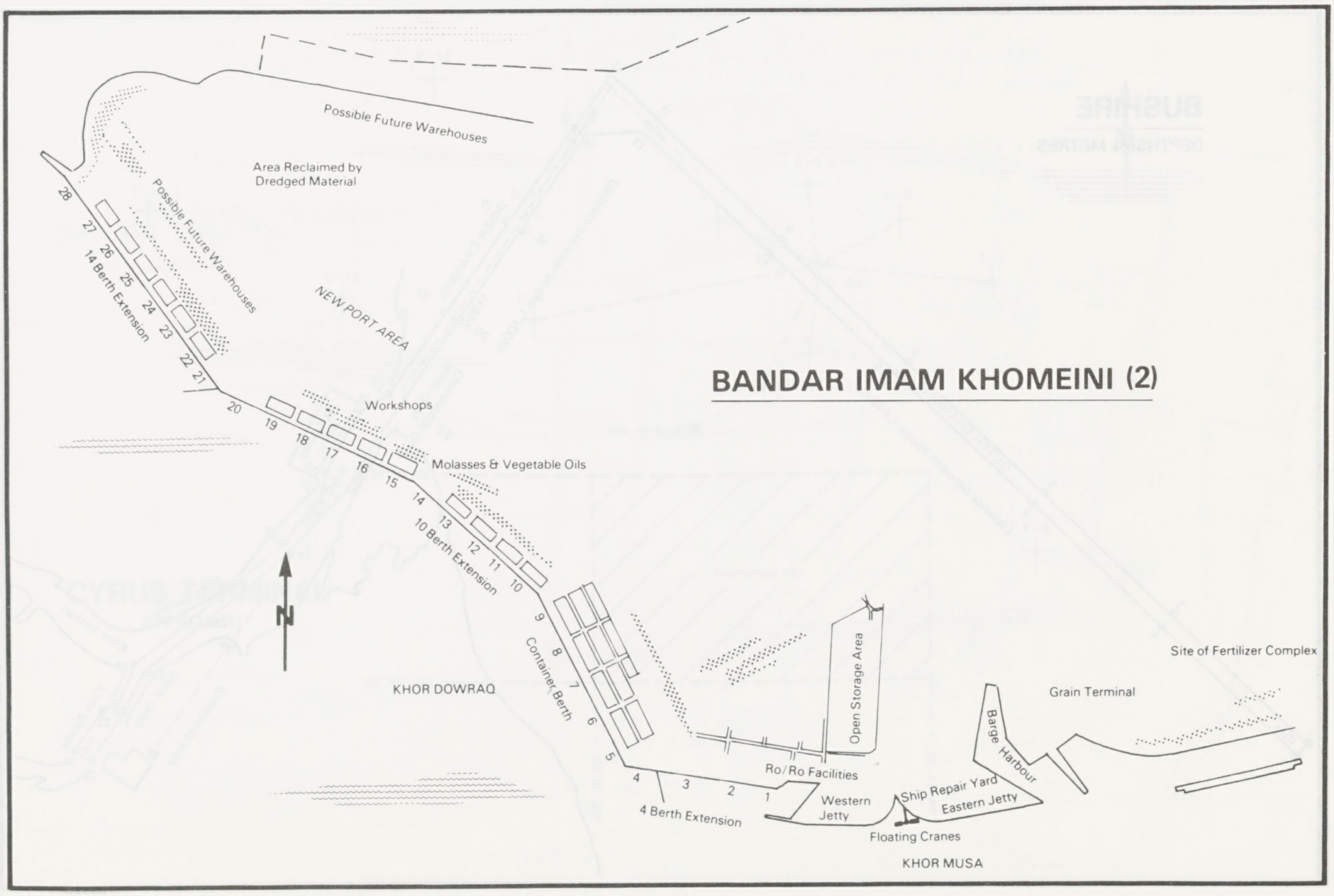
BANDAR ABBAS

Project

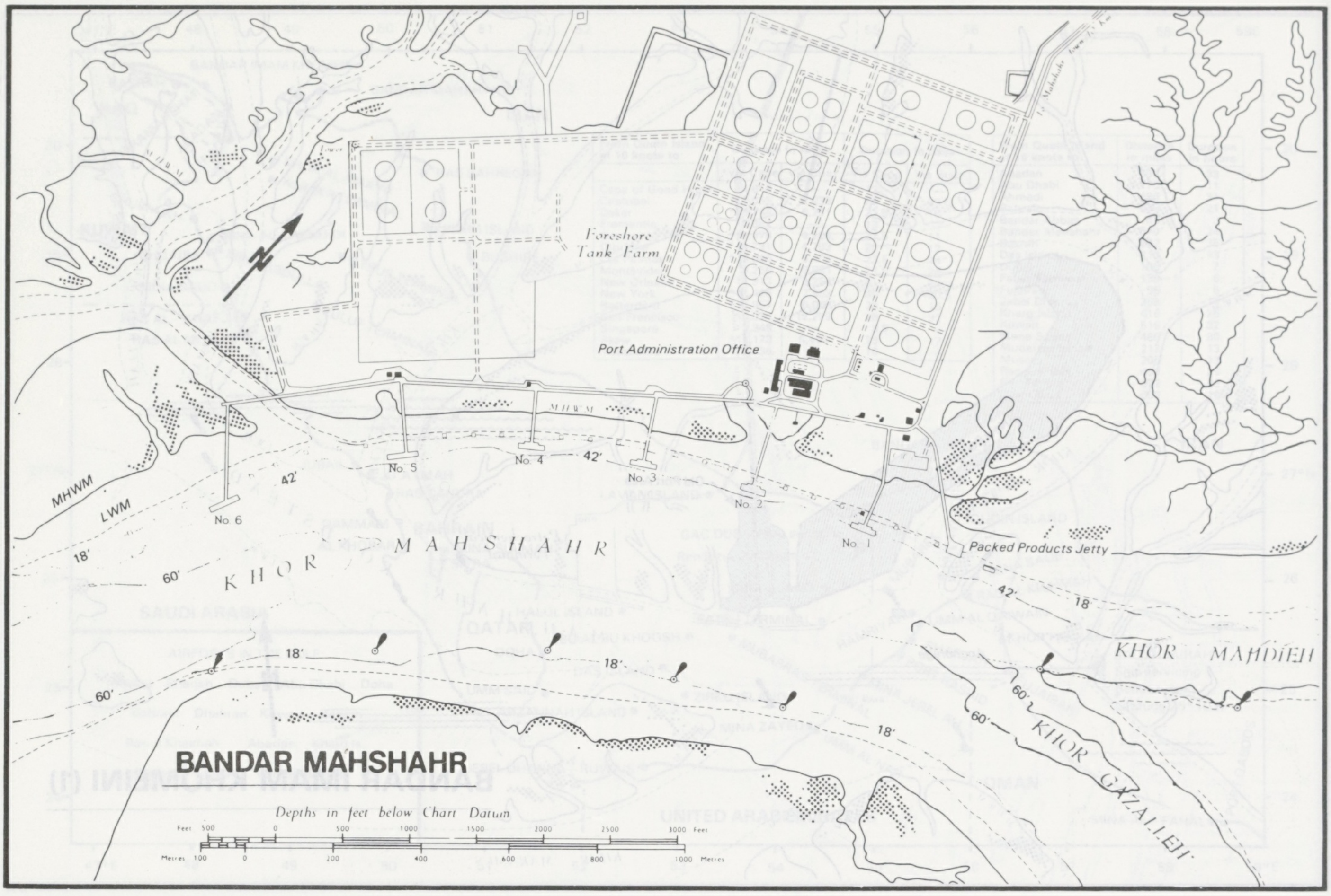

Future Industrial Development
Main Gate
Port Administration Building
Guesthouse
Contractor's and Supervising Body Village
N.I.O.C. Tankfarm
Private Enterprise Activities
Future Warehousing
Diversion Channel
Contractors and Supervising Body Offices
Ro/Ro Berth
Grain Terminal
Bulk Terminal
Diversion Channel
Container Terminal
Reserve Pier
General Cargo Pier
Coastal and Fishing Harbour
L.A.S.H. Vessel Mooring
Petroleum Pier

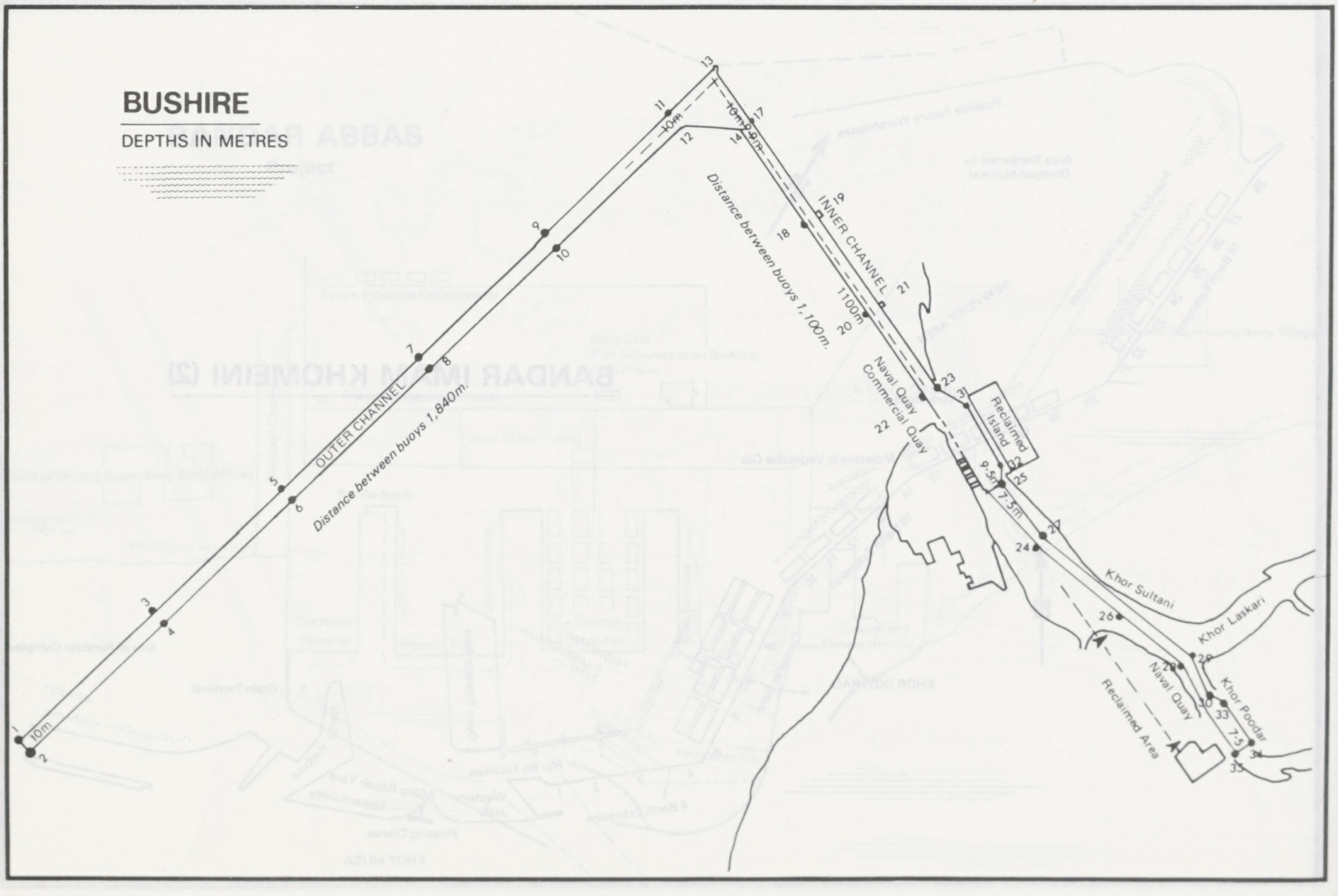

New Port Area
Old Port Area
Petrochemical Terminal
KHOR DOWRAQ
KHOR ZANGI KUCHEK
KHOR AHMADI
KHOR ABDULLAH
MAHSHAHR ROADSTEAD
Anchorage
KHOR MARAMUS
L W M
H W M
N

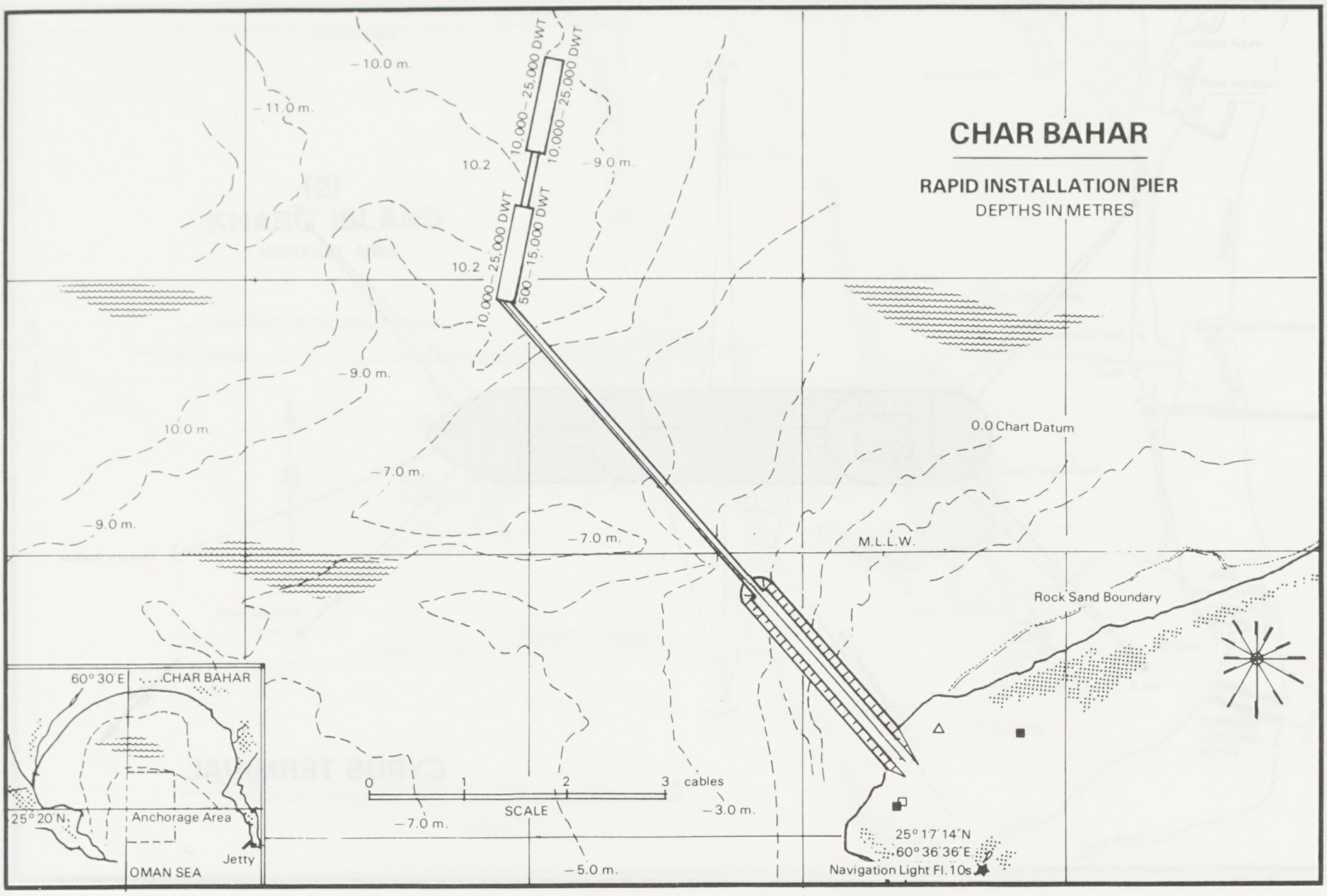
BANDAR IMAM KHOMEINI (1)

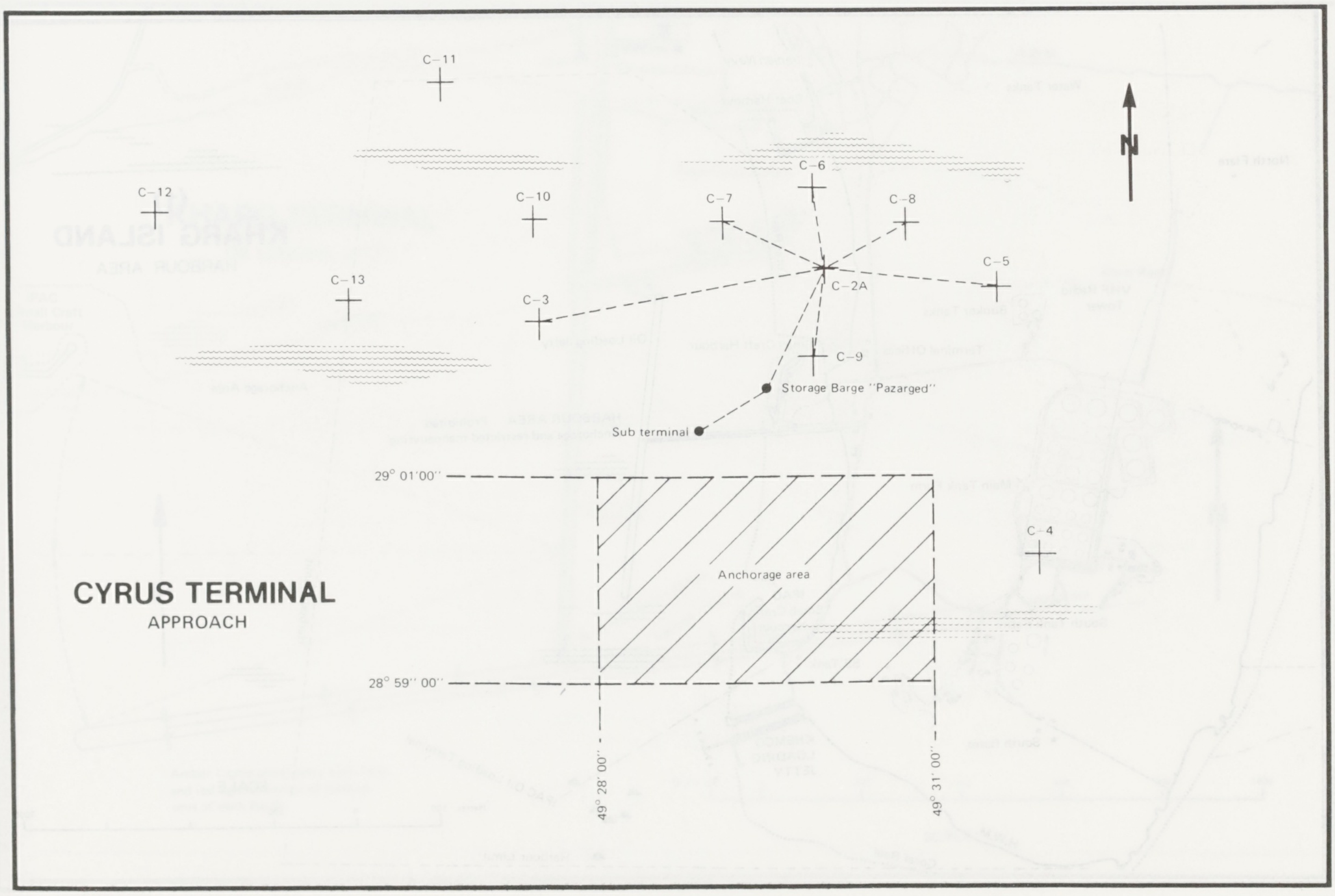

Possible Future Warehouses
Area Reclaimed by Dredged Material
Possible Future Warehouses
NEW PORT AREA
14 Berth Extension
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
Workshops
Molasses & Vegetable Oils
10 Berth Extension
Container Berth
4 Berth Extension
Open Storage Area
Ro/Ro Facilities
Western Jetty
Ship Repair Yard
Eastern Jetty
Floating Cranes
Barge Harbour
Grain Terminal
Site of Fertilizer Complex
KHOR DOWRAQ
KHOR MUSA
N

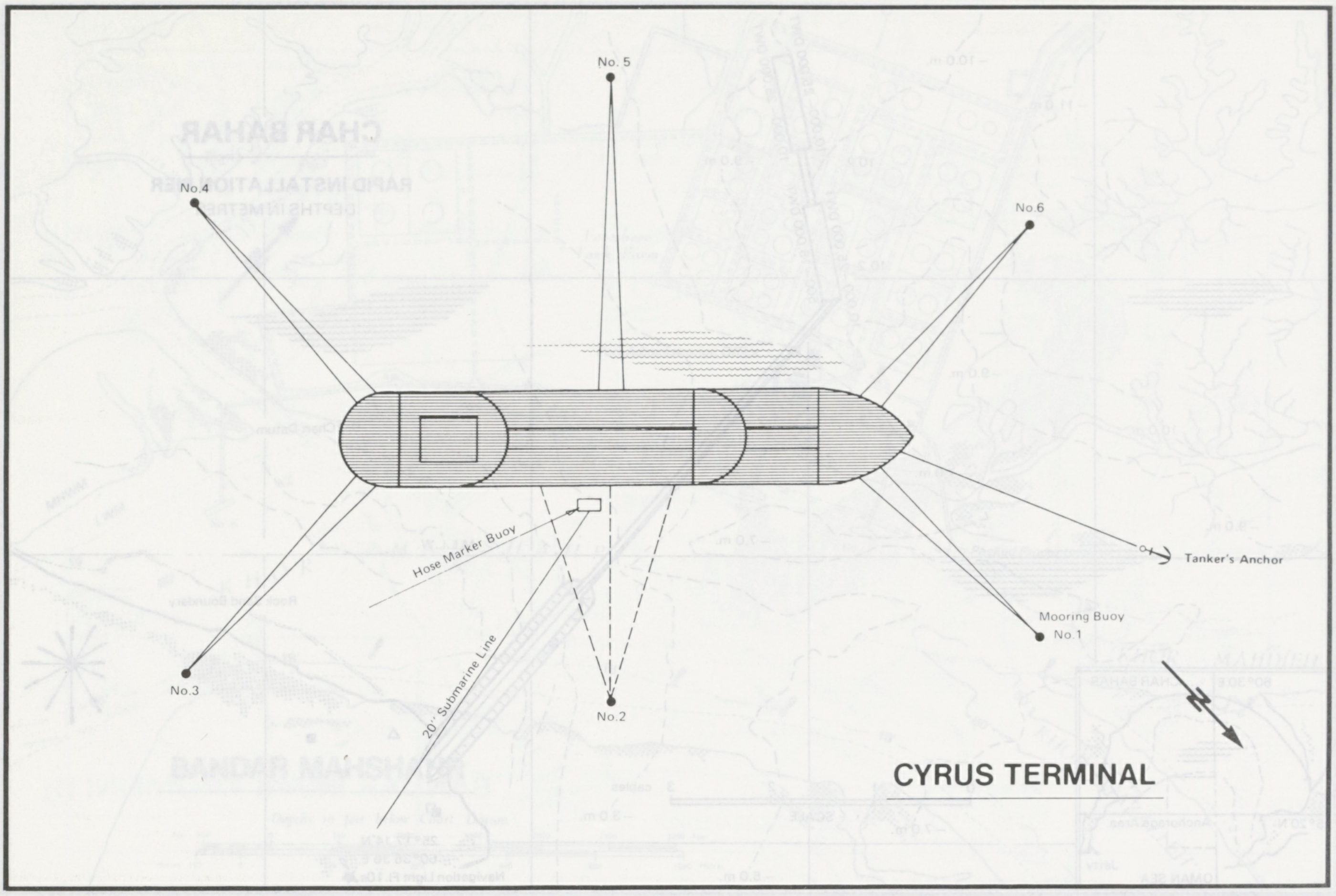
BANDAR IMAM KHOMEINI (2)

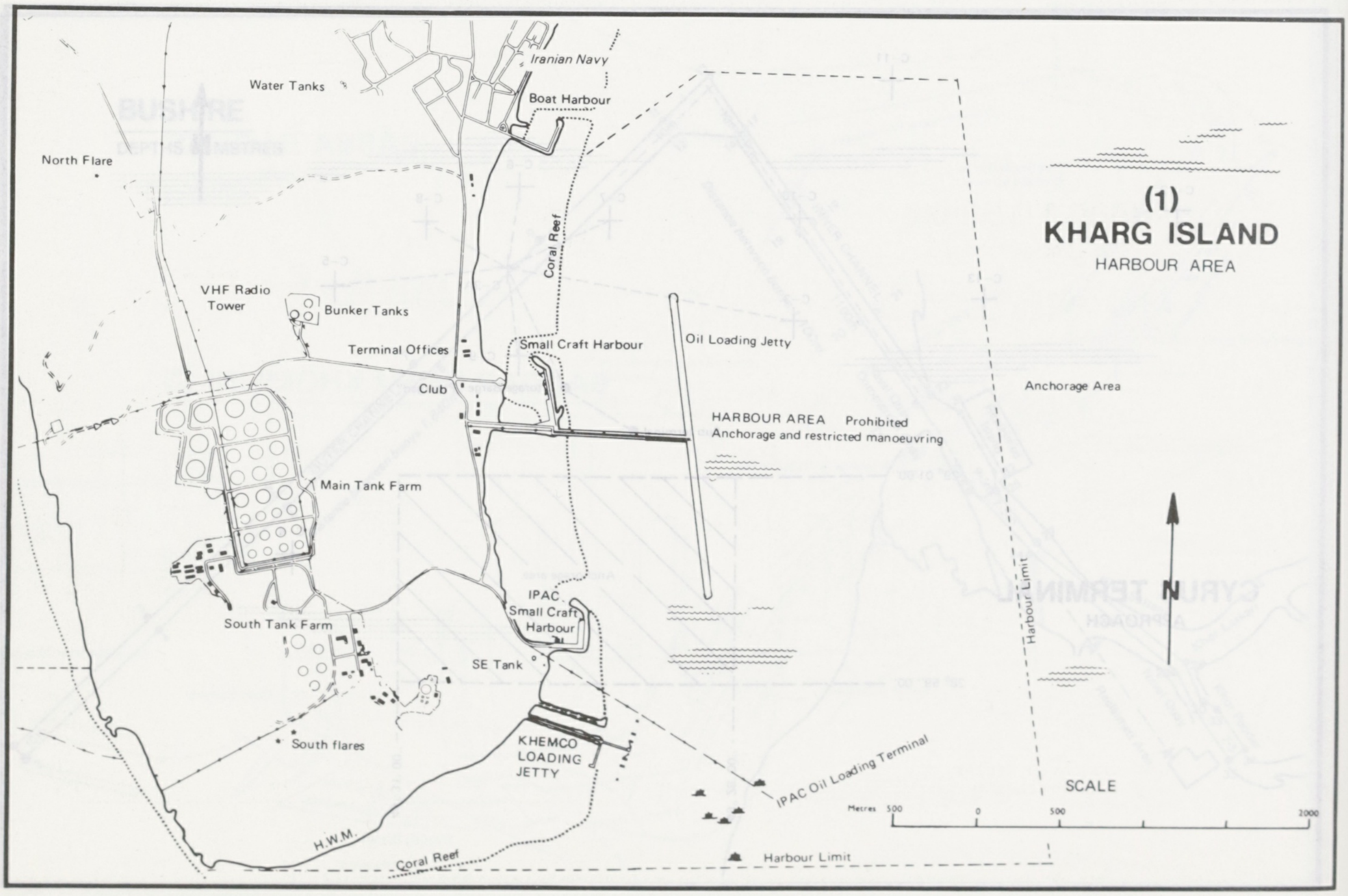

Foreshore Tank Farm
Port Administration Office
MHWM
LWM
No. 6
No. 5
No. 4
No. 3
No. 2
No. 1
Packed Products Jetty
42'
60'
18'
KHOR MAHSHAHR
KHOR MAHDIEH
KHOR GAZALLEH
BANDAR MAHSHAHR
Depths in feet below Chart Datum
Feet 500 0 500 1000 1500 2000 2500 3000 Feet
Metres 100 0 200 400 600 800 1000 Metres

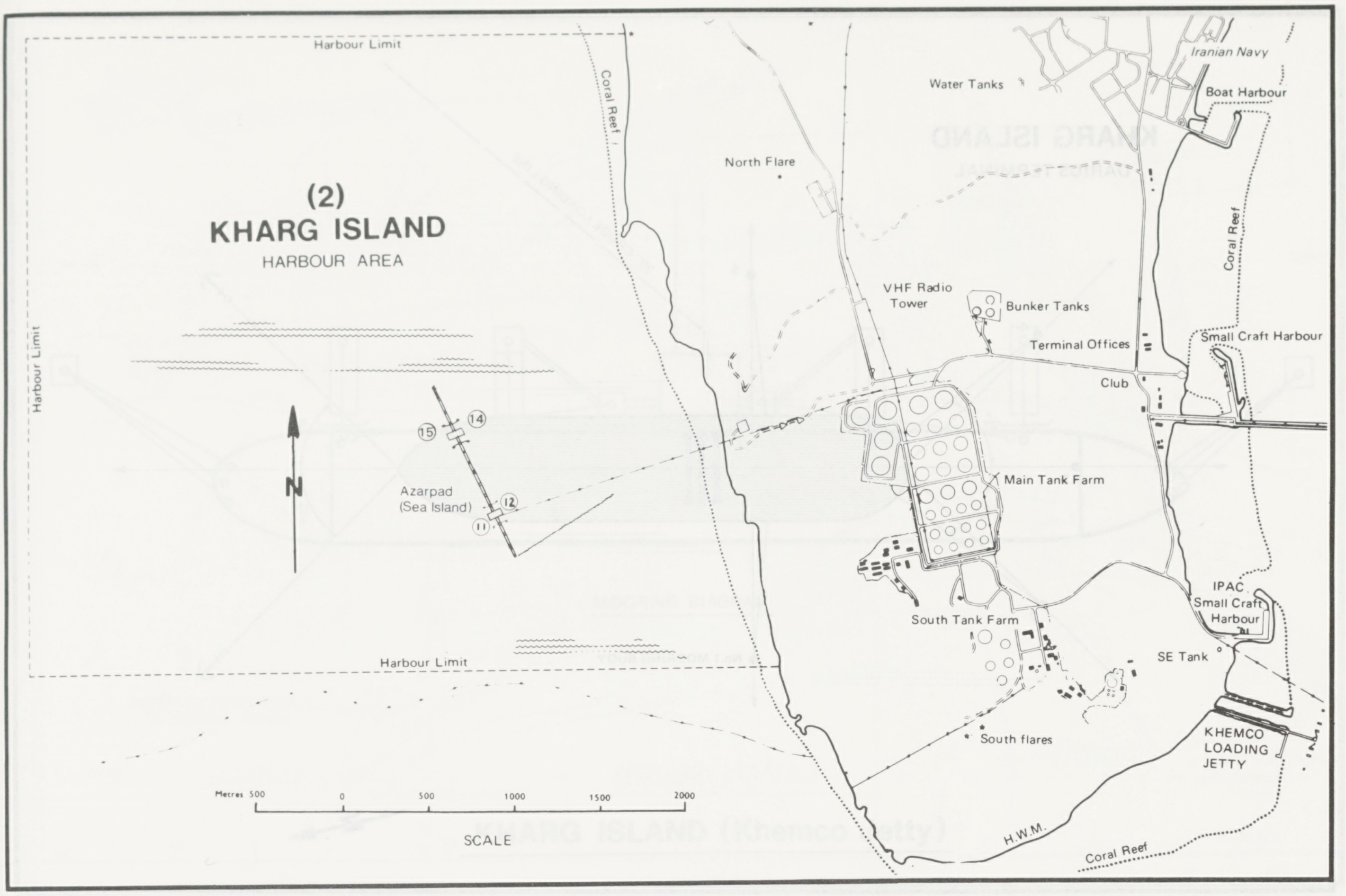

BUSHIRE
DEPTHS IN METRES
OUTER CHANNEL
Distance between buoys 1,840m.
INNER CHANNEL
Distance between buoys 1,100m.
10m
1100m
9.5m
7.5m
Naval Quay
Commercial Quay
Reclaimed Island
Khor Sultani
Khor Laskari
Khor Poodar
Naval Quay
Reclaimed Area
1
2
3
4
5
6
7
8
9
10
11
12
13
14
17
18
19
20
21
22
23
24
25
26
27
28
29
30
33
34
35

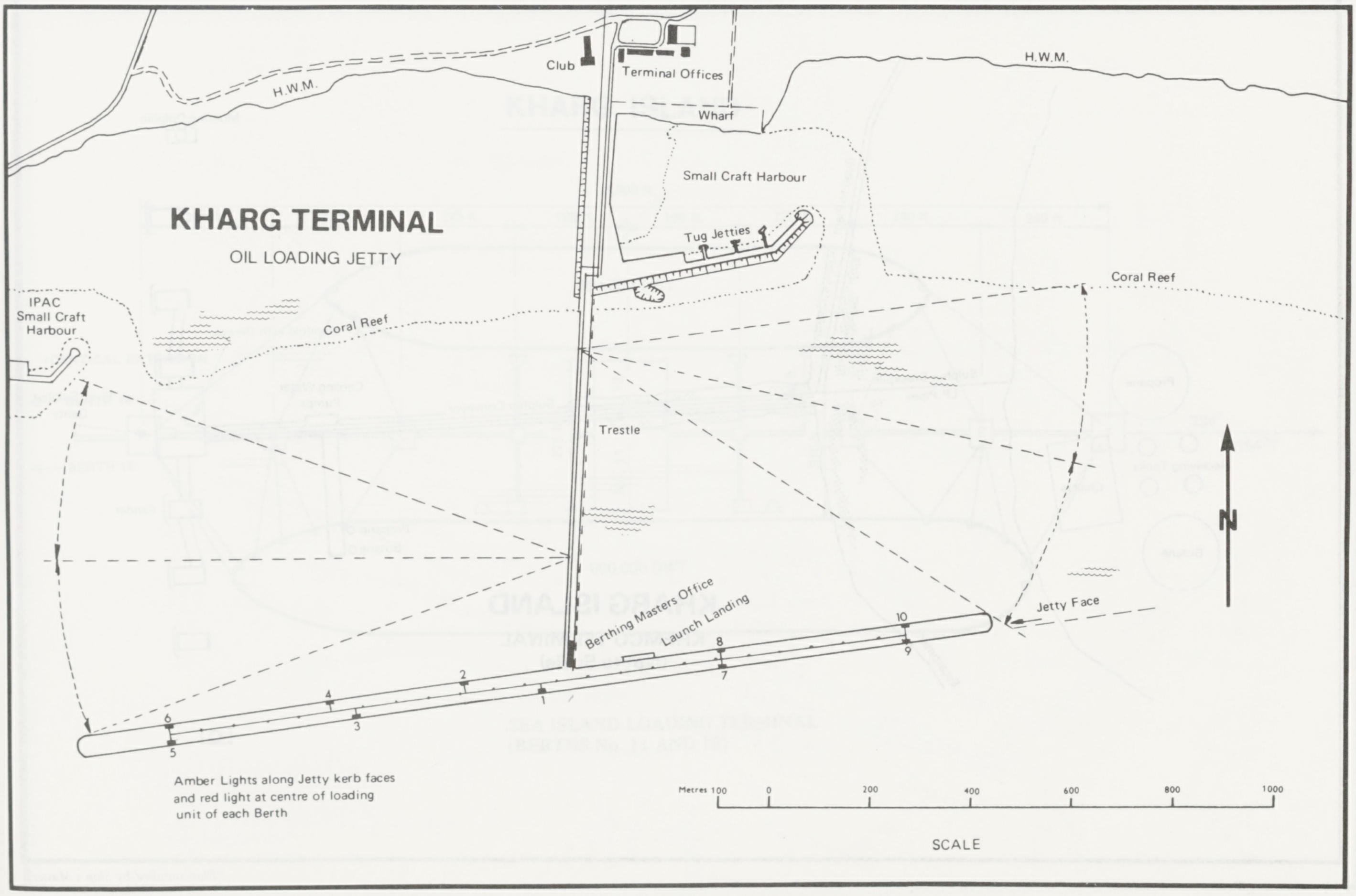

CHAR BAHAR
RAPID INSTALLATION PIER
DEPTHS IN METRES
10,000–25,000 DWT
10,000–25,000 DWT
10,000–25,000 DWT
500–15,000 DWT
−10.0 m.
−11.0 m.
10.2
10.2
−9.0 m.
−9.0 m.
10.0 m.
−7.0 m.
−9.0 m.
−7.0 m.
0.0 Chart Datum
M.L.L.W.
Rock Sand Boundary
0
1
2
3
cables
SCALE
−7.0 m.
−3.0 m.
−5.0 m.
25° 17′ 14″N
60° 36′ 36″E
Navigation Light Fl. 10s
60° 30′ E
CHAR BAHAR
25° 20′ N
Anchorage Area
Jetty
OMAN SEA

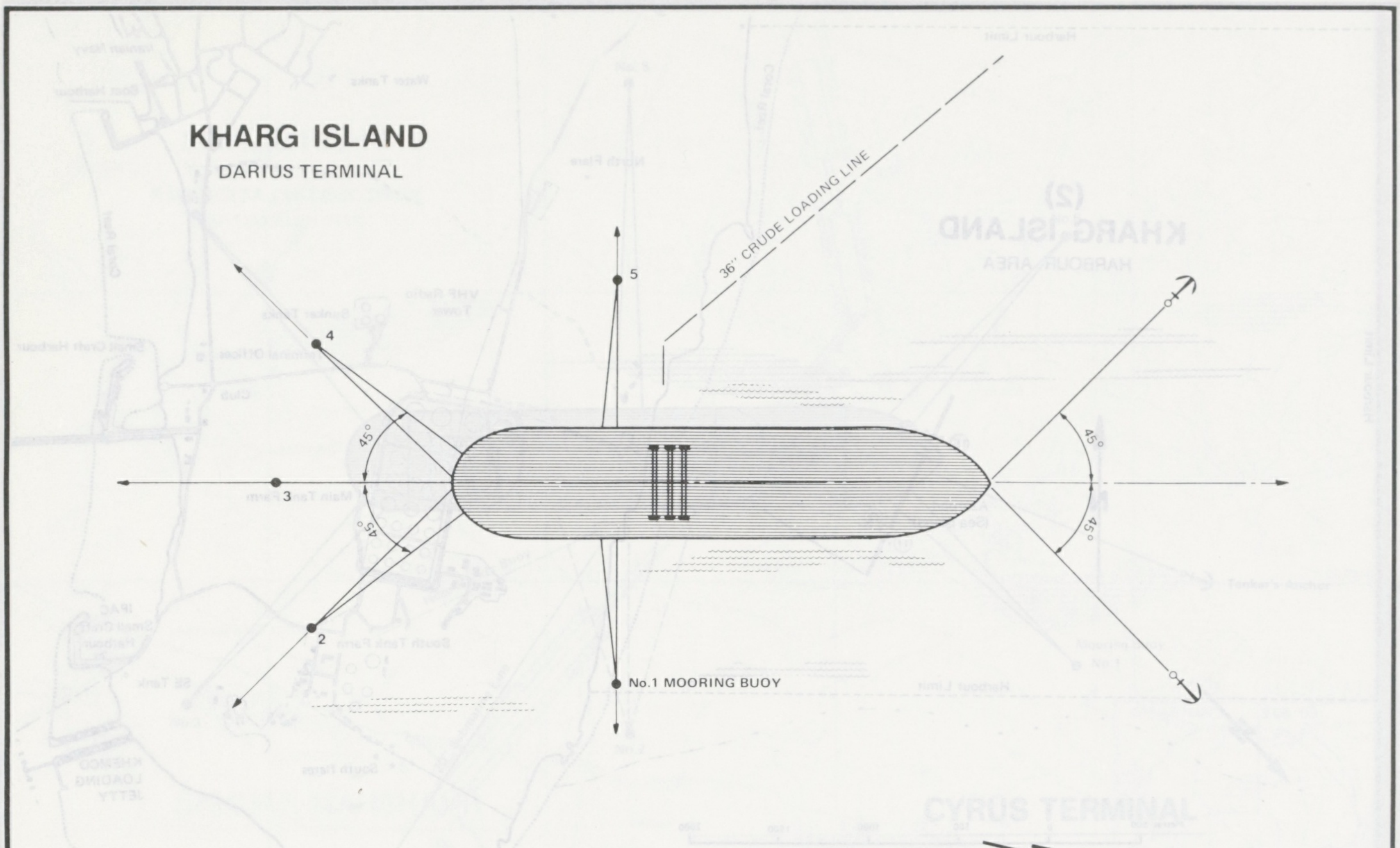

C–11
C–12
C–10
C–7
C–6
C–8
C–13
C–3
C–2A
C–5
C–9
Storage Barge "Pazarged"
Sub terminal
N
29° 01′ 00″
28° 59″ 00″
Anchorage area
C–4
49° 28′ 00″
49° 31′ 00″
CYRUS TERMINAL
APPROACH

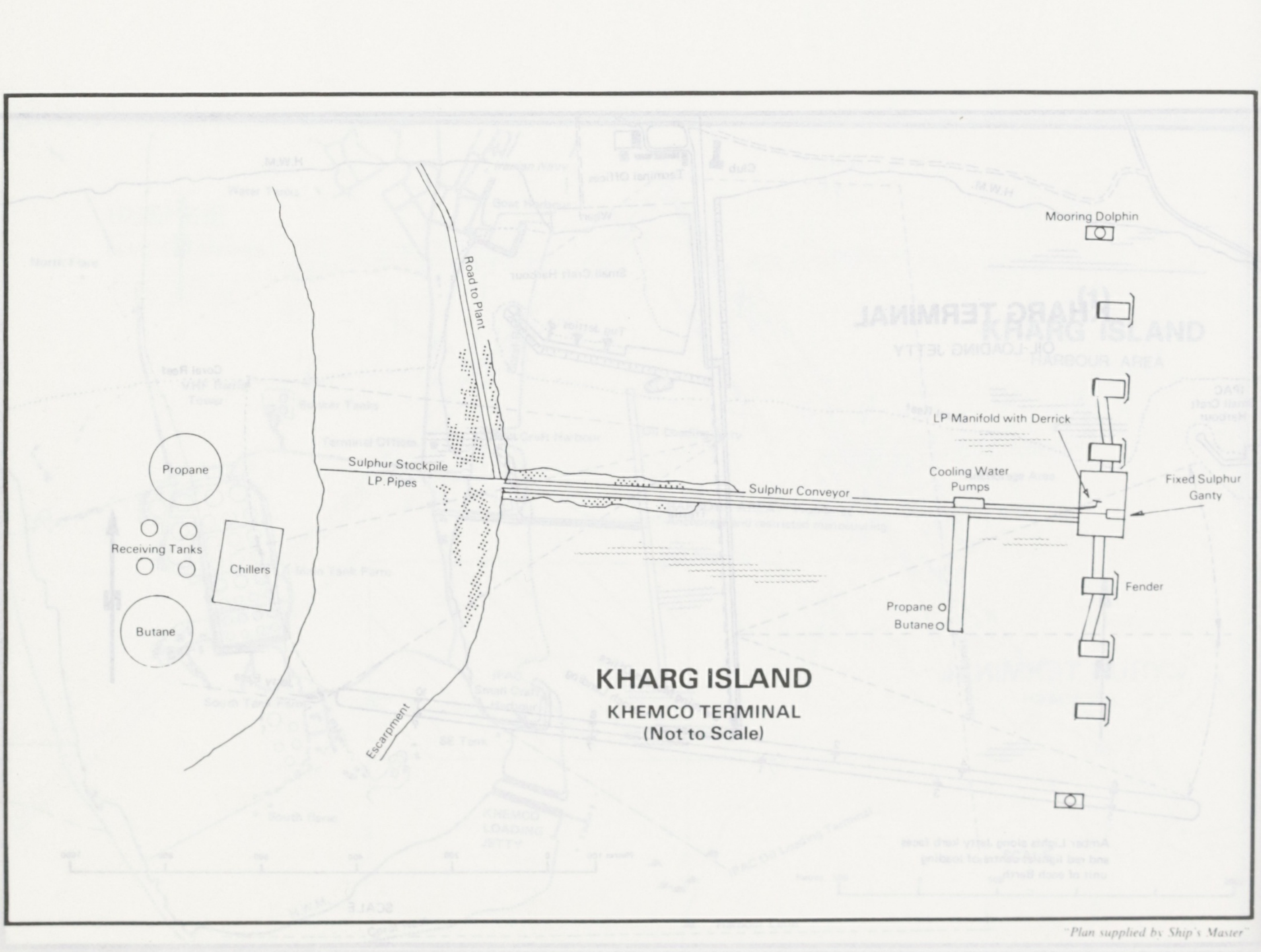

No. 5
No.4
No.6
Hose Marker Buoy
20" Submarine Line
Tanker's Anchor
Mooring Buoy
No.1
No.3
No.2
CYRUS TERMINAL


Iranian Navy
Water Tanks
Boat Harbour
North Flare
(1)
KHARG ISLAND
HARBOUR AREA
Coral Reef
VHF Radio Tower
Bunker Tanks
Oil Loading Jetty
Terminal Offices
Small Craft Harbour
Anchorage Area
Club
HARBOUR AREA Prohibited Anchorage and restricted manoeuvring
Main Tank Farm
Harbour Limit
IPAC Small Craft Harbour
South Tank Farm
SE Tank
South flares
KHEMCO LOADING JETTY
IPAC Oil Loading Terminal
SCALE
Metres 500 0 500 2000
H.W.M.
Coral Reef
Harbour Limit

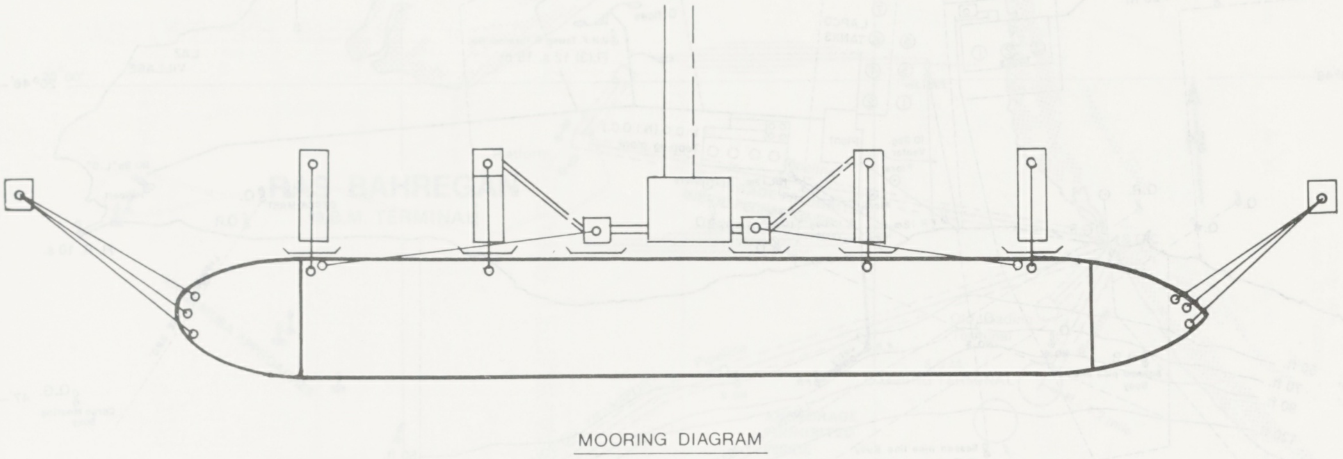

(2)
KHARG ISLAND
HARBOUR AREA
Harbour Limit
Harbour Limit
Harbour Limit
Coral Reef
N
Azarpad
(Sea Island)
15
14
12
11
North Flare
Water Tanks
Iranian Navy
Boat Harbour
Coral Reef
VHF Radio
Tower
Bunker Tanks
Terminal Offices
Small Craft Harbour
Club
Main Tank Farm
South Tank Farm
IPAC
Small Craft
Harbour
SE Tank
KHEMCO
LOADING
JETTY
South flares
H.W.M.
Coral Reef
Metres 500
0
500
1000
1500
2000
SCALE


KHARG TERMINAL
OIL LOADING JETTY
Club
Terminal Offices
H.W.M.
H.W.M.
Wharf
Small Craft Harbour
Tug Jetties
Coral Reef
Coral Reef
IPAC
Small Craft
Harbour
Trestle
N
Berthing Masters Office
Launch Landing
Jetty Face
10
9
8
7
2
1
4
3
6
5
Amber Lights along Jetty kerb faces
and red light at centre of loading
unit of each Berth
Metres 100
0
200
400
600
800
1000
SCALE


KHARG ISLAND
DARIUS TERMINAL
36" CRUDE LOADING LINE
5
4
3
2
No.1 MOORING BUOY
45°
45°
45°
45°

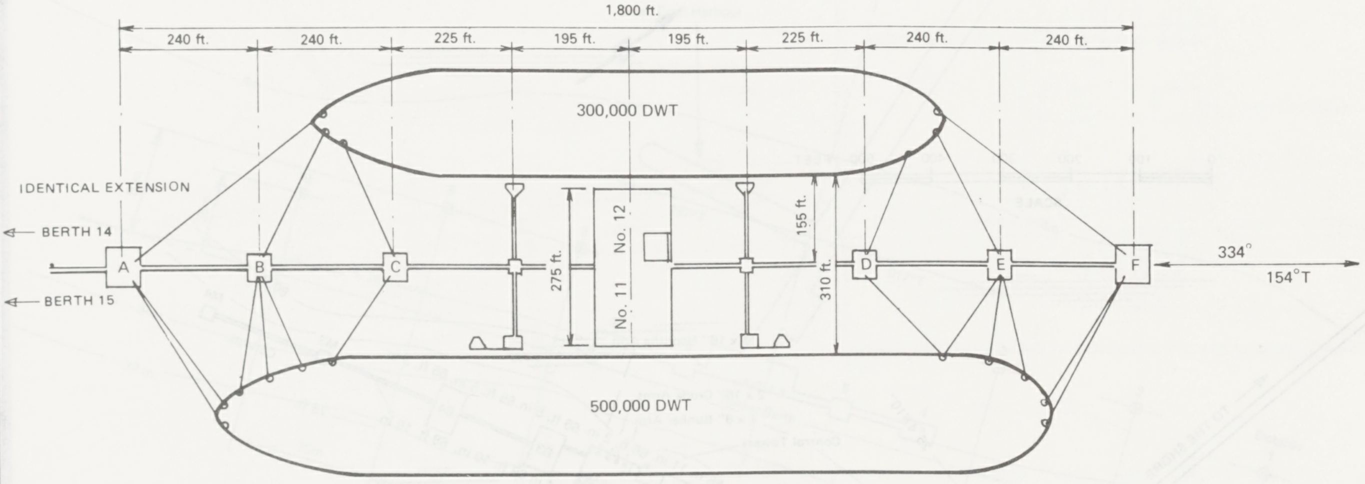

Mooring Dolphin
Road to Plant
LP Manifold with Derrick
Propane
Sulphur Stockpile
LP. Pipes
Cooling Water Pumps
Sulphur Conveyor
Fixed Sulphur Ganty
Receiving Tanks
Chillers
Fender
Butane
Propane
Butane
Escarpment
KHARG ISLAND
KHEMCO TERMINAL
(Not to Scale)

"Plan supplied by Ship's Master"

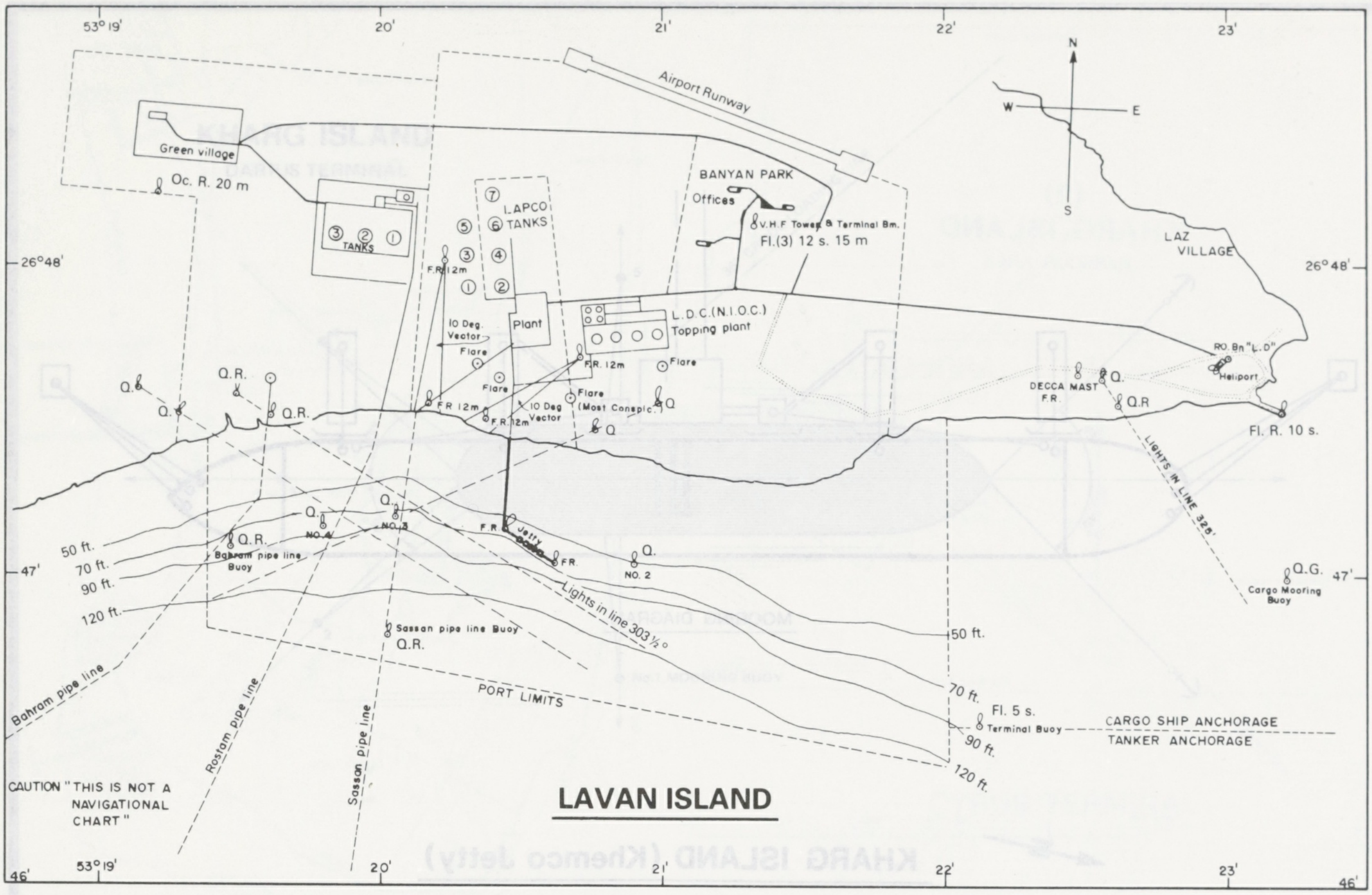

MOORING DIAGRAM

KHARG ISLAND (Khemco Jetty)

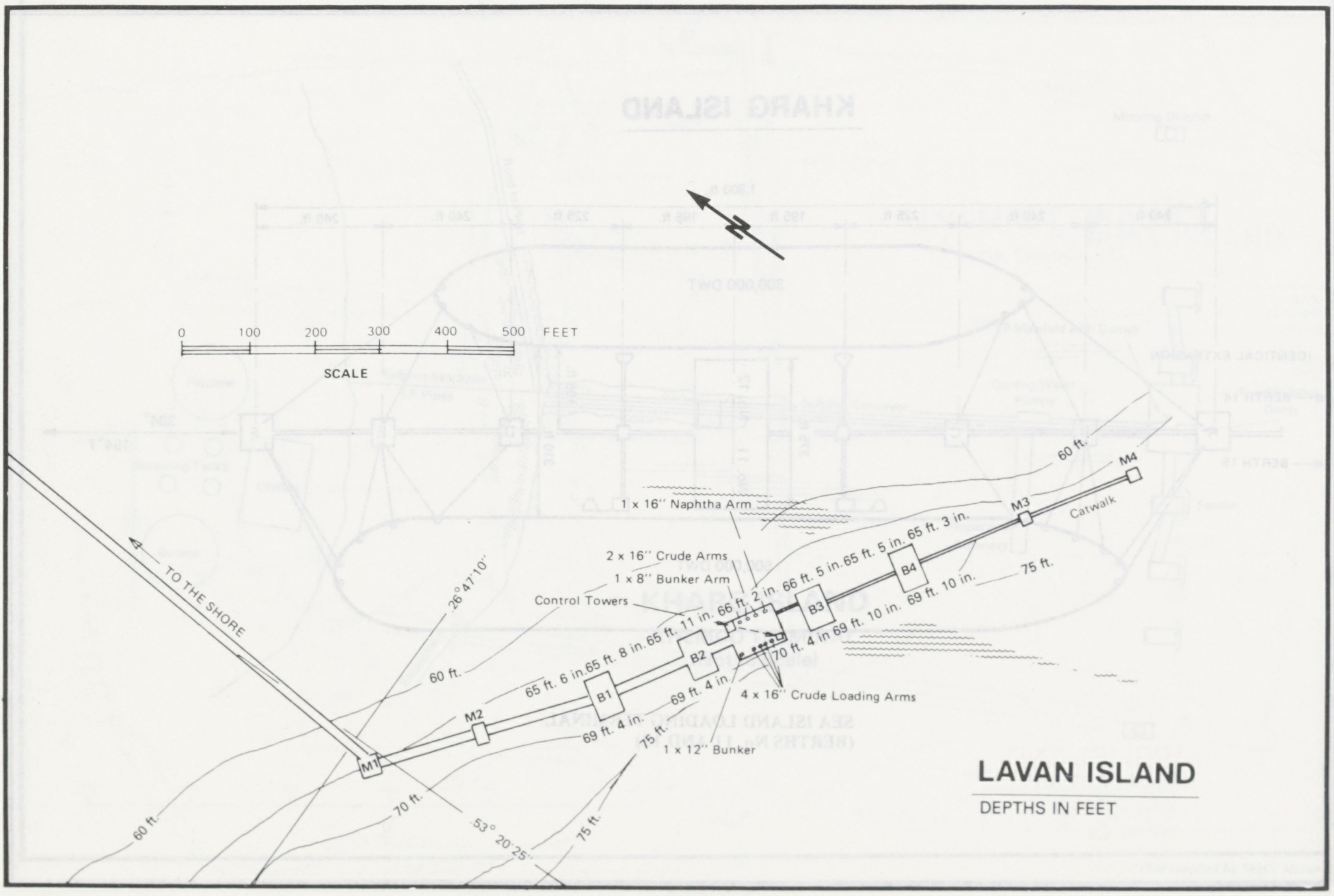
KHARG ISLAND


1,800 ft.
240 ft.
240 ft.
225 ft.
195 ft.
195 ft.
225 ft.
240 ft.
240 ft.
300,000 DWT
IDENTICAL EXTENSION
BERTH 14
BERTH 15
A
B
C
No. 12
No. 11
275 ft.
155 ft.
310 ft.
D
E
F
334°
154°T
500,000 DWT

SEA ISLAND LOADING TERMINAL
(BERTHS No. 11 AND 12)

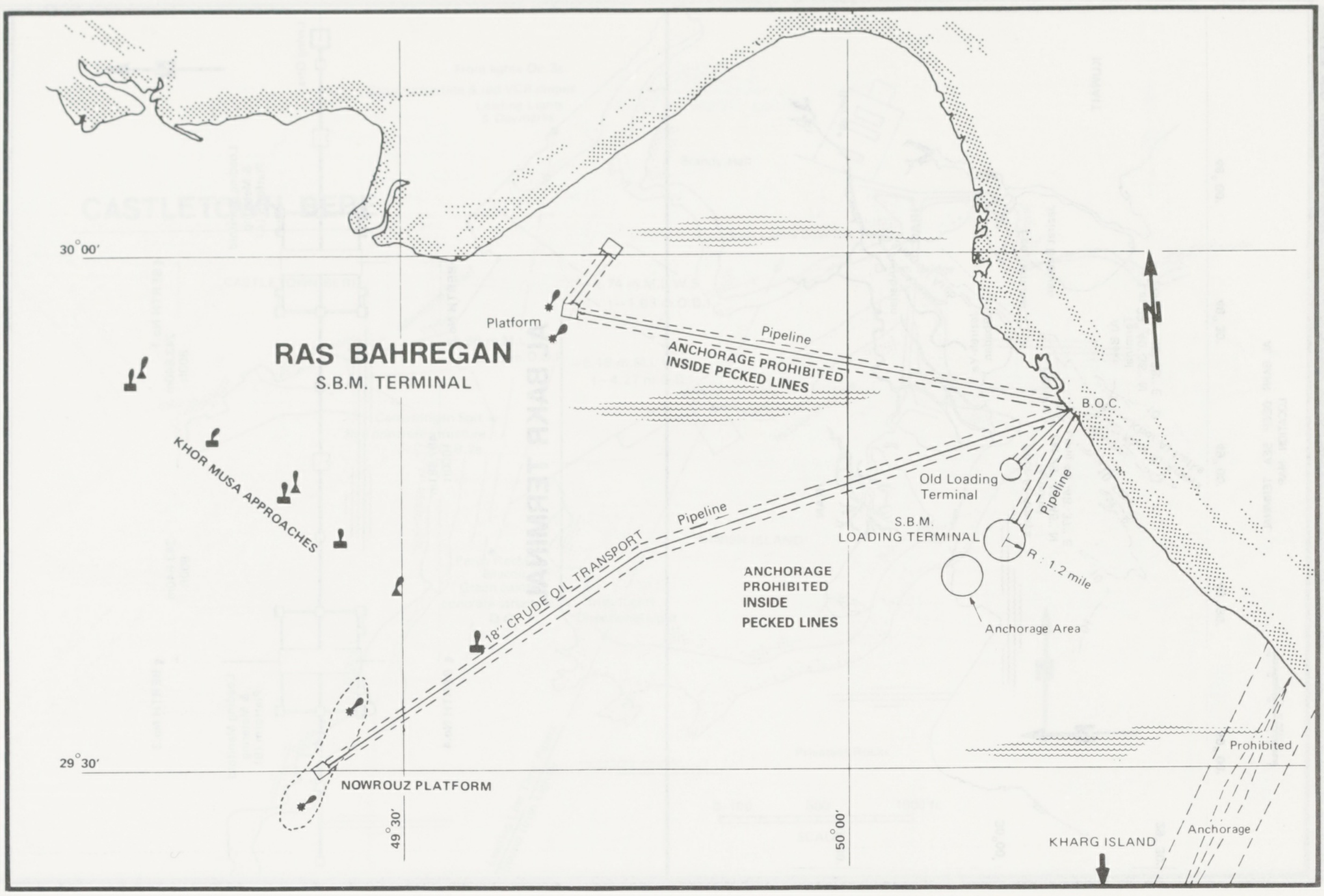

53°19'
20'
21'
22'
23'
26°48'
47'
46'
Airport Runway
Green village
Oc. R. 20 m
TANKS
③ ② ①
⑦
⑤ ⑥
L.APCO TANKS
③ ④
① ②
F.R. 12m
BANYAN PARK
Offices
V.H.F Tower & Terminal Bm.
Fl.(3) 12 s. 15 m
LAZ VILLAGE
N
W
E
S
10 Deg. Vector
Flare
Plant
L.D.C.(N.I.O.C.)
Topping plant
F.R. 12m
Flare
Flare
F.R. 12m
F.R.12m
10 Deg Vector
Flare (Most Conspic.)
Q
Q
Q.
Q.R.
Q.R.
Q.R.
Q.
RO. Bn "L.D"
Heliport
DECCA MAST F.R.
Q.
Q.R
Fl. R. 10 s.
LIGHTS IN LINE 325°
Q.
NO. 4
Q.
NO. 3
F.R
Jetty
F.R.
Q.
NO. 2
Q.R.
Bahram pipe line Buoy
50 ft.
70 ft.
90 ft.
120 ft.
Lights in line 303½°
Sassan pipe line Buoy
Q.R.
Q.G.
Cargo Mooring Buoy
50 ft.
70 ft.
90 ft.
120 ft.
PORT LIMITS
Fl. 5 s.
Terminal Buoy
CARGO SHIP ANCHORAGE
TANKER ANCHORAGE
Bahram pipe line
Rostam pipe line
Sassan pipe line
CAUTION "THIS IS NOT A NAVIGATIONAL CHART"

LAVAN ISLAND


0
100
200
300
400
500
FEET
SCALE
TO THE SHORE
26°47'10"
53° 20'25"
60 ft.
70 ft.
75 ft.
60 ft.
75 ft.
60 ft.
75 ft.
M1
M2
B1
B2
B3
B4
M3
M4
Catwalk
1 x 16" Naphtha Arm
2 x 16" Crude Arms
1 x 8" Bunker Arm
Control Towers
4 x 16" Crude Loading Arms
1 x 12" Bunker
65 ft. 6 in.
65 ft. 8 in.
65 ft. 11 in.
66 ft. 2 in.
66 ft. 5 in.
65 ft. 5 in.
65 ft. 3 in.
69 ft. 4 in.
69 ft. 4 in.
70 ft. 4 in
69 ft. 10 in.
69 ft. 10 in.

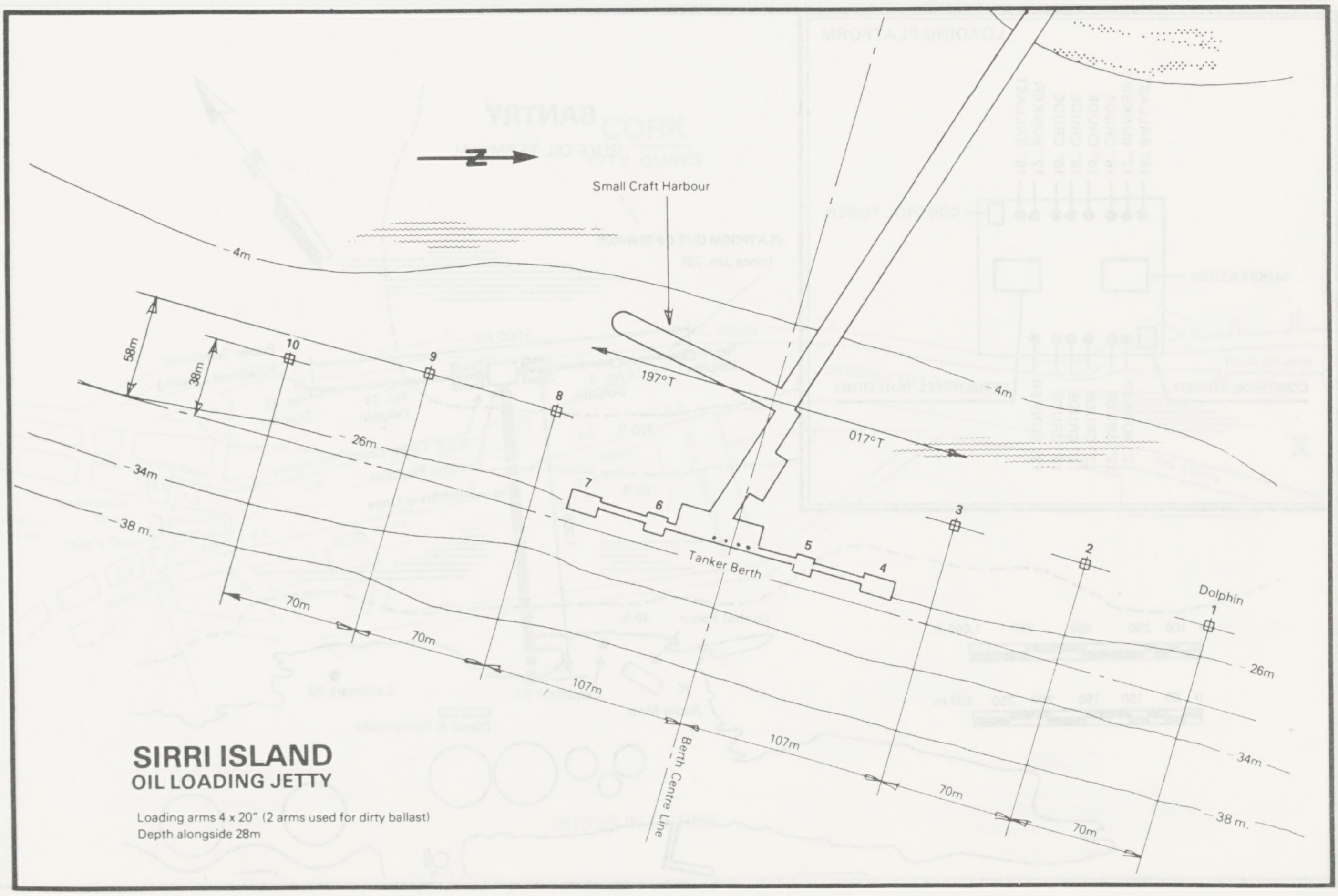
LAVAN ISLAND

DEPTHS IN FEET



RAS BAHREGAN
S.B.M. TERMINAL

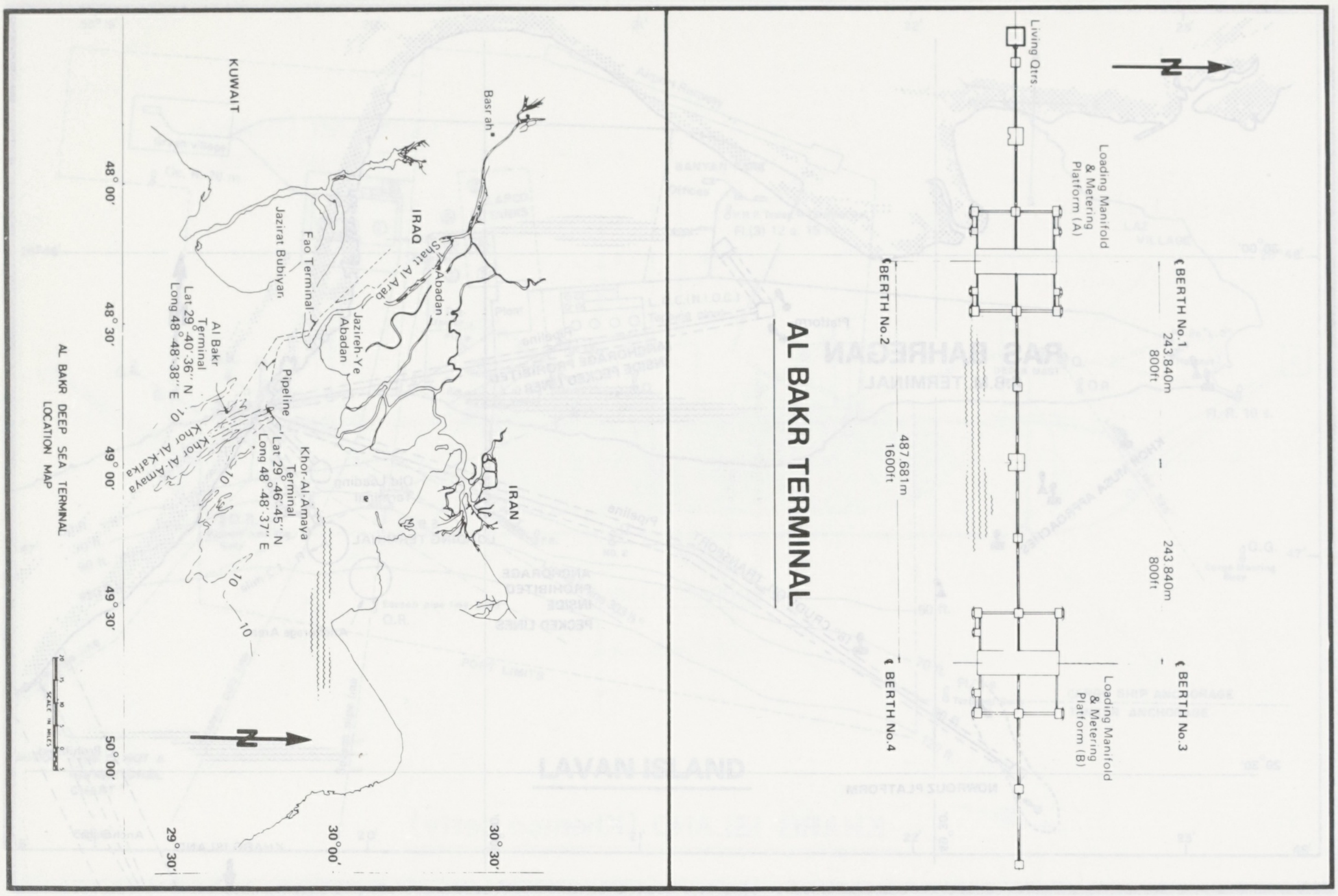
30°00′
29°30′
49°30′
50°00′
N
Platform
Pipeline
ANCHORAGE PROHIBITED INSIDE PECKED LINES
B.O.C.
KHOR MUSA APPROACHES
Old Loading Terminal
Pipeline
S.B.M. LOADING TERMINAL
R : 1.2 mile
18" CRUDE OIL TRANSPORT
Pipeline
ANCHORAGE PROHIBITED INSIDE PECKED LINES
Anchorage Area
NOWROUZ PLATFORM
Prohibited
Anchorage
KHARG ISLAND

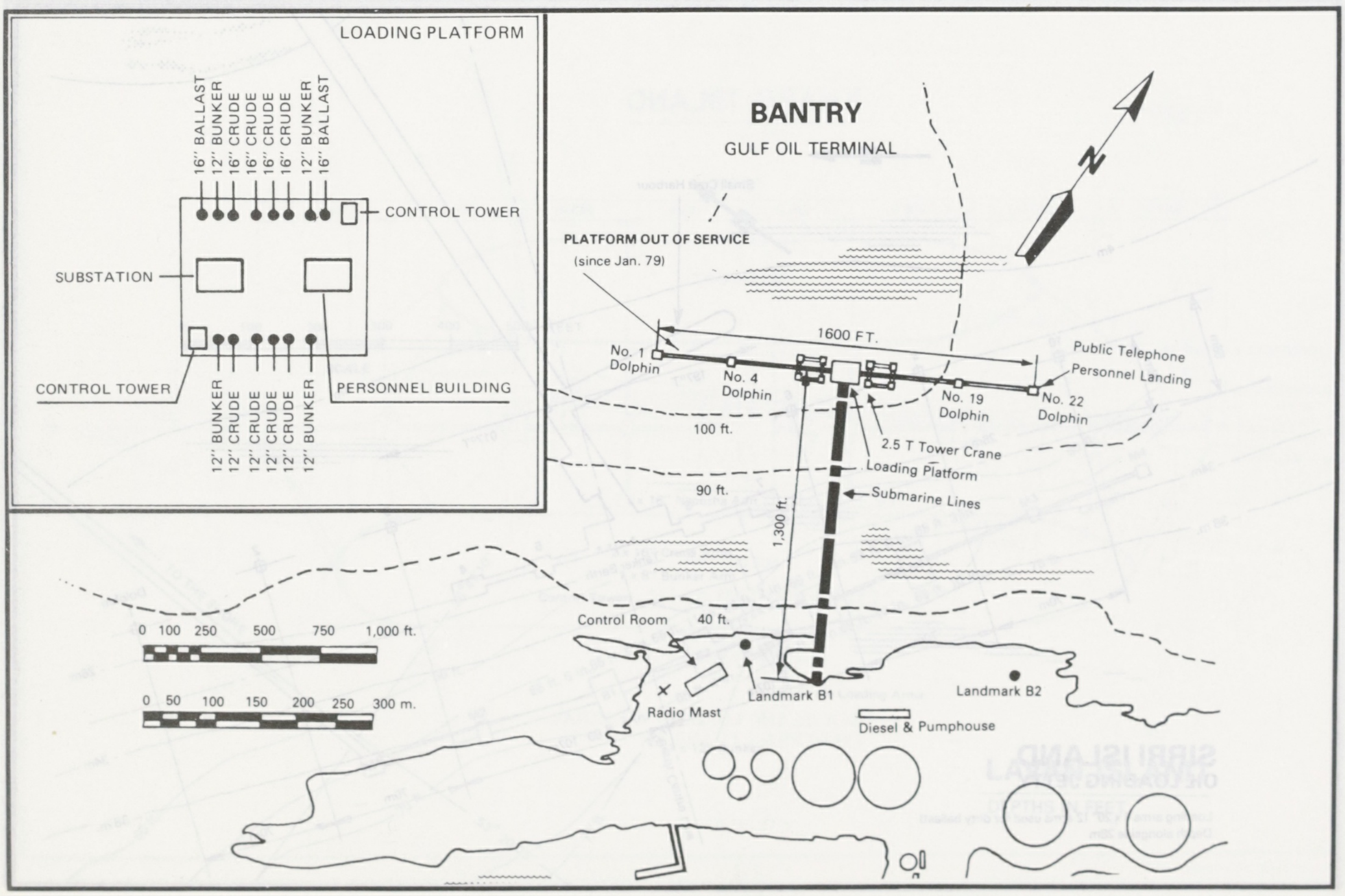


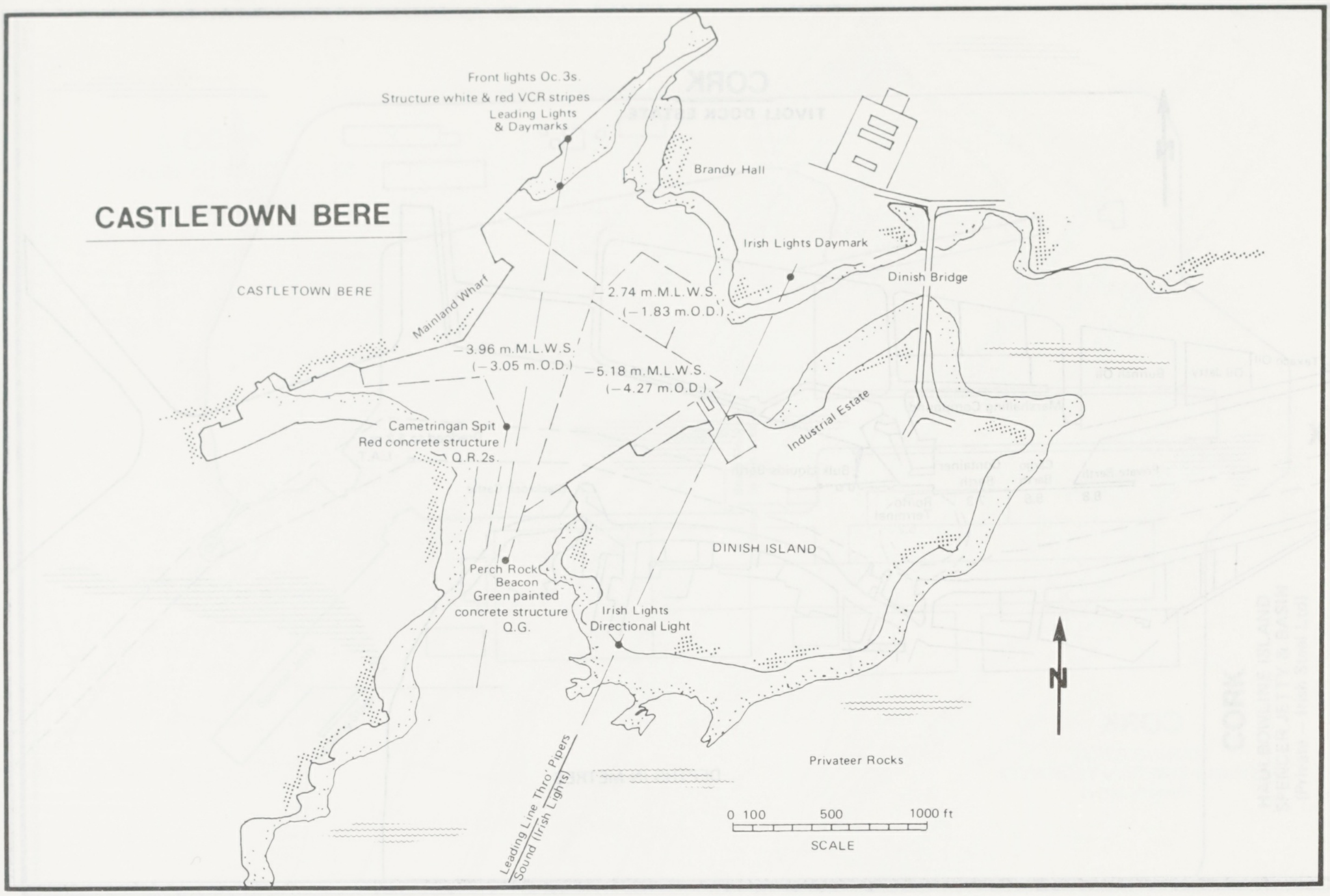
SIRRI ISLAND
OIL LOADING JETTY

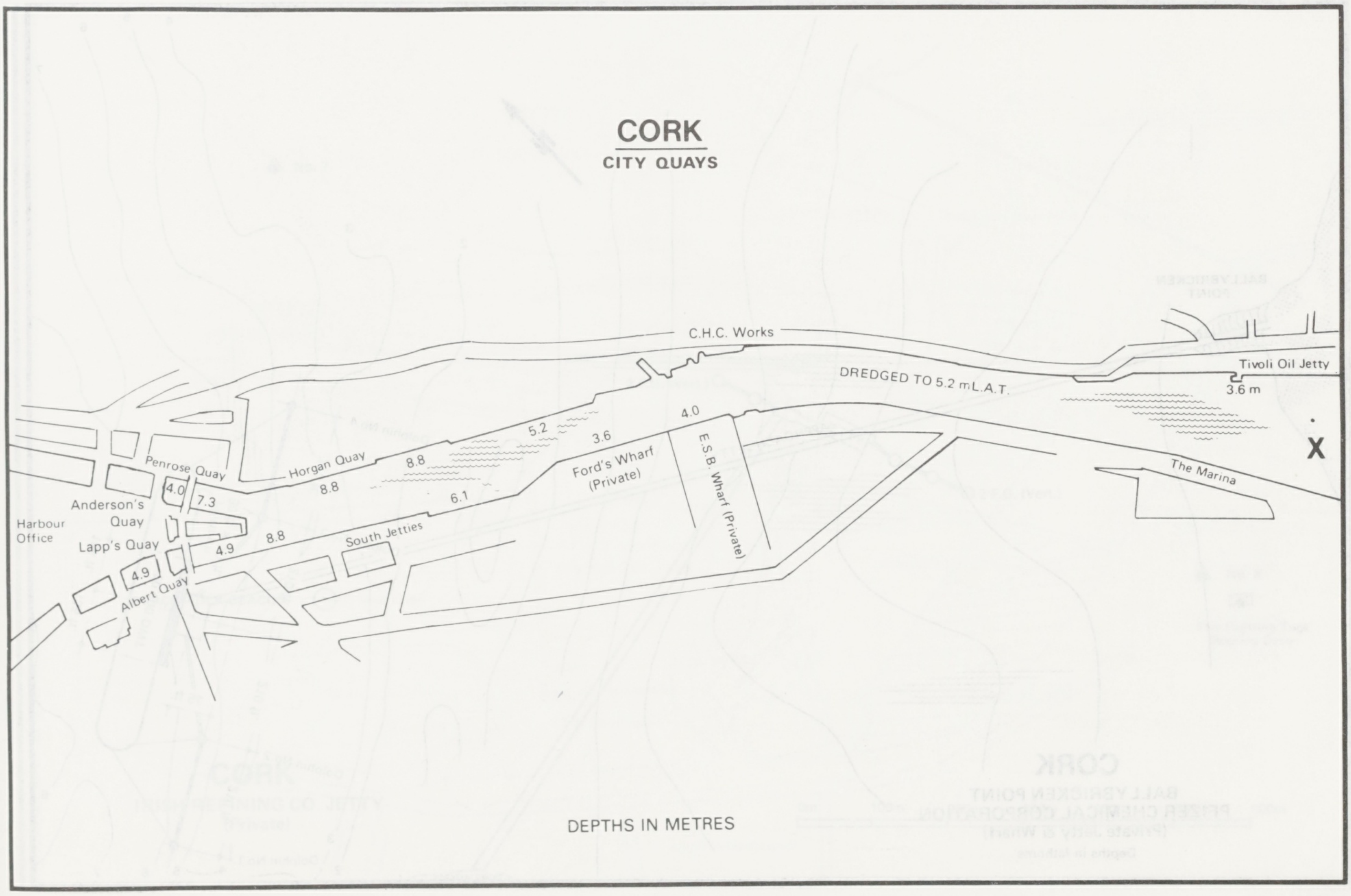
Loading arms 4 x 20" (2 arms used for dirty ballast)
Depth alongside 28m

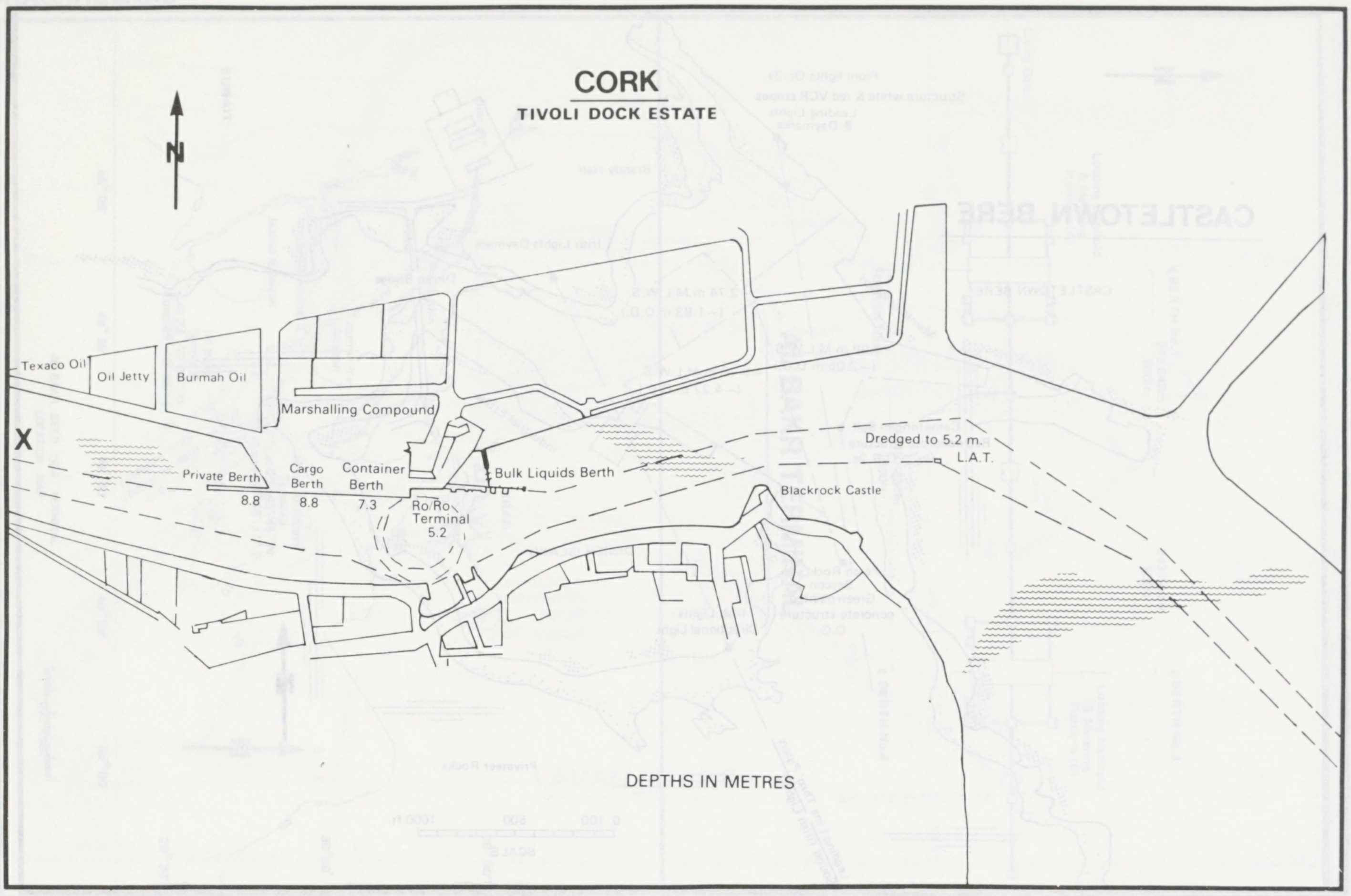
N
Small Craft Harbour
4m
197°T
4m
017°T
58m
38m
10
9
8
26m
34m
38 m.
7
6
5
4
3
2
1
Dolphin
Tanker Berth
70m
70m
107m
107m
Berth Centre Line
70m
70m
26m
34m
38 m.


AL BAKR TERMINAL
Living Qtrs.
Loading Manifold & Metering Platform (A)
BERTH No.1
243.840m 800ft
BERTH No.2
487.681m 1600ft
243.840m 800ft
BERTH No.3
BERTH No.4
Loading Manifold & Metering Platform (B)
N
KUWAIT
IRAQ
IRAN
Basrah
Shatt Al Arab
Abadan
Jazireh-Ye Abadan
Fao Terminal
Jazirat Bubiyan
Al Bakr Terminal
Lat 29° 40' 36" N
Long 48° 48' 38" E
Pipeline
Khor Al-Amaya Terminal
Lat 29° 46' 45" N
Long 48° 48' 37" E
Khor Al Amaya
Khor Al Kafka
10
48° 00'
48° 30'
49° 00'
49° 30'
50° 00'
29° 30'
30° 00'
30° 30'
AL BAKR DEEP SEA TERMINAL LOCATION MAP


LOADING PLATFORM
16" BALLAST
12" BUNKER
16" CRUDE
16" CRUDE
16" CRUDE
16" CRUDE
12" BUNKER
16" BALLAST
CONTROL TOWER
SUBSTATION
CONTROL TOWER
PERSONNEL BUILDING
12" BUNKER
12" CRUDE
12" CRUDE
12" CRUDE
12" CRUDE
12" BUNKER
BANTRY
GULF OIL TERMINAL
N
PLATFORM OUT OF SERVICE
(since Jan. 79)
1600 FT.
No. 1 Dolphin
No. 4 Dolphin
No. 19 Dolphin
No. 22 Dolphin
Public Telephone
Personnel Landing
100 ft.
2.5 T Tower Crane
Loading Platform
90 ft.
Submarine Lines
1,300 ft.
Control Room
40 ft.
Radio Mast
Landmark B1
Landmark B2
Diesel & Pumphouse
0 100 250 500 750 1,000 ft.
0 50 100 150 200 250 300 m.


CASTLETOWN BERE
Front lights Oc.3s.
Structure white & red VCR stripes
Leading Lights
& Daymarks
Brandy Hall
Irish Lights Daymark
Dinish Bridge
CASTLETOWN BERE
Mainland Wharf
–2.74 m.M.L.W.S.
(–1.83 m.O.D.)
–3.96 m.M.L.W.S.
(–3.05 m.O.D.)
–5.18 m.M.L.W.S.
(–4.27 m.O.D.)
Cametringan Spit
Red concrete structure
Q.R.2s.
Industrial Estate
DINISH ISLAND
Perch Rock
Beacon
Green painted
concrete structure
Q.G.
Irish Lights
Directional Light
N
Privateer Rocks
Leading Line Thro' Pipers
Sound (Irish Lights)
0 100 500 1000 ft
SCALE

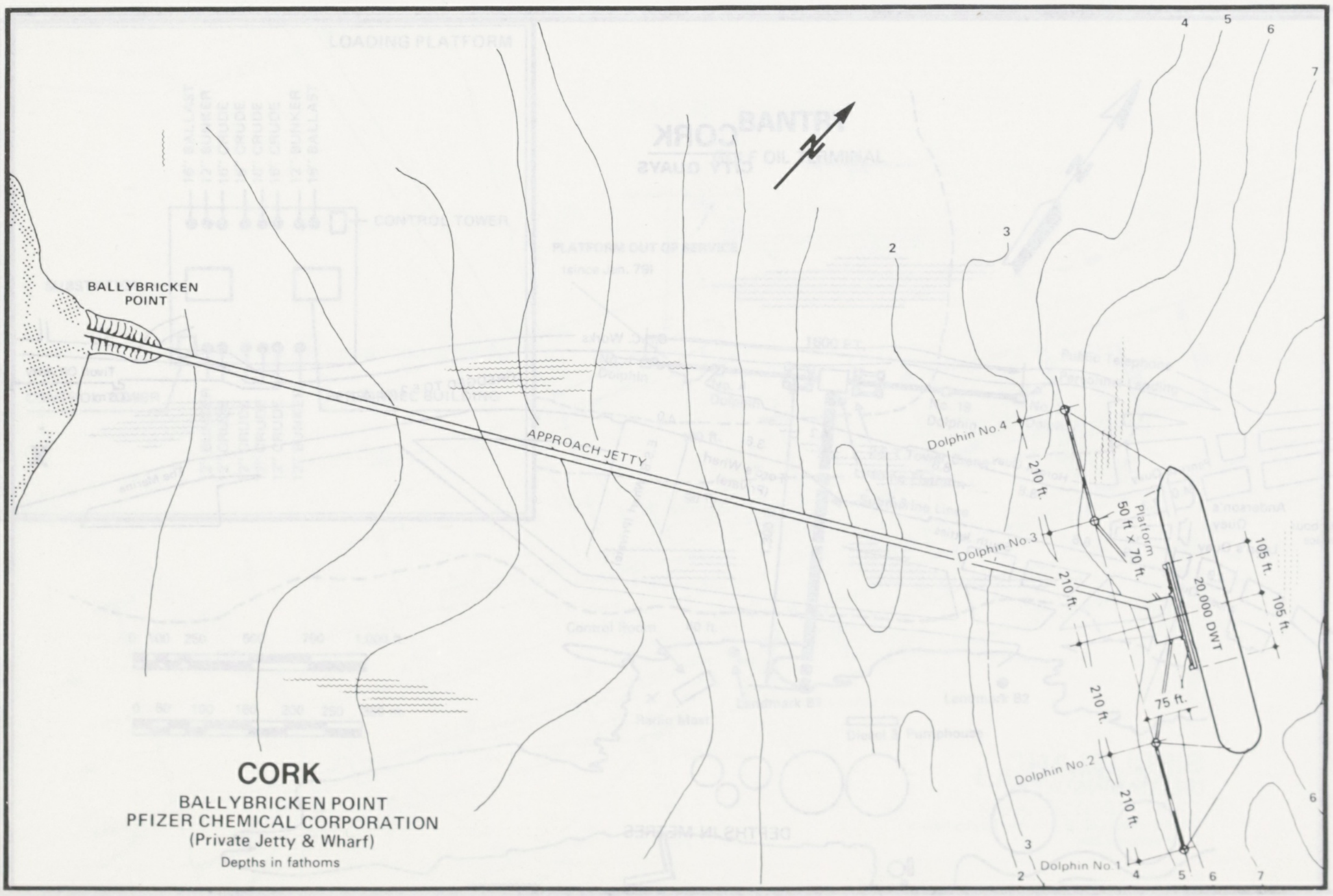

CORK
CITY QUAYS
C.H.C. Works
DREDGED TO 5.2 m L.A.T.
Tivoli Oil Jetty
3.6 m
X
The Marina
4.0
5.2
3.6
Ford's Wharf
(Private)
E.S.B. Wharf (Private)
Horgan Quay
8.8
8.8
6.1
Penrose Quay
4.0
7.3
Anderson's
Quay
Harbour
Office
Lapp's Quay
4.9
8.8
South Jetties
4.9
Albert Quay
DEPTHS IN METRES



CORK
TIVOLI DOCK ESTATE

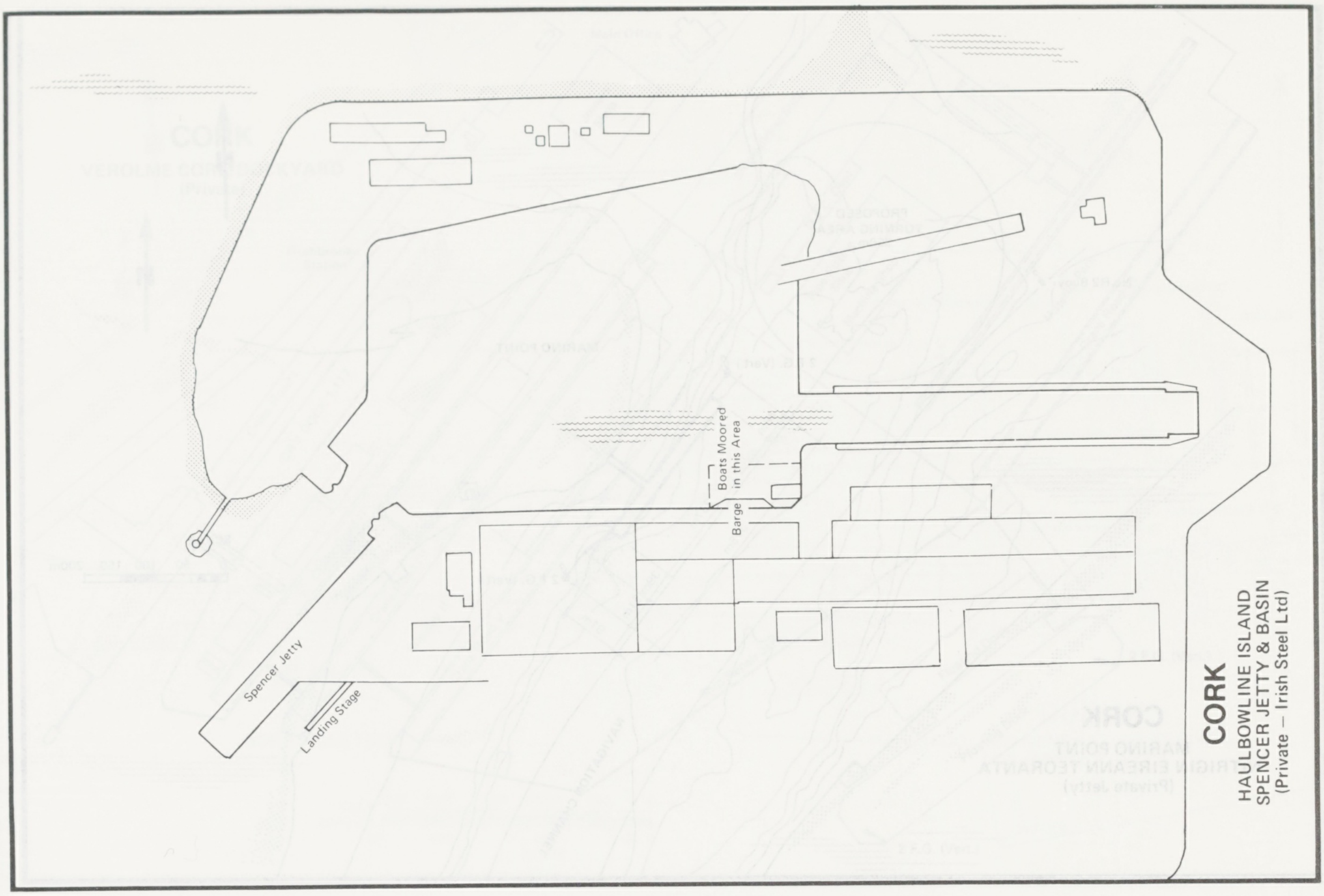
DEPTHS IN METRES

N
Texaco Oil
Oil Jetty
Burmah Oil
Marshalling Compound
X
Private Berth
8.8
Cargo Berth
8.8
Container Berth
7.3
Ro/Ro Terminal
5.2
Bulk Liquids Berth
Dredged to 5.2 m. L.A.T.
Blackrock Castle

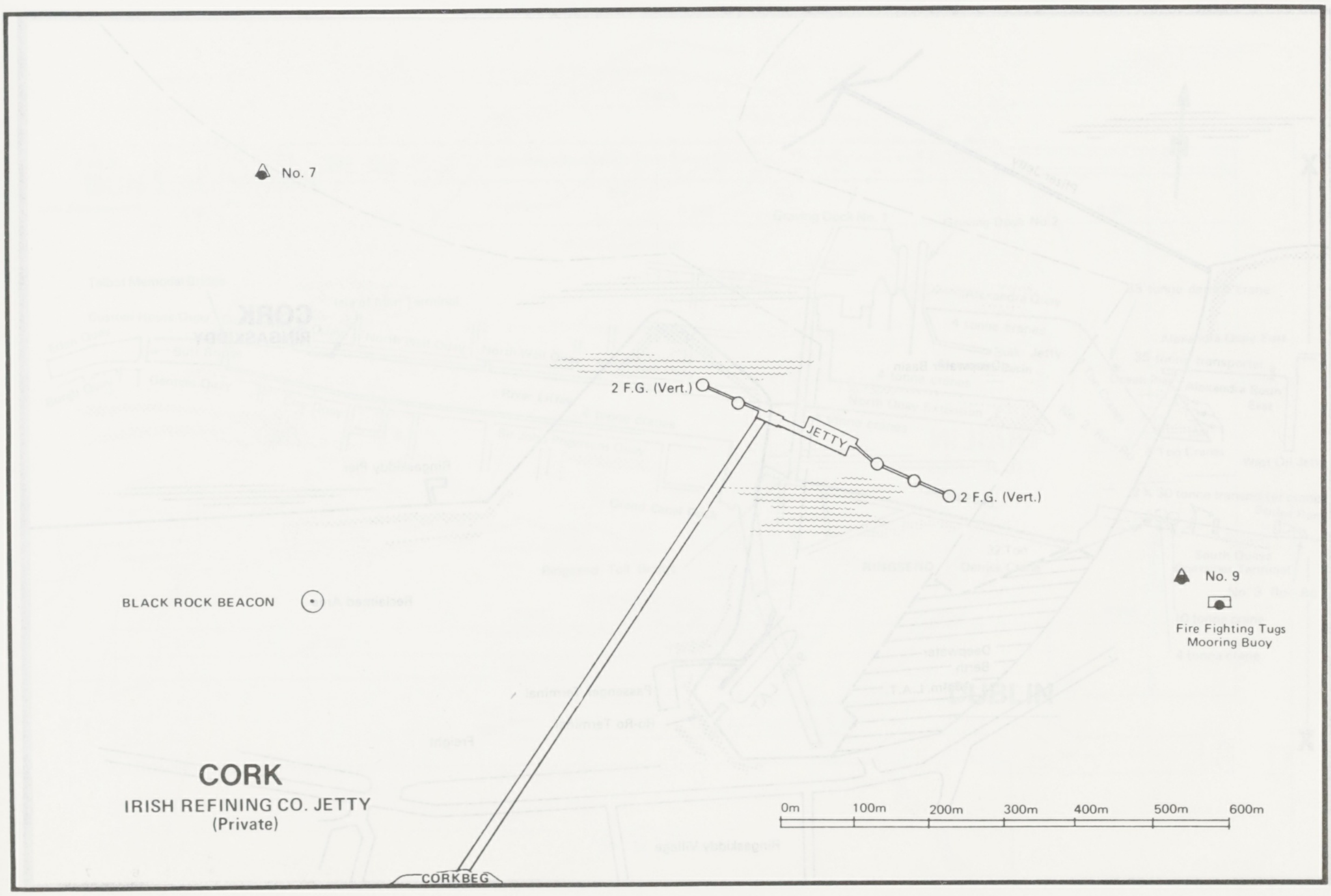


CORK
BALLYBRICKEN POINT
PFIZER CHEMICAL CORPORATION
(Private Jetty & Wharf)
Depths in fathoms

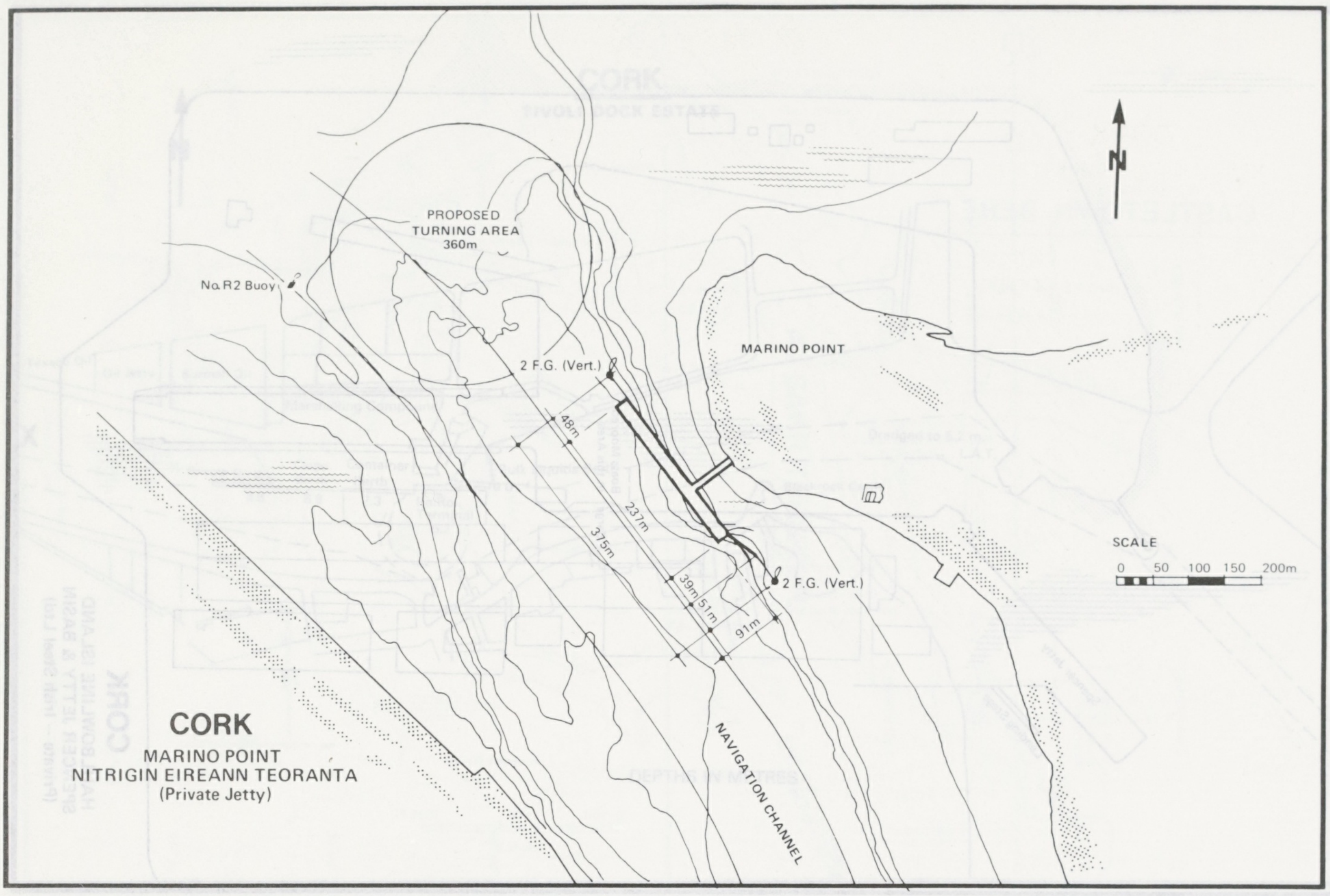
N
BALLYBRICKEN POINT
APPROACH JETTY
Dolphin No.4
Dolphin No.3
Dolphin No.2
Dolphin No.1
210 ft.
210 ft.
210 ft.
210 ft.
Platform 50 ft × 70 ft.
20 000 DWT
105 ft.
105 ft.
75 ft.
2
3
4
5
6
7

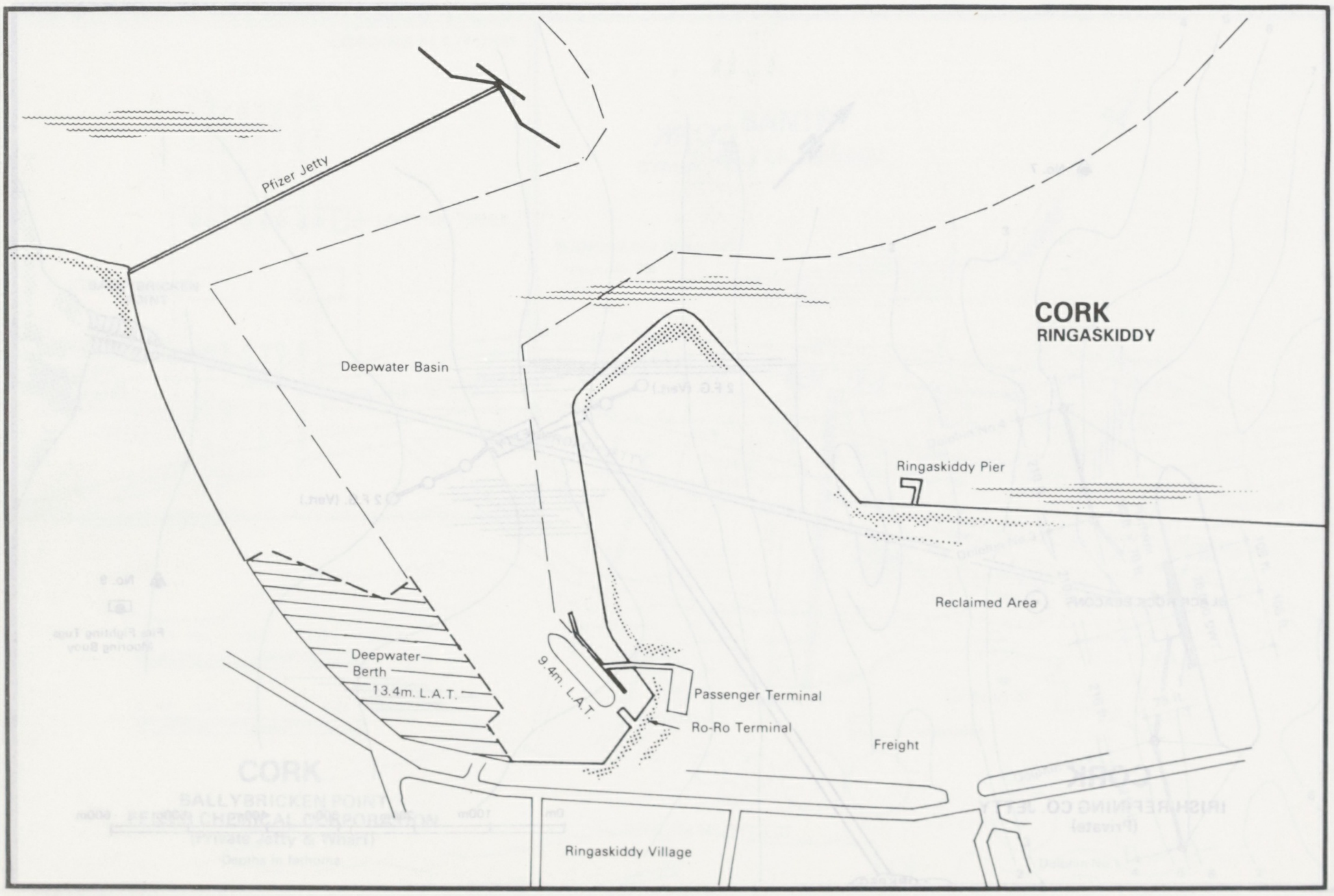

Spencer Jetty
Landing Stage
Boats Moored in this Area
Barge

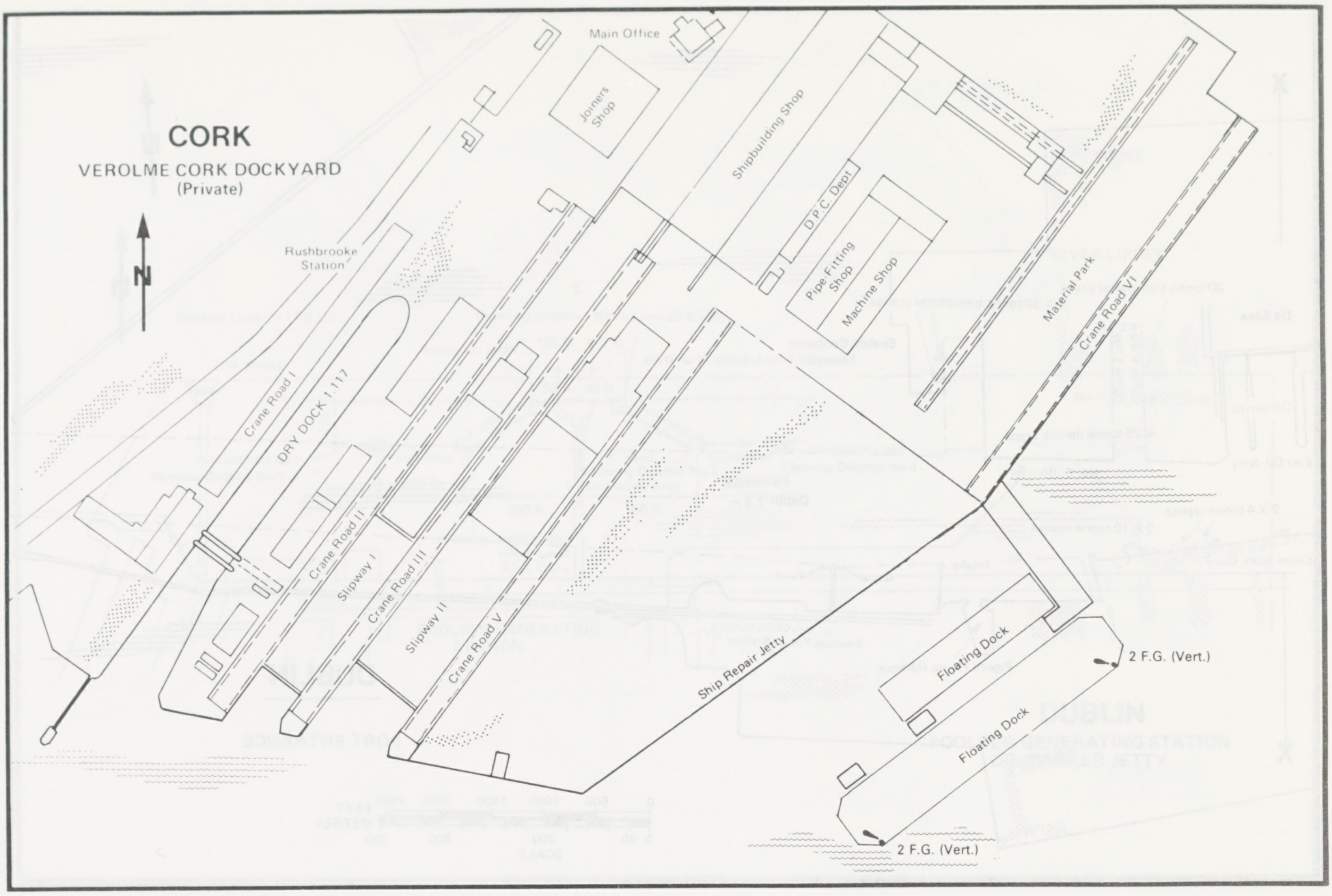
CORK
HAULBOWLINE ISLAND
SPENCER JETTY & BASIN
(Private – Irish Steel Ltd)

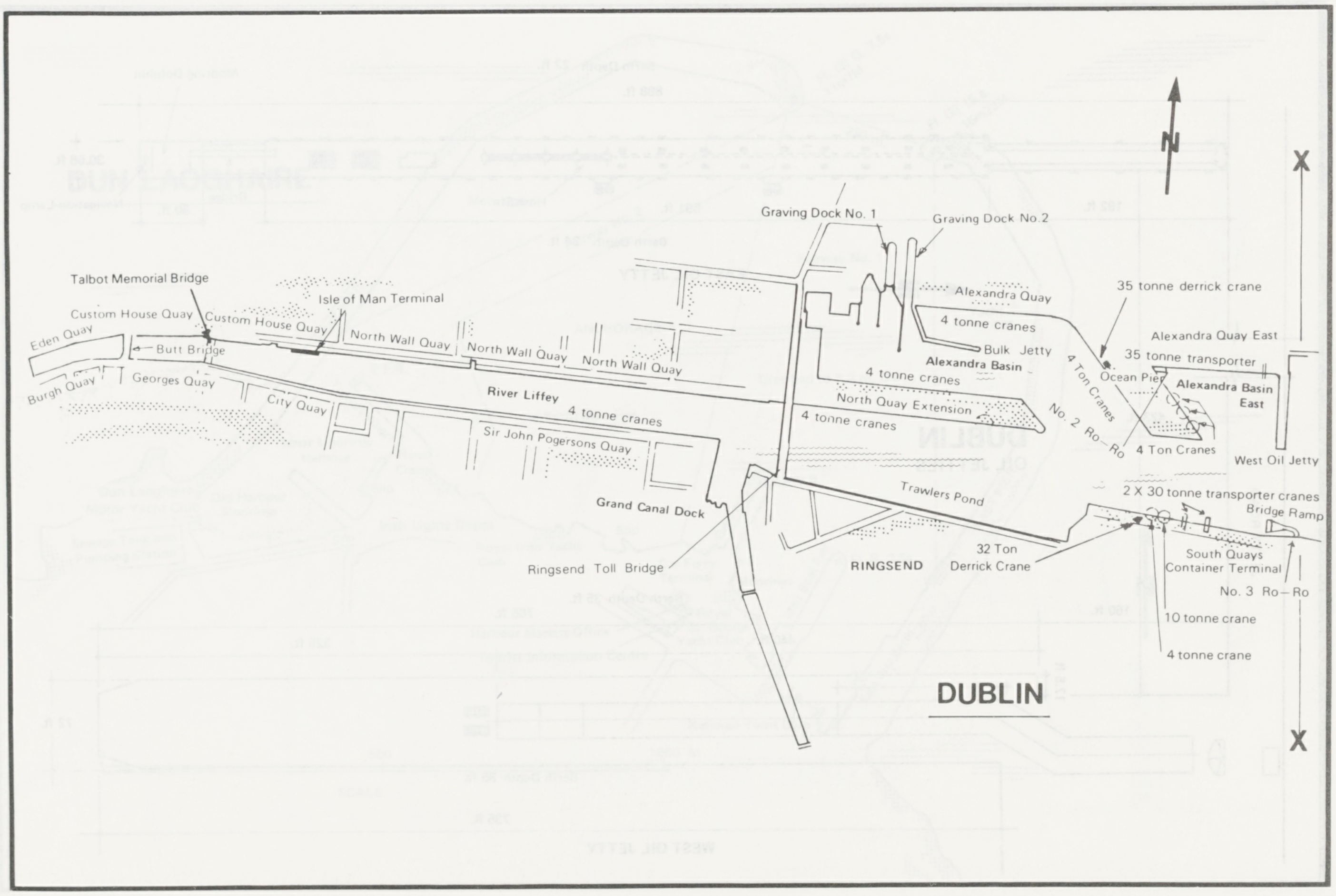

No. 7
2 F.G. (Vert.)
JETTY
2 F.G. (Vert.)
BLACK ROCK BEACON
No. 9
Fire Fighting Tugs Mooring Buoy
0m
100m
200m
300m
400m
500m
600m
CORKBEG

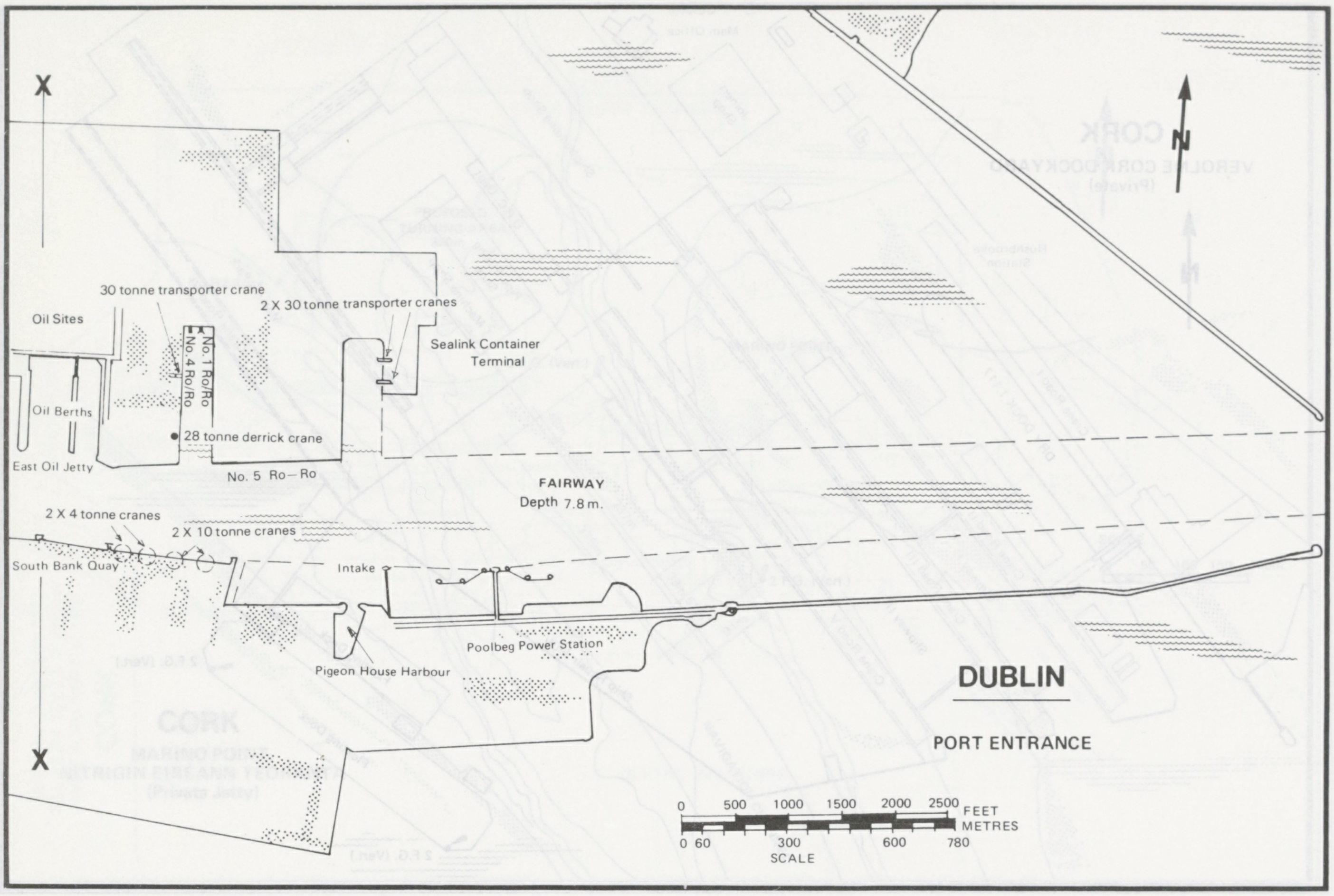
CORK
IRISH REFINING CO. JETTY
(Private)

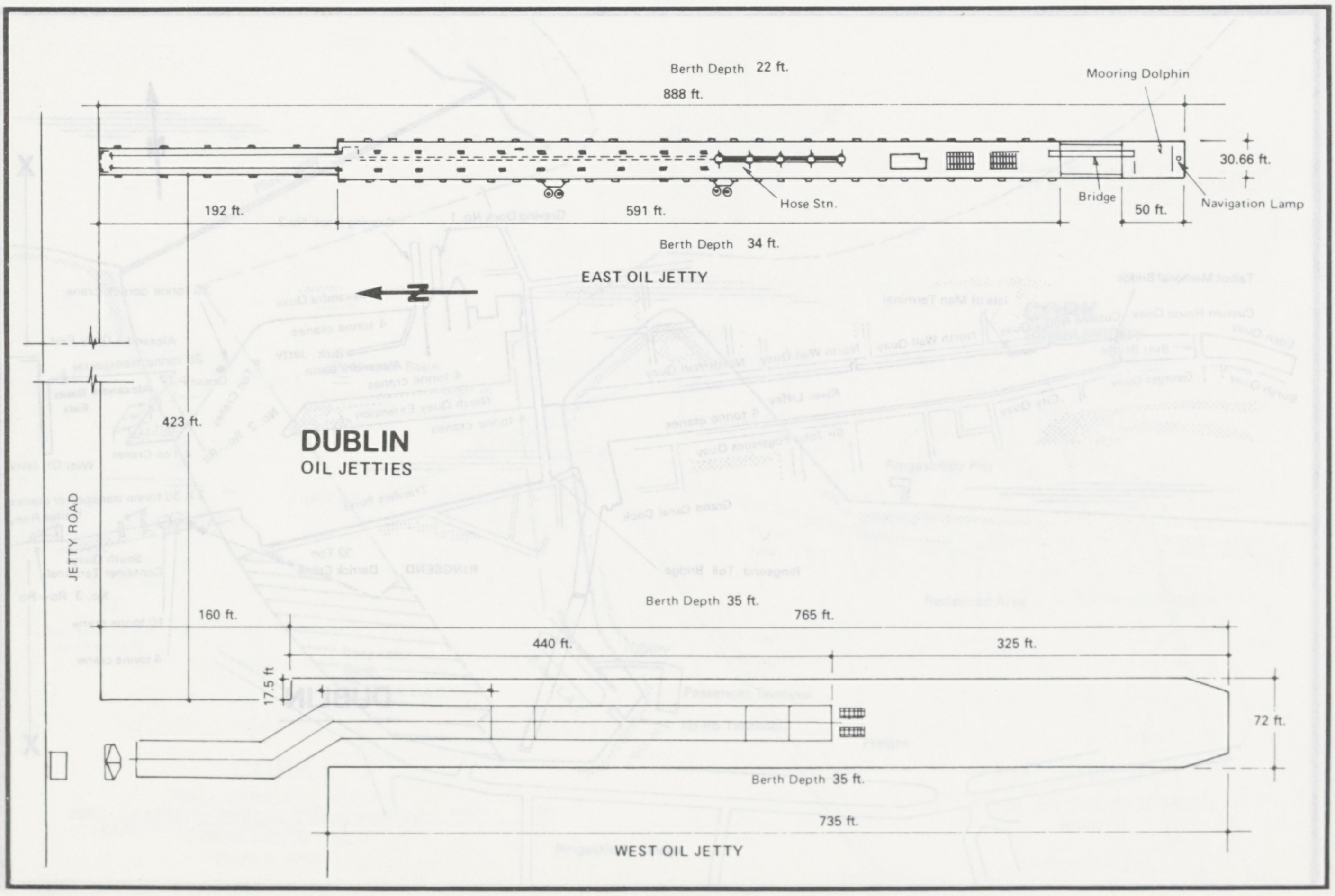

PROPOSED
TURNING AREA
360m
No. R2 Buoy
2 F.G. (Vert.)
MARINO POINT
N
48m
237m
375m
SCALE
0 50 100 150 200m
39m
51m
91m
2 F.G. (Vert.)
CORK
MARINO POINT
NITRIGIN EIREANN TEORANTA
(Private Jetty)
NAVIGATION CHANNEL

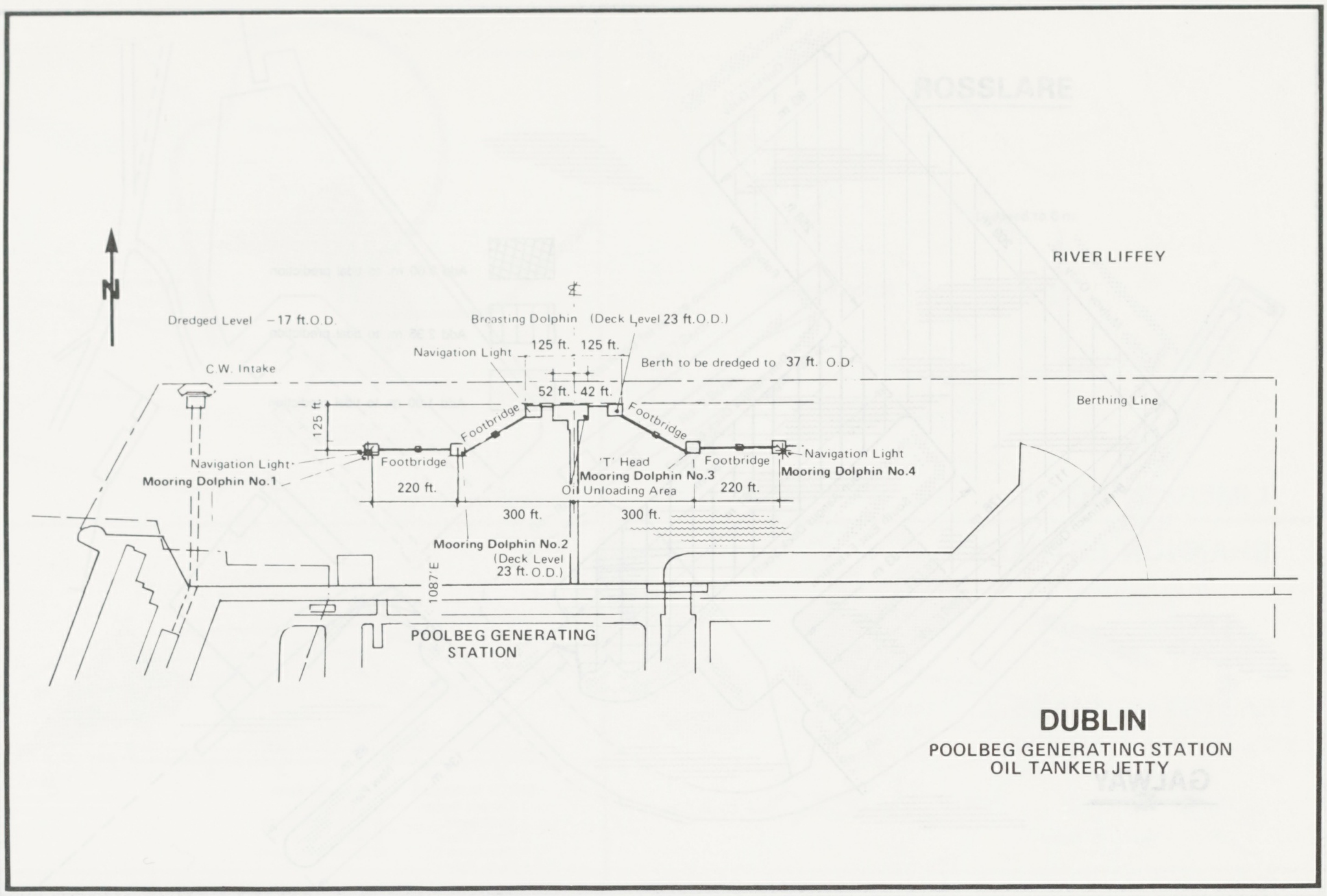

Pfizer Jetty
Deepwater Basin
CORK
RINGASKIDDY
Ringaskiddy Pier
Reclaimed Area
Deepwater
Berth
13.4m. L.A.T.
9.4m. L.A.T.
Passenger Terminal
Ro-Ro Terminal
Freight
Ringaskiddy Village

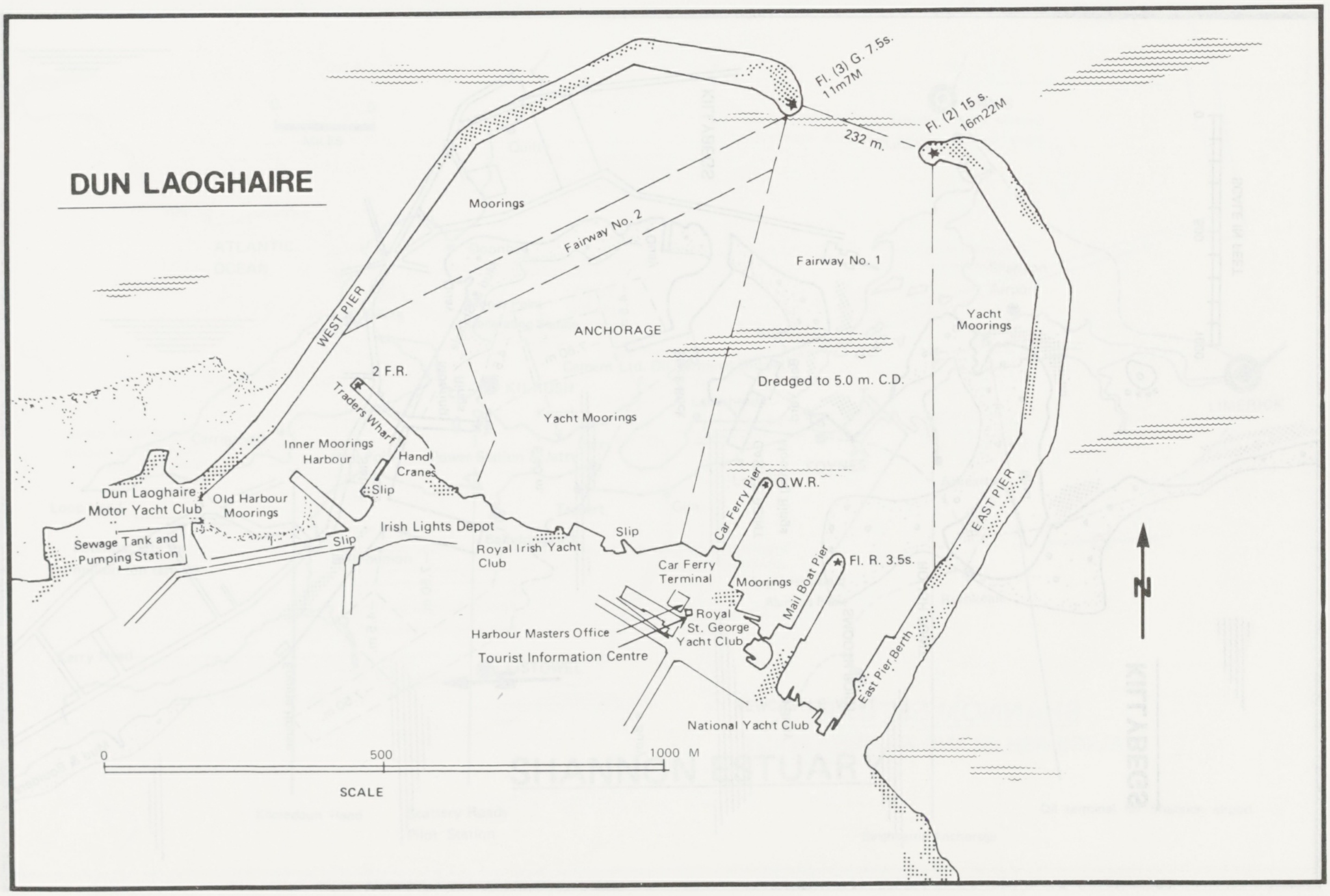

CORK
VEROLME CORK DOCKYARD
(Private)
N
Main Office
Joiners Shop
Shipbuilding Shop
D.P.C. Dept
Pipe Fitting Shop
Machine Shop
Material Park
Crane Road VI
Rushbrooke Station
Crane Road I
DRY DOCK 1117
Crane Road II
Slipway I
Crane Road III
Slipway II
Crane Road V
Ship Repair Jetty
Floating Dock
Floating Dock
2 F.G. (Vert.)
2 F.G. (Vert.)

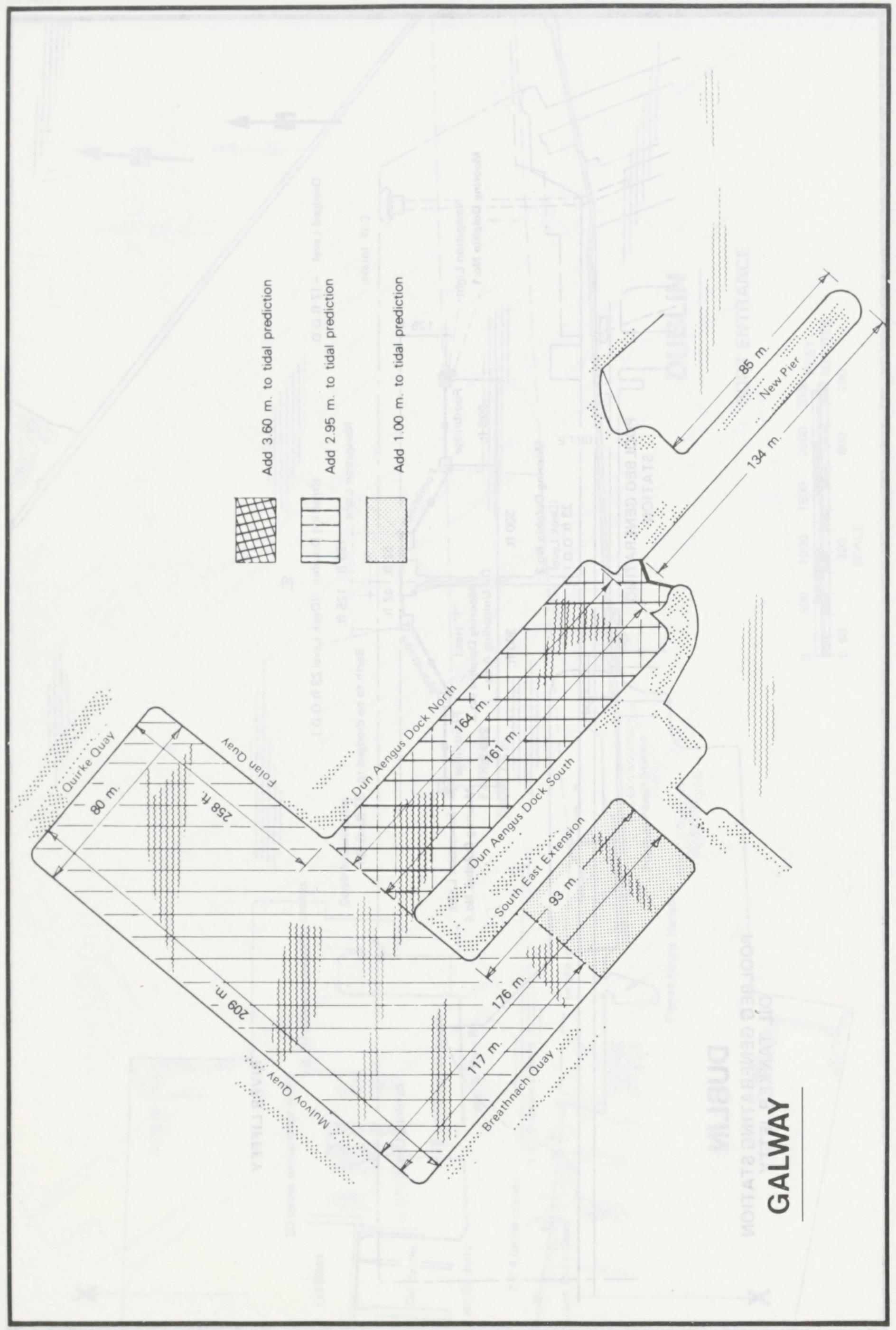

N
X
X
Graving Dock No. 1
Graving Dock No. 2
Talbot Memorial Bridge
Isle of Man Terminal
Custom House Quay
Custom House Quay
Eden Quay
Butt Bridge
Burgh Quay
Georges Quay
City Quay
North Wall Quay
North Wall Quay
North Wall Quay
River Liffey
4 tonne cranes
Sir John Pogersons Quay
Grand Canal Dock
Ringsend Toll Bridge
Alexandra Quay
4 tonne cranes
Bulk Jetty
Alexandra Basin
4 tonne cranes
North Quay Extension
4 tonne cranes
4 Ton Cranes
No. 2 Ro-Ro
35 tonne derrick crane
Alexandra Quay East
35 tonne transporter
Ocean Pier
Alexandra Basin East
4 Ton Cranes
West Oil Jetty
Trawlers Pond
2 X 30 tonne transporter cranes
Bridge Ramp
32 Ton Derrick Crane
RINGSEND
South Quays Container Terminal
No. 3 Ro-Ro
10 tonne crane
4 tonne crane
DUBLIN


X
30 tonne transporter crane
Oil Sites
2 X 30 tonne transporter cranes
Sealink Container Terminal
No. 1 Ro/Ro
No. 4 Ro/Ro
Oil Berths
28 tonne derrick crane
East Oil Jetty
No. 5 Ro–Ro
FAIRWAY
Depth 7.8 m.
2 X 4 tonne cranes
2 X 10 tonne cranes
South Bank Quay
Intake
Poolbeg Power Station
Pigeon House Harbour
DUBLIN
PORT ENTRANCE
X
0 500 1000 1500 2000 2500 FEET
0 60 300 600 780 METRES
SCALE

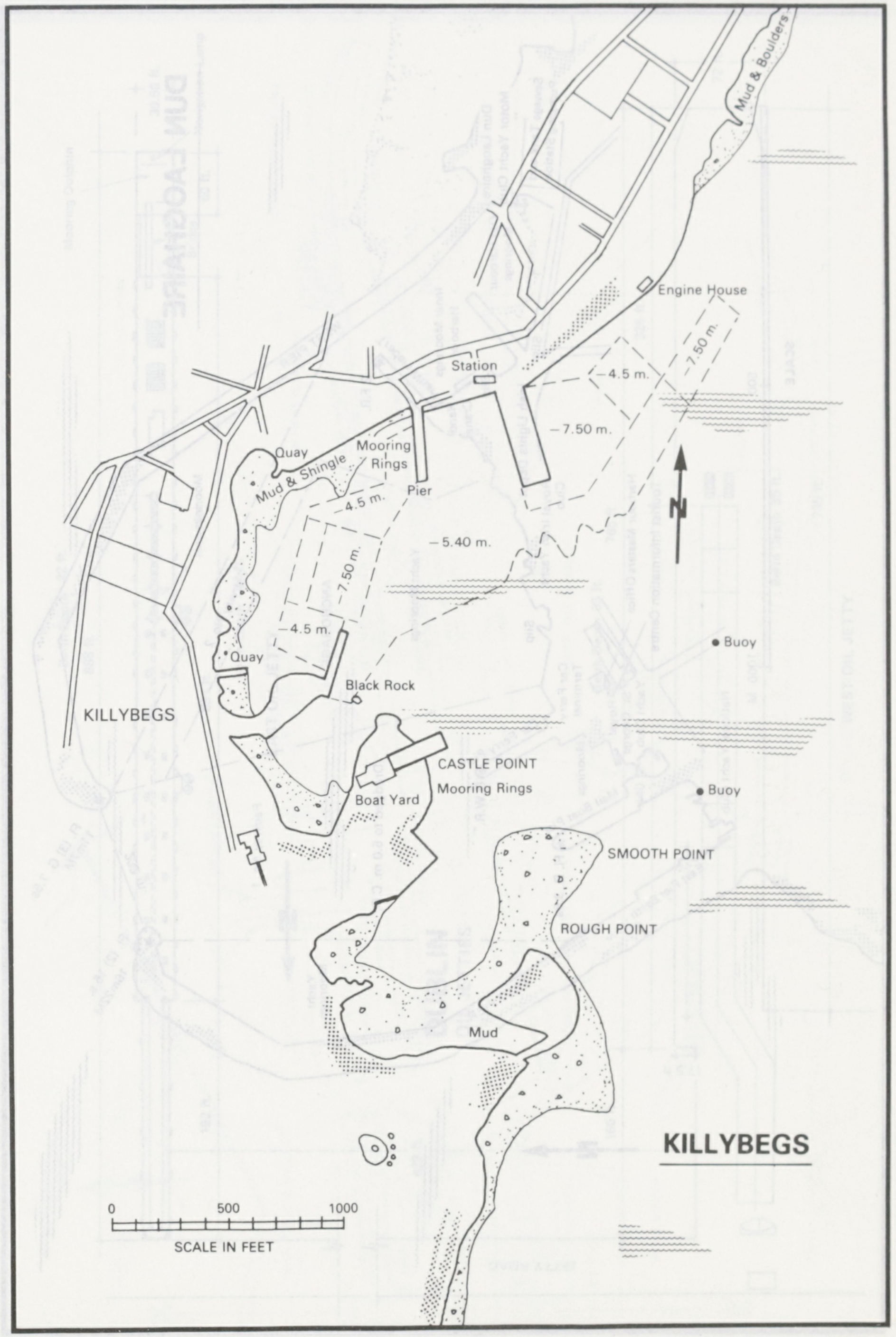

Berth Depth 22 ft.
888 ft.
Mooring Dolphin
30.66 ft.
192 ft.
591 ft.
Hose Stn.
Bridge
50 ft.
Navigation Lamp
Berth Depth 34 ft.
EAST OIL JETTY
423 ft.
DUBLIN
OIL JETTIES
JETTY ROAD
160 ft.
Berth Depth 35 ft.
765 ft.
440 ft.
325 ft.
17.5 ft
72 ft.
Berth Depth 35 ft.
735 ft.
WEST OIL JETTY


DUBLIN
POOLBEG GENERATING STATION
OIL TANKER JETTY
RIVER LIFFEY
N
Dredged Level -17 ft.O.D.
Breasting Dolphin (Deck Level 23 ft.O.D.)
125 ft.
125 ft.
Navigation Light
Berth to be dredged to 37 ft. O.D.
C.W. Intake
52 ft.
42 ft.
Berthing Line
125 ft.
Footbridge
Footbridge
Footbridge
Footbridge
'T' Head
Navigation Light
Navigation Light
Mooring Dolphin No.1
Mooring Dolphin No.3
Mooring Dolphin No.4
Oil Unloading Area
220 ft.
220 ft.
300 ft.
300 ft.
Mooring Dolphin No.2
(Deck Level
23 ft. O.D.)
1087'E
POOLBEG GENERATING
STATION

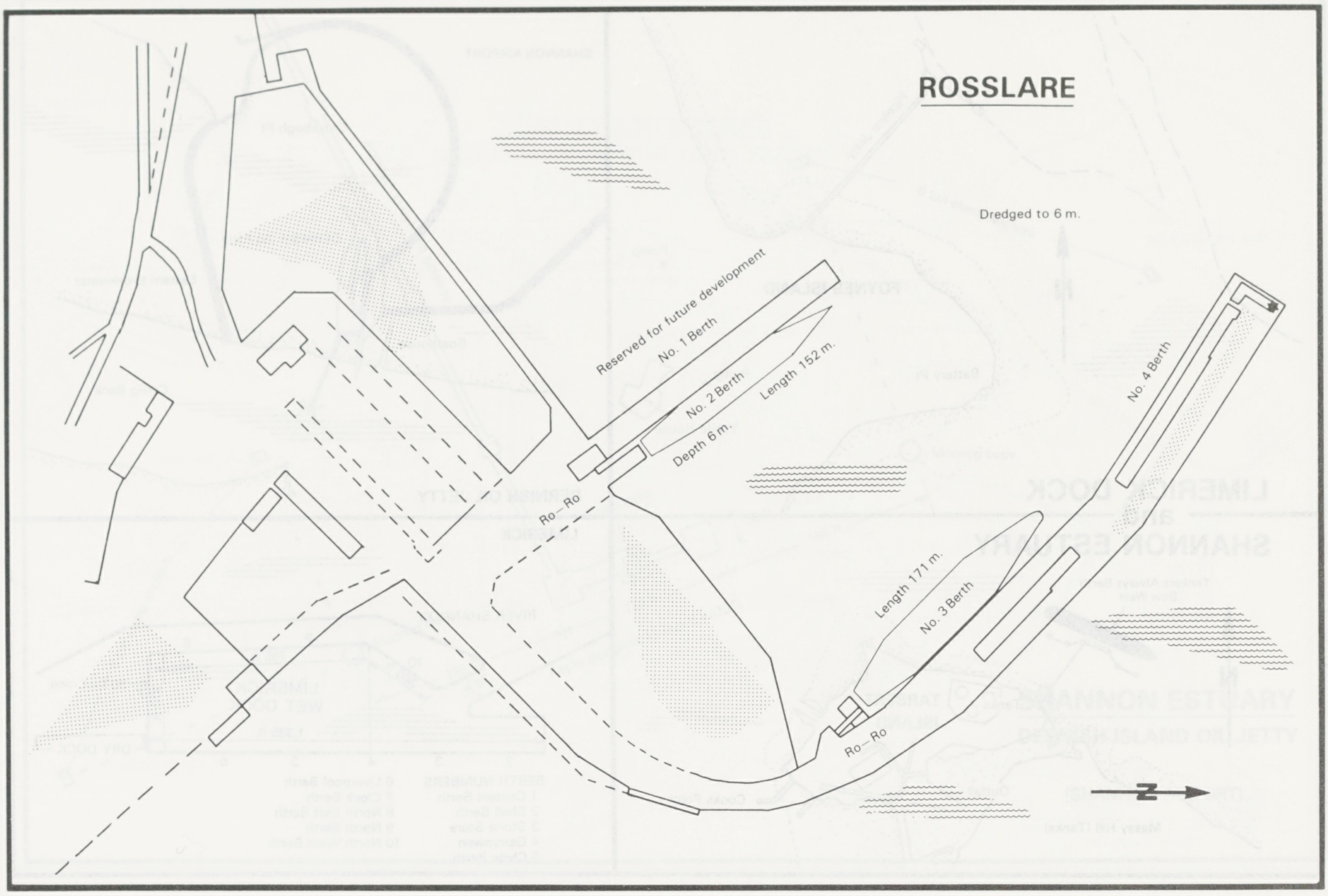

DUN LAOGHAIRE
Fl. (3) G. 7.5s.
11m7M
Fl. (2) 15 s.
16m22M
232 m.
Moorings
Fairway No. 2
Fairway No. 1
WEST PIER
ANCHORAGE
Yacht Moorings
Dredged to 5.0 m. C.D.
2 F.R.
Traders Wharf
Yacht Moorings
Inner Moorings
Harbour
Hand
Cranes
Slip
Dun Laoghaire
Motor Yacht Club
Old Harbour
Moorings
Sewage Tank and
Pumping Station
Slip
Irish Lights Depot
Slip
Royal Irish Yacht
Club
Car Ferry Pier
Q.W.R.
EAST PIER
Car Ferry
Terminal
Moorings
Mail Boat Pier
Fl. R. 3.5s.
Royal
St. George
Yacht Club
Harbour Masters Office
Tourist Information Centre
East Pier Berth
National Yacht Club
N
0
500
1000 M
SCALE

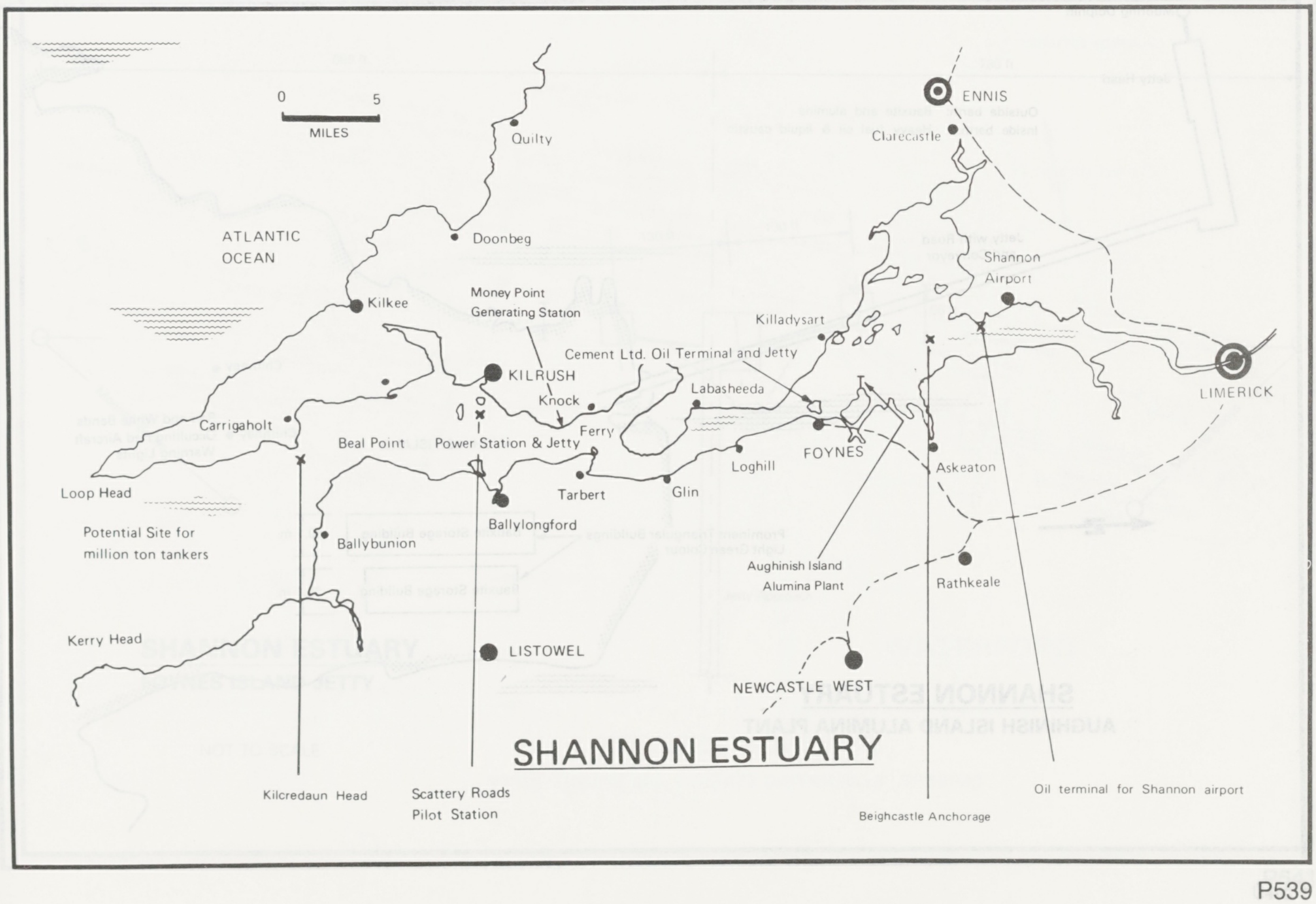

Add 3.60 m. to tidal prediction
Add 2.95 m. to tidal prediction
Add 1.00 m. to tidal prediction
85 m.
New Pier
134 m.
Dun Aengus Dock North
164 m.
161 m.
Dun Aengus Dock South
South East Extension
93 m.
176 m.
117 m.
Breathnach Quay
209 m.
Mulvoy Quay
258 ft.
Folan Quay
80 m.
Quirke Quay

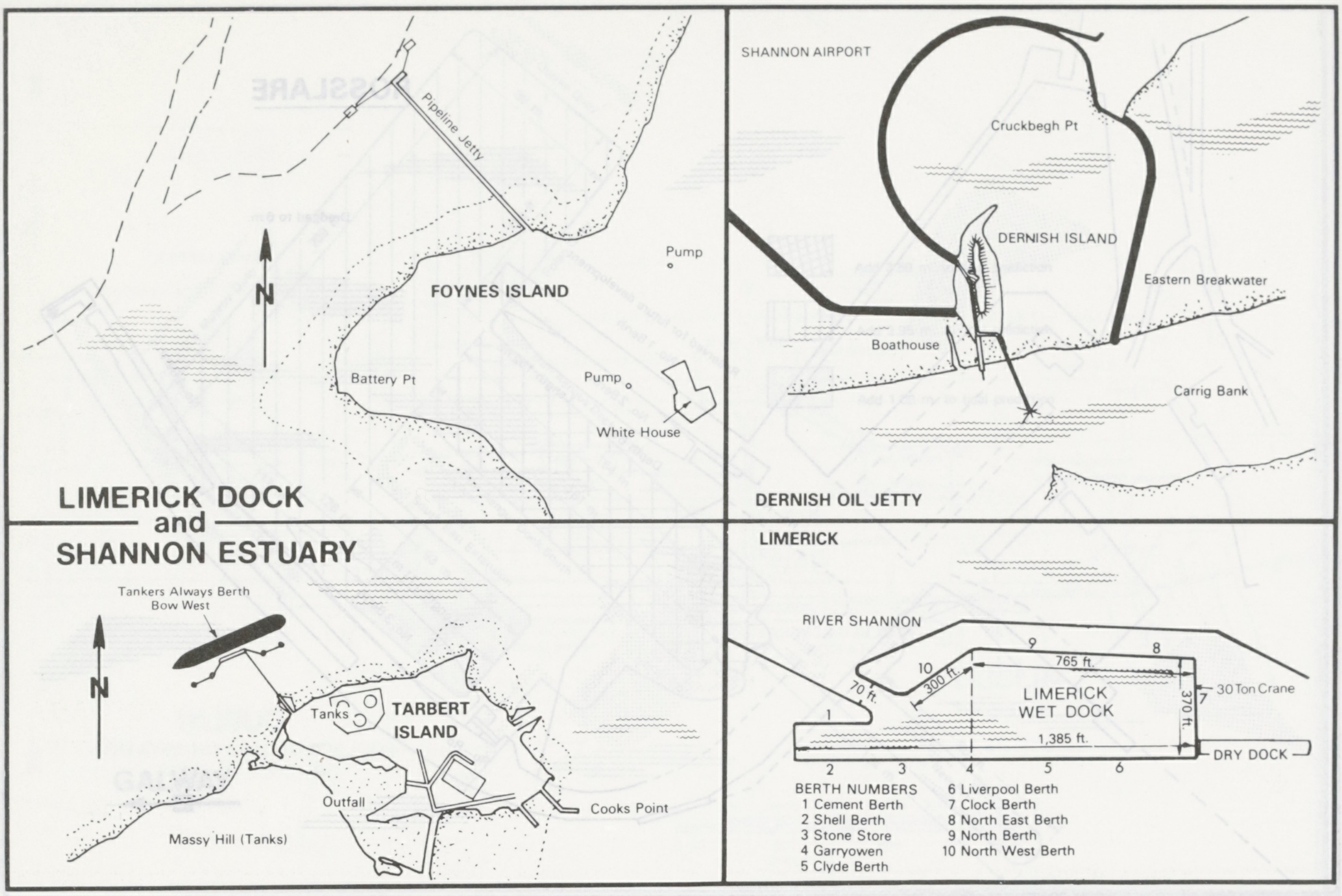
GALWAY


Mud & Boulders
Engine House
–7.50 m.
–4.5 m.
Station
–7.50 m.
Quay
Mud & Shingle
Mooring Rings
Pier
–4.5 m.
–5.40 m.
–7.50 m.
–4.5 m.
Quay
Black Rock
N
Buoy
Buoy
KILLYBEGS
CASTLE POINT
Mooring Rings
Boat Yard
SMOOTH POINT
ROUGH POINT
Mud
0
500
1000
SCALE IN FEET

KILLYBEGS

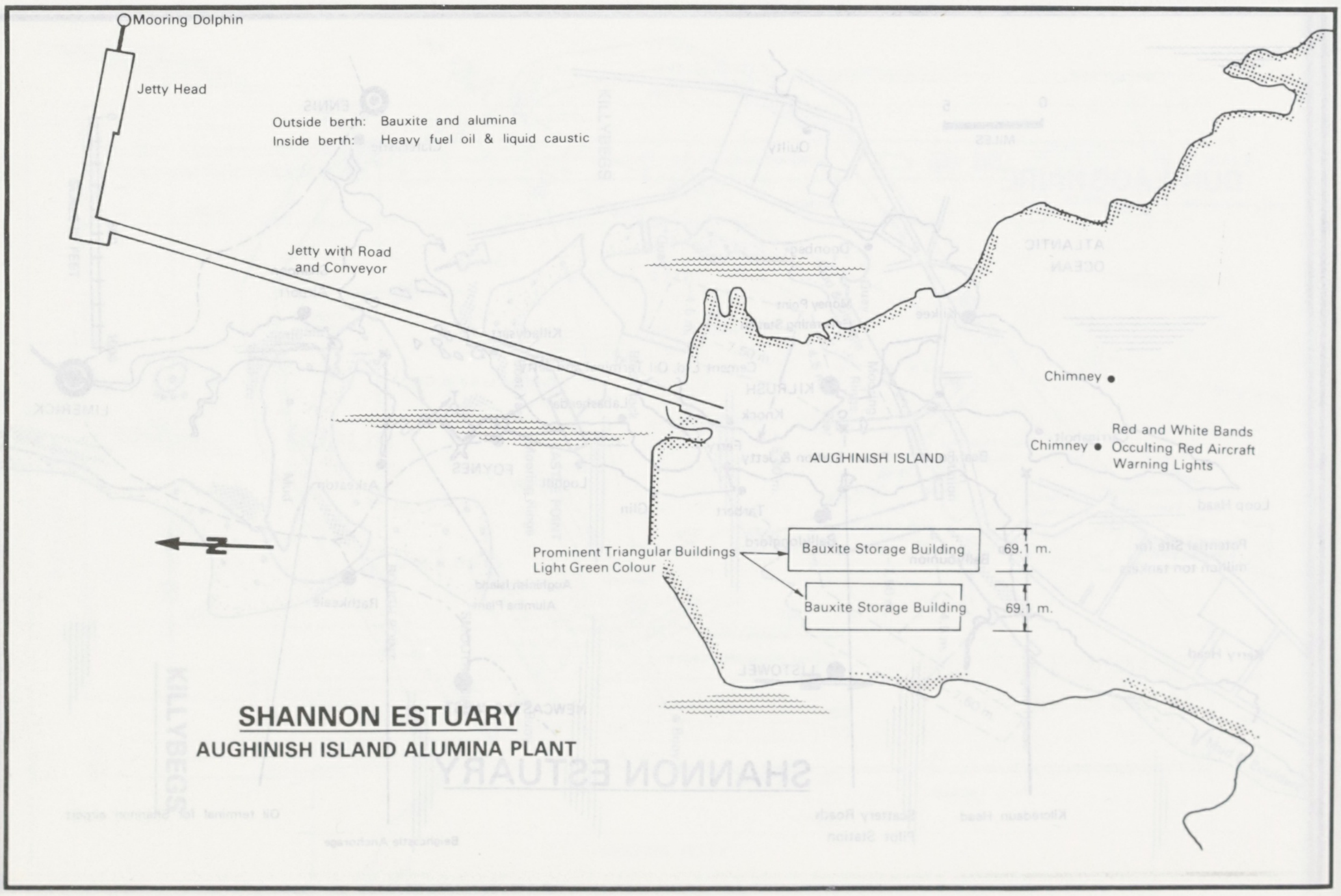

ROSSLARE
Dredged to 6 m.
N
Reserved for future development
No. 1 Berth
No. 2 Berth
Length 152 m.
Depth 6 m.
Ro—Ro
No. 4 Berth
Length 171 m.
No. 3 Berth
Ro—Ro


0 5
MILES
ENNIS
Clarecastle
Quilty
ATLANTIC
OCEAN
Doonbeg
Shannon
Airport
Kilkee
Money Point
Generating Station
Killadysart
Cement Ltd. Oil Terminal and Jetty
KILRUSH
LIMERICK
Labasheeda
Knock
Carrigaholt
Ferry
Beal Point
Power Station & Jetty
FOYNES
Loghill
Askeaton
Loop Head
Tarbert
Glin
Ballylongford
Potential Site for
million ton tankers
Ballybunion
Aughinish Island
Alumina Plant
Rathkeale
Kerry Head
LISTOWEL
NEWCASTLE WEST
SHANNON ESTUARY
Kilcredaun Head
Scattery Roads
Pilot Station
Oil terminal for Shannon airport
Beighcastle Anchorage



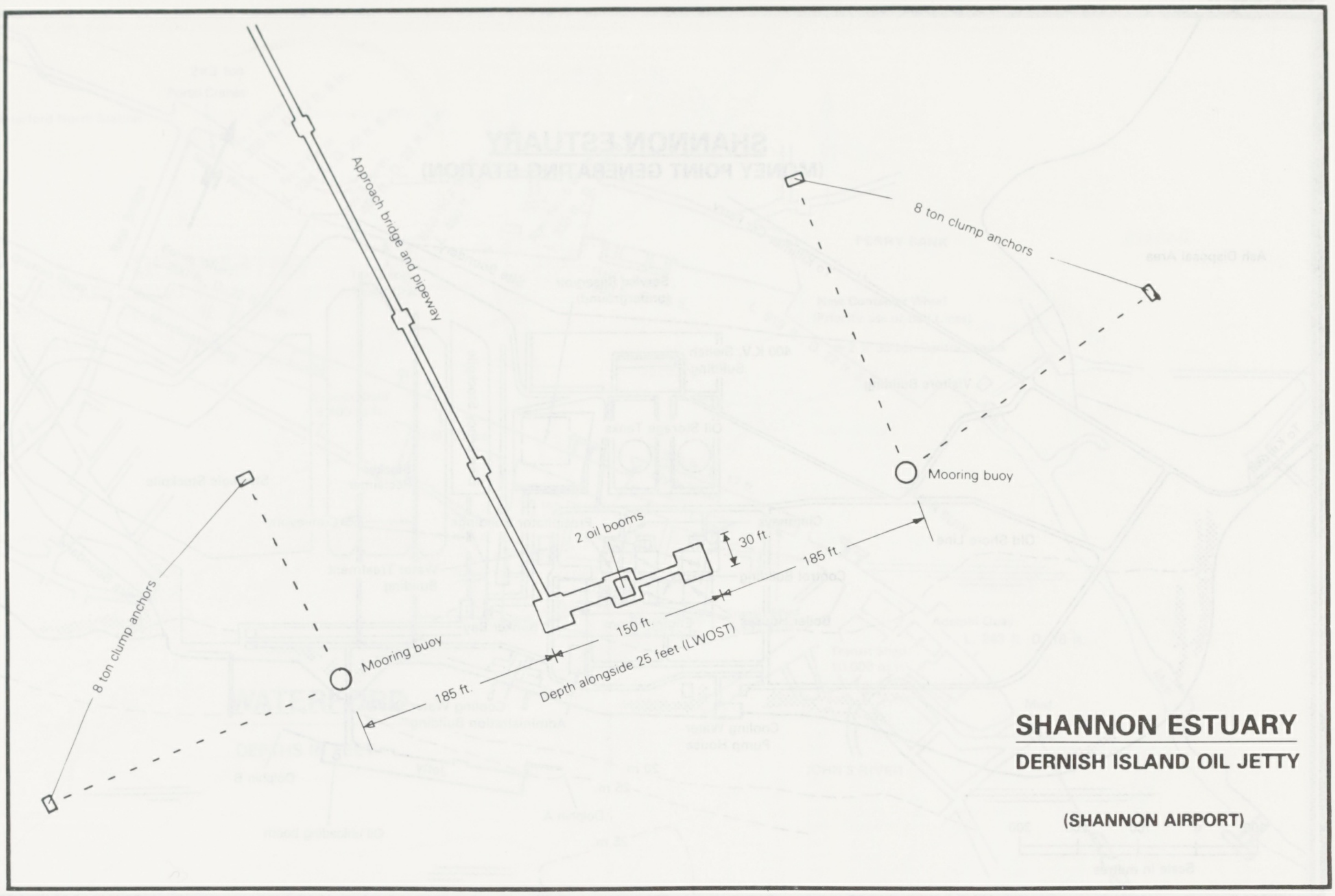
LIMERICK DOCK and SHANNON ESTUARY

Pipeline Jetty
N
FOYNES ISLAND
Pump
Battery Pt
Pump
White House
SHANNON AIRPORT
Cruckbegh Pt
DERNISH ISLAND
Eastern Breakwater
Boathouse
Carrig Bank
DERNISH OIL JETTY
Tankers Always Berth Bow West
N
Tanks
TARBERT ISLAND
Outfall
Cooks Point
Massy Hill (Tanks)
LIMERICK
RIVER SHANNON
9
8
10
765 ft.
70 ft.
300 ft.
LIMERICK WET DOCK
370 ft.
30 Ton Crane
7
1
1,385 ft.
DRY DOCK
2
3
4
5
6
BERTH NUMBERS
1 Cement Berth
2 Shell Berth
3 Stone Store
4 Garryowen
5 Clyde Berth
6 Liverpool Berth
7 Clock Berth
8 North East Berth
9 North Berth
10 North West Berth



SHANNON ESTUARY
AUGHINISH ISLAND ALUMINA PLANT

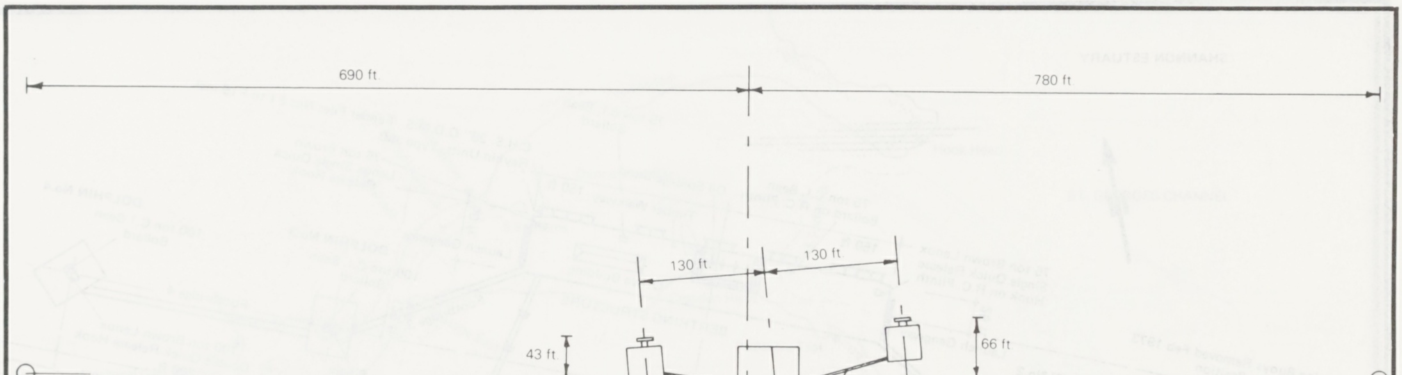
Mooring Dolphin
Jetty Head
Outside berth: Bauxite and alumina
Inside berth: Heavy fuel oil & liquid caustic
Jetty with Road and Conveyor
N
Chimney
Red and White Bands Occulting Red Aircraft Warning Lights
Chimney
AUGHINISH ISLAND
Prominent Triangular Buildings Light Green Colour
Bauxite Storage Building
69.1 m.
Bauxite Storage Building
69.1 m.


Approach bridge and pipeway
8 ton clump anchors
Mooring buoy
2 oil booms
30 ft.
185 ft.
150 ft.
Depth alongside 25 feet (LWOST)
185 ft.
Mooring buoy
8 ton clump anchors

SHANNON ESTUARY

DERNISH ISLAND OIL JETTY

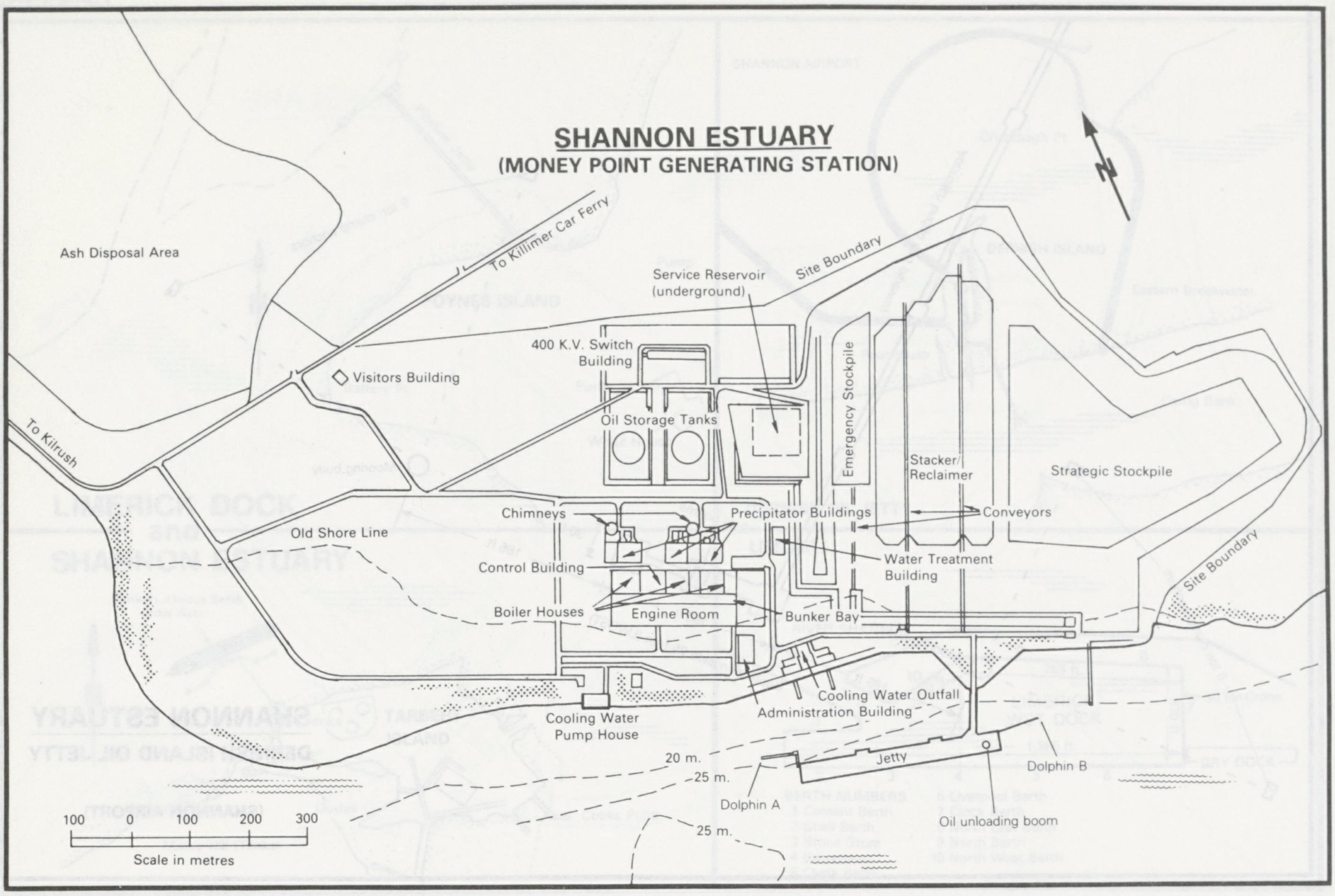
(SHANNON AIRPORT)


690 ft
780 ft
130 ft
130 ft
43 ft
66 ft
Footbridge
Mooring Buoys
Mooring Buoys
Jetty Approach

SHANNON ESTUARY

FOYNES ISLAND JETTY

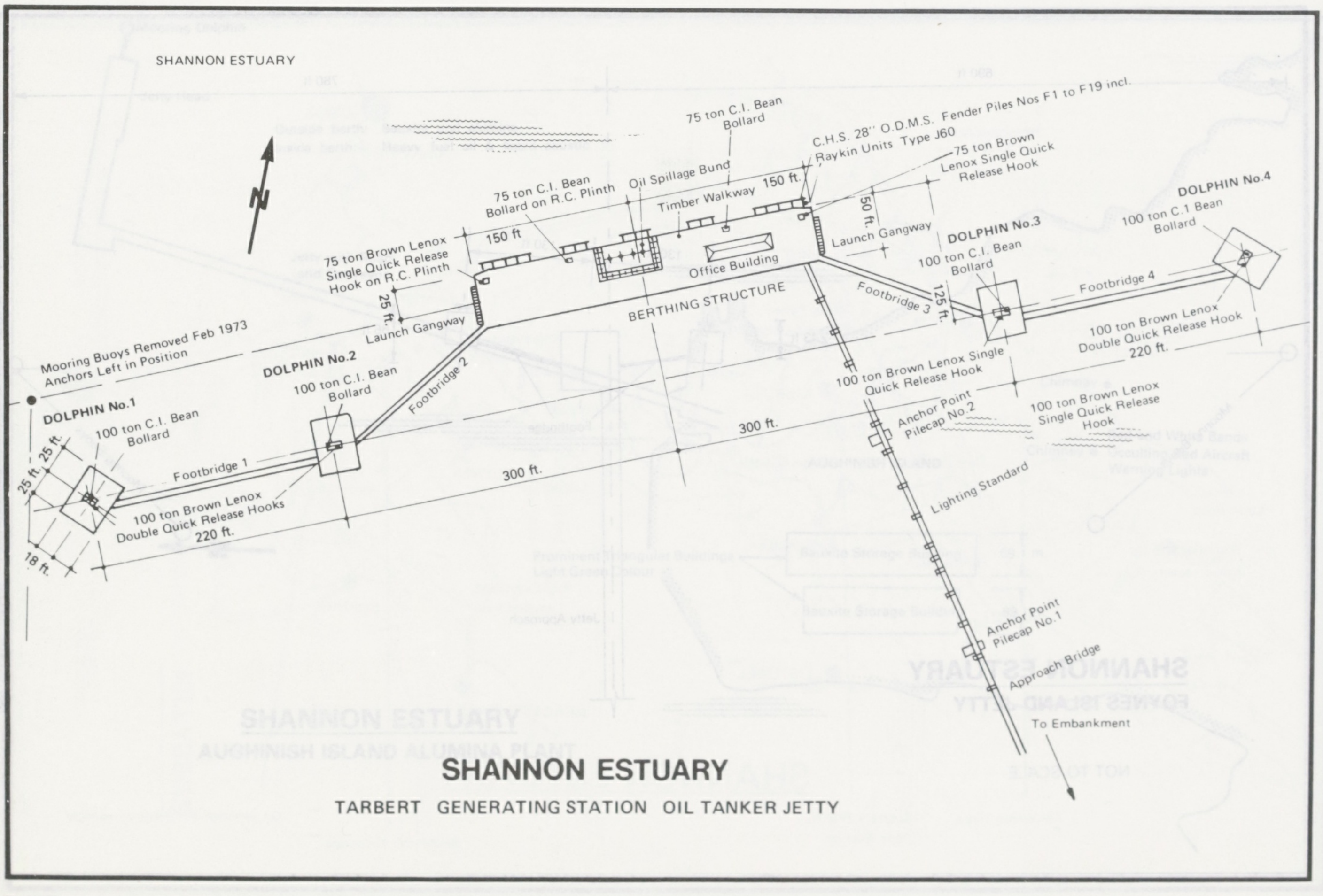
NOT TO SCALE



SHANNON ESTUARY

(MONEY POINT GENERATING STATION)

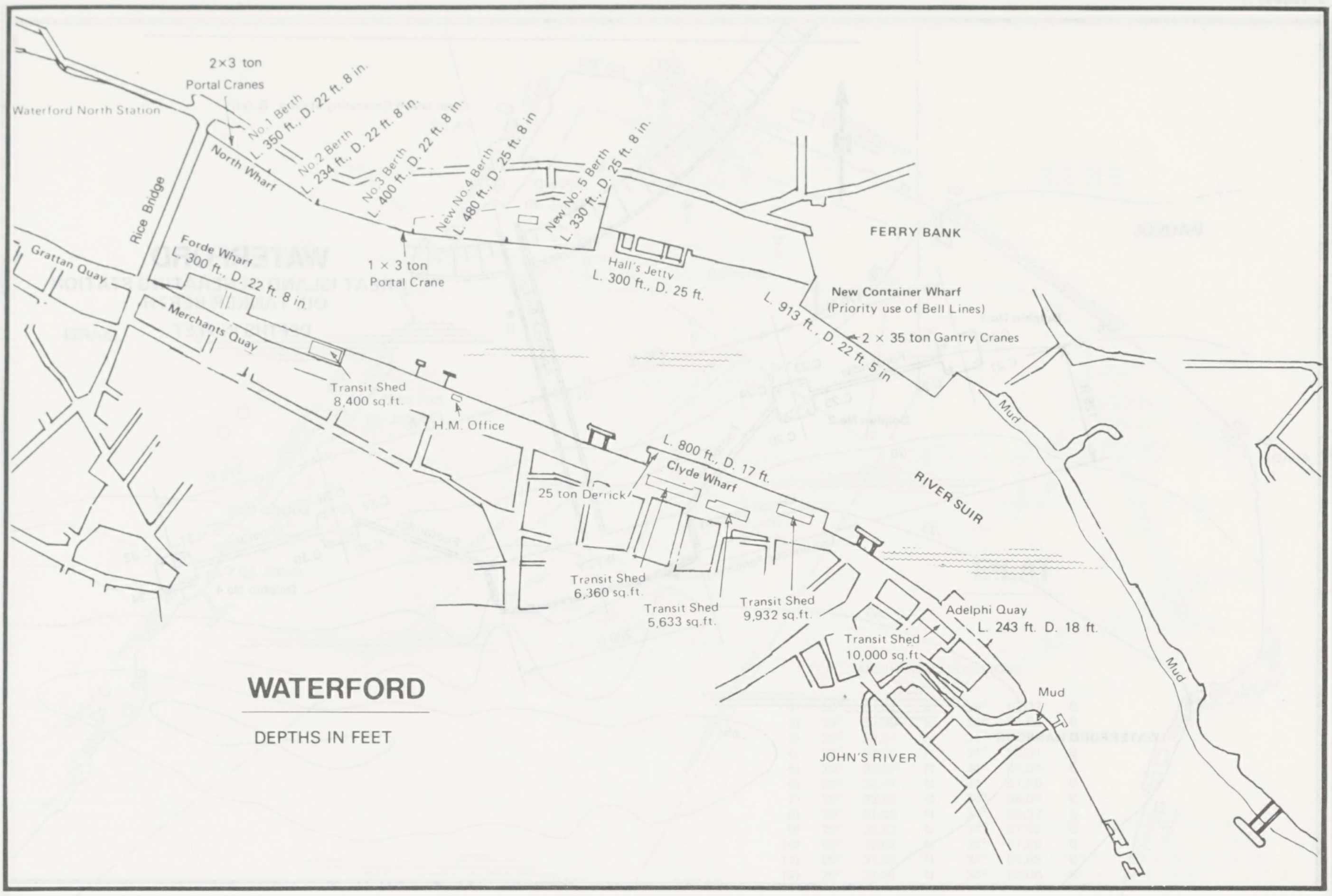
Ash Disposal Area
To Killimer Car Ferry
Site Boundary
Service Reservoir (underground)
400 K.V. Switch Building
Visitors Building
To Kilrush
Oil Storage Tanks
Emergency Stockpile
Stacker/Reclaimer
Strategic Stockpile
Chimneys
Precipitator Buildings
Conveyors
Old Shore Line
Control Building
Water Treatment Building
Site Boundary
Boiler Houses
Engine Room
Bunker Bay
Cooling Water Outfall
Administration Building
Cooling Water Pump House
20 m.
25 m.
Jetty
Dolphin B
Dolphin A
Oil unloading boom
25 m.
100 0 100 200 300
Scale in metres

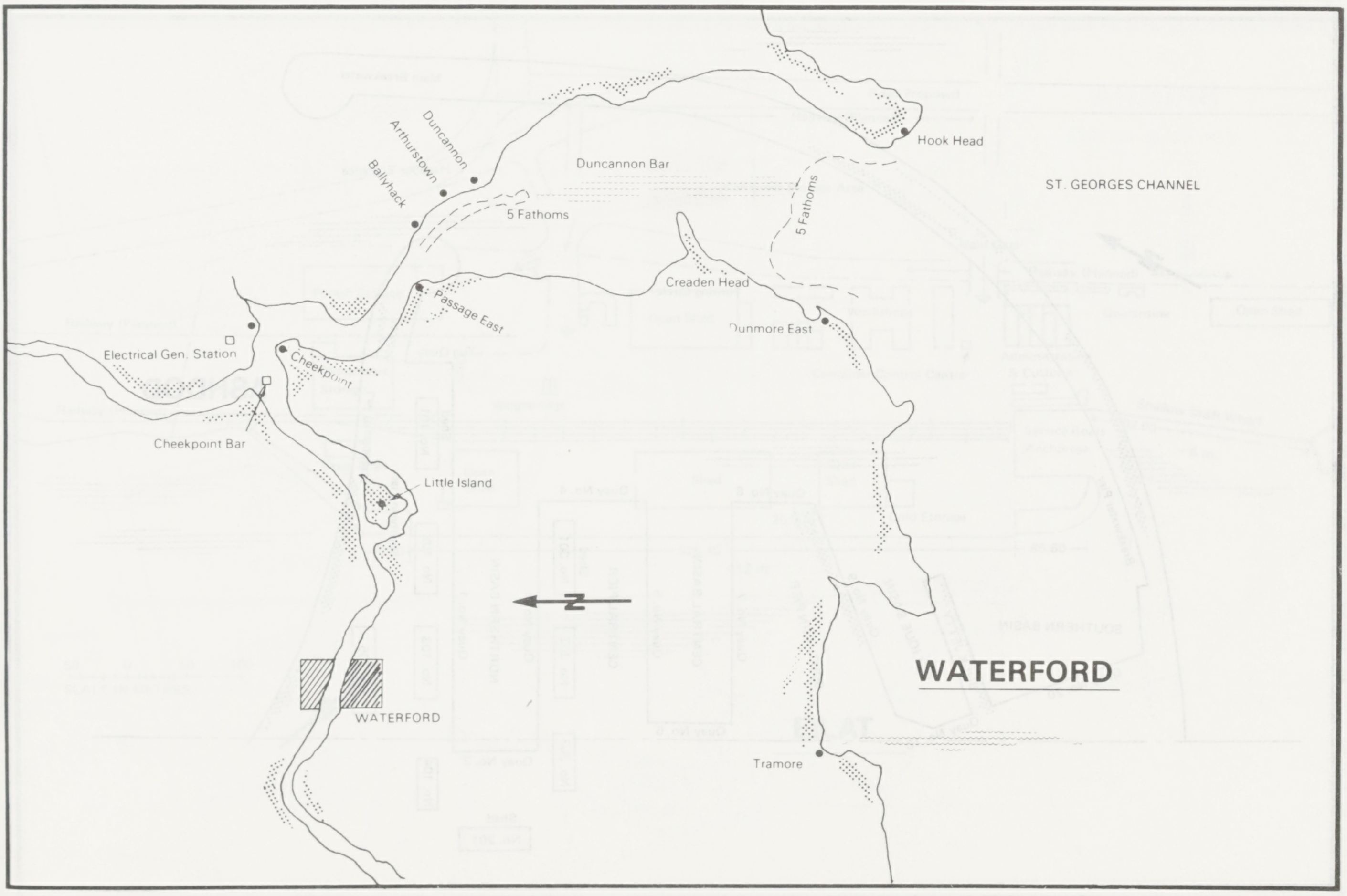


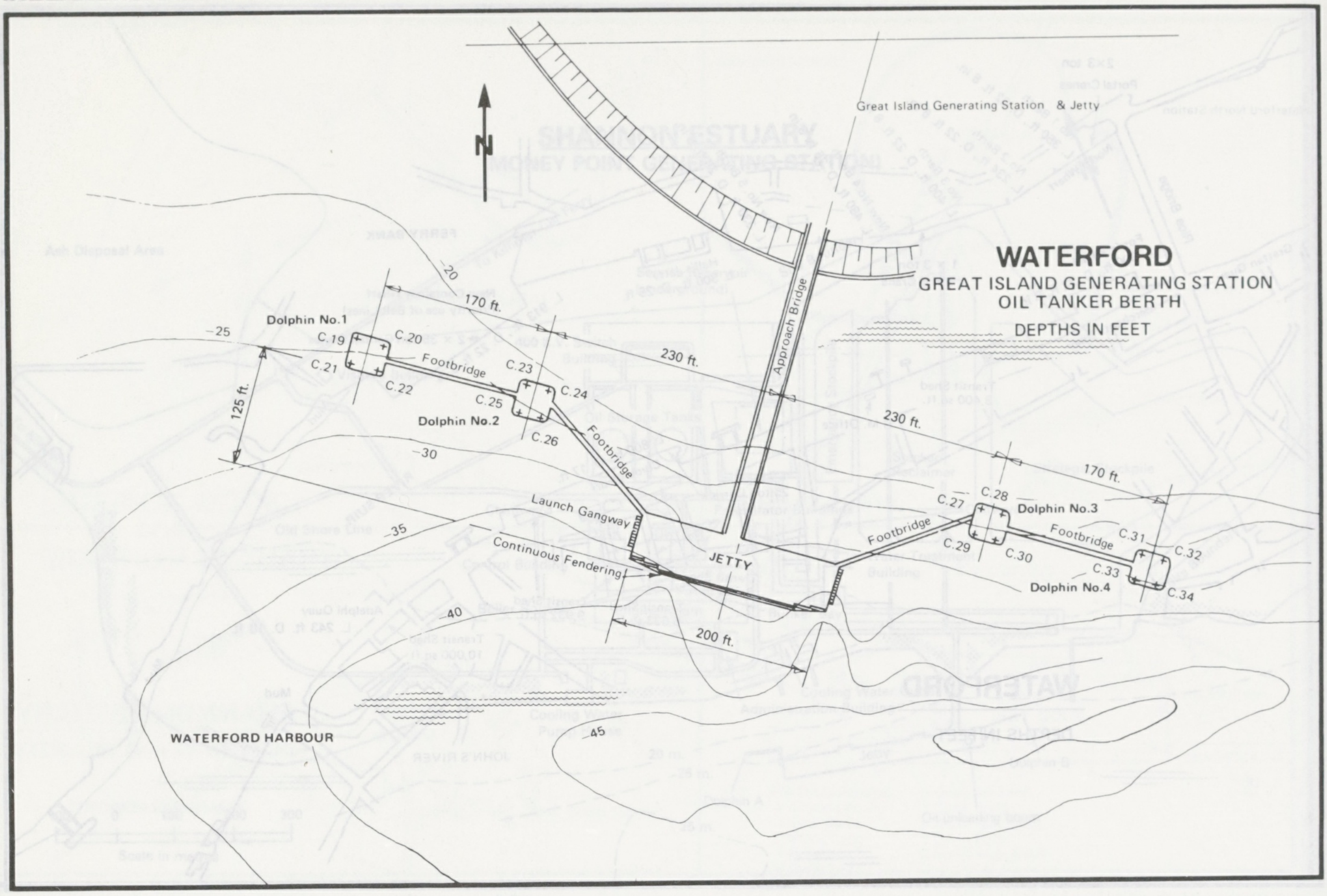
SHANNON ESTUARY

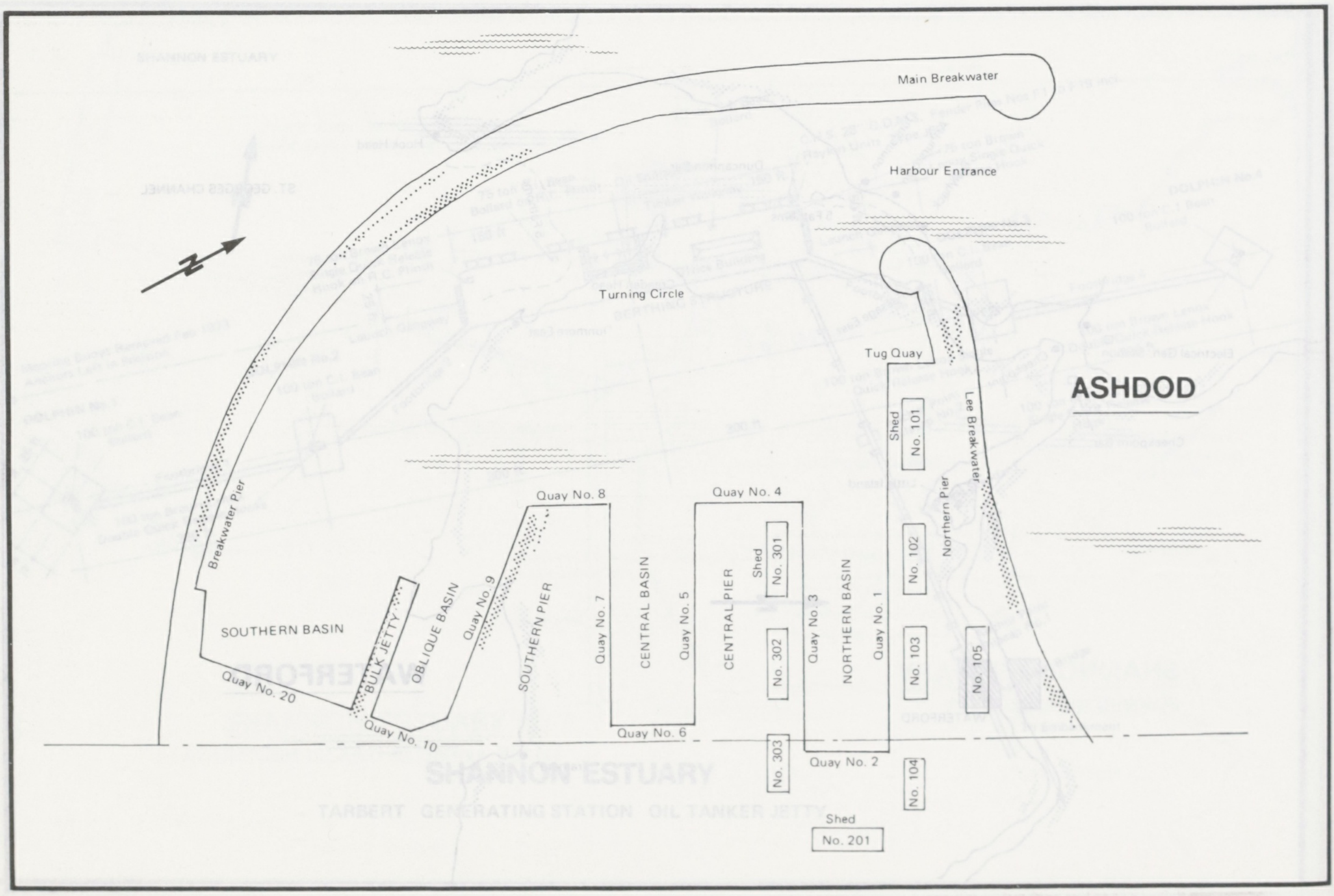
TARBERT GENERATING STATION OIL TANKER JETTY

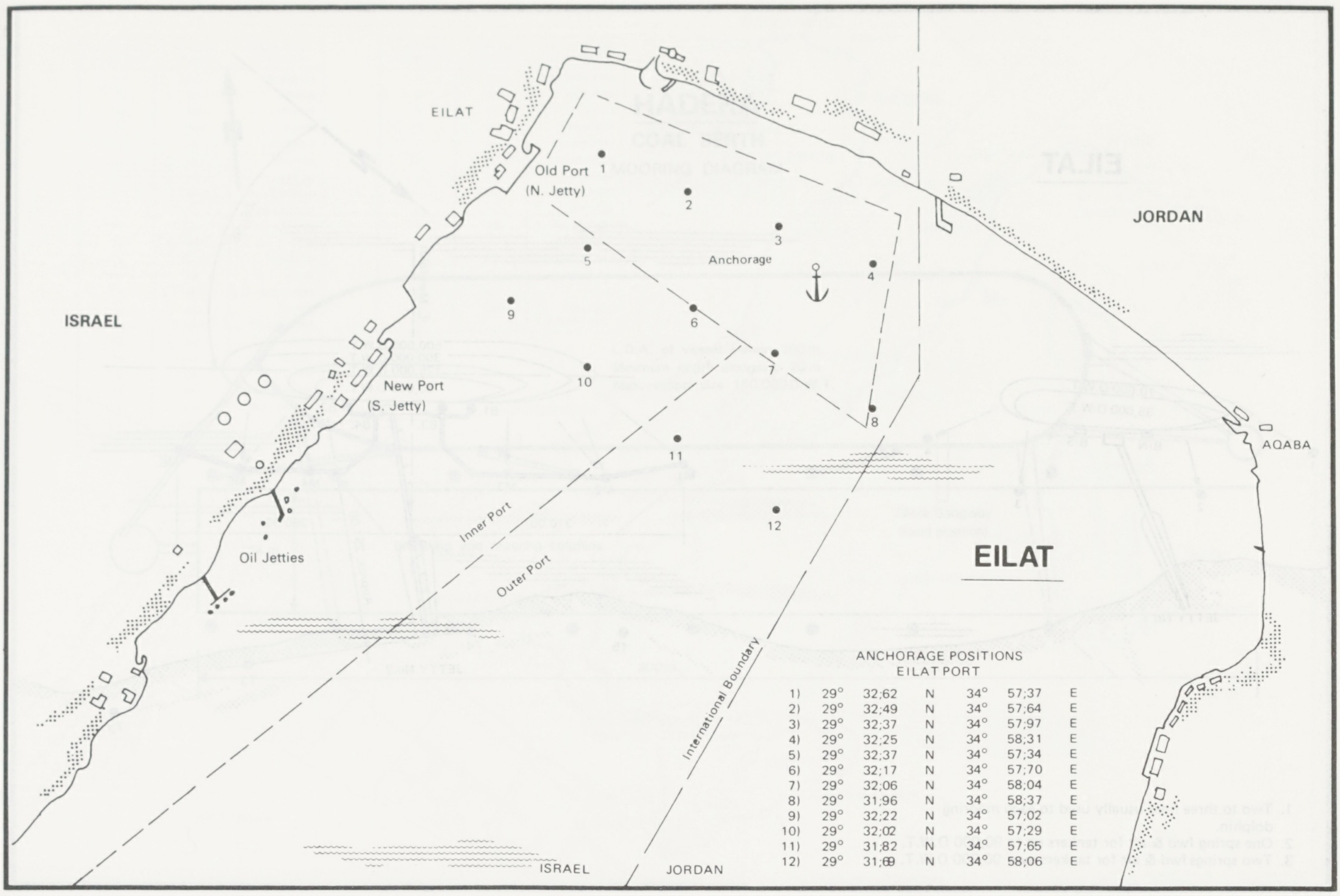
SHANNON ESTUARY
75 ton C.I. Bean Bollard
C.H.S. 28" O.D.M.S. Fender Piles Nos F1 to F19 incl.
Raykin Units Type J60
75 ton Brown Lenox Single Quick Release Hook
75 ton C.I. Bean Bollard on R.C. Plinth
Oil Spillage Bund
150 ft.
Timber Walkway
50 ft.
150 ft
Launch Gangway
DOLPHIN No.4
100 ton C.1 Bean Bollard
75 ton Brown Lenox Single Quick Release Hook on R.C. Plinth
Office Building
DOLPHIN No.3
100 ton C.I. Bean Bollard
BERTHING STRUCTURE
Footbridge 3
125 ft.
Footbridge 4
25 ft.
Launch Gangway
100 ton Brown Lenox Double Quick Release Hook
220 ft.
Mooring Buoys Removed Feb 1973 Anchors Left in Position
DOLPHIN No.2
100 ton C.I. Bean Bollard
Footbridge 2
100 ton Brown Lenox Single Quick Release Hook
DOLPHIN No.1
100 ton C.I. Bean Bollard
Anchor Point Pilecap No.2
100 ton Brown Lenox Single Quick Release Hook
300 ft.
25 ft.
25 ft.
Footbridge 1
300 ft.
Lighting Standard
100 ton Brown Lenox Double Quick Release Hooks
220 ft.
18 ft.
Anchor Point Pilecap No.1
Approach Bridge
To Embankment


2×3 ton
Portal Cranes
Waterford North Station
No.1 Berth
L. 350 ft., D. 22 ft. 8 in.
No.2 Berth
L. 234 ft., D. 22 ft. 8 in.
No.3 Berth
L. 400 ft., D. 22 ft. 8 in.
New No.4 Berth
L. 480 ft., D. 25 ft. 8 in.
New No. 5 Berth
L. 330 ft., D. 25 ft. 8 in.
North Wharf
Rice Bridge
1 × 3 ton
Portal Crane
Hall's Jetty
L. 300 ft., D. 25 ft.
FERRY BANK
New Container Wharf
(Priority use of Bell Lines)
L. 913 ft., D. 22 ft. 5 in.
2 × 35 ton Gantry Cranes
Grattan Quay
Forde Wharf
300 ft., D. 22 ft. 8 in.
Merchants Quay
Transit Shed
8,400 sq.ft.
H.M. Office
L. 800 ft., D. 17 ft.
Clyde Wharf
25 ton Derrick
RIVER SUIR
Mud
Transit Shed
6,360 sq.ft.
Transit Shed
5,633 sq.ft.
Transit Shed
9,932 sq.ft.
Adelphi Quay
L. 243 ft. D. 18 ft.
Transit Shed
10,000 sq.ft.
Mud
Mud
JOHN'S RIVER
WATERFORD
DEPTHS IN FEET


Duncannon
Arthurstown
Ballyhack
Duncannon Bar
Hook Head
ST. GEORGES CHANNEL
5 Fathoms
5 Fathoms
Creaden Head
Passage East
Dunmore East
Electrical Gen. Station
Cheekpoint
Cheekpoint Bar
Little Island
N
WATERFORD
WATERFORD
Tramore

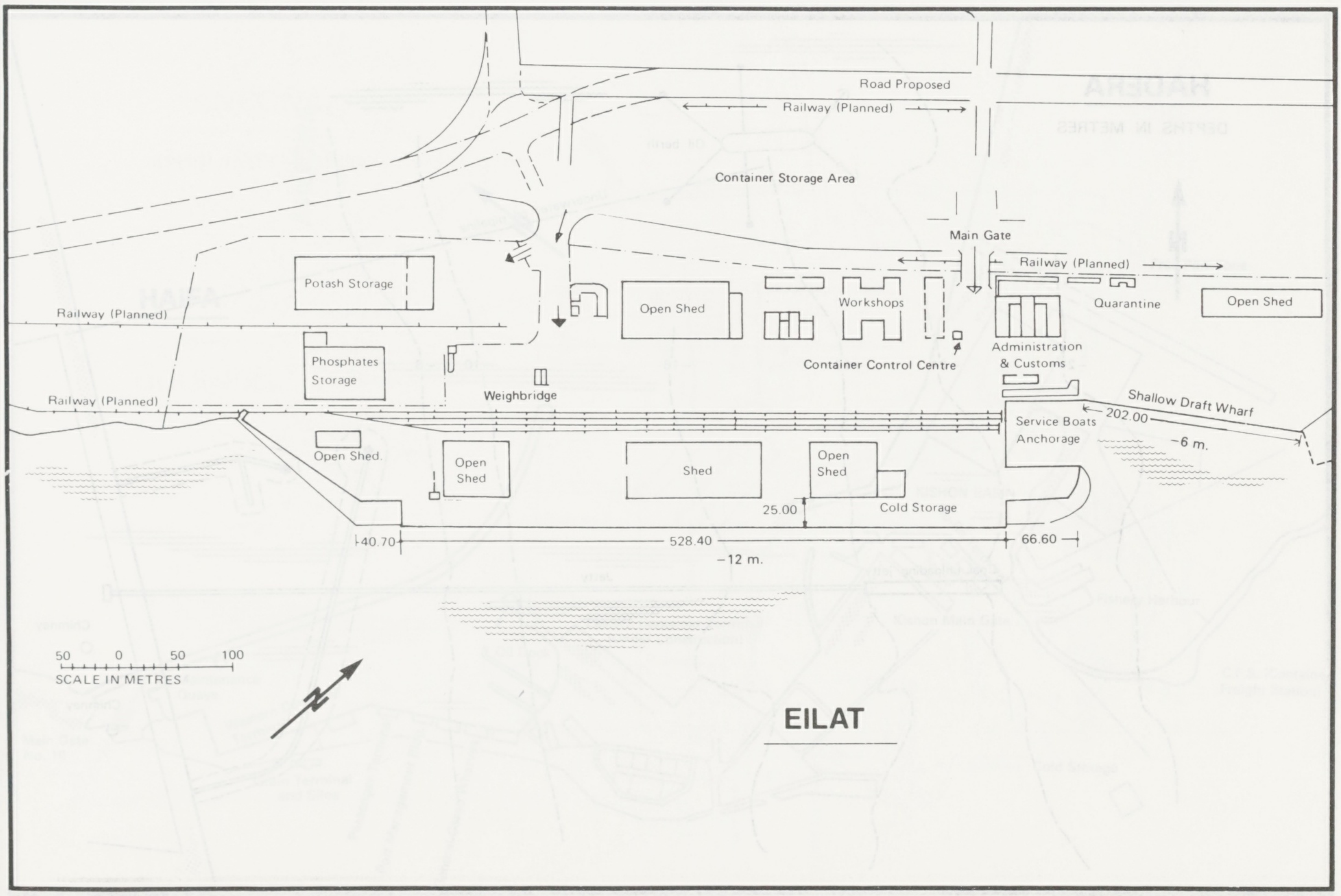

Great Island Generating Station & Jetty
N
WATERFORD
GREAT ISLAND GENERATING STATION
OIL TANKER BERTH
DEPTHS IN FEET
Approach Bridge
-20
170 ft.
-25
Dolphin No.1
C.19
C.20
C.21
C.22
Footbridge
C.23
C.24
C.25
Dolphin No.2
C.26
230 ft.
125 ft.
230 ft.
-30
Footbridge
Launch Gangway
-35
Continuous Fendering
JETTY
170 ft.
C.27
C.28
Dolphin No.3
Footbridge
C.29
C.30
Footbridge
C.31
C.32
C.33
Dolphin No.4
C.34
-40
200 ft.
-45
WATERFORD HARBOUR

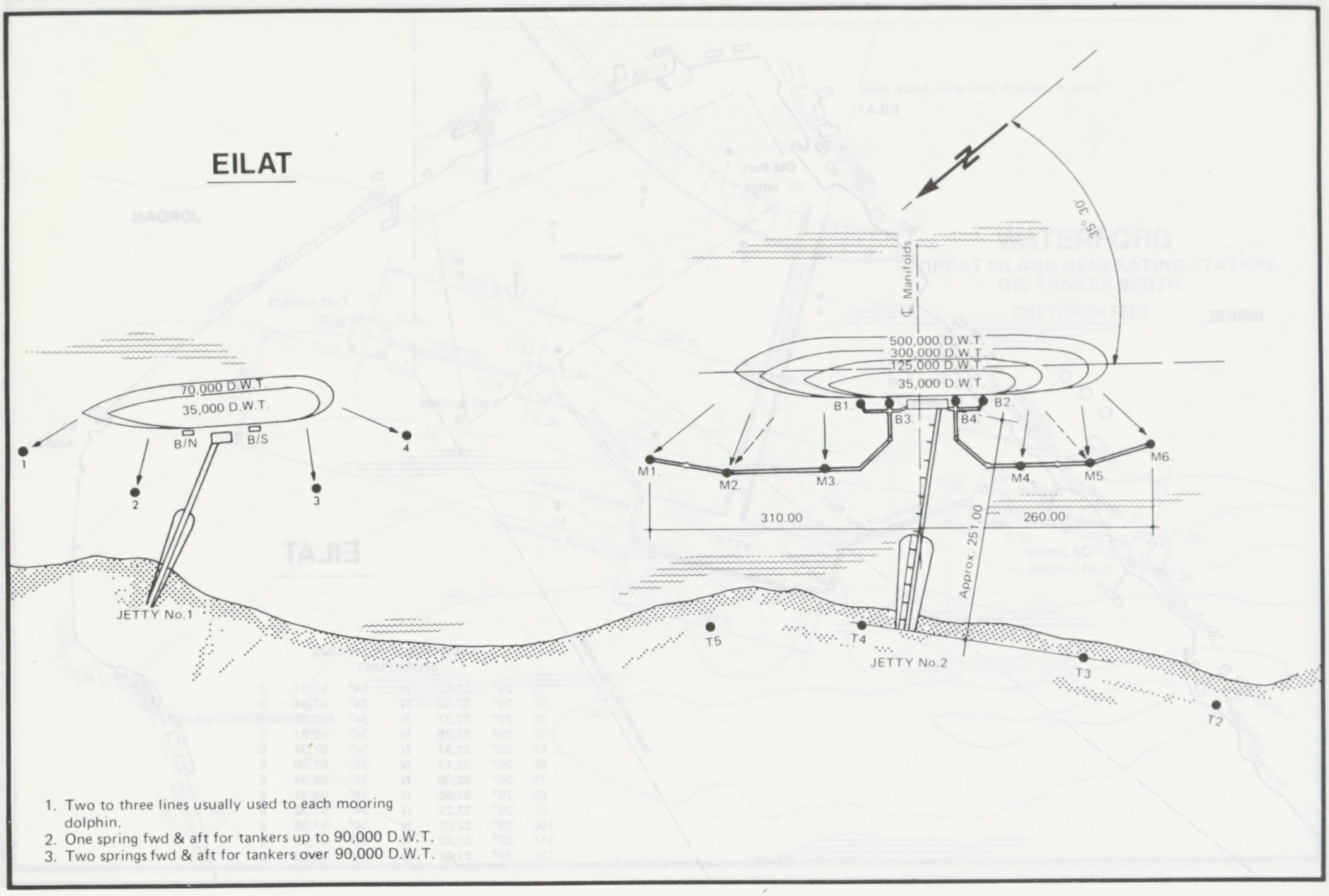

Main Breakwater
Harbour Entrance
N
Turning Circle
Tug Quay
ASHDOD
Shed
No. 101
Lee Breakwater
Northern Pier
No. 102
No. 103
No. 105
Quay No. 8
Quay No. 4
Shed
No. 301
Breakwater Pier
Quay No. 9
Quay No. 7
CENTRAL BASIN
Quay No. 5
CENTRAL PIER
Quay No. 3
NORTHERN BASIN
Quay No. 1
SOUTHERN BASIN
BULK JETTY
OBLIQUE BASIN
SOUTHERN PIER
No. 302
Quay No. 20
Quay No. 10
Quay No. 6
No. 303
Quay No. 2
No. 104
Shed
No. 201


EILAT
Old Port
(N. Jetty)
1
2
3
4
5
6
7
8
9
10
11
12
Anchorage
JORDAN
ISRAEL
New Port
(S. Jetty)
AQABA
Oil Jetties
Inner Port
Outer Port
International Boundary
EILAT
ISRAEL
JORDAN

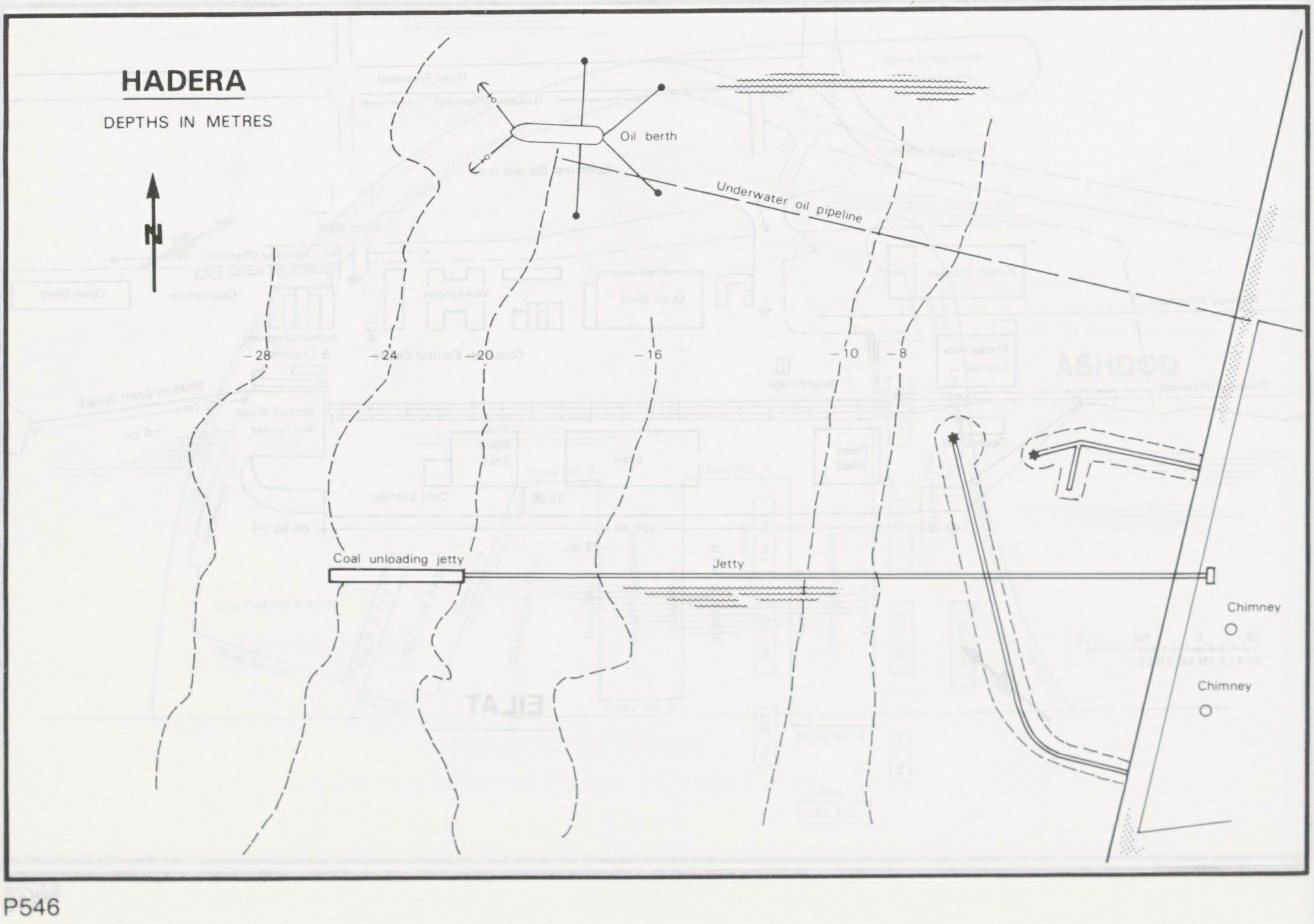
ANCHORAGE POSITIONS
EILAT PORT

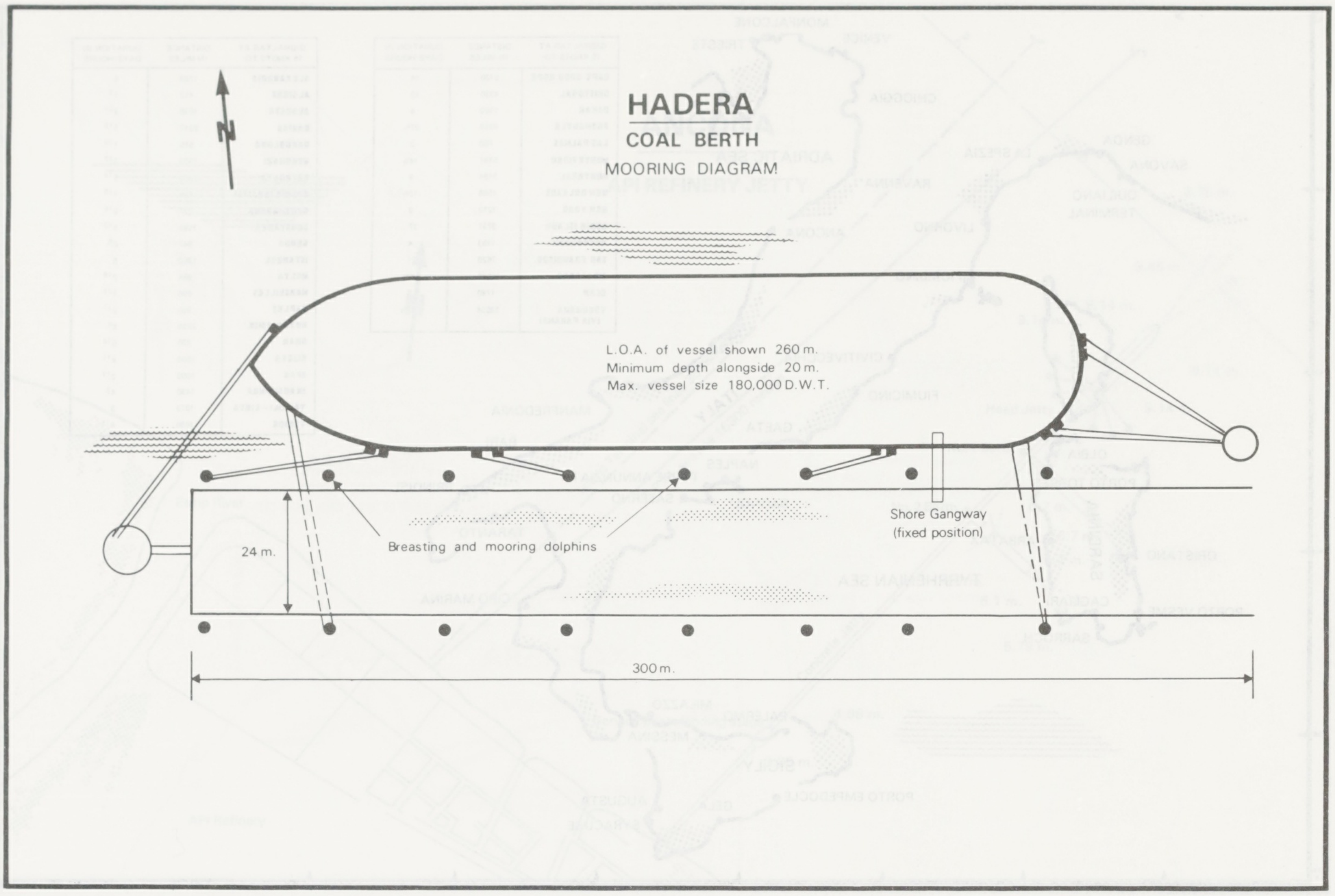
1)	29°	32;62	N	34°	57;37	E
2)	29°	32;49	N	34°	57;64	E
3)	29°	32;37	N	34°	57;97	E
4)	29°	32;25	N	34°	58;31	E
5)	29°	32;37	N	34°	57;34	E
6)	29°	32;17	N	34°	57;70	E
7)	29°	32;06	N	34°	58;04	E
8)	29°	31;96	N	34°	58;37	E
9)	29°	32;22	N	34°	57;02	E
10)	29°	32;02	N	34°	57;29	E
11)	29°	31;82	N	34°	57;65	E
12)	29°	31;69	N	34°	58;06	E

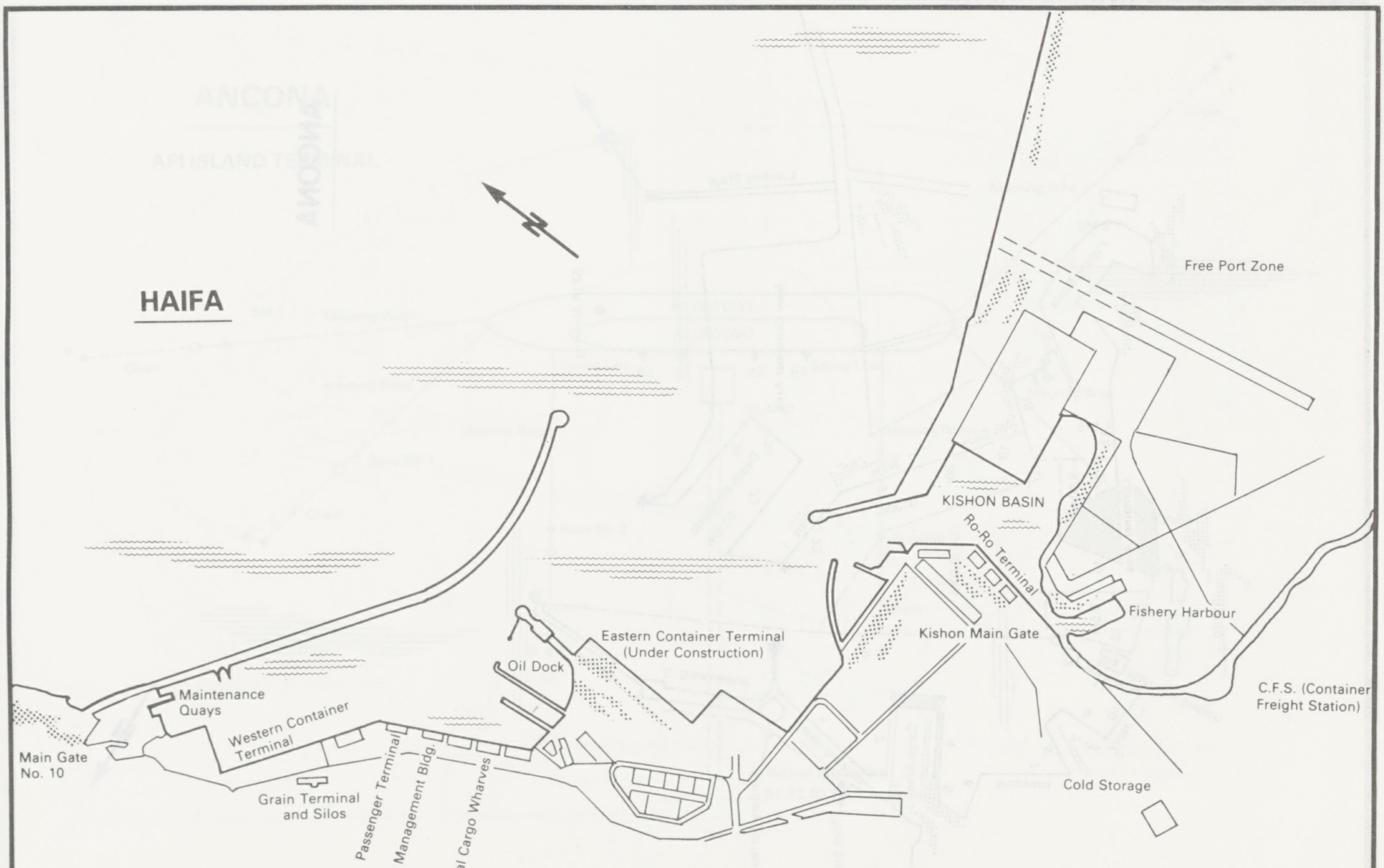

Road Proposed
Railway (Planned)
Container Storage Area
Main Gate
Railway (Planned)
Potash Storage
Open Shed
Workshops
Quarantine
Open Shed
Railway (Planned)
Phosphates
Storage
Container Control Centre
Administration
& Customs
Weighbridge
Railway (Planned)
Shallow Draft Wharf
202.00
Service Boats
Anchorage
–6 m.
Open Shed.
Open
Shed
Shed
Open
Shed
Cold Storage
25.00
40.70
528.40
66.60
–12 m.
50
0
50
100
SCALE IN METRES
N
EILAT

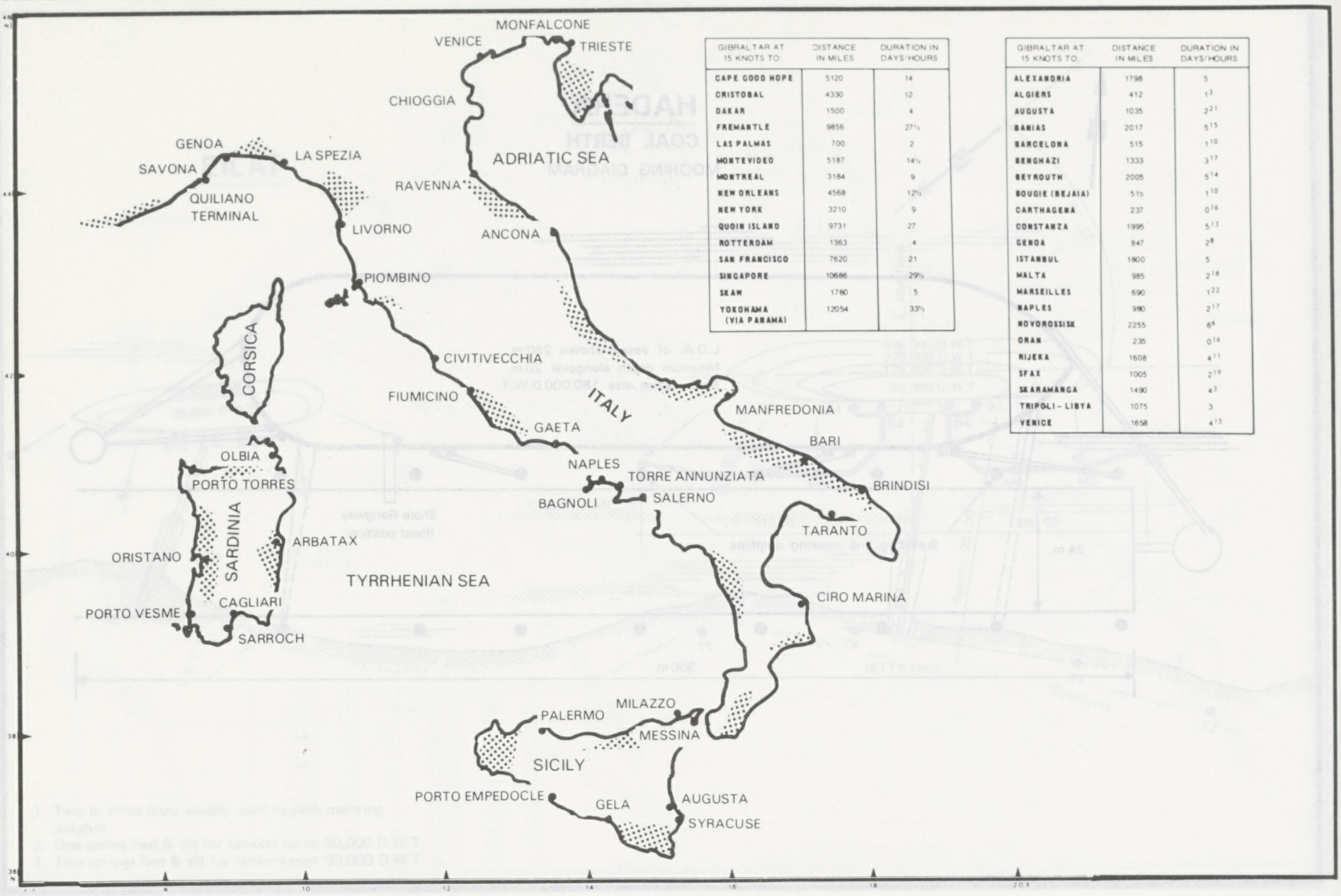

EILAT
70,000 D.W.T.
35,000 D.W.T.
B/N
B/S
1
2
3
4
JETTY No.1
℄ Manifolds
500,000 D.W.T.
300,000 D.W.T.
125,000 D.W.T.
35,000 D.W.T.
B1.
B2.
B3.
B4.
M1.
M2.
M3.
M4.
M5.
M6.
310.00
260.00
Approx. 251.00
35° 30'
N
T5
T4
T3
T2
JETTY No.2

1. Two to three lines usually used to each mooring dolphin.
2. One spring fwd & aft for tankers up to 90,000 D.W.T.
3. Two springs fwd & aft for tankers over 90,000 D.W.T.


HADERA
DEPTHS IN METRES
N
Oil berth
Underwater oil pipeline
–28
–24
–20
–16
–10
–8
Coal unloading jetty
Jetty
Chimney
Chimney

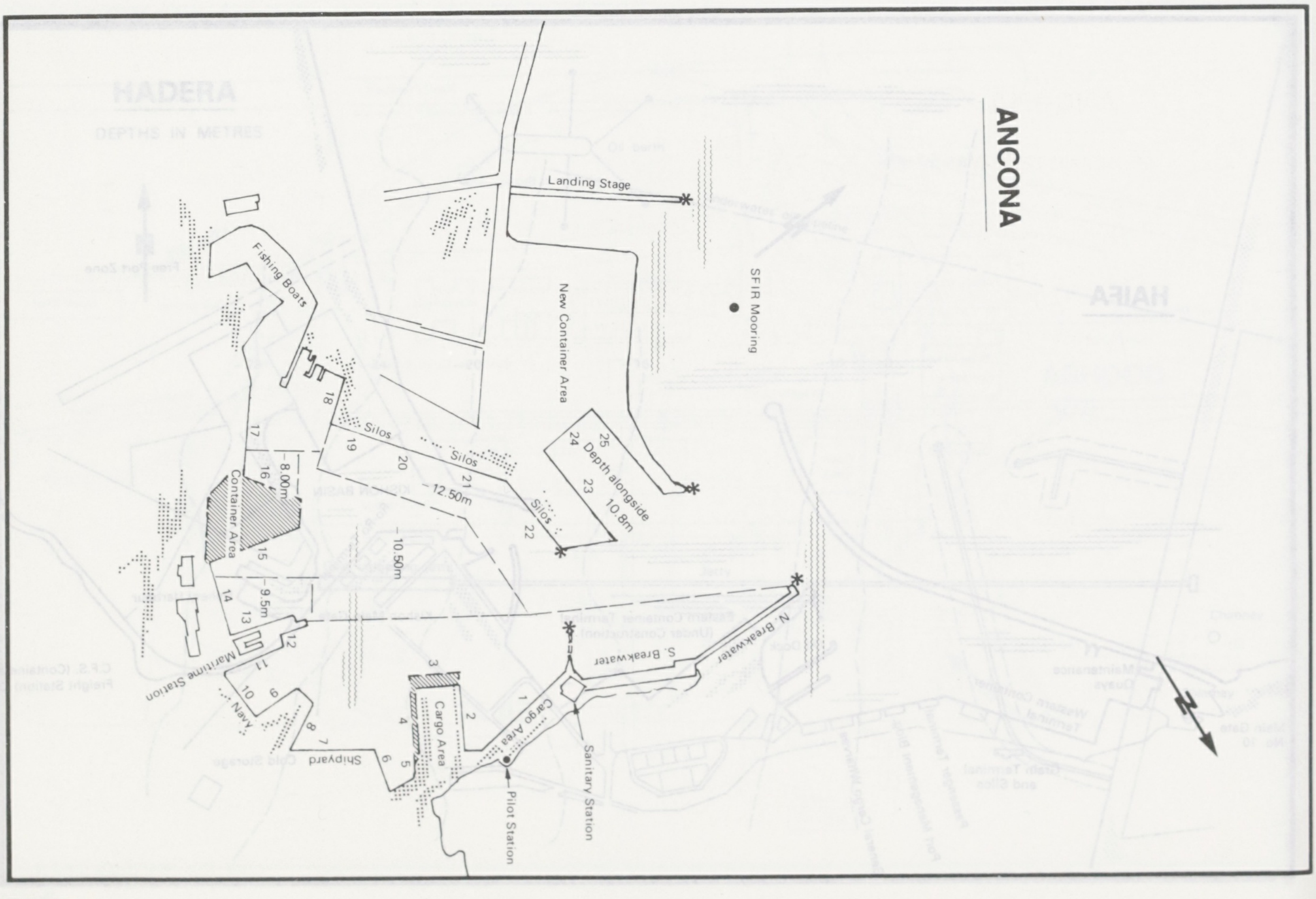

HADERA
COAL BERTH
MOORING DIAGRAM
L.O.A. of vessel shown 260 m.
Minimum depth alongside 20 m.
Max. vessel size 180,000 D.W.T.
Shore Gangway
(fixed position)
Breasting and mooring dolphins
24 m.
300 m.

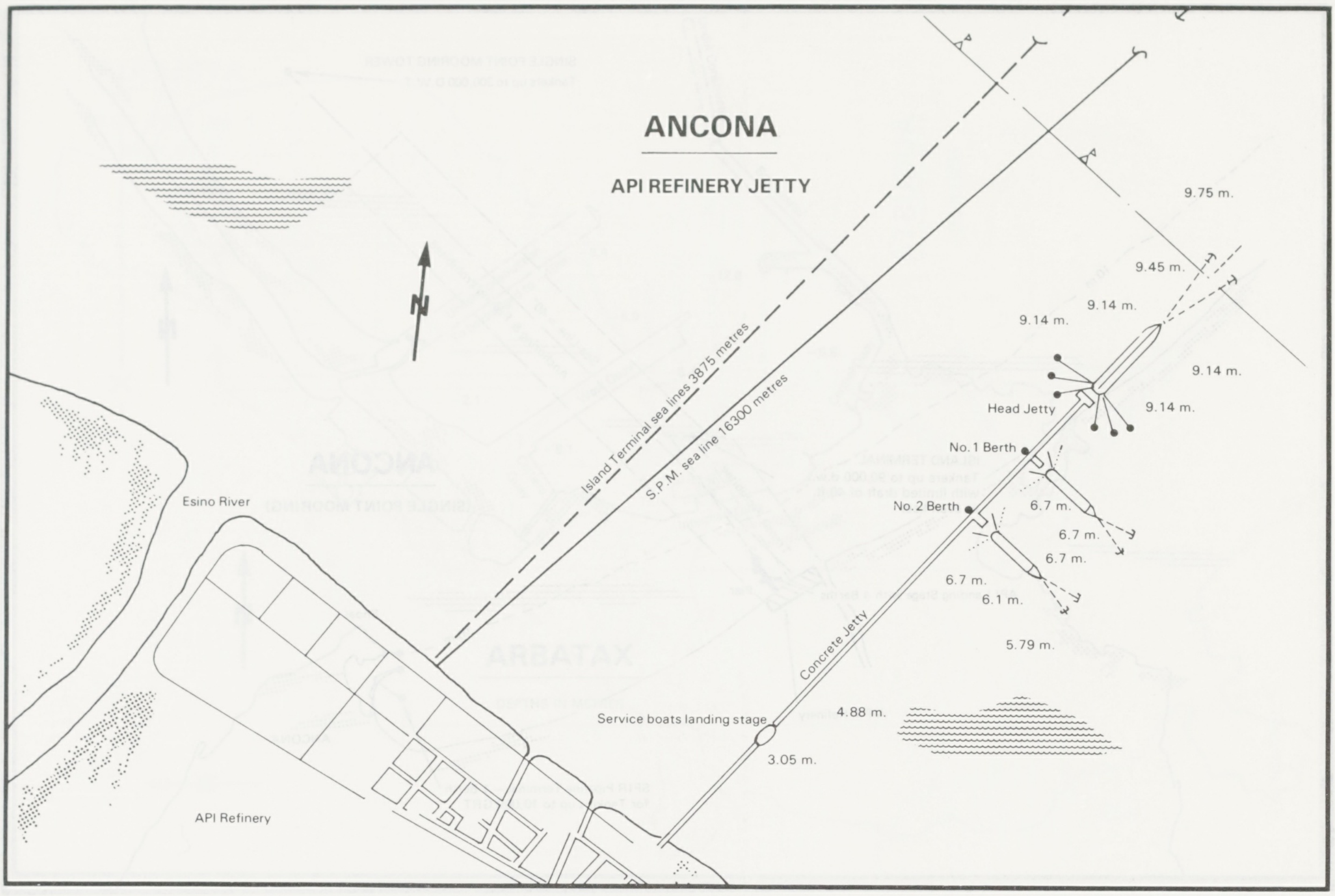

HAIFA
Free Port Zone
KISHON BASIN
Ro-Ro Terminal
Fishery Harbour
Kishon Main Gate
Eastern Container Terminal
(Under Construction)
Oil Dock
C.F.S. (Container
Freight Station)
Cold Storage
Maintenance
Quays
Western Container
Terminal
Main Gate
No. 10
Grain Terminal
and Silos
Passenger Terminal
Port Management Bldg.
General Cargo Wharves

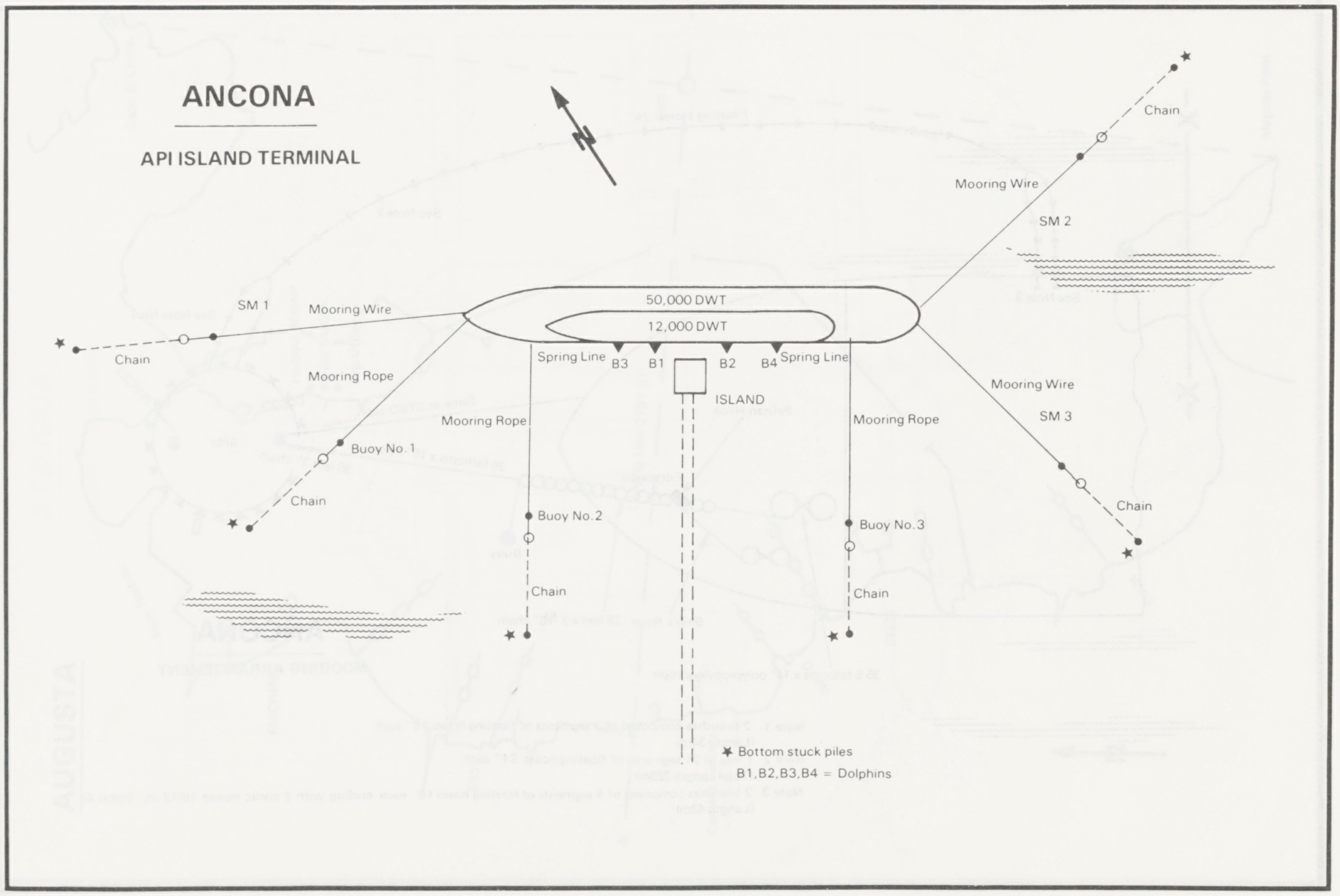

VENICE
MONFALCONE
TRIESTE
CHIOGGIA
GENOA
SAVONA
LA SPEZIA
QUILIANO
TERMINAL
RAVENNA
ADRIATIC SEA
LIVORNO
ANCONA
PIOMBINO
CORSICA
CIVITIVECCHIA
FIUMICINO
ITALY
GAETA
MANFREDONIA
BARI
OLBIA
NAPLES
PORTO TORRES
TORRE ANNUNZIATA
BRINDISI
BAGNOLI
SALERNO
SARDINIA
TARANTO
ARBATAX
ORISTANO
TYRRHENIAN SEA
CIRO MARINA
PORTO VESME
CAGLIARI
SARROCH
MILAZZO
PALERMO
MESSINA
SICILY
PORTO EMPEDOCLE
GELA
AUGUSTA
SYRACUSE

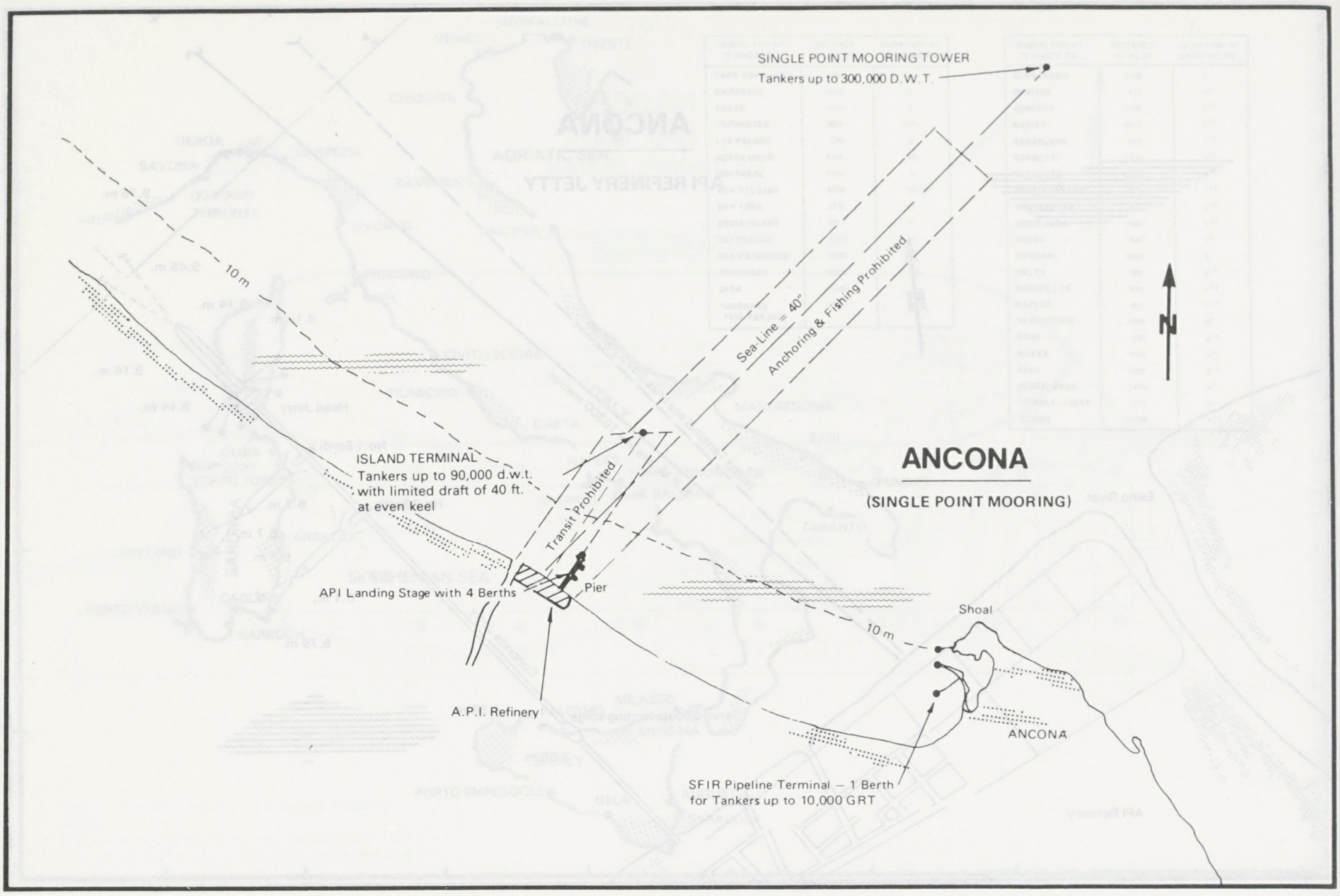
GIBRALTAR AT 15 KNOTS TO:	DISTANCE IN MILES	DURATION IN DAYS/HOURS
CAPE GOOD HOPE	5120	14
CRISTOBAL	4330	12
DAKAR	1500	4
FREMANTLE	9856	27⅓
LAS PALMAS	700	2
MONTEVIDEO	5187	14⅓
MONTREAL	3184	9
NEW ORLEANS	4568	12⅔
NEW YORK	3210	9
QUOIN ISLAND	9731	27
ROTTERDAM	1363	4
SAN FRANCISCO	7620	21
SINGAPORE	10686	29⅔
SKAW	1760	5
YOKOHAMA (VIA PANAMA)	12054	33⅓

GIBRALTAR AT 15 KNOTS TO:	DISTANCE IN MILES	DURATION IN DAYS/HOURS
ALEXANDRIA	1798	5
ALGIERS	412	1^{3}
AUGUSTA	1035	2^{21}
BANIAS	2017	5^{15}
BARCELONA	515	1^{10}
BENGHAZI	1333	3^{17}
BEYROUTH	2005	5^{14}
BOUGIE (BEJAIA)	515	1^{10}
CARTHAGENA	237	0^{16}
CONSTANZA	1995	5^{13}
GENOA	847	2^{8}
ISTANBUL	1800	5
MALTA	985	2^{18}
MARSEILLES	690	1^{22}
NAPLES	980	2^{17}
NOVOROSSISK	2255	6^{6}
ORAN	235	0^{16}
RIJEKA	1608	4^{11}
SFAX	1005	2^{19}
SKARAMANGA	1490	4^{3}
TRIPOLI – LIBYA	1075	3
VENICE	1658	4^{15}


ANCONA
Landing Stage
SFIR Mooring
New Container Area
Fishing Boats
18
17
19
Silos
Silos
Silos
20
21
22
16
–8.00m
–12.50m
25
24
Depth alongside
23
10.8m
Container Area
15
–10.50m
14
–9.5m
13
12
11
Maritime Station
10
9
Navy
8
7
Shipyard
6
5
4
Cargo Area
3
2
1
Cargo Area
S. Breakwater
N. Breakwater
Sanitary Station
Pilot Station

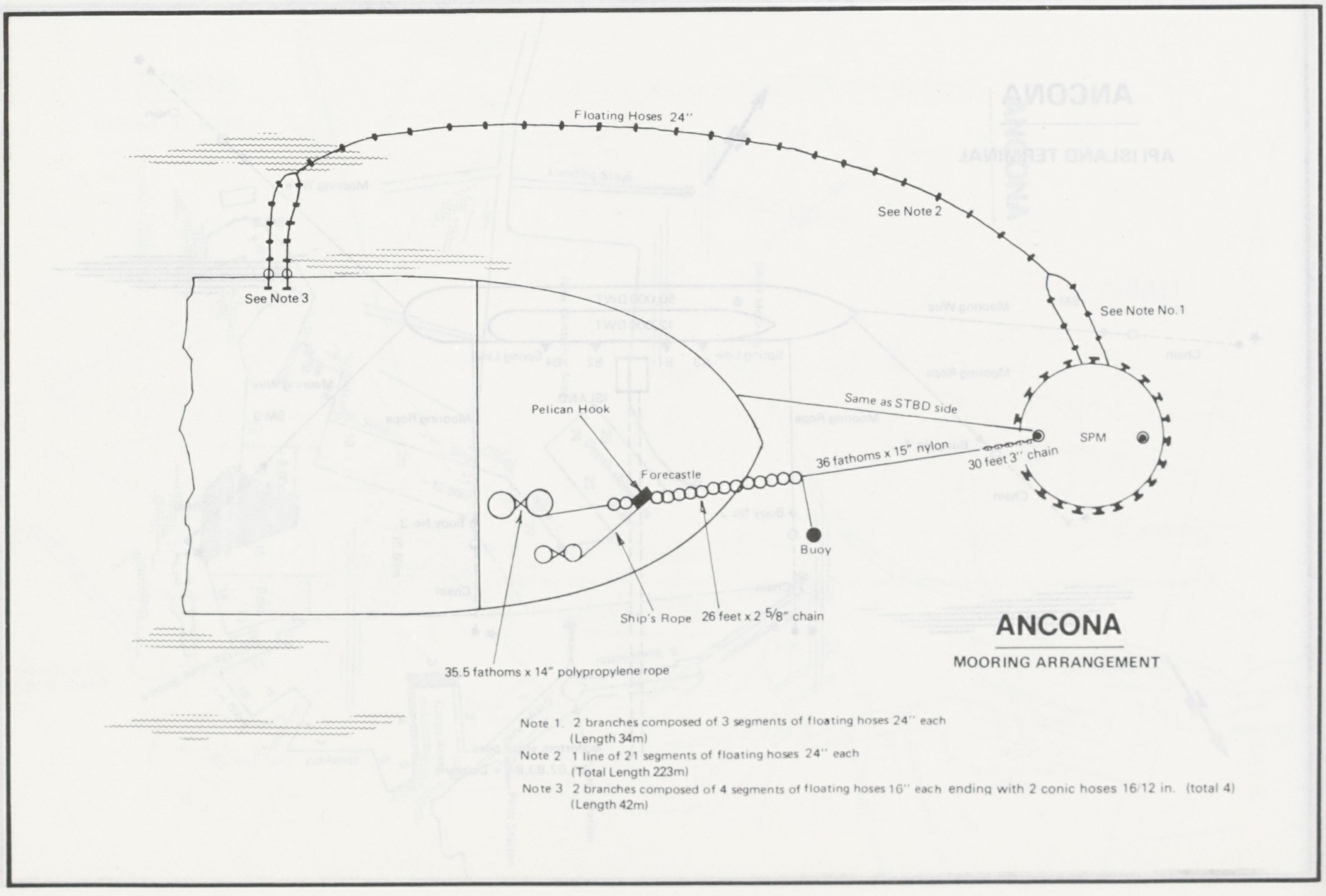

ANCONA
API REFINERY JETTY
N
Island Terminal sea lines 3875 metres
S.P.M. sea line 16300 metres
9.75 m.
9.45 m.
9.14 m.
9.14 m.
9.14 m.
9.14 m.
Head Jetty
No. 1 Berth
No. 2 Berth
6.7 m.
6.7 m.
6.7 m.
6.7 m.
6.1 m.
5.79 m.
Concrete Jetty
Service boats landing stage
4.88 m.
3.05 m.
Esino River
API Refinery


ANCONA
API ISLAND TERMINAL
N
Chain
Mooring Wire
SM 2
SM 1
Mooring Wire
Chain
50,000 DWT
12,000 DWT
Spring Line
B3
B1
B2
B4
Spring Line
ISLAND
Mooring Rope
Mooring Rope
Mooring Rope
Mooring Wire
SM 3
Buoy No. 1
Chain
Buoy No. 2
Buoy No. 3
Chain
Chain
Chain
★ Bottom stuck piles
B1, B2, B3, B4 = Dolphins


SINGLE POINT MOORING TOWER
Tankers up to 300,000 D.W.T.
Sea Line = 40"
Anchoring & Fishing Prohibited
N
10 m
ISLAND TERMINAL
Tankers up to 90,000 d.w.t.
with limited draft of 40 ft.
at even keel
Transit Prohibited
API Landing Stage with 4 Berths
Pier
A.P.I. Refinery
Shoal
10 m
ANCONA
SFIR Pipeline Terminal – 1 Berth
for Tankers up to 10,000 GRT

ANCONA

(SINGLE POINT MOORING)


Floating Hoses 24"
See Note 2
See Note 3
See Note No.1
Same as STBD side
SPM
Pelican Hook
Forecastle
36 fathoms x 15" nylon
30 feet 3" chain
Buoy
Ship's Rope
26 feet x 2 5/8" chain
35.5 fathoms x 14" polypropylene rope

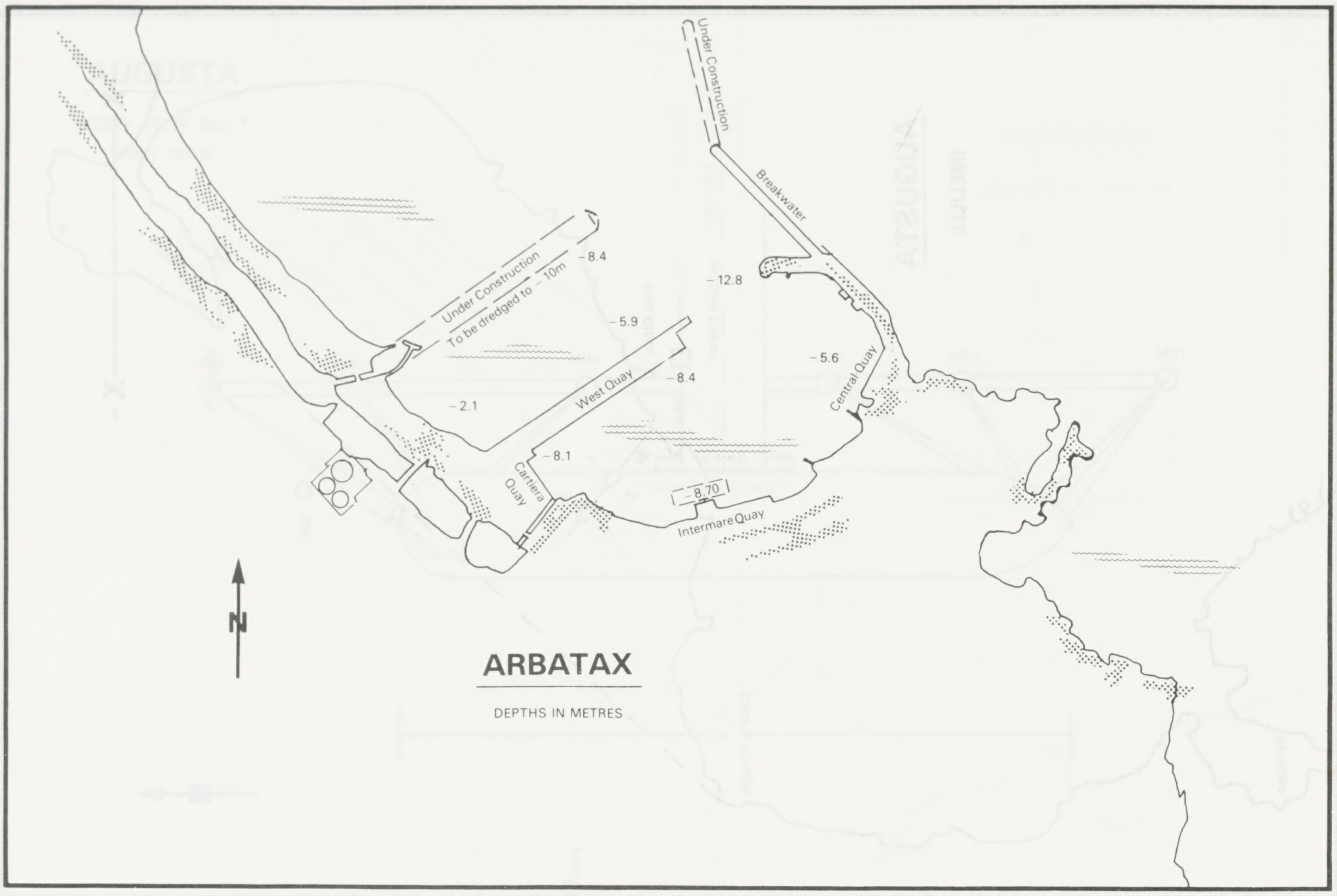
ANCONA

MOORING ARRANGEMENT

Note 1. 2 branches composed of 3 segments of floating hoses 24" each
(Length 34m)

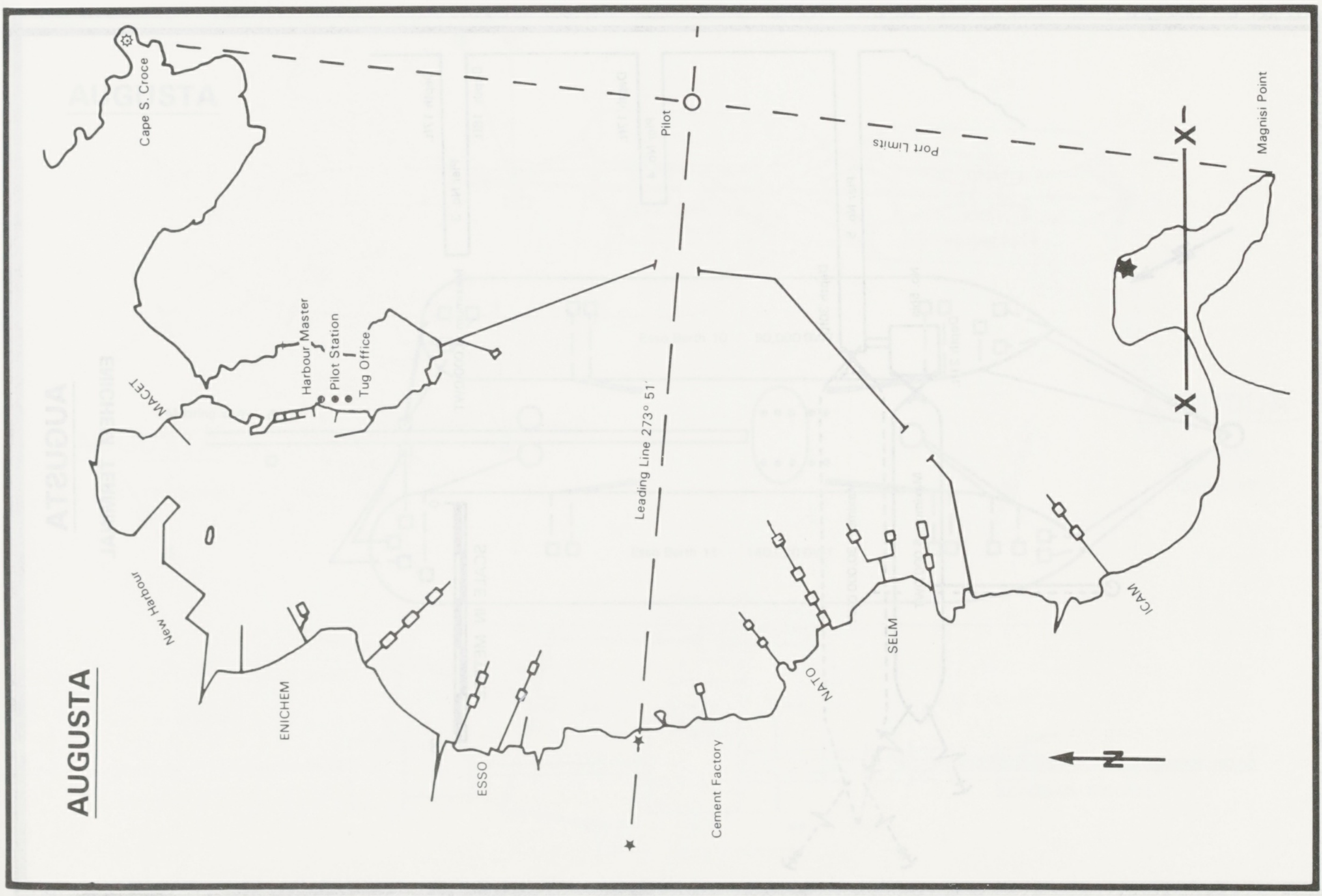
Note 2 1 line of 21 segments of floating hoses 24" each
(Total Length 223m)

Note 3 2 branches composed of 4 segments of floating hoses 16" each ending with 2 conic hoses 16/12 in. (total 4)
(Length 42m)

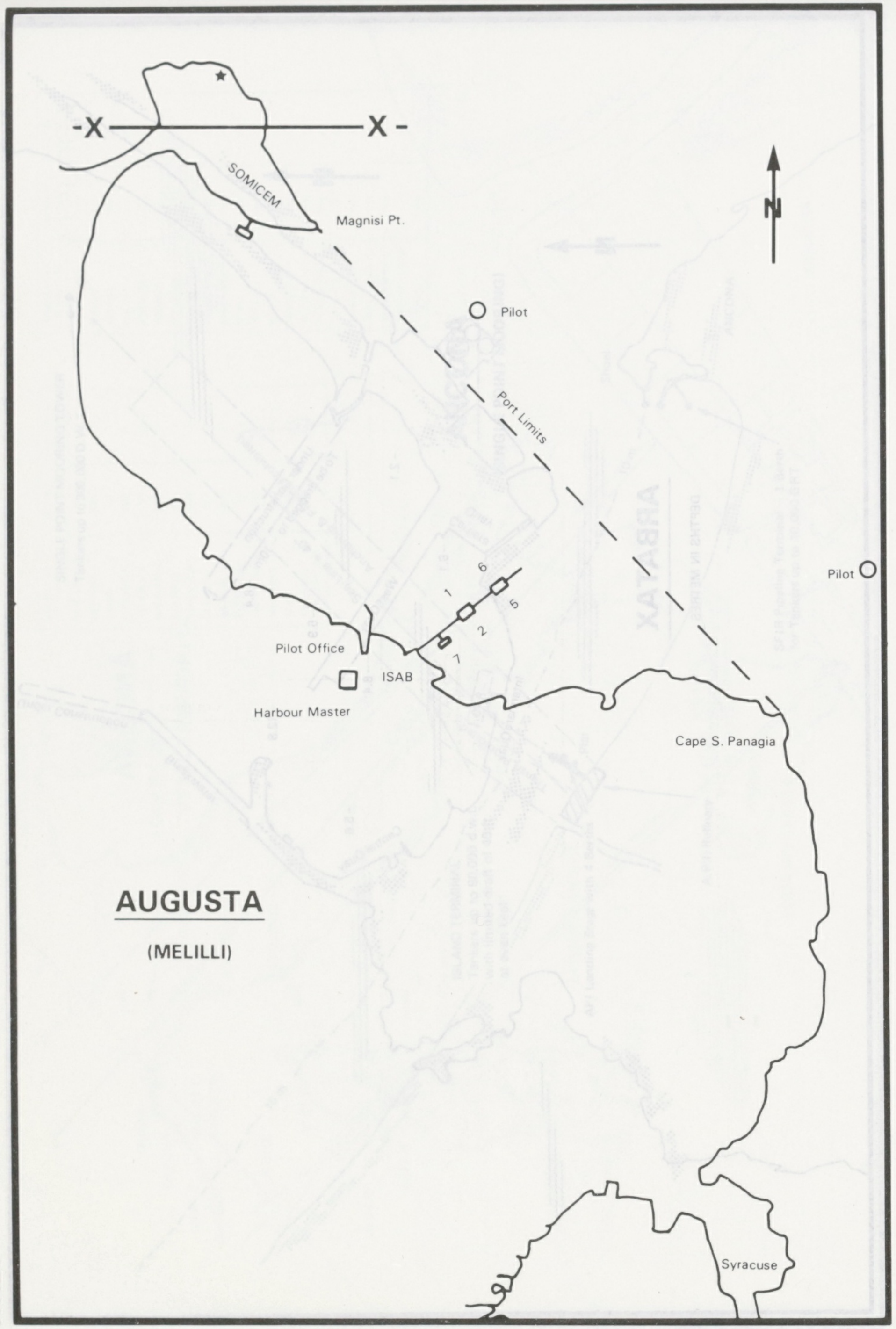

Under Construction
Breakwater
–12.8
Under Construction
To be dredged to –10m
–8.4
–5.9
–5.6
Central Quay
–8.4
West Quay
–2.1
–8.1
Cartiera Quay
–8.70
Intermare Quay
N

ARBATAX

DEPTHS IN METRES


Cape S. Croce
Pilot
Port Limits
Magnisi Point
X
X
Harbour Master
Pilot Station
Tug Office
MACET
Leading Line 273° 51'
New Harbour
ENICHEM
ESSO
Cement Factory
NATO
SELM
ICAM
N

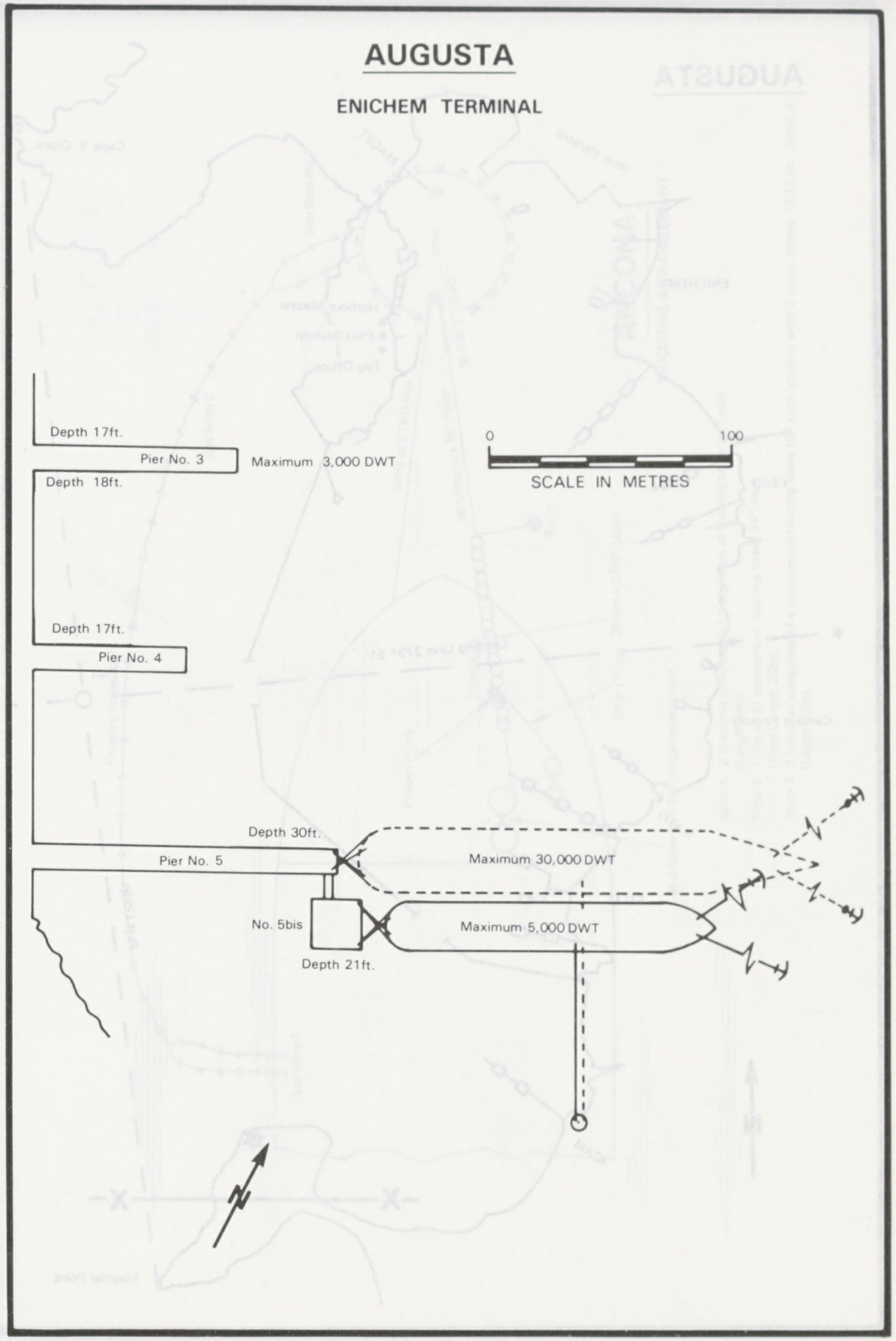
AUGUSTA



AUGUSTA

(MELILLI)

-X X-
SOMICEM
Magnisi Pt.
N
Pilot
Port Limits
Pilot
6
1
5
2
7
Pilot Office
ISAB
Harbour Master
Cape S. Panagia
Syracuse



AUGUSTA

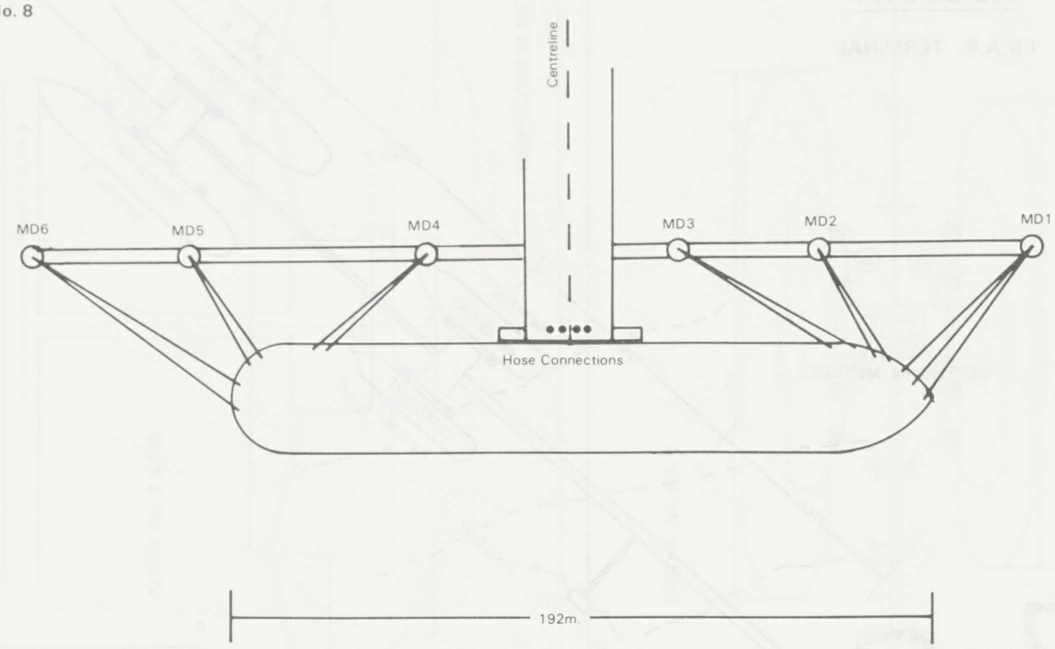
ENICHEM TERMINAL

Depth 17ft.
Pier No. 3
Maximum 3,000 DWT
Depth 18ft.
0
100
SCALE IN METRES
Depth 17ft.
Pier No. 4
Depth 30ft.
Pier No. 5
Maximum 30,000 DWT
No. 5bis
Maximum 5,000 DWT
Depth 21ft.
N

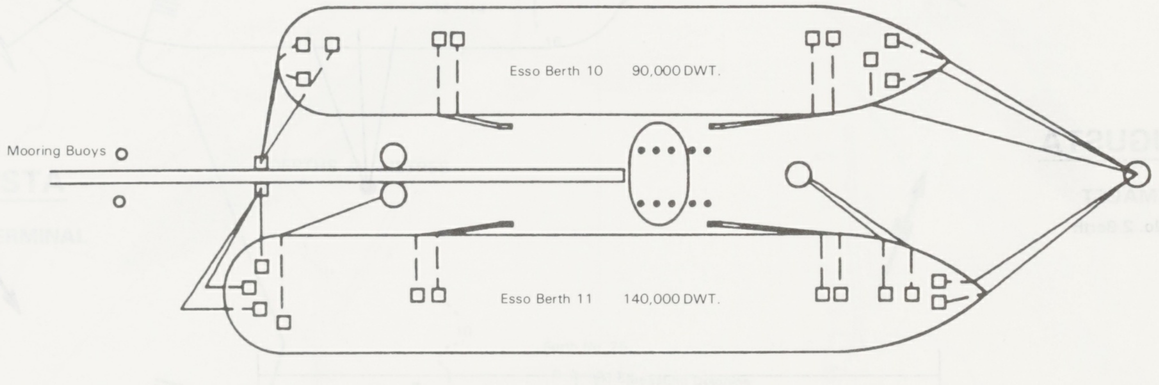
AUGUSTA

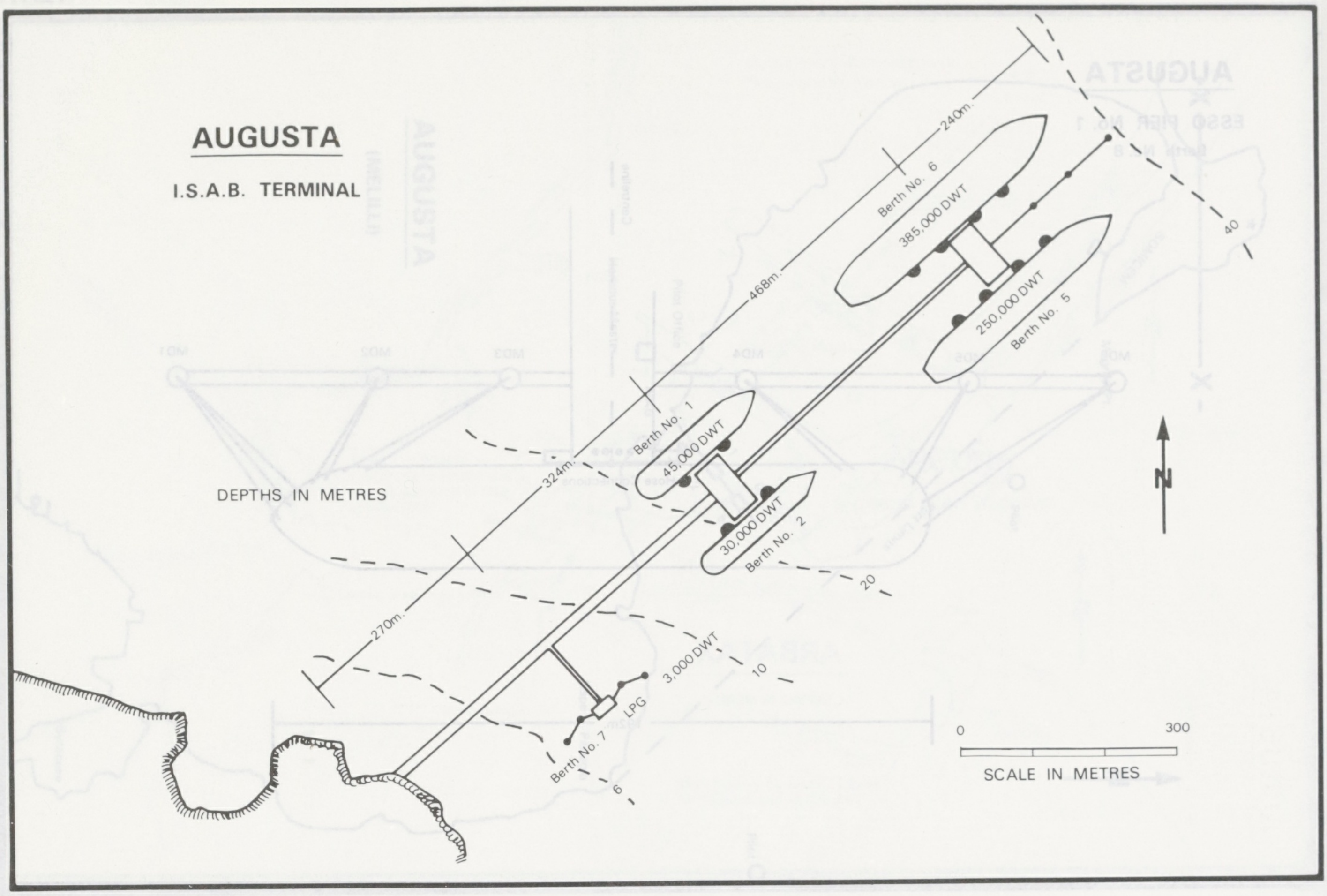
ESSO PIER No. 1

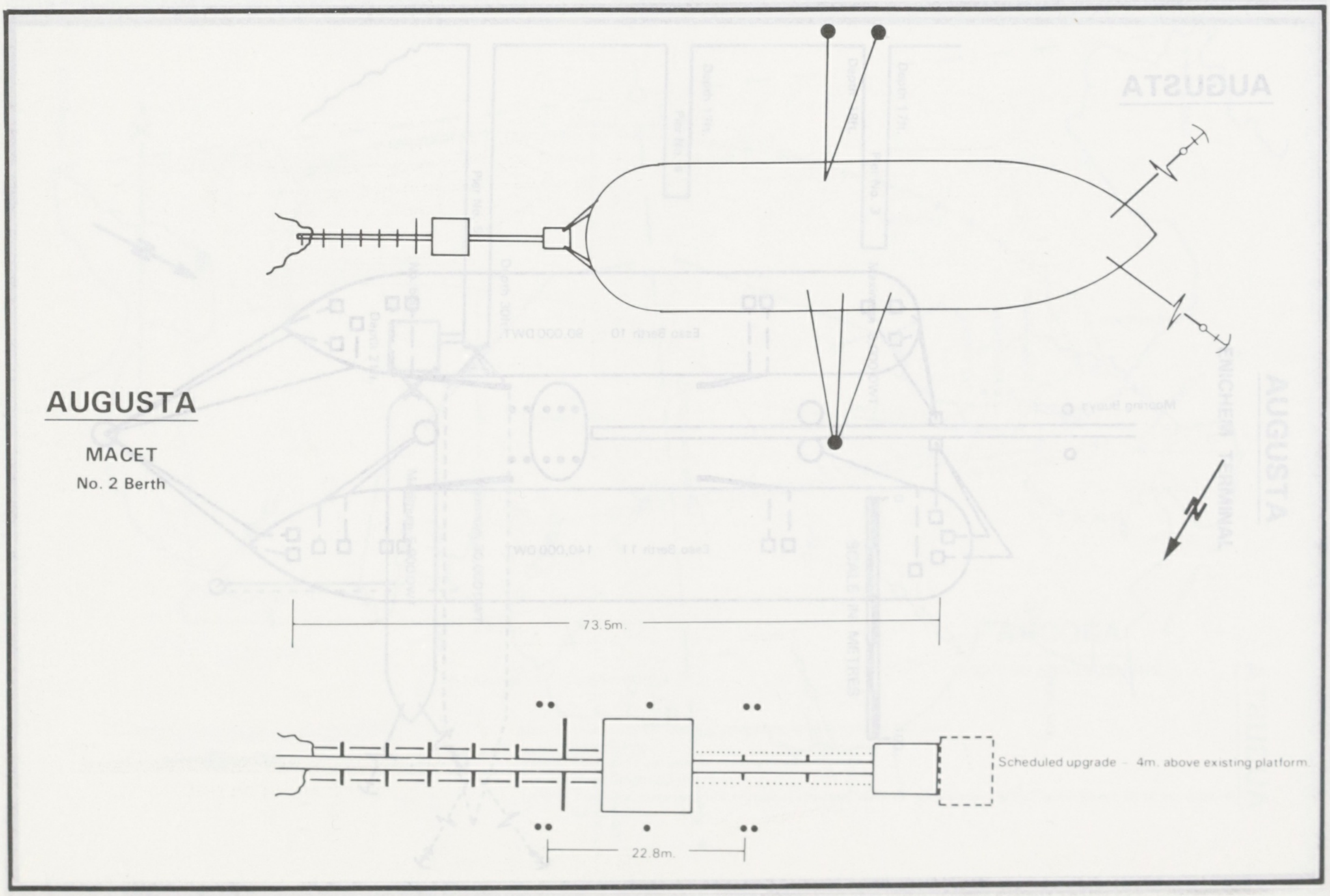
Berth No. 8

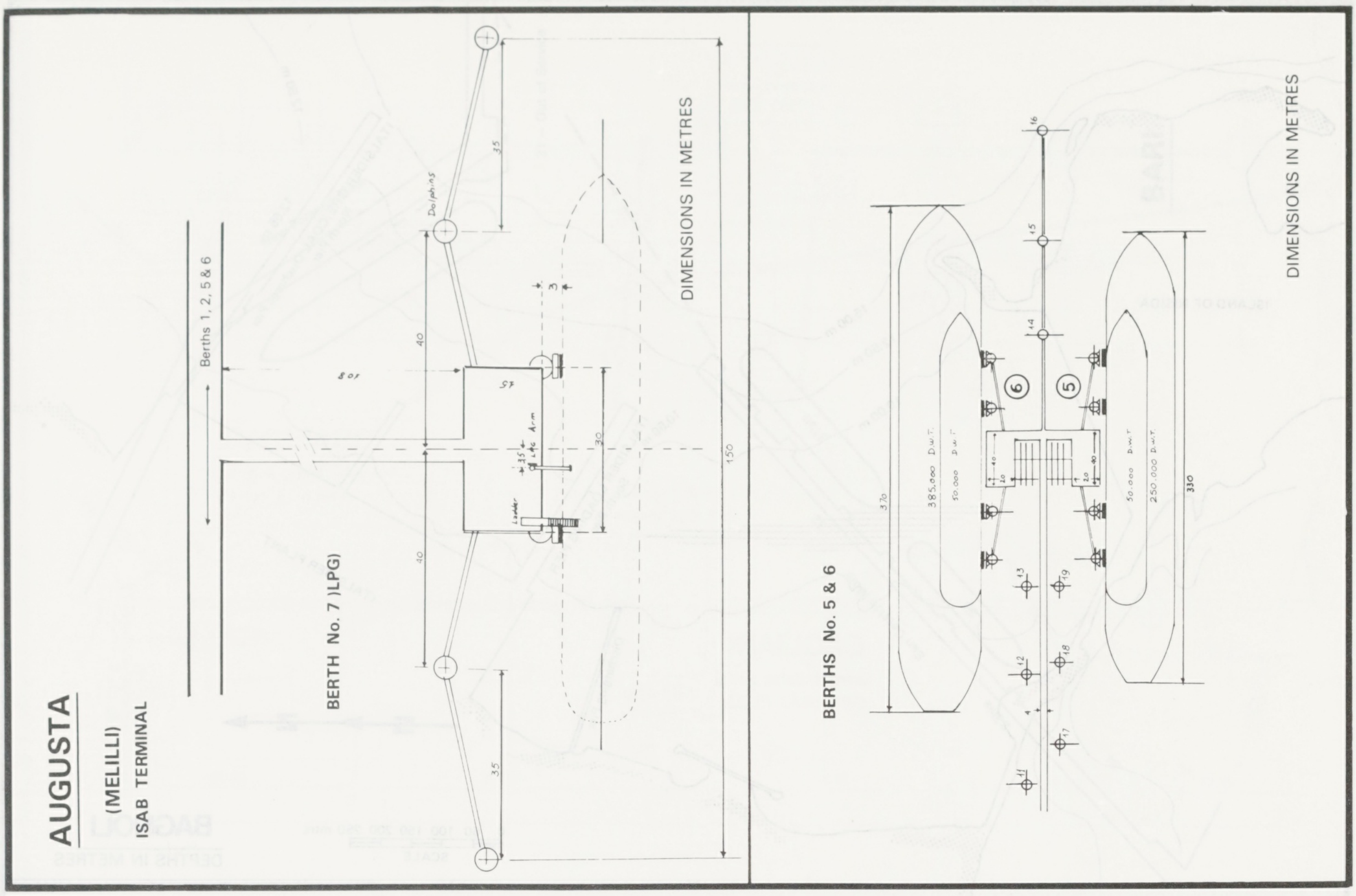

Centreline
MD6
MD5
MD4
MD3
MD2
MD1
Hose Connections
192m.

AUGUSTA


Esso Berth 10 90,000 DWT.
Mooring Buoys
Esso Berth 11 140,000 DWT.


AUGUSTA
I.S.A.B. TERMINAL
240m.
468m.
Berth No. 6
385,000 DWT
40
250,000 DWT
Berth No. 5
Berth No. 1
45,000 DWT
324m.
30,000 DWT
Berth No. 2
DEPTHS IN METRES
20
270m.
3,000 DWT
10
LPG
Berth No. 7
6
N
0
300
SCALE IN METRES

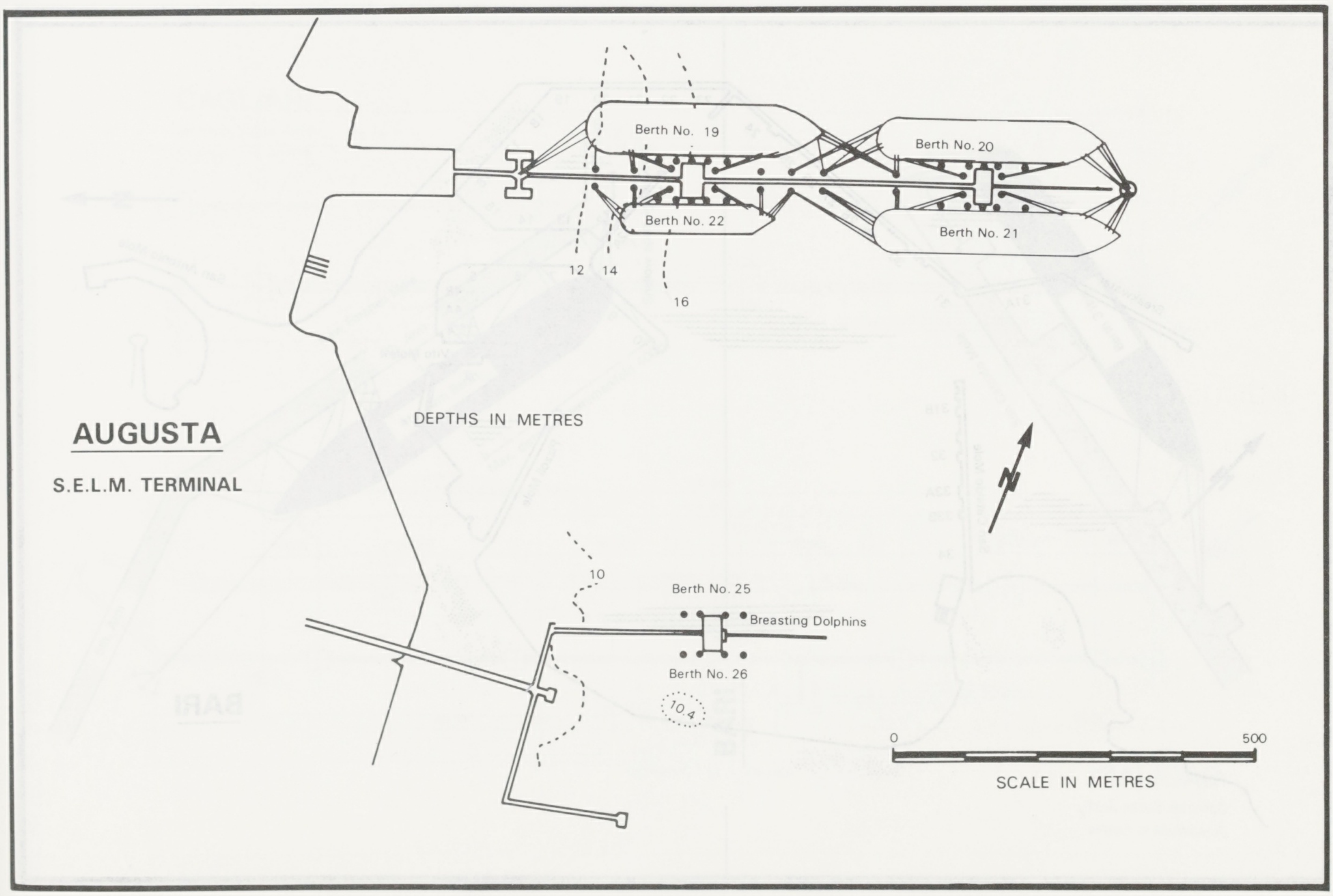

AUGUSTA
MACET
No. 2 Berth
N
73.5m.
Scheduled upgrade – 4m. above existing platform.
22.8m.



AUGUSTA

(MELILLI)
ISAB TERMINAL

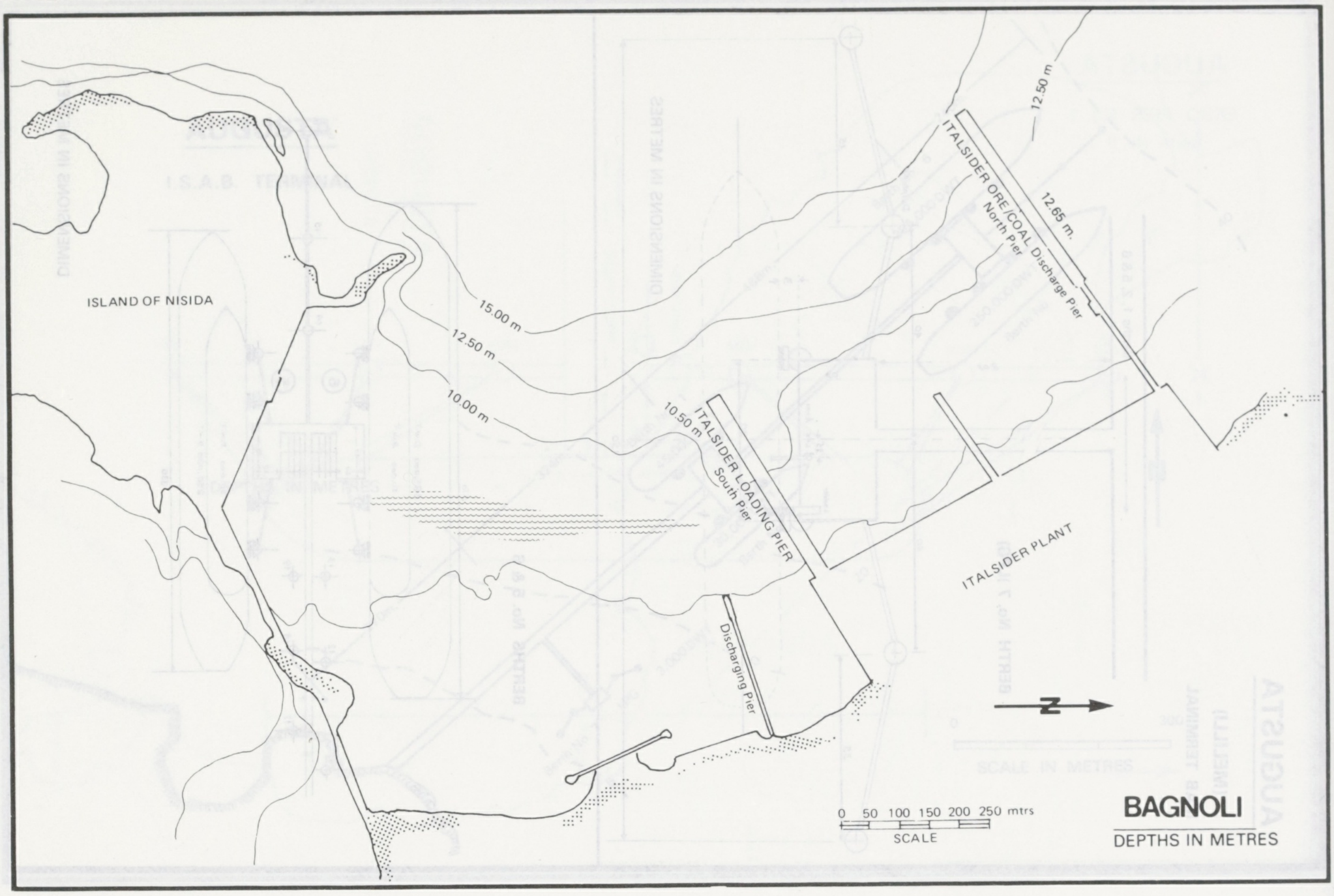
BERTH No. 7 (LPG)
Berths 1, 2, 5 & 6
DIMENSIONS IN METRES
Dolphins
35
40
30
40
35
150
108
45
3
3.5
Ladder
LPG Arm
BERTHS No. 5 & 6
DIMENSIONS IN METRES
385,000 D.W.T.
50,000 D.W.T.
250,000 D.W.T.
50,000 D.W.T.
370
330
6
5
11
12
13
14
15
16
17
18
19
20
40
4

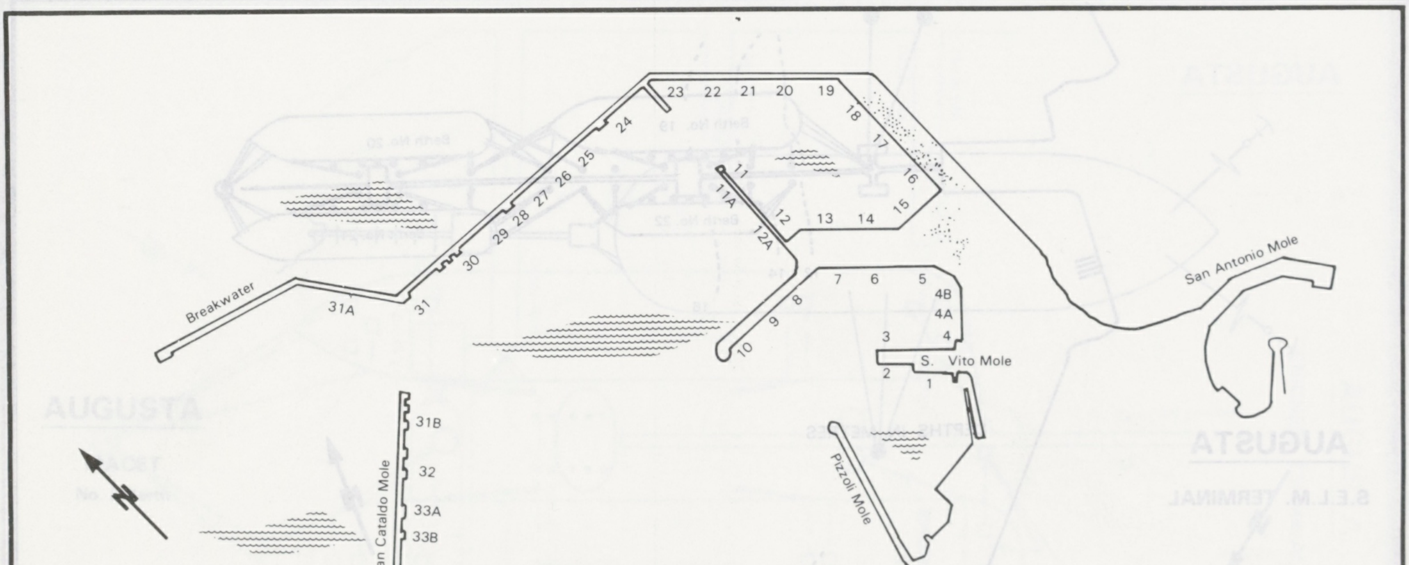


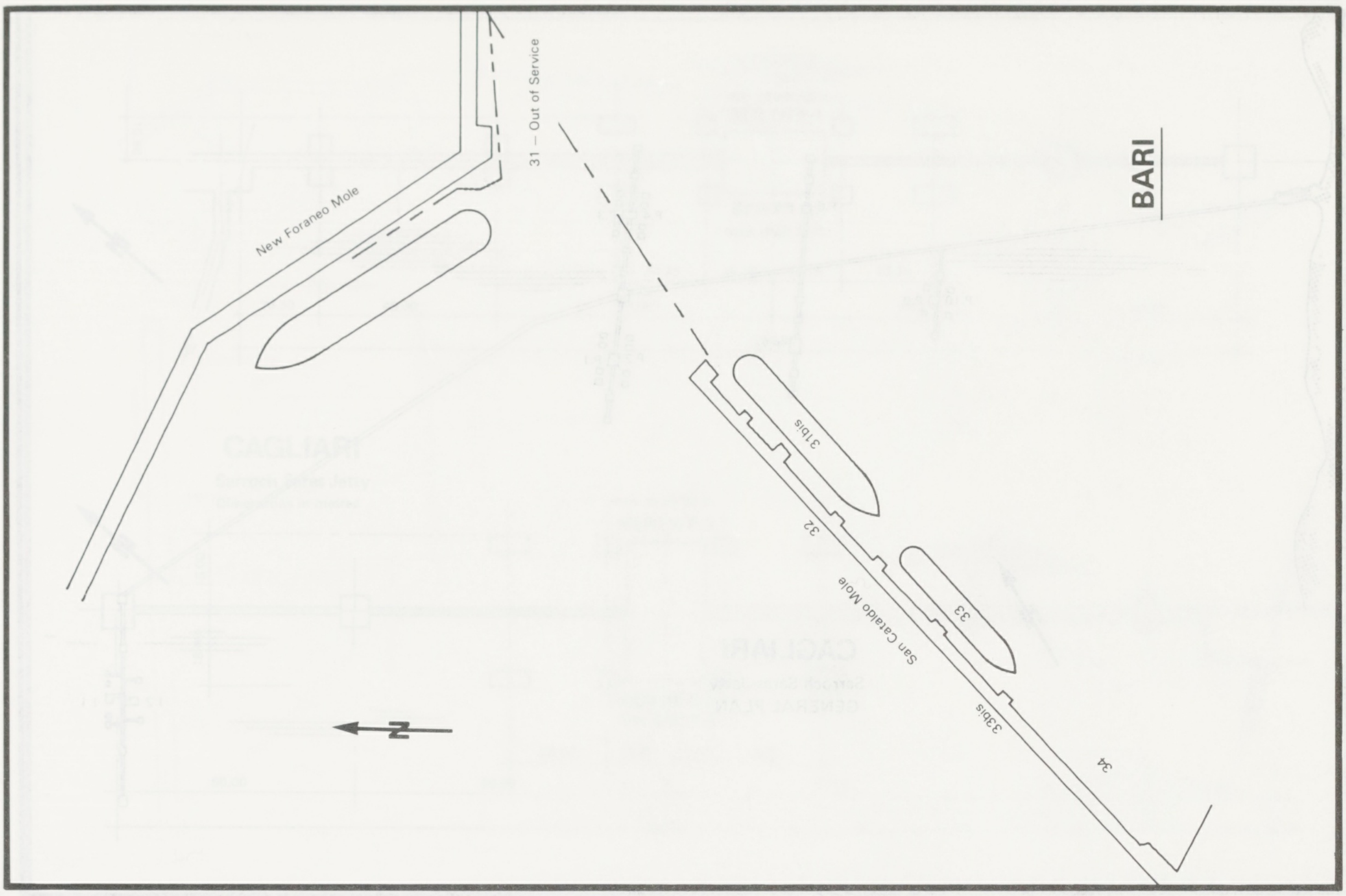
AUGUSTA

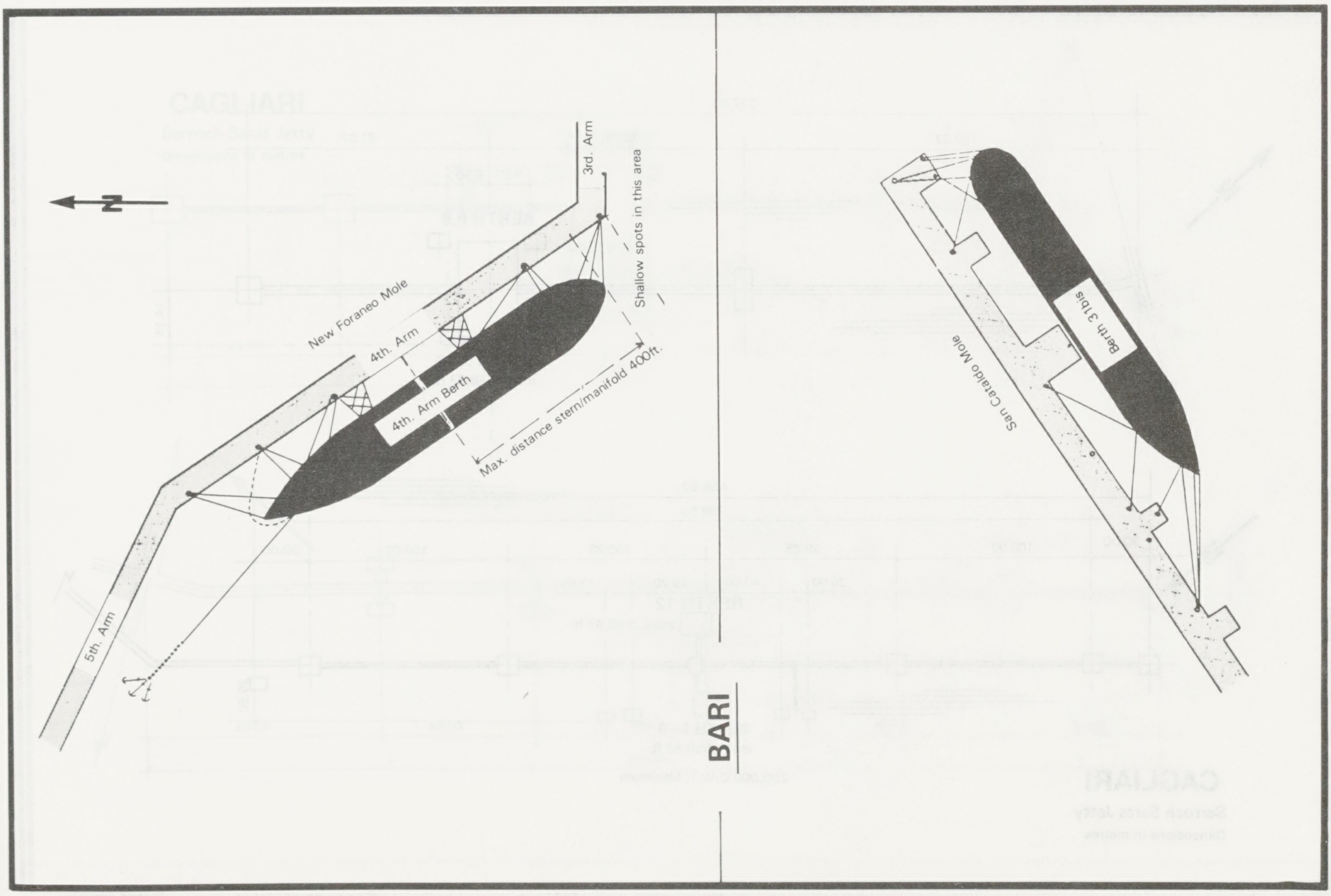
S.E.L.M. TERMINAL

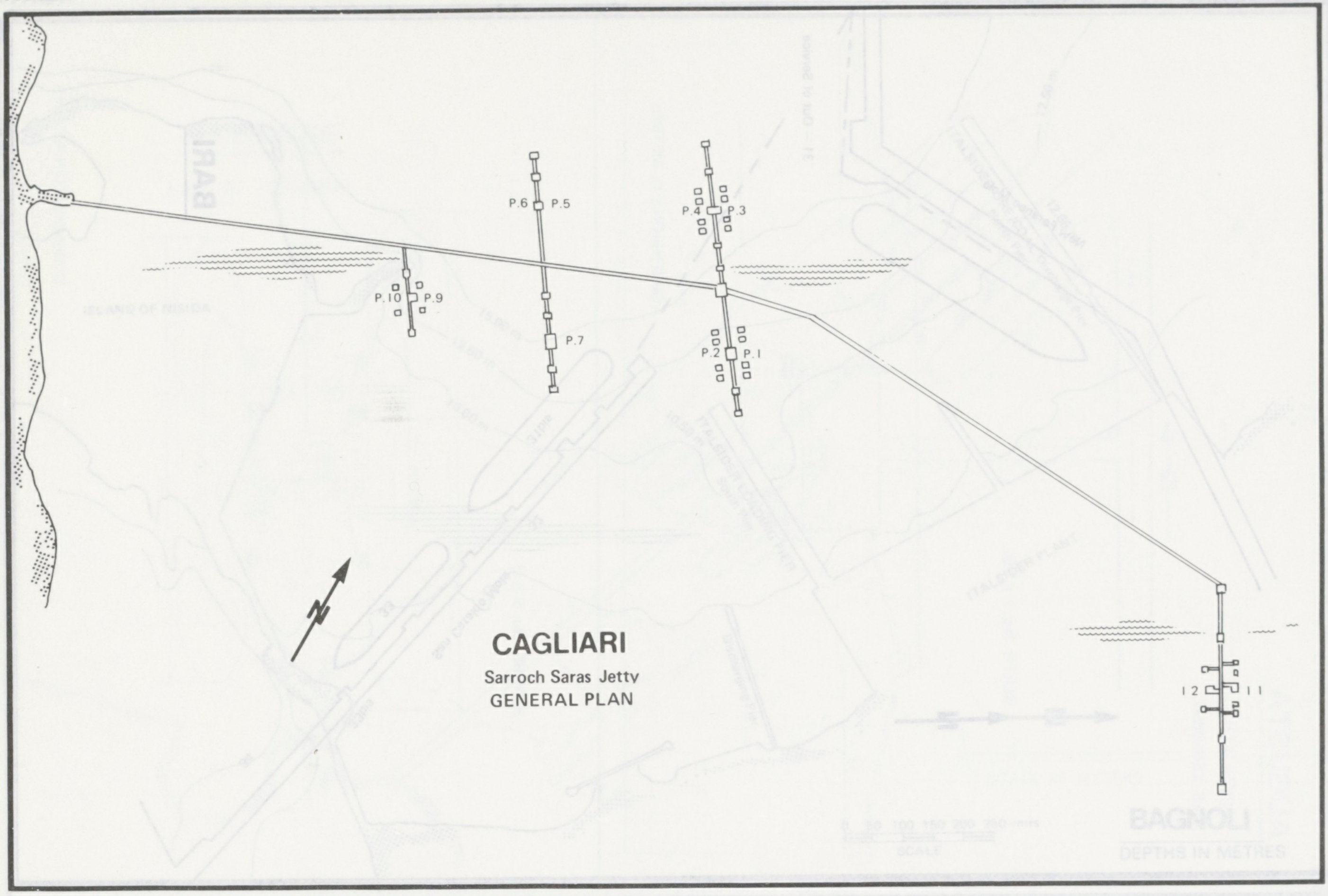
DEPTHS IN METRES
Berth No. 19
Berth No. 20
Berth No. 21
Berth No. 22
12
14
16
10
Berth No. 25
Breasting Dolphins
Berth No. 26
10.4
0
500
SCALE IN METRES


ISLAND OF NISIDA
15.00 m
12.50 m
10.00 m
10.50 m
ITALSIDER LOADING PIER
South Pier
Discharging Pier
ITALSIDER ORE/COAL Discharge Pier
North Pier
12.65 m.
12.50 m
ITALSIDER PLANT
N
0 50 100 150 200 250 mtrs
SCALE
BAGNOLI
DEPTHS IN METRES


23
22
21
20
19
18
17
16
15
14
13
12
12A
11A
11
24
25
26
27
28
29
30
31
31A
Breakwater
7
6
5
4B
4A
4
3
S. Vito Mole
2
1
8
9
10
Pizzoli Mole
San Antonio Mole
San Cataldo Mole
31B
32
33A
33B
34
N
BARI

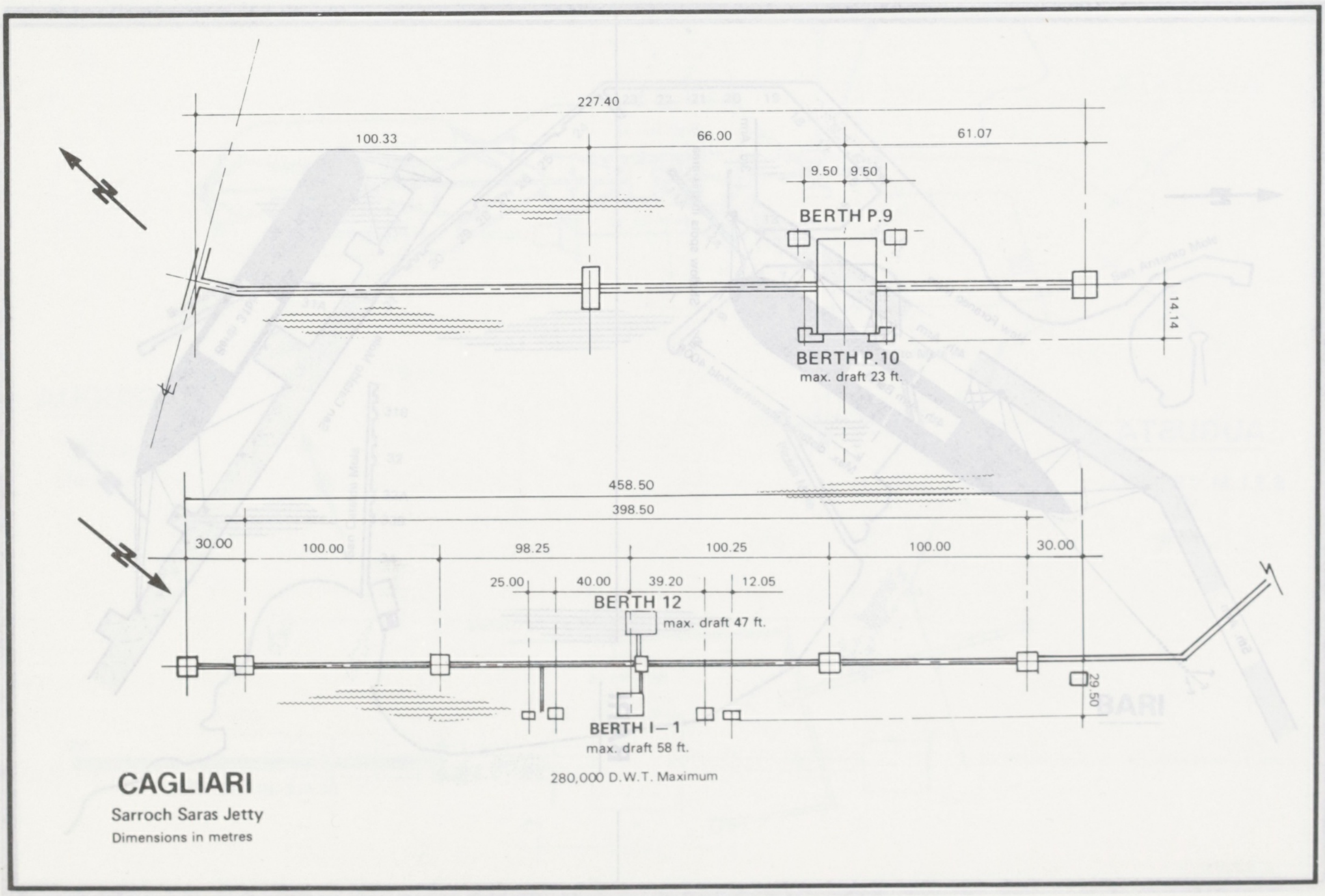

BARI
31 – Out of Service
New Foraneo Mole
31bis
32
San Cataldo Mole
33
33bis
34
N


N
3rd. Arm
Shallow spots in this area
New Foraneo Mole
4th. Arm
4th. Arm Berth
Max. distance stern/manifold 400ft.
5th. Arm
BARI
San Cataldo Mole
Berth 31bis


P.6
P.5
P.4
P.3
P.10
P.9
P.7
P.2
P.1
1 2
1 1

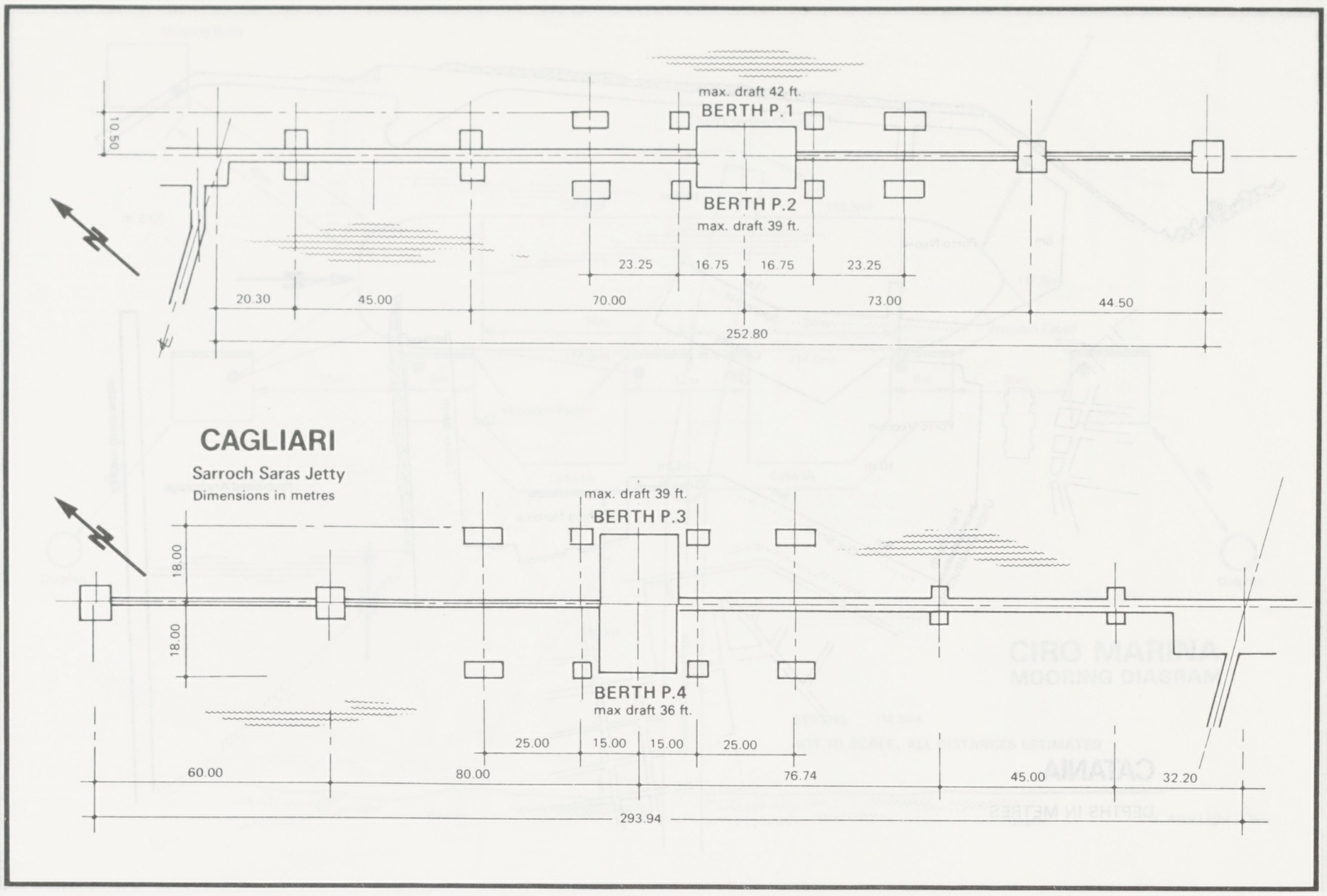
CAGLIARI

Sarroch Saras Jetty
GENERAL PLAN


227.40
100.33
66.00
61.07
9.50
9.50
BERTH P.9
14.14
BERTH P.10
max. draft 23 ft.
458.50
398.50
30.00
100.00
98.25
100.25
100.00
30.00
25.00
40.00
39.20
12.05
BERTH 12
max. draft 47 ft.
29.50
BERTH I—1
max. draft 58 ft.
280,000 D.W.T. Maximum

CAGLIARI

Sarroch Saras Jetty
Dimensions in metres

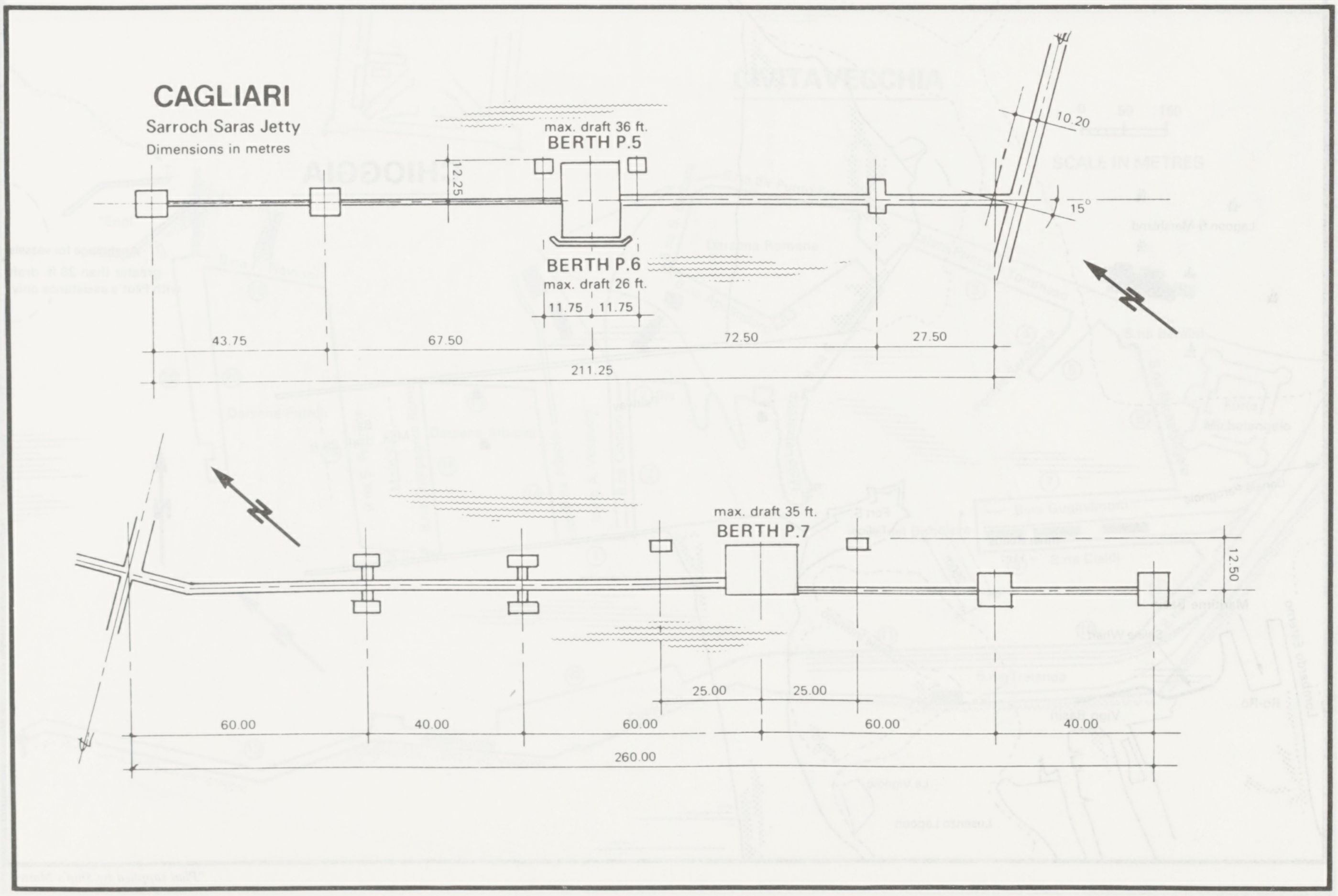


CAGLIARI

Sarroch Saras Jetty

Dimensions in metres

max. draft 42 ft.
BERTH P.1
BERTH P.2
max. draft 39 ft.
10.50
23.25
16.75
16.75
23.25
20.30
45.00
70.00
73.00
44.50
252.80
max. draft 39 ft.
BERTH P.3
BERTH P.4
max draft 36 ft.
18.00
18.00
25.00
15.00
15.00
25.00
60.00
80.00
76.74
45.00
32.20
293.94

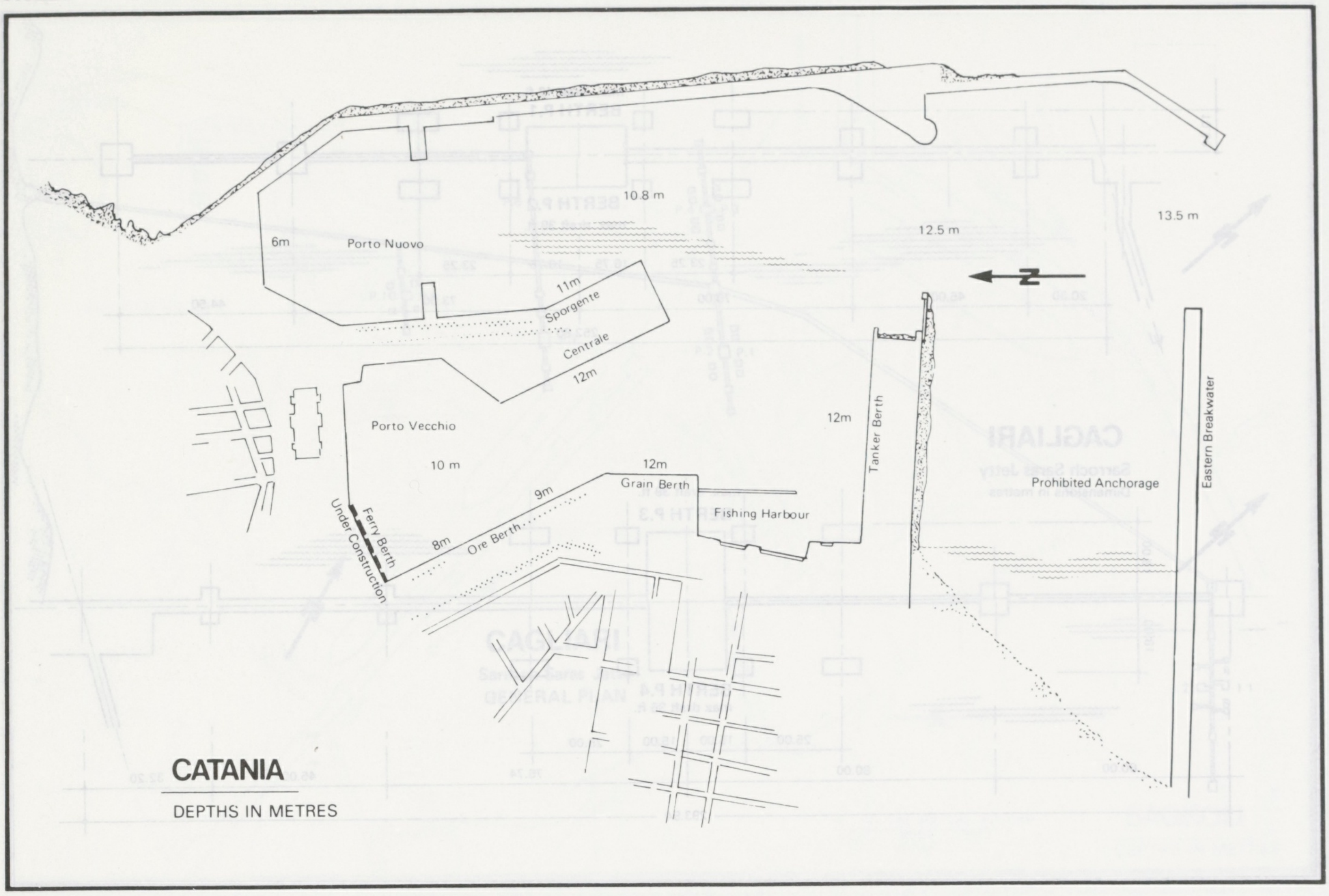


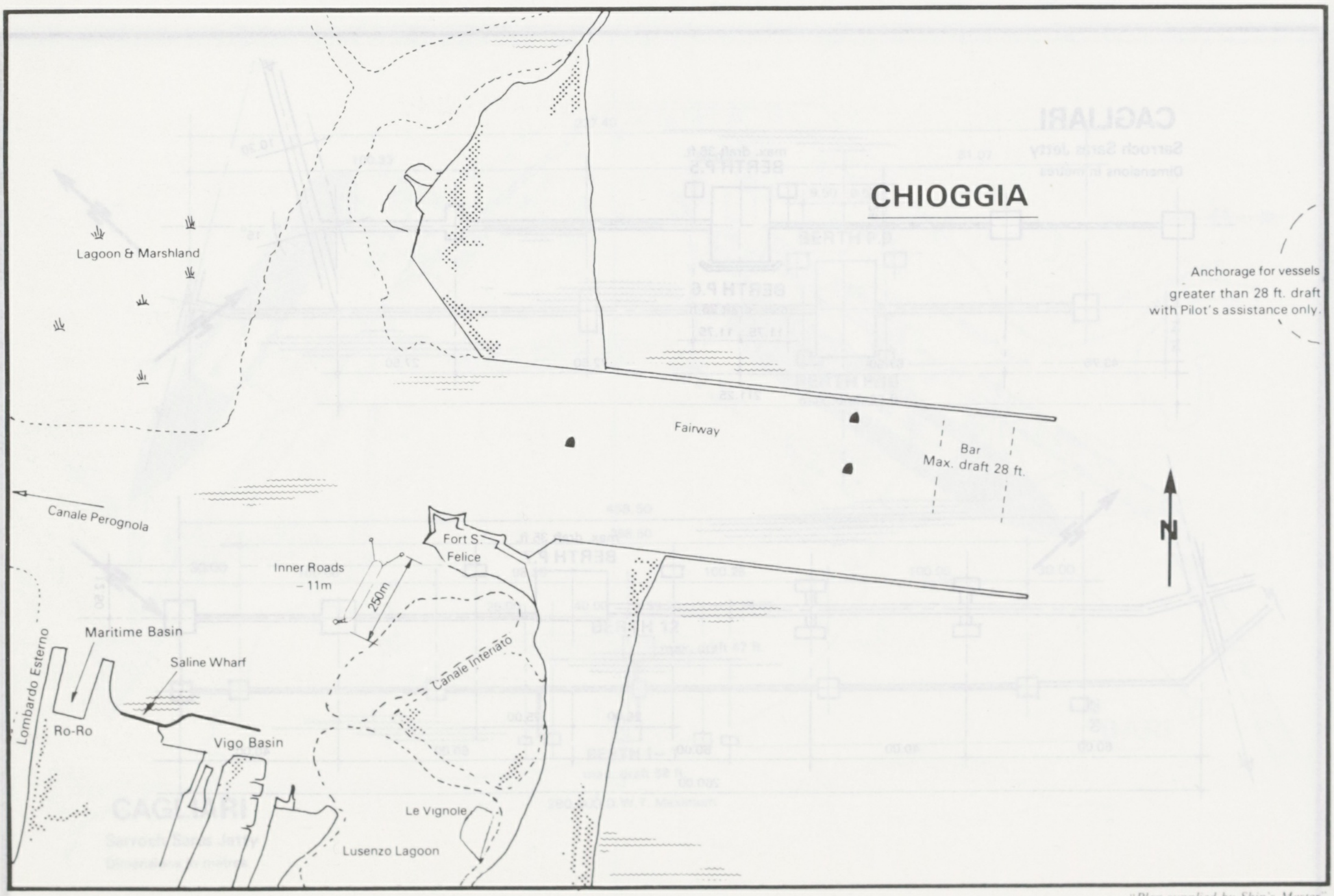
CAGLIARI

Sarroch Saras Jetty

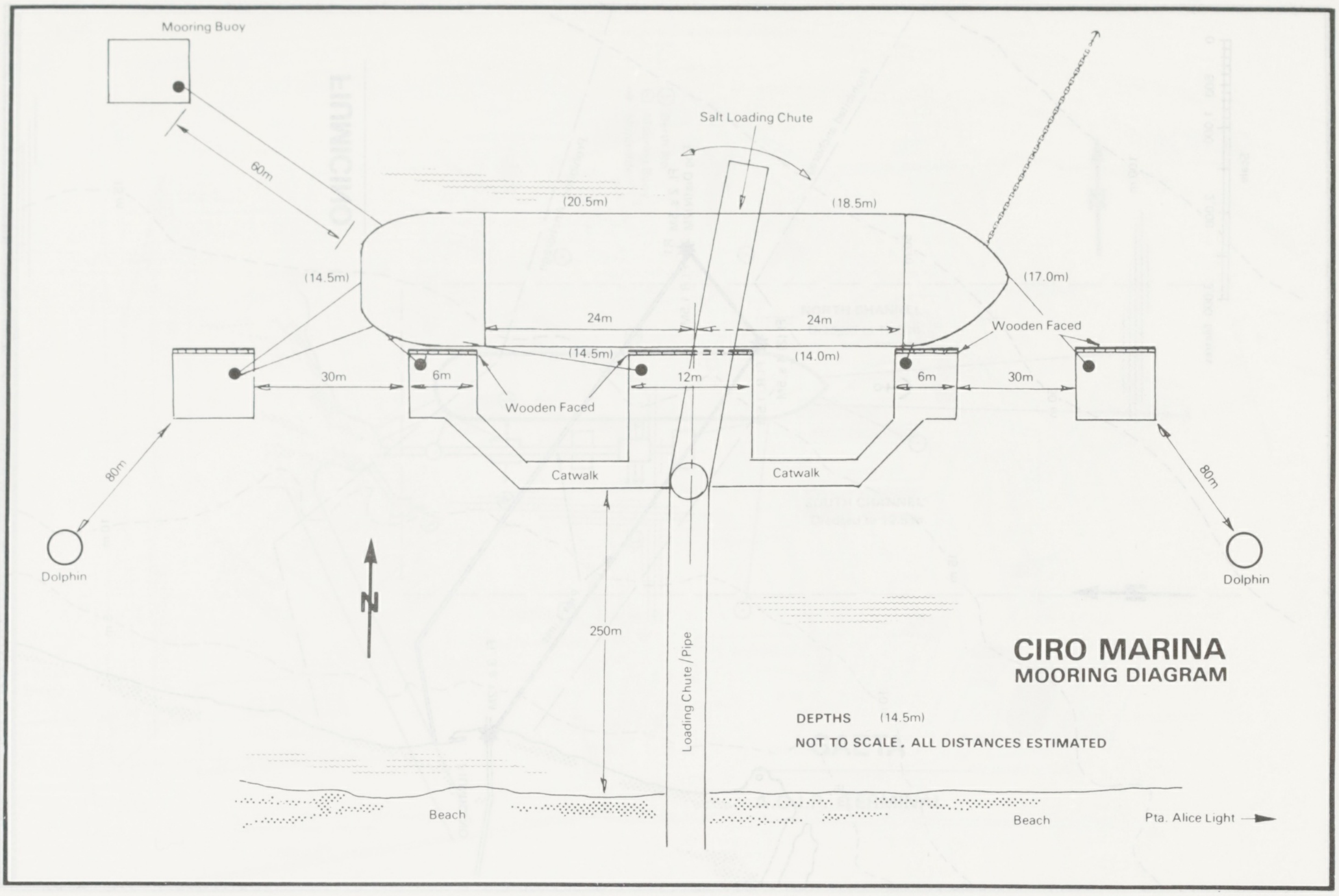
Dimensions in metres

max. draft 36 ft.
BERTH P.5
12.25
BERTH P.6
max. draft 26 ft.
11.75
11.75
10.20
15°
43.75
67.50
72.50
27.50
211.25
max. draft 35 ft.
BERTH P.7
12.50
25.00
25.00
60.00
40.00
60.00
60.00
40.00
260.00

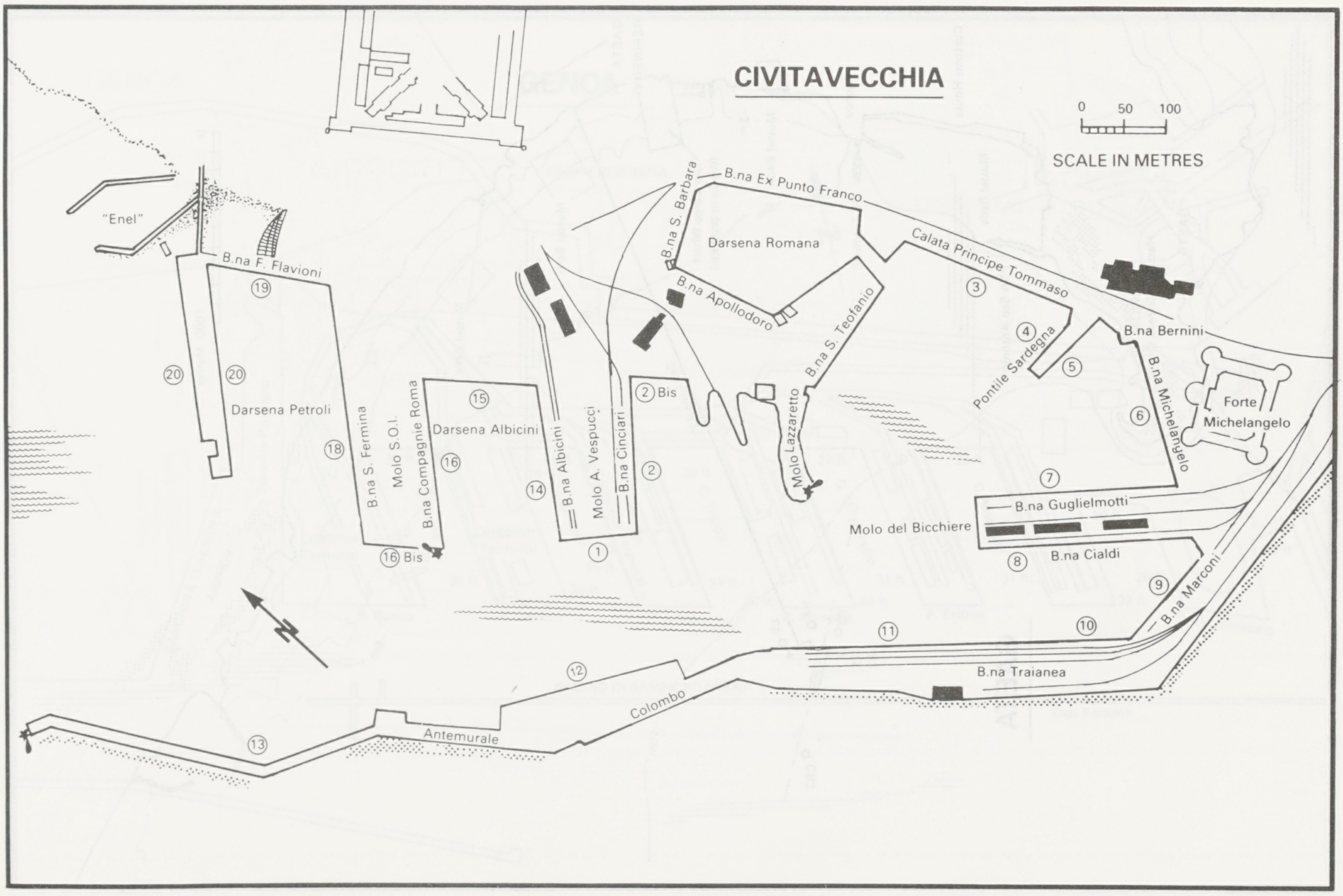

CATANIA
DEPTHS IN METRES
10.8 m
12.5 m
13.5 m
6m
Porto Nuovo
11m
Sporgente
Centrale
12m
Porto Vecchio
10 m
12m
Grain Berth
9m
Fishing Harbour
12m
Tanker Berth
Prohibited Anchorage
Eastern Breakwater
Ferry Berth
Under Construction
8m
Ore Berth
N

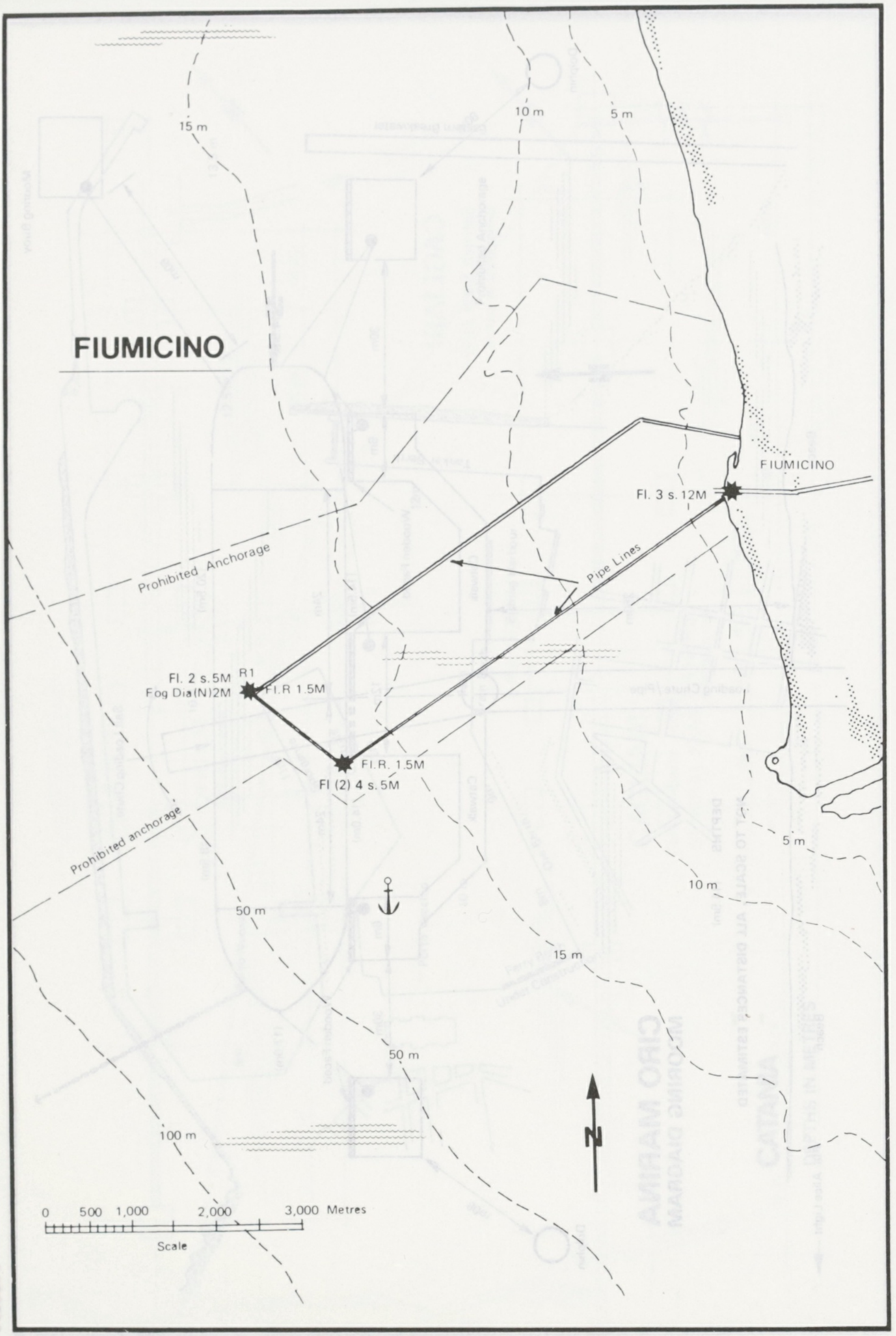

CHIOGGIA
Lagoon & Marshland
Anchorage for vessels
greater than 28 ft. draft
with Pilot's assistance only
Fairway
Bar
Max. draft 28 ft.
N
Canale Perognola
Fort S. Felice
Inner Roads
– 11m
250m
Maritime Basin
Saline Wharf
Lombardo Esterno
Ro-Ro
Vigo Basin
Canale Interiato
Le Vignole
Lusenzo Lagoon

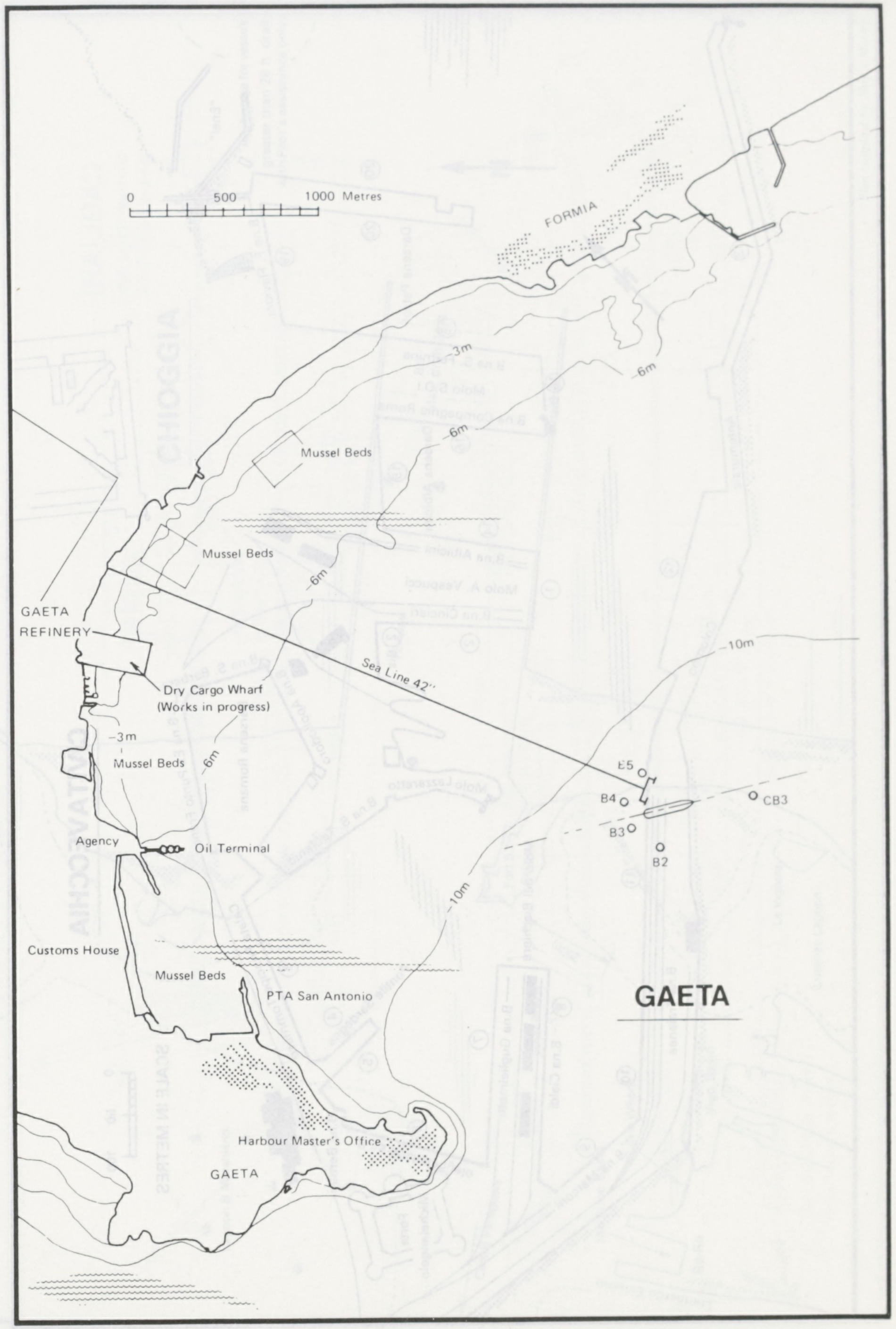
"Plan supplied by Ship's Master"

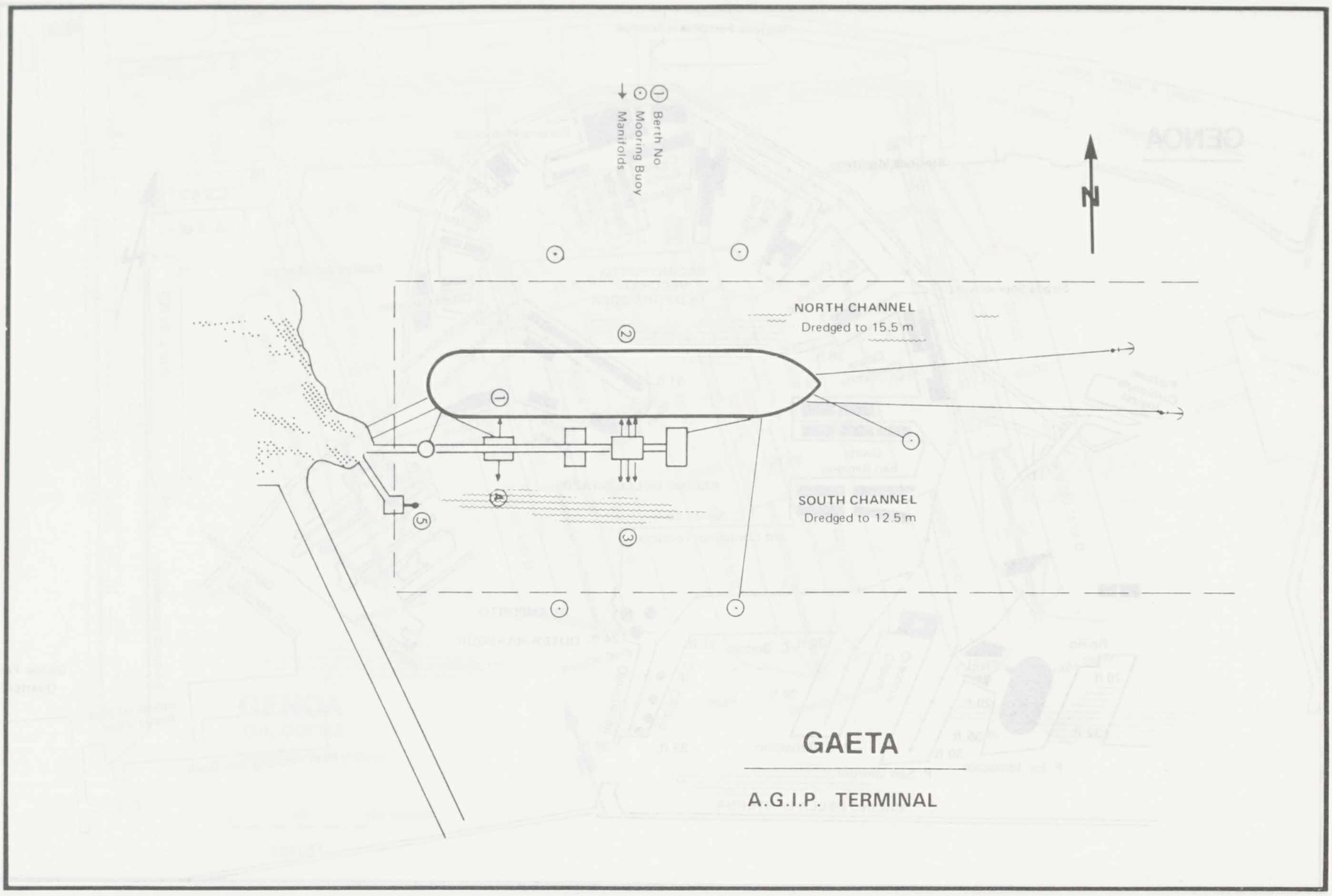

Mooring Buoy
60m
Salt Loading Chute
(20.5m)
(18.5m)
(14.5m)
(17.0m)
24m
24m
Wooden Faced
(14.5m)
(14.0m)
30m
6m
12m
6m
30m
Wooden Faced
Catwalk
Catwalk
80m
80m
Dolphin
Dolphin
N
250m
Loading Chute / Pipe
CIRO MARINA
MOORING DIAGRAM
DEPTHS (14.5m)
NOT TO SCALE. ALL DISTANCES ESTIMATED
Beach
Beach
Pta. Alice Light

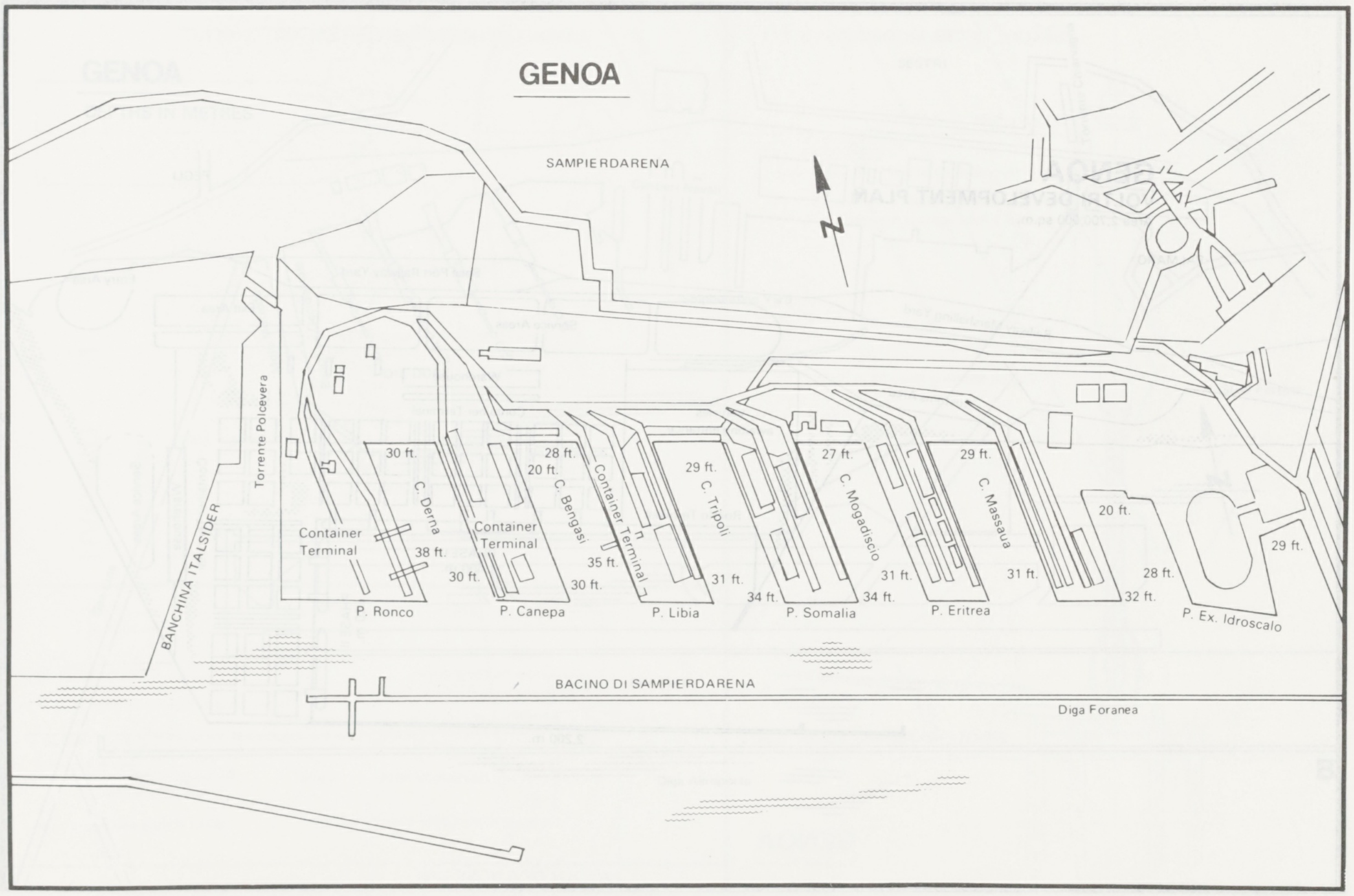
"Plan supplied by Ship's Master"

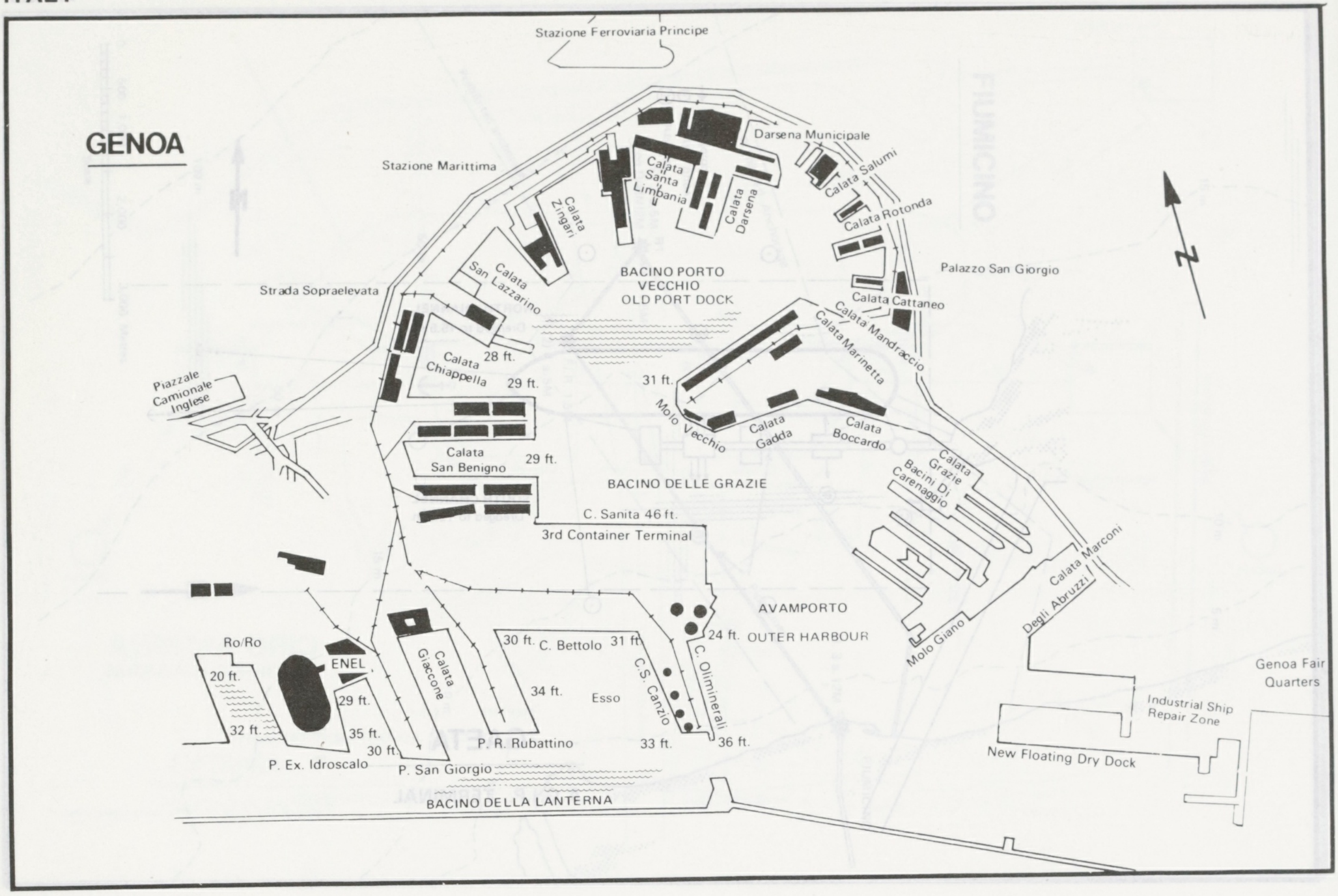

CIVITAVECCHIA
0 50 100
SCALE IN METRES
"Enel"
B.na F. Flavioni
⑲
⑳
⑳
Darsena Petroli
⑱
B.na S. Fermina
Molo S.O.I.
B.na Compagnie Roma
⑯ Bis
⑮
Darsena Albicini
⑯
⑭
B.na Albicini
Molo A. Vespucci
B.na Cinciari
①
② Bis
②
B.na S. Barbara
B.na Ex Punto Franco
Darsena Romana
B.na Apollodoro
B.na S. Teofanio
Molo Lazzaretto
Calata Principe Tommaso
③
④
Pontile Sardegna
⑤
B.na Bernini
B.na Michelangelo
⑥
Forte Michelangelo
⑦
B.na Guglielmotti
Molo del Bicchiere
B.na Cialdi
⑧
⑨
B.na Marconi
⑩
⑪
B.na Traianea
⑫
Colombo
Antemurale
⑬
N

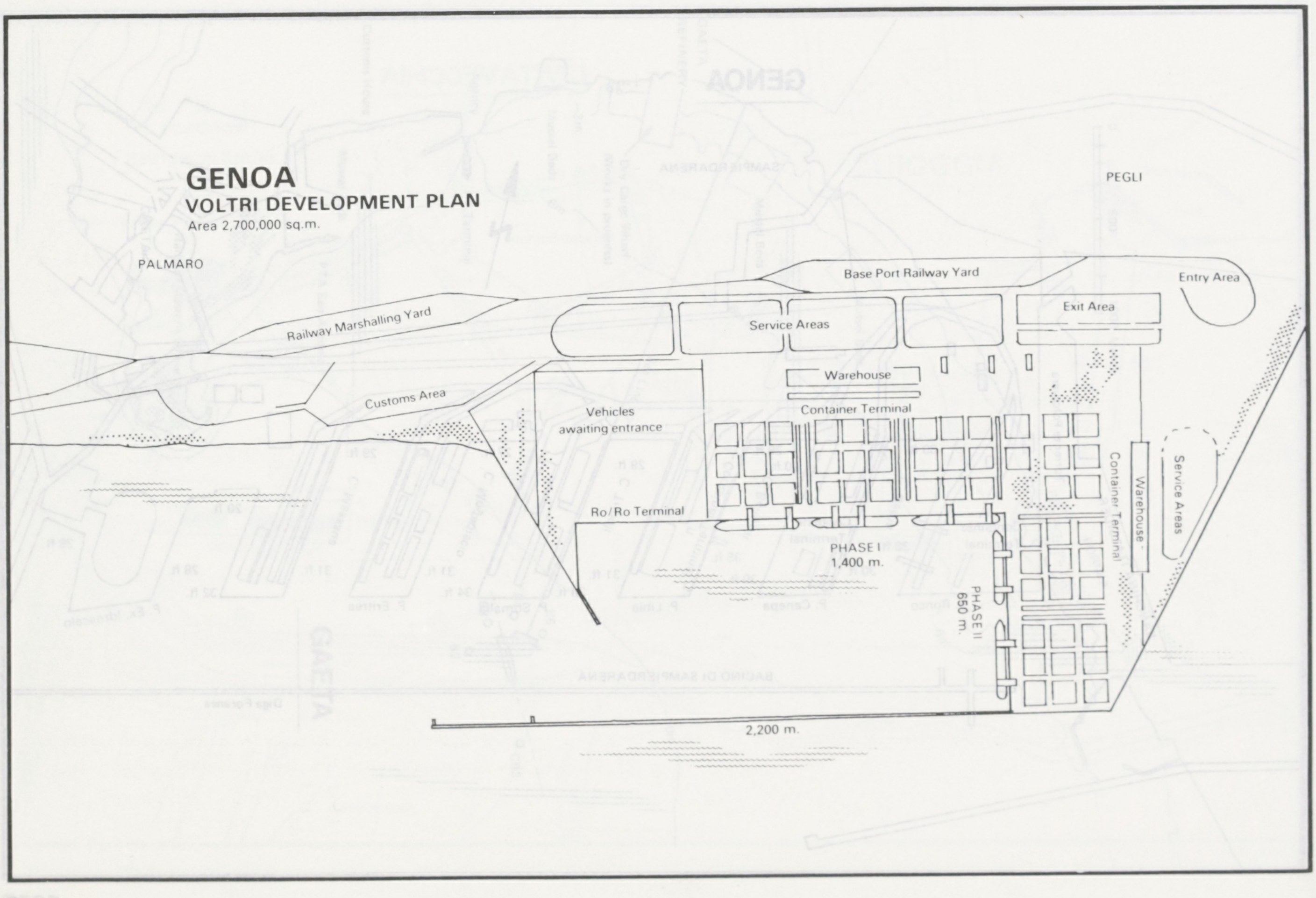

FIUMICINO
15 m
10 m
5 m
FIUMICINO
Fl. 3 s. 12M
Pipe Lines
Prohibited Anchorage
Fl. 2 s. 5M
R1
Fog Dia(N)2M
Fl.R 1.5M
Fl.R. 1.5M
Fl (2) 4 s. 5M
Prohibited anchorage
5 m
10 m
50 m
15 m
50 m
100 m
N
0 500 1,000 2,000 3,000 Metres
Scale

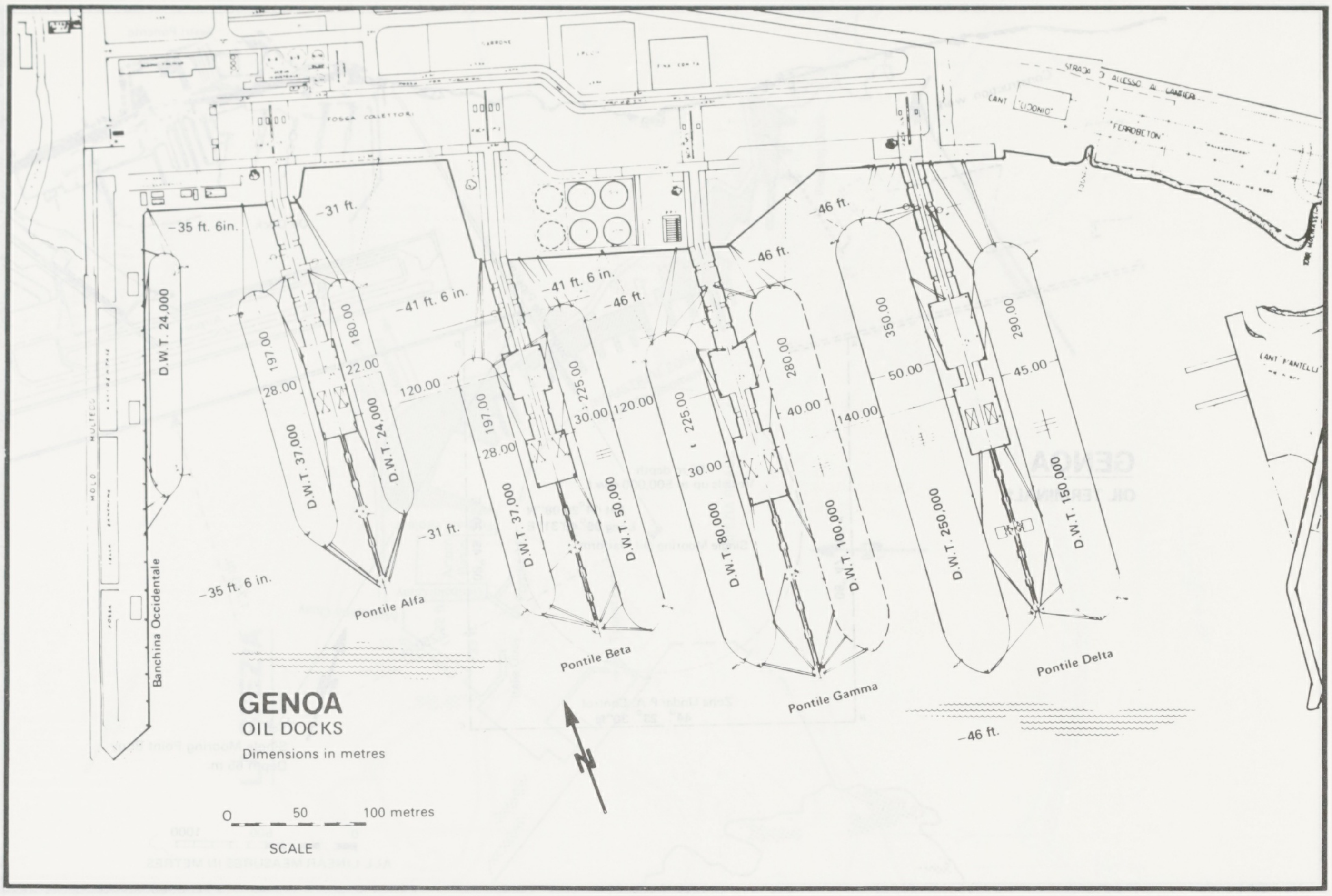

0 500 1000 Metres
FORMIA
-3m
-6m
-6m
Mussel Beds
Mussel Beds
-6m
GAETA
REFINERY
Sea Line 42"
-10m
Dry Cargo Wharf
(Works in progress)
-3m
Mussel Beds
6m
E5
B4
CB3
B3
B2
Agency
Oil Terminal
10m
Customs House
Mussel Beds
PTA San Antonio
GAETA
Harbour Master's Office
GAETA

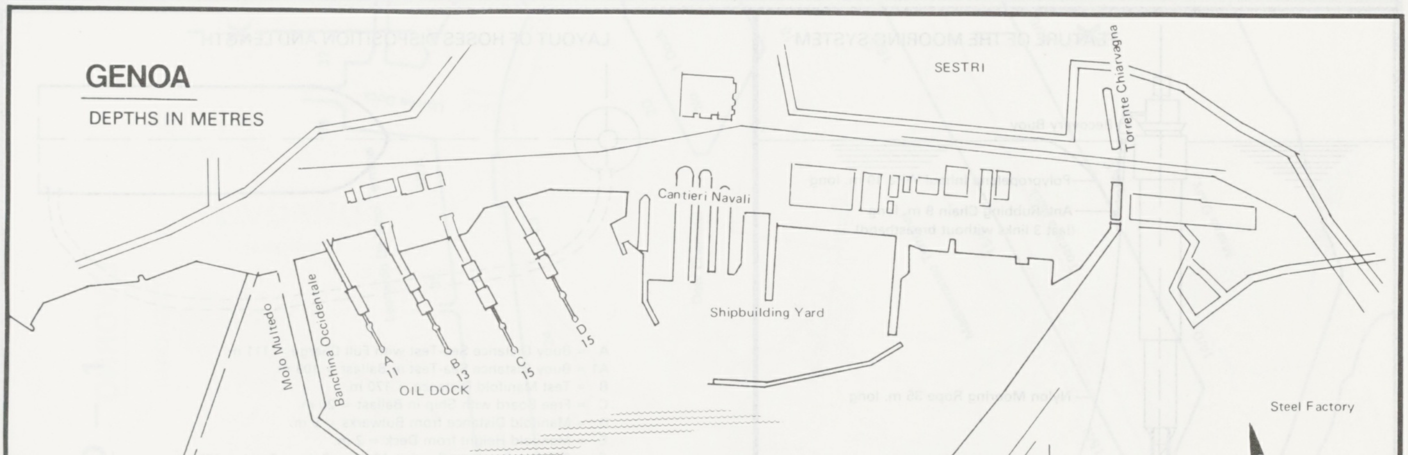

① Berth No
⊙ Mooring Buoy
↓ Manifolds
N
NORTH CHANNEL
Dredged to 15.5 m
SOUTH CHANNEL
Dredged to 12.5 m
①
②
③
④
⑤
GAETA
A.G.I.P. TERMINAL

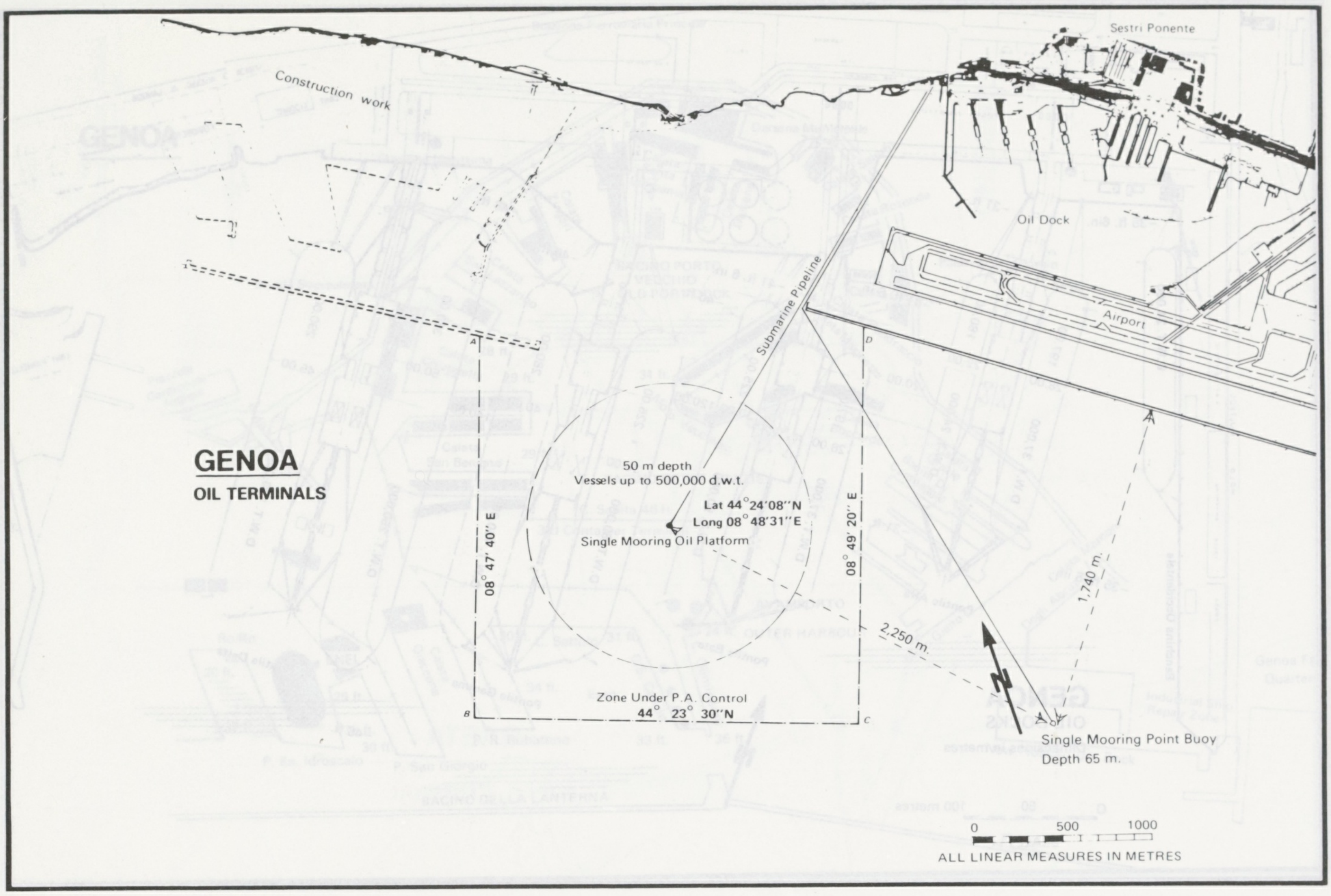

GENOA
SAMPIERDARENA
N
Torrente Polcevera
BANCHINA ITALSIDER
30 ft.
C. Derna
Container Terminal
38 ft.
30 ft.
P. Ronco
Container Terminal
28 ft.
20 ft.
C. Bengasi
35 ft.
30 ft.
P. Canepa
Container Terminal
29 ft.
C. Tripoli
31 ft.
P. Libia
34 ft.
27 ft.
C. Mogadiscio
34 ft.
P. Somalia
31 ft.
29 ft.
C. Massaua
P. Eritrea
31 ft.
20 ft.
28 ft.
32 ft.
29 ft.
P. Ex. Idroscalo
BACINO DI SAMPIERDARENA
Diga Foranea

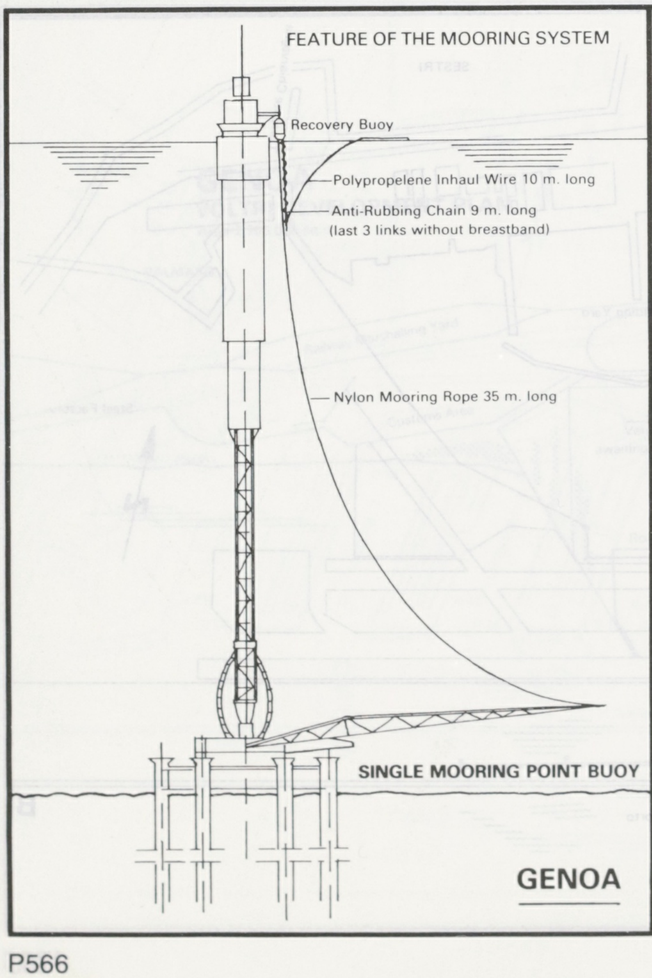

GENOA
Stazione Ferroviaria Principe
Stazione Marittima
Darsena Municipale
Calata Salumi
Calata Rotonda
Calata Zingari
Calata Santa Limbania
Calata Darsena
Palazzo San Giorgio
Calata Cattaneo
Calata Mandraccio
Calata Marinetta
Strada Sopraelevata
Calata San Lazzarino
BACINO PORTO VECCHIO
OLD PORT DOCK
28 ft.
Calata Chiappella
29 ft.
31 ft.
Molo Vecchio
Calata Gadda
Calata Boccardo
Piazzale Camionale Inglese
Calata San Benigno
29 ft.
BACINO DELLE GRAZIE
Calata Grazie
Bacini Di Carenaggio
C. Sanita 46 ft.
3rd Container Terminal
Calata Marconi
Degli Abruzzi
AVAMPORTO
OUTER HARBOUR
24 ft.
Molo Giano
Ro/Ro
20 ft.
ENEL
29 ft.
32 ft.
35 ft.
30 ft.
Calata Giaccone
30 ft.
C. Bettolo
31 ft.
C.S. Canzio
C. Olminerali
34 ft.
Esso
33 ft.
36 ft.
P. R. Rubattino
P. Ex. Idroscalo
P. San Giorgio
BACINO DELLA LANTERNA
Genoa Fair Quarters
Industrial Ship Repair Zone
New Floating Dry Dock
N

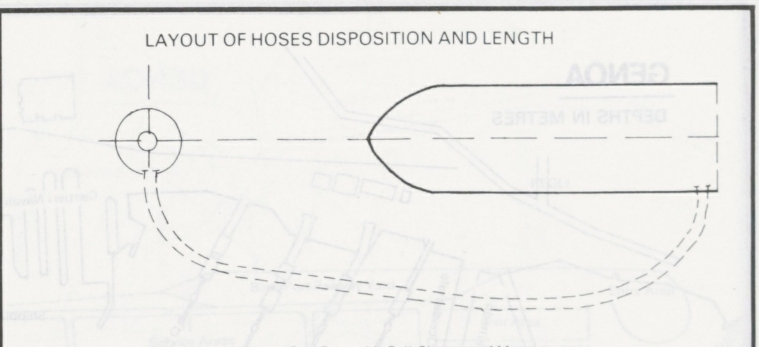

GENOA
VOLTRI DEVELOPMENT PLAN
Area 2,700,000 sq.m.
PALMARO
PEGLI
Base Port Railway Yard
Entry Area
Exit Area
Railway Marshalling Yard
Service Areas
Warehouse
Customs Area
Container Terminal
Vehicles awaiting entrance
Ro/Ro Terminal
PHASE I
1,400 m.
PHASE II
650 m.
Container Terminal
Warehouse
Service Areas
2,200 m.


GENOA
OIL DOCKS
Dimensions in metres
0
50
100 metres
SCALE
N
Banchina Occidentale
D.W.T. 24,000
–35 ft. 6in.
–31 ft.
197.00
28.00
D.W.T. 37,000
180.00
22.00
D.W.T. 24,000
–35 ft. 6 in.
Pontile Alfa
–41 ft. 6 in.
120.00
–31 ft.
197.00
28.00
D.W.T. 37,000
–41 ft. 6 in.
–46 ft.
225.00
30.00
120.00
D.W.T. 50,000
Pontile Beta
225.00
30.00
D.W.T. 80,000
–46 ft.
280.00
40.00
D.W.T. 100,000
Pontile Gamma
–46 ft.
350.00
50.00
140.00
D.W.T. 250,000
290.00
45.00
D.W.T. 150,000
Pontile Delta
–46 ft.
"FERROBETON"


GENOA
DEPTHS IN METRES
SESTRI
Torrente Chiaravagna
Cantieri Navali
Shipbuilding Yard
Molo Multedo
Banchina Occidentale
A
11
B
13
C
15
D
15
OIL DOCK
Porto Petroli
Steel Factory
N
Sea-Line
Aeroporto
Diga Aeroporto
B

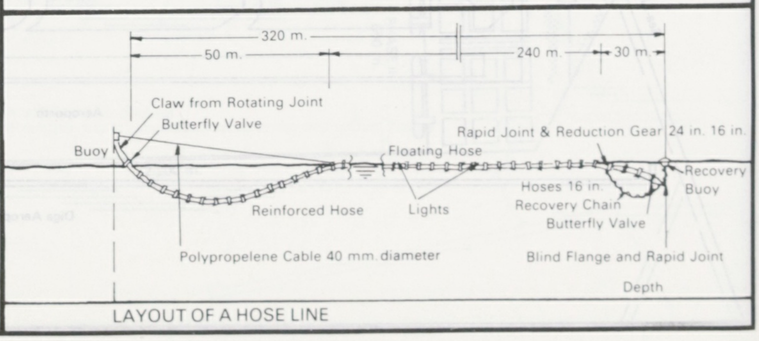

GENOA
OIL TERMINALS
Sestri Ponente
Construction work
Oil Dock
Airport
Submarine Pipeline
A
B
C
D
50 m depth
Vessels up to 500,000 d.w.t.
Lat 44° 24'08''N
Long 08° 48'31''E
Single Mooring Oil Platform
08° 47' 40'' E
08° 49' 20'' E
Zone Under P.A. Control
44° 23° 30''N
2,250 m.
1,740 m.
Single Mooring Point Buoy
Depth 65 m.
0
500
1000
ALL LINEAR MEASURES IN METRES


FEATURE OF THE MOORING SYSTEM
Recovery Buoy
Polypropelene Inhaul Wire 10 m. long
Anti-Rubbing Chain 9 m. long
(last 3 links without breastband)
Nylon Mooring Rope 35 m. long
SINGLE MOORING POINT BUOY
GENOA


LAYOUT OF HOSES DISPOSITION AND LENGTH

A = Buoy Distance Sea-Test with Full Charge = 111 m.
A1 = Buoy Distance Sea-Test in Ballast = 103 m.
B = Test Manifold Distance = 170 m.
C = Free Board with Ship in Ballast = 20 m.
D = Manifold Distance from Bulwarks = 5 m.
E = Manifold Height from Deck = 2 m.
F = 3 Times Ray Line Curving 16 in. = 7 m. Total = 325 m.

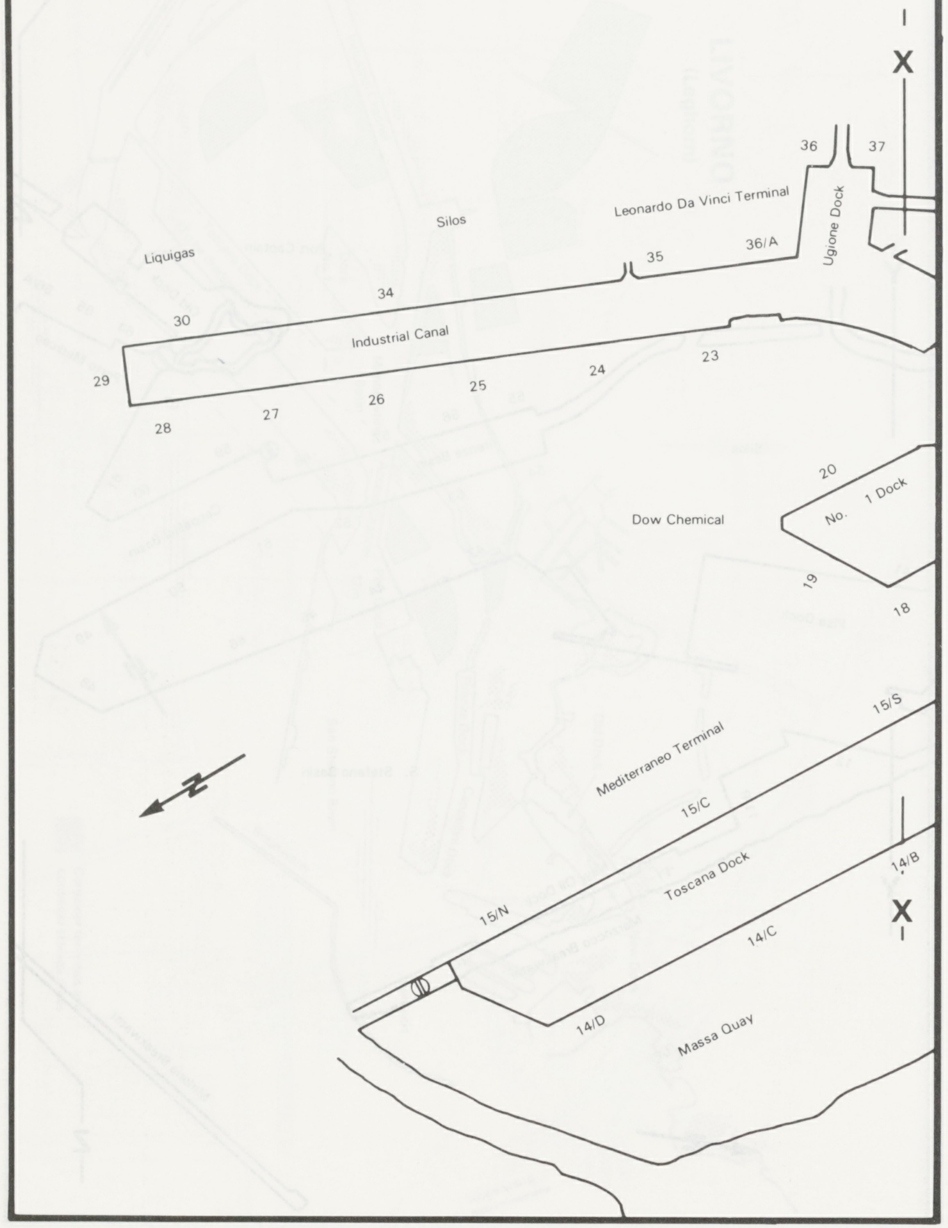
Considering a ship in Ballast, 325 m. Hoses +6% Wave Motion are necessary


320 m.
50 m.
240 m.
30 m.
Claw from Rotating Joint
Butterfly Valve
Buoy
Floating Hose
Rapid Joint & Reduction Gear 24 in. 16 in.
Recovery Buoy
Hoses 16 in.
Recovery Chain
Butterfly Valve
Reinforced Hose
Lights
Polypropelene Cable 40 mm. diameter
Blind Flange and Rapid Joint
Depth

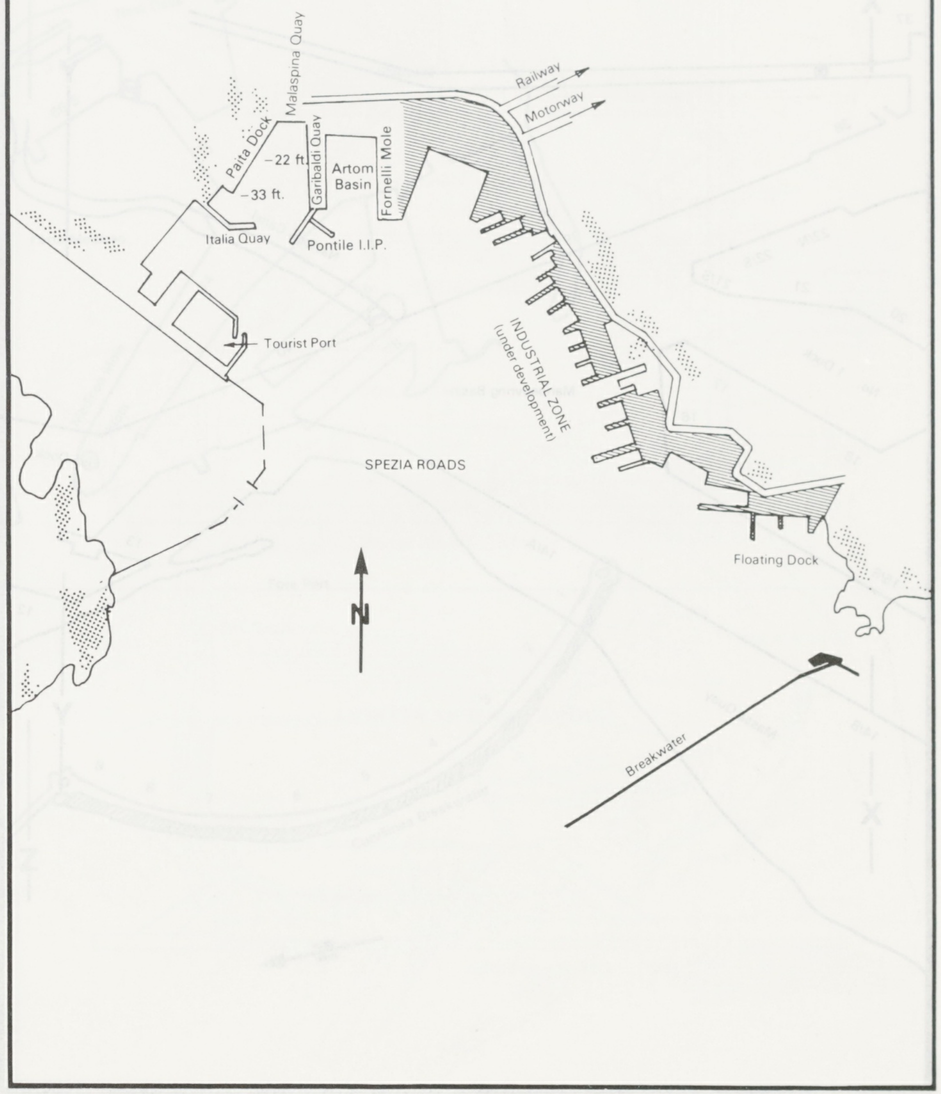
LAYOUT OF A HOSE LINE

LIVORNO — 1

(LEGHORN)

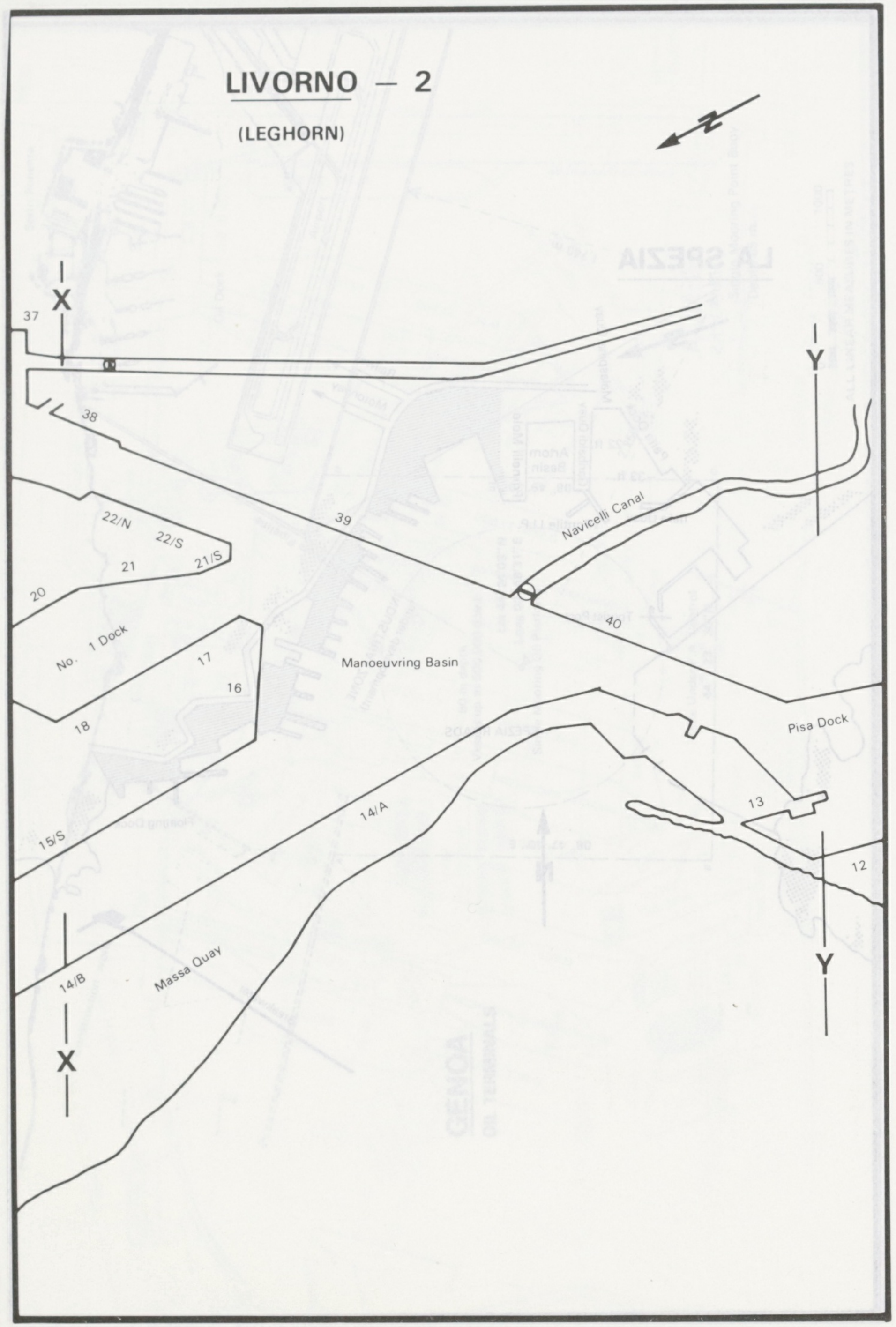

X
36
37
Leonardo Da Vinci Terminal
Silos
Ugione Dock
Liquigas
35
36/A
34
30
Industrial Canal
29
23
24
25
26
27
28
20
No. 1 Dock
Dow Chemical
19
18
15/S
Mediterraneo Terminal
15/C
N
Toscana Dock
14/B
X
15/N
14/C
14/D
Massa Quay

LA SPEZIA


Malaspina Quay
Railway
Motorway
Paita Dock
−22 ft.
Garibaldi Quay
Artom Basin
Fornelli Mole
−33 ft.
Italia Quay
Pontile I.I.P.
Tourist Port
INDUSTRIAL ZONE (under development)
SPEZIA ROADS
Floating Dock
N
Breakwater

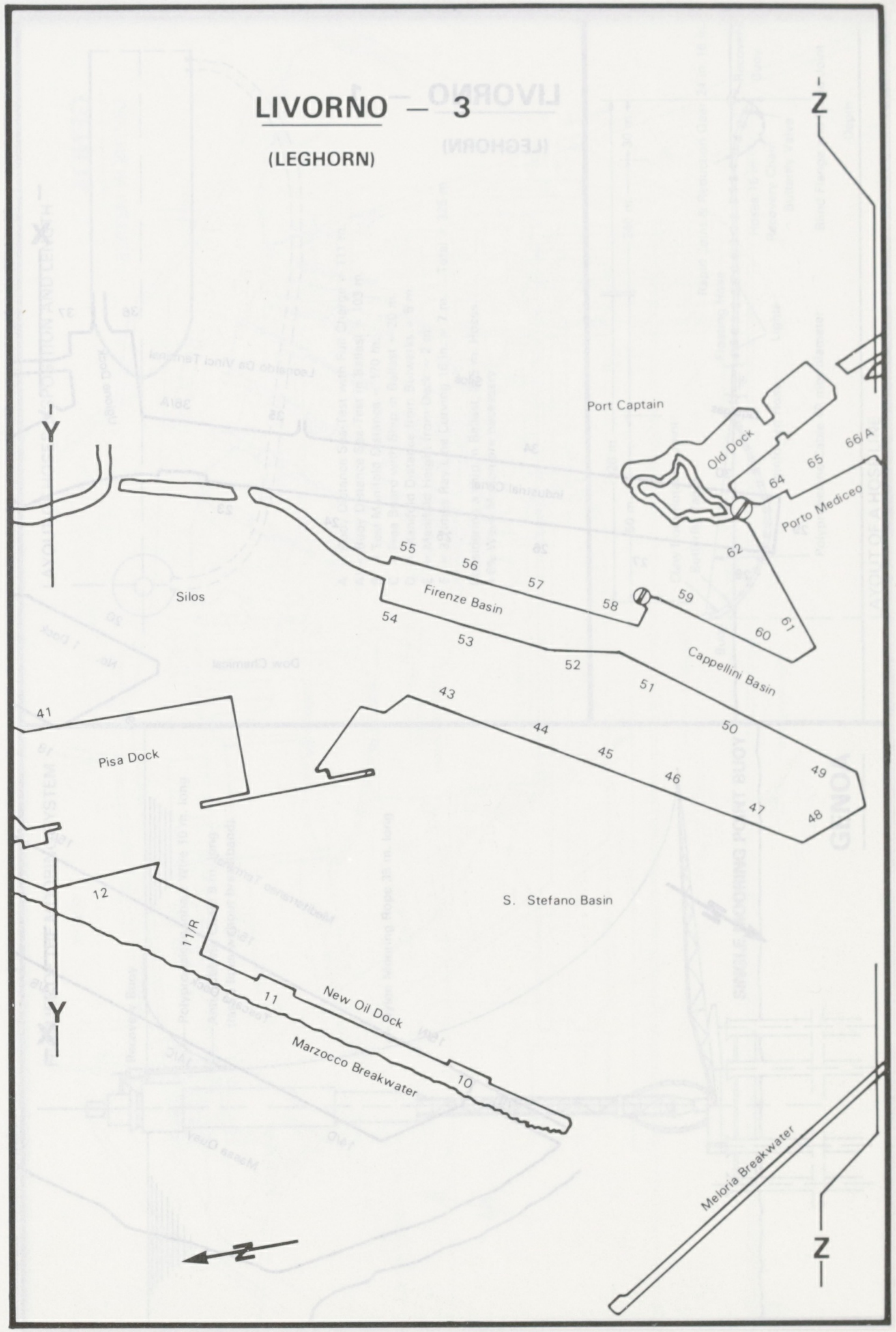
LIVORNO – 2

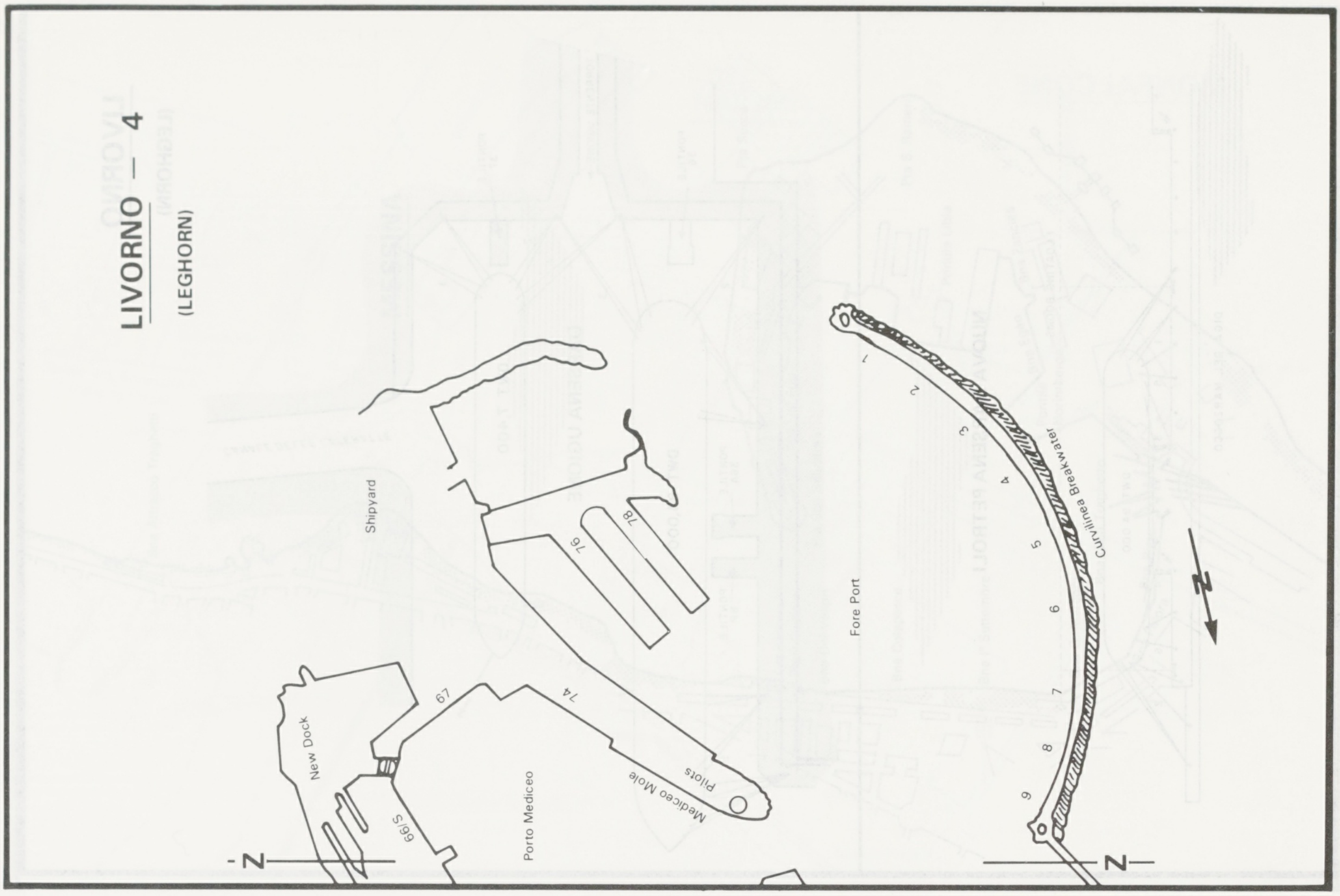
(LEGHORN)

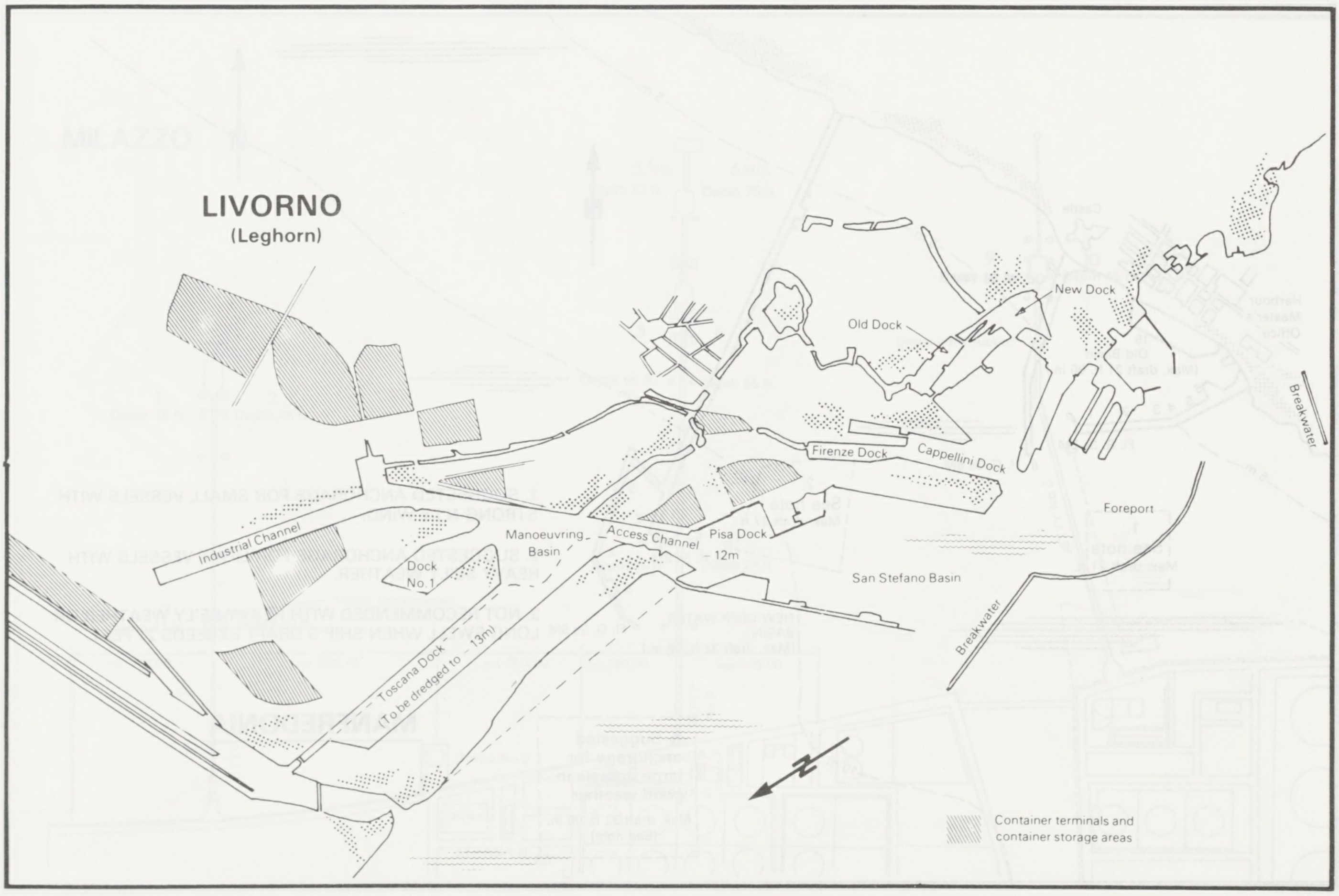

N
X
X
Y
Y
37
38
39
40
22/N
22/S
21
21/S
20
No. 1 Dock
17
16
18
15/S
14/A
14/B
13
12
Navicelli Canal
Manoeuvring Basin
Pisa Dock
Massa Quay

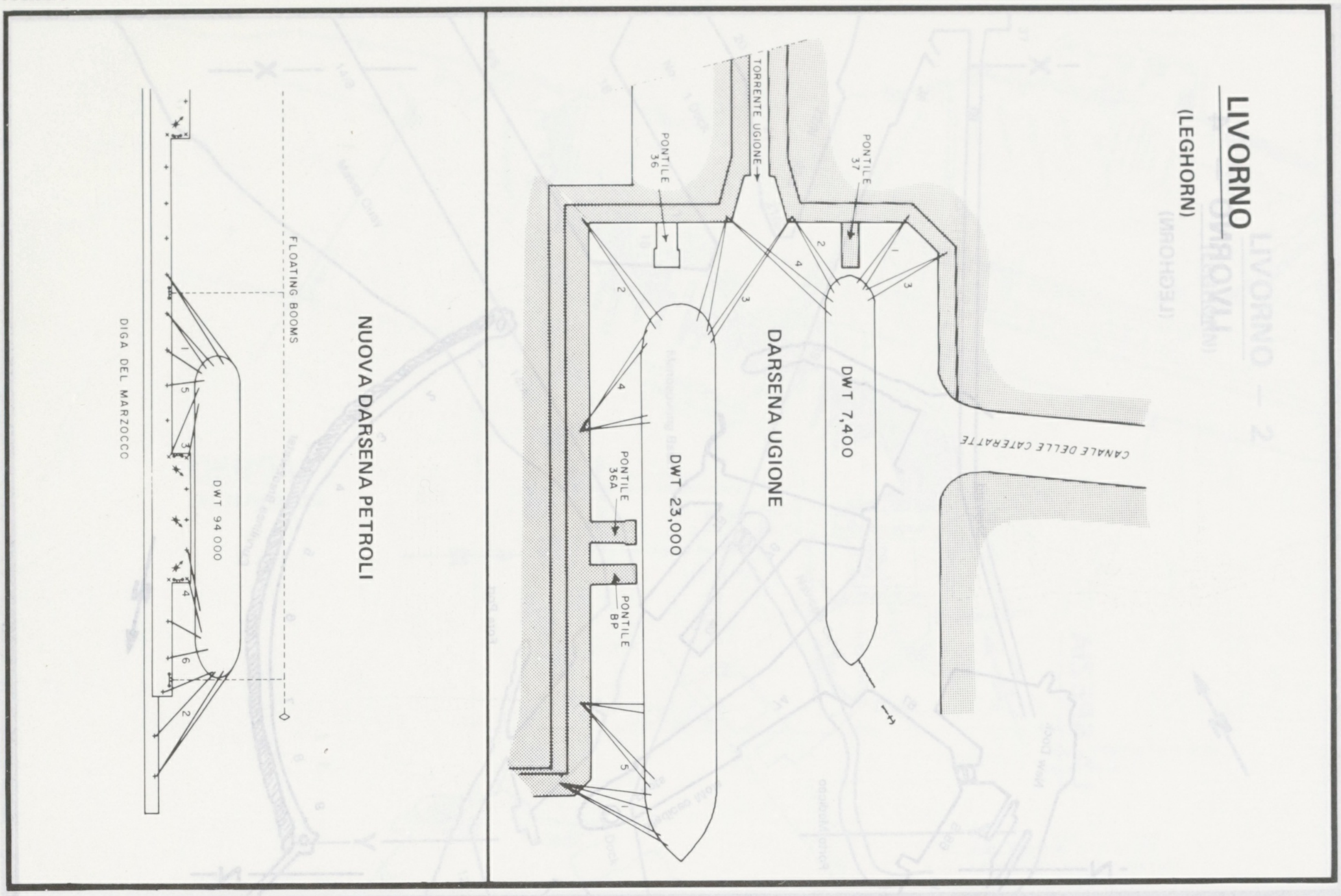
LIVORNO – 3

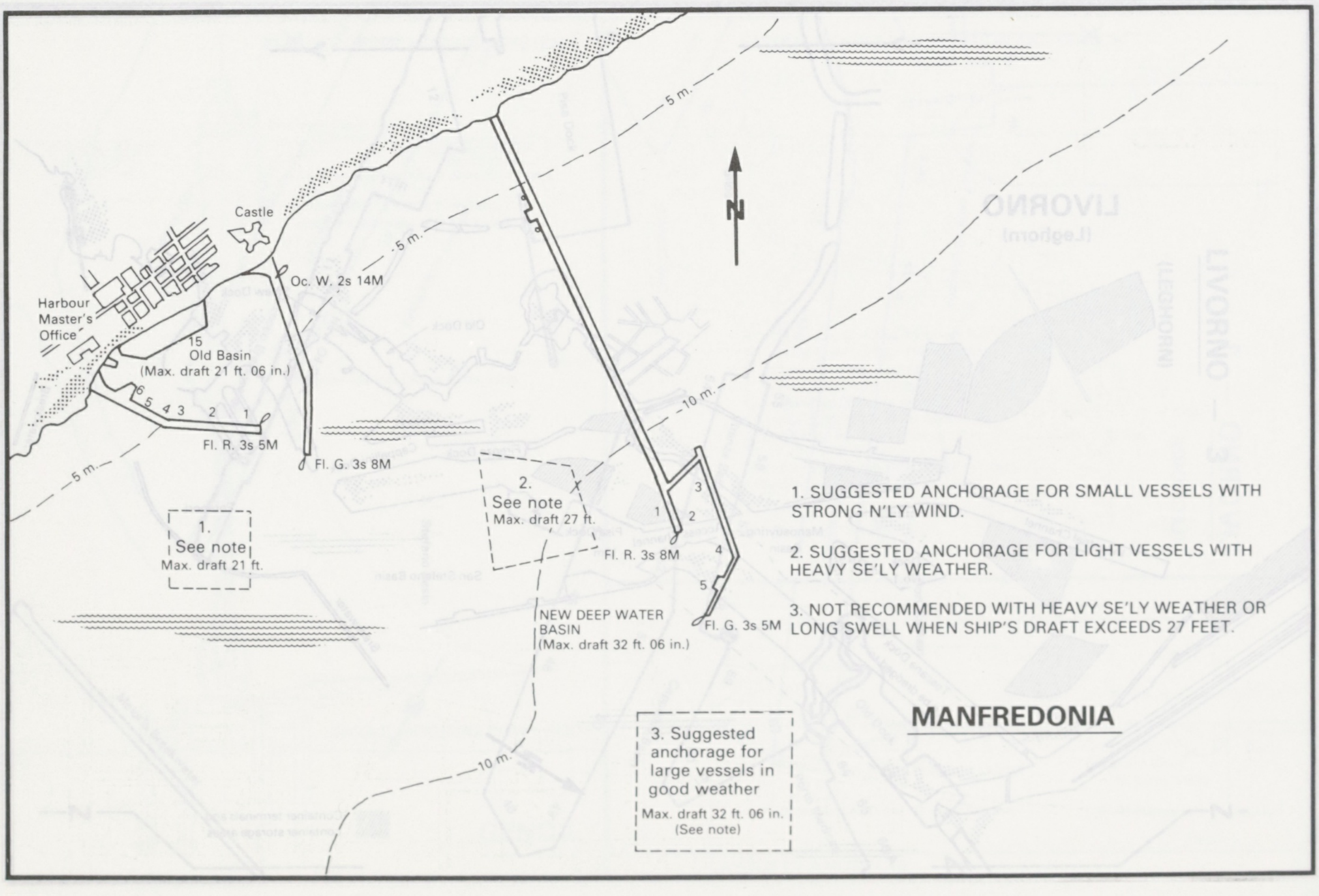
(LEGHORN)


Z
Z
Y
Y
N
Port Captain
Old Dock
Porto Mediceo
66/A
65
64
62
59
60
61
55
56
57
58
54
53
52
51
Firenze Basin
Cappellini Basin
Silos
43
44
45
46
47
48
49
50
41
Pisa Dock
S. Stefano Basin
12
11/R
11
10
New Oil Dock
Marzocco Breakwater
Meloria Breakwater


LIVORNO — 4
(LEGHORN)
Shipyard
76
78
Fore Port
Curvilinea Breakwater
1
2
3
4
5
6
7
8
9
67
74
New Dock
66/S
Porto Mediceo
Mediceo Mole
Pilots
N
N
N


LIVORNO
(Leghorn)
New Dock
Old Dock
Breakwater
Firenze Dock
Cappellini Dock
Foreport
Industrial Channel
Manoeuvring Basin
Access Channel
Pisa Dock
12m
Dock No.1
San Stefano Basin
Breakwater
Toscana Dock
To be dredged to – 13m)
N
Container terminals and container storage areas


LIVORNO
(LEGHORN)
DARSENA UGIONE
TORRENTE UGIONE
PONTILE 36
PONTILE 37
DWT 7,400
DWT 23,000
CANALE DELLE CATERATTE
PONTILE 36A
PONTILE BP
1
2
3
4
5
NUOVA DARSENA PETROLI
FLOATING BOOMS
DWT 94 000
DIGA DEL MARZOCCO
1
2
3
4
5
6

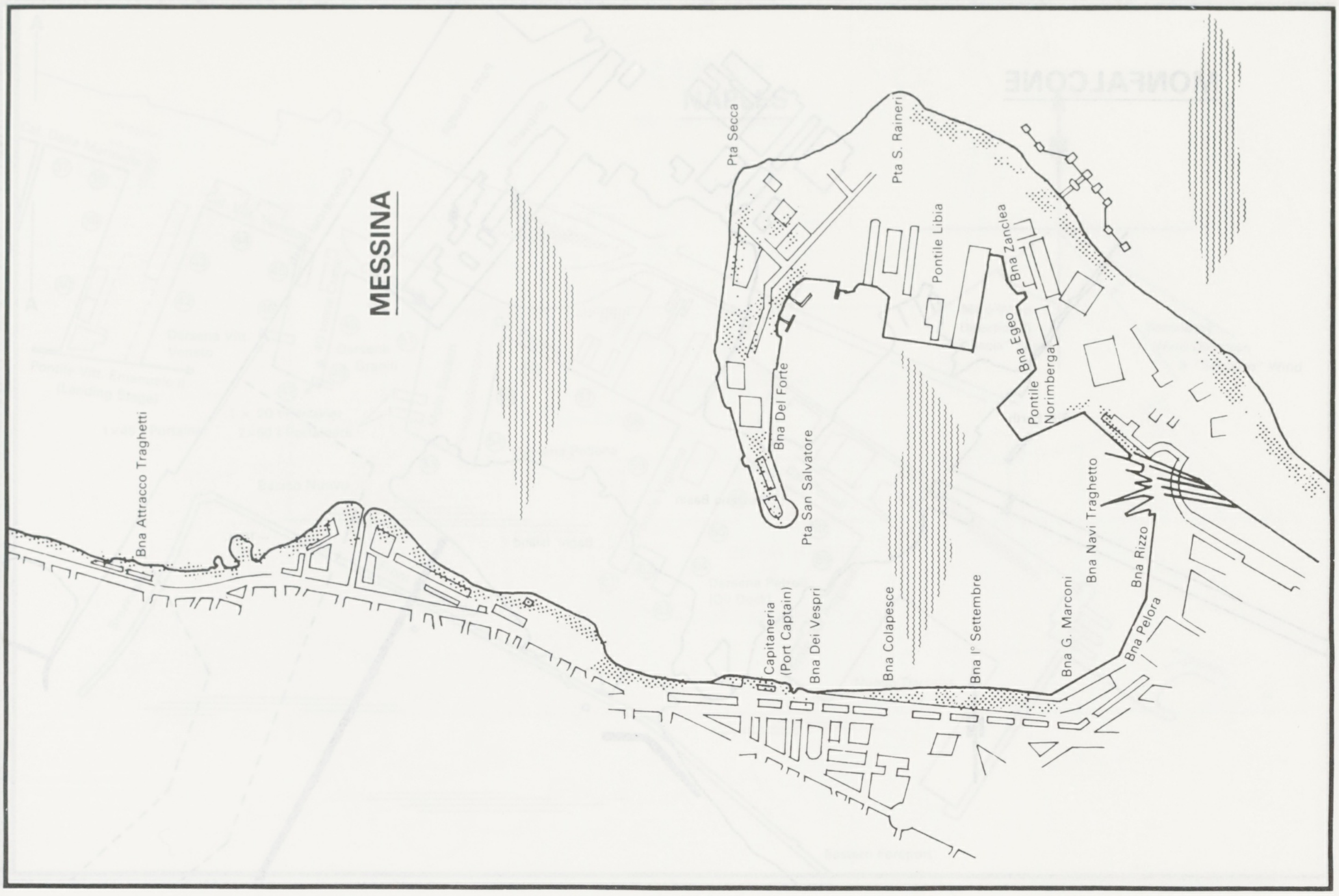

N
Castle
Harbour Master's Office
Oc. W. 2s 14M
15
Old Basin
(Max. draft 21 ft. 06 in.)
6 5 4 3 2 1
Fl. R. 3s 5M
Fl. G. 3s 8M
5 m.
10 m.
1.
See note
Max. draft 21 ft.
2.
See note
Max. draft 27 ft.
1 2 3 4 5
Fl. R. 3s 8M
Fl. G. 3s 5M
NEW DEEP WATER BASIN
(Max. draft 32 ft. 06 in.)
3. Suggested anchorage for large vessels in good weather
Max. draft 32 ft. 06 in.
(See note)

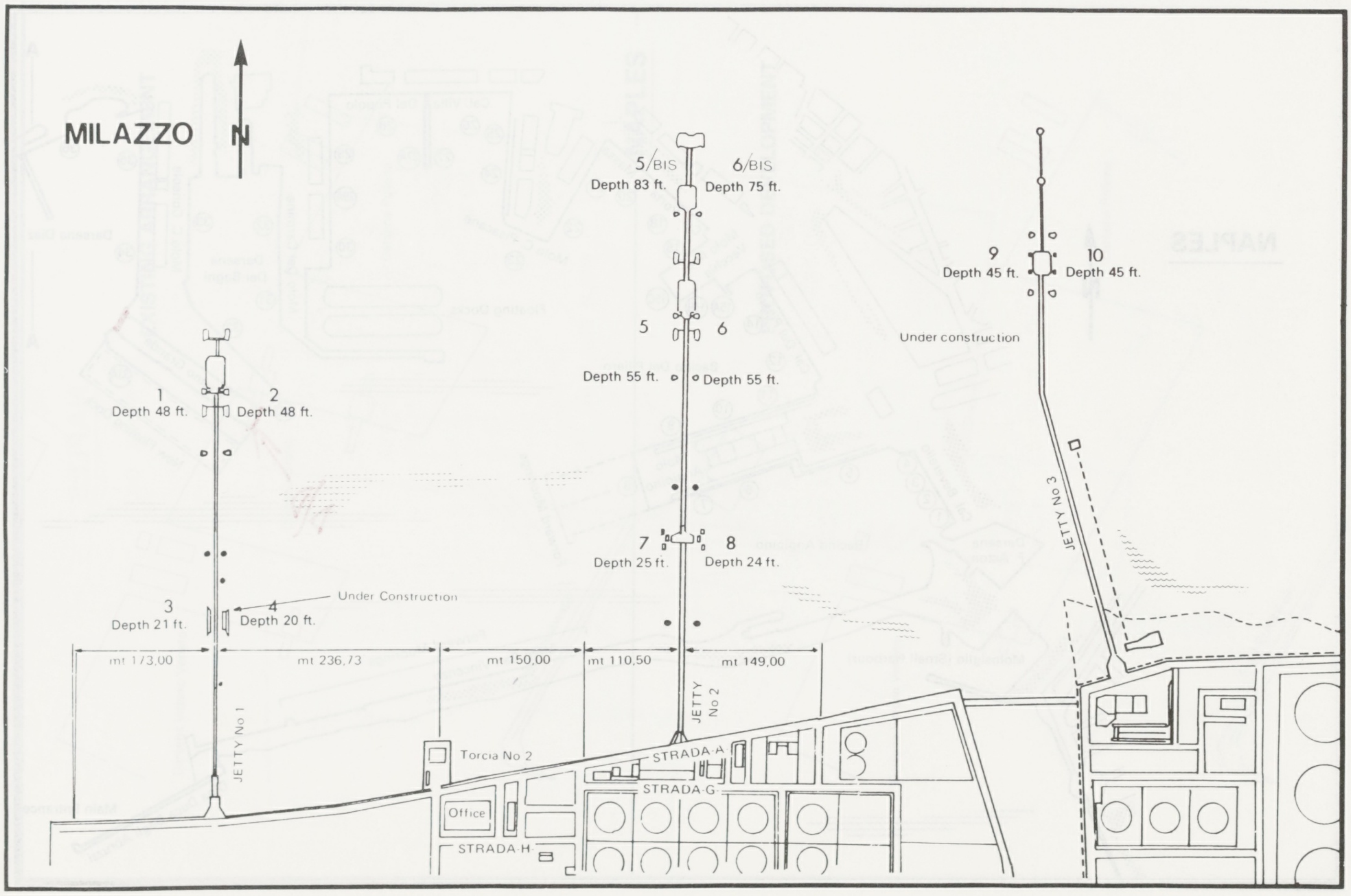
1. SUGGESTED ANCHORAGE FOR SMALL VESSELS WITH STRONG N'LY WIND.

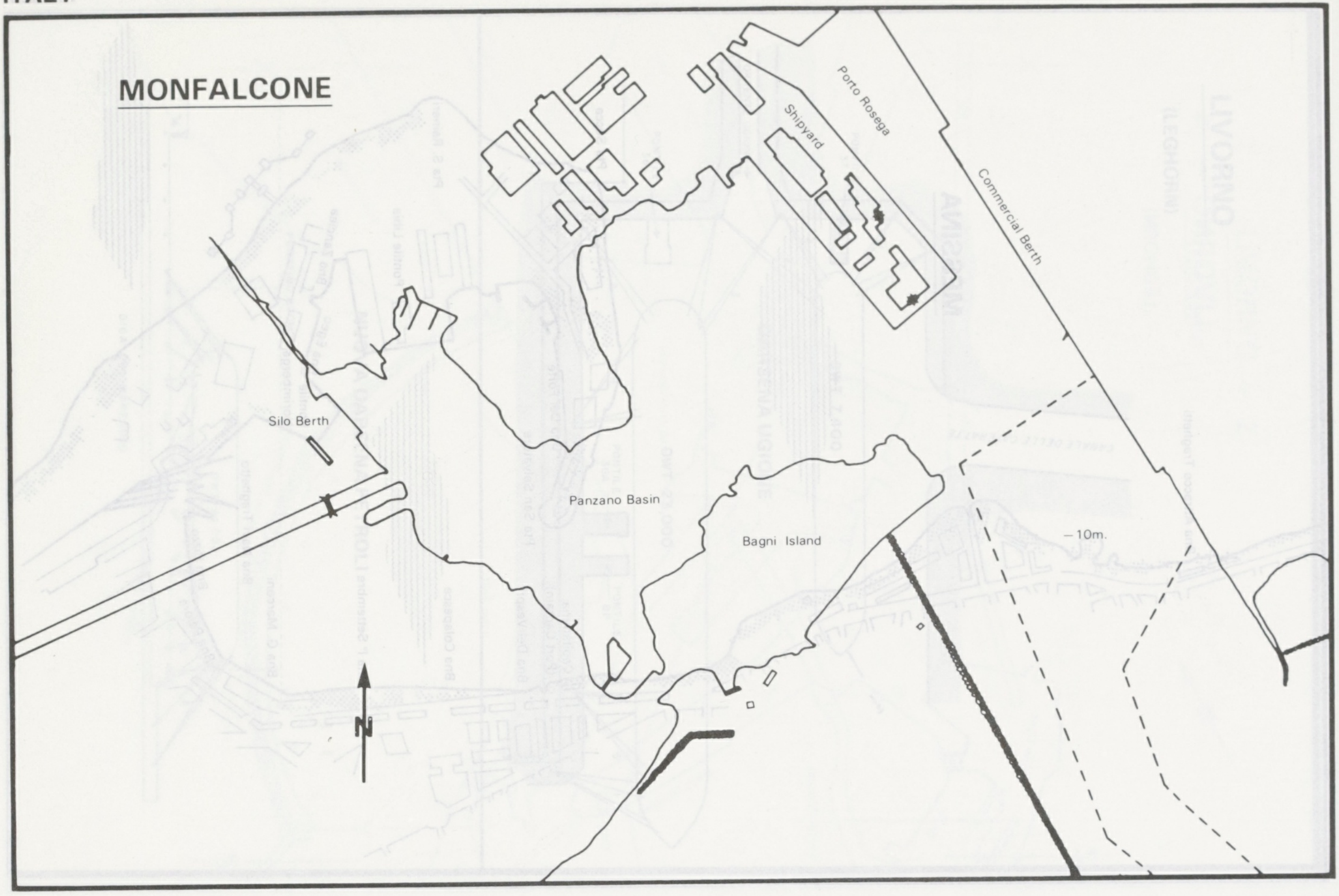
2. SUGGESTED ANCHORAGE FOR LIGHT VESSELS WITH HEAVY SE'LY WEATHER.

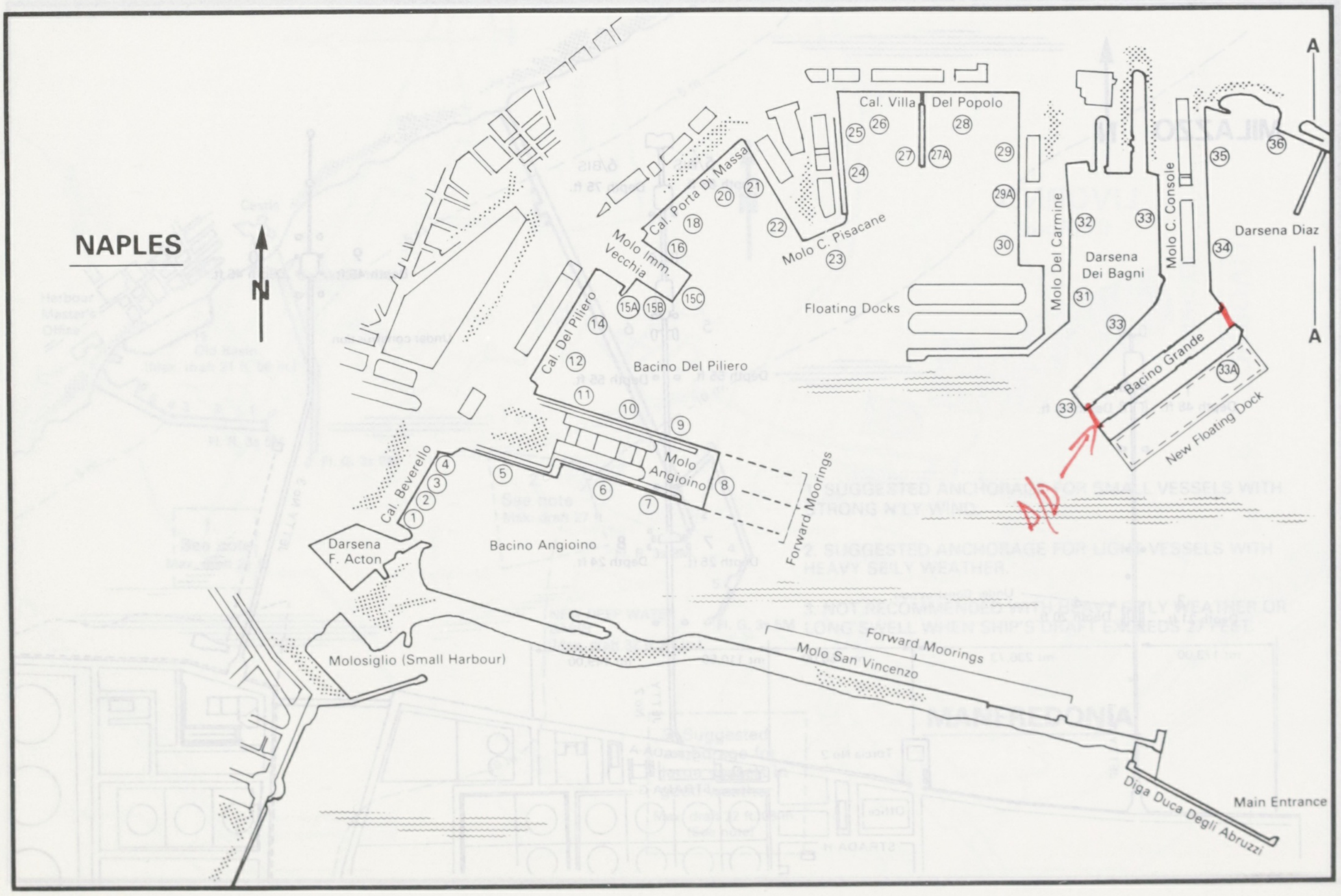
3. NOT RECOMMENDED WITH HEAVY SE'LY WEATHER OR LONG SWELL WHEN SHIP'S DRAFT EXCEEDS 27 FEET.

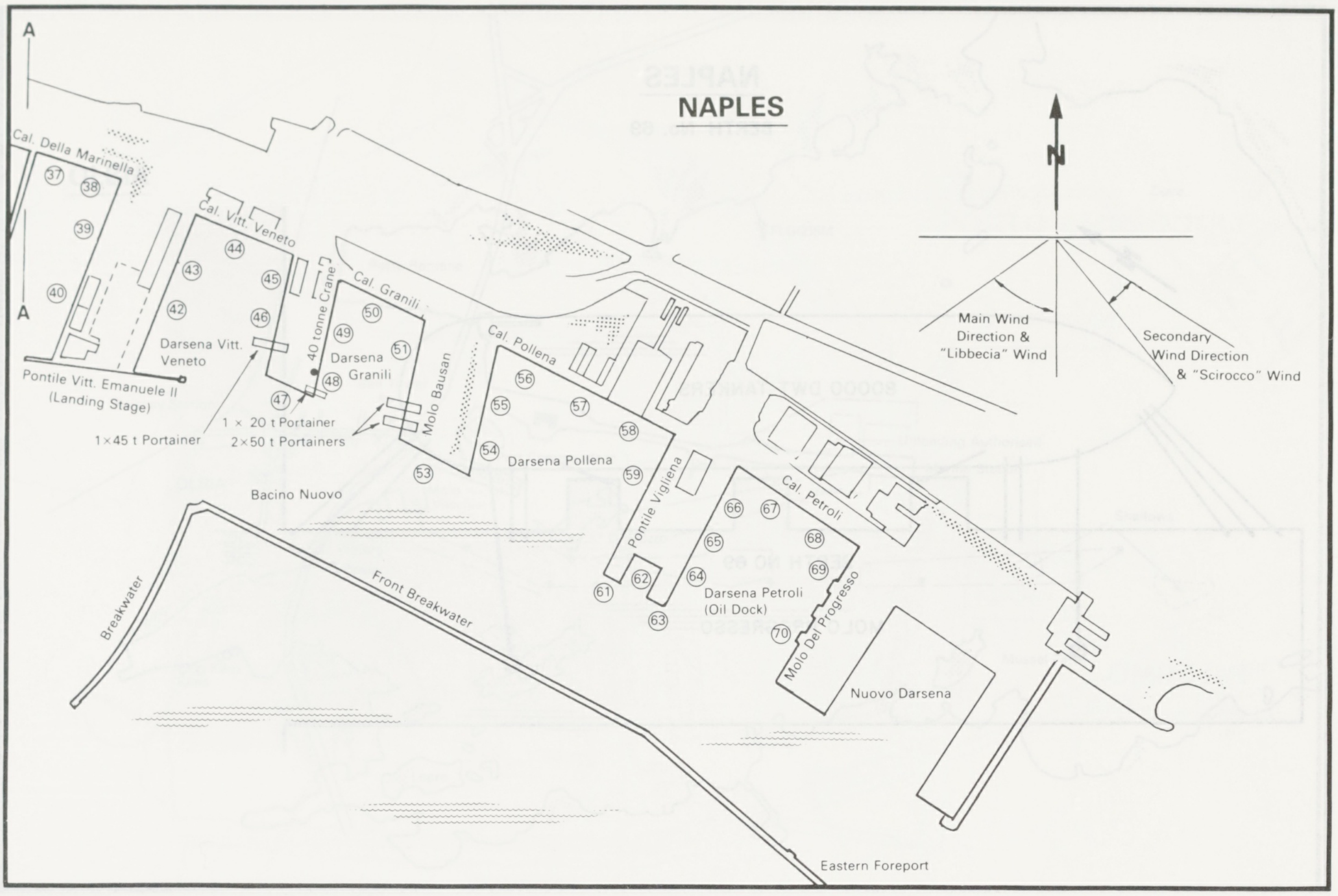
MANFREDONIA

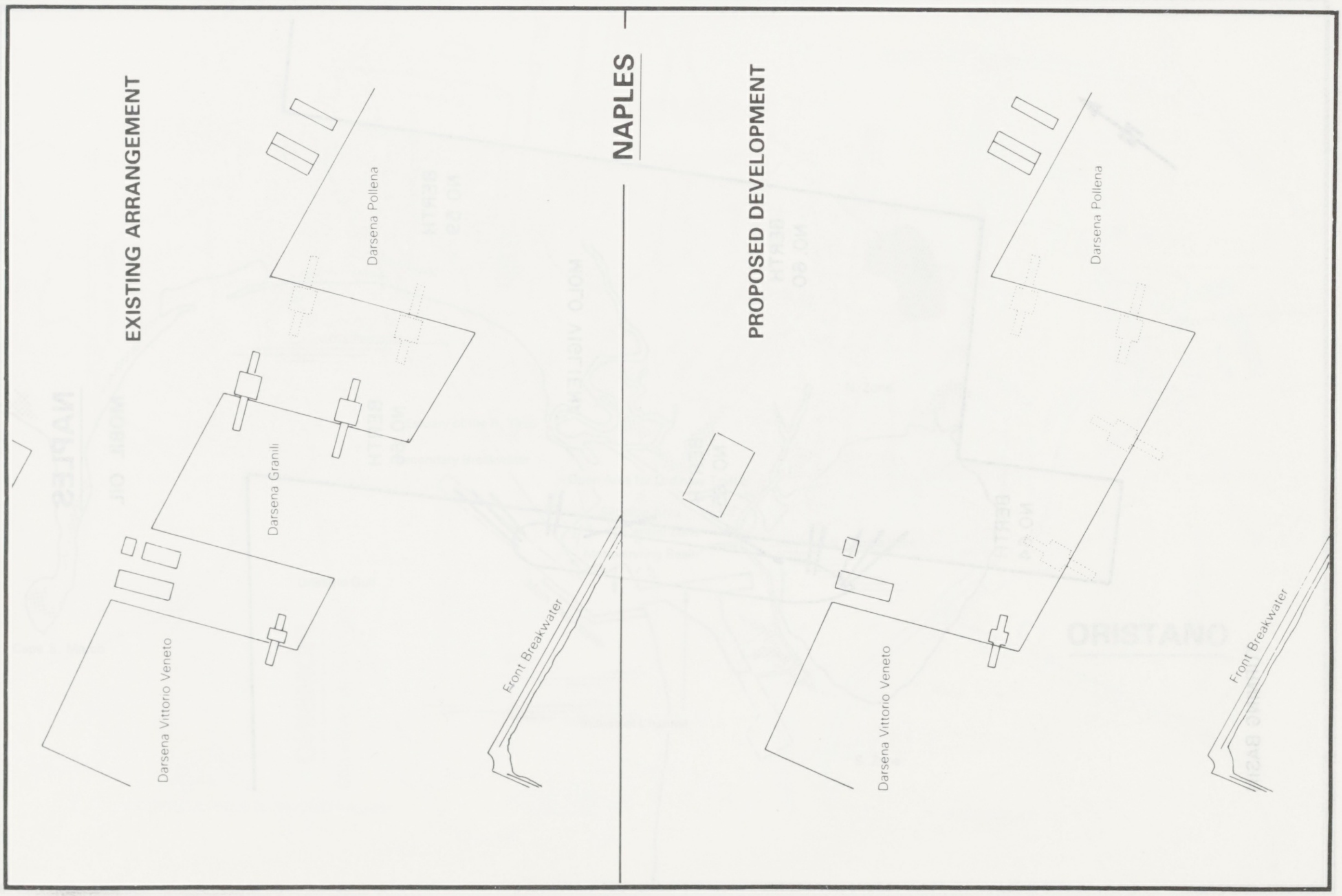

MESSINA
Bna Attracco Traghetti
Pta Secca
Pta S. Raineri
Pontile Libia
Bna Zanclea
Bna Egeo
Pontile Norimberga
Bna Del Forte
Pta San Salvatore
Capitaneria (Port Captain)
Bna Dei Vespri
Bna Colapesce
Bna I° Settembre
Bna G. Marconi
Bna Navi Traghetto
Bna Rizzo
Bna Pelora

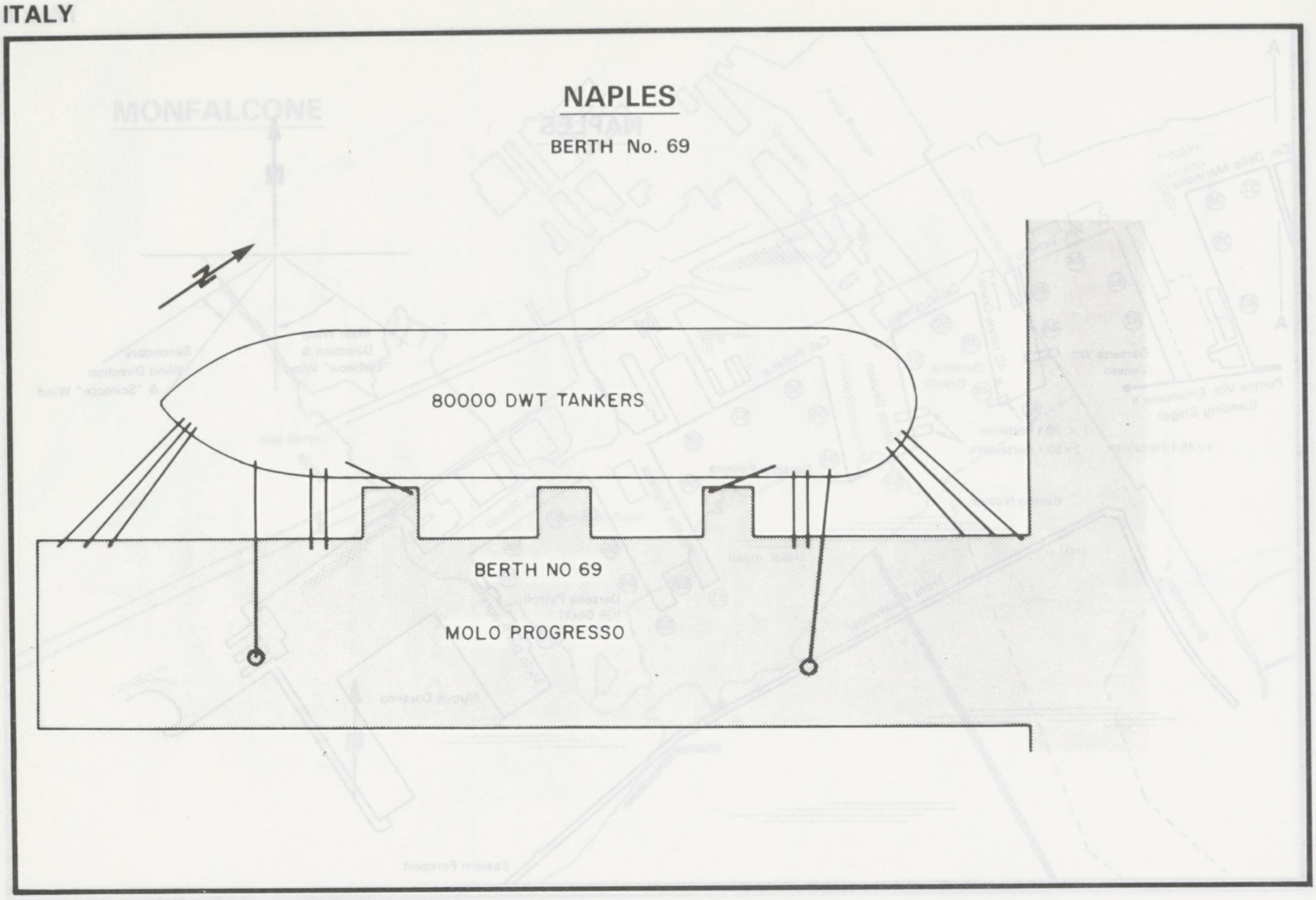

MILAZZO
N
5/BIS
Depth 83 ft.
6/BIS
Depth 75 ft.
9
Depth 45 ft.
10
Depth 45 ft.
5
6
Under construction
Depth 55 ft.
Depth 55 ft.
1
Depth 48 ft.
2
Depth 48 ft.
7
Depth 25 ft.
8
Depth 24 ft.
JETTY No 3
3
Depth 21 ft.
4
Depth 20 ft.
Under Construction
mt 173,00
mt 236,73
mt 150,00
mt 110,50
mt 149,00
JETTY No 1
JETTY No 2
Torcia No 2
STRADA A
STRADA G
Office
STRADA H

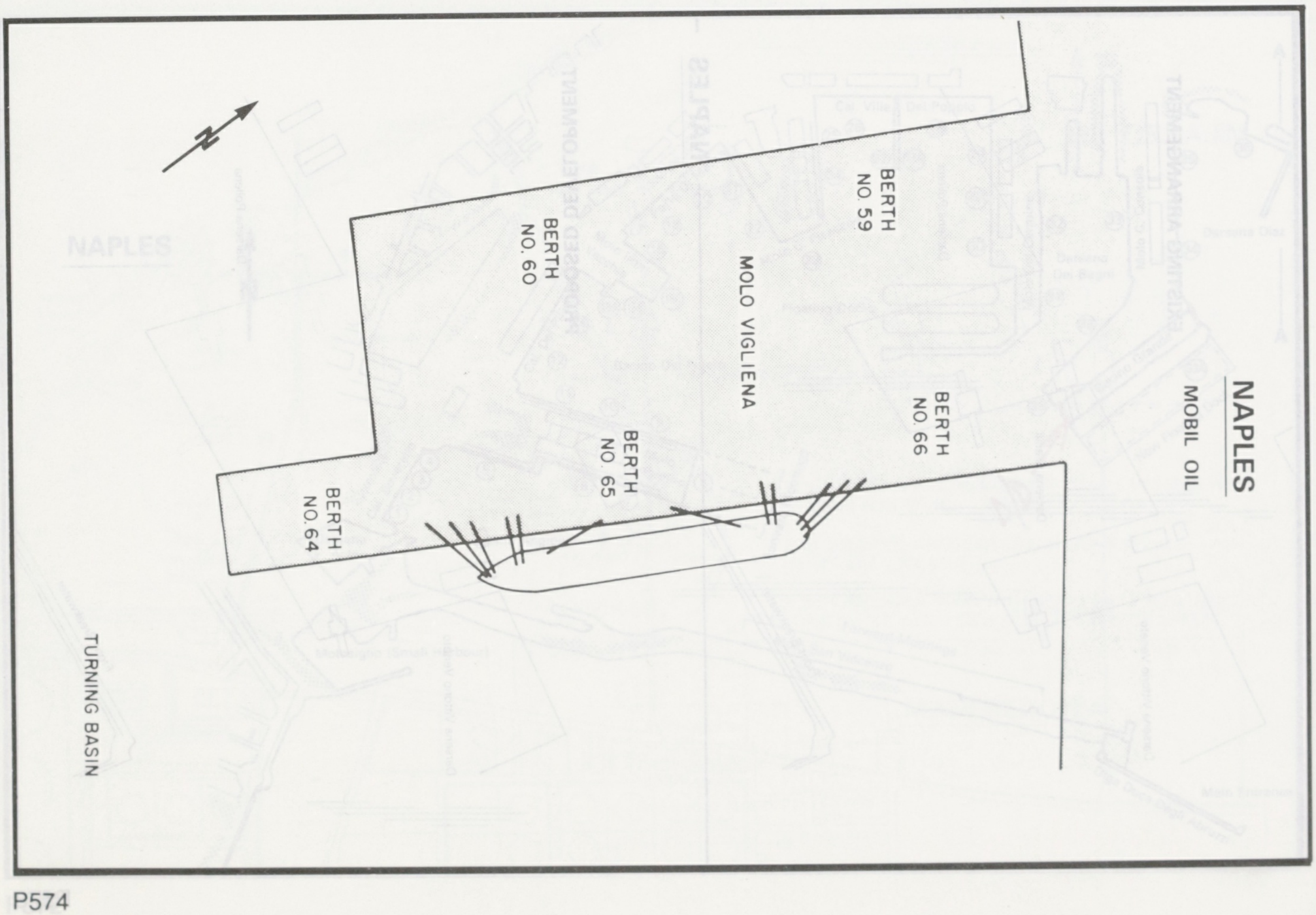

MONFALCONE
Porto Rosega
Shipyard
Commercial Berth
Silo Berth
Panzano Basin
Bagni Island
–10m.
N

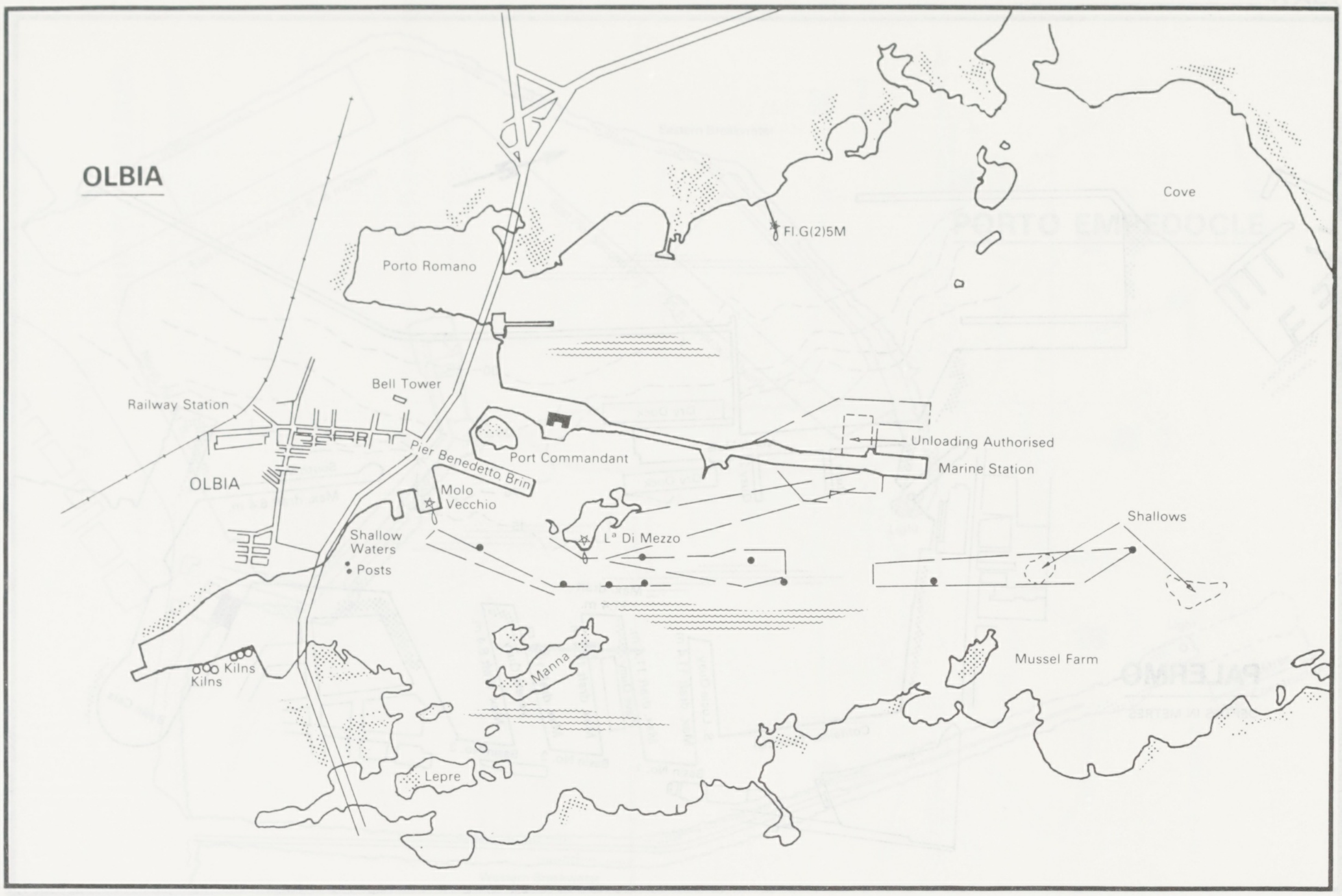

NAPLES
N
A
A
Cal. Villa Del Popolo
25
26
27
27A
28
29
29A
30
24
22
23
Molo C. Pisacane
Cal. Porta Di Massa
21
20
18
16
Molo Imm. Vecchia
15A
15B
15C
14
Cal. Del Piliero
12
11
10
9
Bacino Del Piliero
Floating Docks
Molo Del Carmine
32
33
31
33
Darsena Dei Bagni
Molo C. Console
35
36
34
Darsena Diaz
Bacino Grande
33A
33
New Floating Dock
D/D
Cal. Beverello
1
2
3
4
5
6
7
8
Molo Angioino
Forward Moorings
Darsena F. Acton
Bacino Angioino
Molosiglio (Small Harbour)
Forward Moorings
Molo San Vincenzo
Diga Duca Degli Abruzzi
Main Entrance

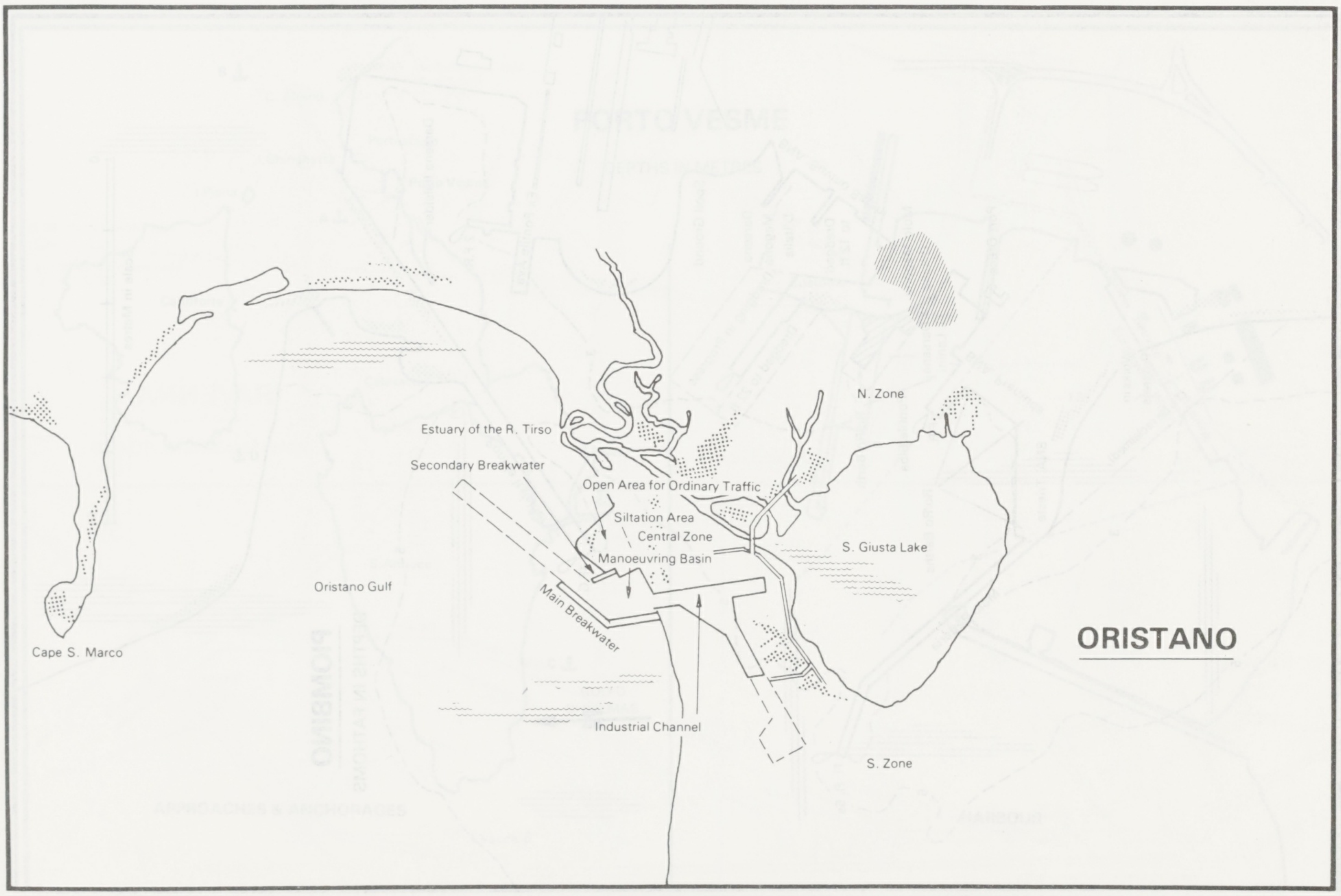

NAPLES
N
A
A
Cal. Della Marinella
37
38
39
40
Pontile Vitt. Emanuele II (Landing Stage)
Cal. Vitt. Veneto
43
44
42
45
46
Darsena Vitt. Veneto
47
1×45 t Portainer
40 tonne Crane
48
49
50
Darsena Granili
Cal. Granili
51
1 × 20 t Portainer
2×50 t Portainers
Molo Bausan
53
Cal. Pollena
56
55
57
54
58
Darsena Pollena
59
Bacino Nuovo
Pontile Vigliena
61
62
63
64
Darsena Petroli (Oil Dock)
65
66
67
Cal. Petroli
68
69
70
Molo Del Progresso
Nuovo Darsena
Breakwater
Front Breakwater
Eastern Foreport
Main Wind Direction & "Libbecia" Wind
Secondary Wind Direction & "Scirocco" Wind

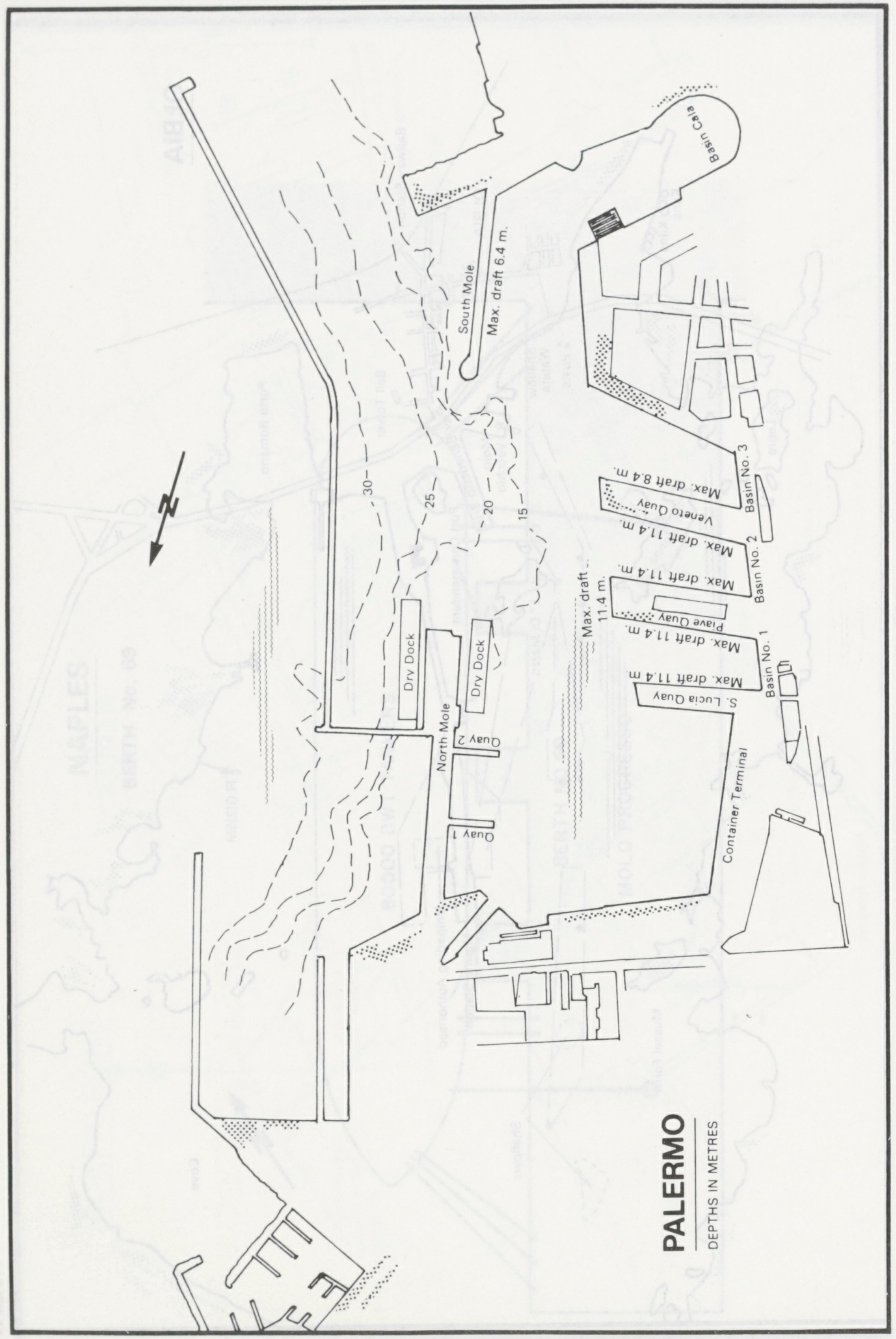

EXISTING ARRANGEMENT
NAPLES
PROPOSED DEVELOPMENT
Darsena Pollena
Darsena Granili
Darsena Vittorio Veneto
Front Breakwater
Darsena Pollena
Darsena Vittorio Veneto
Front Breakwater

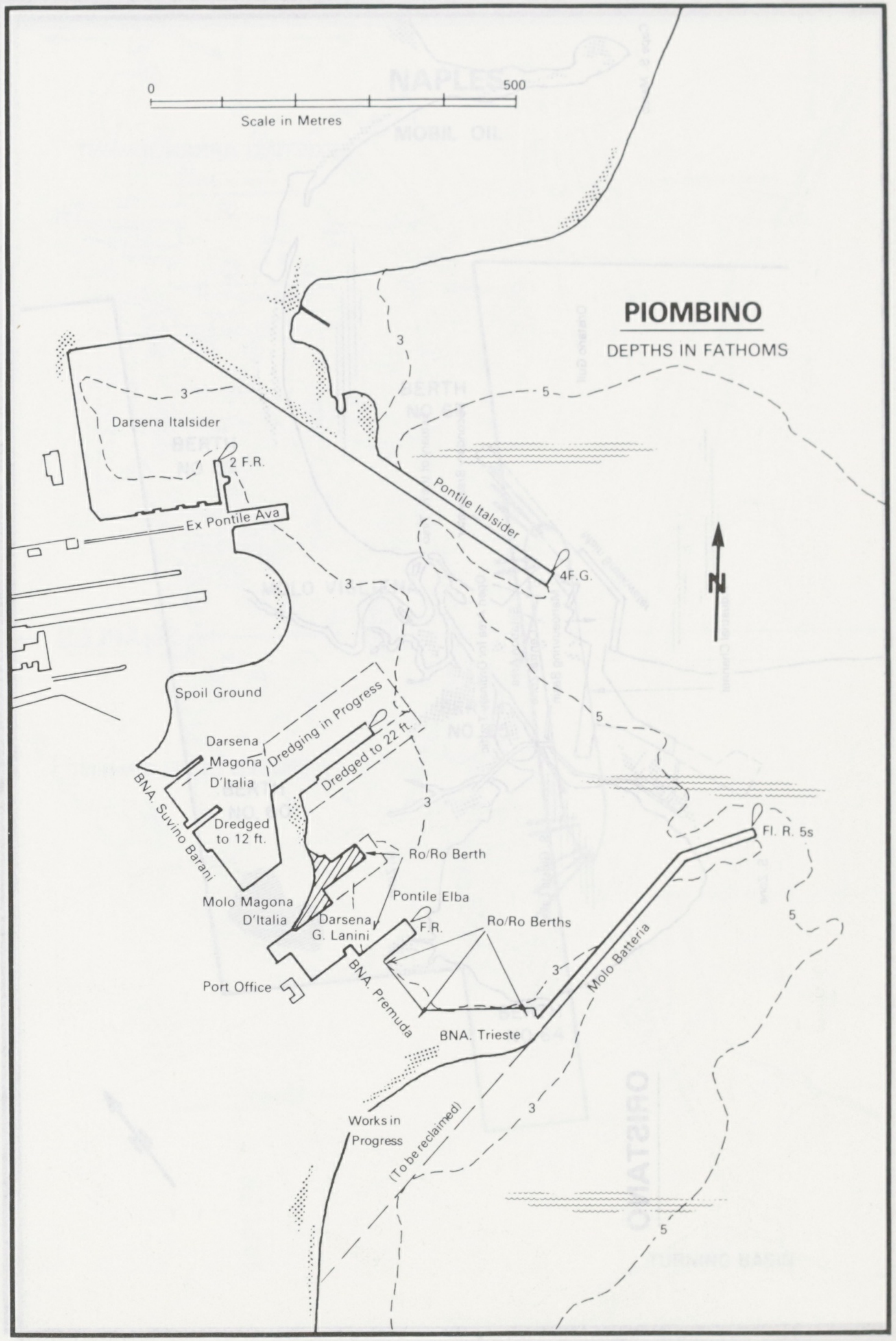

NAPLES
BERTH No. 69
80000 DWT TANKERS
BERTH NO 69
MOLO PROGRESSO

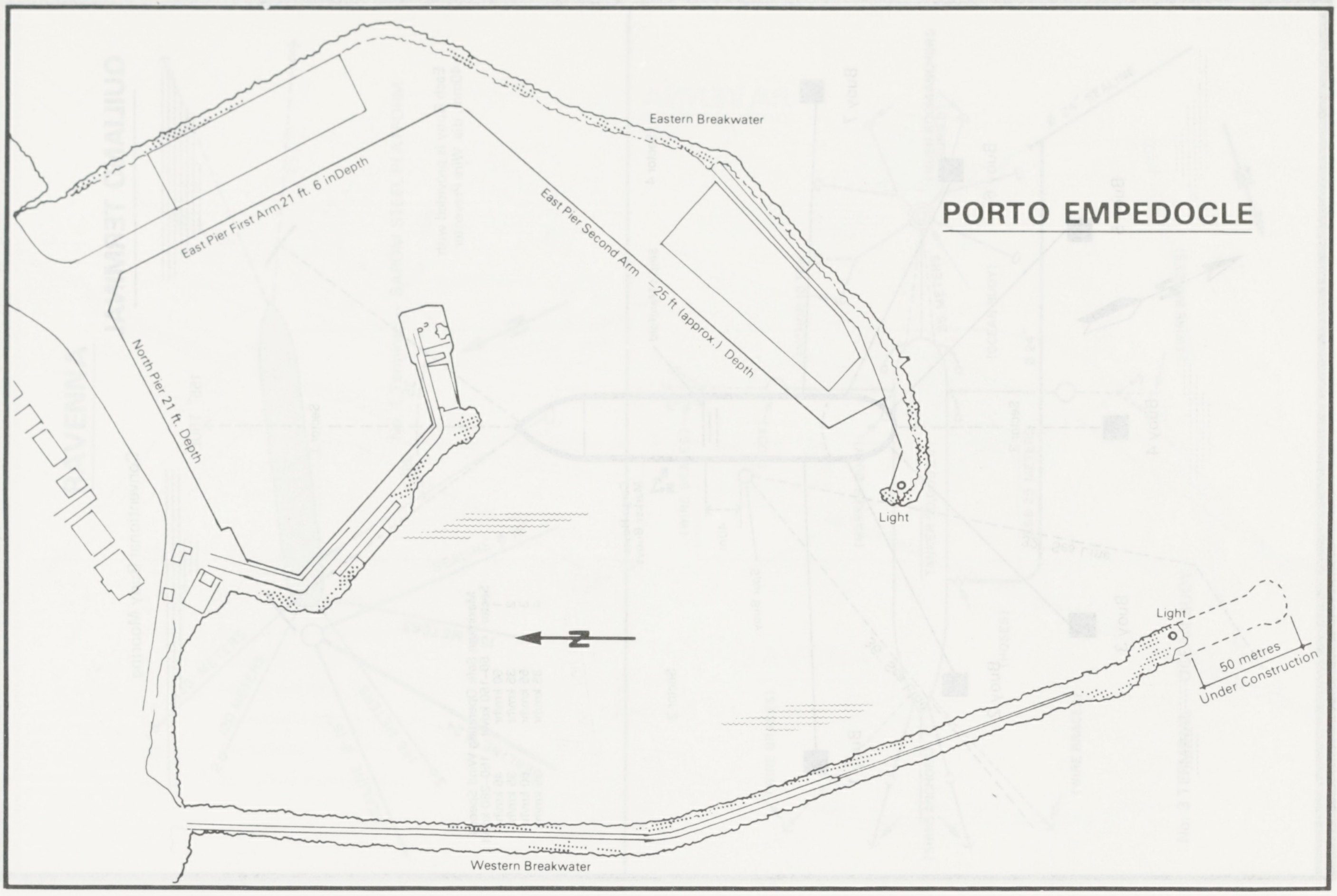

NAPLES
MOBIL OIL
BERTH NO 59
BERTH NO. 60
MOLO VIGLIENA
BERTH NO. 66
BERTH NO. 65
BERTH NO. 64
TURNING BASIN

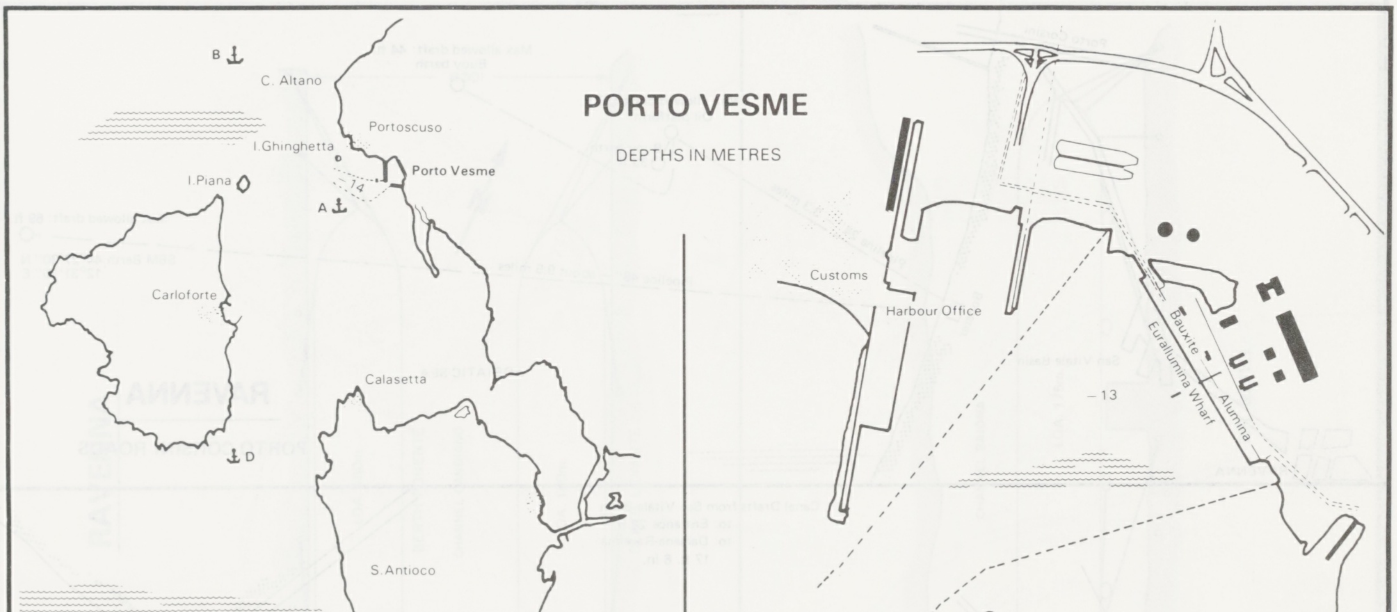

OLBIA
Cove
Fl.G(2)5M
Porto Romano
Bell Tower
Railway Station
OLBIA
Pier Benedetto Brin
Port Commandant
Unloading Authorised
Marine Station
Molo Vecchio
Lª Di Mezzo
Shallows
Shallow Waters
Posts
Kilns
Kilns
Manna
Mussel Farm
Lepre


N. Zone
Estuary of the R. Tirso
Secondary Breakwater
Open Area for Ordinary Traffic
Siltation Area
Central Zone
Manoeuvring Basin
S. Giusta Lake
Oristano Gulf
Main Breakwater
ORISTANO
Cape S. Marco
Industrial Channel
S. Zone

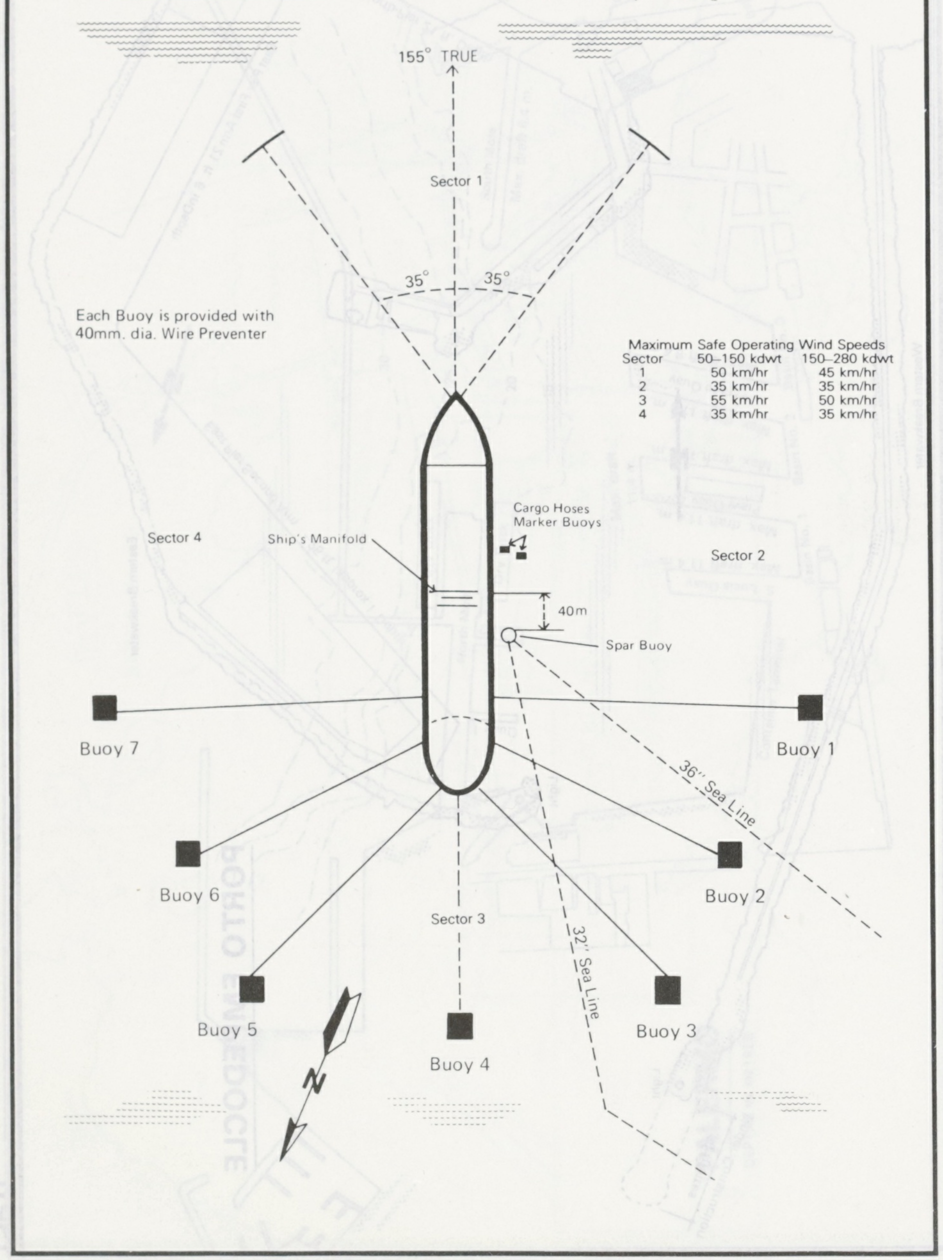

PALERMO
DEPTHS IN METRES
N
South Mole
Max. draft 6.4 m.
Basin Cala
30
25
20
15
Basin No. 3
Max. draft 8.4 m.
Veneto Quay
Max. draft 11.4 m.
Basin No. 2
Max. draft 11.4 m.
Max. draft 11.4 m.
Plave Quay
Max. draft 11.4 m.
Basin No. 1
Max. draft 11.4 m.
S. Lucia Quay
Dry Dock
Dry Dock
North Mole
Quay 2
Quay 1
Container Terminal


0
500
Scale in Metres
PIOMBINO
DEPTHS IN FATHOMS
N
3
5
Darsena Italsider
2 F.R.
Ex Pontile Ava
Pontile Italsider
4F.G.
Spoil Ground
Dredging in Progress
Dredged to 22 ft.
Darsena Magona D'Italia
Dredged to 12 ft.
BNA. Suvino Barani
Ro/Ro Berth
Pontile Elba
Molo Magona D'Italia
Darsena G. Lanini
F.R.
Ro/Ro Berths
Fl. R. 5s
Molo Batteria
Port Office
BNA. Premuda
BNA. Trieste
Works in Progress
(To be reclaimed)


PORTO EMPEDOCLE
Eastern Breakwater
East Pier First Arm 21 ft. 6 in Depth
East Pier Second Arm —25 ft (approx.) Depth
North Pier 21 ft. Depth
Light
N
Light
50 metres
Under Construction
Western Breakwater


PORTO VESME
DEPTHS IN METRES
B
C. Altano
Portoscuso
I. Ghinghetta
Porto Vesme
I. Piana
14
A
Carloforte
Calasetta
D
S. Antioco
C
GOLFO DI PALMAS
I. Vacca
APPROACHES & ANCHORAGES
Customs
Harbour Office
Bauxite
Alumina
Eurallumina Wharf
−13
HARBOUR

QUILIANO TERMINAL



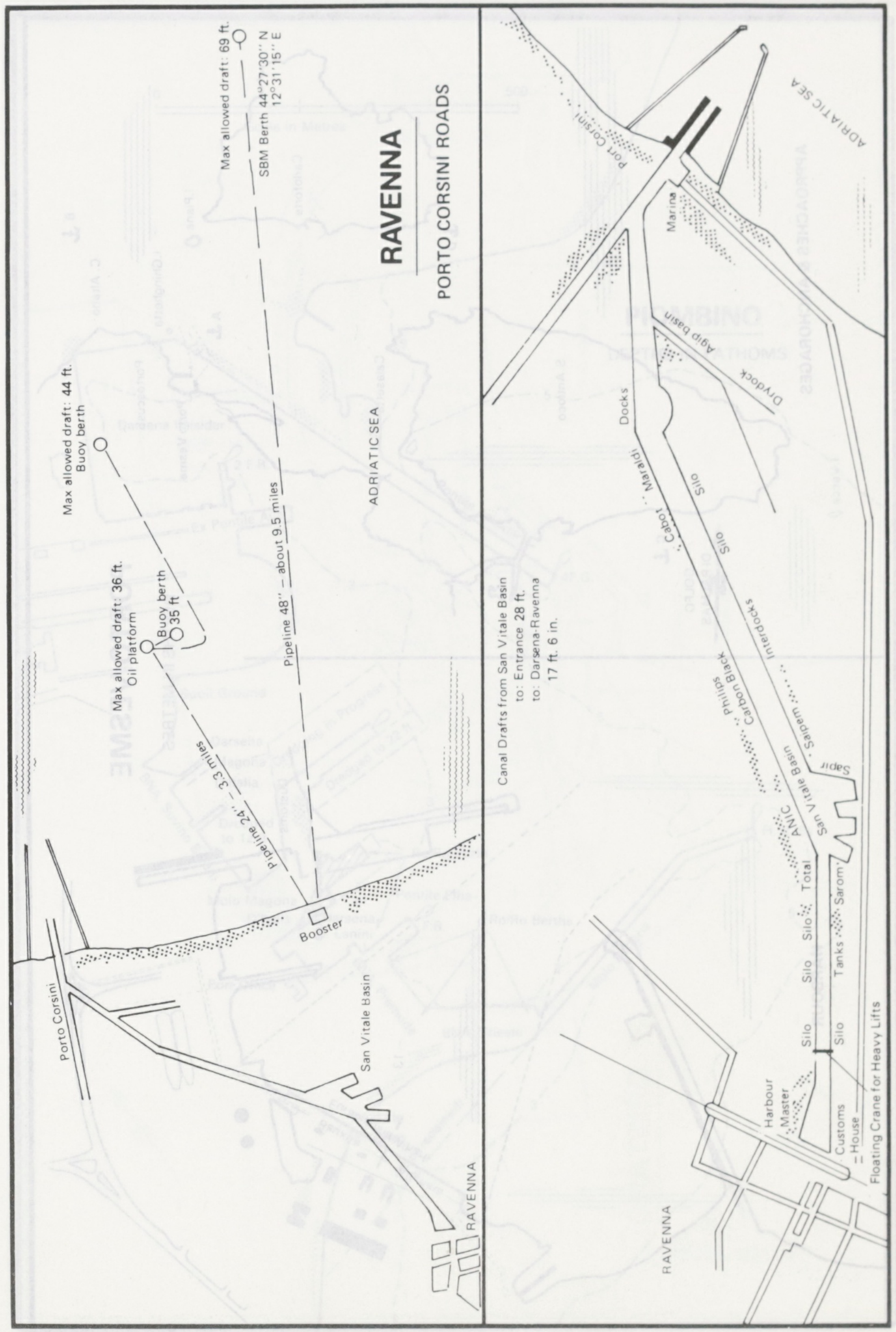
Conventional Buoy Mooring

Each Buoy is provided with 40mm. dia. Wire Preventer

Maximum Safe Operating Wind Speeds

Sector	50–150 kdwt	150–280 kdwt
1	50 km/hr	45 km/hr
2	35 km/hr	35 km/hr
3	55 km/hr	50 km/hr
4	35 km/hr	35 km/hr

155° TRUE
Sector 1
35°
35°
Sector 4
Sector 2
Sector 3
Ship's Manifold
Cargo Hoses Marker Buoys
40m
Spar Buoy
Buoy 1
Buoy 2
Buoy 3
Buoy 4
Buoy 5
Buoy 6
Buoy 7
36'' Sea Line
32'' Sea Line
N



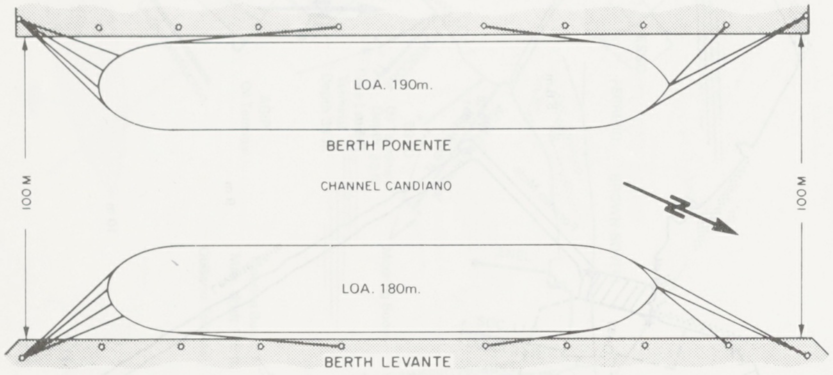
RAVENNA

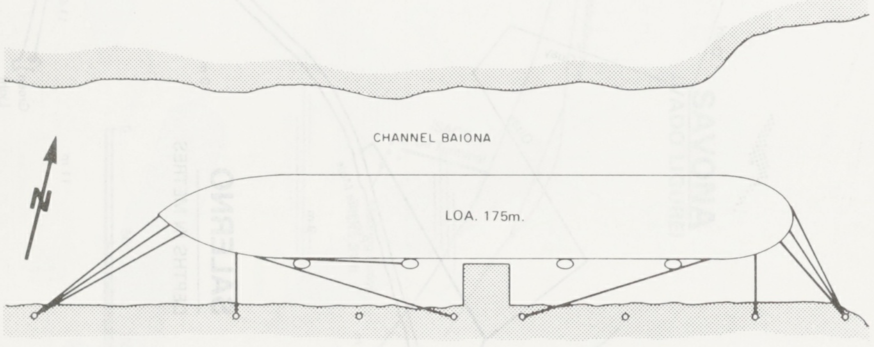
PORTO CORSINI ROADS

Canal Drafts from San Vitale Basin
to: Entrance 28 ft.
to: Darsena-Ravenna 17 ft. 6 in.

Max allowed draft: 69 ft.
SBM Berth 44°27'30'' N 12°31'15'' E
Max allowed draft: 44 ft. Buoy berth
Max allowed draft: 36 ft. Oil platform
Buoy berth 35 ft
Pipeline 48'' — about 9.5 miles
Pipeline 24'' — 3.3 miles
ADRIATIC SEA
Booster
Porto Corsini
San Vitale Basin
RAVENNA
Port Corsini
ADRIATIC SEA
Marina
Agip basin
Drydock
Docks
Maraldi
Cabot
Silo
Silo
Interdocks
Philips
Carbon Black
Saipem
Sapir
San Vitale Basin
ANIC
Total
Sarom
Silo
Silo
Tanks
Silo
Silo
Harbour Master
Customs House
Floating Crane for Heavy Lifts
RAVENNA

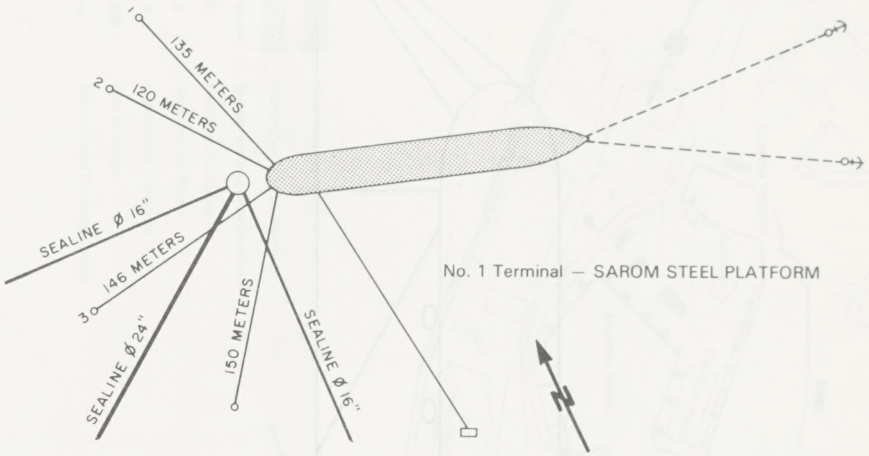
RAVENNA


LOA. 190m.
BERTH PONENTE
CHANNEL CANDIANO
100 M
100 M
N
LOA. 180m.
BERTH LEVANTE

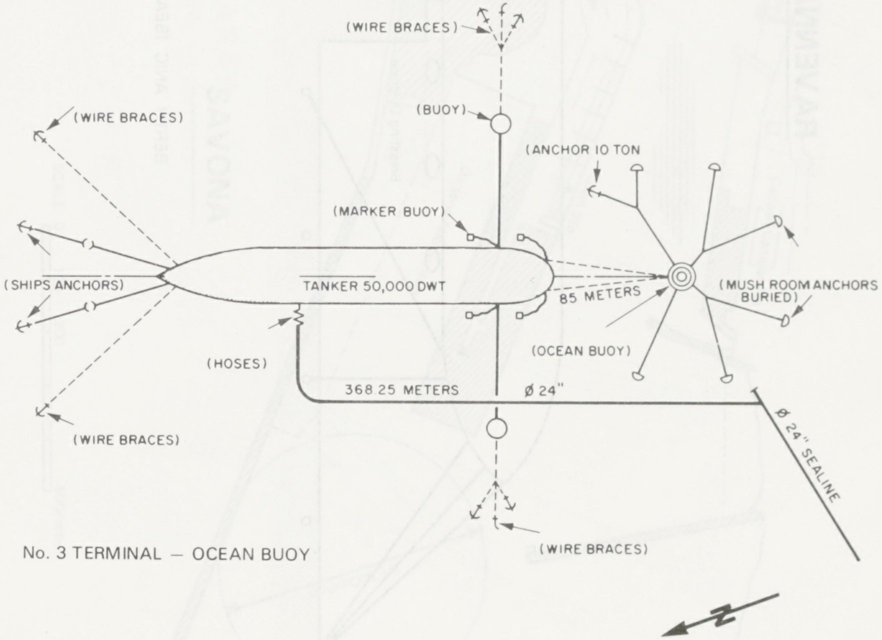

CHANNEL BAIONA
N
LOA. 175m.

'PIR' BERTH

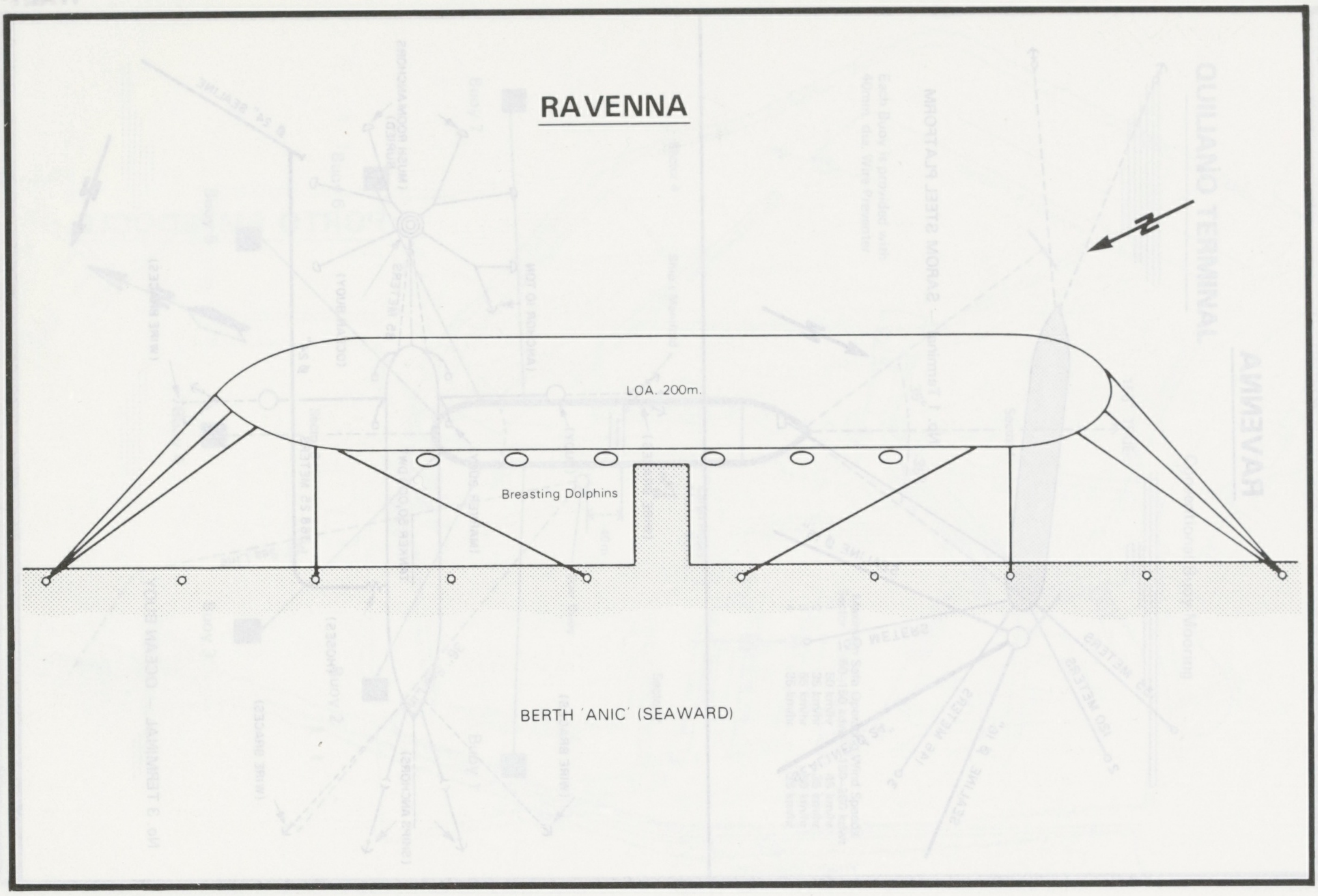
RAVENNA

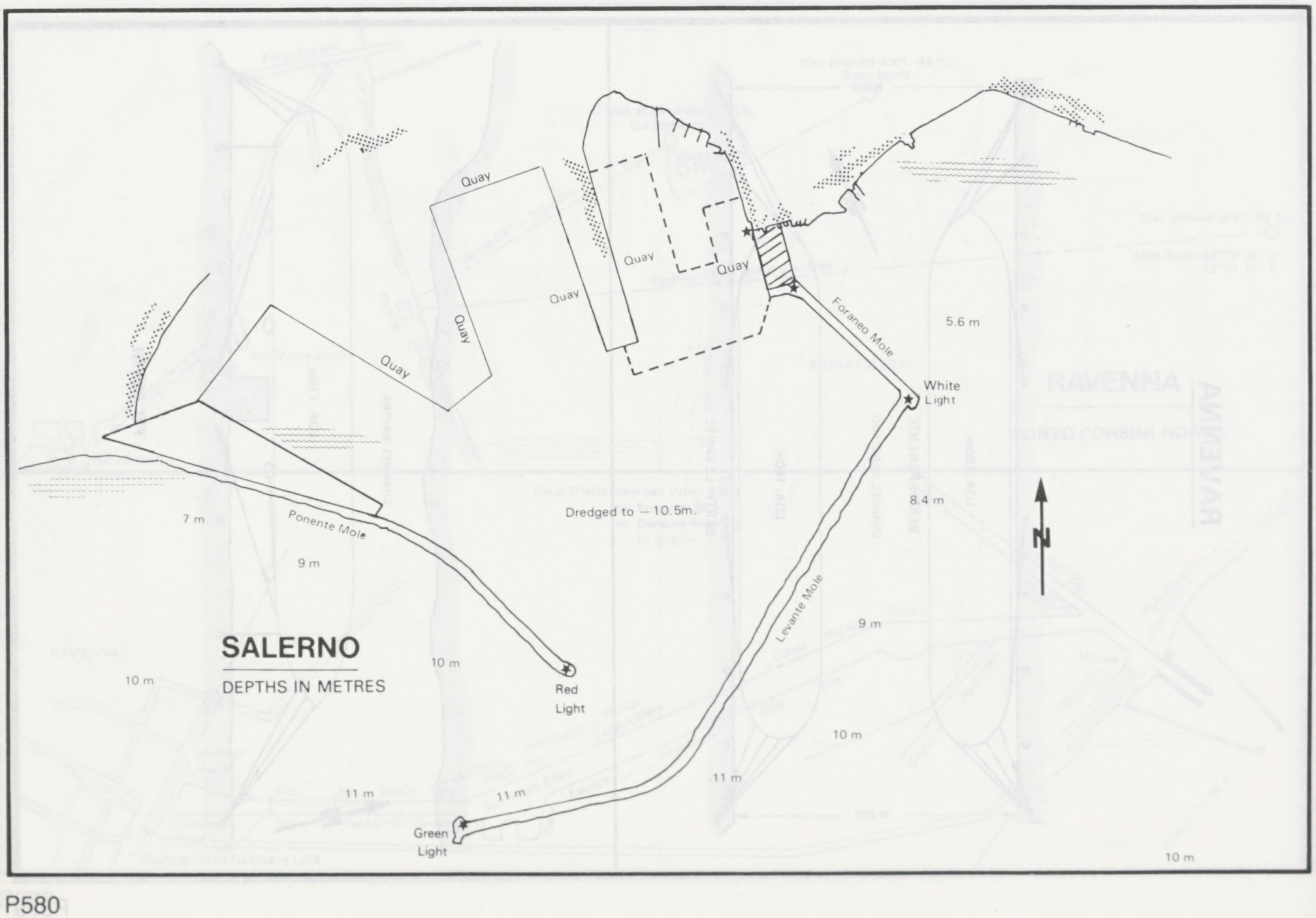

1
135 METERS
2
120 METERS
SEALINE Ø 16"
3
146 METERS
SEALINE Ø 24"
150 METERS
SEALINE Ø 16"
N

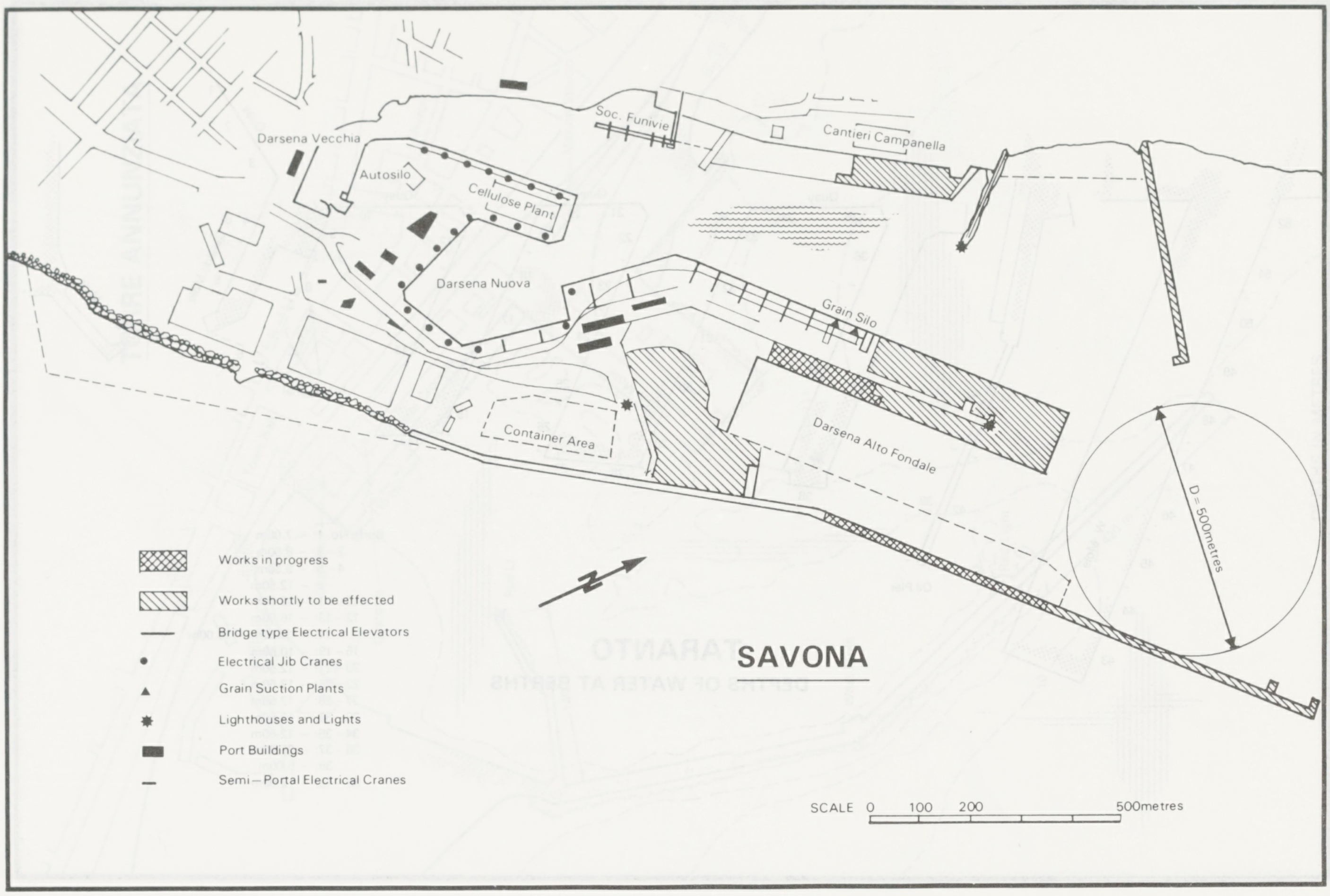
No. 1 Terminal – SAROM STEEL PLATFORM

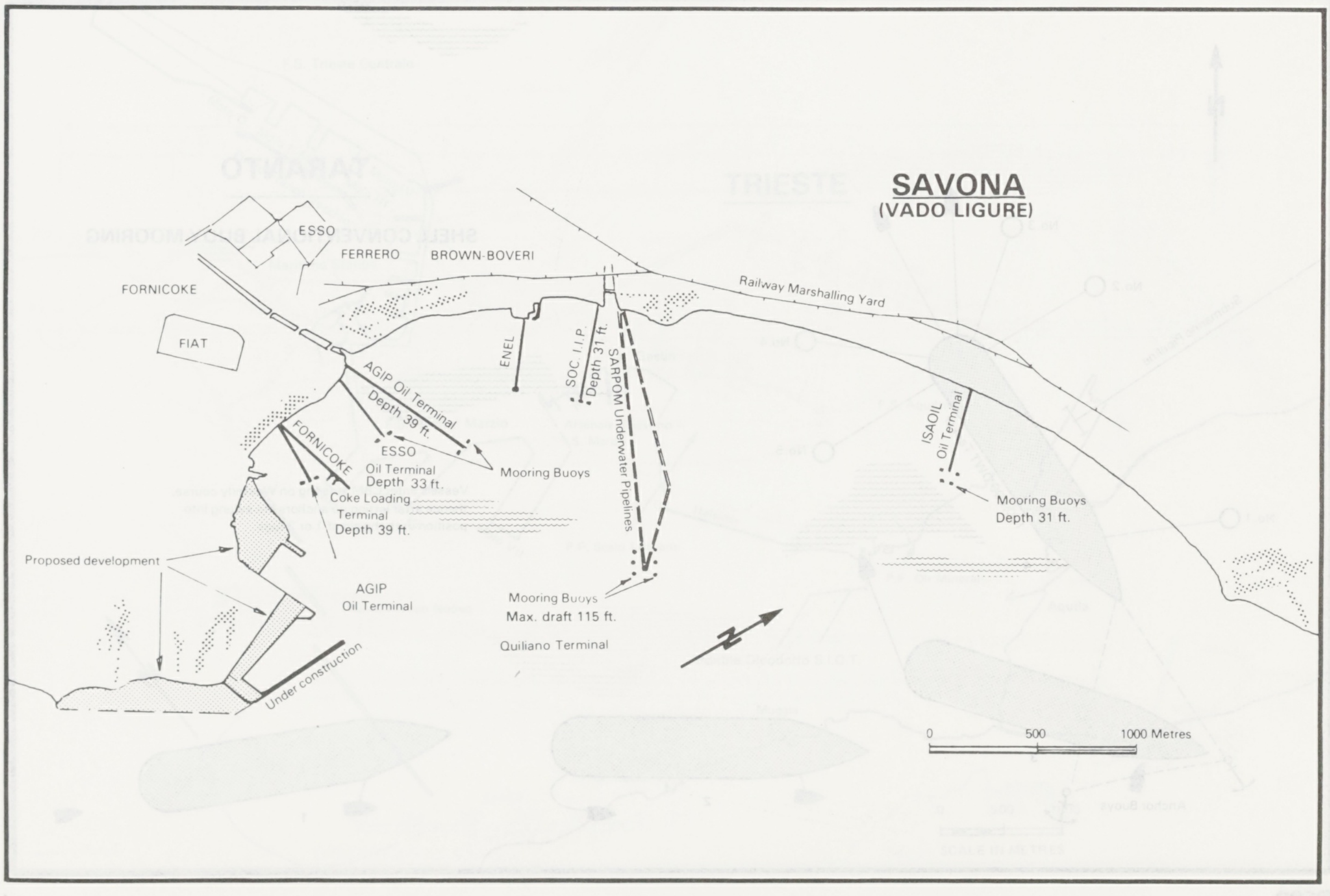

(WIRE BRACES)
(WIRE BRACES)
(BUOY)
(ANCHOR 10 TON
(MARKER BUOY)
(SHIPS ANCHORS)
TANKER 50,000 DWT
85 METERS
(MUSH ROOM ANCHORS BURIED)
(HOSES)
(OCEAN BUOY)
368.25 METERS
Ø 24"
Ø 24" SEALINE
(WIRE BRACES)
(WIRE BRACES)
N

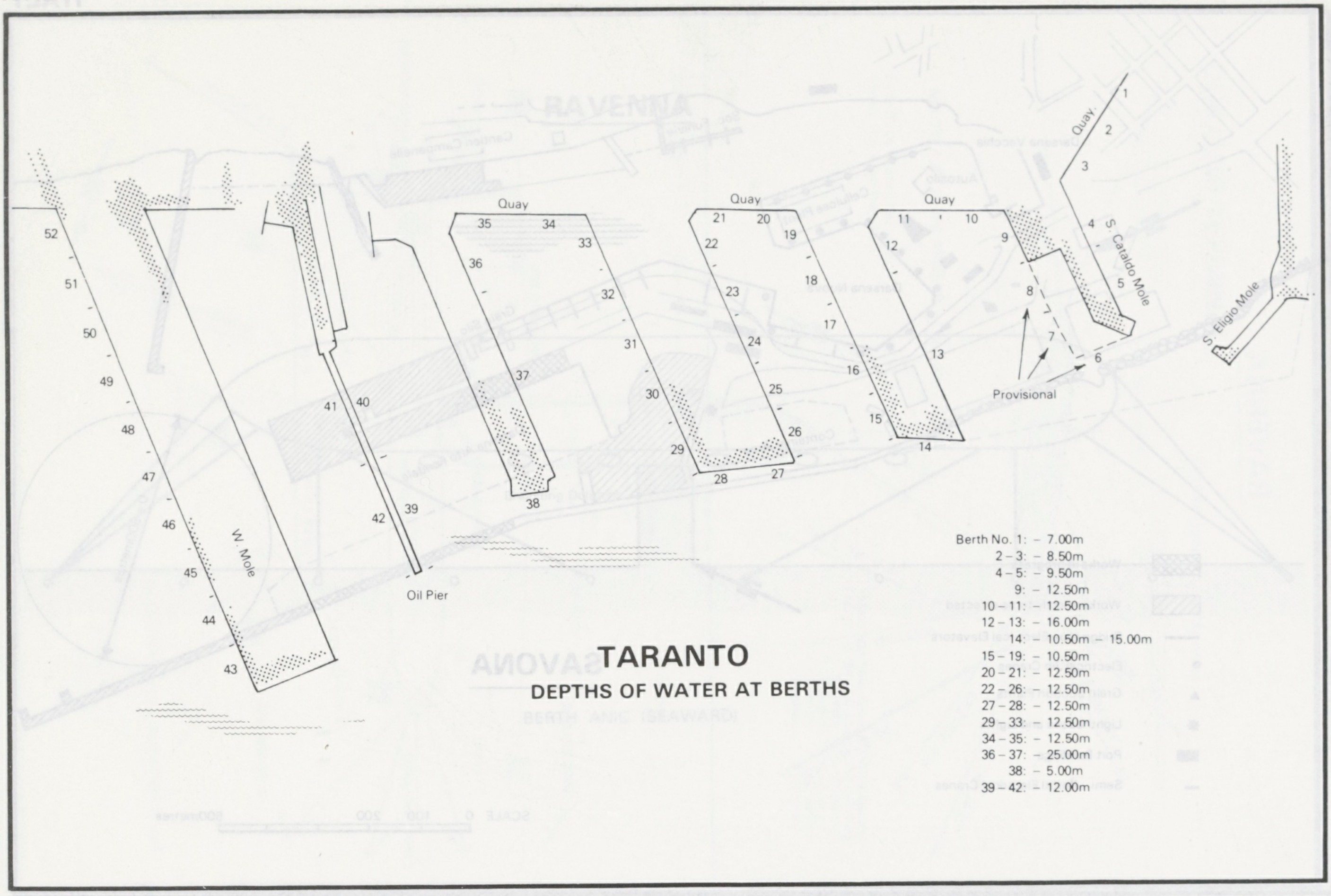
No. 3 TERMINAL – OCEAN BUOY


RAVENNA
LOA. 200m.
Breasting Dolphins
BERTH 'ANIC' (SEAWARD)


Quay
Quay
Quay
Quay
Quay
Quay
Quay
Foraneo Mole
5.6 m
White Light
7 m
Ponente Mole
Dredged to −10.5m.
8.4 m
N
9 m
SALERNO
DEPTHS IN METRES
10 m
10 m
Red Light
Levante Mole
9 m
10 m
11 m
11 m
11 m
Green Light
10 m


SAVONA
Darsena Vecchia
Autosilo
Cellulose Plant
Soc. Funivie
Cantieri Campanella
Darsena Nuova
Grain Silo
Container Area
Darsena Alto Fondale
D = 500metres
▩ Works in progress
▨ Works shortly to be effected
Bridge type Electrical Elevators
● Electrical Jib Cranes
▲ Grain Suction Plants
✸ Lighthouses and Lights
▬ Port Buildings
Semi – Portal Electrical Cranes
SCALE 0 100 200 500metres

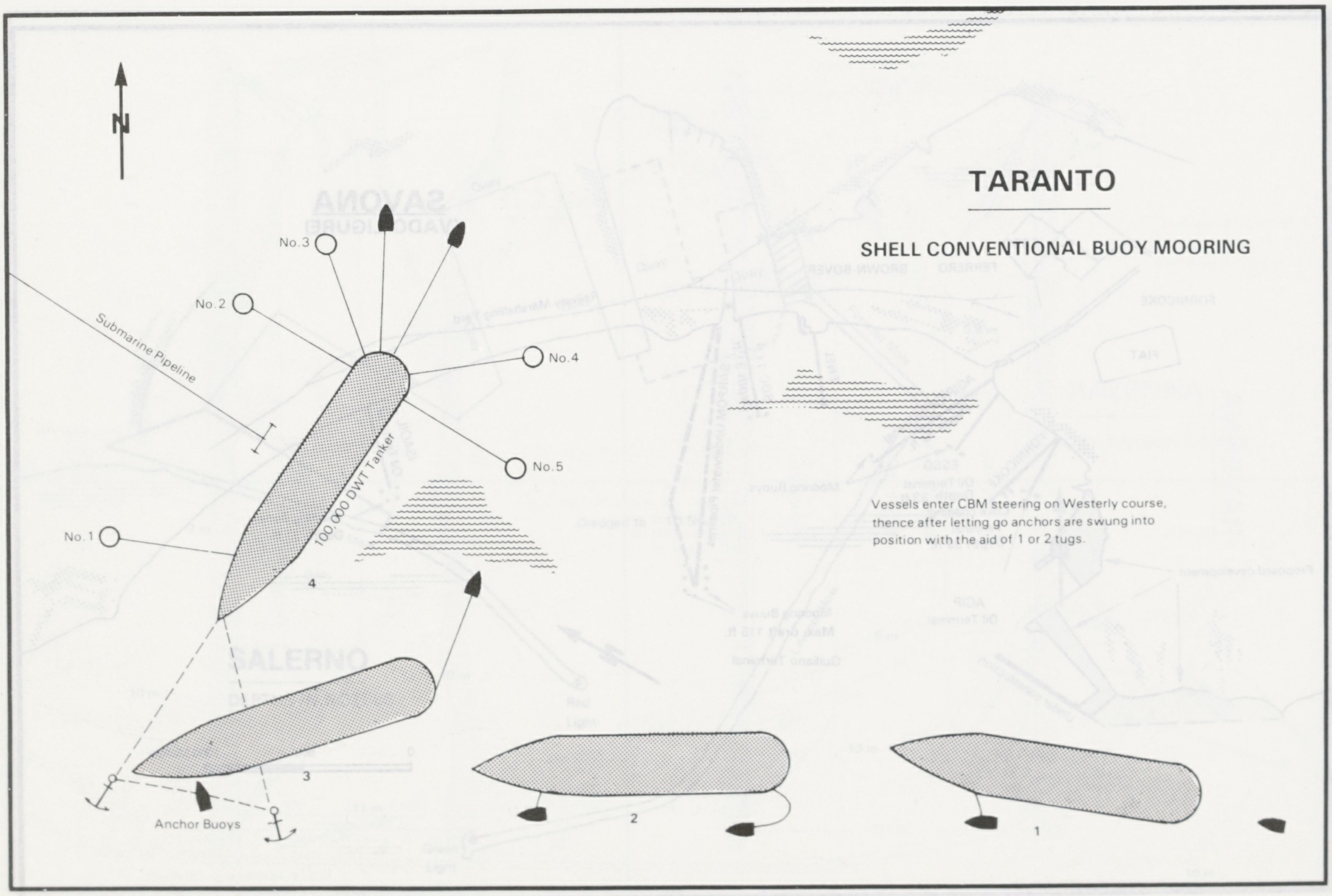

SAVONA
(VADO LIGURE)
ESSO
FERRERO
BROWN-BOVERI
FORNICOKE
FIAT
Railway Marshalling Yard
ENEL
SOC. I.I.P.
Depth 31 ft.
SARPOM Underwater Pipelines
AGIP Oil Terminal
Depth 39 ft.
FORNICOKE
ESSO
Oil Terminal
Depth 33 ft.
Coke Loading
Terminal
Depth 39 ft.
Mooring Buoys
ISAOIL
Oil Terminal
Mooring Buoys
Depth 31 ft.
Proposed development
AGIP
Oil Terminal
Mooring Buoys
Max. draft 115 ft.
Quiliano Terminal
Under construction
0 500 1000 Metres


Quay
Quay
Quay
Quay
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
S. Cataldo Mole
S. Eligio Mole
Provisional
W. Mole
Oil Pier

TARANTO

DEPTHS OF WATER AT BERTHS

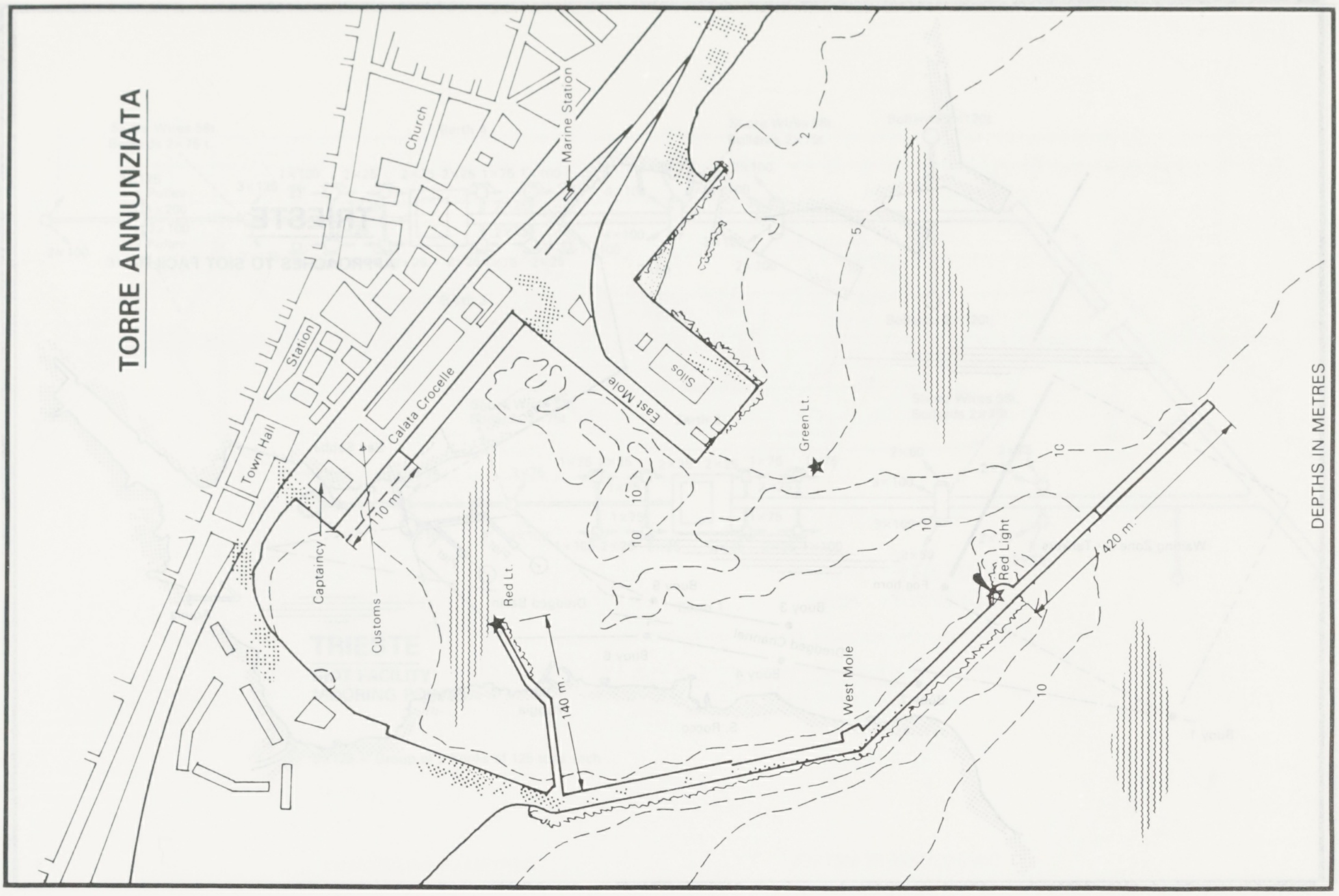
Berth No. 1: – 7.00m
2 – 3: – 8.50m
4 – 5: – 9.50m
9: – 12.50m
10 – 11: – 12.50m
12 – 13: – 16.00m
14: – 10.50m – 15.00m
15 – 19: – 10.50m
20 – 21: – 12.50m
22 – 26: – 12.50m
27 – 28: – 12.50m
29 – 33: – 12.50m
34 – 35: – 12.50m
36 – 37: – 25.00m
38: – 5.00m
39 – 42: – 12.00m

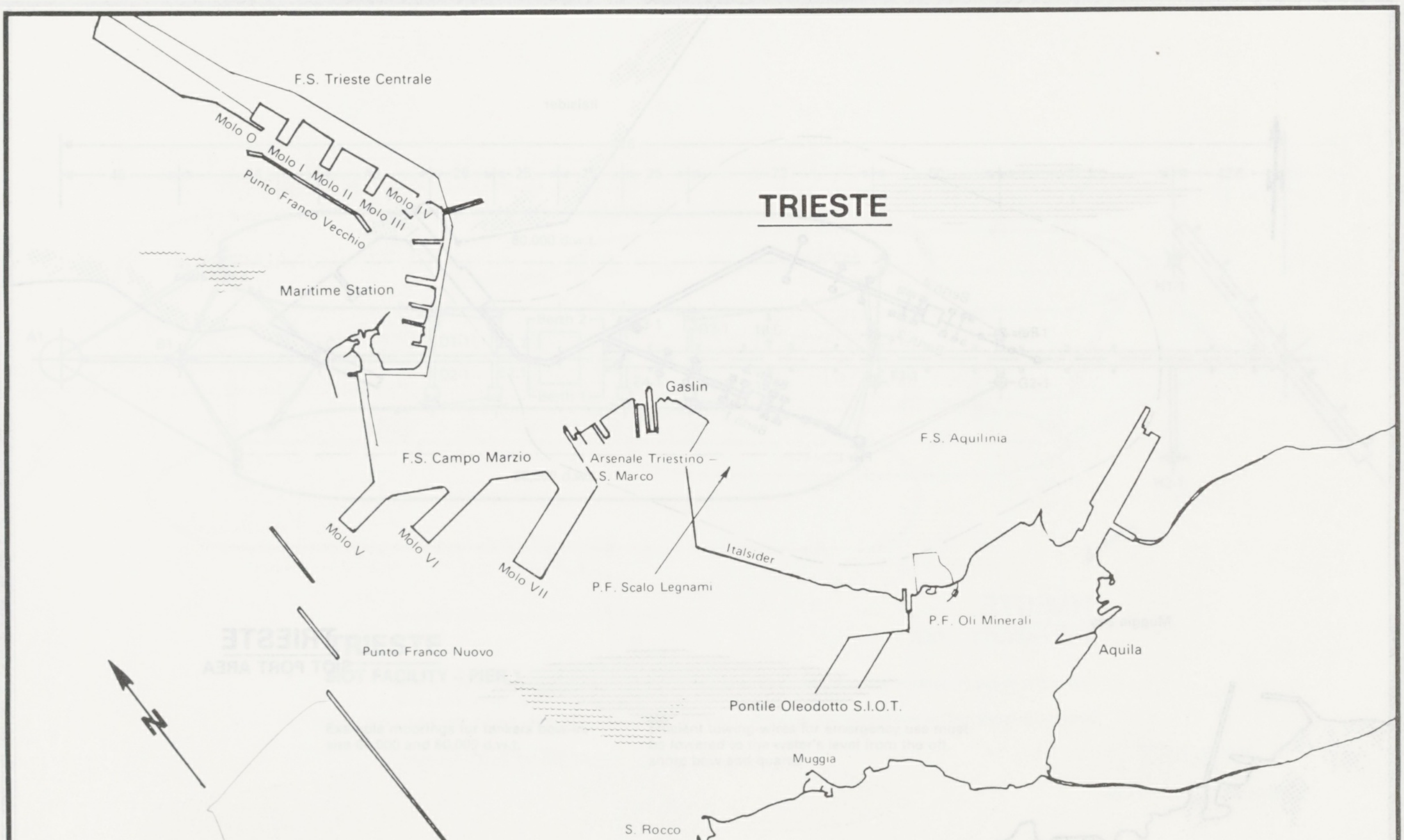

N
No. 1
No. 2
No. 3
No. 4
No. 5
Submarine Pipeline
100,000 DWT Tanker
4
3
2
1
Anchor Buoys

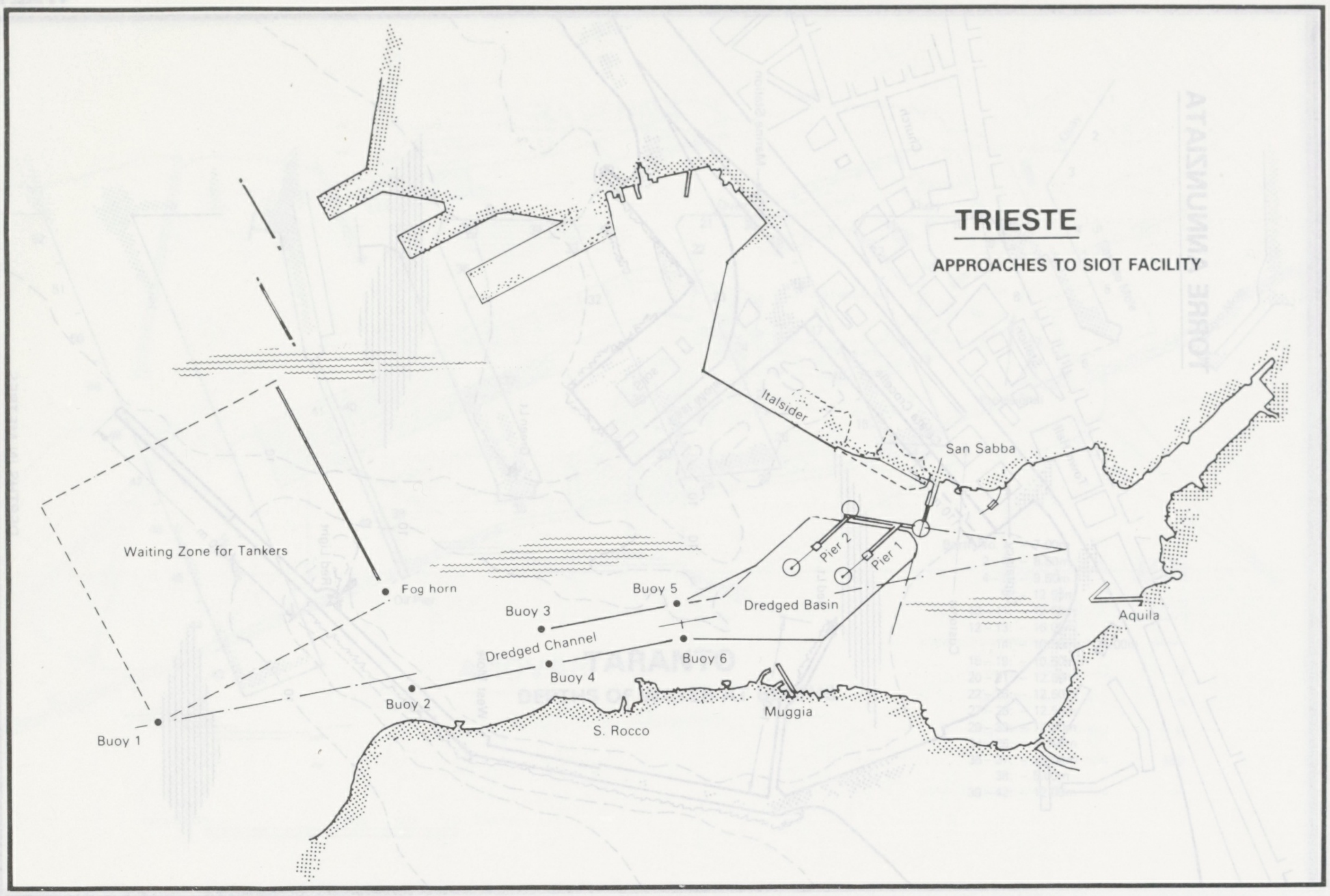
TARANTO

SHELL CONVENTIONAL BUOY MOORING

Vessels enter CBM steering on Westerly course, thence after letting go anchors are swung into position with the aid of 1 or 2 tugs.


TORRE ANNUNZIATA
Church
Marine Station
Station
Town Hall
Calata Crocelle
East Mole
Silos
Green Lt.
2
5
10
10
10
10
10
110 m.
Captaincy
Customs
Red Lt.
140 m.
West Mole
Red Light
420 m.
DEPTHS IN METRES

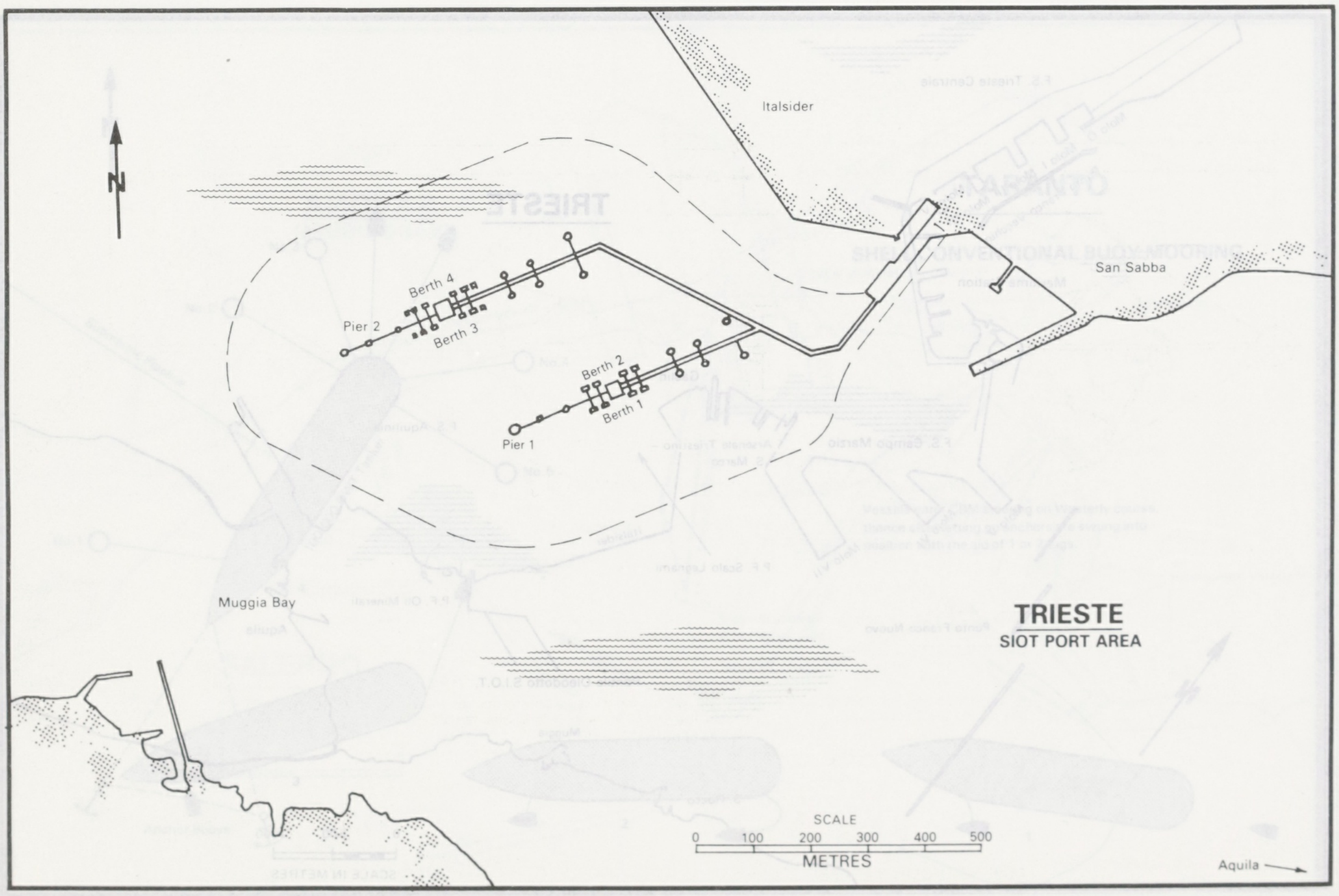

F.S. Trieste Centrale
Molo O
Molo I
Molo II
Molo III
Molo IV
Punto Franco Vecchio
Maritime Station
TRIESTE
Gaslin
F.S. Aquilinia
F.S. Campo Marzio
Arsenale Triestino – S. Marco
Molo V
Molo VI
Molo VII
Italsider
P.F. Scalo Legnami
P.F. Oli Minerali
Aquila
Punto Franco Nuovo
Pontile Oleodotto S.I.O.T.
Muggia
S. Rocco
N
0
500
1000
SCALE IN METRES



TRIESTE

APPROACHES TO SIOT FACILITY

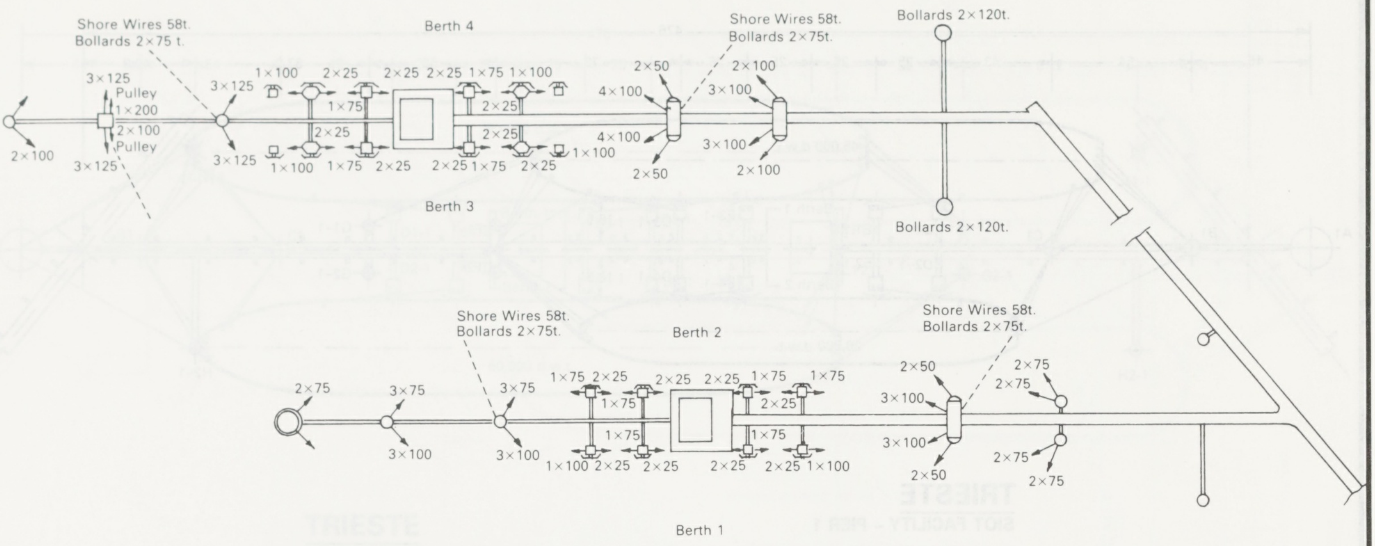
Italsider
San Sabba
Pier 2
Pier 1
Waiting Zone for Tankers
Fog horn
Buoy 5
Buoy 3
Dredged Basin
Aquila
Dredged Channel
Buoy 6
Buoy 4
Buoy 2
Muggia
S. Rocco
Buoy 1



TRIESTE

SIOT PORT AREA

N
Italsider
San Sabba
Berth 4
Berth 3
Pier 2
Berth 2
Berth 1
Pier 1
Muggia Bay
SCALE
0
100
200
300
400
500
METRES
Aquila

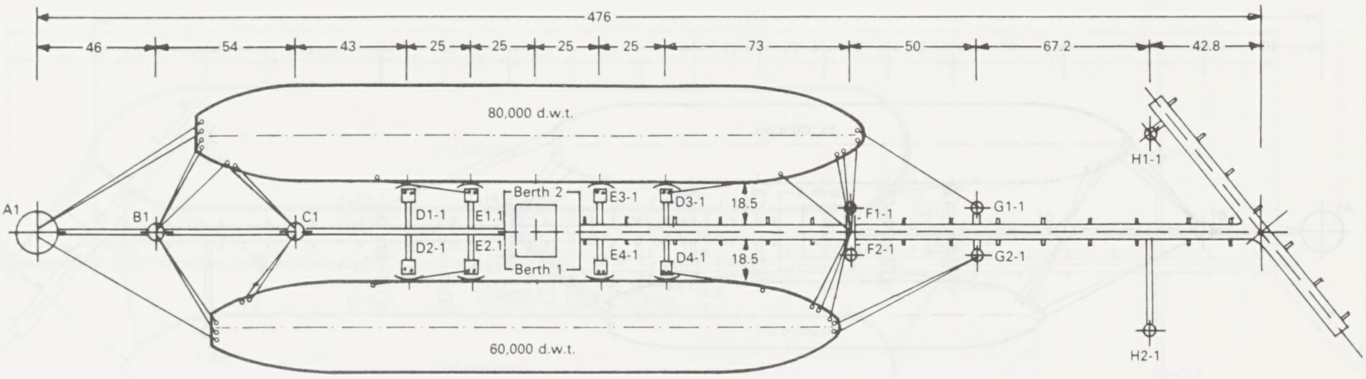

Shore Wires 58t.
Bollards 2×75 t.
Berth 4
Shore Wires 58t.
Bollards 2×75t.
Bollards 2×120t.
3×125
Pulley
1×200
2×100
Pulley
3×125
2×100
3×125
3×125
1×100
2×25
2×25
2×25
1×75
1×100
1×75
2×25
2×25
2×25
1×100
1×75
2×25
2×25
1×75
2×25
1×100
2×50
4×100
4×100
2×50
2×100
3×100
3×100
2×100
Berth 3
Bollards 2×120t.
Shore Wires 58t.
Bollards 2×75t.
Berth 2
Shore Wires 58t.
Bollards 2×75t.
2×75
3×75
3×75
3×100
3×100
1×75
2×25
1×75
2×25
2×25
1×75
1×75
2×25
1×75
1×75
1×100
2×25
2×25
2×25
2×25
1×100
2×50
3×100
3×100
2×50
2×75
2×75
2×75
2×75
Berth 1

TRIESTE

SIOT FACILITY

MOORING POINTS

3×125 = Group of 3 hooks of 125 tons each


476
46
54
43
25
25
25
25
73
50
67.2
42.8
80,000 d.w.t.
A1
B1
C1
D1-1
E1.1
Berth 2
E3-1
D3-1
18.5
F1-1
G1-1
H1-1
D2-1
E2.1
Berth 1
E4-1
D4-1
18.5
F2-1
G2-1
H2-1
60,000 d.w.t.

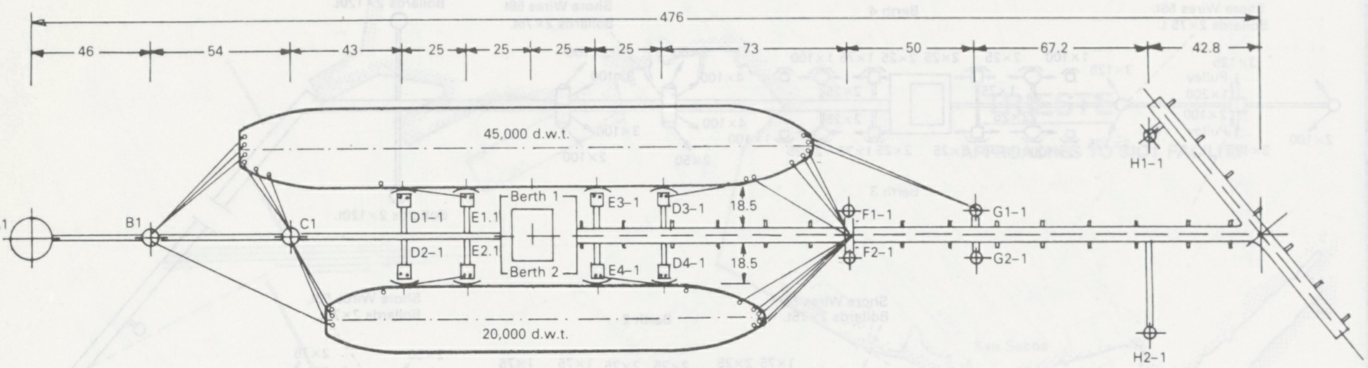
TRIESTE

SIOT FACILITY – PIER 1

Example moorings for tankers bow-in, size 60,000 and 80,000 d.w.t.

Efficient towing-wires for emergency use must be lowered to the water's level from the off shore bow and quarter.

DIMENSIONS IN METRES


476
46
54
43
25
25
25
25
73
50
67.2
42.8
45,000 d.w.t.
A1
B1
C1
D1–1
E1.1
Berth 1
E3–1
D3–1
18.5
F1–1
G1–1
H1–1
D2–1
E2.1
Berth 2
E4–1
D4–1
18.5
F2–1
G2–1
H2–1
20,000 d.w.t.

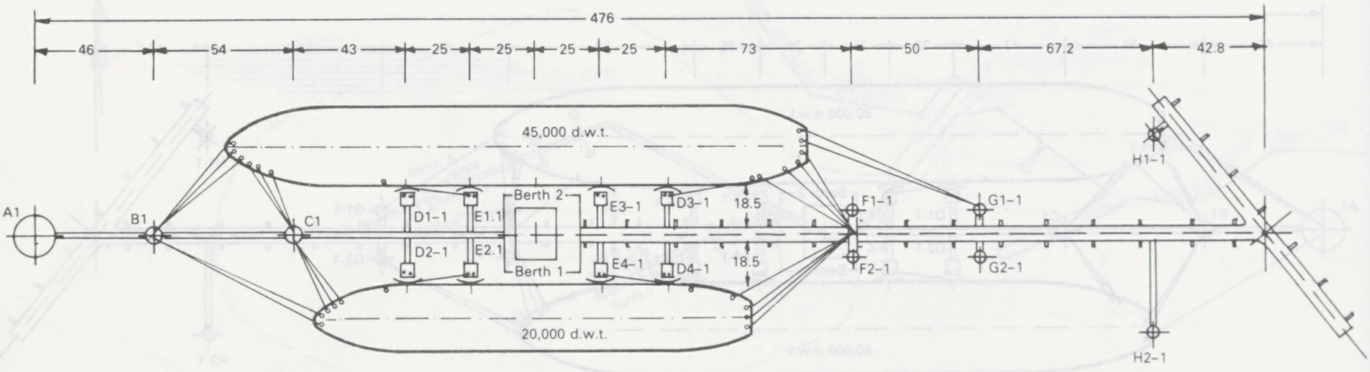
TRIESTE

SIOT FACILITY – PIER 1

Moorings for tankers bow-in, size 20,000 and 45,000 d.w.t.

Efficient towing-wires for emergency use must be lowered to the water's level from the off shore bow and quarter.

DIMENSIONS IN METRES


476
46
54
43
25
25
25
25
73
50
67.2
42.8
45,000 d.w.t.
H1–1
A1
B1
C1
D1–1
E1.1
Berth 2
E3–1
D3–1
18.5
F1–1
G1–1
D2–1
E2.1
Berth 1
E4–1
D4–1
18.5
F2–1
G2–1
20,000 d.w.t.
H2–1

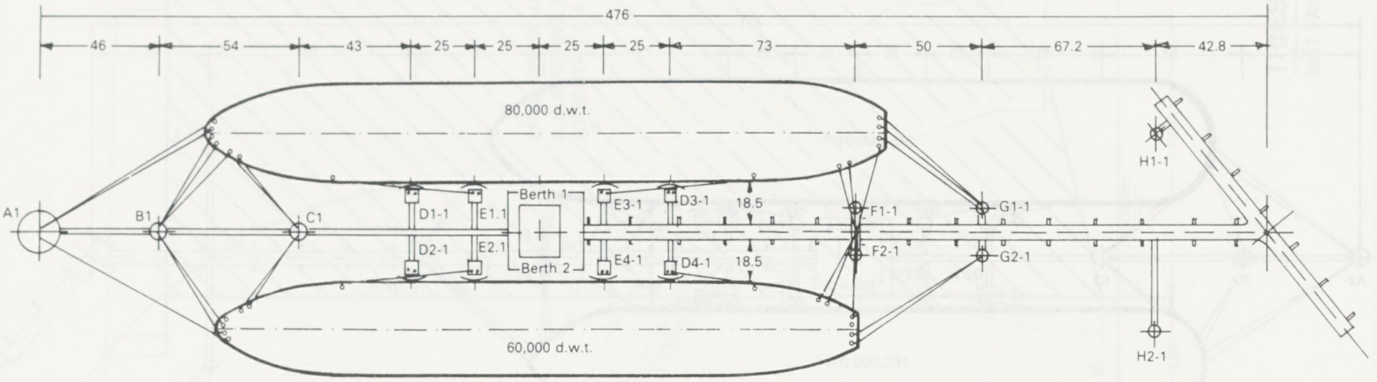
TRIESTE

SIOT FACILITY – PIER 1

Example mooring for tankers bow-out, size 20,000 and 45,000 d.w.t.

Efficient towing-wires for emergency use must be lowered to the water's level from the off shore bow and quarter

DIMENSIONS IN METRES


476
46
54
43
25
25
25
25
73
50
67.2
42.8
80,000 d.w.t.
A1
B1
C1
D1-1
D2-1
E1.1
E2.1
Berth 1
Berth 2
E3-1
E4-1
D3-1
D4-1
18.5
18.5
F1-1
F2-1
G1-1
G2-1
H1-1
H2-1
60,000 d.w.t.

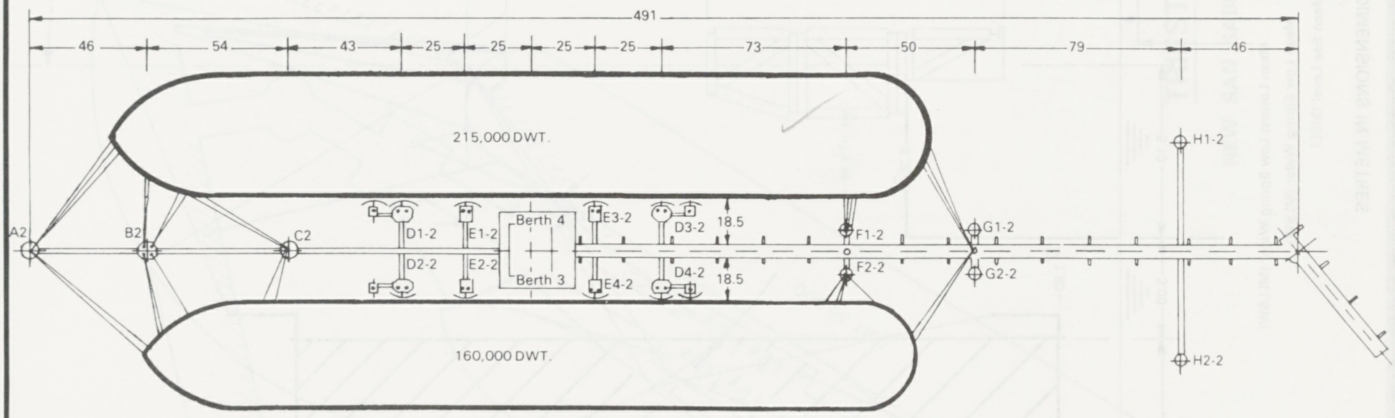
TRIESTE

SIOT FACILITY – PIER 1

Example moorings for tankers bow-out, size 60,000 and 80,000 d.w.t.

Efficient towing-wires for emergency use must be lowered to the water's level from the off shore bow and quarter.

DIMENSIONS IN METRES


491
46
54
43
25
25
25
25
73
50
79
46
215,000 DWT.
A2
B2
C2
D1-2
D2-2
E1-2
E2-2
Berth 4
Berth 3
E3-2
E4-2
D3-2
D4-2
18.5
18.5
F1-2
F2-2
G1-2
G2-2
H1-2
H2-2
160,000 DWT.

Example moorings for tankers bow-out

Efficient towing-wires for emergency use must be lowered to the water's level from the off shore bow and quarter.

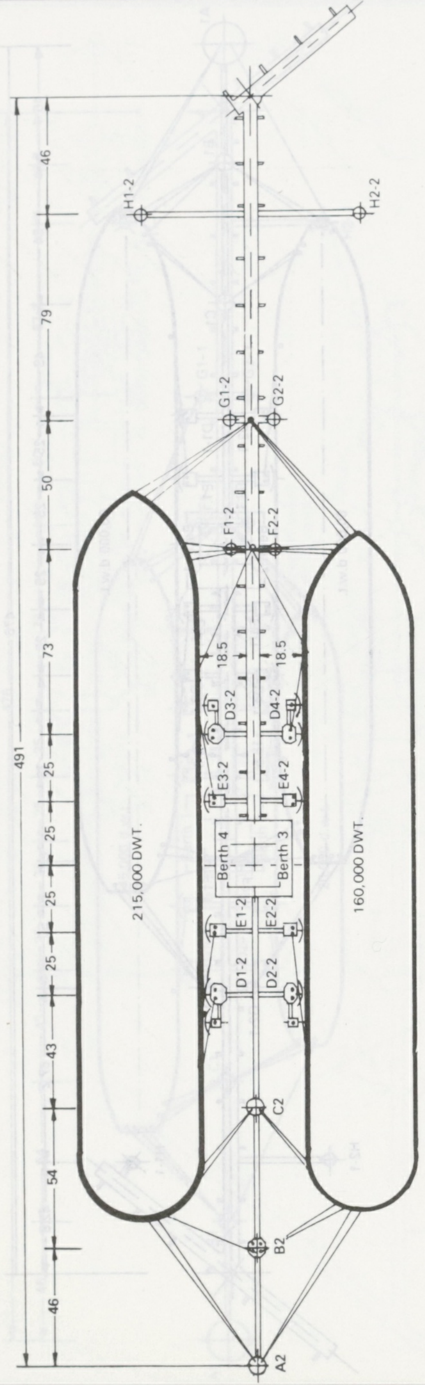
DIMENSIONS IN METRES

TRIESTE

SIOT FACILITY – PIER 2

TRIESTE

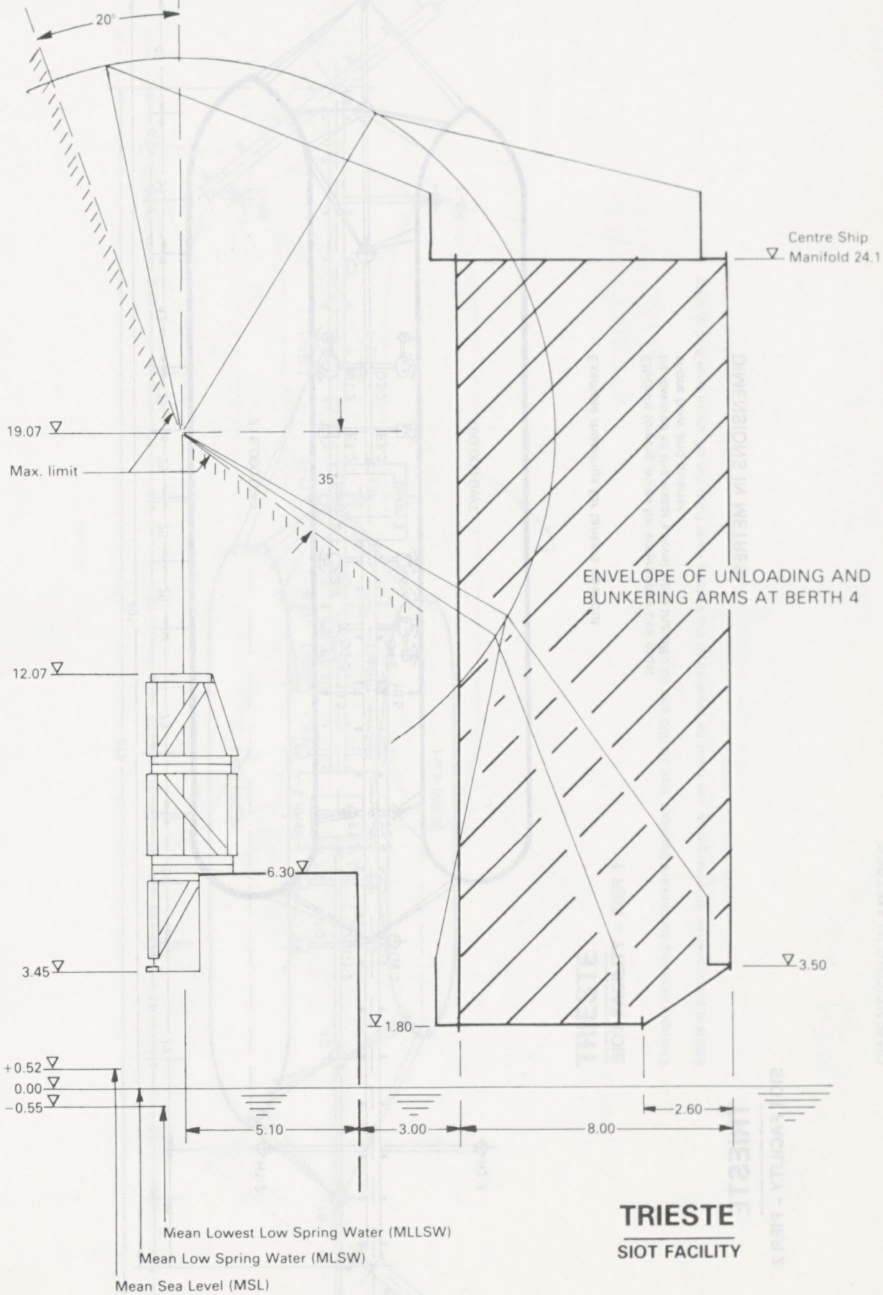
SIOT FACILITY – PIER 2


491
46
79
50
73
25
25
25
25
43
54
46
H1-2
H2-2
G1-2
G2-2
F1-2
F2-2
18.5
18.5
D3-2
D4-2
E3-2
E4-2
Berth 4
Berth 3
E1-2
E2-2
D1-2
D2-2
215,000 DWT.
160,000 DWT.
C2
B2
A2

Example moorings for tankers bow-in

Efficient towing-wires for emergency use must be lowered to the water's level from the off shore bow and quarter.

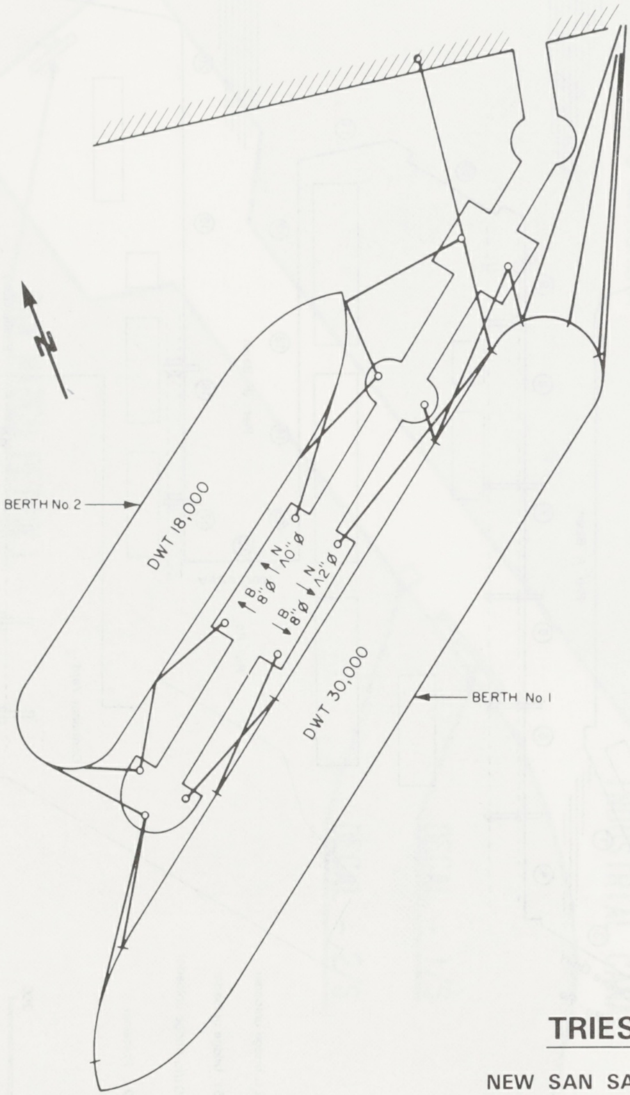
DIMENSIONS IN METRES


20°
Centre Ship Manifold 24.1
19.07
Max. limit
35°
ENVELOPE OF UNLOADING AND BUNKERING ARMS AT BERTH 4
12.07
6.30
3.45
3.50
1.80
+0.52
0.00
−0.55
5.10
3.00
8.00
2.60
Mean Lowest Low Spring Water (MLLSW)
Mean Low Spring Water (MLSW)
Mean Sea Level (MSL)

DIMENSIONS IN METRES

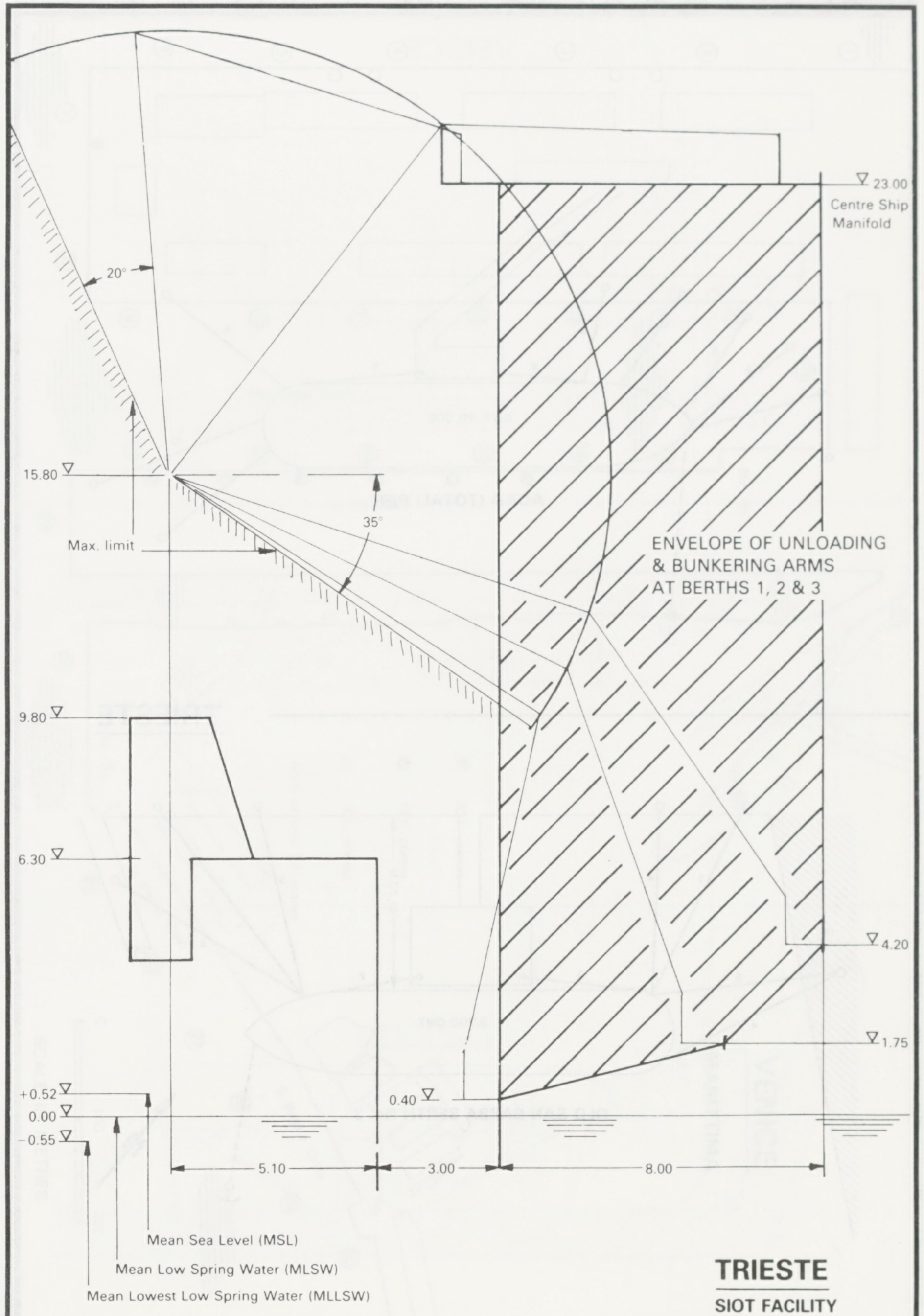
TRIESTE

SIOT FACILITY


N
BERTH No 2
DWT 18,000
B. 8" Ø
N. 10" Ø
B. 8" Ø
N. 12" Ø
DWT 30,000
BERTH No I

TRIESTE

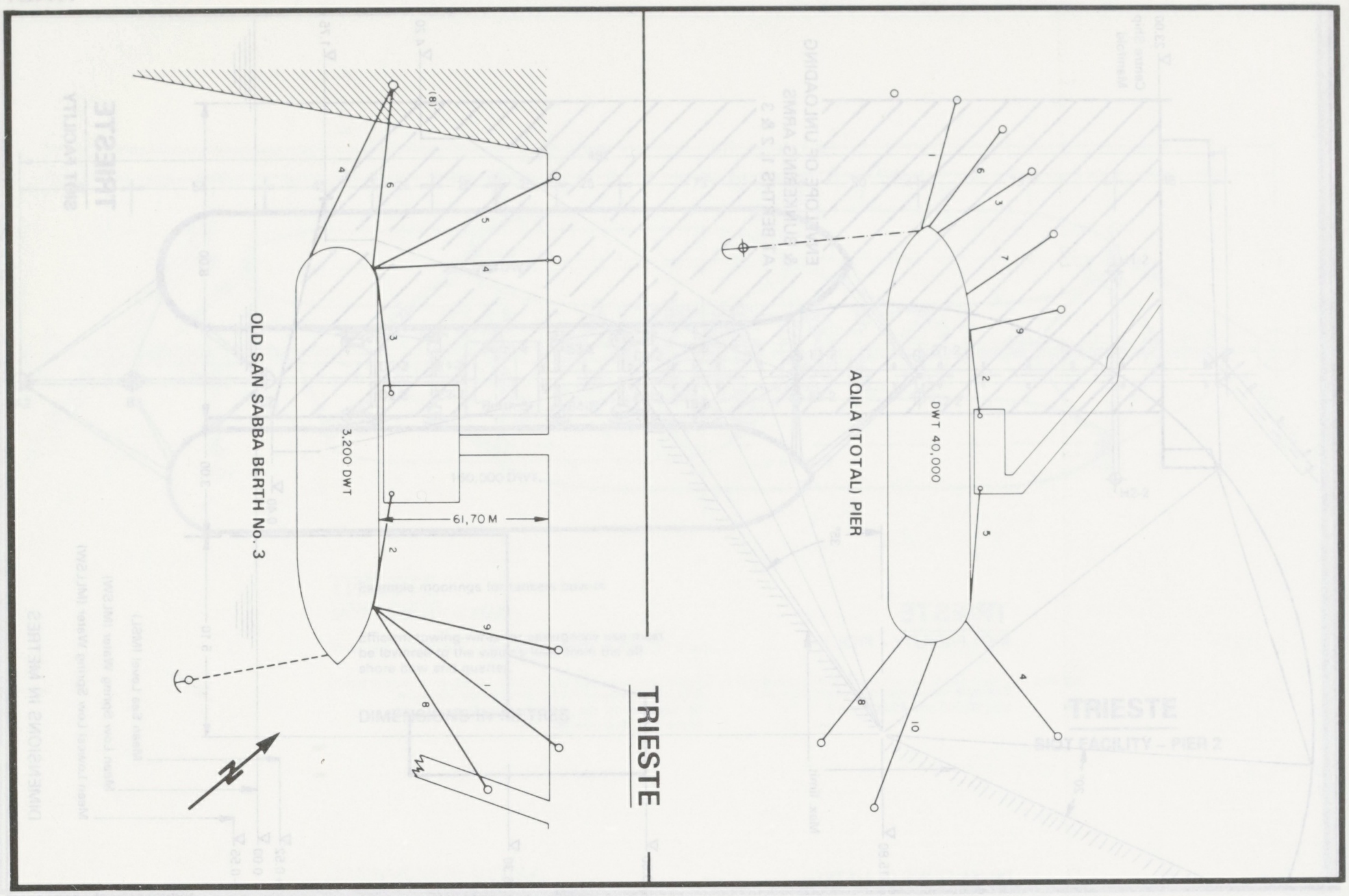
NEW SAN SABBA PIER

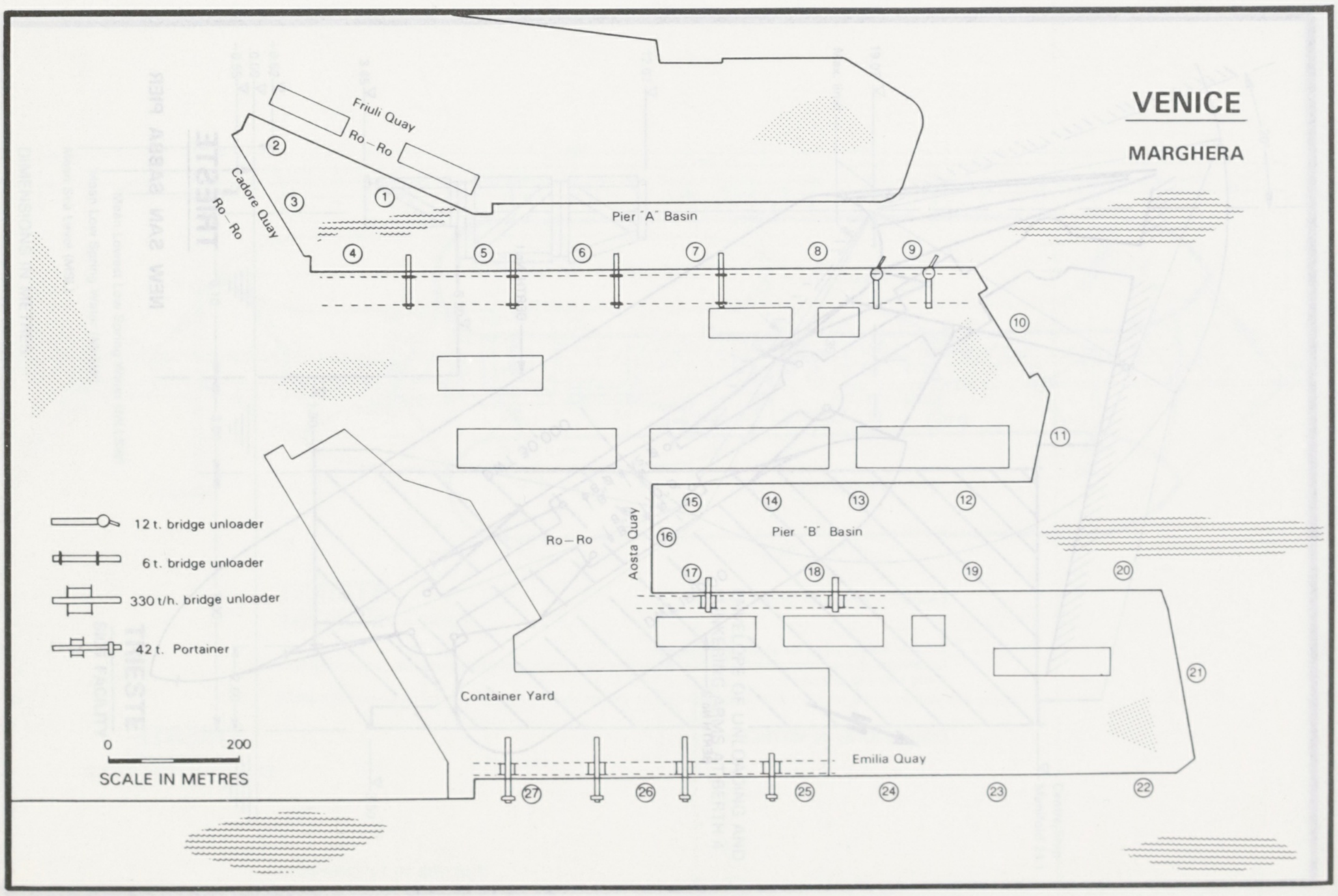

23.00
Centre Ship Manifold
20°
15.80
35°
Max. limit
ENVELOPE OF UNLOADING & BUNKERING ARMS AT BERTHS 1, 2 & 3
9.80
6.30
4.20
1.75
+0.52
0.00
−0.55
0.40
5.10
3.00
8.00
Mean Sea Level (MSL)
Mean Low Spring Water (MLSW)
Mean Lowest Low Spring Water (MLLSW)

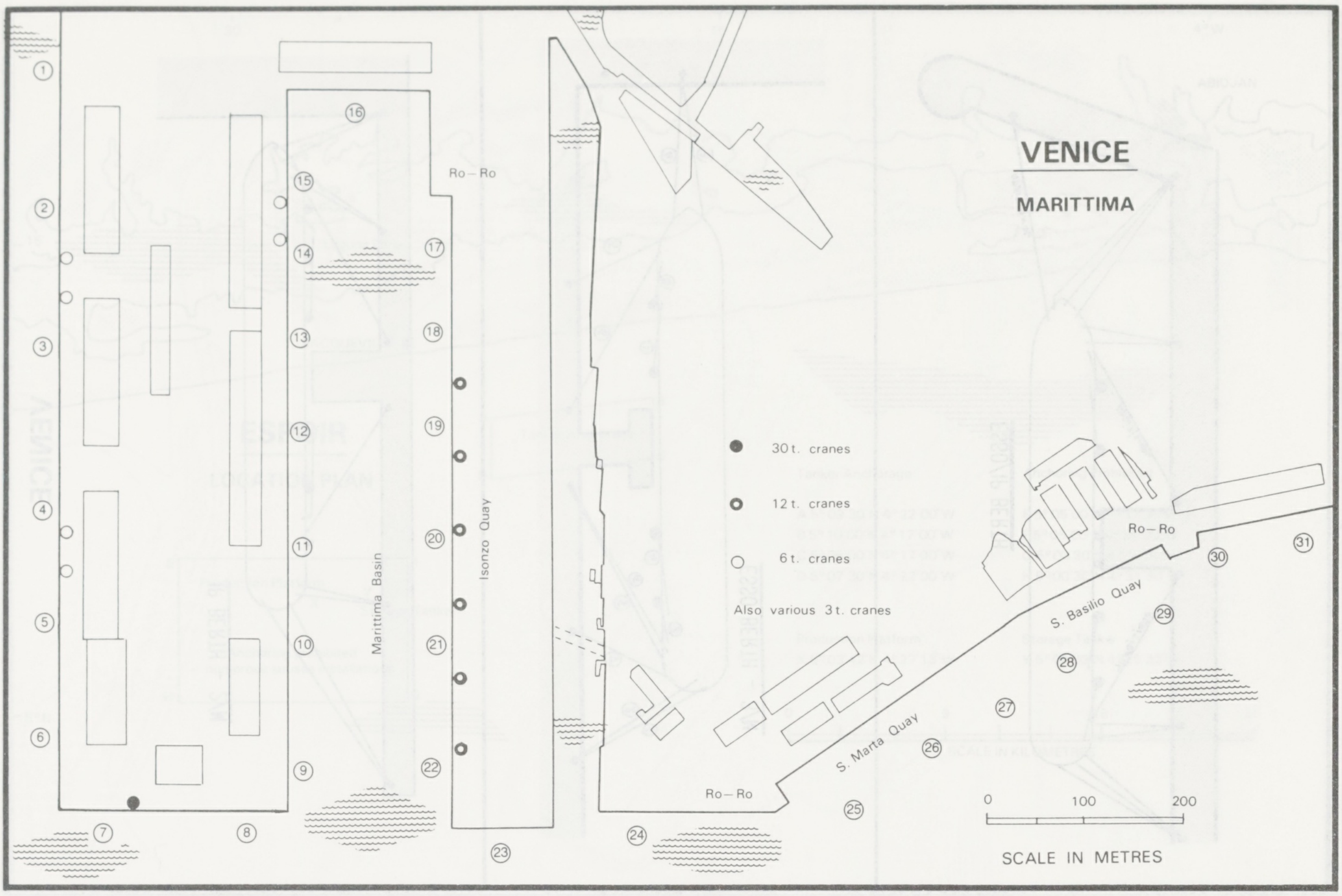
DIMENSIONS IN METRES

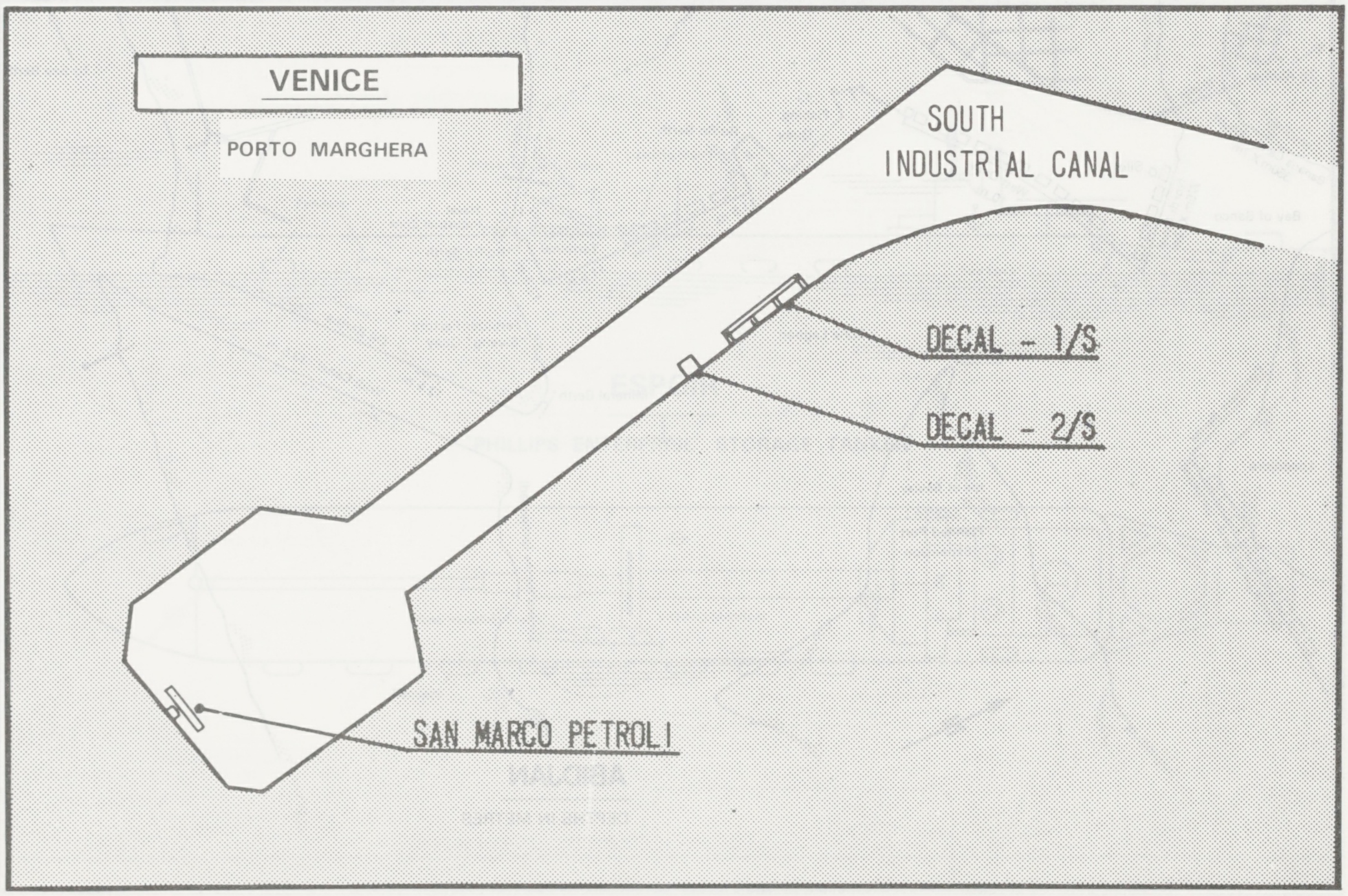
TRIESTE

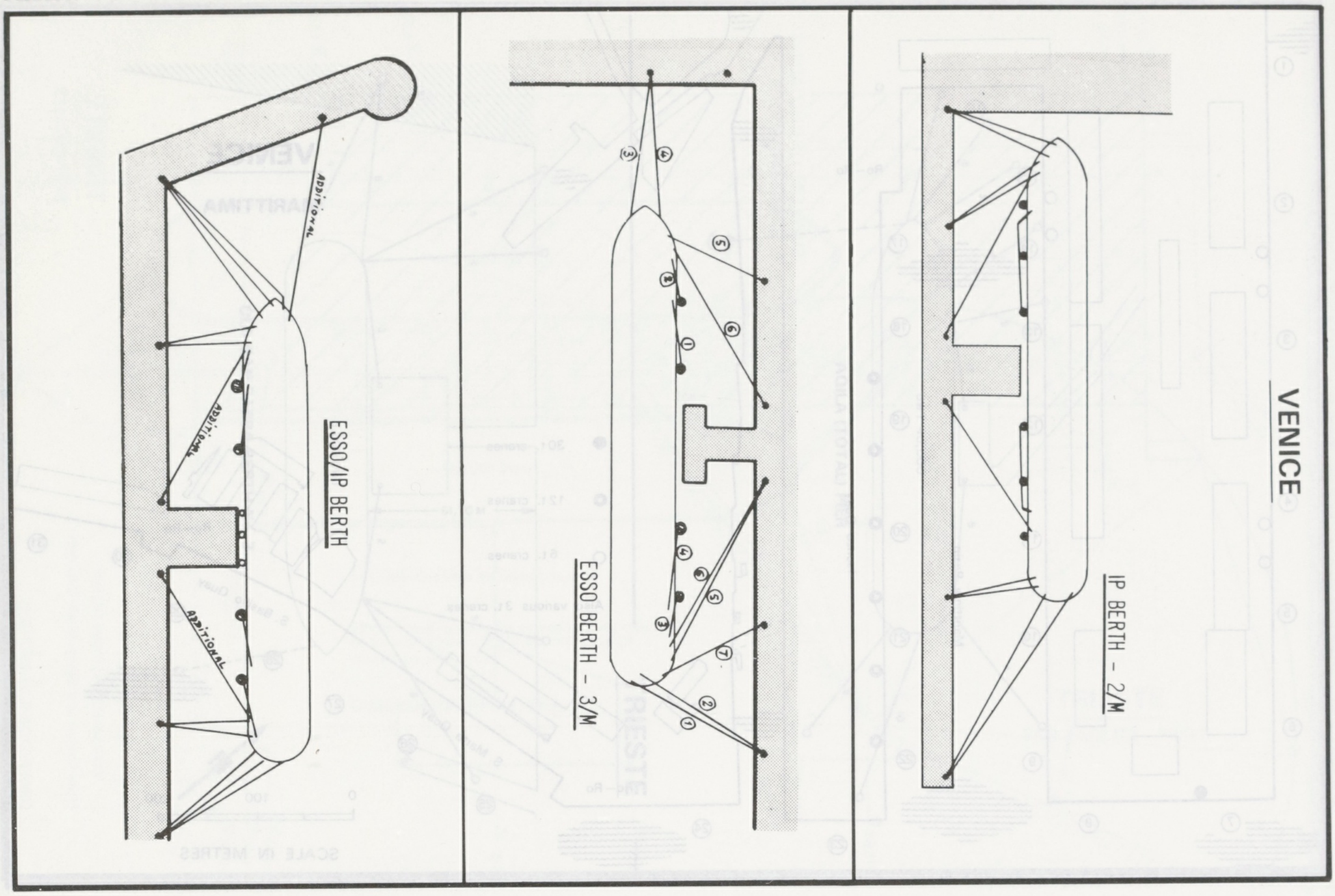
SIOT FACILITY

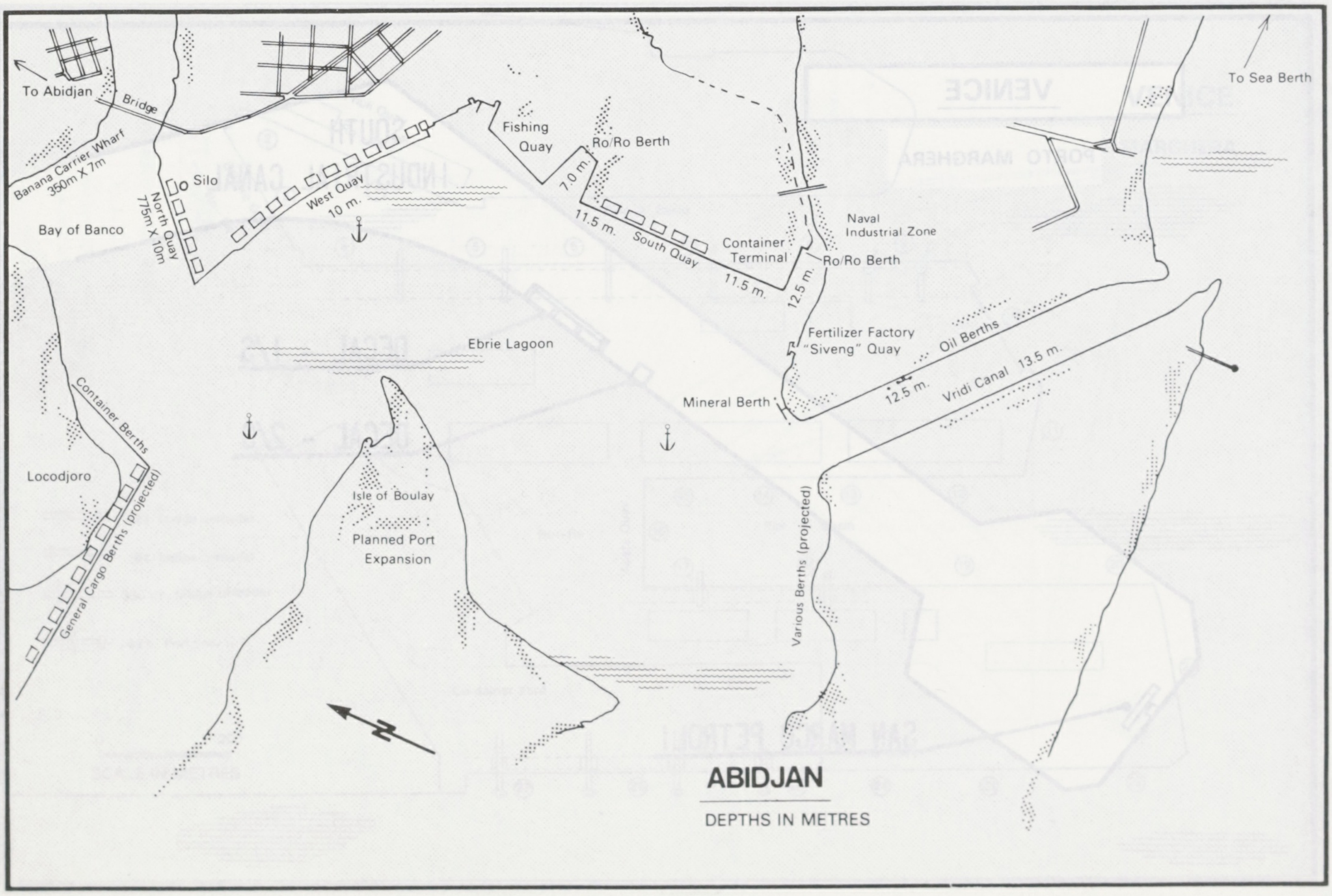

TRIESTE
OLD SAN SABBA BERTH No. 3
3,200 DWT
61,70 M
(8)
1
2
3
4
5
6
7
8
9
N
AQUILA (TOTAL) PIER
DWT 40,000
1
2
3
4
5
6
7
8
9
10

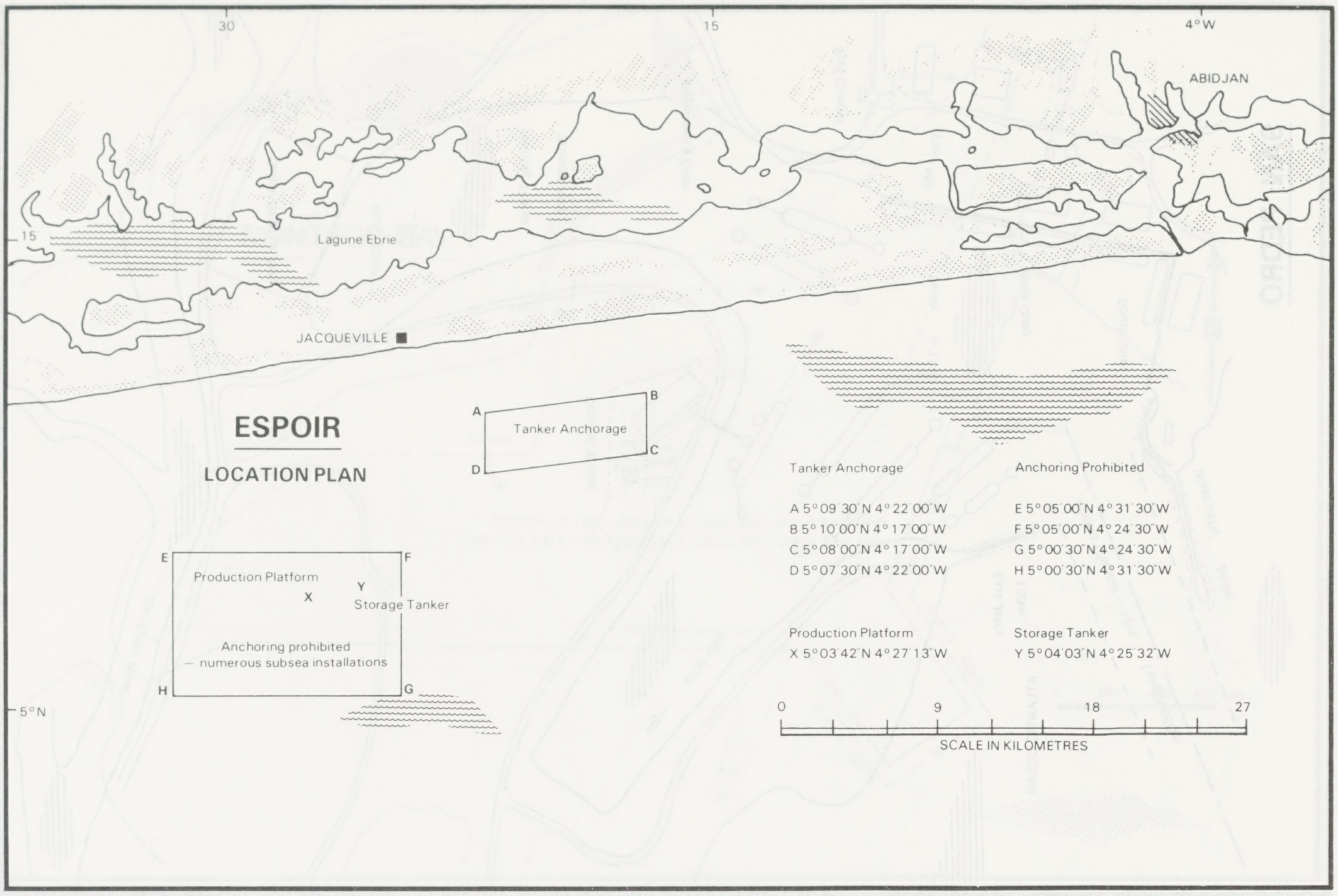

VENICE
MARGHERA
Friuli Quay
Ro – Ro
Cadore Quay
Ro – Ro
Pier "A" Basin
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
Aosta Quay
Ro – Ro
Pier "B" Basin
⑰
⑱
⑲
⑳
㉑
Container Yard
Emilia Quay
㉒
㉓
㉔
㉕
㉖
㉗
12 t. bridge unloader
6 t. bridge unloader
330 t/h. bridge unloader
42 t. Portainer
0
200
SCALE IN METRES


VENICE
MARITTIMA
Ro–Ro
Ro–Ro
Ro–Ro
Marittima Basin
Isonzo Quay
S. Marta Quay
S. Basilio Quay
● 30 t. cranes
◉ 12 t. cranes
○ 6 t. cranes
Also various 3 t. cranes
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
0
100
200
SCALE IN METRES


VENICE
PORTO MARGHERA
SOUTH INDUSTRIAL CANAL
DECAL - 1/S
DECAL - 2/S
SAN MARCO PETROLI


VENICE
ESSO/IP BERTH
ADDITIONAL
ADDITIONAL
ADDITIONAL
ESSO BERTH – 3/M
IP BERTH – 2/M
1
2
3
4
5
6
7


To Abidjan
Bridge
Banana Carrier Wharf 350m X 7m
Silo
North Quay 775m X 10m
West Quay 10 m.
Bay of Banco
Fishing Quay
Ro/Ro Berth
7.0 m.
11.5 m.
South Quay
Container Terminal
11.5 m.
12.5 m.
Ro/Ro Berth
Naval Industrial Zone
To Sea Berth
Ebrie Lagoon
Fertilizer Factory "Siveng" Quay
Oil Berths
12.5 m.
Vridi Canal 13.5 m.
Mineral Berth
Container Berths
Locodjoro
General Cargo Berths (projected)
Isle of Boulay
Planned Port Expansion
Various Berths (projected)
ABIDJAN
DEPTHS IN METRES


30
15
4°W
15
5°N
ABIDJAN
Lagune Ebrie
JACQUEVILLE
A
B
C
D
Tanker Anchorage
E
F
G
H
Production Platform
X
Y
Storage Tanker
Anchoring prohibited
– numerous subsea installations
0
9
18
27
SCALE IN KILOMETRES

ESPOIR

LOCATION PLAN

Tanker Anchorage

A 5° 09' 30"N 4° 22' 00"W
B 5° 10' 00"N 4° 17' 00"W
C 5° 08' 00"N 4° 17' 00"W
D 5° 07' 30"N 4° 22' 00"W

Anchoring Prohibited

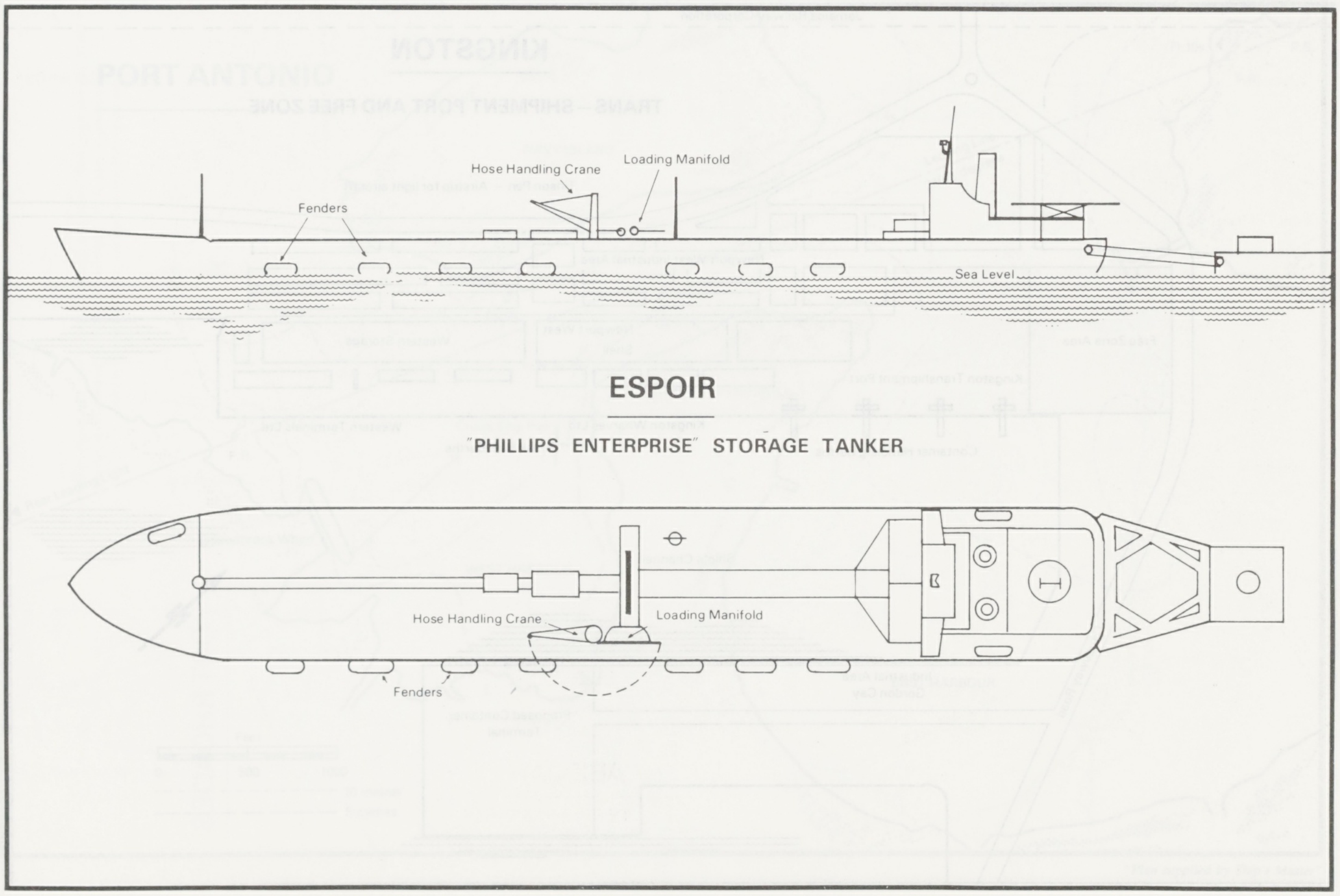
E 5° 05' 00"N 4° 31' 30"W
F 5° 05' 00"N 4° 24' 30"W
G 5° 00' 30"N 4° 24' 30"W
H 5° 00' 30"N 4° 31' 30"W

Production Platform

X 5° 03' 42"N 4° 27' 13"W

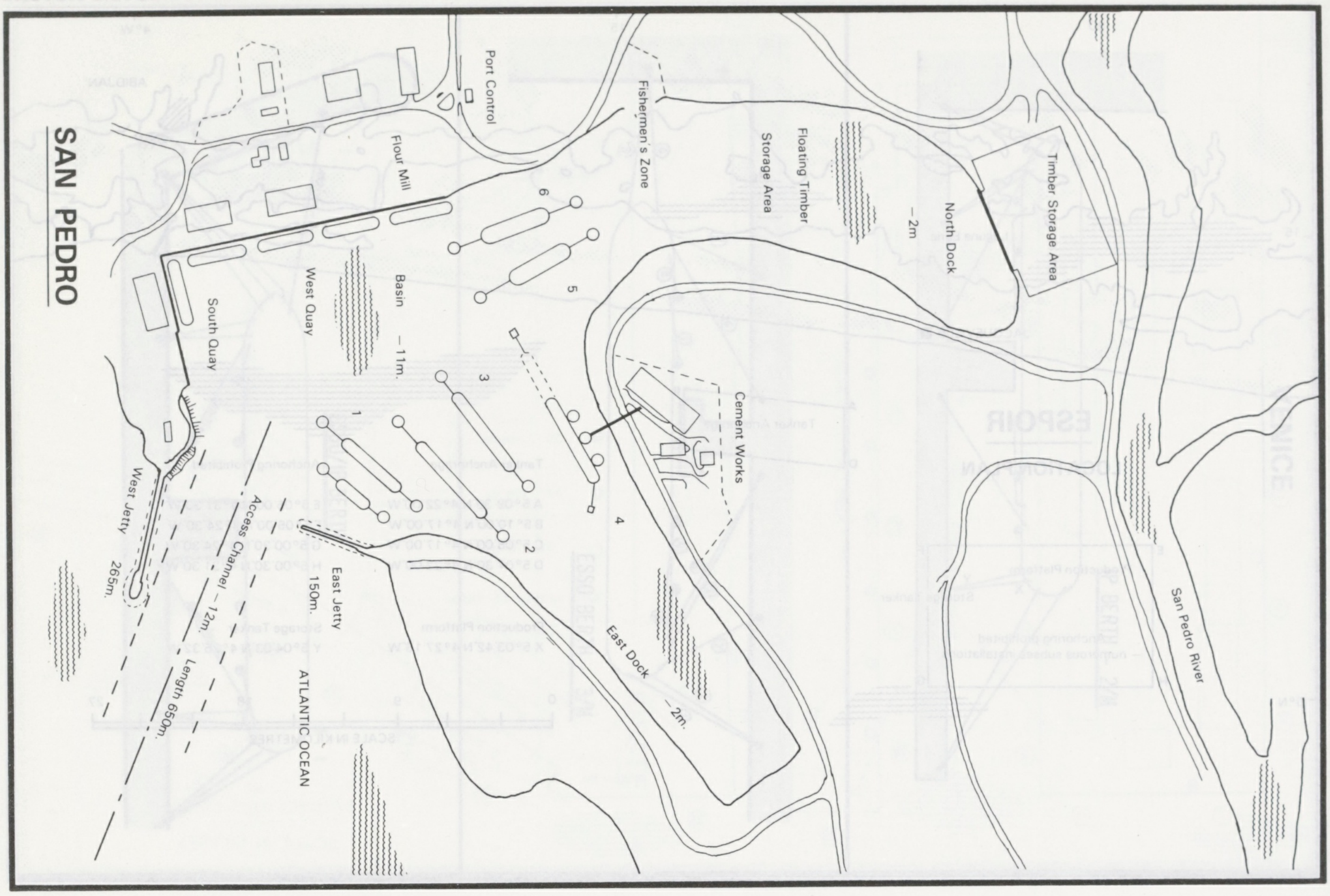
Storage Tanker

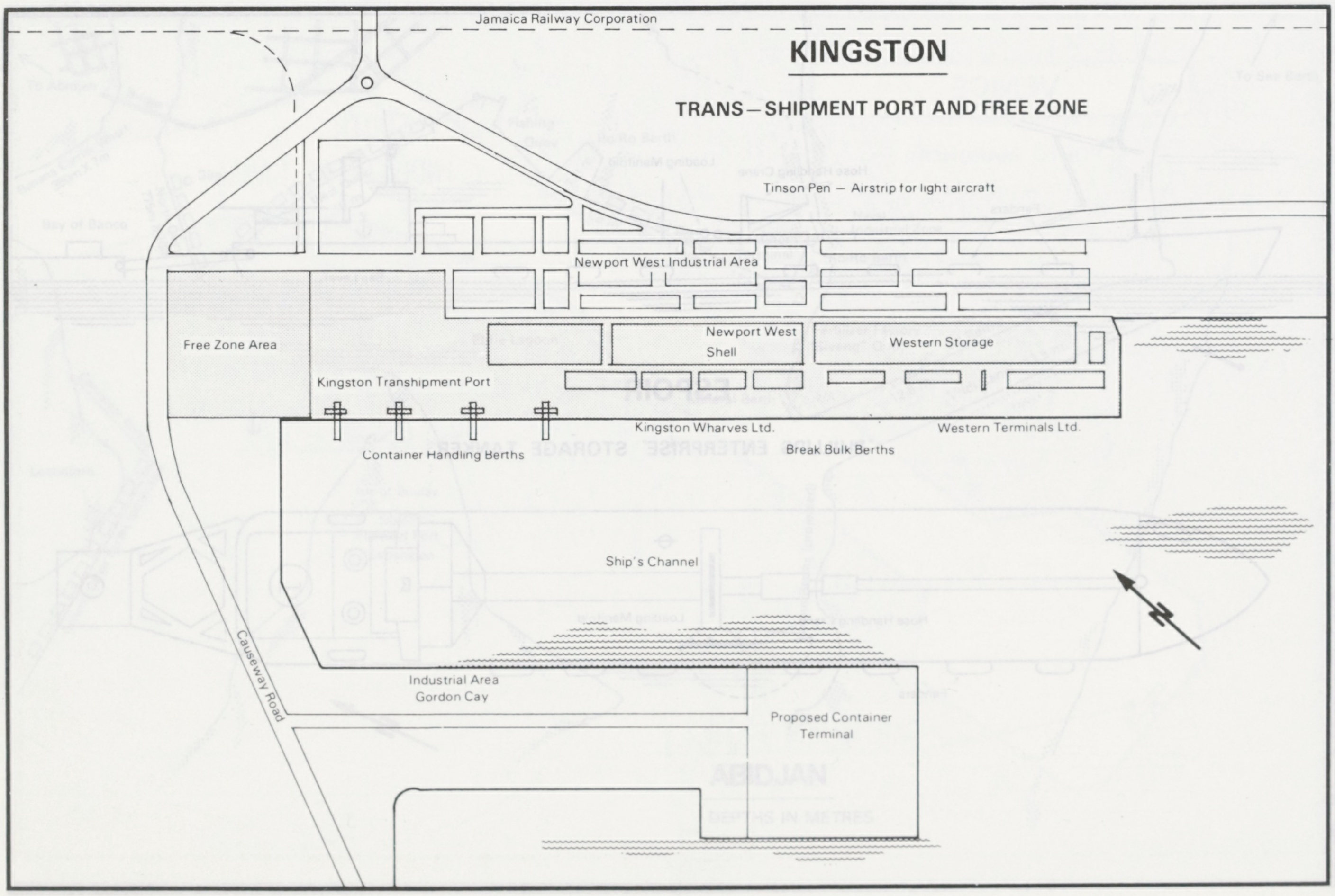
Y 5° 04' 03"N 4° 25' 32"W

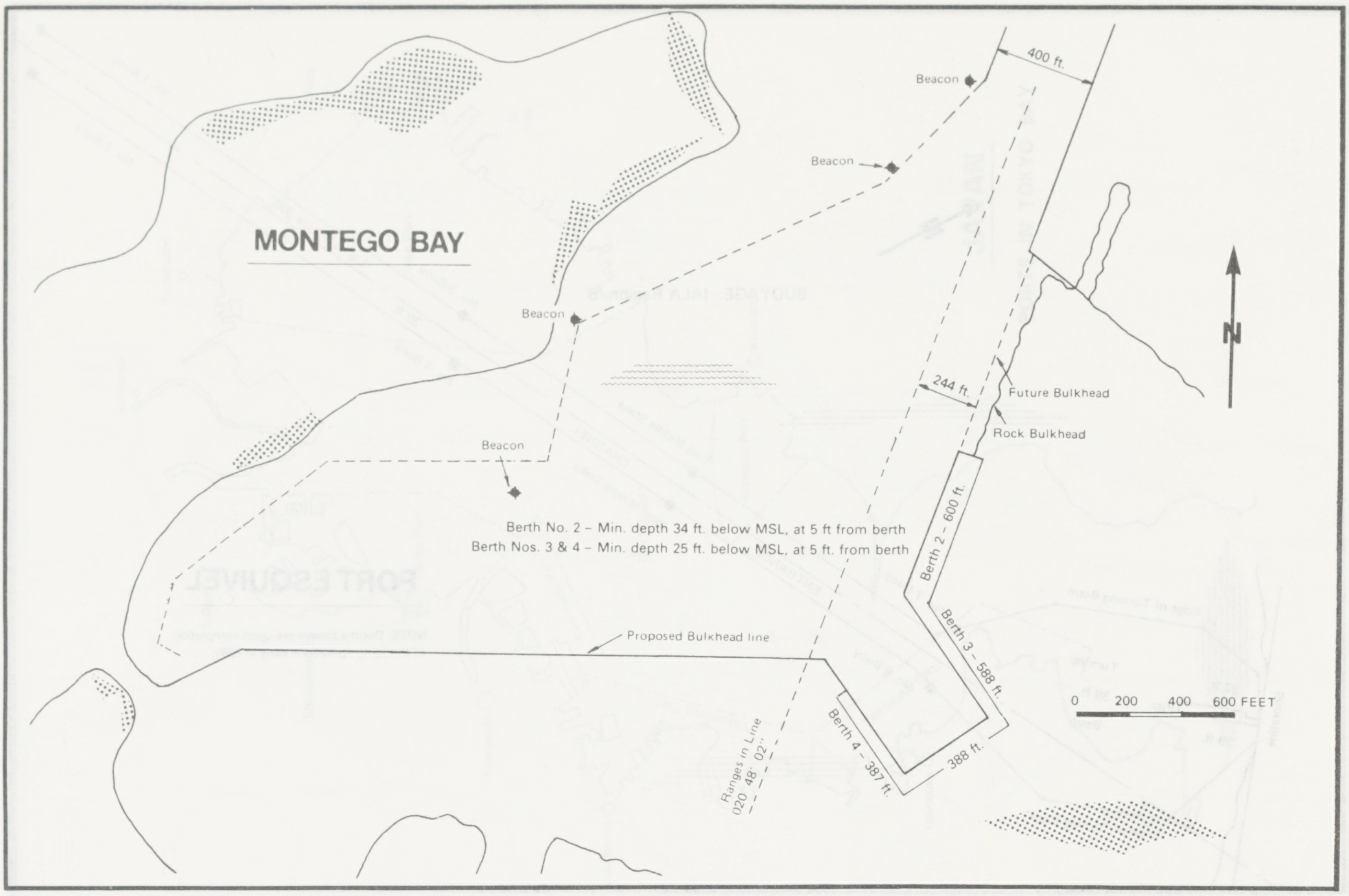

Hose Handling Crane
Loading Manifold
Fenders
Sea Level
Hose Handling Crane
Loading Manifold
Fenders

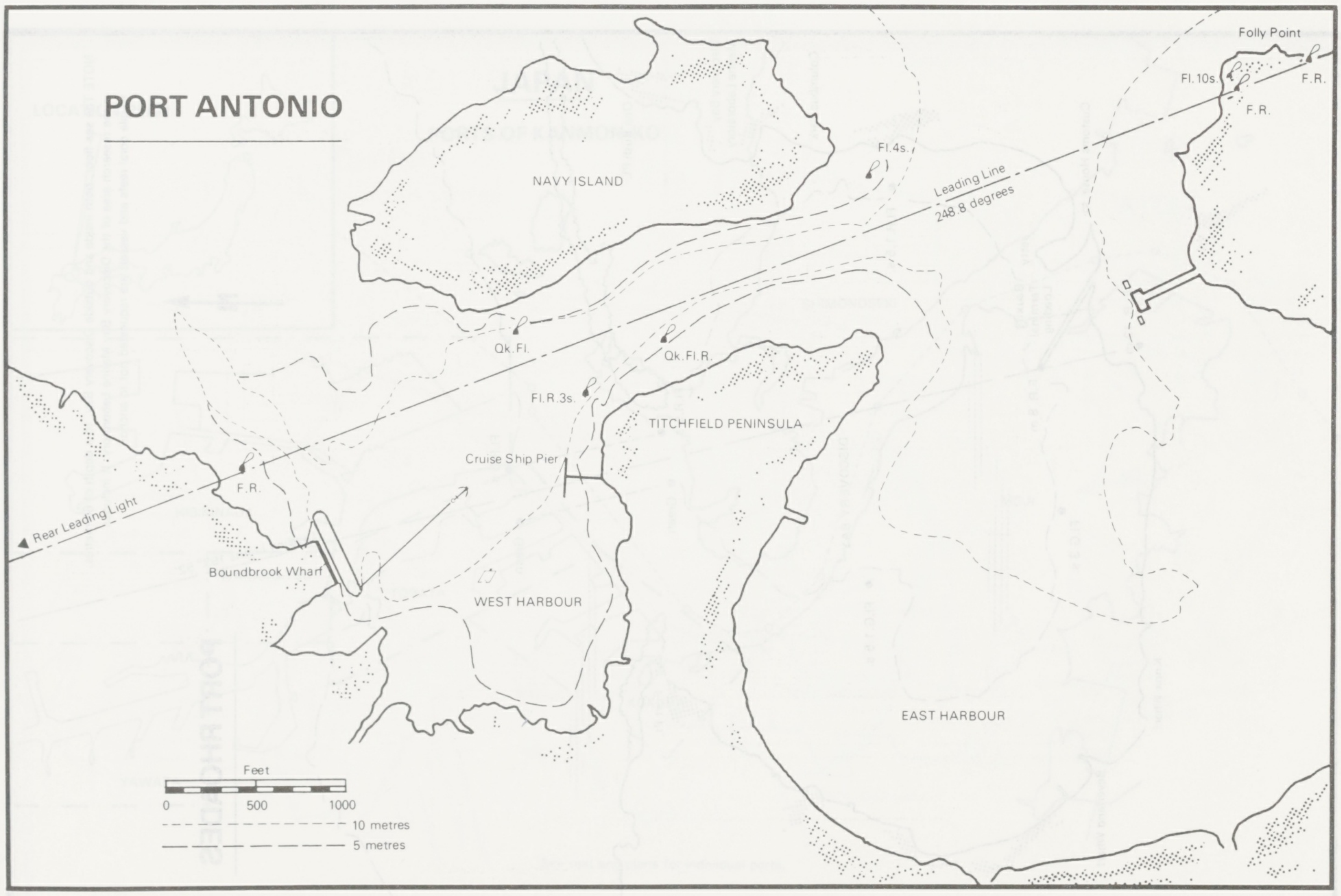
ESPOIR

"PHILLIPS ENTERPRISE" STORAGE TANKER


SAN PEDRO
Port Control
Fisherman's Zone
Flour Mill
Floating Timber Storage Area
North Dock
–2m
Timber Storage Area
West Quay
Basin –11m.
South Quay
6
5
3
1
2
4
Cement Works
West Jetty 265m.
Access Channel –12m. Length 650m.
East Jetty 150m.
ATLANTIC OCEAN
East Dock –2m.
San Pedro River


Jamaica Railway Corporation
KINGSTON
TRANS – SHIPMENT PORT AND FREE ZONE
Tinson Pen – Airstrip for light aircraft
Newport West Industrial Area
Free Zone Area
Newport West Shell
Western Storage
Kingston Transhipment Port
Kingston Wharves Ltd.
Western Terminals Ltd.
Container Handling Berths
Break Bulk Berths
Ship's Channel
Industrial Area Gordon Cay
Proposed Container Terminal
Causeway Road

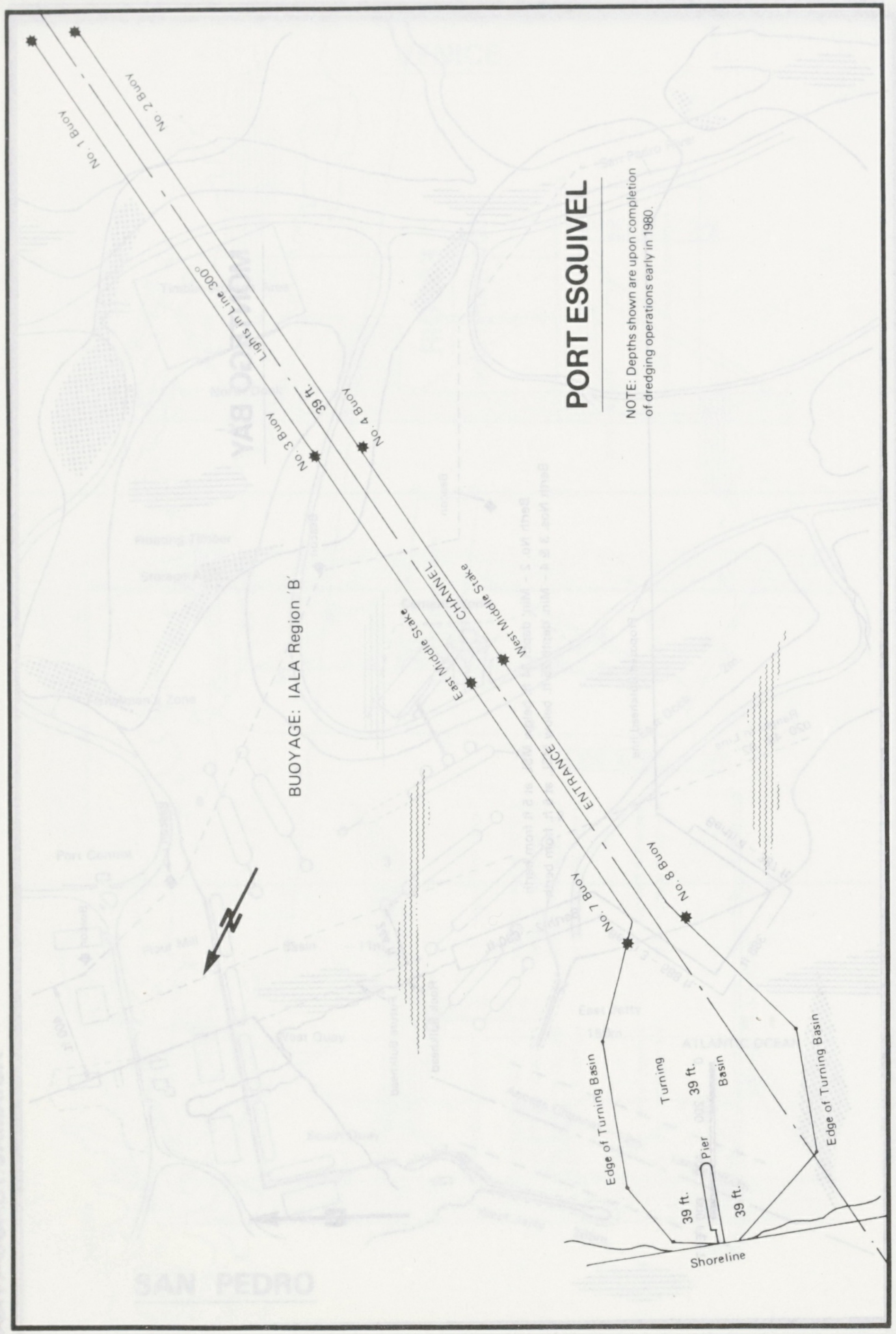

MONTEGO BAY
400 ft.
Beacon
Beacon
Beacon
Beacon
244 ft.
Future Bulkhead
Rock Bulkhead
N
Berth No. 2 – Min. depth 34 ft. below MSL, at 5 ft from berth
Berth Nos. 3 & 4 – Min. depth 25 ft. below MSL, at 5 ft. from berth
Berth 2 – 600 ft.
Berth 3 – 588 ft.
388 ft.
Berth 4 – 387 ft.
Proposed Bulkhead line
Ranges in Line 020° 48' 02"
0
200
400
600 FEET


PORT ANTONIO
Folly Point
Fl. 10s.
F.R.
F.R.
Fl.4s.
NAVY ISLAND
Leading Line
248.8 degrees
Qk.Fl.
Qk.Fl.R.
Fl.R.3s.
TITCHFIELD PENINSULA
Cruise Ship Pier
F.R.
Rear Leading Light
Boundbrook Wharf
WEST HARBOUR
EAST HARBOUR
Feet
0
500
1000
10 metres
5 metres

"Plan supplied by Ship's Master"

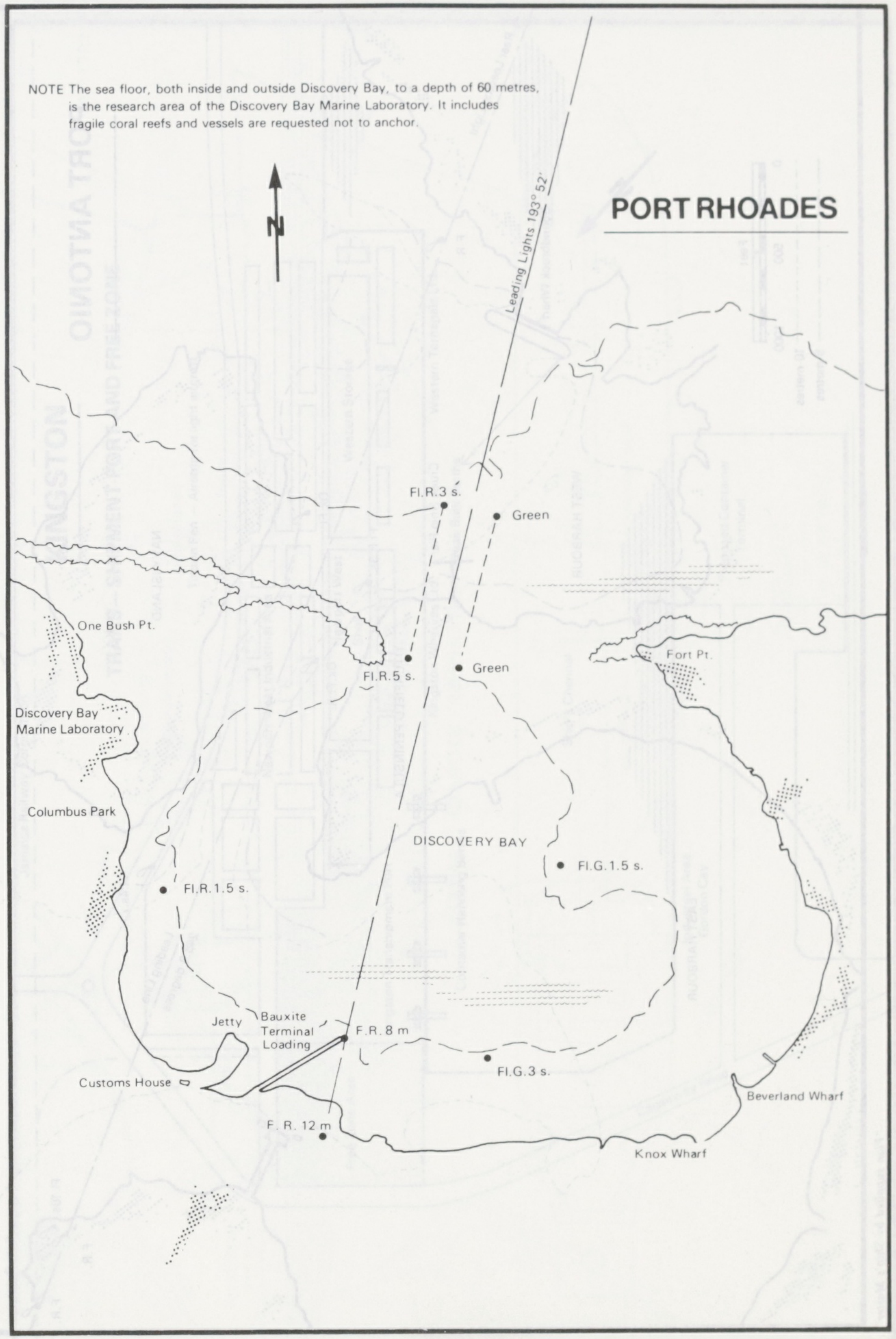
PORT ESQUIVEL

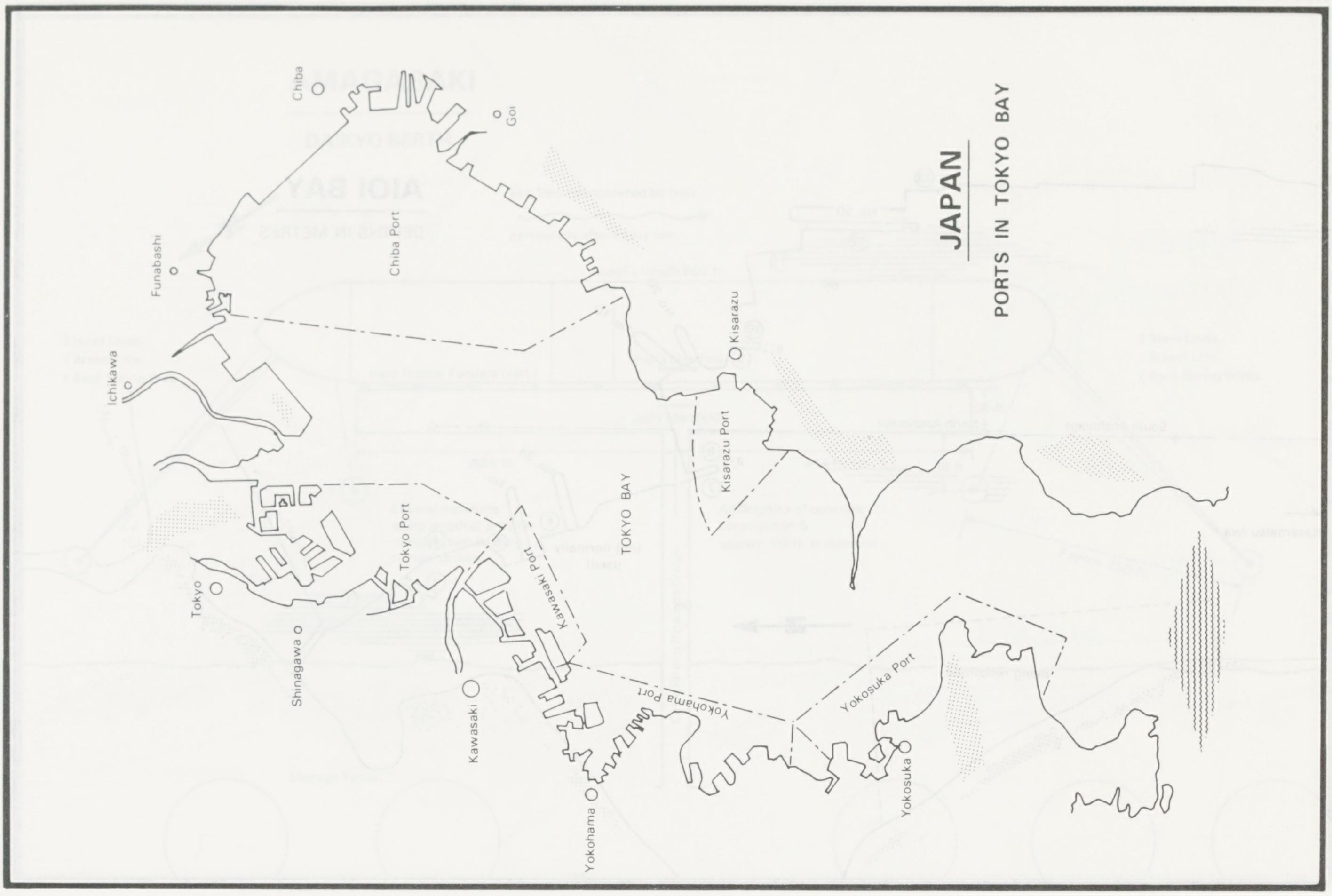
NOTE: Depths shown are upon completion of dredging operations early in 1980.

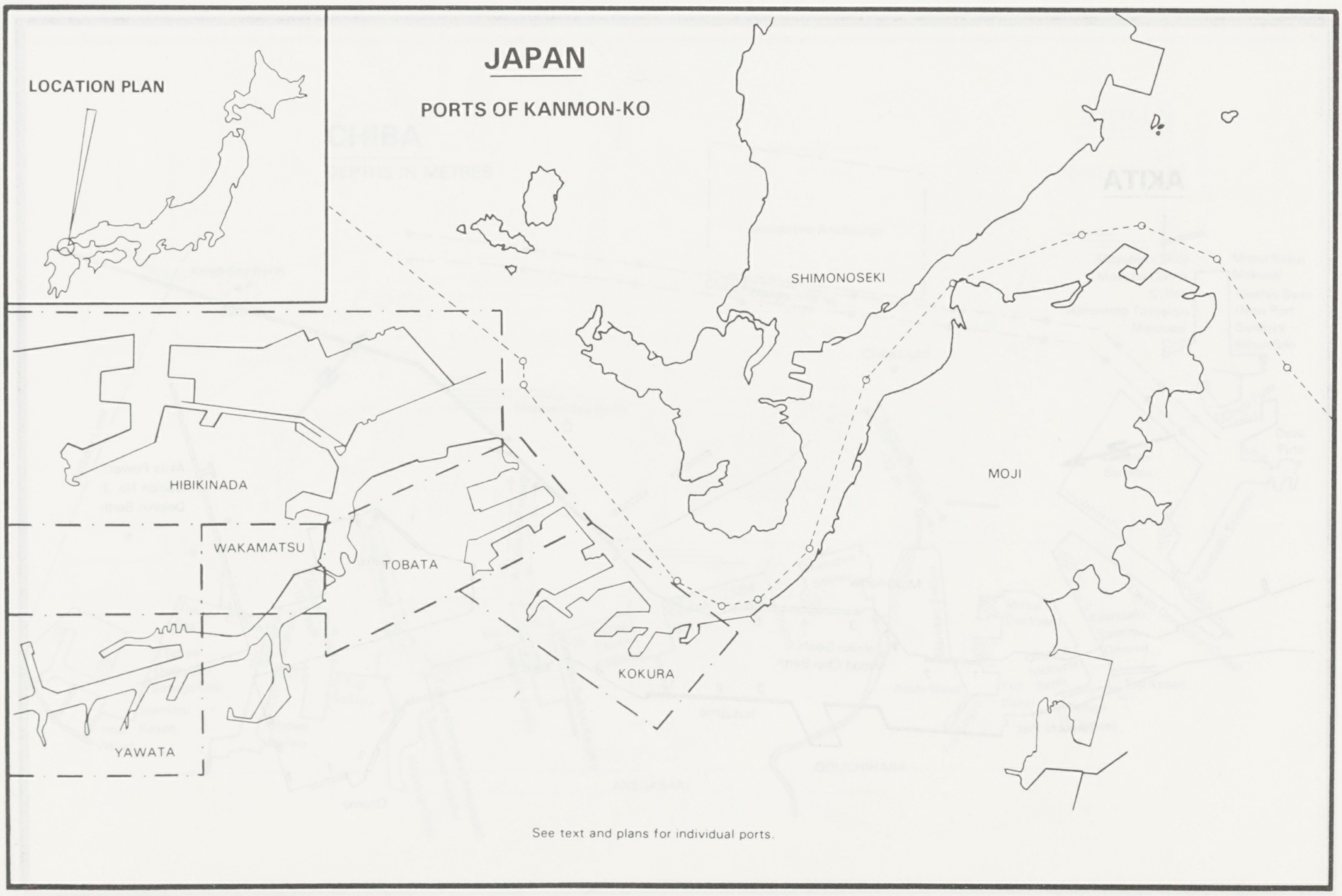

No. 1 Buoy
No. 2 Buoy
Lights in Line 300°
39 ft.
No. 3 Buoy
No. 4 Buoy
BUOYAGE: IALA Region 'B'
West Middle Stake
CHANNEL
East Middle Stake
ENTRANCE
No. 8 Buoy
No. 7 Buoy
Edge of Turning Basin
Turning
39 ft.
Basin
Pier
39 ft.
39 ft.
Edge of Turning Basin
Shoreline

PORT RHOADES

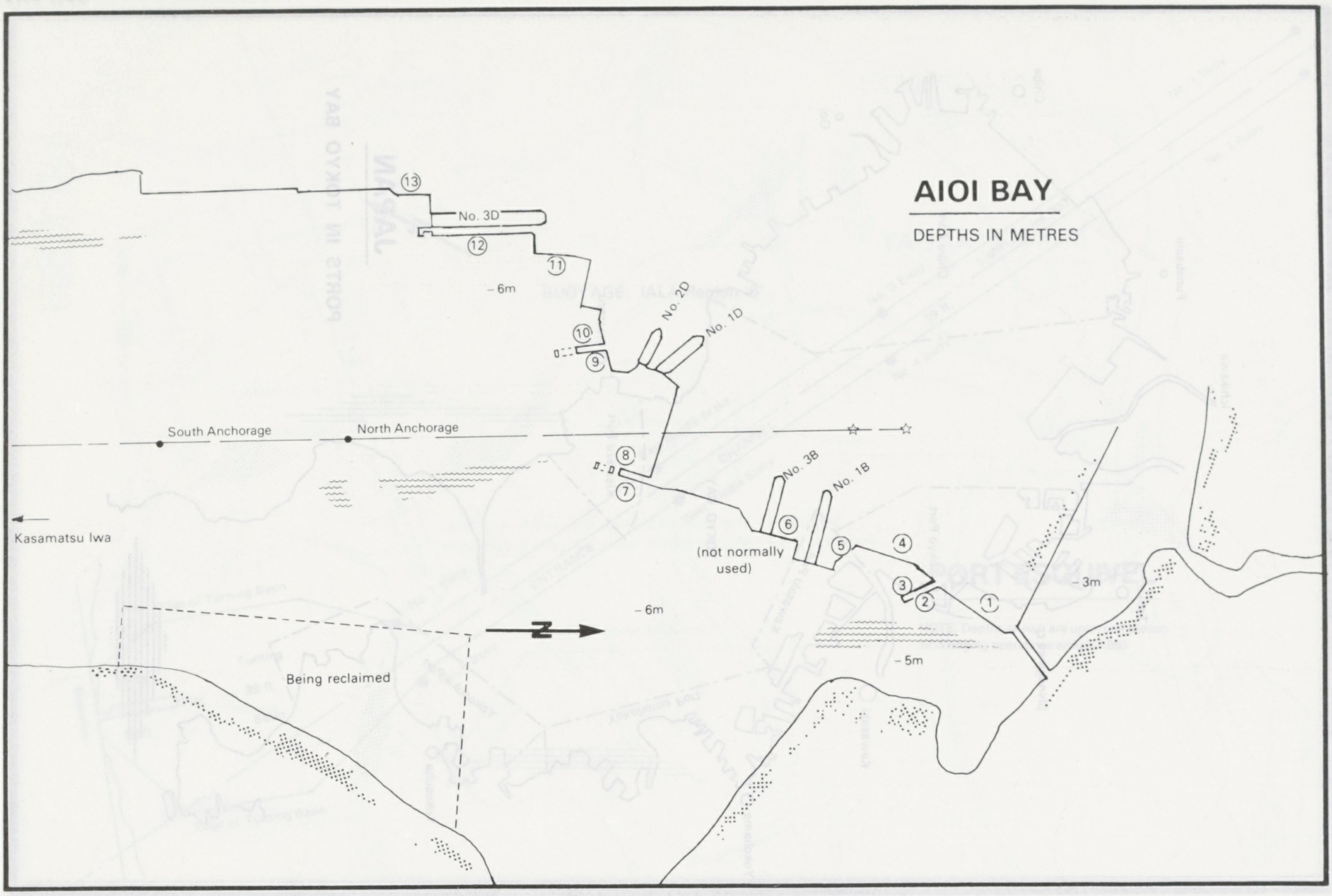
NOTE The sea floor, both inside and outside Discovery Bay, to a depth of 60 metres, is the research area of the Discovery Bay Marine Laboratory. It includes fragile coral reefs and vessels are requested not to anchor.


N
Leading Lights 193° 52'
Fl.R.3 s.
Green
One Bush Pt.
Fl.R.5 s.
Green
Fort Pt.
Discovery Bay
Marine Laboratory
Columbus Park
DISCOVERY BAY
Fl.G.1.5 s.
Fl.R.1.5 s.
Jetty
Bauxite
Terminal
Loading
F.R. 8 m
Fl.G.3 s.
Customs House
Beverland Wharf
F.R. 12 m
Knox Wharf


JAPAN
PORTS IN TOKYO BAY
Chiba
Goi
Chiba Port
Funabashi
Ichikawa
Kisarazu
Kisarazu Port
TOKYO BAY
Tokyo Port
Tokyo
Shinagawa
Kawasaki Port
Kawasaki
Yokohama Port
Yokohama
Yokosuka Port
Yokosuka


JAPAN
PORTS OF KANMON-KO
LOCATION PLAN
SHIMONOSEKI
MOJI
HIBIKINADA
WAKAMATSU
TOBATA
KOKURA
YAWATA

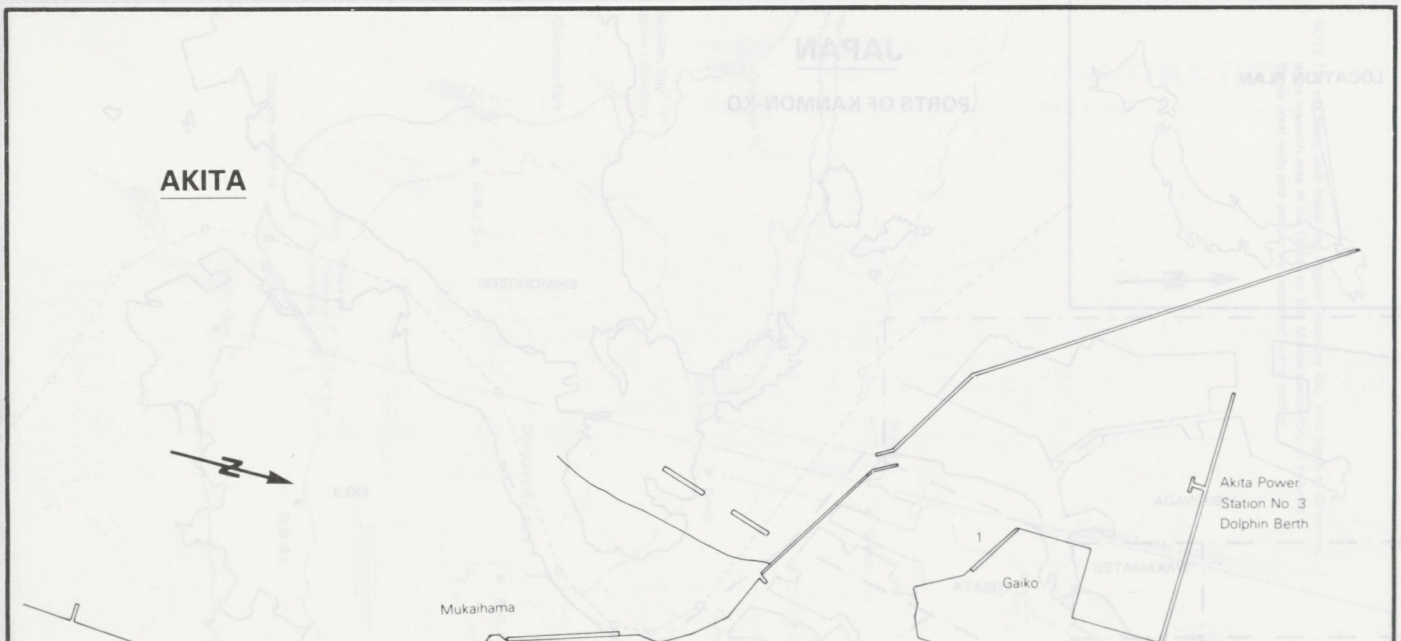
See text and plans for individual ports.



AIOI BAY

DEPTHS IN METRES

⑬
No. 3D
⑫
⑪
– 6m
No. 2D
No. 1D
⑩
⑨
South Anchorage
North Anchorage
⑧
⑦
No. 3B
No. 1B
⑥
⑤
④
(not normally used)
③
②
①
– 3m
– 6m
– 5m
Kasamatsu Iwa
Being reclaimed
N

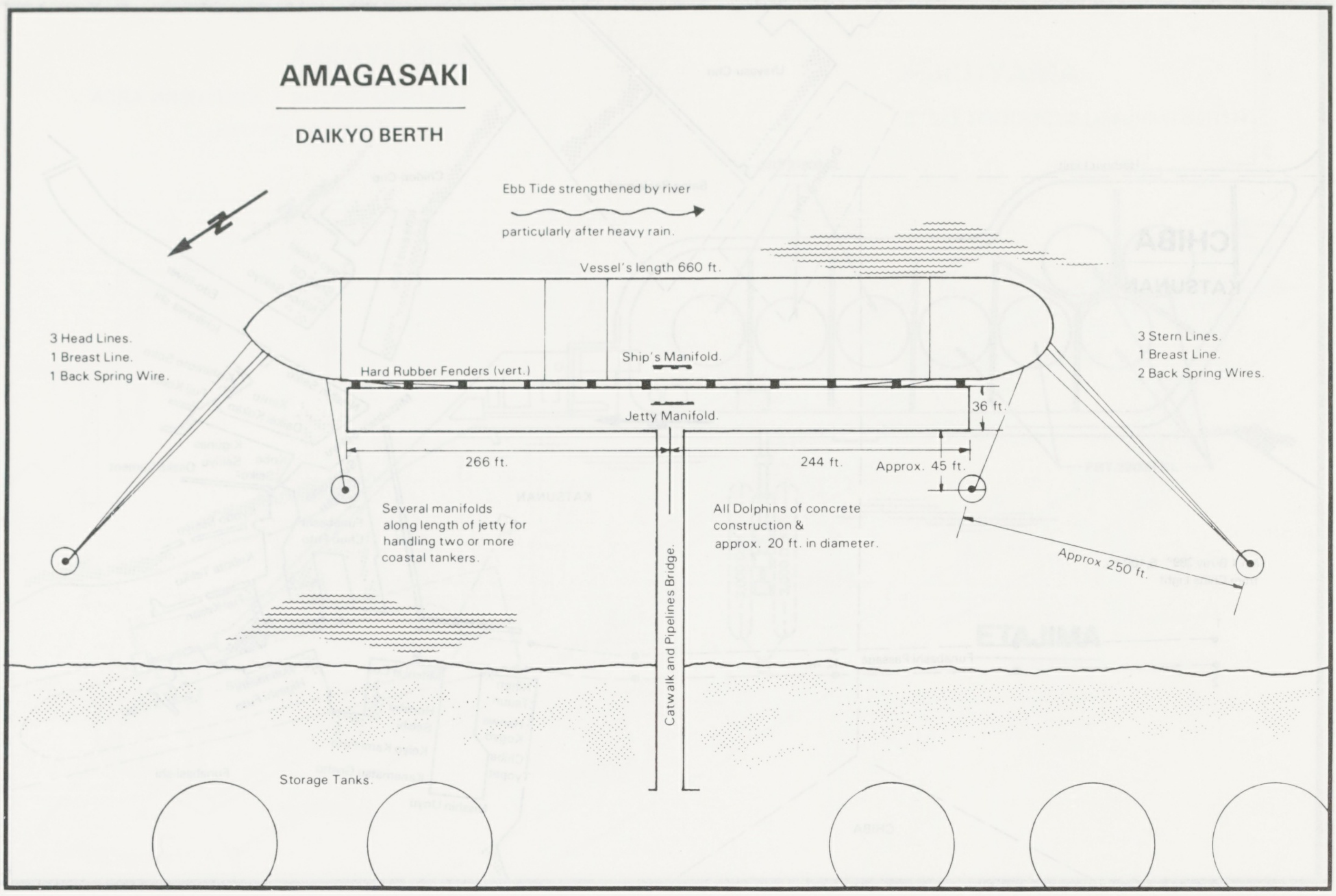


AKITA

N
Akita Power Station No. 3 Dolphin Berth
1
Gaiko
Mukaihama
3
4
5
Tohuku Seishi Wood Chip Berth
1
2
3
2
1
Nakajima
Terauchi Pier
3
2
1
Ohama

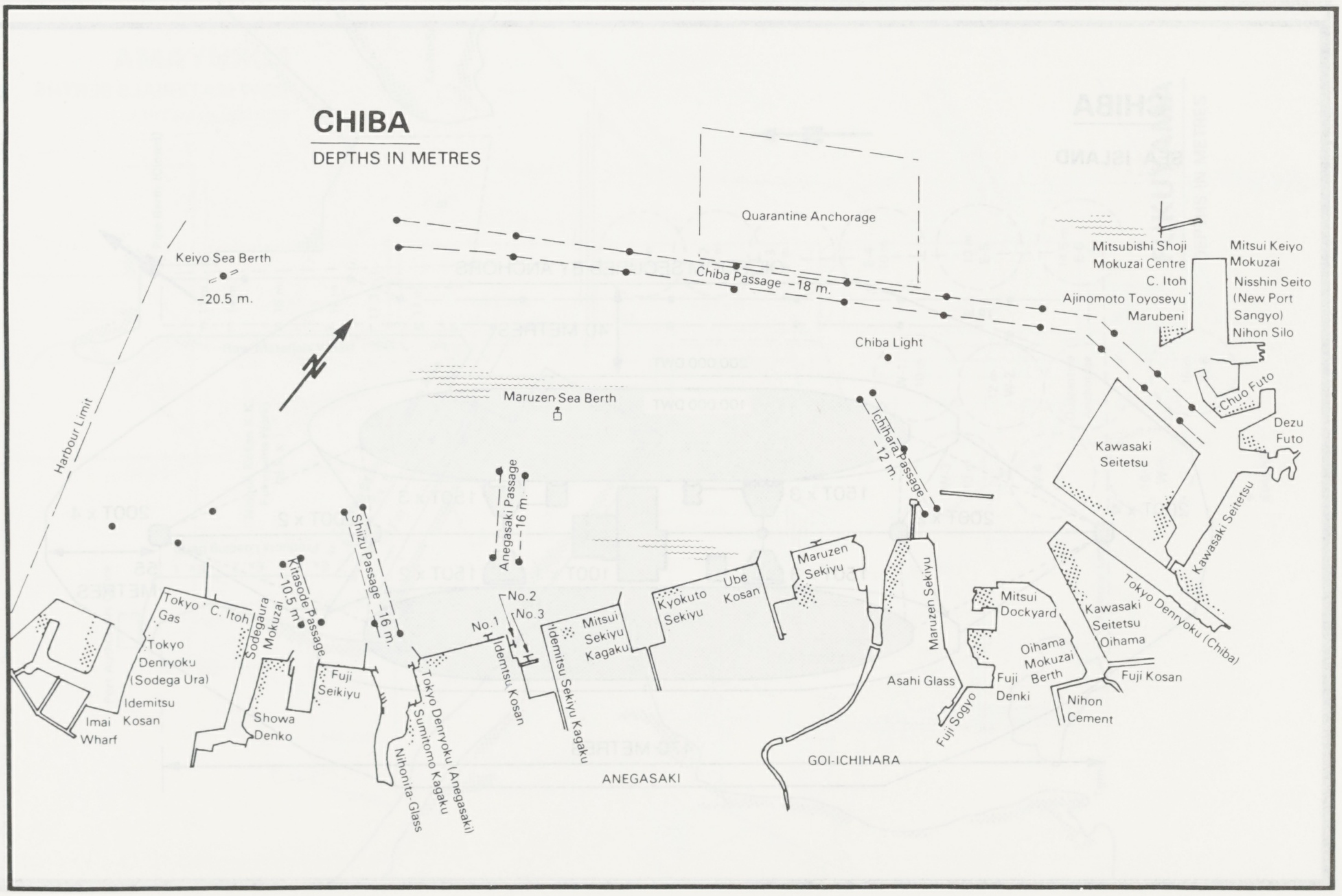
AMAGASAKI

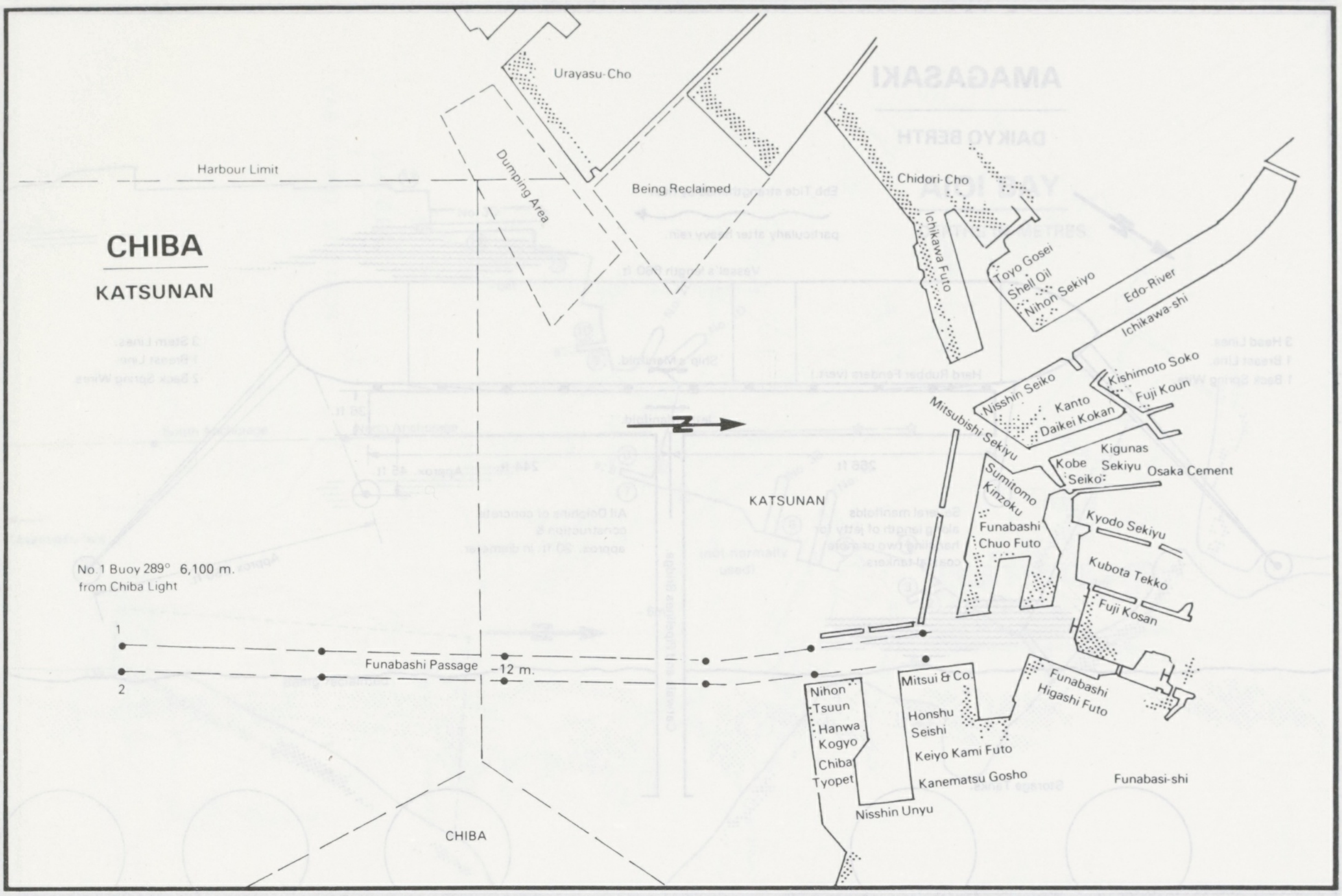
DAIKYO BERTH

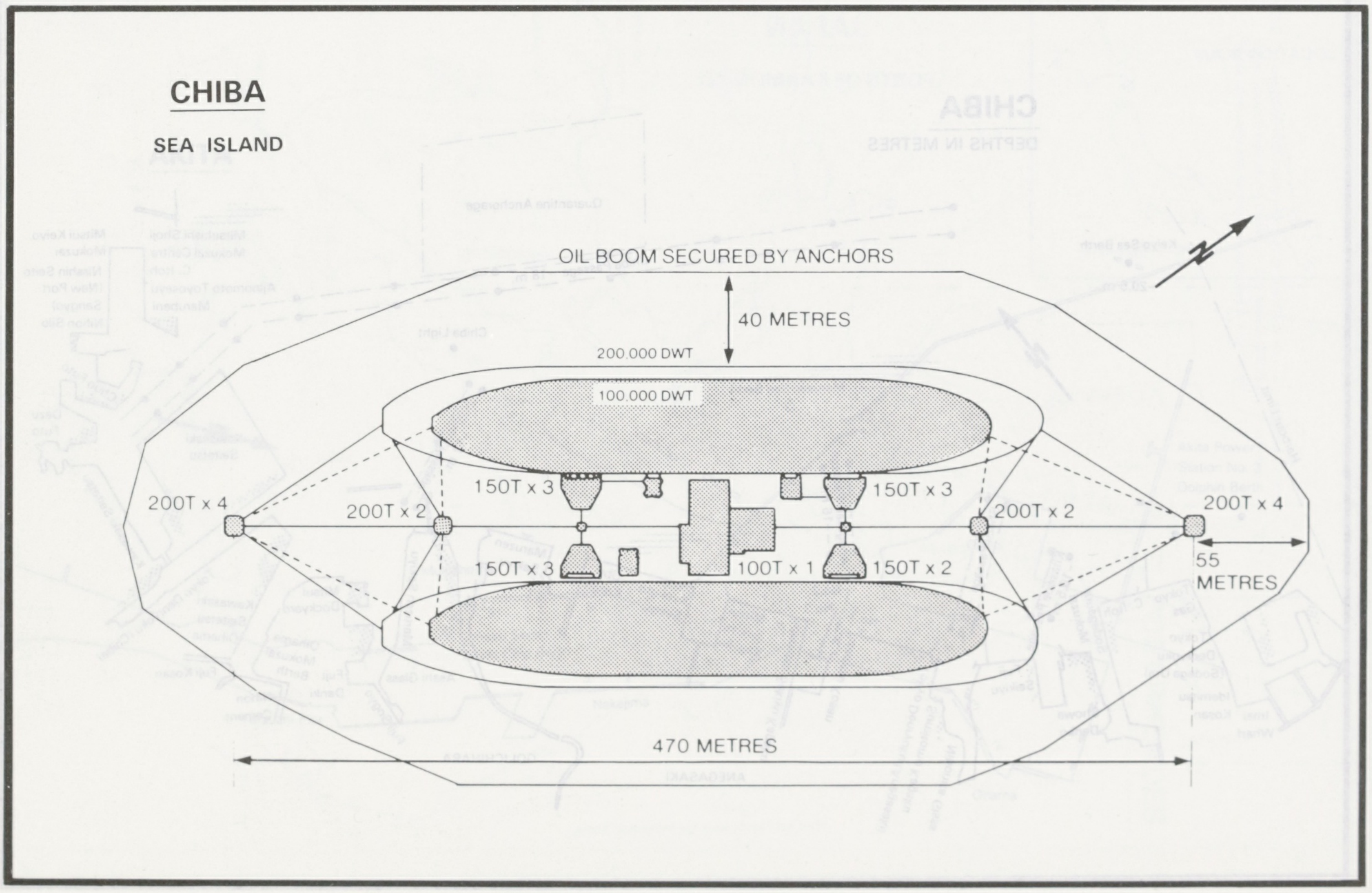

Ebb Tide strengthened by river
particularly after heavy rain.
Vessel's length 660 ft.
3 Head Lines.
1 Breast Line.
1 Back Spring Wire.
3 Stern Lines.
1 Breast Line.
2 Back Spring Wires.
Ship's Manifold.
Hard Rubber Fenders (vert.)
Jetty Manifold.
36 ft.
266 ft.
244 ft.
Approx. 45 ft.
Several manifolds
along length of jetty for
handling two or more
coastal tankers.
All Dolphins of concrete
construction &
approx. 20 ft. in diameter.
Approx 250 ft.
Catwalk and Pipelines Bridge.
Storage Tanks.

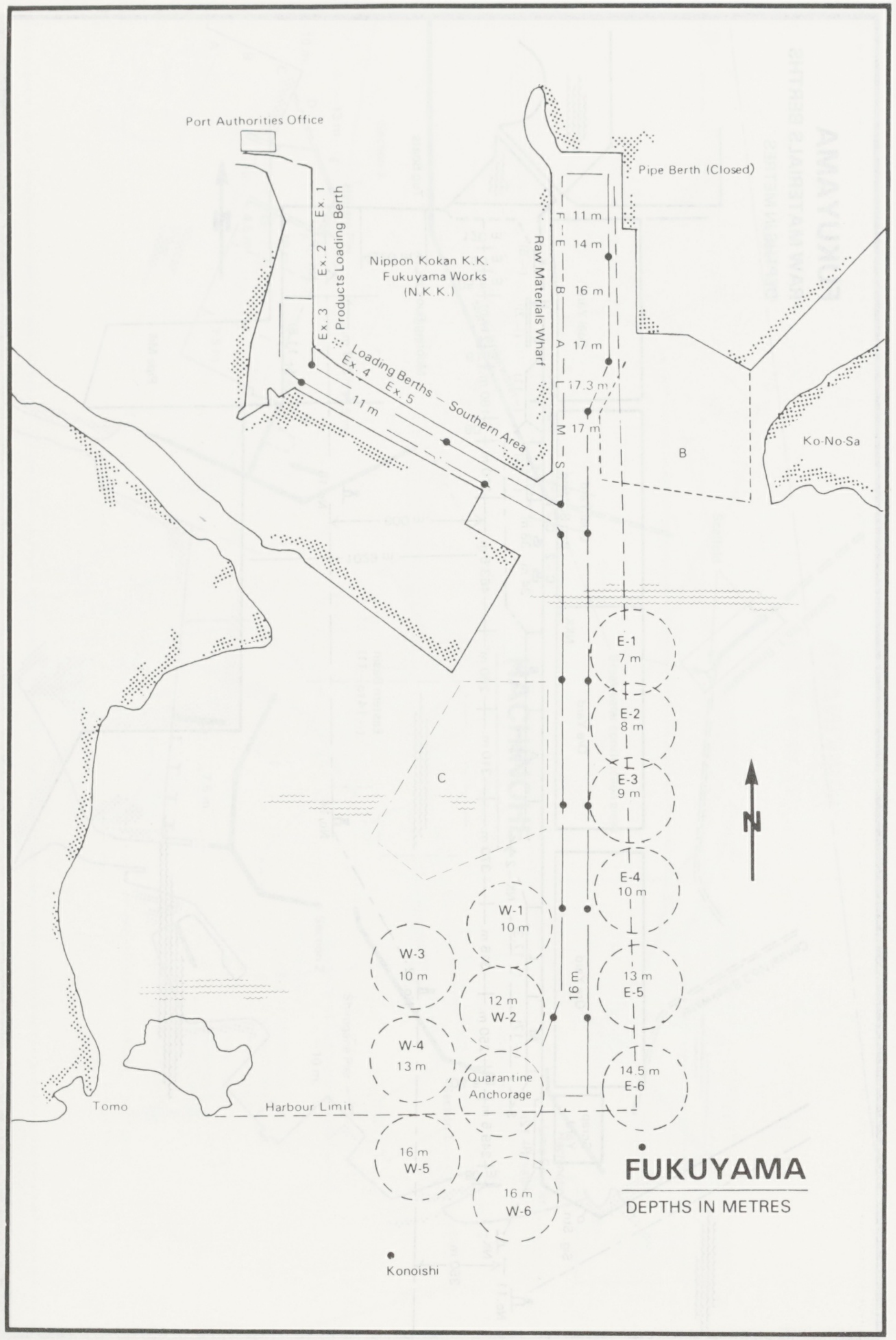
CHIBA

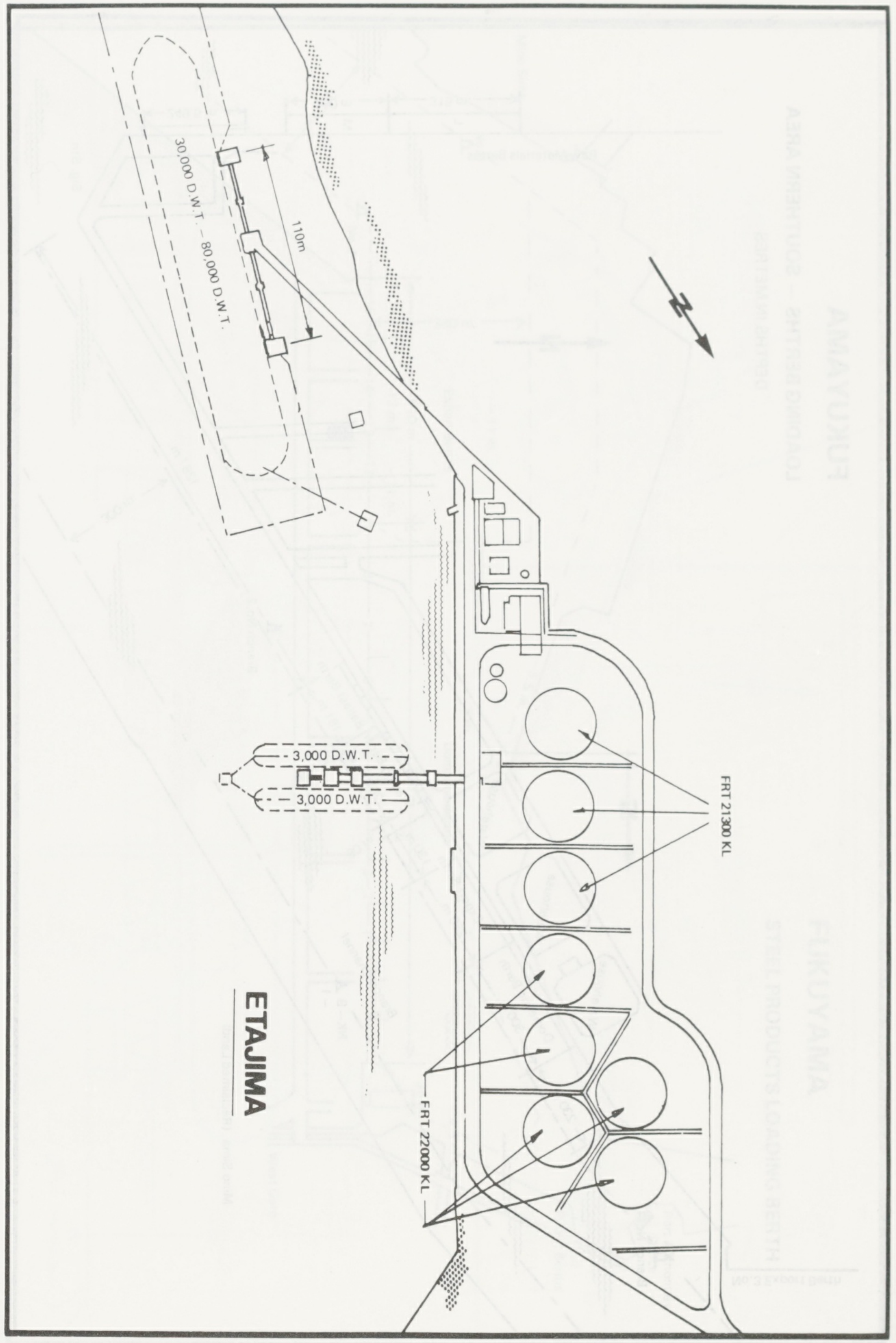
DEPTHS IN METRES

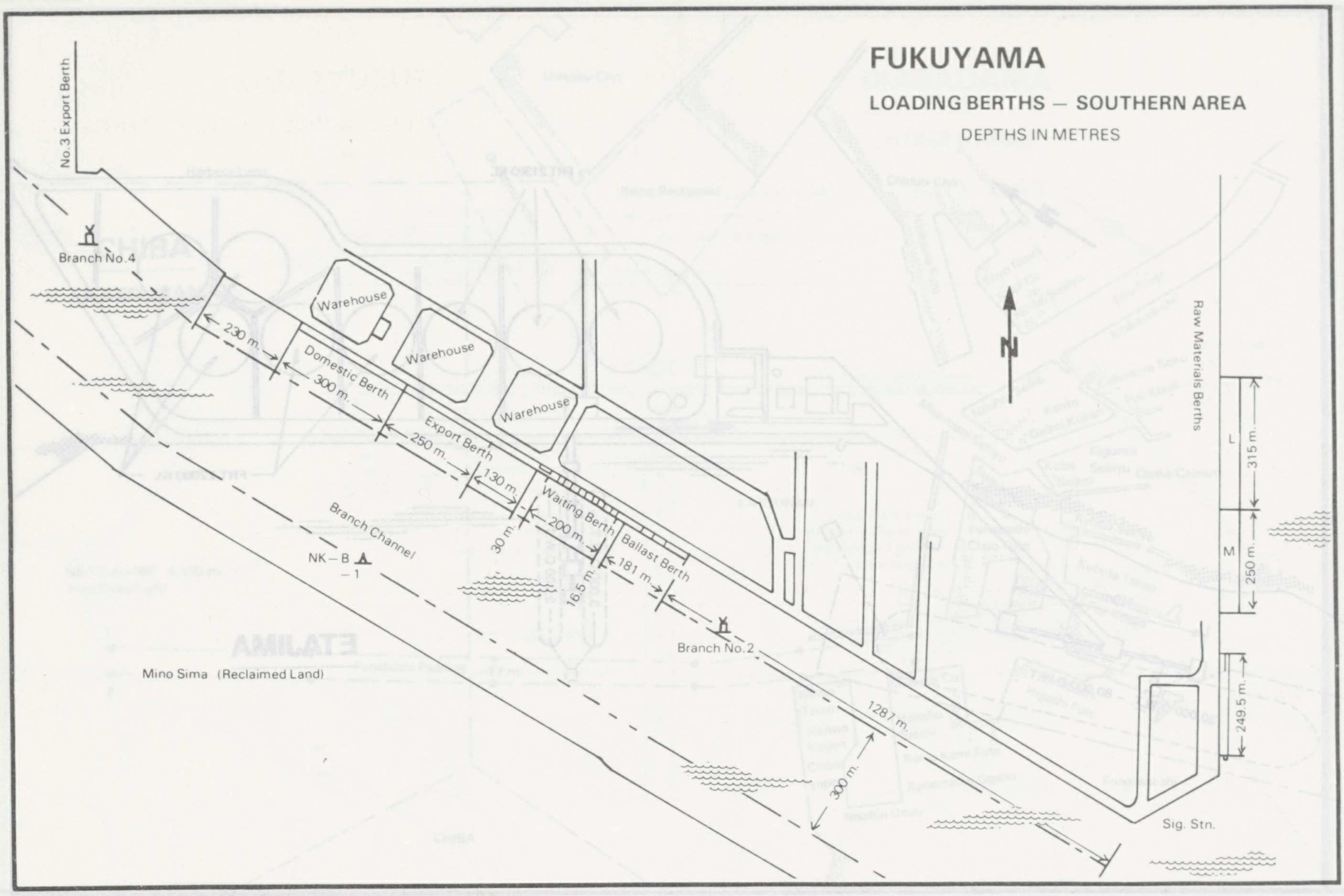

Quarantine Anchorage
Keiyo Sea Berth
–20.5 m.
Chiba Passage –18 m.
Harbour Limit
Chiba Light
Maruzen Sea Berth
Ichihara Passage –12 m.
Anegasaki Passage –16 m.
Shizu Passage –16 m.
Kitasode Passage –10.5 m.
Mitsubishi Shoji
Mokuzai Centre
C. Itoh
Ajinomoto Toyoseyu
Marubeni
Mitsui Keiyo
Mokuzai
Nisshin Seito
(New Port
Sangyo)
Nihon Silo
Chuo Futo
Dezu
Futo
Kawasaki
Seitetsu
Kawasaki Seitetsu
Tokyo Denryoku (Chiba)
Kawasaki
Seitetsu
Oihama
Fuji Kosan
Nihon
Cement
Mitsui
Dockyard
Oihama
Mokuzai
Berth
Fuji
Denki
Fuji Sogyo
Asahi Glass
Maruzen Sekiyu
Maruzen
Sekiyu
Ube
Kosan
Kyokuto
Sekiyu
Mitsui
Sekiyu
Kagaku
Idemitsu Sekiyu Kagaku
No.2
No.3
No.1
Idemitsu Kosan
Tokyo Denryoku (Anegasaki)
Sumitomo Kagaku
Nihonita Glass
Fuji
Seikiyu
Showa
Denko
Sodegaura
Mokuzai
Tokyo
Gas
C. Itoh
Tokyo
Denryoku
(Sodega Ura)
Idemitsu
Kosan
Imai
Wharf
ANEGASAKI
GOI-ICHIHARA

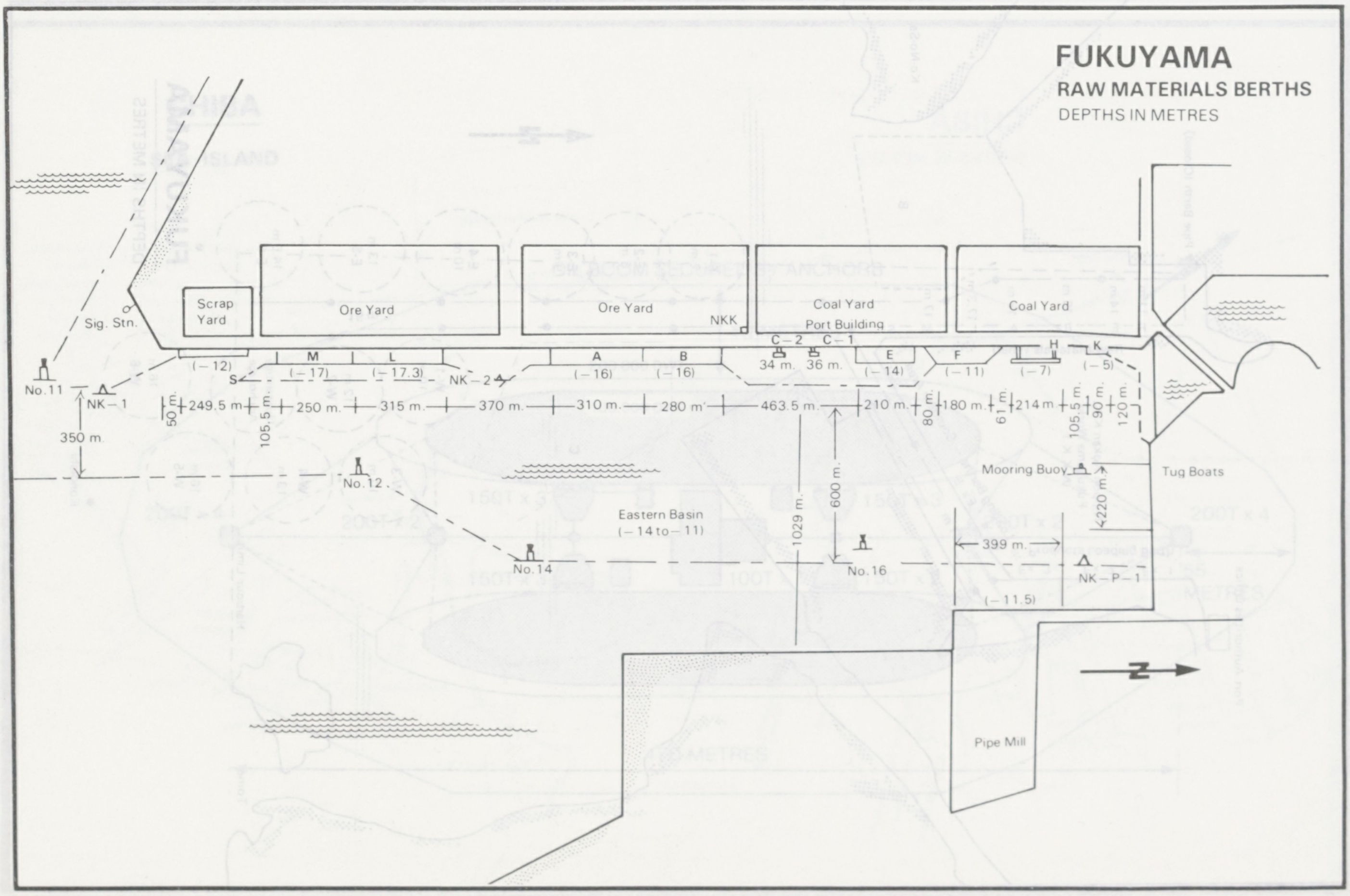

CHIBA
KATSUNAN
Urayasu-Cho
Harbour Limit
Dumping Area
Being Reclaimed
Chidori-Cho
Ichikawa Futo
Toyo Gosei
Shell Oil
Nihon Sekiyo
Edo-River
Ichikawa-shi
Kishimoto Soko
Fuji Koun
Nisshin Seiko
Kanto
Daikei Kokan
Mitsubishi Sekiyu
Kigunas
Sekiyu
Kobe
Seiko
Osaka Cement
Sumitomo
Kinzoku
Kyodo Sekiyu
Funabashi
Chuo Futo
Kubota Tekko
Fuji Kosan
KATSUNAN
No 1 Buoy 289° 6,100 m.
from Chiba Light
1
2
Funabashi Passage
-12 m.
Mitsui & Co.
Honshu
Seishi
Funabashi
Higashi Futo
Nihon
Tsuun
Hanwa
Kogyo
Chiba
Tyopet
Keiyo Kami Futo
Kanematsu Gosho
Nisshin Unyu
Funabasi-shi
CHIBA

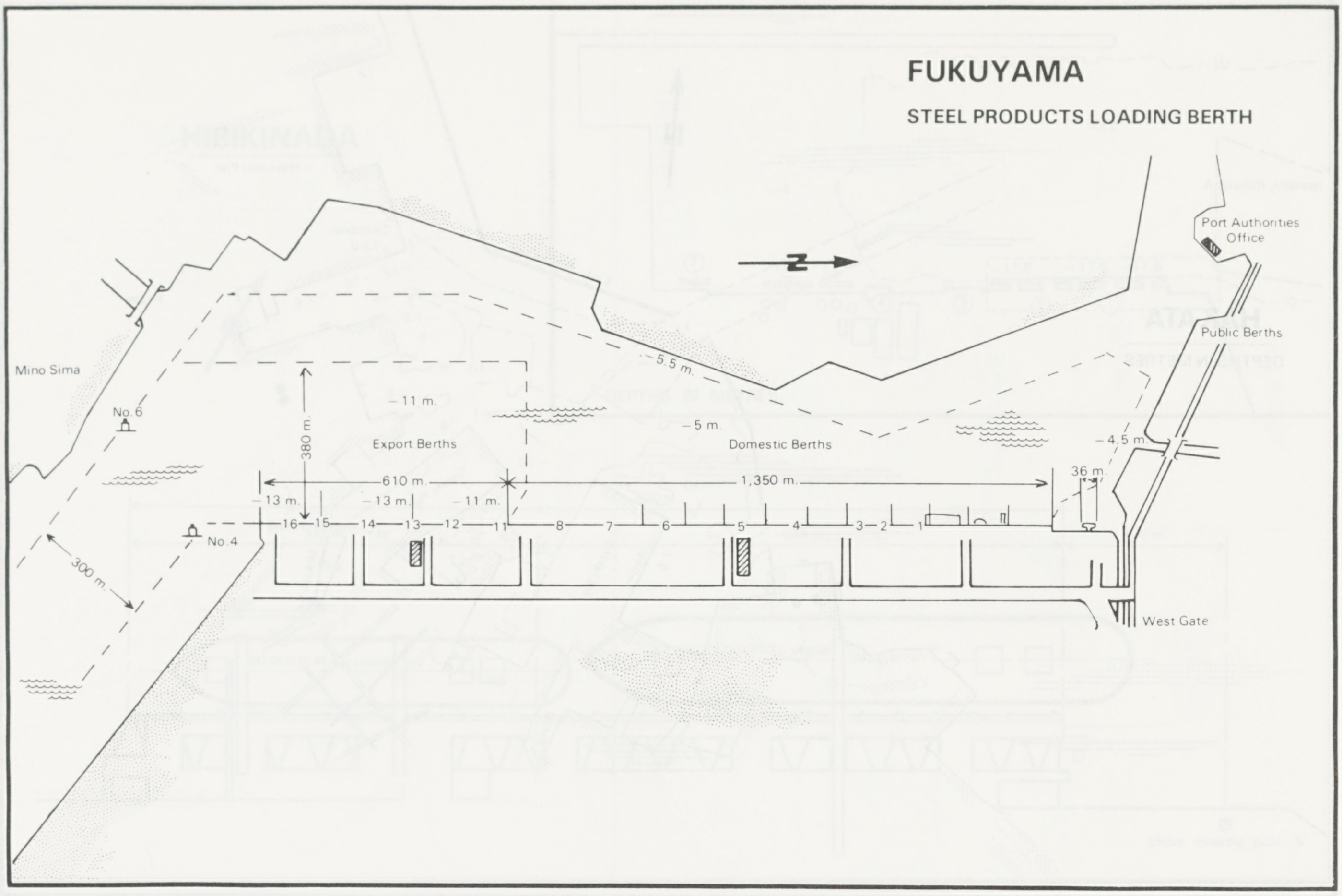

CHIBA
SEA ISLAND
OIL BOOM SECURED BY ANCHORS
40 METRES
200,000 DWT
100,000 DWT
200T x 4
200T x 2
150T x 3
150T x 3
150T x 3
100T x 1
150T x 2
200T x 2
200T x 4
55
METRES
470 METRES

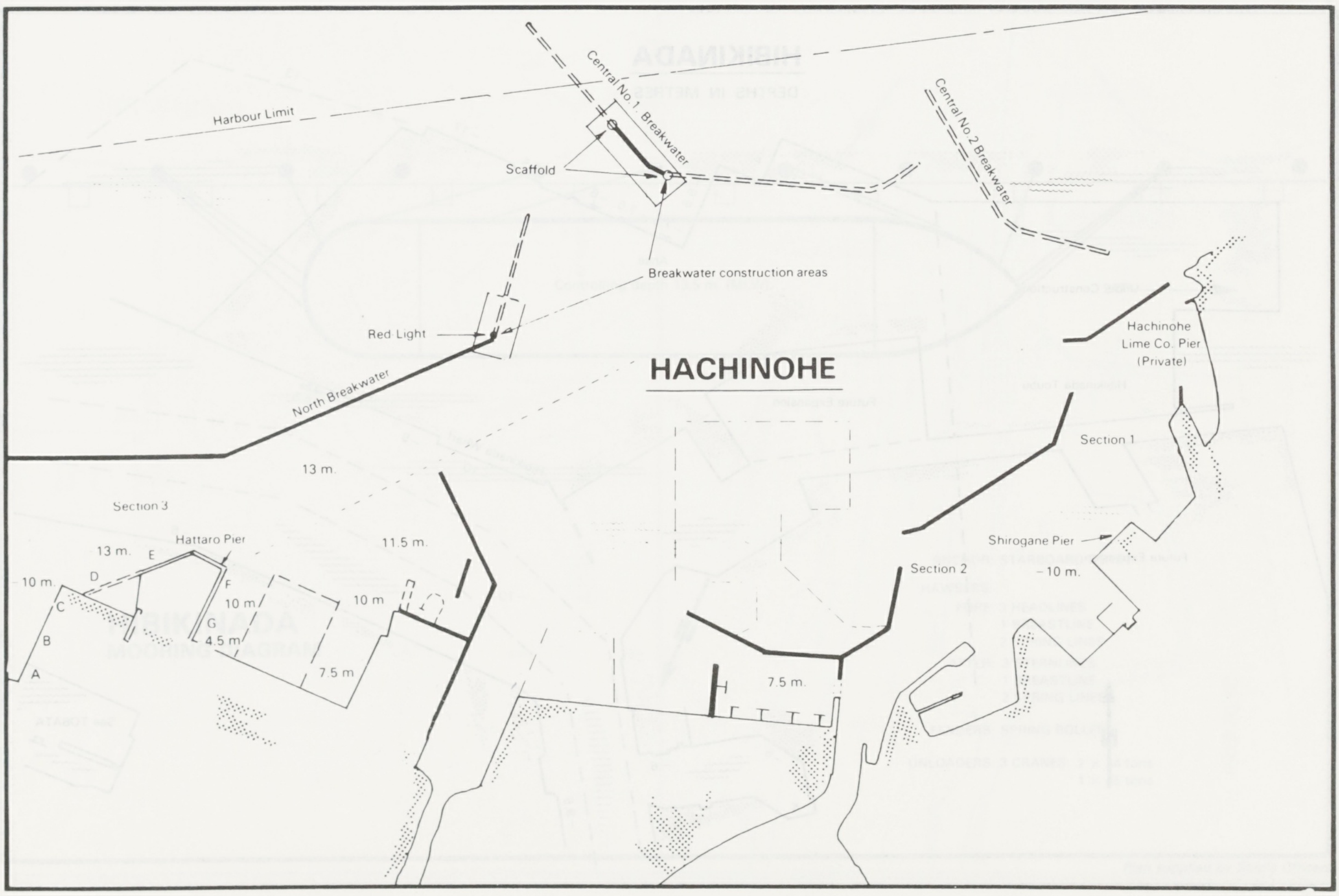

Port Authorities Office
Ex. 1
Ex. 2
Ex. 3
Products Loading Berth
Nippon Kokan K.K.
Fukuyama Works
(N.K.K.)
Raw Materials Wharf
Pipe Berth (Closed)
F
E
B
A
L
M
S
11 m
14 m
16 m
17 m
17.3 m
17 m
Loading Berths – Southern Area
Ex 4
Ex 5
11 m
B
Ko-No-Sa
C
E-1
7 m
E-2
8 m
E-3
9 m
E-4
10 m
13 m
E-5
14.5 m
E-6
W-1
10 m
W-3
10 m
12 m
W-2
16 m
W-4
13 m
Quarantine
Anchorage
16 m
W-5
16 m
W-6
Tomo
Harbour Limit
Konoishi
N
FUKUYAMA
DEPTHS IN METRES

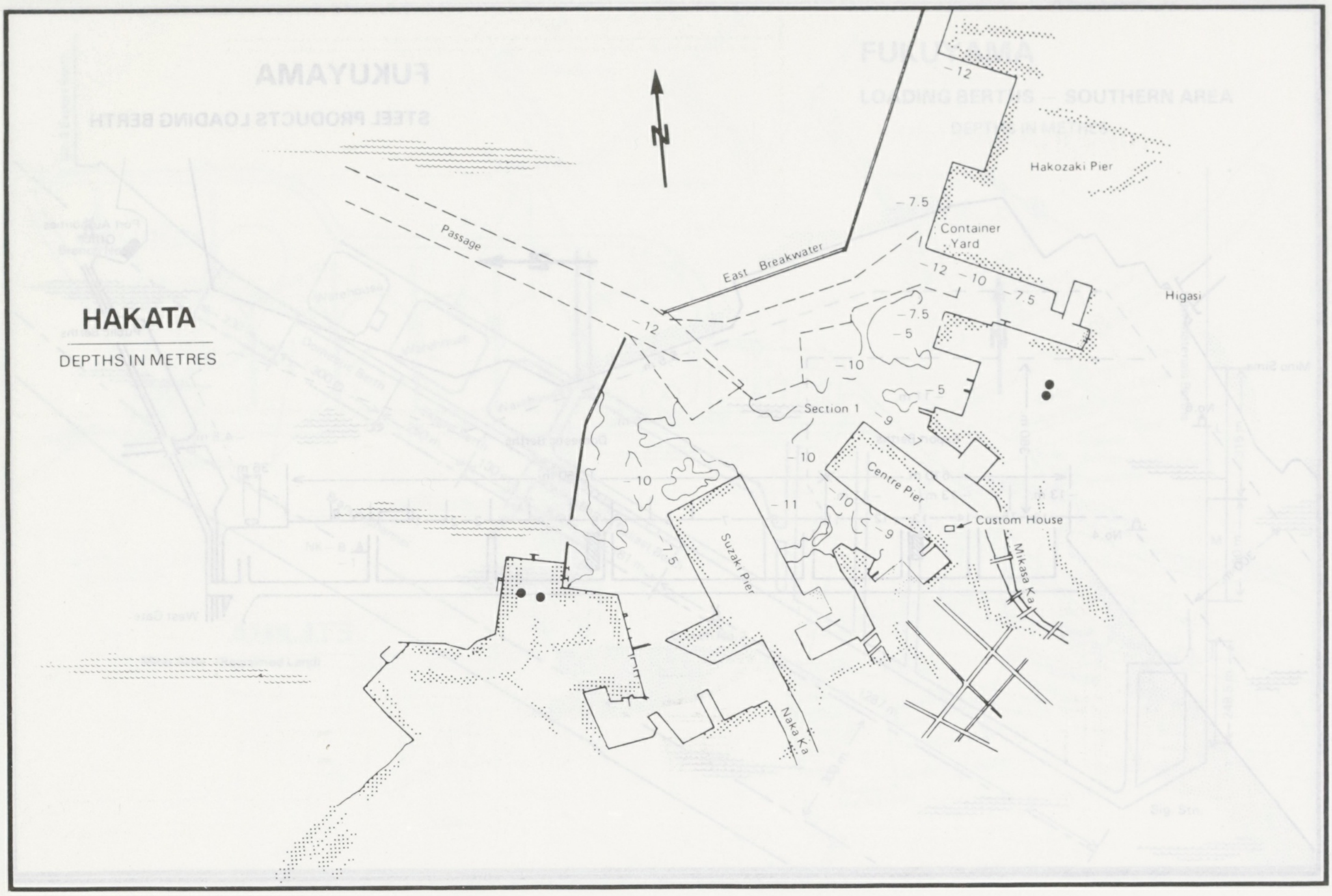

30,000 D.W.T. – 80,000 D.W.T.
110m
N
3,000 D.W.T.
3,000 D.W.T.
FRT 21300 KL
FRT 22000 KL
ETAJIMA


FUKUYAMA
LOADING BERTHS — SOUTHERN AREA
DEPTHS IN METRES
No.3 Export Berth
Branch No.4
Warehouse
Warehouse
Warehouse
230 m.
Domestic Berth
300 m.
Export Berth
250 m.
130 m.
30 m.
Waiting Berth
200 m.
16.5 m.
Ballast Berth
181 m.
Branch Channel
NK – B
–1
Branch No.2
Mino Sima (Reclaimed Land)
1287 m.
300 m.
Sig. Stn.
Raw Materials Berths
L
315 m.
M
250 m.
249.5 m.
N


FUKUYAMA
RAW MATERIALS BERTHS
DEPTHS IN METRES
Scrap Yard
Ore Yard
Ore Yard
NKK
Coal Yard
Port Building
Coal Yard
Sig. Stn.
(–12)
M
(–17)
L
(–17.3)
NK – 2
A
(–16)
B
(–16)
C – 2
C – 1
34 m.
36 m.
E
(–14)
F
(–11)
(–7)
H
K
(–5)
S
No.11
NK – 1
50 m.
249.5 m.
105.5 m.
250 m.
315 m.
370 m.
310 m.
280 m.
463.5 m.
210 m.
80 m.
180 m.
61 m.
214 m.
105.5 m.
90 m.
120 m.
350 m.
No.12
Mooring Buoy
Tug Boats
Eastern Basin
(–14 to –11)
1029 m.
600 m.
220 m.
399 m.
No.14
No.16
NK – P – 1
(–11.5)
Pipe Mill
N


FUKUYAMA
STEEL PRODUCTS LOADING BERTH
N
Port Authorities Office
Public Berths
Mino Sima
No. 6
– 5.5 m.
– 11 m.
– 5 m.
380 m.
Export Berths
Domestic Berths
– 4.5 m.
610 m.
1,350 m.
36 m.
– 13 m.
– 13 m.
– 11 m.
16 15 14 13 12 11 8 7 6 5 4 3 2 1
No. 4
300 m.
West Gate

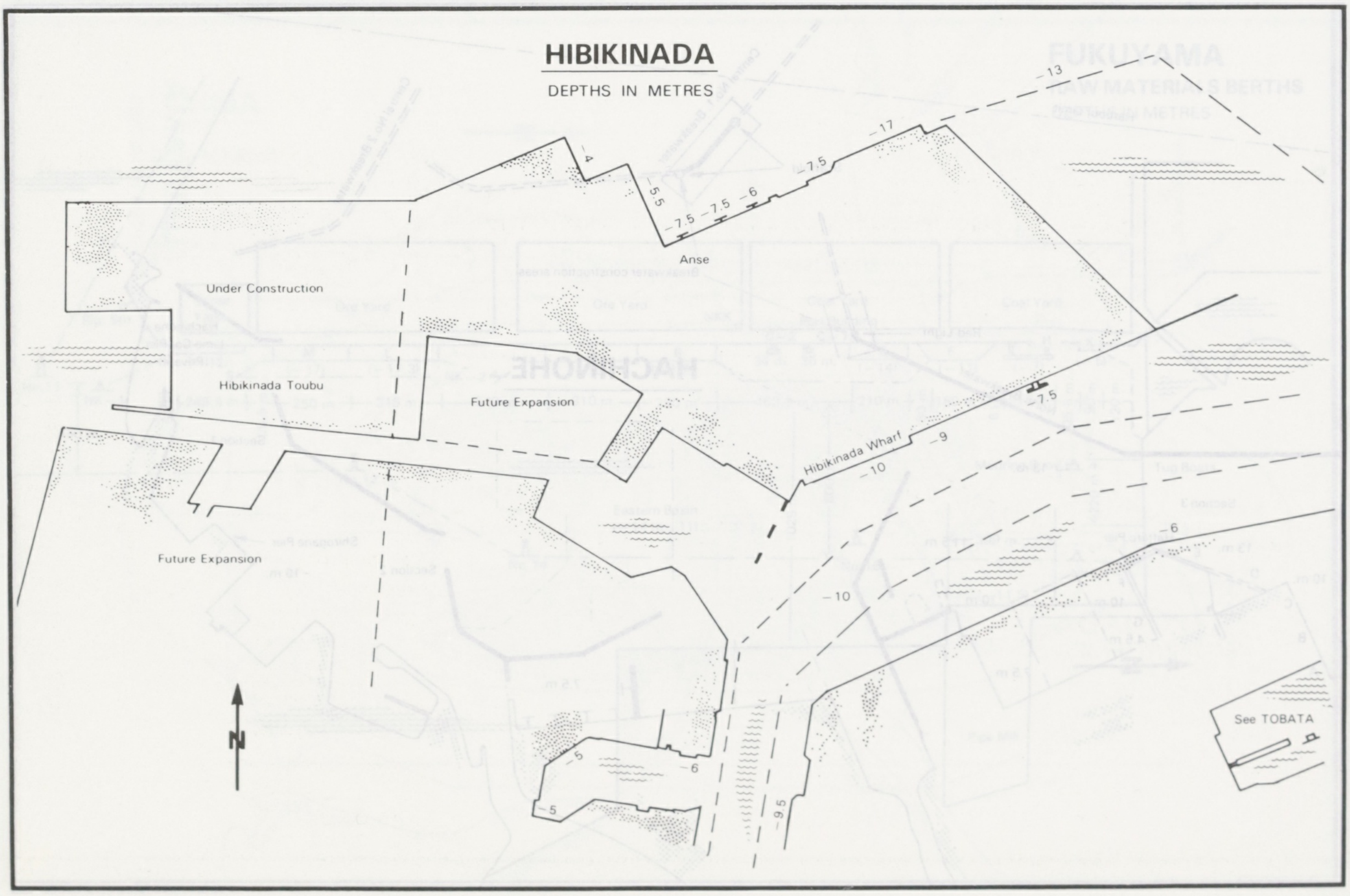

Harbour Limit
Central No. 1 Breakwater
Central No. 2 Breakwater
Scaffold
Breakwater construction areas
Red Light
HACHINOHE
North Breakwater
Hachinohe Lime Co. Pier (Private)
Section 1
13 m.
Section 3
Hattaro Pier
13 m.
E
D
10 m.
C
B
A
11.5 m.
F
10 m.
G
4.5 m.
10 m.
7.5 m.
Section 2
Shirogane Pier
– 10 m.
7.5 m.



HAKATA

DEPTHS IN METRES

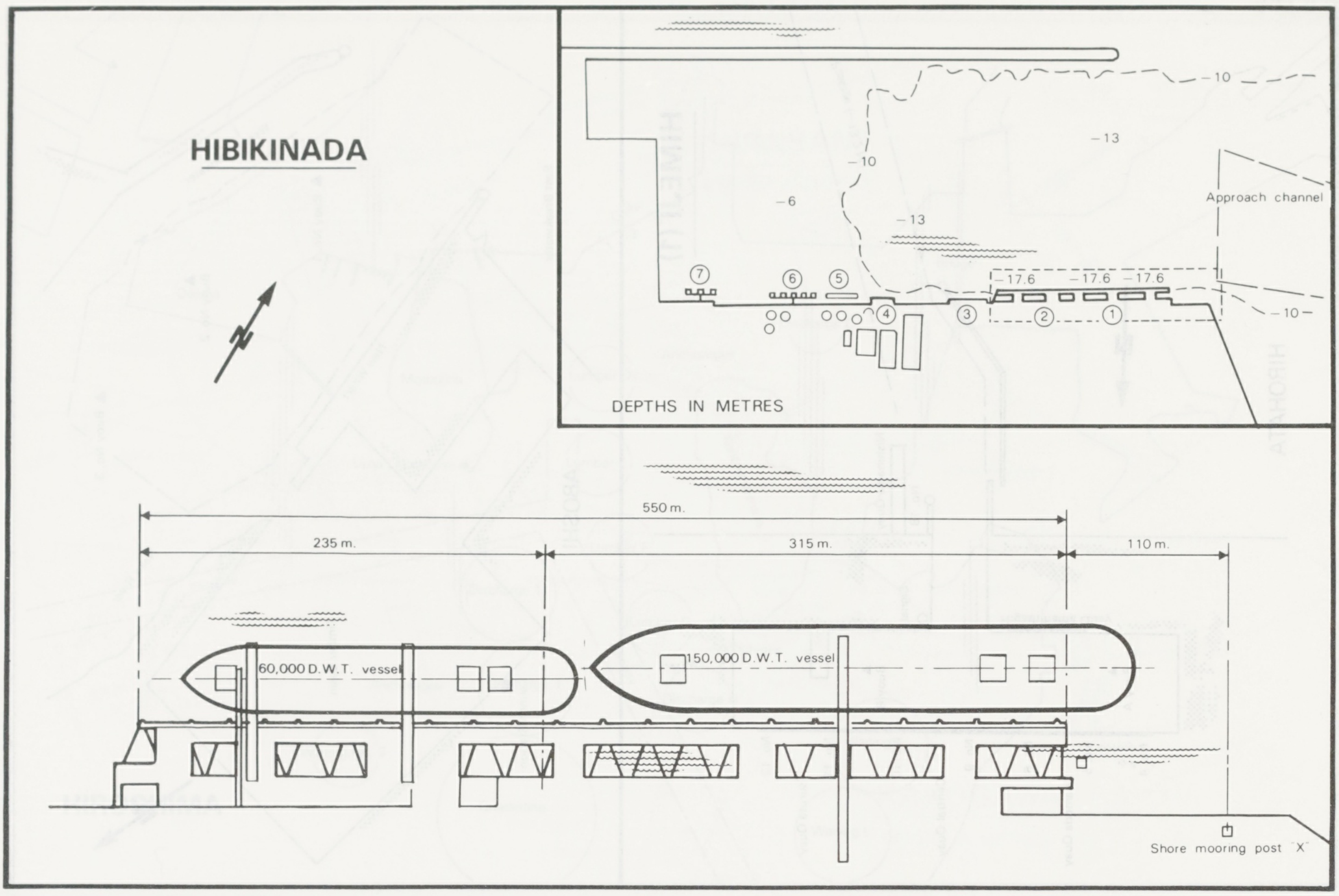
N
Passage
East Breakwater
–12
–12
–7.5
Container Yard
–12
–10
–7.5
Hakozaki Pier
Higasi
–7.5
–5
–10
–5
Section 1
–9
–10
–10
Centre Pier
–11
–10
–9
Custom House
Mikasa Ka
Suzaki Pier
–7.5
Naka Ka

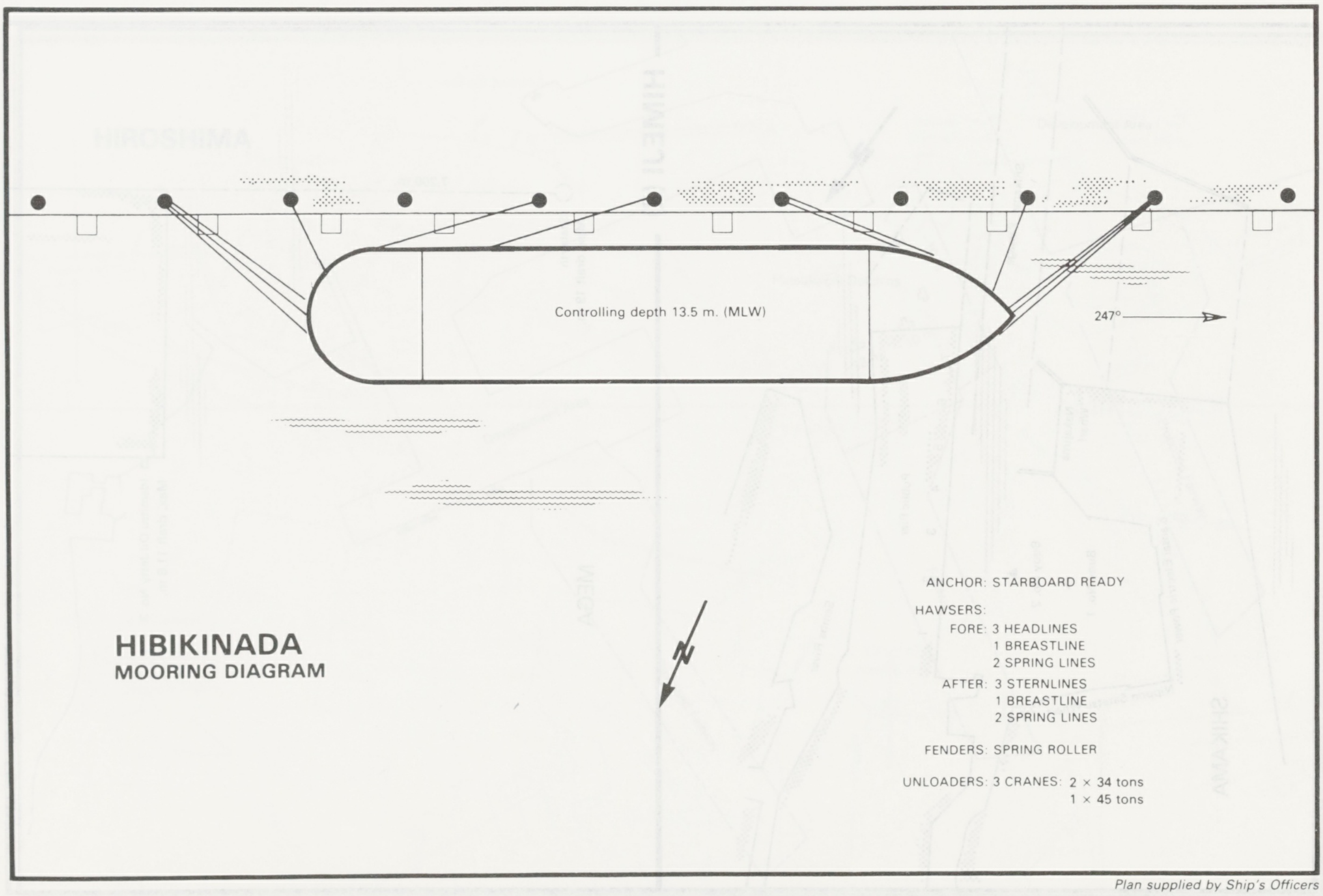


HIBIKINADA

DEPTHS IN METRES

–13
–17
–7.5
–4
–5.5
–7.5
–7.5
–6
Anse
Under Construction
Hibikinada Toubu
Future Expansion
–7.5
Hibikinada Wharf
–9
–10
Future Expansion
–10
–6
–5
–6
–5
–9.5
See TOBATA
N


HIBIKINADA
N
−10
−13
−10
−6
−13
Approach channel
−17.6
−17.6
−17.6
−10
⑦
⑥
⑤
④
③
②
①
DEPTHS IN METRES
550 m.
235 m.
315 m.
110 m.
60,000 D.W.T. vessel
150,000 D.W.T. vessel
Shore mooring post "X"


Controlling depth 13.5 m. (MLW)
247°
N

HIBIKINADA
MOORING DIAGRAM

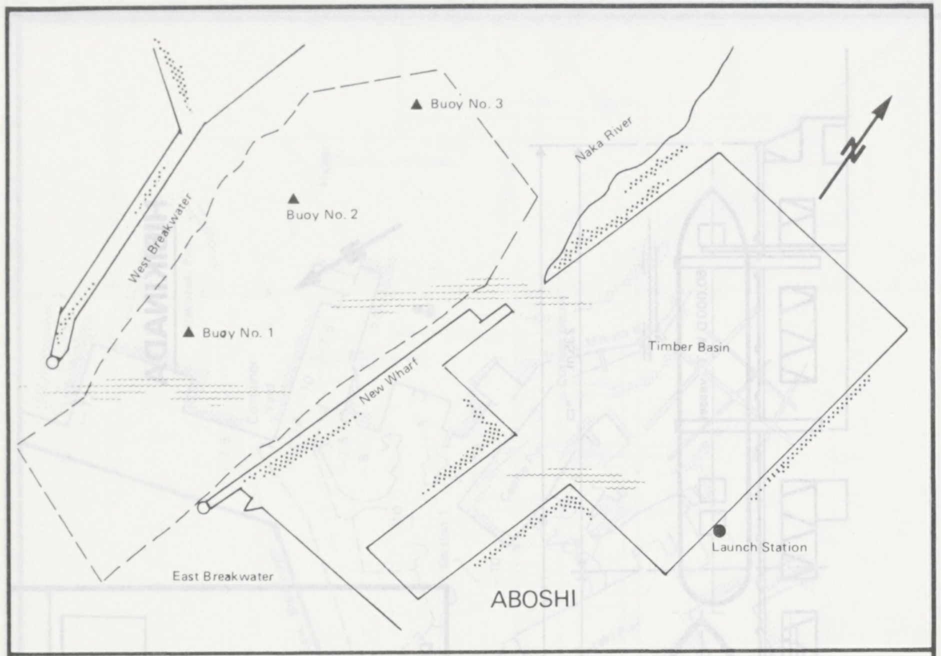
ANCHOR: STARBOARD READY

HAWSERS:
FORE: 3 HEADLINES
1 BREASTLINE
2 SPRING LINES
AFTER: 3 STERNLINES
1 BREASTLINE
2 SPRING LINES

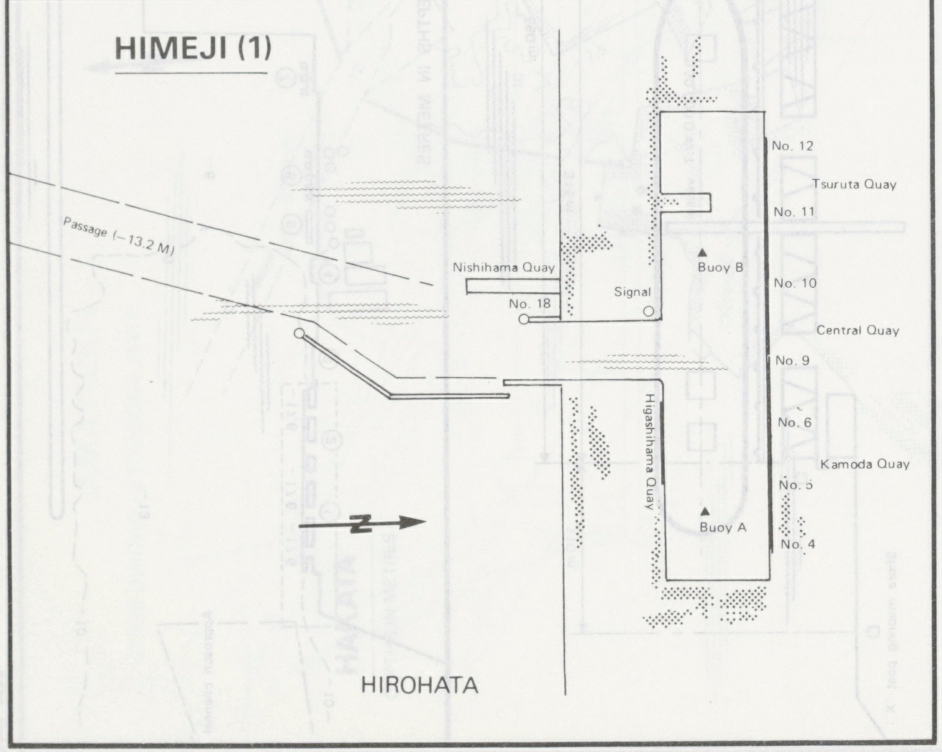
FENDERS: SPRING ROLLER

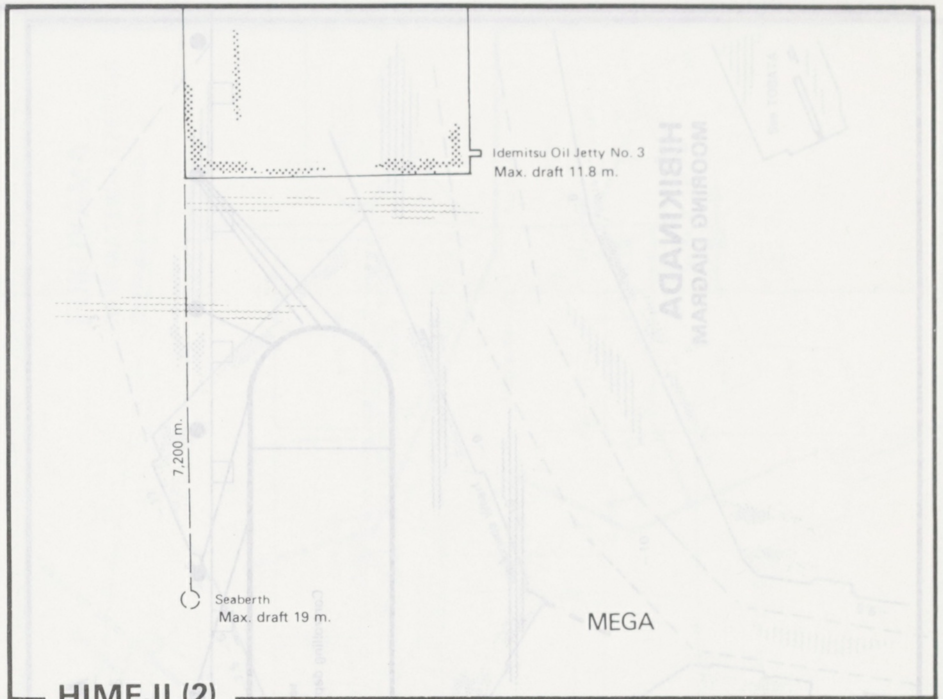
UNLOADERS: 3 CRANES: 2 × 34 tons
1 × 45 tons

Plan supplied by Ship's Officers

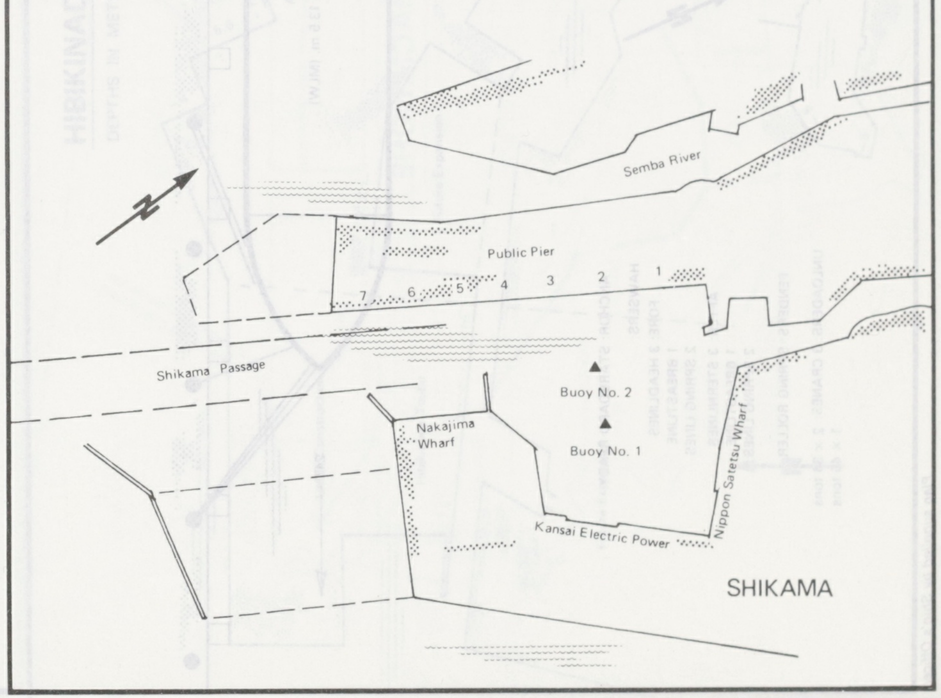

Buoy No. 3
Naka River
Buoy No. 2
West Breakwater
Buoy No. 1
New Wharf
Timber Basin
Launch Station
East Breakwater
ABOSHI

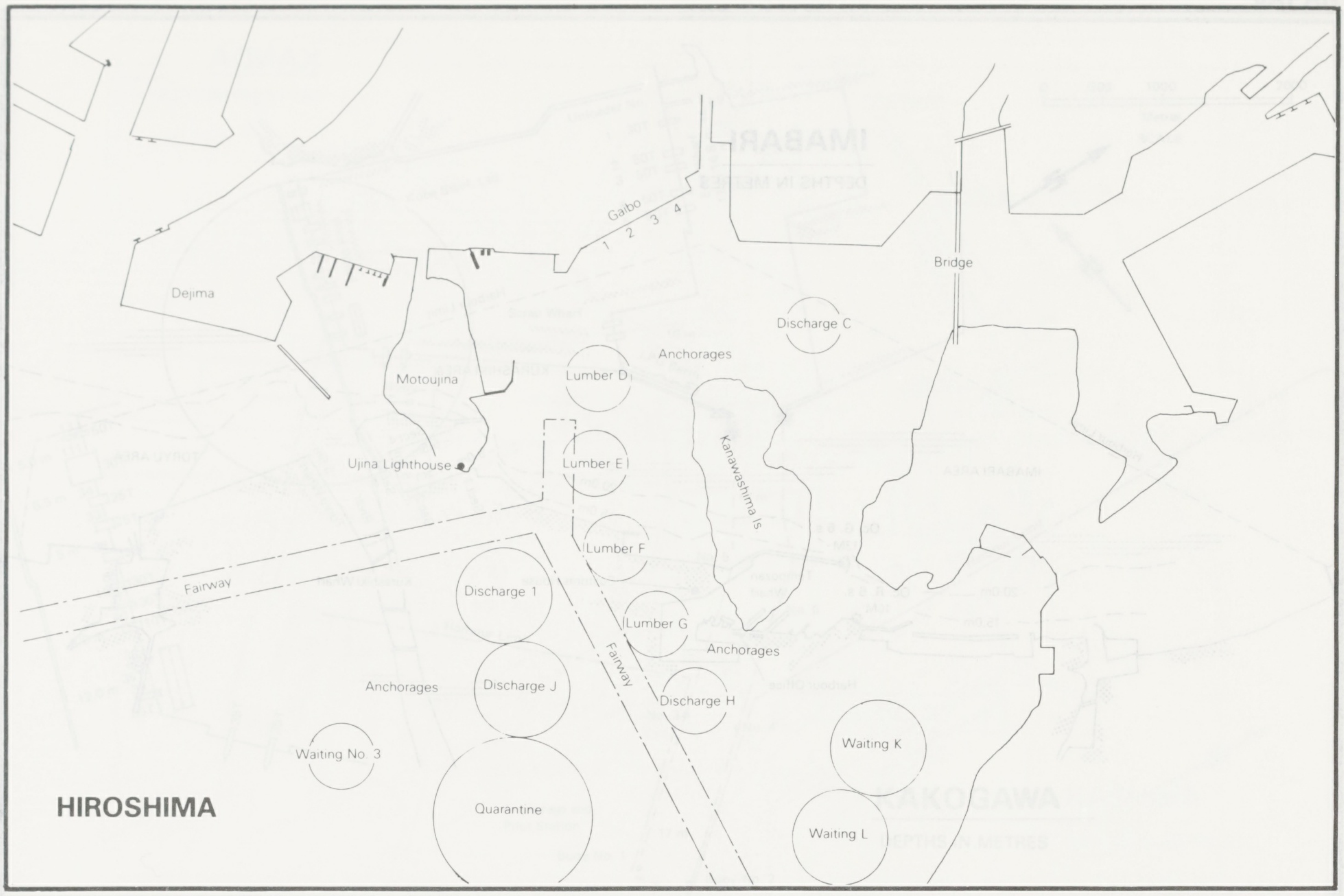
HIMEJI (1)

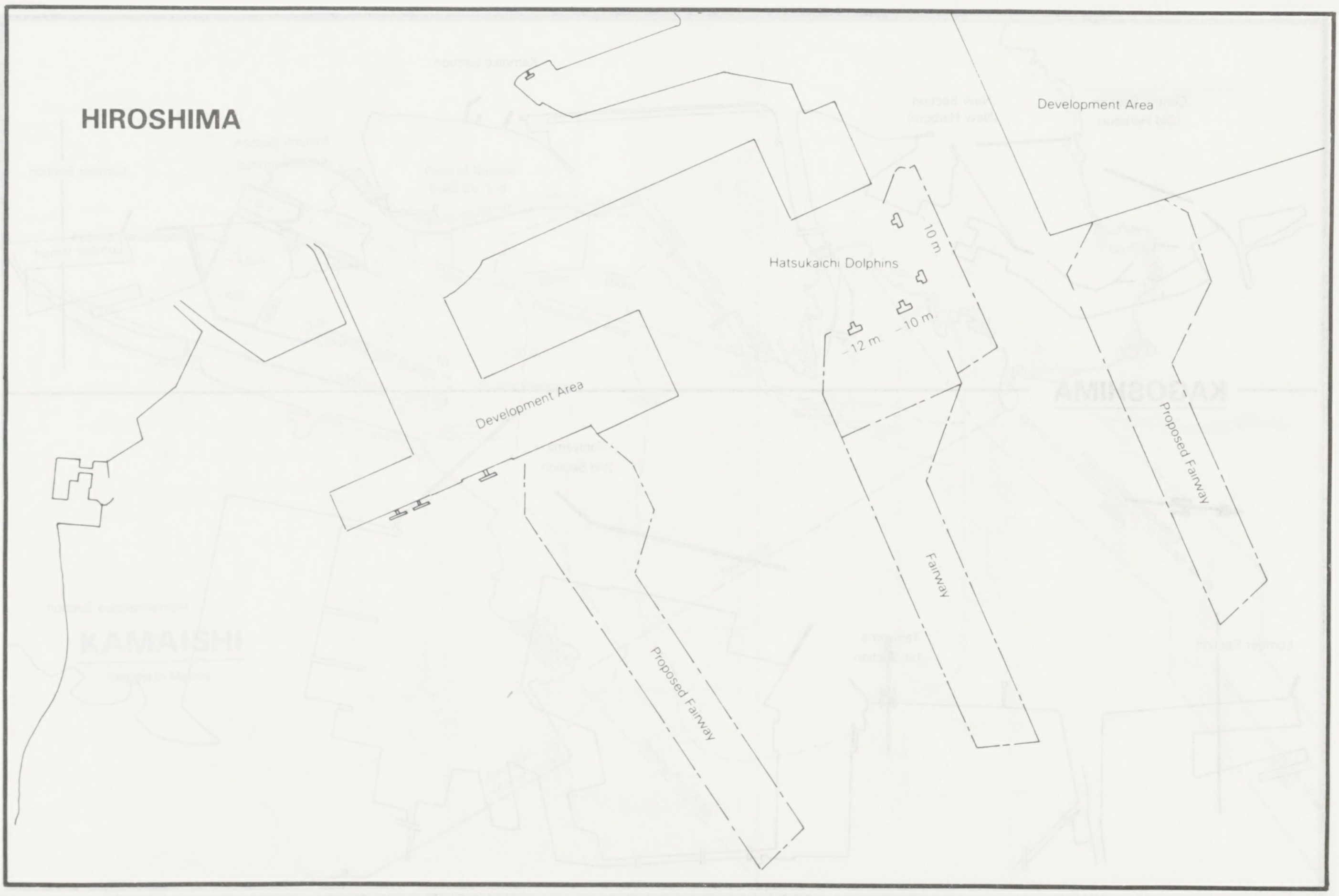

No. 12
Tsuruta Quay
No. 11
Passage (– 13.2 M)
Nishihama Quay
Buoy B
No. 10
No. 18
Signal
Central Quay
No. 9
Higashihama Quay
No. 6
Kamoda Quay
No. 5
Buoy A
No. 4
HIROHATA

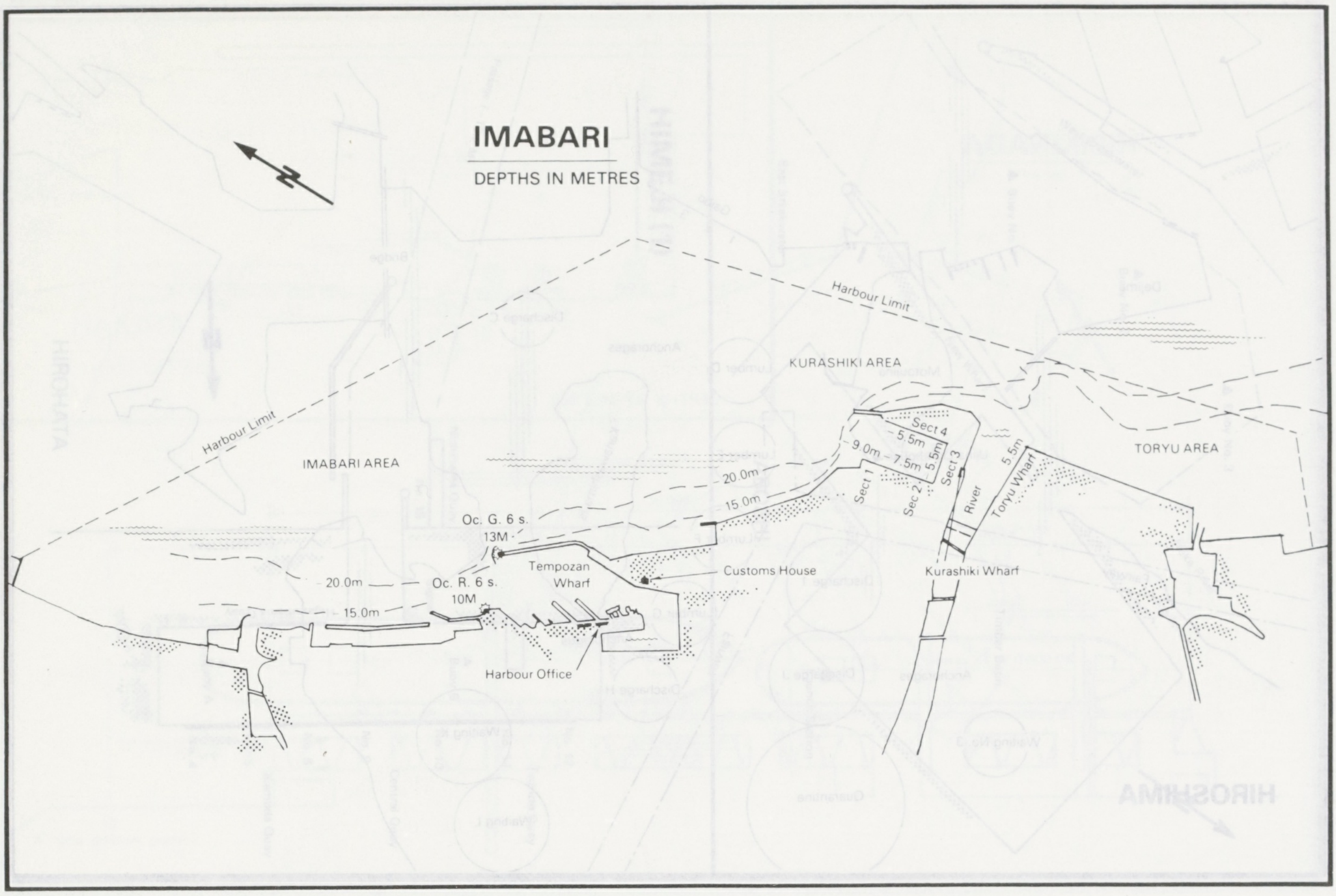

Idemitsu Oil Jetty No. 3
Max. draft 11.8 m.
7,200 m.
Seaberth
Max. draft 19 m.
MEGA

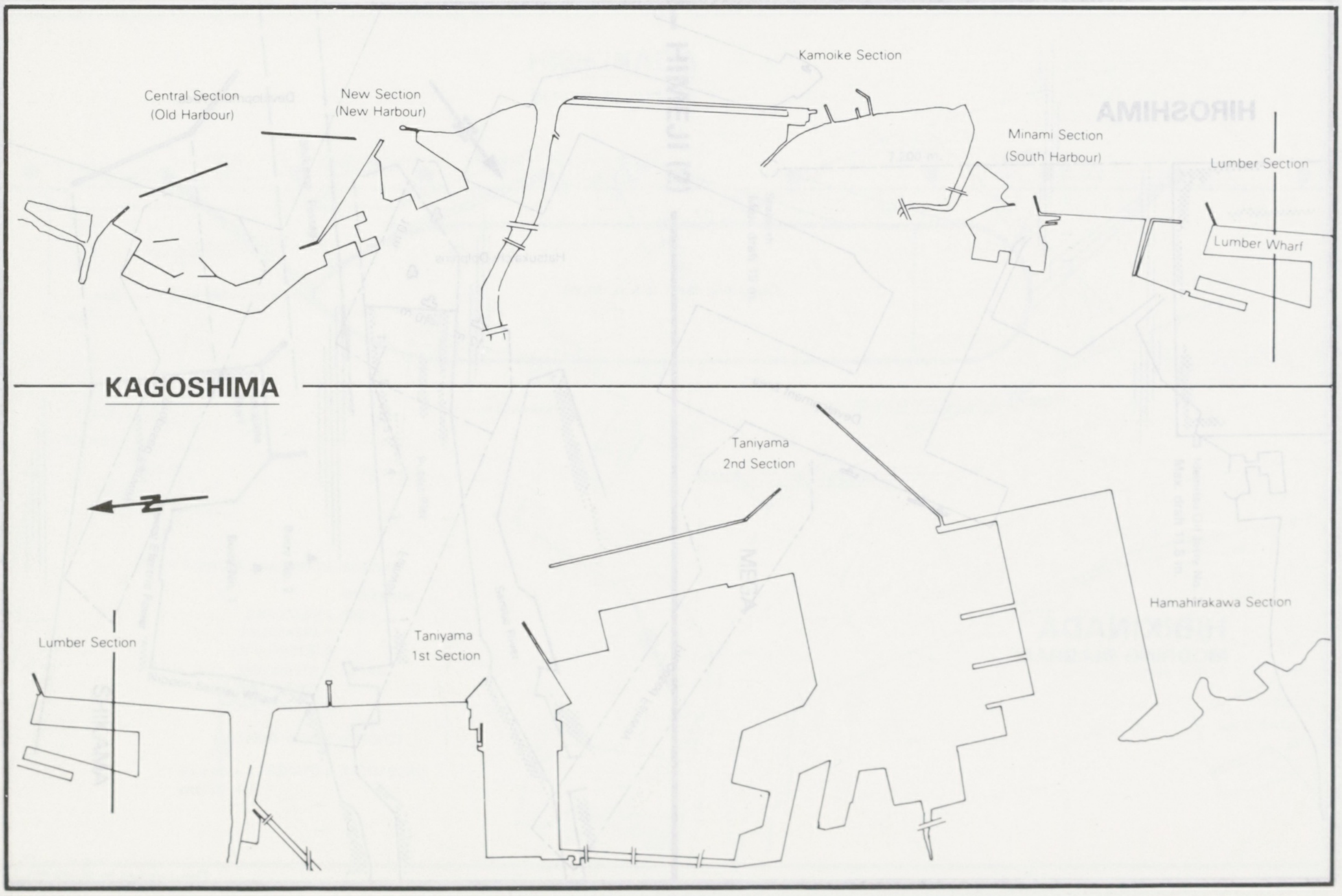
HIMEJI (2)

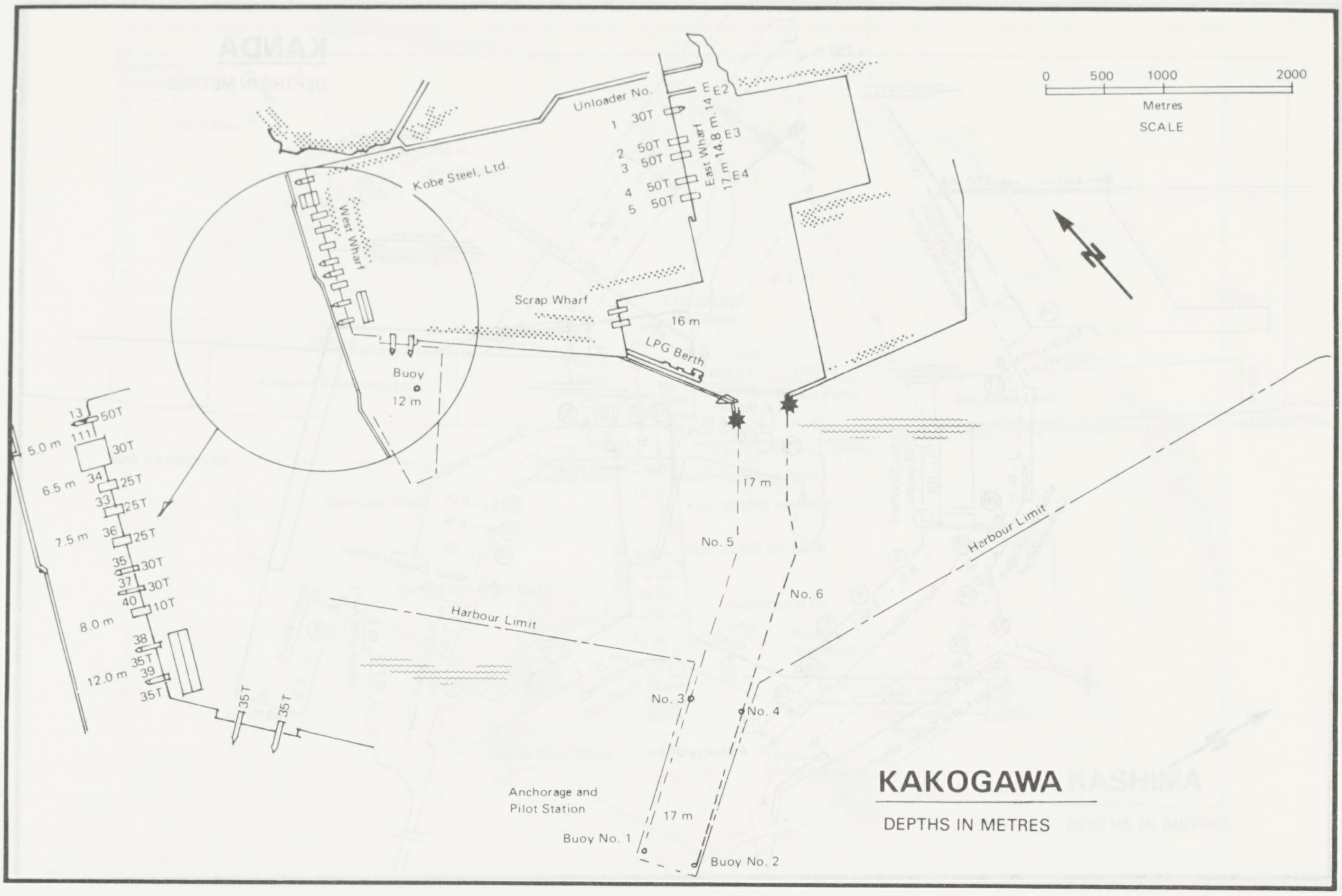

Semba River
Public Pier
7
6
5
4
3
2
1
Shikama Passage
Buoy No. 2
Nakajima Wharf
Buoy No. 1
Nippon Satetsu Wharf
Kansai Electric Power
SHIKAMA


Gaibo
1
2
3
4
Bridge
Dejima
Discharge C
Anchorages
Lumber D
Motoujina
Kanawashima Is
Ujina Lighthouse
Lumber E
Lumber F
Fairway
Discharge 1
Lumber G
Anchorages
Fairway
Anchorages
Discharge J
Discharge H
Waiting K
Waiting No. 3
HIROSHIMA
Quarantine
Waiting L


HIROSHIMA
Development Area
Hatsukaichi Dolphins
10 m
−12 m
−10 m
Development Area
Proposed Fairway
Fairway
Proposed Fairway


IMABARI
DEPTHS IN METRES
Harbour Limit
Harbour Limit
IMABARI AREA
KURASHIKI AREA
TORYU AREA
Sect 4
5.5m
9.0m – 7.5m
5.5m
Sect 3
Sect 1
Sec 2
River
Toryu Wharf
5.5m
20.0m
15.0m
Oc. G. 6 s.
13M
Tempozan
Wharf
Customs House
Kurashiki Wharf
20.0m
Oc. R. 6 s.
10M
15.0m
Harbour Office

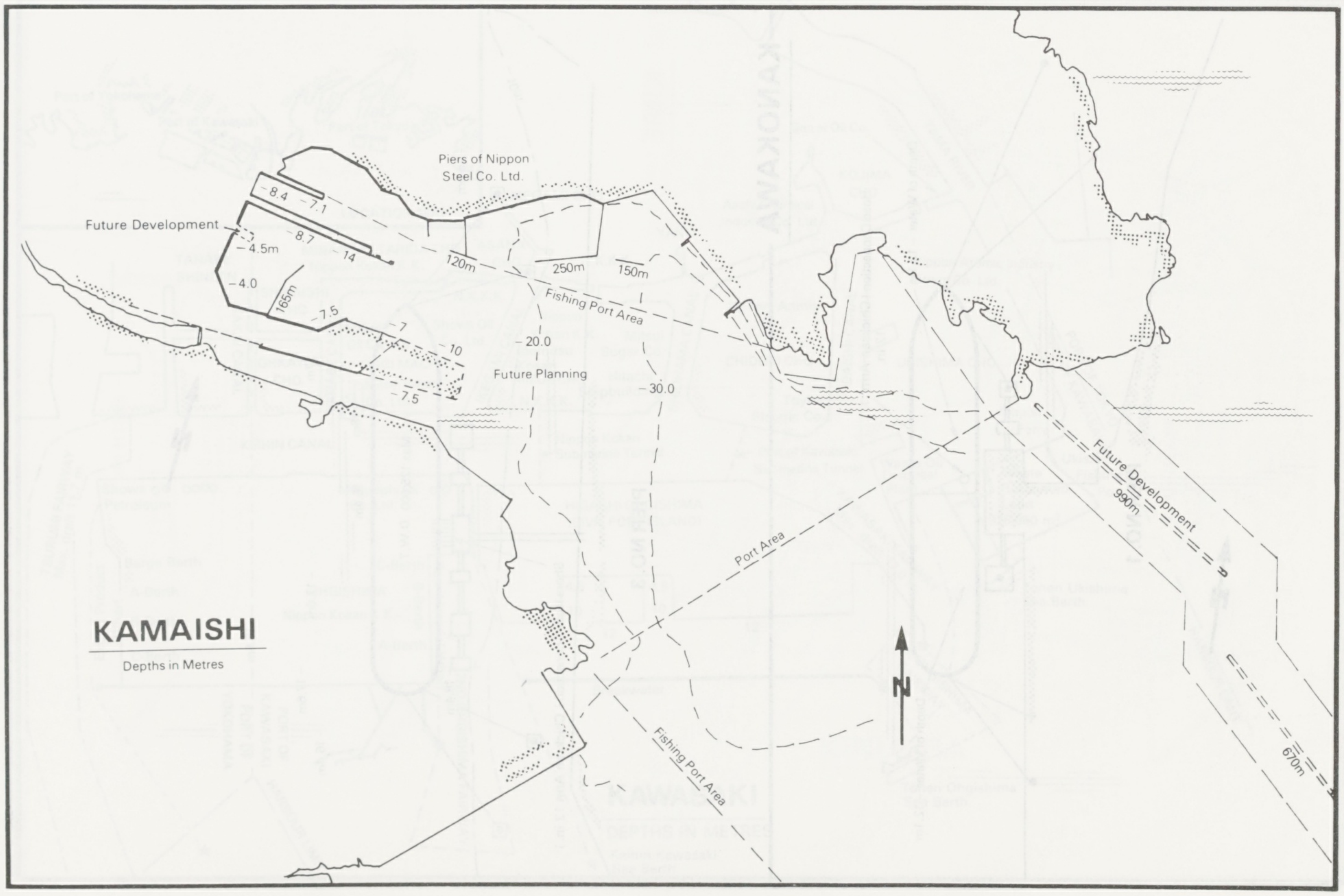

Kamoike Section
Central Section
(Old Harbour)
New Section
(New Harbour)
Minami Section
(South Harbour)
Lumber Section
Lumber Wharf
KAGOSHIMA
Taniyama
2nd Section
Hamahirakawa Section
Lumber Section
Taniyama
1st Section



KAKOGAWA

DEPTHS IN METRES

0 500 1000 2000
Metres
SCALE
N
Unloader No.
1 30T
2 50T
3 50T
4 50T
5 50T
E2
E3
E4
14 m
14.8 m
17 m
East Wharf
Kobe Steel, Ltd.
West Wharf
Scrap Wharf
16 m
LPG Berth
Buoy
12 m
13 50T
111
5.0 m
30T
6.5 m
34 25T
33 25T
7.5 m
36 25T
35 30T
37 30T
40 10T
8.0 m
38
35T
39
12.0 m
35T
35T
35T
17 m
No. 5
No. 6
Harbour Limit
Harbour Limit
No. 3
No. 4
Anchorage and Pilot Station
17 m
Buoy No. 1
Buoy No. 2



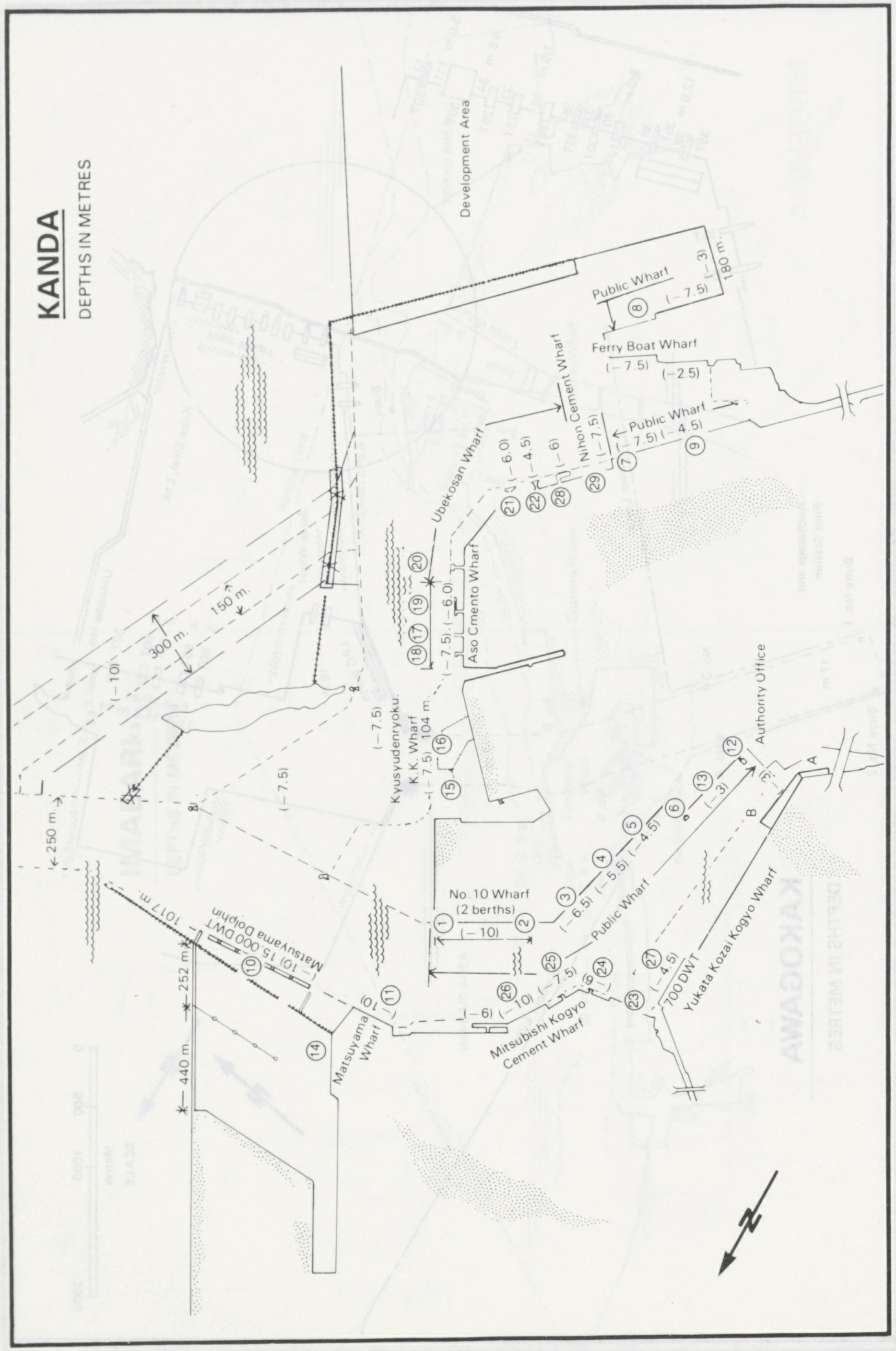
KAMAISHI

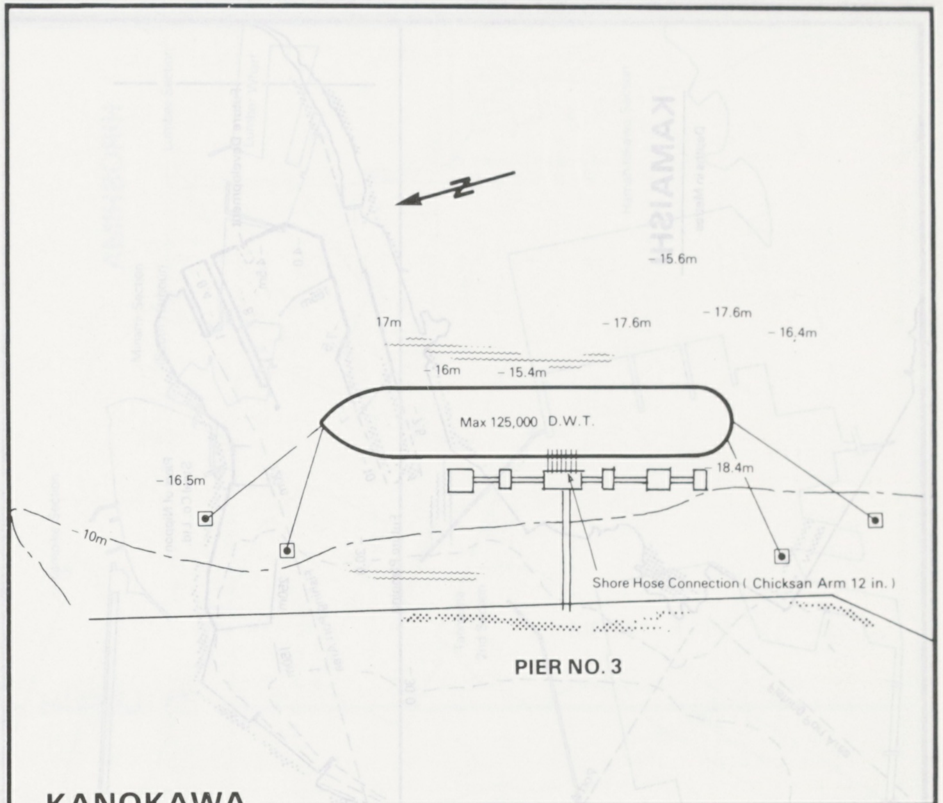
Depths in Metres

Piers of Nippon Steel Co. Ltd.
Future Development
-8.4
-7.1
-8.7
14
-4.5m
-4.0
165m
-7.5
120m
250m
150m
Fishing Port Area
-7
10
-20.0
Future Planning
-30.0
-7.5
Port Area
Future Development
990m
670m
N
Fishing Port Area

KANDA

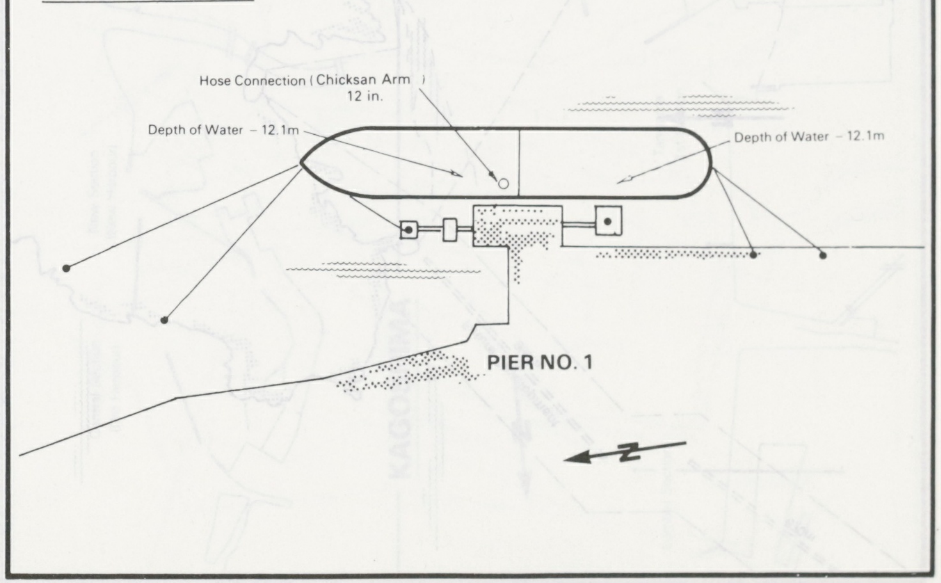
DEPTHS IN METRES


Development Area
Public Wharf
8
(–7.5)
(–3)
180 m
Ferry Boat Wharf
(–7.5)
(–2.5)
Nihon Cement Wharf
Public Wharf
(–7.5)
(–7.5)
(–4.5)
7
9
Ubekosan Wharf
(–6.0)
(–4.5)
(–6)
21
22
28
29
20
Aso Cmento Wharf
(–7.5)
(–6.0)
18
17
19
Kyusyudenryoku K.K. Wharf
(–7.5) 104 m
16
15
(–7.5)
(–7.5)
(–10)
300 m
150 m
250 m
No.10 Wharf (2 berths)
1
2
(–10)
3
4
5
6
13
12
(–6.5)
(–5.5)
(–4.5)
(–3)
Public Wharf
Authority Office
A
B
25
26
24
27
23
(–6)
(–10)
(–7.5)
(–4.5)
700 DWT
Yukata Kozai Kogyo Wharf
Mitsubishi Kogyo Cement Wharf
Matsuyama Wharf
11
(–10)
14
10
(–10) 15,000 DWT
Matsuyama Dolphin
1017 m
252 m
440 m
N

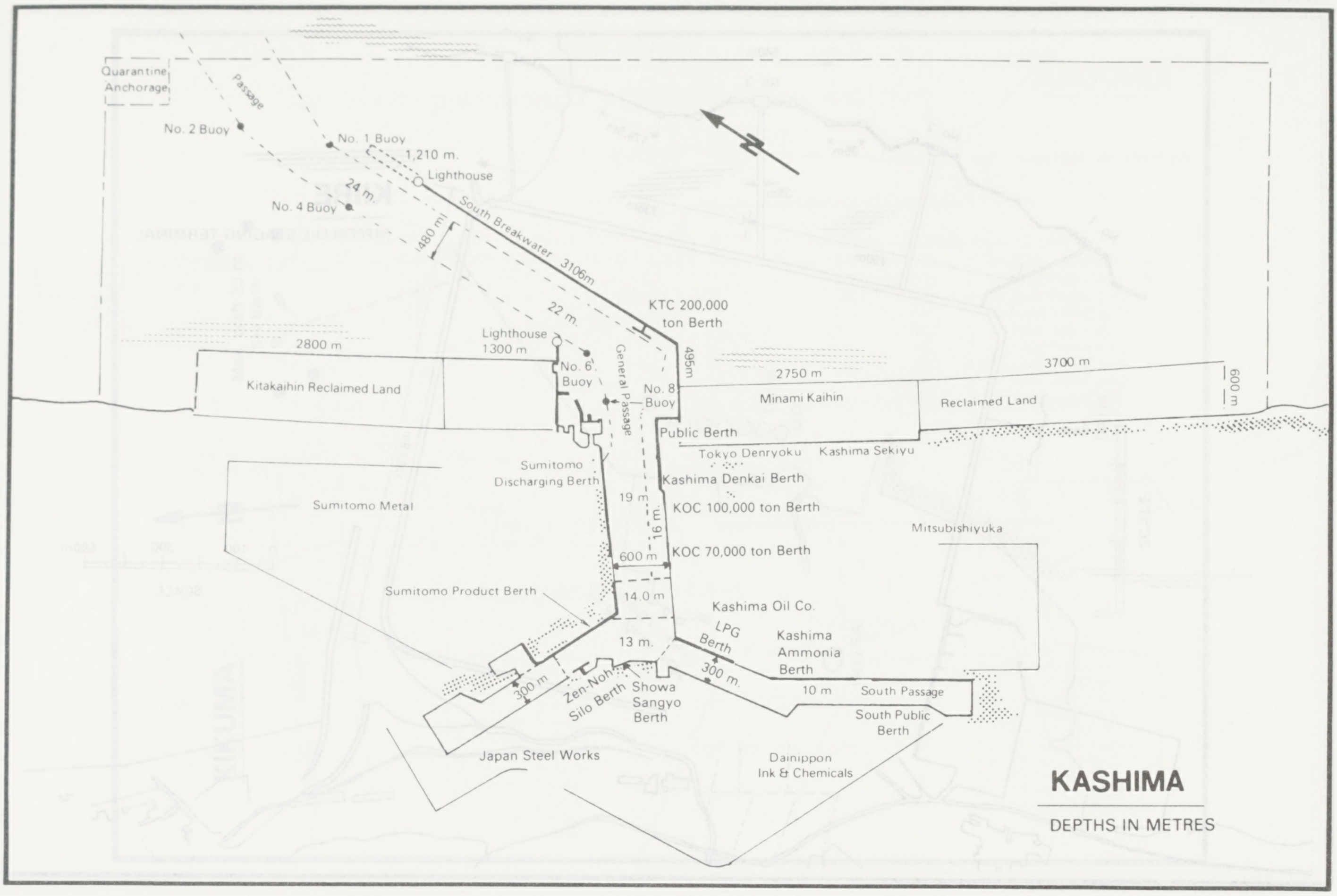

N
– 15.6m
17m
– 17.6m
– 17.6m
– 16.4m
– 16m
– 15.4m
Max 125,000 D.W.T.
– 18.4m
– 16.5m
10m
Shore Hose Connection (Chicksan Arm 12 in.)

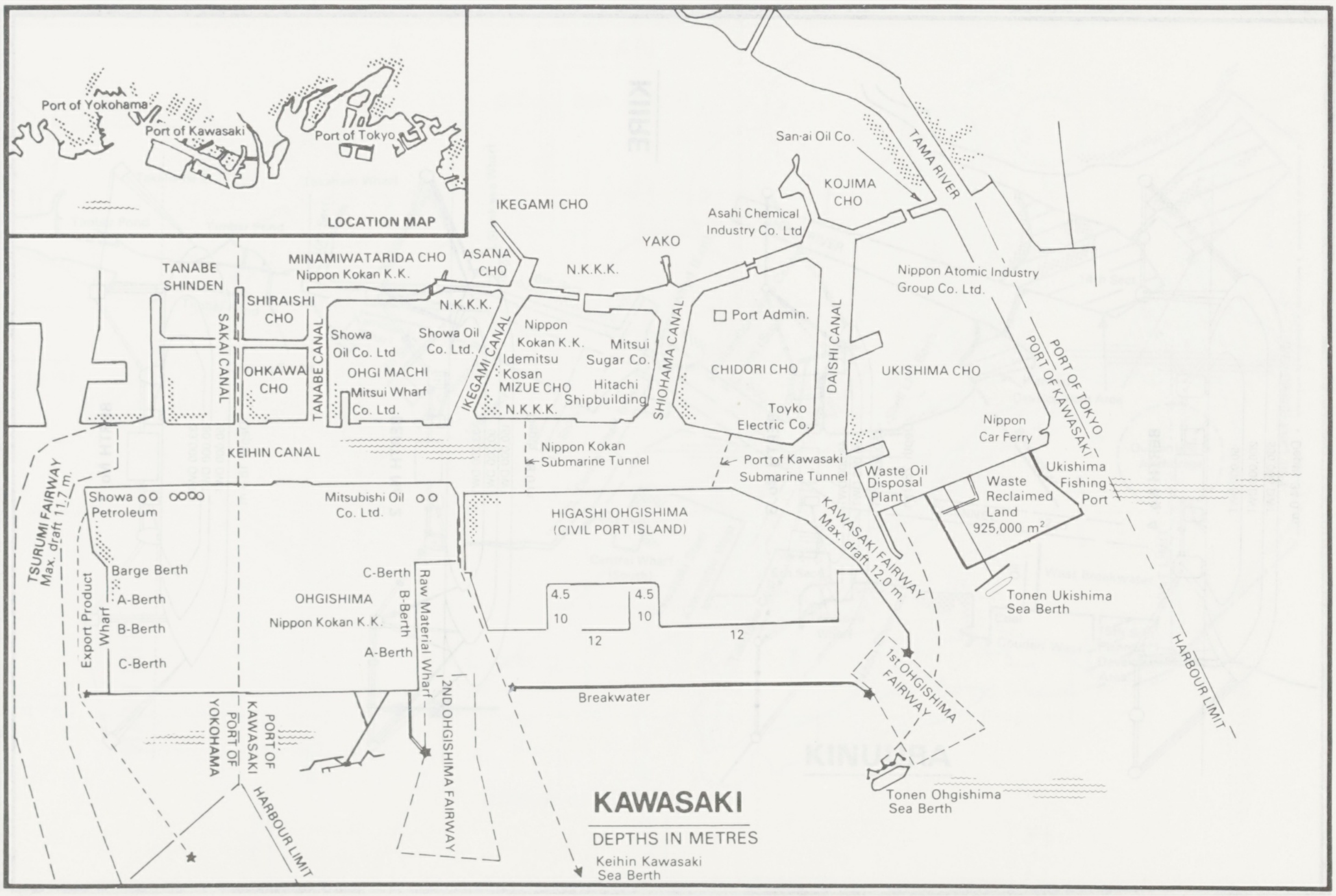
PIER NO. 3

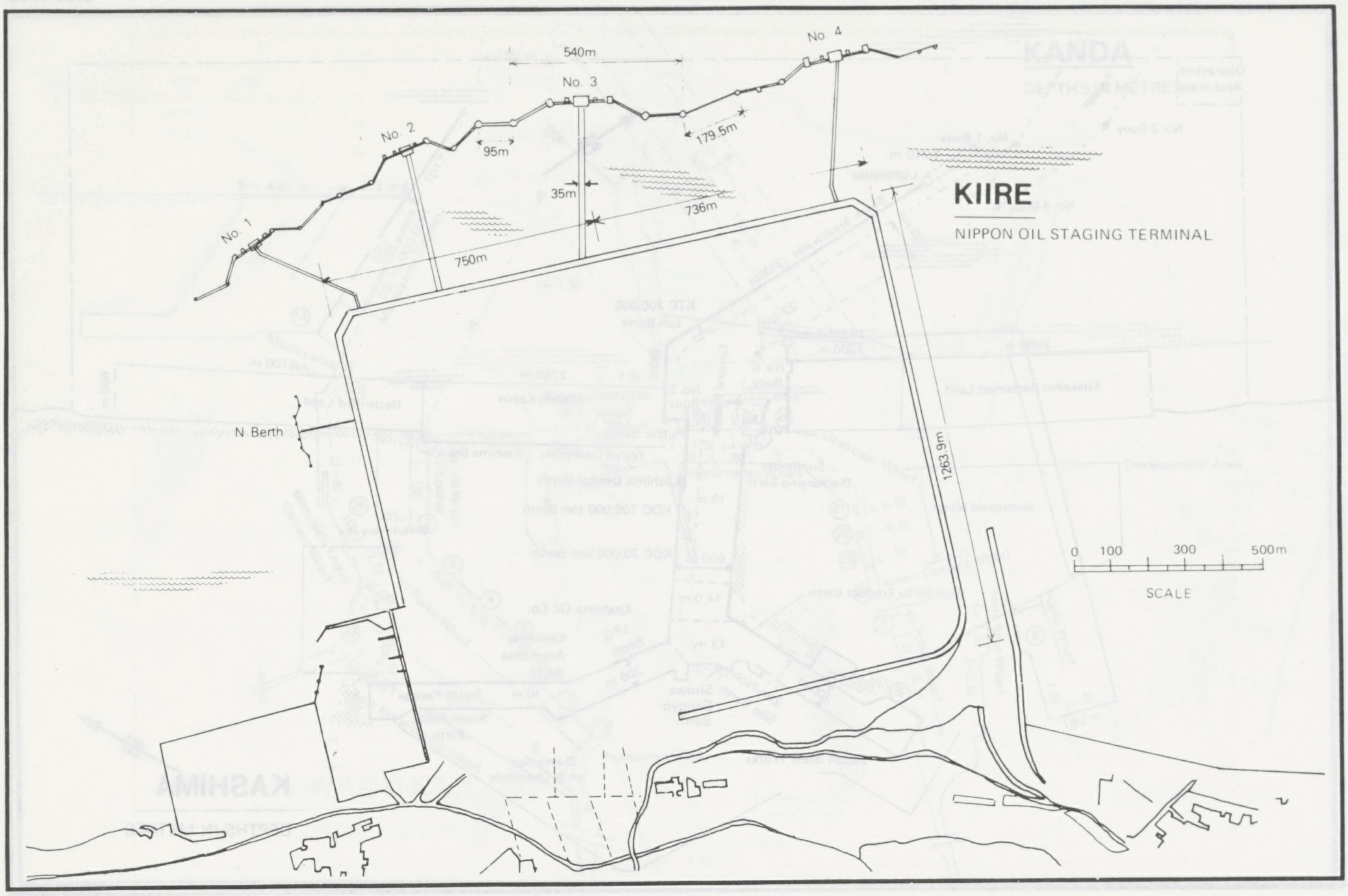
KANOKAWA

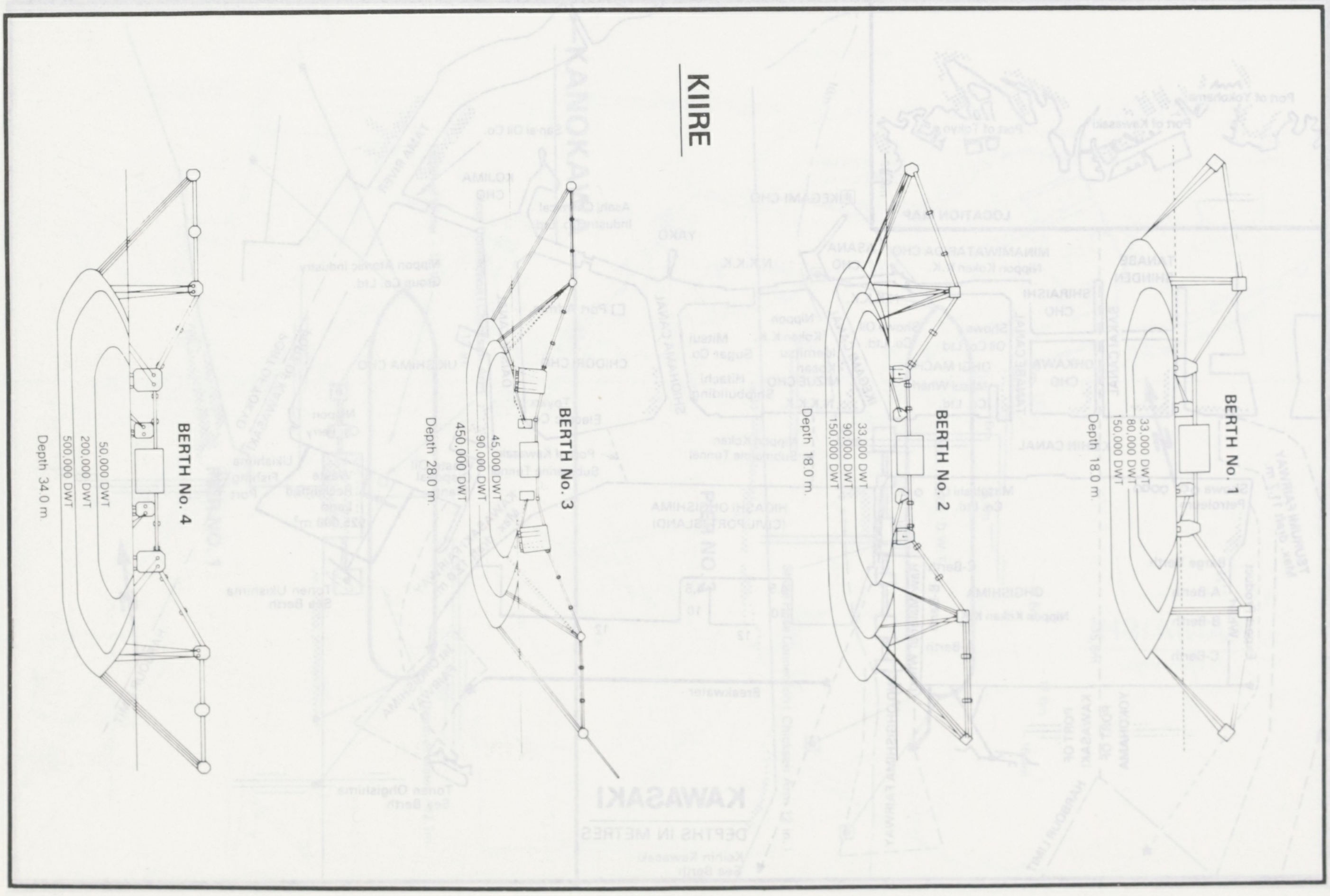

Hose Connection (Chicksan Arm 12 in.)
Depth of Water – 12.1m
Depth of Water – 12.1m
N

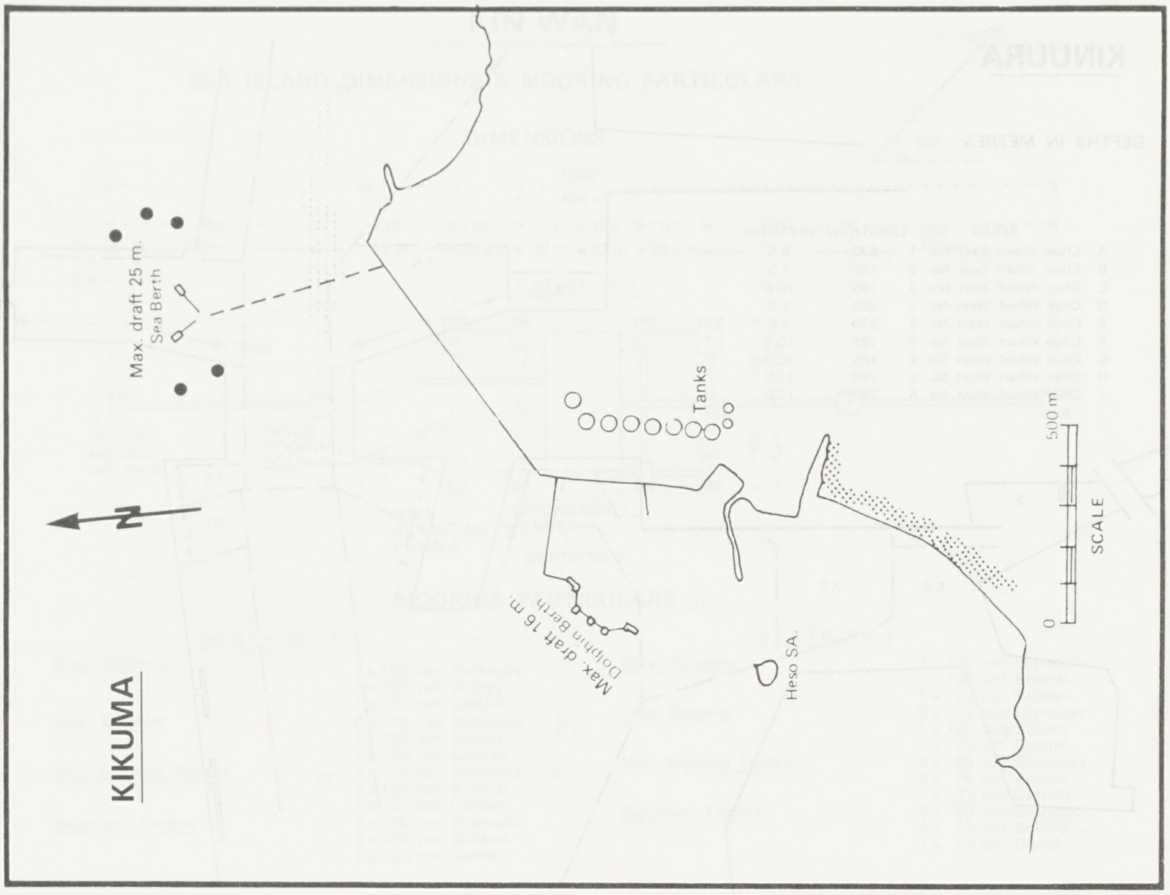
PIER NO. 1

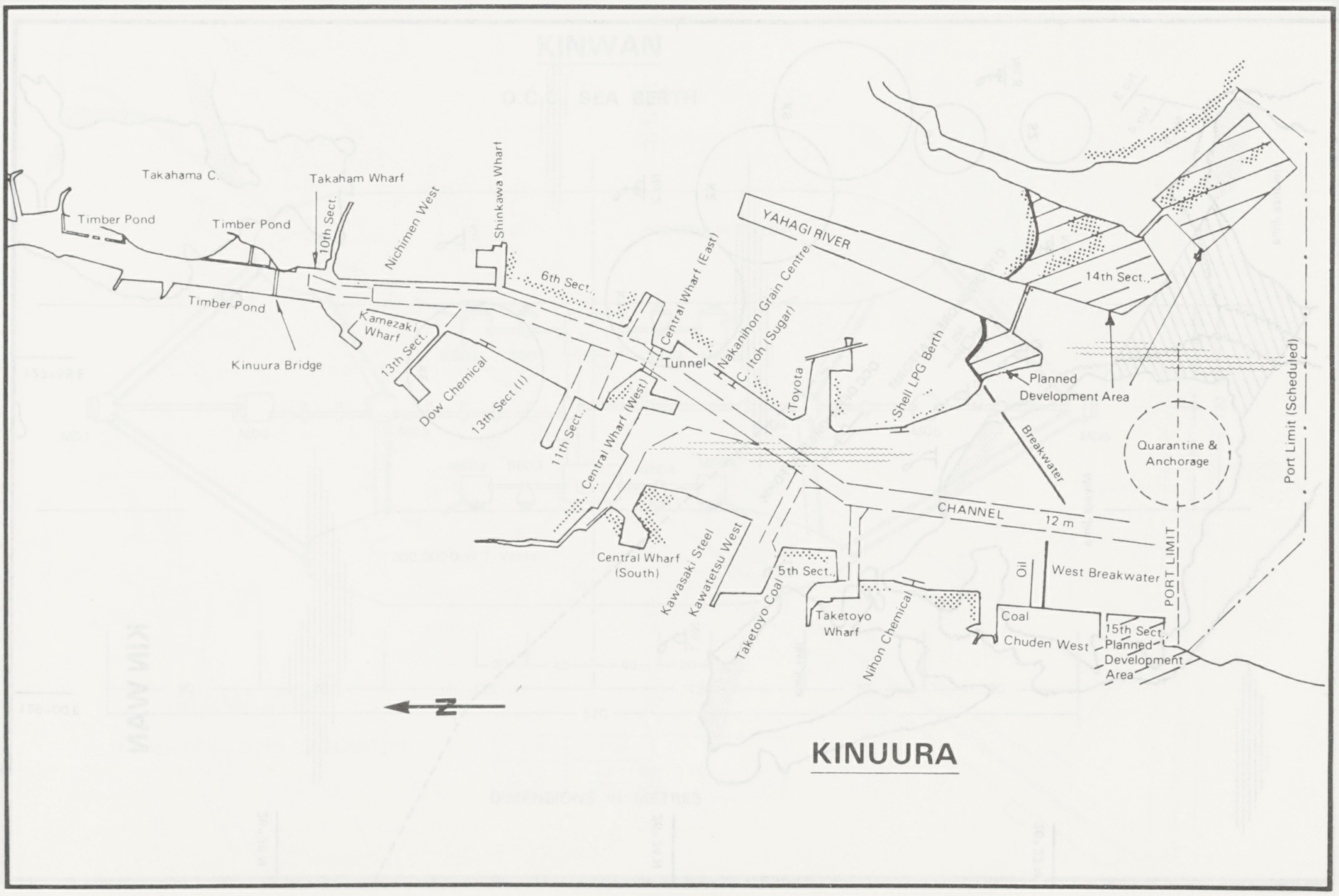

Quarantine Anchorage
Passage
No. 2 Buoy
No. 1 Buoy
1,210 m.
Lighthouse
24 m.
No. 4 Buoy
480 m
South Breakwater 3106m
22 m.
KTC 200,000 ton Berth
Lighthouse 1300 m
2800 m
General Passage
No. 6 Buoy
No. 8 Buoy
495m
2750 m
3700 m
600 m
Kitakaihin Reclaimed Land
Minami Kaihin
Reclaimed Land
Public Berth
Tokyo Denryoku
Kashima Sekiyu
Sumitomo Discharging Berth
Kashima Denkai Berth
Sumitomo Metal
19 m
16 m
KOC 100,000 ton Berth
Mitsubishiyuka
600 m
KOC 70,000 ton Berth
Sumitomo Product Berth
14.0 m
Kashima Oil Co.
LPG Berth
Kashima Ammonia Berth
13 m.
300 m
Zen-Noh Silo Berth
Showa Sangyo Berth
300 m.
10 m
South Passage
South Public Berth
Japan Steel Works
Dainippon Ink & Chemicals
KASHIMA
DEPTHS IN METRES

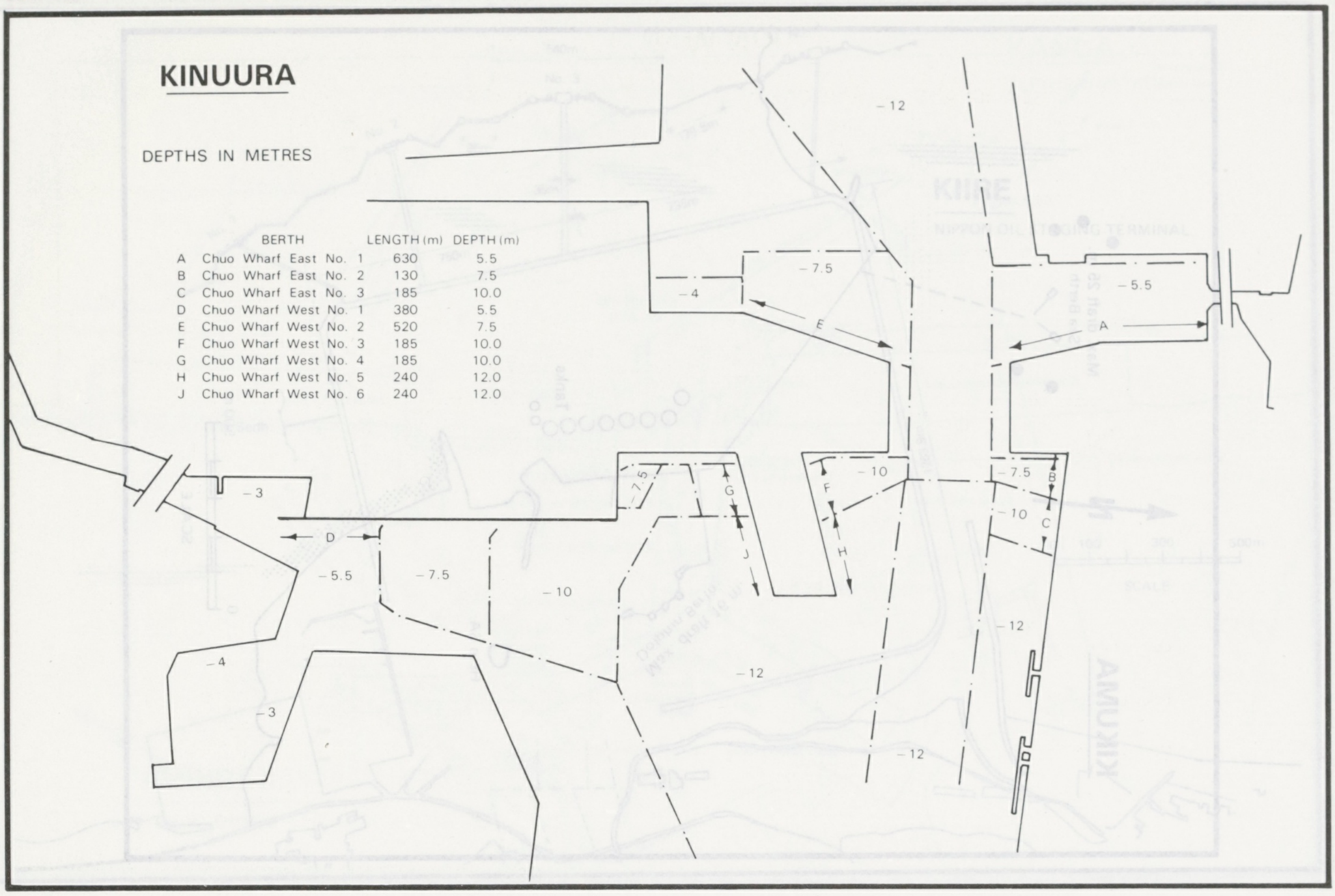

Port of Yokohama
Port of Kawasaki
Port of Tokyo
LOCATION MAP
San-ai Oil Co.
TAMA RIVER
KOJIMA CHO
IKEGAMI CHO
Asahi Chemical Industry Co. Ltd.
YAKO
TANABE SHINDEN
MINAMIWATARIDA CHO
Nippon Kokan K.K.
ASANA CHO
N.K.K.K.
Nippon Atomic Industry Group Co. Ltd.
SHIRAISHI CHO
N.K.K.K.
Showa Oil Co. Ltd
Showa Oil Co. Ltd.
Nippon Kokan K.K.
Mitsui Sugar Co.
Port Admin.
SAKAI CANAL
TANABE CANAL
IKEGAMI CANAL
SHIOHAMA CANAL
DAISHI CANAL
OHKAWA CHO
OHGI MACHI
Idemitsu Kosan
MIZUE CHO
Hitachi Shipbuilding
CHIDORI CHO
UKISHIMA CHO
PORT OF TOKYO
PORT OF KAWASAKI
Mitsui Wharf Co. Ltd.
N.K.K.K.
Toyko Electric Co.
Nippon Car Ferry
KEIHIN CANAL
Nippon Kokan Submarine Tunnel
Port of Kawasaki Submarine Tunnel
Waste Oil Disposal Plant
Ukishima Fishing Port
TSURUMI FAIRWAY Max. draft 11.7 m.
Showa Petroleum
Mitsubishi Oil Co. Ltd.
HIGASHI OHGISHIMA (CIVIL PORT ISLAND)
KAWASAKI FAIRWAY Max. draft 12.0 m.
Waste Reclaimed Land 925,000 m²
Barge Berth
Export Product Wharf
A-Berth
B-Berth
C-Berth
OHGISHIMA
Nippon Kokan K.K.
C-Berth
B-Berth
A-Berth
Raw Material Wharf
4.5
10
4.5
10
12
12
Tonen Ukishima Sea Berth
HARBOUR LIMIT
Breakwater
1st OHGISHIMA FAIRWAY
PORT OF YOKOHAMA
PORT OF KAWASAKI
HARBOUR LIMIT
2ND OHGISHIMA FAIRWAY
KAWASAKI
DEPTHS IN METRES
Keihin Kawasaki Sea Berth
Tonen Ohgishima Sea Berth


KIIRE
NIPPON OIL STAGING TERMINAL
No. 1
No. 2
No. 3
No. 4
540m
95m
179.5m
35m
736m
750m
1263.9m
N Berth
0
100
300
500m
SCALE


KIIRE
BERTH No. 1
33,000 DWT
80,000 DWT
150,000 DWT
Depth 18.0 m.
BERTH No. 2
33,000 DWT
90,000 DWT
150,000 DWT
Depth 18.0 m.
BERTH No. 3
45,000 DWT
90,000 DWT
450,000 DWT
Depth 28.0 m.
BERTH No. 4
50,000 DWT
200,000 DWT
500,000 DWT
Depth 34.0 m.


Max. draft 25 m.
Sea Berth
N
Tanks
Max draft 16 m
Dolphin Berth
Heso SA
500 m
0
SCALE
KIKUMA


Takahama C.
Takaham Wharf
Timber Pond
Timber Pond
10th Sect.
Nichimen West
Shinkawa Wharf
6th Sect.
Timber Pond
Kamezaki Wharf
13th Sect.
Kinuura Bridge
Dow Chemical
13th Sect (I)
11th Sect.
Central Wharf (West)
Central Wharf (East)
Tunnel
Nakanihon Grain Centre
C. Itoh (Sugar)
Toyota
Shell LPG Berth
YAHAGI RIVER
14th Sect.
Planned Development Area
Breakwater
Quarantine & Anchorage
Port Limit (Scheduled)
CHANNEL
12 m
Central Wharf (South)
Kawasaki Steel
Kawatetsu West
Taketoyo Coal
5th Sect.
Taketoyo Wharf
Nihon Chemical
Oil
West Breakwater
Coal
Chuden West
PORT LIMIT
15th Sect.
Planned Development Area
N
KINUURA

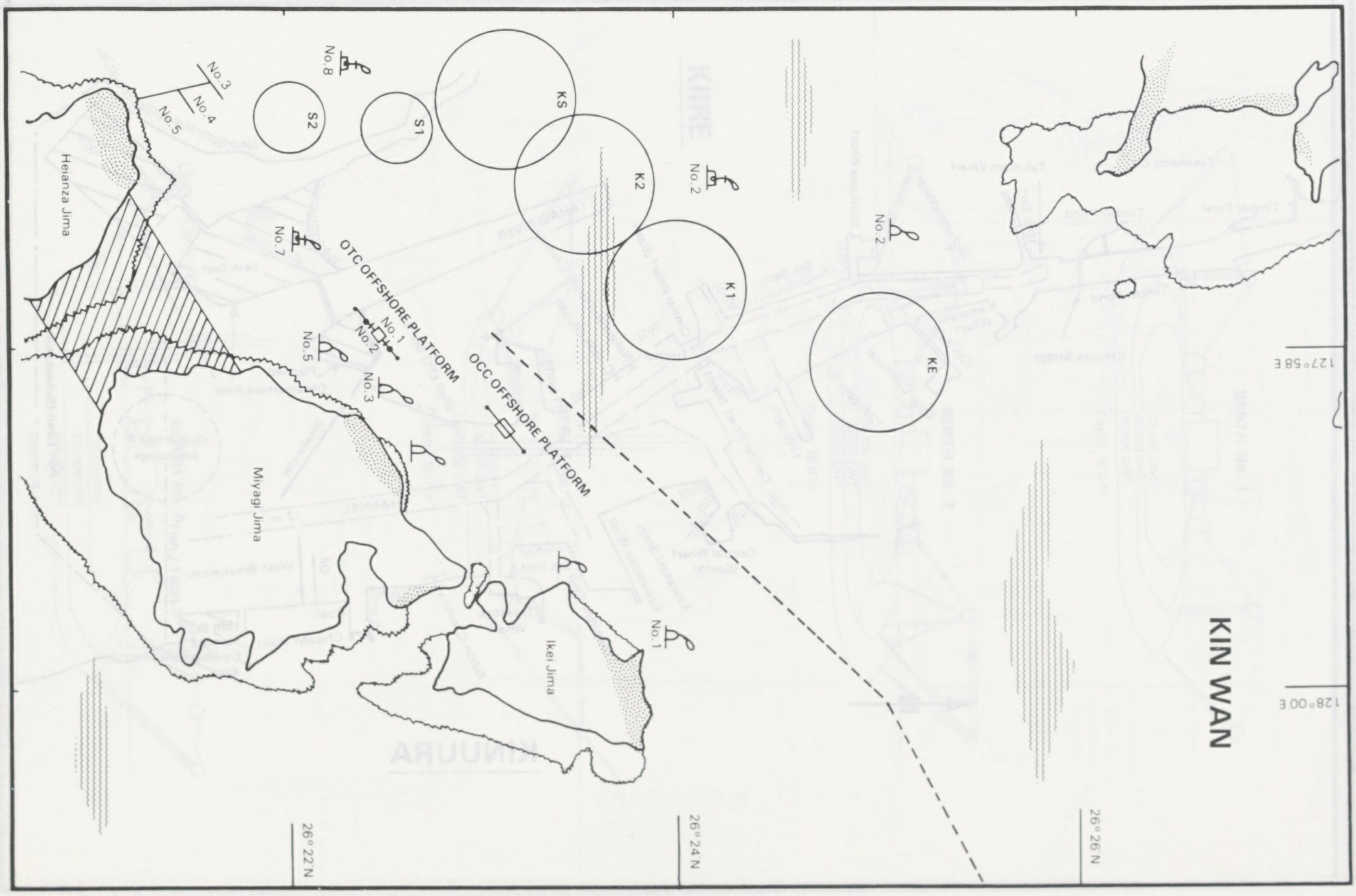


KINUURA

DEPTHS IN METRES

	BERTH	LENGTH (m)	DEPTH (m)
A	Chuo Wharf East No. 1	630	5.5
B	Chuo Wharf East No. 2	130	7.5
C	Chuo Wharf East No. 3	185	10.0
D	Chuo Wharf West No. 1	380	5.5
E	Chuo Wharf West No. 2	520	7.5
F	Chuo Wharf West No. 3	185	10.0
G	Chuo Wharf West No. 4	185	10.0
H	Chuo Wharf West No. 5	240	12.0
J	Chuo Wharf West No. 6	240	12.0

−12
−7.5
−5.5
−4
E
A
−3
D
−5.5
−7.5
−10
−7.5
G
J
−10
F
H
−7.5
B
−10
C
−12
−12
−4
−3
−12

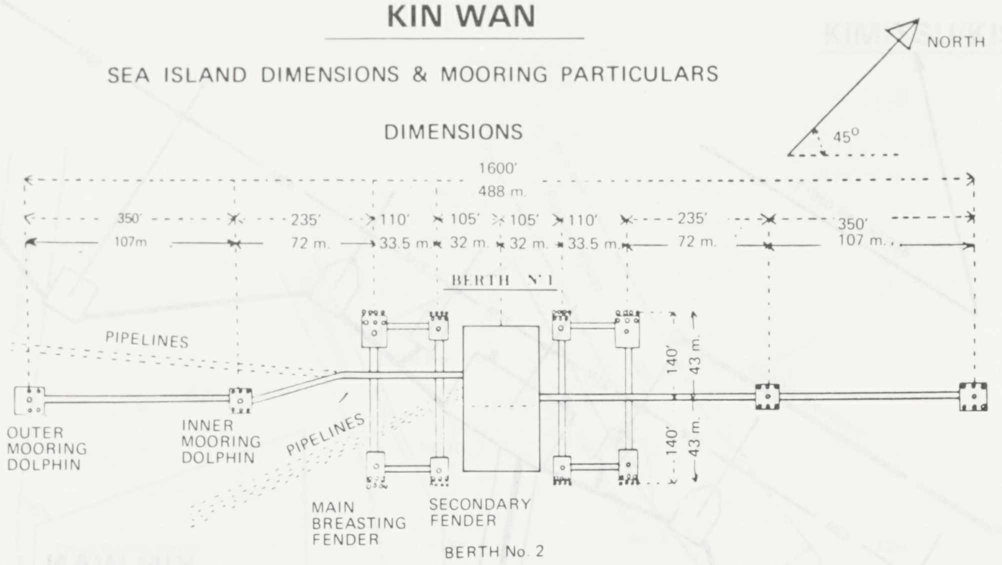


KIN WAN
No.8
No.3
No.4
No.5
S2
S1
KS
K2
No.2
No.2
K1
KE
Heianza Jima
No.7
OTC OFFSHORE PLATFORM
No.1
No.2
No.5
No.3
OCC OFFSHORE PLATFORM
Miyagi Jima
Ikei Jima
No.1
26°22 N
26°24 N
26°26 N
127°58 E
128°00 E

KIN WAN

SEA ISLAND DIMENSIONS & MOORING PARTICULARS

DIMENSIONS


NORTH
45°
1600'
488 m.
350'
107m
235'
72 m.
110'
33.5 m
105'
32 m
105'
32 m.
110'
33.5 m.
235'
72 m.
350'
107 m.
BERTH N°1
PIPELINES
140'
43 m.
140'
43 m.
PIPELINES
OUTER MOORING DOLPHIN
INNER MOORING DOLPHIN
MAIN BREASTING FENDER
SECONDARY FENDER
BERTH No. 2

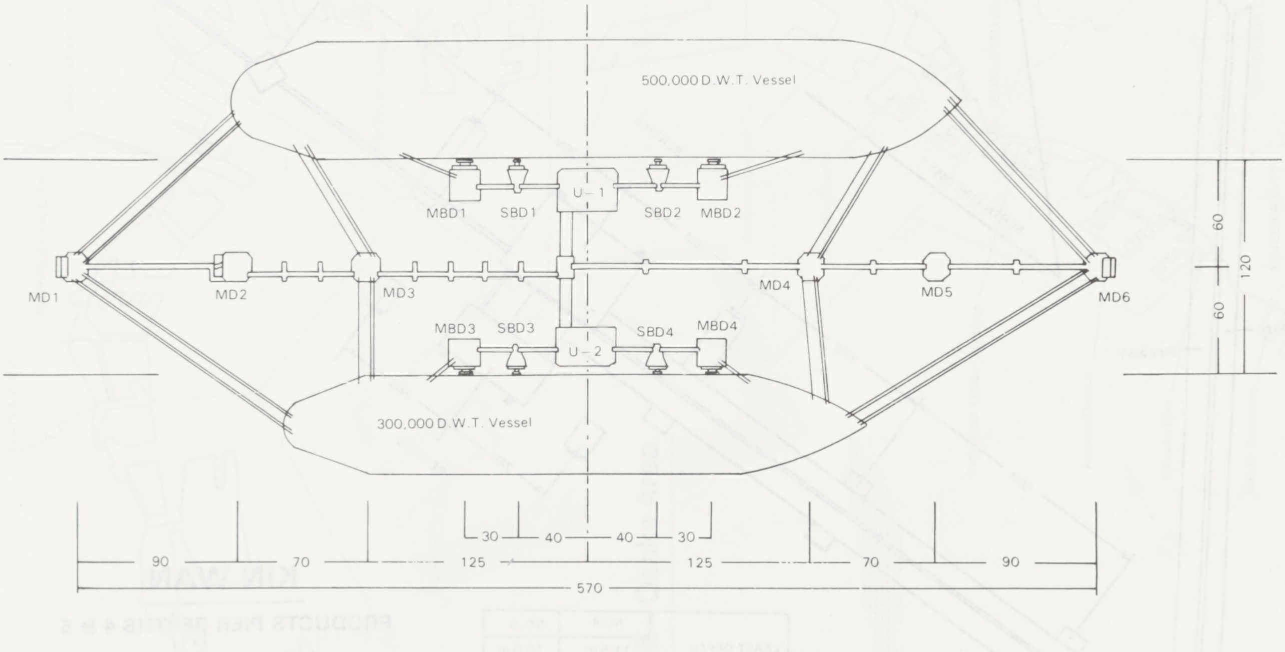
MOORING PARTICULARS

BERTH No. 1	
Outer Dolphins	3 x 150 ton Sliphooks 1 x 150 ton Bollard 1 x 2½ ton Capstan
Inner Dolphins	6 x 75 ton Sliphooks 1 x 150 ton Bollard 1 x 2½ ton Capstan
Main Breasting Fenders	3 x 75 ton Sliphooks 2 x 100 ton Bollards 1 x 2½ ton Capstan
Secondary Fenders	3 x 75 ton Sliphooks 2 x 100 ton Bollards 1 x 2½ ton Capstan

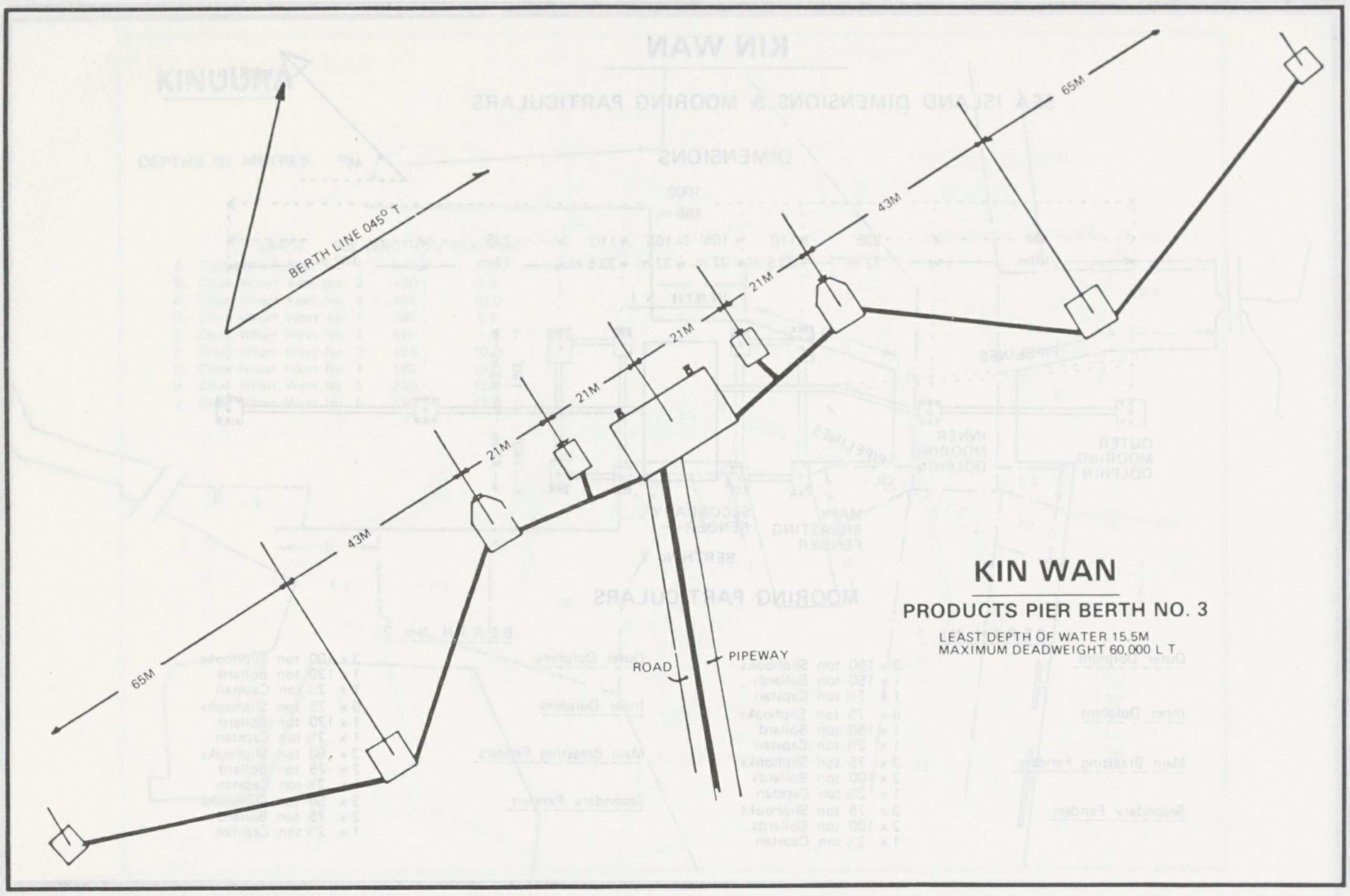
BERTH No. 2	
Outer Dolphins	3 x 100 ton Sliphooks 1 x 120 ton Bollard 1 x 2½ ton Capstan
Inner Dolphins	6 x 75 ton Sliphooks 1 x 120 ton Bollard 1 x 2½ ton Capstan
Main Breasting Fenders	3 x 50 ton Sliphooks 2 x 75 ton Bollard 1 x 2½ ton Capstan
Secondary Fenders	3 x 50 ton Sliphooks 2 x 75 ton Bollard 1 x 2½ ton Capstan

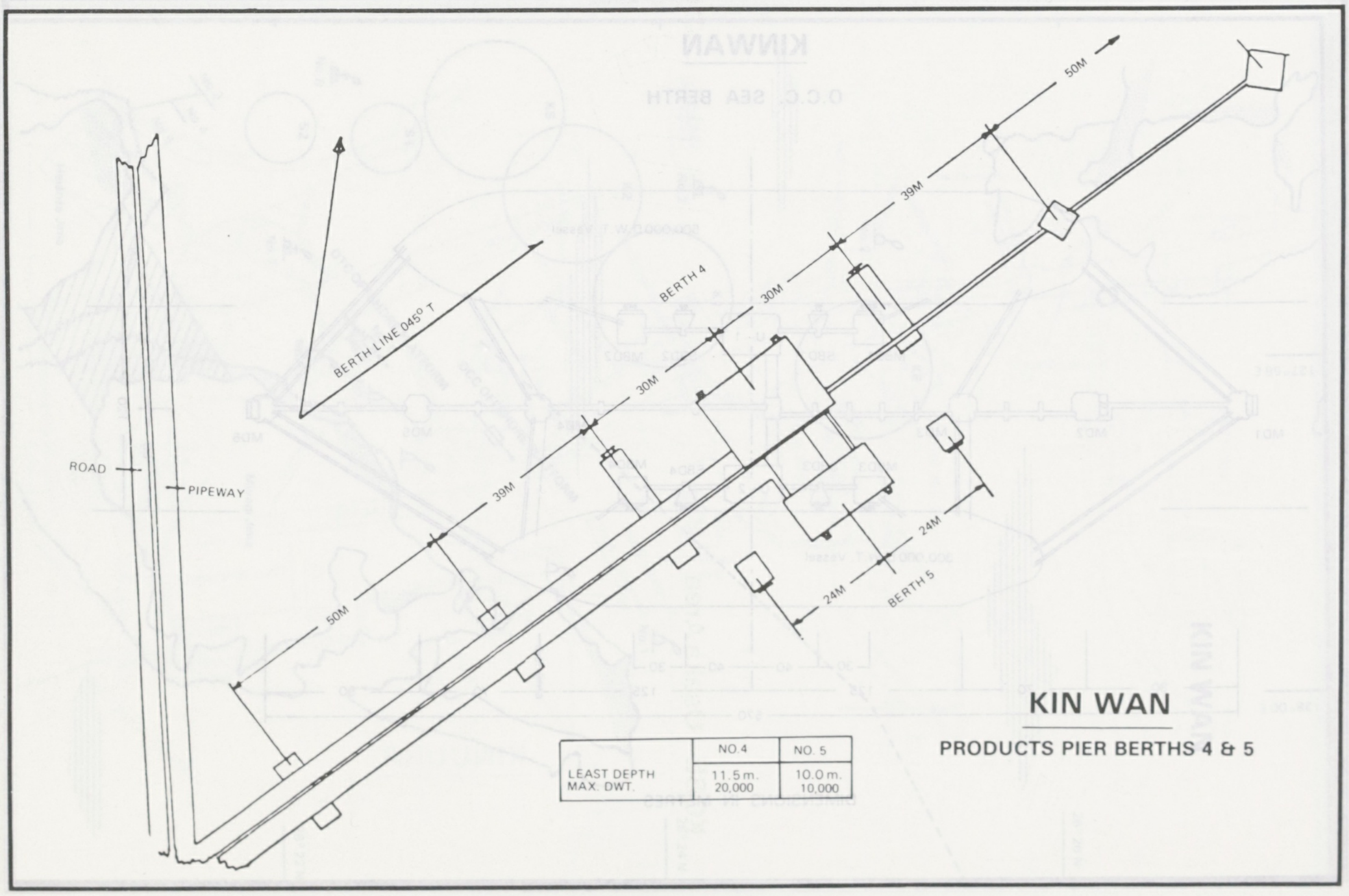
KINWAN

O.C.C. SEA BERTH

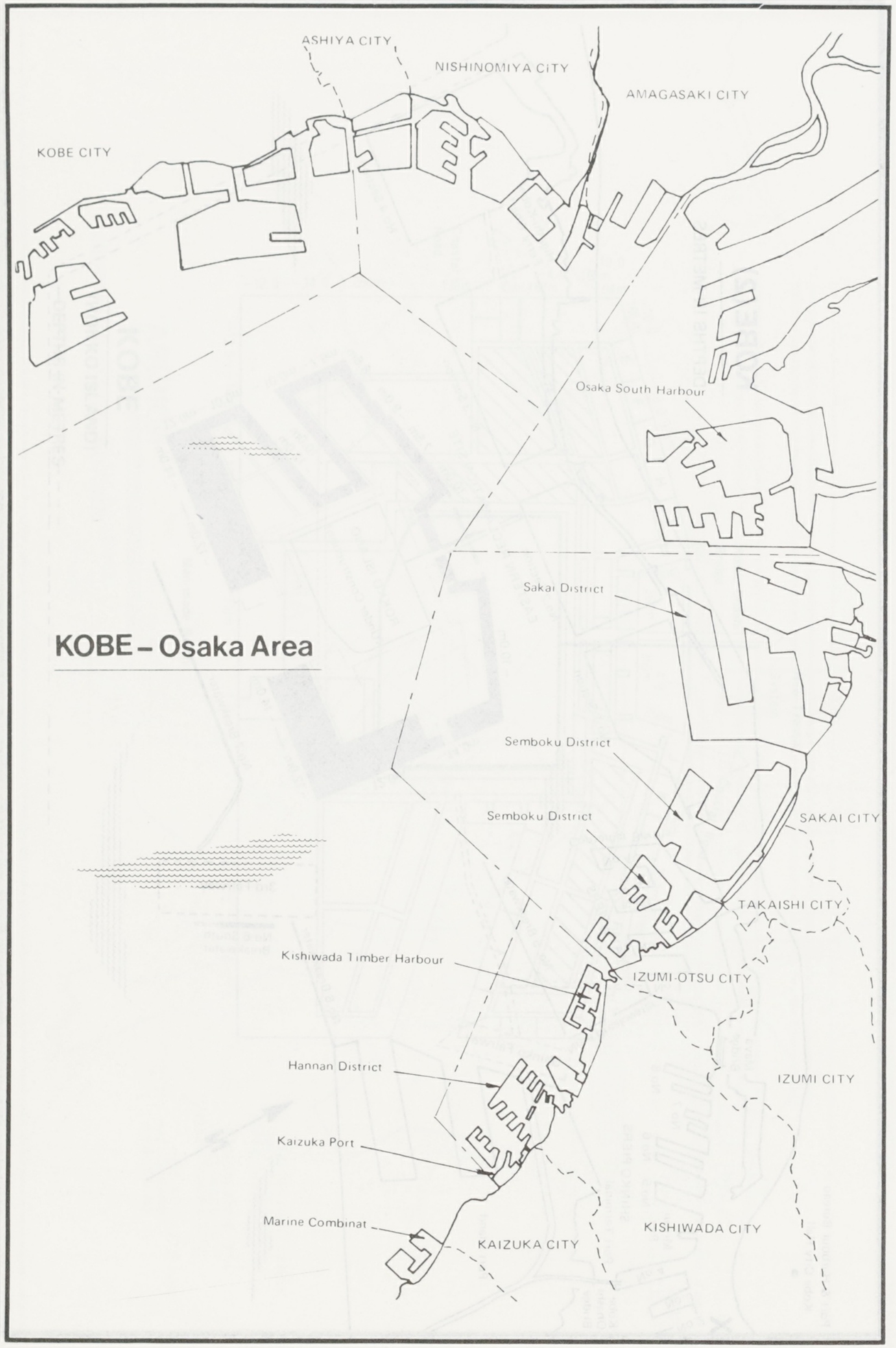

500,000 D.W.T. Vessel
U – 1
MBD1
SBD1
SBD2
MBD2
MD1
MD2
MD3
MD4
MD5
MD6
MBD3
SBD3
SBD4
MBD4
U – 2
300,000 D.W.T. Vessel
60
60
120
30
40
40
30
90
70
125
125
70
90
570

DIMENSIONS IN METRES


BERTH LINE 045° T
65M
43M
21M
21M
21M
21M
43M
65M
ROAD
PIPEWAY
KIN WAN
PRODUCTS PIER BERTH NO. 3
LEAST DEPTH OF WATER 15.5M
MAXIMUM DEADWEIGHT 60,000 L T

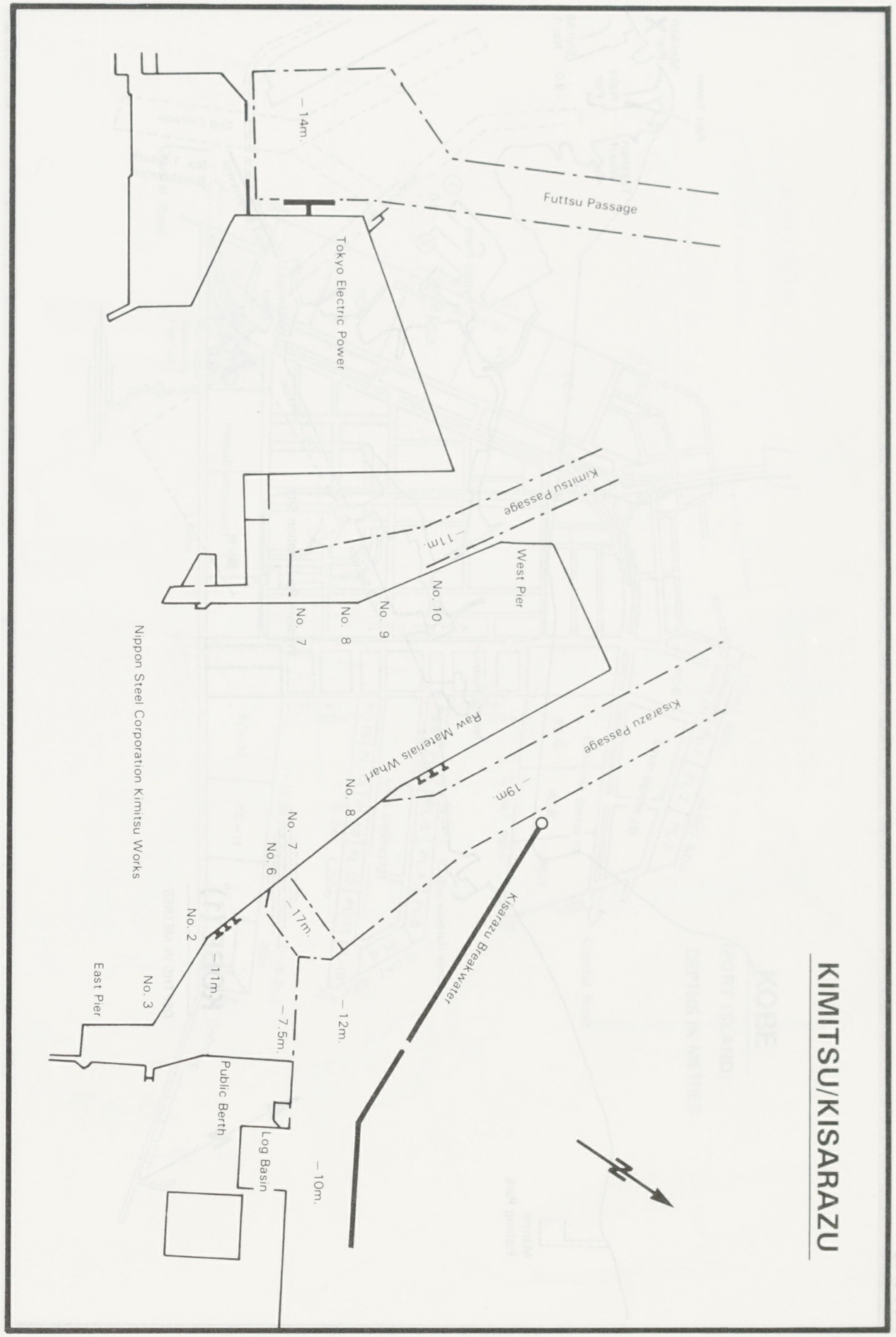

BERTH LINE 045° T
50M
39M
30M
BERTH 4
30M
39M
50M
24M
24M
BERTH 5
ROAD
PIPEWAY
KIN WAN
PRODUCTS PIER BERTHS 4 & 5

	NO.4	NO. 5
LEAST DEPTH MAX. DWT.	11.5 m. 20,000	10.0 m. 10,000



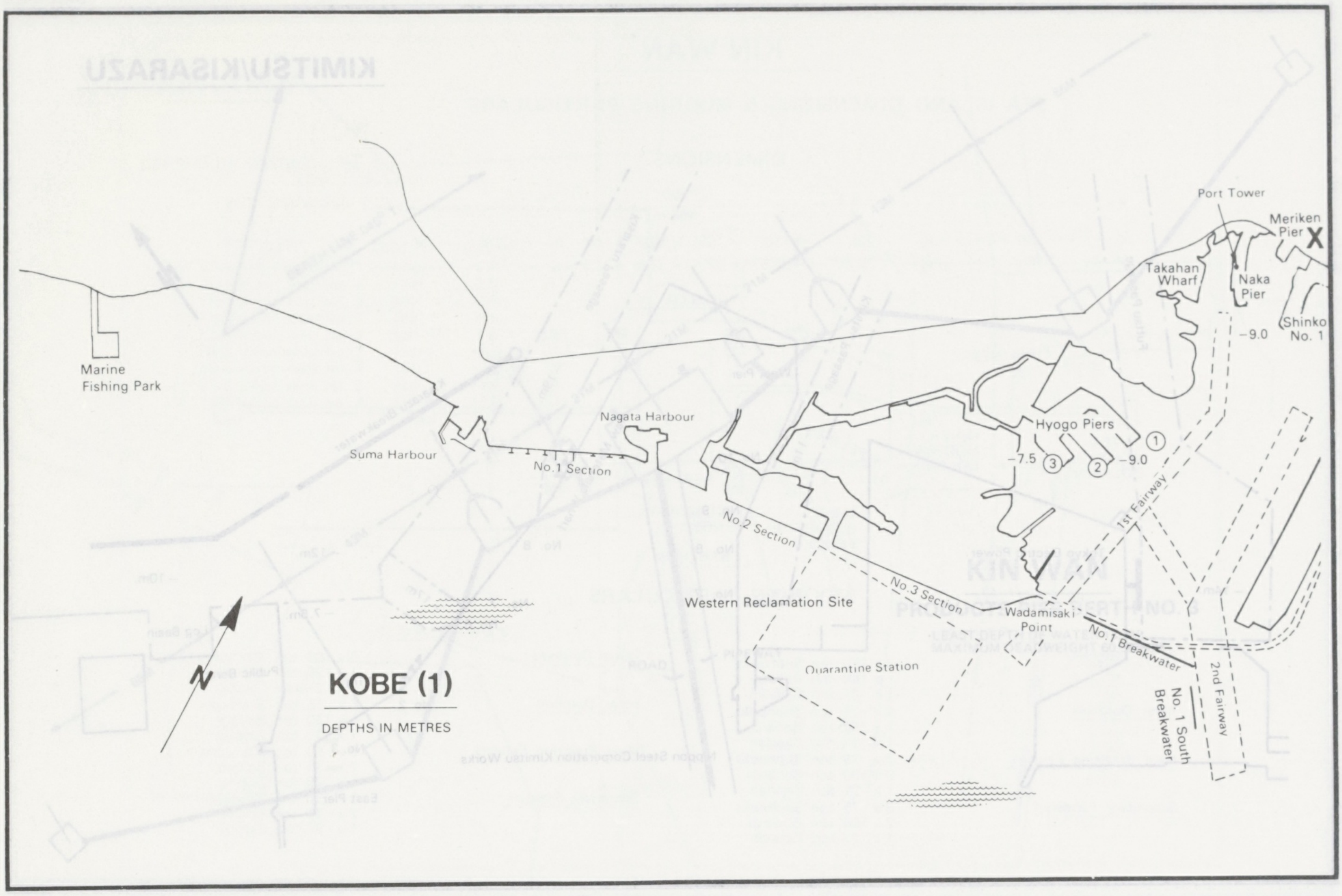
KOBE – Osaka Area

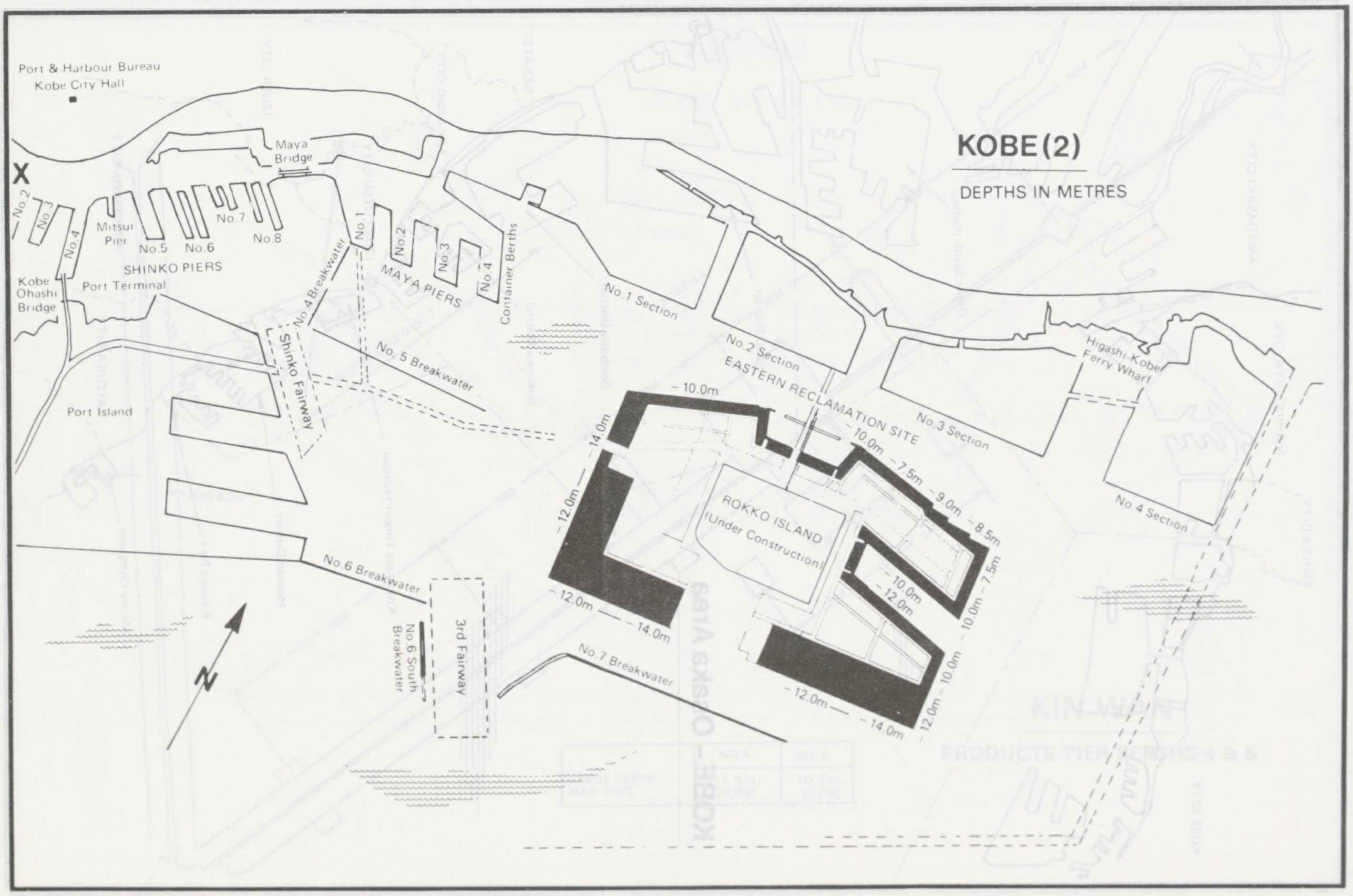
ASHIYA CITY
NISHINOMIYA CITY
AMAGASAKI CITY
KOBE CITY
Osaka South Harbour
Sakai District
Semboku District
Semboku District
SAKAI CITY
TAKAISHI CITY
Kishiwada Timber Harbour
IZUMI-OTSU CITY
Hannan District
IZUMI CITY
Kaizuka Port
Marine Combinat
KAIZUKA CITY
KISHIWADA CITY

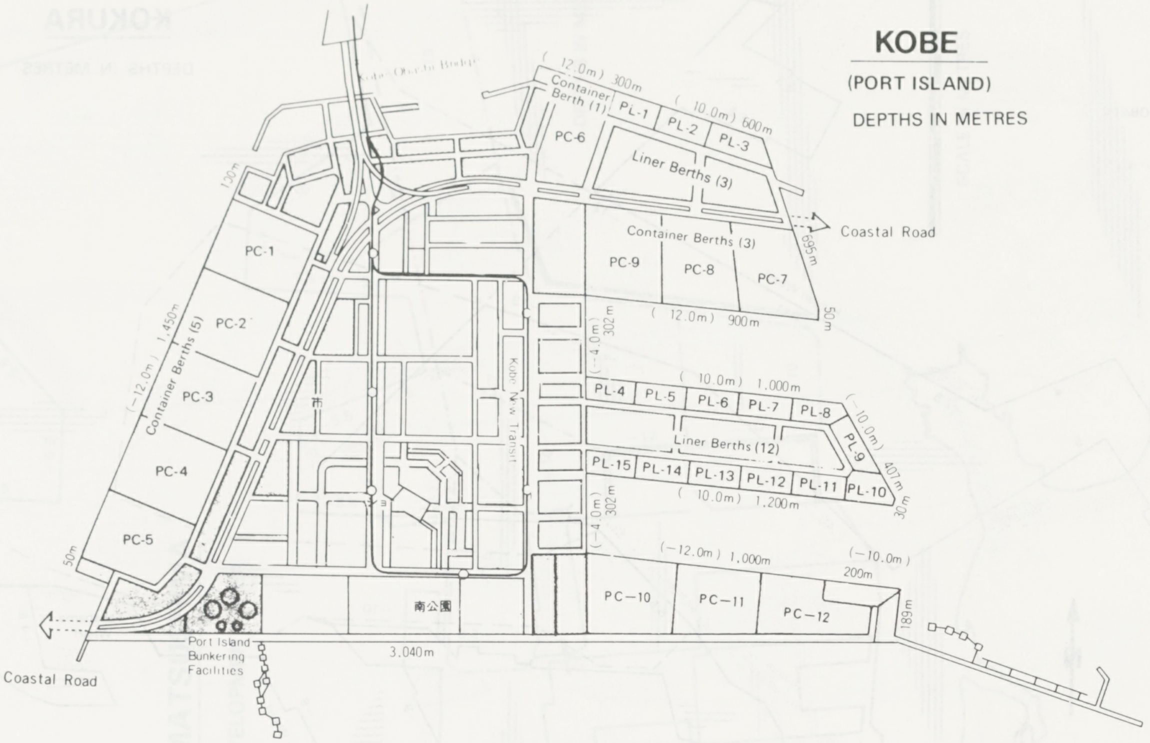


KIMITSU/KISARAZU

–14m.
Futtsu Passage
Tokyo Electric Power
Kimitsu Passage
–11m.
West Pier
No. 10
No. 9
No. 8
No. 7
Nippon Steel Corporation Kimitsu Works
Raw Materials Wharf
Kisarazu Passage
–19m.
No. 8
No. 7
No. 6
–17m.
Kisarazu Breakwater
No. 2
–11m.
No. 3
East Pier
–12m.
–7.5m.
Public Berth
Log Basin
–10m.
N


Port Tower
Meriken Pier
X
Takahan Wharf
Naka Pier
Shinko No. 1
-9.0
Marine Fishing Park
Nagata Harbour
Hyogo Piers
①
②
③
-7.5
-9.0
Suma Harbour
No.1 Section
No.2 Section
No.3 Section
1st Fairway
Western Reclamation Site
Wadamisaki Point
No.1 Breakwater
Quarantine Station
2nd Fairway
No. 1 South Breakwater
N
KOBE (1)
DEPTHS IN METRES

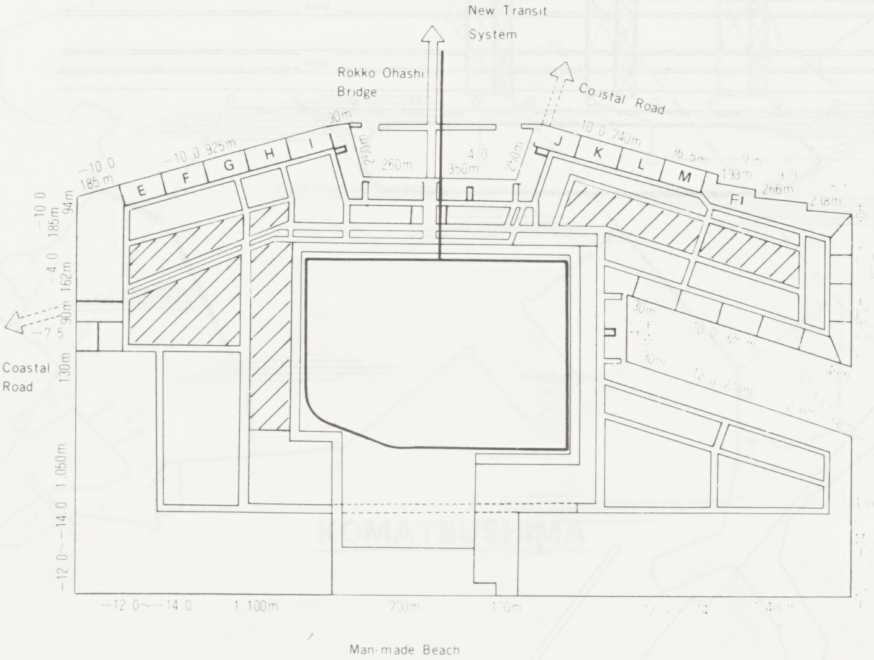

Port & Harbour Bureau
Kobe City Hall
KOBE (2)
DEPTHS IN METRES
X
Maya Bridge
No.2
No.3
No.4
Mitsui Pier
No.5
No.6
No.7
No.8
SHINKO PIERS
No.4 Breakwater
No.1
No.2
No.3
No.4
MAYA PIERS
Container Berths
Kobe Ohashi Bridge
Port Terminal
Shinko Fairway
No. 5 Breakwater
No.1 Section
No.2 Section
EASTERN RECLAMATION SITE
No.3 Section
Higashi-Kobe Ferry Wharf
No.4 Section
Port Island
-10.0m
14.0m
12.0m
10.0m
7.5m
9.0m
8.5m
7.5m
ROKKO ISLAND (Under Construction)
10.0m
12.0m
10.0m
12.0m
14.0m
10.0m
12.0m
14.0m
12.0m
No.6 Breakwater
No.6 South Breakwater
3rd Fairway
No.7 Breakwater
N


Kobe Ohashi Bridge
(12.0m) 300m
Container Berth (1)
PL-1
PL-2
PL-3
(10.0m) 600m
PC-6
Liner Berths (3)
Coastal Road
Container Berths (3)
695m
PC-9
PC-8
PC-7
(12.0m) 900m
50m
130m
PC-1
PC-2
PC-3
PC-4
PC-5
(−12.0m) 1,450m
Container Berths (5)
50m
市
Kobe New Transit
(−4.0m) 302m
(10.0m) 1,000m
PL-4
PL-5
PL-6
PL-7
PL-8
(−10.0m)
PL-9
407m
30m
Liner Berths (12)
PL-15
PL-14
PL-13
PL-12
PL-11
PL-10
(10.0m) 1,200m
(−4.0m) 302m
(−12.0m) 1,000m
(−10.0m)
200m
PC-10
PC-11
PC-12
189m
南公園
3,040m
Port Island Bunkering Facilities
Coastal Road

KOBE

(PORT ISLAND)

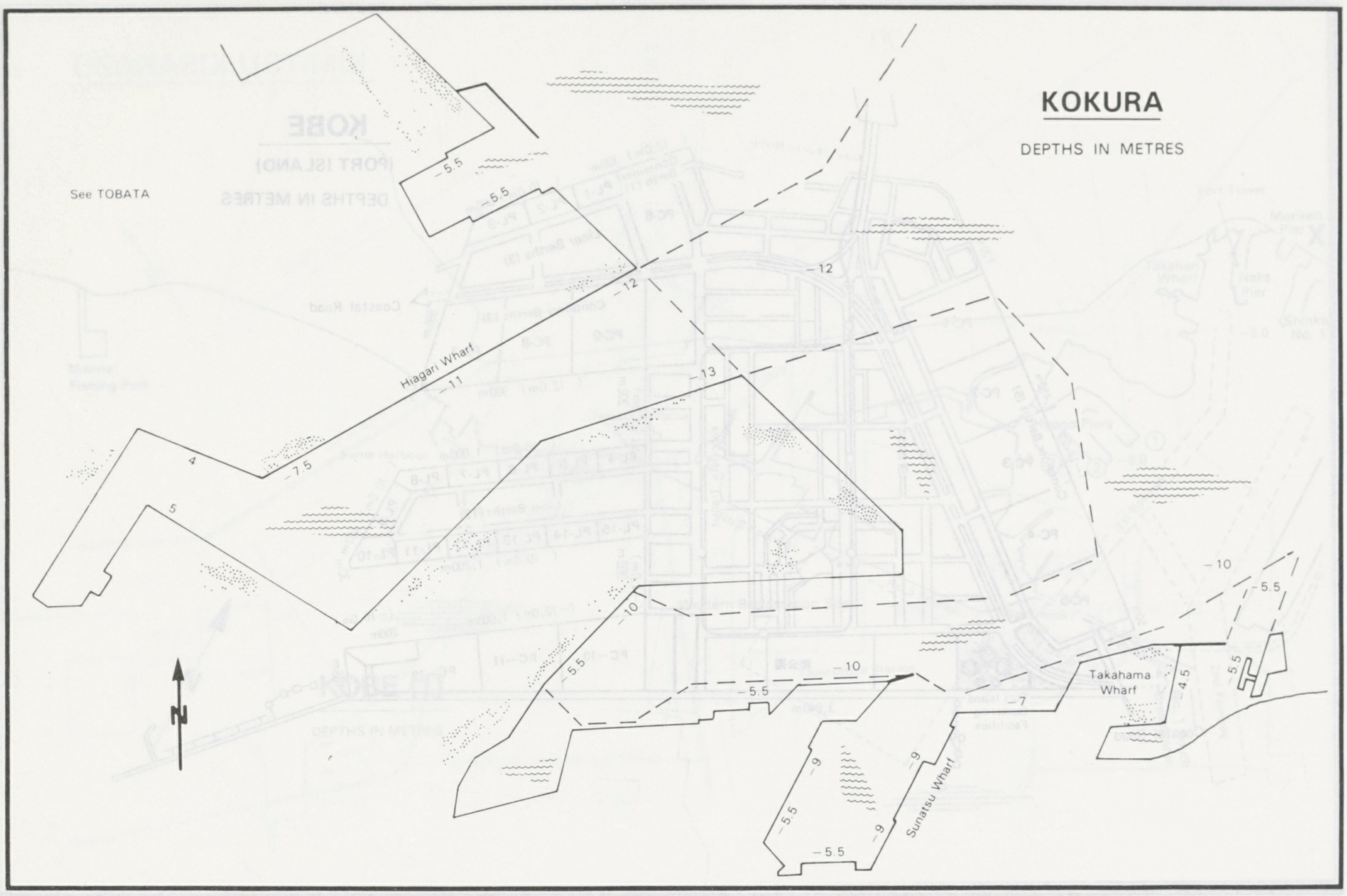
DEPTHS IN METRES

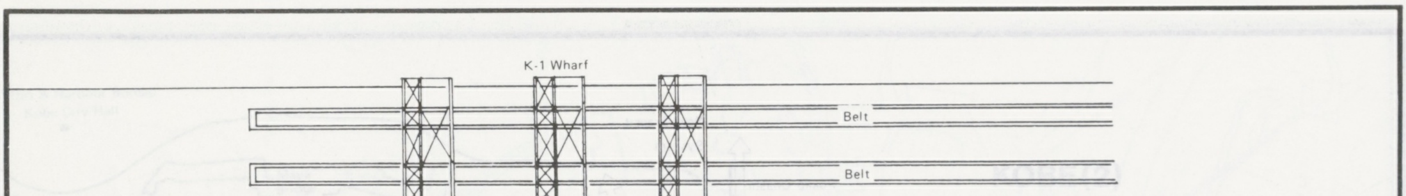

New Transit System
Rokko Ohashi Bridge
Coastal Road
30m
250m
260m
4.0
350m
250m
−10.0 925m
−10.0
185 m
E
F
G
H
I
J
K
L
M
FI
10.0 240m
36.5m
193m
266m
238m
−10.0
94m
185m
−4.0
162m
90m
−7.5
Coastal Road
130m
30m
10.0
30m
12.0
1,050m
−12.0~−14.0
−12.0~−14.0
1,100m
700m
120m
Man-made Beach

KOBE

(ROKKO ISLAND)

DEPTHS IN METRES


KOKURA
DEPTHS IN METRES
See TOBATA
–5.5
–5.5
–12
–12
Hiagari Wharf
–11
–13
4
–7.5
5
N
–10
–5.5
–5.5
–10
–10
–5.5
Takahama Wharf
–5.5
–4.5
–7
–9
–9
–5.5
–9
Sunatsu Wharf
–5.5

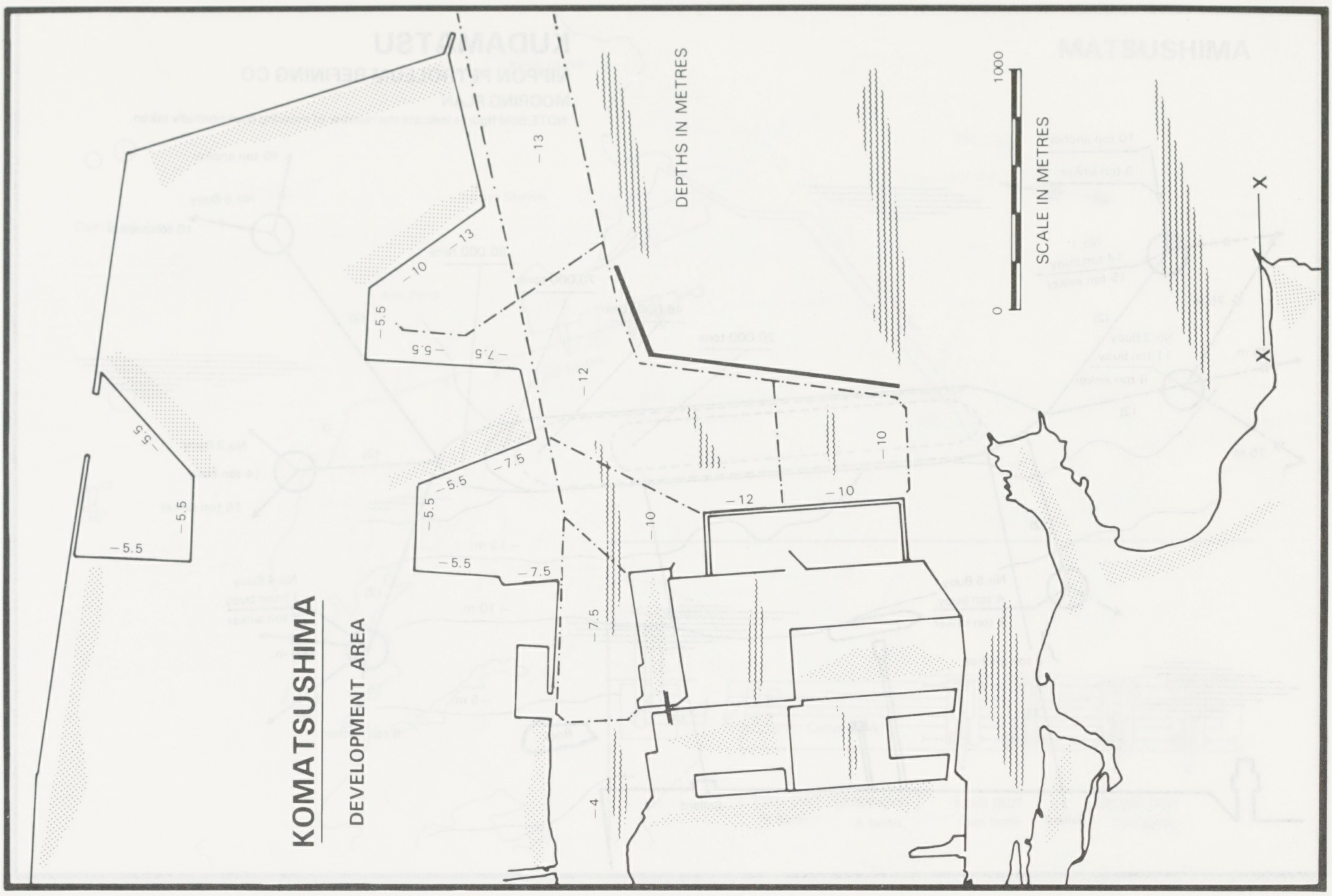

K-1 Wharf
Belt
Belt
227°
Turning Basin
B
KOKURA
SUMITOMO METAL INDUSTRIES

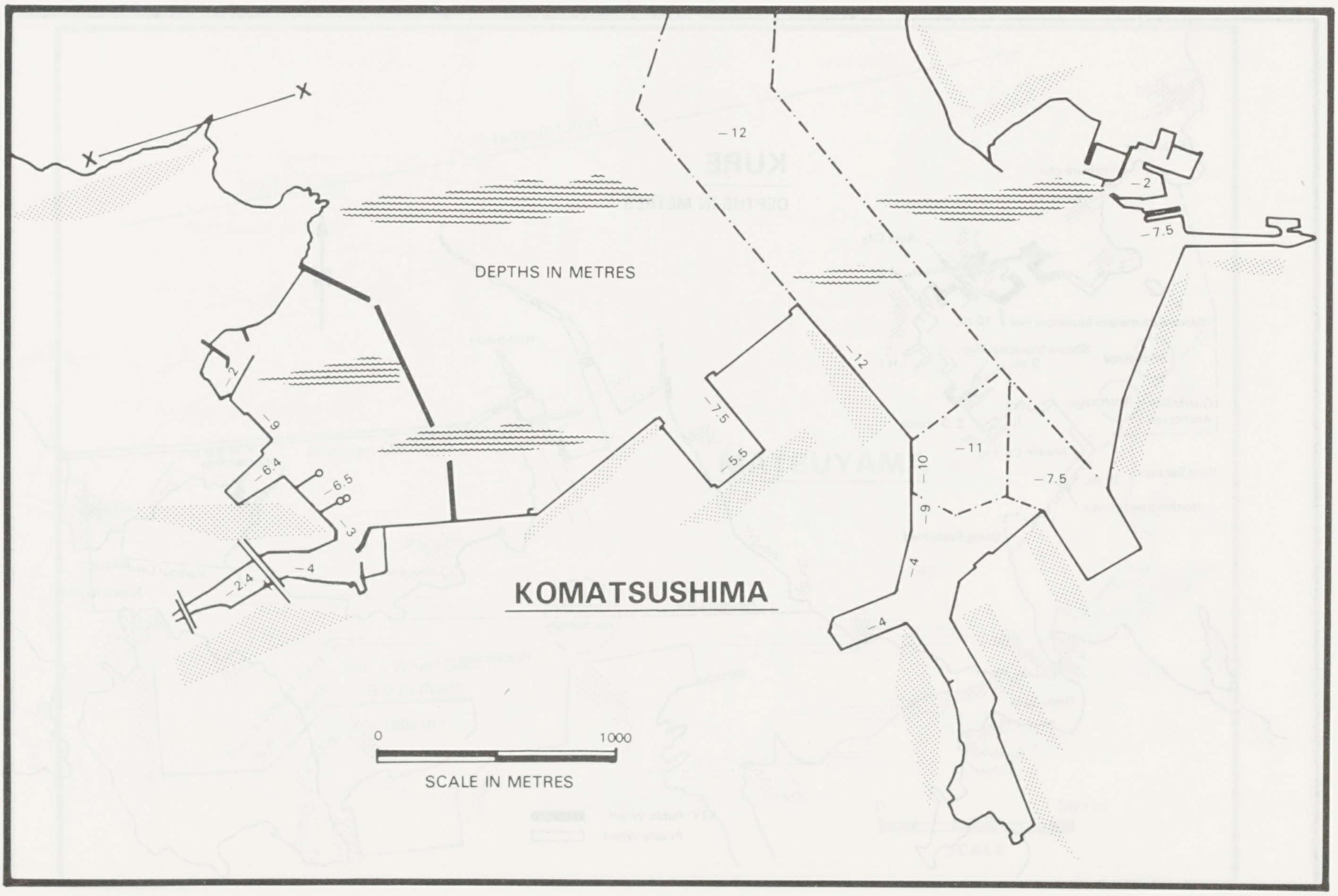
FOR'D: 3 HEADLINES
1 BREASTLINE
1 SPRING (WIRE)

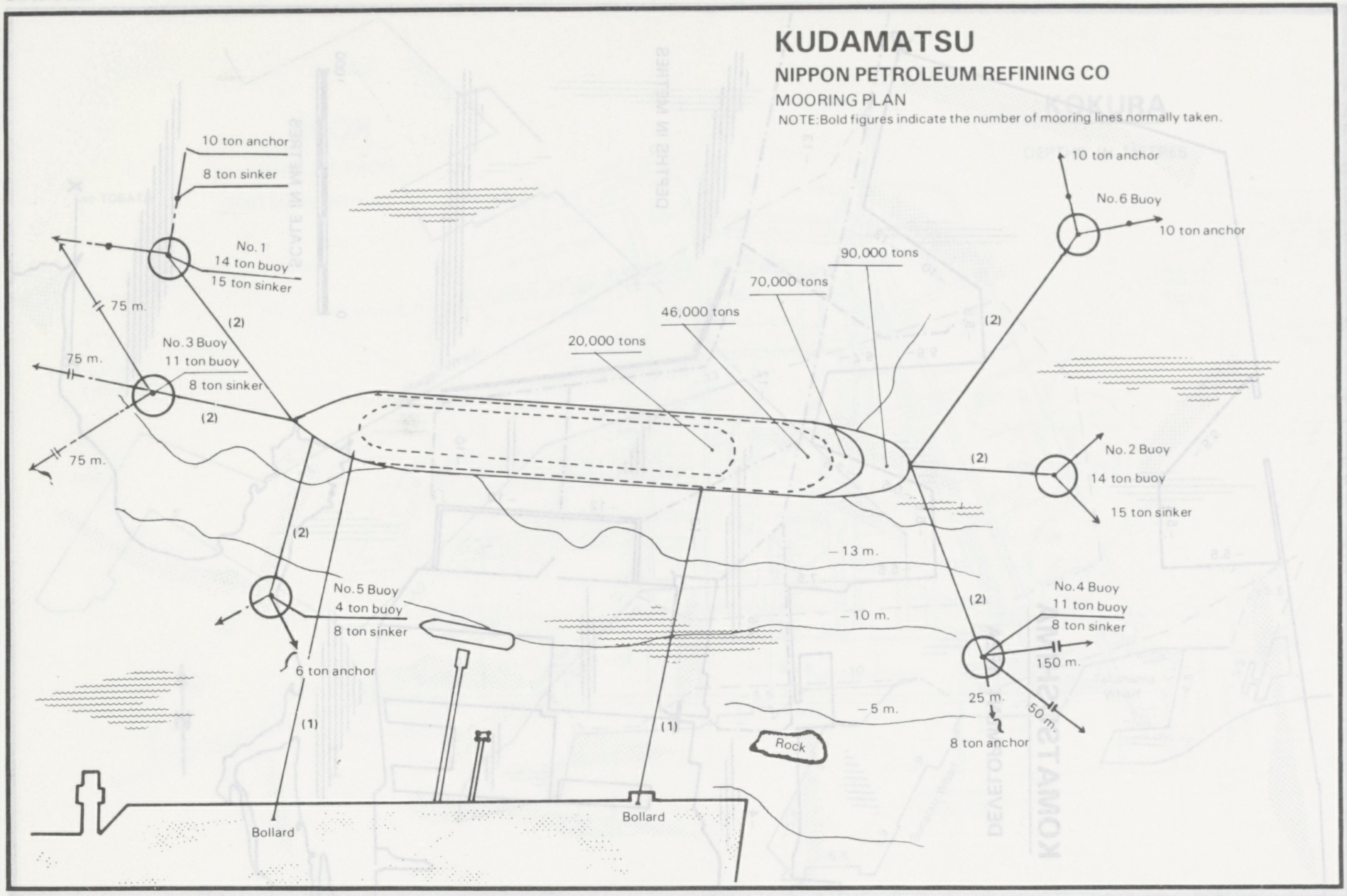
AFT: 3 STERNLINES
1 BREASTLINE
1 SPRING (WIRE)

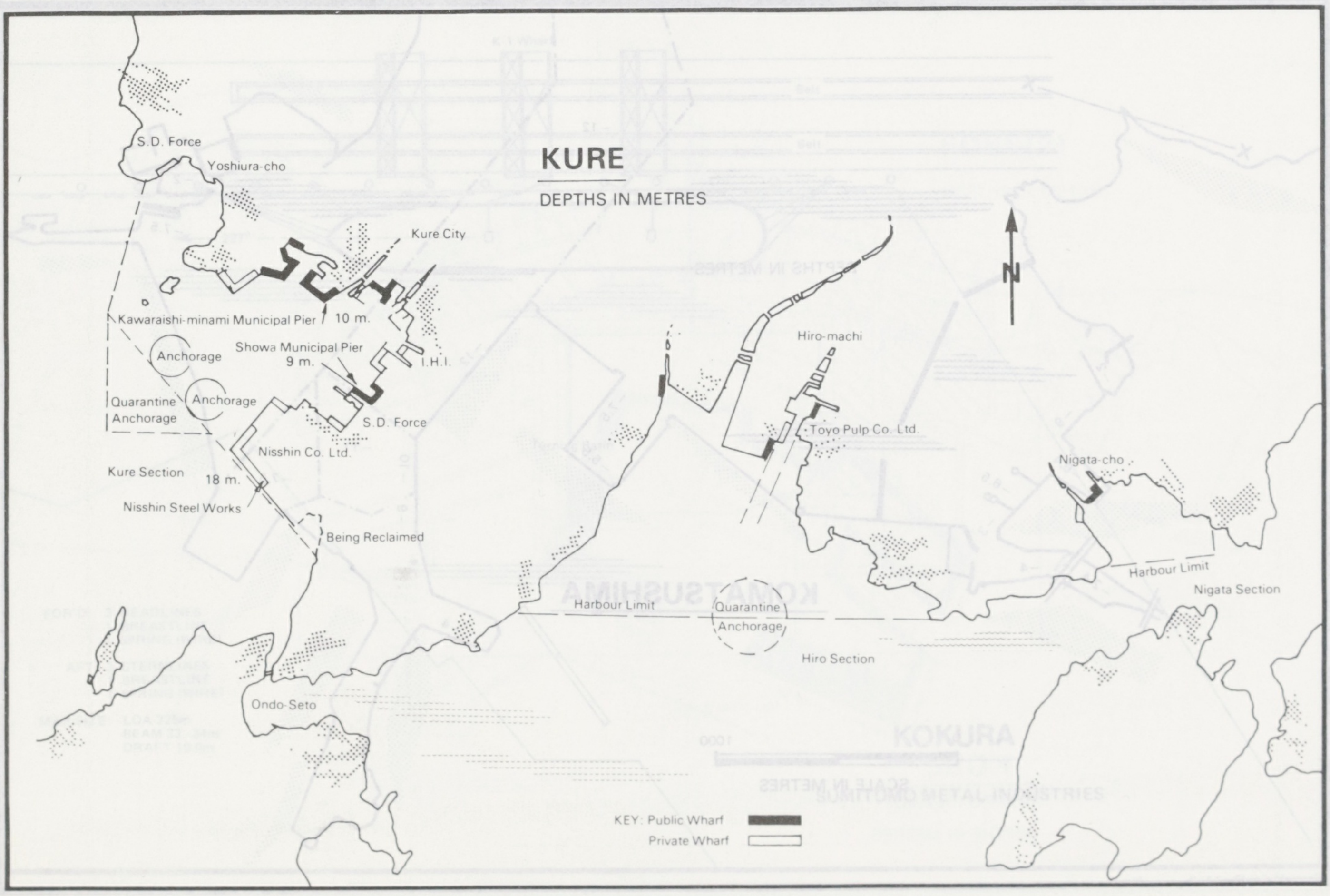
MAX SIZE: LOA 225m
BEAM 33–34m
DRAFT 10.0m

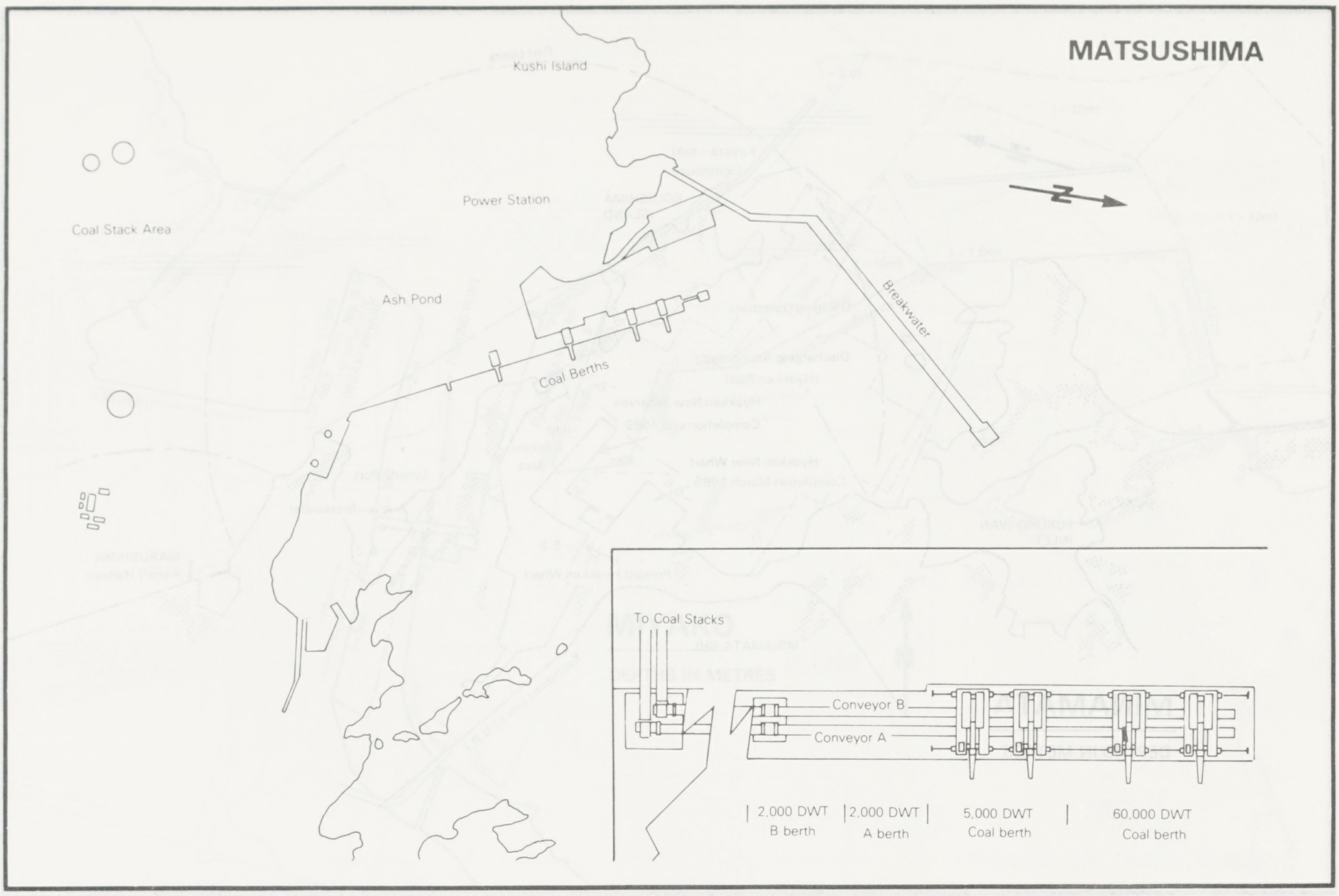
"Plan supplied by Ship's Master"

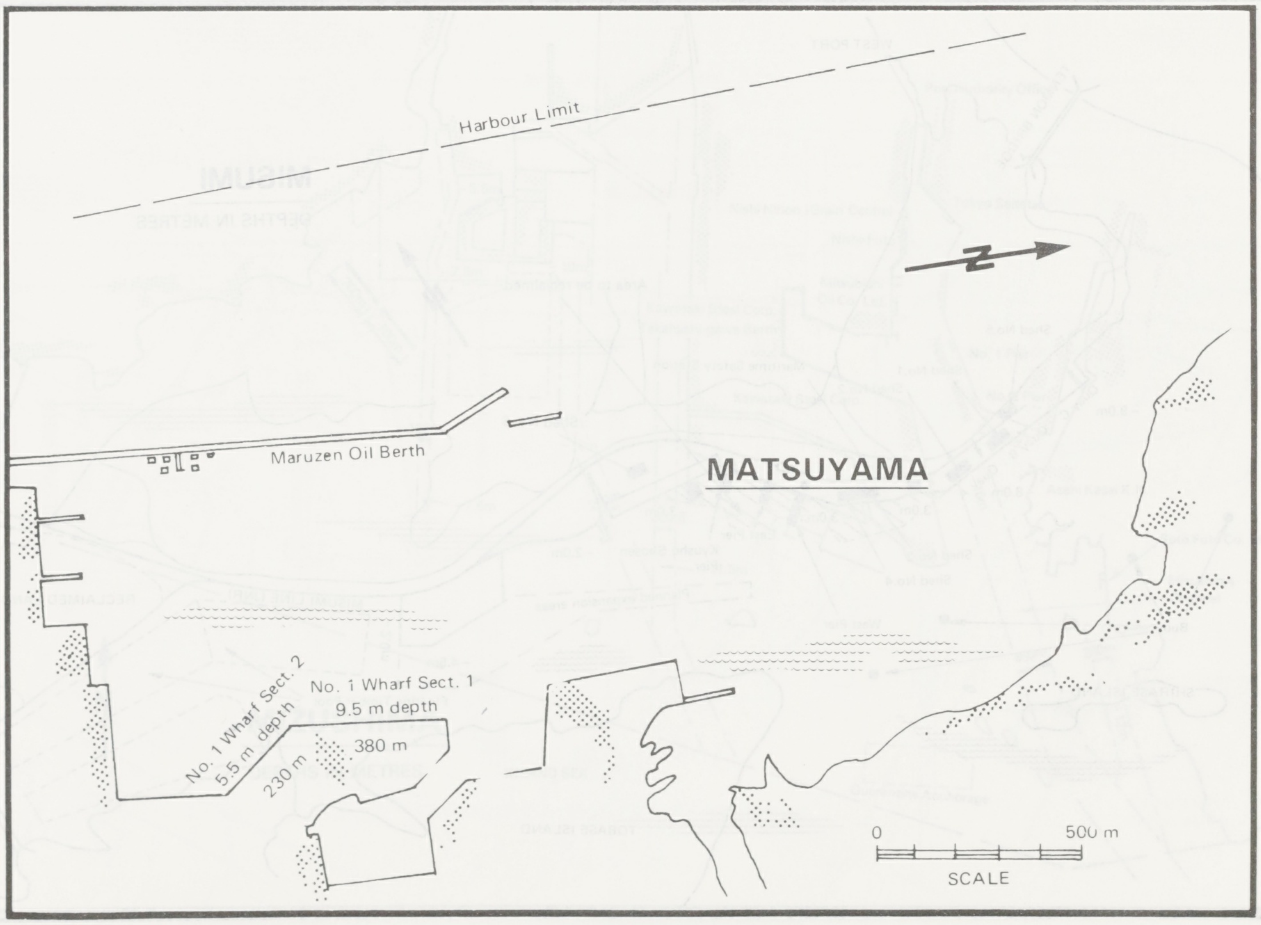

KOMATSUSHIMA
DEVELOPMENT AREA
DEPTHS IN METRES
0
1000
SCALE IN METRES
X
X
−13
13
−10
−5.5
−5.5
−7.5
−12
−10
−12
−10
−5.5
−5.5
−7.5
−5.5
−5.5
−5.5
−5.5
−5.5
−7.5
−10
−7.5
−4

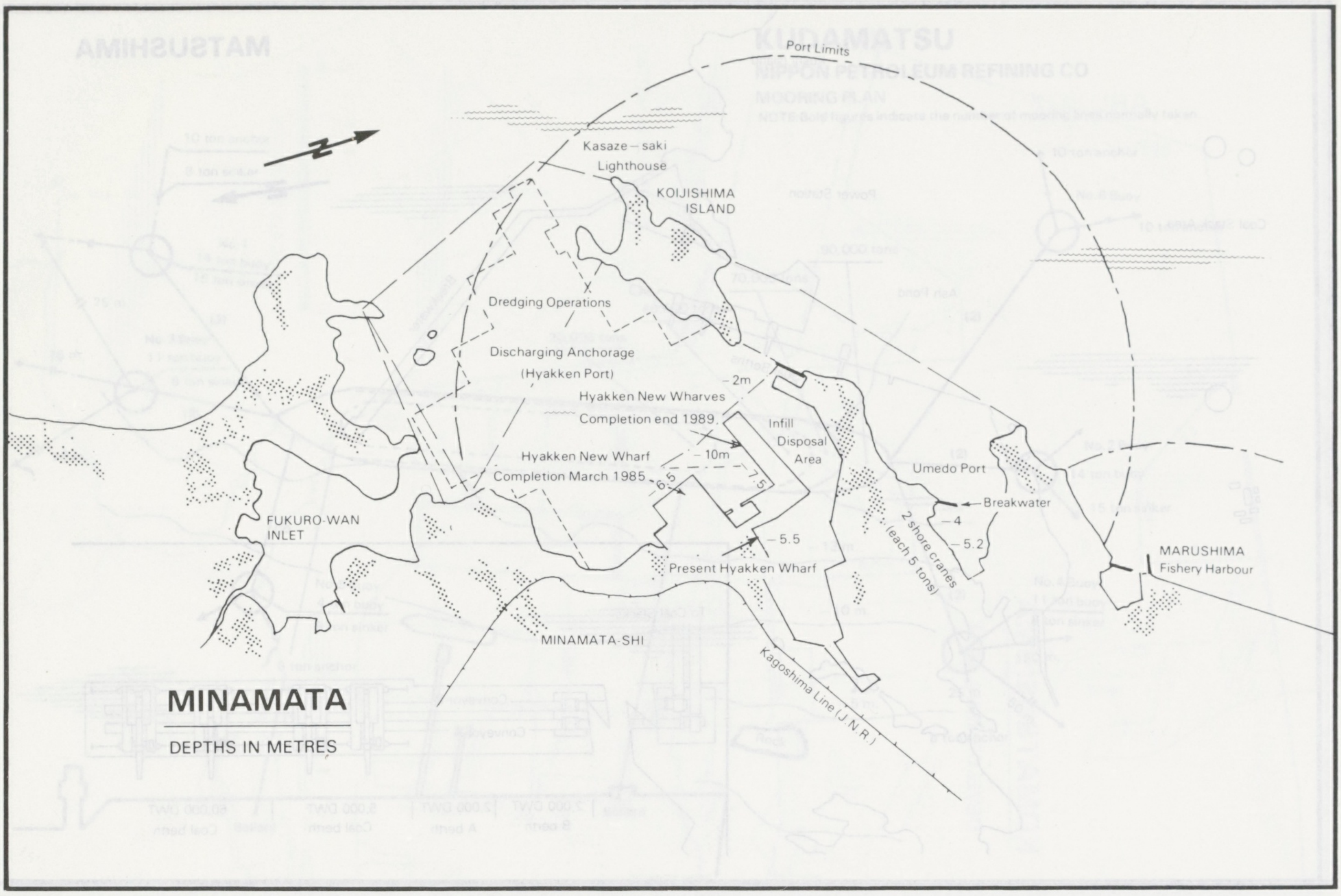

X
X
DEPTHS IN METRES
−12
−2
−7.5
−12
−2
−9
−6.4
−6.5
−3
−4
−2.4
−7.5
−5.5
−11
−10
−9
−7.5
−4
−4
KOMATSUSHIMA
0
1000
SCALE IN METRES


KUDAMATSU
NIPPON PETROLEUM REFINING CO
MOORING PLAN
NOTE: Bold figures indicate the number of mooring lines normally taken.
10 ton anchor
8 ton sinker
No. 1
14 ton buoy
15 ton sinker
75 m.
(2)
No. 3 Buoy
11 ton buoy
8 ton sinker
75 m.
(2)
75 m.
20,000 tons
46,000 tons
70,000 tons
90,000 tons
10 ton anchor
No. 6 Buoy
10 ton anchor
(2)
(2)
No. 2 Buoy
14 ton buoy
15 ton sinker
(2)
– 13 m.
No. 5 Buoy
4 ton buoy
8 ton sinker
6 ton anchor
– 10 m.
(2)
No. 4 Buoy
11 ton buoy
8 ton sinker
150 m.
25 m.
50 m.
8 ton anchor
– 5 m.
Rock
(1)
(1)
Bollard
Bollard


KURE
DEPTHS IN METRES
S.D. Force
Yoshiura-cho
Kure City
Kawaraishi-minami Municipal Pier
10 m.
Anchorage
Showa Municipal Pier
9 m.
I.H.I.
Quarantine Anchorage
Anchorage
S.D. Force
Nisshin Co. Ltd.
Kure Section
18 m.
Nisshin Steel Works
Being Reclaimed
Hiro-machi
Toyo Pulp Co. Ltd.
Nigata-cho
Harbour Limit
Nigata Section
Harbour Limit
Quarantine Anchorage
Hiro Section
Ondo-Seto
N
KEY: Public Wharf
Private Wharf

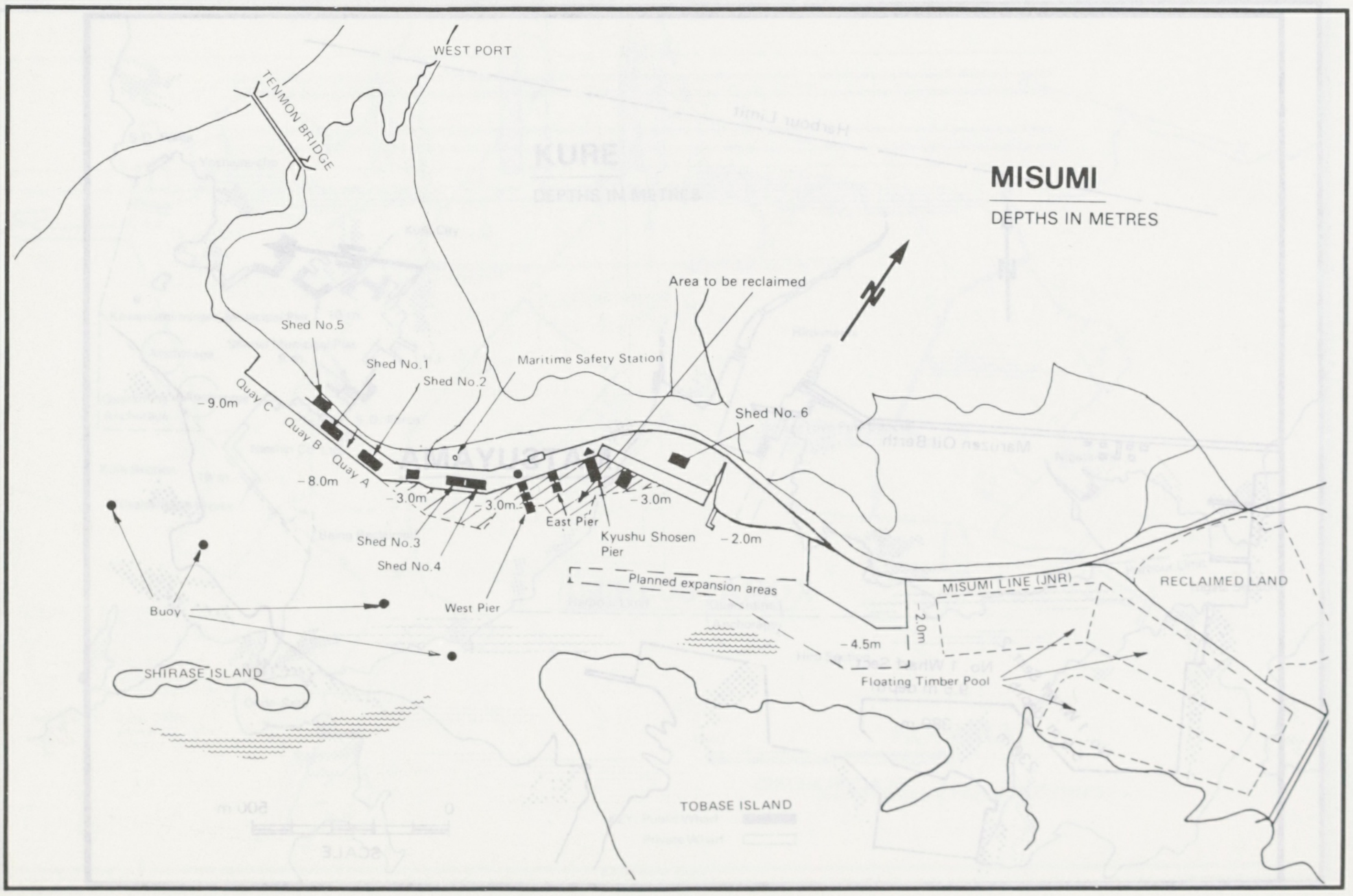

MATSUSHIMA
Kushi Island
Power Station
Coal Stack Area
Ash Pond
Coal Berths
Breakwater
N
To Coal Stacks
Conveyor B
Conveyor A
2,000 DWT
B berth
2,000 DWT
A berth
5,000 DWT
Coal berth
60,000 DWT
Coal berth


Harbour Limit
N
MATSUYAMA
Maruzen Oil Berth
No. 1 Wharf Sect. 2
5.5 m depth
230 m
No. 1 Wharf Sect. 1
9.5 m depth
380 m
0
500 m
SCALE


MINAMATA

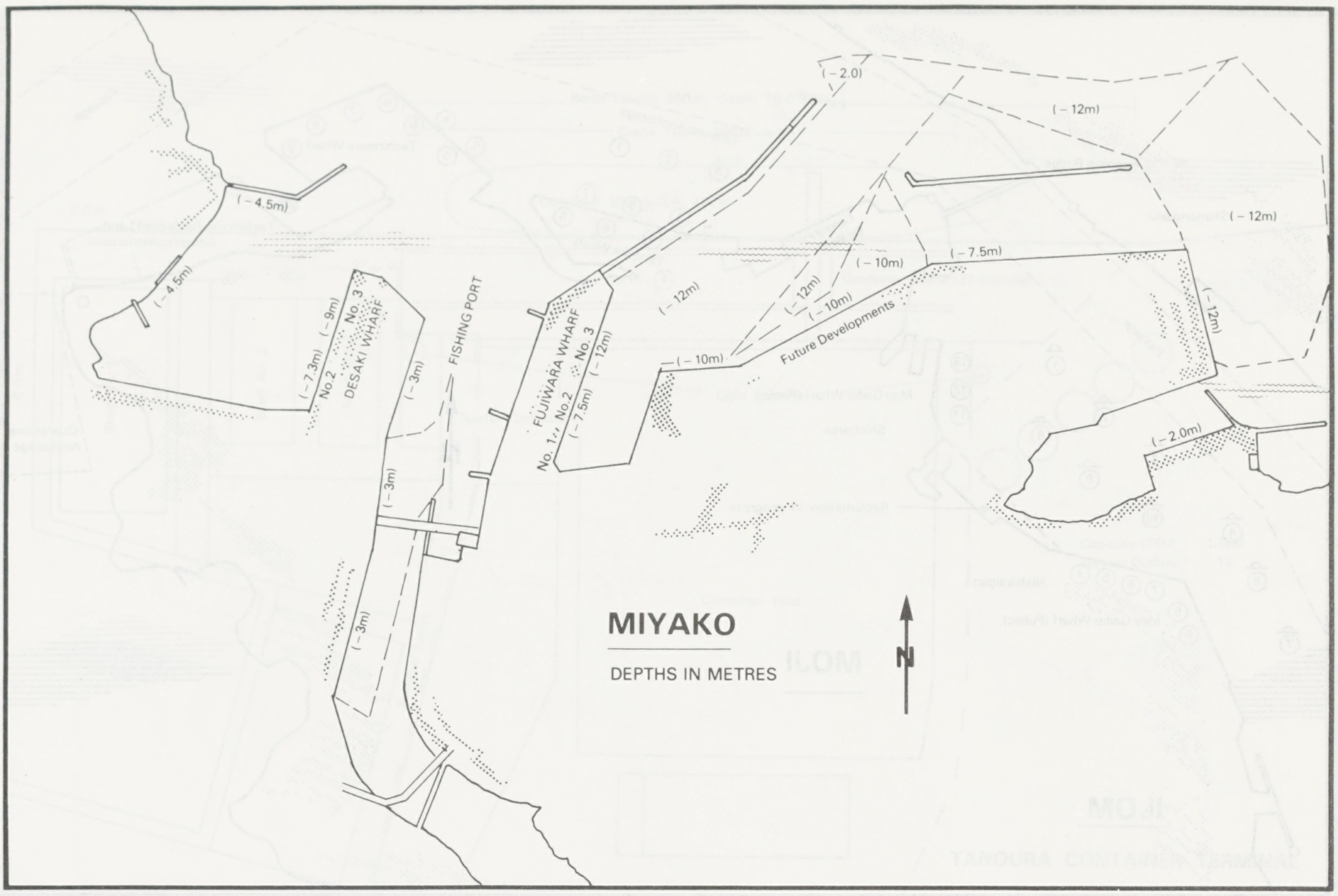
DEPTHS IN METRES

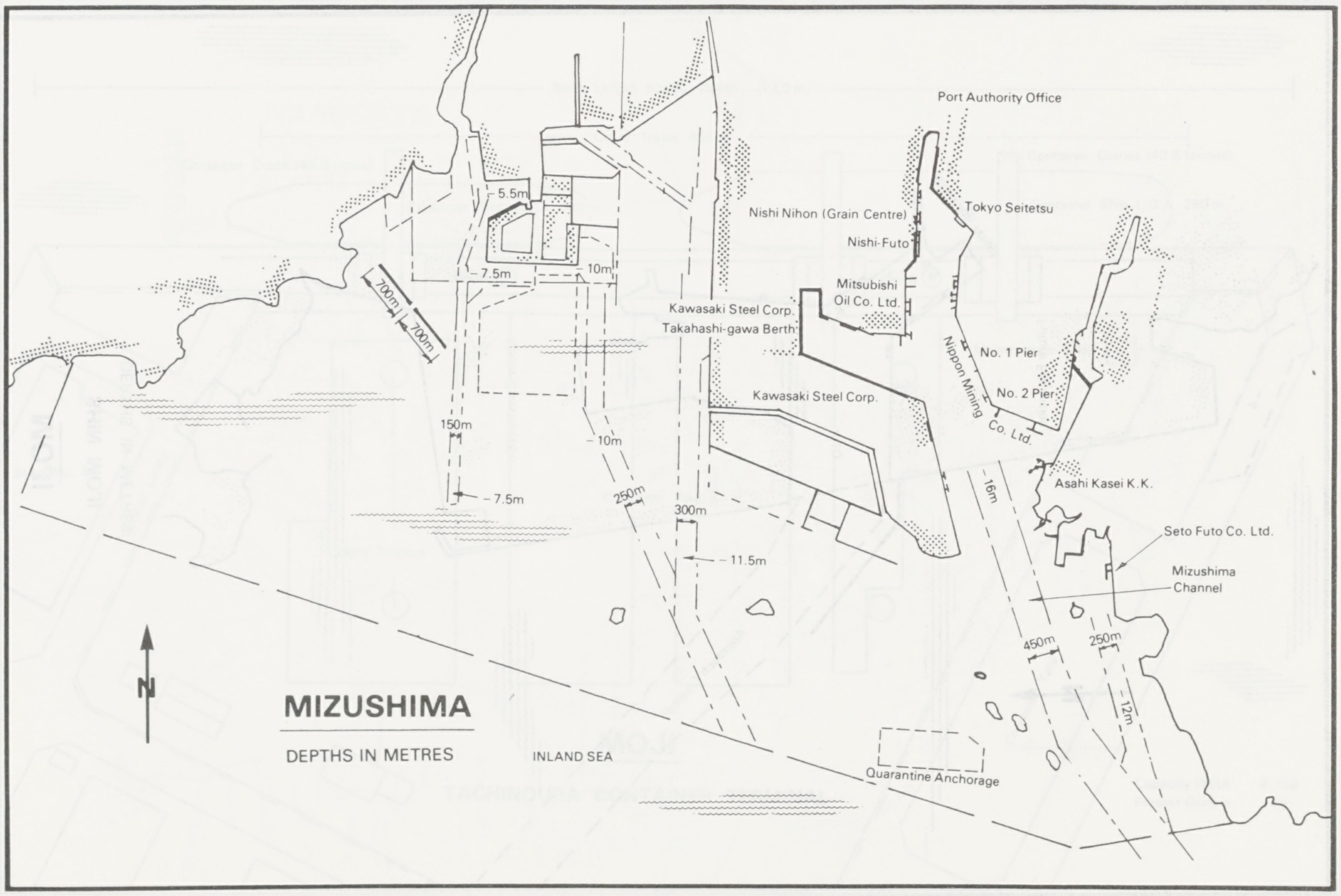
Port Limits
Kasaze – saki
Lighthouse
KOIJISHIMA
ISLAND
Dredging Operations
Discharging Anchorage
(Hyakken Port)
– 2m
Hyakken New Wharves
Completion end 1989
Infill
Disposal
Area
– 10m
Hyakken New Wharf
Completion March 1985
6.5
7.5
– 5.5
Present Hyakken Wharf
Umedo Port
Breakwater
– 4
– 5.2
2 shore cranes
(each 5 tons)
MARUSHIMA
Fishery Harbour
FUKURO-WAN
INLET
MINAMATA-SHI
Kagoshima Line (J.N.R.)

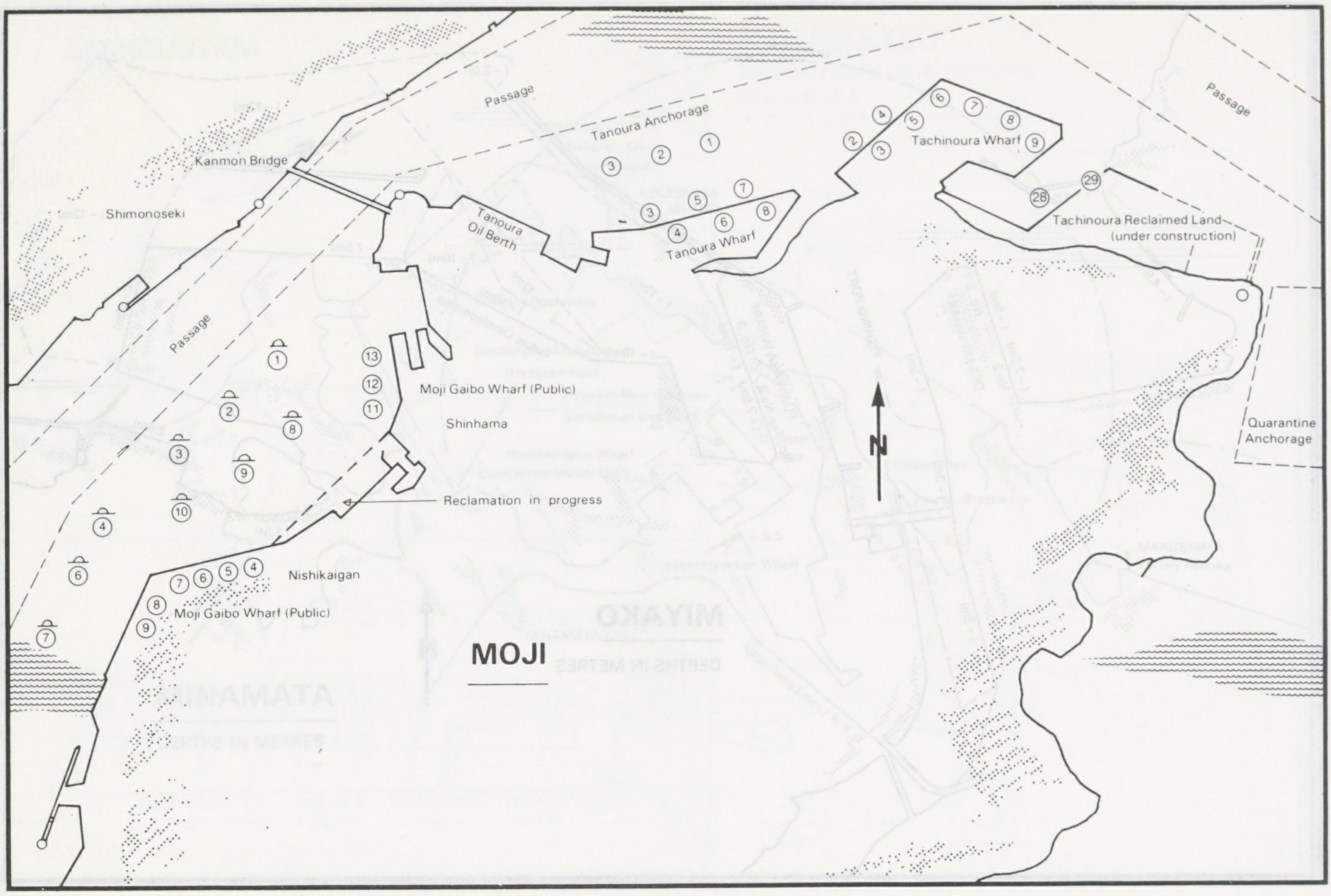

MISUMI

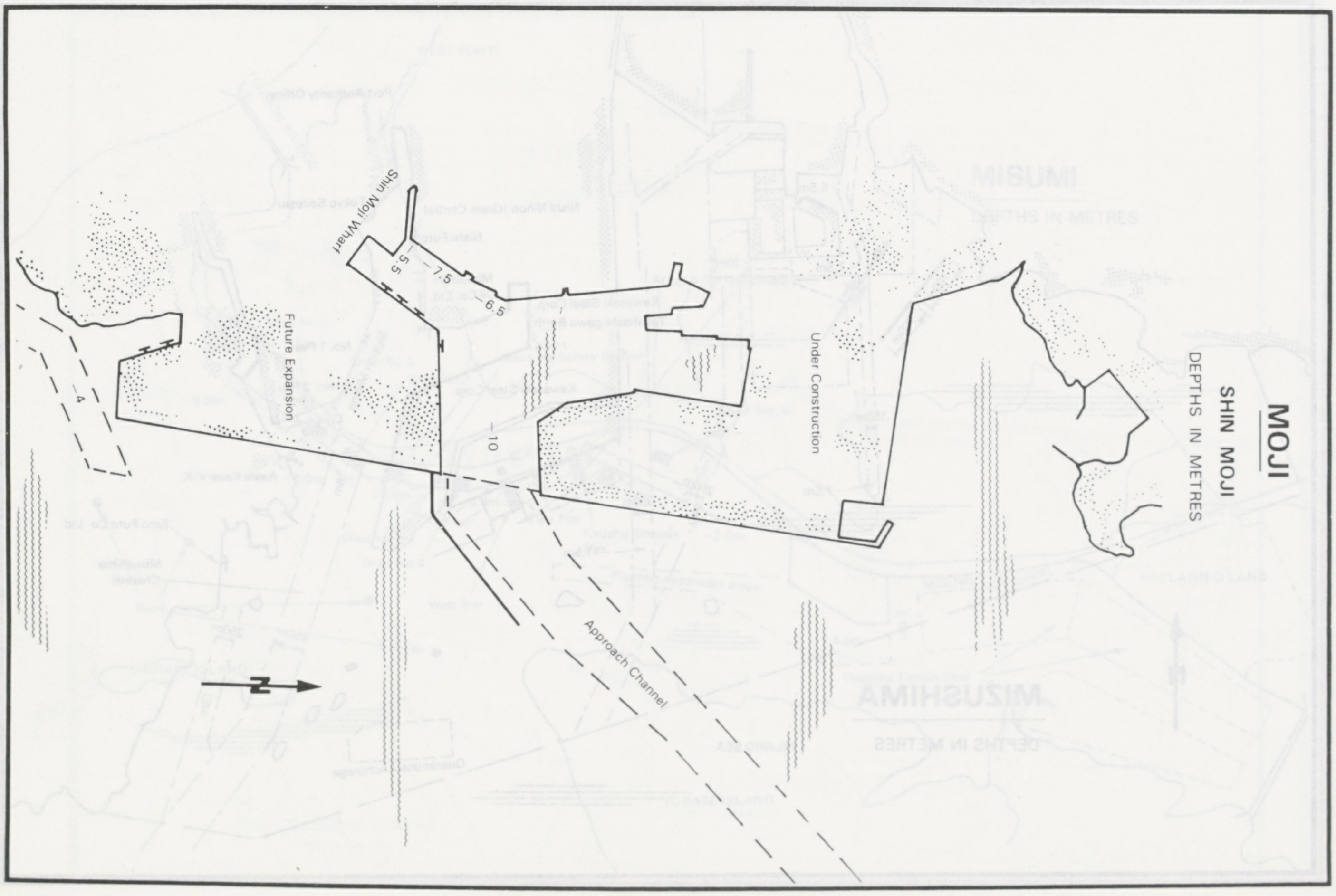
DEPTHS IN METRES

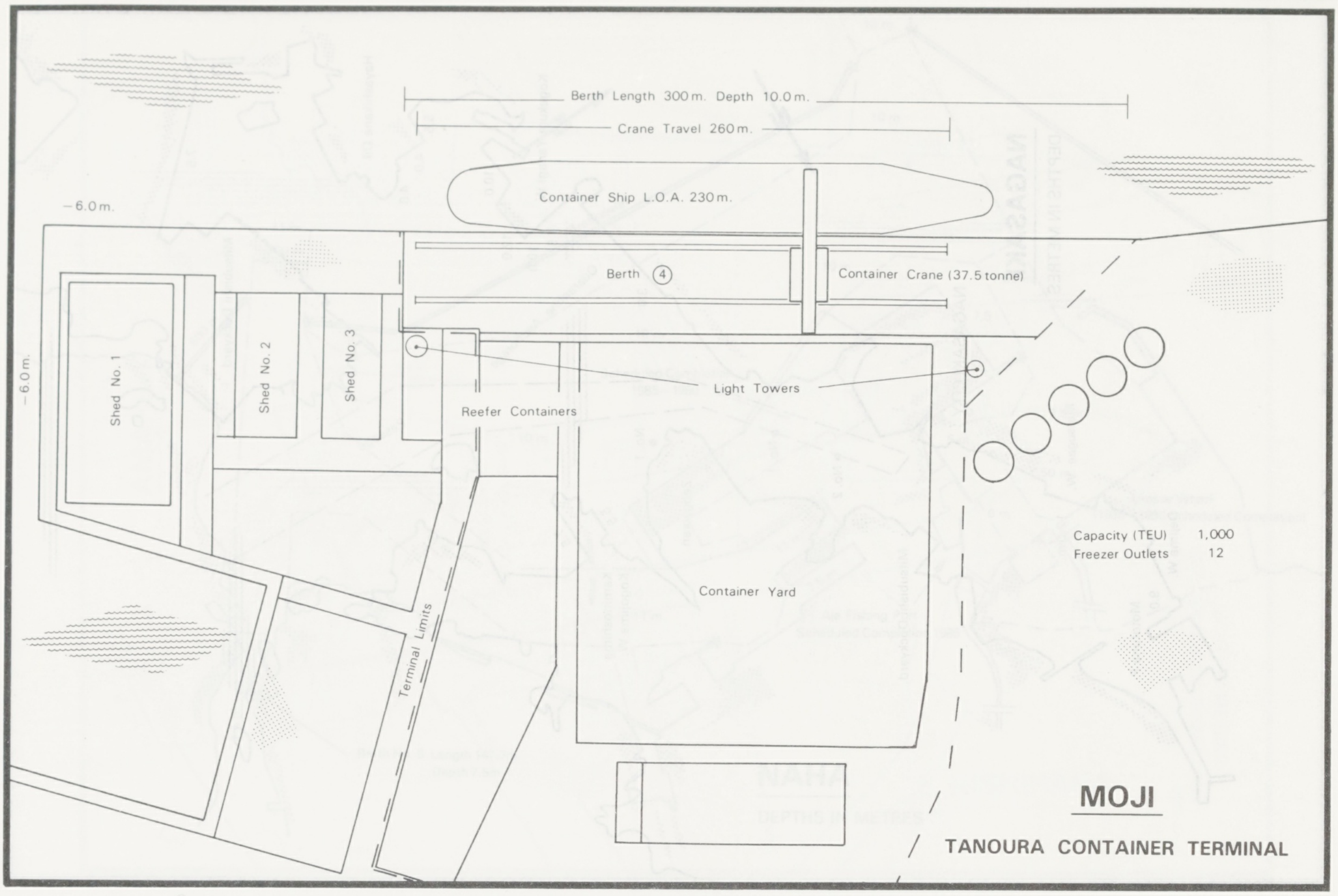
WEST PORT
TENMON BRIDGE
Area to be reclaimed
Shed No.5
Shed No.1
Shed No.2
Maritime Safety Station
Shed No. 6
– 9.0m
Quay C
Quay B
Quay A
– 8.0m
– 3.0m
– 3.0m
– 3.0m
East Pier
Kyushu Shosen
Pier
– 2.0m
Shed No.3
Shed No.4
West Pier
Planned expansion areas
MISUMI LINE (JNR)
RECLAIMED LAND
– 2.0m
– 4.5m
Floating Timber Pool
Buoy
SHIRASE ISLAND
TOBASE ISLAND


(–2.0)
(–12m)
(–4.5m)
(–4.5m)
(–12m)
(–7.5m)
(–10m)
(–12m)
(–10m)
(–12m)
(–7.3m)
(–9m)
No. 3
No. 2
DESAKI WHARF
(–3m)
FISHING PORT
FUJIWARA WHARF
No. 1, No. 2
No. 3
(–7.5m)
(–12m)
(–10m)
Future Developments
(–12m)
(–2.0m)
(–3m)
(–3m)
MIYAKO
DEPTHS IN METRES
N


Port Authority Office
Tokyo Seitetsu
Nishi Nihon (Grain Centre)
Nishi-Futo
Mitsubishi Oil Co. Ltd.
Kawasaki Steel Corp.
Takahashi-gawa Berth
Kawasaki Steel Corp.
Nippon Mining Co. Ltd.
No. 1 Pier
No. 2 Pier
Asahi Kasei K.K.
Seto Futo Co. Ltd.
Mizushima Channel
5.5m
7.5m
10m
700m
700m
150m
–10m
–7.5m
250m
300m
–11.5m
–16m
450m
250m
–12m
Quarantine Anchorage
MIZUSHIMA
DEPTHS IN METRES
INLAND SEA
N


Passage
Tanoura Anchorage
Kanmon Bridge
Shimonoseki
Tanoura Oil Berth
Tanoura Wharf
Tachinoura Wharf
Tachinoura Reclaimed Land (under construction)
Passage
Passage
Quarantine Anchorage
Moji Gaibo Wharf (Public)
Shinhama
Reclamation in progress
Nishikaigan
Moji Gaibo Wharf (Public)
N
MOJI
1
2
3
4
5
6
7
8
9
10
11
12
13
28
29

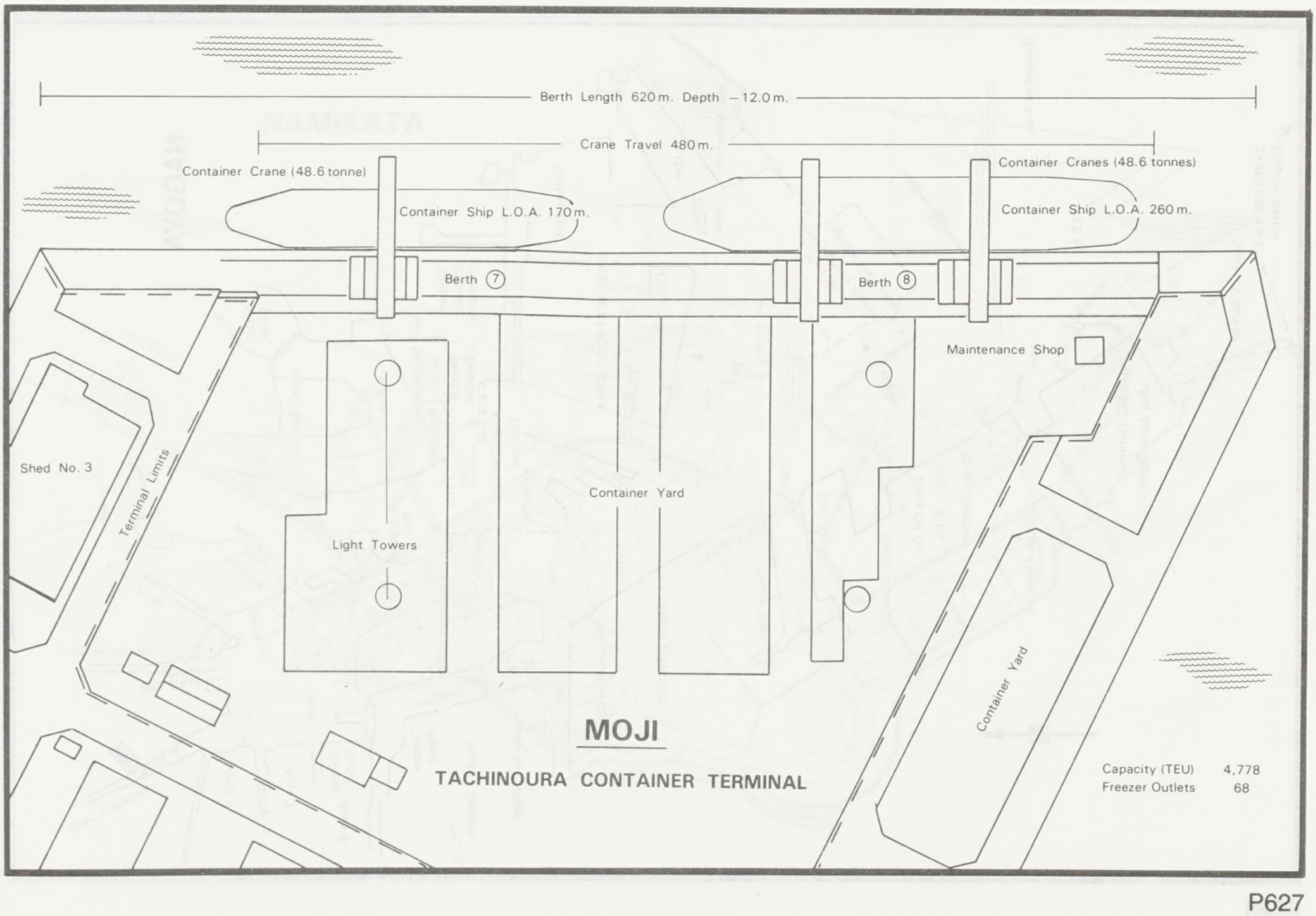

Shin Moji Wharf
5.5
7.5
6.5
Future Expansion
Under Construction
4
−10
Approach Channel
N
MOJI
SHIN MOJI
DEPTHS IN METRES


Berth Length 300 m. Depth 10.0 m.
Crane Travel 260 m.
Container Ship L.O.A. 230 m.
−6.0 m.
Berth ④
Container Crane (37.5 tonne)
−6.0 m.
Shed No. 1
Shed No. 2
Shed No. 3
Light Towers
Reefer Containers
Container Yard
Terminal Limits

Capacity (TEU) 1,000
Freezer Outlets 12

MOJI

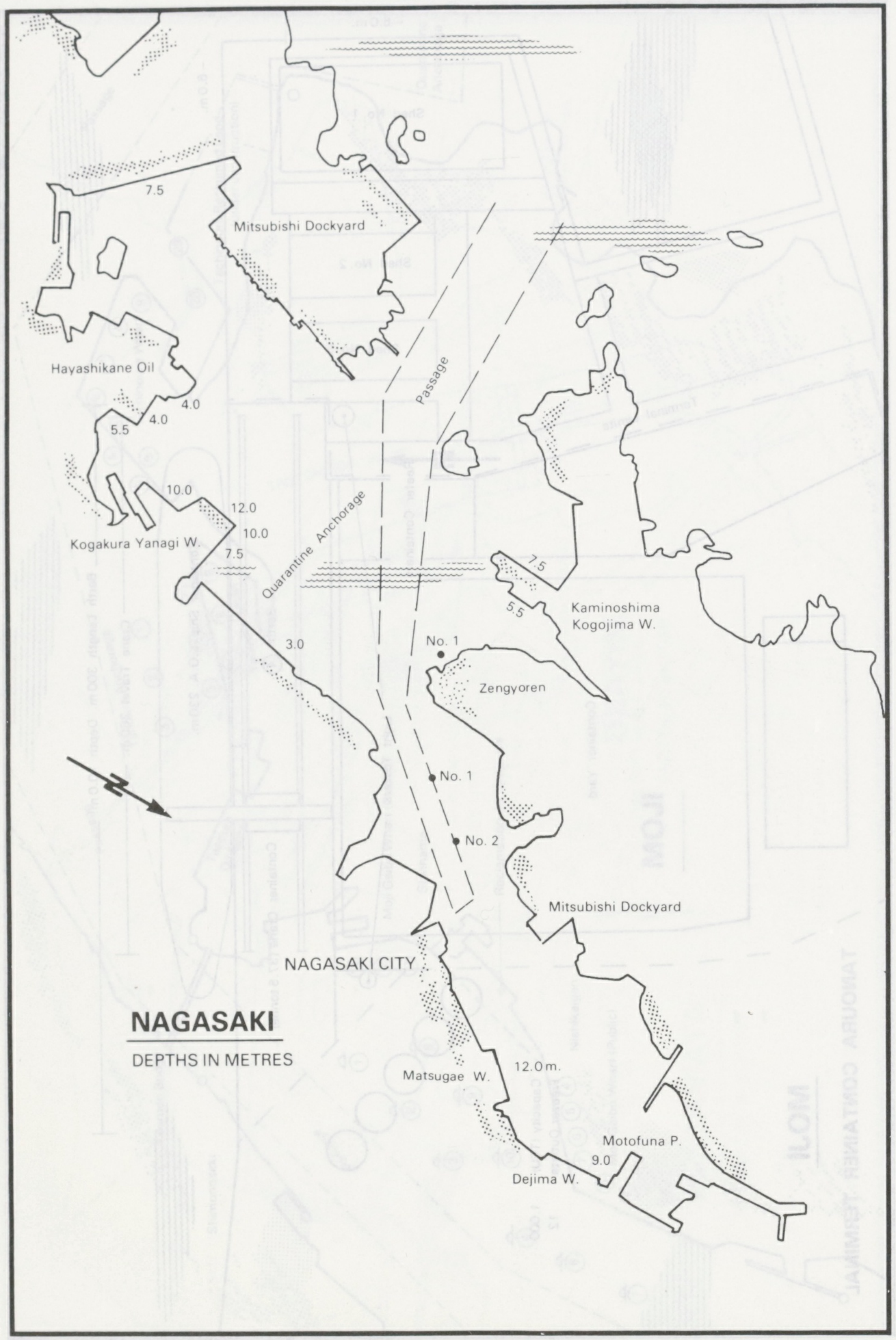
TANOURA CONTAINER TERMINAL

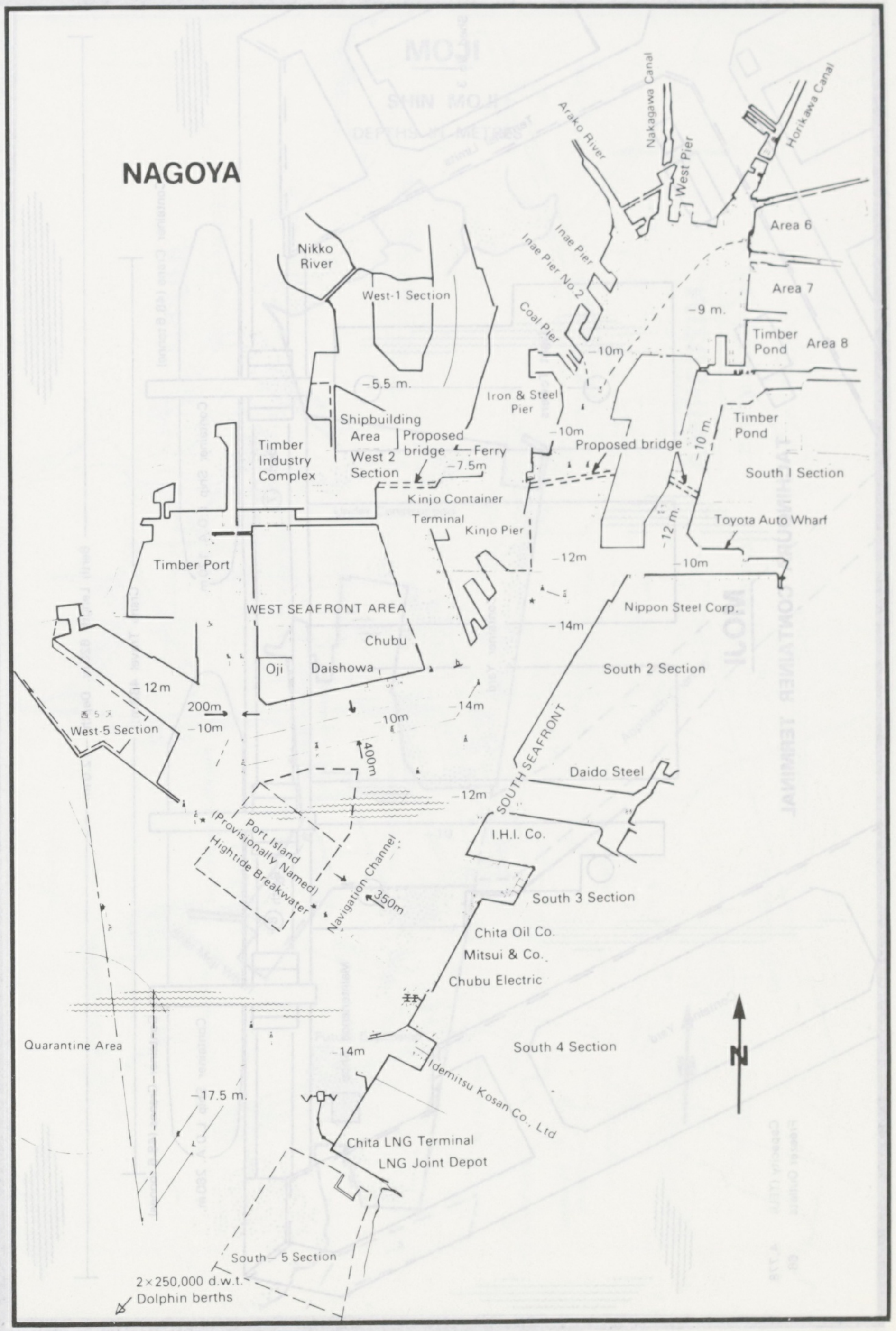

Berth Length 620 m. Depth −12.0 m.
Crane Travel 480 m.
Container Crane (48.6 tonne)
Container Cranes (48.6 tonnes)
Container Ship L.O.A. 170 m.
Container Ship L.O.A. 260 m.
Berth ⑦
Berth ⑧
Maintenance Shop
Shed No. 3
Terminal Limits
Container Yard
Light Towers
Container Yard

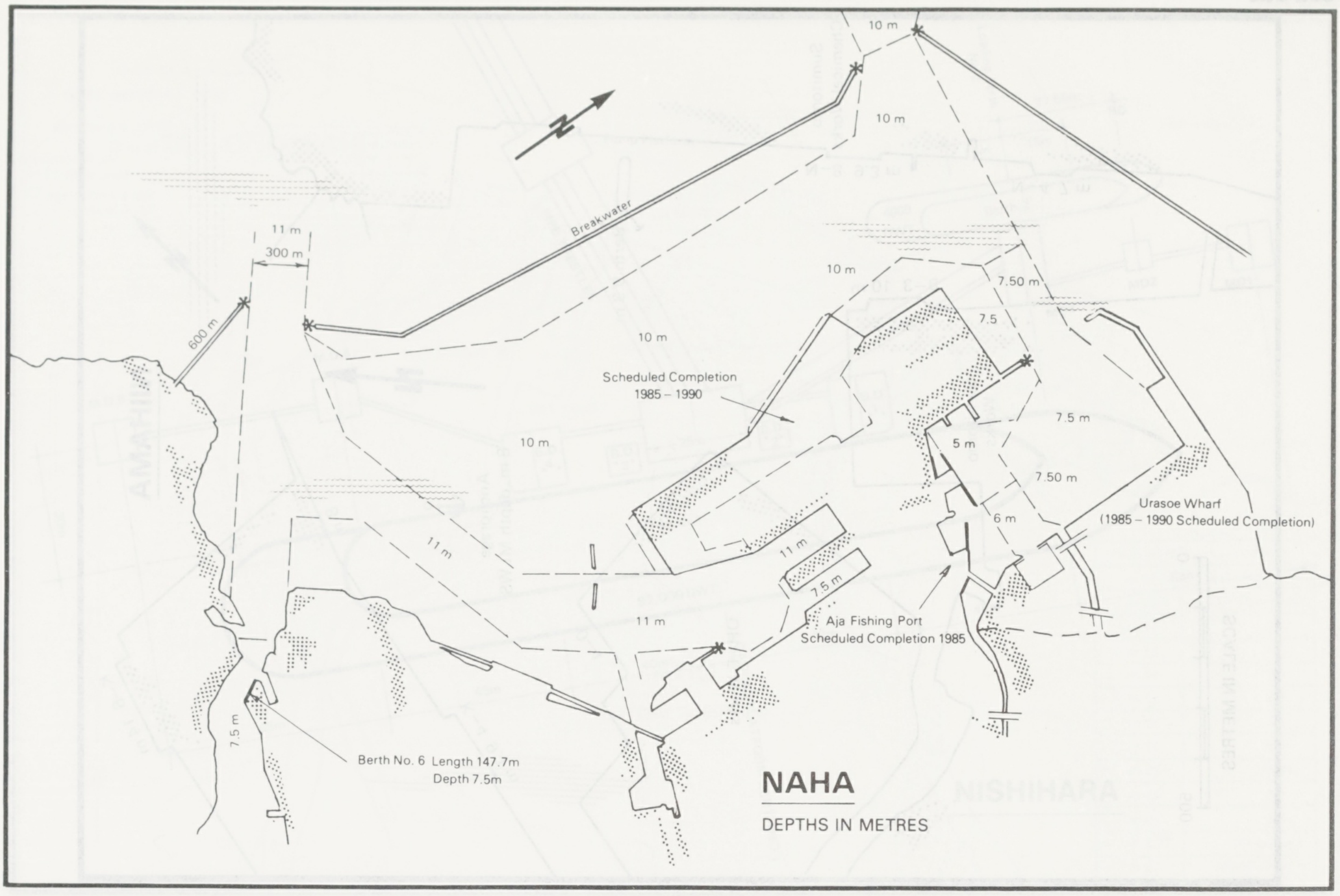
MOJI

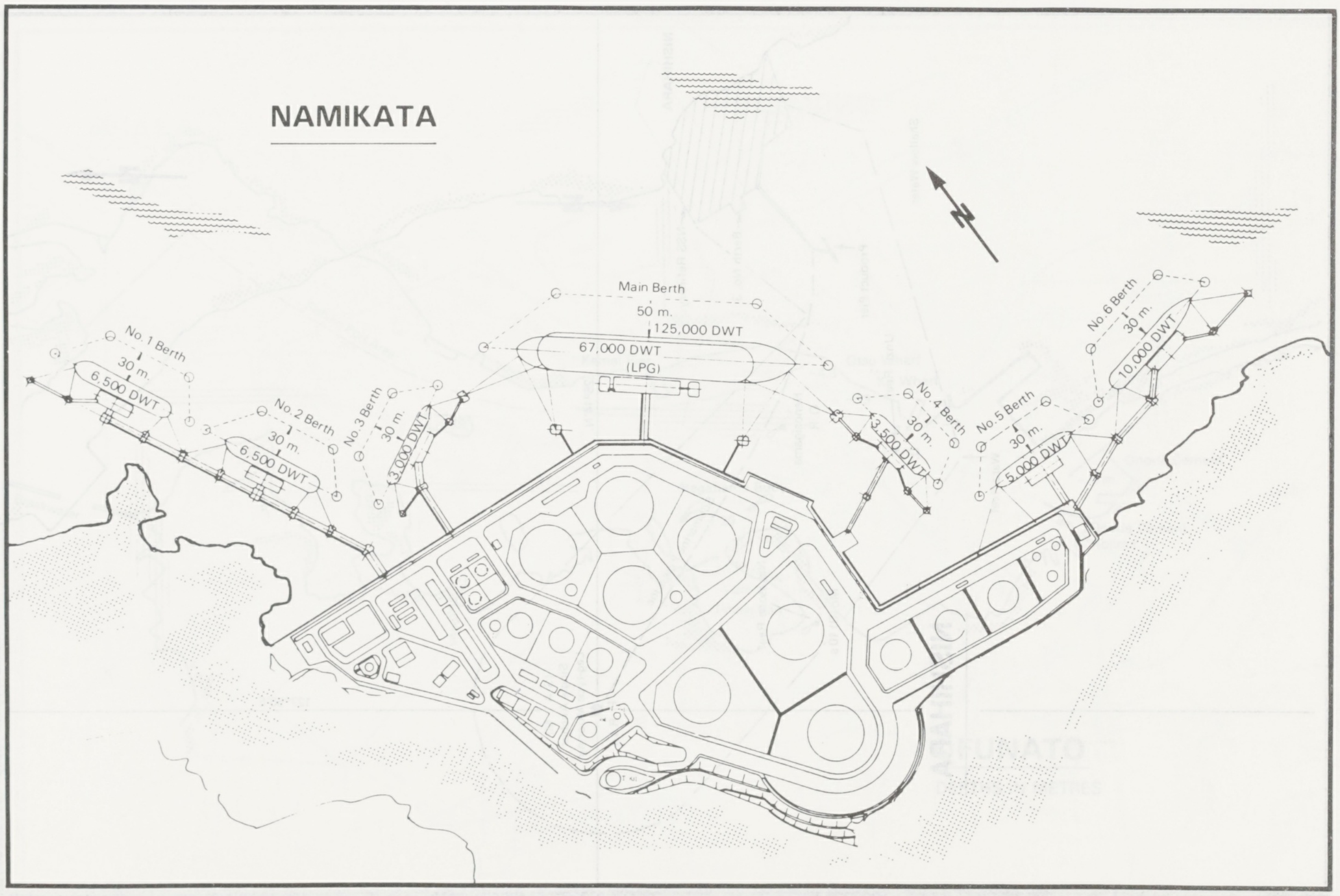
TACHINOURA CONTAINER TERMINAL

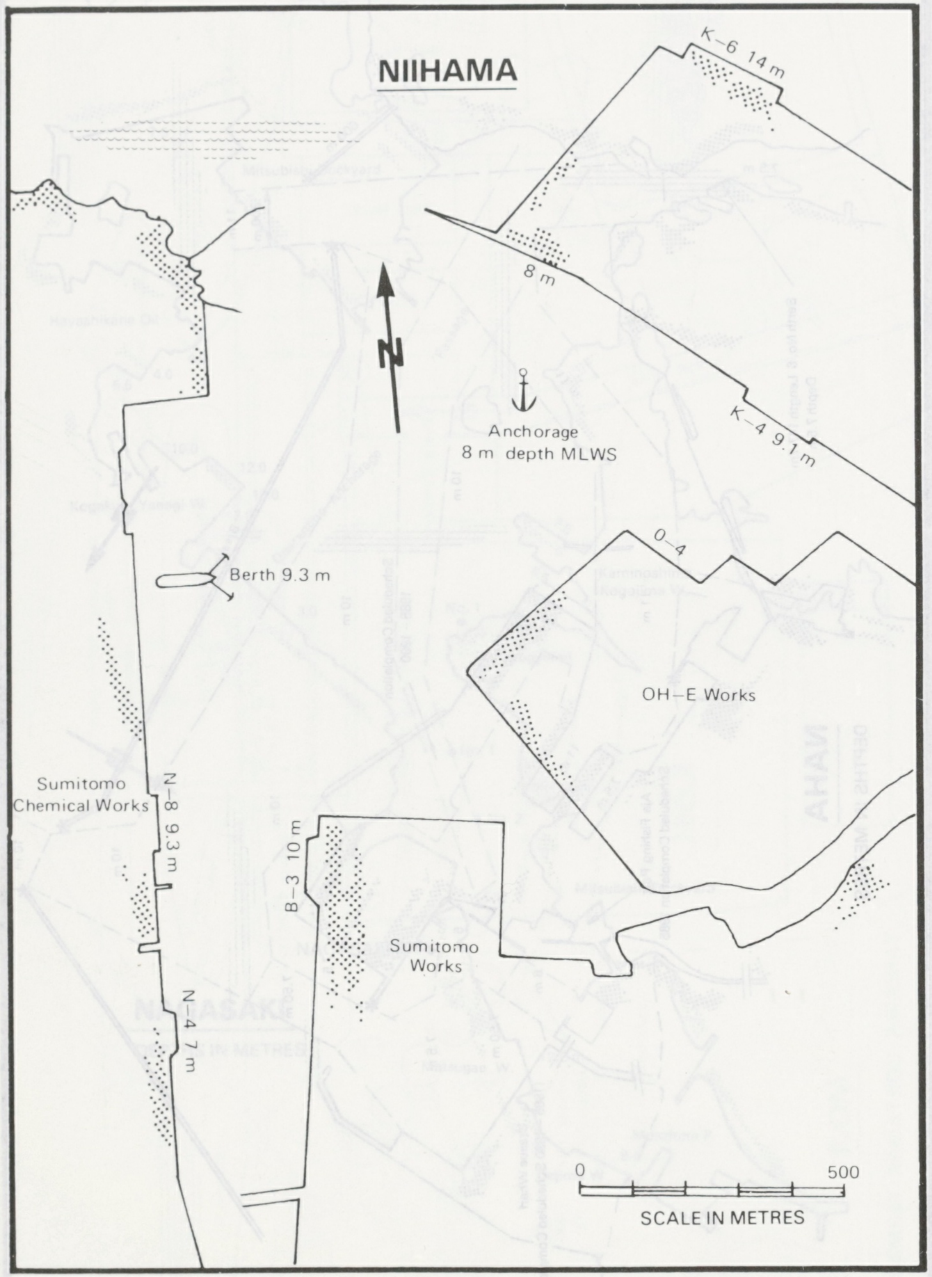
Capacity (TEU) 4,778
Freezer Outlets 68

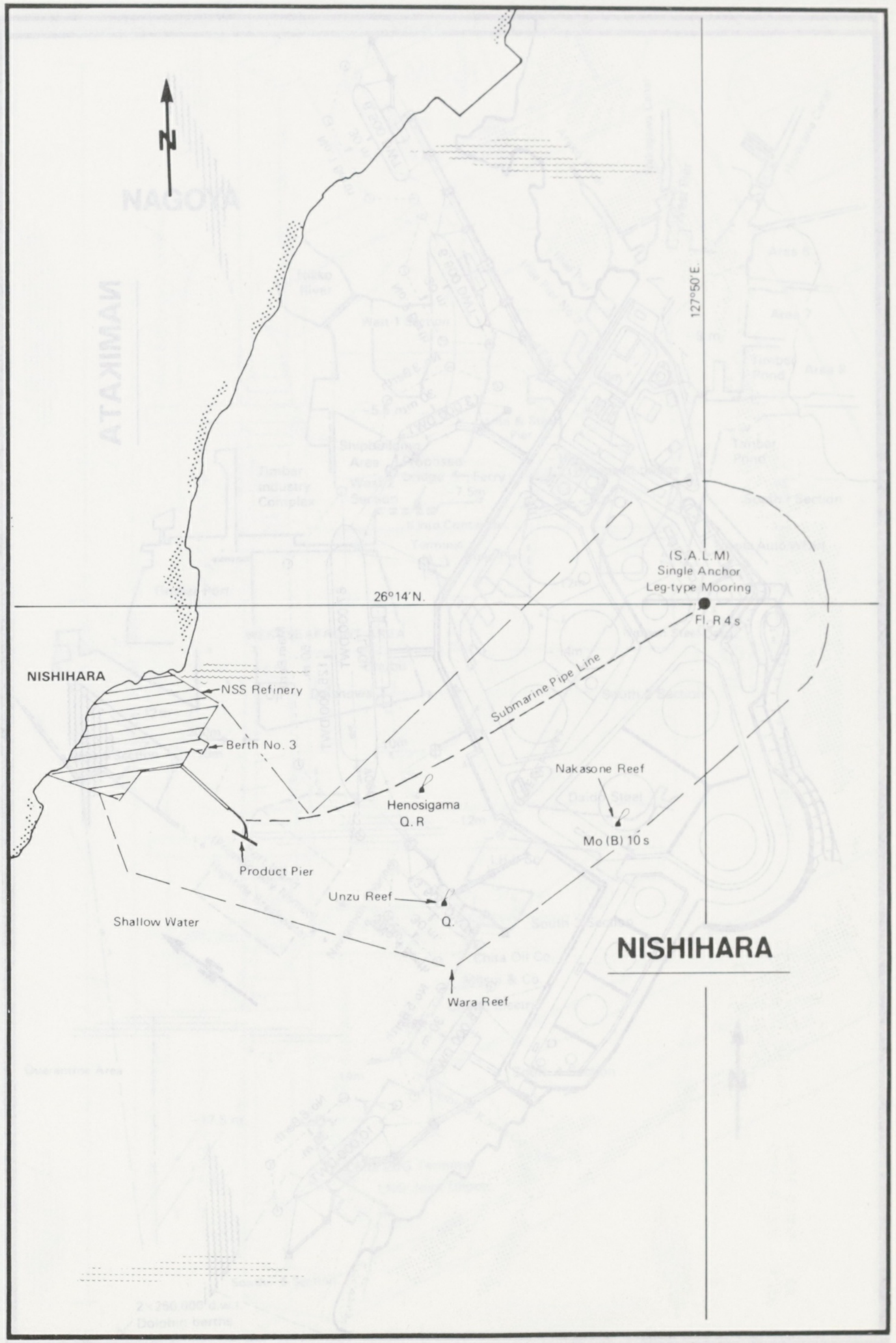

NAGASAKI
DEPTHS IN METRES
Mitsubishi Dockyard
7.5
Hayashikane Oil
4.0
5.5
4.0
10.0
12.0
10.0
7.5
Kogakura Yanagi W.
Quarantine Anchorage
Passage
3.0
7.5
5.5
Kaminoshima
Kogojima W.
No. 1
Zengyoren
No. 1
No. 2
Mitsubishi Dockyard
NAGASAKI CITY
12.0m.
Matsugae W.
Motofuna P.
9.0
Dejima W.

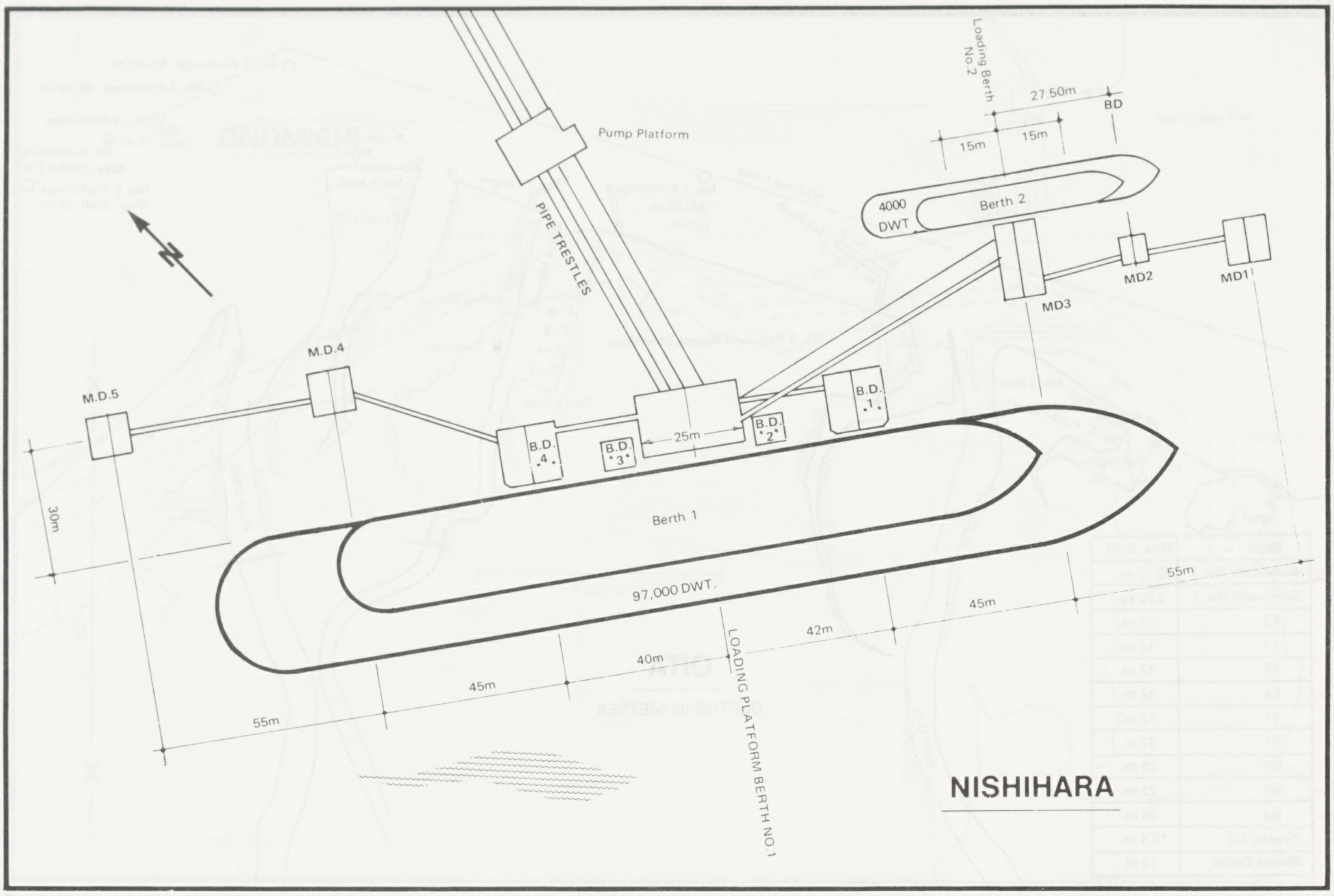

NAGOYA
Arako River
Nakagawa Canal
Horikawa Canal
West Pier
Inae Pier
Inae Pier No. 2
Area 6
Area 7
Coal Pier
-9 m.
Timber Pond
Area 8
Nikko River
West-1 Section
-10m
-5.5 m.
Iron & Steel Pier
Shipbuilding Area
Proposed bridge
Ferry
-10m
Proposed bridge
-10m
Timber Pond
Timber Industry Complex
West 2 Section
-7.5m
South I Section
Kinjo Container Terminal
Kinjo Pier
-12 m
Toyota Auto Wharf
Timber Port
-12m
-10m
WEST SEAFRONT AREA
Nippon Steel Corp.
Chubu
-14m
Oji
Daishowa
South 2 Section
-12m
200m
-10m
-14m
West-5 Section
-10m
400m
SOUTH SEAFRONT
Daido Steel
-12m
I.H.I. Co.
Port Island (Provisionally Named)
Hightide Breakwater
Navigation Channel
350m
South 3 Section
Chita Oil Co.
Mitsui & Co.
Chubu Electric
Quarantine Area
-14m
South 4 Section
N
Idemitsu Kosan Co., Ltd
-17.5 m.
Chita LNG Terminal
LNG Joint Depot
South - 5 Section
2×250,000 d.w.t.
Dolphin berths

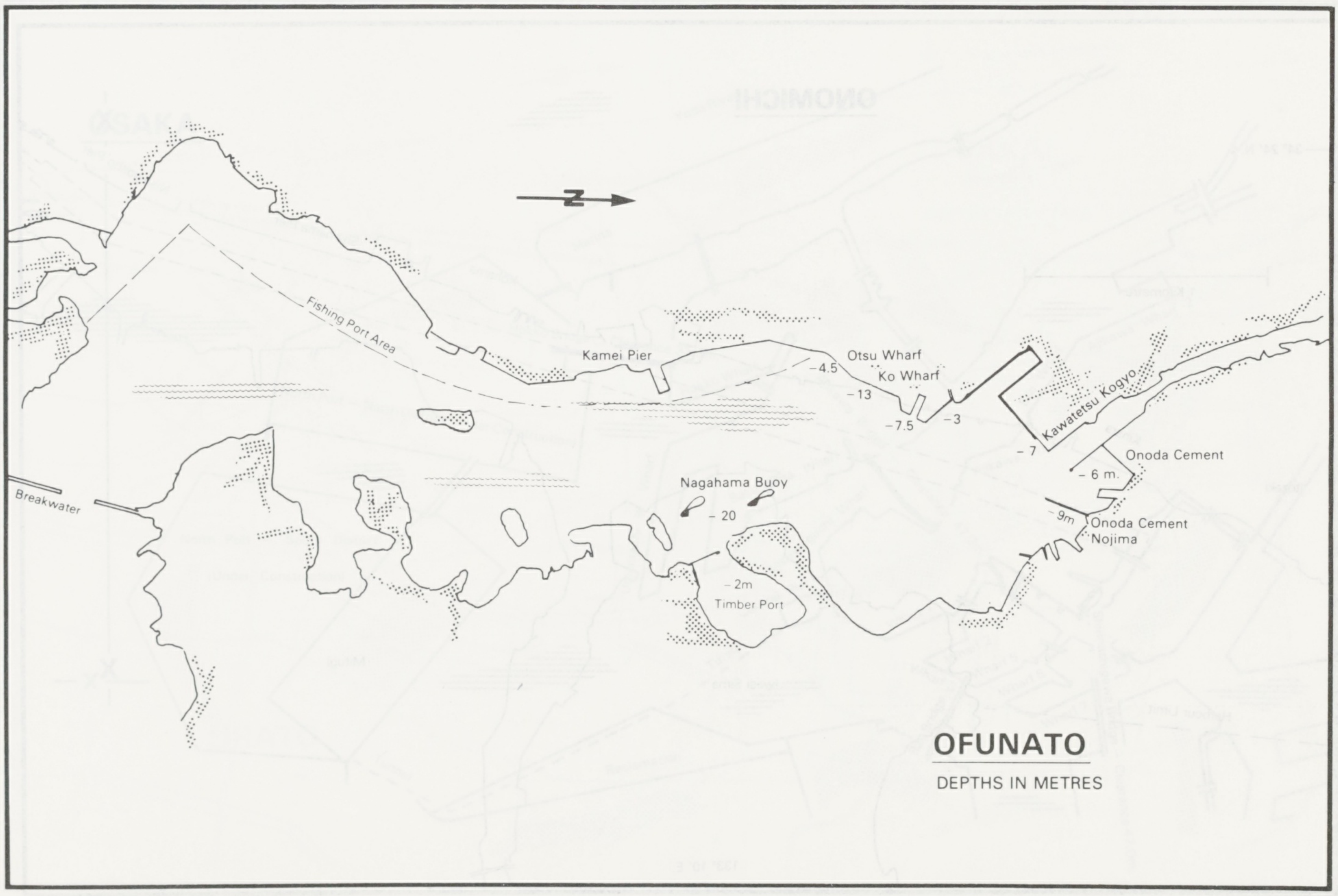

10 m
N
10 m
Breakwater
11 m
300 m
600 m
10 m
7,50 m
7.5
10 m
Scheduled Completion
1985 – 1990
10 m
7.5 m
5 m
7.50 m
6 m
Urasoe Wharf
(1985 – 1990 Scheduled Completion)
11 m
11 m
7.5 m
11 m
Aja Fishing Port
Scheduled Completion 1985
7.5 m
Berth No. 6 Length 147.7m
Depth 7.5m
NAHA
DEPTHS IN METRES

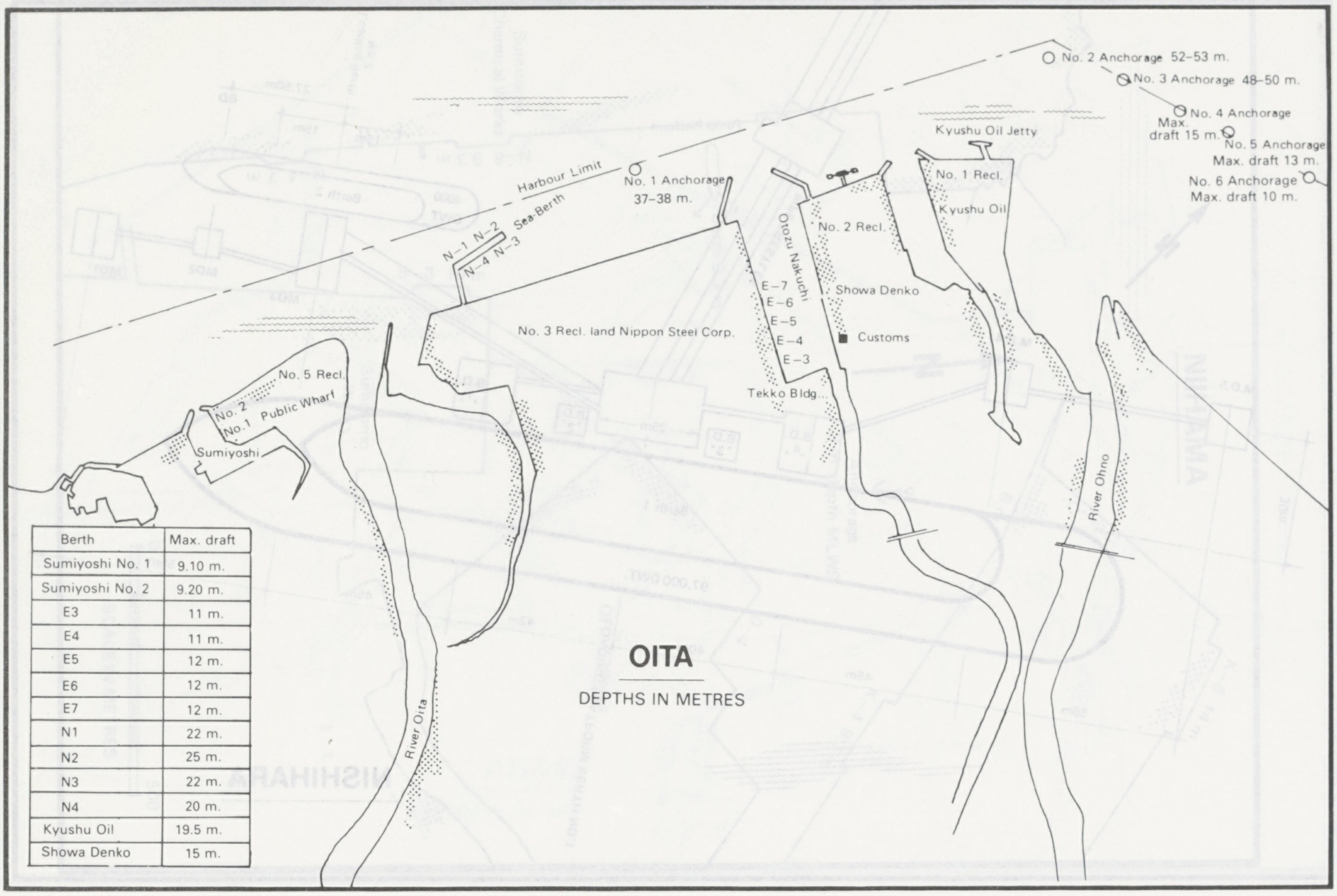

NAMIKATA
N
Main Berth
50 m.
125,000 DWT
67,000 DWT
(LPG)
No. 1 Berth
30 m.
6,500 DWT
No. 2 Berth
30 m.
6,500 DWT
No. 3 Berth
30 m.
3,000 DWT
No. 4 Berth
30 m.
3,500 DWT
No. 5 Berth
30 m.
5,000 DWT
No. 6 Berth
30 m.
10,000 DWT


NIIHAMA
K–6 14 m
8 m
Anchorage
8 m depth MLWS
K–4 9.1 m
Berth 9.3 m
0–4
OH–E Works
Sumitomo
Chemical Works
N–8 9.3 m
8–3 10 m
Sumitomo
Works
N–4 7 m
0
500
SCALE IN METRES

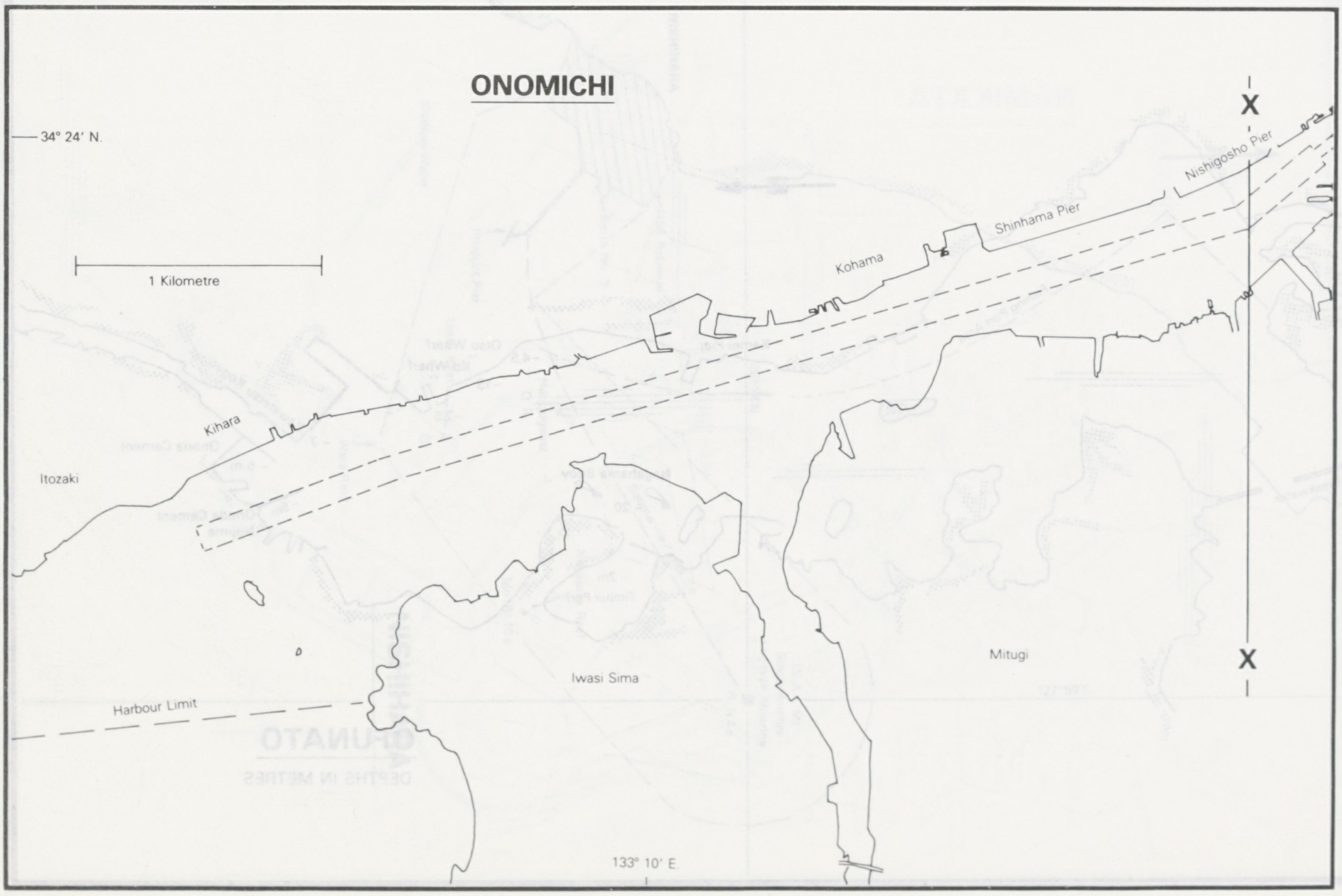

127°50'E
(S.A.L.M)
Single Anchor
Leg-type Mooring
26°14'N.
Fl. R 4 s
NISHIHARA
NSS Refinery
Berth No. 3
Submarine Pipe Line
Henosigama
Q. R
Nakasone Reef
Mo (B) 10 s
Product Pier
Unzu Reef
Q.
Shallow Water
Wara Reef
NISHIHARA

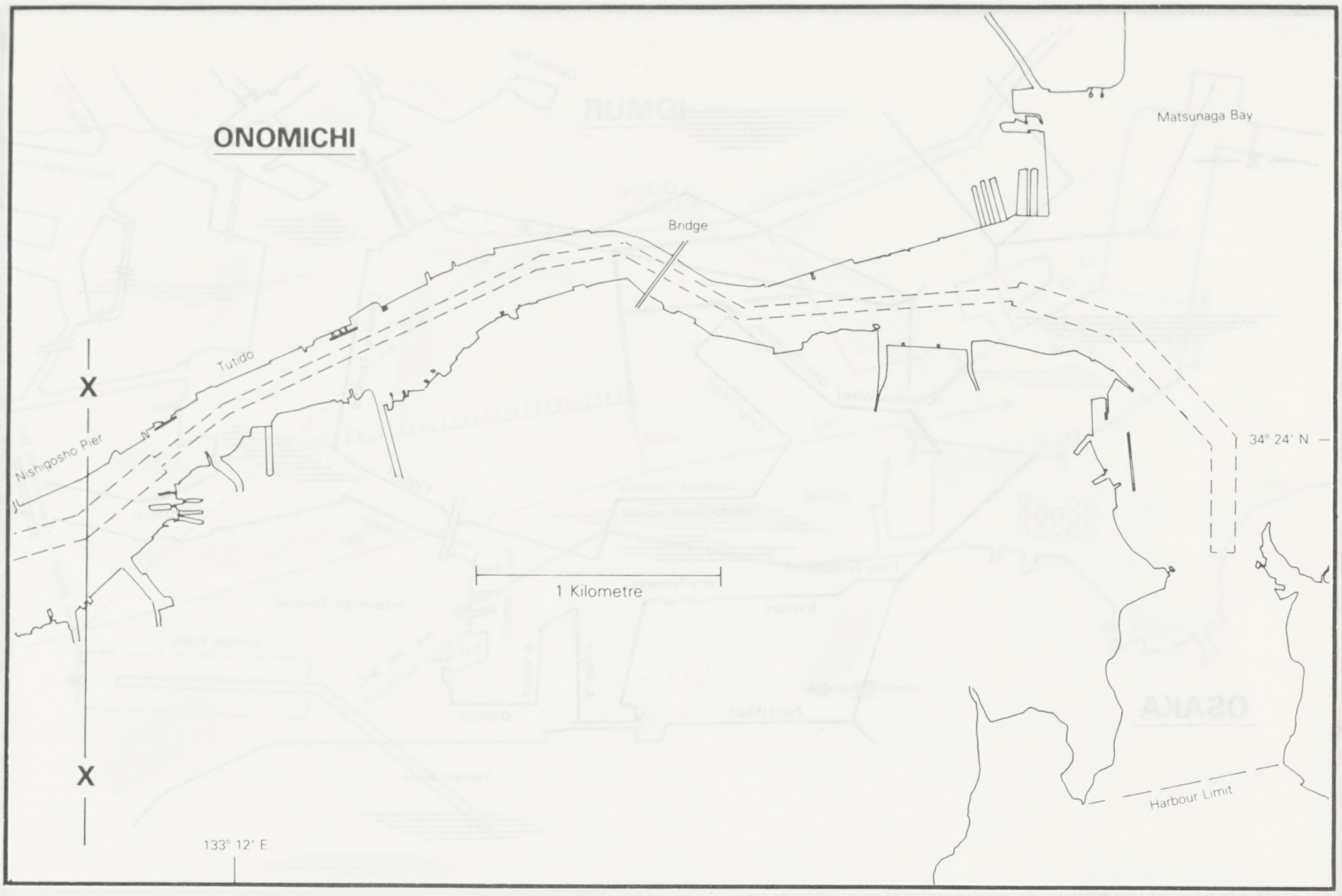

Pump Platform
PIPE TRESTLES
Loading Berth No. 2
27.50m
BD
15m
15m
4000 DWT
Berth 2
MD3
MD2
MD1
M.D.4
M.D.5
B.D. 4
B.D. 3
B.D. 2
B.D. 1
25m
30m
Berth 1
97,000 DWT.
55m
45m
40m
42m
45m
55m
LOADING PLATFORM BERTH NO 1
NISHIHARA

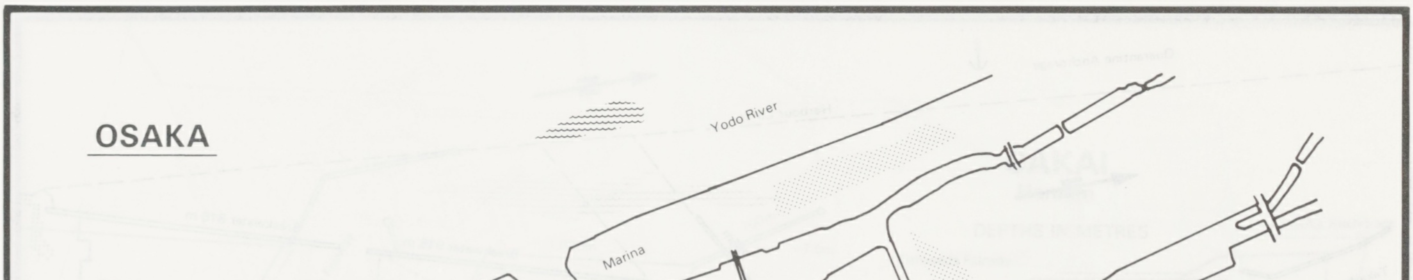

Fishing Port Area
Kamei Pier
Otsu Wharf
Ko Wharf
– 4.5
– 13
– 7.5
– 3
Kawatetsu Kogyo
– 7
Onoda Cement
– 6 m.
Breakwater
Nagahama Buoy
– 20
– 9m
Onoda Cement Nojima
– 2m
Timber Port
OFUNATO
DEPTHS IN METRES

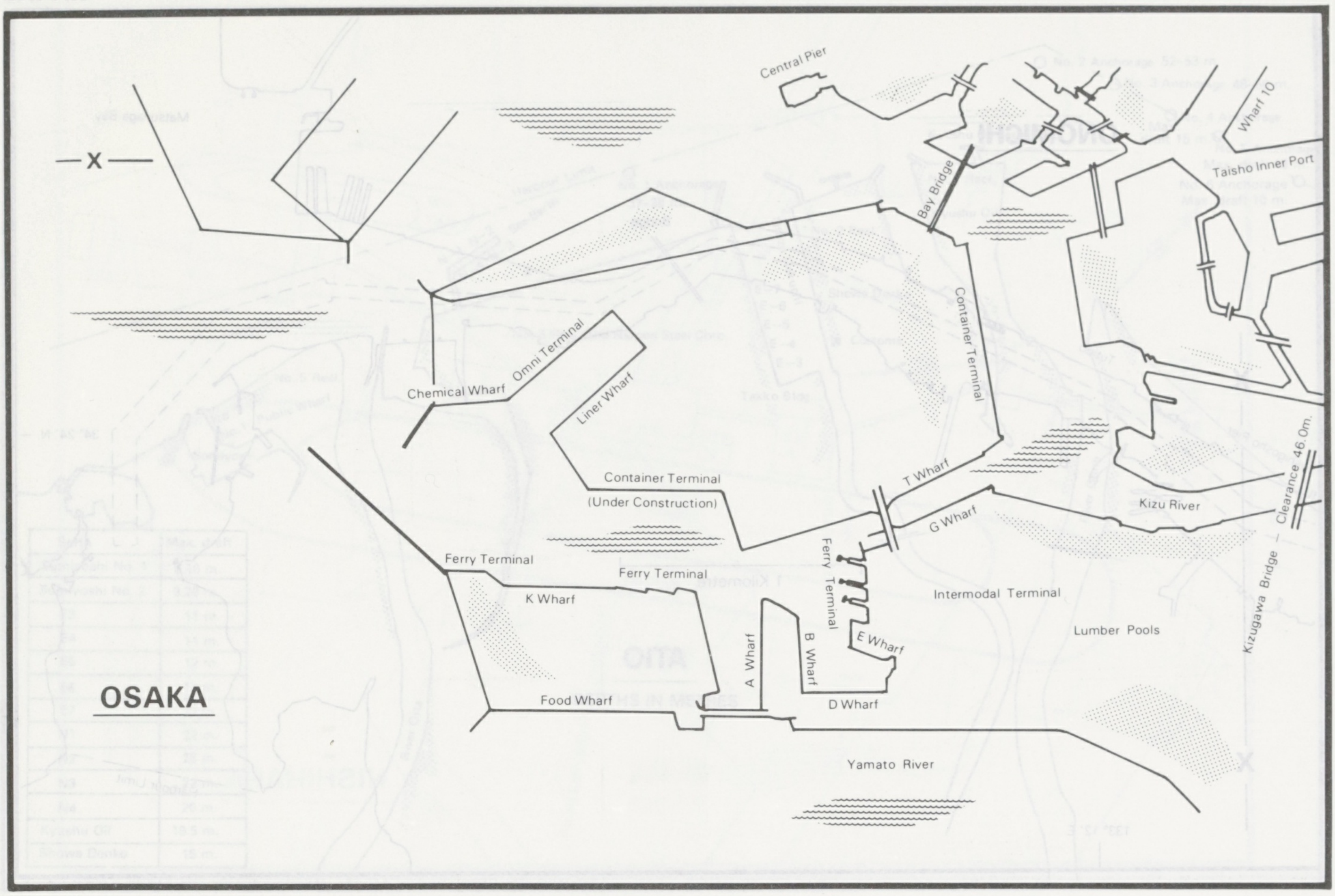

OITA
DEPTHS IN METRES
Harbour Limit
No. 1 Anchorage 37–38 m.
No. 2 Anchorage 52–53 m.
No. 3 Anchorage 48–50 m.
No. 4 Anchorage Max. draft 15 m.
No. 5 Anchorage Max. draft 13 m.
No. 6 Anchorage Max. draft 10 m.
Kyushu Oil Jetty
No. 1 Recl.
Kyushu Oil
No. 2 Recl.
Showa Denko
Customs
Otozu Nakuchi
E–7
E–6
E–5
E–4
E–3
Tekko Bldg.
N–1 N–2
N–4 N–3
Sea-Berth
No. 3 Recl. land Nippon Steel Corp.
No. 5 Recl.
No. 2
No. 1 Public Wharf
Sumiyoshi
River Oita
River Ohno

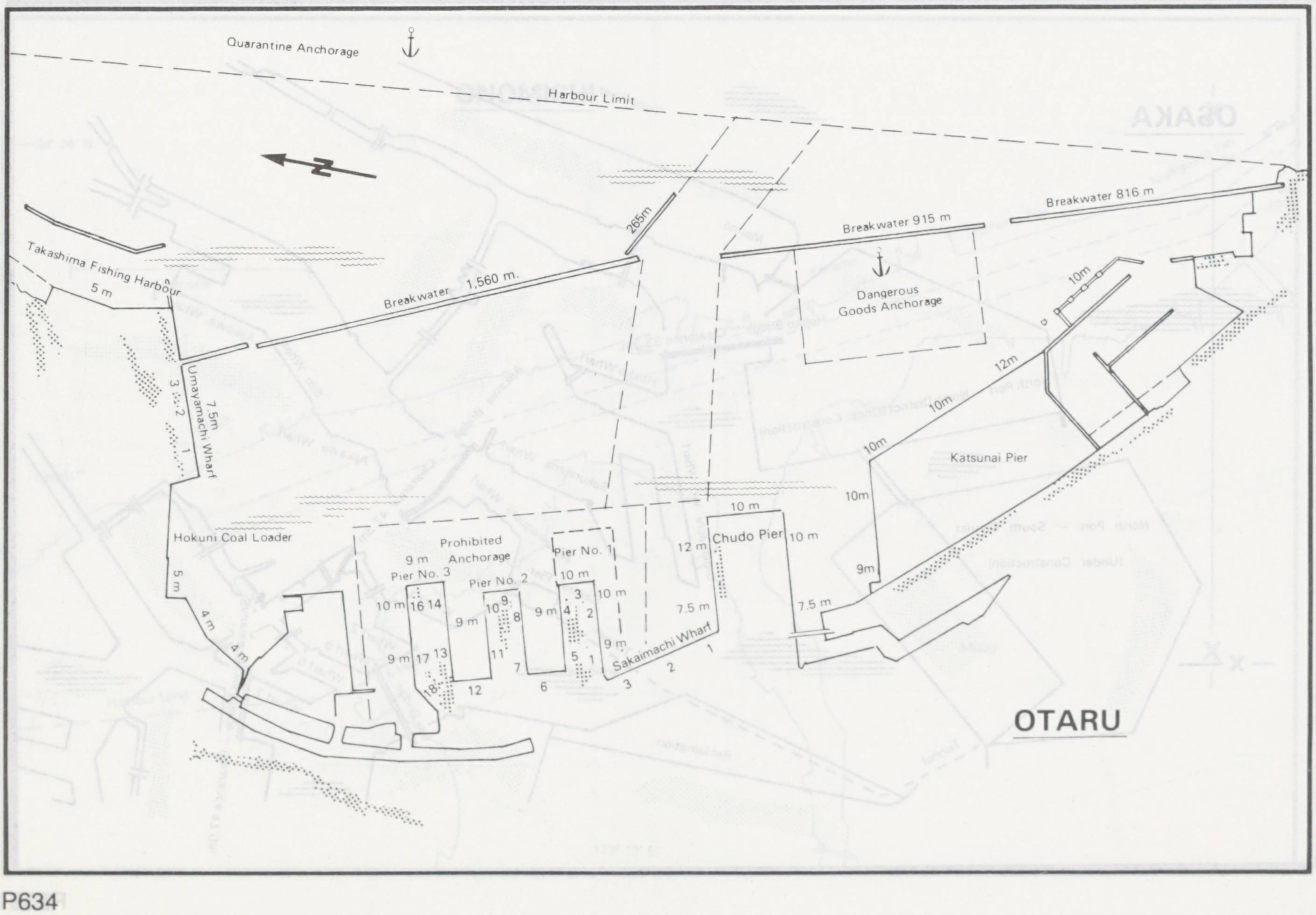
Berth	Max. draft
Sumiyoshi No. 1	9.10 m.
Sumiyoshi No. 2	9.20 m.
E3	11 m.
E4	11 m.
E5	12 m.
E6	12 m.
E7	12 m.
N1	22 m.
N2	25 m.
N3	22 m.
N4	20 m.
Kyushu Oil	19.5 m.
Showa Denko	15 m.

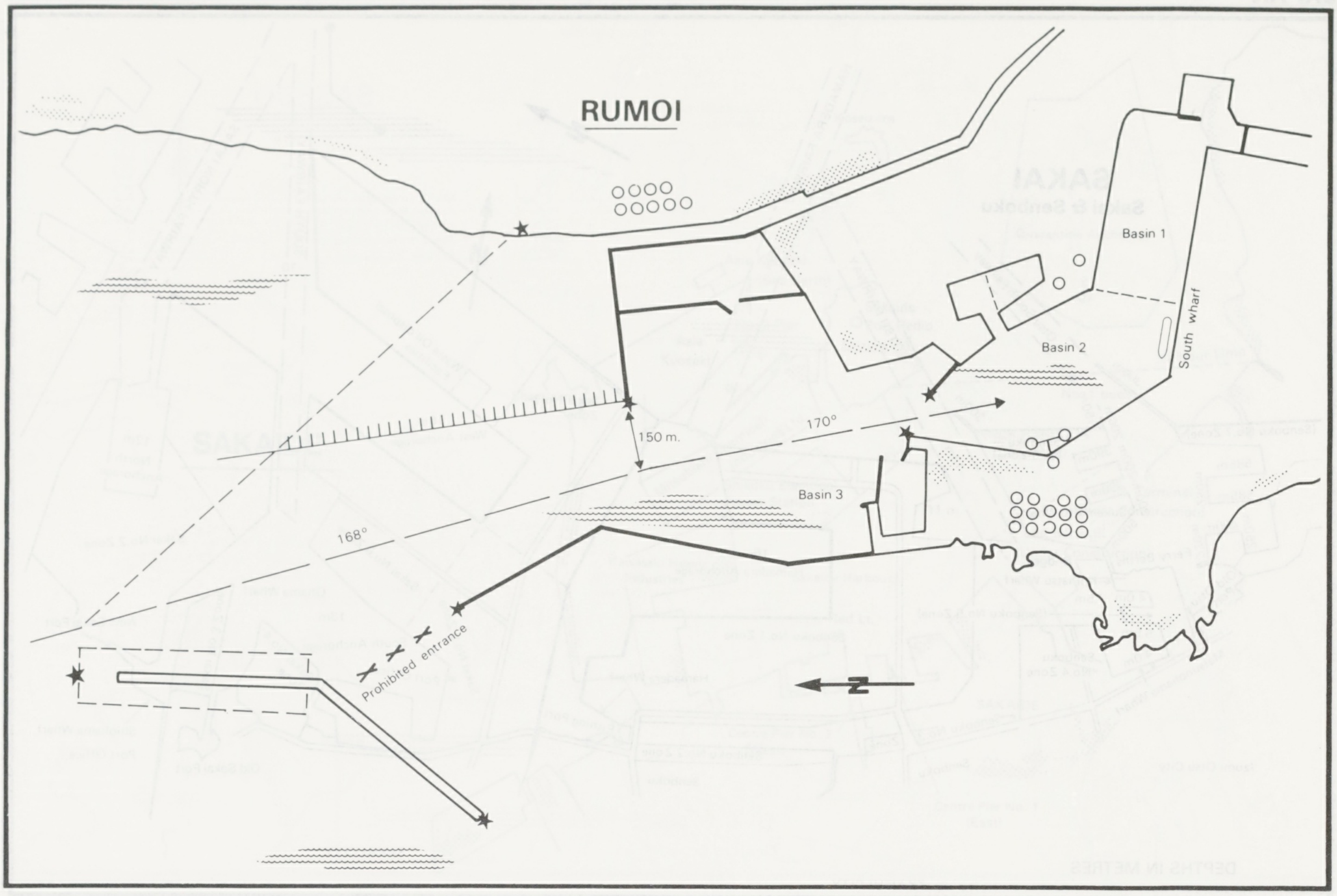

ONOMICHI
34° 24′ N.
1 Kilometre
X
X
Nishigosho Pier
Shinhama Pier
Kohama
Kihara
Itozaki
Iwasi Sima
Mitugi
Harbour Limit
133° 10′ E.

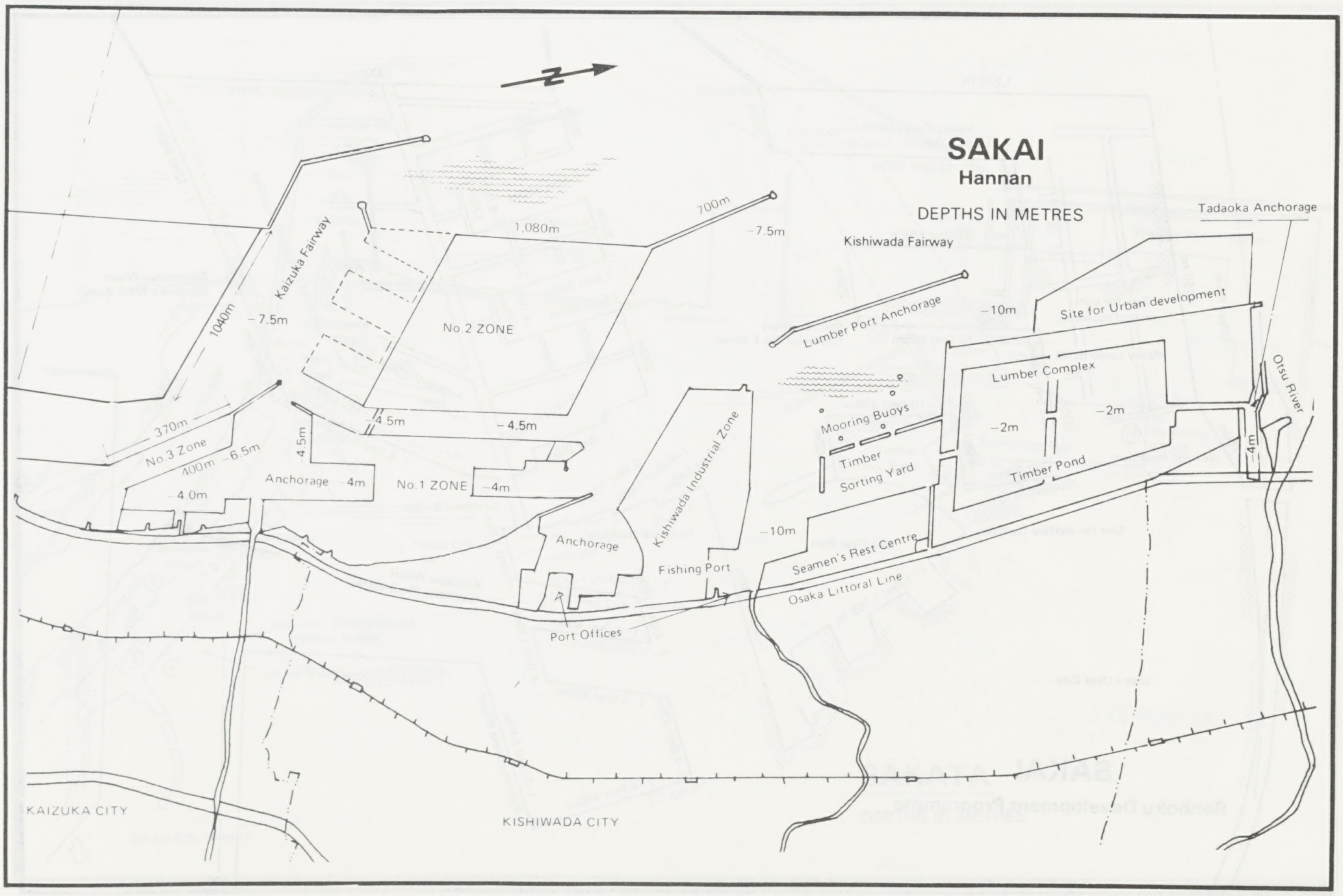

ONOMICHI
Matsunaga Bay
Bridge
Tutido
Nishigosho Pier
X
X
34° 24' N
1 Kilometre
Harbour Limit
133° 12' E

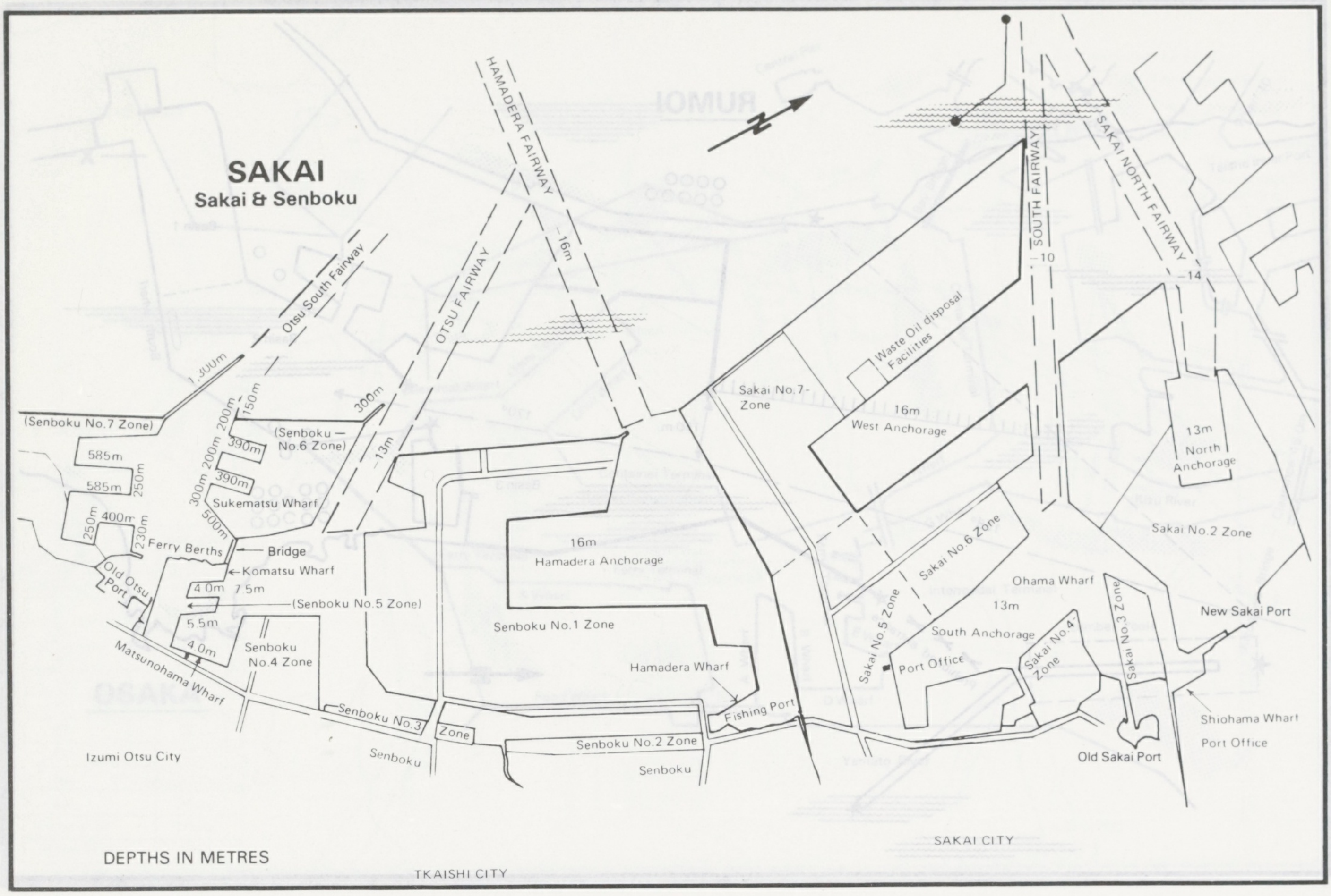

OSAKA
Yodo River
Marina
Hokko Bridge — Clearance 33.3m.
Hokko Wharf
North Port — North District (Under Construction)
North Port — South District
(Under Construction)
Umemachi W. Wharf
Sakurajima Wharf
Ajikawa Bridge — Clearance 47.3m.
Silo Wharf
Ajikawa Wharf 2
Ajikawa Wharf 1
Ajikawaguchi Wharf
Central Pier
Tunnel
Wharf 1
Wharf 2
Wharf 3
Wharf 5
Wharf 6
Wharf 7
Bay Bridge
Shirinashigawa Bridge — Clearance 47.0m.
Reclamation
Tunnel
X

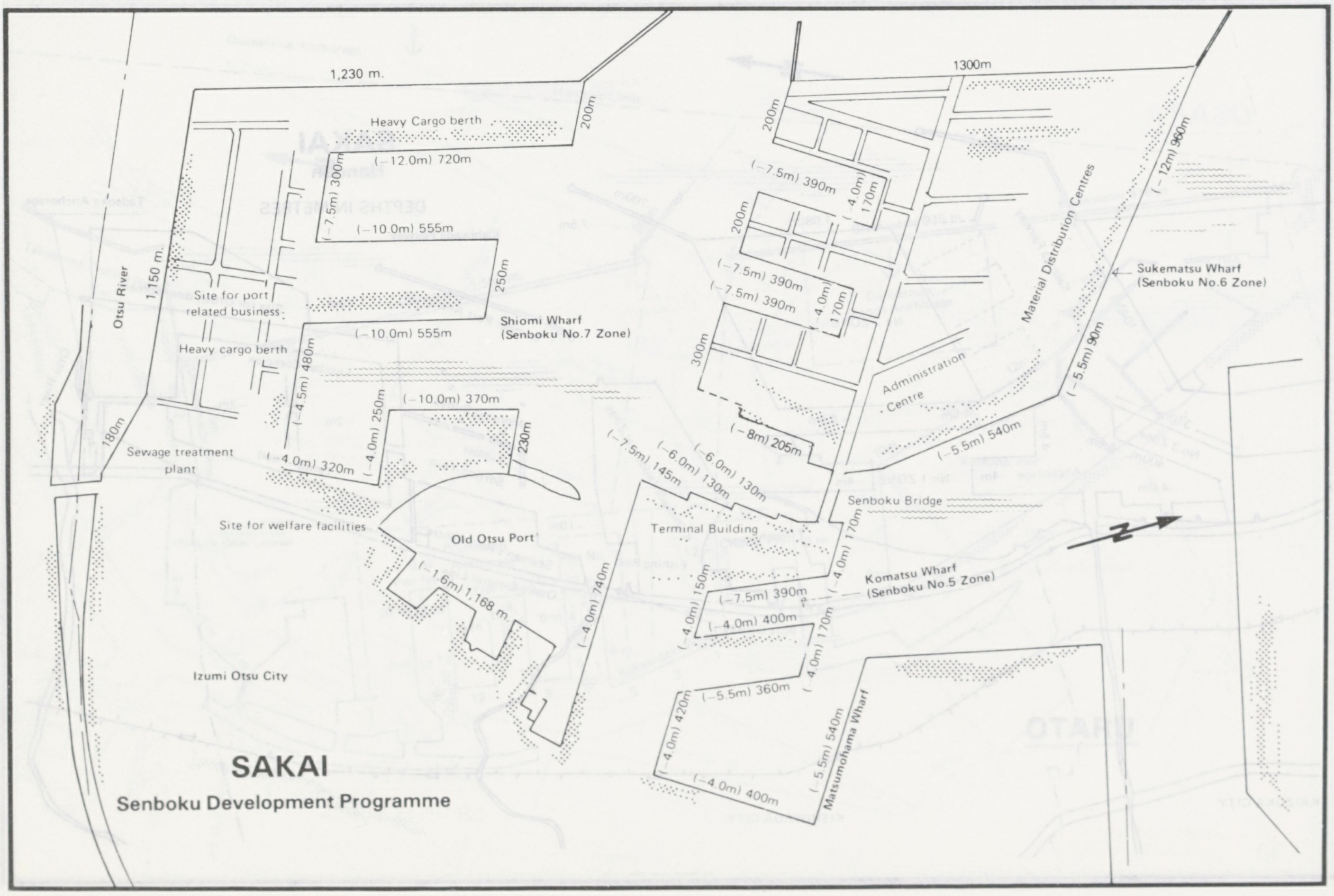

X
Central Pier
Wharf 10
Taisho Inner Port
Bay Bridge
Container Terminal
Chemical Wharf
Omni Terminal
Liner Wharf
Container Terminal
(Under Construction)
T Wharf
G Wharf
Kizu River
Clearance 46.0m.
Kizugawa Bridge
Ferry Terminal
Ferry Terminal
Ferry Terminal
K Wharf
Intermodal Terminal
Lumber Pools
E Wharf
A Wharf
B Wharf
D Wharf
Food Wharf
OSAKA
Yamato River
X

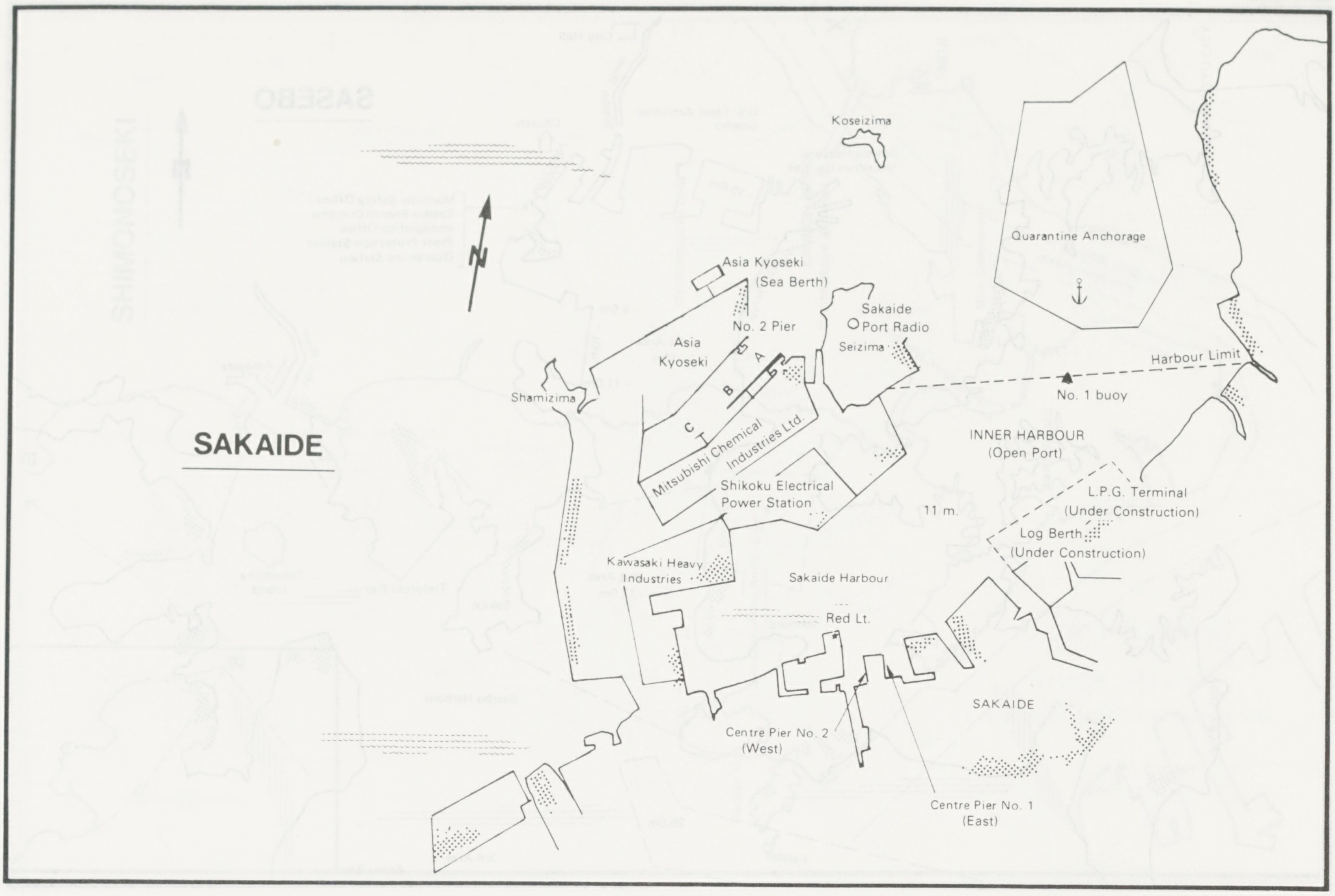

Quarantine Anchorage
Harbour Limit
N
265m
Breakwater 915 m
Breakwater 816 m
Takashima Fishing Harbour
5 m
Breakwater 1,560 m.
Dangerous Goods Anchorage
10m
12m
10m
10m
Umayamachi Wharf
7.5m
3
2
1
Katsunai Pier
10m
Hokuni Coal Loader
Prohibited Anchorage
9 m
Pier No. 3
Pier No. 2
Pier No. 1
10 m
Chudo Pier
10 m
12 m
10 m
16
14
10
9
8
9 m
4
3
2
10 m
10 m
9 m
7.5 m
7.5 m
9m
5 m
4 m
4 m
9 m
17
13
18
12
11
7
6
5
1
3
2
1
9 m
Sakaimachi Wharf
OTARU
X

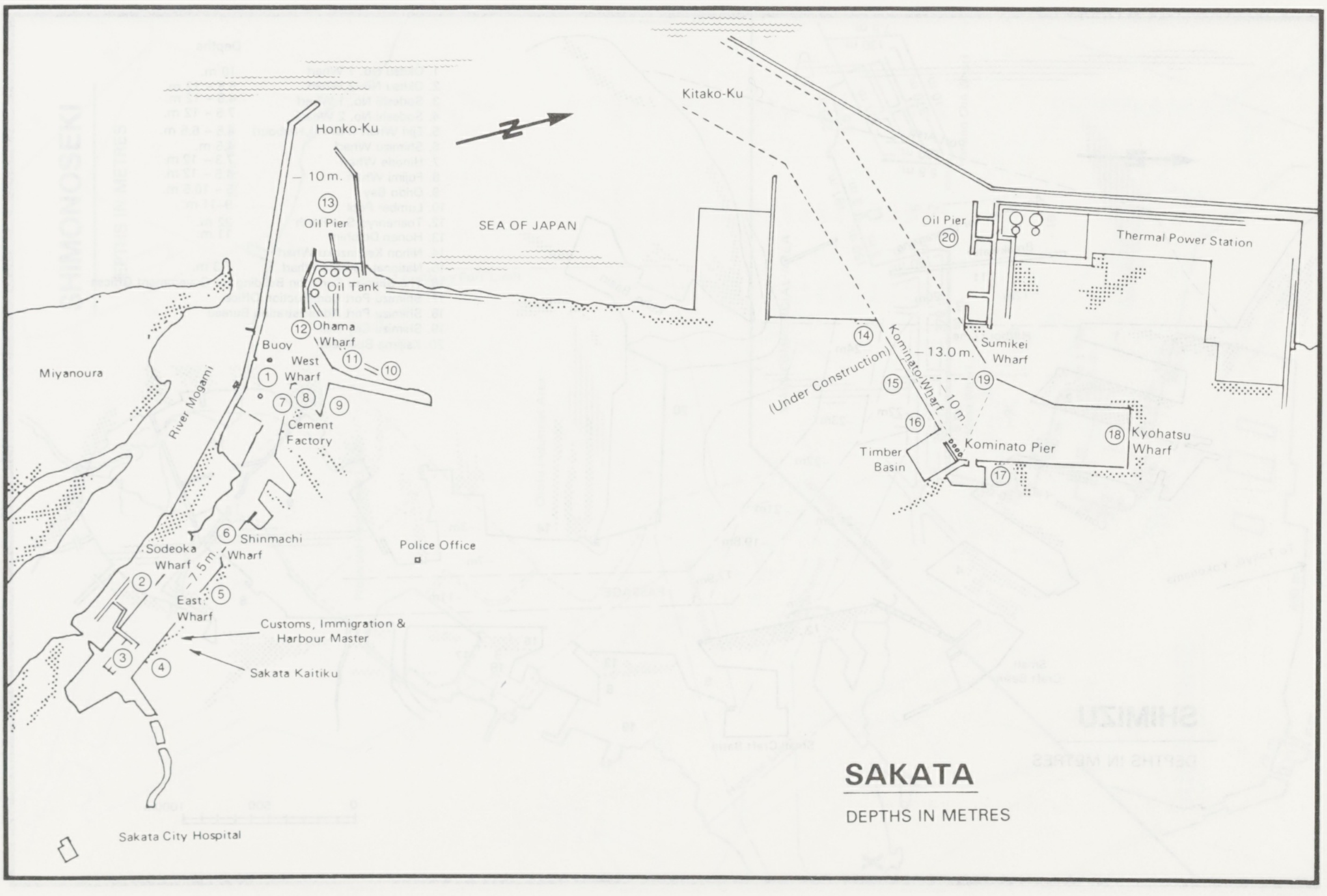

RUMOI
Basin 1
Basin 2
South wharf
170°
150 m.
Basin 3
168°
Prohibited entrance

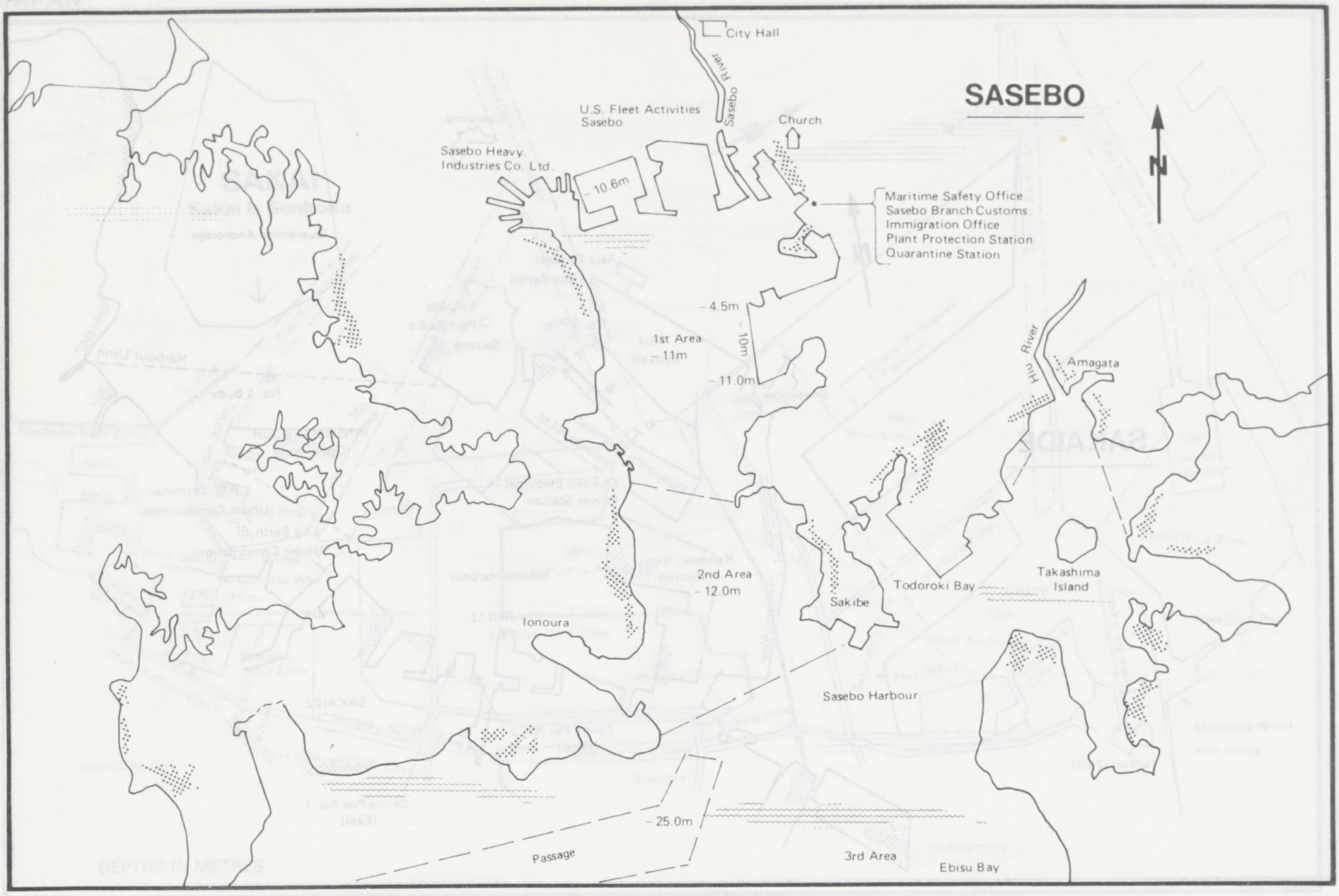

SAKAI
Hannan
DEPTHS IN METRES
Tadaoka Anchorage
Kishiwada Fairway
700m
−7.5m
1,080m
Kaizuka Fairway
1040m
−7.5m
No.2 ZONE
Lumber Port Anchorage
−10m
Site for Urban development
Lumber Complex
Otsu River
−2m
−2m
Mooring Buoys
Timber Sorting Yard
Timber Pond
−4m
370m
No.3 Zone
400m
−6.5m
−4.0m
4.5m
−4.5m
−4.5m
Anchorage −4m
No.1 ZONE −4m
Kishiwada Industrial Zone
Anchorage
−10m
Fishing Port
Seamen's Rest Centre
Osaka Littoral Line
Port Offices
KAIZUKA CITY
KISHIWADA CITY

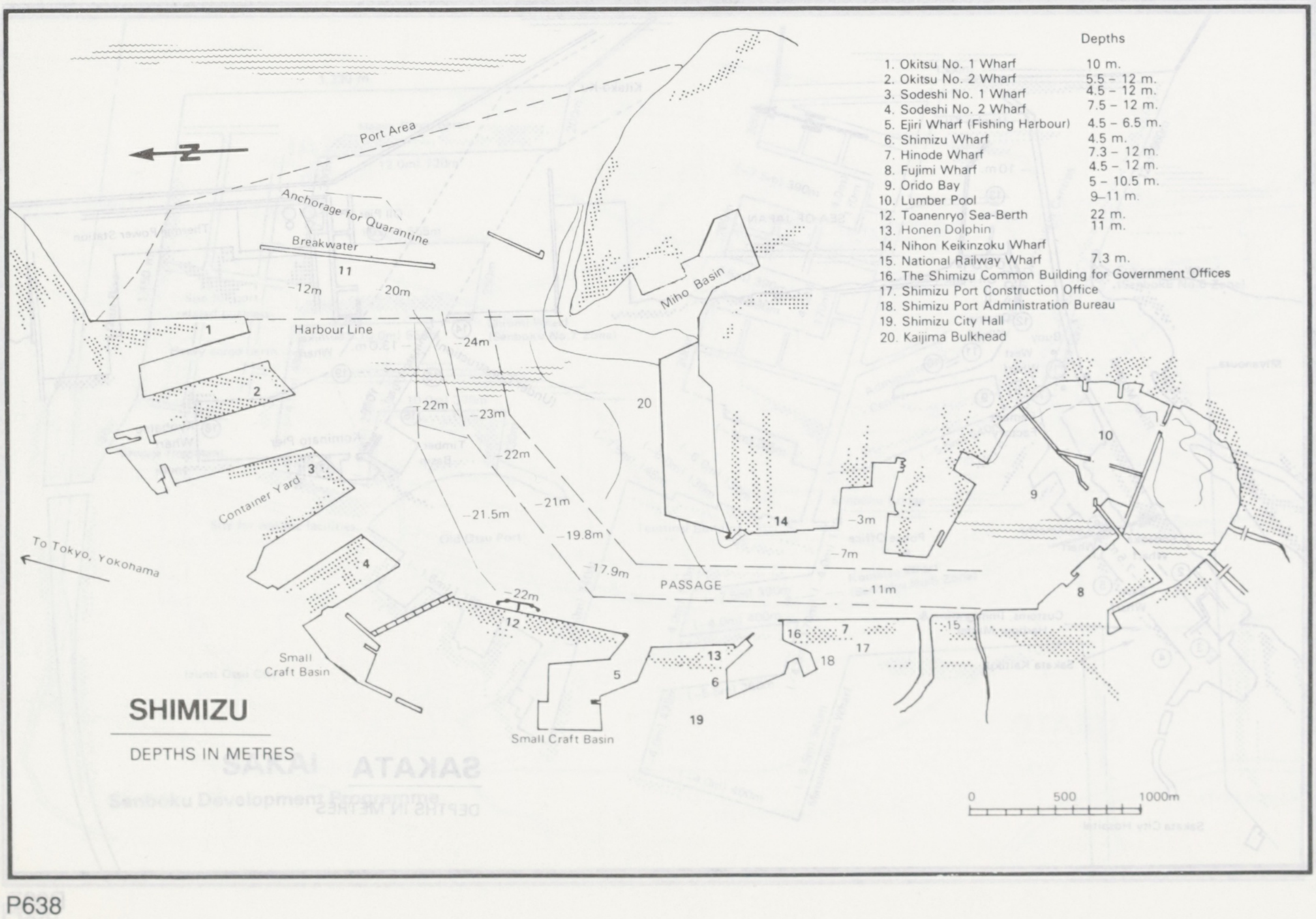

SAKAI
Sakai & Senboku
Otsu South Fairway
HAMADERA FAIRWAY
OTSU FAIRWAY
-16m
-13m
SOUTH FAIRWAY
SAKAI NORTH FAIRWAY
-10
-14
1,300m
300m
150m
200m
(Senboku No.7 Zone)
585m
585m
250m
400m
250m
230m
(Senboku — No.6 Zone)
390m
390m
200m
300m
500m
Sukematsu Wharf
Ferry Berths
Bridge
Komatsu Wharf
Old Otsu Port
4.0m
7.5m
(Senboku No.5 Zone)
5.5m
4.0m
Senboku No.4 Zone
Matsunohama Wharf
16m
Hamadera Anchorage
Senboku No.1 Zone
Hamadera Wharf
Fishing Port
Senboku No.3 Zone
Senboku No.2 Zone
Senboku
Senboku
Izumi Otsu City
Sakai No.7 Zone
Waste Oil disposal Facilities
16m
West Anchorage
Sakai No.6 Zone
Sakai No.5 Zone
Ohama Wharf
13m
South Anchorage
Port Office
Sakai No.4 Zone
Sakai No.3 Zone
13m
North Anchorage
Sakai No.2 Zone
New Sakai Port
Shiohama Wharf
Port Office
Old Sakai Port
SAKAI CITY
DEPTHS IN METRES
TKAISHI CITY


1,230 m.
Heavy Cargo berth
200m
(-12.0m) 720m
(-7.5m) 300m
(-10.0m) 555m
250m
1,150 m
Otsu River
Site for port related business
Heavy cargo berth
(-10.0m) 555m
Shiomi Wharf (Senboku No.7 Zone)
(-4.5m) 480m
(-10.0m) 370m
(-4.0m) 250m
230m
180m
Sewage treatment plant
(-4.0m) 320m
Site for welfare facilities
Old Otsu Port
(-1.6m) 1,168 m.
(-4.0m) 740m
Izumi Otsu City
1300m
200m
(-7.5m) 390m
(-4.0m) 170m
200m
(-7.5m) 390m
(-7.5m) 390m
(-4.0m) 170m
300m
(-8m) 205m
(-7.5m) 145m
(-6.0m) 130m
(-6.0m) 130m
Terminal Building
Administration Centre
Material Distribution Centres
(-12m) 960m
Sukematsu Wharf (Senboku No.6 Zone)
(-5.5m) 90m
(-5.5m) 540m
Senboku Bridge
(-4.0m) 170m
Komatsu Wharf (Senboku No.5 Zone)
(-4.0m) 150m
(-7.5m) 390m
(-4.0m) 400m
(-4.0m) 170m
(-5.5m) 360m
(-4.0m) 420m
(-4.0m) 400m
(-5.5m) 540m
Matsumohama Wharf
SAKAI
Senboku Development Programme

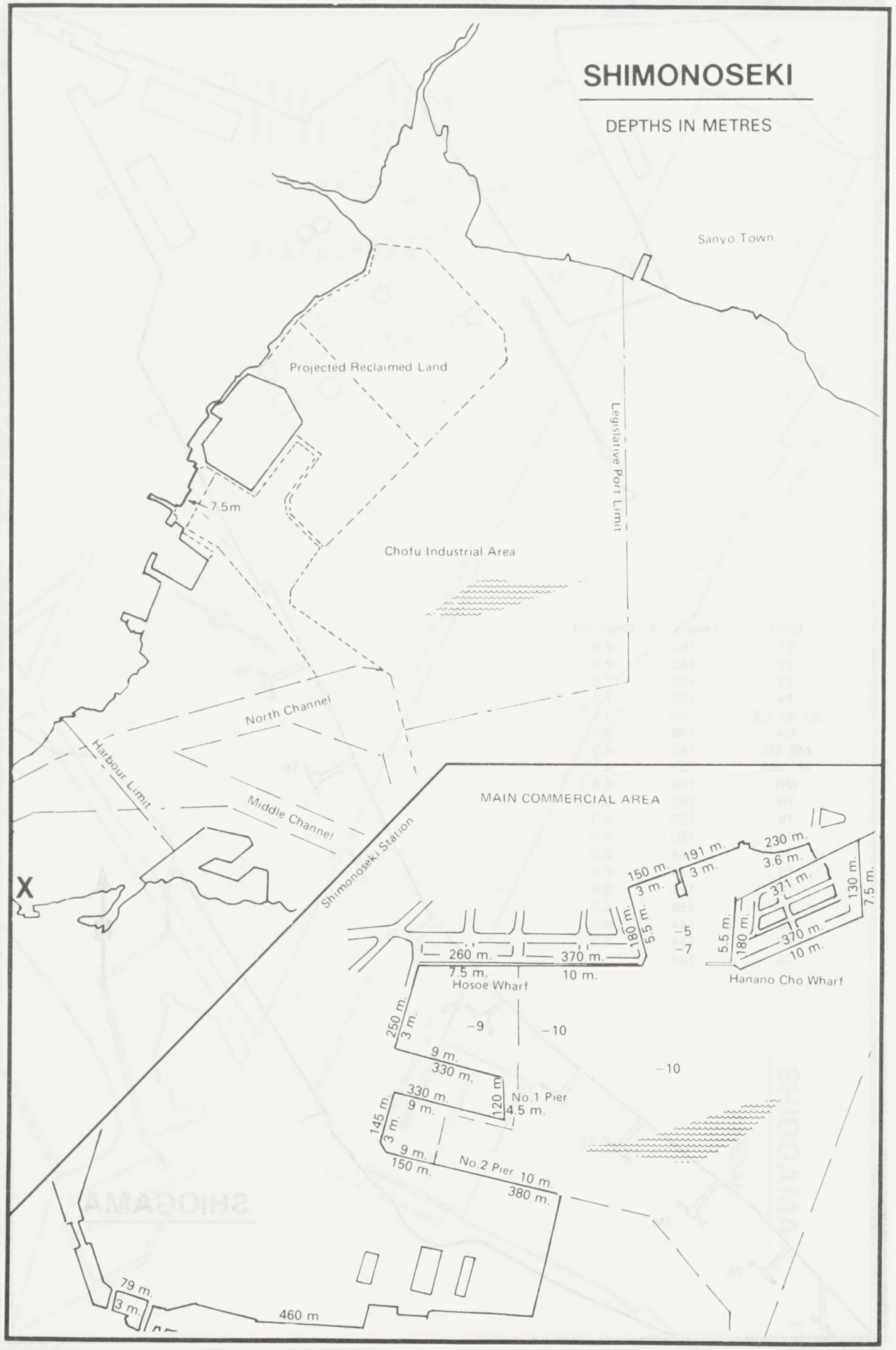

Koseizima
Quarantine Anchorage
Asia Kyoseki
(Sea Berth)
Sakaide
Port Radio
No. 2 Pier
Asia
Kyoseki
Seizima
Harbour Limit
D
A
B
C
No. 1 buoy
Shamizima
SAKAIDE
Mitsubishi Chemical
Industries Ltd.
INNER HARBOUR
(Open Port)
Shikoku Electrical
Power Station
L.P.G. Terminal
(Under Construction)
11 m.
Log Berth
(Under Construction)
Kawasaki Heavy
Industries
Sakaide Harbour
Red Lt.
SAKAIDE
Centre Pier No. 2
(West)
Centre Pier No. 1
(East)

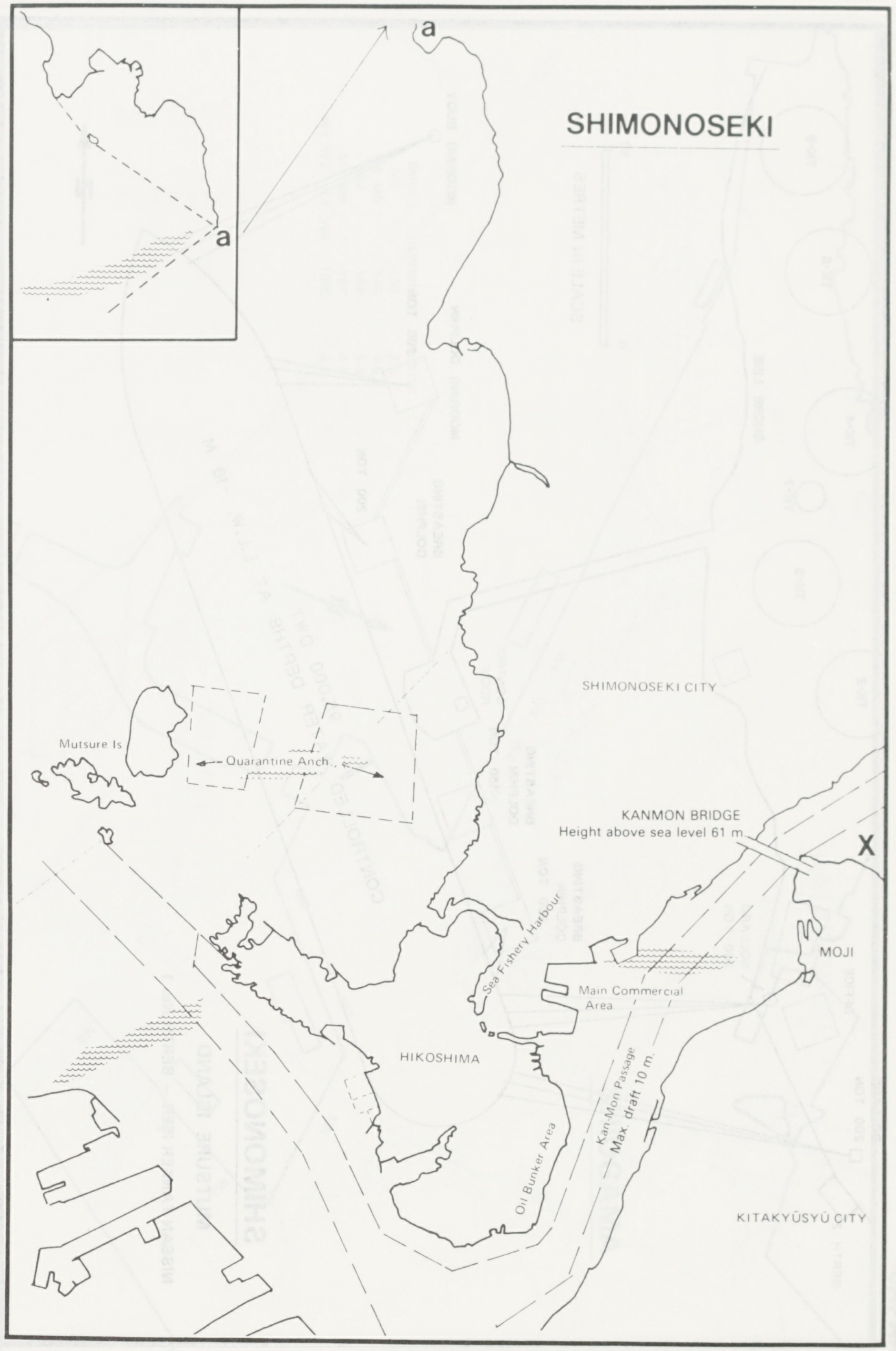

Kitako-Ku
Honko-Ku
– 10 m.
⑬
Oil Pier
SEA OF JAPAN
Oil Pier
⑳
Thermal Power Station
Oil Tank
⑫ Ohama
Wharf
Buoy
West
Wharf
⑪
⑩
①
⑦
⑧
⑨
Cement
Factory
Miyanoura
River Mogami
⑭
Kominato Wharf
– 13.0 m.
Sumikei
Wharf
(Under Construction)
⑮
– 10 m
⑲
⑯
Timber
Basin
Kominato Pier
⑰
⑱ Kyohatsu
Wharf
⑥ Shinmachi
Wharf
Sodeoka
Wharf
– 7.5 m.
②
East
⑤
Wharf
Police Office
Customs, Immigration &
Harbour Master
③
④
Sakata Kaitiku
SAKATA
DEPTHS IN METRES
Sakata City Hospital

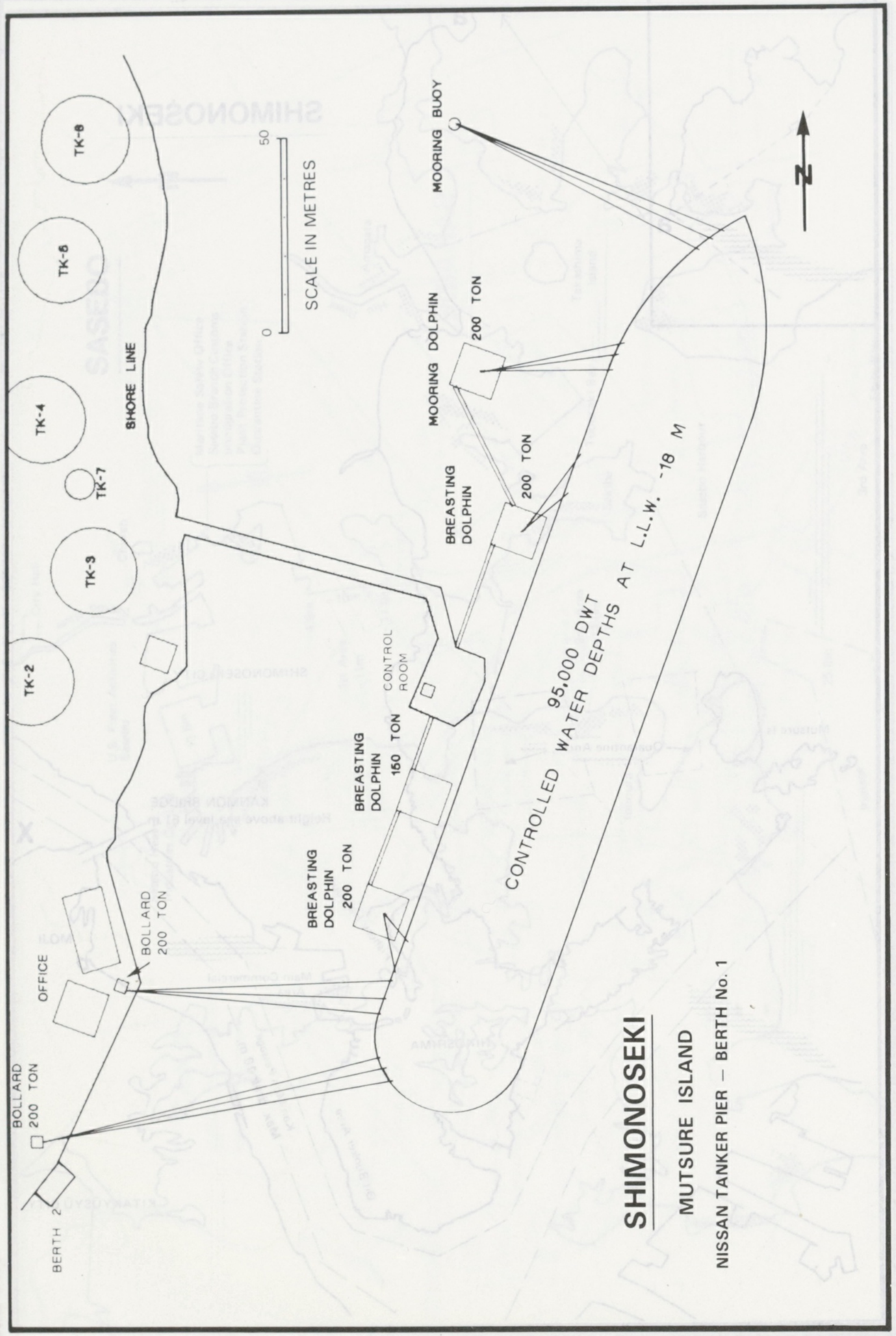

SASEBO
N
City Hall
Sasebo River
U.S. Fleet Activities Sasebo
Church
Sasebo Heavy Industries Co. Ltd.
–10.6m
Maritime Safety Office
Sasebo Branch Customs
Immigration Office
Plant Protection Station
Quarantine Station
–4.5m
–10m
1st Area
11m
–11.0m
Hiu River
Amagata
2nd Area
–12.0m
Ionoura
Sakibe
Todoroki Bay
Takashima Island
Sasebo Harbour
–25.0m
Passage
3rd Area
Ebisu Bay


N
Port Area
Anchorage for Quarantine
Breakwater
11
–12m
20m
Harbour Line
1
2
3
4
Container Yard
To Tokyo, Yokonama
–24m
–22m
–23m
–22m
–21m
–21.5m
–19.8m
–17.9m
–22m
12
Small Craft Basin
5
13
6
19
Small Craft Basin
Miho Basin
20
14
–3m
–7m
–11m
PASSAGE
16
7
17
18
15
10
9
8
SHIMIZU
DEPTHS IN METRES
0
500
1000m

	Depths
1. Okitsu No. 1 Wharf	10 m.
2. Okitsu No. 2 Wharf	5.5 – 12 m.
3. Sodeshi No. 1 Wharf	4.5 – 12 m.
4. Sodeshi No. 2 Wharf	7.5 – 12 m.
5. Ejiri Wharf (Fishing Harbour)	4.5 – 6.5 m.
6. Shimizu Wharf	4.5 m.
7. Hinode Wharf	7.3 – 12 m.
8. Fujimi Wharf	4.5 – 12 m.
9. Orido Bay	5 – 10.5 m.
10. Lumber Pool	9–11 m.
12. Toanenryo Sea-Berth	22 m.
13. Honen Dolphin	11 m.
14. Nihon Keikinzoku Wharf	
15. National Railway Wharf	7.3 m.
16. The Shimizu Common Building for Government Offices	
17. Shimizu Port Construction Office	
18. Shimizu Port Administration Bureau	
19. Shimizu City Hall	
20. Kaijima Bulkhead	


SHIMONOSEKI
DEPTHS IN METRES
Sanyo Town
Projected Reclaimed Land
Legislative Port Limit
7.5m
Chofu Industrial Area
North Channel
Harbour Limit
Middle Channel
X
Shimonoseki Station
MAIN COMMERCIAL AREA
150 m.
3 m.
191 m.
3 m.
230 m.
3.6 m.
371 m.
130 m.
7.5 m.
180 m.
5.5 m.
-5
-7
5.5 m.
180 m.
370 m.
10 m.
260 m.
370 m.
7.5 m.
10 m.
Hosoe Wharf
Hanano Cho Wharf
250 m.
3 m.
-9
-10
-10
9 m.
330 m.
330 m.
9 m.
120 m.
No.1 Pier
4.5 m.
145 m.
3 m.
9 m.
150 m.
No.2 Pier
10 m.
380 m.
79 m.
3 m.
460 m

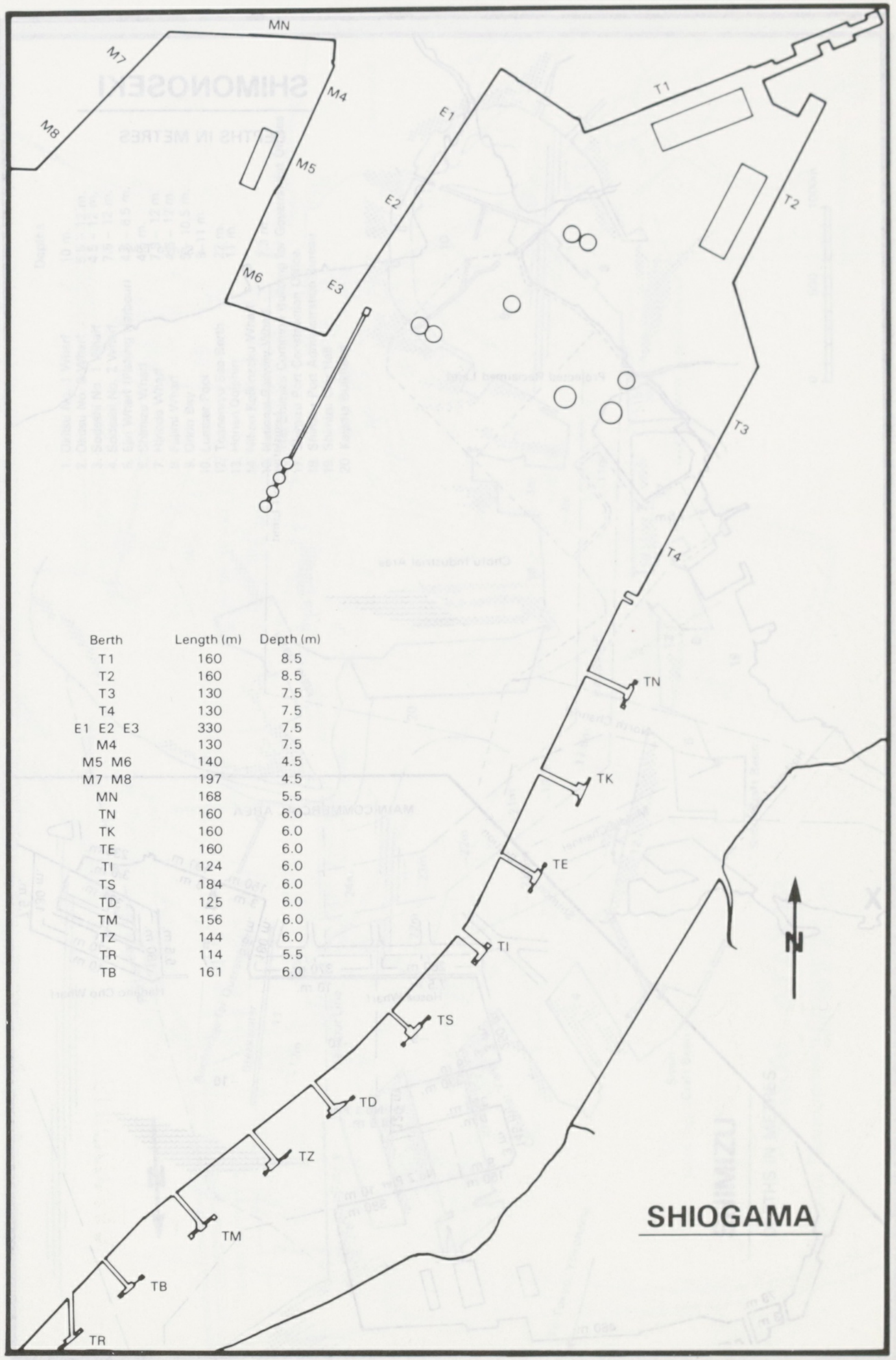

a
a
SHIMONOSEKI
SHIMONOSEKI CITY
Mutsure Is
Quarantine Anch.
KANMON BRIDGE
Height above sea level 61 m.
X
Sea Fishery Harbour
Main Commercial Area
MOJI
HIKOSHIMA
Kan Mon Passage
Max. draft 10 m.
Oil Bunker Area
KITAKYŪSYŪ CITY


TK-8
TK-5
TK-4
TK-7
TK-3
TK-2
SHORE LINE
SCALE IN METRES
0
50
MOORING BUOY
MOORING DOLPHIN
200 TON
BREASTING DOLPHIN
200 TON
CONTROL ROOM
95,000 DWT
CONTROLLED WATER DEPTHS AT L.L.W. -18 M
BREASTING DOLPHIN
150 TON
BREASTING DOLPHIN
200 TON
BOLLARD
200 TON
OFFICE
BOLLARD
200 TON
BERTH 2
N

SHIMONOSEKI

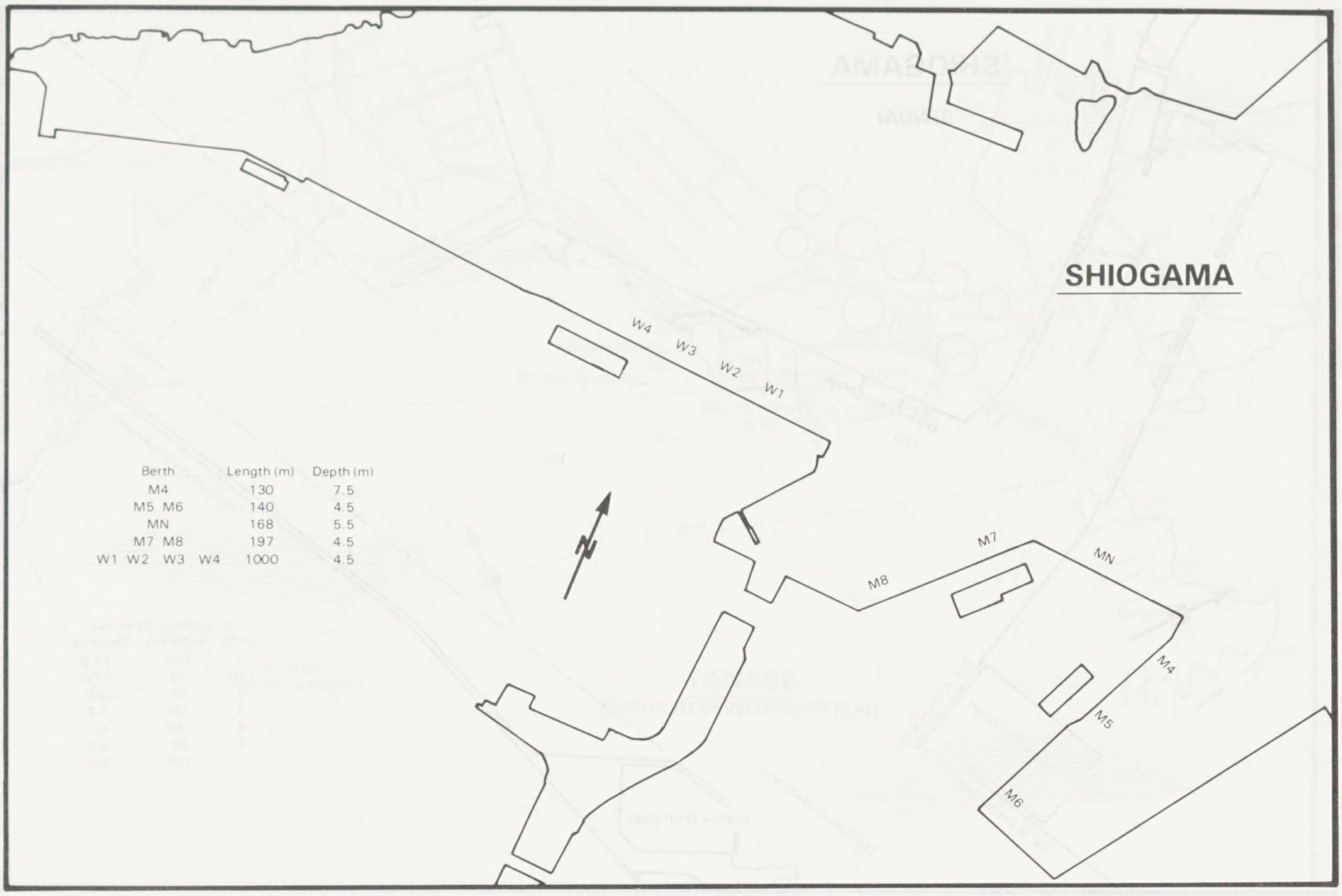
MUTSURE ISLAND

NISSAN TANKER PIER – BERTH No. 1


MN
M7
M8
M4
M5
M6
E1
E2
E3
T1
T2
T3
T4
TN
TK
TE
TI
TS
TD
TZ
TM
TB
TR
N

Berth	Length (m)	Depth (m)
T1	160	8.5
T2	160	8.5
T3	130	7.5
T4	130	7.5
E1 E2 E3	330	7.5
M4	130	7.5
M5 M6	140	4.5
M7 M8	197	4.5
MN	168	5.5
TN	160	6.0
TK	160	6.0
TE	160	6.0
TI	124	6.0
TS	184	6.0
TD	125	6.0
TM	156	6.0
TZ	144	6.0
TR	114	5.5
TB	161	6.0

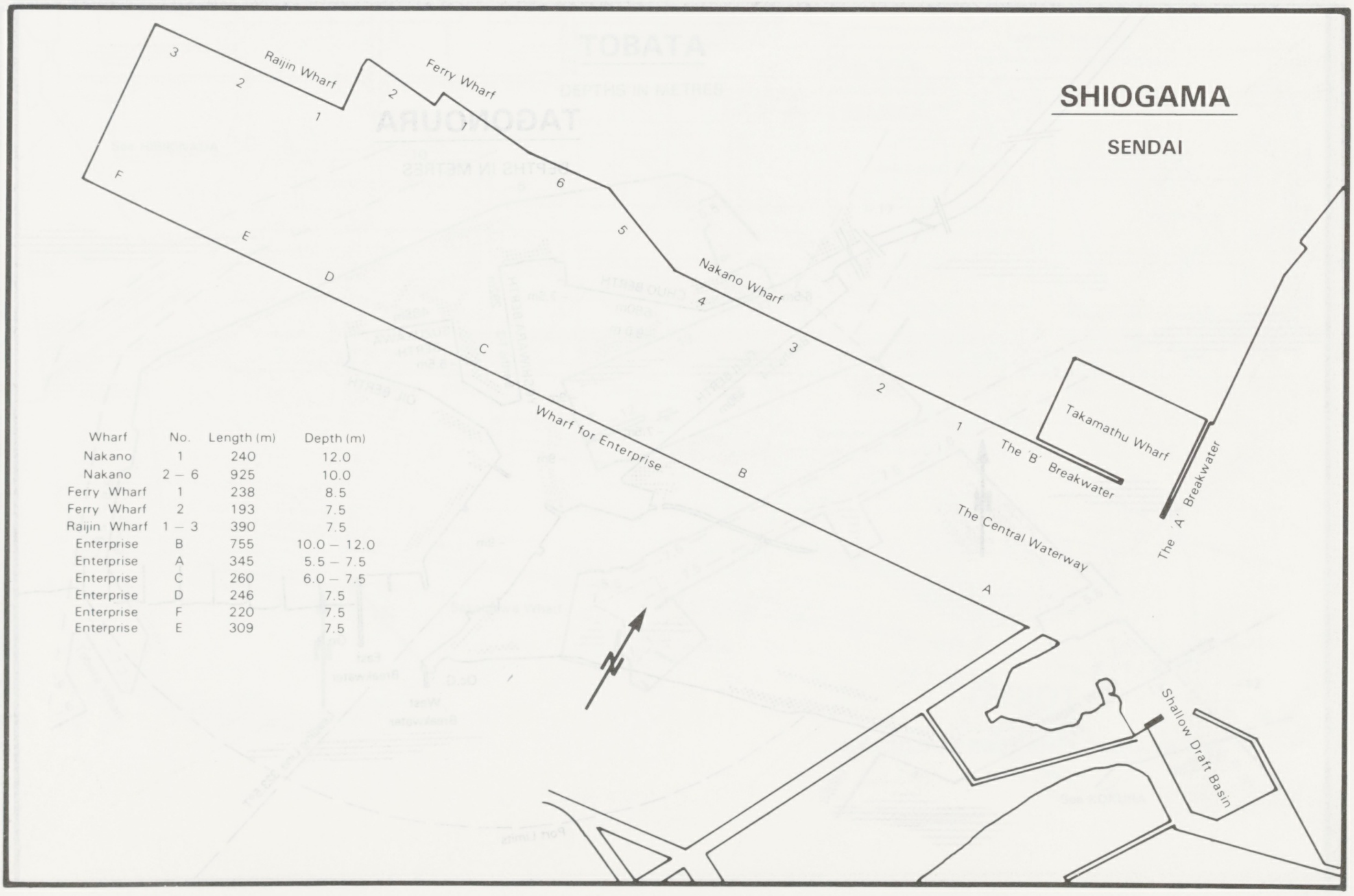
SHIOGAMA



SHIOGAMA

W4
W3
W2
W1
M7
MN
M8
M4
M5
M6

Berth	Length (m)	Depth (m)
M4	130	7.5
M5 M6	140	4.5
MN	168	5.5
M7 M8	197	4.5
W1 W2 W3 W4	1000	4.5

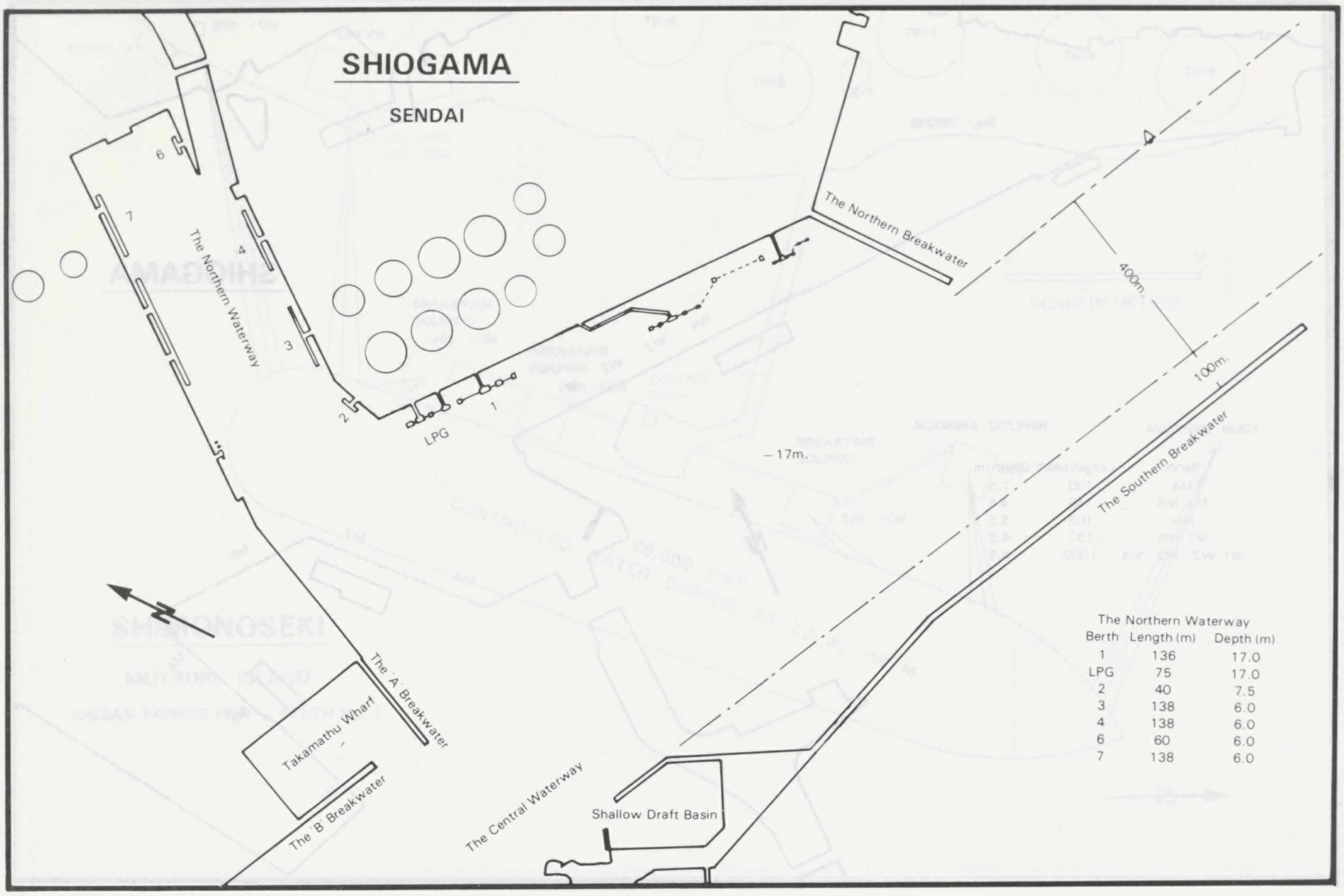


SHIOGAMA

SENDAI

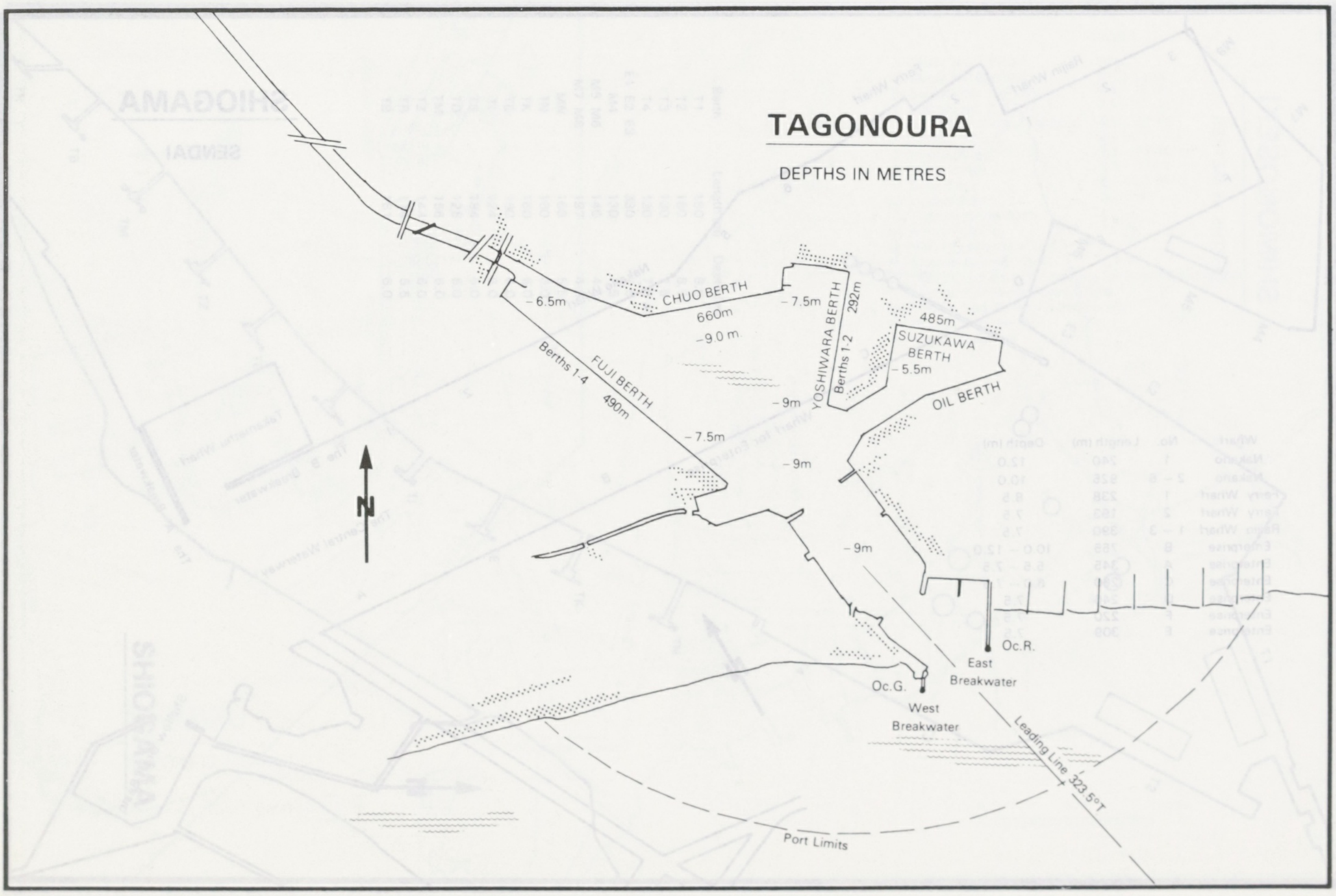
3
2
1
Raijin Wharf
Ferry Wharf
2
1
6
5
Nakano Wharf
4
3
2
1
F
E
D
C
Wharf for Enterprise
B
A
Takamathu Wharf
The B Breakwater
The A Breakwater
The Central Waterway
Shallow Draft Basin

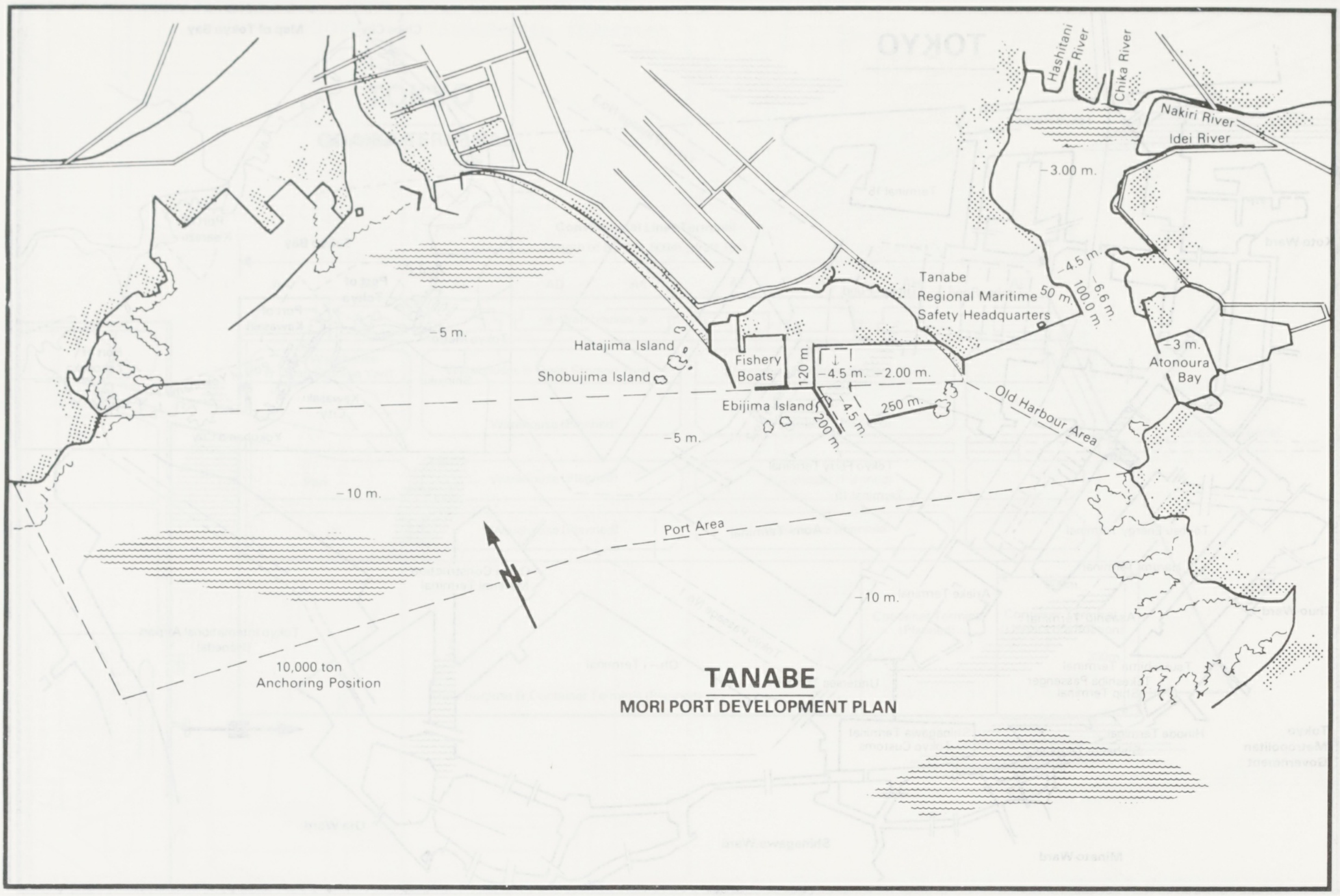
Wharf	No.	Length (m)	Depth (m)
Nakano	1	240	12.0
Nakano	2 – 6	925	10.0
Ferry Wharf	1	238	8.5
Ferry Wharf	2	193	7.5
Raijin Wharf	1 – 3	390	7.5
Enterprise	B	755	10.0 – 12.0
Enterprise	A	345	5.5 – 7.5
Enterprise	C	260	6.0 – 7.5
Enterprise	D	246	7.5
Enterprise	F	220	7.5
Enterprise	E	309	7.5


SHIOGAMA
SENDAI
The Northern Breakwater
400m
100m
The Southern Breakwater
The Northern Waterway
6
7
4
3
2
LPG
1
– 17m.
The 'A' Breakwater
Takamathu Wharf
The B Breakwater
The Central Waterway
Shallow Draft Basin

The Northern Waterway

Berth	Length (m)	Depth (m)
1	136	17.0
LPG	75	17.0
2	40	7.5
3	138	6.0
4	138	6.0
6	60	6.0
7	138	6.0

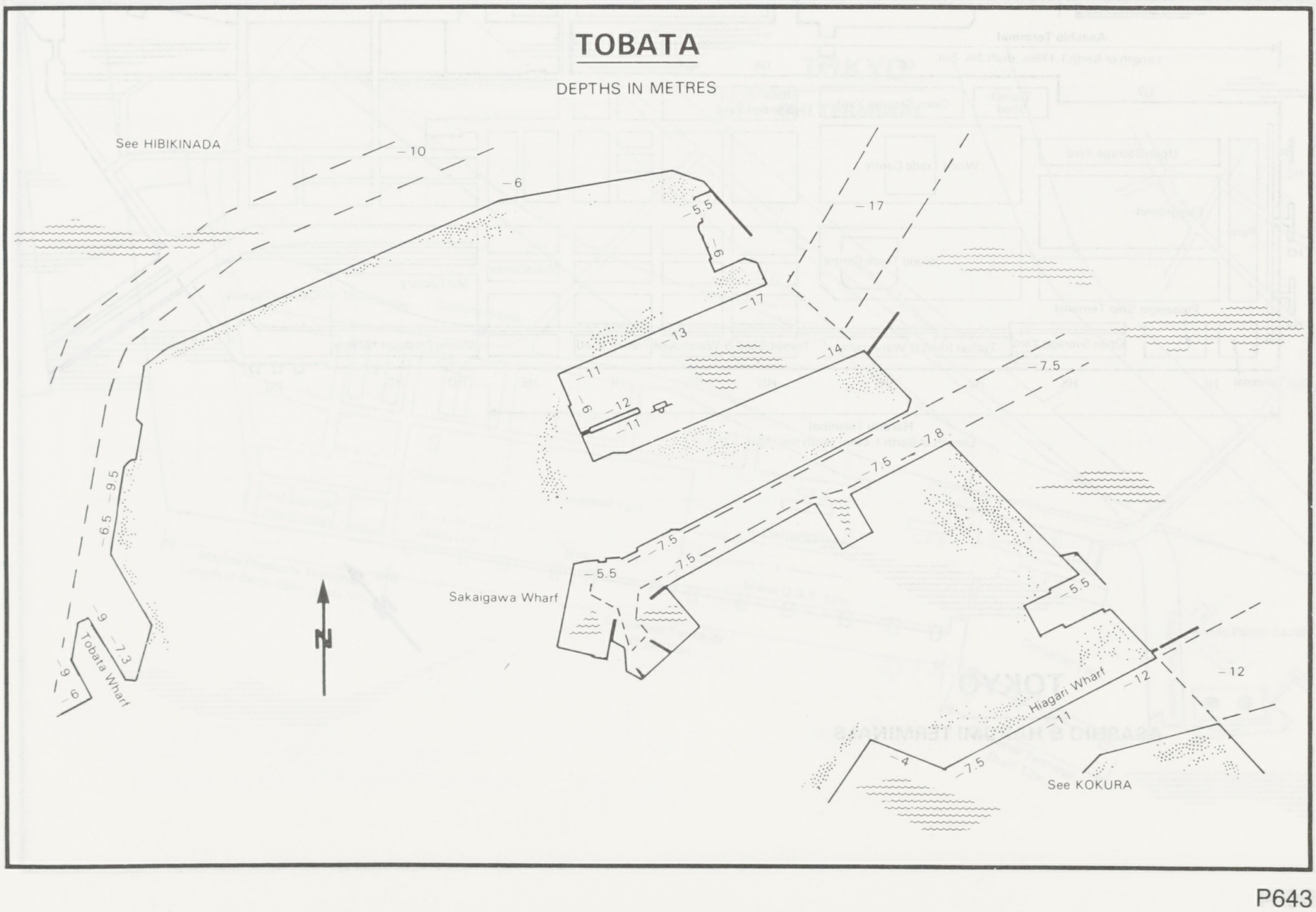

TAGONOURA
DEPTHS IN METRES
– 6.5m
CHUO BERTH
660m
– 9.0 m
– 7.5m
YOSHIWARA BERTH
Berths 1-2
292m
485m
SUZUKAWA BERTH
– 5.5m
OIL BERTH
Berths 1-4
FUJI BERTH
490m
– 9m
– 7.5m
– 9m
– 9m
N
Oc.R.
East Breakwater
Oc.G.
West Breakwater
Leading Line 323.5°T
Port Limits



TANABE

MORI PORT DEVELOPMENT PLAN

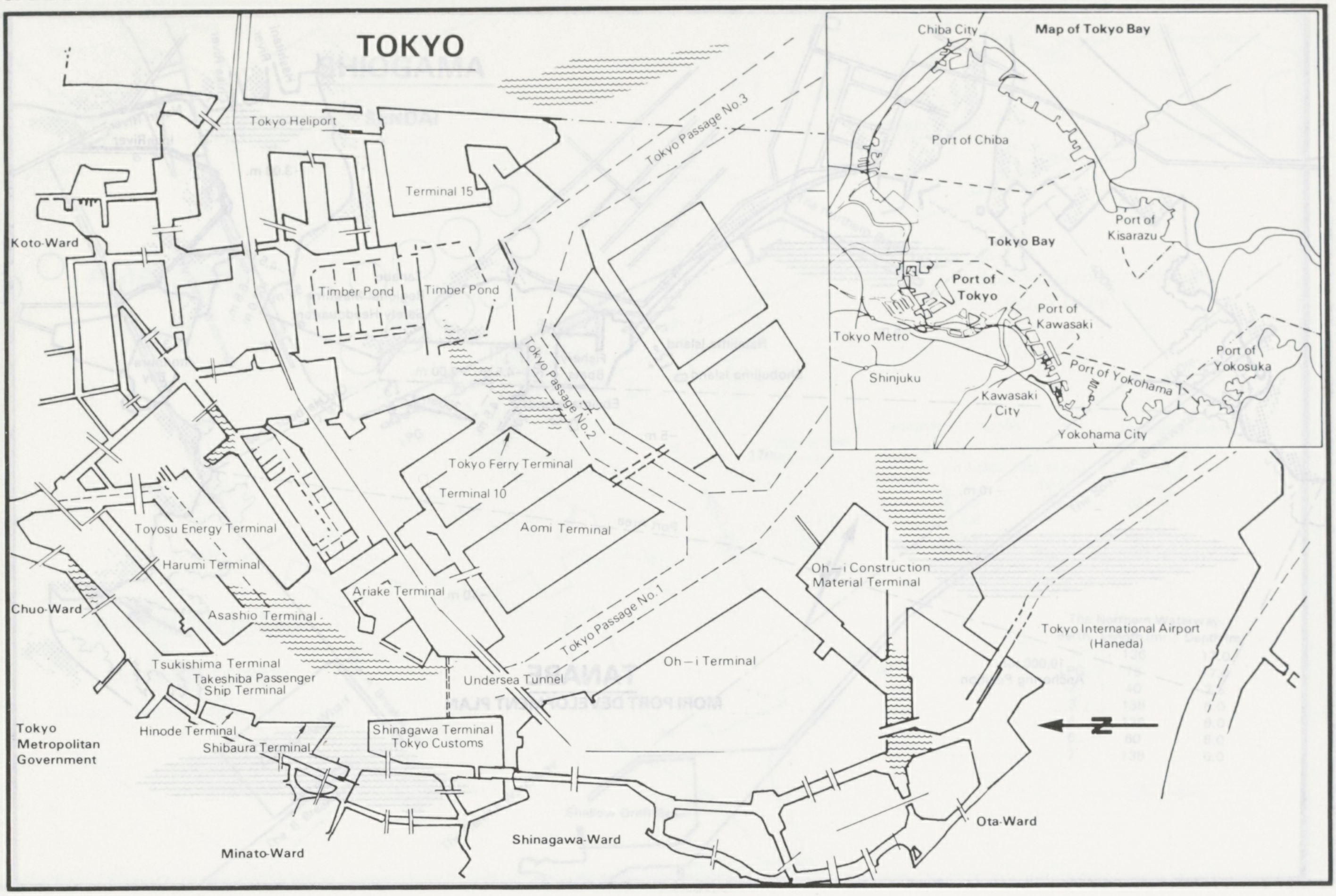
Hashitani River
Chika River
Nakiri River
Idei River
–3.00 m.
–4.5 m.
50 m.
–6.6 m.
1000 m.
Tanabe
Regional Maritime
Safety Headquarters
–3 m.
Atonoura
Bay
–5 m.
Hatajima Island
Shobujima Island
Fishery
Boats
120 m.
–4.5 m.
–2.00 m.
Ebijima Island
200 m.
–4.5 m.
250 m.
Old Harbour Area
–5 m.
–10 m.
Port Area
N
–10 m.
10,000 ton
Anchoring Position

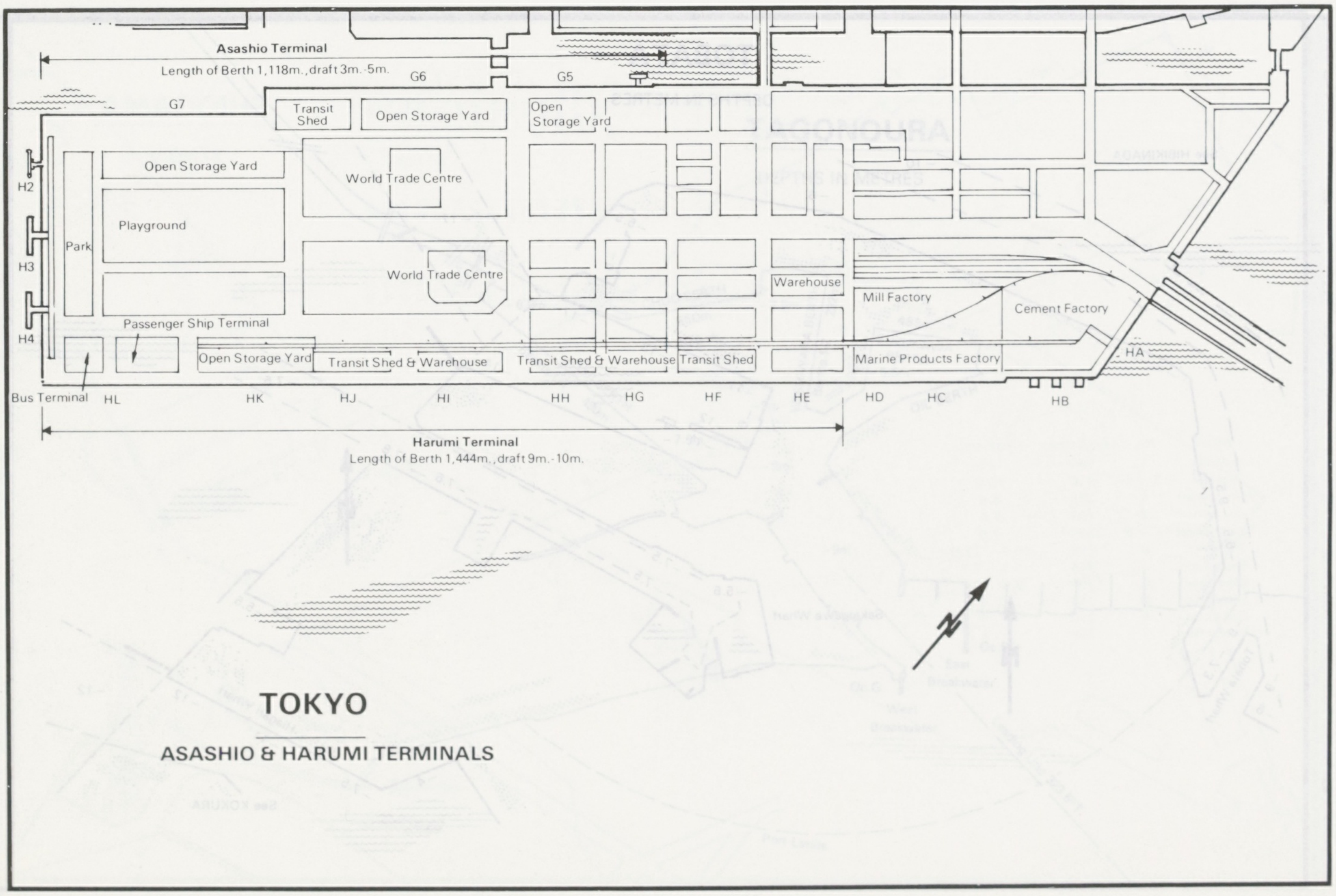


TOBATA

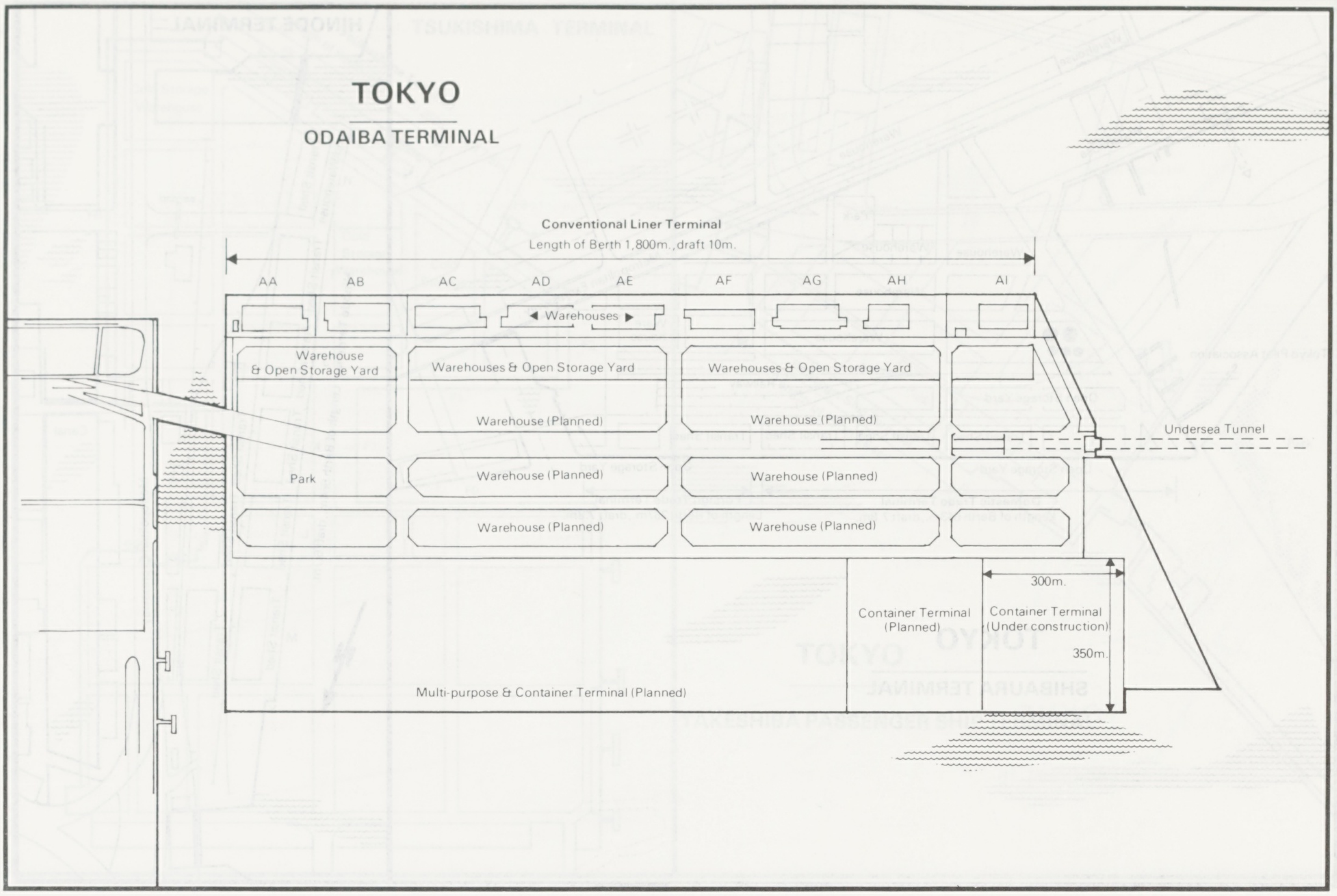
DEPTHS IN METRES

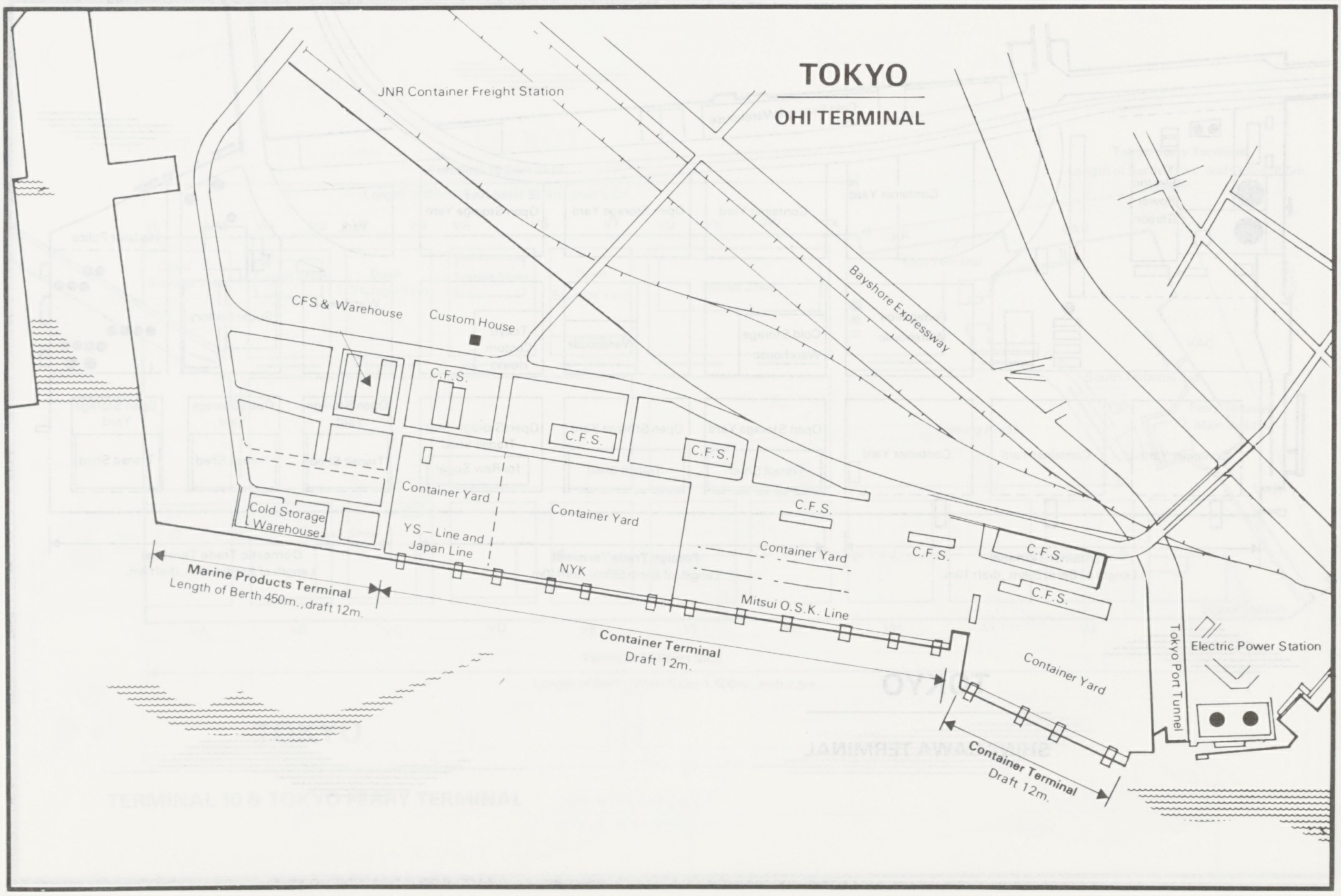
See HIBIKINADA
–10
–6
–5.5
–6
–17
–17
–13
–14
–7.5
–11
–9
–12
–11
–7.8
–7.5
–9.5
–6.5
–7.5
–7.5
–5.5
Sakaigawa Wharf
–5.5
N
–9
–7.3
–9
–6
Tobata Wharf
–12
–12
Hiagari Wharf
–11
–4
–7.5
See KOKURA

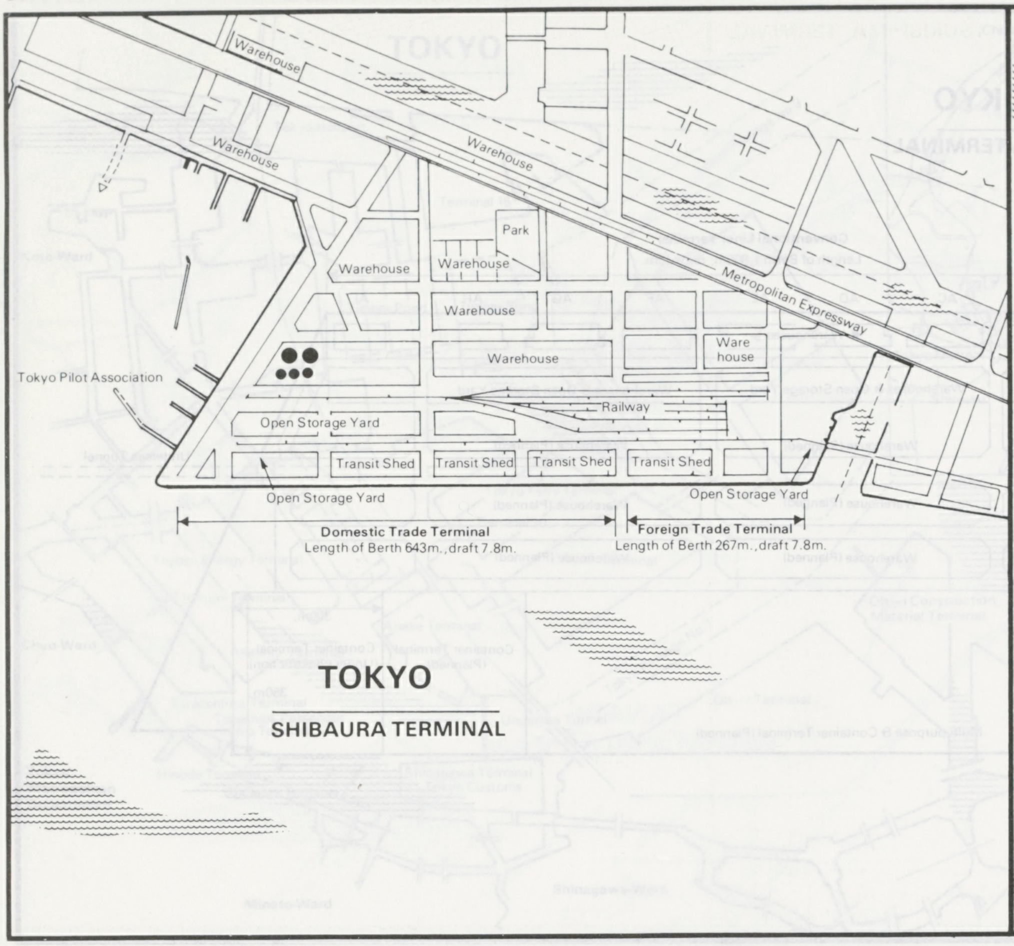

TOKYO
Tokyo Heliport
Tokyo Passage No.3
Terminal 15
Koto-Ward
Timber Pond
Timber Pond
Tokyo Passage No.2
Tokyo Ferry Terminal
Terminal 10
Aomi Terminal
Toyosu Energy Terminal
Harumi Terminal
Ariake Terminal
Chuo-Ward
Asashio Terminal
Tokyo Passage No.1
Tsukishima Terminal
Takeshiba Passenger Ship Terminal
Undersea Tunnel
Oh–i Terminal
Oh–i Construction Material Terminal
Tokyo International Airport (Haneda)
Tokyo Metropolitan Government
Hinode Terminal
Shibaura Terminal
Shinagawa Terminal
Tokyo Customs
Minato-Ward
Shinagawa-Ward
Ota-Ward
N
Chiba City
Map of Tokyo Bay
Port of Chiba
Port of Kisarazu
Tokyo Bay
Port of Tokyo
Port of Kawasaki
Tokyo Metro
Shinjuku
Port of Yokohama
Port of Yokosuka
Kawasaki City
Yokohama City

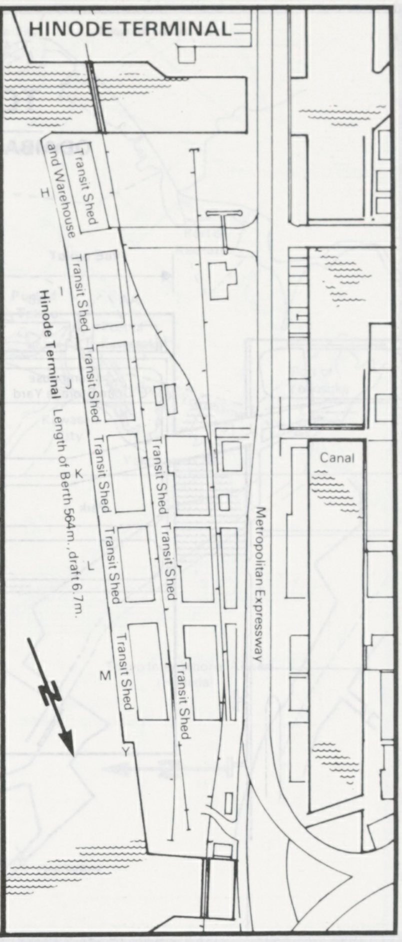

Asashio Terminal
Length of Berth 1,118m., draft 3m.-5m.
G7
G6
G5
Transit Shed
Open Storage Yard
Open Storage Yard
Open Storage Yard
World Trade Centre
H2
Playground
Park
H3
World Trade Centre
Warehouse
Mill Factory
Cement Factory
H4
Passenger Ship Terminal
Open Storage Yard
Transit Shed & Warehouse
Transit Shed & Warehouse
Transit Shed
Marine Products Factory
HA
Bus Terminal
HL
HK
HJ
HI
HH
HG
HF
HE
HD
HC
HB
Harumi Terminal
Length of Berth 1,444m., draft 9m.-10m.
N

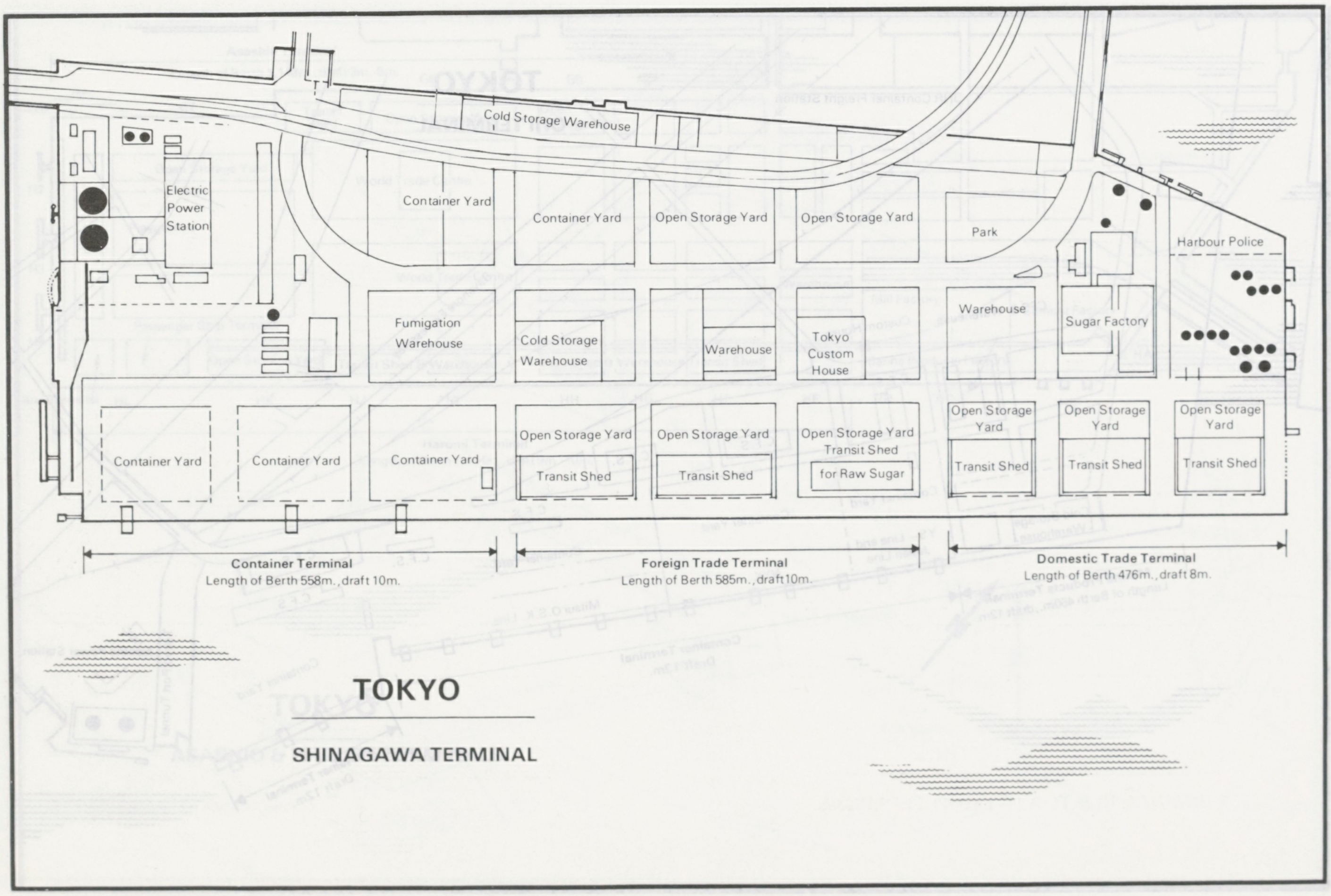
TOKYO
ASASHIO & HARUMI TERMINALS

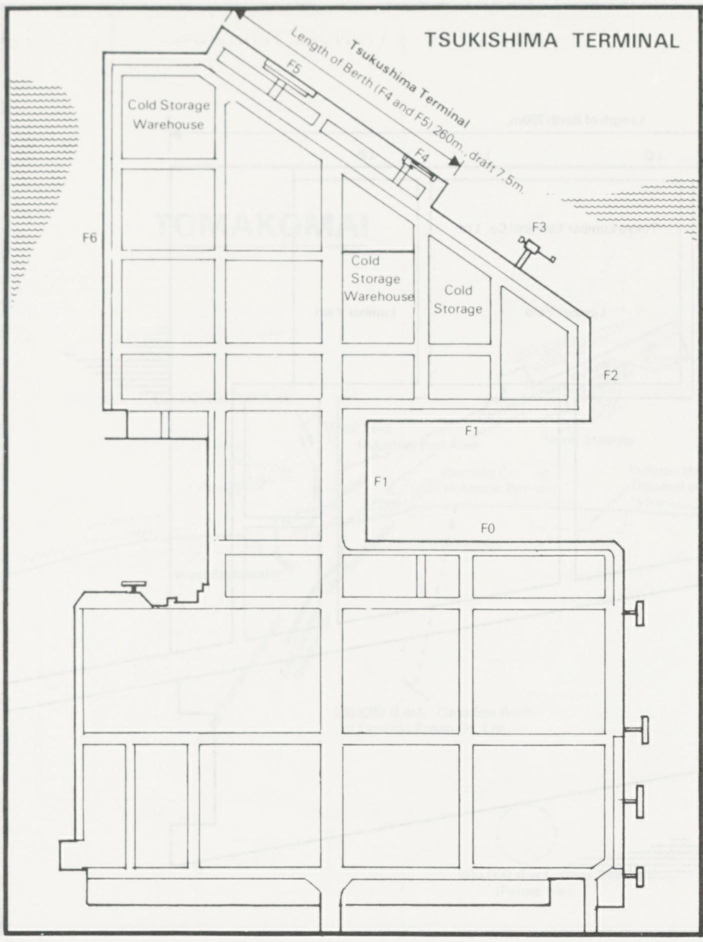

TOKYO
ODAIBA TERMINAL
Conventional Liner Terminal
Length of Berth 1,800m., draft 10m.
AA
AB
AC
AD
AE
AF
AG
AH
AI
◄ Warehouses ►
Warehouse & Open Storage Yard
Warehouses & Open Storage Yard
Warehouses & Open Storage Yard
Warehouse (Planned)
Warehouse (Planned)
Park
Warehouse (Planned)
Warehouse (Planned)
Warehouse (Planned)
Warehouse (Planned)
Undersea Tunnel
300m.
Container Terminal (Planned)
Container Terminal (Under construction)
350m.
Multi-purpose & Container Terminal (Planned)


TOKYO
OHI TERMINAL
JNR Container Freight Station
Bayshore Expressway
CFS & Warehouse
Custom House
C.F.S.
C.F.S.
C.F.S.
C.F.S.
C.F.S.
C.F.S.
C.F.S.
Container Yard
Container Yard
Container Yard
Container Yard
Cold Storage Warehouse
YS – Line and Japan Line
NYK
Mitsui O.S.K. Line
Marine Products Terminal
Length of Berth 450m., draft 12m.
Container Terminal
Draft 12m.
Container Terminal
Draft 12m.
Tokyo Port Tunnel
Electric Power Station

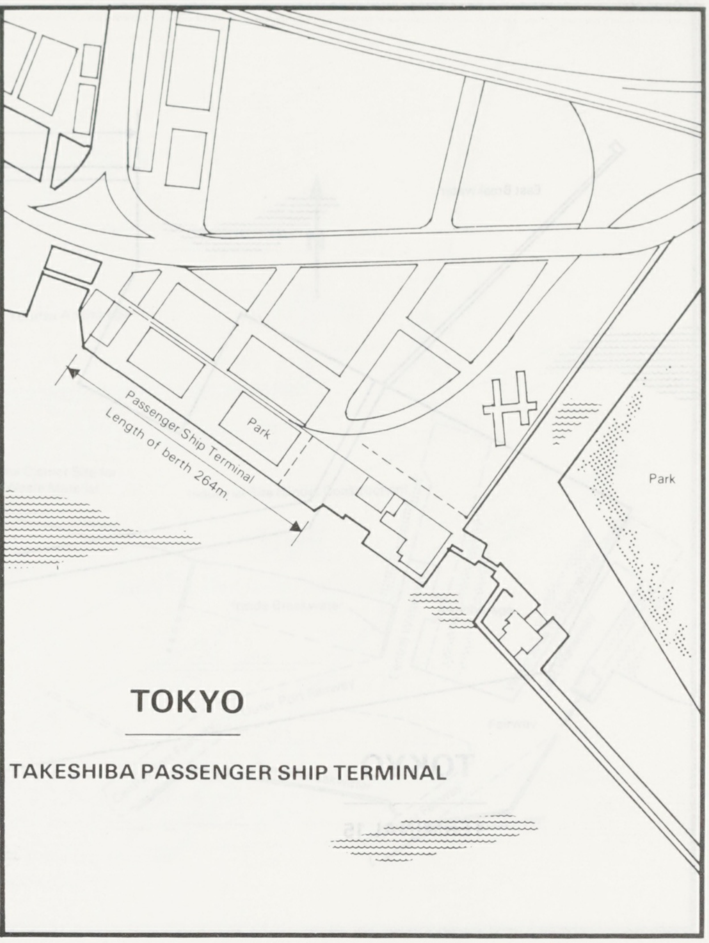

Warehouse
Warehouse
Warehouse
Park
Warehouse
Warehouse
Warehouse
Metropolitan Expressway
Ware house
Warehouse
Tokyo Pilot Association
Railway
Open Storage Yard
Transit Shed
Transit Shed
Transit Shed
Transit Shed
Open Storage Yard
Open Storage Yard
Domestic Trade Terminal
Length of Berth 643m., draft 7.8m.
Foreign Trade Terminal
Length of Berth 267m., draft 7.8m.
TOKYO
SHIBAURA TERMINAL


HINODE TERMINAL
Transit Shed and Warehouse
Transit Shed
Transit Shed
Transit Shed
Transit Shed
Transit Shed
Transit Shed
Transit Shed
Transit Shed
H
I
J
K
L
M
Y
Hinode Terminal Length of Berth 564m., draft 6.7m.
Metropolitan Expressway
Canal
N


Cold Storage Warehouse
Electric Power Station
Container Yard
Container Yard
Open Storage Yard
Open Storage Yard
Park
Harbour Police
Fumigation Warehouse
Cold Storage Warehouse
Warehouse
Tokyo Custom House
Warehouse
Sugar Factory
Container Yard
Container Yard
Container Yard
Open Storage Yard
Transit Shed
Open Storage Yard
Transit Shed
Open Storage Yard
Transit Shed for Raw Sugar
Open Storage Yard
Transit Shed
Open Storage Yard
Transit Shed
Open Storage Yard
Transit Shed
Container Terminal
Length of Berth 558m., draft 10m.
Foreign Trade Terminal
Length of Berth 585m., draft10m.
Domestic Trade Terminal
Length of Berth 476m., draft 8m.
TOKYO
SHINAGAWA TERMINAL

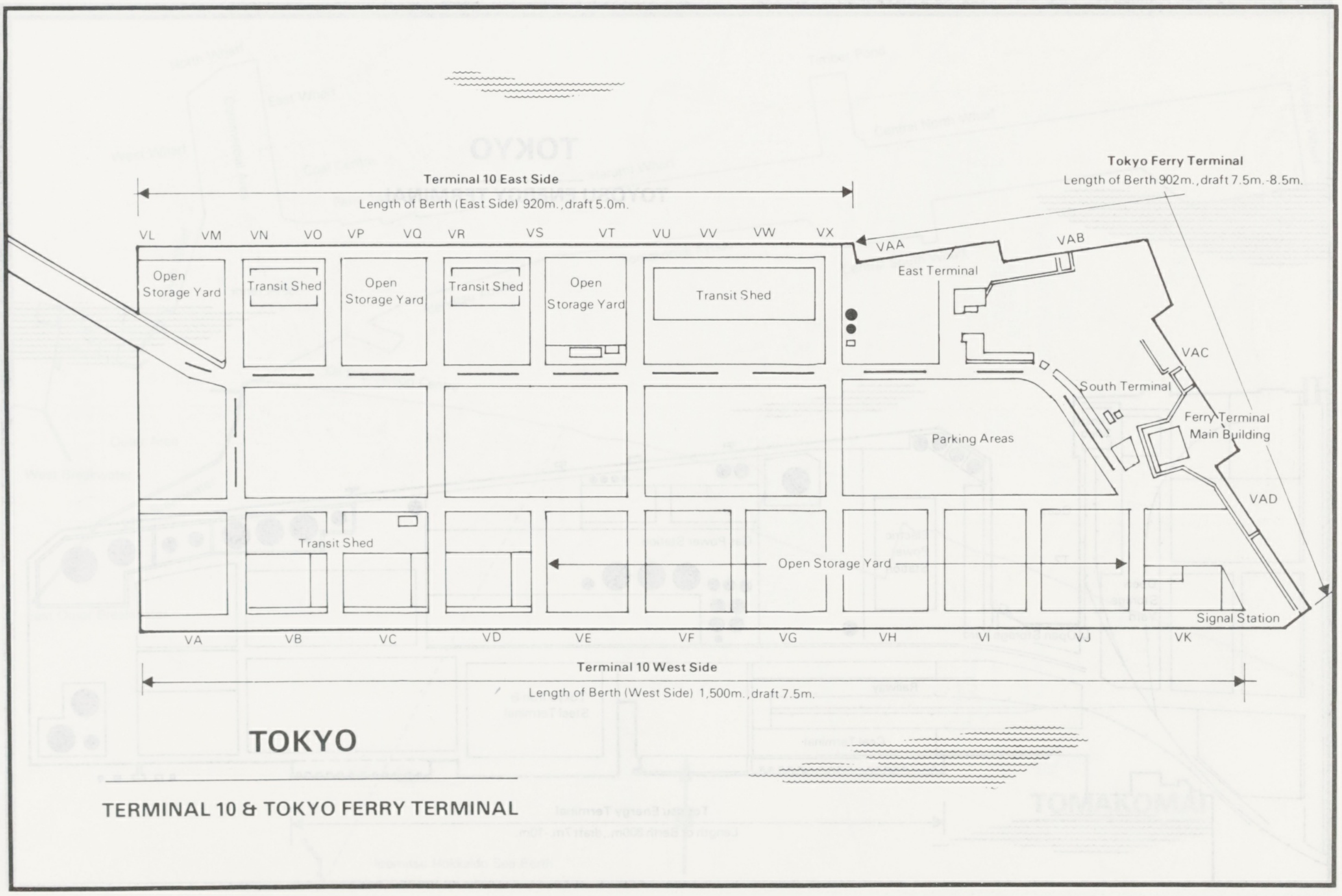

Tsukishima Terminal
Length of Berth (F4 and F5) 260m., draft 7.5m.
F5
F4
F3
F6
F2
F1
F1
F0
Cold Storage Warehouse
Cold Storage Warehouse
Cold Storage

TSUKISHIMA TERMINAL


Park
Passenger Ship Terminal
Length of berth 264m
Park

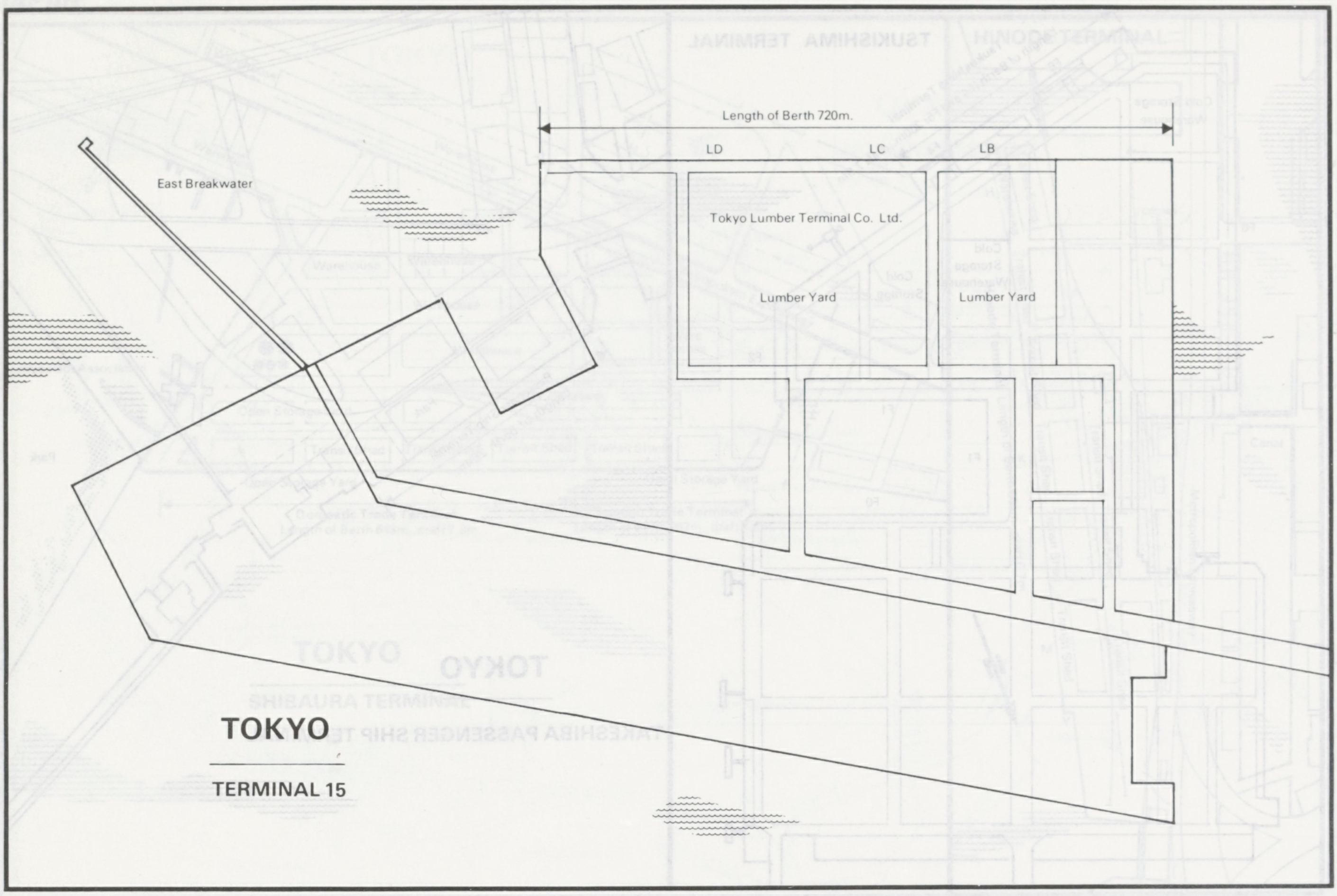
TOKYO

TAKESHIBA PASSENGER SHIP TERMINAL


Terminal 10 East Side
Length of Berth (East Side) 920m., draft 5.0m.
Tokyo Ferry Terminal
Length of Berth 902m., draft 7.5m.-8.5m.
VL
VM
VN
VO
VP
VQ
VR
VS
VT
VU
VV
VW
VX
VAA
VAB
VAC
VAD
Open Storage Yard
Transit Shed
Open Storage Yard
Transit Shed
Open Storage Yard
Transit Shed
East Terminal
South Terminal
Ferry Terminal Main Building
Parking Areas
Transit Shed
Open Storage Yard
Signal Station
VA
VB
VC
VD
VE
VF
VG
VH
VI
VJ
VK
Terminal 10 West Side
Length of Berth (West Side) 1,500m., draft 7.5m.

TOKYO

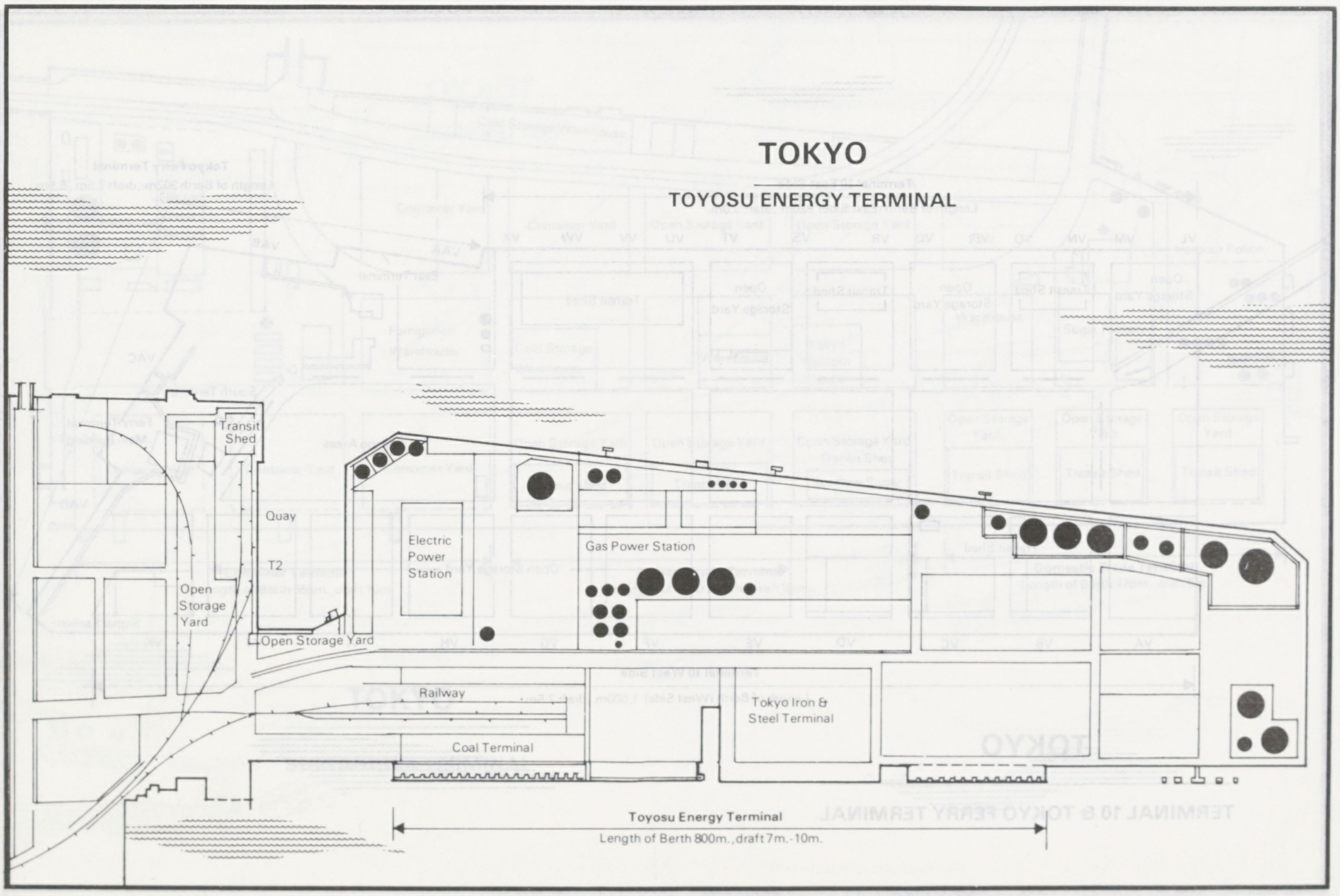
TERMINAL 10 & TOKYO FERRY TERMINAL



TOKYO

TERMINAL 15

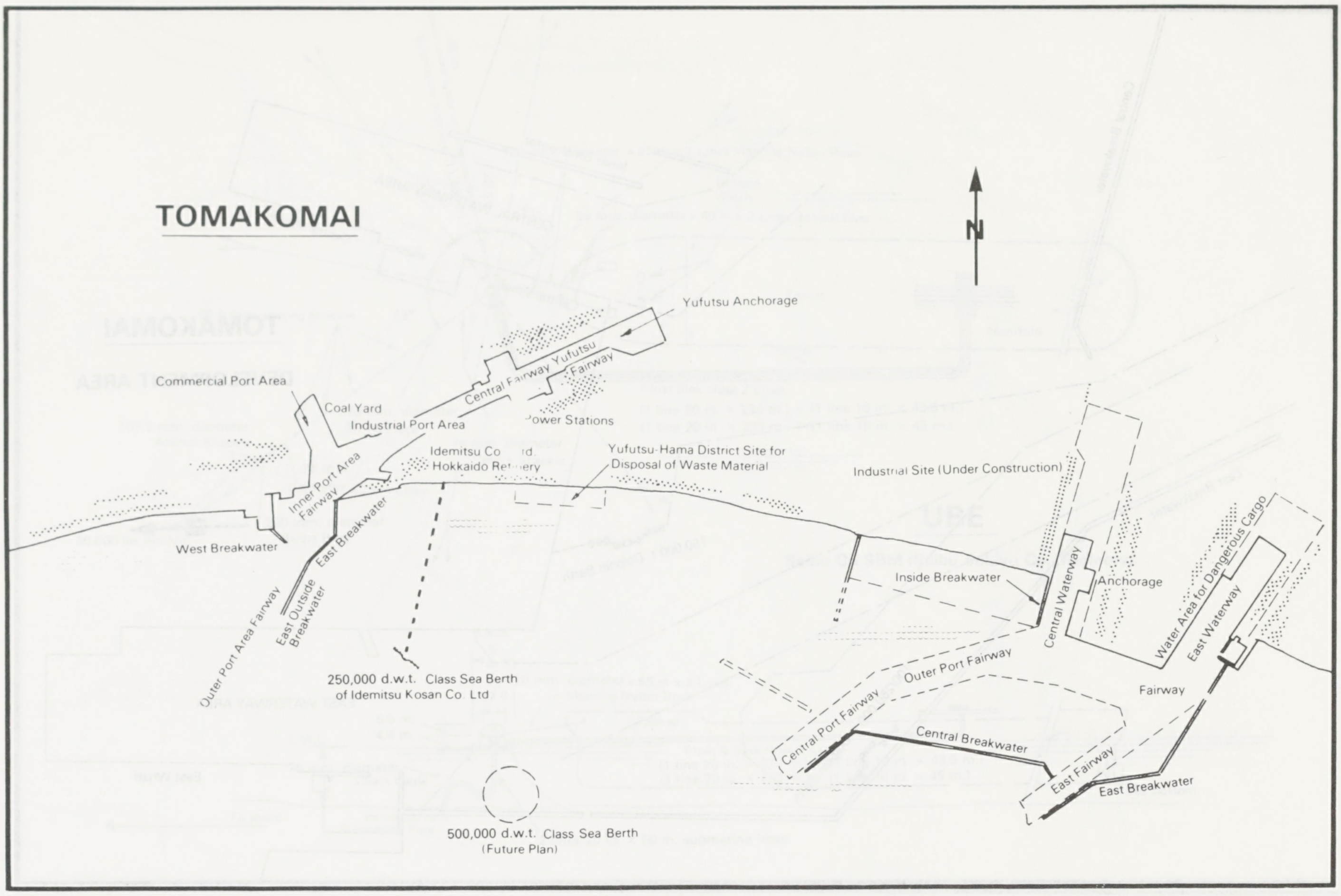
Length of Berth 720m.
LD
LC
LB
East Breakwater
Tokyo Lumber Terminal Co. Ltd.
Lumber Yard
Lumber Yard

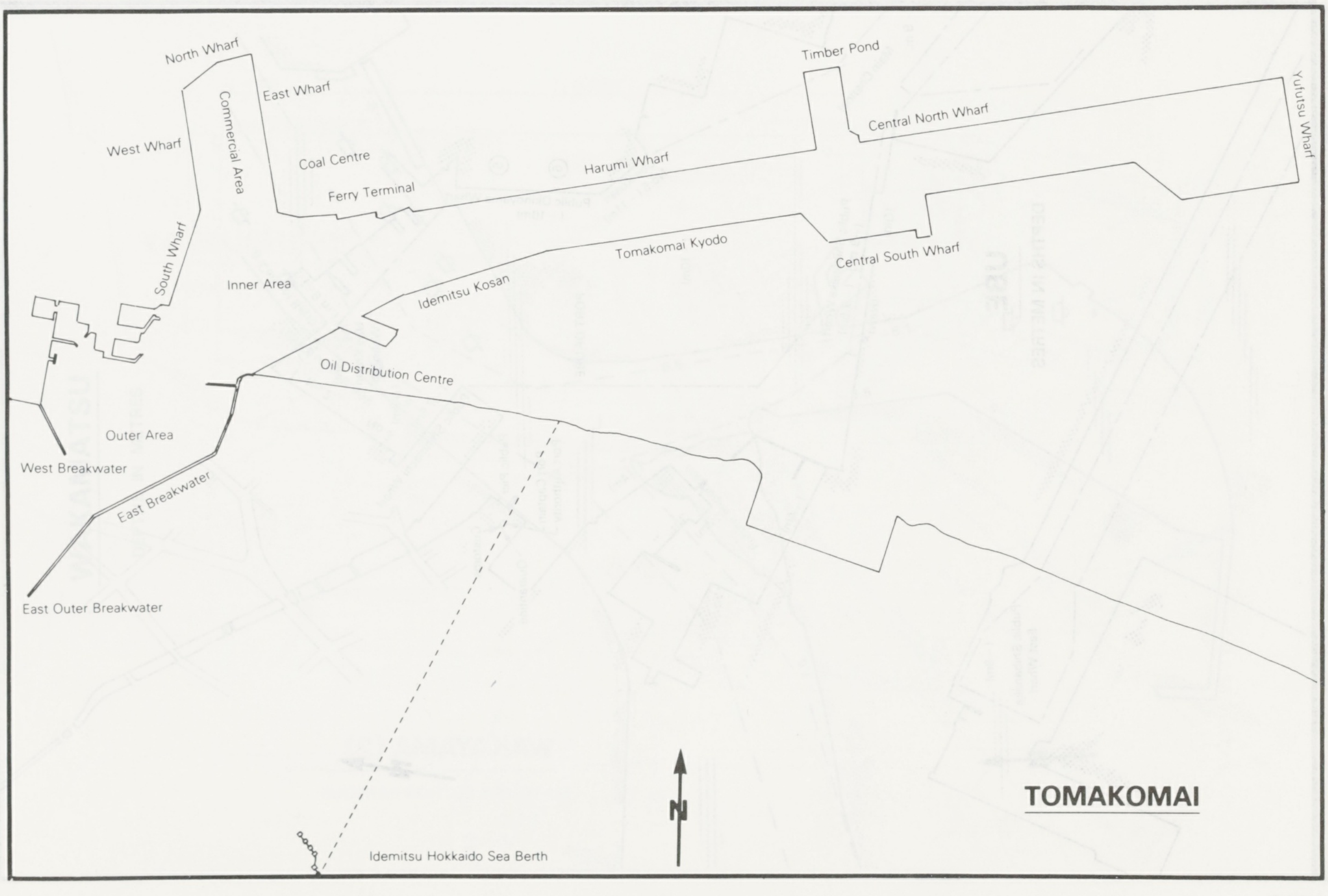


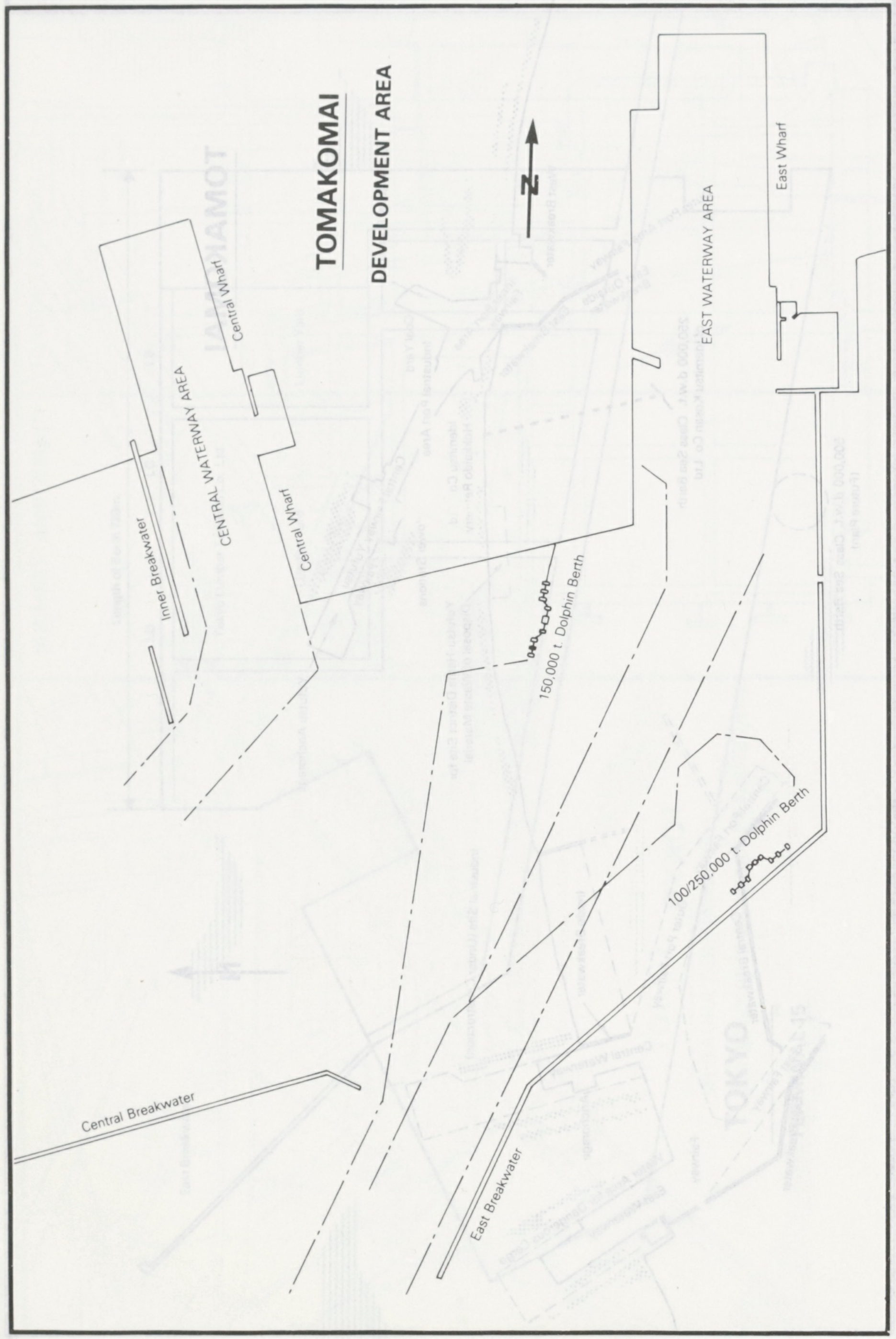
TOKYO

TOYOSU ENERGY TERMINAL

Transit Shed
Quay
T2
Open Storage Yard
Open Storage Yard
Electric Power Station
Gas Power Station
Railway
Tokyo Iron & Steel Terminal
Coal Terminal
Toyosu Energy Terminal
Length of Berth 800m., draft 7m.-10m.


TOMAKOMAI
N
Yufutsu Anchorage
Commercial Port Area
Coal Yard
Central Fairway Yufutsu
Fairway
Industrial Port Area
Power Stations
Idemitsu Co. Ltd.
Hokkaido Refinery
Yufutsu-Hama District Site for
Disposal of Waste Material
Industrial Site (Under Construction)
Inner Port Area
Fairway
West Breakwater
East Breakwater
Outer Port Area Fairway
East Outside
Breakwater
Inside Breakwater
Central Waterway
Anchorage
Water Area for Dangerous Cargo
East Waterway
Outer Port Fairway
Fairway
250,000 d.w.t. Class Sea Berth
of Idemitsu Kosan Co. Ltd.
Central Port Fairway
Central Breakwater
East Fairway
East Breakwater
500,000 d.w.t. Class Sea Berth
(Future Plan)

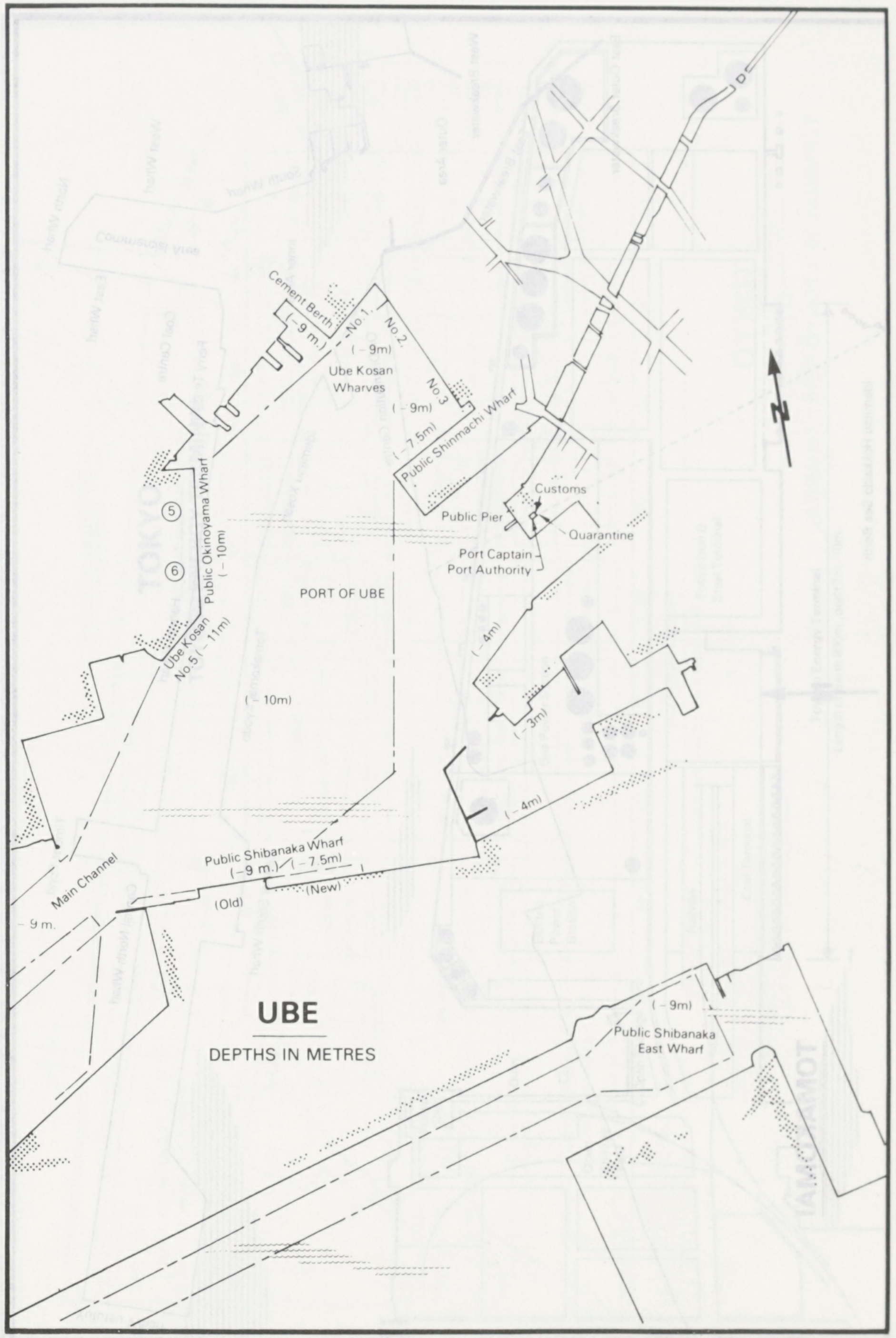

North Wharf
East Wharf
Commercial Area
West Wharf
Coal Centre
Ferry Terminal
Harumi Wharf
Timber Pond
Central North Wharf
Yufutsu Wharf
South Wharf
Inner Area
Tomakomai Kyodo
Central South Wharf
Idemitsu Kosan
Oil Distribution Centre
Outer Area
West Breakwater
East Breakwater
East Outer Breakwater
N
TOMAKOMAI
Idemitsu Hokkaido Sea Berth



TOMAKOMAI

DEVELOPMENT AREA

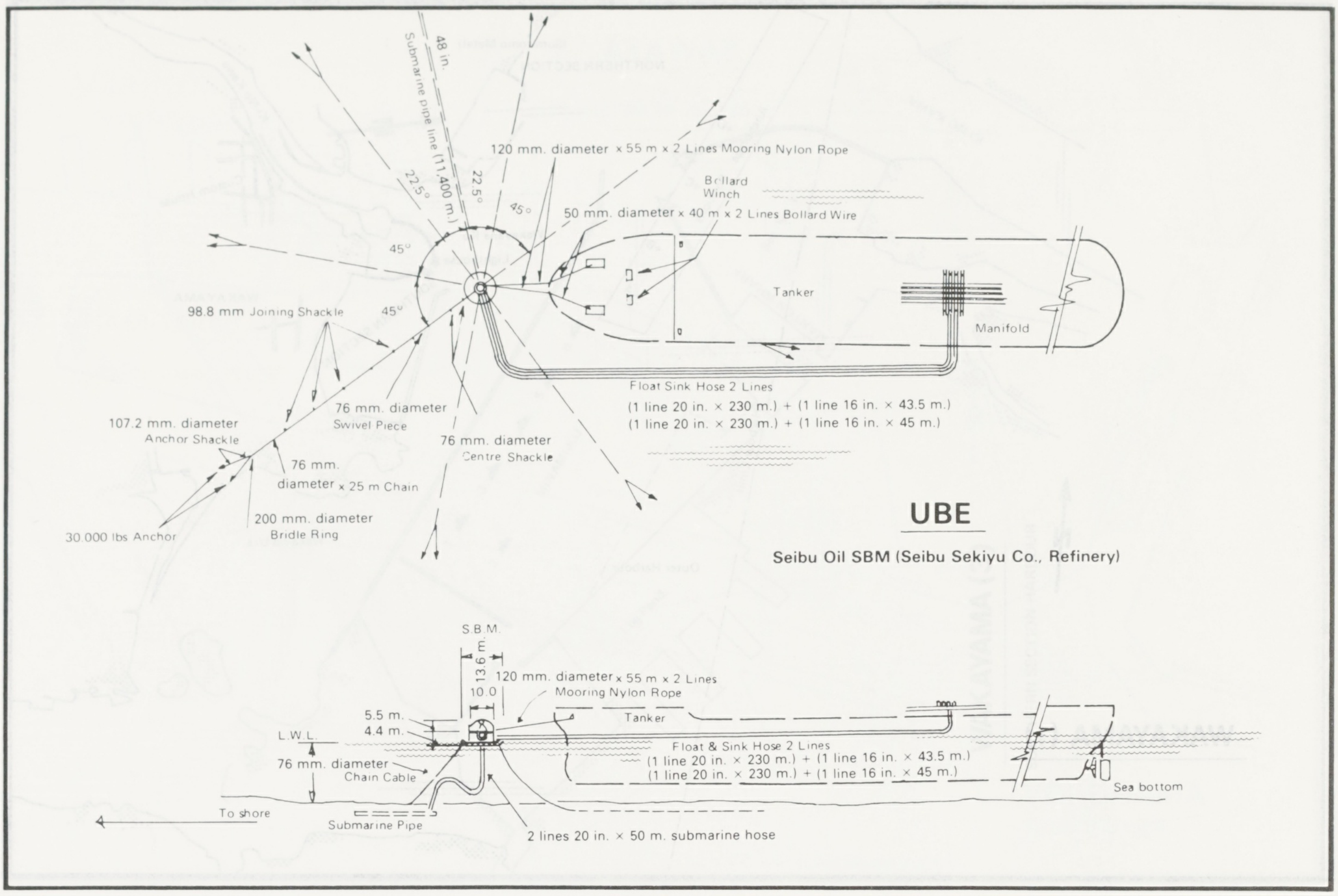
N
East Wharf
EAST WATERWAY AREA
Central Wharf
CENTRAL WATERWAY AREA
Central Wharf
Inner Breakwater
150,000 t. Dolphin Berth
100/250,000 t. Dolphin Berth
Central Breakwater
East Breakwater



UBE

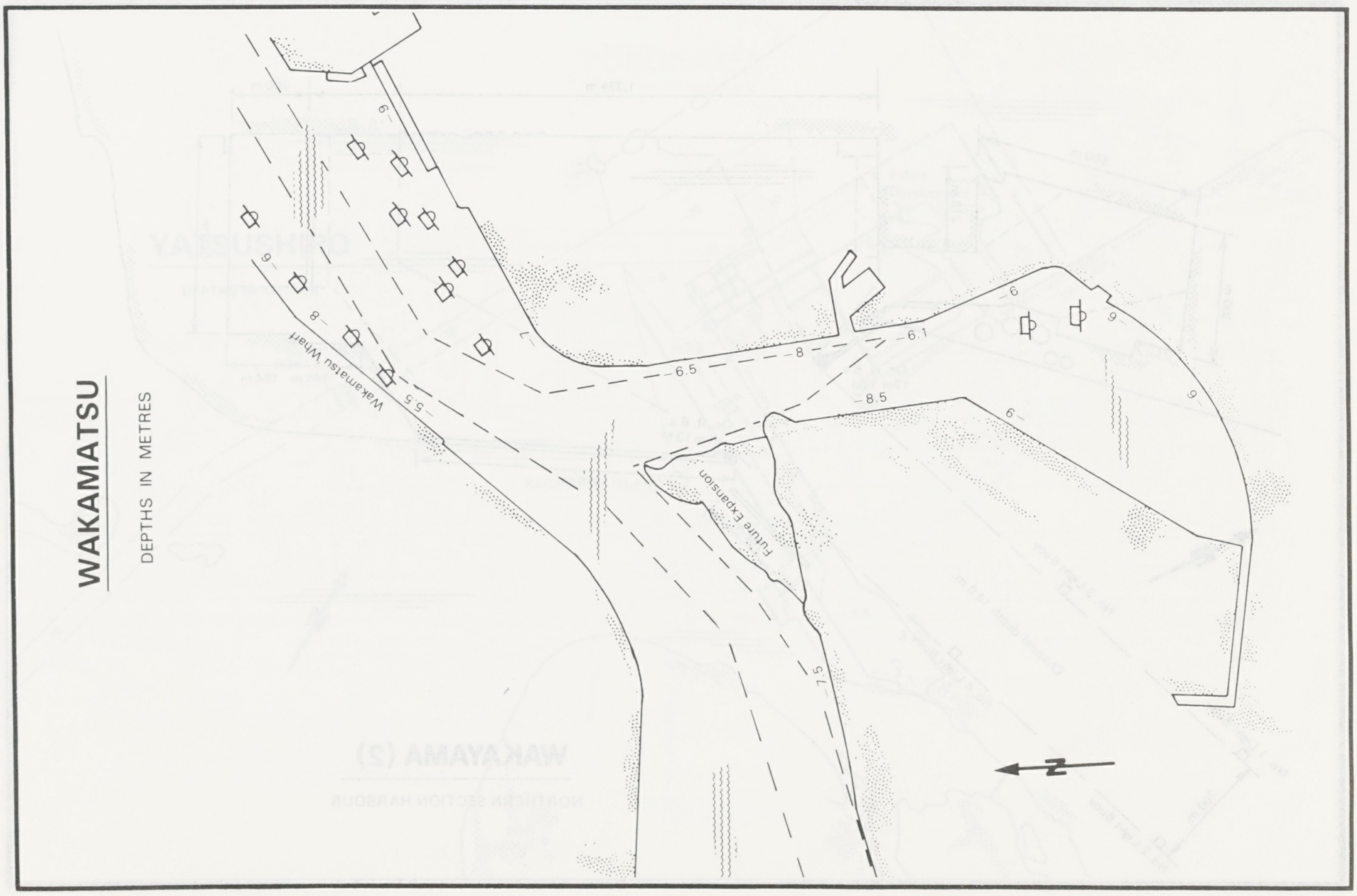
DEPTHS IN METRES

N
Cement Berth
(−9 m.)
No.1
No.2
(−9m)
Ube Kosan Wharves
No.3
(−9m)
(−7.5m)
Public Shinmachi Wharf
Customs
Public Pier
Quarantine
Port Captain
Port Authority
PORT OF UBE
Public Okinoyama Wharf
(−10m)
⑤
⑥
Ube Kosan No.5 (−11m)
(−10m)
(−4m)
(−3m)
(−4m)
Public Shibanaka Wharf
(−9 m.)
(−7.5m)
(New)
(Old)
Main Channel
−9 m.
(−9m)
Public Shibanaka East Wharf


48 in.
Submarine pipe line (11,400 m.)
22.5°
22.5°
45°
45°
45°
120 mm. diameter × 55 m × 2 Lines Mooring Nylon Rope
Bollard
Winch
50 mm. diameter × 40 m × 2 Lines Bollard Wire
Tanker
Manifold
98.8 mm Joining Shackle
Float Sink Hose 2 Lines
(1 line 20 in. × 230 m.) + (1 line 16 in. × 43.5 m.)
(1 line 20 in. × 230 m.) + (1 line 16 in. × 45 m.)
107.2 mm. diameter
Anchor Shackle
76 mm. diameter
Swivel Piece
76 mm. diameter
Centre Shackle
76 mm.
diameter × 25 m Chain
30.000 lbs Anchor
200 mm. diameter
Bridle Ring
S.B.M.
13.6 m.
10.0
120 mm. diameter × 55 m × 2 Lines
Mooring Nylon Rope
Tanker
5.5 m.
4.4 m.
L.W.L.
Float & Sink Hose 2 Lines
(1 line 20 in. × 230 m.) + (1 line 16 in. × 43.5 m.)
(1 line 20 in. × 230 m.) + (1 line 16 in. × 45 m.)
76 mm. diameter
Chain Cable
Sea bottom
To shore
Submarine Pipe
2 lines 20 in. × 50 m. submarine hose

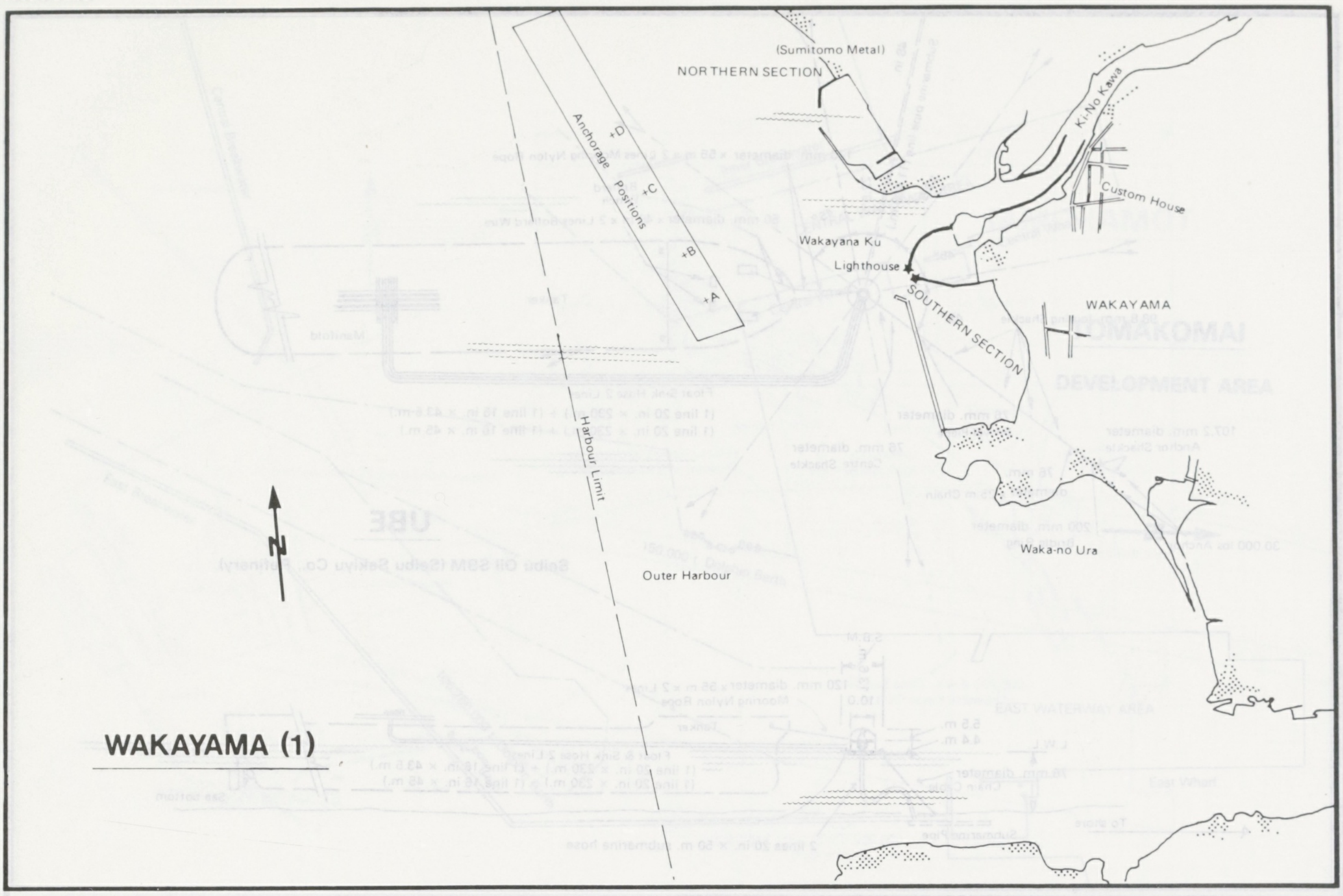
UBE

Seibu Oil SBM (Seibu Sekiyu Co., Refinery)

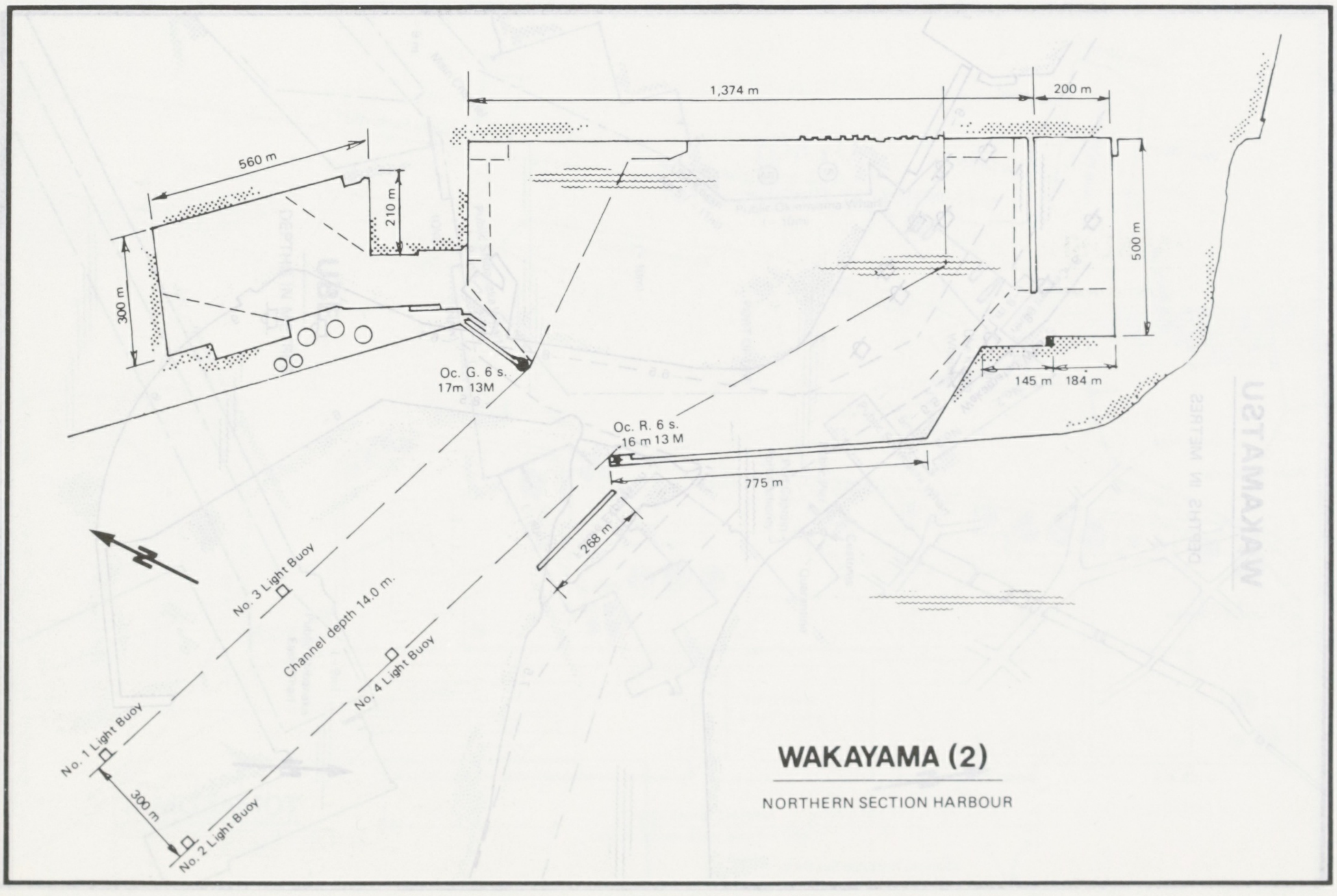

Wakamatsu Wharf
Future Expansion
9
9
8
5.5
7
6.5
8
6.1
8.5
6
6
9
9
7.5
N

WAKAMATSU

DEPTHS IN METRES

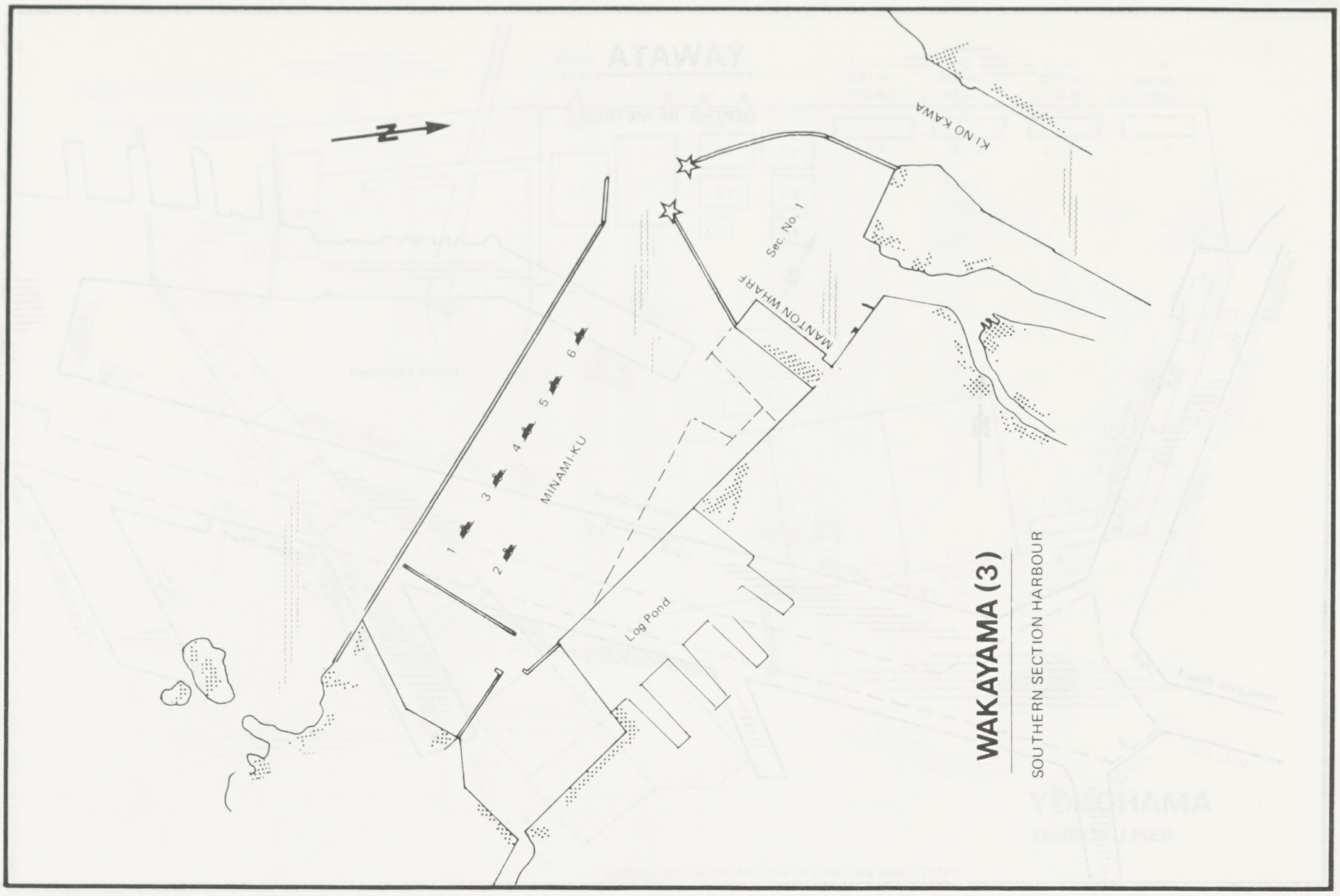

(Sumitomo Metal)
NORTHERN SECTION
Ki-No Kawa
Custom House
Anchorage Positions
+D
+C
+B
+A
Wakayana Ku
Lighthouse
SOUTHERN SECTION
WAKAYAMA
Harbour Limit
N
Outer Harbour
Waka-no Ura

WAKAYAMA (1)


1,374 m
200 m
560 m
210 m
300 m
500 m
Oc. G. 6 s.
17m 13M
145 m
184 m
Oc. R. 6 s.
16 m 13 M
775 m
268 m
N
No. 3 Light Buoy
Channel depth 14.0 m.
No. 4 Light Buoy
No. 1 Light Buoy
300 m
No. 2 Light Buoy

WAKAYAMA (2)

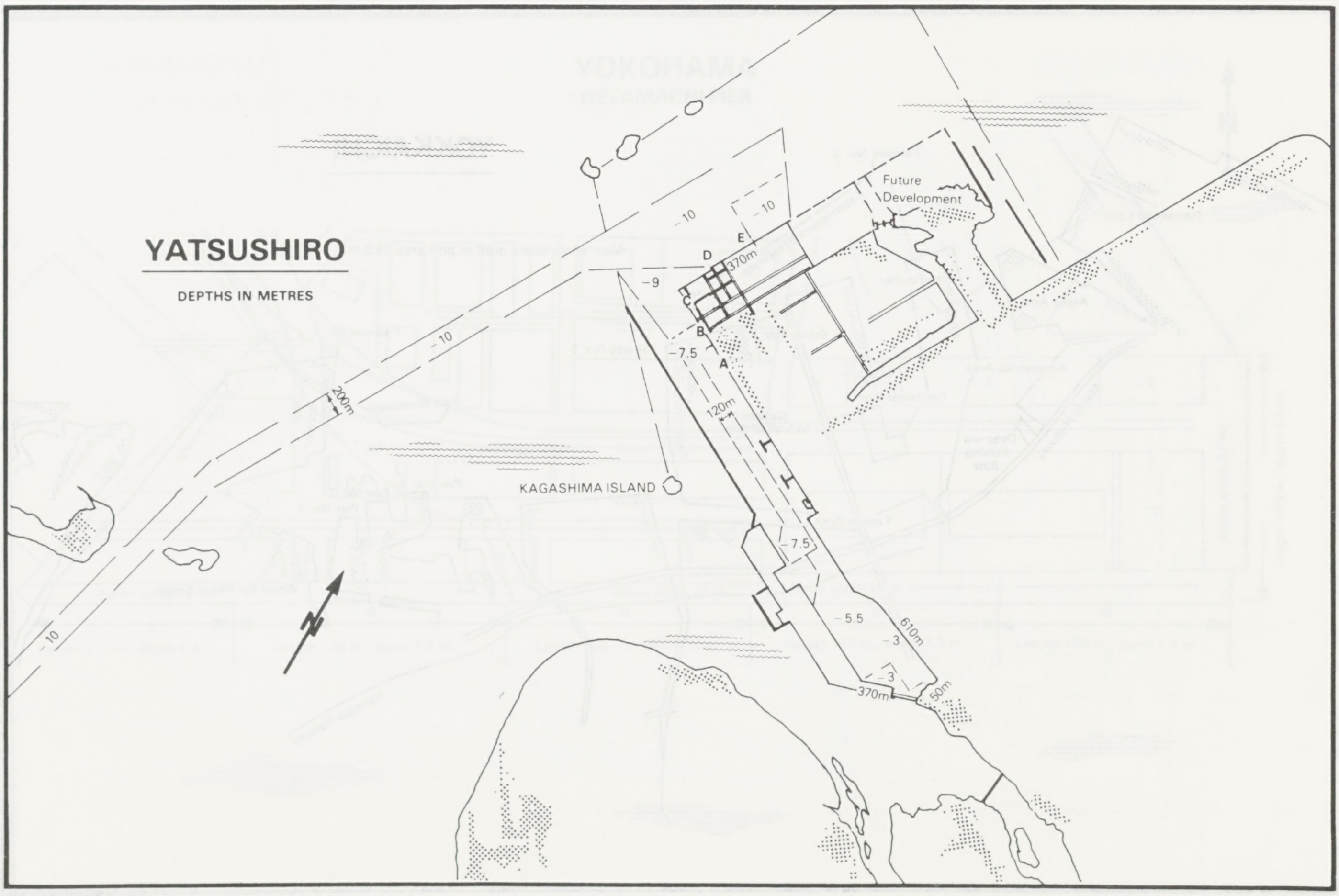
NORTHERN SECTION HARBOUR



WAKAYAMA (3)

SOUTHERN SECTION HARBOUR

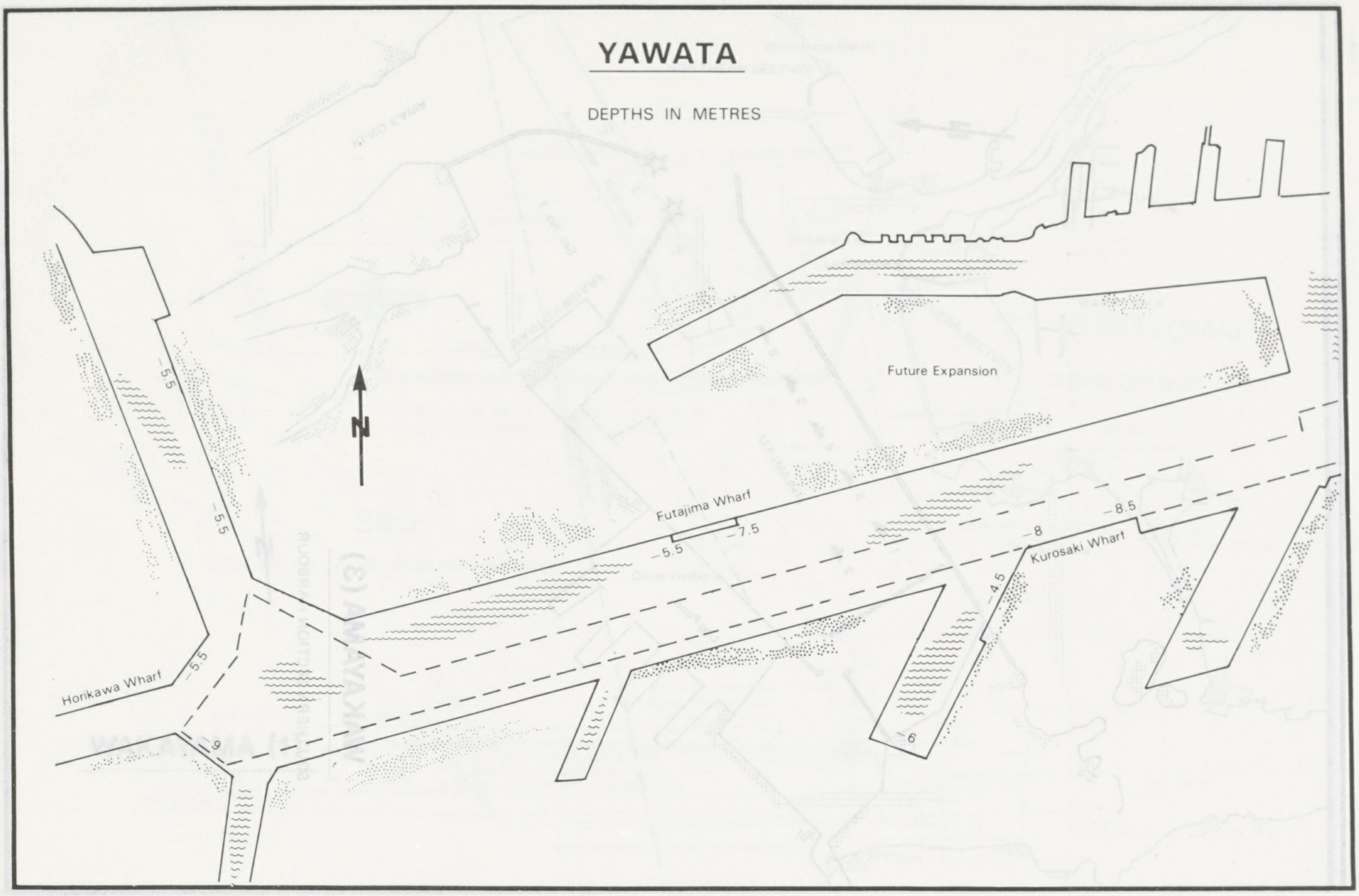
KI NO KAWA
Sec. No. 1
MANTON WHARF
6
5
4
3
1
2
MINAMI KU
Log Pond

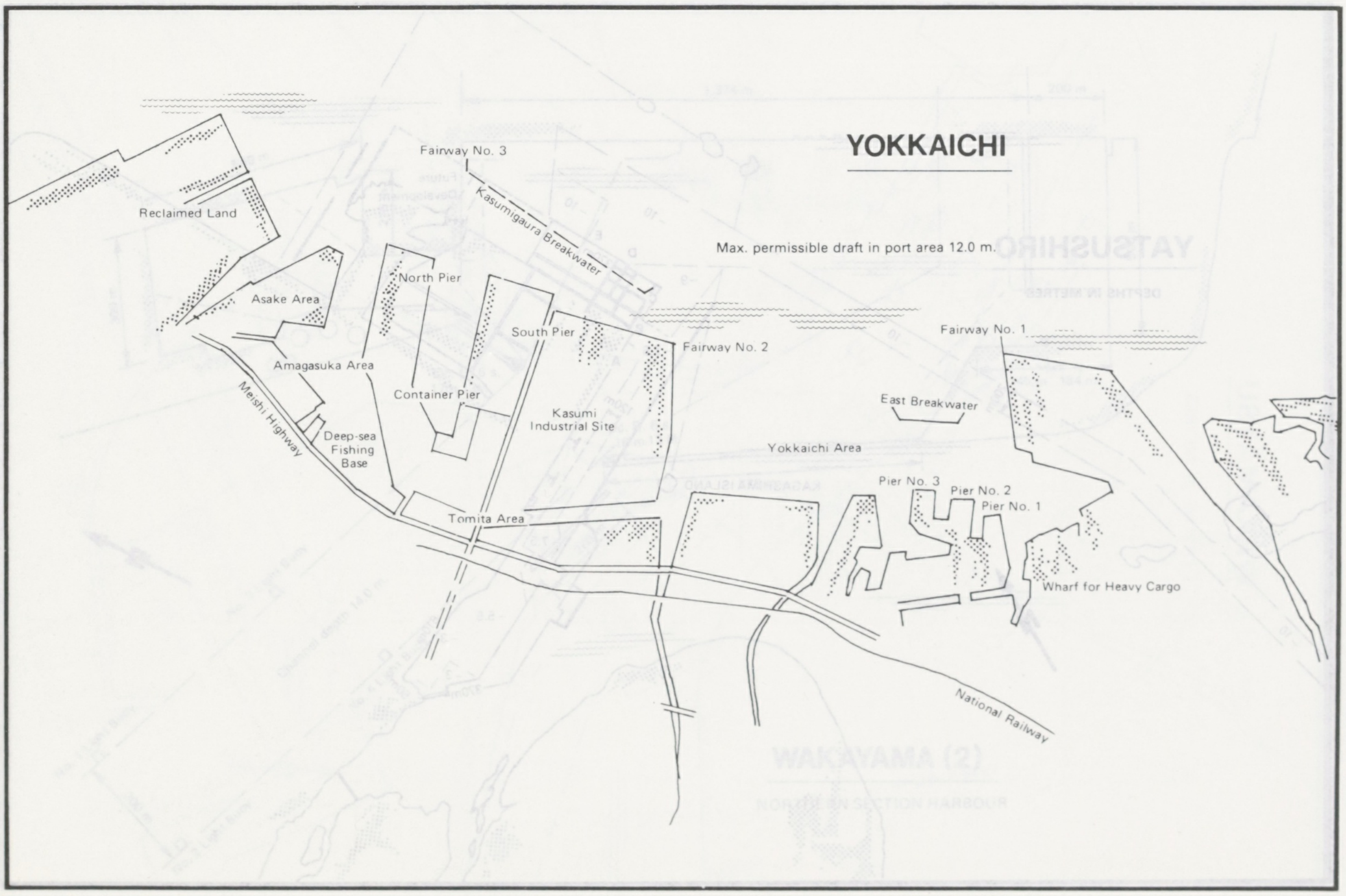


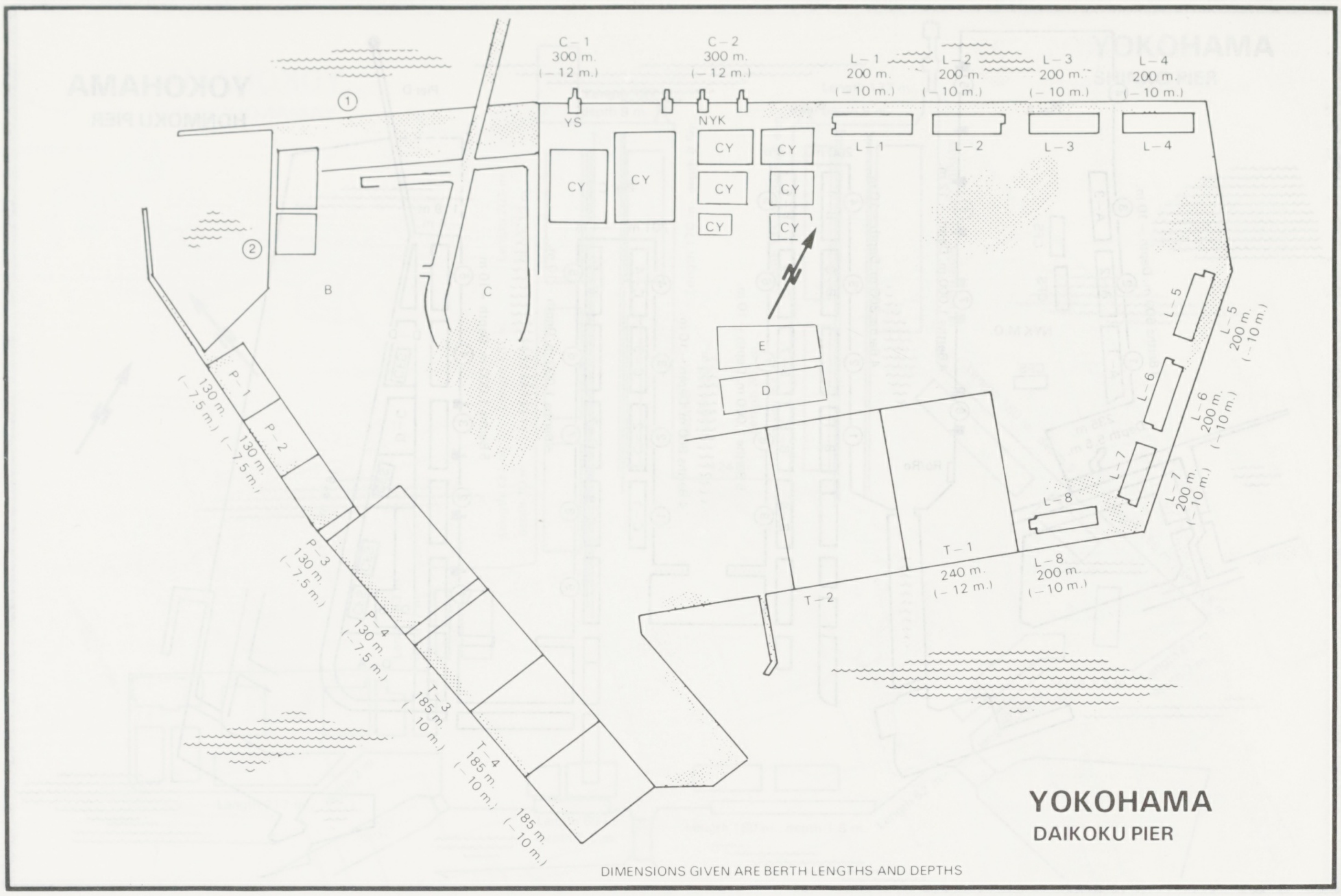
YATSUSHIRO

DEPTHS IN METRES

Future Development
–10
–10
E
D
370m
–9
C
B
A
–7.5
120m
–10
200m
KAGASHIMA ISLAND
–7.5
–5.5
610m
–3
–3
370m
50m
–10


YAWATA
DEPTHS IN METRES
N
-5.5
-5.5
Horikawa Wharf
-5.5
9
Futajima Wharf
-5.5
-7.5
Future Expansion
-8
-8.5
Kurosaki Wharf
-4.5
-6


YOKKAICHI
Max. permissible draft in port area 12.0 m.
Fairway No. 3
Kasumigaura Breakwater
Reclaimed Land
North Pier
Asake Area
South Pier
Fairway No. 2
Fairway No. 1
Amagasuka Area
Container Pier
Kasumi Industrial Site
East Breakwater
Meishi Highway
Deep-sea Fishing Base
Yokkaichi Area
Pier No. 3
Pier No. 2
Pier No. 1
Tomita Area
Wharf for Heavy Cargo
National Railway

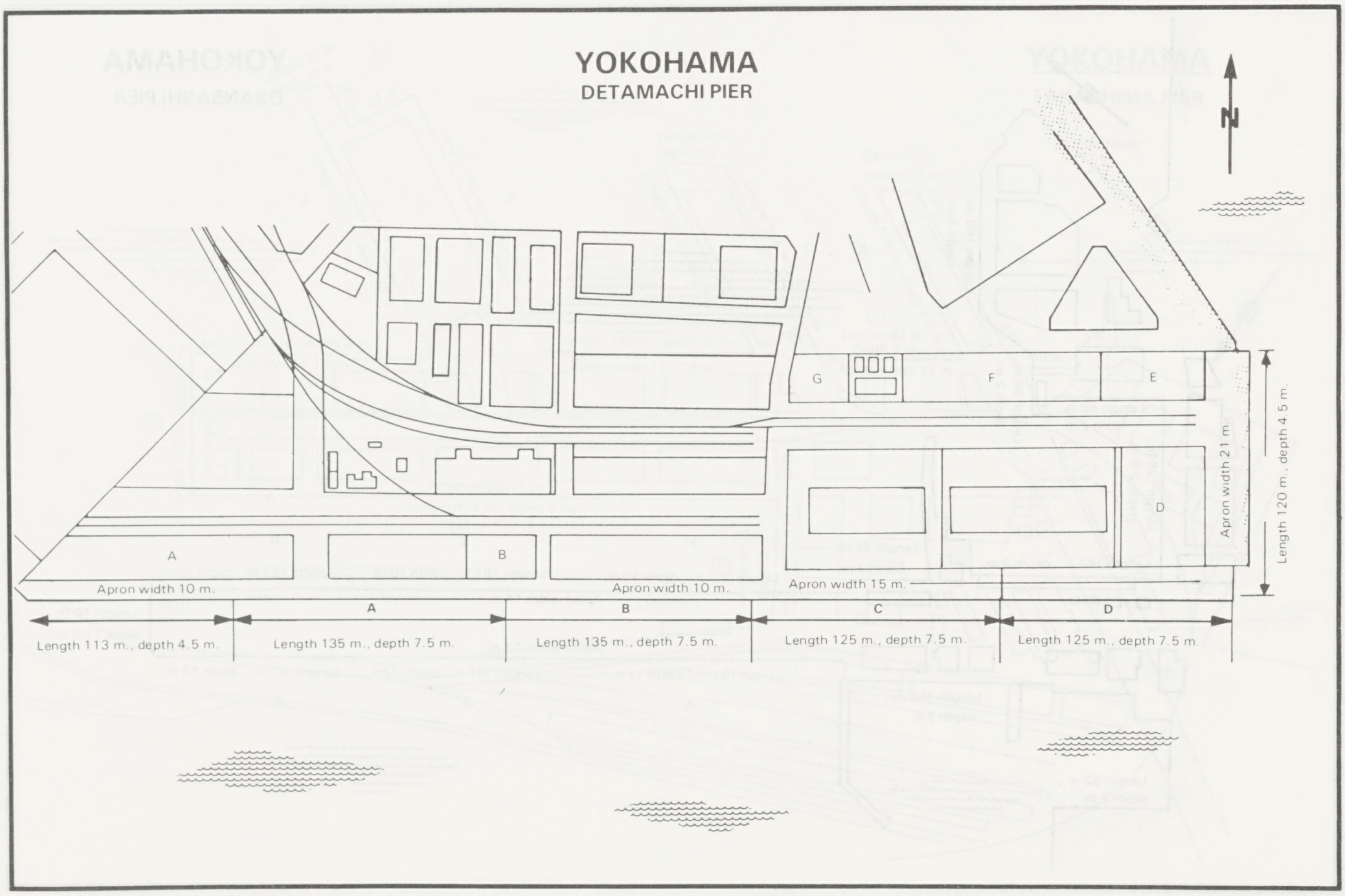


YOKOHAMA
DAIKOKU PIER

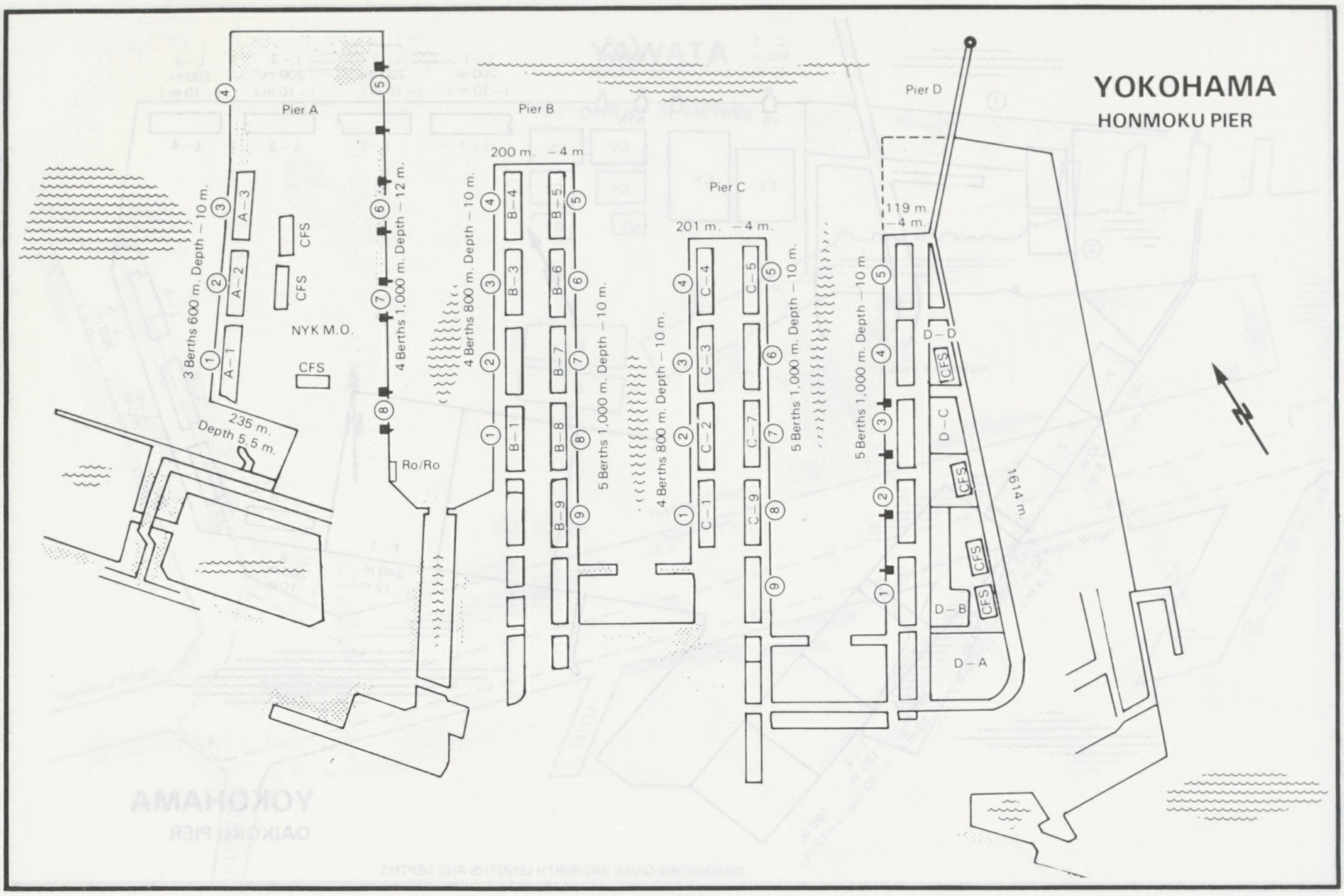
DIMENSIONS GIVEN ARE BERTH LENGTHS AND DEPTHS

①
②
C – 1
300 m.
(– 12 m.)
C – 2
300 m.
(– 12 m.)
YS
NYK
L – 1
200 m.
(– 10 m.)
L – 2
200 m.
(– 10 m.)
L – 3
200 m.
(– 10 m.)
L – 4
200 m.
(– 10 m.)
CY
B
C
E
D
L – 5
200 m.
(– 10 m.)
L – 6
200 m.
(– 10 m.)
L – 7
200 m.
(– 10 m.)
L – 8
200 m.
(– 10 m.)
T – 1
240 m.
(– 12 m.)
T – 2
P – 1
130 m.
(– 7.5 m.)
P – 2
130 m.
(– 7.5 m.)
P – 3
130 m.
(– 7.5 m.)
P – 4
130 m.
(– 7.5 m.)
T – 3
185 m.
(– 10 m.)
T – 4
185 m.
(– 10 m.)
185 m.
(– 10 m.)

YOKOHAMA
DETAMACHI PIER



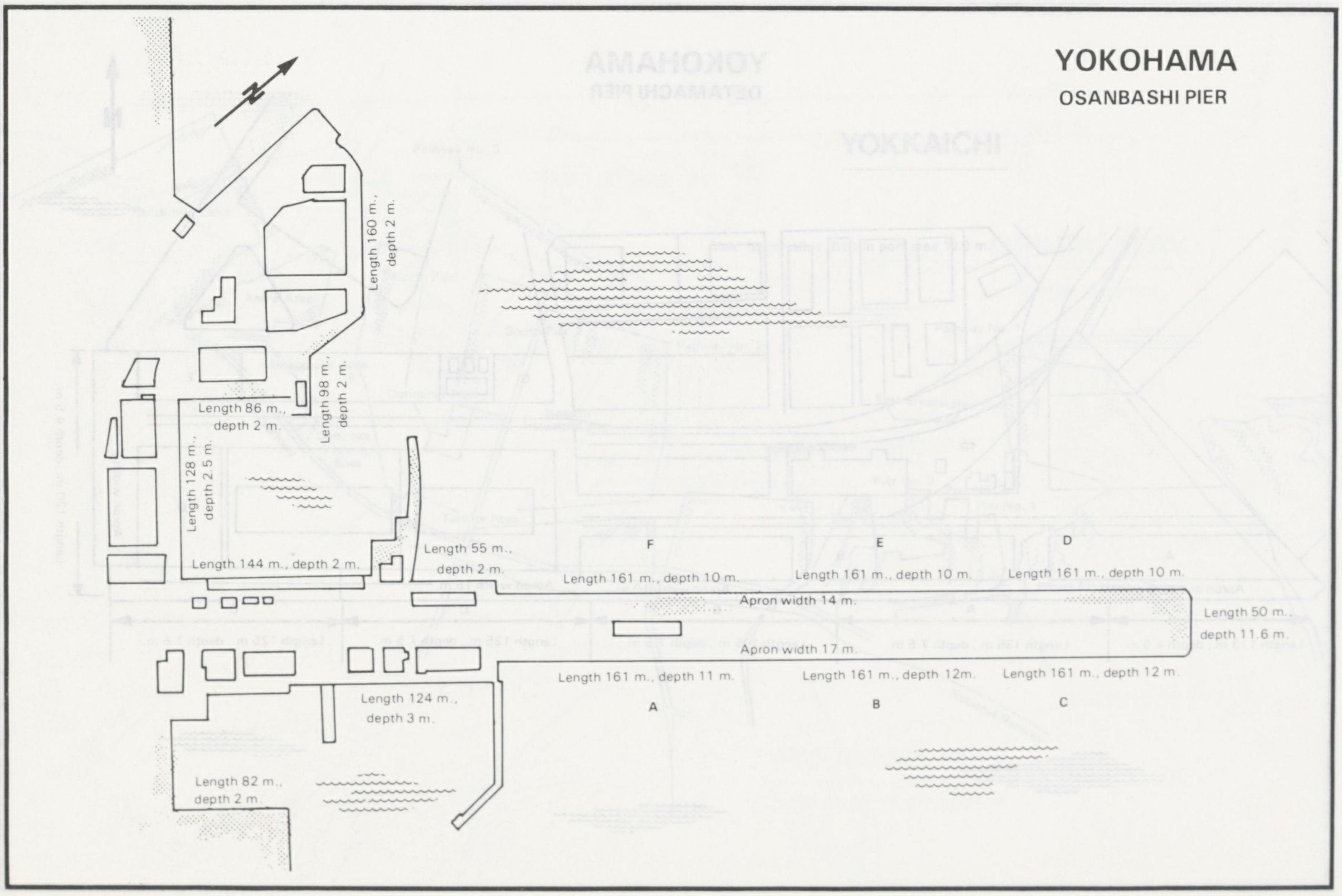
N
A
B
C
D
E
F
G
Apron width 10 m.
Apron width 10 m.
Apron width 15 m.
Apron width 21 m.
Length 120 m., depth 4.5 m.
Length 113 m., depth 4.5 m.
Length 135 m., depth 7.5 m.
Length 135 m., depth 7.5 m.
Length 125 m., depth 7.5 m.
Length 125 m., depth 7.5 m.



YOKOHAMA

HONMOKU PIER

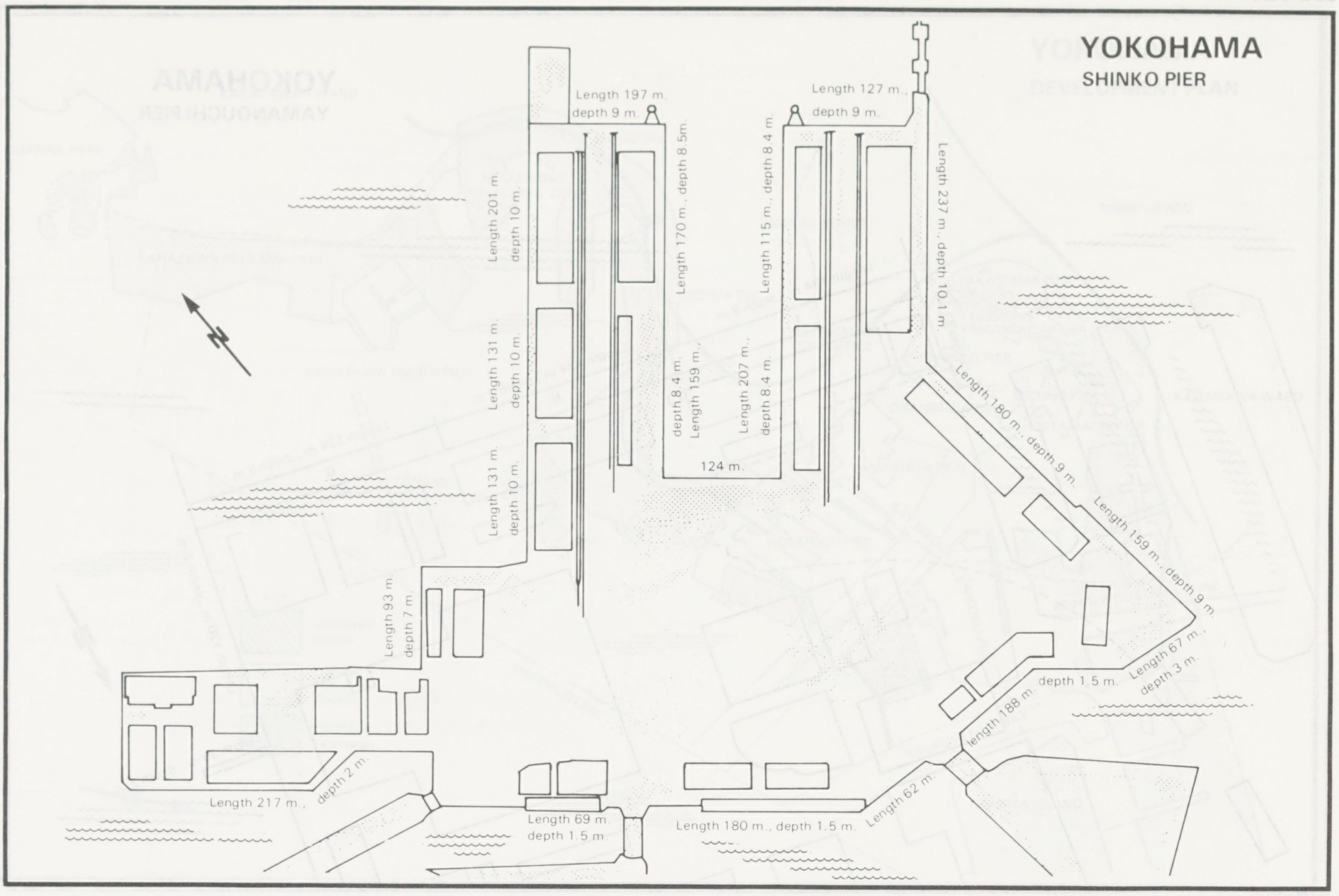
Pier A
3 Berths 600 m. Depth – 10 m.
①
②
③
④
A – 1
A – 2
A – 3
CFS
CFS
NYK M.O.
CFS
235 m.
Depth 5.5 m.
4 Berths 1,000 m. Depth – 12 m.
⑤
⑥
⑦
⑧
Ro/Ro
Pier B
200 m. – 4 m.
4 Berths 800 m. Depth – 10 m.
B – 1
B – 2
B – 3
B – 4
B – 5
B – 6
B – 7
B – 8
B – 9
⑨
5 Berths 1,000 m. Depth – 10 m.
Pier C
201 m. – 4 m.
4 Berths 800 m. Depth – 10 m.
C – 1
C – 2
C – 3
C – 4
C – 5
C – 7
C – 9
5 Berths 1,000 m. Depth – 10 m.
Pier D
119 m.
– 4 m.
5 Berths 1,000 m. Depth – 10 m.
D – A
D – B
D – C
D – D
CFS
CFS
CFS
CFS
1614 m.
N

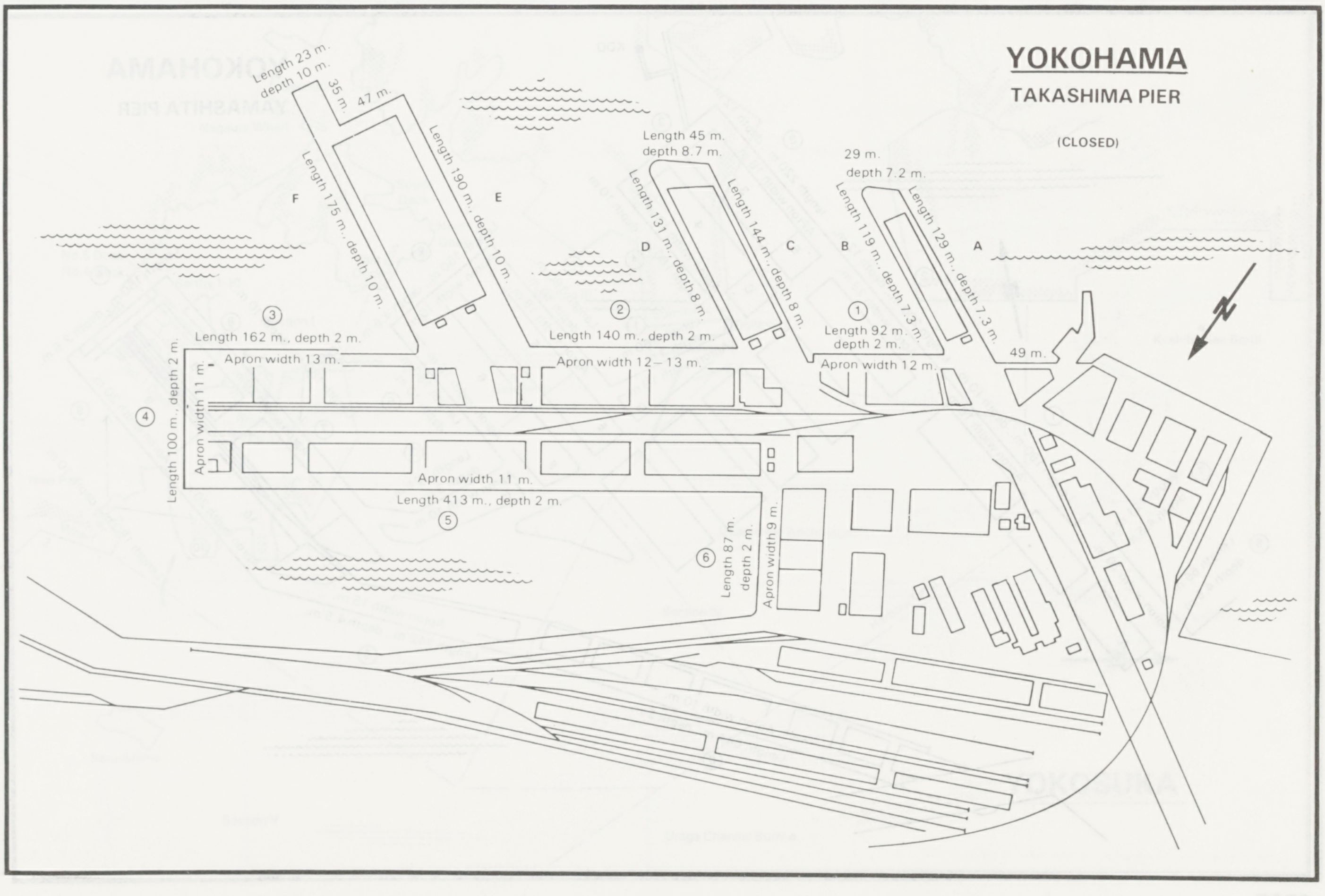


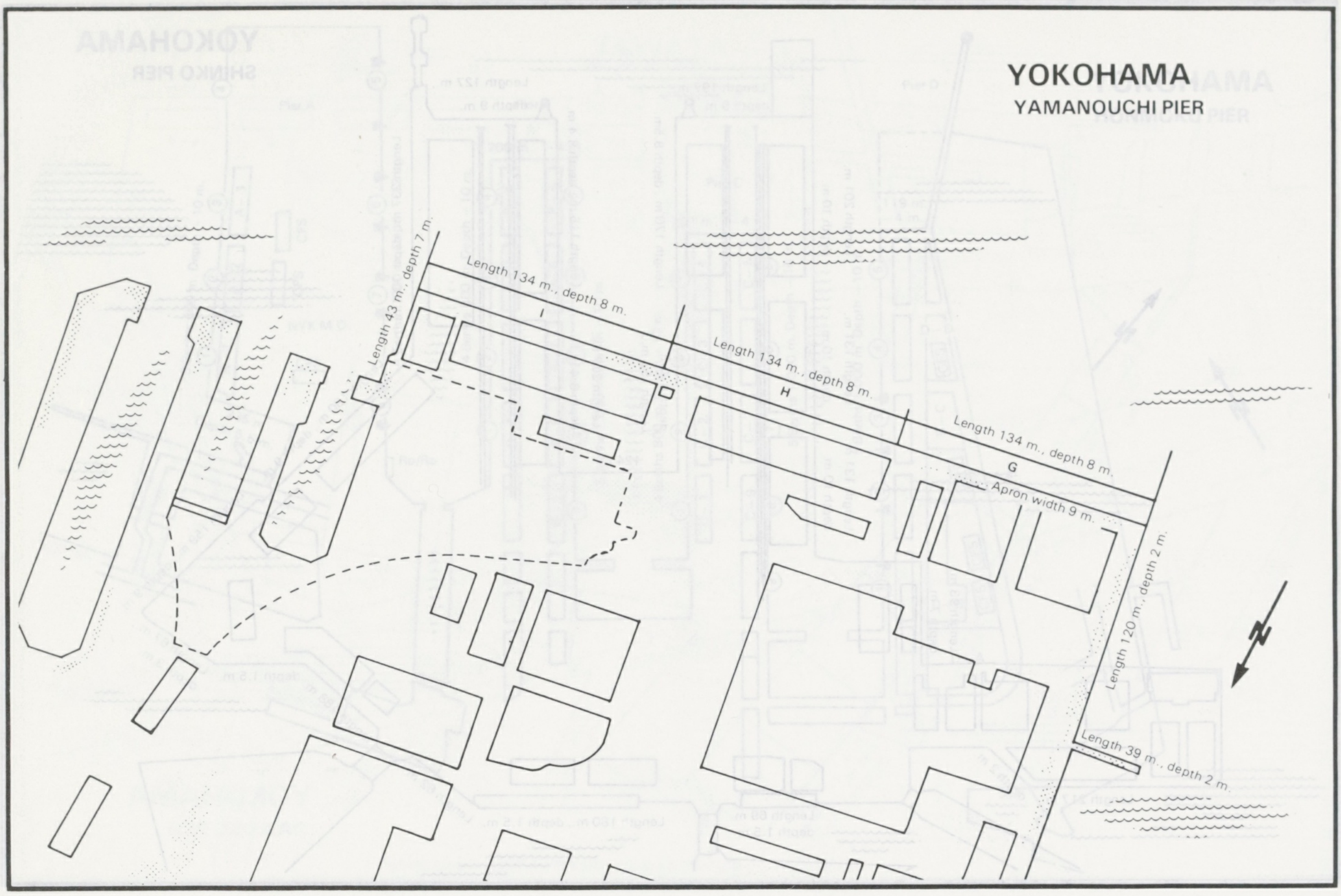
YOKOHAMA

OSANBASHI PIER

N
Length 160 m., depth 2 m.
Length 86 m., depth 2 m.
Length 98 m., depth 2 m.
Length 128 m., depth 2.5 m.
Length 144 m., depth 2 m.
Length 55 m., depth 2 m.
F
E
D
Length 161 m., depth 10 m.
Length 161 m., depth 10 m.
Length 161 m., depth 10 m.
Apron width 14 m.
Length 50 m., depth 11.6 m.
Apron width 17 m.
Length 161 m., depth 11 m.
Length 161 m., depth 12m.
Length 161 m., depth 12 m.
A
B
C
Length 124 m., depth 3 m.
Length 82 m., depth 2 m.

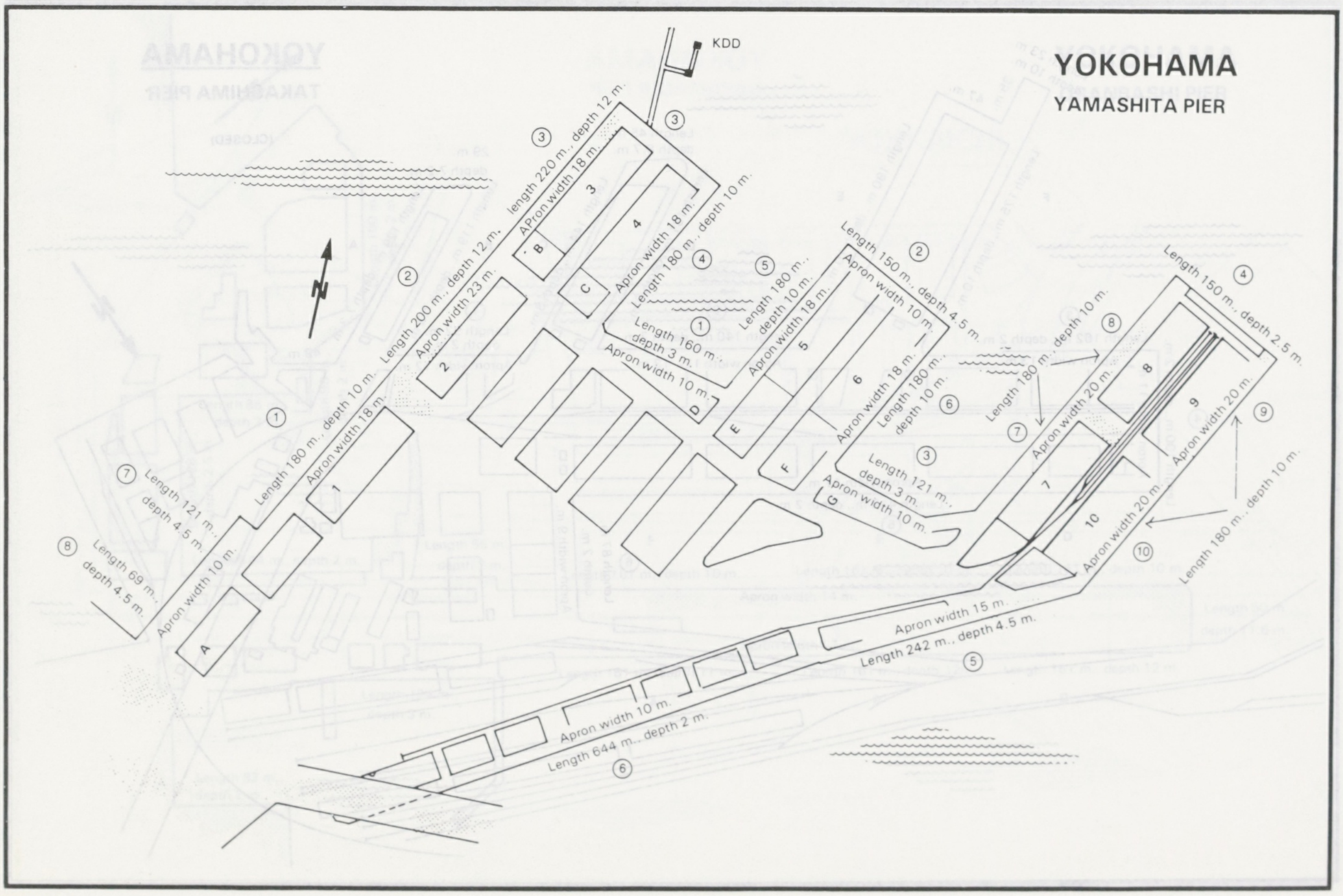

YOKOHAMA
SHINKO PIER
Length 197 m., depth 9 m.
Length 127 m., depth 9 m.
Length 201 m. depth 10 m.
Length 170 m., depth 8.5m.
Length 115 m., depth 8.4 m.
Length 237 m., depth 10.1 m.
Length 131 m. depth 10 m.
Length 131 m. depth 10 m.
depth 8.4 m. Length 159 m.
Length 207 m. depth 8.4 m.
124 m.
Length 180 m., depth 9 m.
Length 159 m., depth 9 m.
Length 67 m., depth 3 m.
depth 1.5 m.
Length 188 m.
Length 93 m. depth 7 m.
Length 217 m., depth 2 m.
Length 69 m depth 1.5 m.
Length 180 m., depth 1.5 m.
Length 62 m.
N


YOKOHAMA
TAKASHIMA PIER
(CLOSED)
Length 23 m. depth 10 m.
35 m.
47 m.
Length 175 m., depth 10 m.
Length 190 m., depth 10 m.
F
E
Length 45 m. depth 8.7 m.
Length 131 m., depth 8 m.
Length 144 m., depth 8 m.
D
C
29 m.
depth 7.2 m.
Length 119 m., depth 7.3 m.
Length 129 m., depth 7.3 m.
B
A
③
②
①
Length 162 m., depth 2 m.
Apron width 13 m.
Length 140 m., depth 2 m.
Apron width 12 – 13 m.
Length 92 m. depth 2 m.
Apron width 12 m.
49 m.
④
Length 100 m., depth 2 m.
Apron width 11 m.
Apron width 11 m.
Length 413 m., depth 2 m.
⑤
⑥
Length 87 m. depth 2 m.
Apron width 9 m.
N



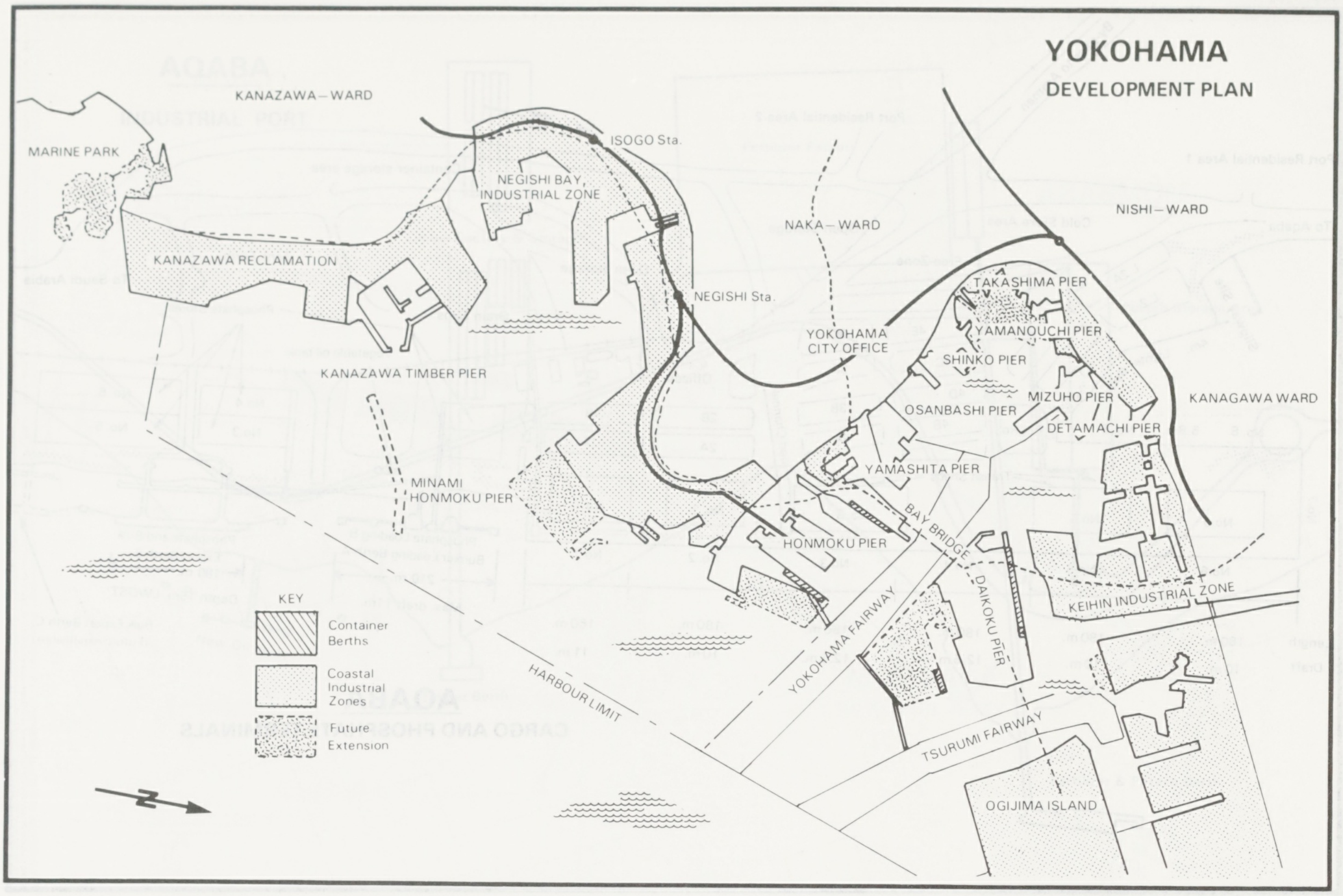
YOKOHAMA
YAMANOUCHI PIER

Length 43 m., depth 7 m.
Length 134 m., depth 8 m.
Length 134 m., depth 8 m.
H
Length 134 m., depth 8 m.
G
Apron width 9 m.
Length 120 m., depth 2 m.
Length 39 m., depth 2 m.



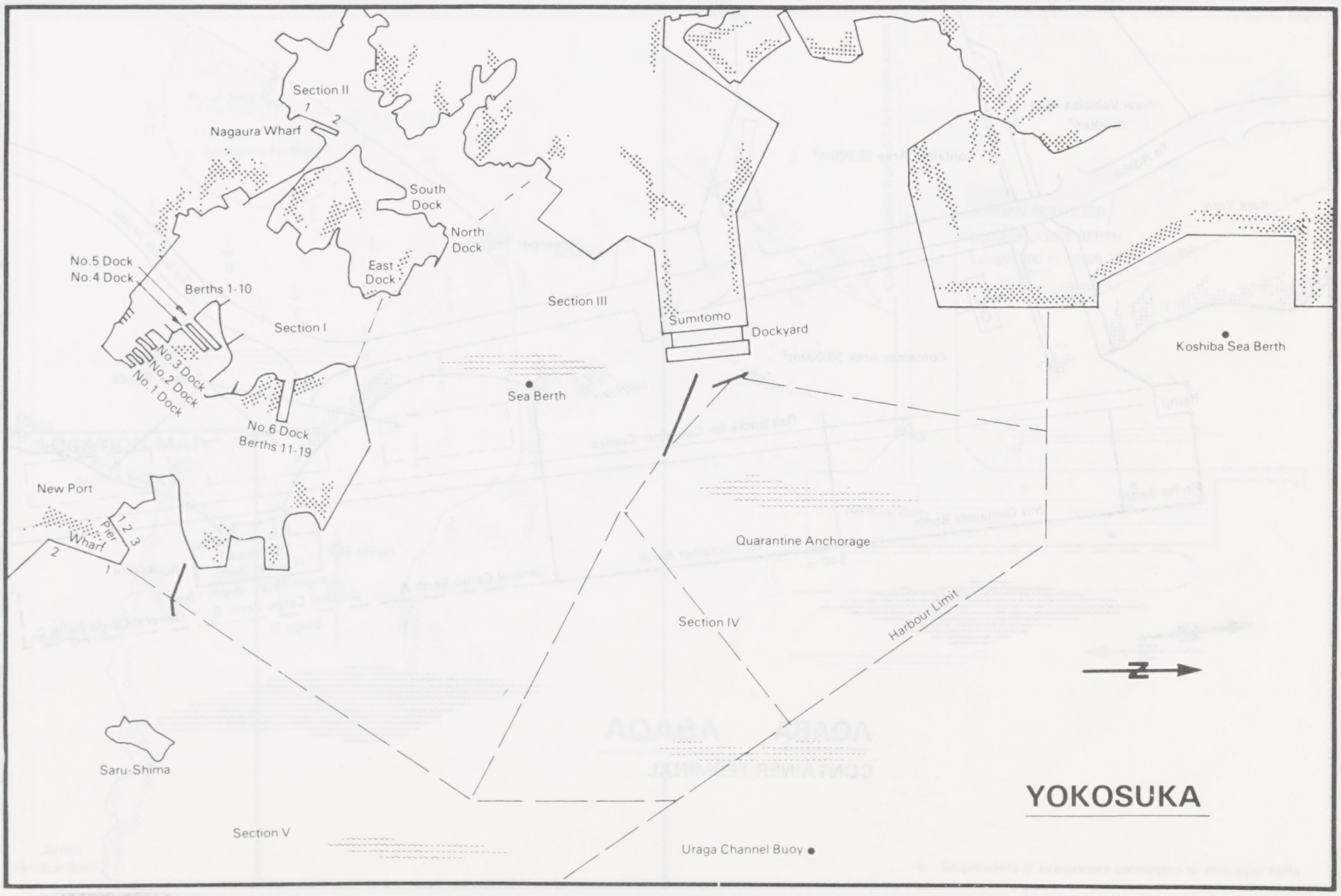
YOKOHAMA
YAMASHITA PIER

KDD
③
length 220 m., depth 12 m.
APron width 18 m.
③
3
4
B
C
②
Length 200 m., depth 12 m.
Apron width 23 m.
2
Apron width 18 m.
Length 180 m., depth 10 m.
④
⑤
①
Length 160 m., depth 3 m.
Apron width 10 m.
D
E
Length 180 m., depth 10 m.
Apron width 18 m.
5
①
Length 180 m., depth 10 m.
Apron width 18 m.
1
⑦
Length 121 m., depth 4.5 m.
⑧
Length 69 m., depth 4.5 m.
Apron width 10 m.
A
Length 150 m., depth 4.5 m.
②
Apron width 10 m.
6
Apron width 18 m.
Length 180 m., depth 10 m.
⑥
F
G
③
Length 121 m., depth 3 m.
Apron width 10 m.
Length 150 m., depth 2.5 m.
④
⑧
Length 180 m., depth 10 m.
⑦
Apron width 20 m.
8
9
Apron width 20 m.
⑨
7
10
Apron width 20 m.
⑩
Length 180 m., depth 10 m.
Apron width 15 m.
Length 242 m., depth 4.5 m.
⑤
Apron width 10 m.
Length 644 m., depth 2 m.
⑥



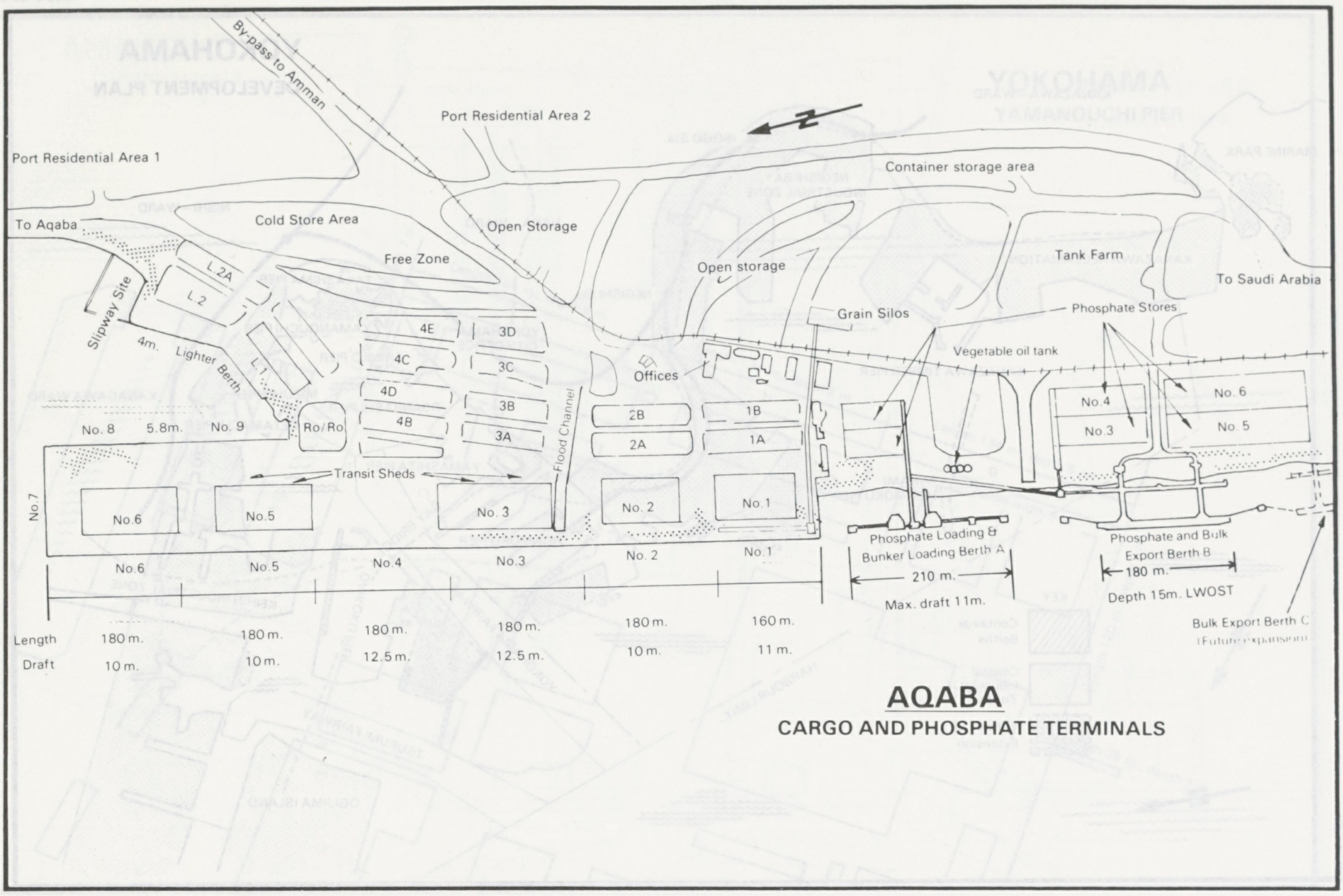
YOKOHAMA
DEVELOPMENT PLAN

KANAZAWA—WARD
MARINE PARK
ISOGO Sta.
NEGISHI BAY, INDUSTRIAL ZONE
KANAZAWA RECLAMATION
NAKA—WARD
NISHI—WARD
NEGISHI Sta.
TAKASHIMA PIER
YAMANOUCHI PIER
YOKOHAMA CITY OFFICE
SHINKO PIER
KANAZAWA TIMBER PIER
MIZUHO PIER
KANAGAWA WARD
OSANBASHI PIER
DETAMACHI PIER
YAMASHITA PIER
MINAMI HONMOKU PIER
BAY BRIDGE
HONMOKU PIER
KEIHIN INDUSTRIAL ZONE
KEY
Container Berths
Coastal Industrial Zones
Future Extension
DAIKOKU PIER
YOKOHAMA FAIRWAY
HARBOUR LIMIT
TSURUMI FAIRWAY
OGIJIMA ISLAND
N



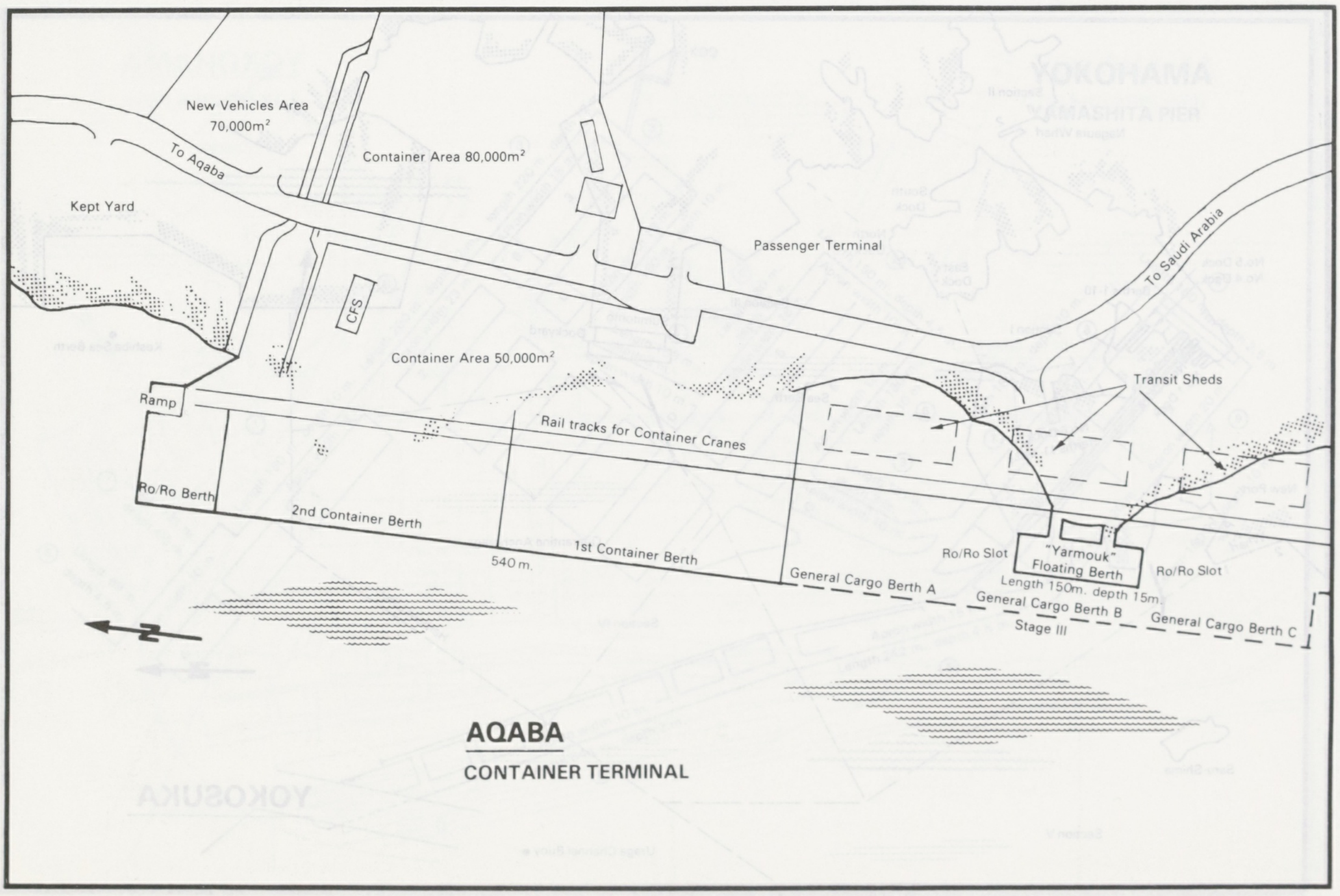
YOKOSUKA

Section II
1
2
Nagaura Wharf
South Dock
North Dock
East Dock
No.5 Dock
No.4 Dock
Berths 1-10
Section I
No.3 Dock
No.2 Dock
No.1 Dock
No.6 Dock
Berths 11-19
Section III
Sumitomo
Dockyard
Sea Berth
Koshiba Sea Berth
New Port
1 2 3
Pier
Wharf
2
1
Quarantine Anchorage
Section IV
Harbour Limit
N
Saru-Shima
Section V
Uraga Channel Buoy


By-pass to Amman
Port Residential Area 2
Port Residential Area 1
Container storage area
To Aqaba
Cold Store Area
Open Storage
Free Zone
Open storage
Tank Farm
To Saudi Arabia
Slipway Site
L.2A
L.2
L.1
4m.
Lighter Berth
4E
3D
4C
3C
4D
3B
4B
3A
Grain Silos
Phosphate Stores
Vegetable oil tank
Offices
Flood Channel
2B
2A
1B
1A
No.4
No.3
No.6
No.5
No. 8
5.8m.
No. 9
Ro/Ro
Transit Sheds
No.7
No.6
No.5
No. 3
No. 2
No. 1
Phosphate Loading &
Bunker Loading Berth A
Phosphate and Bulk
Export Berth B
No.6
No.5
No.4
No.3
No. 2
No.1
210 m.
180 m.
Max. draft 11m.
Depth 15m. LWOST
Bulk Export Berth C
(Future expansion)
Length
Draft
180 m.
10 m.
180 m.
10 m.
180 m.
12.5 m.
180 m.
12.5 m.
180 m.
10 m.
160 m.
11 m.

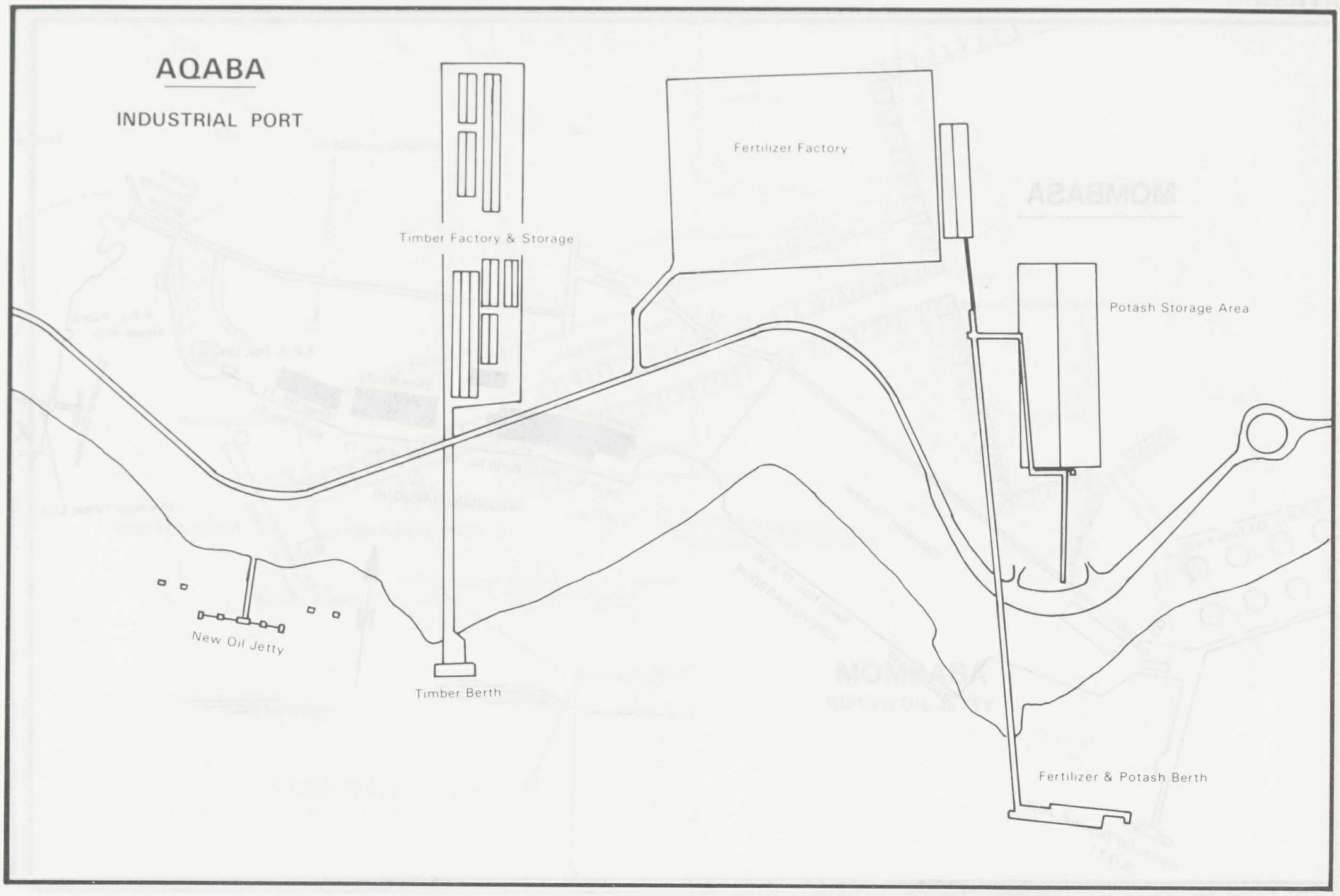
AQABA

CARGO AND PHOSPHATE TERMINALS


New Vehicles Area
70,000m²
To Aqaba
Container Area 80,000m²
Kept Yard
Passenger Terminal
CFS
To Saudi Arabia
Container Area 50,000m²
Transit Sheds
Ramp
Rail tracks for Container Cranes
Ro/Ro Berth
2nd Container Berth
540 m.
1st Container Berth
Ro/Ro Slot
"Yarmouk"
Floating Berth
Ro/Ro Slot
General Cargo Berth A
Length 150m. depth 15m.
General Cargo Berth B
Stage III
General Cargo Berth C

AQABA

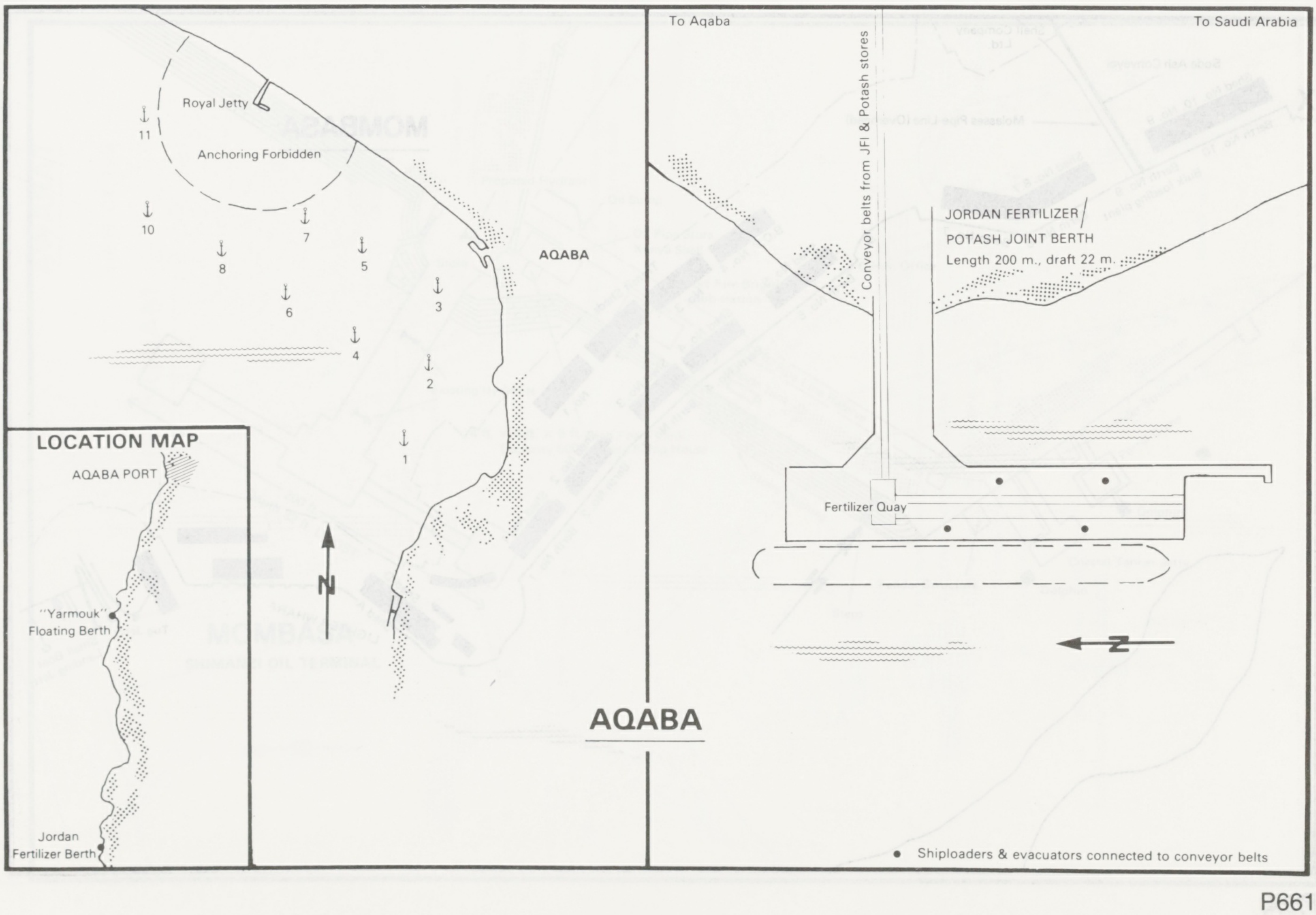
CONTAINER TERMINAL



AQABA

INDUSTRIAL PORT

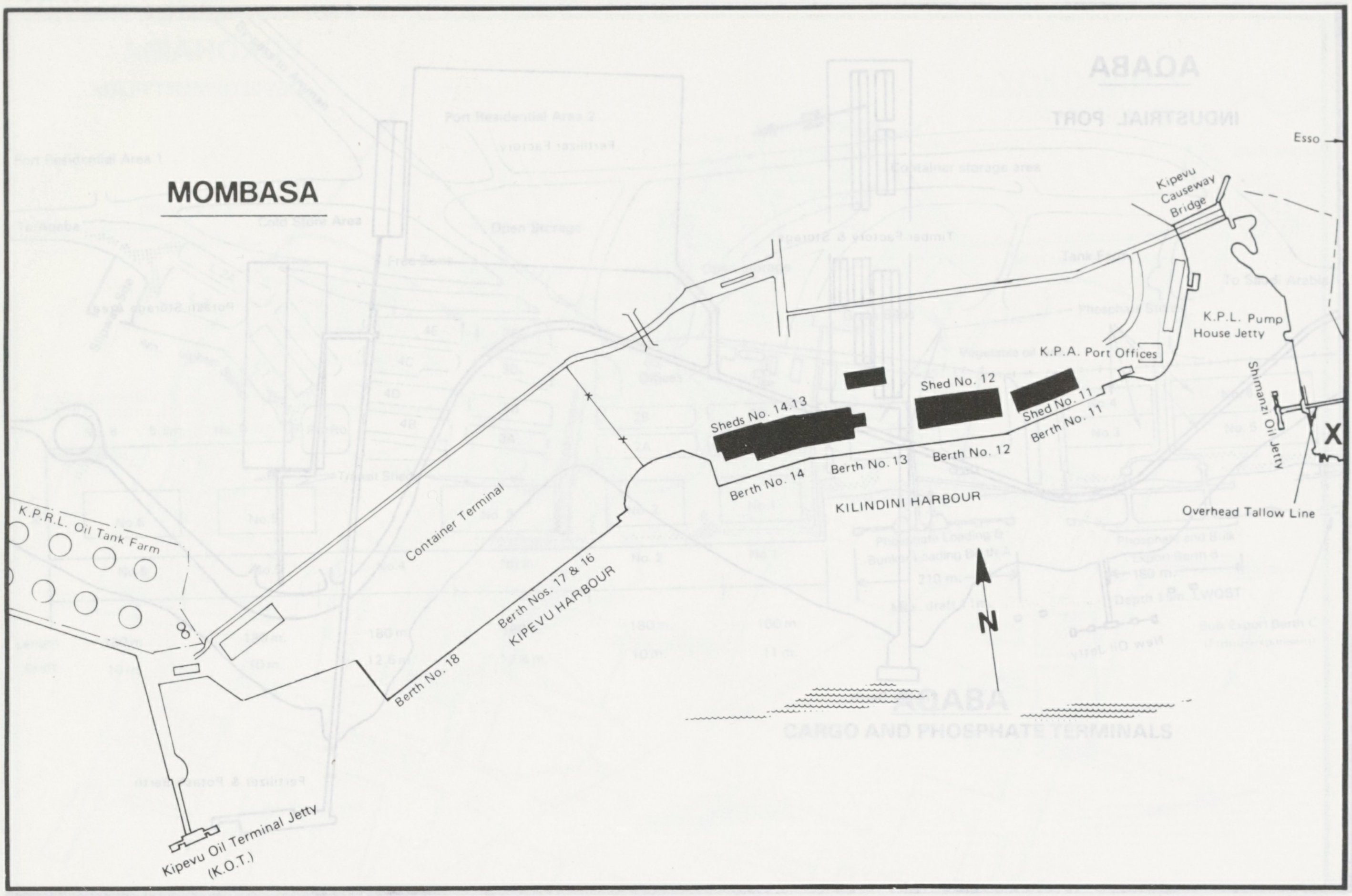
Fertilizer Factory
Timber Factory & Storage
Potash Storage Area
New Oil Jetty
Timber Berth
Fertilizer & Potash Berth

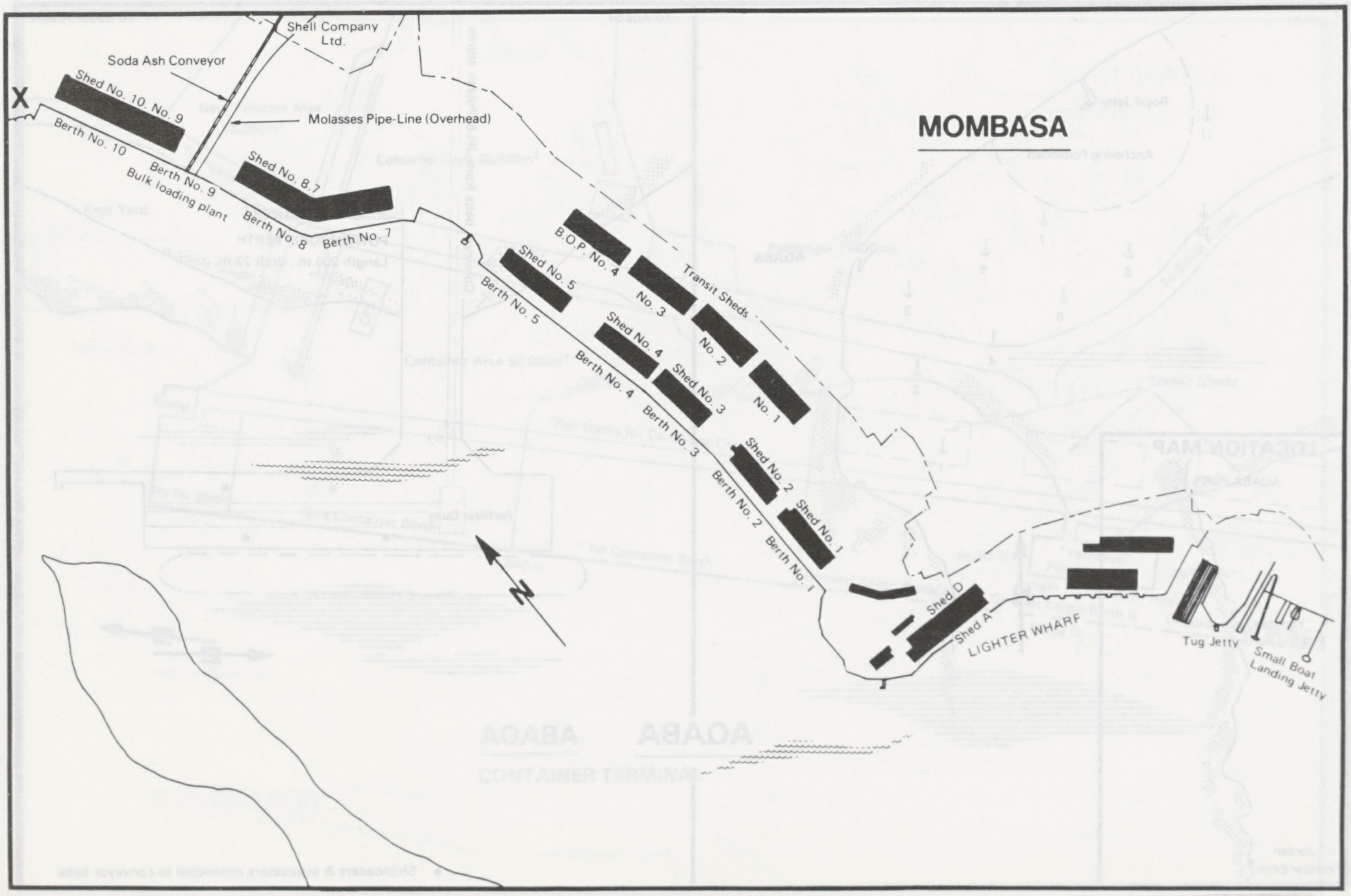


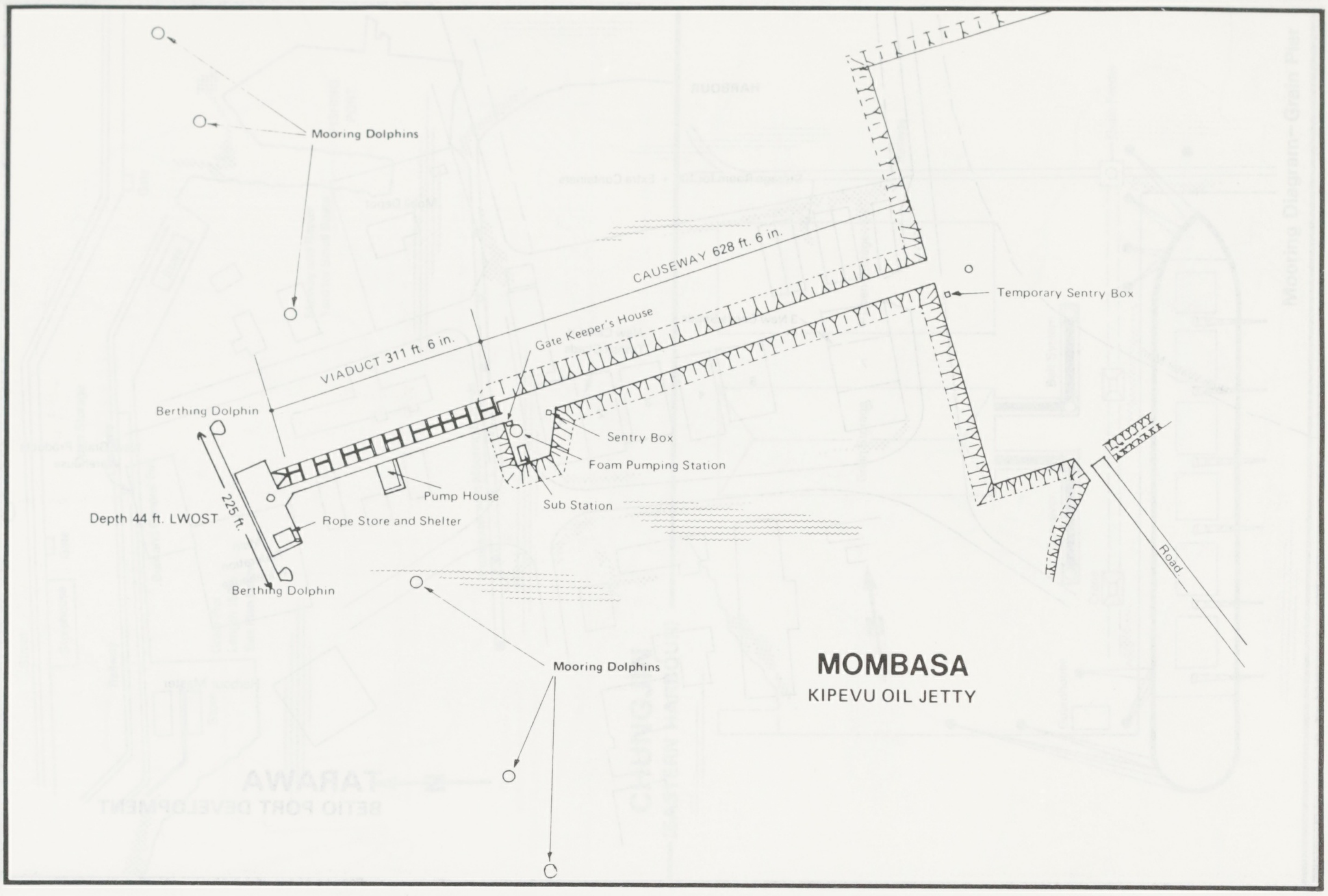
Royal Jetty
Anchoring Forbidden
11
10
7
8
5
6
3
4
2
1
AQABA
N
LOCATION MAP
AQABA PORT
"Yarmouk" Floating Berth
Jordan Fertilizer Berth
To Aqaba
To Saudi Arabia
Conveyor belts from JFI & Potash stores
JORDAN FERTILIZER/
POTASH JOINT BERTH
Length 200 m., draft 22 m.
Fertilizer Quay
N

AQABA

● Shiploaders & evacuators connected to conveyor belts

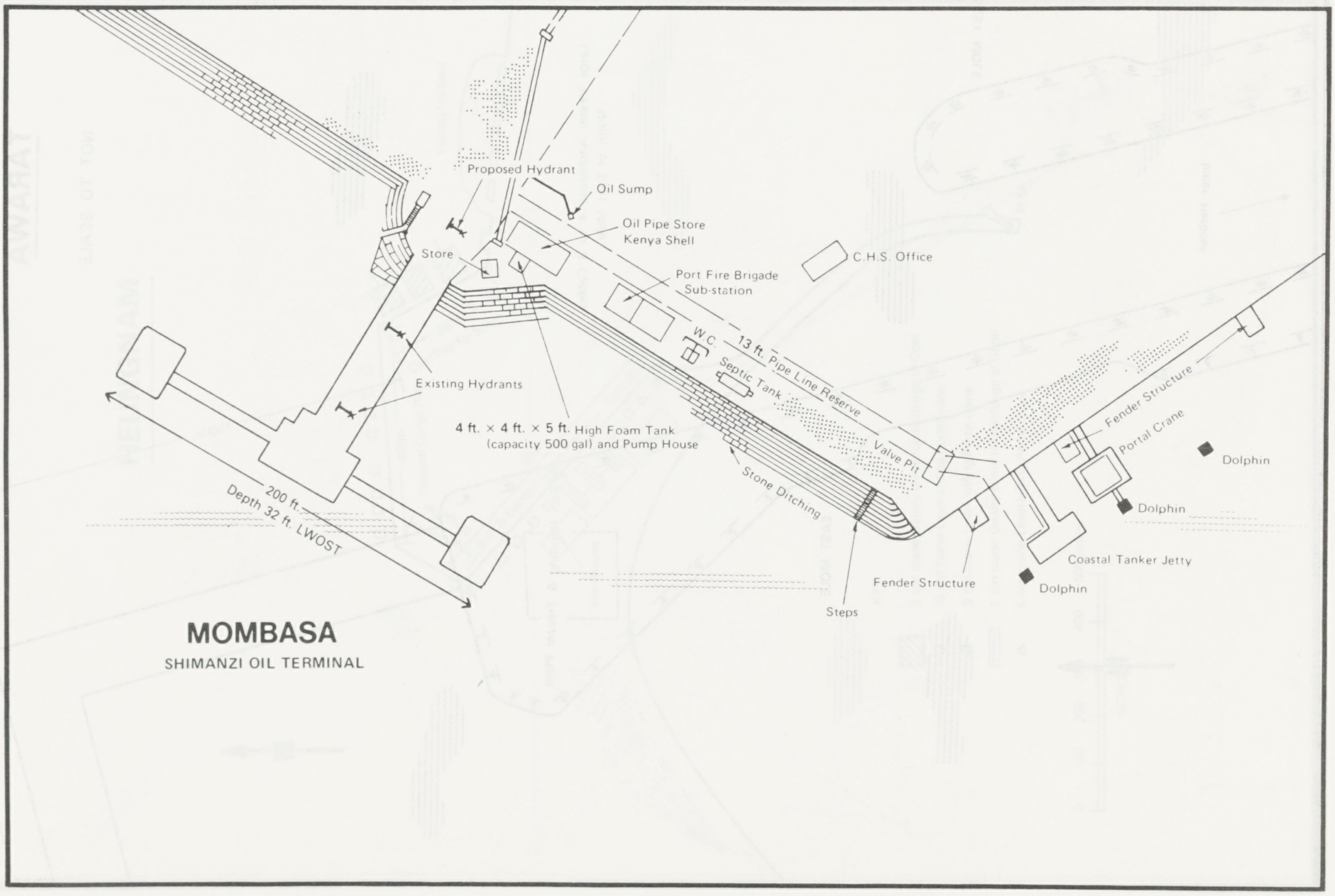

MOMBASA
Esso
Kipevu Causeway Bridge
K.P.L. Pump House Jetty
Shimanzi Oil Jetty
X
K.P.A. Port Offices
Shed No. 12
Shed No. 11
Berth No. 11
Sheds No. 14.13
Berth No. 14
Berth No. 13
Berth No. 12
KILINDINI HARBOUR
Overhead Tallow Line
N
Container Terminal
K.P.R.L. Oil Tank Farm
Berth Nos. 17 & 16
KIPEVU HARBOUR
Berth No. 18
Kipevu Oil Terminal Jetty (K.O.T.)


Shell Company Ltd.
Soda Ash Conveyor
Molasses Pipe-Line (Overhead)
X
Shed No. 10. No. 9
Berth No. 10
Berth No. 9
Bulk loading plant
Shed No. 8.7
Berth No. 8
Berth No. 7
MOMBASA
B.O.P. No. 4
No. 3
Transit Sheds
No. 2
No. 1
Shed No. 5
Berth No. 5
Shed No. 4
Shed No. 3
Berth No. 4
Berth No. 3
Shed No. 2
Shed No. 1
Berth No. 2
Berth No. 1
N
Shed D
Shed A
LIGHTER WHARF
Tug Jetty
Small Boat Landing Jetty


Mooring Dolphins
CAUSEWAY 628 ft. 6 in.
Temporary Sentry Box
VIADUCT 311 ft. 6 in.
Gate Keeper's House
Berthing Dolphin
Sentry Box
Foam Pumping Station
225 ft.
Pump House
Sub Station
Depth 44 ft. LWOST
Rope Store and Shelter
Road
Berthing Dolphin
Mooring Dolphins

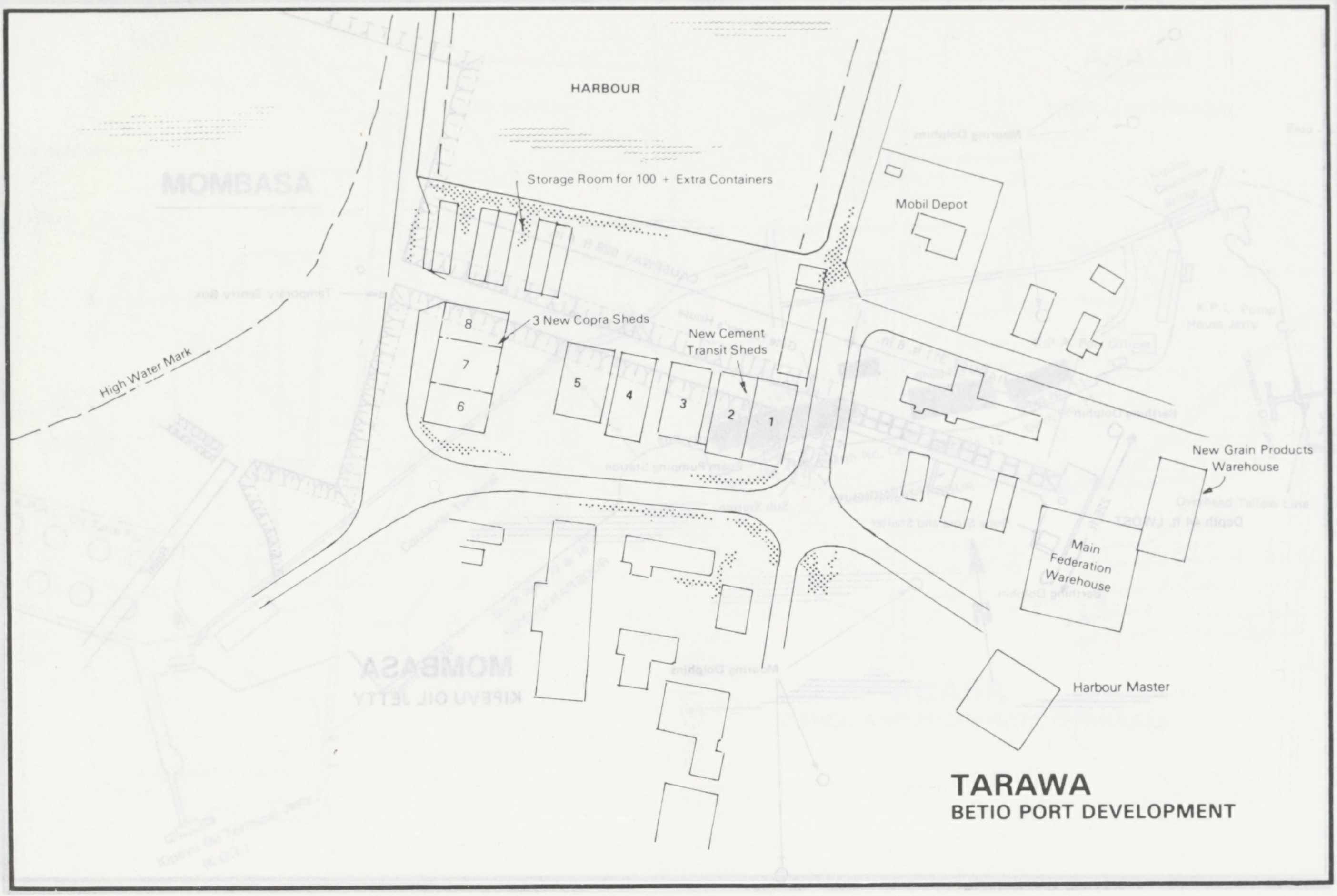
MOMBASA

KIPEVU OIL JETTY

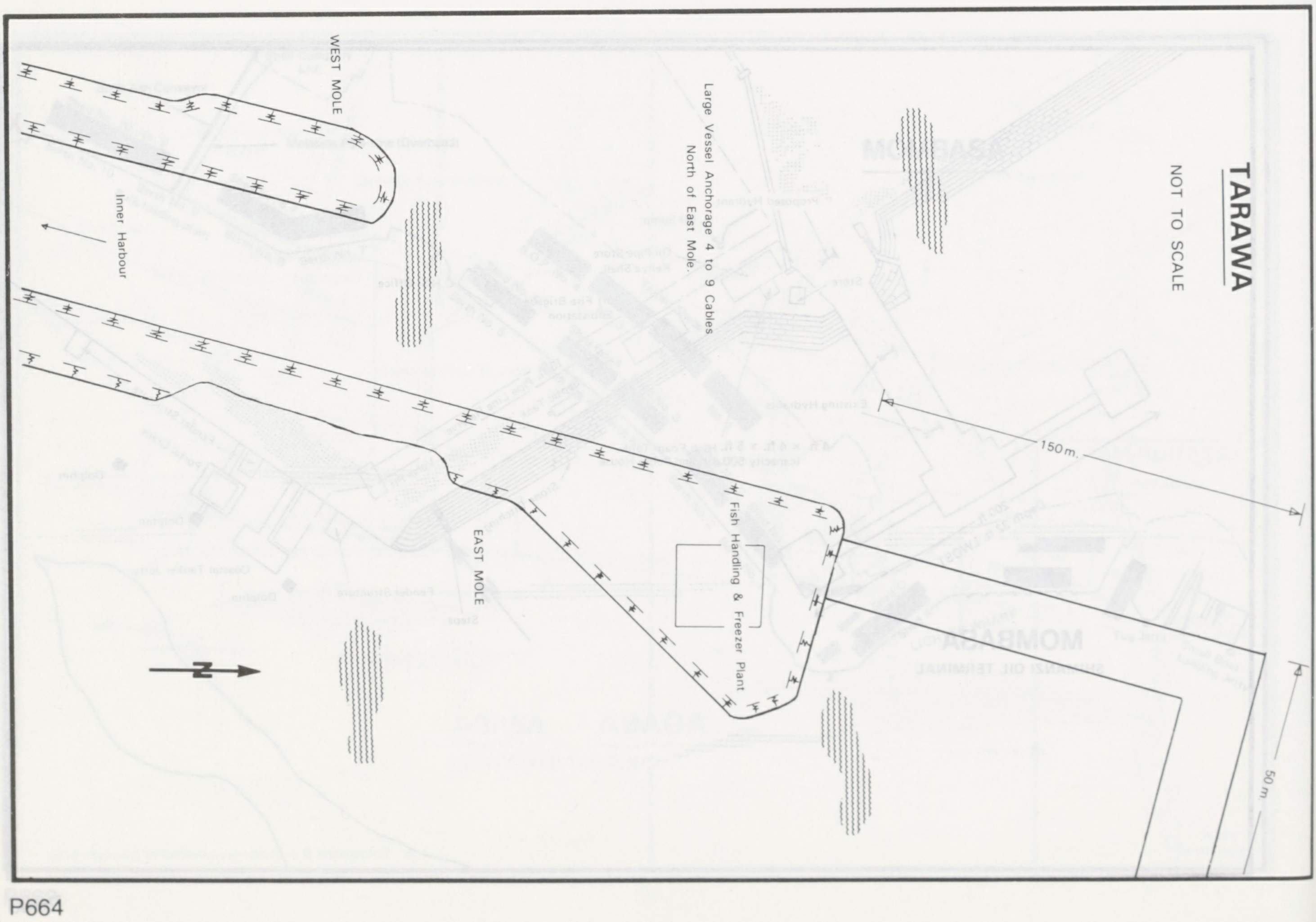

Proposed Hydrant
Oil Sump
Oil Pipe Store
Kenya Shell
Store
C.H.S. Office
Port Fire Brigade
Sub-station
W.C.
13 ft. Pipe Line Reserve
Septic Tank
Existing Hydrants
4 ft. × 4 ft. × 5 ft. High Foam Tank
(capacity 500 gal) and Pump House
Fender Structure
Portal Crane
Valve Pit
Dolphin
Dolphin
200 ft.
Depth 32 ft. LWOST
Stone Ditching
Coastal Tanker Jetty
Fender Structure
Dolphin
Steps

MOMBASA

SHIMANZI OIL TERMINAL

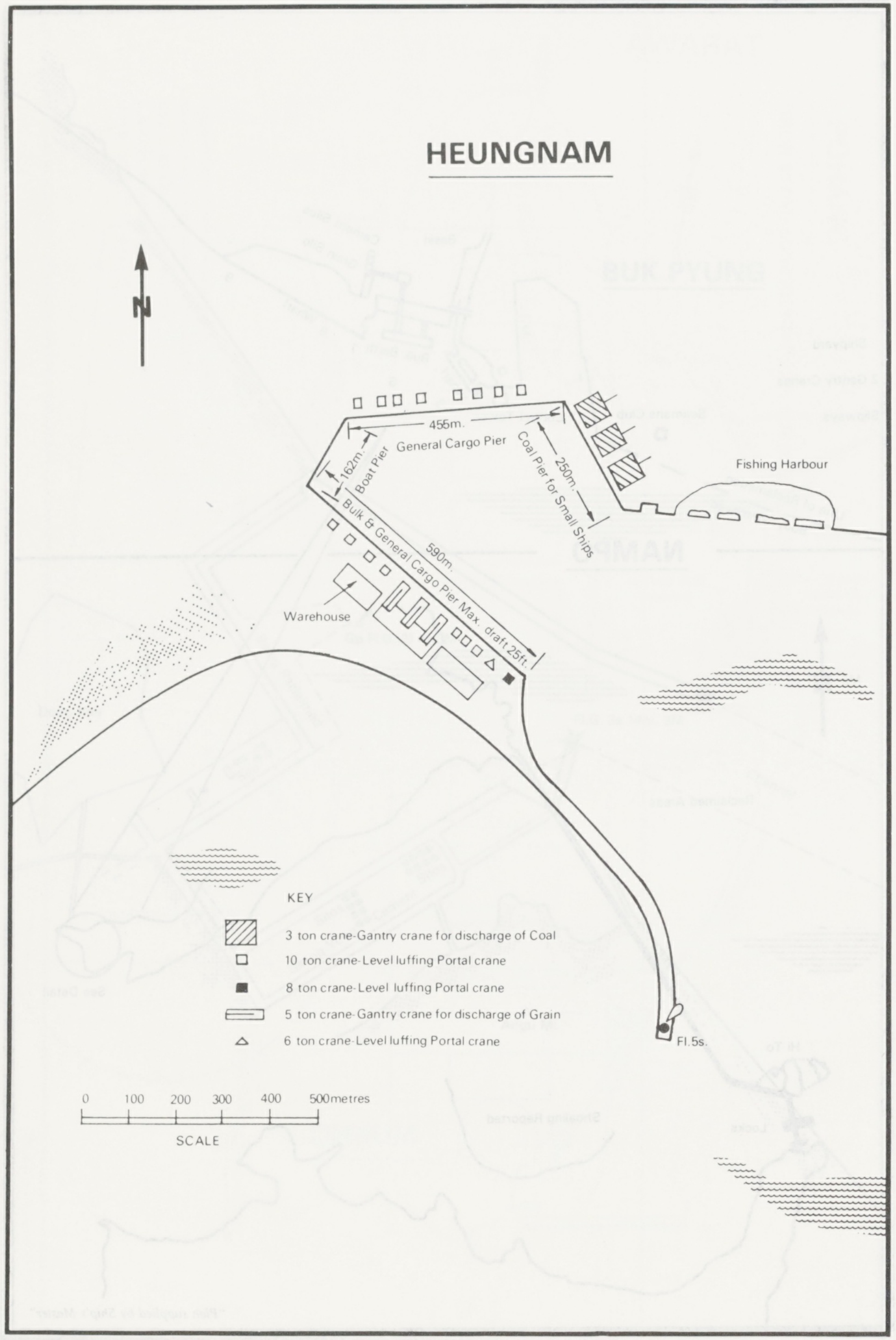

HARBOUR
Storage Room for 100 + Extra Containers
3 New Copra Sheds
New Cement Transit Sheds
8
7
6
5
4
3
2
1
Mobil Depot
High Water Mark
New Grain Products Warehouse
Main Federation Warehouse
Harbour Master

TARAWA
BETIO PORT DEVELOPMENT

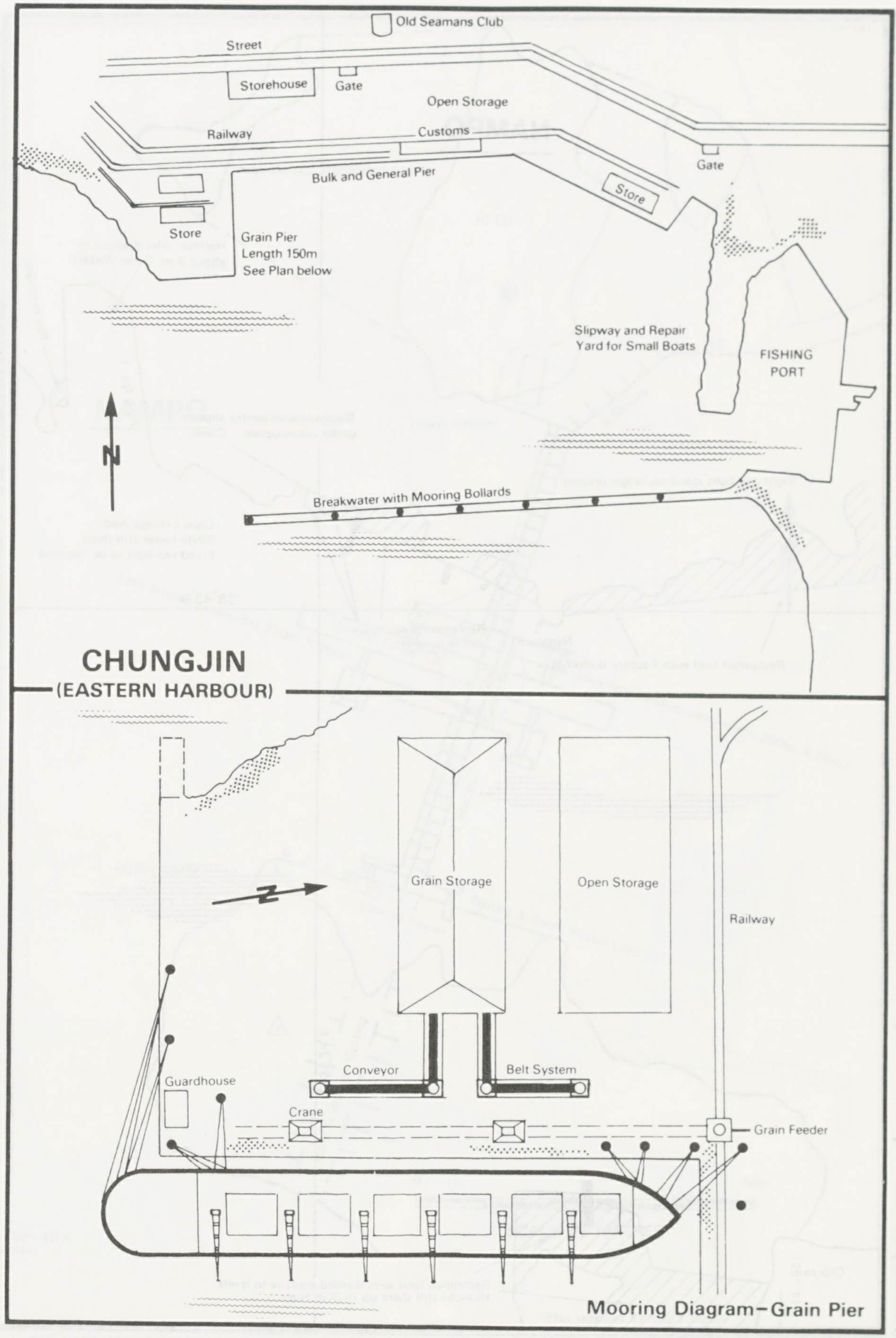

WEST MOLE
Inner Harbour
Large Vessel Anchorage 4 to 9 Cables North of East Mole.
EAST MOLE
Fish Handling & Freezer Plant
N
150 m.
50 m.

TARAWA
NOT TO SCALE

HEUNGNAM

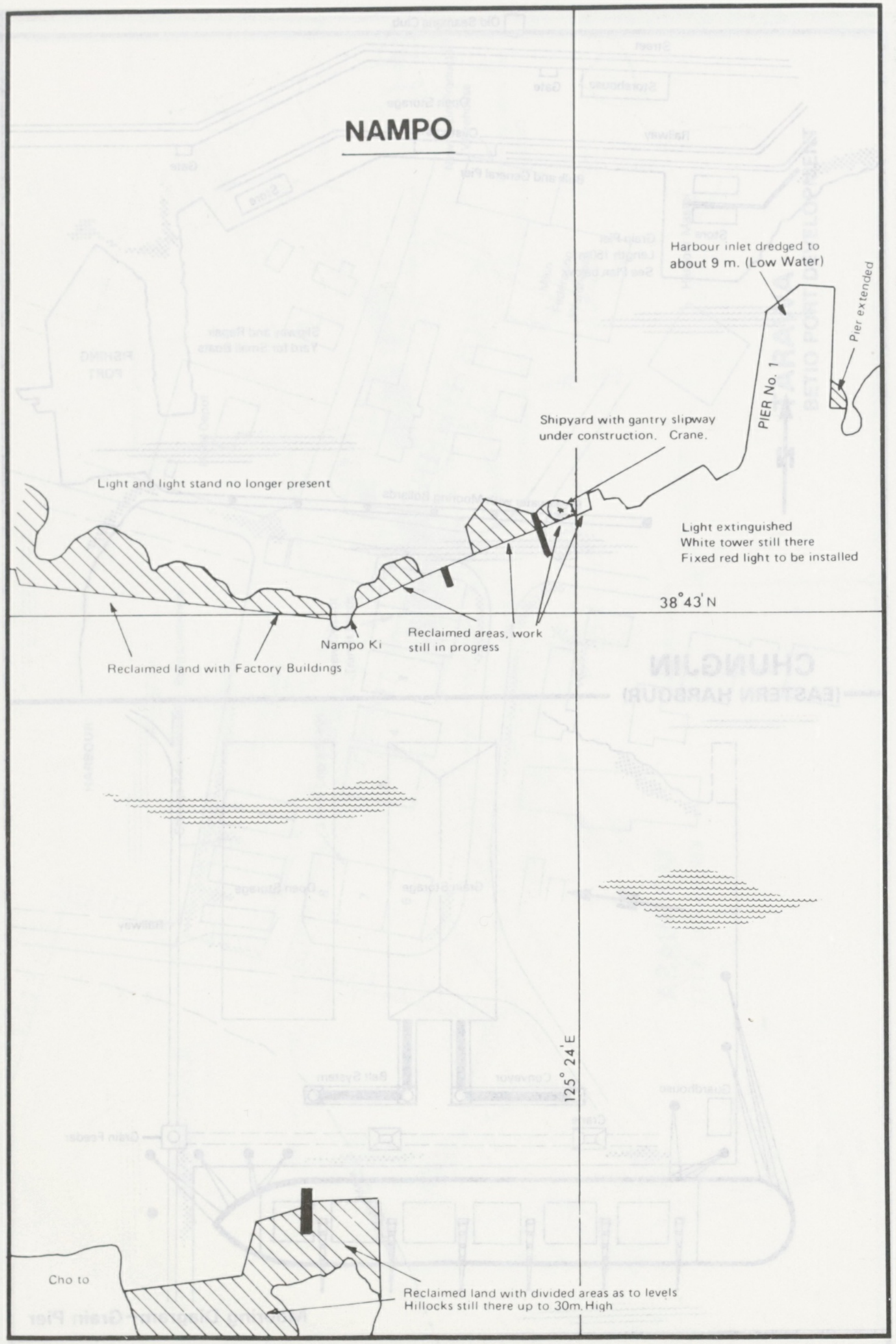

N
455m.
General Cargo Pier
162m.
Boat Pier
250m.
Coal Pier for Small Ships
Fishing Harbour
Bulk & General Cargo Pier Max. draft 25ft.
590m.
Warehouse
Fl.5s.
KEY
▨ 3 ton crane-Gantry crane for discharge of Coal
□ 10 ton crane-Level luffing Portal crane
■ 8 ton crane-Level luffing Portal crane
▭ 5 ton crane-Gantry crane for discharge of Grain
△ 6 ton crane-Level luffing Portal crane
0 100 200 300 400 500metres
SCALE

CHUNGJIN
(EASTERN HARBOUR)

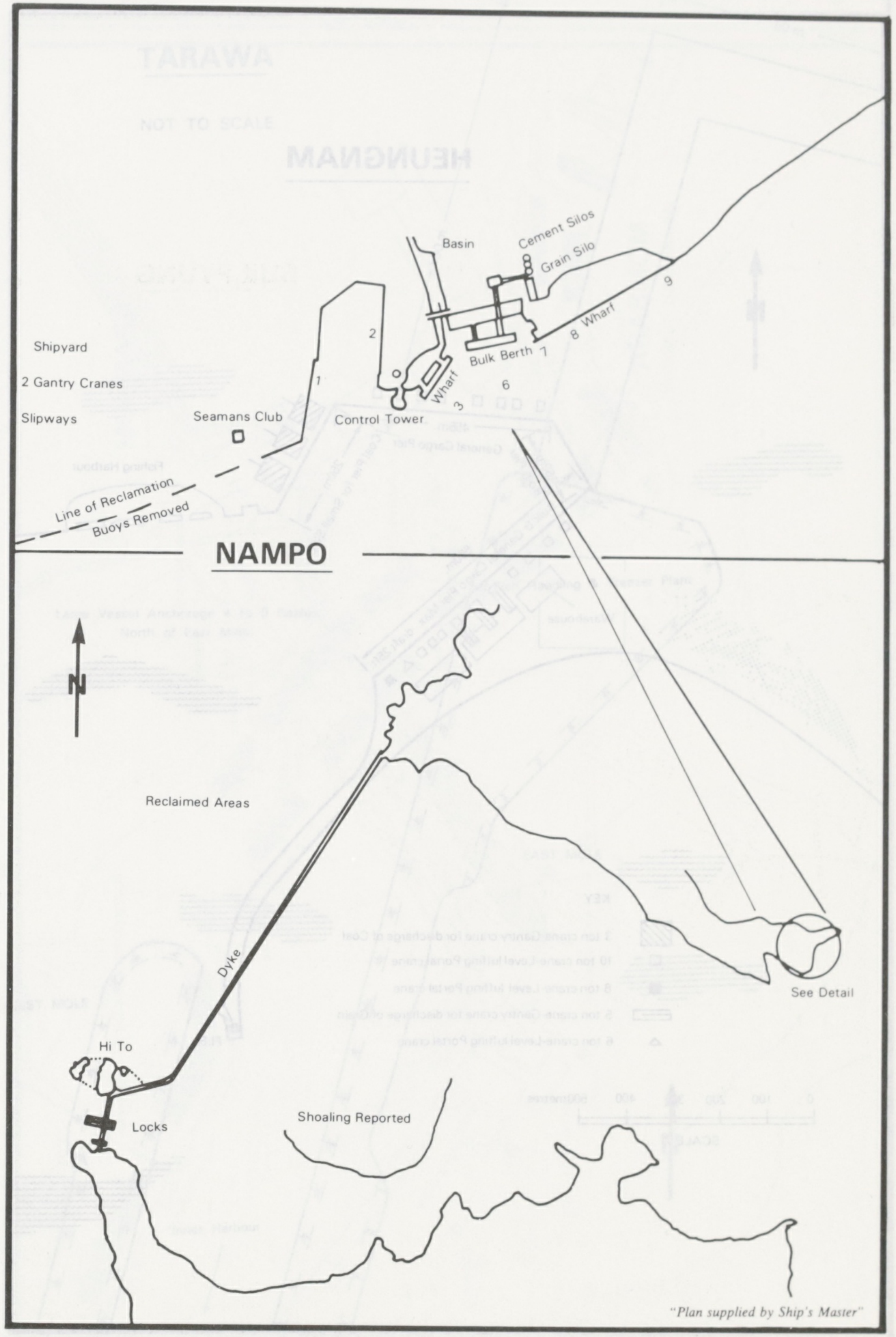

Old Seamans Club
Street
Storehouse
Gate
Open Storage
Railway
Customs
Bulk and General Pier
Store
Gate
Store
Grain Pier
Length 150m
See Plan below
Slipway and Repair
Yard for Small Boats
FISHING
PORT
N
Breakwater with Mooring Bollards
N
Grain Storage
Open Storage
Railway
Conveyor
Belt System
Guardhouse
Crane
Grain Feeder

Mooring Diagram—Grain Pier

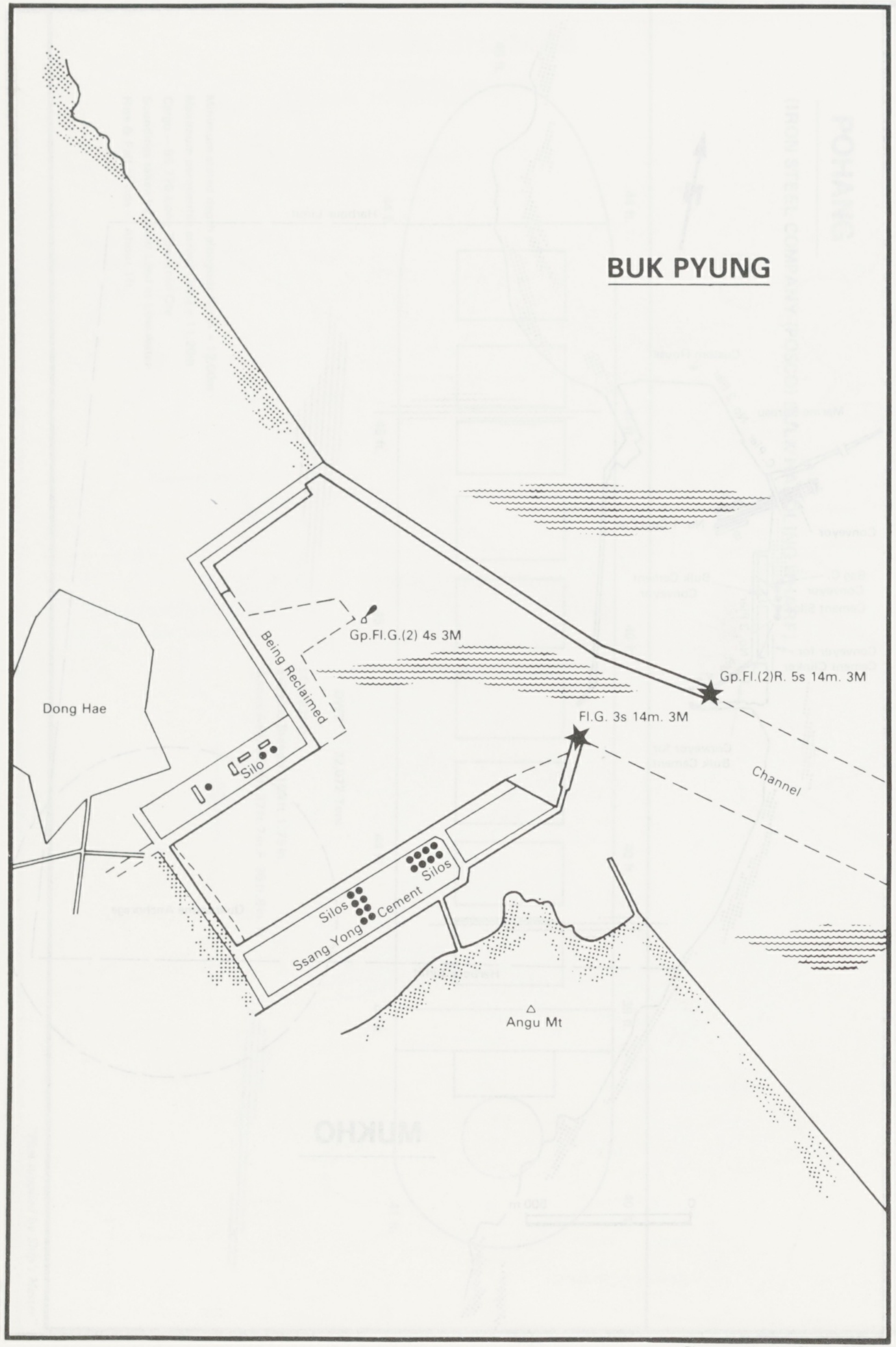
"Plan supplied by Ship's Master"


NAMPO
Harbour inlet dredged to about 9 m. (Low Water)
Pier extended
PIER No. 1
Shipyard with gantry slipway under construction. Crane.
Light and light stand no longer present
Light extinguished
White tower still there
Fixed red light to be installed
38°43'N
Reclaimed areas, work still in progress
Nampo Ki
Reclaimed land with Factory Buildings
125°24'E
Cho to
Reclaimed land with divided areas as to levels
Hillocks still there up to 30m. High

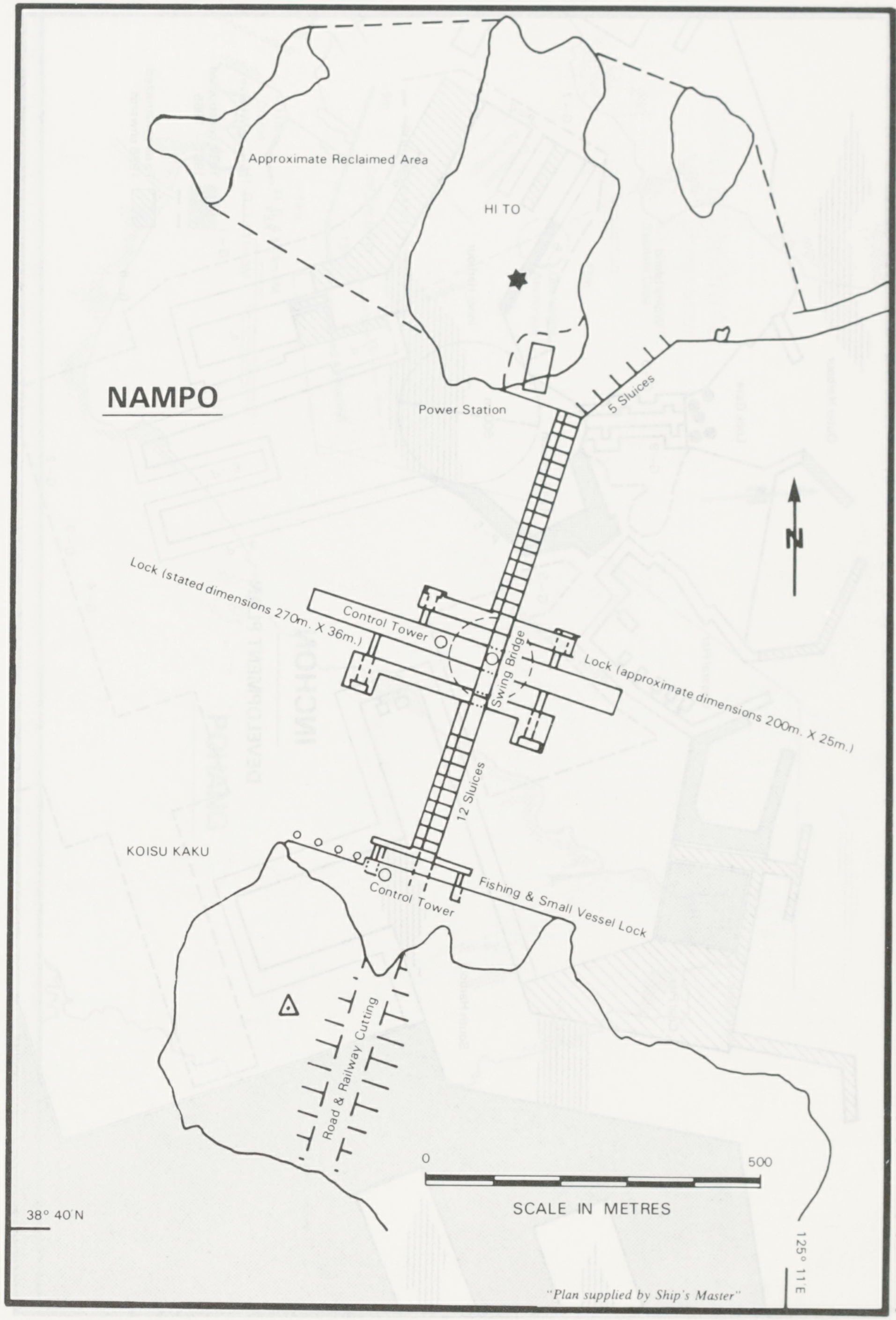
Plan supplied by Ship's Officer.


Basin
Cement Silos
Grain Silo
9
8 Wharf
Bulk Berth 7
2
1
6
Wharf
3
Control Tower
Shipyard
2 Gantry Cranes
Slipways
Seamans Club
Line of Reclamation
Buoys Removed
NAMPO
N
Reclaimed Areas
Dyke
See Detail
Hi To
Locks
Shoaling Reported

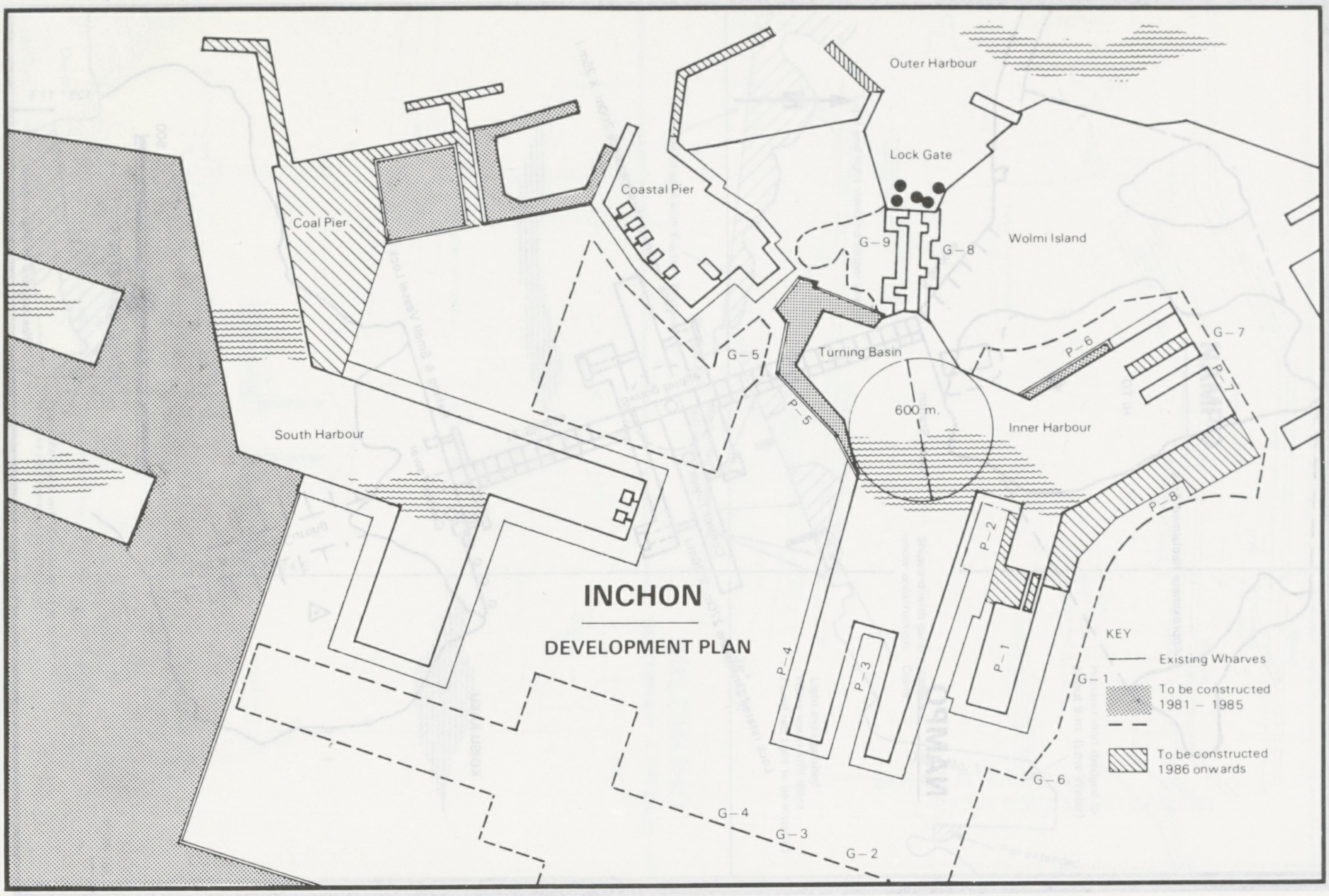
"Plan supplied by Ship's Master"

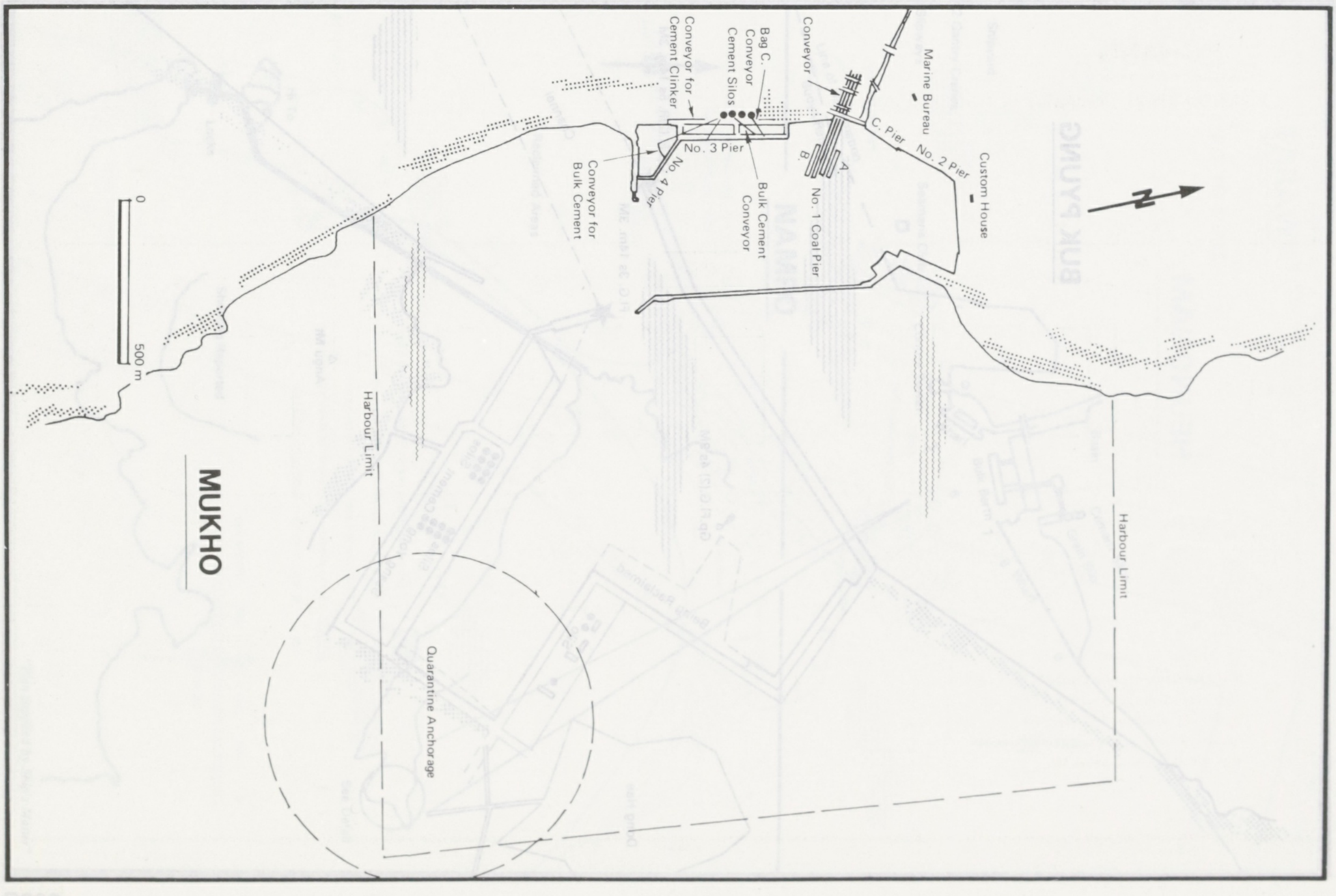

BUK PYUNG
Gp.Fl.G.(2) 4s 3M
Being Reclaimed
Gp.Fl.(2)R. 5s 14m. 3M
Fl.G. 3s 14m. 3M
Channel
Dong Hae
Silo
Silos
Ssang Yong Cement
Silos
Angu Mt

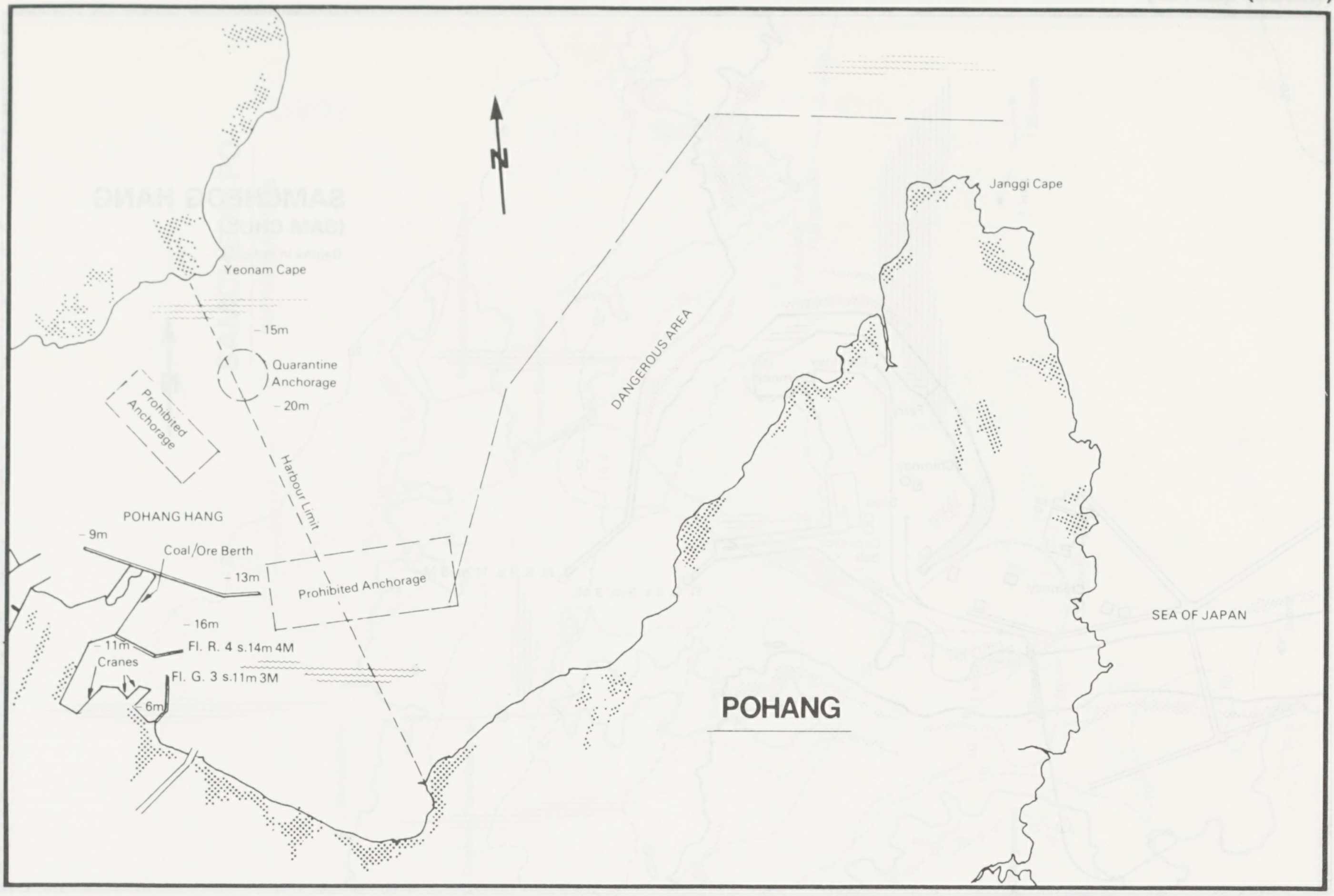
Plan supplied by Ship's Officers


Approximate Reclaimed Area
HI TO
NAMPO
Power Station
5 Sluices
N
Lock (stated dimensions 270m. X 36m.)
Control Tower
Swing Bridge
Lock (approximate dimensions 200m. X 25m.)
12 Sluices
KOISU KAKU
Control Tower
Fishing & Small Vessel Lock
Road & Railway Cutting
0
500
SCALE IN METRES
38° 40'N
125° 11'E

"Plan supplied by Ship's Master"

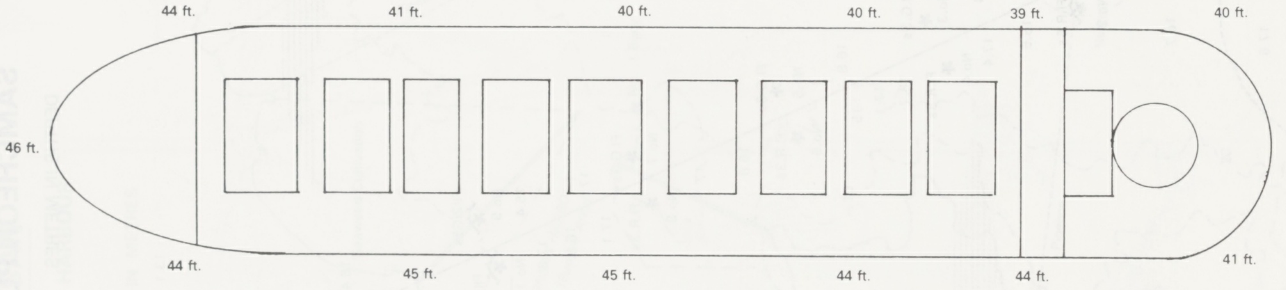

Outer Harbour
Lock Gate
Coastal Pier
Coal Pier
G – 9
G – 8
Wolmi Island
G – 7
P – 6
P – 7
Turning Basin
G – 5
P – 5
600 m.
Inner Harbour
South Harbour
P – 8
P – 2
INCHON
DEVELOPMENT PLAN
KEY
Existing Wharves
To be constructed 1981 – 1985
To be constructed 1986 onwards
P – 4
P – 3
P – 1
G – 1
G – 6
G – 4
G – 3
G – 2


Conveyor
Marine Bureau
Bag C. Conveyor
Cement Silos
Conveyor for Cement Clinker
No. 3 Pier
No. 4 Pier
Conveyor for Bulk Cement
Bulk Cement Conveyor
A
B
No. 1 Coal Pier
C. Pier
No. 2 Pier
Custom House
0
500 m
MUKHO
Harbour Limit
Quarantine Anchorage
Harbour Limit


N
Janggi Cape
Yeonam Cape
– 15m
Quarantine Anchorage
– 20m
Prohibited Anchorage
DANGEROUS AREA
Harbour Limit
POHANG HANG
– 9m
Coal/Ore Berth
– 13m
Prohibited Anchorage
– 16m
– 11m
Fl. R. 4 s.14m 4M
Cranes
Fl. G. 3 s.11m 3M
– 6m
SEA OF JAPAN
POHANG

POHANG

(IRON STEEL COMPANY (POSCO) BULK HANDLING WHARF)

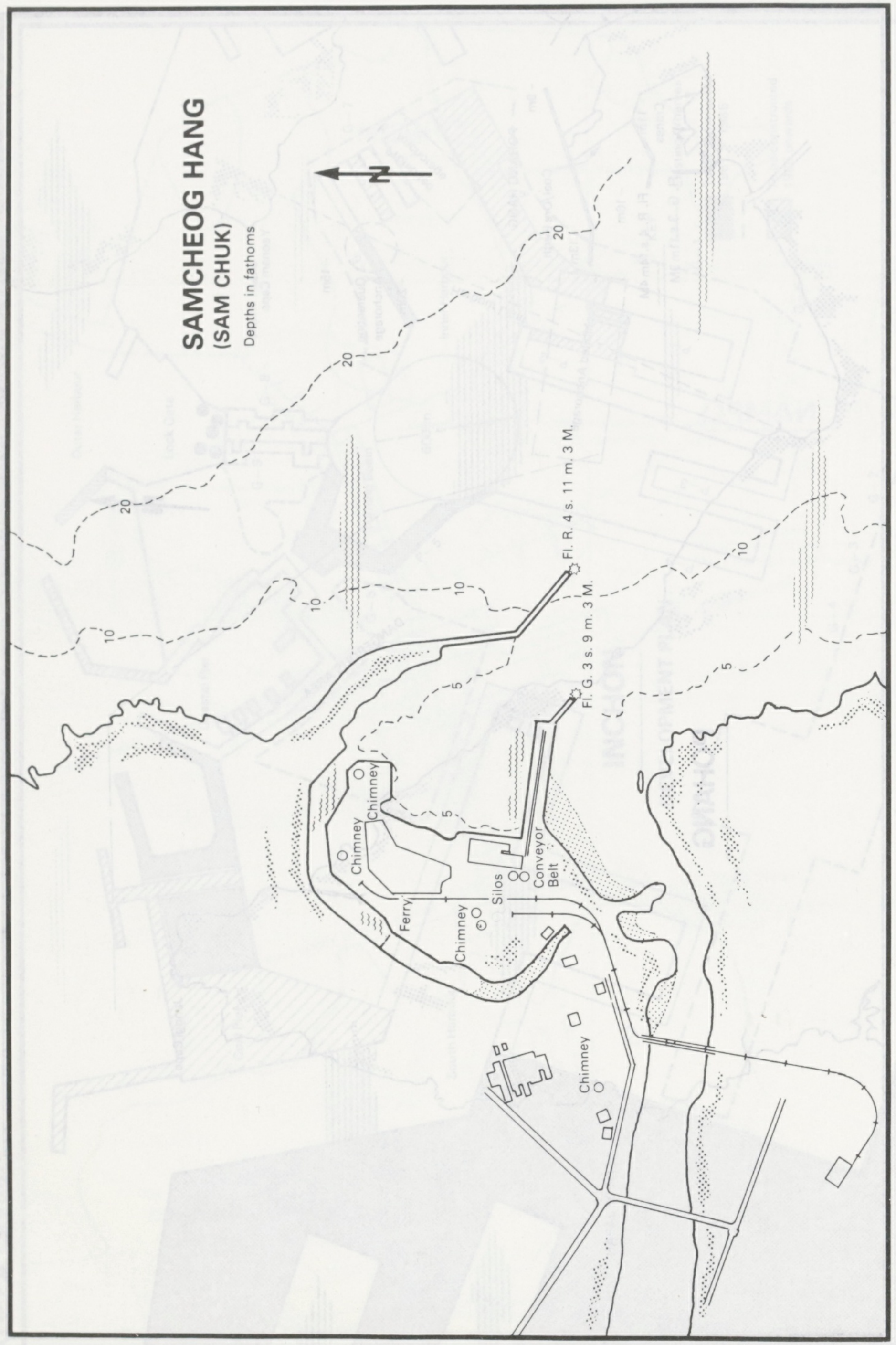

44 ft.
41 ft.
40 ft.
40 ft.
39 ft.
40 ft.
46 ft.
44 ft.
45 ft.
45 ft.
44 ft.
44 ft.
41 ft.

DWT 72,072 Tons

LOA 820ft.
Extreme Breadth 104ft.1.75in.
Actual Arrival Draft 37ft.7in.F 36ft.8in. A

Minimum stated depth alongside Berth = 12.00m
Maximum permissible arrival Draft = 11.20m
Cargo – 55.776 Long Tons Iron Ore
Soundings taken by hand Lead at Low water
Rise & Fall of tide – About 1ft.

"Plan supplied by Ship's Master"

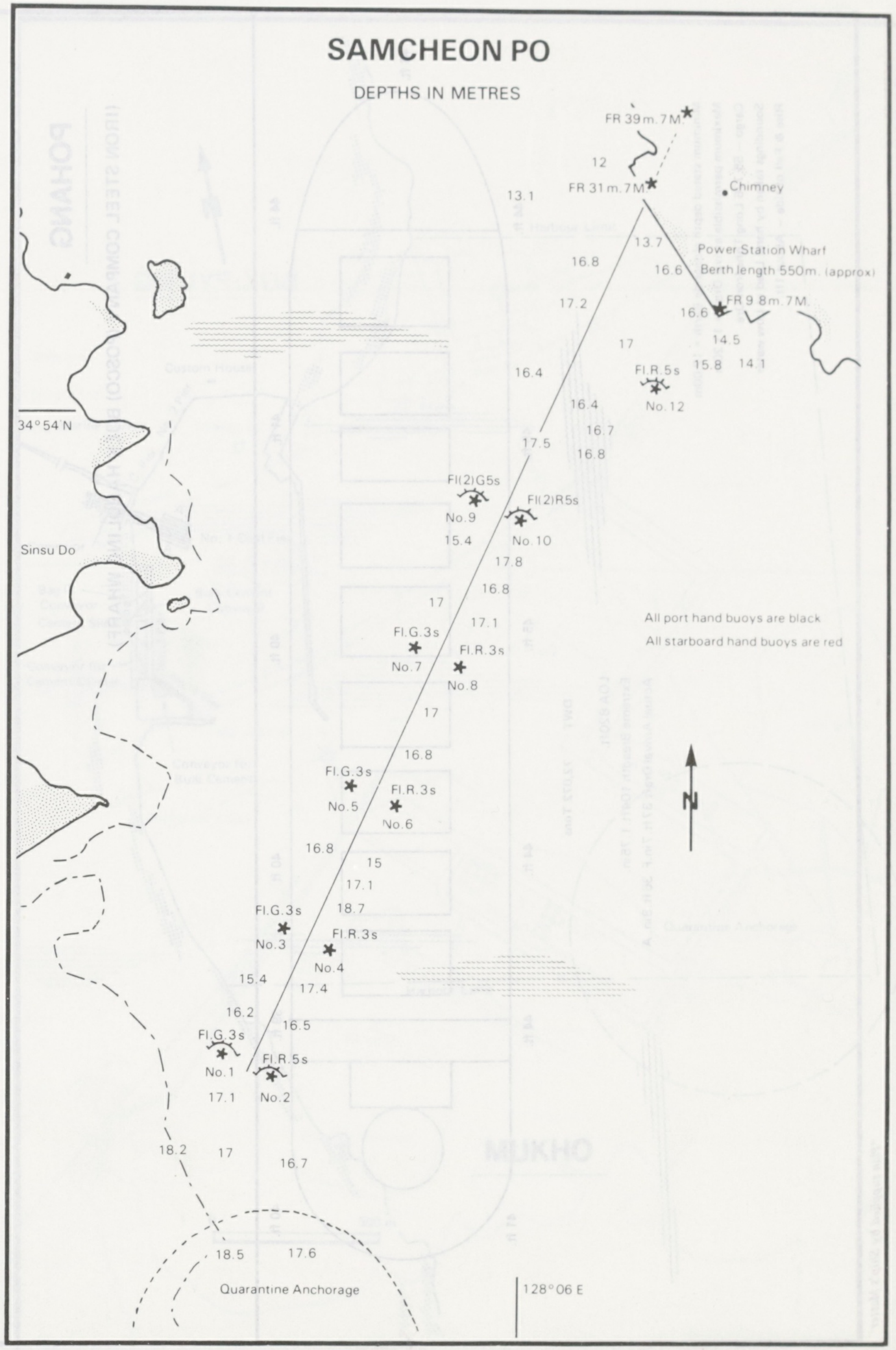


SAMCHEOG HANG
(SAM CHUK)

Depths in fathoms

N
Fl. R. 4 s. 11 m. 3 M.
Fl. G. 3 s. 9 m. 3 M.
Chimney
Chimney
Chimney
Chimney
Chimney
Silos
Conveyor Belt
Ferry
20
20
20
10
10
10
10
5
5
5

"Plan supplied by Ship's Master"

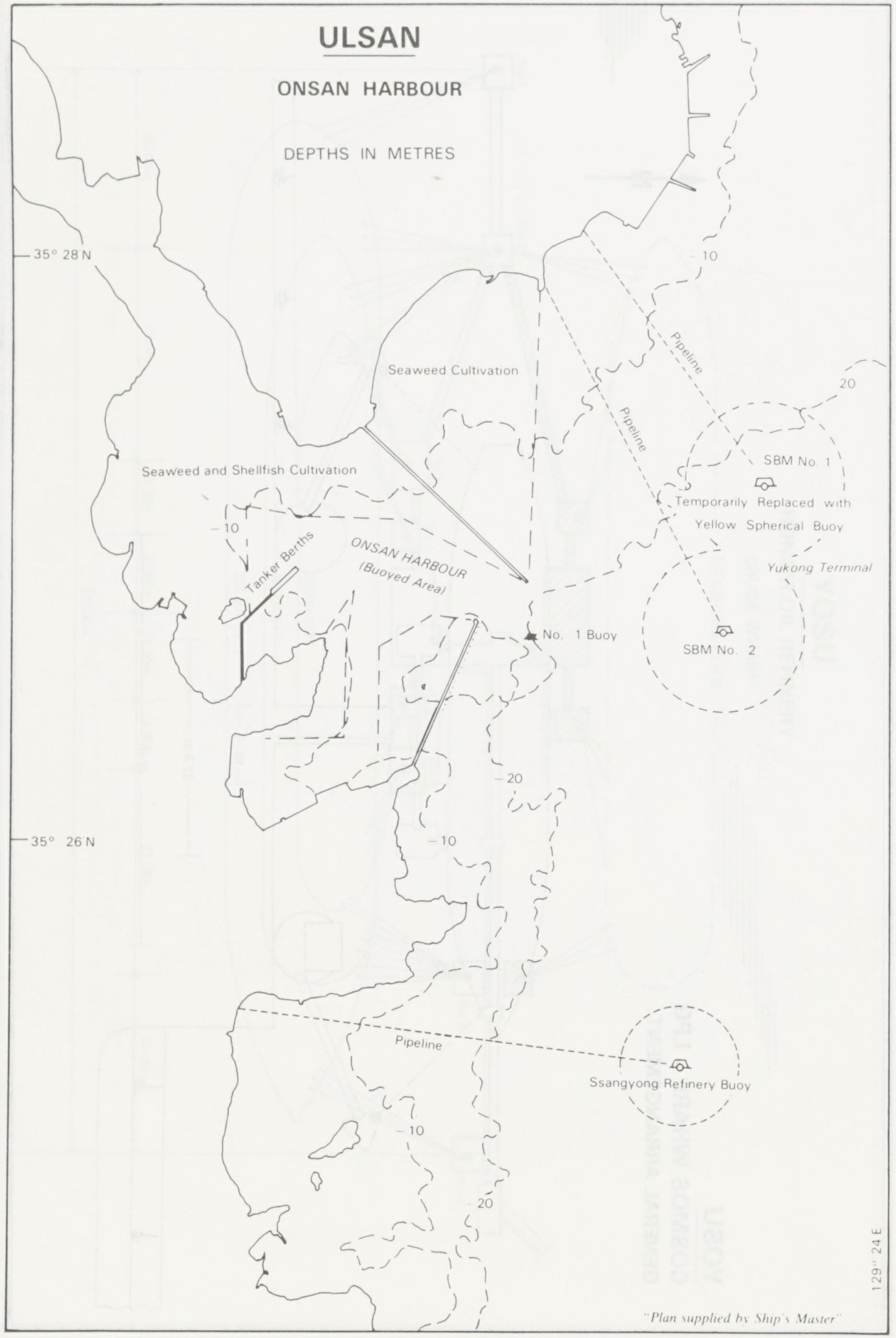


SAMCHEON PO

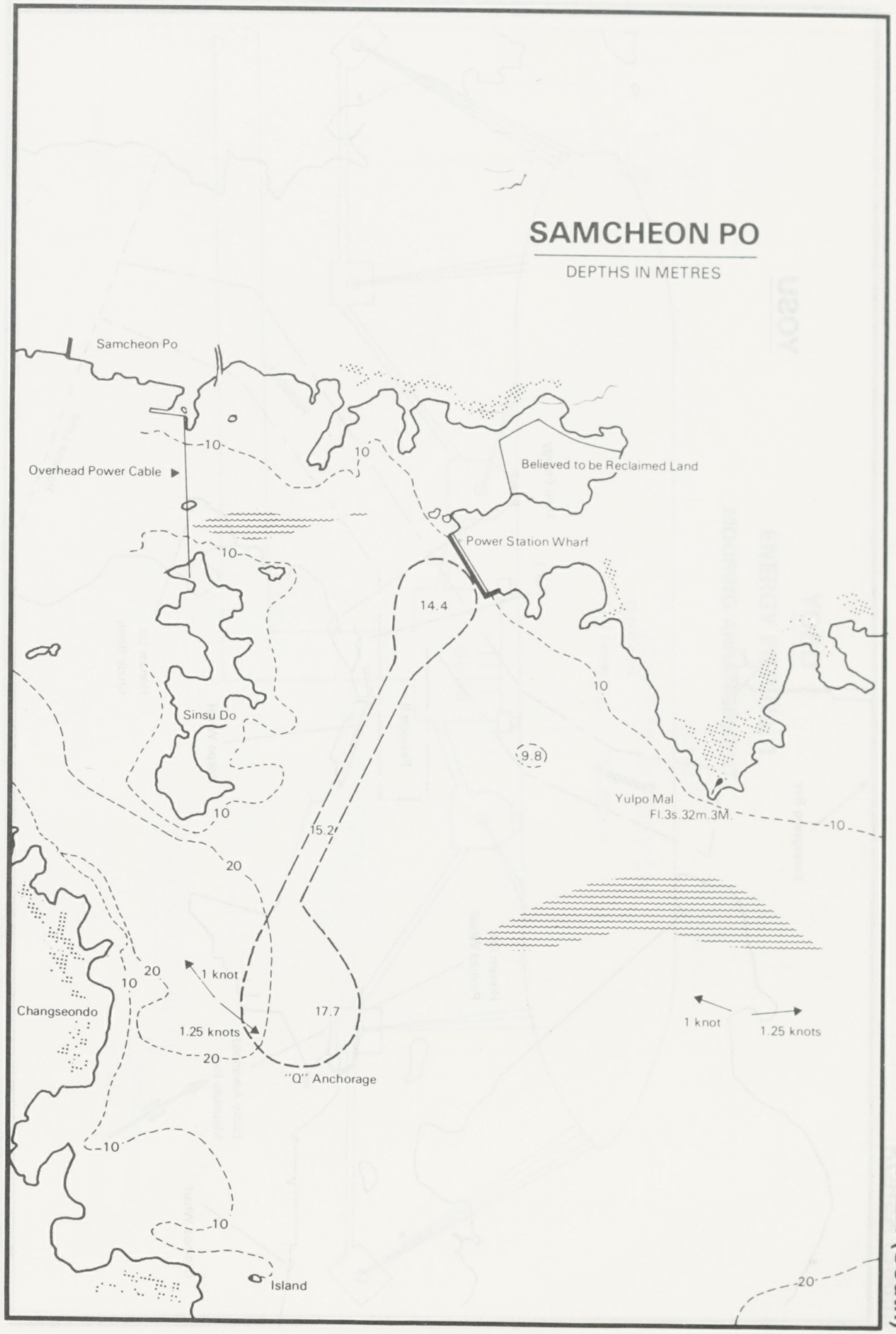
DEPTHS IN METRES

FR 39 m. 7 M.
FR 31 m. 7 M.
Chimney
Power Station Wharf
Berth length 550m. (approx)
FR 9.8 m. 7 M.
Fl. R. 5s
No. 12
Fl(2)G5s
No. 9
Fl(2)R5s
No. 10
Fl. G. 3s
No. 7
Fl. R. 3s
No. 8
Fl. G. 3s
No. 5
Fl. R. 3s
No. 6
Fl. G. 3s
No. 3
Fl. R. 3s
No. 4
Fl. G. 3s
No. 1
Fl. R. 5s
No. 2
34° 54' N
128° 06' E
Sinsu Do
Quarantine Anchorage
N
All port hand buoys are black
All starboard hand buoys are red
12
13.1
13.7
16.6
16.8
17.2
16.6
14.5
14.1
15.8
17
16.4
16.4
16.7
16.8
17.5
15.4
17.8
16.8
17
17.1
17
16.8
16.8
15
17.1
18.7
15.4
17.4
16.2
16.5
17.1
18.2
17
16.7
18.5
17.6

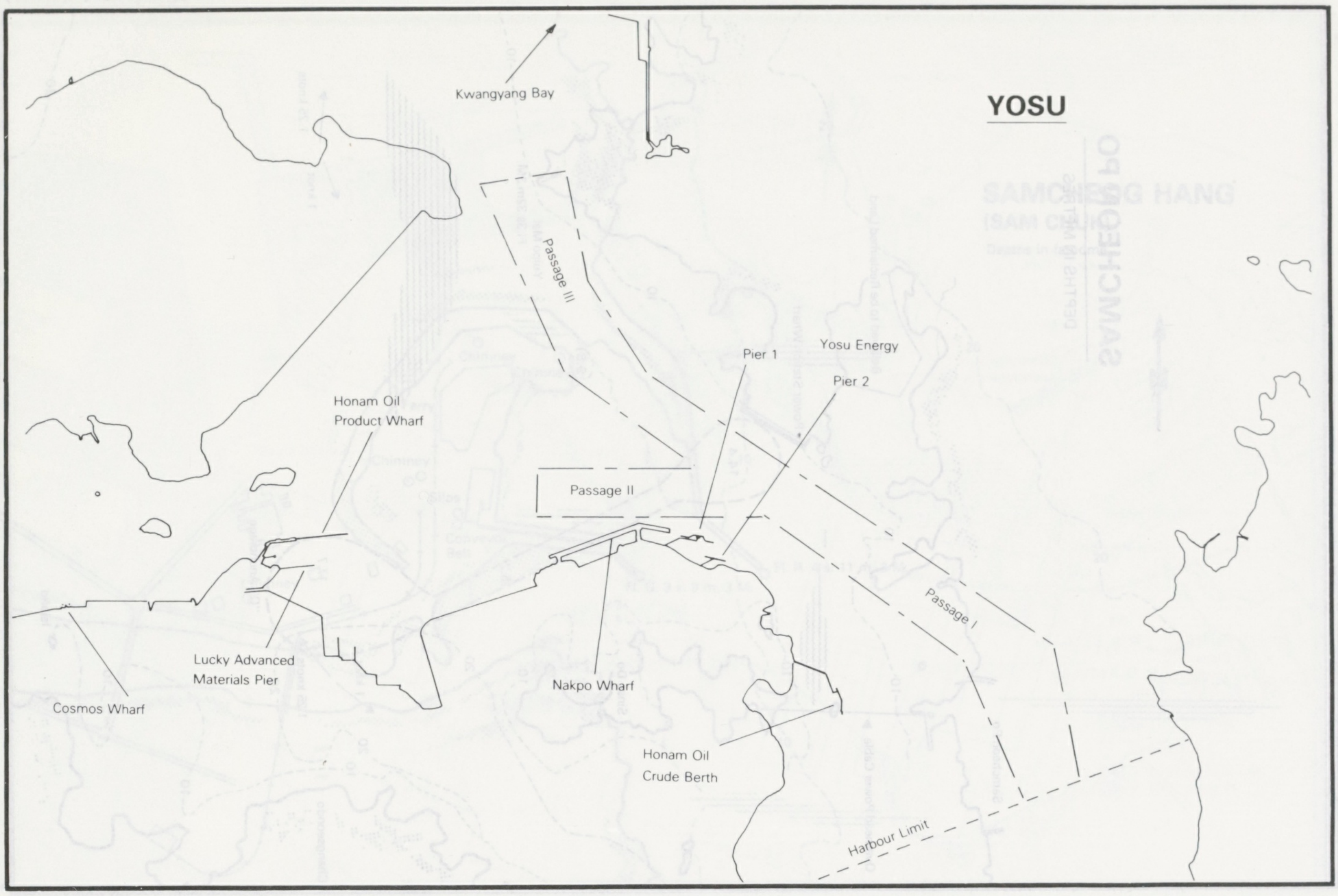
"Plan supplied by Ship's Master"


ULSAN
ONSAN HARBOUR
DEPTHS IN METRES
35° 28 N
35° 26 N
Seaweed Cultivation
Seaweed and Shellfish Cultivation
Tanker Berths
ONSAN HARBOUR (Buoyed Area)
No. 1 Buoy
Pipeline
Pipeline
SBM No. 1
Temporarily Replaced with Yellow Spherical Buoy
Yukong Terminal
SBM No. 2
Pipeline
Ssangyong Refinery Buoy
10
20
10
20
10
10
20
129° 24 E

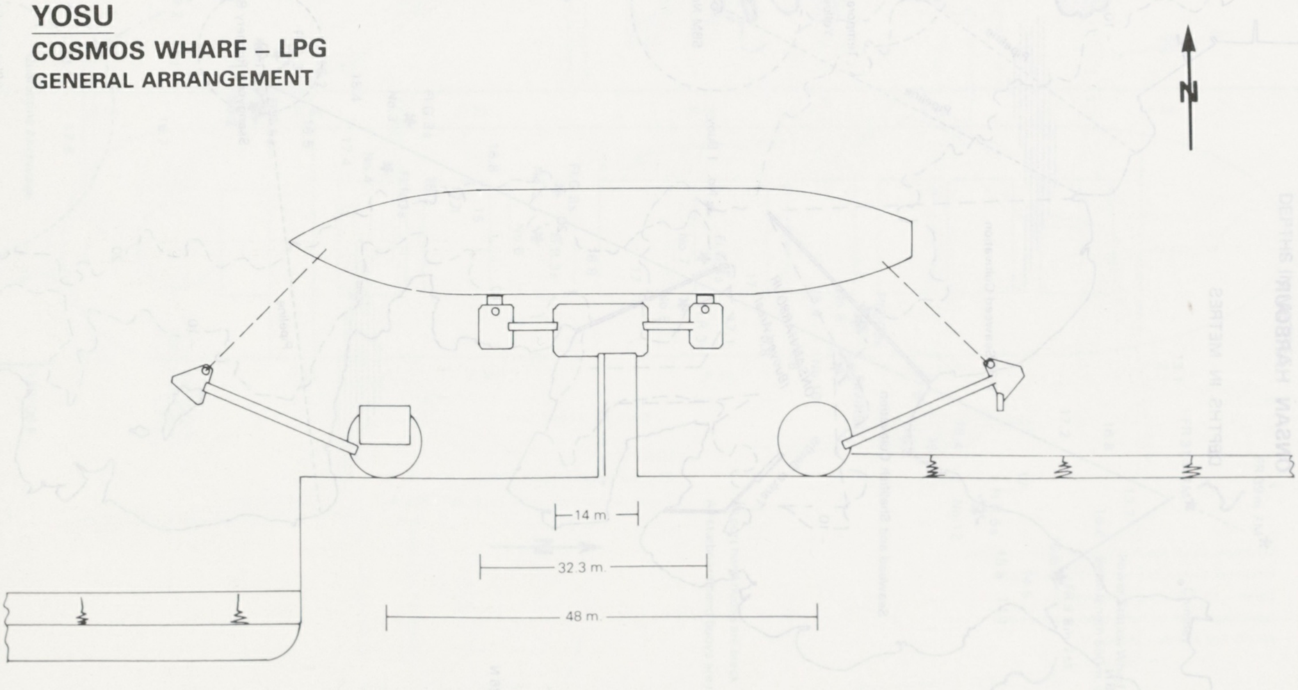
"Plan supplied by Ship's Master"


SAMCHEON PO
DEPTHS IN METRES
Samcheon Po
Overhead Power Cable
Believed to be Reclaimed Land
Power Station Wharf
14.4
Sinsu Do
10
10
10
9.8
Yulpo Mal
Fl.3s.32m.3M.
15.2
20
17.7
"Q" Anchorage
1 knot
1.25 knots
1 knot
1.25 knots
Changseondo
20
10
20
10
10
Island
20

"Plan supplied by Ship's Master"


YOSU
Kwangyang Bay
Passage III
Passage II
Passage I
Pier 1
Yosu Energy
Pier 2
Honam Oil
Product Wharf
Lucky Advanced
Materials Pier
Cosmos Wharf
Nakpo Wharf
Honam Oil
Crude Berth
Harbour Limit

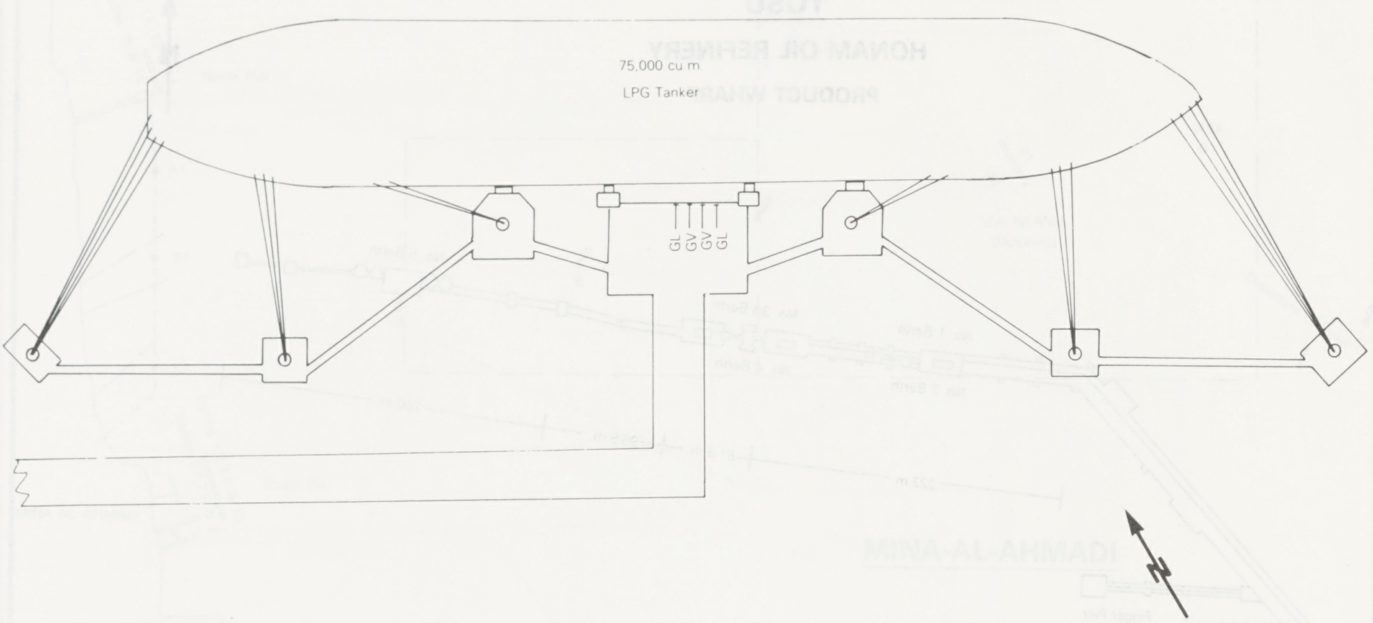
YOSU
COSMOS WHARF – LPG
GENERAL ARRANGEMENT


N
14 m.
32.3 m.
48 m.

YOSU

ENERGY PIER No. 1

MOORING ARRANGEMENT

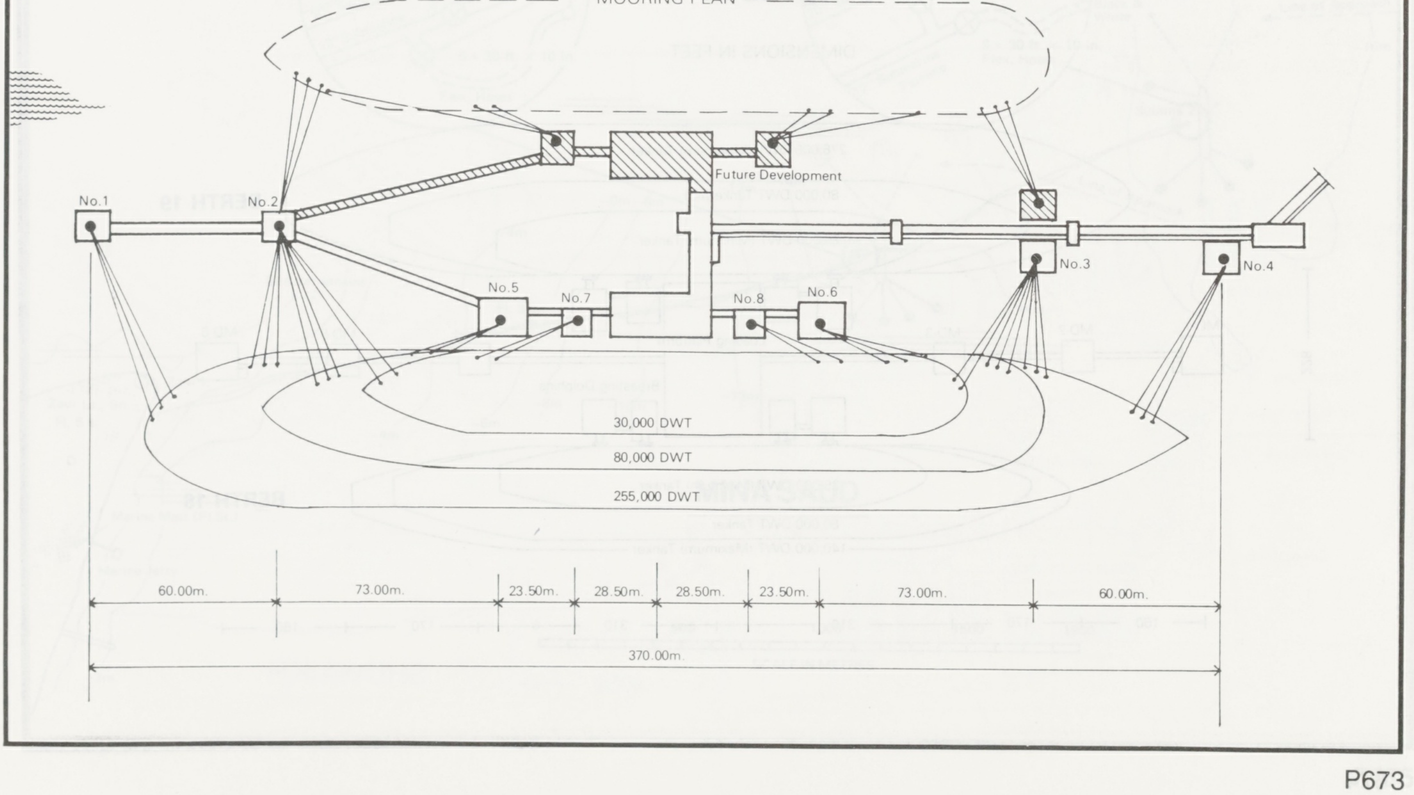

75,000 cu.m.
LPG Tanker
GL
GV
GV
GL

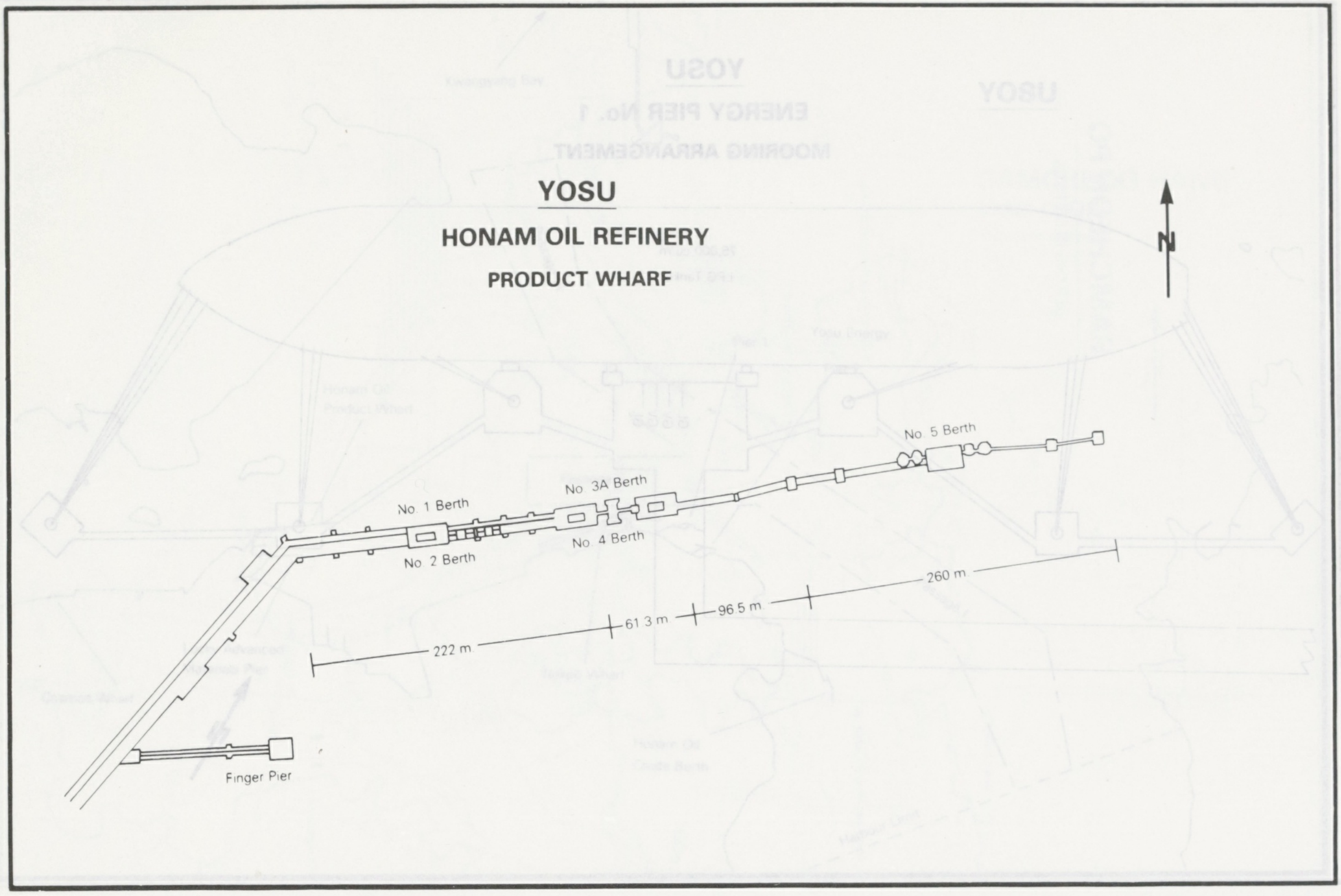
YOSU

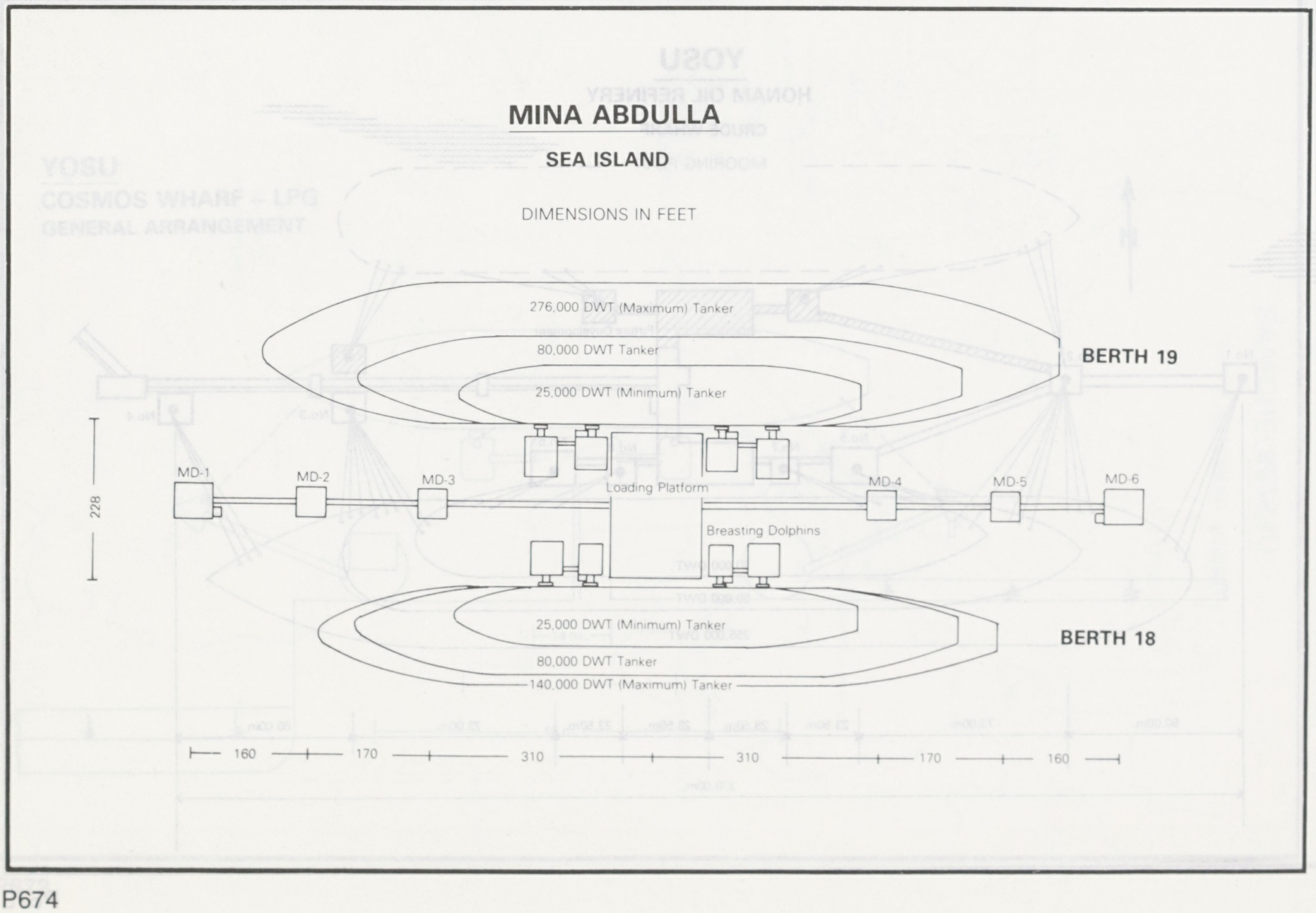
HONAM OIL REFINERY

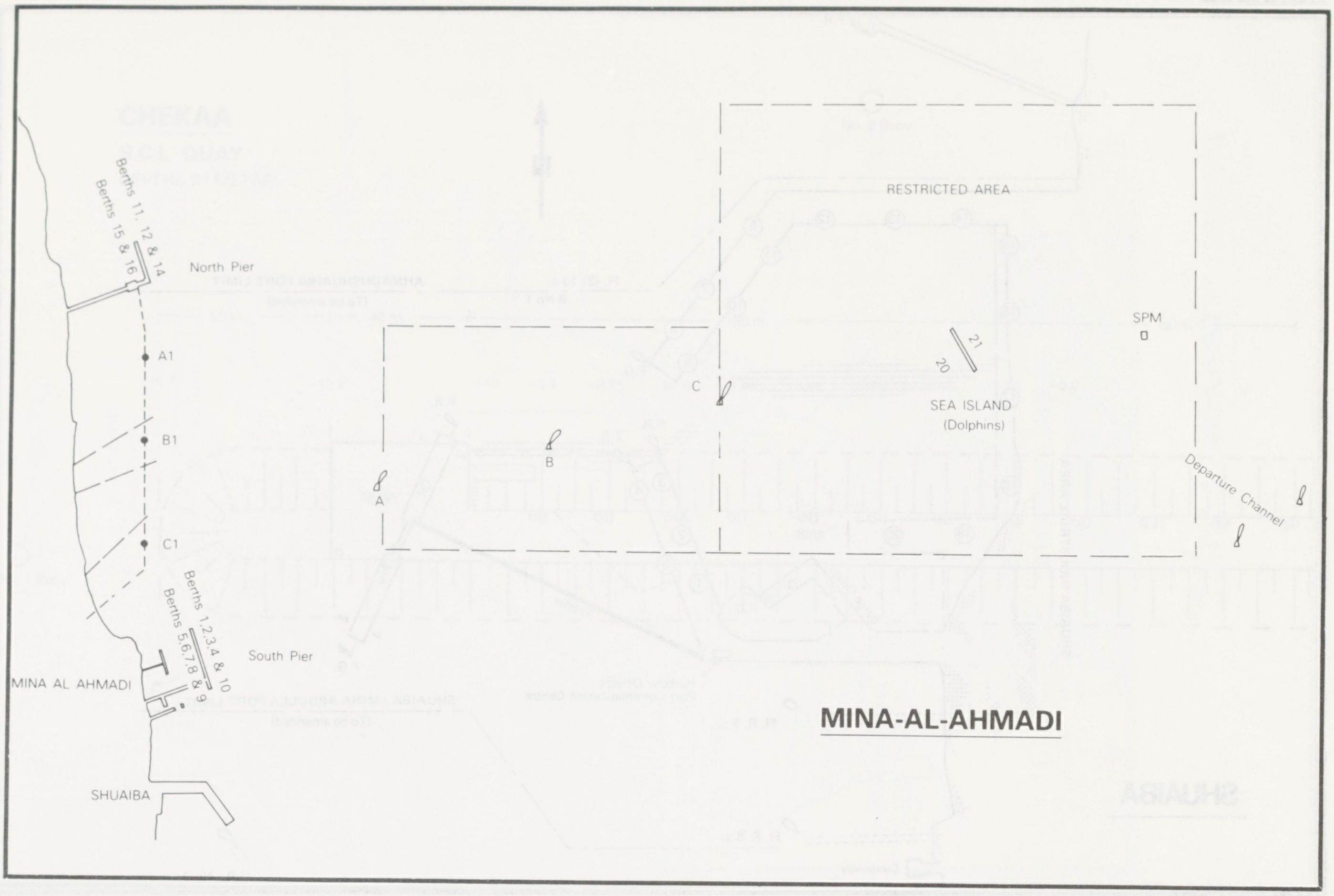
CRUDE WHARF

MOORING PLAN


Future Development
No.1
No.2
No.3
No.4
No.5
No.6
No.7
No.8
30,000 DWT
80,000 DWT
255,000 DWT
60.00m.
73.00m.
23.50m.
28.50m.
28.50m.
23.50m.
73.00m.
60.00m.
370.00m.

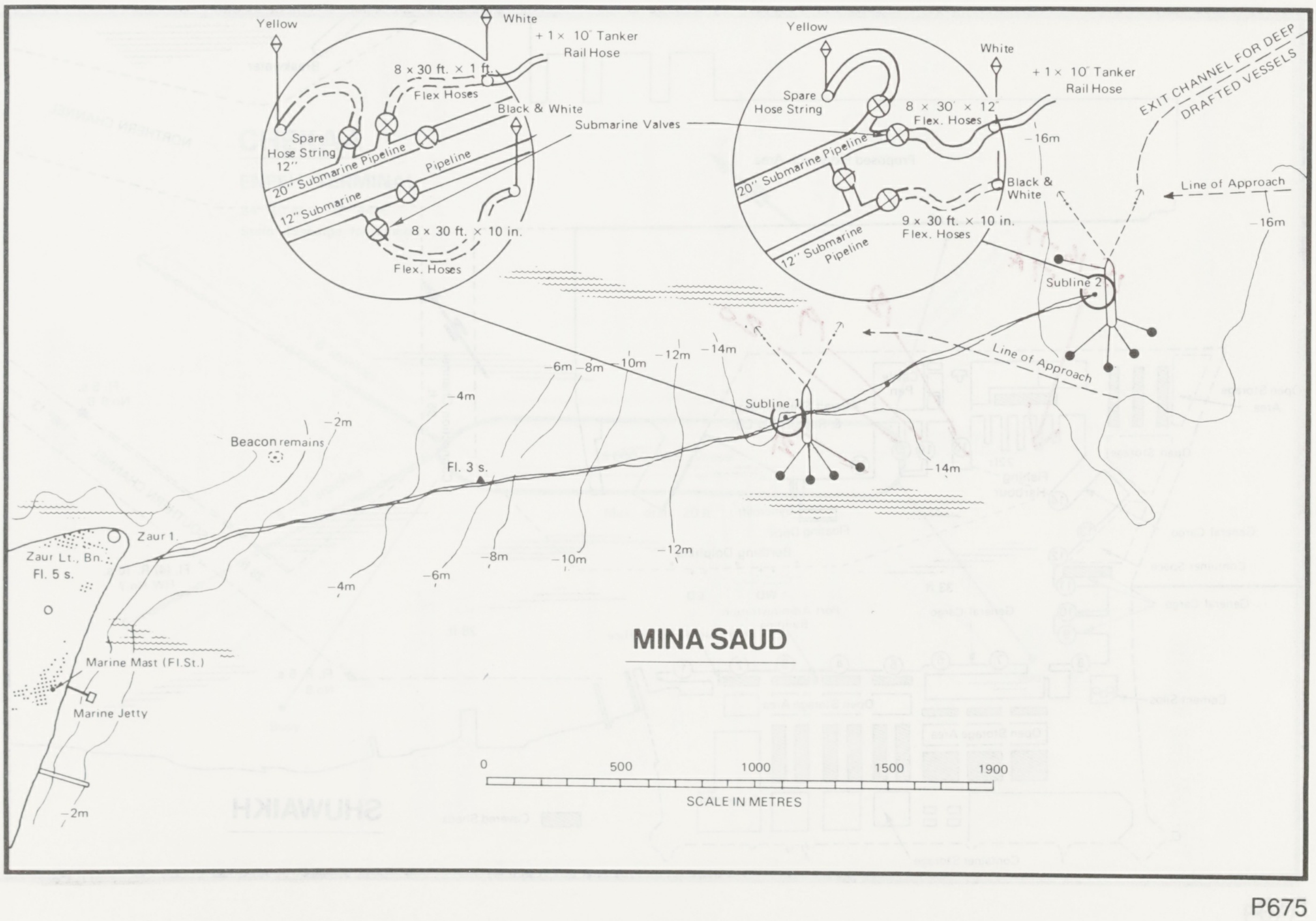

YOSU
HONAM OIL REFINERY
PRODUCT WHARF
N
No. 1 Berth
No. 2 Berth
No. 3A Berth
No. 4 Berth
No. 5 Berth
222 m
61.3 m
96.5 m
260 m
Finger Pier


MINA ABDULLA
SEA ISLAND
DIMENSIONS IN FEET
276,000 DWT (Maximum) Tanker
80,000 DWT Tanker
25,000 DWT (Minimum) Tanker
BERTH 19
MD-1
MD-2
MD-3
Loading Platform
MD-4
MD-5
MD-6
Breasting Dolphins
228
25,000 DWT (Minimum) Tanker
80,000 DWT Tanker
140,000 DWT (Maximum) Tanker
BERTH 18
160
170
310
310
170
160



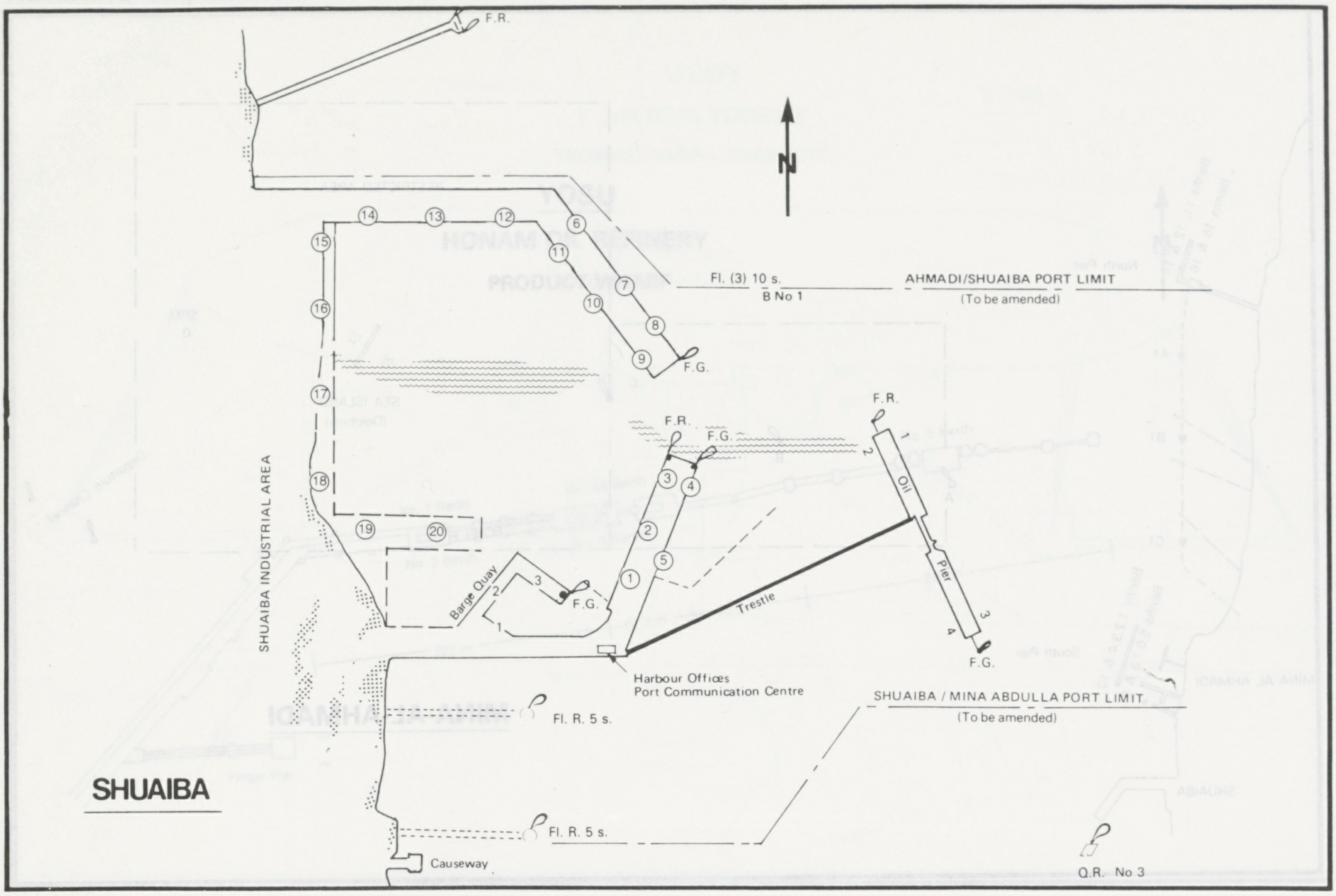
MINA-AL-AHMADI

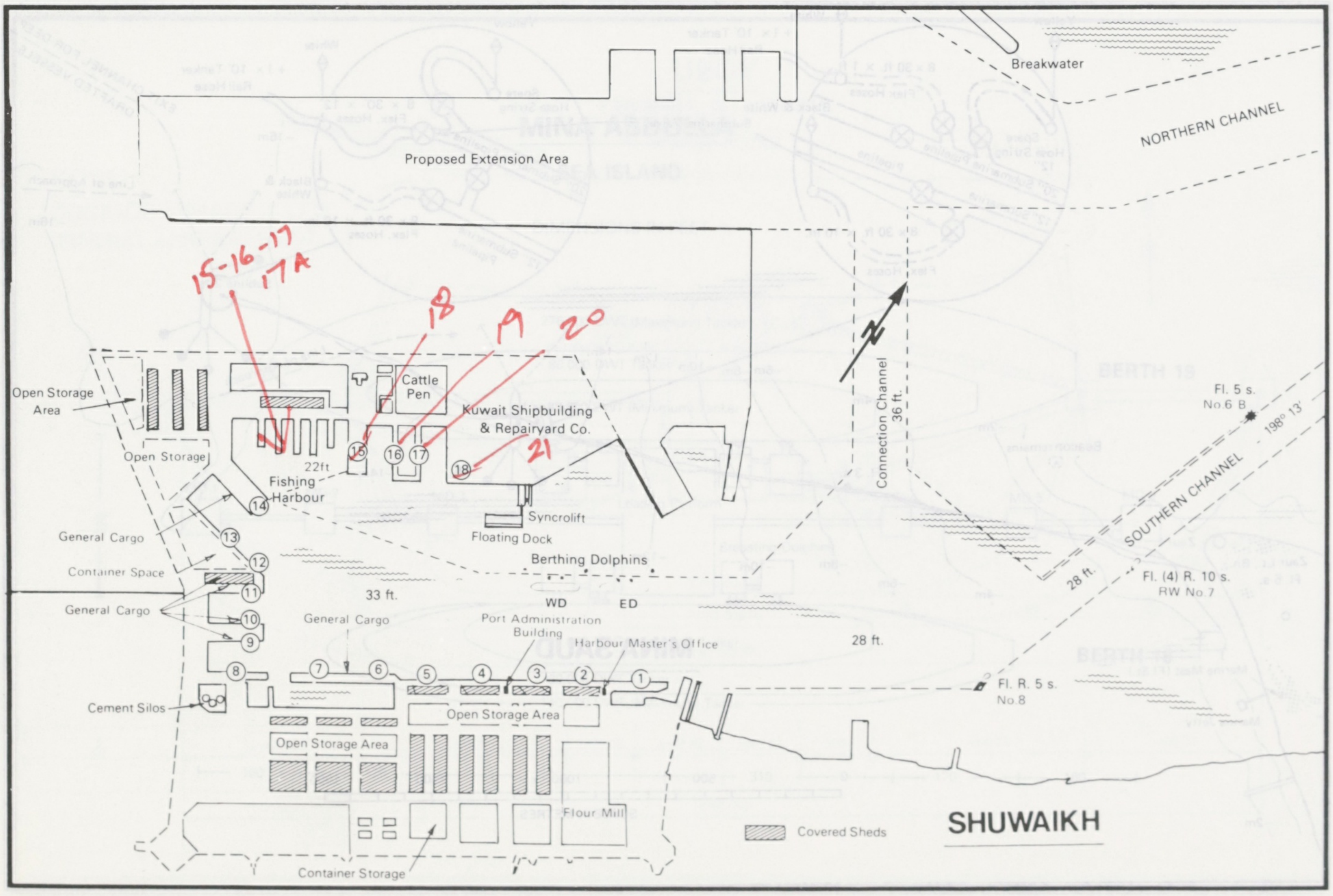
RESTRICTED AREA
SPM
21
20
SEA ISLAND
(Dolphins)
Departure Channel
Berths 11, 12 & 14
Berths 15 & 16
North Pier
A1
B1
C1
A
B
C
Berths 1,2,3,4 & 10
Berths 5,6,7,8 & 9
South Pier
MINA AL AHMADI
SHUAIBA

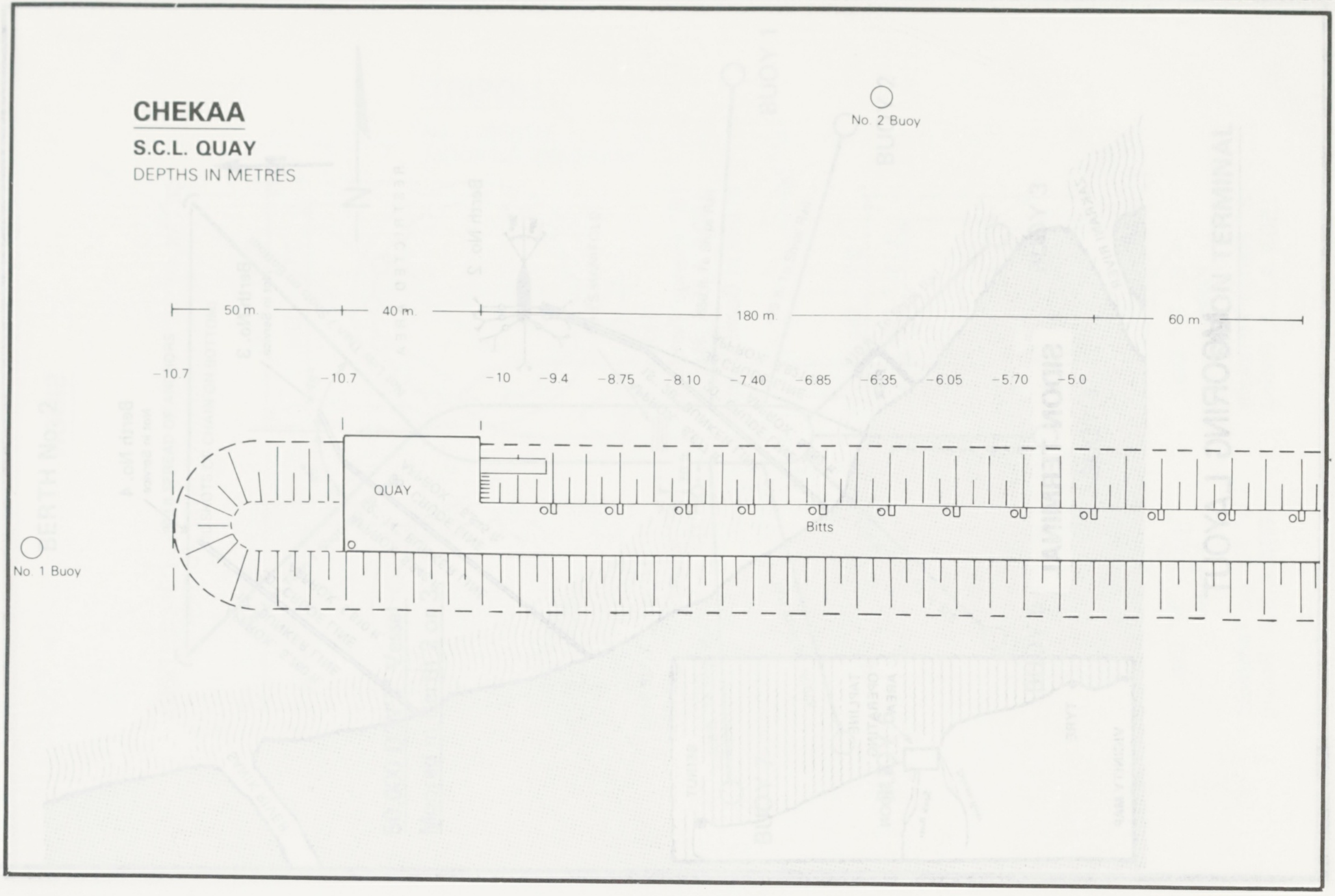


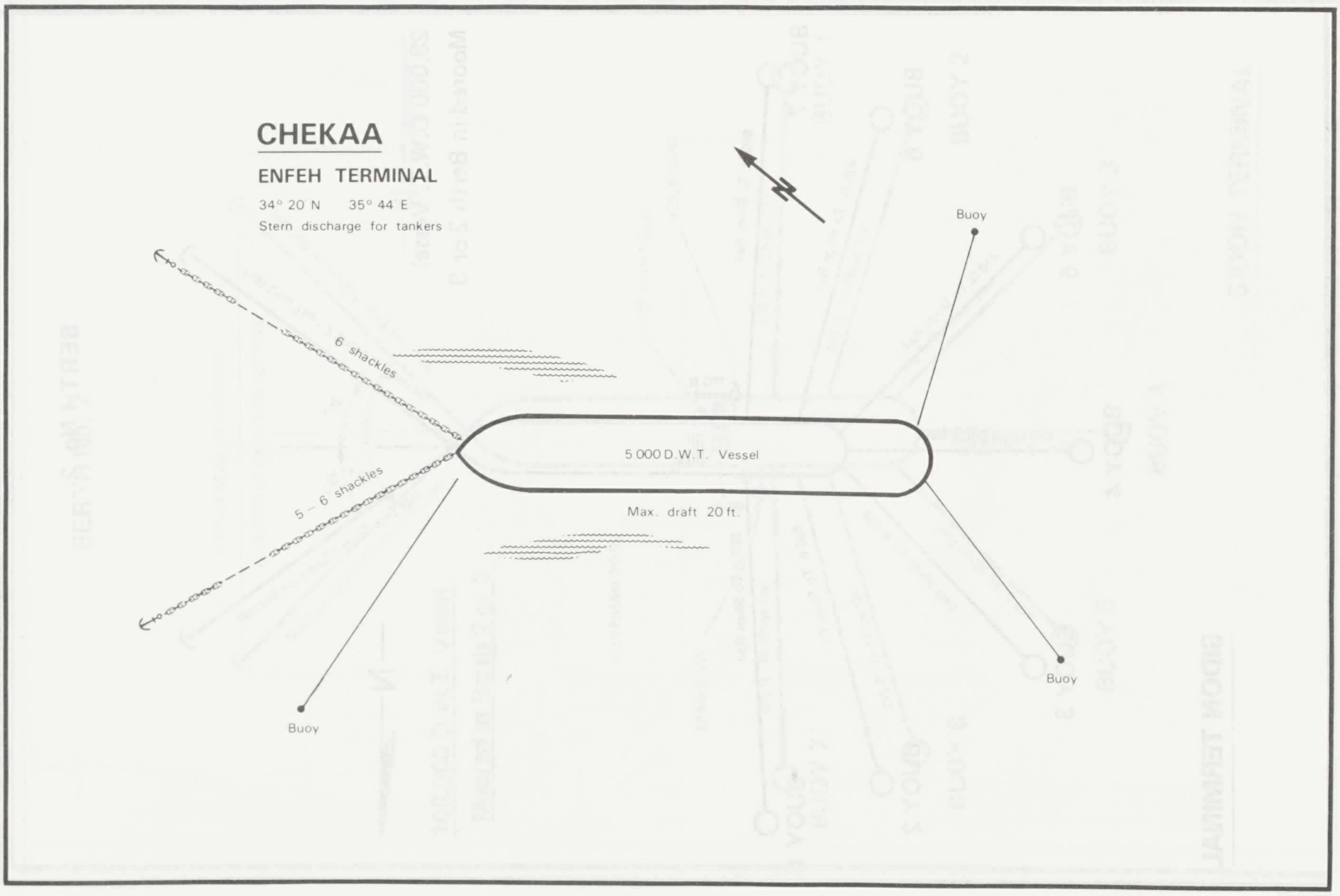
MINA SAUD

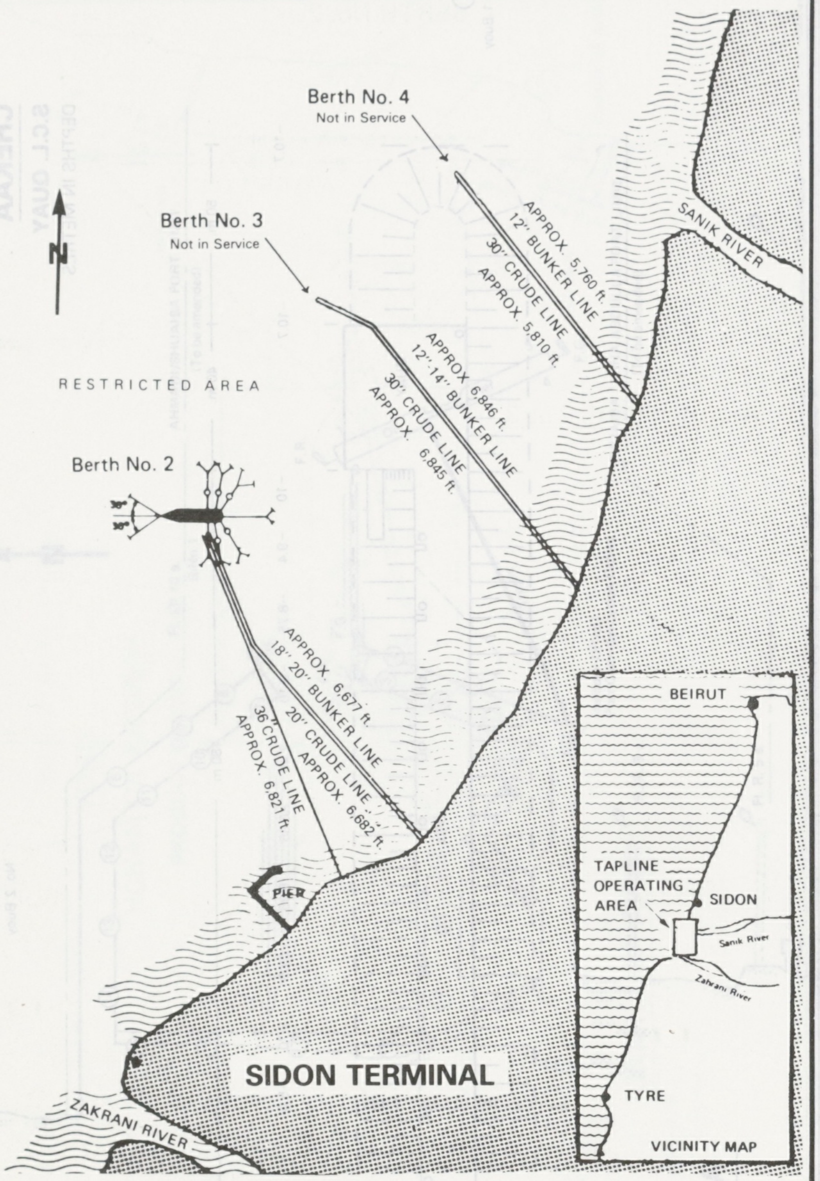
Yellow
White
+ 1 × 10' Tanker
Rail Hose
8 × 30 ft. × 1 ft.
Flex Hoses
Black & White
Submarine Valves
Spare
Hose String
12"
20" Submarine Pipeline
12" Submarine
Pipeline
8 × 30 ft. × 10 in.
Flex. Hoses
Yellow
White
+ 1 × 10' Tanker
Rail Hose
Spare
Hose String
8 × 30' × 12"
Flex. Hoses
20" Submarine Pipeline
Black &
White
9 × 30 ft. × 10 in.
Flex. Hoses
12" Submarine
Pipeline
EXIT CHANNEL FOR DEEP
DRAFTED VESSELS
−16m
Line of Approach
−16m
Subline 2
Line of Approach
−14m
−12m
−10m
−8m
−6m
−4m
−2m
Subline 1
−14m
Beacon remains
Fl. 3 s.
Zaur 1
Zaur Lt., Bn.
Fl. 5 s.
−4m
−6m
−8m
−10m
−12m
Marine Mast (Fl.St.)
Marine Jetty
−2m
0
500
1000
1500
1900
SCALE IN METRES


F.R.
N
14
13
12
6
11
7
10
8
9
F.G.
Fl. (3) 10 s.
B No 1
AHMADI/SHUAIBA PORT LIMIT
(To be amended)
15
16
17
18
19
20
F.R.
F.G.
F.R.
F.G.
1
2
Oil
Pier
3
4
F.G.
3
4
2
5
1
Barge Quay
1
2
3
F.G.
Trestle
SHUAIBA INDUSTRIAL AREA
Harbour Offices
Port Communication Centre
SHUAIBA / MINA ABDULLA PORT LIMIT
(To be amended)
Fl. R. 5 s.
Fl. R. 5 s.
Causeway
Q.R. No 3
SHUAIBA

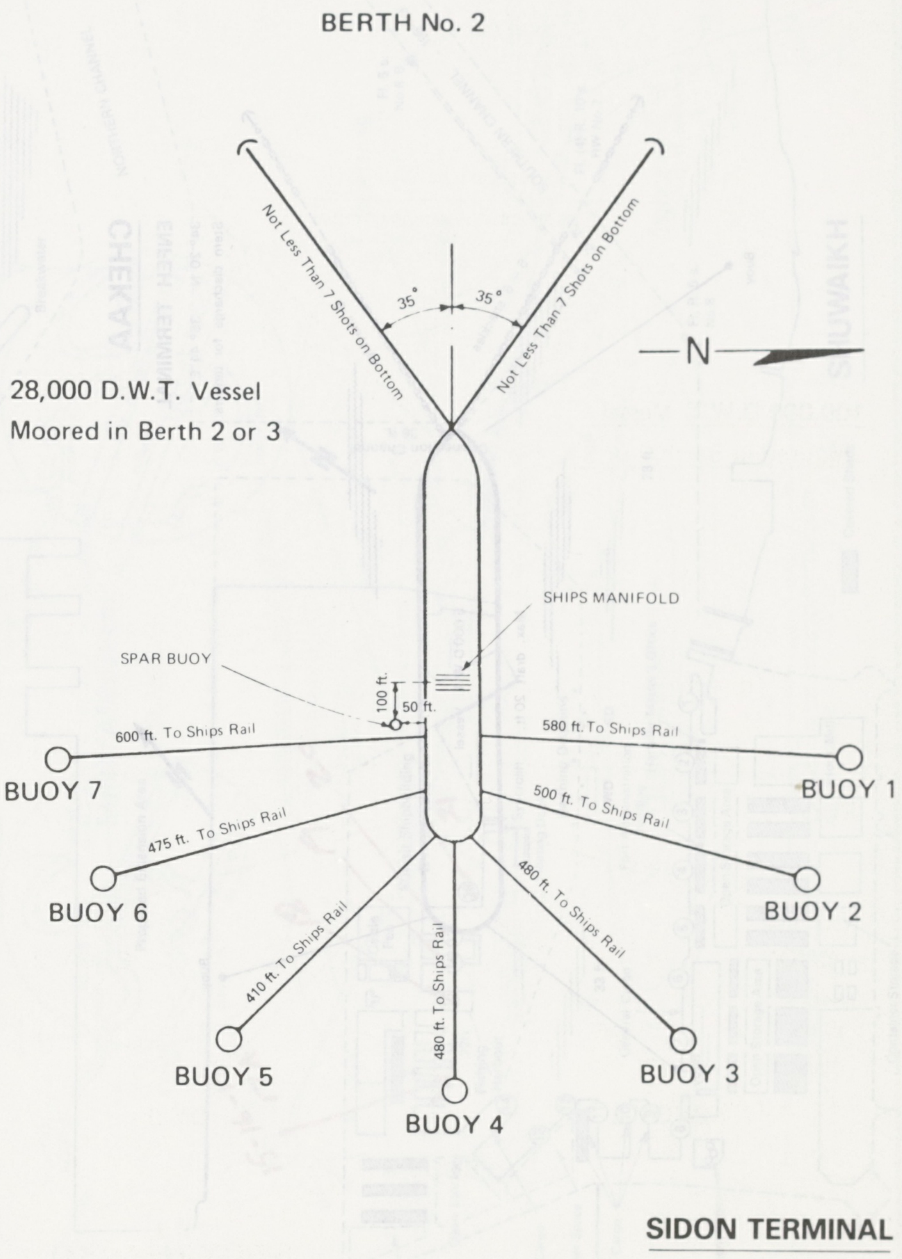

Breakwater
NORTHERN CHANNEL
Proposed Extension Area
15-16-17
17A
18
19
20
21
Open Storage Area
Cattle Pen
Kuwait Shipbuilding & Repairyard Co.
Open Storage
22ft
15
16
17
18
Fishing Harbour
14
Syncrolift
Floating Dock
Connection Channel 36 ft.
Fl. 5 s.
No.6 B
198° 13'
SOUTHERN CHANNEL
28 ft.
Fl. (4) R. 10 s.
RW No.7
General Cargo
13
Container Space
12
Berthing Dolphins
11
General Cargo
10
33 ft.
WD
ED
General Cargo
Port Administration Building
9
Harbour Master's Office
28 ft.
8
7
6
5
4
3
2
1
Fl. R. 5 s.
No.8
Cement Silos
Open Storage Area
Open Storage Area
Flour Mill
Covered Sheds
SHUWAIKH
Container Storage

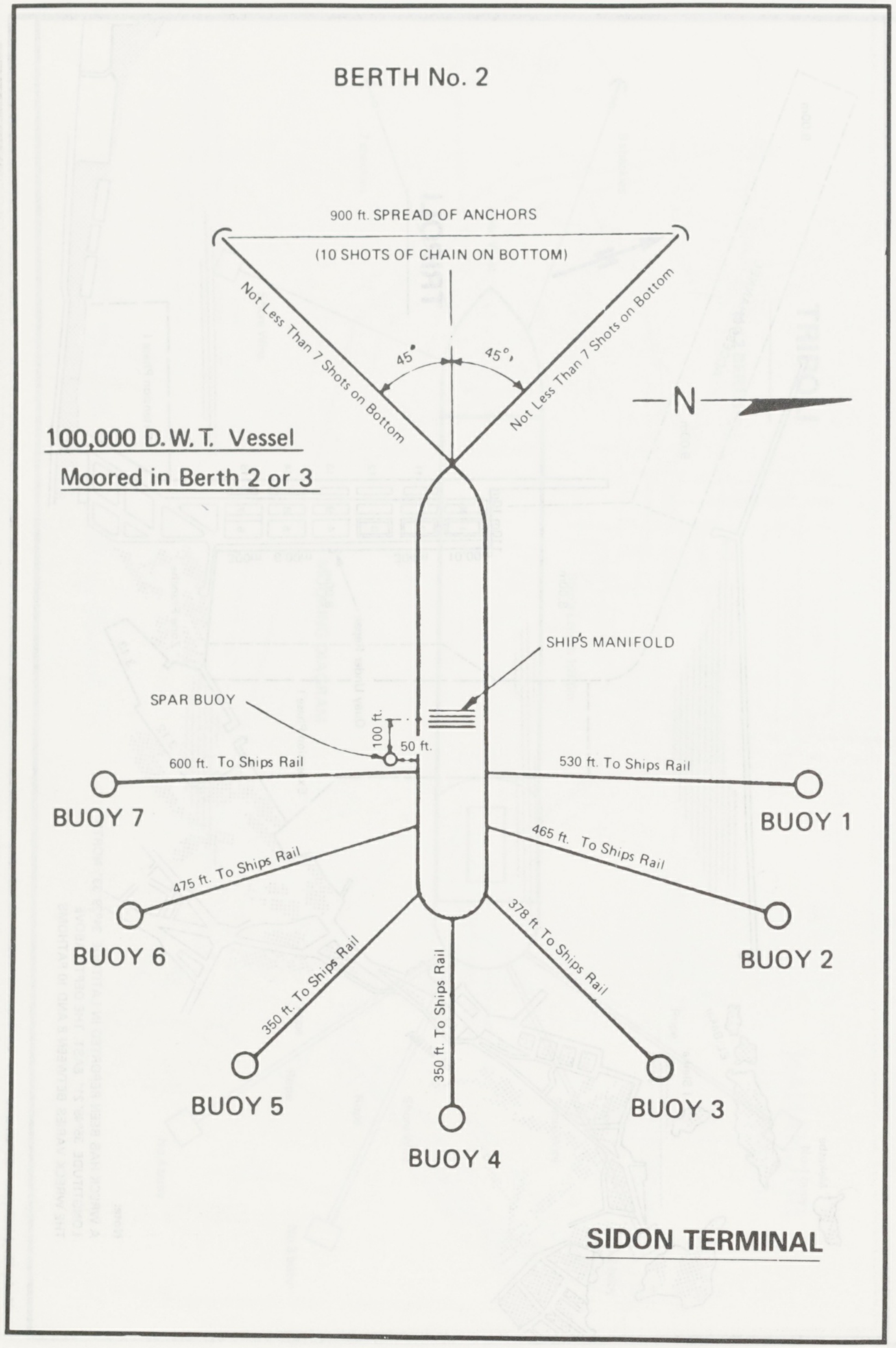

CHEKAA
S.C.L. QUAY
DEPTHS IN METRES
No. 2 Buoy
50 m.
40 m.
180 m.
60 m.
−10.7
−10.7
−10
−9.4
−8.75
−8.10
−7.40
−6.85
−6.35
−6.05
−5.70
−5.0
QUAY
Bitts
No. 1 Buoy

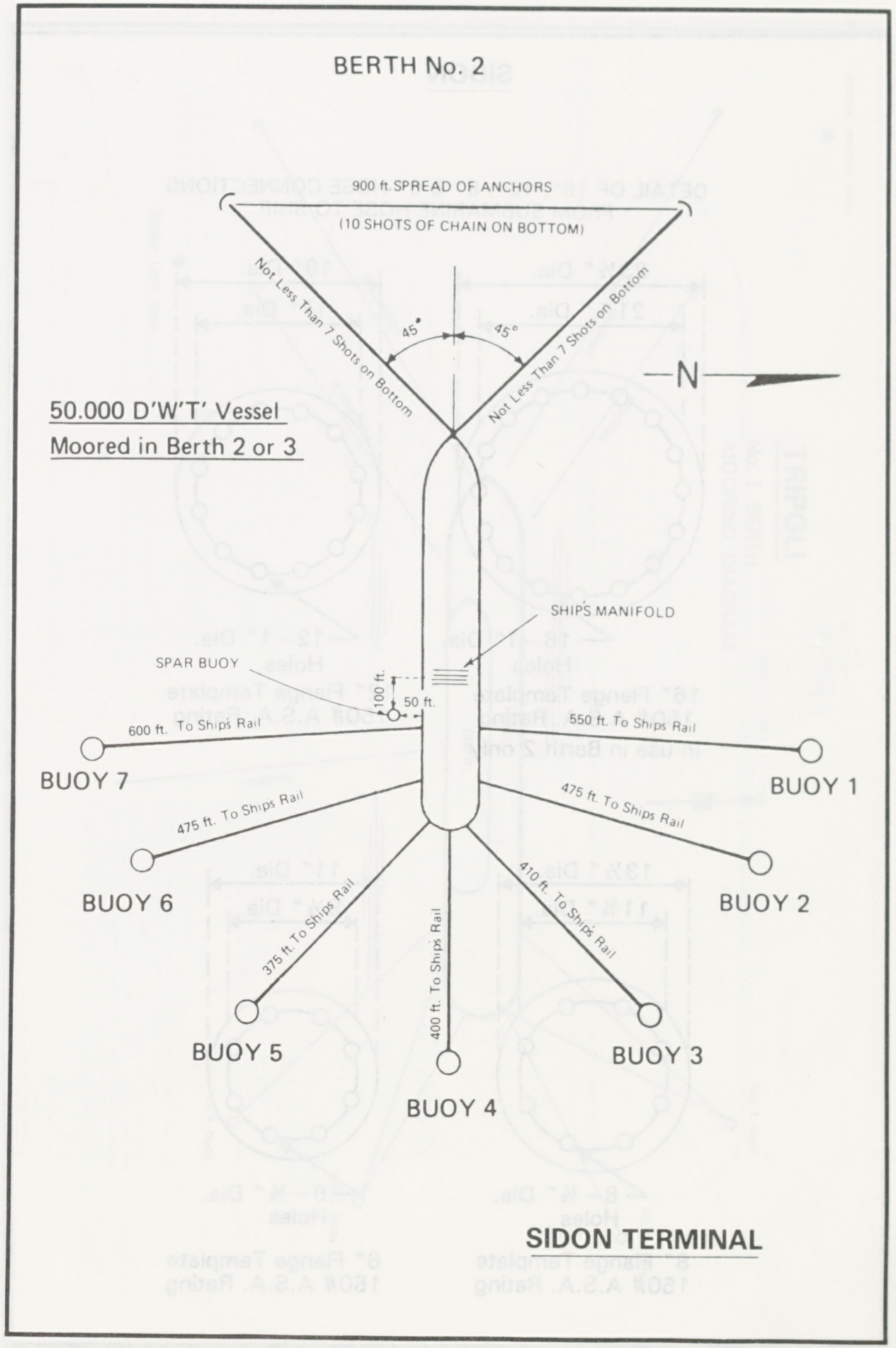

CHEKAA
ENFEH TERMINAL
34° 20 N 35° 44 E
Stern discharge for tankers
6 shackles
5 – 6 shackles
5 000 D.W.T. Vessel
Max. draft 20 ft.
Buoy
Buoy
Buoy


Berth No. 4
Not in Service
Berth No. 3
Not in Service
N
RESTRICTED AREA
APPROX. 5,760 ft.
12" BUNKER LINE
30" CRUDE LINE
APPROX. 5,810 ft.
SANIK RIVER
APPROX. 6,846 ft.
12"-14" BUNKER LINE
30" CRUDE LINE
APPROX. 6,845 ft.
Berth No. 2
30°
30°
APPROX. 6,677 ft.
18"-20" BUNKER LINE
20" CRUDE LINE
APPROX. 6,682 ft.
36" CRUDE LINE
APPROX. 6,821 ft.
PIER
SIDON TERMINAL
ZAKRANI RIVER
BEIRUT
TAPLINE
OPERATING
AREA
SIDON
Sanik River
Zahrani River
TYRE
VICINITY MAP

MOORING LAYOUT

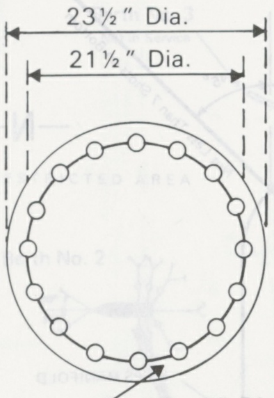

BERTH No. 2
Not Less Than 7 Shots on Bottom
Not Less Than 7 Shots on Bottom
35°
35°
N
28,000 D.W.T. Vessel
Moored in Berth 2 or 3
SHIPS MANIFOLD
SPAR BUOY
100 ft.
50 ft.
600 ft. To Ships Rail
580 ft. To Ships Rail
BUOY 7
BUOY 1
475 ft. To Ships Rail
500 ft. To Ships Rail
BUOY 6
BUOY 2
410 ft. To Ships Rail
480 ft. To Ships Rail
480 ft. To Ships Rail
BUOY 5
BUOY 4
BUOY 3
SIDON TERMINAL


BERTH No. 2
900 ft. SPREAD OF ANCHORS
(10 SHOTS OF CHAIN ON BOTTOM)
Not Less Than 7 Shots on Bottom
Not Less Than 7 Shots on Bottom
45°
45°
N
100,000 D.W.T. Vessel
Moored in Berth 2 or 3
SHIP'S MANIFOLD
SPAR BUOY
100 ft.
50 ft.
600 ft. To Ships Rail
530 ft. To Ships Rail
BUOY 7
BUOY 1
475 ft. To Ships Rail
465 ft. To Ships Rail
BUOY 6
BUOY 2
350 ft. To Ships Rail
350 ft. To Ships Rail
378 ft. To Ships Rail
BUOY 5
BUOY 4
BUOY 3
SIDON TERMINAL

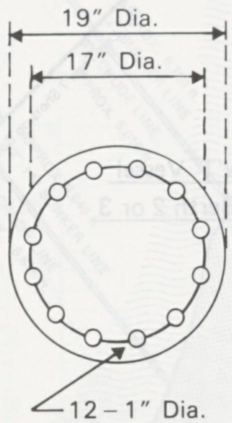

BERTH No. 2
900 ft. SPREAD OF ANCHORS
(10 SHOTS OF CHAIN ON BOTTOM)
Not Less Than 7 Shots on Bottom
Not Less Than 7 Shots on Bottom
45°
45°
N
50.000 D'W'T' Vessel
Moored in Berth 2 or 3
SHIP'S MANIFOLD
SPAR BUOY
100 ft.
50 ft.
600 ft. To Ships Rail
550 ft. To Ships Rail
BUOY 7
BUOY 1
475 ft. To Ships Rail
475 ft. To Ships Rail
BUOY 6
BUOY 2
375 ft. To Ships Rail
400 ft. To Ships Rail
410 ft. To Ships Rail
BUOY 5
BUOY 4
BUOY 3
SIDON TERMINAL

SIDON

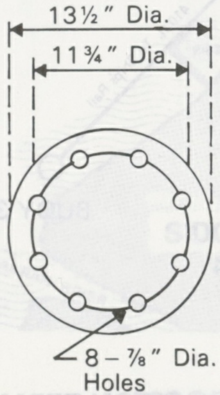
DETAIL OF 16", 12", 8" & 6" HOSE CONNECTIONS
FROM SUBMARINE HOSE TO SHIP


23½" Dia.
21½" Dia.
16 – 1" Dia.
Holes

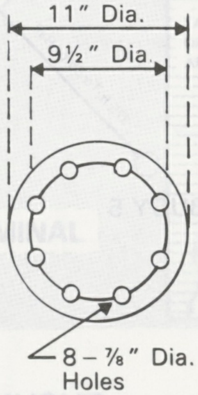
16" Flange Template
150# A.S.A. Rating
In use in Berth 2 only


19" Dia.
17" Dia.
12 – 1" Dia.
Holes

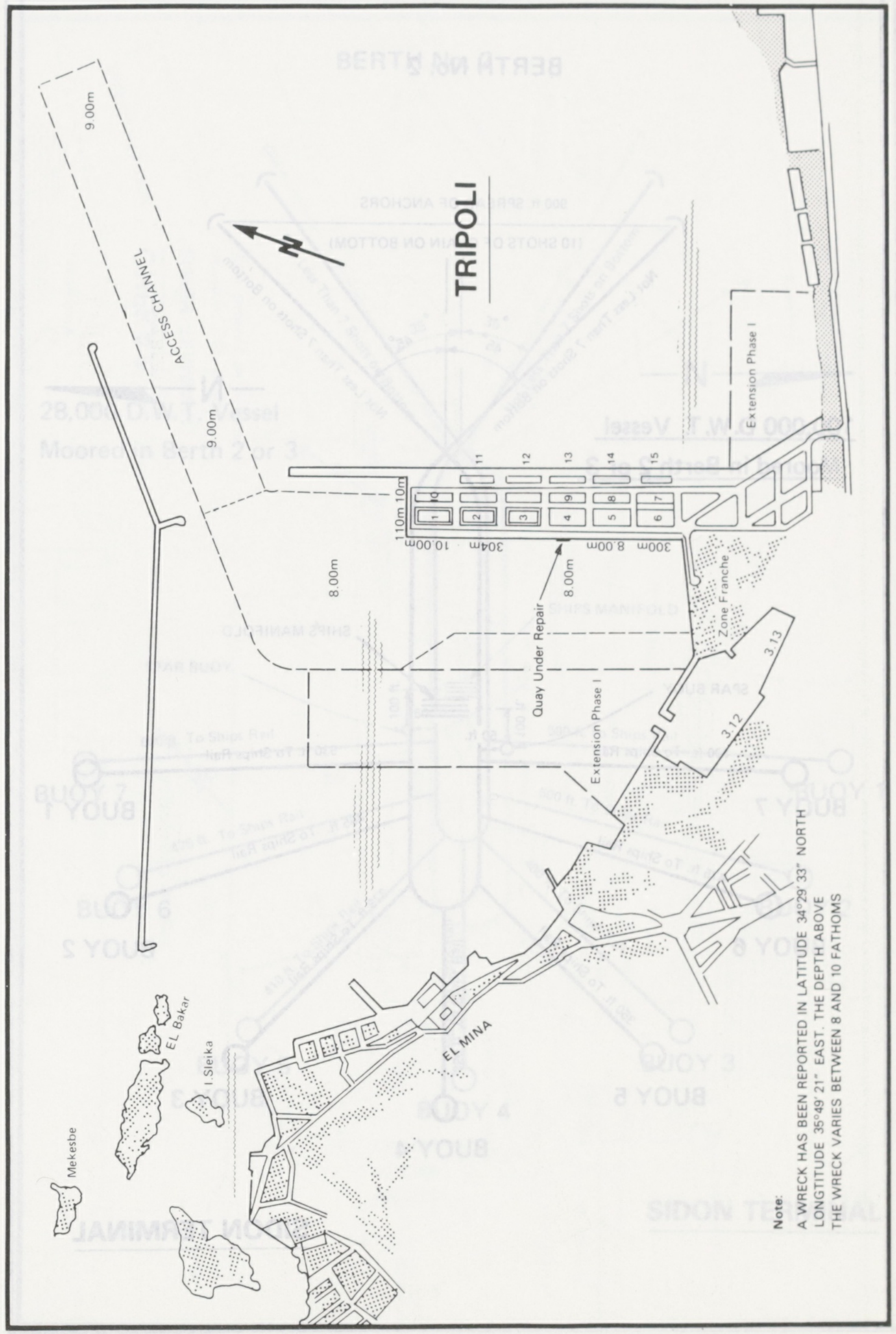
12" Flange Template
150# A.S.A. Rating


13½" Dia.
11¾" Dia.
8 – ⅞" Dia.
Holes

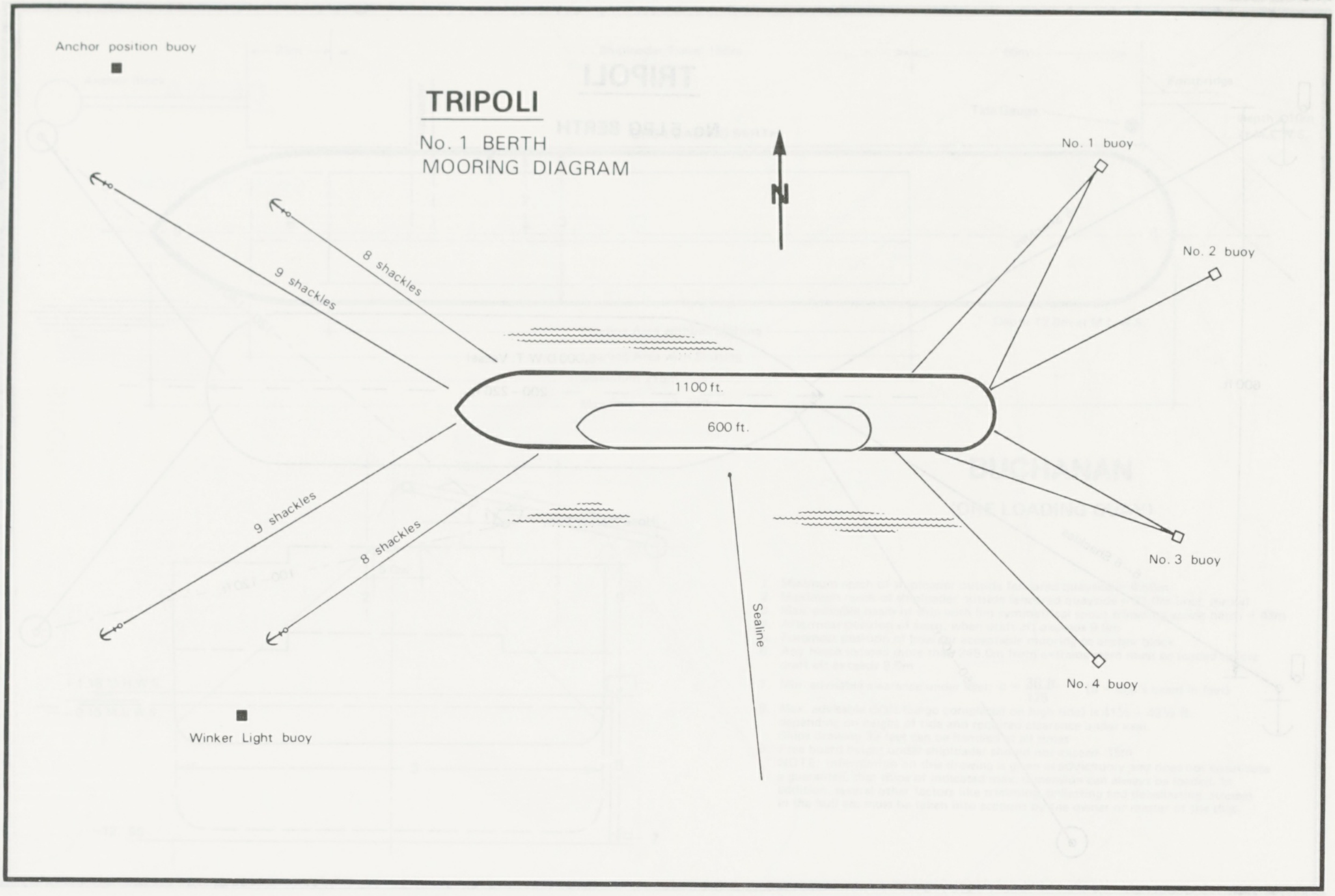
8" Flange Template
150# A.S.A. Rating

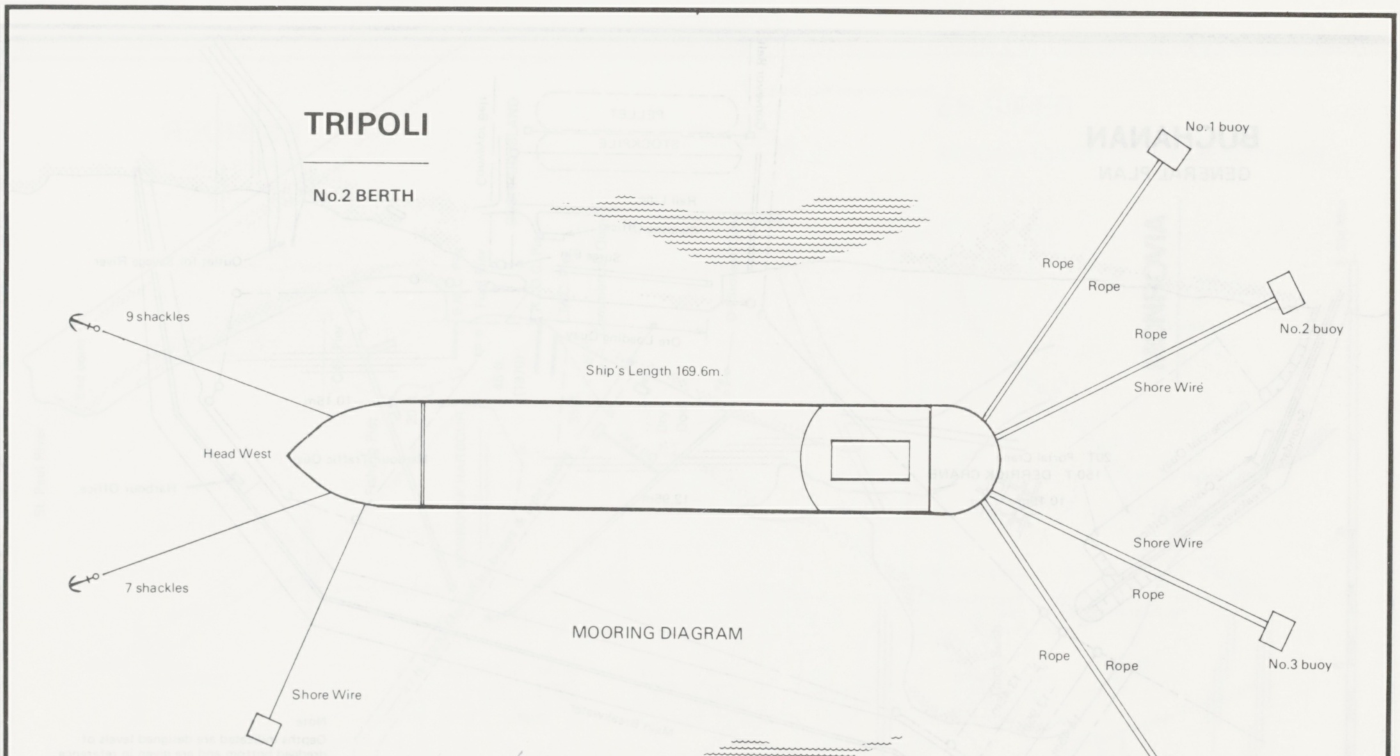

11" Dia.
9½" Dia.
8 – ⅞" Dia.
Holes

6" Flange Template
150# A.S.A. Rating


TRIPOLI
N
9.00m
ACCESS CHANNEL
9.00m
8.00m
110m
10m
10m
10.00m
304m
8.00m
300m
8.00m
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
Quay Under Repair
Extension Phase I
Extension Phase I
Zone Franche
3.13
3.12
EL MINA
El Bakar
I. Sleika
Mekesbe

Note:
A WRECK HAS BEEN REPORTED IN LATITUDE 34°29'33" NORTH
LONGITUDE 35°49'21" EAST. THE DEPTH ABOVE
THE WRECK VARIES BETWEEN 8 AND 10 FATHOMS

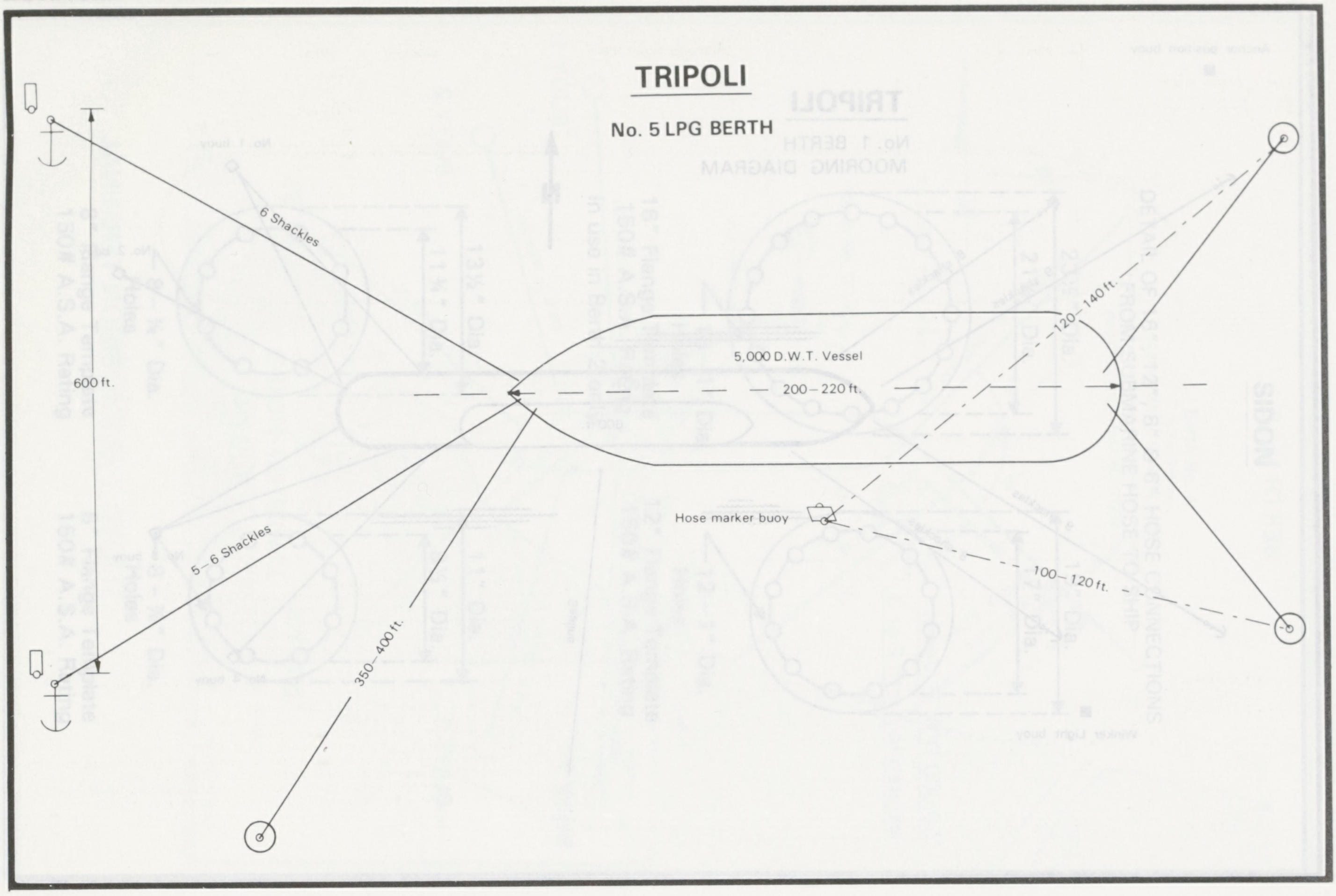

TRIPOLI
No. 1 BERTH
MOORING DIAGRAM
N
Anchor position buoy
9 shackles
8 shackles
9 shackles
8 shackles
1100 ft.
600 ft.
Sealine
Winker Light buoy
No. 1 buoy
No. 2 buoy
No. 3 buoy
No. 4 buoy


TRIPOLI
No.2 BERTH
9 shackles
Ship's Length 169.6m.
Head West
7 shackles
MOORING DIAGRAM
Shore Wire
No.1 buoy
Rope
Rope
Rope
No.2 buoy
Shore Wire
Shore Wire
Rope
No.3 buoy
Rope
Rope
No.4 buoy

"Plan supplied by Ship's Master"

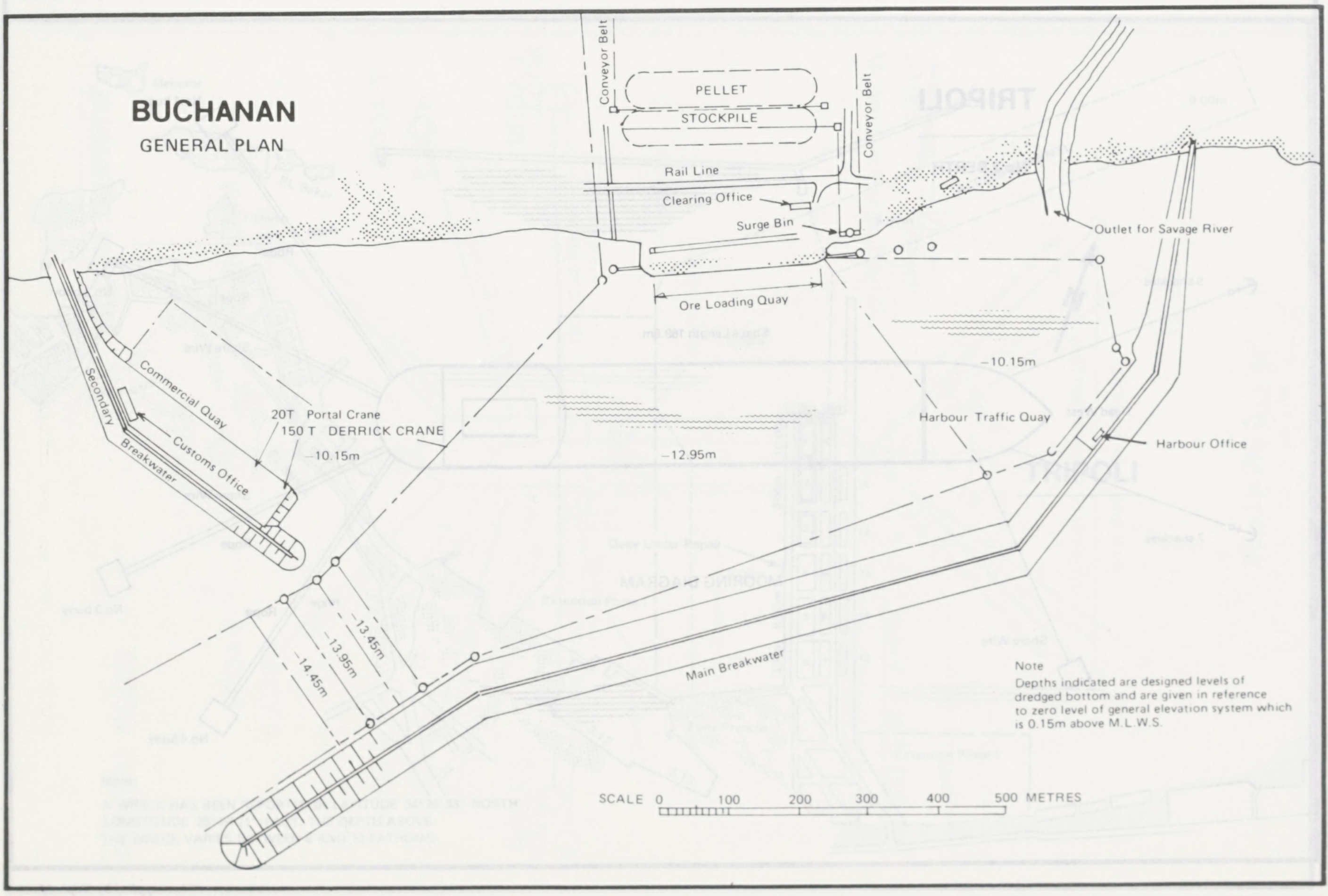
TRIPOLI

No. 5 LPG BERTH

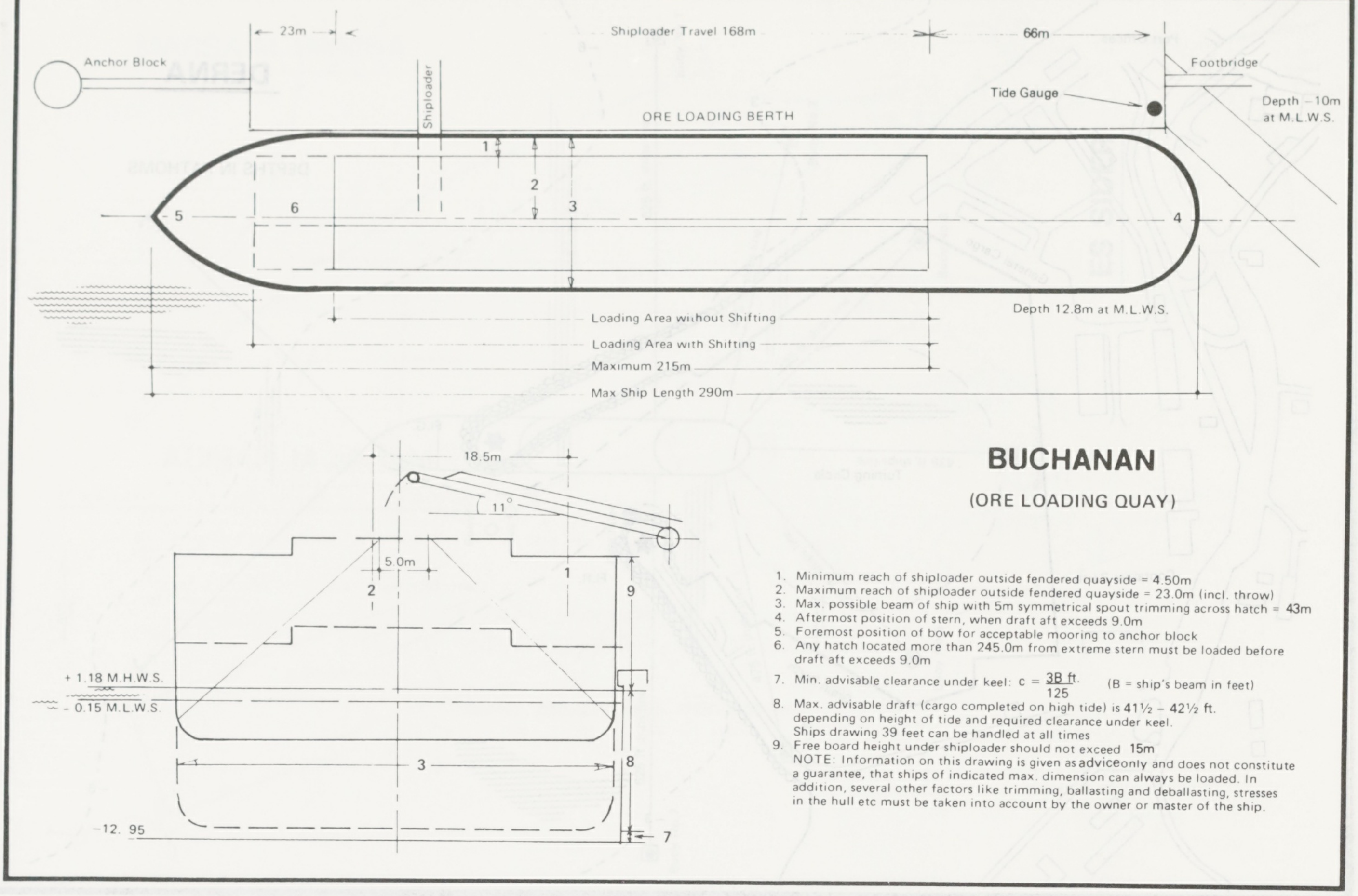

6 Shackles
600 ft.
5–6 Shackles
350–400 ft.
5,000 D.W.T. Vessel
200–220 ft.
120–140 ft.
Hose marker buoy
100–120 ft.

BUCHANAN

GENERAL PLAN


Conveyor Belt
PELLET
STOCKPILE
Conveyor Belt
Rail Line
Clearing Office
Surge Bin
Outlet for Savage River
Ore Loading Quay
−10.15m
Harbour Traffic Quay
Harbour Office
Commercial Quay
Secondary
Breakwater
Customs Office
20T Portal Crane
150 T DERRICK CRANE
−10.15m
−12.95m
−13.45m
−13.95m
−14.45m
Main Breakwater
SCALE 0 100 200 300 400 500 METRES

Note
Depths indicated are designed levels of dredged bottom and are given in reference to zero level of general elevation system which is 0.15m above M.L.W.S.

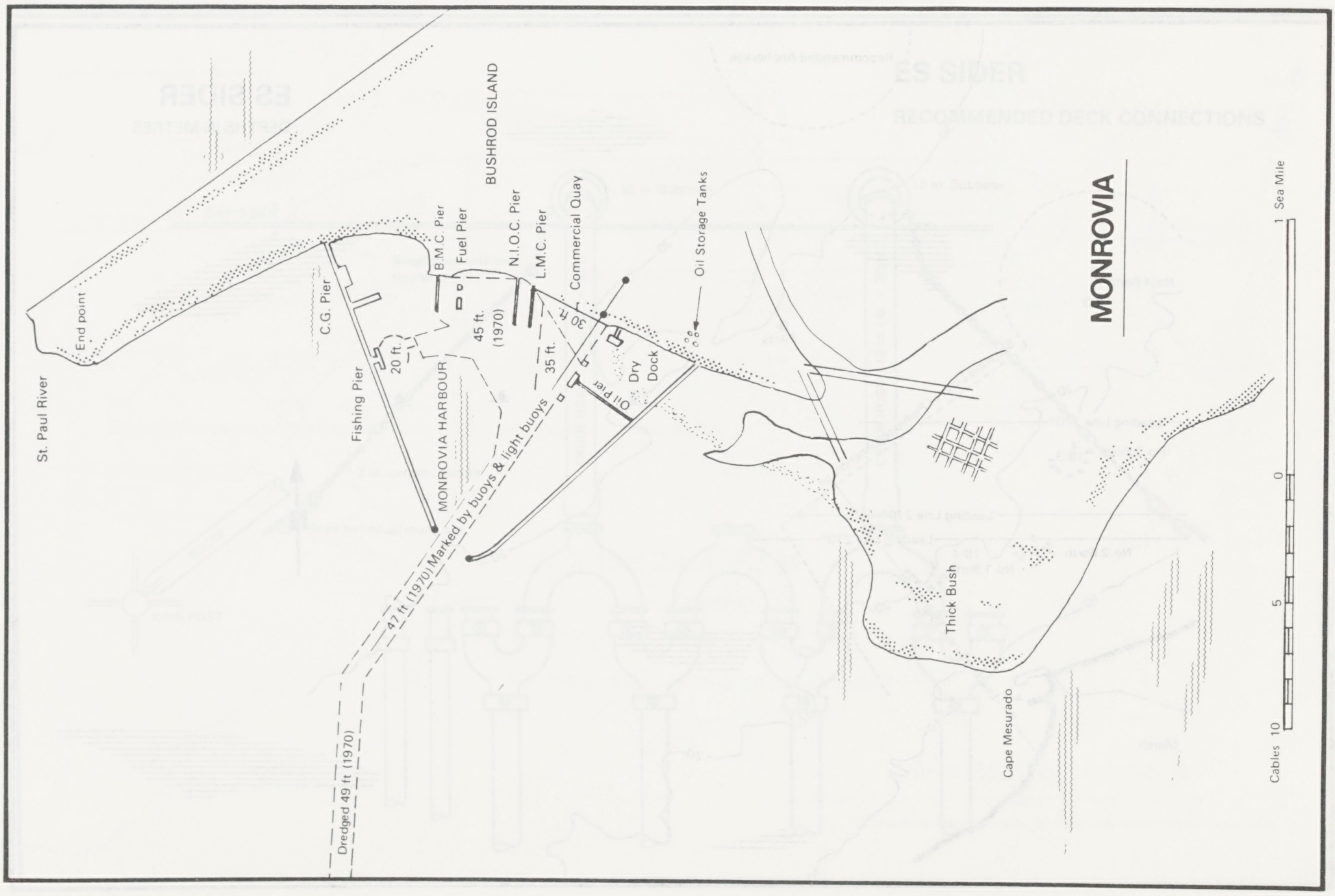

23m
Shiploader Travel 168m
66m
Anchor Block
Shiploader
Footbridge
Tide Gauge
Depth –10m at M.L.W.S.
ORE LOADING BERTH
1
2
3
4
5
6
Loading Area without Shifting
Loading Area with Shifting
Maximum 215m
Max Ship Length 290m
Depth 12.8m at M.L.W.S.
18.5m
11°
5.0m
1
2
3
7
8
9
+ 1.18 M.H.W.S.
– 0.15 M.L.W.S.
–12. 95

BUCHANAN

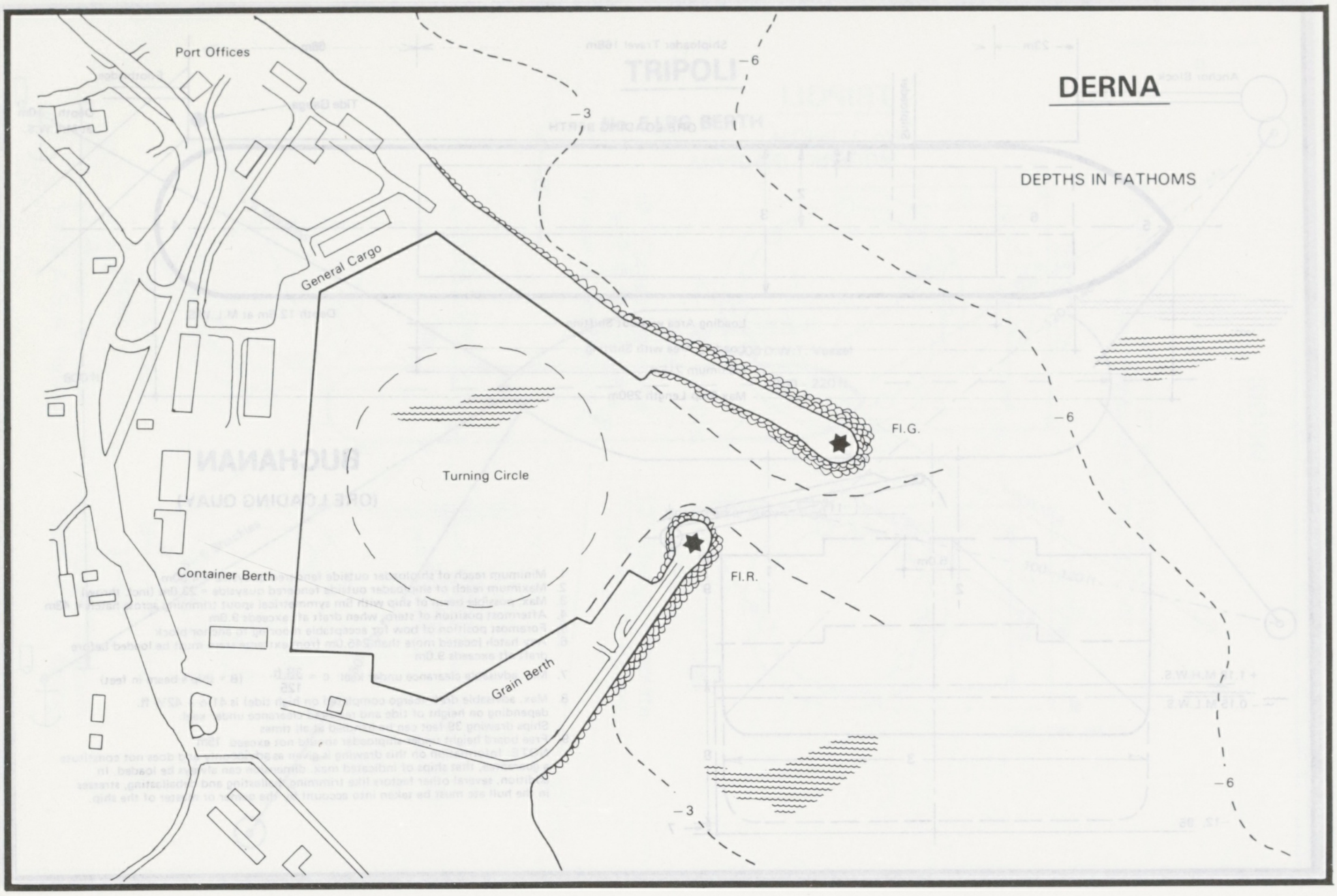
(ORE LOADING QUAY)

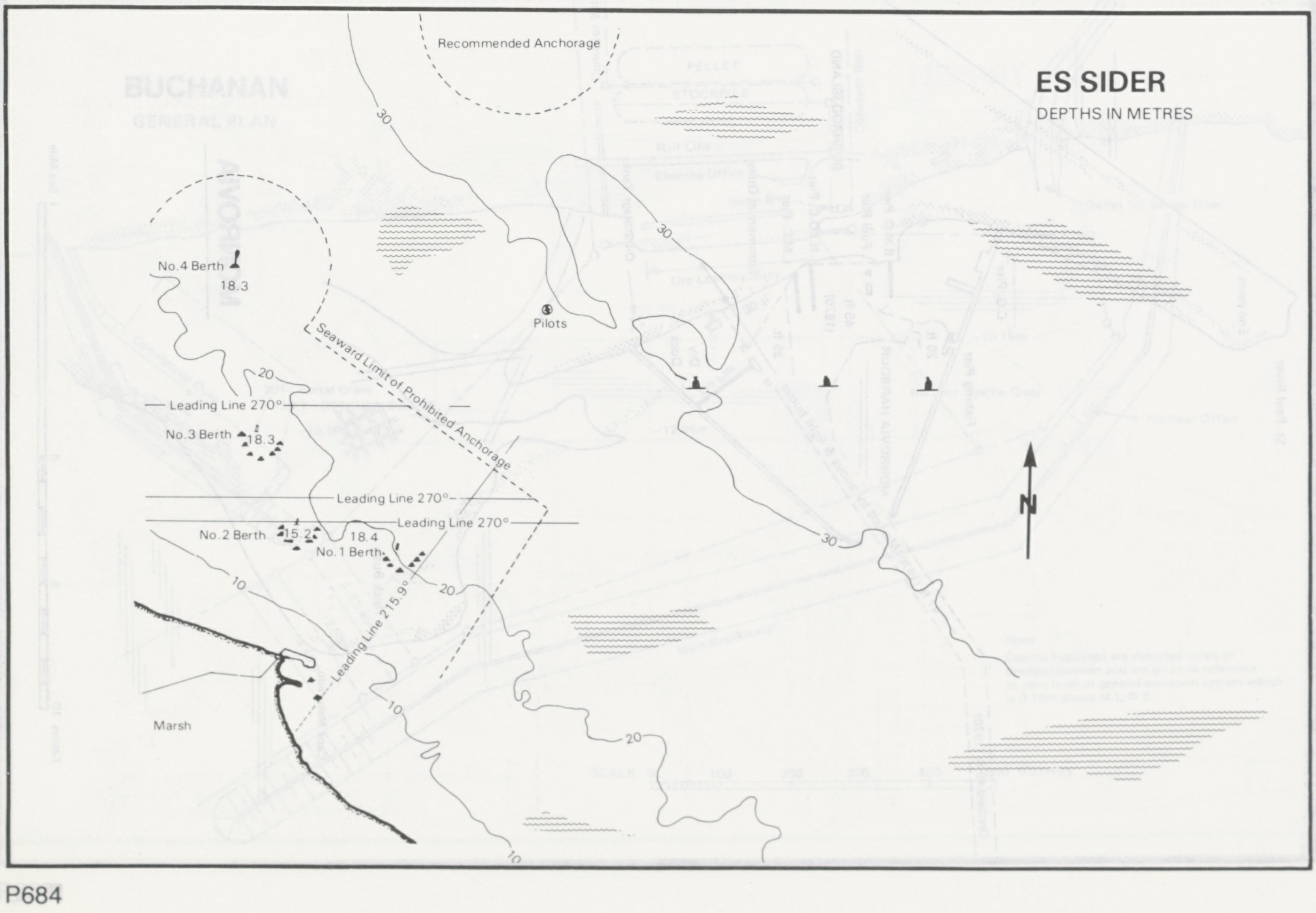
1. Minimum reach of shiploader outside fendered quayside = 4.50m
2. Maximum reach of shiploader outside fendered quayside = 23.0m (incl. throw)
3. Max. possible beam of ship with 5m symmetrical spout trimming across hatch = 43m
4. Aftermost position of stern, when draft aft exceeds 9.0m
5. Foremost position of bow for acceptable mooring to anchor block
6. Any hatch located more than 245.0m from extreme stern must be loaded before draft aft exceeds 9.0m
7. Min. advisable clearance under keel: $c = \frac{3B \text{ ft.}}{125}$ (B = ship's beam in feet)
8. Max. advisable draft (cargo completed on high tide) is 41½ – 42½ ft. depending on height of tide and required clearance under keel. Ships drawing 39 feet can be handled at all times
9. Free board height under shiploader should not exceed 15m

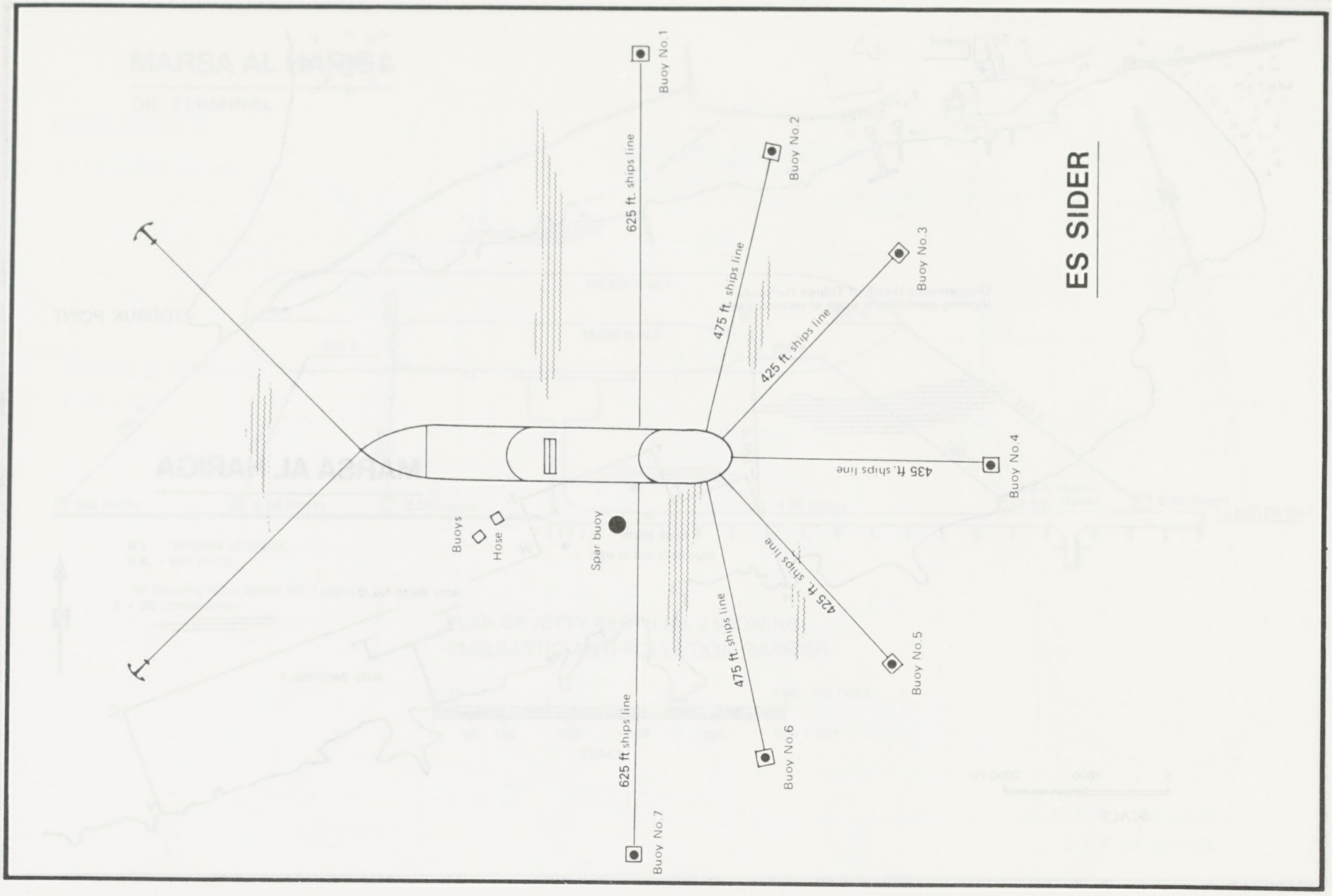
NOTE: Information on this drawing is given as advice only and does not constitute a guarantee, that ships of indicated max. dimension can always be loaded. In addition, several other factors like trimming, ballasting and deballasting, stresses in the hull etc must be taken into account by the owner or master of the ship.


St. Paul River
End point
C.G. Pier
Fishing Pier
20 ft.
BUSHROD ISLAND
B.M.C. Pier
Fuel Pier
45 ft. (1970)
N.I.O.C. Pier
L.M.C. Pier
35 ft.
Commercial Quay
30 ft.
Oil Storage Tanks
Oil Pier
Dry Dock
MONROVIA HARBOUR
47 ft (1970) Marked by buoys & light buoys
Dredged 49 ft (1970)
Thick Bush
Cape Mesurado
1 Sea Mile
0
5
10
Cables

MONROVIA

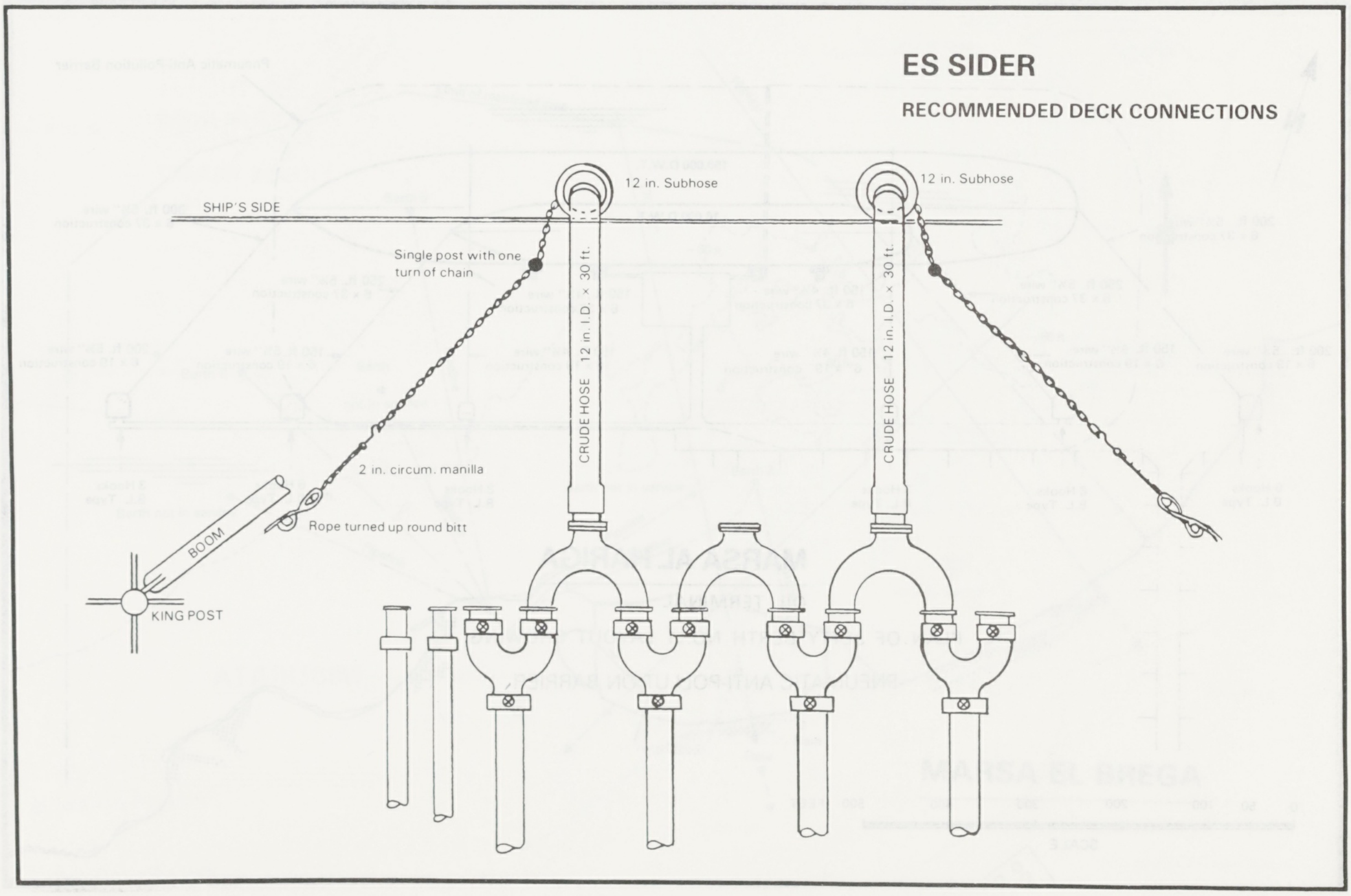

DERNA
DEPTHS IN FATHOMS
Port Offices
General Cargo
Container Berth
Grain Berth
Turning Circle
Fl.G.
Fl.R.
-6
-3
-6
-6
-3


ES SIDER
DEPTHS IN METRES
Recommended Anchorage
30
30
No.4 Berth
18.3
Pilots
Seaward Limit of Prohibited Anchorage
20
Leading Line 270°
No.3 Berth
18.3
Leading Line 270°
Leading Line 270°
No.2 Berth
15.2
18.4
No.1 Berth
10
20
Leading Line 215.9°
Marsh
10
20
10
30
N



ES SIDER

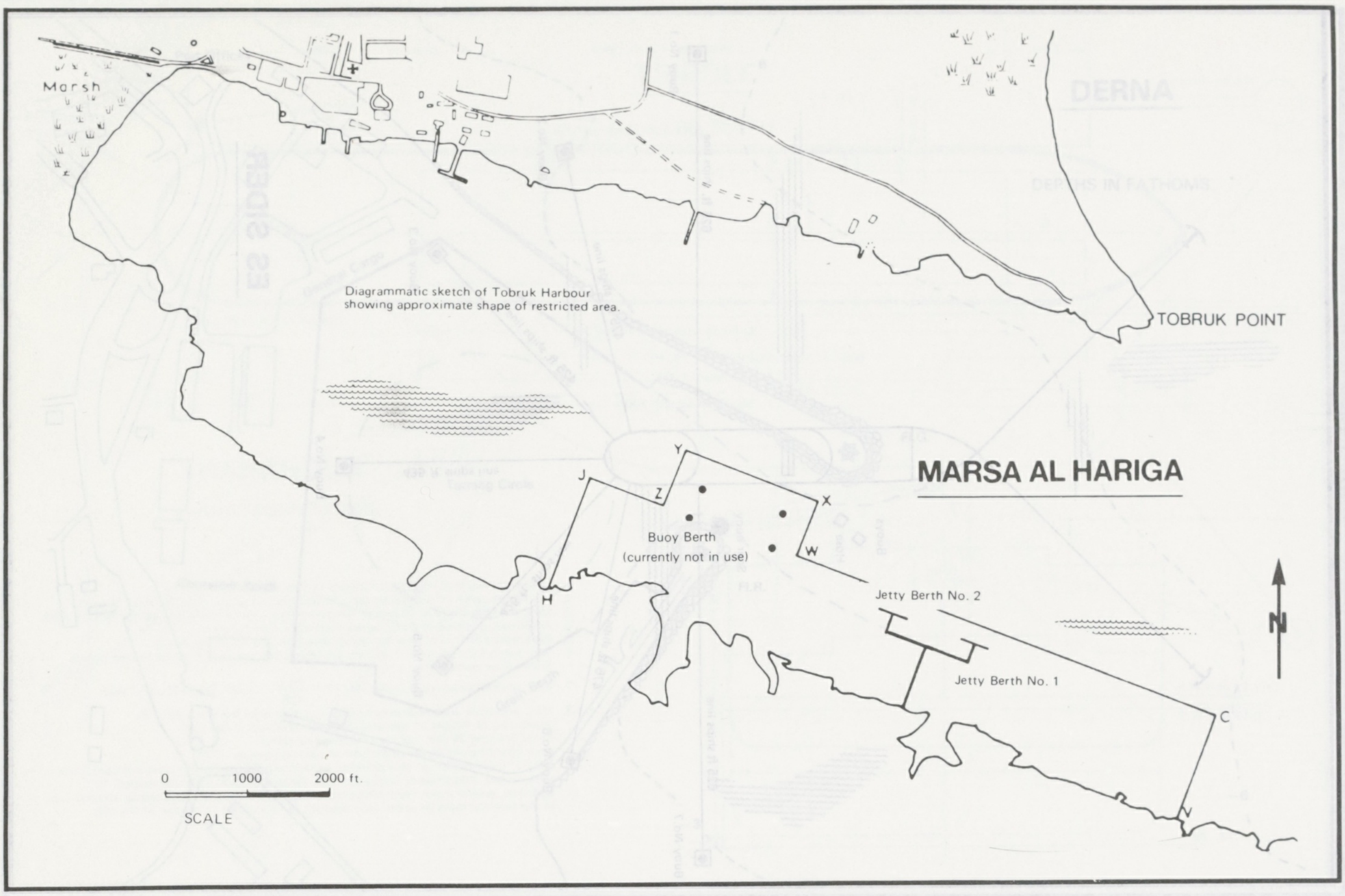
Buoy No.1
625 ft. ships line
Buoy No.2
475 ft. ships line
Buoy No.3
425 ft. ships line
Buoy No.4
435 ft. ships line
Buoys
Hose
Spar buoy
425 ft. ships line
Buoy No.5
475 ft. ships line
Buoy No.6
625 ft. ships line
Buoy No.7

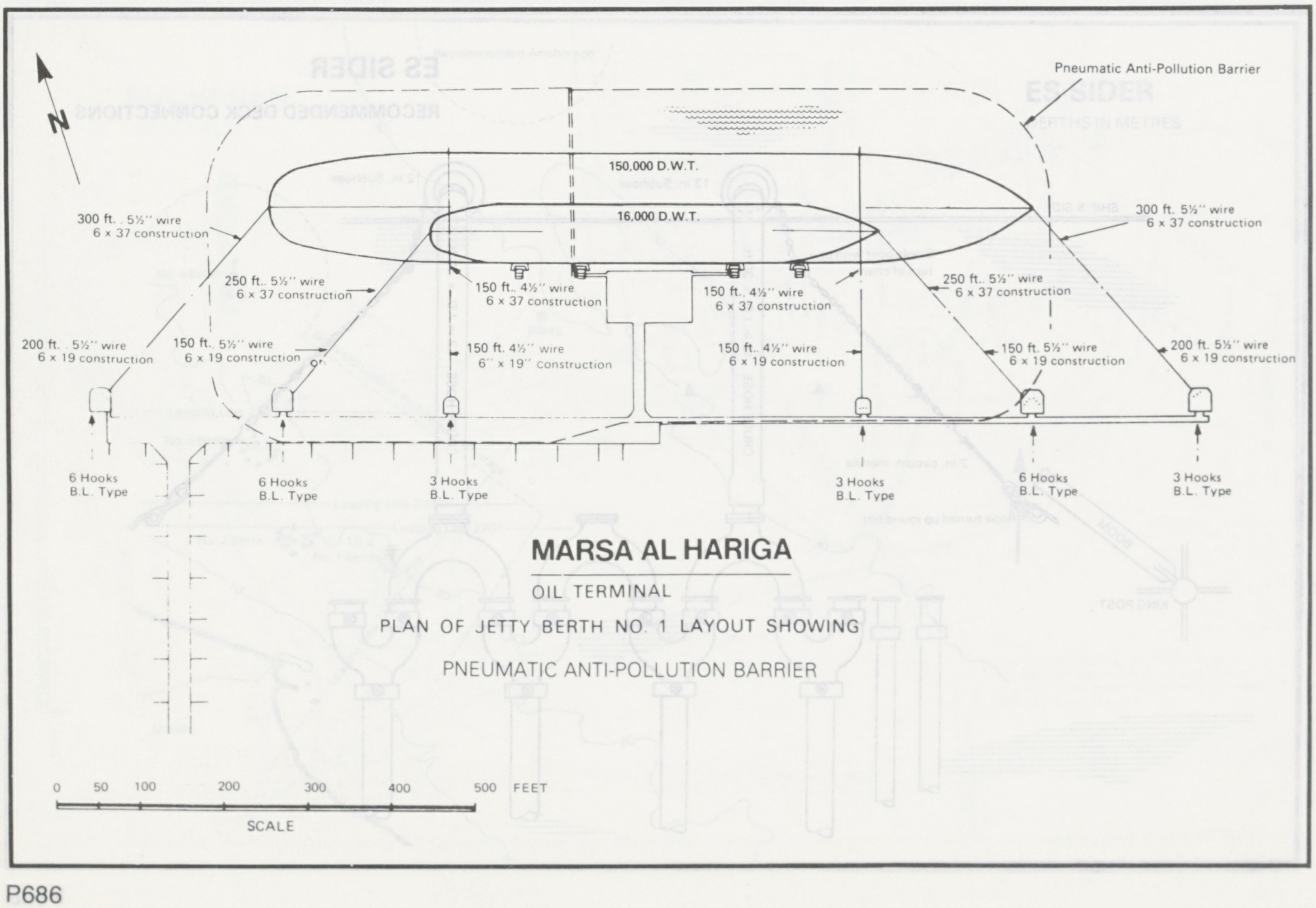


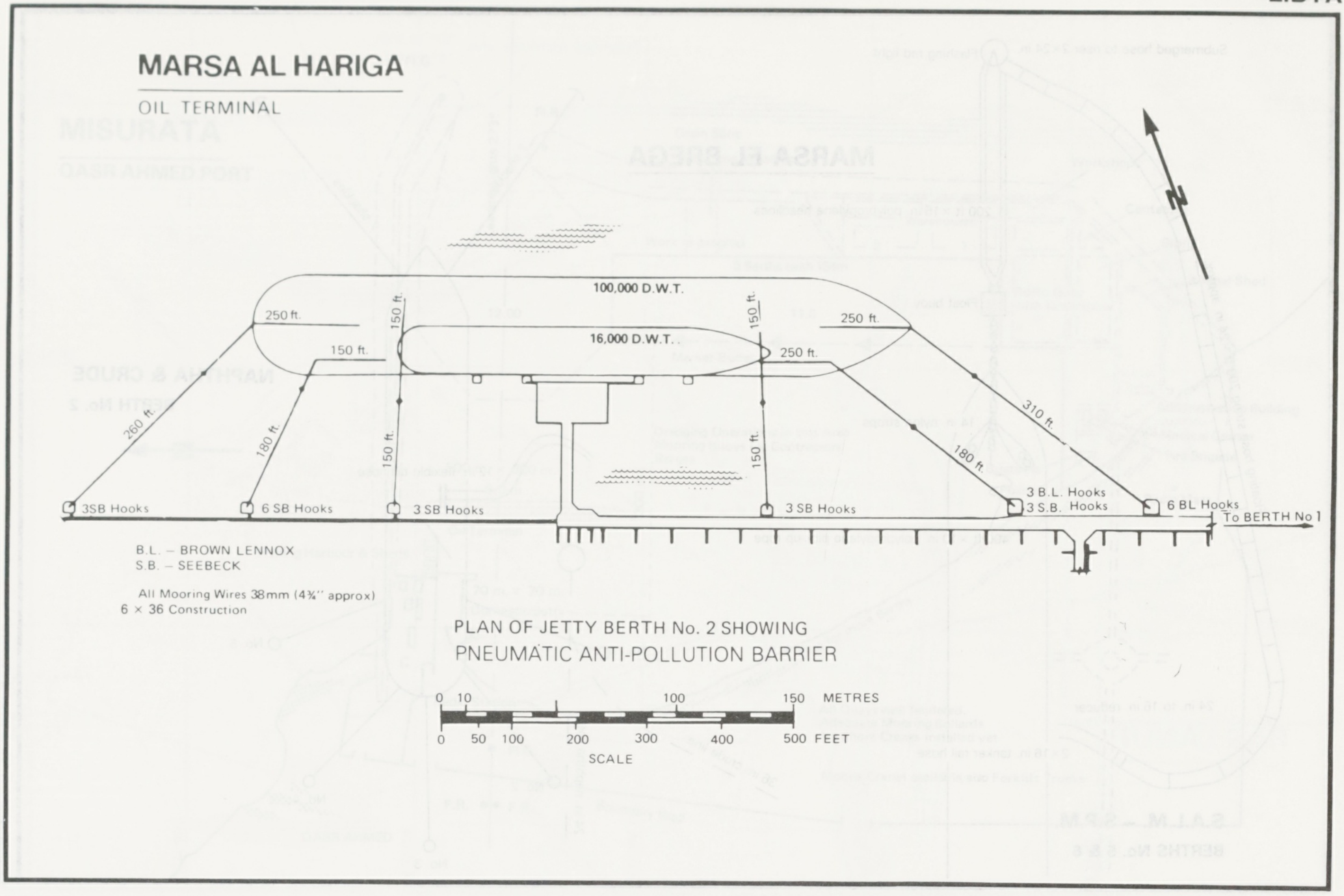
ES SIDER

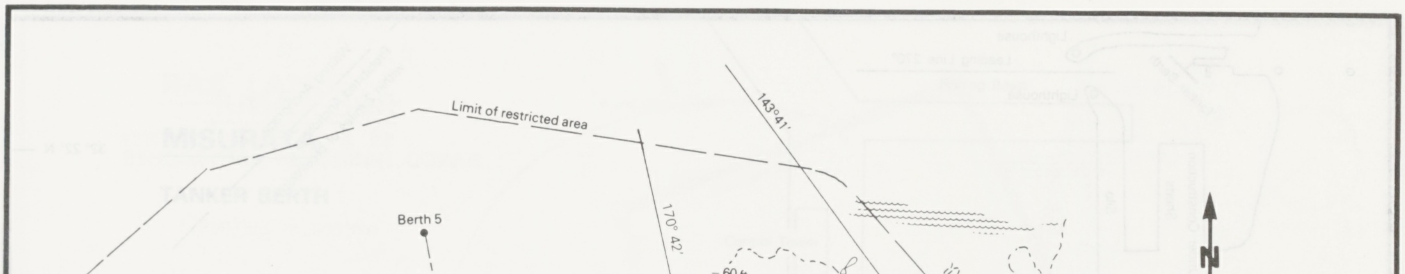
RECOMMENDED DECK CONNECTIONS

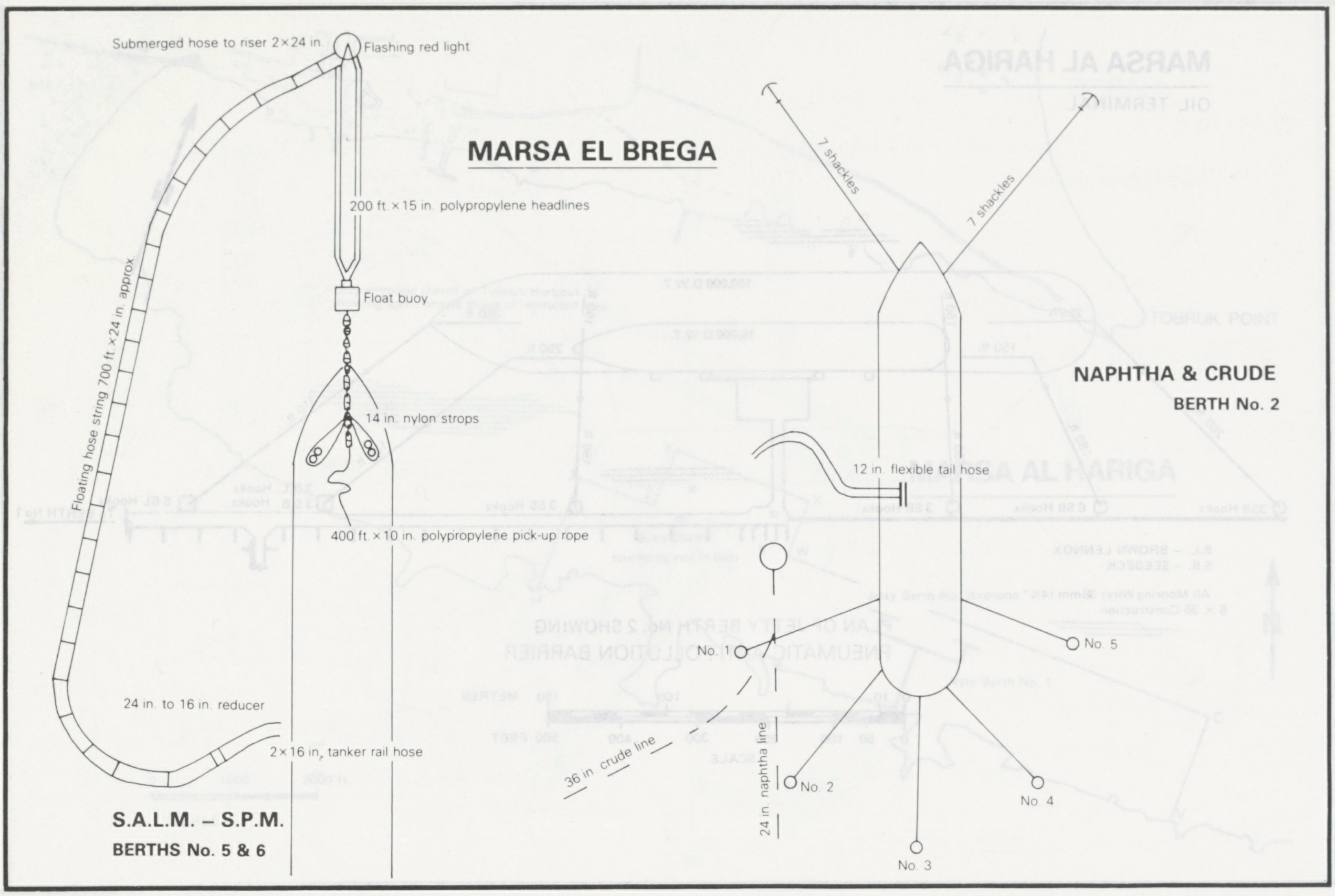
12 in. Subhose
12 in. Subhose
SHIP'S SIDE
Single post with one turn of chain
CRUDE HOSE 12 in. I.D. × 30 ft.
CRUDE HOSE 12 in. I.D. × 30 ft.
2 in. circum. manilla
Rope turned up round bitt
BOOM
KING POST

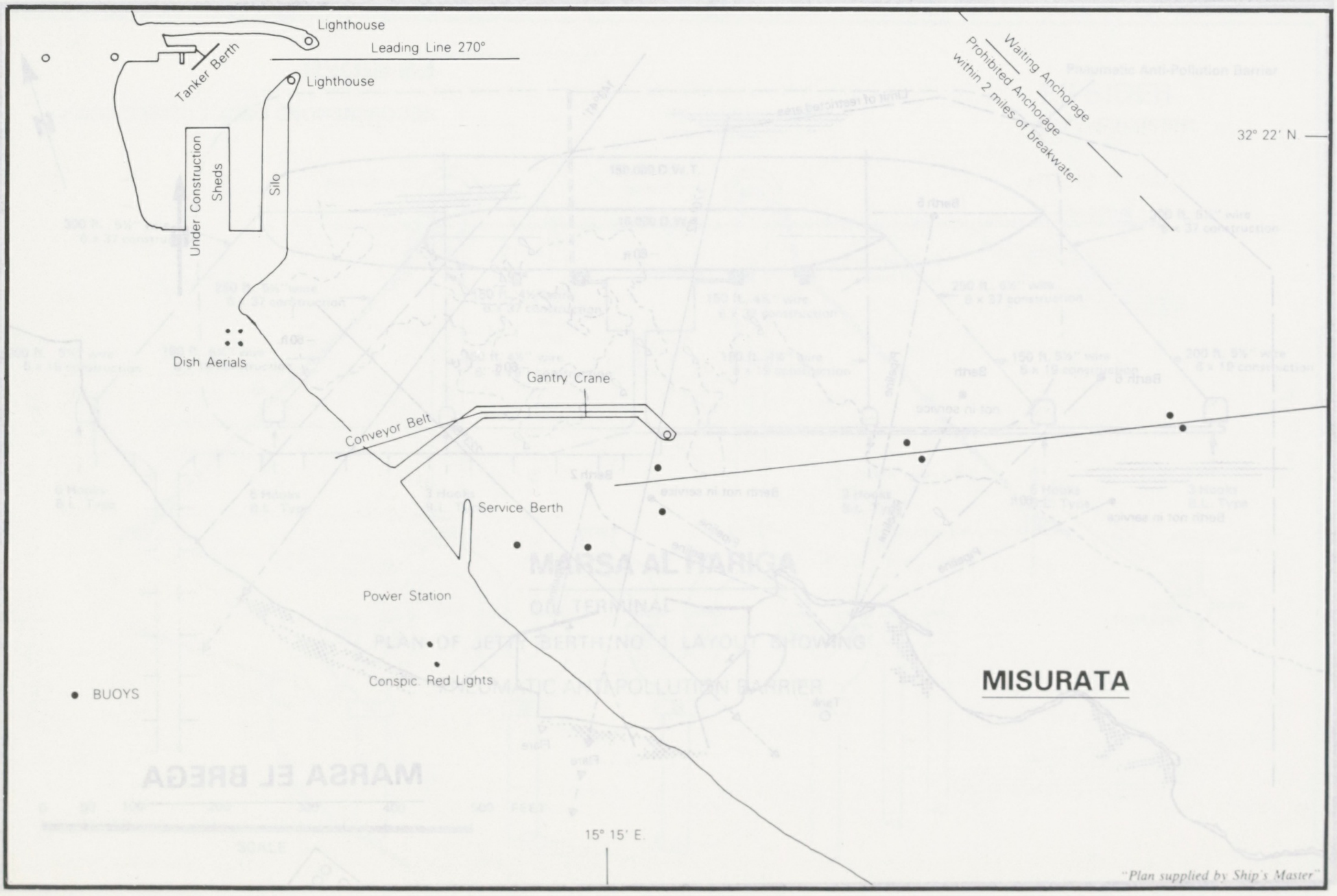

Marsh
Diagrammatic sketch of Tobruk Harbour showing approximate shape of restricted area.
TOBRUK POINT
MARSA AL HARIGA
J
Y
Z
X
W
H
Buoy Berth
(currently not in use)
Jetty Berth No. 2
Jetty Berth No. 1
C
V
N
0
1000
2000 ft.
SCALE


N
Pneumatic Anti-Pollution Barrier
150,000 D.W.T.
16,000 D.W.T.
300 ft.. 5½" wire
6 x 37 construction
250 ft.. 5½" wire
6 x 37 construction
200 ft.. 5½" wire
6 x 19 construction
150 ft.. 5½" wire
6 x 19 construction
150 ft.. 4½" wire
6 x 37 construction
150 ft. 4½" wire
6" x 19" construction
150 ft.. 4½" wire
6 x 37 construction
150 ft.. 4½" wire
6 x 19 construction
300 ft. 5½" wire
6 x 37 construction
250 ft.. 5½" wire
6 x 37 construction
150 ft. 5½" wire
6 x 19 construction
200 ft. 5½" wire
6 x 19 construction
6 Hooks
B.L. Type
6 Hooks
B.L. Type
3 Hooks
B.L. Type
3 Hooks
B.L. Type
6 Hooks
B.L. Type
3 Hooks
B.L. Type
MARSA AL HARIGA
OIL TERMINAL
PLAN OF JETTY BERTH NO. 1 LAYOUT SHOWING
PNEUMATIC ANTI-POLLUTION BARRIER
0
50
100
200
300
400
500 FEET
SCALE

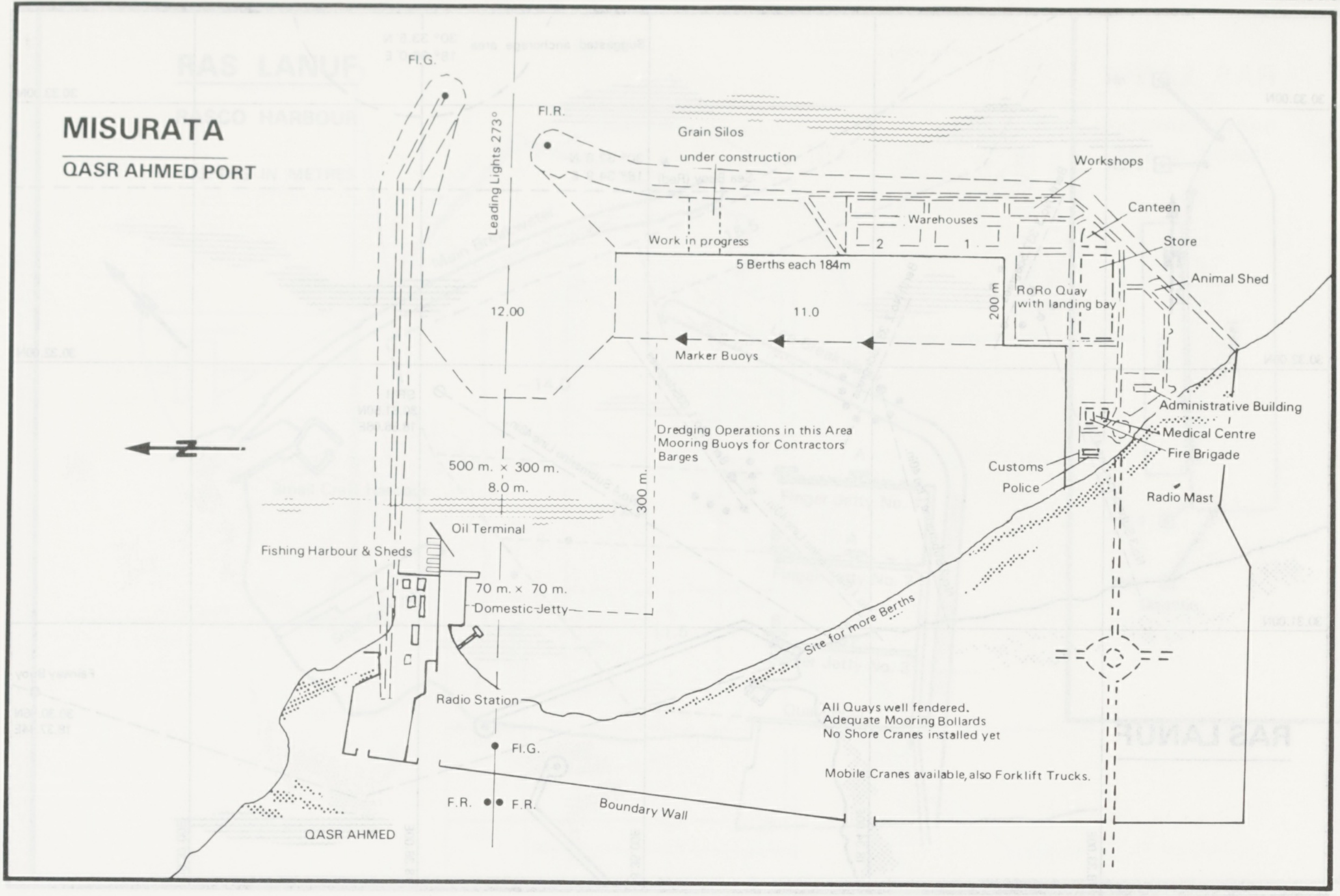

MARSA AL HARIGA
OIL TERMINAL
100,000 D.W.T.
16,000 D.W.T.
250 ft.
150 ft.
150 ft.
150 ft.
250 ft.
250 ft.
260 ft.
180 ft.
150 ft.
150 ft.
310 ft.
180 ft.
3SB Hooks
6 SB Hooks
3 SB Hooks
3 SB Hooks
3 B.L. Hooks
3 S.B. Hooks
6 BL Hooks
To BERTH No 1
B.L. – BROWN LENNOX
S.B. – SEEBECK
All Mooring Wires 38mm (4¾'' approx)
6 × 36 Construction
PLAN OF JETTY BERTH No. 2 SHOWING
PNEUMATIC ANTI-POLLUTION BARRIER
0
10
100
150
METRES
0
50
100
200
300
400
500
FEET
SCALE
N

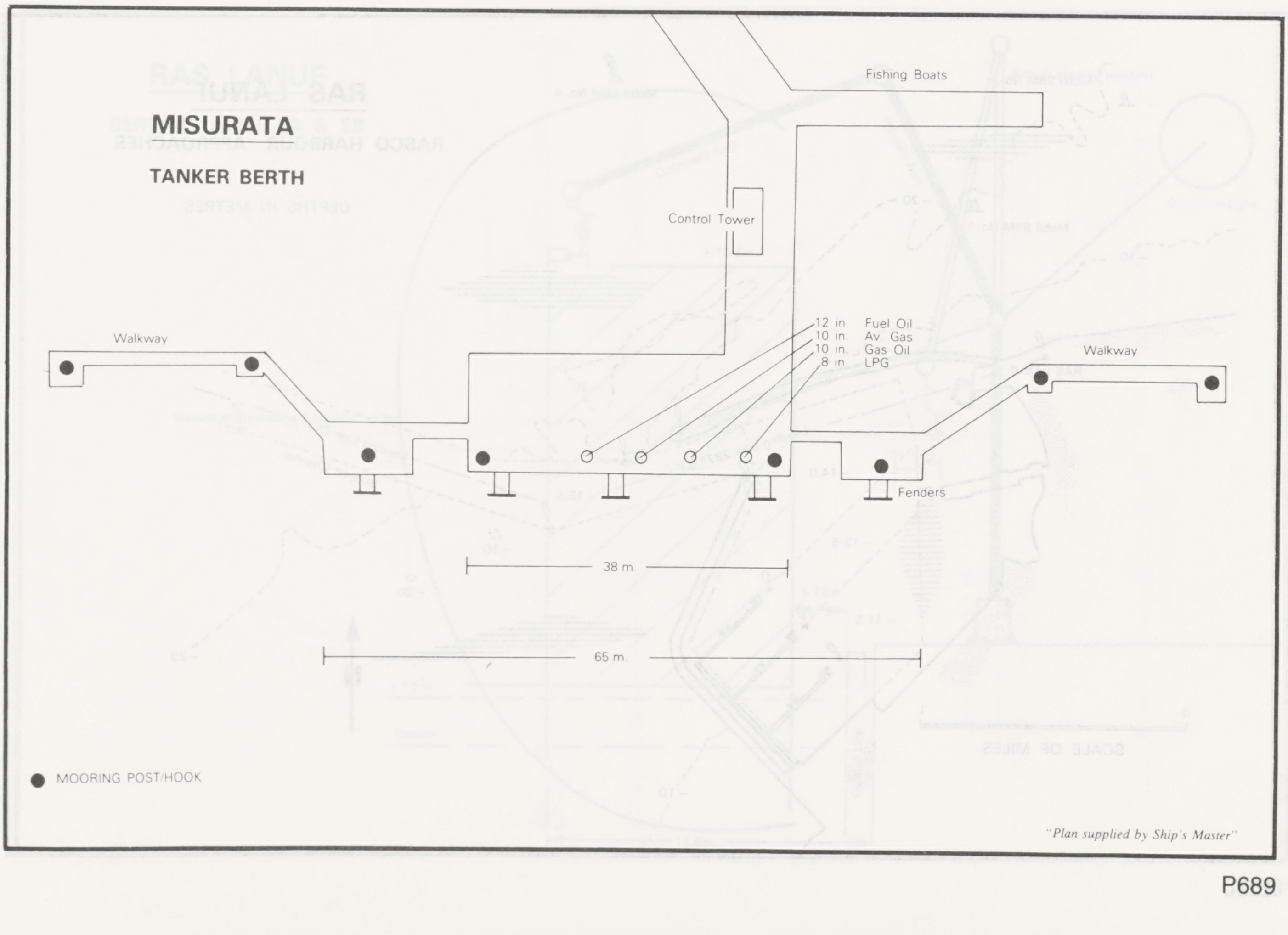

Limit of restricted area
143°41'
170° 42'
223°58'
N
Berth 5
Berth 6
Berth
not in service
Pipeline
Pipeline
Pipeline
Pipeline
Pipeline
Pipeline
Berth not in service
Berth not in service
Berth 2
– 60 ft.
– 60 ft.
– 60 ft.
– 60 ft.
Tank
Flare
Flare
MARSA EL BREGA


Submerged hose to riser 2×24 in.
Flashing red light
MARSA EL BREGA
200 ft. × 15 in. polypropylene headlines
Float buoy
Floating hose string 700 ft × 24 in. approx
14 in. nylon strops
400 ft. × 10 in. polypropylene pick-up rope
24 in. to 16 in. reducer
2×16 in. tanker rail hose
S.A.L.M. – S.P.M.
BERTHS No. 5 & 6
7 shackles
7 shackles
NAPHTHA & CRUDE
BERTH No. 2
12 in. flexible tail hose
No. 1
No. 5
36 in. crude line
24 in. naphtha line
No. 2
No. 4
No. 3

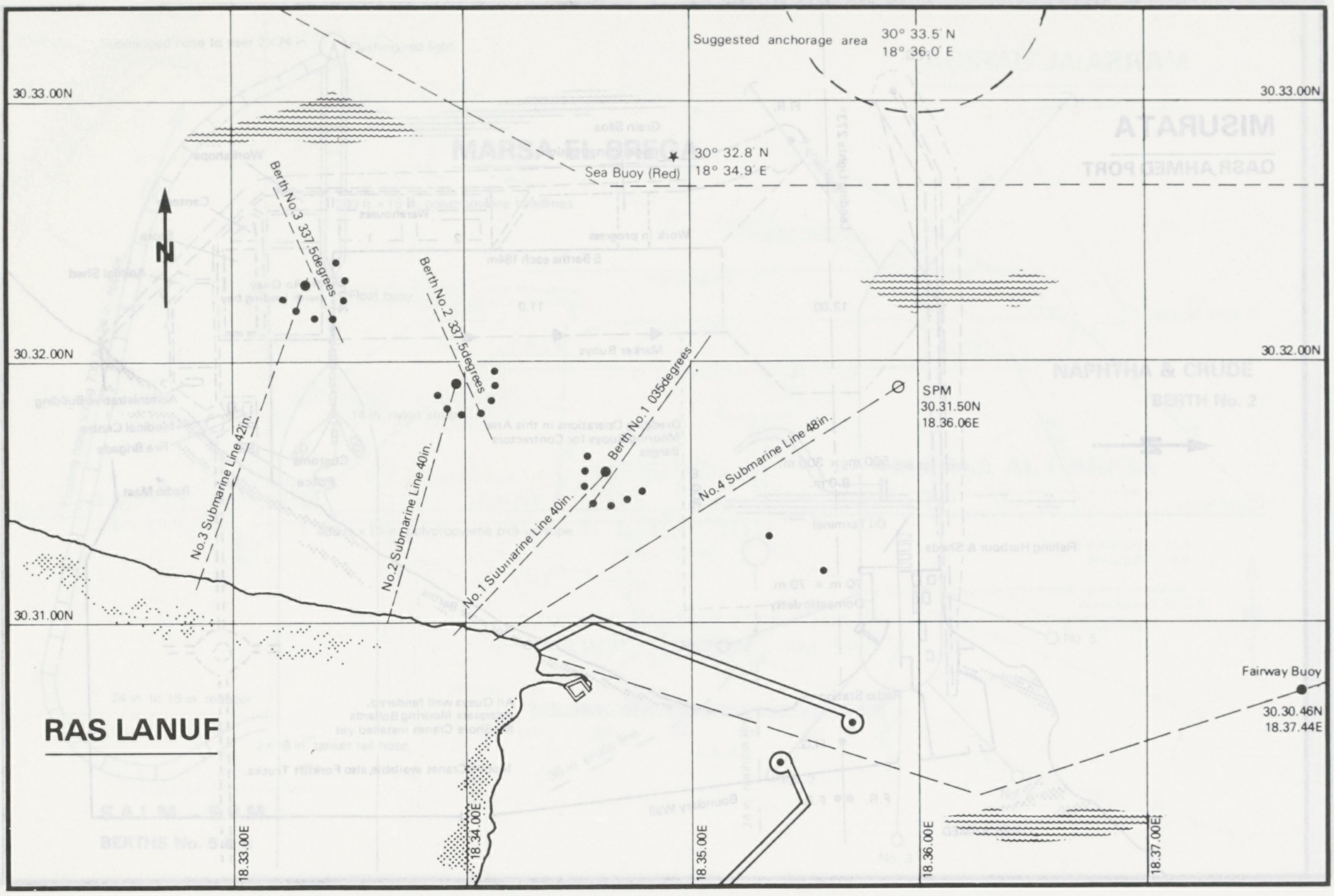

Lighthouse
Leading Line 270°
Tanker Berth
Lighthouse
Under Construction
Sheds
Silo
Waiting Anchorage
Prohibited Anchorage within 2 miles of breakwater
32° 22′ N
Dish Aerials
Gantry Crane
Conveyor Belt
Service Berth
Power Station
Conspic Red Lights
● BUOYS
MISURATA
15° 15′ E.

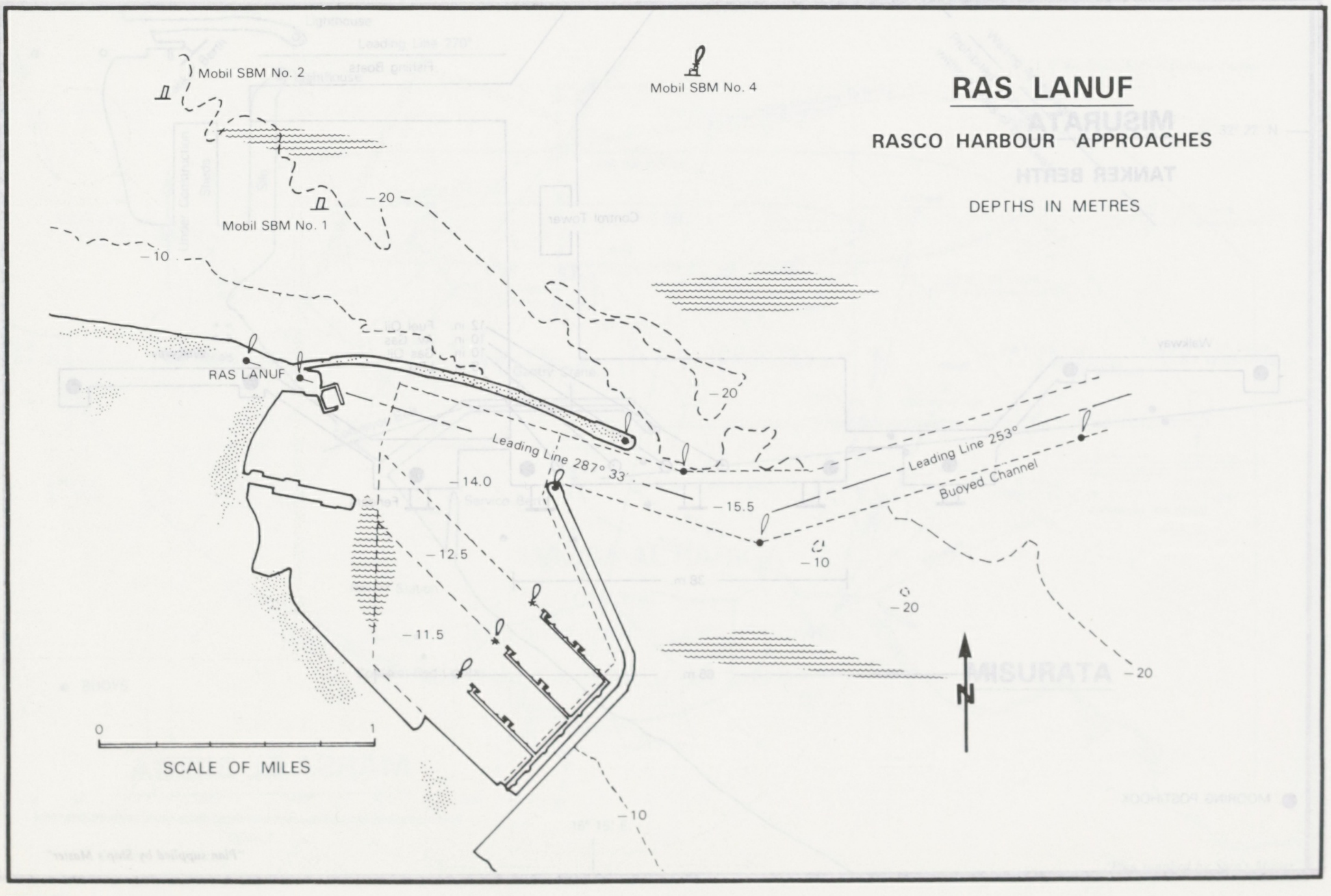
"Plan supplied by Ship's Master"

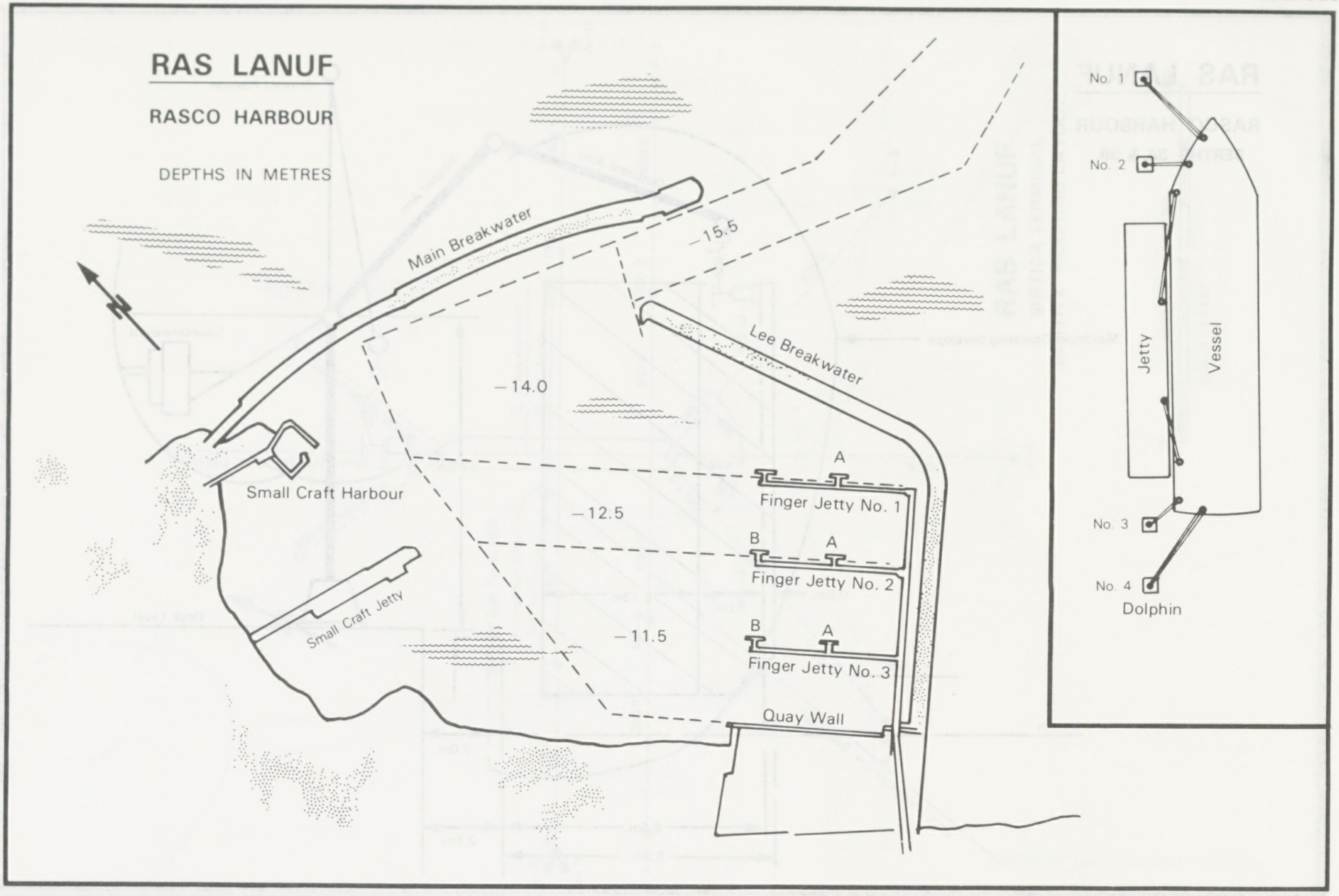

MISURATA
QASR AHMED PORT
Fl.G.
Fl.R.
Leading Lights 273°
Grain Silos
under construction
Workshops
Canteen
Warehouses
2
1
Store
Work in progress
5 Berths each 184m
Animal Shed
RoRo Quay
with landing bay
200 m
12.00
11.0
Marker Buoys
N
Administrative Building
Medical Centre
Fire Brigade
Dredging Operations in this Area
Mooring Buoys for Contractors
Barges
Customs
Police
Radio Mast
500 m. × 300 m.
8.0 m.
300 m.
Oil Terminal
Fishing Harbour & Sheds
70 m. × 70 m.
Domestic Jetty
Site for more Berths
Radio Station
All Quays well fendered.
Adequate Mooring Bollards
No Shore Cranes installed yet
Fl.G.
Mobile Cranes available, also Forklift Trucks.
F.R.
F.R.
Boundary Wall
QASR AHMED

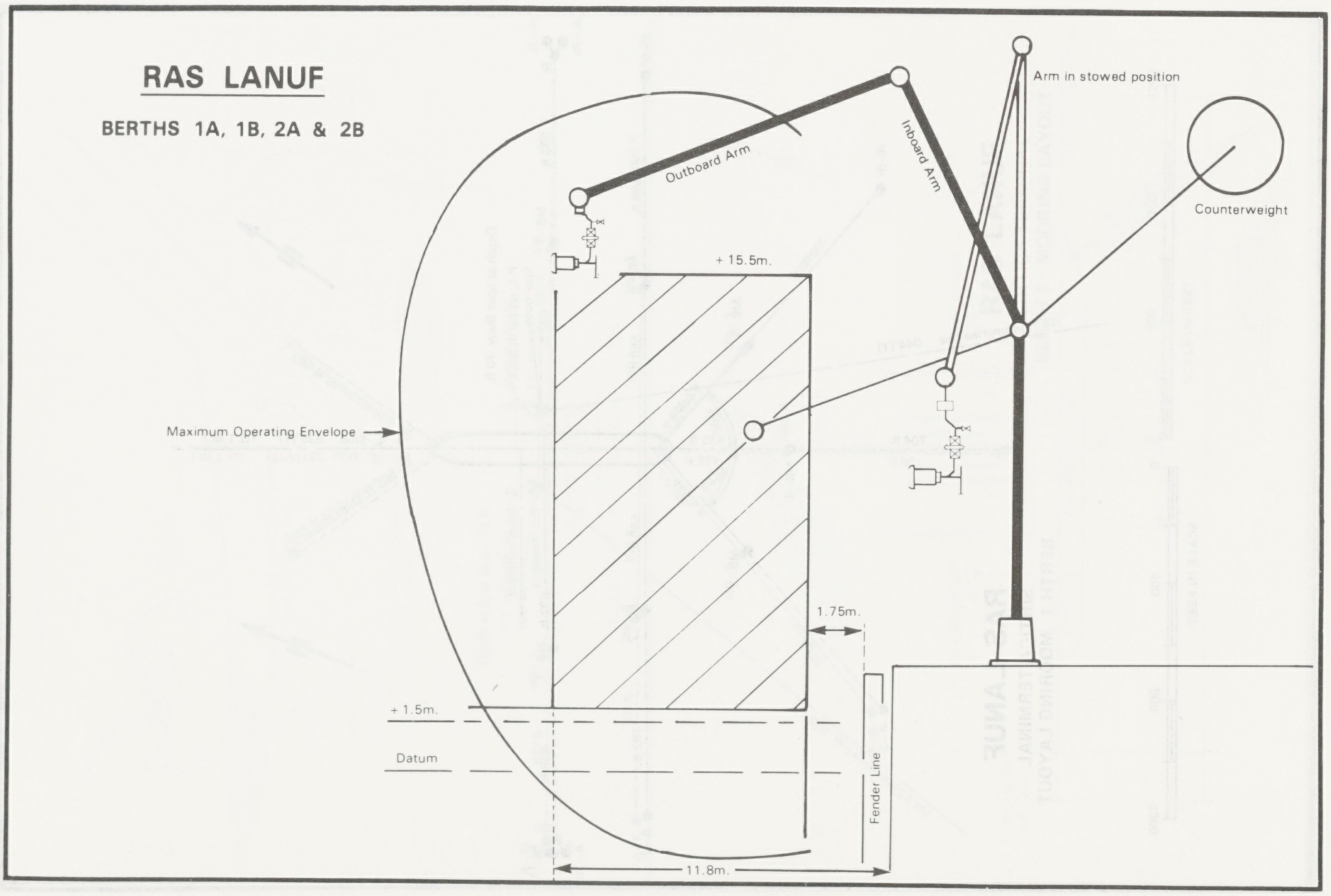

MISURATA
TANKER BERTH
Fishing Boats
Control Tower
12 in Fuel Oil
10 in Av Gas
10 in. Gas Oil
8 in LPG
Walkway
Walkway
Fenders
38 m.
65 m.
● MOORING POST/HOOK

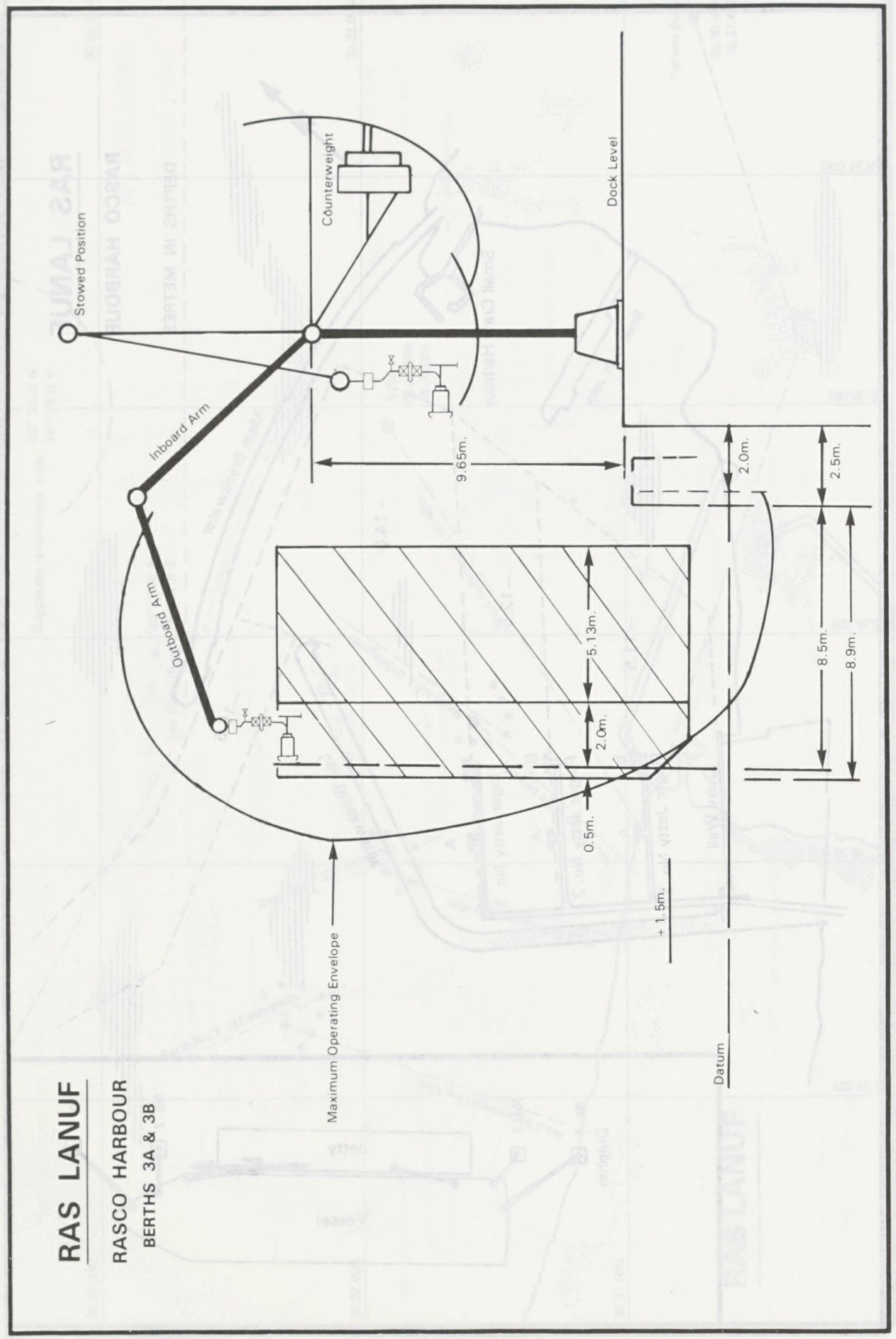
"Plan supplied by Ship's Master"


Suggested anchorage area
30° 33.5′ N
18° 36.0′ E
30.33.00N
30.33.00N
30° 32.8′ N
18° 34.9′ E
Sea Buoy (Red)
N
Berth No.3 337.5degrees
Berth No.2 337.5degrees
Berth No.1 035degrees
30.32.00N
30.32.00N
SPM
30.31.50N
18.36.06E
No.4 Submarine Line 48in.
No.3 Submarine Line 42in.
No.2 Submarine Line 40in.
No.1 Submarine Line 40in.
30.31.00N
Fairway Buoy
30.30.46N
18.37.44E
RAS LANUF
18.33.00E
18.34.00E
18.35.00E
18.36.00E
18.37.00E


Mobil SBM No. 2
Mobil SBM No. 4
RAS LANUF
RASCO HARBOUR APPROACHES
DEPTHS IN METRES
−20
Mobil SBM No. 1
−10
RAS LANUF
−20
Leading Line 287° 33′
−14.0
−15.5
Leading Line 253°
Buoyed Channel
−10
−12.5
−20
−11.5
−20
N
0
1
SCALE OF MILES
−10


RAS LANUF
RASCO HARBOUR
DEPTHS IN METRES
Main Breakwater
−15.5
Lee Breakwater
−14.0
Small Craft Harbour
−12.5
Small Craft Jetty
−11.5
A
Finger Jetty No. 1
B
A
Finger Jetty No. 2
B
A
Finger Jetty No. 3
Quay Wall
No. 1
No. 2
Jetty
Vessel
No. 3
No. 4
Dolphin


RAS LANUF
BERTHS 1A, 1B, 2A & 2B
Arm in stowed position
Outboard Arm
Inboard Arm
Counterweight
+ 15.5m.
Maximum Operating Envelope
1.75m.
+ 1.5m.
Datum
Fender Line
11.8m.

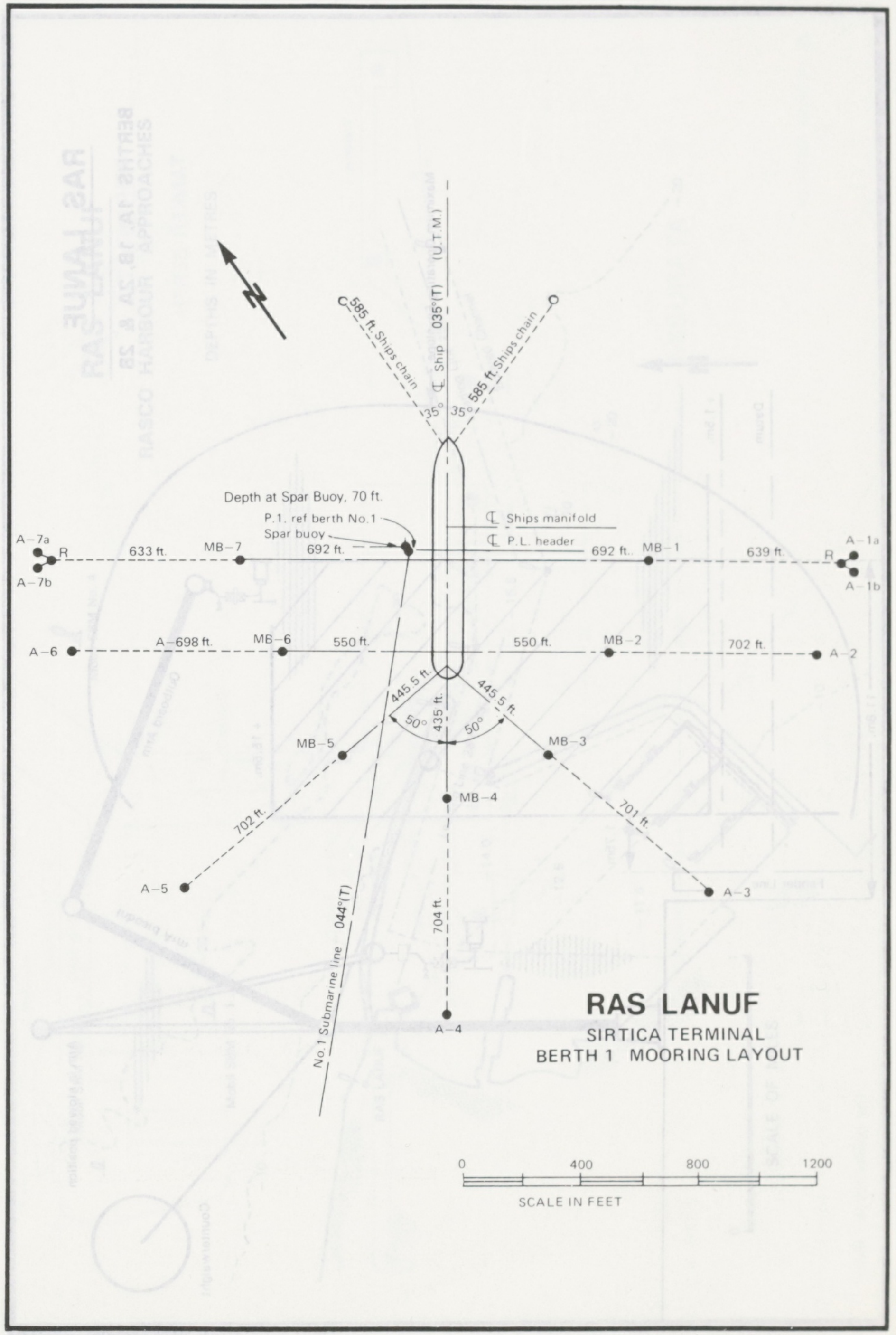


RAS LANUF

RASCO HARBOUR

BERTHS 3A & 3B

Stowed Position
Counterweight
Dock Level
Inboard Arm
Outboard Arm
9.65m.
2.0m.
2.5m.
5.13m.
2.0m.
8.5m.
8.9m.
0.5m.
+1.5m.
Datum
Maximum Operating Envelope

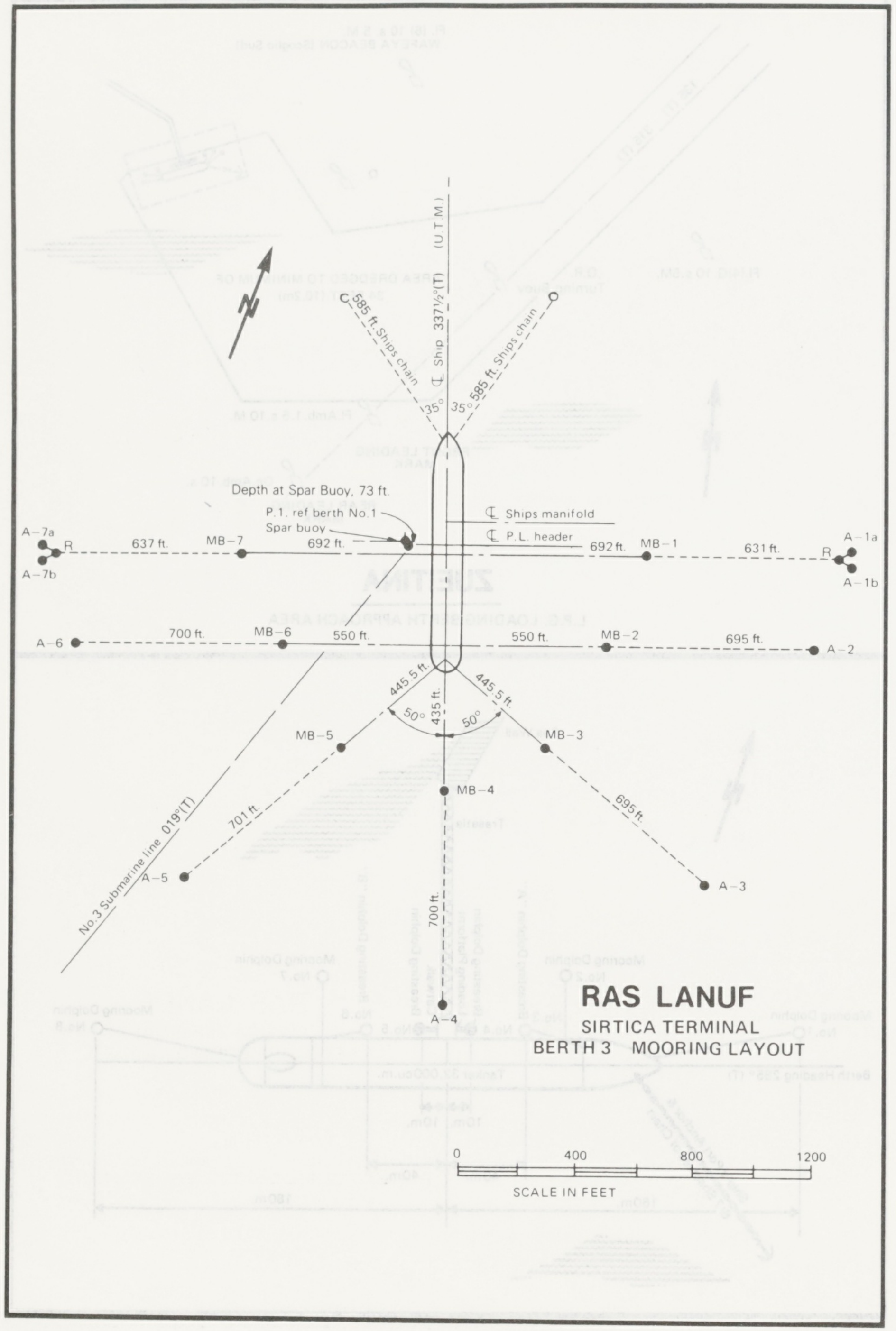


RAS LANUF

SIRTICA TERMINAL

BERTH 1 MOORING LAYOUT

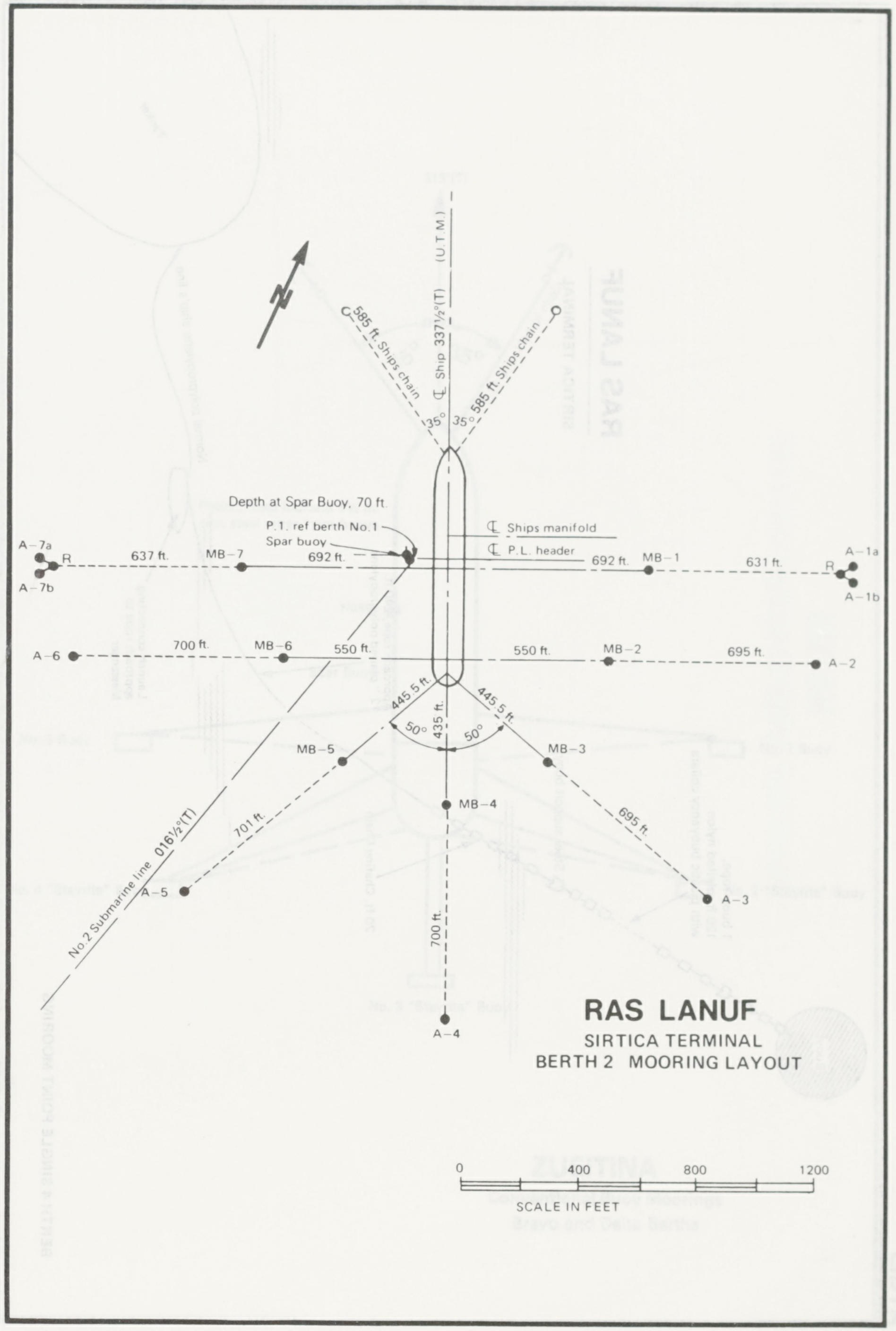
N
585 ft. Ships chain
585 ft. Ships chain
℄ Ship 035°(T) (U.T.M.)
35°
35°
Depth at Spar Buoy, 70 ft.
P.1. ref berth No.1
Spar buoy
℄ Ships manifold
℄ P.L. header
A-7a
A-7b
R
633 ft.
MB-7
692 ft.
692 ft.
MB-1
639 ft.
R
A-1a
A-1b
A-6
A-698 ft.
MB-6
550 ft.
550 ft.
MB-2
702 ft.
A-2
445.5 ft.
445.5 ft.
50°
435 ft.
50°
MB-5
MB-3
MB-4
702 ft.
701 ft.
A-5
A-3
704 ft.
A-4
No.1 Submarine line 044°(T)
0
400
800
1200
SCALE IN FEET



(U.T.M.)
℄ Ship 337½°(T)
585 ft. Ships chain
585 ft. Ships chain
35°
35°
Depth at Spar Buoy, 73 ft.
P.1. ref berth No.1
Spar buoy
℄ Ships manifold
℄ P.L. header
A–7a
A–7b
R
637 ft.
MB–7
692 ft.
692 ft.
MB–1
631 ft.
R
A–1a
A–1b
A–6
700 ft.
MB–6
550 ft.
550 ft.
MB–2
695 ft.
A–2
445.5 ft.
445.5 ft.
435 ft.
50°
50°
MB–5
MB–3
MB–4
701 ft.
695 ft.
A–5
A–3
700 ft.
A–4
No.3 Submarine line 019°(T)
0
400
800
1200
SCALE IN FEET

RAS LANUF

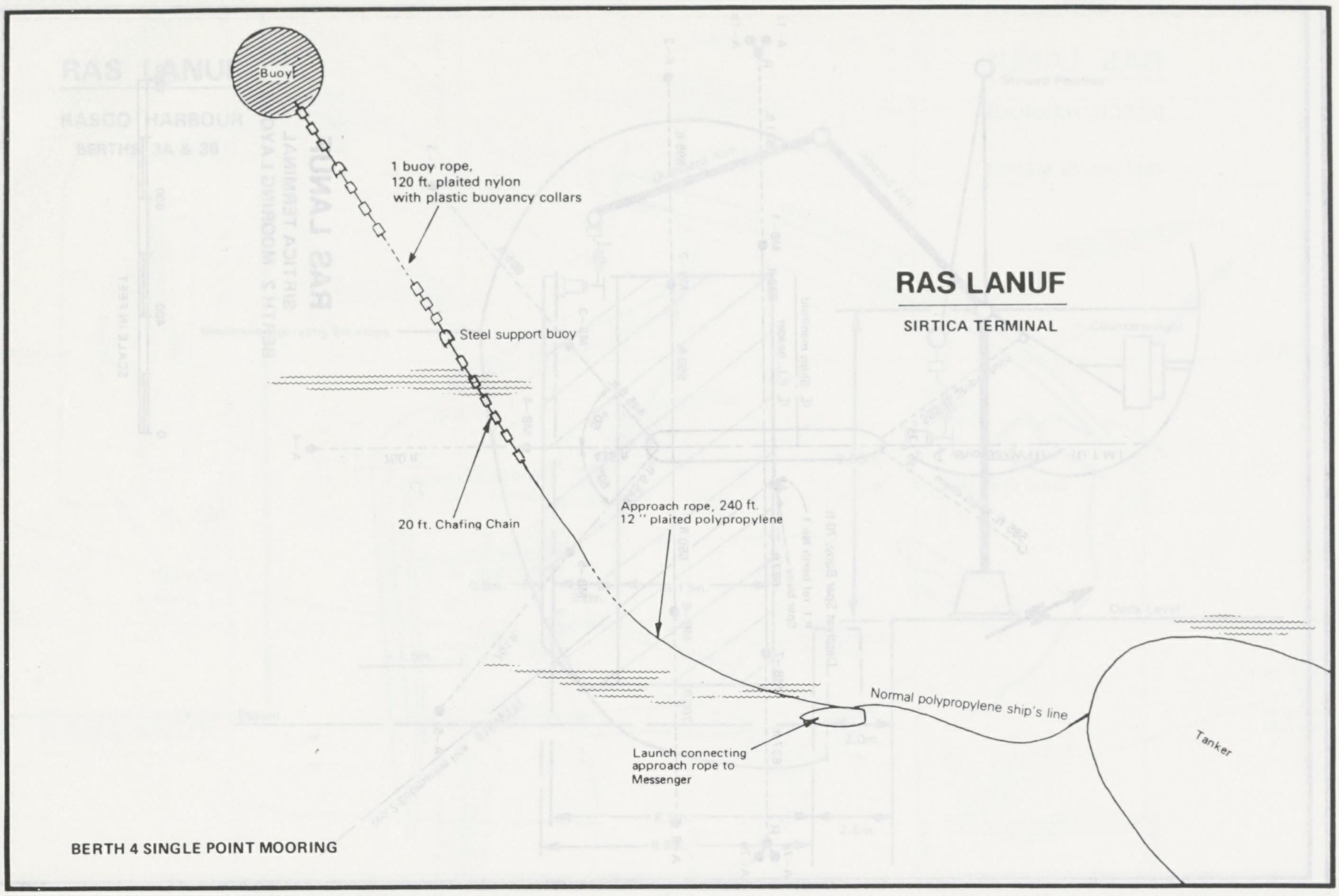
SIRTICA TERMINAL
BERTH 3 MOORING LAYOUT

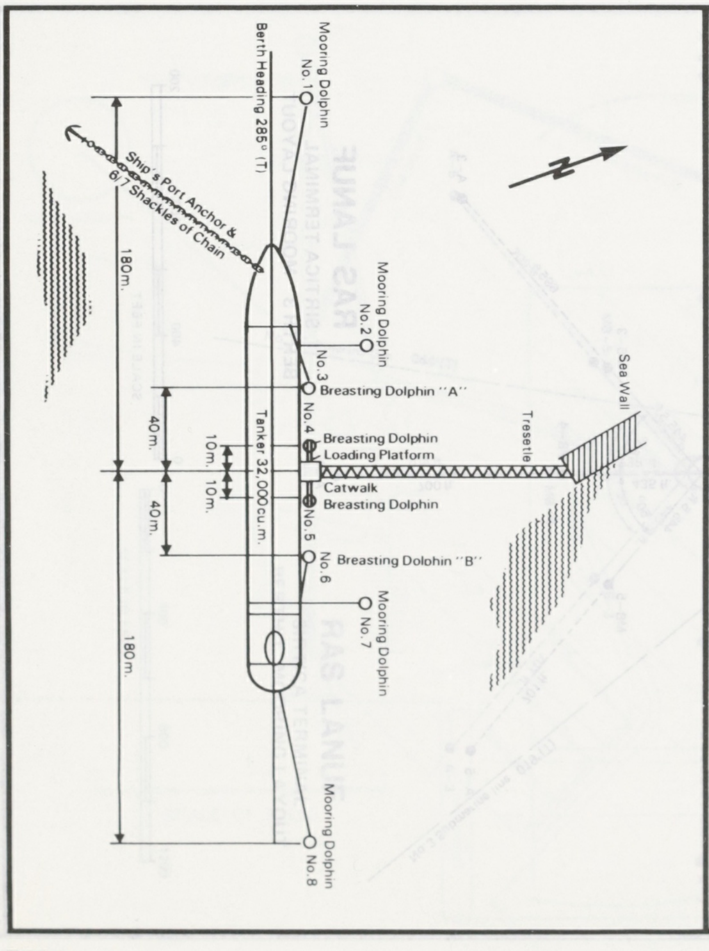


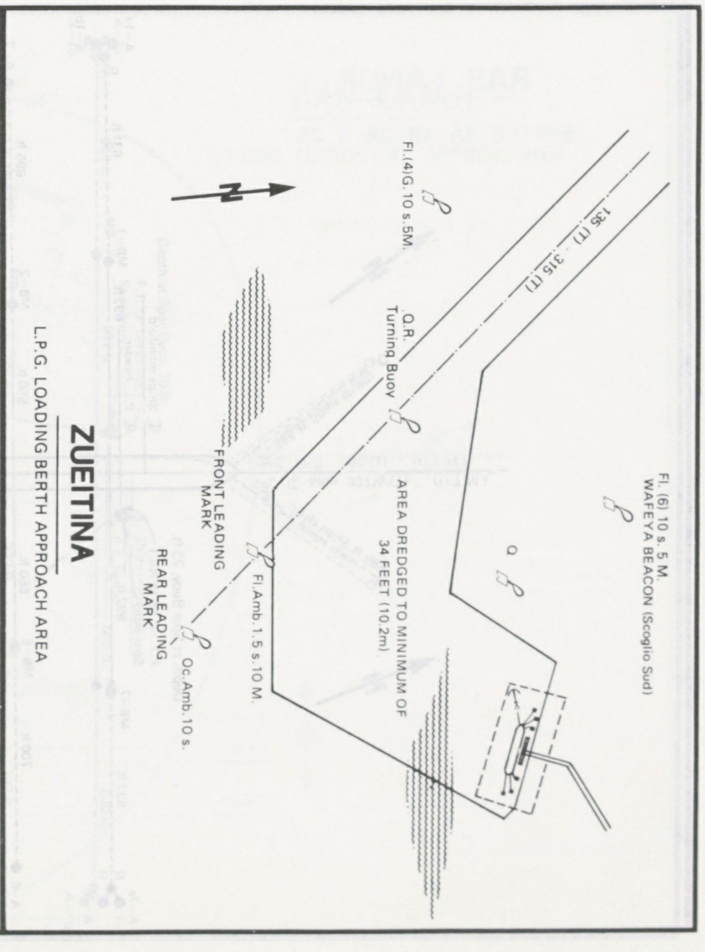
(U.T.M.)
℄ Ship 337½°(T)
585 ft. Ships chain
585 ft. Ships chain
35°
35°
Depth at Spar Buoy, 70 ft.
P.1. ref berth No.1
Spar buoy
℄ Ships manifold
℄ P.L. header
A–7a
A–7b
R
637 ft.
MB–7
692 ft.
692 ft.
MB–1
631 ft.
R
A–1a
A–1b
A–6
700 ft.
MB–6
550 ft.
550 ft.
MB–2
695 ft.
A–2
445.5 ft.
445.5 ft.
435 ft.
50°
50°
MB–5
MB–3
MB–4
701 ft.
695 ft.
A–5
A–3
700 ft.
A–4
No.2 Submarine line 016½°(T)
0
400
800
1200
SCALE IN FEET

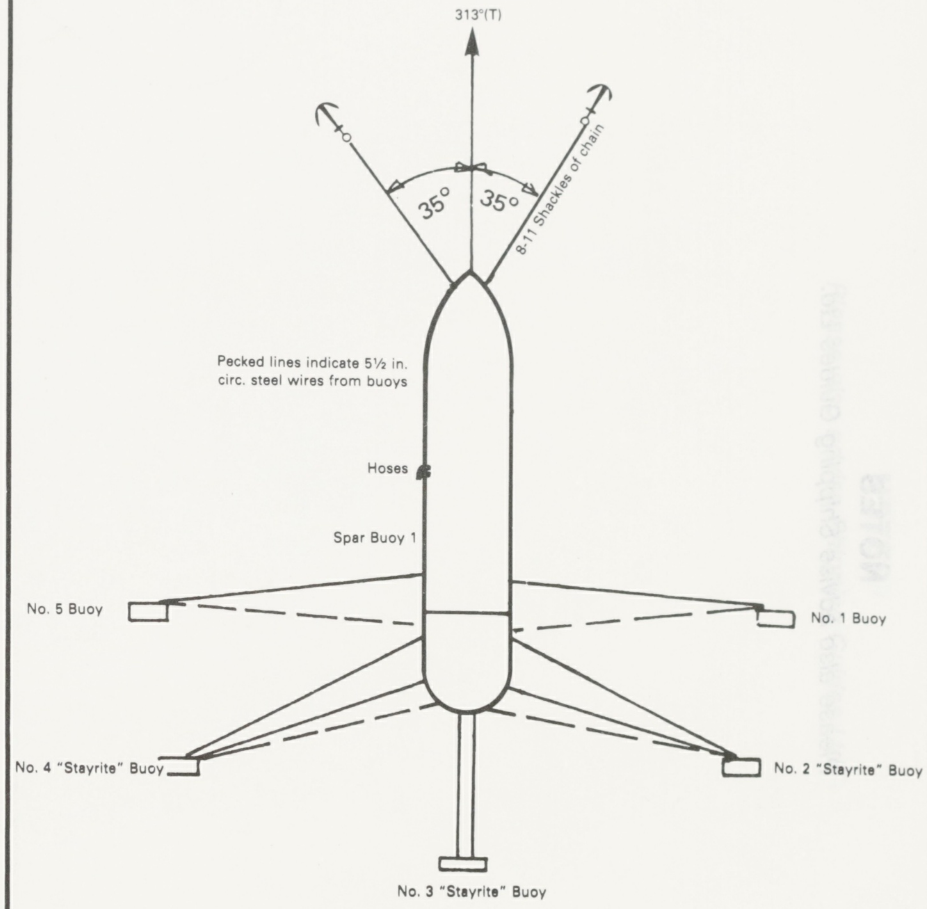
RAS LANUF

SIRTICA TERMINAL
BERTH 2 MOORING LAYOUT


RAS LANUF
SIRTICA TERMINAL
Buoy
1 buoy rope,
120 ft. plaited nylon
with plastic buoyancy collars
Steel support buoy
20 ft. Chafing Chain
Approach rope, 240 ft.
12 '' plaited polypropylene
Normal polypropylene ship's line
Tanker
Launch connecting
approach rope to
Messenger
BERTH 4 SINGLE POINT MOORING


Mooring Dolphin No.1
Berth Heading 285° (T)
Ship's Port Anchor &
6/7 Shackles of Chain
180m.
Mooring Dolphin No.2
No.3
Breasting Dolphin "A"
40m.
10m.
10m.
No.4
Breasting Dolphin
Loading Platform
Catwalk
Breasting Dolphin
No.5
Tresetle
Sea Wall
Tanker 32,000cu.m.
40m.
No.6
Breasting Dolphin "B"
Mooring Dolphin No.7
180m.
Mooring Dolphin No.8


ZUEITINA
L.P.G. LOADING BERTH APPROACH AREA
Fl.(4)G.10 s.5M.
135 (T) - 315 (T)
Q.R.
Turning Buoy
FRONT LEADING
MARK
Fl.Amb.1.5 s.10 M.
REAR LEADING
MARK
Oc.Amb.10 s.
AREA DREDGED TO MINIMUM OF
34 FEET (10.2m)
Q
Fl. (6) 10 s. 5 M.
WAFEYA BEACON (Scoglio Sud)


313°(T)
35°
35°
8-11 Shackles of chain
Pecked lines indicate 5½ in. circ. steel wires from buoys
Hoses
Spar Buoy 1
No. 5 Buoy
No. 1 Buoy
No. 4 "Stayrite" Buoy
No. 2 "Stayrite" Buoy
No. 3 "Stayrite" Buoy

ZUEITINA

Conventional Buoy Moorings

Bravo and Delta Berths

NOTES

Please also advise Shipping Guides Ltd.

NOTES

Please also advise Shipping Guides Ltd.

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Please also advise Shipping Guides Ltd.

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